ANEJO Nº 6 ESTRUCTURAS

ANEJO Nº 6. ESTRUCTURAS

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1. Cuadro resumen

1. CUADRO RESUMEN

DESIGNACIÓN	P.K.	VANOS m	LONGITUD m
Viaducto de Los Chorros	1102+456 a 1102+716	22+6x36+22	260
Paso Superior Nº 1	1104+468	12+18+12	42

2. Descripción : tipología, aparatos de apoyo, juntas, impermeabilización, etc.

2. DESCRIPCIÓN: TIPOLOGÍA, APARATOS DE APOYO, JUNTAS, IMPERMEABILIZACIÓN, ETC

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2. DESCRIPCIÓN: TIPOLOGÍA ,APARATOS DE APOYO, JUNTA, IMPERMEABILIZACIÓN, ETC.

2.1 VIADUCTO DE LOS CHORROS

2.1.1 Tipología

La solución ejecutada consiste en un dintel continuo de ocho vanos de luces 22+6x36+22 m y sección transversal constituida por una doble viga artesa prefabricada con continuidad sobre apoyos mediante el hormigonado en dos fases.

Dicha solución, con punto fijo en el estribo 1 y junta de dilatación en el estribo 2, optimiza la respuesta terreno - estructura, ya que transmite los efectos de las acciones longitudinales al punto fijo en el estribo 1, cimentando superficialmente. Las pilas quedan sometidas básicamente a acciones verticales con ligeras flexiones derivadas del viento transversal y del rozamiento longitudinal de los teflones. dichas flexiones no resultan dimensionantes del número de pilotes y tampoco incrementan excesivamente la cuantía de la armadura de los mismos, dada la longitud d los pilotes en el viaducto que nos ocupa.

En cuanto a su integración ambiental, la proporción de altura de pilas y luces de vano resulta muy equilibrada y perfectamente adaptada a una solución marcadamente lineal y poco elevada respecto de la rasante del terreno. Por esto las pilas se han ejecutado en cuidada forma troncopiramidal, casi prismática con un ligero aumento de su dimensión en la base que marque su apoyo en el terreno, acentuando un favorable y ligero efecto de despegue del tablero.

Además se han ejecutado en las pilas acuerdos curvos en sus aristas para eliminar sombras, aumentar su esbeltez y acentuar su fuerza visual respecto a la línea del tablero. Las pilas y estribos se modulan con estrías horizontales mediante berenjenos.

2.1.2 Plataforma

Se ha diseñado un tablero para albergar un plataforma útil de 14,00 m de ancho entre bordes exteriores de voladizos de losa.

La zona balastada alberga dos vías de ancho europeo cuyos ejes se encuentran separados 4,50 m.

Las zonas laterales vierten hacia los bordes con una pendiente del 2% estando contenidos en sus extremos por las canaletas que pueden actuar de murete de contención lateral. La cota de canaleta puede regularse mediante una cama de mortero que se prevé bajo la misma.

La curvatura especial del trazado se aproxima mediante una poligonal de tramos rectos en planta y alzado con vértices en las pilas mediante los cajones prefabricados.

2.1.3. Tablero

Longitudinalmente el tablero de 260 m se ha resuelto mediante 8 vanos continuos en hormigón de canto constante con 36,0 m de luz entre ejes de apoyos en pilas para los vanos centrales y 22,0 m para los laterales, asegurando la correcta compensación y la no existencia de levantamientos en estribos.

Transversalmente la sección del tablero es binervada con dos vigas artesas centrales separadas 6,00 m entre ejes y sección ligeramente trapecial con 2,80 m en su base inferior y 4,192 m en su conexión con la losa superior. Dicha losa superior tiene un espesor constante de 0,34 m que se reduce linealmente hasta 0,20 m en las zonas del voladizo. El ancho total de losa de 14,0 m se descompone en dos voladizos laterales de 1,90 m y una zona central de 3 vanos apoyada en las 4 almas de las vigas con luces de flexión transversal de 4,19+1,80+4,19 m. La dimensión del voladizo no presenta problemas de fisuración o fatiga ya que está en gran parte ocupada por los pasillos de servicio laterales poco cargados.

La sección transversal del tablero se materializa con un losa superior hormigonada in situ en hormigón H-350. Bajo la losa se montan dos vigas artesas prefabricadas ligeramente trapeciales y abiertas superiormente, ejecutadas con hormigón H-500.

La continuidad entre las vigas en la vertical de apoyos sobre pilas se ha resuelto mediante una junta con grout.

La ejecución del tablero, una vez colocadas las vigas prefabricadas, se inicia con la colocación de las losas sobre las vigas prefabricadas, a continuación se inicia la colocación de la ferralla en primera fase, que comprende el montaje de:
16 m entre estribo fijo (1) y pila 1 y pila 7 y estribo móvil (2) y 24 m entre pilas. Concluida esta labor se hormigona esta primera fase.

Terminadas estas actuaciones se procede a la realización de las juntas de unión de vigas, en primer lugar se fijan las barras y placas de los apoyos de continuidad de las barras principales situadas en las cabezas superiores de las vigas mediante barras de acero de alta resistencia (12 ∅ 25 y 4 ∅ 20) garantizando su ajuste y posicionando con manguitos tensores. Luego se colocan los encofrados incorporados en los extremos de las vigas, procediéndose la relleno de grout de la unión, de forma que obtengamos una pieza continua sobre los apoyos de pilas. Una vez completada esta operación y alcanzado el endurecimiento se procede a colocar las placas prefabricadas correspondientes.

La actuación siguiente consiste en la colocación de la segunda fase de ferralla, que se sitúa en los 12 m sobre cada pila, para posteriormente hormigonar, completándose de esta manera la ejecución de la losa.

2.1.4. Aparatos de apoyo y juntas de dilatación

Desde el punto de vista de las acciones verticales el dintel continuo apoya sobre aparatos tipo POT de neopreno teflón ubicados en la vertical de ejes de pilas y estribos. En cada línea de apoyo se disponen 4 POT , dos por viga ubicados ligeramente retranqueados respecto de las almas de las vigas. Las capacidades de los apoyos oscilan entre 230 Tm/apoyo en estribos y los 525 y 625 Tm/apoyo en pilas intermedias. Las placas de teflón – acero se han previsto con holgura para hacer frente a los movimientos longitudinales del tablero por efectos térmicos.

Los aparatos de apoyo se disponen libres longitudinalmente. Transversalmente se dispone guiado uno de cada dos apoyos bajo cada viga, situado al lado interior de la curva, lo que permite la mejor transmisión de los esfuerzos transversales de viento y fuerza centrífuga a las pilas.

La deformación y la recogida de los esfuerzos longitudinales se materializa con un punto fijo en el estribo 1 y libre dilatación en el estribo 2 y sobre pilas. La longitud total dilatable de 260,0 m se halla dentro de los márgenes perfectamente admisibles para un buen comportamiento de los sistemas de dilatación de vía obteniéndose unos desplazamientos máximos en el estribo 2 del orden de 180 mm de contracción y 40 mm de dilatación.

El punto fijo del estribo 1 se materializa mediante un tope horizontal por viga centrado en el centro de gravedad de la sección del tablero dispuesto por dos grandes apoyos de neopreno tipo POT con capacidad de 2200 Tm por viga que recogen los empujes del tablero contra el estribo transmitidos a partir del mamparo de apoyo prefabricado. Dichos empujes se transmiten a una viga rígida de refuerzo horizontal alojada en el cuerpo del murete de guarda del estribo que permite el correcto reparto al cuerpo del estribo.

Las juntas entre tablero y estribo quedan perfectamente definidas en el correspondiente plano.

2.1.5 Pilas

Las pilas ejecutadas son de doble fuste en tronco de pirámide bajo cada cajón. La sección transversal de la pila mide 2,80 m de anchura constante y coincidente con la dimensión de la tabla inferior de la viga. En alzado la dimensión de la pila es de 1,70 m en cabeza y una ligera pendiente que permite alcanzar 2,65 m en la base para una altura teórica de 16,50 m. Las paredes de las mismas están constituidas por tablas de 0,30 m de espesor.

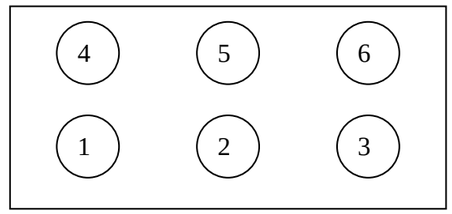
Se ha dispuesto una modulación vertical mediante berenjeno horizontal cada 1,50 m, modulación que se mantiene en los paramentos vistos de los estribos.

La parte superior d la pila se maciza con un cabezal para recoger y transmitir las reacciones de los apoyos así como para albergar los pernos de sujeción de los aparatos de apoyo.

La cimentación de las pilas se ejecuta según un encepado único para el doble fuste, disponiéndose 6 pilotes de ∅ 1500 mm por encepado. Únicamente la pila 7 se ha cimentado superficialmente en el sustrato rocoso. La longitud de lo pilotes se recoge en el siguiente cuadro:

PILOTE	PILA 1	PILA 2	PILA 3	PILA 4	PILA 5	PILA 6
1	1,50 m	30,90 m	29,83 m	19,48 m	21,82 m	15,23 m
2	3,65 m	30,30 m	27, 78 m	17,31 m	17,92 m	14,69 m
3	4,52 m	30,24 m	22,47 m	14,53 m	12,97 m	27,31 m
4	3,64 m	30,47 m	28,98 m	17,09 m	20,94 m	13,11 m
5	6,13 m	29,71 m	28,11 m	17,04 m	21,86 m	11,97 m
6	7,64 m	29,21 m	23,28 m	15,37 m	18,51 m	15,92 m

Croquis situación de pilotes



Básicamente se ha seguido el criterio de empotramiento mínimo de 1 diámetro en el sustrato portante de pizarra cuarcítica.

2.1.6 Estribos

Los estribos construidos son de tipo cerrado con muros en vuelta.

La cimentación es superficial, mediante zapatas tal y como parecen reflejadas en los planos.

En el frente del estribo, el apoyo de las vigas se ha resuelto mediante dos pastillas salientes del paramento frontal del estribo con las dimensiones y formas que

aparecen en los planos. Las pastillas permiten concentrar la rigidez a flexión transversalmente al frente del estribo, permitiendo más canto para recoger los esfuerzos horizontales de empuje de tierras y de acciones transmitidas por el punto fijo.

En el estribo fijo se refuerza el murete de guarda, convirtiéndose en una viga horizontal de gran rigidez que recoge y reparte las acciones transmitidas por el postesado de cosido y el tope tipo POT. En dicho estribo se ha construido a su vez una cámara de tesado para la puesta en carga y posterior inspección de los anclajes de dichos cables de cosido.

El estribo libre prolonga los muros en vuelta en el lado adyacente al cauce de la vaguada. En dicha prolongación, con objeto de reducir la excavación se ha cimentado mediante zapata a cota superior del resto del estribo con el consiguiente detalle de rigidización y conexión tal y como figura en los planos.

2.1.7 Bloques Técnicos

Se disponen bloques técnicos en el trasdós de los estribos a fin de garantizar la funcionalidad en la zona de transición entre la estructura y los desmontes.

Estos se hallan constituidos por un relleno seleccionado de material granular tratado con cemento.

Para su ejecución se ha seguido el mismo procedimiento que como si se tratara de un terraplén.

2.1.8 Acabados

Las actuaciones han consistido en la ejecución de una imposta prefabricada y una barandilla metálica sencilla con montantes verticales cada 2,00 m y tubos horizontales.

2.2 PASO SUPERIOR

Se dispone un paso superior en el punto kilométrico 1104+468,42.

La sección del tablero está constituida por una calzada de 6 m. de ancho, más dos aceras de 1,40 m. de ancho cada una. En el extremo exterior de las aceras se disponen vallas de protección sobre el ferrocarril.

En la definición de los anchos de calzada del paso se han tenido en cuenta las instrucciones para la redacción del Anejo de Estructuras, en el cual se define 6 m. como ancho de plataforma.

La tipología estructural consiste en un dintel continuo de hormigón “in situ” de tres vanos, el central de 17 m. y los laterales de 11 m. medidos en perpendicular a la vía. Dicho dintel se empotra en las pilas formando un pórtico y eliminando los aparatos de apoyo en pila, con objeto de reducir al máximo las operaciones de conservación.

La sección estructural del dintel está formada por un núcleo trapezoidal aligerado, de base menor inferior, de 2,00 m. y base mayor superior de 3,2 m. de ancho, con voladizo de 2,60 m. Los aligeramientos interiores son tres, de 0,45 m. de diámetro.

El paso forma 90^g con el eje del ferrocarril, formando el mismo ángulo tanto en pilas como en estribos.

Las pilas son de sección rectangular redondeada constante de 2,0 x 0,60 m. de ancho en toda su altura.

Los estribos son cerrados, con derrame delantero, con muros en vuelta que contienen las tierras. En ellos el tablero tendrá dos apoyos para poder recoger los esfuerzos transversales.

La cimentación, tanto de pilas como de estribos es directa según lo indicado en el Estudio Geotécnico.

Se ha dotado del mismo tratamiento estético que el usado en el viaducto, tanto a pilas como estribos.

3. Definición geométrica

3. DEFINICIÓN GEOMÉTRICA

ÍNDICE

3.1 VIADUCTO DE LOS CHORROS
3.2 PASO SUPERIOR

3 DEFINICIÓN GEOMÉTRICA

3.1 VIADUCTO DE LOS CHORROS

Describimos a continuación las características geométricas principales de las distintas partes de la estructura, que pueden comprobarse en los planos, que es donde se encuentran definidas.

- **PILAS:** De doble fuste en tronco de pirámide bajo cada cajón. La sección transversal de la pila mide 2,80 m de anchura constante y coincide con la dimensión de la tabla inferior de la viga. En alzado la dimensión de la pila es de 1,70 m en cabeza y una ligera pendiente que permite alcanzar 2,65 m en la base para una altura teórica de 16,5m. Las paredes de las mismas están constituidas por tablas de 0,30 m de espesor. La parte superior se maciza para recoger y transmitir las reacciones de los apoyos.

- **ESTRIBOS:** Son de tipo cerrado con muros en vuelta.

- **TABLERO:** Longitudinálmente el tablero de 260 m se ha resuelto mediante 8 vanos continuos en hormigón de canto constante con 36m de luz entre ejes de apoyos en pilas para los vanos centrales y 2 m para los laterales. Transversalmente la sección del tablero es binervada con dos vigas artesas centrales separadas 6 m entre ejes y sección ligeramente trapecial con 2,80 m en su base inferior y 4,192 m en su conexión con la losa superior. Dicha losa superior tiene un espesor constante de 0,34 m que se reduce linealmente hasta 0,20 m en las zonas del voladizo. El ancho total de losa de 14 m se descompone en dos voladizos laterales de 1,90 y una zona central de 3 vanos apoyada en las 4 almas de las vigas con luces de flexión transversal de 4,19 + 1,80 + 4,19 m.

- **APOYOS:** Son de tipo “pot”.

3.2 PASO SUPERIOR

La definición geométrica del paso superior, viene definida en el punto anterior 2.2 Paso superior, y en el Documento Nº 2. Planos.

4. Cálculos

4. CÁLCULOS

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4.1 VIADUCTO DE LOS CHORROS

- CÁLCULO VIADUCTO DE LOS CHORROS
- INFORME DE VERIFICACIÓN VIADUCTO
- VERIFICACIÓN DEL TABLERO DEBIDO A MODIFICACIONES EN LA CARGA PERMANENTE

4.2 PASO SUPERIOR 1

4 CÁLCULOS

4.1 VIADUCTO DE LOS CHORROS

La estructura ejecutada es una variación sobre la inicialmente prevista en proyecto, variación aprobada por el G.I.F. en virtud de la Cláusula 50 del Pliego de Cláusulas Administrativas Generales para la contratación de obras con el Estado.

En el APÉNDICE I ” ADAPTACIÓN ARMADA PRETENSADA CON PIEZAS PREFABRICADAS DE DRACE”, se incluyen los cálculos detallados de esta nueva estructura.

- Cálculo del Viaducto de Los Chorros, realizado por la empresa constructora DRAGADOS. “ADAPTACIÓN ARMADA PRETENSADA CON PIEZAS PREFABRICADAS DE DRACE”

- Informe de verificación del anejo de cálculo presentado por Dragados, realizado por la asistencia técnica U.T.E. AVEZAR XI. “VERIFICACIÓN DEL ANEJO DE CÁLCULO Y PLANOS DE ADAPTACIÓN DE LA CIMENTACIÓN, PILAS Y ESTRIBOS PARA LA SOLUCIÓN ARMADA PRETENSADA DEL TABLERO CON PIEZAS PREFABRICADAS”

- Informe de verificación del tablero, realizado por la asistencia técnica U.T.E. AVEZAR XI. “VERIFICACIÓN DEL TABLERO DEBIDO A MODIFICACIONES EN LA CARGA PERMANENTE”

LÍNEA DE ALTA VELOCIDAD MADRID – BARCELONA – FRONTERA FRANCESA. TRAMO: MADRID – ZARAGOZA. SUBTRAMO XI

VIADUCTO DE LOS CHORROS

ADAPTACIÓN ARMADA-PRETENSADA CON PIEZAS PREFABRICADAS DE DRAGADOS

ANEJO DE CÁLCULO

Mayo 1999

1. NORMATIVA EMPLEADA

Para la consideración de las acciones actuantes y su combinación con los coeficientes de ponderación adecuados para la obtención de las diferentes hipótesis de carga a tener en cuenta se ha utilizado la siguiente normativa:

- Ficha 776-1 *"Charges a prendre en consideration dans le calcul des ponts-rails"*, (U.I.C.).

- *"Instrucción relativa a las acciones a considerar en el proyecto de puentes de ferrocarril"*, (M.O.P.U.).

- *Norma de construcción sismorresistente*, NCSE-94.

- I.A.P. - 97.

El dimensionamiento de tablero y elementos estructurales se ha realizado de acuerdo con la normativa siguiente:

- *"Instrucción para el proyecto y la ejecución de obras de hormigón en masa o armado"* EH-91.

- *"Instrucción para el proyecto y la ejecución de obras de hormigón pretensado"* EP-93.

- Ficha 774-1 *"Recommandation pour le dimensionnement des ponts-rails en beton armé et precontraint"*, (U.I.C).

- Eurocódigo 1, ENV 1991-2-3:1995.

- *"Cálculo de las estructuras de acero laminado en edificación"*, MV-103/1972.

2. CRITERIOS GENERALES

Se han establecido modelos de cálculo representándose en cada uno de ellos una adecuada definición de la geometría estructural, los materiales constitutivos y las condiciones ambientales del puente, así como la naturaleza de las acciones.

Los métodos utilizados para el dimensionamiento y comprobación de los diferentes elementos estructurales se basan en la teoría , ampliamente aceptada, del cumplimiento de los estados límites últimos de servicio (fisuración, deformaciones, vibraciones,...) y agotamiento (rotura, fatiga, equilibrio, adherencia,...).

En los modelos de barras más adelante definidos (análisis longitudinal y transversal), se ha utilizado la teoría de resistencia de materiales mediante programas de ordenador . Con ellos se han obtenido las combinaciones de esfuerzos pésimas, que han servido de base para dimensionar los elementos estructurales de acuerdo a la resistencia y características deformativas de sus materiales aplicando los coeficientes de ponderación de acciones y minoración de materiales contemplados en las Instrucciones.

Los programas de ordenador utilizados en el cálculo han sido los siguientes:

"GTSTRUDL" programa de elementos finitos para el modelo del análisis longitudinal general.

Postprocesador para el "GTSTRUDL" de creación propia, para obtención de las envolventes de esfuerzos.

"BARRA" programa de creación propia de emparrillado y marco para el modelo transversal de la losa.

"HCAR" programa de creación propia para obtención de envolventes de los estados de carga generados por el programa "BARRA".

"CSEC" programa de creación propia para el análisis resistente-tensional de secciones estructurales.

"FAGUS2" programa de análisis de secciones.

"PYRUS" programa para análisis de pilas.

"ANSYS" programa de elementos finitos para el análisis de los encepados.

"DIFEV" programa de creación propia de análisis general evolutivo en el tiempo de estructuras aporticadas.

3. ACCIONES CONSIDERADAS, CARACTERÍSTICAS DE MATERIALES Y COEFICIENTES DE SEGURIDAD

El estudio de la estructura se ha llevado a cabo considerando el conjunto de cargas de RENFE y el de la UIC, adoptando para las diferentes comprobaciones el más desfavorable de ambos. Asimismo, en los casos de duda o que no figuren indicaciones expresas en estas reglamentaciones, se han seguido los criterios incluidos en el EUROCÓDIGO 1.

3.1 Características de los materiales

- *Losa del tablero*

Hormigón:	$f_{ck} \geq 350$ kp/cm^2 $E_{c,28} = 350.000$ kp/cm^2	$\gamma_c = 1,5$
Acero pasivo (AEH-500):	$f_{yk} \geq 5100$ kp/cm^2 $E_y = 2.100.000$ kp/cm^2	

- *Vigas prefabricadas*

Hormigón:	$f_{ck} \geq 600$ kp/cm^2 $E_{c,28} = 408.160$ kp/cm^2	$\gamma_c = 1,4$
Acero pasivo (AEH-500):	$f_{yk} \geq 5100$ kp/cm^2 $E_y = 2.100.000$ kp/cm^2	$\gamma_y = 1,15$
Acero activo:	$f_{pk} \geq 17000$ kp/cm^2 $f_{pu} \geq 19000$ kp/cm^2 $E_p = 2.000.000$ kp/cm^2	$\gamma_p = 1,10$
Acero en barras ∅40 de alta resistencia:	$f_{yk} \geq 8500$ kp/cm^2 $f_{yu} \geq 10500$ kp/cm^2 $E_y = 2.100.000$ kp/cm^2	$\gamma_y = 1,15$
Grout de relleno en juntas de viga:	$f_{ck} \geq 600$ kp/cm^2	

3.2 Acciones para el cálculo estático

3.2.1 Peso propio

- Viga prefabricada

Zona	Peso (1 viga en t/m)
Centros de vano	3,45
Zona de apoyos	4,28

- Losa de tablero completa 9,45 t/m (tablero completo)

  (Placa prefabricada en losa de tablero 2,94 t/m)

3.2.2. Carga muerta

- Balasto 9,691 t/m (tablero completo)
- Vías y traviesas 1,28 t/m "
- Conductos 0,6 t/m "
- Impostas + barandillas 0,775 t/m "

Total carga muerta = 12,346 t/m

3.2.3 Sobrecargas de uso

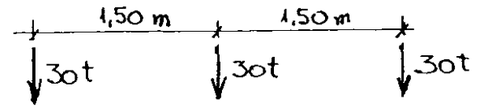
Esquema utilizado para la representación de la sobrecarga uniforme:

Las sobrecargas de uso correspondiente a cargas uniformemente repartidas, tanto de RENFE como de UIC, han sido establecidas de forma simplificada con el fin de poder introducirlas en los modelos empleados para el cálculo de envolvente.

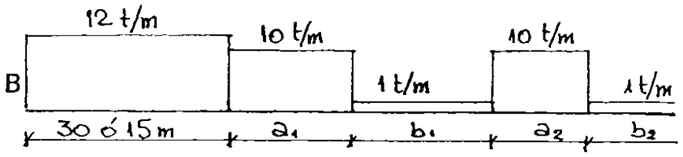
Estas simplificaciones están del lado de la seguridad. Se han realizado modelos para estimar el valor de este incremento, estimando los correspondientes factores de paso para cada tipo de carga.

- RENFE

- Tren tipo A



- Tren tipo B



Se ha descompuesto en los siguientes estados de carga:

TREN B.1 Envolvente de carga uniforme de valor 1,0 t/m.

TREN B.2 Envolvente de carga uniforme de valor 9,0 t/m.

TREN B.3 Envolvente de vehículo de 10 ejes de 3 t/eje a 1,67 m de distancia entre ejes.

TREN B.4 Envolvente de vehículo de 10 ejes de 6 t/eje a 3,33 m entre ejes.

Los dos últimos incompatibles entre sí, y su resultado compatible con los dos primeros.

El factor de paso estimado es 0,88.

- Sobrecarga en paseos de servicio (400 kp/m^2) 0,96 t/m
  (Ripado de vías = 0,30 m)

Coeficiente de impacto:

Para luces mayores de 6,0 m y tramos continuos

$$I = 65 \times \frac{\mu}{1 - \mu + \mu^2}$$

Siendo $\mu = \frac{V \times T}{2L}$

V ≡ velocidad de paso del tren en m/s.

T ≡ periodo fundamental de vibración del elemento cargado en segundos (ver subanejo nº 9).

L ≡ luz del elemento en estudio en metros.

Queda:

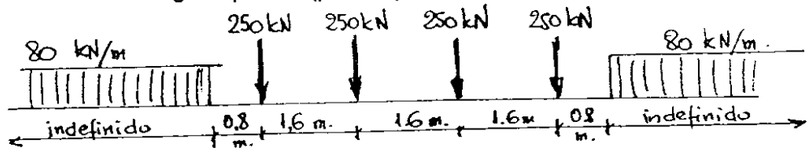
$$\mu = \frac{55{,}56 \text{ m/s} \times 0{,}31 \text{ s}}{2 \times 36{,}0 \text{ m}} = 0{,}23$$

$$I = 65 \times \frac{0{,}301}{1 - 0{,}301 + 0{,}301^2} = 18\% \quad \Rightarrow$$

$\Rightarrow$ Coeficiente de impacto (RENFE) = 1,18

- U.I.C.

Tren de cargas tipo 71 (por vía)



Se ha descompuesto en los siguientes estados de carga:

TREN 71-1 Envolvente de carga uniforme de valor 8,15 t/m.

TREN 71-2 Envolvente de vehículo de 4 ejes de 12,44 t/eje a 1,6 m de distancia entre ejes.

Las dos cargas son compatibles para el cálculo de envolvente.

El factor de paso estimado es 0,81.

Sobrecarga en paseos de servicio (4 KN/m^2).

Coeficiente de impacto:

Para mantenimiento normal $$\phi = \frac{2{,}16}{\sqrt{L_\phi - 0{,}2}} + 0{,}73$$

Siendo L_ϕ la longitud equivalente.

En este caso (tramos continuos): $L_\phi = k \times L_m$

$$L_m = \frac{1}{n}(L_1 + L_2 + \ldots + L_n) = \frac{1}{8}(2 \times 22{,}0 + 6 \times 36{,}0) = 32{,}5 \text{ m} \rightarrow \text{longitud media}$$

$L_\phi = 1{,}5 \times 32{,}5 = 48{,}75$ m (k = 1,5 para $n \geq 5$)

Queda: $$\phi = \frac{2{,}16}{\sqrt{48{,}75 - 0{,}2}} + 0{,}73 = 1{,}04$$

Fatiga

Sobrecarga de fatiga para control de elementos transversales.

Corresponde al tren de carga tipo 71 de la U.I.C. con el reparto establecido por el EUROCÓDIGO (ENV 1991-3, Apdo. 6.3) y pudiendo actuar en una sola de las vías o en los dos simultáneamente.

El control se verificará siguiendo los criterios del EUROCÓDIGO, más restrictivos que los de la U.I.C.

3.2.4 Temperatura

Según IAP, UIC y RENFE

$\Delta T = 20^\circ$ C

Gradiente positivo $\rightarrow$ 1 x 1 x 0,5 x 8,5 = 4,25º C

3.2.5 Frenado:

Cargas RENFE: 1ª vía $\rightarrow$ 1/8 sobrecarga de uso vertical
2ª vía $\rightarrow$ 0,9 x 1/8 sobrecarga de uso vertical

Cargas UIC ¼ sobrecarga de uso vertical

- Fuerza transversal por efecto lazo:

$F_L = 100$ kN $\rightarrow$ (UIC) $\qquad F_L = 5{,}0$ t (RENFE)

- Fuerza centrífuga:

$F = q \times (V^2 / 127\ R)$ (UIC y RENFE)

Siendo: $q \equiv$ sobrecarga de trenes tipo en t/m

$V \equiv$ velocidad en km/h de la sobrecarga

$R \equiv$ radio en planta de la curva = 7250 m

3.2.6 Sismo.

Según Norma sismorresistente NBE-NCSE-94

$a_b = 0{,}04$ g. $\qquad a_c = \rho \cdot a_b$

$$\rho = \left(\frac{t}{50}\right)^{0,37} = \left(\frac{100}{50}\right)^{0,37} = 1{,}3 \quad a_c = 1{,}3 \times 0{,}04\ g = 0{,}052\ g < 0{,}06\ g$$

No es necesario tener en cuenta el sismo.

3.2.7 Rozamiento en apoyos (teflón)

$\mu = 0{,}01 \rightarrow$ Coeficiente de rozamiento para efectos favorables

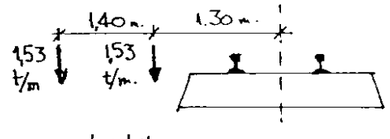
$\mu = 0{,}05 \rightarrow$ Coeficiente de rozamiento para efectos desfavorables

3.2.8 Descarrilamiento:

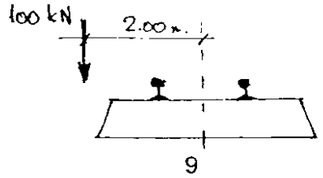
Según UIC. 776 – 1 $\qquad \gamma_f = 1{,}0 \qquad \gamma_c = 1{,}1$

a) Análisis local de elementos

a.1)



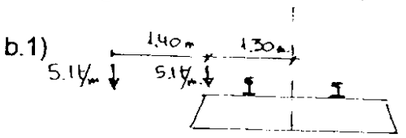
a.2)



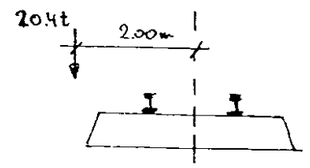
a.1) y a.2) son alternativas

b) Análisis global de la estructura (torsión)

b.1)



b.2)



b.1) y b.2) son alternativas

c) Análisis de estabilidad (equilibrio)

Carga de 8,15 t / m en 20,0 m en el borde del voladizo

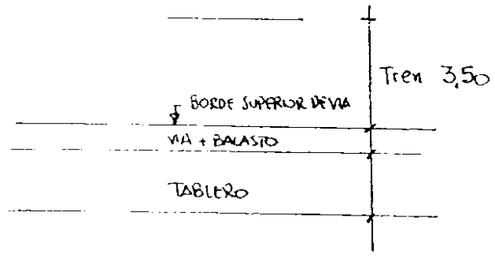
Coeficientes de ponderación:

Mayoración de acciones 1,00
Minoración de material 1,10

3.2.9 Viento

Según IPF-75

- Tablero



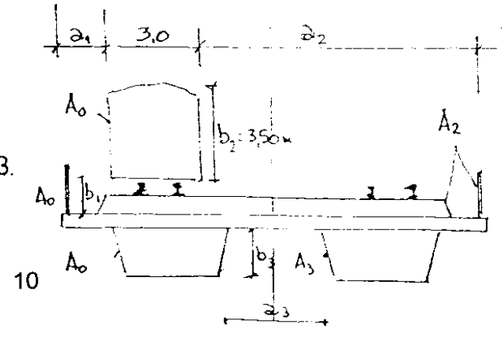
$\lambda = A_n / A_{Tot} = 1$ para todos los elementos

$\delta_w = 154\ (2 - 0{,}7 \times \lambda) = 200$ Kp/ m^2

Empuje $\qquad W = \delta_w\ A$

Resulta $\lambda > 2/3$, luego se toma $\lambda = 2/3$.

$A = A_0 + \Sigma\ \psi_i \cdot A_i$



$$\text{Cte: } A = 2{,}5 + 2 \times 0{,}5 + 0{,}605 + 4 \times 0{,}20 + \left[1 - \frac{2}{3}\left(1{,}5 - 0{,}3 \times \frac{3{,}2}{2{,}2}\right)\right] =$$

(Canto; 2 x barandilla; balasto + traviesa; carril; $\psi \cdot A_1$ (viga en sombra))

$= 5{,}195\ m^2/m$

$$\text{Tren: } A = 3{,}5 + 3{,}5 \times \left(1 - 1{,}2 \times \frac{2}{3}\right) = 4{,}2\ m^2/m$$

(Tren en sombra)

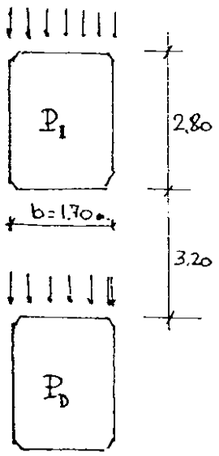
$A_{max} = 5{,}19 + 4{,}2 = 9{,}4\ m^2/m$

$P_{max} = 0{,}2\ t/m^2 \times 9{,}4\ m^2/m = 1{,}88\ t/m$ dos trenes parados

$P_{interm.} = 0{,}2\ (0{,}75 \times 9{,}4) = 1{,}41\ t/m$ dos trenes circulando

$P_{cp} = 0{,}2 \times 5{,}195 = 1{,}04\ t/m$ sólo tablero sin sobrecarga

- Pilas



$P_I = 0{,}2 \times 1{,}7 = 0{,}34\ t/m$ pila expuesta

$\frac{a}{b} = \frac{3{,}2}{1{,}7} = 1{,}88$

$\psi = 1 - \frac{2}{3}\ (1{,}5 - 0{,}3 \times 1{,}88) = 0{,}376$

$P_D = 0{,}2 \times 1{,}7 \times 0{,}376 = 0{,}13\ t/m$ pila en sombra

- Según **IAP – 97:**

$V_{ref} = 28\ m/s$ $C_t = 1$ factor de topografía

$C_r = 1{,}04$ (para T = 100 años) factor de riesgo

$C_z = K_z\ I_n\ (z / z_0) = 0{,}19 \times I_n\ (17/0{,}05) = 1{,}1$ factor altura

$Z \geq Z_{min} = 4\ m$ (tipo entorno II)

$$Cg = \sqrt{1 + \frac{7K_z}{C_z . C_t}} = \sqrt{1 + \frac{7 \times 0{,}19}{1{,}1 \times 1}} = 1{,}49$$

Luego: $V_c = 28 \times 1 \times 1{,}04 \times 1{,}1 \times 1{,}49 = 47{,}7\ m/s$ Vel. de cálculo.

Empuje del viento:

$F = C_d\ A\ (1/2\ \rho\ V_c^2)$ (Tren; Vía; Tablero; Balasto) $h_{eq} = 3{,}5 + 0{,}25 + 2{,}40 + 0{,}5 = 6{,}65\ m^2/m$

$C_d = 2{,}5 - 0{,}3\ (B/heq) = 2{,}5 - 0{,}3 \times 14/6{,}1 = 1{,}87$

$\rho = 1{,}25\ kg/m^3$

$F = 1{,}87 \times 6{,}65\ \underbrace{(1/2 \times 1{,}25 \times 47{,}7^2)}_{N/m^2} \times 1/9{,}81 \times 10^{-3} = 1{,}80\ t/m$

Valor de empuje de viento con circulación de trenes muy parecido al de la IPF-75, adoptándose éste último.

3.2.10 Fluencia

- Viga prefabricada H-600; $f_{ck28} = 600\ kp/cm^2$

Espesor ficticio $e = \frac{2A\alpha}{U}$; $A = 1{,}624\ m^2$; $U = 11{,}166\ m$ } $e = 116\ cm = 1160\ mm$

$\alpha = 4$ Ambiente húmedo (curado al vapor).

Cargas a 2 días (Pretensado + p. propio viga)

Resistencia del hormigón $f_2 \geq 400\ kp/cm^2$ por condiciones determinadas por la transferencia del pretensado;

$f_\infty = 1{,}15 \times f_{28} = 690\ kp/cm^2$

$\beta_a\ (2) = 0{,}8\left(1 - \frac{f_2}{f_\infty}\right) = 0{,}34$

$\varphi_{01} = 1{,}2$ ambiente húmedo

$\varphi_{02} = 1{,}12\ \frac{116 + 31}{116 + 17} = 1{,}238$

$\beta_\infty = 1$; $\beta_2 = 0{,}082$ obtenidos de la expresión

$$\beta_2 = \left[\frac{2^{0,501}}{2^{0,501} + 21,5}\left(1 + \frac{116^{1,7}}{26600}\right) + \frac{4 \times 2^3}{2^5 + 2430}\right]^1 = 0,082$$

$$F_1 = \frac{10^{11}}{8 + 10^{11}} = 1$$

$\beta'_{\infty-2} = 1$ $\quad \varphi_2 = 0,34 + 1,2 \times 1,238\ (1 - 0,082)\ 0,75 + 0,4 = \underline{1,763}$

El 25% de reducción al término de la deformación plástica diferida corresponde a hormigón muy seco.

Cargas a 17 días (Peso propio de la losa del tablero)

Del lado de la seguridad, se supone un tiempo mínimo de ejecución de la losa.

Resistencia del hormigón $f_{17} = 540$ kp/cm^2

$$\beta_{(17)} = 0,8\left(1 - \frac{540}{690}\right) = 0,174$$

$$\beta_{17} = \frac{17^{0,501}}{17^{0,501} + 21,5}\left(1 + \frac{116^{1,7}}{26600}\right) + \frac{4 \times 17^3}{17^5 + 2430} = 0,195$$

$\varphi_{17} = 0,174 + 1,2 \times 1,238\ (1 - 0,195)\ 0,75 + 0,4 = \underline{1,471}$

Cargas a 228 días (Carga muerta)

Resistencia del hormigón $f_{228} = 625$ kp/cm^2 $\quad \beta\ (228) = 0,8\left(1 - \frac{625}{690}\right) = 0,075$

$$\beta_{228} = \frac{228^{0,501}}{228^{0,501} + 21,5}\left(1 + \frac{116^{1,7}}{26600}\right) + \frac{4 \times 228^3}{228^5 + 2430} = 0,464$$

$\varphi_{228} = 0,075 + 1,2 \times 1,238\ (1 - 0,464)\ 0,75 + 0,4 = \underline{1,072}$

Las cargas aplicadas a los 2 días apenas modifican los estados tensionales durante la fase abierta, hasta el hormigonado de la losa, tal como puede apreciarse en el análisis del DIFEV realizado, pasando las tensiones máxima de -108,7 kp/cm^2 a t = 2 días en el momento de pretensar a -104,6 a los 17 días en el momento en que la losa del tablero se hormigona.

Consiguientemente, a efectos de fluencia las acciones de peso propio y peso de losa se pueden considerar actuando a 17 días y la carga muerta a 228 días, despreciando –del lado de la seguridad– las variaciones del intervalo de 2 a 17 días.

Puesto que las cargas son todas homotéticas, se puede adoptar como coeficiente de fluencia único de la viga un valor proporcional a tales cargas:

p.propio + peso de losa = 8,525 t/ml viga $\equiv$ 0,58 total

c. muerta = 6,173 t/ml viga $\equiv$ 0,42 total

c. total = 14,698 t/ml viga

$\varphi_\infty \cong 0,58 \times 1,471 + 0,42 \times 1,072 = \underline{1,31}$

Con el que se comprobarán las secciones críticas.

- Losa del Tablero H-350; $f_{ck28} = 350$ kp/cm^2

  Espesor ficticio $A = 3,78$ m^2 ; $U = 28,4$ m $\Big\}$ e = 40 cm = 400 mm

  $\alpha = 1,5$ Condiciones medias.

Cargas a 228 días

La losa sólo recibe acciones propias a partir de esta edad de aplicación de la carga muerta.

$$\beta_a(228) = 0,8\left(1 - \frac{f_{228}}{f_\infty}\right) = 0,8\ (1 - 0,9) = 0,08$$

$\varphi_{01} = 2$ Condiciones medias

$\varphi_{02} = 1,40$

$\beta_\infty = 1$; $\beta_{228} \cong 0,54$; $\beta'_{\infty-2} = 1$

$\varphi_{228} = 0,08 + 1,40 \times 2\ (1 - 0,54) + 0,4 = \underline{1,77}$

Valor que se adopta para el análisis de las secciones.

3.2.11 Retracción

- Viga prefabricada e = 116 cm

17 días en sección abierta, sin losa.

$\varepsilon_{01} = -18,5 \times 10^{-5}$

$\varepsilon_{02} = 0,7 \frac{116 + 16}{116 + 8} = 0,745$

$\varepsilon_{17} = -18,5 \times 10^{5} \times 0,745 \times 0,07 \times 0,75 = -0,724 \times 10^{-5}$

$\beta_t = 0,07$ $\qquad \frac{\varepsilon_{17}}{\varphi_\infty} = \frac{0,724}{1,31} 10^{-5} = \underline{0,55 \times 10^{-5}}$

y el resto:

$\varepsilon^*_{\infty - 17} = -18,5 \times 10^{-5} \times 0,745 \times 0,93 \times 0,75 = -9,613 \times 10^{-5}$

$\frac{\varepsilon^*_\infty}{\varphi_\infty} = \underline{7,34 \times 10^{-5}}$

sobre pieza completa con losa.

- Losa del Tablero e = 40 cm

$\varepsilon_{01} = -32 \times 10^{-5}$ Condiciones medias

$\varepsilon_{02} = 0,7 \frac{40 + 16}{40 + 8} = 0,817$

$\varepsilon_\infty = -32,5 \times 10^{-5} \times 0,817 = -26,55 \times 10^{-5}$

$\beta_t = 1$ $\qquad \frac{\varepsilon_\infty}{\varphi_\infty} = \frac{26,55 \times 10^{-5}}{1,77} = \underline{15 \times 10^{-5}}$

4. HIPÓTESIS DE CARGA CONSIDERADAS Y COEFICIENTES DE PONDERACIÓN

En la realización del presente proyecto, en cuanto a la consideración de acciones, se han contemplado las siguientes normativas:

- *"Instrucción relativa a las acciones a considerar en el proyecto de puentes de ferrocarril"* (25 de Junio de 1975).

- *Code UIC 776-1 R.*

Se han considerado todas las hipótesis consideradas por ambas normativas eligiendo para el cálculo la más restrictiva.

Se han analizado por tanto las siguientes combinaciones de carga con sus coeficientes de ponderación mínimo y máximo respectivamente:

Hipótesis RENFE I

- Cargas permanentes (0.9, 1.5)
- Sobrecarga de uso RENFE (1.5)
- Efecto térmico (1.25)
- Fuerza centrífuga (1.25)
- Efecto lazo (1.25)
- Asientos diferenciales (1.25)
- Frenado (1.5)

Hipótesis RENFE II

Considera las mismas acciones que Hipótesis RENFE I más la actuación del viento (1.5), junto con una reducción del 10% en los coeficientes de mayoración.

Hipótesis I UIC

- Cargas permanentes (0.9, 1.2)
- Sobrecarga de uso (1.3)
- Fuerza centrífuga (1.3)
- Efecto lazo (1.3)
- Frenado (1.1)
- Viento (1.4)

- Asientos diferenciales (1.2)

Hipótesis II UIC

- Cargas permanentes (0.9, 1.2)
- Sobrecarga de uso (1.2)
- Fuerza centrífuga (1.2)
- Efecto lazo (1.2)
- Frenado (1.0)
- Viento (1.2)
- Asientos diferenciales (1.2)
- Interacción vía-estructura (1.0)

Hipótesis III UIC

Considera exclusivamente el efecto de la sobrecarga de uso UIC y la fuerza centrífuga a efectos de comprobación de fatiga.

Hipótesis IV UIC

- Carga permanente (0.9, 1.2)
- Fuerza centrífuga (1.0)
- Efecto lazo (1.0)
- Asientos diferenciales (1.2)
- Sobrecarga de uso (1.0)
- Acc. accidentales (Descarrilamiento) (1.0)

La definición de la envolvente mayorada de las combinaciones indicadas se refleja en los Subanejos junto con la definición y listados de esfuerzos de la envolvente mayorada.

5. CARACTERÍSTICAS MECÁNICAS DE LAS SECCIONES TRANSVERSALES DEL TABLERO

Las características mecánicas de las secciones transversales consideradas en los modelos de cálculo han sido determinadas mediante un proceso de control iterativo, analizando en cada caso el diagrama de interacción momento-curvatura.

El análisis de esfuerzos ha sido realizado con el modelo tridimensional generado para el cálculo detallado de las mismas (programa "STRUDL") y el control de secciones para la determinación de las características mecánicas ha sido realizado con el programa "CSEC".

Se han tenido en cuenta las variaciones de características mecánicas de los elementos durante el proceso constructivo a efectos de la variación de esfuerzos y tensiones a lo largo del mismo.

Los valores optimizados de dichas características mecánicas se detallan en el Subanejo de control de secciones del dimensionamiento longitudinal, así como en los listados del modelo general.

6. ANÁLISIS DE CIMENTACIONES, PILAS Y ESTRIBOS

La adaptación del tablero modifica de manera mínima las acciones sobre la cimentación respecto a las utilizadas en el análisis del proyecto base, puesto que los valores de las cargas permanentes del tablero son muy parecidas entre ambas versiones y el peso propio de las pilas es prácticamente idéntico al haberse mantenido las secciones transversales con idéntica área.

Asimismo, la acción del viento transversal sobre el tablero y pilas es prácticamente idéntica en la solución adaptada respecto a la base ya que la variación de dimensiones es prácticamente inexistente.

El resto de acciones sobre pilas y cimentación son asimismo análogas al conservarse prácticamente iguales las condiciones influyentes: trazado, incidencia térmica, condiciones de sustentación y asiento, etc.

7. ANÁLISIS DE COMPROBACIÓN DE LAS CIMENTACIONES

7.1 Pilas

Para la comprobación de la cimentación de las pilas 1 a 6, cimentadas sobre pilotes, se han obtenido los esfuerzos en base de pila correspondientes a la envolvente mayorada del nuevo tablero con los que se han obtenido los axiles mayorados sobre pilotes en hipótesis de encepado rígido (ver Subanejos nº 1 y 2). Para la pila 7, con cimentación directa, se han obtenido las tensiones media y máxima sobre el terreno para los esfuerzos correspondientes a la envolvente característica.

Los valores de axiles máximos y mínimos sobre pilotes han sido de órdenes parecidos a los obtenidos en el proyecto base, en que el axil máximo característico es de 627,8 t, que se corresponde con un valor mayorado de 941,7 t, frente a un axil mayorado de 873,8 t en la solución adaptada.

En la zapata de la pila 7 las tensiones media y máxima se mantienen por debajo de la tensión admisible (5,0 kp/cm) y de pico (1,3 x σ_{adm}), respectivamente, contempladas en el proyecto base.

7.2 Estribos

La reacción máxima vertical sobre los estribos debida al tablero se incrementa debido a que no existe el efecto de descarga correspondiente al pretensado de losa en los apoyos de las pilas, contemplado en el proyecto base, y a que la gran mayoría del peso de losa va aplicado sobre la estructura isostática puesto que su acción se aplica antes de haberse producido la continuidad de vigas. Existe, por tanto, un incremento de reacción máxima debida al tablero de un 28% (433 t en proyecto base frente a 555 t).

Debido a que este incremento de reacción vertical debida al tablero representa un valor bastante pequeño respecto a la carga vertical total sobre las zapatas de los estribos (del orden del 2%), sobre todo en el estribo fijo en que la diferencia es todavía menor por la acción de la fuerza horizontal de coacción del tablero, se considera perfectamente aceptable mantener los estribos inalterados. Sí se indican, sin embargo, las modificaciones de cotas superiores de muretes y de pastillas, posiciones de ventanas de acceso y perforaciones para alojamiento de cables de cosido entre tablero y estribo, correspondientes a los alzados de estribos, etc.

8. ADAPTACIÓN DE LAS PILAS

La distancia entre ejes de pilas se ha visto modificada pasando de 5,0 m a 6,0 m, junto con un aumento de la dimensión transversal de la pila, que cambia de 2,3 m a 2,8 m, para igualar sus anchuras con las del fondo de las vigas cajón. El área de la sección transversal de las pilas se ha mantenido prácticamente inalterada.

El análisis se ha efectuado a partir de los esfuerzos característicos de los diferentes estados de carga (ver Subanejo nº 1) en donde se ha procedido al dimensionamiento de la armadura longitudinal de las pilas realizando, para ello, un análisis no lineal incluyendo deformaciones accidentales de la directriz de la pila y excentricidades de las cargas verticales respecto de dicha directriz.

El análisis se ha realizado mediante el programa de ordenador "PYRUS" de análisis de pilas en segundo orden. La introducción de las cargas se realiza en dos bloques diferenciados, cargas permanentes y sobrecargas. Los valores introducidos son los característicos, empleándose un coeficiente de mayoración igual a 1,5. El coeficiente β que obtiene el programa representa el incremento respecto de las sobrecargas (una vez aplicado el coeficiente de mayoración anterior), que debe ser mayor que 1,0.

En los Subanejos nº 3 y 4 se incluyen los análisis efectuados.

Con posterioridad a los cálculos desarrollados y expuesto previamente, fueron llevadas a cabo comprobaciones adicionales de nuevos estados de carga relativos a estados de fuerza centrífuga, rozamientos en apoyos de pila 1 y viento simultáneo con circulación en ambas vías, planteados en el Informe General de Instrucciones para la Redacción del Anejo de Estructuras de todas las obras de fábrica correspondientes al tramo en el que se ubica la obra. Su incidencia no altera las características de las piezas, al estar los resultados de estos casos comprendidos entre los valores máximos y mínimos de las Hipótesis de Carga previamente analizadas, tal como se expone en el Subanejo nº 5.

9. ANÁLISIS LONGITUDINAL DEL TABLERO

9.1 Modelo empleado.

Para el análisis longitudinal de los diversos elementos estructurales se ha desarrollado un modelo tridimensional generado mediante el programa de cálculo "STRUDL". Se han modelizado convenientemente los siguientes aspectos:

- Elementos longitudinales: vigas prefabricadas longitudinales más tablero a efectos de flexión longitudinal, transversal y torsión.

- Elementos transversales: efecto global de la flexión transversal y torsión de la conexión del tablero con las vigas prefabricadas.

- Pilas: modelización de las condiciones de contorno en apoyos en pilas (desplazamiento libre en el sentido longitudinal de la estructura y restricción de movimientos transversales y verticales).

- Estribos: modelización de las flexibilidades de apoyos en el estribo 1 (empotramiento elástico), y restricción de movimientos verticales en estribo 2.

Los estados de carga se describen con detalle en el apartado 3. Para el cálculo preciso de las diversas envolventes a tener en cuenta (RENFE y UIC) se ha empleado un programa de generación y cálculo de envolventes de creación propia.

El modelo descrito se ha empleado para el cálculo de esfuerzos fundamentalmente longitudinales, así como para el control de flechas. Por otra parte, se han considerado los esfuerzos transversales a efectos del análisis transversal de la losa con carácter global.

La descripción detallada del modelo y los listados correspondientes a coordenadas de nodos, conectividad de elementos y características mecánicas de los mismos se realiza en los Subanejos nº.7, 8, 9 y 10. Los resultados de esfuerzos se encuentran en los Subanejos nº 11 a 15.

9.2 Controles realizados

Las características de las secciones de tablero, así como los controles y dimensionamientos realizados se incluyen en los Subanejos nº 16 y 17.

9.2.1 Estado límite último

9.2.1.1 *Dimensionamiento longitudinal*

Se han controlado cinco secciones en las vigas tipo de 36,0 m. de longitud (centro de vano, a 9,0, 4,5 y 1,8 m desde el apoyo de pila y sección de apoyo de pila), y cinco en las vigas extremas de 22,0 m. de longitud (centro de vano, a 3,667 y 7,334 m desde el apoyo de pila, a 6,5 m desde el apoyo de estribo y sección de apoyo de pila).

Las secciones se han dimensionado en agotamiento comprobando que los esfuerzos mayorados obtenidos de la envolvente mayorada se mantienen por debajo de los momentos últimos resistentes de las mismas, teniendo en cuenta las fases constructivas por las que pasa la viga.

9.2.1.2 *Dimensionamiento transversal*

Al igual que en el caso anterior se ha dimensionado la armadura transversal de cortante en las almas de viga de manera que el esfuerzo cortante mayorado se mantenga por debajo del cortante último de la sección, teniendo en cuenta la interacción cortante-torsor.

9.2.1.3 *Comprobación de fatiga*

Se ha realizado la comprobación de incremento de tensiones en armaduras según las limitaciones de fatiga establecidas en el Eurocódigo, más limitativas como puede apreciarse, que las indicadas por la norma U.I.C.

9.2.2 Comprobación de tensiones en el estado en vacío

Se ha comprobado que las tensiones máximas de tracción producidas en la viga en el momento de actuación de peso propio y pretensado no superan los 20 kp/cm^2.

9.2.3 Estados límite de servicio

9.2.3.1 *Estado límite de comprobación de tensiones*

En centros de vano las secciones se han dimensionado en la clase II.

En las zonas cercanas al apoyo se ha adoptado el siguiente criterio:

- Sección en eje de apoyo:

  Se ha comprobado el estado límite de fisuración controlada, tanto para la losa como para la zona de unión entre vigas (zona protegida por la chapa perimetral de unión).

- Sección fuera del eje de apoyo:

  Se ha comprobado el estado límite de fisuración controlada en losa.

  Para la viga se ha comprobado el estado límite de fisuración controlada debido a la sobrecarga poco probable y el estado de aparición de fisuras (clase II) para la solicitación de sobrecarga frecuente (tomada como el máximo entre 0,8 x SC una vía y 0,6 x SC dos vías).

9.2.3.2 *Comprobación de flechas*

Flechas debidas a sobrecargas:

Renfe:	f_{max} = 20 mm	$\frac{f}{L} = \frac{1}{1800} < \frac{1}{1500}$	Según se indica en informe –propuesta de fecha Febrero de 1999
U.I.C.	f_{max} = 12,6 mm	$\frac{f}{L} = \frac{1}{2850} < \frac{1}{2200}$	Según ficha 776-3 de la U.I.C.

10. ANÁLISIS TRANSVERSAL DE LA LOSA DEL TABLERO

10.1 Dimensionamiento a flexión

La armadura transversal de la losa se calcula con los esfuerzos resultantes de la superposición de los siguientes efectos:

- Esfuerzos locales. Envolvente de la situación de servicio y la de descarrilamiento (Subanejos nº 18 y 19, respectivamente).
- Esfuerzos globales. Procedentes del análisis global del puente (Subanejo nº 11), y debidos a las diferentes flexiones y torsiones de ambas vigas artesa. Ver Subanejo nº 20.
- Torsión. Armadura necesaria para canalizar la torsión a través de la losa y cerrar el circuito de la viga (Subanejo nº 20).

En el Subanejo nº 21 se realiza el dimensionamiento de armaduras a partir de los esfuerzos previamente obtenidos. También se efectúa un control de la armadura de las placas prefabricadas en construcción, antes de que trabaje conjuntamente con la losa in situ (esfuerzos, en el Subanejo nº 20).

Finalmente, se efectúa la comprobación a fatiga (ver Subanejo nº 23).

10.2 Dimensionamiento de armadura de rasante

Se ha dimensionado la armadura de rasante en las zonas de unión de los extremos de almas, superior e inferior, con la losa y fondo de vigas, respectivamente.

El dimensionamiento se ha realizado en estado límite último dimensionando la capacidad de la armadura, dispuesta uniformemente en sentido longitudinal, para que entre las secciones de control adoptadas (central y apoyo) resistan la diferencia total de axil parcial que se produce para los momentos flectores máximos de la envolvente mayorada.

En el Subanejo nº 22 figura el desarrollo de los cálculos realizados.

11. REACCIONES Y MOVIMIENTOS EN APOYOS

En el Subanejo nº 24 se lleva a cabo la obtención de las reacciones (verticales y transversales), movimientos y giros sobre los apoyos mediante suma de los resultados obtenidos del modelo general para los diferentes estados de carga.

12. UNIÓN LONGITUDINAL ENTRE TABLERO Y ESTRIBO 1

En el Subanejo nº 25 figura el dimensionamiento de los elementos de unión (cables de pretensado y apoyo longitudinal) entre el tablero y el estribo 1, a partir de las fuerzas longitudinales de cálculo obtenidas del modelo general.

13. ANÁLISIS DE MAMPAROS EN APOYOS

Se ha procedido al dimensionamiento de los mamparos en apoyo realizando, para ello, diferentes modelos de elementos finitos sobre los que se introduce las acciones (torsor y cortante, para el caso de mamparos de pilas, y fuerzas de cables de cosido entre tablero-estribo y reacción del apoyo longitudinal del tablero, para el mamparo de estribo 1), de los que se obtienen los esfuerzos con los que se dimensionan las secciones resistentes.

El análisis se incluye en el Subanejo nº 26.

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SUBANEJO Nº 1

ESFUERZOS EN PILAS

envolvente MAYORADA tren parado (sin coef. de impacto)

Program Envolvator (release 1.3 - Jun 1998)
Calculation date: 27-mar-1999 19:00 h. Listing date: 27-mar-1999 19:08 h.
Members: 419
Joints: 353
Envelope generated from:

Name	γ_{min}	γ_{max}
envolvente mayorada RENFE	1.00	1.00
envolvente mayorada UIC	1.00	1.00

Pilas

	Fx	Fy	Fz	Mx	My	Mz	Fx	Fy	Fz	Mx	My	Mz
Member 391 PILA1.IZQ												
Fx_i	**-1308.8**	0.0	-25.4	0.0	271.2	0.0	**-153.8**	0.0	4.8	0.0	86.9	0.0
Fy_i	-675.9	**0.0**	-16.4	0.0	175.1	0.0	-426.4	**0.0**	-5.6	0.0	87.0	0.0
Fz_i	-984.9	0.0	**-48.7**	0.0	473.7	0.0	-342.6	0.0	**9.8**	0.0	48.5	0.0
Mx_i	-675.9	0.0	-16.4	**0.0**	175.1	0.0	-426.4	0.0	-5.6	**0.0**	87.0	0.0
My_i	-454.4	0.0	-1.5	0.0	**-19.0**	0.0	-1219.3	0.0	-48.3	0.0	**476.2**	0.0
Mz_i	-675.9	0.0	-16.4	0.0	175.1	**0.0**	-426.4	0.0	-5.6	0.0	87.0	**0.0**
Fx_f	**-1443.2**	2.4	-25.4	0.0	-70.8	-33.0	**-234.4**	-9.8	10.0	0.0	186.5	132.1
Fy_f	-1191.2	**-12.3**	-37.2	0.0	-117.9	165.1	-507.0	**2.4**	-5.6	0.0	11.3	-33.0
Fz_f	-978.2	-11.0	**-54.5**	0.0	-292.5	148.6	-423.2	2.0	**14.9**	0.0	214.8	-26.4
Mx_f	-783.5	0.0	-16.4	**0.0**	-45.6	0.0	-507.0	2.4	-5.6	**0.0**	11.3	-33.0
My_f	-919.7	-11.0	-54.0	0.0	**-314.3**	148.6	-537.4	2.0	14.5	0.0	225.8	-26.4
Mz_f	-1241.3	2.4	-37.2	0.0	-117.7	**-33.0**	-456.9	-12.3	-5.6	0.0	11.1	**165.1**
Member 392 PILA2.IZQ												
Fx_i	**-1475.9**	0.0	-35.8	0.0	332.7	0.0	**-209.6**	0.0	56.0	0.0	85.9	0.0
Fy_i	-839.3	**0.0**	-27.7	0.0	236.0	0.0	-481.2	**0.0**	-5.4	0.0	109.8	0.0
Fz_i	-1063.7	0.0	**-101.7**	0.0	406.8	0.0	-386.5	0.0	**62.9**	0.0	102.7	0.0
Mx_i	-839.3	0.0	-27.7	0.0	236.0	0.0	-481.2	0.0	-5.4	**0.0**	109.8	0.0
My_i	-698.6	0.0	-41.7	0.0	-3.9	0.0	-1385.7	0.0	-58.5	0.0	**567.5**	0.0
Mz_i	-839.3	0.0	-27.7	0.0	236.0	**0.0**	-481.2	0.0	-5.4	0.0	109.8	**0.0**
Fx_f	**-1599.5**	-6.8	-35.9	0.0	-111.7	84.3	**-283.8**	27.2	60.8	0.0	810.2	-337.2
Fy_f	-1430.8	**-34.0**	-44.9	0.0	-92.2	421.5	-555.3	**6.8**	-5.4	0.0	42.4	-84.3
Fz_f	-1137.9	27.2	**-106.5**	0.0	-883.4	-337.2	-485.4	0.0	**68.4**	0.0	916.3	0.0
Mx_f	-938.2	0.0	-27.7	**0.0**	-107.0	0.0	-555.3	6.8	-5.4	**0.0**	42.4	-84.3
My_f	-1139.3	27.2	-105.7	0.0	**-889.2**	-337.2	-485.4	0.0	68.4	0.0	**916.3**	0.0
Mz_f	-1427.4	6.8	-44.9	0.0	-92.2	**-84.3**	-558.8	-34.0	-5.4	0.0	42.9	**421.5**
Member 393 PILA 3.IZQ												
Fx_i	**-1463.5**	0.0	-30.7	0.0	342.2	0.0	**-186.9**	0.0	50.6	0.0	39.6	0.0
Fy_i	-823.7	**0.0**	-24.8	0.0	246.3	0.0	-477.7	**0.0**	-5.5	0.0	110.0	0.0
Fz_i	-1160.7	0.0	**-91.6**	0.0	490.9	0.0	-253.6	0.0	**57.5**	0.0	25.8	0.0
Mx_i	-823.7	0.0	-24.8	0.0	246.3	**0.0**	-477.7	0.0	-5.5	**0.0**	110.0	0.0
My_i	-649.5	0.0	45.8	0.0	**-33.7**	0.0	-1270.2	0.0	-51.1	0.0	**584.6**	0.0
Mz_i	-823.7	0.0	-24.8	0.0	246.3	**0.0**	-477.7	0.0	-5.5	0.0	110.0	**0.0**
Fx_f	**-1618.5**	8.3	-30.7	0.0	-134.7	-128.4	**-279.9**	-33.0	56.6	0.0	872.3	513.7
Fy_f	-1432.6	**-41.3**	-38.3	0.0	-121.9	642.1	-570.7	**8.3**	-5.5	0.0	25.3	-128.4
Fz_f	-1284.8	-33.0	**-97.6**	0.0	-979.9	513.7	-346.6	0.0	**64.5**	0.0	974.4	0.0
Mx_f	-947.7	0.0	-24.8	**0.0**	-139.6	0.0	-570.7	8.3	-5.5	**0.0**	25.3	-128.4
My_f	-1148.9	-33.0	-96.9	0.0	**-1002.2**	513.7	-484.6	0.0	64.2	0.0	**991.2**	0.0
Mz_f	-1433.6	8.3	-38.3	0.0	-121.9	**-128.4**	-569.6	-41.3	-5.5	0.0	25.3	**642.1**
Member 394 PILA4.IZQ												
Fx_i	**-1470.7**	0.0	-29.7	0.0	345.1	0.0	**-179.0**	0.0	56.3	0.0	20.4	0.0
Fy_i	-829.1	**0.0**	-24.7	0.0	250.7	0.0	-478.5	**0.0**	-5.0	0.0	110.4	0.0
Fz_i	-1173.2	0.0	**-95.6**	0.0	513.3	0.0	-243.7	0.0	**64.0**	0.0	4.0	0.0
Mx_i	-829.1	0.0	-24.7	**0.0**	250.7	0.0	-478.5	0.0	-5.0	**0.0**	110.4	0.0
My_i	-646.4	0.0	50.6	0.0	**-50.4**	0.0	-1274.4	0.0	-49.6	0.0	**587.9**	0.0
Mz_i	-829.1	0.0	-24.7	0.0	250.7	**0.0**	-478.5	**0.0**	-5.0	0.0	110.4	**0.0**
Fx_f	**-1631.8**	**-41.0**	-29.7	0.0	-134.9	662.4	**-275.7**	6.6	62.5	0.0	979.2	-105.8
Fy_f	-1445.8	**-41.0**	-36.6	0.0	-115.9	662.4	-575.2	**8.2**	-5.0	0.0	29.1	-132.3
Fz_f	-1302.1	6.6	**-101.8**	0.0	-1081.1	-105.8	-340.4	0.0	**71.2**	0.0	1096.2	0.0
Mx_f	-958.0	0.0	-24.7	**0.0**	-147.8	0.0	-575.2	8.2	-5.0	**0.0**	29.1	-132.3
My_f	-1177.0	6.6	-101.2	0.0	**-1105.6**	-105.8	-479.6	0.0	71.0	0.0	**1114.3**	0.0
Mz_f	-1445.2	8.2	-36.6	0.0	-115.9	**-132.3**	-575.7	-41.0	-5.0	0.0	29.1	**662.4**

	Fx	Fy	Fz	Mx	My	Mz	Fx	Fy	Fz	Mx	My	Mz
Member 395 PILA5.IZQ												
Fx_i	**-1464.6**	0.0	-29.4	0.0	344.9	0.0	**-178.9**	0.0	54.5	0.0	19.5	0.0
Fy_i	-829.3	**0.0**	-24.4	0.0	250.4	0.0	-478.1	**0.0**	-5.1	0.0	110.2	0.0
Fz_i	-1167.8	0.0	**-93.8**	0.0	514.4	0.0	-244.2	0.0	**61.9**	0.0	3.2	0.0
Mx_i	-829.3	0.0	-24.4	**0.0**	250.4	0.0	-478.1	0.0	-5.1	**0.0**	110.2	0.0
My_i	-642.5	0.0	49.4	0.0	**-51.3**	0.0	-1271.6	0.0	-49.6	0.0	**588.2**	0.0
Mz_i	-829.3	0.0	-24.4	0.0	250.4	**0.0**	-478.1	0.0	-5.1	0.0	110.2	**0.0**
Fx_f	**-1627.5**	8.2	-29.4	0.0	-135.1	-133.9	**-276.7**	-32.8	60.8	0.0	961.0	535.7
Fy_f	-1444.9	**-41.0**	-36.5	0.0	-120.0	669.7	-575.9	**8.2**	-5.1	0.0	26.6	-133.9
Fz_f	-1298.2	-32.8	**-100.1**	0.0	-1069.2	535.7	-342.0	0.0	**69.3**	0.0	1074.6	0.0
Mx_f	-959.7	0.0	-24.4	**0.0**	-147.6	0.0	-575.9	8.2	-5.1	**0.0**	26.6	-133.9
My_f	-1162.8	-32.8	-99.5	0.0	**-1092.7**	535.7	-481.6	0.0	69.0	0.0	**1091.9**	0.0
Mz_f	-1446.6	8.2	-36.5	0.0	-120.0	**-133.9**	-574.1	-41.0	-5.1	0.0	26.6	**669.7**
Member 396 PILA6.IZQ												
Fx_i	**-1499.2**	0.0	-31.8	0.0	342.3	0.0	**-193.7**	0.0	51.0	0.0	40.1	0.0
Fy_i	-821.7	**0.0**	-25.6	0.0	247.3	0.0	-479.0	**0.0**	-5.6	0.0	110.0	0.0
Fz_i	-1176.3	0.0	**-91.5**	0.0	483.2	0.0	-283.6	0.0	**57.2**	0.0	29.7	0.0
Mx_i	-821.7	0.0	-25.6	**0.0**	247.3	0.0	-479.0	0.0	-5.6	**0.0**	110.0	0.0
My_i	-583.2	0.0	43.6	0.0	**-24.1**	0.0	-1408.2	0.0	-51.0	0.0	**578.6**	0.0
Mz_i	-821.7	0.0	-25.6	0.0	247.3	**0.0**	-479.0	0.0	-5.6	0.0	110.0	**0.0**
Fx_f	**-1652.2**	-41.3	-31.8	0.0	-145.8	633.9	**-285.5**	6.6	56.9	0.0	867.9	-101.4
Fy_f	-1440.9	**-41.3**	-38.9	0.0	-124.6	633.9	-570.8	**8.3**	-5.6	0.0	23.5	-126.8
Fz_f	-1298.7	6.6	**-97.4**	0.0	-965.3	-101.4	-375.4	0.0	**64.1**	0.0	960.5	0.0
Mx_f	-944.1	0.0	-25.6	**0.0**	-146.0	0.0	-570.8	8.3	-5.6	**0.0**	23.5	-126.8
My_f	-1163.3	6.6	-96.6	0.0	**-987.7**	-101.4	-513.6	0.0	63.7	0.0	**976.7**	0.0
Mz_f	-1432.8	8.3	-38.9	0.0	-124.6	**-126.8**	-578.9	-41.3	-5.6	0.0	23.5	**633.9**
Member 397 PILA 7.IZQ												
Fx_i	**-1315.6**	0.0	-33.5	0.0	305.0	0.0	**-89.7**	0.0	50.2	0.0	112.0	0.0
Fy_i	-740.3	**0.0**	-26.9	0.0	200.4	0.0	-442.5	**0.0**	-4.8	0.0	111.6	0.0
Fz_i	-828.6	0.0	**-93.5**	0.0	347.8	0.0	-396.8	0.0	**57.0**	0.0	104.0	0.0
Mx_i	-740.3	0.0	-26.9	**0.0**	200.4	0.0	-442.5	0.0	-4.8	**0.0**	111.6	0.0
My_i	-504.1	0.0	-36.1	0.0	**6.9**	0.0	-1146.8	0.0	-51.6	0.0	**511.2**	0.0
Mz_i	-740.3	0.0	-26.9	0.0	200.4	**0.0**	-442.5	0.0	-4.8	0.0	111.6	**0.0**
Fx_f	**-1429.9**	34.4	-33.5	0.0	-78.6	-393.9	**-158.3**	-5.5	54.6	0.0	712.5	63.0
Fy_f	-1215.2	**-34.4**	-40.4	0.0	-42.3	393.9	-511.1	**6.9**	-4.8	0.0	56.7	-78.8
Fz_f	-897.2	-5.5	**-97.9**	0.0	-748.9	63.0	-425.0	0.0	**61.8**	0.0	814.1	0.0
Mx_f	-831.7	0.0	-26.9	**0.0**	-108.4	0.0	-511.1	6.9	-4.8	**0.0**	56.7	-76.8
My_f	-891.8	-5.5	-97.1	0.0	**-760.1**	63.0	-424.9	0.0	61.8	0.0	**814.2**	0.0
Mz_f	-1295.2	6.9	-40.3	0.0	-42.0	**-78.8**	-431.1	-34.4	-4.8	0.0	56.4	**393.9**
Member 398 PILA1.DCH												
Fx_i	**-1308.8**	0.0	25.4	0.0	-271.2	0.0	**-160.3**	0.0	-6.3	0.0	-74.1	0.0
Fy_i	-858.9	**0.0**	18.2	0.0	-225.1	0.0	-426.4	**0.0**	5.6	0.0	-87.0	0.0
Fz_i	-325.0	0.0	-10.1	0.0	-43.1	0.0	-984.9	0.0	**48.7**	0.0	-473.7	0.0
Mx_i	-858.9	0.0	18.2	**0.0**	-225.1	0.0	-426.4	0.0	5.6	**0.0**	-87.0	0.0
My_i	-1219.3	0.0	48.3	0.0	**-476.2**	0.0	-226.2	0.0	0.4	0.0	**22.5**	0.0
Mz_i	-858.9	0.0	18.2	0.0	-225.1	**0.0**	-426.4	0.0	5.6	0.0	-87.0	**0.0**
Fx_f	**-1443.2**	2.4	25.4	0.0	70.8	-33.0	**-240.9**	-9.8	-11.5	0.0	-194.4	132.1
Fy_f	-1191.2	**-12.3**	37.2	0.0	117.9	165.1	-507.0	**2.4**	5.6	0.0	-11.3	-33.0
Fz_f	-405.7	2.0	**-15.3**	0.0	-214.2	-26.4	-978.2	-11.0	**54.5**	0.0	292.5	148.6
Mx_f	-966.5	0.0	18.2	**0.0**	20.3	0.0	-507.0	2.4	5.6	**0.0**	-11.3	-33.0
My_f	-521.7	2.0	-14.8	0.0	**-225.1**	-26.4	-919.7	-11.0	54.0	0.0	**314.3**	148.6
Mz_f	-1241.3	2.4	37.2	0.0	117.7	**-33.0**	-456.9	-12.3	5.6	0.0	-11.1	165.1
Member 399 PILA2.DCH												
Fx_i	**-1475.9**	0.0	35.9	0.0	-332.7	0.0	**-218.9**	0.0	-57.4	0.0	-69.9	0.0
Fy_i	-1027.5	**0.0**	12.1	0.0	-255.9	0.0	-481.2	**0.0**	5.4	0.0	-109.8	0.0
Fz_i	-386.5	0.0	**-62.9**	0.0	-102.7	0.0	-1063.7	0.0	**101.7**	0.0	-406.8	0.0
Mx_i	-1027.5	0.0	12.1	**0.0**	-255.9	0.0	-481.2	0.0	5.4	**0.0**	-109.8	0.0
My_i	-1388.8	0.0	38.5	0.0	**-567.5**	0.0	-320.8	0.0	-3.5	0.0	**4.8**	0.0
Mz_i	-1027.5	0.0	12.1	0.0	-255.9	**0.0**	-481.2	0.0	5.4	0.0	-109.8	**0.0**
Fx_f	**-1599.5**	-6.8	35.9	0.0	111.7	84.3	**-293.1**	27.2	-62.1	0.0	-810.3	-337.2
Fy_f	-1430.8	**-34.0**	44.9	0.0	92.2	421.5	-555.3	**6.8**	5.4	0.0	-42.4	-84.3

Fz:	-485.4	0.0	**-68.4**	0.0	-916.3	0.0	-1137.9	27.2	**106.5**	0.0	883.4	-337.2
Mx:	-1126.4	0.0	12.1	0.0	-105.8	0.0	-555.3	6.8	5.4	0.0	-42.4	-84.3
My:	-485.4	0.0	-68.4	0.0	**-916.3**	0.0	-1135.3	27.2	105.7	0.0	**889.2**	-337.2
Mz:	-1427.4	6.8	44.9	0.0	92.2	**-84.3**	-558.8	-34.0	5.4	0.0	-42.5	**421.5**

Member 400 P1LA3.DCH

Fx:	**-1463.5**	0.0	30.7	0.0	-342.2	0.0	**-198.0**	0.0	-52.5	0.0	-18.5	0.0
Fy:	-1003.9	**0.0**	10.3	0.0	-252.0	0.0	-477.7	**0.0**	5.5	0.0	-110.0	0.0
Fz:	-253.6	0.0	**-57.5**	0.0	-25.9	0.0	-1160.7	0.0	**91.6**	0.0	-490.9	0.0
Mx:	-1003.9	0.0	10.3	**0.0**	-252.0	0.0	-477.7	0.0	5.5	**0.0**	-110.0	0.0
My:	-1269.4	0.0	51.1	0.0	**-584.6**	0.0	-650.2	**0.0**	**-45.8**	0.0	**33.7**	0.0
Mz:	-1003.9	0.0	10.3	0.0	-252.0	**0.0**	-477.7	0.0	5.5	0.0	-110.0	**0.0**
Fx:	**-1618.5**	8.3	30.7	0.0	134.7	-128.4	**-291.1**	-33.0	-58.5	0.0	-881.3	513.7
Fy:	-1432.5	**-41.3**	38.3	0.0	121.9	642.1	-570.7	**8.3**	5.5	0.0	-25.3	-128.4
Fz:	-346.6	0.0	**-64.5**	0.0	-974.3	0.0	-1284.8	-33.0	**97.6**	0.0	979.9	513.7
Mx:	-1128.0	0.0	10.3	**0.0**	-91.8	0.0	-570.7	8.3	5.5	**0.0**	-25.3	-128.4
My:	-484.6	0.0	-64.2	0.0	**-991.1**	0.0	-1148.9	-33.0	96.9	0.0	**1002.1**	513.7
Mz:	-1433.6	8.3	38.3	0.0	121.9	**-128.4**	-569.6	-41.3	5.5	0.0	-25.3	**642.1**

Member 401 P1LA4.DCH

Fx:	**-1470.7**	0.0	29.7	0.0	-345.1	0.0	**-190.1**	0.0	-58.2	0.0	0.8	0.0
Fy:	-1006.9	**0.0**	8.7	0.0	-249.8	0.0	-478.5	**0.0**	5.0	0.0	-110.4	0.0
Fz:	-243.7	0.0	**-64.0**	0.0	-4.0	0.0	-1173.2	0.0	**95.6**	0.0	-513.3	0.0
Mx:	-1006.9	0.0	8.7	**0.0**	-249.8	0.0	-478.5	0.0	5.0	**0.0**	-110.4	0.0
My:	-1274.6	0.0	49.6	0.0	**-587.9**	0.0	-646.2	0.0	-50.6	0.0	**50.4**	0.0
Mz:	-1006.9	0.0	8.7	0.0	-249.8	**0.0**	-478.5	0.0	5.0	0.0	-110.4	**0.0**
Fx:	-1631.8	-41.0	29.7	0.0	134.9	662.4	-286.8	6.6	-64.4	0.0	-989.6	-105.8
Fy:	-1445.8	**-41.0**	36.6	0.0	115.9	662.4	-575.2	**8.2**	5.0	0.0	-29.1	-132.3
Fz:	-340.4	0.0	**-71.2**	0.0	-1096.2	0.0	-1302.1	6.6	**101.8**	0.0	1081.1	-105.8
Mx:	-1135.8	0.0	8.7	**0.0**	-109.8	0.0	-575.2	8.2	5.0	**0.0**	-29.1	-132.3
My:	-479.8	0.0	-71.0	0.0	**-1114.3**	0.0	-1176.9	6.6	101.2	0.0	**1105.5**	-105.8
Mz:	-1445.2	8.2	36.6	0.0	115.9	**-132.3**	-575.7	-41.0	5.0	0.0	-29.1	**662.4**

Member 402 P1LA5.DCH

Fx:	**-1464.6**	0.0	29.4	0.0	-344.9	0.0	**-189.9**	0.0	-56.4	0.0	1.7	0.0
Fy:	-1007.1	**0.0**	9.0	0.0	-249.8	0.0	-478.1	**0.0**	5.1	0.0	-110.2	0.0
Fz:	-244.2	0.0	**-61.9**	0.0	-3.3	0.0	-1167.8	0.0	**93.8**	0.0	-514.4	0.0
Mx:	-1007.1	0.0	9.0	**0.0**	-249.8	0.0	-478.1	0.0	5.1	**0.0**	-110.2	0.0
My:	-1271.4	0.0	49.6	0.0	**-588.2**	0.0	-642.7	0.0	-49.4	0.0	**51.3**	0.0
Mz:	-1007.1	0.0	9.0	0.0	-249.8	**0.0**	-478.1	0.0	5.1	0.0	-110.2	**0.0**
Fx:	**-1627.5**	8.2	29.4	0.0	135.1	-133.9	**-287.6**	-32.8	-62.7	0.0	-971.4	535.7
Fy:	-1444.9	**-41.0**	36.5	0.0	120.0	669.7	-575.9	**8.2**	5.1	0.0	-26.6	-133.9
Fz:	-342.0	0.0	**-69.3**	0.0	-1074.6	0.0	-1298.2	-32.8	**100.1**	0.0	1069.2	535.7
Mx:	-1137.5	0.0	9.0	**0.0**	-103.0	0.0	-575.9	8.2	5.1	**0.0**	-26.6	-133.9
My:	-481.4	0.0	-69.0	0.0	**-1091.9**	0.0	-1162.9	-32.8	99.5	0.0	**1092.7**	535.7
Mz:	-1446.6	8.2	36.5	0.0	120.0	**-133.9**	-574.1	-41.0	5.1	0.0	-26.6	**669.7**

Member 403 P1LA6.DCH

Fx:	**-1499.2**	0.0	31.8	0.0	-342.3	0.0	**-203.3**	0.0	-52.0	0.0	-24.3	0.0
Fy:	-1003.2	**0.0**	10.2	0.0	-250.5	0.0	-479.0	**0.0**	5.6	0.0	-110.0	0.0
Fz:	-283.6	0.0	**-57.2**	0.0	-29.7	0.0	-1176.3	0.0	**91.5**	0.0	-483.2	0.0
Mx:	-1003.2	0.0	10.2	**0.0**	-250.5	0.0	-479.0	0.0	5.6	**0.0**	-110.0	0.0
My:	-1408.8	0.0	51.0	0.0	**-578.6**	0.0	-582.6	0.0	-43.6	0.0	**24.1**	0.0
Mz:	-1003.2	0.0	10.2	0.0	-250.5	**0.0**	-479.0	0.0	5.6	0.0	-110.0	**0.0**
Fx:	**-1652.2**	-41.3	31.8	0.0	145.8	633.9	**-295.1**	6.6	-57.9	0.0	-866.8	-101.4
Fy:	-1440.9	**-41.3**	38.9	0.0	124.6	633.9	-570.8	**8.3**	5.6	0.0	-23.5	-126.8
Fz:	-375.4	0.0	**-64.1**	0.0	-960.5	0.0	-1298.7	6.6	**97.4**	0.0	965.3	-101.4
Mx:	-1125.7	0.0	10.2	**0.0**	-93.5	0.0	-570.8	8.3	5.6	**0.0**	-23.5	-126.6
My:	-513.6	0.0	-63.7	0.0	**-976.7**	0.0	-1163.3	6.6	96.6	0.0	**987.7**	-101.4
Mz:	-1432.8	8.3	38.9	0.0	124.6	**-126.8**	-578.9	-41.3	5.6	0.0	-23.5	**633.9**

Member 404 P1LA7.DCH.

Fx:	**-1315.6**	0.0	33.5	0.0	-305.0	0.0	**-96.1**	0.0	-51.9	0.0	-99.6	0.0
Fy:	-905.9	**0.0**	8.8	0.0	-263.6	0.0	-442.5	**0.0**	4.8	0.0	-111.6	0.0
Fz:	-333.5	0.0	**-56.7**	0.0	-134.8	0.0	-828.6	0.0	**93.5**	0.0	-347.8	0.0
Mx:	-905.9	0.0	8.8	**0.0**	-263.6	0.0	-442.5	0.0	4.8	**0.0**	-111.6	0.0
My:	-1146.8	0.0	51.6	0.0	**-511.2**	0.0	-224.3	0.0	40.9	0.0	**-3.4**	0.0

Mz:	-905.9	0.0	8.8	0.0	-263.6	**0.0**	-442.5	0.0	4.8	0.0	-111.6	0.0
Fx:	**-1429.9**	34.4	33.5	0.0	78.6	-393.9	**-164.7**	-5.5	-56.3	0.0	-719.8	63.0
Fy:	-1215.2	**-34.4**	40.4	0.0	42.3	393.9	-511.1	**6.9**	4.8	0.0	-56.7	-78.8
Fz:	-425.0	0.0	**-61.8**	0.0	-814.1	0.0	-897.2	-5.5	**97.9**	0.0	748.9	63.0
Mx:	-997.4	0.0	8.8	**0.0**	-163.2	0.0	-511.1	6.9	4.8	**0.0**	-56.7	-78.8
My:	-424.9	0.0	-61.8	0.0	**-814.2**	0.0	-891.8	-5.5	97.1	0.0	**760.1**	63.0
Mz:	-1295.2	6.9	40.3	0.0	42.0	-78.8	-431.1	-34.4	4.8	0.0	-56.4	**393.9**

Member 421 P-1

Fx:	**-2837.0**	4.9	0.0	0.0	0.0	-66.0	**-527.2**	-19.6	18.9	-0.0	417.5	264.1
Fy:	-2382.3	**-24.5**	0.0	-0.0	0.0	330.1	-1014.0	**4.9**	0.0	0.0	0.0	-66.0
Fz:	-1431.1	-4.4	**-47.9**	-0.0	-476.4	59.4	-1987.2	22.0	**47.9**	0.0	476.4	-297.1
Mx:	-2382.3	-24.5	0.0	**-0.0**	0.0	330.1	-1014.0	4.9	0.0	**0.0**	0.0	-66.0
My:	-1461.1	-3.9	-11.2	-0.0	**-1664.6**	52.8	-1629.3	19.6	16.0	0.0	**1627.1**	-264.1
Mz:	-2482.5	4.9	0.0	0.0	0.0	**-66.0**	-913.8	-24.5	0.0	-0.0	0.0	**330.1**
Fx:	**-2837.0**	4.9	0.0	0.0	0.0	-70.9	**-527.2**	-19.6	18.9	-0.0	436.3	283.7
Fy:	-2382.3	**-24.5**	0.0	-0.0	0.0	354.6	-1014.0	**4.9**	0.0	0.0	0.0	-70.9
Fz:	-1431.1	-4.4	**-47.9**	-0.0	-524.2	63.8	-1987.2	22.0	**47.9**	0.0	524.2	-319.2
Mx:	-2382.3	-24.5	0.0	**-0.0**	0.0	354.6	-1014.0	4.9	0.0	**0.0**	0.0	-70.9
My:	-1456.7	-3.9	-11.6	-0.0	**-1675.8**	56.7	-1624.9	19.6	16.4	0.0	**1643.1**	-283.7
Mz:	-2482.5	4.9	0.0	0.0	0.0	**-70.9**	-913.8	-24.5	0.0	-0.0	0.0	**354.6**

Member 422 P-2

Fx:	**-3130.6**	-13.6	0.0	-0.0	-0.0	168.6	**-704.2**	54.4	-109.0	0.0	-1617.7	-674.3
Fy:	-2861.6	**-68.0**	0.0	-0.0	-0.0	842.9	-1110.7	**13.6**	0.0	0.0	-0.0	-168.6
Fz:	-1586.4	-10.9	**-137.9**	-0.0	-2092.9	134.9	-2047.9	54.4	**137.9**	0.0	2092.8	-674.3
Mx:	-2861.6	-68.0	0.0	**-0.0**	-0.0	842.9	-1110.7	13.6	0.0	**0.0**	-0.0	-168.6
My:	-1997.6	-10.9	-116.1	-0.0	**-3386.4**	134.9	-1624.7	54.4	117.0	0.0	**3266.0**	-674.3
Mz:	-2854.7	13.6	0.0	0.0	-0.0	**-168.6**	-1117.6	-68.0	0.0	-0.0	-0.0	**842.9**
Fx:	**-3130.6**	-13.6	0.0	-0.0	-0.0	182.2	**-704.2**	54.4	-109.0	0.0	-1726.6	-728.7
Fy:	-2861.6	**-68.0**	0.0	-0.0	-0.0	910.9	-1110.7	**13.6**	0.0	0.0	-0.0	-182.2
Fz:	-1586.4	-10.9	**-137.9**	-0.0	-2230.7	145.7	-2047.9	54.4	**137.9**	0.0	2230.7	-728.7
Mx:	-2861.6	-68.0	0.0	**-0.0**	-0.0	910.9	-1110.7	13.6	0.0	**0.0**	-0.0	-182.2
My:	-1595.3	-10.9	-116.4	-0.0	**-3502.6**	145.7	-1622.4	54.4	117.3	0.0	**3383.0**	-728.7
Mz:	-2854.7	13.6	0.0	0.0	-0.0	**-182.2**	-1117.6	-68.0	0.0	-0.0	-0.0	**910.9**

Member 423 P-3

Fx:	**-3166.2**	16.5	0.0	0.0	-0.0	-256.8	**-727.5**	0.0	-20.6	0.0	-364.7	0.0
Fy:	-2865.1	**-82.6**	0.0	-0.0	-0.0	1284.2	-1141.4	**16.5**	0.0	0.0	-0.0	-256.8
Fz:	-1510.4	-13.2	**-132.4**	-0.0	-2263.6	205.5	-2117.3	66.1	**132.4**	0.0	2263.6	-1027.4
Mx:	-2865.1	-82.6	0.0	**-0.0**	-0.0	1284.2	-1141.4	16.5	0.0	**0.0**	-0.0	-256.8
My:	-1996.9	-13.2	-114.0	-0.0	**-3654.2**	205.5	-1724.5	66.1	114.2	0.0	**3526.8**	-1027.4
Mz:	-2867.3	16.5	0.0	0.0	-0.0	**-256.8**	-1139.2	-82.6	0.0	-0.0	-0.0	**1284.2**
Fx:	**-3166.2**	16.5	0.0	0.0	-0.0	-273.4	**-727.5**	0.0	-20.6	0.0	-385.3	0.0
Fy:	-2865.1	**-82.6**	0.0	-0.0	-0.0	1366.9	-1141.4	**16.5**	0.0	0.0	-0.0	-273.4
Fz:	-1510.4	-13.2	**-132.4**	-0.0	-2396.0	218.7	-2117.3	66.1	**132.4**	0.0	2396.0	-1093.5
Mx:	-2865.1	-82.6	0.0	**-0.0**	-0.0	1366.9	-1141.4	16.5	0.0	**0.0**	-0.0	-273.4
My:	-1994.7	-13.2	-114.3	-0.0	**-3768.3**	218.7	-1722.3	66.1	114.5	0.0	**3641.2**	-1093.5
Mz:	-2867.3	16.5	0.0	0.0	-0.0	**-273.4**	-1139.2	-82.6	0.0	-0.0	-0.0	**1366.9**

Member 424 P-4

Fx:	**-3191.2**	-82.0	-0.0	-0.0	-0.0	1324.7	**-736.5**	0.0	19.2	0.0	466.3	0.0
Fy:	-2891.6	**-82.0**	-0.0	-0.0	-0.0	1324.7	-1150.3	**16.4**	-0.0	0.0	-0.0	-264.5
Fz:	-1065.4	0.0	**-143.8**	0.0	-2660.3	0.0	-872.6	0.0	**143.8**	0.0	2660.3	0.0
Mx:	-2891.6	-82.0	-0.0	**-0.0**	-0.0	1324.7	-1150.3	16.4	-0.0	**0.0**	-0.0	-264.5
My:	-1931.1	65.6	-126.8	0.0	**-3945.7**	-1059.8	-1688.9	-13.1	126.6	-0.0	**3810.0**	211.6
Mz:	-2890.4	16.4	-0.0	0.0	-0.0	**-264.5**	-1151.5	-82.0	-0.0	-0.0	-0.0	**1324.7**
Fx:	**-3191.2**	-82.0	-0.0	-0.0	-0.0	1406.7	**-736.5**	0.0	19.2	0.0	485.5	0.0
Fy:	-2891.6	**-82.0**	-0.0	-0.0	-0.0	1406.7	-1150.3	**16.4**	-0.0	0.0	-0.0	-280.9
Fz:	-1065.4	0.0	**-143.8**	0.0	-2804.1	0.0	-872.6	0.0	**143.8**	0.0	2804.1	0.0
Mx:	-2891.6	-82.0	-0.0	**-0.0**	-0.0	1406.7	-1150.3	16.4	-0.0	**0.0**	-0.0	-280.9
My:	-1930.5	65.6	-126.8	0.0	**-4072.4**	-1125.4	-1688.3	-13.1	126.6	-0.0	3936.6	224.7
Mz:	-2890.4	16.4	-0.0	0.0	-0.0	-280.9	-1151.5	-82.0	-0.0	-0.0	-0.0	**1406.7**

Member 425 P-5

Fx:	**-3183.1**	16.4	-0.0	0.0	-0.0	-267.9	**-737.9**	-65.6	-114.4	-0.0	-2089.4	1071.4

Fy:	-2889.7	**-82.0**	-0.0	-0.0	-0.0	1339.3	-1151.8	**16.4**	-0.0	0.0	-0.0	-267.9
Fz:	-2079.2	65.6	**-140.2**	0.0	-2496.0	**-1071.4**	-1577.2	-13.1	**140.2**	-0.0	2496.0	214.3
Mx:	-2889.7	-82.0	-0.0	-0.0	-0.0	1339.3	-1151.8	16.4	-0.0	**0.0**	-0.0	-267.9
My:	-1927.5	65.6	-123.2	0.0	**-3897.6**	-1071.4	-1732.5	-13.1	123.1	-0.0	**3765.2**	214.3
Mz:	-2893.2	16.4	-0.0	0.0	-0.0	**-267.9**	-1148.3	-82.0	-0.0	-0.0	-0.0	**1339.3**
Fx:	**-3183.1**	16.4	-0.0	0.0	-0.0	-284.3	**-737.9**	-65.6	-114.4	-0.0	-2203.8	1137.0
Fy:	-2889.7	**-82.0**	-0.0	-0.0	-0.0	1421.3	-1151.8	**16.4**	-0.0	0.0	-0.0	-284.3
Fz:	-2079.2	65.6	**-140.2**	0.0	-2636.2	-1137.0	-1577.2	-13.1	**140.2**	-0.0	2636.2	227.4
Mx:	-2889.7	-82.0	-0.0	-0.0	-0.0	1421.3	-1151.8	16.4	-0.0	**0.0**	-0.0	-284.3
My:	-1925.3	65.6	-123.4	0.0	**-4020.8**	-1137.0	-1730.3	-13.1	123.4	-0.0	**3888.4**	227.4
Mz:	-2893.2	**16.4**	-0.0	0.0	-0.0	**-284.3**	-1148.3	-82.0	-0.0	-0.0	-0.0	**1421.3**

Member 426 P-6

Fx:	**-3233.0**	-82.6	0.0	-0.0	-0.0	1267.7	**-734.9**	13.2	-104.7	0.0	-1836.2	-202.8
Fy:	-2881.8	**-82.6**	0.0	-0.0	-0.0	1267.7	-1141.6	**16.5**	0.0	0.0	-0.0	-253.5
Fz:	-865.1	0.0	**-130.4**	0.0	-2328.4	0.0	-1054.1	0.0	**130.4**	0.0	2328.4	0.0
Mx:	-2881.8	-82.6	0.0	-0.0	-0.0	1267.7	-1141.6	16.5	0.0	**0.0**	-0.0	-253.5
My:	-2072.8	66.1	-111.4	0.0	**-3616.0**	-1014.2	-1756.5	-13.2	111.9	-0.0	**3490.6**	202.8
Mz:	-2865.5	16.5	0.0	0.0	-0.0	**-253.5**	-1157.8	-82.6	0.0	-0.0	-0.0	**1267.7**
Fx:	**-3233.0**	-82.6	0.0	-0.0	-0.0	1350.3	**-734.9**	13.2	-104.7	0.0	-1940.9	-216.1
Fy:	-2881.8	**-82.6**	0.0	-0.0	-0.0	1350.3	-1141.6	**16.5**	0.0	0.0	-0.0	-270.1
Fz:	-865.1	0.0	**-130.4**	0.0	-2458.8	0.0	-1054.1	0.0	**130.4**	0.0	2458.8	0.0
Mx:	-2881.8	-82.6	0.0	-0.0	-0.0	1350.3	-1141.6	16.5	0.0	**0.0**	-0.0	-270.1
My:	-2070.6	66.1	-111.7	0.0	-3727.4	-1080.3	-1754.2	-13.2	112.1	-0.0	3602.5	216.1
Mz:	-2865.5	16.5	0.0	0.0	-0.0	**-270.1**	-1157.8	-82.6	0.0	-0.0	-0.0	**1350.3**

Member 427 P-7

Fx:	**-2794.6**	68.8	0.0	0.0	-0.0	-787.9	**-434.5**	-11.0	95.0	-0.0	1423.5	126.1
Fy:	-2430.4	**-68.8**	0.0	-0.0	-0.0	787.9	-1022.3	**13.8**	0.0	0.0	-0.0	-157.6
Fz:	-1460.4	55.0	**-129.3**	0.0	-1938.2	-630.3	-1600.9	-11.0	**129.3**	-0.0	1938.2	126.1
Mx:	-2430.4	-68.8	0.0	-0.0	-0.0	787.9	-1022.3	13.8	0.0	**0.0**	-0.0	-157.6
My:	-1589.9	55.0	-110.3	0.0	**-2994.4**	-630.3	-1344.0	-11.0	110.2	-0.0	**2871.9**	126.1
Mz:	-2590.4	13.8	0.0	0.0	-0.0	**-157.6**	-862.3	-68.8	0.0	-0.0	-0.0	**787.9**
Fx:	**-2794.6**	68.8	0.0	0.0	-0.0	-856.6	**-434.5**	-11.0	95.0	-0.0	1518.5	137.1
Fy:	-2430.4	**-68.8**	0.0	-0.0	-0.0	856.6	-1022.3	**13.8**	0.0	0.0	-0.0	-171.3
Fz:	-1460.4	55.0	**-129.3**	0.0	-2067.5	-685.3	-1600.9	-11.0	**129.3**	-0.0	2067.4	137.1
Mx:	-2430.4	-68.8	0.0	-0.0	-0.0	856.6	-1022.3	13.8	0.0	**0.0**	-0.0	-171.3
My:	-1589.1	55.0	-110.4	0.0	**-3104.7**	-685.3	**-1343.3**	-11.0	110.2	-0.0	**2982.2**	137.1
Mz:	-2590.4	13.8	0.0	0.0	-0.0	**-171.3**	-862.3	-68.8	0.0	-0.0	-0.0	**856.6**

*** Fin del listado ***

envolvente MAYORADA tren en servicio (sin coef de impacto)

Program Envolvator (release 1.3 - Jun 1998)
Calculation date: 27-mar-1999 18:13 h. Listing date: 27-mar-1999 18:13 h.
Members: 419
Joints: 353
Envelope generated from:

Name	γ_{min}	γ_{max}
envolvente mayorada RENFE	1.00	1.00
envolvente mayorada UIC	1.00	1.00

	Fx	Fy	Fz	Mx	My	Mz	Fx	Fy	Fz	Mx	My	Mz

Member 391

Fx:	**-1313.0**	0.0	-26.6	0.0	260.2	0.0	**-193.8**	0.0	2.4	0.0	82.4	0.0
Fy:	-517.0	**0.0**	-11.2	0.0	122.5	0.0	-425.2	**0.0**	-5.6	0.0	87.0	0.0
Fz:	-989.1	0.0	**-50.0**	0.0	462.7	0.0	-368.2	0.0	**7.3**	0.0	**44.0**	0.0
Mx:	-517.0	0.0	-11.2	**0.0**	122.5	0.0	-425.2	0.0	-5.6	**0.0**	87.0	0.0
My:	-496.2	0.0	-0.9	0.0	**-14.2**	0.0	-1211.6	0.0	-47.8	0.0	**487.9**	0.0
Mz:	-517.0	0.0	-11.2	0.0	122.5	**0.0**	-425.2	0.0	-5.6	0.0	87.0	**0.0**
Fx:	**-1447.4**	2.4	-26.6	0.0	-98.6	-33.0	**-283.4**	-9.8	6.7	0.0	**143.7**	132.1
Fy:	-1195.0	**-12.3**	-38.0	0.0	-140.8	165.1	-505.8	**2.4**	-5.6	0.0	11.3	-33.0
Fz:	-871.6	-11.0	**-51.2**	0.0	-295.1	148.6	-675.7	2.2	**13.1**	0.0	178.5	-29.7
Mx:	-606.6	0.0	-11.2	**0.0**	-28.3	0.0	-505.8	2.4	-5.6	**0.0**	11.3	-33.0
My:	-869.9	-11.0	-51.1	0.0	**-295.6**	148.6	-545.4	2.2	11.1	0.0	**180.6**	-29.7
Mz:	-1245.1	2.4	-38.0	0.0	-140.6	**-33.0**	**-455.7**	-12.3	-5.6	0.0	11.1	**165.1**

Member 392

Fx:	**-1485.7**	0.0	-46.9	0.0	324.8	0.0	**-265.9**	0.0	38.7	0.0	89.0	0.0
Fy:	-644.6	**0.0**	-20.9	0.0	168.6	0.0	-478.6	**0.0**	-5.4	0.0	109.8	0.0
Fz:	-1015.7	0.0	**-95.5**	0.0	436.5	0.0	**-450.2**	0.0	**48.9**	0.0	71.7	0.0
Mx:	-644.6	0.0	-20.9	**0.0**	168.6	0.0	-478.6	0.0	-5.4	**0.0**	109.8	0.0
My:	-731.0	0.0	-4.6	0.0	**-4.4**	0.0	-1369.5	0.0	-50.5	0.0	**577.1**	0.0
Mz:	-644.6	0.0	-20.9	0.0	168.6	**0.0**	-478.6	0.0	-5.4	0.0	109.8	**0.0**
Fx:	**-1609.4**	-6.8	-46.9	0.0	-256.9	84.3	**-348.3**	27.2	42.6	0.0	592.8	-337.2
Fy:	-1439.6	**-34.0**	-54.5	0.0	-219.5	421.5	**-552.8**	**6.8**	-5.4	0.0	**42.4**	-84.3
Fz:	-1089.9	30.6	**-100.9**	0.0	-780.7	-379.3	-524.4	-6.1	**54.3**	0.0	711.1	75.9
Mx:	-727.0	0.0	-20.9	**0.0**	-90.2	0.0	-552.8	6.8	-5.4	**0.0**	**42.4**	-84.3
My:	-1093.9	30.6	-100.5	0.0	**-783.1**	-379.3	-555.7	-6.1	48.8	0.0	**721.3**	75.9
Mz:	-1436.1	6.8	-54.5	0.0	-219.5	**-84.3**	-556.2	-34.0	-5.4	0.0	**42.5**	**421.5**

Member 393

Fx:	**-1476.3**	0.0	-41.1	0.0	343.6	0.0	**-247.5**	0.0	34.1	0.0	57.3	0.0
Fy:	-633.5	**0.0**	-19.1	0.0	177.5	0.0	**-475.1**	**0.0**	-5.5	0.0	**110.0**	0.0
Fz:	-1002.2	0.0	**-85.5**	0.0	492.4	0.0	**-431.5**	0.0	**45.9**	0.0	22.5	0.0
Mx:	-633.5	0.0	-19.1	**0.0**	177.5	0.0	-475.1	0.0	-5.5	**0.0**	110.0	0.0
My:	-647.9	0.0	27.5	0.0	**-18.1**	0.0	**-1251.4**	0.0	-43.2	0.0	**586.6**	0.0
Mz:	-633.5	0.0	-19.1	0.0	177.5	**0.0**	-475.1	0.0	-5.5	0.0	110.0	**0.0**
Fx:	**-1631.4**	8.3	-41.1	0.0	-295.0	-128.4	**-350.8**	-33.0	39.1	0.0	626.2	513.7
Fy:	-1444.1	**-41.3**	-47.5	0.0	-264.4	642.1	-568.2	**8.3**	-5.5	0.0	25.3	-128.4
Fz:	-1095.2	-37.2	**-92.2**	0.0	-888.0	577.9	**-524.5**	7.4	**52.6**	0.0	788.2	-115.6
Mx:	-736.9	0.0	-19.1	**0.0**	-119.5	0.0	-568.2	8.3	-5.5	**0.0**	25.3	-128.4
My:	-1100.4	-37.2	-92.0	0.0	**-890.1**	577.9	-544.7	7.4	49.3	0.0	**793.3**	-115.6
Mz:	-1445.2	8.3	-47.5	0.0	-264.3	**-128.4**	-567.1	-41.3	-5.5	0.0	25.3	**642.1**

Member 394

Fx:	**-1485.3**	0.0	-41.2	0.0	350.5	0.0	**-242.5**	0.0	38.1	0.0	**44.2**	0.0
Fy:	-637.8	**0.0**	-19.2	0.0	181.4	0.0	**-475.9**	**0.0**	-5.0	0.0	**110.4**	0.0
Fz:	-1011.6	0.0	**-88.6**	0.0	512.3	0.0	-429.8	0.0	**51.1**	0.0	**4.5**	0.0
Mx:	-637.8	0.0	-19.2	**0.0**	181.4	0.0	-475.9	0.0	-5.0	**0.0**	110.4	0.0
My:	-616.5	0.0	48.7	0.0	**-33.9**	0.0	**-1289.0**	0.0	-61.1	0.0	**593.3**	0.0
Mz:	-637.8	0.0	-19.2	0.0	181.4	**0.0**	-475.9	0.0	-5.0	0.0	110.4	**0.0**
Fx:	**-1646.4**	-41.0	-41.2	0.0	-315.2	662.4	**-350.0**	6.6	43.3	0.0	701.2	-185.8
Fy:	-1459.0	**-41.0**	-46.8	0.0	-277.1	662.4	-572.6	**8.2**	-5.0	0.0	29.1	-132.3
Fz:	-1108.3	7.4	**-95.6**	0.0	-976.1	-119.0	-526.5	-36.9	**58.0**	0.0	885.8	596.1
Mx:	-745.2	0.0	-19.2	**0.0**	-128.8	0.0	-572.6	8.2	-5.0	**0.0**	29.1	-132.3
My:	-1130.1	7.4	-95.4	0.0	**-979.3**	-119.0	-535.7	-36.9	54.1	0.0	**893.1**	596.1
Mz:	-1458.5	8.2	-46.8	0.0	-277.1	**-132.3**	-573.2	-41.0	-5.0	0.0	29.1	**662.4**

Member 395

Fx_i	**-1479.0**	0.0	-40.5	0.0	350.4	0.0	-242.2	0.0	36.8	0.0	43.4	0.0
Fy_i	-638.4	**0.0**	-18.9	0.0	181.2	0.0	-475.6	**0.0**	-5.1	0.0	110.2	0.0
Fz_i	-1007.2	0.0	**-87.1**	0.0	513.5	0.0	-427.6	0.0	**49.5**	0.0	3.1	0.0
Mx_i	-638.4	0.0	-18.9	**0.0**	181.2	0.0	-475.6	0.0	-5.1	**0.0**	110.2	0.0
My_i	-612.5	0.0	47.5	0.0	**-34.8**	0.0	-1286.1	0.0	-60.8	0.0	**593.7**	0.0
Mz_i	-638.4	0.0	-18.9	0.0	181.2	**0.0**	-475.6	0.0	-5.1	0.0	110.2	**0.0**
Fx_f	**-1642.0**	8.2	**-40.5**	0.0	-311.9	-133.9	**-350.8**	-32.8	42.1	0.0	687.8	535.7
Fy_f	-1458.0	**-41.0**	**-46.3**	0.0	-278.0	669.7	-573.3	**8.2**	-5.1	0.0	26.6	-133.9
Fz_f	-1105.0	-36.9	**-94.1**	0.0	-966.4	602.7	-525.3	7.4	**56.6**	0.0	869.8	-120.5
Mx_f	-747.1	0.0	-18.9	**0.0**	-128.2	0.0	-573.3	8.2	-5.1	**0.0**	26.6	-133.9
My_f	-1113.0	-36.9	-93.9	0.0	**-969.5**	602.7	-548.2	7.4	52.7	0.0	**876.6**	-120.5
Mz_f	-1459.7	8.2	**-46.3**	0.0	-278.0	**-133.9**	-571.6	-41.0	-5.1	0.0	26.6	**669.7**

Member 396

Fx_i	**-1511.7**	0.0	**-42.2**	0.0	343.2	0.0	**-254.2**	0.0	34.6	0.0	56.7	0.0
Fy_i	-630.2	**0.0**	-19.7	0.0	178.3	0.0	-476.4	**0.0**	-5.6	0.0	110.0	0.0
Fz_i	-1015.7	0.0	**-85.0**	0.0	483.8	0.0	-465.5	0.0	**44.4**	0.0	31.3	0.0
Mx_i	-630.2	0.0	-19.7	**0.0**	178.3	0.0	-476.4	0.0	-5.6	**0.0**	110.0	0.0
My_i	-656.3	0.0	25.6	0.0	**-9.9**	0.0	-1389.7	0.0	-43.3	0.0	**581.4**	0.0
Mz_i	-630.2	0.0	-19.7	0.0	178.3	**0.0**	-476.4	0.0	-5.6	0.0	110.0	**0.0**
Fx_f	**-1664.7**	-41.3	-42.2	0.0	-304.2	633.9	**-356.2**	6.6	39.5	0.0	625.4	-101.4
Fy_f	-1452.2	**-41.3**	**-48.1**	0.0	-265.6	633.9	-568.3	**8.3**	-5.6	0.0	23.5	-126.8
Fz_f	-1107.5	7.4	**-91.6**	0.0	-871.0	-114.1	-557.3	-37.2	**51.0**	0.0	762.7	570.5
Mx_f	-732.3	0.0	-19.7	**0.0**	-124.6	0.0	-568.3	8.3	-5.6	**0.0**	23.5	-126.8
My_f	-1113.4	7.4	-91.4	0.0	**-873.6**	-114.1	-587.2	-37.2	46.4	0.0	**771.9**	570.5
Mz_f	-1444.1	8.3	**-48.1**	0.0	-265.6	**-126.8**	-576.4	-41.3	-5.6	0.0	23.5	**633.9**

Member 397

Fx_i	**-1325.9**	0.0	-43.5	0.0	294.0	0.0	**-145.4**	0.0	34.7	0.0	110.6	0.0
Fy_i	-571.6	**0.0**	-20.6	0.0	144.0	0.0	-441.3	**0.0**	-4.8	0.0	111.6	0.0
Fz_i	-779.8	0.0	**-87.6**	0.0	369.2	0.0	-437.8	0.0	**45.7**	0.0	98.9	0.0
Mx_i	-571.6	0.0	-20.6	**0.0**	144.0	0.0	-441.3	0.0	-4.8	**0.0**	111.6	0.0
My_i	-482.4	0.0	-34.8	0.0	**13.7**	0.0	-1132.7	0.0	-42.5	0.0	**523.0**	0.0
Mz_i	-571.6	0.0	-20.6	0.0	144.0	**0.0**	-441.3	0.0	-4.8	0.0	111.6	**0.0**
Fx_f	**-1440.2**	34.4	**-43.5**	0.0	-204.8	-393.9	**-221.6**	-5.5	38.3	0.0	528.7	63.0
Fy_f	-1225.2	**-34.4**	-49.5	0.0	-158.6	393.9	-509.9	**6.9**	-4.8	0.0	56.7	-78.8
Fz_f	-848.4	-6.2	**-92.5**	0.0	-662.6	70.9	-506.4	30.9	**50.6**	0.0	650.4	-354.5
Mx_f	-647.8	0.0	-20.6	**0.0**	-92.5	0.0	-509.9	6.9	-4.8	**0.0**	56.7	-78.8
My_f	-840.0	-6.2	-91.8	0.0	**-672.5**	70.9	-534.4	30.9	46.7	0.0	**659.4**	-354.5
Mz_f	-1305.2	6.9	**-49.5**	0.0	-158.3	**-78.8**	-429.9	-34.4	-4.8	0.0	56.4	**393.9**

Member 398

Fx_i	**-1313.0**	0.0	26.6	0.0	-260.2	0.0	**-200.3**	0.0	-3.9	0.0	-69.6	0.0
Fy_i	-656.8	**0.0**	12.3	0.0	-165.3	0.0	-425.2	**0.0**	5.6	0.0	-87.0	0.0
Fz_i	-350.7	0.0	**-7.7**	0.0	-38.7	0.0	-989.1	0.0	**50.0**	0.0	-462.7	0.0
Mx_i	-656.8	0.0	12.3	**0.0**	-165.3	0.0	-425.2	0.0	5.6	**0.0**	-87.0	0.0
My_i	-1211.6	0.0	47.8	0.0	**-487.9**	0.0	-496.2	0.0	0.9	0.0	**14.2**	0.0
Mz_i	-656.8	0.0	12.3	0.0	-165.3	**0.0**	-425.2	0.0	5.6	0.0	-87.0	**0.0**
Fx_f	**-1447.4**	2.4	26.6	0.0	98.6	-33.0	**-289.9**	-9.8	-8.2	0.0	-151.6	132.1
Fy_f	-1183.3	**-12.3**	36.3	0.0	95.0	165.1	-505.8	**2.4**	5.6	0.0	-11.3	-33.0
Fz_f	-675.7	2.2	**-13.1**	0.0	-178.5	-29.7	-871.6	-11.0	**51.2**	0.0	295.1	148.6
Mx_f	-746.4	0.0	12.3	**0.0**	0.5	0.0	-505.8	2.4	5.6	**0.0**	-11.3	-33.0
My_f	-548.7	2.2	-11.2	0.0	**-180.8**	-29.7	-869.9	-11.0	51.1	0.0	**295.6**	148.6
Mz_f	-1233.4	2.4	36.3	0.0	94.8	**-33.0**	-455.7	-12.3	5.6	0.0	-11.1	**165.1**

Member 399

Fx_i	**-1485.7**	0.0	46.9	0.0	-324.8	0.0	**-275.1**	0.0	-40.0	0.0	-72.9	0.0
Fy_i	-785.9	**0.0**	5.4	0.0	-187.2	0.0	-478.6	**0.0**	5.4	0.0	-109.8	0.0
Fz_i	-450.4	0.0	**-48.9**	0.0	-71.1	0.0	-1015.7	0.0	**95.5**	0.0	-436.5	0.0
Mx_i	-785.9	0.0	5.4	**0.0**	-187.2	0.0	-478.6	0.0	5.4	**0.0**	-109.8	0.0
My_i	-1372.5	0.0	50.5	0.0	**-577.1**	0.0	-727.9	0.0	4.6	0.0	**4.4**	0.0
Mz_i	-785.9	0.0	5.4	0.0	-187.2	**0.0**	-478.6	0.0	5.4	0.0	-109.8	**0.0**
Fx_f	**-1609.4**	-6.8	46.9	0.0	256.9	84.3	**-357.6**	27.2	-43.9	0.0	-593.0	-337.2
Fy_f	-1413.5	**-34.0**	35.4	0.0	-35.1	421.5	-552.8	**6.8**	5.4	0.0	-42.4	-84.3
Fz_f	-524.6	-6.1	**-54.3**	0.0	-710.7	75.9	-1089.9	30.6	**100.9**	0.0	780.7	-379.3
Mx_f	-868.3	0.0	5.4	**0.0**	-120.5	0.0	-552.8	6.8	5.4	**0.0**	-42.4	-84.3
My_f	-555.9	-6.1	-48.8	0.0	**-720.9**	75.9	-1093.9	30.6	100.5	0.0	**783.1**	-379.3
Mz_f	-1410.0	6.8	35.4	0.0	-35.1	-84.3	-556.2	-34.0	5.4	0.0	-42.5	**421.5**

Member 400

Fx_i	**-1476.3**	0.0	41.1	0.0	-343.8	0.0	**-258.6**	0.0	-36.1	0.0	-36.2	0.0
Fy_i	-767.7	**0.0**	4.6	0.0	-182.0	0.0	-475.1	**0.0**	5.5	0.0	-110.0	0.0
Fz_i	-432.6	0.0	**-45.9**	0.0	-21.8	0.0	-1002.2	0.0	**85.5**	0.0	-492.4	0.0
Mx_i	-767.7	0.0	4.6	**0.0**	-182.0	0.0	-475.1	0.0	5.5	**0.0**	-110.0	0.0
My_i	-1250.6	0.0	43.2	0.0	**-586.6**	0.0	-648.4	0.0	**-27.5**	0.0	**18.1**	0.0
Mz_i	-767.7	0.0	4.6	0.0	-182.0	0.0	-475.1	0.0	5.5	0.0	-110.0	**0.0**
Fx_f	**-1631.4**	8.3	41.1	0.0	295.0	-128.4	**-362.0**	-33.0	**-41.0**	0.0	-635.2	513.7
Fy_f	-1412.5	**-41.3**	29.1	0.0	-20.6	642.1	-568.2	**8.3**	5.5	0.0	-25.3	-128.4
Fz_f	-525.6	7.4	**-52.6**	0.0	-787.7	-115.6	-1095.2	-37.2	**92.2**	0.0	888.0	577.9
Mx_f	-871.1	0.0	4.6	**0.0**	-111.1	0.0	-568.2	8.3	5.5	**0.0**	-25.3	-128.4
My_f	-545.8	7.4	-49.3	0.0	**-792.9**	-115.6	-1100.4	-37.2	92.0	0.0	**890.1**	577.9
Mz_f	-1413.6	8.3	29.1	0.0	-20.6	-128.4	-567.1	-41.3	5.5	0.0	-25.3	**642.1**

Member 401

Fx_i	**-1485.3**	0.0	41.2	0.0	-350.5	0.0	**-253.7**	0.0	-40.0	0.0	-23.0	0.0
Fy_i	-769.5	**0.0**	3.2	0.0	-179.6	0.0	-475.9	**0.0**	5.0	0.0	-110.4	0.0
Fz_i	-430.0	0.0	**-51.1**	0.0	-3.9	0.0	-1011.6	0.0	**88.6**	0.0	-512.3	0.0
Mx_i	-769.5	0.0	3.2	**0.0**	-179.6	0.0	-475.9	0.0	5.0	**0.0**	-110.4	0.0
My_i	-1289.2	0.0	61.1	0.0	**-593.3**	0.0	-616.3	0.0	-48.7	0.0	**33.9**	0.0
Mz_i	-769.5	0.0	3.2	0.0	-179.6	0.0	-475.9	0.0	5.0	0.0	-110.4	**0.0**
Fx_f	**-1646.4**	-41.0	41.2	0.0	315.2	662.4	**-361.1**	6.6	-45.2	0.0	-711.3	-105.8
Fy_f	-1424.1	**-41.0**	26.4	0.0	-45.4	662.4	-572.6	**8.2**	5.0	0.0	-29.1	-132.3
Fz_f	-526.7	-36.9	**-58.1**	0.0	-885.5	596.1	-1108.3	7.4	**95.6**	0.0	976.1	-119.0
Mx_f	-876.9	0.0	3.2	**0.0**	-128.7	0.0	-572.6	8.2	5.0	**0.0**	-29.1	-132.3
My_f	-537.0	-36.9	-54.2	0.0	**-892.7**	596.1	-1129.9	7.4	95.4	0.0	**979.3**	-119.0
Mz_f	-1423.5	8.2	26.4	0.0	-45.4	-132.3	-573.2	-41.0	5.0	0.0	-29.1	**662.4**

Member 402

Fx_i	**-1479.0**	0.0	40.5	0.0	-350.4	0.0	**-253.1**	0.0	-38.8	0.0	-22.2	0.0
Fy_i	-770.2	**0.0**	3.5	0.0	-179.6	0.0	-475.6	**0.0**	5.1	0.0	-110.2	0.0
Fz_i	-427.8	0.0	**-49.6**	0.0	-2.5	0.0	-1007.2	0.0	**87.1**	0.0	-513.5	0.0
Mx_i	-770.2	0.0	3.5	**0.0**	-179.6	0.0	-475.6	0.0	5.1	**0.0**	-110.2	0.0
My_i	-1285.9	0.0	60.8	0.0	**-593.7**	0.0	-612.7	0.0	-47.5	0.0	**34.8**	0.0
Mz_i	-770.2	0.0	3.5	0.0	-179.6	0.0	-475.6	0.0	5.1	0.0	-110.2	**0.0**
Fx_f	**-1642.0**	8.2	40.5	0.0	311.9	-133.9	**-361.7**	-32.8	-44.0	0.0	-698.2	535.7
Fy_f	-1423.3	**-41.0**	26.6	0.0	-38.0	669.7	-573.3	**8.2**	5.1	0.0	-26.6	-133.9
Fz_f	-525.5	7.4	**-56.6**	0.0	-869.5	-120.5	**-1105.0**	-36.9	**94.1**	0.0	966.4	602.7
Mx_f	-878.8	0.0	3.5	**0.0**	-122.6	0.0	-573.3	8.2	5.1	**0.0**	-26.6	-133.9
My_f	-549.2	7.4	-52.7	0.0	**-876.3**	-120.5	-1113.2	-36.9	93.9	0.0	**969.5**	602.7
Mz_f	-1425.0	8.2	26.6	0.0	-38.0	-133.9	-571.6	-41.0	5.1	0.0	-26.6	**669.7**

Member 403

Fx_i	**-1511.7**	0.0	42.2	0.0	-343.2	0.0	**-263.8**	0.0	-35.6	0.0	-41.0	0.0
Fy_i	-765.5	**0.0**	4.5	0.0	-181.0	0.0	-476.4	**0.0**	5.6	0.0	-110.0	0.0
Fz_i	-467.3	0.0	**-44.4**	0.0	-30.5	0.0	-1015.7	0.0	**85.0**	0.0	-483.8	0.0
Mx_i	-765.5	0.0	4.5	**0.0**	-181.0	0.0	-476.4	0.0	5.6	**0.0**	-110.0	0.0
My_i	-1390.3	0.0	43.3	0.0	**-581.4**	0.0	-655.8	0.0	-25.6	0.0	**9.9**	0.0
Mz_i	-765.5	0.0	4.5	0.0	-181.0	**0.0**	-476.4	0.0	5.6	0.0	-110.0	**0.0**
Fx_f	**-1664.7**	-41.3	42.2	0.0	304.2	633.9	**-365.8**	6.6	-40.5	0.0	-624.3	-101.4
Fy_f	-1421.0	**-41.3**	29.8	0.0	-16.4	633.9	-568.3	**8.3**	5.6	0.0	-23.5	-126.8
Fz_f	-559.1	-37.2	**-51.0**	0.0	-762.1	570.5	-1107.5	7.4	**91.6**	0.0	871.0	-114.1
Mx_f	-867.5	0.0	4.5	**0.0**	-112.3	0.0	-568.3	8.3	5.6	**0.0**	-23.5	-126.8
My_f	-587.2	-37.2	**-46.4**	0.0	**-771.9**	570.5	-1113.4	7.4	91.4	0.0	**873.6**	-114.1
Mz_f	-1412.9	8.3	29.8	0.0	-16.4	**-126.8**	-576.4	-41.3	5.6	0.0	-23.5	**633.9**

Member 404

Fx_i	**-1325.9**	0.0	43.5	0.0	-294.0	0.0	**-151.7**	0.0	-36.4	0.0	-98.2	0.0
Fy_i	-694.9	**0.0**	2.9	0.0	-197.8	0.0	-441.3	**0.0**	4.8	0.0	-111.6	0.0
Fz_i	-437.8	0.0	**-45.7**	0.0	-98.9	0.0	-779.8	0.0	**87.6**	0.0	-369.2	0.0
Mx_i	-694.9	0.0	2.9	**0.0**	-197.8	0.0	-441.3	0.0	4.8	**0.0**	-111.6	0.0
My_i	-1132.7	0.0	42.5	0.0	**-523.0**	0.0	-482.4	0.0	34.8	0.0	**-13.7**	0.0

Mz:	-694.9	0.0	2.9	0.0	-197.8	**0.0**	-441.3	0.0	4.8	0.0	-111.6	**0.0**
Fx:	**-1440.2**	34.4	43.5	0.0	204.8	-393.9	**-227.9**	-5.5	-40.0	0.0	-536.0	63.0
Fy:	-1201.1	**-34.4**	31.3	0.0	-73.9	393.9	-509.9	**6.9**	4.8	0.0	-56.7	-78.8
Fz:	-506.4	30.9	**-50.6**	0.0	-650.4	-354.5	-848.4	-6.2	**92.5**	0.0	662.6	70.9
Mx:	-771.1	0.0	2.9	**0.0**	-164.3	0.0	-509.9	6.9	4.8	**0.0**	-56.7	-78.8
My:	-534.4	30.9	-46.7	0.0	**-659.4**	-354.5	-840.0	-6.2	91.8	0.0	**672.5**	70.9
Mz:	-1281.1	6.9	31.2	0.0	-74.2	**-78.8**	-429.9	-34.4	4.8	0.0	-56.4	**393.9**

Member 421

Fx:	**-2832.9**	**4.9**	**-2.3**	0.0	**-90.4**	**-66.0**	**-610.2**	**-19.6**	**13.1**	**-0.0**	**287.5**	**264.1**
Fy:	-2378.3	**-24.5**	-1.7	-0.0	-81.1	330.1	-1011.6	**4.9**	0.0	0.0	0.0	-66.0
Fz:	-1428.4	-4.4	**-46.9**	-0.0	-475.6	59.4	-1604.4	22.0	**46.9**	0.0	475.6	-297.1
Mx:	-2378.3	-24.5	-1.7	**-0.0**	-81.1	330.1	-1011.6	4.9	0.0	**0.0**	0.0	-66.0
My:	-1394.6	**-4.4**	**-11.4**	-0.0	**-1459.4**	59.4	-1360.2	22.0	11.6	0.0	**1459.5**	-297.1
Mz:	-2478.5	4.9	-1.7	0.0	-81.1	**-66.0**	-911.4	-24.5	0.0	-0.0	0.0	**330.1**
Fx:	**-2832.9**	4.9	-2.3	0.0	-92.8	-70.9	**-610.2**	-19.6	13.1	-0.0	300.6	283.7
Fy:	-2378.3	**-24.5**	-1.7	-0.0	-82.9	354.6	-1011.6	**4.9**	0.0	0.0	0.0	-70.9
Fz:	-1428.4	-4.4	**-46.9**	-0.0	-522.6	63.8	-1604.4	22.0	**46.9**	0.0	522.6	-319.2
Mx:	-2378.3	-24.5	-1.7	-0.0	-82.9	354.6	-1011.6	4.9	0.0	**0.0**	0.0	-70.9
My:	-1397.0	-4.4	-12.5	-0.0	**-1470.9**	63.8	-1362.6	22.0	12.8	0.0	**1471.3**	-319.2
Mz:	-2478.5	4.9	-1.7	0.0	-82.9	**-70.9**	-911.4	-24.5	0.0	-0.0	0.0	**354.6**

t er 422

Fx:	**-3122.1**	-13.6	16.1	-0.0	291.4	168.6	**-795.3**	54.4	-74.5	0.0	-1080.9	-674.3
Fy:	-2853.1	**-68.0**	-19.1	-0.0	-332.9	842.9	-1105.6	**13.6**	0.0	0.0	-0.0	-168.6
Fz:	-1646.9	-12.2	**-119.6**	-0.0	-1775.8	151.7	-1588.3	61.2	**119.6**	0.0	1829.8	-758.6
Mx:	-2853.1	-68.0	-19.1	**-0.0**	-332.9	842.9	-1105.6	13.6	0.0	**0.0**	-0.0	-168.6
My:	-1666.0	-12.2	-98.3	-0.0	**-2893.8**	151.7	-1567.1	61.2	98.6	0.0	**2895.5**	-758.6
Mz:	-2846.2	13.6	-19.1	0.0	-332.9	**-168.6**	-1112.5	-68.0	0.0	-0.0	-0.0	**842.9**
Fx:	**-3122.1**	-13.6	16.1	-0.0	307.6	182.2	**-795.3**	54.4	-74.5	0.0	-1155.4	-728.7
Fy:	-2853.1	**-68.0**	-19.1	-0.0	-352.0	910.9	-1105.6	**13.6**	0.0	0.0	-0.0	-182.2
Fz:	-1646.9	-12.2	**-119.6**	-0.0	-1899.4	164.0	-1588.3	61.2	**119.6**	0.0	1949.4	-819.8
Mx:	-2853.1	-68.0	-19.1	**-0.0**	-352.0	910.9	-1105.6	13.6	0.0	**0.0**	-0.0	-182.2
My:	-1662.9	-12.2	-98.8	-0.0	**-2992.1**	164.0	-1564.0	61.2	99.1	0.0	**2994.1**	-819.8
Mz:	-2846.2	13.6	-19.1	0.0	-352.0	**-182.2**	-1112.5	-68.0	0.0	-0.0	-0.0	**910.9**

Member 423

Fx:	**-3157.7**	16.5	19.5	0.0	400.7	-256.8	**-822.6**	-66.1	40.4	-0.0	702.1	1027.4
Fy:	-2856.7	**-82.6**	-18.3	-0.0	-379.9	1284.2	-1136.3	**16.5**	0.0	0.0	-0.0	-256.8
Fz:	-1581.4	-14.9	**-116.8**	-0.0	-1855.7	231.2	-1658.6	74.4	**116.7**	0.0	1905.0	-1155.8
Mx:	-2856.7	-82.6	-18.3	**-0.0**	-379.9	1284.2	-1136.3	16.5	0.0	**0.0**	-0.0	-256.8
My:	-1655.4	-14.9	-97.8	-0.0	**-3126.9**	231.2	-1661.6	74.4	98.1	0.0	**3127.5**	-1155.8
Mz:	-2858.8	16.5	-18.3	0.0	-379.9	**-256.8**	-1134.2	-82.6	0.0	-0.0	-0.0	**1284.2**
Fx:	**-3157.7**	16.5	19.5	0.0	420.2	-273.4	**-822.6**	-66.1	40.4	-0.0	742.5	1093.5
Fy:	-2856.7	**-82.6**	-18.3	-0.0	-398.2	1366.9	-1136.3	**16.5**	0.0	0.0	-0.0	-273.4
Fz:	-1581.4	-14.9	**-116.8**	-0.0	-1972.6	246.0	-1658.6	74.4	**116.7**	0.0	2021.8	-1230.2
Mx:	-2856.7	-82.6	-18.3	**-0.0**	-398.2	1366.9	-1136.3	16.5	0.0	**0.0**	-0.0	-273.4
My:	-1652.4	-14.9	-98.2	-0.0	**-3224.9**	246.0	-1658.6	74.4	98.4	0.0	**3225.7**	-1230.2
Mz:	-2858.8	16.5	-18.3	0.0	-398.2	**-273.4**	-1134.2	-82.6	0.0	-0.0	-0.0	**1366.9**

Member 424

Fx:	**-3182.8**	-82.0	-23.0	-0.0	-473.7	1324.7	**-833.1**	13.1	76.8	0.0	1469.8	-211.6
Fy:	-2883.1	**-82.0**	-20.4	-0.0	-427.4	1324.7	-1145.2	**16.4**	-0.0	0.0	-0.0	-264.5
Fz:	-1596.0	73.8	**-126.2**	0.0	-2098.7	-1192.2	-1704.3	-14.7	**126.1**	-0.0	2148.1	238.1
Mx:	-2883.1	-82.0	-20.4	**-0.0**	-427.4	1324.7	-1145.2	16.4	-0.0	**0.0**	-0.0	-264.5
My:	-1593.4	73.8	-108.6	0.0	**-3371.6**	-1192.2	-1628.8	-14.7	108.8	-0.0	**3372.9**	238.1
Mz:	-2881.9	16.4	-20.4	0.0	-427.4	**-264.5**	-1146.4	-82.0	-0.0	-0.0	-0.0	**1324.7**
Fx:	**-3182.8**	-82.0	-23.0	-0.0	-496.7	1406.7	**-833.1**	13.1	76.8	0.0	1546.6	-224.7
Fy:	-2883.1	**-82.0**	-20.4	-0.0	-447.8	1406.7	-1145.2	**16.4**	-0.0	0.0	-0.0	-280.9
Fz:	-1596.0	73.8	**-126.2**	0.0	-2224.9	-1266.0	-1704.3	-14.7	**126.1**	-0.0	2274.2	252.8
Mx:	-2883.1	-82.0	-20.4	**-0.0**	-447.8	1406.7	-1145.2	16.4	-0.0	**0.0**	-0.0	-280.9
My:	-1593.6	73.8	-108.7	0.0	**-3480.3**	-1266.0	-1629.0	-14.7	108.9	-0.0	**3481.7**	252.8
Mz:	-2881.9	16.4	-20.4	0.0	-447.8	**-280.9**	-1146.4	-82.0	-0.0	-0.0	-0.0	**1406.7**

Member 425

Fx:	**-3174.6**	16.4	17.2	0.0	374.7	-267.9	**-833.6**	-65.6	-78.8	-0.0	-1403.0	1071.4

Fy:	-2881.3	**-82.0**	-19.8	-0.0	-420.1	1339.3	-1146.7	**16.4**	-0.0	0.0	-0.0	-267.9
Fz:	-1594.7	73.8	**-123.7**	0.0	-2056.1	-1205.4	-1672.3	-14.8	**123.6**	-0.0	2105.4	241.1
Mx:	-2881.3	-82.0	-19.8	**-0.0**	-420.1	1339.3	-1146.7	16.4	-0.0	**0.0**	-0.0	-267.9
My:	-1589.9	73.8	-106.0	0.0	**-3335.6**	-1205.4	-1669.2	-14.8	106.1	-0.0	**3336.9**	241.1
Mz:	-2884.8	16.4	-19.8	0.0	-420.1	**-267.9**	-1143.2	-82.0	-0.0	-0.0	-0.0	**1339.3**
Fx:	**-3174.6**	16.4	17.2	0.0	391.9	-284.3	**-833.6**	-65.6	-78.8	-0.0	-1481.8	1137.0
Fy:	-2881.3	**-82.0**	-19.8	-0.0	-439.9	1421.3	-1146.7	**16.4**	-0.0	0.0	-0.0	-284.3
Fz:	-1594.7	73.8	**-123.7**	0.0	-2179.8	-1279.2	-1672.3	-14.8	**123.6**	-0.0	2229.9	255.8
Mx:	-2881.3	-82.0	-19.8	**-0.0**	-439.9	1421.3	-1146.7	16.4	-0.0	**0.0**	-0.0	-284.3
My:	-1586.9	73.8	-106.3	0.0	**-3441.7**	-1279.2	-1666.1	-14.8	106.5	-0.0	**3443.1**	255.8
Mz:	-2884.8	16.4	-19.8	0.0	-439.9	**-284.3**	-1143.2	-82.0	-0.0	-0.0	-0.0	**1421.3**

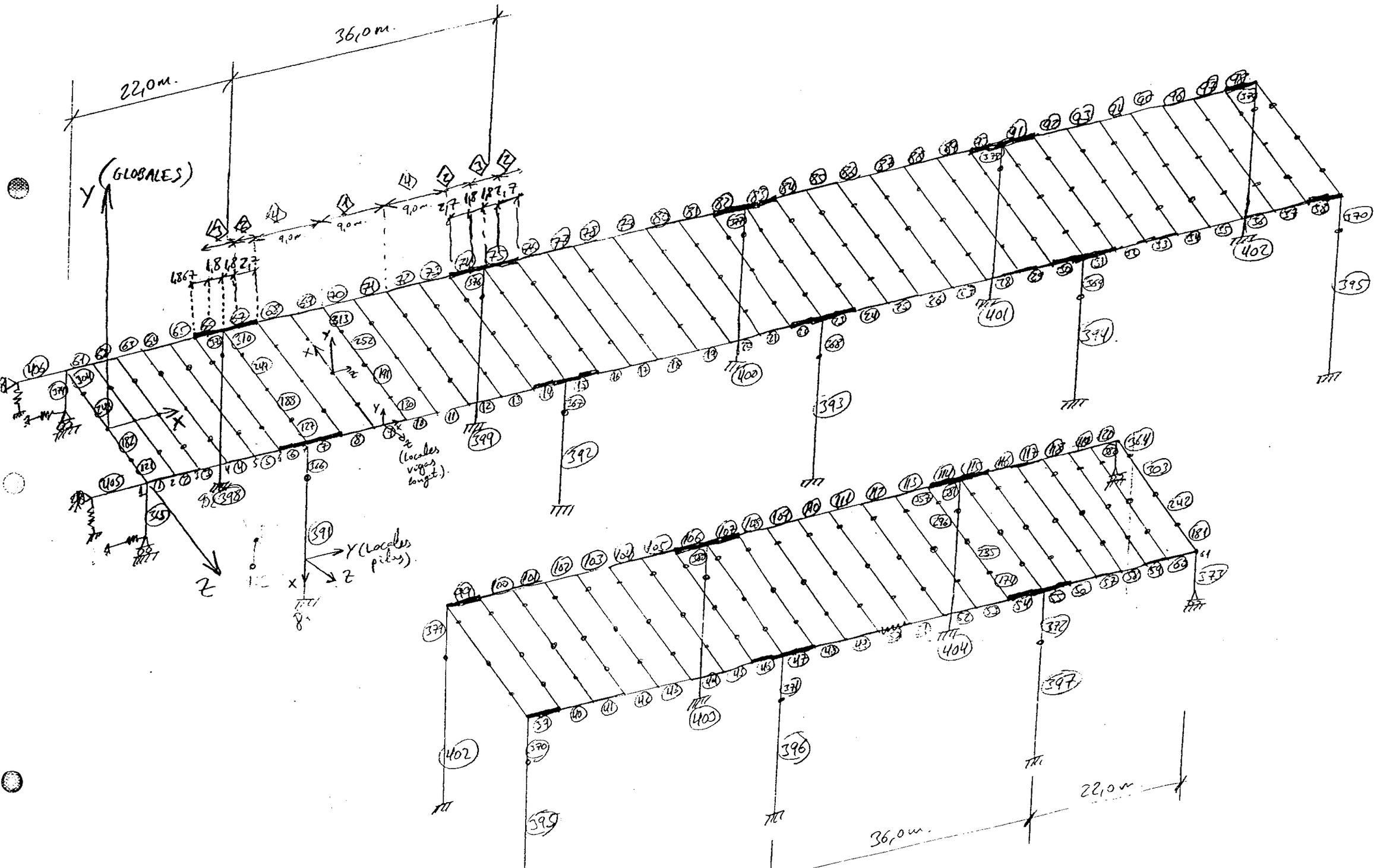
Member 426

Fx:	**-3224.4**	-82.6	17.1	-0.0	354.8	1267.7	**-830.0**	13.2	-71.8	0.0	-1229.4	-202.8
Fy:	-2873.2	**-82.6**	-18.3	-0.0	-375.6	1267.7	-1136.5	**16.5**	0.0	0.0	-0.0	-253.5
Fz:	-1677.5	74.4	**-114.0**	0.0	-1824.6	-1140.9	-1636.5	-14.9	**113.9**	-0.0	1874.1	228.2
Mx:	-2873.2	-82.6	-18.3	**-0.0**	-375.6	1267.7	-1136.5	16.5	0.0	**0.0**	-0.0	-253.5
My:	-1729.6	74.4	-95.8	0.0	**-3100.2**	-1140.9	-1694.6	-14.9	95.8	-0.0	**3100.1**	228.2
Mz:	-2857.0	16.5	-18.3	0.0	-375.6	**-253.5**	-1152.7	-82.6	0.0	-0.0	-0.0	**1267.7**
Fx:	**-3224.4**	-82.6	17.1	-0.0	371.9	1350.3	**-830.0**	13.2	-71.8	0.0	-1301.2	-216.1
Fy:	-2873.2	**-82.6**	-18.3	-0.0	-393.9	1350.3	-1136.5	**16.5**	0.0	0.0	-0.0	-270.1
	-1677.5	74.4	**-114.0**	0.0	-1938.6	-1215.3	-1636.5	-14.9	**113.9**	-0.0	1988.1	243.1
	-2873.2	-82.6	-18.3	**-0.0**	-393.9	1350.3	-1136.5	16.5	0.0	**0.0**	-0.0	-270.1
My:	-1726.5	74.4	-96.2	0.0	**-3196.0**	-1215.3	-1691.5	-14.9	96.2	-0.0	**3196.0**	243.1
Mz:	-2857.0	16.5	-18.3	0.0	-393.9	**-270.1**	-1152.7	-82.6	0.0	-0.0	-0.0	**1350.3**

Member 427

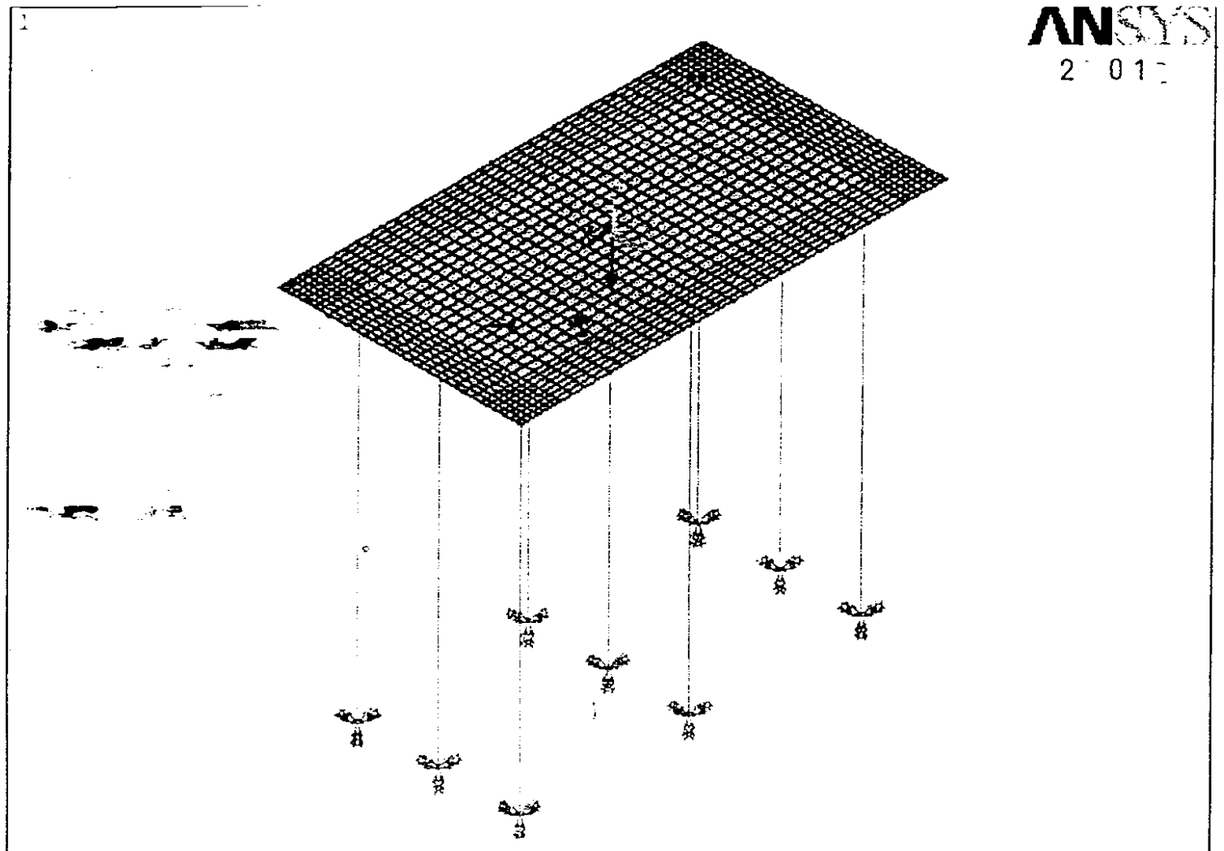
Fx:	**-2790.5**	68.8	-14.7	0.0	-253.9	-787.9	**-528.3**	-11.0	64.1	-0.0	963.5	126.1
Fy:	-2426.3	**-68.8**	-18.2	-0.0	-304.9	787.9	-1019.8	**13.8**	0.0	0.0	-0.0	-157.6
Fz:	-1525.5	61.9	**-113.2**	0.0	-1636.9	-709.1	-1218.7	-12.4	**113.0**	-0.0	1682.6	141.8
Mx:	-2426.3	-68.8	-18.2	**-0.0**	-304.9	787.9	-1019.8	13.8	0.0	**0.0**	-0.0	-157.6
My:	-1337.1	61.9	-95.3	0.0	**-2554.6**	-709.1	-1253.0	-12.4	95.3	-0.0	**2554.5**	141.8
Mz:	-2586.3	13.8	-18.2	0.0	-304.9	**-157.6**	-859.8	-68.8	0.0	-0.0	-0.0	**787.9**
Fx:	**-2790.5**	68.8	-14.7	0.0	-268.6	-856.6	**-528.3**	-11.0	64.1	-0.0	1027.6	137.1
Fy:	-2426.3	**-68.8**	-18.2	-0.0	-323.2	856.6	-1019.8	**13.8**	0.0	0.0	-0.0	-171.3
Fz:	-1525.5	61.9	**-113.2**	0.0	-1750.0	-771.0	-1216.7	-12.4	**113.0**	-0.0	1795.6	154.2
Mx:	-2426.3	-68.8	-18.2	**-0.0**	-323.2	856.6	-1019.8	13.8	0.0	**0.0**	-0.0	-171.3
My:	-1336.1	61.9	-95.4	0.0	**-2649.9**	-771.0	-1292.1	-12.4	95.4	-0.0	**2649.9**	154.2
Mz:	-2586.3	13.8	-18.2	0.0	-323.2	**-171.3**	-859.8	-68.8	0.0	-0.0	-0.0	**856.6**

*** Fin del listado ***


36,0m.
22,0m.
Y (GLOBALES)
9,0m.
9,0m.
9,0m.
2,7
1,8
1,8
2,7
4,86
7
X
Y
Z
(Locales vigas longit.)
Y (Locales pilas)
Z
X
Y
Z
22,0m.
36,0m.

SUBANEJO Nº 2

OBTENCIÓN DE ESFUERZOS EN PILOTES



MODELO DE ELEMENTOS FINITOS CON ENCEPADO RÍGIDO.

ESFUERZOS MAYORADOS EN BASE DE PILAS

Hip: Máximo axil

LIST NODAL FORCES FOR SELECTED NODES 1 TO 1509 BY 1
CURRENTLY SELECTED NODAL LOAD SET= FX FY FZ MX MY MZ

NODE	LABEL	REAL	IMAG
417	FX	17.1000000	0.00000000
417	FY	82.6000000	0.00000000
417	FZ	-4439.00000	0.00000000
417	MX	-1267.00000	0.00000000
417	MY	355.000000	0.00000000

3224 + 1,5 × 810

$N_{d,\text{sin excepc.}}$ $N_{k,\text{excepcl}}$

AXILES MAYORADOS EN PILOTES

Hip: Máximo axil

PRINT ELEMENT TABLE ITEMS PER ELEMENT

***** POST1 ELEMENT TABLE LISTING *****

STAT ELEM	CURRENT N
1345	-602.83
1360	-628.67
1375	-645.82
1390	-830.84
1405	-857.00
1420	-873.83

MINIMUM VALUES
ELEM 1420
VALUE -873.83

MAXIMUM VALUES
ELEM 1345
VALUE -602.83

MOMENTOS TRANSVERSALES MAYORADOS EN PILOTES

Hip: Máximo axil

PRINT ELEMENT TABLE ITEMS PER ELEMENT

***** POST1 ELEMENT TABLE LISTING *****

STAT ELEM	CURRENT MY
1345	15.370
1360	16.062
1375	16.772
1390	15.292
1405	16.062
1420	16.850

MINIMUM VALUES
ELEM 1390
VALUE 15.292

MAXIMUM VALUES
ELEM 1420
VALUE 16.850

MOMENTOS LONGITUDINALES MAYORADOS EN PILOTES

Hip: Máximo axil

PRINT ELEMENT TABLE ITEMS PER ELEMENT

***** POST1 ELEMENT TABLE LISTING *****

STAT ELEM	CURRENT MZ
1345	-73.921
1360	-73.909
1375	-73.915
1390	-74.007
1405	-74.115
1420	-74.013

MINIMUM VALUES
ELEM 1405
VALUE -74.115

MAXIMUM VALUES
ELEM 1360
VALUE -73.909

ESFUERZOS MAYORADOS EN BASE DE PILAS

Hip: Momento transversal junto con axil mínimo intermedios

```
 LIST NODAL FORCES FOR SELECTED NODES        1 TO     1509 BY        1
 CURRENTLY SELECTED NODAL LOAD SET= FX    FY    FZ    MX    MY    MZ

    NODE  LABEL      REAL           IMAG
     417  FX       108.600000     0.00000000
     417  FY        73.8000000    0.00000000
     417  FZ     -2843.00000      0.00000000
     417  MX     -1192.00000      0.00000000
     417  MY      3372.00000      0.00000000
```

AXILES MAYORADOS EN PILOTES

Hip: Momento transversal junto con axil mínimo intermedios

```
 PRINT ELEMENT TABLE ITEMS PER ELEMENT

  ***** POST1 ELEMENT TABLE LISTING *****

    STAT    CURRENT
    ELEM    N
    1345  -177.78
    1360  -369.84
    1375  -556.43
    1390  -389.32
    1405  -581.68
    1420  -767.96

 MINIMUM VALUES
 ELEM       1420
 VALUE   -767.96

 MAXIMUM VALUES
 ELEM       1345
 VALUE   -177.78
```

MOMENTOS TRANSVERSALES MAYORADOS EN PILOTES

Hip: Momento transversal junto con axil mínimo intermedios

```
 PRINT ELEMENT TABLE ITEMS PER ELEMENT

  ***** POST1 ELEMENT TABLE LISTING *****

    STAT    CURRENT
    ELEM    MY
    1345   100.23
    1360   100.57
    1375   101.10
    1390   100.15
    1405   100.57
    1420   101.17

 MINIMUM VALUES
 ELEM       1390
 VALUE    100.15

 MAXIMUM VALUES
 ELEM       1420
 VALUE    101.17
```


MOMENTOS LONGITUDINALES MAYORADOS EN PILOTES

Hip: Momento transversal junto con axil mínimo intermedios

```
 PRINT ELEMENT TABLE ITEMS PER ELEMENT

  ***** POST1 ELEMENT TABLE LISTING *****

    STAT    CURRENT
    ELEM    MZ
    1345  -65.858
    1360  -65.840
    1375  -65.812
    1390  -65.871
    1405  -65.972
    1420  -65.917

 MINIMUM VALUES
 ELEM       1405
 VALUE   -65.972

 MAXIMUM VALUES
 ELEM       1375
 VALUE   -65.812
```

ESFUERZOS MAYORADOS EN BASE DE PILAS

Hip: Momento transversal junto con axil mínimo intermedios 2

```
 LIST NODAL FORCES FOR SELECTED NODES         1 TO     1509 BY        1
 CURRENTLY SELECTED NODAL LOAD SET= FX    FY    FZ    MX    MY    MZ

    NODE  LABEL      REAL           IMAG
     417  FX       143.800000     0.00000000
     417  FY       0.00000000     0.00000000
     417  FZ      -2087.00000     0.00000000
     417  MX       0.00000000     0.00000000
     417  MY       2660.00000     0.00000000
```

AXILES MAYORADOS EN PILOTES

Hip: Momento transversal junto con axil mínimo intermedios 2

```
 PRINT ELEMENT TABLE ITEMS PER ELEMENT

  ***** POST1 ELEMENT TABLE LISTING *****

    STAT     CURRENT
    ELEM     N
    1345   -181.74
    1360   -349.25
    1375   -512.52
    1390   -181.74
    1405   -349.25
    1420   -512.52

 MINIMUM VALUES
 ELEM        1420
 VALUE    -512.52

 MAXIMUM VALUES
 ELEM        1345
 VALUE    -181.74
```

MOMENTOS TRANSVERSALES MAYORADOS EN PILOTES

Hip: Momento transversal junto con axil mínimo intermedios 2

```
 PRINT ELEMENT TABLE ITEMS PER ELEMENT

  ***** POST1 ELEMENT TABLE LISTING *****

    STAT     CURRENT
    ELEM     MY
    1345    135.21
    1360    135.49
    1375    135.90
    1390    135.21
    1405    135.49
    1420    135.90

 MINIMUM VALUES
 ELEM        1390
 VALUE     135.21
```



```
 MAXIMUM VALUES
 ELEM        1375
 VALUE     135.90
```

MOMENTOS LONGITUDINALES MAYORADOS EN PILOTES

Hip: Momento transversal junto con axil mínimo intermedios 2

```
 PRINT ELEMENT TABLE ITEMS PER ELEMENT

  ***** POST1 ELEMENT TABLE LISTING *****

    STAT     CURRENT
    ELEM     MZ
    1345   0.17280E-03
    1360   0.48401E-01
    1375   0.43152E-01
    1390  -0.17273E-03
    1405  -0.48401E-01
    1420  -0.43152E-01

 MINIMUM VALUES
 ELEM        1405
 VALUE   -0.48401E-01

 MAXIMUM VALUES
 ELEM        1360
 VALUE    0.48401E-01
```

ESFUERZOS MAYORADOS EN BASE DE PILAS

Hip: Mínimo axil

```
 LIST NODAL FORCES FOR SELECTED NODES          1 TO     1509 BY        1
 CURRENTLY SELECTED NODAL LOAD SET= FX    FY    FZ    MX    MY    MZ

   NODE  LABEL      REAL             IMAG
    417  FX        76.8000000       0.00000000
    417  FY        13.1000000       0.00000000
    417  FZ       -2048.00000       0.00000000
    417  MX       -211.000000       0.00000000
    417  MY        1470.00000       0.00000000
```

AXILES MAYORADOS EN PILOTES

Hip: Mínimo axil

```
 PRINT ELEMENT TABLE ITEMS PER ELEMENT

  ***** POST1 ELEMENT TABLE LISTING *****

    STAT     CURRENT
    ELEM     N
    1345   -231.24
    1360   -323.96
    1375   -412.57
    1390   -268.71
    1405   -361.48
    1420   -450.04

 MINIMUM VALUES
 ELEM        1420
 VALUE    -450.04

 MAXIMUM VALUES
 ELEM        1345
 VALUE    -231.24
```

MOMENTOS TRANSVERSALES MAYORADOS EN PILOTES

Hip: Mínimo axil

```
 PRINT ELEMENT TABLE ITEMS PER ELEMENT

  ***** POST1 ELEMENT TABLE LISTING *****

    STAT     CURRENT
    ELEM     MY
    1345    71.999
    1360    72.297
    1375    72.669
    1390    71.986
    1405    72.297
    1420    72.682

 MINIMUM VALUES
 ELEM        1390
 VALUE     71.986
```



```
 MAXIMUM VALUES
 ELEM        1420
 VALUE     72.682
```

MOMENTOS LONGITUDINALES MAYORADOS EN PILOTES

Hip: Mínimo axil

```
 PRINT ELEMENT TABLE ITEMS PER ELEMENT

  ***** POST1 ELEMENT TABLE LISTING *****

    STAT     CURRENT
    ELEM     MZ
    1345   -11.684
    1360   -11.653
    1375   -11.661
    1390   -11.703
    1405   -11.748
    1420   -11.727

 MINIMUM VALUES
 ELEM        1405
 VALUE    -11.748

 MAXIMUM VALUES
 ELEM        1360
 VALUE    -11.653
```

ZAPATA PILA 7

FUERZAS APLICADAS

Hip: Maximo axil

LIST NODAL FORCES FOR SELECTED NODES 1 TO 1038 BY 1
CURRENTLY SELECTED NODAL LOAD SET= FX FY FZ MX MY MZ

NODE	LABEL	REAL	IMAG
844	FZ	-2428.00000	0.00000000
844	MX	751.00000	0.00000000

$F_z = 2794{,}6/1{,}5$ (en s. magnificada) $+ 360$ (peso zapata) $+ 205$ (peso tierra) $= 2123$ t

$M_x = 787{,}9/1{,}5$ (en s. magnificada) $+ \frac{680}{1{,}5}$ t (peso de tierra incrementado) $\times 5{,}0$ m $= 751$ mt

MODULO DE BALASTO

K = 50000 t/m³

DESPLAZAMIENTOS MAXIMOS

Hip: Maximo axil

PRINT DOF NODAL SOLUTION PER NODE

***** POST1 NODAL DEGREE OF FREEDOM LISTING *****

LOAD STEP= 1 SUBSTEP= 1
TIME= 1.0000 LOAD CASE= 0

THE FOLLOWING DEGREE OF FREEDOM RESULTS ARE IN GLOBAL COORDINATES

	UX	UY	UZ	ROTX	ROTY	ROTZ
MAXIMUM ABSOLUTE VALUES						
NODE	0	0	132	13	769	0
VALUE	0.0000	0.0000	-0.10400E-02	0.72923E-04	0.12746E-03	0.0000

TENSION MAXIMA

σ_{max} = 0.001040 m x 50000 t/m³ = 52.0 t/m²

TENSION MEDIA

$\sigma_{max} = 2428 / (6*12) = 33.7$ t/m²

ZAPATA PILA 7

FUERZAS APLICADAS

Hip: Maximo momento transversal

LIST NODAL FORCES FOR SELECTED NODES 1 TO 1038 BY 1
CURRENTLY SELECTED NODAL LOAD SET= FX FY FZ MX MY MZ

NODE	LABEL	REAL	IMAG
844	FZ	-1625.00000	0.00000000
844	MX	603.000000	0.00000000
844	MY	2363.00000	0.00000000

$F_z = 1589{,}9/1{,}5 + 360 + 205 = 1625$ t

$M_x = 630{,}2/1{,}5 + \frac{57{,}2\ t}{1{,}5} \times 5{,}0\ m = 603$ mt

$M_y = 2974/1{,}5 + \frac{110{,}3\ t}{1{,}5} \times 5{,}0\ m = 2363$ mt

MODULO DE BALASTO

K = 50000 t/m³

DESPLAZAMIENTOS MAXIMOS

Hip: Maximo momento transversal

PRINT DOF NODAL SOLUTION PER NODE

***** POST1 NODAL DEGREE OF FREEDOM LISTING *****

LOAD STEP= 1 SUBSTEP= 1
TIME= 1.0000 LOAD CASE= 0

THE FOLLOWING DEGREE OF FREEDOM RESULTS ARE IN GLOBAL COORDINATES

	NODE	UX	UY	UZ	ROTX	ROTY	ROTZ
MAXIMUM ABSOLUTE VALUES							
NODE	0	0	136	437	227	0	
VALUE	0.0000	0.0000	-0.97835E-03	0.64111E-04	-0.46301E-04	0.0000	

TENSION MAXIMA

σ_{max} = 0.0009783 m x 50000 t/m³ = 48.9 t/m²

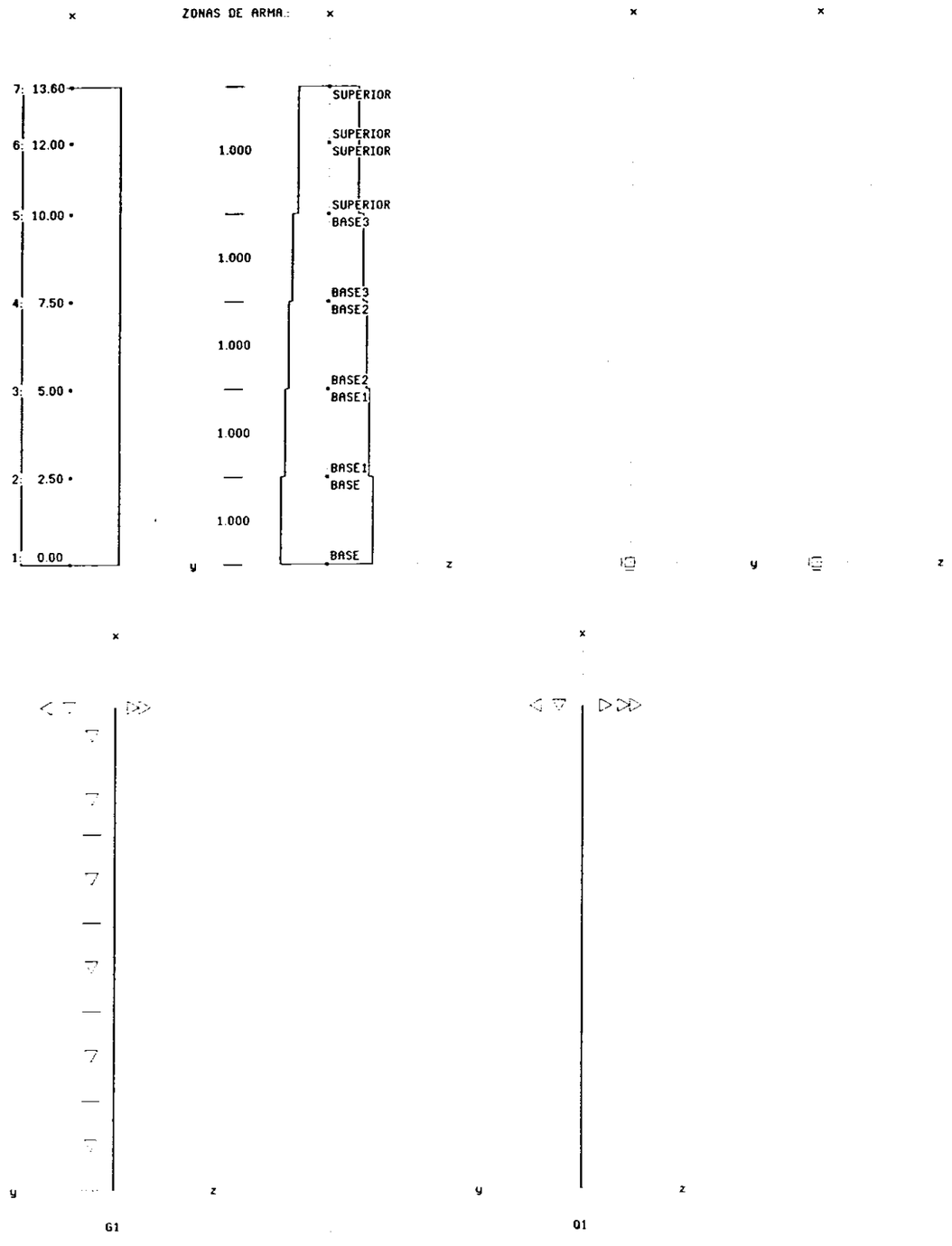
TENSION MEDIA

$\sigma_{max} = 1625 / (6*12) = 22.5$ t/m²

SUBANEJO N° 3

DIMENSIONAMIENTO DE PILAS 1 Y 7

Escala 1 : 159.5
Modelo, DeformaciÂn accidental y cargas de la pila MTMAX



Pila ''MTMAX'
****

TÀtulo : 'Hip: momento transversal max.'
Altura de la pila : 13.600 [m]
Long. max. de barra: Altura pila / 6

NUDOS Nu	x [m]	Apoyo d-xyz	r-xyz
7	13.600		
6	12.000		
5	10.000		
4	7.500		
3	5.000		
2	2.500		
1	0.000	BBB	BBB

Apoyo: B=bloqueado, E=el stico

BARRAS (1.lÀnea: barra arriba, 2.lÀnea: barra abajo)

Ba	Nu	SecciÂn	Tipo	Exc: ey [m]	ez [m]	Arm: Zona	fac
6	7-6	'SUPERIOR'	SecFAGUS			1	1.000
5	6-5	'SUPERIOR'	SecFAGUS			1	1.000
4	5-4	'BASE3'	SecFAGUS			2	1.000
3	4-3	'BASE2'	SecFAGUS			3	1.000
2	3-2	'BASE1'	SecFAGUS			4	1.000
1	2-1	'BASE'	SecFAGUS			5	1.000

CARGAS :

Nu/Ba		Tipo Car.		Dim.	Valor Val.arriba	ey[m] Val.abajo	ez[m]
Comp. Carga G1 :							
Nudo	7	Fuerza	x	[kN]	-4000.000	0.14000	0.08500
		Fuerza	y	[kN]	50.000		
		Momento	z	[kNm]	870.000		
Barra	6	Peso propio	x	[kN/m3]	-25.000		
Barra	5	Peso propio	x	[kN/m3]	-25.000		
Barra	4	Peso propio	x	[kN/m3]	-25.000		
Barra	3	Peso propio	x	[kN/m3]	-25.000		
Barra	2	Peso propio	x	[kN/m3]	-25.000		
Barra	1	Peso propio	x	[kN/m3]	-25.000		

Nu/Ba	Tipo Car.	Dim.		Valor Val.arriba	ey[m] Val.abajo	ez[m]
Comp. Carga Q1 :						
Nudo 7	Fuerza	x	[kN]	-2800.000	0.05000	0.05000
	Fuerza	y	[kN]	290.000		
	Fuerza	z	[kN]	100.000		
	Momento	z	[kNm]	2300.000		

C A P A C I D A D R E S I S T E N T E U L T I M A <G.MTMAX.1>

PARAMETROS DE CALCULO:

Norma	EH
Criterio de rotura	Agotamiento de secciones o del sistema
Rotura de secciones	LimitaciÂn de deformaciones segÈn FAGUS-2
- HormigÂn (def. centrada)	-2.000 [o/oo]
- HormigÂn (flexiÂn)	-3.500 [o/oo]
- Acero	10.00 [o/oo]
Coef. min. resist. (gamma_r)	1.000
Coeficiente de fluencia	0.000
Factor armadura (global)	1.000
No de elementos	6
Tolerancia desequi. fuerzas	0.114 [kN]
Tolerancia desequi. momentos	0.127 [kNm]
MayoraciÂn de cargas	1.500 * Carga permanente G1
	+ 1.500 * Carga variable Q1 * Ã

RESULTADOS DEL CALCULO NO LINEAL:
Las cargas variables se han aumentado por un factor Ã (Ã=2.3969). > 1.5

Rotura: Rotura de la secciÂn
SecciÂn 'BASE' en x= 0.000

DATOS DE LA SECCION

Nombre	Ancho dy [m]	Canto dz [m]	Materiales Horm. / Acero		Distrib. de la armadura	Armadura fija[cm»]	Armadura var [cm»]
BASE	2.800	2.600	H300	AEH500	B1	0.000	210.2
BASE1	2.800	2.380	H300	AEH500	B1	0.000	210.2
BASE2	2.800	2.200	H300	AEH500	B1	0.000	210.2
BASE3	2.800	2.000	H300	AEH500	B1	0.000	210.2
SUPERIOR	2.800	1.700	H300	AEH500	B1	0.000	210.2

DATOS DE BARRAS (incl. factores de armadura)

Barra	SecciÂn arriba	/ abajo	factor S de la armadura	Armadura variable arriba[cm»]/abajo[cm»]	
6	SUPERIOR	SUPERIOR	1.000	210.2	210.2
5	SUPERIOR	SUPERIOR	1.000	210.2	210.2
4	BASE3	BASE3	1.000	210.2	210.2
3	BASE2	BASE2	1.000	210.2	210.2
2	BASE1	BASE1	1.000	210.2	210.2
1	BASE	BASE	1.000	210.2	210.2

DEFORMACIONES sin deformaciones accidentales

	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
MÀnima	-2.25	0.00	0.00	0.000	-4.651	0.000
M xima	0.90	117.10	39.29	0.063	0.000	13.544

ESFUERZOS (global)

	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
MÀnima	-17250.02	-1117.65	-359.54	-1.81	1013.35	10917.68
M xima	-16136.61	-1117.65	-359.54	-0.00	6552.50	28054.16

TENSIONES, DEFORMACIONES & RIGIDECES-SECANTE/gamma_r

	sigHorm. [N/mm»]	sigAcero [N/mm»]	epsHorm. [o/oo]	epsAcero [o/oo]	EIy [kNm»]	EIz [kNm»]
MÀnima	-17.0	-443.5	-3.475	-3.345	8.255E+6	1.208E+7
M xima	0.0	443.5	4.765	4.636	1.529E+7	3.237E+7

DEFORMACIONES sin deformaciones accidentales
<G.MTMAX.1> Carga: 1.50*G1 1.50*Q1*Ã Ã=2.3969

Coord-x [m]	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
13.600	-2.25	117.10	39.29	0.063	-4.651	13.544
12.000	-1.42	95.92	31.99	0.055	-4.457	12.914
10.000	-0.46	71.15	23.50	0.040	-3.988	11.801
7.500	0.43	43.71	14.28	0.025	-3.322	10.023
5.000	0.90	21.48	6.96	0.012	-2.470	7.614
2.500	0.89	6.14	1.99	0.003	-1.419	4.464
0.000	0.00	0.00	0.00	0.000	0.000	0.000

ESFUERZOS (global)
<G.MTMAX.1> Carga: 1.50*G1 1.50*Q1*Ã Ã=2.3969

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
13.600	-16136.61	-1117.65	-359.54	-0.00	1013.35	10917.68
12.000	-16136.61	-1117.65	-359.54	-0.55	1706.43	13047.67
12.000	-16293.21	-1117.65	-359.54	-0.55	1706.43	13047.67
10.000	-16293.21	-1117.65	-359.54	-1.13	2563.84	15686.62
10.000	-16497.40	-1117.65	-359.54	-1.13	2563.84	15686.62

ESFUERZOS (global)
<G.MTMAX.1> Carga: 1.50*G1 1.50*Q1*Ã Ã=2.3969

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
7.500	-16497.40	-1117.65	-359.54	-1.57	3614.74	18933.31
7.500	-16737.40	-1117.65	-359.54	-1.57	3614.74	18933.31
5.000	-16737.40	-1117.65	-359.54	-1.76	4636.14	22099.53
5.000	-16988.09	-1117.65	-359.54	-1.76	4636.14	22099.53
2.500	-16988.09	-1117.65	-359.54	-1.79	5619.30	25154.14
2.500	-17250.02	-1117.65	-359.54	-1.79	5619.30	25154.14
0.000	-17250.02	-1117.65	-359.54	-1.81	6552.50	28054.16

TENSIONES & RIGIDECES-SECANTE/gamma_r
<G.MTMAX.1> Carga: 1.50*G1 1.50*Q1*Ã Ã=2.3969

Coord-x [m]	Horm.- [N/mm»]	Horm.+ [N/mm»]	Acero- [N/mm»]	Acero+ [N/mm»]	EIy [kNm»]	EIz [kNm»]
13.600	-12.4	0.0	-197.0	15.7	1.248E+7	3.237E+7
12.000	-14.0	0.0	-238.0	62.7	1.036E+7	2.897E+7
12.000	-14.0	0.0	-238.6	60.9	1.040E+7	2.904E+7
10.000	-16.0	0.0	-308.3	155.7	8.279E+6	2.365E+7
10.000	-14.8	0.0	-262.8	115.0	1.347E+7	2.829E+7
7.500	-16.7	0.0	-353.4	258.1	1.035E+7	2.180E+7
7.500	-16.2	0.0	-318.1	221.8	1.381E+7	2.430E+7
5.000	-17.0	0.0	-419.4	393.2	1.088E+7	1.925E+7
5.000	-16.9	0.0	-375.6	342.5	1.404E+7	2.142E+7
2.500	-17.0	0.0	-443.5	443.5	1.062E+7	1.689E+7
2.500	-17.0	0.0	-420.4	443.5	1.529E+7	2.011E+7
0.000	-17.0	0.0	-443.5	443.5	8.255E+6	1.208E+7

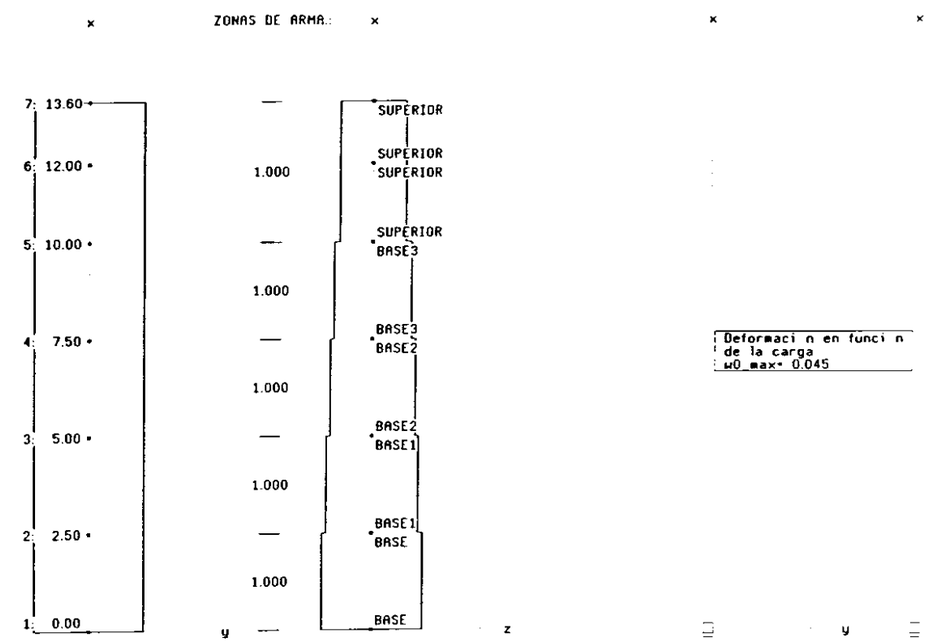
DEFORMACIONES
<G.MTMAX.1> Carga: 1.50*G1 1.50*Q1*Ã Ã=2.3969

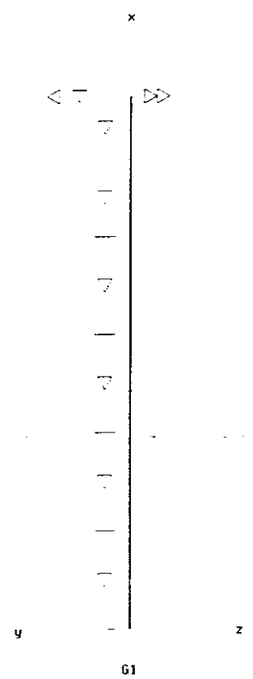
Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
13.600	-0.956	0.093	-0.938	0.075	0.14	103.4
12.000	-1.158	0.324	-1.133	0.299	0.14	109.9
12.000	-1.161	0.315	-1.136	0.290	0.14	109.8
10.000	-1.504	0.777	-1.468	0.741	0.16	114.8
10.000	-1.282	0.578	-1.251	0.547	0.14	108.7
7.500	-1.730	1.277	-1.683	1.229	0.15	111.7
7.500	-1.558	1.099	-1.515	1.056	0.14	108.4
5.000	-2.061	1.936	-1.997	1.872	0.16	110.2
5.000	-1.846	1.689	-1.789	1.631	0.14	107.4

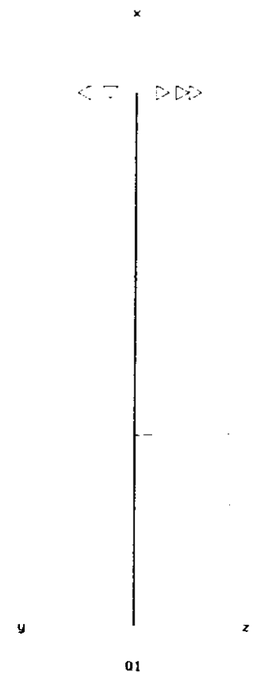
DEFORMACIONES
<G.MTMAX.1> Carga: 1.50*G1 1.50*Q1*Ã Ã=2.3969

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
2.500	-2.478	2.740	-2.396	2.658	0.16	109.2
2.500	-2.072	2.221	-2.002	2.151	0.14	106.0
0.000	-3.475	4.765	-3.345	4.636	0.16	108.5

Escala 1 : 159.5
Modelo, DeformaciÂn accidental y cargas de la pila NMIN







Pila ''NMIN'
****

TÀtulo : 'Hip: axil minimo'
Altura de la pila : 13.600 [m]
Long. max. de barra: Altura pila / 6

NUDOS Nu	x [m]	Apoyo d-xyz	r-xyz
7	13.600		
6	12.000		
5	10.000		
4	7.500		
3	5.000		
2	2.500		
1	0.000	BBB	BBB

Apoyo: B=bloqueado, E=el stico

BARRAS (1.lÀnea: barra arriba, 2.lÀnea: barra abajo)

Ba	Nu	SecciÂn	Tipo	Exc: ey [m]	ez [m]	Arm: Zona	fac
6	7-6	'SUPERIOR'	SecFAGUS			1	1.000
5	6-5	'SUPERIOR'	SecFAGUS			1	1.000
4	5-4	'BASE3'	SecFAGUS			2	1.000
3	4-3	'BASE2'	SecFAGUS			3	1.000
2	3-2	'BASE1'	SecFAGUS			4	1.000
1	2-1	'BASE'	SecFAGUS			5	1.000

DEF. ACCIDENTAL :

Func. carga : w0_max= 0.045 m

CARGAS :

Nu/Ba		Tipo Car.		Dim.	Valor Val.arriba	ey[m] Val.abajo	ez[m]
Comp. Carga G1 :							
Nudo	7	Fuerza	x	[kN]	-4450.000	0.14000	0.08500
		Fuerza	y	[kN]	50.000		
		Momento	z	[kNm]	970.000		
Barra	6	Peso propio	x	[kN/m3]	-25.000		
Barra	5	Peso propio	x	[kN/m3]	-25.000		
Barra	4	Peso propio	x	[kN/m3]	-25.000		
Barra	3	Peso propio	x	[kN/m3]	-25.000		
Barra	2	Peso propio	x	[kN/m3]	-25.000		
Barra	1	Peso propio	x	[kN/m3]	-25.000		
Comp. Carga Q1 :							
Nudo	7	Fuerza	x	[kN]	-4530.000	0.05000	0.05000
		Fuerza	y	[kN]	150.000		
		Fuerza	z	[kN]	100.000		
		Momento	z	[kNm]	930.000		

C A P A C I D A D R E S I S T E N T E U L T I M A <G.NMIN.1>

PARAMETROS DE CALCULO:

Norma	EH
Criterio de rotura	Agotamiento de secciones o del sistema
Rotura de secciones	LimitaciÂn de deformaciones segÈn FAGUS-2
- HormigÂn (def. centrada)	-2.000 [o/oo]
- HormigÂn (flexiÂn)	-3.500 [o/oo]
- Acero	10.00 [o/oo]
Coef. min. resist. (gamma_r)	1.000
Coeficiente de fluencia	0.000
Factor armadura (global)	1.000
No de elementos	6
Tolerancia desequi. fuerzas	0.147 [kN]
Tolerancia desequi. momentos	0.087 [kNm]
MayoraciÂn de cargas	1.500 * Carga permanente G1
	+ 1.500 * Carga variable Q1 * Ã

RESULTADOS DEL CALCULO NO LINEAL:
Las cargas variables se han aumentado por un factor Ã (Ã=3.4444). > 1,0

Rotura: Rotura de la secciÂn
SecciÂn 'BASE' en x= 0.000

DATOS DE LA SECCION

Nombre	Ancho dy [m]	Canto dz [m]	Materiales Horm. / Acero		Distrib. de la armadura	Armadura fija[cm»]	Armadura var [cm»]
BASE	2.800	2.600	H300	AEH500	B1	0.000	210.2
BASE1	2.800	2.380	H300	AEH500	B1	0.000	210.2
BASE2	2.800	2.200	H300	AEH500	B1	0.000	210.2
BASE3	2.800	2.000	H300	AEH500	B1	0.000	210.2
SUPERIOR	2.800	1.700	H300	AEH500	B1	0.000	210.2

DATOS DE BARRAS (incl. factores de armadura)

Barra	SecciÂn arriba / abajo		factor S de la armadura	Armadura variable arriba[cm»]/abajo[cm»]	
6	SUPERIOR	SUPERIOR	1.000	210.2	210.2
5	SUPERIOR	SUPERIOR	1.000	210.2	210.2
4	BASE3	BASE3	1.000	210.2	210.2
3	BASE2	BASE2	1.000	210.2	210.2
2	BASE1	BASE1	1.000	210.2	210.2
1	BASE	BASE	1.000	210.2	210.2

DEFORMACIONES sin deformaciones accidentales

	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
MÀnima	-13.44	0.00	0.00	0.000E+0	-6.073	0.000
M xima	0.00	72.09	46.72	6.598E-2	0.000	9.084

DEFORMACION ACCIDENTAL	DY [mm]	DZ [mm]
M xima	38.11	24.49

ESFUERZOS (global)

	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
MÀnima	-31262.63	-850.00	-516.66	-3.82	1737.60	8364.64
M xima	-30149.22	-849.99	-516.66	-0.00	10938.51	23291.33

TENSIONES, DEFORMACIONES & RIGIDECES-SECANTE/gamma_r

	sigHorm. [N/mm»]	sigAcero [N/mm»]	epsHorm. [o/oo]	epsAcero [o/oo]	EIy [kNm»]	EIz [kNm»]
MÀnima	-17.0	-443.5	-3.485	-3.424	8.796E+6	1.996E+7
M xima	0.0	293.5	1.458	1.398	2.258E+7	2.895E+7

DEFORMACIONES sin deformaciones accidentales
<G.NMIN.1> Carga: 1.50*G1 1.50*Q1*Ã Ã=3.4444

Coord-x [m]	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
13.600	-13.44	72.09	46.72	6.598E-2	-6.073	9.084
12.000	-11.80	58.06	37.30	5.129E-2	-5.678	8.[illegible]52
10.000	-9.67	42.12	26.72	3.221E-2	-4.853	7.456
7.500	-7.19	25.13	15.72	1.720E-2	-3.877	6.082
5.000	-4.77	11.89	7.33	6.663E-3	-2.762	4.433
2.500	-2.36	3.20	1.94	6.738E-4	-1.430	2.384
0.000	0.00	0.00	0.00	0.000E+0	0.000	0.000

ESFUERZOS (global)
<G.NMIN.1> Carga: 1.50*G1 1.50*Q1*Ã Ã=3.4444

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
13.600	-30149.22	-850.00	-516.66	-0.00	1737.60	8364.64
12.000	-30149.22	-850.00	-516.66	-1.43	3007.06	10369.65
12.000	-30305.82	-850.00	-516.66	-1.43	3007.06	10369.63
10.000	-30305.82	-850.00	-516.66	-2.78	4542.20	12815.87
10.000	-30510.00	-849.99	-516.66	-2.79	4542.19	12815.85
7.500	-30510.00	-849.99	-516.66	-3.61	6351.57	15743.98
7.500	-30750.00	-849.99	-516.66	-3.61	6351.56	15743.97
5.000	-30750.00	-849.99	-516.66	-3.82	8030.09	18492.75
5.000	-31000.69	-849.99	-516.66	-3.82	8030.09	18492.75
2.500	-31000.69	-849.99	-516.66	-3.70	9562.53	21021.21
2.500	-31262.63	-849.99	-516.66	-3.70	9562.53	21021.20
0.000	-31262.63	-849.99	-516.66	-3.59	10938.51	23291.33

TENSIONES & RIGIDECES-SECANTE/gamma_r
<G.NMIN.1> Carga: 1.50*G1 1.50*Q1*Ã Ã=3.4444

Coord-x [m]	Horm.- [N/mm»]	Horm.+ [N/mm»]	Acero- [N/mm»]	Acero+ [N/mm»]	EIy [kNm»]	EIz [kNm»]
13.600	-15.9	-4.6	-309.9	-64.5	9.758E+6	2.447E+7
12.000	-16.8	-1.5	-364.9	-24.0	9.501E+6	2.385E+7
12.000	-16.8	-1.7	-365.6	-25.7	9.458E+6	2.389E+7
10.000	-17.0	0.0	-443.5	29.4	8.796E+6	2.238E+7
10.000	-16.8	0.0	-371.2	-0.3	1.483E+7	2.760E+7
7.500	-17.0	0.0	-443.5	65.5	1.299E+7	2.479E+7
7.500	-17.0	0.0	-407.8	36.7	1.830E+7	2.895E+7
5.000	-17.0	0.0	-443.5	127.1	1.429E+7	2.384E+7
5.000	-17.0	0.0	-443.5	81.9	2.026E+7	2.872E+7
2.500	-17.0	0.0	-443.5	218.2	1.397E+7	2.111E+7
2.500	-17.0	0.0	-443.5	128.2	2.258E+7	2.840E+7
0.000	-17.0	0.0	-443.5	293.5	1.497E+7	1.996E+7

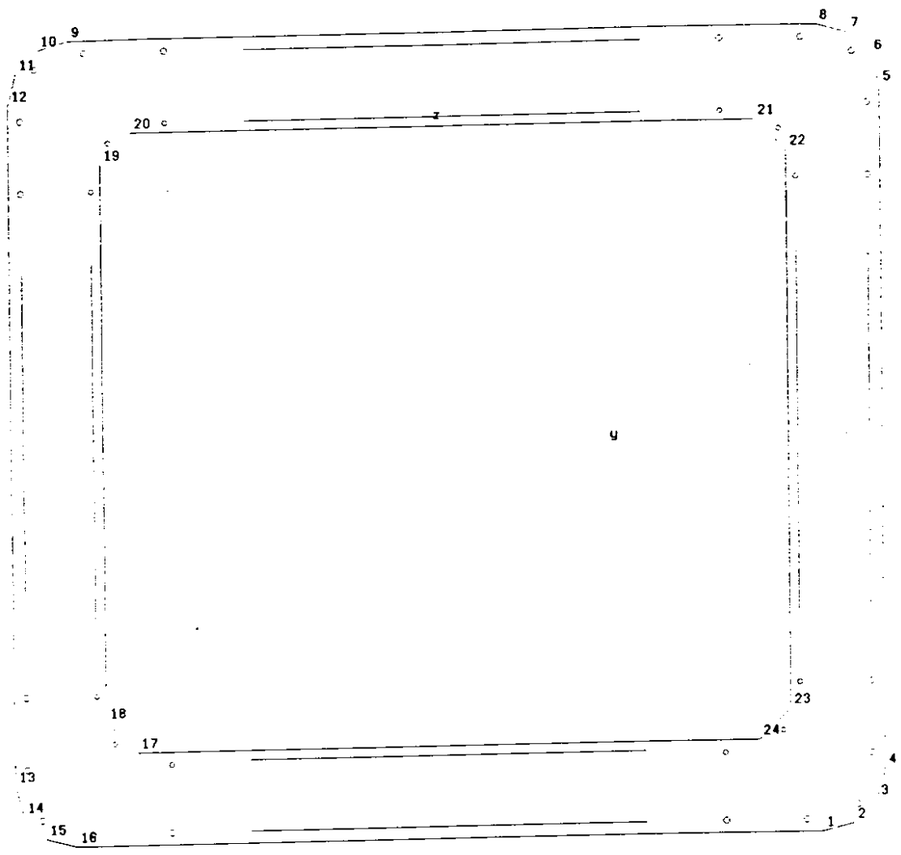
DEFORMACIONES
<G.NMIN.1> Carga: 1.50*G1 1.50*Q1*Ã Ã=3.4444

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
13.600	-1.494	-0.289	-1.476	-0.307	0.15	117.4
12.000	-1.760	-0.092	-1.738	-0.114	0.16	126.0
12.000	-1.763	-0.100	-1.741	-0.122	0.16	125.9
10.000	-2.172	0.168	-2.144	0.140	0.17	131.8

DEFORMACIONES
<G.NMIN.1> Carga: 1.50*G1 1.50*Q1*Ã Ã=3.4444

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
10.000	-1.791	0.022	-1.767	-0.001	0.15	122.8
7.500	-2.266	0.344	-2.234	0.312	0.16	127.2
7.500	-1.970	0.203	-1.942	0.175	0.15	122.0
5.000	-2.590	0.645	-2.551	0.605	0.17	125.5
5.000	-2.196	0.424	-2.162	0.390	0.15	121.2
2.500	-3.116	1.090	-3.065	1.039	0.17	124.2
2.500	-2.389	0.650	-2.351	0.611	0.15	119.5
0.000	-3.485	1.458	-3.424	1.398	0.16	121.8

Mstb. 1 : 20.0



SecciÂn :"BASE" Armadura :"B1"
Tipo : tipo pila/ Genrico Unidades :[cm]

SecciÂn parcial 1: HormigÂn = H300

Pto	Coord-Y	Coord-Z	Pto	Coord-Y	Coord-Z
1	120.00	0.00	2	130.00	2.68
3	137.32	10.00	4	140.00	20.00
5	140.00	240.00	6	137.32	250.00
7	130.00	257.32	8	120.00	260.00
9	-120.00	260.00	10	-130.00	257.32
11	-137.32	250.00	12	-140.00	240.00
13	-140.00	20.00	14	-137.32	10.00
15	-130.00	2.68	16	-120.00	0.00
Puntos aligeramiento:					
17	-100.00	30.00	18	-110.00	40.00
19	-110.00	220.00	20	-100.00	230.00
21	100.00	230.00	22	110.00	220.00

23	110.00	40.00	24	100.00	30.00

CaracterÀsticas mec nicas de la secciÂn:
Area : Ax= 2.860 [m2]
Momentos de inercia : Iy= 2.590 [m4] Iz= 2.931 [m4]
Inercia a torsiÂn : Ix= 1.302 [m4] (de un cÀrculo del mismo rea)

PosiciÂn del centro de gravedad: ys= 0.000 [m] zs= 1.300 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-1.400	-2.094	0.732
dch.	Iz	1.400	2.094	-0.732
abajo	Iy	-1.300	-1.993	0.697
arriba	Iy	1.300	1.993	-0.697

Armadura: "B1"

NÏ	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	3.14	-131.31	251.31		
2	AEH500	(1)	3.14	131.31	251.31		
3	AEH500	(1)	3.14	-114.75	256.00		
4	AEH500	(1)	3.14	114.75	256.00		
5	AEH500	(1)	3.14	-89.25	256.00		
6	AEH500	(1)	3.14	89.25	256.00		
7	AEH500	(1)	3.14	136.00	234.75		
8	AEH500	(1)	3.14	-136.00	234.75		
9	AEH500	(1)	3.14	136.00	211.47		
10	AEH500	(1)	3.14	-136.00	211.47		
11	AEH500	(1)	3.14	136.00	48.53		
12	AEH500	(1)	3.14	-136.00	48.53		
13	AEH500	(1)	3.14	136.00	25.25		
14	AEH500	(1)	3.14	131.31	8.69		
15	AEH500	(1)	3.14	114.75	4.00		
16	AEH500	(1)	3.14	-114.75	4.00		
17	AEH500	(1)	3.14	89.25	4.00		
18	AEH500	(1)	3.14	-89.25	4.00		
19	AEH500	(1)	3.14	-131.31	8.69		
20	AEH500	(1)	3.14	-136.00	25.25		
21	AEH500	(1)	2.00	-107.50	33.00		
22	AEH500	(1)	2.00	107.50	33.00		
23	AEH500	(1)	2.00	-113.00	48.53		
24	AEH500	(1)	2.00	113.00	48.53		
25	AEH500	(1)	2.00	113.00	211.47		
26	AEH500	(1)	2.00	-113.00	211.47		
27	AEH500	(1)	2.00	89.25	26.00		
28	AEH500	(1)	2.00	89.25	233.00		
29	AEH500	(1)	2.00	-89.25	233.00		

30	AEH500	(1)	2.00	-89.25	26.00		
31	AEH500	(1)	2.00	107.50	227.00		
32	AEH500	(1)	2.00	-107.50	227.00		
33	AEH500	(1)	18.84	-63.75	4.00	63.75	4.00
34	AEH500	(1)	18.84	136.00	188.19	136.00	71.80
35	AEH500	(1)	18.84	-136.00	188.19	-136.00	71.80
36	AEH500	(1)	18.84	-63.75	256.00	63.75	256.00
37	AEH500	(1)	12.00	-63.75	27.00	63.75	27.00
38	AEH500	(1)	12.00	-63.75	233.00	63.75	233.00
39	AEH500	(1)	12.00	-113.00	188.19	-113.00	71.80
40	AEH500	(1)	12.00	113.00	188.19	113.00	71.80

Total: 210.16 CuantÀa de armadura: 0.735 [o/o]

CÂd. dimensionamiento: (0) = As constante
CÂd. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccionada
CÂd. dimensionamiento: (2) = Aumentar As solo en zona traccionada

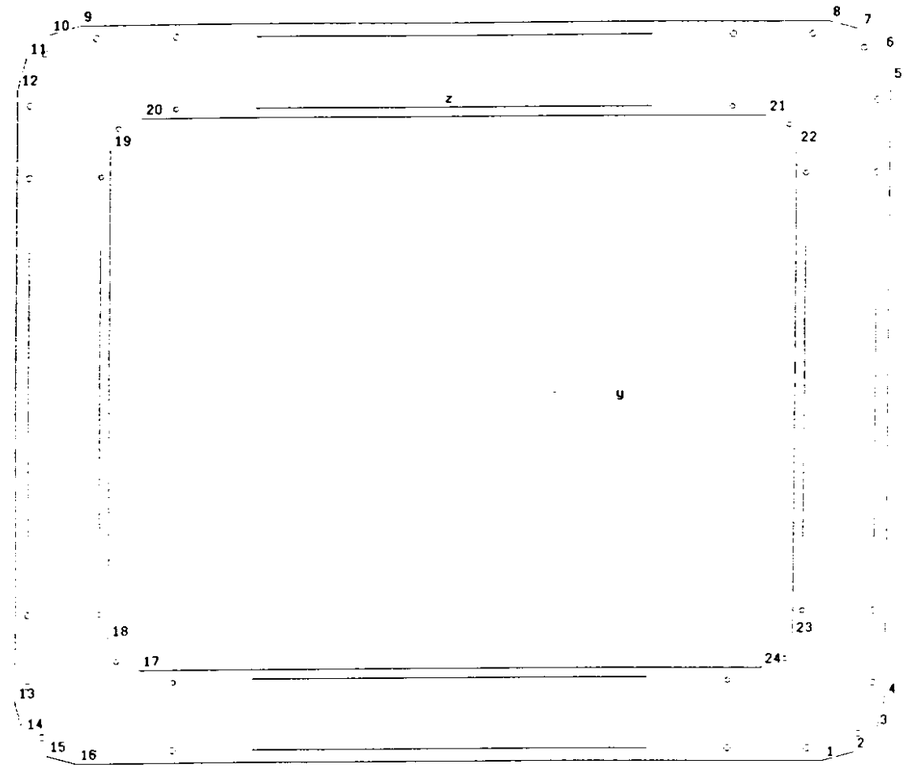
ÙNo se han definido valores para el c lculo a cortante!

CaracterÀsticas del material:

Nom.Mat.	MÂdulo E [N/mm2]	0.85*fcd,fyd [N/mm2]	eps-fc [o/oo]	fct [N/mm2]	fcv [N/mm2]	fcw,mÀn [N/mm2]
"H300"	33000.0	-17.000	-2.000	0.0	0.707000	30.000
"AEH500"	210000.0	443.470				

Leyenda:
fcd,fyd resistencia de c lculo del hormigÂn,acero
eps-fc deformaciÂn al final de la par bola (fig.2.3, cap.2.2)
fct resistencia de c lculo a tracciÂn del hormigÂn
fcv resistencia virtual de c lculo del hormigÂn a esfuerzo cortante

Mstb. 1 : 20.0



SecciÂn :"BASE1" Armadura :"B1"
Tipo : tipo pila/ Genrico Unidades :[cm]

SecciÂn parcial 1: HormigÂn = H300

Pto	Coord-Y	Coord-Z	Pto	Coord-Y	Coord-Z
1	120.00	0.00	2	130.00	2.68
3	137.32	10.00	4	140.00	20.00
5	140.00	218.00	6	137.32	228.00
7	130.00	235.32	8	120.00	238.00
9	-120.00	238.00	10	-130.00	235.32
11	-137.32	228.00	12	-140.00	218.00
13	-140.00	20.00	14	-137.32	10.00
15	-130.00	2.68	16	-120.00	0.00
Puntos aligeramiento:					
17	-100.00	30.00	18	-110.00	40.00
19	-110.00	198.00	20	-100.00	208.00
21	100.00	208.00	22	110.00	198.00
23	110.00	40.00	24	100.00	30.00

CaracterÀsticas mec nicas de la secciÂn:

Area : Ax= 2.728 [m2]
Momentos de inercia : Iy= 2.074 [m4] Iz= 2.724 [m4]
Inercia a torsiÂn : Ix= 1.184 [m4] (de un cÀrculo del mismo rea)

PosiciÂn del centro de gravedad: ys= 0.000 [m] zs= 1.190 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-1.400	-1.946	0.713
dch.	Iz	1.400	1.946	-0.713
abajo	Iy	-1.190	-1.743	0.639
arriba	Iy	1.190	1.743	-0.639

Armadura: "B1"

NÏ	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	3.14	-131.31	229.31		
2	AEH500	(1)	3.14	131.31	229.31		
3	AEH500	(1)	3.14	-114.75	234.00		
4	AEH500	(1)	3.14	114.75	234.00		
5	AEH500	(1)	3.14	-89.25	234.00		
6	AEH500	(1)	3.14	89.25	234.00		
7	AEH500	(1)	3.14	136.00	212.75		
8	AEH500	(1)	3.14	-136.00	212.75		
9	AEH500	(1)	3.14	136.00	189.47		
10	AEH500	(1)	3.14	-136.00	189.47		
11	AEH500	(1)	3.14	136.00	48.53		
12	AEH500	(1)	3.14	-136.00	48.53		
13	AEH500	(1)	3.14	136.00	25.25		
14	AEH500	(1)	3.14	131.31	8.69		
15	AEH500	(1)	3.14	114.75	4.00		
16	AEH500	(1)	3.14	-114.75	4.00		
17	AEH500	(1)	3.14	89.25	4.00		
18	AEH500	(1)	3.14	-89.25	4.00		
19	AEH500	(1)	3.14	-131.31	8.69		
20	AEH500	(1)	3.14	-136.00	25.25		
21	AEH500	(1)	2.00	-107.50	33.00		
22	AEH500	(1)	2.00	107.50	33.00		
23	AEH500	(1)	2.00	-113.00	48.53		
24	AEH500	(1)	2.00	113.00	48.53		
25	AEH500	(1)	2.00	113.00	189.47		
26	AEH500	(1)	2.00	-113.00	189.47		
27	AEH500	(1)	2.00	89.25	26.00		
28	AEH500	(1)	2.00	89.25	211.00		
29	AEH500	(1)	2.00	-89.25	211.00		
30	AEH500	(1)	2.00	-89.25	26.00		
31	AEH500	(1)	2.00	107.50	205.00		
32	AEH500	(1)	2.00	-107.50	205.00		
33	AEH500	(1)	18.84	-63.75	4.00	63.75	4.00
34	AEH500	(1)	18.84	136.00	166.19	136.00	71.80
35	AEH500	(1)	18.84	-136.00	166.19	-136.00	71.80
36	AEH500	(1)	18.84	-63.75	234.00	63.75	234.00
37	AEH500	(1)	12.00	-63.75	27.00	63.75	27.00
38	AEH500	(1)	12.00	-63.75	211.00	63.75	211.00
39	AEH500	(1)	12.00	-113.00	166.19	-113.00	71.80
40	AEH500	(1)	12.00	113.00	166.19	113.00	71.80

Total: 210.16 CuantÀa de armadura: 0.770 [o/o]

CÂd. dimensionamiento: (0) = As constante
CÂd. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccionada
CÂd. dimensionamiento: (2) = Aumentar As solo en zona traccionada

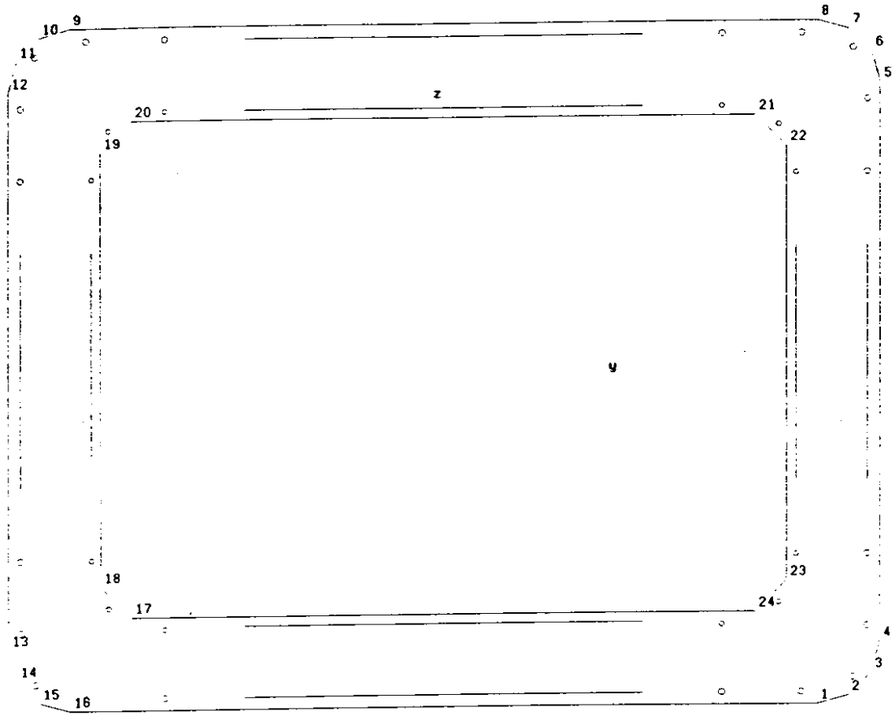
ÙNo se han definido valores para el c lculo a cortante!

CaracterÀsticas del material:

Nom.Mat.	MÂdulo E [N/mm2]	0.85*fcd,fyd [N/mm2]	eps-fc [o/oo]	fct [N/mm2]	fcv [N/mm2]	fcw,mÀn [N/mm2]
"H300"	33000.0	-17.000	-2.000	0.0	0.707000	30.000
"AEH500"	210000.0	443.470				

Leyenda:
fcd,fyd resistencia de c lculo del hormigÂn,acero
eps-fc deformaciÂn al final de la par bola (fig.2.3, cap.2.2)
fct resistencia de c lculo a traccciÂn del hormigÂn
fcv resistencia virtual de c lculo del hormigÂn a esfuerzo cortante

Mstb. 1 : 20.0



SecciÂn :"BASE2" Armadura :"B1"
Tipo : tipo pila/ Genrico Unidades :[cm]

SecciÂn parcial 1: HormigÂn = H300

Pto	Coord-Y	Coord-Z	Pto	Coord-Y	Coord-Z
1	120.00	0.00	2	130.00	2.68
3	137.32	10.00	4	140.00	20.00
5	140.00	200.00	6	137.32	210.00
7	130.00	217.32	8	120.00	220.00
9	-120.00	220.00	10	-130.00	217.32
11	-137.32	210.00	12	-140.00	200.00
13	-140.00	20.00	14	-137.32	10.00
15	-130.00	2.68	16	-120.00	0.00
Puntos aligeramiento:					
17	-100.00	30.00	18	-110.00	40.00
19	-110.00	180.00	20	-100.00	190.00
21	100.00	190.00	22	110.00	180.00
23	110.00	40.00	24	100.00	30.00

CaracterÀsticas mec nicas de la secciÂn:
Area : Ax= 2.620 [m2]

Momentos de inercia : Iy= 1.701 [m4] Iz= 2.554 [m4]
Inercia a torsiÂn : Ix= 1.092 [m4] (de un cÀrculo del mismo rea)

PosiciÂn del centro de gravedad: ys= 0.000 [m] zs= 1.100 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-1.400	-1.825	0.696
dch.	Iz	1.400	1.825	-0.696
abajo	Iy	-1.100	-1.546	0.590
arriba	Iy	1.100	1.546	-0.590

Armadura: "B1"

NÏ	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	3.14	-131.31	211.31		
2	AEH500	(1)	3.14	131.31	211.31		
3	AEH500	(1)	3.14	-114.75	216.00		
4	AEH500	(1)	3.14	114.75	216.00		
5	AEH500	(1)	3.14	-89.25	216.00		
6	AEH500	(1)	3.14	89.25	216.00		
7	AEH500	(1)	3.14	136.00	194.75		
8	AEH500	(1)	3.14	-136.00	194.75		
9	AEH500	(1)	3.14	136.00	171.47		
10	AEH500	(1)	3.14	-136.00	171.47		
11	AEH500	(1)	3.14	136.00	48.53		
12	AEH500	(1)	3.14	-136.00	48.53		
13	AEH500	(1)	3.14	136.00	25.25		
14	AEH500	(1)	3.14	131.31	8.69		
15	AEH500	(1)	3.14	114.75	4.00		
16	AEH500	(1)	3.14	-114.75	4.00		
17	AEH500	(1)	3.14	89.25	4.00		
18	AEH500	(1)	3.14	-89.25	4.00		
19	AEH500	(1)	3.14	-131.31	8.69		
20	AEH500	(1)	3.14	-136.00	25.25		
21	AEH500	(1)	2.00	-107.50	33.00		
22	AEH500	(1)	2.00	107.50	33.00		
23	AEH500	(1)	2.00	-113.00	48.53		
24	AEH500	(1)	2.00	113.00	48.53		
25	AEH500	(1)	2.00	113.00	171.47		
26	AEH500	(1)	2.00	-113.00	171.47		
27	AEH500	(1)	2.00	89.25	26.00		
28	AEH500	(1)	2.00	89.25	193.00		
29	AEH500	(1)	2.00	-89.25	193.00		
30	AEH500	(1)	2.00	-89.25	26.00		
31	AEH500	(1)	2.00	107.50	187.00		
32	AEH500	(1)	2.00	-107.50	187.00		
33	AEH500	(1)	18.84	-63.75	4.00	63.75	4.00

34	AEH500	(1)	18.84	136.00	148.19	136.00	71.80
35	AEH500	(1)	18.84	-136.00	148.19	-136.00	71.80
36	AEH500	(1)	18.84	-63.75	216.00	63.75	216.00
37	AEH500	(1)	12.00	-63.75	27.00	63.75	27.00
38	AEH500	(1)	12.00	-63.75	193.00	63.75	193.00
39	AEH500	(1)	12.00	-113.00	148.19	-113.00	71.80
40	AEH500	(1)	12.00	113.00	148.19	113.00	71.80

Total: 210.16 CuantÀa de armadura: 0.802 [o/o]

CÂd. dimensionamiento: (0) = As constante
CÂd. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccionada
CÂd. dimensionamiento: (2) = Aumentar As solo en zona traccionada

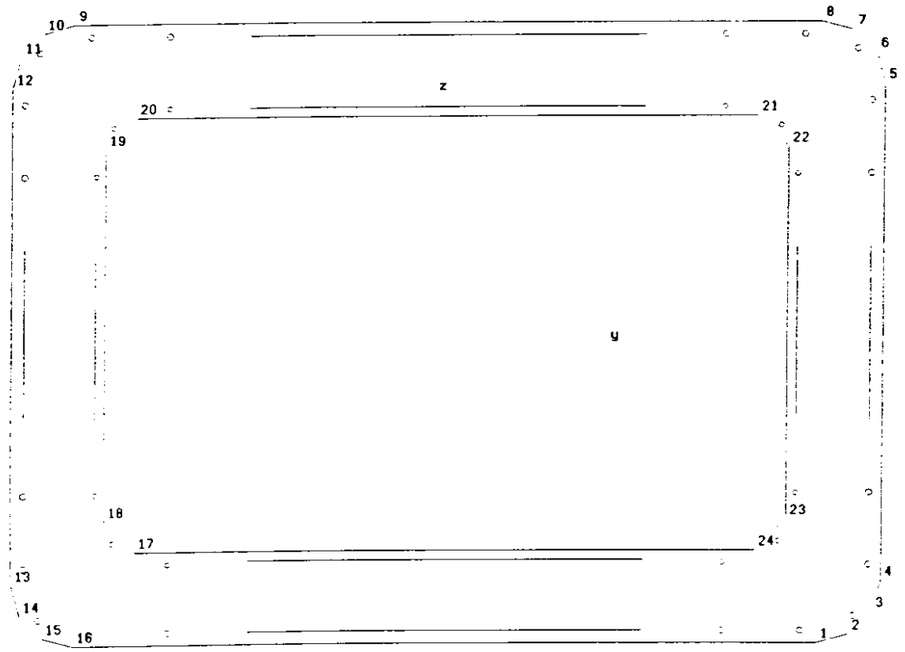
ÙNo se han definido valores para el c lculo a cortante!

CaracterÀsticas del material:

Nom.Mat.	MÂdulo E [N/mm2]	0.85*fcd,fyd [N/mm2]	eps-fc [o/oo]	fct [N/mm2]	fcv [N/mm2]	fcw,mÀn [N/mm2]
"H300"	33000.0	-17.000	-2.000	0.0	0.707000	30.000
"AEH500"	210000.0	443.470				

Leyenda:
fcd,fyd resistencia de c lculo del hormigÂn,acero
eps-fc deformaciÂn al final de la par bola (fig.2.3, cap.2.2)
fct resistencia de c lculo a tracciÂn del hormigÂn
fcv resistencia virtual de c lculo del hormigÂn a esfuerzo cortante

Mstb. 1 : 20.0



SecciÂn :"BASE3" Armadura :"B1"
Tipo : tipo pila/ Genrico Unidades :[cm]

SecciÂn parcial 1: HormigÂn = H300

Pto	Coord-Y	Coord-Z	Pto	Coord-Y	Coord-Z
1	120.00	0.00	2	130.00	2.68
3	137.32	10.00	4	140.00	20.00
5	140.00	180.00	6	137.32	190.00
7	130.00	197.32	8	120.00	200.00
9	-120.00	200.00	10	-130.00	197.32
11	-137.32	190.00	12	-140.00	180.00
13	-140.00	20.00	14	-137.32	10.00
15	-130.00	2.68	16	-120.00	0.00
Puntos aligeramiento:					
17	-100.00	30.00	18	-110.00	40.00
19	-110.00	160.00	20	-100.00	170.00
21	100.00	170.00	22	110.00	160.00
23	110.00	40.00	24	100.00	30.00

CaracterÀsticas mec nicas de la secciÂn:
Area : Ax= 2.500 [m2]
Momentos de inercia : Iy= 1.336 [m4] Iz= 2.366 [m4]
Inercia a torsiÂn : Ix= 0.994713 [m4] (de un cÀrculo del mismo rea)

PosiciÂn del centro de gravedad: ys= 0.000 [m] zs= 1.000 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-1.400	-1.690	0.676
dch.	Iz	1.400	1.690	-0.676
abajo	Iy	-1.000	-1.336	0.534
arriba	Iy	1.000	1.336	-0.534

Armadura: "B1"

NÏ	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	3.14	-131.31	191.31		
2	AEH500	(1)	3.14	131.31	191.31		
3	AEH500	(1)	3.14	-114.75	196.00		
4	AEH500	(1)	3.14	114.75	196.00		
5	AEH500	(1)	3.14	-89.25	196.00		
6	AEH500	(1)	3.14	89.25	196.00		
7	AEH500	(1)	3.14	136.00	174.75		
8	AEH500	(1)	3.14	-136.00	174.75		
9	AEH500	(1)	3.14	136.00	151.47		
10	AEH500	(1)	3.14	-136.00	151.47		
11	AEH500	(1)	3.14	136.00	48.53		
12	AEH500	(1)	3.14	-136.00	48.53		
13	AEH500	(1)	3.14	136.00	25.25		
14	AEH500	(1)	3.14	131.31	8.69		
15	AEH500	(1)	3.14	114.75	4.00		
16	AEH500	(1)	3.14	-114.75	4.00		
17	AEH500	(1)	3.14	89.25	4.00		
18	AEH500	(1)	3.14	-89.25	4.00		
19	AEH500	(1)	3.14	-131.31	8.69		
20	AEH500	(1)	3.14	-136.00	25.25		
21	AEH500	(1)	2.00	-107.50	33.00		
22	AEH500	(1)	2.00	107.50	33.00		
23	AEH500	(1)	2.00	-113.00	48.53		
24	AEH500	(1)	2.00	113.00	48.53		
25	AEH500	(1)	2.00	113.00	151.47		
26	AEH500	(1)	2.00	-113.00	151.47		
27	AEH500	(1)	2.00	89.25	26.00		
28	AEH500	(1)	2.00	89.25	173.00		
29	AEH500	(1)	2.00	-89.25	173.00		
30	AEH500	(1)	2.00	-89.25	26.00		
31	AEH500	(1)	2.00	107.50	167.00		
32	AEH500	(1)	2.00	-107.50	167.00		
33	AEH500	(1)	18.84	-63.75	4.00	63.75	4.00
34	AEH500	(1)	18.84	136.00	128.19	136.00	71.80
35	AEH500	(1)	18.84	-136.00	128.14	-136.00	71.80

36	AEH500	(1)	18.84	-63.75	196.00	63.75	196.00
37	AEH500	(1)	12.00	-63.75	27.00	63.75	27.00
38	AEH500	(1)	12.00	-63.75	173.00	63.75	173.00
39	AEH500	(1)	12.00	-113.00	128.19	-113.00	71.80
40	AEH500	(1)	12.00	113.00	128.19	113.00	71.80

Total: 210.16 CuantÀa de armadura: 0.841 [o/o]

CÂd. dimensionamiento: (0) = As constante
CÂd. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccionada
CÂd. dimensionamiento: (2) = Aumentar As solo en zona traccionada

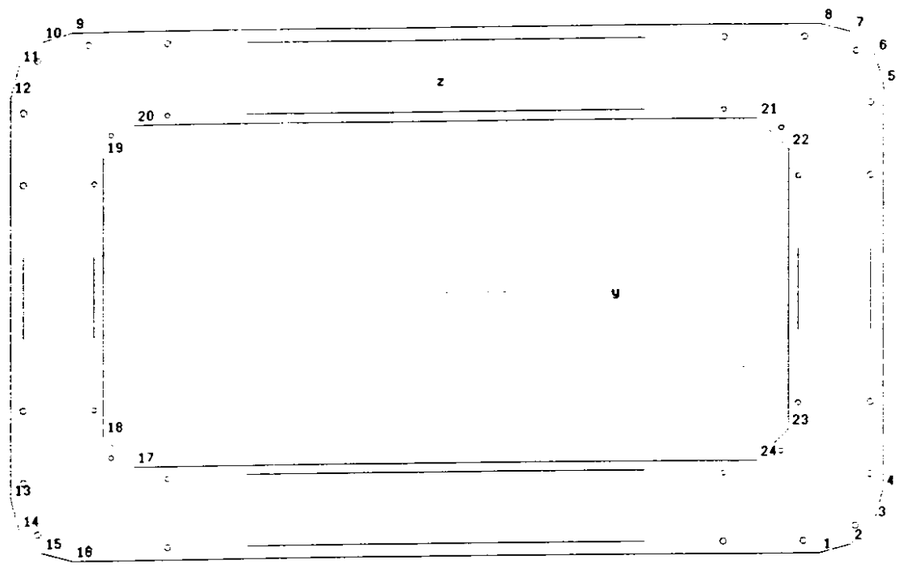
ÙNo se han definido valores para el c lculo a cortante!

CaracterÀsticas del material:

Nom.Mat.	MÂdulo E [N/mm2]	0.85*fcd,fyd [N/mm2]	eps-fc [o/oo]	fct [N/mm2]	fcv [N/mm2]	fcw,mÀn [N/mm2]
"H300"	33000.0	-17.000	-2.000	0.0	0.707000	30.000
"AEH500"	210000.0	443.470				

Leyenda:
fcd,fyd resistencia de c lculo del hormigÂn,acero
eps-fc deformaciÂn al final de la par bola (fig.2.3, cap.2.2)
fct resistencia de c lculo a traccciÂn del hormigÂn
fcv resistencia virtual de c lculo del hormigÂn a esfuerzo cortante

Mstb. 1 : 20.0



SecciÂn :"SUPERIOR" Armadura :"B1"
Tipo : tipo pila/ Genrico Unidades :[cm]

SecciÂn parcial 1: HormigÂn = H300

Pto	Coord-Y	Coord-Z	Pto	Coord-Y	Coord-Z
1	120.00	0.00	2	130.00	2.68
3	137.32	10.00	4	140.00	20.00
5	140.00	150.00	6	137.32	160.00
7	130.00	167.32	8	120.00	170.00
9	-120.00	170.00	10	-130.00	167.32
11	-137.32	160.00	12	-140.00	150.00
13	-140.00	20.00	14	-137.32	10.00
15	-130.00	2.68	16	-120.00	0.00
Puntos aligeramiento:					
17	-100.00	30.00	18	-110.00	40.00
19	-110.00	130.00	20	-100.00	140.00
21	100.00	140.00	22	110.00	130.00
23	110.00	40.00	24	100.00	30.00

CaracterÀsticas mec nicas de la secciÂn:
Area : Ax= 2.320 [m2]
Momentos de inercia : Iy= 0.881948 [m4] Iz= 2.083 [m4]
Inercia a torsiÂn : Ix= 0.856631 [m4] (de un cÀrculo del mismo rea)

PosiciÂn del centro de gravedad: ys= 0.000 [m] zs= 0.850000 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-1.400	-1.488	0.641
dch.	Iz	1.400	1.488	-0.641
abajo	Iy	-0.850	-1.038	0.447
arriba	Iy	0.850	1.038	-0.447

Armadura: "B1"

NÏ	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	3.14	-131.31	161.31		
2	AEH500	(1)	3.14	131.31	161.31		
3	AEH500	(1)	3.14	-114.75	166.00		
4	AEH500	(1)	3.14	114.75	166.00		
5	AEH500	(1)	3.14	-89.25	166.00		
6	AEH500	(1)	3.14	89.25	166.00		
7	AEH500	(1)	3.14	136.00	144.75		
8	AEH500	(1)	3.14	-136.00	144.75		
9	AEH500	(1)	3.14	136.00	121.47		
10	AEH500	(1)	3.14	-136.00	121.47		
11	AEH500	(1)	3.14	136.00	48.53		
12	AEH500	(1)	3.14	-136.00	48.53		
13	AEH500	(1)	3.14	136.00	25.25		
14	AEH500	(1)	3.14	131.31	8.69		
15	AEH500	(1)	3.14	114.75	4.00		
16	AEH500	(1)	3.14	-114.75	4.00		
17	AEH500	(1)	3.14	89.25	4.00		
18	AEH500	(1)	3.14	-89.25	4.00		
19	AEH500	(1)	3.14	-131.31	8.69		
20	AEH500	(1)	3.14	-136.00	25.25		
21	AEH500	(1)	2.00	-107.50	33.00		
22	AEH500	(1)	2.00	107.50	33.00		
23	AEH500	(1)	2.00	-113.00	48.53		
24	AEH500	(1)	2.00	113.00	48.53		
25	AEH500	(1)	2.00	113.00	121.47		
26	AEH500	(1)	2.00	-113.00	121.47		
27	AEH500	(1)	2.00	89.25	26.00		
28	AEH500	(1)	2.00	89.25	143.00		
29	AEH500	(1)	2.00	-89.25	143.00		
30	AEH500	(1)	2.00	-89.25	26.00		
31	AEH500	(1)	2.00	107.50	137.00		
32	AEH500	(1)	2.00	-107.50	137.00		
33	AEH500	(1)	18.84	-63.75	4.00	63.75	4.00
34	AEH500	(1)	18.84	136.00	98.19	136.00	71.80
35	AEH500	(1)	18.84	-136.00	98.19	-136.00	71.80
36	AEH500	(1)	18.84	-63.75	166.00	63.75	166.00
37	AEH500	(1)	12.00	-63.75	27.00	63.75	27.00
38	AEH500	(1)	12.00	-63.75	143.00	63.75	143.00

39	AEH500	(1)	12.00	-113.00	98.19	-113.00	71.80
40	AEH500	(1)	12.00	113.00	98.19	113.00	71.80

Total: 210.16 CuantÀa de armadura: 0.906 [o/o]

CÂd. dimensionamiento: (0) = As constante
CÂd. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccionada
CÂd. dimensionamiento: (2) = Aumentar As solo en zona traccionada

ÙNo se han definido valores para el c lculo a cortante!

CaracterÀsticas del material:

Nom.Mat.	MÂdulo E [N/mm2]	0.85*fcd,fyd [N/mm2]	eps-fc [o/oo]	fct [N/mm2]	fcv [N/mm2]	fcw,mÀn [N/mm2]
"H300"	33000.0	-17.000	-2.000	0.0	0.707000	30.000
"AEH500"	210000.0	443.470				

Leyenda:
fcd,fyd resistencia de c lculo del hormigÂn,acero
eps-fc deformaciÂn al final de la par bola (fig.2.3, cap.2.2)
fct resistencia de c lculo a tracciÂn del hormigÂn
fcv resistencia virtual de c lculo del hormigÂn a esfuerzo cortante

SUBANEJO Nº 4

DIMENSIONAMIENTO DE PILAS 2 Y 6

MC-2 ESTUDIO DE INGENIERIA
Víctor de la Serna, 21
28016 Madrid
Teléfs. 91 413 38 02 / 19
91 519 74 77
Fax 91 744 06 75

FECHA

HOJA 4 01 DE

ARMADURA DE CORTANTE EN PILAS

$\text{cuantía mínima} \rightarrow = \frac{A_\alpha \cdot f_{yd}}{\text{sen}\,\alpha} \geq \ldots$

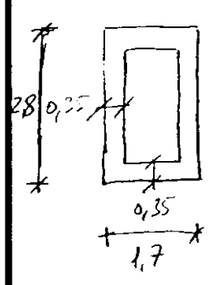
	C.P.	SC. Uso	F. centrif.	Viento	térmico	
Hip I	$V_{transv.} = 1,5 \times 5,0 + 1,5 \times 26 + 1,25 \times 9,0$	—		—	$0,0$	$= 57,8$ t.
	$V_{long.} =$	—	—	—	$1,25 \times 33$	$= 41,3$ t.
Hip II	$V_{transv.} = (1,5 \times 5,0 + 1,5 \times 26 + 1,25 \times 9,0 + 1,5 \times 25 + 0,0) \times 0,9 = 85,7$ t.					
	$V_{long.} =$				$1,25 \times 33 \times 0,9 = 37,1$ t.	

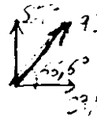
Se adopta $V_{d,\,transversal} = 85,7$ t.

$V_{d,\,longitudinal} = 37,1$ t.

$f_{cv} = 0,5\sqrt{f_{cd}} = 0,5\sqrt{\frac{300}{1,5}} = 7,07$ kg/cm²

$V_{cu} = f_{cv} \cdot b_w \cdot d = 70,7 \frac{t}{m^2} \times 0,7 \times 2,7 = 133$ t. $> V_d =$





$= \ldots$ cm²/m

$\Sigma \frac{A_\alpha \cdot f_{yd}}{\text{sen}\,\alpha} \geq 0,02\, f_{cd}\, b_w \rightarrow A_\alpha = \frac{0,02 \times \frac{300}{1,5} \times 0,35}{42000} =$

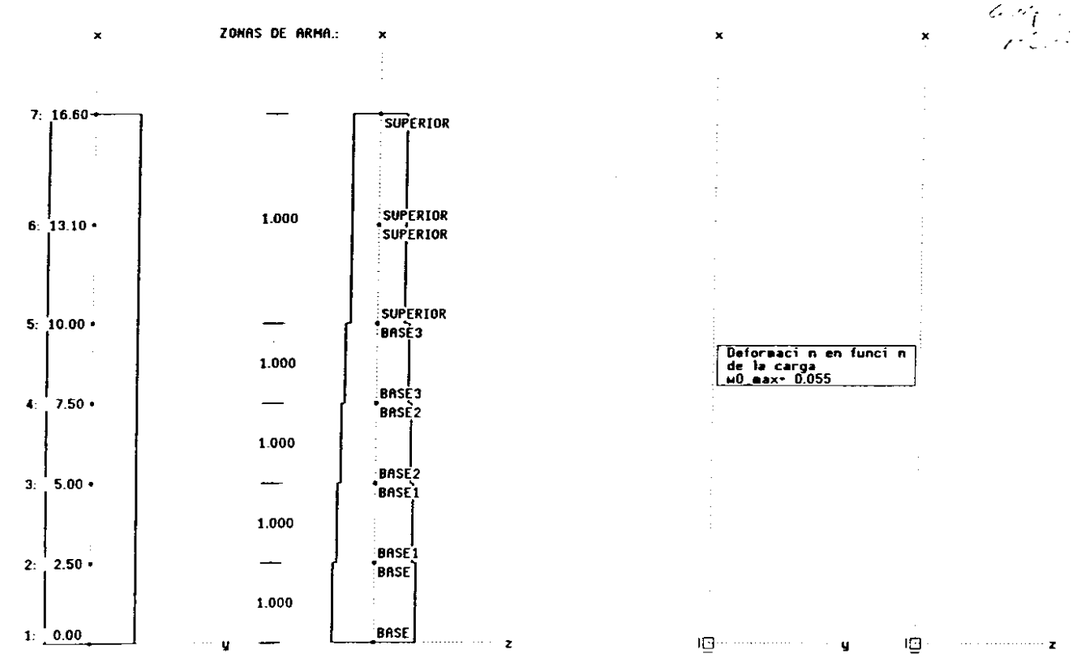
$= 0,0000233\ m^2/m = 2,33\ cm^2/m$

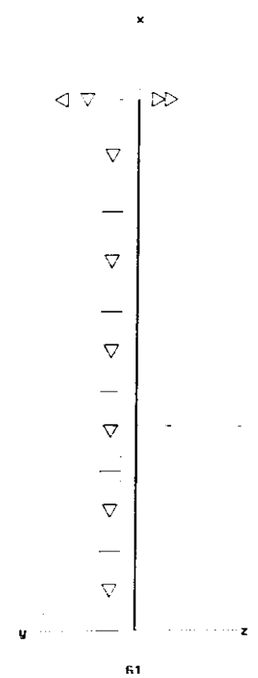
Programm: P Y R U S V.2.20 Bn:2137. 1
MC-2 ESTUDIO DE INGENIERIA
VIADUCTO DE LOS CHORROS

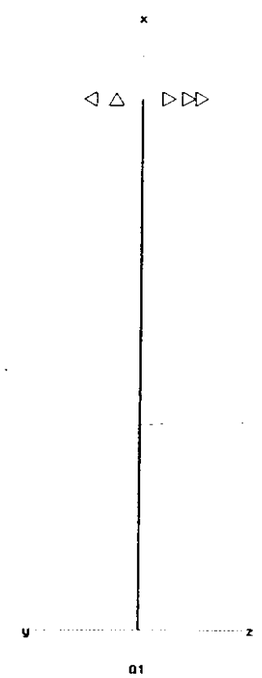
página 51
23.03.99
16:14

Escala 1 : 194.7
Modelo, Deformación accidental y cargas de la pila PILA4

Hip: Axil de ...







Pila ''PILA4'
****

Título : 'VIADUCTO DE LOS CHORROS'
Altura de la pila : 16.600 [m]
Long. max. de barra: Altura pila / 6

NUDOS
Nu	x [m]	Apoyo d-xyz	Apoyo r-xyz
7	16.600		
6	13.100		
5	10.000		
4	7.500		
3	5.000		
2	2.500		
1	0.000	BBB	BBB

Apoyo: B=bloqueado, E=elástico

BARRAS (1.línea: barra arriba, 2.línea: barra abajo)
Ba	Nu	Sección	Tipo	Exc: ey [m]	ez [m]	Arm: Zona	fac
6	7-6	'SUPERIOR'	SecFAGUS			1	1.000
5	6-5	'SUPERIOR'	SecFAGUS			1	1.000
4	5-4	'BASE3'	SecFAGUS			2	1.000
3	4-3	'BASE2'	SecFAGUS			3	1.000
2	3-2	'BASE1'	SecFAGUS			4	1.000
1	2-1	'BASE'	SecFAGUS			5	1.000

DEF. ACCIDENTAL :
Func. carga : w0_max= 0.055 m

CARGAS :
Nu/Ba		Tipo Car.		Dim.	Valor Val.arriba	ey[m] Val.abajo	ez[m]
Comp. Carga G1 :							
Nudo	7	Fuerza	x	[kN]	-4750.000	0.14000	0.08500
		Fuerza	y	[kN]	50.000		
		Momento	z	[kNm]	1100.000		
Barra	6	Peso propio	x	[kN/m3]	-25.000		
Barra	5	Peso propio	x	[kN/m3]	-25.000		
Barra	4	Peso propio	x	[kN/m3]	-25.000		
Barra	3	Peso propio	x	[kN/m3]	-25.000		
Barra	2	Peso propio	x	[kN/m3]	-25.000		
Barra	1	Peso propio	x	[kN/m3]	-25.000		
Comp. Carga Q1 :							
Nudo	7	Fuerza	x	[kN]	1040.000	0.05000	0.05000
		Fuerza	y	[kN]	370.000		
		Fuerza	z	[kN]	330.000		
		Momento	z	[kNm]	110.000		

C A P A C I D A D R E S I S T E N T E U L T I M A <G.PILA4.1>

PARAMETROS DE CALCULO:

Norma	EH
Criterio de rotura	Agotamiento de secciones o del sistema
Rotura de secciones	Limitación de deformaciones según FAGUS-2
- Hormigón (def. centrada)	-2.000 [o/oo]
- Hormigón (flexión)	-3.500 [o/oo]
- Acero	10.00 [o/oo]
Coef. min. resist. (gamma_r)	1.000
Coeficiente de fluencia	0.000
Factor armadura (global)	1.000
No de elementos	6
Tolerancia desequi. fuerzas	0.070 [kN]
Tolerancia desequi. momentos	0.134 [kNm]
Mayoración de cargas	1.500 * Carga permanente G1
	+ 1.500 * Carga variable Q1 * ß

RESULTADOS DEL CALCULO NO LINEAL:
Las cargas variables se han aumentado por un factor ß (ß=1.5652). > 1,0

Rotura: Rotura de la sección
. Sección 'BASE' en x= 0.000

DATOS DE LA SECCION

Nombre	Ancho dy [m]	Canto dz [m]	Materiales Horm. / Acero		Distrib. de la armadura	Armadura fija[cm²]	Armadura var [cm²]
BASE	2.800	2.600	H300	AEH500	B1	0.000	288.0
BASE1	2.800	2.380	H300	AEH500	B1	0.000	288.0
BASE2	2.800	2.200	H300	AEH500	B1	0.000	288.0
BASE3	2.800	2.000	H300	AEH500	B1	0.000	288.0
SUPERIOR	2.800	1.700	H300	AEH500	B1	0.000	288.0

DATOS DE BARRAS (incl. factores de armadura)

Barra	Sección arriba / abajo		factor S de la armadura	Armadura variable arriba[cm²]/abajo[cm²]	
6	SUPERIOR	SUPERIOR	1.000	288.0	288.0
5	SUPERIOR	SUPERIOR	1.000	288.0	288.0
4	BASE3	BASE3	1.000	288.0	288.0
3	BASE2	BASE2	1.000	288.0	288.0
2	BASE1	BASE1	1.000	288.0	288.0
1	BASE	BASE	1.000	288.0	288.0

DEFORMACIONES sin deformaciones accidentales

	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
Mínima	0.00	0.00	0.00	-0.033	-13.351	0.000
Máxima	7.06	145.09	141.96	0.029	0.000	12.632

DEFORMACION ACCIDENTAL	DY [mm]	DZ [mm]
Máxima	33.06	44.33

ESFUERZOS (global)

	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Mínima	-6127.23	-943.71	-774.79	-37.76	483.54	2783.68
Máxima	-4835.47	-943.71	-774.79	0.00	14315.86	19383.49

TENSIONES, DEFORMACIONES & RIGIDECES-SECANTE/gamma_r

	sigHorm. [N/mm²]	sigAcero [N/mm²]	epsHorm. [o/oo]	epsAcero [o/oo]	EIy [kNm²]	EIz [kNm²]
Mínima	-17.0	-443.5	-3.496	-3.375	6.043E+6	7.920E+6
Máxima	0.0	443.5	7.989	7.868	1.621E+7	4.259E+7

DEFORMACIONES sin deformaciones accidentales
<G.PILA4.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.5652

Coord-x [m]	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
16.600	5.81	145.09	141.96	0.029	-13.351	12.632
13.100	6.93	101.73	96.10	0.014	-12.648	12.027
10.000	7.06	66.31	59.83	-0.018	-10.439	10.685
7.500	6.58	41.40	36.04	-0.031	-8.444	9.144
5.000	5.55	20.90	17.53	-0.033	-6.208	7.130
2.500	3.71	6.22	5.04	-0.022	-3.562	4.396
0.000	0.00	0.00	0.00	0.000	0.000	0.000

ESFUERZOS (global)
<G.PILA4.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.5652

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
16.600	-4835.47	-943.71	-774.79	0.00	483.54	2783.68
13.100	-4835.47	-943.71	-774.79	-16.85	3497.43	6349.45
13.100	-5122.57	-943.71	-774.79	-16.85	3497.43	6349.45
10.000	-5122.57	-943.71	-774.79	-28.34	6146.74	9500.38
10.000	-5374.61	-943.71	-774.79	-28.34	6146.74	9500.38
7.500	-5374.61	-943.71	-774.79	-33.78	8249.24	12023.52
7.500	-5614.61	-943.71	-774.79	-33.78	8249.24	12023.52
5.000	-5614.61	-943.71	-774.79	-36.67	10316.89	14520.99
5.000	-5865.30	-943.71	-774.79	-36.67	10316.89	14520.99
2.500	-5865.30	-943.71	-774.79	-37.68	12342.83	16981.01
2.500	-6127.23	-943.71	-774.79	-37.68	12342.83	16981.01
0.000	-6127.23	-943.71	-774.79	-37.76	14315.86	19383.49

TENSIONES & RIGIDECES-SECANTE/gamma_r
<G.PILA4.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.5652

Coord-x [m]	Horm.- [N/mm²]	Horm.+ [N/mm²]	Acero- [N/mm²]	Acero+ [N/mm²]	EIy [kNm²]	EIz [kNm²]
16.600	-3.5	-0.2	-45.5	-3.8	1.621E+7	4.259E+7
13.100	-9.5	0.0	-136.7	141.1	8.565E+6	2.265E+7
13.100	-9.8	0.0	-142.7	154.6	8.278E+6	2.137E+7
10.000	-14.7	0.0	-253.4	383.4	6.043E+6	1.671E+7
10.000	-13.1	0.0	-211.8	307.1	9.792E+6	1.874E+7
7.500	-15.7	0.0	-293.8	443.5	8.452E+6	1.656E+7
7.500	-14.8	0.0	-260.5	414.2	1.134E+7	1.798E+7
5.000	-16.7	0.0	-353.8	443.5	9.565E+6	1.540E+7
5.000	-16.0	0.0	-311.1	443.5	1.265E+7	1.713E+7
2.500	-17.0	0.0	-443.5	443.5	9.291E+6	1.267E+7
2.500	-16.8	0.0	-361.3	443.5	1.395E+7	1.587E+7
0.000	-17.0	0.0	-443.5	443.5	7.071E+6	7.920E+6

DEFORMACIONES
<G.PILA4.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.5652

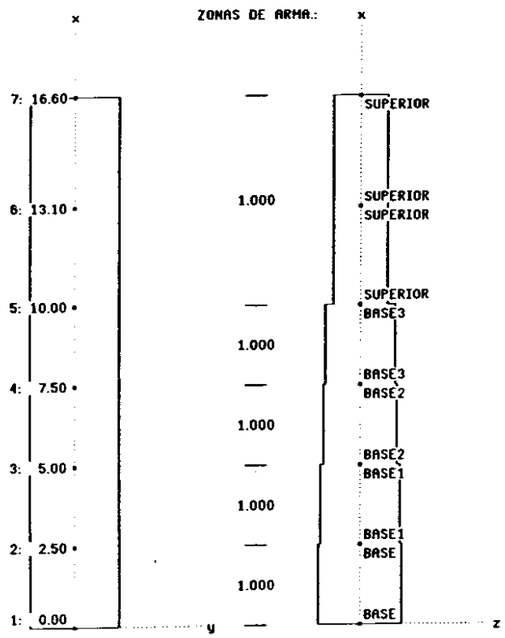
Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
16.600	-0.220	-0.015	-0.216	-0.018	0.16	104.8
13.100	-0.670	0.691	-0.651	0.672	0.19	143.9
13.100	-0.701	0.757	-0.679	0.736	0.19	144.5
10.000	-1.260	1.879	-1.207	1.826	0.20	150.6

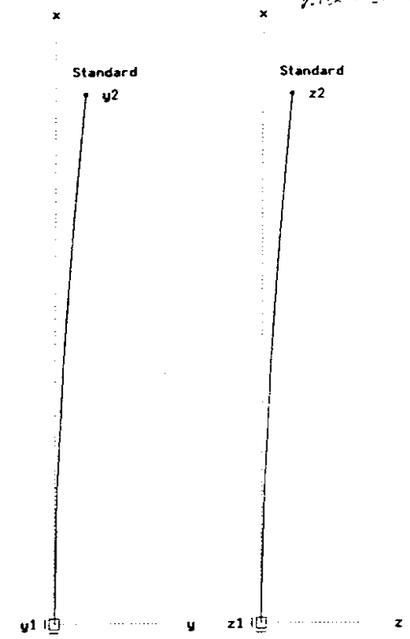
DEFORMACIONES
<G.PILA4.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.5652

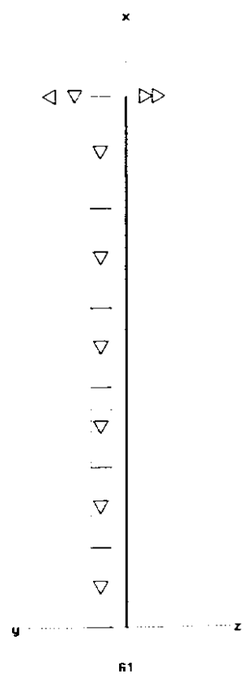
Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
10.000	-1.040	1.493	-1.009	1.463	0.18	140.9
7.500	-1.448	2.331	-1.399	2.282	0.20	143.2
7.500	-1.275	2.007	-1.241	1.972	0.18	137.1
5.000	-1.737	3.009	-1.685	2.957	0.20	138.6
5.000	-1.522	2.559	-1.481	2.518	0.18	133.5
2.500	-2.230	4.311	-2.167	4.248	0.21	134.4
2.500	-1.773	3.239	-1.720	3.186	0.18	128.9
0.000	-3.496	7.989	-3.375	7.868	0.21	129.0

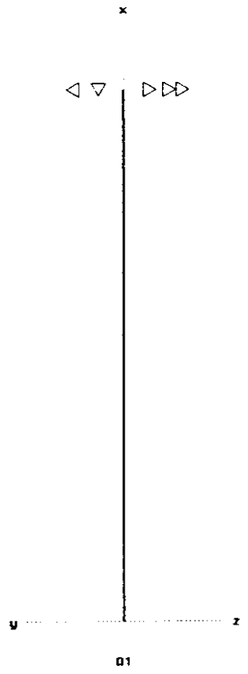
Escala 1 : 194.7
Modelo, Deformación accidental y cargas de la pila NMIN

Hip: Axil de compresión máximo.









Pila ''NMIN'
****

Título : 'Hip: axil minimo'
Altura de la pila : 16.600 [m]
Long. max. de barra: Altura pila / 6

NUDOS x Apoyo
Nu [m] d-xyz r-xyz

Nu	[m]	d-xyz	r-xyz
7	16.600		
6	13.100		
5	10.000		
4	7.500		
3	5.000		
2	2.500		
1	0.000	BBB	BBB

Apoyo: B=bloqueado, E=elástico

BARRAS (1.línea: barra arriba, 2.línea: barra abajo)

Ba	Nu	Sección	Tipo	Exc: ey [m]	ez [m]	Arm: Zona	fac
6	7-6	'SUPERIOR'	SecFAGUS			1	1.000
5	6-5	'SUPERIOR'	SecFAGUS			1	1.000
4	5-4	'BASE3'	SecFAGUS			2	1.000
3	4-3	'BASE2'	SecFAGUS			3	1.000
2	3-2	'BASE1'	SecFAGUS			4	1.000
1	2-1	'BASE'	SecFAGUS			5	1.000

DEF. ACCIDENTAL :
Curva estándar y z, Valores max. [m]: w0_ymax= 0.055 w0_zmax= 0.055

Pto.	Bar.	x[m]	w0_y [m]	w0_z [m]
1	6	16.600	0.055	0.055
2	6	14.850	0.046	0.046
3	5	13.100	0.037	0.037
4	5	11.550	0.030	0.030
5	4	10.000	0.023	0.023
6	3	7.500	0.013	0.013
7	2	5.000	0.006	0.006
8	1	2.500	0.002	0.002
9	1	0.000	0.000	0.000

CARGAS :

Nu/Ba		Tipo Car.		Dim.	Valor Val.arriba	ey[m] Val.abajo	ez[m]
Comp. Carga G1 :							
Nudo	7	Fuerza	x	[kN]	-5340.000	0.14000	0.08500
		Fuerza	y	[kN]	50.000		
		Momento	z	[kNm]	1220.000		
Barra	6	Peso propio	x	[kN/m3]	-25.000		
Barra	5	Peso propio	x	[kN/m3]	-25.000		
Barra	4	Peso propio	x	[kN/m3]	-25.000		
Barra	3	Peso propio	x	[kN/m3]	-25.000		
Barra	2	Peso propio	x	[kN/m3]	-25.000		
Barra	1	Peso propio	x	[kN/m3]	-25.000		
Comp. Carga Q1 :							
Nudo	7	Fuerza	x	[kN]	-4880.000	0.05000	0.05000
		Fuerza	y	[kN]	520.000		
		Fuerza	z	[kN]	330.000		
		Momento	z	[kNm]	1100.000		

C A P A C I D A D R E S I S T E N T E U L T I M A <G.NMIN.1>

PARAMETROS DE CALCULO:

Norma	EH
Criterio de rotura	Agotamiento de secciones o del sistema
Rotura de secciones	Limitación de deformaciones según FAGUS-2
- Hormigón (def. centrada)	-2.000 [o/oo]
- Hormigón (flexión)	-3.500 [o/oo]
- Acero	10.00 [o/oo]
Coef. min. resist. (gamma_r)	1.000
Coeficiente de fluencia	0.000
Factor armadura (global)	1.000
No de elementos	6
Tolerancia desequi. fuerzas	0.168 [kN]
Tolerancia desequi. momentos	0.200 [kNm]
Mayoración de cargas	1.500 * Carga permanente G1
	+ 1.500 * Carga variable Q1 * ß

RESULTADOS DEL CALCULO NO LINEAL:
Las cargas variables se han aumentado por un factor ß (ß=1.2886).

Rotura: Rotura de la sección
Sección 'BASE' en x= 0.000

DATOS DE LA SECCION

Nombre	Ancho dy [m]	Canto dz [m]	Materiales Horm. / Acero		Distrib. de la armadura	Armadura fija[cm²]	Armadura var [cm²]
BASE	2.800	2.600	H300	AEH500	B1	0.000	288.0
BASE1	2.800	2.380	H300	AEH500	B1	0.000	288.0
BASE2	2.800	2.200	H300	AEH500	B1	0.000	288.0
BASE3	2.800	2.000	H300	AEH500	B1	0.000	288.0
SUPERIOR	2.800	1.700	H300	AEH500	B1	0.000	288.0

DATOS DE BARRAS (incl. factores de armadura)

Barra	Sección arriba / abajo		factor S de la armadura	Armadura variable arriba[cm²]/abajo[cm²]	
6	SUPERIOR	SUPERIOR	1.000	288.0	288.0
5	SUPERIOR	SUPERIOR	1.000	288.0	288.0
4	BASE3	BASE3	1.000	288.0	288.0
3	BASE2	BASE2	1.000	288.0	288.0
2	BASE1	BASE1	1.000	288.0	288.0
1	BASE	BASE	1.000	288.0	288.0

DEFORMACIONES sin deformaciones accidentales

	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
Mínima	-6.63	0.00	0.00	-0.029	-9.953	0.000
Máxima	0.00	128.09	102.19	0.052	0.000	11.792

ESFUERZOS (global)

	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Mínima	-18886.84	-1080.23	-637.90	-53.15	1152.45	5549.12
Máxima	-17595.09	-1080.13	-637.87	-0.02	14574.07	26780.43

TENSIONES, DEFORMACIONES & RIGIDECES-SECANTE/gamma_r

	sigHorm. [N/mm²]	sigAcero [N/mm²]	epsHorm. [o/oo]	epsAcero [o/oo]	EIy [kNm²]	EIz [kNm²]
Mínima	-17.0	-443.5	-3.499	-3.416	9.321E+6	1.643E+7
Máxima	0.0	443.5	3.700	3.617	1.843E+7	3.584E+7

DEFORMACIONES sin deformaciones accidentales
<G.NMIN.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.2886

Coord-x [m]	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
16.600	-6.63	128.09	102.19	0.052	-9.953	11.792
13.100	-4.31	88.12	68.36	0.025	-9.247	10.973
10.000	-2.43	56.07	41.93	-0.006	-7.600	9.574
7.500	-1.26	33.95	24.67	-0.022	-6.090	8.019
5.000	-0.45	16.31	11.51	-0.029	-4.323	5.969
2.500	-0.02	4.48	3.08	-0.022	-2.280	3.333
0.000	0.00	0.00	0.00	0.000	0.000	0.000

ESFUERZOS (global)
<G.NMIN.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.2886

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
16.600	-17595.09	-1080.23	-637.90	-0.02	1152.45	5549.12
13.100	-17595.09	-1080.23	-637.90	-19.04	4296.87	10349.37
13.100	-17882.19	-1080.21	-637.89	-19.05	4296.81	10349.10
10.000	-17882.19	-1080.21	-637.89	-33.51	7003.53	14527.39
10.000	-18134.22	-1080.20	-637.90	-33.50	7003.48	14527.21

ESFUERZOS (global)
<G.NMIN.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.2886

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
7.500	-18134.22	-1080.20	-637.90	-42.29	9085.62	17803.14
7.500	-18374.22	-1080.17	-637.90	-42.28	9085.56	17803.03
5.000	-18374.22	-1080.17	-637.90	-48.47	11055.97	20961.32
5.000	-18624.90	-1080.14	-637.89	-48.45	11055.93	20961.27
2.500	-18624.90	-1080.14	-637.89	-52.01	12892.08	23966.48
2.500	-18886.84	-1080.13	-637.87	-51.99	12892.08	23966.48
0.000	-18886.84	-1080.13	-637.87	-53.15	14574.07	26780.43

TENSIONES & RIGIDECES-SECANTE/gamma_r
<G.NMIN.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.2886

Coord-x [m]	Horm.- [N/mm²]	Horm.+ [N/mm²]	Acero- [N/mm²]	Acero+ [N/mm²]	EIy [kNm²]	EIz [kNm²]
16.600	-9.9	-2.7	-145.9	-36.4	1.383E+7	3.584E+7
13.100	-13.8	0.0	-233.2	44.8	1.275E+7	3.304E+7
13.100	-13.8	0.0	-234.7	41.7	1.280E+7	3.316E+7
10.000	-16.8	0.0	-365.1	196.8	9.321E+6	2.460E+7
10.000	-15.8	0.0	-302.6	138.5	1.535E+7	2.992E+7
7.500	-17.0	0.0	-416.6	291.5	1.193E+7	2.347E+7
7.500	-16.8	0.0	-365.0	237.2	1.616E+7	2.688E+7
5.000	-17.0	0.0	-443.5	411.4	1.281E+7	2.143E+7
5.000	-17.0	0.0	-429.9	342.9	1.680E+7	2.448E+7
2.500	-17.0	0.0	-443.5	443.5	1.292E+7	1.913E+7
2.500	-17.0	0.0	-443.5	439.2	1.843E+7	2.310E+7
0.000	-17.0	0.0	-443.5	443.5	1.267E+7	1.643E+7

DEFORMACIONES
<G.NMIN.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.2886

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
16.600	-0.703	-0.165	-0.695	-0.173	0.17	116.0
13.100	-1.126	0.229	-1.110	0.213	0.19	136.4
13.100	-1.133	0.214	-1.118	0.199	0.19	136.2
10.000	-1.775	0.974	-1.739	0.937	0.22	141.3
10.000	-1.464	0.683	-1.441	0.659	0.19	133.0
7.500	-2.020	1.424	-1.984	1.388	0.22	134.9
7.500	-1.771	1.162	-1.738	1.129	0.19	130.1
5.000	-2.391	2.007	-2.344	1.959	0.23	131.2
5.000	-2.090	1.676	-2.047	1.633	0.20	127.2

DEFORMACIONES
<G.NMIN.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.2886

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
2.500	-2.873	2.715	-2.811	2.653	0.23	128.2
2.500	-2.357	2.145	-2.304	2.092	0.20	123.6
0.000	-3.499	3.700	-3.416	3.617	0.23	124.9

C A R G A F I J A <F.NMIN.1>

PARAMETROS DE CALCULO:

Norma	EH
Criterio de rotura	Agotamiento de secciones o del sistema
Rotura de secciones	Limitación de deformaciones según FAGUS-2
- Hormigón (def. centrada)	-2.000 [o/oo]
- Hormigón (flexión)	-3.500 [o/oo]
- Acero	10.00 [o/oo]
Coef. min. resist. (gamma_r)	1.000
Coeficiente de fluencia	0.000
Factor armadura (global)	1.000
No de elementos	6
Tolerancia desequi. fuerzas	0.112 [kN]
Tolerancia desequi. momentos	0.134 [kNm]
Mayoración de cargas	1.000 * Carga permanente G1
	+ 1.000 * Carga variable Q1 * ß

RESULTADOS DEL CALCULO NO LINEAL:
Las cargas se han podido aplicar. (ß=1.00).

DATOS DE LA SECCION

Nombre	Ancho dy [m]	Canto dz [m]	Materiales Horm. / Acero		Distrib. de la armadura	Armadura fija[cm²]	Armadura var [cm²]
BASE	2.800	2.600	H300	AEH500	B1	0.000	288.0
BASE1	2.800	2.380	H300	AEH500	B1	0.000	288.0
BASE2	2.800	2.200	H300	AEH500	B1	0.000	288.0
BASE3	2.800	2.000	H300	AEH500	B1	0.000	288.0
SUPERIOR	2.800	1.700	H300	AEH500	B1	0.000	288.0

DATOS DE BARRAS (incl. factores de armadura)

Barra	Sección arriba / abajo		factor S de la armadura	Armadura variable arriba[cm²]/abajo[cm²]	
6	SUPERIOR	SUPERIOR	1.000	288.0	288.0
5	SUPERIOR	SUPERIOR	1.000	288.0	288.0
4	BASE3	BASE3	1.000	288.0	288.0
3	BASE2	BASE2	1.000	288.0	288.0
2	BASE1	BASE1	1.000	288.0	288.0
1	BASE	BASE	1.000	288.0	288.0

Programm: P Y R U S V.2.20 Bn:2137. 1 página 90
MC-2 ESTUDIO DE INGENIERIA 23.03.99
Hip: axil minimo 16:48

DEFORMACIONES sin deformaciones accidentales

	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
Mínima	-3.50	0.00	0.00	-5.970E-3	-3.420	0.000
Máxima	0.00	45.18	33.10	1.489E-2	0.000	4.389

ESFUERZOS (global)

	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Mínima	-11182.67	-570.00	-330.00	-17.24	697.90	3311.60
Máxima	-10321.50	-570.00	-330.00	0.00	7111.33	13837.37

TENSIONES, DEFORMACIONES & RIGIDECES-SECANTE/gamma_r

	sigHorm. [N/mm²]	sigAcero [N/mm²]	epsHorm. [o/oo]	epsAcero [o/oo]	EIy [kNm²]	EIz [kNm²]
Mínima	-13.2	-217.0	-1.058	-1.033	1.249E+7	2.871E+7
Máxima	0.0	198.6	0.971	0.946	2.694E+7	3.835E+7

→ 135 Kp/cm² < $\frac{f_{ck}}{1,6} = \frac{300}{1,6} = 188$ Kp/mm² Vale.

DEFORMACIONES sin deformaciones accidentales
<F.NMIN.1> Carga: 1.00*G1 1.00*Q1*ß ß=1.0000

Coord-x [m]	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
16.600	-3.50	45.18	33.10	1.489E-2	-3.420	4.389
13.100	-2.46	30.48	21.61	6.981E-3	-3.090	3.975
10.000	-1.59	19.03	12.93	-6.475E-4	-2.453	3.376
7.500	-1.00	11.31	7.43	-4.528E-3	-1.912	2.764
5.000	-0.53	5.30	3.35	-5.970E-3	-1.312	2.004
2.500	-0.19	1.40	0.85	-4.502E-3	-0.658	1.078
0.000	0.00	0.00	0.00	0.000E+0	0.000	0.000

ESFUERZOS (global)
<F.NMIN.1> Carga: 1.00*G1 1.00*Q1*ß ß=1.0000

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
16.600	-10321.50	-570.00	-330.00	0.00	697.90	3311.60
13.100	-10321.50	-570.00	-330.00	-6.02	2157.17	5643.94
13.100	-10512.90	-570.00	-330.00	-6.02	2157.17	5643.94
10.000	-10512.90	-570.00	-330.00	-10.64	3422.51	7682.36
10.000	-10680.92	-570.00	-330.00	-10.64	3422.51	7682.36

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Hip: axil minimo 16:48

ESFUERZOS (global)
<F.NMIN.1> Carga: 1.00*G1 1.00*Q1*ß ß=1.0000

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
7.500	-10680.92	-570.00	-330.00	-13.54	4409.00	9292.51
7.500	-10840.92	-570.00	-330.00	-13.54	4409.00	9292.51
5.000	-10840.92	-570.00	-330.00	-15.62	5357.07	10861.57
5.000	-11008.05	-570.00	-330.00	-15.62	5357.07	10861.57
2.500	-11008.05	-570.00	-330.00	-16.85	6259.54	12379.49
2.500	-11182.67	-570.00	-330.00	-16.85	6259.54	12379.49
0.000	-11182.67	-570.00	-330.00	-17.24	7111.33	13837.37

TENSIONES & RIGIDECES-SECANTE/gamma_r
<F.NMIN.1> Carga: 1.00*G1 1.00*Q1*ß ß=1.0000

Coord-x [m]	Horm.- [N/mm²]	Horm.+ [N/mm²]	Acero- [N/mm²]	Acero+ [N/mm²]	EIy [kNm²]	EIz [kNm²]
16.600	-6.0	-1.5	-81.6	-19.7	1.528E+7	3.835E+7
13.100	-8.2	0.0	-115.9	13.2	1.488E+7	3.748E+7
13.100	-8.2	0.0	-116.4	10.9	1.495E+7	3.793E+7
10.000	-10.5	0.0	-157.4	60.2	1.249E+7	3.235E+7
10.000	-9.3	0.0	-136.1	41.0	1.993E+7	3.796E+7
7.500	-11.1	0.0	-169.6	88.9	1.678E+7	3.239E+7
7.500	-10.3	0.0	-154.3	71.7	2.219E+7	3.618E+7
5.000	-12.0	0.0	-187.9	126.0	1.897E+7	3.089E+7
5.000	-11.3	0.0	-173.1	107.3	2.386E+7	3.394E+7
2.500	-12.8	0.0	-205.6	165.1	2.092E+7	2.940E+7
2.500	-12.0	0.0	-187.0	141.1	2.694E+7	3.255E+7
0.000	-13.2	0.0	-217.0	198.6	2.416E+7	2.871E+7

DEFORMACIONES
<F.NMIN.1> Carga: 1.00*G1 1.00*Q1*ß ß=1.0000

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
16.600	-0.393	-0.089	-0.389	-0.094	0.16	117.3
13.100	-0.559	0.070	-0.552	0.063	0.17	133.7
13.100	-0.561	0.059	-0.554	0.052	0.17	133.5
10.000	-0.762	0.300	-0.749	0.287	0.17	138.7
10.000	-0.658	0.205	-0.648	0.195	0.16	130.2
7.500	-0.822	0.437	-0.808	0.423	0.17	132.4
7.500	-0.748	0.354	-0.735	0.341	0.16	127.7
5.000	-0.912	0.617	-0.895	0.600	0.16	128.7
5.000	-0.840	0.527	-0.824	0.511	0.15	125.0

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Hip: axil minimo 16:48

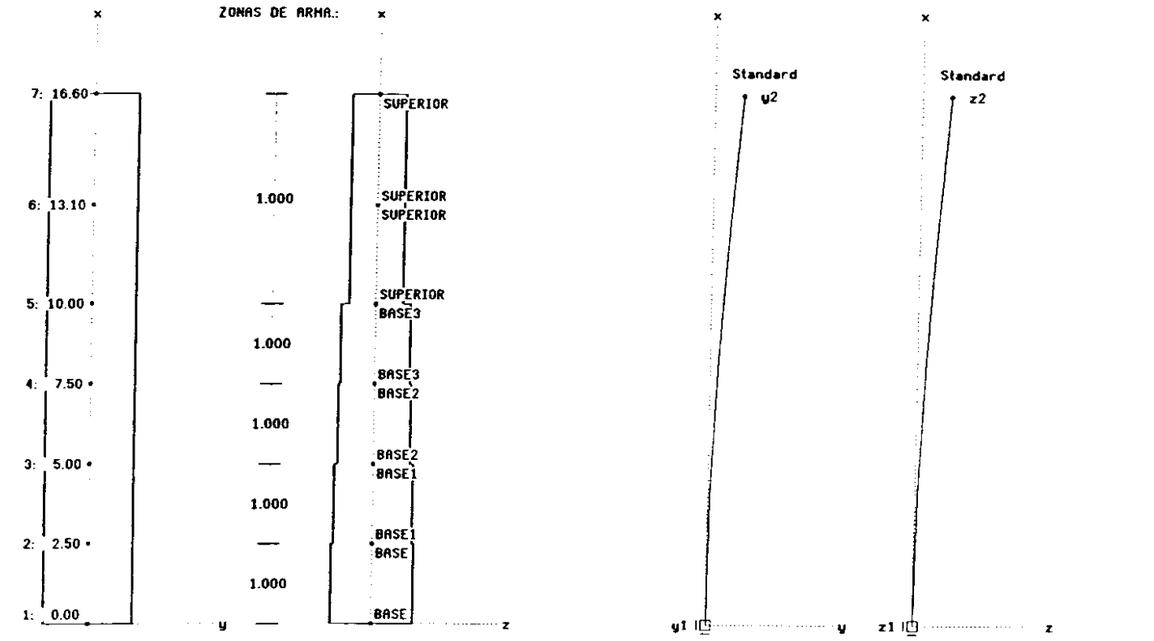
DEFORMACIONES
<F.NMIN.1> Carga: 1.00*G1 1.00*Q1*ß ß=1.0000

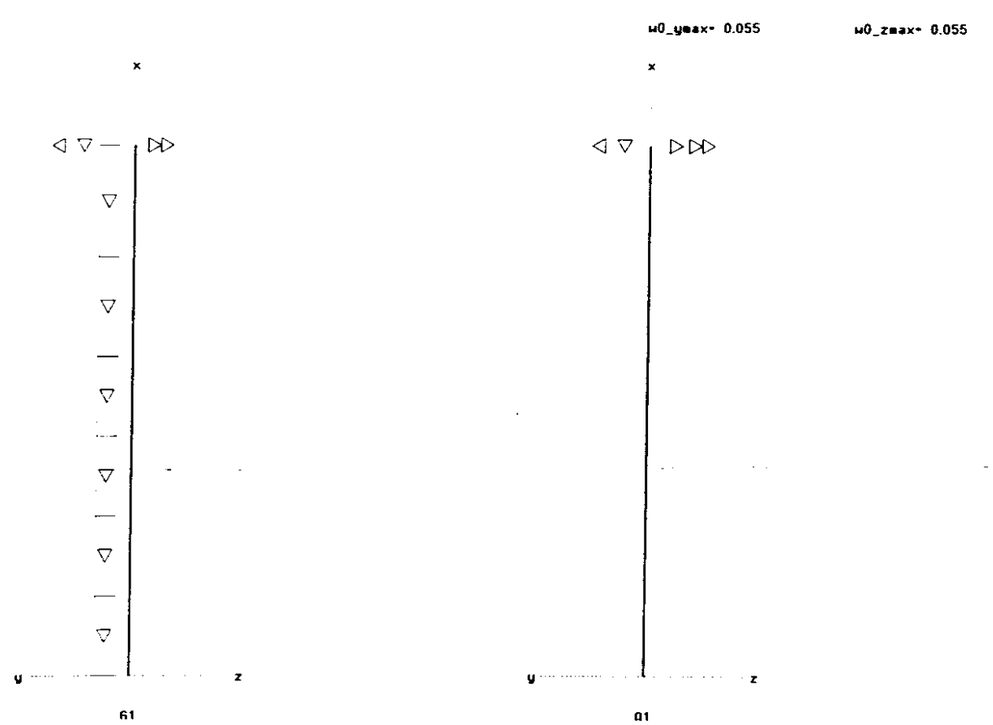
Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
2.500	-1.000	0.807	-0.979	0.786	0.16	125.4
2.500	-0.910	0.692	-0.890	0.672	0.15	121.4
0.000	-1.058	0.971	-1.033	0.946	0.16	121.4

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Hip: momento transversal max. 16:23

Hip: momento transversal

Escala 1 : 194.7
Modelo, Deformación accidental y cargas de la pila MTMAX





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Pila ''MTMAX'
****

Título : 'Hip: momento transversal max.'
Altura de la pila : 16.600 [m]
Long. max. de barra: Altura pila / 6

NUDOS x Apoyo
Nu [m] d-xyz r-xyz

Nu	x [m]	Apoyo d-xyz	Apoyo r-xyz
7	16.600		
6	13.100		
5	10.000		
4	7.500		
3	5.000		
2	2.500		
1	0.000	BBB	BBB

Apoyo: B=bloqueado, E=elástico

BARRAS (1.línea: barra arriba, 2.línea: barra abajo)

Ba	Nu	Sección	Tipo	Exc: ey [m]	ez [m]	Arm: Zona	fac
6	7-6	'SUPERIOR'	SecFAGUS			1	1.000
5	6-5	'SUPERIOR'	SecFAGUS			1	1.000
4	5-4	'BASE3'	SecFAGUS			2	1.000
3	4-3	'BASE2'	SecFAGUS			3	1.000
2	3-2	'BASE1'	SecFAGUS			4	1.000
1	2-1	'BASE'	SecFAGUS			5	1.000

DEF. ACCIDENTAL :
Curva estándar y z, Valores max. [m]: w0_ymax= 0.055 w0_zmax= 0.055

Pto.	Bar.	x[m]	w0_y [m]	w0_z [m]
1	6	16.600	0.055	0.055
2	6	14.850	0.046	0.046
3	5	13.100	0.037	0.037
4	5	11.550	0.030	0.030
5	4	10.000	0.023	0.023
6	3	7.500	0.013	0.013
7	2	5.000	0.006	0.006
8	1	2.500	0.002	0.002
9	1	0.000	0.000	0.000

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Hip: momento transversal max. 16:23

CARGAS :

Nu/Ba		Tipo Car.		Dim.	Valor Val.arriba	ey[m] Val.abajo	ez[m]
Comp. Carga G1 :							
Nudo	7	Fuerza	x	[kN]	-4750.000	0.14000	0.08500
		Fuerza	y	[kN]	50.000		
		Momento	z	[kNm]	1100.000		
Barra	6	Peso propio	x	[kN/m3]	-25.000		
Barra	5	Peso propio	x	[kN/m3]	-25.000		
Barra	4	Peso propio	x	[kN/m3]	-25.000		
Barra	3	Peso propio	x	[kN/m3]	-25.000		
Barra	2	Peso propio	x	[kN/m3]	-25.000		
Barra	1	Peso propio	x	[kN/m3]	-25.000		
Comp. Carga Q1 :							
Nudo	7	Fuerza	x	[kN]	-3400.000	0.05500	0.05500
		Fuerza	y	[kN]	580.000		
		Fuerza	z	[kN]	330.000		
		Momento	z	[kNm]	2730.000		

C A P A C I D A D R E S I S T E N T E U L T I M A <G.MTMAX.2>

PARAMETROS DE CALCULO:

Norma	EH
Criterio de rotura	Agotamiento de secciones o del sistema
Rotura de secciones	Limitación de deformaciones según FAGUS-2
- Hormigón (def. centrada)	-2.000 [o/oo]
- Hormigón (flexión)	-3.500 [o/oo]
- Acero	10.00 [o/oo]
Coef. min. resist. (gamma_r)	1.000
Coeficiente de fluencia	0.000
Factor armadura (global)	1.000
No de elementos	6
Tolerancia desequi. fuerzas	0.137 [kN]
Tolerancia desequi. momentos	0.234 [kNm]
Mayoración de cargas	1.500 * Carga permanente G1
	+ 1.500 * Carga variable Q1 * ß

RESULTADOS DEL CALCULO NO LINEAL:
Las cargas variables se han aumentado por un factor ß (ß=1.0887). > 1,0

Rotura: Rotura de la sección
Sección 'BASE' en x= 0.000

DATOS DE LA SECCION

Nombre	Ancho dy [m]	Canto dz [m]	Materiales Horm.	/ Acero	Distrib. de la armadura	Armadura fija[cm²]	Armadura var [cm²]
BASE	2.800	2.600	H300	AEH500	B1	0.000	288.0
BASE1	2.800	2.380	H300	AEH500	B1	0.000	288.0
BASE2	2.800	2.200	H300	AEH500	B1	0.000	288.0
BASE3	2.800	2.000	H300	AEH500	B1	0.000	288.0
SUPERIOR	2.800	1.700	H300	AEH500	B1	0.000	288.0

DATOS DE BARRAS (incl. factores de armadura)

Barra	Sección arriba	/ abajo	factor S de la armadura	Armadura variable arriba[cm²]/abajo[cm²]	
6	SUPERIOR	SUPERIOR	1.000	288.0	288.0
5	SUPERIOR	SUPERIOR	1.000	288.0	288.0
4	BASE3	BASE3	1.000	288.0	288.0
3	BASE2	BASE2	1.000	288.0	288.0
2	BASE1	BASE1	1.000	288.0	288.0
1	BASE	BASE	1.000	288.0	288.0

DEFORMACIONES sin deformaciones accidentales

	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
Mínima	-1.93	0.00	0.00	-0.017	-9.407	0.000
Máxima	1.86	156.79	97.02	0.109	0.000	14.482

ESFUERZOS (global)

	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Mínima	-14121.63	-1022.22	-538.93	-41.42	911.02	7411.31
Máxima	-12829.87	-1022.21	-538.93	-0.00	11870.54	27185.84

TENSIONES, DEFORMACIONES & RIGIDECES-SECANTE/gamma_r

	sigHorm. [N/mm²]	sigAcero [N/mm²]	epsHorm. [o/oo]	epsAcero [o/oo]	EIy [kNm²]	EIz [kNm²]
Mínima	-17.0	-443.5	-3.485	-3.373	7.797E+6	1.277E+7
Máxima	0.0	443.5	5.178	5.066	1.641E+7	3.835E+7

DEFORMACIONES sin deformaciones accidentales
<G.MTMAX.2> Carga: 1.50*G1 1.50*Q1*ß ß=1.0887

Coord-x [m]	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
16.600	-1.93	156.79	97.02	0.109	-9.407	14.482
13.100	0.02	107.73	64.95	0.075	-8.776	13.450
10.000	1.28	68.55	39.92	0.028	-7.177	11.666
7.500	1.81	41.67	23.64	-0.000	-5.735	9.726
5.000	1.86	20.26	11.21	-0.016	-4.110	7.273
2.500	1.37	5.71	3.10	-0.017	-2.250	4.184
0.000	0.00	0.00	0.00	0.000	0.000	0.000

ESFUERZOS (global)
<G.MTMAX.2> Carga: 1.50*G1 1.50*Q1*ß ß=1.0887

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
16.600	-12829.87	-1022.22	-538.93	-0.00	911.02	7411.31
13.100	-12829.87	-1022.22	-538.93	-15.04	3439.24	11848.65
13.100	-13116.97	-1022.21	-538.93	-15.04	3439.24	11848.64
10.000	-13116.97	-1022.21	-538.93	-26.46	5626.44	15719.25
10.000	-13369.00	-1022.21	-538.93	-26.46	5626.44	15719.24

ESFUERZOS (global)
<G.MTMAX.2> Carga: 1.50*G1 1.50*Q1*ß ß=1.0887

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
7.500	-13369.00	-1022.21	-538.93	-33.26	7319.70	18762.42
7.500	-13609.00	-1022.21	-538.93	-33.25	7319.70	18762.42
5.000	-13609.00	-1022.21	-538.93	-37.94	8935.13	21708.11
5.000	-13859.69	-1022.21	-538.93	-37.94	8935.13	21708.11
2.500	-13859.69	-1022.21	-538.93	-40.58	10457.69	24528.02
2.500	-14121.63	-1022.21	-538.93	-40.58	10457.69	24528.03
0.000	-14121.63	-1022.21	-538.93	-41.42	11870.54	27185.84

TENSIONES & RIGIDECES-SECANTE/gamma_r
<G.MTMAX.2> Carga: 1.50*G1 1.50*Q1*ß ß=1.0887

Coord-x [m]	Horm.- [N/mm²]	Horm.+ [N/mm²]	Acero- [N/mm²]	Acero+ [N/mm²]	EIy [kNm²]	EIz [kNm²]
16.600	-8.9	-0.2	-128.3	-4.6	1.471E+7	3.835E+7
13.100	-13.2	0.0	-216.8	100.4	1.073E+7	2.991E+7
13.100	-13.4	0.0	-222.1	106.6	1.055E+7	2.886E+7
10.000	-16.6	0.0	-344.8	291.8	7.797E+6	2.123E+7
10.000	-15.5	0.0	-290.4	232.5	1.242E+7	2.475E+7
7.500	-16.9	0.0	-386.3	389.4	1.033E+7	2.047E+7
7.500	-16.6	0.0	-344.6	339.4	1.365E+7	2.260E+7
5.000	-17.0	0.0	-443.5	443.5	1.155E+7	1.917E+7
5.000	-17.0	0.0	-394.7	441.5	1.487E+7	2.128E+7
2.500	-17.0	0.0	-443.5	443.5	1.149E+7	1.690E+7
2.500	-17.0	0.0	-440.5	443.5	1.641E+7	2.011E+7
0.000	-17.0	0.0	-443.5	443.5	9.936E+6	1.277E+7

DEFORMACIONES
<G.MTMAX.2> Carga: 1.50*G1 1.50*Q1*ß ß=1.0887

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
16.600	-0.621	-0.011	-0.611	-0.022	0.17	105.3
13.100	-1.052	0.498	-1.032	0.478	0.19	127.9
13.100	-1.078	0.528	-1.057	0.508	0.19	127.8
10.000	-1.677	1.425	-1.642	1.390	0.23	133.9
10.000	-1.415	1.139	-1.383	1.107	0.20	125.3
7.500	-1.885	1.900	-1.839	1.854	0.22	127.6
7.500	-1.684	1.659	-1.641	1.616	0.20	122.6
5.000	-2.175	2.471	-2.117	2.413	0.22	124.2
5.000	-1.933	2.156	-1.880	2.102	0.20	120.1

DEFORMACIONES
<G.MTMAX.2> Carga: 1.50*G1 1.50*Q1*ß ß=1.0887

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
2.500	-2.613	3.328	-2.537	3.253	0.23	121.7
2.500	-2.163	2.687	-2.098	2.622	0.20	117.1
0.000	-3.485	5.178	-3.373	5.066	0.22	118.9

Programm: P Y R U S V.2.20 Bn:2137. 1 página 85
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Hip: momento transversal max. 16:47

C A R G A F I J A <F.MTMAX.3> Análisis no lineal con cargas característicos. (combinación para predimensionado de solicitaciones de uso).

PARAMETROS DE CALCULO:

Norma	EH
Criterio de rotura	Agotamiento de secciones o del sistema
Rotura de secciones	Limitación de deformaciones según FAGUS-2
- Hormigón (def. centrada)	-2.000 [o/oo]
- Hormigón (flexión)	-3.500 [o/oo]
- Acero	10.00 [o/oo]
Coef. min. resist. (gamma_r)	1.000
Coeficiente de fluencia	0.000
Factor armadura (global)	1.000
No de elementos	6
Tolerancia desequi. fuerzas	0.091 [kN]
Tolerancia desequi. momentos	0.156 [kNm]
Mayoración de cargas	1.000 * Carga permanente G1
	+ 1.000 * Carga variable Q1 * ß

RESULTADOS DEL CALCULO NO LINEAL:
Las cargas se han podido aplicar. (ß=1.00).

DATOS DE LA SECCION

Nombre	Ancho dy [m]	Canto dz [m]	Materiales Horm.	/ Acero	Distrib. de la armadura	Armadura fija[cm²]	Armadura var [cm²]
BASE	2.800	2.600	H300	AEH500	B1	0.000	288.0
BASE1	2.800	2.380	H300	AEH500	B1	0.000	288.0
BASE2	2.800	2.200	H300	AEH500	B1	0.000	288.0
BASE3	2.800	2.000	H300	AEH500	B1	0.000	288.0
SUPERIOR	2.800	1.700	H300	AEH500	B1	0.000	288.0

DATOS DE BARRAS (incl. factores de armadura)

Barra	Sección arriba	/ abajo	factor S de la armadura	Armadura variable arriba[cm²]	/abajo[cm²]
6	SUPERIOR	SUPERIOR	1.000	288.0	288.0
5	SUPERIOR	SUPERIOR	1.000	288.0	288.0
4	BASE3	BASE3	1.000	288.0	288.0
3	BASE2	BASE2	1.000	288.0	288.0
2	BASE1	BASE1	1.000	288.0	288.0
1	BASE	BASE	1.000	288.0	288.0

Programm: P Y R U S V.2.20 Bn:2137. 1 página 86
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Hip: momento transversal max. 16:47

DEFORMACIONES sin deformaciones accidentales

	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
Mínima	-1.28	0.00	0.00	-0.007	-4.174	0.000
Máxima	0.61	71.33	40.93	0.034	0.000	6.868

ESFUERZOS (global)

	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Mínima	-9112.67	-630.00	-330.00	-18.85	590.75	4682.00
Máxima	-8251.50	-630.00	-330.00	0.00	6887.45	16218.09

TENSIONES, DEFORMACIONES & RIGIDECES-SECANTE/gamma_r

	sigHorm. [N/mm²]	sigAcero [N/mm²]	epsHorm. [o/oo]	epsAcero [o/oo]	EIy [kNm²]	EIz [kNm²]
Mínima	-14.4	-248.9	-1.225	-1.185	9.423E+6	2.193E+7
Máxima	0.0	338.9	1.654	1.614	2.098E+7	4.025E+7

Tensión máxima del hormigón en servicio: $147 Kg/cm^2 < \frac{f_{ck}}{1,6} = \frac{300}{1,6} = 187 Kg/cm^2$ Válido

DEFORMACIONES sin deformaciones accidentales
<F.MTMAX.3> Carga: 1.00*G1 1.00*Q1*ß ß=1.0000

Coord-x [m]	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
16.600	-1.28	71.33	40.93	0.034	-4.174	6.868
13.100	-0.34	48.21	26.79	0.022	-3.839	6.288
10.000	0.30	30.04	15.96	0.006	-3.057	5.362
7.500	0.57	17.79	9.12	-0.002	-2.369	4.380
5.000	0.61	8.30	4.09	-0.007	-1.611	3.156
2.500	0.42	2.18	1.04	-0.006	-0.801	1.687
0.000	0.00	0.00	0.00	0.000	0.000	0.000

ESFUERZOS (global)
<F.MTMAX.3> Carga: 1.00*G1 1.00*Q1*ß ß=1.0000

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
16.600	-8251.50	-630.00	-330.00	0.00	590.75	4682.00
13.100	-8251.50	-630.00	-330.00	-6.68	2010.87	7226.06
13.100	-8442.90	-630.00	-330.00	-6.68	2010.87	7226.05
10.000	-8442.90	-630.00	-330.00	-11.81	3246.50	9453.68
10.000	-8610.92	-630.00	-330.00	-11.81	3246.50	9453.67

Programm: P Y R U S V.2.20 Bn:2137. 1 página 87
MC-2 ESTUDIO DE INGENIERIA 23.03.99
Hip: momento transversal max. 16:47

ESFUERZOS (global)
<F.MTMAX.3> Carga: 1.00*G1 1.00*Q1*ß ß=1.0000

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
7.500	-8610.92	-630.00	-330.00	-14.97	4213.19	11216.89
7.500	-8770.92	-630.00	-330.00	-14.97	4213.19	11216.89
5.000	-8770.92	-630.00	-330.00	-17.19	5146.10	12938.95
5.000	-8938.05	-630.00	-330.00	-17.19	5146.09	12938.95
2.500	-8938.05	-630.00	-330.00	-18.45	6038.97	14609.22
2.500	-9112.67	-630.00	-330.00	-18.45	6038.97	14609.22
0.000	-9112.67	-630.00	-330.00	-18.85	6887.45	16218.09

TENSIONES & RIGIDECES-SECANTE/gamma_r
<F.MTMAX.3> Carga: 1.00*G1 1.00*Q1*ß ß=1.0000

Coord-x [m]	Horm.- [N/mm²]	Horm.+ [N/mm²]	Acero- [N/mm²]	Acero+ [N/mm²]	EIy [kNm²]	EIz [kNm²]
16.600	-5.9	-0.2	-78.5	-3.6	1.562E+7	4.025E+7
13.100	-8.5	0.0	-121.5	47.7	1.229E+7	3.361E+7
13.100	-8.7	0.0	-124.1	49.7	1.219E+7	3.273E+7
10.000	-11.6	0.0	-179.1	138.0	9.423E+6	2.511E+7
10.000	-10.4	0.0	-154.1	109.4	1.479E+7	2.902E+7
7.500	-12.3	0.0	-195.4	185.6	1.266E+7	2.438E+7
7.500	-11.6	0.0	-178.0	163.0	1.648E+7	2.660E+7
5.000	-13.3	0.0	-216.8	240.2	1.463E+7	2.320E+7
5.000	-12.6	0.0	-200.4	217.8	1.815E+7	2.486E+7
2.500	-14.0	0.0	-236.5	293.5	1.654E+7	2.231E+7
2.500	-13.3	0.0	-216.2	266.8	2.098E+7	2.394E+7
0.000	-14.4	0.0	-248.9	338.9	1.948E+7	2.193E+7

DEFORMACIONES
<F.MTMAX.3> Carga: 1.00*G1 1.00*Q1*ß ß=1.0000

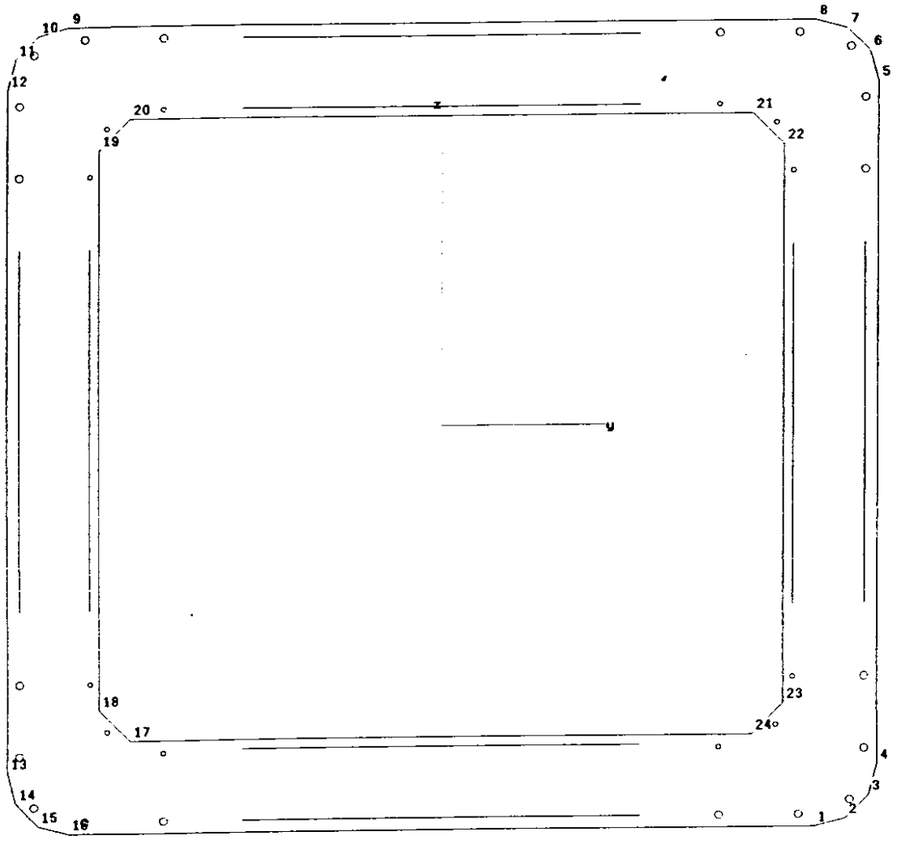
Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
16.600	-0.380	-0.010	-0.374	-0.017	0.16	106.1
13.100	-0.590	0.238	-0.579	0.227	0.17	126.4
13.100	-0.602	0.248	-0.591	0.237	0.17	126.4
10.000	-0.871	0.675	-0.853	0.657	0.19	132.2
10.000	-0.751	0.538	-0.734	0.521	0.17	123.9
7.500	-0.954	0.907	-0.930	0.884	0.18	125.8
7.500	-0.870	0.798	-0.848	0.776	0.17	121.2
5.000	-1.061	1.173	-1.032	1.144	0.18	122.2
5.000	-0.982	1.065	-0.954	1.037	0.16	118.5

Programm: P Y R U S V.2.20 Bn:2137. 1 página 88
MC-2 ESTUDIO DE INGENIERIA 23.03.99
Hip: momento transversal max. 16:47

DEFORMACIONES
<F.MTMAX.3> Carga: 1.00*G1 1.00*Q1*ß ß=1.0000

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
2.500	-1.161	1.432	-1.126	1.398	0.17	119.1
2.500	-1.062	1.303	-1.029	1.270	0.16	115.2
0.000	-1.225	1.654	-1.185	1.614	0.16	115.5

Mstb. 1 : 20.0



Sección :"BASE" Armadura :"B1"
Tipo : tipo pila/ Genérico Unidades : [cm]

Sección parcial 1: Hormigón = H300

Pto	Coord-Y	Coord-Z	Pto	Coord-Y	Coord-Z
1	120.00	0.00	2	130.00	2.68
3	137.32	10.00	4	140.00	20.00
5	140.00	240.00	6	137.32	250.00
7	130.00	257.32	8	120.00	260.00
9	-120.00	260.00	10	-130.00	257.32
11	-137.32	250.00	12	-140.00	240.00
13	-140.00	20.00	14	-137.32	10.00
15	-130.00	2.68	16	-120.00	0.00
Puntos aligeramiento:					
17	-100.00	30.00	18	-110.00	40.00
19	-110.00	220.00	20	-100.00	230.00
21	100.00	230.00	22	110.00	220.00

23	110.00	40.00	24	100.00	30.00

Características mecánicas de la sección:
Area : Ax= 2.860 [m2]
Momentos de inercia : Iy= 2.590 [m4] Iz= 2.931 [m4]
Inercia a torsión : Ix= 1.302 [m4] (de un círculo del mismo área)

Posición del centro de gravedad: ys= 0.000 [m] zs= 1.300 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-1.400	-2.094	0.732
dch.	Iz	1.400	2.094	-0.732
abajo	Iy	-1.300	-1.993	0.697
arriba	Iy	1.300	1.993	-0.697

Armadura: "B1"

N°	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	4.91	-131.31	251.31		
2	AEH500	(1)	4.91	131.31	251.31		
3	AEH500	(1)	4.91	-114.75	256.00		
4	AEH500	(1)	4.91	114.75	256.00		
5	AEH500	(1)	4.91	-89.25	256.00		
6	AEH500	(1)	4.91	89.25	256.00		
7	AEH500	(1)	4.91	136.00	234.75		
8	AEH500	(1)	4.91	-136.00	234.75		
9	AEH500	(1)	4.91	136.00	211.47		
10	AEH500	(1)	4.91	-136.00	211.47		
11	AEH500	(1)	4.91	136.00	48.53		
12	AEH500	(1)	4.91	-136.00	48.53		
13	AEH500	(1)	4.91	136.00	25.25		
14	AEH500	(1)	4.91	131.31	8.69		
15	AEH500	(1)	4.91	114.75	4.00		
16	AEH500	(1)	4.91	-114.75	4.00		
17	AEH500	(1)	4.91	89.25	4.00		
18	AEH500	(1)	4.91	-89.25	4.00		
19	AEH500	(1)	4.91	-131.31	8.69		
20	AEH500	(1)	4.91	-136.00	25.25		
21	AEH500	(1)	2.00	-107.50	33.00		
22	AEH500	(1)	2.00	107.50	33.00		
23	AEH500	(1)	2.00	-113.00	48.53		
24	AEH500	(1)	2.00	113.00	48.53		
25	AEH500	(1)	2.00	113.00	211.47		
26	AEH500	(1)	2.00	-113.00	211.47		
27	AEH500	(1)	2.00	89.25	26.00		
28	AEH500	(1)	2.00	89.25	233.00		
29	AEH500	(1)	2.00	-89.25	233.00		

30	AEH500	(1)	2.00	-89.25	26.00		
31	AEH500	(1)	2.00	107.50	227.00		
32	AEH500	(1)	2.00	-107.50	227.00		
33	AEH500	(1)	29.46	-63.75	4.00	63.75	4.00
34	AEH500	(1)	29.46	136.00	188.19	136.00	71.80
35	AEH500	(1)	29.46	-136.00	188.19	-136.00	71.80
36	AEH500	(1)	29.46	-63.75	256.00	63.75	256.00
37	AEH500	(1)	12.00	-63.75	27.00	63.75	27.00
38	AEH500	(1)	12.00	-63.75	233.00	63.75	233.00
39	AEH500	(1)	12.00	-113.00	188.19	-113.00	71.80
40	AEH500	(1)	12.00	113.00	188.19	113.00	71.80

Total: 288.04 Cuantía de armadura: 1.007 [o/o]

Cód. dimensionamiento: (0) = As constante
Cód. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccionada
Cód. dimensionamiento: (2) = Aumentar As solo en zona traccionada

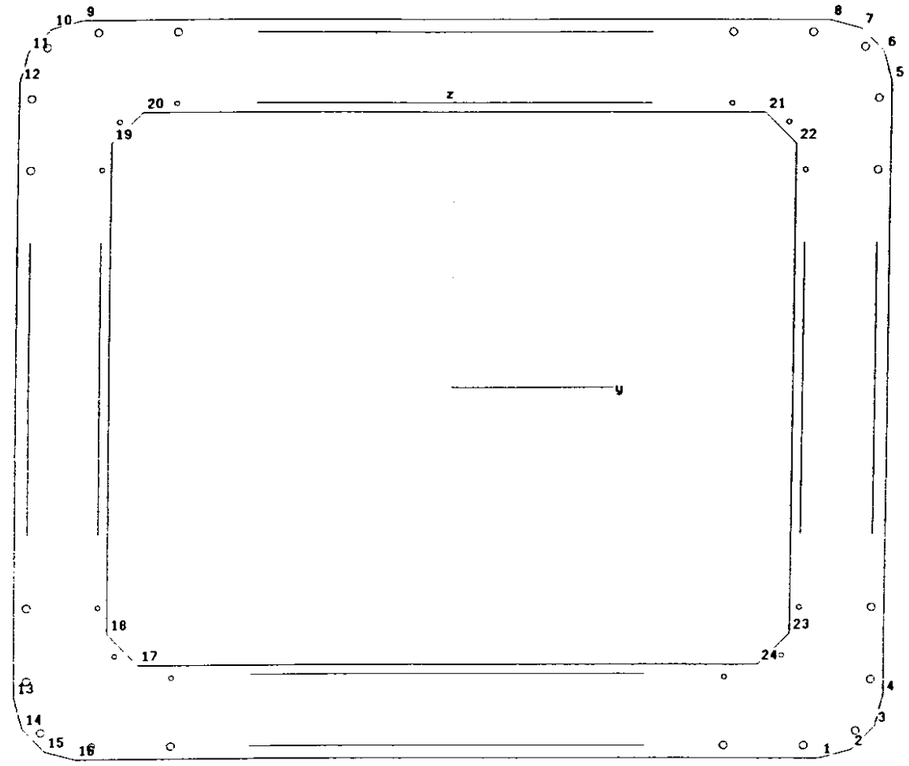
¡No se han definido valores para el cálculo a cortante!

Características del material:

Nom.Mat.	Módulo E [N/mm2]	0.85*fcd,fyd [N/mm2]	eps-fc [o/oo]	fct [N/mm2]	fcv [N/mm2]	fcw,mín [N/mm2]
"H300"	33000.0	-17.000	-2.000	0.0	0.707000	30.000
"AEH500"	210000.0	443.470				

Leyenda:
fcd,fyd resistencia de cálculo del hormigón,acero
eps-fc deformación al final de la parábola (fig.2.3, cap.2.2)
fct resistencia de cálculo a tracción del hormigón
fcv resistencia virtual de cálculo del hormigón a esfuerzo cortante

Mstb. 1 : 20.0



Sección :"BASE1" Armadura :"B1"
Tipo : tipo pila/ Genérico Unidades :[cm]

Sección parcial 1: Hormigón = H300

Pto	Coord-Y	Coord-Z	Pto	Coord-Y	Coord-Z
1	120.00	0.00	2	130.00	2.68
3	137.32	10.00	4	140.00	20.00
5	140.00	218.00	6	137.32	228.00
7	130.00	235.32	8	120.00	238.00
9	-120.00	238.00	10	-130.00	235.32
11	-137.32	228.00	12	-140.00	218.00
13	-140.00	20.00	14	-137.32	10.00
15	-130.00	2.68	16	-120.00	0.00
Puntos aligeramiento:					
17	-100.00	30.00	18	-110.00	40.00
19	-110.00	198.00	20	-100.00	208.00
21	100.00	208.00	22	110.00	198.00
23	110.00	40.00	24	100.00	30.00

Características mecánicas de la sección:

Area : Ax= 2.728 [m2]
Momentos de inercia : Iy= 2.074 [m4] Iz= 2.724 [m4]
Inercia a torsión : Ix= 1.184 [m4] (de un círculo del mismo área)

Posición del centro de gravedad: ys= 0.000 [m] zs= 1.190 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-1.400	-1.946	0.713
dch.	Iz	1.400	1.946	-0.713
abajo	Iy	-1.190	-1.743	0.639
arriba	Iy	1.190	1.743	-0.639

Armadura: "B1"

N°	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	4.91	-131.31	229.31		
2	AEH500	(1)	4.91	131.31	229.31		
3	AEH500	(1)	4.91	-114.75	234.00		
4	AEH500	(1)	4.91	114.75	234.00		
5	AEH500	(1)	4.91	-89.25	234.00		
6	AEH500	(1)	4.91	89.25	234.00		
7	AEH500	(1)	4.91	136.00	212.75		
8	AEH500	(1)	4.91	-136.00	212.75		
9	AEH500	(1)	4.91	136.00	189.47		
10	AEH500	(1)	4.91	-136.00	189.47		
11	AEH500	(1)	4.91	136.00	48.53		
12	AEH500	(1)	4.91	-136.00	48.53		
13	AEH500	(1)	4.91	136.00	25.25		
14	AEH500	(1)	4.91	131.31	8.69		
15	AEH500	(1)	4.91	114.75	4.00		
16	AEH500	(1)	4.91	-114.75	4.00		
17	AEH500	(1)	4.91	89.25	4.00		
18	AEH500	(1)	4.91	-89.25	4.00		
19	AEH500	(1)	4.91	-131.31	8.69		
20	AEH500	(1)	4.91	-136.00	25.25		
21	AEH500	(1)	2.00	-107.50	33.00		
22	AEH500	(1)	2.00	107.50	33.00		
23	AEH500	(1)	2.00	-113.00	48.53		
24	AEH500	(1)	2.00	113.00	48.53		
25	AEH500	(1)	2.00	113.00	189.47		
26	AEH500	(1)	2.00	-113.00	189.47		
27	AEH500	(1)	2.00	89.25	26.00		
28	AEH500	(1)	2.00	89.25	211.00		
29	AEH500	(1)	2.00	-89.25	211.00		
30	AEH500	(1)	2.00	-89.25	26.00		
31	AEH500	(1)	2.00	107.50	205.00		
32	AEH500	(1)	2.00	-107.50	205.00		

33	AEH500	(1)	29.46	-63.75	4.00	63.75	4.00
34	AEH500	(1)	29.46	136.00	166.19	136.00	71.80
35	AEH500	(1)	29.46	-136.00	166.19	-136.00	71.80
36	AEH500	(1)	29.46	-63.75	234.00	63.75	234.00
37	AEH500	(1)	12.00	-63.75	27.00	63.75	27.00
38	AEH500	(1)	12.00	-63.75	211.00	63.75	211.00
39	AEH500	(1)	12.00	-113.00	166.19	-113.00	71.80
40	AEH500	(1)	12.00	113.00	166.19	113.00	71.80

Total: 288.04 Cuantía de armadura: 1.056 [o/o]

Cód. dimensionamiento: (0) = As constante
Cód. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccionada
Cód. dimensionamiento: (2) = Aumentar As solo en zona traccionada

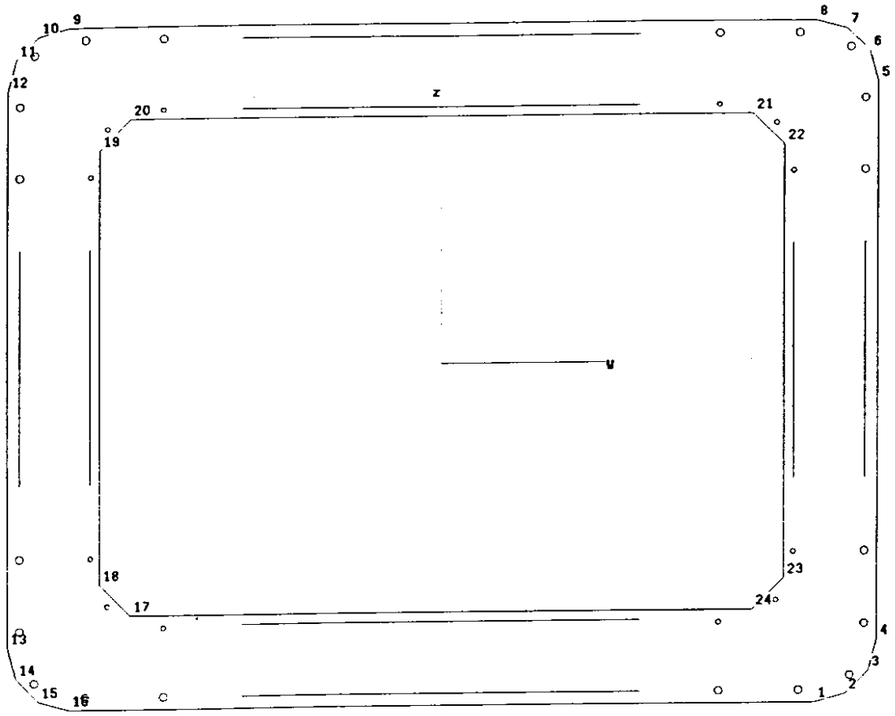
¡No se han definido valores para el cálculo a cortante!

Características del material:

Nom.Mat.	Módulo E [N/mm2]	0.85*fcd,fyd [N/mm2]	eps-fc [o/oo]	fct [N/mm2]	fcv [N/mm2]	fcw,mín [N/mm2]
"H300"	33000.0	-17.000	-2.000	0.0	0.707000	30.000
"AEH500"	210000.0	443.470				

Leyenda:
fcd,fyd resistencia de cálculo del hormigón,acero
eps-fc deformación al final de la parábola (fig.2.3, cap.2.2)
fct resistencia de cálculo a tracción del hormigón
fcv resistencia virtual de cálculo del hormigón a esfuerzo cortante

Mstb. 1 : 20.0



Sección :"BASE2" Armadura :"B1"
Tipo : tipo pila/ Genérico Unidades :[cm]

Sección parcial 1: Hormigón = H300

Pto	Coord-Y	Coord-Z	Pto	Coord-Y	Coord-Z
1	120.00	0.00	2	130.00	2.68
3	137.32	10.00	4	140.00	20.00
5	140.00	200.00	6	137.32	210.00
7	130.00	217.32	8	120.00	220.00
9	-120.00	220.00	10	-130.00	217.32
11	-137.32	210.00	12	-140.00	200.00
13	-140.00	20.00	14	-137.32	10.00
15	-130.00	2.68	16	-120.00	0.00
Puntos aligeramiento:					
17	-100.00	30.00	18	-110.00	40.00
19	-110.00	180.00	20	-100.00	190.00
21	100.00	190.00	22	110.00	180.00
23	110.00	40.00	24	100.00	30.00

Características mecánicas de la sección:
Area : Ax= 2.620 [m2]

Momentos de inercia : Iy= 1.701 [m4] Iz= 2.554 [m4]
Inercia a torsión : Ix= 1.092 [m4] (de un círculo del mismo área)

Posición del centro de gravedad: ys= 0.000 [m] zs= 1.100 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-1.400	-1.825	0.696
dch.	Iz	1.400	1.825	-0.696
abajo	Iy	-1.100	-1.546	0.590
arriba	Iy	1.100	1.546	-0.590

Armadura: "B1"

N°	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	4.91	-131.31	211.31		
2	AEH500	(1)	4.91	131.31	211.31		
3	AEH500	(1)	4.91	-114.75	216.00		
4	AEH500	(1)	4.91	114.75	216.00		
5	AEH500	(1)	4.91	-89.25	216.00		
6	AEH500	(1)	4.91	89.25	216.00		
7	AEH500	(1)	4.91	136.00	194.75		
8	AEH500	(1)	4.91	-136.00	194.75		
9	AEH500	(1)	4.91	136.00	171.47		
10	AEH500	(1)	4.91	-136.00	171.47		
11	AEH500	(1)	4.91	136.00	48.53		
12	AEH500	(1)	4.91	-136.00	48.53		
13	AEH500	(1)	4.91	136.00	25.25		
14	AEH500	(1)	4.91	131.31	8.69		
15	AEH500	(1)	4.91	114.75	4.00		
16	AEH500	(1)	4.91	-114.75	4.00		
17	AEH500	(1)	4.91	89.25	4.00		
18	AEH500	(1)	4.91	-89.25	4.00		
19	AEH500	(1)	4.91	-131.31	8.69		
20	AEH500	(1)	4.91	-136.00	25.25		
21	AEH500	(1)	2.00	-107.50	33.00		
22	AEH500	(1)	2.00	107.50	33.00		
23	AEH500	(1)	2.00	-113.00	48.53		
24	AEH500	(1)	2.00	113.00	48.53		
25	AEH500	(1)	2.00	113.00	171.47		
26	AEH500	(1)	2.00	-113.00	171.47		
27	AEH500	(1)	2.00	89.25	26.00		
28	AEH500	(1)	2.00	89.25	193.00		
29	AEH500	(1)	2.00	-89.25	193.00		
30	AEH500	(1)	2.00	-89.25	26.00		
31	AEH500	(1)	2.00	107.50	187.00		
32	AEH500	(1)	2.00	-107.50	187.00		
33	AEH500	(1)	29.46	-63.75	4.00	63.75	4.00

34	AEH500	(1)	29.46	136.00	148.19	136.00	71.80
35	AEH500	(1)	29.46	-136.00	148.19	-136.00	71.80
36	AEH500	(1)	29.46	-63.75	216.00	63.75	216.00
37	AEH500	(1)	12.00	-63.75	27.00	63.75	27.00
38	AEH500	(1)	12.00	-63.75	193.00	63.75	193.00
39	AEH500	(1)	12.00	-113.00	148.19	-113.00	71.80
40	AEH500	(1)	12.00	113.00	148.19	113.00	71.80

Total: 288.04 Cuantía de armadura: 1.099 [o/o]

Cód. dimensionamiento: (0) = As constante
Cód. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccionada
Cód. dimensionamiento: (2) = Aumentar As solo en zona traccionada

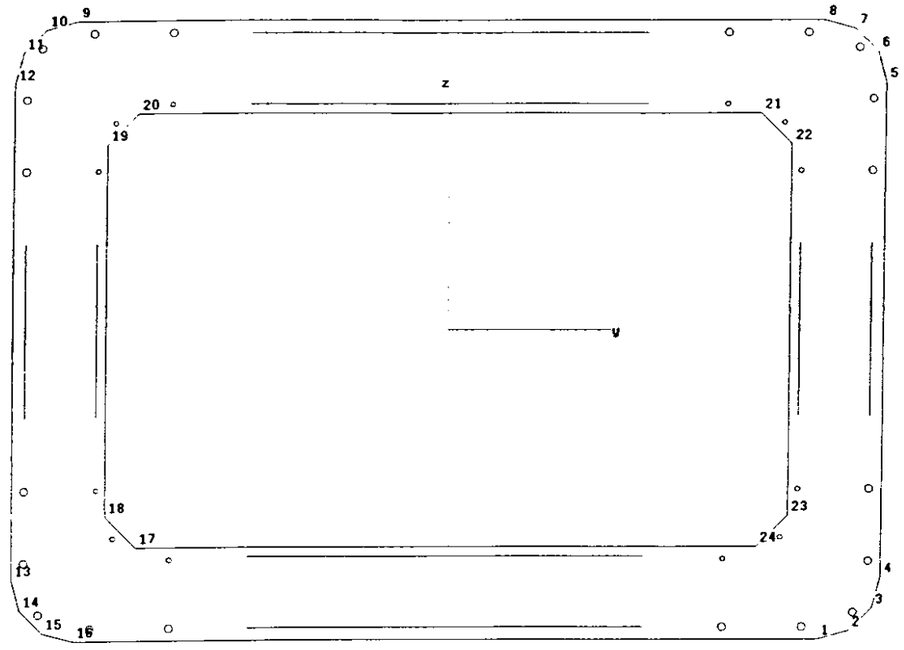
¡No se han definido valores para el cálculo a cortante!

Características del material:

Nom.Mat.	Módulo E [N/mm2]	0.85*fcd,fyd [N/mm2]	eps-fc [o/oo]	fct [N/mm2]	fcv [N/mm2]	fcw,mín [N/mm2]
"H300"	33000.0	-17.000	-2.000	0.0	0.707000	30.000
"AEH500"	210000.0	443.470				

Leyenda:
fcd,fyd resistencia de cálculo del hormigón,acero
eps-fc deformación al final de la parábola (fig.2.3, cap.2.2)
fct resistencia de cálculo a tracción del hormigón
fcv resistencia virtual de cálculo del hormigón a esfuerzo cortante

Mstb. 1 : 20.0



Sección :"BASE3" Armadura :"B1"
Tipo : tipo pila/ Genérico Unidades :[cm]

Sección parcial 1: Hormigón = H300

Pto	Coord-Y	Coord-Z	Pto	Coord-Y	Coord-Z
1	120.00	0.00	2	130.00	2.68
3	137.32	10.00	4	140.00	20.00
5	140.00	180.00	6	137.32	190.00
7	130.00	197.32	8	120.00	200.00
9	-120.00	200.00	10	-130.00	197.32
11	-137.32	190.00	12	-140.00	180.00
13	-140.00	20.00	14	-137.32	10.00
15	-130.00	2.68	16	-120.00	0.00
Puntos aligeramiento:					
17	-100.00	30.00	18	-110.00	40.00
19	-110.00	160.00	20	-100.00	170.00
21	100.00	170.00	22	110.00	160.00
23	110.00	40.00	24	100.00	30.00

Características mecánicas de la sección:
Area : Ax= 2.500 [m2]
Momentos de inercia : Iy= 1.336 [m4] Iz= 2.366 [m4]
Inercia a torsión : Ix= 0.994713 [m4] (de un círculo del mismo área)

Posición del centro de gravedad: ys= 0.000 [m] zs= 1.000 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-1.400	-1.690	0.676
dch.	Iz	1.400	1.690	-0.676
abajo	Iy	-1.000	-1.336	0.534
arriba	Iy	1.000	1.336	-0.534

Armadura: "B1"

N°	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	4.91	-131.31	191.31		
2	AEH500	(1)	4.91	131.31	191.31		
3	AEH500	(1)	4.91	-114.75	196.00		
4	AEH500	(1)	4.91	114.75	196.00		
5	AEH500	(1)	4.91	-89.25	196.00		
6	AEH500	(1)	4.91	89.25	196.00		
7	AEH500	(1)	4.91	136.00	174.75		
8	AEH500	(1)	4.91	-136.00	174.75		
9	AEH500	(1)	4.91	136.00	151.47		
10	AEH500	(1)	4.91	-136.00	151.47		
11	AEH500	(1)	4.91	136.00	48.53		
12	AEH500	(1)	4.91	-136.00	48.53		
13	AEH500	(1)	4.91	136.00	25.25		
14	AEH500	(1)	4.91	131.31	8.69		
15	AEH500	(1)	4.91	114.75	4.00		
16	AEH500	(1)	4.91	-114.75	4.00		
17	AEH500	(1)	4.91	89.25	4.00		
18	AEH500	(1)	4.91	-89.25	4.00		
19	AEH500	(1)	4.91	-131.31	8.69		
20	AEH500	(1)	4.91	-136.00	25.25		
21	AEH500	(1)	2.00	-107.50	33.00		
22	AEH500	(1)	2.00	107.50	33.00		
23	AEH500	(1)	2.00	-113.00	48.53		
24	AEH500	(1)	2.00	113.00	48.53		
25	AEH500	(1)	2.00	113.00	151.47		
26	AEH500	(1)	2.00	-113.00	151.47		
27	AEH500	(1)	2.00	89.25	26.00		
28	AEH500	(1)	2.00	89.25	173.00		
29	AEH500	(1)	2.00	-89.25	173.00		
30	AEH500	(1)	2.00	-89.25	26.00		
31	AEH500	(1)	2.00	107.50	167.00		
32	AEH500	(1)	2.00	-107.50	167.00		
33	AEH500	(1)	29.46	-63.75	4.00	63.75	4.00
34	AEH500	(1)	29.46	136.00	128.19	136.00	71.80
35	AEH500	(1)	29.46	-136.00	128.14	-136.00	71.80

36	AEH500	(1)	29.46	-63.75	196.00	63.75	196.00
37	AEH500	(1)	12.00	-63.75	27.00	63.75	27.00
38	AEH500	(1)	12.00	-63.75	173.00	63.75	173.00
39	AEH500	(1)	12.00	-113.00	128.19	-113.00	71.80
40	AEH500	(1)	12.00	113.00	128.19	113.00	71.80

Total: 288.04 Cuantía de armadura: 1.152 [o/o]

Cód. dimensionamiento: (0) = As constante
Cód. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccionada
Cód. dimensionamiento: (2) = Aumentar As solo en zona traccionada

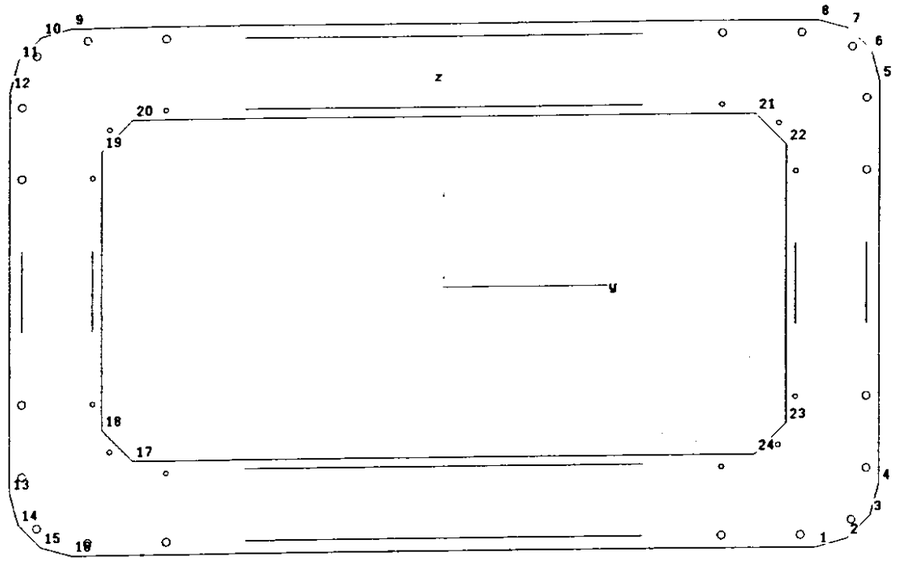
¡No se han definido valores para el cálculo a cortante!

Características del material:

Nom.Mat.	Módulo E [N/mm2]	0.85*fcd,fyd [N/mm2]	eps-fc [o/oo]	fct [N/mm2]	fcv [N/mm2]	fcw,mín [N/mm2]
"H300"	33000.0	-17.000	-2.000	0.0	0.707000	30.000
"AEH500"	210000.0	443.470				

Leyenda:
fcd,fyd resistencia de cálculo del hormigón,acero
eps-fc deformación al final de la parábola (fig.2.3, cap.2.2)
fct resistencia de cálculo a tracción del hormigón
fcv resistencia virtual de cálculo del hormigón a esfuerzo cortante

Mstb. 1 : 20.0



Sección :"SUPERIOR" Armadura :"B1"
Tipo : tipo pila/ Genérico Unidades :[cm]

Sección parcial 1: Hormigón = H300

Pto	Coord-Y	Coord-Z	Pto	Coord-Y	Coord-Z
1	120.00	0.00	2	130.00	2.68
3	137.32	10.00	4	140.00	20.00
5	140.00	150.00	6	137.32	160.00
7	130.00	167.32	8	120.00	170.00
9	-120.00	170.00	10	-130.00	167.32
11	-137.32	160.00	12	-140.00	150.00
13	-140.00	20.00	14	-137.32	10.00
15	-130.00	2.68	16	-120.00	0.00
Puntos aligeramiento:					
17	-100.00	30.00	18	-110.00	40.00
19	-110.00	130.00	20	-100.00	140.00
21	100.00	140.00	22	110.00	130.00
23	110.00	40.00	24	100.00	30.00

Características mecánicas de la sección:
Area : Ax= 2.320 [m2]
Momentos de inercia : Iy= 0.881948 [m4] Iz= 2.083 [m4]
Inercia a torsión : Ix= 0.856631 [m4] (de un círculo del mismo área)

Posición del centro de gravedad: ys= 0.000 [m] zs= 0.850000 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-1.400	-1.488	0.641
dch.	Iz	1.400	1.488	-0.641
abajo	Iy	-0.850	-1.038	0.447
arriba	Iy	0.850	1.038	-0.447

Armadura: "B1"

N°	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	4.91	-131.31	161.31		
2	AEH500	(1)	4.91	131.31	161.31		
3	AEH500	(1)	4.91	-114.75	166.00		
4	AEH500	(1)	4.91	114.75	166.00		
5	AEH500	(1)	4.91	-89.25	166.00		
6	AEH500	(1)	4.91	89.25	166.00		
7	AEH500	(1)	4.91	136.00	144.75		
8	AEH500	(1)	4.91	-136.00	144.75		
9	AEH500	(1)	4.91	136.00	121.47		
10	AEH500	(1)	4.91	-136.00	121.47		
11	AEH500	(1)	4.91	136.00	48.53		
12	AEH500	(1)	4.91	-136.00	48.53		
13	AEH500	(1)	4.91	136.00	25.25		
14	AEH500	(1)	4.91	131.31	8.69		
15	AEH500	(1)	4.91	114.75	4.00		
16	AEH500	(1)	4.91	-114.75	4.00		
17	AEH500	(1)	4.91	89.25	4.00		
18	AEH500	(1)	4.91	-89.25	4.00		
19	AEH500	(1)	4.91	-131.31	8.69		
20	AEH500	(1)	4.91	-136.00	25.25		
21	AEH500	(1)	2.00	-107.50	33.00		
22	AEH500	(1)	2.00	107.50	33.00		
23	AEH500	(1)	2.00	-113.00	48.53		
24	AEH500	(1)	2.00	113.00	48.53		
25	AEH500	(1)	2.00	113.00	121.47		
26	AEH500	(1)	2.00	-113.00	121.47		
27	AEH500	(1)	2.00	89.25	26.00		
28	AEH500	(1)	2.00	89.25	143.00		
29	AEH500	(1)	2.00	-89.25	143.00		
30	AEH500	(1)	2.00	-89.25	26.00		
31	AEH500	(1)	2.00	107.50	137.00		
32	AEH500	(1)	2.00	-107.50	137.00		
33	AEH500	(1)	29.46	-63.75	4.00	63.75	4.00
34	AEH500	(1)	29.46	136.00	98.19	136.00	71.80
35	AEH500	(1)	29.46	-136.00	98.19	-136.00	71.80
36	AEH500	(1)	29.46	-63.75	166.00	63.75	166.00
37	AEH500	(1)	12.00	-63.75	27.00	63.75	27.00
38	AEH500	(1)	12.00	-63.75	143.00	63.75	143.00

39	AEH500	(1)	12.00	-113.00	98.19	-113.00	71.80
40	AEH500	(1)	12.00	113.00	98.19	113.00	71.80

Total: 288.04 Cuantía de armadura: 1.242 [o/o]

Cód. dimensionamiento: (0) = As constante
Cód. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccionada
Cód. dimensionamiento: (2) = Aumentar As solo en zona traccionada

¡No se han definido valores para el cálculo a cortante!

Características del material:

Nom.Mat.	Módulo E [N/mm2]	0.85*fcd,fyd [N/mm2]	eps-fc [o/oo]	fct [N/mm2]	fcv [N/mm2]	fcw,mín [N/mm2]
"H300"	33000.0	-17.000	-2.000	0.0	0.707000	30.000
"AEH500"	210000.0	443.470				

Leyenda:
fcd,fyd resistencia de cálculo del hormigón,acero
eps-fc deformación al final de la parábola (fig.2.3, cap.2.2)
fct resistencia de cálculo a tracción del hormigón
fcv resistencia virtual de cálculo del hormigón a esfuerzo cortante

SUBANEJO Nº 5

COMPROBACIONES ADICIONALES DE PILAS, ESTRIBOS Y CIMENTACIONES

CUADRO DE ESFUERZOS CARACTERÍSTICOS EN CABEZA DE PILAS

Mínimo axil con $M_{transv.}$ concomitante

Pila	Axil						M transversal				H transversal				H longitudinal
	1	2	3	4	5	6	1	3	4	5	1	3	4	5	6
1	-445	28	31	31	19	20	97	84	18	18	5	3	30	15	22
2	-537	17	37	37	22	0	122	100	6	14	5	3	33	17	27
3	-527	10	50	45	26	0	122	106	23	2	5	3	31	16	26
4	-529	10	50	51	29	0	122	107	35	7	6	3	35	17	26

Máximo axil con $M_{transv.}$ concomitante

Pila	Axil						M transversal				H transversal				H longitudinal
	1	2	3	4	5	6	1	3	4	5	1	3	4	5	6
1	-445	-49	-375	-31	-10	0	97	84	18	18	5	17	30	15	22
2	-537	-9	-428	-37	-22	0	122	100	6	14	5	18	33	17	27
3	-527	-8	-432	-45	-26	0	122	106	23	2	5	14	31	16	26
4	-529	-8	-436	-51	-29	0	122	107	35	7	6	14	35	17	26

Máximo $M_{transv.}$ con axil concomitante

Pila	Axil						M transversal				H transversal				H longitudinal
	1	2	3	4	5	6	1	3	4	5	1	3	4	5	6
1	-445	-49	-323	-31	-10	0	97	219	18	18	5	17	30	15	22
2	-537	-9	-378	-37	-22	0	122	252	6	14	5	18	33	17	27
3	-527	-8	-363	-45	-26	0	122	264	23	2	5	14	31	16	26
4	-529	-8	-362	-51	-29	0	122	267	35	7	6	14	35	17	26

1 Carga permanente
2 Asientos
3 Sobrecarga de uso
4 Viento
5 Fuerza centrífuga
6 Térmico

5 0 0 1

1

PILAS 2 A 6

Hipótesis II.1

Máximo $M_{transv.}$ con axil concomitante: ($\gamma_{cp} = 1,5$; $\gamma_{sc} = 1,5$)

Axil CP = -529 t

Axil SC = $-0,9\left[\frac{1,25}{1,5}\ 9 + 362 + 51 + \frac{1,25}{1,5}\ 29\right] = -400$ t

$M_{transv.\ CP}$ = 122 mt

$M_{transv.\ SC} = 0,9\left[267 + 35 + \frac{1,25}{1,5}\ 14\right] = 282$ t

$H_{transv.\ CP}$ = 6 t

$H_{transv.\ SC} = 0,9\left[18 + 35 + \frac{1,25}{1,5}\ 17\right] = 60$ t

$H_{long.}$ = 0,9 x 26 = 23,4 t

Hipótesis II.2

Máximo axil con $M_{transv.}$ concomitante: ($\gamma_{cp} = 1,5$; $\gamma_{sc} = 1,5$)

Axil CP = -529 t

Axil SC = $-0,9\left[\frac{1,25}{1,5}\ 9 + 436 + 51 + \frac{1,25}{1,5}\ 29\right] = -467$ t

$M_{transv.\ CP}$ = 122 mt

$M_{transv.\ SC} = 0,9\left[107 + 35 + \frac{1,25}{1,5}\ 14\right] = 138$ t

$H_{transv.\ CP}$ = 6 t

$H_{transv.\ SC} = 0,9\left[18 + 35 + \frac{1,25}{1,5}\ 17\right] = 60$ t

$H_{long.}$ = 0,9 x 26 = 23,4 t

Hipótesis II.3

Minimo axil con $M_{transv.}$ concomitante: ($\gamma_{cp} = 1,0$; $\gamma_{sc} = 1,5$)

Axil CP = -0,9 x 527 = -474 t

Axil SC (sin mayorar) = $0,9\left[\frac{1,25}{1,5}\ 10 + 50 + 45 + \frac{1,25}{1,5}\ 26\right] = 114$ t

$M_{transv.\ CP}$ = 0,9 x 122 = 110 mt

$M_{transv.\ SC} = 0,9\left[107 + 35 + \frac{1,25}{1,5}\ 14\right] = 138$ t

$H_{transv.\ CP}$ = 0,9 x 6 = 5,4 t

$H_{transv.\ SC} = 0,9\left[3 + 35 + \frac{1,25}{1,5}\ 17\right] = 47$ t

$H_{long.\ SC}$ = 0,9 x 26 = 23,4 t

PILAS 1 Y 7

Hipótesis II.1

Máximo $M_{transv.}$ con axil concomitante: ($\gamma_{cp} = 1,5$; $\gamma_{sc} = 1,5$)

Axil CP = -445 t

Axil SC = $-0,9\left[\frac{1,25}{1,5}\ 49 + 323 + 31 + 10\right] = -364$ t

$M_{transv.\ CP}$ = 97 mt

$M_{transv.\ SC} = 0,9\left[219 + 18 + \frac{1,25}{1,5}\ 18\right] = 227$ t

$H_{transv.\ CP}$ = 5 t

$H_{transv.\ SC} = 0,9\left[17 + 30 + \frac{1,25}{1,5}\ 15\right] = 54$ t

$H_{long.\ SC}$ = 0,9 x 22 = 20 t

Hipótesis II.2

Máximo axil con $M_{transv.}$ concomitante: ($\gamma_{cp} = 1,5$; $\gamma_{sc} = 1,5$)

Axil CP = -445 t

Axil SC = $-0,9\left[\frac{1,25}{1,5}\ 49 + 375 + 31 + 10\right] = -411$ t

$M_{transv.\ CP}$ = 97 mt

$M_{transv.\ SC} = 0,9\left[84 + 18 + \frac{1,25}{1,5}\ 18\right] = 105$ t

$H_{transv.\ CP}$ = 5 t

$H_{transv.\ SC} = 0,9\left[17 + 30 + \frac{1,25}{1,5}\ 15\right] = 54$ t

$H_{long.\ SC}$ = 0,9 x 22 = 20 t

Hipótesis II.3

Minimo axil con $M_{transv.}$ concomitante: ($\gamma_{cp} = 1,0$; $\gamma_{sc} = 1,5$)

Axil CP = -0,9 x 445 = 400 t

Axil SC = $0,9\left[\frac{1,25}{1,5}\ 28 + 31 + 31 + \frac{1,25}{1,5}\ 19\right] = 91,0$ t

$M_{transv.\ CP}$ = 0,9 x 97 = 87 mt

$M_{transv.\ SC} = 0,9\left[84 + 18 + \frac{1,25}{1,5}\ 18\right] = 105$ t

$H_{transv.\ CP}$ = 0,9 x 5 = 4,5 t

$H_{transv.\ SC} = 0,9\left[3 + 30 + \frac{1,25}{1,5}\ 15\right] = 41$ t

$H_{long.\ SC}$ = 0,9 x 22 = 20 t

Pila ''MTMAX' (HIP. II.3) PILAS 2 a 6
****

Título : 'Hip: momento transversal max.'
Altura de la pila : 16.600 [m]
Long. max. de barra: Altura pila / 6

NUDOS Nu	x [m]	Apoyo d-xyz	r-xyz
7	16.600		
6	13.100		
5	10.000		
4	7.500		
3	5.000		
2	2.500		
1	0.000	BBB	BBB

Apoyo: B=bloqueado, E=elástico

BARRAS (1.línea: barra arriba, 2.línea: barra abajo)

Ba	Nu	Sección	Tipo	Exc: ey [m]	ez [m]	Arm: Zona	fac
6	7-6	'SUPERIOR'	SecFAGUS			1	1.000
5	6-5	'SUPERIOR'	SecFAGUS			1	1.000
4	5-4	'BASE3'	SecFAGUS			2	1.000
3	4-3	'BASE2'	SecFAGUS			3	1.000
2	3-2	'BASE1'	SecFAGUS			4	1.000
1	2-1	'BASE'	SecFAGUS			5	1.000

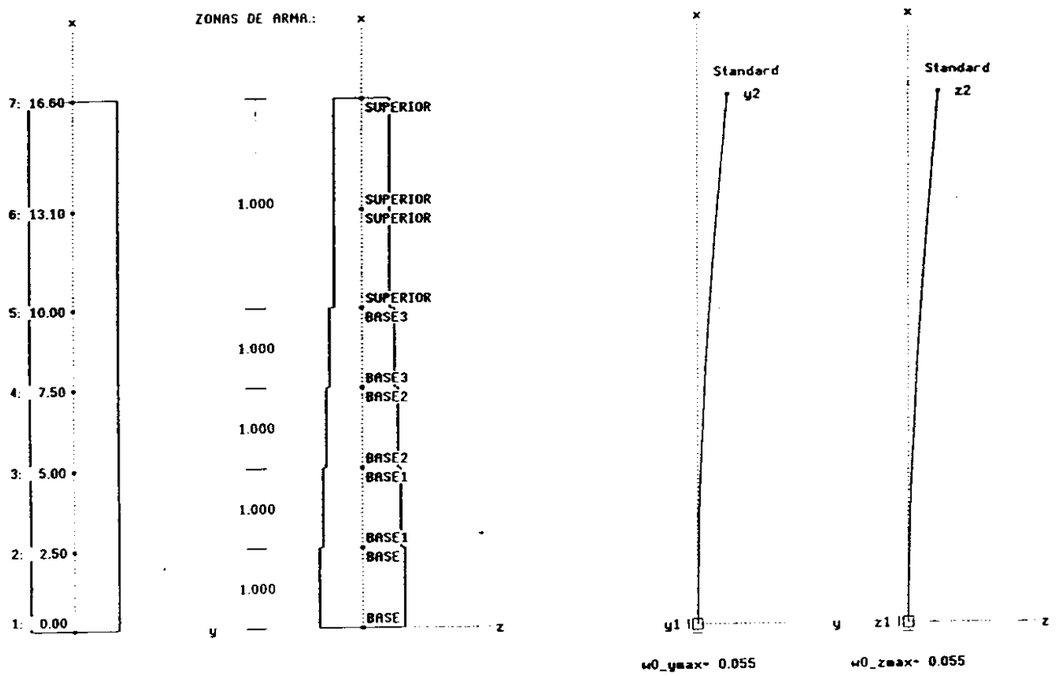
DEF. ACCIDENTAL :
Curva estándar y z, Valores max. [m]: w0_ymax= 0.055 w0_zmax= 0.055

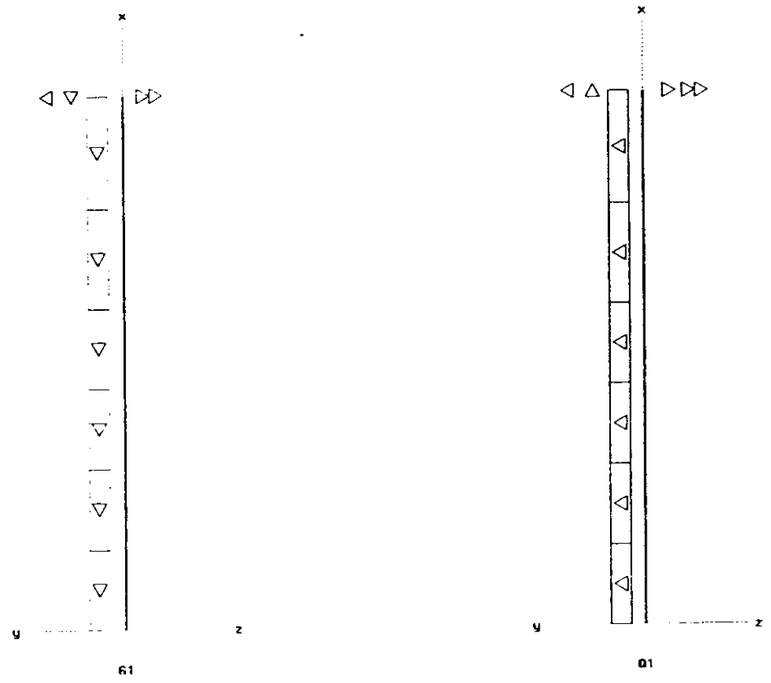
Pto.	Bar.	x[m]	w0_y [m]	w0_z [m]
1	6	16.600	0.055	0.055
2	6	14.850	0.046	0.046
3	5	13.100	0.037	0.037
4	5	11.550	0.030	0.030
5	4	10.000	0.023	0.023
6	3	7.500	0.013	0.013
7	2	5.000	0.006	0.006
8	1	2.500	0.002	0.002
9	1	0.000	0.000	0.000

CARGAS :

Nu/Ba		Tipo Car.	Dim.		Valor Val.arriba	ey[m] Val.abajo	ez[m]
Comp. Carga G1 :							
Nudo	7	Fuerza	x	[kN]	-4740.000	0.14000	0.08500
		Fuerza	y	[kN]	54.000		
		Momento	z	[kNm]	1100.000		
Barra	6	Peso propio	x	[kN/m3]	-25.000		
Barra	5	Peso propio	x	[kN/m3]	-25.000		
Barra	4	Peso propio	x	[kN/m3]	-25.000		
Barra	3	Peso propio	x	[kN/m3]	-25.000		
Barra	2	Peso propio	x	[kN/m3]	-25.000		
Barra	1	Peso propio	x	[kN/m3]	-25.000		
Comp. Carga Q1 :							
Nudo	7	Fuerza	x	[kN]	1140.000	0.05500	0.05500
		Fuerza	y	[kN]	470.000		
		Fuerza	z	[kN]	230.000		
		Momento	z	[kNm]	1380.000		
Barra	6	Fuerza	y	[kN/m]	3.400		
Barra	5	Fuerza	y	[kN/m]	3.400		
Barra	4	Fuerza	y	[kN/m]	3.400		
Barra	3	Fuerza	y	[kN/m]	3.400		
Barra	2	Fuerza	y	[kN/m]	3.400		
Barra	1	Fuerza	y	[kN/m]	3.400		

Escala 1 : 194.7
Modelo, Deformación accidental y cargas de la pila MTMAX





C A P A C I D A D R E S I S T E N T E U L T I M A <G.MTMAX.1>

Hip. II.2 PILAS 2 a 6

PARAMETROS DE CALCULO:

Norma	EH
Criterio de rotura	Agotamiento de secciones o del sistema
Rotura de secciones	Limitación de deformaciones según FAGUS-:
- Hormigón (def. centrada)	-2.000 [o/oo]
- Hormigón (flexión)	-3.500 [o/oo]
- Acero	10.00 [o/oo]
Coef. min. resist. (gamma_r)	1.000
Coeficiente de fluencia	0.000
Factor armadura (global)	1.000
No de elementos	6
Tolerancia desequi. fuerzas	0.040 [kN]
Tolerancia desequi. momentos	0.172 [kNm]
Mayoración de cargas	1.000 * Carga permanente G1
	+ 1.500 * Carga variable Q1 * ß

RESULTADOS DEL CALCULO NO LINEAL:
Las cargas variables se han aumentado por un factor ß (ß=1.1781).

Rotura: Rotura de la sección
Sección 'BASE' en x= 0.000

DATOS DE LA SECCION

Nombre	Ancho dy [m]	Canto dz [m]	Materiales Horm.	/ Acero	Distrib. de la armadura	Armadura fija[cm²]	Armadura var [cm²]
BASE	2.800	2.600	H300	AEH500	B1	0.000	288.0
BASE1	2.800	2.380	H300	AEH500	B1	0.000	288.0
BASE2	2.800	2.200	H300	AEH500	B1	0.000	288.0
BASE3	2.800	2.000	H300	AEH500	B1	0.000	288.0
SUPERIOR	2.800	1.700	H300	AEH500	B1	0.000	288.0

DATOS DE BARRAS (incl. factores de armadura)

Barra	Sección arriba	/ abajo	factor S de la armadura	Armadura variable arriba[cm²]	/abajo[cm²]
6	SUPERIOR	SUPERIOR	1.000	288.0	288.0
5	SUPERIOR	SUPERIOR	1.000	288.0	288.0
4	BASE3	BASE3	1.000	288.0	288.0
3	BASE2	BASE2	1.000	288.0	288.0
2	BASE1	BASE1	1.000	288.0	288.0
1	BASE	BASE	1.000	288.0	288.0

DEFORMACIONES sin deformaciones accidentales

	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
Mínima	0.00	0.00	0.00	-0.016	-7.343	0.000
Máxima	10.01	190.53	77.11	0.061	0.000	16.602

ESFUERZOS (global)

	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Mínima	-3688.16	-976.77	-406.44	-22.17	292.10	4085.29
Máxima	-2826.98	-895.06	-406.44	0.00	7447.34	20362.41

TENSIONES, DEFORMACIONES & RIGIDECES-SECANTE/gamma_r

	sigHorm. [N/mm²]	sigAcero [N/mm²]	epsHorm. [o/oo]	epsAcero [o/oo]	EIy [kNm²]	EIz [kNm²]
Mínima	-17.0	-443.5	-2.882	-2.671	5.995E+6	5.412E+6
Máxima	0.0	443.5	10.192	9.981	1.323E+7	2.404E+7

DEFORMACIONES sin deformaciones accidentales
<G.MTMAX.1> Carga: 1.00*G1 1.50*Q1*ß ß=1.1781

Coord-x [m]	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
16.600	9.38	190.53	77.11	0.061	-7.343	16.602
13.100	10.01	134.04	52.05	0.035	-6.835	15.523
10.000	9.83	88.42	32.55	0.004	-5.602	13.762
7.500	9.13	56.26	19.79	-0.010	-4.542	11.872
5.000	7.90	29.37	9.78	-0.016	-3.389	9.518
2.500	5.75	9.23	2.88	-0.013	-2.021	6.346
0.000	0.00	0.00	0.00	0.000	0.000	0.000

ESFUERZOS (global)
<G.MTMAX.1> Carga: 1.00*G1 1.50*Q1*ß ß=1.1781

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
16.600	-2826.98	-895.06	-406.44	0.00	292.10	4085.29
13.100	-2826.98	-895.06	-406.44	-8.26	1835.94	7427.70
13.100	-3018.38	-914.89	-406.44	-8.26	1835.94	7429.03
10.000	-3018.38	-914.89	-406.44	-14.86	3197.78	10445.51
10.000	-3186.41	-931.71	-406.44	-14.86	3197.78	10447.19

ESFUERZOS (global)
<G.MTMAX.1> Carga: 1.00*G1 1.50*Q1*ß ß=1.1781

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
7.500	-3186.41	-931.71	-406.44	-18.73	4285.01	12909.17
7.500	-3346.41	-946.73	-406.44	-18.73	4285.01	12909.17
5.000	-3346.41	-946.73	-406.44	-21.21	5358.80	15390.01
5.000	-3513.53	-961.75	-406.44	-21.21	5358.80	15390.01
2.500	-3513.53	-961.75	-406.44	-22.17	6414.97	17880.87
2.500	-3688.16	-976.77	-406.44	-22.17	6414.97	17880.87
0.000	-3688.16	-976.77	-406.44	-22.12	7447.34	20362.41

TENSIONES & RIGIDECES-SECANTE/gamma_r
<G.MTMAX.1> Carga: 1.00*G1 1.50*Q1*ß ß=1.1781

Coord-x [m]	Horm.- [N/mm²]	Horm.+ [N/mm²]	Acero- [N/mm²]	Acero+ [N/mm²]	EIy [kNm²]	EIz [kNm²]
16.600	-4.1	0.0	-52.9	50.7	9.269E+6	2.404E+7
13.100	-8.9	0.0	-124.5	206.6	6.752E+6	1.663E+7
13.100	-8.9	0.0	-125.0	201.7	6.844E+6	1.696E+7
10.000	-12.5	0.0	-197.0	357.9	5.995E+6	1.496E+7
10.000	-11.3	0.0	-170.1	323.1	9.167E+6	1.601E+7
7.500	-13.6	0.0	-222.8	443.2	8.550E+6	1.501E+7
7.500	-12.8	0.0	-202.1	411.9	1.101E+7	1.581E+7
5.000	-14.9	0.0	-260.3	443.5	9.872E+6	1.442E+7
5.000	-14.1	0.0	-236.6	443.5	1.252E+7	1.547E+7
2.500	-16.5	0.0	-331.8	443.5	9.588E+6	1.158E+7
2.500	-15.5	0.0	-280.9	443.5	1.323E+7	1.360E+7
0.000	-17.0	0.0	-443.5	443.5	6.395E+6	5.412E+6

DEFORMACIONES
<G.MTMAX.1> Carga: 1.00*G1 1.50*Q1*ß ß=1.1781

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
16.600	-0.260	0.250	-0.252	0.242	0.17	98.7
13.100	-0.616	1.007	-0.593	0.984	0.19	120.6
13.100	-0.618	0.983	-0.595	0.960	0.19	121.2
10.000	-0.973	1.739	-0.938	1.704	0.20	127.2
10.000	-0.845	1.573	-0.810	1.538	0.18	118.1
7.500	-1.106	2.156	-1.061	2.111	0.18	120.2
7.500	-1.006	2.005	-0.962	1.961	0.17	115.2
5.000	-1.297	2.710	-1.240	2.653	0.18	116.8
5.000	-1.181	2.480	-1.127	2.426	0.17	113.2

DEFORMACIONES
<G.MTMAX.1> Carga: 1.00*G1 1.50*Q1*ß ß=1.1781

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
2.500	-1.664	4.029	-1.580	3.945	0.19	113.4
2.500	-1.410	3.337	-1.338	3.265	0.17	109.8
0.000	-2.882	10.192	-2.671	9.981	0.23	106.9

Pila ''P1-7'
****

Título : 'Hip.II.1'
Altura de la pila : 13.600 [m]
Long. max. de barra: Altura pila / 6

NUDOS x Apoyo

Nu	[m]	d-xyz	r-xyz
7	13.600		
6	12.000		
5	10.000		
4	7.500		
3	5.000		
2	2.500		
1	0.000	BBB	BBB

Apoyo: B=bloqueado, E=elástico

BARRAS (1.línea: barra arriba, 2.línea: barra abajo)

Ba	Nu	Sección	Tipo	Exc: ey [m]	ez [m]	Arm: Zona	fac
6	7-6	'SUPERIOR'	SecFAGUS			1	1.000
5	6-5	'SUPERIOR'	SecFAGUS			1	1.000
4	5-4	'BASE3'	SecFAGUS			2	1.000
3	4-3	'BASE2'	SecFAGUS			3	1.000
2	3-2	'BASE1'	SecFAGUS			4	1.000
1	2-1	'BASE'	SecFAGUS			5	1.000

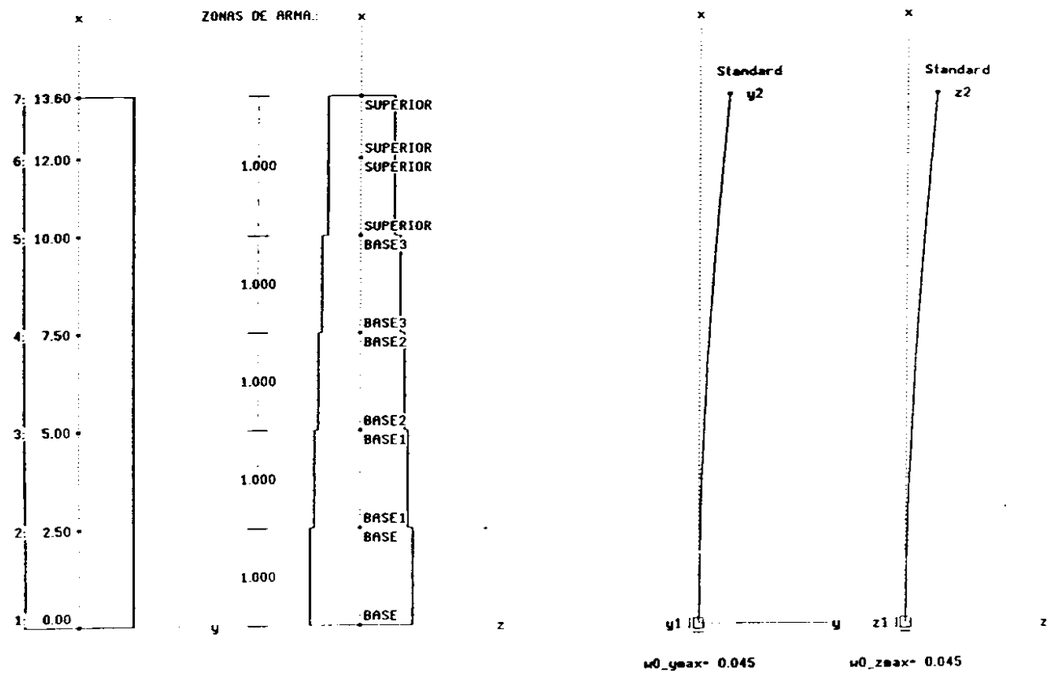
DEF. ACCIDENTAL :
Curva estándar y z, Valores max. [m]: w0_ymax= 0.045 w0_zmax= 0.045

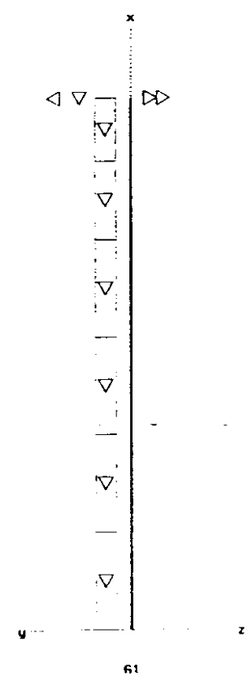
Pto.	Bar.	x[m]	w0_y [m]	w0_z [m]
1	6	13.600	0.045	0.045
2	5	12.000	0.037	0.037
3	4	10.000	0.027	0.027
4	4	8.750	0.021	0.021
5	3	7.500	0.016	0.016
6	3	6.250	0.011	0.011
7	2	5.000	0.007	0.007
8	2	3.750	0.004	0.004
9	1	2.500	0.002	0.002
10	1	1.250	0.000	0.000

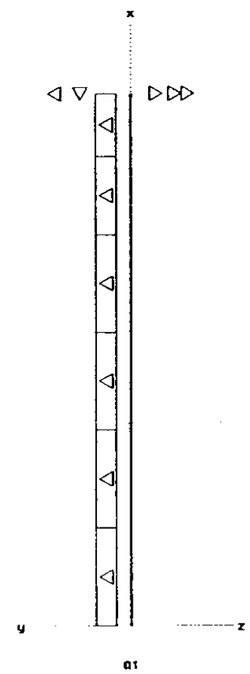
Pto.	Bar.	x[m]	w0_y [m]	w0_z [m]
11	1	0.000	0.000	0.000

CARGAS : Nu/Ba		Tipo Car.		Dim.	Valor Val.arriba	ey[m] Val.abajo	ez[m]
Comp. Carga G1 :							
Nudo	7	Fuerza	x	[kN]	-4450.000	0.14000	0.08500
		Fuerza	y	[kN]	50.000		
		Momento	z	[kNm]	970.000		
Barra	6	Peso propio	x	[kN/m3]	-25.000		
Barra	5	Peso propio	x	[kN/m3]	-25.000		
Barra	4	Peso propio	x	[kN/m3]	-25.000		
Barra	3	Peso propio	x	[kN/m3]	-25.000		
Barra	2	Peso propio	x	[kN/m3]	-25.000		
Barra	1	Peso propio	x	[kN/m3]	-25.000		
Comp. Carga Q1 :							
Nudo	7	Fuerza	x	[kN]	-3640.000	0.05000	0.05000
		Fuerza	y	[kN]	540.000		
		Fuerza	z	[kN]	200.000		
		Momento	z	[kNm]	2270.000		
Barra	6	Fuerza	y	[kN/m]	3.400		
Barra	5	Fuerza	y	[kN/m]	3.400		
Barra	4	Fuerza	y	[kN/m]	3.400		
Barra	3	Fuerza	y	[kN/m]	3.400		
Barra	2	Fuerza	y	[kN/m]	3.400		
Barra	1	Fuerza	y	[kN/m]	3.400		

Escala 1 : 159.5
Modelo, Deformación accidental y cargas de la pila P1-7







C A P A C I D A D R E S I S T E N T E U L T I M A <G.P1-7.1>

HIP. II.1. PILAS 1 y 7.

PARAMETROS DE CALCULO:

Norma	EH
Criterio de rotura	Agotamiento de secciones o del sistema
Rotura de secciones	Limitación de deformaciones según FAGUS-:
- Hormigón (def. centrada)	-2.000 [o/oo]
- Hormigón (flexión)	-3.500 [o/oo]
- Acero	10.00 [o/oo]
Coef. min. resist. (gamma_r)	1.000
Coeficiente de fluencia	0.000
Factor armadura (global)	1.000
No de elementos	6
Tolerancia desequi. fuerzas	0.133 [kN]
Tolerancia desequi. momentos	0.191 [kNm]
Mayoración de cargas	1.500 * Carga permanente G1
	+ 1.500 * Carga variable Q1 * ß

RESULTADOS DEL CALCULO NO LINEAL:
Las cargas variables se han aumentado por un factor ß (ß=1.3818).

Rotura: Rotura de la sección
Sección 'BASE' en x= 0.000

DATOS DE LA SECCION

Nombre	Ancho dy [m]	Canto dz [m]	Materiales Horm.	/ Acero	Distrib. de la armadura	Armadura fija[cm²]	Armadura var [cm²]
BASE	2.800	2.600	H300	AEH500	B1	0.000	210.2
BASE1	2.800	2.380	H300	AEH500	B1	0.000	210.2
BASE2	2.800	2.200	H300	AEH500	B1	0.000	210.2
BASE3	2.800	2.000	H300	AEH500	B1	0.000	210.2
SUPERIOR	2.800	1.700	H300	AEH500	B1	0.000	210.2

DATOS DE BARRAS (incl. factores de armadura)

Barra	Sección arriba	/ abajo	factor S de la armadura	Armadura variable arriba[cm²]	/abajo[cm²]
6	SUPERIOR	SUPERIOR	1.000	210.2	210.2
5	SUPERIOR	SUPERIOR	1.000	210.2	210.2
4	BASE3	BASE3	1.000	210.2	210.2
3	BASE2	BASE2	1.000	210.2	210.2
2	BASE1	BASE1	1.000	210.2	210.2
1	BASE	BASE	1.000	210.2	210.2

DEFORMACIONES sin deformaciones accidentales

	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
Mínima	-1.80	0.00	0.00	-0.020	-5.201	0.000
Máxima	1.51	108.57	45.50	0.040	0.000	11.925

ESFUERZOS (global)

	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Mínima	-15402.73	-1281.31	-414.54	-47.93	944.61	7470.32
Máxima	-14289.32	-1199.91	-414.54	0.00	7915.76	26622.44

TENSIONES, DEFORMACIONES & RIGIDECES-SECANTE/gamma_r

	sigHorm. [N/mm²]	sigAcero [N/mm²]	epsHorm. [o/oo]	epsAcero [o/oo]	EIy [kNm²]	EIz [kNm²]
Mínima	-17.0	-443.5	-3.489	-3.357	8.107E+6	1.110E+7
Máxima	0.0	443.5	5.379	5.247	1.580E+7	3.413E+7

DEFORMACIONES sin deformaciones accidentales
<G.P1-7.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.3818

Coord-x [m]	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
13.600	-1.80	108.57	45.50	0.040	-5.201	11.925
12.000	-0.94	89.82	37.30	0.029	-5.033	11.510
10.000	0.08	67.52	27.63	0.012	-4.586	10.740
7.500	1.04	42.24	16.95	-0.007	-3.884	9.372
5.000	1.51	21.18	8.34	-0.020	-2.927	7.322
2.500	1.35	6.21	2.42	-0.020	-1.712	4.450
0.000	0.00	0.00	0.00	0.000	0.000	0.000

ESFUERZOS (global)
<G.P1-7.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.3818

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
13.600	-14289.32	-1199.91	-414.54	0.00	944.61	7470.32
12.000	-14289.32	-1199.91	-414.54	-8.61	1844.02	9776.97
12.000	-14445.92	-1212.59	-414.54	-8.61	1844.02	9776.13
10.000	-14445.92	-1212.59	-414.54	-19.06	2956.89	12667.36
10.000	-14650.11	-1228.45	-414.54	-19.05	2956.89	12666.04

ESFUERZOS (global)
<G.P1-7.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.3818

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
7.500	-14650.11	-1228.45	-414.54	-30.69	4311.56	16269.25
7.500	-14890.10	-1246.07	-414.54	-30.69	4311.56	16269.25
5.000	-14890.10	-1246.07	-414.54	-39.86	5604.47	19826.18
5.000	-15140.79	-1263.69	-414.54	-39.86	5604.47	19826.18
2.500	-15140.79	-1263.69	-414.54	-45.78	6813.26	23294.71
2.500	-15402.73	-1281.31	-414.54	-45.78	6813.26	23294.71
0.000	-15402.73	-1281.31	-414.54	-47.93	7915.76	26622.44

TENSIONES & RIGIDECES-SECANTE/gamma_r
<G.P1-7.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.3818

Coord-x [m]	Horm.- [N/mm²]	Horm.+ [N/mm²]	Acero- [N/mm²]	Acero+ [N/mm²]	EIy [kNm²]	EIz [kNm²]
13.600	-10.0	-0.3	-148.0	-6.0	1.369E+7	3.413E+7
12.000	-11.8	0.0	-183.4	28.0	1.252E+7	3.266E+7
12.000	-11.8	0.0	-184.0	25.8	1.262E+7	3.290E+7
10.000	-14.4	0.0	-249.4	108.5	9.659E+6	2.678E+7
10.000	-13.1	0.0	-213.7	76.1	1.562E+7	3.201E+7
7.500	-15.9	0.0	-306.3	223.2	1.136E+7	2.328E+7
7.500	-15.2	0.0	-276.4	190.7	1.506E+7	2.589E+7
5.000	-16.9	0.0	-382.3	380.7	1.153E+7	1.960E+7
5.000	-16.6	0.0	-343.4	331.0	1.476E+7	2.177E+7
2.500	-17.0	0.0	-443.5	443.5	1.117E+7	1.678E+7
2.500	-17.0	0.0	-395.6	443.5	1.580E+7	2.004E+7
0.000	-17.0	0.0	-443.5	443.5	8.107E+6	1.110E+7

DEFORMACIONES
<G.P1-7.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.3818

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
13.600	-0.717	-0.016	-0.705	-0.029	0.13	106.9
12.000	-0.889	0.149	-0.873	0.133	0.13	115.8
12.000	-0.892	0.139	-0.876	0.123	0.13	115.8
10.000	-1.212	0.541	-1.188	0.517	0.14	122.6
10.000	-1.039	0.384	-1.017	0.362	0.13	115.3
7.500	-1.495	1.100	-1.458	1.063	0.14	118.3
7.500	-1.350	0.942	-1.316	0.908	0.13	114.3
5.000	-1.875	1.867	-1.820	1.813	0.15	115.5
5.000	-1.685	1.626	-1.635	1.576	0.14	112.2

DEFORMACIONES
<G.P1-7.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.3818

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
2.500	-2.325	2.793	-2.250	2.717	0.16	113.4
2.500	-1.948	2.248	-1.884	2.183	0.14	109.8
0.000	-3.489	5.379	-3.357	5.247	0.16	111.6

Pila ''P1-7B'
****

Título : 'Hip.II.2'
Altura de la pila : 13.600 [m]
Long. max. de barra: Altura pila / 6

NUDOS Nu	x [m]	Apoyo d-xyz	r-xyz
7	13.600		
6	12.000		
5	10.000		
4	7.500		
3	5.000		
2	2.500		
1	0.000	BBB	BBB

Apoyo: B=bloqueado, E=elástico

BARRAS (1.línea: barra arriba, 2.línea: barra abajo)

Ba	Nu	Sección	Tipo	Exc: ey [m]	ez [m]	Arm: Zona	fac
6	7-6	'SUPERIOR'	SecFAGUS			1	1.000
5	6-5	'SUPERIOR'	SecFAGUS			1	1.000
4	5-4	'BASE3'	SecFAGUS			2	1.000
3	4-3	'BASE2'	SecFAGUS			3	1.000
2	3-2	'BASE1'	SecFAGUS			4	1.000
1	2-1	'BASE'	SecFAGUS			5	1.000

DEF. ACCIDENTAL :
Curva estándar y z, Valores max. [m]: w0_ymax= 0.045 w0_zmax= 0.045

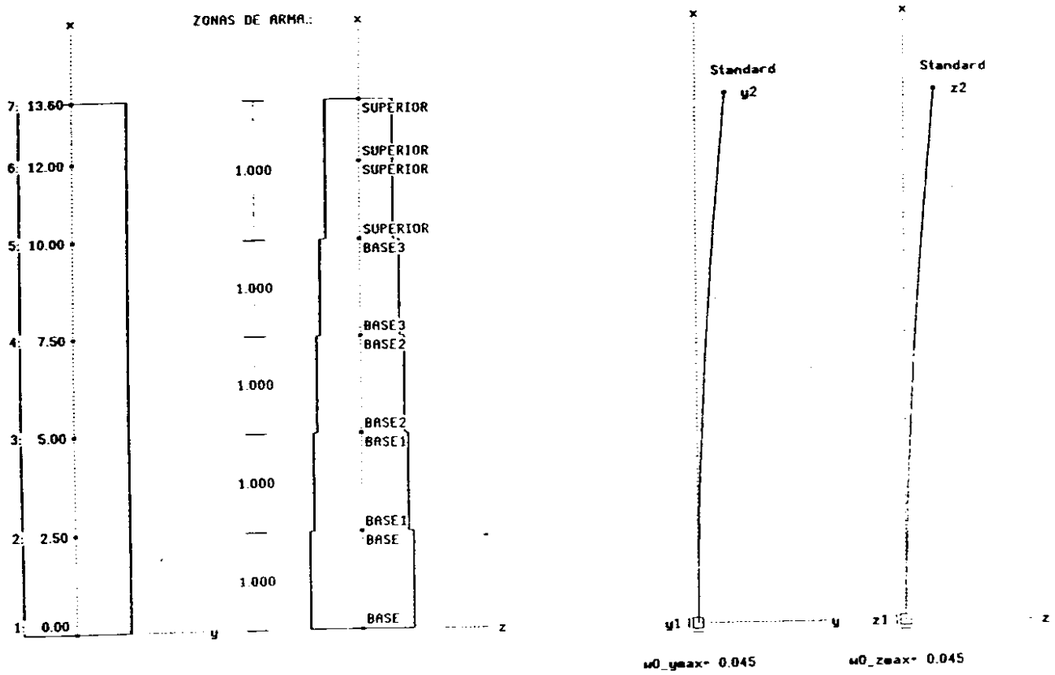
Pto.	Bar.	x[m]	w0_y [m]	w0_z [m]
1	6	13.600	0.045	0.045
2	5	12.000	0.037	0.037
3	4	10.000	0.027	0.027
4	4	8.750	0.021	0.021
5	3	7.500	0.016	0.016
6	3	6.250	0.011	0.011
7	2	5.000	0.007	0.007
8	2	3.750	0.004	0.004
9	1	2.500	0.002	0.002
10	1	1.250	0.000	0.000

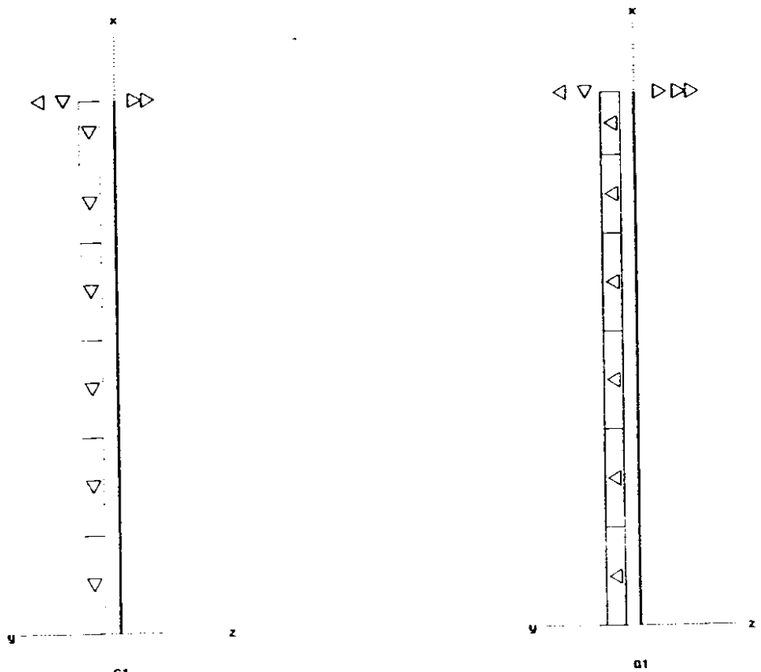
Pto.	Bar.	x[m]	w0_y [m]	w0_z [m]
11	1	0.000	0.000	0.000

CARGAS :

Nu/Ba		Tipo Car.		Dim.	Valor Val.arriba	ey[m] Val.abajo	ez[m]
Comp. Carga G1 :							
Nudo	7	Fuerza	x	[kN]	-4450.000	0.14000	0.08500
		Fuerza	y	[kN]	50.000		
		Momento	z	[kNm]	970.000		
Barra	6	Peso propio	x	[kN/m3]	-25.000		
Barra	5	Peso propio	x	[kN/m3]	-25.000		
Barra	4	Peso propio	x	[kN/m3]	-25.000		
Barra	3	Peso propio	x	[kN/m3]	-25.000		
Barra	2	Peso propio	x	[kN/m3]	-25.000		
Barra	1	Peso propio	x	[kN/m3]	-25.000		
Comp. Carga Q1 :							
Nudo	7	Fuerza	x	[kN]	-4110.000	0.14000	0.08500
		Fuerza	y	[kN]	540.000		
		Fuerza	z	[kN]	200.000		
		Momento	z	[kNm]	1050.000		
Barra	6	Fuerza	y	[kN/m]	3.400		
Barra	5	Fuerza	y	[kN/m]	3.400		
Barra	4	Fuerza	y	[kN/m]	3.400		
Barra	3	Fuerza	y	[kN/m]	3.400		
Barra	2	Fuerza	y	[kN/m]	3.400		
Barra	1	Fuerza	y	[kN/m]	3.400		

Escala 1 : 159.5
Modelo, Deformación accidental y cargas de la pila P1-7B





C A P A C I D A D R E S I S T E N T E U L T I M A <G.P1-7B.1>

HIP. II.2 PILAS 1 y 7

PARAMETROS DE CALCULO:

Norma	EH
Criterio de rotura	Agotamiento de secciones o del sistema
Rotura de secciones	Limitación de deformaciones según FAGUS-.
- Hormigón (def. centrada)	-2.000 [o/oo]
- Hormigón (flexión)	-3.500 [o/oo]
- Acero	10.00 [o/oo]
Coef. min. resist. (gamma_r)	1.000
Coeficiente de fluencia	0.000
Factor armadura (global)	1.000
No de elementos	6
Tolerancia desequi. fuerzas	0.140 [kN]
Tolerancia desequi. momentos	0.179 [kNm]
Mayoración de cargas	1.500 * Carga permanente G1
	+ 1.500 * Carga variable Q1 * ß

RESULTADOS DEL CALCULO NO LINEAL:
Las cargas variables se han aumentado por un factor ß (ß=1.5147).

Rotura: Rotura de la sección
Sección 'BASE' en x= 0.000

DATOS DE LA SECCION

Nombre	Ancho dy [m]	Canto dz [m]	Materiales Horm. / Acero		Distrib. de la armadura	Armadura fija[cm²]	Armadura var [cm²]
BASE	2.800	2.600	H300	AEH500	B1	0.000	210.2
BASE1	2.800	2.380	H300	AEH500	B1	0.000	210.2
BASE2	2.800	2.200	H300	AEH500	B1	0.000	210.2
BASE3	2.800	2.000	H300	AEH500	B1	0.000	210.2
SUPERIOR	2.800	1.700	H300	AEH500	B1	0.000	210.2

DATOS DE BARRAS (incl. factores de armadura)

Barra	Sección arriba / abajo		factor S de la armadura	Armadura variable arriba[cm²]/abajo[cm²]	
6	SUPERIOR	SUPERIOR	1.000	210.2	210.2
5	SUPERIOR	SUPERIOR	1.000	210.2	210.2
4	BASE3	BASE3	1.000	210.2	210.2
3	BASE2	BASE2	1.000	210.2	210.2
2	BASE1	BASE1	1.000	210.2	210.2
1	BASE	BASE	1.000	210.2	210.2

DEFORMACIONES sin deformaciones accidentales

	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
Mínima	-3.63	0.00	0.00	-0.034	-5.581	0.000
Máxima	0.61	96.58	48.13	0.004	0.000	10.550

ESFUERZOS (global)

	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Mínima	-17196.11	-1397.30	-454.45	-60.87	1361.08	6080.68
Máxima	-16082.70	-1308.26	-454.41	-0.01	9080.87	26837.81

TENSIONES, DEFORMACIONES & RIGIDECES-SECANTE/gamma_r

	sigHorm. [N/mm²]	sigAcero [N/mm²]	epsHorm. [o/oo]	epsAcero [o/oo]	EIy [kNm²]	EIz [kNm²]
Mínima	-17.0	-443.5	-3.498	-3.386	9.206E+6	1.290E+7
Máxima	0.0	443.5	4.513	4.400	1.785E+7	3.483E+7

DEFORMACIONES sin deformaciones accidentales
<G.P1-7B.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.5147

Coord-x [m]	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
13.600	-3.63	96.58	48.13	0.004	-5.581	10.550
12.000	-2.72	79.98	39.37	-0.005	-5.357	10.193
10.000	-1.60	60.22	29.12	-0.017	-4.857	9.531
7.500	-0.41	37.73	17.81	-0.028	-4.115	8.369
5.000	0.38	18.86	8.69	-0.034	-3.095	6.576
2.500	0.61	5.46	2.47	-0.027	-1.770	3.945
0.000	0.00	0.00	0.00	0.000	0.000	0.000

ESFUERZOS (global)
<G.P1-7B.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.5147

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
13.600	-16082.70	-1308.26	-454.45	-0.01	1361.08	6080.68
12.000	-16082.70	-1308.26	-454.45	-11.04	2363.03	8574.68
12.000	-16239.31	-1322.08	-454.42	-11.05	2362.98	8573.51
10.000	-16239.31	-1322.08	-454.42	-24.29	3600.44	11700.44
10.000	-16443.49	-1339.41	-454.42	-24.28	3600.42	11698.86

ESFUERZOS (global)
<G.P1-7B.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.5147

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
7.500	-16443.49	-1339.41	-454.42	-38.99	5104.12	15598.81
7.500	-16683.49	-1358.70	-454.42	-38.99	5104.09	15598.75
5.000	-16683.49	-1358.70	-454.42	-50.60	6536.13	19453.96
5.000	-16934.17	-1378.00	-454.41	-50.60	6536.12	19453.94
2.500	-16934.17	-1378.00	-454.41	-58.13	7870.06	23218.52
2.500	-17196.11	-1397.30	-454.41	-58.12	7870.06	23218.53
0.000	-17196.11	-1397.30	-454.41	-60.87	9080.87	26837.81

TENSIONES & RIGIDECES-SECANTE/gamma_r
<G.P1-7B.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.5147

Coord-x [m]	Horm.- [N/mm²]	Horm.+ [N/mm²]	Acero- [N/mm²]	Acero+ [N/mm²]	EIy [kNm²]	EIz [kNm²]
13.600	-10.3	-1.4	-153.5	-19.6	1.335E+7	3.305E+7
12.000	-12.0	0.0	-189.8	12.7	1.310E+7	3.262E+7
12.000	-12.0	0.0	-189.6	9.4	1.312E+7	3.310E+7
10.000	-14.4	0.0	-251.4	74.7	1.091E+7	2.904E+7
10.000	-13.1	0.0	-215.3	46.3	1.785E+7	3.483E+7
7.500	-15.9	0.0	-308.0	170.8	1.280E+7	2.627E+7
7.500	-15.2	0.0	-277.3	140.6	1.708E+7	2.946E+7
5.000	-17.0	0.0	-393.7	326.7	1.247E+7	2.149E+7
5.000	-16.7	0.0	-352.2	279.2	1.605E+7	2.406E+7
2.500	-17.0	0.0	-443.5	443.5	1.176E+7	1.791E+7
2.500	-17.0	0.0	-414.4	412.3	1.665E+7	2.156E+7
0.000	-17.0	0.0	-443.5	443.5	9.206E+6	1.290E+7

DEFORMACIONES
<G.P1-7B.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.5147

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
13.600	-0.740	-0.084	-0.731	-0.093	0.13	118.8
12.000	-0.917	0.074	-0.904	0.060	0.13	124.3
12.000	-0.916	0.058	-0.903	0.045	0.13	124.1
10.000	-1.217	0.375	-1.197	0.355	0.14	128.8
10.000	-1.043	0.238	-1.025	0.220	0.13	120.7
7.500	-1.497	0.844	-1.467	0.813	0.14	123.6
7.500	-1.348	0.697	-1.320	0.669	0.13	119.2
5.000	-1.922	1.603	-1.875	1.556	0.15	119.9
5.000	-1.721	1.373	-1.677	1.329	0.14	116.3

DEFORMACIONES
<G.P1-7B.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.5147

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
2.500	-2.445	2.553	-2.376	2.484	0.16	117.0
2.500	-2.032	2.022	-1.973	1.963	0.14	113.0
0.000	-3.498	4.513	-3.386	4.400	0.17	114.7

P1-7
Pila ''MTMAX' HIP II.3 PILAS 1 y 7
****

Título : 'Hip: momento transversal max.'
Altura de la pila : 13.600 [m]
Long. max. de barra: Altura pila / 6

NUDOS x Apoyo

Nu	[m]	d-xyz	r-xyz
7	13.600		
6	12.000		
5	10.000		
4	7.500		
3	5.000		
2	2.500		
1	0.000	BBB	BBB

Apoyo: B=bloqueado, E=elástico

BARRAS (1.línea: barra arriba, 2.línea: barra abajo)

Ba	Nu	Sección	Tipo	Exc: ey [m]	ez [m]	Arm: Zona	fac
6	7-6	'SUPERIOR'	SecFAGUS			1	1.000
5	6-5	'SUPERIOR'	SecFAGUS			1	1.000
4	5-4	'BASE3'	SecFAGUS			2	1.000
3	4-3	'BASE2'	SecFAGUS			3	1.000
2	3-2	'BASE1'	SecFAGUS			4	1.000
1	2-1	'BASE'	SecFAGUS			5	1.000

DEF. ACCIDENTAL :
Curva estándar y z, Valores max. [m]: w0_ymax= 0.045 w0_zmax= 0.045

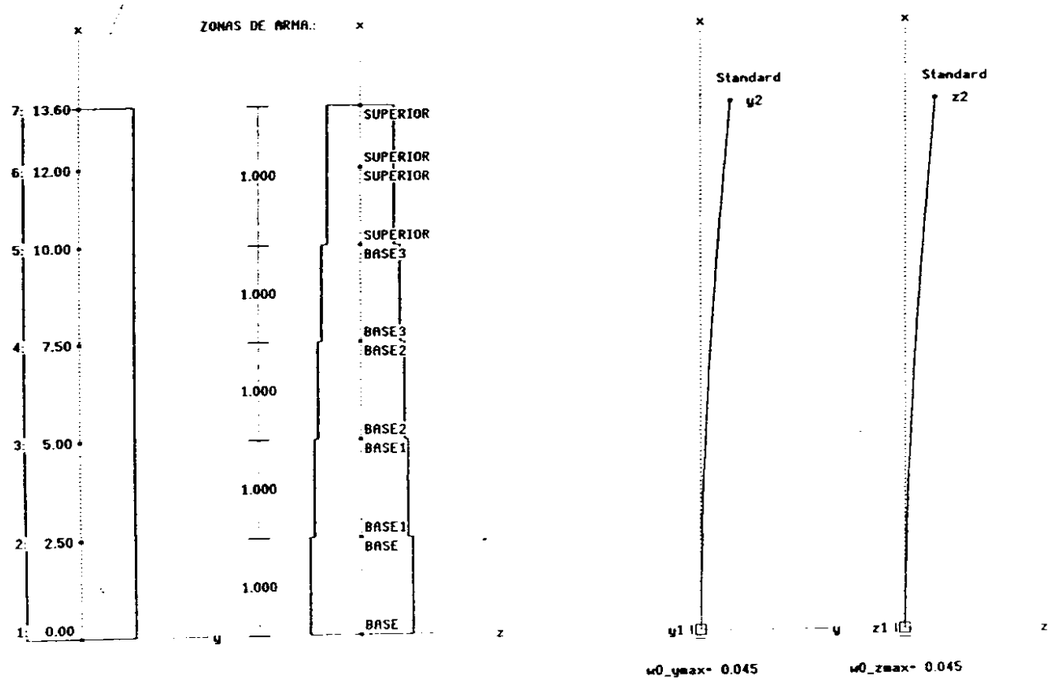
Pto.	Bar.	x[m]	w0_y [m]	w0_z [m]
1	6	13.600	0.045	0.045
2	5	12.000	0.037	0.037
3	4	10.000	0.027	0.027
4	4	8.750	0.021	0.021
5	3	7.500	0.016	0.016
6	3	6.250	0.011	0.011
7	2	5.000	0.007	0.007
8	2	3.750	0.004	0.004
9	1	2.500	0.002	0.002
10	1	1.250	0.000	0.000

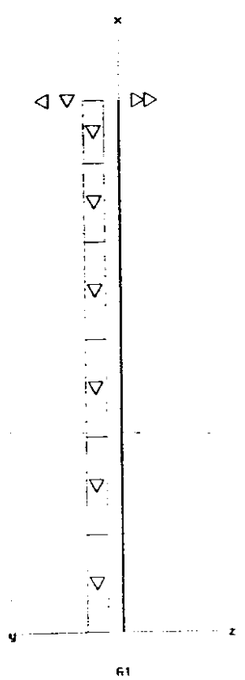
Pto.	Bar.	x[m]	w0_y [m]	w0_z [m]
11	1	0.000	0.000	0.000

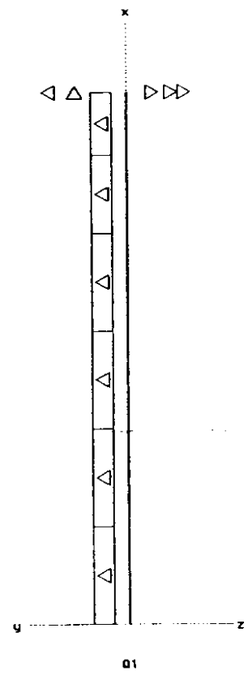
CARGAS :

Nu/Ba		Tipo Car.		Dim.	Valor Val.arriba	ey[m] Val.abajo	ez[m]
Comp. Carga G1 :							
Nudo	7	Fuerza	x	[kN]	-4000.000	0.14000	0.08500
		Fuerza	y	[kN]	50.000		
		Momento	z	[kNm]	870.000		
Barra	6	Peso propio	x	[kN/m3]	-25.000		
Barra	5	Peso propio	x	[kN/m3]	-25.000		
Barra	4	Peso propio	x	[kN/m3]	-25.000		
Barra	3	Peso propio	x	[kN/m3]	-25.000		
Barra	2	Peso propio	x	[kN/m3]	-25.000		
Barra	1	Peso propio	x	[kN/m3]	-25.000		
Comp. Carga Q1 :							
Nudo	7	Fuerza	x	[kN]	91.000		
		Fuerza	y	[kN]	410.000		
		Fuerza	z	[kN]	200.000		
		Momento	z	[kNm]	1050.000		
Barra	6	Fuerza	y	[kN/m]	3.400		
Barra	5	Fuerza	y	[kN/m]	3.400		
Barra	4	Fuerza	y	[kN/m]	3.400		
Barra	3	Fuerza	y	[kN/m]	3.400		
Barra	2	Fuerza	y	[kN/m]	3.400		
Barra	1	Fuerza	y	[kN/m]	3.400		

Escala 1 : 159.5
Modelo, Deformación accidental y cargas de la pila MTMAX







C A P A C I D A D R E S I S T E N T E U L T I M A <G.MTMAX.2>

Hip II.3. Pilas 1 y 7

PARAMETROS DE CALCULO:

Norma	EH
Criterio de rotura	Agotamiento de secciones o del sistema
Rotura de secciones	Limitación de deformaciones según FAGUS-2
- Hormigón (def. centrada)	-2.000 [o/oo]
- Hormigón (flexión)	-3.500 [o/oo]
- Acero	10.00 [o/oo]
Coef. min. resist. (gamma_r)	1.000
Coeficiente de fluencia	0.000
Factor armadura (global)	1.000
No de elementos	6
Tolerancia desequi. fuerzas	0.047 [kN]
Tolerancia desequi. momentos	0.127 [kNm]
Mayoración de cargas	1.000 * Carga permanente G1
	+ 1.500 * Carga variable Q1 * ß

RESULTADOS DEL CALCULO NO LINEAL:
Las cargas variables se han aumentado por un factor ß (ß=1.3998).

Rotura: Rotura de la sección
Sección 'BASE' en x= 0.000

DATOS DE LA SECCION

Nombre	Ancho dy [m]	Canto dz [m]	Materiales Horm.	/ Acero	Distrib. de la armadura	Armadura fija[cm²]	Armadura var [cm²]
BASE	2.800	2.600	H300	AEH500	B1	0.000	210.2
BASE1	2.800	2.380	H300	AEH500	B1	0.000	210.2
BASE2	2.800	2.200	H300	AEH500	B1	0.000	210.2
BASE3	2.800	2.000	H300	AEH500	B1	0.000	210.2
SUPERIOR	2.800	1.700	H300	AEH500	B1	0.000	210.2

DATOS DE BARRAS (incl. factores de armadura)

Barra	Sección arriba	/ abajo	factor S de la armadura	Armadura variable arriba[cm²]	/abajo[cm²]
6	SUPERIOR	SUPERIOR	1.000	210.2	210.2
5	SUPERIOR	SUPERIOR	1.000	210.2	210.2
4	BASE3	BASE3	1.000	210.2	210.2
3	BASE2	BASE2	1.000	210.2	210.2
2	BASE1	BASE1	1.000	210.2	210.2
1	BASE	BASE	1.000	210.2	210.2

DEFORMACIONES sin deformaciones accidentales

	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
Mínima	0.00	0.00	0.00	-0.010	-5.230	0.000
Máxima	8.64	128.23	46.63	0.032	0.000	13.253

ESFUERZOS (global)

	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Mínima	-4597.60	-999.06	-419.95	-14.27	340.00	3633.21
Máxima	-3855.32	-916.61	-419.95	-0.00	6429.42	17395.62

TENSIONES, DEFORMACIONES & RIGIDECES-SECANTE/gamma_r

	sigHorm. [N/mm²]	sigAcero [N/mm²]	epsHorm. [o/oo]	epsAcero [o/oo]	EIy [kNm²]	EIz [kNm²]
Mínima	-17.0	-443.5	-2.742	-2.530	5.859E+6	4.629E+6
Máxima	0.0	443.5	10.167	9.956	1.291E+7	3.199E+7

DEFORMACIONES sin deformaciones accidentales
<G.MTMAX.2> Carga: 1.00*G1 1.50*Q1*ß ß=1.3998

Coord-x [m]	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
13.600	8.08	128.23	46.63	0.032	-5.230	13.253
12.000	8.45	107.23	38.34	0.024	-5.106	12.962
10.000	8.64	81.95	28.51	0.011	-4.666	12.251
7.500	8.34	52.91	17.65	-0.002	-3.939	10.862
5.000	7.40	28.07	8.88	-0.010	-3.008	8.877
2.500	5.62	9.05	2.68	-0.009	-1.857	6.128
0.000	0.00	0.00	0.00	0.000	0.000	0.000

ESFUERZOS (global)
<G.MTMAX.2> Carga: 1.00*G1 1.50*Q1*ß ß=1.3998

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
13.600	-3855.32	-916.61	-419.95	-0.00	340.00	3633.21
12.000	-3855.32	-916.61	-419.95	-2.92	1075.86	5212.57
12.000	-3959.72	-929.46	-419.95	-2.92	1075.86	5211.71
10.000	-3959.72	-929.46	-419.95	-6.53	1994.07	7209.92
10.000	-4095.85	-945.52	-419.95	-6.53	1994.07	7208.59

ESFUERZOS (global)
<G.MTMAX.2> Carga: 1.00*G1 1.50*Q1*ß ß=1.3998

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
7.500	-4095.85	-945.52	-419.95	-10.40	3133.48	9736.21
7.500	-4255.85	-963.37	-419.95	-10.40	3133.48	9736.21
5.000	-4255.85	-963.37	-419.95	-13.10	4257.23	12286.71
5.000	-4422.97	-981.21	-419.95	-13.10	4257.23	12286.71
2.500	-4422.97	-981.21	-419.95	-14.27	5358.64	14847.88
2.500	-4597.60	-999.06	-419.95	-14.27	5358.65	14847.89
0.000	-4597.60	-999.06	-419.95	-14.24	6429.42	17395.62

TENSIONES & RIGIDECES-SECANTE/gamma_r
<G.MTMAX.2> Carga: 1.00*G1 1.50*Q1*ß ß=1.3998

Coord-x [m]	Horm.- [N/mm²]	Horm.+ [N/mm²]	Acero- [N/mm²]	Acero+ [N/mm²]	EIy [kNm²]	EIz [kNm²]
13.600	-4.0	0.0	-52.1	19.4	1.175E+7	3.199E+7
12.000	-6.6	0.0	-88.1	90.8	8.148E+6	2.087E+7
12.000	-6.6	0.0	-88.5	89.3	8.225E+6	2.104E+7
10.000	-9.8	0.0	-142.3	213.0	6.351E+6	1.555E+7
10.000	-8.7	0.0	-122.4	185.4	9.799E+6	1.726E+7
7.500	-12.0	0.0	-184.2	343.9	8.195E+6	1.404E+7
7.500	-11.2	0.0	-167.4	316.9	1.060E+7	1.494E+7
5.000	-13.8	0.0	-228.3	443.5	9.393E+6	1.312E+7
5.000	-13.0	0.0	-206.7	433.6	1.186E+7	1.423E+7
2.500	-15.8	0.0	-291.5	443.5	9.365E+6	1.111E+7
2.500	-14.6	0.0	-249.6	443.5	1.291E+7	1.296E+7
0.000	-17.0	0.0	-443.5	443.5	5.859E+6	4.629E+6

DEFORMACIONES
<G.MTMAX.2> Carga: 1.00*G1 1.50*Q1*ß ß=1.3998

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
13.600	-0.254	0.098	-0.248	0.092	0.12	103.2
12.000	-0.433	0.446	-0.420	0.432	0.13	117.3
12.000	-0.434	0.439	-0.421	0.425	0.13	117.4
10.000	-0.701	1.038	-0.678	1.014	0.14	123.9
10.000	-0.605	0.905	-0.583	0.883	0.12	115.8
7.500	-0.914	1.674	-0.877	1.638	0.13	118.8
7.500	-0.832	1.544	-0.797	1.509	0.12	114.3
5.000	-1.138	2.336	-1.087	2.286	0.12	115.7
5.000	-1.032	2.112	-0.984	2.065	0.12	112.3

DEFORMACIONES
<G.MTMAX.2> Carga: 1.00*G1 1.50*Q1*ß ß=1.3998

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
2.500	-1.461	3.443	-1.388	3.370	0.13	113.0
2.500	-1.252	2.868	-1.188	2.805	0.11	109.5
0.000	-2.742	10.167	-2.530	9.956	0.16	106.0

Pila ''PILA4' HIP. II, 1 PILAS 2 a 6
****

Título : 'VIADUCTO DE LOS CHORROS'
Altura de la pila : 16.600 [m]
Long. max. de barra: Altura pila / 6

NUDOS Nu	x [m]	Apoyo d-xyz	r-xyz
7	16.600		
6	13.100		
5	10.000		
4	7.500		
3	5.000		
2	2.500		
1	0.000	BBB	BBB

Apoyo: B=bloqueado, E=elástico

BARRAS (1.línea: barra arriba,. 2.línea: barra abajo)

Ba	Nu	Sección	Tipo	Exc: ey [m]	ez [m]	Arm: Zona	fac
6	7-6	'SUPERIOR'	SecFAGUS			1	1.00(
5	6-5	'SUPERIOR'	SecFAGUS			1	1.00(
4	5-4	'BASE3'	SecFAGUS			2	1.00(
3	4-3	'BASE2'	SecFAGUS			3	1.00(
2	3-2	'BASE1'	SecFAGUS			4	1.00(
1	2-1	'BASE'	SecFAGUS			5	1.00(

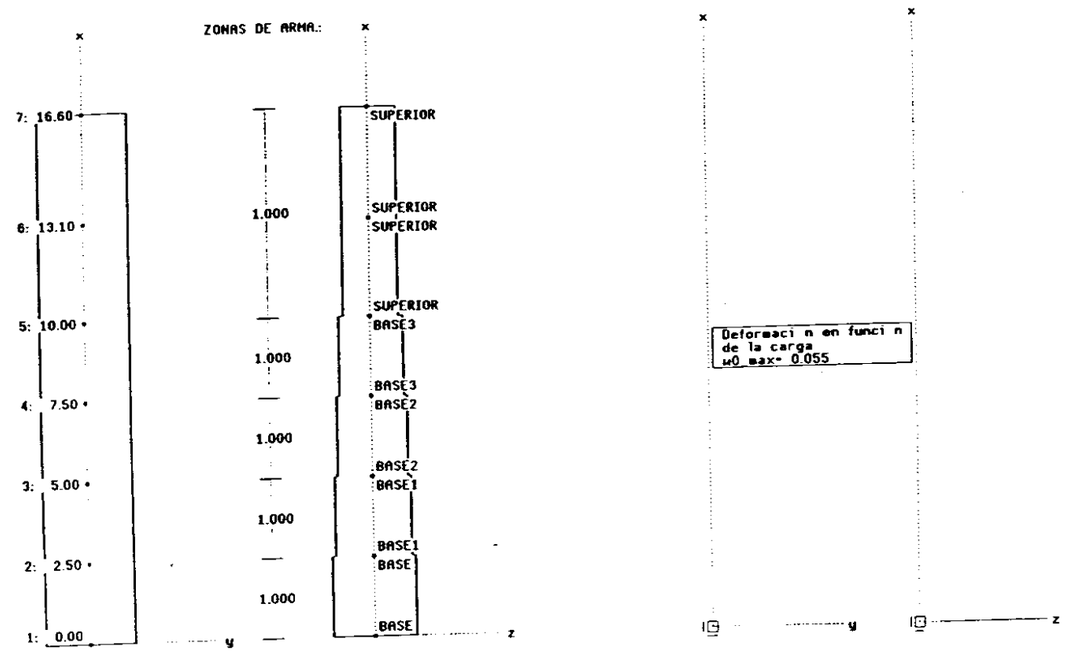
DEF. ACCIDENTAL :

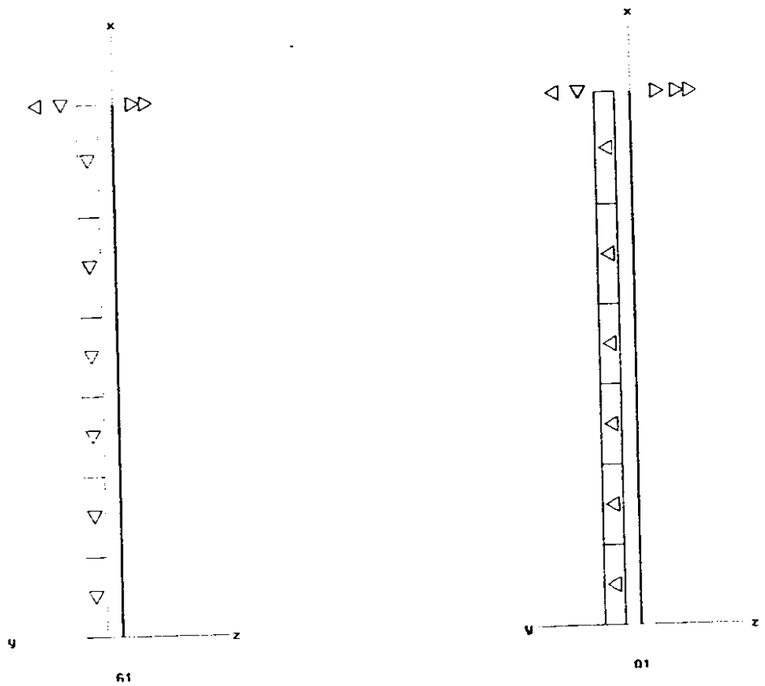
Func. carga : w0_max= 0.055 m

CARGAS :

Nu/Ba		Tipo Car.		Dim.	Valor Val.arriba	ey[m] Val.abajo	ez[m]
Comp. Carga G1 :							
Nudo	7	Fuerza	x	[kN]	-5290.000	0.14000	0.08500
		Fuerza	y	[kN]	60.000		
		Momento	z	[kNm]	1220.000		
Barra	6	Peso propio	x	[kN/m3]	-25.000		
Barra	5	Peso propio	x	[kN/m3]	-25.000		
Barra	4	Peso propio	x	[kN/m3]	-25.000		
Barra	3	Peso propio	x	[kN/m3]	-25.000		
Barra	2	Peso propio	x	[kN/m3]	-25.000		
Barra	1	Peso propio	x	[kN/m3]	-25.000		
Comp. Carga Q1 :							
Nudo	7	Fuerza	x	[kN]	-4000.000	0.05500	0.05500
		Fuerza	y	[kN]	600.000		
		Fuerza	z	[kN]	234.000		
		Momento	z	[kNm]	2820.000		
Barra	6	Fuerza	y	[kN/m]	3.400		
Barra	5	Fuerza	y	[kN/m]	3.400		
Barra	4	Fuerza	y	[kN/m]	3.400		
Barra	3	Fuerza	y	[kN/m]	3.400		
Barra	2	Fuerza	y	[kN/m]	3.400		
Barra	1	Fuerza	y	[kN/m]	3.400		

Escala 1 : 194.7
Modelo, Deformación accidental y cargas de la pila PILA4





C A P A C I D A D R E S I S T E N T E U L T I M A <G.PILA4.1>

HIP. II, 1. PILAS 2 a 6.

PARAMETROS DE CALCULO:

Norma	EH
Criterio de rotura	Agotamiento de secciones o del sistema
Rotura de secciones	Limitación de deformaciones según FAGUS-2
- Hormigón (def. centrada)	-2.000 [o/oo]
- Hormigón (flexión)	-3.500 [o/oo]
- Acero	10.00 [o/oo]
Coef. min. resist. (gamma_r)	1.000
Coeficiente de fluencia	0.000
Factor armadura (global)	1.000
No de elementos	6
Tolerancia desequi. fuerzas	0.154 [kN]
Tolerancia desequi. momentos	0.253 [kNm]
Mayoración de cargas	1.500 * Carga permanente G1
	+ 1.500 * Carga variable Q1 * ß

RESULTADOS DEL CALCULO NO LINEAL:
Las cargas variables se han aumentado por un factor ß (ß=1.1035)

Rotura: Rotura de la sección
Sección 'BASE' en x= 0.000

DATOS DE LA SECCION

Nombre	Ancho dy [m]	Canto dz [m]	Materiales Horm.	/ Acero	Distrib. de la armadura	Armadura fija[cm²]	Armadura var [cm²]
BASE	2.800	2.600	H300	AEH500	B1	0.000	288.0
BASE1	2.800	2.380	H300	AEH500	B1	0.000	288.0
BASE2	2.800	2.200	H300	AEH500	B1	0.000	288.0
BASE3	2.800	2.000	H300	AEH500	B1	0.000	288.0
SUPERIOR	2.800	1.700	H300	AEH500	B1	0.000	288.0

DATOS DE BARRAS (incl. factores de armadura)

Barra	Sección arriba	/ abajo	factor S de la armadura	Armadura variable arriba[cm²]	/abajo[cm²]
6	SUPERIOR	SUPERIOR	1.000	288.0	288.0
5	SUPERIOR	SUPERIOR	1.000	288.0	288.0
4	BASE3	BASE3	1.000	288.0	288.0
3	BASE2	BASE2	1.000	288.0	288.0
2	BASE1	BASE1	1.000	288.0	288.0
1	BASE	BASE	1.000	288.0	288.0

DEFORMACIONES sin deformaciones accidentales

	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
Mínima	-3.16	0.00	0.00	-0.018	-7.352	0.000
Máxima	1.28	162.97	75.11	0.062	0.000	15.027

DEFORMACION ACCIDENTAL

	DY [mm]	DZ [mm]
Máxima	47.86	27.70

ESFUERZOS (global)

	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Mínima	-16000.08	-1169.52	-387.34	-33.12	1038.61	7967.02
Máxima	-14708.33	-1093.08	-387.32	-0.02	9018.71	29910.73

TENSIONES, DEFORMACIONES & RIGIDECES-SECANTE/gamma_r

	sigHorm. [N/mm²]	sigAcero [N/mm²]	epsHorm. [o/oo]	epsAcero [o/oo]	EIy [kNm²]	EIz [kNm²]
Mínima	-17.0	-443.5	-3.490	-3.368	8.083E+6	1.336E+7
Máxima	0.0	443.5	4.886	4.763	1.649E+7	3.733E+7

DEFORMACIONES sin deformaciones accidentales
<G.PILA4.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.1035

Coord-x [m]	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
16.600	-3.16	162.97	75.11	0.062	-7.352	15.027
13.100	-1.14	112.11	50.17	0.037	-6.796	13.936
10.000	0.30	71.48	30.83	0.005	-5.533	12.121
7.500	1.01	43.51	18.29	-0.012	-4.419	10.135
5.000	1.28	21.19	8.71	-0.018	-3.172	7.592
2.500	1.06	5.99	2.43	-0.015	-1.758	4.389
0.000	0.00	0.00	0.00	0.000	0.000	0.000

ESFUERZOS (global)
<G.PILA4.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.1035

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
16.600	-14708.33	-1093.08	-387.34	-0.02	1038.61	7967.02
13.100	-14708.33	-1093.08	-387.34	-12.85	2916.52	12779.59
13.100	-14995.42	-1111.62	-387.34	-12.85	2916.50	12780.65
10.000	-14995.42	-1111.62	-387.34	-22.17	4521.12	17025.11
10.000	-15247.46	-1127.37	-387.34	-22.16	4521.10	17026.58
7.500	-15247.46	-1127.37	-387.34	-27.25	5747.37	20395.50
7.500	-15487.46	-1141.41	-387.34	-27.24	5747.36	20395.46
5.000	-15487.46	-1141.41	-387.34	-30.59	6909.91	23687.18
5.000	-15738.14	-1155.46	-387.33	-30.59	6909.91	23687.20
2.500	-15738.14	-1155.46	-387.33	-32.47	8003.14	26871.85
2.500	-16000.08	-1169.52	-387.32	-32.45	8003.16	26871.91
0.000	-16000.08	-1169.52	-387.32	-33.12	9018.71	29910.73

TENSIONES & RIGIDECES-SECANTE/gamma_r
<G.PILA4.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.1035

Coord-x [m]	Horm.- [N/mm²]	Horm.+ [N/mm²]	Acero- [N/mm²]	Acero+ [N/mm²]	EIy [kNm²]	EIz [kNm²]
16.600	-9.9	-0.4	-146.2	-7.7	1.434E+7	3.733E+7
13.100	-13.6	0.0	-226.6	80.5	1.108E+7	3.120E+7
13.100	-13.7	0.0	-231.5	84.9	1.094E+7	3.032E+7
10.000	-16.6	0.0	-344.2	246.3	8.083E+6	2.272E+7
10.000	-15.6	0.0	-293.5	197.2	1.284E+7	2.634E+7
7.500	-16.9	0.0	-384.7	342.7	1.055E+7	2.164E+7
7.500	-16.6	0.0	-346.6	302.3	1.389E+7	2.373E+7
5.000	-17.0	0.0	-441.2	443.5	1.172E+7	2.015E+7
5.000	-17.0	0.0	-396.2	404.4	1.492E+7	2.213E+7
2.500	-17.0	0.0	-443.5	443.5	1.162E+7	1.801E+7
2.500	-17.0	0.0	-438.9	443.5	1.649E+7	2.108E+7
0.000	-17.0	0.0	-443.5	443.5	9.543E+6	1.336E+7

DEFORMACIONES
<G.PILA4.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.1035

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
16.600	-0.708	-0.025	-0.696	-0.036	0.17	106.9
13.100	-1.100	0.404	-1.079	0.383	0.19	121.7
13.100	-1.124	0.426	-1.102	0.404	0.19	121.8
10.000	-1.677	1.210	-1.639	1.173	0.22	126.4

DEFORMACIONES
<G.PILA4.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.1035

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
10.000	-1.432	0.973	-1.397	0.939	0.19	118.4
7.500	-1.882	1.681	-1.832	1.632	0.22	119.9
7.500	-1.697	1.486	-1.650	1.440	0.20	115.6
5.000	-2.164	2.238	-2.101	2.175	0.22	116.5
5.000	-1.945	1.984	-1.887	1.926	0.20	113.0
2.500	-2.567	3.006	-2.487	2.925	0.23	114.4
2.500	-2.161	2.483	-2.090	2.412	0.20	110.5
0.000	-3.490	4.886	-3.368	4.763	0.23	112.6

Pila ''P4-II'
****

Título : 'VIADUCTO DE LOS CHORROS' HIP II.2, PILAS 2 a 6
Altura de la pila : 16.600 [m]
Long. max. de barra: Altura pila / 6

NUDOS Nu	x [m]	Apoyo d-xyz	r-xyz
7	16.600		
6	13.100		
5	10.000		
4	7.500		
3	5.000		
2	2.500		
1	0.000	BBB	BBB

Apoyo: B=bloqueado, E=elástico

BARRAS (1.línea: barra arriba, 2.línea: barra abajo)

Ba	Nu	Sección	Tipo	Exc: ey [m]	ez [m]	Arm: Zona	fac
6	7-6	'SUPERIOR'	SecFAGUS			1	1.00(
5	6-5	'SUPERIOR'	SecFAGUS			1	1.00(
4	5-4	'BASE3'	SecFAGUS			2	1.00(
3	4-3	'BASE2'	SecFAGUS			3	1.00(
2	3-2	'BASE1'	SecFAGUS			4	1.00(
1	2-1	'BASE'	SecFAGUS			5	1.00(

DEF. ACCIDENTAL :
Func. carga : w0_max= 0.055 m

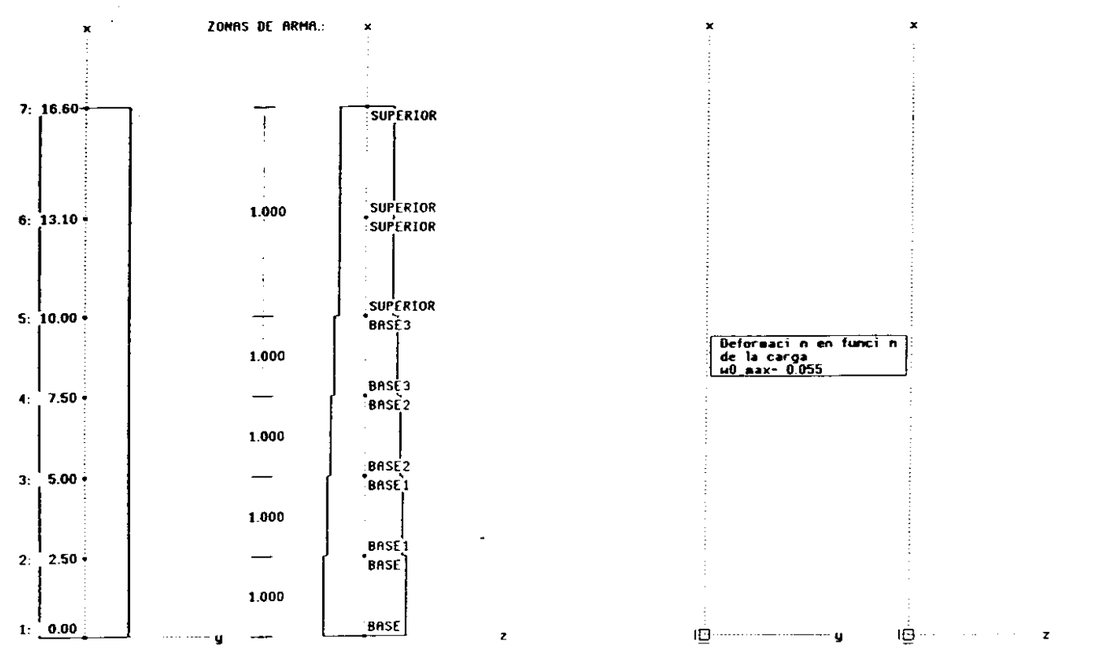
HIP II.2

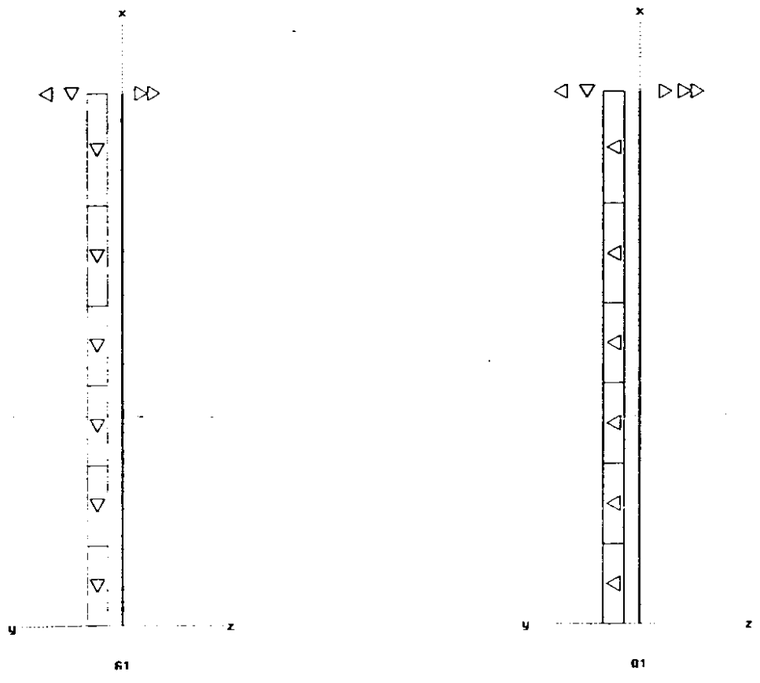
CARGAS :

Nu/Ba		Tipo Car.	Dim.		Valor Val.arriba	ey[m] Val.abajo	ez[m]
Comp. Carga G1 :							
Nudo	7	Fuerza	x	[kN]	-5290.000	0.14000	0.08500
		Fuerza	y	[kN]	60.000		
		Momento	z	[kNm]	1220.000		
Barra	6	Peso propio	x	[kN/m3]	-25.000		
Barra	5	Peso propio	x	[kN/m3]	-25.000		
Barra	4	Peso propio	x	[kN/m3]	-25.000		
Barra	3	Peso propio	x	[kN/m3]	-25.000		
Barra	2	Peso propio	x	[kN/m3]	-25.000		
Barra	1	Peso propio	x	[kN/m3]	-25.000		
Comp. Carga Q1 :							
Nudo	7	Fuerza	x	[kN]	-4670.000	0.05500	0.05500
		Fuerza	y	[kN]	600.000		
		Fuerza	z	[kN]	234.000		
		Momento	z	[kNm]	1380.000		
Barra	6	Fuerza	y	[kN/m]	3.400		
Barra	5	Fuerza	y	[kN/m]	3.400		
Barra	4	Fuerza	y	[kN/m]	3.400		
Barra	3	Fuerza	y	[kN/m]	3.400		
Barra	2	Fuerza	y	[kN/m]	3.400		
Barra	1	Fuerza	y	[kN/m]	3.400		

Programm: P Y R U S V.2.20 Bn:2137. 1 página 10
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Escala 1 : 194.7
Modelo, Deformación accidental y cargas de la pila P4-II





C A P A C I D A D R E S I S T E N T E U L T I M A <G.P4-II.1>

Hip. II.2. Pilas 2 a 6

PARAMETROS DE CALCULO:

Norma	EH
Criterio de rotura	Agotamiento de secciones o del sistema
Rotura de secciones	Limitación de deformaciones según FAGUS-
- Hormigón (def. centrada)	-2.000 [o/oo]
- Hormigón (flexión)	-3.500 [o/oo]
- Acero	10.00 [o/oo]
Coef. min. resist. (gamma_r)	1.000
Coeficiente de fluencia	0.000
Factor armadura (global)	1.000
No de elementos	6
Tolerancia desequi. fuerzas	0.164 [kN]
Tolerancia desequi. momentos	0.232 [kNm]
Mayoración de cargas	1.500 * Carga permanente G1
	+ 1.500 * Carga variable Q1 * ß

RESULTADOS DEL CALCULO NO LINEAL:
Las cargas variables se han aumentado por un factor ß (ß=1.2296).

Rotura: Rotura de la sección
Sección 'BASE' en x= 0.000

DATOS DE LA SECCION

Nombre	Ancho dy [m]	Canto dz [m]	Materiales Horm. / Acero		Distrib. de la armadura	Armadura fija[cm²]	Armadura var [cm²]
BASE	2.800	2.600	H300	AEH500	B1	0.000	288.0
BASE1	2.800	2.380	H300	AEH500	B1	0.000	288.0
BASE2	2.800	2.200	H300	AEH500	B1	0.000	288.0
BASE3	2.800	2.000	H300	AEH500	B1	0.000	288.0
SUPERIOR	2.800	1.700	H300	AEH500	B1	0.000	288.0

DATOS DE BARRAS (incl. factores de armadura)

Barra	Sección arriba / abajo		factor S de la armadura	Armadura variable arriba[cm²]/abajo[cm²]	
6	SUPERIOR	SUPERIOR	1.000	288.0	288.0
5	SUPERIOR	SUPERIOR	1.000	288.0	288.0
4	BASE3	BASE3	1.000	288.0	288.0
3	BASE2	BASE2	1.000	288.0	288.0
2	BASE1	BASE1	1.000	288.0	288.0
1	BASE	BASE	1.000	288.0	288.0

DEFORMACIONES sin deformaciones accidentales

	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
Mínima	-5.31	0.00	0.00	-0.038	-7.549	0.000
Máxima	0.39	145.23	77.46	0.011	0.000	13.188

DEFORMACION ACCIDENTAL	DY [mm]	DZ [mm]
Máxima	46.04	30.63

ESFUERZOS (global)

	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Mínima	-17992.64	-1292.94	-431.60	-50.83	1148.22	5953.60
Máxima	-16700.88	-1207.65	-431.60	0.00	10158.62	29956.91

TENSIONES, DEFORMACIONES & RIGIDECES-SECANTE/gamma_r

	sigHorm. [N/mm²]	sigAcero [N/mm²]	epsHorm. [o/oo]	epsAcero [o/oo]	EIy [kNm²]	EIz [kNm²]
Mínima	-17.0	-443.5	-3.498	-3.391	9.139E+6	1.519E+7
Máxima	0.0	443.5	4.144	4.038	1.741E+7	3.625E+7

DEFORMACIONES sin deformaciones accidentales
<G.P4-II.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.2296

Coord-x [m]	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
16.600	-5.31	145.23	77.46	0.011	-7.549	13.188
13.100	-3.18	100.46	51.88	-0.008	-6.978	12.314
10.000	-1.47	64.37	31.95	-0.029	-5.733	10.829
7.500	-0.45	39.27	18.92	-0.038	-4.603	9.142
5.000	0.18	19.07	8.95	-0.037	-3.295	6.877
2.500	0.39	5.34	2.46	-0.025	-1.795	3.939
0.000	0.00	0.00	0.00	0.000	0.000	0.000

ESFUERZOS (global)

<G.P4-II.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.2296

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
16.600	-16700.88	-1207.65	-431.60	0.00	1148.22	5953.60
13.100	-16700.88	-1207.65	-431.60	-18.96	3281.44	11188.67
13.100	-16987.98	-1228.35	-431.60	-18.96	3281.44	11190.05
10.000	-16987.98	-1228.35	-431.60	-32.96	5100.78	15817.04
10.000	-17240.01	-1245.90	-431.60	-32.96	5100.78	15818.80
7.500	-17240.01	-1245.90	-431.60	-41.00	6487.85	19501.57
7.500	-17480.01	-1261.58	-431.60	-41.00	6487.85	19501.57
5.000	-17480.01	-1261.58	-431.60	-46.52	7798.48	23109.22
5.000	-17730.70	-1277.26	-431.60	-46.52	7798.48	23109.22
2.500	-17730.70	-1277.26	-431.60	-49.71	9024.97	26607.73
2.500	-17992.64	-1292.94	-431.60	-49.71	9024.97	26607.73
0.000	-17992.64	-1292.94	-431.60	-50.83	10158.62	29956.91

TENSIONES & RIGIDECES-SECANTE/gamma_r

<G.P4-II.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.2296

Coord-x [m]	Horm.- [N/mm²]	Horm.+ [N/mm²]	Acero- [N/mm²]	Acero+ [N/mm²]	EIy [kNm²]	EIz [kNm²]
16.600	-9.7	-2.1	-143.6	-29.1	1.400E+7	3.625E+7
13.100	-13.3	0.0	-221.4	43.9	1.264E+7	3.340E+7
13.100	-13.4	0.0	-223.7	42.1	1.268E+7	3.340E+7
10.000	-16.4	0.0	-337.3	182.5	9.139E+6	2.539E+7
10.000	-15.4	0.0	-286.6	137.2	1.468E+7	2.993E+7
7.500	-16.9	0.0	-386.5	281.2	1.153E+7	2.373E+7
7.500	-16.6	0.0	-346.0	240.1	1.532E+7	2.641E+7
5.000	-17.0	0.0	-443.5	403.3	1.240E+7	2.153E+7
5.000	-17.0	0.0	-406.2	350.9	1.589E+7	2.388E+7
2.500	-17.0	0.0	-443.5	443.5	1.238E+7	1.923E+7
2.500	-17.0	0.0	-443.5	443.5	1.741E+7	2.254E+7
0.000	-17.0	0.0	-443.5	443.5	1.073E+7	1.519E+7

DEFORMACIONES

<G.P4-II.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.2296

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
16.600	-0.693	-0.130	-0.684	-0.139	0.17	114.5
13.100	-1.071	0.226	-1.054	0.209	0.19	126.9
13.100	-1.082	0.217	-1.065	0.200	0.19	127.1
10.000	-1.636	0.899	-1.606	0.869	0.21	131.5

DEFORMACIONES

<G.P4-II.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.2296

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
10.000	-1.392	0.680	-1.365	0.653	0.19	123.1
7.500	-1.882	1.381	-1.840	1.339	0.21	124.2
7.500	-1.687	1.182	-1.648	1.143	0.19	119.7
5.000	-2.221	1.977	-2.165	1.921	0.22	120.2
5.000	-1.986	1.723	-1.934	1.671	0.20	116.5
2.500	-2.660	2.704	-2.586	2.630	0.23	117.4
2.500	-2.235	2.224	-2.171	2.160	0.20	113.3
0.000	-3.498	4.144	-3.391	4.038	0.23	115.2

SUBANEJO Nº 6

DEFINICIÓN GEOMÉTRICA

VIADUCTO DE LOS CHORROS

Definición geométrica

Programa Definición Geométrica v2.0
MC-2 **Estudio de Ingeniería, S.L.**

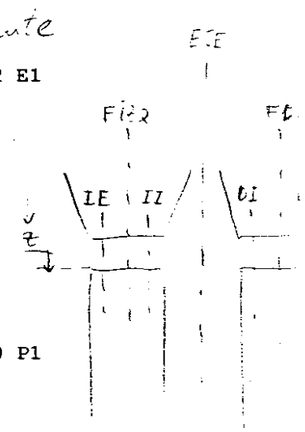
Tramo 1

S1: 1102121.184 S2: 1103993.628 Xo: 596664.242 Yo: 4573666.212 Zo: 656.521
Definición del tramo en planta:
Circunferencia.
Azimut en origen: ..... 70.468^g
Radio: ..... 7250.000 m
Giro horario.
Definición del tramo en alzado:
Parábola cóncava.
Pendiente en origen: ..... -1.052%
Progresiva del punto de definición: ... 1101964.784 m
Cota en el punto de definición: ..... 658.439 m
Pendiente en el punto de definición: .. -1.400 m
Parámetro de la parábola: ..... 45000.0 m
Definición del tramo en sección:
Peralte: ..... No definido

Tramo 1

PK = 1102456.280 X: 596967.282 Y: 4573809.167 Z: 654.242 E1
Azimut: 73.41007^g Pendiente: -0.308% Peralte: 0.000%

PUNTO	X	Y	Z
EJE	596967.272	4573809.163	650.732
FIZQ	596966.055	4573811.905	650.732
FDCH	596968.488	4573806.421	650.732
IE	596965.649	4573812.819	650.732
II	596966.460	4573810.991	650.732
DI	596968.083	4573807.335	650.732
DE	596968.894	4573805.507	650.732



PK = 1102478.280 X: 596987.404 Y: 4573818.061 Z: 654.180 P1
Azimut: 73.60325^g Pendiente: -0.259% Peralte: 0.000%

PUNTO	X	Y	Z
EJE	596987.395	4573818.057	650.570
FIZQ	596986.187	4573820.803	650.570
FDCH	596988.604	4573815.311	650.570
IE	596985.784	4573821.718	650.570
II	596986.590	4573819.888	650.570
DI	596988.201	4573816.227	650.570
DE	596989.007	4573814.396	650.570

PK = 1102514.280 X: 597020.389 Y: 4573832.482 Z: 654.101 P2
Azimut: 73.91936^g Pendiente: -0.179% Peralte: 0.000%

PUNTO	X	Y	Z
EJE	597020.383	4573832.479	650.491
FIZQ	597019.188	4573835.231	650.491
FDCH	597021.578	4573829.728	650.491
IE	597018.790	4573836.148	650.491
II	597019.587	4573834.314	650.491
DI	597021.180	4573830.645	650.491
DE	597021.977	4573828.810	650.491

PK = 1102550.280 X: 597053.446 Y: 4573846.739 Z: 654.051 P3
Azimut: 74.23548^g Pendiente: -0.099% Peralte: 0.000%

PUNTO	X	Y	Z
EJE	597053.443	4573846.738	650.441
FIZQ	597052.261	4573849.495	650.441
FDCH	597054.624	4573843.980	650.441
IE	597051.868	4573850.415	650.441
II	597052.655	4573848.576	650.441
DI	597054.230	4573844.899	650.441
DE	597055.018	4573843.061	650.441

PK = 1102586.280 X: 597086.573 Y: 4573860.832 Z: 654.030 P4
Azimut: 74.55159^g Pendiente: -0.019% Peralte: 0.000%

PUNTO	X	Y	Z
EJE	597086.572	4573860.832	650.420
FIZQ	597085.405	4573863.595	650.420
FDCH	597087.740	4573858.068	650.420
IE	597085.015	4573864.516	650.420
II	597085.794	4573862.674	650.420
DI	597087.350	4573858.989	650.420
DE	597088.129	4573857.147	650.420

PK = 1102622.280 X: 597119.769 Y: 4573874.760 Z: 654.037 P5
Azimut: 74.86771^g Pendiente: 0.061% Peralte: 0.000%

PUNTO	X	Y	Z
EJE	597119.771	4573874.761	650.427
FIZQ	597118.617	4573877.530	650.427
FDCH	597120.925	4573871.992	650.427
IE	597118.233	4573878.453	650.427
II	597119.002	4573876.607	650.427
DI	597120.540	4573872.915	650.427
DE	597121.310	4573871.069	650.427

PK = 1102658.280 X: 597153.034 Y: 4573888.523 Z: 654.074 P6
Azimut: 75.18382^g Pendiente: 0.141% Peralte: 0.000%

PUNTO	X	Y	Z
EJE	597153.039	4573888.525	650.464
FIZQ	597151.899	4573891.300	650.464
FDCH	597154.179	4573885.750	650.464
IE	597151.519	4573892.225	650.464
II	597152.279	4573890.375	650.464
DI	597153.799	4573886.675	650.464
DE	597154.559	4573884.825	650.464

PK = 1102694.280 X: 597186.367 Y: 4573902.121 Z: 654.139 P7
Azimut: 75.49993^g Pendiente: 0.221% Peralte: 0.000%

PUNTO	X	Y	Z
EJE	597186.375	4573902.124	650.529
FIZQ	597185.249	4573904.905	650.529
FDCH	597187.501	4573899.343	650.529

IE	597184.873	4573905.831	650.529
II	597185.624	4573903.978	650.529
DI	597187.126	4573900.270	650.529
DE	597187.877	4573898.417	650.529

PK = 1102716.280 X: 597206.771 Y: 4573910.349 Z: 654.193 E2

Azimut: 75.69312^{g} Pendiente: 0.270% Peralte: 0.000%

PUNTO	X	Y	Z
EJE	597206.780	4573910.353	650.683
FIZQ	597205.662	4573913.137	650.683
FDCH	597207.898	4573907.569	650.683
IE	597205.289	4573914.065	650.683
II	597206.035	4573912.209	650.683
DI	597207.525	4573908.497	650.683
DE	597208.270	4573906.641	650.683

*** Fin del listado ***

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FECHA HOJA DE

① $L_1 = 22\,m.$ y $L_2 = 36\,m.$

$\alpha_1 = \frac{22}{7250} = 0,003034483$ rad.

$\alpha_2 = \frac{36}{7250} = 0,004965517$ rad.

$\beta_1 \approx \frac{\pi}{2} - \frac{\pi - \alpha_1}{2} = 0,001517241$ rad

$\beta_2 \approx \frac{\pi}{2} - \frac{\pi - \alpha_2}{2} = 0,002482759$ rad

$\Delta_1 \approx \frac{14,0}{2} \times \beta_1 = 0,0106\,m.$

$L_2 \approx \frac{14,0}{2} \times \beta_2 = 0,017\,m.$

$h_i \geq 0,10\,m$

$m \leq \frac{22,0 - 0,10 - \Delta_2 - L_1}{11 \text{ módulos}} = 1,188$ m/módulo

② $L_1 = 36\,m.$ $L_2 = 36\,m.$

$\Delta_1 = \Delta_2 = \frac{14,0}{2} \cdot \beta_2 = 0,017\,m.$

$h_i \geq 0,10\,m.$

$m \leq \frac{36,0 - 0,10 - L_1 - \Delta_2}{18 \text{ módulos}} = 1,992\,m.$

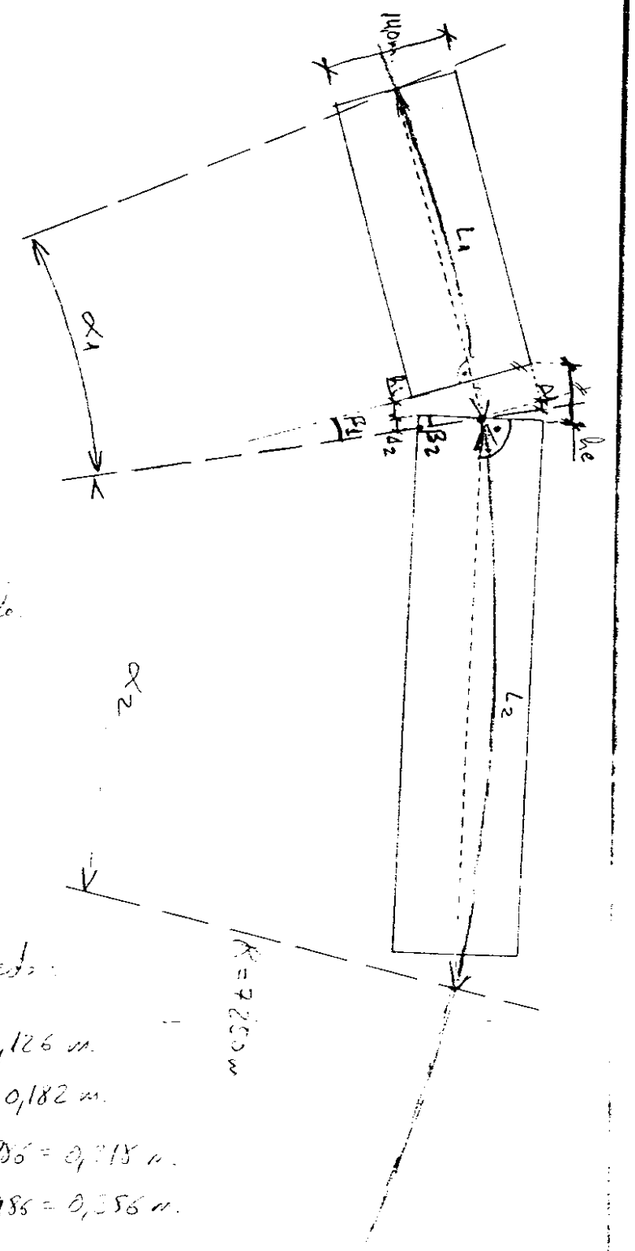
Tomando $m = 1,986\,m$ / módulo:

① $h_i = 22,0 - L_2 - L_1 - 11 \times 1,986 = 0,126\,m.$

$h_e = 22,0 + \Delta_2 + \Delta_1 - 11 \times 1,986 = 0,182\,m.$

② $h_i = 36,0 - \Delta_2 - \Delta_1 - 18 \times 1,986 = 0,218\,m.$

$h_e = 36,0 + \Delta_2 + \Delta_1 - 18 \times 1,986 = 0,256\,m.$



SUBANEJO Nº 7

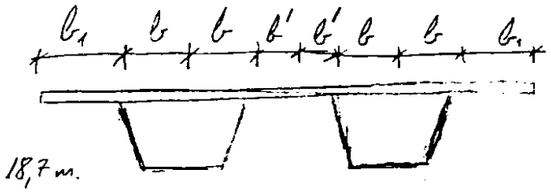
ANCHURAS EFICACES Y CARACTERÍSTICAS DE SECCIONES

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V. de la Serna

FECHA HOJA DE

Anchura eficaz elástica.



- Centro de vano:

$l = \min(0{,}7 \times 36 ; 0{,}85 \times 22) = 18{,}7$ m.

- Voladizo: $b_1 = 2{,}0$ m. $\psi_{el,1} = \frac{1}{1+6{,}4\left(\frac{b_1}{l}\right)^2} = 0{,}93$

- entre almas: $b = 1{,}9$ m. $\psi_{el,1} = 0{,}94$

- entre cajones: $b' = 1{,}1$ m $\psi_{el,1} = 0{,}98$

- Apoyos interiores

$l = 0{,}25\,(22+36) = 14{,}5$ m.

- Voladizo: $b_1 = 2{,}0$ m. $\psi_{el,2} = \frac{1}{1+6\left(\frac{b_1}{l}\right)+16\left(\frac{b_1}{l}\right)^2} = 0{,}538$

- Entre almas: $b = 1{,}9$ m. $\psi_{el,2} = 0{,}551$

- Entre cajones: $b' = 1{,}1$ $\psi_{el,2} = 0{,}083$.

- Apoyos extremos:

$l = 0{,}85 \times 22 = 18{,}7$ m.

- Voladizo: $b_1 = 2{,}0$ m. $\psi_{el,4} = \left[0{,}55 + 0{,}025\,\frac{l}{b_1}\right]\psi_{el,1} = 0{,}73$

- entre almas: $b = 1{,}9$ $\psi_{el,4} = 0{,}75$

- entre cajones. $b' = 1{,}1$ $\psi_{el,4} = 0{,}96$

Se dividen todos los valores por 0,8 ya que los anchos corresponden a la σ máxima, considerándose así un cierto trabajo de la zona fuera del ancho, al igual que se realiza en el proyecto base.

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FECHA HOJA DE

Luego quedan:

- Centro de vano:

Voladizo: $b_{ef} = 0{,}93 \times 2{,}0/0{,}8 = 2{,}33 > 2{,}0 \Rightarrow b_{ef} = \underline{2{,}0\ m.}$

Entre almas: $b_{ef} = 0{,}94 \times 1{,}9/0{,}8 = 2{,}23 > 1{,}9 \Rightarrow b_{ef} = \underline{1{,}9\ m.}$

Entre cajones: $b_{ef} = 0{,}98 \times 1{,}1/0{,}8 = 1{,}34 > 1{,}1 \Rightarrow b_{ef} = \underline{1{,}1\ m.}$

- Apoyos interiores:

Voladizo: $b_{ef} = 0{,}538 \times 2{,}0/0{,}8 = \underline{1{,}345\ m.}$

Entre almas: $b_{ef} = 0{,}551 \times 1{,}9/0{,}8 = \underline{1{,}309\ m.}$

Entre cajones: $b_{ef} = 0{,}083 \times 1{,}1/0{,}8 = \underline{0{,}940\ m}$

- Apoyos extremos:

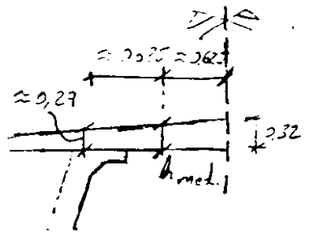
Voladizo: $b_{ef} = 0{,}73 \times 2{,}0/0{,}8 = \underline{1{,}825\ m}$

Entre almas: $b_{ef} = 0{,}75 \times 1{,}9/0{,}8 = \underline{1{,}781\ m.}$

Entre cajones: $b_{ef} = 0{,}96 \times 1{,}1/0{,}8 = 1{,}32 > 1{,}1 \Rightarrow b_{ef} = \underline{1{,}1\ m.}$

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FECHA HOJA DE



ELEMENTOS TRANSVERSALES LOSA; $n_c = \frac{2,1 \cdot 10^5}{3,3 \cdot 10^2}$

$$I = \frac{h^3}{12 \cdot n_c} \cdot \Delta z = \frac{0,27^3}{12 \times 6,4} \Delta z = 2,563 \cdot 10^{-4} \Delta z$$

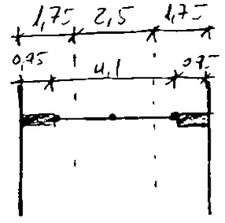
Sección $h = 0,27$ algo menor que h_{med} para no superar, con seguridad, el efecto de reparto real que tiene la losa de espesor variable en sentido transversal.

Δz (m)	I (m^4)	
4,5	0,00115	— tramo tipo vano interior
4,08	0,00105	— tramo entre vano extremo e interior en apoyo
3,667	0,00094	— tramo tipo en vano exterior
1,83	0,00047	— tramo de extremo en vano exterior

$$A = \frac{h \times \Delta z}{n_c} = 0,1895 \cdot \Delta z$$

$$C_T = \frac{h^3 \Delta z}{6 n_c^x} \frac{b^*}{b}$$

Δz =	A	C_T
4,5	0,8541	0,0029
4,08	0,774	0,00265
3,667	0,696	0,00239
1,83	0,347	0,00119



$$\frac{b^*}{b} = \frac{4,1}{3,5} = 1,17 \text{ m.}$$

$$C_T = \frac{0,27^3}{6 \times 5,9} \times 1,17 \cdot \Delta z = 0,0006505 \cdot \Delta z$$

(E_c = 3.1.10 Kp/cm²)

$$n_c^x = \frac{E_c / 2(1+0,2)}{E_c / 2(1+0,2)} = \frac{807700}{137500} = 5,9$$

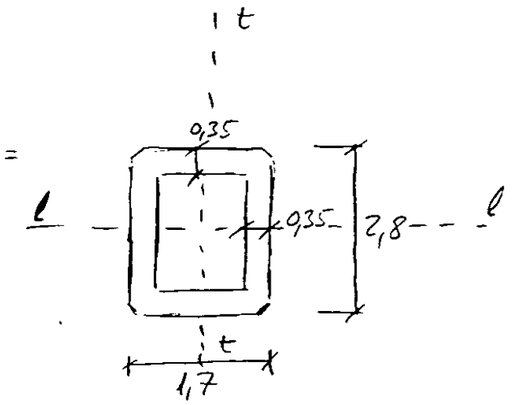
(E_c = 330000 Kp/cm²)

$I_{Transversal} = 100 \ m^4$

MC-2 ESTUDIO DE INGENIERIA
Víctor de la Serna, 21
28016 Madrid
Teléfs. 91 413 38 02 / 19
91 519 74 77
Fax 91 744 06 75

FECHA HOJA DE

- Pilas:



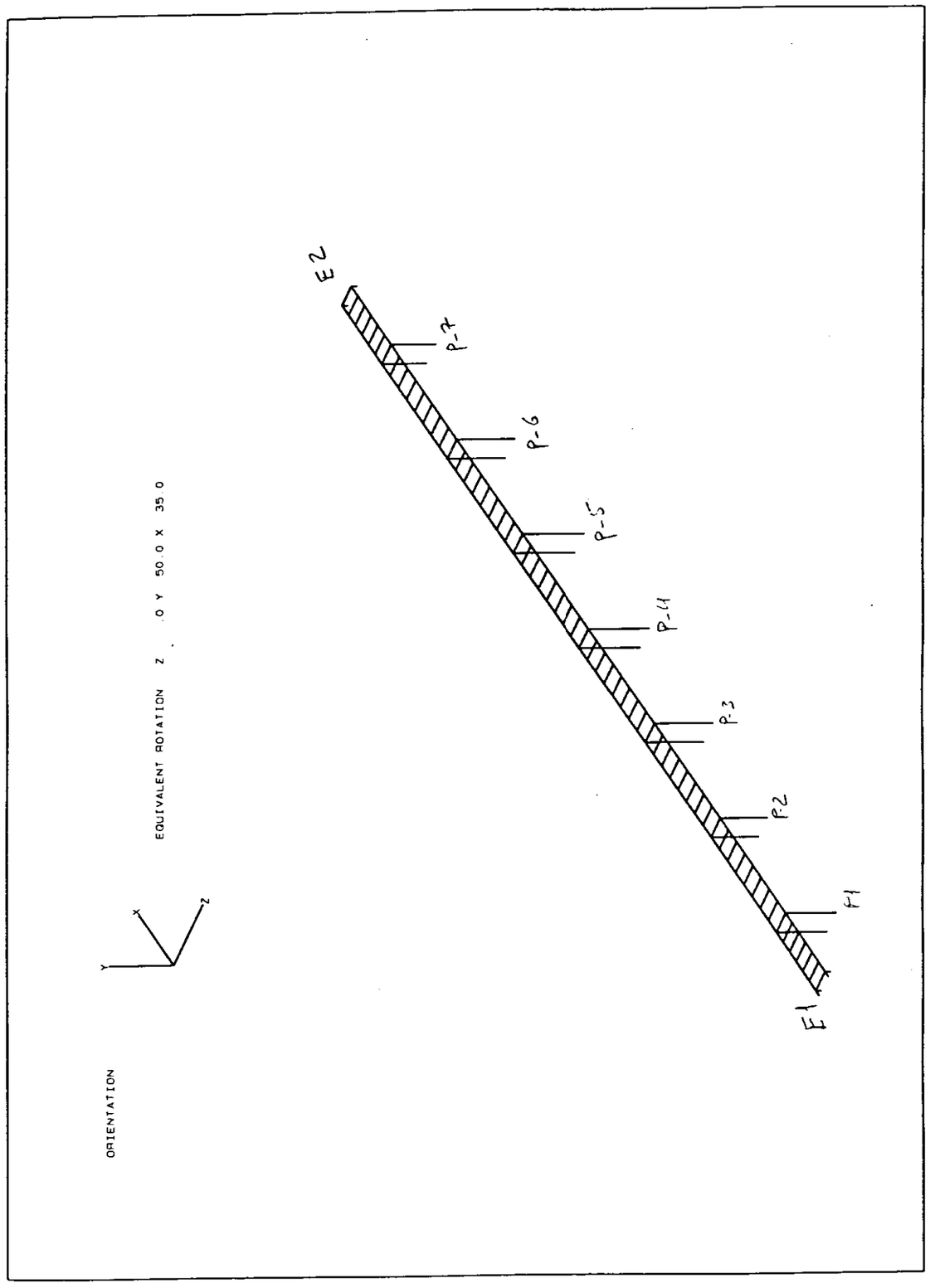
$$I_{c,t} = \frac{1}{12} 1,7^3 \times 2,8 - \frac{1}{12} 1,0^2 \times 2,1 = 0,9714 \ m^4$$

$$I_{h,t} = \frac{0,9714}{6,4} = 0,152 \ m^4$$

$$C_T \cong \frac{4 \times 1,35^2 \times 2,45^2}{2 \times \frac{1,35}{0,35} + 2 \times \frac{2,45}{0,35}} = 2,015 \ m^4 \longrightarrow C_{T,h} = \frac{2,015}{5,9} = 0,34 \ m^4$$

$$I_{c,\ell} = 2,34 \ m^4 \longrightarrow I_{h,\ell} = \frac{2,34}{6,4} = 0,366 \ m^4$$

$$A_h = \frac{1,7 \times 2,8 - 1,0 \times 2,1}{6,4} = 0,416 \ m^2$$



MOMENTOS-CURVATURA(ELASTOPLASTICO)

Tftulo Secci|n: APOYO

ESTUDIO SECCION VP

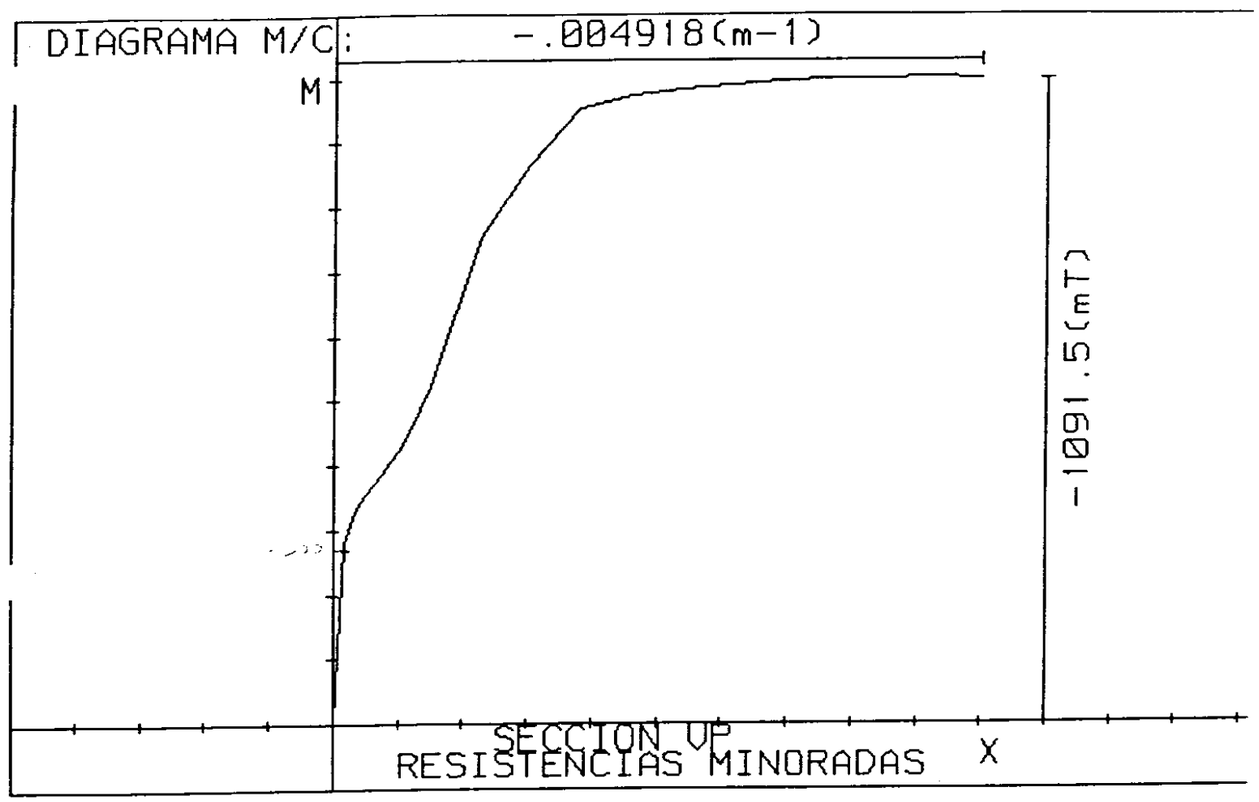
Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[∏*(Cperm./Ctot.)]: 0.00

LEYES MOMENTOS-CURVATURAS

CON consideracion de TENSION STIFFENING

Flexion NEGATIVA
[M] es el Momento Flector Total
,] y [Xn] corresponden a Incrementos frente
a la posible Presolicitacion Elastica
[Ax(i)] muestra la evolucion del Axil(Tn) en la
S.parcial i durante el Incremento de Curvatura
[ecmx] y [etmx] son las Deformaciones Totales
maximas de Compresion y Traccion,respectivamente
[Itan] e [Isec] son las Inercias correspondientes
a los sucesivos Incrementos de Curvatura

[N]	Momento(mT)	Xc(m-1)	Xn(cm)	ecmx	etmx	Itan(cm4)	Isec(cm4)
1	-0.0	0.000000$$$$$$		0.00000	0.00000		
2	-304.8	-.000082	160.3	-.00007	.00011	17706630	17706630
3	-359.2	-.000164	186.6	-.00010	.00026	3156847	10431738
4	-386.0	-.000246	199.0	-.00011	.00043	1556916	7473464
5	-409.2	-.000328	206.1	-.00013	.00059	1348949	5942335
6	-434.1	-.000410	210.5	-.00014	.00076	1444931	5042854
7	-462.4	-.000492	213.4	-.00016	.00093	1646659	4476822
8	-495.0	-.000574	215.3	-.00017	.00109	1892173	4107586
	-532.1	-.000656	216.6	-.00019	.00126	2155935	3863630
10	-573.8	-.000738	217.4	-.00020	.00142	2426051	3703899
11	-824.5	-.001118	218.5	-.00030	.00216	3140916	3512485
12	-945.3	-.001498	220.5	-.00037	.00293	1513335	3005238
13	-1041.4	-.001878	222.0	-.00043	.00370	1204302	2640763
14	-1063.8	-.002258	223.7	-.00048	.00449	280028	2243411
15	-1073.2	-.002638	225.2	-.00052	.00528	118086	1937220
16	-1080.0	-.003018	226.3	-.00056	.00608	85180	1704000
17	-1086.3	-.003398	227.3	-.00060	.00688	79320	1522293
18	-1089.4	-.003778	228.2	-.00064	.00768	38199	1373005
19	-1092.2	-.004158	228.9	-.00067	.00848	35570	1250766
20	-1094.9	-.004538	229.6	-.00070	.00928	33749	1148849
21	-1091.5	-.004918	228.3	-.00082	.01000	-43084	1056745


DIAGRAMA M/C:
-.004918(m-1)
M
-1091.5(mT)
SECCION UP
RESISTENCIAS MINORADAS
X

?

SUBANEJO N° 8

ESFUERZOS HIPERESTÁTICOS DE FLUENCIA Y RETRACCIÓN

**** PROGRAMA DIFEV ****
Version Enero 1990

$\Delta M_{Hiperest} = 47,5 + (-409,28 - (-535,20)) = 173,4 mt.$

Proyecto:
DE LOS CHORROS

Comentario:
FLUENCIA

DATOS DE LOS MATERIALES

No	Material	Eo(Tn/m2)	Res(Kg/cm2)	Eso	Fpo	Rel(1000 h)
1	Hormig-1	4081600.0(0)	600.0(1)	0.00000	1.2	
2	Hormig-2	3500000.0(0)	350.0(0)	0.00000	2.0	
5	A.Pasiva	21000000.0				
7	A.Pret-1	19500000.0	19000.0			3.00 (%)

Nota:En hormigones los numeros entre parentesis indican el tipo de evolucion de las resistencias y modulos elasticos con el tiempo segun se indica en las Instrucciones

Thb Hormigones (dias): 28

DATOS DE LOS NUDOS

Nudo	Xi(m.)	Yi(m.)	Movimientos Impuestos U(m.)	V(m.)	ø(rd)
1	0.00	0.00			
2	6.00	0.00			
3	10.00	0.00			
4	18.00	0.00			
5	26.00	0.00			
6	30.00	0.00			
7	36.00	0.00			

Nota: (***) indica movimiento impuesto bruto
En movimientos se indican los valores finales

DATOS DE SECCIONES TIPO

No	Ksp	Material	Area(m2)	Inercia(m4)	Ys(m.)	Yg(m.)	Yi(m.)	Eeq(m.)
1	1	1(H1)	1.343000	.566000	.250	1.690	2.450	1.160
	2	2(H2)	1.752000	.009000	0.000	.125	.250	.400
	3	5(RD)	.007500	.004520	.270	1.570	2.430	
	4	5(RD)	.038300	.000002	.025	.038	.050	
2	1	1(H1)	1.343000	.566000	.250	1.690	2.450	1.160
	2	2(H2)	1.752000	.009000	0.000	.125	.250	.400
	3	5(RD)	.007500	.004520	.270	1.570	2.430	
	4	5(RD)	.038300	.000002	.025	.038	.050	

*** FASE 1 INTERVALO 1 ***
Titulo:
PESO PROPIO
Ti(dias): 0 Tf(dias): 0

DATOS DE LOS ELEMENTOS

Elem	Nudo-i	Nudo-d	Stipo-i	Stipo-d	Vin.	Var	Long.(m)	Alfa (gsx)	Cgiro(gsx)
1	1	2	1	1	0.0	0.0	6.000	0.00	0.0000(2)
2	2	3	2	2	0.0	0.0	4.000	0.00	0.0000(2)
3	3	4	2	2	0.0	0.0	8.000	0.00	0.0000(3)
4	4	5	2	2	0.0	0.0	8.000	0.00	0.0000(4)
5	5	6	2	2	0.0	0.0	4.000	0.00	0.0000(5)
6	6	7	1	1	0.0	0.0	6.000	0.00	0.0000(6)

Nota : Entre () se indica el nudo desde el que se da el contragiro

Elemento	Secciones parciales conectadas
1	1(-2; 0) 3
2	1(-2; 0) 3
3	1(-2; 0) 3
4	1(-2; 0) 3
5	1(-2; 0) 3
6	1(-2; 0) 3

Nota 1: Las secciones de hormigon se indica entre parentesis: (Tiempo hormigonado ; Tiempo conexion) , en dias

Nota 2: Las secciones de armaduras activas se indican mas adelante

VINCULACIONES NUDOS

Nudo	Coaccion-x	Coaccion-y	Coaccion-ø
1	*****	*****	
7		*****	

TOS CABLES DE PRETENSADO:

Se PONE EN CARGA el cable 1
Tipo:Adherente (material 7(P1))

Elem.Inicial	Elem.Final	Tension Gato(Tn)	Coeficientes Perdidas
1	6	726.000	0.0000(/m) 0.0000(/rad)

Nudo	Ycp(m.)	Tension(Tn)	
1	2.400	726.000	(Activo)
2	2.400	726.000	
3	2.400	726.000	
4	2.400	726.000	
5	2.400	726.000	
6	2.400	726.000	
7	2.400	726.000	(Activo)

Se PONE EN CARGA el cable 2 (material 7(P1))

Tipo:Adherente

Elem.Inicial	Elem.Final	Tension Gato(Tn)	Coeficientes Perdidas
2	5	726.000	0.0000(/m) 0.0000(/rad)

Nudo	Ycp(m.)	Tension(Tn)	
2	2.400	726.000	(Activo)
3	2.400	726.000	
4	2.400	726.000	
5	2.400	726.000	
6	2.400	726.000	(Activo)

Se PONE EN CARGA el cable 3 (material 7(P1))

Tipo:Adherente

Elem.Inicial	Elem.Final	Tension Gato(Tn)	Coeficientes Perdidas
3	4	726.000	0.0000(/m) 0.0000(/rad)

Nudo	Ycp(m.)	Tension(Tn)	
3	2.400	726.000	(Activo)
4	2.400	726.000	
5	2.400	726.000	(Activo)

Se PONE EN CARGA el cable 4 (material 7(P1))

po:Adherente

Elem.Inicial	Elem.Final	Tension Gato(Tn)	Coeficientes Perdidas
1	6	120.000	0.0000(/m) 0.0000(/rad)

Nudo	Ycp(m.)	Tension(Tn)	
1	.300	120.000	(Activo)
2	.300	120.000	
3	.300	120.000	
4	.300	120.000	
5	.300	120.000	
6	.300	120.000	
7	.300	120.000	(Activo)

Se PONE EN CARGA el cable 5 (material 7(P1))

Tipo:Adherente

Elem.Inicial	Elem.Final	Tension Gato(Tn)	Coeficientes Perdidas
1	1	359.000	0.0000(/m) 0.0000(/rad)

Nudo	Ycp(m.)	Tension(Tn)	
1	.300	359.000	(Activo)
2	.300	359.000	(Activo)

Se PONE EN CARGA el cable 6 (material 7(P1))

Tipo:Adherente

Elem.Inicial	Elem.Final	Tension Gato(Tn)	Coeficientes Perdidas
6	6	359.000	0.0000(/m) 0.0000(/rad)

Nudo	Ycp(m.)	Tension(Tn)	
6	.300	359.000	(Activo)
7	.300	359.000	(Activo)

Listado Cables:

Numero Cable	Seccion (m2)	Puesta en Carga(dias)	Primer Elemento	Ultimo Elemento	Tipo de Cable	Material del Cable
1	.004200	0	1	6	Adherente	A.pret-1
2	.004200	0	2	5	Adherente	A.pret-1
3	.004200	0	3	4	Adherente	A.pret-1
4	.004200	0	1	6	Adherente	A.pret-1
5	.002520	0	1	1	Adherente	A.pret-1
6	.002520	0	6	6	Adherente	A.pret-1

ACCIONES EN ELEMENTOS(m.;Tnigsex.):

Elemento	Tipo Accion	Parametros de Carga:			
1	1	4.280			
	(Carga Repartida)				
	Misma Accion en Elementos :	2	2	1	4.280
	(Carga Repartida)				
5	5	1	4.280		
	(Carga Repartida)				
6	6	1	4.280		
	(Carga Repartida)				
3	1	3.450			
	(Carga Repartida)				
	Misma Accion en Elementos :	4	4	1	3.450
	(Carga Repartida)				

****** DIFEV (RESULTADOS) ******

Proyecto:V. DE LOS CHORROS
Comentario:ESTUDIO DIFERIDO

***** FASE 1 INTERVALO 1 *****
Titulo:PESO PROPIO
Ti(dias): 0 Tf(dias): 0

Analisis CON Efectos Diferidos

**** MOVIMIENTOS NUDOS (Ejes Generales) ****

Nudo	U (m.)	V (m.)	# (rad.)
1	0.0000	0.0000	.003718
2	-.0043	.0254	.004968
3	-.0043	.0429	.003862
4	-.0030	.0580	-0.000000
5	-.0017	.0429	-.003862
6	-.0017	.0254	-.004968
7	-.0060	0.0000	-.003718

**** ESFUERZOS ELEMENTOS (Ejes Locales) ****

Elemento	Nudo-izq.	Nudo-der.	Axil(T)	Cortante(T)	Flector(mT)	
1	1	2	0.000	-70.400	0.000	(i)
			0.000	-57.560	191.940	(c)
			0.000	-44.720	345.360	(d)
2	2	3	0.000	-44.720	345.360	(i)
			0.000	-36.160	426.240	(c)
			0.000	-27.600	490.000	(d)
3	3	4	0.000	-27.600	490.000	(i)
			0.000	-13.800	572.800	(c)
			0.000	-0.000	600.400	(d)
4	4	5	0.000	-0.000	600.400	(i)
			0.000	13.800	572.800	(c)
			0.000	27.600	490.000	(d)
5	5	6	-0.000	27.600	490.000	(i)
			-0.000	36.160	426.240	(c)
			-0.000	44.720	345.360	(d)
6	6	7	-0.000	44.720	345.360	(i)
			-0.000	57.560	191.940	(c)
			-0.000	70.400	0.000	(d)

Nota: Los esfuerzos se refieren a los extremos del elemento excluyendo zonas rigidas en nudos de tamaño finito

**** TENSIONES EN S.PARCIALES (Kg/cm2) ****

Elemento	Seccion Parcial		Tinf.	Tcdg.	Tsup.
1(izq)	1	(Hormigon-1)	-66.5	-81.1	-106.7
	3	(Arm.Pasiva)	-632.7	-786.7	-1024.4
	7	(Cab.Pret.-1)		16693.1	
	8	(Cab.Pret.-4)		13369.5	
	9	(Cab.Pret.-5)		13299.8	
1(der)	1	(Hormigon-1)	-27.4	-80.3	-180.5
	3	(Arm.Pasiva)	-272.4	-838.4	-1694.0
	7	(Cab.Pret.-1)		17014.4	
	8	(Cab.Pret.-4)		12731.1	
	9	(Cab.Pret.-5)		12691.4	
2(izq)	1	(Hormigon-1)	-159.1	-103.5	1.9
	3	(Arm.Pasiva)	-1491.0	-895.7	4.1
	7	(Cab.Pret.-1)		15920.5	
	8	(Cab.Pret.-2)		15920.5	
	9	(Cab.Pret.-4)		14270.3	
2(der)	1	(Hormigon-1)	-143.0	-104.0	-30.1
	3	(Arm.Pasiva)	-1342.4	-925.2	-294.6
	7	(Cab.Pret.-1)		16052.7	
	8	(Cab.Pret.-2)		16052.7	
	9	(Cab.Pret.-4)		13998.6	
3(izq)	1	(Hormigon-1)	-235.1	-145.4	24.6
	3	(Arm.Pasiva)	-2201.3	-1241.0	210.6
	7	(Cab.Pret.-1)		15272.8	
	8	(Cab.Pret.-2)		15272.8	
	9	(Cab.Pret.-3)		15272.8	
	10	(Cab.Pret.-4)		14450.1	
3(der)	1	(Hormigon-1)	-223.4	-146.0	.5
	3	(Arm.Pasiva)	-2093.2	-1265.5	-14.3
	7	(Cab.Pret.-1)		15368.8	
	8	(Cab.Pret.-2)		15368.8	
	9	(Cab.Pret.-3)		15368.8	
	10	(Cab.Pret.-4)		14245.6	
4(izq)	1	(Hormigon-1)	-223.4	-146.0	.5
	3	(Arm.Pasiva)	-2093.2	-1265.5	-14.3
	7	(Cab.Pret.-1)		15368.8	
	8	(Cab.Pret.-2)		15368.8	
	9	(Cab.Pret.-3)		15368.8	
	10	(Cab.Pret.-4)		14245.6	
4(der)	1	(Hormigon-1)	-235.1	-145.4	24.6
	3	(Arm.Pasiva)	-2201.3	-1241.0	210.6
	7	(Cab.Pret.-1)		15272.8	
	8	(Cab.Pret.-2)		15272.8	
	9	(Cab.Pret.-3)		15272.8	
	10	(Cab.Pret.-4)		14450.1	
5(izq)	1	(Hormigon-1)	-143.0	-104.0	-30.1
	3	(Arm.Pasiva)	-1342.4	-925.2	-294.6
	7	(Cab.Pret.-1)		16052.7	
	8	(Cab.Pret.-2)		16052.7	
	9	(Cab.Pret.-4)		13998.6	

5(der)	1	(Hormigon-1)	-159.1	-103.5	1.9
	3	(Arm.Pasiva)	-1491.0	-895.7	4.1
	7	(Cab.Pret.-1)		15920.5	
	8	(Cab.Pret.-2)		15920.5	
	9	(Cab.Pret.-4)		14270.3	
6(izq)	1	(Hormigon-1)	-27.4	-80.3	-180.5
	3	(Arm.Pasiva)	-272.4	-838.4	-1694.0
	7	(Cab.Pret.-1)		17014.4	
	8	(Cab.Pret.-4)		12731.1	
	9	(Cab.Pret.-6)		12691.4	
6(der)	1	(Hormigon-1)	-66.5	-81.1	-108.7
	3	(Arm.Pasiva)	-632.7	-788.7	-1024.4
	7	(Cab.Pret.-1)		16693.1	
	8	(Cab.Pret.-4)		13339.5	
	9	(Cab.Pret.-6)		13299.8	

Nota 1: Las tensiones se refieren a los extremos del elemento excluyendo zonas rigidas en nudos de tamaño finito
Nota 2: Las tensiones en armaduras activas se dan en la direccion del cable
Nota 3: (*) indica armaduras activas no inyectadas

** REACCIONES EXTERIORES **

Nudo	Fx(T)	Fy(T)	M(mT)
1	-0.000	70.400	0.000
7	0.000	70.400	0.000

Nota: Se han controlado Errores de Cierre en Nudos y Reacciones(respecto a [0,0])...(1%)

*** DIFEV (RESULTADOS) ***

Proyecto:V. DE LOS CHORROS
Comentario:CASO10 DIFERIDO

*** FASE 2 INTERVALO 2 ***
Titulo:FASE 2. PP.VIGAS DIFERIDO
Ti(dias): 0 Tf(dias): 15

Analisis CON Efectos Diferidos

** MOVIMIENTOS NUDOS (Ejes Generales) **

Nudo	U (m.)	V (m.)	ø (rad.)
1	0.0000	0.0000	.003919
2	-.0049	.0272	.005377
3	-.0050	.0462	.004193
4	-.0039	.0626	-0.000000
5	-.0027	.0462	-.004193
6	-.0023	.0272	-.005377
7	-.0027	0.0000	-.003919

** ESFUERZOS ELEMENTOS (Ejes Locales) **

Elemento	Nudo-izq.	Nudo-der.	Axil(T)	Cortante(T)	Flector(mT)	
1	1	2	0.000	-70.400	-0 000	(i)
			0.000	-57.560	191.940	(c)
			0.000	-44.720	345.360	(d)
2	2	3	0.000	-44.720	345.360	(i)
			0.000	-36.160	426.240	(c)
			0.000	-27.600	490.000	(d)
3	3	4	0.000	-27.600	490.000	(i)
			0.000	-13.800	572.800	(c)
			0.000	-0.000	600.400	(d)
4	4	5	-0.000	-0.000	600.400	(i)
			-0.000	13.800	572.800	(c)
			-0.000	27.600	490.000	(d)
5	5	6	0.000	27.600	490.000	(i)
			-0.000	36.160	426.240	(c)
			-0.000	44.720	345.360	(d)
6	6	7	-0.000	44.720	345.360	(i)
			-0.000	57.560	191.940	(c)
			-0.000	70.400	0.000	(d)

Nota: Los esfuerzos se refieren a los extremos del elemento excluyendo zonas rigidas en nudos de tamaño finito

** TENSIONES EN S.PARCIALES (Kg/cm2) **

Elemento	Seccion Parcial	Tinf.	Tcdg.	Tsup.
1(izq)	1 (Hormigon-1)	-62.0	-76.7	-104.6
	3 (Arm.Pasiva)	-708.2	-893.4	-1173.4
	7 (Cab.Pret.-1)		15841.0	
	8 (Cab.Pret.-4)		12869.0	
	9 (Cab.Pret.-5)		12833.7	
1(der)	1 (Hormigon-1)	-23.4	-75.8	-175.0
	3 (Arm.Pasiva)	-288.2	-950.2	-1950.9
	7 (Cab.Pret.-1)		16165.0	
	8 (Cab.Pret.-4)		12228.1	
	9 (Cab.Pret.-5)		12192.5	
2(izq)	1 (Hormigon-1)	-147.0	-97.4	-3.4
	3 (Arm.Pasiva)	-1659.1	-1013.5	-37.5
	7 (Cab.Pret.-1)		15101.1	
	8 (Cab.Pret.-2)		15101.1	
	9 (Cab.Pret.-4)		13787.1	
2(der)	1 (Hormigon-1)	-131.1	-97.9	-34.9
	3 (Arm.Pasiva)	-1485.8	-1047.6	-385.6
	7 (Cab.Pret.-1)		15235.9	
	8 (Cab.Pret.-2)		15235.9	
	9 (Cab.Pret.-4)		13503.8	
3(izq)	1 (Hormigon-1)	-217.2	-136.7	15.8
	3 (Arm.Pasiva)	-2448.7	-1402.9	177.9
	7 (Cab.Pret.-1)		14472.3	
	8 (Cab.Pret.-2)		14472.3	
	9 (Cab.Pret.-3)		14472.3	
	10 (Cab.Pret.-4)		13951.7	
3(der)	1 (Hormigon-1)	-205.6	-137.3	-7.9
	3 (Arm.Pasiva)	-2322.9	-1431.5	-84.0
	7 (Cab.Pret.-1)		14570.9	
	8 (Cab.Pret.-2)		14570.9	
	9 (Cab.Pret.-3)		14570.9	
	10 (Cab.Pret.-4)		13739.1	
4(izq)	1 (Hormigon-1)	-205.6	-137.3	-7.9
	3 (Arm.Pasiva)	-2322.9	-1431.5	-84.0
	7 (Cab.Pret.-1)		14570.9	
	8 (Cab.Pret.-2)		14570.9	
	9 (Cab.Pret.-3)		14570.9	
	10 (Cab.Pret.-4)		13739.1	
4(der)	1 (Hormigon-1)	-217.2	-136.7	15.8
	3 (Arm.Pasiva)	-2448.7	-1402.9	177.9
	7 (Cab.Pret.-1)		14472.3	
	8 (Cab.Pret.-2)		14472.3	
	9 (Cab.Pret.-3)		14472.3	
	10 (Cab.Pret.-4)		13951.7	
5(izq)	1 (Hormigon-1)	-131.1	-97.9	-34.9
	3 (Arm.Pasiva)	-1485.8	-1047.6	-385.6
	7 (Cab.Pret.-1)		15235.9	
	8 (Cab.Pret.-2)		15235.9	
	9 (Cab.Pret.-4)		13503.8	
5(der)	1 (Hormigon-1)	-147.0	-97.4	-3.4
	3 (Arm.Pasiva)	-1659.1	-1013.5	-37.5
	7 (Cab.Pret.-1)		15101.1	
	8 (Cab.Pret.-2)		15101.1	
	9 (Cab.Pret.-4)		13787.1	
6(izq)	1 (Hormigon-1)	-23.4	-75.8	-175.0
	3 (Arm.Pasiva)	-288.2	-950.2	-1950.9
	7 (Cab.Pret.-1)		16165.0	
	8 (Cab.Pret.-4)		12228.1	
	9 (Cab.Pret.-6)		12192.5	
6(der)	1 (Hormigon-1)	-62.0	-76.7	-104.6
	3 (Arm.Pasiva)	-708.2	-893.4	-1173.4
	7 (Cab.Pret.-1)		15841.0	
	8 (Cab.Pret.-4)		12869.0	
	9 (Cab.Pret.-6)		12833.7	

Nota 1: Las tensiones se refieren a los extremos del elemento excluyendo zonas rigidas en nudos de tamaño finito
Nota 2: Las tensiones en armaduras activas se dan en la direccion del cable
Nota 3: (*) indica armaduras activas no inyectadas

** REACCIONES EXTERIORES **

Nudo	Fx(T)	Fy(T)	M(mT)
1	-0.000	70.400	0.000
7	0.000	70.400	0.000

Nota: Se han controlado Errores de Cierre en Nudos y Reacciones (respecto a [0,0])...(<1%)

*** FASE 3 INTERVALO 3 ***

Titulo:
FASE 3. CARGA DE LOSA
Ti(dias): 15 Tf(dias): 15

DATOS DE LOS ELEMENTOS

Elem.	Nudo-i	Nudo-d	Stipo-i	Stipo-d	Vin	Var	Long.(m)	Alfa (gsx)	Cgiro(gsx)
1	1	2	1	1	0.0	0.0	6.000		0.00
2	2	3	2	2	0.0	0.0	4.000		0.00
3	3	4	2	2	0.0	0.0	8.000		0.00
4	4	5	2	2	0.0	0.0	8.000		0.00
5	5	6	2	2	0.0	0.0	4.000		0.00
6	6	7	1	1	0.0	0.0	6.000		0.00

Nota : Entre () se indica el nudo desde el que se da el contragiro

Elemento	Secciones parciales conectadas
1	1(-2; 0) 3
2	1(-2; 0) 3
3	1(-2; 0) 3
4	1(-2; 0) 3
5	1(-2; 0) 3
6	1(-2; 0) 3

Nota 1: En las s.parciales de hormigon se indica entre parentesis:
(Tiempo hormigonado ; Tiempo conexion) , en dias

Nota 2: Las s.parciales de armaduras activas se indican mas adelante

VINCULACIONES NUDOS

Nudo	Coaccion-x	Coaccion-y	Coaccion-g
1	*****	*****	
7		*****	

DATOS CABLES DE PRETENSADO:

Listado Cables:

Numero Cable	Seccion (m2)	Puesta en Carga(dias)	Primer Elemento	Ultimo Elemento	Tipo de Cable	Material del Cable
1	.004200	0	1	6	Adherente	A.pret-1
2	.004200	0	2	5	Adherente	A.pret-1
3	.004200	0	3	4	Adherente	A.pret-1
4	.000840	0	1	6	Adherente	A.pret-1
5	.002520	0	1	1	Adherente	A.pret-1
6	.002520	0	6	6	Adherente	A.pret-1

ACCIONES EN ELEMENTOS(m,sTn;gsex,l):

Elemento	Tipo Accion	Parametros de Carga:
1	1	4.725
	(Carga Repartida)	
	Misma Accion en Elementos :	2 <= j <= 6
2	1	4.725
	(Carga Repartida)	
3	1	4.725
	(Carga Repartida)	
4	1	4.725
	(Carga Repartida)	
5	1	4.725
	(Carga Repartida)	
6	1	4.725
	(Carga Repartida)	

**** DIFEV (RESULTADOS) ****

Proyecto:V. DE LOS CHORROS
Comentario:ESTUDIO DIFERIDO

*** FASE 3 INTERVALO 3 ***
Titulo:FASE 3. CARGA DE LOSA
Ti(dias): 15 Tf(dias): 15

Analisis CON Efectos Diferidos

** MOVIMIENTOS NUDOS (Ejes Generales) **

Nudo	U (m.)	V (m.)	ø (rad.)
1	0.0000	0.0000	.000224
2	-.0058	.0062	.002225
3	-.0074	.0142	.001898
4	-.0102	.0210	-0.000000
5	-.0129	.0142	-.001898
6	-.0145	.0062	-.002225
7	-.0203	0.0000	-.000224

** ESFUERZOS ELEMENTOS (Ejes Locales) **

Elemento	Nudo-izq.	Nudo-der.	Axil(T)	Cortante(T)	Flector(mT)	
1	1	2	0.000	-155.450	-0.000	(i)
			0.000	-128.435	425.827	(c)
			0.000	-101.420	770.610	(d)
2	2	3	0.000	-101.420	770.610	(i)
			0.000	-83.410	955.440	(c)
			0.000	-65.400	1104.250	(d)
3	3	4	0.000	-65.400	1104.250	(i)
			0.000	-32.700	1300.450	(c)
			0.000	-0.000	1365.850	(d)
4	4	5	0.000	-0.000	1365.850	(i)
			0.000	32.700	1300.450	(c)
			0.000	65.400	1104.250	(d)
5	5	6	-0.000	65.400	1104.250	(i)
			-0.000	83.410	955.440	(c)
			-0.000	101.420	770.610	(d)
6	6	7	-0.000	101.420	770.610	(i)
			-0.000	128.435	425.827	(c)
			-0.000	155.450	0.000	(d)

Nota: Los esfuerzos se refieren a los extremos del elemento excluyendo zonas rigidas en nudos de tamaño finito

** TENSIONES EN S.PARCIALES (Kg/cm2) **

Elemento	Seccion Parcial	Tinf.	Tcdg.	Tsup.
1(izq)	1 (Hormigon-1)	-62.0	-76.7	-104.6
	3 (Arm.Pasiva)	-708.2	-893.4	-1175.4
	7 (Cab.Pret.-1)		15841.0	
	8 (Cab.Pret.-4)		12869.0	
	9 (Cab.Pret.-5)		12833.7	
1(der)	1 (Hormigon-1)	28.3	-75.2	-271.1
	3 (Arm.Pasiva)	-21.4	-989.6	-2453.3
	7 (Cab.Pret.-1)		16402.8	
	8 (Cab.Pret.-4)		11771.5	
	9 (Cab.Pret.-5)		11735.9	
2(izq)	1 (Hormigon-1)	-95.7	-98.3	-103.2
	3 (Arm.Pasiva)	-1394.6	-1062.0	-559.2
	7 (Cab.Pret.-1)		15336.6	
	8 (Cab.Pret.-2)		15336.6	
	9 (Cab.Pret.-4)		13312.9	
2(der)	1 (Hormigon-1)	-57.0	-99.2	-179.1
	3 (Arm.Pasiva)	-1103.7	-1117.8	-1139.1
	7 (Cab.Pret.-1)		15576.1	
	8 (Cab.Pret.-2)		15576.1	
	9 (Cab.Pret.-4)		12818.8	
3(izq)	1 (Hormigon-1)	-145.2	-138.9	-127.0
	3 (Arm.Pasiva)	-2077.7	-1477.0	-568.9
	7 (Cab.Pret.-1)		14802.4	
	8 (Cab.Pret.-2)		14802.4	
	9 (Cab.Pret.-3)		14802.4	
	10 (Cab.Pret.-4)		13272.7	
3(der)	1 (Hormigon-1)	-115.9	-140.1	-185.9
	3 (Arm.Pasiva)	-1860.6	-1523.8	-1014.6
	7 (Cab.Pret.-1)		14982.2	
	8 (Cab.Pret.-2)		14982.2	
	9 (Cab.Pret.-3)		14982.2	
	10 (Cab.Pret.-4)		12892.9	
4(izq)	1 (Hormigon-1)	-115.9	-140.1	-185.9
	3 (Arm.Pasiva)	-1860.6	-1523.8	-1014.6
	7 (Cab.Pret.-1)		14982.2	
	8 (Cab.Pret.-2)		14982.2	
	9 (Cab.Pret.-3)		14982.2	
	10 (Cab.Pret.-4)		12892.9	
4(der)	1 (Hormigon-1)	-145.2	-138.9	-127.0
	3 (Arm.Pasiva)	-2077.7	-1477.0	-568.9
	7 (Cab.Pret.-1)		14802.4	
	8 (Cab.Pret.-2)		14802.4	
	9 (Cab.Pret.-3)		14802.4	
	10 (Cab.Pret.-4)		13272.7	
5(izq)	1 (Hormigon-1)	-57.0	-99.2	-179.1
	3 (Arm.Pasiva)	-1103.7	-1117.8	-1139.1
	7 (Cab.Pret.-1)		15576.1	
	8 (Cab.Pret.-2)		15576.1	
	9 (Cab.Pret.-4)		12818.8	

5(der)	1	(Hormigon-1)	-95.7	-98.3	-103.2
	3	(Arm.Pasiva)	-1394.6	-1062.0	-559.2
	7	(Cab.Pret.-1)		15336.6	
	8	(Cab.Pret.-2)		15336.6	
	9	(Cab.Pret.-4)		13312.9	
6(izq)	1	(Hormigon-1)	28.3	-75.2	-271.1
	3	(Arm.Pasiva)	-21.4	-989.6	-2453.3
	7	(Cab.Pret.-1)		16402.8	
	8	(Cab.Pret.-4)		11771.5	
	9	(Cab.Pret.-6)		11735.9	
6(der)	1	(Hormigon-1)	-62.0	-76.7	-104.6
	3	(Arm.Pasiva)	-708.2	-893.4	-1173.4
	7	(Cab.Pret.-1)		15841.0	
	8	(Cab.Pret.-4)		12869.0	
	9	(Cab.Pret.-6)		12833.7	

Nota 1: Las tensiones se refieren a los extremos del elemento excluyendo zonas rigidas en nudos de tamaño finito

Nota 2: Las tensiones en armaduras activas se dan en la direccion del cable

Nota 3: (*) indica armaduras activas no inyectadas

** REACCIONES EXTERIORES **

Nudo	Fx(T)	Fy(T)	M(mT)
1	-0.000	155.450	0.000
7	0.000	155.450	0.000

Nota: Se han controlado Errores de Cierre en Nudos y Reacciones (respecto a [0,0]) ... (<1%)

*** FASE 4 INTERVALO 4 ***

tulo:

FASE 4. CONEXION LOSA Y EMPOTRAMIENTO

Ti(dias): 15 Tf(dias): 15

DATOS DE LOS ELEMENTOS

Elem.	Nudo-i	Nudo-d	Stipo-i	Stipo-d	Vin	Var	Long.(m)	Alfa (gsx)	Cgiro(gsx)
1	1	2	1	1	0.0	0.0	6.000	0.00	
2	2	3	2	2	0.0	0.0	4.000	0.00	
3	3	4	2	2	0.0	0.0	8.000	0.00	
4	4	5	2	2	0.0	0.0	8.000	0.00	
5	5	6	2	2	0.0	0.0	4.000	0.00	
6	6	7	1	1	0.0	0.0	6.000	0.00	

Nota : Entre () se indica el nudo desde el que se da el contragiro

Elemento	Secciones parciales conectadas						
1	1(	-2;	0)	3			4
2	1(	-2;	0)	2(	15;	15)	3
3	1(	-2;	0)	2(	15;	15)	3
4	1(	-2;	0)	2(	15;	15)	3
5	1(	-2;	0)	2(	15;	15)	3
6	1(	-2;	0)	3			4

Nota 1: En las s.parciales de hormigon se indica entre parentesis: (Tiempo hormigonado ; Tiempo conexion) , en dias

Nota 2: Las s.parciales de armaduras activas se indican mas adelante

VINCULACIONES NUDOS

Nudo	Coaccion-x	Coaccion-y	Coaccion-ø
1	*****	*****	*****
7		*****	*****

DATOS CABLES DE PRETENSADO:

Listado Cables:

Numero Cable	Seccion (mZ)	Puesta en Carga(dias)	Primer Elemento	Ultimo Elemento	Tipo de Cable	Material del Cable
1	.004200	0	1	6	Adherente	A.pret-1
2	.004200	0	2	5	Adherente	A.pret-1
3	.004200	0	3	4	Adherente	A.pret-1
4	.000840	0	1	6	Adherente	A.pret-1
5	.002520	0	1	1	Adherente	A.pret-1
6	.002520	0	6	6	Adherente	A.pret-1

****** DIFEV (RESULTADOS) ******

Proyecto:V. DE LOS CHORROS
Comentario:ESTUDIO DIFERIDO

***** FASE 4 INTERVALO 4 *****
Titulo:FASE 4. CONEXION LOSA Y EMPOTRAMIENTO
Ti(dias): 15 Tf(dias): 15

Analisis CON Efectos Diferidos

**** MOVIMIENTOS NUDOS (Ejes Generales) ****

Nudo	U (m.)	V (m.)	# (rad.)
1	0.0000	0.0000	.000224
2	-.0058	.0062	.002225
3	-.0074	.0142	.001898
4	-.0102	.0210	-0.000000
5	-.0129	.0142	-.001898
6	-.0145	.0062	-.002225
7	-.0203	0.0000	-.000224

**** ESFUERZOS ELEMENTOS (Ejes Locales) ****

Elemento	Nudo-izq.	Nudo-der.	Axil(T)	Cortante(T)	Flector(mT)	
1	1	2	0.000	-155.450	-0.000	(i)
			0.000	-128.435	425.827	(c)
			0.000	-101.420	770.610	(d)
2	2	3	0.000	-101.420	770.610	(i)
			0.000	-83.410	955.440	(c)
			0.000	-65.400	1104.250	(d)
3	3	4	0.000	-65.400	1104.250	(i)
			0.000	-32.700	1300.450	(c)
			0.000	-0.000	1365.850	(d)
4	4	5	0.000	-0.000	1365.850	(i)
			0.000	32.700	1300.450	(c)
			0.000	65.400	1104.250	(d)
5	5	6	-0.000	65.400	1104.250	(i)
			-0.000	83.410	955.440	(c)
			-0.000	101.420	770.610	(d)
6	6	7	-0.000	101.420	770.610	(i)
			-0.000	128.435	425.827	(c)
			-0.000	155.450	0.000	(d)

Nota: Los esfuerzos se refieren a los extremos del elemento
excluyendo zonas rigidas en nudos de tamaño finito

**** TENSIONES EN S.PARCIALES (Kg/cm2) ****

Elemento	Seccion Parcial		Tinf.	Tcdg.	Tsup.
1(izq)	1	(Hormigon-1)	-62.0	-76.7	-104.6
	3	(Arm.Pasiva)	-708.2	-893.4	-1173.4
	4	(Arm.Pasiva)	-0.0	-0.0	-0.0
	7	(Cab.Pret.-1)		15841.0	
	8	(Cab.Pret.-4)		12869.0	
	9	(Cab.Pret.-5)		12833.7	
1(der)	1	(Hormigon-1)	28.3	-75.2	-271.1
	3	(Arm.Pasiva)	-21.4	-989.6	-2453.3
	4	(Arm.Pasiva)	0.0	0.0	0.0
	7	(Cab.Pret.-1)		16402.8	
	8	(Cab.Pret.-4)		11771.5	
	9	(Cab.Pret.-5)		11735.9	
2(izq)	1	(Hormigon-1)	-95.7	-98.3	-103.2
	2	(Hormigon-2)	-0.0	-0.0	-0.0
	3	(Arm.Pasiva)	-1394.6	-1062.0	-559.2
	7	(Cab.Pret.-1)		15336.6	
	8	(Cab.Pret.-2)		15336.6	
	9	(Cab.Pret.-4)		13312.9	
2(der)	1	(Hormigon-1)	-57.0	-99.2	-179.1
	2	(Hormigon-2)	0.0	0.0	0.0
	3	(Arm.Pasiva)	-1103.7	-1117.8	-1139.1
	7	(Cab.Pret.-1)		15576.1	
	8	(Cab.Pret.-2)		15576.1	
	9	(Cab.Pret.-4)		12818.8	
3(izq)	1	(Hormigon-1)	-145.2	-138.9	-127.0
	2	(Hormigon-2)	-0.0	-0.0	-0.0
	3	(Arm.Pasiva)	-2077.7	-1477.0	-568.9
	7	(Cab.Pret.-1)		14802.4	
	8	(Cab.Pret.-2)		14802.4	
	9	(Cab.Pret.-3)		14802.4	
	10	(Cab.Pret.-4)		13272.7	
3(der)	1	(Hormigon-1)	-115.9	-140.1	-185.9
	2	(Hormigon-2)	0.0	0.0	0.0
	3	(Arm.Pasiva)	-1860.6	-1523.8	-1014.6
	7	(Cab.Pret.-1)		14982.2	
	8	(Cab.Pret.-2)		14982.2	
	9	(Cab.Pret.-3)		14982.2	
	10	(Cab.Pret.-4)		12892.9	
4(izq)	1	(Hormigon-1)	-115.9	-140.1	-185.9
	2	(Hormigon-2)	0.0	0.0	0.0
	3	(Arm.Pasiva)	-1860.6	-1523.8	-1014.6
	7	(Cab.Pret.-1)		14982.2	
	8	(Cab.Pret.-2)		14982.2	
	9	(Cab.Pret.-3)		14982.2	
	10	(Cab.Pret.-4)		12892.9	
4(der)	1	(Hormigon-1)	-145.2	-138.9	-127.0
	2	(Hormigon-2)	-0.0	-0.0	-0.0
	3	(Arm.Pasiva)	-2077.7	-1477.0	-568.9
	7	(Cab.Pret.-1)		14802.4	
	8	(Cab.Pret.-2)		14802.4	

	9 (Cab.Pret.-3)		14807.4	
	10 (Cab.Pret.-4)		13272.7	
5(izq)	1 (Hormigon-1)	-57.0	-99.2	-179.1
	2 (Hormigon-2)	0.0	0.0	0.0
	3 (Arm.Pasiva)	-1103.7	-1117.8	-1139.1
	7 (Cab.Pret.-1)		15576.1	
	8 (Cab.Pret.-2)		15576.1	
	9 (Cab.Pret.-4)		12818.6	
5(der)	1 (Hormigon-1)	-95.7	-98.3	-103.2
	2 (Hormigon-2)	-0.0	-0.0	-0.0
	3 (Arm.Pasiva)	-1394.6	-1062.0	-559.2
	7 (Cab.Pret.-1)		15336.6	
	8 (Cab.Pret.-2)		15336.6	
	9 (Cab.Pret.-4)		13312.9	
6(izq)	1 (Hormigon-1)	28.3	-75.2	-271.1
	3 (Arm.Pasiva)	-21.4	-989.6	-2453.3
	4 (Arm.Pasiva)	0.0	0.0	0.0
	7 (Cab.Pret.-1)		16402.8	
	8 (Cab.Pret.-4)		11771.5	
	9 (Cab.Pret.-6)		11735.9	
6(der)	1 (Hormigon-1)	-62.0	-76.7	-104.6
	3 (Arm.Pasiva)	-708.2	-893.4	-1173.4
	4 (Arm.Pasiva)	-0.0	-0.0	-0.0
	7 (Cab.Pret.-1)		15841.0	
	8 (Cab.Pret.-4)		12869.0	
	9 (Cab.Pret.-6)		12833.7	

Nota 1: Las tensiones se refieren a los extremos del elemento excluyendo zonas rigidas en nudos de tamaño finito

Nota 2: Las tensiones en armaduras activas se dan en la direccion del cable

Nota 3: (*) indica armaduras activas no inyectadas

** REACCIONES EXTERIORES **

Nudo	Fx(T)	Fy(T)	M(mT)
1	-0.000	155.450	0.000
7	0.000	155.450	0.000

Nota: Se han controlado Errores de Cierre en Nudos y Reacciones(respecto a [0,0])...(<1%)

*** DIFEV (RESULTADOS) ***

Proyecto: V. DE LOS CHORROS
Comentario: ESTUDIO DIFERIDO

*** FASE 5 INTERVALO 5 ***
Titulo: FASE 5. REDISTRIBUCION 1 DIA
Ti(dias): 15 Tf(dias): 16

Analisis CON Efectos Diferidos

** MOVIMIENTOS NUDOS (Ejes Generales) **

Nudo	U (m.)	V (m.)	ø (rad.)
1	0.0000	0.0000	.000224
2	-.0058	.0061	.002196
3	-.0074	.0140	.001868
4	-.0102	.0207	-0.000000
5	-.0130	.0140	-.001868
6	-.0146	.0061	-.002196
7	-.0204	0.0000	-.000224

** ESFUERZOS ELEMENTOS (Ejes Locales) **

Elemento	Nudo-izq.	Nudo-der.	Axil(T)	Cortante(T)	Flector(mT)	
1	1	2	0.000	-155.450	-35.245	(i)
			0.000	-128.435	390.582	(c)
			0.000	-101.420	735.365	(d)
2	2	3	0.000	-101.420	735.365	(i)
			0.000	-83.410	920.195	(c)
			0.000	-65.400	1069.005	(d)
3	3	4	0.000	-65.400	1069.005	(i)
			0.000	-32.700	1265.205	(c)
			0.000	-0.000	1330.605	(d)
4	4	5	0.000	-0.000	1330.605	(i)
			0.000	32.700	1265.205	(c)
			0.000	65.400	1069.005	(d)
5	5	6	-0.000	65.400	1069.005	(i)
			-0.000	83.410	920.195	(c)
			-0.000	101.420	735.365	(d)
6	6	7	-0.000	101.420	735.365	(i)
			-0.000	128.435	390.582	(c)
			-0.000	155.450	-35.245	(d)

Nota: Los esfuerzos se refieren a los extremos del elemento excluyendo zonas rigidas en nudos de tamaño finito

** TENSIONES EN S.PARCIALES (Kg/cm2) **

Elemento	Seccion Parcial	Tinf.	Tcdg.	Tsup.
1(izq)	1 (Hormigon-1)	-65.0	-77.3	-100.5
	3 (Arm.Pasiva)	-725.9	-896.4	-1154.1
	4 (Arm.Pasiva)	23.0	23.2	23.5
	7 (Cab.Pret.-1)		15815.6	
	8 (Cab.Pret.-4)		12802.5	
	9 (Cab.Pret.-5)		12847.3	
1(der)	1 (Hormigon-1)	23.8	-75.2	-262.8
	3 (Arm.Pasiva)	-25.2	-990.9	-2450.7
	4 (Arm.Pasiva)	3.2	3.2	3.3
	7 (Cab.Pret.-1)		16388.5	
	8 (Cab.Pret.-4)		11771.4	
	9 (Cab.Pret.-5)		11735.9	
2(izq)	1 (Hormigon-1)	-100.2	-98.2	-94.5
	2 (Hormigon-2)	0.0	0.0	0.0
	3 (Arm.Pasiva)	-1401.4	-1063.1	-551.7
	7 (Cab.Pret.-1)		15322.1	
	8 (Cab.Pret.-2)		15322.1	
	9 (Cab.Pret.-4)		13315.0	
2(der)	1 (Hormigon-1)	-61.7	-99.1	-170.1
	2 (Hormigon-2)	-0.0	-0.0	-0.0
	3 (Arm.Pasiva)	-1102.3	-1120.6	-1140.4
	7 (Cab.Pret.-1)		15568.4	
	8 (Cab.Pret.-2)		15568.4	
	9 (Cab.Pret.-4)		12806.5	
3(izq)	1 (Hormigon-1)	-149.8	-138.8	-118.1
	2 (Hormigon-2)	-0.0	-0.0	-0.0
	3 (Arm.Pasiva)	-2078.4	-1480.6	-577.0
	7 (Cab.Pret.-1)		14794.3	
	8 (Cab.Pret.-2)		14794.3	
	9 (Cab.Pret.-3)		14794.3	
	10 (Cab.Pret.-4)		13260.7	
3(der)	1 (Hormigon-1)	-120.7	-140.0	-176.7
	2 (Hormigon-2)	-0.0	-0.0	-0.0
	3 (Arm.Pasiva)	-1855.1	-1528.9	-1035.9
	7 (Cab.Pret.-1)		14979.3	
	8 (Cab.Pret.-2)		14979.3	
	9 (Cab.Pret.-3)		14979.3	
	10 (Cab.Pret.-4)		12869.6	
4(izq)	1 (Hormigon-1)	-120.7	-140.0	-176.7
	2 (Hormigon-2)	-0.0	-0.0	-0.0
	3 (Arm.Pasiva)	-1855.1	-1528.9	-1035.9
	7 (Cab.Pret.-1)		14979.3	
	8 (Cab.Pret.-2)		14979.3	
	9 (Cab.Pret.-3)		14979.3	
	10 (Cab.Pret.-4)		12869.6	
4(der)	1 (Hormigon-1)	-149.8	-138.8	-118.1
	2 (Hormigon-2)	-0.0	-0.0	-0.0
	3 (Arm.Pasiva)	-2078.4	-1480.6	-577.0
	7 (Cab.Pret.-1)		14794.3	
	8 (Cab.Pret.-2)		14794.3	
	9 (Cab.Pret.-3)		14794.3	
	10 (Cab.Pret.-4)		13260.7	
5(izq)	1 (Hormigon-1)	-61.7	-99.1	-170.1
	2 (Hormigon-2)	-0.0	-0.0	-0.0
	3 (Arm.Pasiva)	-1102.3	-1120.6	-1148.4
	7 (Cab.Pret.-1)		15568.4	
	8 (Cab.Pret.-2)		15568.4	
	9 (Cab.Pret.-4)		12806.5	
5(der)	1 (Hormigon-1)	-100.2	-98.2	-94.5
	2 (Hormigon-2)	0.0	0.0	0.0
	3 (Arm.Pasiva)	-1401.4	-1063.1	-551.7
	7 (Cab.Pret.-1)		15322.1	
	8 (Cab.Pret.-2)		15322.1	
	9 (Cab.Pret.-4)		13315.0	
6(izq)	1 (Hormigon-1)	23.8	-75.2	-262.8
	3 (Arm.Pasiva)	-25.2	-990.9	-2450.7
	4 (Arm.Pasiva)	3.2	3.2	3.3
	7 (Cab.Pret.-1)		16388.5	
	8 (Cab.Pret.-4)		11771.4	
	9 (Cab.Pret.-6)		11735.9	
6(der)	1 (Hormigon-1)	-65.0	-77.3	-100.5
	3 (Arm.Pasiva)	-725.9	-896.4	-1154.1
	4 (Arm.Pasiva)	23.0	23.2	23.5
	7 (Cab.Pret.-1)		15815.6	
	8 (Cab.Pret.-4)		12802.5	
	9 (Cab.Pret.-6)		12847.3	

Nota 1: Las tensiones se refieren a los extremos del elemento excluyendo zonas rigidas en nudos de tamaño finito

Nota 2: Las tensiones en armaduras activas se dan en la direccion del cable

Nota 3: (*) indica armaduras activas no inyectadas

** REACCIONES EXTERIORES **

Nudo	Fx(T)	Fy(T)	M(mT)
1	-0.000	155.450	35.245
7	0.000	155.450	-35.245

Nota: Se han controlado Errores de Cierre en Nudos y Reacciones(respecto a [0,0])...(<1%)

****** DIFEV (RESULTADOS) ******

Proyecto:V. DE LOS CHORROS
Comentario:ESTUDIO DIFERIDO

***** FASE 6 INTERVALO 6 *****
Titulo:FASE 6. REDISTRIBUCION HASTA 210 DIAS
Ti(dias): 16 Tf(dias): 226

Analisis CON Efectos Diferidos

**** MOVIMIENTOS NUDOS (Ejes Generales) ****

Nudo	U (m.)	V (m.)	ø (rad.)
1	0.0000	0.0000	.000224
2	-.0067	.0069	.002468
3	-.0085	.0158	.002104
4	-.0119	.0235	-0.000000
5	-.0154	.0158	-.002104
6	-.0172	.0069	-.002468
7	-.0239	0.0000	-.000224

**** ESFUERZOS ELEMENTOS (Ejes Locales) ****

Elemento	Nudo-izq.	Nudo-der.	Axil(T)	Cortante(T)	Flector(mT)	
1	1	2	0.000	-155.450	47.508	(i)
			0.000	-128.435	473.336	(c)
			0.000	-101.420	818.118	(d)
2	2	3	0.000	-101.420	818.118	(i)
			0.000	-83.410	1002.948	(c)
			0.000	-65.400	1151.758	(d)
3	3	4	0.000	-65.400	1151.758	(i)
			0.000	-32.700	1347.958	(c)
			0.000	-0.000	1413.358	(d)
4	4	5	0.000	-0.000	1413.358	(i)
			0.000	32.700	1347.958	(c)
			0.000	65.400	1151.758	(d)
5	5	6	-0.000	65.400	1151.758	(i)
			-0.000	83.410	1002.948	(c)
			-0.000	101.420	818.118	(d)
6	6	7	-0.000	101.420	818.118	(i)
			-0.000	128.435	473.336	(c)
			-0.000	155.450	47.508	(d)

Nota: Los esfuerzos se refieren a los extremos del elemento excluyendo zonas rigidas en nudos de tamaño finito

**** TENSIONES EN S.PARCIALES (Kg/cm2) ****

Elemento	Seccion Parcial		Tinf.	Tcdg.	Tsup.
1(izq)	1	(Hormigon-1)	-60.0	-60.4	-84.1
	3	(Arm.Pasiva)	-879.5	-1050.5	-1329.2
	4	(Arm.Pasiva)	-154.2	-154.1	-154.0
	7	(Cab.Pret.-1)		15166.2	
	8	(Cab.Pret.-4)		12509.6	
	9	(Cab.Pret.-5)		12477.3	
1(der)	1	(Hormigon-1)	13.6	-59.8	-199.0
	3	(Arm.Pasiva)	-4.4	-1125.0	-2818.8
	4	(Arm.Pasiva)	-404.5	-406.6	-408.9
	7	(Cab.Pret.-1)		15824.8	
	8	(Cab.Pret.-4)		11307.6	
	9	(Cab.Pret.-5)		11274.5	
2(izq)	1	(Hormigon-1)	-94.5	-84.4	-65.3
	2	(Hormigon-2)	-6.8	-6.5	-6.2
	3	(Arm.Pasiva)	-1623.0	-1245.9	-675.8
	7	(Cab.Pret.-1)		14669.0	
	8	(Cab.Pret.-2)		14669.0	
	9	(Cab.Pret.-4)		12951.3	
2(der)	1	(Hormigon-1)	-64.6	-81.3	-112.8
	2	(Hormigon-2)	-9.8	-9.8	-9.9
	3	(Arm.Pasiva)	-1261.0	-1286.3	-1324.5
	7	(Cab.Pret.-1)		14943.8	
	8	(Cab.Pret.-2)		14943.8	
	9	(Cab.Pret.-4)		12438.8	
3(izq)	1	(Hormigon-1)	-141.4	-120.2	-80.0
	2	(Hormigon-2)	-8.5	-8.0	-7.4
	3	(Arm.Pasiva)	-2411.2	-1743.0	-732.9
	7	(Cab.Pret.-1)		14097.1	
	8	(Cab.Pret.-2)		14097.1	
	9	(Cab.Pret.-3)		14097.1	
	10	(Cab.Pret.-4)		12871.2	
3(der)	1	(Hormigon-1)	-119.1	-118.3	-116.8
	2	(Hormigon-2)	-10.8	-10.5	-10.2
	3	(Arm.Pasiva)	-2142.2	-1779.9	-1232.2
	7	(Cab.Pret.-1)		14303.5	
	8	(Cab.Pret.-2)		14303.5	
	9	(Cab.Pret.-3)		14303.5	
	10	(Cab.Pret.-4)		12476.5	
4(izq)	1	(Hormigon-1)	-119.1	-118.3	-116.8
	2	(Hormigon-2)	-10.8	-10.5	-10.2
	3	(Arm.Pasiva)	-2142.2	-1779.9	-1232.2
	7	(Cab.Pret.-1)		14303.5	
	8	(Cab.Pret.-2)		14303.5	
	9	(Cab.Pret.-3)		14303.5	
	10	(Cab.Pret.-4)		12476.5	
4(der)	1	(Hormigon-1)	-141.4	-120.2	-80.0
	2	(Hormigon-2)	-8.5	-8.0	-7.4
	3	(Arm.Pasiva)	-2411.2	-1743.0	-732.9
	7	(Cab.Pret.-1)		14097.1	
	8	(Cab.Pret.-2)		14097.1	

	9	(Cab.Pret.-3)		14097.1	
	10	(Cab.Pret.-4)		12821.2	
5(izq)	1	(Hormigon-1)	-64.6	-81.3	-112.6
	2	(Hormigon-2)	-9.8	-9.8	-9.9
	3	(Arm.Pasiva)	-1261.0	-1286.3	-1324.5
	7	(Cab.Pret.-1)		14943.6	
	8	(Cab.Pret.-2)		14943.6	
	9	(Cab.Pret.-4)		12438.6	
5(der)	1	(Hormigon-1)	-94.5	-84.4	-65.3
	2	(Hormigon-2)	-6.8	-6.5	-6.2
	3	(Arm.Pasiva)	-1623.0	-1245.9	-675.8
	7	(Cab.Pret.-1)		14669.0	
	8	(Cab.Pret.-2)		14669.0	
	9	(Cab.Pret.-4)		12951.3	
6(izq)	1	(Hormigon-1)	13.6	-59.8	-199.0
	3	(Arm.Pasiva)	-4.4	-1125.0	-2816.8
	4	(Arm.Pasiva)	-404.5	-406.6	-406.9
	7	(Cab.Pret.-1)		15824.8	
	8	(Cab.Pret.-4)		11307.6	
	9	(Cab.Pret.-6)		11274.5	
6(der)	1	(Hormigon-1)	-60.6	-68.4	-84.1
	3	(Arm.Pasiva)	-879.5	-1056.5	-1329.2
	4	(Arm.Pasiva)	-154.2	-154.1	-154.0
	7	(Cab.Pret.-1)		15166.2	
	8	(Cab.Pret.-4)		12509.6	
	9	(Cab.Pret.-6)		12477.3	

Nota 1: Las tensiones se refieren a los extremos del elemento excluyendo zonas rigidas en nudos de tamaño finito
Nota 2: Las tensiones en armaduras activas se dan en la direccion del cable
Nota 3: (*) indica armaduras activas no inyectadas

** REACCIONES EXTERIORES **

Nudo	Fx(T)	Fy(T)	M(mT)
1	-0.000	155.450	-47.508
7	0.000	155.450	47.508

Nota: Se han controlado Errores de Cierre en Nudos y Reacciones(respecto a [0,0])...(<1%)

* FASE 7 INTERVALO 7 ***

Titulo:
FASE 7. CARGA MUERTA. INSTANTANEA
Ti(dias): 226 Tf(dias): 226

DATOS DE LOS ELEMENTOS

Elem.	Nudo-i	Nudo-d	Stipo-i	Stipo-d	Vin	Var	Long.(m)	Alfa (gsx)	Cgiro(gsx)
1	1	2	1	1	0.0	0.0	6.000	0.00	
2	2	3	2	2	0.0	0.0	4.000	0.00	
3	3	4	2	2	0.0	0.0	8.000	0.00	
4	4	5	2	2	0.0	0.0	8.000	0.00	
5	5	6	2	2	0.0	0.0	4.000	0.00	
6	6	7	1	1	0.0	0.0	6.000	0.00	

Nota : Entre () se indica el nudo desde el que se da el contragiro

Elemento	Secciones parciales conectadas						
1	1(	-2;	0)	3			4
2	1(	-2;	0)	2(	15;	15)	3
3	1(	-2;	0)	2(	15;	15)	3
4	1(	-2;	0)	2(	15;	15)	3
5	1(	-2;	0)	2(	15;	15)	3
6	1(	-2;	0)	3			4

Nota 1: En las s.parciales de hormigon se indica entre parentesis: (Tiempo hormigonado ; Tiempo conexion) , en dias

Nota 2: Las s.parciales de armaduras activas se indican mas adelante

VINCULACIONES NUDOS

Nudo	Coaccion-x	Coaccion-y	Coaccion-ø
1	*****	*****	*****
7		*****	*****

DATOS CABLES DE PRETENSADO:

Listado Cables:

Numero Cable	Seccion (m2)	Puesta en Carga(dias)	Primer Elemento	Ultimo Elemento	Tipo de Cable	Material del Cable
1	.004200	0	1	6	Adherente	A.pret-1
2	.004200	0	2	5	Adherente	A.pret-1
3	.004200	0	3	4	Adherente	A.pret-1
4	.000840	0	1	6	Adherente	A.pret-1
5	.002520	0	1	1	Adherente	A.pret-1
6	.002520	0	6	6	Adherente	A.pret-1

ACCIONES EN ELEMENTOS(m.;Tn;gsex.):

Parametros de Carga:

Elemento	Tipo Accion		
1	1		6.170
	(Carga Repartida)		
Misma Accion en Elementos :		2 <= j <=	6
2	1		6.170
	(Carga Repartida)		
3	1		6.170
	(Carga Repartida)		
4	1		6.170
	(Carga Repartida)		
5	1		6.170
	(Carga Repartida)		
6	1		6.170
	(Carga Repartida)		

*** DIFEV (RESULTADOS) ***

Proyecto:V. DE LOS CHORROS
Comentario:ESTUDIO DIFERIDO

*** FASE 7 INTERVALO 7 ***
Titulo:FASE 7. CARGA MUERTA. INSTANTANEA
Ti(dias): 226 Tf(dias): 226

Analisis CON Efectos Diferidos

** MOVIMIENTOS NUDOS (Ejes Generales) **

Nudo	U (m.)	V (m.)	ø (rad.)
1	0.0000	0.0000	.000224
2	-.0061	.0056	.002133
3	-.0080	.0132	.001813
4	-.0118	.0196	-0.000000
5	-.0156	.0132	-.001813
6	-.0175	.0056	-.002133
7	-.0236	0.0000	-.000224

** ESFUERZOS ELEMENTOS (Ejes Locales) **

Elemento	Nudo-izq.	Nudo-der.	Axil(T)	Cortante(T)	Flector(mT)	
1	1	2	0.000	-266.510	-535.204	(i)
			0.000	-220.985	196.039	(c)
			0.000	-175.460	790.706	(d)
2	2	3	0.000	-175.460	790.706	(i)
			0.000	-145.110	1111.276	(c)
			0.000	-114.760	1371.146	(d)
3	3	4	0.000	-114.760	1371.146	(i)
			0.000	-57.380	1715.426	(c)
			0.000	-0.000	1830.186	(d)
4	4	5	0.000	-0.000	1830.186	(i)
			0.000	57.380	1715.426	(c)
			0.000	114.760	1371.146	(d)
5	5	6	-0.000	114.760	1371.146	(i)
			-0.000	145.110	1111.276	(c)
			-0.000	175.460	790.706	(d)
6	6	7	-0.000	175.460	790.706	(i)
			-0.000	220.985	196.039	(c)
			-0.000	266.510	-535.204	(d)

Nota: Los esfuerzos se refieren a los extremos del elemento
excluyendo zonas rigidas en nudos de tamaño finito

** TENSIONES EN S.PARCIALES (Kg/cm2) **

Elemento	Seccion Parcial	Tinf.	Tcdg.	Tsup.
1(izq)	1 (Hormigon-1)	-114.5	-78.4	-10.1
	3 (Arm.Pasiva)	-1096.9	-1071.0	-1031.8
	4 (Arm.Pasiva)	195.6	198.5	201.7
	7 (Cab.Pret.-1)		14971.0	
	8 (Cab.Pret.-4)		12779.1	
	9 (Cab.Pret.-5)		12746.7	
1(der)	1 (Hormigon-1)	11.0	-60.3	-195.5
	3 (Arm.Pasiva)	-14.6	-1125.5	-2804.8
	4 (Arm.Pasiva)	-388.0	-390.0	-392.2
	7 (Cab.Pret.-1)		15815.6	
	8 (Cab.Pret.-4)		11320.2	
	9 (Cab.Pret.-5)		11287.1	
2(izq)	1 (Hormigon-1)	-96.4	-85.2	-64.0
	2 (Hormigon-2)	-6.2	-5.8	-5.4
	3 (Arm.Pasiva)	-1630.8	-1248.5	-670.5
	7 (Cab.Pret.-1)		14661.9	
	8 (Cab.Pret.-2)		14661.9	
	9 (Cab.Pret.-4)		12956.0	
2(der)	1 (Hormigon-1)	-49.1	-74.8	-123.4
	2 (Hormigon-2)	-14.4	-15.1	-15.8
	3 (Arm.Pasiva)	-1198.7	-1265.6	-1366.7
	7 (Cab.Pret.-1)		15000.3	
	8 (Cab.Pret.-2)		15000.3	
	9 (Cab.Pret.-4)		12400.9	
3(izq)	1 (Hormigon-1)	-126.2	-113.9	-90.6
	2 (Hormigon-2)	-13.2	-13.3	-13.3
	3 (Arm.Pasiva)	-2350.1	-1723.0	-775.0
	7 (Cab.Pret.-1)		14152.5	
	8 (Cab.Pret.-2)		14152.5	
	9 (Cab.Pret.-3)		14152.5	
	10 (Cab.Pret.-4)		12833.4	
3(der)	1 (Hormigon-1)	-90.3	-106.3	-136.8
	2 (Hormigon-2)	-19.7	-20.6	-21.5
	3 (Arm.Pasiva)	-2026.1	-1741.8	-1312.1
	7 (Cab.Pret.-1)		14408.8	
	8 (Cab.Pret.-2)		14408.8	
	9 (Cab.Pret.-3)		14408.8	
	10 (Cab.Pret.-4)		12404.9	
4(izq)	1 (Hormigon-1)	-90.3	-106.3	-136.8
	2 (Hormigon-2)	-19.7	-20.6	-21.5
	3 (Arm.Pasiva)	-2026.1	-1741.8	-1312.1
	7 (Cab.Pret.-1)		14408.8	
	8 (Cab.Pret.-2)		14408.8	
	9 (Cab.Pret.-3)		14408.8	
	10 (Cab.Pret.-4)		12404.9	
4(der)	1 (Hormigon-1)	-126.2	-113.9	-90.6
	2 (Hormigon-2)	-13.2	-13.3	-13.3
	3 (Arm.Pasiva)	-2350.1	-1723.0	-775.0
	7 (Cab.Pret.-1)		14152.5	
	8 (Cab.Pret.-2)		14152.5	
	9 (Cab.Pret.-3)		14152.5	
	10 (Cab.Pret.-4)		12833.4	
5(izq)	1 (Hormigon-1)	-49.1	-74.8	-123.4
	2 (Hormigon-2)	-14.4	-15.1	-15.8
	3 (Arm.Pasiva)	-1198.7	-1265.6	-1366.7
	7 (Cab.Pret.-1)		15000.3	
	8 (Cab.Pret.-2)		15000.3	
	9 (Cab.Pret.-4)		12400.9	
5(der)	1 (Hormigon-1)	-96.4	-85.2	-64.0
	2 (Hormigon-2)	-6.2	-5.8	-5.4
	3 (Arm.Pasiva)	-1630.8	-1248.5	-670.5
	7 (Cab.Pret.-1)		14661.9	
	8 (Cab.Pret.-2)		14661.9	
	9 (Cab.Pret.-4)		12956.0	
6(izq)	1 (Hormigon-1)	11.0	-60.3	-195.5
	3 (Arm.Pasiva)	-14.6	-1125.5	-2804.8
	4 (Arm.Pasiva)	-388.0	-390.0	-392.2
	7 (Cab.Pret.-1)		15815.6	
	8 (Cab.Pret.-4)		11320.2	
	9 (Cab.Pret.-6)		11287.1	
6(der)	1 (Hormigon-1)	-114.5	-78.4	-10.1
	3 (Arm.Pasiva)	-1096.9	-1071.0	-1031.8
	4 (Arm.Pasiva)	195.6	198.5	201.7
	7 (Cab.Pret.-1)		14971.0	
	8 (Cab.Pret.-4)		12779.1	
	9 (Cab.Pret.-6)		12746.7	

Nota 1: Las tensiones se refieren a los extremos del elemento excluyendo zonas rigidas en nudos de tamaño finito
Nota 2: Las tensiones en armaduras activas se dan en la direccion del cable
Nota 3: (*) indica armaduras activas no inyectadas

** REACCIONES EXTERIORES **

Nudo	Fx(T)	Fy(T)	M(mT)
1	-0.000	266.510	535.204
7	0.000	266.510	-535.204

Nota: Se han controlado Errores de Cierre en Nudos y Reacciones(respecto a [0,0])...(<1%)

**** DIFEV (RESULTADOS) ****

Proyecto:V. DE LOS CHORROS
Comentario:ESTUDIO DIFERIDO

*** FASE 8 INTERVALO 8 ***
Titulo:FASE 8. REDISTRIBUCION 20000 DIAS
Ti(dias): 226 Tf(dias):20226

Analisis CON Efectos Diferidos

** MOVIMIENTOS NUDOS (Ejes Generales) **

Nudo	U (m.)	V (m.)	ϕ (rad.)
1	0.0000	0.0000	.000224
2	-.0068	.0057	.002176
3	-.0090	.0135	.001849
4	-.0137	.0200	-0.000000
5	-.0184	.0135	-.001849
6	-.0207	.0057	-.002176
7	-.0274	0.0000	-.000224

** ESFUERZOS ELEMENTOS (Ejes Locales) **

Elemento	Nudo-izq.	Nudo-der.	Axil(T)	Cortante(T)	Flector(mT)	
1	1	2	0.000	-266.510	-409.283	(i)
			0.000	-220.985	321.959	(c)
			0.000	-175.460	916.627	(d)
2	2	3	0.000	-175.460	916.627	(i)
			0.000	-145.110	1237.197	(c)
			0.000	-114.760	1497.067	(d)
3	3	4	0.000	-114.760	1497.067	(i)
			0.000	-57.380	1841.347	(c)
			0.000	-0.000	1956.107	(d)
4	4	5	0.000	-0.000	1956.107	(i)
			0.000	57.380	1841.347	(c)
			0.000	114.760	1497.067	(d)
5	5	6	-0.000	114.760	1497.067	(i)
			-0.000	145.110	1237.197	(c)
			-0.000	175.460	916.627	(d)
6	6	7	-0.000	175.460	916.627	(i)
			-0.000	220.985	321.959	(c)
			-0.000	266.510	-409.283	(d)

Nota: Los esfuerzos se refieren a los extremos del elemento
excluyendo zonas rigidas en nudos de tamaño finito

** TENSIONES EN S.PARCIALES (Kg/cm2) **

Elemento	Seccion Parcial		Tinf.	Tcdg.	Tsup.
1(izq)	1	(Hormigon-1)	-90.3	-71.1	-34.7
	3	(Arm.Pasiva)	-1487.6	-1332.1	-1097.1
	4	(Arm.Pasiva)	163.5	168.2	173.4
	7	(Cab.Pret.-1)		13749.4	
	8	(Cab.Pret.-4)		12302.1	
	9	(Cab.Pret.-5)		12275.3	
1(der)	1	(Hormigon-1)	9.8	-43.1	-143.3
	3	(Arm.Pasiva)	5.3	-1261.2	-3175.6
	4	(Arm.Pasiva)	-798.6	-802.7	-807.2
	7	(Cab.Pret.-1)		14746.0	
	8	(Cab.Pret.-4)		10766.6	
	9	(Cab.Pret.-5)		10757.8	
2(izq)	1	(Hormigon-1)	-79.1	-68.8	-49.3
	2	(Hormigon-2)	-13.0	-12.2	-11.5
	3	(Arm.Pasiva)	-1900.2	-1464.0	-804.8
	7	(Cab.Pret.-1)		13624.2	
	8	(Cab.Pret.-2)		13624.2	
	9	(Cab.Pret.-4)		12386.9	
2(der)	1	(Hormigon-1)	-39.3	-56.1	-87.9
	2	(Hormigon-2)	-23.1	-23.9	-24.6
	3	(Arm.Pasiva)	-1305.3	-1420.1	-1593.7
	7	(Cab.Pret.-1)		14029.7	
	8	(Cab.Pret.-2)		14029.7	
	9	(Cab.Pret.-4)		11841.7	
3(izq)	1	(Hormigon-1)	-105.1	-92.9	-69.6
	2	(Hormigon-2)	-21.4	-20.8	-20.2
	3	(Arm.Pasiva)	-2681.3	-2007.2	-988.3
	7	(Cab.Pret.-1)		13171.0	
	8	(Cab.Pret.-2)		13171.0	
	9	(Cab.Pret.-3)		13171.0	
	10	(Cab.Pret.-4)		12212.4	
3(der)	1	(Hormigon-1)	-75.4	-83.8	-99.7
	2	(Hormigon-2)	-29.3	-29.9	-30.5
	3	(Arm.Pasiva)	-2236.2	-1982.2	-1598.4
	7	(Cab.Pret.-1)		13481.1	
	8	(Cab.Pret.-2)		13481.1	
	9	(Cab.Pret.-3)		13481.1	
	10	(Cab.Pret.-4)		11789.4	
4(izq)	1	(Hormigon-1)	-75.4	-83.8	-99.7
	2	(Hormigon-2)	-29.3	-29.9	-30.5
	3	(Arm.Pasiva)	-2236.2	-1982.2	-1598.4
	7	(Cab.Pret.-1)		13481.1	
	8	(Cab.Pret.-2)		13481.1	
	9	(Cab.Pret.-3)		13481.1	
	10	(Cab.Pret.-4)		11789.4	
4(der)	1	(Hormigon-1)	-105.1	-92.9	-69.6
	2	(Hormigon-2)	-21.4	-20.8	-20.2
	3	(Arm.Pasiva)	-2681.3	-2007.2	-988.3
	7	(Cab.Pret.-1)		13171.0	
	8	(Cab.Pret.-2)		13171.0	

	9	(Cab.Pret.-3)		13171.0	
	10	(Cab.Pret.-4)		12212.4	
5(izq)	1	(Hormigon-1)	-39.3	-56.1	-87.9
	2	(Hormigon-2)	-23.1	-23.9	-24.6
	3	(Arm.Pasiva)	-1305.3	-1429.1	-1593.7
	7	(Cab.Pret.-1)		14029.7	
	8	(Cab.Pret.-2)		14029.7	
	9	(Cab.Pret.-4)		11041.7	
5(der)	1	(Hormigon-1)	-79.1	-68.8	-49.3
	2	(Hormigon-2)	-13.0	-12.2	-11.5
	3	(Arm.Pasiva)	-1900.2	-1464.0	-804.8
	7	(Cab.Pret.-1)		13624.2	
	8	(Cab.Pret.-2)		13624.2	
	9	(Cab.Pret.-4)		12386.9	
6(izq)	1	(Hormigon-1)	9.8	-43.1	-143.3
	3	(Arm.Pasiva)	5.3	-1261.2	-3175.6
	4	(Arm.Pasiva)	-798.6	-802.7	-807.2
	7	(Cab.Pret.-1)		14746.0	
	8	(Cab.Pret.-4)		10786.6	
	9	(Cab.Pret.-6)		10757.8	
6(der)	1	(Hormigon-1)	-90.3	-71.1	-34.7
	3	(Arm.Pasiva)	-1487.6	-1332.1	-1097.1
	4	(Arm.Pasiva)	163.5	168.2	173.4
	7	(Cab.Pret.-1)		13749.4	
	8	(Cab.Pret.-4)		12302.1	
	9	(Cab.Pret.-6)		12275.3	

Nota 1: Las tensiones se refieren a los extremos del elemento excluyendo zonas rigidas en nudos de tamaño finito

Nota 2: Las tensiones en armaduras activas se dan en la direccion del cable

Nota 3: (*) indica armaduras activas no inyectadas

** REACCIONES EXTERIORES **

Nudo	Fx(T)	Fy(T)	M(mT)
1	-0.000	266.510	409.283
7	0.000	266.510	-409.283

Nota: Se han controlado Errores de Cierre en Nudos y Reacciones (respecto a [0,0])...(<1%)

*** PROGRAMA DIFEO ***
Version Enero 1990

$\Delta M_{Hiperest} = -939,6 - (-638,1) - 55,427 = -356,9$ mt.

Proyecto:
DE LOS CHORROS

Comentario:
RETRACCION

DATOS DE LOS MATERIALES

No	Material	Eo(Tn/m2)	Res(Kg/cm2)	Eso	Fpo	Rel(1000 h)
1	Hormig-1	4081600.0(0)	600.0(1)	.00015	0.0	
2	Hormig-2	3500000.0(0)	350.0(0)	.00045	0.0	
5	A.Pasiva	21000000.0				
7	A.Pret-1	19500000.0	19000.0			3.00 (%)

Nota: En hormigones los numeros entre parentesis indican el tipo de evolucion de las resistencias y modulos elasticos con el tiempo segun se indica en las Instrucciones

Thb Hormigones (dias): 28

TOS DE LOS NUDOS

Nudo	Xi(m.)	Yi(m.)	Movimientos Impuestos U(m.)	V(m.)	g(rd)
1	0.00	0.00			
2	6.00	0.00			
3	10.00	0.00			
4	18.00	0.00			
5	26.00	0.00			
6	30.00	0.00			
7	36.00	0.00			

Nota: (***) indica movimiento impuesto brusco
En mov.imp.lentos se indican los valores finales

DATOS DE SECCIONES TIPO

No	Ksp	Material	Area(m2)	Inercia(m4)	Ys(m.)	Yg(m.)	Yi(m.)	Eeg(m.)
1	1	1(H1)	1.343000	.566000	.250	1.690	2.450	1.160
	2	2(H2)	1.752000	.009000	0.000	.125	.250	.400
	3	5(RD)	.007500	.004520	.270	1.570	2.430	
	4	5(RD)	.038300	.000002	.025	.038	.050	
2	1	1(H1)	1.343000	.566000	.250	1.690	2.450	1.160
	2	2(H2)	1.752000	.009000	0.000	.125	.250	.400
	3	5(RD)	.007500	.004520	.270	1.570	2.430	
	4	5(RD)	.038300	.000002	.025	.038	.050	

*** FASE 1 INTERVALO 1 ***

Título:

PESO PROPIO

Ti(dias): 0 Tf(dias): 0

DATOS DE LOS ELEMENTOS

Elem.	Nudo-i	Nudo-d	Stipo-i	Stipo-d	Vin	Var	Long.(m)	Alfa (gsx)	Cgiro(gsx)
1	1	2	1	1	0.0	0.0	6.000	0.00	0.0000(2)
2	2	3	2	2	0.0	0.0	4.000	0.00	0.0000(2)
3	3	4	2	2	0.0	0.0	8.000	0.00	0.0000(3)
4	4	5	2	2	0.0	0.0	8.000	0.00	0.0000(4)
5	5	6	2	2	0.0	0.0	4.000	0.00	0.0000(5)
6	6	7	1	1	0.0	0.0	6.000	0.00	0.0000(6)

Nota : Entre () se indica el nudo desde el que se da el contragiro

Elemento	Secciones parciales conectadas
1	1(-2; 0) 3
2	1(-2; 0) 3
3	1(-2; 0) 3
4	1(-2; 0) 3
5	1(-2; 0) 3
6	1(-2; 0) 3

Nota 1: En las s.parciales de hormigon se indica entre parentesis:
(Tiempo hormigonado ; Tiempo conexion) , en dias

Nota 2: Las s.parciales de armaduras activas se indican mas adelante

VINCULACIONES NUDOS

Nudo	Coaccion-x	Coaccion-y	Coaccion-ø
1	*****	*****	
7		*****	

DATOS CABLES DE PRETENSADO:

Se PONE EN CARGA el cable 1
Tipo:Adherente (material 7(P1))

Elem.Inicial	Elem.Final	Tension Gato(Tn)	Coeficientes Perdidas
1	6	726.000	0.0000(/m) 0.0000(/rad)

Nudo	Ycp(m.)	Tension(Tn)	
1	2.400	726.000	(Activo)
2	2.400	726.000	
3	2.400	726.000	
4	2.400	726.000	
5	2.400	726.000	
6	2.400	726.000	
7	2.400	726.000	(Activo)

Se PONE EN CARGA el cable 2
Tipo:Adherente (material 7(P1))

Elem.Inicial	Elem.Final	Tension Gato(Tn)	Coeficientes Perdidas
2	5	726.000	0.0000(/m) 0.0000(/rad)

Nudo	Ycp(m.)	Tension(Tn)	
2	2.400	726.000	(Activo)
3	2.400	726.000	
4	2.400	726.000	
5	2.400	726.000	
6	2.400	726.000	(Activo)

Se PONE EN CARGA el cable 3
Tipo:Adherente (material 7(P1))

Elem.Inicial	Elem.Final	Tension Gato(Tn)	Coeficientes Perdidas
3	4	726.000	0.0000(/m) 0.0000(/rad)

Nudo	Ycp(m.)	Tension(Tn)	
3	2.400	726.000	(Activo)
4	2.400	726.000	
5	2.400	726.000	(Activo)

Se PONE EN CARGA el cable 4
Tipo:Adherente (material 7(P1))

Elem.Inicial	Elem.Final	Tension Gato(Tn)	Coeficientes Perdidas
1	6	120.000	0.0000(/m) 0.0000(/rad)

Nudo	Ycp(m.)	Tension(Tn)	
1	.300	120.000	(Activo)
2	.300	120.000	
3	.300	120.000	
4	.300	120.000	
5	.300	120.000	
6	.300	120.000	
7	.300	120.000	(Activo)

Se PONE EN CARGA el cable 5
Tipo:Adherente (material 7(P1))

Elem.Inicial	Elem.Final	Tension Gato(Tn)	Coeficientes Perdidas
1	1	359.000	0.0000(/m) 0.0000(/rad)

Nudo	Ycp(m.)	Tension(Tn)	
1	.300	359.000	(Activo)
2	.300	359.000	(Activo)

Se PONE EN CARGA el cable 6
Tipo:Adherente (material 7(P1))

Elem.Inicial	Elem.Final	Tension Gato(Tn)	Coeficientes Perdidas
6	6	359.000	0.0000(/m) 0.0000(/rad)

Nudo	Ycp(m.)	Tension(Tn)	
6	.300	359.000	(Activo)
7	.300	359.000	(Activo)

Listado Cables:

Numero Cable	Seccion (m2)	Puesta en Carga(dias)	Primer Elemento	Ultimo Elemento	Tipo de Cable	Material del Cable
1	.004200	0	1	6	Adherente	A.pret-1
2	.004200	0	2	5	Adherente	A.pret-1

3	.004200	0	3	4	Adherente	A.pret-1
4	.000840	0	1	6	Adherente	A.pret-1
5	.002520	0	1	1	Adherente	A.pret-1
6	.002520	0	6	6	Adherente	A.pret-1

ACCIONES EN ELEMENTOS(m.;Inigsex.):

Elemento	Tipo Accion	Parametros de Carga:				
1	1	4.280				
	(Carga Repartida)					
Misma Accion en Elementos :		2	2	1	4.280	
	(Carga Repartida)					
5	5	1	4.280			
	(Carga Repartida)					
6	6	1	4.280			
	(Carga Repartida)					
3	1	3.450				
	(Carga Repartida)					
Misma Accion en Elementos :		4	4	1	3.450	
	(Carga Repartida)					

*** DIFEV (RESULTADOS) ***

Proyecto:V. DE LOS CHORROS
Comentario:ESTUDIO DIFERIDO

*** FASE 1 INTERVALO 1 ***
Titulo:PESO PROPIO
Ti(dias): 0 Tf(dias): 0

Analisis CON Efectos Diferidos

** MOVIMIENTOS NUDOS (Ejes Generales) **

Nudo	U (m.)	V (m.)	ø (rad.)
1	0.0000	0.0000	.003718
2	-.0043	.0254	.004968
3	-.0043	.0429	.003862
4	-.0030	.0580	-0.000000
5	-.0017	.0429	-.003862
6	-.0017	.0254	-.004968
7	-.0060	0.0000	-.003718

** ESFUERZOS ELEMENTOS (Ejes Locales) **

Elemento	Nudo-izq.	Nudo-der.	Axil(T)	Cortante(T)	Flector(mT)	
1	1	2	0.000	-70.400	0.000	(i)
			0.000	-57.560	191.940	(c)
			0.000	-44.720	345.360	(d)
2	2	3	0.000	-44.720	345.360	(i)
			0.000	-36.160	426.240	(c)
			0.000	-27.600	490.000	(d)
3	3	4	0.000	-27.600	490.000	(i)
			0.000	-13.800	572.800	(c)
			0.000	-0.000	600.400	(d)
4	4	5	0.000	-0.000	600.400	(i)
			0.000	13.800	572.800	(c)
			0.000	27.600	490.000	(d)
5	5	6	-0.000	27.600	490.000	(i)
			-0.000	36.160	426.240	(c)
			-0.000	44.720	345.360	(d)
6	6	7	-0.000	44.720	345.360	(i)
			-0.000	57.560	191.940	(c)
			-0.000	70.400	0.000	(d)

Nota: Los esfuerzos se refieren a los extremos del elemento excluyendo zonas rigidas en nudos de tamaño finito

** TENSIONES EN S.PARCIALES (Kg/cm2) **

Elemento	Seccion Parcial	Tinf.	Tcdg.	Tsup.
1(izq)	1 (Hormigon-1)	-66.5	-81.1	-106.7
	3 (Arm.Pasiva)	-632.7	-788.7	-1024.4
	7 (Cab.Pret.-1)		16693.1	
	8 (Cab.Pret.-4)		13339.5	
	9 (Cab.Pret.-5)		13299.8	
1(der)	1 (Hormigon-1)	-27.4	-80.3	-180.5
	3 (Arm.Pasiva)	-272.4	-838.4	-1694.0
	7 (Cab.Pret.-1)		17014.4	
	8 (Cab.Pret.-4)		12731.1	
	9 (Cab.Pret.-5)		12691.4	
2(izq)	1 (Hormigon-1)	-159.1	-103.5	1.9
	3 (Arm.Pasiva)	-1491.0	-895.7	4.1
	7 (Cab.Pret.-1)		15920.5	
	8 (Cab.Pret.-2)		15920.5	
	9 (Cab.Pret.-4)		14270.3	
2(der)	1 (Hormigon-1)	-143.0	-104.0	-30.1
	3 (Arm.Pasiva)	-1342.4	-925.2	-294.6
	7 (Cab.Pret.-1)		16052.7	
	8 (Cab.Pret.-2)		16052.7	
	9 (Cab.Pret.-4)		13998.6	
3(izq)	1 (Hormigon-1)	-235.1	-145.4	24.6
	3 (Arm.Pasiva)	-2201.3	-1241.0	210.6
	7 (Cab.Pret.-1)		15272.8	
	8 (Cab.Pret.-2)		15272.8	
	9 (Cab.Pret.-3)		15272.8	
	10 (Cab.Pret.-4)		14450.1	
3(der)	1 (Hormigon-1)	-223.4	-146.0	.5
	3 (Arm.Pasiva)	-2093.2	-1265.5	-14.3
	7 (Cab.Pret.-1)		15368.8	
	8 (Cab.Pret.-2)		15368.8	
	9 (Cab.Pret.-3)		15368.8	
	10 (Cab.Pret.-4)		14245.6	
4(izq)	1 (Hormigon-1)	-223.4	-146.0	.5
	3 (Arm.Pasiva)	-2093.2	-1265.5	-14.3
	7 (Cab.Pret.-1)		15368.8	
	8 (Cab.Pret.-2)		15368.8	
	9 (Cab.Pret.-3)		15368.8	
	10 (Cab.Pret.-4)		14245.6	
4(der)	1 (Hormigon-1)	-235.1	-145.4	24.6
	3 (Arm.Pasiva)	-2201.3	-1241.0	210.6
	7 (Cab.Pret.-1)		15272.8	
	8 (Cab.Pret.-2)		15272.8	
	9 (Cab.Pret.-3)		15272.8	
	10 (Cab.Pret.-4)		14450.1	
5(izq)	1 (Hormigon-1)	-143.0	-104.0	-30.1
	3 (Arm.Pasiva)	-1342.4	-925.2	-294.6
	7 (Cab.Pret.-1)		16052.7	
	8 (Cab.Pret.-2)		16052.7	
	9 (Cab.Pret.-4)		13998.6	
5(der)	1 (Hormigon-1)	-159.1	-103.5	1.9
	3 (Arm.Pasiva)	-1491.0	-895.7	4.1
	7 (Cab.Pret.-1)		15920.5	
	8 (Cab.Pret.-2)		15920.5	
	9 (Cab.Pret.-4)		14270.3	
6(izq)	1 (Hormigon-1)	-27.4	-80.3	-180.5
	3 (Arm.Pasiva)	-272.4	-838.4	-1694.0
	7 (Cab.Pret.-1)		17014.4	
	8 (Cab.Pret.-4)		12731.1	
	9 (Cab.Pret.-6)		12691.4	
6(der)	1 (Hormigon-1)	-66.5	-81.1	-106.7
	3 (Arm.Pasiva)	-632.7	-788.7	-1024.4
	7 (Cab.Pret.-1)		16693.1	
	8 (Cab.Pret.-4)		13339.5	
	9 (Cab.Pret.-6)		13299.8	

Nota 1: Las tensiones se refieren a los extremos del elemento excluyendo zonas rigidas en nudos de tamaño finito
Nota 2: Las tensiones en armaduras activas se dan en la direccion del cable
Nota 3: (*) indica armaduras activas no inyectadas

** REACCIONES EXTERIORES **

Nudo	Fx(T)	Fy(T)	M(mT)
1	-0.000	70.400	0.000
7	0.000	70.400	0.000

Nota: Se han controlado Errores de Cierre en Nudos y Reacciones(respecto a [0,0])...(OK)

****** DIFEV (RESULTADOS) ******

Proyecto:V. DE LOS CHORROS
Comentario:ESTUDIO DIFERIDO

***** FASE 2 INTERVALO 2 *****
Titulo:FASE 2. PP.VIGAS DIFERIDO
Ti(dias): 0 Tf(dias): 15

Analisis CON Efectos Diferidos

**** MOVIMIENTOS NUDOS (Ejes Generales) ****

Nudo	U (m.)	V (m.)	ø (rad.)
1	0.0000	0.0000	.003682
2	-.0046	.0255	.005057
3	-.0047	.0434	.003946
4	-.0036	.0588	-0.000000
5	-.0025	.0434	-.003946
6	-.0025	.0255	-.005057
7	-.0072	0.0000	-.003682

**** ESFUERZOS ELEMENTOS (Ejes Locales) ****

Elemento	Nudo-izq.	Nudo-der.	Axil(T)	Cortante(T)	Flector(mT)	
1	1	2	0.000	-70.400	-0.000	(i)
			0.000	-57.560	191.940	(c)
			0.000	-44.720	345.360	(d)
2	2	3	0.000	-44.720	345.360	(i)
			0.000	-36.160	426.240	(c)
			0.000	-27.600	490.000	(d)
3	3	4	-0.000	-27.600	490.000	(i)
			-0.000	-13.800	572.800	(c)
			-0.000	-0.000	600.400	(d)
4	4	5	-0.000	-0.000	600.400	(i)
			-0.000	13.800	572.800	(c)
			-0.000	27.600	490.000	(d)
5	5	6	-0.000	27.600	490.000	(i)
			-0.000	36.160	426.240	(c)
			-0.000	44.720	345.360	(d)
6	6	7	-0.000	44.720	345.360	(i)
			-0.000	57.560	191.940	(c)
			-0.000	70.400	0.000	(d)

Nota: Los esfuerzos se refieren a los extremos del elemento excluyendo zonas rigidas en nudos de tamaño finito

**** TENSIONES EN S.PARCIALES (Kg/cm2) ****

Elemento	Seccion Parcial	Tinf.	Tcdg.	Tsup.
1(izq)	1 (Hormigon-1)	-62.2	-77.3	-106.0
	3 (Arm.Pasiva)	-659.0	-834.7	-1099.0
	7 (Cab.Pret.-1)		15867.0	
	8 (Cab.Pret.-4)		12937.6	
	9 (Cab.Pret.-5)		12902.5	
1(der)	1 (Hormigon-1)	-23.2	-76.5	-177.5
	3 (Arm.Pasiva)	-265.6	-867.8	-1828.4
	7 (Cab.Pret.-1)		16187.2	
	8 (Cab.Pret.-4)		12340.5	
	9 (Cab.Pret.-5)		12304.9	
2(izq)	1 (Hormigon-1)	-149.0	-98.4	-2.6
	3 (Arm.Pasiva)	-1552.2	-946.3	-30.5
	7 (Cab.Pret.-1)		15199.1	
	8 (Cab.Pret.-2)		15199.1	
	9 (Cab.Pret.-4)		13795.0	
2(der)	1 (Hormigon-1)	-132.8	-98.8	-34.5
	3 (Arm.Pasiva)	-1389.8	-978.1	-355.9
	7 (Cab.Pret.-1)		15324.3	
	8 (Cab.Pret.-2)		15324.3	
	9 (Cab.Pret.-4)		13532.3	
3(izq)	1 (Hormigon-1)	-221.0	-138.5	17.8
	3 (Arm.Pasiva)	-2297.2	-1312.1	177.0
	7 (Cab.Pret.-1)		14611.0	
	8 (Cab.Pret.-2)		14611.0	
	9 (Cab.Pret.-3)		14611.0	
	10 (Cab.Pret.-4)		13952.8	
3(der)	1 (Hormigon-1)	-209.2	-139.1	-6.2
	3 (Arm.Pasiva)	-2179.0	-1338.5	-68.0
	7 (Cab.Pret.-1)		14702.9	
	8 (Cab.Pret.-2)		14702.9	
	9 (Cab.Pret.-3)		14702.9	
	10 (Cab.Pret.-4)		13755.6	
4(izq)	1 (Hormigon-1)	-209.2	-139.1	-6.2
	3 (Arm.Pasiva)	-2179.0	-1338.5	-68.0
	7 (Cab.Pret.-1)		14702.9	
	8 (Cab.Pret.-2)		14702.9	
	9 (Cab.Pret.-3)		14702.9	
	10 (Cab.Pret.-4)		13755.6	
4(der)	1 (Hormigon-1)	-221.0	-138.5	17.8
	3 (Arm.Pasiva)	-2297.2	-1312.1	177.0
	7 (Cab.Pret.-1)		14611.0	
	8 (Cab.Pret.-2)		14611.0	
	9 (Cab.Pret.-3)		14611.0	
	10 (Cab.Pret.-4)		13952.8	
5(izq)	1 (Hormigon-1)	-132.8	-98.8	-34.5
	3 (Arm.Pasiva)	-1389.8	-978.1	-355.9
	7 (Cab.Pret.-1)		15324.3	
	8 (Cab.Pret.-2)		15324.3	
	9 (Cab.Pret.-4)		13532.3	

5(der)	1	(Hormigon-1)	-149.0	-98.4	-2.6
	3	(Arm.Pasiva)	-1552.2	-946.3	-30.5
	7	(Cab.Pret.-1)		15199.1	
	8	(Cab.Pret.-2)		15199.1	
	9	(Cab.Pret.-4)		13795.0	
6(izq)	1	(Hormigon-1)	-23.2	-76.5	-177.5
	3	(Arm.Pasiva)	-265.6	-807.8	-1828.4
	7	(Cab.Pret.-1)		16187.2	
	8	(Cab.Pret.-4)		12340.5	
	9	(Cab.Pret.-6)		12304.9	
6(der)	1	(Hormigon-1)	-62.2	-77.3	-106.0
	3	(Arm.Pasiva)	-659.0	-834.2	-1099.0
	7	(Cab.Pret.-1)		15887.0	
	8	(Cab.Pret.-4)		12937.8	
	9	(Cab.Pret.-6)		12902.5	

Nota 1: Las tensiones se refieren a los extremos del elemento excluyendo zonas rigidas en nudos de tamaño finito

Nota 2: Las tensiones en armaduras activas se dan en la direccion del cable

Nota 3: (*) indica armaduras activas no inyectadas

** REACCIONES EXTERIORES **

Nudo	Fx(T)	Fy(T)	M(mT)
1	-0.000	70.400	0.000
7	0.000	70.400	0.000

Nota: Se han controlado Errores de Cierre en Nudos y Reacciones (respecto a [0,0]) ... (<1%)

*** FASE 3 INTERVALO 3 ***

Titulo:

FASE 3. CARGA DE LOSA

Ti(dias): 15 Tf(dias): 15

DATOS DE LOS ELEMENTOS

Elem.	Nudo-i	Nudo-d	Stipo-i	Stipo-d	Vin	Var	Long.(m)	Alfa (gsx)	Cgiro(gsx)
1	1	2	1	1	0.0	0.0	6.000		0.00
2	2	3	2	2	0.0	0.0	4.000		0.00
3	3	4	2	2	0.0	0.0	8.000		0.00
4	4	5	2	2	0.0	0.0	8.000		0.00
5	5	6	2	2	0.0	0.0	4.000		0.00
6	6	7	1	1	0.0	0.0	6.000		0.00

Nota : Entre () se indica el nudo desde el que se da el contragiro

Elemento	Secciones parciales conectadas
1	1(-2; 0) 3
2	1(-2; 0) 3
3	1(-2; 0) 3
4	1(-2; 0) 3
5	1(-2; 0) 3
6	1(-2; 0) 3

Nota 1: En las s.parciales de hormigon se indica entre parentesis: (Tiempo hormigonado ; Tiempo conexion) , en dias

Nota 2: Las s.parciales de armaduras activas se indican mas adelante

VINCULACIONES NUDOS

Nudo	Coaccion-x	Coaccion-y	Coaccion-ø
1	*****	*****	
7		*****	

DATOS CABLES DE PRETENSADO:

Listado Cables:

Numero Cable	Seccion (m2)	Puesta en Carga(dias)	Primer Elemento	Ultimo Elemento	Tipo de Cable	Material del Cable
1	.004200	0	1	6	Adherente	A.pret-1
2	.004200	0	2	5	Adherente	A.pret-1
3	.004200	0	3	4	Adherente	A.pret-1
4	.000840	0	1	6	Adherente	A.pret-1
5	.002520	0	1	1	Adherente	A.pret-1
6	.002520	0	6	6	Adherente	A.pret-1

ACCIONES EN ELEMENTOS(m.;Tnigsex.):

Elemento	Tipo Accion		Parametros de Carga:
1	1	4.725	
	(Carga Repartida)		
Misma Accion en Elementos :			2 <= j <= 6
2	1	4.725	
	(Carga Repartida)		
3	1	4.725	
	(Carga Repartida)		
4	1	4.725	
	(Carga Repartida)		
5	1	4.725	
	(Carga Repartida)		
6	1	4.725	
	(Carga Repartida)		

***** DIFEV (RESULTADOS) *****

Proyecto:V. DE LOS CHORROS
Comentario:ESTUDIO DIFERIDO

***** FASE 3 INTERVALO 3 *****
Titulo:FASE 3. CARGA DE LOSA
Ti(dias): 15 Tf(dias): 15

Analisis CON Efectos Diferidos

** VALORES DE LOS INCREMENTOS PRODUCIDOS DURANTE LA FASE DE ESTUDIO **

** MOVIMIENTOS NUDOS (Ejes Generales) **

Nudo	U (m.)	V (m.)	ø (rad.)
1	0.0000	0.0000	-.000014
2	-.0085	.0045	.001904
3	-.0071	.0114	.001651
4	-.0099	.0172	-0.000000
5	-.0127	.0114	-.001651
6	-.0142	.0045	-.001904
7	-.0198	0.0000	.000014

** ESFUERZOS ELEMENTOS (Ejes Locales) **

Elemento	Nudo-izq.	Nudo-der.	Axil(T)	Cortante(T)	Flector(mT)	
1	1	2	0.000	-155.450	-0.000	(i)
			0.000	-128.435	425.827	(c)
			0.000	-101.420	770.610	(d)
2	2	3	0.000	-101.420	770.610	(i)
			0.000	-83.410	955.440	(c)
			0.000	-65.400	1104.250	(d)
3	3	4	0.000	-65.400	1104.250	(i)
			0.000	-32.700	1300.450	(c)
			0.000	-0.000	1365.850	(d)
4	4	5	0.000	-0.000	1365.850	(i)
			0.000	32.700	1300.450	(c)
			0.000	65.400	1104.250	(d)
5	5	6	-0.000	65.400	1104.250	(i)
			-0.000	83.410	955.440	(c)
			-0.000	101.420	770.610	(d)
6	6	7	-0.000	101.420	770.610	(i)
			-0.000	128.435	425.827	(c)
			-0.000	155.450	0.000	(d)

Nota: Los esfuerzos se refieren a los extremos del elemento excluyendo zonas rigidas en nudos de tamaño finito

**** DIFEV (RESULTADOS) ****

Proyecto:V. DE LOS CHORROS
mentario:ESTUDIO DIFERIDO

*** FASE 3 INTERVALO 3 ***
Titulo:FASE 3. CARGA DE LOSA
Ti(dias): 15 Tf(dias): 15

Analisis CON Efectos Diferidos

** MOVIMIENTOS NUDOS (Ejes Generales) **

Nudo	U (m.)	V (m.)	ø (rad.)
1	0.0000	0.0000	-.000014
2	-.0055	.0045	.001904
3	-.0071	.0114	.001651
4	-.0099	.0172	-0.000000
5	-.0127	.0114	-.001651
6	-.0142	.0045	-.001904
7	-.0196	0.0000	.000014

** ESFUERZOS ELEMENTOS (Ejes Locales) **

Elemento	Nudo-izq.	Nudo-der.	Axil(T)	Cortante(T)	Flector(mT)	
1	1	2	0.000	-155.450	-0.000	(i)
			0.000	-128.435	425.827	(c)
			0.000	-101.420	770.610	(d)
2	2	3	0.000	-101.420	770.610	(i)
			0.000	-83.410	955.440	(c)
			0.000	-65.400	1104.250	(d)
3	3	4	0.000	-65.400	1104.250	(i)
			0.000	-32.700	1300.450	(c)
			0.000	-0.000	1365.850	(d)
4	4	5	0.000	-0.000	1365.850	(i)
			0.000	32.700	1300.450	(c)
			0.000	65.400	1104.250	(d)
5	5	6	-0.000	65.400	1104.250	(i)
			-0.000	83.410	955.440	(c)
			-0.000	101.420	770.610	(d)
6	6	7	-0.000	101.420	770.610	(i)
			-0.000	128.435	425.827	(c)
			-0.000	155.450	0.000	(d)

Nota: Los esfuerzos se refieren a los extremos del elemento
excluyendo zonas rigidas en nudos de tamaño finito

** TENSIONES EN S.PARCIALES (Kg/cm2) **

Elemento	Seccion Parcial	Tinf.	Tcdg.	Tsup.
1(izq)	1 (Hormigon-1)	-62.2	-77.3	-106.0
	3 (Arm.Pasiva)	-659.0	-834.2	-1099.0
	7 (Cab.Pret.-1)		15887.0	
	8 (Cab.Pret.-4)		12937.8	
	9 (Cab.Pret.-5)		12902.5	
1(der)	1 (Hormigon-1)	28.5	-75.9	-273.6
	3 (Arm.Pasiva)	1.2	-927.3	-2330.8
	7 (Cab.Pret.-1)		16425.1	
	8 (Cab.Pret.-4)		11883.9	
	9 (Cab.Pret.-5)		11848.3	
2(izq)	1 (Hormigon-1)	-97.7	-99.3	-102.4
	3 (Arm.Pasiva)	-1287.7	-994.8	-552.1
	7 (Cab.Pret.-1)		15434.6	
	8 (Cab.Pret.-2)		15434.6	
	9 (Cab.Pret.-4)		13320.7	
2(der)	1 (Hormigon-1)	-58.7	-100.2	-178.6
	3 (Arm.Pasiva)	-1007.7	-1048.1	-1109.4
	7 (Cab.Pret.-1)		15664.5	
	8 (Cab.Pret.-2)		15664.5	
	9 (Cab.Pret.-4)		12847.2	
3(izq)	1 (Hormigon-1)	-149.0	-140.7	-125.1
	3 (Arm.Pasiva)	-1926.2	-1386.2	-569.8
	7 (Cab.Pret.-1)		14941.1	
	8 (Cab.Pret.-2)		14941.1	
	9 (Cab.Pret.-3)		14941.1	
	10 (Cab.Pret.-4)		13273.8	
3(der)	1 (Hormigon-1)	-119.5	-141.9	-184.3
	3 (Arm.Pasiva)	-1716.7	-1430.9	-998.6
	7 (Cab.Pret.-1)		15114.2	
	8 (Cab.Pret.-2)		15114.2	
	9 (Cab.Pret.-3)		15114.2	
	10 (Cab.Pret.-4)		12909.4	
4(izq)	1 (Hormigon-1)	-119.5	-141.9	-184.3
	3 (Arm.Pasiva)	-1716.7	-1430.8	-998.6
	7 (Cab.Pret.-1)		15114.2	
	8 (Cab.Pret.-2)		15114.2	
	9 (Cab.Pret.-3)		15114.2	
	10 (Cab.Pret.-4)		12909.4	
4(der)	1 (Hormigon-1)	-149.0	-140.7	-125.1
	3 (Arm.Pasiva)	-1926.2	-1386.2	-569.8
	7 (Cab.Pret.-1)		14941.1	
	8 (Cab.Pret.-2)		14941.1	
	9 (Cab.Pret.-3)		14941.1	
	10 (Cab.Pret.-4)		13273.8	
5(izq)	1 (Hormigon-1)	-58.7	-100.2	-178.6
	3 (Arm.Pasiva)	-1007.7	-1048.1	-1109.4
	7 (Cab.Pret.-1)		15664.5	
	8 (Cab.Pret.-2)		15664.5	
	9 (Cab.Pret.-4)		12847.2	

5(der)	1 (Hormigon-1)	-97.7	-99.3	-102.4
	3 (Arm.Pasiva)	-1287.7	-994.6	-557.1
	7 (Cab.Pret.-1)		15434.6	
	8 (Cab.Pret.-2)		15434.6	
	9 (Cab.Pret.-4)		13320.7	
6(izq)	1 (Hormigon-1)	28.5	-75.9	-273.6
	3 (Arm.Pasiva)	1.2	-927.3	-2330.8
	7 (Cab.Pret.-1)		16425.1	
	8 (Cab.Pret.-4)		11886.9	
	9 (Cab.Pret.-6)		11648.3	
6(der)	1 (Hormigon-1)	-62.2	-77.3	-106.0
	3 (Arm.Pasiva)	-659.0	-834.2	-1099.0
	7 (Cab.Pret.-1)		15887.0	
	8 (Cab.Pret.-4)		12937.8	
	9 (Cab.Pret.-6)		12902.5	

Nota 1: Las tensiones se refieren a los extremos del elemento excluyendo zonas rigidas en nudos de tamaño finito

Nota 2: Las tensiones en armaduras activas se dan en la direccion del cable

Nota 3: (*) indica armaduras activas no inyectadas

** REACCIONES EXTERIORES **

Nudo	Fx(T)	Fy(T)	M(mT)
1	-0.000	155.450	0.000
7	0.000	155.450	0.000

Nota: Se han controlado Errores de Cierre en Nudos y Reacciones(respecto a [0,0])...(<1%)

*** FASE 4 INTERVALO 4 ***

Titulo:

FASE 4. CONEXION LOSA Y EMPOTRAMIENTO

Ti(dias): 15 Tf(dias): 15

DATOS DE LOS ELEMENTOS

Elem.	Nudo-i	Nudo-d	Stipo-i	Stipo-d	Vin	Var	Long.(m)	Alfa (gsx)	Cgiro(gsx)
1	1	2	1	1	0.0	0.0	6.000		0.00
2	2	3	2	2	0.0	0.0	4.000		0.00
3	3	4	2	2	0.0	0.0	8.000		0.00
4	4	5	2	2	0.0	0.0	8.000		0.00
5	5	6	2	2	0.0	0.0	4.000		0.00
6	6	7	1	1	0.0	0.0	6.000		0.00

Nota : Entre () se indica el nudo desde el que se da el contragiro

Elemento	Secciones parciales conectadas						
1	1(	-2;	0)	3			4
2	1(	-2;	0)	2(	15;	15)	3
3	1(	-2;	0)	2(	15;	15)	3
4	1(	-2;	0)	2(	15;	15)	3
5	1(	-2;	0)	2(	15;	15)	3
6	1(	-2;	0)	3			4

Nota 1: En las s.parciales de hormigon se indica entre parentesis: (Tiempo hormigonado ; Tiempo conexion) , en dias

Nota 2: Las s.parciales de armaduras activas se indican mas adelante

VINCULACIONES NUDOS

Nudo	Coaccion-x	Coaccion-y	Coaccion-ø
1	*****	*****	*****
7		*****	*****

DATOS CABLES DE PRETENSADO:

Listado Cables:

Numero Cable	Seccion (m2)	Puesta en Carga(dias)	Primer Elemento	Ultimo Elemento	Tipo de Cable	Material del Cable
1	.004200	0	1	6	Adherente	A.pret-1
2	.004200	0	2	5	Adherente	A.pret-1
3	.004200	0	3	4	Adherente	A.pret-1
4	.000840	0	1	6	Adherente	A.pret-1
5	.002520	0	1	1	Adherente	A.pret-1
6	.002520	0	6	6	Adherente	A.pret-1

****** DIFEV (RESULTADOS) ******

Proyecto:V. DE LOS CHORROS
Comentario:ESTUDIO DIFERIDO

***** FASE 4 INTERVALO 4 *****
Titulo:FASE 4. CONEXION LOSA Y EMPOTRAMIENTO
Ti(dias)= 15 Tf(dias)= 15

Analisis CON Efectos Diferidos

**** MOVIMIENTOS NUDOS (Ejes Generales) ****

Nudo	U [m.]	V [m.]	ø [rad.]
1	0.0000	0.0000	-.000014
2	-.0055	.0045	.001904
3	-.0071	.0114	.001651
4	-.0099	.0172	-0.000000
5	-.0127	.0114	-.001651
6	-.0142	.0045	-.001904
7	-.0198	0.0000	.000014

**** ESFUERZOS ELEMENTOS (Ejes Locales) ****

Elemento	Nudo-izq.	Nudo-der.	Axil(T)	Cortante(T)	Flector(mT)	
1	1	2	0.000	-155.450	-0.000	(i)
			0.000	-128.435	425.827	(c)
			0.000	-101.420	770.610	(d)
2	2	3	0.000	-101.420	770.610	(i)
			0.000	-83.410	955.440	(c)
			0.000	-65.400	1104.250	(d)
3	3	4	0.000	-65.400	1104.250	(i)
			0.000	-32.700	1300.450	(c)
			0.000	-0.000	1365.850	(d)
4	4	5	0.000	-0.000	1365.850	(i)
			0.000	32.700	1300.450	(c)
			0.000	65.400	1104.250	(d)
5	5	6	-0.000	65.400	1104.250	(i)
			-0.000	83.410	955.440	(c)
			-0.000	101.420	770.610	(d)
6	6	7	-0.000	101.420	770.610	(i)
			-0.000	128.435	425.827	(c)
			-0.000	155.450	0.000	(d)

Nota: Los esfuerzos se refieren a los extremos del elemento excluyendo zonas rigidas en nudos de tamaño finito

**** TENSIONES EN S.PARCIALES (Kg/cm2) ****

Elemento	Seccion Parcial	Tinf.	Tcdg.	Tsup.
1(izq)	1 (Hormigon-1)	-62.2	-77.3	-106.0
	3 (Arm.Pasiva)	-659.0	-834.2	-1099.0
	4 (Arm.Pasiva)	-0.0	-0.0	-0.0
	7 (Cab.Pret.-1)		15887.0	
	8 (Cab.Pret.-4)		12937.8	
	9 (Cab.Pret.-5)		12902.5	
1(der)	1 (Hormigon-1)	28.5	-75.9	-273.6
	3 (Arm.Pasiva)	1.2	-927.3	-2330.8
	4 (Arm.Pasiva)	0.0	0.0	0.0
	7 (Cab.Pret.-1)		16425.1	
	8 (Cab.Pret.-4)		11883.9	
	9 (Cab.Pret.-5)		11848.3	
2(izq)	1 (Hormigon-1)	-97.7	-99.3	-102.4
	2 (Hormigon-2)	-0.0	-0.0	-0.0
	3 (Arm.Pasiva)	-1287.7	-994.8	-552.1
	7 (Cab.Pret.-1)		15434.6	
	8 (Cab.Pret.-2)		15434.6	
	9 (Cab.Pret.-4)		13320.7	
2(der)	1 (Hormigon-1)	-58.7	-100.2	-178.6
	2 (Hormigon-2)	0.0	0.0	0.0
	3 (Arm.Pasiva)	-1007.7	-1048.1	-1109.4
	7 (Cab.Pret.-1)		15664.5	
	8 (Cab.Pret.-2)		15664.5	
	9 (Cab.Pret.-4)		12947.2	
3(izq)	1 (Hormigon-1)	-149.0	-140.7	-125.1
	2 (Hormigon-2)	-0.0	-0.0	-0.0
	3 (Arm.Pasiva)	-1926.2	-1386.2	-569.8
	7 (Cab.Pret.-1)		14941.1	
	8 (Cab.Pret.-2)		14941.1	
	9 (Cab.Pret.-3)		14941.1	
	10 (Cab.Pret.-4)		13273.8	
3(der)	1 (Hormigon-1)	-119.5	-141.9	-184.3
	2 (Hormigon-2)	0.0	0.0	0.0
	3 (Arm.Pasiva)	-1716.7	-1430.8	-998.6
	7 (Cab.Pret.-1)		15114.2	
	8 (Cab.Pret.-2)		15114.2	
	9 (Cab.Pret.-3)		15114.2	
	10 (Cab.Pret.-4)		12909.4	
4(izq)	1 (Hormigon-1)	-119.5	-141.9	-184.3
	2 (Hormigon-2)	0.0	0.0	0.0
	3 (Arm.Pasiva)	-1716.7	-1430.8	-998.6
	7 (Cab.Pret.-1)		15114.2	
	8 (Cab.Pret.-2)		15114.2	
	9 (Cab.Pret.-3)		15114.2	
	10 (Cab.Pret.-4)		12909.4	
4(der)	1 (Hormigon-1)	-149.0	-140.7	-125.1
	2 (Hormigon-2)	-0.0	-0.0	-0.0
	3 (Arm.Pasiva)	-1926.2	-1386.2	-569.8
	7 (Cab.Pret.-1)		14941.1	
	8 (Cab.Pret.-2)		14941.1	

	9	(Cab.Pret.-3)		14941.1	
	10	(Cab.Pret.-4)		13273.8	
5(izq)	1	(Hormigon-1)	-58.7	-100.2	-178.6
	2	(Hormigon-2)	0.0	0.0	0.0
	3	(Arm.Pasiva)	-1007.7	-1048.1	-1109.4
	7	(Cab.Pret.-1)		15664.5	
	8	(Cab.Pret.-2)		15664.5	
	9	(Cab.Pret.-4)		12647.2	
5(der)	1	(Hormigon-1)	-97.7	-99.3	-102.4
	2	(Hormigon-2)	-0.0	-0.0	-0.0
	3	(Arm.Pasiva)	-1287.7	-994.8	-552.1
	7	(Cab.Pret.-1)		15434.6	
	8	(Cab.Pret.-2)		15434.6	
	9	(Cab.Pret.-4)		13320.7	
6(izq)	1	(Hormigon-1)	28.5	-75.9	-273.6
	3	(Arm.Pasiva)	1.2	-927.3	-2330.8
	4	(Arm.Pasiva)	0.0	0.0	0.0
	7	(Cab.Pret.-1)		16425.1	
	8	(Cab.Pret.-4)		11883.9	
	9	(Cab.Pret.-6)		11848.3	
6(der)	1	(Hormigon-1)	-62.2	-77.3	-106.0
	3	(Arm.Pasiva)	-659.0	-834.2	-1099.0
	4	(Arm.Pasiva)	-0.0	-0.0	-0.0
	7	(Cab.Pret.-1)		15687.0	
	8	(Cab.Pret.-4)		12937.8	
	9	(Cab.Pret.-6)		12902.5	

Nota 1: Las tensiones se refieren a los extremos del elemento excluyendo zonas rigidas en nudos de tamaño finito
Nota 2: Las tensiones en armaduras activas se dan en la direccion del cable
Nota 3: (*) indica armaduras activas no inyectadas

** REACCIONES EXTERIORES **

Nudo	Fx(T)	Fy(T)	M(mT)
1	-0.000	155.450	0.000
7	0.000	155.450	0.000

Nota: Se han controlado Errores de Cierre en Nudos y Reacciones (respecto a [0,0])...(<1%)

*** DIFEV (RESULTADOS) ***

Proyecto: V. DE LOS CHORROS
Comentario: ESTUDIO DIFERIDO

*** FASE 5 INTERVALO 5 ***
Titulo: FASE 5. REDISTRIBUCION 1 DIA
Ti(dias): 15 Tf(dias): 16

Analisis CON Efectos Diferidos

** MOVIMIENTOS NUDOS (Ejes Generales) **

Nudo	U (m.)	V (m.)	ø (rad.)
1	0.0000	0.0000	-.000014
2	-.0055	.0044	.001876
3	-.0070	.0112	.001620
4	-.0099	.0169	-0.000000
5	-.0128	.0112	-.001620
6	-.0143	.0044	-.001876
7	-.0198	0.0000	.000014

** ESFUERZOS ELEMENTOS (Ejes Locales) **

Elemento	Nudo-izq.	Nudo-der.	Axil(T)	Cortante(T)	Flector(mT)	
1	1	2	0.000	-155.450	-34.442	(i)
			0.000	-128.435	391.386	(c)
			0.000	-101.420	736.168	(d)
2	2	3	0.000	-101.420	736.168	(i)
			0.000	-85.410	920.998	(c)
			0.000	-65.400	1069.808	(d)
3	3	4	0.000	-65.400	1069.808	(i)
			0.000	-32.700	1266.008	(c)
			0.000	-0.000	1331.408	(d)
4	4	5	0.000	-0.000	1331.408	(i)
			0.000	32.700	1266.008	(c)
			0.000	65.400	1069.808	(d)
5	5	6	-0.000	65.400	1069.808	(i)
			-0.000	83.410	920.998	(c)
			-0.000	101.420	736.168	(d)
6	6	7	-0.000	101.420	736.168	(i)
			-0.000	128.435	391.386	(c)
			-0.000	155.450	-34.442	(d)

Nota: Los esfuerzos se refieren a los extremos del elemento excluyendo zonas rigidas en nudos de tamaño finito

** TENSIONES EN S.PARCIALES (Kg/cm2) **

Elemento	Seccion Parcial	Tinf.	Tcdg.	Tsup.
1(izq)	1 (Hormigon-1)	-65.2	-77.9	-102.1
	3 (Arm.Pasiva)	-675.0	-836.0	-1079.3
	4 (Arm.Pasiva)	23.3	23.5	23.7
	7 (Cab.Pret.-1)		15863.1	
	8 (Cab.Pret.-4)		12951.5	
	9 (Cab.Pret.-5)		12916.3	
1(der)	1 (Hormigon-1)	24.3	-76.0	-266.0
	3 (Arm.Pasiva)	-2.1	-927.6	-2326.6
	4 (Arm.Pasiva)	5.1	5.1	5.1
	7 (Cab.Pret.-1)		16411.2	
	8 (Cab.Pret.-4)		11885.2	
	9 (Cab.Pret.-5)		11849.7	
2(izq)	1 (Hormigon-1)	-102.1	-99.2	-93.8
	2 (Hormigon-2)	0.0	0.0	0.0
	3 (Arm.Pasiva)	-1292.6	-994.4	-543.7
	7 (Cab.Pret.-1)		15421.6	
	8 (Cab.Pret.-2)		15421.6	
	9 (Cab.Pret.-4)		13323.8	
2(der)	1 (Hormigon-1)	-63.3	-100.1	-169.8
	2 (Hormigon-2)	0.0	0.0	0.0
	3 (Arm.Pasiva)	-1004.9	-1049.3	-1116.3
	7 (Cab.Pret.-1)		15657.8	
	8 (Cab.Pret.-2)		15657.8	
	9 (Cab.Pret.-4)		12837.1	
3(izq)	1 (Hormigon-1)	-153.5	-140.7	-116.3
	2 (Hormigon-2)	0.0	0.0	0.0
	3 (Arm.Pasiva)	-1924.4	-1387.6	-576.2
	7 (Cab.Pret.-1)		14935.1	
	8 (Cab.Pret.-2)		14935.1	
	9 (Cab.Pret.-3)		14935.1	
	10 (Cab.Pret.-4)		13263.4	
3(der)	1 (Hormigon-1)	-124.2	-141.8	-175.3
	2 (Hormigon-2)	0.0	0.0	0.0
	3 (Arm.Pasiva)	-1709.2	-1433.6	-1017.1
	7 (Cab.Pret.-1)		15112.9	
	8 (Cab.Pret.-2)		15112.9	
	9 (Cab.Pret.-3)		15112.9	
	10 (Cab.Pret.-4)		12888.6	
4(izq)	1 (Hormigon-1)	-124.2	-141.8	-175.3
	2 (Hormigon-2)	0.0	0.0	0.0
	3 (Arm.Pasiva)	-1709.2	-1433.6	-1017.1
	7 (Cab.Pret.-1)		15112.9	
	8 (Cab.Pret.-2)		15112.9	
	9 (Cab.Pret.-3)		15112.9	
	10 (Cab.Pret.-4)		12888.6	
4(der)	1 (Hormigon-1)	-153.5	-140.7	-116.3
	2 (Hormigon-2)	0.0	0.0	0.0
	3 (Arm.Pasiva)	-1924.4	-1387.6	-576.2
	7 (Cab.Pret.-1)		14935.1	
	8 (Cab.Pret.-2)		14935.1	
	9 (Cab.Pret.-3)		14935.1	
	10 (Cab.Pret.-4)		13263.4	
5(izq)	1 (Hormigon-1)	-63.3	-100.1	-169.8
	2 (Hormigon-2)	0.0	0.0	0.0
	3 (Arm.Pasiva)	-1004.9	-1049.3	-1116.3
	7 (Cab.Pret.-1)		15657.8	
	8 (Cab.Pret.-2)		15657.8	
	9 (Cab.Pret.-4)		12837.1	
5(der)	1 (Hormigon-1)	-102.1	-99.2	-93.8
	2 (Hormigon-2)	0.0	0.0	0.0
	3 (Arm.Pasiva)	-1292.6	-994.4	-543.7
	7 (Cab.Pret.-1)		15421.6	
	8 (Cab.Pret.-2)		15421.6	
	9 (Cab.Pret.-4)		13323.8	
6(izq)	1 (Hormigon-1)	24.3	-76.0	-266.0
	3 (Arm.Pasiva)	-2.1	-927.6	-2326.6
	4 (Arm.Pasiva)	5.1	5.1	5.1
	7 (Cab.Pret.-1)		16411.2	
	8 (Cab.Pret.-4)		11885.2	
	9 (Cab.Pret.-6)		11849.7	
6(der)	1 (Hormigon-1)	-65.2	-77.9	-102.1
	3 (Arm.Pasiva)	-675.0	-836.0	-1079.3
	4 (Arm.Pasiva)	23.3	23.5	23.7
	7 (Cab.Pret.-1)		15863.1	
	8 (Cab.Pret.-4)		12951.5	
	9 (Cab.Pret.-6)		12916.3	

Nota 1: Las tensiones se refieren a los extremos del elemento excluyendo zonas rigidas en nudos de tamaño finito

Nota 2: Las tensiones en armaduras activas se dan en la direccion del cable

Nota 3: (*) indica armaduras activas no inyectadas

** REACCIONES EXTERIORES **

Nudo	Fx(T)	Fy(T)	M(mT)
1	-0.000	155.450	34.442
7	0.000	155.450	-34.442

Nota: Se han controlado Errores de Cierre en Nudos y Reacciones(respecto a [0,0])...(<1%)

****** DIFEV (RESULTADOS) ******

Proyecto:V. DE LOS CHORROS
Comentario:ESTUDIO DIFERIDO

***** FASE 6 INTERVALO 6 *****
Titulo:FASE 6. REDISTRIBUCION HASTA 210 DIAS
Ti(dias): 16 Tf(dias): 226

Analisis CON Efectos Diferidos

**** MOVIMIENTOS NUDOS (Ejes Generales) ****

Nudo	U (m.)	V (m.)	# (rad.)
1	0.0000	0.0000	-.000014
2	-.0057	.0045	.001913
3	-.0074	.0114	.001658
4	-.0106	.0173	-0.000000
5	-.0138	.0114	-.001658
6	-.0155	.0045	-.001913
7	-.0212	0.0000	.000014

**** ESFUERZOS ELEMENTOS (Ejes Locales) ****

Elemento	Nudo-izq.	Nudo-der.	Axil(T)	Cortante(T)	Flector(mT)	
1	1	2	0.000	-155.450	-55.427	(i)
			0.000	-128.435	370.400	(c)
			0.000	-101.420	715.183	(d)
2	2	3	0.000	-101.420	715.183	(i)
			0.000	-83.410	900.013	(c)
			0.000	-65.400	1048.823	(d)
3	3	4	0.000	-65.400	1048.823	(i)
			0.000	-32.700	1245.023	(c)
			0.000	-0.000	1310.423	(d)
4	4	5	0.000	-0.000	1310.423	(i)
			0.000	32.700	1245.023	(c)
			0.000	65.400	1048.823	(d)
5	5	6	-0.000	65.400	1048.823	(i)
			-0.000	83.410	900.013	(c)
			-0.000	101.420	715.183	(d)
6	6	7	-0.000	101.420	715.183	(i)
			-0.000	128.435	370.400	(c)
			-0.000	155.450	-55.427	(d)

Nota: Los esfuerzos se refieren a los extremos del elemento
excluyendo zonas rigidas en nudos de tamaño finito

**** TENSIONES EN S.PARCIALES (Kg/cm2) ****

Elemento	Seccion Parcial	Tinf.	Tcdg.	Tsup.
1(izq)	1 (Hormigon-1)	-66.3	-74.0	-80.6
	3 (Arm.Pasiva)	-765.1	-906.4	-1120.1
	4 (Arm.Pasiva)	-12.5	-12.0	-11.5
	7 (Cab.Pret.-1)		15267.8	
	8 (Cab.Pret.-4)		12696.7	
	9 (Cab.Pret.-5)		12664.4	
1(der)	1 (Hormigon-1)	17.1	-69.2	-232.9
	3 (Arm.Pasiva)	-20.9	-980.6	-2451.3
	4 (Arm.Pasiva)	-130.5	-131.0	-131.6
	7 (Cab.Pret.-1)		15811.4	
	8 (Cab.Pret.-4)		11635.8	
	9 (Cab.Pret.-5)		11602.8	
2(izq)	1 (Hormigon-1)	-101.1	-93.0	-77.8
	2 (Hormigon-2)	-1.8	-1.7	-1.6
	3 (Arm.Pasiva)	-1379.6	-1072.8	-609.0
	7 (Cab.Pret.-1)		14881.1	
	8 (Cab.Pret.-2)		14881.1	
	9 (Cab.Pret.-4)		13014.9	
2(der)	1 (Hormigon-1)	-66.1	-91.9	-140.7
	2 (Hormigon-2)	-3.2	-3.3	-3.4
	3 (Arm.Pasiva)	-1066.9	-1119.8	-1199.8
	7 (Cab.Pret.-1)		15112.4	
	8 (Cab.Pret.-2)		15112.4	
	9 (Cab.Pret.-4)		12552.9	
3(izq)	1 (Hormigon-1)	-151.2	-131.8	-94.9
	2 (Hormigon-2)	-2.7	-2.6	-2.4
	3 (Arm.Pasiva)	-2040.1	-1488.4	-654.3
	7 (Cab.Pret.-1)		14422.5	
	8 (Cab.Pret.-2)		14422.5	
	9 (Cab.Pret.-3)		14422.5	
	10 (Cab.Pret.-4)		12947.7	
3(der)	1 (Hormigon-1)	-124.8	-131.4	-143.7
	2 (Hormigon-2)	-3.8	-3.8	-3.8
	3 (Arm.Pasiva)	-1806.2	-1528.8	-1109.5
	7 (Cab.Pret.-1)		14597.8	
	8 (Cab.Pret.-2)		14597.8	
	9 (Cab.Pret.-3)		14597.8	
	10 (Cab.Pret.-4)		12591.6	
4(izq)	1 (Hormigon-1)	-124.8	-131.4	-143.7
	2 (Hormigon-2)	-3.8	-3.8	-3.8
	3 (Arm.Pasiva)	-1806.2	-1528.8	-1109.5
	7 (Cab.Pret.-1)		14597.8	
	8 (Cab.Pret.-2)		14597.8	
	9 (Cab.Pret.-3)		14597.8	
	10 (Cab.Pret.-4)		12591.6	
4(der)	1 (Hormigon-1)	-151.2	-131.8	-94.9
	2 (Hormigon-2)	-2.7	-2.6	-2.4
	3 (Arm.Pasiva)	-2040.1	-1488.4	-654.3
	7 (Cab.Pret.-1)		14422.5	
	8 (Cab.Pret.-2)		14422.5	

	9 (Cab.Pret.-3)		14422.5	
	10 (Cab.Pret.-4)		12947.7	
5(izq)	1 (Hormigon-1)	-66.1	-91.9	-140.7
	2 (Hormigon-2)	-3.2	-3.3	-3.4
	3 (Arm.Pasiva)	-1066.9	-1119.8	-1199.8
	7 (Cab.Pret.-1)		15112.4	
	8 (Cab.Pret.-2)		15112.4	
	9 (Cab.Pret.-4)		12552.9	
5(der)	1 (Hormigon-1)	-101.1	-93.0	-77.8
	2 (Hormigon-2)	-1.8	-1.7	-1.6
	3 (Arm.Pasiva)	-1379.6	-1072.8	-609.0
	7 (Cab.Pret.-1)		14881.1	
	8 (Cab.Pret.-2)		14881.1	
	9 (Cab.Pret.-4)		13014.9	
6(izq)	1 (Hormigon-1)	17.1	-69.2	-232.9
	3 (Arm.Pasiva)	-20.9	-988.6	-2451.3
	4 (Arm.Pasiva)	-130.5	-131.0	-131.6
	7 (Cab.Pret.-1)		15811.4	
	8 (Cab.Pret.-4)		11635.8	
	9 (Cab.Pret.-6)		11602.8	
6(der)	1 (Hormigon-1)	-66.3	-74.0	-88.8
	3 (Arm.Pasiva)	-769.1	-906.4	-1120.1
	4 (Arm.Pasiva)	-12.5	-12.0	-11.5
	7 (Cab.Pret.-1)		15267.8	
	8 (Cab.Pret.-4)		12696.7	
	9 (Cab.Pret.-6)		12664.4	

Nota 1: Las tensiones se refieren a los extremos del elemento excluyendo zones rigidas en nudos de tamaño finito
Nota 2: Las tensiones en armaduras activas se dan en la direccion del cable
Nota 3: (*) indica armaduras activas no inyectadas

** REACCIONES EXTERIORES **

Nudo	Fx(T)	Fy(T)	M(mT)
1	-0.000	155.450	55.427
7	0.000	155.450	-55.427

Nota: Se han controlado Errores de Cierre en Nudos y Reacciones(respecto a [0,0])...(<1%)

*** FASE 7 INTERVALO 7 ***
Titulo:
FASE 7. CARGA MUERTA. INSTANTANEA
Ti(dias): 226 Tf(dias): 226

DATOS DE LOS ELEMENTOS

Elem.	Nudo-i	Nudo-d	Stipo-i	Stipo-d	Vin	Var	Long.(m)	Alfa (gsx)	Cgiro(gsx)
1	1	2	1	1	0.0	0.0	6.000	0.00	
2	2	3	2	2	0.0	0.0	4.000	0.00	
3	3	4	2	2	0.0	0.0	8.000	0.00	
4	4	5	2	2	0.0	0.0	8.000	0.00	
5	5	6	2	2	0.0	0.0	4.000	0.00	
6	6	7	1	1	0.0	0.0	6.000	0.00	

Nota : Entre () se indica el nudo desde el que se da el contragiro

Elemento	Secciones parciales conectadas
1	1(-2; 0) 3 4
2	1(-2; 0) 2(15; 15) 3
3	1(-2; 0) 2(15; 15) 3
4	1(-2; 0) 2(15; 15) 3
5	1(-2; 0) 2(15; 15) 3
6	1(-2; 0) 3 4

Nota 1: En las s.parciales de hormigon se indica entre parentesis: (Tiempo hormigonado ; Tiempo conexion) , en dias

Nota 2: Las s.parciales de armaduras activas se indican mas adelante

VINCULACIONES NUDOS

Nudo	Coaccion-x	Coaccion-y	Coaccion-g
1	*****	*****	*****
7		*****	*****

DATOS CABLES DE PRETENSADO:

Listado Cables:

Numero Cable	Seccion (m2)	Puesta en Carga(dias)	Primer Elemento	Ultimo Elemento	Tipo de Cable	Material del Cable
1	.004200	0	1	6	Adherente	A.pret-1
2	.004200	0	2	5	Adherente	A.pret-1
3	.004200	0	3	4	Adherente	A.pret-1
4	.000840	0	1	6	Adherente	A.pret-1
5	.002520	0	1	1	Adherente	A.pret-1
6	.002520	0	6	6	Adherente	A.pret-1

ACCIONES EN ELEMENTOS(m.;Tnigsex.):

Elemento	Tipo Accion		Parametros de Carga:
1	1	6.170	
	(Carga Repartida)		
Misma Accion en Elementos :			2 <= j <= 6
2	1	6.170	
	(Carga Repartida)		
3	1	6.170	
	(Carga Repartida)		
4	1	6.170	
	(Carga Repartida)		
5	1	6.170	
	(Carga Repartida)		
6	1	6.170	
	(Carga Repartida)		

*** DIFEV (RESULTADOS) ***

Proyecto:V. DE LOS CHORROS
Comentario:ESTUDIO DIFERIDO

*** FASE 7 INTERVALO 7 ***
Titulo:FASE 7. CARGA MUERTA. INSTANTANEA
Ti(dias): 226 Tf(dias): 226

Analisis CON Efectos Diferidos

** MOVIMIENTOS NUDOS (Ejes Generales) **

Nudo	U (m.)	V (m.)	ϕ (rad.)
1	0.0000	0.0000	-.000014
2	-.0052	.0032	.001578
3	-.0070	.0088	.001367
4	-.0105	.0134	-0.000000
5	-.0140	.0088	-.001367
6	-.0157	.0032	-.001578
7	-.0210	0.0000	.000014

** ESFUERZOS ELEMENTOS (Ejes Locales) **

Elemento	Nudo-izq.	Nudo-der.	Axil(T)	Cortante(T)	Flector(mT)	
1	1	2	0.000	-266.510	-638.140	(i)
			0.000	-220.985	93.103	(c)
			0.000	-175.460	687.770	(d)
2	2	3	0.000	-175.460	687.770	(i)
			0.000	-145.110	1008.340	(c)
			0.000	-114.760	1268.210	(d)
3	3	4	0.000	-114.760	1268.210	(i)
			0.000	-57.380	1612.490	(c)
			0.000	-0.000	1727.250	(d)
4	4	5	0.000	-0.000	1727.250	(i)
			0.000	57.380	1612.490	(c)
			0.000	114.760	1268.210	(d)
5	5	6	-0.000	114.760	1268.210	(i)
			-0.000	145.110	1008.340	(c)
			-0.000	175.460	687.770	(d)
6	6	7	-0.000	175.460	687.770	(i)
			-0.000	220.985	93.103	(c)
			-0.000	266.510	-638.140	(d)

Nota: Los esfuerzos se refieren a los extremos del elemento
excluyendo zonas rigidas en nudos de tamaño finito

** TENSIONES EN S.PARCIALES (Kg/cm2) **

Elemento	Seccion Parcial	Tinf.	Tcdg.	Tsup.
1(izq)	1 (Hormigon-1)	-120.7	-84.1	-14.8
	3 (Arm.Pasiva)	-982.5	-918.9	-822.7
	4 (Arm.Pasiva)	337.3	340.7	344.3
	7 (Cab.Pret.-1)		15072.6	
	8 (Cab.Pret.-4)		12966.2	
	9 (Cab.Pret.-5)		12933.9	
1(der)	1 (Hormigon-1)	14.6	-69.7	-229.4
	3 (Arm.Pasiva)	-31.1	-989.1	-2437.3
	4 (Arm.Pasiva)	-114.0	-114.4	-114.9
	7 (Cab.Pret.-1)		15802.2	
	8 (Cab.Pret.-4)		11648.5	
	9 (Cab.Pret.-5)		11615.5	
2(izq)	1 (Hormigon-1)	-103.0	-93.8	-76.4
	2 (Hormigon-2)	-1.2	-1.0	-.8
	3 (Arm.Pasiva)	-1387.4	-1075.4	-603.7
	7 (Cab.Pret.-1)		14874.0	
	8 (Cab.Pret.-2)		14874.0	
	9 (Cab.Pret.-4)		13019.6	
2(der)	1 (Hormigon-1)	-50.6	-85.4	-151.2
	2 (Hormigon-2)	-7.8	-8.6	-9.3
	3 (Arm.Pasiva)	-1004.6	-1099.1	-1242.0
	7 (Cab.Pret.-1)		15168.9	
	8 (Cab.Pret.-2)		15168.9	
	9 (Cab.Pret.-4)		12515.1	
3(izq)	1 (Hormigon-1)	-136.0	-125.4	-105.5
	2 (Hormigon-2)	-7.4	-7.9	-8.3
	3 (Arm.Pasiva)	-1979.1	-1468.4	-696.4
	7 (Cab.Pret.-1)		14477.9	
	8 (Cab.Pret.-2)		14477.9	
	9 (Cab.Pret.-3)		14477.9	
	10 (Cab.Pret.-4)		12909.9	
3(der)	1 (Hormigon-1)	-96 0	-119.4	-163.7
	2 (Hormigon-2)	-12.7	-13.9	-15.1
	3 (Arm.Pasiva)	-1690.2	-1490.8	-1189.4
	7 (Cab.Pret.-1)		14703.0	
	8 (Cab.Pret.-2)		14703.0	
	9 (Cab.Pret.-3)		14703.0	
	10 (Cab.Pret.-4)		12520.0	
4(izq)	1 (Hormigon-1)	-96.0	-119.4	-163.7
	2 (Hormigon-2)	-12.7	-13.9	-15.1
	3 (Arm.Pasiva)	-1690.2	-1490.8	-1189.4
	7 (Cab.Pret.-1)		14703.0	
	8 (Cab.Pret.-2)		14703.0	
	9 (Cab.Pret.-3)		14703.0	
	10 (Cab.Pret.-4)		12520.0	
4(der)	1 (Hormigon-1)	-136.0	-125.4	-105.5
	2 (Hormigon-2)	-7.4	-7.9	-8.3
	3 (Arm.Pasiva)	-1979.1	-1468.4	-696.4
	7 (Cab.Pret.-1)		14477.9	
	8 (Cab.Pret.-2)		14477.9	
	9 (Cab.Pret.-3)		14477.9	
	10 (Cab.Pret.-4)		12909.9	
5(izq)	1 (Hormigon-1)	-50.6	-85.4	-151.2
	2 (Hormigon-2)	-7.8	-8.6	-9.3
	3 (Arm.Pasiva)	-1004.6	-1099.1	-1242.0
	7 (Cab.Pret.-1)		15168.9	
	8 (Cab.Pret.-2)		15168.9	
	9 (Cab.Pret.-4)		12515.1	
5(der)	1 (Hormigon-1)	-103.0	-93.8	-76.4
	2 (Hormigon-2)	-1.2	-1.0	-.8
	3 (Arm.Pasiva)	-1387.4	-1075.4	-603.7
	7 (Cab.Pret.-1)		14874.0	
	8 (Cab.Pret.-2)		14874.0	
	9 (Cab.Pret.-4)		13019.6	
6(izq)	1 (Hormigon-1)	14.6	-69.7	-229.4
	3 (Arm.Pasiva)	-31.1	-989.1	-2437.3
	4 (Arm.Pasiva)	-114.0	-114.4	-114.9
	7 (Cab.Pret.-1)		15802.2	
	8 (Cab.Pret.-4)		11648.5	
	9 (Cab.Pret.-6)		11615.5	
6(der)	1 (Hormigon-1)	-120.7	-84.1	-14.8
	3 (Arm.Pasiva)	-982.5	-918.9	-822.7
	4 (Arm.Pasiva)	337.3	340.7	344.3
	7 (Cab.Pret.-1)		15072.6	
	8 (Cab.Pret.-4)		12966.2	
	9 (Cab.Pret.-6)		12933.9	

Nota 1: Las tensiones se refieren a los extremos del elemento excluyendo zonas rigidas en nudos de tamaño finito
Nota 2: Las tensiones en armaduras activas se dan en la direccion del cable
Nota 3: (*) indica armaduras activas no inyectadas

** REACCIONES EXTERIORES **

Nudo	Fx(T)	Fy(T)	M(mT)
1	-0.000	266.510	638.140
7	0.000	266.510	-638.140

Nota:Se han controlado Errores de Cierre en Nudos y Reacciones(respecto a [0,0])...(<1%)

***** DIFEV (RESULTADOS) *****

Proyecto:V. DE LOS CHORROS
Comentario:ESTUDIO DIFERIDO

***** FASE 8 INTERVALO 8 *****
Titulo:FASE 8. REDISTRIBUCION 20000 DIAS
Ti(dias): 226 Tf(dias):20226

Analisis CON Efectos Diferidos

**** MOVIMIENTOS NUDOS (Ejes Generales) ****

Nudo	U (m.)	V (m.)	ø (rad.)
1	0.0000	0.0000	-.000014
2	-.0048	.0014	.000969
3	-.0073	.0049	.000931
4	-.0124	.0078	-0.000000
5	-.0175	.0049	-.000931
6	-.0200	.0014	-.000969
7	-.0248	0.0000	.000014

**** ESFUERZOS ELEMENTOS (Ejes Locales) ****

Elemento	Nudo-izq.	Nudo-der.	Axil(T)	Cortante(T)	Flector(mT)	
1	1	2	0.000	-266.510	-939.588	(i)
			0.000	-220.985	-208.346	(c)
			0.000	-175.460	386.322	(d)
2	2	3	0.000	-175.460	386.322	(i)
			0.000	-145.110	706.892	(c)
			0.000	-114.760	966.762	(d)
3	3	4	0.000	-114.760	966.762	(i)
			0.000	-57.380	1311.042	(c)
			0.000	-0.000	1425.802	(d)
4	4	5	0.000	-0.000	1425.802	(i)
			0.000	57.380	1311.042	(c)
			0.000	114.760	966.762	(d)
5	5	6	-0.000	114.760	966.762	(i)
			-0.000	145.110	706.892	(c)
			-0.000	175.460	386.322	(d)
6	6	7	-0.000	175.460	386.322	(i)
			-0.000	220.985	-208.346	(c)
			-0.000	266.510	-939.588	(d)

Nota: Los esfuerzos se refieren a los extremos del elemento
excluyendo zonas rigidas en nudos de tamaño finito

**** TENSIONES EN S.PARCIALES (Kg/cm2) ****

Elemento	Seccion Parcial		Tinf.	Tcdg.	Tsup.
1(izq)	1	(Hormigon-1)	-140.3	-83.7	23.5
	3	(Arm.Pasiva)	-1394.6	-1114.3	-690.7
	4	(Arm.Pasiva)	524.7	531.1	536.0
	7	(Cab.Pret.-1)		13809.0	
	8	(Cab.Pret.-4)		12637.2	
	9	(Cab.Pret.-5)		12610.6	
1(der)	1	(Hormigon-1)	-9.5	-66.8	-175.3
	3	(Arm.Pasiva)	-350.7	-1150.7	-2380.1
	4	(Arm.Pasiva)	-18.5	-16.8	-15.0
	7	(Cab.Pret.-1)		14431.0	
	8	(Cab.Pret.-4)		11458.5	
	9	(Cab.Pret.-5)		11430.0	
2(izq)	1	(Hormigon-1)	-98.1	-102.5	-110.7
	2	(Hormigon-2)	13.0	12.0	11.0
	3	(Arm.Pasiva)	-1583.0	-1338.6	-969.2
	7	(Cab.Pret.-1)		13850.7	
	8	(Cab.Pret.-2)		13850.7	
	9	(Cab.Pret.-4)		12228.4	
2(der)	1	(Hormigon-1)	-46.0	-93.5	-183.5
	2	(Hormigon-2)	6.2	4.1	2.1
	3	(Arm.Pasiva)	-1163.1	-1346.1	-1622.7
	7	(Cab.Pret.-1)		14106.9	
	8	(Cab.Pret.-2)		14106.9	
	9	(Cab.Pret.-4)		11796.1	
3(izq)	1	(Hormigon-1)	-128.0	-131.5	-138.2
	2	(Hormigon-2)	6.5	4.7	2.9
	3	(Arm.Pasiva)	-2133.7	-1713.3	-1077.6
	7	(Cab.Pret.-1)		13584.2	
	8	(Cab.Pret.-2)		13584.2	
	9	(Cab.Pret.-3)		13584.2	
	10	(Cab.Pret.-4)		12124.2	
3(der)	1	(Hormigon-1)	-88.1	-125.0	-194.9
	2	(Hormigon-2)	1.1	-1.6	-4.2
	3	(Arm.Pasiva)	-1815.5	-1722.9	-1582.8
	7	(Cab.Pret.-1)		13784.2	
	8	(Cab.Pret.-2)		13784.2	
	9	(Cab.Pret.-3)		13784.2	
	10	(Cab.Pret.-4)		11789.1	
4(izq)	1	(Hormigon-1)	-88.1	-125.0	-194.9
	2	(Hormigon-2)	1.1	-1.6	-4.2
	3	(Arm.Pasiva)	-1815.5	-1722.9	-1582.8
	7	(Cab.Pret.-1)		13784.2	
	8	(Cab.Pret.-2)		13784.2	
	9	(Cab.Pret.-3)		13784.2	
	10	(Cab.Pret.-4)		11789.1	
4(der)	1	(Hormigon-1)	-128.0	-131.5	-138.2
	2	(Hormigon-2)	6.5	4.7	2.9
	3	(Arm.Pasiva)	-2133.7	-1713.3	-1077.6
	7	(Cab.Pret.-1)		13584.2	
	8	(Cab.Pret.-2)		13584.2	

	9 (Cab.Pret.-3)		13584.2	
	10 (Cab.Pret.-4)		12124.2	
5(izq)	1 (Hormigon-1)	-46.0	-93.5	-183.5
	2 (Hormigon-2)	6.2	4.1	2.1
	3 (Arm.Pasiva)	-1163.1	-1346.1	-1622.7
	7 (Cab.Pret.-1)		14106.9	
	8 (Cab.Pret.-2)		14106.9	
	9 (Cab.Pret.-4)		11796.1	
5(der)	1 (Hormigon-1)	-98.1	-102.5	-110.7
	2 (Hormigon-2)	13.0	12.0	11.0
	3 (Arm.Pasiva)	-1583.0	-1338.6	-969.2
	7 (Cab.Pret.-1)		13850.7	
	8 (Cab.Pret.-2)		13850.7	
	9 (Cab.Pret.-4)		12228.4	
6(izq)	1 (Hormigon-1)	-9.5	-66.8	-175.3
	3 (Arm.Pasiva)	-350.7	-1158.7	-2380.1
	4 (Arm.Pasiva)	-18.5	-16.8	-15.0
	7 (Cab.Pret.-1)		14431.0	
	8 (Cab.Pret.-4)		11458.5	
	9 (Cab.Pret.-6)		11430.0	
6(der)	1 (Hormigon-1)	-140.3	-83.7	23.5
	3 (Arm.Pasiva)	-1394.6	-1114.3	-690.7
	4 (Arm.Pasiva)	524.7	531.1	538.0
	7 (Cab.Pret.-1)		13809.0	
	8 (Cab.Pret.-4)		12637.2	
	9 (Cab.Pret.-6)		12610.6	

Nota 1: Las tensiones se refieren a los extremos del elemento excluyendo zonas rigidas en nudos de tamaño finito
Nota 2: Las tensiones en armaduras activas se dan en la direccion del cable
Nota 3: (*) indica armaduras activas no inyectadas

** REACCIONES EXTERIORES **

Nudo	Fx(T)	Fy(T)	M(mT)
1	-0.000	266.510	939.580
7	0.000	266.510	-939.585

Nota: Se han controlado Errores de Cierre en Nudos y Reacciones (respecto a [0,0])...(<1%)

FICHERO DATOS:
/DDIFEV/DCHORROS/DG/FASE1
Lineas Almacenadas: 142

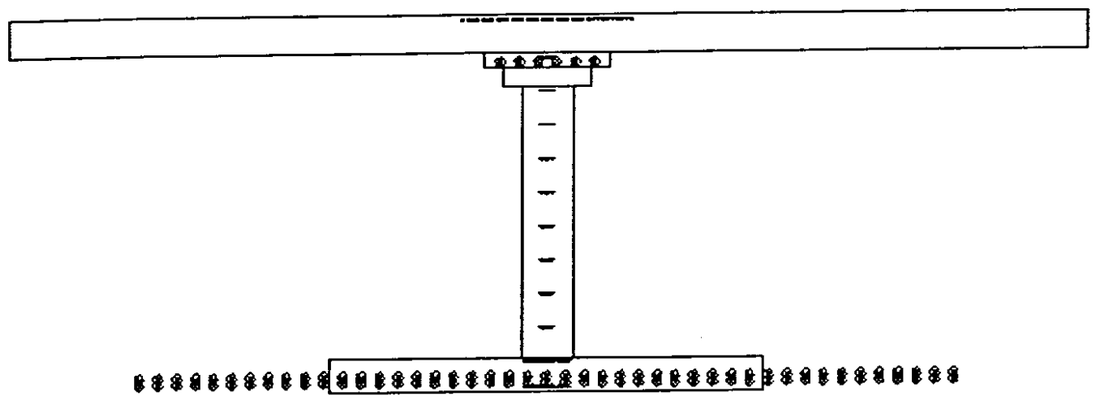
Comentarios:
ESTUDIO DIFERIDO

LISTADO DATOS:

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0001**VISADO DE LOS PROYECTOS*
0002*ESTUDIO DIFERIDO
0003**FASE*
0004*PESO PROPIO
0005*0
0006*1,1,1,NFAS1
0007*1,0,1,1,0,0,1,0
0008**ELEMENTOS*
0009*1,1,2,1
0010*1,3
0011*-2
0012*2,2,3,2
0013*1,3
0014*-2
0015*3,3,4,3
0016*1,3
0017*-2
0018*4,4,5,2
0019*1,3
0020* 2
0021*5,5,6,2
0022*1,3
0023* 2
0024*6,6,7,1
0025*1,3
0026* 2
0027*0
0028**VINCULACIONES*
0029*1,
0030*1,1,0
0031*7,
0032*7,1,0
0033*0
0034**PRETENSADO*
0035*1,1,7,1,6
0036*-.0042,726
0037*2.4
0038*2,1,7,2,5
0039*-.0042,726
0040*2.4
0041*3,1,7,3,4
0042*-.0042,726
0043*2.4
0044*4,1,7,1,6
0045*-.00084,120
0046*0.3
0047*5,1,7,1,1
0048*-.00252,359
0049*.3
0050*6,1,7,6,6
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0051*
0052*
0053*
0054**
0055*
005e*
0057*
0058*
0059*
0060**
0061*1
0062**FASE*
0063*FASE 7. PP VIGAS DIFERIDO
0064*-15
0065*1,1,1,RFAS1
0066*0
0067**CALCULO NUEVA FASE*
0068*1
0069**FASE*
0070*FASE 8. CARGA DE LOSA
0071*0
0072*1,1,1,RFAS1
0073*0,0,0,0,0,0,1,0
0074**ACCIONES EN ELEMENTOS*
0075*
0076*
0077*0
0078*
0079*,
0080**FASE*
0081*
0082*
0083*
0084*
0085*
0086*
0087*
0088*
0089*,
0090*1
0091*
0092*
0093*15
0094*
0095*2
0096*15
0097*5
0098*2
0099*15
0100*0
0101*4
0102*0
0103**VINCULACIONES*
0104*1
0105*1,1,1
0106*7
0107*0,1,1
0108*
0109**CALCULO NUEVA FASE*
0110*1
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0111**FASE*
0112*FASE 9. REDISTRIBUCION 1 DIA
0113*-1
0114*1,1,1,RFAS1
0115*0
0116**CALCULO NUEVA FASE*
0117*1
0118**FASE*
0119*FASE 6. REDISTRIBUCION HASTA 210 DIAS
0120*-210
0121*1,1,1,RFAS1
0122*0
0123**CALCULO NUEVA FASE*
0124*1
0125**FASE*
0126*FASE 7. CARGA MUERTA. INSTANTANEA
0127*0
0128*1,1,1,RFAS1
0129*0,0,0,0,0,0,1,0
0130**ACCIONES EN ELEMENTOS*
0131*-1,1,6,17
0132*-2,6
0133*0
0134**CALCULO NUEVA FASE*
0135*1
0136**FASE*
0137*FASE 8. REDISTRIBUCION 20000 DIAS
0138*-20000
0139*1,1,1,RFAS1
0140*0
0141**CALCULO NUEVA FASE*
0142*0
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Esquema Seccion

* CONSTANTES ESTATICAS *

Título Sección: CV36

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	3061.1	23.96	7678712.0
	(1)	1395.6	39.65	7000337.6
	(2)	1740.2	34.15	7224241.3
F.pura -	(0)	1489.1	218.85	4484277.4
	(1)	710.6	201.32	4054129.0
	(2)	855.9	207.01	4189669.5
C.Simple	(0)	5793.8	89.50	52490906.8
	(1)	2196.5	91.29	20613143.8
	(2)	2861.5	90.33	26478363.4
T.Simple	(0)	265.3	150.25	2912779.5
	(1)	265.3	150.25	2912779.5
	(2)	265.3	150.25	2912779.5

S.Intermedia AA ARMADURA PASIVA VIGA ARTESA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	70.1	165.28	372189.0
	(1)	70.1	165.28	372189.0
	(2)	70.1	165.28	372189.0
F.pura -	(0)	70.1	165.28	372189.0
	(1)	70.1	165.28	372189.0
	(2)	70.1	165.28	372189.0
C.Simple	(0)	70.1	165.28	372189.0
	(1)	70.1	165.28	372189.0
	(2)	70.1	165.28	372189.0
Simple	(0)	70.1	165.28	372189.0
	(1)	70.1	165.28	372189.0
	(2)	70.1	165.28	372189.0

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

* CONSTANTES ESTATICAS *

Título Sección: CV36

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	3061.1	23.96	7678712.0
	(1)	1395.6	39.65	7000337.6
	(2)	1740.2	34.15	7224241.3
.pura -	(0)	1489.1	218.85	4484277.4
	(1)	710.6	201.32	4054129.0
	(2)	855.9	207.01	4189669.5

C.Simple	(0)	5793.8	89.50	52490906.8
	(1)	2196.5	91.29	20613143.8
	(2)	2861.5	90.33	26478363.4
T.Simple	(0)	265.3	150.25	2912779.5
	(1)	265.3	150.25	2912779.5
	(2)	265.3	150.25	2912779.5

S.Intermedia AL ARMADURA FASE LOSA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	70.4	3.30	15.0
	(1)	70.4	3.30	15.0
	(2)	70.4	3.30	15.0
F.pura -	(0)	70.4	3.30	15.0
	(1)	70.4	3.30	15.0
	(2)	70.4	3.30	15.0
C.Simple	(0)	70.4	3.30	15.0
	(1)	70.4	3.30	15.0
	(2)	70.4	3.30	15.0
T.Simple	(0)	70.4	3.30	15.0
	(1)	70.4	3.30	15.0
	(2)	70.4	3.30	15.0

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

* CONSTANTES ESTATICAS *

Título Sección: CV36

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	3061.1	23.96	7678712.0
	(1)	1395.6	39.65	7000337.6
	(2)	1740.2	34.15	7224241.3
F.pura -	(0)	1489.1	218.85	4484277.4
	(1)	710.6	201.32	4054129.0
	(2)	855.9	207.01	4189669.5
C.Simple	(0)	5793.8	89.50	52490906.8
	(1)	2196.5	91.29	20613143.8
	(2)	2861.5	90.33	26478363.4
T.Simple	(0)	265.3	150.25	2912779.5
	(1)	265.3	150.25	2912779.5
	(2)	265.3	150.25	2912779.5

S.Intermedia VA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	761.2	90.34	4403646.9
	(1)	458.0	125.22	3162087.1
	(2)	523.8	114.94	3516320.4
F.pura -	(0)	960.2	230.93	1043555.7
	(1)	576.8	223.94	983782.8
	(2)	663.3	226.07	1001246.6
Simple	(0)	2806.8	171.67	15573887.2
	(1)	1065.5	175.52	5868475.0
	(2)	1382.1	174.10	7637889.2
T.Simple	(0)	194.9	203.31	844374.1
	(1)	194.9	203.31	844374.1
	(2)	194.9	203.31	844374.1

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

* CONSTANTES ESTATICAS *

Título Sección: CV36

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
pura +	(0)	3061.1	23.96	7678712.0
	(1)	1395.6	39.65	7000337.6
	(2)	1740.2	34.15	7224241.3
F.pura -	(0)	1489.1	218.85	4484277.4
	(1)	710.6	201.32	4054129.0
	(2)	855.9	207.01	4189669.5
C.Simple	(0)	5793.8	89.50	52490906.8
	(1)	2196.5	91.29	20613143.8
	(2)	2861.5	90.33	26478363.4
T.Simple	(0)	265.3	150.25	2912779.5
	(1)	265.3	150.25	2912779.5
	(2)	265.3	150.25	2912779.5

S.Intermedia HA HORMIGON VIGA ARTEFA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	0.0	0.00	0.0
	(1)	0.0	0.00	0.0
	(2)	0.0	0.00	0.0
F.pura -	(0)	0.0	0.00	0.0
	(1)	0.0	0.00	0.0
	(2)	0.0	0.00	0.0
C.Simple	(0)	2611.9	169.30	14519750.4
	(1)	870.6	169.30	4839916.8
	(2)	1187.2	169.30	6599886.6
T.Simple	(0)	0.0	0.00	0.0
	(1)	0.0	0.00	0.0
	(2)	0.0	0.00	0.0

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

* CONSTANTES ESTATICAS *

Título Sección: CV36

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	3061.1	23.96	7678712.0
	(1)	1395.6	39.65	7000337.6
	(2)	1740.2	34.15	7224241.3
F.pura -	(0)	1489.1	218.85	4484277.4
	(1)	710.6	201.32	4054129.0
	(2)	855.9	207.01	4189669.5
C.Simple	(0)	5793.8	89.50	52490906.8
	(1)	2196.5	91.29	20613143.8
	(2)	2861.5	90.33	26478363.4
T.Simple	(0)	265.3	150.25	2912779.5
	(1)	265.3	150.25	2912779.5
	(2)	265.3	150.25	2912779.5

ntermedia HL HORMIGÓN LOSA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	0.0	0.00	0.0
	(1)	0.0	0.00	0.0
	(2)	0.0	0.00	0.0
F.pura -	(0)	0.0	0.00	0.0
	(1)	0.0	0.00	0.0
	(2)	0.0	0.00	0.0
C.Simple	(0)	2916.7	12.50	151909.7
	(1)	1060.6	12.50	55239.9
	(2)	1409.0	12.50	73386.3
T.Simple	(0)	0.0	0.00	0.0
	(1)	0.0	0.00	0.0
	(2)	0.0	0.00	0.0

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

* CONSTANTES ESTATICAS *

Título Sección: CV36

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	3061.1	23.96	7678712.0
	(1)	1395.6	39.65	7000337.6
	(2)	1740.2	34.15	7224241.3
F.pura -	(0)	1489.1	218.85	4484277.4
	(1)	710.6	201.32	4054129.0
	(2)	855.9	207.01	4189669.5
.Simple	(0)	5793.8	89.50	52490906.8
	(1)	2196.5	91.29	20613143.8
	(2)	2861.5	90.33	26478363.4
T.Simple	(0)	265.3	150.25	2912779.5
	(1)	265.3	150.25	2912779.5
	(2)	265.3	150.25	2912779.5

S.Intermedia PS PRETENSADO SUPERIOR VIGA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	7.8	30.67	1.2
	(1)	7.8	30.67	1.2
	(2)	7.8	30.67	1.2
F.pura -	(0)	7.8	30.67	1.2
	(1)	7.8	30.67	1.2
	(2)	7.8	30.67	1.2
C.Simple	(0)	7.8	30.67	1.2
	(1)	7.8	30.67	1.2
	(2)	7.8	30.67	1.2
T.Simple	(0)	7.8	30.67	1.2
	(1)	7.8	30.67	1.2
	(2)	7.8	30.67	1.2

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

* CONSTANTES ESTATICAS *

Título Sección: CV36

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	3061.1	23.96	7678712.0
	(1)	1395.6	39.65	7000337.6
	(2)	1740.2	34.15	7224241.3
F.pura -	(0)	1489.1	218.85	4484277.4
	(1)	710.6	201.32	4054129.0
	(2)	855.9	207.01	4189669.5
C.Simple	(0)	5793.8	89.50	52490906.8
	(1)	2196.5	91.29	20613143.8
	(2)	2861.5	90.33	26478363.4
T.Simple	(0)	265.3	150.25	2912779.5
	(1)	265.3	150.25	2912779.5
	(2)	265.3	150.25	2912779.5

S.Intermedia PI PRETENSADO INFERIOR VIGA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	117.0	237.62	663.4
	(1)	117.0	237.62	663.4
	(2)	117.0	237.62	663.4
F.pura -	(0)	117.0	237.62	663.4
	(1)	117.0	237.62	663.4
	(2)	117.0	237.62	663.4
C.Simple	(0)	117.0	237.62	663.4

	(1)	117.0	237.62	663.4
	(2)	117.0	237.62	663.4
imple	(0)	117.0	237.62	663.4
	(1)	117.0	237.62	663.4
	(2)	117.0	237.62	663.4

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

Proyecto:

Seccion:APOYO INTERMEDIO X=1.5

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	Jø1	Jø2
1(HO)	600.0	1.40	408160	2.00	1.20
2(HO)	350.0	1.50	350000	1.75	1.07
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.10	1950000		
5(AE)	8500.0	1.15	2100000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) ø(mm)	Yo(cm)	Mc	Nsr
	2	490.0	25.0	0.0	C*	0
2	1	81.6	10.0	25.0	C*	0
3	1	56.0	12.0	35.0	C*	0
4	1	32.9	176.0	47.0	C*	0
5	1	280.0	22.0	223.0	C*	0
6	3	78.0	25.0	2.5	CT	0
7	3	8.0	12.0	27.5	CT	0
8	3	4.0	12.0	49.0	CT	0
9	3	4.0	12.0	71.0	CT	0
10	3	4.0	12.0	93.0	CT	0
11	3	4.0	12.0	115.0	CT	0
12	3	4.0	12.0	137.0	CT	0
13	3	4.0	12.0	159.0	CT	0
14	3	4.0	12.0	181.0	CT	0
15	3	4.0	12.0	203.0	CT	0
16	3	13.0	12.0	225.0	CT	0
17	3	13.0	12.0	241.8	CT	0
18	4	6.0	13.4	30.0	*T	0
19	4	15.0	13.4	234.6	*T	0
	4	15.0	13.4	239.3	*T	0
21	4	18.0	13.4	36.5	*T	0

SECCIONES INTERMEDIAS

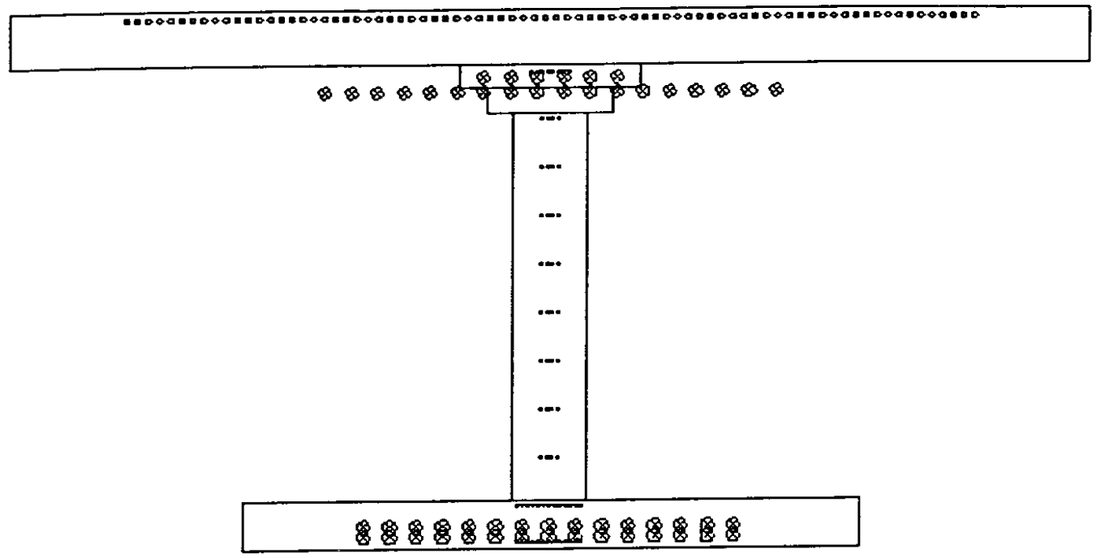
Num.	Codigo	Componentes
1	VN	2 3 4 5 7 8 9 10 11 12 13 14 15 16 17
2	VA	2 3 4 5 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
3	HA	2 3 4 5
4	HL	1
5	HT	1 2 3 4 5
6	AA	7 8 9 10 11 12 13 14 15 16 17
7	AL	6
9	PS	18 21
9	PI	19 20

* CONSTANTES ESTATICAS *

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F.pura +	(0)	2030.0	18.40	4020917.8
	(1)	1274.5	25.83	3845738.7
	(2)	1461.1	23.66	3894762.7
F.pura -	(0)	2002.8	179.55	16875298.3
	(1)	1114.3	135.04	12215543.6
	(2)	1289.0	148.31	13589109.0
C.Simple	(0)	5181.3	94.81	47773594.9
	(1)	2140.8	84.18	19318911.9
	(2)	2701.3	87.68	24605592.6
T.Simple	(0)	527.7	44.58	3489571.7
	(1)	527.7	44.58	3489571.7
	(2)	527.7	44.58	3489571.7

* Nota: Homogeneizadas a E=2100000 Kp/cm2 ***



Esquema Seccion

?

* CONSTANTES ESTATICAS *

Título Sección: APOYO INTERMEDIO X=1.5

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2030.0	18.40	4020917.8
	(1)	1274.5	25.83	3845738.7
	(2)	1461.1	23.66	3894762.7
F.pura -	(0)	2002.8	179.55	16875298.3
	(1)	1114.3	135.04	12215543.6
	(2)	1289.0	148.31	13589109.0
C.Simple	(0)	5181.3	94.81	47773594.9
	(1)	2140.8	84.18	19318911.9
	(2)	2701.3	87.68	24605592.6
T.Simple	(0)	527.7	44.58	3489571.7
	(1)	527.7	44.58	3489571.7
	(2)	527.7	44.58	3489571.7

S.Intermedia AA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	74.6	156.97	452166.8
	(1)	74.6	156.97	452166.8
	(2)	74.6	156.97	452166.8
F.pura -	(0)	74.6	156.97	452166.8
	(1)	74.6	156.97	452166.8
	(2)	74.6	156.97	452166.8
C.Simple	(0)	74.6	156.97	452166.8
	(1)	74.6	156.97	452166.8
	(2)	74.6	156.97	452166.8
Simple	(0)	74.6	156.97	452166.8
	(1)	74.6	156.97	452166.8
	(2)	74.6	156.97	452166.8

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

* CONSTANTES ESTATICAS *

Título Sección: APOYO INTERMEDIO X=1.5

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2030.0	18.40	4020917.8
	(1)	1274.5	25.83	3845738.7
	(2)	1461.1	23.66	3894762.7
.pura -	(0)	2002.8	179.55	16875298.3
	(1)	1114.3	135.04	12215543.6
	(2)	1289.0	148.31	13589109.0
C.Simple	(0)	5181.3	94.81	47773594.9
	(1)	2140.8	84.18	19318911.9
	(2)	2701.3	87.68	24605592.6
.Simple	(0)	527.7	44.58	3489571.7
	(1)	527.7	44.58	3489571.7
	(2)	527.7	44.58	3489571.7

S.Intermedia AL

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	382.9	3.75	199.4
	(1)	382.9	3.75	199.4
	(2)	382.9	3.75	199.4
F.pura -	(0)	382.9	3.75	199.4
	(1)	382.9	3.75	199.4
	(2)	382.9	3.75	199.4
C.Simple	(0)	382.9	3.75	199.4
	(1)	382.9	3.75	199.4
	(2)	382.9	3.75	199.4
T.Simple	(0)	382.9	3.75	199.4
	(1)	382.9	3.75	199.4
	(2)	382.9	3.75	199.4

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

* CONSTANTES ESTATICAS *

Título Sección: APOYO INTERMEDIO X=1.5

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2030.0	18.40	4020917.8
	(1)	1274.5	25.83	3845738.7
	(2)	1461.1	23.66	3894762.7
F.pura -	(0)	2002.8	179.55	16875298.3
	(1)	1114.3	135.04	12215543.6
	(2)	1289.0	148.31	13589109.0
C.Simple	(0)	5181.3	94.81	47773594.9
	(1)	2140.8	84.18	19318911.9
	(2)	2701.3	87.68	24605592.6
T.Simple	(0)	527.7	44.58	3489571.7
	(1)	527.7	44.58	3489571.7
	(2)	527.7	44.58	3489571.7

S.Intermedia HA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	0.0	0.00	0.0
	(1)	0.0	0.00	0.0
	(2)	0.0	0.00	0.0
F.pura -	(0)	0.0	0.00	0.0

	(1)	0.0	0.00	0.0
	(2)	0.0	0.00	0.0
Simple	(0)	2611.9	169.30	14519750.4
	(1)	870.6	169.30	4839916.8
	(2)	1187.2	169.30	6599886.6
T.Simple	(0)	0.0	0.00	0.0
	(1)	0.0	0.00	0.0
	(2)	0.0	0.00	0.0

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

* CONSTANTES ESTATICAS *

Título Sección: APOYO INTERMEDIO X=1.5

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
pura +	(0)	2030.0	18.40	4020917.8
	(1)	1274.5	25.83	3845738.7
	(2)	1461.1	23.66	3894762.7
F.pura -	(0)	2002.8	179.55	16875298.3
	(1)	1114.3	135.04	12215543.6
	(2)	1289.0	148.31	13589109.0
C.Simple	(0)	5181.3	94.81	47773594.9
	(1)	2140.8	84.18	19318911.9
	(2)	2701.3	87.68	24605592.6
T.Simple	(0)	527.7	44.58	3489571.7
	(1)	527.7	44.58	3489571.7
	(2)	527.7	44.58	3489571.7

S.Intermedia HL

'po	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
:pura +	(0)	0.0	0.00	0.0
	(1)	0.0	0.00	0.0
	(2)	0.0	0.00	0.0
F.pura -	(0)	0.0	0.00	0.0
	(1)	0.0	0.00	0.0
	(2)	0.0	0.00	0.0
C.Simple	(0)	2041.7	12.50	106336.8
	(1)	742.4	12.50	38667.9
	(2)	986.3	12.50	51370.4
T,Simple	(0)	0.0	0.00	0.0
	(1)	0.0	0.00	0.0
	(2)	0.0	0.00	0.0

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

* CONSTANTES ESTATICAS *

Título Sección: APOYO INTERMEDIO X=1.5

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
ipo F:pura +	(0)	2030.0	18.40	4020917.8
	(1)	1274.5	25.83	3845738.7
	(2)	1461.1	23.66	3894762.7
F.pura -	(0)	2002.8	179.55	16875298.3
	(1)	1114.3	135.04	12215543.6
	(2)	1289.0	148.31	13589109.0
C.Simple	(0)	5181.3	94.81	47773594.9
	(1)	2140.8	84.18	19318911.9
	(2)	2701.3	87.68	24605592.6
T.Simple	(0)	527.7	44.58	3489571.7
	(1)	527.7	44.58	3489571.7
	(2)	527.7	44.58	3489571.7

ntermedia PS

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	31.2	35.54	251.8
	(1)	31.2	35.54	251.8
	(2)	31.2	35.54	251.8
F.pura -	(0)	31.2	35.54	251.8
	(1)	31.2	35.54	251.8
	(2)	31.2	35.54	251.8
C.Simple	(0)	31.2	35.54	251.8
	(1)	31.2	35.54	251.8
	(2)	31.2	35.54	251.8
T.Simple	(0)	31.2	35.54	251.8
	(1)	31.2	35.54	251.8
	(2)	31.2	35.54	251.8

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

* CONSTANTES ESTATICAS *

Título Sección: APOYO INTERMEDIO X=1.5

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2030.0	18.40	4020917.8
	(1)	1274.5	25.83	3845738.7
	(2)	1461.1	23.66	3894762.7
F.pura -	(0)	2002.8	179.55	16875298.3
	(1)	1114.3	135.04	12215543.6
	(2)	1289.0	148.31	13589109.0
.Simple	(0)	5181.3	94.81	47773594.9
	(1)	2140.8	84.18	19318911.9
	(2)	2701.3	87.68	24605592.6

T.Simple	(0)	527.7	44.58	3489571.7
	(1)	527.7	44.58	3489571.7
	(2)	527.7	44.58	3489571.7

S.Intermedia PI

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	39.0	237.62	221.1
	(1)	39.0	237.62	221.1
	(2)	39.0	237.62	221.1
F.pura -	(0)	39.0	237.62	221.1
	(1)	39.0	237.62	221.1
	(2)	39.0	237.62	221.1
C.Simple	(0)	39.0	237.62	221.1
	(1)	39.0	237.62	221.1
	(2)	39.0	237.62	221.1
T.Simple	(0)	39.0	237.62	221.1
	(1)	39.0	237.62	221.1
	(2)	39.0	237.62	221.1

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

SUBANEJO N° 9

CALCULO DINAMICO

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Thu Jan 28 14:04:12 1999

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```
{    1} >          STRUDL 'VIADUCTO DE LOS CHORROS' 'VIGA CONTINUA, 1- 3 - 1'
```

```
*****************************************************************
*                                                               *
*   ******                    G T S T R U D L                   *
*  ********                                                     *
*  **    **                                                     *
*  **          ******  ******  ******  **  **  ******  **       *
*  **  **********  ******  ******  ******  **  **  ******  **     *
*  **  **********  **      **    **  **  **  **  **  **  **     *
*  **    ****      ******  **    ******  **  **  **  **  **     *
*  **********      ******  **    ******  **  **  **  **  **     *
*   ******  **         **  **    **  **  **  **  **  **  **     *
*          **      ******  **    **  **  ******  ******  ******  *
*          **      ******  **    **  **  ******  ******  ******  *
*          **                                                   *
*          **                OWNED BY AND PROPRIETARY TO THE    *
*          **                GEORGIA TECH RESEARCH CORPORATION  *
*                                                               *
*  RELEASE DATE         VERSION             COMPLETION NO.      *
*  February 1995        9401 PC               3276              *
*                                                               *
*****************************************************************
```

```
**** ACTIVE UNITS -  LENGTH   WEIGHT   ANGLE     TEMPERATURE   TIME
**** ASSUMED TO BE     INCH    POUND   RADIAN     FAHRENHEIT    SECOND

{    2} > $
{    3} > $                  ANALISIS DINAMICO: MODOS PROPIOS
{    4} > $
{    5} > UNITS M MTONS
{    6} > TYPE PLANE FRAME XY
{    7} > OUTPUT ORDERED
{    8} > PRINT GENERATE OFF
{    9} >
{   10} > JOINT COORDINATES
{   11} >
{   12} > 1  0.0
{   13} > 2  1.467
{   14} > 3  2.933
{   15} > 4  4.40
{   16} > 5  5.867
{   17} > 6  7.333
{   18} > 7  8.800
{   19} > 8  10.267
{   20} > 9  11.733
{   21} > 10 13.20
{   22} > 11 14.667
{   23} > 12 16.133
{   24} > 13 17.600
{   25} > 14 19.067
{   26} > 15 20.533
{   27} > 16 22.0
{   28} > 17 24.4
{   29} > 18 26.8
{   30} > 19 29.2
{   31} > 20 31.6
{   32} > 21 34.0
{   33} > 22 36.4
{   34} > 23 38.8
{   35} > 24 41.2
{   36} > 25 43.6
{   37} > 26 46.0
{   38} > 27 48.4
{   39} > 28 50.8
{   40} > 29 53.2
{   41} > 30 55.6
{   42} > 31 58.0
{   43} > 32 60.4
{   44} > 33 62.8
{   45} > 34 65.2
{   46} > 35 67.6
{   47} > 36 70.0
{   48} > 37 72.4
{   49} > 38 74.8
{   50} > 39 77.2
{   51} > 40 79.6
{   52} > 41 82.0
{   53} > 42 84.4
{   54} > 43 86.8
{   55} > 44 89.2
{   56} > 45 91.6
{   57} > 46 94.0
{   58} > 47 96.4
{   59} > 48 98.8
{   60} > 49 101.2
{   61} > 50 103.6
{   62} > 51 106.0
{   63} > 52 108.4
{   64} > 53 110.8
{   65} > 54 113.2
{   66} > 55 115.6
{   67} > 56 118.0
{   68} > 57 120.4
{   69} > 58 122.8
{   70} > 59 125.2
{   71} > 60 127.6
{   72} > 61 130.0
{   73} > 62 131.467
{   74} > 63 132.933
{   75} > 64 134.4
{   76} > 65 135.867
{   77} > 66 137.333
{   78} > 67 138.8
{   79} > 68 140.267
{   80} > 69 141.733
{   81} > 70 143.2
{   82} > 71 144.667
{   83} > 72 146.133
{   84} > 73 147.6
```

```
{   85} > 74 149.067
{   86} > 75 150.533
{   87} > 76 152.0
{   88} >
{   89} > $ PRINT JOINT COORDINATES
{   90} >
{   91} > STATUS SUPPORT JOINT 1 16 31 46 61 76
{   92} >
{   93} > JOINT RELEASES
{   94} > 1 16 31 46 61 76 MOMENT Z
{   95} > 16 31 46 61 76 FORCE X
{   96} >
{   97} > CONSTANTS
{   98} > E 4.0E10 MEMBER ALL
{   99} > POISON 0.2 MEMBER ALL
{  100} > $ CTE 0.000012 MEMBER ALL
{  101} >
{  102} > MEMBER PROPERTIES PRISMATIC
{  103} >
{  104} > $ APOYOS
{  105} >
{  106} > 14 TO 17 AX 6.5000 IZ 1.974
{  107} > 29 TO 32 AX 6.5000 IZ 1.974
{  108} > 44 TO 47 AX 6.5000 IZ 1.974
{  109} > 59 TO 62 AX 6.5000 IZ 1.974
{  110} >
{  111} > $ ZONA INTERMEDIA
{  112} >
{  113} > 13 18 28 33 43 48 58 63 AX 6.5000 IZ 2.200
{  114} >
{  115} > $ CENTROS DE VANO
{  116} >
{  117} > 1 TO 12 19 TO 27 34 TO 42 49 TO 57 64 TO 75 AX 6.5000 IZ 3.6750
{  118} >
{  119} > $ 1 TO 75 AX 6.5000 IZ 3.6750
{  120} >
{  121} > MEMBER INCIDENCES
{  122} >
{  123} > 1 1 2
{  124} > 2 2 3
{  125} > 3 3 4
{  126} > 4 4 5
{  127} > 5 5 6
{  128} > 6 6 7
{  129} > 7 7 8
{  130} > 8 8 9
{  131} > 9 9 10
{  132} > 10 10 11
{  133} > 11 11 12
{  134} > 12 12 13
{  135} > 13 13 14
{  136} > 14 14 15
{  137} > 15 15 16
{  138} > 16 16 17
{  139} > 17 17 18
{  140} > 18 18 19
{  141} > 19 19 20
{  142} > 20 20 21
{  143} > 21 21 22
{  144} > 22 22 23
{  145} > 23 23 24
{  146} > 24 24 25
{  147} > 25 25 26
{  148} > 26 26 27
{  149} > 27 27 28
{  150} > 28 28 29
{  151} > 29 29 30
{  152} > 30 30 31
{  153} > 31 31 32
{  154} > 32 32 33
{  155} > 33 33 34
{  156} > 34 34 35
{  157} > 35 35 36
{  158} > 36 36 37
{  159} > 37 37 38
{  160} > 38 38 39
{  161} > 39 39 40
{  162} > 40 40 41
{  163} > 41 41 42
{  164} > 42 42 43
{  165} > 43 43 44
{  166} > 44 44 45
{  167} > 45 45 46
{  168} > 46 46 47
{  169} > 47 47 48
{  170} > 48 48 49
{  171} > 49 49 50
{  172} > 50 50 51
{  173} > 51 51 52
{  174} > 52 52 53
{  175} > 53 53 54
{  176} > 54 54 55
{  177} > 55 55 56
{  178} > 56 56 57
{  179} > 57 57 58
{  180} > 58 58 59
{  181} > 59 59 60
{  182} > 60 60 61
{  183} > 61 61 62
{  184} > 62 62 63
{  185} > 63 63 64
{  186} > 64 64 65
{  187} > 65 65 66
{  188} > 66 66 67
{  189} > 67 67 68
{  190} > 68 68 69
{  191} > 69 69 70
{  192} > 70 70 71
{  193} > 71 71 72
{  194} > 72 72 73
{  195} > 73 73 74
{  196} > 74 74 75
{  197} > 75 75 76
{  198} >
{  199} > INERTIA OF JOINTS MASS
{  200} >
{  201} > $ APOYOS
{  202} >
{  203} > 2 3 4 13 14 15 TRANS Y 36253
{  204} > 17 18 19 28 29 30 TRANS Y 59310
{  205} > 32 33 34 43 44 45 TRANS Y 59310
{  206} > 47 48 49 58 59 60 TRANS Y 59310
{  207} > 61 62 63 73 74 75 TRANS Y 36253
{  208} >
{  209} > $ CENTROS DE VANO
{  210} >
{  211} > 5 TO 12 TRANS Y 35380
{  212} > 20 TO 27 TRANS Y 57880
{  213} > 35 TO 42 TRANS Y 57880
{  214} > 50 TO 57 TRANS Y 57880
{  215} > 64 TO 72 TRANS Y 35380
{  216} >
{  217} >
{  218} > EIGEN PARAMETERS
{  219} >
{  220} > SOLVE USING GTLANCZOS
{  221} > NUMBER OF MODES 3
{  222} >
{  223} > END OF EIGEN PARAMETERS
{  224} >
{  225} > PRINT DYNAMIC STRUCTURAL DATA
1*****************************************
 *  PROBLEM DATA FROM INTERNAL STORAGE  *
 *****************************************
```

JOB ID - VIADUCTO JOB TITLE - VIGA CONTINUA. 1- 3 - 1

ACTIVE UNITS - LENGTH M WEIGHT METN ANGLE RAD TEMPERATURE DEGF TIME SEC

DYNAMIC STRUCTURAL DATA

DYNAMIC DEGREES OF FREEDOM

0**** ALL NON-SUPPORTED DEGREES-OF-FREEDOM ARE DYNAMIC

JOINT INERTIAS

0**** JOINT INERTIAS ARE IN THE CURRENT MASS UNITS

JOINT	TRANS X	TRANS Y	TRANS Z	ROTAT X	ROTAT Y	ROTAT Z	DAMPING
2	0.00000E+00	36253.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
3	0.00000E+00	36253.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
4	0.00000E+00	36253.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
5	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
6	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
7	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
8	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
9	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
10	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
11	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
12	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
13	0.00000E+00	36253.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
14	0.00000E+00	36253.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
15	0.00000E+00	36253.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
17	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
18	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
19	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
20	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
21	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
22	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
23	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
24	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
25	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
26	0.00000E+00	57880	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
27	0.00000E+00	57880	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
28	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
29	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
30	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
32	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
33	0.00000E+00	59310	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
34	0.00000E+00	59310	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
35	0.00000E+00	57880	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
36	0.00000E+00	57880	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
37	0.00000E+00	57880	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
38	0.00000E+00	57880	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
39	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
40	0.00000E+00	57880	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
41	0.00000E+00	57880	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
42	0.00000E+00	57880	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E-00	0.00000E+00
43	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
44	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
45	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
47	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
48	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
49	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
50	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
51	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
52	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
53	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
54	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
55	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
56	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
57	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
58	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
59	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
60	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
61	0.00000E+00	36253.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
62	0.00000E+00	36253.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
63	0.00000E+00	36253.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
64	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
65	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
66	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
67	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
68	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
69	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
70	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
71	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
72	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
73	0.00000E+00	36253.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
74	0.00000E+00	36253.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
75	0.00000E+00	36253.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

MODAL DAMPING RATIOS

0**** MODAL DAMPING RATIOS HAVE NOT BEEN SPECIFIED

0**********
* END OF DATA FROM INTERNAL STORAGE *
****

(226) > PRINT DYNAMIC PARAMETERS

****
* PROBLEM DATA FROM INTERNAL STORAGE *
****

JOB ID - VIADUCTO JOB TITLE - VIGA CONTINUA. 1- 3 - 1

ACTIVE UNITS - LENGTH M WEIGHT METN ANGLE RAD TEMPERATURE DEGF TIME SEC

DYNAMIC PARAMETERS

0EIGENPROBLEM SOLUTION TECHNIQUE. GTLANCZOS
0NUMBER OF MODES REQUESTED= 3
0COMPUTE RIGID BODY MODES NO
0EIGENVALUE TOLERANCE= 1.0000E-06
0EIGENVECTOR TOLERANCE= 1.0000E-12

0**********
* END OF DATA FROM INTERNAL STORAGE *
****

{ 227} >
{ 228} > DYNAMIC ANALYSIS EIGEN

BANDWIDTH INFORMATION BEFORE RENUMBERING.

THE MAXIMUM BANDWIDTH IS 1 AND OCCURS AT JOINT 2
THE AVERAGE BANDWIDTH IS 0.987
THE STANDARD DEVIATION OF THE BANDWIDTH IS 0.114
1.101

0BANDWIDTH REDUCTION HAS FAILED TO PRODUCE A BETTER NUMBERING.
ORIGINAL NUMBERING WILL BE USED.

TIME FOR CONSISTENCY CHECKS FOR 75 MEMBERS	0.00 SECONDS
TIME FOR BANDWIDTH REDUCTION	0.00 SECONDS
TIME TO GENERATE 75 ELEMENT STIF. MATRICES	0.00 SECONDS
TIME TO ASSEMBLE THE STIFFNESS MATRIX	0.06 SECONDS
TIME TO PROCESS 76 JOINTS	0.00 SECONDS
TIME TO GENERATE REDUCED STIFFNESS MATRIX	0.00 SECONDS
TIME TO SOLVE EIGENPROBLEM	0.06 SECONDS
TIME TO TRANSFORM EIGENVECTORS TO JOINTS	0.05 SECONDS

****
* EIGEN-SOLUTION CHECKS *
****

**** STRUDL MESSAGE - STURM SEQUENCE CHECK WAS SUCCESSFUL - THERE ARE NO MISSING MODES

MODE	EIGENVALUE ((RAD/SEC)**2)	FREQUENCY (RAD/SEC)	FREQUENCY (CYC/SEC)	PERIOD (SEC/CYC)	ESTIMATED ACCURACY
1	4.133056D+02	2.032992D+01	3.235607D+00	3.090610D-01	2.139140D-10
2	6.642561D+02	2.577317D+01	4.101927D+00	2.437879D-01	6.145353D-08
3	1.044404D+03	3.231724D+01	5.143448D+00	1.944221D-01	1.920093D-05

ORTHOGONALITY CHECK

WITH RESPECT TO MASS

OFF DIAGONALS: MAXIMUM = 0.4927E-15
MINIMUM = 0.2676E-15
MEAN = 0.3582E-15

DIAGONALS MAXIMUM = 0.1000E+01
MINIMUM = 0.1000E+01
MEAN = 0.1000E+01

WITH RESPECT TO STIFFNESS

OFF DIAGONALS: MAXIMUM = 0.8707E-10
MINIMUM = 0.3907E-10
MEAN = 0.6007E-10

DIAGONALS: MAXIMUM = 0.1044E+04
MINIMUM = 0.4133E+03
MEAN = 0.7073E+03

****
* END OF EIGEN-SOLUTION CHECKS *
****

TIME TO CHECK EIGENSOLUTION 0.00 SECONDS
{ 229} > LIST DYNAMIC EIGENVALUES
1

****
RESULTS OF LATEST ANALYSES
****

PROBLEM - VIADUCTO TITLE - VIGA CONTINUA. 1- 3 - 1

ACTIVE UNITS M METN RAD DEGF SEC

EIGENVALUES

MODE	EIGENVALUE ((RAD/SEC)**2)	FREQUENCY (RAD/SEC)	FREQUENCY (CYC/SEC)	PERIOD (SEC/CYC)	STATUS
1	4.133056D+02	2.032992D+01	3.235607D+00	3.090610D-01	ACTIVE
2	6.642561D+02	2.577317D+01	4.101927D+00	2.437879D-01	ACTIVE
3	1.044404D+03	3.231724D+01	5.143448D+00	1.944221D-01	ACTIVE

Proyecto:

Seccion:COMPLETA EN APOYO

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_{\pi}1$	$J_{\pi}2$
1(HO)	600.0	1.40	408160	2.01	1.20
2(HO)	350.0	1.50	350000	1.80	1.10
3(RD)	5100.0	1.15	2100000		
4(RD)	8500.0	1.15	2100000		
5(PR)	17000.0	1.10	2000000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) π(mm)	Yo(cm)	Mc	Nsr
_	1	340.0	22.0	188.0	C*	0
2	1	49.4	116.0	72.0	C*	0
3	1	50.7	12.0	60.0	C*	0
4	1	73.0	35.0	25.0	C*	0
5	2	685.0	25.0	0.0	C*	0
6	3	84.0	32.0	5.0	CT	0
10	4	2.0	50.0	37.0	CT	0
11	3	6.0	16.0	92.0	CT	0
12	3	6.0	16.0	112.0	CT	0
13	3	6.0	16.0	132.0	CT	0
14	3	6.0	16.0	152.0	CT	0
15	3	6.0	16.0	172.0	CT	0
16	3	8.0	25.0	27.5	CT	0
17	3	8.0	25.0	42.0	CT	0

SECCIONES INTERMEDIAS

.	Codigo	Componentes
1	VP	1 2 3 4 10 11 12 13 14 15 16 17
2	HA	1 2 3 4
3	HS	5
4	HT	1 2 3 4 5

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F.pura +	(0)	2139.0	11.26	1092508.4
	(1)	1450.0	14.63	1041669.6
	(2)	1600.2	13.73	1054550.5
F.pura -	(0)	2788.6	137.90	18785554.6
	(1)	1633.8	94.86	11911735.2
	(2)	1866.6	107.33	13870766.6
C.Simple	(0)	6890.4	74.82	42498739.5
	(1)	2930.3	62.59	16343042.4
	(2)	3659.4	66.76	21268757.7
T.Simple	(0)	853.7	19.73	976862.7
	(1)	853.7	19.73	976862.7
	(2)	853.7	19.73	976862.7

***** Nota: Homogeneizadas a E-2100000 Kp/cm2 *****

MOMENTOS-CURVATURA(ELASTOPLASTICO)

Título Sección: COMPLETA EN APOYO

*** PRESOLICITACIONES ELASTICAS ***

Analisis CON FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : -340.00m.T PP.LOSA
Seccion Afectada: VP

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

LEYES MOMENTOS-CURVATURAS

SIN consideracion de TENSION STIFFENING

Flexion NEGATIVA
[M] es el Momento Flector Total
[Xc] y [Xn] corresponden a Incrementos frente
a la posible Presolicitacion Elastica
[Ax(i)] muestra la evolucion del Axil(Tn) en la
S.parcial i durante el Incremento de Curvatura
[ecmx] y [etmx] son las Deformaciones Totales
maximas de Compresion y Traccion,respectivamente
[Itan] e [Isec] son las Inercias correspondientes
a los sucesivos Incrementos de Curvatura

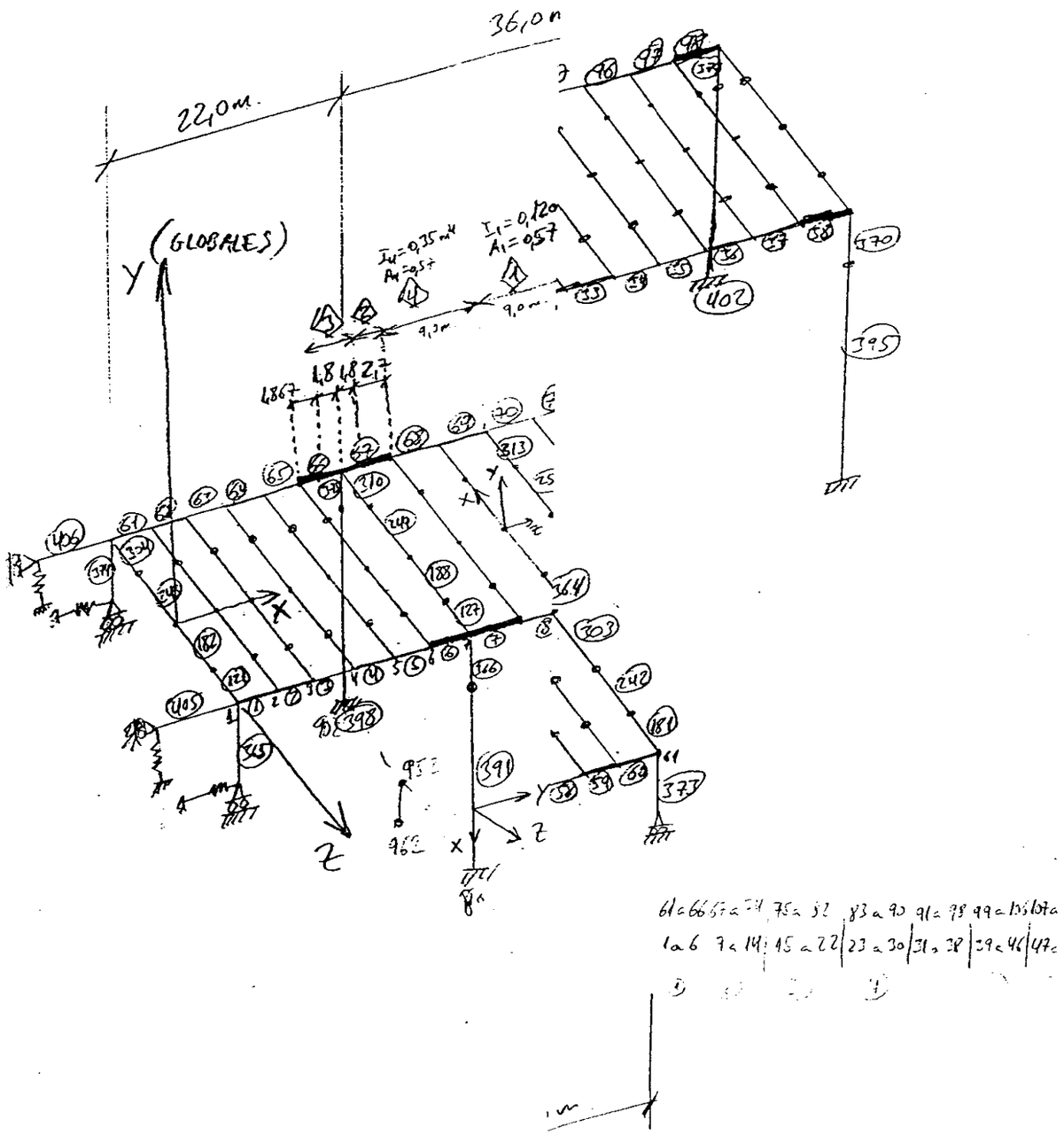
[N]	Momento(mT)	Xc(m-1)	Xn(cm)	ecmx	etmx	Itan(cm4)	Isec(cm4)
1	-340.0	0.000000$$$$$$		-.00013	0.00000		
2	-1032.1	-.000178	134.7	-.00026	.00024	18550878	18550878
3	-1729.3	-.000355	135.4	-.00039	.00048	18687569	18619223
4	-2428.3	-.000533	135.9	-.00052	.00072	18735222	18657889
5	-3128.1	-.000711	136.2	-.00065	.00097	18756138	18682451
	-3828.3	-.000888	136.4	-.00078	.00121	18766753	18699312

7	-4524.6	-.001066	136.5	-.00091	.00146	18663604	18693360
8	-5131.8	-.001244	134.7	-.00107	.00168	16273156	18347617
-	-5572.2	-.001421	130.4	-.00126	.00185	11804604	17529740
1.	-5831.7	-.001599	123.7	-.00151	.00198	6957315	16355026
11	-6050.2	-.001777	117.6	-.00177	.00209	5855827	15305106
12	-6241.6	-.001954	112.2	-.00204	.00219	5129222	14380026
13	-6346.3	-.002132	110.3	-.00226	.00235	2805886	13415514
14	-6362.7	-.002310	111.7	-.00240	.00258	439066	12417326
15	-6378.4	-.002487	112.9	-.00254	.00281	422212	11560532
16	-6393.8	-.002665	113.9	-.00269	.00304	412046	10817300
17	-6408.8	-.002843	114.8	-.00284	.00326	403023	10166407
18	-6423.6	-.003020	115.4	-.00299	.00349	394918	9591614
19	-6438.0	-.003198	116.0	-.00314	.00371	387574	9080278
20	-6452.2	-.003376	116.4	-.00329	.00393	380875	8622415
21	-6484.6	-.003553	115.1	-.00350	.00409	867496	8234669

SUBANEJO Nº 10

MODELO DE CÁLCULO GENERAL.

LISTADOS DE DATOS




```
$ ------------------------------------------
$ VIADUCTO DE LOS CHORROS. PROYECTO DEFINITIVO.
$ ------------------------------------------

$ ------------------------------------------
$ MODELO 3D. STRUDL. CONSTANTES 0.
$ ------------------------------------------

$ ---------
$ MARZO 99
$ ---------

STRUDL 'VIADUCTO DE LOS CHORROS' 'PROYECTO DEFINITIVO' 'MARZO 99'
UNITS M MTON CENTIGRADES
TYPE SPACE FRAME
OUTPUT ORDERED

PRINT GENERATE OFF

$ -------------------
$ DEFINICION DE NODOS
$ -------------------

JOINT COORDINATES

$ TABLERO

1    X    0         Y  0.000  Z  3.000
2    X    3.667     Y  0.000  Z  3.000
3    X    7.334     Y  0.000  Z  3.000
4    X    11.000    Y  0.000  Z  3.000
5    X    14.667    Y  0.000  Z  3.000
6    X    18.334    Y  0.000  Z  3.000
7    X    22.000    Y  0.000  Z  3.000
8    X    26.500    Y  0.000  Z  3.000
9    X    31.000    Y  0.000  Z  3.000
10   X    35.500    Y  0.000  Z  3.000
11   X    40.000    Y  0.000  Z  3.000
12   X    44.500    Y  0.000  Z  3.000
13   X    49.000    Y  0.000  Z  3.000
14   X    53.500    Y  0.000  Z  3.000
15   X    58.000    Y  0.000  Z  3.000
16   X    62.500    Y  0.000  Z  3.000
17   X    67.000    Y  0.000  Z  3.000
18   X    71.500    Y  0.000  Z  3.000
19   X    76.000    Y  0.000  Z  3.000
20   X    80.500    Y  0.000  Z  3.000
21   X    85.000    Y  0.000  Z  3.000
22   X    89.500    Y  0.000  Z  3.000
23   X    94.000    Y  0.000  Z  3.000
24   X    98.500    Y  0.000  Z  3.000
25   X    103.000   Y  0.000  Z  3.000
26   X    107.500   Y  0.000  Z  3.000
27   X    112.000   Y  0.000  Z  3.000
28   X    116.500   Y  0.000  Z  3.000
29   X    121.000   Y  0.000  Z  3.000
30   X    125.500   Y  0.000  Z  3.000
31   X    130.000   Y  0.000  Z  3.000
32   X    134.500   Y  0.000  Z  3.000
33   X    139.000   Y  0.000  Z  3.000
34   X    143.500   Y  0.000  Z  3.000
35   X    148.000   Y  0.000  Z  3.000
36   X    152.500   Y  0.000  Z  3.000
37   X    157.000   Y  0.000  Z  3.000
```

LISTADO DE DATOS.

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{  13} > 2  1.467
{  14} > 3  2.933
{  15} > 4  4.40
{  16} > 5  5.867
{  17} > 6  7.333
{  18} > 7  8.800
{  19} > 8  10.267
{  20} > 9  11.733
{  21} > 10 13.20
{  22} > 11 14.667
{  23} > 12 16.133
{  24} > 13 17.600
{  25} > 14 19.067
{  26} > 15 20.533
{  27} > 16 22.0
{  28} > 17 24.4
{  29} > 18 26.8
{  30} > 19 29.2
{  31} > 20 31.6
{  32} > 21 34.0
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{  55} > 44 89.2
{  56} > 45 91.6
{  57} > 46 94.0
{  58} > 47 96.4
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{  86} > 75 150.533
{  87} > 76 152.0
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{  90} >
{  91} > STATUS SUPPORT JOINT 1 16 31 46 61 76
{  92} >
{  93} > JOINT RELEASES
{  94} > 1 16 31 46 61 76 MOMENT Z
{  95} > 16 31 46 61 76 FORCE X
{  96} >
{  97} > CONSTANTS
{  98} > E 4.0E10 MEMBER ALL
{  99} > POISON 0.2 MEMBER ALL
{ 100} > $ CTE 0.000012 MEMBER ALL
{ 101} >
{ 102} > MEMBER PROPERTIES PRISMATIC
{ 103} >
{ 104} > $ APOYOS
{ 105} >
{ 106} > 14 TO 17 AX 6.5000 IZ 1.974
{ 107} > 29 TO 32 AX 6.5000 IZ 1.974
{ 108} > 44 TO 47 AX 6.5000 IZ 1.974
{ 109} > 59 TO 62 AX 6.5000 IZ 1.974
{ 110} >
{ 111} > $ ZONA INTERMEDIA
{ 112} >
{ 113} > 13 18 28 33 43 48 58 63 AX 6.5000 IZ 2.200
{ 114} >
{ 115} > $ CENTROS DE VANO
{ 116} >
{ 117} > 1 TO 12 19 TO 27 34 TO 42 49 TO 57 64 TO 75 AX 6.5000 IZ 3.6750
{ 118} >
{ 119} > $ 1 TO 75 AX 6.5000 IZ 3.6750
{ 120} >
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{ 125} > 3 3 4
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{  196} > 74 74 75
{  197} > 75 75 76
{  198} >
{  199} > INERTIA OF JOINTS MASS
{  200} >
{  201} > $ APOYOS
{  202} >
{  203} > 2 3 4 13 14 15 TRANS Y 36253
{  204} > 17 18 19 28 29 30 TRANS Y 59310
{  205} > 32 33 34 43 44 45 TRANS Y 59310
{  206} > 47 48 49 58 59 60 TRANS Y 59310
{  207} > 61 62 63 73 74 75 TRANS Y 36253
{  208} >
{  209} > $ CENTROS DE VANO
{  210} >
{  211} > 5 TO 12 TRANS Y 35380
{  212} > 20 TO 27 TRANS Y 57880
{  213} > 35 TO 42 TRANS Y 57880
{  214} > 50 TO 57 TRANS Y 57880
{  215} > 64 TO 72 TRANS Y 35380
{  216} >
{  217} >
{  218} > EIGEN PARAMETERS
{  219} >
{  220} > SOLVE USING GTLANCZOS
{  221} > NUMBER OF MODES 3
{  222} >
{  223} > END OF EIGEN PARAMETERS
{  224} >
{  225} > PRINT DYNAMIC STRUCTURAL DATA
1*****************************************
 *  PROBLEM DATA FROM INTERNAL STORAGE  *
 *****************************************
```

JOB ID - VIADUCTO JOB TITLE - VIGA CONTINUA. 1- 3 - 1

ACTIVE UNITS - LENGTH: M WEIGHT: METN ANGLE: RAD TEMPERATURE: DEGF TIME: SEC

DYNAMIC STRUCTURAL DATA

DYNAMIC DEGREES OF FREEDOM

0**** ALL NON-SUPPORTED DEGREES-OF-FREEDOM ARE DYNAMIC

JOINT INERTIAS

0**** JOINT INERTIAS ARE IN THE CURRENT MASS UNITS

0JOINT	TRANS X	TRANS Y	TRANS Z	ROTAT X	ROTAT Y	ROTAT Z	DAMPING
2	0.00000E+00	36253.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
3	0.00000E+00	36253.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
4	0.00000E+00	36253.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
5	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
6	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
7	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
8	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
9	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
10	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
11	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
12	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
13	0.00000E+00	36253.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
14	0.00000E+00	36253.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
15	0.00000E+00	36253.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
17	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
18	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
19	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
20	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
21	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
22	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
23	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
24	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
25	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
26	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
27	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
28	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
29	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
30	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
32	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
33	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
34	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
35	0.00000E+00	57880	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
36	0.00000E+00	57880	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
37	0.00000E+00	57880	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
38	0.00000E+00	57880	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
39	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
40	0.00000E+00	57880	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
41	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
42	0.00000E+00	57880	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

43	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
44	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
45	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
47	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
48	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
49	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
50	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
51	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
52	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
53	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
54	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
55	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
56	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
57	0.00000E+00	57880.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
58	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
59	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
60	0.00000E+00	59310.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
61	0.00000E+00	36253.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
62	0.00000E+00	36253.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
63	0.00000E+00	36253.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
64	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
65	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
66	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
67	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
68	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
69	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
70	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
71	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
72	0.00000E+00	35380.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
73	0.00000E+00	36253.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
74	0.00000E+00	36253.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00
75	0.00000E+00	36253.	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00	0.00000E+00

MODAL DAMPING RATIOS

0**** MODAL DAMPING RATIOS HAVE NOT BEEN SPECIFIED

0**************************************
* END OF DATA FROM INTERNAL STORAGE *
****

(226) > PRINT DYNAMIC PARAMETERS
1**************************************
* PROBLEM DATA FROM INTERNAL STORAGE *
****

JOB ID - VIADUCTO JOB TITLE - VIGA CONTINUA. 1- 3 - 1

ACTIVE UNITS -	LENGTH	WEIGHT	ANGLE	TEMPERATURE	TIME
	M	METN	RAD	DEGF	SEC

==========
DYNAMIC PARAMETERS
==========
0EIGENPROBLEM SOLUTION TECHNIQUE: GTLANCZOS
0NUMBER OF MODES REQUESTED= 3
0COMPUTE RIGID BODY MODES: NO
0EIGENVALUE TOLERANCE= 1.0000E-06
0EIGENVECTOR TOLERANCE= 1.0000E-12

0**************************************
* END OF DATA FROM INTERNAL STORAGE *
****

(227) >
(228) > DYNAMIC ANALYSIS EIGEN

BANDWIDTH INFORMATION BEFORE RENUMBERING.

THE MAXIMUM BANDWIDTH IS 1 AND OCCURS AT JOINT 2
THE AVERAGE BANDWIDTH IS 0.987
THE STANDARD DEVIATION OF THE BANDWIDTH IS 0.114

1.101
=====
0BANDWIDTH REDUCTION HAS FAILED TO PRODUCE A BETTER NUMBERING.
ORIGINAL NUMBERING WILL BE USED.

TIME FOR CONSISTENCY CHECKS FOR	75 MEMBERS	0.00 SECONDS
TIME FOR BANDWIDTH REDUCTION		0.00 SECONDS
TIME TO GENERATE	75 ELEMENT STIF. MATRICES	0.00 SECONDS
TIME TO ASSEMBLE THE STIFFNESS MATRIX		0.06 SECONDS
TIME TO PROCESS	76 JOINTS	0.00 SECONDS
TIME TO GENERATE REDUCED STIFFNESS MATRIX		0.00 SECONDS
TIME TO SOLVE EIGENPROBLEM		0.06 SECONDS
TIME TO TRANSFORM EIGENVECTORS TO JOINTS		0.05 SECONDS

****
* EIGEN-SOLUTION CHECKS *
****
**** STRUDL MESSAGE - STURM SEQUENCE CHECK WAS SUCCESSFUL - THERE ARE NO MISSING MODES

MODE	EIGENVALUE ((RAD/SEC)**2)	FREQUENCY (RAD/SEC)	FREQUENCY (CYC/SEC)	PERIOD (SEC/CYC)	ESTIMATED ACCURACY
1	4.133056D+02	2.032992D+01	3.235607D+00	3.090610D-01	2.139140D-10
2	6.642561D+02	2.577317D+01	4.101927D+00	2.437879D-01	6.145353D-08
3	1.044404D+03	3.231724D+01	5.143448D+00	1.944221D-01	1.920093D-05

ORTHOGONALITY CHECK

WITH RESPECT TO MASS

OFF DIAGONALS:	MAXIMUM =	0.4927E-15
	MINIMUM =	0.2676E-15
	MEAN =	0.3582E-15
DIAGONALS:	MAXIMUM =	0.1000E+01
	MINIMUM =	0.1000E+01
	MEAN =	0.1000E+01

WITH RESPECT TO STIFFNESS

OFF DIAGONALS: MAXIMUM = 0.8707E-10
MINIMUM = 0.3907E-10
MEAN = 0.6007E-10

DIAGONALS: MAXIMUM = 0.1044E+04
MINIMUM = 0.4133E+03
MEAN = 0.7073E+03

****
* END OF EIGEN-SOLUTION CHECKS *
****

TIME TO CHECK EIGENSOLUTION 0.00 SECONDS
(229) > LIST DYNAMIC EIGENVALUES
1

****
RESULTS OF LATEST ANALYSES
****

PROBLEM - VIADUCTO TITLE - VIGA CONTINUA. 1- 3 - 1

ACTIVE UNITS M METN RAD DEGF SEC

EIGENVALUES

MODE	EIGENVALUE ((RAD/SEC)**2)	FREQUENCY (RAD/SEC)	FREQUENCY (CYC/SEC)	PERIOD (SEC/CYC)	STATUS
1	4.1330560+02	2.032992D+01	3.235607D+00	3.090610D-01	ACTIVE
2	6.6425610+02	2.577317D+01	4.101927D+00	2.437879D-01	ACTIVE
3	1.0444040+03	3.231724D+01	5.143448D+00	1.944221D-01	ACTIVE

Proyecto:

Seccion:COMPLETA EN APOYO

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_\pi 1$	$J_\pi 2$
1(HO)	600.0	1.40	408160	2.01	1.20
2(HO)	350.0	1.50	350000	1.80	1.10
3(RD)	5100.0	1.15	2100000		
4(RD)	8500.0	1.15	2100000		
5(PR)	17000.0	1.10	2000000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) π(mm)	Yo(cm)	Mc	Nsr
1	1	340.0	22.0	188.0	C*	0
2	1	49.4	116.0	72.0	C*	0
3	1	50.7	12.0	60.0	C*	0
4	1	73.0	35.0	25.0	C*	0
5	2	685.0	25.0	0.0	C*	0
6	3	84.0	32.0	5.0	CT	0
10	4	2.0	50.0	37.0	CT	0
11	3	6.0	16.0	92.0	CT	0
12	3	6.0	16.0	112.0	CT	0
13	3	6.0	16.0	132.0	CT	0
14	3	6.0	16.0	152.0	CT	0
15	3	6.0	16.0	172.0	CT	0
16	3	8.0	25.0	27.5	CT	0
17	3	8.0	25.0	42.0	CT	0

SECCIONES INTERMEDIAS

.	Codigo	Componentes
1	VP	1 2 3 4 10 11 12 13 14 15 16 17
2	HA	1 2 3 4
3	HS	5
4	HT	1 2 3 4 5

* CONSTANTES ESTATICAS *

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F.pura +	(0)	2139.0	11.26	1092508.4
	(1)	1450.0	14.63	1041669.6
	(2)	1600.2	13.73	1054550.5
F.pura -	(0)	2788.6	137.90	18785554.6
	(1)	1633.8	94.86	11911735.2
	(2)	1866.6	107.33	13870766.6

C.Simple	(0)	6890.4	74.82	42498739.5
	(1)	2930.3	62.59	16343042.4
	(2)	3659.4	66.76	21268757.7
T.Simple	(0)	853.7	19.73	976862.7
	(1)	853.7	19.73	976862.7
	(2)	853.7	19.73	976862.7

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

MOMENTOS-CURVATURA(ELASTOPLASTICO)

Titulo Seccion: COMPLETA EN APOYO

* PRESOLICITACIONES ELASTICAS *

Analisis CON FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : -340.00m.T PP.LOSA
Seccion Afectada: VP

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[Π*(Cperm./Ctot.)]: 0.00

LEYES MOMENTOS-CURVATURAS

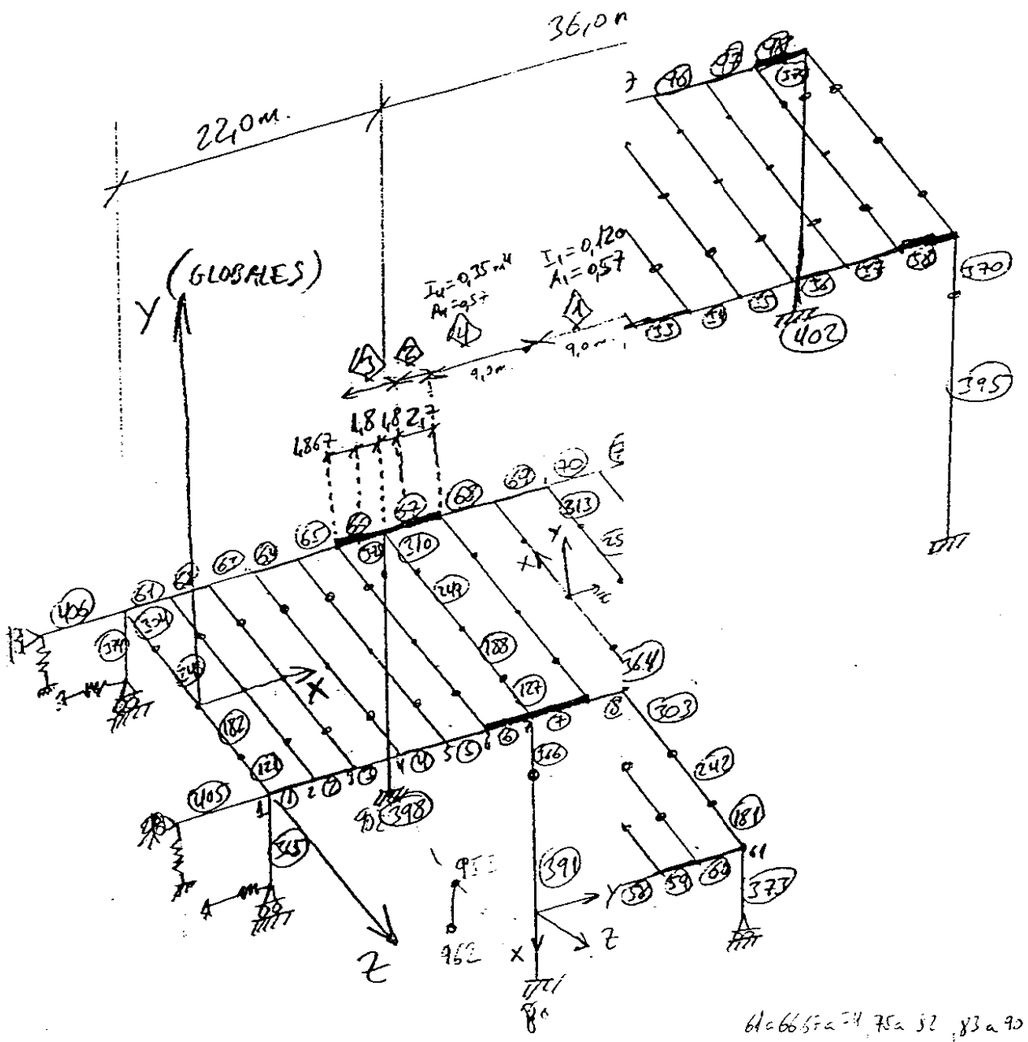
SIN consideracion de TENSION STIFFENING

Flexion NEGATIVA
[M] es el Momento Flector Total
[Xc] y [Xn] corresponden a Incrementos frente
a la posible Presolicitacion Elastica
[Ax(i)] muestra la evolucion del Axil(Tn) en la
S.parcial i durante el Incremento de Curvatura
[ecmx] y [etmx] son las Deformaciones Totales
maximas de Compresion y Traccion,respectivamente
[Itan] e [Isec] son las Inercias correspondientes
a los sucesivos Incrementos de Curvatura

[N]	Momento(mT)	Xc(m-1)	Xn(cm)	ecmx	etmx	Itan(cm4)	Isec(cm4)
1	-340.0	0.000000$$$$$$		-.00013	0.00000		
2	-1032.1	-.000178	134.7	-.00026	.00024	18550878	18550878
3	-1729.3	-.000355	135.4	-.00039	.00048	18687569	18619223
4	-2428.3	-.000533	135.9	-.00052	.00072	18735222	18657889
5	-3128.1	-.000711	136.2	-.00065	.00097	18756138	18682451
	-3828.3	-.000888	136.4	-.00078	.00121	18766753	18699312
7	-4524.6	-.001066	136.5	-.00091	.00146	18663604	18693360
8	-5131.8	-.001244	134.7	-.00107	.00168	16273156	18347617
	-5572.2	-.001421	130.4	-.00126	.00185	11804604	17529740
10	-5831.7	-.001599	123.7	-.00151	.00198	6957315	16355026
11	-6050.2	-.001777	117.6	-.00177	.00209	5855827	15305106
12	-6241.6	-.001954	112.2	-.00204	.00219	5129222	14380026
13	-6346.3	-.002132	110.3	-.00226	.00235	2805886	13415514
14	-6362.7	-.002310	111.7	-.00240	.00258	439066	12417326
15	-6378.4	-.002487	112.9	-.00254	.00281	422212	11560532
16	-6393.8	-.002665	113.9	-.00269	.00304	412046	10817300
17	-6408.8	-.002843	114.8	-.00284	.00326	403023	10166407
18	-6423.6	-.003020	115.4	-.00299	.00349	394918	9591614
19	-6438.0	-.003198	116.0	-.00314	.00371	387574	9080278
20	-6452.2	-.003376	116.4	-.00329	.00393	380875	8622415
21	-6484.6	-.003553	115.1	-.00350	.00409	867496	8234669

SUBANEJO Nº 10

MODELO DE CÁLCULO GENERAL.
LISTADOS DE DATOS




```
$ ----------------------------------------
$ VIADUCTO DE LOS CHORROS. PROYECTO DEFINITIVO.
$ ----------------------------------------

$ ----------------------------------------
$ MODELO 3D. STRUDL. CONSTANTES 0.
$ ----------------------------------------

$ ---------
$ MARZO 99
$ ---------

STRUDL 'VIADUCTO DE LOS CHORROS' 'PROYECTO DEFINITIVO' 'MARZO 99'
UNITS M MTON CENTIGRADES
TYPE SPACE FRAME
OUTPUT ORDERED

PRINT GENERATE OFF

$ --------------------
$ DEFINICION DE NODOS
$ --------------------

JOINT COORDINATES

$ TABLERO

1    X    0          Y  0.000  Z  3.000
2    X    3.667      Y  0.000  Z  3.000
3    X    7.334      Y  0.000  Z  3.000
4    X    11.000     Y  0.000  Z  3.000
5    X    14.667     Y  0.000  Z  3.000
6    X    18.334     Y  0.000  Z  3.000
7    X    22.000     Y  0.000  Z  3.000
8    X    26.500     Y  0.000  Z  3.000
9    X    31.000     Y  0.000  Z  3.000
10   X    35.500     Y  0.000  Z  3.000
11   X    40.000     Y  0.000  Z  3.000
12   X    44.500     Y  0.000  Z  3.000
13   X    49.000     Y  0.000  Z  3.000
14   X    53.500     Y  0.000  Z  3.000
15   X    58.000     Y  0.000  Z  3.000
16   X    62.500     Y  0.000  Z  3.000
17   X    67.000     Y  0.000  Z  3.000
18   X    71.500     Y  0.000  Z  3.000
19   X    76.000     Y  0.000  Z  3.000
20   X    80.500     Y  0.000  Z  3.000
21   X    85.000     Y  0.000  Z  3.000
22   X    89.500     Y  0.000  Z  3.000
23   X    94.000     Y  0.000  Z  3.000
24   X    98.500     Y  0.000  Z  3.000
25   X    103.000    Y  0.000  Z  3.000
26   X    107.500    Y  0.000  Z  3.000
27   X    112.000    Y  0.000  Z  3.000
28   X    116.500    Y  0.000  Z  3.000
29   X    121.000    Y  0.000  Z  3.000
30   X    125.500    Y  0.000  Z  3.000
31   X    130.000    Y  0.000  Z  3.000
32   X    134.500    Y  0.000  Z  3.000
33   X    139.000    Y  0.000  Z  3.000
34   X    143.500    Y  0.000  Z  3.000
35   X    148.000    Y  0.000  Z  3.000
36   X    152.500    Y  0.000  Z  3.000
37   X    157.000    Y  0.000  Z  3.000
```

LISTADO DE DATOS.

38	X	161.500	Y	0.000	Z	3.000
39	X	166.000	Y	0.000	Z	3.000
40	X	170.500	Y	0.000	Z	3.000
41	X	175.000	Y	0.000	Z	3.000
42	X	179.500	Y	0.000	Z	3.000
43	X	184.000	Y	0.000	Z	3.000
44	X	188.500	Y	0.000	Z	3.000
45	X	193.000	Y	0.000	Z	3.000
46	X	197.500	Y	0.000	Z	3.000
47	X	202.000	Y	0.000	Z	3.000
48	X	206.500	Y	0.000	Z	3.000
49	X	211.000	Y	0.000	Z	3.000
50	X	215.500	Y	0.000	Z	3.000
51	X	220.000	Y	0.000	Z	3.000
52	X	224.500	Y	0.000	Z	3.000
53	X	229.000	Y	0.000	Z	3.000
54	X	233.500	Y	0.000	Z	3.000
55	X	238.000	Y	0.000	Z	3.000
56	X	241.667	Y	0.000	Z	3.000
57	X	245.334	Y	0.000	Z	3.000
58	X	249.000	Y	0.000	Z	3.000
59	X	252.667	Y	0.000	Z	3.000
60	X	256.334	Y	0.000	Z	3.000
61	X	260.000	Y	0.000	Z	3.000

101	X	0	Y	0.000	Z	2.05
102	X	3.667	Y	0.000	Z	2.05
103	X	7.334	Y	0.000	Z	2.05
104	X	11.000	Y	0.000	Z	2.05
105	X	14.667	Y	0.000	Z	2.05
106	X	18.334	Y	0.000	Z	2.05
107	X	22.000	Y	0.000	Z	2.05
108	X	26.500	Y	0.000	Z	2.05
109	X	31.000	Y	0.000	Z	2.05
110	X	35.500	Y	0.000	Z	2.05
111	X	40.000	Y	0.000	Z	2.05
112	X	44.500	Y	0.000	Z	2.05
113	X	49.000	Y	0.000	Z	2.05
114	X	53.500	Y	0.000	Z	2.05
115	X	58.000	Y	0.000	Z	2.05
116	X	62.500	Y	0.000	Z	2.05
117	X	67.000	Y	0.000	Z	2.05
118	X	71.500	Y	0.000	Z	2.05
119	X	76.000	Y	0.000	Z	2.05
120	X	80.500	Y	0.000	Z	2.05
121	X	85.000	Y	0.000	Z	2.05
122	X	89.500	Y	0.000	Z	2.05
123	X	94.000	Y	0.000	Z	2.05
124	X	98.500	Y	0.000	Z	2.05
125	X	103.000	Y	0.000	Z	2.05
126	X	107.500	Y	0.000	Z	2.05
127	X	112.000	Y	0.000	Z	2.05
128	X	116.500	Y	0.000	Z	2.05
129	X	121.000	Y	0.000	Z	2.05
130	X	125.500	Y	0.000	Z	2.05
131	X	130.000	Y	0.000	Z	2.05
132	X	134.500	Y	0.000	Z	2.05
133	X	139.000	Y	0.000	Z	2.05
134	X	143.500	Y	0.000	Z	2.05
135	X	148.000	Y	0.000	Z	2.05
136	X	152.500	Y	0.000	Z	2.05
137	X	157.000	Y	0.000	Z	2.05
138	X	161.500	Y	0.000	Z	2.05
139	X	166.000	Y	0.000	Z	2.05

140	X	170.500	Y	0.000	Z	2.05
141	X	175.000	Y	0.000	Z	2.05
142	X	179.500	Y	0.000	Z	2.05
143	X	184.000	Y	0.000	Z	2.05
144	X	188.500	Y	0.000	Z	2.05
145	X	193.000	Y	0.000	Z	2.05
146	X	197.500	Y	0.000	Z	2.05
147	X	202.000	Y	0.000	Z	2.05
148	X	206.500	Y	0.000	Z	2.05
149	X	211.000	Y	0.000	Z	2.05
150	X	215.500	Y	0.000	Z	2.05
151	X	220.000	Y	0.000	Z	2.05
152	X	224.500	Y	0.000	Z	2.05
153	X	229.000	Y	0.000	Z	2.05
154	X	233.500	Y	0.000	Z	2.05
155	X	238.000	Y	0.000	Z	2.05
156	X	241.667	Y	0.000	Z	2.05
157	X	245.334	Y	0.000	Z	2.05
158	X	249.000	Y	0.000	Z	2.05
159	X	252.667	Y	0.000	Z	2.05
160	X	256.334	Y	0.000	Z	2.05
161	X	260.000	Y	0.000	Z	2.05

201	X	0	Y	0.000	Z	0.000
202	X	3.667	Y	0.000	Z	0.000
203	X	7.334	Y	0.000	Z	0.000
204	X	11.000	Y	0.000	Z	0.000
205	X	14.667	Y	0.000	Z	0.000
206	X	18.334	Y	0.000	Z	0.000
207	X	22.000	Y	0.000	Z	0.000
208	X	26.500	Y	0.000	Z	0.000
209	X	31.000	Y	0.000	Z	0.000
210	X	35.500	Y	0.000	Z	0.000
211	X	40.000	Y	0.000	Z	0.000
212	X	44.500	Y	0.000	Z	0.000
213	X	49.000	Y	0.000	Z	0.000
214	X	53.500	Y	0.000	Z	0.000
215	X	58.000	Y	0.000	Z	0.000
216	X	62.500	Y	0.000	Z	0.000
217	X	67.000	Y	0.000	Z	0.000
218	X	71.500	Y	0.000	Z	0.000
219	X	76.000	Y	0.000	Z	0.000
220	X	80.500	Y	0.000	Z	0.000
221	X	85.000	Y	0.000	Z	0.000
222	X	89.500	Y	0.000	Z	0.000
223	X	94.000	Y	0.000	Z	0.000
224	X	98.500	Y	0.000	Z	0.000
225	X	103.000	Y	0.000	Z	0.000
226	X	107.500	Y	0.000	Z	0.000
227	X	112.000	Y	0.000	Z	0.000
228	X	116.500	Y	0.000	Z	0.000
229	X	121.000	Y	0.000	Z	0.000
230	X	125.500	Y	0.000	Z	0.000
231	X	130.000	Y	0.000	Z	0.000
232	X	134.500	Y	0.000	Z	0.000
233	X	139.000	Y	0.000	Z	0.000
234	X	143.500	Y	0.000	Z	0.000
235	X	148.000	Y	0.000	Z	0.000
236	X	152.500	Y	0.000	Z	0.000
237	X	157.000	Y	0.000	Z	0.000
238	X	161.500	Y	0.000	Z	0.000
239	X	166.000	Y	0.000	Z	0.000
240	X	170.500	Y	0.000	Z	0.000
241	X	175.000	Y	0.000	Z	0.000

242	X	179.500	Y	0.000	Z	0.000
243	X	184.000	Y	0.000	Z	0.000
244	X	188.500	Y	0.000	Z	0.000
245	X	193.000	Y	0.000	Z	0.000
246	X	197.500	Y	0.000	Z	0.000
247	X	202.000	Y	0.000	Z	0.000
248	X	206.500	Y	0.000	Z	0.000
249	X	211.000	Y	0.000	Z	0.000
250	X	215.500	Y	0.000	Z	0.000
251	X	220.000	Y	0.000	Z	0.000
252	X	224.500	Y	0.000	Z	0.000
253	X	229.000	Y	0.000	Z	0.000
254	X	233.500	Y	0.000	Z	0.000
255	X	238.000	Y	0.000	Z	0.000
256	X	241.667	Y	0.000	Z	0.000
257	X	245.334	Y	0.000	Z	0.000
258	X	249.000	Y	0.000	Z	0.000
259	X	252.667	Y	0.000	Z	0.000
260	X	256.334	Y	0.000	Z	0.000
261	X	260.000	Y	0.000	Z	0.000
301	X	0	Y	0.000	Z	-2.05
302	X	3.667	Y	0.000	Z	-2.05
303	X	7.334	Y	0.000	Z	-2.05
304	X	11.000	Y	0.000	Z	-2.05
305	X	14.667	Y	0.000	Z	-2.05
306	X	18.334	Y	0.000	Z	-2.05
307	X	22.000	Y	0.000	Z	-2.05
308	X	26.500	Y	0.000	Z	-2.05
309	X	31.000	Y	0.000	Z	-2.05
310	X	35.500	Y	0.000	Z	-2.05
311	X	40.000	Y	0.000	Z	-2.05
312	X	44.500	Y	0.000	Z	-2.05
313	X	49.000	Y	0.000	Z	-2.05
314	X	53.500	Y	0.000	Z	-2.05
315	X	58.000	Y	0.000	Z	-2.05
316	X	62.500	Y	0.000	Z	-2.05
317	X	67.000	Y	0.000	Z	-2.05
318	X	71.500	Y	0.000	Z	-2.05
319	X	76.000	Y	0.000	Z	-2.05
320	X	80.500	Y	0.000	Z	-2.05
321	X	85.000	Y	0.000	Z	-2.05
322	X	89.500	Y	0.000	Z	-2.05
323	X	94.000	Y	0.000	Z	-2.05
324	X	98.500	Y	0.000	Z	-2.05
325	X	103.000	Y	0.000	Z	-2.05
326	X	107.500	Y	0.000	Z	-2.05
327	X	112.000	Y	0.000	Z	-2.05
328	X	116.500	Y	0.000	Z	-2.05
329	X	121.000	Y	0.000	Z	-2.05
330	X	125.500	Y	0.000	Z	-2.05
331	X	130.000	Y	0.000	Z	-2.05
332	X	134.500	Y	0.000	Z	-2.05
333	X	139.000	Y	0.000	Z	-2.05
334	X	143.500	Y	0.000	Z	-2.05
335	X	148.000	Y	0.000	Z	-2.05
336	X	152.500	Y	0.000	Z	-2.05
337	X	157.000	Y	0.000	Z	-2.05
338	X	161.500	Y	0.000	Z	-2.05
339	X	166.000	Y	0.000	Z	-2.05
340	X	170.500	Y	0.000	Z	-2.05
341	X	175.000	Y	0.000	Z	-2.05
342	X	179.500	Y	0.000	Z	-2.05
343	X	184.000	Y	0.000	Z	-2.05
344	X	188.500	Y	0.000	Z	-2.05
345	X	193.000	Y	0.000	Z	-2.05
346	X	197.500	Y	0.000	Z	-2.05
347	X	202.000	Y	0.000	Z	-2.05
348	X	206.500	Y	0.000	Z	-2.05
349	X	211.000	Y	0.000	Z	-2.05
350	X	215.500	Y	0.000	Z	-2.05
351	X	220.000	Y	0.000	Z	-2.05
352	X	224.500	Y	0.000	Z	-2.05
353	X	229.000	Y	0.000	Z	-2.05
354	X	233.500	Y	0.000	Z	-2.05
355	X	238.000	Y	0.000	Z	-2.05
356	X	241.667	Y	0.000	Z	-2.05
357	X	245.334	Y	0.000	Z	-2.05
358	X	249.000	Y	0.000	Z	-2.05
359	X	252.667	Y	0.000	Z	-2.05
360	X	256.334	Y	0.000	Z	-2.05
361	X	260.000	Y	0.000	Z	-2.05
401	X	0	Y	0.000	Z	-3.000
402	X	3.667	Y	0.000	Z	-3.000
403	X	7.334	Y	0.000	Z	-3.000
404	X	11.000	Y	0.000	Z	-3.000
405	X	14.667	Y	0.000	Z	-3.000
406	X	18.334	Y	0.000	Z	-3.000
407	X	22.000	Y	0.000	Z	-3.000
408	X	26.500	Y	0.000	Z	-3.000
409	X	31.000	Y	0.000	Z	-3.000
410	X	35.500	Y	0.000	Z	-3.000
411	X	40.000	Y	0.000	Z	-3.000
412	X	44.500	Y	0.000	Z	-3.000
413	X	49.000	Y	0.000	Z	-3.000
414	X	53.500	Y	0.000	Z	-3.000
415	X	58.000	Y	0.000	Z	-3.000
416	X	62.500	Y	0.000	Z	-3.000
417	X	67.000	Y	0.000	Z	-3.000
418	X	71.500	Y	0.000	Z	-3.000
419	X	76.000	Y	0.000	Z	-3.000
420	X	80.500	Y	0.000	Z	-3.000
421	X	85.000	Y	0.000	Z	-3.000
422	X	89.500	Y	0.000	Z	-3.000
423	X	94.000	Y	0.000	Z	-3.000
424	X	98.500	Y	0.000	Z	-3.000
425	X	103.000	Y	0.000	Z	-3.000
426	X	107.500	Y	0.000	Z	-3.000
427	X	112.000	Y	0.000	Z	-3.000
428	X	116.500	Y	0.000	Z	-3.000
429	X	121.000	Y	0.000	Z	-3.000
430	X	125.500	Y	0.000	Z	-3.000
431	X	130.000	Y	0.000	Z	-3.000
432	X	134.500	Y	0.000	Z	-3.000
433	X	139.000	Y	0.000	Z	-3.000
434	X	143.500	Y	0.000	Z	-3.000
435	X	148.000	Y	0.000	Z	-3.000
436	X	152.500	Y	0.000	Z	-3.000
437	X	157.000	Y	0.000	Z	-3.000
438	X	161.500	Y	0.000	Z	-3.000
439	X	166.000	Y	0.000	Z	-3.000
440	X	170.500	Y	0.000	Z	-3.000
441	X	175.000	Y	0.000	Z	-3.000
442	X	179.500	Y	0.000	Z	-3.000
443	X	184.000	Y	0.000	Z	-3.000
444	X	188.500	Y	0.000	Z	-3.000
445	X	193.000	Y	0.000	Z	-3.000

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446   X     197.500   Y  0.000   Z  -3.000
447   X     202.000   Y  0.000   Z  -3.000
448   X     206.500   Y  0.000   Z  -3.000
449   X     211.000   Y  0.000   Z  -3.000
450   X     215.500   Y  0.000   Z  -3.000
451   X     220.000   Y  0.000   Z  -3.000
452   X     224.500   Y  0.000   Z  -3.000
453   X     229.000   Y  0.000   Z  -3.000
454   X     233.500   Y  0.000   Z  -3.000
455   X     238.000   Y  0.000   Z  -3.000
456   X     241.667   Y  0.000   Z  -3.000
457   X     245.334   Y  0.000   Z  -3.000
458   X     249.000   Y  0.000   Z  -3.000
459   X     252.667   Y  0.000   Z  -3.000
460   X     256.334   Y  0.000   Z  -3.000
461   X     260.000   Y  0.000   Z  -3.000

$ BASE DE PILAS Y ESTRIBOS

$ E-1

601   X       0.000   Y   -1.75   Z   3.000
701   X       0.000   Y   -1.75   Z   -3.000


$ P-1

602   X       22.00   Y  -1.75   Z   3.000
702   X       22.00   Y  -1.75   Z   -3.000
802   X       22.00   Y  -15.225  Z    3.000
902   X       22.00   Y  -15.225  Z   -3.000
952   X       22.00   Y  -15.225  Z    0.000
962   X       22.00   Y  -16.225  Z    0.000

$ P-2

603   X       58.00   Y  -1.75   Z   3.000
703   X       58.00   Y  -1.75   Z   -3.000
803   X       58.00   Y  -14.146  Z    3.000
903   X       58.00   Y  -14.146  Z   -3.000
953   X       58.00   Y  -14.146  Z    0.000
963   X       58.00   Y  -15.146  Z    0.000


$ P-3

604   X       94.00   Y  -1.75   Z   3.000
704   X       94.00   Y  -1.75   Z   -3.000
804   X       94.00   Y  -17.293  Z   3.000
904   X       94.00   Y  -17.293  Z   -3.000
954   X       94.00   Y  -17.293  Z    0.000
964   X       94.00   Y  -18.293  Z    0.000

$ P-4

605   X       130.0   Y  -1.75   Z   3.000
705   X       130.0   Y  -1.75   Z   -3.000
805   X       130.0   Y  -17.905  Z   3.000
905   X       130.0   Y  -17.905  Z   -3.000
955   X       130.00   Y  -17.905  Z    0.000
965   X       130.00   Y  -18.905  Z    0.000


$ P-5

606   X       166.0   Y  -1.75   Z   3.000
706   X       166.0   Y  -1.75   Z   -3.000
806   X       166.0   Y  -18.083  Z   3.000
906   X       166.0   Y  -18.083  Z   -3.000
956   X       166.0   Y  -18.083  Z    0.000
966   X       166.0   Y  -19.083  Z    0.000

$ P-6

607   X       202.0   Y  -1.75   Z   3.000
707   X       202.0   Y  -1.75   Z   -3.000
807   X       202.0   Y  -17.093  Z   3.000
907   X       202.0   Y  -17.093  Z   -3.000
957   X       202.0   Y  -17.093  Z    0.000
967   X       202.0   Y  -18.093  Z    0.000

$ P-7

608   X       238.0   Y  -1.75   Z   3.000
708   X       238.0   Y  -1.75   Z   -3.000
808   X       238.0   Y  -13.21   Z   3.000
908   X       238.0   Y  -13.21   Z   -3.000
958   X       238.0   Y  -13.21   Z    0.000
968   X       238.0   Y  -14.21   Z    0.000

$ E-2

609   X       260.0   Y  -1.75   Z   3.000
709   X       260.0   Y  -1.75   Z   -3.000

$ APOYO E-1

1000  X       -2.0   Y  0.000   Z    3.000
1001  X       -2.0   Y  0.000   Z   -3.000

$ ------------------------
$ CONDICIONES DE CONTORNO
$ ------------------------

STATUS SUPPORT JOINTS 1000 1001 -
601 701 609 709 962 TO 968

JOINT RELEASES

601 701 FORCE X MOMENT X Y Z
609 709 MOMENT X Y Z KFX 1920
1000 1001 MOMENT X Y Z KFY 8000

$ --------------------
$ GENERACIÓN DE BARRAS
$ --------------------

MEMBER INCIDENCES

$ VIGAS LONGITUDINALES

GENERATE 60 MEMBERS ID 1,1 FROM 1,1 TO 2,1
GENERATE 60 MEMBERS ID 61,1 FROM 401,1 TO 402,1

$ VIGAS TRANSVERSALES

GENERATE 61 MEMBERS ID 121,1 FROM 1,1 TO 101,1
GENERATE 61 MEMBERS ID 182,1 FROM 101,1 TO 201,1
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GENERATE 61 MEMBERS ID 243,1 FROM 201,1 TO 301,1
GENERATE 61 MEMBERS ID 304,1 FROM 301,1 TO 401,1

$ VIGAS RIGIDAS APOYOS

MEMBER INCIDENCES
365 1 601

GENERATE 7 MEMBERS ID 366,1 FROM 7,8 TO 602,1

MEMBER INCIDENCES
373 61 609
374 401 701

GENERATE 7 MEMBERS ID 375,1 FROM 407,8 TO 702,1

MEMBER INCIDENCES
382 461 709

$ PILAS

GENERATE 7 MEMBERS ID 391,1 FROM 602,1 TO 802,1
GENERATE 7 MEMBERS ID 398,1 FROM 702,1 TO 902,1

$ VIGAS FLEXIBLES EN ESTRIBO E-1

MEMBER INCIDENCES
405 1000 1
406 1001 401

$ ENCÉPADOS

407 902 952
408 952 802
409 903 953
410 953 803
411 904 954
412 954 804
413 905 955
414 955 805
415 906 956
416 956 806
417 907 957
418 957 807
419 908 958
420 958 808

$ EMPOTRAMIENTO ENCEPADOS

421 952 962
422 953 963
423 954 964
424 955 965
425 956 966
426 957 967
427 958 968

$ ----------------------------------------
$ CONDICIONES CINEMÁTICAS VIGA - CARGADERO
$ ----------------------------------------

MEMBER RELEASES

391 TO 404 START FORCE Y START MOMENT Z X
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$ ------------------------------
$ CARACTERÍSTICAS DE LAS SECCIONES
$ ------------------------------

CONSTANTS

E     21000000    ALL
G     8077000     ALL
DENS  7.85        ALL
CTE   1.2E-5      ALL

MEMBER PROPERTIES

$$$$$$$$$$    VIGAS LONGITUDINALES    $$$$$$$$$$$$$

$ SECCION 1 (CENTRO DE VANO)

MEMBER PROPERTIES
3 10 TO 50 BY 8  11 TO 51 BY 8 58 -
63 70 TO 110 BY 8 71 TO 111 BY 8 118 -
AX 0.570  IX 0.151  IY 1.7208  IZ 0.500 YD 2.45 YC 0.9

$ SECCION 4 (CENTRO DE VANO INTERMEDIA)

1 2 4 5 8 TO 48 BY 8 9 TO 49 BY 8 12 TO 52 BY 8 -
13 TO 53 BY 8 56 57 59 60 -
61 62 64 65 68 TO 108 BY 8 69 TO 109 BY 8 72 TO 112 BY 8 -
73 TO 113 BY 8 116 117 119 120 -
AX 0.570  IX 0.151  IY 1.7208  IZ 0.450 YD 2.45 YC 0.9

$ SECCION 2 (APOYO INTERMEDIA) y 3 (APOYO)

6 66 VARIABLE
SEG 1 AX 0.60 IX 0.151 IY 1.7208 IZ 0.29 YD 2.45 YC 1.58 L 1.867  $
SECC 2
SEG 2 AX 0.24 IX 0.151 IY 1.7208 IZ 0.215 YD 2.45 YC 1.65         $
SECC 3

14 TO 54 BY 8 74 TO 114 BY 8 VARIABLE
SEG 1 AX 0.60 IX 0.151 IY 1.7208 IZ 0.29 YD 2.45 YC 1.58 L 2.7    $
SECC 2
SEG 2 AX 0.24 IX 0.151 IY 1.7208 IZ 0.215 YD 2.45 YC 1.65         $
SECC 3

55 115 VARIABLE
SEG 1 AX 0.24 IX 0.151 IY 1.7208 IZ 0.215 YD 2.45 YC 1.65 L 1.8   $
SECC 3
SEG 2 AX 0.60 IX 0.151 IY 1.7208 IZ 0.29 YD 2.45 YC 1.58          $
SECC 2

7 TO 47 BY 8 67 TO 107 BY 8 VARIABLE
SEG 1 AX 0.24 IX 0.151 IY 1.7208 IZ 0.215 YD 2.45 YC 1.65 L 1.8   $
SECC 3
SEG 2 AX 0.60 IX 0.151 IY 1.7208 IZ 0.29 YD 2.45 YC 1.58          $
SECC 2

$$$$$$$$$$ VIGAS TRANSVERSALES EN LOSA  $$$$$$$$$$$$$

$ CENTRALES

189 TO 235 250 TO 296 -
AX 0.8541 IX 0.0029 IY 100.0  IZ 0.00115
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188 249 236 297 -
AX 0.7740 IX 0.00265 IY 100.0  IZ 0.00105

183 TO 187 237 TO 241 244 TO 248 298 TO 302 -
AX 0.6960 IX 0.00239 IY 100.0  IZ 0.00094

182 243 242 303 -
AX 0.3470 IX 0.00119 IY 100.0  IZ 0.00047

$ LATERALES

128 TO 174 311 TO 357 -
127 310 175 358 -
122 TO 126 305 TO 309 176 TO 180 359 TO 363 -
121 304 181 364 -
AX 10.0 IX 10.0 IY 100.0  IZ 10.0

$$$$$$$$$$    PILAS    $$$$$$$$$$$$$

391 TO 404 -
AX 0.4160 IX 0.342 IY 0.3660  IZ 0.1520

$$$$$$$$    ELEMENTOS RIGIDOS DE APOYO  $$$$$$$$$$$4

365 TO 382 -
405 406 -
407 TO 427 -
AX 10.0 IX 100.0 IY 100.0  IZ 100.0


LOADING 1 'BALASTO TOTAL '

MEMBER LOADS

1 TO 120 -
FORCE Y GLOBAL UNIF W -4.8455

1 TO 60 -
MOMENT X GLOBAL UNIF W -2.037

61 TO 120 -
MOMENT X GLOBAL UNIF W 2.037

$ ESFUERZO TRANSVERSAL RESIDUAL EN CABEZA DE PILA. EVITAR ERRORES
INTERNOS.

JOINT LOADS
602 TO 608 702 TO 708 MOM X 0.001

LOADING 2 'MEDIO BALASTO VIA 1'

MEMBER LOADS

1 TO 60 -
FORCE Y GLOBAL UNIF W -2.4228

1 TO 60 -
MOMENT X GLOBAL UNIF W -1.019

$ ESFUERZO TRANSVERSAL RESIDUAL EN CABEZA DE PILA. EVITAR ERRORES
INTERNOS.

JOINT LOADS
602 TO 608 702 TO 708 MOM X 0.001

LOADING 3 'MEDIO BALASTO VIA 2'

MEMBER LOADS

61 TO 120 -
FORCE Y GLOBAL UNIF W -2.4228

61 TO 120 -
MOMENT X GLOBAL UNIF W -1.019

$ ESFUERZO TRANSVERSAL RESIDUAL EN CABEZA DE PILA. EVITAR ERRORES
INTERNOS.

JOINT LOADS
602 TO 608 702 TO 708 MOM X 0.001

LOADING 4 'RESTO CARGA MUERTA'

MEMBER LOADS

1 TO 120 -
FORCE Y GLOBAL UNIF W -1.3275

$ ESFUERZO TRANSVERSAL RESIDUAL EN CABEZA DE PILA. EVITAR ERRORES
INTERNOS.

JOINT LOADS
602 TO 608 702 TO 708 MOM X 0.001

$$$$$ CARGAS RENFE $$$$$

LOADING 5 'VIENTO'

MEMBER LOADS

$ TABLERO

1 TO 60 FORCE Z GLOBAL UNIF W 0.94

61 TO 120 FORCE Z GLOBAL UNIF W 0.94

1 TO 120 MOMENT X GLOBAL UNIF W 1.69
$ PILAS

391 TO 404 FORCE Z GLOBAL UNIF W 0.32


$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$

LOADING 6 'TERMICO NU=0.01'

MEMBER TEMPERATURE

1 TO 120 AXIAL 20
1 TO 120 BENDING Z -4.25

MEMBER LOADS

366 375 FORCE X GLOBAL CONC FR P -1.96 L 1.0
391 398 FORCE X GLOBAL CONC FR P 1.96 L 0.0
367 376 FORCE X GLOBAL CONC FR P -5.44 L 1.0
392 399 FORCE X GLOBAL CONC FR P 5.44 L 0.0
368 377 FORCE X GLOBAL CONC FR P -6.61 L 1.0
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393 400 FORCE X GLOBAL CONC FR P 6.61 L 0.0
369 378 FORCE X GLOBAL CONC FR P -6.55 L 1.0
394 401 FORCE X GLOBAL CONC FR P 6.55 L 0.0
370 379 FORCE X GLOBAL CONC FR P -6.56 L 1.0
395 402 FORCE X GLOBAL CONC FR P 6.56 L 0.0
371 380 FORCE X GLOBAL CONC FR P -6.61 L 1.0
396 403 FORCE X GLOBAL CONC FR P 6.61 L 0.0
372 381 FORCE X GLOBAL CONC FR P -5.5 L 1.0
397 404 FORCE X GLOBAL CONC FR P 5.5 L 0.0
373 382 FORCE X GLOBAL CONC FR P -1.84 L 1.0

LOADING 7 'TERMICO NU=0.05'

MEMBER TEMPERATURE

1 TO 120 AXIAL 20
1 TO 120 BENDING Z -4.25

MEMBER LOADS

366 375 FORCE X GLOBAL CONC FR P -26.0 L 1.0
391 398 FORCE X GLOBAL CONC FR P 26.0 L 0.0
367 376 FORCE X GLOBAL CONC FR P -27.2 L 1.0
392 399 FORCE X GLOBAL CONC FR P 27.2 L 0.0
368 377 FORCE X GLOBAL CONC FR P -33.05 L 1.0
393 400 FORCE X GLOBAL CONC FR P 33.05 L 0.0
369 378 FORCE X GLOBAL CONC FR P -32.8 L 1.0
394 401 FORCE X GLOBAL CONC FR P 32.8 L 0.0
370 379 FORCE X GLOBAL CONC FR P -32.8 L 1.0
395 402 FORCE X GLOBAL CONC FR P 32.8 L 0.0
371 380 FORCE X GLOBAL CONC FR P -33.05 L 1.0
396 403 FORCE X GLOBAL CONC FR P 33.05 L 0.0
372 381 FORCE X GLOBAL CONC FR P -27.5 L 1.0
397 404 FORCE X GLOBAL CONC FR P 27.5 L 0.0
373 382 FORCE X GLOBAL CONC FR P -9.8 L 1.0

LOADING 8 'FRENADO'

MEMBER LOADS

1 TO 120 FORCE X GLOBAL UNIF W 1.21
1 TO 120 MOMENT Z GLOBAL UNIF W -3.8

LOADING 9 'F. CENTRIFUGA'

MEMBER LOADS

1 TO 120 FORCE Z GLOBAL UNIF W 0.44

1 TO 120 MOMENT X UNIF W 1.42

$$$$ CARGAS UIC $$$$

LOADING 10 'F. CENTRIFUGA UIC'

MEMBER LOADS

1 TO 120 FORCE Z GLOBAL UNIF W 0.44

1 TO 120 MOMENT X UNIF W 1.42

LOADING 11 'VIENTO UIC'

MEMBER LOADS

$ TABLERO

1 TO 60 FORCE Z GLOBAL UNIF W 0.94

61 TO 120 FORCE Z GLOBAL UNIF W 0.94

1 TO 120 MOMENT X GLOBAL UNIF W 1.69
$ PILAS

391 TO 404 FORCE Z GLOBAL UNIF W 0.32

LOADING 12 'FRENADO UIC'

MEMBER LOADS

1 TO 120 FORCE X GLOBAL UNIF W 2.0375
1 TO 120 MOMENT Z GLOBAL UNIF W -6.53

LOADING 13 'INTERACCION VIA-ESTRUCTURA UIC'

MEMBER LOADS

1 TO 120 FORCE X GLOBAL UNIF W 0.5
1 TO 120 MOMENT Z GLOBAL UNIF W -0.463

$ ASIENTOS DIFERENCIALES

LOADING 14 'ASIENTOS DIFERENCIALES E-1 MOVIL'

JOINT DISPLACEMENTS

601 701 DISPL Y -0.02

LOADING 15 'ASIENTOS DIFERENCIALES PILA 1'

JOINT DISPLACEMENTS

962 DISPL Y -0.005

LOADING 16 'ASIENTOS DIFERENCIALES PILA 2'

JOINT DISPLACEMENTS

963 DISPL Y -0.005

LOADING 17 'ASIENTOS DIFERENCIALES PILA 3'

JOINT DISPLACEMENTS

964 DISPL Y -0.005

LOADING 18 'ASIENTOS DIFERENCIALES PILA 4'

JOINT DISPLACEMENTS

965 DISPL Y -0.005

LOADING 19 'ASIENTOS DIFERENCIALES PILA 5'

JOINT DISPLACEMENTS

966 DISPL Y -0.005
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LOADING 20 'ASIENTOS DIFERENCIALES PILA 6'

JOINT DISPLACEMENTS

967 DISPL Y -0.005

LOADING 21 'ASIENTOS DIFERENCIALES PILA 7'

JOINT DISPLACEMENTS

968 DISPL Y -0.01

LOADING 22 'ASIENTOS DIFERENCIALES E-2'

JOINT DISPLACEMENTS

609 709 DISPL Y -0.02

STIFFNESS ANALYSIS

DBX FILE SPECS UNFORMATTED DIRECT 'CMSC_E' 'CHORROS DEFINIT _ ESF'
WRITE MEMBER RESULTS FROM GTSTRUDL INTO FILE 'CMSC_E' ALL MEMBER

DBX FILE SPECS UNFORMATTED DIRECT 'CMSC_M' 'CHORROS DEFINIT _ MOV'
WRITE JOINT RESULTS FROM GTSTRUDL INTO FILE 'CMSC_M' ALL JOINTS

$ SECTION FR NS 3 0.0 0.5 1.0
$ LIST SECTION FORCES

FINISH
```

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$ ----------------------------------------
$ VIADUCTO DE LOS CHORROS. PROYECTO DEFINITIVO.
$ ----------------------------------------

$ ----------------------------------------
$ MODELO 3D. STRUDL. CONSTANTES 0.
$ ----------------------------------------

$ ---------
$ MARZO 99
$ ---------

STRUDL 'VIADUCTO DE LOS CHORROS' 'PESO PROPIO' 'MARZO 99'
UNITS M MTON CENTIGRADES
TYPE SPACE FRAME
OUTPUT ORDERED

PRINT GENERATE OFF

$ ------------------
$ DEFINICION DE NODOS
$ ------------------

JOINT COORDINATES

$ TABLERO

1    X    0        Y  0.000  Z  3.000
2    X    3.667    Y  0.000  Z  3.000
3    X    7.334    Y  0.000  Z  3.000
4    X    11.000   Y  0.000  Z  3.000
5    X    14.667   Y  0.000  Z  3.000
6    X    18.334   Y  0.000  Z  3.000
7    X    22.000   Y  0.000  Z  3.000
8    X    26.500   Y  0.000  Z  3.000
9    X    31.000   Y  0.000  Z  3.000
10   X    35.500   Y  0.000  Z  3.000
11   X    40.000   Y  0.000  Z  3.000
12   X    44.500   Y  0.000  Z  3.000
13   X    49.000   Y  0.000  Z  3.000
14   X    53.500   Y  0.000  Z  3.000
15   X    58.000   Y  0.000  Z  3.000
16   X    62.500   Y  0.000  Z  3.000
17   X    67.000   Y  0.000  Z  3.000
18   X    71.500   Y  0.000  Z  3.000
19   X    76.000   Y  0.000  Z  3.000
20   X    80.500   Y  0.000  Z  3.000
21   X    85.000   Y  0.000  Z  3.000
22   X    89.500   Y  0.000  Z  3.000
23   X    94.000   Y  0.000  Z  3.000
24   X    98.500   Y  0.000  Z  3.000
25   X    103.000  Y  0.000  Z  3.000
26   X    107.500  Y  0.000  Z  3.000
27   X    112.000  Y  0.000  Z  3.000
28   X    116.500  Y  0.000  Z  3.000
29   X    121.000  Y  0.000  Z  3.000
30   X    125.500  Y  0.000  Z  3.000
31   X    130.000  Y  0.000  Z  3.000
32   X    134.500  Y  0.000  Z  3.000
33   X    139.000  Y  0.000  Z  3.000
34   X    143.500  Y  0.000  Z  3.000
35   X    148.000  Y  0.000  Z  3.000
36   X    152.500  Y  0.000  Z  3.000
37   X    157.000  Y  0.000  Z  3.000
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LISTADO DE DATOS

38	X	161.500	Y	0.000	Z	3.000
39	X	166.000	Y	0.000	Z	3.000
40	X	170.500	Y	0.000	Z	3.000
41	X	175.000	Y	0.000	Z	3.000
42	X	179.500	Y	0.000	Z	3.000
43	X	184.000	Y	0.000	Z	3.000
44	X	188.500	Y	0.000	Z	3.000
45	X	193.000	Y	0.000	Z	3.000
46	X	197.500	Y	0.000	Z	3.000
47	X	202.000	Y	0.000	Z	3.000
48	X	206.500	Y	0.000	Z	3.000
49	X	211.000	Y	0.000	Z	3.000
50	X	215.500	Y	0.000	Z	3.000
51	X	220.000	Y	0.000	Z	3.000
52	X	224.500	Y	0.000	Z	3.000
53	X	229.000	Y	0.000	Z	3.000
54	X	233.500	Y	0.000	Z	3.000
55	X	238.000	Y	0.000	Z	3.000
56	X	241.667	Y	0.000	Z	3.000
57	X	245.334	Y	0.000	Z	3.000
58	X	249.000	Y	0.000	Z	3.000
59	X	252.667	Y	0.000	Z	3.000
60	X	256.334	Y	0.000	Z	3.000
61	X	260.000	Y	0.000	Z	3.000

101	X	0	Y	0.000	Z	2.05
102	X	3.667	Y	0.000	Z	2.05
103	X	7.334	Y	0.000	Z	2.05
104	X	11.000	Y	0.000	Z	2.05
105	X	14.667	Y	0.000	Z	2.05
106	X	18.334	Y	0.000	Z	2.05
107	X	22.000	Y	0.000	Z	2.05
108	X	26.500	Y	0.000	Z	2.05
109	X	31.000	Y	0.000	Z	2.05
110	X	35.500	Y	0.000	Z	2.05
111	X	40.000	Y	0.000	Z	2.05
112	X	44.500	Y	0.000	Z	2.05
113	X	49.000	Y	0.000	Z	2.05
114	X	53.500	Y	0.000	Z	2.05
115	X	58.000	Y	0.000	Z	2.05
116	X	62.500	Y	0.000	Z	2.05
117	X	67.000	Y	0.000	Z	2.05
118	X	71.500	Y	0.000	Z	2.05
119	X	76.000	Y	0.000	Z	2.05
120	X	80.500	Y	0.000	Z	2.05
121	X	85.000	Y	0.000	Z	2.05
122	X	89.500	Y	0.000	Z	2.05
123	X	94.000	Y	0.000	Z	2.05
124	X	98.500	Y	0.000	Z	2.05
125	X	103.000	Y	0.000	Z	2.05
126	X	107.500	Y	0.000	Z	2.05
127	X	112.000	Y	0.000	Z	2.05
128	X	116.500	Y	0.000	Z	2.05
129	X	121.000	Y	0.000	Z	2.05
130	X	125.500	Y	0.000	Z	2.05
131	X	130.000	Y	0.000	Z	2.05
132	X	134.500	Y	0.000	Z	2.05
133	X	139.000	Y	0.000	Z	2.05
134	X	143.500	Y	0.000	Z	2.05
135	X	148.000	Y	0.000	Z	2.05
136	X	152.500	Y	0.000	Z	2.05
137	X	157.000	Y	0.000	Z	2.05
138	X	161.500	Y	0.000	Z	2.05
139	X	166.000	Y	0.000	Z	2.05

140	X	170.500	Y	0.000	Z	2.05
141	X	175.000	Y	0.000	Z	2.05
142	X	179.500	Y	0.000	Z	2.05
143	X	184.000	Y	0.000	Z	2.05
144	X	188.500	Y	0.000	Z	2.05
145	X	193.000	Y	0.000	Z	2.05
146	X	197.500	Y	0.000	Z	2.05
147	X	202.000	Y	0.000	Z	2.05
148	X	206.500	Y	0.000	Z	2.05
149	X	211.000	Y	0.000	Z	2.05
150	X	215.500	Y	0.000	Z	2.05
151	X	220.000	Y	0.000	Z	2.05
152	X	224.500	Y	0.000	Z	2.05
153	X	229.000	Y	0.000	Z	2.05
154	X	233.500	Y	0.000	Z	2.05
155	X	238.000	Y	0.000	Z	2.05
156	X	241.667	Y	0.000	Z	2.05
157	X	245.334	Y	0.000	Z	2.05
158	X	249.000	Y	0.000	Z	2.05
159	X	252.667	Y	0.000	Z	2.05
160	X	256.334	Y	0.000	Z	2.05
161	X	260.000	Y	0.000	Z	2.05

201	X	0	Y	0.000	Z	0.000
202	X	3.667	Y	0.000	Z	0.000
203	X	7.334	Y	0.000	Z	0.000
204	X	11.000	Y	0.000	Z	0.000
205	X	14.667	Y	0.000	Z	0.000
206	X	18.334	Y	0.000	Z	0.000
207	X	22.000	Y	0.000	Z	0.000
208	X	26.500	Y	0.000	Z	0.000
209	X	31.000	Y	0.000	Z	0.000
210	X	35.500	Y	0.000	Z	0.000
211	X	40.000	Y	0.000	Z	0.000
212	X	44.500	Y	0.000	Z	0.000
213	X	49.000	Y	0.000	Z	0.000
214	X	53.500	Y	0.000	Z	0.000
215	X	58.000	Y	0.000	Z	0.000
216	X	62.500	Y	0.000	Z	0.000
217	X	67.000	Y	0.000	Z	0.000
218	X	71.500	Y	0.000	Z	0.000
219	X	76.000	Y	0.000	Z	0.000
220	X	80.500	Y	0.000	Z	0.000
221	X	85.000	Y	0.000	Z	0.000
222	X	89.500	Y	0.000	Z	0.000
223	X	94.000	Y	0.000	Z	0.000
224	X	98.500	Y	0.000	Z	0.000
225	X	103.000	Y	0.000	Z	0.000
226	X	107.500	Y	0.000	Z	0.000
227	X	112.000	Y	0.000	Z	0.000
228	X	116.500	Y	0.000	Z	0.000
229	X	121.000	Y	0.000	Z	0.000
230	X	125.500	Y	0.000	Z	0.000
231	X	130.000	Y	0.000	Z	0.000
232	X	134.500	Y	0.000	Z	0.000
233	X	139.000	Y	0.000	Z	0.000
234	X	143.500	Y	0.000	Z	0.000
235	X	148.000	Y	0.000	Z	0.000
236	X	152.500	Y	0.000	Z	0.000
237	X	157.000	Y	0.000	Z	0.000
238	X	161.500	Y	0.000	Z	0.000
239	X	166.000	Y	0.000	Z	0.000
240	X	170.500	Y	0.000	Z	0.000
241	X	175.000	Y	0.000	Z	0.000

242	X	179.500	Y	0.000	Z	0.000
243	X	184.000	Y	0.000	Z	0.000
244	X	188.500	Y	0.000	Z	0.000
245	X	193.000	Y	0.000	Z	0.000
246	X	197.500	Y	0.000	Z	0.000
247	X	202.000	Y	0.000	Z	0.000
248	X	206.500	Y	0.000	Z	0.000
249	X	211.000	Y	0.000	Z	0.000
250	X	215.500	Y	0.000	Z	0.000
251	X	220.000	Y	0.000	Z	0.000
252	X	224.500	Y	0.000	Z	0.000
253	X	229.000	Y	0.000	Z	0.000
254	X	233.500	Y	0.000	Z	0.000
255	X	238.000	Y	0.000	Z	0.000
256	X	241.667	Y	0.000	Z	0.000
257	X	245.334	Y	0.000	Z	0.000
258	X	249.000	Y	0.000	Z	0.000
259	X	252.667	Y	0.000	Z	0.000
260	X	256.334	Y	0.000	Z	0.000
261	X	260.000	Y	0.000	Z	0.000

301	X	0	Y	0.000	Z	-2.05
302	X	3.667	Y	0.000	Z	-2.05
303	X	7.334	Y	0.000	Z	-2.05
304	X	11.000	Y	0.000	Z	-2.05
305	X	14.667	Y	0.000	Z	-2.05
306	X	18.334	Y	0.000	Z	-2.05
307	X	22.000	Y	0.000	Z	-2.05
308	X	26.500	Y	0.000	Z	-2.05
309	X	31.000	Y	0.000	Z	-2.05
310	X	35.500	Y	0.000	Z	-2.05
311	X	40.000	Y	0.000	Z	-2.05
312	X	44.500	Y	0.000	Z	-2.05
313	X	49.000	Y	0.000	Z	-2.05
314	X	53.500	Y	0.000	Z	-2.05
315	X	58.000	Y	0.000	Z	-2.05
316	X	62.500	Y	0.000	Z	-2.05
317	X	67.000	Y	0.000	Z	-2.05
318	X	71.500	Y	0.000	Z	-2.05
319	X	76.000	Y	0.000	Z	-2.05
320	X	80.500	Y	0.000	Z	-2.05
321	X	85.000	Y	0.000	Z	-2.05
322	X	89.500	Y	0.000	Z	-2.05
323	X	94.000	Y	0.000	Z	-2.05
324	X	98.500	Y	0.000	Z	-2.05
325	X	103.000	Y	0.000	Z	-2.05
326	X	107.500	Y	0.000	Z	-2.05
327	X	112.000	Y	0.000	Z	-2.05
328	X	116.500	Y	0.000	Z	-2.05
329	X	121.000	Y	0.000	Z	-2.05
330	X	125.500	Y	0.000	Z	-2.05
331	X	130.000	Y	0.000	Z	-2.05
332	X	134.500	Y	0.000	Z	-2.05
333	X	139.000	Y	0.000	Z	-2.05
334	X	143.500	Y	0.000	Z	-2.05
335	X	148.000	Y	0.000	Z	-2.05
336	X	152.500	Y	0.000	Z	-2.05
337	X	157.000	Y	0.000	Z	-2.05
338	X	161.500	Y	0.000	Z	-2.05
339	X	166.000	Y	0.000	Z	-2.05
340	X	170.500	Y	0.000	Z	-2.05
341	X	175.000	Y	0.000	Z	-2.05
342	X	179.500	Y	0.000	Z	-2.05
343	X	184.000	Y	0.000	Z	-2.05
344	X	188.500	Y	0.000	Z	-2.05
345	X	193.000	Y	0.000	Z	-2.05
346	X	197.500	Y	0.000	Z	-2.05
347	X	202.000	Y	0.000	Z	-2.05
348	X	206.500	Y	0.000	Z	-2.05
349	X	211.000	Y	0.000	Z	-2.05
350	X	215.500	Y	0.000	Z	-2.05
351	X	220.000	Y	0.000	Z	-2.05
352	X	224.500	Y	0.000	Z	-2.05
353	X	229.000	Y	0.000	Z	-2.05
354	X	233.500	Y	0.000	Z	-2.05
355	X	238.000	Y	0.000	Z	-2.05
356	X	241.667	Y	0.000	Z	-2.05
357	X	245.334	Y	0.000	Z	-2.05
358	X	249.000	Y	0.000	Z	-2.05
359	X	252.667	Y	0.000	Z	-2.05
360	X	256.334	Y	0.000	Z	-2.05
361	X	260.000	Y	0.000	Z	-2.05

401	X	0	Y	0.000	Z	-3.000
402	X	3.667	Y	0.000	Z	-3.000
403	X	7.334	Y	0.000	Z	-3.000
404	X	11.000	Y	0.000	Z	-3.000
405	X	14.667	Y	0.000	Z	-3.000
406	X	18.334	Y	0.000	Z	-3.000
407	X	22.000	Y	0.000	Z	-3.000
408	X	26.500	Y	0.000	Z	-3.000
409	X	31.000	Y	0.000	Z	-3.000
410	X	35.500	Y	0.000	Z	-3.000
411	X	40.000	Y	0.000	Z	-3.000
412	X	44.500	Y	0.000	Z	-3.000
413	X	49.000	Y	0.000	Z	-3.000
414	X	53.500	Y	0.000	Z	-3.000
415	X	58.000	Y	0.000	Z	-3.000
416	X	62.500	Y	0.000	Z	-3.000
417	X	67.000	Y	0.000	Z	-3.000
418	X	71.500	Y	0.000	Z	-3.000
419	X	76.000	Y	0.000	Z	-3.000
420	X	80.500	Y	0.000	Z	-3.000
421	X	85.000	Y	0.000	Z	-3.000
422	X	89.500	Y	0.000	Z	-3.000
423	X	94.000	Y	0.000	Z	-3.000
424	X	98.500	Y	0.000	Z	-3.000
425	X	103.000	Y	0.000	Z	-3.000
426	X	107.500	Y	0.000	Z	-3.000
427	X	112.000	Y	0.000	Z	-3.000
428	X	116.500	Y	0.000	Z	-3.000
429	X	121.000	Y	0.000	Z	-3.000
430	X	125.500	Y	0.000	Z	-3.000
431	X	130.000	Y	0.000	Z	-3.000
432	X	134.500	Y	0.000	Z	-3.000
433	X	139.000	Y	0.000	Z	-3.000
434	X	143.500	Y	0.000	Z	-3.000
435	X	148.000	Y	0.000	Z	-3.000
436	X	152.500	Y	0.000	Z	-3.000
437	X	157.000	Y	0.000	Z	-3.000
438	X	161.500	Y	0.000	Z	-3.000
439	X	166.000	Y	0.000	Z	-3.000
440	X	170.500	Y	0.000	Z	-3.000
441	X	175.000	Y	0.000	Z	-3.000
442	X	179.500	Y	0.000	Z	-3.000
443	X	184.000	Y	0.000	Z	-3.000
444	X	188.500	Y	0.000	Z	-3.000
445	X	193.000	Y	0.000	Z	-3.000

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446   X     197.500   Y  0.000   Z  -3.000
447   X     202.000   Y  0.000   Z  -3.000
448   X     206.500   Y  0.000   Z  -3.000
449   X     211.000   Y  0.000   Z  -3.000
450   X     215.500   Y  0.000   Z  -3.000
451   X     220.000   Y  0.000   Z  -3.000
452   X     224.500   Y  0.000   Z  -3.000
453   X     229.000   Y  0.000   Z  -3.000
454   X     233.500   Y  0.000   Z  -3.000
455   X     238.000   Y  0.000   Z  -3.000
456   X     241.667   Y  0.000   Z  -3.000
457   X     245.334   Y  0.000   Z  -3.000
458   X     249.000   Y  0.000   Z  -3.000
459   X     252.667   Y  0.000   Z  -3.000
460   X     256.334   Y  0.000   Z  -3.000
461   X     260.000   Y  0.000   Z  -3.000

$ BASE DE PILAS Y ESTRIBOS

$ E-1

601   X       0.000   Y   -1.75   Z   3.000
701   X       0.000   Y   -1.75   Z   -3.000


$ P-1

602   X      22.00    Y  -1.75   Z   3.000
702   X      22.00    Y  -1.75   Z   -3.000
802   X      22.00    Y  -15.225  Z    3.000
902   X      22.00    Y  -15.225  Z   -3.000
952   X      22.00    Y  -15.225  Z    0.000
962   X      22.00    Y  -16.225  Z    0.000

$ P-2

603   X      58.00    Y  -1.75   Z   3.000
703   X      58.00    Y  -1.75   Z   -3.000
803   X      58.00    Y  -14.146  Z    3.000
903   X      58.00    Y  -14.146  Z   -3.000
953   X      58.00    Y  -14.146  Z    0.000
963   X      58.00    Y  -15.146  Z    0.000


$ P-3

604   X      94.00    Y  -1.75   Z   3.000
704   X      94.00    Y  -1.75   Z   -3.000
804   X      94.00    Y  -17.293  Z   3.000
904   X      94.00    Y  -17.293  Z   -3.000
954   X      94.00    Y  -17.293  Z    0.000
964   X      94.00    Y  -18.293  Z    0.000

$ P-4

605   X     130.0     Y  -1.75   Z   3.000
705   X     130.0     Y  -1.75   Z   -3.000
805   X     130.0     Y  -17.905  Z   3.000
905   X     130.0     Y  -17.905  Z   -3.000
955   X     130.00    Y  -17.905  Z    0.000
965   X     130.00    Y  -18.905  Z    0.000


$ P-5

606   X     166.0     Y  -1.75   Z   3.000
706   X     166.0     Y  -1.75   Z   -3.000
806   X     166.0     Y  -18.083  Z   3.000
906   X     166.0     Y  -18.083  Z   -3.000
956   X     166.0     Y  -18.083  Z    0.000
966   X     166.0     Y  -19.083  Z    0.000

$ P-6

607   X     202.0     Y  -1.75   Z   3.000
707   X     202.0     Y  -1.75   Z   -3.000
807   X     202.0     Y  -17.093  Z   3.000
907   X     202.0     Y  -17.093  Z   -3.000
957   X     202.0     Y  -17.093  Z    0.000
967   X     202.0     Y  -18.093  Z    0.000

$ P-7

608   X     238.0     Y  -1.75   Z   3.000
708   X     238.0     Y  -1.75   Z   -3.000
808   X     238.0     Y  -13.21   Z   3.000
908   X     238.0     Y  -13.21   Z   -3.000
958   X     238.0     Y  -13.21   Z    0.000
968   X     238.0     Y  -14.21   Z    0.000

$ E-2

609   X     260.0     Y  -1.75   Z   3.000
709   X     260.0     Y  -1.75   Z   -3.000

$ APOYO E-1

1000  X      -2.0     Y  0.000   Z   3.000
1001  X      -2.0     Y  0.000   Z   -3.000

$ ----------------------
$ CONDICIONES DE CONTORNO
$ ----------------------

STATUS SUPPORT JOINTS 1000 1001 -
601 701 609 709 962 TO 968

JOINT RELEASES

601 701 FORCE X MOMENT X Y Z
609 709 MOMENT X Y Z KFX 1920
1000 1001 MOMENT X Y Z KFY 8000

$ --------------------
$ GENERACIÓN DE BARRAS
$ --------------------

MEMBER INCIDENCES

$ VIGAS LONGITUDINALES

GENERATE 60 MEMBERS ID 1.1 FROM 1.1 TO 2.1
GENERATE 60 MEMBERS ID 61.1 FROM 401.1 TO 402.1

$ VIGAS TRANSVERSALES

GENERATE 61 MEMBERS ID 121.1 FROM 1.1 TO 101.1
GENERATE 61 MEMBERS ID 182.1 FROM 101.1 TO 201.1
```

```
GENERATE 61 MEMBERS ID 243.1 FROM 201.1 TO 301.1
GENERATE 61 MEMBERS ID 304.1 FROM 301.1 TO 401.1

$ VIGAS RIGIDAS APOYOS

MEMBER INCIDENCES
365 1 601

GENERATE 7 MEMBERS ID 366.1 FROM 7.8 TO 602.1

MEMBER INCIDENCES
373 61 609
374 401 701

GENERATE 7 MEMBERS ID 375.1 FROM 407.8 TO 702.1

MEMBER INCIDENCES
382 461 709

$ PILAS

GENERATE 7 MEMBERS ID 391.1 FROM 602.1 TO 802.1
GENERATE 7 MEMBERS ID 398.1 FROM 702.1 TO 902.1

$ VIGAS FLEXIBLES EN ESTRIBO E-1

MEMBER INCIDENCES
405 1000 1
406 1001 401

$ ENCEPADOS

407 902 952
408 952 802
409 903 953
410 953 803
411 904 954
412 954 804
413 905 955
414 955 805
415 906 956
416 956 806
417 907 957
418 957 807
419 908 958
420 958 808

$ EMPOTRAMIENTO ENCEPADOS

421 952 962
422 953 963
423 954 964
424 955 965
425 956 966
426 957 967
427 958 968

$ ------------------------------------
$ CONDICIONES CINEMÁTICAS VIGA - CARGADERO
$ ------------------------------------

MEMBER RELEASES

391 TO 404 START FORCE Y START MOMENT Z X

$ VIGAS ISOSTATICAS

6 TO 54 BY 8 66 TO 114 BY 8 END MOMENT Z

$ ------------------------------
$ CARACTERÍSTICAS DE LAS SECCIONES
$ ------------------------------

CONSTANTS

E     21000000    ALL
G     8077000     ALL
DENS  7.85        ALL
CTE   1.2E-5      ALL

MEMBER PROPERTIES

$$$$$$$$$$    VIGAS LONGITUDINALES    $$$$$$$$$$$$$

$ SECCION 1 (CENTRO DE VANO)

MEMBER PROPERTIES
3 10 TO 50 BY 8  11 TO 51 BY 8 58 -
63 70 TO 110 BY 8 71 TO 111 BY 8 118 -
AX 0.570  IX 0.151  IY 1.7208  IZ 0.500

$ SECCION 4 (CENTRO DE VANO INTERMEDIA)

1 2 4 5 8 TO 48 BY 8 9 TO 49 BY 8 12 TO 52 BY 8 -
13 TO 53 BY 8 56 57 59 60 -
61 62 64 65 68 TO 108 BY 8 69 TO 109 BY 8 72 TO 112 BY 8 -
73 TO 113 BY 8 116 117 119 120 -
AX 0.570  IX 0.151  IY 1.7208  IZ 0.450

$ SECCION 2 (APOYO INTERMEDIA) y 3 (APOYO)

6 66 VARIABLE
SEG 1 AX 0.60 IX 0.151 IY 1.7208 IZ 0.29 L 1.867 $ SECC 2
SEG 2 AX 0.24 IX 0.151 IY 1.7208 IZ 0.215         $ SECC 3

14 TO 54 BY 8 74 TO 114 BY 8 VARIABLE
SEG 1 AX 0.60 IX 0.151 IY 1.7208 IZ 0.29 L 2.7   $ SECC 2
SEG 2 AX 0.24 IX 0.151 IY 1.7208 IZ 0.215         $ SECC 3

55 115 VARIABLE
SEG 1 AX 0.60 IX 0.151 IY 1.7208 IZ 0.215 L 1.8   $ SECC 3
SEG 2 AX 0.24 IX 0.151 IY 1.7208 IZ 0.29          $ SECC 2

7 TO 47 BY 8 67 TO 107 BY 8 VARIABLE
SEG 1 AX 0.60 IX 0.151 IY 1.7208 IZ 0.215 L 1.8   $ SECC 3
SEG 2 AX 0.24 IX 0.151 IY 1.7208 IZ 0.29          $ SECC 2

$$$$$$$$$$ VIGAS TRANSVERSALES EN LOSA  $$$$$$$$$$$$$

$ CENTRALES

189 TO 235 250 TO 296 -
AX 0.8541 IX 0.0029 IY 100.0  IZ 0.00115

188 249 236 297 -
AX 0.7740 IX 0.00265 IY 100.0  IZ 0.00105

183 TO 187 237 TO 241 244 TO 248 298 TO 302 -
```

```
AX 0.6960 IX 0.00239 IY 100.0  IZ 0.00094

182 243 242 303 -
AX 0.3470 IX 0.00119 IY 100.0  IZ 0.00047

$ LATERALES

128 TO 174 311 TO 357 -
127 310 175 358 -
122 TO 126 305 TO 309 176 TO 180 359 TO 363 -
121 304 181 364 -
AX 10.0 IX 10.0 IY 100.0  IZ 10.0

$$$$$$$$$$    PILAS    $$$$$$$$$$$$$

391 TO 404 -
AX 0.4160 IX 0.342 IY 0.3660  IZ 0.1520

$$$$$$$$    ELEMENTOS RIGIDOS DE APOYO    $$$$$$$$$$$$4

365 TO 382 -
405 406 -
407 TO 427 -
AX 10.0 IX 100.0 IY 100.0  IZ 100.0

LOADING 1 'PP VIGAS'

MEMBER LOADS

1 2 5 TO 53 BY 8 6 TO 54 BY 8 -
61 62 65 TO 113 BY 8 66 TO 114 BY 8 -
7 TO 55 BY 8 8 TO 56 BY 8 67 TO 115 BY 8 68 TO 116 BY 8 -
59 60 119 120 FORCE Y GLOBAL UNIF W -4.28

3 4 9 TO 57 BY 8 10 TO 58 BY 8 11 TO 51 BY 8 12 TO 52 BY 8 -
63 64 69 TO 117 BY 8 70 TO 118 BY 8 71 TO 111 BY 8 72 TO 112 BY 8 -
FORCE Y GLOBAL UNIF W -3.45

LOADING 2 'P. PLACAS + LOSA IN SITU EN ZONA CENTRAL'

MEMBER LOADS

$ VIA 1

1 TO 5 8 TO 13 16 TO 21 24 TO 29 32 TO 37 40 TO 45 48 TO 53 56 TO 60 -
FORCE Y GLOBAL UNIF W -4.28

1 TO 5 8 TO 13 16 TO 21 24 TO 29 32 TO 37 40 TO 45 48 TO 53 56 TO 60 -
MOMENT X GLOBAL UNIF W -2.39

$ VIA 2

61 TO 65 68 TO 73 76 TO 81 84 TO 89 92 TO 97 100 TO 105 108 TO 113 116 TO 120 -
FORCE Y GLOBAL UNIF W -4.28

61 TO 65 68 TO 73 76 TO 81 84 TO 89 92 TO 97 100 TO 105 108 TO 113 116 TO 120 -
MOMENT X GLOBAL UNIF W 2.39

$ ULTIMO MODULO DE PLACAS CERCA DE APOYO AMBAS VIAS

14 TO 54 BY 8 74 TO 114 BY 8 FORCE Y GLOBAL UNIF W -2.94 LA 0.0 LB 2.5

7 TO 47 BY 8 67 TO 107 BY 8 FORCE Y GLOBAL UNIF W -2.94 LA 2.0 LB 4.49

6 66 FORCE Y GLOBAL UNIF W -2.94 LA 0.0 LB 1.667

55 115 FORCE Y GLOBAL UNIF W -2.94 LA 2.0 LB 3.666

LOADING 3 'PP PILAS'

MEMBER LOADS

391 TO 404 FORCE Y GLOBAL UNIF W -6.65

$ --------
$ ANALISIS
$ --------

UNITS METERS MTONS

$ SE DESACTIVAN LOS ELEMENTOS LOSA

INACTIVE MEMBERS 121 TO 364
INACTIVE JOINTS 101 TO 161 201 TO 261 301 TO 361

STIFFNESS ANALYSIS

$ ACTIVE MEMBERS 121 TO 364
$ ACTIVE JOINTS 101 TO 161 201 TO 261 301 TO 361

DBX FILE SPECS UNFORMATTED DIRECT 'PP_E' 'CHORROS DEFINIT _ ESF'
WRITE MEMBER RESULTS FROM GTSTRUDL INTO FILE 'PP_E' ALL MEMBER

DBX FILE SPECS UNFORMATTED DIRECT 'PP_M' 'CHORROS DEFINIT _ MOV'
WRITE JOINT RESULTS FROM GTSTRUDL INTO FILE 'PP_M' ALL JOINTS

SECTION FR NS 3 0.0 0.5 1.0
LIST SECTION FORCES

$ LIST SUM OF REACTIONS
$ LIST REACTIONS
$ PRINT STRUCTURAL DATA
$ LIST DISPLACEMENT
$ LIST FORCES

$ FINISH
```

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Tue Apr 13 08:39:28 1999

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{    2} > $ VIADUCTO DE LOS CHORROS. PROYECTO DEFINITIVO.
{    3} > $ ----------------------------------------
{    4} >
{    5} > $ ----------------------------------------
{    6} > $ MODELO 3D. STRUDL. CONSTANTES 0.
{    7} > $ ----------------------------------------
{    8} >
{    9} > $ ---------
{   10} > $ MARZO 99
{   11} > $ ---------
{   12} >
{   13} > STRUDL 'VIADUCTO DE LOS CHORROS' 'PROYECTO DEFINITIVO' 'MARZO 99'
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SC. RENFE, UNA VÍA CARGALA

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*****************************************************************
*                                                               *
*   ******                    G T S T R U D L                   *
*  ********                                                     *
*  **    **                                                     *
*  **              *****  ******  *****   **  **  *****   **    *
*  **  **********  ******  ******  ******  **  **  ******  **    *
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*          **       *****   **  **  **  **   ****   *****   *******
*          **                                                   *
*          **                OWNED BY AND PROPRIETARY TO THE    *
*          **                GEORGIA TECH RESEARCH CORPORATION  *
*                                                               *
*  RELEASE DATE        VERSION          COMPLETION NO.          *
*  February 1995       9401 PC            3276                  *
*****************************************************************
*                                                               *
*****************************************************************
```

**** ACTIVE UNITS - LENGTH WEIGHT ANGLE TEMPERATURE TIME
**** ASSUMED TO BE INCH POUND RADIAN FAHRENHEIT SECOND

```
{   14} > UNITS M MTON CENTIGRADES
{   15} > TYPE SPACE FRAME
{   16} > OUTPUT ORDERED
{   17} >
{   18} > PRINT GENERATE OFF
{   19} >
{   20} > $ ------------------
{   21} > $ DEFINICION DE NODOS
{   22} > $ ------------------
{   23} >
{   24} > JOINT COORDINATES
{   25} >
{   26} > $ TABLERO
{   27} >
{   28} > 1    X    0        Y  0.000  Z  3.000
{   29} > 2    X    3.667    Y  0.000  Z  3.000
{   30} > 3    X    7.334    Y  0.000  Z  3.000
{   31} > 4    X   11.000    Y  0.000  Z  3.000
{   32} > 5    X   14.667    Y  0.000  Z  3.000
{   33} > 6    X   18.334    Y  0.000  Z  3.000
{   34} > 7    X   22.000    Y  0.000  Z  3.000
{   35} > 8    X   26.500    Y  0.000  Z  3.000
{   36} > 9    X   31.000    Y  0.000  Z  3.000
{   37} > 10   X   35.500    Y  0.000  Z  3.000
{   38} > 11   X   40.000    Y  0.000  Z  3.000
{   39} > 12   X   44.500    Y  0.000  Z  3.000
{   40} > 13   X   49.000    Y  0.000  Z  3.000
{   41} > 14   X   53.500    Y  0.000  Z  3.000
{   42} > 15   X   58.000    Y  0.000  Z  3.000
{   43} > 16   X   62.500    Y  0.000  Z  3.000
{   44} > 17   X   67.000    Y  0.000  Z  3.000
{   45} > 18   X   71.500    Y  0.000  Z  3.000
{   46} > 19   X   76.000    Y  0.000  Z  3.000
{   47} > 20   X   80.500    Y  0.000  Z  3.000
{   48} > 21   X   85.000    Y  0.000  Z  3.000
{   49} > 22   X   89.500    Y  0.000  Z  3.000
{   50} > 23   X   94.000    Y  0.000  Z  3.000
{   51} > 24   X   98.500    Y  0.000  Z  3.000
{   52} > 25   X  103.000    Y  0.000  Z  3.000
{   53} > 26   X  107.500    Y  0.000  Z  3.000
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{   60} > 33   X  139.000    Y  0.000  Z  3.000
{   61} > 34   X  143.500    Y  0.000  Z  3.000
{   62} > 35   X  148.000    Y  0.000  Z  3.000
{   63} > 36   X  152.500    Y  0.000  Z  3.000
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{ 71} > 44 X 188.500 Y 0.000 Z 3.000
{ 72} > 45 X 193.000 Y 0.000 Z 3.000
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{ 86} > 59 X 252.667 Y 0.000 Z 3.000
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{ 198} > 247 X 202.000 Y 0.000 Z 0.000
{ 199} > 248 X 206.500 Y 0.000 Z 0.000
{ 200} > 249 X 211.000 Y 0.000 Z 0.000
{ 201} > 250 X 215.500 Y 0.000 Z 0.000
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{ 213} >
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{ 221} > 308 X 26.500 Y 0.000 Z -2.05
{ 222} > 309 X 31.000 Y 0.000 Z -2.05
{ 223} > 310 X 35.500 Y 0.000 Z -2.05
{ 224} > 311 X 40.000 Y 0.000 Z -2.05
{ 225} > 312 X 44.500 Y 0.000 Z -2.05
{ 226} > 313 X 49.000 Y 0.000 Z -2.05
{ 227} > 314 X 53.500 Y 0.000 Z -2.05
{ 228} > 315 X 58.000 Y 0.000 Z -2.05
{ 229} > 316 X 62.500 Y 0.000 Z -2.05
{ 230} > 317 X 67.000 Y 0.000 Z -2.05
{ 231} > 318 X 71.500 Y 0.000 Z -2.05
{ 232} > 319 X 76.000 Y 0.000 Z -2.05
{ 233} > 320 X 80.500 Y 0.000 Z -2.05
{ 234} > 321 X 85.000 Y 0.000 Z -2.05
{ 235} > 322 X 89.500 Y 0.000 Z -2.05
{ 236} > 323 X 94.000 Y 0.000 Z -2.05
{ 237} > 324 X 98.500 Y 0.000 Z -2.05
{ 238} > 325 X 103.000 Y 0.000 Z -2.05
{ 239} > 326 X 107.500 Y 0.000 Z -2.05
{ 240} > 327 X 112.000 Y 0.000 Z -2.05
{ 241} > 328 X 116.500 Y 0.000 Z -2.05
{ 242} > 329 X 121.000 Y 0.000 Z -2.05
{ 243} > 330 X 125.500 Y 0.000 Z -2.05
{ 244} > 331 X 130.000 Y 0.000 Z -2.05
{ 245} > 332 X 134.500 Y 0.000 Z -2.05
{ 246} > 333 X 139.000 Y 0.000 Z -2.05
{ 247} > 334 X 143.500 Y 0.000 Z -2.05
{ 248} > 335 X 148.000 Y 0.000 Z -2.05
{ 249} > 336 X 152.500 Y 0.000 Z -2.05
{ 250} > 337 X 157.000 Y 0.000 Z -2.05
{ 251} > 338 X 161.500 Y 0.000 Z -2.05
{ 252} > 339 X 166.000 Y 0.000 Z -2.05
{ 253} > 340 X 170.500 Y 0.000 Z -2.05
{ 254} > 341 X 175.000 Y 0.000 Z -2.05
{ 255} > 342 X 179.500 Y 0.000 Z -2.05
{ 256} > 343 X 184.000 Y 0.000 Z -2.05
{ 257} > 344 X 188.500 Y 0.000 Z -2.05
{ 258} > 345 X 193.000 Y 0.000 Z -2.05
{ 259} > 346 X 197.500 Y 0.000 Z -2.05
{ 260} > 347 X 202.000 Y 0.000 Z -2.05

{ 261} > 348 X 206.500 Y 0.000 Z -2.05
{ 262} > 349 X 211.000 Y 0.000 Z -2.05
{ 263} > 350 X 215.500 Y 0.000 Z -2.05
{ 264} > 351 X 220.000 Y 0.000 Z -2.05
{ 265} > 352 X 224.500 Y 0.000 Z -2.05
{ 266} > 353 X 229.000 Y 0.000 Z -2.05
{ 267} > 354 X 233.500 Y 0.000 Z -2.05
{ 268} > 355 X 238.000 Y 0.000 Z -2.05
{ 269} > 356 X 241.667 Y 0.000 Z -2.05
{ 270} > 357 X 245.334 Y 0.000 Z -2.05
{ 271} > 358 X 249.000 Y 0.000 Z -2.05
{ 272} > 359 X 252.667 Y 0.000 Z -2.05
{ 273} > 360 X 256.334 Y 0.000 Z -2.05
{ 274} > 361 X 260.000 Y 0.000 Z -2.05
{ 275} >
{ 276} > 401 X 0 Y 0.000 Z -3.000
{ 277} > 402 X 3.667 Y 0.000 Z -3.000
{ 278} > 403 X 7.334 Y 0.000 Z -3.000
{ 279} > 404 X 11.000 Y 0.000 Z -3.000
{ 280} > 405 X 14.667 Y 0.000 Z -3.000
{ 281} > 406 X 18.334 Y 0.000 Z -3.000
{ 282} > 407 X 22.000 Y 0.000 Z -3.000
{ 283} > 408 X 26.500 Y 0.000 Z -3.000
{ 284} > 409 X 31.000 Y 0.000 Z -3.000
{ 285} > 410 X 35.500 Y 0.000 Z -3.000
{ 286} > 411 X 40.000 Y 0.000 Z -3.000
{ 287} > 412 X 44.500 Y 0.000 Z -3.000
{ 288} > 413 X 49.000 Y 0.000 Z -3.000
{ 289} > 414 X 53.500 Y 0.000 Z -3.000
{ 290} > 415 X 58.000 Y 0.000 Z -3.000
{ 291} > 416 X 62.500 Y 0.000 Z -3.000
{ 292} > 417 X 67.000 Y 0.000 Z -3.000
{ 293} > 418 X 71.500 Y 0.000 Z -3.000
{ 294} > 419 X 76.000 Y 0.000 Z -3.000
{ 295} > 420 X 80.500 Y 0.000 Z -3.000
{ 296} > 421 X 85.000 Y 0.000 Z -3.000
{ 297} > 422 X 89.500 Y 0.000 Z -3.000
{ 298} > 423 X 94.000 Y 0.000 Z -3.000
{ 299} > 424 X 98.500 Y 0.000 Z -3.000
{ 300} > 425 X 103.000 Y 0.000 Z -3.000
{ 301} > 426 X 107.500 Y 0.000 Z -3.000
{ 302} > 427 X 112.000 Y 0.000 Z -3.000
{ 303} > 428 X 116.500 Y 0.000 Z -3.000
{ 304} > 429 X 121.000 Y 0.000 Z -3.000
{ 305} > 430 X 125.500 Y 0.000 Z -3.000
{ 306} > 431 X 130.000 Y 0.000 Z -3.000
{ 307} > 432 X 134.500 Y 0.000 Z -3.000
{ 308} > 433 X 139.000 Y 0.000 Z -3.000
{ 309} > 434 X 143.500 Y 0.000 Z -3.000
{ 310} > 435 X 148.000 Y 0.000 Z -3.000
{ 311} > 436 X 152.500 Y 0.000 Z -3.000
{ 312} > 437 X 157.000 Y 0.000 Z -3.000
{ 313} > 438 X 161.500 Y 0.000 Z -3.000
{ 314} > 439 X 166.000 Y 0.000 Z -3.000
{ 315} > 440 X 170.500 Y 0.000 Z -3.000
{ 316} > 441 X 175.000 Y 0.000 Z -3.000
{ 317} > 442 X 179.500 Y 0.000 Z -3.000
{ 318} > 443 X 184.000 Y 0.000 Z -3.000
{ 319} > 444 X 188.500 Y 0.000 Z -3.000
{ 320} > 445 X 193.000 Y 0.000 Z -3.000
{ 321} > 446 X 197.500 Y 0.000 Z -3.000
{ 322} > 447 X 202.000 Y 0.000 Z -3.000
{ 323} > 448 X 206.500 Y 0.000 Z -3.000
{ 324} > 449 X 211.000 Y 0.000 Z -3.000

```
{  325} > 450   X    215.500   Y  0.000  Z  -3.000
{  326} > 451   X    220.000   Y  0.000  Z  -3.000
{  327} > 452   X    224.500   Y  0.000  Z  -3.000
{  328} > 453   X    229.000   Y  0.000  Z  -3.000
{  329} > 454   X    233.500   Y  0.000  Z  -3.000
{  330} > 455   X    238.000   Y  0.000  Z  -3.000
{  331} > 456   X    241.667   Y  0.000  Z  -3.000
{  332} > 457   X    245.334   Y  0.000  Z  -3.000
{  333} > 458   X    249.000   Y  0.000  Z  -3.000
{  334} > 459   X    252.667   Y  0.000  Z  -3.000
{  335} > 460   X    256.334   Y  0.000  Z  -3.000
{  336} > 461   X    260.000   Y  0.000  Z  -3.000
{  337} >
{  338} > $ BASE DE PILAS Y ESTRIBOS
{  339} >
{  340} > $ E-1
{  341} >
{  342} > 601   X      0.000   Y   -1.75  Z   3.000
{  343} > 701   X      0.000   Y   -1.75  Z   -3.000
{  344} >
{  345} >
{  346} > $ P-1
{  347} >
{  348} > 602   X      22.00   Y  -1.75  Z   3.000
{  349} > 702   X      22.00   Y  -1.75  Z   -3.000
{  350} > 802   X      22.00   Y  -15.225  Z    3.000
{  351} > 902   X      22.00   Y  -15.225  Z   -3.000
{  352} > 952   X      22.00   Y  -15.225  Z    0.000
{  353} > 962   X      22.00   Y  -16.225  Z    0.000
{  354} >
{  355} > $ P-2
{  356} >
{  357} > 603   X      58.00   Y  -1.75  Z   3.000
{  358} > 703   X      58.00   Y  -1.75  Z   -3.000
{  359} > 803   X      58.00   Y  -14.146  Z    3.000
{  360} > 903   X      58.00   Y  -14.146  Z   -3.000
{  361} > 953   X      58.00   Y  -14.146  Z    0.000
{  362} > 963   X      58.00   Y  -15.146  Z    0.000
{  363} >
{  364} >
{  365} > $ P-3
{  366} >
{  367} > 604   X      94.00   Y  -1.75  Z   3.000
{  368} > 704   X      94.00   Y  -1.75  Z   -3.000
{  369} > 804   X      94.00   Y  -17.293  Z   3.000
{  370} > 904   X      94.00   Y  -17.293  Z   -3.000
{  371} > 954   X      94.00   Y  -17.293  Z    0.000
{  372} > 964   X      94.00   Y  -18.293  Z    0.000
{  373} >
{  374} > $ P-4
{  375} >
{  376} > 605   X      130.0   Y  -1.75  Z   3.000
{  377} > 705   X      130.0   Y  -1.75  Z   -3.000
{  378} > 805   X      130.0   Y  -17.905  Z   3.000
{  379} > 905   X      130.0   Y  -17.905  Z   -3.000
{  380} > 955   X      130.00   Y  -17.905  Z    0.000
{  381} > 965   X      130.00   Y  -18.905  Z    0.000
{  382} >
{  383} >
{  384} > $ P-5
{  385} >
{  386} > 606   X      166.0   Y  -1.75  Z   3.000
{  387} > 706   X      166.0   Y  -1.75  Z   -3.000
{  388} > 806   X      166.0   Y  -18.083  Z   3.000
{  389} > 906   X      166.0   Y  -18.083  Z   -3.000
{  390} > 956   X      166.0   Y  -18.083  Z    0.000
{  391} > 966   X      166.0   Y  -19.083  Z    0.000
{  392} >
{  393} > $ P-6
{  394} >
{  395} > 607   X      202.0   Y  -1.75  Z   3.000
{  396} > 707   X      202.0   Y  -1.75  Z   -3.000
{  397} > 807   X      202.0   Y  -17.093  Z   3.000
{  398} > 907   X      202.0   Y  -17.093  Z   -3.000
{  399} > 957   X      202.0   Y  -17.093  Z    0.000
{  400} > 967   X      202.0   Y  -18.093  Z    0.000
{  401} >
{  402} > $ P-7
{  403} >
{  404} > 608   X      238.0   Y  -1.75  Z   3.000
{  405} > 708   X      238.0   Y  -1.75  Z   -3.000
{  406} > 808   X      238.0   Y  -13.21  Z   3.000
{  407} > 908   X      238.0   Y  -13.21  Z   -3.000
{  408} > 958   X      238.0   Y  -13.21  Z    0.000
{  409} > 968   X      238.0   Y  -14.21  Z    0.000
{  410} >
{  411} > $ E-2
{  412} >
{  413} > 609   X      260.0   Y  -1.75  Z   3.000
{  414} > 709   X      260.0   Y  -1.75  Z   -3.000
{  415} >
{  416} > $ APOYO E-1
{  417} >
{  418} > 1000   X      -2.0   Y  0.000  Z   3.000
{  419} > 1001   X      -2.0   Y  0.000  Z   -3.000
{  420} >
{  421} > $ ----------------------
{  422} > $ CONDICIONES DE CONTORNO
{  423} > $ ----------------------
{  424} >
{  425} > STATUS SUPPORT JOINTS 1000 1001 -
{  426} > 601 701 609 709 962 TO 968
{  427} >
{  428} > JOINT RELEASES
{  429} >
{  430} > 601 701 FORCE X MOMENT X Y Z
{  431} > 609 709 MOMENT X Y Z KFX 1920
{  432} > 1000 1001 MOMENT X Y Z KFY 8000
{  433} >
{  434} > $ --------------------
{  435} > $ GENERACIÓN DE BARRAS
{  436} > $ --------------------
{  437} >
{  438} > MEMBER INCIDENCES
{  439} >
{  440} > $ VIGAS LONGITUDINALES
{  441} >
{  442} > GENERATE 60 MEMBERS ID 1.1 FROM 1.1 TO 2.1
{  443} > GENERATE 60 MEMBERS ID 61.1 FROM 401.1 TO 402.1
{  444} >
{  445} > $ VIGAS TRANSVERSALES
{  446} >
{  447} > GENERATE 61 MEMBERS ID 121.1 FROM 1.1 TO 101.1
{  448} > GENERATE 61 MEMBERS ID 182.1 FROM 101.1 TO 201.1
{  449} > GENERATE 61 MEMBERS ID 243.1 FROM 201.1 TO 301.1
{  450} > GENERATE 61 MEMBERS ID 304.1 FROM 301.1 TO 401.1
{  451} >
{  452} > $ VIGAS RIGIDAS APOYOS
```

```
> 
> MEMBER INCIDENCES
> 365 1 601
> 
> GENERATE 7 MEMBERS ID 366.1 FROM 7.8 TO 602.1
> 
> MEMBER INCIDENCES
> 373 61 609
> 374 401 701
> 
> GENERATE 7 MEMBERS ID 375.1 FROM 407.8 TO 702.1
> 
> MEMBER INCIDENCES
> 382 461 709
> 
> $ PILAS
> 
> GENERATE 7 MEMBERS ID 391.1 FROM 602.1 TO 802.1
> GENERATE 7 MEMBERS ID 398.1 FROM 702.1 TO 902.1
> 
> $ VIGAS FLEXIBLES EN ESTRIBO E-1
> 
> MEMBER INCIDENCES
> 405 1000 1
> 406 1001 401
> 
> $ ENCEPADOS
> 
> 407 902 952
> 408 952 802
> 409 903 953
> 410 953 803
> 411 904 954
> 412 954 804
> 413 905 955
> 414 955 805
> 415 906 956
> 416 956 806
> 417 907 957
> 418 957 807
> 419 908 958
> 420 958 808
> 
> $ EMPOTRAMIENTO ENCEPADOS
> 
> 421 952 962
> 422 953 963
> 423 954 964
> 424 955 965
> 425 956 966
> 426 957 967
> 427 958 968
> 
> $ ------------------------------------
> $ CONDICIONES CINEMÁTICAS VIGA - CARGADERO
> $ ------------------------------------
> 
> MEMBER RELEASES
> 
> 391 TO 404 START FORCE Y START MOMENT Z X
> 
> $ --------------------------------
> $ CARACTERÍSTICAS DE LAS SECCIONES
> $ --------------------------------
> 
> CONSTANTS
> 
> E      21000000     ALL
> G      8077000      ALL
> DENS   7.85         ALL
> CTE    1.2E-5       ALL
> 
> MEMBER PROPERTIES
> 
> $$$$$$$$$$    VIGAS LONGITUDINALES    $$$$$$$$$$$$$
> 
> $ SECCION 1 (CENTRO DE VANO)
> 
> MEMBER PROPERTIES
> 3 10 TO 50 BY 8  11 TO 51 BY 8 58 -
> _63 70 TO 110 BY 8 71 TO 111 BY 8 118 -
> _AX 0.570  IX 0.151  IY 1.7208  IZ 0.500 YD 2.45 YC 0.9
> 
> $ SECCION 4 (CENTRO DE VANO INTERMEDIA)
> 
> 1 2 4 5 8 TO 48 BY 8 9 TO 49 BY 8 12 TO 52 BY 8 -
> _13 TO 53 BY 8 56 57 59 60 -
> _61 62 64 65 68 TO 108 BY 8 69 TO 109 BY 8 72 TO 112 BY 8 -
> _73 TO 113 BY 8 116 117 119 120 -
> _AX 0.570  IX 0.151  IY 1.7208  IZ 0.450 YD 2.45 YC 0.9
> 
> $ SECCION 2 (APOYO INTERMEDIA) y 3 (APOYO)
> 
> 6 66 VARIABLE
> SEG 1 AX 0.60 IX 0.151 IY 1.7208 IZ 0.29 YD 2.45 YC 1.56 L 1.867  $ SECC 2
> SEG 2 AX 0.24 IX 0.151 IY 1.7208 IZ 0.215 YD 2.45 YC 1.65         $ SECC 3
> 
> 14 TO 54 BY 8 74 TO 114 BY 8 VARIABLE
> SEG 1 AX 0.60 IX 0.151 IY 1.7208 IZ 0.29 YD 2.45 YC 1.58 L 2.7    $ SECC 2
> SEG 2 AX 0.24 IX 0.151 IY 1.7208 IZ 0.215 YD 2.45 YC 1.65         $ SECC 3
> 
> 55 115 VARIABLE
> SEG 1 AX 0.24 IX 0.151 IY 1.7208 IZ 0.215 YD 2.45 YC 1.65 L 1.8   $ SECC 3
> SEG 2 AX 0.60 IX 0.151 IY 1.7208 IZ 0.29 YD 2.45 YC 1.58          $ SECC 2
> 
> 7 TO 47 BY 8 67 TO 107 BY 8 VARIABLE
> SEG 1 AX 0.24 IX 0.151 IY 1.7208 IZ 0.215 YD 2.45 YC 1.65 L 1.8   $ SECC 3
> SEG 2 AX 0.60 IX 0.151 IY 1.7208 IZ 0.29 YD 2.45 YC 1.58          $ SECC 2
> 
> $$$$$$$$$$ VIGAS TRANSVERSALES EN LOSA  $$$$$$$$$$$$$
> 
> $ CENTRALES
> 
> 189 TO 235 250 TO 296 -
> _AX 0.8541 IX 0.0029 IY 100.0  IZ 0.00115
> 
> 188 249 236 297 -
> _AX 0.7740 IX 0.00265 IY 100.0  IZ 0.00105
> 
> 183 TO 187 237 TO 241 244 TO 248 298 TO 302 -
> _AX 0.6960 IX 0.00239 IY 100.0  IZ 0.00094
> 
> 182 243 242 303 -
> _AX 0.3470 IX 0.00119 IY 100.0  IZ 0.00047
> 
> $ LATERALES
> 
> 128 TO 174 311 TO 357 -
```

```
{  581} >_127 310 175 358 -
{  582} >_122 TO 126 305 TO 309 176 TO 180 359 TO 363 -
{  583} >_121 304 181 364 -
{  584} >_AX 10.0 IX 10.0 IY 100.0  IZ 10.0
{  585} >
{  586} > $$$$$$$$$$    PILAS     $$$$$$$$$$$$$
{  587} >
{  588} > 391 TO 404 -
{  589} >_AX 0.4160 IX 0.342 IY 0.3660  IZ 0.1520
{  590} >
{  591} > $$$$$$$$    ELEMENTOS RIGIDOS DE APOYO  $$$$$$$$$$$4
{  592} >
{  593} > 365 TO 382 -
{  594} >_405 406 -
{  595} >_407 TO 427 -
{  596} >_AX 10.0 IX 100.0 IY 100.0  IZ 100.0
{  597} >
{  598} >
{  599} > LOADING 1 'SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)'
{  600} >
{  601} > MEMBER LOADS
{  602} >
{  603} > 8 TO 14 FORCE Y GLOBAL UNIF W -11.6 $ VANO 2 una via
{  604} > 23 TO 30 FORCE Y GLOBAL UNIF W -13.92  $ VANO 4
{  605} > $ 31 TO 38 -  $ VANO 5
{  606} > 39 TO 46 - $ VANO 6
{  607} >_$ 47 TO 54 - $ VANO 7
{  608} >_55 TO 60 - $ VANO 8
{  609} >_FORCE Y GLOBAL UNIF W -11.6
{  610} >
{  611} > 8 TO 14 - $ VANO 2
{  612} >_23 TO 30 - $ VANO 4
{  613} >_$ 31 TO 38 -  $ VANO 5
{  614} >_39 TO 46 - $ VANO 6
{  615} >_$ 47 TO 54 - $ VANO 7
{  616} >_55 TO 60 - $ VANO 8
{  617} >_MOMENT X GLOBAL UNIF W -8.7
{  618} >
{  619} > LOADING 2 'SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)'
{  620} >
{  621} > MEMBER LOADS
{  622} >
{  623} > 1 TO 6 FORCE Y GLOBAL UNIF W -13.92 $ VANO 1 una via
{  624} > 15 TO 22 FORCE Y GLOBAL UNIF W -11.6  $ VANO 3
{  625} > 31 TO 38 -  $ VANO 5
{  626} >_47 TO 54 - $ VANO 7
{  627} >_FORCE Y GLOBAL UNIF W -11.6
{  628} >
{  629} > 1 TO 6 -
{  630} >_15 TO 22 -
{  631} >_31 TO 38 -  $ VANO 5
{  632} >_47 TO 54 - $ VANO 7
{  633} >_MOMENT X GLOBAL UNIF W -8.7
{  634} >
{  635} > STIFFNESS ANALYSIS
```

BANDWIDTH INFORMATION BEFORE RENUMBERING.

THE MAXIMUM BANDWIDTH IS 344 AND OCCURS AT JOINT 1000
THE AVERAGE BANDWIDTH IS 53.486
THE STANDARD DEVIATION OF THE BANDWIDTH IS 49.239

102.725
==========

BANDWIDTH INFORMATION AFTER RENUMBERING.

THE MAXIMUM BANDWIDTH IS 7 AND OCCURS AT JOINT 5
THE AVERAGE BANDWIDTH IS 4.835
THE STANDARD DEVIATION OF THE BANDWIDTH IS 1.260

6.096
==========

TIME FOR CONSISTENCY CHECKS FOR 419 MEMBERS 0.00 SECONDS
TIME FOR BANDWIDTH REDUCTION 0.05 SECONDS
TIME TO GENERATE 419 ELEMENT STIF. MATRICES 0.17 SECONDS
TIME TO PROCESS 14 MEMBER RELEASES 0.00 SECONDS
TIME TO PROCESS 118 MEMBER LOADS 0.05 SECONDS
TIME TO ASSEMBLE THE STIFFNESS MATRIX 0.44 SECONDS
TIME TO PROCESS 353 JOINTS 0.06 SECONDS
TIME TO SOLVE WITH 173 PARTITIONS 0.66 SECONDS
TIME TO PROCESS 353 JOINT DISPLACEMENTS 0.00 SECONDS
TIME TO PROCESS 419 ELEMENT DISTORTIONS 0.11 SECONDS
TIME FOR STATICS CHECK 0.00 SECONDS

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{  636} >
{  637} > SECTION FR NS 3 0.0 0.5 1.0
{  638} > LIST SECTION FORCES
```

1

****
RESULTS OF LATEST ANALYSES
****

PROBLEM - VIADUCTO TITLE - PROYECTO DEFINITIVO

ACTIVE UNITS M METN RAD DEGC SEC

INTERNAL MEMBER RESULTS

MEMBER SECTION FORCES

MEMBER 1

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	-13.47236	22.78929	2.861639	-10.01000	-17.95789	6.363239

****
RESULTS OF LATEST ANALYSES
****

PROBLEM - VIADUCTO TITLE - PROYECTO DEFINITIVO

ACTIVE UNITS M   METN RAD DEGC SEC

INTERNAL MEMBER RESULTS

MEMBER SECTION FORCES

--- MEMBER 1 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-13.47236	22.78929	2.861639	-10.01000	-17.95789	6.363239
0.500	-13.47236	22.78929	2.861639	-10.01000	-12.71107	-35.42092
1.000	-13.47236	22.78929	2.861639	-10.01000	-7.464258	-77.20509

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	1.600728	-131.6283	0.8125133E-01	-46.35070	0.2917910	-16.85560
0.500	1.600728	-106.1060	0.8125133E-01	-30.39924	0.4407654	201.0874
1.000	1.600728	-80.58370	0.8125133E-01	-14.44779	0.5897396	372.2352

--- MEMBER 2 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-10.85027	23.49237	2.833306	-7.919803	-15.27988	-76.74729
0.500	-10.85027	23.49237	2.833306	-7.919803	-10.08501	-119.8206
1.000	-10.85027	23.49237	2.833306	-7.919803	-4.890145	-162.8938

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.4742714	-84.96242	-0.7347472	-28.65146	1.357060	370.6499
0.500	0.4742714	-59.44010	-0.7347472	-12.70001	0.9901235E-02	503.0310
1.000	0.4742714	-33.91777	-0.7347472	3.251443	-1.337258	588.6168

--- MEMBER 3 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-8.234473	24.84886	2.781065	-3.888980	-12.54778	-162.5416
0.500	-8.234473	24.84886	2.781065	-3.888980	-7.450088	-208.0896
1.000	-8.234473	24.84886	2.781065	-3.888980	-2.352397	-253.6375

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-0.6471818	-41.04039	-1.097550	-19.81948	0.8881732	587.7747
0.500	-0.6471818	-15.52503	-1.097550	-3.872384	-1.123635	639.6168
1.000	-0.6471818	9.990324	-1.097550	12.07471	-3.135443	644.6895

--- MEMBER 4 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING

0.000 FR	-5.618697	26.73566	2.655444	1.712052	-9.679600	-253.4615
0.500	-5.618697	26.73566	2.655444	1.712052	-4.810844	-302.4813
1.000	-5.618697	26.73566	2.655444	1.712052	0.5791141E-01	-351.5011

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-1.768610	1.954126	-1.338969	-13.96007	0.2025918	644.6804
0.500	-1.768610	27.47644	-1.338969	1.991382	-2.252407	617.7000
1.000	-1.768610	52.99876	-1.338969	17.94283	-4.707406	543.9243

--- MEMBER 5 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-3.002797	28.86332	2.336845	8.013261	-6.445709	-351.6333
0.500	-3.002797	28.86332	2.336845	8.013261	-2.161103	-404.5543
1.000	-3.002797	28.86332	2.336845	8.013261	2.123504	-457.4752

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-2.888003	45.87542	-1.688493	-5.170563	-0.2790085	544.7871
0.500	-2.888003	71.39774	-1.688493	10.78089	-3.374862	437.2769
1.000	-2.888003	96.92008	-1.688493	26.73235	-6.470715	282.9715

--- MEMBER 6 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-0.4532294	30.62047	1.524171	13.17814	-2.193247	-458.0564
0.500	-0.4532294	30.62047	1.524171	13.17814	0.6005590	-514.1837
1.000	-0.4532294	30.62047	1.524171	13.17814	3.394365	-570.3110

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-3.380424	92.37168	-2.476769	11.93792	-1.917141	284.4143
0.500	-3.380424	117.8870	-2.476769	27.88502	-6.457058	91.71226
1.000	-3.380424	143.4024	-2.476769	43.83212	-10.99697	-147.7595

--- MEMBER 7 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.5138189	-127.9496	0.5053359	4.307538	0.8939005	-572.2119
0.500	0.5138189	-127.9496	0.5053359	4.307538	2.030907	-284.3253
1.000	0.5138189	-127.9496	0.5053359	4.307538	3.167913	3.561415

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-3.640653	2.316891	1.563717	-21.93372	-9.866255	-146.1575
0.500	-3.640653	2.316891	1.563717	-21.93372	-6.347891	-151.3705
1.000	-3.640653	2.316891	1.563717	-21.93372	-2.829529	-156.5835

--- MEMBER 8 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.2350108	-132.7364	-0.1721508	-12.23369	1.478836	0.4828355
0.500	0.2350108	-106.6364	-0.1721508	7.341302	1.091497	269.7772

1.000	0.2350108	-80.53644	-0.1721508	26.91630	0.7041580	480.3465

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-3.396786	3.497711	0.9197786	-18.53176	-5.961759	-155.6353
0.500	-3.396786	3.497711	0.9197786	-18.53176	-3.892258	-163.5052
1.000	-3.396786	3.497711	0.9197786	-18.53176	-1.822757	-171.3750

--- MEMBER 9 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-0.2214172	-90.66603	-0.3480406	-7.338898	1.397970	477.7513
0.500	-0.2214172	-64.56602	-0.3480406	12.23611	0.6148781	652.3874
1.000	-0.2214172	-38.46601	-0.3480406	31.81112	-0.1682134	768.2985

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-2.615680	5.496129	0.7525343	-12.66836	-4.807793	-170.7606
0.500	-2.615680	5.496129	0.7525343	-12.66836	-3.114590	-183.1269
1.000	-2.615680	5.496129	0.7525343	-12.66836	-1.421387	-195.4932

--- MEMBER 10 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-0.6783512	-52.14156	-0.3974774	-14.08483	1.045515	766.8476
0.500	-0.6783512	-26.04155	-0.3974774	5.490173	0.1511905	854.8036
1.000	-0.6783512	0.5845920E-01	-0.3974774	25.06518	-0.7431338	884.0347

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-1.833045	7.904292	0.7052678	-5.572829	-3.917491	-195.1364
0.500	-1.833045	7.904292	0.7052678	-5.572829	-2.330638	-212.9210
1.000	-1.833045	7.904292	0.7052678	-5.572829	-0.7437847	-230.7057

--- MEMBER 11 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-1.135286	-14.99337	-0.4268346	-25.32335	0.6523563	883.9017
0.500	-1.135286	11.10662	-0.4268346	-5.748359	-0.3080212	888.2744
1.000	-1.135286	37.20661	-0.4268346	13.82663	-1.268399	833.9221

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-1.050405	10.63068	0.6762753	2.474673	-3.063989	-230.5622
0.500	-1.050405	10.63068	0.6762753	2.474673	-1.542371	-254.4812
1.000	-1.050405	10.63068	0.6762753	2.474673	-0.2075213E-01	-278.4002

--- MEMBER 12 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-1.592220	22.88861	-0.4993035	-34.10080	0.3619708	835.1426
0.500	-1.592220	48.98861	-0.4993035	-14.52580	-0.7614622	754.2807
1.000	-1.592220	75.08862	-0.4993035	5.049208	-1.884895	614.6938

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-0.2677663	13.68221	0.6031503	11.48921	-2.105399	-278.5089
0.500	-0.2677663	13.68221	0.6031503	11.48921	-0.7483100	-309.2940
1.000	-0.2677663	13.68221	0.6031503	11.48921	0.6087786	-340.0789

--- MEMBER 13 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-2.048602	63.75785	-0.7708145	-33.02228	0.5352486	617.1861
0.500	-2.048602	89.85786	-0.7708145	-13.44727	-1.199085	444.3683
1.000	-2.048602	115.9579	-0.7708145	6.127735	-2.933418	212.8256

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.5146046	16.86078	0.3285508	20.87032	-0.6750208	-340.5833
0.500	0.5146046	16.86078	0.3285508	20.87032	0.6421877E-01	-378.5201
1.000	0.5146046	16.86078	0.3285508	20.87032	0.8034583	-416.4568

--- MEMBER 14 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-2.311175	109.6720	-1.820637	-15.24117	1.776507	216.0390
0.500	-2.311175	135.7720	-1.820637	4.333824	-2.319924	-60.08545
1.000	-2.311175	161.8720	-1.820637	23.90882	-6.416356	-394.9349

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	1.202782	19.44403	-0.7333806	28.44426	2.706462	-417.5507
0.500	1.202782	19.44403	-0.7333806	28.44426	1.056356	-461.2998
1.000	1.202782	19.44403	-0.7333806	28.44426	-0.5937498	-505.0488

--- MEMBER 15 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-2.224909	-7.127213	1.994111	-35.14922	-6.675102	-392.2426
0.500	-2.224909	-7.127213	1.994111	-35.14922	-2.188354	-376.2064
1.000	-2.224909	-7.127213	1.994111	-35.14922	2.298393	-360.1701

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	1.550392	-170.5873	1.432458	-21.78698	-1.636515	-507.6771
0.500	1.550392	-144.4873	1.432458	-2.211984	1.586514	-153.2184
1.000	1.550392	-118.3873	1.432458	17.36301	4.809543	142.5155

--- MEMBER 16 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-1.756318	-4.486297	0.9442378	-27.40986	-3.029358	-358.8640
0.500	-1.756318	-4.486297	0.9442378	-27.40986	-0.9048206	-348.7698
1.000	-1.756318	-4.486297	0.9442378	-27.40986	1.219717	-338.6756

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	1.692357	-124.6232	0.3704669	-3.902008	0.4163796	139.2137
0.500	1.692357	-98.52314	0.3704669	15.67301	1.249931	390.2535
1.000	1.692357	-72.42311	0.3704669	35.24804	2.083482	582.5682

--- MEMBER 17 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-1.105028	-1.047132	0.6725183	-17.26509	-1.784331	-337.9136
0.500	-1.105028	-1.047132	0.6725183	-17.26509	-0.2711653	-335.5575
1.000	-1.105028	-1.047132	0.6725183	-17.26509	1.242000	-333.2015

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	1.695367	-83.79005	0.9562057E-01	-3.023377	1.012110	579.9337
0.500	1.695367	-57.69006	0.9562057E-01	16.55162	1.227256	739.0987
1.000	1.695367	-31.59007	0.9562057E-01	36.12661	1.442402	839.5389

--- MEMBER 18 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-0.4532172	2.624865	0.5992323	-6.418677	-0.9698105	-332.8307
0.500	-0.4532172	2.624865	0.5992323	-6.418677	0.3784617	-338.7366
1.000	-0.4532172	2.624865	0.5992323	-6.418677	1.726734	-344.6426

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	1.697982	-46.16893	0.2152855E-01	-12.72416	1.175061	838.1525
0.500	1.697982	-20.06894	0.2152855E-01	6.850834	1.223500	912.6700
1.000	1.697982	6.031048	0.2152855E-01	26.42583	1.271940	928.4626

--- MEMBER 19 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.1985946	6.444420	0.5666909	4.866183	-0.2409667	-344.5664
0.500	0.1985946	6.444420	0.5666909	4.866183	1.034087	-359.0664
1.000	0.1985946	6.444420	0.5666909	4.866183	2.309142	-373.5663

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	1.700596	-9.602948	-0.1123253E-01	-25.90542	1.251083	928.4393
0.500	1.700596	16.49704	-0.1123253E-01	-6.330432	1.225809	920.6835
1.000	1.700596	42.59703	-0.1123253E-01	13.24456	1.200536	854.2027

--- MEMBER 20 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.8504042	10.48125	0.5048490	16.79108	0.5591665	-373.8115
0.500	0.8504042	10.48125	0.5048490	16.79108	1.695078	-397.3943
1.000	0.8504042	10.48125	0.5048490	16.79108	2.830989	-420.9771

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START | FORCE AXIAL | FORCE Y SHEAR | FORCE Z SHEAR | MOMENT TORSION | MOMENT Y BENDING | MOMENT Z BENDING

FROM START	AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000 FR	1.703209	27.94961	-0.7318076E-01	-35.82724	1.398153	855.5467
0.500	1.703209	54.04963	-0.7318076E-01	-16.25222	1.233496	763.2974
1.000	1.703209	80.14967	-0.7318076E-01	3.322799	1.068839	612.3231

--- MEMBER 21 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	1.501239	14.55778	0.2806393	28.81527	1.742102	-421.7066
0.500	1.501239	14.55778	0.2806393	28.81527	2.373540	-454.4616
1.000	1.501239	14.55778	0.2806393	28.81527	3.004978	-487.2166

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	1.705423	68.65752	-0.2976117	-35.35553	1.926573	614.9303
0.500	1.705423	94.75751	-0.2976117	-15.78054	1.256946	431.0884
1.000	1.705423	120.8575	-0.2976117	3.794454	0.5873201	188.5216

--- MEMBER 22 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	1.809744	17.85577	-0.5842984	38.47505	5.309848	-488.6599
0.500	1.809744	17.85577	-0.5842984	38.47505	3.995177	-528.8354
1.000	1.809744	17.85577	-0.5842984	38.47505	2.680506	-569.0109

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	1.567379	114.4747	-1.163358	-17.96024	4.234831	191.8236
0.500	1.567379	140.5746	-1.163358	1.614758	1.617276	-95.10672
1.000	1.567379	166.6746	-1.163358	21.18975	-1.000279	-440.7620

--- MEMBER 23 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	2.135092	-204.5002	1.238653	-3.144556	1.704407	-572.3115
0.500	2.135092	-173.1801	1.238653	16.43046	4.491378	-147.4207
1.000	2.135092	-141.8601	1.238653	36.00548	7.278349	206.9999

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	1.541058	-10.75266	1.110445	-32.41386	-0.9213744	-438.0547
0.500	1.541058	-10.75266	1.110445	-32.41386	1.577130	-413.8611
1.000	1.541058	-10.75266	1.110445	-32.41386	4.075634	-389.6676

--- MEMBER 24 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	2.603561	-148.9314	0.3737747	12.17826	2.642304	202.9015
0.500	2.603561	-117.6115	0.3737747	31.75325	3.483297	502.7621
1.000	2.603561	-86.29147	0.3737747	51.32824	4.324290	732.1528

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING

0.000 FR	1.616240	-8.185665	0.2447616	-24.95379	0.6164402	-388.4189
0.500	1.616240	-8.185665	0.2447616	-24.95379	1.167154	-370.0012
1.000	1.616240	-8.185665	0.2447616	-24.95379	1.717867	-351.5834

--- MEMBER 25 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	2.687808	-99.42252	0.1498043	7.719184	3.206997	728.8943
0.500	2.687808	-68.10249	0.1498043	27.29420	3.544056	917.3601
1.000	2.687808	-36.78245	0.1498043	46.86922	3.881117	1035.356

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	1.554556	-4.850869	0.2058267E-01	-15.16888	1.037560	-350.9036
0.500	1.554556	-4.850869	0.2058267E-01	-15.16888	1.083871	-339.9891
1.000	1.554556	-4.850869	0.2058267E-01	-15.16888	1.130182	-329.0746

--- MEMBER 26 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	2.770961	-53.72403	0.8889548E-01	-9.106668	3.422565	1033.655
0.500	2.770961	-22.40408	0.8889548E-01	10.46830	3.622579	1119.299
1.000	2.770961	8.915866	0.8889548E-01	30.04326	3.822593	1134.473

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	1.492482	-1.396249	-0.4038214E-01	-5.012592	1.107113	-328.7931
0.500	1.492482	-1.396249	-0.4038214E-01	-5.012592	1.016253	-325.6516
1.000	1.492482	-1.396249	-0.4038214E-01	-5.012592	0.9253936	-322.5100

--- MEMBER 27 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	2.854110	-9.252075	0.5999004E-01	-29.92003	3.571229	1134.470
0.500	2.854110	22.06796	0.5999004E-01	-10.34501	3.706206	1120.053
1.000	2.854110	53.38799	0.5999004E-01	9.230013	3.841184	1035.165

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	1.430407	2.041494	-0.6931159E-01	5.095958	1.109690	-322.5100
0.500	1.430407	2.041494	-0.6931159E-01	5.095958	0.9537385	-327.1034
1.000	1.430407	2.041494	-0.6931159E-01	5.095958	0.7977872	-331.6967

--- MEMBER 28 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	2.937256	36.44521	0.8690421E-03	-46.75259	3.792884	1036.859
0.500	2.937256	67.76524	0.8690421E-03	-27.17757	3.794839	919.6225
1.000	2.937256	99.08528	0.8690421E-03	-7.602551	3.796795	731.9155

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	1.368331	5.509871	-0.1284763	15.29041	1.185295	-331.9788
0.500	1.368331	5.509871	-0.1284763	15.29041	0.8962236	-344.3760

1.000	1.368331	5.509871	-0.1284763	15.29041	0.6071517	-356.7732

--- MEMBER 29 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	3.019118	85.95353	-0.2156789	-51.22011	4.386614	735.1693
0.500	3.019118	117.2735	-0.2156789	-31.64514	3.901337	506.5393
1.000	3.019118	148.5934	-0.2156789	-12.07018	3.416061	207.4396

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	1.306008	8.872726	-0.3451816	25.15313	1.630134	-357.4552
0.500	1.306008	8.872726	-0.3451816	25.15313	0.8534764	-377.4188
1.000	1.306008	8.872726	-0.3451816	25.15313	0.7681923E-01	-397.3824

--- MEMBER 30 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	2.650178	141.5259	-1.051662	-35.89584	7.645462	211.5350
0.500	2.650178	172.8459	-1.051662	-16.32082	5.279220	-142.1336
1.000	2.650178	204.1659	-1.051662	3.254199	2.912978	-566.2723

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	1.156821	11.48198	-1.181772	32.73006	3.649225	-398.6365
0.500	1.156821	11.48198	-1.181772	32.73006	0.9902362	-424.4709
1.000	1.156821	11.48198	-1.181772	32.73006	-1.668753	-450.3055

--- MEMBER 31 ---

LOADING 1 SOBRECARGA: MAX POS CENTRO DE VANO una via 26(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	2.535728	-17.01527	0.8214934	-38.73857	3.256310	-562.9708
0.500	2.535728	-17.01527	0.8214934	-38.73857	5.104668	-524.6865
1.000	2.535728	-17.01527	0.8214934	-38.73857	6.953024	-486.4022

LOADING 2 SOBRECARGA: MAX POS CENTRO DE VANO una via 3(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	1.145273	-168.3044	1.158557	-20.71566	-1.634125	-453.0287
0.500	1.145273	-142.2044	1.158557	-1.140692	0.9726229	-103.7070
1.000	1.145273	-116.1044	1.158557	18.43427	3.579371	186.8899

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Tue Apr 13 11:04:19 1999

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*          **                GEORGIA TECH RESEARCH CORPORATION      *
*                                                                   *
*  RELEASE DATE         VERSION              COMPLETION NO.         *
*  February 1995        9401 PC                 3276                *
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**** ACTIVE UNITS -  LENGTH   WEIGHT   ANGLE    TEMPERATURE   TIME
**** ASSUMED TO BE     INCH    POUND   RADIAN    FAHRENHEIT    SECOND

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{   17} >
{   18} > PRINT GENERATE OFF
{   19} >
{   20} > $ ------------------
{   21} > $ DEFINICION DE NODOS
{   22} > $ ------------------
{   23} >
{   24} > JOINT COORDINATES
{   25} >
{   26} > $ TABLERO
{   27} >
{   28} > 1    X    0        Y  0.000  Z  3.000
{   29} > 2    X    3.667    Y  0.000  Z  3.000
{   30} > 3    X    7.334    Y  0.000  Z  3.000
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{   81} > 54   X    233.500   Y  0.000  Z  3.000
{   82} > 55   X    238.000   Y  0.000  Z  3.000
{   83} > 56   X    241.667   Y  0.000  Z  3.000
{   84} > 57   X    245.334   Y  0.000  Z  3.000
{   85} > 58   X    249.000   Y  0.000  Z  3.000
{   86} > 59   X    252.667   Y  0.000  Z  3.000
{   87} > 60   X    256.334   Y  0.000  Z  3.000
{   88} > 61   X    260.000   Y  0.000  Z  3.000
{   89} >
{   90} > 101  X    0         Y  0.000  Z  2.05
{   91} > 102  X    3.667     Y  0.000  Z  2.05
{   92} > 103  X    7.334     Y  0.000  Z  2.05
{   93} > 104  X    11.000    Y  0.000  Z  2.05
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{  155} > 204  X    11.000    Y  0.000  Z  0.000
{  156} > 205  X    14.667    Y  0.000  Z  0.000
{  157} > 206  X    18.334    Y  0.000  Z  0.000
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{  160} > 209  X    31.000    Y  0.000  Z  0.000
{  161} > 210  X    35.500    Y  0.000  Z  0.000
{  162} > 211  X    40.000    Y  0.000  Z  0.000
{  163} > 212  X    44.500    Y  0.000  Z  0.000
{  164} > 213  X    49.000    Y  0.000  Z  0.000
{  165} > 214  X    53.500    Y  0.000  Z  0.000
{  166} > 215  X    58.000    Y  0.000  Z  0.000
{  167} > 216  X    62.500    Y  0.000  Z  0.000
{  168} > 217  X    67.000    Y  0.000  Z  0.000
{  169} > 218  X    71.500    Y  0.000  Z  0.000
{  170} > 219  X    76.000    Y  0.000  Z  0.000
{  171} > 220  X    80.500    Y  0.000  Z  0.000
{  172} > 221  X    85.000    Y  0.000  Z  0.000
{  173} > 222  X    89.500    Y  0.000  Z  0.000
{  174} > 223  X    94.000    Y  0.000  Z  0.000
{  175} > 224  X    98.500    Y  0.000  Z  0.000
{  176} > 225  X    103.000   Y  0.000  Z  0.000
{  177} > 226  X    107.500   Y  0.000  Z  0.000
{  178} > 227  X    112.000   Y  0.000  Z  0.000
{  179} > 228  X    116.500   Y  0.000  Z  0.000
{  180} > 229  X    121.000   Y  0.000  Z  0.000
{  181} > 230  X    125.500   Y  0.000  Z  0.000
{  182} > 231  X    130.000   Y  0.000  Z  0.000
{  183} > 232  X    134.500   Y  0.000  Z  0.000
{  184} > 233  X    139.000   Y  0.000  Z  0.000
{  185} > 234  X    143.500   Y  0.000  Z  0.000
{  186} > 235  X    148.000   Y  0.000  Z  0.000
{  187} > 236  X    152.500   Y  0.000  Z  0.000
{  188} > 237  X    157.000   Y  0.000  Z  0.000
{  189} > 238  X    161.500   Y  0.000  Z  0.000
{  190} > 239  X    166.000   Y  0.000  Z  0.000
{  191} > 240  X    170.500   Y  0.000  Z  0.000
{  192} > 241  X    175.000   Y  0.000  Z  0.000
{  193} > 242  X    179.500   Y  0.000  Z  0.000
{  194} > 243  X    184.000   Y  0.000  Z  0.000
{  195} > 244  X    188.500   Y  0.000  Z  0.000
{  196} > 245  X    193.000   Y  0.000  Z  0.000
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{  197} > 246   X   197.500   Y  0.000   Z   0.000
{  198} > 247   X   202.000   Y  0.000   Z   0.000
{  199} > 248   X   206.500   Y  0.000   Z   0.000
{  200} > 249   X   211.000   Y  0.000   Z   0.000
{  201} > 250   X   215.500   Y  0.000   Z   0.000
{  202} > 251   X   220.000   Y  0.000   Z   0.000
{  203} > 252   X   224.500   Y  0.000   Z   0.000
{  204} > 253   X   229.000   Y  0.000   Z   0.000
{  205} > 254   X   233.500   Y  0.000   Z   0.000
{  206} > 255   X   238.000   Y  0.000   Z   0.000
{  207} > 256   X   241.667   Y  0.000   Z   0.000
{  208} > 257   X   245.334   Y  0.000   Z   0.000
{  209} > 258   X   249.000   Y  0.000   Z   0.000
{  210} > 259   X   252.667   Y  0.000   Z   0.000
{  211} > 260   X   256.334   Y  0.000   Z   0.000
{  212} > 261   X   260.000   Y  0.000   Z   0.000
{  213} >
{  214} > 301   X   0         Y  0.000   Z  -2.05
{  215} > 302   X   3.667     Y  0.000   Z  -2.05
{  216} > 303   X   7.334     Y  0.000   Z  -2.05
{  217} > 304   X   11.000    Y  0.000   Z  -2.05
{  218} > 305   X   14.667    Y  0.000   Z  -2.05
{  219} > 306   X   18.334    Y  0.000   Z  -2.05
{  220} > 307   X   22.000    Y  0.000   Z  -2.05
{  221} > 308   X   26.500    Y  0.000   Z  -2.05
{  222} > 309   X   31.000    Y  0.000   Z  -2.05
{  223} > 310   X   35.500    Y  0.000   Z  -2.05
{  224} > 311   X   40.000    Y  0.000   Z  -2.05
{  225} > 312   X   44.500    Y  0.000   Z  -2.05
{  226} > 313   X   49.000    Y  0.000   Z  -2.05
{  227} > 314   X   53.500    Y  0.000   Z  -2.05
{  228} > 315   X   58.000    Y  0.000   Z  -2.05
{  229} > 316   X   62.500    Y  0.000   Z  -2.05
{  230} > 317   X   67.000    Y  0.000   Z  -2.05
{  231} > 318   X   71.500    Y  0.000   Z  -2.05
{  232} > 319   X   76.000    Y  0.000   Z  -2.05
{  233} > 320   X   80.500    Y  0.000   Z  -2.05
{  234} > 321   X   85.000    Y  0.000   Z  -2.05
{  235} > 322   X   89.500    Y  0.000   Z  -2.05
{  236} > 323   X   94.000    Y  0.000   Z  -2.05
{  237} > 324   X   98.500    Y  0.000   Z  -2.05
{  238} > 325   X   103.000   Y  0.000   Z  -2.05
{  239} > 326   X   107.500   Y  0.000   Z  -2.05
{  240} > 327   X   112.000   Y  0.000   Z  -2.05
{  241} > 328   X   116.500   Y  0.000   Z  -2.05
{  242} > 329   X   121.000   Y  0.000   Z  -2.05
{  243} > 330   X   125.500   Y  0.000   Z  -2.05
{  244} > 331   X   130.000   Y  0.000   Z  -2.05
{  245} > 332   X   134.500   Y  0.000   Z  -2.05
{  246} > 333   X   139.000   Y  0.000   Z  -2.05
{  247} > 334   X   143.500   Y  0.000   Z  -2.05
{  248} > 335   X   148.000   Y  0.000   Z  -2.05
{  249} > 336   X   152.500   Y  0.000   Z  -2.05
{  250} > 337   X   157.000   Y  0.000   Z  -2.05
{  251} > 338   X   161.500   Y  0.000   Z  -2.05
{  252} > 339   X   166.000   Y  0.000   Z  -2.05
{  253} > 340   X   170.500   Y  0.000   Z  -2.05
{  254} > 341   X   175.000   Y  0.000   Z  -2.05
{  255} > 342   X   179.500   Y  0.000   Z  -2.05
{  256} > 343   X   184.000   Y  0.000   Z  -2.05
{  257} > 344   X   188.500   Y  0.000   Z  -2.05
{  258} > 345   X   193.000   Y  0.000   Z  -2.05
{  259} > 346   X   197.500   Y  0.000   Z  -2.05
{  260} > 347   X   202.000   Y  0.000   Z  -2.05
{  261} > 348   X   206.500   Y  0.000   Z  -2.05
{  262} > 349   X   211.000   Y  0.000   Z  -2.05
{  263} > 350   X   215.500   Y  0.000   Z  -2.05
{  264} > 351   X   220.000   Y  0.000   Z  -2.05
{  265} > 352   X   224.500   Y  0.000   Z  -2.05
{  266} > 353   X   229.000   Y  0.000   Z  -2.05
{  267} > 354   X   233.500   Y  0.000   Z  -2.05
{  268} > 355   X   238.000   Y  0.000   Z  -2.05
{  269} > 356   X   241.667   Y  0.000   Z  -2.05
{  270} > 357   X   245.334   Y  0.000   Z  -2.05
{  271} > 358   X   249.000   Y  0.000   Z  -2.05
{  272} > 359   X   252.667   Y  0.000   Z  -2.05
{  273} > 360   X   256.334   Y  0.000   Z  -2.05
{  274} > 361   X   260.000   Y  0.000   Z  -2.05
{  275} >
{  276} > 401   X   0         Y  0.000   Z  -3.000
{  277} > 402   X   3.667     Y  0.000   Z  -3.000
{  278} > 403   X   7.334     Y  0.000   Z  -3.000
{  279} > 404   X   11.000    Y  0.000   Z  -3.000
{  280} > 405   X   14.667    Y  0.000   Z  -3.000
{  281} > 406   X   18.334    Y  0.000   Z  -3.000
{  282} > 407   X   22.000    Y  0.000   Z  -3.000
{  283} > 408   X   26.500    Y  0.000   Z  -3.000
{  284} > 409   X   31.000    Y  0.000   Z  -3.000
{  285} > 410   X   35.500    Y  0.000   Z  -3.000
{  286} > 411   X   40.000    Y  0.000   Z  -3.000
{  287} > 412   X   44.500    Y  0.000   Z  -3.000
{  288} > 413   X   49.000    Y  0.000   Z  -3.000
{  289} > 414   X   53.500    Y  0.000   Z  -3.000
{  290} > 415   X   58.000    Y  0.000   Z  -3.000
{  291} > 416   X   62.500    Y  0.000   Z  -3.000
{  292} > 417   X   67.000    Y  0.000   Z  -3.000
{  293} > 418   X   71.500    Y  0.000   Z  -3.000
{  294} > 419   X   76.000    Y  0.000   Z  -3.000
{  295} > 420   X   80.500    Y  0.000   Z  -3.000
{  296} > 421   X   85.000    Y  0.000   Z  -3.000
{  297} > 422   X   89.500    Y  0.000   Z  -3.000
{  298} > 423   X   94.000    Y  0.000   Z  -3.000
{  299} > 424   X   98.500    Y  0.000   Z  -3.000
{  300} > 425   X   103.000   Y  0.000   Z  -3.000
{  301} > 426   X   107.500   Y  0.000   Z  -3.000
{  302} > 427   X   112.000   Y  0.000   Z  -3.000
{  303} > 428   X   116.500   Y  0.000   Z  -3.000
{  304} > 429   X   121.000   Y  0.000   Z  -3.000
{  305} > 430   X   125.500   Y  0.000   Z  -3.000
{  306} > 431   X   130.000   Y  0.000   Z  -3.000
{  307} > 432   X   134.500   Y  0.000   Z  -3.000
{  308} > 433   X   139.000   Y  0.000   Z  -3.000
{  309} > 434   X   143.500   Y  0.000   Z  -3.000
{  310} > 435   X   148.000   Y  0.000   Z  -3.000
{  311} > 436   X   152.500   Y  0.000   Z  -3.000
{  312} > 437   X   157.000   Y  0.000   Z  -3.000
{  313} > 438   X   161.500   Y  0.000   Z  -3.000
{  314} > 439   X   166.000   Y  0.000   Z  -3.000
{  315} > 440   X   170.500   Y  0.000   Z  -3.000
{  316} > 441   X   175.000   Y  0.000   Z  -3.000
{  317} > 442   X   179.500   Y  0.000   Z  -3.000
{  318} > 443   X   184.000   Y  0.000   Z  -3.000
{  319} > 444   X   188.500   Y  0.000   Z  -3.000
{  320} > 445   X   193.000   Y  0.000   Z  -3.000
{  321} > 446   X   197.500   Y  0.000   Z  -3.000
{  322} > 447   X   202.000   Y  0.000   Z  -3.000
{  323} > 448   X   206.500   Y  0.000   Z  -3.000
{  324} > 449   X   211.000   Y  0.000   Z  -3.000
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{  325} > 450   X     215.500   Y  0.000  Z  -3.000
{  326} > 451   X     220.000   Y  0.000  Z  -3.000
{  327} > 452   X     224.500   Y  0.000  Z  -3.000
{  328} > 453   X     229.000   Y  0.000  Z  -3.000
{  329} > 454   X     233.500   Y  0.000  Z  -3.000
{  330} > 455   X     238.000   Y  0.000  Z  -3.000
{  331} > 456   X     241.667   Y  0.000  Z  -3.000
{  332} > 457   X     245.334   Y  0.000  Z  -3.000
{  333} > 458   X     249.000   Y  0.000  Z  -3.000
{  334} > 459   X     252.667   Y  0.000  Z  -3.000
{  335} > 460   X     256.334   Y  0.000  Z  -3.000
{  336} > 461   X     260.000   Y  0.000  Z  -3.000
{  337} >
{  338} > $ BASE DE PILAS Y ESTRIBOS
{  339} >
{  340} > $ E-1
{  341} >
{  342} > 601   X       0.000   Y   -1.75  Z   3.000
{  343} > 701   X       0.000   Y   -1.75  Z   -3.000
{  344} >
{  345} >
{  346} > $ P-1
{  347} >
{  348} > 602   X       22.00   Y  -1.75  Z   3.000
{  349} > 702   X       22.00   Y  -1.75  Z   -3.000
{  350} > 802   X       22.00   Y  -15.225  Z    3.000
{  351} > 902   X       22.00   Y  -15.225  Z   -3.000
{  352} > 952   X       22.00   Y  -15.225  Z    0.000
{  353} > 962   X       22.00   Y  -16.225  Z    0.000
{  354} >
{  355} > $ P-2
{  356} >
{  357} > 603   X       58.00   Y  -1.75  Z   3.000
{  358} > 703   X       58.00   Y  -1.75  Z   -3.000
{  359} > 803   X       58.00   Y  -14.146  Z    3.000
{  360} > 903   X       58.00   Y  -14.146  Z   -3.000
{  361} > 953   X       58.00   Y  -14.146  Z    0.000
{  362} > 963   X       58.00   Y  -15.146  Z    0.000
{  363} >
{  364} >
{  365} > $ P-3
{  366} >
{  367} > 604   X       94.00   Y  -1.75  Z   3.000
{  368} > 704   X       94.00   Y  -1.75  Z   -3.000
{  369} > 804   X       94.00   Y  -17.293  Z   3.000
{  370} > 904   X       94.00   Y  -17.293  Z   -3.000
{  371} > 954   X       94.00   Y  -17.293  Z    0.000
{  372} > 964   X       94.00   Y  -18.293  Z    0.000
{  373} >
{  374} > $ P-4
{  375} >
{  376} > 605   X       130.0   Y  -1.75  Z   3.000
{  377} > 705   X       130.0   Y  -1.75  Z   -3.000
{  378} > 805   X       130.0   Y  -17.905  Z   3.000
{  379} > 905   X       130.0   Y  -17.905  Z   -3.000
{  380} > 955   X       130.00   Y  -17.905  Z    0.000
{  381} > 965   X       130.00   Y  -18.905  Z    0.000
{  382} >
{  383} >
{  384} > $ P-5
{  385} >
{  386} > 606   X       166.0   Y  -1.75  Z   3.000
{  387} > 706   X       166.0   Y  -1.75  Z   -3.000
{  388} > 806   X       166.0   Y  -18.083  Z   3.000
{  389} > 906   X       166.0   Y  -18.083  Z   -3.000
{  390} > 956   X       166.0   Y  -18.083  Z    0.000
{  391} > 966   X       166.0   Y  -19.083  Z    0.000
{  392} >
{  393} > $ P-6
{  394} >
{  395} > 607   X       202.0   Y  -1.75  Z   3.000
{  396} > 707   X       202.0   Y  -1.75  Z   -3.000
{  397} > 807   X       202.0   Y  -17.093  Z   3.000
{  398} > 907   X       202.0   Y  -17.093  Z   -3.000
{  399} > 957   X       202.0   Y  -17.093  Z    0.000
{  400} > 967   X       202.0   Y  -18.093  Z    0.000
{  401} >
{  402} > $ P-7
{  403} >
{  404} > 608   X       238.0   Y  -1.75  Z   3.000
{  405} > 708   X       238.0   Y  -1.75  Z   -3.000
{  406} > 808   X       238.0   Y  -13.21  Z   3.000
{  407} > 908   X       238.0   Y  -13.21  Z   -3.000
{  408} > 958   X       238.0   Y  -13.21  Z    0.000
{  409} > 968   X       238.0   Y  -14.21  Z    0.000
{  410} >
{  411} > $ E-2
{  412} >
{  413} > 609   X       260.0   Y  -1.75  Z   3.000
{  414} > 709   X       260.0   Y  -1.75  Z   -3.000
{  415} >
{  416} > $ APOYO E-1
{  417} >
{  418} > 1000   X      -2.0   Y  0.000  Z   3.000
{  419} > 1001   X      -2.0   Y  0.000  Z   -3.000
{  420} >
{  421} > $ ----------------------
{  422} > $ CONDICIONES DE CONTORNO
{  423} > $ ----------------------
{  424} >
{  425} > STATUS SUPPORT JOINTS 1000 1001 -
{  426} >_601 701 609 709 962 TO 968
{  427} >
{  428} > JOINT RELEASES
{  429} >
{  430} > 601 701 FORCE X MOMENT X Y Z
{  431} > 609 709 MOMENT X Y Z KFX 1920
{  432} > 1000 1001 MOMENT X Y Z KFY 8000
{  433} >
{  434} > $ --------------------
{  435} > $ GENERACIÓN DE BARRAS
{  436} > $ --------------------
{  437} >
{  438} > MEMBER INCIDENCES
{  439} >
{  440} > $ VIGAS LONGITUDINALES
{  441} >
{  442} > GENERATE 60 MEMBERS ID 1.1 FROM 1.1 TO 2.1
{  443} > GENERATE 60 MEMBERS ID 61.1 FROM 401.1 TO 402.1
{  444} >
{  445} > $ VIGAS TRANSVERSALES
{  446} >
{  447} > GENERATE 61 MEMBERS ID 121.1 FROM 1.1 TO 101.1
{  448} > GENERATE 61 MEMBERS ID 182.1 FROM 101.1 TO 201.1
{  449} > GENERATE 61 MEMBERS ID 243.1 FROM 201.1 TO 301.1
{  450} > GENERATE 61 MEMBERS ID 304.1 FROM 301.1 TO 401.1
{  451} >
{  452} > $ VIGAS RIGIDAS APOYOS
```

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> 
> MEMBER INCIDENCES
> 365 1 601
> 
> GENERATE 7 MEMBERS ID 366.1 FROM 7.8 TO 602.1
> 
> MEMBER INCIDENCES
> 373 61 609
> 374 401 701
> 
> GENERATE 7 MEMBERS ID 375.1 FROM 407.8 TO 702.1
> 
> MEMBER INCIDENCES
> 382 461 709
> 
> $ PILAS
> 
> GENERATE 7 MEMBERS ID 391.1 FROM 602.1 TO 802.1
> GENERATE 7 MEMBERS ID 398.1 FROM 702.1 TO 902.1
> 
> $ VIGAS FLEXIBLES EN ESTRIBO E-1
> 
> MEMBER INCIDENCES
> 405 1000 1
> 406 1001 401
> 
> $ ENCEPADOS
> 
> 407 902 952
> 408 952 802
> 409 903 953
> 410 953 803
> 411 904 954
> 412 954 804
> 413 905 955
> 414 955 805
> 415 906 956
> 416 956 806
> 417 907 957
> 418 957 807
> 419 908 958
> 420 958 808
> 
> $ EMPOTRAMIENTO ENCEPADOS
> 
> 421 952 962
> 422 953 963
> 423 954 964
> 424 955 965
> 425 956 966
> 426 957 967
> 427 958 968
> 
> $ ------------------------------------
> $ CONDICIONES CINEMÁTICAS VIGA - CARGADERO
> $ ------------------------------------
> 
> MEMBER RELEASES
> 
> 391 TO 404 START FORCE Y START MOMENT Z X
> 
> $ ------------------------------
> $ CARACTERÍSTICAS DE LAS SECCIONES
> $ ------------------------------
> 
> CONSTANTS
> 
> E      21000000     ALL
> G      8077000      ALL
> DENS   7.85         ALL
> CTE    1.2E-5       ALL
> 
> MEMBER PROPERTIES
> 
> $$$$$$$$$$    VIGAS LONGITUDINALES    $$$$$$$$$$$$$
> 
> $ SECCION 1 (CENTRO DE VANO)
> 
> MEMBER PROPERTIES
> 3 10 TO 50 BY 8  11 TO 51 BY 8 58 -
> _63 70 TO 110 BY 8 71 TO 111 BY 8 118 -
> _AX 0.570  IX 0.151  IY 1.7208  IZ 0.500 YD 2.45 YC 0.9
> 
> $ SECCION 4 (CENTRO DE VANO INTERMEDIA)
> 
> 1 2 4 5 8 TO 48 BY 8 9 TO 49 BY 8 12 TO 52 BY 8 -
> _13 TO 53 BY 8 56 57 59 60 -
> _61 62 64 65 68 TO 108 BY 8 69 TO 109 BY 8 72 TO 112 BY 8 -
> _73 TO 113 BY 8 116 117 119 120 -
> _AX 0.570  IX 0.151  IY 1.7208  IZ 0.450 YD 2.45 YC 0.9
> 
> $ SECCION 2 (APOYO INTERMEDIA) y 3 (APOYO)
> 
> 6 66 VARIABLE
> SEG 1 AX 0.60 IX 0.151 IY 1.7208 IZ 0.29 YD 2.45 YC 1.58 L 1.867   $ SECC 2
> SEG 2 AX 0.24 IX 0.151 IY 1.7208 IZ 0.215 YD 2.45 YC 1.65          $ SECC 3
> 
> 14 TO 54 BY 8 74 TO 114 BY 8 VARIABLE
> SEG 1 AX 0.60 IX 0.151 IY 1.7208 IZ 0.29 YD 2.45 YC 1.58 L 2.7     $ SECC 2
> SEG 2 AX 0.24 IX 0.151 IY 1.7208 IZ 0.215 YD 2.45 YC 1.65          $ SECC 3
> 
> 55 115 VARIABLE
> SEG 1 AX 0.24 IX 0.151 IY 1.7208 IZ 0.215 YD 2.45 YC 1.65 L 1.8    $ SECC 3
> SEG 2 AX 0.60 IX 0.151 IY 1.7208 IZ 0.29 YD 2.45 YC 1.58           $ SECC 2
> 
> 7 TO 47 BY 8 67 TO 107 BY 8 VARIABLE
> SEG 1 AX 0.24 IX 0.151 IY 1.7208 IZ 0.215 YD 2.45 YC 1.65 L 1.8    $ SECC 3
> SEG 2 AX 0.60 IX 0.151 IY 1.7208 IZ 0.29 YD 2.45 YC 1.58           $ SECC 2
> 
> $$$$$$$$$$ VIGAS TRANSVERSALES EN LOSA  $$$$$$$$$$$$$
> 
> $ CENTRALES
> 
> 189 TO 235 250 TO 296 -
> _AX 0.8541 IX 0.0029 IY 100.0  IZ 0.00115
> 
> 188 249 236 297 -
> _AX 0.7740 IX 0.00265 IY 100.0  IZ 0.00105
> 
> 183 TO 187 237 TO 241 244 TO 248 298 TO 302 -
> _AX 0.6960 IX 0.00239 IY 100.0  IZ 0.00094
> 
> 182 243 242 303 -
> _AX 0.3470 IX 0.00119 IY 100.0  IZ 0.00047
> 
> $ LATERALES
> 
> 128 TO 174 311 TO 357 -
```

```
{  581} >_127 310 175 358 -
{  582} >_122 TO 126 305 TO 309 176 TO 180 359 TO 363 -
{  583} >_121 304 181 364 -
{  584} >_AX 10.0 IX 10.0 IY 100.0  IZ 10.0
{  585} >
{  586} > $$$$$$$$$$    PILAS      $$$$$$$$$$$$$
{  587} >
{  588} > 391 TO 404 -
{  589} >_AX 0.4160 IX 0.342 IY 0.3660  IZ 0.1520
{  590} >
{  591} > $$$$$$$$    ELEMENTOS RIGIDOS DE APOYO  $$$$$$$$$$$4
{  592} >
{  593} > 365 TO 382 -
{  594} >_405 406 -
{  595} >_407 TO 427 -
{  596} >_AX 10.0 IX 100.0 IY 100.0  IZ 100.0
{  597} >
{  598} >
{  599} > LOADING 1 'SOBRECARGA: MAX axil UIC'
{  600} >
{  601} > MEMBER LOADS
{  602} >
{  603} > 1 TO 6 61 TO 66 - $ VANO 1
{  604} >_FORCE Y GLOBAL UNIF W -8.3
{  605} > 7 TO 9 12 TO 60 67 TO 69 72 TO 120 -
{  606} >_FORCE Y GLOBAL UNIF W -8.3
{  607} > 10 70 FORCE Y GLOBAL UNIF W -8.3 LA 0.0 LB 1.3
{  608} > 11 71 FORCE Y GLOBAL UNIF W -8.3 LA 3.2 LB 4.5
{  609} >
{  610} > 1 TO 6 61 TO 66 - $ VANO 1
{  611} >_FORCE X GLOBAL UNIF W 2.08
{  612} > 7 TO 9 12 TO 60 67 TO 69 72 TO 120 -
{  613} >_FORCE X GLOBAL UNIF W 2.08
{  614} > 10 70 FORCE X GLOBAL UNIF W 2.08 LA 0.0 LB 1.3
{  615} > 11 71 FORCE X GLOBAL UNIF W 2.08 LA 3.2 LB 4.5
{  616} >
{  617} > 10 FORCE Y CONC P -25.48 L 2.1
{  618} > 10 FORCE Y CONC P -25.48 L 3.7
{  619} > 11 FORCE Y CONC P -25.48 L 0.8
{  620} > 11 FORCE Y CONC P -25.48 L 2.4
{  621} >
{  622} > 10 FORCE X CONC P 6.37 L 2.1
{  623} > 10 FORCE X CONC P 6.37 L 3.7
{  624} > 11 FORCE X CONC P 6.37 L 0.8
{  625} > 11 FORCE X CONC P 6.37 L 2.4
{  626} >
{  627} > 70 FORCE Y CONC P -25.48 L 2.1
{  628} > 70 FORCE Y CONC P -25.48 L 3.7
{  629} > 71 FORCE Y CONC P -25.48 L 0.8
{  630} > 71 FORCE Y CONC P -25.48 L 2.4
{  631} >
{  632} > 70 FORCE X CONC P 6.37 L 2.1
{  633} > 70 FORCE X CONC P 6.37 L 3.7
{  634} > 71 FORCE X CONC P 6.37 L 0.8
{  635} > 71 FORCE X CONC P 6.37 L 2.4
{  636} >
{  637} > 1 TO 60 MOMENT X GLOBAL UNIF W -6.2
{  638} >
{  639} > 61 TO 120 MOMENT X GLOBAL UNIF W 6.2
{  640} >
{  641} > LOADING 2 'SOBRECARGA: MAX axil RENFE'
{  642} >
{  643} > MEMBER LOADS
{  644} >
{  645} > 1 TO 6 61 TO 66 - $ VANO 1
{  646} >_FORCE Y GLOBAL UNIF W -13.92
{  647} > 7 TO 60 67 TO 120 -
{  648} >_FORCE Y GLOBAL UNIF W -11.6
{  649} >
{  650} > 1 TO 6 61 TO 66 - $ VANO 1
{  651} >_FORCE X GLOBAL UNIF W 1.57
{  652} > 7 TO 60 67 TO 120 -
{  653} >_FORCE X GLOBAL UNIF W 1.305
{  654} >
{  655} >
{  656} > 1 TO 60 MOMENT X GLOBAL UNIF W -8.7
{  657} >
{  658} > 61 TO 120 MOMENT X GLOBAL UNIF W 8.7
{  659} >
{  660} > STIFFNESS ANALYSIS


BANDWIDTH INFORMATION BEFORE RENUMBERING.


THE MAXIMUM BANDWIDTH IS  344 AND OCCURS AT JOINT 1000
THE AVERAGE BANDWIDTH IS                          53.486
THE STANDARD DEVIATION OF THE BANDWIDTH IS        49.239
                                                 ---------
                                                  102.725
                                                 =========



 BANDWIDTH INFORMATION AFTER  RENUMBERING.


 THE MAXIMUM BANDWIDTH IS    7 AND OCCURS AT JOINT 5
 THE AVERAGE BANDWIDTH IS                          4.835
 THE STANDARD DEVIATION OF THE BANDWIDTH IS        1.260
                                                 ---------
                                                   6.096
                                                 =========

 TIME FOR CONSISTENCY CHECKS FOR    419 MEMBERS      0.00 SECONDS
 TIME FOR BANDWIDTH REDUCTION                        0.05 SECONDS
 TIME TO GENERATE    419 ELEMENT STIF. MATRICES      0.22 SECONDS
 TIME TO PROCESS      14 MEMBER RELEASES             0.00 SECONDS
 TIME TO PROCESS      736 MEMBER LOADS               0.11 SECONDS
 TIME TO ASSEMBLE THE STIFFNESS MATRIX               0.22 SECONDS
 TIME TO PROCESS    353 JOINTS                       0.06 SECONDS
 TIME TO SOLVE WITH  173 PARTITIONS                  0.60 SECONDS
 TIME TO PROCESS    353 JOINT DISPLACEMENTS          0.06 SECONDS
 TIME TO PROCESS    419 ELEMENT DISTORTIONS          0.11 SECONDS
 TIME FOR STATICS CHECK                              0.05 SECONDS
 {  661} >-
 {  662} > LIST REACTIONS
1

    ****************************
    *RESULTS OF LATEST ANALYSES*
    ****************************


     PROBLEM - VIADUCTO  TITLE - PROYECTO DEFINITIVO


     ACTIVE UNITS  M    METN RAD  DEGC SEC
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--- LOADING - 1 SOBRECARGA: MAX axil UIC

RESULTANT JOINT LOADS SUPPORTS

JOINT		/----------FORCE----------//			MOMENT----------/	
		X FORCE	Y FORCE	Z FORCE	X MOMENT	Y MOMENT
601	GLOBAL	0.0000000	59.3319893	-37.2338943	0.0000000	0.0000000
609	GLOBAL	-12.6635399	64.3986435	-36.8980217	0.0000000	0.0000001
701	GLOBAL	0.0000000	59.3319893	37.2338943	0.0000000	0.0000000
709	GLOBAL	-12.6635399	64.3986435	36.8980217	0.0000000	0.0000000
962	GLOBAL	0.0000000	587.2188721	0.0000000	0.0000000	0.0000000
963	GLOBAL	0.0000000	666.5186157	0.0000000	-0.0000002	0.0000000
964	GLOBAL	0.0000000	585.5374146	0.0000000	-0.0000003	0.0000000
965	GLOBAL	0.0000000	600.7478027	0.0000000	0.0000000	0.0000000
966	GLOBAL	0.0000000	594.2252197	0.0000000	0.0000004	0.0000000
967	GLOBAL	0.0000000	611.3182373	0.0000000	0.0000005	0.0000000
968	GLOBAL	0.0000000	523.9163818	0.0000000	0.0000002	0.0000000
1000	GLOBAL	-540.3045044	-1.6717345	34.5642433	0.0000000	0.0000000
1001	GLOBAL	-540.3045044	-1.6717345	-34.5642433	0.0000000	0.0000000

--- LOADING - 2 SOBRECARGA: MAX axil RENFE

RESULTANT JOINT LOADS SUPPORTS

JOINT		/----------FORCE----------//			MOMENT----------/	
		X FORCE	Y FORCE	Z FORCE	X MOMENT	Y MOMENT
601	GLOBAL	0.0000000	117.3908844	-52.2471352	0.0000000	0.0000000
609	GLOBAL	-8.2783508	89.1318588	-51.7762451	0.0000000	0.0000000
701	GLOBAL	0.0000000	117.3908844	52.2471352	0.0000000	0.0000000
709	GLOBAL	-8.2783499	89.1318588	51.7762451	0.0000000	0.0000000
962	GLOBAL	0.0000000	791.9898682	0.0000000	0.0000001	0.0000000
963	GLOBAL	0.0000000	851.1380005	0.0000000	-0.0000001	0.0000000
964	GLOBAL	0.0000000	831.4396362	0.0000000	-0.0000002	0.0000000
965	GLOBAL	0.0000000	836.8457031	0.0000000	-0.0000001	0.0000000
966	GLOBAL	0.0000000	831.1027222	0.0000000	0.0000002	0.0000000
967	GLOBAL	0.0000000	854.0399780	0.0000000	0.0000003	0.0000000
968	GLOBAL	0.0000000	734.1589355	0.0000000	0.0000000	0.0000000
1000	GLOBAL	-336.8516541	-4.8399162	48.5010529	0.0000000	0.0000000
1001	GLOBAL	-336.8516541	-4.8399162	-48.5010529	0.0000000	0.0000000

1
{ 663} > LIST SUM OF REACTIONS
1

****
RESULTS OF LATEST ANALYSES
****

PROBLEM - VIADUCTO TITLE - PROYECTO DEFINITIVO

ACTIVE UNITS M METN RAD DEGC SEC

SUM OF REACTIONS ABOUT COORDINATE X 0.000 Y 0.000 Z 0.000

LOADING	/----------FORCE----------//			MOMENT----------/	
	X FORCE	Y FORCE	Z FORCE	X MOMENT	Y MOMENT	Z MOMENT
1	-1105.936	4413.600	0.1327157E-08	-0.1941733E-06	-0.3850202E-05	564984.0
2	-690.2600	6134.080	0.3939855E-09	-0.2025303E-06	-0.2223982E-05	785282.9

1
{ 664} > SECTION FR NS 3 0.0 0.5 1.0
{ 665} > LIST SECTION FORCES
1

****
RESULTS OF LATEST ANALYSES
****

PROBLEM - VIADUCTO TITLE - PROYECTO DEFINITIVO

ACTIVE UNITS M METN RAD DEGC SEC

SUM OF REACTIONS ABOUT COORDINATE X 0.000 Y 0.000 Z 0.000

LOADING	FORCE X FORCE	FORCE Y FORCE	FORCE Z FORCE	MOMENT X MOMENT	MOMENT Y MOMENT	MOMENT Z MOMENT
1	-1105.936	4413.600	0.1327157E-08	-0.1941733E-06	-0.3850202E-05	564984.0
2	-690.2600	6134.080	0.3939855E-09	-0.2025303E-06	-0.2223982E-05	785282.9

1
{ 664} > SECTION FR NS 3 0.0 0.5 1.0
{ 665} > LIST SECTION FORCES
1

****
RESULTS OF LATEST ANALYSES
****

PROBLEM - VIADUCTO TITLE - PROYECTO DEFINITIVO

ACTIVE UNITS M METN RAD DEGC SEC

INTERNAL MEMBER RESULTS

MEMBER SECTION FORCES

MEMBER 1

LOADING 1 SOBRECARGA: MAX axil UIC

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	540.3044	-57.66026	1.869011	-65.16003	-4.389246	-3.343469
0.500	536.4908	-42.44220	1.869011	-53.79232	-0.9624142	88.42547
1.000	532.6771	-27.22415	1.869011	-42.42463	2.464418	152.2921

LOADING 2 SOBRECARGA: MAX axil RENFE

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	336.8517	-112.5510	2.622610	-91.43349	-6.159028	-9.679832
0.500	333.9731	-87.02864	2.622610	-75.48203	-1.350473	173.2848
1.000	331.0945	-61.50632	2.622610	-59.53059	3.458082	309.4542

MEMBER 2

LOADING 1 SOBRECARGA: MAX axil UIC

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	532.6771	-27.22415	0.6505342	-43.98339	-1.159363	152.2921
0.500	528.8635	-12.00610	0.6505342	-32.61569	0.3339146E-01	188.2564
1.000	525.0497	3.211951	0.6505342	-21.24799	1.226146	196.3185

LOADING 2 SOBRECARGA: MAX axil RENFE

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	331.0945	-61.50632	0.9128113	-61.71785	-1.626783	309.4542
0.500	328.2159	-35.98400	0.9128113	-45.76640	0.4685691E-01	398.8285
1.000	325.3373	-10.46168	0.9128113	-29.81495	1.720497	441.4075

MEMBER 3

LOADING 1 SOBRECARGA: MAX axil UIC

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	525.0497	3.211951	0.3119315E-01	-23.75099	-0.2573986E-01	196.3185
0.500	521.2371	18.42585	0.3119315E-01	-12.38639	0.3143718E-01	176.4874
1.000	517.4244	33.63975	0.3119315E-01	-1.021793	0.8861423E-01	128.7693

LOADING 2 SOBRECARGA: MAX axil RENFE

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	325.3373	-10.46168	0.4370305E-01	-33.32718	-0.3599077E-01	441.4075
0.500	322.4594	15.05368	0.4370305E-01	-17.38008	0.4411690E-01	437.1990
1.000	319.5817	40.56904	0.4370305E-01	-1.432982	0.1242246	386.2208

MEMBER 4

LOADING 1 SOBRECARGA: MAX axil UIC

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	517.4244	33.63975	-0.5587619	-3.883291	1.069193	128.7693
0.500	513.6108	48.85780	-0.5587619	7.484407	0.4470357E-01	53.13971
1.000	509.7971	64.07584	-0.5587619	18.85210	-0.9797862	-50.39219

LOADING 2 SOBRECARGA: MAX axil RENFE

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	319.5817	40.56904	-0.7842348	-5.448242	1.500633	386.2208
0.500	316.7031	66.09135	-0.7842348	10.50321	0.6273834E-01	288.4399
1.000	313.8245	91.61367	-0.7842348	26.45465	-1.3751	143.8638

MEMBER 5

LOADING 1 SOBRECARGA: MAX axil UIC

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	509.7971	64.07584	-1.680495	16.20729	3.176214	-50.39218
0.500	505.9835	79.29390	-1.680495	27.57499	0.9502522E-01	-181.8264
1.000	502.1698	94.51195	-1.680495	38.94269	-2.986163	-341.1630

LOADING 2 SOBRECARGA: MAX axil RENFE

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	313.8245	91.61367	-2.358535	22.74347	4.457739	143.8638
0.500	310.9459	117.1360	-2.358535	38.69492	0.1333646	-47.50748
1.000	308.0673	142.6583	-2.358535	54.64638	-4.191010	-285.6740

MEMBER 6

LOADING 1 SOBRECARGA: MAX axil UIC

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	502.1698	94.51195	-4.394578	37.09618	7.919752	-341.1630
0.500	498.3571	109.7259	-4.394578	48.46078	-0.1355086	-528.3469
1.000	494.5445	124.9397	-4.394578	59.82538	-8.190768	-743.4179

LOADING 2 SOBRECARGA: MAX axil RENFE

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING

0.000 FR	308.0673	142.6583	-6.167661	52.05544	11.115	-285.6740
0.500	305.1895	168.1737	-6.167661	68.00254	-0.1901830	-570.5515
1.000	302.3117	193.6890	-6.167661	83.94964	-11.49550	-902.1985

--- MEMBER 7 ---

LOADING 1 SOBRECARGA: MAX axil UIC

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	494.5445	-168.6697	3.020946	-90.29676	-6.907812	-743.4179
0.500	489.8645	-149.9947	3.020946	-76.34676	-0.1106826	-384.9204
1.000	485.1845	-131.3197	3.020946	-62.39676	6.686447	-68.44167

LOADING 2 SOBRECARGA: MAX axil RENFE

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	302.3116	-202.3059	4.239803	-126.7067	-9.694901	-902.1985
0.500	299.3754	-176.2059	4.239803	-107.1317	-0.1553398	-476.3727
1.000	296.4391	-150.1059	4.239803	-87.55671	9.384220	-109.2719

--- MEMBER 8 ---

LOADING 1 SOBRECARGA: MAX axil UIC

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	485.1845	-131.3197	0.7773180	-66.25815	-1.678686	-68.44169
0.500	480.5045	-112.6447	0.7773180	-52.30816	0.7027862E-01	206.0181
1.000	475.8245	-93.96967	0.7773180	-38.35816	1.819243	438.4591

LOADING 2 SOBRECARGA: MAX axil RENFE

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDI	MOMENT Z BENDING
0.000 FR	296.4391	-150.1059	1.090941	-92.97492	-2.355983	-109.2719
0.500	293.5029	-124.0059	1.090941	-73.39993	0.9863403E-01	199.1037
1.000	290.5667	-97.90589	1.090941	-53.82493	2.553251	448.7543

--- MEMBER 9 ---

LOADING 1 SOBRECARGA: MAX axil UIC

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	475.8245	-93.96968	0.1952961	-44.49305	-0.4197853	438.4591
0.500	471.1445	-75.29467	0.1952961	-30.54305	0.1963107E-01	628.8816
1.000	466.4645	-56.61967	0.1952961	-16.59304	0.4590474	777.2852

LOADING 2 SOBRECARGA: MAX axil RENFE

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	290.5667	-97.90589	0.2740905	-62.43337	-0.5891520	448.7543
0.500	287.6304	-71.80588	0.2740905	-42.85836	0.2755176E-01	639.6801
1.000	284.6942	-45.70587	0.2740905	-23.28336	0.6442555	771.8809

--- MEMBER 10 ---

LOADING 1 SOBRECARGA: MAX axil UIC

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	466.4645	-56.61966	0.3351847E-01	-24.05545	-0.6876364E-01	777.2852
0.500	457.3905	-20.34966	0.3351847E-01	-10.10544	0.6652938E-02	883.5936
1.000	451.0205	5.130337	0.3351847E-01	3.844561	0.8206952E-01	908.9962

LOADING 2 SOBRECARGA: MAX axil RENFE

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	284.6942	-45.70587	0.4703612E-01	-33.75457	-0.9649350E-01	771.8809
0.500	281.7579	-19.60586	0.4703612E-01	-14.17956	0.9337793E-02	845.3566
1.000	278.8217	6.494145	0.4703612E-01	5.395445	0.1151691	860.1073

MEMBER 11

LOADING 1 SOBRECARGA: MAX axil UIC

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	451.0205	5.130335	-0.5611085E-01	-4.057059	0.1341891	908.9962
0.500	444.6505	30.61034	-0.5611085E-01	9.892935	0.7939774E-02	860.5070
1.000	435.5765	66.88032	-0.5611085E-01	23.84293	-0.1183096	731.1123

LOADING 2 SOBRECARGA: MAX axil RENFE

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	278.8217	6.494147	-0.7877328E-01	-5.692065	0.1883853	860.1073
0.500	275.8854	32.59414	-0.7877328E-01	13.88293	0.1114552E-01	816.1329
1.000	272.9492	58.69413	-0.7877328E-01	33.45792	-0.1660943	713.4337

MEMBER 12

LOADING 1 SOBRECARGA: MAX axil UIC

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	435.5765	66.88032	-0.2665188	16.37129	0.6259127	731.1123
0.500	430.8965	85.55533	-0.2665188	30.32129	0.2624517E-01	559.6222
1.000	426.2165	104.2303	-0.2665188	44.27130	-0.5734223	346.1133

LOADING 2 SOBRECARGA: MAX axil RENFE

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	272.9492	58.69413	-0.3741422	22.97381	0.8786633	713.4337
0.500	270.0129	84.79414	-0.3741422	42.54882	0.3684301E-01	552.0093
1.000	267.0767	110.8941	-0.3741422	62.12382	-0.8049772	331.8600

MEMBER 13

LOADING 1 SOBRECARGA: MAX axil UIC

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	426.2165	104.2303	-1.050439	38.11753	2.458562	346.1133
0.500	421.5365	122.9053	-1.050439	52.06754	0.9507319E-01	90.58558
1.000	416.8565	141.5804	-1.050439	66.01754	-2.268415	-206.9609

LOADING 2 SOBRECARGA: MAX axil RENFE

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	267.0767	110.8941	-1.474615	53.48904	3.451348	331.8600
0.500	264.1404	136.9942	-1.474615	73.06406	0.1334644	52.98555
1.000	261.2042	163.0942	-1.474615	92.63906	-3.184419	-284.6139

MEMBER 14

LOADING 1 SOBRECARGA: MAX axil UIC

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	416.8565	141.5804	-4.080373	62.12681	9.050980	-206.9609
0.500	412.1765	160.2553	-4.080373	76.07681	-0.1298559	-546.5259

..000	407.4965	178.9303	-4.080373	90.02680	-9.310	-928.1097

LOADING 2 SOBRECARGA: MAX axil RENFE

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	261.2042	163.0942	-5.728058	87.17991	12.70583	-284.6139
0.500	258.2679	189.1942	-5.728058	106.7549	-0.1822922	-680.9380
1.000	255.3317	215.2941	-5.728058	126.3299	-13.07042	-1135.987

MEMBER 15

LOADING 1 SOBRECARGA: MAX axil UIC

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	407.4965	-154.3290	4.080344	-90.47111	-9.310625	-928.1096
0.500	402.8165	-135.6540	4.080344	-76.52112	-0.1298536	-601.8789
1.000	398.1365	-116.9790	4.080344	-62.57112	9.050918	-317.6670

LOADING 2 SOBRECARGA: MAX axil RENFE

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	255.3317	-210.2748	5.728018	-126.9538	-13.07032	-1135.987
0.500	252.3954	-184.1749	5.728018	-107.3788	-0.1822894	-692.2316
1.000	249.4592	-158.0749	5.728018	-87.80383	12.70575	-307.2008

MEMBER 16

LOADING 1 SOBRECARGA: MAX axil UIC

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	398.1365	-116.9790	1.050350	-66.48115	-2.2682	-317.6670
0.500	393.4565	-98.30397	1.050350	-52.53114	0.9508117E-01	-75.47344
1.000	388.7765	-79.62894	1.050350	-38.58113	2.458371	124.7013

LOADING 2 SOBRECARGA: MAX axil RENFE

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	249.4592	-158.0749	1.474490	-93.29010	-3.184129	-307.2008
0.500	246.5229	-131.9748	1.474490	-73.71508	0.1334756	19.10546
1.000	243.5866	-105.8748	1.474490	-54.14006	3.451080	286.6866

MEMBER 17

LOADING 1 SOBRECARGA: MAX axil UIC

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	388.7765	-79.62894	0.2661812	-44.77436	-0.5726297	124.7012
0.500	384.0965	-60.95395	0.2661812	-30.82436	0.2627775E-01	282.8570
1.000	379.4165	-42.27896	0.2661812	-16.87437	0.6251852	398.9939

LOADING 2 SOBRECARGA: MAX axil RENFE

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	243.5867	-105.8748	0.3736695	-62.83025	-0.8038675	286.6866
0.500	240.6504	-79.77482	0.3736695	-43.25526	0.3688856E-01	495.5423
1.000	237.7142	-53.67482	0.3736695	-23.68027	0.8776446	645.6730

MEMBER 18

LOADING 1 SOBRECARGA: MAX axil UIC

DISTANCE FROM START / FORCE AXIAL / FORCE Y SHEAR / FORCE Z SHEAR // MOMENT TORSION / MOMENT Y BENDING / MOMENT Z BENDING

FROM START	AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BEND.	Z BENDING
0.000 FR	379.4165	-42.27896	0.5479691E-01	-24.40734	-0.1152266	398.9939
0.500	374.7365	-23.60397	0.5479691E-01	-10.45734	0.8066393E-02	473.1122
1.000	370.0565	-4.928971	0.5479691E-01	3.492653	0.1313594	505.2117

LOADING 2 SOBRECARGA: MAX axil RENFE

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	237.7142	-53.67482	0.7693361E-01	-34.25050	-0.1617778	645.6730
0.500	234.7779	-27.57483	0.7693361E-01	-14.67550	0.1132271E-01	737.0789
1.000	231.8417	-1.474839	0.7693361E-01	4.899488	0.1844233	769.7598

MEMBER 19

LOADING 1 SOBRECARGA: MAX axil UIC

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	370.0565	-4.928973	-0.3863707E-01	-4.494827	0.9407935E-01	505.2118
0.500	365.3765	13.74602	-0.3863707E-01	9.455167	0.7145972E-02	495.2925
1.000	360.6965	32.42101	-0.3863707E-01	23.40516	-0.7978741E-01	443.3547

LOADING 2 SOBRECARGA: MAX axil RENFE

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	231.8417	-1.474838	-0.5420273E-01	-6.308588	0.1319841	769.7598
0.500	228.9054	24.62515	-0.5420273E-01	13.26640	0.1002802E-01	743.7156
1.000	225.9692	50.72514	-0.5420273E-01	32.84140	-0.1119281	658.9466

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Tue Apr 13 16:09:52 1999

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*          **                                                   *
*          **                OWNED BY AND PROPRIETARY TO THE    *
*          **                GEORGIA TECH RESEARCH CORPORATION  *
*                                                               *
*  RELEASE DATE         VERSION              COMPLETION NO.     *
*  February 1995        9401 PC                3276             *
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**** ACTIVE UNITS -  LENGTH   WEIGHT   ANGLE    TEMPERATURE   TIME
**** ASSUMED TO BE     INCH    POUND   RADIAN    FAHRENHEIT   SECOND

{   14} > UNITS M MTON CENTIGRADES
{   15} > TYPE SPACE FRAME
{   16} > OUTPUT ORDERED
{   17} >
{   18} > PRINT GENERATE OFF
{   19} >
{   20} > $ ------------------
{   21} > $ DEFINICION DE NODOS
{   22} > $ ------------------
{   23} >
{   24} > JOINT COORDINATES
{   25} >
{   26} > $ TABLERO
{   27} >
{   28} > 1    X    0        Y  0.000  Z  3.000
{   29} > 2    X    3.667    Y  0.000  Z  3.000
{   30} > 3    X    7.334    Y  0.000  Z  3.000
{   31} > 4    X   11.000    Y  0.000  Z  3.000
{   32} > 5    X   14.667    Y  0.000  Z  3.000
{   33} > 6    X   18.334    Y  0.000  Z  3.000
{   34} > 7    X   22.000    Y  0.000  Z  3.000
{   35} > 8    X   26.500    Y  0.000  Z  3.000
{   36} > 9    X   31.000    Y  0.000  Z  3.000
{   37} > 10   X   35.500    Y  0.000  Z  3.000
{   38} > 11   X   40.000    Y  0.000  Z  3.000
{   39} > 12   X   44.500    Y  0.000  Z  3.000
{   40} > 13   X   49.000    Y  0.000  Z  3.000
{   41} > 14   X   53.500    Y  0.000  Z  3.000
{   42} > 15   X   58.000    Y  0.000  Z  3.000
{   43} > 16   X   62.500    Y  0.000  Z  3.000
{   44} > 17   X   67.000    Y  0.000  Z  3.000
{   45} > 18   X   71.500    Y  0.000  Z  3.000
{   46} > 19   X   76.000    Y  0.000  Z  3.000
{   47} > 20   X   80.500    Y  0.000  Z  3.000
{   48} > 21   X   85.000    Y  0.000  Z  3.000
{   49} > 22   X   89.500    Y  0.000  Z  3.000
{   50} > 23   X   94.000    Y  0.000  Z  3.000
{   51} > 24   X   98.500    Y  0.000  Z  3.000
{   52} > 25   X  103.000    Y  0.000  Z  3.000
{   53} > 26   X  107.500    Y  0.000  Z  3.000
{   54} > 27   X  112.000    Y  0.000  Z  3.000
{   55} > 28   X  116.500    Y  0.000  Z  3.000
{   56} > 29   X  121.000    Y  0.000  Z  3.000
{   57} > 30   X  125.500    Y  0.000  Z  3.000
{   58} > 31   X  130.000    Y  0.000  Z  3.000
{   59} > 32   X  134.500    Y  0.000  Z  3.000
{   60} > 33   X  139.000    Y  0.000  Z  3.000
{   61} > 34   X  143.500    Y  0.000  Z  3.000
{   62} > 35   X  148.000    Y  0.000  Z  3.000
{   63} > 36   X  152.500    Y  0.000  Z  3.000
{   64} > 37   X  157.000    Y  0.000  Z  3.000
{   65} > 38   X  161.500    Y  0.000  Z  3.000
{   66} > 39   X  166.000    Y  0.000  Z  3.000
{   67} > 40   X  170.500    Y  0.000  Z  3.000
{   68} > 41   X  175.000    Y  0.000  Z  3.000
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{  69} > 42   X   179.500   Y  0.000  Z  3.000
{  70} > 43   X   184.000   Y  0.000  Z  3.000
{  71} > 44   X   188.500   Y  0.000  Z  3.000
{  72} > 45   X   193.000   Y  0.000  Z  3.000
{  73} > 46   X   197.500   Y  0.000  Z  3.000
{  74} > 47   X   202.000   Y  0.000  Z  3.000
{  75} > 48   X   206.500   Y  0.000  Z  3.000
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{  78} > 51   X   220.000   Y  0.000  Z  3.000
{  79} > 52   X   224.500   Y  0.000  Z  3.000
{  80} > 53   X   229.000   Y  0.000  Z  3.000
{  81} > 54   X   233.500   Y  0.000  Z  3.000
{  82} > 55   X   238.000   Y  0.000  Z  3.000
{  83} > 56   X   241.667   Y  0.000  Z  3.000
{  84} > 57   X   245.334   Y  0.000  Z  3.000
{  85} > 58   X   249.000   Y  0.000  Z  3.000
{  86} > 59   X   252.667   Y  0.000  Z  3.000
{  87} > 60   X   256.334   Y  0.000  Z  3.000
{  88} > 61   X   260.000   Y  0.000  Z  3.000
{  89} >
{  90} > 101   X   0         Y  0.000  Z  2.05
{  91} > 102   X   3.667     Y  0.000  Z  2.05
{  92} > 103   X   7.334     Y  0.000  Z  2.05
{  93} > 104   X   11.000    Y  0.000  Z  2.05
{  94} > 105   X   14.667    Y  0.000  Z  2.05
{  95} > 106   X   18.334    Y  0.000  Z  2.05
{  96} > 107   X   22.000    Y  0.000  Z  2.05
{  97} > 108   X   26.500    Y  0.000  Z  2.05
{  98} > 109   X   31.000    Y  0.000  Z  2.05
{  99} > 110   X   35.500    Y  0.000  Z  2.05
{ 100} > 111   X   40.000    Y  0.000  Z  2.05
{ 101} > 112   X   44.500    Y  0.000  Z  2.05
{ 102} > 113   X   49.000    Y  0.000  Z  2.05
{ 103} > 114   X   53.500    Y  0.000  Z  2.05
{ 104} > 115   X   58.000    Y  0.000  Z  2.05
{ 105} > 116   X   62.500    Y  0.000  Z  2.05
{ 106} > 117   X   67.000    Y  0.000  Z  2.05
{ 107} > 118   X   71.500    Y  0.000  Z  2.05
{ 108} > 119   X   76.000    Y  0.000  Z  2.05
{ 109} > 120   X   80.500    Y  0.000  Z  2.05
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{ 113} > 124   X   98.500    Y  0.000  Z  2.05
{ 114} > 125   X   103.000   Y  0.000  Z  2.05
{ 115} > 126   X   107.500   Y  0.000  Z  2.05
{ 116} > 127   X   112.000   Y  0.000  Z  2.05
{ 117} > 128   X   116.500   Y  0.000  Z  2.05
{ 118} > 129   X   121.000   Y  0.000  Z  2.05
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{ 123} > 134   X   143.500   Y  0.000  Z  2.05
{ 124} > 135   X   148.000   Y  0.000  Z  2.05
{ 125} > 136   X   152.500   Y  0.000  Z  2.05
{ 126} > 137   X   157.000   Y  0.000  Z  2.05
{ 127} > 138   X   161.500   Y  0.000  Z  2.05
{ 128} > 139   X   166.000   Y  0.000  Z  2.05
{ 129} > 140   X   170.500   Y  0.000  Z  2.05
{ 130} > 141   X   175.000   Y  0.000  Z  2.05
{ 131} > 142   X   179.500   Y  0.000  Z  2.05
{ 132} > 143   X   184.000   Y  0.000  Z  2.05
{ 133} > 144   X   188.500   Y  0.000  Z  2.05
{ 134} > 145   X   193.000   Y  0.000  Z  2.05
{ 135} > 146   X   197.500   Y  0.000  Z  2.05
{ 136} > 147   X   202.000   Y  0.000  Z  2.05
{ 137} > 148   X   206.500   Y  0.000  Z  2.05
{ 138} > 149   X   211.000   Y  0.000  Z  2.05
{ 139} > 150   X   215.500   Y  0.000  Z  2.05
{ 140} > 151   X   220.000   Y  0.000  Z  2.05
{ 141} > 152   X   224.500   Y  0.000  Z  2.05
{ 142} > 153   X   229.000   Y  0.000  Z  2.05
{ 143} > 154   X   233.500   Y  0.000  Z  2.05
{ 144} > 155   X   238.000   Y  0.000  Z  2.05
{ 145} > 156   X   241.667   Y  0.000  Z  2.05
{ 146} > 157   X   245.334   Y  0.000  Z  2.05
{ 147} > 158   X   249.000   Y  0.000  Z  2.05
{ 148} > 159   X   252.667   Y  0.000  Z  2.05
{ 149} > 160   X   256.334   Y  0.000  Z  2.05
{ 150} > 161   X   260.000   Y  0.000  Z  2.05
{ 151} >
{ 152} > 201   X   0         Y  0.000  Z  0.000
{ 153} > 202   X   3.667     Y  0.000  Z  0.000
{ 154} > 203   X   7.334     Y  0.000  Z  0.000
{ 155} > 204   X   11.000    Y  0.000  Z  0.000
{ 156} > 205   X   14.667    Y  0.000  Z  0.000
{ 157} > 206   X   18.334    Y  0.000  Z  0.000
{ 158} > 207   X   22.000    Y  0.000  Z  0.000
{ 159} > 208   X   26.500    Y  0.000  Z  0.000
{ 160} > 209   X   31.000    Y  0.000  Z  0.000
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{ 162} > 211   X   40.000    Y  0.000  Z  0.000
{ 163} > 212   X   44.500    Y  0.000  Z  0.000
{ 164} > 213   X   49.000    Y  0.000  Z  0.000
{ 165} > 214   X   53.500    Y  0.000  Z  0.000
{ 166} > 215   X   58.000    Y  0.000  Z  0.000
{ 167} > 216   X   62.500    Y  0.000  Z  0.000
{ 168} > 217   X   67.000    Y  0.000  Z  0.000
{ 169} > 218   X   71.500    Y  0.000  Z  0.000
{ 170} > 219   X   76.000    Y  0.000  Z  0.000
{ 171} > 220   X   80.500    Y  0.000  Z  0.000
{ 172} > 221   X   85.000    Y  0.000  Z  0.000
{ 173} > 222   X   89.500    Y  0.000  Z  0.000
{ 174} > 223   X   94.000    Y  0.000  Z  0.000
{ 175} > 224   X   98.500    Y  0.000  Z  0.000
{ 176} > 225   X   103.000   Y  0.000  Z  0.000
{ 177} > 226   X   107.500   Y  0.000  Z  0.000
{ 178} > 227   X   112.000   Y  0.000  Z  0.000
{ 179} > 228   X   116.500   Y  0.000  Z  0.000
{ 180} > 229   X   121.000   Y  0.000  Z  0.000
{ 181} > 230   X   125.500   Y  0.000  Z  0.000
{ 182} > 231   X   130.000   Y  0.000  Z  0.000
{ 183} > 232   X   134.500   Y  0.000  Z  0.000
{ 184} > 233   X   139.000   Y  0.000  Z  0.000
{ 185} > 234   X   143.500   Y  0.000  Z  0.000
{ 186} > 235   X   148.000   Y  0.000  Z  0.000
{ 187} > 236   X   152.500   Y  0.000  Z  0.000
{ 188} > 237   X   157.000   Y  0.000  Z  0.000
{ 189} > 238   X   161.500   Y  0.000  Z  0.000
{ 190} > 239   X   166.000   Y  0.000  Z  0.000
{ 191} > 240   X   170.500   Y  0.000  Z  0.000
{ 192} > 241   X   175.000   Y  0.000  Z  0.000
{ 193} > 242   X   179.500   Y  0.000  Z  0.000
{ 194} > 243   X   184.000   Y  0.000  Z  0.000
{ 195} > 244   X   188.500   Y  0.000  Z  0.000
{ 196} > 245   X   193.000   Y  0.000  Z  0.000
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{ 197} > 246 X 197.500 Y 0.000 Z 0.000
{ 198} > 247 X 202.000 Y 0.000 Z 0.000
{ 199} > 248 X 206.500 Y 0.000 Z 0.000
{ 200} > 249 X 211.000 Y 0.000 Z 0.000
{ 201} > 250 X 215.500 Y 0.000 Z 0.000
{ 202} > 251 X 220.000 Y 0.000 Z 0.000
{ 203} > 252 X 224.500 Y 0.000 Z 0.000
{ 204} > 253 X 229.000 Y 0.000 Z 0.000
{ 205} > 254 X 233.500 Y 0.000 Z 0.000
{ 206} > 255 X 238.000 Y 0.000 Z 0.000
{ 207} > 256 X 241.667 Y 0.000 Z 0.000
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{ 211} > 260 X 256.334 Y 0.000 Z 0.000
{ 212} > 261 X 260.000 Y 0.000 Z 0.000
{ 213} >
{ 214} > 301 X 0 Y 0.000 Z -2.05
{ 215} > 302 X 3.667 Y 0.000 Z -2.05
{ 216} > 303 X 7.334 Y 0.000 Z -2.05
{ 217} > 304 X 11.000 Y 0.000 Z -2.05
{ 218} > 305 X 14.667 Y 0.000 Z -2.05
{ 219} > 306 X 18.334 Y 0.000 Z -2.05
{ 220} > 307 X 22.000 Y 0.000 Z -2.05
{ 221} > 308 X 26.500 Y 0.000 Z -2.05
{ 222} > 309 X 31.000 Y 0.000 Z -2.05
{ 223} > 310 X 35.500 Y 0.000 Z -2.05
{ 224} > 311 X 40.000 Y 0.000 Z -2.05
{ 225} > 312 X 44.500 Y 0.000 Z -2.05
{ 226} > 313 X 49.000 Y 0.000 Z -2.05
{ 227} > 314 X 53.500 Y 0.000 Z -2.05
{ 228} > 315 X 58.000 Y 0.000 Z -2.05
{ 229} > 316 X 62.500 Y 0.000 Z -2.05
{ 230} > 317 X 67.000 Y 0.000 Z -2.05
{ 231} > 318 X 71.500 Y 0.000 Z -2.05
{ 232} > 319 X 76.000 Y 0.000 Z -2.05
{ 233} > 320 X 80.500 Y 0.000 Z -2.05
{ 234} > 321 X 85.000 Y 0.000 Z -2.05
{ 235} > 322 X 89.500 Y 0.000 Z -2.05
{ 236} > 323 X 94.000 Y 0.000 Z -2.05
{ 237} > 324 X 98.500 Y 0.000 Z -2.05
{ 238} > 325 X 103.000 Y 0.000 Z -2.05
{ 239} > 326 X 107.500 Y 0.000 Z -2.05
{ 240} > 327 X 112.000 Y 0.000 Z -2.05
{ 241} > 328 X 116.500 Y 0.000 Z -2.05
{ 242} > 329 X 121.000 Y 0.000 Z -2.05
{ 243} > 330 X 125.500 Y 0.000 Z -2.05
{ 244} > 331 X 130.000 Y 0.000 Z -2.05
{ 245} > 332 X 134.500 Y 0.000 Z -2.05
{ 246} > 333 X 139.000 Y 0.000 Z -2.05
{ 247} > 334 X 143.500 Y 0.000 Z -2.05
{ 248} > 335 X 148.000 Y 0.000 Z -2.05
{ 249} > 336 X 152.500 Y 0.000 Z -2.05
{ 250} > 337 X 157.000 Y 0.000 Z -2.05
{ 251} > 338 X 161.500 Y 0.000 Z -2.05
{ 252} > 339 X 166.000 Y 0.000 Z -2.05
{ 253} > 340 X 170.500 Y 0.000 Z -2.05
{ 254} > 341 X 175.000 Y 0.000 Z -2.05
{ 255} > 342 X 179.500 Y 0.000 Z -2.05
{ 256} > 343 X 184.000 Y 0.000 Z -2.05
{ 257} > 344 X 188.500 Y 0.000 Z -2.05
{ 258} > 345 X 193.000 Y 0.000 Z -2.05
{ 259} > 346 X 197.500 Y 0.000 Z -2.05
{ 260} > 347 X 202.000 Y 0.000 Z -2.05
{ 261} > 348 X 206.500 Y 0.000 Z -2.05
{ 262} > 349 X 211.000 Y 0.000 Z -2.05
{ 263} > 350 X 215.500 Y 0.000 Z -2.05
{ 264} > 351 X 220.000 Y 0.000 Z -2.05
{ 265} > 352 X 224.500 Y 0.000 Z -2.05
{ 266} > 353 X 229.000 Y 0.000 Z -2.05
{ 267} > 354 X 233.500 Y 0.000 Z -2.05
{ 268} > 355 X 238.000 Y 0.000 Z -2.05
{ 269} > 356 X 241.667 Y 0.000 Z -2.05
{ 270} > 357 X 245.334 Y 0.000 Z -2.05
{ 271} > 358 X 249.000 Y 0.000 Z -2.05
{ 272} > 359 X 252.667 Y 0.000 Z -2.05
{ 273} > 360 X 256.334 Y 0.000 Z -2.05
{ 274} > 361 X 260.000 Y 0.000 Z -2.05
{ 275} >
{ 276} > 401 X 0 Y 0.000 Z -3.000
{ 277} > 402 X 3.667 Y 0.000 Z -3.000
{ 278} > 403 X 7.334 Y 0.000 Z -3.000
{ 279} > 404 X 11.000 Y 0.000 Z -3.000
{ 280} > 405 X 14.667 Y 0.000 Z -3.000
{ 281} > 406 X 18.334 Y 0.000 Z -3.000
{ 282} > 407 X 22.000 Y 0.000 Z -3.000
{ 283} > 408 X 26.500 Y 0.000 Z -3.000
{ 284} > 409 X 31.000 Y 0.000 Z -3.000
{ 285} > 410 X 35.500 Y 0.000 Z -3.000
{ 286} > 411 X 40.000 Y 0.000 Z -3.000
{ 287} > 412 X 44.500 Y 0.000 Z -3.000
{ 288} > 413 X 49.000 Y 0.000 Z -3.000
{ 289} > 414 X 53.500 Y 0.000 Z -3.000
{ 290} > 415 X 58.000 Y 0.000 Z -3.000
{ 291} > 416 X 62.500 Y 0.000 Z -3.000
{ 292} > 417 X 67.000 Y 0.000 Z -3.000
{ 293} > 418 X 71.500 Y 0.000 Z -3.000
{ 294} > 419 X 76.000 Y 0.000 Z -3.000
{ 295} > 420 X 80.500 Y 0.000 Z -3.000
{ 296} > 421 X 85.000 Y 0.000 Z -3.000
{ 297} > 422 X 89.500 Y 0.000 Z -3.000
{ 298} > 423 X 94.000 Y 0.000 Z -3.000
{ 299} > 424 X 98.500 Y 0.000 Z -3.000
{ 300} > 425 X 103.000 Y 0.000 Z -3.000
{ 301} > 426 X 107.500 Y 0.000 Z -3.000
{ 302} > 427 X 112.000 Y 0.000 Z -3.000
{ 303} > 428 X 116.500 Y 0.000 Z -3.000
{ 304} > 429 X 121.000 Y 0.000 Z -3.000
{ 305} > 430 X 125.500 Y 0.000 Z -3.000
{ 306} > 431 X 130.000 Y 0.000 Z -3.000
{ 307} > 432 X 134.500 Y 0.000 Z -3.000
{ 308} > 433 X 139.000 Y 0.000 Z -3.000
{ 309} > 434 X 143.500 Y 0.000 Z -3.000
{ 310} > 435 X 148.000 Y 0.000 Z -3.000
{ 311} > 436 X 152.500 Y 0.000 Z -3.000
{ 312} > 437 X 157.000 Y 0.000 Z -3.000
{ 313} > 438 X 161.500 Y 0.000 Z -3.000
{ 314} > 439 X 166.000 Y 0.000 Z -3.000
{ 315} > 440 X 170.500 Y 0.000 Z -3.000
{ 316} > 441 X 175.000 Y 0.000 Z -3.000
{ 317} > 442 X 179.500 Y 0.000 Z -3.000
{ 318} > 443 X 184.000 Y 0.000 Z -3.000
{ 319} > 444 X 188.500 Y 0.000 Z -3.000
{ 320} > 445 X 193.000 Y 0.000 Z -3.000
{ 321} > 446 X 197.500 Y 0.000 Z -3.000
{ 322} > 447 X 202.000 Y 0.000 Z -3.000
{ 323} > 448 X 206.500 Y 0.000 Z -3.000
{ 324} > 449 X 211.000 Y 0.000 Z -3.000

```
{  325} > 450   X    215.500   Y  0.000  Z  -3.000
{  326} > 451   X    220.000   Y  0.000  Z  -3.000
{  327} > 452   X    224.500   Y  0.000  Z  -3.000
{  328} > 453   X    229.000   Y  0.000  Z  -3.000
{  329} > 454   X    233.500   Y  0.000  Z  -3.000
{  330} > 455   X    238.000   Y  0.000  Z  -3.000
{  331} > 456   X    241.667   Y  0.000  Z  -3.000
{  332} > 457   X    245.334   Y  0.000  Z  -3.000
{  333} > 458   X    249.000   Y  0.000  Z  -3.000
{  334} > 459   X    252.667   Y  0.000  Z  -3.000
{  335} > 460   X    256.334   Y  0.000  Z  -3.000
{  336} > 461   X    260.000   Y  0.000  Z  -3.000
{  337} >
{  338} > $ BASE DE PILAS Y ESTRIBOS
{  339} >
{  340} > $ E-1
{  341} >
{  342} > 601   X      0.000   Y   -1.75  Z   3.000
{  343} > 701   X      0.000   Y   -1.75  Z   -3.000
{  344} >
{  345} >
{  346} > $ P-1
{  347} >
{  348} > 602   X      22.00   Y  -1.75  Z   3.000
{  349} > 702   X      22.00   Y  -1.75  Z   -3.000
{  350} > 802   X      22.00   Y  -15.225  Z    3.000
{  351} > 902   X      22.00   Y  -15.225  Z   -3.000
{  352} > 952   X      22.00   Y  -15.225  Z    0.000
{  353} > 962   X      22.00   Y  -16.225  Z    0.000
{  354} >
{  355} > $ P-2
{  356} >
{  357} > 603   X      58.00   Y  -1.75  Z   3.000
{  358} > 703   X      58.00   Y  -1.75  Z   -3.000
{  359} > 803   X      58.00   Y  -14.146  Z    3.000
{  360} > 903   X      58.00   Y  -14.146  Z   -3.000
{  361} > 953   X      58.00   Y  -14.146  Z    0.000
{  362} > 963   X      58.00   Y  -15.146  Z    0.000
{  363} >
{  364} >
{  365} > $ P-3
{  366} >
{  367} > 604   X      94.00   Y  -1.75  Z   3.000
{  368} > 704   X      94.00   Y  -1.75  Z   -3.000
{  369} > 804   X      94.00   Y  -17.293  Z   3.000
{  370} > 904   X      94.00   Y  -17.293  Z   -3.000
{  371} > 954   X      94.00   Y  -17.293  Z    0.000
{  372} > 964   X      94.00   Y  -18.293  Z    0.000
{  373} >
{  374} > $ P-4
{  375} >
{  376} > 605   X      130.0   Y  -1.75  Z   3.000
{  377} > 705   X      130.0   Y  -1.75  Z   -3.000
{  378} > 805   X      130.0   Y  -17.905  Z   3.000
{  379} > 905   X      130.0   Y  -17.905  Z   -3.000
{  380} > 955   X      130.00   Y  -17.905  Z    0.000
{  381} > 965   X      130.00   Y  -18.905  Z    0.000
{  382} >
{  383} >
{  384} > $ P-5
{  385} >
{  386} > 606   X      166.0   Y  -1.75  Z   3.000
{  387} > 706   X      166.0   Y  -1.75  Z   -3.000
{  388} > 806   X      166.0   Y  -18.083  Z   3.000
{  389} > 906   X      166.0   Y  -18.083  Z   -3.000
{  390} > 956   X      166.0   Y  -18.083  Z    0.000
{  391} > 966   X      166.0   Y  -19.083  Z    0.000
{  392} >
{  393} > $ P-6
{  394} >
{  395} > 607   X      202.0   Y  -1.75  Z   3.000
{  396} > 707   X      202.0   Y  -1.75  Z   -3.000
{  397} > 807   X      202.0   Y  -17.093  Z   3.000
{  398} > 907   X      202.0   Y  -17.093  Z   -3.000
{  399} > 957   X      202.0   Y  -17.093  Z    0.000
{  400} > 967   X      202.0   Y  -18.093  Z    0.000
{  401} >
{  402} > $ P-7
{  403} >
{  404} > 608   X      238.0   Y  -1.75  Z   3.000
{  405} > 708   X      238.0   Y  -1.75  Z   -3.000
{  406} > 808   X      238.0   Y  -13.21  Z   3.000
{  407} > 908   X      238.0   Y  -13.21  Z   -3.000
{  408} > 958   X      238.0   Y  -13.21  Z    0.000
{  409} > 968   X      238.0   Y  -14.21  Z    0.000
{  410} >
{  411} > $ E-2
{  412} >
{  413} > 609   X      260.0   Y  -1.75  Z   3.000
{  414} > 709   X      260.0   Y  -1.75  Z   -3.000
{  415} >
{  416} > $ APOYO E-1
{  417} >
{  418} > 1000   X      -2.0   Y  0.000  Z   3.000
{  419} > 1001   X      -2.0   Y  0.000  Z   -3.000
{  420} >
{  421} > $ ----------------------
{  422} > $ CONDICIONES DE CONTORNO
{  423} > $ ----------------------
{  424} >
{  425} > STATUS SUPPORT JOINTS 1000 1001 -
{  426} > 601 701 609 709 962 TO 968
{  427} >
{  428} > JOINT RELEASES
{  429} >
{  430} > 601 701 FORCE X MOMENT X Y Z
{  431} > 609 709 MOMENT X Y Z KFX 1920
{  432} > 1000 1001 MOMENT X Y Z KFY 8000
{  433} >
{  434} > $ --------------------
{  435} > $ GENERACIÓN DE BARRAS
{  436} > $ --------------------
{  437} >
{  438} > MEMBER INCIDENCES
{  439} >
{  440} > $ VIGAS LONGITUDINALES
{  441} >
{  442} > GENERATE 60 MEMBERS ID 1.1 FROM 1.1 TO 2.1
{  443} > GENERATE 60 MEMBERS ID 61.1 FROM 401.1 TO 402.1
{  444} >
{  445} > $ VIGAS TRANSVERSALES
{  446} >
{  447} > GENERATE 61 MEMBERS ID 121.1 FROM 1.1 TO 101.1
{  448} > GENERATE 61 MEMBERS ID 182.1 FROM 101.1 TO 201.1
{  449} > GENERATE 61 MEMBERS ID 243.1 FROM 201.1 TO 301.1
{  450} > GENERATE 61 MEMBERS ID 304.1 FROM 301.1 TO 401.1
{  451} >
{  452} > $ VIGAS RIGIDAS APOYOS
```

```
> 
> MEMBER INCIDENCES
> 365 1 601
> 
> GENERATE 7 MEMBERS ID 366.1 FROM 7.8 TO 602.1
> 
> MEMBER INCIDENCES
> 373 61 609
> 374 401 701
> 
> GENERATE 7 MEMBERS ID 375.1 FROM 407.8 TO 702.1
> 
> MEMBER INCIDENCES
> 382 461 709
> 
> $ PILAS
> 
> GENERATE 7 MEMBERS ID 391.1 FROM 602.1 TO 802.1
> GENERATE 7 MEMBERS ID 398.1 FROM 702.1 TO 902.1
> 
> $ VIGAS FLEXIBLES EN ESTRIBO E-1
> 
> MEMBER INCIDENCES
> 405 1000 1
> 406 1001 401
> 
> $ ENCEPADOS
> 
> 407 902 952
> 408 952 802
> 409 903 953
> 410 953 803
> 411 904 954
> 412 954 804
> 413 905 955
> 414 955 805
> 415 906 956
> 416 956 806
> 417 907 957
> 418 957 807
> 419 908 958
> 420 958 808
> 
> $ EMPOTRAMIENTO ENCEPADOS
> 
> 421 952 962
> 422 953 963
> 423 954 964
> 424 955 965
> 425 956 966
> 426 957 967
> 427 958 968
> 
> $ ------------------------------------
> $ CONDICIONES CINEMÁTICAS VIGA - CARGADERO
> $ ------------------------------------
> 
> MEMBER RELEASES
> 
> 391 TO 404 START FORCE Y START MOMENT Z X
> 
> $ -------------------------------
> $ CARACTERÍSTICAS DE LAS SECCIONES
> $ -------------------------------
> 
> CONSTANTS
> 
> E      21000000     ALL
> G      8077000      ALL
> DENS   7.85         ALL
> CTE    1.2E-5       ALL
> 
> MEMBER PROPERTIES
> 
> $$$$$$$$$$    VIGAS LONGITUDINALES    $$$$$$$$$$$$$
> 
> $ SECCION 1 (CENTRO DE VANO)
> 
> MEMBER PROPERTIES
> 3 10 TO 50 BY 8  11 TO 51 BY 8 58 -
> _63 70 TO 110 BY 8 71 TO 111 BY 8 118 -
> _AX 0.570  IX 0.151  IY 1.7208  IZ 0.500 YD 2.45 YC 0.9
> 
> $ SECCION 4 (CENTRO DE VANO INTERMEDIA)
> 
> 1 2 4 5 8 TO 48 BY 8 9 TO 49 BY 8 12 TO 52 BY 8 -
> _13 TO 53 BY 8 56 57 59 60 -
> _61 62 64 65 68 TO 108 BY 8 69 TO 109 BY 8 72 TO 112 BY 8 -
> _73 TO 113 BY 8 116 117 119 120 -
> _AX 0.570  IX 0.151  IY 1.7208  IZ 0.450 YD 2.45 YC 0.9
> 
> $ SECCION 2 (APOYO INTERMEDIA) y 3 (APOYO)
> 
> 6 66 VARIABLE
> SEG 1 AX 0.60 IX 0.151 IY 1.7208 IZ 0.29 YD 2.45 YC 1.58 L 1.867  $ SECC 2
> SEG 2 AX 0.24 IX 0.151 IY 1.7208 IZ 0.215 YD 2.45 YC 1.65         $ SECC 3
> 
> 14 TO 54 BY 8 74 TO 114 BY 8 VARIABLE
> SEG 1 AX 0.60 IX 0.151 IY 1.7208 IZ 0.29 YD 2.45 YC 1.58 L 2.7    $ SECC 2
> SEG 2 AX 0.24 IX 0.151 IY 1.7208 IZ 0.215 YD 2.45 YC 1.65         $ SECC 3
> 
> 55 115 VARIABLE
> SEG 1 AX 0.24 IX 0.151 IY 1.7208 IZ 0.215 YD 2.45 YC 1.65 L 1.8   $ SECC 3
> SEG 2 AX 0.60 IX 0.151 IY 1.7208 IZ 0.29 YD 2.45 YC 1.58          $ SECC 2
> 
> 7 TO 47 BY 8 67 TO 107 BY 8 VARIABLE
> SEG 1 AX 0.24 IX 0.151 IY 1.7208 IZ 0.215 YD 2.45 YC 1.65 L 1.8   $ SECC 3
> SEG 2 AX 0.60 IX 0.151 IY 1.7208 IZ 0.29 YD 2.45 YC 1.58          $ SECC 2
> 
> $$$$$$$$$$ VIGAS TRANSVERSALES EN LOSA  $$$$$$$$$$$$$
> 
> $ CENTRALES
> 
> 189 TO 235 250 TO 296 -
> _AX 0.8541 IX 0.0029 IY 100.0  IZ 0.00115
> 
> 188 249 236 297 -
> _AX 0.7740 IX 0.00265 IY 100.0  IZ 0.00105
> 
> 183 TO 187 237 TO 241 244 TO 248 298 TO 302 -
> _AX 0.6960 IX 0.00239 IY 100.0  IZ 0.00094
> 
> 182 243 242 303 -
> _AX 0.3470 IX 0.00119 IY 100.0  IZ 0.00047
> 
> $ LATERALES
> 
> 128 TO 174 311 TO 357 -
```

```
{  581} >_127 310 175 358 -
{  582} >_122 TO 126 305 TO 309 176 TO 180 359 TO 363 -
{  583} >_121 304 181 364 -
{  584} >_AX 10.0 IX 10.0 IY 100.0  IZ 10.0
{  585} >
{  586} > $$$$$$$$$$    PILAS     $$$$$$$$$$$$$
{  587} >
{  588} > 391 TO 404 -
{  589} >_AX 0.4160 IX 0.342 IY 0.3660  IZ 0.1520
{  590} >
{  591} > $$$$$$$$    ELEMENTOS RIGIDOS DE APOYO  $$$$$$$$$$$4
{  592} >
{  593} > 365 TO 382 -
{  594} >_405 406 -
{  595} >_407 TO 427 -
{  596} >_AX 10.0 IX 100.0 IY 100.0  IZ 100.0
{  597} >
{  598} >
{  599} > LOADING 1 'SOBRECARGA: MAX POS APOYO elem 6(f)'
{  600} >
{  601} > MEMBER LOADS
{  602} >
{  603} > 16 76 FORCE Y GLOBAL UNIF W -13.92 LA 1.5 LB 4.5
{  604} > 17 TO 22 77 TO 82 -
{  605} >_FORCE Y GLOBAL UNIF W -13.92  $ VANO 3
{  606} > $ 23 TO 30 83 TO 90   - $ VANO 4
{  607} > 31 TO 38 91 TO 98 -  $ VANO 5
{  608} >_$ 39 TO 46 99 TO 106  - $ VANO 6
{  609} >_47 TO 54 107 TO 114 - $ VANO 7
{  610} >_$ 55 TO 60 115 TO 120 - $ VANO 8
{  611} >_FORCE Y GLOBAL UNIF W -11.6
{  612} >
{  613} > 15 TO 22 - $ VANO 3
{  614} >_$ 23 TO 30 - $ VANO 4
{  615} >_31 TO 38 -  $ VANO 5
{  616} >_$ 39 TO 46 - $ VANO 6
{  617} >_47 TO 54 - $ VANO 7
{  618} >_$ 55 TO 60 - $ VANO 8
{  619} >_MOMENT X GLOBAL UNIF W -8.7
{  620} >
{  621} > 75 TO 82 - $ VANO 3
{  622} >_$ 83 TO 90   - $ VANO 4
{  623} >_91 TO 98 -  $ VANO 5
{  624} >_$99 TO 106  - $ VANO 6
{  625} >_107 TO 114 - $ VANO 7
{  626} >_$ 115 TO 120 - $ VANO 8
{  627} >_MOMENT X GLOBAL UNIF W 8.7
{  628} >
{  629} >
{  630} > STIFFNESS ANALYSIS


BANDWIDTH INFORMATION BEFORE RENUMBERING.


THE MAXIMUM BANDWIDTH IS  344 AND OCCURS AT JOINT 1000
THE AVERAGE BANDWIDTH IS                          53.486
THE STANDARD DEVIATION OF THE BANDWIDTH IS        49.239
                                                ----------
                                                  102.725
                                                ==========

BANDWIDTH INFORMATION AFTER  RENUMBERING.


THE MAXIMUM BANDWIDTH IS    7 AND OCCURS AT JOINT 5
THE AVERAGE BANDWIDTH IS                          4.835
THE STANDARD DEVIATION OF THE BANDWIDTH IS        1.260
                                                ----------
                                                  6.096
                                                ==========

TIME FOR CONSISTENCY CHECKS FOR    419 MEMBERS      0.06 SECONDS
TIME FOR BANDWIDTH REDUCTION                        0.05 SECONDS
TIME TO GENERATE    419 ELEMENT STIF. MATRICES      0.17 SECONDS
TIME TO PROCESS     14 MEMBER RELEASES              0.00 SECONDS
TIME TO PROCESS       94 MEMBER LOADS               0.05 SECONDS
TIME TO ASSEMBLE THE STIFFNESS MATRIX               0.28 SECONDS
TIME TO PROCESS    353 JOINTS                       0.00 SECONDS
TIME TO SOLVE WITH  173 PARTITIONS                  0.49 SECONDS
TIME TO PROCESS    353 JOINT DISPLACEMENTS          0.06 SECONDS
TIME TO PROCESS    419 ELEMENT DISTORTIONS          0.05 SECONDS
TIME FOR STATICS CHECK                              0.00 SECONDS
{  631} >
{  632} >
{  633} > SECTION FR NS 3 0.0 0.5 1.0
{  634} > LIST SECTION FORCES
1

   ****************************
   *RESULTS OF LATEST ANALYSES*
   ****************************

    PROBLEM - VIADUCTO  TITLE - MAXIMO MOMENTO POSITIVO EN APOYO 6(f)

    ACTIVE UNITS  M    METN RAD  DEGC SEC

    INTERNAL MEMBER RESULTS
    -----------------------

     MEMBER SECTION FORCES

 ------------------------------------------------------------------------------------------------------------
-----------------------------
 ---      MEMBER  1
---
 ------------------------------------------------------------------------------------------------------------
-----------------------------


          LOADING    1          SOBRECARGA: MAX POS APOYO elem 6(f)

    DISTANCE-       /------------------ FORCE ------------------//------------------ MOMENT --
---------------/
   FROM START              AXIAL        Y SHEAR        Z SHEAR        TORSION       Y BENDING
Z BENDING

     0.000  FR         0.9701744      -8.201838      -0.2255346E-04 -0.9103006E-02 -0.8561229E-04
-2.143134
     0.500             0.9701744      -8.201838      -0.2255346E-04 -0.9103006E-02 -0.1269640E-03
12.89494
     1.000             0.9701744      -8.201838      -0.2255346E-04 -0.9103006E-02 -0.1683158E-03
27.93301
```

```
TIME FOR CONSISTENCY CHECKS FOR    419 MEMBERS      0.06 SECONDS
TIME FOR BANDWIDTH REDUCTION                        0.05 SECONDS
TIME TO GENERATE    419 ELEMENT STIF. MATRICES      0.17 SECONDS
TIME TO PROCESS      14 MEMBER RELEASES             0.00 SECONDS
TIME TO PROCESS       94 MEMBER LOADS               0.05 SECONDS
TIME TO ASSEMBLE THE STIFFNESS MATRIX               0.28 SECONDS
TIME TO PROCESS    353 JOINTS                       0.00 SECONDS
TIME TO SOLVE WITH  173 PARTITIONS                  0.49 SECONDS
TIME TO PROCESS    353 JOINT DISPLACEMENTS          0.06 SECONDS
TIME TO PROCESS    419 ELEMENT DISTORTIONS          0.05 SECONDS
TIME FOR STATICS CHECK                              0.00 SECONDS
{  631} >
{  632} >
{  633} > SECTION FR NS 3 0.0 0.5 1.0
{  634} > LIST SECTION FORCES
1

    ****************************
    *RESULTS OF LATEST ANALYSES*
    ****************************

     PROBLEM - VIADUCTO  TITLE - MAXIMO MOMENTO POSITIVO EN APOYO 6(f)

     ACTIVE UNITS  M    METN RAD  DEGC SEC

     INTERNAL MEMBER RESULTS
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    MEMBER SECTION FORCES

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---      MEMBER  1                                                                                                   ---
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        LOADING    1          SOBRECARGA: MAX POS APOYO elem 6(f)

  DISTANCE         /------------------ FORCE ------------------//----------------- MOMENT -----------------/
 FROM START              AXIAL        Y SHEAR        Z SHEAR        TORSION       Y BENDING       Z BENDING

    0.000  FR         0.9701744      -8.201838     -0.2255346E-04 -0.9103006E-02 -0.8561229E-04   -2.143134
    0.500             0.9701744      -8.201838     -0.2255346E-04 -0.9103006E-02 -0.1269640E-03    12.89494
    1.000             0.9701744      -8.201838     -0.2255346E-04 -0.9103006E-02 -0.1683158E-03    27.93301

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---      MEMBER  2                                                                                                   ---
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        LOADING    1          SOBRECARGA: MAX POS APOYO elem 6(f)

  DISTANCE         /------------------ FORCE ------------------//----------------- MOMENT -----------------/
 FROM START              AXIAL        Y SHEAR        Z SHEAR        TORSION       Y BENDING       Z BENDING

    0.000  FR         0.9701744      -8.201838     -0.4874554E-03 -0.9366763E-02  0.9282161E-03    27.93301
    0.500             0.9701744      -8.201838     -0.4874554E-03 -0.9366763E-02  0.3446658E-04    42.97108
    1.000             0.9701744      -8.201838     -0.4874554E-03 -0.9366763E-02 -0.8592830E-03    58.00915

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---      MEMBER  3                                                                                                   ---
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        LOADING    1          SOBRECARGA: MAX POS APOYO elem 6(f)

  DISTANCE         /------------------ FORCE ------------------//----------------- MOMENT -----------------/
 FROM START              AXIAL        Y SHEAR        Z SHEAR        TORSION       Y BENDING       Z BENDING

    0.000  FR         0.9701744      -8.201838     -0.1419170E-02 -0.9901692E-02  0.2685395E-02    58.00915
    0.500             0.9701744      -8.201838     -0.1419170E-02 -0.9901692E-02  0.8405706E-04    73.04311
    1.000             0.9701744      -8.201838     -0.1419170E-02 -0.9901692E-02 -0.2517281E-02    88.07709

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---      MEMBER  4                                                                                                   ---
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        LOADING    1          SOBRECARGA: MAX POS APOYO elem 6(f)

  DISTANCE         /------------------ FORCE ------------------//----------------- MOMENT -----------------/
 FROM START              AXIAL        Y SHEAR        Z SHEAR        TORSION       Y BENDING       Z BENDING
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0.000 FR	0.9701744	-8.201838	-0 3700766E-02	-0.1072320E-01	0.6996483E-02	88.07709
0.500	0.9701744	-8.201838	-0.3700766E-02	-0.1072320E-01	0.2111295E-03	103.1152
1.000	0.9701744	-8.201838	-0.3700766E-02	-0.1072320E-01	-0.6574223E-02	118.1532

--- MEMBER 5 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.9701744	-8.201838	-0.9504485E-02	-0.1185516E-01	0.1793655E-01	118.1532
0.500	0.9701744	-8.201838	-0.9504485E-02	-0.1185516E-01	0.5100706E-03	133.1913
1.000	0.9701744	-8.201838	-0.9504485E-02	-0.1185516E-01	-0.1691641E-01	148.2294

--- MEMBER 6 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.9701744	-8.201838	-0.2431536E-01	-0.1333033E-01	0.4382607E-01	148.2294
0.500	0.9701744	-8.201838	-0.2431536E-01	-0.1333033E-01	-0.7439890E-03	163.2634
1.000	0.9701744	-8.201838	-0.2431536E-01	-0.1333033E-01	-0.4531405E-01	178.2973

--- MEMBER 7 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.9701744	25.50165	0.1636215E-01	-0.7602284	-0.3740494E-01	178.2973
0.500	0.9701744	25.50165	0.1636215E-01	-0.7602284	-0.5900902E-03	120.9186
1.000	0.9701744	25.50165	0.1636215E-01	-0.7602284	0.3622476E-01	63.53984

--- MEMBER 8 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.9701744	25.50165	0.3452187E-02	-0.7955473	-0.7303795E-02	63.53984
0.500	0.9701744	25.50165	0.3452187E-02	-0.7955473	0.4636229E-03	6.161150
1.000	0.9701744	25.50165	0.3452187E-02	-0.7955473	0.8231041E-02	-51.21754

--- MEMBER 9 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.9701744	25.50165	-0.2090534E-02	-0.8654437	0.5115902E-02	-51.21754
0.500	0.9701744	25.50165	-0.2090534E-02	-0.8654437	0.4121998E-03	-108.5963
1.000	0.9701744	25.50165	-0.2090534E-02	-0.8654437	-0.4291502E-02	-165.9750

--- MEMBER 10 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING

0.000 FR	0.9701744	25.50165	-0.1213398E-01	-0.9729552	0.2852431E-01	-165.9750
0.500	0.9701744	25.50165	-0.1213398E-01	-0.9729552	0.1222848E-02	-223.3538
1.000	0.9701744	25.50165	-0.1213398E-01	-0.9729552	-0.2607862E-01	-280.7325

--- MEMBER 11 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.9701744	25.50165	-0.4829634E-01	-1.122755	0.1133315	-280.7325
0.500	0.9701744	25.50165	-0.4829634E-01	-1.122755	0.4664845E-02	-338.1112
1.000	0.9701744	25.50165	-0.4829634E-01	-1.122755	-0.1040019	-395.4899

--- MEMBER 12 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.9701744	25.50165	-0.1884169	-1.321354	0.4420363	-395.4898
0.500	0.9701744	25.50165	-0.1884169	-1.321354	0.1809816E-01	-452.8686
1.000	0.9701744	25.50165	-0.1884169	-1.321354	-0.4058400	-510.2473

--- MEMBER 13 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.9701744	25.50165	-0.7339867	-1.577383	1.717790	-510.2473
0.500	0.9701744	25.50165	-0.7339867	-1.577383	0.6631953E-01	-567.6260
1.000	0.9701744	25.50165	-0.7339867	-1.577383	-1.585151	-625.0048

--- MEMBER 14 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.9701744	25.50165	-2.848951	-1.901971	6.319461	-625.0048
0.500	0.9701744	25.50165	-2.848951	-1.901971	-0.9067626E-01	-682.3835
1.000	0.9701744	25.50165	-2.848951	-1.901971	-6.500813	-739.7621

--- MEMBER 15 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.9701744	-177.5325	2.848736	-127.8498	-6.500319	-739.7621
0.500	0.9701744	-177.5325	2.848736	-108.2748	-0.9066429E-01	-340.3141
1.000	0.9701744	-177.5325	2.848736	-88.69978	6.318990	59.13385

--- MEMBER 16 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING

0.000 FR	0.9701744	-177.5325	0.7333105	-93.81304	-1.583568	59.13385
0.500	0.9701744	-167.0925	0.7333105	-74.23801	0.6638230E-01	454.6674
1.000	0.9701744	-135.7725	0.7333105	-54.66300	1.716332	795.3907

--- MEMBER 17 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.9701744	-135.7725	0.1858262	-63.00291	-0.3997616	795.3907
0.500	0.9701744	-104.4525	0.1858262	-43.42792	0.1834710E-01	1065.644
1.000	0.9701744	-73.13255	0.1858262	-23.85293	0.4364558	1265.427

--- MEMBER 18 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.9701744	-73.13254	0.3821361E-01	-34.08038	-0.8034482E-01	1265.427
0.500	0.9701744	-41.81255	0.3821361E-01	-14.50539	0.5635770E-02	1394.740
1.000	0.9701744	-10.49256	0.3821361E-01	5.069605	0.9161635E-01	1453.583

--- MEMBER 19 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.9701744	-10.49257	-0.2714415E-01	-5.788301	0.6607961E-01	1453.583
0.500	0.9701744	20.82743	-0.2714415E-01	13.78669	0.5005288E-02	1441.957
1.000	0.9701744	52.14741	-0.2714415E-01	33.36168	-0.5606904E-01	1359.860

--- MEMBER 20 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.9701744	52.14741	-0.1509296	23.10300	0.3546993	1359.860
0.500	0.9701744	83.46745	-0.1509296	42.67802	0.1510743E-01	1207.293
1.000	0.9701744	114.7875	-0.1509296	62.25304	-0.3244844	984.2562

--- MEMBER 21 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.9701744	114.7875	-0.5994946	53.84930	1.403182	984.2562
0.500	0.9701744	146.1075	-0.5994946	73.42429	0.5431929E-01	690.7495
1.000	0.9701744	177.4275	-0.5994946	92.99928	-1.294543	326.7728

--- MEMBER 22 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING

0.000 FR	0.9701744	177.4275	-2.329872	87.78681	5.168069	326.7728
0.500	0.9701744	208.7474	-2.329872	107.3618	-0.7414032E-01	-107.6738
1.000	0.9701744	240.0674	-2.329872	126.9368	-5.316350	-612.5903

--- MEMBER 23 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.9701744	-2.269021	2.329920	1.471040	-5.316470	-612.5903
0.500	0.9701744	-2.269021	2.329920	1.471040	-0.7414383E-01	-607.4849
1.000	0.9701744	-2.269021	2.329920	1.471040	5.168182	-602.3797

--- MEMBER 24 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.9701744	-2.269021	0.5996668	0.9888411	-1.294947	-602.3797
0.500	0.9701744	-2.269021	0.5996668	0.9888411	0.5430304E-01	-597.2744
1.000	0.9701744	-2.269021	0.5996668	0.9888411	1.403553	-592.1691

--- MEMBER 25 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.9701744	-2.269021	0.1515961	0.5496210	-0.3260482	-592.1691
0.500	0.9701744	-2.269021	0.1515961	0.5496210	0.1504329E-01	-587.0638
1.000	0.9701744	-2.269021	0.1515961	0.5496210	0.3561348	-581.9585

--- MEMBER 26 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.9701744	-2.269021	0.2973979E-01	0.1342895	-0.6215908E-01	-581.9585
0.500	0.9701744	-2.269021	0.2973979E-01	0.1342895	0.4755327E-02	-576.8532
1.000	0.9701744	-2.269021	0.2973979E-01	0.1342895	0.7166973E-01	-571.7479

--- MEMBER 27 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.9701744	-2.269021	-0.2810194E-01	-0.2752054	0.6789146E-01	-571.7479
0.500	0.9701744	-2.269021	-0.2810194E-01	-0.2752054	0.4662040E-02	-566.6426
1.000	0.9701744	-2.269021	-0.2810194E-01	-0.2752054	-0.5856737E-01	-561.5373

--- MEMBER 28 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING

0.000 FR	0.9701744	-2.269021	-0.1464332	-0.6966617	0.3440391	-561.5373
0.500	0.9701744	-2.269021	-0.1464332	-0.6966617	0.1456399E-01	-556.4321
1.000	0.9701744	-2.269021	-0.1464332	-0.6966617	-0.3149111	-551.3267

--- MEMBER 29 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.9701744	-2.269021	-0.5798690	-1.148397	1.357221	-551.3267
0.500	0.9701744	-2.269021	-0.5798690	-1.148397	0.5251831E-01	-546.2214
1.000	0.9701744	-2.269021	-0.5798690	-1.148397	-1.252185	-541.1161

--- MEMBER 30 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.9701744	-2.269021	-2.253151	-1.650047	4.997894	-541.1161
0.500	0.9701744	-2.269021	-2.253151	-1.650047	-0.7170127E-01	-536.0109
1.000	0.9701744	-2.269021	-2.253151	-1.650047	-5.141296	-530.9055

--- MEMBER 31 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.9701744	-207.9758	2.253173	-127.1382	-5.141331	-530.9055
0.500	0.9701744	-181.8758	2.253173	-107.5632	-0.7170186E-01	-92.32323
1.000	0.9701744	-155.7759	2.253173	-87.98828	4.997928	287.5343

--- MEMBER 32 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.9701744	-155.7759	0.5798991	-93.23672	-1.252259	287.5343
0.500	0.9701744	-129.6759	0.5798991	-73.66171	0.5251551E-01	608.6678
1.000	0.9701744	-103.5758	0.5798991	-54.08669	1.357290	871.0762

--- MEMBER 33 ---

LOADING 1 SOBRECARGA: MAX POS APOYO elem 6(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	0.9701744	-103.5758	0.1465461	-62.53674	-0.3151759	871.0764
0.500	0.9701744	-77.47581	0.1465461	-42.96172	0.1455323E-01	1074.760
1.000	0.9701744	-51.37579	0.1465461	-23.38669	0.3442824	1219.718

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$ ----------------------------------------
$ VIADUCTO DE LOS CHORROS. PROYECTO DEFINITIVO.
$ ----------------------------------------

$ ----------------------------------------
$ MODELO 3D. STRUDL. CONSTANTES 0.
$ ----------------------------------------

$ ---------
$ MARZO 99
$ ---------

STRUDL 'VIADUCTO DE LOS CHORROS' 'ESTADO DE TREN TIPO B CON COEF DE
IMPACTO' 'MARZO 99'
$
$ MAXIMO MOMENTO FLECTOR EN APOYO Y EN VANO PARA DOS  Y UNA VIAS
CARGADAS
$
UNITS M MTON CENTIGRADES
TYPE SPACE FRAME
OUTPUT ORDERED

PRINT GENERATE OFF

$ -------------------
$ DEFINICION DE NODOS
$ -------------------

JOINT COORDINATES

$ TABLERO

1    X    0          Y  0.000  Z  3.000
2    X    3.667      Y  0.000  Z  3.000
3    X    7.334      Y  0.000  Z  3.000
4    X    11.000     Y  0.000  Z  3.000
5    X    14.667     Y  0.000  Z  3.000
6    X    18.334     Y  0.000  Z  3.000
7    X    22.000     Y  0.000  Z  3.000
8    X    26.500     Y  0.000  Z  3.000
9    X    31.000     Y  0.000  Z  3.000
10   X    35.500     Y  0.000  Z  3.000
11   X    40.000     Y  0.000  Z  3.000
12   X    44.500     Y  0.000  Z  3.000
13   X    49.000     Y  0.000  Z  3.000
14   X    53.500     Y  0.000  Z  3.000
15   X    58.000     Y  0.000  Z  3.000
16   X    62.500     Y  0.000  Z  3.000
17   X    67.000     Y  0.000  Z  3.000
18   X    71.500     Y  0.000  Z  3.000
19   X    76.000     Y  0.000  Z  3.000
20   X    80.500     Y  0.000  Z  3.000
21   X    85.000     Y  0.000  Z  3.000
22   X    89.500     Y  0.000  Z  3.000
23   X    94.000     Y  0.000  Z  3.000
24   X    98.500     Y  0.000  Z  3.000
25   X    103.000    Y  0.000  Z  3.000
26   X    107.500    Y  0.000  Z  3.000
27   X    112.000    Y  0.000  Z  3.000
28   X    116.500    Y  0.000  Z  3.000
29   X    121.000    Y  0.000  Z  3.000
30   X    125.500    Y  0.000  Z  3.000
31   X    130.000    Y  0.000  Z  3.000
32   X    134.500    Y  0.000  Z  3.000
33   X    139.000    Y  0.000  Z  3.000
34   X    143.500    Y  0.000  Z  3.000
35   X    148.000    Y  0.000  Z  3.000
36   X    152.500    Y  0.000  Z  3.000
37   X    157.000    Y  0.000  Z  3.000
38   X    161.500    Y  0.000  Z  3.000
39   X    166.000    Y  0.000  Z  3.000
40   X    170.500    Y  0.000  Z  3.000
41   X    175.000    Y  0.000  Z  3.000
42   X    179.500    Y  0.000  Z  3.000
43   X    184.000    Y  0.000  Z  3.000
44   X    188.500    Y  0.000  Z  3.000
45   X    193.000    Y  0.000  Z  3.000
46   X    197.500    Y  0.000  Z  3.000
47   X    202.000    Y  0.000  Z  3.000
48   X    206.500    Y  0.000  Z  3.000
49   X    211.000    Y  0.000  Z  3.000
50   X    215.500    Y  0.000  Z  3.000
51   X    220.000    Y  0.000  Z  3.000
52   X    224.500    Y  0.000  Z  3.000
53   X    229.000    Y  0.000  Z  3.000
54   X    233.500    Y  0.000  Z  3.000
55   X    238.000    Y  0.000  Z  3.000
56   X    241.667    Y  0.000  Z  3.000
57   X    245.334    Y  0.000  Z  3.000
58   X    249.000    Y  0.000  Z  3.000
59   X    252.667    Y  0.000  Z  3.000
60   X    256.334    Y  0.000  Z  3.000
61   X    260.000    Y  0.000  Z  3.000

101  X    0          Y  0.000  Z  2.05
102  X    3.667      Y  0.000  Z  2.05
103  X    7.334      Y  0.000  Z  2.05
104  X    11.000     Y  0.000  Z  2.05
105  X    14.667     Y  0.000  Z  2.05
106  X    18.334     Y  0.000  Z  2.05
107  X    22.000     Y  0.000  Z  2.05
108  X    26.500     Y  0.000  Z  2.05
109  X    31.000     Y  0.000  Z  2.05
110  X    35.500     Y  0.000  Z  2.05
111  X    40.000     Y  0.000  Z  2.05
112  X    44.500     Y  0.000  Z  2.05
113  X    49.000     Y  0.000  Z  2.05
114  X    53.500     Y  0.000  Z  2.05
115  X    58.000     Y  0.000  Z  2.05
116  X    62.500     Y  0.000  Z  2.05
117  X    67.000     Y  0.000  Z  2.05
118  X    71.500     Y  0.000  Z  2.05
119  X    76.000     Y  0.000  Z  2.05
120  X    80.500     Y  0.000  Z  2.05
121  X    85.000     Y  0.000  Z  2.05
122  X    89.500     Y  0.000  Z  2.05
123  X    94.000     Y  0.000  Z  2.05
124  X    98.500     Y  0.000  Z  2.05
125  X    103.000    Y  0.000  Z  2.05
126  X    107.500    Y  0.000  Z  2.05
127  X    112.000    Y  0.000  Z  2.05
128  X    116.500    Y  0.000  Z  2.05
129  X    121.000    Y  0.000  Z  2.05
130  X    125.500    Y  0.000  Z  2.05
131  X    130.000    Y  0.000  Z  2.05
132  X    134.500    Y  0.000  Z  2.05
133  X    139.000    Y  0.000  Z  2.05
134  X    143.500    Y  0.000  Z  2.05
135  X    148.000    Y  0.000  Z  2.05
136  X    152.500    Y  0.000  Z  2.05
137  X    157.000    Y  0.000  Z  2.05
138  X    161.500    Y  0.000  Z  2.05
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139	X	166.000	Y	0.000	Z	2.05
140	X	170.500	Y	0.000	Z	2.05
141	X	175.000	Y	0.000	Z	2.05
142	X	179.500	Y	0.000	Z	2.05
143	X	184.000	Y	0.000	Z	2.05
144	X	188.500	Y	0.000	Z	2.05
145	X	193.000	Y	0.000	Z	2.05
146	X	197.500	Y	0.000	Z	2.05
147	X	202.000	Y	0.000	Z	2.05
148	X	206.500	Y	0.000	Z	2.05
149	X	211.000	Y	0.000	Z	2.05
150	X	215.500	Y	0.000	Z	2.05
151	X	220.000	Y	0.000	Z	2.05
152	X	224.500	Y	0.000	Z	2.05
153	X	229.000	Y	0.000	Z	2.05
154	X	233.500	Y	0.000	Z	2.05
155	X	238.000	Y	0.000	Z	2.05
156	X	241.667	Y	0.000	Z	2.05
157	X	245.334	Y	0.000	Z	2.05
158	X	249.000	Y	0.000	Z	2.05
159	X	252.667	Y	0.000	Z	2.05
160	X	256.334	Y	0.000	Z	2.05
161	X	260.000	Y	0.000	Z	2.05

201	X	0	Y	0.000	Z	0.000
202	X	3.667	Y	0.000	Z	0.000
203	X	7.334	Y	0.000	Z	0.000
204	X	11.000	Y	0.000	Z	0.000
205	X	14.667	Y	0.000	Z	0.000
206	X	18.334	Y	0.000	Z	0.000
207	X	22.000	Y	0.000	Z	0.000
208	X	26.500	Y	0.000	Z	0.000
209	X	31.000	Y	0.000	Z	0.000
210	X	35.500	Y	0.000	Z	0.000
211	X	40.000	Y	0.000	Z	0.000
212	X	44.500	Y	0.000	Z	0.000
213	X	49.000	Y	0.000	Z	0.000
214	X	53.500	Y	0.000	Z	0.000
215	X	58.000	Y	0.000	Z	0.000
216	X	62.500	Y	0.000	Z	0.000
217	X	67.000	Y	0.000	Z	0.000
218	X	71.500	Y	0.000	Z	0.000
219	X	76.000	Y	0.000	Z	0.000
220	X	80.500	Y	0.000	Z	0.000
221	X	85.000	Y	0.000	Z	0.000
222	X	89.500	Y	0.000	Z	0.000
223	X	94.000	Y	0.000	Z	0.000
224	X	98.500	Y	0.000	Z	0.000
225	X	103.000	Y	0.000	Z	0.000
226	X	107.500	Y	0.000	Z	0.000
227	X	112.000	Y	0.000	Z	0.000
228	X	116.500	Y	0.000	Z	0.000
229	X	121.000	Y	0.000	Z	0.000
230	X	125.500	Y	0.000	Z	0.000
231	X	130.000	Y	0.000	Z	0.000
232	X	134.500	Y	0.000	Z	0.000
233	X	139.000	Y	0.000	Z	0.000
234	X	143.500	Y	0.000	Z	0.000
235	X	148.000	Y	0.000	Z	0.000
236	X	152.500	Y	0.000	Z	0.000
237	X	157.000	Y	0.000	Z	0.000
238	X	161.500	Y	0.000	Z	0.000
239	X	166.000	Y	0.000	Z	0.000
240	X	170.500	Y	0.000	Z	0.000
241	X	175.000	Y	0.000	Z	0.000
242	X	179.500	Y	0.000	Z	0.000

243	X	184.000	Y	0.000	Z	0.000
244	X	188.500	Y	0.000	Z	0.000
245	X	193.000	Y	0.000	Z	0.000
246	X	197.500	Y	0.000	Z	0.000
247	X	202.000	Y	0.000	Z	0.000
248	X	206.500	Y	0.000	Z	0.000
249	X	211.000	Y	0.000	Z	0.000
250	X	215.500	Y	0.000	Z	0.000
251	X	220.000	Y	0.000	Z	0.000
252	X	224.500	Y	0.000	Z	0.000
253	X	229.000	Y	0.000	Z	0.000
254	X	233.500	Y	0.000	Z	0.000
255	X	238.000	Y	0.000	Z	0.000
256	X	241.667	Y	0.000	Z	0.000
257	X	245.334	Y	0.000	Z	0.000
258	X	249.000	Y	0.000	Z	0.000
259	X	252.667	Y	0.000	Z	0.000
260	X	256.334	Y	0.000	Z	0.000
261	X	260.000	Y	0.000	Z	0.000

301	X	0	Y	0.000	Z	-2.05
302	X	3.667	Y	0.000	Z	-2.05
303	X	7.334	Y	0.000	Z	-2.05
304	X	11.000	Y	0.000	Z	-2.05
305	X	14.667	Y	0.000	Z	-2.05
306	X	18.334	Y	0.000	Z	-2.05
307	X	22.000	Y	0.000	Z	-2.05
308	X	26.500	Y	0.000	Z	-2.05
309	X	31.000	Y	0.000	Z	-2.05
310	X	35.500	Y	0.000	Z	-2.05
311	X	40.000	Y	0.000	Z	-2.05
312	X	44.500	Y	0.000	Z	-2.05
313	X	49.000	Y	0.000	Z	-2.05
314	X	53.500	Y	0.000	Z	-2.05
315	X	58.000	Y	0.000	Z	-2.05
316	X	62.500	Y	0.000	Z	-2.05
317	X	67.000	Y	0.000	Z	-2.05
318	X	71.500	Y	0.000	Z	-2.05
319	X	76.000	Y	0.000	Z	-2.05
320	X	80.500	Y	0.000	Z	-2.05
321	X	85.000	Y	0.000	Z	-2.05
322	X	89.500	Y	0.000	Z	-2.05
323	X	94.000	Y	0.000	Z	-2.05
324	X	98.500	Y	0.000	Z	-2.05
325	X	103.000	Y	0.000	Z	-2.05
326	X	107.500	Y	0.000	Z	-2.05
327	X	112.000	Y	0.000	Z	-2.05
328	X	116.500	Y	0.000	Z	-2.05
329	X	121.000	Y	0.000	Z	-2.05
330	X	125.500	Y	0.000	Z	-2.05
331	X	130.000	Y	0.000	Z	-2.05
332	X	134.500	Y	0.000	Z	-2.05
333	X	139.000	Y	0.000	Z	-2.05
334	X	143.500	Y	0.000	Z	-2.05
335	X	148.000	Y	0.000	Z	-2.05
336	X	152.500	Y	0.000	Z	-2.05
337	X	157.000	Y	0.000	Z	-2.05
338	X	161.500	Y	0.000	Z	-2.05
339	X	166.000	Y	0.000	Z	-2.05
340	X	170.500	Y	0.000	Z	-2.05
341	X	175.000	Y	0.000	Z	-2.05
342	X	179.500	Y	0.000	Z	-2.05
343	X	184.000	Y	0.000	Z	-2.05
344	X	188.500	Y	0.000	Z	-2.05
345	X	193.000	Y	0.000	Z	-2.05
346	X	197.500	Y	0.000	Z	-2.05

```
347   X    202.000   Y  0.000  Z  -2.05
348   X    206.500   Y  0.000  Z  -2.05
349   X    211.000   Y  0.000  Z  -2.05
350   X    215.500   Y  0.000  Z  -2.05
351   X    220.000   Y  0.000  Z  -2.05
352   X    224.500   Y  0.000  Z  -2.05
353   X    229.000   Y  0.000  Z  -2.05
354   X    233.500   Y  0.000  Z  -2.05
355   X    238.000   Y  0.000  Z  -2.05
356   X    241.667   Y  0.000  Z  -2.05
357   X    245.334   Y  0.000  Z  -2.05
358   X    249.000   Y  0.000  Z  -2.05
359   X    252.667   Y  0.000  Z  -2.05
360   X    256.334   Y  0.000  Z  -2.05
361   X    260.000   Y  0.000  Z  -2.05

401   X    0         Y  0.000  Z  -3.000
402   X    3.667     Y  0.000  Z  -3.000
403   X    7.334     Y  0.000  Z  -3.000
404   X    11.000    Y  0.000  Z  -3.000
405   X    14.667    Y  0.000  Z  -3.000
406   X    18.334    Y  0.000  Z  -3.000
407   X    22.000    Y  0.000  Z  -3.000
408   X    26.500    Y  0.000  Z  -3.000
409   X    31.000    Y  0.000  Z  -3.000
410   X    35.500    Y  0.000  Z  -3.000
411   X    40.000    Y  0.000  Z  -3.000
412   X    44.500    Y  0.000  Z  -3.000
413   X    49.000    Y  0.000  Z  -3.000
414   X    53.500    Y  0.000  Z  -3.000
415   X    58.000    Y  0.000  Z  -3.000
416   X    62.500    Y  0.000  Z  -3.000
417   X    67.000    Y  0.000  Z  -3.000
418   X    71.500    Y  0.000  Z  -3.000
419   X    76.000    Y  0.000  Z  -3.000
420   X    80.500    Y  0.000  Z  -3.000
421   X    85.000    Y  0.000  Z  -3.000
422   X    89.500    Y  0.000  Z  -3.000
423   X    94.000    Y  0.000  Z  -3.000
424   X    98.500    Y  0.000  Z  -3.000
425   X    103.000   Y  0.000  Z  -3.000
426   X    107.500   Y  0.000  Z  -3.000
427   X    112.000   Y  0.000  Z  -3.000
428   X    116.500   Y  0.000  Z  -3.000
429   X    121.000   Y  0.000  Z  -3.000
430   X    125.500   Y  0.000  Z  -3.000
431   X    130.000   Y  0.000  Z  -3.000
432   X    134.500   Y  0.000  Z  -3.000
433   X    139.000   Y  0.000  Z  -3.000
434   X    143.500   Y  0.000  Z  -3.000
435   X    148.000   Y  0.000  Z  -3.000
436   X    152.500   Y  0.000  Z  -3.000
437   X    157.000   Y  0.000  Z  -3.000
438   X    161.500   Y  0.000  Z  -3.000
439   X    166.000   Y  0.000  Z  -3.000
440   X    170.500   Y  0.000  Z  -3.000
441   X    175.000   Y  0.000  Z  -3.000
442   X    179.500   Y  0.000  Z  -3.000
443   X    184.000   Y  0.000  Z  -3.000
444   X    188.500   Y  0.000  Z  -3.000
445   X    193.000   Y  0.000  Z  -3.000
446   X    197.500   Y  0.000  Z  -3.000
447   X    202.000   Y  0.000  Z  -3.000
448   X    206.500   Y  0.000  Z  -3.000
449   X    211.000   Y  0.000  Z  -3.000
450   X    215.500   Y  0.000  Z  -3.000
451   X    220.000   Y  0.000  Z  -3.000
452   X    224.500   Y  0.000  Z  -3.000
453   X    229.000   Y  0.000  Z  -3.000
454   X    233.500   Y  0.000  Z  -3.000
455   X    238.000   Y  0.000  Z  -3.000
456   X    241.667   Y  0.000  Z  -3.000
457   X    245.334   Y  0.000  Z  -3.000
458   X    249.000   Y  0.000  Z  -3.000
459   X    252.667   Y  0.000  Z  -3.000
460   X    256.334   Y  0.000  Z  -3.000
461   X    260.000   Y  0.000  Z  -3.000

$ BASE DE PILAS Y ESTRIBOS

$ E-1

601   X      0.000   Y   -1.75  Z   3.000
701   X      0.000   Y   -1.75  Z   -3.000


$ P-1

602   X      22.00   Y  -1.75  Z   3.000
702   X      22.00   Y  -1.75  Z   -3.000
802   X      22.00   Y  -15.225  Z    3.000
902   X      22.00   Y  -15.225  Z   -3.000
952   X      22.00   Y  -15.225  Z    0.000
962   X      22.00   Y  -16.225  Z    0.000

$ P-2

603   X      58.00   Y  -1.75  Z   3.000
703   X      58.00   Y  -1.75  Z   -3.000
803   X      58.00   Y  -14.146  Z    3.000
903   X      58.00   Y  -14.146  Z   -3.000
953   X      58.00   Y  -14.146  Z    0.000
963   X      58.00   Y  -15.146  Z    0.000


$ P-3

604   X      94.00   Y  -1.75  Z   3.000
704   X      94.00   Y  -1.75  Z   -3.000
804   X      94.00   Y  -17.293  Z   3.000
904   X      94.00   Y  -17.293  Z   -3.000
954   X      94.00   Y  -17.293  Z    0.000
964   X      94.00   Y  -18.293  Z    0.000

$ P-4

605   X      130.0   Y  -1.75  Z   3.000
705   X      130.0   Y  -1.75  Z   -3.000
805   X      130.0   Y  -17.905  Z   3.000
905   X      130.0   Y  -17.905  Z   -3.000
955   X      130.00   Y  -17.905  Z    0.000
965   X      130.00   Y  -18.905  Z    0.000


$ P-5

606   X      166.0   Y  -1.75  Z   3.000
706   X      166.0   Y  -1.75  Z   -3.000
806   X      166.0   Y  -18.083  Z   3.000
906   X      166.0   Y  -18.083  Z   -3.000
956   X      166.0   Y  -18.083  Z    0.000
966   X      166.0   Y  -19.083  Z    0.000
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$ P-6

607   X      202.0   Y  -1.75   Z   3.000
707   X      202.0   Y  -1.75   Z  -3.000
807   X      202.0   Y  -17.093  Z   3.000
907   X      202.0   Y  -17.093  Z  -3.000
957   X      202.0   Y  -17.093  Z   0.000
967   X      202.0   Y  -18.093  Z   0.000

$ P-7

608   X      238.0   Y  -1.75   Z   3.000
708   X      238.0   Y  -1.75   Z  -3.000
808   X      238.0   Y  -13.21  Z   3.000
908   X      238.0   Y  -13.21  Z  -3.000
958   X      238.0   Y  -13.21  Z   0.000
968   X      238.0   Y  -14.21  Z   0.000

$ E-2

609   X      260.0   Y  -1.75   Z   3.000
709   X      260.0   Y  -1.75   Z  -3.000

$ APOYO E-1

1000  X       -2.0   Y  0.000   Z   3.000
1001  X       -2.0   Y  0.000   Z  -3.000

$ ----------------------
$ CONDICIONES DE CONTORNO
$ ----------------------

STATUS SUPPORT JOINTS 1000 1001 -
601 701 609 709 962 TO 968

JOINT RELEASES

601 701 FORCE X MOMENT X Y Z
609 709 MOMENT X Y Z KFX 1920
1000 1001 MOMENT X Y Z KFY 8000

$ --------------------
$ GENERACIÓN DE BARRAS
$ --------------------

MEMBER INCIDENCES

$ VIGAS LONGITUDINALES

GENERATE 60 MEMBERS ID 1,1 FROM 1,1 TO 2,1
GENERATE 60 MEMBERS ID 61,1 FROM 401,1 TO 402,1

$ VIGAS TRANSVERSALES

GENERATE 61 MEMBERS ID 121,1 FROM 1,1 TO 101,1
GENERATE 61 MEMBERS ID 182,1 FROM 101,1 TO 201,1
GENERATE 61 MEMBERS ID 243,1 FROM 201,1 TO 301,1
GENERATE 61 MEMBERS ID 304,1 FROM 301,1 TO 401,1

$ VIGAS RIGIDAS APOYOS

MEMBER INCIDENCES
365 1 601

GENERATE 7 MEMBERS ID 366,1 FROM 7,8 TO 602,1

MEMBER INCIDENCES
373 61 609
374 401 701

GENERATE 7 MEMBERS ID 375,1 FROM 407,8 TO 702,1

MEMBER INCIDENCES
382 461 709

$ PILAS

GENERATE 7 MEMBERS ID 391,1 FROM 602,1 TO 802,1
GENERATE 7 MEMBERS ID 398,1 FROM 702,1 TO 902,1

$ VIGAS FLEXIBLES EN ESTRIBO E-1

MEMBER INCIDENCES
405 1000 1
406 1001 401

$ ENCEPADOS

407 902 952
408 952 802
409 903 953
410 953 803
411 904 954
412 954 804
413 905 955
414 955 805
415 906 956
416 956 806
417 907 957
418 957 807
419 908 958
420 958 808

$ EMPOTRAMIENTO ENCEPADOS

421 952 962
422 953 963
423 954 964
424 955 965
425 956 966
426 957 967
427 958 968

$ ---------------------------------------
$ CONDICIONES CINEMÁTICAS VIGA - CARGADERO
$ ---------------------------------------

MEMBER RELEASES

391 TO 404 START FORCE Y START MOMENT Z X

$ --------------------------------
$ CARACTERÍSTICAS DE LAS SECCIONES
$ --------------------------------

CONSTANTS

E     21000000    ALL
G     8077000     ALL
DENS  7.85        ALL
CTE   1.2E-5      ALL
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MEMBER PROPERTIES

$$$$$$$$$$    VIGAS LONGITUDINALES    $$$$$$$$$$$$$

$ SECCION 1 (CENTRO DE VANO)

MEMBER PROPERTIES
3 10 TO 50 BY 8  11 TO 51 BY 8 58 -
63 70 TO 110 BY 8 71 TO 111 BY 8 118 -
AX 0.570  IX 0.151  IY 1.7208  IZ 0.500 YD 2.45 YC 0.9

$ SECCION 4 (CENTRO DE VANO INTERMEDIA)

1 2 4 5 8 TO 48 BY 8 9 TO 49 BY 8 12 TO 52 BY 8 -
13 TO 53 BY 8 56 57 59 60 -
61 62 64 65 68 TO 108 BY 8 69 TO 109 BY 8 72 TO 112 BY 8 -
73 TO 113 BY 8 116 117 119 120 -
AX 0.570  IX 0.151  IY 1.7208  IZ 0.450 YD 2.45 YC 0.9

$ SECCION 2 (APOYO INTERMEDIA) y 3 (APOYO)

6 66 VARIABLE
SEG 1 AX 0.60 IX 0.151 IY 1.7208 IZ 0.29 YD 2.45 YC 1.58 L 1.867  $
SECC 2
SEG 2 AX 0.24 IX 0.151 IY 1.7208 IZ 0.215 YD 2.45 YC 1.65         $
SECC 3

14 TO 54 BY 8 74 TO 114 BY 8 VARIABLE
SEG 1 AX 0.60 IX 0.151 IY 1.7208 IZ 0.29 YD 2.45 YC 1.58 L 2.7    $
SECC 2
SEG 2 AX 0.24 IX 0.151 IY 1.7208 IZ 0.215 YD 2.45 YC 1.65         $
SECC 3

55 115 VARIABLE
SEG 1 AX 0.24 IX 0.151 IY 1.7208 IZ 0.215 YD 2.45 YC 1.65 L 1.8   $
SECC 3
SEG 2 AX 0.60 IX 0.151 IY 1.7208 IZ 0.29 YD 2.45 YC 1.58          $
SECC 2

7 TO 47 BY 8 67 TO 107 BY 8 VARIABLE
SEG 1 AX 0.24 IX 0.151 IY 1.7208 IZ 0.215 YD 2.45 YC 1.65 L 1.8   $
SECC 3
SEG 2 AX 0.60 IX 0.151 IY 1.7208 IZ 0.29 YD 2.45 YC 1.58          $
SECC 2

$$$$$$$$$$ VIGAS TRANSVERSALES EN LOSA  $$$$$$$$$$$$$

$ CENTRALES

189 TO 235 250 TO 296 -
AX 0.8541 IX 0.0029 IY 100.0  IZ 0.00115

188 249 236 297 -
AX 0.7740 IX 0.00265 IY 100.0  IZ 0.00105

183 TO 187 237 TO 241 244 TO 248 298 TO 302 -
AX 0.6960 IX 0.00239 IY 100.0  IZ 0.00094

182 243 242 303 -
AX 0.3470 IX 0.00119 IY 100.0  IZ 0.00047

$ LATERALES

128 TO 174 311 TO 357 -
127 310 175 358 -
122 TO 126 305 TO 309 176 TO 180 359 TO 363 -
121 304 181 364 -
AX 10.0 IX 10.0 IY 100.0  IZ 10.0

$$$$$$$$$$    PILAS    $$$$$$$$$$$$$

391 TO 404 -
AX 0.4160 IX 0.342 IY 0.3660  IZ 0.1520

$$$$$$$$    ELEMENTOS RIGIDOS DE APOYO  $$$$$$$$$$4

365 TO 382 -
405 406 -
407 TO 427 -
AX 10.0 IX 100.0 IY 100.0  IZ 100.0


LOADING 1 'SOBRECARGA: MAX NEG APOYO DOS VIAS elem 22(f)'

MEMBER LOADS

16 76 FORCE Y GLOBAL UNIF W -13.92 LA 1.5 LB 4.5
17 TO 22 77 TO 82 -
FORCE Y GLOBAL UNIF W -13.92  $ VANO 3
23 TO 30 83 TO 90   - $ VANO 4
39 TO 46 99 TO 106  - $ VANO 6
55 TO 60 115 TO 120 - $ VANO 8
FORCE Y GLOBAL UNIF W -11.6

16 76 17 TO 22 -
23 TO 30 - $ VANO 4
39 TO 46 - $ VANO 6
55 TO 60 - $ VANO 8
MOMENT X GLOBAL UNIF W -8.7

77 TO 82 -
83 TO 90  -
99 TO 106  -
115 TO 120 -
MOMENT X GLOBAL UNIF W 8.7

LOADING 2 'SOBRECARGA: MAX NEG APOYO UNA VIA elem 22(f)'

MEMBER LOADS

16 FORCE Y GLOBAL UNIF W -13.92 LA 1.5 LB 4.5
17 TO 22 -
FORCE Y GLOBAL UNIF W -13.92  $ VANO 3
23 TO 30 - $ VANO 4
39 TO 46 - $ VANO 6
55 TO 60 - $ VANO 8
FORCE Y GLOBAL UNIF W -11.6

16 17 TO 22 -
23 TO 30 - $ VANO 4
39 TO 46 - $ VANO 6
55 TO 60 - $ VANO 8
MOMENT X GLOBAL UNIF W -8.7

LOADING 3 'SOBRECARGA: MAX NEG EN VANO 3 DOS VIAS'

MEMBER LOADS

16 76 FORCE Y GLOBAL UNIF W -13.92 LA 1.5 LB 4.5
17 TO 22 77 TO 82 -
FORCE Y GLOBAL UNIF W -13.92  $ VANO 3
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31 TO 38 91 TO 98 - $ VANO 5
47 TO 54 107 TO 114 - $ VANO 7
FORCE Y GLOBAL UNIF W -11.6

16 17 TO 22 -
23 TO 30 - $ VANO 4
31 TO 38 - $ VANO 6
47 TO 54 - $ VANO 8
MOMENT X GLOBAL UNIF W -8.7

76 77 TO 82 91 TO 98 107 TO 114 MOMENT X GLOBAL UNIF W 8.7

LOADING 4 'SOBRECARGA: MAX NEG EN VANO 3 UNA VIA'

MEMBER LOADS

16 FORCE Y GLOBAL UNIF W -13.92 LA 1.5 LB 4.5
17 TO 22 -
FORCE Y GLOBAL UNIF W -13.92  $ VANO 3
31 TO 38 - $ VANO 5
47 TO 54 - $ VANO 7
FORCE Y GLOBAL UNIF W -11.6

16 17 TO 22 -
23 TO 30 - $ VANO 4
31 TO 38 - $ VANO 6
47 TO 54 - $ VANO 8
MOMENT X GLOBAL UNIF W -8.7

STIFFNESS ANALYSIS

SECTION FR NS 3 0.0 0.5 1.0
LIST SECTION FORCES

$ FINISH
```

--- MEMBER 16 ---

LOADING 1 SOBRECARGA: MAX NEG APOYO DOS VIAS elem 22(f)

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	-4.812686	-147.5614	0.7461901	-95.59396	-4.832781	102.5313
0.500		-4.812686	-137.1214	0.7461901	-76.01895	-3.153852	430.6298
1.000		-4.812686	-105.8014	0.7461901	-56.44393	-1.474923	703.9182

LOADING 2 SOBRECARGA: MAX NEG APOYO UNA VIA elem 22(f)

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	3.277433	-123.0502	1.041106	-12.45429	1.814038	55.89727
0.500		3.277433	-112.6102	1.041106	7.120731	4.156527	328.8456
1.000		3.277433	-81.29023	1.041106	26.69575	6.499017	546.9837

LOADING 3 SOBRECARGA: MAX NEG EN VANO 3 DOS VIAS

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	3.935654	-177.6367	-0.9159336	-95.95277	5.099757	57.23566
0.500		3.935654	-167.1967	-0.9159336	-76.37775	3.038905	453.0035
1.000		3.935654	-135.8767	-0.9159336	-56.80273	0.9780518	793.9613

LOADING 4 SOBRECARGA: MAX NEG EN VANO 3 UNA VIA

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	8.859148	-139.5311	-1.533141	1.570280	11.91471	17.53981
0.500		8.859148	-129.0911	-1.533141	21.14530	8.465137	327.5700
1.000		8.859148	-97.77108	-1.533141	40.72032	5.015565	582.7901

MEMBER 17

LOADING 1 SOBRECARGA: MAX NEG APOYO DOS VIAS elem 22(f)

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	-4.403206	-107.6149	0.4586041	-68.02878	-3.793671	704.0312
0.500		-4.403206	-76.29496	0.4586041	-48.45378	-2.761812	910.9298
1.000		-4.403206	-44.97496	0.4586041	-28.87880	-1.729953	1047.358

LOADING 2 SOBRECARGA: MAX NEG APOYO UNA VIA elem 22(f)

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	4.145105	-91.91331	0.8383439	-9.087476	3.121593	544.2852
0.500		4.145105	-60.59332	0.8383439	10.48752	5.007865	715.8551
1.000		4.145105	-29.27333	0.8383439	30.06251	6.894139	816.9550

LOADING 3 SOBRECARGA: MAX NEG EN VANO 3 DOS VIAS

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	2.306230	-136.0828	-1.318000	-65.20329	4.323623	793.9033
0.500		2.306230	-104.7628	-1.318000	-45.62829	1.358125	1064.854
1.000		2.306230	-73.44286	-1.318000	-26.05330	-1.607373	1265.336

LOADING 4 SOBRECARGA: MAX NEG EN VANO 3 UNA VIA

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	6.837989	-109.1696	-1.735737	2.610497	10.30538	579.5578
0.500		6.837989	-77.84963	-1.735737	22.18549	6.399970	789.9544
1.000		6.837989	-46.52964	-1.735737	41.76048	2.494564	929.8810

MEMBER 18

LOADING 1 SOBRECARGA: MAX NEG APOYO DOS VIAS elem 22(f)

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	-3.992557	-45.80822	0.3711438	-39.97231	-3.189215	1047.392
0.500		-3.992557	-14.48823	0.3711438	-20.39732	-2.354142	1115.226
1.000		-3.992557	16.83176	0.3711438	-0.8223256	-1.519069	1112.589

LOADING 2 SOBRECARGA: MAX NEG APOYO UNA VIA elem 22(f)

FROM START	AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000 FR	5.011721	-43.56154	0.7793366	-17.75241	4.122205	815.6016
0.500	5.011721	-12.24155	0.7793366	1.822587	5.875711	878.3800
1.000	5.011721	19.07844	0.7793366	21.39758	7.629218	870.6886

LOADING 3 SOBRECARGA: MAX NEG EN VANO 3 DOS VIAS

DISTANCE /---------- FORCE ----------//---------- MOMENT ----------
-/

FROM START	AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000 FR	0.6752996	-73.71244	-1.431697	-36.69180	2.929440	1265.273
0.500	0.6752996	-42.39246	-1.431697	-17.11681	-0.2918768	1395.891
1.000	0.6752996	-11.07246	-1.431697	2.458182	-3.513193	1456.039

LOADING 4 SOBRECARGA: MAX NEG EN VANO 3 UNA VIA

DISTANCE /---------- FORCE ----------//---------- MOMENT ----------
-/

FROM START	AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000 FR	4.813424	-62.25864	-1.794746	-10.37706	8.396533	928.0156
0.500	4.813424	-30.93865	-1.794746	9.197932	4.358357	1032.863
1.000	4.813424	0.3813389	-1.794746	28.77293	0.3201819	1067.239

MEMBER 19

LOADING 1 SOBRECARGA: MAX NEG APOYO DOS VIAS elem 22(f)

DISTANCE /---------- FORCE ----------//---------- MOMENT ----------
-/

FROM START	AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000 FR	-3.581903	16.49895	0.2956123	-11.53587	-2.602352	1112.556
0.500	-3.581903	47.81893	0.2956123	8.039124	-1.937225	1040.199
1.000	-3.581903	79.13892	0.2956123	27.61412	-1.272097	897.3711

LOADING 2 SOBRECARGA: MAX NEG APOYO UNA VIA elem 22(f)

DISTANCE /---------- FORCE ----------//---------- MOMENT ----------
-/

FROM START	AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000 FR	5.878333	3.801019	0.7371144	-29.78560	5.090806	870.8434
0.500	5.878333	35.12101	0.7371144	-10.21061	6.749313	827.0562
1.000	5.878333	66.44099	0.7371144	9.364387	8.407820	712.7990

LOADING 3 SOBRECARGA: MAX NEG EN VANO 3 DOS VIAS

DISTANCE /---------- FORCE ----------//---------- MOMENT ----------
-/

FROM START	AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000 FR	-0.9556350	-11.47991	-1.501671	-9.367290	1.447318	1455.983
0.500	-0.9556350	19.84008	-1.501671	10.20770	-1.931440	1446.578
1.000	-0.9556350	51.16006	-1.501671	29.78270	-5.310199	1366.702

LOADING 4 SOBRECARGA: MAX NEG EN VANO 3 UNA VIA

DISTANCE /---------- FORCE ----------//---------- MOMENT ----------
-/

FROM START	AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000 FR	2.788850	-17.19996	-1.837140	-29.32222	6.456095	1066.988
0.500	2.788850	14.12003	-1.837140	-9.747225	2.322531	1070.453
1.000	2.788850	45.44002	-1.837140	9.827768	-1.811033	1003.448

MEMBER 20

LOADING 1 SOBRECARGA: MAX NEG APOYO DOS VIAS elem 22(f)

DISTANCE FROM START		AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000	FR	-3.171249	79.01764	0.6942815E-01	17.69312	-1.659415	897.2878
0.500		-3.171249	110.3377	0.6942815E-01	37.26814	-1.503201	684.2629
1.000		-3.171249	141.6577	0.6942815E-01	56.84316	-1.346988	400.7679

LOADING 2 SOBRECARGA: MAX NEG APOYO UNA VIA elem 22(f)

DISTANCE FROM START		AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000	FR	6.744937	52.72527	0.6207942	-36.91615	6.235145	714.4031
0.500		6.744937	84.04530	0.6207942	-17.34113	7.631933	560.5360
1.000		6.744937	115.3653	0.6207942	2.233894	9.028722	336.1989

LOADING 3 SOBRECARGA: MAX NEG EN VANO 3 DOS VIAS

DISTANCE FROM START		AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000	FR	-2.586565	50.54531	-1.678543	17.80271	0.2197001	1366.668
0.500		-2.586565	81.86535	-1.678543	37.37772	-3.557025	1217.706
1.000		-2.586565	113.1854	-1.678543	56.95274	-7.333749	998.2737

LOADING 4 SOBRECARGA: MAX NEG EN VANO 3 UNA VIA

DISTANCE FROM START		AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000	FR	0.7642775	28.46116	-1.954176	-46.24252	4.692635	1004.879
0.500		0.7642775	59.78120	-1.954176	-26.66750	0.2957345	905.6060
1.000		0.7642775	91.10123	-1.954176	-7.092476	-4.101166	735.8631

--- MEMBER 21 ---

LOADING 1 SOBRECARGA: MAX NEG APOYO DOS VIAS elem 22(f)

DISTANCE FROM START		AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000	FR	-2.760367	141.5768	-0.7940839	48.48763	0.7721487	400.6528
0.500		-2.760367	172.8968	-0.7940839	68.06262	-1.014539	46.87004
1.000		-2.760367	204.2168	-0.7940839	87.63761	-2.801227	-377.3827

LOADING 2 SOBRECARGA: MAX NEG APOYO UNA VIA elem 22(f)

DISTANCE FROM START		AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000	FR	7.608499	105.6175	0.1800915	-31.29762	8.146761	338.9431
0.500		7.608499	136.9375	0.1800915	-11.72263	8.551967	66.06884
1.000		7.608499	168.2575	0.1800915	7.852367	8.957171	-277.2754

LOADING 3 SOBRECARGA: MAX NEG EN VANO 3 DOS VIAS

DISTANCE FROM START		AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000	FR	-4.215263	112.3181	-2.342885	45.94374	0.1249178	998.2964

0.500	-4.215263	143.6381	-2.342885	65.51874	-5.146570	710.3457
1.000	-4.215263	174.9581	-2.342885	85.09372	-10.41806	351.9251

LOADING 4 SOBRECARGA: MAX NEG EN VANO 3 UNA VIA

DISTANCE -/ FROM START	AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000 FR	-1.259059	77.35848	-2.397677	-52.60925	3.688464	738.9047
0.500	-1.259059	108.6785	-2.397677	-33.03425	-1.706307	529.6132
1.000	-1.259059	139.9985	-2.397677	-13.45926	-7.101078	249.8518

MEMBER 22 (eje de apoyo)

LOADING 1 SOBRECARGA: MAX NEG APOYO DOS VIAS elem 22(f)

DISTANCE -/ FROM START	AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000 FR	-2.269550	204.0913	-4.137199	81.94136	8.218738	-377.5033
0.500	-2.269550	235.4113	-4.137199	101.5164	-1.089957	-871.9435
1.000	-2.269550	266.7313	-4.137199	121.0913	-10.39865	-1436.854

LOADING 2 SOBRECARGA: MAX NEG APOYO UNA VIA elem 22(f)

DISTANCE -/ FROM START	AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000 FR	7.403357	163.9383	-1.525224	-7.883733	15.94447	-274.3339
0.500	7.403357	195.2582	-1.525224	11.69126	12.51272	-678.4297
1.000	7.403357	226.5782	-1.525224	31.26625	9.080967	-1152.996

LOADING 3 SOBRECARGA: MAX NEG EN VANO 3 DOS VIAS

DISTANCE -/ FROM START	AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000 FR	-5.060478	173.8607	-4.912064	76.45888	1.716455	352.0542
0.500	-5.060478	205.1807	-4.912064	96.03387	-9.335685	-74.36721
1.000	-5.060478	236.5007	-4.912064	115.6089	-20.38782	-571.2586

LOADING 4 SOBRECARGA: MAX NEG EN VANO 3 UNA VIA

DISTANCE -/ FROM START	AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000 FR	-2.848176	131.8694	-4.113842	-40.62546	4.078704	253.8638
0.500	-2.848176	163.1893	-4.113842	-21.05046	-5.177438	-78.07715
1.000	-2.848176	194.5093	-4.113842	-1.475471	-14.43358	-480.4880

MEMBER 23 (a 4,5 m. del eje de apoyo).

LOADING 1 SOBRECARGA: MAX NEG APOYO DOS VIAS elem 22(f)

DISTANCE -/ FROM START	AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000 FR	-2.013657	-238.1758	4.651758	-123.5079	-11.16614	-1436.932
0.500	-2.013657	-212.0757	4.651758	-103.9329	-0.6996782	-930.3981
1.000	-2.013657	-185.9757	4.651758	-84.35785	9.766788	-482.5898

LOADING 2 SOBRECARGA: MAX NEG APOYO UNA VIA elem 22(f)

DISTANCE FROM START	AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000 FR	7.149146	-200.5132	1.013945	-48.67906	9.843628	-1152.546
0.500	7.149146	-174.4132	1.013945	-29.10404	12.12501	-730.7538
1.000	7.149146	-148.3132	1.013945	-9.529018	14.40639	-367.6863

LOADING 3 SOBRECARGA: MAX NEG EN VANO 3 DOS VIAS

DISTANCE FROM START	AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000 FR	-5.811147	7.820394	3.402209	-110.2827	-18.13553	-570.8034
0.500	-5.811147	7.820394	3.402209	-90.70765	-10.48056	-588.3993
1.000	-5.811147	7.820394	3.402209	-71.13262	-2.825578	-605.9952

LOADING 4 SOBRECARGA: MAX NEG EN VANO 3 UNA VIA

DISTANCE FROM START	AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000 FR	-3.973644	-4.795727	1.850209	-149.1894	-11.05691	-476.8609
0.500	-3.973644	-4.795727	1.850209	-129.6143	-6.893934	-466.0705
1.000	-3.973644	-4.795727	1.850209	-110.0393	-2.730959	-455.2801

MEMBER 24

LOADING 1 SOBRECARGA: MAX NEG APOYO DOS VIAS elem 22(f)

DISTANCE FROM START	AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000 FR	-1.893368	-186.1564	1.308495	-90.53278	-3.085777	-482.6119
0.500	-1.893368	-160.0564	1.308495	-70.95779	-0.1416650	-93.12262
1.000	-1.893368	-133.9565	1.308495	-51.38279	2.802447	237.6418

LOADING 2 SOBRECARGA: MAX NEG APOYO UNA VIA elem 22(f)

DISTANCE FROM START	AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000 FR	6.747193	-151.4116	-0.6913822	-21.64907	9.240458	-369.9211
0.500	6.747193	-125.3116	-0.6913822	-2.074079	7.684848	-58.60765
1.000	6.747193	-99.21162	-0.6913822	17.50091	6.129239	193.9809

LOADING 3 SOBRECARGA: MAX NEG EN VANO 3 DOS VIAS

DISTANCE FROM START	AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000 FR	-6.758632	5.256976	0.8327796	-81.90939	-9.580830	-605.3403
0.500	-6.758632	5.256976	0.8327796	-62.33440	-7.707076	-617.1686
1.000	-6.758632	5.256976	0.8327796	-42.75941	-5.833323	-628.9968

LOADING 4 SOBRECARGA: MAX NEG EN VANO 3 UNA VIA

DISTANCE FROM START	AXIAL	Y SHEAR	Z SHEAR	TORSION	Y BENDING	Z BENDING
0.000 FR	-5.072303	-4.204500	0.1338098	-111.1141	-5.846337	-453.2204
0.500	-5.072303	-4.204500	0.1338098	-91.53906	-5.545265	-443.7603
1.000	-5.072303	-4.204500	0.1338098	-71.96407	-5.244193	-434.3002

--- MEMBER 25

LOADING 1 SOBRECARGA: MAX NEG APOYO DOS VIAS elem 22(f)

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	-1.726093	-134.1011	0.4443323	-60.56926	-1.048581	237.6379
0.500		-1.726093	-108.0011	0.4443323	-40.99424	-0.4883215E-01	510.0031
1.000		-1.726093	-81.90105	0.4443323	-21.41922	0.9509163	723.6432

LOADING 2 SOBRECARGA: MAX NEG APOYO UNA VIA elem 22(f)

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	5.309274	-107.0098	-1.132156	-10.27650	8.734563	191.6630
0.500		5.309274	-80.90976	-1.132156	9.298520	6.187211	403.0727
1.000		5.309274	-54.80973	-1.132156	28.87354	3.639858	555.7573

LOADING 3 SOBRECARGA: MAX NEG EN VANO 3 DOS VIAS

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	-6.825974	2.275629	0.1673724	-56.35123	-8.199662	-628.4502
0.500		-6.825974	2.275629	0.1673724	-36.77622	-7.823073	-633.5704
1.000		-6.825974	2.275629	0.1673724	-17.20119	-7.446486	-638.6906

LOADING 4 SOBRECARGA: MAX NEG EN VANO 3 UNA VIA

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	-5.591822	-3.251486	-0.3106826	-73.53559	-5.401348	-433.0299
0.500		-5.591822	-3.251486	-0.3106826	-53.96057	-6.100384	-425.7141
1.000		-5.591822	-3.251486	-0.3106826	-34.38555	-6.799420	-418.3982

--- MEMBER 26

LOADING 1 SOBRECARGA: MAX NEG APOYO DOS VIAS elem 22(f)

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	-1.558684	-82.00432	0.2155941	-32.28012	-0.3859820	723.6491
0.500		-1.558684	-55.90436	0.2155941	-12.70515	0.9910385E-01	878.7961
1.000		-1.558684	-29.80441	0.2155941	6.869812	0.5841897	975.2183

LOADING 2 SOBRECARGA: MAX NEG APOYO UNA VIA elem 22(f)

DISTANCE FROM START		FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000	FR	3.868405	-66.37897	-1.248757	-11.11489	7.536427	554.2233
0.500		3.868405	-40.27902	-1.248757	8.460081	4.726728	674.2134
1.000		3.868405	-14.17906	-1.248757	28.03505	1.917030	735.4786

LOADING 3 SOBRECARGA: MAX NEG EN VANO 3 DOS VIAS

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-6.890810	-0.7526031	-0.1367373E-01	-31.84615	-7.872793	-638.3970
0.500	-6.890810	-0.7526031	-0.1367373E-01	-12.27119	-7.903559	-636.7036
1.000	-6.890810	-0.7526031	-0.1367373E-01	7.303781	-7.934325	-635.0103

LOADING 4 SOBRECARGA: MAX NEG EN VANO 3 UNA VIA

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-6.109691	-2.340475	-0.4316021	-37.00696	-5.660604	-417.8472
0.500	-6.109691	-2.340475	-0.4316021	-17.43200	-6.631708	-412.5811
1.000	-6.109691	-2.340475	-0.4316021	2.142970	-7.602811	-407.3150

MEMBER 27

LOADING 1 SOBRECARGA: MAX NEG APOYO DOS VIAS elem 22(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-1.391275	-29.87294	0.1301069	-4.442436	-0.2788280E-01	975.2283
0.500	-1.391275	-3.772909	0.1301069	15.13258	0.2648581	1013.080
1.000	-1.391275	22.32712	0.1301069	34.70760	0.5575989	992.2064

LOADING 2 SOBRECARGA: MAX NEG APOYO UNA VIA elem 22(f)

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	2.427529	-27.65593	-1.292078	-17.95275	6.182519	735.0724
0.500	2.427529	-1.555900	-1.292078	1.622266	3.275340	767.9357
1.000	2.427529	24.54413	-1.292078	21.19729	0.3681616	742.0739

LOADING 3 SOBRECARGA: MAX NEG EN VANO 3 DOS VIAS

DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-6.955638	-3.777120	-0.9991806E-01	-7.633378	-7.744087	-635.0097
0.500	-6.955638	-3.777120	-0.9991806E-01	11.94164	-7.968902	-626.5112
1.000	-6.955638	-3.777120	-0.9991806E-01	31.51666	-8.193718	-618.0126

LOADING 4 SOBRECARGA: MAX NEG EN VANO 3 UNA VIA

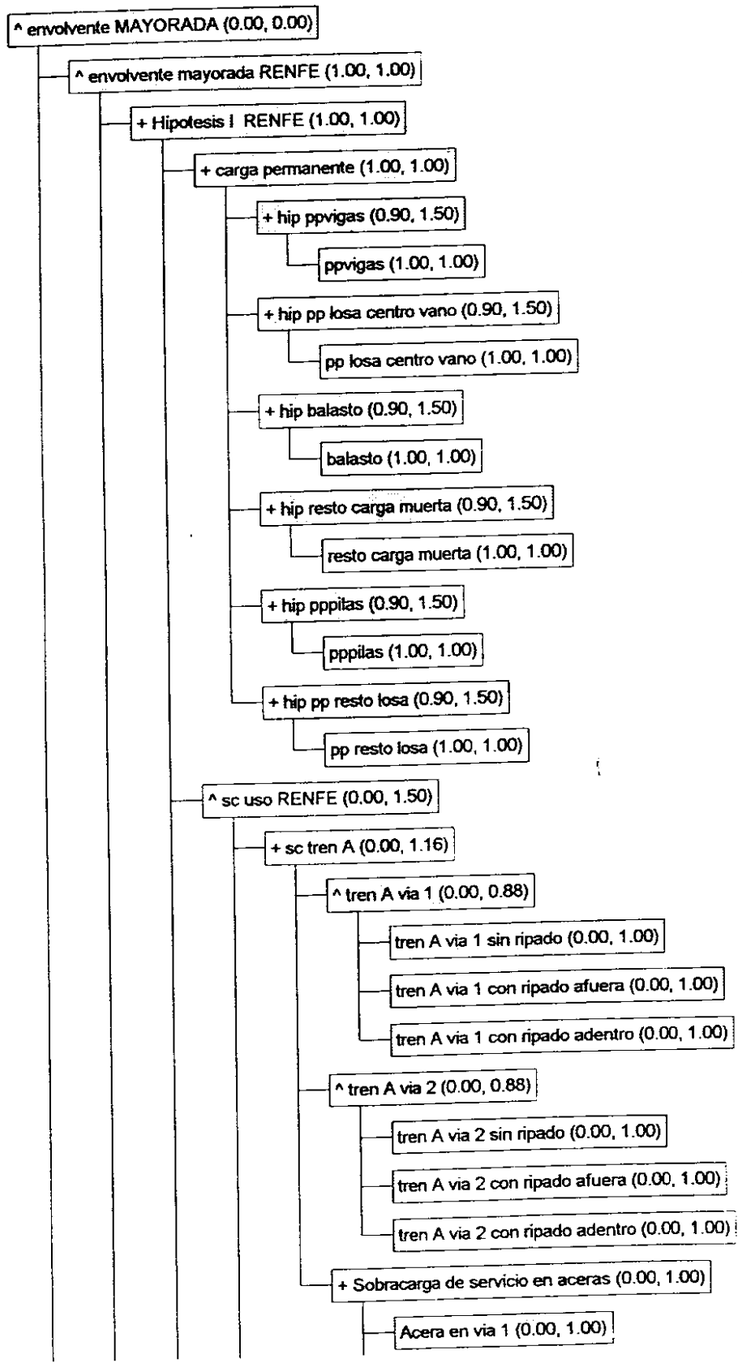
DISTANCE FROM START	FORCE AXIAL	FORCE Y SHEAR	FORCE Z SHEAR	MOMENT TORSION	MOMENT Y BENDING	MOMENT Z BENDING
0.000 FR	-6.627556	-1.585727	-0.4891328	-1.253044	-6.052371	-407.3718
0.500	-6.627556	-1.585727	-0.4891328	18.32198	-7.152921	-403.8039
1.000	-6.627556	-1.585727	-0.4891328	37.89700	-8.253470	-400.2360

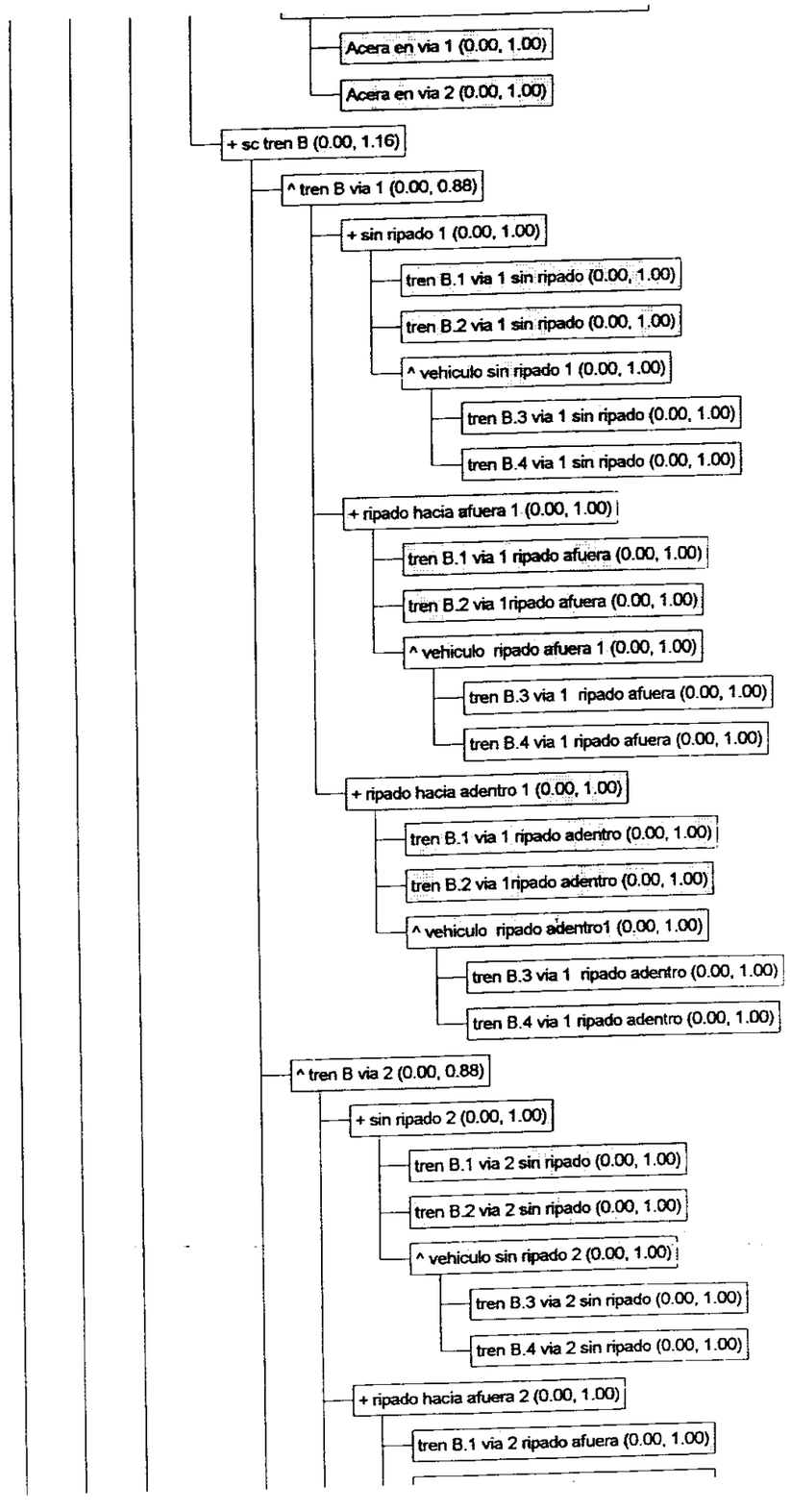
SUBANEJO Nº 11

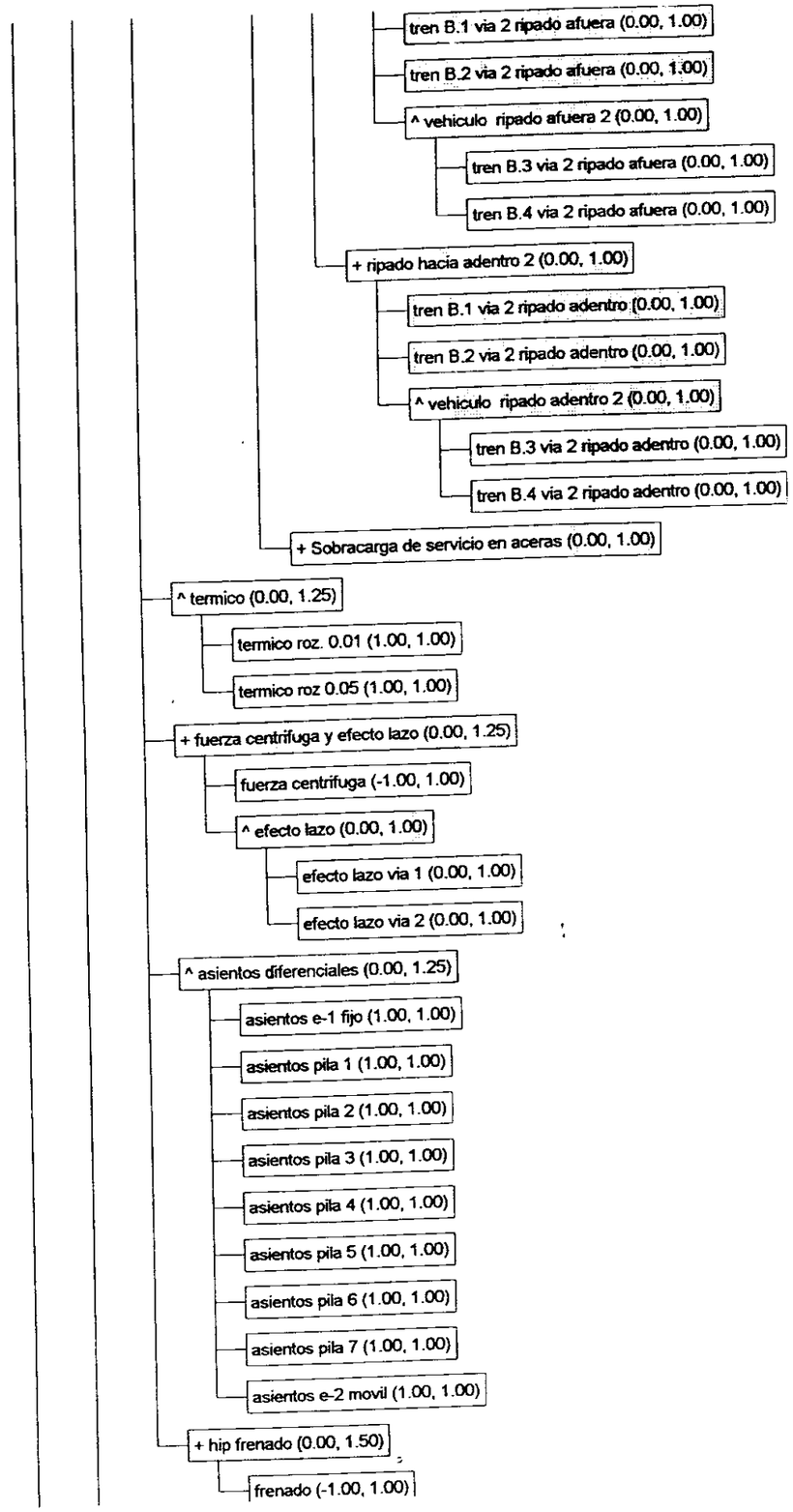
ENVOLVENTE DE ESFUERZOS MAYORADOS

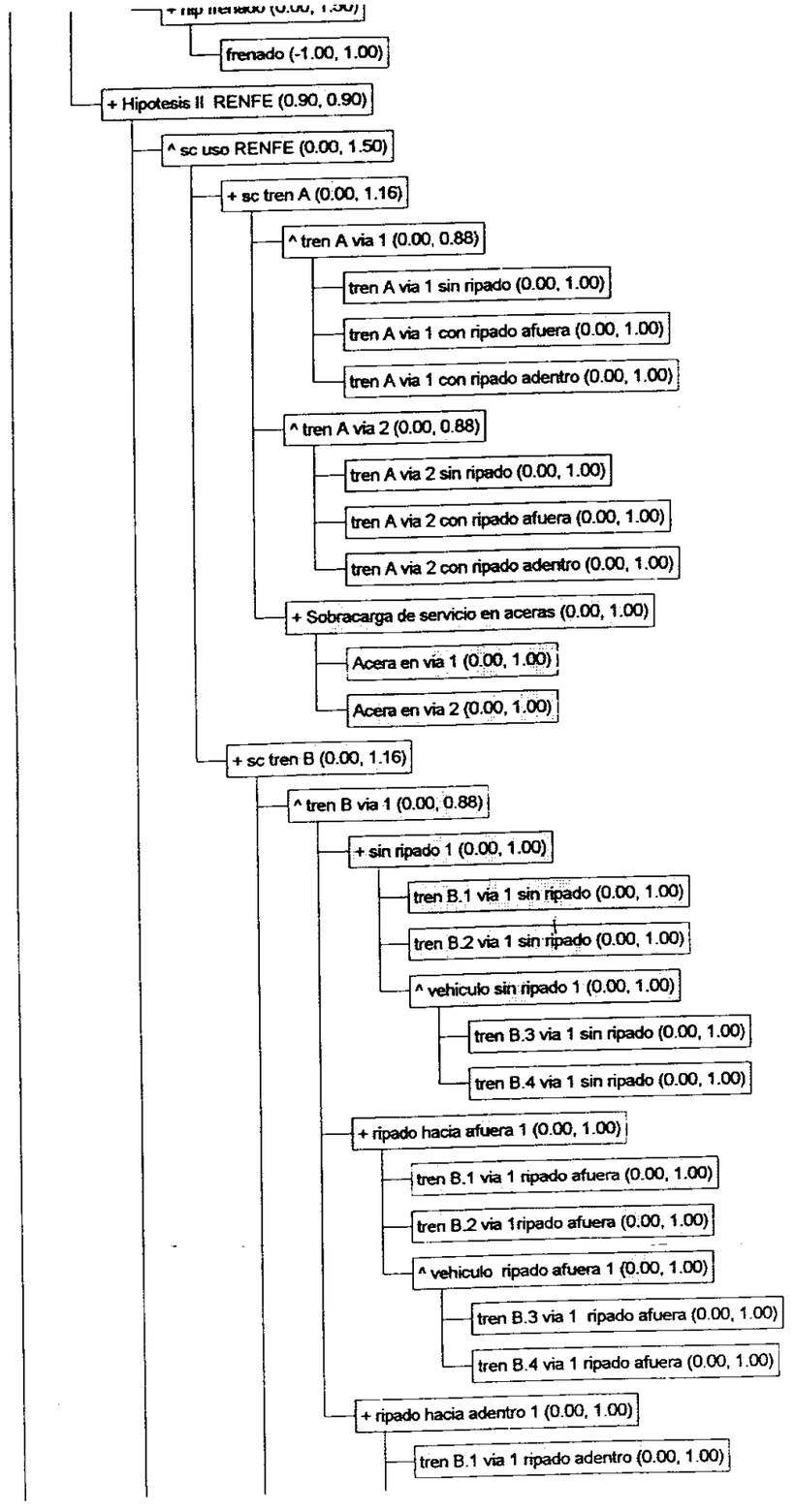
V. de los Chorros. Env. mayorada

Envolvator 1.5
Fichero: mayorada.evt
Fecha: 15/04/99 10:44:10



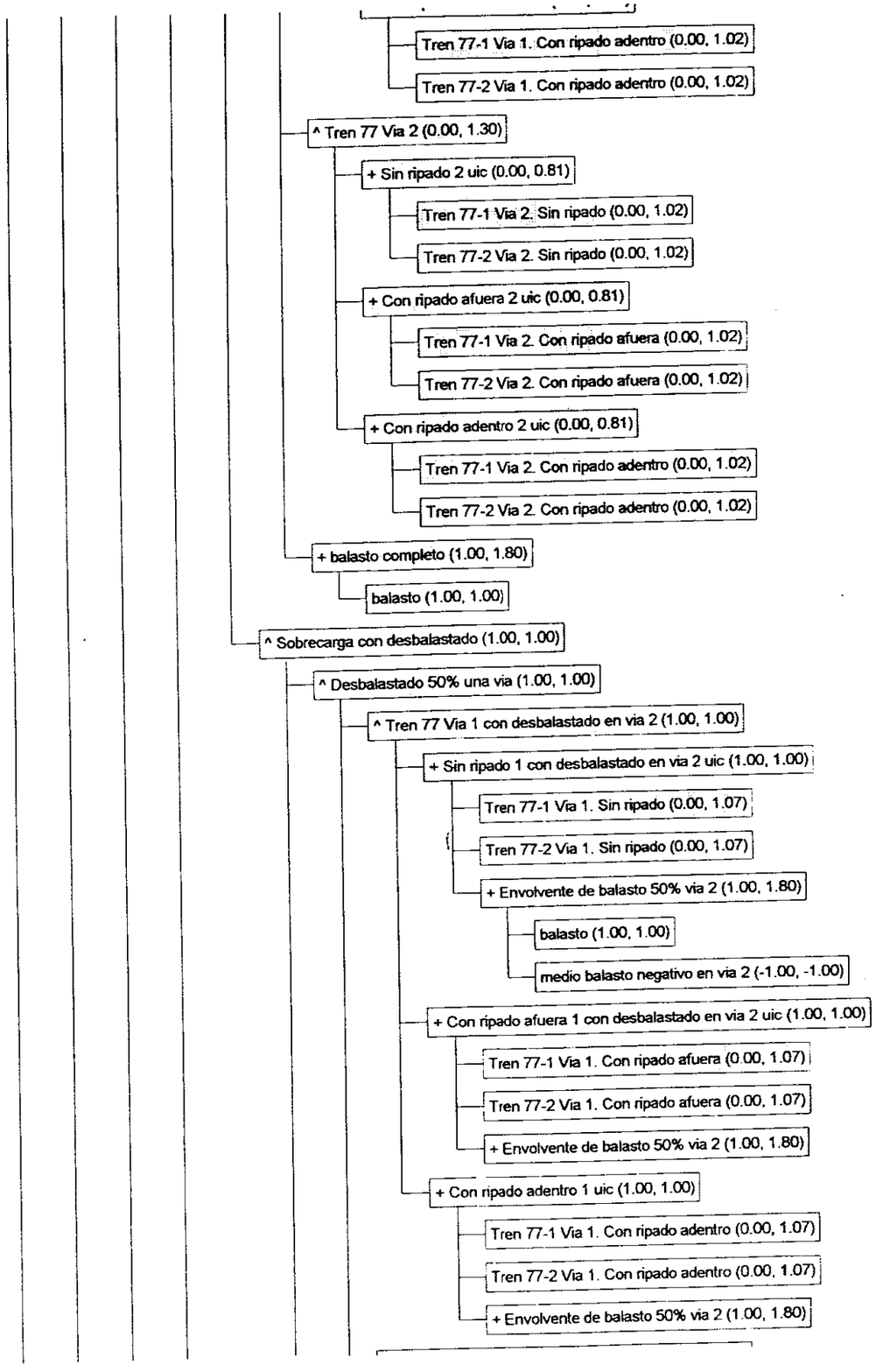


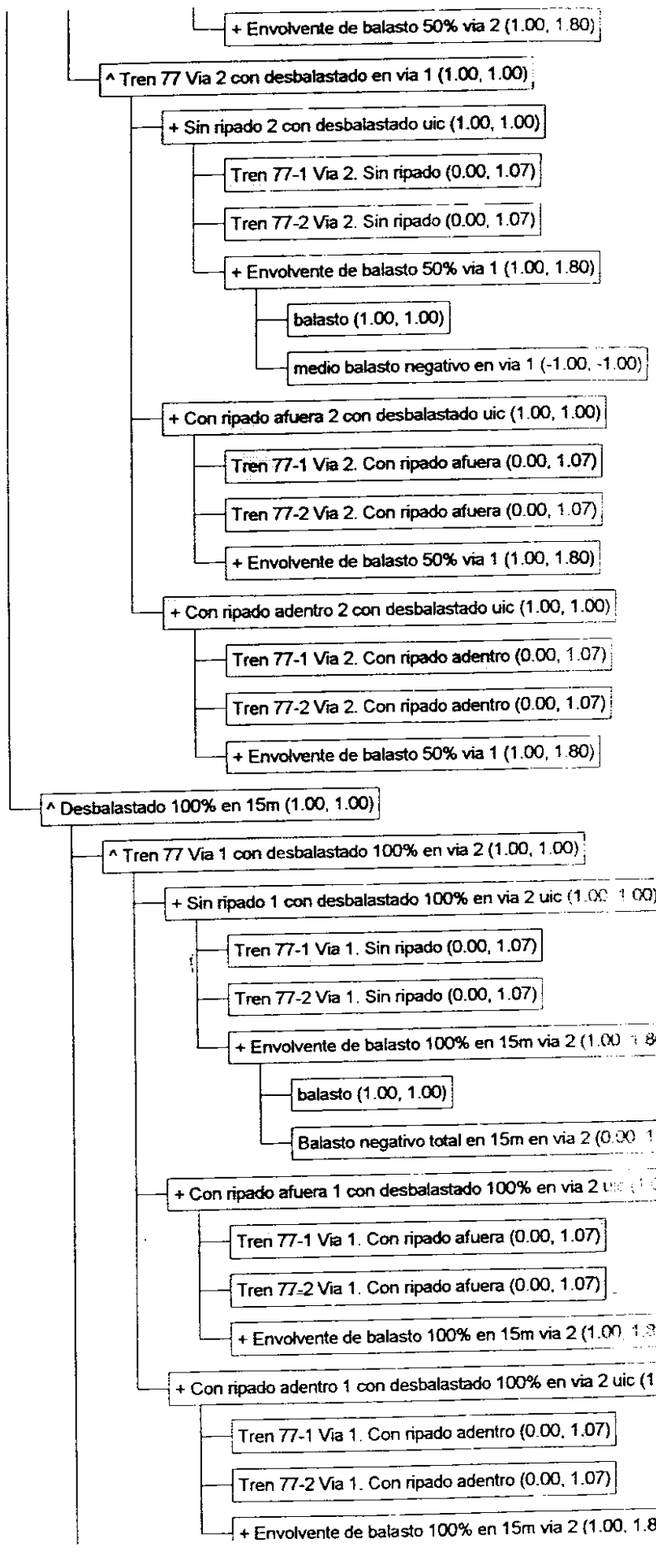

tren B.1 via 2 ripado afuera (0.00, 1.00)
tren B.2 via 2 ripado afuera (0.00, 1.00)
^ vehiculo ripado afuera 2 (0.00, 1.00)
tren B.3 via 2 ripado afuera (0.00, 1.00)
tren B.4 via 2 ripado afuera (0.00, 1.00)
+ ripado hacia adentro 2 (0.00, 1.00)
tren B.1 via 2 ripado adentro (0.00, 1.00)
tren B.2 via 2 ripado adentro (0.00, 1.00)
^ vehiculo ripado adentro 2 (0.00, 1.00)
tren B.3 via 2 ripado adentro (0.00, 1.00)
tren B.4 via 2 ripado adentro (0.00, 1.00)
+ Sobracarga de servicio en aceras (0.00, 1.00)
^ termico (0.00, 1.25)
termico roz. 0.01 (1.00, 1.00)
termico roz 0.05 (1.00, 1.00)
+ fuerza centrifuga y efecto lazo (0.00, 1.25)
fuerza centrifuga (-1.00, 1.00)
^ efecto lazo (0.00, 1.00)
efecto lazo via 1 (0.00, 1.00)
efecto lazo via 2 (0.00, 1.00)
^ asientos diferenciales (0.00, 1.25)
asientos e-1 fijo (1.00, 1.00)
asientos pila 1 (1.00, 1.00)
asientos pila 2 (1.00, 1.00)
asientos pila 3 (1.00, 1.00)
asientos pila 4 (1.00, 1.00)
asientos pila 5 (1.00, 1.00)
asientos pila 6 (1.00, 1.00)
asientos pila 7 (1.00, 1.00)
asientos e-2 movil (1.00, 1.00)
+ hip frenado (0.00, 1.50)
frenado (-1.00, 1.00)


frenado (-1.00, 1.00)
+ Hipotesis II RENFE (0.90, 0.90)
^ sc uso RENFE (0.00, 1.50)
+ sc tren A (0.00, 1.16)
^ tren A via 1 (0.00, 0.88)
tren A via 1 sin ripado (0.00, 1.00)
tren A via 1 con ripado afuera (0.00, 1.00)
tren A via 1 con ripado adentro (0.00, 1.00)
^ tren A via 2 (0.00, 0.88)
tren A via 2 sin ripado (0.00, 1.00)
tren A via 2 con ripado afuera (0.00, 1.00)
tren A via 2 con ripado adentro (0.00, 1.00)
+ Sobracarga de servicio en aceras (0.00, 1.00)
Acera en via 1 (0.00, 1.00)
Acera en via 2 (0.00, 1.00)
+ sc tren B (0.00, 1.16)
^ tren B via 1 (0.00, 0.88)
+ sin ripado 1 (0.00, 1.00)
tren B.1 via 1 sin ripado (0.00, 1.00)
tren B.2 via 1 sin ripado (0.00, 1.00)
^ vehiculo sin ripado 1 (0.00, 1.00)
tren B.3 via 1 sin ripado (0.00, 1.00)
tren B.4 via 1 sin ripado (0.00, 1.00)
+ ripado hacia afuera 1 (0.00, 1.00)
tren B.1 via 1 ripado afuera (0.00, 1.00)
tren B.2 via 1ripado afuera (0.00, 1.00)
^ vehiculo ripado afuera 1 (0.00, 1.00)
tren B.3 via 1 ripado afuera (0.00, 1.00)
tren B.4 via 1 ripado afuera (0.00, 1.00)
+ ripado hacia adentro 1 (0.00, 1.00)
tren B.1 via 1 ripado adentro (0.00, 1.00)

- tren B.1 via 1 ripado adentro (0.00, 1.00)
- tren B.2 via 1ripado adentro (0.00, 1.00)
- ^ vehiculo ripado adentro1 (0.00, 1.00)
  - tren B.3 via 1 ripado adentro (0.00, 1.00)
  - tren B.4 via 1 ripado adentro (0.00, 1.00)
- ^ tren B via 2 (0.00, 0.88)
  - + sin ripado 2 (0.00, 1.00)
    - tren B.1 via 2 sin ripado (0.00, 1.00)
    - tren B.2 via 2 sin ripado (0.00, 1.00)
    - ^ vehiculo sin ripado 2 (0.00, 1.00)
      - tren B.3 via 2 sin ripado (0.00, 1.00)
      - tren B.4 via 2 sin ripado (0.00, 1.00)
  - + ripado hacia afuera 2 (0.00, 1.00)
    - tren B.1 via 2 ripado afuera (0.00, 1.00)
    - tren B.2 via 2 ripado afuera (0.00, 1.00)
    - ^ vehiculo ripado afuera 2 (0.00, 1.00)
      - tren B.3 via 2 ripado afuera (0.00, 1.00)
      - tren B.4 via 2 ripado afuera (0.00, 1.00)
  - + ripado hacia adentro 2 (0.00, 1.00)
    - tren B.1 via 2 ripado adentro (0.00, 1.00)
    - tren B.2 via 2 ripado adentro (0.00, 1.00)
    - ^ vehiculo ripado adentro 2 (0.00, 1.00)
      - tren B.3 via 2 ripado adentro (0.00, 1.00)
      - tren B.4 via 2 ripado adentro (0.00, 1.00)
  - + Sobracarga de servicio en aceras (0.00, 1.00)
- ^ termico (0.00, 1.25)
  - termico roz. 0.01 (1.00, 1.00)
  - termico roz 0.05 (1.00, 1.00)
- + fuerza centrifuga y efecto lazo (0.00, 1.25)
- ^ asientos diferenciales (0.00, 1.25)
- + hip frenado (0.00, 1.50)
  - frenado (-1.00, 1.00)

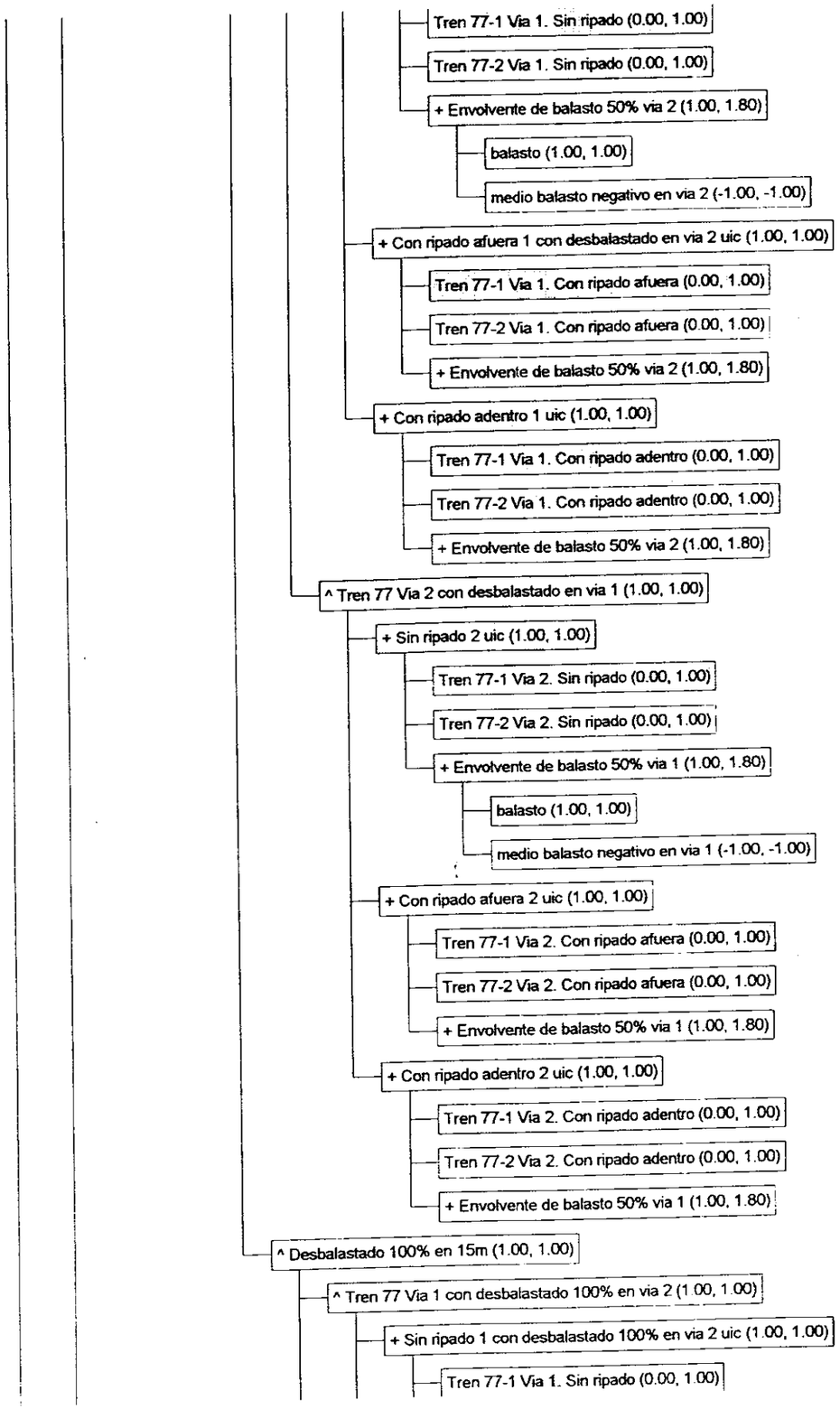
- + hip frenado (0.00, 1.50)
  - frenado (-1.00, 1.00)
- + hip viento (0.00, 1.50)
  - viento (-1.00, 1.00)
- + carga permanente (1.00, 1.00)
- ^ envolvente mayorada UIC (1.00, 1.00)
  - + Hipotesis I UIC (1.00, 1.00)
    - + carga permanente uci (0.90, 1.20)
      - ppvigas (1.00, 1.00)
      - pppilas (1.00, 1.00)
      - pp resto losa (1.00, 1.00)
      - resto carga muerta (1.00, 1.00)
      - pp losa centro de vano (1.00, 1.00)
    - + fuerza centrifuga y efecto lazo_uic (0.00, 1.30)
      - fuerza centrifuga_uic (-1.00, 1.00)
      - + efecto lazo_uic (-1.00, 1.00)
        - efecto lazo via 1_uic (1.00, 1.00)
        - efecto lazo via 2_uic (1.00, 1.00)
    - ^ asientos diferenciales (0.00, 1.20)
    - ^ Sobrecarga de uso uic con viento y balasto (1.00, 1.00)
      - + Sobrecarga de trafico (1.00, 1.00)
        - ^ Sobrecarga de vehiculos uic (1.00, 1.00)
          - + Sobrecarga con balasto completo (1.00, 1.00)
            - ^ Tren 77 Via 1 (0.00, 1.30)
              - + Sin ripado 1 uic (0.00, 0.81)
                - Tren 77-1 Via 1. Sin ripado (0.00, 1.02)
                - Tren 77-2 Via 1. Sin ripado (0.00, 1.02)
              - + Con ripado afuera 1 uic (0.00, 0.81)
                - Tren 77-1 Via 1. Con ripado afuera (0.00, 1.02)
                - Tren 77-2 Via 1. Con ripado afuera (0.00, 1.02)
              - + Con ripado adentro 1 uic (0.00, 0.81)
                - Tren 77-1 Via 1. Con ripado adentro (0.00, 1.02)

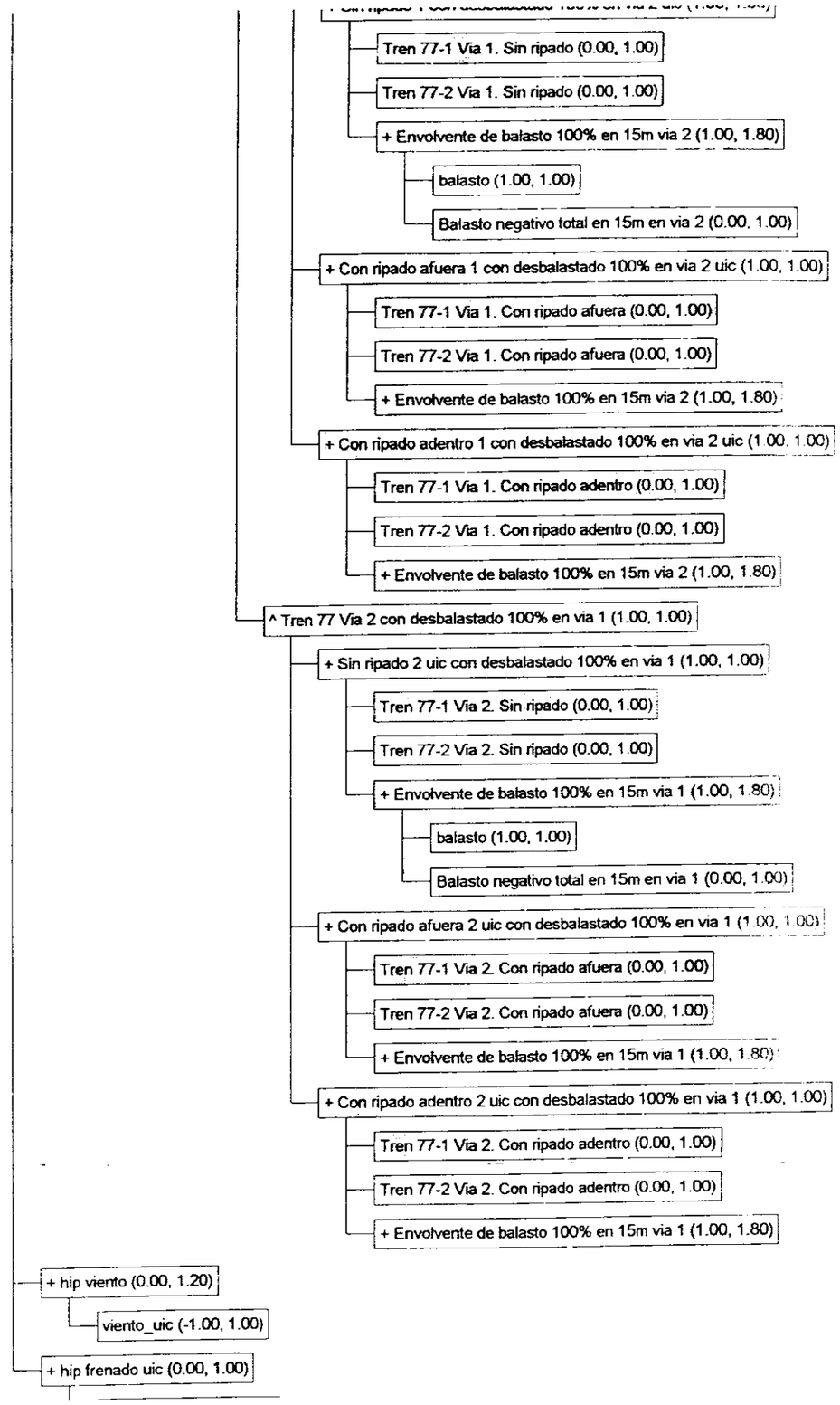

Tren 77-1 Via 1. Con ripado adentro (0.00, 1.02)
Tren 77-2 Via 1. Con ripado adentro (0.00, 1.02)
^ Tren 77 Via 2 (0.00, 1.30)
+ Sin ripado 2 uic (0.00, 0.81)
Tren 77-1 Via 2. Sin ripado (0.00, 1.02)
Tren 77-2 Via 2. Sin ripado (0.00, 1.02)
+ Con ripado afuera 2 uic (0.00, 0.81)
Tren 77-1 Via 2. Con ripado afuera (0.00, 1.02)
Tren 77-2 Via 2. Con ripado afuera (0.00, 1.02)
+ Con ripado adentro 2 uic (0.00, 0.81)
Tren 77-1 Via 2. Con ripado adentro (0.00, 1.02)
Tren 77-2 Via 2. Con ripado adentro (0.00, 1.02)
+ balasto completo (1.00, 1.80)
balasto (1.00, 1.00)
^ Sobrecarga con desbalastado (1.00, 1.00)
^ Desbalastado 50% una via (1.00, 1.00)
^ Tren 77 Via 1 con desbalastado en via 2 (1.00, 1.00)
+ Sin ripado 1 con desbalastado en via 2 uic (1.00, 1.00)
Tren 77-1 Via 1. Sin ripado (0.00, 1.07)
Tren 77-2 Via 1. Sin ripado (0.00, 1.07)
+ Envolvente de balasto 50% via 2 (1.00, 1.80)
balasto (1.00, 1.00)
medio balasto negativo en via 2 (-1.00, -1.00)
+ Con ripado afuera 1 con desbalastado en via 2 uic (1.00, 1.00)
Tren 77-1 Via 1. Con ripado afuera (0.00, 1.07)
Tren 77-2 Via 1. Con ripado afuera (0.00, 1.07)
+ Envolvente de balasto 50% via 2 (1.00, 1.80)
+ Con ripado adentro 1 uic (1.00, 1.00)
Tren 77-1 Via 1. Con ripado adentro (0.00, 1.07)
Tren 77-2 Via 1. Con ripado adentro (0.00, 1.07)
+ Envolvente de balasto 50% via 2 (1.00, 1.80)

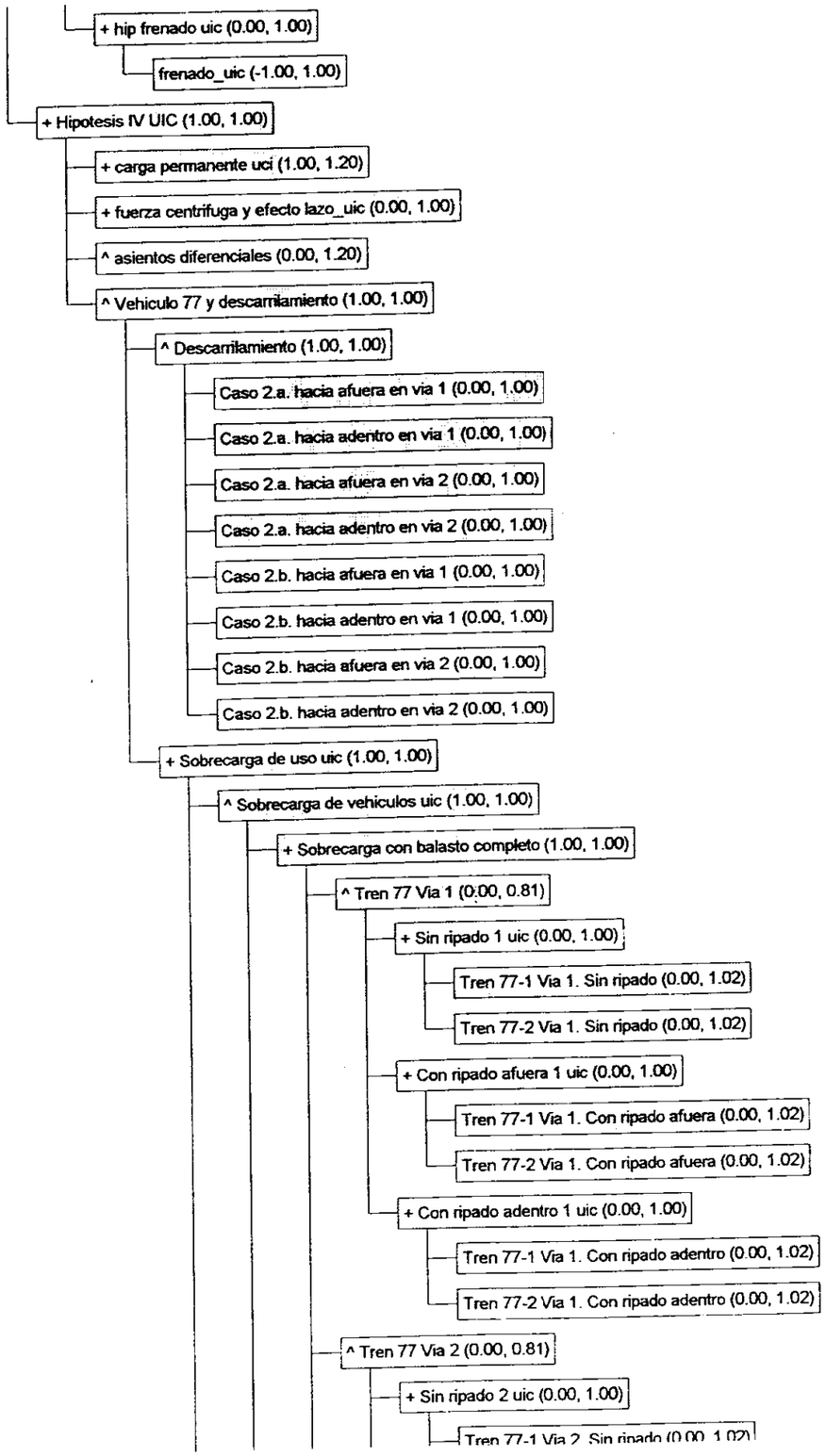

+ Envolvente de balasto 50% via 2 (1.00, 1.80)
^ Tren 77 Via 2 con desbalastado en via 1 (1.00, 1.00)
+ Sin ripado 2 con desbalastado uic (1.00, 1.00)
Tren 77-1 Via 2. Sin ripado (0.00, 1.07)
Tren 77-2 Via 2. Sin ripado (0.00, 1.07)
+ Envolvente de balasto 50% via 1 (1.00, 1.80)
balasto (1.00, 1.00)
medio balasto negativo en via 1 (-1.00, -1.00)
+ Con ripado afuera 2 con desbalastado uic (1.00, 1.00)
Tren 77-1 Via 2. Con ripado afuera (0.00, 1.07)
Tren 77-2 Via 2. Con ripado afuera (0.00, 1.07)
+ Envolvente de balasto 50% via 1 (1.00, 1.80)
+ Con ripado adentro 2 con desbalastado uic (1.00, 1.00)
Tren 77-1 Via 2. Con ripado adentro (0.00, 1.07)
Tren 77-2 Via 2. Con ripado adentro (0.00, 1.07)
+ Envolvente de balasto 50% via 1 (1.00, 1.80)
^ Desbalastado 100% en 15m (1.00, 1.00)
^ Tren 77 Via 1 con desbalastado 100% en via 2 (1.00, 1.00)
+ Sin ripado 1 con desbalastado 100% en via 2 uic (1.00, 1.00)
Tren 77-1 Via 1. Sin ripado (0.00, 1.07)
Tren 77-2 Via 1. Sin ripado (0.00, 1.07)
+ Envolvente de balasto 100% en 15m via 2 (1.00, 1.80)
balasto (1.00, 1.00)
Balasto negativo total en 15m en via 2 (0.00, 1.00)
+ Con ripado afuera 1 con desbalastado 100% en via 2 uic (1.00, 1.00)
Tren 77-1 Via 1. Con ripado afuera (0.00, 1.07)
Tren 77-2 Via 1. Con ripado afuera (0.00, 1.07)
+ Envolvente de balasto 100% en 15m via 2 (1.00, 1.80)
+ Con ripado adentro 1 con desbalastado 100% en via 2 uic (1.00, 1.00)
Tren 77-1 Via 1. Con ripado adentro (0.00, 1.07)
Tren 77-2 Via 1. Con ripado adentro (0.00, 1.07)
+ Envolvente de balasto 100% en 15m via 2 (1.00, 1.80)

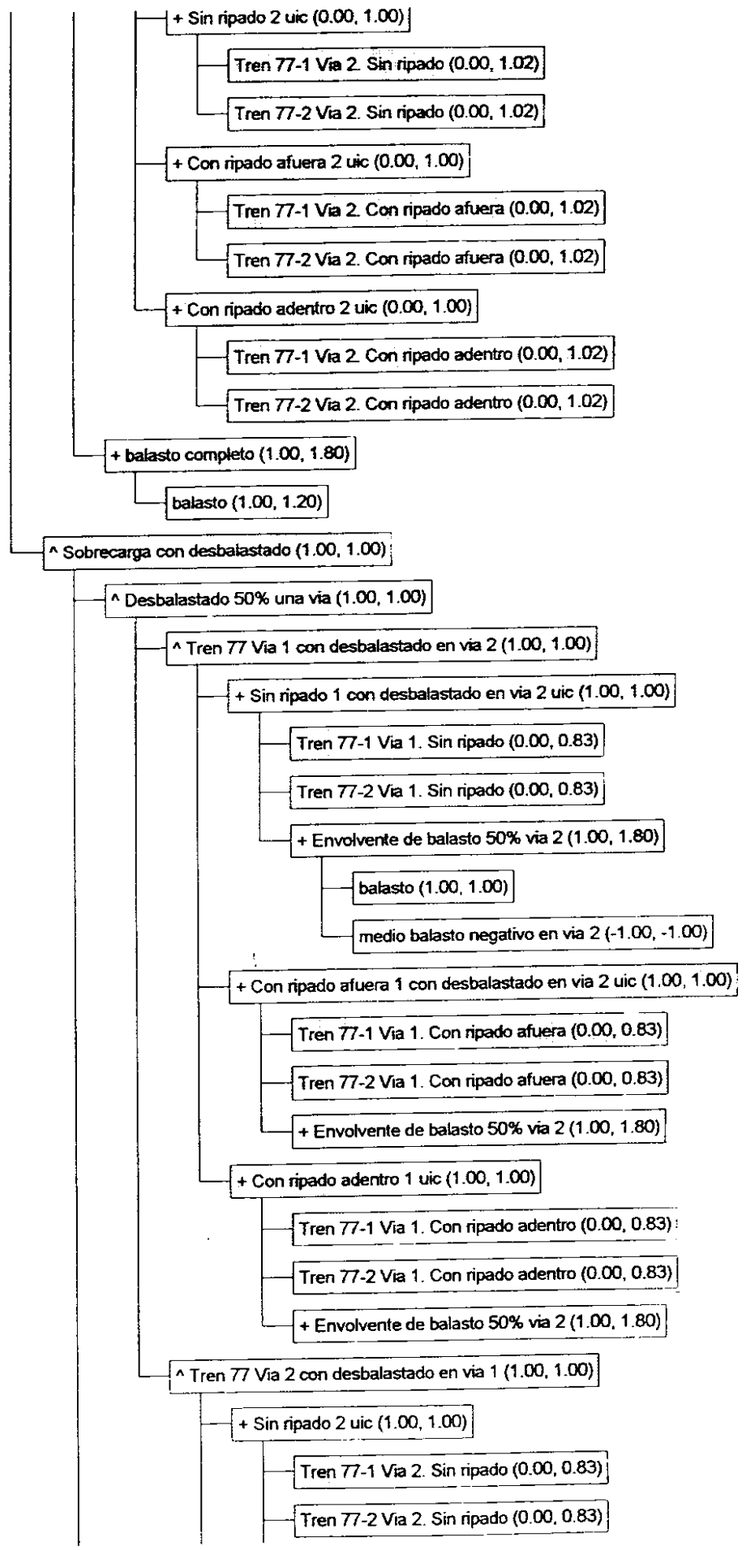
- Tren 77-2 Via 1. Con ripado adentro (0.00, 1.07)
- + Envolvente de balasto 100% en 15m via 2 (1.00, 1.80)
- ^ Tren 77 Via 2 con desbalastado 100% en via 1 (1.00, 1.00)
  - + Sin ripado 2 uic con desbalastado 100% en via 1 (1.00, 1.00)
    - Tren 77-1 Via 2. Sin ripado (0.00, 1.07)
    - Tren 77-2 Via 2. Sin ripado (0.00, 1.07)
    - + Envolvente de balasto 100% en 15m via 1 (1.00, 1.80)
      - balasto (1.00, 1.00)
      - Balasto negativo total en 15m en via 1 (0.00, 1.00)
  - + Con ripado afuera 2 uic con desbalastado 100% en via 1 (1.00, 1.00)
    - Tren 77-1 Via 2. Con ripado afuera (0.00, 1.07)
    - Tren 77-2 Via 2. Con ripado afuera (0.00, 1.07)
    - + Envolvente de balasto 100% en 15m via 1 (1.00, 1.80)
  - + Con ripado adentro 2 uic con desbalastado 100% en via 1 (1.00, 1.00)
    - Tren 77-1 Via 2. Con ripado adentro (0.00, 1.07)
    - Tren 77-2 Via 2. Con ripado adentro (0.00, 1.07)
    - + Envolvente de balasto 100% en 15m via 1 (1.00, 1.80)
  - + Sobrecarga de aceras servicios (1.00, 1.30)
    - Sobrecarga de aceras servicio via 1 (0.00, 1.00)
    - Sobrecarga de aceras servicio via 2 (0.00, 1.00)
  - + hip Viento (0.00, 1.40)
    - Viento (-1.00, 1.00)
  - + hip frenado uic (0.00, 1.10)
    - frenado_uic (-1.00, 1.00)
- + Hipotesis II UIC (1.00, 1.00)
  - + carga permanente uci (0.90, 1.20)
  - ^ termico (-1.00, 1.00)
  - + fuerza centrifuga y efecto lazo_uic (0.00, 1.20)
  - ^ asientos diferenciales (0.00, 1.20)
  - + Sobrecarga de uso uic (1.00, 1.00)
    - + Sobrecarga de aceras servicios (1.00, 1.00)
      - Sobrecarga de aceras servicio via 1 (0.00, 1.00)

- Sobrecarga de aceras servicio via 1 (0.00, 1.00)
- Sobrecarga de aceras servicio via 2 (0.00, 1.00)
- ^ Sobrecarga de vehiculos uic (1.00, 1.00)
  - + Sobrecarga con balasto completo (1.00, 1.00)
    - ^ Tren 77 Via 1 (0.00, 1.20)
      - + Sin ripado 1 uic (0.00, 0.81)
        - Tren 77-1 Via 1. Sin ripado (0.00, 1.02)
        - Tren 77-2 Via 1. Sin ripado (0.00, 1.02)
      - + Con ripado afuera 1 uic (0.00, 0.81)
        - Tren 77-1 Via 1. Con ripado afuera (0.00, 1.02)
        - Tren 77-2 Via 1. Con ripado afuera (0.00, 1.02)
      - + Con ripado adentro 1 uic (0.00, 0.81)
        - Tren 77-1 Via 1. Con ripado adentro (0.00, 1.02)
        - Tren 77-2 Via 1. Con ripado adentro (0.00, 1.02)
    - ^ Tren 77 Via 2 (0.00, 1.20)
      - + Sin ripado 2 uic (0.00, 0.81)
        - Tren 77-1 Via 2. Sin ripado (0.00, 1.02)
        - Tren 77-2 Via 2. Sin ripado (0.00, 1.02)
      - + Con ripado afuera 2 uic (0.00, 0.81)
        - Tren 77-1 Via 2. Con ripado afuera (0.00, 1.02)
        - Tren 77-2 Via 2. Con ripado afuera (0.00, 1.02)
      - + Con ripado adentro 2 uic (0.00, 0.81)
        - Tren 77-1 Via 2. Con ripado adentro (0.00, 1.02)
        - Tren 77-2 Via 2. Con ripado adentro (0.00, 1.02)
    - + balasto completo (1.00, 1.80)
      - balasto (1.00, 1.20)
  - ^ Sobrecarga con desbalastado (1.00, 1.00)
    - ^ Desbalastado 50% una via (1.00, 1.00)
      - ^ Tren 77 Via 1 con desbalastado en via 2 (1.00, 1.00)
        - + Sin ripado 1 con desbalastado en via 2 uic (1.00, 1.00)
          - Tren 77-1 Via 1. Sin ripado (0.00, 1.00)


Tren 77-1 Via 1. Sin ripado (0.00, 1.00)
Tren 77-2 Via 1. Sin ripado (0.00, 1.00)
+ Envolvente de balasto 50% via 2 (1.00, 1.80)
balasto (1.00, 1.00)
medio balasto negativo en via 2 (-1.00, -1.00)
+ Con ripado afuera 1 con desbalastado en via 2 uic (1.00, 1.00)
Tren 77-1 Via 1. Con ripado afuera (0.00, 1.00)
Tren 77-2 Via 1. Con ripado afuera (0.00, 1.00)
+ Envolvente de balasto 50% via 2 (1.00, 1.80)
+ Con ripado adentro 1 uic (1.00, 1.00)
Tren 77-1 Via 1. Con ripado adentro (0.00, 1.00)
Tren 77-2 Via 1. Con ripado adentro (0.00, 1.00)
+ Envolvente de balasto 50% via 2 (1.00, 1.80)
^ Tren 77 Via 2 con desbalastado en via 1 (1.00, 1.00)
+ Sin ripado 2 uic (1.00, 1.00)
Tren 77-1 Via 2. Sin ripado (0.00, 1.00)
Tren 77-2 Via 2. Sin ripado (0.00, 1.00)
+ Envolvente de balasto 50% via 1 (1.00, 1.80)
balasto (1.00, 1.00)
medio balasto negativo en via 1 (-1.00, -1.00)
+ Con ripado afuera 2 uic (1.00, 1.00)
Tren 77-1 Via 2. Con ripado afuera (0.00, 1.00)
Tren 77-2 Via 2. Con ripado afuera (0.00, 1.00)
+ Envolvente de balasto 50% via 1 (1.00, 1.80)
+ Con ripado adentro 2 uic (1.00, 1.00)
Tren 77-1 Via 2. Con ripado adentro (0.00, 1.00)
Tren 77-2 Via 2. Con ripado adentro (0.00, 1.00)
+ Envolvente de balasto 50% via 1 (1.00, 1.80)
^ Desbalastado 100% en 15m (1.00, 1.00)
^ Tren 77 Via 1 con desbalastado 100% en via 2 (1.00, 1.00)
+ Sin ripado 1 con desbalastado 100% en via 2 uic (1.00, 1.00)
Tren 77-1 Via 1. Sin ripado (0.00, 1.00)


Tren 77-1 Via 1. Sin ripado (0.00, 1.00)
Tren 77-2 Via 1. Sin ripado (0.00, 1.00)
+ Envolvente de balasto 100% en 15m via 2 (1.00, 1.80)
balasto (1.00, 1.00)
Balasto negativo total en 15m en via 2 (0.00, 1.00)
+ Con ripado afuera 1 con desbalastado 100% en via 2 uic (1.00, 1.00)
Tren 77-1 Via 1. Con ripado afuera (0.00, 1.00)
Tren 77-2 Via 1. Con ripado afuera (0.00, 1.00)
+ Envolvente de balasto 100% en 15m via 2 (1.00, 1.80)
+ Con ripado adentro 1 con desbalastado 100% en via 2 uic (1.00, 1.00)
Tren 77-1 Via 1. Con ripado adentro (0.00, 1.00)
Tren 77-2 Via 1. Con ripado adentro (0.00, 1.00)
+ Envolvente de balasto 100% en 15m via 2 (1.00, 1.80)
^ Tren 77 Via 2 con desbalastado 100% en via 1 (1.00, 1.00)
+ Sin ripado 2 uic con desbalastado 100% en via 1 (1.00, 1.00)
Tren 77-1 Via 2. Sin ripado (0.00, 1.00)
Tren 77-2 Via 2. Sin ripado (0.00, 1.00)
+ Envolvente de balasto 100% en 15m via 1 (1.00, 1.80)
balasto (1.00, 1.00)
Balasto negativo total en 15m en via 1 (0.00, 1.00)
+ Con ripado afuera 2 uic con desbalastado 100% en via 1 (1.00, 1.00)
Tren 77-1 Via 2. Con ripado afuera (0.00, 1.00)
Tren 77-2 Via 2. Con ripado afuera (0.00, 1.00)
+ Envolvente de balasto 100% en 15m via 1 (1.00, 1.80)
+ Con ripado adentro 2 uic con desbalastado 100% en via 1 (1.00, 1.00)
Tren 77-1 Via 2. Con ripado adentro (0.00, 1.00)
Tren 77-2 Via 2. Con ripado adentro (0.00, 1.00)
+ Envolvente de balasto 100% en 15m via 1 (1.00, 1.80)
+ hip viento (0.00, 1.20)
viento_uic (-1.00, 1.00)
+ hip frenado uic (0.00, 1.00)


+ hip frenado uic (0.00, 1.00)
frenado_uic (-1.00, 1.00)
+ Hipotesis IV UIC (1.00, 1.00)
+ carga permanente uci (1.00, 1.20)
+ fuerza centrifuga y efecto lazo_uic (0.00, 1.00)
^ asientos diferenciales (0.00, 1.20)
^ Vehiculo 77 y descarrilamiento (1.00, 1.00)
^ Descarrilamiento (1.00, 1.00)
Caso 2.a. hacia afuera en via 1 (0.00, 1.00)
Caso 2.a. hacia adentro en via 1 (0.00, 1.00)
Caso 2.a. hacia afuera en via 2 (0.00, 1.00)
Caso 2.a. hacia adentro en via 2 (0.00, 1.00)
Caso 2.b. hacia afuera en via 1 (0.00, 1.00)
Caso 2.b. hacia adentro en via 1 (0.00, 1.00)
Caso 2.b. hacia afuera en via 2 (0.00, 1.00)
Caso 2.b. hacia adentro en via 2 (0.00, 1.00)
+ Sobrecarga de uso uic (1.00, 1.00)
^ Sobrecarga de vehiculos uic (1.00, 1.00)
+ Sobrecarga con balasto completo (1.00, 1.00)
^ Tren 77 Via 1 (0.00, 0.81)
+ Sin ripado 1 uic (0.00, 1.00)
Tren 77-1 Via 1. Sin ripado (0.00, 1.02)
Tren 77-2 Via 1. Sin ripado (0.00, 1.02)
+ Con ripado afuera 1 uic (0.00, 1.00)
Tren 77-1 Via 1. Con ripado afuera (0.00, 1.02)
Tren 77-2 Via 1. Con ripado afuera (0.00, 1.02)
+ Con ripado adentro 1 uic (0.00, 1.00)
Tren 77-1 Via 1. Con ripado adentro (0.00, 1.02)
Tren 77-2 Via 1. Con ripado adentro (0.00, 1.02)
^ Tren 77 Via 2 (0.00, 0.81)
+ Sin ripado 2 uic (0.00, 1.00)


+ Sin ripado 2 uic (0.00, 1.00)
Tren 77-1 Via 2. Sin ripado (0.00, 1.02)
Tren 77-2 Via 2. Sin ripado (0.00, 1.02)
+ Con ripado afuera 2 uic (0.00, 1.00)
Tren 77-1 Via 2. Con ripado afuera (0.00, 1.02)
Tren 77-2 Via 2. Con ripado afuera (0.00, 1.02)
+ Con ripado adentro 2 uic (0.00, 1.00)
Tren 77-1 Via 2. Con ripado adentro (0.00, 1.02)
Tren 77-2 Via 2. Con ripado adentro (0.00, 1.02)
+ balasto completo (1.00, 1.80)
balasto (1.00, 1.20)
^ Sobrecarga con desbalastado (1.00, 1.00)
^ Desbalastado 50% una via (1.00, 1.00)
^ Tren 77 Via 1 con desbalastado en via 2 (1.00, 1.00)
+ Sin ripado 1 con desbalastado en via 2 uic (1.00, 1.00)
Tren 77-1 Via 1. Sin ripado (0.00, 0.83)
Tren 77-2 Via 1. Sin ripado (0.00, 0.83)
+ Envolvente de balasto 50% via 2 (1.00, 1.80)
balasto (1.00, 1.00)
medio balasto negativo en via 2 (-1.00, -1.00)
+ Con ripado afuera 1 con desbalastado en via 2 uic (1.00, 1.00)
Tren 77-1 Via 1. Con ripado afuera (0.00, 0.83)
Tren 77-2 Via 1. Con ripado afuera (0.00, 0.83)
+ Envolvente de balasto 50% via 2 (1.00, 1.80)
+ Con ripado adentro 1 uic (1.00, 1.00)
Tren 77-1 Via 1. Con ripado adentro (0.00, 0.83)
Tren 77-2 Via 1. Con ripado adentro (0.00, 0.83)
+ Envolvente de balasto 50% via 2 (1.00, 1.80)
^ Tren 77 Via 2 con desbalastado en via 1 (1.00, 1.00)
+ Sin ripado 2 uic (1.00, 1.00)
Tren 77-1 Via 2. Sin ripado (0.00, 0.83)
Tren 77-2 Via 2. Sin ripado (0.00, 0.83)

- Tren 77-2 Via 2. Sin ripado (0.00, 0.83)
- + Envolvente de balasto 50% via 1 (1.00, 1.80)
  - balasto (1.00, 1.00)
  - medio balasto negativo en via 1 (-1.00, -1.00)
- + Con ripado afuera 2 uic (1.00, 1.00)
  - Tren 77-1 Via 2. Con ripado afuera (0.00, 0.83)
  - Tren 77-2 Via 2. Con ripado afuera (0.00, 0.83)
  - + Envolvente de balasto 50% via 1 (1.00, 1.80)
- + Con ripado adentro 2 uic (1.00, 1.00)
  - Tren 77-1 Via 2. Con ripado adentro (0.00, 0.83)
  - Tren 77-2 Via 2. Con ripado adentro (0.00, 0.83)
  - + Envolvente de balasto 50% via 1 (1.00, 1.80)
- ^ Desbalastado 100% en 15m (1.00, 1.00)
  - ^ Tren 77 Via 1 con desbalastado 100% en via 2 (1.00, 1.00)
    - + Sin ripado 1 con desbalastado 100% en via 2 uic (1.00, 1.00)
      - Tren 77-1 Via 1. Sin ripado (0.00, 0.83)
      - Tren 77-2 Via 1. Sin ripado (0.00, 0.83)
      - + Envolvente de balasto 100% en 15m via 2 (1.00, 1.80)
        - balasto (1.00, 1.00)
        - Balasto negativo total en 15m en via 2 (0.00, 1.00)
    - + Con ripado afuera 1 con desbalastado 100% en via 2 uic (1.00, 1.00)
      - Tren 77-1 Via 1. Con ripado afuera (0.00, 0.83)
      - Tren 77-2 Via 1. Con ripado afuera (0.00, 0.83)
      - + Envolvente de balasto 100% en 15m via 2 (1.00, 1.80)
    - + Con ripado adentro 1 con desbalastado 100% en via 2 uic (1.00, 1.00)
      - Tren 77-1 Via 1. Con ripado adentro (0.00, 0.83)
      - Tren 77-2 Via 1. Con ripado adentro (0.00, 0.83)
      - + Envolvente de balasto 100% en 15m via 2 (1.00, 1.80)
  - ^ Tren 77 Via 2 con desbalastado 100% en via 1 (1.00, 1.00)
    - + Sin ripado 2 uic con desbalastado 100% en via 1 (1.00, 1.00)
      - Tren 77-1 Via 2. Sin ripado (0.00, 0.83)

- Tren 77-1 Via 2. Sin ripado (0.00, 0.83)
- Tren 77-2 Via 2. Sin ripado (0.00, 0.83)
- + Envolvente de balasto 100% en 15m via 1 (1.00, 1.80)
  - balasto (1.00, 1.00)
  - Balasto negativo total en 15m en via 1 (0.00, 1.00)
- + Con ripado afuera 2 uic con desbalastado 100% en via 1 (1.00, 1.00)
  - Tren 77-1 Via 2. Con ripado afuera (0.00, 0.83)
  - Tren 77-2 Via 2. Con ripado afuera (0.00, 0.83)
  - + Envolvente de balasto 100% en 15m via 1 (1.00, 1.80)
- + Con ripado adentro 2 uic con desbalastado 100% en via 1 (1.00, 1.00)
  - Tren 77-1 Via 2. Con ripado adentro (0.00, 0.83)
  - Tren 77-2 Via 2. Con ripado adentro (0.00, 0.83)
  - + Envolvente de balasto 100% en 15m via 1 (1.00, 1.80)
- + Sobrecarga de aceras servicios (1.00, 1.00)
  - Sobrecarga de aceras servicio via 1 (0.00, 1.00)
  - Sobrecarga de aceras servicio via 2 (0.00, 1.00)

DESCRIPCION DEL ESQUEMA DE ENVOLVENTES

El esquema de envolventes muestra la forma en la que han sido obtenidas las envolventes. Se trata de una estructura en árbol en la que las ramas descendientes de una envolvente dada representan los datos de origen utilizados para generar dicha envolvente. El signo "+" que acompaña a cada envolvente indica que las envolventes descendientes de las que depende directamente la primera se han obtenido mediante una suma ponderada de las mismas.

Un signo "∧" indica que las envolventes descendientes no se suman, sino que se comparan entre sí una vez ponderadas escogiéndose la peor en cada caso.

Estas comparaciones se hacen una vez para cada elemento o nudo de la estructura.

Los coeficientes de ponderación son los números que figuran entre paréntesis a la derecha de cada envolvente. El primero se adopta si el esfuerzo resulta favorable para la envolvente que se calcula y el segundo si es desfavorable. Así, para obtener una envolvente positiva se tomará el de la izquierda si el valor es negativo y el de la derecha si es positivo. Para la envolvente negativa el criterio será el contrario.

envolvente MAYORADA (CON COEF. IMPACTO 1.16) t=0 VALORES PARA UNA VIGA

Program Envolvator (release 1.3 - Jun 1998)
Calculation date: 24-abr-1999 14:44 h. Listing date: 24-abr-1999 14:44 h.
Members: 419
Joints: 353
Envelope generated from:

Name	γ_{sup}	γ_{inf}
envolvente mayorada RENFE	1.00	1.00
envolvente mayorada UIC	1.00	1.00

	Fx	Fy	Fz	Mx	My	Mz	Fx	Fy	Fz	Mx	My	Mz
Member 1												
Fx,	**-1260.1**	-271.0	86.0	-45.4	-597.1	-20.2	**1077.4**	-159.2	-82.5	-130.6	520.1	-26.2
Fy,	-793.4	**-447.3**	33.7	-134.6	-245.8	-55.7	1188.1	**-13.0**	-72.9	-66.9	442.3	404.5
Fz,	-477.4	-160.0	**-93.8**	-73.7	492.6	-22.6	294.7	-207.1	**98.1**	-91.3	-567.9	384.5
Mx,	-355.0	-306.7	-14.9	**-306.4**	85.1	397.7	-276.2	-172.7	65.4	**34.2**	-456.6	-26.3
My,	-3.5	-236.0	92.1	-117.9	**-624.7**	362.9	-375.6	-173.8	-86.3	-87.5	**544.3**	-23.9
Mz,	331.5	-413.1	31.6	-126.2	-233.4	**-61.9**	-796.6	-38.9	-18.5	-62.9	88.0	**439.4**
Fx,	**-1252.6**	-159.7	79.9	-26.6	-293.0	745.4	**1069.9**	-107.3	-76.4	-101.5	228.6	486.3
Fy,	-786.3	**-300.6**	31.3	-98.6	-126.0	1180.7	540.7	**38.4**	-17.4	-35.7	28.4	508.3
Fz,	-466.7	-106.3	**-84.1**	-50.5	191.8	441.6	284.1	-97.5	**88.4**	-66.5	-251.3	966.9
Mx,	-348.9	-170.4	-13.8	**-216.5**	32.7	1142.1	-273.8	-86.4	59.5	**33.4**	-219.9	505.2
My,	-370.7	-87.2	73.7	-38.1	**-306.9**	429.8	-4.9	-135.2	-69.7	-127.6	**247.8**	1069.5
Mz,	720.5	-4.3	-61.3	-48.6	172.9	**119.3**	-786.8	-237.2	31.7	-92.0	-126.0	**1518.3**
Member 2												
Fx,	**-1180.9**	-149.8	77.7	-27.3	-510.4	712.0	**997.8**	-108.8	-76.5	-107.6	440.5	478.8
Fy,	-756.0	**-297.8**	27.0	-91.8	-200.1	1180.2	519.4	**37.2**	-16.9	-40.5	71.4	508.6
Fz,	-541.2	-112.2	**-86.4**	-77.5	419.5	457.5	359.2	-95.5	**88.3**	-54.6	-486.2	972.4
Mx,	-366.5	-168.9	-17.7	**-217.0**	77.5	1143.0	-220.4	-87.1	59.3	**31.0**	-385.0	504.2
My,	64.0	-113.4	82.4	-69.7	**-532.3**	1032.3	-442.4	-142.8	-79.9	-102.7	**462.8**	567.0
Mz,	663.6	-5.9	-61.6	-53.5	343.7	**119.5**	-762.1	-234.7	28.7	-88.2	-209.5	**1518.0**
Fx,	**-1173.4**	-38.5	71.6	-8.5	-236.8	1033.4	**990.3**	-24.8	-70.4	-44.9	171.3	747.8
Fy,	-748.6	**-166.6**	24.5	-64.8	-104.9	1758.9	512.4	**105.3**	-14.6	-9.2	13.2	476.4
Fz,	-530.5	-60.4	**-77.4**	-48.4	135.7	750.0	348.5	15.9	**79.2**	-35.7	-195.8	1142.2
Mx,	-369.6	-46.9	-15.8	**-145.0**	15.3	1274.6	-240.4	-10.2	57.2	**51.5**	-185.6	1023.6
My,	-305.8	-24.6	67.1	-30.5	**-248.9**	645.7	-71.1	-14.6	-65.7	-45.9	**187.8**	1242.7
Mz,	657.6	39.2	-55.1	-26.1	129.8	**77.3**	-754.3	-84.8	26.1	-48.9	-107.9	**2086.3**
Member 3												
Fx,	**-1108.8**	-37.5	70.0	-7.5	-430.4	1033.4	**926.0**	-31.4	-68.6	-62.7	362.1	750.3
Fy,	-560.4	**-161.5**	-16.0	-66.7	47.2	1734.0	351.4	**103.1**	24.4	-4.7	-163.4	501.3
Fz,	-595.6	-80.1	**-79.3**	-77.5	351.5	859.2	413.8	21.9	**79.7**	-21.5	-413.9	1142.7
Mx,	-362.2	-44.5	-19.7	**-138.2**	79.9	1322.0	-191.8	-12.4	57.4	**42.1**	-346.1	1021.5
My,	125.2	13.9	74.3	-26.6	**-449.0**	1250.8	-503.6	-96.4	-73.7	-99.8	**384.6**	990.2
Mz,	607.0	36.8	-55.4	-33.8	282.0	**77.4**	-732.2	-81.1	24.8	-43.8	-177.8	**2086.2**
Fx,	**-1101.3**	70.1	63.9	11.3	-185.0	949.7	**918.5**	49.8	-62.6	0.0	121.6	740.5
Fy,	-573.0	**-58.9**	-14.4	-25.5	9.3	1538.8	346.5	**190.8**	21.7	15.4	-94.1	671.0
Fz,	-584.8	1.1	**-70.7**	-14.9	86.5	980.0	403.0	129.6	**71.1**	-2.6	-147.4	888.9
Mx,	-356.9	64.8	-17.3	**-73.7**	10.7	930.4	-47.4	74.3	15.9	**74.5**	-68.4	1331.4
My,	-237.6	30.0	53.6	-13.2	**-198.2**	668.2	-139.8	95.8	-53.2	24.5	**136.1**	1044.4
Mz,	-390.5	77.5	-13.4	-4.9	2.7	**-121.0**	161.3	18.7	21.8	-6.2	-88.2	**2245.9**
Member 4												
Fx,	**-1043.4**	58.6	62.2	13.1	-357.1	837.9	**861.4**	40.7	-61.9	-29.9	293.0	724.7
Fy,	-571.4	**-61.1**	-22.0	-58.8	78.4	1383.7	360.7	**195.1**	25.2	17.5	-164.8	633.7
Fz,	342.1	20.3	**-72.6**	-38.2	283.1	1068.3	-523.9	111.7	**71.4**	17.2	-341.1	800.6
Mx,	-373.3	23.6	-23.5	**-81.9**	69.5	1136.9	-157.3	66.4	53.8	**66.5**	-298.3	1319.1
My,	189.0	151.0	66.4	36.2	**-372.6**	775.3	-558.5	24.2	-67.8	-34.9	**313.3**	1362.4
Mz,	-402.5	76.6	-14.0	-8.4	41.4	**-120.9**	180.7	22.9	20.9	-0.6	-146.0	**2245.9**
Fx,	**-1035.9**	134.3	56.2	17.5	-140.0	460.2	**853.9**	121.9	-55.8	32.8	77.1	450.4
Fy,	-463.8	**-7.8**	-48.6	-7.9	62.6	842.0	355.1	**321.4**	22.5	46.0	-75.8	244.8
Fz,	338.0	115.8	**-64.4**	30.4	37.8	842.7	-519.8	205.2	**63.3**	30.2	-99.9	195.7
Mx,	-454.3	115.9	-1.9	**-33.1**	-45.4	97.8	47.4	217.7	-6.6	**116.2**	-25.6	1152.7
My,	-178.4	79.7	37.6	11.8	**-160.8**	797.9	-197.9	133.0	-39.0	17.6	**98.0**	221.6
Mz,	-510.6	166.1	19.1	8.9	-62.2	**-647.0**	288.8	169.6	-12.2	44.1	-17.1	**1908.3**
Member 5												
Fx,	**-986.5**	118.5	50.5	30.6	-285.2	481.8	**806.0**	123.7	-49.6	14.7	223.1	425.1
Fy,	-509.4	**-14.3**	-51.0	-27.8	200.3	841.3	377.7	**328.7**	21.6	64.5	-133.0	285.6
Fz,	283.7	115.0	**-66.9**	5.4	224.5	873.6	-465.4	191.0	**62.9**	40.3	-275.4	72.6
Mx,	-248.5	79.9	-60.1	**-59.9**	229.7	235.1	-34.8	235.4	20.7	**127.8**	-130.6	1084.0
My,	227.0	213.7	57.5	57.1	**-302.1**	125.7	-606.9	130.5	-62.9	18.3	**250.3**	1042.8
Mz,	-492.4	168.1	17.5	14.3	-110.3	**-647.1**	277.9	170.8	-13.7	41.3	20.7	**1908.4**
Fx,	**-979.1**	195.9	44.4	40.9	-111.2	-118.5	**798.5**	177.4	-43.5	37.9	52.3	-102.9
Fy,	-502.3	**30.4**	-43.0	12.4	27.6	665.8	371.3	**465.5**	19.5	93.3	-57.6	-965.2
Fz,	279.5	226.6	**-59.2**	88.0	-3.2	291.2	-461.2	256.1	**55.2**	38.9	-62.6	-771.2
Mx,	-454.7	166.8	-3.3	**-24.6**	-54.4	-427.3	41.0	361.3	-6.9	**196.3**	-24.6	194.4
My,	-141.2	289.4	28.2	113.8	**-142.4**	188.7	-183.5	183.4	-32.6	39.6	**74.5**	-591.1
Mz,	-486.6	257.7	15.5	30.1	-50.3	**-1480.1**	272.3	278.4	-11.8	79.9	-25.2	**1140.4**
Member 6												
Fx,	**-924.3**	213.8	29.4	54.6	-258.8	126.0	**744.9**	166.5	-36.3	30.6	214.1	-210.8
Fy,	-555.9	**25.5**	-43.6	-2.3	185.5	665.8	397.5	**470.7**	13.3	105.7	-108.1	-963.6
Fz,	91.1	248.1	**-64.6**	86.2	227.3	189.8	-398.8	237.5	**53.1**	51.8	-236.0	-824.5
Mx,	-304.3	130.9	-53.9	**-38.0**	210.1	-333.1	-15.9	373.7	11.0	**198.3**	-103.2	157.6
My,	-493.7	211.4	44.8	41.4	**-291.0**	-684.8	111.9	242.7	-57.7	86.6	**249.3**	357.1
Mz,	-464.6	259.8	11.0	35.5	-97.7	**-1480.4**	258.7	277.9	-14.7	74.9	27.0	**1140.9**
Fx,	**-916.8**	323.3	23.3	74.1	-162.1	-882.5	**737.5**	220.2	-30.3	49.8	92.1	-895.8
Fy,	-547.9	**62.6**	-36.5	21.2	39.7	442.7	390.4	**615.9**	10.2	130.4	-65.7	-2860.0
Fz,	85.1	369.6	**-58.1**	178.2	2.5	-923.8	-391.3	291.2	**47.1**	43.6	-52.4	-1817.5
Mx,	-466.2	240.7	20.8	-27.9	-121.0	-1177.0	27.7	504.9	-14.3	**276.7**	-28.7	-1318.8
My,	-103.6	413.4	10.7	167.1	**-191.2**	-1072.2	-218.3	235.7	-17.7	59.1	**107.6**	-1382.0
Mz,	-454.0	593.7	9.3	120.0	-69.4	**-2911.2**	401.0	75.7	-34.7	21.4	47.2	**442.8**
Member 7												
Fx,	**-865.1**	-484.2	31.1	-196.6	-247.6	-968.4	**709.9**	-298.2	-21.0	-92.6	172.4	-999.4
Fy,	-441.0	**-795.6**	21.4	-203.0	-106.8	-2881.8	217.9	**-114.0**	-39.7	-78.3	141.0	468.2
Fz,	-274.5	-275.9	**-52.5**	-120.2	140.7	-1193.2	118.2	-564.4	**61.4**	-241.5	-211.5	-1173.0
Mx,	47.9	-596.1	2.2	**-436.9**	-28.6	-1194.4	-427.2	-416.1	35.7	**95.7**	-162.3	-1612.6
My,	-46.7	-544.9	45.5	-286.6	**-269.5**	-1186.5	-301.0	-312.8	-35.0	-57.0	**193.4**	-1112.4
Mz,	-439.5	-705.9	21.8	-174.0	-91.3	**-2911.6**	218.7	-114.0	-39.3	-78.7	141.4	**468.3**
Fx,	**-856.0**	-336.4	35.6	-135.1	-76.6	829.0	**700.7**	-232.4	-25.6	-69.1	46.6	223.8
Fy,	-431.9	**-617.0**	18.2	-175.1	-15.9	158.1	207.9	**-68.5**	-31.8	-48.1	-21.5	956.2
Fz,	-264.8	-209.9	**-41.3**	-95.6	-48.1	-129.5	108.5	-389.9	**50.3**	-152.0	17.5	997.4
Mx,	42.4	-437.2	3.4	**-339.9**	-11.2	1049.4	-421.0	-343.4	28.6	**94.5**	-19.7	170.4
My,	-561.0	-253.0	4.6	-100.7	**-101.1**	285.5	234.8	-308.5	-14.5	-118.0	**68.1**	746.7
Mz,	-371.2	-342.1	35.3	-49.0	-27.4	**-458.1**	44.2	-335.2	-4.1	-149.9	-27.3	**1601.7**
Member 8												
Fx,	**-845.5**	-325.5	14.8	-193.3	-105.9	1108.8	**683.0**	-235.2	-15.6	-82.5	95.4	227.1
Fy,	-425.6	**-609.1**	13.7	-160.1	-68.1	157.6	181.9	**-74.1**	-30.5	-64.9	69.3	957.4
Fz,	-298.8	-217.3	**-45.0**	-124.9	69.6	-122.8	140.2	-367.5	**48.3**	-97.9	-122.0	983.3
Mx,	36.6	-456.5	1.0	**-343.5**	-15.9	997.7	-397.7	-346.0	25.1	**85.0**	-101.2	164.3
My,	-30.1	-356.8	32.3	-205.2	**-161.0**	989.0	-317.5	-275.7	-28.1	-58.6	**107.5**	54.9
Mz,	-344.8	-338.1	32.4	-40.1	-117.3	**-459.6**	35.7	-333.3	-6.8	-150.2	-12.0	**1602.7**
Fx,	**-837.3**	-223.0	12.3	-171.4	-45.1	2317.2	**673.8**	-169.3	-20.2	-54.1	-6.1	1166.7
Fy,	-418.0	**-440.8**	11.0	-133.2	-13.3	2222.1	49.9	**-19.7**	-22.3	4.5	-43.0	1408.3
Fz,	-289.2	-151.4	**-33.9**	-96.5	-86.0	677.2	130.5	-219.7	**37.1**	-29.9	48.2	2314.5
Mx,	31.0	-308.5	-3.7	**-261.1**	-30.4	2499.8	-412.3	-272.1	8.1	**102.2**	-3.7	1841.9
My,	-312.6	-169.5	-28.4	-111.6	**-103.9**	976.1	155.5	-203.1	32.4	-19.5	**68.7**	1988.1
Mz,	-281.7	-87.6	-24.4	-47.2	-58.2	**225.5**	10.0	-363.1	12.0	-94.3	-11.0	**3405.2**
Member 9												
Fx,	**-827.7**	-210.0	9.7	-136.6	-79.0	2311.6	**653.0**	-177.9	-11.5	-79.6	68.5	1166.6
Fy,	-409.7	**-429.5**	9.9	-110.5	-45.8	2185.3	148.6	**-28.8**	-22.2	-33.7	29.6	1385.0
Fz,	-320.7	-157.8	**-37.0**	-98.9	23.7	649.8	163.3	-227.1	**39.2**	-26.1	-64.0	2378.2
Mx,	24.5	-323.6	-5.3	**-258.5**	-11.2	2557.4	-365.0	-222.5	21.3	**67.5**	-53.9	1488.6
My,	106.6	-195.3	16.1	-79.6	**-112.4**	2234.4	-263.8	-179.3	-13.9	-61.5	**71.3**	684.4
Mz,	-310.2	-90.3	-24.5	-55.0	26.6	**226.7**	20.4	-357.5	11.0	-92.4	-46.4	**3404.0**

Fx,	**-819.6**	-113.2	7.2	-114.7	-40.9	3013.2	**643.9**	-75.9	-16.0	-9.8	-14.4	1767.1
Fy,	-403.1	**-276.4**	7.2	-84.8	-8.8	3355.8	15.3	**47.2**	-3.9	54.7	-24.8	2037.0
Fz,	-311.1	-97.5	**-25.8**	-63.3	-95.8	1194.6	153.6	-94.9	**28.0**	-2.9	65.1	3132.3
Mx,	16.0	-185.1	-3.0	**-183.7**	-30.3	3367.3	-402.2	-38.7	4.7	**100.4**	-5.2	1986.9
My,	-325.7	-105.1	-23.7	-76.6	**-110.4**	1544.5	168.1	-111.7	25.8	11.1	**79.7**	2903.1
Mz,	-295.4	-51.8	-15.8	-28.7	-58.5	**517.0**	11.0	-181.1	7.9	-45.8	-4.9	**4634.6**

Member 10

Fx,	**-824.6**	-88.0	-4.6	-58.4	-49.7	3030.8	**658.2**	-90.7	23.8	-16.8	18.5	1907.5
Fy,	-396.2	**-263.7**	7.1	-63.8	-28.5	3276.6	9.3	**37.7**	-3.7	-8.8	-10.3	2141.6
Fz,	-337.2	-94.4	**-28.9**	-59.3	-16.9	1195.2	179.5	-98.0	**30.7**	**-19.9**	-14.8	3138.6
Mx,	15.2	-171.8	-2.6	**-179.5**	-12.5	3322.2	-353.0	-48.7	14.3	**72.2**	-30.4	1850.9
My,	112.7	-65.5	8.7	-20.1	**-75.8**	2694.6	-269.7	-116.9	-6.8	-55.9	**43.9**	1486.4
Mz,	-314.1	-53.9	-15.8	-34.8	-2.6	**517.6**	18.0	-175.3	7.6	-46.8	-26.8	**4634.0**
Fx,	**-816.4**	8.9	-2.2	-20.5	-65.0	3183.1	**649.0**	11.2	4.3	19.4	60.6	2115.9
Fy,	-389.4	**-122.4**	4.4	-32.2	-4.5	3023.0	2.6	**135.5**	-1.0	35.1	-18.7	2871.2
Fz,	-327.3	-34.1	**-17.7**	-23.7	-99.6	1454.9	169.7	34.2	**19.5**	3.3	76.3	3311.4
Mx,	6.1	-39.2	-0.3	**-105.4**	-20.0	3179.4	-393.7	55.0	2.7	**115.7**	-6.3	2612.7
My,	536.7	-14.4	-16.1	-21.7	**-108.3**	1829.2	-694.7	31.0	18.1	21.0	**85.1**	3114.5
Mz,	570.1	2.4	-7.9	-9.7	-53.8	**632.5**	-767.8	-7.7	5.2	0.8	2.1	**5029.3**

Member 11

Fx,	**-822.6**	5.3	-5.9	6.3	-47.2	3146.0	**658.5**	21.1	19.5	-5.6	41.2	2374.7
Fy,	-396.4	**-119.6**	0.4	-42.3	-20.1	2623.8	11.9	**135.0**	2.8	36.8	-6.2	3274.8
Fz,	-187.7	-31.5	**-20.6**	-27.7	-44.2	1746.2	335.7	29.4	**22.3**	-6.6	21.2	3017.6
Mx,	9.6	-37.3	-0.8	**-121.4**	-8.1	3187.0	-343.1	47.4	6.5	**103.1**	-7.1	2430.0
My,	221.6	34.3	-10.5	-2.6	**-74.4**	2353.3	-73.0	-26.5	12.2	-8.4	**51.3**	2213.1
Mz,	560.4	0.0	-7.9	-16.2	-24.6	**632.7**	-763.4	-1.7	5.1	-0.7	-10.9	**5029.3**
Fx,	**-814.5**	102.2	-3.5	44.2	-68.3	2878.5	**649.3**	136.4	0.0	13.0	64.1	2030.2
Fy,	-294.6	**-26.5**	4.8	-17.1	-21.9	1265.2	5.7	**277.6**	1.2	67.6	-0.5	3265.4
Fz,	-139.6	49.6	**-13.1**	11.2	-48.3	1824.9	287.7	140.8	**14.8**	13.2	32.8	2515.2
Mx,	14.1	63.6	0.2	**-59.6**	12.1	2137.0	-401.4	190.5	1.7	**164.8**	-29.9	3078.7
My,	512.7	86.7	-7.1	39.6	**-97.8**	1962.5	-670.8	138.0	8.8	10.7	**82.3**	2409.3
Mz,	319.0	68.9	2.5	15.7	-31.3	**522.1**	-564.0	167.3	2.6	50.1	6.7	**4635.3**

Member 12

Fx	**-820.4**	114.2	-3.8	70.8	-52.0	2890.9	**650.5**	134.9	11.7	-1.9	63.6	2061.9
Fy,	-304.4	**-39.9**	-1.3	-61.8	-36.1	1254.7	11.3	**290.4**	3.3	90.6	1.1	3438.9
Fz,	-130.6	56.6	**-16.4**	24.6	9.4	1826.2	278.7	138.7	**17.6**	-14.3	-23.0	2392.8
Mx	-22.7	25.6	-1.8	**-105.1**	-25.7	1760.7	-379.0	218.7	3.7	**178.7**	-9.8	3199.8
My	209.3	109.3	-4.3	43.1	**-86.7**	2079.4	-60.7	91.0	5.5	12.0	**73.0**	2018.8
Mz	321.1	63.6	2.2	-1.5	-36.5	**521.6**	-562.4	173.7	2.3	51.2	3.1	**4635.9**
Fx,	**-812.3**	211.1	-1.4	108.6	-63.7	2133.3	**641.4**	236.8	-7.8	10.6	51.4	1255.0
Fy,	-296.8	**21.1**	5.9	-4.6	-27.4	972.8	5.5	**441.9**	1.1	116.3	13.4	2215.1
Fz,	-95.4	173.9	**-20.7**	76.4	-25.9	1280.2	243.4	253.4	**21.8**	34.0	17.5	1537.8
Mx,	0.6	228.3	-4.5	**-50.1**	-0.4	1767.3	-382.5	358.9	7.0	**244.7**	-1.2	2195.3
My,	398.7	180.9	-6.7	85.6	**-82.2**	1619.6	-403.6	232.4	7.9	4.5	**73.9**	1361.3
Mz,	313.3	134.6	10.1	32.3	-9.3	**128.7**	-554.6	350.1	-0.3	97.7	7.3	**3433.4**

Member 13

Fx,	**-815.7**	205.0	-3.0	98.7	-51.4	2241.9	**635.0**	246.1	-0.1	24.2	87.4	1241.2
Fy	-291.5	**7.3**	5.6	-47.3	-44.6	971.4	5.1	**454.8**	-0.5	143.0	17.8	2245.8
Fz	-135.7	178.8	**-25.0**	82.8	16.9	1277.2	284.8	247.6	**24.2**	13.1	-17.8	1541.0
Mx,	-17.8	207.6	7.4	**-118.1**	-30.7	1742.2	-370.4	359.6	-1.4	**261.2**	8.1	2153.9
My	205.1	175.1	1.6	80.9	**-89.9**	1507.8	-56.1	238.5	-2.0	60.5	**89.1**	1349.4
Mz	324.2	127.1	9.1	8.5	-38.3	**127.7**	-556.0	357.3	-1.5	104.2	15.9	**3434.6**
Fx,	**-807.5**	390.1	-0.5	223.4	-59.3	876.1	**625.8**	351.4	-19.6	36.8	22.0	-73.9
Fy,	-283.8	**66.8**	12.9	10.8	-4.4	530.3	-1.8	621.9	-2.9	169.4	11.3	130.9
Fz,	-102.9	299.8	**-30.1**	135.8	-60.4	171.6	251.0	326.9	**29.4**	42.4	56.1	277.0
Mx,	-17.9	348.1	-8.2	**-73.2**	-15.3	434.3	-359.2	508.4	6.3	**331.8**	8.5	433.4
My,	-149.4	279.9	-26.7	146.0	**-100.0**	190.4	297.3	371.2	26.0	36.6	**95.8**	404.9
Mz,	374.8	367.7	-4.4	22.9	1.9	**-828.9**	-566.5	381.2	5.0	188.8	1.0	**1592.5**

Member 14

Fx,	**-807.5**	400.6	-16.6	212.6	-39.8	855.8	**626.2**	313.9	23.1	1.5	59.5	-19.0
Fy,	-268.3	**51.7**	12.3	-35.9	-47.6	526.0	-4.0	**634.2**	-7.9	213.1	48.0	252.4

Fz,	-136.6	346.3	**-38.0**	162.5	23.0	20.8	289.2	284.0	**29.4**	1.2	7.4	332.7
Mx,	-9.9	269.9	13.0	**-137.1**	-20.1	434.1	-368.5	497.9	-10.8	**350.1**	27.6	399.6
My,	217.4	195.2	6.1	73.0	**-94.1**	530.4	-68.9	417.3	-14.1	146.9	**117.1**	69.4
Mz,	370.0	371.5	-9.3	31.6	34.3	**-826.1**	-560.8	382.1	1.1	184.1	-1.7	**1590.1**
Fx,	**-799.3**	585.7	-19.1	313.2	-120.1	-1383.3	**617.0**	379.8	18.6	25.1	132.3	-1550.3
Fy,	-254.7	**100.2**	21.7	8.2	35.7	62.6	-13.4	**812.5**	-11.1	240.4	3.3	-2868.4
Fz,	-107.9	508.1	**-44.0**	255.1	-109.7	-1940.0	260.5	362.6	**35.4**	21.7	101.7	-1089.8
Mx,	-15.6	332.8	22.0	**-102.3**	61.1	-1004.8	-364.4	679.3	-15.4	**428.8**	-37.6	-2156.9
My,	-379.2	480.1	-40.1	301.4	**-168.6**	-1577.9	301.1	443.9	29.8	36.6	**152.0**	-1382.0
Mz,	368.9	795.6	-13.5	195.1	-3.5	**-3207.3**	-557.2	112.9	22.1	6.5	42.8	**427.3**

Member 15

Fx,	**-761.3**	-569.8	23.0	-284.8	-134.5	-1324.6	**603.9**	-346.9	-21.8	-41.6	163.6	-1567.0
Fy,	-338.1	**-814.3**	19.5	-238.7	-1.0	-3046.7	107.8	**-101.8**	-41.6	-25.1	69.6	456.1
Fz,	250.9	-227.5	**-50.5**	-23.8	90.2	-559.7	-123.7	-575.8	**60.1**	-258.0	-102.8	-2075.4
Mx,	-351.8	-674.9	4.8	**-440.9**	17.0	-2028.1	3.5	-331.8	-18.9	**101.6**	29.2	-1080.5
My,	-372.7	-496.8	44.0	-272.6	**-188.6**	-1526.2	199.3	-407.5	-34.7	-16.8	**172.0**	-1501.6
Mz,	372.2	-701.9	21.7	-205.9	-13.2	**-3206.7**	-691.7	-114.9	-41.6	-25.2	69.6	**456.4**
Fx,	**-753.1**	-389.2	20.5	-189.0	-36.7	808.5	**594.7**	-281.0	-26.3	-18.0	34.4	-125.0
Fy,	-328.5	**-635.9**	16.4	-210.8	82.3	78.8	96.7	**-56.2**	-33.5	6.4	-103.0	889.4
Fz,	242.4	-161.6	**-39.4**	-0.2	-89.6	345.1	-115.2	-428.0	**49.0**	-196.5	120.1	134.5
Mx,	-341.6	-514.2	16.6	**-358.8**	62.0	435.3	-3.5	-250.0	-24.5	**133.2**	-61.9	411.6
My,	200.3	-199.7	-27.9	-98.0	**-139.6**	451.1	-74.5	-463.3	37.8	-97.8	**169.3**	24.1
Mz,	358.8	-365.3	14.0	-38.5	57.4	**-808.6**	-705.3	-368.6	-2.9	-183.3	-11.0	**1517.6**

Member 16

Fx,	**-765.1**	-383.1	-3.1	-235.1	-52.9	871.5	**619.8**	-340.3	36.3	-21.0	27.2	-100.8
Fy,	-320.9	**-623.3**	11.2	-168.2	9.8	-37.9	63.0	**-69.8**	-33.1	-35.7	24.0	893.7
Fz,	-577.2	-258.7	**-43.9**	-105.6	38.3	406.1	696.2	-341.8	**46.0**	-132.4	-44.5	82.9
Mx,	-349.9	-523.7	-6.1	**-347.3**	17.4	444.6	-2.5	-328.3	10.3	**83.6**	-18.5	419.0
My,	636.2	-310.8	23.4	-137.0	**-96.7**	114.3	-509.8	-342.2	-21.2	-54.5	**98.4**	294.9
Mz,	359.4	-361.5	10.3	-30.0	3.6	**-811.2**	-714.8	-367.5	-8.0	-187.6	6.6	**1520.0**
Fx,	**-756.9**	-202.5	-0.6	-115.2	-61.0	2153.7	**610.6**	-235.0	16.9	-8.4	125.9	1223.0
Fy,	-313.8	**-455.6**	8.5	-141.5	53.1	2080.0	51.8	**-16.1**	-25.1	20.1	-108.8	1309.0
Fz,	-557.4	-178.8	**-32.8**	-74.0	-112.1	1361.0	686.4	-221.3	**34.9**	-81.7	115.6	1379.3
Mx,	-321.1	-377.5	7.8	**-269.6**	45.7	2210.8	-27.2	-221.2	-4.6	**116.7**	-26.2	1900.0
My,	-606.7	-125.4	-25.2	-59.8	**-136.0**	1210.8	733.0	-293.4	27.4	-30.3	**147.1**	1674.5
Mz,	-334.0	-100.5	-21.5	-21.7	-77.1	**73.7**	8.0	-368.7	10.2	-103.2	47.4	**3342.8**

Member 17

Fx,	**-765.8**	-186.2	-24.9	-103.1	-69.5	1696.2	**632.1**	-231.2	25.0	-2.1	73.1	1222.9
Fy,	-311.3	**-442.9**	6.3	-115.1	20.4	2050.2	43.9	**-28.4**	-22.4	-18.4	-10.9	1311.2
Fz,	-589.8	-177.5	**-36.4**	-67.1	-1.8	1330.4	716.6	-215.3	**36.6**	-76.0	5.3	1361.1
Mx,	-341.7	-376.7	-7.7	**-258.8**	19.3	2252.2	32.7	-191.0	20.4	**60.7**	4.3	1600.4
My	-496.2	-159.4	-11.3	-77.2	**-72.8**	1255.5	491.3	-233.6	11.4	-10.7	**76.5**	1450.2
Mz	-359.5	-108.0	-23.1	-45.3	-3.3	**75.0**	17.7	-361.6	9.4	-96.8	11.5	**3341.5**
Fx,	**-756.6**	-95.6	-5.5	-56.9	-116.8	2300.8	**622.9**	-129.2	5.6	10.5	121.0	2063.2
Fy,	-305.5	**-290.5**	3.8	-89.4	40.8	3271.1	-72.2	**43.7**	-12.6	56.8	-87.0	1676.1
Fz,	-580.0	-102.1	**-25.3**	-35.5	-118.7	1929.9	706.8	-98.1	**25.5**	-25.3	123.1	2095.6
Mx,	-303.0	-236.6	2.1	**-186.4**	41.1	3291.7	-53.1	-7.0	-2.1	**105.8**	-38.9	1883.1
My,	-617.3	-72.9	-19.5	-40.0	**-144.1**	1660.7	743.9	-154.5	19.7	-11.4	**148.4**	2698.2
Mz,	-351.8	-55.4	-14.0	-11.4	-86.3	**419.2**	9.1	-188.2	5.9	-50.5	45.2	**4592.1**

Member 18

Fx,	**-770.0**	-94.1	-19.1	-52.1	-97.2	2303.5	**636.3**	-130.2	18.8	-6.7	99.8	2054.7
Fy,	-305.5	**-277.0**	4.2	-66.6	21.2	3111.5	-40.9	**32.3**	-4.3	-6.7	-11.9	2112.8
Fz,	-605.0	-104.0	**-28.5**	-46.1	-45.5	1971.3	731.9	-96.2	**28.1**	-31.5	48.0	2054.2
Mx,	-349.0	-206.3	-2.4	**-177.1**	-9.9	3158.6	38.8	-36.9	10.9	**66.1**	38.5	1849.9
My,	-204.5	-77.3	-15.7	-51.4	**-100.5**	1617.7	330.8	-147.6	15.3	-6.1	**103.1**	2731.5
Mz,	-367.7	-61.1	-14.9	-29.6	-38.2	**419.8**	15.4	-181.6	6.0	-48.9	23.3	**4591.4**
Fx,	**-760.8**	-3.5	0.3	-5.9	-118.6	2493.7	**627.1**	11.8	-0.6	23.9	119.7	2344.6
Fy,	-299.8	**-133.7**	1.6	-34.1	31.3	3190.9	-46.0	**128.5**	-1.9	37.5	-22.5	2596.4
Fz,	-595.2	-28.6	**-17.4**	-14.5	-126.7	2240.4	722.0	20.9	**17.0**	19.3	127.6	2253.0
Mx,	-302.6	-68.5	2.7	**-106.9**	32.7	3211.0	-51.7	63.5	-2.9	**118.3**	-32.4	2494.7
My,	-751.2	-20.2	-13.3	-11.8	**-143.2**	1778.2	615.6	19.4	13.0	11.8	**144.0**	3032.2
Mz,	-358.4	0.7	-5.6	3.4	-82.4	**552.8**	168.0	-4.0	2.7	-1.3	39.6	**5016.7**

Member 19

Fx,	**-765.9**	-4.5	-13.8	-3.7	-115.7	2524.4	**632.3**	11.9	13.3	-0.1	116.5	2325.0
Fy,	-343.3	**-132.9**	-1.5	-42.0	-18.0	2810.7	-1.9	**129.0**	0.7	37.0	27.4	2975.6
Fz,	-738.0	-31.2	**-20.5**	-23.8	-75.7	2559.0	602.7	25.5	**19.9**	10.7	76.5	1983.2
Mx,	-336.7	-68.2	-1.0	**-124.7**	-10.4	3058.2	-17.0	59.5	0.1	**106.6**	11.5	2645.7
My,	-331.3	10.0	-8.5	3.0	**-123.0**	1503.1	195.7	-2.1	7.9	-0.2	**123.7**	3398.9
Mz,	-364.6	-4.5	-5.6	-13.6	-64.4	**552.8**	171.2	2.4	2.6	-1.4	29.4	**5016.7**
Fx,	**-756.8**	86.1	5.6	42.5	-113.1	2311.4	**623.1**	127.2	-6.2	18.5	111.4	2022.0
Fy,	-337.7	**-36.7**	0.9	1.9	-22.4	2026.2	-7.7	**271.9**	-1.7	67.2	27.9	3245.9
Fz,	-603.3	64.4	**-15.9**	12.6	1.5	2651.4	468.0	122.4	**15.3**	56.7	-3.4	1483.3
Mx,	-287.0	44.4	-0.6	**-64.9**	31.0	2102.9	-66.7	187.0	-0.2	**170.7**	-33.9	3092.8
My,	-750.6	70.0	-5.5	44.5	**-134.5**	2389.2	614.9	139.8	4.9	7.2	**132.6**	2025.4
Mz,	-356.4	53.5	2.2	20.1	-71.0	**410.9**	161.5	177.9	-0.2	49.4	33.5	**4639.5**

Member 20

Fx,	**-753.5**	76.9	-8.0	30.8	-127.1	2322.6	**619.8**	127.9	6.9	6.1	126.6	2006.5
Fy,	-356.6	**-48.3**	2.6	-69.5	-86.0	1596.3	-1.3	**285.8**	3.6	91.0	39.5	3407.6
Fz,	-592.3	89.0	**-19.4**	36.9	69.4	2804.6	457.0	97.8	**18.3**	15.3	-69.7	1330.0
Mx,	-354.2	5.0	0.9	**-113.1**	-78.4	1763.6	-14.3	220.5	0.6	**186.3**	20.2	3170.2
My,	-320.2	84.1	-1.9	47.7	**-136.7**	1705.5	184.1	130.7	0.8	7.9	**136.0**	2650.9
Mz,	-353.6	47.2	1.9	-0.3	-78.4	**410.2**	161.8	184.8	-0.3	51.7	33.2	**4640.2**
Fx,	**-744.3**	167.4	11.5	77.0	-98.1	1743.6	**610.6**	229.8	-12.5	18.7	93.0	1231.1
Fy,	-289.9	**23.2**	15.4	-0.5	-65.2	1074.4	-6.9	**437.8**	-5.0	116.5	28.2	2206.5
Fz,	-553.6	219.3	**-23.9**	91.8	23.7	2084.9	418.3	160.0	**22.8**	42.7	-28.8	776.0
Mx,	-287.7	219.5	-4.4	**-58.8**	12.6	1833.4	-61.5	350.7	5.2	**251.5**	-10.0	2222.2
My,	-737.9	159.3	0.7	88.5	**-118.2**	1835.1	602.3	241.1	-1.7	6.0	**113.2**	1198.0
Mz,	-346.4	99.5	10.0	33.5	-51.6	**57.3**	153.8	361.2	-3.0	98.2	25.9	**3439.3**

Member 21

Fx,	**-734.1**	159.8	1.1	54.6	-138.4	1748.2	**600.4**	242.4	-3.7	29.6	139.3	1234.7
Fy,	-273.9	**7.7**	5.4	-48.5	-96.5	1072.6	-12.4	**451.4**	-2.8	145.8	38.4	2240.4
Fz,	88.6	242.2	**-27.9**	106.9	69.4	2107.3	-224.2	138.8	**25.1**	16.9	-68.4	760.8
Mx,	-329.7	197.7	9.1	**-132.9**	-80.1	1761.1	-20.2	350.5	-3.6	**271.7**	30.3	2218.9
My,	-301.2	147.2	4.3	61.4	**-142.2**	1170.0	167.9	269.5	-5.7	54.8	**142.8**	1735.1
Mz,	-334.2	90.4	9.0	4.7	-83.0	**56.0**	150.8	369.0	-3.6	106.6	36.3	**3440.6**
Fx,	**-724.9**	294.2	20.6	142.1	-68.7	697.4	**591.2**	347.7	-23.1	42.2	58.0	-63.4
Fy,	-266.2	**67.1**	12.8	9.7	-57.2	629.7	-19.1	**618.8**	-5.3	172.0	21.5	140.3
Fz,	107.7	377.3	**-33.0**	163.4	-17.2	743.9	-243.4	204.0	**30.2**	42.8	5.7	-40.9
Mx,	-294.3	305.6	6.2	**-84.2**	-14.0	401.9	-61.4	485.6	5.5	**338.1**	-2.3	617.5
My,	-717.3	281.6	6.8	125.9	**-94.3**	780.5	581.6	340.9	-9.4	47.9	**83.6**	-192.5
Mz,	-276.5	352.5	-5.8	23.9	13.4	**-814.6**	94.4	370.1	3.1	190.3	-17.5	**1633.8**

Member 22

Fx,	**-713.9**	360.4	-5.0	195.5	-87.9	912.2	**563.3**	365.8	-12.2	86.8	169.2	-64.0
Fy,	-241.0	**49.0**	11.2	-46.2	-113.6	625.0	-22.1	**632.6**	-9.5	218.8	66.1	258.0
Fz,	56.8	403.9	**-39.9**	185.6	72.9	642.7	-194.0	168.0	**31.2**	-15.8	-64.1	21.7
Mx,	-299.4	267.1	15.1	**-161.5**	-85.9	428.2	-19.1	454.8	-25.0	**369.4**	99.2	470.1
My,	-265.1	198.8	7.3	43.9	**-162.0**	360.5	130.3	415.5	-15.5	113.8	**173.9**	283.8
Mz,	-284.4	361.7	-10.1	46.4	49.4	**-811.8**	101.8	366.0	0.3	172.5	-25.5	**1631.3**
Fx,	**-705.7**	545.5	-2.5	312.1	-104.9	-1145.7	**554.1**	431.7	-31.7	76.8	49.5	-1829.1
Fy,	-227.7	**96.6**	20.2	-0.9	-36.6	179.7	-31.4	**810.7**	-12.9	245.5	13.9	-2851.2
Fz,	70.8	580.0	**-45.8**	280.5	-62.5	-1551.7	-208.0	232.3	**37.0**	2.4	32.2	-904.5
Mx,	-290.6	340.5	24.1	**-126.2**	4.6	-1068.8	-53.0	649.4	-16.6	**442.0**	-30.2	-1852.9
My,	18.8	536.3	-40.2	261.9	**-129.8**	-1253.7	-154.0	348.3	31.4	23.3	**102.9**	-1582.6
Mz,	-267.3	782.3	-14.7	200.0	6.0	**-3183.5**	131.4	111.7	21.4	-3.3	-31.2	**508.2**

Member 23

Fx,	-662.3	-550.8	1.2	-306.3	-113.5	-1084.1	**546.4**	-424.7	40.7	-69.2	62.4	-1855.1
Fy,	-264.3	**-815.3**	16.0	-245.1	13.4	-3027.4	27.7	**-93.9**	-36.3	-5.4	-14.6	543.6
Fz,	-221.4	-233.4	**-44.9**	-6.0	15.1	-808.6	113.4	-559.1	**53.1**	-273.2	-41.4	-1590.1
Mx,	-2.9	-637.4	23.5	**-443.9**	-19.7	-1778.3	-298.6	-352.5	-33.9	**120.5**	1.7	-1073.7
My,	54.5	-500.8	30.0	-237.0	**-138.7**	-1188.0	-163.4	-356.4	-21.7	-25.6	**111.7**	-1579.5
Mz,	-265.8	-703.9	17.9	-181.3	7.2	**-3183.4**	27.6	-93.9	-36.3	-5.4	-14.7	**543.9**
Fx,	**-654.2**	-370.2	3.7	-194.5	-102.6	963.5	**537.3**	-358.9	21.3	-79.2	181.0	-62.7
Fy,	-254.9	**-637.0**	12.7	-217.9	80.0	98.4	16.8	**-48.1**	-28.2	26.4	-162.9	941.5
Fz,	-211.8	-167.5	**-33.9**	17.5	-139.7	63.9	103.7	-411.3	**42.1**	-211.7	150.5	603.2
Mx,	12.8	-444.1	28.7	**-366.7**	124.6	531.2	-292.8	-279.4	-19.4	**155.0**	-111.2	427.7
My,	-253.8	-245.0	-23.5	-86.1	**-192.5**	336.4	144.4	-403.0	31.9	-93.9	**202.2**	307.5
Mz,	-265.4	-377.8	11.2	-44.9	59.0	**-790.3**	-39.5	-349.8	-2.1	-176.8	-35.6	**1660.7**

Member 24

Fx,	**-681.0**	-309.2	-29.4	-158.8	-79.5	691.5	**573.9**	-342.5	31.5	-33.1	66.4	-66.4
Fy,	-246.7	**-623.3**	8.6	-171.5	17.5	-18.8	-17.2	**-64.9**	-28.4	-25.1	-34.0	946.0
Fz,	-243.7	-209.0	**-38.1**	-64.9	-11.2	-42.4	134.4	-375.1	**40.4**	-150.0	-2.7	713.7
Mx,	-31.0	-471.2	-6.1	**-343.7**	2.0	669.7	-277.4	-368.8	9.4	**82.3**	-15.3	429.4
My,	-676.8	-296.4	-24.9	-136.5	**-88.0**	773.7	567.7	-325.4	27.0	-42.2	**75.1**	-205.4
Mz,	-254.6	-368.6	6.9	-22.3	15.1	**-793.0**	-49.5	-353.9	-4.9	-194.6	-20.9	**1663.2**
Fx,	**-671.8**	-174.8	-9.9	-71.2	-147.0	1751.1	**564.7**	-237.2	12.0	-20.5	143.4	1267.2
Fy,	-239.8	**-455.7**	6.0	-144.9	48.9	2098.3	-97.1	**-10.6**	-15.6	49.3	-112.3	1314.2
Fz,	-234.0	-143.1	**-27.0**	-36.5	-135.8	720.5	124.7	-240.7	**29.3**	-95.9	132.2	2128.8
Mx,	-0.3	-338.4	4.9	**-272.8**	42.2	2281.5	-314.5	-210.0	-13.5	**127.1**	-105.5	1766.6
My,	-278.7	-144.6	-20.7	-50.6	**-167.3**	1230.2	169.6	-258.4	22.8	-40.1	**163.7**	1791.7
Mz,	186.4	-87.3	-17.5	-10.9	-109.2	**65.5**	-555.2	-374.6	8.9	-106.6	47.1	**3478.5**

Member 25

Fx,	**-687.9**	-182.0	-19.6	-95.7	-117.6	1755.2	**580.8**	-230.8	20.2	-8.1	107.9	1264.4
Fy,	-240.3	**-442.3**	4.9	-116.1	23.7	2065.4	-28.2	**-25.3**	-18.0	-12.9	-59.1	1342.0
Fz,	-256.4	-165.3	**-30.7**	-59.8	-50.0	790.7	147.6	-220.2	**31.3**	-81.9	40.2	2069.1
Mx,	-44.5	-338.3	-6.4	**-256.9**	-2.8	2282.5	-260.6	-234.2	5.4	**59.8**	2.5	1851.9
My,	-683.7	-174.9	-18.2	-96.0	**-119.1**	1841.4	574.5	-236.5	18.8	-5.4	**109.4**	1231.7
Mz,	167.7	-96.5	-19.7	-39.8	-54.5	**66.9**	-548.9	-366.7	9.5	-98.1	22.9	**3477.1**
Fx,	**-678.7**	-91.5	-0.2	-49.5	-141.1	2341.2	**571.6**	-128.9	0.7	4.4	133.9	2103.2
Fy,	-234.7	**-290.0**	2.5	-90.4	37.8	3282.9	-118.4	**49.8**	-7.7	62.4	-108.4	1743.9
Fz,	-246.7	-102.8	**-19.6**	-31.5	-141.1	1364.4	137.8	-90.2	**20.2**	-27.9	133.9	2797.0
Mx,	-6.9	-208.3	0.5	**-187.7**	33.6	3229.3	-309.9	-26.3	0.1	**109.1**	-46.5	2035.8
My,	-283.4	-95.3	-15.0	-49.9	**-168.4**	1695.9	174.9	-130.9	15.3	-15.7	**161.0**	2731.7
Mz,	160.3	-44.0	-8.7	-6.0	-108.4	**405.9**	-540.7	-190.4	4.9	-51.6	44.5	**4698.3**

Member 26

Fx,	**-687.0**	-89.5	-14.3	-45.7	-137.8	2326.6	**579.9**	-123.9	14.5	-12.2	129.0	2071.1
Fy,	-236.9	**-276.1**	2.7	-66.9	23.9	3122.0	-68.5	**37.9**	-2.7	-5.8	-27.1	2201.2
Fz,	-265.0	-105.2	**-22.7**	-46.3	-85.8	1364.1	156.2	-87.8	**22.8**	-30.2	77.0	2797.3
Mx,	-65.6	-174.5	-1.3	**-176.1**	-27.4	3145.8	-247.2	-61.3	1.5	**65.2**	16.5	2093.1
My,	-679.3	-82.5	-10.6	-52.8	**-141.1**	2397.3	570.1	-137.3	10.7	-6.2	**132.4**	2098.8
Mz,	150.8	-50.6	-7.3	-26.9	-81.9	**406.6**	-537.7	-183.4	6.4	-49.3	33.1	**4697.6**
Fx,	**-677.8**	1.1	5.1	0.5	-137.6	2496.1	**570.7**	18.1	-5.0	18.5	129.3	2332.6
Fy,	-231.5	**-133.0**	0.2	-35.2	27.5	3300.3	-73.4	**134.3**	-0.3	39.2	-30.3	2556.4
Fz,	-323.2	-46.9	**-13.0**	-29.0	-33.7	2005.4	318.9	45.1	**13.1**	34.6	25.5	2601.2
Mx,	-23.5	-46.8	0.8	**-107.5**	25.7	3130.0	-289.4	51.2	-0.6	**120.3**	-35.9	2629.5
My,	-282.1	-24.2	-7.9	-9.0	**-160.6**	1933.3	173.2	28.1	8.0	9.9	**152.2**	2976.9
Mz,	145.2	1.7	-1.1	6.6	-99.0	**539.6**	-531.6	-4.4	1.5	-1.7	37.5	**5077.8**

Member 27

Fx,	**-677.3**	-7.7	-9.3	-6.9	-148.7	2494.0	**570.3**	15.3	9.2	-7.0	140.4	2330.8
Fy,	-285.6	**-132.3**	0.2	-40.4	-31.7	2909.2	-19.1	**134.9**	-0.8	36.2	30.5	2945.7
Fz,	-306.0	-44.7	**-16.5**	-31.9	26.3	2698.6	301.7	42.9	**16.4**	20.0	-34.5	1908.0
Mx,	-68.2	-45.9	0.7	**-124.5**	-26.4	2884.2	-244.2	46.5	-1.1	**107.7**	16.9	2872.7
My,	-89.8	25.6	-3.2	3.7	**-157.0**	2278.7	-19.3	-13.4	3.2	-0.0	**148.7**	2683.0
Mz,	143.8	-4.0	-0.7	-12.1	-96.5	**539.6**	-530.2	2.2	1.8	-1.4	31.5	**5077.8**
Fx,	**-668.2**	82.8	10.2	39.3	-125.7	2295.7	**561.1**	130.6	-10.3	11.6	117.0	2012.3
Fy,	-280.0	**-36.7**	2.6	2.6	-26.2	2013.3	-25.0	**278.4**	-3.2	67.2	22.3	3298.2
Fz,	-43.6	86.7	**-19.8**	30.8	55.5	2471.5	-65.2	105.2	**19.7**	39.4	-64.3	1694.4
Mx,	-26.0	57.0	-2.0	**-65.2**	27.2	1905.4	-286.4	183.7	1.7	**172.3**	-38.0	3301.8
My,	-275.5	70.7	-0.2	46.8	**-145.5**	2071.6	166.6	145.4	0.1	5.6	**136.7**	2383.9
Mz,	137.3	63.2	7.3	20.9	-80.9	**396.5**	-392.6	173.3	-1.3	49.5	31.3	**4684.7**

Member 28

Fx,	**-659.1**	78.5	-2.5	32.2	-154.8	2321.1	**552.0**	131.4	2.0	5.3	147.5	2031.7
Fy,	-310.2	**-49.2**	8.3	-70.2	-110.6	1574.9	-21.2	**292.5**	-3.5	91.5	41.2	3460.3
Fz,	-90.1	92.3	**-23.3**	35.8	83.9	2516.5	-18.7	99.7	**22.7**	17.0	-91.2	1649.4

Mx,	-134.3	10.3	6.4	**-115.0**	-105.4	1645.4	-225.6	220.2	-0.8	**188.3**	25.0	3329.0
My,	-92.6	98.2	2.9	41.9	**-164.4**	2018.9	-16.5	126.7	-3.3	15.1	**156.8**	2298.2
Mz,	145.3	56.3	7.5	-1.3	-106.1	**395.8**	-394.1	180.4	-1.1	52.3	35.2	**4685.4**
Fx,	**-649.9**	169.1	16.9	78.4	-101.4	1734.5	**542.9**	233.3	-17.4	17.9	91.8	1240.5
Fy,	-228.3	**22.0**	19.9	-1.7	-61.4	1063.8	-26.7	**444.6**	-5.9	117.0	22.6	2229.0
Fz,	-49.9	222.5	**-28.2**	91.0	21.1	1782.5	-58.9	162.0	**27.7**	44.3	-30.9	1086.3
Mx,	-44.7	217.6	-5.6	**-59.3**	8.5	1760.3	-262.1	359.2	6.7	**252.7**	-10.3	2304.4
My,	-258.3	160.6	6.6	86.4	**-122.1**	1514.2	149.4	246.2	-7.1	8.6	**112.4**	1530.7
Mz,	139.5	108.7	15.1	32.4	-53.8	**47.9**	-387.7	356.8	-4.4	98.8	21.1	**3452.8**

Member 29

Fx,	**-634.6**	161.6	6.4	52.9	-159.4	1742.1	**527.5**	247.2	-8.4	31.7	155.6	1250.0
Fy,	-216.4	**5.5**	9.5	-53.0	-115.6	1061.8	-31.2	**458.6**	-4.8	147.5	42.5	2263.0
Fz,	-102.2	239.2	**-31.7**	99.3	81.6	1810.5	-9.1	136.7	**29.6**	2.4	-87.3	1009.4
Mx,	-117.8	193.6	14.6	**-138.6**	**-99.6**	1684.0	-219.2	360.1	-5.2	**274.7**	33.2	2307.3
My,	-84.7	157.3	9.8	60.3	**-162.9**	1477.3	-22.0	260.1	-10.8	57.1	**158.9**	1426.4
Mz,	156.9	98.4	13.9	0.2	-101.6	**46.6**	-392.4	365.2	-5.0	108.5	37.6	**3454.2**
Fx,	**-625.4**	296.0	25.8	140.5	-66.0	683.2	**518.4**	352.5	-27.8	44.3	53.1	-69.9
Fy,	-208.8	**64.9**	16.9	5.1	-58.0	628.8	-37.9	**626.0**	-7.3	173.6	16.6	130.7
Fz,	-63.6	374.4	**-37.3**	156.1	-22.3	402.0	-47.6	201.8	**35.1**	28.0	6.8	275.9
Mx,	-125.6	278.1	22.6	**-88.4**	-16.6	434.1	-212.4	521.2	-8.3	**339.5**	1.5	562.0
My,	-369.5	292.7	-2.5	132.4	**-91.7**	607.6	365.2	335.9	0.5	36.6	**78.9**	-20.7
Mz,	260.4	370.4	-7.4	25.3	9.2	**-825.9**	-435.6	358.7	5.0	189.5	-18.2	**1625.6**

Member 30

Fx,	**-608.2**	364.6	-1.9	190.1	-97.5	892.0	**484.5**	371.9	-17.4	98.6	182.0	-66.2
Fy,	-177.3	**44.8**	19.1	-56.7	-135.3	624.0	-45.4	**640.6**	-11.4	222.7	66.3	248.3
Fz,	-118.7	405.8	**-43.7**	200.3	84.3	314.3	9.8	173.3	**35.8**	-24.6	-75.3	340.2
Mx,	-97.3	250.5	20.1	**-173.2**	-99.1	439.1	-184.5	477.2	-29.2	**381.4**	108.9	441.5
My,	-62.8	215.5	12.0	42.8	**-176.5**	667.2	-45.5	412.8	-19.5	117.1	**185.4**	-51.6
Mz,	250.4	380.4	-11.5	50.0	50.3	**-823.1**	-426.4	354.0	2.3	169.8	-31.7	**1623.2**
Fx,	**-600.0**	549.7	0.5	306.7	-100.7	-1184.9	**475.3**	437.8	-36.8	88.6	39.1	-1858.5
Fy,	-164.2	**92.5**	27.9	-11.1	-23.4	197.1	-54.6	**818.7**	-14.4	249.6	6.5	-2900.1
Fz,	-85.7	582.0	**-49.9**	295.7	-67.9	-1948.1	-23.2	237.4	**42.1**	-6.9	41.6	-550.0
Mx,	-103.2	313.5	29.0	**-137.8**	13.6	-913.7	-220.5	682.8	-17.3	**446.7**	-31.6	-2060.2
My,	-142.9	527.9	-43.3	270.0	**-140.9**	-1594.7	34.5	361.4	35.1	15.8	**114.4**	-1276.2
Mz,	251.9	801.2	-16.4	203.9	0.8	**-3228.5**	-444.5	95.0	25.4	-13.5	-26.2	**522.2**

Member 31

Fx,	**-555.8**	-551.1	0.4	-303.0	-112.4	-1113.7	**465.8**	-428.0	42.1	-81.4	58.1	-1881.9
Fy,	-198.3	**-818.0**	14.8	249.8	11.1	-3072.3	-11.8	**-91.0**	-41.4	8.8	-21.5	555.8
Fz,	10.4	-219.1	**-46.6**	5.3	29.6	-505.4	-91.0	-575.3	**54.3**	-283.1	-53.3	-1930.2
Mx,	-216.6	-653.5	23.7	**-448.0**	-28.6	-2058.6	-69.3	-338.0	-35.7	**135.3**	12.9	-852.5
My,	-147.1	-520.2	32.1	-249.0	**-147.8**	-1604.2	64.8	-339.1	-24.2	-12.3	**121.3**	-1207.2
Mz,	251.8	-695.1	16.8	-186.0	6.5	**-3228.6**	-518.3	-104.1	-41.4	8.6	-22.3	**556.4**
Fx,	**-547.6**	-370.6	2.9	-191.2	-105.0	935.4	**456.6**	-362.1	22.7	-91.4	183.0	-74.9
Fy,	-189.0	**-639.7**	11.8	222.4	73.0	69.0	-22.7	**-45.2**	-21.4	40.7	-144.8	940.7
Fz,	1.7	-153.3	**-35.5**	28.8	-132.7	361.9	-82.3	-427.5	**43.3**	-221.6	144.1	277.5
Mx,	-165.9	-461.1	30.1	**-380.6**	118.3	296.1	-78.1	-264.8	-21.2	**169.9**	-107.8	629.6
My,	-45.6	-227.9	-24.8	-71.9	**-194.9**	685.6	-36.7	-422.6	32.8	-107.0	**203.4**	-76.4
Mz,	234.9	-369.1	11.8	-49.6	55.0	**-823.9**	-500.4	-361.5	-2.8	-171.9	-35.3	**1656.6**

Member 32

Fx,	**-575.3**	-310.7	-30.6	-150.2	-77.6	668.2	**494.7**	-344.0	32.7	-40.7	64.2	-78.9
Fy,	-180.0	**-625.2**	7.7	-173.7	16.9	-48.6	-57.7	**-64.0**	-30.3	-16.7	-50.4	945.6
Fz,	-34.1	-185.9	**-39.7**	-32.6	-5.7	313.7	-49.7	-392.8	**41.8**	-156.9	-9.6	329.8
Mx,	-228.3	-485.8	-6.5	**-340.8**	-2.2	412.5	-77.6	-306.7	-9.5	**85.4**	-16.5	603.8
My,	-351.4	-310.7	-11.0	-139.7	**-87.0**	544.9	347.1	-320.2	12.9	-32.9	**73.8**	-21.8
Mz,	246.3	-359.1	7.5	-24.9	10.9	**-826.7**	-511.0	-366.1	-5.5	-191.5	-19.5	**1659.1**
Fx,	**-566.2**	-176.3	-11.2	-62.7	-150.7	1734.5	**485.5**	-238.7	13.2	-28.1	146.4	1261.4
Fy,	-173.2	**-457.6**	5.2	147.1	44.4	2077.1	-68.7	**-10.1**	-10.4	39.4	-122.7	1335.2
Fz,	-42.8	-129.0	**-28.6**	4.3	-137.6	1031.4	-41.1	-258.4	**30.7**	-102.9	131.7	1765.5
Mx,	-182.2	-353.9	5.7	**-275.0**	37.9	2041.0	-115.8	-197.4	-15.6	**135.7**	-107.4	1957.7
My,	-90.0	-142.5	-22.2	61.6	**-171.6**	1493.1	8.7	-275.8	23.9	-47.3	**167.0**	1430.9
Mz,	-252.8	-98.0	-18.0	-2.4	-111.7	**42.6**	-28.0	-364.3	9.5	-109.0	47.2	**3475.4**

Member 33

Fx,	**-583.6**	-183.7	-21.0	-89.5	-117.0	1735.8	**503.0**	-232.6	21.5	-13.6	106.5	1264.2
Fy,	-171.2	**-443.8**	5.8	-117.1	21.5	2043.9	-76.6	**-25.4**	-20.3	-7.8	-61.3	1337.4
Fz,	-536.0	-189.5	**-32.3**	-61.3	-46.7	1442.9	453.4	-198.1	**32.7**	-79.4	36.1	1396.0
Mx,	-224.3	-353.1	-7.0	**-254.9**	-5.9	2038.0	-41.0	-222.1	5.9	**59.0**	3.1	2071.3
My,	236.8	-163.8	-19.8	-92.0	**-118.8**	1464.0	-319.5	-248.6	20.2	-8.7	**108.4**	1580.7
Mz,	-273.4	-108.3	-17.1	-34.7	-53.6	**44.0**	-21.0	-356.0	10.2	-99.2	20.9	**3474.1**
Fx,	**-574.5**	-93.1	-1.6	-43.3	-146.8	2329.3	**493.9**	-130.7	2.1	-1.1	138.5	2111.0
Fy,	-165.6	**-291.4**	3.3	-91.3	39.4	3268.1	-146.3	**49.0**	-9.7	67.5	-116.3	1740.9
Fz,	-526.3	-114.1	**-21.2**	-29.7	-145.0	2096.7	443.6	-80.9	**21.7**	-28.6	136.6	2053.1
Mx,	-169.9	-223.3	1.1	**-188.7**	31.4	3003.4	-105.5	-13.8	-0.8	**111.5**	-45.7	2247.1
My,	-115.5	-81.0	-16.1	-44.8	**-174.5**	2030.9	33.6	-146.3	16.5	-17.2	**165.8**	2354.9
Mz,	-266.1	-55.9	-9.0	-0.9	-112.5	**390.3**	-29.1	-179.6	1.2	-52.7	35.7	**4697.8**

Member 34

Fx,	**-584.5**	-92.4	-15.5	-41.9	-139.6	2320.8	**503.9**	-123.7	15.6	-15.0	129.7	2068.9
Fy,	-168.0	**-277.4**	3.4	-67.3	21.5	3106.9	-97.4	**36.6**	-3.2	-4.6	-27.5	2203.0
Fz,	-546.4	-117.0	**-24.3**	-46.0	-84.5	2096.4	463.7	-78.0	**24.4**	-29.4	74.5	2053.4
Mx,	-233.5	-186.8	-2.2	**-174.6**	-34.3	2974.9	-38.4	-51.6	2.2	**64.8**	22.1	2250.4
My,	-46.6	-72.4	-11.9	-48.9	**-142.5**	2376.7	121.4	-152.1	11.9	-9.1	**132.6**	2093.5
Mz,	-275.8	-62.9	-8.7	-23.4	-82.5	**391.0**	-27.2	-172.4	1.5	-49.8	30.9	**4697.1**
Fx,	**-575.3**	-1.8	3.9	4.3	-144.7	2503.3	**494.8**	18.3	-3.8	15.6	135.2	2329.6
Fy,	-162.8	**-134.1**	1.0	-34.8	28.3	3543.1	-102.1	**132.8**	-0.9	39.7	-33.3	2312.2
Fz,	-536.6	-41.7	**-13.2**	-14.4	-145.9	2424.2	454.0	39.1	**13.3**	21.4	137.1	2170.4
Mx,	-172.7	-58.8	1.2	**-108.1**	22.4	2528.8	-99.2	60.5	-1.0	**122.0**	-34.3	3228.9
My,	-132.7	-8.8	-9.7	-4.8	**-168.5**	2301.9	50.4	17.6	9.9	7.7	**158.6**	2684.6
Mz,	-269.4	-5.3	-2.5	10.2	-108.8	**533.2**	63.8	-8.0	2.8	-2.2	41.9	**5079.1**

Member 35

Fx	**-576.4**	-10.9	-10.4	-3.8	-152.4	2503.3	**495.9**	14.8	10.4	-9.2	142.6	2342.9
Fy	-219.4	**-133.5**	-0.2	-39.8	-34.3	3148.5	-45.2	**133.5**	-0.2	36.4	30.0	2704.9
Fz	199.5	-33.9	**-16.9**	-39.8	-29.3	2600.0	-203.8	30.0	**16.7**	28.9	19.5	2004.7
Mx	-220.3	-59.5	-0.5	**-123.0**	-30.6	2205.9	-51.2	57.4	0.1	**107.4**	19.4	3549.3
My	212.2	22.6	-4.7	6.8	**-160.1**	1924.6	-294.4	-10.7	4.5	-2.2	**150.2**	3011.3
Mz	-271.7	-11.2	-1.0	-9.1	-103.3	**533.2**	64.8	-1.2	4.4	-1.7	37.6	**5079.1**
Fx	**-567.3**	79.6	9.0	42.4	-134.6	2319.2	**486.8**	130.1	-9.1	9.5	124.5	2027.0
Fy	-213.5	**-37.8**	2.3	3.8	-30.0	2005.9	-51.2	**276.9**	-2.6	66.9	23.9	3316.0
Fz	99.4	100.8	**-18.3**	28.8	67.4	2808.6	-182.1	89.1	**18.1**	42.4	-78.0	1364.5
Mx	-159.0	43.9	-2.0	**-65.6**	20.9	1676.0	-112.4	194.2	1.7	**173.9**	-33.7	3541.2
My	-147.5	84.2	-1.4	49.8	**-155.2**	2403.3	65.5	130.0	1.2	3.5	**144.6**	2052.0
Mz	-264.2	50.7	5.9	23.8	-92.3	**400.4**	56.2	184.5	0.0	49.2	35.9	**4687.6**

Member 36

Fx	**-559.8**	78.2	-4.3	39.6	-158.9	2371.6	**479.4**	136.7	3.8	-0.5	149.9	2059.1
Fy	-255.6	**-50.4**	6.5	-67.2	-114.5	1565.2	-47.6	**291.0**	-2.6	91.1	39.1	3478.1
Fz	55.6	102.6	**-21.7**	24.2	91.1	2803.8	-138.2	87.4	**21.0**	29.6	-100.2	1369.2
Mx	-225.7	4.0	-0.5	**-112.4**	-45.0	1715.4	-48.2	232.2	-0.0	**188.0**	31.0	3538.6
My	-206.3	81.5	1.6	44.8	**-169.4**	1691.4	124.4	141.0	-2.1	13.1	**160.0**	2637.5
Mz	-256.9	43.7	7.2	1.5	-114.5	**399.7**	54.3	191.6	1.5	52.0	41.5	**4688.3**
Fx	**-550.6**	168.7	15.1	85.8	-113.6	1786.7	**470.2**	238.6	-15.7	12.1	102.2	1244.1
Fy	-166.1	**21.6**	17.7	1.2	-72.7	1057.8	-53.2	**443.1**	-5.0	116.6	24.5	2253.4
Fz	77.6	232.8	**-26.7**	79.3	35.6	2082.4	-160.2	149.6	**26.1**	56.8	-47.6	803.0
Mx	-157.5	203.4	-5.4	**-59.5**	6.2	1574.4	-105.5	371.1	6.3	**254.1**	-8.2	2509.8
My	-150.1	174.0	5.4	89.2	**-133.6**	1844.5	68.1	230.8	-5.9	6.6	**121.8**	1219.1
Mz	-249.2	96.1	12.8	35.2	-69.2	**62.4**	45.6	368.0	-3.1	98.6	26.3	**3456.8**

Member 37

Fx	**-536.9**	158.5	5.2	56.0	-166.8	1782.2	**456.5**	247.5	-7.2	29.6	160.9	1245.0
Fy	-159.1	**5.2**	7.8	-49.9	-123.5	1055.8	-53.9	**457.1**	-4.0	147.0	44.0	2287.5
Fz	26.8	252.5	**-30.1**	90.6	90.2	2139.2	-109.3	126.6	**27.8**	30.9	-95.9	715.3
Mx	-231.9	180.4	12.5	**-134.9**	-110.2	1515.2	-57.6	372.0	-4.5	**274.2**	39.6	2514.3
My	-183.6	135.2	7.7	55.0	**-169.7**	1161.8	102.2	271.8	-9.5	48.7	**163.7**	1749.1
Mz	-232.4	85.9	10.6	3.4	-114.9	**61.0**	40.3	376.2	-2.4	107.9	44.2	**3458.2**
Fx	**-527.7**	293.0	24.7	143.5	-78.6	737.0	**447.3**	352.8	-26.7	42.1	63.7	-76.4
Fy	-151.5	**64.5**	15.2	8.3	-73.1	624.5	-60.6	**624.4**	-5.6	173.2	21.5	162.1

Fz,	47.2	387.7	**-35.8**	147.4	-6.2	729.4	-129.7	191.6	**33.5**	56.4	-9.6	-31.3
Mx,	-189.2	279.2	7.9	**-85.3**	-25.2	257.8	-106.9	517.3	6.4	**339.6**	-1.2	789.2
My,	-143.7	294.5	11.5	122.4	**-104.3**	791.9	61.8	327.8	-13.6	52.4	**88.9**	-201.6
Mz,	-140.8	357.7	-6.7	24.4	13.8	**-794.7**	-26.2	368.9	4.5	191.1	-24.9	**1628.1**

Member 38

Fx,	**-503.1**	361.5	-1.9	191.3	-102.0	949.5	**413.9**	372.1	-16.2	96.0	192.3	-72.7
Fy,	-120.8	**44.6**	17.5	-53.0	-149.6	619.6	-67.5	**638.9**	-10.4	221.9	70.2	279.4
Fz,	-8.0	419.4	**-42.0**	197.3	99.9	646.2	-75.2	154.1	**34.0**	-20.7	-94.1	19.3
Mx,	-197.8	237.7	18.1	**-168.6**	-119.0	282.9	-46.1	487.9	-27.1	**378.1**	127.5	627.0
My,	-142.6	195.3	10.5	43.4	**-189.1**	338.2	61.0	426.8	-18.2	114.2	**195.3**	277.1
Mz,	-150.5	367.5	-10.8	48.7	53.9	**-791.9**	-16.9	364.3	1.9	171.6	-38.5	**1625.7**
Fx,	**-494.9**	546.6	0.6	307.9	-104.8	-1113.6	**404.7**	438.0	-35.6	86.0	54.9	-1866.0
Fy,	-107.7	**92.3**	26.3	-7.4	-45.1	193.5	-76.7	**817.0**	-13.7	248.6	14.3	-2858.0
Fz,	6.8	595.7	**-48.3**	292.7	-44.6	-1619.1	-90.0	218.2	**40.4**	-3.0	14.8	-843.1
Mx,	-189.0	300.7	27.0	**-133.2**	-15.3	-1058.6	-91.7	694.5	-16.4	**445.8**	-17.0	-1857.0
My,	152.0	518.3	-23.0	232.9	**-123.1**	-1288.2	-155.2	367.7	15.2	46.3	**94.5**	-1536.6
Mz,	-133.2	784.8	-15.8	202.8	5.9	**-3191.0**	-17.7	105.8	26.3	-7.2	-45.8	**524.8**

Member 39

Fx,	**-451.0**	-540.4	1.1	-302.8	-117.9	-1041.8	**395.9**	-429.4	41.6	-81.7	73.9	-1891.9
Fy,	-132.7	**-812.0**	14.5	-249.5	15.7	-3034.6	-64.7	**-91.1**	-40.9	10.4	-40.8	459.1
Fz,	-92.4	-236.6	**-46.5**	6.9	11.6	-865.9	37.9	-556.7	**54.4**	-283.4	-37.9	-1534.6
Mx,	-58.5	-678.3	18.4	**-447.1**	-29.6	-1892.0	-184.6	-310.4	-30.7	**136.5**	-1.0	-1055.0
My,	-17.3	-479.2	32.1	-244.4	**-131.6**	-1132.1	-38.2	-355.9	-24.2	-9.1	**102.5**	-1566.8
Mz,	-133.2	-704.1	16.4	-185.8	12.2	**-3191.2**	-61.0	-91.3	-37.8	10.3	-45.2	**559.3**
Fx,	**-442.8**	-359.9	3.5	-191.1	-107.5	959.2	**386.8**	-363.5	22.1	-91.7	196.3	-78.4
Fy,	-123.4	**-633.8**	11.3	-222.4	75.7	76.4	-75.6	**-45.3**	-20.8	42.2	-161.7	844.5
Fz,	-82.8	-170.7	**-35.5**	30.4	-150.7	20.9	28.3	-408.9	**43.4**	-221.8	159.9	647.9
Mx,	-30.2	-472.6	30.8	**-380.7**	130.5	568.0	-178.7	-247.6	-21.8	**171.2**	-121.8	280.1
My,	-128.1	-244.8	-25.1	-64.5	**-210.8**	341.5	72.5	-402.6	33.4	-113.2	**217.5**	299.4
Mz,	-134.4	-374.6	11.5	-49.5	57.9	**-813.6**	-89.9	-349.7	-2.3	-170.9	-39.7	**1664.7**

Member 40

Fx,	**-480.0**	-303.2	-30.4	-146.0	-90.1	685.6	**426.0**	-343.7	32.5	-43.3	75.3	-77.7
Fy,	-114.3	**-619.4**	7.4	-173.8	20.3	-41.2	-111.6	**-63.9**	-29.8	-14.7	-64.3	849.3
Fz,	-120.1	-199.8	**-39.7**	-30.4	-18.9	-42.8	62.4	-374.2	**42.0**	-157.9	1.9	700.5
Mx,	-50.3	-514.9	9.5	**-339.7**	1.7	693.1	-211.0	-275.1	-23.6	**86.6**	-30.0	275.0
My,	-133.8	-280.7	-25.4	-127.0	**-98.8**	759.5	78.2	-342.1	27.6	-49.6	**83.8**	-202.4
Mz,	-123.6	-364.8	7.3	-25.0	13.5	**-816.4**	-99.8	-354.3	-4.9	-190.3	-23.5	**1667.2**
Fx,	**-470.8**	-168.8	-10.9	-58.5	-161.9	1718.2	**416.8**	-238.4	13.1	-30.7	157.0	1261.2
Fy,	-107.6	**-451.8**	4.9	-147.2	46.7	2058.2	-122.7	**-10.0**	-9.8	41.5	-134.3	1238.5
Fz,	-110.5	-133.9	**-28.6**	-2.0	-150.7	676.8	52.8	-239.8	**30.9**	-103.9	144.0	2111.4
Mx,	-55.6	-355.6	6.0	**-274.0**	39.5	2429.4	-203.1	-190.5	-15.6	**137.1**	-117.7	1507.6
My,	-157.3	-156.9	-21.9	-56.5	**-183.8**	1139.4	101.7	-259.3	24.0	-57.4	**178.7**	1787.7
Mz,	55.1	-88.7	-14.6	-0.3	-117.7	**47.7**	-338.9	-368.8	5.0	-108.9	41.1	**3463.0**

Member 41

Fx,	**-488.8**	-173.1	-21.8	-78.8	-127.2	1703.9	**434.9**	-225.8	22.2	-20.7	116.8	1251.8
Fy,	-104.3	**-438.0**	5.6	-117.3	26.9	2025.0	-133.2	**-25.2**	-20.3	-5.4	-76.1	1240.5
Fz,	-134.1	-164.6	**-32.2**	-52.8	-58.5	780.8	77.8	-218.4	**32.9**	-86.8	47.4	2051.6
Mx,	-108.5	-355.0	-6.5	**-252.6**	-15.9	2428.5	-116.2	-214.1	5.4	**57.8**	13.1	1563.7
My,	-161.1	-158.8	-19.1	-90.0	**-130.8**	1815.2	105.6	-248.5	19.8	-9.6	**119.8**	1220.3
Mz,	36.8	-98.9	-15.8	-32.2	-67.1	**49.0**	-334.1	-360.5	4.5	-99.4	24.8	**3461.7**
Fx,	**-479.7**	-82.5	-2.3	-32.6	-160.4	2249.7	**425.8**	-123.9	2.8	-8.1	152.0	2067.9
Fy,	-98.7	**-285.7**	3.2	-91.5	43.9	3223.4	-180.5	**49.1**	-9.4	70.2	-129.2	1656.7
Fz,	-124.4	-102.0	**-21.1**	-24.4	-156.4	1351.3	68.1	-88.5	**21.8**	-32.8	148.6	2771.4
Mx,	-62.7	-215.7	1.6	**-187.7**	31.1	3429.5	-220.2	-6.8	-7.5	**113.2**	-124.0	1442.7
My,	-164.8	-96.6	-15.8	-41.3	**-186.4**	1690.9	109.1	-126.9	16.4	-19.4	**178.4**	2686.9
Mz,	25.8	-37.8	-7.0	1.5	-120.3	**398.9**	-324.3	-184.1	1.1	-52.8	39.3	**4654.5**

Member 42

Fx,	**-490.0**	-91.4	-15.4	-40.7	-151.4	2258.7	**436.0**	-125.8	15.6	-21.4	142.2	2069.6
Fy,	-101.7	**-271.7**	3.4	-67.5	26.6	3062.4	-124.2	**37.1**	-2.9	-3.3	-31.4	2105.0
Fz,	-144.5	-104.8	**-24.2**	-40.3	-95.8	1351.0	68.3	-85.7	**24.5**	-34.1	86.5	2771.7
Mx,	-132.0	-178.1	-1.8	**-172.4**	-41.5	3437.9	-101.0	-54.2	2.1	**64.0**	29.9	1645.5

My,	-176.3	-68.6	-11.4	-45.6	**-153.5**	2368.0	120.7	-148.9	11.7	-11.3	**144.3**	2086.4
Mz,	16.8	-44.7	-7.7	-20.6	-95.6	**399.6**	-322.7	-177.0	1.4	-50.0	35.6	**4653.8**
Fx,	**-480.8**	-0.8	4.0	5.5	-156.0	2436.8	**426.8**	16.2	-3.8	9.2	147.9	2339.6
Fy,	-96.1	**-129.0**	0.9	-35.8	33.2	2872.6	-129.4	**133.9**	-0.6	41.7	-35.5	2812.1
Fz,	-184.6	-43.4	**-13.3**	-21.0	-61.1	1895.1	180.5	**44.1**	**13.6**	28.8	53.0	2661.9
Mx,	-80.0	-41.2	1.5	**-107.5**	24.1	2984.6	-153.1	49.0	-1.0	**122.9**	-34.0	2603.6
My,	122.8	-10.6	-9.8	-2.2	**-180.0**	1942.4	-178.5	24.3	10.1	6.3	**172.0**	2999.9
Mz,	8.1	7.6	-0.5	12.9	-115.3	**506.3**	-243.7	-9.4	-1.7	-2.4	36.5	**5015.2**

Member 43

Fx,	**-482.4**	-2.5	-10.2	0.1	-164.4	2408.4	**428.3**	12.9	10.2	-11.6	156.4	2361.1
Fy,	-161.9	**-128.6**	-0.3	-37.5	-37.8	2483.0	-63.3	**134.9**	0.2	35.1	36.2	3198.9
Fz,	-197.4	-42.4	**-17.1**	-38.2	-32.5	2158.4	195.0	46.6	**17.2**	28.5	24.5	2303.9
Mx,	-135.2	-47.3	0.5	**-120.9**	-39.2	2711.2	-93.4	54.8	-0.6	**106.7**	30.0	2881.9
My,	-191.6	25.3	-5.3	11.1	**-171.1**	2126.8	137.8	-0.1	5.4	-4.1	**163.1**	2604.1
Mz,	8.2	1.9	-0.0	-5.6	-113.9	**506.3**	-245.0	-2.7	-1.3	-2.1	42.3	**5015.2**
Fx,	**-473.2**	88.0	9.3	46.3	-145.3	2186.6	**419.1**	128.2	-9.3	7.0	137.5	2053.7
Fy,	-156.6	**-33.0**	2.1	5.1	-34.7	1926.5	-68.7	**278.4**	-2.2	66.6	32.6	3195.5
Fz,	112.8	78.6	**-19.0**	23.2	77.5	2037.1	-167.4	119.2	**19.0**	49.1	-85.2	1957.6
Mx,	-82.6	64.9	-1.0	**-65.5**	24.3	2160.7	-145.9	182.8	1.0	**175.2**	-33.8	2851.7
My,	-156.5	74.7	-1.2	53.4	**-166.1**	2039.4	102.2	147.4	1.2	1.1	**158.4**	2249.0
Mz,	0.6	63.6	6.6	27.3	-99.5	**363.2**	-239.8	179.6	-0.1	48.8	40.2	**4585.8**

Member 44

Fx,	**-466.2**	88.7	-4.4	46.9	-169.7	2202.1	**412.0**	134.0	4.0	-6.7	163.7	2089.2
Fy,	-211.3	**-45.7**	6.7	-61.7	-125.5	1500.5	-65.1	**292.4**	-1.9	90.2	46.2	3356.7
Fz,	68.3	79.9	**-22.1**	17.3	103.7	2032.5	-122.8	118.0	**21.7**	37.7	-109.8	1962.3
Mx,	-155.4	31.0	-0.2	**-109.8**	-49.6	2089.4	-77.2	215.3	-0.3	**187.0**	38.1	2951.3
My,	-194.2	95.5	1.8	49.6	**-180.0**	1885.7	140.5	133.4	-2.0	11.3	**173.6**	2251.4
Mz,	8.6	57.2	8.0	6.7	-123.9	**362.5**	-242.2	186.6	1.3	51.1	47.0	**4586.5**
Fx,	**-457.0**	179.3	15.0	93.1	-124.9	1569.8	**402.8**	235.9	-15.4	5.9	117.0	1286.4
Fy,	-104.0	**23.1**	17.6	6.4	-75.5	1042.5	-70.6	**444.5**	-4.4	115.7	34.6	2125.4
Fz,	108.6	197.3	**-27.4**	69.2	45.5	1383.1	-163.1	193.0	**27.0**	68.2	-53.4	1288.1
Mx,	-96.2	238.7	-5.3	**-60.3**	9.7	1865.1	-125.8	345.1	6.1	**256.1**	-9.5	1971.0
My,	-139.8	162.0	5.0	79.7	**-144.3**	1404.2	85.7	231.9	-5.3	7.8	**136.5**	1265.0
Mz,	1.7	109.8	13.6	40.7	-75.0	**10.4**	-235.2	362.8	-3.4	97.3	29.8	**3326.3**

Member 45

Fx,	**-443.3**	171.0	5.3	65.0	-177.5	1565.6	**389.2**	229.7	-6.9	33.1	175.0	1162.8
Fy,	-105.5	**7.9**	8.0	-41.1	-155.7	1040.4	-69.1	**458.1**	-5.3	144.6	58.8	2156.7
Fz,	57.1	241.8	**-30.6**	83.8	102.3	1748.0	-111.7	148.6	**28.5**	39.0	-103.5	923.2
Mx,	-193.1	214.5	12.4	**-125.6**	-123.2	1779.6	-68.9	345.2	-4.5	**271.6**	48.5	1972.3
My,	-190.6	148.2	7.7	42.4	**-179.9**	1451.8	136.6	260.6	-9.6	43.5	**178.1**	1380.1
Mz,	19.1	100.8	11.3	12.6	-123.2	**9.1**	-240.9	370.5	-2.8	105.3	49.8	**3327.6**
Fx,	**-434.2**	305.5	24.8	152.6	-88.7	464.1	**380.0**	335.0	-26.4	45.7	79.1	-78.3
Fy,	-97.8	**67.2**	27.4	17.0	-56.6	597.2	-75.9	**625.5**	-7.9	170.8	30.5	26.1
Fz,	95.7	377.0	**-36.5**	140.5	2.8	327.6	-150.2	213.7	**34.3**	64.7	-13.7	136.2
Mx,	-115.2	373.2	-9.4	**-82.7**	-10.2	419.2	-109.5	480.0	6.5	**342.3**	0.2	340.3
My,	-116.8	287.1	11.8	131.6	**-114.7**	382.3	62.7	346.5	-13.8	44.5	**104.3**	-25.0
Mz,	141.2	376.9	-6.4	33.1	26.3	**-889.7**	-300.2	359.2	4.5	183.4	-29.7	**1488.8**

Member 46

Fx,	**-403.3**	367.2	-3.3	167.5	-105.8	618.1	**345.6**	353.3	-15.7	97.8	211.7	-74.9
Fy,	-64.5	**49.5**	14.4	-37.8	-176.4	593.0	-80.9	**639.5**	-6.8	221.6	94.5	174.1
Fz,	39.5	406.6	**-42.8**	185.1	115.5	246.6	-94.6	178.1	**34.7**	-6.6	-103.8	189.3
Mx,	-171.1	284.2	18.4	**-152.8**	-136.4	417.8	-36.2	449.8	-27.9	**363.1**	148.6	229.5
My,	-167.4	247.9	9.9	76.4	**-203.1**	556.9	113.0	406.3	-18.2	98.1	**215.4**	-132.3
Mz,	130.9	381.8	-10.6	44.6	70.0	**-887.0**	-290.4	359.4	1.5	176.5	-44.9	**1486.4**
Fx,	**-395.1**	552.3	-0.8	284.1	-115.0	-1470.5	**336.4**	419.2	-35.1	87.7	76.3	-1783.8
Fy,	-51.0	**97.1**	35.2	7.6	-37.4	145.7	-90.4	**817.6**	-16.1	248.7	30.0	-2969.8
Fz,	72.5	582.8	**-49.3**	280.3	-33.4	-2019.4	-127.6	242.3	**41.2**	11.4	8.5	-723.0
Mx,	-176.8	357.6	27.3	**-117.5**	-31.0	-1109.0	-72.5	643.9	-17.1	**441.1**	-9.4	-2152.5
My,	-187.3	483.5	-3.5	221.5	**-123.3**	-1278.4	185.6	413.8	-4.5	59.1	**100.0**	-1831.0
Mz,	129.4	809.7	-17.2	229.5	17.7	**-3309.1**	-306.4	98.5	35.2	7.7	-36.4	**449.2**

Member 47

Fx,	-353.3	-470.4	-29.3	-186.7	-124.1	-1206.7	325.8	-414.4	38.5	-80.1	100.4	-1799.5
Fy,	-213.4	-823.2	13.6	-246.6	31.2	-2940.1	193.3	-96.8	-22.6	4.2	-56.7	53.8
Fz,	-98.5	-159.6	-39.9	14.0	-24.9	-242.0	65.2	-567.1	49.4	-261.4	-10.4	-2001.7
Mx,	-77.5	-695.2	15.8	-434.0	-11.8	-2169.6	-127.5	-323.1	-22.0	114.3	-23.7	-1015.6
My,	-184.8	-458.4	-9.2	-213.6	-128.7	-1203.4	182.9	-429.2	18.0	-44.1	105.5	-1831.8
Mz,	126.4	-785.6	15.8	-202.3	24.5	-3309.4	-317.8	-119.2	-22.4	5.9	-58.4	483.0
Fx,	-344.2	-322.6	-9.8	-91.6	-191.1	528.8	316.6	-348.5	19.0	-90.1	208.7	-53.5
Fy,	-204.2	-645.0	10.5	-219.1	87.5	224.8	182.4	-51.0	-14.5	36.0	-143.6	465.0
Fz,	-107.4	-115.5	-28.8	28.3	-157.5	406.2	74.0	-419.3	38.3	-199.8	165.1	168.9
Mx,	-27.7	-484.6	24.5	-360.9	134.7	340.7	-136.2	-260.4	-13.1	148.8	-105.4	423.1
My,	-147.9	-188.7	-20.0	-52.6	-211.3	408.4	120.9	-455.5	28.9	-111.6	229.0	-5.9
Mz,	111.7	-375.8	11.4	-37.2	74.9	-871.9	-296.3	-389.1	-1.4	-181.6	-44.7	1625.5

Member 48

Fx,	-380.4	-339.6	-25.1	-147.4	-102.4	532.4	352.8	-331.6	28.1	-42.7	97.3	-57.1
Fy,	-196.4	-631.5	6.4	-172.8	34.6	106.5	152.8	-67.7	-14.0	-15.2	-67.8	469.6
Fz,	-132.7	-215.8	-33.3	-59.6	-30.8	248.4	104.7	-389.6	36.6	-148.1	25.1	225.6
Mx,	-99.1	-517.9	-6.0	-331.5	-1.6	466.6	-120.2	-298.2	-4.0	73.7	-22.1	396.6
My,	-104.1	-306.5	-21.5	-148.0	-109.0	324.6	76.4	-362.8	24.6	-40.0	103.8	154.1
Mz,	122.7	-370.8	7.4	-25.3	26.4	-874.8	-307.0	-388.9	-4.6	-188.9	-24.2	1628.0
Fx,	-371.2	-205.1	-5.6	-59.8	-150.5	1728.6	343.7	-226.3	8.7	-30.2	159.2	1227.6
Fy,	-190.2	-464.2	3.8	-146.1	55.5	2261.4	142.4	-12.7	-5.7	40.3	-113.5	873.2
Fz,	-141.6	-149.9	-22.2	-31.3	-133.9	1100.6	113.5	-255.2	25.5	-94.0	143.1	1647.1
Mx,	-44.0	-372.8	2.7	-263.6	42.1	2205.3	-166.6	-200.7	-7.0	122.3	-89.6	1743.0
My,	-191.7	-136.8	-16.0	-63.2	-170.7	1219.2	166.2	-300.7	17.9	-45.2	178.9	1631.0
Mz,	-151.5	-123.5	-10.3	-3.5	-106.7	117.1	-68.8	-359.0	4.9	-107.9	51.9	3468.1

Member 49

Fx,	-383.2	-213.9	-15.1	-85.0	-134.2	1682.7	355.5	-218.6	16.5	-16.7	137.0	1223.5
Fy,	-186.4	-450.9	2.5	-117.5	48.3	2228.3	129.2	-26.9	-5.3	-3.1	-99.9	875.0
Fz,	-162.0	-160.5	-25.8	-63.3	-66.1	1144.7	134.0	-244.6	27.4	-76.0	68.6	1603.0
Mx,	-98.2	-372.7	-6.1	-245.9	-5.8	2208.0	-73.8	-224.4	7.8	48.5	23.0	1790.7
My,	-107.9	-153.4	-14.9	-80.1	-135.4	1066.0	80.2	-277.9	16.4	-21.7	138.0	1889.6
Mz,	-164.8	-132.5	-11.2	-31.8	-70.0	118.2	-65.5	-351.2	4.0	-99.6	38.2	3466.8
Fx,	-374.0	-123.4	4.4	-38.8	-137.4	2412.2	346.3	-116.7	-2.9	-4.1	146.5	2007.4
Fy,	-181.9	-299.1	-0.0	-91.5	50.2	3488.4	122.8	32.8	2.0	52.1	-104.8	1164.7
Fz,	-170.8	-98.0	-14.7	-35.0	-135.4	1755.7	142.7	-114.6	16.3	-22.0	144.9	2381.8
Mx,	-39.0	-233.3	-1.5	-180.1	32.2	3231.7	-194.8	-19.6	1.2	104.8	-89.8	1767.8
My,	-212.8	-83.9	-8.7	-46.0	-164.3	1718.4	182.8	-128.8	11.0	-22.0	173.7	2416.4
Mz,	-155.5	-63.5	-2.8	2.0	-103.3	516.3	-71.5	-174.8	1.0	-53.1	51.7	4669.2

Member 50

Fx,	-377.4	-124.6	-9.3	-47.8	-148.0	2361.5	349.6	-108.2	10.2	-9.5	156.3	1938.7
Fy,	-182.5	-285.9	2.8	-68.4	46.6	3316.7	33.5	19.7	-1.7	-2.2	-31.6	2000.1
Fz,	-157.9	-95.5	-18.0	-35.2	-66.3	1759.9	129.8	-117.1	19.1	-38.6	76.3	2377.6
Mx,	-104.1	-201.3	-0.5	-167.3	-29.2	3161.8	-82.6	-62.1	1.8	59.8	38.2	2109.6
My,	-97.7	-73.6	-6.3	-38.7	-151.9	1554.5	70.1	-165.2	7.4	-17.9	159.9	2908.8
Mz,	-159.6	-69.7	-3.1	-17.9	-92.4	516.9	-71.4	-168.0	0.9	-50.9	50.7	4668.5
Fx,	-368.3	-34.0	10.1	-1.6	-125.2	2689.0	340.4	-6.3	-9.2	3.1	137.6	2225.6
Fy,	-178.8	-143.1	0.3	-36.7	49.4	3797.0	30.0	116.4	0.7	41.8	-29.2	2179.2
Fz,	30.9	-37.9	-15.0	-33.2	89.8	2282.4	-59.0	17.8	16.1	41.8	-76.9	2378.7
Mx,	-43.1	-62.6	-0.7	-103.0	25.0	3170.3	-143.8	39.1	2.0	119.3	-10.3	2748.8
My,	-222.5	-24.4	-2.7	2.0	-149.3	1968.1	194.2	8.7	3.8	8.0	162.1	2664.5
Mz,	-50.5	-0.5	7.9	12.7	-88.4	618.8	-82.2	-12.5	-1.4	-3.4	49.2	5106.1

Member 51

Fx,	-362.9	-28.6	-3.7	12.2	-152.4	2623.8	334.6	-14.1	3.7	-26.2	167.0	2224.4
Fy,	-235.3	-143.6	2.6	-37.7	-14.4	3375.0	85.3	119.4	-2.3	34.4	35.1	2606.6
Fz,	12.2	-30.4	-18.3	-7.0	100.4	2566.7	11.2	7.9	19.2	-2.2	-87.5	2091.9
Mx,	-86.1	-71.1	2.6	-118.3	-22.5	3009.0	-101.4	46.1	-1.8	105.5	37.1	2871.5
My,	-57.2	10.6	1.4	15.8	-161.8	1386.4	80.9	-17.9	-0.5	-8.2	174.6	3605.1
Mz,	-42.1	-3.8	7.9	3.5	-113.6	618.6	-84.6	-6.1	-1.5	-3.8	56.6	5106.1
Fx,	-353.7	61.9	15.8	58.4	-104.2	2519.6	325.5	127.9	-15.7	4.4	119.0	1991.8
Fy,	-230.2	-46.2	4.8	7.0	-5.9	2246.8	80.7	261.1	-4.4	64.9	28.8	3309.9
Fz,	34.6	47.4	-23.3	2.5	60.5	2561.5	-11.2	122.6	24.1	70.7	-43.7	1765.0
Mx,	35.5	36.3	-11.2	-68.5	69.8	1909.2	-159.8	176.4	3.5	176.6	-8.9	3398.2
My,	-202.9	53.0	5.1	53.1	-126.3	2219.4	226.0	121.4	-4.3	22.0	143.1	2058.7
Mz,	-13.6	38.3	16.1	28.2	-65.9	513.3	-58.8	178.1	-4.2	47.1	45.6	4741.5

Member 52

Fx,	-339.2	59.1	2.8	53.2	-150.1	2596.1	310.8	117.7	-2.5	5.7	168.5	1673.8
Fy,	-231.0	-56.5	5.8	-64.3	-27.5	2110.8	75.4	274.7	-5.0	88.9	47.3	3389.1
Fz,	-12.9	73.4	-26.1	24.3	103.7	2710.9	36.3	96.6	26.5	32.0	-85.2	1615.6
Mx,	-33.8	25.1	-3.0	-100.5	36.0	2026.1	-153.8	189.1	3.9	179.9	-16.6	3448.0
My,	-35.7	72.2	7.8	61.1	-162.0	1131.2	59.1	116.4	-7.4	-10.5	180.2	3416.2
Mz,	3.8	34.4	16.0	17.3	-118.8	512.5	-64.1	184.6	-4.5	48.0	63.0	4742.2
Fx,	-330.5	151.4	20.1	125.9	-68.5	2319.6	301.7	219.6	-21.9	41.8	92.6	944.2
Fy,	-254.4	15.1	22.6	15.2	-25.4	1562.7	71.3	427.5	-7.3	114.4	23.7	2224.3
Fz,	8.0	190.8	-31.8	75.9	25.6	2148.8	15.4	171.7	32.1	62.9	-5.5	979.5
Mx,	41.0	210.9	-17.6	-59.8	54.9	1541.0	-160.4	327.4	6.2	254.3	7.5	2669.3
My,	-198.4	134.6	12.1	95.3	-95.1	1821.7	221.5	232.3	-11.7	45.9	115.1	1238.1
Mz,	12.9	73.0	23.4	43.8	-30.0	241.4	-72.0	360.8	-7.2	94.4	36.9	3542.9

Member 53

Fx,	-309.3	150.1	17.9	125.1	-129.9	2314.2	280.2	223.6	-13.2	41.8	173.1	941.8
Fy,	-244.3	2.9	24.7	-23.2	-119.7	1560.4	69.3	440.5	-8.7	141.6	60.3	2260.6
Fz,	-48.2	212.8	-34.7	95.5	98.7	2193.8	66.2	143.9	33.2	17.8	-76.9	907.5
Mx,	-14.5	258.5	-5.0	-98.6	52.8	1887.8	-154.2	310.7	5.0	255.0	-8.0	2632.1
My,	-3.4	130.7	15.0	94.9	-152.9	635.0	28.7	238.4	-15.5	46.5	180.0	2449.8
Mz,	38.9	67.2	23.2	26.6	-107.0	240.0	-80.3	367.7	-8.4	99.9	67.0	3544.2
Fx,	-301.9	304.4	25.9	234.5	-31.3	1268.4	271.1	289.5	-32.7	36.6	48.9	-183.4
Fy,	-237.7	61.7	32.0	34.8	5.3	1150.9	63.6	608.6	-11.2	168.2	17.8	195.4
Fz,	-30.0	333.9	-41.1	148.2	-22.4	994.1	48.0	223.1	39.6	47.5	37.4	51.3
Mx,	-7.6	363.4	-7.4	-70.5	23.8	237.4	-163.4	460.9	6.8	336.4	17.4	1173.1
My,	-95.1	276.0	-34.2	129.4	-72.8	1035.6	118.3	288.2	32.7	77.0	93.2	-1.2
Mz,	148.2	328.1	-27.2	60.7	-2.9	-435.9	-132.1	335.3	7.7	146.2	18.6	1771.7

Member 54

Fx,	-283.3	347.0	-0.9	230.8	-66.4	1373.0	232.6	302.5	-22.9	70.6	192.1	-174.1
Fy,	-200.4	49.0	32.0	-4.1	-116.3	1147.3	56.2	619.4	-16.4	192.3	83.8	195.2
Fz,	-79.3	354.9	-47.5	171.6	109.0	958.1	102.1	204.3	39.6	18.6	-64.4	86.6
Mx,	-33.6	289.4	26.0	-96.3	-65.8	233.2	-149.1	460.0	-14.8	333.7	68.0	1193.2
My,	41.8	182.7	17.3	92.9	-153.6	-138.4	-18.8	384.6	-26.0	108.8	200.8	1096.0
Mz,	117.1	338.0	-30.6	87.2	102.9	-434.3	-122.4	335.8	4.5	141.4	1.7	1770.5
Fx,	-275.2	532.1	1.6	347.4	-64.9	-631.8	223.4	368.4	-42.4	60.6	24.3	-1654.5
Fy,	-186.7	96.0	41.0	40.1	54.9	711.9	46.8	797.9	-19.7	219.8	0.5	-2859.7
Fz,	-67.5	516.7	-54.7	263.4	-67.0	-982.9	90.3	283.0	46.8	39.8	76.2	-1035.9
Mx,	-6.8	439.9	-5.9	-75.1	32.0	-1691.1	-174.2	597.7	-3.7	425.0	-13.6	-1006.9
My,	-145.7	436.0	-48.3	290.1	-140.5	-659.4	151.5	356.5	36.6	67.4	147.2	-1435.0
Mz,	-9.7	779.9	-20.4	212.4	3.7	-2895.6	-130.7	108.9	41.5	39.8	40.3	718.7

Member 55

Fx,	-234.3	-420.8	13.1	-210.0	-89.9	-584.2	204.5	-272.6	26.1	-102.9	73.5	-1656.0
Fy,	-17.9	-609.0	16.8	-177.5	7.7	-2836.4	-103.1	-25.9	-21.6	-22.7	26.4	745.3
Fz,	83.7	-185.9	-32.1	-36.4	46.3	-926.6	-87.4	-337.5	43.2	-181.6	-48.4	-849.3
Mx,	-110.2	-455.7	14.8	-321.6	12.4	-1103.7	-40.0	-224.0	-15.1	22.2	8.5	-983.9
My,	-146.1	-348.0	34.2	-182.1	-120.6	-679.5	130.7	-276.7	-13.9	-93.4	125.7	-1462.5
Mz,	-15.0	-596.6	15.2	-166.9	14.8	-2895.4	-113.9	-26.0	-15.1	-18.9	-3.6	746.3
Fx,	-227.7	-272.0	15.1	-117.1	-38.1	665.2	197.0	-218.9	8.0	-111.0	120.0	-730.9
Fy,	-10.2	-459.9	14.0	-150.3	66.0	-913.6	-112.6	11.2	-14.6	1.8	-43.3	831.6
Fz,	92.5	-138.6	-22.7	-23.8	-35.4	-355.6	-129.9	-257.4	34.9	-158.7	51.1	130.8
Mx,	-111.7	-321.3	9.8	-254.8	66.1	323.8	-38.8	-128.4	-4.6	51.4	-36.6	-358.7
My,	44.7	-211.4	-7.1	-34.3	-91.3	-332.6	-43.6	-224.5	19.0	-149.7	140.5	176.1
Mz,	36.3	-242.0	10.6	-72.7	48.4	-1504.3	-185.9	-260.3	0.9	-102.6	8.7	1327.1

Member 56

Fx,	-230.7	-281.6	8.3	-149.9	-53.5	664.1	210.9	-206.8	12.4	-75.8	67.9	-730.6
Fy,	-6.8	-451.6	5.2	-128.6	23.6	-917.4	-119.3	0.9	-13.1	-31.6	8.2	833.9
Fz,	102.7	-222.9	-26.5	-91.7	56.0	-510.5	-101.6	-196.2	29.1	-87.3	-37.8	276.2
Mx,	-122.5	-300.6	-5.8	-243.0	31.5	352.9	-38.5	-155.5	-0.5	11.3	-12.9	-394.8
My,	-22.0	-200.0	17.4	-79.7	-66.8	223.4	19.4	-219.6	-14.8	-95.2	85.2	-447.5

Mz,	40.0	-237.7	5.0	-61.1	15.4	**-1504.1**	-189.7	-261.8	-2.9	-110.7	9.7	**1326.5**
Fx,	**-224.1**	-132.8	10.3	-50.4	-19.4	1400.1	**203.4**	-153.1	-5.7	-80.0	74.1	-46.9
Fy,	1.2	**-313.6**	2.9	-100.3	39.4	247.8	-130.2	**48.2**	-5.9	13.0	-30.0	922.8
Fz,	133.0	-159.0	**-19.2**	-66.1	7.4	167.9	-131.9	-96.9	**21.9**	-45.8	20.5	835.3
Mx,	-114.4	-187.6	-0.8	**-179.4**	36.6	1058.5	-46.1	-68.8	-0.4	**56.2**	-30.3	220.6
My,	41.7	-114.0	-3.4	13.4	**-62.6**	236.8	-40.6	-133.1	6.1	-110.1	**90.5**	834.0
Mz,	22.1	-135.0	-2.1	-35.4	6.7	**-768.0**	-172.0	-159.0	4.3	-77.9	26.4	**2049.8**

Member 57

Fx,	**-216.2**	-142.9	6.3	-86.4	-45.4	1399.8	**201.5**	-142.5	3.1	-49.3	75.3	-46.5
Fy,	0.3	**-303.5**	-1.5	-73.4	32.1	196.3	-135.5	**37.0**	-6.3	-21.3	-15.1	923.1
Fz,	100.5	-194.6	**-22.0**	-92.5	40.7	122.2	-98.1	-58.5	**19.6**	-22.4	-17.3	824.1
Mx,	-133.0	-168.7	-8.5	**-172.5**	28.7	1026.0	-15.5	-111.4	6.0	**22.2**	-4.1	271.0
My,	-163.8	-41.6	5.4	-35.4	**-68.4**	811.4	164.9	-213.1	-8.1	-79.5	**91.5**	192.0
Mz,	17.9	-137.3	-4.0	-43.1	11.3	**-767.8**	-168.4	-152.2	0.7	-63.7	17.3	**2049.4**
Fx,	**-209.6**	1.3	8.3	13.0	-18.7	1632.6	**194.0**	-91.6	-15.0	-53.5	57.6	406.5
Fy,	8.2	**-179.6**	-3.7	-47.7	23.2	656.5	-142.5	**90.2**	-0.6	26.3	-27.2	949.9
Fz,	25.4	-106.8	**-18.6**	-60.3	19.3	735.4	-26.6	11.2	**16.2**	12.2	-4.8	860.5
Mx,	-123.0	-54.7	-6.3	**-115.4**	20.3	1147.9	-39.0	-26.4	3.1	**64.4**	-24.2	616.6
My,	50.2	-78.6	2.3	12.3	**-52.4**	783.1	-49.0	-17.6	-4.6	-45.5	**66.0**	831.8
Mz,	-7.3	-75.2	-1.9	-12.0	-20.3	**-339.4**	-161.4	-6.8	-1.2	-25.0	16.8	**2332.0**

Member 58

Fx,	**-199.2**	-6.3	4.6	-15.7	-35.4	1533.1	**183.3**	-83.2	-17.6	-30.7	96.6	406.1
Fy,	3.0	**-173.5**	-5.0	-37.8	29.8	551.7	-155.4	**81.3**	-3.6	-9.2	1.1	1523.9
Fz,	11.1	-96.8	**-21.9**	-46.4	68.2	871.8	-13.8	-1.4	**13.6**	-10.5	-40.4	745.1
Mx,	-154.8	-29.0	-3.6	**-124.9**	-0.3	1274.1	6.5	-65.2	-8.1	**66.5**	36.4	702.7
My,	-162.6	30.4	11.7	-13.1	**-73.8**	781.9	164.2	-129.2	-20.0	-46.2	**102.5**	820.6
Mz,	-9.5	-82.2	-2.6	-33.6	-16.3	**-339.3**	-159.8	0.8	-6.4	-9.2	28.9	**2332.0**
Fx,	**-192.6**	134.7	6.6	70.5	-14.9	1368.5	**175.8**	-34.0	-23.7	-29.0	20.9	645.0
Fy,	12.2	**-83.2**	-6.1	-2.9	7.1	315.4	-163.3	**184.5**	-2.8	19.4	-7.4	1634.7
Fz,	167.5	-13.0	**-30.1**	14.1	21.5	1158.1	-166.6	71.0	**21.6**	-3.8	-24.4	524.2
Mx,	-145.9	61.6	-4.4	**-70.5**	2.8	970.6	-2.5	41.1	-7.2	**113.8**	-9.4	961.3
My,	70.5	-0.9	10.0	28.6	**-41.9**	1072.4	-73.1	57.8	-16.8	-21.0	**38.5**	593.7
Mz,	-146.4	-17.6	4.2	-6.4	-14.0	**-164.8**	-3.0	120.4	-8.7	29.8	1.8	**2123.2**

Member 59

Fx,	**-180.4**	131.6	-3.2	54.3	-12.0	1372.1	**159.9**	-28.0	-30.7	-10.6	102.7	644.3
Fy,	-4.9	**-86.3**	-6.3	-62.1	7.8	184.0	-147.9	**193.2**	-19.6	67.9	49.3	1773.8
Fz,	27.8	40.0	**-42.5**	63.6	118.7	1395.9	-148.6	64.3	**19.2**	-43.4	-68.5	422.6
Mx,	-157.2	38.8	1.0	**-103.7**	-25.7	737.5	10.7	56.1	-25.3	**135.9**	64.8	1061.6
My,	-153.7	61.2	18.3	-37.5	**-71.7**	526.4	153.2	-3.4	-40.9	44.7	**120.4**	1172.7
Mz,	-142.4	-25.5	3.8	-30.5	-26.5	**-165.1**	-3.6	129.2	-22.9	50.1	56.3	**2123.4**
Fx,	**-181.5**	229.7	-1.2	76.8	-20.0	683.5	**161.2**	40.8	-36.8	24.7	-21.1	650.3
Fy,	103.9	**-21.1**	4.9	-41.0	-11.0	321.2	-154.7	**327.7**	-23.0	97.5	-28.6	1087.6
Fz,	33.8	182.2	**-48.9**	141.7	-49.0	972.1	-156.1	100.2	**25.3**	-27.7	13.0	144.9
Mx,	-20.3	101.9	-0.2	**-59.8**	-8.9	495.1	17.5	176.0	-31.4	**182.7**	-38.5	852.3
My,	17.2	163.1	-41.8	156.1	**-57.9**	875.4	-8.3	96.0	7.4	-14.8	**22.1**	415.2
Mz,	-153.1	20.9	10.7	-3.5	-0.5	**-138.2**	3.5	282.3	-23.2	90.3	-27.8	**1359.6**

Member 60

Fx,	**-167.2**	286.7	-44.7	119.4	74.5	919.1	**136.8**	27.6	-23.5	59.8	81.6	446.9
Fy,	114.6	**-35.3**	-1.1	-85.9	-29.3	316.5	-157.8	**339.5**	-49.9	130.3	107.3	1088.3
Fz,	12.4	191.5	**-90.2**	161.6	169.7	968.5	-131.4	91.9	**29.0**	-47.2	-43.4	151.6
Mx,	-134.1	101.2	2.9	**-100.2**	-37.5	330.0	14.0	177.5	-72.0	**203.0**	155.7	808.2
My,	-135.9	89.6	17.2	-60.8	**-66.5**	143.4	14.6	192.5	-84.7	168.0	**180.5**	972.3
Mz,	-141.7	11.0	10.2	-33.6	-29.1	**-138.7**	-0.6	292.8	-59.1	118.6	113.7	**1360.2**
Fx,	**-173.9**	380.6	-42.7	151.5	-85.7	-290.9	**144.2**	79.5	-41.6	61.4	-57.7	226.6
Fy,	122.0	**6.1**	28.3	-31.1	40.2	232.2	-164.5	**482.0**	-62.2	157.4	-108.6	-294.2
Fz,	20.5	326.4	**-96.8**	237.4	-161.4	14.6	-143.4	125.5	**35.3**	-45.1	49.7	-227.1
Mx,	-141.8	127.5	34.2	**-47.6**	49.5	-227.2	16.8	350.4	-91.8	**251.7**	-159.7	18.3
My,	20.1	328.1	-96.7	238.6	**-161.7**	14.5	-143.1	124.6	35.2	-45.8	**49.9**	-227.0
Mz,	-164.6	452.9	-28.7	66.8	-48.3	**-294.8**	123.1	46.5	6.3	28.3	1.6	**232.7**

Member 121

Fx,	**-3.0**	-0.0	-70.7	-0.0	-28.7	-0.0	**0.4**	0.0	77.4	0.0	-196.1	0.0
Fy,	-1.4	**-0.0**	-274.2	1.1	713.1	-0.1	-1.2	**0.0**	274.2	-1.1	-920.7	0.1
Fz,	-1.6	-0.0	**-279.7**	0.4	708.7	-0.1	-1.5	0.0	**279.7**	-0.4	-957.6	0.1
Mx,	-0.8	-0.0	-71.7	**-1.8**	151.1	-0.0	-0.6	0.0	71.7	**1.8**	-266.5	0.0
My,	-1.8	0.0	275.2	-0.1	**-973.8**	0.1	-0.2	-0.0	-259.3	-0.1	**763.8**	-0.1
Mz,	-1.2	-0.0	-274.2	1.1	724.8	**-0.1**	-1.4	0.0	274.2	-1.1	-932.4	**0.1**
Fx,	**-3.0**	-0.0	-70.7	-0.0	-95.9	-0.0	**0.4**	0.0	77.4	0.0	-122.5	0.0
Fy,	-1.4	**-0.0**	-274.2	1.1	452.6	-0.1	-1.2	**0.0**	274.2	-1.1	-660.1	0.1
Fz,	-1.6	-0.0	**-279.7**	0.4	443.0	-0.1	-1.5	0.0	**279.7**	-0.4	-691.9	0.1
Mx,	-0.8	-0.0	-71.7	**-1.8**	83.0	-0.0	-0.6	0.0	71.7	**1.8**	-198.4	0.0
My,	-1.9	0.0	271.5	-0.1	**-714.3**	0.1	0.0	-0.0	-252.7	0.2	**520.2**	-0.1
Mz,	-1.2	-0.0	-274.2	1.1	464.3	**-0.1**	-1.4	0.0	274.2	-1.1	-671.9	**0.1**

Member 122

Fx,	**-6.6**	-0.7	-21.1	-0.0	63.4	1.9	**3.6**	0.7	21.1	0.0	-54.2	1.5
Fy,	-2.0	**-9.0**	-70.4	2.3	217.3	-24.5	-1.8	**9.0**	70.4	-2.3	-205.5	29.4
Fz,	-2.1	-3.5	**-77.0**	0.4	235.3	-8.2	-1.3	3.5	**77.0**	-0.4	-225.2	12.5
Mx,	-1.2	5.5	-14.4	**-3.1**	46.6	18.1	-0.9	-5.5	14.4	**3.1**	-40.6	-15.4
My,	-1.0	2.6	76.4	-0.5	**-230.5**	8.6	-2.4	-5.1	-76.2	0.8	**238.4**	-12.0
Mz,	-1.8	-9.0	-70.0	2.4	215.5	**-24.8**	-2.3	9.0	31.2	-2.7	-86.6	**30.0**
Fx,	**-6.6**	-0.7	-21.1	-0.0	43.4	2.6	**3.6**	0.7	21.1	0.0	-34.2	0.9
Fy,	-2.0	**-9.0**	-70.4	2.3	150.4	-16.0	-1.8	**9.0**	70.4	-2.3	-138.7	20.8
Fz,	-2.1	-3.5	**-77.0**	0.4	162.1	-4.8	-1.3	3.5	**77.0**	-0.4	-152.0	9.2
Mx,	-1.2	5.5	-14.4	**-3.1**	32.9	12.8	-0.9	-5.5	14.4	**3.1**	-26.9	-10.2
My,	-0.9	3.2	76.3	-0.7	**-157.9**	7.3	-2.4	-5.1	-76.2	0.8	**166.1**	-7.1
Mz,	-1.8	-9.0	-70.0	2.4	149.0	**-16.3**	-2.3	9.0	31.2	-2.7	-57.0	**21.4**

Member 123

Fx,	**-6.3**	-1.1	-15.4	-0.0	44.6	2.6	**4.9**	1.1	15.5	0.0	-41.6	2.4
Fy,	-1.0	**-14.9**	-63.8	1.4	193.8	-40.6	-0.9	**14.9**	63.8	-1.4	-189.3	48.4
Fz,	-0.8	-4.3	**-70.2**	0.4	211.6	-9.6	-0.5	4.3	**70.2**	-0.4	-209.7	15.3
Mx,	-0.6	9.6	-12.3	**-1.8**	36.1	31.1	-0.5	-9.6	12.3	**1.8**	-36.3	-26.8
My,	-2.2	3.1	69.1	-0.3	**-211.3**	11.2	0.8	-6.0	-69.2	0.4	**213.8**	-14.1
Mz,	-0.9	-14.9	-63.8	1.4	193.5	**-41.1**	-1.1	14.9	29.4	-1.6	-85.7	**49.3**
Fx,	**-6.3**	-1.1	-15.4	-0.0	30.0	3.6	**4.9**	1.1	15.5	0.0	-26.8	1.4
Fy,	-1.0	**-14.9**	-63.8	1.4	133.1	-26.5	-0.9	**14.9**	63.8	-1.4	-128.7	34.2
Fz,	-0.8	-4.3	**-70.2**	0.4	144.9	-5.5	-0.5	4.3	**70.2**	-0.4	-142.9	11.3
Mx,	-0.6	9.6	-12.3	**-1.8**	25.4	22.0	-0.5	-9.6	12.3	**1.8**	-24.5	-17.7
My,	-2.2	3.1	69.1	-0.3	**-145.6**	8.2	0.8	-6.0	-69.2	0.4	**148.1**	-8.5
Mz,	-0.9	-14.9	-63.5	1.5	132.2	**-26.9**	-1.1	14.9	29.0	-1.6	-56.9	**35.1**

Member 124

Fx,	**-4.9**	1.4	10.8	-0.0	-34.4	10.5	**3.6**	-1.4	-10.7	0.0	32.3	-5.0
Fy,	-0.9	**-17.7**	-57.9	0.3	172.5	-48.5	-0.7	**17.7**	57.9	-0.3	-174.5	57.4
Fz,	-0.9	-6.5	**-64.0**	0.4	190.2	-15.7	-0.5	6.5	**64.0**	-0.4	-193.3	22.8
Mx,	-0.5	6.2	23.0	**-0.8**	-69.8	20.6	-0.6	-6.2	-23.0	**0.8**	67.6	-15.7
My,	-1.9	6.5	63.9	-0.4	**-196.6**	23.6	0.3	-7.9	-63.9	0.3	**193.7**	-20.0
Mz,	-0.7	-17.7	-57.9	0.3	172.8	**-49.1**	-1.0	17.6	27.6	-0.3	-83.9	**58.0**
Fx,	**-4.9**	1.4	10.8	-0.0	-24.1	9.2	**3.6**	-1.4	-10.7	0.0	22.2	-3.7
Fy,	-0.9	**-17.7**	-57.9	0.3	117.5	-31.7	-0.7	**17.7**	57.9	-0.3	-119.5	40.5
Fz,	-0.9	-6.5	**-64.0**	0.4	129.4	-9.5	-0.5	6.5	**64.0**	-0.4	-132.5	16.6
Mx,	-0.5	6.2	23.0	**-0.8**	-48.0	14.8	-0.6	-6.2	-23.0	**0.8**	45.8	-9.9
My,	-2.1	6.8	63.3	-0.4	**-136.1**	17.8	0.6	-7.9	-63.3	0.3	**133.2**	-12.5
Mz,	-0.7	-17.7	-57.9	0.3	117.8	**-32.2**	-1.0	17.6	27.6	-0.3	-57.8	**41.3**

Member 125

Fx,	**-7.4**	1.5	13.7	-0.0	-42.6	10.6	**4.9**	-1.5	-13.6	0.0	32.6	-5.4
Fy,	-1.6	**-17.4**	-52.1	-1.1	150.6	-48.0	-1.2	**17.5**	51.7	1.1	-159.5	56.1
Fz,	-1.4	-8.2	**-58.3**	0.2	169.2	-20.9	-1.5	8.2	**58.3**	-0.2	-180.3	27.6
Mx,	-1.0	-9.1	9.6	**-1.5**	-32.6	-25.1	-1.1	9.1	-9.6	**1.5**	24.5	29.7
My,	-2.6	8.9	57.7	-0.1	**-183.2**	30.5	-0.3	-9.5	-57.7	-0.0	**172.0**	-25.7
Mz,	-1.3	-17.4	-52.1	-1.1	151.6	**-48.5**	-1.5	17.5	51.7	1.1	-160.5	**56.6**
Fx,	**-7.4**	1.5	13.7	-0.0	-29.6	9.2	**4.9**	-1.5	-13.6	0.0	19.7	-4.0
Fy,	-1.6	**-17.4**	-52.1	-1.1	101.1	-31.4	-1.2	**17.5**	51.7	1.1	-110.4	39.6
Fz,	-1.4	-8.2	**-58.3**	0.2	113.8	-13.1	-1.5	8.2	**58.3**	-0.2	-125.0	19.8
Mx,	-1.0	-9.1	9.6	**-1.5**	-23.4	-16.5	-1.1	9.1	-9.6	**1.5**	15.4	21.1

My,	-2.6	8.9	57.7	-0.1	**-128.3**	22.1	-0.2	-8.7	-57.5	0.1	117.3	-15.4
Mz,	-1.2	-17.4	-51.7	-1.1	101.6	**-31.9**	-1.6	17.4	52.1	1.1	-112.4	**40.1**

Member 126

Fx,	**-12.0**	1.5	14.3	-0.0	-72.9	9.1	**5.8**	-1.5	-14.2	0.0	47.7	-5.1
Fy,	-4.3	**-13.6**	-60.6	-2.4	164.5	-37.7	-3.6	**13.6**	60.6	2.4	-196.2	43.5
Fz,	-5.2	-10.6	**-65.0**	-0.9	174.3	-28.3	-4.5	10.6	**65.0**	0.9	-213.3	34.8
Mx,	-2.5	-6.9	9.5	**-3.1**	-38.5	-19.1	-2.9	6.9	-9.5	**3.1**	16.9	22.4
My,	-5.7	9.5	64.6	0.7	**-216.5**	32.4	-1.4	-5.9	-63.6	-0.1	**185.3**	-16.3
Mz,	-3.6	-13.6	-60.6	-2.4	167.1	**-38.1**	-4.3	13.6	60.6	2.4	-198.8	**43.8**
Fx,	**-12.0**	1.5	14.3	-0.0	-59.4	7.7	**5.8**	-1.5	-14.2	0.0	34.2	-3.6
Fy,	-4.3	**-13.6**	-60.6	-2.4	107.0	-24.8	-3.6	**13.6**	60.6	2.4	-138.7	30.6
Fz,	-5.2	-10.6	**-65.0**	-0.9	112.5	-18.2	-4.5	10.6	**65.0**	0.9	-151.5	24.8
Mx,	-2.5	-6.9	9.5	**-3.1**	-29.5	-12.6	-2.9	6.9	-9.5	**3.1**	7.9	15.9
My,	-6.0	9.0	**64.0**	0.6	**-155.6**	22.4	-1.4	-5.9	-63.6	-0.1	**124.8**	-10.7
Mz,	-3.6	-13.6	-60.5	-2.4	109.6	**-25.2**	-4.3	13.6	60.5	2.4	-141.3	**30.9**

Member 127

Fx,	**-26.1**	1.2	8.2	0.1	-30.7	5.2	**7.2**	-1.3	-12.1	-0.2	35.0	-4.1
Fy,	-10.9	**-6.8**	-35.7	-1.0	105.2	-19.7	-9.7	**6.8**	35.7	1.0	-109.1	21.2
Fz,	-8.2	-4.9	**-40.6**	-2.4	119.5	-14.1	-5.5	4.9	**40.6**	2.4	-122.0	15.0
Mx,	-6.8	-1.6	-12.1	**-6.0**	35.1	-4.4	-5.4	1.6	12.1	**6.0**	-37.3	5.3
My,	-9.2	5.0	40.4	1.9	**-125.5**	15.5	-5.2	-4.8	-40.4	-2.3	**122.9**	-14.1
Mz,	-9.6	-6.8	-35.7	-0.9	105.4	**-19.8**	-11.2	6.8	35.8	0.9	-109.6	**21.3**
Fx,	**-26.1**	1.2	8.2	0.1	-22.9	4.1	**7.2**	-1.3	-12.1	-0.2	23.5	-2.9
Fy,	-10.9	**-6.8**	-35.7	-1.0	71.2	-13.2	-9.7	**6.8**	35.7	1.0	-75.2	14.7
Fz,	-8.2	-4.9	**-40.6**	-2.4	80.9	-9.4	-5.5	4.9	**40.6**	2.4	-83.4	10.4
Mx,	-6.8	-1.6	-12.1	**-6.0**	23.6	-2.9	-5.4	1.6	12.1	**6.0**	-25.8	3.7
My,	-10.3	5.4	40.3	2.0	**-87.1**	11.7	-5.2	-4.8	-40.4	-2.3	**84.5**	-9.5
Mz,	-9.4	-6.8	-35.7	-0.8	71.6	**-13.3**	-12.0	6.8	36.0	1.1	-76.1	**14.8**

Member 128

Fx,	**-12.5**	1.8	10.8	0.3	-9.3	13.7	**7.3**	-1.8	-10.4	-0.4	27.3	-6.5
Fy,	-3.5	**-16.3**	-28.8	4.0	98.6	-42.6	-3.3	**16.3**	28.8	-4.0	-75.1	54.8
Fz,	-2.9	-1.0	**-41.1**	-4.0	133.8	1.1	-2.2	1.0	**41.1**	4.0	-115.0	6.0
Mx,	-2.5	7.3	-9.8	**-7.3**	38.8	25.8	-1.9	-7.3	9.8	**7.3**	-22.4	-18.9
My,	-0.8	2.4	40.7	3.1	**-119.0**	8.7	-5.4	-3.0	-39.7	-1.7	**139.1**	-0.6
Mz,	-2.9	-16.3	-28.8	4.0	97.9	**-43.4**	-3.7	16.3	28.8	-4.0	-73.6	**55.5**
Fx,	**-12.5**	1.8	10.8	0.3	1.0	12.0	**7.3**	-1.8	-10.4	-0.4	17.4	-4.8
Fy,	-3.5	**-16.3**	-28.8	4.0	71.3	-27.1	-3.3	**16.3**	28.8	-4.0	-47.8	39.2
Fz,	-2.9	-1.0	**-41.1**	-4.0	94.7	2.1	-2.2	1.0	**41.1**	4.0	-76.0	5.1
Mx,	-2.5	7.3	-9.8	**-7.3**	29.5	18.9	-1.9	-7.3	9.8	**7.3**	-13.1	-12.0
My,	-1.5	2.3	39.5	3.0	**-81.0**	6.4	-4.8	-3.2	-38.2	-0.8	**102.0**	2.1
Mz,	-2.8	-16.3	-28.8	4.1	70.3	**-27.9**	-3.7	16.3	28.8	-4.0	-45.0	**40.0**

Member 129

Fx,	**-8.7**	1.7	8.3	0.3	-23.7	18.2	**7.3**	-1.7	-8.1	-0.3	28.2	-7.1
Fy,	-1.0	**-24.2**	-28.4	3.3	88.0	-62.3	-0.8	**24.2**	28.4	-3.3	-82.7	81.4
Fz,	-0.3	2.4	**-37.8**	-2.0	116.4	12.8	-0.6	-2.4	**37.8**	2.0	-112.7	-3.0
Mx,	-0.6	15.8	-7.5	**-5.8**	24.9	53.5	-0.5	-15.8	7.5	**5.8**	-20.6	-42.7
My,	-1.2	-2.7	37.1	2.2	**-113.1**	-4.5	-0.1	4.8	-36.7	-1.6	**117.0**	23.4
Mz,	-0.6	-24.1	-28.3	3.4	88.1	**-63.7**	-1.1	23.9	12.0	-4.2	-32.8	**83.6**
Fx,	**-8.7**	1.7	8.3	0.3	-15.7	16.6	**7.3**	-1.7	-8.1	-0.3	20.5	-5.5
Fy,	-1.0	**-24.2**	-28.4	3.3	61.1	-39.4	-0.8	**24.2**	28.4	-3.3	-55.8	58.5
Fz,	-0.3	2.4	**-37.8**	-2.0	80.5	10.6	-0.6	-2.4	**37.8**	2.0	-76.8	-0.8
Mx,	-0.6	15.8	-7.5	**-5.8**	17.8	38.5	-0.5	-15.8	7.5	**5.8**	-13.5	-27.6
My,	-1.1	-2.6	37.0	2.2	**-77.9**	-2.1	-0.2	4.9	-36.6	-1.6	**82.2**	19.1
Mz,	-0.6	-24.1	-28.3	3.4	61.2	**-40.9**	-1.1	23.9	12.0	-4.2	-21.3	**60.9**

Member 130

Fx,	**-6.7**	-1.7	-6.7	-0.1	13.4	10.6	**6.4**	1.7	6.7	0.1	-12.2	2.7
Fy,	-0.3	**-29.7**	-9.0	2.4	27.6	-75.4	-0.3	**29.7**	9.0	-2.4	-26.3	101.2
Fz,	0.4	3.0	**-28.3**	-0.6	87.3	16.3	-0.7	-3.0	**28.3**	0.6	-86.5	-3.9
Mx,	-0.2	12.3	-3.1	**-3.7**	9.8	44.0	-0.1	-12.3	3.1	**3.7**	-8.9	-31.1
My,	-0.7	-3.0	28.3	0.6	**-86.5**	-3.9	0.4	3.3	-28.3	-0.6	**87.3**	17.0
Mz,	-0.2	-29.6	-9.2	2.4	28.3	**-77.2**	-0.3	29.6	9.2	-2.4	-26.7	**103.1**

Fx,	**-6.7**	-1.7	-6.7	-0.1	7.1	12.2	**6.4**	1.7	6.7	0.1	-5.9	1.1
Fy,	-0.3	**-29.7**	-9.0	2.4	19.1	-47.2	-0.3	**29.7**	9.0	-2.4	-17.8	73.0
Fz,	0.4	3.0	**-28.3**	-0.6	60.5	13.5	-0.7	-3.0	**28.3**	0.6	-59.7	-1.0
Mx,	-0.2	12.3	-3.1	**-3.7**	6.9	32.4	-0.1	-12.3	3.1	**3.7**	-5.9	-19.4
My,	-0.7	-3.0	28.3	0.6	**-59.7**	-1.0	0.4	3.3	-28.3	-0.6	**60.5**	13.9
Mz,	-0.2	-29.5	-9.2	2.4	19.6	**-49.1**	-0.3	29.5	9.2	-2.4	-18.0	**75.0**

Member 131

Fx,	**-5.8**	-1.9	1.1	0.0	-0.7	11.3	**5.6**	1.9	-1.0	-0.0	0.2	3.0
Fy,	-0.1	**-32.3**	-6.1	0.4	18.3	-82.6	-0.1	**32.3**	6.1	-0.4	-18.4	109.9
Fz,	-0.6	1.0	**-19.1**	0.8	56.4	11.1	0.4	-1.0	**19.1**	-0.8	-56.7	2.9
Mx,	-0.1	3.9	4.9	**-2.7**	-14.9	19.3	-0.1	-3.9	-4.9	**2.7**	14.8	-5.6
My,	-0.8	-1.0	18.7	-0.8	**-58.8**	5.0	0.6	1.0	-18.7	0.8	**58.6**	9.0
Mz,	-0.1	-32.2	-5.9	0.4	17.6	**-84.6**	-0.2	32.2	5.9	-0.4	-17.8	**111.9**
Fx,	**-5.8**	-1.9	1.1	0.0	0.3	13.1	**5.6**	1.9	-1.0	-0.0	-0.7	1.2
Fy,	-0.1	**-32.3**	-6.1	0.4	12.4	-51.8	-0.1	**32.3**	6.1	-0.4	-12.6	79.2
Fz,	-0.6	1.0	**-19.1**	0.8	38.3	10.1	0.4	-1.0	**19.1**	-0.8	-38.5	3.8
Mx,	-0.1	3.9	4.9	-2.7	-10.2	15.6	-0.1	-3.9	-4.9	**2.7**	10.1	-1.9
My,	-0.8	-1.0	18.7	-0.8	**-41.1**	6.0	0.6	1.0	-18.7	0.8	**40.8**	8.0
Mz,	-0.1	-31.4	-9.9	0.4	20.3	**-54.1**	-0.2	31.9	5.8	-0.4	-12.0	**81.3**

Member 132

Fx,	**-7.3**	-2.3	2.8	0.2	-8.1	9.2	**6.9**	2.3	-2.6	-0.2	6.1	4.5
Fy,	-0.3	**-32.7**	-1.4	-1.2	3.1	-85.8	-0.3	**32.7**	1.4	1.2	-5.1	109.1
Fz,	-0.3	6.9	**-14.0**	1.1	40.7	28.8	-0.2	-6.9	**14.0**	-1.1	-42.7	-14.3
Mx,	-0.2	-6.9	5.7	**-3.4**	-17.8	-14.1	-0.2	6.9	-5.7	**3.4**	16.4	29.1
My,	-1.0	-6.8	13.3	-1.1	**-43.9**	-12.3	0.5	8.3	-13.3	1.2	**42.0**	29.6
Mz,	-0.2	-32.7	-1.3	-1.3	3.0	**-87.5**	-0.3	32.2	3.4	1.7	-11.3	**110.9**
Fx,	**-7.3**	-2.3	2.8	0.2	-5.5	11.4	**6.9**	2.3	-2.6	-0.2	3.5	2.3
Fy,	-0.3	**-32.7**	-1.4	-1.2	1.8	-54.8	-0.3	**32.7**	1.4	1.2	-3.8	78.0
Fz,	-0.3	6.9	**-14.0**	1.1	27.5	22.3	-0.2	-6.9	**14.0**	-1.1	-29.4	-7.8
Mx,	-0.2	-6.9	5.7	**-3.4**	-12.4	-7.5	-0.2	6.9	-5.7	**3.4**	11.0	22.5
My,	1.0	-7.0	13.2	-1.1	**-31.2**	-6.1	-1.5	8.4	-13.2	1.2	**29.3**	22.1
Mz,	-0.2	-32.6	-1.1	-1.3	1.4	**-56.5**	-0.4	32.1	3.1	1.7	-7.7	**80.3**

Member 133

Fx	**-9.2**	-3.1	3.7	0.3	-22.9	4.2	**7.4**	3.1	-3.6	-0.3	15.7	7.3
Fy	-1.1	**-31.5**	7.6	-3.1	-27.3	-84.2	-1.0	**31.5**	-7.6	3.1	19.2	103.3
Fz	-1.4	5.4	**-22.9**	1.0	64.9	23.7	-0.6	-5.4	**22.9**	-1.0	-72.7	-10.4
Mx	-0.6	-17.7	-3.6	**-5.5**	8.6	-48.4	-0.8	17.7	3.6	**5.5**	-13.7	59.2
My	-0.2	-5.4	22.2	-0.9	**-74.2**	-8.5	-1.7	6.2	-22.2	1.1	**66.7**	23.0
Mz	-0.9	-31.4	7.6	-3.1	-26.3	**-85.6**	-1.2	31.4	-7.7	3.1	18.6	**104.7**
Fx,	**-9.2**	-3.1	3.7	0.3	-19.4	7.2	**7.4**	3.1	-3.6	-0.3	12.3	4.4
Fy,	-1.1	**-31.5**	7.6	-3.1	-20.0	-54.3	-1.0	**31.5**	-7.6	3.1	11.9	73.5
Fz,	-1.4	5.4	**-22.9**	1.0	43.2	18.5	-0.6	-5.4	**22.9**	-1.0	-51.0	-5.2
Mx,	-0.6	-17.7	-3.6	**-5.5**	5.2	-31.5	-0.8	17.7	3.6	**5.5**	-10.3	42.4
My,	-0.2	-5.8	22.1	-1.0	**-53.2**	-4.3	-1.7	6.2	-22.2	1.1	**45.6**	17.1
Mz,	-0.9	-31.4	7.6	-3.1	-19.0	**-55.8**	-1.2	31.4	-7.7	3.1	11.2	**74.9**

Member 134

Fx	**-13.9**	-4.3	4.5	0.3	-49.8	-3.8	**7.0**	4.3	-4.5	-0.3	24.0	11.6
Fy	-4.7	**-27.7**	16.1	-4.4	-66.1	-76.6	-4.4	**27.7**	-16.1	4.4	32.0	88.8
Fz	-4.6	3.8	**-30.1**	-2.3	73.4	16.7	-3.6	-3.8	**30.1**	2.3	-103.7	-7.2
Mx	-2.2	-8.3	-6.9	**-7.8**	12.5	-21.9	-3.0	8.3	6.9	**7.8**	-31.9	29.0
My	-6.4	-9.8	27.7	0.9	**-112.9**	-20.9	-0.6	11.8	-27.2	-0.7	**85.7**	34.6
Mz	-3.9	-27.6	16.1	-4.5	-62.9	**-77.3**	-5.0	27.6	-16.1	4.5	29.7	**89.5**
Fx,	**-13.9**	-4.3	4.5	0.3	-45.5	0.3	**7.0**	4.3	-4.5	-0.3	19.7	7.6
Fy,	-4.7	**-27.7**	16.1	-4.4	-50.7	-50.3	-4.4	**27.7**	-16.1	4.4	16.6	62.5
Fz,	-4.6	3.6	**-30.1**	-2.3	44.8	13.1	-3.6	-3.8	**30.1**	2.3	-75.2	-3.6
Mx,	-2.2	-8.3	-6.9	**-7.8**	6.0	-14.0	-3.0	8.3	6.9	**7.8**	-25.3	21.1
My,	-6.5	-10.0	27.5	0.6	**-86.7**	-12.1	-0.5	11.9	-27.1	-0.7	**59.9**	23.6
Mz,	-3.9	-27.6	16.0	-4.6	-47.3	**-51.0**	-5.0	27.6	-16.0	4.5	14.0	**63.3**

Member 135

Fx	**-38.0**	-5.6	-1.8	-0.0	4.2	-14.7	**9.2**	5.4	-1.3	0.0	1.1	16.0

Fy,	-15.6	**-21.8**	-7.7	-0.9	21.5	-64.7	-13.8	**21.8**	7.7	0.9	-24.8	66.3
Fz,	-9.1	-14.5	**-13.5**	-3.3	39.5	-42.9	-7.9	14.5	**13.5**	3.3	-39.5	43.8
Mx,	-10.2	-5.4	-3.1	**-9.2**	9.4	-15.6	-8.1	5.4	3.1	**9.2**	-9.4	16.7
My,	-9.1	14.5	13.4	3.3	**-43.1**	44.1	-7.9	-14.5	-13.4	-3.3	**43.1**	-43.2
Mz,	-12.4	-21.8	-7.6	-0.2	24.4	**-64.8**	-15.6	21.8	7.7	0.9	-24.8	**66.4**
Fx,	**-38.0**	-5.6	-1.8	-0.0	2.5	-9.4	**9.2**	5.4	-1.3	0.0	-0.1	10.9
Fy,	-15.6	**-21.8**	-7.7	-0.9	14.2	-43.9	-13.8	**21.8**	7.7	0.9	-17.4	45.5
Fz,	-9.1	-14.5	**-13.5**	-3.3	26.7	-29.1	-7.9	14.5	**13.5**	3.3	-26.7	30.1
Mx,	-10.2	-5.4	-3.1	**-9.2**	6.4	-10.5	-8.1	5.4	3.1	**9.2**	-6.4	11.5
My,	-9.1	14.5	13.4	3.3	**-30.4**	30.3	-7.9	-14.5	-13.4	-3.3	**30.4**	-29.4
Mz,	-12.4	-21.8	-7.6	-0.2	17.2	**-44.1**	-16.4	21.8	7.8	1.3	-17.7	**45.6**

Member 136

Fx,	**-14.4**	-4.3	-7.9	-0.4	54.1	-4.4	**7.5**	4.3	8.2	0.4	-29.2	11.6
Fy,	-6.3	**-27.6**	-34.1	4.3	119.1	-76.2	-5.6	**27.6**	34.1	-4.3	-88.3	88.5
Fz,	-3.9	-9.3	**-45.6**	-4.3	151.1	-23.7	-2.9	9.3	**45.6**	4.3	-125.5	30.9
Mx,	-3.2	8.1	-12.3	**-8.2**	48.9	28.2	-2.9	-8.1	12.3	**8.2**	-26.3	-21.2
My,	-1.0	10.3	45.1	3.4	**-131.4**	32.5	-7.1	-10.7	-44.0	-1.9	**158.7**	-23.7
Mz,	-2.5	-27.6	-34.1	4.3	118.6	**-77.0**	-6.3	27.6	34.1	-4.3	-85.5	**89.2**
Fx,	**-14.4**	-4.3	-7.9	-0.4	46.6	-0.3	**7.5**	4.3	8.2	0.4	-21.4	7.6
Fy,	-6.3	**-27.6**	-34.1	4.3	86.7	-50.0	-5.6	**27.6**	34.1	-4.3	-55.9	62.3
Fz,	-3.9	-9.3	**-45.6**	-4.3	107.8	-14.9	-2.9	9.3	**45.6**	4.3	-82.2	22.1
Mx,	-3.2	8.1	-12.3	**-8.2**	37.2	20.5	-2.9	-8.1	12.3	**8.2**	-14.6	-13.5
My,	-0.4	12.2	41.8	1.1	**-89.9**	24.3	-6.7	-10.7	-42.5	-1.2	**117.8**	-13.1
Mz,	-2.4	-27.5	-34.0	4.5	85.6	**-50.8**	-6.4	27.5	34.0	-4.5	-52.6	**63.1**

Member 137

Fx,	**-9.2**	-3.2	-7.1	-0.4	24.5	3.7	**7.4**	3.2	7.1	0.3	-17.7	7.5
Fy,	-1.6	**-31.7**	-22.5	3.1	73.6	-85.0	-1.4	**31.7**	22.5	-3.1	-62.0	104.2
Fz,	-0.9	0.6	**-36.1**	-1.5	113.7	9.4	-1.2	-0.6	**36.1**	1.5	-105.5	4.5
Mx,	-0.8	10.2	-24.1	**-6.1**	75.3	36.2	-0.6	-10.2	24.1	**6.1**	-70.2	-26.4
My,	-1.4	0.7	35.3	2.0	**-106.8**	5.9	-0.5	-2.0	-35.4	-0.8	**114.5**	3.5
Mz,	-0.4	-31.6	-22.3	3.3	68.5	**-86.4**	-1.6	31.6	22.3	-3.3	-60.5	**105.6**
Fx,	**-9.2**	-3.2	-7.1	-0.4	17.8	6.7	**7.4**	3.2	7.1	0.3	-11.0	4.5
Fy,	-1.6	**-31.7**	-22.5	3.1	52.2	-54.9	-1.4	**31.7**	22.5	-3.1	-40.7	74.1
Fz,	-0.9	0.6	**-36.1**	-1.5	79.4	8.9	-1.2	-0.6	**36.1**	1.5	-71.3	5.0
Mx,	-0.8	10.2	-24.1	**-6.1**	52.4	26.5	-0.6	-10.2	24.1	**6.1**	-47.3	-16.6
My,	-1.3	3.0	35.2	1.6	**-73.3**	9.6	-0.5	-2.4	-35.3	-0.7	**80.8**	4.5
Mz,	-0.4	-31.6	-22.3	3.3	47.4	**-56.3**	-1.6	31.6	22.3	-3.3	-39.4	**75.5**

Member 138

Fx,	**-6.8**	-2.5	-5.9	-0.2	11.6	8.5	**6.4**	2.5	5.9	0.2	-10.0	5.0
Fy,	-0.8	**-33.9**	-12.8	1.5	41.1	-89.5	-0.8	**33.9**	12.8	-1.5	-35.6	112.8
Fz,	0.2	2.3	**-26.8**	-0.2	83.6	16.4	-0.8	-2.3	**26.8**	0.2	-81.6	0.4
Mx,	-0.2	9.1	0.1	**-3.9**	0.4	34.6	-0.2	-9.1	-0.1	**3.9**	0.9	-21.5
My,	-0.8	-0.3	26.8	-0.0	**-81.6**	5.4	0.2	0.3	-26.8	0.0	**83.6**	11.4
Mz,	0.3	-33.9	-12.7	1.5	37.0	**-91.2**	-0.8	33.9	12.7	-1.5	-35.1	**114.6**
Fx,	**-6.8**	-2.5	-5.9	-0.2	6.0	10.8	**6.4**	2.5	5.9	0.2	-4.4	2.6
Fy,	-0.8	**-33.9**	-12.8	1.5	29.0	-57.2	-0.8	**33.9**	12.8	-1.5	-23.5	80.6
Fz,	0.2	2.3	**-26.8**	-0.2	58.1	14.2	-0.8	-2.3	**26.8**	0.2	-56.1	2.6
Mx,	-0.2	9.1	0.1	**-3.9**	0.5	25.9	-0.2	-9.1	-0.1	**3.9**	0.8	-12.8
My,	-1.1	-0.3	26.2	-0.0	**-56.2**	5.7	0.5	0.3	-26.2	0.0	**58.2**	11.1
Mz,	0.3	-33.8	-12.8	1.5	25.3	**-59.0**	-0.9	33.2	3.0	-2.1	-2.9	**82.6**

Member 139

Fx,	**-5.8**	-2.3	1.9	-0.0	-3.0	10.4	**5.6**	2.3	-1.9	0.0	2.9	4.3
Fy,	-0.2	**-34.7**	-6.5	-0.0	19.1	-90.9	-0.2	**34.7**	6.5	0.0	-19.8	115.7
Fz,	-0.6	-0.1	**-17.8**	0.9	52.5	9.8	0.4	0.1	**17.8**	-0.9	-52.4	8.1
Mx,	-0.1	-1.7	3.3	**-3.0**	-9.7	2.6	-0.1	1.7	-3.3	**3.0**	9.8	11.4
My,	-0.8	0.1	17.5	-0.9	**-54.9**	8.1	0.5	-0.1	-17.5	0.9	**55.0**	9.8
Mz,	0.0	-34.6	-6.4	-0.0	19.8	**-92.8**	-0.3	34.4	3.7	-0.1	-11.6	**118.6**
Fx,	**-5.8**	-2.3	1.9	-0.0	-1.1	12.6	**5.6**	2.3	-1.9	0.0	1.1	2.2
Fy,	-0.2	**-34.7**	-6.5	-0.0	12.9	-58.0	-0.2	**34.7**	6.5	0.0	-13.7	82.8
Fz,	-0.6	-0.1	**-17.8**	0.9	35.6	9.9	0.4	0.1	**17.8**	-0.9	-35.5	8.0
Mx,	-0.1	-1.7	3.3	**-3.0**	-6.6	4.2	-0.1	1.7	-3.3	**3.0**	6.7	9.7
My,	-0.8	0.1	17.5	-0.9	**-38.3**	8.0	0.5	-0.1	-17.5	0.9	**38.4**	9.9
Mz,	0.0	-34.3	-6.4	-0.0	13.6	**-60.0**	-0.3	34.1	3.7	-0.1	-8.1	86.0

Member 140

Fx,	**-7.3**	2.7	0.9	-0.2	-2.1	24.6	**6.9**	-2.7	-0.8	0.2	0.6	-10.6
Fy,	-0.3	**-34.8**	2.1	-1.5	-7.2	-92.1	-0.2	**34.8**	-2.1	1.5	5.4	115.6
Fz,	-2.3	6.9	**-16.0**	0.8	47.5	30.3	1.8	-6.9	**16.0**	-0.8	-49.1	-13.1
Mx,	0.4	-8.9	4.2	**-3.8**	-15.1	-20.9	0.4	8.9	-4.2	**3.8**	10.0	34.0
My,	1.0	-4.0	15.5	-0.6	**-50.6**	-1.1	-1.4	4.0	-15.5	0.6	**49.0**	18.3
Mz,	-0.2	-34.8	2.0	-1.5	-6.6	**-93.8**	-0.3	34.8	-2.0	1.5	5.1	**117.3**
Fx,	**-7.3**	2.7	0.9	-0.2	-1.3	22.0	**6.9**	-2.7	-0.8	0.2	-0.2	-8.0
Fy,	-0.3	**-34.8**	2.1	-1.5	-5.2	-59.0	-0.2	**34.8**	-2.1	1.5	3.4	82.5
Fz,	-2.3	6.9	**-16.0**	0.8	32.3	23.7	1.8	-6.9	**16.0**	-0.8	-33.8	-6.6
Mx,	0.4	-8.9	4.2	**-3.8**	-11.1	-12.4	0.4	8.9	-4.2	**3.8**	6.0	25.6
My,	1.0	-4.0	15.5	-0.6	**-35.9**	2.7	-1.4	4.0	-15.5	0.6	**34.3**	14.4
Mz,	-0.2	-34.7	2.2	-1.5	-5.0	**-60.8**	-0.3	34.7	-2.2	1.5	3.5	**84.3**

Member 141

Fx,	**-8.8**	-3.7	4.5	0.4	-23.9	2.8	**7.3**	3.7	-4.4	-0.4	18.0	9.0
Fy,	-1.0	**-33.7**	11.1	-3.1	-37.3	-90.9	-0.9	**33.7**	-11.1	3.1	30.0	110.3
Fz,	-1.2	5.6	**-25.2**	0.0	72.5	25.0	-0.5	-5.6	**25.2**	-0.0	-79.1	-10.4
Mx,	1.1	-8.7	-12.0	**-6.1**	35.4	-21.7	0.9	8.7	12.0	**6.1**	-37.4	31.6
My,	-0.0	-4.0	24.6	0.2	**-81.0**	-2.9	-1.7	3.9	-24.6	-0.3	**74.4**	17.1
Mz,	-0.6	-33.7	11.0	-3.3	-35.3	**-92.3**	-1.0	33.7	-11.0	3.3	28.9	**111.8**
Fx,	**-8.8**	-3.7	4.5	0.4	-19.6	6.3	**7.3**	3.7	-4.4	-0.4	13.9	5.5
Fy,	-1.0	**-33.7**	11.1	-3.1	-26.7	-58.9	-0.9	**33.7**	-11.1	3.1	19.4	78.3
Fz,	-1.2	5.6	**-25.2**	0.0	48.6	19.6	-0.5	-5.6	**25.2**	-0.0	-55.2	-5.1
Mx,	1.1	-8.7	-12.0	**-6.1**	24.0	-13.4	0.9	8.7	12.0	**6.1**	-26.0	23.4
My,	-0.1	-6.2	24.5	-0.1	**-57.7**	-2.4	-1.4	9.7	-24.1	0.2	**51.1**	22.8
Mz,	-0.6	-33.7	11.0	-3.3	-24.9	**-60.4**	-1.0	33.7	-11.0	3.3	18.5	**79.8**

Member 142

Fx,	**-12.5**	-5.3	6.8	0.4	-51.2	-6.4	**6.9**	5.3	-6.9	-0.4	30.5	14.5
Fy,	-4.2	**-31.2**	24.7	-4.4	-89.8	-86.9	-3.9	**31.2**	-24.7	4.4	59.5	99.6
Fz,	-2.0	9.5	**-38.1**	-3.7	107.2	30.9	-2.7	-9.5	**38.1**	3.7	-124.7	-24.8
Mx,	-1.6	-7.5	-11.0	**-8.3**	23.0	-19.3	-2.3	7.5	11.0	**8.3**	-45.5	26.7
My,	-4.7	-13.2	35.9	0.9	**-131.6**	-31.0	-1.7	13.0	-36.7	-2.6	**109.7**	40.4
Mz,	-2.9	-31.2	24.7	-4.5	-84.7	**-87.6**	-4.4	31.2	-24.7	4.5	57.7	**100.3**
Fx,	**-12.5**	-5.3	6.8	0.4	-44.8	-1.3	**6.9**	5.3	-6.9	-0.4	24.0	9.5
Fy,	-4.2	**-31.2**	24.7	-4.4	-66.3	-57.3	-3.9	**31.2**	-24.7	4.4	36.0	69.9
Fz,	-2.0	9.5	**-38.1**	-3.7	70.9	21.9	-2.7	-9.5	**38.1**	3.7	-88.4	-15.8
Mx,	-1.6	-7.5	-11.0	**-8.3**	12.5	-12.2	-2.3	7.5	11.0	**8.3**	-35.2	19.5
My,	-5.1	-13.3	35.3	0.9	**-97.7**	-18.4	-1.5	14.3	-36.3	-1.9	**75.0**	30.3
Mz,	-2.7	-31.1	24.6	-4.5	-60.3	**-58.0**	-4.4	31.1	-24.6	4.6	34.0	**70.7**

Member 143

Fx,	**-31.2**	-7.2	-0.6	-0.0	0.6	-18.9	**8.5**	7.1	-2.5	0.0	4.6	20.9
Fy,	-13.5	**-27.9**	-1.8	-0.2	4.4	-82.7	-12.0	**27.9**	1.8	0.2	-6.6	84.6
Fz,	-6.1	-16.6	**-11.5**	-3.6	33.5	-49.3	-10.0	16.6	**11.5**	3.6	-33.5	50.8
Mx,	-8.3	-7.1	-1.5	**-9.4**	4.6	-20.4	-6.6	7.1	1.5	**9.4**	-4.5	21.8
My,	-6.1	16.7	11.4	3.6	**-37.1**	50.7	-10.0	-16.7	-11.4	-3.6	**37.1**	-49.2
Mz,	-8.9	-27.9	-1.8	-0.2	6.6	**-82.9**	-13.5	27.9	1.8	0.2	-6.6	**84.9**
Fx,	**-31.2**	-7.2	-0.6	-0.0	0.0	-12.1	**8.5**	7.1	-2.5	0.0	2.3	14.2
Fy,	-13.5	**-27.9**	-1.8	-0.2	2.7	-56.2	-12.0	**27.9**	1.8	0.2	-4.9	58.2
Fz,	-6.1	-16.6	**-11.5**	-3.6	22.6	-33.5	-10.0	16.6	**11.5**	3.6	-22.5	35.0
Mx,	-8.3	-7.1	-1.5	**-9.4**	3.2	-13.7	-6.6	7.1	1.5	**9.4**	-3.2	15.1
My,	-6.1	16.7	11.4	3.6	**-26.3**	34.8	-10.0	-16.7	-11.4	-3.6	**26.3**	-33.4
Mz,	-8.9	-27.9	-1.8	-0.2	4.9	**-56.3**	-14.2	27.9	2.0	0.7	-5.2	58.6

Member 144

Fx,	**-13.0**	-5.3	-7.5	-0.4	47.6	-7.0	**7.4**	5.3	7.7	0.4	-27.2	14.5
Fy,	-4.3	**-31.1**	-30.9	4.2	108.5	-86.7	-4.0	**31.1**	30.9	-4.2	-77.8	99.4
Fz,	-3.2	-10.9	**-44.8**	-4.7	146.2	-28.2	-2.4	10.9	**44.8**	4.7	-125.5	35.8
Mx,	-2.8	7.4	-11.8	**-8.3**	45.9	26.2	-2.2	-7.4	11.8	**8.3**	-27.7	-18.9
My,	-0.9	12.1	44.4	3.8	**-129.8**	38.2	-5.6	-12.7	-43.5	-2.8	**151.5**	-30.1
Mz,	-2.8	-31.1	-30.9	4.2	103.3	**-87.4**	-4.4	31.1	30.9	-4.2	-76.2	**100.1**

Fx,	**-13.0**	-5.3	-7.5	-0.4	40.5	-2.0	**7.4**	5.3	7.7	0.4	-19.9	9.5
Fy,	-4.3	**-31.1**	-30.9	4.2	79.1	-57.1	-4.0	**31.1**	30.9	-4.2	-48.5	69.8
Fz,	-3.2	-10.9	**-44.8**	-4.7	103.6	-17.9	-2.4	10.9	**44.8**	4.7	-82.9	25.5
Mx,	-2.8	7.4	-11.8	**-8.3**	34.6	19.2	-2.2	-7.4	11.8	**8.3**	-16.4	-11.9
My,	-1.6	13.2	43.3	3.4	**-88.4**	28.9	-5.3	-13.7	-41.9	-1.1	**111.1**	-19.1
Mz,	-2.6	-31.0	-30.8	4.3	72.9	**-57.9**	-4.5	31.0	30.7	-4.4	-46.4	**70.6**

Member 145

Fx,	**-8.8**	3.7	5.8	0.4	-15.7	24.6	**7.3**	-3.7	-5.9	-0.4	21.5	-13.1
Fy,	-1.0	**-33.7**	-16.3	3.0	52.9	-90.9	-0.9	**33.7**	16.3	-3.0	-45.4	110.5
Fz,	-0.5	-3.1	**-29.9**	-0.8	93.5	-3.1	-1.2	3.1	**29.9**	0.8	-86.9	17.3
Mx,	-0.7	8.7	-18.7	**-6.3**	58.3	31.9	-0.5	-8.7	18.7	**6.3**	-54.3	-21.8
My,	-1.5	3.4	29.3	0.9	**-88.5**	15.0	-0.2	-3.4	-29.3	-0.9	**95.2**	-0.8
Mz,	-0.6	-33.7	-16.2	3.2	50.8	**-92.3**	-1.1	33.7	16.2	-3.2	-44.4	**111.8**
Fx,	**-8.8**	3.7	5.8	0.4	-10.1	21.0	**7.3**	-3.7	-5.9	-0.4	15.9	-9.6
Fy,	-1.0	**-33.7**	-16.3	3.0	37.4	-58.9	-0.9	**33.7**	16.3	-3.0	-29.9	78.4
Fz,	-0.5	-3.1	**-29.9**	-0.8	65.1	-0.1	-1.2	3.1	**29.9**	0.8	-58.5	14.4
Mx,	-0.7	8.7	-18.7	**-6.3**	40.6	23.5	-0.5	-8.7	18.7	**6.3**	-36.6	-13.5
My,	-1.3	7.1	28.9	0.4	**-60.8**	17.4	-0.3	-5.9	-29.2	-0.5	**67.3**	-1.5
Mz,	-0.6	-33.7	-16.2	3.2	35.5	**-60.3**	-1.1	33.7	16.2	-3.2	-29.0	**79.8**

Member 146

Fx,	**-6.8**	2.8	1.2	0.2	-10.1	24.4	**6.4**	-2.8	-1.3	-0.2	11.7	-10.8
Fy,	-0.4	**-35.1**	-6.8	1.4	21.7	-92.8	-0.3	**35.1**	6.8	-1.4	-19.1	116.4
Fz,	0.4	-2.4	**-20.6**	0.3	64.7	0.3	-0.8	2.4	**20.6**	-0.3	-63.1	16.8
Mx,	-0.2	9.1	2.1	**-3.9**	-5.8	34.6	-0.2	-9.1	-2.1	**3.9**	6.7	-21.4
My,	-0.8	2.4	20.6	-0.3	**-63.3**	14.8	0.3	-2.4	-20.6	0.3	**64.9**	2.3
Mz,	-0.1	-35.0	-6.7	1.5	20.3	**-94.5**	-0.4	35.0	6.7	-1.5	-18.7	**118.1**
Fx,	**-6.8**	2.8	1.2	0.2	-9.0	21.8	**6.4**	-2.8	-1.3	-0.2	10.4	-8.1
Fy,	-0.4	**-35.1**	-6.8	1.4	15.2	-59.4	-0.3	**35.1**	6.8	-1.4	-12.6	83.1
Fz,	0.4	-2.4	**-20.6**	0.3	45.1	2.6	-0.8	2.4	**20.6**	-0.3	-43.5	14.5
Mx,	-0.2	9.1	2.1	**-3.9**	-3.8	26.0	-0.2	-9.1	-2.1	**3.9**	4.7	-12.7
My,	-1.1	0.4	20.1	-0.0	**-43.8**	7.5	0.6	-0.4	-20.1	0.0	**45.5**	9.6
Mz,	-0.1	-35.0	-6.8	1.5	14.2	**-61.3**	-0.4	35.0	5.8	-1.5	-12.6	**84.9**

Member 147

Fx,	**-5.8**	-2.5	3.7	-0.0	-8.3	10.0	**5.6**	2.5	-3.6	0.0	8.1	4.9
Fy,	-0.5	**-35.4**	-0.5	-0.1	-0.0	-93.1	-0.5	**35.4**	0.5	0.1	-3.2	118.1
Fz,	-0.6	1.9	**-13.1**	1.1	38.3	13.4	0.4	-1.9	**13.1**	-1.1	-38.2	4.1
Mx,	-0.1	-2.1	4.5	**-3.0**	-13.5	1.6	-0.1	2.1	-4.5	**3.0**	13.5	12.4
My,	-0.8	-1.9	12.8	-1.1	**-41.1**	1.9	0.6	1.9	-12.8	1.1	**41.1**	15.6
Mz,	0.3	-35.3	-0.5	-0.1	3.2	**-95.0**	-0.6	35.3	0.5	0.1	-3.2	**120.0**
Fx,	**-5.8**	-2.5	3.7	-0.0	-4.8	12.4	**5.6**	2.5	-3.6	0.0	4.7	2.5
Fy,	-0.5	**-35.4**	-0.5	-0.1	-0.5	-59.5	-0.5	**35.4**	0.5	0.1	-2.7	84.5
Fz,	-0.6	1.9	**-13.1**	1.1	25.9	11.6	0.4	-1.9	**13.1**	-1.1	-25.8	5.9
Mx,	-0.1	-2.1	4.5	**-3.0**	-9.2	3.6	-0.1	2.1	-4.5	**3.0**	9.2	10.5
My,	1.3	-2.1	12.6	-1.1	**-29.0**	3.3	-1.5	2.1	-12.6	1.1	**29.0**	14.1
Mz,	0.3	-35.1	-0.5	-0.1	2.7	**-61.4**	-0.6	34.5	0.8	0.1	-3.5	**86.8**

Member 148

Fx,	**-7.2**	-2.9	5.3	0.2	-15.4	7.8	**6.9**	2.9	-5.2	-0.2	13.8	6.2
Fy,	-0.3	**-35.6**	8.2	-1.4	-25.5	-94.3	-0.2	**35.6**	-8.2	1.4	23.7	117.9
Fz,	-0.8	2.0	**-21.1**	0.3	64.6	13.7	0.3	-2.0	**21.1**	-0.3	-66.1	3.6
Mx,	-0.0	-8.8	1.8	**-3.9**	-6.6	-20.5	-0.0	8.8	-1.8	**3.9**	4.4	33.8
My,	0.7	-4.9	20.6	-0.5	**-66.3**	-3.7	-1.2	4.9	-20.6	0.5	**64.7**	21.0
Mz,	-0.2	-35.6	8.1	-1.5	-24.9	**-96.0**	-0.3	35.6	-8.1	1.5	23.4	**119.7**
Fx,	**-7.2**	-2.9	5.3	0.2	-10.3	10.6	**6.9**	2.9	-5.2	-0.2	8.8	3.5
Fy,	-0.3	**-35.6**	8.2	-1.4	-17.7	-60.4	-0.2	**35.6**	-8.2	1.4	16.0	84.1
Fz,	-0.8	2.0	**-21.1**	0.3	44.5	11.8	0.3	-2.0	**21.1**	-0.3	-46.0	5.5
Mx,	-0.0	-8.8	1.8	**-3.9**	-4.8	-12.1	-0.0	8.8	-1.8	**3.9**	2.7	25.4
My,	0.7	-4.9	20.6	-0.5	**-46.7**	0.9	-1.2	4.9	-20.6	0.5	**45.2**	16.4
Mz,	-0.2	-35.5	8.3	-1.5	-17.5	-62.3	-0.3	35.5	-8.3	1.5	15.9	**85.9**

Member 149

Fx,	**-8.7**	-4.0	6.2	0.4	-28.9	1.9	**7.3**	4.0	-6.1	-0.4	23.3	10.1
Fy,	-1.0	**-34.9**	17.2	-3.0	-55.5	-94.4	-0.8	**34.9**	-17.2	3.0	48.5	114.0
Fz,	-1.0	3.2	**-30.4**	-0.9	89.0	16.1	-0.7	-3.2	**30.4**	0.9	-95.4	-1.4
Mx,	0.0	-7.6	-19.4	**-6.2**	54.5	-18.4	-0.1	7.6	19.4	**6.2**	-62.1	28.5
My,	-0.1	-3.7	29.8	0.8	**-96.6**	-1.2	-1.6	3.5	-29.8	-0.9	**90.2**	15.6
Mz,	-0.6	-34.9	17.1	-3.2	-53.5	**-95.8**	-1.0	34.9	-17.1	3.2	47.3	**115.4**
Fx,	**-8.7**	-4.0	6.2	0.4	-23.0	5.8	**7.3**	4.0	-6.1	-0.4	17.4	6.2
Fy,	-1.0	**-34.9**	17.2	-3.0	-39.2	-61.2	-0.8	**34.9**	-17.2	3.0	32.1	80.8
Fz,	-1.0	3.2	**-30.4**	-0.9	60.1	13.1	-0.7	-3.2	**30.4**	0.9	-66.5	1.6
Mx,	0.0	-7.6	-19.4	**-6.2**	36.0	-11.2	-0.1	7.6	19.4	**6.2**	-43.7	21.2
My,	-0.1	-6.2	29.7	0.5	**-68.3**	-1.6	-1.3	9.7	-29.4	-0.3	**62.2**	22.1
Mz,	-0.6	-34.9	17.1	-3.2	-37.3	**-62.7**	-1.0	34.9	-17.1	3.2	31.1	**82.3**

Member 150

Fx,	**-12.3**	-5.9	8.4	0.4	-55.4	-8.2	**6.9**	5.9	-8.6	-0.4	35.7	16.4
Fy,	-4.2	**-33.4**	30.1	-4.2	-106.0	-93.3	-3.6	**33.4**	-30.1	4.2	76.6	106.1
Fz,	-2.0	11.4	**-43.7**	-3.8	124.1	36.8	-2.6	-11.4	**43.7**	3.8	-141.0	-30.6
Mx,	-2.0	-6.9	-12.2	**-8.3**	28.2	-17.5	-2.6	6.9	12.2	**8.3**	-47.4	25.0
My,	-4.6	-15.5	41.4	1.0	**-147.7**	-37.8	-1.6	15.3	-42.2	-2.8	**126.9**	47.5
Mz,	-2.6	-33.4	30.1	**-4.1**	-100.0	**-94.1**	-4.2	33.4	-30.1	4.2	74.5	**106.9**
Fx,	**-12.3**	-5.9	8.4	0.4	-47.4	-2.5	**6.9**	5.9	-8.6	-0.4	27.5	10.8
Fy,	-4.2	**-33.4**	30.1	-4.2	-77.5	-61.6	-3.6	**33.4**	-30.1	4.2	48.1	74.4
Fz,	-2.0	11.4	**-43.7**	-3.8	82.6	26.0	-2.6	-11.4	**43.7**	3.8	-99.5	-19.8
Mx,	-2.0	-6.9	-12.2	**-8.3**	16.6	-10.9	-2.6	6.9	12.2	**8.3**	-35.8	18.4
My,	-5.0	-15.6	40.9	1.0	**-108.5**	-23.1	-1.6	15.4	-42.2	-2.8	**86.8**	33.0
Mz,	-2.6	-33.3	30.0	-4.3	-71.0	**-62.5**	-4.3	33.3	-30.0	4.4	45.5	**75.2**

Member 365

Fx,	**-475.1**	-0.0	-76.3	0.0	133.6	-0.0	**198.2**	0.0	-35.4	-0.0	62.0	0.0
Fy,	-222.5	**-0.0**	-65.5	0.0	114.7	-0.0	-0.9	**0.0**	-69.4	-0.0	121.5	0.0
Fz,	-108.1	0.0	**-175.1**	0.0	306.3	0.0	-185.4	-0.0	**19.5**	-0.0	-34.1	-0.0
Mx,	-280.8	-0.0	-35.4	**-0.0**	62.0	-0.0	-152.3	-0.0	-45.2	**0.0**	79.1	-0.0
My,	-185.4	-0.0	19.5	-0.0	**-34.1**	-0.0	-108.1	0.0	-175.1	0.0	**306.3**	0.0
Mz,	-245.0	-0.0	-77.4	0.0	135.5	**-0.0**	-0.3	0.0	-69.4	-0.0	121.5	**0.0**
Fx,	**-475.1**	-0.0	-76.3	0.0	0.0	0.0	**198.2**	0.0	-35.4	-0.0	0.0	-0.0
Fy,	-222.5	**-0.0**	-65.5	0.0	0.0	0.0	-0.9	**0.0**	-69.4	-0.0	0.0	-0.0
Fz,	-108.1	0.0	**-175.1**	0.0	0.0	-0.0	-185.4	-0.0	**19.5**	-0.0	0.0	0.0
Mx,	-280.8	-0.0	-35.4	**-0.0**	0.0	0.0	-152.3	-0.0	-45.2	**0.0**	0.0	0.0
My,	-188.7	-0.0	-67.9	0.0	**0.0**	0.0	-312.4	0.0	-98.2	0.0	**0.0**	-0.0
Mz,	46.1	0.0	-34.5	0.0	0.0	**-0.0**	-208.3	-0.0	-39.4	-0.0	0.0	**0.0**

Member 366

Fx,	**-1384.8**	-0.0	-30.1	0.0	321.6	-0.0	**-186.7**	-26.0	5.6	0.0	88.0	-45.5
Fy,	-955.9	**-32.5**	-18.6	0.0	209.3	-56.9	-758.6	**2.0**	-21.5	0.0	237.3	3.4
Fz,	-1120.6	-32.5	**-57.1**	0.0	603.8	-56.9	-629.7	-0.0	**11.5**	0.0	17.9	-0.0
Mx,	-816.9	-0.0	-21.8	**0.0**	211.3	-0.0	-658.9	-0.0	-11.5	**0.0**	233.2	-0.0
My,	-694.2	-0.0	-1.3	0.0	**-49.1**	-0.0	-1077.0	-32.5	-53.3	0.0	**645.4**	-56.9
Mz,	-942.7	-32.5	-16.3	0.0	190.8	**-56.9**	-667.2	2.0	-21.2	0.0	225.7	**3.4**
Fx,	**-1384.8**	-0.0	-30.1	0.0	269.0	0.0	**-186.7**	0.0	5.6	0.0	97.8	-0.0
Fy,	-728.5	**-0.0**	-6.3	0.0	128.7	0.0	-810.5	**0.0**	-21.8	0.0	257.9	-0.0
Fz,	-1120.6	0.0	**-57.1**	0.0	503.9	-0.0	-629.7	-0.0	**11.5**	0.0	38.0	0.0
Mx,	-816.9	-0.0	-21.8	**0.0**	173.1	0.0	-658.9	-0.0	-11.5	**0.0**	213.0	0.0
My,	-528.9	0.0	-1.4	0.0	**-51.4**	-0.0	-1257.3	-0.0	-53.2	0.0	**552.3**	0.0
Mz,	-949.6	0.0	-25.0	0.0	286.0	**-0.0**	-737.7	-0.0	-14.6	0.0	83.8	**0.0**

Member 367

Fx,	**-1589.8**	-6.8	-60.8	-0.0	446.4	-11.9	**-203.1**	27.2	65.2	-0.0	-19.8	47.6
Fy,	-1067.1	**-34.0**	-7.9	-0.0	318.4	-59.5	-802.6	**5.4**	-82.6	-0.0	333.0	9.5
Fz,	-1272.6	0.0	**-126.0**	-0.0	720.1	-0.0	-465.3	-6.1	**71.5**	0.0	-26.4	-10.7
Mx,	-1002.0	-0.0	-34.5	**-0.0**	131.9	-0.0	-666.2	-0.0	11.9	**0.0**	177.0	-0.0
My,	-672.3	-39.6	68.2	0.0	**-105.8**	-53.5	-1425.9	0.0	-89.0	-0.0	**766.5**	-0.0
Mz,	-1061.3	-34.0	-9.1	-0.0	321.3	**-59.5**	-801.7	5.4	-76.1	-0.0	329.4	**9.5**
Fx,	**-1589.8**	-0.0	-60.8	-0.0	340.0	0.0	**-203.1**	0.0	65.2	-0.0	94.3	-0.0
Fy,	-1067.1	**-0.0**	-7.9	-0.0	304.5	0.0	-802.6	**0.0**	-82.6	-0.0	188.5	-0.0
Fz,	-1272.6	0.0	**-126.0**	-0.0	499.6	-0.0	-465.3	-0.0	**71.5**	0.0	98.8	0.0
Mx,	-1002.0	-0.0	-34.5	**-0.0**	71.6	-0.0	-666.2	-0.0	11.9	**0.0**	197.8	-0.0
My,	-762.8	0.0	-56.2	0.0	**-35.5**	-0.0	-1436.6	-0.0	-48.8	-0.0	**647.4**	0.0
Mz,	-953.1	0.0	-5.3	-0.0	241.8	**-0.0**	-898.7	-0.0	-3.0	-0.0	223.7	**0.0**

Member 368

Fx,	**-1590.1**	0.0	-53.7	0.0	462.9	0.0	**-184.8**	-33.0	59.4	0.0	-64.1	-57.8
Fy,	-1113.4	**-41.3**	-4.5	0.0	291.4	-72.3	-847.3	**6.6**	-3.2	0.0	221.8	11.6
Fz,	-1262.5	-37.2	**-113.3**	0.0	808.8	-65.1	-448.9	0.0	**67.0**	0.0	-121.7	0.0
Mx,	-867.5	0.0	-29.6	**-0.0**	170.0	0.0	-661.0	-0.0	11.1	**0.0**	120.7	-0.0
My,	-715.6	0.0	64.8	0.0	**-164.6**	0.0	-1261.2	-37.2	-113.0	0.0	**813.1**	-65.1
Mz,	-930.2	-41.3	-2.8	0.0	269.5	**-72.3**	-933.5	6.6	-3.7	0.0	245.8	**11.6**
Fx,	**-1590.1**	0.0	-53.7	0.0	368.9	0.0	**-184.8**	-0.0	59.4	0.0	39.8	0.0
Fy,	-1113.4	**-0.0**	-4.5	0.0	283.6	0.0	-1037.2	**0.0**	-52.6	0.0	443.6	-0.0
Fz,	-1262.5	-0.0	**-113.3**	0.0	610.6	0.0	-448.9	0.0	**67.0**	0.0	-4.5	0.0
Mx,	-867.5	0.0	-29.6	**-0.0**	118.2	0.0	-661.0	-0.0	11.1	**0.0**	140.2	0.0
My,	-726.5	-0.0	31.8	0.0	**-52.0**	0.0	-1315.9	0.0	-40.8	0.0	**651.1**	-0.0
Mz,	-1133.2	0.0	-52.8	0.0	486.5	**-0.0**	-923.6	-0.0	6.5	0.0	158.4	**0.0**

Member 369

Fx,	**-1601.8**	-41.0	-54.8	0.0	475.4	-71.8	**-174.8**	6.6	66.1	0.0	-98.4	11.5
Fy,	-1001.5	**-41.0**	-39.9	0.0	342.5	-71.8	-767.4	**6.6**	-33.1	0.0	309.5	11.5
Fz,	-1277.7	-0.0	**-118.2**	0.0	810.5	-0.0	-442.7	-36.9	**74.2**	0.0	-125.1	-64.6
Mx,	-1290.6	-36.9	-94.7	**0.0**	512.3	-64.6	-537.3	0.0	15.9	**0.0**	123.8	0.0
My,	-633.0	-36.9	71.7	0.0	**-199.8**	-64.6	-1352.3	-0.0	-117.9	0.0	**848.1**	-0.0
Mz,	-1101.5	-41.0	-44.5	0.0	394.9	**-71.8**	-772.9	6.6	-35.0	0.0	307.9	**11.5**
Fx,	**-1601.8**	-0.0	-54.8	0.0	379.5	0.0	**-174.8**	0.0	66.1	0.0	17.3	-0.0
Fy,	-1001.4	**-0.0**	-39.9	0.0	272.7	0.0	-767.4	**0.0**	-33.1	0.0	251.5	-0.0
Fz,	-1277.7	-0.0	**-118.2**	0.0	603.7	0.0	-442.7	-0.0	**74.2**	0.0	4.7	0.0
Mx,	-1290.6	-0.0	-94.7	**0.0**	346.6	0.0	-537.3	0.0	15.9	**0.0**	151.7	-0.0
My,	-662.8	-0.0	71.4	0.0	**-74.5**	0.0	-1387.7	-0.0	-77.9	0.0	**661.2**	0.0
Mz,	-870.9	0.0	-32.3	0.0	215.6	**-0.0**	-926.5	-0.0	-43.0	0.0	283.4	**0.0**

Member 370

Fx,	**-1594.0**	0.0	-53.8	0.0	473.6	-0.0	**-175.1**	-32.8	64.0	0.0	-95.7	-57.4
Fy,	-1205.1	**-41.0**	-48.7	0.0	475.4	-71.8	-707.0	**6.6**	46.8	0.0	63.6	11.5
Fz,	-1345.2	-36.9	**-116.0**	0.0	842.7	-64.6	-367.0	0.0	**72.0**	0.0	-157.7	0.0
Mx,	-1012.5	-0.0	-33.3	**0.0**	268.6	-0.0	-673.4	0.0	8.1	**0.0**	179.7	-0.0
My,	-630.4	0.0	69.8	0.0	**-197.7**	0.0	-1347.4	-36.9	-115.8	0.0	**845.4**	-64.6
Mz,	-1122.5	-41.0	-45.3	0.0	441.1	**-71.8**	-595.0	6.6	46.3	0.0	38.6	**11.5**
Fx,	**-1594.0**	0.0	-53.8	0.0	379.5	-0.0	**-175.1**	-0.0	64.0	0.0	16.3	0.0
Fy,	-1205.1	**-0.0**	-48.7	0.0	390.1	0.0	-918.0	**0.0**	-1.5	0.0	289.6	-0.0
Fz,	-1345.2	-0.0	**-116.0**	0.0	639.7	0.0	-367.0	0.0	**72.0**	0.0	-31.7	-0.0
Mx,	-1012.5	-0.0	-33.3	**0.0**	210.4	0.0	-673.4	0.0	8.1	**0.0**	193.8	-0.0
My,	-659.2	-0.0	69.7	0.0	**-75.6**	0.0	-1383.6	0.0	-77.2	0.0	**661.8**	-0.0
Mz,	-970.9	0.0	-2.4	0.0	288.6	**-0.0**	-1174.2	-0.0	-47.7	0.0	382.9	**0.0**

Member 371

Fx,	**-1609.2**	-41.3	-54.8	-0.0	463.7	-72.3	**-188.0**	6.6	59.7	-0.0	-63.5	11.6
Fy,	-1065.8	**-41.3**	-50.8	-0.0	497.4	-72.3	-704.3	**6.6**	45.2	-0.0	110.7	11.6
Fz,	-1278.5	-0.0	**-112.7**	-0.0	797.0	-0.0	-470.1	-37.2	**65.1**	-0.0	-107.4	-65.1
Mx,	-1237.8	-41.3	-44.5	**-0.0**	376.6	-72.3	-679.4	0.0	5.8	**-0.0**	151.7	0.0
My,	-669.0	-37.2	62.4	-0.0	**-148.3**	-65.1	-1351.4	-0.0	-112.1	-0.0	**801.3**	-0.0
Mz,	-1100.1	-41.3	-51.5	-0.0	510.2	**-72.3**	-675.6	6.6	42.5	-0.0	101.0	**11.6**
Fx,	**-1609.2**	-0.0	-54.8	-0.0	367.7	0.0	**-188.0**	0.0	59.7	-0.0	41.0	-0.0
Fy,	-1065.8	**-0.0**	-50.8	-0.0	408.5	0.0	-704.3	**0.0**	45.2	-0.0	189.9	-0.0
Fz,	-1278.5	-0.0	-112.7	-0.0	599.8	0.0	-470.1	-0.0	**65.1**	-0.0	6.5	0.0
Mx,	-1237.8	-0.0	-44.5	**-0.0**	298.8	0.0	-679.4	0.0	5.8	**-0.0**	161.9	0.0
My,	-658.5	-0.0	29.6	-0.0	**-42.7**	0.0	-1442.3	-0.0	-40.9	-0.0	**645.6**	0.0
Mz,	-634.1	0.0	45.3	-0.0	171.3	**-0.0**	-1226.6	-0.0	-49.0	-0.0	412.2	**0.0**

Member 372

Fx,	**-1384.5**	-0.0	-56.3	-0.0	400.1	-0.0	**-123.3**	-5.5	58.5	-0.0	20.4	-9.6
Fy,	-856.6	**-34.4**	-38.2	-0.0	294.3	-60.2	-440.7	**5.5**	41.0	-0.0	149.3	9.6
Fz,	-975.2	-6.2	**-115.3**	-0.0	614.2	-10.8	-481.0	-0.0	**66.3**	-0.0	23.5	-0.0
Mx,	-941.3	-0.0	-38.4	**-0.0**	363.6	-0.0	-451.6	-0.0	12.5	**0.0**	115.0	-0.0
My,	-574.4	-0.0	63.2	-0.0	**-47.9**	-0.0	-1100.1	-6.9	-81.5	-0.0	**680.5**	-12.0
Mz,	-845.9	-34.4	-37.8	-0.0	287.8	**-60.2**	-701.7	5.5	32.0	-0.0	254.9	**9.6**
Fx,	**-1384.5**	-0.0	-56.3	-0.0	301.7	0.0	**-123.3**	-0.0	58.5	-0.0	122.9	0.0
Fy,	-856.6	**-0.0**	-38.2	-0.0	227.5	0.0	-440.7	**0.0**	41.0	-0.0	221.0	-0.0
Fz,	-975.2	-0.0	**-115.3**	-0.0	412.5	0.0	-481.0	-0.0	**66.3**	-0.0	139.5	0.0
Mx,	-941.3	-0.0	-38.4	**-0.0**	296.4	0.0	-451.6	-0.0	12.5	**0.0**	136.8	0.0
My,	-591.1	-0.0	-50.8	-0.0	**-25.2**	0.0	-1152.5	-0.0	-40.9	-0.0	**586.4**	0.0
Mz,	-442.6	0.0	40.9	-0.0	220.4	**-0.0**	-839.0	-0.0	-34.8	-0.0	252.1	**0.0**

Member 373

Fx,	**-488.6**	-167.9	-101.3	-0.0	177.3	-293.8	**1.8**	132.3	31.4	-0.0	-55.0	231.6
Fy,	-483.1	**-168.0**	-96.2	-0.0	168.4	-293.9	-27.8	**132.5**	10.5	-0.0	-18.3	231.9
Fz,	-356.9	10.3	**-148.1**	-0.0	259.3	18.0	-117.2	-129.9	**39.4**	0.0	-68.9	-227.3
Mx,	-367.2	-144.5	-55.2	**-0.0**	96.6	-252.9	-206.0	-156.7	-57.1	**0.0**	99.9	-274.2
My,	-117.2	-129.9	39.4	0.0	**-68.9**	-227.3	-356.9	10.3	-148.1	-0.0	**259.3**	18.0
Mz,	-483.1	-168.0	-96.2	-0.0	168.4	**-293.9**	-27.8	132.5	10.5	-0.0	-18.3	**231.9**
Fx,	**-488.6**	-155.6	-101.3	-0.0	-0.0	0.0	**1.8**	130.5	31.4	-0.0	0.0	0.0
Fy,	-481.7	**-161.0**	-96.2	0.0	-0.0	-0.0	-26.6	**126.4**	10.5	0.0	0.0	-0.0
Fz,	-356.9	10.3	**-148.1**	-0.0	0.0	-0.0	-117.2	-128.1	**39.4**	0.0	-0.0	-0.0
Mx,	-367.2	-132.3	-55.2	**-0.0**	-0.0	0.0	-206.0	-154.4	-57.1	**0.0**	-0.0	-0.0
My,	-340.0	-151.1	-49.3	-0.0	**-0.0**	0.0	-153.7	128.6	-27.1	-0.0	0.0	0.0
Mz,	-186.4	-129.7	-46.1	0.0	-0.0	**-0.0**	-286.5	-152.1	-30.2	-0.0	-0.0	**0.0**

Member 374

Fx,	**-475.4**	0.0	76.7	0.0	-134.3	0.0	**198.2**	-0.0	35.4	-0.0	-62.0	-0.0
Fy,	12.2	**-0.0**	97.4	0.0	-170.5	-0.0	-316.0	**0.0**	68.2	-0.0	-119.4	0.0
Fz,	-185.4	0.0	**-19.5**	0.0	34.1	0.0	-108.1	-0.0	**175.1**	-0.0	-306.3	-0.0
Mx,	-302.9	0.0	106.1	**-0.0**	-185.7	0.0	-186.3	0.0	31.6	**0.0**	-55.3	0.0
My,	-108.1	-0.0	175.1	-0.0	**-306.3**	-0.0	-185.4	0.0	-19.5	0.0	34.1	0.0
Mz,	11.3	-0.0	100.5	0.0	-175.9	**-0.0**	-323.5	0.0	71.6	-0.0	-125.3	**0.0**
Fx,	**-475.4**	0.0	76.7	0.0	0.0	-0.0	**198.2**	-0.0	35.4	-0.0	0.0	0.0
Fy,	12.2	**-0.0**	97.4	0.0	0.0	0.0	-316.0	**0.0**	68.2	-0.0	0.0	-0.0
Fz,	-185.4	0.0	**-19.5**	0.0	0.0	-0.0	-108.1	-0.0	**175.1**	-0.0	0.0	0.0
Mx,	-302.9	0.0	106.1	**-0.0**	0.0	-0.0	-186.3	0.0	31.6	**0.0**	0.0	-0.0
My,	-29.5	-0.0	98.0	-0.0	**0.0**	0.0	-337.0	0.0	60.0	-0.0	**0.0**	-0.0
Mz,	-366.5	0.0	79.4	-0.0	0.0	**-0.0**	37.9	-0.0	52.8	0.0	0.0	**0.0**

Member 375

Fx,	**-1384.8**	0.0	30.1	0.0	-321.6	0.0	**-193.2**	-26.0	-7.2	-0.0	-72.4	-45.5
Fy,	-783.2	**-32.5**	28.1	0.0	-298.3	-56.9	-769.6	**2.0**	9.5	-0.0	-252.5	3.4
Fz,	-629.7	0.0	**-11.5**	-0.0	-17.9	0.0	-1120.6	-32.5	**57.1**	0.0	-603.8	-56.9
Mx,	-334.9	0.0	-4.1	**-0.0**	-100.8	0.0	-274.4	-0.0	7.4	**0.0**	-22.3	-0.0
My,	-1077.0	-32.5	53.3	-0.0	**-645.4**	-56.9	-694.2	0.0	1.3	0.0	**49.1**	0.0
Mz,	-783.2	-32.5	28.1	0.0	-298.3	**-56.9**	-769.6	2.0	9.5	-0.0	-252.5	**3.4**
Fx,	**-1384.8**	0.0	30.1	0.0	-269.0	-0.0	**-193.2**	-0.0	-7.2	-0.0	-85.0	0.0
Fy,	-783.2	**-0.0**	28.1	0.0	-249.1	0.0	-941.0	**0.0**	14.0	-0.0	-222.3	-0.0
Fz,	-629.7	0.0	**-11.5**	-0.0	-38.0	-0.0	-1120.6	-0.0	**57.1**	0.0	-503.9	0.0
Mx,	-334.9	0.0	-4.1	**-0.0**	-108.0	-0.0	-274.4	-0.0	7.4	**0.0**	-9.4	0.0
My,	-1257.3	0.0	53.2	-0.0	**-552.3**	-0.0	-528.9	-0.0	1.4	0.0	51.4	0.0
Mz,	-1011.0	0.0	17.3	-0.0	-242.8	**-0.0**	-660.4	-0.0	23.9	0.0	-207.3	0.0

Member 376

Fx,	**-1589.8**	-6.8	60.8	0.0	-446.4	-11.9	**-212.4**	27.2	-66.5	-0.0	38.1	47.6
Fy,	-1029.9	**-34.0**	8.6	-0.0	-327.9	-59.5	-944.0	**5.4**	80.9	-0.0	-357.4	9.5
Fz,	-465.5	-6.1	**-71.5**	-0.0	27.1	-10.7	-1272.6	0.0	**126.0**	0.0	-720.1	0.0
Mx,	-618.0	-0.0	-10.6	**-0.0**	-255.5	-0.0	-627.6	0.0	33.9	**0.0**	-187.9	0.0
My,	-1425.9	0.0	89.0	0.0	**-766.5**	0.0	-672.3	-30.6	-68.2	0.0	**105.8**	-53.5
Mz,	-1088.4	-34.0	10.3	-0.0	-338.2	**-59.5**	-1019.9	5.4	84.0	-0.0	-385.9	**9.5**
Fx,	**-1589.8**	-0.0	60.8	0.0	-340.0	0.0	**-212.4**	0.0	-66.5	-0.0	-78.3	-0.0
Fy,	-1030.0	**-0.0**	8.6	-0.0	-312.8	0.0	-1066.0	**0.0**	96.3	0.0	-309.5	-0.0
Fz,	-465.5	-0.0	**-71.5**	-0.0	-98.1	0.0	-1272.6	0.0	**126.0**	0.0	-499.6	0.0
Mx,	-618.0	-0.0	-10.6	**-0.0**	-274.1	0.0	-627.6	0.0	33.9	**0.0**	-128.7	-0.0
My,	-1436.6	-0.0	48.8	-0.0	**-647.4**	0.0	-762.8	0.0	56.2	0.0	**35.5**	-0.0
Mz,	-1076.8	0.0	85.2	-0.0	-281.6	**-0.0**	-1093.5	-0.0	12.5	0.0	-364.4	**0.0**

Member 377

Fx,	**-1590.1**	-0.0	53.7	0.0	-462.9	-0.0	**-196.0**	-33.0	-61.3	-0.0	88.6	-57.8
Fy,	-1214.2	**-41.3**	45.7	0.0	-394.0	-72.3	-481.4	**6.6**	-50.4	-0.0	-56.4	11.6
Fz,	-450.2	-0.0	**-67.0**	-0.0	122.6	-0.0	-1262.5	-37.2	**113.3**	0.0	-808.8	-65.1

Mx,	-827.1	0.0	1.0	**-0.0**	-287.2	0.0	-451.7	-0.0	19.5	**0.0**	-162.8	-0.0
My,	-1261.2	-37.2	113.0	0.0	**-813.1**	-65.1	-715.6	-0.0	-64.8	-0.0	**164.6**	-0.0
Mz,	-1214.2	-41.3	45.7	0.0	-394.0	**-72.3**	-481.4	6.6	-50.4	-0.0	-56.4	**11.6**
Fx,	**-1590.1**	-0.0	53.7	0.0	-368.9	0.0	**-196.0**	0.0	-61.3	-0.0	-18.7	-0.0
Fy,	-1154.9	**-0.0**	83.3	0.0	-313.5	0.0	-685.5	**0.0**	-2.9	-0.0	-269.6	-0.0
Fz,	-450.2	-0.0	**-67.0**	-0.0	5.3	0.0	-1262.5	0.0	**113.3**	0.0	-610.6	-0.0
Mx,	-827.1	0.0	1.0	**-0.0**	-285.4	-0.0	-451.7	-0.0	19.5	**0.0**	-128.6	0.0
My,	-1315.8	-0.0	40.8	0.0	**-651.1**	0.0	-726.5	0.0	-31.8	-0.0	**52.0**	-0.0
Mz,	-885.1	0.0	2.2	-0.0	-352.8	**-0.0**	-973.4	-0.0	77.2	0.0	-233.6	**0.0**

Member 378

Fx,	**-1601.8**	-41.0	54.8	0.0	-475.4	-71.8	**-185.9**	6.6	-68.0	0.0	122.9	11.5
Fy,	-1003.8	**-41.0**	42.6	-0.0	-375.6	-71.8	-896.0	**6.6**	40.8	0.0	-363.9	11.5
Fz,	-443.0	-36.9	**-74.2**	0.0	125.9	-64.6	-1277.7	0.0	**118.2**	-0.0	-810.5	0.0
Mx,	-991.6	0.0	-6.0	**-0.0**	-215.3	0.0	-562.8	-0.0	30.4	**0.0**	-195.6	-0.0
My,	-1352.3	0.0	117.9	-0.0	**-848.1**	0.0	-633.0	-36.9	-71.7	0.0	**199.8**	-64.6
Mz,	-970.5	-41.0	40.5	-0.0	-359.1	**-71.8**	-834.2	6.6	32.6	-0.0	-285.2	**11.5**
Fx,	**-1601.8**	-0.0	54.8	0.0	-379.5	0.0	**-185.9**	0.0	-68.0	0.0	3.9	0.0
Fy,	-1003.8	**-0.0**	42.6	-0.0	-301.1	0.0	-896.0	**0.0**	40.8	0.0	-292.5	0.0
Fz,	-443.0	-0.0	**-74.2**	0.0	-4.0	0.0	-1277.7	0.0	**118.2**	-0.0	-603.7	-0.0
Mx,	-991.6	0.0	-6.0	**-0.0**	-225.8	-0.0	-562.8	-0.0	30.4	**0.0**	-142.5	0.0
My,	-1387.7	-0.0	77.9	-0.0	**-661.2**	0.0	-662.8	0.0	-71.4	0.0	**74.5**	-0.0
Mz,	-961.2	0.0	-2.3	0.0	-235.8	**-0.0**	-1043.5	-0.0	39.7	0.0	-264.7	**0.0**

Member 379

Fx,	**-1594.0**	-0.0	53.8	0.0	-473.6	0.0	**-186.0**	-32.8	-65.9	-0.0	120.3	-57.4
Fy,	-1157.5	**-41.0**	54.3	0.0	-608.7	-71.8	-699.9	**6.6**	39.5	0.0	-260.0	11.5
Fz,	-367.2	-0.0	**-72.0**	0.0	158.4	-0.0	-1345.2	-36.9	**116.0**	0.0	-842.7	-64.6
Mx,	-772.0	-41.0	-16.9	**-0.0**	-90.2	-71.8	-385.1	-0.0	16.4	**0.0**	-103.6	-0.0
My,	-1347.4	-36.9	115.8	0.0	**-845.4**	-64.6	-630.4	-0.0	-69.8	0.0	**197.7**	-0.0
Mz,	-1157.5	-41.0	54.3	0.0	-608.7	**-71.8**	-699.9	6.6	39.5	0.0	-260.0	**11.5**
Fx,	**-1594.0**	-0.0	53.8	0.0	-379.5	0.0	**-186.0**	-0.0	-65.9	-0.0	4.9	0.0
Fy,	-943.1	**-0.0**	-6.8	-0.0	-290.8	0.0	-640.1	**0.0**	-2.5	0.0	-141.5	-0.0
Fz,	-367.2	-0.0	**-72.0**	0.0	32.3	0.0	-1345.2	-0.0	**116.0**	0.0	-539.7	0.0
Mx,	-772.0	-0.0	-16.9	**-0.0**	-119.8	0.0	-385.1	-0.0	16.4	**0.0**	-74.9	0.0
My,	-1383.6	-0.0	77.2	0.0	**-661.7**	0.0	-659.2	-0.0	-69.7	0.0	**75.6**	0.0
Mz,	-715.2	0.0	1.1	0.0	-165.0	**-0.0**	-841.5	-0.0	-9.4	-0.0	-256.4	**0.0**

Member 380

Fx,	**-1609.2**	-41.3	54.8	0.0	-463.7	-72.3	**-197.6**	6.6	-60.7	0.0	80.9	11.6
Fy,	-1165.8	**-41.3**	36.0	0.0	-333.2	-72.3	-618.0	**6.6**	-40.0	0.0	-116.0	11.6
Fz,	-472.2	-37.2	**-65.1**	0.0	108.3	-65.1	-1278.5	-0.0	**112.7**	0.0	-797.0	-0.0
Mx,	-936.1	-0.0	3.6	**-0.0**	-228.8	-0.0	-675.0	-0.0	24.5	**0.0**	-202.2	-0.0
My,	-1351.4	-0.0	112.1	0.0	**-801.3**	-0.0	-669.0	-37.2	-62.4	0.0	**148.3**	-65.1
Mz,	-1209.9	-41.3	36.5	0.0	-331.8	**-72.3**	-630.3	6.6	-43.0	0.0	-110.6	**11.6**
Fx,	**-1609.2**	-0.0	54.8	0.0	-367.7	0.0	**-197.6**	0.0	-60.7	0.0	-25.2	-0.0
Fy,	-1146.8	**-0.0**	77.8	0.0	-316.4	0.0	-618.0	**0.0**	-40.0	0.0	-186.0	-0.0
Fz,	-472.2	-0.0	**-65.1**	0.0	-5.6	0.0	-1278.5	-0.0	**112.7**	0.0	-599.8	-0.0
Mx,	-936.1	-0.0	3.6	**-0.0**	-222.6	0.0	-675.0	-0.0	24.5	**0.0**	-159.3	0.0
My,	-1442.3	-0.0	40.9	0.0	**-645.6**	0.0	-658.5	0.0	-29.6	0.0	**42.7**	-0.0
Mz,	-650.9	0.0	-35.8	0.0	-219.5	**-0.0**	-1118.5	-0.0	35.9	0.0	-277.9	**0.0**

Member 381

Fx,	**-1384.5**	-0.0	56.3	0.0	-400.1	-0.0	**-129.7**	-5.5	-60.2	0.0	-5.1	-9.6
Fy,	-1000.4	**-34.4**	52.9	0.0	-379.2	-60.2	-613.5	**5.5**	-48.3	0.0	-144.9	9.6
Fz,	-481.0	0.0	**-66.3**	0.0	-23.5	0.0	-975.2	-6.2	**115.3**	0.0	-614.2	-10.8
Mx,	-979.8	-30.9	-15.5	**0.0**	-424.8	-54.1	-421.9	0.0	5.4	**0.0**	-125.2	0.0
My,	-1100.1	-6.9	81.5	0.0	**-680.5**	-12.0	-574.4	0.0	-63.2	0.0	**47.9**	0.0
Mz,	-1000.4	-34.4	52.9	0.0	-379.2	**-60.2**	-613.5	5.5	-48.3	0.0	-144.9	**9.6**
Fx,	**-1384.5**	-0.0	56.3	0.0	-301.7	0.0	**-129.7**	0.0	-60.2	0.0	-110.5	-0.0
Fy,	-1000.4	**-0.0**	52.9	0.0	-286.6	0.0	-685.2	**0.0**	-6.6	0.0	-216.1	-0.0
Fz,	-481.0	0.0	**-66.3**	0.0	-139.5	-0.0	-975.2	0.0	**115.3**	0.0	-412.5	-0.0
Mx,	-979.8	-0.0	-15.5	**0.0**	-452.0	0.0	-421.9	0.0	5.4	**0.0**	-115.8	-0.0
My,	-1152.5	0.0	40.9	0.0	**-586.4**	-0.0	-591.1	0.0	50.8	0.0	**25.2**	-0.0
Mz,	-1074.4	0.0	-1.2	0.0	-299.0	**-0.0**	-732.2	-0.0	47.1	0.0	-205.7	**0.0**

Member 382

Fx,	**-488.6**	-167.9	101.3	-0.0	-177.3	-293.8	**-11.1**	132.0	-33.1	0.0	57.9	231.1
Fy,	-483.1	**-168.0**	96.2	-0.0	-168.4	-293.9	-27.8	**132.5**	-10.5	-0.0	18.3	231.9
Fz,	-113.1	-129.8	**-39.5**	0.0	69.1	-227.1	-356.9	10.3	**148.1**	-0.0	-259.3	18.0
Mx,	-347.5	-143.9	101.9	**-0.0**	-178.4	-251.9	-191.8	-129.8	14.1	**0.0**	-24.6	-227.1
My,	-356.9	10.3	148.1	-0.0	**-259.3**	18.0	-113.1	-129.8	-39.5	0.0	**69.1**	-227.1
Mz,	-483.1	-168.0	96.2	-0.0	-168.4	**-293.9**	-27.8	132.5	-10.5	-0.0	18.3	**231.9**
Fx,	**-488.6**	-155.6	101.3	-0.0	0.0	0.0	**-11.1**	130.2	-33.1	0.0	0.0	-0.0
Fy,	-481.7	**-161.0**	96.2	-0.0	0.0	0.0	-26.6	**126.4**	-10.5	-0.0	0.0	-0.0
Fz,	-113.1	-127.9	**-39.5**	0.0	0.0	0.0	-356.9	10.3	**148.1**	-0.0	0.0	-0.0
Mx,	-347.5	-131.7	101.9	**-0.0**	0.0	0.0	-191.8	-128.0	14.1	**0.0**	0.0	0.0
My,	-251.1	-133.0	60.7	0.0	**-0.0**	0.0	-227.6	6.5	62.8	-0.0	**0.0**	-0.0
Mz,	-306.9	116.7	75.0	-0.0	0.0	**-0.0**	-165.4	-155.4	11.7	-0.0	0.0	**0.0**

Member 391

Fx,	**-1384.8**	0.0	-30.1	0.0	269.0	0.0	**-186.7**	0.0	5.6	0.0	97.8	0.0
Fy,	-694.5	**0.0**	-17.1	0.0	166.1	0.0	-401.6	**0.0**	-5.6	0.0	87.0	0.0
Fz,	-1120.6	0.0	**-57.1**	0.0	503.9	0.0	-629.7	0.0	**11.5**	0.0	38.0	0.0
Mx,	-694.5	0.0	-17.1	**0.0**	166.1	0.0	-401.6	0.0	-5.6	**0.0**	87.0	0.0
My,	-528.9	0.0	-1.4	0.0	**-51.4**	0.0	-1257.3	0.0	-53.2	0.0	**552.3**	0.0
Mz,	-694.5	0.0	-17.1	0.0	166.1	**0.0**	-401.6	0.0	-5.6	0.0	87.0	**0.0**
Fx,	**-1519.2**	0.0	-30.0	0.0	-135.9	0.0	**-267.4**	-26.0	10.8	0.0	208.6	350.4
Fy,	-1299.5	**-32.5**	-43.3	0.0	-185.4	437.9	-506.8	**2.0**	-6.1	0.0	8.9	-26.4
Fz,	-1100.4	-29.3	**-62.0**	0.0	-367.0	394.1	-750.6	0.0	**17.4**	0.0	232.7	0.0
Mx,	-802.1	0.0	-17.1	**0.0**	-63.9	0.0	-482.3	0.0	-5.6	**0.0**	11.2	0.0
My,	-1041.6	-29.3	-61.5	0.0	**-388.8**	394.1	-656.4	0.0	14.7	0.0	**256.3**	0.0
Mz,	-830.2	2.0	-26.8	0.0	-185.1	**-26.4**	-470.6	-32.5	-5.6	0.0	11.2	**437.9**

Member 392

Fx,	**-1589.8**	0.0	-60.8	0.0	340.0	0.0	**-203.1**	0.0	65.2	0.0	94.3	0.0
Fy,	-846.8	**0.0**	-35.3	0.0	229.0	0.0	-483.2	**0.0**	-5.4	0.0	109.8	0.0
Fz,	-1272.6	0.0	**-126.0**	0.0	499.6	0.0	-465.3	0.0	**71.5**	0.0	98.8	0.0
Mx,	-846.8	0.0	-35.3	**0.0**	229.0	0.0	-483.2	0.0	-5.4	**0.0**	109.8	0.0
My,	-752.8	0.0	-56.2	0.0	**-35.5**	0.0	-1436.6	0.0	-48.8	0.0	**647.4**	0.0
Mz,	-846.8	0.0	-35.3	0.0	229.0	**0.0**	-483.2	0.0	-5.4	0.0	109.8	**0.0**
Fx,	**-1713.5**	-6.8	-60.8	0.0	-413.5	84.3	**-277.3**	27.2	70.0	0.0	932.4	-337.2
Fy,	-1532.8	**-34.0**	-69.8	0.0	-372.9	421.5	-574.6	**5.4**	-6.0	0.0	39.7	-67.4
Fz,	-1383.9	0.0	**-131.4**	0.0	-1095.8	0.0	-532.1	-6.1	**76.9**	0.0	1018.5	75.9
Mx,	-945.7	0.0	-35.3	**0.0**	-208.8	0.0	-557.4	0.0	-5.4	**0.0**	42.4	0.0
My,	-1388.5	0.0	-130.9	0.0	**-1098.5**	0.0	-568.4	-6.1	70.5	0.0	**1030.2**	75.9
Mz,	-992.9	5.4	-83.0	0.0	-780.6	**-67.4**	-558.2	-34.0	-5.4	0.0	42.5	**421.5**

Member 393

Fx,	**-1590.1**	0.0	-53.7	0.0	368.9	0.0	**-184.8**	0.0	59.4	0.0	39.8	0.0
Fy,	-837.0	**0.0**	-32.2	0.0	246.1	0.0	-477.2	**0.0**	-5.5	0.0	110.0	0.0
Fz,	-1262.5	0.0	**-113.3**	0.0	610.6	0.0	-448.9	0.0	**67.0**	0.0	-4.5	0.0
Mx,	-837.0	0.0	-32.2	**0.0**	246.1	0.0	-477.2	0.0	-5.5	**0.0**	110.0	0.0
My,	-726.5	0.0	31.8	0.0	**-52.0**	0.0	-1315.9	0.0	-40.8	0.0	**651.1**	0.0
Mz,	-837.0	0.0	-32.2	0.0	246.1	**0.0**	-477.2	0.0	-5.5	0.0	110.0	**0.0**
Fx,	**-1745.1**	0.0	-53.7	0.0	-465.9	0.0	**-277.8**	-33.0	65.4	0.0	1009.3	513.7
Fy,	-1542.4	**-41.3**	-61.3	0.0	-433.2	642.1	-587.7	**6.6**	-6.0	0.0	22.5	-102.7
Fz,	-1346.3	-37.2	**-120.0**	0.0	-1202.2	577.9	-588.4	0.0	**73.7**	0.0	1088.3	0.0
Mx,	-961.1	0.0	-32.2	**0.0**	-253.7	0.0	-570.2	0.0	-5.5	**0.0**	25.3	0.0
My,	-1279.4	-37.2	-119.6	0.0	**-1237.2**	577.9	-684.7	0.0	69.7	0.0	**1127.0**	0.0
Mz,	-1021.4	6.6	-78.5	0.0	-900.9	**-102.7**	-569.7	-41.3	-5.5	0.0	25.3	**642.1**

Member 394

Fx,	**-1601.8**	0.0	-54.8	0.0	379.5	0.0	**-174.8**	0.0	66.1	0.0	17.3	0.0
Fy,	-842.9	**0.0**	-32.8	0.0	253.3	0.0	-478.7	**0.0**	-5.0	0.0	110.4	0.0
Fz,	-1277.7	0.0	**-118.2**	0.0	603.7	0.0	-442.7	0.0	**74.2**	0.0	4.7	0.0
Mx,	-842.9	0.0	-32.8	**0.0**	253.3	0.0	-478.7	0.0	-5.0	**0.0**	110.4	0.0
My,	-662.8	0.0	71.4	0.0	**-74.5**	0.0	-1387.7	0.0	-77.9	0.0	**661.2**	0.0
Mz,	-842.9	0.0	-32.8	0.0	253.3	**0.0**	-478.7	0.0	-5.0	0.0	110.4	**0.0**
Fx,	**-1762.9**	-41.0	-54.8	0.0	-506.0	662.4	**-271.4**	6.6	72.3	0.0	1134.6	-105.8
Fy,	-1558.4	**-41.0**	-61.5	0.0	-464.9	662.4	-592.8	**6.6**	-5.5	0.0	26.3	-105.8

Fz_f	-1422.7	0.0	**-125.2**	0.0	-1362.0	0.0	-529.7	-36.9	**81.2**	0.0	1259.5	596.1
Mx_f	-971.8	0.0	-32.8	**0.0**	-277.0	0.0	-575.4	0.0	-5.0	**0.0**	29.1	0.0
My_f	-1447.8	0.0	-124.9	0.0	**-1365.7**	0.0	-540.6	-36.9	76.7	0.0	**1268.0**	596.1
Mz_f	-1039.2	6.6	-84.0	0.0	-1010.7	**-105.8**	-575.7	-41.0	-5.0	0.0	29.1	**662.4**

Member 395

Fx,	**-1594.0**	0.0	-53.8	0.0	379.5	0.0	**-175.1**	0.0	64.0	0.0	16.3	0.0
Fy,	-843.4	**0.0**	-32.3	0.0	253.1	0.0	-477.3	**0.0**	-5.1	0.0	110.2	0.0
Fz,	-1345.2	0.0	**-116.0**	0.0	639.7	0.0	-367.0	0.0	**72.0**	0.0	-31.7	0.0
Mx,	-843.4	0.0	-32.3	**0.0**	253.1	0.0	-477.3	0.0	-5.1	**0.0**	110.2	0.0
My,	-659.2	0.0	69.7	0.0	**-75.6**	0.0	-1383.6	0.0	-77.2	0.0	**661.7**	0.0
Mz,	-843.4	0.0	-32.3	0.0	253.1	**0.0**	-477.3	0.0	-5.1	0.0	110.2	**0.0**
Fx_f	**-1756.9**	0.0	-53.8	0.0	-498.7	0.0	**-272.8**	-32.8	70.3	0.0	1112.8	535.7
Fy_f	-1557.4	**-41.0**	-60.7	0.0	-462.4	669.7	-592.8	**6.6**	-5.6	0.0	23.8	-107.1
Fz_f	-1491.8	-36.9	**-123.0**	0.0	-1312.2	602.7	-455.0	0.0	**79.1**	0.0	1202.2	0.0
Mx_f	-973.7	0.0	-32.3	**0.0**	-274.0	0.0	-575.0	0.0	-5.1	**0.0**	26.6	0.0
My,	-1428.3	-36.9	-122.7	0.0	**-1349.3**	602.7	-554.3	0.0	74.5	0.0	**1243.7**	0.0
Mz_f	-1041.1	6.6	-82.1	0.0	-993.6	**-107.1**	-574.4	-41.0	-5.1	0.0	26.6	**669.7**

Member 396

Fx,	**-1609.2**	0.0	-54.8	0.0	367.7	0.0	**-188.0**	0.0	59.7	0.0	41.0	0.0
Fy,	-833.5	**0.0**	-32.9	0.0	246.6	0.0	-483.0	**0.0**	-5.6	0.0	110.0	0.0
Fz,	-1278.5	0.0	**-112.7**	0.0	599.8	0.0	-470.1	0.0	**65.1**	0.0	6.5	0.0
Mx,	-833.5	0.0	-32.9	**0.0**	246.6	0.0	-483.0	0.0	-5.6	**0.0**	110.0	0.0
My,	-658.5	0.0	29.6	0.0	**-42.7**	0.0	-1442.3	0.0	-40.9	0.0	**645.6**	0.0
Mz,	-833.5	0.0	-32.9	0.0	246.6	**0.0**	-483.0	0.0	-5.6	0.0	110.0	**0.0**
Fx_f	**-1762.3**	-41.3	-54.8	0.0	-473.8	633.9	**-279.8**	6.6	65.6	0.0	1002.2	-101.4
Fy_f	-1549.6	**-41.3**	-61.8	0.0	-431.7	633.9	-590.5	**6.6**	-6.1	0.0	20.7	-101.4
Fz_f	-1361.1	0.0	**-119.3**	0.0	-1179.5	0.0	-607.8	-37.2	**71.7**	0.0	1055.7	570.5
Mx_f	-956.0	0.0	-32.9	**0.0**	-257.9	0.0	-574.8	0.0	-5.6	**0.0**	23.5	0.0
My,	-1295.1	0.0	-118.8	0.0	**-1214.1**	0.0	-715.3	-37.2	66.2	0.0	**1097.9**	570.5
Mz_f	-1012.6	6.6	-78.9	0.0	-894.0	**-101.4**	-577.7	-41.3	-5.6	0.0	23.5	**633.9**

Member 397

Fx,	**-1384.5**	0.0	-56.3	0.0	301.7	0.0	**-123.3**	0.0	58.5	0.0	122.9	0.0
Fy,	-744.7	**0.0**	-33.9	0.0	191.3	0.0	-402.5	**0.0**	-4.8	0.0	111.6	0.0
Fz,	-975.2	0.0	**-115.3**	0.0	412.5	0.0	-481.0	0.0	**66.3**	0.0	139.5	0.0
Mx,	-744.7	0.0	-33.9	**0.0**	191.3	0.0	-402.5	0.0	-4.8	**0.0**	111.6	0.0
My,	-591.1	0.0	-50.8	0.0	**-25.2**	0.0	-1152.5	0.0	-40.9	0.0	**586.4**	0.0
Mz,	-744.7	0.0	-33.9	0.0	191.3	**0.0**	-402.5	0.0	-4.8	0.0	111.6	**0.0**
Fx_f	**-1498.9**	0.0	-56.3	0.0	-343.1	0.0	**-191.9**	-5.5	62.9	0.0	818.7	63.0
Fy_f	-1316.4	**-34.4**	-53.3	0.0	-290.9	393.9	-507.4	**5.5**	-5.3	0.0	54.3	-63.0
Fz_f	-1036.9	-6.2	**-120.2**	0.0	-937.0	70.9	-583.8	0.0	**71.2**	0.0	927.4	0.0
Mx_f	-836.2	0.0	-33.9	**0.0**	-195.7	0.0	-471.1	0.0	-4.8	**0.0**	56.5	0.0
My,	-1027.2	-6.2	-119.4	0.0	**-948.5**	70.9	-616.3	0.0	66.7	0.0	**937.9**	0.0
Mz_f	-897.7	5.5	-76.8	0.0	-688.4	**-63.0**	-444.9	-34.4	-4.8	0.0	56.4	**393.9**

Member 398

Fx,	**-1384.8**	0.0	30.1	0.0	-269.0	0.0	**-193.2**	0.0	-7.2	0.0	-85.0	0.0
Fy,	-868.1	**0.0**	17.5	0.0	-234.2	0.0	-401.6	**0.0**	5.6	0.0	-87.0	0.0
Fz,	-629.7	0.0	**-11.5**	0.0	-38.0	0.0	-1120.6	0.0	**57.1**	0.0	-503.9	0.0
Mx,	-868.1	0.0	17.5	**0.0**	-234.2	0.0	-401.6	0.0	5.6	**0.0**	-87.0	0.0
My,	-1257.3	0.0	53.2	0.0	**-552.3**	0.0	-528.9	0.0	1.4	0.0	**51.4**	0.0
Mz,	-868.1	0.0	17.5	0.0	-234.2	**0.0**	-401.6	0.0	5.6	0.0	-87.0	**0.0**
Fx_f	**-1519.2**	0.0	30.0	0.0	135.9	0.0	**-273.9**	-26.0	-12.3	0.0	-216.5	350.4
Fy_f	-1275.9	**-32.5**	39.9	0.0	93.8	437.9	-506.8	**2.0**	6.1	0.0	-8.9	-26.4
Fz_f	-750.6	0.0	**-17.4**	0.0	-232.7	0.0	-1100.4	-29.3	**62.0**	0.0	367.0	394.1
Mx_f	-975.6	0.0	17.5	**0.0**	2.0	0.0	-482.3	0.0	5.6	**0.0**	-11.2	0.0
My,	-660.3	0.0	-14.9	0.0	**-256.5**	0.0	-1041.6	-29.3	61.5	0.0	**388.8**	394.1
Mz_f	-965.8	2.0	7.8	0.0	-119.3	**-26.4**	-470.6	-32.5	5.6	0.0	-11.2	**437.9**

Member 399

Fx	**-1589.8**	0.0	60.8	0.0	-340.0	0.0	**-212.4**	0.0	-66.5	0.0	-78.3	0.0
Fy,	-1014.1	**0.0**	4.5	0.0	-262.9	0.0	-483.2	**0.0**	5.4	0.0	-109.8	0.0
Fz,	-465.5	0.0	**-71.5**	0.0	-98.1	0.0	-1272.6	0.0	**126.0**	0.0	-499.6	0.0
Mx,	-1014.1	0.0	4.5	**0.0**	-262.9	0.0	-483.2	0.0	5.4	**0.0**	-109.8	0.0
My,	-1436.6	0.0	48.8	0.0	**-647.4**	0.0	-762.8	0.0	56.2	0.0	55.3	0.0
Mz,	-1014.1	0.0	4.5	0.0	-262.9	**0.0**	-483.2	0.0	5.4	0.0	-109.8	**0.0**
Fx_f	**-1713.5**	-6.8	60.8	0.0	413.5	84.3	**-286.6**	27.2	-71.3	0.0	-932.6	-337.2
Fy_f	-1480.6	**-34.0**	31.6	0.0	-136.3	421.5	-574.6	**5.4**	6.0	0.0	-39.7	-67.4
Fz_f	-532.3	-6.1	**-76.9**	0.0	-1018.0	75.9	-1383.9	0.0	**131.4**	0.0	1095.8	0.0
Mx_f	-1113.0	0.0	4.5	**0.0**	-207.6	0.0	-557.4	0.0	5.4	**0.0**	-42.5	0.0
My_f	-568.6	-6.1	-70.5	0.0	**-1029.8**	75.9	-1388.5	0.0	130.9	0.0	**1098.5**	0.0
Mz_f	-1064.4	5.4	-43.2	0.0	-779.4	**-67.4**	-558.2	-34.0	5.4	0.0	-42.5	**421.5**

Member 400

Fx,	**-1590.1**	0.0	53.7	0.0	-368.9	0.0	**-196.0**	0.0	-61.3	0.0	-18.7	0.0
Fy,	-992.0	**0.0**	3.0	0.0	-252.2	0.0	-477.2	**0.0**	5.5	0.0	-110.0	0.0
Fz,	-450.2	0.0	**-67.0**	0.0	5.3	0.0	-1262.5	0.0	**113.3**	0.0	-610.6	0.0
Mx,	-992.0	0.0	3.0	**0.0**	-252.2	0.0	-477.2	0.0	5.5	**0.0**	-110.0	0.0
My,	-1315.8	0.0	40.8	0.0	**-651.1**	0.0	-726.5	0.0	-31.8	0.0	**52.0**	0.0
Mz,	-992.0	0.0	3.0	0.0	-252.2	**0.0**	-477.2	0.0	5.5	0.0	-110.0	**0.0**
Fx_f	**-1745.1**	0.0	53.7	0.0	465.9	0.0	**-289.0**	-33.0	-67.3	0.0	-1018.3	513.7
Fy_f	-1479.1	**-41.3**	24.7	0.0	-137.0	642.1	-587.7	**6.6**	6.0	0.0	-22.5	-102.7
Fz_f	-589.8	0.0	**-73.7**	0.0	-1087.9	0.0	-1346.3	-37.2	**120.0**	0.0	1202.2	577.9
Mx_f	-1116.0	0.0	3.0	**0.0**	-205.9	0.0	-570.2	0.0	5.5	**0.0**	-25.3	0.0
My,	-686.1	0.0	-69.7	0.0	**-1126.5**	0.0	-1279.4	-37.2	119.6	0.0	**1237.2**	577.9
Mz,	-1056.1	6.6	-43.4	0.0	-853.1	**-102.7**	-569.7	-41.3	5.5	0.0	-25.3	**642.1**

Member 401

Fx,	**-1601.8**	0.0	54.8	0.0	-379.5	0.0	**-185.9**	0.0	-68.0	0.0	3.9	0.0
Fy,	-992.7	**0.0**	0.5	0.0	-247.2	0.0	-478.7	**0.0**	5.0	0.0	-110.4	0.0
Fz,	-443.0	0.0	**-74.2**	0.0	-4.0	0.0	-1277.7	0.0	**118.2**	0.0	-603.7	0.0
Mx,	-992.7	0.0	0.5	**0.0**	-247.2	0.0	-478.7	0.0	5.0	**0.0**	-110.4	0.0
My,	-1387.7	0.0	77.9	0.0	**-661.2**	0.0	-662.8	0.0	-71.4	0.0	**74.5**	0.0
Mz,	-992.7	0.0	0.5	0.0	-247.2	**0.0**	-478.7	0.0	5.0	0.0	-110.4	**0.0**
Fx_f	**-1762.9**	-41.0	54.8	0.0	506.1	662.4	**-282.6**	6.6	-74.2	0.0	-1144.7	-105.8
Fy_f	-1486.4	**-41.0**	20.8	0.0	-180.5	662.4	-592.8	**6.6**	5.5	0.0	-26.3	-105.8
Fz_f	-530.0	-36.9	**-81.2**	0.0	-1259.2	596.1	-1422.7	0.0	**125.2**	0.0	1362.0	0.0
Mx_f	-1121.6	0.0	0.5	**0.0**	-239.0	0.0	-575.4	0.0	5.0	**0.0**	-29.1	0.0
My,	-541.9	-36.9	-76.7	0.0	**-1267.5**	596.1	-1447.8	0.0	124.9	0.0	**1365.7**	0.0
Mz_f	-1053.9	6.6	-50.7	0.0	-972.7	**-105.8**	-575.7	-41.0	5.0	0.0	-29.1	**662.4**

Member 402

Fx,	**-1594.0**	0.0	53.8	0.0	-379.5	0.0	**-186.0**	0.0	-65.9	0.0	4.9	0.0
Fy,	-993.4	**0.0**	1.1	0.0	-247.2	0.0	-477.3	**0.0**	5.1	0.0	-110.2	0.0
Fz,	-367.2	0.0	**-72.0**	0.0	32.3	0.0	-1345.2	0.0	**116.0**	0.0	-639.7	0.0
Mx,	-993.4	0.0	1.1	**0.0**	-247.2	0.0	-477.3	0.0	5.1	**0.0**	-110.2	0.0
My,	-1383.6	0.0	77.2	0.0	**-661.8**	0.0	-659.2	0.0	-69.7	0.0	**75.6**	0.0
Mz	-993.4	0.0	1.1	0.0	-247.2	**0.0**	-477.3	0.0	5.1	0.0	-110.2	0.0
Fx_f	**-1756.9**	0.0	53.8	0.0	498.7	0.0	**-283.8**	-32.8	-72.2	0.0	-1123.2	535.7
Fy_f	-1488.0	**-41.0**	21.2	0.0	-169.8	669.7	-592.8	**6.6**	5.6	0.0	-23.8	-107.1
Fz_f	-455.2	0.0	**-79.1**	0.0	-1201.9	0.0	-1491.8	-36.9	**123.0**	0.0	1312.2	602.7
Mx_f	-1123.8	0.0	1.1	**0.0**	-229.5	0.0	-575.0	0.0	5.1	**0.0**	-26.6	0.0
My,	-555.7	0.0	-74.6	0.0	**-1243.3**	0.0	-1428.3	-36.9	122.7	0.0	**1349.3**	602.7
Mz_f	-1057.3	6.6	-48.8	0.0	-949.1	**-107.1**	-574.4	-41.0	5.1	0.0	-26.6	**669.7**

Member 403

Fx,	**-1609.2**	0.0	54.8	0.0	-367.7	0.0	**-197.6**	0.0	-60.7	0.0	-25.2	0.0
Fy_f	-990.3	**0.0**	3.0	0.0	-251.3	0.0	-483.0	**0.0**	5.6	0.0	-110.0	0.0
Fz,	-472.2	0.0	**-65.1**	0.0	-5.6	0.0	-1278.5	0.0	**112.7**	0.0	-599.8	0.0
Mx,	-990.3	0.0	3.0	**0.0**	-251.3	0.0	-483.0	0.0	5.6	**0.0**	-110.0	0.0
My,	-1442.3	0.0	40.9	0.0	**-645.6**	0.0	-658.5	0.0	-29.6	0.0	**42.7**	0.0
Mz,	-990.3	0.0	3.0	0.0	-251.3	**0.0**	-483.0	0.0	5.6	0.0	-110.0	**0.0**
Fx_f	**-1762.3**	-41.3	54.8	0.0	473.8	633.9	**-289.4**	6.6	-66.6	0.0	-1001.1	-101.4
Fy_f	-1487.4	**-41.3**	25.5	0.0	-130.1	633.9	-590.5	**6.6**	6.1	0.0	-20.7	-101.4
Fz_f	-609.9	-37.2	**-71.7**	0.0	-1055.0	570.5	-1361.1	0.0	**119.3**	0.0	1179.5	0.0
Mx_f	-1112.7	0.0	3.0	**0.0**	-205.4	0.0	-574.8	0.0	5.6	**0.0**	-23.5	0.0
My,	-715.3	-37.2	-66.2	0.0	**-1097.9**	570.5	-1295.1	0.0	118.8	0.0	**1214.1**	0.0
Mz_f	-1052.0	6.6	-43.0	0.0	-841.5	**-101.4**	-577.7	-41.3	5.6	0.0	-23.5	**633.9**

Member 404

Fx,	**-1384.5**	0.0	56.3	0.0	-301.7	0.0	**-129.7**	0.0	-60.2	0.0	-110.5	0.0
Fy,	-892.2	**0.0**	1.8	0.0	-272.6	0.0	-402.5	**0.0**	4.8	0.0	-111.6	0.0
Fz,	-481.0	0.0	**-66.3**	0.0	-139.5	0.0	-975.2	0.0	**115.3**	0.0	-412.5	0.0
Mx,	-892.2	0.0	1.8	**0.0**	-272.6	0.0	-402.5	0.0	4.8	**0.0**	-111.6	0.0
My,	-1152.5	0.0	40.9	0.0	**-586.4**	0.0	-591.1	0.0	50.8	0.0	**25.2**	0.0
Mz,	-892.2	0.0	1.8	0.0	-272.6	**0.0**	-402.5	0.0	4.8	0.0	-111.6	**0.0**
Fx,	**-1498.9**	0.0	56.3	0.0	343.1	0.0	**-198.3**	-5.5	-64.6	0.0	-826.0	63.0
Fy,	-1269.5	**-34.4**	27.8	0.0	-162.5	393.9	-507.4	**5.5**	5.3	0.0	-54.3	-63.0
Fz,	-583.8	0.0	**-71.2**	0.0	-927.4	0.0	-1036.9	-6.2	**120.2**	0.0	937.0	70.9
Mx,	-983.6	0.0	1.8	**0.0**	-251.6	0.0	-471.1	0.0	4.8	**0.0**	-56.5	0.0
My,	-616.3	0.0	-66.7	0.0	**-937.9**	0.0	-1027.2	-6.2	119.4	0.0	**948.5**	70.9
Mz,	-961.6	5.5	-41.1	0.0	-743.3	**-63.0**	-444.9	-34.4	4.8	0.0	-56.4	**393.9**

Member 421

Fx,	**-2956.8**	0.0	-4.1	0.0	-171.6	0.0	**-604.4**	-52.0	20.5	-0.0	495.4	700.7
Fy,	-2575.4	**-65.0**	-3.4	-0.0	-162.3	875.9	-1013.6	**3.9**	0.0	0.0	0.0	-52.8
Fz,	-1579.4	-4.4	**-55.9**	-0.0	-649.7	59.4	-2038.5	0.0	**55.9**	0.0	649.7	0.0
Mx,	-2575.4	-65.0	-3.4	**-0.0**	-162.3	875.9	-1013.6	3.9	0.0	**0.0**	0.0	-52.8
My,	-1504.5	-4.4	-14.7	-0.0	**-1790.9**	59.4	-1790.8	0.0	14.9	0.0	**1791.0**	0.0
Mz,	-1796.0	3.9	-19.0	0.0	102.6	**-52.8**	-941.3	-65.0	0.0	-0.0	0.0	**875.9**
Fx,	**-2956.8**	0.0	-4.1	0.0	-175.6	0.0	**-604.4**	-52.0	20.5	-0.0	515.9	752.7
Fy,	-2575.4	**-65.0**	-3.4	-0.0	-165.7	940.9	-1013.6	**3.9**	0.0	0.0	0.0	-56.7
Fz,	-1579.4	-4.4	**-55.9**	-0.0	-705.6	63.8	-2038.5	0.0	**55.9**	0.0	705.6	0.0
Mx,	-2575.4	-65.0	-3.4	**-0.0**	-165.7	940.9	-1013.6	3.9	0.0	**0.0**	0.0	-56.7
My,	-1507.3	-4.4	-16.0	-0.0	**-1805.7**	63.8	-1793.6	0.0	16.2	0.0	**1806.1**	0.0
Mz,	-1796.0	3.9	-19.0	0.0	83.6	**-56.7**	-941.3	-65.0	0.0	-0.0	0.0	**940.9**

Member 422

Fx,	**-3293.2**	-13.6	35.3	-0.0	624.4	168.6	**-716.3**	54.4	-127.3	0.0	-1937.3	-674.3
Fy,	-3013.5	**-68.0**	-38.2	-0.0	-665.8	842.9	-1149.1	**10.9**	0.0	0.0	-0.0	-134.9
Fz,	-1840.2	-12.2	**-162.6**	-0.0	-2482.6	151.7	-2018.2	0.0	**162.5**	0.0	2540.6	0.0
Mx,	-3013.5	-68.0	-38.2	**-0.0**	-665.8	842.9	-1149.1	10.9	0.0	**0.0**	-0.0	-134.9
My,	-1986.0	-12.2	-137.9	-0.0	**-3774.8**	151.7	-1865.1	0.0	138.2	0.0	**3776.8**	0.0
Mz,	-2057.3	10.9	-126.2	0.0	-1345.7	**-134.9**	-1116.4	-68.0	0.0	-0.0	-0.0	**842.9**
Fx,	**-3293.2**	-13.6	35.3	-0.0	659.7	182.2	**-716.3**	54.4	-127.3	0.0	-2064.6	-728.7
Fy,	-3013.5	**-68.0**	-38.2	-0.0	-704.1	910.9	-1149.1	**10.9**	0.0	0.0	-0.0	-145.7
Fz,	-1840.2	-12.2	**-162.6**	-0.0	-2645.2	164.0	-2018.2	0.0	**162.5**	0.0	2703.1	0.0
Mx,	-3013.5	-68.0	-38.2	**-0.0**	-704.1	910.9	-1149.1	10.9	0.0	**0.0**	-0.0	-145.7
My,	-1982.3	-12.2	-138.4	-0.0	**-3912.7**	164.0	-1861.4	0.0	138.8	0.0	**3915.0**	0.0
Mz,	-2057.3	10.9	-126.2	0.0	-1471.9	**-145.7**	-1116.4	-68.0	0.0	-0.0	-0.0	**910.9**

Member 423

Fx,	**-3342.2**	0.0	37.8	0.0	780.9	0.0	**-753.6**	0.0	-39.7	0.0	-760.1	0.0
Fy,	-3021.5	**-82.6**	-36.6	-0.0	-760.1	1284.2	-1175.5	**13.2**	0.0	0.0	-0.0	-205.5
Fz,	-1759.0	-14.9	**-158.0**	-0.0	-2629.8	231.2	-2132.2	0.0	**157.8**	0.0	2687.0	0.0
Mx,	-3021.5	-82.6	-36.6	**-0.0**	-760.1	1284.2	-1175.5	13.2	0.0	**0.0**	-0.0	-205.5
My,	-2031.3	-14.9	-135.9	-0.0	**-4104.4**	231.2	-1874.8	0.0	136.2	0.0	**4105.1**	0.0
Mz,	-2077.5	13.2	-121.9	0.0	-1649.9	**-205.5**	-1139.5	-82.6	0.0	-0.0	-0.0	**1284.2**
Fx,	**-3342.2**	0.0	37.8	0.0	818.7	0.0	**-753.6**	0.0	-39.7	0.0	-799.8	0.0
Fy,	-3021.5	**-82.6**	-36.6	-0.0	-796.7	1366.9	-1175.5	**13.2**	0.0	0.0	-0.0	-218.7
Fz,	-1759.0	-14.9	**-158.0**	-0.0	-2787.8	246.0	-2132.2	0.0	**157.8**	0.0	2844.9	0.0
Mx,	-3021.5	-82.6	-36.6	**-0.0**	-796.7	1366.9	-1175.5	13.2	0.0	**0.0**	-0.0	-218.7
My,	-2027.8	-14.9	-136.3	-0.0	**-4240.5**	246.0	-1871.2	0.0	136.6	0.0	**4241.5**	0.0
Mz,	-2077.5	13.2	-121.9	0.0	-1771.9	**-218.7**	-1139.5	-82.6	0.0	-0.0	-0.0	**1366.9**

Member 424

Fx,	**-3369.2**	-82.0	-43.4	-0.0	-901.7	1324.7	**-761.5**	0.0	40.4	0.0	911.4	0.0
Fy,	-3046.9	**-82.0**	-40.8	-0.0	-855.4	1324.7	-1185.6	**13.1**	-0.0	0.0	-0.0	-211.6
Fz,	-1975.4	0.0	**-171.4**	0.0	-2972.5	0.0	-1965.1	-14.7	**171.3**	-0.0	3029.8	238.1
Mx,	-3046.9	-82.0	-40.8	**-0.0**	-855.4	1324.7	-1185.6	13.1	-0.0	**0.0**	-0.0	-211.6
My,	-2010.4	0.0	-151.0	0.0	**-4449.0**	0.0	-1870.7	-14.7	151.2	-0.0	**4450.5**	238.1
Mz,	-2093.1	13.1	-134.7	0.0	-1939.1	**-211.6**	-1151.3	-82.0	-0.0	-0.0	-0.0	**1324.7**
Fx,	**-3369.2**	-82.0	-43.4	-0.0	-945.0	1406.7	**-761.5**	0.0	40.4	0.0	951.8	0.0
Fy,	-3046.9	**-82.0**	-40.8	-0.0	-896.1	1406.7	-1185.6	**13.1**	-0.0	0.0	-0.0	-224.7
Fz,	-1975.4	0.0	**-171.4**	0.0	-3143.9	0.0	-1965.1	-14.7	**171.3**	-0.0	3201.1	252.8
Mx,	-3046.9	-82.0	-40.8	**-0.0**	-896.1	1406.7	-1185.6	13.1	-0.0	0.0	-0.0	-224.7
My,	-2010.7	0.0	-151.1	0.0	**-4600.1**	0.0	-1870.9	-14.7	151.3	-0.0	**4601.8**	252.8
Mz,	-2093.1	13.1	-134.7	0.0	-2073.8	**-224.7**	-1151.3	-82.0	-0.0	-0.0	-0.0	**1406.7**

Member 425

Fx,	**-3358.4**	0.0	37.0	0.0	794.9	0.0	**-763.1**	0.0	-43.1	0.0	-853.5	0.0
Fy,	-3045.4	**-82.0**	-39.5	-0.0	-840.4	1339.3	-1185.7	**13.1**	-0.0	0.0	-0.0	-214.3
Fz,	-1970.6	0.0	**-167.7**	0.0	-2913.1	0.0	-1951.9	-14.8	**167.6**	-0.0	2970.3	241.1
Mx,	-3045.4	-82.0	-39.5	**-0.0**	-840.4	1339.3	-1185.7	13.1	-0.0	**0.0**	-0.0	-214.3
My,	-2003.0	0.0	-147.1	0.0	**-4397.4**	0.0	-1888.7	-14.8	147.3	-0.0	**4398.9**	241.1
Mz,	-2098.4	13.1	-130.9	0.0	-1894.1	**-214.3**	-1148.8	-82.0	-0.0	-0.0	-0.0	**1339.3**
Fx,	**-3358.4**	0.0	37.0	0.0	831.9	0.0	**-763.1**	0.0	-43.1	0.0	-896.7	0.0
Fy,	-3045.4	**-82.0**	-39.5	-0.0	-879.9	1421.3	-1185.7	**13.1**	-0.0	0.0	-0.0	-227.4
Fz,	-1970.6	0.0	**-167.7**	0.0	-3080.8	0.0	-1951.9	-14.8	**167.6**	-0.0	3137.9	255.8
Mx,	-3045.4	-82.0	-39.5	**-0.0**	-879.9	1421.3	-1185.7	13.1	-0.0	**0.0**	-0.0	-227.4
My,	-1999.4	0.0	-147.5	0.0	**-4544.6**	0.0	-1885.1	-14.8	147.7	-0.0	**4546.3**	255.8
Mz,	-2098.4	13.1	-130.9	0.0	-2025.0	**-227.4**	-1148.8	-82.0	-0.0	-0.0	-0.0	**1421.3**

Member 426

Fx,	**-3377.0**	-82.6	35.2	-0.0	727.7	1267.7	**-753.2**	13.2	-122.1	0.0	-2194.2	-202.8
Fy,	-3037.0	**-82.6**	-36.4	-0.0	-748.5	1267.7	-1180.9	**13.2**	0.0	0.0	-0.0	-202.8
Fz,	-1677.1	0.0	**-154.5**	0.0	-2584.1	0.0	-2284.7	-14.9	**154.4**	-0.0	2641.6	228.2
Mx,	-3037.0	-82.6	-36.4	**-0.0**	-748.5	1267.7	-1180.9	13.2	0.0	**0.0**	-0.0	-202.8
My,	-2207.2	0.0	-133.4	0.0	**-4063.8**	0.0	-1744.1	-14.9	133.4	-0.0	**4063.8**	228.2
Mz,	-2064.6	13.2	-121.9	0.0	-1617.5	**-202.8**	-1155.3	-82.6	0.0	-0.0	-0.0	**1267.7**
Fx,	**-3377.0**	-82.6	35.2	-0.0	762.9	1350.3	**-753.2**	13.2	-122.1	0.0	-2316.3	-216.1
Fy,	-3037.0	**-82.6**	-36.4	-0.0	-784.9	1350.3	-1180.9	**13.2**	0.0	0.0	-0.0	-216.1
Fz,	-1677.1	0.0	**-154.5**	0.0	-2738.6	0.0	-2284.7	-14.9	**154.4**	-0.0	2795.9	243.1
Mx,	-3037.0	-82.6	-36.4	**-0.0**	-784.9	1350.3	-1180.9	13.2	0.0	**0.0**	-0.0	-216.1
My,	-2203.6	0.0	-133.8	0.0	**-4197.2**	0.0	-1740.5	-14.9	133.8	-0.0	**4197.1**	243.1
Mz,	-2064.6	13.2	-121.9	0.0	-1739.4	**-216.1**	-1155.3	-82.6	0.0	-0.0	-0.0	**1350.3**

Member 427

Fx,	**-2874.6**	0.0	-32.0	0.0	-543.0	0.0	**-523.5**	-11.0	111.6	-0.0	1701.0	126.1
Fy,	-2585.9	**-68.8**	-35.5	-0.0	-594.1	787.9	-1014.8	**11.0**	0.0	0.0	-0.0	-126.1
Fz,	-1673.1	0.0	**-152.7**	0.0	-2259.5	0.0	-1608.5	-12.4	**152.5**	-0.0	2312.5	141.8
Mx,	-2585.9	-68.8	-35.5	**-0.0**	-594.1	787.9	-1014.8	11.0	0.0	**0.0**	-0.0	-126.1
My,	-1593.6	0.0	-131.9	0.0	**-3324.1**	0.0	-1575.8	-12.4	131.9	-0.0	**3324.0**	141.8
Mz,	-1859.3	11.0	-118.0	0.0	-1239.9	**-126.1**	-889.9	-68.8	0.0	-0.0	-0.0	**787.9**
Fx,	**-2874.6**	0.0	-32.0	0.0	-575.0	0.0	**-523.5**	-11.0	111.6	-0.0	1812.6	137.1
Fy,	-2585.9	**-68.8**	-35.5	-0.0	-629.6	856.6	-1014.8	**11.0**	0.0	0.0	-0.0	-137.1
Fz,	-1673.1	0.0	**-152.7**	0.0	-2412.2	0.0	-1608.5	-12.4	**152.5**	-0.0	2465.0	154.2
Mx,	-2585.9	-68.8	-35.5	**-0.0**	-629.6	856.6	-1014.8	11.0	0.0	**0.0**	-0.0	-137.1
My,	-1592.4	0.0	-132.0	0.0	**-3456.0**	0.0	-1574.7	-12.4	132.0	-0.0	**3456.0**	154.2
Mz,	-1859.3	11.0	-118.0	0.0	-1357.8	**-137.1**	-889.9	-68.8	0.0	-0.0	-0.0	**856.6**

DISPLACEMENTS

x	y	z	x	y	z	x	y	z	x	y	z

*** Fin del listado ***

envolvente MAYORADA tren parado (Sin coef. impacto)

Program Envolvator (release 1.3 - Jun 1998)
Calculation date: 27-mar-1999 19:00 h. Listing date: 27-mar-1999 19:08 h.
Members: 419
Joints: 353
Envelope generated from:

Name	min	max
envolvente mayorada RENFE	1.00	1.00
envolvente mayorada UIC	1.00	1.00

	Fx	Fy	Fz	Mx	My	Mz	Fx	Fy	Fz	Mx	My	Mz
Member 1												
Fx_i	**-1196.6**	-280.9	75.3	-52.6	-527.9	-14.7	**1197.8**	-193.2	-71.8	-131.8	441.5	-48.4
Fy_i	-501.7	**-451.4**	8.4	-139.2	-83.8	-69.1	983.8	**-3.0**	-46.5	-62.1	272.7	376.0
Fz_i	-512.1	-180.4	**-83.1**	-66.5	423.4	-28.1	515.9	-208.1	**87.5**	-98.5	-498.7	366.6
Mx_i	-272.2	-263.6	8.0	**-261.4**	-67.7	386.3	38.1	-144.8	60.3	**18.7**	-423.9	-34.5
My_i	487.8	-200.1	77.0	-57.8	**-529.6**	366.9	-487.2	-182.7	-74.5	-82.7	**454.4**	-28.2
Mz_i	818.9	-384.0	6.4	-132.0	-72.8	**-95.5**	-886.1	-61.7	5.2	-47.4	-63.3	**444.0**
Fx_f	**-1189.2**	-169.6	70.2	-30.7	-261.2	787.5	**1190.3**	-129.9	-66.6	-103.2	187.7	568.0
Fy_f	-494.7	**-313.4**	8.0	-99.2	-53.2	1214.0	826.5	**50.3**	4.2	-27.6	-40.8	434.9
Fz_f	-501.4	-126.7	**-74.3**	-46.5	160.1	511.1	505.2	-98.5	**78.6**	-70.6	-219.5	952.7
Mx_f	-266.0	-135.9	7.2	**-186.2**	-39.8	1003 4	0.8	-118.5	40.7	**20.1**	-157.6	594.7
My_f	28.2	-144.4	56.3	-28.3	**-264.1**	658.1	-28.4	-81.6	-51.3	-99.4	**201.4**	835.2
Mz_f	977.8	11.4	-41.9	-40.6	110.7	**48.6**	-495.2	-241.8	8.4	-93.6	-53.1	**1515.5**
Member 2												
Fx_i	**-1126.4**	-160.1	67.9	-32.3	-451.7	754.1	**1127.2**	-131.1	-66.7	-108.4	372.7	560.6
Fy_i	-486.5	**-311.6**	4.0	-95.2	-64.2	1213.6	826.1	**49.8**	4.8	-30.0	-56.9	435.1
Fz_i	-567.0	-132.4	**-76.7**	-72.5	360.8	527.0	571.4	-96.8	**78.5**	-59.6	-427.5	958.2
Mx_i	-263.6	-134.0	3.7	**-185.0**	-53.8	1004.1	81.5	-104.7	55.7	**18.2**	-365.8	492.6
My_i	543.4	-91.0	70.2	-32.9	**-454.0**	922.7	-542.7	-145.0	-69.2	-82.7	**384.7**	567.9
Mz_i	938.8	10.5	-42.1	-43.7	227.5	**48.8**	-491.5	-240.2	5.7	-92.1	-72.4	**1515.3**
Fx_f	**-1118.9**	-48.8	62.8	-10.4	-212.0	1113.1	**1119.7**	-35.8	-61.6	-46.2	137.6	890.5
Fy_f	-479.2	**-186.9**	3.7	-63.0	-49.5	1889.6	819.1	**115.5**	5.0	-6.6	-39.3	332.4
Fz_f	-556.3	-80.5	**-68.6**	-46.6	110.9	893.3	560.7	14.6	**70.4**	-37.6	-171.0	1132.9
Mx_f	-257 6	-18.6	3.6	**-125.2**	-41.0	1053.4	18.8	-45.8	39.5	**40.2**	-135.9	1193.6
My_f	79.7	-63.4	50.8	-16.9	**-215.5**	1059.5	-79.3	15.1	-48.4	-40.7	**152.3**	928.5
Mz_f	932 8	55.6	-37.4	-22.2	81.7	**-53.5**	-483.9	-162 2	5.2	-49.2	-51.5	**2124.9**
Member 3												
Fx_i	**-1062.3**	-48.3	61.2	-10.9	-381.6	1113.0	**1063.4**	-41.8	-59.8	-62.5	304.3	893.1
Fy_i	-476.7	**-182.8**	2.2	-55.1	-56.6	1880.8	822.8	**113.9**	5.1	-12.5	-53.3	341.2
Fz_i	-613.3	-99.8	**-70.6**	-74.1	302.6	1002.5	618.0	20.1	**71.0**	-24.9	-365.0	1133.4
Mx_i	-149.9	-27.0	-50.5	**-117.6**	254.7	1120.0	51.7	-48.3	39.6	**30.1**	-247.3	1191.8
My_i	592.1	20.2	63.4	-14.7	**-384.1**	1077.5	-591.8	-98.4	-63.5	-74.3	**317.9**	989.9
Mz_i	898.3	54.1	-37.7	-27.1	185.4	**-53.4**	-480.7	-159.9	4.0	-47.8	-64.1	**2124.9**
Fx_f	**-1054.9**	59.3	56.1	11.1	-166.5	1068.8	**1055.9**	49.8	-54.7	-0.3	94.3	902.4
Fy_f	-469.3	**-85.2**	1.8	-21.7	-31.6	1815.4	817.6	**197.8**	4.6	12.3	-51.2	421.0
Fz_f	-602.5	-18.5	**-62.9**	-14.6	68.0	1195.4	607.2	127.8	**63.3**	-2.8	-128.9	886.4
Mx_f	-237.8	88.4	0.6	**-63.3**	-32.2	652.4	223.0	29.7	-1.7	**63.4**	-27.1	1634.6
My_f	128.5	8.7	42.5	-2.6	**-173.4**	1202.8	-131.0	108.7	-38.8	12.9	**110.8**	669.3
Mz_f	-65.8	96.8	4.4	-3.9	-35.2	**-336.9**	411.8	-15.6	3.0	-6.4	-48.1	**2448.8**
Member 4												
Fx_i	**-1004.1**	47.3	54.4	11.0	-317.1	957.0	**1005.9**	41.3	-54.1	-28.3	244.4	886.6
Fy_i	-329.5	**-88.9**	-46.3	-52.2	202.3	1445.2	817.6	**200.4**	7.0	10.4	-71.3	388.9
Fz_i	458.8	-7.3	**-64.8**	-36.1	243.2	1369.3	-496.5	120.7	**63.6**	15.1	-301.2	683.9
Mx_i	-180.9	53.7	-51.9	**-69.7**	219.1	811.8	141.9	46.1	50.7	**55.4**	-279.0	1364.3
My_i	635.5	140.6	56.6	14.6	**-319.7**	721.6	-635.7	-2.1	-58.0	-30.8	**257.1**	1329.6
Mz_i	-61.7	97.1	3.8	-3.6	-45.4	**-336.8**	414.0	-13.2	2.1	-5.2	-54.2	**2448.8**
Fx_f	**-996.6**	122.9	49.3	18.5	-126.9	621.1	**998.4**	133.0	-49.0	33.9	55.4	590.9
Fy_f	-363.9	**-34.7**	-41.8	-8.9	49.5	1233.4	811.9	**320.1**	6.5	44.0	-45.2	-62.4
Fz_f	454.7	88.1	**-57.6**	29.4	24.7	1245.0	-492.5	214.2	**56.5**	31.2	-86.8	45.9
Mx_f	-213.0	136.2	-12.5	**-25.1**	-20.0	-230.8	196.0	166.9	5.1	**101.0**	-50.8	1620.6
My_f	183.3	69.7	24.0	15.9	**-143.6**	1286.5	-177.0	140.1	-25.0	15.9	**82.6**	-76.1
Mz_f	-55.3	178.5	4.1	11.0	-31.2	**-869.9**	407.6	127.1	1.9	39.0	-46.6	**2261.2**
Member 5												
Fx_i	**-953.5**	106.4	43.7	29.5	-253.3	642.7	**956.7**	135.4	-42.8	17.8	182.8	565.7
Fy_i	-403.2	**-40.5**	-44 2	-26.7	168.4	1232.8	819.3	**325.1**	5.2	55.9	-58.2	-27.3
Fz_i	406.6	88.1	**-60.1**	6.5	192.6	1275.9	-444.3	199.4	**56.0**	39.2	-243.6	-77.2
Mx_i	-113.7	104.7	-43.9	**-49.2**	159.6	-81.1	206.2	178.1	4.1	**110.5**	-56.1	1561.6
My_i	503.6	231.5	49.4	31.3	**-260.1**	-64.6	-544.1	81.0	-52.2	14.7	**203.8**	1214.2
Mz_i	-51.0	179.0	2.6	11.7	-38.4	**-869.9**	409.6	129.3	0.4	40.3	-47.7	**2261.3**
Fx_f	**-946.0**	183.8	38.6	42.9	-102.6	86.7	**949.3**	200.5	-37.7	40.5	35.3	-26.3
Fy_f	-396.1	**4.2**	-37.1	10.4	18.9	1153.2	812.8	**454.5**	5.1	89.7	-39.1	-1276.8
Fz_f	402.4	199.6	**-53.4**	86.0	-11.8	792.3	-440.1	264.4	**49.3**	40.9	-54.0	-951.5
Mx_f	-292.6	172.4	16.0	**-14.4**	-72.1	-764.0	199.5	303.1	3.0	**171.2**	-43.2	848.5
My_f	207.5	234.8	22.6	86.7	**-131.9**	827.6	-202.1	194.8	-26.8	37.5	**65.9**	-782.6
Mz_f	-44.6	268.5	2.3	34.0	-29.3	**-1742.9**	403.4	228.2	0.7	70.3	-45.3	**1660.8**
Member 6												
Fx_i	**-898.6**	201.0	23.6	54.6	-228.1	331.2	**903.1**	190.4	-30.6	35.3	175 4	-134.2
Fy_i	-442.3	**0.0**	-37.7	-2.3	154.7	1153.3	820.6	**457.8**	-0.6	96.4	-38.7	-1275.4
Fz_i	388.9	220.9	**-58.2**	70.6	166.4	844.7	-385.1	245.1	**47.3**	51.7	-205.3	-1004.9
Mx_i	-152.5	156.0	-39.6	**-30.0**	145.1	-717.0	207.0	307.1	-2.8	**176.2**	-35 0	836.7
My_i	-415.6	271.3	39.5	47.6	**-249.5**	-942.1	376.7	190.6	-48.0	70.3	**205.1**	756.2
Mz_i	-39.7	269.1	-1.8	34.6	-27.4	**-1743.1**	405.7	229.1	-1.9	69.7	-41.6	**1661.3**
Fx_f	**-891.1**	310.6	18.5	77.1	-151.0	-630.5	**895.6**	255.4	-25.5	52.7	72 7	-927.4
Fy_f	-434.3	**37.1**	-31.6	18.2	28.6	1023.6	813.5	**594.4**	-1 6	125.8	-43.3	-3118.9
Fz_f	381.4	357.1	**-53.1**	161.5	-37.5	-184.6	-377.6	298.8	**42.2**	46.7	-41.3	-2025.9
Mx_f	-530.0	188.0	-7.9	**-16.6**	-50.9	-1096.3	198.8	439.2	-5.3	**240.8**	-52 4	-447.0
My_f	234.8	371.8	1.3	149.3	**-175.0**	-253.9	-229.5	247.7	-12.8	56.1	**96.6**	-1617.5
Mz_f	-29.8	573.7	-1.8	116.8	-44.1	**-3163.0**	556.6	82.0	-29.9	24.3	27.8	**1047.1**
Member 7												
Fx_i	**-860.1**	-480.9	25.4	-204.8	-223 4	-744.7	**872.4**	-352.7	-14.9	-96.0	139.8	-1031.1
Fy_i	-230.3	**-739.9**	7.5	-203.7	-50.3	-3147.1	336.4	**-106.7**	-34.0	-70.1	116.7	1037.1
Fz_i	-483.8	-170.4	**-48.1**	-63.5	111.9	-550.1	295.2	-550.7	**55.7**	-249.7	-187.3	-516.7
Mx_i	206.3	-551.7	10.5	**-375.8**	-72.5	-367.5	-238.0	-396.3	27.4	**64.3**	-121.6	-1965.3
My_i	265.1	-490.0	31.9	-208.9	**-231.1**	-336.0	-251.9	-283.3	-23.1	-63.9	**158.7**	-1481.7
Mz_i	-228.6	-651.3	7.9	-175.9	-34.6	**-3172.8**	379.2	-159.3	-33.2	-82.1	108.8	**1060.6**
Fx_f	**-850.9**	-333.1	31.1	-139.5	-75.3	1038.0	**863.3**	-272.9	-20.7	-74.7	38.8	406.0
Fy_f	-221.3	**-571.8**	6.8	-169.7	-16.6	-319.4	326.4	**-61.2**	-27.3	-43.8	-22.7	1492 3
Fz_f	-473.2	-128.6	**-36.8**	-43.8	-54.9	90.3	285.5	-376.3	**45.8**	-156 3	18.8	1592.4
Mx_f	200.4	-402.8	9.4	**-296.1**	-23.6	1712.8	-231.7	-324.1	22.5	**69.6**	-11.3	-282.9
My_f	-552 2	-249.9	-0.3	-105.4	**-99.8**	286.3	353 3	-301.2	-10.0	-113.7	**66.9**	1284.8
Mz_f	-222.6	-351.7	5.2	-61.5	-8.3	**-877.0**	201.7	-314.0	5.5	-130.8	-32.0	**2214.6**
Member 8												
Fx_i	**-837.2**	-328.7	15.0	-135.2	-134 8	1041.3	**849.6**	-275.0	-10.8	-85.7	75.2	409.2
Fy_i	-223.1	**-566.6**	3.1	-161.7	-37.0	-319.6	304.5	**-66.0**	-26.0	-58.1	56.0	1493.3
Fz_i	-301.6	-220.1	**-40.5**	-118.1	56.2	-342.1	313.1	-354.7	**43.7**	-104.7	-108.7	1578.5
Mx_i	199.9	-418.0	5.0	**-295.2**	-47.0	1667.9	-213.1	-327.2	21.2	**58.6**	-73.0	-287.9
My_i	267.8	-322.6	19.7	-143.0	**-143.3**	1585.7	-254.6	-239.1	-16 0	-59.1	**91.2**	-421.9
Mz_i	-222.1	-352.2	2.1	-66.6	-21.5	**-878.1**	201.8	-310.9	3.0	-126.8	-41.8	**2215.1**

Fx,	**-828.0**	-194.3	20.8	-77.4	-33.2	2188.5	**840.4**	-195.1	-16.5	-57.9	-7.3	1496.2
Fy,	-215.5	**-407.4**	2.9	-127.5	-24.0	1611.3	294.3	**-12.9**	-19.3	-6.6	-47.1	1882.1
Fz,	-291.9	-154.2	**-30.5**	-93.5	-81.7	470.8	303.5	-206.9	**33.8**	-32.9	43.9	2852.0
Mx,	194.0	-278.3	4.2	**-226.9**	-24.0	3049.3	-205.5	-236.2	15.6	**78.8**	9.9	1128.5
My,	-315.3	-172.3	-25.1	-108.6	**-99.6**	769.6	286.1	-190.9	29.1	-22.5	**64.4**	2470.8
Mz,	-173.6	-101.0	-14.1	-39.1	-34.7	**-36.2**	194.3	-321.5	3.5	-93.9	-23.8	**3842.5**

Member 9

Fx,	**-820.5**	-204.6	2.5	-135.1	-54.5	2529.8	**823.3**	-202.9	-7.9	-81.0	55.9	1496.0
Fy,	-215.4	**-399.0**	2.1	-112.8	-29.1	1579.9	274.8	**-19.9**	-18.8	-28.3	22.7	1884.3
Fz,	-319.8	-159.8	**-33.7**	-93.5	16.8	443.3	332.6	-215.1	**35.8**	-31.5	-57.2	2915.8
Mx,	198.1	-290.1	2.1	**-220.8**	-28.1	3099.2	-190.2	-212.1	14.9	**47.5**	-40.0	959.1
My,	275.9	-183.3	12.8	-85.0	**-105.5**	2772.0	-262.8	-181.3	-10.6	-56.1	**64.5**	477.8
Mz,	-191.0	-103.6	-14.6	-47.8	15.4	**-35.5**	195.3	-318.1	2.5	-97.1	-30.5	**3841.8**
Fx,	**-812.4**	-107.7	2.5	-105.3	-43.3	3206.8	**814.1**	-88.1	-13.6	-11.8	-13.4	2180.0
Fy,	-208.6	**-253.7**	1.9	-79.6	-21.4	2684.9	189.8	**44.5**	1.3	47.9	-12.5	2594.6
Fz,	-310.1	-99.5	**-23.7**	-61.7	-90.3	997.2	322.9	-82.9	**25.8**	-4.5	59.6	3615.8
Mx,	189.6	-159.0	1.8	**-159.1**	-19.7	3824.6	-207.1	-45.5	-0.0	**81.5**	-15.8	1421.6
My,	-324.7	-107.2	-21.5	-75.0	**-104.9**	1347.1	294.9	-100.2	23.7	9.5	**74.3**	3334.5
Mz,	-13.2	-46.4	-8.4	-21.7	-37.6	**283.7**	377.9	-153.6	2.3	-46.0	-18.9	**4921.1**

Member 10

Fx,	**-814.2**	-82.8	-19.7	-55.4	-52.1	2682.1	**826.6**	-101.2	21.9	-24.3	15.7	2292.8
Fy,	-207.7	**-244.2**	1.8	-66.3	-23.2	2616.8	189.7	**37.8**	1.4	-2.9	-15.2	2684.7
Fz,	-333.8	-95.7	**-26.7**	-55.4	-18.7	997.8	346.4	-86.7	**28.6**	-23.8	-13.1	3622.2
Mx,	194.2	-146.6	2.3	**-151.7**	-18.6	3793.2	-182.0	-54.0	9.9	**55.3**	-24.8	1333.0
My,	109.8	-56.7	6.6	-24.1	**-74.0**	2969.6	-139.1	-116.4	-4.6	-52.0	**42.2**	1445.4
Mz,	-23.6	-48.8	-8.6	-30.1	-6.7	**284.1**	378.7	-150.0	2.1	-51.6	-22.1	**4920.7**
Fx,	**-805.1**	7.7	-1.4	-13.0	-78.6	2821.8	**817.4**	13.6	3.6	18.9	52.1	2519.4
Fy,	-200.7	**-109.3**	1.6	-28.2	-17.2	2352.7	182.7	**130.5**	1.7	30.7	-6.5	3363.1
Fz,	-323.9	-35.4	**-16.7**	-23.7	-94.3	1263.1	336.5	45.5	**18.6**	3.3	71.0	3744.6
Mx,	185.2	-20.5	2.2	**-90.7**	-9.4	3609.2	-203.8	43.8	0.2	**99.5**	-17.0	2018.7
My,	540.1	-15.7	-15.1	-21.6	**-103.1**	1637.4	-570.2	41.7	17.1	21.0	**79.8**	3498.2
Mz,	683.5	13.8	-2.8	-3.7	-32.4	**362.9**	-407.1	6.2	2.2	0.4	-12.6	**5230.0**

Member 11

Fx,	**-813.5**	5.6	-16.8	-4.3	-62.3	2855.5	**825.9**	22.7	18.8	-8.7	35.9	2778.2
Fy,	-197.8	**-107.1**	1.6	-32.4	-15.5	2065.7	181.8	**130.1**	1.4	26.7	-10.8	3654.1
Fz,	-183.7	-31.5	**-19.7**	-25.1	-42.2	1559.1	501.0	40.2	**21.4**	-9.3	19.2	3455.4
Mx,	439.0	-16.6	-5.9	**-104.0**	-13.3	3340.4	-2.6	35.3	4.3	**85.6**	-8.4	1867.7
My,	223.5	43.5	-9.5	0.1	**-72.4**	2624.9	51.9	-25.5	11.2	-11.0	**49.4**	2142.7
Mz,	679.5	11.2	-2.9	-12.7	-20.3	**362.9**	-406.1	9.8	2.0	-6.2	-15.2	**5229.9**
Fx,	**-804.4**	96.2	1.4	38.1	-76.0	2597.1	**816.7**	150.8	0.5	17.0	58.3	2398.0
Fy,	-290.1	**-26.9**	4.5	-18.3	-18.3	1075.2	175.3	**266.4**	2.2	64.1	-6.1	3617.9
Fz,	-142.1	48.8	**-12.9**	12.3	-51.9	1609.6	459.3	152.3	**14.6**	12.1	36.4	2932.8
Mx,	372.4	76.0	1.2	**-46.9**	4.4	2525.8	-10.0	172.4	0.7	**143.3**	-22.1	2529.7
My,	669.5	85.6	-7.3	38.4	**-94.2**	1779.1	-395.2	147.0	9.1	11.9	**78.7**	2755.6
Mz,	672.0	63.5	2.8	13.7	-20.8	**217.9**	-397.8	152.7	2.0	48.7	-5.9	**4849.5**

Member 12

Fx,	**-805.8**	96.8	-10.8	39.9	-72.8	2644.4	**818.2**	148.2	12.2	-1.2	57.0	2429.6
Fy,	-300.1	**-39.2**	-1.5	-59.8	-31.7	1064.8	178.1	**275.6**	2.8	77.1	-8.6	3766.0
Fz,	-132.9	58.3	**-16.2**	22.5	5.0	1837.6	450.1	151.4	**17.3**	-12.3	-18.6	2810.4
Mx,	383.9	58.5	-1.3	**-91.8**	-21.4	2595.1	-2.3	193.4	3.3	**153.0**	-17.5	2583.5
My,	211.0	119.5	-4.6	45.1	**-82.3**	2309.8	64.4	94.5	5.8	10.0	**68.6**	2170.7
Mz,	674.4	60.2	2.6	2.4	-27.2	**217.5**	-396.9	156.3	1.7	43.2	-7.5	**4849.9**
Fx,	**-797.1**	212.3	-4.2	97.8	-50.1	2372.8	**809.0**	262.9	-6.1	18.4	49.7	1534.1
Fy,	-292.6	**21.8**	4.5	-6.4	-26.7	779.8	171.9	**419.5**	3.0	110.3	6.5	2571.2
Fz,	-97.6	175.6	**-19.3**	78.2	-26.6	1284.1	414.9	266.0	**20.4**	32.1	18.2	1898.6
Mx,	360.6	224.6	-0.8	**-35.3**	-0.0	2104.8	6.4	332.4	3.1	**214.5**	-2.5	1690.3
My,	401.9	186.1	-8.2	83.7	**-81.4**	1838.7	-279.5	240.6	9.4	6.5	**73.2**	1461.7
Mz,	666.6	134.0	8.3	29.0	-3.3	**-215.0**	-389.0	321.7	1.6	94.2	-0.3	**3750.4**

Member 13

Fx,	**-803.2**	209.7	-5.9	96.9	-27.4	2466.7	**804.2**	270.8	1.5	27.7	81.1	1520.1
Fy,	-288.9	**9.4**	4.2	-44.8	-39.1	778.6	173.7	**427.9**	1.6	124.8	4.0	2597.5
Fz,	-137.4	179.1	**-23.6**	80.3	11.5	1281.0	454.6	261.6	**22.8**	15.6	-12.3	1901.9
Mx,	316.6	209.7	5.7	**-95.9**	-20.5	2045.9	7.5	325.0	0.8	**226.7**	-4.2	1627.2
My,	375.0	189.2	0.2	83.5	**-84.4**	1868.7	-56.7	238.7	-0.6	58.0	**83.6**	1353.2
Mz,	675.4	129.1	7.5	13.2	-26.6	**-215.7**	-388.2	325.2	0.4	91.4	2.0	**3751.2**
Fx,	**-795.0**	383.5	-5.9	201.6	-54.1	1105.3	**795.0**	390.0	-16.8	**47.3**	25.7	62.7
Fy,	-281.2	**68.9**	10.3	9.5	-8.0	327.9	166.7	**586.1**	1.6	158.6	12.4	584.7
Fz,	-103.5	300.1	**-27.5**	137.1	-56.8	174.4	420.8	341.0	**26.8**	41.1	52.5	574.6
Mx,	308.9	290.8	11.5	**-55.3**	17.9	760.6	14.6	477.4	0.2	**293.9**	-3.1	22.7
My,	-150.0	280.1	-24.1	147.3	**-96.4**	193.2	467.1	385.3	23.4	35.3	**92.2**	702.5
Mz,	755.8	345.3	0.9	30.0	9.8	**-1185.5**	-389.4	363.3	-0.3	169.8	-7.4	**2043.5**

Member 14

Fx,	**-796.2**	378.7	-10.9	186.5	-32.6	1106.9	**795.4**	360.3	20.6	15.3	64.7	106.9
Fy,	-268.4	**55.8**	9.7	-31.3	-43.0	323.8	169.3	**593.0**	-2.9	184.8	31.0	689.2
Fz,	-134.5	344.5	**-35.4**	157.8	18.4	23.5	631.1	161.1	**27.3**	-0.9	-19.9	719.0
Mx,	320.2	273.7	9.3	**-108.4**	-9.8	765.2	4.3	427.0	-18.0	**304.2**	32.0	-6.0
My,	342.1	210.7	3.5	77.6	**-89.5**	786.6	-66.8	415.5	-11.5	142.3	**112.5**	72.0
Mz,	756.4	344.9	-3.5	26.1	24.5	**-1183.4**	-389.2	367.8	-3.8	176.7	5.2	**2041.7**
Fx,	**-788.0**	552.4	-10.9	283.2	-81.7	-1008.6	**786.2**	440.1	14.9	36.6	123.6	-1664.7
Fy,	-254.8	**104.3**	17.9	9.0	25.9	-158.0	160.0	**760.8**	-3.5	218.2	15.1	-2237.6
Fz,	-105.8	506.3	**-40.2**	254.3	-100.0	-1929.5	599.9	215.6	**32.9**	15.3	59.5	-92.9
Mx,	314.2	336.0	16.1	**-81.5**	49.4	-675.3	19.5	624.2	-7.4	**380.6**	-20.8	-2337.3
My,	-150.7	471.9	-34.5	260.7	**-155.6**	-1646.0	468.2	460.0	26.0	37.4	**142.2**	1156.5
Mz,	750.9	740.0	-5.5	179.2	10.9	**-3382.5**	-432.5	113.7	18.3	7.3	33.0	**852.6**

Member 15

Fx,	**-752.3**	-538.2	10.5	-261.7	-86.8	-949.8	**773.9**	-406.0	-16.3	-52.2	152.5	-1681.4
Fy,	20.4	**-756.4**	5.8	-219.9	19.9	-3102.3	106.4	**-100.7**	-36.3	-24.5	57.4	767.5
Fz,	555.4	-133.4	**-46.7**	-15.1	59.8	-82.0	-122.4	-561.5	**54.7**	-258.7	-90.7	-2064.8
Mx,	-8.5	-636.3	10.0	**-391.8**	-14.8	-2197.0	314.2	-314.7	-24.7	**80.0**	60.4	-676.5
My,	-173.5	-449.5	29.5	-211.1	**-170.5**	-1612.9	468.7	-381.4	-19.9	-51.7	**157.1**	-1057.1
Mz,	554.2	-642.4	7.7	-188.9	8.9	**-3414.2**	-565.8	-114.2	-36.2	-24.5	57.4	**884.2**
Fx,	**-744.1**	-368.4	10.5	-169.2	-39.5	1065.1	**764.7**	-326.2	-22.0	-30.9	45.2	-4.5
Fy,	29.8	**-588.5**	5.2	-185.9	46.9	-198.2	95.4	**-55.0**	-29.3	3.2	-93.9	1195.8
Fz,	546.0	-91.5	**-35.6**	4.5	-101.0	456.3	-113.9	-413.7	**44.8**	-193.4	110.6	80.6
Mx,	3.5	-465.7	8.3	**-313.5**	33.2	152.0	305.3	-252.7	-18.0	**106.2**	-38.7	710.5
My,	325.8	-208.7	-23.7	-101.2	**-130.2**	678.1	-73.2	-449.0	33.6	-94.7	**159.8**	-29.7
Mz,	543.8	-340.2	4.9	-35.2	33.3	**-1203.5**	-529.2	-354.9	5.1	-173.4	9.3	**1975.2**

Member 16

Fx,	**-752.3**	-318.2	-30.1	-167.7	-29.9	798.1	**786.3**	-377.2	32.1	-33.4	32.6	28.2
Fy,	26.7	**-581.4**	0.6	-160.7	16.4	-298.4	66.3	**-66.7**	-28.9	-33.0	19.6	1199.9
Fz,	-404.7	-265.8	**-39.7**	-102.8	33.8	672.3	692.9	-329.5	**41.8**	-135.2	-40.0	29.2
Mx,	2.5	-488.9	3.1	**-305.1**	1.5	144.8	333.6	-312.2	0.6	**59.9**	-1.6	769.9
My,	632.8	-298.4	19.2	-139.7	**-92.2**	60.7	-337.2	-349.3	-17.0	-51.7	**94.0**	561.1
Mz,	544.8	-340.5	0.4	-39.1	13.4	**-1205.5**	-529.2	-350.4	1.7	-166.5	-3.8	**1977.6**
Fx,	**-743.2**	-183.8	-11.9	-84.0	-103.3	1898.2	**777.1**	-258.0	13.8	-13.8	114.9	1486.8
Fy,	34.0	**-422.7**	0.5	-125.7	18.0	1690.1	55.1	**-13.0**	-22.0	19.0	-97.0	1601.3
Fz,	-394.9	-185.9	**-29.8**	-75.1	-100.4	1659.2	683.1	-209.0	**31.9**	-80.6	103.8	1270.1
Mx,	13.8	-337.9	2.1	**-237.1**	16.4	1766.1	276.3	-188.7	-14.1	**94.6**	-53.0	1939.2
My,	-476.6	-132.4	-22.2	-60.9	**-124.3**	1468.9	729.7	-281.0	24.4	-29.2	**135.4**	1565.3
Mz,	-155.0	-109.0	-14.3	-23.3	-47.9	**-277.2**	169.9	-331.1	1.6	-93.6	12.4	**3645.1**

Member 17

Fx,	**-761.3**	-188.0	-21.9	-99.8	-67.9	1902.8	**795.2**	-255.6	22.0	-11.9	72.2	1486.8
Fy,	32.6	**-414.4**	-1.0	-112.6	16.0	1664.7	50.6	**-23.9**	-19.4	-15.1	-9.3	1603.4
Fz,	-413.9	-183.1	**-33.4**	-63.8	-0.2	1628.4	709.9	-204.4	**33.6**	-79.3	3.7	1252.0
Mx,	17.4	-346.0	-0.6	**-224.5**	14.9	1837.0	327.9	-186.0	14.2	**43.6**	6.5	1856.3
My,	-488.1	-152.2	-8.0	-73.7	**-71.1**	1363.4	653.0	-235.6	8.2	-14.3	**74.8**	1533.1
Mz,	-172.0	-113.8	-15.1	-38.9	0.2	**-276.3**	170.3	-327.6	0.4	-96.6	6.6	**3644.3**
Fx,	**-752.1**	-97.5	-3.6	-57.4	-104.4	2515.7	**786.0**	-140.8	3.7	7.7	108.9	2408.2
Fy,	38.7	**-269.7**	-1.0	-79.4	9.4	2830.3	-56.6	**35.9**	-8.3	46.7	-59.3	1951.4
Fz,	-404.1	-107.7	**-23.5**	-36.1	-106.2	2253.4	700.2	-87.3	**23.7**	-24.7	110.7	1937.6
Mx,	25.1	-206.2	-0.8	**-162.8**	11.2	2733.9	307.7	-26.4	0.8	**87.9**	-8.8	2296.7
My,	-611.2	-78.0	-17.7	-40.6	**-131.6**	1821.4	906.9	-144.2	17.9	-10.8	**135.9**	2703.0
Mz,	-165.6	-61.3	-9.1	-12.2	-55.2	**94.1**	163.1	-162.4	0.1	-45.7	8.7	**4767.0**

Member 18

Fx,	**-763.5**	-94.8	-17.3	-49.2	-90.9	2518.2	**797.4**	-143.0	16.9	-12.9	93.8	2399.8
Fy,	35.6	**-260.1**	-0.5	-66.6	7.9	2693.0	-20.8	**27.1**	0.2	-2.9	0.6	2393.7
Fz,	-427.1	-108.5	**-26.7**	-43.2	-39.2	2294.8	723.1	-86.5	**26.3**	-34.4	41.7	1895.3
Mx,	17.4	-184.2	1.7	**-151.4**	-0.0	2681.6	328.9	-46.7	7.2	**51.2**	29.8	2153.3
My,	-194.3	-68.7	-13.9	-48.6	**-94.2**	1494.4	489.8	-151.0	13.5	-9.0	**96.7**	3020.4
Mz,	-175.9	-64.8	-9.3	-24.1	-24.9	**94.6**	163.2	-158.8	-0.2	-51.2	7.3	**4766.6**
Fx,	**-754.3**	-4.2	0.9	-6.8	-106.7	2711.6	**788.2**	11.9	-1.3	24.8	107.9	2718.2
Fy,	41.7	**-123.2**	-0.5	-27.6	3.2	2774.7	-26.4	**118.0**	0.2	30.8	4.5	2848.5
Fz,	-417.2	-33.2	**-16.7**	-15.4	-114.8	2584.2	713.3	30.7	**16.4**	20.2	115.7	2051.2
Mx,	24.5	-50.5	1.6	**-90.2**	6.0	2625.3	309.9	44.9	-1.9	**100.3**	-5.6	2917.0
My,	-611.9	-25.3	-12.7	-12.8	**-131.3**	1958.2	907.6	27.4	12.3	12.8	**132.1**	2997.3
Mz,	-22.3	-5.7	-3.2	1.8	-53.9	**245.0**	318.2	7.4	-0.1	0.8	6.6	**5115.7**

Member 19

Fx,	**-758.7**	-4.1	-13.2	-1.4	-106.0	2742.4	**792.6**	10.9	12.6	-2.4	106.9	2698.5
Fy,	42.6	**-122.6**	-0.8	-32.6	5.6	2519.9	-26.8	**118.6**	0.1	27.7	2.6	3102.4
Fz,	-428.3	-38.8	**-19.9**	-21.6	-66.0	2969.4	724.3	30.2	**19.3**	8.5	66.8	1796.2
Mx,	32.8	-50.5	0.7	**-103.7**	7.8	2600.5	302.1	41.7	-1.6	**87.4**	-6.7	2940.2
My,	-189.3	15.8	-7.9	5.2	**-113.2**	1355.8	485.0	-10.8	7.3	-2.5	**114.0**	3769.7
Mz,	-25.8	-9.0	-3.3	-9.3	-43.4	**245.0**	318.4	11.0	-0.2	-5.8	5.9	**5115.7**
Fx,	**-749.5**	86.5	5.1	40.9	-103.2	2527.7	**783.5**	139.0	**-5.7**	23.2	101.3	2371.1
Fy,	48.7	**-31.6**	-0.8	1.0	-0.7	1763.9	-33.1	**255.0**	0.0	64.6	5.2	3370.2
Fz,	-314.0	55.8	**-15.3**	14.2	-8.4	3061.0	610.0	128.2	**14.7**	55.1	6.5	1310.0
Mx,	40.2	54.7	0.9	**-50.7**	10.3	1563.6	294.7	164.9	-1.7	**147.9**	-13.1	3497.0
My,	-610.5	62.9	-6.1	43.0	**-124.6**	2666.1	853.9	144.1	5.5	8.7	**122.7**	1942.9
Mz,	-18.9	54.7	2.3	17.1	-46.2	**101.6**	310.2	158.2	-0.2	49.0	4.8	**4812.6**

Member 20

Fx,	**-746.9**	78.5	-8.5	32.9	-115.3	2539.0	**780.8**	138.5	7.4	7.0	114.6	2355.5
Fy,	-159.1	**-42.3**	-4.4	-55.7	-98.6	1369.4	-30.8	**264.7**	0.7	77.5	4.1	3509.2
Fz,	-432.9	80.4	**-18.9**	34.7	57.6	3208.0	467.8	106.0	**17.8**	17.4	-58.0	1150.8
Mx,	-19.4	19.7	0.7	**-93.5**	-55.9	1364.8	303.0	189.6	0.8	**159.6**	-4.2	3500.3
My,	-309.3	92.3	-2.5	49.8	**-124.9**	1526.3	301.1	122.2	1.4	5.7	**124.3**	3012.3
Mz,	-16.0	50.7	2.1	3.7	-54.2	**101.2**	310.4	161.8	-0.5	43.5	5.1	**4813.0**
Fx,	**-737.7**	169.0	9.8	75.3	-91.5	1952.7	**771.6**	253.2	-10.9	26.6	85.8	1503.6
Fy,	-151.8	**18.4**	13.7	-2.2	-58.6	1097.7	-36.8	**409.2**	0.8	110.5	9.7	2364.6
Fz,	-394.2	210.6	**-22.1**	93.5	17.0	2527.3	429.2	168.3	**21.0**	41.0	-22.2	559.6
Mx,	43.2	210.8	-0.1	**-42.9**	1.7	1275.8	295.6	319.8	0.7	**220.8**	-0.1	2697.7
My,	-729.1	154.7	-1.0	86.9	**-111.6**	2126.6	721.3	245.4	-0.0	7.6	**106.6**	1089.8
Mz,	-8.8	103.1	8.0	30.2	-31.6	**-267.9**	302.3	327.3	-0.7	94.7	2.6	**3739.8**

Member 21

Fx,	**-729.4**	163.1	-0.6	58.0	-125.9	1957.5	**763.3**	264.1	-2.0	32.4	126.4	1507.0
Fy,	-137.7	**4.7**	3.7	-45.0	-84.0	1096.1	-35.8	**417.7**	-0.1	125.8	7.5	2393.5
Fz,	249.9	231.8	**-26.1**	103.5	56.9	2549.5	-215.4	148.8	**23.3**	20.4	-55.9	544.6
Mx,	2.3	196.6	6.8	**-107.7**	-55.5	1270.6	298.6	310.1	-0.8	**234.2**	1.8	2659.4
My,	-292.3	157.1	2.6	64.9	**-129.7**	953.7	286.9	259.3	-3.9	51.3	**130.3**	2134.7
Mz,	0.8	97.2	7.4	11.0	-57.3	**-268.8**	302.2	330.8	-1.7	91.9	6.2	**3740.6**
Fx,	**-720.2**	297.5	17.6	141.7	-66.7	891.7	**754.2**	383.3	-20.3	52.1	55.1	79.7
Fy,	-130.1	**64.0**	9.9	9.3	-55.2	666.9	-42.7	**576.1**	-0.2	159.3	8.0	426.4
Fz,	269.0	367.0	**-30.1**	163.8	-19.2	1232.8	-234.5	213.9	**27.3**	42.4	7.7	-302.0
Mx,	9.2	287.9	12.6	**-67.0**	-12.4	-25.1	289.4	451.0	-1.4	**301.2**	-4.3	1199.4
My,	-710.4	278.7	3.9	125.5	**-92.3**	1085.1	702.6	343.5	-6.5	48.2	**81.6**	-312.6
Mz,	57.0	329.8	0.1	29.2	8.3	**-1167.5**	284.6	351.8	-2.6	173.0	-13.2	**2088.7**

Member 22

Fx,	**-696.5**	361.5	-11.0	192.9	-41.5	1141.2	**730.0**	399.1	-9.5	89.3	155.2	79.0
Fy,	-108.6	**48.3**	8.3	-39.3	-100.3	662.5	-39.0	**583.4**	-3.6	185.6	26.3	527.5
Fz,	221.9	391.1	**-37.0**	178.7	59.6	1131.4	-188.9	180.4	**28.3**	-8.9	-50.7	-239.2
Mx,	26.1	268.6	10.8	**-127.0**	-57.7	-20.4	275.1	409.1	-19.8	**321.6**	69.3	1020.9
My,	-260.0	211.2	4.4	50.9	**-148.6**	99.6	253.0	402.9	-12.5	106.9	**160.5**	729.3
Mz,	56.7	333.2	-3.9	34.7	20.5	**-1165.5**	284.5	352.8	-5.1	171.0	0.2	**2086.9**
Fx,	**-688.3**	535.2	-11.0	289.5	-90.9	-897.1	**720.8**	478.9	-27.7	84.8	50.5	-1867.0
Fy,	-95.3	**96.0**	16.1	2.2	-39.2	219.9	-48.1	**751.1**	-4.4	218.5	6.9	-2352.1
Fz,	235.9	567.2	**-41.6**	277.4	-60.0	-1005.3	-405.1	133.8	**33.1**	-8.6	-3.0	-138.7
Mx,	34.7	341.4	17.4	**-99.6**	7.6	-1508.4	274.5	587.3	-8.2	**387.9**	-30.6	-1002.8
My,	14.2	524.1	-36.1	258.8	**-127.3**	-882.9	-21.6	360.2	27.3	26.4	**100.3**	-1767.6
Mz,	67.9	723.4	-6.2	179.3	1.2	**-3337.0**	261.3	110.8	17.3	-0.1	-33.7	**947.2**

Member 23

Fx,	**-652.5**	-445.7	-28.0	-199.3	-92.6	-740.2	**712.9**	-472.2	36.2	-78.2	64.3	-1893.1
Fy,	-102.4	**-755.3**	4.4	-219.9	10.5	-3244.6	158.4	**-93.6**	-31.6	-7.6	-18.0	982.1
Fz,	-405.1	-140.6	**-41.5**	3.2	-13.1	-138.3	278.2	-546.6	**48.4**	-271.0	-38.0	-1043.7
Mx,	158.5	-576.9	8.2	**-391.3**	-22.0	-957.1	-125.2	-355.1	-21.0	**95.5**	6.2	-1550.8
My,	49.7	-488.6	25.4	-234.7	**-135.3**	-817.2	-30.8	-365.2	-17.0	-27.8	**108.3**	-1764.6
Mz,	-103.6	-643.9	6.1	-162.2	5.5	**-3379.9**	158.3	-93.6	-31.6	-7.7	-18.1	**982.3**
Fx,	**-643.3**	-297.9	-9.7	-108.1	-156.4	884.2	**703.7**	-392.3	17.9	-82.8	165.0	81.4
Fy,	-93.2	**-587.4**	3.7	-186.6	30.5	-349.9	147.4	**-47.8**	-24.7	20.3	-147.8	1378.4
Fz,	-394.5	-98.8	**-30.4**	22.8	-150.5	368.1	268.5	-398.9	**38.6**	-205.6	135.5	1093.6
Mx,	157.6	-399.9	22.9	**-320.2**	87.5	1063.2	-119.2	-282.6	-14.5	**122.1**	-76.1	-50.1
My,	-248.4	-253.9	-20.0	-92.2	**-177.5**	59.9	266.8	-390.6	28.4	-87.8	**187.2**	754.2
Mz,	-97.6	-350.8	3.8	-35.2	24.1	**-1181.7**	145.6	-337.9	4.5	-173.2	-4.2	**2120.6**

Member 24

Fx,	**-675.4**	-312.5	-25.9	-157.5	-77.8	885.6	**735.8**	-378.4	28.0	-44.0	63.5	77.8
Fy,	-95.6	**-580.2**	0.1	-160.6	7.4	-450.5	117.9	**-62.1**	-24.9	-23.9	-32.4	1382.7
Fz,	-233.9	-215.5	**-34.6**	-63.7	-9.5	-319.1	294.8	-365.1	**36.9**	-151.2	-4.3	1204.3
Mx,	155.8	-439.0	2.0	**-304.6**	-3.3	1234.4	-140.3	-302.0	-16.0	**62.4**	-15.9	-54.5
My,	-669.0	-293.8	-21.4	-135.3	**-86.3**	1079.2	687.6	-324.7	23.5	-43.4	**73.4**	-340.7
Mz,	-96.2	-347.3	-0.1	-29.5	9.0	**-1183.7**	144.9	-336.9	1.9	-175.4	-15.7	**2122.3**
Fx,	**-666.2**	-178.1	-7.6	-73.9	-132.3	1960.0	**726.7**	-259.1	9.8	-24.4	127.6	1541.6
Fy,	-88.6	**-421.6**	-0.0	-126.7	6.4	1532.1	106.9	**-8.3**	-18.1	28.4	-130.9	1764.0
Fz,	-224.2	-149.6	**-24.7**	-39.2	-121.0	473.1	285.1	-230.7	**27.0**	-93.3	117.5	2574.4
Mx,	150.3	-299.6	1.1	**-236.9**	6.3	2708.1	-132.5	-210.6	-10.2	**103.3**	-74.5	1255.0
My,	-268.9	-151.1	-18.4	-53.3	**-152.5**	982.8	287.6	-248.4	20.5	-37.5	**149.0**	2193.8
Mz,	368.5	-96.6	-10.8	-15.5	-70.3	**-281.3**	-404.9	-335.9	1.4	-93.6	2.3	**3781.0**

Member 25

Fx,	**-679.7**	-183.6	-17.3	-93.2	-110.7	1963.9	**740.2**	-254.5	17.9	-17.1	99.8	1539.0
Fy,	-90.5	**-413.2**	-0.9	-112.0	6.4	1504.1	109.5	**-20.8**	-15.7	-10.4	-52.1	1766.0
Fz,	-116.7	-173.4	**-28.4**	-57.3	-43.0	704.7	135.7	-212.0	**29.0**	-84.4	33.3	2340.6

Mx_i	149.5	-309.4	-0.8	**-224.1**	4.6	2748.4	-101.7	-226.8	-0.1	**42.3**	-6.2	1266.0
My_i	-673.3	-170.5	-15.9	-93.4	**-112.1**	2134.7	691.9	-240.8	16.5	-7.9	**102.5**	1124.0
Mz_i	355.4	-102.6	-11.5	-34.9	-33.4	**-280.3**	-404.8	-332.3	0.4	-96.3	-1.8	**3780.2**
Fx_f	**-670.5**	-93.0	1.0	-50.8	-126.4	2557.0	**731.0**	-139.7	-0.4	2.5	118.0	2455.3
Fy_f	-84.5	**-268.5**	-0.9	-78.8	0.1	2663.7	64.4	**41.3**	-4.6	50.8	-75.0	2178.0
Fz_f	-107.0	-110.8	**-18.5**	-32.8	-126.4	1314.6	125.9	-82.1	**19.1**	-26.6	119.3	3031.8
Mx_f	140.7	-179.0	-0.9	**-162.5**	0.1	3552.6	-103.0	-44.6	1.4	**89.4**	-12.5	1580.6
My_f	-271.0	-103.5	-13.8	-51.2	**-153.8**	1515.9	290.2	-122.7	14.2	-14.3	**146.4**	3096.8
Mz_f	347.8	-50.2	-5.6	-8.3	-72.0	**86.2**	-396.3	-166.9	0.2	-45.3	-0.1	**4871.9**

Member 26

Fx_i	**-677.6**	-89.8	-13.2	-43.2	-126.9	2542.3	**738.1**	-136.0	13.3	-18.0	116.9	2423.3
Fy_i	-87.0	**-258.9**	-0.3	-66.2	0.4	2525.2	134.6	**32.2**	0.3	-2.8	-4.4	2658.0
Fz_i	-124.1	-112.0	**-21.6**	-43.8	-74.9	1314.2	143.0	-80.9	**21.7**	-32.7	66.1	3032.3
Mx_i	133.9	-154.4	1.4	**-151.1**	-7.8	3550.0	-24.1	-65.3	4.4	**50.4**	49.1	1477.1
My_i	-667.6	-76.8	-9.5	-50.3	**-130.2**	2670.8	686.2	-142.8	9.6	-8.7	**121.5**	2010.5
Mz_i	341.3	-54.3	-5.8	-22.2	-53.1	**86.7**	-396.5	-163.2	-0.1	-50.8	-0.6	**4871.5**
Fx_f	**-668.4**	0.8	5.0	-0.8	-124.3	2713.2	**728.9**	18.8	-4.9	19.7	114.9	2710.4
Fy_f	-81.3	**-122.2**	-0.3	-27.9	-3.8	2704.5	129.2	**123.3**	0.3	31.7	-0.0	2986.6
Fz_f	-209.3	-52.3	**-12.9**	-27.6	-48.1	2138.9	332.4	50.6	**13.0**	33.2	39.8	2652.6
Mx_f	124.5	-30.6	1.4	**-90.1**	-3.0	3425.5	-83.5	34.4	-1.2	**101.4**	-7.1	2181.7
My_f	-268.4	-31.0	-8.0	-10.3	**-147.4**	1784.2	287.4	35.1	8.1	11.2	**139.0**	3310.7
Mz_f	333.9	-2.0	-0.0	4.2	-66.1	**236.3**	-388.4	4.4	0.1	1.2	-0.7	**5188.7**

Member 27

Fx_i	**-668.0**	-6.9	-9.4	-4.7	-135.2	2711.1	**728.5**	14.9	9.3	-9.2	125.7	2708.6
Fy_i	-80.3	**-121.7**	-0.6	-31.3	-0.8	2448.1	128.4	**124.0**	0.1	27.1	-1.6	3241.4
Fz_i	-149.5	-51.4	**-16.4**	-34.2	11.7	2875.4	315.1	49.7	**16.3**	22.3	-19.9	1959.4
Mx_i	132.8	-29.9	1.0	**-103.6**	0.3	3329.4	-91.3	30.5	-1.3	**88.6**	-9.8	2275.7
My_i	-78.2	32.4	-3.3	5.8	**-143.6**	2526.7	96.9	-20.1	3.2	-2.2	**135.2**	2619.7
Mz_i	333.8	-5.6	-0.1	-8.2	-65.9	**236.3**	-388.5	8.1	-0.1	-5.5	-0.7	**5188.7**
Fx_f	**-658.8**	83.7	8.9	37.6	-115.3	2508.9	**719.3**	143.0	-9.0	16.5	105.3	2363.3
Fy_f	-74.2	**-31.2**	-0.6	1.4	-3.9	1579.2	122.2	**261.0**	0.2	64.8	-0.8	3593.6
Fz_f	115.0	80.1	**-18.6**	32.5	45.1	2481.5	-53.6	112.1	**18.4**	37.7	-53.9	1911.7
Mx_f	123.9	65.3	1.0	**-50.7**	5.9	2268.8	-82.3	163.6	-1.3	**149.1**	-16.5	2814.1
My_f	-261.9	65.0	-1.5	45.1	**-135.0**	1948.2	280.8	151.2	1.4	7.3	**126.2**	2691.5
Mz_f	443.0	64.2	5.9	17.7	-53.5	**88.8**	-249.9	153.9	-0.1	49.3	-0.8	**4856.2**

Member 28

Fx_i	**-651.2**	80.7	-3.8	34.5	-140.1	2534.3	**711.7**	142.4	3.3	6.0	131.5	2382.6
Fy_i	-223.5	**-43.1**	11.3	-56.7	-117.9	1228.7	124.1	**270.7**	0.7	77.7	-0.8	3733.0
Fz_i	70.0	84.2	**-22.0**	33.5	69.2	2526.4	-8.6	107.9	**21.5**	19.4	-76.4	1865.8
Mx_i	-110.9	26.4	4.9	**-95.0**	-76.0	1873.5	103.0	190.8	0.9	**161.0**	-7.1	2946.8
My_i	-82.5	106.3	1.6	44.2	**-149.7**	2236.3	101.1	118.7	-2.0	12.8	**142.1**	2265.1
Mz_i	449.7	59.8	5.7	2.9	-72.9	**88.3**	-249.9	157.6	-0.3	43.8	0.1	**4856.6**
Fx_f	**-642.0**	171.3	14.5	76.9	-95.1	1937.8	**702.5**	257.2	-15.0	25.6	84.2	1512.7
Fy_f	-216.2	**17.7**	17.5	-3.2	-55.0	960.2	118.2	**415.2**	0.8	110.6	4.8	2561.3
Fz_f	110.2	214.5	**-25.8**	92.5	14.7	1828.6	-48.8	170.1	**25.2**	42.8	-24.5	1267.0
Mx_f	-65.4	209.8	0.3	**-43.7**	-0.2	1886.7	111.8	330.3	0.7	**222.2**	-2.8	2066.8
My_f	-246.1	156.2	4.2	84.9	**-115.7**	1410.7	265.0	250.6	-4.7	10.1	**106.0**	1818.1
Mz_f	442.4	112.2	11.6	29.5	-34.0	**-275.3**	-241.7	323.0	-0.5	94.9	-1.7	**3751.4**

Member 29

Fx_i	**-629.4**	165.7	3.9	57.0	-144.8	1945.7	**690.0**	269.2	-6.0	33.9	139.8	1522.0
Fy_i	-207.0	**3.0**	7.0	-48.9	-101.0	958.5	118.8	**423.8**	-0.2	125.9	4.3	2590.3
Fz_i	60.7	229.3	**-29.3**	95.2	67.0	1856.5	-1.7	146.7	**27.1**	6.6	-72.7	1190.3
Mx_i	-99.7	194.2	10.8	**-111.9**	-70.4	1814.0	141.8	302.9	-12.4	**236.6**	69.9	1870.5
My_i	-77.3	167.3	7.3	64.4	**-148.3**	1658.2	98.4	250.2	-8.4	52.9	**144.3**	1429.4
Mz_i	455.6	105.4	11.0	7.7	-71.4	**-276.3**	-241.9	326.7	-1.4	92.4	2.5	**3752.2**

Fx_f	**-620.2**	300.1	22.2	140.7	-65.1	868.4	**680.8**	388.4	-24.2	53.5	50.9	71.8
Fy_f	-199.4	**62.4**	13.2	5.4	-57.0	536.7	111.8	**582.2**	-0.2	159.5	4.6	595.7
Fz_f	99.2	364.5	**-33.7**	155.9	-23.2	492.4	-40.2	211.8	**31.5**	28.3	7.7	411.6
Mx_f	-107.5	275.1	16.6	**-71.2**	-9.3	598.7	120.8	473.2	-1.4	**302.5**	-6.6	444.0
My_f	-360.6	290.5	-6.4	132.7	**-90.7**	713.1	483.7	338.2	4.5	36.3	**77.9**	57.2
Mz_f	550.7	346.0	0.0	29.2	6.3	**-1176.2**	-243.4	342.2	-2.2	173.6	-15.7	**2078.1**

Member 30

Fx_i	**-591.0**	367.1	-9.6	191.1	-47.4	1112.0	**651.5**	405.1	-13.9	99.5	166.5	75.2
Fy_i	-172.4	**45.0**	15.5	-48.2	-120.8	532.1	114.8	**589.7**	-3.8	186.1	23.6	695.7
Fz_i	-121.0	393.0	**-40.0**	191.8	69.8	233.5	395.0	104.7	**32.3**	-32.0	-88.0	529.3
Mx_i	-86.1	254.3	14.9	**-135.5**	-67.4	603.3	123.0	431.9	-23.1	**330.4**	75.6	341.3
My_i	-59.9	228.3	8.4	51.3	**-162.0**	803.2	79.5	400.2	-15.9	108.7	**170.9**	-4.1
Mz_i	550.1	349.5	-3.8	35.1	18.6	**-1174.2**	-243.4	343.2	-4.7	171.5	-2.8	**2076.4**
Fx_f	**-582.8**	540.8	-9.6	287.8	-90.8	-951.5	**642.3**	484.9	-32.1	95.0	42.1	-1898.0
Fy_f	-159.3	**92.7**	23.1	-6.5	-27.9	104.3	105.6	**757.4**	-4.3	219.2	3.9	-2214.4
Fz_f	-88.1	569.2	**-45.1**	291.0	-63.4	-1971.5	359.1	144.6	**38.1**	-18.8	7.3	5.5
Mx_f	-92.2	316.7	21.4	**-108.1**	16.2	-750.9	127.2	584.9	-30.2	**389.4**	-49.1	-1877.7
My_f	-145.3	515.1	-38.4	265.4	**-136.4**	-1618.1	164.7	374.3	30.3	20.4	**109.9**	-1069.8
Mz_f	544.5	739.7	-6.0	179.8	-1.0	**-3367.6**	-314.9	95.4	20.5	-8.9	-30.7	**952.9**

Member 391

Fx_i	**-1308.8**	0.0	-25.4	0.0	271.2	0.0	**-153.8**	0.0	4.8	0.0	86.9	0.0
Fy_i	-675.9	**0.0**	-16.4	0.0	175.1	0.0	-426.4	**0.0**	-5.6	0.0	87.0	0.0
Fz_i	-984.9	0.0	**-48.7**	0.0	473.7	0.0	-342.6	0.0	**9.8**	0.0	48.5	0.0
Mx_i	-675.9	0.0	-16.4	**0.0**	175.1	0.0	**-426.4**	0.0	-5.6	**0.0**	87.0	0.0
My_i	-454.4	0.0	-1.5	0.0	**-19.0**	0.0	-1219.3	0.0	-48.3	0.0	**476.2**	0.0
Mz_i	-675.9	0.0	-16.4	0.0	175.1	**0.0**	-426.4	0.0	-5.6	0.0	87.0	**0.0**
Fx_f	**-1443.2**	2.4	-25.4	0.0	-70.8	-33.0	**-234.4**	-9.8	10.0	0.0	186.5	132.1
Fy_f	-1191.2	**-12.3**	-37.2	0.0	-117.9	165.1	-507.0	**2.4**	-5.6	0.0	11.3	-33.0
Fz_f	-978.2	-11.0	**-54.5**	0.0	-292.5	148.6	-423.2	2.0	**14.9**	0.0	214.8	-26.4
Mx_f	-783.5	0.0	-16.4	**0.0**	-45.6	0.0	-507.0	2.4	-5.6	**0.0**	11.3	-33.0
My_f	-919.7	-11.0	-54.0	0.0	**-314.3**	148.6	-537.4	2.0	14.5	0.0	**225.8**	-26.4
Mz_f	-1241.3	2.4	-37.2	0.0	-117.7	**-33.0**	-456.9	-12.3	-5.6	0.0	11.1	**165.1**

Member 392

Fx_i	**-1475.9**	0.0	-35.8	0.0	332.7	0.0	**-209.6**	0.0	56.0	0.0	85.9	0.0
Fy_i	-839.3	**0.0**	-27.7	0.0	236.0	0.0	-481.2	**0.0**	-5.4	0.0	109.8	0.0
Fz_i	-1063.7	0.0	**-101.7**	0.0	406.8	0.0	-386.5	0.0	**62.9**	0.0	102.7	0.0
Mx_i	-839.3	0.0	-27.7	**0.0**	236.0	0.0	-481.2	0.0	-5.4	**0.0**	109.8	0.0
My_i	-698.6	0.0	-41.7	0.0	**-3.9**	0.0	-1385.7	0.0	-58.5	0.0	567.5	0.0
Mz_i	-839.3	0.0	-27.7	0.0	236.0	**0.0**	-481.2	0.0	-5.4	0.0	109.8	**0.0**
Fx_f	**-1599.5**	-6.8	-35.9	0.0	-111.7	84.3	**-283.8**	27.2	60.8	0.0	810.2	-337.2
Fy_f	-1430.8	**-34.0**	-44.9	0.0	-92.2	421.5	-555.3	**6.8**	-5.4	0.0	42.4	-84.3
Fz_f	-1137.9	27.2	**-106.5**	0.0	-883.4	-337.2	-485.4	0.0	**68.4**	0.0	916.3	0.0
Mx_f	-938.2	0.0	-27.7	**0.0**	-107.0	0.0	-555.3	6.8	-5.4	**0.0**	42.4	-84.3
My_f	-1139.3	27.2	-105.7	0.0	**-889.2**	-337.2	-485.4	0.0	68.4	0.0	**916.3**	0.0
Mz_f	-1427.4	6.8	-44.9	0.0	-92.2	**-84.3**	-558.8	-34.0	-5.4	0.0	42.5	**421.5**

Member 393

Fx_i	**-1463.5**	0.0	-30.7	0.0	342.2	0.0	**-186.9**	0.0	50.6	0.0	39.6	0.0
Fy_i	-823.7	**0.0**	-24.8	0.0	246.3	0.0	-477.7	**0.0**	-5.5	0.0	110.0	0.0
Fz_i	-1160.7	0.0	**-91.6**	0.0	490.9	0.0	-253.6	0.0	**57.5**	0.0	25.8	0.0
Mx_i	-823.7	0.0	-24.8	**0.0**	246.3	0.0	-477.7	0.0	-5.5	**0.0**	110.0	0.0
My_i	-649.5	0.0	45.8	0.0	**-33.7**	0.0	-1270.2	0.0	-51.1	0.0	**584.6**	0.0
Mz_i	-823.7	0.0	-24.8	0.0	246.3	**0.0**	-477.7	0.0	-5.5	0.0	110.0	**0.0**
Fx_f	**-1618.5**	8.3	-30.7	0.0	-134.7	-128.4	**-279.9**	-33.0	56.6	0.0	872.3	513.7

Fy_r	-1432.6	**-41.3**	-38.3	0.0	-121.9	642.1	-570.7	**8.3**	-5.5	0.0	25.3	-128.4
Fz_r	-1284.8	-33.0	**-97.6**	0.0	-979.9	513.7	-346.6	0.0	**64.5**	0.0	974.4	0.0
Mx_r	-947.7	0.0	-24.8	**0.0**	-139.6	0.0	-570.7	8.3	-5.5	**0.0**	25.3	-128.4
My_r	-1148.9	-33.0	-96.9	0.0	**-1002.2**	513.7	-484.6	0.0	64.2	0.0	**991.2**	0.0
Mz_r	-1433.6	8.3	-38.3	0.0	-121.9	**-128.4**	-569.6	-41.3	-5.5	0.0	25.3	**642.1**

Member 394

Fx_i	**-1470.7**	0.0	-29.7	0.0	345.1	0.0	**-179.0**	0.0	56.3	0.0	20.4	0.0
Fy_i	-829.1	**0.0**	-24.7	0.0	250.7	0.0	-478.5	**0.0**	-5.0	0.0	110.4	0.0
Fz_i	-1173.2	0.0	**-95.6**	0.0	513.3	0.0	-243.7	0.0	**64.0**	0.0	4.0	0.0
Mx_i	-829.1	0.0	-24.7	**0.0**	250.7	0.0	-478.5	0.0	-5.0	**0.0**	110.4	0.0
My_i	-646.4	0.0	50.6	0.0	**-50.4**	0.0	**-1274.4**	0.0	-49.6	0.0	**587.9**	0.0
Mz_i	-829.1	0.0	-24.7	0.0	250.7	**0.0**	-478.5	0.0	-5.0	0.0	110.4	**0.0**
Fx_r	**-1631.8**	-41.0	-29.7	0.0	-134.9	662.4	**-275.7**	6.6	62.5	0.0	979.6	-105.8
Fy_r	-1445.8	**-41.0**	-36.6	0.0	-115.9	662.4	-575.2	**8.2**	-5.0	0.0	29.1	-132.3
Fz_r	-1302.1	6.6	**-101.8**	0.0	-1081.1	-105.8	-340.4	0.0	**71.2**	0.0	1096.2	0.0
Mx_r	-958.0	0.0	-24.7	**0.0**	-147.8	0.0	-575.2	8.2	-5.0	**0.0**	29.1	-132.3
My_r	-1177.0	6.6	-101.2	0.0	**-1105.6**	-105.8	-479.6	0.0	71.0	0.0	**1114.3**	0.0
Mz_r	-1445.2	8.2	-36.6	0.0	-115.9	**-132.3**	-575.7	-41.0	-5.0	0.0	29.1	**662.4**

Member 395

Fx_i	**-1464.6**	0.0	-29.4	0.0	344.9	0.0	**-178.9**	0.0	54.5	0.0	19.5	0.0
Fy_i	-829.3	**0.0**	-24.4	0.0	250.4	0.0	-478.1	**0.0**	-5.1	0.0	110.2	0.0
Fz_i	-1167.8	0.0	**-93.8**	0.0	514.4	0.0	-244.2	0.0	**61.9**	0.0	3.2	0.0
Mx_i	-829.3	0.0	-24.4	**0.0**	250.4	0.0	-478.1	0.0	-5.1	**0.0**	110.2	0.0
My_i	-642.5	0.0	49.4	0.0	**-51.3**	0.0	-1271.6	0.0	-49.6	0.0	**588.2**	0.0
Mz_i	-829.3	0.0	-24.4	0.0	250.4	**0.0**	-478.1	0.0	-5.1	0.0	110.2	**0.0**
Fx_r	**-1627.5**	8.2	-29.4	0.0	-135.1	-133.9	**-276.7**	-32.8	60.8	0.0	961.0	535.7
Fy_r	-1444.9	**-41.0**	-36.5	0.0	-120.0	669.7	-575.9	**8.2**	-5.1	0.0	26.6	-133.9
Fz_r	-1298.2	-32.8	**-100.1**	0.0	-1069.2	535.7	-342.0	0.0	**69.3**	0.0	1074.6	0.0
Mx_r	-959.7	0.0	-24.4	**0.0**	-147.6	0.0	-575.9	8.2	-5.1	**0.0**	26.6	-133.9
My_r	-1162.8	-32.8	-99.5	0.0	**-1092.7**	535.7	-481.6	0.0	69.0	0.0	**1091.9**	0.0
Mz_r	-1446.6	8.2	-36.5	0.0	-120.0	**-133.9**	-574.1	-41.0	-5.1	0.0	26.6	**669.7**

Member 396

Fx_i	**-1499.2**	0.0	-31.8	0.0	342.3	0.0	**-193.7**	0.0	51.0	0.0	40.1	0.0
Fy_i	-821.7	**0.0**	-25.6	0.0	247.3	0.0	-479.0	**0.0**	-5.6	0.0	110.0	0.0
Fz_i	-1176.3	0.0	**-91.5**	0.0	483.2	0.0	-283.6	0.0	**57.2**	0.0	29.7	0.0
Mx_i	-821.7	0.0	-25.6	**0.0**	247.3	0.0	-479.0	0.0	-5.6	**0.0**	110.0	0.0
My_i	-583.2	0.0	43.6	0.0	**-24.1**	0.0	**-1408.2**	0.0	-51.0	0.0	**578.6**	0.0
Mz_i	-821.7	0.0	-25.6	0.0	247.3	**0.0**	-479.0	0.0	-5.6	0.0	110.0	**0.0**
Fx_r	**-1652.2**	-41.3	-31.8	0.0	-145.8	633.9	**-285.5**	6.6	56.9	0.0	867.9	-101.4
Fy_r	-1440.9	**-41.3**	-38.9	0.0	-124.6	633.9	-570.8	**8.3**	-5.6	0.0	23.5	-126.8
Fz_r	-1298.7	6.6	**-97.4**	0.0	-965.3	-101.4	-375.4	0.0	**64.1**	0.0	960.5	0.0
Mx_r	-944.1	0.0	-25.6	**0.0**	-146.0	0.0	-570.8	8.3	-5.6	**0.0**	23.5	-126.8
My_r	-1163.3	6.6	-96.6	0.0	**-987.7**	-101.4	-513.6	0.0	63.7	0.0	**976.7**	0.0
Mz_r	-1432.8	8.3	-38.9	0.0	-124.6	**-126.8**	-578.9	-41.3	-5.6	0.0	23.5	**633.9**

Member 397

Fx_i	**-1315.6**	0.0	-33.5	0.0	305.0	0.0	**-89.7**	0.0	50.2	0.0	112.0	0.0
Fy_i	-740.3	**0.0**	-26.9	0.0	200.4	0.0	-442.5	**0.0**	-4.8	0.0	111.6	0.0
Fz_i	-828.6	0.0	**-93.5**	0.0	347.8	0.0	-396.8	0.0	**57.0**	0.0	104.0	0.0
Mx_i	-740.3	0.0	-26.9	**0.0**	200.4	0.0	-442.5	0.0	-4.8	**0.0**	111.6	0.0
My_i	-504.1	0.0	-36.1	0.0	**6.9**	0.0	**-1146.8**	0.0	-51.6	0.0	**511.2**	0.0
Mz_i	-740.3	0.0	-26.9	0.0	200.4	**0.0**	-442.5	0.0	-4.8	0.0	111.6	**0.0**
Fx_r	**-1429.9**	34.4	-33.5	0.0	-78.6	-393.9	**-158.3**	-5.5	54.6	0.0	712.5	63.0
Fy_r	-1215.2	**-34.4**	-40.4	0.0	-42.3	393.9	-511.1	**6.9**	-4.8	0.0	56.7	-78.8
Fz_r	-897.2	-5.5	**-97.9**	0.0	-748.9	63.0	-425.0	0.0	**61.8**	0.0	814.1	0.0
Mx_r	-831.7	0.0	-26.9	**0.0**	-108.4	0.0	-511.1	6.9	-4.8	**0.0**	56.7	-78.8
My_r	-891.8	-5.5	-97.1	0.0	**-760.1**	63.0	-424.9	0.0	61.8	0.0	**814.2**	0.0
Mz_r	-1295.2	6.9	-40.3	0.0	-42.0	**-78.8**	-431.1	-34.4	-4.8	0.0	56.4	**393.9**

Member 398

Fx_i	**-1308.8**	0.0	25.4	0.0	-271.2	0.0	-160.3	0.0	-6.3	0.0	-74.1	0.0
Fy_i	-858.9	**0.0**	18.2	0.0	-225.1	0.0	-426.4	**0.0**	5.6	0.0	-87.0	0.0
Fz_i	-325.0	0.0	**-10.1**	0.0	-43.1	0.0	-984.9	0.0	**48.7**	0.0	-473.7	0.0
Mx_i	-858.9	0.0	18.2	**0.0**	-225.1	0.0	-426.4	0.0	5.6	**0.0**	-87.0	0.0
My_i	-1219.3	0.0	48.3	0.0	**-476.2**	0.0	-226.2	0.0	0.4	0.0	**22.5**	0.0
Mz_i	-858.9	0.0	18.2	0.0	-225.1	**0.0**	-426.4	0.0	5.6	0.0	-87.0	**0.0**
Fx_r	**-1443.2**	2.4	25.4	0.0	70.8	-33.0	**-240.9**	-9.8	-11.5	0.0	-194.4	132.1
Fy_r	-1191.2	**-12.3**	37.2	0.0	117.9	165.1	-507.0	**2.4**	5.6	0.0	-11.3	-33.0
Fz_r	-405.7	2.0	**-15.3**	0.0	-214.2	-26.4	-978.2	-11.0	**54.5**	0.0	292.5	148.6
Mx_r	-966.5	0.0	18.2	**0.0**	20.3	0.0	-507.0	2.4	5.6	**0.0**	-11.3	-33.0
My_r	-521.7	2.0	-14.8	0.0	**-225.1**	-26.4	-919.7	-11.0	54.0	0.0	**314.3**	148.6
Mz_r	-1241.3	2.4	37.2	0.0	117.7	**-33.0**	-456.9	-12.3	5.6	0.0	-11.1	**165.1**

Member 399

Fx_i	**-1475.9**	0.0	35.9	0.0	-332.7	0.0	**-218.9**	0.0	-57.4	0.0	-69.9	0.0
Fy_i	-1027.5	**0.0**	12.1	0.0	-255.9	0.0	-481.2	**0.0**	5.4	0.0	-109.8	0.0
Fz_i	-386.5	0.0	**-62.9**	0.0	-102.7	0.0	-1063.7	0.0	**101.7**	0.0	-406.8	0.0
Mx_i	-1027.5	0.0	12.1	**0.0**	-255.9	0.0	-481.2	0.0	5.4	**0.0**	-109.8	0.0
My_i	-1388.8	0.0	58.5	0.0	**-567.5**	0.0	-320.8	0.0	-3.5	0.0	**4.8**	0.0
Mz_i	-1027.5	0.0	12.1	0.0	-255.9	**0.0**	-481.2	0.0	5.4	0.0	-109.8	**0.0**
Fx_r	**-1599.5**	-6.8	35.9	0.0	111.7	84.3	**-293.1**	27.2	-62.1	0.0	-810.3	-337.2
Fy_r	-1430.8	**-34.0**	44.9	0.0	92.2	421.5	-555.3	**6.8**	5.4	0.0	-42.4	-84.3
Fz_r	-485.4	0.0	**-68.4**	0.0	-916.3	0.0	-1137.9	27.2	**106.5**	0.0	883.4	-337.2
Mx_r	-1126.4	0.0	12.1	**0.0**	-105.8	0.0	-555.3	6.8	5.4	**0.0**	-42.4	-84.3
My_r	-485.4	0.0	-68.4	0.0	**-916.3**	0.0	-1139.3	27.2	105.7	0.0	**889.2**	-337.2
Mz_r	-1427.4	6.8	44.9	0.0	92.2	**-84.3**	-558.8	-34.0	5.4	0.0	-42.5	**421.5**

Member 400

Fx_i	**-1463.5**	0.0	30.7	0.0	-342.2	0.0	**-198.0**	0.0	-52.5	0.0	-18.5	0.0
Fy_i	-1003.9	**0.0**	10.3	0.0	-252.0	0.0	-477.7	**0.0**	5.5	0.0	-110.0	0.0
Fz_i	-253.6	0.0	**-57.5**	0.0	-25.9	0.0	-1160.7	0.0	**91.6**	0.0	-490.9	0.0
Mx_i	-1003.9	0.0	10.3	**0.0**	-252.0	0.0	-477.7	0.0	5.5	**0.0**	-110.0	0.0
My_i	-1269.4	0.0	51.1	0.0	**-584.6**	0.0	-650.2	0.0	-45.8	0.0	**33.7**	0.0
Mz_i	-1003.9	0.0	10.3	0.0	-252.0	**0.0**	-477.7	0.0	5.5	0.0	-110.0	**0.0**
Fx_r	**-1618.5**	8.3	30.7	0.0	134.7	-128.4	**-291.1**	-33.0	-58.5	0.0	-881.3	513.7
Fy_r	-1432.5	**-41.3**	38.3	0.0	121.9	642.1	-570.7	**8.3**	5.5	0.0	-25.3	-128.4
Fz_r	-345.6	0.0	**-64.5**	0.0	-974.3	0.0	-1284.8	-33.0	**97.6**	0.0	979.9	513.7
Mx_r	-1128.0	0.0	10.3	**0.0**	-91.8	0.0	-570.7	8.3	5.5	**0.0**	-25.3	-128.4
My_r	-484.6	0.0	-64.2	0.0	**-991.1**	0.0	-1148.9	-33.0	96.9	0.0	**1002.1**	513.7
Mz_r	-1433.6	8.3	38.3	0.0	121.9	**-128.4**	-559.6	-41.3	5.5	0.0	-25.3	**642.1**

Member 401

Fx_i	**-1470.7**	0.0	29.7	0.0	-345.1	0.0	**-190.1**	0.0	-58.2	0.0	0.8	0.0
Fy_i	-1006.9	**0.0**	8.7	0.0	-249.8	0.0	-478.5	**0.0**	5.0	0.0	-110.4	0.0
Fz_i	-243.7	0.0	**-64.0**	0.0	-4.0	0.0	-1173.2	0.0	**95.6**	0.0	-513.3	0.0
Mx_i	-1006.9	0.0	8.7	**0.0**	-249.8	0.0	-478.5	0.0	5.0	**0.0**	-110.4	0.0
My_i	-1274.6	0.0	49.6	0.0	**-587.9**	0.0	-646.2	0.0	-50.6	0.0	**50.4**	0.0
Mz_i	-1006.9	0.0	8.7	0.0	-249.8	**0.0**	-478.5	0.0	5.0	0.0	-110.4	**0.0**
Fx_r	**-1631.8**	-41.0	29.7	0.0	134.9	662.4	**-286.8**	6.6	-64.4	0.0	-989.6	-105.8
Fy_r	-1445.8	**-41.0**	36.6	0.0	115.9	662.4	-575.2	**8.2**	5.0	0.0	-29.1	-132.3
Fz_r	-340.4	0.0	**-71.2**	0.0	-1096.2	0.0	-1302.1	6.6	**101.8**	0.0	1081.1	-105.8
Mx_r	-1135.8	0.0	8.7	**0.0**	-109.8	0.0	-575.2	8.2	5.0	**0.0**	-29.1	-132.3
My_r	-479.8	0.0	-71.0	0.0	**-1114.3**	0.0	-1176.9	6.6	101.2	0.0	**1105.5**	-105.8
Mz_r	-1445.2	8.2	36.6	0.0	115.9	**-132.3**	-575.7	-41.0	5.0	0.0	-29.1	**662.4**

Member 402

Fx,	**-1464.6**	0.0	29.4	0.0	-344.9	0.0	**-189.9**	0.0	-56.4	0.0	1.7	0.0
Fy,	-1007.1	**0.0**	9.0	0.0	-249.8	0.0	-478.1	**0.0**	5.1	0.0	-110.2	0.0
Fz,	-244.2	0.0	**-61.9**	0.0	-3.3	0.0	-1167.8	0.0	**93.8**	0.0	-514.4	0.0
Mx,	-1007.1	0.0	9.0	**0.0**	-249.8	0.0	-478.1	0.0	5.1	**0.0**	-110.2	0.0
My,	-1271.4	0.0	49.6	0.0	**-588.2**	0.0	-642.7	0.0	-49.4	0.0	**51.3**	0.0
Mz,	-1007.1	0.0	9.0	0.0	-249.8	**0.0**	-478.1	0.0	5.1	0.0	-110.2	**0.0**
Fx,	**-1627.5**	8.2	29.4	0.0	135.1	-133.9	**-287.6**	-32.8	-62.7	0.0	-971.4	535.7
Fy,	-1444.9	**-41.0**	36.5	0.0	120.0	669.7	-575.9	**8.2**	5.1	0.0	-26.6	-133.9
Fz,	-342.0	0.0	**-69.3**	0.0	-1074.6	0.0	-1298.2	-32.8	**100.1**	0.0	1069.2	535.7
Mx,	-1137.5	0.0	9.0	**0.0**	-103.0	0.0	-575.9	8.2	5.1	**0.0**	-26.6	-133.9
My,	-481.4	0.0	-69.0	0.0	**-1091.9**	0.0	-1162.9	-32.8	99.5	0.0	**1092.7**	535.7
Mz,	-1446.6	8.2	36.5	0.0	120.0	**-133.9**	-574.1	-41.0	5.1	0.0	-26.6	**669.7**

Member 403

Fx,	**-1499.2**	0.0	31.8	0.0	-342.3	0.0	**-203.3**	0.0	-52.0	0.0	-24.3	0.0
Fy,	-1003.2	**0.0**	10.2	0.0	-250.5	0.0	-479.0	**0.0**	5.6	0.0	-110.0	0.0
Fz,	-283.6	0.0	**-57.2**	0.0	-29.7	0.0	-1176.3	0.0	**91.5**	0.0	-483.2	0.0
Mx,	-1003.2	0.0	10.2	**0.0**	-250.5	0.0	-479.0	0.0	5.6	**0.0**	-110.0	0.0
My,	-1408.8	0.0	51.0	0.0	**-578.6**	0.0	-582.6	0.0	-43.6	0.0	**24.1**	0.0
Mz,	-1003.2	0.0	10.2	0.0	-250.5	**0.0**	-479.0	0.0	5.6	0.0	-110.0	**0.0**
Fx,	**-1652.2**	-41.3	31.8	0.0	145.8	633.9	**-295.1**	6.6	-57.9	0.0	-866.8	-101.4
Fy,	-1440.9	**-41.3**	38.9	0.0	124.6	633.9	-570.8	**8.3**	5.6	0.0	-23.5	-126.8
Fz,	-375.4	0.0	**-64.1**	0.0	-960.5	0.0	-1298.7	6.6	**97.4**	0.0	965.3	-101.4
Mx,	-1125.7	0.0	10.2	**0.0**	-93.5	0.0	-570.8	8.3	5.6	**0.0**	-23.5	-126.8
My,	-513.6	0.0	-63.7	0.0	**-976.7**	0.0	-1163.3	6.6	96.6	0.0	**987.7**	-101.4
Mz,	-1432.8	8.3	38.9	0.0	124.6	**-126.8**	-578.9	-41.3	5.6	0.0	-23.5	**633.9**

Member 404

Fx,	**-1315.6**	0.0	33.5	0.0	-305.0	0.0	**-96.1**	0.0	-51.9	0.0	-99.6	0.0
Fy,	-905.9	**0.0**	8.8	0.0	-263.6	0.0	-442.5	**0.0**	4.8	0.0	-111.6	0.0
Fz,	-333.5	0.0	**-56.7**	0.0	-134.8	0.0	-828.6	0.0	**93.5**	0.0	-347.8	0.0
Mx,	-905.9	0.0	8.8	**0.0**	-263.6	0.0	-442.5	0.0	4.8	**0.0**	-111.6	0.0
My,	-1146.8	0.0	51.6	0.0	**-511.2**	0.0	-224.3	0.0	40.9	0.0	**-3.4**	0.0
Mz,	-905.9	0.0	8.8	0.0	-263.6	**0.0**	-442.5	0.0	4.8	0.0	-111.6	**0.0**
Fx,	**-1429.9**	34.4	33.5	0.0	78.6	-393.9	**-164.7**	-5.5	-56.3	0.0	-719.8	63.0
Fy,	-1215.2	**-34.4**	40.4	0.0	42.3	393.9	-511.1	**6.9**	4.8	0.0	-56.7	-78.8
Fz,	-425.0	0.0	**-61.8**	0.0	-814.1	0.0	-897.2	-5.5	**97.9**	0.0	748.9	63.0
Mx,	-997.4	0.0	8.8	**0.0**	-163.2	0.0	-511.1	6.9	4.8	**0.0**	-56.7	-78.8
My,	-424.9	0.0	-61.8	0.0	**-814.2**	0.0	-891.8	-5.5	97.1	0.0	**760.1**	63.0
Mz,	-1295.2	6.9	40.3	0.0	42.0	**-78.8**	-431.1	-34.4	4.8	0.0	-56.4	**393.9**

Member 421

Fx,	**-2837.0**	4.9	0.0	0.0	0.0	-66.0	**-527.2**	-19.6	18.9	-0.0	417.5	264.1
Fy,	-2382.3	**-24.5**	0.0	-0.0	0.0	330.1	-1014.0	**4.9**	0.0	0.0	0.0	-66.0
Fz,	-1431.1	-4.4	**-47.9**	-0.0	-476.4	59.4	-1987.2	22.0	**47.9**	0.0	476.4	-297.1
Mx,	-2382.3	-24.5	0.0	**-0.0**	0.0	330.1	-1014.0	4.9	0.0	**0.0**	0.0	-66.0
My,	-1461.1	-3.9	-11.2	-0.0	**-1664.6**	52.8	-1629.3	19.6	16.0	0.0	**1627.1**	-264.1
Mz,	-2482.5	4.9	0.0	0.0	0.0	**-66.0**	-913.8	-24.5	0.0	-0.0	0.0	**330.1**
Fx,	**-2837.0**	4.9	0.0	0.0	0.0	-70.9	**-527.2**	-19.6	18.9	-0.0	436.3	283.7
Fy,	-2382.3	**-24.5**	0.0	-0.0	0.0	354.6	-1014.0	**4.9**	0.0	0.0	0.0	-70.9
Fz,	-1431.1	-4.4	**-47.9**	-0.0	-524.2	63.8	-1987.2	22.0	**47.9**	0.0	524.2	-319.2
Mx,	-2382.3	-24.5	0.0	**-0.0**	0.0	354.6	-1014.0	4.9	0.0	**0.0**	0.0	-70.9
My,	-1456.7	-3.9	-11.6	-0.0	**-1675.8**	56.7	-1624.9	19.6	16.4	0.0	**1643.1**	-283.7
Mz,	-2482.5	4.9	0.0	0.0	0.0	**-70.9**	-913.8	-24.5	0.0	-0.0	0.0	**354.6**

Member 422

Fx,	**-3130.6**	-13.6	0.0	-0.0	-0.0	168.6	**-704.2**	54.4	-109.0	0.0	-1617.7	-674.3
Fy,	-2861.6	**-68.0**	0.0	-0.0	-0.0	842.9	-1110.7	**13.6**	0.0	0.0	-0.0	-168.6
Fz,	-1586.4	-10.9	**-137.9**	-0.0	-2092.9	134.9	-2047.9	54.4	**137.9**	0.0	2092.8	-674.3
Mx,	-2861.6	-68.0	0.0	**-0.0**	-0.0	842.9	-1110.7	13.6	0.0	**0.0**	-0.0	-168.6
My,	-1997.6	-10.9	-116.1	-0.0	**-3386.4**	134.9	-1624.7	54.4	117.0	0.0	**3266.0**	-674.3
Mz,	-2854.7	13.6	0.0	0.0	-0.0	**-168.6**	-1117.6	-68.0	0.0	-0.0	-0.0	**842.9**
Fx,	**-3130.6**	-13.6	0.0	-0.0	-0.0	182.2	**-704.2**	54.4	-109.0	0.0	-1726.6	-728.7
Fy,	-2861.6	**-68.0**	0.0	-0.0	-0.0	910.9	-1110.7	**13.6**	0.0	0.0	-0.0	-182.2
Fz,	-1586.4	-10.9	**-137.9**	-0.0	-2230.7	145.7	-2047.9	54.4	**137.9**	0.0	2230.7	-728.7
Mx,	-2861.6	-68.0	0.0	**-0.0**	-0.0	910.9	-1110.7	13.6	0.0	**0.0**	-0.0	-182.2
My,	-1995.3	-10.9	-116.4	-0.0	**-3502.6**	145.7	-1622.4	54.4	117.3	0.0	**3383.0**	-728.7
Mz,	-2854.7	13.6	0.0	0.0	-0.0	**-182.2**	-1117.6	-68.0	0.0	-0.0	-0.0	**910.9**

Member 423

Fx,	**-3166.2**	16.5	0.0	0.0	-0.0	-256.8	**-727.5**	0.0	-20.6	0.0	-364.7	0.0
Fy,	-2865.1	**-82.6**	0.0	-0.0	-0.0	1284.2	-1141.4	**16.5**	0.0	0.0	-0.0	-256.8
Fz,	-1510.4	-13.2	**-132.4**	-0.0	-2263.6	205.5	-2117.3	66.1	**132.4**	0.0	2263.6	-1027.4
Mx,	-2865.1	-82.6	0.0	**-0.0**	-0.0	1284.2	-1141.4	16.5	0.0	**0.0**	-0.0	-256.8
My,	-1996.9	-13.2	-114.0	-0.0	**-3654.2**	205.5	-1724.5	66.1	114.2	0.0	**3526.8**	-1027.4
Mz,	-2867.3	16.5	0.0	0.0	-0.0	**-256.8**	-1139.2	-82.6	0.0	-0.0	-0.0	**1284.2**
Fx,	**-3166.2**	16.5	0.0	0.0	-0.0	-273.4	**-727.5**	0.0	-20.6	0.0	-385.3	0.0
Fy,	-2865.1	**-82.6**	0.0	-0.0	-0.0	1366.9	-1141.4	**16.5**	0.0	0.0	-0.0	-273.4
Fz,	-1510.4	-13.2	**-132.4**	-0.0	-2396.0	218.7	-2117.3	66.1	**132.4**	0.0	2396.0	-1093.5
Mx,	-2865.1	-82.6	0.0	**-0.0**	-0.0	1366.9	-1141.4	16.5	0.0	**0.0**	-0.0	-273.4
My,	-1994.7	-13.2	-114.3	-0.0	**-3768.3**	218.7	-1722.3	66.1	114.5	0.0	**3641.2**	-1093.5
Mz,	-2867.3	16.5	0.0	0.0	-0.0	**-273.4**	-1139.2	-82.6	0.0	-0.0	-0.0	**1366.9**

Member 424

Fx,	**-3191.2**	-82.0	-0.0	-0.0	-0.0	1324.7	**-736.5**	0.0	19.2	0.0	466.3	0.0
Fy,	-2891.6	**-82.0**	-0.0	-0.0	-0.0	1324.7	-1150.3	**16.4**	-0.0	0.0	-0.0	-264.5
Fz,	-1065.4	0.0	**-143.8**	0.0	-2660.3	0.0	-872.6	0.0	**143.8**	0.0	2660.3	0.0
Mx,	-2891.6	-82.0	-0.0	**-0.0**	-0.0	1324.7	-1150.3	16.4	-0.0	**0.0**	-0.0	-264.5
My,	-1931.1	65.6	-126.8	0.0	**-3945.7**	-1059.8	-1688.9	-13.1	126.6	-0.0	**3810.0**	211.6
Mz,	-2890.4	16.4	-0.0	0.0	-0.0	**-264.5**	-1151.5	-82.0	-0.0	-0.0	-0.0	**1324.7**
Fx,	**-3191.2**	-82.0	-0.0	-0.0	-0.0	1406.7	**-736.5**	0.0	19.2	0.0	485.5	0.0
Fy,	-2891.6	**-82.0**	-0.0	-0.0	-0.0	1406.7	-1150.3	**16.4**	-0.0	0.0	-0.0	-280.9
Fz,	-1065.4	0.0	**-143.8**	0.0	-2804.1	0.0	-872.6	0.0	**143.8**	0.0	2804.1	0.0
Mx,	-2891.6	-82.0	-0.0	**-0.0**	-0.0	1406.7	-1150.3	16.4	-0.0	**0.0**	-0.0	-280.9
My,	-1930.5	65.6	-126.8	0.0	**-4072.4**	-1125.4	-1688.3	-13.1	126.6	-0.0	**3936.6**	224.7
Mz,	-2890.4	16.4	-0.0	0.0	-0.0	**-280.9**	-1151.5	-82.0	-0.0	-0.0	-0.0	**1406.7**

Member 425

Fx,	**-3183.1**	16.4	-0.0	0.0	-0.0	-267.9	**-737.9**	-65.6	-114.4	-0.0	-2089.4	1071.4
Fy,	-2889.7	**-82.0**	-0.0	-0.0	-0.0	1339.3	-1151.8	**16.4**	-0.0	0.0	-0.0	-267.9
Fz,	-2079.2	65.6	**-140.2**	0.0	-2496.0	-1071.4	-1577.2	-13.1	**140.2**	-0.0	2496.0	214.3
Mx,	-2889.7	-82.0	-0.0	**-0.0**	-0.0	1339.3	-1151.8	16.4	-0.0	**0.0**	-0.0	-267.9
My,	-1927.5	65.6	-123.2	0.0	**-3897.6**	-1071.4	-1732.5	-13.1	123.1	-0.0	**3765.2**	214.3
Mz,	-2893.2	16.4	-0.0	0.0	-0.0	**-267.9**	-1148.3	-82.0	-0.0	-0.0	-0.0	**1339.3**
Fx,	**-3183.1**	16.4	-0.0	0.0	-0.0	-284.3	**-737.9**	-65.6	-114.4	-0.0	-2203.8	1137.0
Fy,	-2889.7	**-82.0**	-0.0	-0.0	-0.0	1421.3	-1151.8	**16.4**	-0.0	0.0	-0.0	-284.3
Fz,	-2079.2	65.6	**-140.2**	0.0	-2636.2	-1137.0	-1577.2	-13.1	**140.2**	-0.0	2636.2	227.4
Mx,	-2889.7	-82.0	-0.0	**-0.0**	-0.0	1421.3	-1151.8	16.4	-0.0	**0.0**	-0.0	-284.3
My,	-1925.3	65.6	-123.4	0.0	**-4020.8**	-1137.0	-1730.3	-13.1	123.4	-0.0	**3888.4**	227.4
Mz,	-2893.2	16.4	-0.0	0.0	-0.0	**-284.3**	-1148.3	-82.0	-0.0	-0.0	-0.0	**1421.3**

Member 426

Fx,	**-3233.0**	-82.6	0.0	-0.0	-0.0	1267.7	**-734.9**	13.2	-104.7	0.0	-1836.2	-202.8
Fy,	-2881.8	**-82.6**	0.0	-0.0	-0.0	1267.7	-1141.6	**16.5**	0.0	0.0	-0.0	-253.5
Fz,	-865.1	0.0	**-130.4**	0.0	-2328.4	0.0	-1054.1	0.0	**130.4**	0.0	2328.4	0.0
Mx,	-2881.8	-82.6	0.0	**-0.0**	-0.0	1267.7	-1141.6	16.5	0.0	**0.0**	-0.0	-253.5

My_i	-2072.8	66.1	-111.4	0.0	**-3616.0**	-1014.2	-1756.5	-13.2	111.9	-0.0	**3490.6**	202.8
Mz_i	-2865.5	16.5	0.0	0.0	-0.0	**-253.5**	-1157.8	-82.6	0.0	-0.0	-0.0	**1267.7**
Fx_f	**-3233.0**	-82.6	0.0	-0.0	-0.0	1350.3	**-734.9**	13.2	-104.7	0.0	-1940.9	-216.1
Fy_f	-2881.8	**-82.6**	0.0	-0.0	-0.0	1350.3	-1141.6	**16.5**	0.0	0.0	-0.0	-270.1
Fz_f	-865.1	0.0	**-130.4**	0.0	-2458.8	0.0	-1054.1	0.0	**130.4**	0.0	2458.8	0.0
Mx_f	-2881.8	-82.6	0.0	**-0.0**	-0.0	1350.3	-1141.6	16.5	0.0	**0.0**	-0.0	-270.1
My_f	-2070.6	66.1	-111.7	0.0	**-3727.4**	-1080.3	-1754.2	-13.2	112.1	-0.0	**3602.5**	216.1
Mz_f	-2865.5	16.5	0.0	0.0	-0.0	**-270.1**	-1157.8	-82.6	0.0	-0.0	-0.0	**1350.3**

Member 427

Fx_i	**-2794.6**	68.8	0.0	0.0	-0.0	-787.9	**-434.5**	-11.0	95.0	-0.0	1423.5	126.1
Fy_i	-2430.4	**-68.8**	0.0	-0.0	-0.0	787.9	-1022.3	**13.8**	0.0	0.0	-0.0	-157.6
Fz_i	-1460.4	55.0	**-129.3**	0.0	-1938.2	-630.3	-1600.9	-11.0	**129.3**	-0.0	1938.2	126.1
Mx_i	-2430.4	-68.8	0.0	**-0.0**	-0.0	787.9	-1022.3	13.8	0.0	**0.0**	-0.0	-157.6
My_i	-1589.9	55.0	-110.3	0.0	**-2994.4**	-630.3	-1344.0	-11.0	110.2	-0.0	**2871.9**	126.1
Mz_i	-2590.4	13.8	0.0	0.0	-0.0	**-157.6**	-862.3	-68.8	0.0	-0.0	-0.0	**787.9**
Fx_f	**-2794.6**	68.8	0.0	0.0	-0.0	-856.6	**-434.5**	-11.0	95.0	-0.0	1518.5	137.1
Fy_f	-2430.4	**-68.8**	0.0	-0.0	-0.0	856.6	-1022.3	**13.8**	0.0	0.0	-0.0	-171.3
Fz_f	-1460.4	55.0	**-129.3**	0.0	-2067.5	-685.3	-1600.9	-11.0	**129.3**	-0.0	2067.4	137.1
Mx_f	-2430.4	-68.8	0.0	**-0.0**	-0.0	856.6	-1022.3	13.8	0.0	**0.0**	-0.0	-171.3
My_f	-1589.1	55.0	-110.4	0.0	**-3104.7**	-685.3	-1343.3	-11.0	110.2	-0.0	**2982.2**	137.1
Mz_f	-2590.4	13.8	0.0	0.0	-0.0	**-171.3**	-862.3	-68.8	0.0	-0.0	-0.0	**856.6**

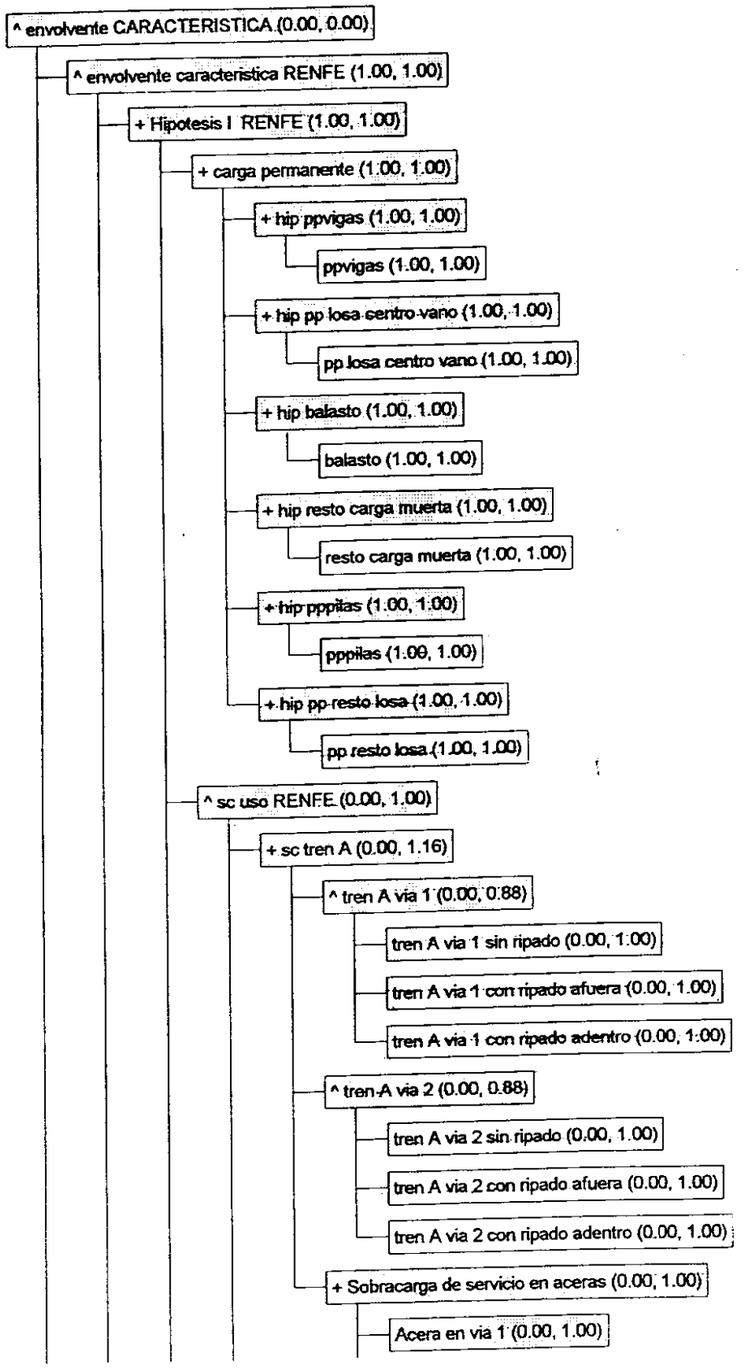
*** Fin del listado ***

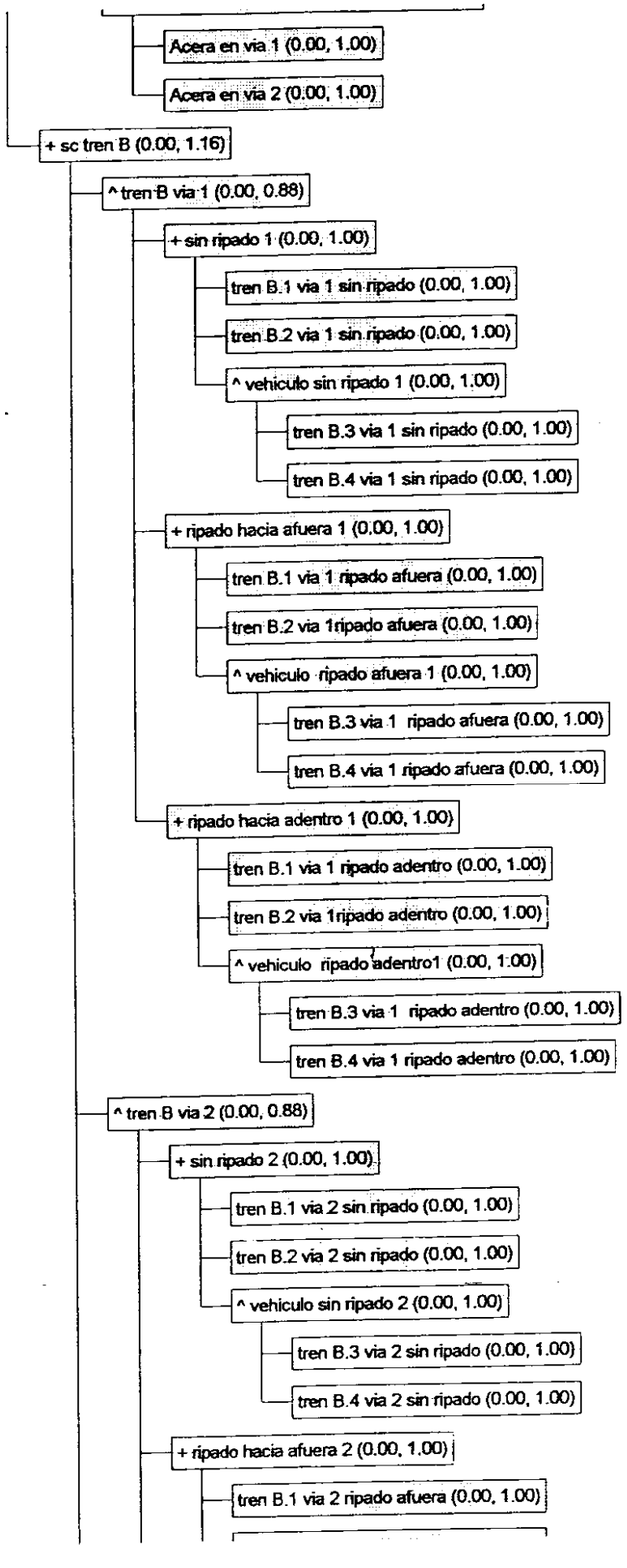
SUBANEJO Nº 12

ENVOLVENTE DE ESFUERZOS CARACTERÍSTICOS

Chorros. Env. caract.

Envolvator 1.5
Fichero: caract.evt
Fecha: 28/04/99 13:24:32





- tren B.1 via 2 ripado afuera (0.00, 1.00)
- tren B.2 via 2 ripado afuera (0.00, 1.00)
- ^ vehiculo ripado afuera 2 (0.00, 1.00)
  - tren B.3 via 2 ripado afuera (0.00, 1.00)
  - tren B.4 via 2 ripado afuera (0.00, 1.00)
- + ripado hacia adentro 2 (0.00, 1.00)
  - tren B.1 via 2 ripado adentro (0.00, 1.00)
  - tren B.2 via 2 ripado adentro (0.00, 1.00)
  - ^ vehiculo ripado adentro 2 (0.00, 1.00)
    - tren B.3 via 2 ripado adentro (0.00, 1.00)
    - tren B.4 via 2 ripado adentro (0.00, 1.00)
- + Sobracarga de servicio en aceras (0.00, 1.00)

^ termico (0.00, 1.00)
- termico roz. 0.01 (1.00, 1.00)
- termico roz 0.05 (1.00, 1.00)

+ fuerza centrifuga y efecto lazo (0.00, 1.00)
- fuerza centrifuga (-1.00, 1.00)
- ^ efecto lazo (0.00, 1.00)
  - efecto lazo via 1 (0.00, 1.00)
  - efecto lazo via 2 (0.00, 1.00)

^ asientos diferenciales (0.00, 1.00)
- asientos e-1 fijo (1.00, 1.00)
- asientos pila 1 (1.00, 1.00)
- asientos pila 2 (1.00, 1.00)
- asientos pila 3 (1.00, 1.00)
- asientos pila 4 (1.00, 1.00)
- asientos pila 5 (1.00, 1.00)
- asientos pila 6 (1.00, 1.00)
- asientos pila 7 (1.00, 1.00)
- asientos e-2 movil (1.00, 1.00)

+ hip frenado (0.00, 1.00)
- frenado (-1.00, 1.00)

+ hip frenado (0.00, 1.00)
- frenado (-1.00, 1.00)

+ Hipotesis II RENFE (0.90, 0.90)

^ sc uso RENFE (0.00, 1.00)

+ sc tren A (0.00, 1.16)

^ tren A via 1 (0.00, 0.88)
- tren A via 1 sin ripado (0.00, 1.00)
- tren A via 1 con ripado afuera (0.00, 1.00)
- tren A via 1 con ripado adentro (0.00, 1.00)

^ tren A via 2 (0.00, 0.88)
- tren A via 2 sin ripado (0.00, 1.00)
- tren A via 2 con ripado afuera (0.00, 1.00)
- tren A via 2 con ripado adentro (0.00, 1.00)

+ Sobracarga de servicio en aceras (0.00, 1.00)
- Acera en via 1 (0.00, 1.00)
- Acera en via 2 (0.00, 1.00)

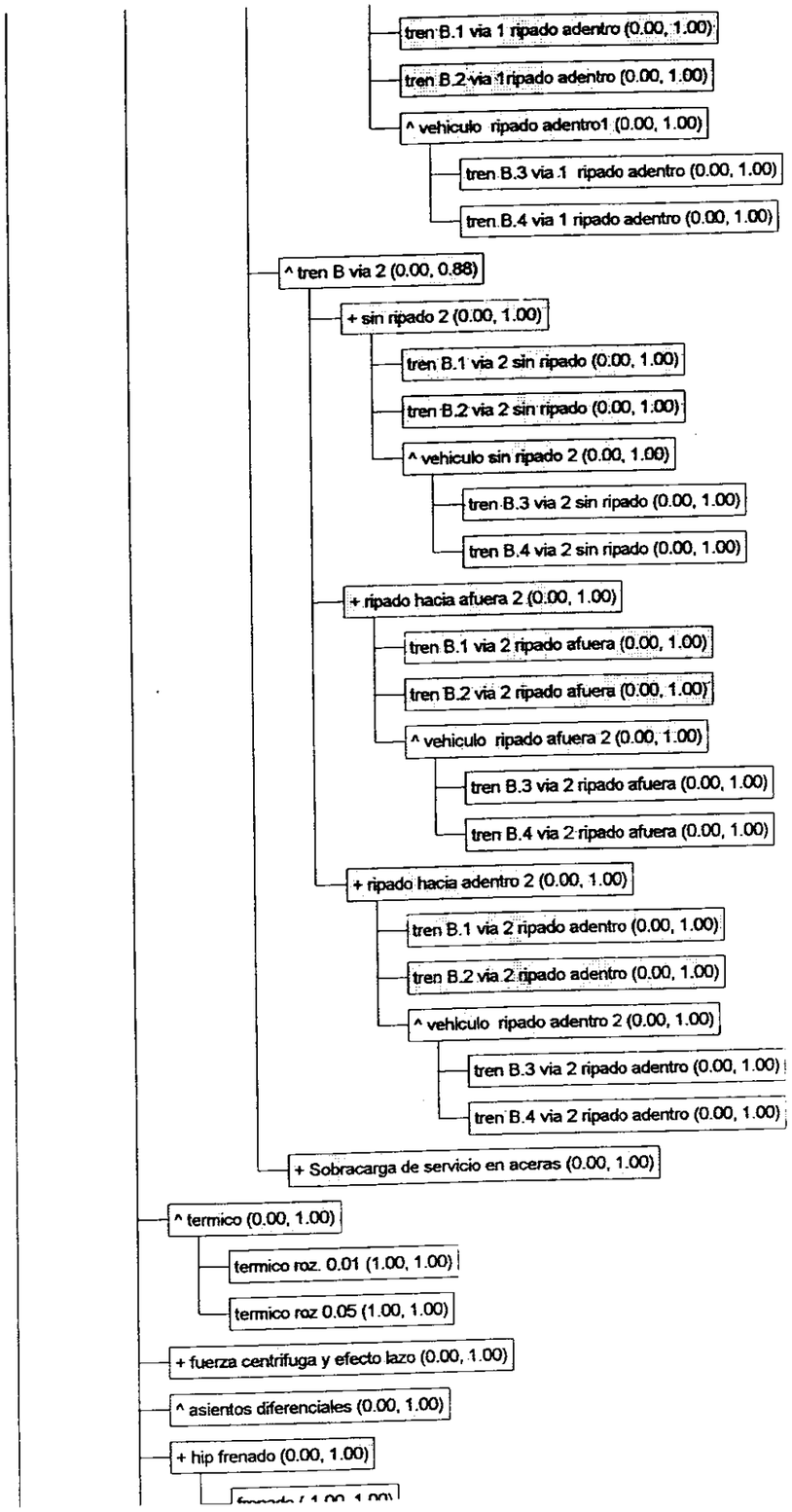
+ sc tren B (0.00, 1.16)

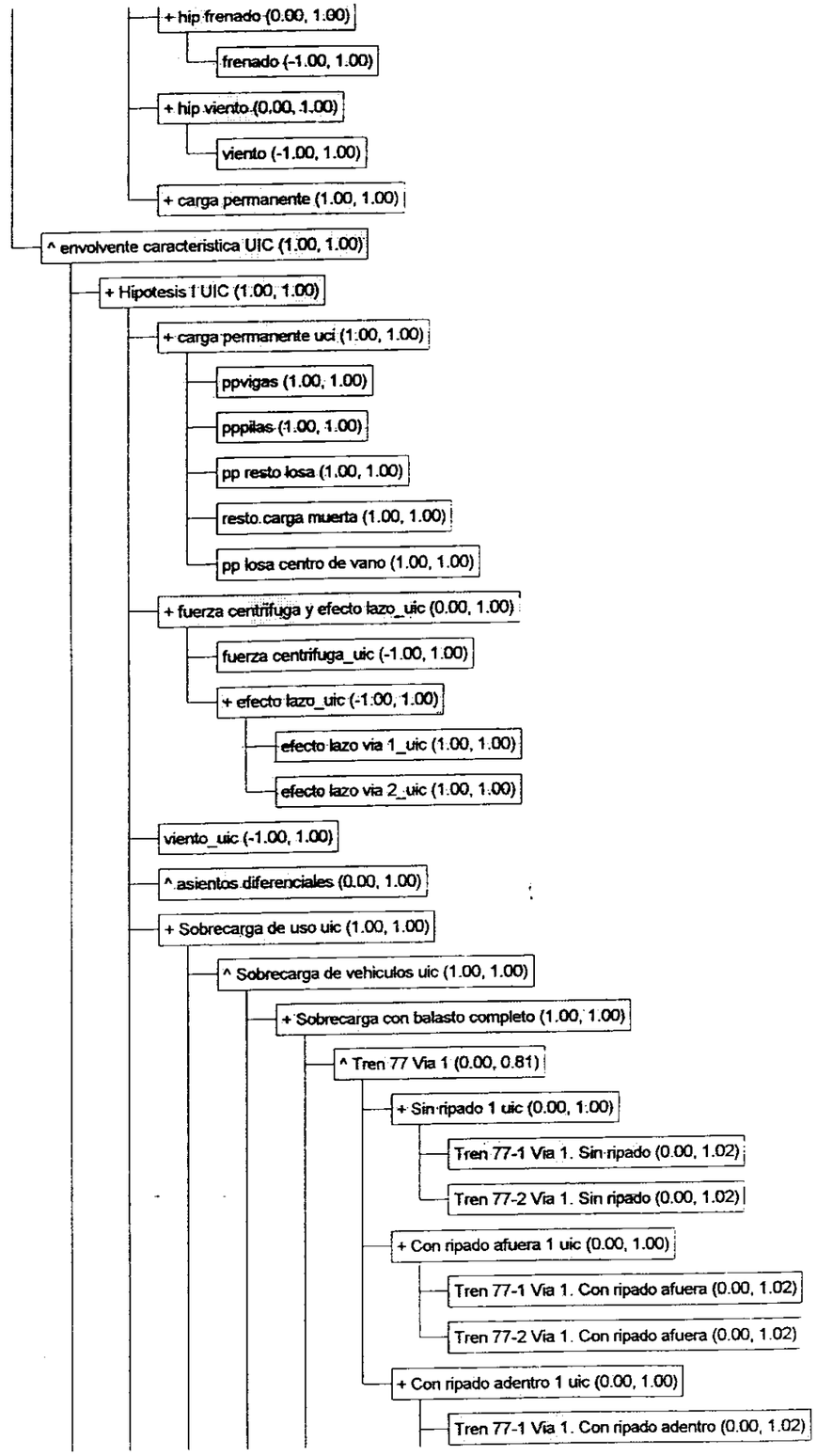
^ tren B via 1 (0.00, 0.88)

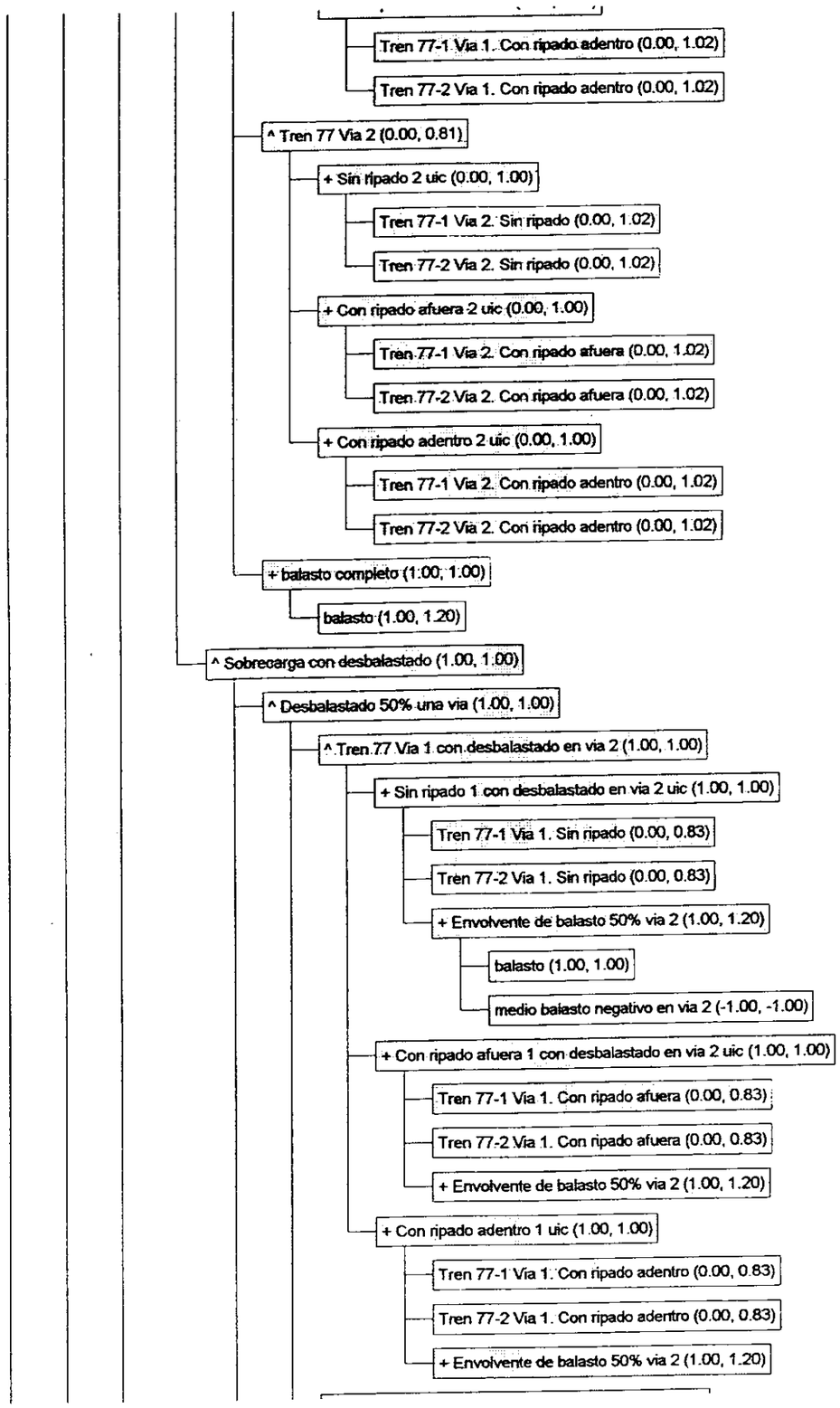
+ sin ripado 1 (0.00, 1.00)
- tren B.1 via 1 sin ripado (0.00, 1.00)
- tren B.2 via 1 sin ripado (0.00, 1.00)
- ^ vehiculo sin ripado 1 (0.00, 1.00)
  - tren B.3 via 1 sin ripado (0.00, 1.00)
  - tren B.4 via 1 sin ripado (0.00, 1.00)

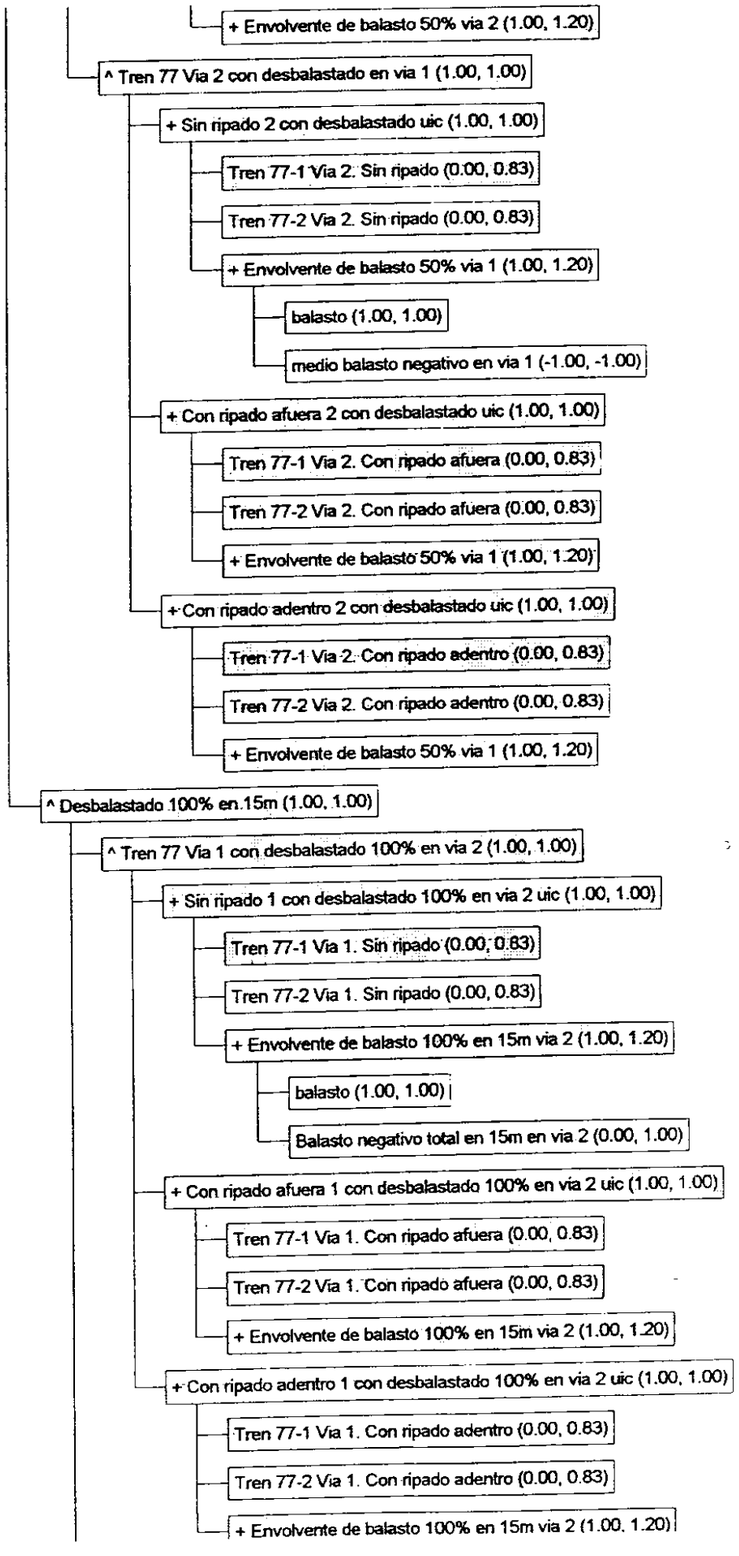
+ ripado hacia afuera 1 (0.00, 1.00)
- tren B.1 via 1 ripado afuera (0.00, 1.00)
- tren B.2 via 1ripado afuera (0.00, 1.00)
- ^ vehiculo ripado afuera 1 (0.00, 1.00)
  - tren B.3 via 1 ripado afuera (0.00, 1.00)
  - tren B.4 via 1 ripado afuera (0.00, 1.00)

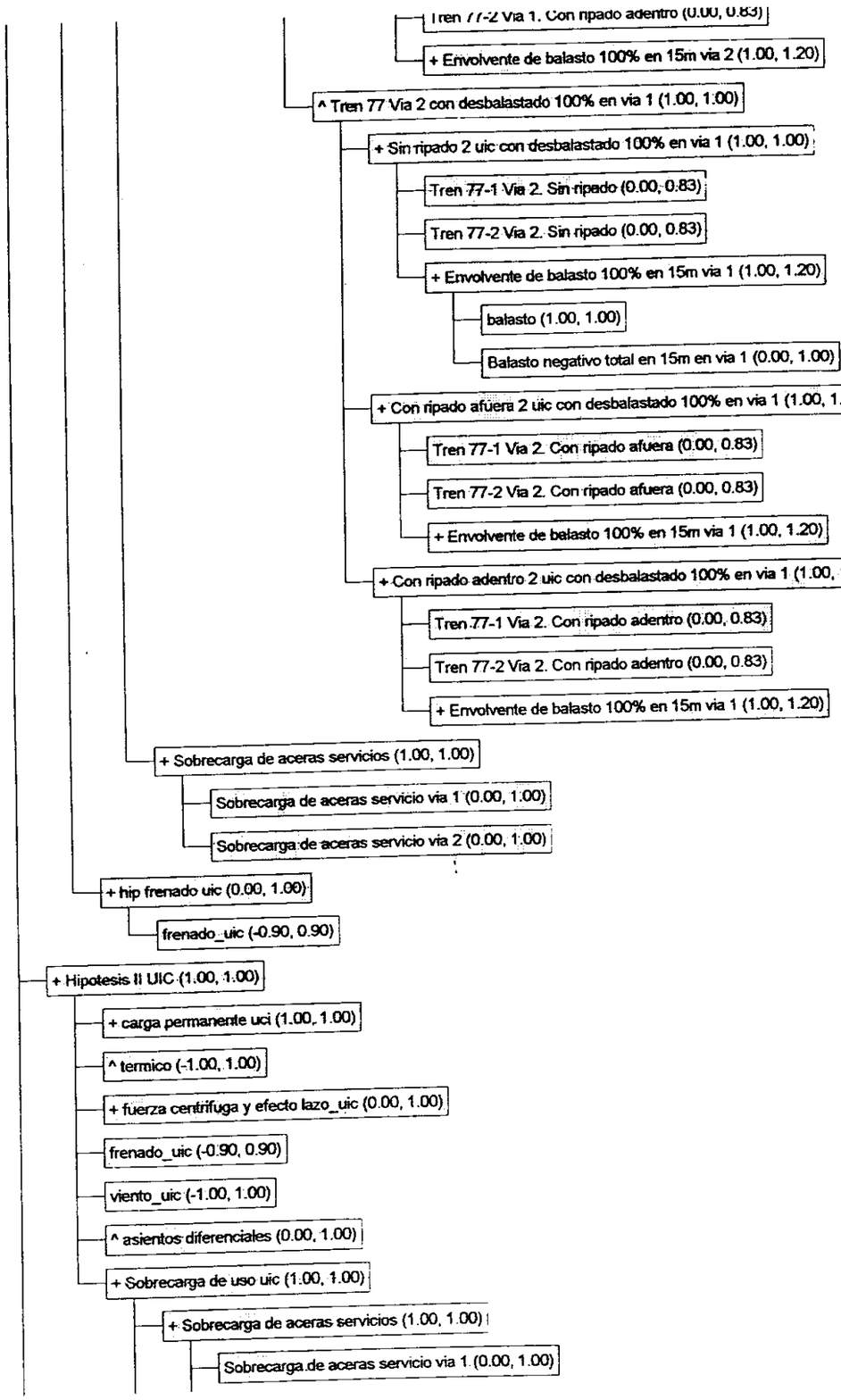
+ ripado hacia adentro 1 (0.00, 1.00)
- tren B.1 via 1 ripado adentro (0.00, 1.00)

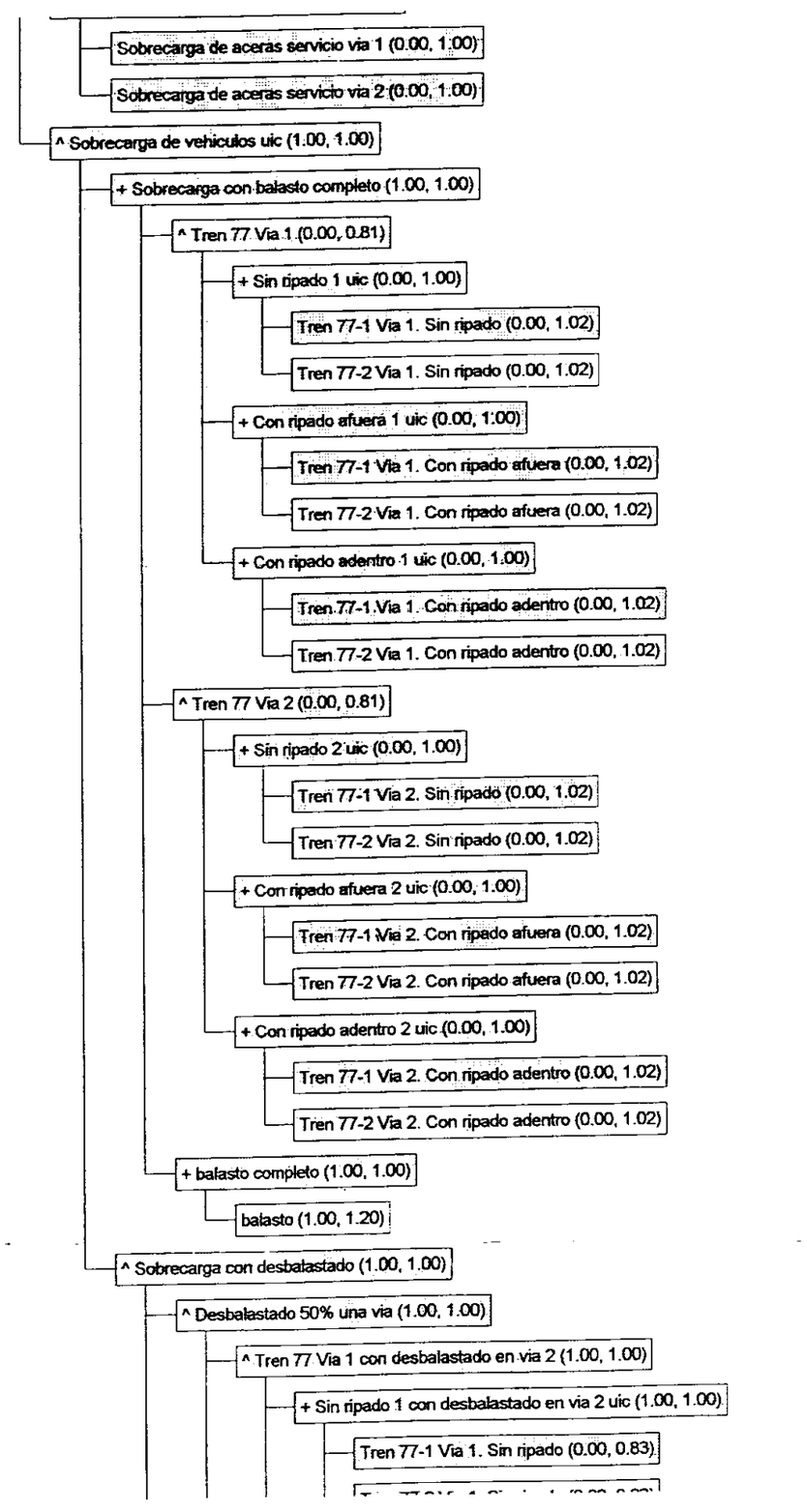

tren B.1 via 1 ripado adentro (0.00, 1.00)
tren B.2 via 1ripado adentro (0.00, 1.00)
^ vehiculo ripado adentro1 (0.00, 1.00)
tren B.3 via 1 ripado adentro (0.00, 1.00)
tren B.4 via 1 ripado adentro (0.00, 1.00)
^ tren B via 2 (0.00, 0.88)
+ sin ripado 2 (0.00, 1.00)
tren B.1 via 2 sin ripado (0.00, 1.00)
tren B.2 via 2 sin ripado (0.00, 1.00)
^ vehiculo sin ripado 2 (0.00, 1.00)
tren B.3 via 2 sin ripado (0.00, 1.00)
tren B.4 via 2 sin ripado (0.00, 1.00)
+ ripado hacia afuera 2 (0.00, 1.00)
tren B.1 via 2 ripado afuera (0.00, 1.00)
tren B.2 via 2 ripado afuera (0.00, 1.00)
^ vehiculo ripado afuera 2 (0.00, 1.00)
tren B.3 via 2 ripado afuera (0.00, 1.00)
tren B.4 via 2 ripado afuera (0.00, 1.00)
+ ripado hacia adentro 2 (0.00, 1.00)
tren B.1 via 2 ripado adentro (0.00, 1.00)
tren B.2 via 2 ripado adentro (0.00, 1.00)
^ vehiculo ripado adentro 2 (0.00, 1.00)
tren B.3 via 2 ripado adentro (0.00, 1.00)
tren B.4 via 2 ripado adentro (0.00, 1.00)
+ Sobracarga de servicio en aceras (0.00, 1.00)
^ termico (0.00, 1.00)
termico roz. 0.01 (1.00, 1.00)
termico roz 0.05 (1.00, 1.00)
+ fuerza centrifuga y efecto lazo (0.00, 1.00)
^ asientos diferenciales (0.00, 1.00)
+ hip frenado (0.00, 1.00)


+ hip frenado (0.00, 1.00)
frenado (-1.00, 1.00)
+ hip viento (0.00, 1.00)
viento (-1.00, 1.00)
+ carga permanente (1.00, 1.00)
^ envolvente caracteristica UIC (1.00, 1.00)
+ Hipotesis 1 UIC (1.00, 1.00)
+ carga permanente uci (1.00, 1.00)
ppvigas (1.00, 1.00)
pppilas (1.00, 1.00)
pp resto losa (1.00, 1.00)
resto carga muerta (1.00, 1.00)
pp losa centro de vano (1.00, 1.00)
+ fuerza centrifuga y efecto lazo_uic (0.00, 1.00)
fuerza centrifuga_uic (-1.00, 1.00)
+ efecto lazo_uic (-1.00, 1.00)
efecto lazo via 1_uic (1.00, 1.00)
efecto lazo via 2_uic (1.00, 1.00)
viento_uic (-1.00, 1.00)
^ asientos diferenciales (0.00, 1.00)
+ Sobrecarga de uso uic (1.00, 1.00)
^ Sobrecarga de vehiculos uic (1.00, 1.00)
+ Sobrecarga con balasto completo (1.00, 1.00)
^ Tren 77 Via 1 (0.00, 0.81)
+ Sin ripado 1 uic (0.00, 1.00)
Tren 77-1 Via 1. Sin ripado (0.00, 1.02)
Tren 77-2 Via 1. Sin ripado (0.00, 1.02)
+ Con ripado afuera 1 uic (0.00, 1.00)
Tren 77-1 Via 1. Con ripado afuera (0.00, 1.02)
Tren 77-2 Via 1. Con ripado afuera (0.00, 1.02)
+ Con ripado adentro 1 uic (0.00, 1.00)
Tren 77-1 Via 1. Con ripado adentro (0.00, 1.02)


Tren 77-1 Via 1. Con ripado adentro (0.00, 1.02)
Tren 77-2 Via 1. Con ripado adentro (0.00, 1.02)
^ Tren 77 Via 2 (0.00, 0.81)
+ Sin ripado 2 uic (0.00, 1.00)
Tren 77-1 Via 2. Sin ripado (0.00, 1.02)
Tren 77-2 Via 2. Sin ripado (0.00, 1.02)
+ Con ripado afuera 2 uic (0.00, 1.00)
Tren 77-1 Via 2. Con ripado afuera (0.00, 1.02)
Tren 77-2 Via 2. Con ripado afuera (0.00, 1.02)
+ Con ripado adentro 2 uic (0.00, 1.00)
Tren 77-1 Via 2. Con ripado adentro (0.00, 1.02)
Tren 77-2 Via 2. Con ripado adentro (0.00, 1.02)
+ balasto completo (1.00, 1.00)
balasto (1.00, 1.20)
^ Sobrecarga con desbalastado (1.00, 1.00)
^ Desbalastado 50% una via (1.00, 1.00)
^ Tren 77 Via 1 con desbalastado en via 2 (1.00, 1.00)
+ Sin ripado 1 con desbalastado en via 2 uic (1.00, 1.00)
Tren 77-1 Via 1. Sin ripado (0.00, 0.83)
Tren 77-2 Via 1. Sin ripado (0.00, 0.83)
+ Envolvente de balasto 50% via 2 (1.00, 1.20)
balasto (1.00, 1.00)
medio balasto negativo en via 2 (-1.00, -1.00)
+ Con ripado afuera 1 con desbalastado en via 2 uic (1.00, 1.00)
Tren 77-1 Via 1. Con ripado afuera (0.00, 0.83)
Tren 77-2 Via 1. Con ripado afuera (0.00, 0.83)
+ Envolvente de balasto 50% via 2 (1.00, 1.20)
+ Con ripado adentro 1 uic (1.00, 1.00)
Tren 77-1 Via 1. Con ripado adentro (0.00, 0.83)
Tren 77-2 Via 1. Con ripado adentro (0.00, 0.83)
+ Envolvente de balasto 50% via 2 (1.00, 1.20)

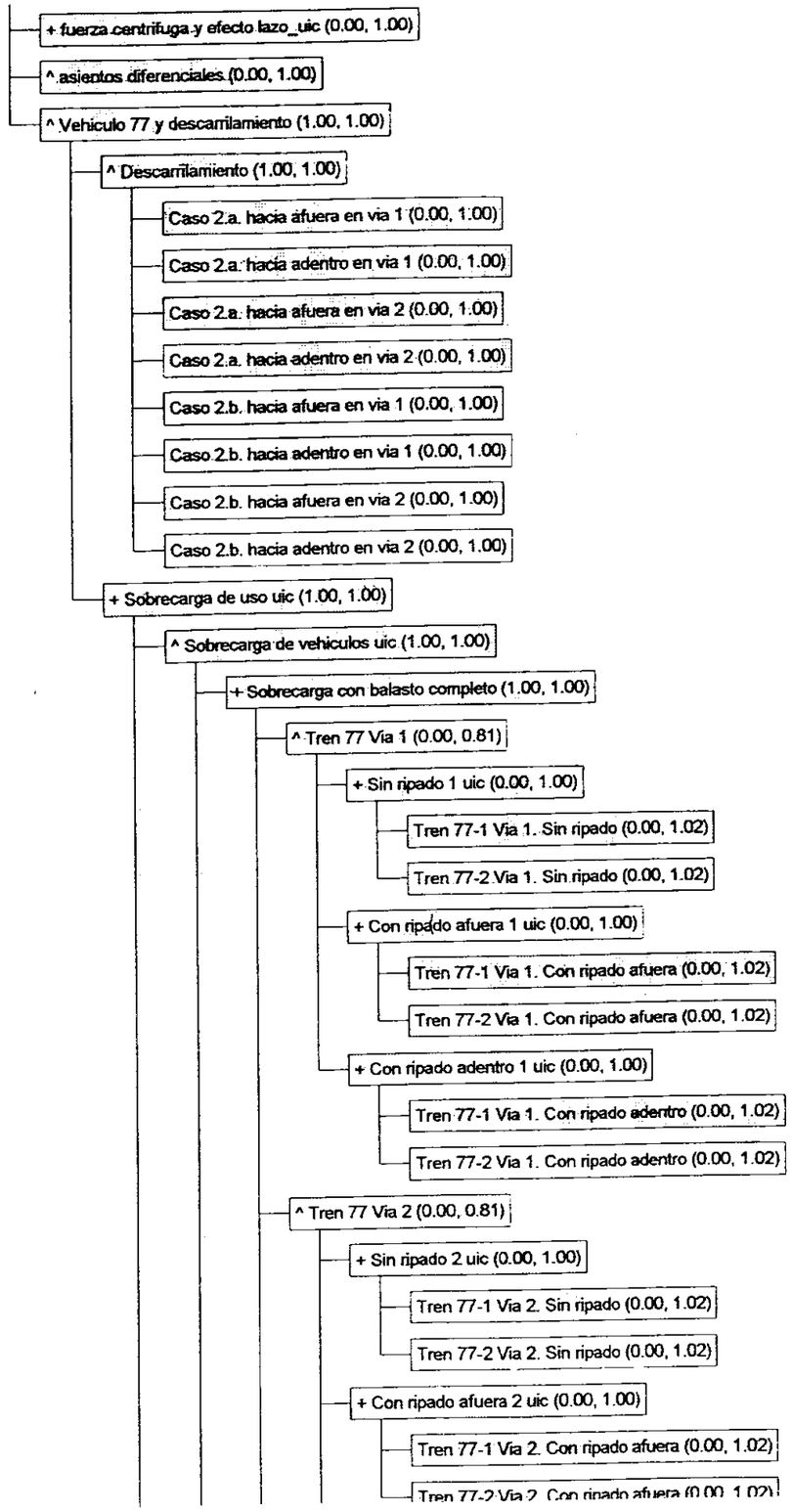

+ Envolvente de balasto 50% via 2 (1.00, 1.20)
^ Tren 77 Via 2 con desbalastado en via 1 (1.00, 1.00)
+ Sin ripado 2 con desbalastado uic (1.00, 1.00)
Tren 77-1 Via 2. Sin ripado (0.00, 0.83)
Tren 77-2 Via 2. Sin ripado (0.00, 0.83)
+ Envolvente de balasto 50% via 1 (1.00, 1.20)
balasto (1.00, 1.00)
medio balasto negativo en via 1 (-1.00, -1.00)
+ Con ripado afuera 2 con desbalastado uic (1.00, 1.00)
Tren 77-1 Via 2. Con ripado afuera (0.00, 0.83)
Tren 77-2 Via 2. Con ripado afuera (0.00, 0.83)
+ Envolvente de balasto 50% via 1 (1.00, 1.20)
+ Con ripado adentro 2 con desbalastado uic (1.00, 1.00)
Tren 77-1 Via 2. Con ripado adentro (0.00, 0.83)
Tren 77-2 Via 2. Con ripado adentro (0.00, 0.83)
+ Envolvente de balasto 50% via 1 (1.00, 1.20)
^ Desbalastado 100% en 15m (1.00, 1.00)
^ Tren 77 Via 1 con desbalastado 100% en via 2 (1.00, 1.00)
+ Sin ripado 1 con desbalastado 100% en via 2 uic (1.00, 1.00)
Tren 77-1 Via 1. Sin ripado (0.00, 0.83)
Tren 77-2 Via 1. Sin ripado (0.00, 0.83)
+ Envolvente de balasto 100% en 15m via 2 (1.00, 1.20)
balasto (1.00, 1.00)
Balasto negativo total en 15m en via 2 (0.00, 1.00)
+ Con ripado afuera 1 con desbalastado 100% en via 2 uic (1.00, 1.00)
Tren 77-1 Via 1. Con ripado afuera (0.00, 0.83)
Tren 77-2 Via 1. Con ripado afuera (0.00, 0.83)
+ Envolvente de balasto 100% en 15m via 2 (1.00, 1.20)
+ Con ripado adentro 1 con desbalastado 100% en via 2 uic (1.00, 1.00)
Tren 77-1 Via 1. Con ripado adentro (0.00, 0.83)
Tren 77-2 Via 1. Con ripado adentro (0.00, 0.83)
+ Envolvente de balasto 100% en 15m via 2 (1.00, 1.20)

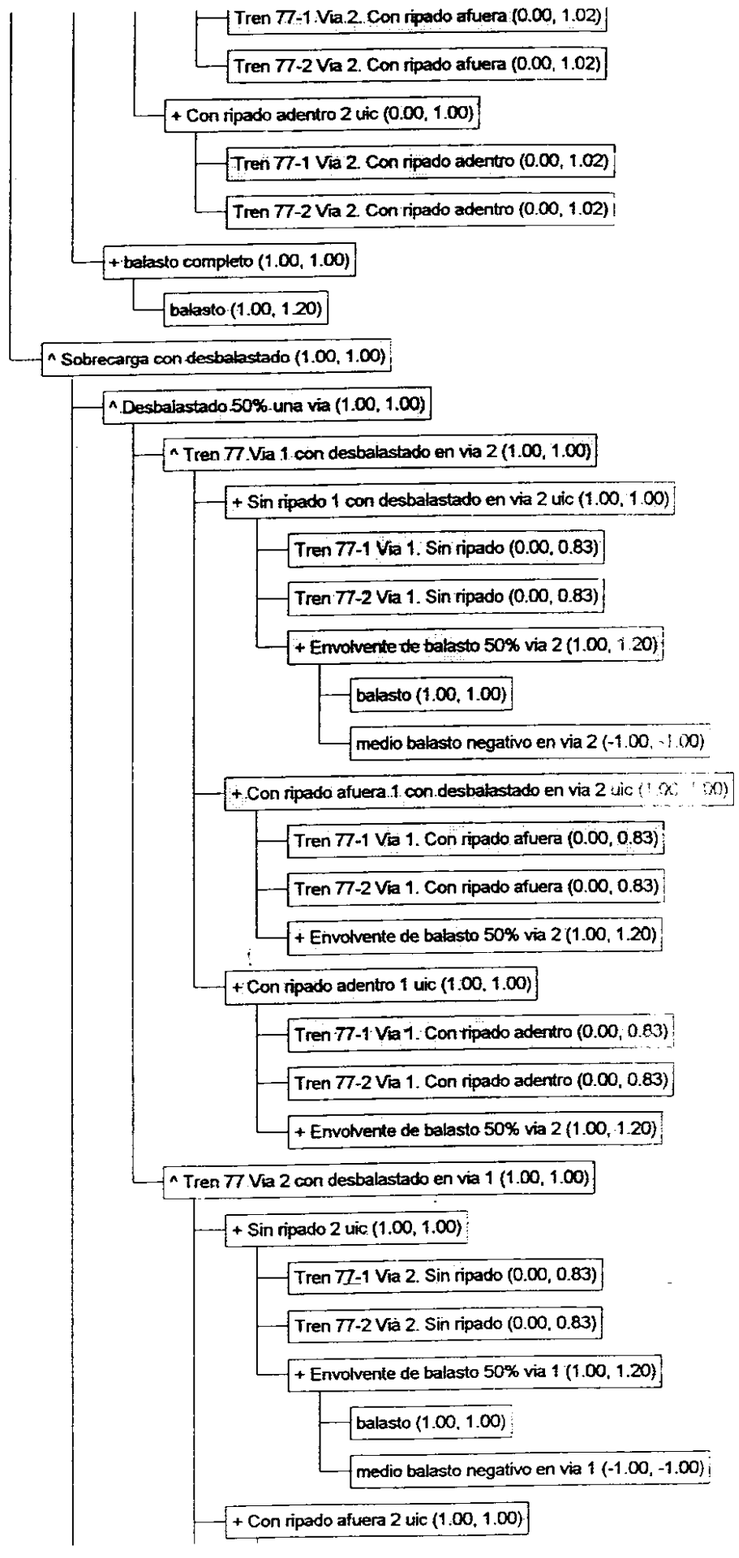

Tren 77-2 Via 1. Con ripado adentro (0.00, 0.83)
+ Envolvente de balasto 100% en 15m via 2 (1.00, 1.20)
^ Tren 77 Via 2 con desbalastado 100% en via 1 (1.00, 1.00)
+ Sin ripado 2 uic con desbalastado 100% en via 1 (1.00, 1.00)
Tren 77-1 Via 2. Sin ripado (0.00, 0.83)
Tren 77-2 Via 2. Sin ripado (0.00, 0.83)
+ Envolvente de balasto 100% en 15m via 1 (1.00, 1.20)
balasto (1.00, 1.00)
Balasto negativo total en 15m en via 1 (0.00, 1.00)
+ Con ripado afuera 2 uic con desbalastado 100% en via 1 (1.00, 1.00)
Tren 77-1 Via 2. Con ripado afuera (0.00, 0.83)
Tren 77-2 Via 2. Con ripado afuera (0.00, 0.83)
+ Envolvente de balasto 100% en 15m via 1 (1.00, 1.20)
+ Con ripado adentro 2 uic con desbalastado 100% en via 1 (1.00, 1.00)
Tren 77-1 Via 2. Con ripado adentro (0.00, 0.83)
Tren 77-2 Via 2. Con ripado adentro (0.00, 0.83)
+ Envolvente de balasto 100% en 15m via 1 (1.00, 1.20)
+ Sobrecarga de aceras servicios (1.00, 1.00)
Sobrecarga de aceras servicio via 1 (0.00, 1.00)
Sobrecarga de aceras servicio via 2 (0.00, 1.00)
+ hip frenado uic (0.00, 1.00)
frenado_uic (-0.90, 0.90)
+ Hipotesis II UIC (1.00, 1.00)
+ carga permanente uci (1.00, 1.00)
^ termico (-1.00, 1.00)
+ fuerza centrifuga y efecto lazo_uic (0.00, 1.00)
frenado_uic (-0.90, 0.90)
viento_uic (-1.00, 1.00)
^ asientos diferenciales (0.00, 1.00)
+ Sobrecarga de uso uic (1.00, 1.00)
+ Sobrecarga de aceras servicios (1.00, 1.00)
Sobrecarga de aceras servicio via 1 (0.00, 1.00)

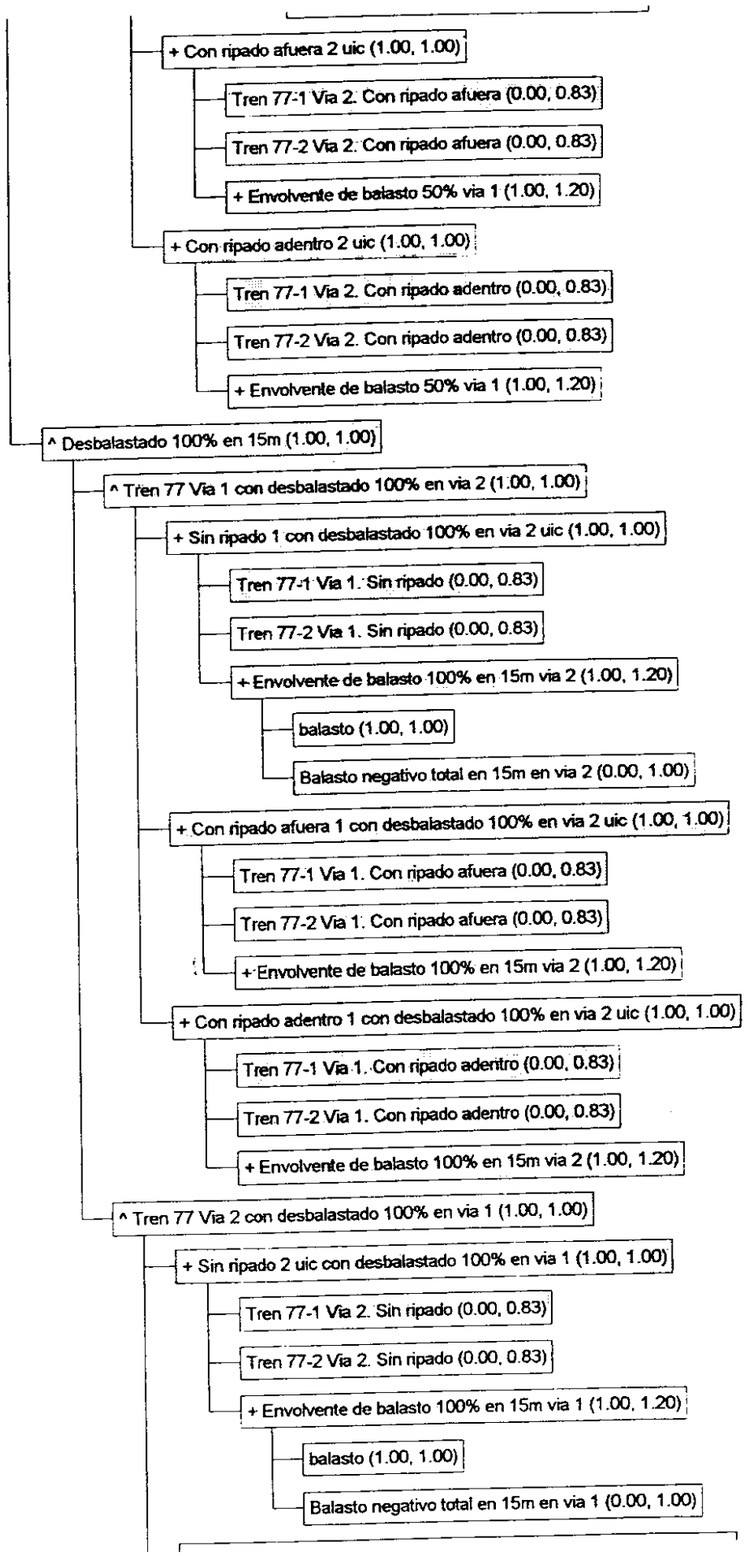

Sobrecarga de aceras servicio via 1 (0.00, 1.00)
Sobrecarga de aceras servicio via 2 (0.00, 1.00)
^ Sobrecarga de vehiculos uic (1.00, 1.00)
+ Sobrecarga con balasto completo (1.00, 1.00)
^ Tren 77 Via 1 (0.00, 0.81)
+ Sin ripado 1 uic (0.00, 1.00)
Tren 77-1 Via 1. Sin ripado (0.00, 1.02)
Tren 77-2 Via 1. Sin ripado (0.00, 1.02)
+ Con ripado afuera 1 uic (0.00, 1.00)
Tren 77-1 Via 1. Con ripado afuera (0.00, 1.02)
Tren 77-2 Via 1. Con ripado afuera (0.00, 1.02)
+ Con ripado adentro 1 uic (0.00, 1.00)
Tren 77-1 Via 1. Con ripado adentro (0.00, 1.02)
Tren 77-2 Via 1. Con ripado adentro (0.00, 1.02)
^ Tren 77 Via 2 (0.00, 0.81)
+ Sin ripado 2 uic (0.00, 1.00)
Tren 77-1 Via 2. Sin ripado (0.00, 1.02)
Tren 77-2 Via 2. Sin ripado (0.00, 1.02)
+ Con ripado afuera 2 uic (0.00, 1.00)
Tren 77-1 Via 2. Con ripado afuera (0.00, 1.02)
Tren 77-2 Via 2. Con ripado afuera (0.00, 1.02)
+ Con ripado adentro 2 uic (0.00, 1.00)
Tren 77-1 Via 2. Con ripado adentro (0.00, 1.02)
Tren 77-2 Via 2. Con ripado adentro (0.00, 1.02)
+ balasto completo (1.00, 1.00)
balasto (1.00, 1.20)
^ Sobrecarga con desbalastado (1.00, 1.00)
^ Desbalastado 50% una via (1.00, 1.00)
^ Tren 77 Via 1 con desbalastado en via 2 (1.00, 1.00)
+ Sin ripado 1 con desbalastado en via 2 uic (1.00, 1.00)
Tren 77-1 Via 1. Sin ripado (0.00, 0.83)

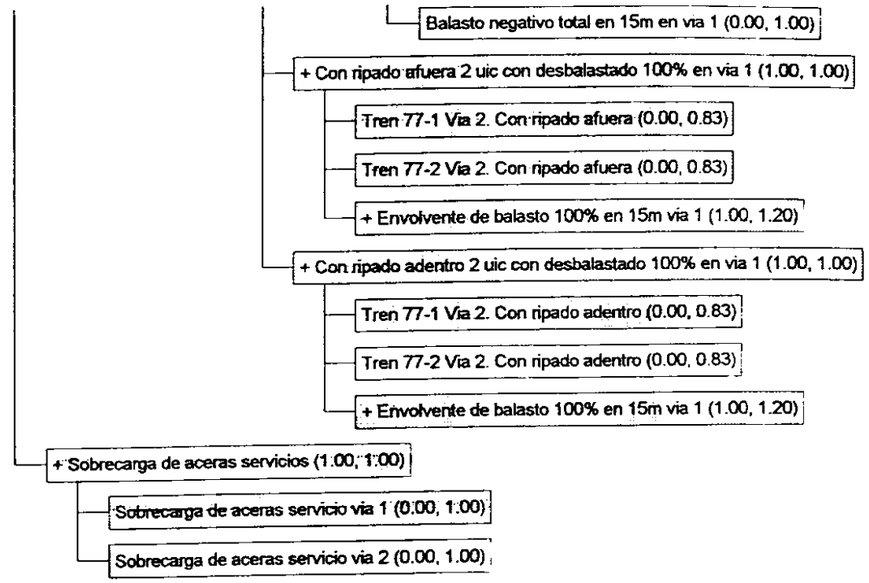
- Tren 77-1 Via 1. Sin ripado (0.00, 0.83)
- Tren 77-2 Via 1. Sin ripado (0.00, 0.83)
- + Envolvente de balasto 50% via 2 (1.00, 1.20)
  - balasto (1.00, 1.00)
  - medio balasto negativo en via 2 (-1.00, -1.00)
- + Con ripado afuera 1 con desbalastado en via 2 uic (1.00, 1.00)
  - Tren 77-1 Via 1. Con ripado afuera (0.00, 0.83)
  - Tren 77-2 Via 1. Con ripado afuera (0.00, 0.83)
  - + Envolvente de balasto 50% via 2 (1.00, 1.20)
- + Con ripado adentro 1 uic (1.00, 1.00)
  - Tren 77-1 Via 1. Con ripado adentro (0.00, 0.83)
  - Tren 77-2 Via 1. Con ripado adentro (0.00, 0.83)
  - + Envolvente de balasto 50% via 2 (1.00, 1.20)
- ^ Tren 77 Via 2 con desbalastado en via 1 (1.00, 1.00)
  - + Sin ripado 2 uic (1.00, 1.00)
    - Tren 77-1 Via 2. Sin ripado (0.00, 0.83)
    - Tren 77-2 Via 2. Sin ripado (0.00, 0.83)
    - + Envolvente de balasto 50% via 1 (1.00, 1.20)
      - balasto (1.00, 1.00)
      - medio balasto negativo en via 1 (-1.00, -1.00)
  - + Con ripado afuera 2 uic (1.00, 1.00)
    - Tren 77-1 Via 2. Con ripado afuera (0.00, 0.83)
    - Tren 77-2 Via 2. Con ripado afuera (0.00, 0.83)
    - + Envolvente de balasto 50% via 1 (1.00, 1.20)
  - + Con ripado adentro 2 uic (1.00, 1.00)
    - Tren 77-1 Via 2. Con ripado adentro (0.00, 0.83)
    - Tren 77-2 Via 2. Con ripado adentro (0.00, 0.83)
    - + Envolvente de balasto 50% via 1 (1.00, 1.20)
- ^ Desbalastado 100% en 15m (1.00, 1.00)
  - ^ Tren 77 Via 1 con desbalastado 100% en via 2 (1.00, 1.00)
    - + Sin ripado 1 con desbalastado 100% en via 2 uic (1.00, 1.00)
      - Tren 77-1 Via 1. Sin ripado (0.00, 0.83)

- Tren 77-1 Via 1. Sin ripado (0.00, 0.83)
- Tren 77-2 Via 1. Sin ripado (0.00, 0.83)
- + Envolvente de balasto 100% en 15m via 2 (1.00, 1.20)
  - balasto (1.00, 1.00)
  - Balasto negativo total en 15m en via 2 (0.00, 1.00)
- + Con ripado afuera 1 con desbalastado 100% en via 2 uic (1.00, 1.00)
  - Tren 77-1 Via 1. Con ripado afuera (0.00, 0.83)
  - Tren 77-2 Via 1. Con ripado afuera (0.00, 0.83)
  - + Envolvente de balasto 100% en 15m via 2 (1.00, 1.20)
- + Con ripado adentro 1 con desbalastado 100% en via 2 uic (1.00, 1.00)
  - Tren 77-1 Via 1. Con ripado adentro (0.00, 0.83)
  - Tren 77-2 Via 1. Con ripado adentro (0.00, 0.83)
  - + Envolvente de balasto 100% en 15m via 2 (1.00, 1.20)
- ^ Tren 77 Via 2 con desbalastado 100% en via 1 (1.00, 1.00)
  - + Sin ripado 2 uic con desbalastado 100% en via 1 (1.00, 1.00)
    - Tren 77-1 Via 2. Sin ripado (0.00, 0.83)
    - Tren 77-2 Via 2. Sin ripado (0.00, 0.83)
    - + Envolvente de balasto 100% en 15m via 1 (1.00, 1.20)
      - balasto (1.00, 1.00)
      - Balasto negativo total en 15m en via 1 (0.00, 1.00)
  - + Con ripado afuera 2 uic con desbalastado 100% en via 1 (1.00, 1.00)
    - Tren 77-1 Via 2. Con ripado afuera (0.00, 0.83)
    - Tren 77-2 Via 2. Con ripado afuera (0.00, 0.83)
    - + Envolvente de balasto 100% en 15m via 1 (1.00, 1.20)
  - + Con ripado adentro 2 uic con desbalastado 100% en via 1 (1.00, 1.00)
    - Tren 77-1 Via 2. Con ripado adentro (0.00, 0.83)
    - Tren 77-2 Via 2. Con ripado adentro (0.00, 0.83)
    - + Envolvente de balasto 100% en 15m via 1 (1.00, 1.20)
- + Hipotesis IV UIC (1.00, 1.00)
  - + carga permanente uci (1.00, 1.00)
  - + fuerza centrifuga y efecto lazo_uic (0.00, 1.00)


+ fuerza centrifuga y efecto lazo_uic (0.00, 1.00)
^ asientos diferenciales (0.00, 1.00)
^ Vehiculo 77 y descarrilamiento (1.00, 1.00)
^ Descarrilamiento (1.00, 1.00)
Caso 2.a. hacia afuera en via 1 (0.00, 1.00)
Caso 2.a. hacia adentro en via 1 (0.00, 1.00)
Caso 2.a. hacia afuera en via 2 (0.00, 1.00)
Caso 2.a. hacia adentro en via 2 (0.00, 1.00)
Caso 2.b. hacia afuera en via 1 (0.00, 1.00)
Caso 2.b. hacia adentro en via 1 (0.00, 1.00)
Caso 2.b. hacia afuera en via 2 (0.00, 1.00)
Caso 2.b. hacia adentro en via 2 (0.00, 1.00)
+ Sobrecarga de uso uic (1.00, 1.00)
^ Sobrecarga de vehiculos uic (1.00, 1.00)
+ Sobrecarga con balasto completo (1.00, 1.00)
^ Tren 77 Via 1 (0.00, 0.81)
+ Sin ripado 1 uic (0.00, 1.00)
Tren 77-1 Via 1. Sin ripado (0.00, 1.02)
Tren 77-2 Via 1. Sin ripado (0.00, 1.02)
+ Con ripado afuera 1 uic (0.00, 1.00)
Tren 77-1 Via 1. Con ripado afuera (0.00, 1.02)
Tren 77-2 Via 1. Con ripado afuera (0.00, 1.02)
+ Con ripado adentro 1 uic (0.00, 1.00)
Tren 77-1 Via 1. Con ripado adentro (0.00, 1.02)
Tren 77-2 Via 1. Con ripado adentro (0.00, 1.02)
^ Tren 77 Via 2 (0.00, 0.81)
+ Sin ripado 2 uic (0.00, 1.00)
Tren 77-1 Via 2. Sin ripado (0.00, 1.02)
Tren 77-2 Via 2. Sin ripado (0.00, 1.02)
+ Con ripado afuera 2 uic (0.00, 1.00)
Tren 77-1 Via 2. Con ripado afuera (0.00, 1.02)


Tren 77-1 Via 2. Con ripado afuera (0.00, 1.02)
Tren 77-2 Via 2. Con ripado afuera (0.00, 1.02)
+ Con ripado adentro 2 uic (0.00, 1.00)
Tren 77-1 Via 2. Con ripado adentro (0.00, 1.02)
Tren 77-2 Via 2. Con ripado adentro (0.00, 1.02)
+ balasto completo (1.00, 1.00)
balasto (1.00, 1.20)
^ Sobrecarga con desbalastado (1.00, 1.00)
^ Desbalastado 50% una via (1.00, 1.00)
^ Tren 77 Via 1 con desbalastado en via 2 (1.00, 1.00)
+ Sin ripado 1 con desbalastado en via 2 uic (1.00, 1.00)
Tren 77-1 Via 1. Sin ripado (0.00, 0.83)
Tren 77-2 Via 1. Sin ripado (0.00, 0.83)
+ Envolvente de balasto 50% via 2 (1.00, 1.20)
balasto (1.00, 1.00)
medio balasto negativo en via 2 (-1.00, -1.00)
+ Con ripado afuera 1 con desbalastado en via 2 uic (1.00, 1.00)
Tren 77-1 Via 1. Con ripado afuera (0.00, 0.83)
Tren 77-2 Via 1. Con ripado afuera (0.00, 0.83)
+ Envolvente de balasto 50% via 2 (1.00, 1.20)
+ Con ripado adentro 1 uic (1.00, 1.00)
Tren 77-1 Via 1. Con ripado adentro (0.00, 0.83)
Tren 77-2 Via 1. Con ripado adentro (0.00, 0.83)
+ Envolvente de balasto 50% via 2 (1.00, 1.20)
^ Tren 77 Via 2 con desbalastado en via 1 (1.00, 1.00)
+ Sin ripado 2 uic (1.00, 1.00)
Tren 77-1 Via 2. Sin ripado (0.00, 0.83)
Tren 77-2 Via 2. Sin ripado (0.00, 0.83)
+ Envolvente de balasto 50% via 1 (1.00, 1.20)
balasto (1.00, 1.00)
medio balasto negativo en via 1 (-1.00, -1.00)
+ Con ripado afuera 2 uic (1.00, 1.00)


+ Con ripado afuera 2 uic (1.00, 1.00)
Tren 77-1 Via 2. Con ripado afuera (0.00, 0.83)
Tren 77-2 Via 2. Con ripado afuera (0.00, 0.83)
+ Envolvente de balasto 50% via 1 (1.00, 1.20)
+ Con ripado adentro 2 uic (1.00, 1.00)
Tren 77-1 Via 2. Con ripado adentro (0.00, 0.83)
Tren 77-2 Via 2. Con ripado adentro (0.00, 0.83)
+ Envolvente de balasto 50% via 1 (1.00, 1.20)
^ Desbalastado 100% en 15m (1.00, 1.00)
^ Tren 77 Via 1 con desbalastado 100% en via 2 (1.00, 1.00)
+ Sin ripado 1 con desbalastado 100% en via 2 uic (1.00, 1.00)
Tren 77-1 Via 1. Sin ripado (0.00, 0.83)
Tren 77-2 Via 1. Sin ripado (0.00, 0.83)
+ Envolvente de balasto 100% en 15m via 2 (1.00, 1.20)
balasto (1.00, 1.00)
Balasto negativo total en 15m en via 2 (0.00, 1.00)
+ Con ripado afuera 1 con desbalastado 100% en via 2 uic (1.00, 1.00)
Tren 77-1 Via 1. Con ripado afuera (0.00, 0.83)
Tren 77-2 Via 1. Con ripado afuera (0.00, 0.83)
+ Envolvente de balasto 100% en 15m via 2 (1.00, 1.20)
+ Con ripado adentro 1 con desbalastado 100% en via 2 uic (1.00, 1.00)
Tren 77-1 Via 1. Con ripado adentro (0.00, 0.83)
Tren 77-2 Via 1. Con ripado adentro (0.00, 0.83)
+ Envolvente de balasto 100% en 15m via 2 (1.00, 1.20)
^ Tren 77 Via 2 con desbalastado 100% en via 1 (1.00, 1.00)
+ Sin ripado 2 uic con desbalastado 100% en via 1 (1.00, 1.00)
Tren 77-1 Via 2. Sin ripado (0.00, 0.83)
Tren 77-2 Via 2. Sin ripado (0.00, 0.83)
+ Envolvente de balasto 100% en 15m via 1 (1.00, 1.20)
balasto (1.00, 1.00)
Balasto negativo total en 15m en via 1 (0.00, 1.00)


Balasto negativo total en 15m en via 1 (0.00, 1.00)
+ Con ripado afuera 2 uic con desbalastado 100% en via 1 (1.00, 1.00)
Tren 77-1 Via 2. Con ripado afuera (0.00, 0.83)
Tren 77-2 Via 2. Con ripado afuera (0.00, 0.83)
+ Envolvente de balasto 100% en 15m via 1 (1.00, 1.20)
+ Con ripado adentro 2 uic con desbalastado 100% en via 1 (1.00, 1.00)
Tren 77-1 Via 2. Con ripado adentro (0.00, 0.83)
Tren 77-2 Via 2. Con ripado adentro (0.00, 0.83)
+ Envolvente de balasto 100% en 15m via 1 (1.00, 1.20)
+ Sobrecarga de aceras servicios (1.00, 1.00)
Sobrecarga de aceras servicio via 1 (0.00, 1.00)
Sobrecarga de aceras servicio via 2 (0.00, 1.00)

envolvente CARACTERISTICA (CON COEF DE IMPACTO 1.16)

Program Envolvator (release 1.3 - Jun 1998)
Calculation date: 28-abr-1999 20.10 h. Listing date: 28-abr-1999 20:10 h.
Members: 419
Joints: 353
Envelope generated from:

Name		
envolvente caracteristica RENFE	1.00	1.00
envolvente caracteristica UIC	1.00	1.00

	Fx	Fy	Fz	Mx	My	Mz	Fx	Fy	Fz	Mx	My	Mz
Member 1												
Fx,	**-1135.6**	-213.8	70.6	-28.1	-491.4	-15.0	**956.3**	-160.4	-68.4	-115.8	423.6	-26.1
Fy,	-569.9	**-301.0**	25.7	-87.7	-184.7	-37.8	1079.2	**-31.6**	-60.7	-64.3	360.4	333.9
Fz,	-489.5	-167.7	**-77.8**	-69.9	400.6	-21.7	307.6	-155.6	**81.1**	-64.9	-470.3	320.7
Mx,	-221.8	-216.2	-13.1	**-206.3**	77.5	320.5	-150.0	-126.2	58.9	**17.6**	-417.9	-19.4
My,	287.5	-157.3	74.0	-60.4	**-496.0**	320.5	-468.7	-169.1	-70.6	-83.3	**426.4**	-21.8
Mz,	325.0	-254.2	66.7	-60.0	-446.1	**-45.1**	-572.0	-78.3	-15.3	-63.7	66.5	**344.9**
Fx,	**-1128.9**	-127.9	65.6	-16.5	-241.6	589.9	**949.6**	-104.8	-63.4	-88.2	181.9	481.7
Fy,	-565.1	**-203.3**	23.8	-64.6	-93.5	796.9	1072.4	**10.2**	-55.2	-39.0	147.7	445.9
Fz,	-480.1	-110.2	**-69.7**	-48.2	151.4	466.2	298.2	-71.7	**73.0**	-47.4	-208.9	758.9
Mx,	-217.7	-119.1	-12.1	**-145.5**	31.4	848.3	-156.7	-82.8	54.4	**15.6**	-210.5	430.3
My,	-189.6	-91.1	54.1	-14.6	**-244.0**	449.9	7.3	-83.1	-50.9	-83.9	**185.3**	755.5
Mz,	1072.5	-24.7	-55.6	-44.1	147.3	**170.8**	-565.5	-153.9	24.1	-60.2	-93.5	**1055.1**
Member 2												
Fx,	**-1069.7**	-120.1	63.9	-16.4	-420.3	564.1	**889.7**	-106.1	-63.4	-93.3	357.7	476.1
Fy,	-542.2	**-201.3**	21.0	-59.8	-151.1	796.5	1020.6	**9.0**	-55.7	-42.5	301.7	446.4
Fz,	-541.9	-114.6	**-71.7**	-70.2	340.2	477.3	360.5	-70.3	**73.1**	-36.8	-403.2	764.3
Mx,	-232.2	-118.2	-14.7	**-146.1**	69.3	848.9	-107.0	-82.2	54.5	**17.4**	-361.0	430.1
My,	341.0	-70.6	67.1	-36.3	**-423.0**	765.2	-521.7	-124.3	-65.4	-78.1	**360.1**	508.7
Mz,	1021.2	-25.5	-55.5	-46.1	301.8	**171.4**	-546.3	-152.1	22.1	-57.4	-157.3	**1054.9**
Fx,	**-1063.0**	-34.2	58.9	-4.7	-195.1	825.4	**883.0**	-25.7	-58.3	-39.8	134.6	739.2
Fy,	-537.2	**-113.8**	19.1	-42.7	-77.2	1192.4	353.3	**63.5**	-12.3	-13.7	4.3	580.9
Fz,	-532.5	-58.9	**-64.1**	-42.6	105.1	773.9	351.1	15.4	**65.5**	-25.2	-162.8	886.4
Mx,	-228.2	-30.6	-13.2	**-97.2**	17.6	945.5	-113.2	-25.1	49.9	**32.0**	-169.2	821.3
My,	-140.3	-28.4	48.8	-9.8	**-198.1**	687.0	-41.9	-0.7	-47.4	-35.1	**139.2**	884.8
Mz,	1014.4	12.4	-50.4	-25.9	107.6	**216.8**	-541.1	-52.2	20.1	-32.1	-79.3	**1418.0**
Member 3												
Fx,	**-1009.8**	-33.2	57.6	-2.8	-354.4	825.4	**829.6**	-31.0	-56.9	-54.3	292.9	741.2
Fy,	-425.0	**-111.9**	-47.1	-73.1	238.8	956.3	223.9	**62.0**	18.8	-9.6	-134.9	599.5
Fz,	-586.4	-74.3	**-65.7**	-65.7	284.0	857.9	405.2	20.3	**66.1**	-13.4	-343.3	886.8
Mx,	-106.0	-26.4	-49.4	**-94.0**	252.8	921.4	-72.8	-25.2	50.1	**29.0**	-311.1	816.6
My,	385.7	20.6	59.4	-5.8	**-356.5**	845.1	-568.6	-73.3	-59.9	-65.9	**296.7**	847.6
Mz,	968.2	11.5	-50.4	-28.5	246.7	**217.2**	-523.9	-49.6	19.2	-28.2	-133.3	**1417.9**
Fx,	**-1003.0**	49.6	52.6	8.8	-152.5	773.7	**822.9**	46.3	-51.9	-0.7	93.5	734.7
Fy,	-417.6	**-50.0**	-42.6	-28.9	75.0	1007.9	589.5	**135.9**	42.0	12.6	-136.1	553.7
Fz,	-576.9	2.9	**-58.6**	-12.3	64.5	967.1	395.8	102.9	**58.9**	-1.8	-122.6	682.6
Mx,	-228.2	48.8	-13.9	**-49.2**	12.6	704.6	-79.1	37.2	44.9	**50.5**	-136.5	1041.4
My,	-93.9	27.4	41.0	-1.9	**-158.2**	718.1	-90.9	78.2	-38.6	9.1	**99.8**	721.8
Mz,	67.5	34.6	-46.3	-8.3	67.4	**132.7**	71.8	9.9	17.0	-4.0	-64.1	**1526.6**
Member 4												
Fx,	**-955.4**	41.1	51.3	11.4	-294.1	686.9	**775.5**	39.0	-51.3	-24.7	235.7	722.5
Fy,	-451.4	**-57.3**	-45.7	-52.0	203.5	1005.0	620.3	**138.3**	46.1	19.3	-265.8	649.2
Fz,	262.0	12.4	**-60.0**	-30.6	227.3	987.9	-443.2	94.5	**59.2**	13.9	-283.1	661.8
Mx,	-135.5	10.5	-50.3	**-61.1**	218.2	643.8	-45.4	62.1	48.8	**45.4**	-273.3	1037.8
My,	426.7	114.1	53.1	14.2	**-296.2**	555.3	-610.2	8.1	-54.4	-26.6	**238.9**	1023.2
Mz,	26.8	33.5	-46.0	-11.2	196.2	**132.9**	87.0	12.8	16.4	0.2	-109.3	**1526.7**
Fx,	**-948.7**	99.1	46.2	11.8	-115.4	408.5	**768.8**	116.3	-46.3	28.8	56.8	459.3
Fy,	-444.6	**-1.0**	-41.1	-7.5	44.5	865.8	228.9	**220.3**	17.0	30.2	-54.5	135.9
Fz,	258.1	93.3	**-53.2**	24.4	24.6	815.6	-439.3	173.6	**52.4**	24.1	-83.2	148.8
Mx,	-395.4	73.6	23.8	**-21.1**	-92.5	270.9	-17.1	146.1	-6.1	**77.6**	-13.6	807.0
My,	-45.5	73.9	25.7	10.7	**-130.0**	712.8	-134.4	123.9	-26.4	15.6	**72.2**	159.5
Mz,	-348.7	146.2	14.6	10.9	-57.0	**-271.5**	174.3	110.2	-10.0	29.6	-7.3	**1310.6**
Member 5												
Fx,	**-908.2**	93.0	39.4	36.9	-230.6	436.8	**729.0**	118.0	-41.2	12.9	178.0	444.8
Fy,	-483.1	**-6.9**	-43.2	-25.6	161.4	865.2	652.7	**225.9**	41.6	45.0	-217.8	194.5
Fz,	213.1	92.4	**-55.1**	4.4	178.6	839.3	-394.2	163.0	**52.1**	32.7	-228.7	54.1
Mx,	-171.8	60.1	-45.2	**-37.7**	166.3	417.0	-84.4	158.6	15.9	**85.3**	-96.5	761.1
My,	462.3	175.8	46.5	24.6	**-240.8**	52.4	-644.5	85.3	-48.6	10.7	**187.9**	792.0
Mz,	-334.8	147.7	13.4	14.7	-93.6	**-271.5**	165.3	110.8	-11.1	27.2	23.1	**1310.7**
Fx,	**-901.5**	152.2	34.4	43.2	-95.3	-34.5	**722.3**	175.5	-36.1	34.7	36.3	-71.9
Fy,	-476.8	**41.6**	-36.3	13.2	15.2	657.9	241.6	**316.5**	14.7	61.4	-41.0	-693.5
Fz,	209.1	186.6	**-48.7**	70.2	-8.8	364.8	-390.2	220.5	**45.7**	31.7	-52.4	-670.6
Mx,	-366.5	120.0	20.3	**-8.3**	-75.9	-167.4	-22.8	243.6	-6.1	**131.2**	-14.0	161.6
My,	-20.9	201.1	24.2	63.4	**-116.0**	288.2	-159.8	181.6	-27.3	36.5	**54.7**	-475.1
Mz,	-330.9	203.4	12.0	25.8	-47.4	**-929.3**	388.9	157.6	-34.6	74.9	18.9	**807.4**
Member 6												
Fx,	**-857.1**	159.0	25.1	41.1	-216.2	168.8	**677.9**	167.3	-30.3	28.8	171.2	-158.3
Fy,	-521.8	**37.3**	-36.8	0.4	148.1	658.0	261.3	**320.2**	10.5	70.3	-80.9	-692.4
Fz,	157.0	186.4	**-52.2**	52.3	162.2	313.4	-343.9	229.6	**44.0**	37.4	-211.7	-682.6
Mx,	-200.2	133.4	-38.0	**-15.2**	139.3	-216.6	-69.5	252.9	9.0	**132.0**	-77.6	134.0
My,	-363.0	205.3	37.8	34.1	**-231.9**	-610.7	181.5	178.9	-44.0	56.0	**187.6**	337.0
Mz,	-314.1	205.0	8.9	29.9	-85.1	**-929.5**	346.4	149.8	-35.6	49.8	151.0	**808.5**
Fx,	**-850.3**	242.9	20.1	54.1	-133.4	-589.4	**671.2**	224.8	-25.3	46.1	69.2	-855.5
Fy,	-514.5	**78.2**	-30.8	22.1	25.3	387.0	256.6	**417.0**	8.4	86.2	-46.8	-1980.4
Fz,	150.2	290.8	**-47.2**	124.5	-20.0	-534.8	-337.2	290.6	**39.0**	33.4	-59.5	-1657.7
Mx,	-332.2	206.9	14.1	**-9.1**	-96.7	-1217.4	-33.6	341.1	-10.6	**185.4**	-15.8	-860.2
My,	7.6	306.8	6.1	109.3	**-152.8**	-617.7	-188.3	237.8	-14.8	53.6	**82.2**	-1264.3
Mz,	-306.4	402.2	7.7	79.2	-49.6	**-2014.5**	339.3	90.0	-29.3	22.2	31.5	**387.1**
Member 7												
Fx,	**-803.0**	-371.9	25.3	-145.8	-204.4	-643.5	**647.9**	-303.8	-17.2	-87.5	136.2	-937.5
Fy,	-296.4	**-533.6**	16.1	-133.1	-78.6	-1994.9	161.5	**-136.2**	-32.8	-76.5	109.9	412.3
Fz,	-235.4	-289.0	**-43.3**	-109.1	109.4	-1116.6	79.4	-431.8	**50.5**	-179.9	-174.2	-790.8
Mx,	-16.6	-432.2	0.2	**-293.6**	-12.6	-769.7	-287.3	-340.9	25.7	**41.4**	-124.6	-1279.0
My,	54.3	-384.6	30.7	-149.0	**-210.7**	-649.7	-211.0	-292.3	-23.5	-71.7	**144.8**	-1159.3
Mz,	-296.0	-528.6	16.6	-127.2	-79.0	**-2014.7**	162.1	-136.2	-32.5	-76.9	110.3	**412.5**
Fx,	**-794.8**	-258.6	29.1	-100.9	-64.6	733.7	**639.7**	-233.3	-21.0	-66.2	32.7	297.5
Fy,	-290.3	**-414.4**	13.7	-115.4	-10.5	50.2	152.3	**-86.0**	-26.2	-48.6	-24.3	986.7
Fz,	-226.8	-218.4	**-34.0**	-87.7	-45.9	-1.4	70.7	-298.0	**41.2**	-113.4	13.5	873.0
Mx,	-20.5	-316.1	1.5	**-227.7**	-5.6	864.3	-283.2	-277.0	20.6	**44.6**	-22.0	157.1
My,	-331.7	-228.3	19.6	-77.3	**-83.4**	40.6	175.1	-265.1	-12.3	-94.8	**49.5**	813.4
Mz,	-315.0	-296.0	29.3	-41.1	-29.4	**-245.2**	156.0	-176.5	-22.7	-80.5	-10.1	**1114.1**
Member 8												
Fx,	**-780.0**	-254.3	16.1	-95.3	-122.8	736.5	**624.9**	-235.8	-12.8	-76.8	73.4	299.7
Fy,	-285.0	**-408.9**	10.5	-104.7	-49.6	49.8	130.7	**-90.9**	-25.1	-63.2	51.2	987.6
Fz,	-254.9	-224.1	**-37.1**	-111.4	51.8	3.8	97.0	-280.7	**40.0**	-69.8	-100.9	862.1
Mx,	-25.1	-329.2	0.1	**-230.8**	-6.2	829.8	-267.1	-278.6	17.7	**38.4**	-79.9	153.0
My,	59.3	-255.5	20.0	-100.8	**-129.8**	868.0	-215.9	-239.3	-16.8	-64.5	**80.8**	-58.0
Mz,	-292.9	-292.6	27.2	-33.2	-103.3	**-246.4**	134.5	-185.6	-23.5	-110.0	51.3	**1113.7**

Fx_f	**-771.7**	-151.3	19.9	-55.8	-24.1	1622.5	**616.6**	-165.3	-16.6	-50.1	-10.1	1228.7
Fy_f	-280.0	**-296.7**	8.4	-87.9	-7.4	1438.9	121.4	**-33.2**	-18.5	-9.6	-48.0	1475.2
Fz_f	-246.3	-153.5	**-27.8**	-84.7	-76.2	826.9	88.4	-167.5	**30.7**	-19.5	39.8	1882.2
Mx_f	-28.8	-220.4	-3.6	**-174.8**	-21.1	1920.3	-262.0	-200.1	16.7	**54.8**	5.4	1347.4
My_f	-265.0	-147.5	-23.7	-91.6	**-86.4**	810.4	108.4	-174.7	27.1	-16.3	**52.0**	1877.6
Mz_f	-240.4	-94.3	-20.0	-47.2	-53.6	**396.5**	-45.4	-241.2	9.1	-62.0	-5.6	**2321.6**

Member 9

Fx_1	**-754.4**	-144.4	11.5	-45.9	-90.9	1622.4	**599.3**	-172.2	-9.3	-70.1	52.0	1228.8
Fy_1	-273.3	**-288.9**	7.6	-72.1	-32.8	1414.4	102.3	**-40.3**	-18.2	-31.8	19.1	1477.5
Fz_1	-272.4	-158.3	**-30.5**	-88.5	14.7	804.0	115.5	-173.4	**32.5**	-14.4	-53.0	1933.1
Mx_1	-34.7	-230.7	-4.5	**-173.8**	-5.2	1958.7	-268.4	-105.7	19.8	**35.8**	-67.3	796.6
My_1	68.5	-147.9	13.3	-58.2	**-93.2**	1818.2	-225.2	-175.8	-11.3	-57.1	**54.3**	834.8
Mz_1	-264.1	-96.3	-20.2	-53.0	16.7	**397.6**	-37.2	-237.2	8.4	-60.1	-33.0	**2320.8**
Fx_f	**-746.2**	-75.5	15.3	-38.2	-13.2	2090.8	**591.1**	-75.0	-13.1	-11.6	-16.0	1811.5
Fy_f	-268.9	**-186.9**	5.5	-56.0	-4.2	2206.5	95.4	**23.0**	-11.9	21.9	-47.2	1809.0
Fz_f	-263.7	-93.7	**-21.2**	-54.6	-83.3	1344.5	106.8	-71.9	**23.2**	-0.1	53.9	2511.5
Mx_f	-40.4	-129.8	-2.7	**-122.8**	-21.6	2546.6	-268.8	-44.4	4.2	**60.3**	-8.0	1695.2
My_f	-275.6	-90.0	-19.6	-61.7	**-91.7**	1303.5	118.5	-94.4	21.6	7.5	**62.3**	2645.3
Mz_f	-251.1	-53.5	-12.9	-28.4	-52.9	**708.3**	-43.7	-119.7	6.0	-30.1	-1.4	**3136.3**

Member 10

Fx_1	**-758.1**	-63.6	-18.2	-46.4	-41.6	1974.2	**603.0**	-86.9	20.0	-15.7	11.3	1928.0
Fy_1	-263.5	**-178.2**	5.5	-41.4	-19.7	2153.7	81.2	**13.8**	-11.9	-7.8	-3.9	1810.0
Fz_1	-285.4	-91.6	**-23.7**	-52.7	-18.0	1345.0	128.3	-74.0	**25.5**	-11.7	-12.2	2516.3
Mx_1	-41.6	-119.1	-2.4	**-120.8**	-7.5	2480.1	-244.9	-49.1	13.9	**46.0**	-34.8	1286.5
My_1	73.0	-48.5	7.2	-13.6	**-62.8**	2166.5	-229.6	-109.5	-5.4	-48.5	**32.5**	1577.3
Mz_1	-266.6	-55.1	-12.9	-32.7	-6.5	**708.8**	-38.3	-115.6	5.8	-30.1	-18.5	**3135.9**
Fx_f	**-749.9**	5.3	-2.0	-10.7	-69.6	2079.0	**594.8**	10.2	3.8	14.9	47.5	2127.1
Fy_f	-259.4	**-82.3**	3.3	-20.9	-1.3	2419.3	-50.2	**91.9**	-0.7	22.8	-18.7	2237.6
Fz_f	-276.6	-27.0	**-14.4**	-18.9	-85.3	1585.4	119.5	27.5	**16.2**	2.5	63.1	2647.5
Mx_f	-47.8	-23.2	-0.5	**-69.8**	-14.8	2538.1	-262.3	34.5	2.5	**76.6**	-7.1	2050.7
My_f	502.0	-10.5	-13.3	-16.7	**-89.8**	1542.4	-659.3	23.6	15.2	15.5	**67.7**	2827.0
Mz_f	528.9	4.3	-6.3	-9.3	-48.0	**822.1**	-562.1	-3.8	3.9	0.6	3.3	**3393.5**

Member 11

Fx_1	**-757.8**	2.7	-14.7	-6.1	-53.6	2105.2	**602.7**	18.2	16.3	-3.9	31.5	2325.9
Fy_1	-256.3	**-87.6**	-1.9	-69.3	-24.3	1528.3	-42.6	**91.5**	2.4	24.7	-8.0	2515.5
Fz_1	-134.4	-27.0	**-16.9**	-22.7	-39.7	1656.8	283.0	25.2	**18.5**	-4.1	17.7	2573.5
Mx_1	73.1	-29.7	-5.9	**-88.7**	-13.2	1998.1	-228.2	31.2	5.0	**68.5**	-8.4	2032.9
My_1	188.4	28.8	-8.8	-3.3	**-61.7**	2041.6	-39.4	-23.0	10.4	-5.5	**39.7**	2036.9
Mz_1	520.9	2.6	-6.3	-13.7	-23.9	**822.3**	-558.8	0.4	3.8	0.3	-6.7	**3393.5**
Fx_f	**-749.5**	71.6	1.5	29.6	-65.8	1911.7	**594.4**	125.6	0.1	13.1	51.1	2013.8
Fy_f	-249.2	**-18.3**	4.1	-16.7	-20.6	1429.8	-46.4	**186.6**	0.6	44.7	0.3	2210.5
Fz_f	-93.8	44.8	**-10.6**	9.6	-41.5	1714.4	242.4	119.5	**12.2**	11.7	26.8	2150.3
Mx_f	74.7	41.2	-0.6	**-40.7**	-15.0	1767.6	-268.5	127.3	1.3	**110.2**	-20.7	2057.6
My_f	481.7	64.9	-5.8	29.9	**-80.9**	1502.9	-639.1	126.3	7.5	11.4	**66.2**	2384.4
Mz_f	665.8	44.5	-0.2	11.5	-38.1	**743.7**	-400.4	110.8	1.8	33.1	6.0	**3130.1**

Member 12

Fx_1	**-750.4**	70.8	-8.6	27.9	-64.3	1948.1	**595.3**	124.9	9.8	2.5	51.0	2038.1
Fy_1	-257.6	**-30.8**	-1.0	-58.3	-32.1	1420.3	-42.4	**195.5**	2.3	61.0	2.0	2326.3
Fz_1	-86.2	50.4	**-13.3**	21.4	6.1	1715.5	234.8	117.7	**14.5**	-10.7	-19.3	2056.0
Mx_1	60.8	14.8	-0.9	**-77.2**	-24.6	1886.0	-251.8	146.7	2.5	**119.7**	-5.4	2156.2
My_1	177.6	94.4	-3.6	34.3	**-72.0**	1805.6	-28.5	77.5	4.9	10.9	**58.7**	1873.1
Mz_1	664.6	42.1	-0.3	4.6	-34.2	**743.3**	-399.2	115.5	1.6	34.7	3.4	**3130.6**
Fx_f	**-742.2**	139.7	7.6	63.7	-49.1	1447.9	**587.0**	222.0	-6.4	14.9	41.3	1284.1
Fy_f	-251.0	**34.5**	4.9	-2.7	-24.9	1090.8	-46.3	**296.5**	0.4	77.1	9.6	1502.1
Fz_f	-56.2	149.8	**-16.8**	61.9	-21.6	1240.4	204.8	214.7	**18.1**	28.7	13.9	1332.9
Mx_f	61.2	85.9	0.4	**-29.9**	-14.0	1452.7	-255.7	241.8	5.1	**163.6**	-0.7	1472.9
My_f	625.9	131.0	0.3	63.9	**-63.9**	1117.4	-477.3	220.8	0.9	13.8	**56.2**	1584.7
Mz_f	656.6	101.4	5.9	29.2	-21.3	**473.4**	-394.0	233.0	-0.5	64.7	5.8	**2330.6**

Member 13

Fx_1	**-736.7**	133.0	-0.2	43.4	-73.8	1472.2	**581.6**	229.8	-0.0	26.9	71.8	1273.6
Fy_1	-246.8	**22.0**	4.6	-41.4	-38.5	1089.6	-46.9	**305.4**	-0.6	96.1	13.5	1522.7
Fz_1	-90.5	154.0	**-20.3**	68.3	13.3	1237.9	239.1	209.8	**20.1**	11.4	-15.2	1335.6
Mx_1	-59.0	182.3	5.4	**-67.6**	-22.8	1587.7	-246.2	243.4	-1.3	**174.8**	7.2	1449.5
My_1	173.7	152.7	1.4	65.3	**-74.6**	1304.9	-24.3	201.2	-1.4	49.4	**72.8**	1298.6
Mz_1	662.5	97.0	5.5	15.9	-37.3	**472.4**	-395.2	238.3	-1.2	70.3	12.4	**2331.4**
Fx_f	**-728.5**	236.0	16.0	110.9	-20.7	615.6	**573.3**	330.6	-16.3	39.3	17.6	39.2
Fy_f	-240.1	**86.2**	10.7	14.9	-5.6	574.8	-51.4	**416.8**	-2.6	112.7	7.1	102.5
Fz_f	-61.7	257.3	**-24.6**	109.8	-49.0	286.8	210.3	280.0	**24.4**	36.1	45.9	259.3
Mx_f	-60.1	269.9	3.2	**-30.1**	3.0	447.8	-246.2	343.4	5.0	**221.5**	7.1	283.5
My_f	-100.4	241.9	-21.8	117.9	**-82.0**	301.5	248.8	314.2	21.5	31.4	**79.0**	357.4
Mz_f	676.4	290.0	-13.3	43.2	-22.9	**-337.0**	-526.8	181.7	13.6	60.3	20.9	**1099.1**

Member 14

Fx_1	**-728.7**	266.0	-25.2	132.6	-31.1	572.6	**573.5**	299.3	19.3	9.6	49.2	84.7
Fy_1	-227.1	**73.1**	10.0	-25.8	-40.7	570.7	-53.6	**425.7**	-5.9	143.5	33.8	183.5
Fz_1	-90.1	293.7	**-30.7**	132.1	18.0	170.6	233.4	147.4	**24.9**	-7.1	-9.4	539.9
Mx_1	-53.1	245.8	9.0	**-74.2**	-13.6	467.4	-245.6	338.6	-8.0	**234.7**	20.5	258.0
My_1	183.0	206.5	5.2	67.3	**-77.4**	582.1	-34.1	319.8	-11.1	110.8	**95.3**	80.2
Mz_1	662.9	299.5	-16.0	69.9	27.7	**-335.2**	-513.4	165.9	12.5	11.0	-15.2	**1099.6**
Fx_f	**-720.4**	399.7	-21.4	199.1	-118.4	-956.3	**565.3**	369.9	15.5	30.9	110.0	-1394.5
Fy_f	-214.5	**126.2**	18.1	16.1	29.5	3.7	-59.9	**544.5**	-8.4	160.7	0.3	-1909.8
Fz_f	-65.6	428.5	**-35.7**	202.5	-88.2	-1488.0	208.9	195.0	**29.9**	1.2	71.0	-201.5
Mx_f	-56.9	310.2	15.2	**-45.0**	42.5	-837.3	-242.9	461.8	-11.2	**286.3**	-26.9	-1483.4
My_f	-102.6	401.7	-31.0	207.5	**-134.1**	-1268.2	251.4	378.7	24.8	31.5	**125.5**	-1160.3
Mz_f	245.8	532.9	-10.0	130.5	-4.5	**-2159.3**	-517.8	137.2	18.4	14.3	35.1	362.3

Member 15

Fx_1	**-686.9**	-382.0	25.2	-164.2	-144.4	-907.4	**553.5**	-342.1	-18.1	-44.9	136.0	-1410.2
Fy_1	-225.1	**-545.2**	14.7	-159.1	-3.8	-2050.8	68.7	**-126.3**	-34.6	-31.5	57.2	391.1
Fz_1	208.1	-170.1	**-42.2**	-9.8	70.4	-152.4	-82.9	-443.2	**49.1**	-196.0	-83.0	-1567.1
Mx_1	-233.8	-457.7	2.3	**-294.3**	15.9	-1382.3	-40.8	-310.4	-11.3	**43.8**	15.4	-892.9
My_1	-125.5	-397.8	28.3	-167.8	**-148.5**	-1254.3	252.1	-320.5	-21.0	-44.7	**139.8**	-1088.7
Mz_1	247.9	-524.7	16.1	-150.3	-10.2	**-2158.9**	-650.9	-138.0	-34.6	-31.5	57.2	**391.3**
Fx_f	**-678.6**	-268.7	28.9	-119.3	-5.1	515.2	**545.2**	-271.6	-21.8	-23.5	28.7	-2.9
Fy_f	-218.7	**-426.2**	12.3	-141.6	58.8	43.4	58.6	**-75.9**	-27.7	-2.2	-86.5	920.8
Fz_f	200.3	-121.4	**-33.0**	2.3	-79.9	530.1	-75.2	-330.0	**39.9**	-151.0	98.6	131.3
Mx_f	-227.3	-351.1	12.2	**-240.1**	45.1	288.9	-45.2	-230.8	-16.8	**70.6**	-42.0	453.1
My_f	168.6	-206.6	-23.3	-87.8	**-114.4**	517.7	-42.2	-359.1	30.9	-72.4	**138.5**	42.5
Mz_f	499.5	-291.2	24.7	-66.3	68.0	**-349.4**	-634.5	-179.7	-19.2	-35.5	-49.1	**1075.2**

Member 16

Fx_1	**-699.5**	-239.4	-28.8	-129.9	-20.0	576.3	**566.0**	-319.9	30.3	-26.8	22.7	13.0
Fy_1	-212.2	**-417.3**	8.8	-111.4	5.4	-34.4	30.5	**-87.6**	-27.4	-38.4	19.3	925.0
Fz_1	-531.6	-225.7	**-36.4**	-86.5	31.7	355.5	652.8	-291.9	**38.0**	-106.1	-35.2	215.3
Mx_1	-233.7	-355.1	-5.3	**-232.3**	13.7	297.5	-48.3	-292.4	8.2	**34.8**	-13.4	475.5
My_1	603.1	-267.6	19.2	-110.5	**-78.5**	240.3	-476.1	-290.5	-17.6	-46.2	**81.2**	269.2
Mz_1	523.8	-283.4	26.0	-36.7	-24.9	**-351.4**	-657.9	-193.6	-24.3	-87.2	27.2	1075.0
Fx_f	**-691.3**	-136.4	-12.6	-62.3	-95.8	1395.3	**557.8**	-219.0	14.1	-14.5	105.0	1252.1
Fy_f	-207.4	**-305.5**	6.8	-94.7	39.8	1385.5	20.2	**-29.2**	-20.7	15.7	-90.9	1406.9
Fz_f	-522.8	-155.2	**-27.2**	-59.8	-93.1	1186.0	644.0	-189.0	**28.8**	-66.5	96.6	1323.8
Mx_f	-212.3	-256.9	6.0	**-180.0**	34.2	1501.7	-71.5	-167.4	-13.2	**64.7**	-54.1	1533.9
My_f	-555.4	-132.7	-21.1	-54.6	**-112.2**	1304.9	682.2	-225.7	22.8	-21.3	**121.7**	1316.4
Mz_f	-232.2	-88.8	-21.8	-29.4	-85.8	**437.0**	-39.4	-245.6	7.9	-69.2	36.1	**2272.8**

Member 17

Fx_i	**-709.3**	-141.4	-20.9	-79.1	-57.0	1399.0	**575.8**	-215.5	20.9	-8.1	60.7	1251.9
Fy_i	-205.3	**-296.6**	5.2	-75.8	13.9	1365.5	14.0	**-40.2**	-18.5	-18.6	-10.1	1408.9
Fz_i	-541.8	-154.5	**-30.2**	-56.0	-2.0	1162.5	669.1	-183.9	**30.3**	-60.4	5.6	1309.7
Mx_i	-229.3	-255.0	-6.1	**-173.4**	13.2	1523.8	-19.2	-170.8	14.4	**28.2**	3.4	1491.1
My_i	-148.6	-137.9	-19.7	-68.0	**-58.9**	1060.2	275.4	-200.6	19.7	-8.7	**62.6**	1413.4
Mz_i	-256.8	-93.2	-22.3	-42.4	-12.4	**438.4**	-31.7	-240.4	7.4	-63.6	8.3	**2271.9**
Fx_f	**-701.0**	-72.5	-4.7	-43.4	-97.1	1853.8	**567.5**	-118.3	4.7	4.2	100.8	2029.4
Fy_f	-201.4	**-195.1**	3.2	-59.7	31.3	2185.6	7.8	**23.5**	-12.4	35.1	-77.5	1747.4
Fz_f	-533.0	-87.7	**-21.0**	-29.4	-98.9	1681.1	660.3	-84.7	**21.0**	-20.8	102.8	1940.4
Mx_f	-199.4	-160.2	1.8	**-124.4**	31.2	2238.8	-85.1	-28.6	-1.8	**64.1**	-29.1	1881.6
My_f	-563.8	-74.9	-16.3	-35.1	**-119.2**	1772.5	690.8	-118.4	16.4	-7.9	**123.1**	2105.5
Mz_f	-243.4	-50.3	-15.4	-18.0	-91.9	**734.8**	-37.6	-125.3	4.7	-33.8	34.9	**3103.0**

Member 18

Fx_i	**-712.3**	-71.8	-16.0	-40.3	-80.4	1856.0	**578.8**	-118.6	15.7	-8.1	82.8	2022.7
Fy_i	-200.9	**-185.7**	3.4	-43.6	15.8	2079.1	0.0	**12.1**	-11.7	-1.0	-32.1	1751.1
Fz_i	-553.7	-89.5	**-23.6**	-38.8	-38.2	1713.0	402.2	-81.5	**23.3**	-24.1	40.7	2079.7
Mx_i	-235.0	-139.4	-2.2	**-118.9**	-7.9	2140.4	90.5	-33.4	11.4	**42.2**	15.7	1782.1
My_i	-148.5	-69.1	-13.2	-42.4	**-82.8**	1557.1	423.0	-122.4	12.8	-5.0	**85.2**	2145.9
Mz_i	-260.3	-52.8	-15.9	-25.0	-39.7	**735.5**	-32.6	-120.5	4.8	-31.8	17.6	**3102.5**
Fx_f	**-704.0**	-2.9	0.2	-4.5	-98.5	1997.6	**570.5**	9.3	-0.5	18.1	99.4	2290.4
Fy_f	-197.4	**-90.2**	1.4	-23.0	24.6	2373.7	-80.3	**86.5**	-1.6	25.6	-18.5	2213.7
Fz_f	-544.8	-22.7	**-14.4**	-12.1	-105.3	1939.0	672.1	16.4	**14.0**	15.5	106.1	2084.6
Mx_f	-198.9	-45.7	1.9	**-71.1**	25.3	2317.2	-84.4	41.9	-2.1	**79.0**	-25.0	2217.6
My_f	-696.7	-16.3	-11.1	-8.6	**-118.7**	1904.4	413.9	16.0	10.7	8.4	**119.4**	2529.2
Mz_f	-113.1	-5.2	-7.9	-1.7	-85.3	**850.7**	90.6	-2.3	2.1	-1.1	30.7	**3383.7**

Member 19

Fx_i	**-708.3**	-4.0	-11.5	-3.3	-96.0	2021.4	**574.8**	9.9	11.0	0.5	96.7	2275.1
Fy_i	-232.3	**-89.6**	-1.1	-28.6	-15.3	2108.9	-44.9	**86.9**	0.5	24.5	21.7	2477.8
Fz_i	-685.4	-24.6	**-17.0**	-20.1	-63.3	2055.0	402.9	20.5	**16.4**	10.1	64.0	2175.5
Mx_i	-229.3	-48.2	-5.6	**-86.0**	-41.7	1624.0	-55.5	38.8	0.2	**71.0**	10.4	2494.7
My_i	-275.7	6.9	-7.2	1.1	**-101.8**	1619.8	419.3	-2.0	6.7	1.1	**102.5**	2555.4
Mz_i	-121.7	-7.4	-7.9	-7.8	-59.4	**850.7**	93.1	2.3	2.1	-0.3	22.6	**3383.7**
Fx_f	**-700.1**	64.9	4.7	32.4	-93.8	1858.1	**566.6**	117.3	-5.2	17.5	92.2	2000.6
Fy_f	-232.4	**-17.0**	3.7	-12.0	-57.8	1511.6	-48.4	**182.5**	-1.4	44.3	21.5	2197.6
Fz_f	-572.6	48.5	**-13.1**	7.5	1.7	2138.6	290.0	113.5	**12.5**	48.7	-3.5	1736.7
Mx_f	-118.2	25.2	-4.9	**-42.1**	47.6	1529.1	-94.0	132.4	0.1	**114.2**	-25.1	2346.5
My_f	-695.1	52.0	-4.5	34.0	**-111.4**	1921.7	412.3	127.6	3.9	8.7	**109.7**	2169.0
Mz_f	-108.4	40.6	-1.2	17.2	-74.7	**741.7**	86.5	117.9	-0.1	32.5	26.0	**3133.4**

Member 20

Fx_i	**-697.3**	57.2	-6.5	22.5	-105.6	1866.8	**563.8**	118.3	5.6	9.1	104.9	1988.5
Fy_i	-247.5	**-30.1**	-3.5	-54.3	-92.2	1506.4	-43.7	**192.1**	2.8	61.2	31.0	2305.5
Fz_i	-563.4	67.5	**-16.0**	28.5	57.6	2254.9	280.8	94.4	**15.1**	14.9	-58.2	1620.4
Mx_i	-227.0	-2.5	-1.0	**-77.7**	-59.3	1520.3	-53.3	155.3	0.3	**124.8**	16.8	2407.9
My_i	-265.5	71.7	-1.7	37.7	**-113.4**	1430.5	408.7	110.3	0.7	8.2	**112.6**	2290.0
Mz_i	-109.4	37.6	-1.3	8.4	-71.3	**741.1**	86.7	122.9	-0.2	35.1	25.7	**3133.9**
Fx_f	**-689.0**	126.2	9.7	58.2	-81.0	1427.7	**555.5**	215.5	-10.6	21.5	76.4	1263.9
Fy_f	-241.0	**34.9**	12.6	1.4	-56.1	1172.9	-47.4	**293.5**	-4.1	77.1	21.0	1497.6
Fz_f	-530.5	167.0	**-19.7**	68.9	20.2	1703.5	248.0	161.0	**18.8**	40.7	-25.0	1069.4
Mx_f	-188.1	69.3	-0.7	**-29.9**	-29.1	1118.4	-90.2	249.8	4.0	**168.1**	-8.0	1713.6
My_f	-683.8	119.4	0.8	67.4	**-97.7**	1503.8	401.0	224.8	-1.6	11.4	**93.1**	1401.6
Mz_f	-234.6	112.4	6.9	35.4	-37.8	**446.8**	81.3	240.5	-2.3	65.1	20.3	**2334.8**

Member 21

Fx_i	**-680.4**	119.5	1.2	39.4	-115.3	1431.4	**546.9**	225.9	-3.3	31.8	115.3	1266.5
Fy_i	-228.0	**21.1**	4.2	-41.6	-81.4	1171.3	-51.9	**303.0**	-2.3	98.2	29.6	1520.3
Fz_i	50.7	186.8	**-23.0**	82.4	57.5	1720.6	-185.9	142.3	**20.7**	19.2	-57.4	892.5
Mx_i	-222.5	162.5	6.2	**-77.5**	-57.2	1408.7	-57.6	251.1	-2.8	**182.1**	24.0	1716.9
My_i	-249.0	127.8	3.6	49.8	**-118.0**	964.7	394.4	227.5	-4.7	46.0	**117.7**	1523.5
Mz_i	-226.1	105.9	6.0	14.1	-59.1	**445.9**	79.0	246.2	-2.6	72.1	28.0	**2335.7**
Fx_f	**-672.1**	222.5	17.4	106.9	-56.0	635.6	**538.6**	326.7	-19.5	44.1	46.7	49.5
Fy_f	-221.3	**85.1**	10.3	14.8	-50.4	660.5	-56.4	**414.6**	-4.3	114.5	15.7	110.9
Fz_f	66.1	290.4	**-27.2**	124.1	-13.4	674.4	-201.2	212.3	**25.0**	43.8	3.4	67.3
Mx_f	-195.1	251.6	3.1	**-37.1**	-10.8	326.9	-89.3	349.3	4.6	**225.5**	-1.4	551.3
My_f	-665.8	212.3	6.0	94.7	**-77.4**	706.8	383.0	322.1	-8.0	48.2	**68.0**	110.9
Mz_f	-182.9	282.0	-4.8	28.6	8.0	**-324.9**	113.3	181.9	12.7	63.9	-18.8	**1116.5**

Member 22

Fx_i	**-648.8**	206.0	3.7	61.6	-131.7	638.9	**515.3**	341.9	-10.4	81.2	139.6	48.9
Fy_i	-200.3	**69.5**	8.9	-33.6	-96.8	656.1	-59.4	**424.5**	-7.3	147.8	49.2	189.4
Fz_i	23.7	311.6	**-32.5**	143.6	59.6	596.4	-164.5	129.2	**25.8**	-14.7	-61.0	168.8
Mx_i	-201.4	223.6	10.2	**-90.8**	-61.3	347.2	-53.3	328.6	-17.4	**248.0**	70.3	436.3
My_i	-218.1	175.0	6.2	36.8	**-134.3**	253.9	83.6	353.1	-12.6	94.0	**142.3**	442.7
Mz_i	-189.2	288.8	-7.8	45.6	35.6	**-323.0**	132.0	165.0	12.0	4.0	-67.6	**1116.7**
Fx_f	**-640.6**	339.7	19.9	156.2	-61.0	-620.1	**507.1**	412.4	-26.6	74.5	38.8	-1621.8
Fy_f	-188.0	**121.8**	16.6	9.5	-33.2	110.8	-65.6	**543.3**	-9.7	164.7	9.8	-1898.2
Fz_f	34.7	446.7	**-37.4**	214.5	-49.8	-1091.2	-175.6	176.6	**30.6**	-7.0	18.1	-542.3
Mx_f	-195.6	288.0	16.3	**-61.3**	-0.1	-888.3	-80.5	471.3	-12.1	**295.7**	-19.7	-1250.9
My_f	-8.3	412.6	-32.8	200.6	**-105.6**	-859.0	-126.5	342.7	25.9	29.0	**83.3**	-1415.1
Mz_f	-176.6	524.1	-10.9	134.4	4.4	**-2143.4**	105.4	135.6	17.6	7.1	-28.9	**439.3**

Member 23

Fx_i	**-606.6**	-333.9	-27.8	-146.6	-71.8	-566.7	**499.6**	-405.7	34.1	-68.7	49.6	-1644.5
Fy_i	-174.3	**-546.1**	12.1	-164.2	8.9	-2039.2	2.7	**-119.2**	-30.1	-14.9	-15.3	474.7
Fz_i	-185.7	-177.2	**-37.4**	4.8	6.0	-453.5	75.5	-428.2	**43.5**	-208.7	-32.5	-1107.8
Mx_i	-41.2	-462.9	17.6	**-296.8**	-12.6	-1191.5	-201.1	-296.2	-23.8	**57.0**	-2.5	-891.5
My_i	27.0	-382.9	24.4	-181.0	**-112.9**	-795.0	-135.5	-350.7	-18.0	-31.4	**90.6**	-1415.6
Mz_i	-175.9	-526.2	13.4	-134.7	3.2	**-2143.3**	2.6	-119.2	-30.1	-14.9	-15.3	**474.9**
Fx_f	**-598.4**	-220.7	-11.6	-73.7	-143.0	639.7	**491.3**	-335.1	17.8	-75.4	148.9	48.8
Fy_f	-168.1	**-427.3**	9.8	-147.0	59.6	58.7	-7.3	**-68.8**	-23.2	14.7	-138.3	973.2
Fz_f	-177.0	-128.5	**-28.1**	16.9	-122.8	207.8	66.8	-315.0	**34.3**	-163.7	123.9	576.0
Mx_f	-26.8	-321.2	20.0	**-246.0**	88.0	484.1	-197.3	-231.9	-13.2	**86.0**	-79.3	347.7
My_f	-208.5	-212.1	-19.7	-69.9	**-159.5**	233.4	99.6	-341.1	26.2	-78.2	**165.5**	470.5
Mz_f	-120.6	-306.8	20.3	-81.7	88.2	**-332.3**	12.1	-160.8	-15.5	-18.4	-85.7	**1129.5**

Member 24

Fx_i	**-628.8**	-234.8	-24.7	-120.3	-65.1	641.0	**521.8**	-321.5	26.3	-36.8	53.5	45.9
Fy_i	-161.1	**-417.4**	6.9	-114.0	12.6	-19.5	-35.6	**-83.1**	-23.4	-29.4	-31.0	977.5
Fz_i	-201.4	-217.6	**-31.6**	-62.0	-10.9	64.2	92.6	-286.5	**33.4**	-112.7	-1.3	660.7
Mx_i	-63.5	-339.3	-5.1	**-229.4**	1.9	593.7	-192.4	-260.4	-4.5	**35.0**	-16.2	329.1
My_i	-625.3	-224.6	-21.0	-103.1	**-72.2**	711.4	375.6	-308.2	22.6	-43.8	**60.7**	108.0
Mz_i	-96.9	-294.4	17.9	-40.0	11.0	**-334.4**	-10.6	-177.5	-16.3	-78.0	-21.8	**1129.4**
Fx_f	**-620.5**	-131.9	-8.5	-52.8	-122.3	1439.6	**513.5**	-220.6	10.1	-24.4	118.0	1292.0
Fy_f	-156.6	**-305.7**	4.8	-97.3	38.2	1400.4	-45.7	**-24.6**	-16.7	25.0	-123.2	1439.9
Fz_f	-192.7	-147.1	**-22.4**	-35.4	-114.2	858.4	329.6	-185.2	**24.2**	-73.1	109.9	1560.6
Mx_f	-38.3	-242.7	3.8	**-182.6**	32.8	1764.7	-212.9	-170.8	-9.3	**73.1**	-75.7	1413.3
My_f	-228.7	-127.4	-17.3	-41.8	**-138.9**	1009.1	365.8	-219.7	18.9	-34.6	**134.6**	1542.7
Mz_f	349.2	-74.7	-18.0	-20.8	-117.9	**429.8**	-407.8	-249.6	6.9	-71.9	37.2	**2364.5**

Member 25

Fx_i	**-634.0**	-138.2	-16.5	-73.1	-97.1	1442.8	**527.0**	-215.0	16.9	-13.1	88.1	1289.8
Fy_i	-156.6	**-296.2**	4.1	-76.7	17.8	1378.4	-45.3	**-37.2**	-14.8	-14.0	-51.8	1441.7
Fz_i	-211.3	-164.9	**-25.5**	-55.1	-43.1	914.4	348.6	-168.9	**25.9**	-60.3	34.0	1514.7

Mx,	-73.5	-241.1	-5.0	**-171.9**	-3.1	1759.3	-171.5	-191.9	4.3	**26.1**	1.2	1503.0
My,	-630.5	-132.3	-15.3	-73.3	**-98.3**	1514.7	380.7	-219.4	15.7	-11.0	**89.4**	1434.7
Mz,	333.2	-80.5	-18.2	-38.1	-70.3	**431.2**	-402.7	-243.9	7.6	-64.8	18.5	**2363.6**
Fx,	**-625.8**	-69.3	-0.3	-37.4	-117.2	1883.2	**518.8**	-117.9	0.7	-0.7	110.1	2065.2
Fy,	-152.9	**-194.7**	2.1	-60.6	30.1	2196.3	-51.3	**26.6**	-8.7	39.6	-102.5	1767.0
Fz,	-202.5	-98.1	**-16.2**	-28.4	-118.5	1479.6	94.1	-68.0	**16.7**	-20.7	111.5	2254.7
Mx,	-42.3	-146.8	0.5	**-125.5**	26.8	2451.7	-210.6	-35.0	-0.1	**66.6**	-36.9	1737.0
My,	-232.2	-82.1	-12.4	-39.8	**-139.8**	1423.9	124.0	-109.5	12.7	-14.1	**132.6**	2515.2
Mz,	326.1	-37.7	-11.7	-13.7	-118.8	**723.5**	-397.3	-126.3	3.9	-34.8	35.5	**3174.9**

Member 26

Fx,	**-632.7**	-68.3	-12.0	-35.2	-114.2	1872.1	**525.8**	-113.5	12.1	-12.5	105.9	2040.3
Fy,	-154.3	**-185.1**	2.2	-43.9	19.0	2089.0	-50.2	**14.4**	-7.6	0.9	-64.7	1771.8
Fz,	-217.7	-100.3	**-18.8**	-41.3	-72.8	1479.4	109.3	-65.8	**18.9**	-20.7	64.5	2254.9
Mx,	-88.1	-123.6	-1.3	**-118.1**	-20.8	2385.4	-73.8	-46.5	8.0	**40.7**	38.8	1453.0
My,	-626.3	-62.4	-8.9	-40.8	**-116.9**	1930.0	376.5	-123.9	9.0	-7.8	**108.6**	2232.1
Mz,	316.3	-40.9	-12.4	-22.9	-91.9	**724.2**	-394.9	-121.3	5.1	-32.2	26.5	**3174.4**
Fx,	**-624.5**	0.6	4.2	0.5	-114.2	1998.0	**517.5**	14.5	-4.1	13.8	106.3	2284.9
Fy,	-150.9	**-89.6**	0.2	-23.3	22.5	2380.6	-94.0	**90.8**	-0.3	26.4	-26.0	2258.9
Fz,	-79.6	-38.7	**-10.2**	-25.2	19.9	1948.9	216.9	37.0	**10.2**	29.4	-27.9	1990.0
Mx,	-53.3	-30.1	0.5	**-71.6**	20.9	2532.3	-196.9	33.4	-0.3	**80.5**	-29.3	2042.4
My,	-230.5	-19.7	-6.5	-6.2	**-133.2**	1626.1	367.8	21.4	6.6	6.6	**125.3**	2554.0
Mz,	313.9	7.9	-4.1	0.4	-105.4	**837.6**	-391.1	-2.0	1.2	-1.5	30.0	**3423.5**

Member 27

Fx,	**-624.1**	-6.7	-7.7	-5.8	-123.5	1996.4	**517.1**	12.8	7.6	-4.8	115.6	2283.5
Fy,	-194.3	**-89.1**	0.3	-28.1	-25.4	2107.4	-50.5	**91.2**	-0.6	24.6	23.0	2530.9
Fz,	-66.2	-34.1	**-12.9**	-18.4	67.5	2017.9	-42.3	34.1	**12.8**	9.0	-75.5	2090.1
Mx,	-50.1	-31.0	-1.4	**-85.9**	-69.6	1953.9	-159.7	30.4	-0.7	**71.7**	13.4	2387.4
My,	-96.1	21.3	-2.8	1.8	**-130.3**	1969.4	-153.6	-11.2	2.7	1.1	**122.3**	2588.1
Mz,	309.4	5.2	-3.7	-7.2	-92.5	**837.6**	-390.0	2.8	1.5	-0.3	25.2	**3423.5**
Fx,	**-615.8**	62.3	8.5	30.0	-104.2	1844.8	**508.9**	120.2	-8.6	12.2	95.9	1995.6
Fy,	-185.7	**-17.4**	8.1	-11.5	-63.3	1498.2	-53.9	**186.9**	-2.6	44.3	17.8	2231.2
Fz,	-31.4	65.2	**-16.4**	21.4	46.6	1925.4	168.7	99.1	**16.3**	35.5	-54.9	1647.7
Mx,	69.2	42.9	-8.2	**-43.0**	46.6	1854.2	-194.3	123.9	1.5	**115.4**	-27.9	2236.5
My,	-224.2	52.0	-0.1	35.8	**-120.6**	1600.3	351.5	130.9	0.0	7.4	**112.2**	2195.5
Mz,	411.4	51.6	2.6	17.8	-89.3	**728.0**	-281.0	114.9	-1.0	32.5	25.1	**3164.3**

Member 28

Fx,	**-608.2**	58.4	-2.0	23.5	-128.7	1864.3	**501.3**	121.4	1.6	8.5	121.4	2010.5
Fy,	-192.4	**-31.0**	10.3	-55.3	-111.5	1493.0	-51.2	**196.7**	-2.9	61.7	32.9	2339.3
Fz,	-70.0	69.8	**-19.3**	27.1	69.8	1959.7	207.2	94.5	**18.8**	16.8	-77.0	1613.3
Mx,	-61.7	11.9	3.2	**-79.3**	-83.2	1846.6	-147.0	148.9	-0.8	**126.1**	21.0	2265.5
My,	-99.0	84.8	2.4	33.2	**-136.5**	1748.1	-150.7	106.9	-2.7	13.9	**129.1**	2270.0
Mz,	414.3	48.1	2.5	7.4	-97.9	**727.3**	-282.2	120.0	-0.8	35.5	28.0	**3164.8**
Fx,	**-600.0**	127.3	14.2	59.2	-83.8	1419.9	**493.0**	218.5	-14.6	20.9	74.8	1272.1
Fy,	-186.0	**34.0**	16.4	0.4	-53.4	1163.7	-54.9	**298.1**	-4.9	77.6	17.2	1510.9
Fz,	-35.9	169.3	**-23.4**	67.6	18.1	1398.5	173.1	161.1	**22.9**	42.5	-27.3	1061.6
Mx,	-35.0	84.2	1.2	**-30.9**	-35.0	1437.3	-177.3	242.9	5.3	**168.9**	-8.0	1561.6
My,	-209.1	119.8	5.6	65.6	**-100.9**	1182.7	346.4	227.7	-6.0	13.5	**91.9**	1412.9
Mz,	89.0	118.9	10.5	34.7	-40.1	**440.9**	-278.1	237.6	-3.5	65.5	17.0	**2344.3**

Member 29

Fx,	**-587.1**	120.7	5.5	38.0	-132.7	1425.8	**480.2**	230.0	-7.1	33.4	128.2	1279.4
Fy,	-176.4	**19.3**	7.6	-45.4	-97.9	1161.9	-58.5	**308.0**	-3.8	99.5	33.2	1533.6
Fz,	-79.4	182.4	**-26.2**	76.8	67.6	1419.1	214.8	141.4	**24.5**	7.8	-73.6	1003.4
Mx,	-118.5	171.4	10.1	**-81.4**	-71.6	1543.5	-143.4	245.1	-4.1	**184.3**	26.6	1569.7
My,	-93.0	137.7	8.1	48.6	**-135.2**	1275.1	-154.8	220.0	-8.9	48.0	**130.6**	1531.2
Mz,	421.8	84.3	11.5	12.1	-102.3	**439.7**	-281.9	243.7	-3.8	73.6	29.6	**2345.2**

Fx,	**-578.8**	223.7	21.7	105.6	-53.8	624.6	**471.9**	330.9	-23.3	45.8	42.3	43.8
Fy,	-169.7	**83.3**	13.8	11.0	-51.2	659.5	-63.0	**419.5**	-5.8	115.9	12.4	102.1
Fz,	-46.7	286.0	**-30.8**	118.7	-17.8	339.9	-63.6	212.9	**29.2**	32.2	4.2	381.9
Mx,	-123.7	250.2	15.8	**-39.8**	-13.7	469.3	-138.8	354.9	-6.5	**226.4**	2.0	378.2
My,	-186.5	211.5	11.0	89.7	**-74.5**	388.3	78.1	327.2	-12.5	53.4	**62.9**	252.9
Mz,	175.2	294.0	-5.9	29.7	4.5	**-332.5**	-423.5	168.8	16.9	60.3	-15.6	**1113.9**

Member 30

Fx,	**-550.6**	206.1	8.6	52.2	-144.8	624.6	**443.7**	347.0	-14.6	90.8	149.9	46.6
Fy,	-143.5	**66.0**	15.6	-42.4	-115.0	654.9	-69.4	**430.1**	-8.6	151.0	49.3	180.5
Fz,	-92.6	311.1	**-35.7**	155.5	69.0	272.4	-20.3	133.4	**29.7**	-21.9	-70.8	490.3
Mx,	-103.9	231.0	13.8	**-99.0**	-71.0	472.6	-121.4	325.5	-20.3	**256.4**	77.2	297.6
My,	-75.2	189.9	10.1	35.4	**-146.4**	561.3	-32.8	349.1	-15.9	97.1	**151.7**	112.6
Mz,	167.3	301.5	-8.8	48.4	36.1	**-330.6**	-401.2	150.3	16.1	-4.6	-78.5	**1113.9**
Fx,	**-542.3**	339.9	24.8	146.7	-52.0	-635.0	**435.4**	417.6	-30.8	84.2	30.2	-1647.2
Fy,	-131.3	**118.3**	23.1	0.9	-21.9	125.1	-75.6	**548.8**	-10.9	167.9	4.3	-1932.0
Fz,	-64.5	446.3	**-40.8**	226.9	-54.6	-1466.5	-48.4	180.7	**34.9**	-14.6	25.9	-186.3
Mx,	-107.8	295.5	19.8	**-69.4**	6.0	-766.0	-145.2	465.8	-12.7	**299.3**	-20.7	-1414.3
My,	-111.7	404.1	-35.4	207.4	**-115.0**	-1191.5	3.6	355.1	29.1	22.6	**93.0**	-1110.9
Mz,	169.7	536.8	-12.3	137.4	0.5	**-2174.1**	-412.1	120.8	21.0	-1.5	-24.5	**450.1**

Member 31

Fx,	**-507.0**	-332.6	-29.2	-135.9	-68.1	-577.7	**426.4**	-408.4	35.2	-78.6	46.0	-1667.8
Fy,	-130.4	**-548.1**	11.2	-168.0	7.5	-2069.9	-29.6	**-116.9**	-34.3	-2.9	-20.6	483.8
Fz,	-14.5	-164.1	**-38.6**	13.6	15.3	-139.3	-70.1	-443.0	**44.6**	-217.1	-42.5	-1455.4
Mx,	-142.9	-474.1	17.8	**-300.1**	-18.8	-1413.2	-80.1	-286.3	-25.1	**67.5**	5.8	-716.6
My,	-116.3	-400.1	26.1	-191.1	**-120.6**	-1201.2	34.3	-335.2	-20.0	-20.2	**98.6**	-1044.8
Mz,	169.1	-520.5	12.5	-138.3	2.8	**-2174.1**	-485.5	-128.7	-34.3	-3.1	-21.4	**484.4**
Fx,	**-498.8**	-219.4	-13.0	-63.0	-145.6	623.0	**418.1**	-337.9	19.0	-85.3	150.5	37.8
Fy,	-124.2	**-429.2**	8.9	-150.8	54.2	36.6	-39.6	**-66.5**	-17.5	26.7	-122.9	971.8
Fz,	-22.3	-115.3	**-29.4**	25.7	-119.3	515.8	-62.2	-329.8	**35.4**	-172.1	118.7	242.1
Mx,	-109.3	-332.9	21.0	**-255.8**	83.8	297.8	-86.0	-222.0	-14.5	**96.6**	-77.1	508.9
My,	-56.7	-196.7	-20.8	-58.1	**-161.5**	584.5	-159.8	-358.3	27.0	-89.0	**166.5**	263.9
Mz,	375.9	-298.7	21.7	-92.9	85.2	**-351.5**	-457.5	-170.1	-16.9	-6.5	-82.9	**1128.8**

Member 32

Fx,	**-530.4**	-236.0	-25.8	-113.2	-63.5	623.2	**449.8**	-322.8	27.3	-43.0	51.5	34.7
Fy,	-116.7	**-418.8**	6.1	-115.9	12.6	-41.8	-68.8	**-82.4**	-25.1	-22.3	-44.5	976.6
Fz,	-48.3	-198.0	**-33.0**	-36.6	-6.3	421.1	-169.4	-302.0	**34.6**	-118.5	-7.1	454.7
Mx,	-154.2	-349.3	-5.5	**-227.2**	-0.9	389.6	-82.5	-252.5	-5.2	**37.7**	-13.3	489.0
My,	-179.2	-226.5	-22.0	-96.4	**-70.5**	330.6	97.0	-311.4	23.4	-49.5	**58.6**	295.8
Mz,	401.4	-284.6	19.3	-46.3	5.9	**-353.5**	-481.7	-188.5	-17.6	-70.8	-17.1	**1128.8**
Fx,	**-522.1**	-133.0	-9.6	-45.6	-125.5	1427.0	**441.6**	-221.9	11.1	-30.6	120.5	1286.6
Fy,	-112.1	**-307.0**	4.1	-99.2	34.7	1384.1	-78.8	**-23.9**	-8.4	32.1	-104.0	1435.8
Fz,	-56.1	-127.4	**-23.7**	-10.0	-115.7	1179.7	-27.1	-199.3	**25.4**	-78.9	109.5	1384.2
Mx,	-118.8	-253.4	4.5	**-184.3**	29.9	1573.4	-112.2	-162.3	-10.9	**79.4**	-77.1	1567.2
My,	-94.3	-124.0	-18.5	-49.8	**-142.5**	1293.7	-121.4	-233.3	19.8	-40.5	**137.3**	1539.6
Mz,	-146.7	-85.8	-19.3	-14.0	-121.0	**420.7**	-50.9	-242.8	7.4	-73.8	37.4	**2362.4**

Member 33

Fx,	**-536.8**	-139.6	-17.6	-68.0	-96.6	1428.1	**456.3**	-216.4	18.0	-17.6	86.9	1288.7
Fy,	-110.3	**-297.3**	4.7	-77.6	16.4	1361.9	-85.1	**-37.4**	-16.7	-9.5	-53.7	1437.8
Fz,	-498.0	-163.4	**-26.8**	-50.9	-39.3	1258.1	281.3	-170.1	**27.1**	-63.5	29.5	1509.7
Mx,	-152.5	-251.2	-5.5	**-170.4**	-5.0	1564.9	-60.6	-183.7	4.8	**25.5**	1.3	1678.4
My,	236.1	-122.4	-16.6	-70.1	**-98.2**	1142.5	-105.4	-232.0	16.9	-13.6	**88.4**	1429.2
Mz,	-164.0	-92.5	-19.5	-33.9	-69.2	**422.2**	-45.3	-236.7	8.1	-65.7	17.0	**2361.4**
Fx,	**-528.6**	-70.6	-1.4	-32.2	-122.1	1874.6	**448.0**	-119.3	1.8	-5.2	114.0	2070.4
Fy,	-106.6	**-195.7**	2.8	-61.5	31.6	2184.4	-91.1	**26.4**	-10.6	44.1	-112.8	1763.9

Fz_i	-489.3	-96.6	**-17.5**	-24.3	-120.8	1816.8	272.6	-70.9	**17.9**	-23.9	112.5	2078.5
Mx_i	-109.9	-157.2	1.1	**-126.4**	25.5	2271.7	-135.4	-19.2	-5.2	**69.1**	-82.9	1664.1
My_i	-116.4	-69.1	-13.4	-35.5	**-144.9**	1760.6	-99.8	-123.2	13.6	-15.5	**136.5**	2316.2
Mz_i	-156.4	-49.6	-3.3	-9.3	-103.5	**715.5**	-50.7	-119.1	1.0	-35.7	28.6	**3174.7**

Member 34

Fx_i	**-537.0**	-70.7	-13.0	-32.1	-115.7	1868.1	**456.5**	-113.3	13.1	-14.7	106.3	2038.1
Fy_i	-108.2	**-185.9**	2.8	-44.3	17.3	2076.9	-87.0	**13.8**	-8.9	3.8	-65.0	1768.9
Fz_i	-505.9	-99.3	**-20.2**	-38.4	-70.7	1816.6	289.2	-68.3	**20.2**	-22.7	61.3	2078.7
Mx_i	-159.3	-132.1	-1.9	**-117.0**	-25.5	2241.4	51.7	-33.1	9.4	**38.8**	42.0	1802.8
My_i	-45.7	-53.3	-10.0	-37.6	**-118.1**	1912.7	-92.2	-136.2	10.0	-10.0	**108.6**	2232.0
Mz_i	-160.2	-53.3	-3.4	-19.9	-92.2	**716.2**	-49.1	-114.0	1.2	-32.7	24.9	**3174.2**
Fx_f	**-528.7**	-1.7	3.2	3.7	-120.2	2004.5	**448.2**	14.6	-3.2	11.5	111.1	2282.0
Fy_f	-104.8	**-90.5**	0.8	-23.7	23.3	2372.4	-108.0	**89.7**	-0.8	27.5	-28.5	2266.1
Fz_f	-497.1	-32.4	**-10.9**	-11.7	-122.3	2086.5	280.4	30.9	**10.9**	16.9	112.9	2189.2
Mx_f	-112.1	-38.6	0.8	**-72.0**	17.0	2395.1	-105.4	39.9	-0.7	**81.9**	-26.8	2178.2
My_f	-131.4	-5.9	-8.0	-2.7	**-139.8**	1987.1	-85.1	13.1	8.2	4.9	**130.4**	2590.1
Mz_f	-78.3	-1.0	-4.3	3.5	-114.2	**832.3**	24.8	-6.3	2.2	-2.0	33.6	**3424.6**

Member 35

Fx.	**-529.7**	-9.2	-8.7	-3.2	-126.7	2004.5	**449.2**	12.4	8.6	-6.5	117.3	2292.3
Fy.	-150.1	**-90.1**	-0.1	-27.0	-27.1	2096.4	-62.4	**90.2**	-0.2	24.2	22.4	2540.8
Fz.	-94.9	-26.2	**-13.7**	-34.9	-71.8	2155.7	-121.8	24.7	**13.6**	26.4	62.4	2119.9
Mx.	-135.7	-45.1	-3.3	**-83.5**	-76.4	1611.1	-65.9	37.7	0.2	**71.6**	16.8	2574.9
My.	214.0	18.4	-4.0	4.3	**-132.8**	1618.7	-82.9	-10.5	3.8	-0.6	**123.4**	2580.8
Mz.	-77.8	-3.8	-5.5	-4.6	-109.8	**832.3**	25.6	-1.5	3.5	-0.6	30.3	**3424.6**
Fx_f	**-521.4**	59.7	7.6	32.5	-111.6	1864.3	**441.0**	119.8	-7.6	10.5	101.9	2006.5
Fy_f	-130.0	**-17.8**	6.8	-9.0	-71.9	1490.6	-65.8	**185.9**	-2.1	44.0	19.3	2245.7
Fz_f	61.4	78.2	**-15.1**	19.7	56.5	2260.7	-143.6	86.1	**15.0**	38.1	-66.6	1479.7
Mx_f	9.3	29.3	-7.3	**-44.6**	46.8	1528.1	-113.9	131.1	1.5	**116.5**	-25.3	2423.3
My_f	-144.0	64.5	-1.1	38.4	**-128.7**	1931.2	-72.2	118.8	0.9	5.8	**118.6**	2202.4
Mz_f	-67.9	39.1	0.3	20.4	-102.1	**726.2**	19.7	122.3	0.0	32.2	28.9	**3166.6**

Member 36

Fx.	**-515.2**	58.0	-3.5	29.4	-132.2	1904.6	**434.8**	125.5	3.1	4.0	123.3	2031.1
Fy.	-136.8	**-31.4**	8.4	-52.7	-113.1	1485.6	-63.2	**195.7**	-2.2	61.3	31.4	2353.8
Fz.	24.9	79.9	**-17.9**	18.0	75.8	2256.8	-241.6	84.6	**17.4**	26.7	-84.7	1651.9
Mx.	-129.0	-2.1	1.7	**-76.9**	-90.0	1513.0	-63.8	157.1	-0.2	**125.9**	25.1	2432.7
My.	-163.0	69.7	1.3	35.5	**-140.7**	1420.3	294.3	118.2	-1.7	12.4	**131.5**	2277.3
Mz.	-64.5	35.5	-1.8	9.9	-113.2	**725.5**	18.2	127.5	1.2	35.2	33.3	**3167.1**
Fx.	**-506.9**	126.9	12.7	65.2	-93.9	1462.1	**426.5**	222.6	-13.1	16.4	83.1	1274.5
Fy.	-130.3	**33.5**	14.6	2.9	-63.2	1158.2	-66.9	**297.1**	-4.2	77.2	18.8	1529.8
Fz.	42.7	179.4	**-22.1**	58.6	30.2	1702.9	-259.4	151.2	**21.6**	52.4	-41.4	1091.8
Mx.	-82.1	70.3	0.7	**-29.8**	-42.5	1115.0	-108.7	251.0	4.9	**169.9**	-7.0	1724.8
My.	-146.7	132.3	4.6	68.0	**-110.5**	1510.3	-69.5	215.5	-5.0	12.0	**99.4**	1421.5
Mz.	-55.1	78.4	7.4	34.4	-81.5	**442.7**	12.4	245.1	-2.4	65.2	21.4	**2347.3**

Member 37

Fx.	**-495.4**	118.2	4.6	40.6	-138.9	1458.6	**415.0**	230.3	-6.1	31.7	132.4	1275.3
Fy.	-124.9	**18.9**	6.3	-42.7	-104.8	1156.4	-67.8	**306.9**	-3.3	99.0	34.6	1552.6
Fz.	0.4	195.1	**-24.8**	69.3	74.9	1746.4	-82.5	132.5	**23.0**	30.6	-81.2	855.2
Mx.	-158.1	162.2	8.7	**-78.7**	-79.2	1408.9	-70.7	253.2	-3.5	**183.8**	31.1	1734.2
My.	-143.3	118.3	6.4	44.7	**-141.0**	956.9	62.1	230.8	-7.9	41.6	**134.3**	1688.1
Mz.	-42.0	71.8	7.2	14.7	-119.3	**441.3**	8.1	251.1	-1.7	73.1	35.2	**2348.3**
Fx.	**-487.1**	221.2	20.8	108.1	-64.4	668.4	**406.7**	331.1	-22.3	44.1	50.8	38.6
Fy.	-118.1	**82.9**	12.4	13.8	-64.3	655.6	-72.3	**418.5**	-5.3	115.4	16.2	125.8
Fz.	16.8	298.7	**-29.5**	111.3	-4.4	663.0	-98.9	202.4	**27.8**	54.9	-9.9	74.3
Mx.	-124.8	252.4	4.2	**-37.6**	-18.9	328.8	-108.9	350.4	5.3	**226.4**	-0.9	558.3
My.	-141.9	223.8	9.8	91.8	**-85.8**	715.8	60.3	310.3	-11.4	52.1	**71.9**	-61.4
Mz.	95.2	282.1	-17.0	45.8	16.5	**-314.1**	-20.1	179.9	15.3	63.0	-30.4	**1114.9**

Member 38

Fx_i	**-459.2**	203.7	7.6	55.0	-155.4	668.8	**378.9**	347.2	-13.6	88.8	158.2	41.5
Fy_i	-92.6	**65.8**	14.2	-39.2	-127.4	651.0	-78.2	**428.9**	-8.0	150.2	52.8	204.1
Fz_i	-29.3	323.8	**-34.2**	153.0	81.9	599.2	-55.7	116.4	**28.3**	-18.8	-84.1	170.7
Mx_i	-134.4	222.1	12.3	**-95.7**	-85.1	348.2	-60.7	332.8	-18.9	**254.1**	90.0	444.3
My_i	-108.4	171.9	8.9	36.1	**-156.9**	236.3	27.0	362.1	-14.8	94.6	**159.6**	437.3
Mz_i	72.1	296.1	-19.3	92.1	91.1	**-312.1**	1.9	161.6	14.5	-1.4	-92.2	**1114.9**
Fx_f	**-451.0**	337.5	23.8	149.5	-67.2	-580.1	**370.6**	417.7	-29.8	82.2	43.1	-1653.0
Fy_f	-80.4	**118.1**	21.7	4.2	-40.6	121.9	-84.4	**547.7**	-10.3	167.1	10.4	-1903.2
Fz_f	-17.6	459.0	**-39.5**	224.4	-35.3	-1144.2	-67.4	163.6	**33.5**	-11.5	6.3	-482.0
Mx_f	-128.6	286.6	18.4	**-66.1**	-14.5	-881.0	-94.4	473.8	-12.0	**298.5**	-10.1	-1254.3
My_f	-67.5	417.0	-33.7	203.8	**-99.3**	-867.8	-13.8	338.1	27.4	26.6	**74.7**	-1404.5
Mz_f	-86.6	525.5	-11.8	136.6	4.8	**-2149.0**	-26.4	130.4	21.7	4.4	-41.3	**453.1**

Member 39

Fx.	**-416.4**	-324.6	-28.6	-134.9	-83.0	-522.7	**362.2**	-409.6	34.8	-78.8	58.8	-1675.5
Fy.	-86.2	**-544.1**	11.0	-167.8	11.4	-2044.8	-73.0	**-116.9**	-33.9	-1.5	-37.1	404.1
Fz.	-68.4	-258.0	**-38.5**	-5.5	7.2	-862.9	13.9	-426.5	**44.6**	-217.4	-29.6	-1055.7
Mx.	-67.3	-462.3	13.5	**-299.5**	-18.9	-1281.9	-125.5	-292.8	-21.0	**68.5**	-4.5	-878.8
My.	-31.8	-366.4	26.1	-187.7	**-107.1**	-752.9	-23.4	-350.3	-20.0	-17.5	**82.6**	-1405.3
Mz.	-87.0	-526.9	12.3	-138.1	6.8	**-2149.2**	-70.0	-117.1	-31.3	-1.7	-40.9	**487.7**
Fx_f	**-408.1**	-211.4	-12.4	-62.0	-157.8	641.9	**354.0**	-339.0	18.6	-85.5	161.5	35.2
Fy_f	-80.0	**-425.2**	8.7	-150.6	57.0	43.8	-82.9	**-66.5**	-17.1	28.1	-137.3	892.2
Fz_f	-59.8	-187.4	**-29.3**	15.8	-126.9	112.8	5.3	-313.3	**35.4**	-172.4	132.0	610.5
Mx_f	-45.6	-322.0	21.5	**-255.9**	92.4	398.3	-121.5	-228.6	-15.0	**97.6**	-87.3	345.5
My_f	-96.3	-212.0	-21.1	-52.1	**-174.9**	237.6	40.9	-340.9	27.4	-94.0	**178.2**	464.1
Mz_f	3.1	-307.3	21.4	-93.6	95.8	**-347.1**	-59.2	-158.4	-16.6	-4.8	-95.9	**1133.0**

Member 40

Fx.	**-440.7**	-229.8	-25.5	-109.8	-74.0	637.4	**386.7**	-322.5	27.2	-45.0	60.6	35.8
Fy.	-72.4	**-414.8**	6.0	-115.9	15.4	-34.7	-113.0	**-82.3**	-24.6	-20.5	-56.4	896.8
Fz.	-90.7	-210.7	**-32.9**	-34.6	-17.6	63.9	33.8	-285.8	**34.7**	-119.5	2.5	650.8
Mx.	-60.4	-350.2	7.3	**-226.5**	2.7	483.9	-144.3	-247.6	-16.5	**38.7**	-23.5	342.1
My.	-129.4	-210.7	-21.4	-95.3	**-81.2**	700.8	74.1	-323.2	23.1	-49.8	**67.7**	-63.5
Mz.	28.5	-293.4	19.1	-47.3	13.9	**-349.1**	-83.6	-176.6	-17.4	-69.0	-26.8	**1132.9**
Fx.	**-432.4**	-126.8	-9.3	-42.2	-134.9	1413.3	**378.4**	-221.7	11.0	-32.7	129.3	1286.8
Fy.	-67.9	**-303.1**	4.0	-99.2	36.8	1373.6	-123.1	**-23.7**	-7.9	33.9	-113.7	1355.3
Fz.	-82.1	-140.1	**-23.7**	-7.9	-126.7	826.8	25.1	-182.9	**25.5**	-79.9	119.7	1731.8
Mx.	-64.0	-241.6	4.7	**-183.8**	31.5	1667.1	-139.1	-168.8	-10.8	**80.5**	-84.5	1402.4
My.	-120.0	-137.0	-18.3	-45.7	**-152.7**	939.9	244.8	-220.7	20.0	-48.3	**147.0**	1542.1
Mz.	193.1	-75.1	-11.8	-12.1	-116.3	**425.2**	-252.1	-245.7	3.8	-73.9	32.6	**2353.8**

Member 41

Fx.	**-447.5**	-131.0	-18.2	-59.5	-105.3	1402.3	**393.6**	-211.2	18.6	-23.1	95.5	1279.5
Fy.	-65.0	**-293.4**	4.6	-77.7	20.7	1351.4	-131.5	**-37.1**	-16.7	-7.5	-66.1	1357.2
Fz.	-101.8	-164.3	**-26.7**	-49.0	-50.4	905.3	226.0	-167.8	**27.3**	-64.5	40.1	1503.9
Mx.	-106.0	-239.6	-5.1	**-168.8**	-12.4	1660.4	-76.1	-190.7	4.5	**24.8**	8.5	1490.0
My.	-152.9	-118.2	-16.0	-68.4	**-108.2**	1494.5	97.6	-230.7	16.6	-14.3	**97.9**	1252.8
Mz.	182.7	-81.7	-9.6	-31.7	-77.7	**426.7**	-248.2	-239.6	3.5	-65.9	20.1	**2352.9**
Fx_f	**-439.3**	-62.0	-2.0	-23.8	-133.3	1810.1	**385.3**	-114.0	2.4	-10.7	125.2	2037.6
Fy_f	-61.3	**-191.9**	2.7	-61.6	35.3	2156.6	-137.6	**26.6**	-10.6	46.1	-125.2	1682.1
Fz_f	-93.1	-97.4	**-17.4**	-22.4	-131.4	1467.7	37.3	-66.6	**18.0**	-24.9	123.7	2235.3
Mx_f	-68.2	-145.4	1.3	**-125.8**	25.7	2346.4	-151.0	-25.7	-5.2	**70.5**	-88.6	1501.9
My_f	-125.8	-83.1	-13.1	-32.7	**-154.9**	1418.6	250.5	-109.8	13.6	-17.1	**147.0**	2307.8
Mz_f	166.0	-31.1	-2.9	-7.3	-112.7	**724.1**	-241.5	-122.1	0.8	-35.9	31.5	**3145.1**

Member 42

Fx_i	**-447.9**	-69.4	-12.9	-31.0	-125.6	1817.1	**393.9**	-115.0	13.1	-19.7	116.9	2039.0
Fy_i	-63.3	**-182.1**	2.8	-44.5	21.4	2049.2	-133.0	**14.1**	-8.7	6.1	-76.9	1687.2
Fz_i	-109.8	-100.0	**-20.0**	-36.1	-81.3	1467.5	53.9	-64.1	**20.3**	-24.0	72.5	2235.5
Mx_i	-122.3	-119.7	-1.6	**-115.4**	-30.8	2341.3	65.1	-45.3	9.1	**37.0**	56.4	1445.0
My_i	-166.3	-50.1	-9.6	-34.9	**-127.3**	1907.7	111.0	-134.8	9.9	-11.8	**118.5**	2050.5
Mz_i	162.5	-34.7	-3.0	-17.6	-102.4	**724.8**	-240.2	-116.9	1.1	-32.9	28.6	**3144.6**
Fx_f	**-439.7**	-0.5	3.3	4.7	-129.6	1948.0	**385.7**	13.0	-3.1	6.6	121.8	2290.3
Fy_f	-60.0	**-86.7**	0.8	-23.9	27.3	2327.7	-121.3	**90.6**	-0.5	28.5	-30.4	2177.2
Fz_f	-74.9	-33.2	**-10.9**	-9.7	-105.8	1744.6	199.1	33.2	**11.1**	15.9	98.1	2159.2
Mx_f	-79.9	-26.0	1.0	**-71.6**	18.9	2470.0	-106.5	32.0	-0.7	**82.6**	-27.1	1970.6
My_f	133.5	-7.6	-8.1	-0.6	**-149.5**	1631.4	-8.8	16.5	8.3	3.8	**141.7**	2575.7
Mz_f	200.8	7.0	2.9	7.4	-108.5	**811.2**	-178.0	-6.7	-1.4	-2.2	29.3	**3382.1**

Member 43

Fx_i	**-441.0**	-2.3	-8.4	-0.1	-136.6	1926.0	**386.9**	10.9	8.5	-8.5	128.9	2306.9
Fy_i	-112.7	**-86.4**	-0.1	-25.9	-30.0	2055.6	-68.4	**91.3**	0.1	23.9	27.3	2447.5
Fz_i	-85.1	-35.5	**-13.8**	-31.9	-81.7	1814.6	30.7	40.3	**13.8**	24.5	74.0	2174.3
Mx_i	-125.2	-30.5	0.2	**-80.8**	-32.2	2109.9	-57.7	36.6	-0.3	**71.0**	24.5	2335.0
My_i	-179.8	21.1	-4.5	7.9	**-142.1**	1842.6	126.0	-1.2	4.6	-2.2	**134.3**	2360.6
Mz_i	204.5	4.4	3.5	-0.1	-118.6	**811.1**	-179.0	-2.0	-1.0	-1.1	33.9	**3382.1**
Fx_f	**-432.7**	66.6	7.8	35.7	-120.5	1754.8	**378.6**	118.3	-7.7	8.5	113.1	2027.7
Fy_f	-79.1	**-16.8**	7.1	-6.3	-77.7	1479.0	-71.8	**187.0**	-1.8	43.7	25.5	2147.1
Fz_f	106.2	68.9	**-15.7**	17.8	64.0	1898.0	-160.6	101.9	**15.7**	41.0	-71.3	1695.6
Mx_f	7.5	43.2	-7.0	**-46.5**	56.3	1764.3	-100.8	129.9	1.0	**117.5**	-25.8	2157.5
My_f	-117.4	55.0	-0.9	41.3	**-137.8**	1578.5	243.3	132.4	1.0	3.8	**130.4**	2086.2
Mz_f	192.3	53.1	1.6	23.3	-110.9	**695.4**	-176.0	119.2	-0.1	31.8	32.3	**3097.4**

Member 44

Fx_i	**-426.8**	66.6	-3.6	35.4	-141.2	1766.6	**372.6**	123.3	3.3	-0.9	135.2	2055.2
Fy_i	-81.2	**-29.9**	8.3	-48.3	-114.2	1475.2	-69.4	**196.7**	-1.7	60.5	36.4	2254.6
Fz_i	69.2	70.2	**-18.3**	15.0	85.3	1894.2	-123.6	100.6	**18.0**	30.9	-91.4	1699.5
Mx_i	-151.2	14.1	2.1	**-72.4**	-101.2	1733.6	-46.9	152.3	-0.4	**125.0**	30.5	2234.5
My_i	-182.6	82.9	1.5	39.6	**-149.5**	1634.7	128.8	111.7	-1.6	10.8	**143.2**	2068.4
Mz_i	199.8	49.9	1.3	14.2	-127.6	**694.7**	-177.8	124.2	1.1	34.4	37.5	**3097.9**
Fx_f	**-418.5**	135.5	12.6	71.2	-103.2	1285.4	**364.4**	220.4	-12.9	11.4	95.9	1308.2
Fy_f	-74.8	**35.0**	14.5	7.3	**-64.9**	1141.3	-73.1	**298.1**	-3.7	76.4	26.0	1425.8
Fz_f	103.4	169.7	**-22.6**	55.5	37.6	1331.0	-157.8	167.2	**22.4**	56.6	-44.9	1120.3
Mx_f	-16.2	96.0	-14.7	**-32.3**	24.2	1376.2	-86.9	246.4	4.8	**171.4**	-8.4	1516.1
My_f	-102.8	121.0	4.3	61.0	**-119.4**	1100.7	48.7	218.6	-4.5	12.8	**112.2**	1349.1
Mz_f	192.2	92.8	7.9	38.6	-88.4	**400.2**	-173.2	241.6	-2.7	64.2	24.2	**2258.8**

Member 45

Fx_i	**-407.0**	128.4	4.7	48.1	-147.8	1282.2	**352.9**	216.4	-5.8	34.1	144.6	1213.2
Fy_i	-76.5	**21.5**	6.4	-35.2	-131.1	1139.4	-72.2	**307.6**	-4.3	97.2	45.4	1446.8
Fz_i	61.0	184.6	**-25.2**	63.6	84.9	1374.2	-115.4	152.3	**23.6**	37.5	-87.1	1077.1
Mx_i	-159.9	174.4	8.6	**-72.1**	-87.8	1425.2	-41.7	248.0	-3.5	**181.7**	37.7	1523.0
My_i	-180.0	131.1	6.4	35.5	**-149.4**	1243.5	126.1	220.0	-7.9	37.1	**146.9**	1331.5
Mz_i	205.6	87.1	7.7	21.7	-127.3	**398.8**	-177.8	247.3	-2.0	71.0	39.5	**2259.8**
Fx_f	**-398.8**	231.4	20.9	115.6	-72.8	446.1	**344.6**	317.3	-22.1	46.4	64.3	38.9
Fy_f	-69.7	**85.4**	22.6	21.2	-49.8	627.7	-76.8	**419.2**	-6.4	113.5	22.3	16.3
Fz_f	93.7	288.2	**-30.1**	105.4	3.2	285.0	-148.2	222.2	**28.5**	62.0	-12.7	259.9
Mx_f	-131.1	263.8	4.2	**-34.6**	-22.3	322.3	-75.1	346.0	5.4	**228.6**	-0.2	334.7
My_f	-83.0	216.1	10.1	99.4	**-94.4**	331.3	28.9	327.3	-11.6	45.6	**85.3**	131.9
Mz_f	352.1	297.6	-16.5	44.6	36.1	**-387.9**	-302.1	171.5	15.0	70.0	-42.8	**1062.7**

Member 46

Fx_i	**-369.9**	211.0	7.1	48.9	-166.5	420.8	**315.9**	332.4	-13.2	89.5	175.0	41.7
Fy_i	-42.0	**70.1**	11.6	-26.3	-149.2	623.6	-81.6	**429.2**	-5.0	149.6	69.9	115.0
Fz_i	46.8	311.5	**-34.9**	142.8	94.8	223.0	-103.6	136.7	**28.8**	-7.1	-91.1	388.5
Mx_i	-144.1	235.8	12.6	**-84.4**	-96.4	340.9	-47.8	344.6	-9.5	**243.6**	49.8	286.6
My_i	-161.2	215.2	8.4	62.5	**-168.5**	463.1	106.9	344.1	-14.8	81.4	**176.9**	51.7
Mz_i	326.9	308.1	-19.0	81.4	114.4	**-385.9**	-277.8	154.9	14.3	10.7	-106.6	**1062.7**
Fx_f	**-361.7**	344.8	23.3	143.4	-80.8	-860.7	**307.7**	403.0	-29.4	82.8	61.6	-1586.4
Fy_f	-29.5	**122.3**	29.2	16.8	-33.4	76.0	-87.9	**548.0**	-12.4	166.5	20.7	-1994.2
Fz_f	74.9	446.7	**-40.3**	214.0	-25.9	-1517.8	-131.7	184.0	**34.2**	0.4	2.2	-303.1
Mx_f	-147.9	300.2	18.6	**-54.9**	-24.5	-918.8	-45.4	468.0	-12.5	**294.8**	-4.3	-1483.4
My_f	-45.5	351.0	13.8	148.5	**-97.6**	-964.5	-8.4	413.6	-20.1	83.2	**78.2**	-1541.7
Mz_f	88.6	542.4	-12.9	153.7	12.9	**-2241.6**	-284.9	123.8	29.2	16.9	-32.4	**379.5**

Member 47

Fx_i	**-325.3**	-358.4	-25.0	-138.4	-100.8	-808.0	**297.7**	-397.5	32.3	-77.2	81.6	-1601.2
Fy_i	-160.4	**-552.9**	10.1	-165.4	22.5	-1968.5	191.7	**-123.4**	-18.7	-6.0	-49.0	-7.5
Fz_i	-98.8	-181.1	**-33.5**	3.9	-18.5	-255.9	67.7	-435.0	**40.4**	-199.7	-6.6	-1507.0
Mx_i	-48.7	-473.0	11.5	**-290.3**	-6.1	-1494.8	-110.1	-304.2	-14.9	**53.2**	-19.6	-847.8
My_i	-49.4	-331.0	-21.9	-138.9	**-104.0**	-918.5	21.8	-423.9	29.1	-75.0	**84.8**	-1484.4
Mz_i	86.4	-527.6	11.6	-135.9	18.0	**-2241.9**	-297.6	-143.1	-18.5	-4.3	-50.7	**413.3**
Fx_f	**-317.0**	-245.1	-8.8	-65.4	-159.5	508.5	**289.5**	-326.9	16.1	-83.9	172.9	55.1
Fy_f	-154.3	**-434.1**	7.8	-148.1	64.1	160.0	181.6	**-73.0**	-11.9	23.5	-121.0	510.0
Fz_f	-106.8	-132.3	**-24.3**	15.9	-130.2	475.6	75.6	-321.7	**31.2**	-154.7	136.2	154.2
Mx_f	-15.8	-329.6	17.1	**-242.3**	95.2	219.3	-115.9	-239.9	-8.8	**82.2**	-74.5	458.6
My_f	-141.1	-199.6	-16.6	-51.1	**-175.0**	491.5	113.9	-351.6	23.5	-84.8	**188.5**	16.1
Mz_f	244.0	-303.7	18.5	-81.9	105.2	**-391.5**	-271.4	-181.9	-12.8	-9.5	-88.8	**1116.2**

Member 48

Fx_i	**-347.2**	-259.2	-21.1	-111.2	-84.2	511.4	**319.6**	-312.8	23.6	-44.5	80.1	52.3
Fy_i	-147.7	**-424.4**	5.0	-115.2	25.5	81.1	156.8	**-87.2**	-11.5	-20.3	-57.8	514.4
Fz_i	-129.2	-223.2	**-27.5**	-57.7	-26.2	364.8	101.2	-298.3	**30.2**	-111.5	21.7	197.7
Mx_i	-67.9	-349.9	-4.9	**-221.1**	-1.7	305.4	-100.9	-267.4	-1.6	**30.0**	-14.6	438.1
My_i	-72.2	-231.4	-18.1	-111.7	**-89.7**	278.5	44.6	-339.2	20.7	-42.3	**85.5**	287.7
Mz_i	266.2	-292.0	16.2	-48.6	30.4	**-393.4**	-292.1	-200.0	-13.6	-65.6	-29.7	**1115.8**
Fx_f	**-338.9**	-156.3	-4.9	-43.7	-125.1	1419.8	**311.4**	-212.0	7.4	-32.1	132.5	1259.5
Fy_f	-143.6	**-312.9**	2.9	-98.4	41.9	1533.1	147.4	**-27.6**	-4.4	33.4	-94.9	992.5
Fz_f	-137.2	-152.7	**-18.2**	-31.1	-111.0	1237.2	109.2	-195.3	**21.0**	-71.8	118.8	1281.8
Mx_f	-25.2	-252.7	2.2	**-176.6**	32.8	1485.4	-137.2	-178.3	-4.7	**70.3**	-63.0	1589.4
My_f	-178.2	-141.5	-13.1	-56.3	**-141.1**	1325.6	152.2	-231.4	14.8	-33.7	**148.1**	1272.3
Mz_f	-36.0	-94.4	-6.2	-12.4	-94.6	**446.1**	-66.6	-239.4	3.6	-72.9	39.4	**2357.6**

Member 49

Fx_i	**-348.9**	-163.8	-12.7	-64.7	-110.9	1384.4	**321.3**	-205.3	13.9	-19.9	113.8	1256.5
Fy_i	-140.4	**-303.5**	2.0	-77.9	36.0	1511.0	136.7	**-40.2**	-4.2	-5.2	-84.1	994.0
Fz_i	-153.9	-161.4	**-21.3**	-57.4	-54.8	1271.1	126.0	-186.6	**22.7**	-56.0	57.3	1247.8
Mx_i	-68.1	-251.1	-4.6	**-164.3**	-6.1	1481.8	-104.6	-83.3	1.0	**21.7**	-34.8	1387.0
My_i	-75.1	-134.8	-12.4	-65.8	**-111.5**	1065.7	47.5	-233.3	13.7	-18.8	**114.2**	1613.3
Mz_i	-43.2	-100.2	-6.0	-29.7	-72.2	**447.3**	-64.0	-233.7	3.0	-66.0	29.1	**2356.7**
Fx_f	**-340.7**	-94.9	3.5	-28.9	-114.0	1940.0	**313.0**	-108.2	-2.3	-7.6	122.6	1988.3
Fy_f	-137.4	**-202.4**	0.0	-61.6	38.2	2364.3	131.2	**23.8**	1.9	48.3	-86.5	1330.9
Fz_f	-161.8	-94.5	**-12.0**	-30.8	-111.4	1873.4	133.8	-87.4	**13.4**	-16.4	120.3	1837.9
Mx_f	-21.6	-156.8	-0.9	**-120.6**	25.8	2180.6	-152.8	-12.6	1.2	**67.5**	-73.2	1833.3
My_f	-196.4	-83.4	-7.1	-39.0	**-135.3**	1838.9	166.9	-98.6	9.1	-16.6	**144.0**	1870.4
Mz_f	-35.0	-42.6	0.6	-5.2	-87.7	**724.4**	-67.8	-116.2	0.7	-36.0	39.0	**3156.6**

Member 50

Fx_i	**-343.6**	-96.3	-7.8	-36.6	-122.7	1901.0	**315.8**	-101.2	8.6	-10.6	130.6	1935.4
Fy_i	-137.8	**-193.2**	2.2	-45.2	35.0	2249.8	132.1	**11.6**	-5.3	9.0	-75.8	1336.5
Fz_i	-150.9	-93.0	**-14.8**	-32.3	-56.0	1876.9	123.0	-89.0	**15.8**	-27.6	63.6	1634.4
Mx_i	-72.4	-134.8	-0.6	**-111.9**	-22.8	2124.5	-10.2	-41.4	5.6	**34.6**	66.7	1816.6
My_i	-66.1	-64.8	-5.2	-32.0	**-124.9**	1492.8	38.5	-137.3	6.2	-14.6	**132.5**	2469.2

Mz,	-34.9	-45.8	0.5	-14.6	-88.2	**724.9**	-67.7	-111.2	0.6	-33.6	38.4	**3156.1**
Fx,	**-335.3**	-27.4	8.4	-0.8	-103.7	2152.8	**307.5**	-4.1	-7.6	1.7	115.5	2198.7
Fy,	-135.4	**-98.0**	0.2	-25.1	37.5	2581.7	126.5	**79.9**	0.8	59.1	-83.4	1449.6
Fz,	5.8	-30.3	**-12.3**	-27.6	76.8	2341.4	-33.7	14.3	**13.3**	34.0	-64.7	1815.1
Mx,	-24.5	-41.6	-0.7	**-68.7**	20.3	2284.9	-125.0	24.0	1.8	**80.2**	-8.0	2400.9
My,	-205.1	-19.9	-2.1	2.6	**-122.2**	2080.5	55.6	6.0	3.1	4.9	**134.4**	2243.8
Mz,	-27.4	-2.9	6.6	10.4	-72.8	**808.1**	-75.3	-10.7	-1.3	-2.9	36.7	**3454.6**

Member 51

Fx,	**-330.8**	-23.6	-3.0	9.5	-126.6	2102.6	**302.7**	-9.7	3.2	-20.1	140.1	2197.8
Fy,	-181.1	**-98.3**	2.0	-25.3	-14.2	2289.3	60.5	**80.1**	-1.6	22.7	30.5	2437.9
Fz,	-5.3	-23.0	**-15.0**	-6.3	85.2	2407.3	28.8	4.8	**15.9**	-0.6	-73.0	1746.7
Mx,	-60.4	-45.8	1.8	**-79.1**	-19.0	2016.9	-89.5	27.2	-1.2	**70.1**	31.2	2643.2
My,	-27.6	7.2	1.2	11.7	**-132.7**	1527.8	51.4	-13.8	-0.3	-5.8	**144.8**	2882.3
Mz,	-20.5	-5.3	6.6	3.8	-93.5	**807.9**	-77.2	-6.2	-1.4	-2.3	42.8	**3454.6**
Fx,	**-322.5**	45.3	13.2	45.2	-86.0	2027.3	**294.4**	118.2	-13.0	6.1	100.5	1975.6
Fy,	-250.1	**-24.8**	11.9	-3.4	-42.5	1936.5	58.1	**176.2**	-3.5	42.4	21.8	2181.7
Fz,	12.8	45.9	**-19.1**	1.5	53.1	2385.4	10.7	101.8	**20.0**	57.8	-37.1	1477.1
Mx,	131.8	31.6	-10.5	**-49.5**	51.8	1382.4	-135.1	121.3	2.9	**118.7**	-8.4	2542.3
My,	-185.0	49.4	4.5	43.8	**-102.4**	2106.8	208.2	101.8	-3.7	17.0	**118.4**	1718.4
Mz,	8.1	41.1	13.4	26.8	-53.8	**702.6**	-55.5	116.4	-3.5	30.5	33.3	**3221.8**

Member 52

Fx,	**-310.4**	42.8	2.5	40.9	-124.6	2086.0	**282.2**	110.8	-2.0	7.7	141.9	1731.2
Fy,	-242.0	**-36.4**	12.7	-40.9	-87.8	1935.2	54.1	**185.5**	-4.0	59.2	36.6	2234.5
Fz,	-26.8	66.2	**-21.5**	19.8	88.5	2500.1	50.2	81.6	**21.9**	26.8	-71.2	1362.4
Mx,	33.9	16.0	1.5	**-65.0**	-31.2	1341.0	-130.0	131.6	3.2	**120.0**	-15.0	2612.0
My,	-9.0	72.3	6.7	51.6	**-132.3**	1291.3	32.5	89.8	-6.1	-9.4	**149.5**	2741.1
Mz,	22.3	38.1	13.3	18.6	-97.5	**701.9**	-59.9	121.0	-3.7	32.0	47.2	**3222.3**
Fx,	**-302.1**	111.7	18.7	76.6	-59.4	1712.0	**273.9**	207.9	-18.2	38.2	78.8	1040.6
Fy,	-236.5	**28.2**	18.8	14.7	-19.5	1638.1	51.4	**287.4**	-5.9	75.1	17.1	1447.1
Fz,	-10.0	165.6	**-26.2**	60.0	24.6	2007.4	33.4	148.2	**26.7**	52.9	-5.3	816.5
Mx,	114.9	89.4	-17.7	**-38.1**	11.9	886.0	-134.4	232.4	5.0	**170.6**	4.4	2048.8
My,	-181.7	120.9	10.3	78.5	**-75.7**	1747.0	204.9	196.3	-9.9	36.3	**95.0**	1024.2
Mz,	30.6	81.0	19.5	43.3	-23.6	**407.5**	-65.1	238.5	-5.8	61.9	26.1	**2431.8**

Member 53

Fx,	**-284.2**	108.1	10.0	65.5	-121.4	1714.2	**256.0**	211.5	-11.0	39.2	146.2	1038.4
Fy,	-228.4	**17.2**	20.5	-20.1	-97.6	1635.9	49.4	**296.4**	-6.9	94.4	45.5	1471.4
Fz	-56.8	182.7	**-28.5**	77.4	84.7	2041.1	76.1	126.6	**27.6**	16.2	-64.0	762.1
Mx,	-8.4	208.3	-4.3	**-52.1**	43.2	1513.9	-129.0	220.9	4.3	**170.0**	-8.9	2024.0
My,	18.6	135.0	12.6	82.3	**-124.2**	789.3	6.4	183.9	-12.8	32.8	**148.9**	2001.2
Mz,	52.1	76.3	19.3	29.6	-87.1	**406.2**	-71.8	243.5	-6.6	66.6	49.5	**2432.7**
Fx,	**-275.9**	211.0	26.2	133.1	-22.3	969.8	**247.7**	282.1	-27.2	37.9	42.8	-45.8
Fy,	-222.7	**80.6**	26.6	36.1	5.7	1154.8	45.6	**408.5**	-8.9	111.0	11.5	82.1
Fz,	-42.2	286.2	**-33.9**	118.6	-14.5	1013.3	61.5	196.7	**32.9**	41.2	30.8	7.4
Mx,	19.4	272.5	-19.0	**-27.5**	12.6	187.0	-135.1	331.1	5.9	**225.4**	13.3	966.7
My,	-96.1	241.4	-28.1	104.7	**-56.2**	1045.4	119.5	247.0	27.1	63.3	**76.7**	-33.2
Mz,	144.9	283.3	-22.5	49.8	0.7	**-227.5**	-124.9	177.2	21.2	83.7	15.7	**1267.9**

Member 54

Fx,	**-243.8**	202.3	12.6	104.0	-121.3	968.0	**215.6**	292.8	-19.1	65.9	162.2	-38.5
Fy	-191.8	**69.6**	26.4	2.2	-95.2	1151.4	39.1	**416.2**	-12.5	128.5	61.2	82.0
Fz,	-83.3	303.0	**-38.7**	138.5	92.9	986.0	104.4	126.5	**33.2**	4.7	-58.1	51.7
Mx,	-23.5	239.0	17.8	**-45.6**	-43.4	205.7	-123.2	332.5	-10.8	**222.8**	51.1	979.0
My,	56.9	193.6	14.6	85.2	**-123.8**	-7.9	-33.7	297.2	-21.1	79.4	**164.8**	961.1
Mz,	119.0	291.6	-24.9	72.4	87.6	**-226.2**	-99.5	163.4	20.2	40.4	-56.5	**1268.0**
Fx,	**-235.5**	305.3	28.8	166.1	-10.5	-200.6	**207.4**	363.3	-35.3	59.2	22.3	-1488.3
Fy,	-179.0	**121.3**	34.2	44.2	48.2	615.8	32.8	**535.3**	-14.9	145.9	-1.8	-1973.8
Fz,	-74.1	437.8	**-44.7**	208.3	-50.0	-661.8	95.2	174.3	**39.2**	13.6	59.7	-648.9
Mx,	-10.9	316.5	12.3	**-24.7**	46.4	-1159.3	-141.1	432.0	-1.4	**284.3**	-6.8	-619.1
My,	-124.4	382.6	-37.0	187.3	**-109.7**	-374.7	147.7	308.1	30.4	56.2	**121.4**	-1272.0
Mz,	152.7	485.1	-38.3	119.6	-16.7	**-2023.1**	-128.0	132.9	34.6	43.9	35.9	**622.0**

Member 55

Fx,	**-196.9**	-259.8	-12.9	-125.8	-53.3	-159.3	**190.7**	-269.4	21.8	-97.0	63.2	-1491.4
Fy,	98.2	**-420.2**	23.1	-124.8	-8.2	-1963.3	-104.6	**-45.5**	-18.0	-29.9	24.3	648.7
Fz,	89.9	-162.9	**-27.4**	-30.1	43.9	-848.8	-90.0	-277.6	**34.9**	-150.6	-34.5	-555.2
Mx,	-93.1	-324.6	10.6	**-214.8**	7.5	-691.0	81.4	-182.7	-12.5	**-5.4**	15.6	-1056.2
My,	-124.6	-264.2	20.4	-130.2	**-93.5**	-380.8	125.8	-244.8	-11.5	-77.0	**103.3**	-1304.1
Mz,	108.7	-386.3	17.4	-108.0	19.3	**-2052.2**	-113.6	-45.6	-12.6	-26.8	-0.7	**649.7**
Fx,	**-190.1**	-155.3	2.2	-53.6	-59.6	569.3	**184.0**	-211.9	6.7	-102.4	102.1	-587.4
Fy,	105.9	**-328.1**	17.5	-113.2	68.0	-679.0	-113.3	**-4.6**	-12.0	-7.3	-34.1	797.7
Fz,	97.8	-123.1	**-19.6**	-20.6	-26.5	-346.1	-97.8	-183.4	**27.1**	-111.6	63.4	301.1
Mx,	-84.4	-223.5	13.4	**-175.5**	62.0	362.5	-26.0	-118.5	-3.2	**15.5**	-20.5	-283.1
My,	55.8	-204.6	-6.2	-38.0	**-72.0**	-275.1	-54.6	-164.9	15.1	-118.0	**114.5**	228.2
Mz,	24.3	-191.0	7.4	-66.8	38.4	**-946.8**	-153.4	-102.9	-8.2	-40.2	-16.4	**944.2**

Member 56

Fx,	**-201.8**	-166.2	-8.5	-88.6	-39.9	569.0	**195.7**	-201.9	10.3	-73.5	58.5	-587.2
Fy,	111.6	**-318.4**	11.9	-84.1	10.1	-682.9	-118.9	**-13.4**	-10.9	-36.0	8.5	799.9
Fz,	103.1	-196.4	**-21.9**	-75.4	45.7	-471.2	-101.8	-160.1	**23.7**	-76.7	-27.1	364.5
Mx,	-102.4	-210.9	-4.4	**-162.1**	21.0	344.5	-24.8	-138.5	0.2	**-12.2**	-4.7	-309.9
My,	-122.6	-155.3	20.2	-76.6	**-49.0**	429.7	123.8	-201.2	-18.4	-75.5	**67.6**	-536.4
Mz,	27.3	-187.8	3.6	-57.6	14.8	**-946.7**	-163.3	-115.1	-9.7	-78.4	8.6	**943.3**
Fx,	**-195.1**	-61.7	6.5	-12.0	-38.6	944.6	**188.9**	-144.4	-4.7	-74.5	63.7	69.4
Fy,	119.0	**-229.7**	6.6	-72.2	44.7	175.5	-129.0	**37.6**	-4.7	7.2	-23.2	932.1
Fz,	128.9	-139.9	**-15.8**	-53.8	5.8	125.7	-127.6	-75.3	**17.7**	-44.3	19.4	815.9
Mx,	-83.9	-125.3	3.1	**-122.1**	40.1	894.0	83.3	-59.0	-1.8	**24.4**	-17.7	278.6
My,	53.9	-114.5	-3.2	1.8	**-49.3**	287.1	-52.6	-93.9	4.9	-88.3	**74.5**	706.4
Mz,	13.8	-121.7	-1.8	-38.9	7.1	**-365.9**	-134.1	-101.0	3.3	-52.3	19.4	**1418.9**

Member 57

Fx,	**-193.6**	-71.2	-5.0	-44.6	-42.8	944.2	**187.5**	-135.8	2.6	-49.2	64.2	69.8
Fy,	123.0	**-219.9**	4.4	-44.3	26.1	170.5	-133.1	**27.7**	-5.0	-23.2	-12.0	932.4
Fz,	102.0	-153.2	**-18.1**	-73.6	32.8	80.6	-99.7	-59.8	**16.0**	-26.9	-11.2	817.1
Mx,	-109.7	-115.1	-6.0	**-115.4**	18.4	816.5	119.1	-82.4	8.1	**3.9**	10.9	318.9
My,	-154.4	-45.5	4.2	-38.2	**-53.7**	801.8	155.7	-168.8	-6.5	-62.1	**75.1**	139.8
Mz,	10.7	-123.6	-3.3	-45.5	10.8	**-365.7**	-131.4	-96.1	0.8	-41.7	12.2	**1418.6**
Fx,	**-186.9**	9.6	10.1	10.4	-36.9	1035.6	**180.8**	-81.3	-12.4	-50.3	49.6	489.2
Fy,	130.5	**-137.7**	-0.9	-34.2	33.1	630.1	-139.4	**84.4**	-0.4	23.0	-21.2	984.4
Fz,	126.1	-97.6	**-14.5**	-42.7	0.3	523.8	-123.7	19.9	**12.4**	-3.7	13.7	906.6
Mx,	-87.1	-30.9	-4.4	**-79.7**	27.2	997.3	88.9	-11.0	2.2	**42.1**	-13.6	611.2
My,	61.4	-65.8	1.7	2.7	**-41.4**	726.3	-60.1	-11.9	-3.7	-37.9	**54.7**	726.1
Mz,	-6.0	-60.1	-1.6	-16.4	-12.3	**-23.5**	-126.7	0.9	-0.6	-16.7	12.8	**1587.3**

Member 58

Fx,	**-178.1**	2.0	7.1	-15.6	-55.3	1036.0	**172.0**	-74.4	-14.6	-31.4	81.4	488.9
Fy,	128.7	**-130.6**	-1.4	-16.0	32.6	542.4	-138.0	**73.0**	-1.5	-11.7	-18.8	988.7
Fz,	114.9	-93.4	**-16.8**	-42.1	37.9	628.8	-113.8	13.6	**10.2**	-11.1	-13.7	817.8
Mx,	-131.1	-1.1	-4.7	**-95.1**	-9.6	924.7	133.3	-63.8	-3.2	**38.3**	37.4	696.9
My,	-154.2	24.5	9.4	-18.0	**-59.0**	805.0	155.8	-104.1	-15.9	-37.2	**83.6**	637.0
Mz,	-7.5	-65.1	-2.3	-32.2	-8.8	**-23.5**	-125.6	6.3	-4.1	-5.1	20.4	**1587.3**
Fx,	**-171.4**	84.7	12.2	33.6	-20.0	855.5	**165.2**	-21.8	-19.7	-26.5	18.6	686.8
Fy,	136.6	**-53.7**	-6.2	-3.4	19.5	569.9	-144.3	**135.5**	2.7	33.1	-15.9	858.2
Fz,	159.1	-15.4	**-24.3**	7.9	18.9	912.7	-158.0	70.9	**17.6**	-7.1	-19.1	578.4
Mx,	-99.4	57.8	-9.0	**-58.7**	10.2	729.7	-2.1	31.2	-4.7	**69.7**	-4.6	716.0

My,	78.4	1.2	8.8	15.4	**-32.5**	950.8	-78.9	48.6	-14.3	-18.0	**32.5**	463.5
Mz,	-130.2	16.0	2.6	-19.7	-12.1	**58.1**	132.0	61.1	-7.6	21.3	15.7	**1450.4**

Member 59

Fx,	**-158.3**	79.2	6.9	12.4	-43.8	856.0	**152.1**	-16.6	-25.4	-11.0	85.9	686.3
Fy,	98.1	**-57.9**	-3.8	-60.8	-9.6	460.3	-104.3	**136.9**	-13.4	51.3	49.3	1202.1
Fz,	146.0	-3.8	**-32.7**	36.0	96.2	949.6	-144.0	64.5	**16.7**	-41.0	-58.2	464.8
Mx,	-134.8	51.0	-1.5	**-86.5**	-14.9	627.6	137.7	26.6	-17.8	**88.1**	60.4	958.1
My,	-145.6	69.2	16.1	-37.9	**-58.5**	497.5	147.4	-7.6	-32.2	33.6	**96.5**	923.2
Mz,	-127.4	9.6	2.8	-38.7	-21.7	**57.6**	129.1	70.8	-14.1	46.7	50.6	**1450.7**
Fx,	**-159.4**	153.9	12.0	35.6	-9.2	402.2	**153.3**	50.0	-30.5	19.7	-16.6	651.6
Fy,	106.3	**-9.3**	3.2	-39.5	-9.5	371.4	-122.4	**224.7**	-15.9	65.5	-19.0	714.0
Fz,	152.8	80.1	**-37.7**	68.2	-32.9	788.0	-150.8	104.3	**21.7**	-26.7	12.2	176.9
Mx,	-141.7	100.4	5.5	**-54.6**	-8.1	273.8	13.0	128.3	-21.5	**119.1**	-24.1	623.1
My,	12.0	131.0	-28.8	100.8	**-38.3**	690.7	-5.4	80.5	6.0	-13.1	**21.5**	350.0
Mz,	-137.9	48.6	7.9	-18.6	-2.3	**-27.8**	132.0	156.5	-19.9	58.4	-11.7	**1039.9**

Member 60

Fx,	**-139.1**	168.9	-16.8	30.9	0.5	476.0	**133.1**	40.3	-20.3	48.6	69.5	494.5
Fy,	115.0	**-21.8**	-2.7	-79.5	-20.7	366.7	-125.0	**233.0**	-33.4	88.9	73.8	714.5
Fz,	131.0	107.9	**-64.0**	103.4	111.3	831.3	-129.7	97.2	**25.3**	-43.2	-38.1	182.4
Mx,	-131.5	86.7	1.6	**-91.5**	-29.7	268.2	133.1	114.7	-46.3	**135.5**	114.3	781.6
My,	-133.5	95.3	15.5	-54.5	**-57.4**	175.6	135.1	89.3	-54.2	93.9	**130.6**	788.8
Mz	-128.4	39.4	8.6	-46.2	-41.7	**-28.7**	122.4	168.7	-37.4	92.7	96.8	**1040.5**
Fx,	**-145.8**	230.0	-1.7	54.1	-16.9	-233.6	**139.8**	95.9	-35.4	53.4	-49.1	223.3
Fy,	121.6	**23.4**	23.7	-26.0	34.1	228.3	-129.4	**328.0**	-42.7	106.1	-74.1	-231.6
Fz,	141.6	204.0	**-69.2**	157.7	-112.3	227.4	-140.2	135.0	**30.5**	-40.2	43.6	-225.0
Mx,	-138.8	137.0	29.6	**-42.5**	43.4	-225.1	12.2	231.6	-62.4	**168.8**	-108.1	13.1
My,	141.3	204.7	-69.2	158.4	**-112.5**	227.4	-139.9	134.0	30.5	-41.0	**43.7**	-224.9
Mz,	-129.0	294.3	-31.3	53.9	-48.0	**-239.4**	123.3	25.1	17.9	-16.3	25.2	**228.4**

Member 121

Fx,	**-2.0**	-0.0	-56.5	-0.0	8.4	-0.0	**0.3**	0.0	169.7	0.0	-481.4	0.1
Fy,	-0.9	**-0.0**	-219.5	0.6	585.4	-0.1	-0.8	**0.0**	219.5	-0.6	-727.1	0.1
Fz,	-1.0	-0.0	**-222.5**	0.2	584.3	-0.1	-1.0	0.0	**222.5**	-0.2	-746.1	0.1
Mx,	-0.5	-0.0	-57.7	**-1.2**	130.2	-0.0	-0.5	0.0	57.7	**1.2**	-215.8	0.0
My,	-1.2	0.0	219.0	0.1	**-755.1**	0.1	-0.3	-0.0	-213.3	-0.2	**618.7**	-0.1
Mz,	-0.9	-0.0	-219.5	0.6	589.7	**-0.1**	-0.9	0.0	219.5	-0.6	-731.4	**0.1**
Fx,	**-2.0**	-0.0	-56.5	-0.0	-45.3	-0.0	**0.3**	0.0	169.7	0.0	-320.1	0.0
Fy,	-0.9	**-0.0**	-219.5	0.6	376.9	-0.1	-0.8	**0.0**	219.5	-0.6	-518.6	0.1
Fz,	-1.0	-0.0	**-222.5**	0.2	372.9	-0.1	-1.0	0.0	**222.5**	-0.2	-534.8	0.1
Mx,	-0.5	-0.0	-57.7	**-1.2**	75.4	-0.0	-0.5	0.0	57.7	**1.2**	-161.1	0.0
My,	-1.3	0.0	215.7	0.1	**-548.5**	0.1	-0.0	-0.0	-205.7	0.1	**418.8**	-0.0
Mz,	-0.9	-0.0	-219.5	0.6	381.2	**-0.1**	-0.9	0.0	219.5	-0.6	-522.9	**0.1**

Member 122

Fx,	**-5.0**	-0.3	-8.8	-0.0	26.1	2.2	**2.8**	1.2	47.3	0.0	-135.0	3.2
Fy,	-1.5	**-6.1**	-23.7	1.8	75.7	-16.4	-1.5	**6.1**	23.7	-1.8	-66.5	20.2
Fz,	-1.5	-2.8	**-63.9**	0.3	194.5	-6.8	-1.0	2.8	**63.9**	-0.3	-186.9	10.1
Mx,	-0.8	3.6	-12.4	**-2.0**	39.3	11.8	-0.8	-3.6	12.4	**2.0**	-34.9	-9.8
My,	-0.8	2.1	63.4	-0.4	**-191.1**	7.0	-1.0	-2.7	-63.6	0.3	**196.9**	-6.4
Mz,	-1.0	-6.1	-53.0	1.3	162.2	**-16.9**	-1.5	6.1	23.5	-1.8	-65.7	**20.2**
Fx,	**-5.0**	-0.3	-8.8	-0.0	17.8	2.4	**2.8**	1.2	47.3	0.0	-90.0	2.1
Fy,	-1.5	**-6.1**	-23.7	1.8	53.2	-10.6	-1.5	**6.1**	23.7	-1.8	-44.0	14.4
Fz,	-1.5	-2.8	**-63.9**	0.3	133.8	-4.1	-1.0	2.8	**63.9**	-0.3	-126.2	7.4
Mx,	-0.8	3.6	-12.4	**-2.0**	27.6	8.4	-0.8	-3.6	12.4	**2.0**	-23.1	-6.4
My,	-0.8	2.6	63.3	-0.6	**-131.0**	5.9	-1.0	-2.7	-63.6	0.3	**136.6**	-3.8
Mz,	-1.0	-6.1	-53.0	1.3	111.7	**-11.1**	-1.5	6.1	23.5	-1.8	-43.5	**14.4**

Member 123

Fx,	**-4.8**	-1.9	-39.5	-0.0	117.2	-1.5	**3.7**	1.9	39.6	0.0	-115.1	5.2
Fy,	-0.7	**-10.1**	-22.0	1.1	67.7	-27.2	-0.7	**10.1**	22.0	-1.1	-64.3	33.3
Fz,	-0.5	-3.5	**-58.2**	0.3	175.3	-8.2	-0.4	3.5	**58.2**	-0.3	-173.8	12.6
Mx,	-0.4	6.2	-10.7	**-1.2**	32.8	20.4	-0.4	-6.2	10.7	**1.2**	-31.5	-17.1
My,	-1.8	2.6	57.3	-0.2	**-175.1**	9.3	0.8	-4.8	-57.3	0.3	**177.0**	-11.7
Mz,	-0.7	-10.1	-44.7	1.0	135.6	**-27.5**	-0.7	10.1	22.0	-1.1	-64.3	**33.3**
Fx,	**-4.8**	**-1.9**	-39.5	-0.0	79.7	0.4	**3.7**	1.9	39.6	0.0	-77.4	3.3
Fy,	-0.7	**-10.1**	-22.0	1.1	46.8	-17.6	-0.7	**10.1**	22.0	-1.1	-43.4	23.7
Fz,	-0.5	-3.5	**-58.2**	0.3	120.0	-4.9	-0.4	3.5	**58.2**	-0.3	-118.5	9.2
Mx,	-0.4	6.2	-10.7	**-1.2**	22.7	14.4	-0.4	-6.2	10.7	**1.2**	-21.3	-11.2
My,	-1.8	2.6	57.3	-0.2	**-120.7**	6.9	0.8	-4.8	-57.3	0.3	**122.5**	-7.2
Mz,	-0.5	-9.9	-47.6	0.7	99.0	**-18.0**	-0.7	10.1	21.8	-1.1	-42.9	**23.7**

Member 124

Fx,	**-3.7**	-0.4	-16.2	0.0	47.1	3.6	**2.8**	0.4	16.3	-0.0	-48.8	0.4
Fy,	-0.6	**-12.0**	-40.5	0.2	120.8	-32.8	-0.6	**12.0**	40.5	-0.2	-122.3	39.1
Fz,	-0.6	-5.3	**-53.0**	0.3	157.8	-13.2	-0.5	5.3	**53.0**	-0.3	-160.2	18.5
Mx,	-0.4	4.3	17.3	**-0.5**	-52.9	14.7	-0.4	-4.3	-17.3	**0.5**	51.2	-11.0
My,	-1.5	5.3	52.9	-0.3	**-162.8**	18.7	0.3	-6.3	-52.9	0.3	**160.5**	-16.1
Mz,	-0.6	-12.0	-40.5	0.2	120.8	**-32.8**	-0.6	11.9	20.5	-0.2	-62.4	**39.2**
Fx,	**-3.7**	-0.4	-16.2	0.0	31.8	4.0	**2.8**	0.4	16.3	-0.0	-33.3	0.0
Fy,	-0.6	**-12.0**	-40.5	0.2	82.3	-21.4	-0.6	**12.0**	40.5	-0.2	-83.8	27.7
Fz,	-0.6	-5.3	**-53.0**	0.3	107.4	-8.1	-0.5	5.3	**53.0**	-0.3	-109.8	13.4
Mx,	-0.4	4.3	17.3	**-0.5**	-36.4	10.6	-0.4	-4.3	-17.3	**0.5**	34.7	-6.9
My,	-1.7	5.5	52.5	-0.3	**-112.6**	14.0	0.5	-6.3	-52.5	0.3	**110.4**	-10.1
Mz,	-0.6	-12.0	-40.5	0.2	82.3	**-21.4**	-0.6	11.9	20.5	-0.2	-42.9	**27.9**

Member 125

Fx,	**-5.7**	2.8	31.9	-0.0	-96.7	13.0	**3.7**	-2.8	-31.8	0.0	88.9	-9.2
Fy,	-1.0	**-11.8**	-36.5	-0.7	105.6	-32.5	-1.0	**11.8**	36.2	0.7	-112.1	38.3
Fz,	-1.0	-6.6	**-48.3**	0.1	140.8	-17.2	-1.2	6.6	**48.3**	-0.1	-149.4	22.4
Mx,	-0.8	-5.8	8.4	**-1.0**	-28.1	-15.8	-0.8	5.8	-8.4	**1.0**	22.1	19.3
My,	-2.0	7.1	47.8	-0.1	**-151.0**	24.2	-0.3	-7.6	-47.8	-0.0	**142.4**	-20.6
Mz,	-1.0	-11.8	-36.5	-0.7	105.6	**-32.5**	-1.0	11.8	36.2	0.7	-112.1	**38.3**
Fx,	**-5.7**	2.8	31.9	-0.0	-66.4	10.3	**3.7**	-2.8	-31.8	0.0	58.7	-6.5
Fy,	-1.0	**-11.8**	-36.5	-0.7	71.0	-21.3	-1.0	**11.8**	36.2	0.7	-77.8	27.1
Fz,	-1.0	-6.6	**-48.3**	0.1	95.0	-10.9	-1.2	6.6	**48.3**	-0.1	-103.6	16.1
Mx,	-0.8	-5.8	8.4	**-1.0**	-20.2	-10.3	-0.8	5.8	-8.4	**1.0**	14.1	13.7
My,	-2.0	7.1	47.8	-0.1	**-105.6**	17.4	-0.2	-7.0	-47.6	0.1	**97.1**	-12.4
Mz,	-1.0	-11.8	-36.2	-0.7	70.6	**-21.3**	-1.1	11.8	36.4	0.7	-78.5	**27.1**

Member 126

Fx,	**-9.1**	3.0	36.2	-0.0	-131.2	12.3	**4.4**	-3.0	-36.1	0.0	111.9	-9.4
Fy,	-2.8	**-9.2**	-42.4	-1.6	115.8	-25.7	-2.8	**9.2**	42.4	1.6	-138.6	29.8
Fz,	-2.3	-7.0	**-52.6**	-0.4	148.2	-19.0	-3.2	7.0	**52.6**	0.4	-170.7	23.0
Mx,	-2.0	-4.4	8.3	**-2.1**	-33.0	-11.9	-2.0	4.4	-8.3	**2.1**	16.7	14.4
My,	-3.9	6.5	52.3	0.3	**-172.7**	21.7	-0.8	-4.8	-52.2	-0.1	**153.5**	-13.6
Mz,	-2.8	-9.2	-42.4	-1.6	115.8	**-25.7**	-2.8	9.2	42.4	1.6	-138.6	**29.8**
Fx,	**-9.1**	3.0	36.2	-0.0	-96.8	9.5	**4.4**	-3.0	-36.1	0.0	77.6	-6.5
Fy,	-2.8	**-9.2**	-42.4	-1.6	75.5	-16.9	-2.8	**9.2**	42.4	1.6	-98.4	21.0
Fz,	-2.3	-7.0	**-52.6**	-0.4	98.3	-12.3	-3.2	7.0	**52.6**	0.4	-120.8	16.3
Mx,	-2.0	-4.4	8.3	**-2.1**	-25.1	-7.7	-2.0	4.4	-8.3	**2.1**	8.8	10.3
My,	-4.1	6.3	52.0	0.2	**-123.2**	15.2	-0.8	-4.8	-52.2	-0.1	**103.8**	-9.0
Mz,	-2.8	-9.2	-42.4	-1.6	75.5	**-16.9**	-2.9	9.2	42.4	1.6	-98.3	**21.0**

Member 127

Fx,	**-17.6**	0.9	6.6	0.1	-24.0	4.0	**5.5**	-2.9	-24.4	-0.3	72.2	-8.9

Fy_i	-5.7	**-5.1**	-29.8	-0.5	88.4	-14.9	-5.7	**5.1**	29.8	0.5	-90.5	15.7
Fz_i	-5.7	-4.0	**-33.7**	-1.9	99.3	-11.7	-4.5	4.0	**33.7**	1.9	-101.2	12.4
Mx_i	-4.5	-1.3	-9.4	**-4.0**	27.4	-3.5	-4.5	1.3	9.4	**4.0**	-29.0	4.1
My_i	-6.5	4.1	33.5	1.5	**-103.9**	12.7	-4.2	-4.0	-33.5	-1.8	**101.9**	-11.6
Mz_i	-5.5	-5.1	-29.8	-0.5	88.5	**-14.9**	-5.9	5.1	29.8	0.4	-90.7	**15.7**
Fx_f	**-17.6**	0.9	6.6	0.1	-17.7	3.1	**5.5**	-2.9	-24.4	-0.3	49.0	-6.1
Fy_f	-5.7	**-5.1**	-29.8	-0.5	60.1	-10.0	-5.7	**5.1**	29.8	0.5	-62.2	10.8
Fz_f	-5.7	-4.0	**-33.7**	-1.9	67.3	-7.8	-4.5	4.0	**33.7**	1.9	-69.2	8.6
Mx_f	-4.5	-1.3	-9.4	**-4.0**	18.4	-2.3	-4.5	1.3	9.4	**4.0**	-20.1	2.9
My_f	-7.3	4.4	33.5	1.6	**-72.0**	9.5	-4.2	-4.0	-33.5	-1.8	**70.1**	-7.9
Mz_f	-5.5	-5.1	-29.8	-0.5	60.2	**-10.1**	-6.2	5.1	29.7	0.2	-62.0	**10.9**

Member 128

Fx_i	**-9.5**	-0.7	-5.7	-0.1	34.5	4.0	**5.5**	0.7	6.1	0.1	-21.1	1.4
Fy_i	-1.8	**-11.2**	-28.7	1.7	93.1	-30.0	-1.9	**11.2**	28.7	-1.7	-79.5	37.1
Fz_i	-2.0	-1.1	**-34.1**	-3.2	109.8	-0.6	-1.9	1.1	**34.1**	3.2	-95.4	5.9
Mx_i	-1.7	4.6	-7.8	**-4.9**	29.5	16.5	-1.7	-4.6	7.8	**4.9**	-17.1	-11.3
My_i	0.2	3.9	32.7	0.6	**-98.8**	11.1	-4.0	-2.6	-33.1	-1.4	**114.0**	-1.6
Mz_i	-1.7	-11.1	-28.5	1.9	92.3	**-30.1**	-2.5	11.1	20.5	-2.6	-53.0	**37.6**
Fx_f	**-9.5**	-0.7	-5.7	-0.1	29.1	4.7	**5.5**	0.7	6.1	0.1	-15.3	0.7
Fy_f	-1.8	**-11.2**	-28.7	1.7	65.8	-19.3	-1.9	**11.2**	28.7	-1.7	-52.2	26.4
Fz_f	-2.0	-1.1	**-34.1**	-3.2	77.4	0.5	-1.9	1.1	**34.1**	3.2	-63.0	4.9
Mx_f	-1.7	4.6	-7.8	**-4.9**	22.1	12.1	-1.7	-4.6	7.8	**4.9**	-9.7	-6.9
My_f	-0.4	3.8	31.7	0.6	**-68.2**	7.4	-3.6	-2.7	-31.9	-0.7	**83.2**	0.8
Mz_f	-1.7	-11.1	-28.5	1.9	65.0	**-19.5**	-2.5	11.1	20.5	-2.6	-33.4	**27.1**

Member 129

Fx_i	**-6.6**	3.2	19.4	0.5	-57.2	19.3	**5.6**	-3.2	-19.2	-0.6	60.5	-11.0
Fy_i	-0.7	**-16.3**	-20.1	2.2	62.2	-42.2	-0.7	**16.3**	20.1	-2.2	-58.4	55.7
Fz_i	-0.2	1.6	**-31.3**	-1.6	96.2	8.7	-0.5	-1.6	**31.3**	1.6	-93.4	-1.3
Mx_i	-0.4	10.3	-6.2	**-3.9**	20.1	35.0	-0.4	-10.3	6.2	**3.9**	-16.9	-26.9
My_i	-1.0	-1.8	30.7	1.7	**-93.7**	-2.6	-0.0	3.5	-30.5	-1.3	**96.7**	16.8
Mz_i	-0.5	-16.3	-20.1	2.2	62.7	**-42.3**	-0.8	16.2	9.3	-2.8	-25.9	**56.4**
Fx_f	**-6.6**	3.2	19.4	0.5	-38.8	16.2	**5.6**	-3.2	-19.2	-0.6	42.3	-8.0
Fy_f	-0.7	**-16.3**	-20.1	2.2	43.1	-26.7	-0.7	**16.3**	20.1	-2.2	-39.3	40.2
Fz_f	-0.2	1.6	**-31.3**	-1.6	66.5	7.1	-0.5	-1.6	**31.3**	1.6	-63.7	0.2
Mx_f	-0.4	10.3	-6.2	**-3.9**	14.3	25.2	-0.4	-10.3	6.2	**3.9**	-11.0	-17.1
My_f	-1.0	-1.8	30.7	1.8	**-64.5**	-0.9	-0.1	3.6	-30.4	-1.3	**67.8**	13.8
Mz_f	-0.8	-15.7	-26.2	1.8	53.9	**-27.2**	-0.8	16.2	9.3	-2.8	-17.0	**41.1**

Member 130

Fx_i	**-5.2**	-3.1	-13.3	-0.3	34.9	2.4	**4.9**	3.1	13.3	0.3	-34.0	7.4
Fy_i	-0.2	**-20.0**	-6.9	1.6	21.0	-50.9	-0.2	**20.0**	6.9	-1.6	-20.1	69.1
Fz_i	0.4	2.1	**-23.4**	-0.5	72.3	11.1	-0.6	-2.1	**23.4**	0.5	-71.7	-1.9
Mx_i	-0.1	8.0	-2.9	**-2.5**	9.0	28.7	-0.1	-8.0	2.9	**2.5**	-8.2	-19.0
My_i	-0.6	-2.1	23.4	0.5	**-71.7**	-1.9	0.3	2.2	-23.4	-0.5	**72.3**	11.6
Mz_i	-0.1	-20.0	-7.0	1.6	21.6	**-51.1**	-0.2	20.0	7.0	-1.6	-20.4	**69.4**
Fx_f	**-5.2**	-3.1	-13.3	-0.3	22.3	5.3	**4.9**	3.1	13.3	0.3	-21.3	4.5
Fy_f	-0.2	**-20.0**	-6.9	1.6	14.5	-31.9	-0.2	**20.0**	6.9	-1.6	-13.6	50.1
Fz_f	0.4	2.1	**-23.4**	-0.5	50.1	9.2	-0.6	-2.1	**23.4**	0.5	-49.4	0.1
Mx_f	-0.1	8.0	-2.9	**-2.5**	6.2	21.1	-0.1	-8.0	2.9	**2.5**	-5.5	-11.5
My_f	-0.6	-2.1	23.4	0.5	**-49.4**	0.1	0.3	2.2	-23.4	-0.5	**50.1**	9.5
Mz_f	-0.1	-19.5	-13.7	1.3	28.6	**-32.2**	-0.2	19.9	7.0	-1.6	-13.8	**50.4**

Member 131

Fx_i	**-4.5**	-3.4	-2.6	0.0	9.9	2.2	**4.3**	3.4	2.8	-0.0	-10.4	8.4
Fy_i	-0.1	-21.8	-4.5	0.3	13.4	-55.7	-0.1	**21.8**	4.5	-0.3	-13.5	75.0
Fz_i	-0.5	0.5	**-15.8**	0.6	46.6	6.9	0.3	-0.5	**15.8**	-0.6	-46.8	3.5
Mx_i	-0.1	2.8	3.5	**-1.8**	-10.5	13.6	-0.1	-2.8	-3.5	**1.8**	10.4	-3.3
My_i	-0.6	-0.5	15.5	-0.6	**-48.6**	4.1	0.5	0.5	-15.5	0.6	**48.4**	6.4
Mz_i	-0.1	-21.7	-4.3	0.3	13.0	**-56.0**	-0.1	21.7	4.3	-0.3	-13.1	**75.3**
Fx_f	**-4.5**	-3.4	-2.6	0.0	7.4	5.5	**4.3**	3.4	2.8	-0.0	-7.7	5.1
Fy_f	-0.1	**-21.8**	-4.5	0.3	9.1	-35.0	-0.1	**21.8**	4.5	-0.3	-9.3	54.3
Fz_f	-0.5	0.5	**-15.8**	0.6	31.6	6.4	0.3	-0.5	**15.8**	-0.6	-31.8	4.0
Mx_f	-0.1	2.8	3.5	**-1.8**	-7.2	10.9	**-0.1**	-2.8	-3.5	**1.8**	7.1	-0.6
My_f	-0.6	-0.5	15.5	-0.6	**-33.9**	4.5	0.5	0.5	-15.5	0.6	**33.7**	5.9
Mz_f	-0.1	-21.2	-7.0	0.3	14.3	**-35.6**	-0.1	21.5	4.3	-0.3	-8.9	**54.7**

Member 132

Fx_i	**-5.6**	0.9	0.8	-0.1	-2.3	14.8	**5.3**	-0.9	-0.7	0.1	0.7	-4.7
Fy_i	-0.2	**-22.1**	-1.0	-0.8	2.1	-58.0	-0.2	**22.1**	1.0	0.8	-3.6	74.4
Fz_i	-0.2	5.5	**-11.5**	0.9	33.7	22.3	-0.2	-5.5	**11.5**	-0.9	-35.1	-11.4
Mx_i	-0.2	-4.3	3.9	**-2.3**	-12.2	-7.5	-0.2	4.3	-3.9	**2.3**	11.2	18.5
My_i	-0.8	-5.5	11.0	-0.9	**-36.0**	-10.9	0.4	6.6	-11.0	0.9	**34.5**	23.9
Mz_i	-0.2	-22.0	-0.9	-0.8	2.0	**-58.2**	-0.2	21.8	2.3	1.1	-7.7	**74.8**
Fx_f	**-5.6**	0.9	0.8	-0.1	-1.6	13.9	**5.3**	-0.9	-0.7	0.1	0.0	-3.8
Fy_f	-0.2	**-22.1**	-1.0	-0.8	1.2	-37.0	-0.2	**22.1**	1.0	0.8	-2.7	53.5
Fz_f	-0.2	5.5	**-11.5**	0.9	22.7	17.0	-0.2	-5.5	**11.5**	-0.9	-24.2	-6.1
Mx_f	-0.2	-4.3	3.9	**-2.3**	-8.5	-3.4	-0.2	4.3	-3.9	**2.3**	7.5	14.4
My_f	0.8	-5.7	10.8	-0.9	**-25.6**	-5.9	-1.2	6.7	-10.8	0.9	**24.1**	17.9
Mz_f	-0.2	-22.0	-0.8	-0.8	0.9	**-37.3**	-0.2	21.7	2.1	1.1	-5.2	**54.2**

Member 133

Fx_i	**-7.0**	-6.4	8.9	0.6	-35.6	-9.1	**5.6**	6.4	-8.7	-0.6	30.0	17.7
Fy_i	-0.8	**-21.3**	5.4	-2.0	-19.1	-57.3	-0.8	**21.3**	-5.4	2.0	13.2	70.8
Fz_i	-1.0	4.6	**-18.9**	0.7	54.2	18.9	-0.5	-4.6	**18.9**	-0.7	-60.2	-8.9
Mx_i	-0.5	-11.4	-2.7	**-3.7**	6.2	-30.1	-0.5	11.4	2.7	**3.7**	-10.0	38.3
My_i	-0.0	-4.5	18.3	-0.7	**-60.9**	-8.3	-1.5	5.2	-18.3	0.8	**55.1**	19.2
Mz_i	-0.7	-21.3	5.4	-2.1	-18.9	**-57.4**	-0.8	21.3	-5.4	2.1	13.3	**70.9**
Fx_f	**-7.0**	-6.4	8.9	0.6	-27.2	-3.0	**5.6**	6.4	-8.7	-0.6	21.7	11.6
Fy_f	-0.8	**-21.3**	5.4	-2.0	-14.0	-37.0	-0.8	**21.3**	-5.4	2.0	8.1	50.5
Fz_f	-1.0	4.6	**-18.9**	0.7	36.3	14.5	-0.5	-4.6	**18.9**	-0.7	-42.2	-4.5
Mx_f	-0.5	-11.4	-2.7	**-3.7**	3.6	-19.3	-0.5	11.4	2.7	**3.7**	-7.4	27.4
My_f	-0.1	-4.8	18.3	-0.7	**-43.5**	-4.6	-1.5	5.2	-18.3	0.8	**37.7**	14.2
Mz_f	-0.7	-21.3	5.4	-2.1	-13.8	**-37.2**	-0.8	21.3	-5.4	2.1	8.1	**50.7**

Member 134

Fx_i	**-10.5**	-9.4	13.3	0.6	-67.3	-21.3	**5.3**	9.3	-13.4	-0.6	47.7	27.1
Fy_i	-3.1	**-19.0**	11.8	-1.9	-47.2	-53.0	-2.7	**19.0**	-11.8	1.9	25.5	60.9
Fz_i	-3.3	3.5	**-25.0**	-1.8	63.0	14.4	-3.0	-3.5	**25.0**	1.8	-86.3	-7.1
Mx_i	-1.9	-5.0	-5.3	**-5.2**	8.6	-12.3	-1.9	5.0	5.3	**5.2**	-23.1	17.6
My_i	-4.7	-8.2	23.0	0.8	**-91.7**	-18.5	-0.5	9.8	-22.9	-0.6	**72.1**	28.7
Mz_i	-2.8	-19.0	11.8	-2.0	-46.0	**-53.3**	-3.3	18.9	-11.4	3.0	21.7	**61.2**
Fx_f	**-10.5**	-9.4	13.3	0.6	-54.6	-12.4	**5.3**	9.3	-13.4	-0.6	35.0	18.2
Fy_f	-3.1	**-19.0**	11.8	-1.9	-35.9	-34.9	-2.7	**19.0**	-11.8	1.9	14.2	42.8
Fz_f	-3.3	3.5	**-25.0**	-1.8	39.2	11.0	-3.0	-3.5	**25.0**	1.8	-62.6	-3.8
Mx_f	-1.9	-5.0	-5.3	**-5.2**	3.6	-7.6	-1.9	5.0	5.3	**5.2**	-18.1	12.9
My_f	-4.8	-8.5	22.9	0.7	**-69.9**	-11.0	-0.4	9.9	-22.8	-0.5	**50.4**	19.6
Mz_f	-2.8	-18.9	11.8	-2.1	-34.7	**-35.3**	-3.4	18.9	-11.3	3.0	10.5	**43.3**

Member 135

Fx_i	**-25.5**	-4.4	-1.4	-0.0	3.3	-12.0	**7.1**	12.7	1.8	0.1	-7.5	37.9
Fy_i	-9.6	**-16.9**	-8.6	-0.7	25.2	-50.2	-8.1	**16.9**	8.6	0.7	-25.2	51.2
Fz_i	-6.0	-12.0	**-11.2**	-2.6	32.7	-35.7	-6.6	12.0	**11.2**	2.6	-32.7	36.4
Mx_i	-6.8	-4.3	-2.4	**-6.1**	7.1	-12.6	-6.8	4.3	2.4	**6.1**	-7.1	13.4
My_i	-6.0	12.1	11.1	2.6	**-35.8**	36.6	-6.6	-12.1	-11.1	-2.6	**35.8**	-35.9
Mz_i	-8.7	-16.9	-8.6	-0.4	25.1	**-50.3**	-8.8	16.9	8.6	0.7	-25.2	**51.3**

Fx_i	**-25.5**	-4.4	-1.4	-0.0	2.0	-7.8	**7.1**	12.7	1.8	0.1	-5.8	25.8
Fy_i	-9.6	**-16.9**	-8.6	-0.7	17.0	-34.2	-8.1	**16.9**	8.6	0.7	-17.0	35.1
Fz_i	-6.0	-12.0	**-11.2**	-2.6	22.1	-24.3	-6.6	12.0	**11.2**	2.6	-22.1	25.0
Mx_i	-6.8	-4.3	-2.4	**-6.1**	4.9	-8.5	-6.8	4.3	2.4	**6.1**	-4.9	9.2
My_i	-6.0	12.1	11.1	2.6	**-25.2**	25.1	-6.6	-12.1	-11.1	-2.6	**25.2**	-24.4
Mz_i	-8.7	-16.9	-8.6	-0.4	16.9	**-34.2**	-9.2	16.9	8.7	0.9	-17.2	**35.2**

Member 136

Fx_i	**-10.9**	-9.3	-22.5	-0.8	90.4	-21.6	**5.7**	9.3	22.8	0.8	-71.6	27.0
Fy_i	-2.7	**-18.9**	-30.0	1.8	106.5	-52.7	-3.0	**18.9**	30.0	-1.8	-85.2	60.6
Fz_i	-2.8	-8.0	**-37.9**	-3.4	123.7	-21.2	-2.5	8.0	**37.9**	3.4	-104.0	26.7
Mx_i	-2.3	4.8	-9.7	**-5.5**	37.7	17.1	-2.3	-4.8	9.7	**5.5**	-20.6	-11.9
My_i	0.3	10.3	36.2	0.8	**-109.6**	30.5	-5.3	-9.0	-36.7	-1.6	**129.8**	-20.8
Mz_i	-2.4	-18.9	-29.9	1.9	105.2	**-53.0**	-4.4	18.9	24.1	-2.8	-61.4	**61.0**
Fx_f	**-10.9**	-9.3	-22.5	-0.8	68.9	-12.8	**5.7**	9.3	22.8	0.8	-49.9	18.2
Fy_f	-2.7	**-18.9**	-30.0	1.8	78.0	-34.7	-3.0	**18.9**	30.0	-1.8	-56.7	42.6
Fz_f	-2.8	-8.0	**-37.9**	-3.4	87.8	-13.6	-2.5	8.0	**37.9**	3.4	-68.1	19.0
Mx_f	-2.3	4.8	-9.7	**-5.5**	28.5	12.5	-2.3	-4.8	9.7	**5.5**	-11.4	-7.3
My_f	-0.3	10.2	35.2	0.9	**-75.8**	20.3	-5.0	-9.0	-35.4	-1.0	**95.7**	-11.9
Mz_f	-2.4	-18.8	-29.8	2.0	76.6	**-35.1**	-4.5	18.8	24.0	-2.9	-38.1	**43.1**

Member 137

Fx_i	**-7.0**	-6.5	-17.7	-0.7	55.5	-9.6	**5.6**	6.5	17.7	0.7	-50.3	17.9
Fy_i	-1.2	**-21.5**	-15.7	2.0	51.5	-57.8	-1.2	**21.5**	15.7	-2.0	-42.8	71.4
Fz_i	-0.6	0.0	**-29.9**	-1.2	93.8	5.5	-1.0	-0.0	**29.9**	1.2	-87.5	5.0
Mx_i	-0.6	11.2	-6.8	**-4.1**	22.5	37.7	-0.6	-11.2	6.8	**4.1**	-18.1	-29.5
My_i	-1.2	0.9	29.3	1.6	**-88.6**	6.1	-0.3	-1.9	-29.4	-0.7	**94.5**	0.9
Mz_i	-0.3	-21.5	-15.6	2.1	48.1	**-57.9**	-1.2	21.5	15.6	-2.1	-42.3	**71.5**
Fx_f	**-7.0**	-6.5	-17.7	-0.7	38.6	-3.5	**5.6**	6.5	17.7	0.7	-33.4	11.8
Fy_f	-1.2	**-21.5**	-15.7	2.0	36.6	-37.3	-1.2	**21.5**	15.7	-2.0	-27.9	50.9
Fz_f	-0.6	0.0	**-29.9**	-1.2	65.4	5.5	-1.0	-0.0	**29.9**	1.2	-59.1	5.0
Mx_f	-0.6	11.2	-6.8	**-4.1**	16.0	27.0	-0.6	-11.2	6.8	**4.1**	-11.7	-18.9
My_f	-1.1	2.7	29.2	1.3	**-60.7**	8.5	-0.3	-2.2	-29.3	-0.6	**66.5**	2.1
Mz_f	-0.3	-21.5	-15.6	2.1	33.3	**-37.5**	-1.2	21.5	15.6	-2.1	-27.5	**51.1**

Member 138

Fx_i	**-5.3**	-4.8	-12.0	-0.4	31.4	-2.7	**4.9**	4.8	12.0	0.4	-30.1	12.6
Fy_i	-0.6	**-22.9**	-8.9	1.0	28.8	-60.5	-0.6	**22.9**	8.9	-1.0	-24.5	77.0
Fz_i	0.2	1.5	**-22.2**	-0.2	69.1	11.1	-0.7	-1.5	**22.2**	0.2	-67.5	1.6
Mx_i	-0.2	5.7	-0.7	**-2.6**	2.5	22.1	-0.2	-5.7	0.7	**2.6**	-1.5	-12.3
My_i	-0.7	0.1	22.2	0.0	**-67.6**	5.5	0.2	-0.1	-22.2	-0.0	**69.1**	7.2
Mz_i	0.2	-22.9	-8.8	1.0	25.7	**-60.7**	-0.6	22.9	8.8	-1.0	-24.3	**77.3**
Fx_f	**-5.3**	-4.8	-12.0	-0.4	20.0	1.9	**4.9**	4.8	12.0	0.4	-18.7	8.1
Fy_f	-0.6	**-22.9**	-8.9	1.0	20.3	-38.7	-0.6	**22.9**	8.9	-1.0	-16.1	55.3
Fz_f	0.2	1.5	**-22.2**	-0.2	48.0	9.6	-0.7	-1.5	**22.2**	0.2	-46.5	3.0
Mx_f	-0.2	5.7	-0.7	**-2.6**	1.9	16.6	-0.2	-5.7	0.7	**2.6**	-0.9	-6.9
My_f	-0.9	0.1	21.7	0.0	**-46.5**	5.4	0.5	-0.1	-21.7	-0.0	**48.1**	7.3
Mz_f	0.2	-22.8	-8.9	1.0	17.5	**-39.0**	-0.7	22.5	2.4	-1.4	-2.5	**55.7**

Member 139

Fx_i	**-4.5**	-0.9	2.1	-0.0	-4.1	10.2	**4.3**	-0.9	-4.2	0.0	10.4	-4.7
Fy_i	-0.2	**-23.4**	-4.7	-0.0	13.7	-61.4	-0.2	**23.4**	4.7	0.0	-14.4	79.0
Fz_i	-0.5	-0.4	**-14.7**	0.7	43.4	5.8	0.3	0.4	**14.7**	-0.7	-43.3	7.7
Mx_i	-0.1	-1.5	1.9	**-2.0**	-5.6	0.8	-0.1	1.5	-1.9	**2.0**	5.6	9.6
My_i	-0.7	0.4	14.4	-0.7	**-45.4**	7.7	0.5	-0.4	-14.4	0.7	**45.4**	5.8
Mz_i	0.0	-23.3	-4.6	-0.0	14.3	**-61.7**	-0.2	23.2	2.9	-0.1	-9.0	**80.0**
Fx_f	**-4.5**	-0.9	2.1	-0.0	-2.1	11.0	**4.3**	-0.9	-4.2	0.0	6.5	-3.8
Fy_f	-0.2	**-23.4**	-4.7	-0.0	9.3	-39.2	-0.2	**23.4**	4.7	0.0	-9.9	56.7
Fz_f	-0.5	-0.4	**-14.7**	0.7	29.4	6.2	0.3	0.4	**14.7**	-0.7	-29.3	7.3
Mx_f	-0.1	-1.5	1.9	**-2.0**	-3.8	2.2	-0.1	1.5	-1.9	**2.0**	3.9	8.2
My_f	-0.7	0.4	**14.4**	-0.7	**-31.7**	7.3	0.5	-0.4	**-14.4**	0.7	**31.7**	6.2
Mz_f	0.0	-23.1	-4.6	-0.0	9.9	**-39.5**	-0.2	23.0	2.9	-0.1	-6.3	**57.9**

Member 140

Fx_i	**-5.6**	-1.2	2.7	0.1	-7.6	8.5	**5.3**	1.2	-2.6	-0.1	6.4	1.8
Fy_i	-0.2	**-23.6**	1.4	-1.0	-4.9	-62.3	-0.2	**23.6**	-1.4	1.0	3.6	79.0
Fz_i	-1.9	5.6	**-13.2**	0.6	39.3	23.6	1.5	-5.6	**13.2**	-0.6	-40.5	-10.7
Mx_i	0.3	-5.6	2.4	**-2.6**	-9.3	-11.9	0.3	5.6	-2.4	**2.6**	5.3	21.7
My_i	0.8	-3.4	12.8	-0.4	**-41.7**	-2.5	-1.2	3.4	-12.8	0.4	**40.4**	15.4
Mz_i	-0.1	-23.5	1.4	-1.0	-4.6	**-62.6**	-0.2	23.5	-1.4	1.0	3.4	**79.2**
Fx_f	**-5.6**	-1.2	2.7	0.1	-5.1	9.7	**5.3**	1.2	-2.6	-0.1	3.9	0.6
Fy_f	-0.2	**-23.6**	1.4	-1.0	-3.5	-40.0	-0.2	**23.6**	-1.4	1.0	2.2	56.6
Fz_f	-1.9	5.6	**-13.2**	0.6	26.7	18.3	1.5	-5.6	**13.2**	-0.6	-27.9	-5.4
Mx_f	0.3	-5.6	2.4	**-2.6**	-7.0	-6.6	0.3	5.6	-2.4	**2.6**	3.0	16.4
My_f	0.8	-3.4	12.8	-0.4	**-29.5**	0.8	-1.2	3.4	-12.8	0.4	**28.3**	12.1
Mz_f	-0.1	-23.5	1.5	-1.0	-3.5	**-40.3**	-0.2	23.5	-1.5	1.0	2.4	**56.9**

Member 141

Fx_i	**-6.7**	-7.8	10.2	0.7	-38.5	-13.0	**5.6**	7.7	-10.1	-0.7	34.0	21.7
Fy_i	-0.7	**-22.9**	7.8	-2.0	-26.0	-61.9	-0.7	**22.9**	-7.8	2.0	20.6	75.7
Fz_i	-0.9	4.8	**-20.8**	-0.0	60.4	20.2	-0.4	-4.8	**20.8**	0.0	-65.5	-9.2
Mx_i	0.9	-10.9	-2.7	**-4.1**	7.2	-28.5	0.9	10.9	2.7	**4.1**	-8.8	35.7
My_i	0.1	-3.6	20.4	0.2	**-66.6**	-4.3	-1.4	3.5	-20.4	-0.3	**61.5**	15.0
Mz_i	-0.5	-22.9	7.7	-2.1	-24.9	**-62.1**	-0.7	22.9	-7.7	2.1	20.3	**75.8**
Fx_f	**-6.7**	-7.8	10.2	0.7	-28.8	-5.6	**5.6**	7.7	-10.1	-0.7	24.4	14.4
Fy_f	-0.7	**-22.9**	7.8	-2.0	-18.6	-40.1	-0.7	**22.9**	-7.8	2.0	13.2	53.9
Fz_f	-0.9	4.8	**-20.8**	-0.0	40.7	15.6	-0.4	-4.8	**20.8**	0.0	-45.7	-4.6
Mx_f	0.9	-10.9	-2.7	**-4.1**	4.7	-18.2	0.9	10.9	2.7	**4.1**	-6.3	26.4
My_f	0.0	-5.3	20.3	-0.0	**-47.3**	-3.4	-1.2	8.0	-20.0	0.1	**42.3**	18.9
Mz_f	-0.5	-22.9	7.7	-2.1	-17.6	**-40.4**	-0.7	22.9	-7.7	2.1	13.0	**54.1**

Member 142

Fx_i	**-9.5**	-11.7	18.4	0.8	-78.4	-28.1	**5.2**	11.7	-18.4	-0.8	62.7	34.2
Fy_i	-2.0	**-21.8**	18.2	-1.8	-62.0	-61.1	-2.7	**21.8**	-18.2	1.8	44.4	69.2
Fz_i	-1.8	8.1	**-31.7**	-3.0	88.7	26.5	-1.8	-8.1	**31.7**	3.0	-102.2	-22.0
Mx_i	-1.4	-4.3	-8.7	**-5.6**	17.6	-10.2	-1.4	4.3	8.7	**5.6**	-34.9	15.7
My_i	-3.4	-11.1	29.9	0.8	**-107.7**	-26.9	-0.6	12.2	-29.4	-0.9	**91.1**	36.0
Mz_i	-1.8	-21.7	18.1	-1.9	-60.9	**-61.4**	-3.0	21.7	-18.1	1.9	43.4	**69.5**
Fx_f	**-9.5**	-11.7	18.4	0.8	-60.9	-17.0	**5.2**	11.7	-18.4	-0.8	45.1	23.1
Fy_f	-2.0	**-21.8**	18.2	-1.8	-44.7	-40.4	-2.7	**21.8**	-18.2	1.8	27.1	48.5
Fz_f	-1.8	8.1	**-31.7**	-3.0	58.6	18.8	-1.8	-8.1	**31.7**	3.0	-72.1	-14.2
Mx_f	-1.4	-4.3	-8.7	**-5.6**	9.3	-6.1	-1.4	4.3	8.7	**5.6**	-26.6	11.6
My_f	-3.7	-11.1	29.4	0.8	**-79.4**	-16.3	-0.5	12.6	-29.2	-0.7	**63.3**	25.2
Mz_f	-1.6	-21.7	18.1	-1.9	-43.3	**-40.8**	-3.0	21.7	-18.1	2.0	26.1	**48.9**

Member 143

Fx_i	**-21.0**	-5.8	-0.5	-0.0	0.5	-15.5	**6.5**	16.6	-0.8	0.1	0.2	49.6
Fy_i	-5.7	**-21.6**	-3.2	-0.5	7.9	-64.1	-8.3	**21.6**	3.2	0.5	-7.9	65.4
Fz_i	-5.1	-14.0	**-9.5**	-2.8	27.7	-41.4	-7.0	14.0	**9.5**	2.8	-27.7	42.5
Mx_i	-5.5	-5.6	-1.2	**-6.3**	3.5	-16.4	-5.5	5.6	1.2	**6.3**	-3.5	17.4
My_i	-5.1	14.0	9.5	2.8	**-30.7**	42.5	-7.0	-14.0	-9.5	-2.8	**30.7**	-41.4
Mz_i	-5.1	-21.6	-3.2	-0.5	7.9	**-64.2**	-8.9	21.6	3.2	0.5	-7.9	**65.4**
Fx_f	**-21.0**	-5.8	-0.5	-0.0	0.0	-10.0	**6.5**	16.6	-0.8	0.1	-0.5	33.9
Fy_f	-5.7	**-21.6**	-3.2	-0.5	4.9	-43.6	-8.3	**21.6**	3.2	0.5	-4.9	44.9
Fz_f	-5.1	-14.0	**-9.5**	-2.8	18.6	-28.1	-7.0	14.0	**9.5**	2.8	-18.6	29.2
Mx_f	-5.5	-5.6	-1.2	**-6.3**	2.4	-11.1	-5.5	5.6	1.2	**6.3**	-2.4	12.1
My_f	-5.1	14.0	9.5	2.8	**-21.7**	29.2	-7.0	-14.0	-9.5	-2.8	**21.7**	-28.1
Mz_f	-5.1	-21.6	-3.2	-0.5	4.9	**-43.6**	-9.2	21.6	3.3	0.7	-5.1	**44.9**

Member 144

Fx,	**-9.9**	-11.7	-21.7	-0.9	83.8	-28.5	**5.6**	11.7	21.8	0.9	-68.3	34.1
Fy,	-4.0	**-21.7**	-25.9	1.7	87.0	-60.8	-0.7	**21.7**	25.9	-1.7	-69.5	68.9
Fz,	-2.2	-9.3	**-37.2**	-3.7	120.0	-25.1	-2.0	9.3	**37.2**	3.7	-104.0	30.7
Mx,	-1.9	4.2	-9.4	**-5.6**	35.2	15.3	-1.9	-4.2	9.4	**5.6**	-21.4	-9.9
My,	-0.8	10.2	36.9	3.1	**-107.5**	32.5	-4.2	-10.8	-36.2	-2.2	**124.2**	-26.3
Mz,	-3.8	-21.6	-25.7	1.9	85.8	**-61.1**	-0.9	21.6	25.7	-1.9	-68.4	**69.2**
Fx,	**-9.9**	-11.7	-21.7	-0.9	63.2	-17.4	**5.6**	11.7	21.8	0.9	-47.6	23.0
Fy,	-4.0	**-21.7**	-25.9	1.7	62.4	-40.2	-0.7	**21.7**	25.9	-1.7	**-45.0**	48.4
Fz,	-2.2	-9.3	**-37.2**	-3.7	84.6	-16.2	-2.0	9.3	**37.2**	3.7	-68.6	21.9
Mx,	-1.9	4.2	-9.4	**-5.6**	26.2	11.4	-1.9	-4.2	9.4	**5.6**	-12.4	-5.9
My,	-0.4	12.8	34.6	0.9	**-74.1**	25.7	-3.9	-11.5	-34.9	-1.0	**90.6**	-16.9
Mz,	-3.7	-21.6	-25.7	1.9	61.0	**-40.6**	-0.9	21.6	25.7	-1.9	-43.7	**48.7**

Member 145

Fx,	**-6.7**	-2.1	-4.8	-0.2	15.8	3.7	**5.6**	2.1	4.8	0.2	-11.3	4.7
Fy,	-0.7	**-22.9**	-11.4	2.0	37.0	-61.9	-0.7	**22.9**	11.4	-2.0	-31.5	75.7
Fz,	-0.4	-2.9	**-24.8**	-0.7	77.6	-3.6	-0.9	2.9	**24.8**	0.7	-72.5	14.3
Mx,	-0.4	5.4	-13.3	**-4.2**	41.4	19.9	-0.4	-5.4	13.3	**4.2**	-38.3	-12.4
My,	-1.3	3.2	24.3	0.7	**-73.4**	13.4	-0.1	-3.2	-24.3	-0.7	**78.5**	-2.6
Mz,	-0.5	-22.9	-11.3	2.1	35.8	**-62.1**	-0.7	22.9	11.3	-2.1	-31.1	**75.9**
Fx,	**-6.7**	-2.1	-4.8	-0.2	11.2	5.7	**5.6**	2.1	4.8	0.2	-6.8	2.8
Fy,	-0.7	**-22.9**	-11.4	2.0	26.2	-40.1	-0.7	**22.9**	11.4	-2.0	-20.7	53.9
Fz,	-0.4	-2.9	**-24.8**	-0.7	54.0	-0.8	-0.9	2.9	**24.8**	0.7	-48.9	11.5
Mx,	-0.4	5.4	-13.3	**-4.2**	28.8	14.8	-0.4	-5.4	13.3	**4.2**	-25.7	-7.3
My,	-1.1	6.0	24.0	0.4	**-50.4**	14.7	-0.1	-5.1	-24.2	-0.5	**55.4**	-2.8
Mz,	-0.5	-22.9	-11.3	2.1	25.1	**-40.3**	-0.7	22.9	11.3	-2.1	-20.4	**54.1**

Member 146

Fx,	**-5.2**	5.5	5.5	0.5	-21.6	28.5	**4.9**	-5.5	-5.6	-0.5	22.8	-18.5
Fy,	-0.3	**-23.7**	-4.7	0.9	15.0	-62.8	-0.3	**23.7**	4.7	-0.9	-13.1	79.5
Fz,	0.3	-2.2	**-17.1**	0.2	53.6	-0.5	-0.7	2.2	**17.1**	-0.2	-52.3	13.4
Mx,	-0.2	5.7	0.9	**-2.6**	-2.3	22.0	-0.2	-5.7	-0.9	**2.6**	3.0	-12.1
My,	-0.6	2.2	17.1	-0.2	**-52.4**	12.9	0.3	-2.2	-17.1	0.2	**53.6**	0.0
Mz,	-0.1	-23.7	-4.6	0.9	14.1	**-63.0**	-0.3	23.7	4.6	-0.9	-12.9	**79.7**
Fx,	**-5.2**	5.5	5.5	0.5	-16.3	23.3	**4.9**	-5.5	-5.6	-0.5	17.5	-13.2
Fy,	-0.3	**-23.7**	-4.7	0.9	10.6	-40.3	-0.3	**23.7**	4.7	-0.9	-8.6	57.0
Fz,	0.3	-2.2	**-17.1**	0.2	37.3	1.6	-0.7	2.2	**17.1**	-0.2	-36.1	11.2
Mx,	-0.2	5.7	0.9	**-2.6**	-1.5	16.6	-0.2	-5.7	-0.9	**2.6**	2.1	-6.7
My,	-0.9	0.7	16.7	0.0	**-36.3**	6.9	0.5	-0.7	-16.7	-0.0	**37.5**	6.0
Mz,	-0.1	-23.6	-4.7	0.9	9.8	**-40.6**	-0.3	23.6	4.7	-0.9	-8.7	**57.3**

Member 147

Fx,	**-4.5**	-1.0	2.8	-0.0	-6.2	10.1	**4.3**	4.9	-2.9	0.0	6.7	12.7
Fy,	-0.4	**-23.9**	-0.5	-0.0	0.3	-62.9	-0.4	**23.9**	0.5	0.0	-2.9	80.6
Fz,	-0.5	4.5	**-10.2**	0.9	30.0	19.9	0.3	-4.5	**10.2**	-0.9	-29.9	-6.3
Mx,	-0.1	-1.7	2.9	**-2.0**	-8.7	0.1	-0.1	1.7	-2.9	**2.0**	8.7	10.4
My,	-0.7	-4.5	10.0	-0.9	**-32.1**	-6.8	0.5	4.5	-10.0	0.9	**32.1**	20.5
Mz,	0.3	-23.8	-0.5	-0.0	2.9	**-63.2**	-0.5	23.5	0.8	0.0	-3.7	**80.9**
Fx,	**-4.5**	-1.0	2.8	-0.0	-3.5	11.0	**4.3**	4.9	-2.9	0.0	3.9	8.1
Fy,	-0.4	**-23.9**	-0.5	-0.0	-0.2	-40.2	-0.4	**23.9**	0.5	0.0	-2.4	57.9
Fz,	-0.5	4.5	**-10.2**	0.9	20.3	15.7	0.3	-4.5	**10.2**	-0.9	-20.2	-2.1
Mx,	-0.1	-1.7	2.9	**-2.0**	-6.0	1.7	-0.1	1.7	-2.9	**2.0**	5.9	8.8
My,	1.0	-4.6	9.9	-0.9	**-22.6**	-2.9	-1.2	4.6	-9.9	0.9	**22.6**	16.5
Mz,	0.3	-23.7	-0.5	-0.0	2.4	**-40.5**	-0.5	23.3	0.8	0.0	-3.0	**58.6**

Member 148

Fx,	**-5.6**	-1.1	2.9	0.1	-8.3	8.9	**5.3**	5.9	-8.9	-0.4	25.3	15.7
Fy,	-0.2	**-24.1**	5.7	-0.9	-17.7	-63.9	-0.2	**24.1**	-5.7	0.9	16.4	80.5
Fz,	-0.6	1.9	**-17.5**	0.2	53.4	12.1	0.3	-1.9	**17.5**	-0.2	-54.6	0.9
Mx,	-0.0	-5.5	0.6	**-2.6**	-2.8	-11.5	-0.0	5.5	-0.6	**2.6**	1.0	21.4
My,	0.7	-4.1	17.1	-0.3	**-54.7**	-4.7	-1.0	4.1	-17.1	0.3	**53.6**	17.7
Mz,	-0.1	-24.0	5.6	-1.0	-17.4	**-64.1**	-0.2	24.0	-5.6	1.0	16.3	**80.8**
Fx,	**-5.6**	-1.1	2.9	0.1	-5.5	10.0	**5.3**	5.9	-8.9	-0.4	16.8	10.2
Fy,	-0.2	**-24.1**	5.7	-0.9	-12.3	-41.0	-0.2	**24.1**	-5.7	0.9	11.0	57.7
Fz,	-0.6	1.9	**-17.5**	0.2	36.8	10.2	0.3	-1.9	**17.5**	-0.2	-38.0	2.8
Mx,	-0.0	-5.5	0.6	**-2.6**	-2.2	-6.3	-0.0	5.5	-0.6	**2.6**	0.4	16.2
My,	0.7	-4.1	17.1	-0.3	**-38.6**	-0.8	-1.0	4.1	-17.1	0.3	**37.4**	13.8
Mz,	-0.1	-24.0	5.7	-1.0	-12.2	**-41.3**	-0.2	24.0	-5.7	1.0	11.1	**58.0**

Member 149

Fx,	**-6.7**	-8.6	14.5	0.8	-51.1	-15.4	**5.6**	8.6	-14.4	-0.8	46.8	24.3
Fy,	-0.7	**-23.8**	12.1	-2.0	-38.8	-64.4	-0.7	**23.8**	-12.1	2.0	33.6	78.2
Fz,	-0.8	3.0	**-25.2**	-0.8	73.8	14.4	-0.5	-3.0	**25.2**	0.8	-78.7	-3.4
Mx,	-0.0	-4.6	-13.8	**-4.2**	38.5	-10.1	-0.0	4.6	13.8	**4.2**	-44.5	17.6
My,	0.0	-3.4	24.7	0.7	**-79.7**	-3.2	-1.3	3.3	-24.7	-0.8	**74.8**	14.0
Mz,	-0.5	-23.7	11.9	-2.1	-37.7	**-64.6**	-0.7	23.7	-11.9	2.1	33.2	**78.4**
Fx,	**-6.7**	-8.6	14.5	0.8	-37.4	-7.2	**5.6**	8.6	-14.4	-0.8	33.1	16.1
Fy,	-0.7	**-23.8**	12.1	-2.0	-27.3	-41.8	-0.7	**23.8**	-12.1	2.0	22.1	55.7
Fz,	-0.8	3.0	**-25.2**	-0.8	49.8	11.6	-0.5	-3.0	**25.2**	0.8	-54.8	-0.5
Mx,	-0.0	-4.6	-13.8	**-4.2**	25.4	-5.7	-0.0	4.6	13.8	**4.2**	-31.4	13.2
My,	0.0	-5.3	24.6	0.4	**-56.3**	-2.9	-1.1	8.1	-24.4	-0.3	**51.5**	18.5
Mz,	-0.5	-23.7	11.9	-2.1	-26.4	**-42.0**	-0.7	23.7	-11.9	2.1	21.8	**55.9**

Member 150

Fx,	**-9.3**	-13.3	22.5	0.9	-90.4	-32.6	**5.2**	13.2	-22.7	-0.9	75.5	38.8
Fy,	-1.9	**-23.5**	22.8	-1.6	-75.4	-66.2	-2.7	**23.5**	-22.8	1.6	58.4	74.4
Fz,	-1.7	9.8	**-36.3**	-3.1	102.8	31.5	-1.8	-9.8	**36.3**	3.1	-115.8	-26.9
Mx,	-1.7	-3.8	-9.7	**-5.6**	21.8	-8.7	-1.7	3.8	9.7	**5.6**	-35.4	14.3
My,	-3.4	-13.0	34.5	0.8	**-121.1**	-32.5	-0.5	14.2	-34.0	-0.9	**105.1**	41.9
Mz,	-1.6	-23.4	22.7	-1.7	-74.1	**-66.5**	-2.9	23.4	-22.7	1.8	57.4	**74.7**
Fx,	**-9.3**	-13.3	22.5	0.9	-69.0	-20.0	**5.2**	13.2	-22.7	-0.9	53.9	26.2
Fy,	-1.9	**-23.5**	22.8	-1.6	-53.7	-43.9	-2.7	**23.5**	-22.8	1.6	36.8	52.1
Fz,	-1.7	9.8	**-36.3**	-3.1	68.3	22.2	-1.8	-9.8	**36.3**	3.1	-81.3	-17.6
Mx,	-1.7	-3.8	-9.7	**-5.6**	12.6	-5.1	-1.7	3.8	9.7	**5.6**	-27.2	10.6
My,	-3.6	-13.1	34.0	0.9	**-88.5**	-20.2	-0.5	14.2	-33.9	-0.9	**72.9**	28.6
Mz,	-1.6	-23.4	22.7	-1.8	-52.4	**-44.3**	-2.9	23.4	-22.7	1.8	35.7	**52.4**

Member 365

Fx,	**-319.9**	-0.0	-49.7	0.0	87.1	-0.0	**135.2**	0.0	-36.7	0.0	64.2	0.0
Fy,	-170.2	**-0.0**	-51.1	0.0	89.5	-0.0	22.6	**0.0**	-25.7	0.0	**45.0**	0.0
Fz,	-56.1	0.0	**-117.8**	0.0	206.2	0.0	-135.9	-0.0	**10.0**	0.0	-17.5	-0.0
Mx,	-223.4	-0.0	-29.5	**-0.0**	51.7	-0.0	-159.2	-0.0	-51.0	**0.0**	89.3	-0.0
My,	-135.9	-0.0	10.0	0.0	**-17.5**	-0.0	-56.1	0.0	-117.8	0.0	**206.2**	0.0
Mz,	-188.0	-0.0	-59.1	0.0	103.4	**-0.0**	25.0	0.0	-24.0	0.0	41.9	**0.0**
Fx,	**-319.9**	-0.0	-49.7	0.0	0.0	0.0	**135.2**	0.0	-36.7	0.0	0.0	-0.0
Fy,	-170.2	**-0.0**	-51.1	0.0	0.0	0.0	22.6	**0.0**	-25.7	0.0	0.0	-0.0
Fz,	-56.1	0.0	**-117.8**	0.0	0.0	-0.0	-135.9	-0.0	**10.0**	0.0	0.0	0.0
Mx,	-223.4	-0.0	-29.5	**-0.0**	0.0	0.0	-159.2	-0.0	-51.0	**0.0**	0.0	0.0
My,	-159.8	-0.0	-56.4	0.0	**0.0**	0.0	-194.8	-0.0	-29.7	0.0	**0.0**	0.0
Mz,	-5.5	0.0	-39.2	0.0	0.0	**-0.0**	-160.8	-0.0	-33.8	-0.0	0.0	**0.0**

Member 366

Fx,	**-932.9**	-0.0	-20.3	0.0	211.9	-0.0	**-223.8**	-26.0	4.3	0.0	89.0	-45.5
Fy,	-602.8	**-26.0**	-5.5	0.0	119.6	-45.5	-649.0	**2.0**	-15.7	0.0	186.2	3.4
Fz,	-805.9	-26.0	**-38.3**	0.0	400.1	-45.5	-350.7	2.0	**9.2**	0.0	41.9	3.4

Mx,	-753.0	-0.0	-17.7	**0.0**	199.7	-0.0	-436.0	-0.0	-3.4	**0.0**	155.2	-0.0
My,	-415.6	2.0	-0.9	0.0	**-14.1**	3.4	-774.7	-26.0	-35.3	0.0	**433.0**	-45.5
Mz,	-610.8	-26.0	-4.2	0.0	114.9	**-45.5**	-578.9	2.0	-15.6	0.0	177.6	**3.4**
Fx,	**-932.9**	-0.0	-20.3	0.0	176.3	0.0	**-223.8**	0.0	4.3	0.0	96.4	-0.0
Fy,	-621.5	**-0.0**	-5.5	0.0	109.9	0.0	-652.0	**0.0**	-14.9	0.0	197.2	-0.0
Fz,	-806.9	0.0	**-38.3**	0.0	333.0	-0.0	-350.7	-0.0	**9.2**	0.0	58.0	0.0
Mx,	-753.0	-0.0	-17.7	**0.0**	168.8	0.0	-436.0	-0.0	-3.4	**0.0**	159.3	0.0
My,	-340.2	0.0	-1.1	0.0	**-15.9**	-0.0	-844.8	-0.0	-35.3	0.0	**371.3**	0.0
Mz,	-738.5	0.0	-17.0	0.0	215.9	**-0.0**	-630.7	-0.0	-12.5	0.0	72.6	**0.0**

Member 367

Fx,	**-1065.2**	-5.4	-43.3	-0.0	300.2	-9.5	**-254.5**	27.2	54.6	-0.0	2.7	47.6
Fy,	-692.3	**-27.2**	35.4	-0.0	161.9	-47.6	-775.5	**5.4**	-68.4	-0.0	293.5	9.5
Fz,	-913.0	27.2	**-88.4**	-0.0	473.6	47.6	-324.9	-5.4	**60.5**	0.0	-51.2	-9.5
Mx,	-840.9	-0.0	-17.5	**-0.0**	109.3	-0.0	-345.7	-0.0	10.4	**0.0**	61.3	-0.0
My,	-334.9	-27.2	60.3	0.0	**-53.3**	-47.6	-971.0	0.0	-62.1	-0.0	**513.6**	-0.0
Mz,	-720.6	-27.2	28.7	-0.0	178.6	**-47.6**	-772.8	5.4	-62.9	-0.0	289.0	**9.5**
Fx,	**-1065.2**	-0.0	-43.3	-0.0	224.5	0.0	**-254.5**	0.0	54.6	-0.0	98.2	-0.0
Fy,	-741.7	**-0.0**	-3.0	-0.0	208.5	0.0	-775.6	**0.0**	-68.4	-0.0	173.7	-0.0
Fz,	-913.0	0.0	**-88.4**	-0.0	318.9	-0.0	-324.9	-0.0	**60.5**	0.0	54.7	0.0
Mx,	-840.9	-0.0	-17.5	**-0.0**	78.6	-0.0	-345.7	-0.0	10.4	**0.0**	79.5	-0.0
My,	-422.9	0.0	-38.0	-0.0	**10.4**	-0.0	-956.1	-0.0	-30.2	-0.0	**434.1**	0.0
Mz,	-728.2	0.0	-1.5	-0.0	179.7	**-0.0**	-754.8	-0.0	-1.7	-0.0	200.2	**0.0**

Member 368

Fx,	**-1065.7**	0.0	-38.4	0.0	313.4	0.0	**-237.6**	-33.0	49.3	0.0	-33.5	-57.8
Fy,	-711.0	**-33.0**	-24.9	0.0	261.2	-57.8	-730.5	**6.6**	-0.5	0.0	175.1	11.6
Fz,	-915.0	-33.0	**-80.4**	0.0	517.1	-57.8	-317.0	6.6	**55.0**	0.0	-92.9	11.6
Mx	-733.0	-0.0	-14.8	**-0.0**	130.0	0.0	-530.0	-0.0	38.6	**0.0**	34.6	-0.0
My,	-320.4	6.6	54.9	0.0	**-94.1**	11.6	-910.3	-29.7	-77.7	0.0	**546.3**	-52.1
Mz,	-710.7	-33.0	-24.3	0.0	254.3	**-57.8**	-713.1	6.6	-0.7	0.0	177.9	**11.6**
Fx,	**-1065.7**	0.0	-38.4	0.0	246.1	0.0	**-237.6**	-0.0	49.3	0.0	52.7	0.0
Fy,	-808.5	**-0.0**	-2.4	0.0	208.8	0.0	-839.7	**0.0**	-38.1	0.0	324.8	-0.0
Fz,	-915.0	-0.0	**-80.4**	0.0	376.3	0.0	-317.0	-0.0	**55.0**	0.0	3.5	0.0
Mx,	-733.0	-0.0	-14.8	**-0.0**	104.1	0.0	-530.0	-0.0	38.6	**0.0**	102.0	0.0
My,	-356.9	-0.0	24.9	0.0	**0.8**	0.0	-930.1	0.0	-24.9	0.0	**434.4**	0.0
Mz,	-849.8	0.0	-38.1	0.0	327.8	**-0.0**	-736.0	-0.0	4.8	0.0	151.0	**0.0**

Member 369

Fx,	**-1074.0**	-32.8	-39.4	0.0	323.2	-57.4	**-229.3**	6.6	54.9	0.0	-62.2	11.5
Fy,	-749.7	**-32.8**	5.5	0.0	158.8	-57.4	-661.5	**6.6**	-27.6	0.0	256.5	11.5
Fz,	-925.8	6.6	**-84.7**	0.0	545.8	11.5	-310.6	-32.8	**60.6**	0.0	-122.7	-57.4
Mx,	-912.8	-29.5	-65.6	**0.0**	369.8	-51.7	-466.9	0.0	44.3	**0.0**	3.8	0.0
My,	-312.8	-32.8	60.5	0.0	**-123.1**	-57.4	-921.6	-0.0	-81.2	0.0	**571.0**	-0.0
Mz,	-723.4	-32.8	8.1	0.0	125.4	**-57.4**	-665.8	6.6	-29.1	0.0	255.6	**11.5**
Fx,	**-1074.0**	-0.0	-39.4	0.0	254.2	0.0	**-229.3**	0.0	54.9	0.0	33.9	-0.0
Fy,	-802.2	**-0.0**	-29.2	0.0	208.1	0.0	-661.5	**0.0**	-27.6	0.0	208.3	-0.0
Fz,	-925.8	0.0	**-84.7**	0.0	397.6	-0.0	-310.6	-0.0	**60.6**	0.0	-16.7	0.0
Mx,	-912.8	-0.0	-65.6	**0.0**	255.0	0.0	-466.9	0.0	44.3	**0.0**	81.4	-0.0
My,	-298.2	0.0	59.9	0.0	**-17.7**	-0.0	-987.0	-0.0	-54.8	0.0	**442.0**	0.0
Mz,	-742.5	0.0	-26.7	0.0	178.2	**-0.0**	-766.4	-0.0	-31.6	0.0	218.7	**0.0**

Member 370

Fx	**-1068.8**	0.0	-38.7	0.0	321.8	-0.0	**-229.5**	-32.8	53.2	0.0	-60.0	-57.4
Fy,	-827.4	**-32.8**	-61.2	0.0	315.7	-57.4	-607.6	**6.6**	39.0	0.0	54.2	11.5
Fz,	-921.8	-32.8	**-83.0**	0.0	543.7	-57.4	-310.8	6.6	**58.8**	0.0	-120.5	11.5
Mx,	-843.3	0.0	-17.1	**0.0**	202.1	-0.0	-457.6	0.0	40.1	**0.0**	23.3	-0.0
My,	-312.0	6.6	58.7	0.0	**-120.8**	11.5	-918.0	-29.5	-79.7	0.0	**569.0**	-51.7
Mz,	-834.0	-32.8	-61.1	0.0	316.7	**-57.4**	-603.5	6.6	38.5	0.0	51.1	**11.5**

Fx,	**-1068.8**	0.0	-38.7	0.0	254.2	-0.0	**-229.5**	-0.0	53.2	**0.0**	33.1	0.0
Fy,	-827.4	**-0.0**	-61.2	0.0	208.6	0.0	-606.6	**0.0**	39.0	0.0	122.4	-0.0
Fz,	-921.8	-0.0	**-83.0**	0.0	398.5	0.0	-310.8	-0.0	**58.8**	0.0	-17.6	0.0
Mx,	-843.3	0.0	-17.1	**0.0**	172.2	-0.0	-457.6	0.0	40.1	**0.0**	93.5	-0.0
My,	-296.3	-0.0	58.1	0.0	**-18.4**	0.0	-984.1	0.0	-54.3	0.0	**442.3**	-0.0
Mz,	-632.5	0.0	38.2	0.0	136.7	**-0.0**	-816.7	-0.0	-59.0	0.0	193.0	**0.0**

Member 371

Fx,	**-1080.6**	-33.0	-39.2	-0.0	313.7	-57.8	**-241.5**	6.6	49.6	-0.0	-33.6	11.6
Fy,	-834.2	**-33.0**	-63.9	-0.0	331.4	-57.8	-608.3	**6.6**	37.8	-0.0	89.8	11.6
Fz,	-922.0	6.6	**-80.2**	-0.0	509.9	11.6	-325.6	-33.0	**54.6**	-0.0	-87.4	-57.8
Mx,	-837.2	-33.0	-60.6	**-0.0**	370.5	-57.8	-522.0	0.0	4.0	**-0.0**	129.4	0.0
My,	-331.7	-33.0	54.4	-0.0	**-88.9**	-57.8	-920.1	-0.0	-77.1	-0.0	**538.3**	-0.0
Mz,	-853.6	-33.0	-61.1	-0.0	318.5	**-57.8**	-586.6	6.6	35.5	-0.0	82.9	**11.6**
Fx,	**-1080.6**	-0.0	-39.2	-0.0	245.1	0.0	**-241.5**	0.0	49.6	-0.0	53.3	-0.0
Fy,	-841.9	**-0.0**	-36.6	-0.0	297.9	0.0	-608.3	**0.0**	37.8	-0.0	156.0	-0.0
Fz,	-922.0	0.0	**-80.2**	-0.0	369.6	-0.0	-325.6	-0.0	**54.6**	-0.0	8.2	0.0
Mx,	-837.2	-0.0	-60.6	**-0.0**	264.4	0.0	-522.0	0.0	4.0	**-0.0**	136.3	0.0
My,	-347.3	0.0	24.8	-0.0	**3.0**	-0.0	-961.1	-0.0	-25.0	-0.0	**430.9**	0.0
Mz,	-637.7	0.0	37.7	-0.0	157.3	**-0.0**	-839.5	-0.0	-35.2	-0.0	274.7	**0.0**

Member 372

Fx,	**-931.1**	-0.0	-40.0	-0.0	268.1	-0.0	**-168.9**	-5.5	49.0	-0.0	38.7	-9.6
Fy,	-619.6	**-27.5**	-55.6	-0.0	228.2	-48.1	-480.5	**5.5**	32.4	-0.0	165.7	9.6
Fz,	-739.0	-5.5	**-81.1**	-0.0	416.9	-9.6	-316.1	27.5	**55.6**	-0.0	-6.0	48.1
Mx,	-710.3	-0.0	-21.6	**-0.0**	273.9	0.0	-441.7	-0.0	38.0	**0.0**	90.8	0.0
My,	-317.4	27.5	54.7	-0.0	**-10.3**	48.1	-790.7	-5.5	-56.8	-0.0	**455.1**	-9.6
Mz,	-640.2	-27.5	-57.8	-0.0	248.4	**-48.1**	-477.8	5.5	33.0	-0.0	153.4	**9.6**
Fx,	**-931.1**	-0.0	-40.0	-0.0	198.1	0.0	**-168.9**	-0.0	49.0	-0.0	124.4	0.0
Fy,	-608.3	**-0.0**	-27.5	-0.0	179.4	0.0	-480.5	**0.0**	32.4	-0.0	222.4	-0.0
Fz,	-739.0	-0.0	**-81.1**	-0.0	274.9	0.0	-316.1	0.0	**55.6**	-0.0	91.3	-0.0
Mx,	-710.3	-0.0	-21.6	**-0.0**	236.1	0.0	-441.7	-0.0	38.0	**0.0**	157.4	0.0
My,	-339.8	-0.0	-39.8	-0.0	**13.0**	0.0	-815.5	-0.0	-24.9	-0.0	**394.0**	0.0
Mz,	-482.3	0.0	32.3	-0.0	221.8	**-0.0**	-622.8	-0.0	-57.0	-0.0	138.0	**0.0**

Member 373

Fx,	**-332.7**	-132.2	-68.8	-0.0	120.4	-231.4	**-16.6**	130.1	26.6	-0.0	-46.5	227.7
Fy,	-313.5	**-136.3**	-63.9	-0.0	111.8	-238.6	-19.9	**130.2**	17.7	-0.0	-30.9	227.9
Fz,	-210.6	130.0	**-101.0**	0.0	176.8	227.5	-127.8	-128.7	**34.5**	0.0	-60.4	-225.2
Mx,	-260.2	-113.9	-32.8	**-0.0**	57.3	-199.4	-154.3	-127.3	-11.7	**0.0**	20.4	-222.7
My,	-127.8	-128.7	34.5	0.0	**-60.4**	-225.2	-210.6	130.0	-101.0	0.0	**176.8**	227.5
Mz,	-313.5	-136.3	-63.9	-0.0	111.8	**-238.6**	-19.9	130.2	17.7	-0.0	-30.9	**227.9**
Fx,	**-332.7**	-122.4	-68.8	-0.0	-0.0	0.0	**-16.6**	128.3	26.6	-0.0	0.0	0.0
Fy,	-312.4	**-130.8**	-63.9	0.0	-0.0	-0.0	-18.7	**124.1**	17.7	0.0	0.0	-0.0
Fz,	-210.6	120.2	**-101.0**	0.0	0.0	-0.0	-127.8	-126.8	**34.5**	0.0	-0.0	-0.0
Mx,	-260.2	-104.1	-32.8	**-0.0**	-0.0	0.0	-154.3	-125.4	-11.7	**0.0**	-0.0	-0.0
My,	-245.3	-123.2	-61.2	-0.0	**-0.0**	0.0	-137.1	126.7	-16.6	-0.0	**0.0**	0.0
Mz,	-172.4	-123.8	-32.2	0.0	-0.0	**-0.0**	-223.9	-102.4	-30.8	-0.0	-0.0	**0.0**

Member 374

Fx,	**-320.1**	0.0	50.0	0.0	-87.5	0.0	**123.5**	-0.0	26.8	-0.0	-46.8	-0.0
Fy,	-2.9	**-0.0**	72.5	0.0	-126.9	-0.0	-228.3	**0.0**	49.2	-0.0	-86.2	0.0
Fz,	-118.8	0.0	**-13.9**	-0.0	24.3	0.0	-56.1	-0.0	**117.8**	-0.0	-206.2	-0.0
Mx,	-240.6	0.0	77.2	**-0.0**	-135.1	0.0	-113.0	0.0	-2.0	**0.0**	3.5	0.0
My,	-56.1	-0.0	117.8	-0.0	**-206.2**	-0.0	-118.8	0.0	-13.9	-0.0	**24.3**	0.0
Mz	-3.4	-0.0	74.5	0.0	-130.4	**-0.0**	-233.3	0.0	51.5	-0.0	-90.1	**0.0**
Fx,	**-320.1**	0.0	50.0	0.0	0.0	-0.0	**123.5**	-0.0	26.8	-0.0	0.0	0.0
Fy,	-2.9	**-0.0**	72.5	0.0	0.0	0.0	-228.3	**0.0**	49.2	-0.0	0.0	-0.0

Fz,	-118.8	0.0	**-13.9**	-0.0	0.0	-0.0	-56.1	-0.0	**117.8**	-0.0	0.0	0.0
Mx,	-240.6	0.0	77.2	**-0.0**	0.0	-0.0	-113.0	0.0	-2.0	**0.0**	0.0	-0.0
My,	-11.8	-0.0	72.1	-0.0	**0.0**	0.0	-241.5	0.0	46.3	-0.0	**0.0**	-0.0
Mz,	-262.0	0.0	56.7	-0.0	0.0	**-0.0**	14.3	-0.0	42.8	0.0	0.0	**0.0**

Member 375

Fx,	**-932.9**	0.0	20.3	0.0	-211.9	0.0	**-230.3**	-26.0	-5.8	-0.0	-73.4	-45.5
Fy,	-615.4	**-26.0**	17.4	0.0	-135.4	-45.5	-587.2	**2.0**	6.0	-0.0	-190.5	3.4
Fz,	-333.2	2.0	**-9.5**	-0.0	-36.0	3.4	-806.9	-26.0	**38.3**	0.0	**-400.1**	-45.5
Mx,	-404.5	-26.0	6.5	**-0.0**	-203.9	-45.5	-532.1	2.0	12.7	**0.0**	-87.5	3.4
My,	-774.7	-26.0	35.3	-0.0	**-433.0**	-45.5	-379.8	2.0	0.5	0.0	**19.4**	3.4
Mz,	-615.4	-26.0	17.4	0.0	-135.4	**-45.5**	-587.2	2.0	6.0	-0.0	-190.5	**3.4**
Fx,	**-932.9**	0.0	20.3	0.0	-176.3	-0.0	**-230.3**	-0.0	-5.8	-0.0	-83.6	0.0
Fy,	-615.4	**-0.0**	17.4	0.0	-105.0	0.0	-638.7	**0.0**	9.4	-0.0	-154.1	-0.0
Fz,	-333.2	-0.0	**-9.5**	-0.0	-52.6	0.0	-806.9	-0.0	**38.3**	0.0	-333.0	0.0
Mx,	-404.5	0.0	6.5	**-0.0**	-192.6	-0.0	-532.1	-0.0	12.7	**0.0**	-65.3	0.0
My,	-844.8	0.0	35.3	-0.0	**-371.3**	-0.0	-298.1	-0.0	0.6	0.0	**20.4**	0.0
Mz,	-672.5	0.0	11.3	-0.0	-164.9	**-0.0**	-593.4	-0.0	16.6	0.0	-96.1	**0.0**

Member 376

Fx,	**-1065.2**	-5.4	43.3	0.0	-300.2	-9.5	**-263.8**	27.2	-55.9	-0.0	15.6	47.6
Fy,	-646.5	**-27.2**	-38.0	0.0	-159.3	-47.6	-725.2	**5.4**	64.7	-0.0	-271.5	9.5
Fz,	-318.0	-5.4	**-60.3**	-0.0	58.2	-9.5	-913.0	27.2	**88.4**	0.0	-473.6	47.6
Mx,	-496.5	0.0	-2.0	**-0.0**	-190.2	0.0	-670.7	0.0	60.6	**0.0**	-232.5	0.0
My,	-971.0	0.0	62.1	0.0	**-513.6**	0.0	-316.2	-27.2	-60.1	-0.0	**59.8**	-47.6
Mz,	-644.1	-27.2	-39.2	0.0	-148.7	**-47.6**	-783.7	5.4	67.1	-0.0	-293.5	**9.5**
Fx,	**-1065.2**	-0.0	43.3	0.0	-224.5	0.0	**-263.8**	0.0	-55.9	-0.0	-82.1	-0.0
Fy,	-646.6	**-0.0**	-38.0	0.0	-225.8	0.0	-726.5	**0.0**	64.7	-0.0	-158.3	0.0
Fz,	-318.0	-0.0	**-60.3**	-0.0	-47.3	0.0	-913.0	0.0	**88.4**	0.0	-318.9	-0.0
Mx,	-496.5	0.0	-2.0	**-0.0**	-193.8	-0.0	-670.7	0.0	60.6	**0.0**	-125.4	-0.0
My,	-956.1	-0.0	30.2	-0.0	**-434.1**	0.0	-403.7	0.0	38.0	-0.0	**-3.8**	-0.0
Mz,	-827.7	0.0	67.7	-0.0	-208.0	**-0.0**	-854.1	-0.0	8.1	0.0	-264.5	**0.0**

Member 377

Fx,	**-1065.7**	-0.0	38.4	0.0	-313.4	-0.0	**-248.8**	-33.0	-51.2	-0.0	58.0	-57.8
Fy,	-870.9	**-33.0**	67.5	0.0	-381.8	-57.8	-514.2	**6.6**	-41.5	-0.0	-67.8	11.6
Fz,	-294.8	6.6	**-55.1**	-0.0	100.9	11.6	-915.0	-33.0	**80.4**	0.0	-517.1	-57.8
Mx,	-726.6	-0.0	7.5	**-0.0**	-245.7	-0.0	-367.7	-0.0	12.0	**0.0**	-135.3	-0.0
My,	-910.3	-29.7	77.7	0.0	**-546.3**	-52.1	-292.8	6.6	-55.0	-0.0	**102.6**	11.6
Mz,	-870.9	-33.0	67.5	0.0	-381.8	**-57.8**	-514.2	6.6	-41.5	-0.0	-67.8	**11.6**
Fx,	**-1065.7**	-0.0	38.4	0.0	-246.1	0.0	**-248.8**	0.0	-51.2	-0.0	-31.6	-0.0
Fy,	-787.6	**-0.0**	58.2	0.0	-212.1	0.0	-513.7	**0.0**	-41.5	-0.0	-140.4	-0.0
Fz,	-294.8	-0.0	**-55.1**	-0.0	4.5	0.0	-915.0	0.0	**80.4**	0.0	-376.3	-0.0
Mx,	-726.6	-0.0	7.5	**-0.0**	-232.5	0.0	-367.7	-0.0	12.0	**0.0**	-114.3	0.0
My,	-930.1	-0.0	24.9	0.0	**-434.3**	0.0	-325.0	0.0	-25.2	-0.0	**7.3**	-0.0
Mz,	-615.6	0.0	-38.8	-0.0	-161.3	**-0.0**	-715.2	-0.0	54.2	0.0	-181.9	**0.0**

Member 378

Fx,	**-1074.0**	-32.8	39.4	0.0	-323.2	-57.4	**-240.4**	6.6	-56.9	0.0	86.8	11.5
Fy,	-658.4	**-32.8**	-8.7	-0.0	-127.8	-57.4	-761.6	**6.6**	33.7	0.0	-299.2	11.5
Fz,	-286.8	-32.8	**-60.7**	0.0	129.6	-57.4	-925.8	6.6	**84.7**	0.0	-545.8	11.5
Mx,	-772.1	0.0	2.7	**-0.0**	-177.4	0.0	-634.9	-32.8	59.5	**0.0**	-282.7	-57.4
My,	-921.6	0.0	81.2	-0.0	**-571.0**	0.0	-284.2	-32.8	-60.5	0.0	**131.4**	-57.4
Mz,	-691.7	-32.8	-3.4	0.0	-154.9	**-57.4**	-713.7	6.6	27.0	-0.0	-237.6	**11.5**
Fx,	**-1074.0**	-0.0	39.4	0.0	-254.2	0.0	**-240.4**	0.0	-56.9	0.0	-12.7	0.0
Fy,	-658.4	**-0.0**	-8.7	-0.0	-143.1	0.0	-761.6	**0.0**	33.7	0.0	-240.3	0.0
Fz,	-286.8	-0.0	**-60.7**	0.0	23.4	0.0	-925.8	0.0	**84.7**	0.0	-397.6	0.0
Mx,	-772.1	0.0	2.7	**-0.0**	-172.7	-0.0	-634.9	-0.0	59.5	**0.0**	-178.5	0.0
My,	-987.0	-0.0	54.8	-0.0	**-442.0**	0.0	-266.0	0.0	-60.3	0.0	**25.5**	0.0

Mz,	-803.2	0.0	36.3	0.0	-268.4	**-0.0**	-622.6	-0.0	-10.7	-0.0	-121.1	**0.0**

Member 379

Fx,	**-1068.8**	-0.0	38.7	0.0	-321.8	-0.0	**-240.4**	-32.8	-55.1	-0.0	84.6	-57.4
Fy,	-719.1	**-32.8**	-8.3	-0.0	-199.0	-57.4	-693.0	**6.6**	33.2	0.0	-236.1	11.5
Fz,	-287.0	6.6	**-58.9**	-0.0	127.7	11.5	-921.8	-32.8	**83.0**	0.0	-543.7	-57.4
Mx,	-510.5	-32.8	-13.9	**-0.0**	-54.7	-57.4	-371.2	-0.0	8.5	**0.0**	-87.1	-0.0
My,	-918.0	-29.5	79.7	0.0	**-569.0**	-51.7	-285.1	6.6	-58.8	-0.0	**129.3**	11.5
Mz,	-719.1	-32.8	-8.3	-0.0	-199.0	**-57.4**	-693.0	6.6	33.2	0.0	-236.1	**11.5**
Fx,	**-1068.8**	-0.0	38.7	0.0	-254.2	0.0	**-240.4**	-0.0	-55.1	-0.0	-11.8	0.0
Fy,	-719.1	**-0.0**	-8.3	-0.0	-213.5	0.0	-692.5	**0.0**	33.2	0.0	-178.0	-0.0
Fz,	-287.0	-0.0	**-58.9**	-0.0	24.6	0.0	-921.8	-0.0	**83.0**	0.0	-398.5	0.0
Mx,	-510.5	-0.0	-13.9	**-0.0**	-79.0	0.0	-371.2	-0.0	8.5	**0.0**	-72.2	0.0
My,	-984.1	-0.0	54.3	0.0	**-442.3**	0.0	-266.3	-0.0	-58.6	-0.0	**26.5**	0.0
Mz,	-749.8	0.0	35.9	0.0	-196.1	**-0.0**	-640.3	-0.0	-10.2	-0.0	-188.0	**0.0**

Member 380

Fx,	**-1080.6**	-33.0	39.2	0.0	-313.7	-57.8	**-251.1**	6.6	-50.6	0.0	51.0	11.6
Fy,	-883.9	**-33.0**	62.0	0.0	-345.2	-57.8	-623.4	**6.6**	-33.2	0.0	-112.9	11.6
Fz,	-316.2	-33.0	**-54.2**	0.0	92.6	-57.8	-922.0	6.6	**80.2**	0.0	-509.9	11.6
Mx,	-808.5	-0.0	9.4	**-0.0**	-200.2	-0.0	-632.7	-0.0	51.1	**0.0**	-249.7	-0.0
My,	-920.1	-0.0	77.1	0.0	**-538.3**	-0.0	-314.1	-33.0	-54.0	0.0	**94.4**	-57.8
Mz,	-891.6	-33.0	64.8	0.0	-356.8	**-57.8**	-633.8	6.6	-35.7	0.0	-107.7	**11.6**
Fx,	**-1080.6**	-0.0	39.2	0.0	-245.1	0.0	**-251.1**	0.0	-50.6	0.0	-37.5	-0.0
Fy,	-883.9	**-0.0**	62.0	0.0	-236.7	0.0	-623.4	**0.0**	-33.2	0.0	-171.1	-0.0
Fz,	-316.2	-0.0	**-54.2**	0.0	-2.3	0.0	-922.0	0.0	**80.2**	0.0	-369.6	-0.0
Mx,	-808.5	-0.0	9.4	**-0.0**	-183.7	0.0	-632.7	-0.0	51.1	**0.0**	-160.3	**0.0**
My,	-961.1	-0.0	25.0	0.0	**-430.9**	0.0	-325.8	0.0	-24.8	0.0	**3.1**	-0.0
Mz,	-648.5	0.0	-30.0	0.0	-197.2	**-0.0**	-865.8	-0.0	60.6	0.0	-225.5	**0.0**

Member 381

Fx,	**-931.1**	-0.0	40.0	0.0	-268.1	-0.0	**-175.3**	-5.5	-50.7	0.0	-23.4	-9.6
Fy,	-655.5	**-27.5**	61.9	0.0	-223.2	-48.1	-534.0	**5.5**	-40.1	0.0	-122.2	9.6
Fz,	-299.8	27.5	**-54.9**	0.0	13.6	48.1	-739.0	-5.5	**81.1**	0.0	-416.9	-9.6
Mx,	-663.3	-24.8	-12.1	**0.0**	-285.4	-43.3	-447.2	0.0	5.3	**0.0**	-133.3	**0.0**
My,	-790.7	-5.5	56.8	0.0	**-455.1**	-9.6	-298.5	27.5	-54.7	0.0	**15.2**	48.1
Mz,	-655.5	-27.5	61.9	0.0	-223.2	**-48.1**	-534.0	5.5	-40.1	0.0	-122.2	**9.6**
Fx,	**-931.1**	-0.0	40.0	0.0	-198.1	0.0	**-175.3**	0.0	-50.7	0.0	-112.0	-0.0
Fy,	-655.5	**-0.0**	61.9	0.0	-114.9	0.0	-492.1	**0.0**	-40.1	0.0	-192.3	-0.0
Fz,	-299.8	0.0	**-54.9**	0.0	-82.5	-0.0	-739.0	0.0	**81.1**	0.0	-274.9	-0.0
Mx,	-663.3	-0.0	-12.1	**0.0**	-306.7	0.0	-447.2	0.0	5.3	**0.0**	-124.0	-0.0
My,	-815.5	0.0	24.9	0.0	**-394.0**	-0.0	-304.4	0.0	40.2	0.0	**-8.3**	-0.0
Mz,	-627.7	0.0	-35.9	0.0	-221.7	**-0.0**	-594.1	-0.0	60.9	0.0	-113.1	**0.0**

Member 382

Fx,	**-332.7**	-132.2	68.8	-0.0	-120.4	-231.4	**-29.6**	129.8	-28.2	0.0	49.4	227.2
Fy,	-313.5	**-136.3**	63.9	-0.0	-111.8	-238.6	-53.5	**130.1**	-7.0	-0.0	12.3	227.7
Fz,	-123.7	-128.5	**-34.7**	0.0	60.7	-225.0	-210.6	130.0	**101.0**	-0.0	-176.8	227.5
Mx,	-254.3	-116.4	67.6	**-0.0**	-118.3	-203.7	-179.1	-129.0	23.1	**0.0**	-40.4	-225.7
My,	-210.6	130.0	101.0	-0.0	**-176.8**	227.5	-123.7	-128.5	-34.7	0.0	**60.7**	-225.0
Mz,	-313.5	-136.3	63.9	-0.0	-111.8	**-238.6**	-53.5	130.1	-7.0	-0.0	12.3	**227.7**
Fx,	**-332.7**	-122.4	68.8	-0.0	-0.0	0.0	**-29.6**	128.0	-28.2	0.0	0.0	-0.0
Fy,	-312.4	**-130.8**	63.9	-0.0	0.0	0.0	-52.4	**124.0**	-7.0	-0.0	0.0	-0.0
Fz,	-123.7	-126.7	**-34.7**	0.0	0.0	0.0	-210.6	120.2	**101.0**	-0.0	0.0	-0.0
Mx,	-254.3	-106.6	67.6	**-0.0**	0.0	0.0	-179.1	-127.1	23.1	**0.0**	0.0	0.0
My,	-230.0	-99.2	43.0	0.0	**-0.0**	0.0	-179.5	100.7	47.2	-0.0	**0.0**	-0.0
Mz,	-234.3	116.5	55.4	-0.0	0.0	**-0.0**	-171.8	-123.5	12.3	-0.0	0.0	**0.0**

Member 391

Fx,	**-932.9**	0.0	-20.3	0.0	176.3	0.0	**-223.8**	0.0	4.3	0.0	96.4	0.0
Fy,	-529.9	**0.0**	-11.2	0.0	122.5	0.0	-446.3	**0.0**	-6.2	0.0	96.7	0.0
Fz,	-806.9	0.0	**-38.3**	0.0	333.0	0.0	-350.7	0.0	**9.2**	0.0	58.0	0.0
Mx,	-529.9	0.0	-11.2	**0.0**	122.5	0.0	-446.3	0.0	-6.2	**0.0**	96.7	0.0
My,	-340.2	0.0	-1.1	0.0	**-15.9**	0.0	-844.8	0.0	-35.3	0.0	**371.3**	0.0
Mz,	-529.9	0.0	-11.2	0.0	122.5	**0.0**	-446.3	0.0	-6.2	0.0	96.7	**0.0**
Fx,	**-1022.6**	0.0	-20.3	0.0	-97.3	0.0	**-313.4**	-26.0	8.6	0.0	182.8	350.4
Fy,	-629.1	**-26.0**	-19.8	0.0	-141.5	350.4	-530.8	**2.0**	1.6	0.0	107.4	-26.4
Fz,	-819.7	-23.4	**-41.6**	0.0	-250.6	315.3	-440.3	2.0	**13.5**	0.0	210.9	-26.4
Mx,	-619.5	0.0	-11.2	**0.0**	-28.3	0.0	-535.9	0.0	-6.2	**0.0**	12.5	0.0
My,	-818.4	-23.4	-41.5	0.0	**-251.0**	315.3	-439.7	2.0	13.5	0.0	**211.1**	-26.4
Mz,	-647.6	2.0	-19.8	0.0	-141.5	**-26.4**	-526.6	-26.0	-6.3	0.0	12.4	**350.4**

Member 392

Fx,	**-1065.2**	0.0	-43.3	0.0	224.5	0.0	**-254.5**	0.0	54.6	0.0	98.2	0.0
Fy,	-645.0	**0.0**	-20.9	0.0	168.6	0.0	-536.9	**0.0**	-6.0	0.0	122.0	0.0
Fz,	-913.0	0.0	**-88.4**	0.0	318.9	0.0	-324.9	0.0	**60.5**	0.0	54.7	0.0
Mx,	-645.0	0.0	-20.9	**0.0**	168.6	0.0	-536.9	0.0	-6.0	**0.0**	122.0	0.0
My,	-422.9	0.0	-38.0	0.0	**10.4**	0.0	-956.1	0.0	-30.2	0.0	**434.1**	0.0
Mz,	-645.0	0.0	-20.9	0.0	168.6	**0.0**	-536.9	0.0	-6.0	0.0	122.0	**0.0**
Fx,	**-1147.6**	-5.4	-43.3	0.0	-312.0	67.4	**-337.0**	27.2	58.5	0.0	799.2	-337.2
Fy,	-775.0	**-27.2**	-65.7	0.0	-634.6	337.2	-582.2	**5.4**	31.1	0.0	489.7	-67.4
Fz,	-995.4	27.2	**-92.4**	0.0	-801.4	-337.2	-407.3	-5.4	**64.5**	0.0	829.3	67.4
Mx,	-727.4	0.0	-20.9	**0.0**	-90.2	0.0	-619.3	0.0	-6.0	**0.0**	47.2	0.0
My,	-997.2	27.2	-91.7	0.0	**-806.2**	-337.2	-400.9	-5.4	64.1	0.0	**830.8**	67.4
Mz,	-773.6	5.4	-65.7	0.0	-634.6	**-67.4**	-620.0	-27.2	-6.0	0.0	47.2	**337.2**

Member 393

Fx,	**-1065.7**	0.0	-38.4	0.0	246.1	0.0	**-237.6**	0.0	49.3	0.0	52.7	0.0
Fy,	-636.9	**0.0**	-19.1	0.0	177.5	0.0	-530.2	**0.0**	-6.1	0.0	122.2	0.0
Fz,	-915.0	0.0	**-80.4**	0.0	376.3	0.0	-317.0	0.0	**55.0**	0.0	3.5	0.0
Mx,	-636.9	0.0	-19.1	**0.0**	177.5	0.0	-530.2	0.0	-6.1	**0.0**	122.2	0.0
My,	-356.9	0.0	24.9	0.0	**0.8**	0.0	-930.1	0.0	-24.9	0.0	**434.3**	0.0
Mz,	-636.9	0.0	-19.1	0.0	177.5	**0.0**	-530.2	0.0	-6.1	0.0	122.2	**0.0**
Fx,	**-1169.1**	0.0	-38.4	0.0	-351.0	0.0	**-341.0**	-33.0	54.3	0.0	857.6	513.7
Fy,	-798.5	**-33.0**	-62.6	0.0	-734.9	513.7	-587.9	**6.6**	30.2	0.0	529.4	-102.7
Fz,	-1018.4	-33.0	**-85.4**	0.0	-912.5	513.7	-420.3	6.6	**60.0**	0.0	897.6	-102.7
Mx,	-740.3	0.0	-19.1	**0.0**	-119.5	0.0	-633.5	0.0	-6.1	**0.0**	28.1	0.0
My,	-1020.5	-33.0	-85.1	0.0	**-917.0**	513.7	-412.8	6.6	59.8	0.0	**899.6**	-102.7
Mz,	-799.1	6.6	-62.6	0.0	-734.9	**-102.7**	-633.2	-33.0	-6.1	0.0	28.1	**513.7**

Member 394

Fx,	**-1074.0**	0.0	-39.4	0.0	254.1	0.0	**-229.3**	0.0	54.9	0.0	33.9	0.0
Fy,	-640.5	**0.0**	-19.2	0.0	181.4	0.0	-531.9	**0.0**	-5.6	0.0	122.7	0.0
Fz,	-925.8	0.0	**-84.7**	0.0	397.6	0.0	-310.6	0.0	**60.6**	0.0	-16.7	0.0
Mx,	-640.5	0.0	-19.2	**0.0**	181.4	0.0	-531.9	0.0	-5.6	**0.0**	122.7	0.0
My,	-298.2	0.0	59.9	0.0	**-17.7**	0.0	-987.0	0.0	-54.8	0.0	**442.0**	0.0
Mz,	-640.5	0.0	-19.2	0.0	181.4	**0.0**	-531.9	0.0	-5.6	0.0	122.7	**0.0**
Fx,	**-1181.4**	-32.8	-39.4	0.0	-382.9	529.9	**-336.8**	6.6	60.1	0.0	963.3	-105.8
Fy,	-813.7	**-32.8**	-67.3	0.0	-826.5	529.9	-587.6	**6.6**	34.4	0.0	600.8	-105.8
Fz,	-1033.2	6.6	**-89.8**	0.0	-1012.0	-105.8	-418.1	-32.8	**65.8**	0.0	1004.3	529.9
Mx,	-747.9	0.0	-19.2	**0.0**	-128.8	0.0	-639.4	0.0	-5.6	**0.0**	32.3	0.0
My,	-1044.8	6.6	-89.5	0.0	**-1017.2**	-105.8	-399.0	-32.8	65.6	0.0	**1007.0**	529.9
Mz,	-813.4	6.6	-67.3	0.0	-826.5	**-105.8**	-639.6	-32.8	-5.6	0.0	32.3	**529.9**

Member 395

Fx,	**-1068.8**	0.0	-38.7	0.0	254.2	0.0	**-229.5**	0.0	53.2	0.0	33.1	0.0
Fy,	-641.4	**0.0**	-18.9	0.0	181.2	0.0	-530.3	**0.0**	-5.7	0.0	122.5	0.0
Fz,	-921.8	0.0	**-83.0**	0.0	398.5	0.0	-310.8	0.0	**58.8**	0.0	-17.6	0.0
Mx,	-641.4	0.0	-18.9	**0.0**	181.2	0.0	-530.3	0.0	-5.7	**0.0**	122.5	0.0
My,	-296.3	0.0	58.1	0.0	**-18.5**	0.0	-984.1	0.0	-54.3	0.0	**442.3**	0.0
Mz,	-641.4	0.0	-18.9	0.0	181.2	**0.0**	-530.3	0.0	-5.7	0.0	122.5	**0.0**
Fx,	**-1177.4**	0.0	-38.7	0.0	-377.1	0.0	**-338.1**	-32.8	58.4	0.0	944.5	535.7
Fy,	-814.5	**-32.8**	-65.8	0.0	-812.3	535.7	-588.3	**6.6**	33.2	0.0	587.2	-107.1
Fz,	-1030.5	-32.8	**-88.2**	0.0	-999.3	535.7	-419.4	6.6	**64.0**	0.0	985.5	-107.1
Mx,	-750.0	0.0	-18.9	**0.0**	-128.2	0.0	-638.9	0.0	-5.7	**0.0**	29.5	0.0
My,	-1034.3	-32.8	-87.9	0.0	**-1004.3**	535.7	-409.9	6.6	63.8	0.0	**988.2**	-107.1
Mz,	-815.5	6.6	-65.8	0.0	-812.3	**-107.1**	-638.4	-32.8	-5.7	0.0	29.5	**535.7**

Member 396

Fx,	**-1080.6**	0.0	-39.2	0.0	245.1	0.0	**-241.5**	0.0	49.6	0.0	53.3	0.0
Fy,	-632.6	**0.0**	-19.7	0.0	178.3	0.0	-536.6	**0.0**	-6.3	0.0	122.3	0.0
Fz,	-922.0	0.0	**-80.2**	0.0	369.6	0.0	-325.6	0.0	**54.6**	0.0	8.2	0.0
Mx,	-632.6	0.0	-19.7	**0.0**	178.3	0.0	-536.6	0.0	-6.3	**0.0**	122.3	0.0
My,	-347.3	0.0	24.8	0.0	**3.0**	0.0	-961.1	0.0	-25.0	0.0	**430.9**	0.0
Mz,	-632.6	0.0	-19.7	0.0	178.3	**0.0**	-536.6	0.0	-6.3	0.0	122.3	**0.0**
Fx,	**-1182.6**	-33.0	-39.2	0.0	-355.6	507.1	**-343.6**	6.6	54.5	0.0	852.5	-101.4
Fy,	-794.2	**-33.0**	-62.9	0.0	-728.9	507.1	-591.6	**6.6**	29.6	0.0	518.5	-101.4
Fz,	-1024.0	6.6	**-85.1**	0.0	-898.3	-101.4	-427.6	-33.0	**59.5**	0.0	884.1	507.1
Mx,	-734.6	0.0	-19.7	**0.0**	-124.6	0.0	-638.7	0.0	-6.3	**0.0**	26.1	0.0
My,	-1026.7	6.6	-84.8	0.0	**-903.3**	-101.4	-421.6	-33.0	59.3	0.0	**886.2**	507.1
Mz,	-789.8	6.6	-62.9	0.0	-729.0	**-101.4**	-641.0	-33.0	-6.3	0.0	26.1	**507.1**

Member 397

Fx,	**-931.1**	0.0	-40.0	0.0	198.1	0.0	**-168.9**	0.0	49.0	0.0	124.4	0.0
Fy,	-569.1	**0.0**	-20.6	0.0	144.0	0.0	-447.2	**0.0**	-5.3	0.0	124.0	0.0
Fz,	-739.0	0.0	**-81.1**	0.0	274.9	0.0	-316.1	0.0	**55.6**	0.0	91.3	0.0
Mx,	-569.1	0.0	-20.6	**0.0**	144.0	0.0	-447.2	0.0	-5.3	**0.0**	124.0	0.0
My,	-339.8	0.0	-39.8	0.0	**13.0**	0.0	-815.5	0.0	-24.9	0.0	**394.0**	0.0
Mz,	-569.1	0.0	-20.6	0.0	144.0	**0.0**	-447.2	0.0	-5.3	0.0	124.0	**0.0**
Fx,	**-1007.3**	0.0	-40.0	0.0	-260.3	0.0	**-245.1**	-5.5	52.6	0.0	706.5	63.0
Fy,	-653.8	**-27.5**	-60.9	0.0	-558.6	315.1	-514.1	**5.5**	28.0	0.0	440.6	-63.0
Fz,	-815.2	-5.5	**-84.8**	0.0	-675.7	63.0	-392.3	27.5	**59.3**	0.0	749.4	-315.1
Mx,	-645.3	0.0	-20.6	**0.0**	-92.5	0.0	-523.4	0.0	-5.3	**0.0**	62.8	0.0
My,	-812.2	-5.5	-84.1	0.0	**-684.8**	63.0	-392.0	27.5	58.7	0.0	**754.5**	-315.1
Mz,	-705.7	5.5	-60.9	0.0	-558.4	**-63.0**	-502.5	-27.5	-5.3	0.0	62.7	**315.1**

Member 398

Fx,	**-932.9**	0.0	20.3	0.0	-176.3	0.0	**-230.3**	0.0	-5.8	0.0	-83.6	0.0
Fy,	-669.7	**0.0**	12.3	0.0	-165.3	0.0	-446.3	**0.0**	6.2	0.0	-96.7	0.0
Fz,	-333.2	0.0	**-9.5**	0.0	-52.6	0.0	-806.9	0.0	**38.3**	0.0	-333.0	0.0
Mx,	-669.7	0.0	12.3	**0.0**	-165.3	0.0	-446.3	0.0	6.2	**0.0**	-96.7	0.0
My,	-844.8	0.0	35.3	0.0	**-371.3**	0.0	-298.1	0.0	0.6	0.0	**20.4**	0.0
Mz,	-669.7	0.0	12.3	0.0	-165.3	**0.0**	-446.3	0.0	6.2	0.0	-96.7	**0.0**
Fx,	**-1022.6**	0.0	20.3	0.0	97.3	0.0	**-319.9**	-26.0	-10.1	0.0	-190.7	350.4
Fy,	-731.1	**-26.0**	3.7	0.0	-112.8	350.4	-559.3	**2.0**	14.1	0.0	82.4	-26.4
Fz,	-422.8	2.0	**-13.8**	0.0	-210.2	-26.4	-819.7	-23.4	**41.6**	0.0	250.6	315.3
Mx,	-759.3	0.0	12.3	**0.0**	0.5	0.0	-535.9	0.0	6.2	**0.0**	-12.5	0.0
My,	-424.1	2.0	-13.8	0.0	**-210.5**	-26.4	-818.4	-23.4	41.5	0.0	**251.0**	315.3
Mz,	-749.5	2.0	3.7	0.0	-112.8	**-26.4**	-526.6	-26.0	6.3	0.0	-12.4	**350.4**

Member 399

Fx,	**-1065.2**	0.0	43.3	0.0	-224.5	0.0	**-263.8**	0.0	-55.9	0.0	-82.1	0.0
Fy,	-786.2	**0.0**	5.4	0.0	-187.2	0.0	-536.9	**0.0**	6.0	0.0	-122.0	0.0
Fz,	-318.0	0.0	**-60.3**	0.0	-47.3	0.0	-913.0	0.0	**88.4**	0.0	-318.9	0.0
Mx,	-786.2	0.0	5.4	**0.0**	-187.2	0.0	-536.9	0.0	6.0	**0.0**	-122.0	0.0
My,	-956.1	0.0	30.2	0.0	**-434.1**	0.0	-403.7	0.0	38.0	0.0	**-3.8**	0.0

Mz,	-786.2	0.0	5.4	0.0	-187.2	**0.0**	-536.9	0.0	6.0	0.0	-122.0	**0.0**
Fx,	**-1147.6**	-5.4	43.3	0.0	312.0	67.4	**-346.2**	27.2	-59.8	0.0	-799.3	-337.2
Fy,	-822.4	**-27.2**	-39.4	0.0	-664.9	337.2	-655.1	**5.4**	43.2	0.0	395.4	-67.4
Fz,	-400.4	-5.4	**-64.2**	0.0	-819.2	67.4	-995.4	27.2	**92.4**	0.0	801.5	-337.2
Mx,	-868.7	0.0	5.4	**0.0**	-120.5	0.0	-619.3	0.0	6.0	**0.0**	-47.2	0.0
My,	-398.7	-5.4	-63.9	0.0	**-820.9**	67.4	-997.2	27.2	91.7	0.0	**806.2**	-337.2
Mz,	-821.1	5.4	-39.4	0.0	-664.8	**-67.4**	-620.0	-27.2	6.0	0.0	-47.2	**337.2**

Member 400

Fx,	**-1065.7**	0.0	38.4	0.0	-246.1	0.0	**-248.8**	0.0	-51.2	0.0	-31.6	0.0
Fy,	-771.1	**0.0**	4.6	0.0	-182.0	0.0	-530.2	**0.0**	6.1	0.0	-122.2	0.0
Fz,	-294.8	0.0	**-55.1**	0.0	4.5	0.0	-915.0	0.0	**80.4**	0.0	-376.3	0.0
Mx,	-771.1	0.0	4.6	**0.0**	-182.0	0.0	-530.2	0.0	6.1	**0.0**	-122.2	0.0
My,	-930.1	0.0	24.9	0.0	**-434.4**	0.0	-325.0	0.0	-25.2	0.0	**7.3**	0.0
Mz,	-771.1	0.0	4.6	0.0	-182.0	**0.0**	-530.2	0.0	6.1	0.0	-122.2	**0.0**
Fx,	**-1169.1**	0.0	38.4	0.0	351.0	0.0	**-352.1**	-33.0	-56.2	0.0	-866.6	513.7
Fy,	-815.6	**-33.0**	-39.0	0.0	-726.5	513.7	-679.6	**6.6**	42.3	0.0	473.2	-102.7
Fz,	-398.1	6.6	**-60.1**	0.0	-890.5	-102.7	-1018.4	-33.0	**85.4**	0.0	912.5	513.7
Mx,	-874.5	0.0	4.6	**0.0**	-111.1	0.0	-633.5	0.0	6.1	**0.0**	-28.1	0.0
My,	-395.8	6.6	-59.9	0.0	**-891.6**	-102.7	-1020.5	-33.0	85.1	0.0	**916.9**	513.7
Mz,	-816.1	6.6	-39.0	0.0	-725.5	**-102.7**	-633.2	-33.0	6.1	0.0	-28.1	**513.7**

Member 401

Fx,	**-1074.0**	0.0	39.4	0.0	-254.2	0.0	**-240.4**	0.0	-56.9	0.0	-12.7	0.0
Fy,	-772.1	**0.0**	3.2	0.0	-179.6	0.0	-531.9	**0.0**	5.6	0.0	-122.7	0.0
Fz,	-286.8	0.0	**-60.7**	0.0	23.4	0.0	-925.8	0.0	**84.7**	0.0	-397.6	0.0
Mx,	-772.1	0.0	3.2	**0.0**	-179.6	0.0	-531.9	0.0	5.6	**0.0**	-122.7	0.0
My,	-987.0	0.0	54.8	0.0	**-442.0**	0.0	-266.0	0.0	-60.3	0.0	**25.5**	0.0
Mz,	-772.1	0.0	3.2	0.0	-179.6	**0.0**	-531.9	0.0	5.6	0.0	-122.7	**0.0**
Fx,	**-1181.4**	-32.8	39.4	0.0	383.0	529.9	**-347.9**	6.6	-62.0	0.0	-973.3	-105.8
Fy,	-814.1	**-32.8**	-45.0	0.0	-826.3	529.9	-690.9	**6.6**	45.5	0.0	536.2	-105.8
Fz,	-394.3	-32.8	**-65.8**	0.0	-998.5	529.9	-1033.2	6.6	**89.8**	0.0	1012.0	-105.8
Mx,	-879.6	0.0	3.2	**0.0**	-128.7	0.0	-639.4	0.0	5.6	**0.0**	-32.3	0.0
My,	-581.5	-32.8	-60.6	0.0	**-1001.6**	529.9	-1044.8	6.6	89.5	0.0	**1017.2**	-105.8
Mz,	-813.8	6.6	-45.0	0.0	-826.3	**-105.8**	-639.6	-32.8	5.6	0.0	-32.3	**529.9**

Member 402

Fx,	**-1068.8**	0.0	38.7	0.0	-254.2	0.0	**-240.4**	0.0	-55.1	0.0	-11.8	0.0
Fy,	-773.1	**0.0**	3.5	0.0	-179.6	0.0	-530.3	**0.0**	5.7	0.0	-122.5	0.0
Fz,	-287.0	0.0	**-58.9**	0.0	24.6	0.0	-921.8	0.0	**83.0**	0.0	-398.5	0.0
Mx,	-773.1	0.0	3.5	**0.0**	-179.6	0.0	-530.3	0.0	5.7	**0.0**	-122.5	0.0
My,	-984.1	0.0	54.3	0.0	**-442.3**	0.0	-266.3	0.0	-58.6	0.0	**26.5**	0.0
Mz,	-773.1	0.0	3.5	0.0	-179.6	**0.0**	-530.3	0.0	5.7	0.0	-122.5	**0.0**
Fx,	**-1177.4**	0.0	38.7	0.0	377.1	0.0	**-349.1**	-32.8	-60.3	0.0	-954.8	535.7
Fy,	-816.2	**-32.8**	-43.3	0.0	-806.7	535.7	-690.5	**6.6**	44.6	0.0	528.1	-107.1
Fz,	-395.6	6.6	**-64.1**	0.0	-979.9	-107.1	-1030.5	-32.8	**88.2**	0.0	999.2	535.7
Mx,	-881.7	0.0	3.5	**0.0**	-122.6	0.0	-638.9	0.0	5.7	**0.0**	-29.6	0.0
My,	-588.7	6.6	-58.9	0.0	**-982.4**	-107.1	-1034.3	-32.8	87.9	0.0	**1004.3**	535.7
Mz,	-817.1	6.6	-43.3	0.0	-806.7	**-107.1**	-638.4	-32.8	5.7	0.0	-29.6	**535.7**

Member 403

Fx,	**-1080.6**	0.0	39.2	0.0	-245.1	0.0	**-251.1**	0.0	-50.6	0.0	-37.5	0.0
Fy,	-767.8	**0.0**	4.5	0.0	-181.0	0.0	-536.6	**0.0**	6.3	0.0	-122.3	0.0
Fz,	-316.2	0.0	**-54.2**	0.0	-2.3	0.0	-922.0	0.0	**80.2**	0.0	-369.6	0.0
Mx,	-767.8	0.0	4.5	**0.0**	-181.0	0.0	-536.6	0.0	6.3	**0.0**	-122.3	0.0
My,	-961.1	0.0	25.0	0.0	**-430.9**	0.0	-325.8	0.0	-24.8	0.0	**3.1**	0.0
Mz,	-767.8	0.0	4.5	0.0	-181.0	**0.0**	-536.6	0.0	6.3	0.0	-122.3	**0.0**
Fx,	**-1182.6**	-33.0	39.2	0.0	355.6	507.1	**-353.2**	6.6	-55.5	0.0	-851.4	-101.4
Fy,	-815.1	**-33.0**	-38.7	0.0	-716.6	507.1	-681.1	**6.6**	42.2	0.0	466.3	-101.4
Fz,	-418.3	-33.0	**-59.1**	0.0	-871.7	507.1	-1024.0	6.6	**85.1**	0.0	898.3	-101.4
Mx,	-869.8	0.0	4.5	**0.0**	-112.3	0.0	-638.7	0.0	6.3	**0.0**	-26.1	0.0
My,	-613.2	-33.0	-53.0	0.0	**-873.1**	507.1	-1026.7	6.6	84.8	0.0	**903.3**	-101.4
Mz,	-810.6	6.6	-38.7	0.0	-716.6	**-101.4**	-641.0	-33.0	6.3	0.0	-26.1	**507.1**

Member 404

Fx,	**-931.1**	0.0	40.0	0.0	-198.1	0.0	**-175.3**	0.0	-50.7	0.0	-112.0	0.0
Fy,	-692.4	**0.0**	2.9	0.0	-197.8	0.0	-447.2	**0.0**	5.3	0.0	-124.0	0.0
Fz,	-299.8	0.0	**-54.9**	0.0	-82.5	0.0	-739.0	0.0	**81.1**	0.0	-274.9	0.0
Mx,	-692.4	0.0	2.9	**0.0**	-197.8	0.0	-447.2	0.0	5.3	**0.0**	-124.0	0.0
My,	-815.5	0.0	24.9	0.0	**-394.0**	0.0	-304.4	0.0	40.2	0.0	**-8.3**	0.0
Mz,	-692.4	0.0	2.9	0.0	-197.8	**0.0**	-447.2	0.0	5.3	0.0	-124.0	**0.0**
Fx,	**-1007.3**	0.0	40.0	0.0	260.3	0.0	**-251.5**	-5.5	-54.3	0.0	-713.7	63.0
Fy,	-706.1	**-27.5**	-37.3	0.0	-630.2	315.1	-576.9	**5.5**	38.6	0.0	314.8	-63.0
Fz,	-376.0	27.5	**-58.6**	0.0	-732.7	-315.1	-815.2	-5.5	**84.8**	0.0	675.6	63.0
Mx,	-768.6	0.0	2.9	**0.0**	-164.2	0.0	-523.4	0.0	5.3	**0.0**	-62.8	0.0
My,	-549.2	27.5	-52.8	0.0	**-744.5**	-315.1	-812.2	-5.5	84.1	0.0	**684.8**	63.0
Mz,	-748.0	5.5	-37.3	0.0	-630.3	**-63.0**	-502.5	-27.5	5.3	0.0	-62.7	**315.1**

Member 405

Fx,	**-1353.4**	7.9	47.6	0.0	0.0	0.0	**1174.1**	13.4	-147.3	-0.0	0.0	0.0
Fy,	-519.5	**-172.4**	-51.7	-0.0	0.0	-0.0	125.8	**22.5**	33.4	0.0	0.0	0.0
Fz,	162.1	-158.8	**-181.1**	-0.0	0.0	0.0	-334.0	9.4	**79.7**	0.0	0.0	0.0
Mx,	13.4	11.9	-79.6	**-0.0**	0.0	0.0	669.0	3.1	-76.0	**0.0**	0.0	0.0
My,	101.1	9.8	-57.8	-0.0	**0.0**	0.0	362.0	-162.9	-40.5	-0.0	**0.0**	-0.0
Mz,	-305.9	-171.3	-65.1	-0.0	0.0	**-0.0**	-628.9	21.7	33.3	-0.0	0.0	**0.0**
Fx,	**-1353.4**	7.9	47.6	0.0	95.2	-15.7	**1174.1**	13.4	-147.3	-0.0	-294.6	-26.8
Fy,	-519.5	**-172.4**	-51.7	-0.0	-103.3	344.8	125.8	**22.5**	33.4	0.0	66.8	-44.9
Fz,	162.1	-158.8	**-181.1**	-0.0	-362.2	317.5	-334.0	9.4	**79.7**	0.0	159.4	-18.8
Mx,	13.4	11.9	-79.6	**-0.0**	-159.2	-23.8	669.0	3.1	-76.0	**0.0**	-152.0	-6.3
My,	162.1	-158.8	-181.1	-0.0	**-362.2**	317.5	-334.0	9.4	79.7	0.0	**159.4**	-18.8
Mz,	125.8	22.5	33.4	0.0	66.8	**-44.9**	-519.5	-172.4	-51.7	-0.0	-103.3	**344.8**

Member 406

Fx,	**-1353.4**	7.9	-47.6	0.0	0.0	0.0	**1174.1**	13.4	147.3	0.0	0.0	0.0
Fy,	-519.5	**-172.4**	51.7	0.0	0.0	-0.0	125.8	**22.5**	-33.4	0.0	0.0	0.0
Fz,	-352.3	8.1	**-79.8**	0.0	0.0	0.0	172.1	-158.8	**177.0**	0.0	0.0	-0.0
Mx,	-473.1	6.5	56.9	**0.0**	0.0	0.0	-87.3	-163.2	39.1	**0.0**	0.0	-0.0
My,	-818.7	-149.9	-20.1	0.0	0.0	-0.0	890.7	13.3	112.6	0.0	**0.0**	0.0
Mz,	-315.2	-168.7	75.0	0.0	0.0	**-0.0**	315.4	21.9	-37.2	0.0	0.0	**0.0**
Fx,	**-1353.4**	7.9	-47.6	0.0	-95.2	-15.7	**1174.1**	13.4	147.3	0.0	294.6	-26.8
Fy,	-519.5	**-172.4**	51.7	0.0	103.3	344.8	125.8	**22.5**	-33.4	0.0	-66.8	-44.9
Fz,	-352.3	8.1	**-79.8**	0.0	-159.6	-16.2	172.1	-158.8	**177.0**	0.0	354.1	317.5
Mx,	-473.1	6.5	56.9	**0.0**	113.9	-13.0	-87.3	-163.2	39.1	**0.0**	78.1	326.3
My,	-352.3	8.1	-79.8	0.0	**-159.6**	-16.2	172.1	-158.8	177.0	0.0	**354.1**	317.5
Mz,	125.8	22.5	-33.4	0.0	-66.8	**-44.9**	-519.5	-172.4	51.7	0.0	103.3	**344.8**

Member 421

Fx,	**-1987.5**	0.0	-3.2	0.0	-137.3	0.0	**-686.7**	-52.0	16.8	-0.0	414.8	700.7
Fy,	-1360.1	**-52.0**	-16.0	-0.0	51.6	700.7	-1090.1	**3.9**	15.8	0.0	275.2	-52.8
Fz,	-1381.3	-3.9	**-39.7**	-0.0	-516.6	52.8	-1508.3	0.0	**39.7**	0.0	516.6	0.0
Mx,	-1360.1	-52.0	-16.0	**-0.0**	51.6	700.7	-1090.1	3.9	15.8	**0.0**	275.2	-52.8
My,	-1319.0	-3.9	-11.6	-0.0	**-1355.7**	52.8	-1289.9	0.0	14.8	0.0	**1330.7**	0.0
Mz,	-1397.1	3.9	-16.0	0.0	51.6	**-52.8**	-1053.1	-52.0	0.0	-0.0	0.0	**700.7**
Fx,	**-1987.5**	0.0	-3.2	0.0	-140.5	0.0	**-686.7**	-52.0	16.8	-0.0	431.7	752.7
Fy,	-1360.1	**-52.0**	-16.0	-0.0	35.6	752.7	-1090.1	**3.9**	15.8	0.0	290.9	-56.7
Fz,	-1381.3	-3.9	**-39.7**	-0.0	-556.4	56.7	-1508.3	0.0	**39.7**	0.0	556.4	0.0
Mx,	-1360.1	-52.0	-16.0	**-0.0**	35.6	752.7	-1090.1	3.9	15.8	**0.0**	290.9	-56.7

My,	-1315.6	-3.9	-11.9	-0.0	**-1367.3**	56.7	-1286.5	0.0	15.1	0.0	**1345.4**	0.0
Mz,	-1397.1	3.9	-16.0	0.0	35.6	**-56.7**	-1053.1	-52.0	0.0	-0.0	0.0	**752.7**

Member 422

Fx,	**-2198.8**	-10.9	28.2	-0.0	499.5	134.9	**-811.3**	54.4	-106.3	0.0	-1609.6	-674.3
Fy,	-1597.4	**-54.4**	-105.1	-0.0	-1157.0	674.3	-1237.3	**10.9**	74.3	0.0	1103.8	-134.9
Fz,	-1564.1	-10.9	**-129.8**	-0.0	-1977.4	134.9	-1597.0	0.0	**129.8**	0.0	1977.3	0.0
Mx,	-1597.4	-54.4	-105.1	**-0.0**	-1157.0	674.3	-1237.3	10.9	74.3	**0.0**	1103.8	-134.9
My,	-1540.2	-10.9	-112.4	-0.0	**-2964.9**	134.9	-1498.4	0.0	112.9	0.0	**2884.6**	0.0
Mz,	-1594.7	10.9	-105.1	0.0	-1157.0	**-134.9**	-1240.0	-54.4	0.0	-0.0	-0.0	**674.3**
Fx,	**-2198.8**	-10.9	28.2	-0.0	527.7	145.7	**-811.3**	54.4	-106.3	0.0	-1715.9	-728.7
Fy,	-1597.4	**-54.4**	-105.1	-0.0	-1262.2	728.7	-1237.3	**10.9**	74.3	0.0	1178.1	-145.7
Fz,	-1564.1	-10.9	**-129.8**	-0.0	-2107.2	145.7	-1597.0	0.0	**129.8**	0.0	2107.2	0.0
Mx,	-1597.4	-54.4	-105.1	**-0.0**	-1262.2	728.7	-1237.3	10.9	74.3	**0.0**	1178.1	-145.7
My,	-1538.4	-10.9	-112.6	-0.0	**-3077.3**	145.7	-1496.6	0.0	113.2	0.0	**2997.6**	0.0
Mz,	-1594.7	10.9	-105.1	0.0	-1262.2	**-145.7**	-1240.0	-54.4	0.0	-0.0	-0.0	**728.7**

Member 423

Fx,	**-2230.7**	0.0	30.3	0.0	624.7	0.0	**-850.4**	-66.1	41.5	-0.0	699.3	1027.4
Fy,	-1614.1	**-66.1**	-101.6	-0.0	-1410.3	1027.4	-1267.5	**13.2**	72.4	0.0	1278.0	-205.5
Fz,	-1547.0	-13.2	**-124.6**	-0.0	-2166.0	205.5	-1638.9	0.0	**124.6**	0.0	2166.0	0.0
Mx,	-1614.1	-66.1	-101.6	**-0.0**	-1410.3	1027.4	-1267.5	13.2	72.4	**0.0**	1278.0	-205.5
My,	-1553.8	-13.2	-109.7	-0.0	**-3224.8**	205.5	-1554.4	0.0	109.9	0.0	**3139.9**	0.0
Mz,	-1615.2	13.2	-101.6	0.0	-1410.3	**-205.5**	-1266.4	-66.1	0.0	-0.0	-0.0	**1027.4**
Fx,	**-2230.7**	0.0	30.3	0.0	655.0	0.0	**-850.4**	-66.1	41.5	-0.0	740.8	1093.5
Fy,	-1614.1	**-66.1**	-101.6	-0.0	-1511.9	1093.5	-1267.5	**13.2**	72.4	0.0	1350.4	-218.7
Fz,	-1547.0	-13.2	**-124.6**	-0.0	-2290.6	218.7	-1638.9	0.0	**124.6**	0.0	2290.6	0.0
Mx,	-1614.1	-66.1	-101.6	**-0.0**	-1511.9	1093.5	-1267.5	13.2	72.4	**0.0**	1350.4	-218.7
My,	-1552.1	-13.2	-109.9	-0.0	**-3334.6**	218.7	-1552.7	0.0	110.1	0.0	**3249.8**	0.0
Mz,	-1615.2	13.2	-101.6	0.0	-1511.9	**-218.7**	-1266.4	-66.1	0.0	-0.0	-0.0	**1093.5**

Member 424

Fx,	**-2248.7**	-65.6	-34.7	-0.0	-721.3	1059.8	**-859.7**	13.1	110.5	0.0	2152.8	-211.6
Fy,	-1627.8	**-65.6**	-112.3	-0.0	-1651.5	1059.8	-1278.5	**13.1**	79.9	0.0	1446.7	-211.6
Fz,	-1630.7	65.6	**-135.4**	0.0	-2433.9	-1059.8	-1597.0	0.0	**135.4**	0.0	2433.9	0.0
Mx,	-1627.8	-65.6	-112.3	**-0.0**	-1651.5	1059.8	-1278.5	13.1	79.9	**0.0**	1446.7	-211.6
My,	-1532.4	65.6	-121.9	0.0	**-3503.4**	-1059.8	-1547.8	0.0	121.7	0.0	**3413.0**	0.0
Mz,	-1627.2	13.1	-112.3	0.0	-1651.5	**-211.6**	-1279.1	-65.6	-0.0	-0.0	-0.0	**1059.8**
Fx,	**-2248.7**	-65.6	-34.7	-0.0	-756.0	1125.4	**-859.7**	13.1	110.5	0.0	2263.3	-224.7
Fy,	-1627.8	**-65.6**	-112.3	-0.0	-1763.8	1125.4	-1278.5	**13.1**	79.9	0.0	1526.6	-224.7
Fz,	-1630.7	65.6	**-135.4**	0.0	-2569.3	-1125.4	-1597.0	0.0	**135.4**	0.0	2569.3	0.0
Mx,	-1627.8	-65.6	-112.3	**-0.0**	-1763.8	1125.4	-1278.5	13.1	79.9	**0.0**	1526.6	-224.7
My,	-1531.9	65.6	-121.9	0.0	**-3625.3**	-1125.4	-1547.3	0.0	121.8	0.0	**3534.8**	0.0
Mz,	-1627.2	13.1	-112.3	0.0	-1763.8	**-224.7**	-1279.1	-65.6	-0.0	-0.0	-0.0	**1125.4**

Member 425

Fx,	**-2241.5**	0.0	29.6	0.0	636.0	0.0	**-860.8**	-65.6	-111.5	-0.0	-2073.9	1071.4
Fy,	-1630.7	**-65.6**	-109.1	-0.0	-1614.1	1071.4	-1278.8	**13.1**	77.8	0.0	1422.2	-214.3
Fz,	-1628.8	65.6	**-132.3**	0.0	-2391.6	-1071.4	-1585.4	0.0	**132.3**	0.0	2391.6	0.0
Mx,	-1630.7	-65.6	-109.1	**-0.0**	-1614.1	1071.4	-1278.8	13.1	77.8	**0.0**	1422.2	-214.3
My,	-1530.6	65.6	-118.4	0.0	**-3458.3**	-1071.4	-1565.6	0.0	118.4	0.0	**3370.0**	0.0
Mz,	-1632.6	13.1	-109.1	0.0	-1614.1	**-214.3**	-1276.8	-65.6	-0.0	-0.0	-0.0	**1071.4**
Fx,	**-2241.5**	0.0	29.6	0.0	665.5	0.0	**-860.8**	-65.6	-111.5	-0.0	-2185.4	1137.0
Fy,	-1630.7	**-65.6**	-109.1	-0.0	-1723.2	1137.0	-1278.8	**13.1**	77.8	0.0	1500.0	-227.4
Fz,	-1628.8	65.6	**-132.3**	0.0	-2523.9	-1137.0	-1585.4	0.0	**132.3**	0.0	2523.9	0.0
Mx,	-1630.7	-65.6	-109.1	**-0.0**	-1723.2	1137.0	-1278.8	13.1	77.8	**0.0**	1500.0	-227.4
My,	-1528.8	65.6	-118.6	0.0	**-3576.7**	-1137.0	-1563.9	0.0	118.6	0.0	**3488.4**	0.0
Mz,	-1632.6	13.1	-109.1	0.0	-1723.2	**-227.4**	-1276.8	-65.6	-0.0	-0.0	-0.0	**1137.0**

Member 426

Fx,	**-2258.3**	-66.1	28.1	-0.0	582.2	1014.2	**-851.3**	13.2	-101.9	0.0	-1823.3	-202.8
Fy,	-1609.3	**-66.1**	-101.6	-0.0	-1383.0	1014.2	-1272.7	**13.2**	71.8	0.0	1253.4	-202.8
Fz,	-1597.7	66.1	**-122.7**	0.0	-2130.2	-1014.2	-1637.0	0.0	**122.7**	0.0	2130.2	0.0
Mx,	-1609.3	-66.1	-101.6	**-0.0**	-1383.0	1014.2	-1272.7	13.2	71.8	**0.0**	1253.4	-202.8
My,	-1590.8	66.1	-107.6	0.0	**-3188.0**	-1014.2	-1528.8	0.0	107.9	0.0	**3104.5**	0.0
Mz,	-1600.4	13.2	-101.6	0.0	-1383.0	**-202.8**	-1281.9	-66.1	0.0	-0.0	-0.0	**1014.2**
Fx,	**-2258.3**	-66.1	28.1	-0.0	610.3	1080.3	**-851.3**	13.2	-101.9	0.0	-1925.2	-216.1
Fy,	-1609.3	**-66.1**	-101.6	-0.0	-1484.5	1080.3	-1272.7	**13.2**	71.8	0.0	1325.2	-216.1
Fz,	-1597.7	66.1	**-122.7**	0.0	-2252.9	-1080.3	-1637.0	0.0	**122.7**	0.0	2252.9	0.0
Mx,	-1609.3	-66.1	-101.6	**-0.0**	-1484.5	1080.3	-1272.7	13.2	71.8	**0.0**	1325.2	-216.1
My,	-1589.0	66.1	-107.8	0.0	**-3295.6**	-1080.3	-1527.0	0.0	108.1	0.0	**3212.3**	0.0
Mz,	-1600.4	13.2	-101.6	0.0	-1484.5	**-216.1**	-1281.9	-66.1	0.0	-0.0	-0.0	**1080.3**

Member 427

Fx,	**-1926.1**	0.0	-25.6	0.0	-434.4	0.0	**-608.9**	-11.0	92.7	-0.0	1419.2	126.1
Fy,	-1370.0	**-55.0**	-98.2	-0.0	-1061.9	630.3	-1090.9	**11.0**	66.6	0.0	943.7	-126.1
Fz,	-1423.0	55.0	**-121.0**	0.0	-1816.4	-630.3	-1324.2	0.0	**121.0**	0.0	1816.4	0.0
Mx,	-1370.0	-55.0	-98.2	**-0.0**	-1061.9	630.3	-1090.9	11.0	66.6	**0.0**	943.7	-126.1
My,	-1276.1	55.0	-105.7	0.0	**-2615.0**	-630.3	-1279.1	0.0	105.6	0.0	**2533.4**	0.0
Mz,	-1453.7	11.0	-98.2	0.0	-1061.9	**-126.1**	-1005.0	-55.0	0.0	-0.0	-0.0	**630.3**
Fx,	**-1926.1**	0.0	-25.6	0.0	-460.0	0.0	**-608.9**	-11.0	92.7	-0.0	1511.9	137.1
Fy,	-1370.0	**-55.0**	-98.2	-0.0	-1160.1	685.3	-1090.9	**11.0**	66.6	0.0	1010.3	-137.1
Fz,	-1423.0	55.0	**-121.0**	0.0	-1937.4	-685.3	-1324.2	0.0	**121.0**	0.0	1937.4	0.0
Mx,	-1370.0	-55.0	-98.2	**-0.0**	-1160.1	685.3	-1090.9	11.0	66.6	**0.0**	1010.3	-137.1
My,	-1275.5	55.0	-105.7	0.0	**-2720.7**	-685.3	-1278.5	0.0	105.6	0.0	**2639.0**	0.0
Mz,	-1453.7	11.0	-98.2	0.0	-1160.1	**-137.1**	-1005.0	-55.0	0.0	-0.0	-0.0	**685.3**

*** Fin del listado ***

envolvente caracteristica RENFE

Program Envolvator (release 1.3 - Jun 1998)
Calculation date: 28-abr-1999 20:10 h. Listing date: 28-abr-1999 20:12 h.
Members: 419
Joints: 353
Envelope generated from:

Name	γ_{min}	γ_{max}
Hipotesis I RENFE	1.00	1.00
Hipotesis II RENFE	0.90	0.90

	Fx	Fy	Fz	Mx	My	Mz	Fx	Fy	Fz	Mx	My	Mz
Member 1												
Fx_i	**-871.6**	-212.4	63.1	-66.0	-433.4	-14.8	**570.5**	-185.4	-58.4	-137.1	366.9	-22.5
Fy_i	-569.9	**-301.0**	25.7	-87.7	-184.7	-37.8	497.4	**-55.7**	-47.8	-70.3	280.2	305.9
Fz_i	-296.9	-149.5	**-63.5**	-65.3	358.0	-20.0	-7.0	-167.9	**67.6**	-77.3	-423.5	291.8
Mx_i	-221.8	-216.2	-13.1	**-206.3**	77.5	320.5	-247.9	-153.0	46.8	**6.8**	-334.9	-21.9
My_i	-16.1	-168.3	64.4	-76.8	**-435.3**	291.7	-287.0	-153.4	-60.2	-77.9	**369.9**	-20.3
Mz_i	205.9	-276.9	24.3	-82.1	-176.5	**-42.8**	-572.0	-78.3	-15.3	-63.7	66.5	**344.9**
Fx_f	**-867.6**	-127.9	58.6	-51.5	-210.2	596.6	**566.5**	-124.3	-53.9	-100.6	161.0	556.0
Fy_f	-565.1	**-203.3**	23.8	-64.6	-93.5	796.9	493.2	**-1.7**	-43.1	-42.3	113.3	478.6
Fz_f	-291.7	-98.6	**-57.5**	-45.5	145.6	422.4	-12.2	-84.1	**61.6**	-57.8	-196.2	766.3
Mx_f	-217.7	-119.1	-12.1	**-145.5**	31.4	848.3	-246.3	-81.1	42.6	**11.3**	-165.9	444.9
My_f	-309.6	-77.8	51.3	-29.6	**-213.0**	377.1	8.8	-98.9	-48.4	-92.8	**162.9**	808.8
Mz_f	493.4	-33.5	-43.3	-45.4	113.2	**223.0**	-565.5	-153.9	24.1	-60.2	-93.5	**1055.1**
Member 2												
Fx_i	**-815.8**	-114.5	56.8	-43.4	-369.7	563.1	**514.8**	-125.7	-54.9	-106.8	312.1	548.1
Fy_i	-542.2	**-201.3**	21.0	-59.8	-151.1	796.5	450.0	**-3.1**	-43.0	-47.4	230.0	478.9
Fz_i	-343.8	-105.2	**-58.9**	-71.2	304.3	442.0	40.5	-81.2	**60.6**	-46.1	-361.9	769.2
Mx_i	-232.2	-118.2	-14.7	**-146.1**	69.3	848.9	-208.3	-81.5	42.3	**9.8**	-283.7	444.3
My_i	31.4	-80.8	57.5	-45.3	**-370.8**	767.5	-334.0	-118.4	-55.8	-81.7	**313.4**	485.0
Mz_i	452.9	-34.7	-43.6	-49.1	234.0	**223.1**	-546.3	-152.1	22.1	-57.4	-157.3	**1054.9**
Fx_f	**-811.8**	-29.9	52.2	-29.0	-169.8	815.3	**510.8**	-36.5	-50.4	-40.8	119.0	864.4
Fy_f	-537.2	**-113.8**	19.1	-42.7	-77.2	1192.4	353.3	**63.5**	-12.3	-13.7	4.3	580.9
Fz_f	-338.6	-55.1	**-53.2**	-46.3	105.1	723.2	35.3	3.3	**54.9**	-31.6	-156.4	924.6
Mx_f	-228.2	-30.6	-13.2	**-97.2**	17.6	945.5	-221.6	-15.8	40.7	**28.5**	-141.0	850.1
My_f	-264.1	-24.0	46.6	-22.4	**-172.6**	570.9	-37.6	-10.5	-45.5	-34.9	**121.3**	941.9
Mz_f	448.9	15.4	-39.0	-24.2	82.6	**270.9**	-541.1	-52.2	20.1	-32.1	-79.3	**1418.0**
Member 3												
Fx_i	**-765.0**	-24.4	51.0	-13.3	-311.4	824.1	**464.1**	-44.2	-50.2	-59.0	257.1	826.5
Fy_i	-403.1	**-110.3**	-13.1	-45.4	45.6	1173.9	223.9	**62.0**	18.8	-9.6	-134.9	599.5
Fz_i	-386.7	-74.8	**-54.3**	-73.8	251.9	837.9	83.7	9.3	**54.8**	-17.0	-305.5	925.0
Mx_i	-231.7	-29.1	-15.8	**-93.1**	68.0	977.1	-187.0	-17.1	40.7	**22.3**	-254.7	848.6
My_i	74.3	9.9	51.9	-17.0	**-312.5**	921.8	-377.0	-73.2	-51.5	-73.9	**258.9**	826.0
Mz_i	413.0	13.7	-39.3	-30.0	190.6	**271.0**	-523.9	-49.6	19.2	-28.2	-133.3	**1417.9**
Fx_f	**-761.0**	57.4	46.5	1.2	-132.6	751.1	**460.2**	36.9	-45.6	1.3	81.5	852.4
Fy_f	-398.6	**-33.4**	-11.7	-17.7	0.1	1219.2	221.1	**132.9**	16.7	10.2	-68.2	533.3
Fz_f	-381.5	6.2	**-48.8**	-13.6	66.6	951.2	78.5	91.1	**49.2**	-2.6	-118.7	753.4
Mx_f	-228.2	48.8	-13.9	**-49.2**	12.6	704.6	-97.3	55.6	13.1	**48.9**	-62.7	1080.8
My_f	-216.7	25.1	37.3	-8.8	**-137.3**	604.2	-85.3	69.3	-37.0	15.6	**85.5**	787.4
Mz_f	-123.1	54.3	-34.2	-5.3	53.4	**146.3**	71.8	9.9	17.0	-4.0	-64.1	**1526.6**
Member 4												
Fx_i	**-719.2**	50.5	45.1	18.5	-257.7	621.1	**418.4**	28.4	-45.8	-26.7	207.7	835.8
Fy_i	-399.4	**-35.0**	-16.9	-40.9	52.6	1115.7	232.4	**136.0**	19.0	12.0	-121.6	508.5
Fz_i	103.8	12.2	**-50.0**	-30.2	202.8	991.9	-406.8	92.0	**49.0**	16.0	-252.7	754.4
Mx_i	-241.3	21.2	-18.1	**-55.2**	58.4	842.3	-162.0	49.9	38.0	**43.8**	-220.0	1053.3
My_i	112.7	111.8	46.3	24.1	**-259.0**	634.8	-415.4	15.6	-47.3	-24.3	**209.2**	1040.1
Mz_i	-154.4	52.3	-34.7	-12.1	149.0	**146.3**	87.0	12.8	16.4	0.2	-109.3	**1526.7**
Fx_f	**-715.2**	98.6	40.5	17.8	-100.7	335.1	**414.4**	109.5	-41.2	33.5	48.1	595.4
Fy_f	-281.8	**28.7**	-32.8	8.8	31.4	848.5	228.9	**220.3**	17.0	30.2	-54.5	135.9
Fz_f	101.1	98.7	**-44.6**	35.9	31.6	803.7	-404.1	173.8	**43.7**	30.5	-84.7	254.6
Mx_f	-310.2	109.0	0.4	**-16.9**	-45.2	222.7	-17.1	146.1	-6.1	**77.6**	-13.6	807.0
My_f	-175.5	58.9	26.4	7.6	**-111.1**	640.6	-125.8	112.4	-27.4	16.7	**58.8**	215.5
Mz_f	-348.7	146.2	14.6	10.9	-57.0	**-271.5**	174.3	110.2	-10.0	29.6	-7.3	**1310.6**
Member 5												
Fx_i	**-686.8**	93.7	15.1	37.7	-115.2	369.9	**378.9**	111.7	-36.6	19.1	155.9	546.0
Fy_i	-306.5	**24.0**	-35.1	-13.8	132.0	843.2	245.9	**225.3**	16.4	43.1	-98.1	163.1
Fz_i	60.9	99.2	**-46.3**	14.2	158.7	836.2	-363.9	157.7	**42.9**	37.3	-202.4	125.3
Mx_i	-161.0	81.3	-42.1	**-35.7**	151.9	298.5	-84.4	158.6	15.9	**85.3**	-96.5	761.1
My_i	145.7	164.8	40.0	40.1	**-209.5**	140.9	-449.3	94.2	-43.7	14.6	**165.3**	814.5
Mz_i	-334.8	147.7	13.4	14.7	-93.6	**-271.5**	165.3	110.8	-11.1	27.2	23.1	**1310.7**
Fx_f	**-682.3**	149.4	13.5	48.8	-62.7	-89.6	**375.0**	162.6	-32.0	38.9	30.2	55.7
Fy_f	-302.5	**82.5**	-30.1	23.8	12.5	533.8	241.6	**316.5**	14.7	61.4	-41.0	-693.5
Fz_f	58.1	188.5	**-41.2**	80.2	-0.5	322.0	-361.1	208.5	**37.8**	36.6	-55.9	-558.6
Mx_f	-339.7	150.3	17.0	**-6.2**	-72.6	-265.8	-22.8	243.6	-6.1	**131.2**	-14.0	161.6
My_f	-149.4	206.3	20.6	75.4	**-97.8**	199.2	-148.5	159.4	-26.2	31.2	**41.6**	-361.4
Mz_f	-330.9	203.4	12.0	25.8	-47.4	**-929.3**	161.5	208.9	-9.7	58.9	-14.4	**740.7**
Member 6												
Fx_i	**-664.3**	158.0	4.1	37.1	-103.6	189.7	**335.9**	153.7	-27.5	34.0	150.4	-83.2
Fy_i	-339.5	**78.8**	-31.4	11.4	126.5	532.8	261.3	**320.2**	10.5	70.3	-80.9	-692.4
Fz_i	13.3	190.6	**-44.8**	63.3	149.6	252.0	-317.7	208.9	**35.7**	44.7	-184.4	-536.9
Mx_i	-200.2	133.4	-38.0	**-15.2**	139.3	-216.6	-69.5	252.9	9.0	**132.0**	-77.6	134.0
My_i	-332.8	175.4	30.8	31.7	**-201.2**	-503.1	27.9	176.9	-40.1	63.6	**164.7**	316.1
Mz_i	-314.1	205.0	8.9	29.9	-85.1	**-929.5**	150.3	208.3	-12.0	54.7	28.3	**741.0**
Fx_f	**-659.8**	251.1	2.5	60.5	-91.5	-574.1	**331.9**	204.6	-23.0	49.8	57.8	-727.4
Fy_f	-339.3	**132.1**	-25.1	40.1	16.4	96.2	256.6	**417.0**	8.4	86.2	-46.8	-1980.4
Fz_f	9.3	279.8	**-40.3**	125.3	-6.4	-598.7	-313.7	259.8	**31.1**	40.0	-62.0	-1408.6
Mx_f	-314.4	226.0	14.3	**-5.2**	-94.6	-988.6	-33.6	341.1	-10.6	**185.4**	-15.8	-860.2
My_f	-122.5	296.5	7.9	110.6	**-131.3**	-704.4	-178.1	205.5	-18.8	39.4	**64.6**	-1041.4
Mz_f	-306.4	402.2	7.7	79.2	-49.6	**-2014.5**	167.0	139.0	-24.7	40.1	17.9	**96.3**
Member 7												
Fx_i	**-626.3**	-336.4	15.1	-162.5	-116.2	-471.7	**317.9**	-339.7	-4.5	-66.3	51.4	-926.8
Fy_i	-296.4	**-533.6**	16.1	-133.1	-78.6	-1994.9	14.2	**-187.4**	-25.4	-78.2	88.0	106.5
Fz_i	-213.7	-259.8	**-32.9**	-114.5	103.5	-844.9	-64.1	-424.3	**40.8**	-201.3	-163.8	-941.5
Mx_i	-16.8	-432.2	0.2	**-293.6**	-12.6	-769.7	-287.3	-340.9	25.7	**41.4**	-124.8	-1279.0
My_i	-79.6	-396.0	31.1	-189.0	**-186.3**	-773.8	-198.6	-270.7	-23.3	-64.6	**124.8**	-938.8
Mz_i	-296.0	-528.6	16.6	-127.2	-79.0	**-2014.7**	10.5	-189.3	-25.0	-88.2	80.4	**118.9**
Fx_f	**-620.8**	-222.2	13.1	-133.7	-52.7	768.1	**312.4**	-270.3	-7.6	-52.3	15.4	462.7
Fy_f	-290.3	**-414.4**	13.7	-115.4	-10.5	50.2	12.0	**-122.0**	-20.2	-40.8	-9.7	866.3
Fz_f	-208.6	-197.4	**-25.9**	-95.0	-20.6	168.4	-69.2	-316.0	**33.8**	-151.6	-4.3	735.1
Mx_f	-20.5	-316.1	1.5	**-227.7**	-5.6	864.3	-283.2	-277.0	20.6	**44.6**	-22.0	157.1
My_f	-310.8	-223.9	9.7	-110.2	**-59.0**	247.2	25.9	-278.3	-15.0	-107.3	**28.6**	706.6
Mz_f	-292.6	-297.1	12.3	-47.2	-17.4	**-117.1**	-19.2	-252.9	-3.6	-109.3	-16.6	**1108.5**
Member 8												
Fx_i	**-616.7**	-217.2	11.1	-127.0	-74.9	772.9	**308.3**	-273.8	-4.3	-66.0	26.8	461.7
Fy_i	-285.0	**-408.9**	10.5	-104.7	-49.6	49.8	-6.9	**-127.4**	-21.2	-59.3	46.0	867.7
Fz_i	-231.5	-204.4	**-28.0**	-119.2	50.7	174.9	-48.7	-290.6	**30.8**	-92.7	-95.5	720.5
Mx_i	-25.1	-329.2	0.1	**-230.8**	-6.2	829.8	-267.1	-278.6	17.7	**38.4**	-79.9	153.0
My_i	-67.8	-261.3	22.1	-135.1	**-111.2**	803.4	-210.4	-230.6	-18.9	-60.6	**67.1**	84.2
Mz_i	-285.3	-296.1	9.9	-46.7	-48.3	**-118.2**	-26.0	-251.8	-5.8	-110.7	-4.1	**1109.2**
Fx_f	**-611.3**	-148.9	9.1	-113.4	-29.5	1579.5	**302.9**	-204.4	-7.3	-46.6	-8.1	1554.8
Fy_f	-280.0	**-296.7**	8.4	-87.9	-7.4	1438.9	-12.1	**-56.2**	-15.4	-10.5	-36.5	1429.7
Fz_f	-226.4	-142.0	**-21.1**	-94.9	-51.6	939.0	-53.8	-176.8	**23.8**	-32.3	19.2	1784.6
Mx_f	-28.8	-220.4	-3.6	**-174.8**	-21.1	1920.3	-262.0	-200.1	16.7	**54.8**	5.4	1347.4
My_f	-244.0	-138.6	-16.8	-110.9	**-60.5**	940.4	-35.9	-182.3	20.6	-18.7	**30.0**	1801.2
Mz_f	-226.3	-108.3	-14.8	-43.4	-38.5	**643.4**	-45.4	-241.2	9.1	-62.0	-5.6	**2321.6**
Member 9												
Fx_i	**-604.0**	-140.0	7.4	-89.5	-55.4	1575.8	**295.6**	-216.6	-1.7	-80.1	17.4	1558.3
Fy_i	-273.3	**-288.9**	7.6	-72.1	-32.8	1414.4	-32.7	**-63.3**	-14.4	-45.3	13.1	1456.9
Fz_i	-249.4	-149.2	**-22.6**	-88.6	19.0	918.7	-30.1	-171.8	**24.4**	-23.6	-53.7	1839.4
Mx_i	-34.7	-230.7	-4.5	**-173.8**	-5.2	1958.7	-243.9	-180.6	15.4	**32.9**	-44.9	1216.6
My_i	-54.9	-115.7	15.1	-69.6	**-74.3**	1532.7	-223.8	-182.0	-13.4	-64.8	**39.5**	992.2
Mz_i	-244.5	-111.2	-15.3	-53.6	14.4	**644.1**	-37.2	-237.2	8.4	-60.1	-33.0	**2320.8**

Fx_f	**-598.5**	-75.5	5.4	-76.0	-26.5	2043.5	**290.1**	-92.8	-4.7	0.4	-5.7	2270.7
Fy_f	-268.9	**-186.9**	5.5	-56.0	-4.2	2206.5	-36.1	**11.0**	-9.2	22.4	-38.4	1825.8
Fz_f	-244.3	-90.1	**-15.7**	-64.3	-58.9	1441.7	-35.2	-72.4	**17.5**	0.3	32.3	2404.2
Mx_f	-40.4	-129.8	-2.7	**-122.8**	-21.6	2546.6	-268.8	-44.4	4.2	**60.3**	-8.0	1696.2
My_f	-254.0	-84.1	-14.2	-66.5	**-65.3**	1366.1	-25.4	-80.7	16.0	15.6	**39.0**	2464.1
Mz_f	-239.1	-48.7	-9.1	-23.3	-40.2	**993.3**	-43.7	-119.7	6.0	-30.1	-1.4	**3136.3**

Member 10

Fx_i	**-602.5**	-58.2	-3.7	-40.0	-33.6	2047.6	**294.0**	-106.7	9.3	-39.5	3.6	2331.7
Fy_i	-263.5	**-178.2**	5.5	-41.4	-19.7	2153.7	-47.8	**3.5**	-9.1	-22.0	-5.5	1888.7
Fz_i	-261.4	-85.6	**-17.0**	-56.0	-7.1	1442.2	-18.3	-75.2	**18.6**	-15.5	-20.1	2400.5
Mx_i	-41.6	-119.1	-2.4	**-120.8**	-7.5	2480.1	-235.2	-50.8	10.5	**41.9**	-26.4	1601.2
My_i	-47.5	-42.2	9.3	-28.4	**-45.4**	1936.1	-230.8	-113.0	-7.7	-56.3	**18.2**	1790.8
Mz_i	-250.3	-51.5	-9.2	-33.3	-6.8	**993.7**	-38.3	-115.6	5.8	-30.1	-18.5	**3135.9**
Fx_f	**-597.0**	6.4	-1.7	-13.7	-45.6	2147.1	**288.6**	14.1	2.3	25.0	20.9	2561.0
Fy_f	-259.4	**-82.3**	3.3	-20.9	-1.3	2419.3	-50.2	**91.9**	-0.7	22.8	-18.7	2237.6
Fz_f	-256.3	-27.5	**-10.0**	-25.5	-59.7	1681.5	-23.4	25.2	**11.6**	2.3	39.4	2528.4
Mx_f	-47.8	-23.2	-0.5	**-69.8**	**-14.8**	2538.1	-262.3	34.5	2.5	**76.6**	-7.1	2050.7
My_f	202.4	-11.8	-8.7	-19.5	**-64.6**	1578.3	-482.3	21.6	10.4	15.0	**44.6**	2616.9
Mz_f	221.1	13.5	-3.6	-2.8	-35.7	**1079.1**	-562.1	-3.8	3.9	0.6	3.3	**3393.5**

Member 11

Fx_i	**-601.5**	3.8	-4.2	3.5	-33.1	2122.3	**293.1**	10.7	9.5	-21.1	11.6	2617.1
Fy_i	-265.4	**-80.4**	0.1	-29.5	-14.0	2144.4	-42.6	**91.5**	2.4	24.7	-8.0	2515.5
Fz_i	-267.0	-25.3	**-11.3**	-22.2	-26.9	1676.7	124.8	23.0	**12.7**	-10.4	7.1	2532.1
Mx_i	-45.8	-23.6	-0.9	**-81.7**	-5.7	2393.4	-228.2	31.2	5.0	**68.5**	-8.4	2032.9
My_i	60.0	28.0	-5.9	-2.1	**-41.6**	1896.6	-201.1	-24.5	7.1	-20.6	**21.8**	2190.7
Mz_i	216.1	10.5	-3.7	-13.6	-20.7	**1079.2**	-558.8	0.4	3.8	0.3	-6.7	**3393.5**
Fx_f	**-596.1**	68.3	-2.2	29.8	-47.3	1943.0	**287.7**	128.3	2.5	9.0	29.8	2322.9
Fy_f	-245.0	**7.9**	2.6	6.9	-20.5	1755.3	-46.4	**186.6**	0.6	44.7	0.3	2210.5
Fz_f	-233.2	35.3	**-7.1**	5.4	-22.8	1750.5	91.1	120.8	**8.5**	10.3	9.2	2112.1
Mx_f	-41.3	68.7	0.3	**-33.2**	6.0	2074.9	-268.5	127.3	1.3	**110.2**	-20.7	2067.6
My_f	188.9	52.9	-3.3	27.8	**-57.5**	1496.9	-468.9	121.5	4.8	6.8	**44.1**	2303.2
Mz_f	211.1	68.6	1.9	16.9	-24.9	**916.6**	-400.4	110.8	1.8	33.1	6.0	**3130.1**

Member 12

Fx_i	**-600.0**	76.1	-2.4	46.6	-37.0	1951.3	**291.5**	123.1	7.2	-19.4	24.5	2337.4
Fy_i	-247.2	**-0.6**	0.5	-41.2	-26.3	1641.1	-42.4	**195.5**	2.3	61.0	2.0	2326.3
Fz_i	-240.3	41.5	**-8.5**	17.3	0.7	1749.8	98.2	119.5	**9.5**	-14.4	-12.5	1970.4
Mx_i	-62.4	40.3	-0.9	**-65.3**	-20.7	1752.0	-251.8	146.7	2.5	**119.7**	-5.4	2156.2
My_i	52.0	93.9	-2.1	51.3	**-49.3**	1690.9	-193.4	80.7	3.1	4.3	**37.6**	2016.4
Mz_i	212.4	64.8	1.7	3.7	-28.1	**916.3**	-399.2	115.5	1.6	34.7	3.4	**3130.6**
Fx_f	**-594.5**	140.6	-0.4	72.9	-43.3	1446.6	**286.0**	240.7	0.2	10.6	32.5	1530.3
Fy_f	-243.2	**75.8**	6.1	14.3	-12.4	1220.8	-46.3	**296.5**	0.4	77.1	9.6	1502.1
Fz_f	-225.7	141.0	**-12.9**	66.4	-29.5	1324.7	83.6	219.8	**13.9**	28.2	22.1	1221.4
Mx_f	-50.5	202.3	-3.2	**-20.0**	-1.8	1656.0	-255.7	241.8	5.1	**163.6**	-0.7	1472.9
My_f	211.5	126.3	-3.3	70.0	**-48.8**	1322.9	-369.4	244.4	4.4	11.2	**40.7**	1664.9
Mz_f	207.2	137.9	7.3	34.4	-8.3	**499.8**	-394.0	233.0	-0.5	64.7	5.8	**2330.6**

Member 13

Fx_i	**-596.3**	136.2	-1.5	65.0	-36.9	1518.9	**287.7**	245.4	4.5	8.1	36.3	1523.0
Fy_i	-234.4	**65.4**	5.5	-27.6	-26.3	1156.6	-46.9	**305.4**	-0.6	96.1	13.5	1522.7
Fz_i	-248.1	153.4	**-14.8**	74.5	5.7	1347.2	106.2	215.3	**14.2**	10.5	-6.4	1223.4
Mx_i	-59.0	182.3	5.4	**-67.6**	-22.8	1587.7	-246.2	243.4	-1.3	**174.8**	7.2	1449.5
My_i	50.1	140.8	1.6	75.3	**-51.2**	1246.4	-191.7	194.8	-2.4	43.5	**50.4**	1343.0
Mz_i	214.7	132.4	6.5	16.6	-27.9	**499.1**	-395.2	238.3	-1.2	70.3	12.4	**2331.4**
Fx_f	**-590.9**	259.6	0.5	149.2	-39.1	610.6	**282.2**	372.9	-2.4	40.9	32.2	143.5
Fy_f	-228.5	**138.4**	11.6	27.0	13.3	518.7	-51.4	**416.8**	-2.6	112.7	7.1	102.5
Fz_f	-234.0	261.9	**-19.5**	129.9	-54.1	393.4	92.1	277.5	**18.9**	34.0	50.5	129.8
Mx_f	-60.1	269.9	3.2	**-30.1**	3.0	447.8	-246.2	343.4	5.0	**221.5**	7.1	283.5
My_f	-246.5	233.6	-18.4	135.3	**-64.2**	410.2	104.1	325.1	17.8	31.6	**60.5**	264.4
Mz_f	249.4	292.1	-3.4	27.2	0.2	**-334.6**	-403.4	287.5	3.9	134.8	1.6	**1045.1**

Member 14

Fx_i	-590.7	268.7	-11.6	142.8	-26.7	594.1	**282.0**	361.9	7.8	37.0	48.6	163.8
Fy_i	-219.8	**125.9**	8.8	-21.3	-20.0	450.1	-53.6	**425.7**	-5.9	143.5	33.8	183.5
Fz_i	-247.8	308.6	**-24.9**	153.7	12.0	236.8	112.2	236.0	**17.7**	-0.6	17.3	185.7
Mx_i	-53.1	245.8	9.0	**-74.2**	-13.6	467.4	-245.6	338.6	-8.0	**234.7**	20.5	258.0
My_i	57.4	189.7	4.8	81.3	**-53.6**	532.8	-200.3	305.4	-12.2	113.3	**72.2**	114.2
Mz_i	245.6	295.2	-6.8	34.7	24.5	**-332.7**	-398.9	287.6	0.9	129.5	-0.9	**1043.4**
Fx_f	**-585.2**	392.1	-13.6	208.9	-83.5	-906.0	**276.6**	431.2	4.8	51.1	68.2	-1603.5
Fy_f	-212.8	**191.6**	15.3	15.3	37.5	-333.6	-59.9	**544.5**	-8.4	160.7	0.3	-1909.8
Fz_f	-235.6	422.9	**-29.9**	210.9	-91.9	-1428.5	100.0	297.9	**22.8**	17.2	89.0	-998.9
Mx_f	-56.9	310.2	15.2	**-45.0**	42.5	-837.3	-242.9	461.8	-11.2	**286.3**	-26.9	-1483.4
My_f	-254.2	377.4	-27.5	212.1	**-114.5**	-1092.4	111.5	374.4	21.3	13.9	**103.4**	-1249.7
Mz_f	245.8	532.9	-10.0	130.5	-4.5	**-2159.3**	-353.6	203.3	16.3	41.4	36.0	**-33.1**

Member 15

Fx_i	**-555.1**	-381.0	16.8	-189.5	-94.2	-858.9	**273.6**	-402.9	-4.3	-64.8	82.0	-1610.4
Fy_i	-225.1	**-545.2**	14.7	-159.1	-3.8	-2050.8	-41.8	**-181.9**	-25.3	-26.6	51.7	-102.7
Fz_i	88.8	-224.0	**-32.0**	-29.8	80.5	-522.4	-223.0	-447.7	**40.5**	-218.3	-88.2	-1494.0
Mx_i	-233.8	-457.7	2.3	**-294.3**	15.9	-1382.3	-40.8	-310.4	-11.3	**43.8**	15.4	-892.9
My_i	-249.6	-390.0	30.0	-193.2	**-128.2**	-1058.0	111.3	-308.8	-23.2	-24.0	**117.2**	-1164.6
Mz_i	247.9	-524.7	16.1	-150.3	-10.2	**-2158.9**	-470.8	-191.9	-25.1	-51.8	48.6	**-7.1**
Fx_f	**-549.6**	-260.7	14.8	-126.7	-23.0	568.4	**268.1**	-333.5	-7.3	-50.7	47.2	63.6
Fy_f	-218.7	**-426.2**	12.3	-141.6	58.8	43.4	-48.8	**-116.2**	-18.9	10.0	-51.5	636.9
Fz_f	84.2	-161.6	**-25.1**	-10.3	-39.5	360.4	-218.3	-333.8	**33.5**	-162.8	69.8	246.1
Mx_f	-227.3	-351.1	12.2	**-240.1**	45.1	288.9	-45.2	-230.8	-16.8	**70.6**	-42.0	453.1
My_f	50.7	-169.0	-17.0	-93.5	**-82.5**	475.6	-186.8	-354.9	24.1	-75.7	**106.6**	161.8
Mz_f	238.6	-291.1	10.6	-39.5	42.8	**-322.3**	-516.7	-276.9	-2.6	-129.5	-8.8	**992.3**

Member 16

Fx_i	**-558.8**	-254.3	-3.2	-157.4	-34.9	612.7	**277.2**	-359.4	8.8	-30.7	36.9	125.0
Fy_i	-212.2	**-417.3**	8.8	-111.4	5.4	-34.4	-69.8	**-128.8**	-20.9	-33.6	20.3	670.6
Fz_i	-359.3	-211.8	**-27.7**	-98.8	37.0	253.8	216.2	-304.1	**29.6**	-133.3	-42.2	395.3
Mx_i	-233.7	-355.1	-5.3	**-232.3**	13.7	297.5	-48.3	-292.4	8.2	**34.8**	-13.4	475.5
My_i	191.9	-257.4	21.1	-128.8	**-63.4**	430.2	-329.1	-296.9	-19.3	-42.7	**64.8**	159.6
Mz_i	246.9	-288.0	8.1	-32.2	2.1	**-324.1**	-524.3	-276.7	-6.5	-134.5	5.7	**993.9**
Fx_f	**-553.4**	-133.9	-1.2	-76.4	-44.8	1462.5	**271.7**	-231.9	1.8	2.1	52.1	1471.5
Fy_f	-207.4	**-305.5**	6.8	-94.7	39.8	1385.5	-75.1	**-57.2**	-15.1	15.3	-61.0	1243.6
Fz_f	-354.2	-149.4	**-20.8**	-74.5	-63.9	1051.1	211.0	-190.3	**22.6**	-72.9	66.9	1520.1
Mx_f	-212.3	-256.9	6.0	**-180.0**	34.2	1501.7	-71.5	-167.4	-13.2	**64.7**	-54.1	1533.9
My_f	-386.5	-118.2	-14.7	-55.8	**-82.7**	1229.7	249.1	-214.7	16.6	-12.6	**91.9**	1388.7
Mz_f	-224.9	-113.5	-15.2	-26.5	-54.1	**450.3**	-39.4	-245.6	7.9	-69.2	36.1	**2272.8**

Member 17

Fx_i	**-556.7**	-134.5	-2.6	-80.0	-40.6	1466.9	**275.1**	-233.5	6.6	-8.2	44.2	1472.6
Fy_i	-205.3	**-296.6**	5.2	-75.8	13.9	1365.5	-88.0	**-67.1**	-14.3	-35.7	-8.9	1332.7
Fz_i	-370.6	-147.0	**-22.6**	-64.4	8.1	1040.5	233.7	-187.2	**22.8**	-76.1	-5.5	1501.3
Mx_i	-229.3	-255.0	-6.1	**-173.4**	13.2	1523.8	-19.2	-170.8	14.4	**28.2**	3.4	1491.1
My_i	-274.5	-129.7	-5.0	-68.7	**-43.1**	1305.1	121.9	-226.5	5.2	-11.0	**46.4**	1446.6
Mz_i	-242.9	-118.8	-16.5	-44.1	-2.0	**451.2**	-31.7	-240.4	7.4	-63.6	8.3	**2271.9**
Fx_f	**-551.3**	-69.9	-0.7	-53.7	-48.0	1909.7	**269.6**	-115.8	-0.4	21.9	49.2	2278.1
Fy_f	-201.4	**-195.1**	3.2	-59.7	31.3	2185.6	-92.6	**6.9**	-9.0	32.1	-61.1	1716.4
Fz_f	-365.5	-88.0	**-15.7**	-40.1	-69.9	1554.0	228.6	-82.2	**15.9**	-21.5	73.3	2124.1
Mx_f	-199.4	-160.2	1.8	**-124.4**	31.2	2238.8	-85.1	-28.6	-1.8	**64.1**	-29.1	1881.6
My_f	-394.6	-66.5	-11.4	-38.7	**-89.4**	1653.8	258.2	-102.1	11.3	2.4	**93.0**	2106.4
Mz_f	-237.6	-60.5	-10.0	-13.4	-61.1	**839.0**	-37.6	-125.3	4.7	-33.8	34.9	**3103.0**

Member 18

Fx_i	**-553.1**	-64.9	-1.9	-35.8	-45.3	1911.9	**273.4**	-109.5	10.9	-1.2	61.7	2084.5
Fy_i	-200.9	**-185.7**	3.4	-43.6	15.8	2079.1	-98.4	**-1.8**	-9.2	-16.9	-26.7	1824.3
Fz_i	-382.3	-86.4	**-17.2**	-40.7	-21.9	1598.3	245.4	-82.6	**16.9**	-34.3	23.6	2079.9
Mx_i	-235.0	-139.4	-2.2	**-118.9**	-7.9	2140.4	-14.4	-46.7	7.7	**37.9**	27.3	1805.5
My_i	-272.6	-52.7	-9.5	-40.1	**-62.1**	1561.8	135.3	-113.3	9.2	2.8	**64.1**	2194.4
Mz_i	-249.0	-64.6	-10.6	-27.3	-25.8	**839.5**	-32.6	-120.5	4.8	-31.8	17.6	**3102.5**
Fx_f	**-547.7**	-0.3	0.1	-9.5	-49.2	2041.6	**268.5**	-3.6	0.8	19.0	79.9	2350.2
Fy_f	-197.4	**-90.2**	1.4	-23.0	24.6	2373.7	-80.3	**86.5**	-1.6	25.6	-18.5	2213.7
Fz_f	-377.1	-27.3	**-10.2**	-16.4	-75.2	1838.6	240.2	22.4	**9.9**	20.3	75.5	2225.6
Mx_f	-198.9	-45.7	1.9	**-71.1**	25.3	2317.2	-84.4	41.9	-2.1	**79.0**	-25.0	2217.6
My_f	-517.6	-16.8	-6.5	-12.3	**-89.5**	1748.8	262.9	8.7	6.1	7.9	**90.0**	2325.4

Mz_f	-242.4	-0.2	-4.1	2.8	-58.6	**983.2**	90.6	-2.3	2.1	-1.1	30.7	**3383.7**

Member 19

Fx_i	**-549.1**	1.2	-1.3	4.1	-49.2	2077.4	**272.3**	-3.1	6.5	-6.7	74.4	2325.1
Fy_i	-232.3	**-89.6**	-1.1	-28.6	-15.3	2108.9	-44.9	**86.9**	0.5	24.5	21.7	2477.8
Fz_i	-504.9	-24.9	**-11.6**	-14.3	-45.1	1885.0	250.0	22.4	**11.0**	4.7	45.3	2216.7
Mx_i	-227.4	-45.1	-0.9	**-83.8**	-9.5	2039.0	-55.5	38.8	0.2	**71.0**	10.4	2494.7
My_i	-270.2	12.7	-4.5	3.6	**-77.0**	1656.0	15.3	-15.8	4.1	-4.4	**77.5**	2533.7
Mz_i	-246.9	-3.9	-4.1	-10.3	-45.6	**983.2**	93.1	2.3	2.1	-0.3	22.6	**3383.7**
Fx_f	**-543.7**	65.8	0.7	30.4	-50.6	1909.5	**267.4**	108.3	-3.6	16.0	73.2	2100.7
Fy_f	-237.5	**-1.2**	2.3	9.3	-47.3	1747.0	-48.4	**182.5**	-1.4	44.3	21.5	2197.6
Fz_f	-406.1	36.9	**-9.5**	8.9	18.6	1990.1	151.3	130.1	**8.9**	66.1	-20.7	1736.8
Mx_f	-189.0	47.2	-0.8	**-36.5**	22.8	1792.7	-94.0	132.4	0.1	**114.2**	-25.1	2346.5
My_f	-515.7	42.8	-2.1	31.6	**-83.5**	1726.6	260.8	117.5	1.6	4.3	**81.6**	2097.8
Mz_f	-241.3	58.8	1.4	20.2	-51.0	**837.5**	86.5	117.9	-0.1	32.5	26.0	**3133.4**

Member 20

Fx_i	**-544.0**	59.7	-0.5	35.6	-52.4	1908.1	**265.9**	105.9	1.3	-1.6	83.6	2067.5
Fy_i	-241.6	**-10.5**	1.9	-41.2	-61.7	1638.6	-43.7	**192.1**	2.8	61.2	31.0	2305.5
Fz_i	-413.5	67.3	**-10.9**	30.7	48.0	2230.5	159.1	105.0	**10.0**	30.1	-48.3	1571.7
Mx_i	-239.1	18.9	0.5	**-70.3**	-55.5	1515.4	-53.3	155.3	0.3	**124.8**	16.8	2407.9
My_i	115.2	80.0	0.0	44.3	**-86.0**	1469.3	-370.5	87.5	-1.0	-1.7	**85.3**	2320.8
Mz_i	-239.4	54.2	1.2	4.8	-55.8	**837.0**	86.7	122.9	-0.2	35.1	25.7	**3133.9**
Fx_f	**-538.6**	124.2	1.4	61.9	-50.4	1477.3	**261.0**	211.8	-8.8	18.6	59.0	1363.1
Fy_f	-236.7	**65.1**	7.1	27.2	-41.5	1246.8	-47.4	**293.5**	-4.1	77.1	21.0	1497.6
Fz_f	-397.5	172.4	**-15.4**	85.7	8.3	1672.6	143.1	163.9	**14.4**	54.0	-12.8	980.7
Mx_f	-189.8	181.9	-3.7	**-25.5**	8.9	1488.4	-90.2	249.8	4.0	**168.1**	-8.0	1713.6
My_f	-509.1	101.3	2.3	66.5	**-72.8**	1375.5	254.2	221.1	-3.2	6.4	**68.3**	1348.8
Mz_f	-234.6	112.4	6.9	35.4	-37.8	**446.8**	81.3	240.5	-2.3	65.1	20.3	**2334.8**

Member 21

Fx_i	**-537.3**	124.2	-0.5	64.6	-52.4	1482.7	**255.7**	235.8	1.8	6.8	53.4	1503.9
Fy_i	-226.6	**53.8**	6.2	-33.0	-62.2	1197.2	-51.9	**303.0**	-2.3	98.2	29.6	1520.3
Fz_i	-54.7	184.9	**-17.2**	93.5	46.6	1688.2	-199.3	141.4	**14.8**	7.9	-45.1	911.9
Mx_i	-222.5	162.5	6.2	**-77.5**	-57.2	1408.7	-57.6	251.1	-2.8	**182.1**	24.0	1716.9
My_i	-251.7	123.9	4.0	58.2	**-89.4**	1032.5	-1.9	215.6	-5.6	34.6	**90.0**	1556.1
Mz_i	-226.1	105.9	6.0	14.1	-59.1	**445.9**	79.0	246.2	-2.6	72.1	28.0	**2335.7**
Fx_f	**-531.8**	247.7	1.5	148.8	-50.0	628.1	**250.2**	363.4	-5.1	39.6	37.2	167.3
Fy_f	-220.9	**125.7**	12.2	22.6	-20.1	613.8	-56.4	**414.6**	-4.3	114.5	15.7	110.9
Fz_f	-49.0	299.0	**-21.9**	154.8	-22.4	612.2	-205.0	203.5	**19.5**	31.3	13.3	120.0
Mx_f	-195.1	251.6	3.1	**-37.1**	-10.8	326.9	-89.3	349.3	4.6	**225.5**	-1.4	551.3
My_f	-498.3	209.2	6.8	129.9	**-57.7**	668.2	243.3	340.9	-9.0	37.3	**48.4**	88.9
Mz_f	-182.9	282.0	-4.8	28.6	8.0	**-324.9**	36.2	277.9	2.8	135.5	-12.3	**1076.9**

Member 22

Fx_i	**-524.6**	238.8	-2.4	128.2	-63.9	634.4	**243.0**	370.0	-1.7	49.3	74.4	165.1
Fy_i	-206.9	**110.8**	10.4	-29.7	-71.3	564.3	-59.4	**424.5**	-7.3	147.8	49.2	189.4
Fz_i	-75.6	322.5	**-26.4**	180.1	48.6	532.5	-178.3	169.6	**18.9**	-3.0	-37.6	200.1
Mx_i	-201.4	223.6	10.2	**-90.8**	-61.3	347.2	-53.3	328.6	-17.4	**248.0**	70.3	436.3
My_i	-228.4	173.0	6.5	60.4	**-101.8**	345.9	-25.8	342.3	-13.3	84.5	**111.5**	339.5
Mz_i	-189.2	288.8	-7.8	45.6	35.6	**-323.0**	42.2	274.4	0.6	121.0	-19.5	**1075.3**
Fx_f	**-519.1**	362.2	-0.4	207.0	-70.1	-730.8	**237.5**	439.4	-8.7	50.5	42.3	-1638.9
Fy_f	-199.9	**176.6**	16.7	7.2	-7.3	-152.1	-65.6	**543.3**	-9.7	164.7	9.8	-1898.2
Fz_f	-71.8	436.9	**-31.4**	237.6	-60.1	-1165.3	-182.0	231.4	**23.9**	14.5	37.4	-716.2
Mx_f	-195.6	288.0	16.3	**-61.3**	-0.1	-888.3	-80.5	471.3	-12.1	**295.7**	-19.7	-1250.9
My_f	-91.9	380.2	-28.8	206.7	**-84.9**	-820.3	-162.7	345.6	21.4	23.6	**62.0**	-1366.2
Mz_f	-176.6	524.1	-10.9	134.4	4.4	**-2143.4**	14.8	187.7	16.2	35.0	-10.3	**93.0**

Member 23

Fx_i	**-484.7**	-365.1	-0.5	-203.4	-76.2	-680.1	**236.2**	-434.7	11.7	-51.5	51.2	-1643.2
Fy_i	-174.3	**-546.1**	12.1	-164.2	8.9	-2039.2	-73.7	**-174.1**	-22.1	-12.4	0.0	28.4
Fz_i	-189.1	-239.4	**-28.1**	-25.4	29.6	-851.5	-31.9	-438.5	**35.3**	-228.3	-46.8	-1242.5
Mx_i	-41.2	-462.9	17.6	**-296.8**	-12.6	-1191.5	-201.1	-296.2	-23.8	**57.0**	-2.0	-891.5
My_i	-59.9	-368.3	25.8	-198.0	**-91.7**	-760.2	-165.0	-350.2	-18.9	-29.8	**68.7**	-1361.2
Mz	-175.9	-526.2	13.4	-134.7	3.2	**-2143.3**	-75.7	-177.2	-21.2	-38.2	-5.8	**125.0**

Fx_f	**-479.3**	-244.8	1.5	-127.8	-73.9	675.7	**230.7**	-365.3	4.7	-50.2	79.5	173.6
Fy_f	-168.1	**-427.3**	9.8	-147.0	59.6	58.7	-80.5	**-108.3**	-15.9	24.5	-89.0	733.3
Fz_f	-184.0	-177.0	**-21.2**	-6.0	-73.0	70.2	-37.0	-324.7	**28.4**	-172.8	88.2	487.0
Mx_f	-26.8	-321.2	20.0	**-246.0**	88.0	484.1	-197.3	-231.9	-13.2	**86.0**	-79.3	347.7
My_f	-220.2	-208.1	-13.0	-90.1	**-120.1**	389.7	-5.3	-340.4	20.2	-72.1	**127.8**	373.7
Mz_f	-176.3	-299.6	8.6	-44.6	42.2	**-308.5**	-68.6	-263.6	-1.9	-124.1	-26.9	**1100.5**

Member 24

Fx_i	**-490.6**	-251.6	-2.1	-153.1	-53.1	676.3	**244.9**	-332.3	18.4	-37.1	41.6	142.3
Fy_i	-161.1	**-417.4**	6.9	-114.0	12.6	-19.5	-100.0	**-123.1**	-16.8	-27.7	-18.1	782.5
Fz_i	-206.8	-198.7	**-23.7**	-62.7	1.7	143.8	-18.7	-300.0	**25.6**	-138.7	-14.0	637.6
Mx_i	-63.5	-339.3	-5.1	**-229.4**	1.9	593.7	-192.4	-260.4	-4.5	**35.0**	-16.2	329.1
My_i	-487.6	-241.4	-4.7	-136.2	**-55.6**	748.9	240.7	-316.7	17.2	-40.7	**43.6**	19.5
Mz_i	-167.9	-292.8	5.6	-27.5	8.8	**-310.4**	-76.4	-267.0	-4.1	-138.7	-14.7	**1102.2**
Fx_f	**-485.1**	-131.2	-0.2	-72.1	-58.3	1514.1	**240.0**	-217.5	8.3	-14.4	93.8	1393.9
Fy_f	-156.6	**-305.7**	4.8	-97.3	38.2	1400.4	-105.2	**-51.5**	-11.0	21.3	-81.0	1330.2
Fz_f	-201.7	-136.3	**-16.7**	-38.4	-80.9	882.0	-23.8	-186.2	**18.7**	-78.4	77.5	1744.1
Mx_f	-38.3	-242.7	3.8	**-182.6**	32.8	1764.7	-212.9	-170.8	-9.3	**73.1**	-75.7	1413.8
My_f	-237.2	-112.3	-11.8	-42.9	**-105.7**	1126.2	12.0	-206.5	13.7	-23.6	**102.4**	1587.9
Mz_f	120.7	-104.0	-12.4	-18.7	-79.2	**454.3**	-407.8	-249.6	6.9	-71.9	37.2	**2364.5**

Member 25

Fx_i	**-487.3**	-132.1	-1.3	-76.0	-57.2	1517.5	**250.5**	-213.2	12.5	-8.1	65.1	1391.7
Fy_i	-156.6	**-296.2**	4.1	-76.7	17.8	1378.4	-115.1	**-62.6**	-10.8	-32.0	-41.8	1404.2
Fz_i	-218.7	-160.6	**-18.6**	-65.3	-26.7	991.1	-6.4	-168.4	**19.1**	-74.0	17.8	1681.1
Mx_i	-73.5	-241.1	-5.0	**-171.9**	-3.1	1759.3	-171.5	-191.9	4.3	**26.1**	1.2	1503.0
My_i	-470.4	-108.8	-10.7	-70.5	**-75.1**	1402.4	245.3	-217.3	11.2	-5.1	**66.6**	1366.2
Mz_i	107.4	-110.6	-14.2	-40.1	-40.8	**455.3**	-402.7	-243.9	7.6	-64.8	18.5	**2363.6**
Fx_f	**-481.9**	-67.6	0.7	-49.7	-58.5	1949.8	**245.6**	-107.3	2.4	12.1	90.9	2130.6
Fy_f	-152.9	**-194.7**	2.1	-60.6	30.1	2196.3	-119.6	**11.5**	-5.5	36.0	-78.1	1766.4
Fz_f	-213.6	-101.6	**-11.6**	-41.0	-86.5	1565.7	-11.6	-63.4	**12.2**	-19.4	79.9	2219.3
Mx_f	-42.3	-146.8	0.5	**-125.5**	26.8	2451.7	-210.6	-35.0	-0.1	**66.6**	-36.9	1737.0
My_f	-243.2	-75.5	-7.6	-46.2	**-107.1**	1444.7	18.7	-94.4	7.8	-3.1	**100.7**	2319.8
Mz_f	102.5	-52.4	-6.2	-9.5	-78.6	**837.2**	-397.3	-126.3	3.9	-34.8	35.5	**3174.9**

Member 26

Fx_i	**-482.9**	-61.2	-1.1	-30.6	-58.8	1931.4	**250.7**	-102.7	8.2	-6.2	80.0	2097.8
Fy_i	-154.3	**-185.1**	2.2	-43.9	19.0	2089.0	-121.4	**2.2**	-5.7	-15.1	-54.9	1876.3
Fz_i	-224.9	-109.7	**-13.1**	-53.3	-50.3	1632.6	0.3	-63.6	**13.2**	-29.0	42.8	2219.9
Mx_i	-88.1	-123.6	-1.3	**-118.1**	-20.8	2385.4	-106.2	-54.6	4.9	**37.0**	45.2	1655.7
My_i	-470.7	-48.2	-6.0	-38.9	**-90.8**	1747.5	245.5	-114.7	6.2	-0.2	**83.1**	2126.7
Mz_i	95.9	-57.1	-5.1	-25.3	-59.9	**837.7**	-394.9	-121.3	5.1	-32.2	26.5	**3174.4**
Fx_f	**-477.5**	3.3	0.9	-4.3	-59.2	2044.5	**245.8**	3.2	-1.9	14.0	86.3	2332.9
Fy_f	-150.9	**-89.6**	0.2	-23.3	22.5	2380.6	-94.0	**90.8**	-0.3	26.4	-26.0	2258.9
Fz_f	-158.9	-47.7	**-7.2**	-26.8	-3.6	2303.4	-90.7	49.6	**7.3**	35.9	-4.3	2399.4
Mx_f	-53.3	-30.1	0.5	**-71.6**	20.9	2532.3	-196.9	33.4	-0.3	**80.5**	-29.3	2042.4
My_f	-244.0	-19.7	-2.7	-10.0	**-101.9**	1649.8	19.2	15.0	2.7	6.3	**94.6**	2509.4
Mz_f	92.4	1.1	-0.8	5.1	-71.9	**979.1**	-391.1	-2.0	1.2	-1.5	30.0	**3423.5**

Member 27

Fx_i	**-477.5**	-2.3	-0.1	2.2	-61.0	2010.3	**245.7**	4.4	3.3	-11.3	91.0	2310.9
Fy_i	-194.3	**-89.1**	0.3	-28.1	-25.4	2107.4	-50.5	**91.2**	-0.6	24.6	23.0	2530.9
Fz_i	-165.3	-45.8	**-8.7**	-31.9	16.8	2302.0	-84.3	47.7	**8.6**	19.7	-24.7	2400.8
Mx_i	-90.2	-29.6	0.4	**-83.6**	-21.3	2185.6	-159.7	30.4	-0.7	**71.7**	13.4	2387.4
My_i	-154.6	21.8	-0.9	4.4	**-101.0**	1825.3	-70.5	-21.3	0.8	-4.4	**93.6**	2415.3
Mz_i	91.3	-3.1	-0.6	-9.2	-69.9	**979.1**	-390.0	2.8	1.5	-0.3	25.2	**3423.5**
Fx_f	**-472.0**	62.3	1.9	28.5	-57.1	1858.1	**240.8**	110.3	-6.8	8.9	75.1	2069.3
Fy_f	-211.3	**-0.8**	5.9	10.0	-53.5	1737.4	-53.9	**186.9**	-2.6	44.3	17.8	2231.2
Fz_f	-92.6	65.0	**-12.4**	31.3	32.4	2058.9	-132.1	111.7	**12.3**	48.2	-40.0	1769.5
Mx_f	-55.6	62.8	-1.7	**-36.7**	19.1	1910.1	-194.3	123.9	1.5	**115.4**	-27.9	2236.5
My_f	-238.4	43.4	1.6	33.5	**-91.5**	1593.6	13.6	122.6	-1.7	3.2	**83.8**	2269.9
Mz_f	87.1	65.7	5.0	20.9	-59.1	**830.1**	-281.0	114.9	-1.0	32.5	25.1	**3164.3**

Member 28

Fx_i	**-470.7**	61.2	1.1	38.5	-62.4	1911.3	**235.1**	108.8	-2.0	-2.5	97.1	2099.2
Fy_i	-210.9	**-10.7**	6.0	-41.8	-80.0	1628.4	-51.2	**196.7**	-2.9	61.7	32.9	2339.3

Fz_i	-117.3	68.9	**-13.6**	32.1	57.9	2108.8	-107.4	107.8	**13.1**	29.4	-64.1	1719.7
Mx_i	-130.1	28.6	4.4	**-71.6**	-75.5	1663.0	-147.0	148.9	-0.8	**126.1**	21.0	2255.5
My_i	-155.2	80.8	3.1	38.9	**-105.6**	1601.7	-69.8	96.3	-3.5	5.0	**99.0**	2140.4
Mz_i	92.6	60.7	5.2	4.1	-76.6	**829.6**	-282.2	120.0	-0.8	35.5	26.0	**3164.8**
Fx_f	**-465.3**	125.8	3.1	64.8	-52.9	1473.6	**230.2**	214.7	-12.1	17.8	57.5	1381.6
Fy_f	-206.4	**64.9**	11.2	26.5	-41.8	1237.4	-54.9	**298.1**	-4.9	77.6	17.2	1510.9
Fz_f	-100.8	174.0	**-18.3**	87.0	6.0	1544.0	-123.9	166.8	**17.8**	53.3	-14.4	1115.9
Mx_f	-68.8	193.7	-4.5	**-25.7**	5.1	1647.3	-177.3	242.9	5.3	**168.9**	-8.0	1561.6
My_f	-228.8	102.4	6.6	64.6	**-75.7**	1236.3	3.9	225.5	-7.0	8.6	**67.1**	1498.5
Mz_f	89.0	118.9	10.5	34.7	-40.1	**440.9**	-278.1	237.6	-3.5	65.5	17.0	**2344.3**

Member 29

Fx_i	**-463.1**	126.8	1.1	65.9	-60.2	1484.2	**219.5**	225.3	-7.0	21.7	97.7	1390.5
Fy_i	-194.2	**52.8**	10.3	-36.2	-77.8	1187.5	-58.5	**308.0**	-3.8	99.5	33.2	1533.6
Fz_i	-128.8	187.5	**-19.9**	84.2	55.5	1569.4	-96.2	134.2	**18.1**	10.5	-58.8	998.6
Mx_i	-118.5	171.4	10.1	**-81.4**	-71.6	1543.5	-143.4	245.1	-4.1	**184.3**	26.6	1569.7
My_i	-147.9	127.6	7.8	58.5	**-104.0**	1159.0	-76.3	212.8	-9.3	36.9	**100.6**	1430.5
Mz_i	101.1	111.5	9.6	11.0	-73.0	**440.0**	-281.9	243.7	-3.8	73.6	29.6	**2345.2**
Fx_f	**-457.7**	250.2	3.1	150.1	-50.9	618.3	**214.6**	340.0	-17.1	44.4	35.7	129.1
Fy_f	-188.4	**124.6**	16.2	19.5	-17.3	608.6	-63.0	**419.5**	-5.8	115.9	12.4	102.1
Fz_f	-112.9	301.6	**-24.8**	145.6	-25.7	451.0	-112.1	196.3	**23.0**	33.8	14.4	269.9
Mx_f	-123.7	250.2	15.8	**-39.8**	-13.7	469.3	-138.8	354.9	-6.5	**226.4**	2.0	378.2
My_f	-208.0	238.2	-0.5	134.1	**-57.4**	544.3	-41.9	355.4	-1.4	42.2	**44.9**	178.4
Mz_f	175.2	294.0	-5.9	29.7	4.5	**-332.5**	-316.2	270.7	4.2	134.8	-12.5	**1069.9**

Member 30

Fx_i	**-448.5**	241.5	-0.1	124.2	-70.7	619.6	**200.2**	373.6	-3.2	53.6	78.5	161.0
Fy_i	-168.5	**108.3**	14.4	-37.4	-79.8	558.7	-69.4	**430.1**	-8.6	151.0	49.3	180.5
Fz_i	-141.2	324.6	**-29.1**	177.1	58.7	359.3	-80.5	169.0	**22.3**	-9.0	-46.0	340.2
Mx_i	-103.9	231.0	13.8	**-99.0**	-71.0	472.6	-121.4	325.5	-20.3	**256.4**	77.2	297.6
My_i	-131.7	184.3	9.6	62.6	**-112.1**	472.0	-92.7	344.5	-15.9	84.6	**119.2**	186.4
Mz_i	167.3	301.5	-8.8	48.4	36.1	**-330.6**	-308.8	266.8	2.1	118.8	-24.0	**1068.2**
Fx_f	**-443.1**	364.9	1.9	203.0	-66.7	-758.0	**194.7**	443.0	-10.2	54.8	39.4	-1659.2
Fy_f	-161.6	**174.1**	20.6	-0.4	1.9	-146.4	-75.6	**548.8**	-10.9	167.9	4.3	-1932.0
Fz_f	-127.3	439.1	**-34.3**	234.8	-62.1	-1378.9	-94.3	230.8	**27.5**	8.2	44.1	-542.3
Mx_f	-107.8	295.5	19.8	**-69.4**	6.0	-766.0	-145.2	465.8	-12.7	**299.3**	-20.7	-1414.3
My_f	-152.0	376.7	-31.1	212.8	**-92.9**	-974.3	-73.4	343.8	25.4	-1.5	**71.4**	-1191.2
Mz_f	169.7	536.8	-12.3	137.4	0.5	**-2174.1**	-292.1	178.8	20.2	27.8	-3.6	**96.4**

Member 31

Fx_i	**-408.1**	-365.5	-1.1	-200.6	-75.1	-701.0	**192.6**	-435.7	12.1	-53.6	50.3	-1660.7
Fy_i	-130.4	**-548.1**	11.2	-168.0	7.5	-2069.9	-83.7	**-172.6**	-21.5	-1.6	1.1	30.5
Fz_i	-65.6	-218.8	**-29.5**	-9.9	41.4	-494.2	-125.6	-446.7	**36.3**	-234.7	-58.1	-1374.7
Mx_i	-142.9	-474.1	17.8	**-300.1**	-18.8	-1413.2	-80.1	-286.3	-25.1	**67.5**	5.8	-716.6
My_i	-150.0	-380.1	27.4	-207.4	**-98.3**	-973.7	-45.8	-331.3	-21.7	-0.3	**76.6**	-1138.5
Mz_i	169.1	-520.5	12.5	-138.3	2.8	**-2174.1**	-356.8	-185.0	-21.4	-27.7	-3.9	**127.1**
Fx_f	**-402.7**	-245.1	0.9	-125.0	-75.5	656.3	**187.1**	-366.3	5.1	-52.4	80.1	160.8
Fy_f	-124.2	**-429.2**	8.9	-150.8	54.2	36.6	-90.5	**-106.7**	-15.2	35.4	-85.0	728.5
Fz_f	-70.3	-156.4	**-22.5**	9.5	-67.3	365.3	-120.9	-332.9	**29.4**	-179.2	81.3	361.1
Mx_f	-109.3	-332.9	21.0	**-255.8**	83.8	297.8	-86.0	-222.0	-14.5	**96.6**	-77.1	508.9
My_f	-110.3	-160.7	-14.8	-66.2	**-121.8**	554.7	-84.3	-352.1	20.9	-81.7	**128.3**	187.0
Mz_f	157.0	-294.0	9.0	-48.2	39.3	**-331.1**	-370.2	-271.4	-2.5	-120.3	-26.6	**1094.7**

Member 32

Fx_i	**-414.2**	-253.5	-2.2	-150.5	-53.2	655.3	**206.1**	-333.7	19.3	-42.4	39.6	129.2
Fy_i	-116.7	**-418.8**	6.1	-115.9	12.6	-41.8	-111.3	**-123.0**	-17.1	-21.4	-17.4	778.0
Fz_i	-93.8	-184.7	**-25.0**	-37.9	8.8	309.4	-101.0	-310.3	**26.8**	-143.8	-20.6	451.1
Mx_i	-154.2	-349.3	-5.5	**-227.2**	-0.9	389.6	-82.5	-252.5	-5.2	**37.7**	-13.3	489.0
My_i	-198.0	-244.1	-4.8	-134.1	**-55.6**	535.1	-19.1	-344.4	6.6	-41.0	**42.8**	221.2
Mz_i	166.0	-286.5	6.1	-29.4	5.7	**-333.0**	-378.6	-275.3	-4.6	-136.2	-13.5	**1096.5**
Fx_f	**-408.7**	-133.2	-0.3	-69.5	-58.9	1501.9	**201.2**	-219.0	9.2	-19.7	95.7	1387.2
Fy_f	-112.1	**-307.0**	4.1	-99.2	34.7	1384.1	-116.5	**-51.4**	-11.3	27.7	-81.4	1325.5
Fz_f	-98.5	-122.3	**-18.1**	-13.6	-79.9	1015.7	-96.3	-196.5	**19.9**	-83.5	76.2	1573.1
Mx_f	-118.8	-253.4	4.5	**-184.3**	29.9	1573.4	-112.2	-162.3	-10.9	**79.4**	-77.1	1567.2
My_f	-138.6	-116.8	-12.9	-57.1	**-108.8**	1188.4	-55.6	-216.7	14.4	-28.7	**104.7**	1418.1
Mz_f	-172.1	-111.3	-12.7	-12.7	-80.8	**437.1**	-50.9	-242.6	7.4	-73.8	37.4	**2362.4**

Member 33

Fx_i	**-411.0**	-133.3	-1.5	-73.4	-57.3	1502.1	**212.7**	-215.3	13.5	-12.1	63.7	1390.8
Fy_i	-110.3	**-297.3**	4.7	-77.6	16.4	1361.9	-129.1	**-63.3**	-12.2	-28.3	-41.4	1399.7
Fz_i	-368.4	-168.1	**-19.9**	-65.4	-21.6	1174.8	173.3	-171.1	**20.3**	-76.8	12.5	1510.1
Mx_i	-152.5	-251.2	-5.5	**-170.4**	-5.0	1564.9	-60.6	-183.7	4.8	**25.5**	1.3	1678.4
My_i	39.1	-103.2	-11.9	-67.7	**-74.6**	1219.5	-234.5	-223.6	12.3	-7.4	**65.5**	1523.7
Mz_i	-186.7	-118.6	-12.0	-36.4	-40.1	**438.1**	-45.3	-236.7	8.1	-65.7	17.0	**2361.4**
Fx_f	**-405.6**	-68.8	0.5	-47.1	-59.7	1939.7	**207.8**	-109.4	3.4	8.1	94.1	2139.2
Fy_f	-106.6	**-195.7**	2.8	-61.5	31.6	2184.4	-133.5	**10.8**	-6.9	39.9	-83.9	1765.2
Fz_f	-363.3	-109.0	**-12.9**	-41.1	-87.1	1782.9	168.2	-66.1	**13.3**	-22.2	79.9	2060.3
Mx_f	-109.9	-157.2	1.1	**-126.4**	25.5	2271.7	-135.4	-19.2	-5.2	**69.1**	-82.9	1664.1
My_f	-156.0	-68.1	-8.5	-42.3	**-111.5**	1593.0	-38.5	-102.6	8.8	-3.3	**103.9**	2130.6
Mz_f	-181.8	-60.5	-6.3	-5.8	-81.3	**825.6**	-50.7	-119.1	1.0	-35.7	28.6	**3174.7**

Member 34

Fx_i	**-408.0**	-55.6	-5.4	-29.0	-88.8	1685.0	**214.3**	-103.0	8.9	-8.2	80.5	2095.4
Fy_i	-108.2	**-185.9**	2.8	-44.3	17.3	2076.9	-136.0	**1.2**	-6.9	-12.5	-55.5	1875.3
Fz_i	-376.5	-109.2	**-14.4**	-50.7	-47.2	1782.4	181.4	-65.9	**14.4**	-30.8	38.7	2060.8
Mx_i	-159.3	-132.1	-1.9	**-117.0**	-25.5	2241.4	-58.1	-52.5	1.9	**36.4**	15.5	1919.6
My_i	-92.1	-43.8	-7.0	-36.1	**-91.6**	1730.9	-32.0	-122.2	7.0	-2.2	**82.9**	2125.6
Mz_i	-188.4	-65.5	-6.0	-22.7	-60.4	**826.1**	-49.1	-114.0	1.2	-32.7	24.9	**3174.2**
Fx_f	**-403.1**	2.5	0.2	1.5	-100.5	1788.9	**209.4**	2.9	-1.1	12.0	90.2	2331.7
Fy_f	-104.8	**-90.5**	0.8	-23.7	23.3	2372.4	-108.0	**89.7**	-0.8	27.5	-28.5	2266.1
Fz_f	-366.4	-45.0	**-7.4**	-21.2	-46.2	2396.9	149.6	44.9	**7.5**	31.2	36.9	2304.7
Mx_f	-112.1	-38.6	0.8	**-72.0**	17.0	2395.1	-105.4	39.9	-0.7	**81.9**	-26.8	2178.2
My_f	-166.4	-10.9	-4.2	-6.6	**-107.6**	1836.3	-28.6	11.7	4.4	4.9	**99.0**	2404.1
Mz_f	-184.4	-3.1	-1.8	7.8	-79.1	**974.5**	24.8	-6.3	2.2	-2.0	33.6	**3424.6**

Member 35

Fx_i	**-404.0**	-5.6	-0.8	-1.0	-100.2	1760.2	**210.4**	3.5	4.2	-12.9	92.1	2325.7
Fy_i	-150.1	**-90.1**	-0.1	-27.0	-27.1	2096.4	-62.4	**90.2**	-0.2	24.2	22.4	2540.8
Fz_i	-373.1	-47.1	**-8.9**	-38.0	-25.2	2395.5	156.3	47.0	**8.7**	26.7	15.8	2306.1
Mx_i	-151.3	-39.0	-0.5	**-82.5**	-26.2	1996.8	-65.9	37.7	0.2	**71.6**	16.8	2574.9
My_i	24.1	19.4	-1.9	6.7	**-102.9**	1658.6	-218.8	-19.0	1.8	-5.9	**94.3**	2556.1
Mz_i	-186.0	-7.4	-0.7	-7.0	-75.2	**974.5**	25.6	-1.5	3.5	-0.6	30.3	**3424.6**
Fx_f	**-399.1**	52.5	4.7	29.5	-91.4	1639.3	**205.5**	109.4	-5.9	7.3	80.3	2088.4
Fy_f	-174.6	**-1.9**	4.8	12.3	-61.4	1729.5	-65.8	**185.9**	-2.1	44.0	19.3	2245.7
Fz_f	-237.2	65.8	**-11.1**	29.8	42.3	2210.2	**42.1**	109.1	**11.0**	50.5	-51.4	1625.1
Mx_f	-103.2	53.6	-1.7	**-36.9**	14.8	1731.0	-113.9	131.1	1.5	**116.5**	-25.3	2423.3
My_f	-173.2	50.5	0.7	35.8	**-98.6**	1738.6	-21.5	113.8	-0.8	1.6	**89.3**	2131.6
Mz_f	-180.9	57.1	4.0	23.1	-67.4	**833.2**	19.7	122.3	0.0	32.2	28.9	**3166.6**

Member 36

Fx_i	**-395.3**	62.1	0.4	44.6	-62.8	1963.5	**201.0**	113.9	-0.5	-7.6	98.0	2131.1
Fy_i	-174.6	**-11.7**	4.7	-39.5	-82.9	1620.4	-63.2	**195.7**	-2.2	61.3	31.4	2353.8
Fz_i	-38.2	72.6	**-12.4**	20.4	64.3	2208.1	-157.0	102.4	**11.8**	41.8	-72.1	1627.3
Mx_i	-178.3	19.0	2.9	**-69.2**	-81.7	1520.1	-63.8	157.1	-0.2	**125.9**	25.1	2432.7
My_i	-198.8	71.0	2.3	41.1	**-109.2**	1458.7	4.4	103.9	-2.7	3.6	**101.0**	2295.1
Mz_i	-175.9	52.1	5.1	6.2	-83.1	**832.7**	18.2	127.5	1.2	35.2	33.3	**3167.1**
Fx_f	**-389.8**	126.6	2.4	70.9	-56.6	1521.9	**196.1**	219.8	-10.6	12.7	65.2	1390.3
Fy_f	-170.2	**63.8**	10.0	28.7	-50.3	1234.1	-66.9	**297.1**	-4.2	77.2	18.8	1529.8
Fz_f	-31.4	177.7	**-17.1**	75.4	18.1	1657.7	-163.8	161.3	**16.5**	65.7	-28.4	1017.2
Mx_f	-102.8	183.8	-4.3	**-25.8**	3.6	1499.1	-108.7	251.0	4.9	**169.9**	-7.0	1724.8
My_f	-174.6	109.6	5.7	66.8	**-84.0**	1383.2	-20.0	216.8	-6.2	7.2	**73.7**	1368.8
Mz_f	-170.6	110.3	8.8	36.8	-51.5	**451.9**	12.4	245.1	-2.4	65.2	21.4	**2347.3**

Member 37

Fx_i	**-388.0**	124.4	1.0	67.2	-62.5	1517.8	**186.7**	225.3	-6.1	20.0	101.1	1390.6
Fy_i	-160.7	**51.8**	8.9	-33.7	-83.3	1184.4	-67.8	**306.9**	-3.3	99.0	34.5	1552.6
Fz_i	-58.7	195.8	**-18.6**	80.5	62.6	1719.6	-137.9	121.6	**16.7**	15.0	-68.6	837.1
Mx_i	-158.1	162.2	8.7	**-78.7**	-79.2	1408.9	-70.7	253.2	-3.5	**183.8**	31.1	1734.2
My_i	-183.6	115.9	6.6	59.6	**-108.9**	993.3	-10.6	217.9	-8.3	28.7	**103.5**	1568.2
Mz_i	-158.9	103.1	7.0	13.4	-83.3	**450.9**	8.1	251.1	-1.7	73.1	35.2	**2348.3**
Fx_f	**-382.6**	247.8	3.0	151.3	-53.5	662.4	**181.8**	340.0	-16.2	42.7	43.2	129.2

Fy_f	-155.0	**123.6**	14.8	22.0	-29.3	609.9	-72.3	**418.5**	-5.3	115.4	16.2	125 8
Fz_f	-52.5	309.9	**-23.6**	141.9	-12.9	594.8	-144.0	183.7	**21.6**	38.3	-1.8	134 1
Mx_f	-124.8	252.4	4.2	**-37.6**	-18.9	328.8	-108.9	350.4	5.3	**226.4**	-0.9	558.3
My_f	-170.1	211.8	10.1	113.0	**-64.7**	652.7	-24.5	318.1	-11.8	46.4	**51.4**	16.3
Mz_f	-91.8	285.6	-5.4	29.1	7.8	**-311.6**	-42.6	277.2	3.8	136.0	-17.7	**1074.4**

Member 38

Fx_i	**-373.4**	239.2	-0.1	125.1	-74.2	664.1	**159.4**	353.5	-13.6	79.5	124.4	132.6
Fy_i	-136.0	**107.4**	12.9	-34.6	-90.2	560.2	-78.2	**428.9**	-8.0	150.2	52.8	204.1
Fz_i	-80.6	331.9	**-27.8**	174.8	71.6	507.7	-112.1	157.3	**20.9**	-5.9	-61.9	203.8
Mx_i	-134.4	222.1	12.3	**-95.7**	-85.1	348.2	-60.7	332.8	-18.9	**254.1**	90.0	444.3
My_i	-157.9	171.6	8.4	61.7	**-121.0**	327.6	-36.5	352.1	-14.9	82.7	**125.8**	331.0
Mz_i	-99.4	292.9	-8.3	47.6	38.6	**-309.7**	-35.2	273.4	1.7	120.2	-29.2	**1072.7**
Fx_f	**-368.0**	362.6	1.8	203.9	-70.3	-703.2	**154.5**	415.9	-23.7	73.7	32.7	-1583.1
Fy_f	-129.1	**173.2**	19.2	2.5	-14.8	-141.0	-84.4	**547.7**	-10.3	167.1	10.4	-1903.2
Fz_f	-76.6	446.4	**-33.0**	232.5	-43.4	-1232.6	-116.2	219.1	**26.1**	11.4	22.0	-656.8
Mx_f	-128.6	286.6	18.4	**-66.1**	-14.5	-881.0	-94.4	473.8	-12.0	**298.5**	-10.1	-1254.3
My_f	-134.3	407.8	-16.7	205.2	**-82.2**	-820.2	-83.2	388.5	10.3	29.3	**55.0**	-1550.9
Mz_f	-86.6	525.5	-11.8	136.6	4.8	**-2149.0**	-60.5	183.6	19.1	29.1	-18.9	**103.9**

Member 39

Fx_i	**-333.2**	-357.2	-0.6	-200.4	-79.5	-645.8	**153.4**	-409.8	26.4	-73.5	41.5	-1587.2
Fy_i	-86.2	**-544.1**	11.0	-167.8	11.4	-2044.8	-101.1	**-172.2**	-21.3	-0.2	-12.9	-36.6
Fz_i	-112.9	-228.1	**-29.6**	-8.7	29.1	-658.6	-48.9	-435.7	**36.5**	-234.8	-47.9	-1179.3
Mx_i	-67.3	-462.3	13.5	**-299.5**	-18.9	-1281.9	-125.5	-292.8	-21.0	**68.5**	-4.5	-878.8
My_i	-99.3	-364.9	12.7	-196.1	**-88.4**	-674.9	-85.6	-398.0	-6.6	-26.9	**61.1**	-1549.9
Mz_i	-87.0	-526.9	12.3	-138.1	6.8	**-2149.2**	-102.0	-177.9	-20.9	-26.5	-18.2	**135.0**
Fx_f	**-327.8**	-236.9	1.3	-124.8	-77.9	674.4	**148.5**	-347.4	16.3	-79.2	129.8	131.9
Fy_f	-80.0	**-425.2**	8.7	-150.6	57.0	43.8	-107.9	**-106.4**	-15.1	36.8	-98.3	659.8
Fz_f	-107.8	-165.7	**-22.7**	10.7	-80.3	212.2	-54.0	-321.9	**29.6**	-179.3	92.4	537.9
Mx_f	-45.6	-322.0	21.5	**-255.9**	92.4	398.3	-121.5	-228.6	-15.0	**97.6**	-87.3	345.5
My_f	-146.8	-207.7	-14.6	-72.9	**-133.2**	389.2	-18.3	-339.6	21.6	-87.2	**138.4**	369.8
Mz_f	-88.7	-297.6	8.9	-48.0	41.6	**-324.3**	-91.5	-263.1	-2.1	-119.6	-30.2	**1101.7**

Member 40

Fx_i	**-339.5**	-248.2	-2.4	-147.3	-55.6	666.3	**174.9**	-332.1	19.4	**-44.6**	47.0	133.3
Fy_i	-72.4	**-414.8**	6.0	-115.9	15.4	-34.7	-129.8	**-122.6**	-16.9	-19.6	-27.5	709.3
Fz_i	-132.6	-191.6	**-25.1**	-36.4	-0.4	145.2	-32.8	-299.3	**27.1**	-144.2	-12.7	627.7
Mx_i	-60.4	-350.2	7.3	**-226.5**	2.7	483.9	-144.3	-247.6	-16.5	**38.7**	-23.5	342.1
My_i	-153.1	-199.5	-15.9	-111.2	**-62.1**	673.0	-12.0	-325.7	17.7	-45.6	**49.2**	19.2
Mz_i	-80.2	-290.3	6.0	-29.5	7.6	**-326.2**	-99.4	-266.9	-4.2	-135.3	-16.6	**1103.5**
Fx_f	**-334.1**	-127.8	-0.4	-66.3	-61.7	1488.7	**170.0**	-217.3	9.3	-21.9	103.6	1383.9
Fy_f	-67.9	**-303.1**	4.0	-99.2	36.8	1373.6	-134.9	**-51.0**	-11.2	29.4	-90.9	1254.8
Fz_f	-127.5	-129.2	**-18.2**	-12.1	-89.7	851.5	-37.9	-185.5	**20.1**	-83.9	85.3	1730.9
Mx_f	-64.0	-241.6	4.7	**-183.8**	31.5	1667.1	-139.1	-168.8	-10.8	**80.5**	-84.5	1402.4
My_f	-166.7	-124.5	-13.3	-55.8	**-118.2**	1016.5	2.3	-207.8	14.8	-39.0	**113.6**	1587.7
Mz_f	32.7	-104.7	-10.0	-11.0	-84.5	**440.1**	-252.1	-245.7	3.8	-73.9	32.6	**2353.8**

Member 41

Fx_i	**-346.0**	-107.4	-10.7	-55.4	-79.1	1294.5	**182.3**	-206.8	14.5	-18.7	70.5	1375.3
Fy_i	-65.0	**-293.4**	4.6	-77.7	20.7	1351.4	-147.0	**-62.8**	-11.8	-26.5	-51.0	1329.0
Fz_i	-146.8	-167.9	**-19.9**	-63.8	-30.7	1010.2	-18.8	-167.1	**20.6**	-77.5	21.2	1668.5
Mx_i	-106.0	-239.6	-5.1	**-168.8**	-12.4	1660.4	-76.1	-190.7	4.5	**24.8**	8.5	1490.0
My_i	-169.1	-99.4	-11.5	-66.4	**-83.1**	1381.4	4.2	-222.8	12.1	-7.8	**73.4**	1352.9
Mz_i	19.9	-112.0	-11.0	-34.5	-49.7	**441.0**	-248.2	-239.6	3.5	-65.9	20.1	**2352.9**
Fx_f	**-341.1**	-49.3	-5.1	-24.8	-114.7	1631.9	**177.4**	-100.9	4.4	1.5	105.0	2085.5
Fy_f	-61.3	**-191.9**	2.7	-61.6	35.3	2156.6	-152.3	**11.4**	-6.8	41.8	-93.2	1691.7
Fz_f	-141.7	-108.8	**-13.0**	-39.5	-96.6	1617.5	-23.8	-62.2	**13.6**	-22.9	90.0	2201.1
Mx_f	-68.2	-145.4	1.3	**-125.8**	25.7	2346.4	-151.0	-25.7	-5.2	**70.5**	-88.6	1501.9
My_f	-175.4	-77.7	-8.4	-39.1	**-120.6**	1446.6	10.4	-93.5	8.9	-5.5	**113.5**	2285.2
Mz_f	12.1	-46.9	-4.7	-4.0	-86.4	**829.1**	-241.5	-122.1	0.8	-35.9	31.5	**3145.1**

Member 42

Fx_i	**-348.0**	-57.8	-5.6	-28.5	-97.1	1641.5	**184.2**	-103.8	9.2	-14.3	89.5	2087.2
Fy_i	-63.3	**-182.1**	2.8	-44.5	21.4	2049.2	-153.8	**1.8**	-6.5	-10.4	-64.4	1801.7
Fz_i	-155.1	-108.9	**-14.4**	-48.7	-56.1	1616.9	-10.4	-62.1	**14.7**	-31.7	48.2	2201.6
Mx_i	-122.3	-119.7	-1.6	**-115.4**	-30.8	2341.3	-64.0	-60.3	1.9	**35.9**	21.4	1707.8
My_i	-180.2	-40.9	-6.8	-33.5	**-99.4**	1725.9	15.3	-120.0	7.1	-3.8	**91.3**	2111.3
Mz_i	5.9	-51.8	-5.3	-20.7	-69.6	**829.6**	-240.2	-116.9	1.1	-32.9	28.6	**3144.6**
Fx_f	**-343.1**	0.3	-0.0	2.0	-109.7	1755.6	**179.3**	2.1	-0.9	5.9	100.4	2327.1
Fy_f	-60.0	**-86.7**	0.8	-23.9	27.3	2327.7	-121.3	**90.6**	-0.5	28.5	-30.4	2177.2
Fz_f	-101.0	-44.5	**-7.7**	-20.4	-37.1	2209.9	-83.0	49.0	**8.0**	31.5	29.5	2443.5
Mx_f	-79.9	-26.0	1.0	**-71.6**	18.9	2470.0	-106.5	32.0	-0.7	**82.6**	-27.1	1970.6
My_f	-23.0	-11.8	-4.4	-4.7	**-116.7**	1658.1	-142.1	17.0	4.6	4.0	**109.5**	2543.1
Mz_f	-0.1	6.3	-0.2	9.8	-83.1	**947.4**	-178.0	-6.7	-1.4	-2.2	29.3	**3382.1**

Member 43

Fx_i	**-344.4**	-1.7	-0.8	0.7	-109.0	1711.1	**180.4**	2.3	4.2	-14.3	102.5	2337.0
Fy_i	-112.7	**-86.4**	-0.1	-25.9	-30.0	2055.6	-68.4	**91.3**	0.1	23.9	27.3	2447.5
Fz_i	-117.9	-43.8	**-9.2**	-36.7	-28.2	2213.2	-64.6	51.1	**9.2**	26.5	20.5	2361.4
Mx_i	-125.2	-30.5	0.2	**-80.8**	-32.2	2109.9	-57.7	36.6	-0.3	**71.0**	24.5	2335.0
My_i	-189.9	21.4	-2.9	10.3	**-111.0**	1699.7	26.3	-8.8	3.0	-7.2	**104.0**	2335.2
Mz_i	0.1	2.2	0.1	-4.4	-82.3	**947.4**	-179.0	-2.0	-1.0	-1.1	33.9	**3382.1**
Fx_f	**-339.5**	56.4	4.8	31.2	-99.9	1572.6	**175.5**	108.2	-5.9	6.0	90.7	2104.8
Fy_f	-146.5	**1.4**	4.9	14.8	-69.5	1681.5	-71.8	**187.0**	-1.8	43.7	25.5	2147.1
Fz_f	3.5	68.8	**-11.6**	28.1	49.2	2026.3	-167.8	112.8	**11.7**	53.3	-55.8	1664.7
Mx_f	-25.7	57.3	-4.2	**-37.4**	60.2	1701.1	-100.8	129.9	1.0	**117.5**	-25.8	2157.5
My_f	-170.8	46.5	0.7	38.3	**-107.3**	1564.0	6.6	124.3	-0.7	0.0	**100.5**	2164.0
Mz_f	-5.1	66.6	4.6	25.7	-72.2	**795.3**	-176.0	119.2	-0.1	31.8	32.3	**3097.4**

Member 44

Fx_i	**-335.5**	58.8	3.2	38.9	-113.5	1589.6	**171.4**	112.6	-0.2	-12.4	108.6	2141.3
Fy_i	-145.4	**-8.1**	4.8	-35.6	-89.9	1573.6	-69.4	**196.7**	-1.7	60.5	36.4	2254.6
Fz_i	-19.5	68.4	**-12.8**	17.8	73.1	2024.2	-144.8	113.2	**12.4**	45.6	-78.3	1656.9
Mx_i	-138.5	38.9	0.0	**-67.0**	-39.5	1778.9	-46.9	152.3	-0.4	**125.0**	30.5	2234.5
My_i	-189.8	77.8	2.2	44.6	**-117.0**	1496.4	26.3	102.1	-2.4	3.1	**111.5**	2099.3
Mz_i	0.5	62.0	5.7	10.0	-89.3	**794.8**	-177.8	124.2	1.1	34.4	37.5	**3097.9**
Fx_f	**-330.6**	116.9	8.8	69.4	-86.6	1179.0	**166.5**	218.5	-10.2	7.8	77.3	1406.5
Fy_f	-141.9	**67.4**	10.0	32.5	-57.9	1170.8	-73.1	**298.1**	-3.7	76.4	26.0	1425.8
Fz_f	-2.9	173.5	**-17.5**	72.7	24.8	1461.7	-161.4	172.1	**17.2**	69.5	-31.7	1039.0
Mx_f	-91.5	195.6	-4.2	**-26.4**	7.1	1514.7	-86.9	246.4	4.8	**171.4**	-8.4	1516.1
My_f	-161.5	104.5	5.2	60.7	**-92.6**	1152.9	-2.6	219.8	-5.5	9.4	**85.7**	1267.6
Mz_f	-4.1	120.3	9.4	40.8	-55.1	**400.3**	-173.2	241.6	-2.7	64.2	24.2	**2258.8**

Member 45

Fx_i	**-321.4**	111.7	7.8	52.2	-114.2	1175.4	**157.3**	217.6	-5.8	24.3	112.4	1288.4
Fy_i	-133.4	**56.1**	10.0	-29.3	-94.3	1105.1	-72.2	**307.6**	-4.3	97.2	45.4	1446.8
Fz_i	-30.8	190.9	**-19.1**	75.8	71.4	1523.5	-135.0	135.6	**17.3**	21.1	-73.9	885.7
Mx_i	-159.9	174.4	8.6	**-72.1**	-87.8	1425.2	-41.7	248.0	-3.5	**181.7**	37.7	1523.0
My_i	-185.0	117.9	6.4	39.4	**-116.4**	1156.0	21.0	212.1	-8.1	28.2	**114.6**	1402.9
Mz_i	8.1	113.9	7.5	20.0	-88.6	**399.3**	-177.8	247.3	-2.0	71.0	39.5	**2259.8**
Fx_f	**-316.5**	222.8	13.4	134.8	-66.7	406.8	**152.4**	321.3	-15.8	42.0	55.9	91.3
Fy_f	-127.5	**127.9**	15.9	26.3	-35.0	511.7	-76.8	**419.2**	-6.4	113.5	22.3	16.3
Fz_f	-14.8	305.0	**-24.1**	137.2	-6.4	389.9	-150.9	197.7	**22.3**	44.4	-4.3	150.6
Mx_f	-131.1	263.8	4.2	**-34.6**	-22.3	322.3	-75.1	346.0	5.4	**228.6**	-0.2	334.7
My_f	-148.7	209.4	10.2	119.9	**-73.1**	441.5	-15.3	329.6	-11.8	40.6	**64.0**	36.4
Mz_f	96.7	298.8	-5.1	34.7	18.0	**-387.7**	-225.0	271.4	3.8	131.2	-21.7	**969.3**

Member 46

Fx_i	**-301.9**	244.3	-1.1	109.9	-77.4	413.7	**129.2**	334.4	-13.1	78.3	139.7	94.3
Fy_i	-107.2	**113.2**	14.2	-23.4	-104.9	481.9	-81.6	**429.2**	-5.0	149.6	69.9	115.0
Fz_i	-43.4	325.4	**-28.6**	165.9	83.5	304.5	-117.6	184.2	**21.5**	9.5	-67.8	84.5
Mx_i	-144.1	235.8	12.6	**-84.4**	-96.4	340.9	-47.8	344.6	-9.5	**243.6**	49.8	286.6
My_i	-167.9	178.2	8.7	77.7	**-131.9**	386.9	4.4	345.0	-14.8	71.3	**141.6**	134.2
Mz_i	88.5	302.8	-8.1	44.4	51.3	**-385.9**	-217.1	270.8	1.4	124.0	-34.3	**967.7**
Fx_f	**-296.4**	357.7	0.9	188.7	-77.7	-976.5	**124.3**	396.8	-23.2	72.6	50.3	-1535.6
Fy_f	-100.1	**179.0**	20.5	13.5	-23.5	-244.8	-87.9	**548.0**	-12.4	166.5	20.7	-1994.2
Fz_f	-29.6	439.9	**-33.8**	223.4	-34.9	-1437.4	-131.4	246.0	**26.7**	26.8	18.7	-866.4
Mx_f	-147.9	300.2	18.6	**-54.9**	-24.5	-918.8	-45.4	468.0	-12.5	**294.8**	-4.3	-1483.4
My_f	-110.4	383.3	-1.8	196.5	**-83.1**	-960.0	-73.1	423.4	-4.7	39.7	**60.9**	-1669.0
Mz_f	88.6	542.4	-12.9	153.7	12.9	**-2241.6**	-218.1	183.0	20.3	39.7	-27.3	**-17.4**

Member 47

Fx,	**-261.5**	-389.2	-0.3	-195.6	-85.4	-926.5	**122.0**	-402.4	24.5	-74.8	61.9	-1539.9
Fy,	-160.4	**-552.9**	10.1	-165.4	22.5	-1968.5	20.8	**-188.7**	-15.9	-6.3	-26.7	-320.0
Fz,	-101.5	-243.1	**-24.1**	-26.9	9.1	-642.0	-30.3	-439.9	**32.7**	-212.6	-26.5	-1430.4
Mx,	-48.7	-473.0	11.5	**-290.3**	-6.1	-1494.8	**-110.1**	-304.2	-14.9	**53.2**	-19.6	-847.8
My,	-108.6	-363.4	-3.2	-196.2	**-87.1**	-873.5	-41.7	-446.5	10.9	-39.8	**64.7**	-1611.1
Mz,	86.4	-527.6	11.6	-135.9	18.0	**-2241.9**	-232.9	-205.2	-17.0	-32.9	-33.1	**13.1**
Fx,	**-256.1**	-268.9	1.6	-120.0	-82.5	537.7	**117.1**	-340.0	14.5	-80.5	141.8	145.8
Fy,	-154.3	**-434.1**	7.8	-148.1	64.1	160.0	13.9	**-122.8**	-9.6	30.6	-87.5	450.7
Fz,	-106.3	-180.7	**-17.1**	-7.5	-75.5	327.0	-25.5	-331.6	**25.8**	-162.9	96.9	285.9
Mx,	-15.8	-329.6	17.1	**-242.3**	95.2	219.3	-115.9	-239.9	-8.8	**82.2**	-74.5	458.6
My,	-146.3	-192.8	-10.7	-66.6	**-134.7**	440.6	12.7	-348.0	18.2	-80.0	**149.1**	118.1
Mz,	75.3	-300.1	8.8	-39.5	54.7	**-369.9**	-223.8	-291.8	-1.3	-127.1	-33.4	**1071.6**

Member 48

Fx,	**-275.7**	-240.0	-10.4	-123.1	-68.9	499.6	**141.5**	-327.1	16.4	-45.5	64.7	142.8
Fy,	-147.7	**-424.4**	5.0	-115.2	25.5	81.1	-2.1	**-137.4**	-11.8	-23.8	-31.5	519.4
Fz,	-128.7	-215.1	**-20.2**	-75.9	-11.3	272.2	-6.4	-307.5	**23.1**	-133.2	5.6	368.1
Mx,	-67.9	-349.9	-4.9	**-221.1**	-1.7	305.4	-100.9	-267.4	-1.6	**30.0**	-14.6	438.1
My,	-138.0	-216.1	-13.3	-124.0	**-69.9**	444.0	3.7	-349.0	15.9	-42.4	**65.2**	201.9
Mz,	83.8	-296.1	6.0	-29.6	18.7	**-371.8**	-232.1	-292.4	-3.8	-134.5	-17.6	**1073.4**
Fx,	**-270.8**	-131.6	-4.8	-43.4	-103.1	1314.5	**136.6**	-212.3	6.3	-22.9	107.9	1370.8
Fy,	-143.6	**-312.9**	2.9	-98.4	41.9	1533.1	-8.0	**-65.6**	-5.8	28.9	-72.2	1137.8
Fz,	-133.5	-152.7	**-13.2**	-51.6	-78.2	1115.3	-1.6	-193.7	**16.1**	-72.8	85.5	1477.5
Mx,	-25.2	-252.7	2.2	**-176.6**	32.8	1485.4	-137.2	-178.3	-4.7	**70.3**	-63.0	1589.4
My,	-175.2	-136.2	-7.8	-66.9	**-108.4**	1210.6	41.8	-217.7	9.9	-21.5	**115.3**	1339.2
Mz,	-104.9	-129.9	-6.9	-13.4	-74.4	**492.0**	-66.6	-239.4	3.6	-72.9	39.4	**2357.6**

Member 49

Fx,	**-278.4**	-138.6	-5.5	-61.1	-85.4	1266.1	**144.1**	-206.6	10.2	-15.3	88.1	1366.7
Fy,	-140.4	**-303.5**	2.0	-77.9	36.0	1511.0	-22.3	**-76.7**	-6.4	-25.9	-57.3	1204.2
Fz,	-149.2	-163.0	**-15.2**	-72.1	-36.5	1169.0	14.7	-186.5	**16.5**	-64.8	38.6	1430.9
Mx,	-68.1	-251.1	-4.6	**-164.3**	-6.1	1481.8	-71.5	-200.5	6.0	**18.5**	18.1	1673.9
My,	-141.0	-113.1	-8.6	-62.6	**-86.4**	1155.6	6.8	-230.6	10.0	-13.8	**88.4**	1529.1
Mz,	-114.2	-136.3	-7.6	-34.4	-49.4	**492.8**	-64.0	-233.7	3.0	-66.0	29.1	**2356.7**
Fx,	**-273.5**	-80.4	0.0	-30.6	-97.8	1743.4	**139.2**	-100.6	0.1	4.9	103.2	2075.6
Fy,	-137.4	**-202.4**	0.0	-61.6	38.2	2364.3	-23.9	**-1.1**	-0.6	41.0	-69.9	1620.5
Fz,	-154.0	-104.0	**-8.2**	-47.8	-80.8	1785.2	19.5	-81.6	**9.6**	-10.3	89.0	2020.0
Mx,	-21.6	-156.8	-0.9	**-120.6**	25.8	2180.6	-156.2	-36.9	0.9	**64.7**	-62.3	1760.7
My,	-188.3	-82.6	-2.8	-45.7	**-103.4**	1683.3	53.3	-107.3	4.3	4.0	**111.0**	2053.1
Mz,	-107.7	-64.8	-1.6	-3.7	-71.5	**914.1**	-67.8	-116.2	0.7	-36.0	39.0	**3156.6**

Member 50

Fx,	**-275.0**	-83.4	-0.6	-36.5	-96.1	1678.7	**140.6**	-101.5	4.5	-7.9	104.1	2086.2
Fy,	-137.8	**-193.2**	2.2	-45.2	35.0	2249.8	-26.3	**-9.9**	-2.9	-8.9	-62.6	1728.8
Fz,	-162.4	-98.2	**-9.6**	-39.0	-55.4	1785.5	27.9	-87.4	**10.6**	-36.4	62.1	2019.7
Mx,	-72.4	-134.8	-0.6	**-111.9**	-22.8	2124.5	-77.0	-68.5	1.6	**32.9**	30.3	2062.8
My,	-137.2	-52.5	-3.1	-30.1	**-97.9**	1520.7	3.0	-127.3	4.1	-7.0	**104.5**	2344.3
Mz,	-110.4	-69.3	-1.9	-18.9	-64.4	**914.5**	-67.7	-111.2	0.6	-33.6	38.4	**3156.1**
Fx,	**-270.1**	-25.3	4.9	-5.9	-86.4	1907.9	**135.7**	4.4	-5.6	12.3	93.8	2315.8
Fy,	-135.4	**-98.0**	0.2	-25.1	37.5	2581.7	15.5	**78.1**	0.7	29.2	-21.6	2142.0
Fz,	-30.8	-42.8	**-8.7**	-34.4	57.6	2261.3	-103.7	21.2	**9.6**	37.9	-46.5	2004.8
Mx,	-24.5	-41.6	-0.7	**-68.7**	20.3	2284.9	-125.0	24.0	1.8	**80.2**	-8.0	2400.9
My,	-192.6	-26.1	1.1	-6.9	**-92.3**	1984.0	58.3	9.5	-0.2	7.7	**102.9**	2364.3
Mz,	-105.3	-11.2	3.7	11.7	-60.3	**1080.2**	-75.3	-10.7	-1.3	-2.9	36.7	**3454.6**

Member 51

Fx,	**-265.7**	-20.0	4.7	12.7	-101.8	1885.2	**131.2**	0.1	-0.7	-16.8	113.1	2310.4
Fy,	-181.1	**-98.3**	2.0	-25.3	-14.2	2289.3	60.5	**80.1**	-1.6	22.7	30.5	2437.9
Fz,	-27.5	-32.8	**-9.9**	-9.4	73.0	2254.8	-83.9	10.2	**10.6**	-5.6	-61.9	2010.1
Mx,	-60.4	-45.8	1.8	**-79.1**	-19.0	2016.9	-89.5	27.2	-1.2	**70.1**	31.2	2643.2
My,	-127.3	10.8	2.3	13.9	**-103.3**	1610.0	16.2	-26.4	-1.5	-10.3	**114.1**	2674.3
Mz,	-101.8	-14.8	3.6	-1.0	-71.1	**1080.1**	-77.2	-6.2	-1.4	-2.3	42.8	**3454.6**
Fx,	**-260.8**	38.1	10.3	43.2	-68.0	1829.2	**126.3**	106.0	-10.8	3.4	79.5	2088.4
Fy,	-200.7	**-9.5**	9.4	18.0	-33.2	1951.8	58.1	**176.2**	-3.5	42.4	21.8	2181.7
Fz,	-20.5	36.4	**-14.5**	7.6	38.3	2262.6	-90.8	121.5	**15.2**	73.7	-24.0	1692.1
Mx,	26.9	42.3	-7.8	**-39.7**	51.6	1644.9	-135.1	121.3	2.9	**118.7**	-8.4	2542.3
My,	-170.3	36.7	5.9	42.1	**-75.6**	1945.0	59.1	106.9	-5.1	-4.6	**89.6**	2103.7
Mz,	-98.5	46.5	9.4	28.5	-43.4	**999.5**	-55.5	116.4	-3.5	30.5	33.3	**3221.8**

Member 52

Fx,	**-251.1**	40.4	8.7	54.4	-99.2	1930.5	**116.7**	108.5	-4.9	-24.1	115.0	2116.0
Fy,	-194.2	**-18.3**	10.0	-33.4	-67.8	1870.0	54.1	**185.5**	-4.0	59.2	36.6	2234.5
Fz,	-45.3	62.6	**-15.5**	28.4	74.6	2421.6	-66.0	95.4	**15.8**	35.6	-58.7	1533.1
Mx,	-20.0	35.2	-2.4	**-60.5**	31.2	1727.6	-130.0	131.6	3.2	**120.0**	-15.0	2612.0
My,	-112.6	68.9	7.1	56.6	**-102.3**	1378.2	1.0	77.9	-6.8	-18.8	**117.7**	2528.1
Mz,	-88.3	42.7	9.3	15.5	-73.4	**999.2**	-59.9	121.0	-3.7	32.0	47.2	**3222.3**
Fx,	**-246.2**	98.5	14.3	84.9	-47.5	1602.6	**111.8**	214.4	-15.0	-3.9	62.2	1399.8
Fy,	-189.0	**56.8**	15.3	34.3	-10.5	1521.9	51.4	**287.4**	-5.9	75.1	17.1	1447.1
Fz,	-38.9	167.6	**-20.4**	83.2	13.2	1922.3	-72.4	154.3	**20.7**	59.6	4.0	954.9
Mx,	29.6	172.7	-12.4	**-27.8**	40.7	1257.1	-134.4	232.4	5.0	**170.6**	4.4	2048.8
My,	-165.3	103.6	10.3	85.6	**-53.5**	1625.3	53.6	215.1	-10.0	55.5	**70.3**	1219.1
Mz,	-83.8	102.3	15.0	47.0	-18.9	**658.8**	-65.1	238.5	-5.8	61.9	26.1	**2431.8**

Member 53

Fx,	**-231.5**	115.5	3.6	96.1	-48.9	1804.6	**96.7**	213.5	-10.5	-12.8	114.3	1398.6
Fy,	-176.9	**47.1**	15.4	-11.2	-65.5	1536.5	49.4	**296.4**	-6.9	94.4	45.5	1471.4
Fz,	-70.3	189.2	**-21.9**	98.2	70.7	1972.7	-44.6	118.5	**20.6**	12.6	-51.1	850.3
Mx,	-8.4	208.3	-4.3	**-52.1**	43.2	1513.9	-129.0	220.9	4.3	**170.0**	-8.9	2024.0
My,	-91.0	126.9	12.0	90.8	**-94.4**	915.5	-20.4	182.2	-12.8	-2.9	**116.6**	1975.2
Mz,	-67.2	97.5	14.5	31.3	-66.7	**657.9**	-71.8	243.5	-6.6	66.6	49.5	**2432.7**
Fx,	**-226.3**	200.2	18.5	157.3	-21.0	914.2	**91.8**	328.2	-20.6	9.9	36.6	190.3
Fy,	-171.2	**118.5**	21.4	44.0	18.1	991.4	45.6	**408.5**	-8.9	111.0	11.5	82.1
Fz,	-64.9	297.8	**-27.1**	153.4	-21.1	888.6	-50.0	180.7	**25.9**	36.2	35.0	161.3
Mx,	19.4	272.5	-19.0	**-27.5**	12.6	187.0	-135.1	331.1	5.9	**225.4**	13.3	966.7
My,	-89.0	227.4	-24.7	133.6	**-40.1**	926.8	0.2	292.8	11.1	71.6	**58.7**	117.0
Mz,	-11.8	289.2	-7.4	53.4	8.9	**-89.7**	-110.7	252.0	6.2	107.3	12.5	**1243.7**

Member 54

Fx,	**-215.0**	227.8	0.8	153.4	-49.6	991.4	**65.6**	291.7	-18.2	65.8	128.6	127.1
Fy,	-146.9	**108.7**	20.1	12.6	-54.5	989.8	39.1	**416.2**	-12.5	128.5	61.2	82.0
Fz,	-89.3	318.2	**-32.0**	174.8	81.2	849.5	-20.9	162.0	**25.1**	13.4	-40.1	203.5
Mx,	-23.5	239.0	17.8	**-45.6**	-43.4	205.7	-123.2	332.5	-10.8	**222.8**	51.1	979.0
My,	-61.9	186.3	13.5	114.9	**-93.1**	186.8	-50.1	305.7	-20.8	91.9	**132.0**	866.5
Mz,	-20.0	292.3	-10.3	60.2	44.5	**-88.6**	-102.9	251.8	3.7	102.2	-1.6	**1242.9**
Fx,	**-209.6**	351.2	2.7	232.2	-41.7	-329.2	**60.7**	354.1	-28.3	60.0	16.0	-1310.7
Fy,	-139.7	**174.2**	26.4	48.9	53.7	287.6	32.8	**535.3**	-14.9	145.9	-1.8	-1973.3
Fz,	-86.4	432.5	**-37.5**	231.7	-55.1	-828.5	-23.8	223.9	**30.6**	31.4	65.0	-679.0
Mx,	-10.9	316.5	12.3	**-24.7**	46.4	-1159.3	-141.1	432.0	-1.4	**284.3**	-6.8	-619.1
My,	-116.2	347.2	-33.5	204.2	**-91.7**	-400.4	4.5	310.8	26.0	61.8	**97.9**	-1134.3
Mz,	-4.6	523.3	-15.3	141.0	0.9	**-1997.7**	-113.1	183.3	24.9	61.5	36.3	**301.5**

Member 55

Fx,	**-177.3**	-273.4	7.9	-139.7	-60.1	-289.4	**55.1**	-250.5	7.0	-94.8	65.0	-1387.7
Fy,	-11.0	**-410.1**	12.1	-118.5	4.3	-1958.2	-96.4	**-104.0**	-14.0	-44.5	30.0	323.3
Fz,	-3.9	-202.9	**-20.0**	-48.9	60.3	-1117.5	-99.5	-285.2	**29.6**	-163.9	-49.7	-665.7
Mx,	-93.1	-324.6	10.6	**-214.8**	7.5	-691.0	-26.8	-194.8	-10.3	**-8.8**	10.1	-843.8
My,	-115.9	-264.4	22.8	-136.9	**-77.3**	-412.3	8.9	-217.5	-12.8	-75.3	**81.3**	-1248.7
Mz,	-8.7	-401.9	10.9	-111.6	9.9	**-1997.5**	-103.5	-104.1	-11.7	-46.3	13.7	**326.7**
Fx,	**-172.9**	-174.1	9.6	-76.9	-28.0	517.2	**50.7**	-194.0	0.4	-93.8	72.1	-558.7
Fy,	-5.8	**-310.7**	10.0	-101.2	46.0	-661.2	-102.6	**-50.6**	-8.5	-16.1	-14.9	658.5
Fz,	0.6	-152.0	**-14.2**	-33.2	4.7	-479.5	-104.0	-195.9	**23.8**	-122.1	41.1	232.5
Mx,	-94.1	-226.8	7.3	**-170.8**	46.1	322.0	-26.0	-118.5	-3.2	**15.5**	-20.5	-283.1
My,	-42.2	-176.6	-3.1	-7.4	**-46.7**	-125.6	-62.4	-161.3	11.4	-119.7	**88.6**	70.5
Mz,	24.3	-191.0	7.4	-66.8	38.4	**-946.8**	-144.4	-192.8	0.9	-71.9	6.0	**888.3**

Member 56

Fx,	**-175.6**	-181.0	5.0	-100.1	-36.4	516.5	**56.4**	-175.9	7.0	-72.3	44.9	-514.6
Fy,	-3.1	**-304.8**	4.1	-85.4	15.6	-663.7	-113.8	**-58.4**	-8.8	-41.4	6.5	660.3
Fz,	-7.4	-164.7	**-16.8**	-76.6	39.7	-305.3	-100.7	-167.2	**19.2**	-84.7	-26.0	280.0
Mx,	-102.4	-210.9	-4.4	**-162.1**	21.0	344.5	-24.8	-138.5	0.2	**-12.2**	-4.7	-309.9

My,	-131.6	-168.4	12.7	-88.9	-38.7	470.4	13.1	-201.2	-9.8	-86.9	55.0	-526.4
Mz,	27.3	-187.8	3.6	-57.6	14.8	-946.7	-147.5	-194.3	-2.2	-78.9	6.3	888.0
Fx,	-171.1	-81.8	6.6	-33.0	-15.1	982.4	52.5	-125.1	-2.0	-73.0	51.9	49.8
Fy,	2.2	-212.8	2.3	-67.4	27.9	126.6	-117.8	1.1	-4.1	8.9	-17.1	868.2
Fz,	5.1	-114.3	-11.8	-56.8	0.5	194.5	-113.3	-77.5	14.2	-39.1	22.1	742.0
Mx,	-95.5	-129.0	-0.3	-120.1	25.8	841.2	-31.2	-66.6	-0.5	23.9	-17.5	202.2
My,	-46.7	-105.5	-0.2	-4.0	-31.9	427.5	-58.3	-100.1	1.8	-91.2	56.2	543.8
Mz,	13.8	-121.7	-1.8	-38.9	7.1	-365.9	-134.1	-101.0	3.3	-52.3	19.4	1418.9

Member 57

Fx,	-166.1	-88.9	3.9	-58.2	-31.7	982.2	51.0	-115.6	-0.1	-46.7	52.2	49.8
Fy,	1.9	-205.6	-0.7	-48.3	22.2	92.3	-123.0	-7.8	-4.5	-26.6	-8.7	880.0
Fz,	-10.6	-127.4	-13.9	-74.4	27.0	145.6	-95.8	-60.0	12.1	-23.1	-8.4	776.3
Mx,	-109.7	-115.1	-6.0	-115.4	18.4	816.5	3.3	-92.5	6.9	-0.2	9.1	234.5
My,	-137.5	-53.4	2.0	-38.7	-38.6	779.8	30.9	-140.4	-3.8	-61.6	57.2	134.0
Mz,	10.7	-123.6	-3.3	-45.5	10.8	-365.7	-131.4	-96.1	0.8	-41.7	12.2	1418.6
Fx,	-161.7	7.2	5.5	9.0	-14.3	1114.1	47.0	-67.5	-9.1	-47.4	36.8	398.0
Fy,	7.0	-123.0	-2.4	-32.0	16.9	503.4	-129.2	55.1	0.2	10.6	-4.0	1123.0
Fz,	14.0	-93.5	-10.9	-59.9	10.1	604.4	-132.2	28.7	8.9	17.7	3.2	920.1
Mx,	-101.2	-39.5	-4.3	-76.8	14.4	945.9	-26.5	-20.2	1.9	34.3	-14.4	479.8
My,	-41.9	-43.0	2.7	2.4	-27.4	793.3	-63.8	-21.1	-5.1	-37.8	39.2	603.2
Mz,	-6.0	-60.1	-1.6	-16.4	-12.3	-23.5	-126.7	0.9	-0.6	-16.7	12.8	1587.3

Member 58

Fx,	-154.6	1.8	3.2	-11.3	-25.6	1114.5	40.8	-60.0	-10.6	-27.1	61.7	397.7
Fy,	3.6	-118.6	-3.2	-24.3	21.0	433.5	-125.5	51.4	-3.2	-16.8	3.2	1208.1
Fz,	3.9	-80.6	-14.9	-39.4	42.3	804.7	-123.9	13.4	7.0	-9.5	-17.0	786.7
Mx,	-124.4	-21.9	-2.9	-83.9	-0.6	1023.6	16.7	-42.9	-4.8	35.8	38.7	524.0
My,	-135.1	24.9	5.7	-5.7	-41.4	766.1	28.0	-84.8	-12.6	-41.5	64.8	662.7
Mz,	-7.5	-65.1	-2.3	-32.2	-8.8	-23.5	-125.6	6.3	-4.1	-5.1	20.4	1587.3
Fx,	-150.2	95.8	4.8	47.1	-10.9	916.1	36.8	-12.6	-15.1	-22.8	14.6	543.3
Fy,	9.2	-46.1	-4.9	-5.4	7.1	446.8	-130.3	129.0	-1.7	13.1	-6.0	1093.5
Fz,	29.8	12.2	-19.0	21.8	10.4	881.5	-137.8	62.0	11.9	-0.5	-13.7	518.8
Mx,	-116.5	52.4	-3.7	-44.2	1.5	811.8	-2.1	31.2	-4.7	69.7	-4.6	716.0
My,	-30.9	30.9	4.7	29.3	-23.9	868.6	-74.2	38.4	-13.1	-10.2	21.2	508.0
Mz,	-116.2	-0.1	2.4	-7.4	-9.1	87.0	-1.1	82.6	-6.0	20.1	2.4	1436.6

Member 59

Fx,	-141.7	93.3	-1.7	35.0	-10.2	918.5	26.6	-0.6	-17.0	14.9	60.9	416.8
Fy,	-4.4	-48.4	-5.2	-46.5	7.3	351.4	-117.8	135.0	-13.4	46.7	34.7	1194.0
Fz,	20.1	24.4	-28.9	43.5	81.4	916.4	-127.5	49.2	10.0	-29.7	-40.1	484.1
Mx,	-123.7	35.9	-0.2	-67.7	-17.1	633.6	8.5	41.4	-17.2	85.3	46.4	790.0
My,	-128.0	54.4	9.8	-25.4	-40.2	521.0	20.6	19.2	-28.7	39.2	81.5	879.5
Mz,	-113.3	-5.8	1.6	-24.9	-15.8	86.8	-1.7	88.9	-15.6	34.8	39.4	1436.8
Fx,	-142.4	158.7	-0.1	50.8	-13.4	439.0	27.2	41.5	-21.6	19.2	-9.8	357.6
Fy,	-8.0	15.0	4.9	-4.5	-3.2	209.8	-122.4	224.7	-15.9	65.5	-19.0	714.0
Fz,	24.1	119.2	-33.5	94.8	-33.0	642.1	-131.5	100.1	14.5	-9.9	4.9	223.0
Mx,	-132.3	111.5	0.4	-29.5	-7.3	343.8	13.0	128.3	-21.5	119.1	-24.1	623.1
My,	12.0	131.0	-28.8	100.8	-38.3	690.7	-131.4	117.0	7.9	-9.0	7.3	286.8
Mz,	-121.0	45.3	6.4	-0.3	-1.3	26.6	3.1	191.0	-15.8	60.7	-17.9	917.6

Member 60

Fx,	-132.1	196.2	-29.0	77.7	47.6	596.0	12.5	50.2	-19.4	41.4	55.1	301.4
Fy,	-0.9	6.5	-0.1	-38.8	-7.2	206.8	-125.0	233.0	-33.4	88.9	73.8	714.5
Fz,	6.3	132.7	-61.0	105.0	108.2	686.0	-115.7	97.8	13.1	-30.0	-24.5	241.7
Mx,	-116.8	86.8	-0.0	-58.1	-16.6	282.0	10.0	128.6	-48.3	134.3	106.6	588.3
My,	-117.4	96.9	8.7	-35.1	-33.1	238.6	10.6	126.5	-56.6	113.7	122.3	642.4
Mz,	-112.9	38.3	4.8	-21.9	-15.9	26.2	-0.3	198.5	-40.2	81.1	78.0	918.0
Fx,	-136.6	258.8	-27.4	100.0	-55.8	-229.3	16.5	100.2	-28.4	45.7	-40.0	13.2
Fy,	3.4	61.8	9.3	3.0	10.0	17.2	-129.4	328.0	-42.7	106.1	-74.1	-231.6
Fz,	14.6	215.8	-65.6	159.2	-109.1	10.5	-121.4	147.8	17.8	-15.3	22.9	-197.4
Mx,	-121.2	147.9	17.6	-15.7	22.8	-197.3	12.2	231.6	-62.4	168.8	-108.1	13.1
My,	14.3	217.0	-65.6	160.0	-109.2	10.4	-121.2	146.3	17.7	-15.6	23.0	-197.3
Mz,	-129.7	308.6	-20.1	45.2	-33.3	-232.1	7.3	89.4	-8.5	41.5	-17.0	18.4

Member 121

Fx,	-2.0	-0.0	-56.5	-0.0	8.4	-0.0	-0.0	0.0	147.0	0.0	-442.3	0.1
Fy,	-0.9	-0.0	-191.7	0.8	502.1	-0.1	-0.9	0.0	191.7	-0.8	-648.3	0.1
Fz,	-1.1	-0.0	-195.4	0.2	499.3	-0.1	-1.1	0.0	195.4	-0.2	-673.0	0.1
Mx,	-0.5	-0.0	-57.7	-1.2	130.2	-0.0	-0.5	0.0	57.7	1.2	-215.8	0.0
My,	-1.2	0.0	192.2	-0.1	-676.0	0.1	-0.2	-0.0	-181.6	-0.1	528.2	-0.1
Mz,	-0.9	-0.0	-191.7	0.8	502.1	-0.1	-0.9	0.0	191.7	-0.8	-648.3	0.1
Fx,	-2.0	-0.0	-56.5	-0.0	-45.3	-0.0	-0.0	0.0	147.0	0.0	-302.6	0.0
Fy,	-0.9	-0.0	-191.7	0.8	320.0	-0.0	-0.9	0.0	191.7	-0.8	-466.2	0.0
Fz,	-1.1	-0.0	-195.4	0.2	313.7	-0.0	-1.1	0.0	195.4	-0.2	-487.4	0.0
Mx,	-0.5	-0.0	-57.7	-1.2	75.4	-0.0	-0.5	0.0	57.7	1.2	-161.1	0.0
My,	-1.3	0.0	189.8	-0.1	-494.6	0.0	-0.1	-0.0	-177.3	0.2	357.5	-0.0
Mz,	-0.9	-0.0	-191.7	0.8	320.0	-0.0	-0.9	0.0	191.7	-0.8	-466.2	0.0

Member 122

Fx,	-3.8	-0.5	-16.5	-0.0	56.5	2.1	0.7	0.5	13.4	0.0	-38.0	1.7
Fy,	-1.5	-6.1	-23.7	1.8	75.7	-16.4	-1.5	6.1	23.7	-1.8	-66.5	20.2
Fz,	-2.0	-3.6	-53.4	0.5	164.1	-8.6	-2.0	3.6	53.4	-0.5	-156.3	13.0
Mx,	-0.8	3.6	-12.4	-2.0	39.3	11.8	-0.8	-3.6	12.4	2.0	-34.9	-9.8
My,	-0.8	2.2	53.1	-0.5	-159.4	7.3	-1.5	-3.5	-53.4	0.6	166.9	-8.2
Mz,	-1.3	-6.1	-49.1	1.6	151.3	-16.6	-1.5	6.1	23.5	-1.8	-65.7	20.2
Fx,	-3.8	-0.5	-16.5	-0.0	40.8	2.6	0.7	0.5	13.4	0.0	-25.3	1.2
Fy,	-1.5	-6.1	-23.7	1.8	53.2	-10.6	-1.5	6.1	23.7	-1.8	-44.0	14.4
Fz,	-2.0	-3.6	-53.4	0.5	113.3	-5.2	-2.0	3.6	53.4	-0.5	-105.6	9.5
Mx,	-0.8	3.6	-12.4	-2.0	27.6	8.4	-0.8	-3.6	12.4	2.0	-23.1	-6.4
My,	-0.7	2.8	53.0	-0.7	-109.0	6.5	-1.5	-3.5	-53.4	0.6	116.2	-4.9
Mz,	-1.3	-6.1	-49.1	1.6	104.7	-10.8	-1.5	6.1	23.5	-1.8	-43.5	14.4

Member 123

Fx,	-2.3	-0.8	-15.2	-0.0	46.6	3.4	0.7	0.8	11.5	0.0	-32.6	2.8
Fy,	-0.7	-10.1	-22.0	1.1	67.7	-27.2	-0.7	10.1	22.0	-1.1	-64.3	33.3
Fz,	-0.8	-4.2	-48.7	0.4	146.2	-9.8	-0.8	4.2	48.7	-0.4	-145.8	15.4
Mx,	-0.4	6.2	-10.7	-1.2	32.8	20.4	-0.4	-6.2	10.7	1.2	-31.5	-17.1
My,	-1.1	2.3	48.4	-0.2	-146.5	8.7	-0.2	-6.0	-48.4	0.4	149.2	-14.6
Mz,	-0.7	-10.1	-44.7	1.0	135.6	-27.5	-0.7	10.1	22.0	-1.1	-64.3	33.3
Fx,	-2.3	-0.8	-15.2	-0.0	32.2	4.2	0.7	0.8	11.5	0.0	-21.6	2.0
Fy,	-0.7	-10.1	-22.0	1.1	46.8	-17.6	-0.7	10.1	22.0	-1.1	-43.4	23.7
Fz,	-0.8	-4.2	-48.7	0.4	100.0	-5.8	-0.8	4.2	48.7	-0.4	-99.5	11.4
Mx,	-0.4	6.2	-10.7	-1.2	22.7	14.4	-0.4	-6.2	10.7	1.2	-21.3	-11.2
My,	-1.1	2.2	48.3	-0.2	-100.6	6.3	-0.2	-5.9	-48.4	0.4	103.1	-8.6
Mz,	-0.7	-10.0	-44.5	1.0	92.7	-17.9	-0.7	10.1	21.8	-1.1	-42.9	23.7

Member 124

Fx,	-2.1	1.0	11.8	-0.0	-35.6	9.9	0.6	-1.0	-12.0	0.0	33.8	-2.9
Fy,	-0.6	-12.0	-40.5	0.2	120.8	-32.8	-0.6	12.0	40.5	-0.2	-122.3	39.1
Fz,	-1.2	-6.2	-44.4	0.3	130.1	-15.3	-1.2	6.2	44.4	-0.3	-136.1	22.1
Mx,	-0.4	4.3	17.3	-0.5	-52.9	14.7	-0.4	-4.3	-17.3	0.5	51.2	-11.0
My,	-1.1	5.5	44.4	-0.4	-136.2	19.8	-0.2	-7.6	-44.4	0.3	134.0	-18.9
Mz,	-0.6	-12.0	-40.5	0.2	120.8	-32.8	-0.6	11.9	20.5	-0.2	-62.4	39.2
Fx,	-2.1	1.0	11.8	-0.0	-24.4	8.9	0.6	-1.0	-12.0	0.0	22.4	-1.9
Fy,	-0.6	-12.0	-40.5	0.2	82.3	-21.4	-0.6	12.0	40.5	-0.2	-83.8	27.7
Fz,	-1.2	-6.2	-44.4	0.3	88.0	-9.3	-1.2	6.2	44.4	-0.3	-94.0	16.2
Mx,	-0.4	4.3	17.3	-0.5	-36.4	10.6	-0.4	-4.3	-17.3	0.5	34.7	-6.9
My,	-1.1	5.8	44.3	-0.3	-94.0	15.1	-0.2	-7.6	-44.4	0.3	91.8	-11.7
Mz,	-0.6	-12.0	-40.5	0.2	82.3	-21.4	-0.6	11.9	20.5	-0.2	-42.9	27.9

Member 125

Fx,	-3.6	1.1	10.1	-0.0	-38.9	9.6	0.7	-1.2	-10.7	0.0	29.7	-3.2
Fy,	-1.0	-11.8	-36.5	-0.7	105.6	-32.5	-1.0	11.8	36.2	0.7	-112.1	38.3
Fz,	-1.7	-7.4	-40.2	0.1	114.3	-19.0	-1.7	7.4	40.2	-0.1	-127.0	25.3
Mx,	-0.8	-5.8	8.4	-1.0	-28.1	-15.8	-0.8	5.8	-8.4	1.0	22.1	19.3
My,	-1.7	8.1	40.2	0.1	-127.1	27.6	-0.8	-8.8	-40.2	-0.1	117.6	-23.3
Mz,	-1.0	-11.8	-36.5	-0.7	105.6	-32.5	-1.0	11.8	36.2	0.7	-112.1	38.3
Fx,	-3.6	1.1	10.1	-0.0	-29.2	8.5	0.7	-1.2	-10.7	0.0	19.5	-2.1
Fy,	-1.0	-11.8	-36.5	-0.7	71.0	-21.3	-1.0	11.8	36.2	0.7	-77.8	27.1
Fz,	-1.7	-7.4	-40.2	0.1	76.1	-12.0	-1.7	7.4	40.2	-0.1	-88.8	18.3

Mx_i	-0.8	-5.8	8.4	**-1.0**	-20.2	-10.3	-0.8	5.8	-8.4	**1.0**	14.1	13.7
My_i	-1.7	8.1	40.2	0.1	**-88.9**	19.9	-0.7	-7.9	-39.9	0.0	**79.6**	-13.6
Mz_i	-1.0	-11.8	-36.2	-0.7	70.6	**-21.3**	-1.1	11.8	36.4	0.7	-78.5	**27.1**

Member 126

Fx_i	**-7.6**	1.1	12.1	-0.0	-62.0	7.7	**0.5**	-1.2	-12.5	0.0	34.9	-3.3
Fy_i	-2.8	**-9.2**	-42.4	-1.6	115.8	-25.7	-2.8	**9.2**	42.4	1.6	-138.6	29.8
Fz_i	-3.5	-7.2	**-45.4**	-0.6	122.1	-19.4	-3.5	7.2	**45.4**	0.6	-150.4	24.0
Mx_i	-2.0	-4.4	8.3	**-2.1**	-33.0	-11.9	-2.0	4.4	-8.3	**2.1**	16.7	14.4
My_i	-3.8	6.5	45.1	0.5	**-150.8**	22.1	-1.7	-6.2	-44.8	-0.5	**127.4**	-17.5
Mz_i	-2.8	-9.2	-42.4	-1.6	115.8	**-25.7**	-2.8	9.2	42.4	1.6	-138.6	**29.8**
Fx_f	**-7.6**	1.1	12.1	-0.0	-50.6	6.7	**0.5**	-1.2	-12.5	0.0	23.0	-2.2
Fy_f	-2.8	**-9.2**	-42.4	-1.6	75.5	-16.9	-2.8	**9.2**	42.4	1.6	-98.4	21.0
Fz_f	-3.5	-7.2	**-45.4**	-0.6	78.9	-12.5	-3.5	7.2	**45.4**	0.6	-107.2	17.1
Mx_f	-2.0	-4.4	8.3	**-2.1**	-25.1	-7.7	-2.0	4.4	-8.3	**2.1**	8.8	10.3
My_f	-4.1	6.2	44.7	0.4	**-108.2**	15.3	-1.5	-5.2	-44.4	-0.3	**85.0**	-9.8
Mz_f	-2.8	-9.2	-42.4	-1.6	75.5	**-16.9**	-2.9	9.2	42.4	1.6	-98.3	**21.0**

Member 127

Fx_i	**-17.6**	0.9	6.6	0.1	-24.0	4.0	**0.6**	-1.1	-8.1	-0.1	25.3	-3.1
Fy_i	-7.3	**-4.7**	-25.1	-0.7	74.0	-13.6	-7.3	**4.7**	25.1	0.7	-76.8	14.6
Fz_i	-7.0	-3.9	**-27.3**	-2.3	79.4	-11.2	-6.4	3.7	**27.3**	2.3	-84.5	11.5
Mx_i	-4.5	-1.3	-9.4	**-4.0**	27.4	-3.5	-4.5	1.3	9.4	**4.0**	-29.0	4.1
My_i	-7.9	4.0	27.3	1.8	**-84.7**	12.5	-5.5	-3.7	-27.3	-2.1	**82.2**	-10.7
Mz_i	-7.2	-4.7	-25.1	-0.6	74.0	**-13.6**	-7.4	4.7	25.2	0.6	-77.0	**14.7**
Fx_f	**-17.6**	0.9	6.6	0.1	-17.7	3.1	**0.6**	-1.1	-8.1	-0.1	17.6	-2.1
Fy_f	-7.3	**-4.7**	-25.1	-0.7	50.1	-9.1	-7.3	**4.7**	25.1	0.7	-52.9	10.2
Fz_f	-7.0	-3.9	**-27.3**	-2.3	53.4	-7.5	-6.4	3.7	**27.3**	2.3	-58.5	8.0
Mx_f	-4.5	-1.3	-9.4	**-4.0**	18.4	-2.3	-4.5	1.3	9.4	**4.0**	-20.1	2.9
My_f	-7.9	4.0	27.3	1.8	**-58.7**	8.7	-5.5	-3.7	-27.3	-2.1	**56.3**	-7.2
Mz_f	-7.1	-4.7	-25.1	-0.6	50.2	**-9.2**	-8.0	4.7	25.3	0.7	-53.4	**10.2**

Member 128

Fx_i	**-6.8**	1.3	5.1	0.2	4.0	13.0	**0.9**	-1.4	-8.3	-0.3	27.6	-3.8
Fy_i	-2.5	**-11.1**	-20.5	2.6	70.0	-29.0	-2.5	**11.1**	20.5	-2.6	-53.1	37.6
Fz_i	-2.6	0.4	**-25.2**	-3.6	82.8	4.2	-2.6	-0.4	**25.3**	3.6	-68.8	1.8
Mx_i	-1.7	4.6	-7.8	**-4.9**	29.5	16.5	-1.7	-4.6	7.8	**4.9**	-17.1	-11.3
My_i	-1.1	1.4	24.8	2.3	**-73.0**	5.8	-4.4	-2.7	-24.1	-1.0	**91.2**	-0.8
Mz_i	-2.2	-11.1	-20.5	2.6	70.6	**-29.0**	-2.5	11.1	20.5	-2.6	-53.0	**37.6**
Fx_f	**-6.8**	1.3	5.1	0.2	8.9	11.7	**0.9**	-1.4	-8.3	-0.3	19.7	-2.4
Fy_f	-2.5	**-11.1**	-20.5	2.6	50.5	-18.5	-2.5	**11.1**	20.5	-2.6	-33.6	27.1
Fz_f	-2.6	0.4	**-25.2**	-3.6	58.8	3.9	-2.6	-0.4	**25.3**	3.6	-44.8	2.2
Mx_f	-1.7	4.6	-7.8	**-4.9**	22.1	12.1	-1.7	-4.6	7.8	**4.9**	-9.7	-6.9
My_f	-1.1	1.4	24.8	2.3	**-49.4**	4.3	-4.5	-3.1	-24.0	-0.5	**68.4**	1.4
Mz_f	-2.2	-11.1	-20.5	2.7	51.0	**-18.5**	-2.5	11.1	20.5	-2.6	-33.4	**27.1**

Member 129

Fx_i	**-2.8**	1.3	5.3	0.2	-11.4	18.0	**1.3**	-1.4	-7.2	-0.2	22.9	-3.5
Fy_i	-0.7	**-16.3**	-20.1	2.2	62.2	-42.2	-0.7	**16.3**	20.1	-2.2	-58.4	55.7
Fz_i	-0.7	3.3	**-24.3**	-1.7	73.1	14.3	-0.7	-3.7	**24.3**	1.8	-72.8	-6.9
Mx_i	-0.4	10.3	-6.2	**-3.9**	20.1	35.0	-0.4	-10.3	6.2	**3.9**	-16.9	-25.9
My_i	-0.7	-4.0	24.3	2.1	**-72.9**	-8.6	-0.5	5.7	-23.9	-1.4	**76.2**	24.8
Mz_i	-0.5	-16.3	-20.1	2.2	62.7	**-42.3**	-0.8	16.2	9.3	-2.8	-25.9	**56.4**
Fx_f	**-2.8**	1.3	5.3	0.2	-6.4	16.8	**1.3**	-1.4	-7.2	-0.2	16.1	-2.2
Fy_f	-0.7	**-16.3**	-20.1	2.2	43.1	-26.7	-0.7	**16.3**	20.1	-2.2	-39.3	40.2
Fz_f	-0.7	3.3	**-24.3**	-1.7	50.0	11.1	-0.7	-3.7	**24.3**	1.8	-49.7	-3.4
Mx_f	-0.4	10.3	-6.2	**-3.9**	14.3	25.2	-0.4	-10.3	6.2	**3.9**	-11.0	-17.1
My_f	-0.6	-4.0	24.2	2.1	**-49.9**	-4.8	-0.5	5.7	-23.9	-1.5	**53.5**	19.8
Mz_f	-0.5	-16.3	-20.1	2.2	43.7	**-26.9**	-0.8	16.2	9.3	-2.8	-17.0	**41.1**

Member 130

Fx_i	**-1.8**	-1.3	-4.8	-0.1	14.6	13.0	**1.3**	1.3	3.3	0.1	-8.8	4.6
Fy_i	-0.2	**-20.0**	-6.9	1.6	21.0	-50.9	-0.2	**20.0**	6.9	**-1.6**	-20.1	69.1
Fz_i	-0.5	3.7	**-17.8**	-0.4	52.6	16.7	-0.5	-4.4	**17.9**	0.5	-54.6	-7.9
Mx_i	-0.1	8.0	-2.9	**-2.5**	9.0	28.7	-0.1	-8.0	2.9	**2.5**	-8.2	-19.0
My_i	-0.5	-4.5	17.9	0.5	**-54.6**	-8.3	0.2	3.4	-17.8	-0.4	**55.2**	16.2
Mz_i	-0.1	-20.0	-7.0	1.6	21.6	**-51.1**	-0.2	20.0	7.0	-1.6	-20.4	**69.4**
Fx_f	**-1.8**	-1.3	-4.8	-0.1	10.1	14.3	**1.3**	1.3	3.3	0.1	-5.7	3.4
Fy_f	-0.2	**-20.0**	-6.9	1.6	14.5	-31.9	-0.2	**20.0**	6.9	-1.6	-13.6	50.1
Fz_f	-0.5	3.7	**-17.8**	-0.4	35.6	13.2	-0.5	-4.4	**17.9**	0.5	-37.7	-3.7
Mx_f	-0.1	8.0	-2.9	**-2.5**	6.2	21.1	-0.1	-8.0	2.9	**2.5**	-5.5	-11.5
My_f	-0.5	-4.5	17.9	0.5	**-37.7**	-4.1	0.2	3.4	-17.8	-0.4	**38.3**	13.0
Mz_f	-0.1	-19.5	-13.7	1.3	28.6	**-32.2**	-0.2	19.9	7.0	-1.6	-13.8	**50.4**

Member 131

Fx_i	**-1.6**	-1.5	-2.3	0.0	5.8	14.2	**1.4**	1.4	1.3	-0.0	-2.8	5.0
Fy_i	-0.1	**-21.8**	-4.5	0.3	13.4	-55.7	-0.1	**21.8**	4.5	-0.3	-13.5	75.0
Fz_i	-0.4	1.5	**-11.4**	0.8	32.7	10.9	-0.4	-2.5	**11.4**	-0.7	-35.7	-1.5
Mx_i	-0.1	2.8	3.5	**-1.8**	-10.5	13.6	-0.1	-2.8	-3.5	**1.8**	10.4	-3.3
My_i	-0.4	-2.5	11.4	-0.7	**-35.7**	-1.5	0.3	1.5	-11.4	0.8	**35.3**	10.9
Mz_i	-0.1	-21.7	-4.3	0.3	13.0	**-56.0**	-0.1	21.7	4.3	-0.3	-13.1	**75.3**
Fx_f	**-1.6**	-1.5	-2.3	0.0	3.6	15.6	**1.4**	1.4	1.3	-0.0	-1.6	3.7
Fy_f	-0.1	**-21.8**	-4.5	0.3	9.1	-35.0	-0.1	**21.8**	4.5	-0.3	-9.3	54.3
Fz_f	-0.4	1.5	**-11.4**	0.8	21.9	9.5	-0.4	-2.5	**11.4**	-0.7	-24.8	0.8
Mx_f	-0.1	2.8	3.5	**-1.8**	-7.2	10.9	-0.1	-2.8	-3.5	**1.8**	7.1	-0.6
My_f	-0.4	-2.5	11.4	-0.7	**-24.8**	0.8	0.3	1.5	-11.4	0.8	**24.5**	9.5
Mz_f	-0.1	-21.2	-7.0	0.3	14.3	**-35.6**	-0.1	21.5	4.3	-0.3	-8.9	**54.7**

Member 132

Fx_i	**-1.9**	-1.8	0.1	0.1	-3.1	11.1	**1.3**	1.7	-0.7	-0.1	3.1	6.0
Fy_i	-0.2	**-22.1**	-1.0	-0.8	2.1	-58.0	-0.2	**22.1**	1.0	0.8	-3.6	74.4
Fz_i	-0.6	5.0	**-8.0**	1.1	21.9	21.8	-0.6	-6.1	**8.0**	-1.2	-26.2	-11.9
Mx_i	-0.2	-4.3	3.9	**-2.3**	-12.2	-7.5	-0.2	4.3	-3.9	**2.3**	11.2	18.5
My_i	-0.6	-6.1	8.0	-1.2	**-26.2**	-11.8	0.2	7.6	-8.0	1.3	**24.5**	27.4
Mz_i	-0.2	-22.0	-0.9	-0.8	2.0	**-58.2**	-0.2	21.8	2.3	1.1	-7.7	**74.8**
Fx_f	**-1.9**	-1.8	0.1	0.1	-3.0	12.8	**1.3**	1.7	-0.7	-0.1	2.3	4.3
Fy_f	-0.2	**-22.1**	-1.0	-0.8	1.2	-37.0	-0.2	**22.1**	1.0	0.8	-2.7	53.5
Fz_f	-0.6	5.0	**-8.0**	1.1	14.3	17.1	-0.6	-6.1	**8.0**	-1.2	-18.6	-6.1
Mx_f	-0.2	-4.3	3.9	**-2.3**	-8.5	-3.4	-0.2	4.3	-3.9	**2.3**	7.5	14.4
My_f	0.2	-6.1	8.0	-1.2	**-18.6**	-6.1	-0.6	7.7	-7.9	1.3	**16.9**	20.3
Mz_f	-0.2	-22.0	-0.8	-0.8	0.9	**-37.3**	-0.2	21.7	2.1	1.1	-5.2	**54.2**

Member 133

Fx_i	**-3.3**	-2.5	2.5	0.2	-15.9	6.4	**1.2**	2.3	-2.8	-0.2	8.6	7.6
Fy_i	-0.8	**-21.3**	5.4	-2.0	-19.1	-57.3	-0.8	**21.3**	-5.4	2.0	13.2	70.8
Fz_i	-0.5	3.0	**-14.4**	1.0	38.4	15.3	-0.4	-3.7	**14.4**	-1.2	-48.0	-5.3
Mx_i	-0.5	-11.4	-2.7	**-3.7**	6.2	-30.1	-0.5	11.4	2.7	**3.7**	-10.0	38.3
My_i	-0.5	-3.0	14.4	-1.0	**-48.0**	-2.8	-1.1	4.8	-14.4	1.3	**41.6**	18.4
Mz_i	-0.7	-21.3	5.4	-2.1	-18.9	**-57.4**	-0.8	21.3	-5.4	2.1	13.3	**70.9**
Fx_f	**-3.3**	-2.5	2.5	0.2	-13.5	8.8	**1.2**	2.3	-2.8	-0.2	6.0	5.4
Fy_f	-0.8	**-21.3**	5.4	-2.0	-14.0	-37.0	-0.8	**21.3**	-5.4	2.0	8.1	50.5
Fz_f	-0.5	3.0	**-14.4**	1.0	24.7	12.4	-0.4	-3.7	**14.4**	-1.2	-34.3	-1.8
Mx_f	-0.5	-11.4	-2.7	**-3.7**	3.6	-19.3	-0.5	11.4	2.7	**3.7**	-7.4	27.4
My_f	-0.5	-3.5	14.3	-1.0	**-34.3**	-0.8	-1.1	4.8	-14.4	1.3	**28.0**	13.9
Mz_f	-0.7	-21.3	5.4	-2.1	-13.8	**-37.2**	-0.8	21.3	-5.4	2.1	8.1	**50.7**

Member 134

Fx_i	**-8.7**	-3.4	5.2	0.2	-43.9	-1.4	**0.8**	3.1	-3.9	-0.2	10.5	9.9
Fy_i	-3.3	**-19.0**	11.4	-2.9	-46.5	-52.5	-3.3	**19.0**	-11.4	2.9	21.8	61.2
Fz_i	-2.9	-0.9	**-17.7**	-2.9	39.3	1.4	-2.9	0.9	**17.7**	2.9	-66.7	6.6
Mx_i	-1.9	-5.0	-5.3	**-5.2**	8.6	-12.3	-1.9	5.0	5.3	**5.2**	-23.1	17.6
My_i	-6.0	-8.0	16.1	0.6	**-73.9**	-16.1	-1.3	6.0	-16.6	-1.1	**47.7**	18.5
Mz_i	-3.1	-18.9	11.4	-3.0	-45.6	**-52.6**	-3.3	18.9	-11.4	3.0	21.7	**61.2**
Fx_f	**-8.7**	-3.4	5.2	0.2	-38.9	1.8	**0.8**	3.1	-3.9	-0.2	6.7	6.9
Fy_f	-3.3	**-19.0**	11.4	-2.9	-35.7	-34.5	-3.3	**19.0**	-11.4	2.9	11.0	43.2
Fz_f	-2.9	-0.9	**-17.7**	-2.9	22.5	2.2	-2.9	0.9	**17.7**	2.9	-49.9	5.8
Mx_f	-1.9	-5.0	-5.3	**-5.2**	3.6	-7.6	-1.9	5.0	5.3	**5.2**	-18.1	12.9
My_f	-6.1	-8.0	16.1	0.6	**-58.6**	-8.6	-1.1	8.4	-16.2	-0.4	**32.1**	18.0
Mz_f	-3.1	-18.9	11.3	-3.1	-34.6	**-34.6**	-3.4	18.9	-11.3	3.0	10.5	**43.3**

Member 135

Fx,	**-25.5**	-4.4	-1.4	-0.0	3.3	-12.0	**0.5**	3.9	1.2	0.0	-2.6	11.8
Fy,	-10.5	**-15.2**	-5.5	-0.6	15.1	-45.1	-10.5	**15.2**	5.5	0.6	-17.8	46.3
Fz,	-6.8	-11.5	**-7.7**	-3.3	21.7	-34.2	-6.8	11.5	**7.7**	3.3	-24.6	35.0
Mx,	-6.8	-4.3	-2.4	**-6.1**	7.1	-12.6	-6.8	4.3	2.4	**6.1**	-7.1	13.4
My,	-6.8	11.5	7.7	3.3	**-24.6**	35.0	-7.6	-11.5	-7.7	-3.3	**24.5**	-34.2
Mz,	-9.5	-15.2	-5.4	-0.1	17.6	**-45.1**	-10.5	15.2	5.5	0.6	-17.8	**46.3**
Fx,	**-25.5**	-4.4	-1.4	-0.0	2.0	-7.8	**0.5**	3.9	1.2	0.0	-1.5	8.1
Fy,	-10.5	**-15.2**	-5.5	-0.6	9.9	-30.7	-10.5	**15.2**	5.5	0.6	-12.6	31.8
Fz,	-6.8	-11.5	**-7.7**	-3.3	14.4	-23.3	-6.8	11.5	**7.7**	3.3	-17.3	24.1
Mx,	-6.8	-4.3	-2.4	**-6.1**	4.9	-8.5	-6.8	4.3	2.4	**6.1**	-4.9	9.2
My,	-6.8	11.5	7.7	3.3	**-17.3**	24.1	-7.6	-11.5	-7.7	-3.3	**17.2**	-23.3
Mz,	-9.5	-15.2	-5.4	-0.1	12.4	**-30.7**	-11.0	15.2	5.6	0.9	-12.7	**31.8**

Member 136

Fx,	**-8.7**	-3.4	-9.3	-0.3	54.4	-1.3	**0.8**	3.1	6.1	0.3	-14.9	9.9
Fy,	-4.4	**-18.9**	-24.1	2.8	83.5	-52.4	-4.4	**18.9**	24.1	-2.8	-61.4	61.0
Fz,	-3.4	-5.6	**-28.5**	-3.8	95.4	-13.8	-3.4	5.6	**28.5**	3.8	-75.5	20.0
Mx,	-2.3	4.8	-9.7	**-5.5**	37.7	17.1	-2.3	-4.8	9.7	**5.5**	-20.6	-11.9
My,	-1.3	7.1	27.9	2.5	**-81.7**	22.8	-6.0	-7.9	-27.1	-1.2	**106.3**	-16.1
Mz,	-2.0	-18.9	-24.1	2.8	85.2	**-52.4**	-4.4	18.9	24.1	-2.8	-61.4	**61.0**
Fx,	**-8.7**	-3.4	-9.3	-0.3	45.5	2.0	**0.8**	3.1	6.1	0.3	-9.2	6.9
Fy,	-4.4	**-18.9**	-24.1	2.8	60.5	-34.4	-4.4	**18.9**	24.1	-2.8	-38.4	43.1
Fz,	-3.4	-5.6	**-28.5**	-3.8	68.4	-8.4	-3.4	5.6	**28.5**	3.8	-48.4	14.6
Mx,	-2.3	4.8	-9.7	**-5.5**	28.5	12.5	-2.3	-4.8	9.7	**5.5**	-11.4	-7.3
My,	-1.2	7.0	27.9	2.6	**-55.2**	15.7	-6.2	-8.4	-26.9	-0.8	**80.7**	-9.2
Mz,	-1.9	-18.8	-24.0	2.9	61.9	**-34.4**	-4.5	18.8	24.0	-2.9	-38.1	**43.1**

Member 137

Fx,	**-3.3**	-2.5	-6.4	-0.3	25.6	6.7	**1.2**	2.3	4.9	0.3	-13.0	7.7
Fy,	-1.2	**-21.5**	-15.7	2.0	51.5	-57.8	-1.2	**21.5**	15.7	-2.0	-42.8	71.4
Fz,	-1.3	3.9	**-23.5**	-1.3	72.7	18.9	-1.3	-4.6	**23.5**	1.6	-68.1	-7.1
Mx,	-0.6	11.2	-6.8	**-4.1**	22.5	37.7	-0.6	-11.2	6.8	**4.1**	-18.1	-29.5
My,	-0.9	-1.9	23.3	1.8	**-69.0**	-1.8	-0.7	1.2	-23.3	-0.6	**75.5**	12.5
Mz,	-0.3	-21.5	-15.6	2.1	48.1	**-57.9**	-1.2	21.5	15.6	-2.1	-42.3	**71.5**
Fx,	**-3.3**	-2.5	-6.4	-0.3	19.5	9.1	**1.2**	2.3	4.9	0.3	-8.4	5.4
Fy,	-1.2	**-21.5**	-15.7	2.0	36.6	-37.3	-1.2	**21.5**	15.7	-2.0	-27.9	50.9
Fz,	-1.3	3.9	**-23.5**	-1.3	50.4	15.2	-1.3	-4.6	**23.5**	1.6	-45.8	-2.7
Mx,	-0.6	11.2	-6.8	**-4.1**	16.0	27.0	-0.6	-11.2	6.8	**4.1**	-11.7	-18.9
My,	-0.9	0.5	23.2	1.4	**-46.8**	4.5	-0.8	0.8	-23.2	-0.5	**53.3**	10.5
Mz,	-0.3	-21.5	-15.6	2.1	33.3	**-37.5**	-1.2	21.5	15.6	-2.1	-27.5	**51.1**

Member 138

Fx,	**-1.9**	-1.9	-4.0	-0.2	12.9	11.3	**1.3**	1.9	2.8	0.2	-7.3	6.3
Fy,	-0.6	**-22.9**	-8.9	1.0	28.8	-60.5	-0.6	**22.9**	8.9	-1.0	-24.5	77.0
Fz,	-0.6	4.9	**-17.0**	-0.1	50.7	23.7	-0.6	-6.2	**17.0**	0.2	-51.6	-10.3
Mx,	-0.2	5.7	-0.7	**-2.6**	2.5	22.1	-0.2	-5.7	0.7	**2.6**	-1.5	-12.3
My,	-0.6	-4.0	17.0	-0.1	**-51.6**	-4.9	0.1	2.7	-17.0	0.2	**53.3**	18.2
Mz,	0.2	-22.9	-8.8	1.0	25.7	**-60.7**	-0.6	22.9	8.8	-1.0	-24.3	**77.3**
Fx,	**-1.9**	-1.9	-4.0	-0.2	9.1	13.1	**1.3**	1.9	2.8	0.2	-4.6	4.5
Fy,	-0.6	**-22.9**	-8.9	1.0	20.3	-38.7	-0.6	**22.9**	8.9	-1.0	-16.1	55.3
Fz,	-0.6	4.9	**-17.0**	-0.1	34.5	19.0	-0.6	-6.2	**17.0**	0.2	-35.4	-4.4
Mx,	-0.2	5.7	-0.7	**-2.6**	1.9	16.6	-0.2	-5.7	0.7	**2.6**	-0.9	-6.9
My,	-0.6	-4.0	17.0	-0.1	**-35.4**	-1.1	0.1	2.7	-17.0	0.2	**37.1**	15.6
Mz,	0.2	-22.8	-8.9	1.0	17.5	**-39.0**	-0.7	22.5	2.4	-1.4	-2.5	**55.7**

Member 139

Fx,	**-1.6**	-1.8	-1.6	-0.0	4.0	13.3	**1.4**	1.8	0.7	0.0	-1.3	6.0
Fy,	-0.2	**-23.4**	-4.7	-0.0	13.7	-61.4	-0.2	**23.4**	4.7	0.0	-14.4	79.0
Fz,	-0.5	2.0	**-10.6**	1.1	30.5	15.6	-0.5	-3.6	**10.6**	-1.0	-33.1	-2.0
Mx,	-0.1	-1.5	1.9	**-2.0**	-5.6	0.8	-0.1	1.5	-1.9	2.0	5.6	9.6
My,	-0.5	-3.6	10.6	-1.0	-33.1	-2.0	0.2	2.0	-10.6	1.1	**33.2**	15.6
Mz,	0.0	-23.3	-4.6	-0.0	14.3	**-61.7**	-0.2	23.2	2.9	-0.1	-9.0	**80.0**
Fx,	**-1.6**	-1.8	-1.6	-0.0	2.5	15.0	**1.4**	1.8	0.7	0.0	-0.6	4.4
Fy,	-0.2	**-23.4**	-4.7	-0.0	9.3	-39.2	-0.2	**23.4**	4.7	0.0	-9.9	56.7
Fz,	-0.5	2.0	**-10.6**	1.1	20.5	13.7	-0.5	-3.6	**10.6**	-1.0	-23.0	1.4
Mx,	-0.1	-1.5	1.9	**-2.0**	-3.8	2.2	-0.1	1.5	-1.9	**2.0**	3.9	8.2
My,	-0.5	-3.6	10.6	-1.0	**-23.0**	1.4	0.2	2.0	-10.6	1.1	**23.1**	13.7
Mz,	0.0	-23.1	-4.6	-0.0	9.9	**-39.5**	-0.2	23.0	2.9	-0.1	-6.3	57.9

Member 140

Fx,	**-1.8**	2.0	-1.3	-0.1	1.5	23.4	**1.3**	-2.1	0.8	0.2	-1.4	-5.7
Fy,	-0.2	**-23.6**	1.4	-1.0	-4.9	-62.3	-0.2	**23.6**	-1.4	1.0	3.6	79.0
Fz,	0.2	5.6	**-9.7**	1.0	26.9	25.6	0.2	-7.0	**9.7**	-1.1	-31.1	-12.8
Mx,	0.3	-5.6	2.4	**-2.6**	-9.3	-11.9	0.3	5.6	-2.4	**2.6**	5.3	21.7
My,	0.2	-2.6	9.7	-0.8	**-31.1**	2.6	-0.6	2.6	-9.7	0.8	**29.7**	15.3
Mz,	-0.1	-23.5	1.4	-1.0	-4.6	**-62.6**	-0.2	23.5	-1.4	1.0	3.4	**79.2**
Fx,	**-1.8**	2.0	-1.3	-0.1	0.3	21.5	**1.3**	-2.1	0.8	0.2	-0.7	-3.6
Fy,	-0.2	**-23.6**	1.4	-1.0	-3.5	-40.0	-0.2	**23.6**	-1.4	1.0	2.2	56.6
Fz,	0.2	5.6	**-9.7**	1.0	17.7	20.3	0.2	-7.0	**9.7**	-1.1	-21.9	-6.1
Mx,	0.3	-5.6	2.4	**-2.6**	-7.0	-6.6	0.3	5.6	-2.4	**2.6**	3.0	16.4
My,	0.2	-2.6	9.7	-0.8	**-22.0**	5.0	-0.6	2.6	-9.7	0.8	**20.6**	12.9
Mz,	-0.1	-23.5	1.5	-1.0	-3.5	**-40.3**	-0.2	23.5	-1.5	1.0	2.4	**56.9**

Member 141

Fx,	**-2.9**	-2.9	3.2	0.3	-16.4	5.4	**1.2**	2.8	-3.4	-0.3	10.6	8.9
Fy,	-0.7	**-22.9**	7.8	-2.0	-26.0	-61.9	-0.7	**22.9**	-7.8	2.0	20.6	75.7
Fz,	-0.4	3.0	**-16.1**	0.3	43.9	16.4	-0.3	-4.0	**16.1**	-0.6	-52.6	-5.1
Mx,	0.9	-10.9	-2.7	**-4.1**	7.2	-28.5	0.9	10.9	2.7	**4.1**	-8.8	36.7
My,	-0.4	-1.2	16.1	0.1	**-52.8**	4.8	-0.9	6.1	-15.8	0.6	**47.1**	22.1
Mz,	-0.5	-22.9	7.7	-2.1	-24.9	**-62.1**	-0.7	22.9	-7.7	2.1	20.3	**75.8**
Fx,	**-2.9**	-2.9	3.2	0.3	-13.4	8.1	**1.2**	2.8	-3.4	-0.3	7.4	6.3
Fy,	-0.7	**-22.9**	7.8	-2.0	-18.6	-40.1	-0.7	**22.9**	-7.8	2.0	13.2	53.9
Fz,	-0.4	3.0	**-16.1**	0.3	28.6	13.5	-0.3	-4.0	**16.1**	-0.6	-37.3	-1.3
Mx,	0.9	-10.9	-2.7	**-4.1**	4.7	-18.2	0.9	10.9	2.7	**4.1**	-6.3	26.4
My,	-0.5	-3.9	15.9	-0.3	**-37.6**	1.6	-0.8	7.2	-15.8	0.6	**32.1**	17.7
Mz,	-0.5	-22.9	7.7	-2.1	-17.6	**-40.4**	-0.7	22.9	-7.7	2.1	13.0	**54.1**

Member 142

Fx,	**-7.3**	-4.2	7.0	0.3	-44.2	-3.5	**0.9**	3.9	-5.6	-0.3	15.9	12.1
Fy,	-3.0	**-21.4**	17.4	-2.9	-63.2	-59.8	-3.0	**21.4**	-17.4	2.9	41.0	68.8
Fz,	-1.6	5.1	**-23.8**	-3.4	62.4	17.9	-1.6	-5.2	**23.8**	3.3	-80.3	-13.1
Mx,	-1.4	-4.3	-8.7	**-5.6**	17.6	-10.2	-1.4	4.3	8.7	**5.6**	-34.9	15.7
My,	-4.7	-9.6	22.3	0.9	**-87.3**	-20.8	-1.3	8.8	-23.2	-2.3	**67.7**	27.9
Mz,	-2.3	-21.4	17.4	-2.9	-60.5	**-59.8**	-3.0	21.4	-17.4	2.9	40.9	**68.8**
Fx,	**-7.3**	-4.2	7.0	0.3	-37.5	0.6	**0.9**	3.9	-5.6	-0.3	10.6	8.4
Fy,	-3.0	**-21.4**	17.4	-2.9	-46.7	-39.4	-3.0	**21.4**	-17.4	2.9	24.5	48.4
Fz,	-1.6	5.1	**-23.8**	-3.4	39.9	13.0	-1.6	-5.2	**23.8**	3.3	-57.7	-8.1
Mx,	-1.4	-4.3	-8.7	**-5.6**	9.3	-6.1	-1.4	4.3	8.7	**5.6**	-26.6	11.6
My,	-4.8	-10.3	22.1	0.7	**-66.2**	-12.9	-1.1	10.1	-22.9	-1.6	**45.8**	21.8
Mz,	-2.1	-21.4	17.3	-2.9	-43.4	**-39.5**	-3.0	21.4	-17.3	3.0	24.3	**48.4**

Member 143

Fx,	**-21.0**	-5.8	-0.5	-0.0	0.5	-15.5	**0.7**	5.1	0.4	0.0	-0.3	15.5
Fy,	-9.2	**-19.5**	-1.3	-0.1	3.0	-57.8	-9.2	**19.5**	1.3	0.1	-4.8	59.2
Fz,	-7.5	-12.8	**-6.1**	-3.8	16.9	-37.7	-7.5	12.8	**6.1**	3.8	-19.7	39.1
Mx,	-5.5	-5.6	-1.2	**-6.3**	3.5	-16.4	-5.5	5.6	1.2	**6.3**	-3.5	17.4
My,	-7.5	12.8	6.1	3.8	**-19.7**	39.1	-8.3	-12.8	-6.1	-3.8	**19.7**	-37.7
Mz,	-6.7	-19.5	-1.3	-0.1	4.8	**-57.8**	-9.2	19.5	1.3	0.2	-4.8	**59.2**
Fx,	**-21.0**	-5.8	-0.5	-0.0	0.0	-10.0	**0.7**	5.1	0.4	0.0	0.1	10.6
Fy,	-9.2	**-19.5**	-1.3	-0.1	1.8	-39.2	-9.2	**19.5**	1.3	0.1	-3.6	40.7
Fz,	-7.5	-12.8	**-6.1**	-3.8	11.1	-25.5	-7.5	12.8	**6.1**	3.8	-13.9	27.0
Mx,	-5.5	-5.6	-1.2	**-6.3**	2.4	-11.1	-5.5	5.6	1.2	**6.3**	-2.4	12.1
My,	-7.5	12.8	6.1	3.8	**-13.9**	27.0	-8.3	-12.8	-6.1	-3.8	**13.9**	-25.5
Mz,	-6.7	-19.5	-1.3	-0.1	3.5	**-39.2**	-9.7	19.5	1.4	0.5	-3.8	**40.7**

Member 144

Fx,	**-7.3**	-4.2	-9.0	-0.3	48.4	-3.3	**0.9**	3.9	5.8	0.3	-14.4	12.1
Fy,	-3.0	**-21.4**	-21.7	2.8	76.4	-59.7	-3.0	**21.4**	21.7	-2.8	-54.0	68.7
Fz,	-2.8	-6.5	**-27.9**	-4.1	91.6	-16.4	-2.8	6.6	**28.0**	4.2	-76.1	22.9
Mx,	-1.9	4.2	-9.4	**-5.6**	35.2	15.3	-1.9	-4.2	9.4	**5.6**	-21.4	-9.9
My,	-1.2	8.1	27.5	2.9	**-80.6**	26.2	-4.6	-9.1	-26.9	-2.0	**100.3**	-20.2
Mz,	-2.2	-21.4	-21.7	2.8	73.5	**-59.7**	-3.0	21.4	21.7	-2.8	-54.0	**68.7**

Fx_i	**-7.3**	-4.2	-9.0	-0.3	39.8	0.8	**0.9**	3.9	5.8	0.3	-8.9	8.4
Fy_i	-3.0	**-21.4**	-21.7	2.8	55.7	-39.3	-3.0	**21.4**	21.7	-2.8	-33.3	48.3
Fz_i	-2.8	-6.5	**-27.9**	-4.1	65.1	-10.2	-2.8	6.6	**28.0**	4.2	-49.5	16.7
Mx_i	**-1.9**	4.2	-9.4	**-5.6**	26.2	11.4	-1.9	-4.2	9.4	**5.6**	-12.4	-5.9
My_i	-1.1	9.3	27.4	2.5	**-54.6**	20.6	-4.9	-10.4	-26.4	-0.8	**75.0**	-13.1
Mz_i	-2.1	-21.3	-21.7	2.8	52.2	**-39.4**	-3.1	21.3	21.6	-2.9	-33.0	**48.4**

Member 145

Fx_i	**-2.9**	2.8	3.7	0.3	-6.1	22.8	**1.2**	-2.9	-4.9	-0.3	16.3	-8.2
Fy_i	-0.7	**-22.9**	-11.4	2.0	37.0	-61.9	-0.7	**22.9**	11.4	-2.0	-31.5	75.7
Fz_i	-1.1	0.6	**-19.1**	-0.6	59.0	9.0	-1.1	-0.6	**19.1**	0.6	-55.7	5.7
Mx_i	-0.4	5.4	-13.3	**-4.2**	41.4	19.9	-0.4	-5.4	13.3	**4.2**	-38.3	-12.4
My_i	-0.9	0.6	19.0	0.6	**-56.0**	6.6	-0.5	0.2	-19.0	-0.6	**61.8**	9.5
Mz_i	-0.5	-22.9	-11.3	2.1	35.8	**-62.1**	-0.7	22.9	11.3	-2.1	-31.1	**75.9**
Fx_f	**-2.9**	2.8	3.7	0.3	-2.6	20.2	**1.2**	-2.9	-4.9	-0.3	11.6	-5.4
Fy_f	-0.7	**-22.9**	-11.4	2.0	26.2	-40.1	-0.7	**22.9**	11.4	-2.0	-20.7	53.9
Fz_f	-1.1	0.6	**-19.1**	-0.6	40.8	8.5	-1.1	-0.6	**19.1**	0.6	-37.5	6.3
Mx_f	-0.4	5.4	-13.3	**-4.2**	28.8	14.8	-0.4	-5.4	13.3	**4.2**	-25.7	-7.3
My_f	-0.8	4.3	18.7	0.2	**-38.1**	11.6	-0.6	-2.4	-18.9	-0.3	**43.7**	5.1
Mz_f	-0.5	-22.9	-11.3	2.1	25.1	**-40.3**	-0.7	22.9	11.3	-2.1	-20.4	**54.1**

Member 146

Fx_i	**-1.8**	2.1	1.6	0.2	-4.4	23.6	**1.3**	-2.2	-2.6	-0.2	8.8	-5.8
Fy_i	-0.3	**-23.7**	-4.7	0.9	15.0	-62.8	-0.3	**23.7**	4.7	-0.9	-13.1	79.5
Fz_i	-0.6	0.2	**-12.7**	0.5	37.5	9.6	-0.6	-0.2	**12.7**	-0.5	-38.7	8.4
Mx_i	-0.2	5.7	0.9	**-2.6**	-2.3	22.0	-0.2	-5.7	-0.9	**2.6**	3.0	-12.1
My_i	-0.6	-1.5	12.7	-0.4	**-38.7**	4.0	0.1	0.2	-12.7	0.5	**40.1**	9.6
Mz_i	-0.1	-23.7	-4.6	0.9	14.1	**-63.0**	-0.3	23.7	4.6	-0.9	-12.9	**79.7**
Fx_f	**-1.8**	2.1	1.6	0.2	-2.8	21.6	**1.3**	-2.2	-2.6	-0.2	6.3	-3.7
Fy_f	-0.3	**-23.7**	-4.7	0.9	10.6	-40.3	-0.3	**23.7**	4.7	-0.9	-8.6	57.0
Fz_f	-0.6	0.2	**-12.7**	0.5	25.4	9.4	-0.6	-0.2	**12.7**	-0.5	-26.6	8.6
Mx_f	-0.2	5.7	0.9	**-2.6**	-1.5	16.6	-0.2	-5.7	-0.9	**2.6**	2.1	-6.7
My_f	-0.5	-3.6	12.7	-0.1	**-26.6**	0.1	0.1	2.3	-12.7	0.2	**28.0**	14.6
Mz_f	-0.1	-23.6	-4.7	0.9	9.8	**-40.6**	-0.3	23.6	4.7	-0.9	-8.7	**57.3**

Member 147

Fx_i	**-1.6**	-2.0	-0.2	-0.0	-0.4	13.0	**1.4**	1.9	-0.5	0.0	2.3	6.5
Fy_i	-0.4	**-23.9**	-0.5	-0.0	0.3	-62.9	-0.4	**23.9**	0.5	0.0	-2.9	80.6
Fz_i	-0.5	1.8	**-7.4**	1.4	20.8	16.2	-0.5	-1.8	**7.4**	-1.4	-23.7	5.1
Mx_i	-0.1	-1.7	2.9	**-2.0**	-8.7	0.1	-0.1	1.7	-2.9	**2.0**	8.7	10.4
My_i	-0.5	-1.8	7.4	-1.4	**-23.7**	5.1	0.3	1.8	-7.4	1.4	**23.7**	16.2
Mz_i	0.3	-23.8	-0.5	-0.0	2.9	**-63.2**	-0.5	23.5	0.8	0.0	-3.7	**80.9**
Fx_f	**-1.6**	-2.0	-0.2	-0.0	-0.6	14.9	**1.4**	1.9	-0.5	0.0	1.9	4.7
Fy_f	-0.4	**-23.9**	-0.5	-0.0	-0.2	-40.2	-0.4	**23.9**	0.5	0.0	-2.4	57.9
Fz_f	-0.5	1.8	**-7.4**	1.4	13.8	14.4	-0.5	-1.8	**7.4**	-1.4	-16.7	6.8
Mx_f	-0.1	-1.7	2.9	**-2.0**	-6.0	1.7	-0.1	1.7	-2.9	**2.0**	5.9	8.8
My_f	0.3	-1.9	7.4	-1.4	**-16.7**	6.7	-0.6	1.9	-7.4	1.4	**16.7**	14.6
Mz_f	0.3	-23.7	-0.5	-0.0	2.4	**-40.5**	-0.5	23.3	0.8	0.0	-3.0	**58.6**

Member 148

Fx_i	**-1.8**	-2.3	2.2	0.2	-9.0	10.1	**1.3**	2.2	-2.5	-0.2	8.4	7.3
Fy_i	-0.2	**-24.1**	5.7	-0.9	-17.7	-63.9	-0.2	**24.1**	-5.7	0.9	16.4	80.6
Fz_i	0.2	0.0	**-13.2**	0.5	37.5	9.0	0.2	-0.0	**13.2**	-0.5	-41.7	9.0
Mx_i	-0.0	-5.5	0.6	**-2.6**	-2.8	-11.5	-0.0	5.5	-0.6	**2.6**	1.0	21.4
My_i	0.2	-3.0	13.2	-0.8	**-41.7**	1.2	-0.6	3.0	-13.2	0.8	**40.3**	16.8
Mz_i	-0.1	-24.0	5.6	-1.0	-17.4	**-64.1**	-0.2	24.0	-5.6	1.0	16.3	**80.8**
Fx_f	**-1.8**	-2.3	2.2	0.2	-6.9	12.2	**1.3**	2.2	-2.5	-0.2	6.0	5.2
Fy_f	-0.2	**-24.1**	5.7	-0.9	-12.3	-41.0	-0.2	**24.1**	-5.7	0.9	11.0	57.7
Fz_f	0.2	0.0	**-13.2**	0.5	24.9	9.0	0.2	-0.0	**13.2**	-0.5	-29.2	9.0
Mx_f	-0.0	-5.5	0.6	**-2.6**	-2.2	-6.3	-0.0	5.5	-0.6	**2.6**	0.4	16.2
My_f	0.2	-3.0	13.2	-0.8	**-29.2**	4.1	-0.6	3.0	-13.2	0.8	**27.8**	13.9
Mz_f	-0.1	-24.0	5.7	-1.0	-12.2	**-41.3**	-0.2	24.0	-5.7	1.0	11.1	**58.0**

Member 149

Fx.	**-2.9**	-3.2	4.6	0.3	-20.5	4.6	**1.2**	3.0	-4.6	-0.3	14.3	9.7

Fy_i	-0.7	**-23.8**	12.1	-2.0	-38.8	-64.4	-0.7	**23.8**	-12.1	2.0	33.6	78.2
Fz_i	-0.3	0.1	**-19.6**	-0.6	54.6	7.8	-0.3	-0.1	**19.6**	0.6	-63.2	7.0
Mx_i	-0.0	-4.6	-13.8	**-4.2**	38.5	-10.1	-0.0	4.6	13.8	**4.2**	-44.5	17.6
My_i	-0.4	-0.5	19.5	0.6	**-63.3**	7.5	-0.8	5.2	-19.4	-0.1	**58.0**	18.4
Mz_i	-0.5	-23.7	11.9	-2.1	-37.7	**-64.6**	-0.7	23.7	-11.9	2.1	33.2	**78.4**
Fx_f	**-2.9**	-3.2	4.6	0.3	-16.1	7.7	**1.2**	3.0	-4.6	-0.3	9.9	6.8
Fy_f	-0.7	**-23.8**	12.1	-2.0	-27.3	-41.8	-0.7	**23.8**	-12.1	2.0	22.1	55.7
Fz_f	-0.3	0.1	**-19.6**	-0.6	35.9	7.7	-0.3	-0.1	**19.6**	0.6	-44.5	7.1
Mx_f	-0.0	-4.6	-13.8	**-4.2**	25.4	-5.7	-0.0	4.6	13.8	**4.2**	-31.4	13.2
My_f	-0.5	-3.6	19.4	0.2	**-44.7**	3.1	-0.8	6.9	-19.3	0.1	**39.6**	16.4
Mz_f	-0.5	-23.7	11.9	-2.1	-26.4	**-42.0**	-0.7	23.7	-11.9	2.1	21.8	**55.9**

Member 150

Fx_i	**-7.1**	-4.7	8.4	0.3	-47.6	-4.9	**0.9**	4.4	-6.8	-0.3	19.5	13.5
Fy_i	-2.9	**-23.0**	21.2	-2.8	-74.2	-64.3	-2.9	**23.0**	-21.2	2.8	52.7	73.4
Fz_i	-1.5	6.5	-27.6	-3.5	74.3	22.2	-1.6	-6.7	**27.6**	3.4	-91.6	-17.3
Mx_i	-1.7	-3.8	-9.7	**-5.6**	21.8	-8.7	-1.7	3.8	9.7	**5.6**	-36.4	14.3
My_i	-4.6	-11.3	26.1	0.9	**-98.4**	-25.9	-1.2	10.6	-27.0	-2.5	**79.7**	33.3
Mz_i	-2.1	-22.9	21.2	-2.7	-71.2	**-64.3**	-2.9	23.0	-21.2	2.8	52.7	**73.4**
Fx_f	**-7.1**	-4.7	8.4	0.3	-39.6	-0.4	**0.9**	4.4	-6.8	-0.3	13.0	9.4
Fy_f	-2.9	**-23.0**	21.2	-2.8	-54.1	-42.5	-2.9	**23.0**	-21.2	2.8	32.6	51.6
Fz_f	-1.5	6.5	**-27.6**	-3.5	48.0	16.0	-1.6	-6.7	**27.6**	3.4	-65.4	-11.0
Mx_f	-1.7	-3.8	-9.7	**-5.6**	12.6	-5.1	-1.7	3.8	9.7	**5.6**	-27.2	10.6
My_f	-4.7	-11.7	26.0	0.8	**-73.7**	-15.7	-1.1	10.6	-27.0	-2.5	**54.0**	23.2
Mz_f	-2.0	-22.9	21.1	-2.8	-50.8	**-42.6**	-2.9	22.9	-21.1	2.9	32.4	**51.6**

Member 365

Fx_i	**-319.9**	-0.0	-49.7	0.0	87.1	-0.0	**106.6**	0.0	-36.1	-0.0	63.1	0.0
Fy_i	-170.2	**-0.0**	-51.1	0.0	89.5	-0.0	-4.8	**0.0**	-50.1	-0.0	87.8	0.0
Fz_i	-56.1	0.0	**-117.8**	0.0	206.2	0.0	-163.7	-0.0	**3.8**	-0.0	-6.7	-0.0
Mx_i	-236.7	-0.0	-70.5	**-0.0**	123.4	-0.0	-204.1	-0.0	-67.5	**0.0**	118.1	-0.0
My_i	-163.7	-0.0	3.8	-0.0	**-6.7**	-0.0	-56.1	0.0	-117.8	0.0	**206.2**	0.0
Mz_i	-188.0	-0.0	-59.1	0.0	103.4	**-0.0**	-4.4	0.0	-50.1	-0.0	87.7	**0.0**
Fx_f	**-319.9**	-0.0	-49.7	0.0	0.0	0.0	**106.6**	0.0	-36.1	-0.0	0.0	-0.0
Fy_f	-170.2	**-0.0**	-51.1	0.0	0.0	0.0	-4.8	**0.0**	-50.1	-0.0	0.0	-0.0
Fz_f	-56.1	0.0	**-117.8**	0.0	0.0	-0.0	-163.7	-0.0	**3.8**	-0.0	0.0	0.0
Mx_f	-236.7	-0.0	-70.5	**-0.0**	0.0	0.0	-204.1	-0.0	-67.5	**0.0**	0.0	0.0
My_f	-159.8	-0.0	-56.4	0.0	**0.0**	0.0	-233.7	0.0	-64.4	0.0	**0.0**	-0.0
Mz_f	-15.3	0.0	-65.3	0.0	0.0	**-0.0**	-160.8	-0.0	-33.8	-0.0	0.0	**0.0**

Member 366

Fx_i	**-932.9**	-0.0	-20.3	0.0	211.9	-0.0	**-326.5**	-23.4	-1.0	0.0	120.0	-41.0
Fy_i	-698.7	**-26.0**	-14.6	0.0	156.7	-45.5	-607.8	**-0.0**	-16.6	0.0	190.6	0.0
Fz_i	-806.9	-26.0	**-38.3**	0.0	400.1	-45.5	-530.4	-0.0	**5.7**	0.0	52.9	-0.0
Mx_i	-747.1	-23.4	-29.3	**0.0**	265.7	-41.0	-467.4	-0.0	-7.8	**0.0**	161.5	-0.0
My_i	-576.3	-0.0	-3.3	0.0	**3.5**	-0.0	-774.7	-26.0	-35.3	0.0	**433.0**	-45.5
Mz_i	-710.8	-26.0	-13.3	0.0	147.6	**-45.5**	-597.1	-0.0	-16.6	0.0	186.6	**0.0**
Fx_f	**-932.9**	-0.0	-20.3	0.0	176.3	0.0	**-326.5**	0.0	-1.0	0.0	118.3	-0.0
Fy_f	-708.0	**-0.0**	-14.6	0.0	131.2	0.0	-652.0	**0.0**	-14.9	0.0	197.2	-0.0
Fz_f	-806.9	0.0	**-38.3**	0.0	333.0	-0.0	-530.4	-0.0	**5.7**	0.0	62.8	0.0
Mx_f	-747.1	0.0	-29.3	**0.0**	214.5	-0.0	-467.4	-0.0	-7.8	**0.0**	147.9	0.0
My_f	-511.1	0.0	-3.3	0.0	**-2.2**	-0.0	-844.8	-0.0	-35.3	0.0	**371.3**	0.0
Mz_f	-738.5	0.0	-17.0	0.0	215.9	**-0.0**	-586.7	-0.0	-10.6	0.0	97.8	**0.0**

Member 367

Fx_i	**-1065.2**	-5.4	-43.3	-0.0	300.2	-9.5	**-377.3**	0.0	42.3	0.0	49.4	-0.0
Fy_i	-741.6	**-27.2**	-3.0	-0.0	213.7	-47.6	-795.2	**0.0**	-36.0	-0.0	275.7	0.0
Fz_i	-915.3	0.0	**-86.1**	-0.0	505.3	-0.0	-435.6	-4.9	**47.6**	0.0	4.9	-8.6
Mx_i	-633.7	-27.2	-18.8	**-0.0**	105.7	-47.6	-515.3	-0.0	9.9	**0.0**	124.5	-0.0
My_i	-622.1	-24.5	45.8	0.0	**-25.2**	-42.8	-971.0	0.0	-62.1	-0.0	**513.6**	-0.0
Mz_i	-720.0	-27.2	-4.1	-0.0	216.4	**-47.6**	-775.0	0.0	-56.2	-0.0	236.1	**0.0**
Fx_f	**-1065.2**	-0.0	-43.3	-0.0	224.5	0.0	**-377.3**	0.0	42.3	0.0	123.5	-0.0
Fy_f	-741.7	**-0.0**	-3.0	-0.0	208.5	0.0	-796.2	**0.0**	-36.0	-0.0	212.7	-0.0
Fz_f	-915.3	0.0	**-86.1**	-0.0	354.6	-0.0	-435.6	-0.0	**47.6**	0.0	88.2	0.0
Mx_f	-633.7	-0.0	-18.8	**-0.0**	72.8	0.0	-515.3	-0.0	9.9	**0.0**	141.9	-0.0
My_f	-702.3	0.0	-41.8	0.0	**18.0**	-0.0	-956.1	-0.0	-30.2	-0.0	**434.1**	0.0

Mz,	-839.1	0.0	-36.5	-0.0	206.3	**-0.0**	-754.8	-0.0	-1.7	-0.0	200.2	**0.0**

Member 368

Fx,	**-1065.7**	0.0	-38.4	0.0	313.4	0.0	**-350.6**	-29.7	39.6	0.0	12.5	-52.1
Fy,	-808.5	**-33.0**	-2.4	0.0	213.0	-57.8	-839.9	**0.0**	-38.1	0.0	391.5	0.0
Fz,	-911.2	-29.7	**-77.9**	0.0	543.5	-52.1	-420.1	0.0	**44.8**	0.0	-37.6	0.0
Mx,	-889.7	-33.0	-32.1	**-0.0**	264.3	-57.8	-505.9	-0.0	9.6	**0.0**	100.5	0.0
My,	-598.0	0.0	43.4	0.0	**-66.2**	0.0	-910.3	-29.7	-77.7	0.0	**546.3**	-52.1
Mz,	-742.0	-33.0	-1.3	0.0	198.4	**-57.8**	-845.9	0.0	-37.6	0.0	388.0	**0.0**
Fx,	**-1065.7**	0.0	-38.4	0.0	246.1	0.0	**-350.6**	-0.0	39.6	0.0	81.8	0.0
Fy,	-808.5	**-0.0**	-2.4	0.0	208.8	**0.0**	-839.7	**0.0**	-38.1	0.0	324.8	-0.0
Fz,	-911.2	-0.0	**-77.9**	0.0	407.2	0.0	-420.1	0.0	**44.8**	0.0	40.8	0.0
Mx,	-889.7	-0.0	-32.1	**-0.0**	208.1	0.0	-505.9	-0.0	9.6	**0.0**	117.3	0.0
My,	-627.1	-0.0	16.9	0.0	**9.0**	0.0	-930.1	0.0	-24.9	0.0	**434.4**	0.0
Mz,	-849.8	0.0	-38.1	0.0	327.8	**-0.0**	-736.0	-0.0	4.8	0.0	151.0	**0.0**

Member 369

Fx,	**-1074.0**	-32.8	-39.4	0.0	323.2	-57.4	**-344.3**	-0.0	44.8	0.0	-12.9	-0.0
Fy,	-802.2	**-32.8**	-29.2	0.0	259.2	-57.4	-701.3	**0.0**	-0.0	0.0	232.5	0.0
Fz,	-920.4	-0.0	**-81.4**	0.0	569.0	**-0.0**	-417.6	-29.5	**50.0**	0.0	-64.4	-51.7
Mx,	-912.8	-29.5	-65.6	**0.0**	369.8	-51.7	-513.5	0.0	11.2	**0.0**	103.9	0.0
My,	-593.1	-29.5	48.4	0.0	**-91.1**	-51.7	-921.6	-0.0	-81.2	0.0	**571.0**	-0.0
Mz	-868.9	-32.8	-32.3	0.0	294.2	**-57.4**	-699.7	0.0	0.5	0.0	226.7	**0.0**
Fx,	**-1074.0**	-0.0	-39.4	0.0	254.2	0.0	**-344.3**	-0.0	44.8	0.0	65.5	0.0
Fy,	-802.2	**-0.0**	-29.2	0.0	208.1	0.0	-701.3	**0.0**	-0.0	0.0	232.5	-0.0
Fz,	-920.4	-0.0	**-81.4**	0.0	426.6	0.0	-417.6	-0.0	**50.0**	0.0	23.1	0.0
Mx,	-912.8	-0.0	-65.6	**0.0**	255.0	0.0	-513.5	0.0	11.2	**0.0**	123.5	-0.0
My,	-577.3	-0.0	48.2	0.0	**-6.6**	0.0	-987.0	-0.0	-54.8	0.0	**442.0**	0.0
Mz,	-676.9	0.0	0.2	0.0	234.5	**-0.0**	-766.4	-0.0	-31.6	0.0	218.7	**0.0**

Member 370

Fx,	**-1068.8**	0.0	-38.7	0.0	321.8	-0.0	**-343.3**	-29.5	43.3	0.0	-11.1	-51.7
Fy,	-863.1	**-32.8**	-35.1	0.0	347.8	-57.4	-767.3	**0.0**	-0.7	0.0	216.9	0.0
Fz,	-916.6	-29.5	**-79.8**	0.0	567.3	-51.7	-415.3	0.0	**48.5**	0.0	-62.9	0.0
Mx,	-868.2	-29.5	-62.7	**0.0**	424.1	-51.7	-547.0	0.0	5.6	**0.0**	142.1	-0.0
My,	-590.9	0.0	47.0	0.0	**-89.6**	-0.0	-918.0	-29.5	-79.7	0.0	**569.0**	-51.7
Mz,	-808.0	-32.8	-32.8	0.0	324.9	**-57.4**	-752.7	0.0	-0.9	0.0	216.3	**0.0**
Fx,	**-1068.8**	0.0	-38.7	0.0	254.2	-0.0	**-343.3**	-0.0	43.3	0.0	64.7	0.0
Fy,	-863.1	**-0.0**	-35.1	0.0	286.4	0.0	-766.8	**0.0**	-0.7	0.0	215.7	-0.0
Fz,	-916.6	-0.0	**-79.8**	0.0	427.6	0.0	-415.3	0.0	**48.5**	0.0	21.9	-0.0
Mx,	-868.2	-0.0	-62.7	**0.0**	314.5	0.0	-547.0	0.0	5.6	**0.0**	152.0	-0.0
My,	-574.3	-0.0	46.9	0.0	**-7.4**	0.0	-984.1	0.0	-54.3	0.0	**442.3**	-0.0
Mz,	-802.1	0.0	-1.3	0.0	215.0	**-0.0**	-842.5	-0.0	-34.4	0.0	281.6	**0.0**

Member 371

Fx,	**-1080.6**	-33.0	-39.2	-0.0	313.7	-57.8	**-357.2**	-0.0	38.9	-0.0	17.4	-0.0
Fy,	-841.9	**-33.0**	-36.6	-0.0	361.9	-57.8	-794.5	**0.0**	-4.8	-0.0	255.4	0.0
Fz,	-921.6	-0.0	**-77.4**	-0.0	535.4	-0.0	-438.2	-29.7	**43.5**	-0.0	-27.7	-52.1
Mx,	-898.4	-33.0	-34.0	**-0.0**	278.1	-57.8	-522.0	0.0	4.0	**-0.0**	129.4	0.0
My,	-620.9	-29.7	41.7	-0.0	**-55.0**	-52.1	-920.1	-0.0	-77.1	-0.0	**538.3**	-0.0
Mz,	-878.9	-33.0	-37.4	-0.0	374.5	**-57.8**	-821.7	0.0	-4.9	-0.0	259.4	**0.0**
Fx,	**-1080.6**	-0.0	-39.2	-0.0	245.1	0.0	**-357.2**	-0.0	38.9	-0.0	85.5	0.0
Fy,	-841.9	**-0.0**	-36.6	-0.0	297.9	0.0	-794.5	**0.0**	-4.8	-0.0	247.0	-0.0
Fz,	-921.6	-0.0	**-77.4**	-0.0	399.9	0.0	-438.2	-0.0	**43.5**	-0.0	48.3	0.0
Mx,	-898.4	-0.0	-34.0	**-0.0**	218.6	0.0	-522.0	0.0	4.0	**-0.0**	136.3	0.0
My,	-633.5	-0.0	15.5	-0.0	**15.1**	0.0	-961.1	-0.0	-25.0	-0.0	**430.9**	0.0
Mz,	-840.9	0.0	-6.1	-0.0	248.1	**-0.0**	-839.5	-0.0	-35.2	-0.0	274.7	**0.0**

Member 372

Fx,	**-931.1**	-0.0	-40.0	-0.0	268.1	-0.0	**-279.0**	-4.9	38.3	-0.0	73.4	-8.7
Fy,	-608.3	**-27.5**	-27.5	-0.0	227.5	-48.1	-531.0	**0.0**	25.8	-0.0	172.3	0.0
Fz	-739.7	-4.9	**-78.7**	-0.0	437.7	-8.7	-389.1	-0.0	**44.1**	-0.0	35.4	-0.0
Mx,	-513.7	-27.5	-18.4	**-0.0**	125.8	-48.1	-425.7	-0.0	6.3	**-0.0**	119.2	-0.0
My,	-489.5	-0.0	42.4	-0.0	**14.8**	-0.0	-790.7	-5.5	-56.8	-0.0	**455.1**	-9.6
Mz,	-618.0	-27.5	-27.2	-0.0	223.2	**-48.1**	-611.4	0.0	-0.0	-0.0	225.6	**0.0**
Fx,	**-931.1**	-0.0	-40.0	-0.0	198.1	0.0	**-279.0**	-0.0	38.3	-0.0	140.5	0.0
Fy,	-608.3	**-0.0**	-27.5	-0.0	179.4	0.0	-531.0	**0.0**	25.8	-0.0	217.5	-0.0
Fz,	-739.7	-0.0	**-78.7**	-0.0	300.0	0.0	-389.1	-0.0	**44.1**	-0.0	112.6	0.0
Mx,	-513.7	-0.0	-18.4	**-0.0**	93.5	0.0	-425.7	-0.0	6.3	**-0.0**	130.2	0.0
My,	-509.7	-0.0	-37.9	-0.0	**25.0**	0.0	-815.5	-0.0	-24.9	-0.0	**394.0**	0.0
Mz,	-574.8	0.0	22.8	-0.0	240.5	**-0.0**	-567.2	-0.0	-26.1	-0.0	167.9	**0.0**

Member 373

Fx,	**-332.7**	-132.2	-68.8	-0.0	120.4	-231.4	**-57.0**	9.7	6.5	-0.0	-11.4	16.9
Fy,	-329.0	**-132.3**	-65.0	-0.0	113.8	-231.5	-76.0	**10.2**	-4.8	-0.0	8.4	17.8
Fz,	-236.2	7.3	**-99.9**	-0.0	174.8	12.9	-142.2	-112.7	**16.0**	0.0	-27.9	-197.1
Mx,	-268.4	-116.7	-40.9	**-0.0**	71.5	-204.2	-179.0	-124.3	-39.2	**0.0**	68.6	-217.6
My,	-142.2	-112.7	16.0	0.0	**-27.9**	-197.1	-236.2	7.3	-99.9	-0.0	**174.8**	12.9
Mz,	-329.0	-132.3	-65.0	-0.0	113.8	**-231.5**	-76.0	10.2	-4.8	-0.0	8.4	**17.8**
Fx,	**-332.7**	-122.4	-68.8	-0.0	-0.0	0.0	**-57.0**	9.7	6.5	-0.0	0.0	-0.0
Fy,	-327.8	**-126.7**	-65.0	0.0	-0.0	-0.0	-76.0	**10.2**	-4.8	-0.0	0.0	-0.0
Fz,	-236.2	7.3	**-99.9**	-0.0	0.0	-0.0	-142.2	-111.0	**16.0**	0.0	-0.0	-0.0
Mx,	-268.4	-106.9	-40.9	**-0.0**	-0.0	0.0	-179.0	-122.5	-39.2	**0.0**	-0.0	-0.0
My,	-249.2	-119.2	-38.1	-0.0	**-0.0**	0.0	-173.8	8.4	-55.6	-0.0	**0.0**	-0.0
Mz,	-165.0	-105.4	-36.7	0.0	-0.0	**-0.0**	-213.5	-120.2	-19.4	-0.0	-0.0	**0.0**

Member 374

Fx,	**-320.1**	0.0	50.0	0.0	-87.5	0.0	**106.6**	-0.0	36.1	-0.0	-63.1	-0.0
Fy,	-2.9	**-0.0**	72.5	0.0	-126.9	-0.0	-228.3	**0.0**	49.2	-0.0	-86.2	0.0
Fz,	-163.7	0.0	**-3.8**	0.0	6.7	0.0	-56.1	-0.0	**117.8**	-0.0	-206.2	-0.0
Mx,	-208.3	-0.0	50.4	**-0.0**	-88.2	-0.0	-150.4	0.0	22.5	**0.0**	-39.4	0.0
My,	-56.1	-0.0	117.8	-0.0	**-206.2**	-0.0	-163.7	0.0	-3.8	0.0	**6.7**	0.0
Mz,	-3.4	-0.0	74.5	0.0	-130.4	**-0.0**	-233.3	0.0	51.5	-0.0	-90.1	**0.0**
Fx,	**-320.1**	0.0	50.0	0.0	0.0	-0.0	**106.6**	-0.0	36.1	-0.0	0.0	0.0
Fy,	-2.9	**-0.0**	72.5	0.0	0.0	0.0	-228.3	**0.0**	49.2	-0.0	0.0	-0.0
Fz,	-163.7	0.0	**-3.8**	0.0	0.0	-0.0	-56.1	-0.0	**117.8**	-0.0	0.0	0.0
Mx,	-208.3	-0.0	50.4	**-0.0**	0.0	-0.0	-150.4	0.0	22.5	**0.0**	0.0	-0.0
My,	-11.8	-0.0	72.1	-0.0	**0.0**	0.0	-262.2	0.0	43.7	-0.0	**0.0**	-0.0
Mz,	-262.0	0.0	56.7	-0.0	0.0	**-0.0**	14.3	-0.0	42.8	0.0	0.0	**0.0**

Member 375

Fx,	**-932.9**	0.0	20.3	0.0	-211.9	0.0	**-326.5**	-23.4	1.0	-0.0	-120.0	-41.0
Fy,	-685.3	**-26.0**	21.1	0.0	-235.7	**-45.5**	-647.8	**0.0**	9.4	-0.0	-170.5	0.0
Fz,	-530.4	0.0	**-5.7**	-0.0	-52.9	0.0	-805.9	-26.0	**38.3**	0.0	-400.1	-45.5
Mx,	-661.8	-23.4	16.9	**-0.0**	-294.4	-41.0	-486.8	-0.0	17.0	**0.0**	-142.7	-0.0
My,	-774.7	-26.0	35.3	-0.0	**-433.0**	-45.5	-576.3	0.0	3.3	0.0	**-3.5**	0.0
Mz,	-685.3	-26.0	21.1	0.0	-235.7	**-45.5**	-647.8	0.0	9.4	-0.0	-170.5	**0.0**
Fx,	**-932.9**	0.0	20.3	0.0	-176.3	-0.0	**-326.5**	-0.0	1.0	-0.0	-118.3	0.0
Fy,	-685.3	**-0.0**	21.1	0.0	-198.8	0.0	-638.7	**0.0**	9.4	-0.0	-154.1	-0.0
Fz,	-530.4	0.0	**-5.7**	-0.0	-62.8	-0.0	-806.9	-0.0	**38.3**	0.0	-333.0	0.0
Mx,	-661.8	0.0	16.9	**-0.0**	-264.9	-0.0	-486.8	-0.0	17.0	**0.0**	-113.0	0.0
My,	-844.8	0.0	35.3	-0.0	**-371.3**	-0.0	-511.1	-0.0	3.3	0.0	**2.2**	0.0
Mz,	-672.5	0.0	11.3	-0.0	-164.9	**-0.0**	-618.0	-0.0	18.7	0.0	-173.9	**0.0**

Member 376

Fx,	**-1065.2**	-5.4	43.3	0.0	-300.2	-9.5	**-377.3**	-0.0	-42.3	-0.0	-49.4	-0.0
Fy,	-811.8	**-27.2**	5.5	-0.0	-239.8	-47.6	-789.8	**0.0**	66.6	0.0	-347.3	0.0
Fz,	-435.7	-4.9	**-47.6**	-0.0	-4.4	-8.6	-915.3	0.0	**86.1**	0.0	-505.3	0.0
Mx,	-536.7	-27.2	-12.1	**-0.0**	-111.4	-47.6	-616.7	0.0	23.4	**0.0**	-139.7	0.0
My,	-971.0	0.0	62.1	0.0	**-513.6**	0.0	-622.1	-24.5	-45.8	0.0	**25.2**	-42.8
Mz,	-850.7	-27.2	6.6	-0.0	-246.7	**-47.6**	-722.6	0.0	62.5	0.0	-310.2	**0.0**
Fx,	**-1065.2**	-0.0	43.3	0.0	-224.5	0.0	**-377.3**	-0.0	-42.3	-0.0	-123.5	-0.0
Fy,	-811.8	**-0.0**	5.5	-0.0	-230.1	0.0	-790.4	**0.0**	66.6	0.0	-230.8	0.0
Fz,	-435.7	-0.0	**-47.6**	-0.0	-87.7	0.0	-915.3	0.0	**86.1**	0.0	-354.6	-0.0
Mx,	-536.7	0.0	-12.1	**-0.0**	-132.6	0.0	-616.7	0.0	23.4	**0.0**	-98.7	-0.0
My,	-956.1	-0.0	30.2	-0.0	**-434.1**	0.0	-702.3	0.0	41.8	0.0	**-18.0**	-0.0
Mz,	-805.6	0.0	69.5	-0.0	-249.0	**-0.0**	-854.1	-0.0	8.1	0.0	-264.5	**0.0**

Member 377

Fx,	**-1065.7**	-0.0	38.4	0.0	-313.4	-0.0	**-350.6**	-29.7	-39.6	-0.0	-12.5	-52.1
Fy,	-829.1	**-33.0**	33.4	0.0	-271.3	-57.8	-543.0	**0.0**	-30.3	-0.0	-129.0	0.0

Fz,	-421.0	-0.0	**-44.8**	-0.0	38.2	-0.0	-911.2	-29.7	**77.9**	0.0	-543.5	-52.1
Mx,	-862.1	-33.0	10.6	**-0.0**	-316.4	-57.8	-654.5	-0.0	24.9	**0.0**	-207.1	-0.0
My,	-910.3	-29.7	77.7	0.0	**-546.3**	-52.1	-598.0	-0.0	-43.4	-0.0	**66.2**	-0.0
Mz,	-829.1	-33.0	33.4	0.0	-271.3	**-57.8**	-543.0	0.0	-30.3	-0.0	-129.0	**0.0**
Fx,	**-1065.7**	-0.0	38.4	0.0	-246.1	0.0	**-350.6**	0.0	-39.6	-0.0	-81.8	-0.0
Fy,	-787.6	**-0.0**	58.2	0.0	-212.1	0.0	-648.9	**0.0**	-2.4	-0.0	-225.2	-0.0
Fz,	-421.0	-0.0	**-44.8**	-0.0	-40.3	0.0	-911.2	0.0	**77.9**	0.0	-407.2	-0.0
Mx,	-862.1	0.0	10.6	**-0.0**	-297.8	-0.0	-654.5	-0.0	24.9	**0.0**	-163.6	0.0
My,	-930.1	-0.0	24.9	0.0	**-434.3**	0.0	-627.1	0.0	-16.9	-0.0	**-9.0**	-0.0
Mz,	-728.0	0.0	0.9	-0.0	-255.0	**-0.0**	-715.2	-0.0	54.2	0.0	-181.9	**0.0**

Member 378

Fx,	**-1074.0**	-32.8	39.4	0.0	-323.2	-57.4	**-344.3**	0.0	-44.8	-0.0	12.9	0.0
Fy,	-797.0	**-32.8**	31.3	-0.0	-285.4	-57.4	-747.8	**0.0**	-2.1	0.0	-177.4	0.0
Fz,	-417.8	-29.5	**-50.0**	0.0	64.9	-51.7	-920.4	0.0	**81.4**	-0.0	-569.0	0.0
Mx,	-871.5	-6.6	0.5	**-0.0**	-253.8	-11.5	-646.8	-32.8	23.7	**0.0**	-175.7	-57.4
My,	-921.6	0.0	81.2	-0.0	**-571.0**	0.0	-593.1	-29.5	-48.4	0.0	**91.1**	-51.7
Mz,	-774.8	-32.8	29.9	-0.0	-274.2	**-57.4**	-748.9	0.0	0.1	0.0	-200.7	**0.0**
Fx,	**-1074.0**	-0.0	39.4	0.0	-254.2	0.0	**-344.3**	0.0	-44.8	-0.0	-65.5	-0.0
Fy,	-797.0	**-0.0**	31.3	-0.0	-230.5	0.0	-747.8	**0.0**	-2.1	0.0	-181.1	-0.0
Fz,	-417.8	-0.0	**-50.0**	0.0	-22.7	0.0	-920.4	0.0	**81.4**	-0.0	-426.6	-0.0
Mx,	-871.5	-0.0	0.5	**-0.0**	-252.9	-0.0	-646.8	-0.0	23.7	**0.0**	-134.2	0.0
My,	-987.0	-0.0	54.8	-0.0	**-442.0**	0.0	-577.3	0.0	-48.2	0.0	**6.6**	-0.0
Mz,	-725.5	0.0	-2.3	0.0	-176.5	**-0.0**	-823.9	-0.0	29.4	0.0	-206.3	**0.0**

Member 379

Fx,	**-1068.8**	-0.0	38.7	0.0	-321.8	-0.0	**-343.3**	-29.5	-43.3	0.0	11.1	-51.7
Fy,	-864.3	**-32.8**	39.0	0.0	-414.6	-57.4	-653.1	**0.0**	26.6	0.0	-191.5	0.0
Fz,	-415.4	-0.0	**-48.5**	0.0	63.4	-0.0	-916.6	-29.5	**79.8**	0.0	-567.3	-51.7
Mx,	-510.5	-32.8	-13.9	**-0.0**	-54.7	-57.4	-558.7	-0.0	21.3	**0.0**	-164.7	-0.0
My,	-918.0	-29.5	79.7	0.0	**-569.0**	-51.7	-590.9	-0.0	-47.0	0.0	**89.6**	-0.0
Mz,	-864.3	-32.8	39.0	0.0	-414.6	**-57.4**	-653.1	0.0	26.6	0.0	-191.5	**0.0**
Fx,	**-1068.8**	-0.0	38.7	0.0	-254.2	0.0	**-343.3**	-0.0	-43.3	0.0	-64.7	0.0
Fy,	-864.3	**-0.0**	39.0	0.0	-346.4	0.0	-653.1	**0.0**	26.6	0.0	-144.9	-0.0
Fz,	-415.4	-0.0	**-48.5**	0.0	-21.5	0.0	-916.6	-0.0	**79.8**	0.0	-427.6	0.0
Mx,	-510.5	-0.0	-13.9	**-0.0**	-79.0	0.0	-558.7	-0.0	21.3	**0.0**	-127.4	0.0
My,	-984.1	-0.0	54.3	0.0	**-442.3**	0.0	-574.3	-0.0	-46.9	0.0	**7.4**	0.0
Mz,	-764.5	0.0	31.6	0.0	-194.6	**-0.0**	-730.9	-0.0	29.9	0.0	-252.5	**0.0**

Member 380

Fx,	**-1080.6**	-33.0	39.2	0.0	-313.7	-57.8	**-367.2**	0.0	-38.9	0.0	-17.4	-0.0
Fy,	-799.0	**-33.0**	26.6	0.0	-226.6	-57.8	-757.0	**0.0**	-1.3	0.0	-199.3	-0.0
Fz,	-439.6	-29.7	**-43.5**	0.0	28.3	-52.1	-921.6	-0.0	**77.4**	0.0	-535.4	-0.0
Mx,	-931.4	-33.0	9.0	**-0.0**	-256.4	-57.8	-639.3	-0.0	23.2	**0.0**	-203.6	-0.0
My,	-920.1	-0.0	77.1	0.0	**-538.3**	-0.0	-620.9	-29.7	-41.7	0.0	**55.0**	-52.1
Mz,	-830.3	-33.0	26.8	0.0	-225.6	**-57.8**	-588.9	-0.0	-31.1	0.0	-93.2	**0.0**
Fx,	**-1080.6**	-0.0	39.2	0.0	-245.1	0.0	**-367.2**	0.0	-38.9	0.0	-85.5	-0.0
Fy,	-799.0	**-0.0**	26.6	0.0	-180.1	0.0	-757.0	**0.0**	-1.3	0.0	-201.6	-0.0
Fz,	-439.6	-0.0	**-43.5**	0.0	-47.8	0.0	-921.6	-0.0	**77.4**	0.0	-399.9	-0.0
Mx,	-931.4	-0.0	9.0	**-0.0**	-240.7	0.0	-639.3	-0.0	23.2	**0.0**	-163.0	0.0
My,	-961.1	-0.0	25.0	0.0	**-430.9**	0.0	-633.5	-0.0	-15.5	0.0	**-15.1**	-0.0
Mz,	-729.1	0.0	-4.9	0.0	-150.1	**-0.0**	-767.4	-0.0	26.5	0.0	-185.3	**0.0**

Member 381

Fx,	**-931.1**	-0.0	40.0	0.0	-268.1	-0.0	**-279.0**	-4.9	-38.3	0.0	-73.4	-8.7
Fy,	-678.8	**-27.5**	37.8	0.0	-254.2	-48.1	-545.9	**0.0**	-30.9	0.0	-138.2	0.0
Fz,	-389.1	0.0	**-44.1**	0.0	-35.4	0.0	-739.7	-4.9	**78.7**	0.0	-437.7	-8.7
Mx,	-663.3	-24.8	-12.1	**0.0**	-285.4	-43.3	-447.2	0.0	5.3	**0.0**	-133.3	0.0
My,	-790.7	-5.5	56.8	0.0	**-455.1**	-9.6	-489.5	0.0	-42.4	0.0	**-14.8**	0.0
Mz,	-678.8	-27.5	37.8	0.0	-254.2	**-48.1**	-545.9	0.0	-30.9	0.0	-138.2	**0.0**
Fx,	**-931.1**	-0.0	40.0	0.0	-198.1	0.0	**-279.0**	0.0	-38.3	0.0	-140.5	-0.0
Fy,	-678.8	**-0.0**	37.8	0.0	-188.1	0.0	-617.0	**0.0**	-4.7	0.0	-196.6	-0.0
Fz,	-389.1	0.0	**-44.1**	0.0	-112.6	-0.0	-739.7	0.0	**78.7**	0.0	-300.0	-0.0
Mx,	-663.3	-0.0	-12.1	**0.0**	-306.7	0.0	-447.2	0.0	5.3	**0.0**	-124.0	-0.0
My,	-815.5	0.0	24.9	0.0	**-394.0**	-0.0	-509.7	0.0	37.9	0.0	**-25.0**	-0.0
Mz,	-727.4	0.0	-2.9	0.0	-205.1	**-0.0**	-649.1	-0.0	35.6	0.0	-180.9	**0.0**

Member 382

Fx,	**-332.7**	-132.2	68.8	-0.0	-120.4	-231.4	**-57.0**	9.7	-6.5	0.0	11.4	16.9
Fy,	-329.0	**-132.3**	65.0	-0.0	-113.8	-231.5	-76.0	**10.2**	4.8	0.0	-8.4	17.8
Fz,	-142.2	-112.7	**-16.0**	0.0	27.9	-197.1	-236.2	7.3	**99.9**	-0.0	-174.8	12.9
Mx,	-254.3	-116.4	67.6	**-0.0**	-118.3	-203.7	-161.0	-124.6	11.9	**0.0**	-20.9	-218.0
My,	-236.2	7.3	99.9	-0.0	**-174.8**	12.9	-142.2	-112.7	-16.0	0.0	**27.9**	-197.1
Mz,	-329.0	-132.3	65.0	-0.0	-113.8	**-231.5**	-76.0	10.2	4.8	0.0	-8.4	**17.8**
Fx,	**-332.7**	-122.4	68.8	-0.0	-0.0	0.0	**-57.0**	9.7	-6.5	0.0	0.0	-0.0
Fy,	-327.8	**-126.7**	65.0	-0.0	0.0	0.0	-76.0	**10.2**	4.8	0.0	0.0	-0.0
Fz,	-142.2	-111.0	**-16.0**	0.0	0.0	0.0	-236.2	7.3	**99.9**	-0.0	0.0	-0.0
Mx,	-254.3	-106.6	67.6	**-0.0**	0.0	0.0	-161.0	-122.7	11.9	**0.0**	0.0	0.0
My,	-200.4	-105.0	45.7	-0.0	**-0.0**	0.0	-172.6	3.9	41.4	-0.0	**0.0**	-0.0
Mz,	-220.2	3.9	63.2	-0.0	0.0	**-0.0**	-171.8	-123.5	12.3	-0.0	0.0	**0.0**

Member 391

Fx,	**-932.9**	0.0	-20.3	0.0	176.3	0.0	**-326.5**	0.0	-1.0	0.0	118.3	0.0
Fy,	-711.8	**0.0**	-29.4	0.0	220.4	0.0	-446.3	**0.0**	-6.2	0.0	96.7	0.0
Fz,	-806.9	0.0	**-38.3**	0.0	333.0	0.0	-530.4	0.0	**5.7**	0.0	62.8	0.0
Mx,	-711.8	0.0	-29.4	**0.0**	220.4	0.0	-446.3	0.0	-6.2	**0.0**	96.7	0.0
My,	-511.1	0.0	-3.3	0.0	**-2.2**	0.0	-844.8	0.0	-35.3	0.0	**371.3**	0.0
Mz,	-711.8	0.0	-29.4	0.0	220.4	**0.0**	-446.3	0.0	-6.2	0.0	96.7	**0.0**
Fx,	**-1022.6**	0.0	-20.3	0.0	-97.3	0.0	**-407.1**	-23.4	2.9	0.0	131.6	315.3
Fy,	-866.3	**-26.0**	-29.1	0.0	-129.7	350.4	-535.9	**0.0**	-6.2	0.0	12.5	0.0
Fz,	-819.7	-23.4	**-41.6**	0.0	-250.6	315.3	-611.0	0.0	**9.6**	0.0	165.6	0.0
Mx,	-792.5	-23.4	-33.3	**0.0**	-202.2	315.3	-535.9	0.0	-6.2	**0.0**	12.5	0.0
My,	-818.4	-23.4	-41.5	0.0	**-251.0**	315.3	-510.3	0.0	8.1	0.0	**167.2**	0.0
Mz,	-800.9	0.0	-33.3	0.0	-202.2	**0.0**	-526.6	-26.0	-6.3	0.0	12.4	**350.4**

Member 392

Fx,	**-1065.2**	0.0	-43.3	0.0	224.5	0.0	**-377.3**	0.0	42.3	0.0	123.5	0.0
Fy,	-881.6	**0.0**	-74.1	0.0	287.6	0.0	-536.9	**0.0**	-6.0	0.0	122.0	0.0
Fz,	-915.3	0.0	**-86.1**	0.0	354.6	0.0	-435.6	0.0	**47.6**	0.0	88.2	0.0
Mx,	-881.6	0.0	-74.1	**0.0**	287.6	0.0	-536.9	0.0	-6.0	**0.0**	122.0	0.0
My,	-702.3	0.0	-41.8	0.0	**18.0**	0.0	-956.1	0.0	-30.2	0.0	**434.1**	0.0
Mz,	-881.6	0.0	-74.1	0.0	287.6	**0.0**	-536.9	0.0	-6.0	0.0	122.0	**0.0**
Fx,	**-1147.6**	-5.4	-43.3	0.0	-312.0	67.4	**-451.5**	0.0	45.9	0.0	670.5	0.0
Fy,	-1025.5	**-27.2**	-49.1	0.0	-282.6	337.2	-619.3	**0.0**	-6.0	0.0	47.2	0.0
Fz,	-989.5	0.0	**-89.7**	0.0	-734.6	0.0	-509.8	-4.9	**51.1**	0.0	700.1	60.7
Mx,	-955.7	-24.5	-77.6	**0.0**	-652.6	303.5	-619.3	0.0	-6.0	**0.0**	47.2	0.0
My,	-992.6	0.0	-89.4	0.0	**-736.5**	0.0	-534.0	-4.9	46.9	0.0	**707.9**	60.7
Mz,	-955.2	0.0	-77.6	0.0	-652.6	**0.0**	-620.0	-27.2	-6.0	0.0	47.2	**337.2**

Member 393

Fx,	**-1065.7**	0.0	-38.4	0.0	246.1	0.0	**-350.6**	0.0	39.6	0.0	81.8	0.0
Fy,	-877.5	**0.0**	-67.1	0.0	332.1	0.0	-530.2	**0.0**	-6.1	0.0	122.2	0.0
Fz,	-911.2	0.0	**-77.9**	0.0	407.2	0.0	-420.1	0.0	**44.8**	0.0	40.8	0.0
Mx,	-877.5	0.0	-67.1	**0.0**	332.1	0.0	-530.2	0.0	-6.1	**0.0**	122.2	0.0
My,	-627.1	0.0	16.9	0.0	**9.0**	0.0	-930.1	0.0	-24.9	0.0	**434.3**	0.0
Mz,	-877.5	0.0	-67.1	0.0	332.1	**0.0**	-530.2	0.0	-6.1	0.0	122.2	**0.0**
Fx,	**-1169.1**	0.0	-38.4	0.0	-351.0	0.0	**-443.6**	-29.7	44.1	0.0	732.1	462.3
Fy,	-1032.5	**-33.0**	-43.3	0.0	-326.8	513.7	-633.5	**0.0**	-6.1	0.0	28.1	0.0
Fz,	-1004.3	-29.7	**-82.3**	0.0	-837.7	462.3	-513.2	0.0	**49.3**	0.0	772.0	0.0
Mx,	-970.5	-29.7	-71.6	**0.0**	-745.3	462.3	-633.5	0.0	-6.1	**0.0**	28.1	0.0
My,	-1008.2	-29.7	-82.2	0.0	**-839.4**	462.3	-528.8	0.0	46.7	0.0	**776.0**	0.0
Mz,	-970.8	0.0	-71.6	0.0	-745.3	**0.0**	-633.2	-33.0	-6.1	0.0	28.1	**513.7**

Member 394

Fx,	**-1074.0**	0.0	-39.4	0.0	254.1	0.0	**-344.3**	0.0	44.8	0.0	65.5	0.0
Fy,	-889.0	**0.0**	-70.7	0.0	349.7	0.0	-531.9	**0.0**	-5.6	0.0	122.7	0.0
Fz,	-920.4	0.0	**-81.4**	0.0	426.6	0.0	-417.6	0.0	**50.0**	0.0	23.1	0.0
Mx,	-889.0	0.0	-70.7	**0.0**	349.7	0.0	-531.9	0.0	-5.6	**0.0**	122.7	0.0
My,	-577.3	0.0	48.2	0.0	**-6.6**	0.0	-987.0	0.0	-54.8	0.0	**442.0**	0.0
Mz,	-889.0	0.0	-70.7	0.0	349.7	**0.0**	-531.9	0.0	-5.6	0.0	122.7	**0.0**
Fx,	**-1181.4**	-32.8	-39.4	0.0	-382.9	529.9	**-441.0**	0.0	49.5	0.0	827.0	0.0

Fy,	-1043.5	-32.8	-43.7	0.0	-353.0	529.9	-639.4	**0.0**	-5.6	0.0	32.3	0.0
Fz,	-1017.1	0.0	**-86.0**	0.0	-925.7	0.0	-514.3	-29.5	**54.7**	0.0	869.0	476.9
Mx,	-985.6	-29.5	-75.3	**0.0**	-829.3	476.9	-639.4	0.0	-5.6	**0.0**	32.3	0.0
My,	-1033.8	0.0	-85.9	0.0	**-928.1**	**0.0**	-521.6	-29.5	51.7	0.0	**874.6**	476.9
Mz,	-985.5	0.0	-75.3	**0.0**	-829.3	**0.0**	-639.6	-32.8	-5.6	0.0	32.3	**529.9**

Member 395

Fx,	**-1068.8**	0.0	-38.7	0.0	254.2	0.0	**-343.3**	0.0	43.3	0.0	64.7	0.0
Fy,	-887.3	**0.0**	-69.1	0.0	350.0	0.0	-530.3	**0.0**	-5.7	0.0	122.5	0.0
Fz,	-916.6	0.0	**-79.8**	0.0	427.6	0.0	-415.3	0.0	**48.5**	0.0	21.9	0.0
Mx,	-887.3	0.0	-69.1	**0.0**	350.0	0.0	-530.3	0.0	-5.7	**0.0**	122.5	0.0
My,	-574.3	0.0	46.9	0.0	**-7.4**	0.0	-984.1	0.0	-54.3	0.0	**442.3**	0.0
Mz,	-887.3	0.0	-69.1	0.0	350.0	**0.0**	-530.3	0.0	-5.7	0.0	122.5	**0.0**
Fx,	**-1177.4**	0.0	-38.7	0.0	-377.1	0.0	**-441.1**	-29.5	48.0	0.0	810.7	482.2
Fy,	-1043.3	**-32.8**	-43.1	0.0	-350.4	535.7	-638.9	**0.0**	-5.7	0.0	29.5	0.0
Fz,	-1014.3	-29.5	**-84.5**	0.0	-914.9	482.2	-513.0	0.0	**53.2**	0.0	852.3	0.0
Mx,	-985.0	-29.5	-73.8	**0.0**	-817.2	482.2	-638.9	0.0	-5.7	**0.0**	29.5	0.0
My,	-1020.6	-29.5	-84.4	0.0	**-917.3**	482.2	-530.7	0.0	50.2	0.0	**857.6**	0.0
Mz,	-985.5	0.0	-73.8	0.0	-817.2	**0.0**	-638.4	-32.8	-5.7	0.0	29.5	**535.7**

Member 396

Fx,	**-1080.6**	0.0	-39.2	0.0	245.1	0.0	**-367.2**	0.0	38.9	0.0	85.5	0.0
Fy,	-880.1	**0.0**	-67.2	0.0	328.7	0.0	-536.6	**0.0**	-6.3	0.0	122.3	0.0
Fz,	-921.6	0.0	**-77.4**	0.0	399.9	0.0	-438.2	0.0	**43.5**	0.0	48.3	0.0
Mx,	-880.1	0.0	-67.2	**0.0**	328.7	0.0	-536.6	0.0	-6.3	**0.0**	122.3	0.0
My,	-633.5	0.0	15.5	0.0	**15.1**	0.0	-961.1	0.0	-25.0	0.0	**430.9**	0.0
Mz,	-880.1	0.0	-67.2	0.0	328.7	**0.0**	-536.6	0.0	-6.3	0.0	122.3	**0.0**
Fx,	**-1182.6**	-33.0	-39.2	0.0	-355.6	507.1	**-459.1**	0.0	43.3	0.0	716.2	0.0
Fy,	-1035.1	**-33.0**	-43.7	0.0	-325.3	507.1	-638.7	**0.0**	-6.3	0.0	26.1	0.0
Fz,	-1013.5	0.0	**-81.9**	0.0	-822.1	0.0	-530.0	-29.7	**47.9**	0.0	748.9	456.4
Mx,	-971.9	-29.7	-71.6	**0.0**	-735.9	456.4	-638.7	0.0	-6.3	**0.0**	26.1	0.0
My,	-1018.0	0.0	-81.7	0.0	**-824.1**	0.0	-553.1	-29.7	44.3	0.0	**756.1**	456.4
Mz,	-969.8	0.0	-71.6	0.0	-735.9	**0.0**	-641.0	-33.0	-6.3	0.0	26.1	**507.1**

Member 397

Fx,	**-931.1**	0.0	-40.0	0.0	198.1	0.0	**-279.0**	0.0	38.3	0.0	140.5	0.0
Fy,	-753.6	**0.0**	-66.8	0.0	242.7	0.0	-447.2	**0.0**	-5.3	0.0	124.0	0.0
Fz,	-739.7	0.0	**-78.7**	0.0	300.0	0.0	-389.1	0.0	**44.1**	0.0	112.6	0.0
Mx,	-753.6	0.0	-66.8	**0.0**	242.7	0.0	-447.2	0.0	-5.3	**0.0**	124.0	0.0
My,	-509.7	0.0	-37.9	0.0	**25.0**	0.0	-815.5	0.0	-24.9	0.0	**394.0**	0.0
Mz,	-753.6	0.0	-66.8	0.0	242.7	**0.0**	-447.2	0.0	-5.3	0.0	124.0	**0.0**
Fx,	**-1007.3**	0.0	-40.0	0.0	-260.3	0.0	**-347.6**	-4.9	41.6	0.0	598.6	56.7
Fy,	-882.1	**-27.5**	-44.6	0.0	-224.1	315.1	-523.4	**0.0**	-5.3	0.0	62.8	0.0
Fz,	-808.3	-4.9	**-82.0**	0.0	-620.8	56.7	-457.7	0.0	**47.4**	0.0	637.0	0.0
Mx,	-822.1	-24.8	-70.1	**0.0**	-541.6	283.6	-523.4	0.0	-5.3	**0.0**	62.8	0.0
My,	-801.8	-4.9	-81.4	0.0	**-628.5**	56.7	-479.3	0.0	44.4	0.0	**644.0**	0.0
Mz,	-841.0	0.0	-70.1	0.0	-541.5	**0.0**	-502.5	-27.5	-5.3	0.0	62.7	**315.1**

Member 398

Fx,	**-932.9**	0.0	20.3	0.0	-176.3	0.0	**-326.5**	0.0	1.0	0.0	-118.3	0.0
Fy,	-669.3	**0.0**	20.5	0.0	-285.0	0.0	-446.3	**0.0**	6.2	0.0	-96.7	0.0
Fz,	-530.4	0.0	**-5.7**	0.0	-62.8	0.0	-806.9	0.0	**38.3**	0.0	-333.0	0.0
Mx,	-669.3	0.0	20.5	**0.0**	-285.0	0.0	-446.3	0.0	6.2	**0.0**	-96.7	0.0
My,	-844.8	0.0	35.3	0.0	**-371.3**	0.0	-511.1	0.0	3.3	0.0	**2.2**	0.0
Mz,	-669.3	0.0	20.5	0.0	-285.0	**0.0**	-446.3	0.0	6.2	0.0	-96.7	**0.0**
Fx,	**-1022.6**	0.0	20.3	0.0	97.3	0.0	**-407.1**	-23.4	-2.9	0.0	-131.6	315.3
Fy,	-847.5	**-26.0**	26.4	0.0	56.4	350.4	-535.9	**0.0**	6.2	0.0	-12.5	0.0
Fz,	-611.0	0.0	**-9.6**	0.0	-165.6	0.0	-819.7	-23.4	**41.6**	0.0	250.6	315.3
Mx,	-749.9	-23.4	16.6	**0.0**	-34.6	315.3	-535.9	0.0	6.2	**0.0**	-12.5	0.0
My,	-512.9	0.0	-8.1	0.0	**-167.3**	0.0	-818.4	-23.4	41.5	0.0	**251.0**	315.3
Mz,	-758.3	0.0	16.6	0.0	-34.7	**0.0**	-526.6	-26.0	6.3	0.0	-12.4	**350.4**

Member 399

Fx,	**-1065.2**	0.0	43.3	0.0	-224.5	0.0	**-377.3**	0.0	-42.3	0.0	-123.5	0.0
Fy,	-778.3	**0.0**	-13.2	0.0	-324.4	0.0	-536.9	**0.0**	6.0	0.0	-122.0	0.0
Fz,	-435.7	0.0	**-47.6**	0.0	-87.7	0.0	-915.3	0.0	**86.1**	0.0	-354.6	0.0
Mx,	-778.3	0.0	-13.2	**0.0**	-324.4	0.0	-536.9	0.0	6.0	**0.0**	-122.0	0.0
My,	-956.1	0.0	30.2	0.0	**-434.1**	0.0	-702.3	0.0	41.8	0.0	**-18.0**	0.0
Mz,	-778.3	0.0	-13.2	0.0	-324.4	**0.0**	-536.9	0.0	6.0	0.0	-122.0	**0.0**
Fx,	**-1147.6**	-5.4	43.3	0.0	312.0	67.4	**-451.5**	0.0	-45.9	0.0	-670.5	0.0
Fy,	-983.7	**-27.2**	18.5	0.0	-124.8	337.2	-619.3	**0.0**	6.0	0.0	-47.2	0.0
Fz,	-509.9	-4.9	**-51.2**	0.0	-699.7	60.7	-989.5	0.0	**89.7**	0.0	734.6	0.0
Mx,	-852.5	-24.5	-16.8	**0.0**	-510.6	303.5	-619.3	0.0	6.0	**0.0**	-47.2	0.0
My,	-534.1	-4.9	-46.9	0.0	**-707.6**	60.7	-992.6	0.0	89.4	0.0	**736.5**	0.0
Mz,	-851.9	0.0	-16.8	0.0	-510.6	**0.0**	-620.0	-27.2	6.0	0.0	-47.2	**337.2**

Member 400

Fx,	**-1065.7**	0.0	38.4	0.0	-246.1	0.0	**-350.6**	0.0	-39.6	0.0	-81.8	0.0
Fy,	-749.3	**0.0**	-15.5	0.0	-291.7	0.0	-530.2	**0.0**	6.1	0.0	-122.2	0.0
Fz,	-421.0	0.0	**-44.8**	0.0	-40.3	0.0	-911.2	0.0	**77.9**	0.0	-407.2	0.0
Mx,	-749.3	0.0	-15.5	**0.0**	-291.7	0.0	-530.2	0.0	6.1	**0.0**	-122.2	0.0
My,	-930.1	0.0	24.9	0.0	**-434.4**	0.0	-627.1	0.0	-16.9	0.0	**-9.0**	0.0
Mz,	-749.3	0.0	-15.5	0.0	-291.7	**0.0**	-530.2	0.0	6.1	0.0	-122.2	**0.0**
Fx,	**-1169.1**	0.0	38.4	0.0	351.0	0.0	**-443.6**	-29.7	-44.1	0.0	-732.1	462.3
Fy,	-981.8	**-33.0**	14.0	0.0	-129.3	513.7	-633.5	**0.0**	6.1	0.0	-28.1	0.0
Fz,	-514.1	0.0	**-49.3**	0.0	-771.7	0.0	-1004.3	-29.7	**82.3**	0.0	837.7	462.3
Mx,	-842.3	-29.7	-20.0	**0.0**	-567.6	462.3	-633.5	0.0	6.1	**0.0**	-28.1	0.0
My,	-529.7	0.0	-46.7	0.0	**-775.6**	0.0	-1008.2	-29.7	82.2	0.0	**839.4**	462.3
Mz,	-842.7	0.0	-20.0	0.0	-567.6	**0.0**	-633.2	-33.0	6.1	0.0	-28.1	**513.7**

Member 401

Fx,	**-1074.0**	0.0	39.4	0.0	-254.2	0.0	**-344.3**	0.0	-44.8	0.0	-65.5	0.0
Fy,	-745.6	**0.0**	-21.3	0.0	-277.2	0.0	-531.9	**0.0**	5.6	0.0	-122.7	0.0
Fz,	-417.8	0.0	**-50.0**	0.0	-22.7	0.0	-920.4	0.0	**81.4**	0.0	-426.6	0.0
Mx,	-745.6	0.0	-21.3	**0.0**	-277.2	0.0	-531.9	0.0	5.6	**0.0**	-122.7	0.0
My,	-987.0	0.0	54.8	0.0	**-442.0**	0.0	-577.3	0.0	-48.2	0.0	**6.6**	0.0
Mz,	-745.6	0.0	-21.3	0.0	-277.2	**0.0**	-531.9	0.0	5.6	0.0	-122.7	**0.0**
Fx,	**-1181.4**	-32.8	39.4	0.0	383.0	529.9	**-441.0**	0.0	-49.5	0.0	-827.0	0.0
Fy,	-987.5	**-32.8**	11.1	0.0	-163.4	529.9	-639.4	**0.0**	5.6	0.0	-32.3	0.0
Fz,	-514.5	-29.5	**-54.7**	0.0	-868.7	476.9	-1017.1	0.0	**86.0**	0.0	925.7	0.0
Mx,	-842.3	-29.5	-25.9	**0.0**	-658.7	476.9	-639.4	0.0	5.6	**0.0**	-32.3	0.0
My,	-522.5	-29.5	-51.7	0.0	**-874.3**	476.9	-1033.8	0.0	85.9	0.0	**928.1**	0.0
Mz,	-842.2	0.0	-25.9	0.0	-658.7	**0.0**	-639.6	-32.8	5.6	0.0	-32.3	**529.9**

Member 402

Fx,	**-1068.8**	0.0	38.7	0.0	-254.2	0.0	**-343.3**	0.0	-43.3	0.0	-64.7	0.0
Fy,	-745.2	**0.0**	-20.0	0.0	-276.8	0.0	-530.3	**0.0**	5.7	0.0	-122.5	0.0
Fz,	-415.4	0.0	**-48.5**	0.0	-21.5	0.0	-916.6	0.0	**79.8**	0.0	-427.6	0.0
Mx,	-745.2	0.0	-20.0	**0.0**	-276.8	0.0	-530.3	0.0	5.7	**0.0**	-122.5	0.0
My,	-984.1	0.0	54.3	0.0	**-442.3**	0.0	-574.3	0.0	-46.9	0.0	**7.4**	0.0
Mz,	-745.2	0.0	-20.0	0.0	-276.8	**0.0**	-530.3	0.0	5.7	0.0	-122.5	**0.0**
Fx,	**-1177.4**	0.0	38.7	0.0	377.1	0.0	**-441.1**	-29.5	-48.0	0.0	-810.7	482.2
Fy,	-987.8	**-32.8**	11.5	0.0	-155.3	535.7	-638.9	**0.0**	5.7	0.0	-29.6	0.0
Fz,	-513.2	0.0	**-53.2**	0.0	-852.0	0.0	-1014.3	-29.5	**84.5**	0.0	914.9	482.2
Mx,	-843.0	-29.5	-24.7	**0.0**	-641.7	482.2	-638.9	0.0	5.7	**0.0**	-29.6	0.0
My,	-531.6	0.0	-50.2	0.0	**-857.3**	0.0	-1020.6	-29.5	84.4	0.0	**917.3**	482.2
Mz,	-843.5	0.0	-24.7	0.0	-641.7	**0.0**	-638.4	-32.8	5.7	0.0	-29.6	**535.7**

Member 403

Fx,	**-1080.6**	0.0	39.2	0.0	-245.1	0.0	**-367.2**	0.0	-38.9	0.0	-85.5	0.0
Fy,	-754.7	**0.0**	-14.8	0.0	-294.0	0.0	-536.6	**0.0**	6.3	0.0	-122.3	0.0
Fz,	-439.6	0.0	**-43.5**	0.0	-47.8	0.0	-921.6	0.0	**77.4**	0.0	-399.9	0.0
Mx,	-754.7	0.0	-14.8	**0.0**	-294.0	0.0	-536.6	0.0	6.3	**0.0**	-122.3	0.0
My,	-961.1	0.0	25.0	0.0	**-430.9**	0.0	-633.5	0.0	-15.5	0.0	**-15.1**	0.0
Mz,	-754.7	0.0	-14.8	0.0	-294.0	**0.0**	-536.6	0.0	6.3	0.0	-122.3	**0.0**
Fx,	**-1182.6**	-33.0	39.2	0.0	355.6	507.1	**-459.1**	0.0	-43.3	0.0	-716.2	0.0
Fy,	-985.3	**-33.0**	14.5	0.0	-124.2	507.1	-638.7	**0.0**	6.3	0.0	-26.1	0.0
Fz,	-531.4	-29.7	**-47.9**	0.0	-748.5	456.4	-1013.5	0.0	**81.9**	0.0	822.1	0.0
Mx,	-846.5	-29.7	-19.2	**0.0**	-554.9	456.4	-638.7	0.0	6.3	**0.0**	-26.1	0.0
My,	-553.1	-29.7	-44.3	0.0	**-756.1**	456.4	-1018.0	0.0	81.7	0.0	**824.1**	0.0
Mz,	-844.5	0.0	-19.2	0.0	-554.9	**0.0**	-641.0	-33.0	6.3	0.0	-26.1	**507.1**

Member 404

Fx,	**-931.1**	0.0	40.0	0.0	-198.1	0.0	**-279.0**	0.0	-38.3	0.0	-140.5	0.0
Fy,	-663.3	**0.0**	-12.1	0.0	-306.7	0.0	-447.2	**0.0**	5.3	0.0	-124.0	0.0
Fz,	-389.1	0.0	**-44.1**	0.0	-112.6	0.0	-739.7	0.0	**78.7**	0.0	-300.0	0.0
Mx,	-663.3	0.0	-12.1	**0.0**	-306.7	0.0	-447.2	0.0	5.3	**0.0**	-124.0	0.0
My,	-815.5	0.0	24.9	0.0	**-394.0**	0.0	-509.7	0.0	37.9	0.0	**-25.0**	0.0
Mz,	-663.3	0.0	-12.1	0.0	-306.7	**0.0**	-447.2	0.0	5.3	0.0	-124.0	**0.0**
Fx,	**-1007.3**	0.0	40.0	0.0	260.3	0.0	**-347.6**	-4.9	-41.6	0.0	-598.6	56.7
Fy,	-844.6	**-27.5**	16.2	0.0	-138.6	315.1	-523.4	**0.0**	5.3	0.0	-62.8	0.0
Fz,	-457.7	0.0	**-47.4**	0.0	-637.0	0.0	-808.3	-4.9	**82.0**	0.0	620.8	56.7
Mx,	-731.9	-24.8	-15.4	**0.0**	-464.6	283.6	-523.4	0.0	5.3	**0.0**	-62.8	0.0
My,	-479.3	0.0	-44.4	0.0	**-644.0**	0.0	-801.8	-4.9	81.4	0.0	**628.5**	56.7
Mz,	-750.7	0.0	-15.4	0.0	-464.7	**0.0**	-502.5	-27.5	5.3	0.0	-62.7	**315.1**

Member 405

Fx,	**-1065.9**	7.8	32.3	0.0	0.0	0.0	**764.8**	11.7	-153.1	-0.0	0.0	0.0
Fy,	-519.5	**-172.4**	-51.7	-0.0	0.0	-0.0	127.0	**21.3**	-21.2	-0.0	0.0	0.0
Fz,	131.4	-144.2	**-162.9**	-0.0	0.0	-0.0	-450.0	9.5	**58.3**	-0.0	0.0	0.0
Mx,	-691.2	10.0	-61.3	**-0.0**	0.0	0.0	243.0	5.7	-47.2	**0.0**	0.0	0.0
My,	101.1	9.8	-57.8	-0.0	**0.0**	0.0	-135.3	-161.6	-101.8	-0.0	**0.0**	-0.0
Mz,	-305.9	-171.3	-65.1	-0.0	0.0	**-0.0**	128.1	20.0	-16.1	-0.0	0.0	**0.0**
Fx,	**-1065.9**	7.8	32.3	0.0	64.6	-15.5	**764.8**	11.7	-153.1	-0.0	-306.2	-23.5
Fy,	-519.5	**-172.4**	-51.7	-0.0	-103.3	344.8	127.0	**21.3**	-21.2	-0.0	-42.4	-42.7
Fz,	131.4	-144.2	**-162.9**	-0.0	-325.9	288.3	-450.0	9.5	**58.3**	-0.0	116.7	-19.1
Mx,	-691.2	10.0	-61.3	**-0.0**	-122.6	-20.0	243.0	5.7	-47.2	**0.0**	-94.4	-11.5
My,	131.4	-144.2	-162.9	-0.0	**-325.9**	288.3	-450.0	9.5	58.3	-0.0	**116.7**	-19.1
Mz,	127.0	21.3	-21.2	-0.0	-42.4	**-42.7**	-519.5	-172.4	-51.7	-0.0	-103.3	**344.8**

Member 406

Fx,	**-1065.9**	7.8	-32.3	0.0	0.0	0.0	**764.8**	11.7	153.1	0.0	0.0	0.0
Fy,	-519.5	**-172.4**	51.7	0.0	0.0	-0.0	126.2	**21.3**	21.3	0.0	0.0	0.0
Fz,	-450.0	9.5	**-58.3**	0.0	0.0	0.0	130.7	-144.2	**163.1**	0.0	0.0	-0.0
Mx,	-473.1	6.5	56.9	**0.0**	0.0	0.0	499.3	-162.8	78.8	**0.0**	0.0	-0.0
My,	-818.7	-149.9	-20.1	0.0	**0.0**	-0.0	162.2	14.0	85.4	0.0	**0.0**	-0.0
Mz,	-315.2	-168.7	75.0	0.0	0.0	**-0.0**	171.9	20.0	36.3	0.0	0.0	**0.0**
Fx,	**-1065.9**	7.8	-32.3	0.0	-64.6	-15.5	**764.8**	11.7	153.1	0.0	306.2	-23.5
Fy,	-519.5	**-172.4**	51.7	0.0	103.3	344.8	126.2	**21.3**	21.3	0.0	42.7	-42.7
Fz,	-450.0	9.5	**-58.3**	0.0	-116.7	-19.1	130.7	-144.2	**163.1**	0.0	326.1	288.3
Mx,	-473.1	6.5	56.9	**0.0**	113.9	-13.0	499.3	-162.8	78.8	**0.0**	157.6	325.6
My,	-450.0	9.5	-58.3	0.0	**-116.7**	-19.1	130.7	-144.2	163.1	0.0	**326.1**	288.3
Mz,	126.2	21.3	21.3	0.0	42.7	**-42.7**	-519.5	-172.4	51.7	0.0	103.3	**344.8**

Member 421

Fx,	**-1987.5**	0.0	-3.2	0.0	-137.3	0.0	**-862.2**	-46.8	17.1	-0.0	371.2	630.6
Fy,	-1713.8	**-52.0**	-2.7	-0.0	-129.8	700.7	-1071.8	**0.0**	0.0	0.0	0.0	0.0
Fz,	-1367.2	-3.5	**-37.8**	-0.0	-454.0	47.5	-1426.3	0.0	**37.8**	0.0	454.0	0.0
Mx,	-1713.8	-52.0	-2.7	**-0.0**	-129.8	700.7	-1071.8	0.0	0.0	**0.0**	0.0	0.0
My,	-1301.2	-3.5	-10.3	-0.0	**-1214.8**	47.5	-1277.3	0.0	10.4	0.0	**1214.9**	0.0
Mz,	-1559.2	0.0	-16.7	0.0	-364.5	**0.0**	-1053.1	-52.0	0.0	-0.0	0.0	**700.7**
Fx,	**-1987.5**	0.0	-3.2	0.0	-140.5	0.0	**-862.2**	-46.8	17.1	-0.0	388.3	677.4
Fy,	-1713.8	**-52.0**	-2.7	-0.0	-132.6	752.7	-1071.8	**0.0**	0.0	0.0	0.0	0.0
Fz,	-1367.2	-3.5	**-37.8**	-0.0	-491.8	51.1	-1426.3	0.0	**37.8**	0.0	491.8	0.0
Mx,	-1713.8	-52.0	-2.7	**-0.0**	-132.6	752.7	-1071.8	0.0	0.0	**0.0**	0.0	0.0
My,	-1303.1	-3.5	-11.2	-0.0	**-1225.2**	51.1	-1279.2	0.0	11.3	0.0	**1225.4**	0.0
Mz,	-1559.2	0.0	-16.7	0.0	-381.2	**0.0**	-1053.1	-52.0	**0.0**	-0.0	0.0	**752.7**

Member 422

Fx,	**-2198.8**	-10.9	28.2	-0.0	499.5	134.9	**-1016.3**	0.0	-92.3	0.0	-1443.0	0.0
Fy,	-2009.2	**-54.4**	-30.6	-0.0	-532.7	674.3	-1238.7	**0.0**	0.0	0.0	-0.0	0.0
Fz,	-1515.7	-9.8	**-113.4**	-0.0	-1740.0	121.4	-1501.7	0.0	**113.3**	0.0	1778.7	0.0
Mx,	-2009.2	-54.4	-30.6	**-0.0**	-532.7	674.3	-1238.7	0.0	0.0	**0.0**	-0.0	0.0
My,	-1524.3	-9.8	-96.9	-0.0	**-2601.5**	121.4	-1488.7	0.0	97.1	0.0	**2602.8**	0.0
Mz,	-1807.1	0.0	-94.4	0.0	-1472.8	**0.0**	-1240.0	-54.4	0.0	-0.0	-0.0	**674.3**
Fx,	**-2198.8**	-10.9	28.2	-0.0	527.7	145.7	**-1016.3**	0.0	-92.3	0.0	-1535.3	0.0
Fy,	-2009.2	**-54.4**	-30.6	-0.0	-563.3	728.7	-1238.7	**0.0**	0.0	0.0	-0.0	0.0
Fz,	**-1515.7**	-9.8	**-113.4**	-0.0	-1853.4	131.2	-1501.7	0.0	**113.3**	0.0	1892.0	0.0
Mx,	-2009.2	-54.4	-30.6	**-0.0**	-563.3	728.7	-1238.7	0.0	0.0	**0.0**	-0.0	0.0
My,	-1521.9	-9.8	-97.2	-0.0	**-2698.4**	131.2	-1486.3	0.0	97.5	0.0	**2699.9**	0.0
Mz,	-1807.1	0.0	-94.4	0.0	-1567.3	**0.0**	-1240.0	-54.4	0.0	-0.0	-0.0	**728.7**

Member 423

Fx,	**-2230.7**	0.0	30.3	0.0	624.7	0.0	**-1026.5**	-59.5	38.0	-0.0	588.0	924.7
Fy,	-2014.3	**-66.1**	-29.3	-0.0	-608.1	1027.4	-1267.1	**0.0**	0.0	0.0	-0.0	0.0
Fz,	-1503.2	-11.9	**-110.0**	-0.0	-1849.6	184.9	-1544.0	0.0	**109.9**	0.0	1887.8	0.0
Mx,	-2014.3	-66.1	-29.3	**-0.0**	-608.1	1027.4	-1267.1	0.0	0.0	**0.0**	-0.0	0.0
My,	-1531.0	-11.9	-95.3	-0.0	**-2832.6**	184.9	-1533.7	0.0	95.5	0.0	**2833.1**	0.0
Mz,	-1813.5	0.0	-91.6	0.0	-1697.5	**0.0**	-1266.4	-66.1	0.0	-0.0	-0.0	**1027.4**
Fx,	**-2230.7**	0.0	30.3	0.0	655.0	0.0	**-1026.5**	-59.5	38.0	-0.0	625.9	984.1
Fy,	-2014.3	**-66.1**	-29.3	-0.0	-637.4	1093.5	-1267.1	**0.0**	0.0	0.0	-0.0	0.0
Fz,	-1503.2	-11.9	**-110.0**	-0.0	-1959.6	196.8	-1544.0	0.0	**109.9**	0.0	1997.7	0.0
Mx,	-2014.3	-66.1	-29.3	**-0.0**	-637.4	1093.5	-1267.1	0.0	0.0	**0.0**	-0.0	0.0
My,	-1528.7	-11.9	-95.6	-0.0	**-2928.1**	196.8	-1531.3	0.0	95.8	0.0	**2928.7**	0.0
Mz,	-1813.5	0.0	-91.6	0.0	-1789.0	**0.0**	-1266.4	-66.1	0.0	-0.0	-0.0	**1093.5**

Member 424

Fx,	**-2248.7**	-65.6	-34.7	-0.0	-721.3	1059.8	**-1037.1**	0.0	103.1	0.0	1951.2	0.0
Fy,	-2031.1	**-65.6**	-32.6	-0.0	-684.3	1059.8	-1278.7	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-1516.7	0.0	**-119.5**	0.0	-2089.9	0.0	-1569.9	-11.8	**119.4**	-0.0	2128.1	190.5
Mx,	-2031.1	-65.6	-32.6	**-0.0**	-684.3	1059.8	-1278.7	0.0	-0.0	**0.0**	-0.0	0.0
My,	-1514.7	0.0	-105.9	0.0	**-3074.2**	0.0	-1529.1	-11.8	106.0	-0.0	**3075.2**	190.5
Mz,	-1827.6	0.0	-101.2	0.0	-1917.9	**0.0**	-1279.1	-65.6	-0.0	-0.0	-0.0	**1059.8**
Fx,	**-2248.7**	-65.6	-34.7	-0.0	-755.0	1125.4	**-1037.1**	0.0	103.1	0.0	2054.3	0.0
Fy,	-2031.1	**-65.6**	-32.6	-0.0	-716.9	1125.4	-1278.7	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-1516.7	0.0	**-119.5**	0.0	-2209.4	0.0	-1569.9	-11.8	**119.4**	-0.0	2247.5	202.3
Mx,	-2031.1	-65.6	-32.6	**-0.0**	-716.9	1125.4	-1278.7	0.0	-0.0	**0.0**	-0.0	0.0
My,	-1514.8	0.0	-106.0	0.0	**-3180.1**	0.0	-1529.3	-11.8	106.1	-0.0	**3181.2**	202.3
Mz,	-1827.6	0.0	-101.2	0.0	-2019.1	**0.0**	-1279.1	-65.6	-0.0	-0.0	-0.0	**1125.4**

Member 425

Fx,	**-2241.5**	0.0	29.6	0.0	636.0	0.0	**-1036.1**	-59.0	-96.7	-0.0	-1852.3	964.3
Fy,	-2031.1	**-65.6**	-31.6	-0.0	-672.3	1071.4	-1277.8	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-1514.3	0.0	**-116.9**	0.0	-2048.4	0.0	-1558.4	-11.8	**116.8**	-0.0	2086.5	192.9
Mx,	-2031.1	-65.6	-31.6	**-0.0**	-672.3	1071.4	-1277.8	0.0	-0.0	**0.0**	-0.0	0.0
My,	-1510.6	0.0	-103.1	0.0	**-3037.9**	0.0	-1542.9	-11.8	103.3	-0.0	**3038.9**	192.9
Mz,	-1828.9	0.0	-98.5	0.0	-1885.0	**0.0**	-1276.8	-65.6	-0.0	-0.0	-0.0	**1071.4**
Fx,	**-2241.5**	0.0	29.6	0.0	655.5	0.0	**-1036.1**	-59.0	-96.7	-0.0	-1949.0	1023.3
Fy,	-2031.1	**-65.6**	-31.6	-0.0	-703.9	1137.0	-1277.8	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-1514.3	0.0	**-116.9**	0.0	-2165.3	0.0	-1558.4	-11.8	**116.8**	-0.0	2203.3	204.7
Mx,	-2031.1	-65.6	-31.6	**-0.0**	-703.9	1137.0	-1277.8	0.0	-0.0	**0.0**	-0.0	0.0
My,	-1508.2	0.0	-103.4	0.0	**-3141.1**	0.0	-1540.5	-11.8	103.5	-0.0	**3142.2**	204.7
Mz,	-1828.9	0.0	-98.5	0.0	-1983.5	**0.0**	-1276.8	-65.6	-0.0	-0.0	-0.0	**1137.0**

Member 426

Fx,	**-2258.3**	-66.1	28.1	-0.0	582.2	1014.2	**-1054.6**	0.0	-89.9	0.0	-1652.0	0.0
Fy,	-2020.5	**-66.1**	-29.1	-0.0	-598.8	1014.2	-1277.3	**0.0**	0.0	0.0	-0.0	0.0
Fz,	-1554.7	0.0	**-107.6**	0.0	-1817.6	0.0	-1546.0	-11.9	**107.6**	-0.0	1855.9	182.6
Mx,	-2020.5	-66.1	-29.1	**-0.0**	-598.8	1014.2	-1277.3	0.0	0.0	**0.0**	-0.0	0.0
My,	-1576.0	0.0	-93.6	0.0	**-2804.0**	0.0	-1519.8	-11.9	93.6	-0.0	**2804.0**	182.6
Mz,	-1814.3	0.0	-90.8	0.0	-1666.9	**0.0**	-1281.9	-66.1	0.0	-0.0	-0.0	**1014.2**
Fx,	**-2258.3**	-66.1	28.1	-0.0	610.3	1080.3	**-1054.6**	0.0	-89.9	0.0	-1741.9	0.0
Fy,	-2020.5	**-66.1**	-29.1	-0.0	-627.9	1080.3	-1277.3	**0.0**	0.0	0.0	-0.0	0.0
Fz,	-1554.7	0.0	**-107.6**	0.0	-1925.2	0.0	-1546.0	-11.9	**107.6**	-0.0	1963.5	194.4
Mx,	-2020.5	-66.1	-29.1	**-0.0**	-627.9	1080.3	-1277.3	0.0	0.0	**0.0**	-0.0	0.0
My,	-1573.6	0.0	-93.9	0.0	**-2897.6**	0.0	-1517.4	-11.9	93.9	-0.0	**2897.6**	194.4
Mz,	-1814.3	0.0	-90.8	0.0	-1757.8	**0.0**	-1281.9	-66.1	0.0	-0.0	-0.0	**1080.3**

Member 427

Fx,	**-1926.1**	0.0	-25.6	0.0	-434.4	0.0	**-793.6**	-9.9	83.0	-0.0	1240.3	113.5
Fy,	-1726.7	**-55.0**	-28.4	-0.0	-475.3	630.3	-1046.8	**0.0**	0.0	0.0	-0.0	0.0
Fz,	-1341.2	0.0	**-106.3**	0.0	-1580.3	0.0	-1217.6	-9.9	**106.2**	-0.0	1615.7	113.5
Mx,	-1726.7	-55.0	-28.4	**-0.0**	-475.3	630.3	-1046.8	0.0	0.0	**0.0**	-0.0	0.0

My,	-1235.1	0.0	-92.5	0.0	**-2290.0**	0.0	-1239.1	-9.9	92.5	-0.0	**2290.0**	113.5
Mz,	-1591.6	0.0	-85.5	0.0	-1277.1	**0.0**	-1005.0	-55.0	0.0	-0.0	-0.0	**630.3**
Fx,	**-1926.1**	0.0	-25.6	0.0	-460.0	0.0	**-793.6**	-9.9	**83.0**	-0.0	1323.3	123.4
Fy,	-1726.7	**-55.0**	-28.4	-0.0	-503.7	685.3	-1046.8	**0.0**	0.0	0.0	-0.0	0.0
Fz,	-1341.2	0.0	**-106.3**	0.0	-1686.6	0.0	-1217.6	-9.9	**106.2**	-0.0	1721.8	123.4
Mx,	-1726.7	-55.0	-28.4	**-0.0**	-503.7	685.3	-1046.8	0.0	0.0	**0.0**	-0.0	0.0
My,	-1234.3	0.0	-92.5	0.0	**-2382.5**	0.0	-1238.3	-9.9	92.5	-0.0	**2382.5**	123.4
Mz,	-1591.6	0.0	-85.5	0.0	-1362.6	**0.0**	-1005.0	-55.0	0.0	-0.0	-0.0	**685.3**

*** Fin del listado ***

envolvente caracteristica UIC

Program Envolvator (release 1.3 - Jun 1998)
Calculation date: 28-abr-1999 20:10 h. Listing date: 28-abr-1999 20:12 h.
Members: 419
Joints: 353
Envelope generated from:

Name	min.	max.
Hipotesis I UIC	1.00	1.00
Hipotesis II UIC	1.00	1.00
Hipotesis IV UIC	1.00	1.00

	Fx	Fy	Fz	Mx	My	Mz	Fx	Fy	Fz	Mx	My	Mz
Member 1												
Fx,	**-1135.6**	-213.8	70.6	-28.1	-491.4	-15.0	**956.3**	-160.4	-68.4	-115.8	423.6	-26.1
Fy,	-917.7	**-293.4**	65.8	-68.3	-444.9	-33.9	1079.2	**-31.6**	-60.7	-64.3	360.4	333.9
Fz,	-489.5	-167.7	**-77.8**	-69.9	400.6	-21.7	307.6	-155.6	**81.1**	-64.9	-470.3	320.7
Mx,	-32.2	-203.8	-54.9	**-204.1**	345.5	317.9	-150.0	-126.2	58.9	**17.6**	-417.9	-19.4
My,	287.5	-157.3	74.0	-60.4	**-496.0**	320.5	-468.7	-169.1	-70.6	-83.3	**426.4**	-21.8
Mz,	325.0	-254.2	66.7	-60.0	-446.1	**-45.1**	-517.4	-58.1	-61.5	-64.3	361.6	**344.1**
Fx,	**-1128.9**	-127.9	65.6	-16.5	-241.6	589.9	**949.6**	-104.8	-63.4	-88.2	181.9	481.7
Fy,	-911.1	**-199.9**	60.6	-50.4	-213.1	785.3	1072.4	**10.2**	-55.2	-39.0	147.7	445.9
Fz,	-480.1	-110.2	**-69.7**	-48.2	151.4	466.2	298.2	-71.7	**73.0**	-47.4	-208.9	758.9
Mx,	-25.3	-111.6	-50.5	**-139.5**	152.8	816.9	-156.7	-82.8	54.4	**15.6**	-210.5	430.3
My,	-189.6	-91.1	54.1	-14.6	**-244.0**	449.9	7.3	-83.1	-50.9	-83.9	**185.3**	755.5
Mz,	1072.5	-24.7	-55.6	-44.1	147.3	**170.8**	-911.2	-154.4	60.7	-48.4	-213.0	**1021.3**
Member 2												
Fx,	**-1069.7**	-120.1	63.9	-16.4	-420.3	564.1	**889.7**	-106.1	-63.4	-93.3	357.7	476.1
Fy,	-857.0	**-197.7**	59.5	-46.1	-378.8	785.2	1020.6	**9.0**	-55.7	-42.5	301.7	446.4
Fz,	-541.9	-114.6	**-71.7**	-70.2	340.2	477.3	360.5	-70.3	**73.1**	-36.8	-403.2	764.3
Mx,	-74.6	-112.2	-52.6	**-144.2**	296.3	817.1	-107.0	-82.2	54.5	**17.4**	-351.0	430.1
My,	341.0	-70.6	67.1	-36.3	**-423.0**	765.2	-521.7	-124.3	-65.4	-78.1	**360.1**	508.7
Mz,	1021.2	-25.5	-55.5	-46.1	301.8	**171.4**	-857.5	-152.5	59.2	-44.8	-378.8	**1021.1**
Fx,	**-1063.0**	-34.2	58.9	-4.7	-195.1	825.4	**883.0**	-25.7	-58.3	-39.8	134.6	739.2
Fy,	-849.9	**-110.9**	54.2	-33.6	-170.0	1182.2	1009.1	**59.9**	-49.9	-16.1	103.9	622.1
Fz,	-532.5	-58.9	**-64.1**	-42.6	105.1	773.9	351.1	15.4	**65.5**	-25.2	-162.8	886.4
Mx,	-67.5	-26.4	-47.8	**-90.7**	112.5	919.3	-113.2	-25.1	49.9	**32.0**	-169.2	821.3
My,	-140.3	-28.4	48.8	-9.8	**-198.1**	687.0	-41.9	-0.7	-47.4	-35.1	**139.2**	884.8
Mz,	1014.4	12.4	-50.4	-25.9	107.6	**216.8**	-850.8	-46.2	54.1	-23.9	-171.1	**1359.8**
Member 3												
Fx,	**-1009.8**	-33.2	57.6	-2.8	-354.4	825.4	**829.6**	-31.0	-56.9	-54.3	292.9	741.2
Fy,	-425.0	**-111.9**	-47.1	-73.1	238.8	956.3	596.4	**57.7**	46.9	-0.2	-298.6	654.0
Fz,	-586.4	-74.3	**-65.7**	-65.7	284.0	857.9	405.2	20.3	**66.1**	-13.4	-343.3	886.8
Mx,	-106.0	-26.4	-49.4	**-94.0**	252.8	921.4	-72.8	-25.2	50.1	**29.0**	-311.1	816.6
My,	385.7	20.6	59.4	-5.8	**-356.5**	845.1	-568.6	-73.3	-59.9	-65.9	**296.7**	847.6
Mz,	968.2	11.5	-50.4	-28.5	246.7	**217.2**	-802.3	-42.9	53.4	-17.5	-318.6	**1359.7**
Fx,	**-1003.0**	49.6	52.6	8.8	-152.5	773.7	**822.9**	46.3	-51.9	-0.7	93.5	734.7
Fy,	-417.6	**-50.0**	-42.6	-28.9	75.0	1007.9	589.5	**135.9**	42.0	12.6	-136.1	553.7
Fz,	-576.9	2.9	**-58.6**	-12.3	64.5	967.1	395.8	102.9	**58.9**	-1.8	-122.6	682.6
Mx,	-98.9	51.8	-44.6	**-45.1**	80.8	689.2	-79.1	37.2	44.9	**50.5**	-136.5	1041.4
My,	-93.9	27.4	41.0	-1.9	**-158.2**	718.1	-90.9	78.2	-38.6	9.1	**99.8**	721.8
Mz,	67.5	34.6	-46.3	-8.3	67.4	**132.7**	98.5	18.5	49.1	-0.8	-128.6	**1445.8**
Member 4												
Fx,	**-955.4**	41.1	51.3	11.4	-294.1	686.9	**775.5**	39.0	-51.3	-24.7	235.7	722.5
Fy,	-451.4	**-57.3**	-45.7	-52.0	203.5	1005.0	620.3	**138.3**	46.1	19.3	-255.8	649.2
Fz,	262.0	12.4	**-60.0**	-30.6	227.3	987.9	-443.2	94.5	**59.2**	13.9	-283.1	651.8
Mx,	-135.5	10.5	-50.3	**-61.1**	218.2	643.8	-45.4	62.1	48.8	**45.4**	-273.3	1037.8
My,	426.7	114.1	53.1	14.2	**-296.2**	555.3	-610.2	8.1	-54.4	-26.6	**238.9**	1023.2
Mz,	26.8	33.5	-46.0	-11.2	196.2	**132.9**	141.4	22.8	48.1	7.8	-262.8	**1445.8**
Fx,	**-948.7**	99.1	46.2	11.8	-115.4	408.5	**768.8**	116.3	-46.3	28.8	56.8	459.3
Fy,	-444.6	**-1.0**	-41.1	-7.5	44.5	865.8	613.7	**220.2**	41.1	31.5	-105.9	189.0
Fz,	258.1	93.3	**-53.2**	24.4	24.6	815.6	-439.3	173.6	**52.4**	24.1	-83.2	148.8
Mx,	-395.4	73.6	23.8	**-21.1**	-92.5	270.9	214.9	140.2	-26.2	**75.2**	30.5	849.4
My,	-45.5	73.9	25.7	10.7	**-130.0**	712.8	-134.4	123.9	-26.4	15.6	**72.2**	159.5

Mz,	-258.0	142.5	36.5	11.3	-107.6	**-231.2**	421.5	97.6	-33.7	22.7	45.8	**1204.3**

Member 5

Fx,	**-908.2**	93.0	39.4	36.9	-230.6	436.8	**729.0**	118.0	-41.2	12.9	178.0	444.8
Fy,	-483.1	**-6.9**	-43.2	-25.6	161.4	865.2	652.7	**225.9**	41.6	45.0	-217.8	194.5
Fz,	213.1	92.4	**-55.1**	4.4	178.6	839.3	-394.2	163.0	**52.1**	32.7	-228.7	54.1
Mx,	-171.8	60.1	-45.2	**-37.7**	166.3	417.0	-8.5	154.9	42.4	**83.9**	-217.1	822.9
My,	462.3	175.8	46.5	24.6	**-240.8**	52.4	-644.5	85.3	-48.6	10.7	**187.9**	792.0
Mz,	-224.3	145.6	35.6	19.7	-205.3	**-231.2**	390.9	96.3	-34.7	15.3	141.3	**1204.2**
Fx,	**-901.5**	152.2	34.4	43.2	-95.3	-34.5	**722.3**	175.5	-36.1	34.7	36.3	-71.9
Fy,	-476.8	**41.6**	-36.3	13.2	15.2	657.9	646.0	**314.4**	36.4	58.2	-74.7	-644.0
Fz,	209.1	186.6	**-48.7**	70.2	-8.8	364.8	-390.2	220.5	**45.7**	31.7	-52.4	-670.6
Mx,	-366.5	120.0	20.3	**-8.3**	-75.9	-167.4	187.8	230.1	-23.0	**124.6**	16.8	279.0
My,	-20.9	201.1	24.2	63.4	**-116.0**	288.2	-159.8	181.6	-27.3	36.5	**54.7**	-475.1
Mz,	-219.5	212.0	32.2	28.0	-82.8	**-916.2**	388.9	157.6	-34.6	74.9	18.9	**807.4**

Member 6

Fx,	**-857.1**	159.0	25.1	41.1	-216.2	168.8	**677.9**	167.3	-30.3	28.8	171.2	-158.3
Fy,	-521.8	**37.3**	-36.8	0.4	148.1	658.0	693.1	**319.2**	33.3	69.9	-199.4	-644.0
Fz,	157.0	186.4	**-52.2**	52.3	162.2	313.4	-343.9	229.6	**44.0**	37.4	-211.7	-682.6
Mx,	-211.5	103.3	-39.1	**-11.5**	152.8	-114.7	31.8	247.0	32.9	**125.4**	-195.2	227.2
My,	-363.0	205.3	37.8	34.1	**-231.9**	-610.7	181.5	178.9	-44.0	56.0	**187.6**	337.0
Mz,	-176.9	215.3	29.7	37.2	-200.6	**-916.4**	346.4	149.8	-35.6	49.8	151.0	**808.5**
Fx,	**-850.3**	242.9	20.1	54.1	-133.4	-589.4	**671.2**	224.8	-25.3	46.1	69.2	-855.5
Fy,	-514.5	**78.2**	-30.8	22.1	25.3	387.0	686.4	**402.7**	28.1	74.8	-86.7	-1914.9
Fz,	150.2	290.8	**-47.2**	124.5	-20.0	-534.8	-337.2	290.6	**39.0**	33.4	-59.5	-1657.7
Mx,	-332.2	206.9	14.1	**-9.1**	-96.7	-1217.4	151.8	309.2	-23.2	**165.1**	26.2	-644.9
My,	7.6	306.8	6.1	109.3	**-152.8**	-617.7	-188.3	237.8	-14.8	53.6	**82.2**	-1264.3
Mz,	-167.4	363.6	26.8	60.0	-92.8	**-1985.7**	339.3	90.0	-29.3	22.2	31.5	**387.1**

Member 7

Fx,	**-803.0**	-371.9	25.3	-145.8	-204.4	-643.5	**647.9**	-303.8	-17.2	-87.5	136.2	-937.5
Fy	-319.1	**-501.4**	38.3	-105.4	-174.4	-1943.7	161.5	**-136.2**	-32.8	-76.5	109.9	412.3
Fz,	-235.4	-289.0	**-43.3**	-109.1	109.4	-1116.6	79.4	-431.8	**50.5**	-179.9	-174.2	-790.8
Mx,	161.2	-397.4	-16.1	**-271.1**	73.2	-571.9	-320.1	-361.5	24.1	**35.9**	-145.9	-1503.9
My,	54.3	-384.6	30.7	-149.0	**-210.7**	-649.7	-211.0	-292.3	-23.5	-71.7	**144.8**	-1159.3
Mz,	-318.8	-487.1	38.4	-84.7	-173.9	**-2010.5**	162.1	-136.2	-32.5	-76.9	110.3	**412.5**
Fx,	**-794.8**	-258.6	29.1	-100.9	-64.6	733.7	**639.7**	-233.3	-21.0	-66.2	32.7	297.5
Fy,	-310.4	**-392.0**	32.0	-91.2	-15.3	-53.9	152.3	**-86.0**	-26.2	-48.6	-24.3	986.7
Fz,	-226.8	-218.4	**-34.0**	-87.7	-45.9	-1.4	70.7	-298.0	**41.2**	-113.4	13.5	873.0
Mx,	154.9	-290.1	-10.6	**-203.1**	16.8	913.0	-312.4	-288.5	18.2	**35.1**	-51.8	-33.8
My,	-331.7	-228.3	19.6	-77.3	**-83.4**	40.6	175.1	-265.1	-12.3	-94.8	**49.5**	813.4
Mz,	-315.0	-296.0	29.3	-41.1	-29.4	**-245.2**	156.0	-176.5	-22.7	-80.5	-10.1	**1114.1**

Member 8

Fx,	**-780.0**	-254.3	16.1	-95.3	-122.8	736.5	**624.9**	-235.8	-12.8	-76.8	73.4	299.7
Fy,	-289.7	**-386.3**	28.3	-79.3	-102.7	-56.4	130.7	**-90.9**	-25.1	-63.2	51.2	987.8
Fz,	-254.9	-224.1	**-37.1**	-111.4	51.8	3.8	97.0	-280.7	**40.0**	-69.8	-100.9	862.1
Mx,	142.5	-302.0	-12.7	**-216.3**	54.0	888.0	-300.2	-288.5	16.8	**34.2**	-106.2	-37.2
My,	59.3	-255.5	20.0	-100.8	**-129.8**	868.0	-215.9	-239.3	-16.8	-64.5	**80.8**	-58.0
Mz,	-292.9	-292.6	27.2	-33.2	-103.3	**-246.4**	134.5	-185.6	-23.5	-110.0	51.3	**1113.7**
Fx,	**-771.7**	-151.3	19.9	-55.8	-24.1	1622.5	**616.6**	-165.3	-16.6	-50.1	-10.1	1228.7
Fy,	-281.5	**-281.3**	22.0	-65.7	10.5	1257.1	121.4	**-33.2**	-18.5	-9.6	-48.0	1475.2
Fz,	-246.3	-153.5	**-27.8**	-84.7	-76.2	826.9	88.4	-167.5	**30.7**	-19.5	39.8	1882.2
Mx,	135.3	-198.8	-16.7	**-154.0**	-28.5	1897.6	-292.4	-205.9	20.8	**47.1**	-4.5	1266.1
My,	-265.0	-147.5	-23.7	-91.6	**-86.4**	810.4	108.4	-174.7	27.1	-16.3	**52.0**	1877.6
Mz,	-240.4	-94.3	-20.0	-47.2	-53.6	**396.5**	81.5	-230.7	23.3	-50.9	16.7	**2221.1**

Member 9

Fx,	**-754.4**	-144.4	11.5	-45.9	-90.9	1622.4	**599.3**	-172.2	-9.3	-70.1	52.0	1228.8
Fy	-261.4	**-274.4**	20.9	-51.3	-62.0	1239.9	102.3	**-40.3**	-18.2	-31.8	19.1	1477.5
Fz	-272.4	-158.3	**-30.5**	-88.5	14.7	804.0	115.5	-173.4	**32.5**	-14.4	-53.0	1933.1
Mx,	108.3	-208.6	-17.2	**-164.6**	23.8	1917.5	-268.4	-105.7	19.8	**35.8**	-67.3	796.6
My	68.5	-147.9	13.3	-58.2	**-93.2**	1818.2	-225.2	-175.8	-11.3	-57.1	**54.3**	834.8
Mz	-264.1	-96.3	-20.2	-53.0	16.7	**397.6**	105.8	-225.3	22.7	-42.7	-58.4	**2220.1**
Fx,	**-746.2**	-75.5	15.3	-38.2	-13.2	2090.8	**591.1**	-75.0	-13.1	-11.6	-16.0	1811.5
Fy,	-253.7	**-177.2**	14.7	-39.3	17.7	2013.3	95.4	**23.0**	-11.9	21.9	-47.2	1809.0
Fz,	-263.7	-93.7	**-21.2**	-54.6	-83.3	1344.5	106.8	-71.9	**23.2**	-0.1	53.9	2511.5
Mx,	100.2	-112.4	-11.1	**-107.2**	-39.5	2479.3	-259.1	-41.5	13.7	**59.2**	9.2	1343.0
My,	-275.6	-90.0	-19.6	-61.7	**-91.7**	1303.5	118.5	-94.4	21.6	7.5	**62.3**	2645.3
Mz,	-251.1	-53.5	-12.9	-28.4	-52.9	**708.3**	92.4	-94.2	15.5	-17.5	22.5	**2962.1**

Member 10

Fx,	**-758.1**	-63.6	-18.2	-46.4	-41.6	1974.2	**603.0**	-86.9	20.0	-15.7	11.3	1928.0
Fy,	-238.3	**-170.3**	14.6	-28.0	-28.8	1973.3	81.2	**13.8**	-11.9	-7.8	-3.9	1810.0
Fz,	-285.4	-91.6	**-23.7**	-52.7	-18.0	1345.0	128.3	-74.0	**25.5**	-11.7	-12.2	2516.3
Mx,	87.5	-109.1	-11.2	**-117.9**	1.7	2434.6	-244.9	-49.1	13.9	**46.0**	-34.8	1286.5
My,	73.0	-48.5	7.2	-13.6	**-62.8**	2166.5	-229.6	-109.5	-5.4	-48.5	**32.5**	1577.3
Mz,	-266.6	-55.1	-12.9	-32.7	-6.5	**708.8**	108.6	-89.0	15.3	-11.5	-26.5	**2961.7**
Fx,	**-749.9**	5.3	-2.0	-10.7	-69.6	2079.0	**594.8**	10.2	3.8	14.9	47.5	2127.1
Fy,	-230.0	**-79.3**	7.8	-24.7	20.9	1660.9	74.3	**81.3**	-5.7	42.5	-42.2	1912.9
Fz,	-276.6	-27.0	**-14.4**	-18.9	-85.3	1585.4	119.5	27.5	**16.2**	2.5	63.1	2647.5
Mx,	79.0	-16.3	-5.1	**-61.7**	-35.2	2453.7	-235.6	18.8	7.8	**67.6**	15.0	1589.5
My,	502.0	-10.5	-13.3	-16.7	**-89.8**	1542.4	-659.3	23.6	15.2	15.5	**67.7**	2827.0
Mz,	528.9	4.3	-6.3	-9.3	-48.0	**822.1**	-686.9	7.2	8.8	7.7	26.0	**3189.8**

Member 11

Fx,	**-757.8**	2.7	-14.7	-6.1	-53.6	2105.2	**602.7**	18.2	16.3	-3.9	31.5	2325.9
Fy,	-256.3	**-87.6**	-1.9	-69.3	-24.3	1528.3	99.8	**79.7**	3.5	24.8	1.9	2563.4
Fz,	-134.4	-27.0	**-16.9**	-22.7	-39.7	1656.8	283.0	25.2	**18.5**	-4.1	17.7	2573.5
Mx,	73.1	-29.7	-5.9	**-88.7**	-13.2	1998.1	-231.0	22.3	7.1	**63.8**	-9.8	1990.9
My,	188.4	28.8	-8.8	-3.3	**-61.7**	2041.6	-39.4	-23.0	10.4	-5.5	**39.7**	2036.9
Mz,	520.9	2.6	-6.3	-13.7	-23.9	**822.3**	-678.1	12.8	8.7	14.3	-0.5	**3189.9**
Fx,	**-749.5**	71.6	1.5	29.6	-65.8	1911.7	**594.4**	125.6	0.1	13.1	51.1	2013.8
Fy,	-249.2	**-18.3**	4.1	-16.7	-20.6	1429.8	92.8	**172.3**	-2.6	37.2	5.2	2262.2
Fz,	-93.8	44.8	**-10.6**	9.6	-41.5	1714.4	242.4	119.5	**12.2**	11.7	26.8	2150.3
Mx,	74.7	41.2	-0.6	**-40.7**	-15.0	1767.6	-232.9	113.9	1.7	**93.6**	-3.3	1882.8
My,	481.7	64.9	-5.8	29.9	**-80.9**	1502.9	-639.1	126.3	7.5	11.4	**66.2**	2384.4
Mz,	665.8	44.5	-0.2	11.5	-38.1	**743.7**	-517.3	106.3	2.6	29.8	24.6	**2938.7**

Member 12

Fx,	**-750.4**	70.8	-8.6	27.9	-64.3	1948.1	**595.3**	124.9	9.8	2.5	51.0	2038.1
Fy,	-257.6	**-30.8**	-1.0	-58.3	-32.1	1420.3	101.7	**180.9**	2.7	56.2	17.8	2346.0
Fz,	-86.2	50.4	**-13.3**	21.4	6.1	1715.5	234.8	117.7	**14.5**	-10.7	-19.3	2056.0
Mx,	60.8	14.8	-0.9	**-77.2**	-24.6	1886.0	-218.6	129.7	2.2	**105.6**	9.3	1959.4
My,	177.6	94.4	-3.6	34.3	**-72.0**	1805.6	-28.5	77.5	4.9	10.9	**58.7**	1873.1
Mz,	664.6	42.1	-0.3	4.6	-34.2	**743.3**	-515.3	113.1	2.4	40.6	19.2	**2939.2**
Fx,	**-742.2**	139.7	7.6	63.7	-49.1	1447.9	**587.0**	222.0	-6.4	14.9	41.3	1284.1
Fy,	-251.0	**34.5**	4.9	-2.7	-24.9	1090.8	94.4	**277.3**	-3.4	66.3	17.3	1548.7
Fz,	-56.2	149.8	**-16.8**	61.9	-21.6	1240.4	204.8	214.7	**18.1**	28.7	13.9	1332.9
Mx,	61.2	85.9	0.4	**-29.9**	-14.0	1452.7	-220.2	219.9	0.7	**138.3**	2.9	1285.4
My,	625.9	131.0	0.3	63.9	**-63.9**	1117.4	-477.3	220.8	0.9	13.8	**56.2**	1584.7
Mz,	656.6	101.4	5.9	29.2	-21.3	**473.4**	-507.6	221.3	-3.8	60.6	15.5	**2185.2**

Member 13

Fx,	**-736.7**	133.0	-0.2	43.4	-73.8	1472.2	**581.6**	229.8	-0.0	26.9	71.8	1273.6
Fy,	-246.8	**22.0**	4.6	-41.4	-38.5	1089.6	90.2	**287.9**	-4.2	91.5	34.2	1565.8
Fz,	-90.5	154.0	**-20.3**	68.3	13.3	1237.9	239.1	209.8	**20.1**	11.4	-15.2	1335.6
Mx,	56.7	78.6	5.4	**-64.5**	-30.6	1472.5	-214.7	227.3	-5.3	**156.3**	25.8	1282.6
My,	173.7	152.7	1.4	65.3	**-74.6**	1304.9	-24.3	201.2	-1.4	49.4	**72.8**	1298.6
Mz,	662.5	97.0	5.5	15.9	-37.3	**472.4**	-512.7	229.6	-4.4	77.9	33.0	**2186.1**
Fx,	**-728.5**	236.0	16.0	110.9	-20.7	615.6	**573.3**	330.6	-16.3	39.3	17.6	39.2
Fy,	-240.1	**86.2**	10.7	14.9	-5.6	574.8	82.2	**392.3**	-10.4	102.7	1.5	214.0
Fz,	-61.7	257.3	**-24.6**	109.8	-49.0	286.8	210.3	280.0	**24.4**	36.1	45.9	259.3
Mx,	55.3	278.5	2.5	**-21.4**	-2.2	479.4	-213.2	316.9	-3.4	**192.7**	-3.4	190.5
My,	-100.4	241.9	-21.8	117.9	**-82.0**	301.5	248.8	314.2	21.5	31.4	**79.0**	357.4
Mz,	676.4	290.0	-13.3	43.2	-22.9	**-337.0**	-526.8	181.7	13.6	60.3	20.9	**1099.1**

Member 14

Fx,	**-728.7**	266.0	-25.2	132.6	-31.1	572.6	**573.5**	299.3	19.3	9.6	49.2	84.7
Fy,	-227.1	**73.1**	10.0	-25.8	-40.7	570.7	70.0	**405.5**	-13.3	145.1	51.1	270.4
Fz,	-90.1	293.7	**-30.7**	132.1	18.0	170.6	233.4	147.4	**24.9**	-7.1	-9.4	539.9
Mx,	59.5	253.6	9.2	**-64.1**	-23.8	499.5	-216.5	332.8	-14.8	**219.0**	40.7	157.3

My,	183.0	206.5	5.2	67.3	**-77.4**	582.1	-34.1	319.8	-11.1	110.8	**95.3**	80.2
Mz,	662.9	299.5	-16.0	69.9	27.7	**-335.2**	-513.4	165.9	12.5	11.0	-15.2	**1099.6**
Fx,	**-720.4**	399.7	-21.4	199.1	-118.4	-956.3	**565.3**	369.9	15.5	30.9	110.0	-1394.5
Fy,	-214.5	**126.2**	18.1	16.1	29.5	3.7	60.5	**514.7**	-19.9	155.7	-25.2	-1703.1
Fz,	-65.6	428.5	**-35.7**	202.5	-88.2	-1488.0	208.9	195.0	**29.9**	1.2	71.0	-201.5
Mx,	52.1	326.8	15.9	**-36.8**	34.0	-816.2	-212.7	436.5	-22.4	**258.8**	-49.8	-1503.0
My,	-102.6	401.7	-31.0	207.5	**-134.1**	-1268.2	251.4	378.7	24.8	31.5	**125.5**	-1160.3
Mz,	669.7	476.3	-21.0	126.4	-32.5	**-2068.3**	-517.8	137.2	18.4	14.3	35.1	**362.3**

Member 15

Fx,	**-686.9**	-382.0	25.2	-164.2	-144.4	-907.4	**553.5**	-342.1	-18.1	-44.9	136.0	-1410.2
Fy,	-200.2	**-517.9**	38.5	-155.0	-53.2	-1981.2	68.7	**-126.3**	-34.6	-31.5	57.2	391.1
Fz,	208.1	-170.1	**-42.2**	-9.8	70.4	-152.4	-82.9	-443.2	**49.1**	-196.0	-83.0	-1567.1
Mx,	-202.6	-446.5	26.0	**-265.0**	-13.9	-1423.2	66.0	-321.0	-18.6	**33.1**	1.7	-862.5
My,	-125.5	-397.8	28.3	-167.8	**-148.5**	-1254.3	252.1	-320.5	-21.0	-44.7	**139.8**	-1088.7
Mz,	519.1	-489.4	39.3	-130.2	-55.5	**-2096.9**	-650.9	-138.0	-34.6	-31.5	57.2	**391.3**
Fx,	**-678.6**	-268.7	28.9	-119.3	-5.1	515.2	**545.2**	-271.6	-21.8	-23.5	28.7	-2.9
Fy,	-190.7	**-408.5**	32.0	-142.0	107.6	-13.1	58.6	**-75.9**	-27.7	-2.2	-86.5	920.8
Fz,	200.3	-121.4	**-33.0**	2.3	-79.9	530.1	-75.2	-330.0	**39.9**	-151.0	98.6	131.3
Mx,	-193.0	-356.5	26.9	**-223.4**	93.4	217.5	58.8	-230.6	-20.0	**58.2**	-69.0	493.6
My,	168.6	-206.6	-23.3	-87.8	**-114.4**	517.7	-42.2	-359.1	30.9	-72.4	**138.5**	42.5
Mz,	499.5	-291.2	24.7	-66.3	68.0	**-349.4**	-634.5	-179.7	-19.2	-35.5	-49.1	**1075.2**

Member 16

Fx,	**-699.5**	-239.4	-28.8	-129.9	-20.0	576.3	**566.0**	-319.9	30.3	-26.8	22.7	13.0
Fy,	-164.2	**-395.5**	28.6	-100.9	-15.4	-69.6	30.5	**-87.6**	-27.4	-38.4	19.3	925.0
Fz,	-531.6	-225.7	**-36.4**	-86.5	31.7	355.5	652.8	-291.9	**38.0**	-106.1	-35.2	215.3
Mx,	-206.7	-326.8	-22.2	**-202.7**	47.5	222.1	72.0	-273.0	24.3	**21.3**	-45.8	457.5
My,	603.1	-267.6	19.2	-110.5	**-78.5**	240.3	-476.1	-290.5	-17.6	-46.2	**81.2**	269.2
Mz,	523.8	-283.4	26.0	-36.7	-24.9	**-351.4**	-657.9	-193.6	-24.3	-87.2	27.2	**1075.0**
Fx,	**-691.3**	-136.4	-12.6	-62.3	-95.8	1395.3	**557.8**	-219.0	14.1	-14.5	105.0	1252.1
Fy,	-155.9	**-290.6**	22.3	-87.3	99.1	1282.1	20.2	**-29.2**	-20.7	15.7	-90.9	1406.9
Fz,	-522.8	-155.2	**-27.2**	-59.8	-93.1	1186.0	644.0	-189.0	**28.8**	-66.5	96.6	1323.8
Mx,	-158.2	-251.1	15.5	**-159.2**	82.2	1377.4	24.4	-156.0	-13.6	**52.2**	-70.9	1622.9
My,	-555.4	-132.7	-21.1	-54.6	**-112.2**	1304.9	682.2	-225.7	22.8	-21.3	**121.7**	1316.4
Mz,	-232.2	-88.8	-21.8	-29.4	-85.8	**437.0**	99.7	-241.1	22.7	-73.1	95.4	**2134.8**

Member 17

Fx,	**-709.3**	-141.4	-20.9	-79.1	-57.0	1399.0	**575.8**	-215.5	20.9	-8.1	60.7	1251.9
Fy,	-148.6	**-280.3**	19.0	-62.5	12.3	1262.2	14.0	**-40.2**	-18.5	-18.6	-10.1	1408.9
Fz,	-541.8	-154.5	**-30.2**	-56.0	-2.0	1162.5	669.1	-183.9	**30.3**	-60.4	5.6	1309.7
Mx,	-217.5	-235.0	-18.3	**-156.5**	18.2	1320.5	80.0	-84.7	18.9	**28.0**	-18.9	1421.7
My,	-148.6	-137.9	-19.7	-68.0	**-58.9**	1060.2	275.4	-200.6	19.7	-8.7	**62.6**	1413.4
Mz,	-256.8	-93.2	-22.3	-42.4	-12.4	**438.4**	124.2	-232.2	22.1	-54.1	18.2	**2133.7**
Fx,	**-701.0**	-72.5	-4.7	-43.4	-97.1	1853.8	**567.5**	-118.3	4.7	4.2	100.8	2029.4
Fy,	-141.1	**-183.3**	12.8	-50.5	83.1	2058.0	7.8	**23.5**	-12.4	35.1	-77.5	1747.4
Fz,	-533.0	-87.7	**-21.0**	-29.4	-98.9	1681.1	660.3	-84.7	**21.0**	-20.8	102.8	1940.4
Mx,	-134.6	-153.4	7.2	**-106.8**	77.9	2097.7	-0.9	-5.6	-6.8	**59.1**	-74.5	1780.2
My,	-563.8	-74.9	-16.3	-35.1	**-119.2**	1772.5	690.8	-118.4	16.4	-7.9	**123.1**	2105.5
Mz,	-243.4	-50.3	-15.4	-18.0	-91.9	**734.8**	110.5	-103.3	15.2	-28.7	96.6	**2907.1**

Member 18

Fx,	**-712.3**	-71.8	-16.0	-40.3	-80.4	1856.0	**578.8**	-118.6	15.7	-8.1	82.8	2022.7
Fy,	-133.7	**-174.5**	12.2	-33.5	33.0	1989.5	0.0	**12.1**	-11.7	-1.0	-32.1	1751.1
Fz,	-553.7	-89.5	**-23.6**	-38.8	-38.2	1713.0	402.2	-81.5	**23.3**	-24.1	40.7	2079.7
Mx,	-227.0	-134.0	-10.5	**-112.1**	-18.3	1915.7	90.5	-33.4	11.4	**42.2**	15.7	1782.1
My,	-148.5	-69.1	-13.2	-42.4	**-82.8**	1557.1	423.0	-122.4	12.8	-5.0	**85.2**	2145.9
Mz,	-260.3	-52.8	-15.9	-25.0	-39.7	**735.5**	127.4	-96.3	15.5	-17.1	43.5	**2906.6**
Fx,	**-704.0**	-2.9	0.2	-4.5	-98.5	1997.6	**570.5**	9.3	-0.5	18.1	99.4	2290.4
Fy,	-126.8	**-81.2**	6.0	-19.7	72.9	2284.2	-6.3	**80.0**	-5.6	49.3	-69.2	1865.4
Fz,	-544.8	-22.7	**-14.4**	-12.1	-105.3	1939.0	672.1	16.4	**14.0**	15.5	106.1	2084.6
Mx,	-123.0	-45.3	2.6	**-62.7**	69.7	2173.7	-12.4	39.6	-1.9	**70.5**	-67.5	1897.5
My,	-696.7	-16.3	-11.1	-8.6	**-118.7**	1904.4	413.9	16.0	10.7	8.4	**119.4**	2529.2
Mz,	-113.1	-5.2	-7.9	-1.7	-85.3	**850.7**	242.3	10.5	7.7	2.0	87.6	**3169.2**

Member 19

Fx,	**-708.3**	-4.0	-11.5	-3.3	-96.0	2021.4	**574.8**	9.9	11.0	0.5	96.7	2275.1
Fy,	-239.1	**-86.0**	-2.5	-64.7	-58.9	1620.0	106.3	**74.6**	1.2	23.8	63.1	2456.6
Fz,	-685.4	-24.6	**-17.0**	-20.1	-63.3	2055.0	402.9	20.5	**16.4**	10.1	64.0	2175.5
Mx,	-229.3	-48.2	-5.6	**-86.0**	-41.7	1624.0	93.8	35.6	4.3	**64.0**	42.7	2469.0
My,	-275.7	6.9	-7.2	1.1	**-101.8**	1619.8	419.3	-2.0	6.7	1.1	**102.5**	2555.4
Mz,	-121.7	-7.4	-7.9	-7.8	-59.4	**850.7**	251.1	17.1	7.6	11.9	61.0	**3169.1**
Fx,	**-700.1**	64.9	4.7	32.4	-93.8	1858.1	**566.6**	117.3	-5.2	17.5	92.2	2000.6
Fy,	-232.4	**-17.0**	3.7	-12.0	-57.8	1511.6	99.5	**167.3**	-4.9	35.9	56.2	2244.5
Fz,	-572.6	48.5	**-13.1**	7.5	1.7	2138.6	290.0	113.5	**12.5**	48.7	-3.5	1736.7
Mx,	-118.2	25.2	-4.9	**-42.1**	47.6	1529.1	-17.7	123.7	3.5	**97.9**	-53.1	2241.7
My,	-695.1	52.0	-4.5	34.0	**-111.4**	1921.7	412.3	127.6	3.9	8.7	**109.7**	2169.0
Mz,	-108.4	40.6	-1.2	17.2	-74.7	**741.7**	237.7	115.7	0.9	27.6	74.9	**2938.2**

Member 20

Fx,	**-697.3**	57.2	-6.5	22.5	-105.6	1866.8	**563.8**	118.3	5.6	9.1	104.9	1988.5
Fy,	-247.5	**-30.1**	-3.5	-54.3	-92.2	1506.4	114.3	**177.1**	2.4	56.3	93.6	2325.6
Fz,	-563.4	67.5	**-16.0**	28.5	57.6	2254.9	280.8	94.4	**15.1**	14.9	-58.2	1620.4
Mx,	-227.0	-2.5	-1.0	**-77.7**	-59.3	1520.3	91.7	145.2	-0.1	**109.7**	57.8	2399.4
My,	-265.5	71.7	-1.7	37.7	**-113.4**	1430.5	408.7	110.3	0.7	8.2	**112.6**	2290.0
Mz,	-109.4	37.6	-1.3	8.4	-71.3	**741.1**	239.0	123.5	0.7	41.1	71.4	**2938.8**
Fx,	**-689.0**	126.2	9.7	58.2	-81.0	1427.7	**555.5**	215.5	-10.6	21.5	**76.4**	1263.9
Fy,	-241.0	**34.9**	12.6	1.4	-56.1	1172.9	107.2	**273.5**	-13.7	66.4	51.7	1546.1
Fz,	-530.5	167.0	**-19.7**	68.9	20.2	1703.5	248.0	161.0	**18.8**	40.7	-25.0	1069.4
Mx,	-188.1	69.3	-0.7	**-29.9**	-29.1	1118.4	51.6	234.5	-0.6	**141.9**	21.2	1702.5
My,	-683.8	119.4	0.8	67.4	**-97.7**	1503.8	401.0	224.8	-1.6	11.4	**93.1**	1401.6
Mz,	-100.7	80.4	4.9	33.0	-62.7	**449.2**	229.9	231.6	-5.4	61.2	60.1	**2190.8**

Member 21

Fx,	**-680.4**	119.5	1.2	39.4	-115.3	1431.4	**546.9**	225.9	-3.3	31.8	115.3	1266.5
Fy,	-228.0	**21.1**	4.2	-41.6	-81.4	1171.3	93.2	**285.6**	-6.2	96.5	81.1	1565.8
Fz,	50.7	186.8	**-23.0**	82.4	57.5	1720.6	-185.9	142.3	**20.7**	19.2	-57.4	892.5
Mx,	-218.1	61.1	4.9	**-69.8**	-72.9	1114.5	81.9	243.2	-6.9	**165.2**	70.8	1719.3
My,	-249.0	127.8	3.6	49.8	**-118.0**	964.7	394.4	227.5	-4.7	46.0	**117.7**	1523.5
Mz,	-94.8	74.6	4.5	15.8	-78.9	**447.9**	224.2	241.3	-5.8	82.7	78.8	**2191.8**
Fx,	**-672.1**	222.5	17.4	106.9	-56.0	635.6	**538.6**	326.7	-19.5	44.1	46.7	49.5
Fy,	-221.3	**85.1**	10.3	14.8	-50.4	660.5	85.3	**390.0**	-12.4	107.6	39.6	223.4
Fz,	66.1	290.4	**-27.2**	124.1	-13.4	674.4	-201.2	212.3	**25.0**	43.8	3.4	67.3
Mx,	-180.4	254.6	1.6	**-27.2**	-25.0	180.0	46.1	330.9	-3.9	**198.4**	15.7	609.8
My,	-665.8	212.3	6.0	94.7	**-77.4**	706.8	383.0	322.1	-8.0	48.2	**68.0**	110.9
Mz,	14.7	278.1	-14.9	44.2	9.9	**-323.4**	113.3	181.9	12.7	63.9	-18.8	**1116.5**

Member 22

Fx,	**-648.8**	206.0	3.7	61.6	-131.7	638.9	**515.3**	341.9	-10.4	81.2	139.6	48.9
Fy,	-200.3	**69.5**	8.9	-33.6	-96.8	656.1	65.3	**405.8**	-13.8	157.4	100.0	278.3
Fz,	23.7	311.6	**-32.5**	143.6	59.6	596.4	-164.5	129.2	**25.8**	-14.7	-61.0	168.8
Mx,	-188.8	225.3	9.9	**-80.6**	-80.2	200.9	54.0	351.8	-16.4	**235.4**	87.6	558.0
My,	-218.1	175.0	6.2	36.8	**-134.3**	253.9	83.6	353.1	-12.6	94.0	**142.3**	442.7
Mz,	-5.0	290.6	-17.4	86.1	72.1	**-321.5**	132.0	165.0	12.0	4.0	-67.6	**1116.7**
Fx,	**-640.6**	339.7	19.9	156.2	-61.0	-620.1	**507.1**	412.4	-26.6	74.5	38.8	-1621.8
Fy,	-188.0	**121.8**	16.6	9.5	-33.2	110.8	56.0	**515.0**	-20.3	167.8	21.7	-1696.0
Fz,	34.7	446.7	**-37.4**	214.5	-49.8	-1091.2	-175.6	176.6	**30.6**	-7.0	18.1	-542.3
Mx,	-179.7	298.6	16.5	**-53.1**	-19.4	-1040.8	41.5	455.4	-23.7	**274.9**	-9.0	-1133.7
My,	-8.3	412.6	-32.8	200.6	**-105.6**	-859.0	-126.5	342.7	25.9	29.0	**83.3**	-1415.1
Mz,	24.4	465.6	-22.0	138.7	15.5	**-2058.0**	105.4	135.6	17.6	7.1	-28.9	**439.3**

Member 23

Fx,	**-606.6**	-333.9	-27.8	-146.6	-71.8	-566.7	**499.6**	-405.7	34.1	-68.7	49.6	-1644.5
Fy,	-108.6	**-521.9**	33.5	-170.7	3.5	-1982.6	2.7	**-119.2**	-30.1	-14.9	-15.2	474.7
Fz,	-185.7	-177.2	**-37.4**	4.8	6.0	-453.5	75.5	-428.2	**43.5**	-208.7	-32.6	-1107.8
Mx,	83.2	-450.7	36.1	**-278.1**	-2.0	-1082.8	-193.9	-310.1	-29.5	**47.8**	-25.3	-1050.5
My,	27.0	-382.9	24.4	-181.0	**-112.9**	-795.0	-135.5	-350.7	-18.0	-31.4	**90.6**	-1415.6
Mz,	-108.6	-504.9	34.2	-145.7	2.0	**-2092.1**	2.6	-119.2	-30.1	-14.9	-15.3	**474.9**
Fx,	**-598.4**	-220.7	-11.6	-73.7	-143.0	639.7	**491.3**	-335.1	17.8	-75.4	148.9	48.8
Fy,	-99.2	**-412.6**	27.0	-157.9	141.8	3.4	-7.3	**-68.8**	-23.2	14.7	-138.3	973.2
Fz,	-177.0	-128.5	**-28.1**	16.9	-122.8	207.8	66.8	-315.0	**34.3**	-163.7	123.9	576.0
Mx,	78.0	-343.6	19.1	**-239.0**	110.5	643.2	-186.5	-236.9	-13.0	**75.3**	-105.1	190.3
My,	-208.5	-212.1	-19.7	-69.9	**-159.5**	233.4	99.6	-341.1	26.2	-78.2	**165.5**	470.5

Mz,	-120.6	-305.8	20.3	-81.7	88.2	**-332.3**	12.1	-160.8	-15.5	-18.4	-85.7	**1129.5**

Member 24

Fx,	**-628.8**	-234.8	-24.7	-120.3	-65.1	641.0	**521.8**	-321.5	26.3	-36.8	53.5	45.9
Fy,	-72.5	**-397.0**	24.7	-109.0	20.4	-53.9	-35.6	**-83.1**	-23.4	-29.4	-31.0	977.5
Fz,	-201.4	-217.6	**-31.6**	-62.0	-10.9	64.2	92.6	-286.5	**33.4**	-112.7	-1.3	660.7
Mx,	73.4	-325.7	5.1	**-205.2**	22.2	651.6	-180.4	-266.4	-3.3	**25.1**	-32.8	174.2
My,	-625.3	-224.6	-21.0	-103.1	**-72.2**	711.4	375.6	-308.2	22.6	-43.8	**60.7**	108.0
Mz,	-96.9	-294.4	17.9	-40.0	11.0	**-334.4**	-10.6	-177.5	-16.3	-78.0	-21.8	**1129.4**
Fx,	**-620.5**	-131.9	-8.5	-52.8	-122.3	1439.6	**513.5**	-220.6	10.1	-24.4	118.0	1292.0
Fy,	-64.3	**-292.2**	18.5	-95.5	117.4	1304.4	-45.7	**-24.6**	-16.7	25.0	-123.2	1439.9
Fz,	-192.7	-147.1	**-22.4**	-35.4	-114.2	858.4	329.6	-185.2	**24.2**	-73.1	109.9	1560.6
Mx,	95.3	-234.7	10.2	**-167.3**	89.9	1802.3	-201.6	-164.7	-8.5	**61.6**	-91.9	1309.5
My,	-228.7	-127.4	-17.3	-41.8	**-138.9**	1009.1	365.8	-219.7	18.9	-34.6	**134.6**	1542.7
Mz,	349.2	-74.7	-18.0	-20.8	-117.9	**429.8**	-455.3	-251.4	18.9	-81.1	114.2	**2216.0**

Member 25

Fx,	**-634.0**	-138.2	-16.5	-73.1	-97.1	1442.8	**527.0**	-215.0	16.9	-13.1	88.1	1289.8
Fy,	-63.6	**-280.4**	15.6	-66.3	41.3	1283.6	-45.3	**-37.2**	-14.8	-14.0	-51.8	1441.7
Fz,	-211.3	-164.9	**-25.5**	-55.1	-43.1	914.4	348.6	-168.9	**25.9**	-60.3	34.0	1514.7
Mx,	-12.0	-216.1	-14.8	**-152.5**	-17.3	1718.9	-99.3	-97.6	15.7	**24.8**	4.2	1103.1
My,	-630.5	-132.3	-15.3	-73.3	**-98.3**	1514.7	380.7	-219.4	15.7	-11.0	**89.4**	1434.7
Mz,	333.2	-80.5	-18.2	-38.1	-70.3	**431.2**	-439.5	-241.1	18.3	-58.0	64.0	**2214.8**
Fx,	**-625.8**	-69.3	-0.3	-37.4	-117.2	1883.2	**518.8**	-117.9	0.7	-0.7	110.1	2065.2
Fy,	-56.2	**-183.4**	9.4	-54.3	96.8	2079.6	-51.3	**26.6**	-8.7	39.6	-102.5	1767.0
Fz,	-202.5	-98.1	**-16.2**	-28.4	-118.5	1479.6	94.1	-68.0	**16.7**	-20.7	111.5	2254.7
Mx,	96.0	-136.4	3.2	**-110.8**	82.9	2483.8	-205.3	-16.6	-2.4	**63.8**	-90.4	1447.3
My,	-232.2	-82.1	-12.4	-39.8	**-139.8**	1423.9	124.0	-109.5	12.7	-14.1	**132.6**	2515.2
Mz,	326.1	-37.7	-11.7	-13.7	-118.8	**723.5**	-432.8	-109.9	11.9	-32.6	112.6	**2974.6**

Member 26

Fx,	**-632.7**	-68.3	-12.0	-35.2	-114.2	1872.1	**525.8**	-113.5	12.1	-12.5	105.9	2040.3
Fy,	-57.5	**-173.9**	8.4	-35.1	55.4	2009.5	-50.2	**14.4**	-7.6	0.9	-64.7	1771.8
Fz,	-217.7	-100.3	**-18.8**	-41.3	-72.8	1479.4	109.3	-65.8	**18.9**	-20.7	64.5	2254.9
Mx,	-35.5	-114.5	-6.9	**-110.2**	-50.5	2306.9	-73.8	-46.5	8.0	**40.7**	38.8	1453.0
My,	-626.3	-62.4	-8.9	-40.8	**-116.9**	1930.0	376.5	-123.9	9.0	-7.8	**108.6**	2232.1
Mz,	316.3	-40.9	-12.4	-22.9	-91.9	**724.2**	-423.2	-102.2	12.3	-18.9	85.5	**2974.1**
Fx,	**-624.5**	0.6	4.2	0.5	-114.2	1998.0	**517.5**	14.5	-4.1	13.8	106.3	2284.9
Fy,	-50.6	**-80.6**	2.2	-21.5	77.9	2235.2	-56.5	**82.3**	-1.4	51.1	-83.0	1876.4
Fz,	-79.6	-38.7	**-10.2**	-25.2	19.9	1948.9	216.9	37.0	**10.2**	29.4	-27.9	1990.0
Mx,	85.1	-26.5	-1.3	**-64.5**	70.1	2549.8	-193.3	26.9	2.2	**72.7**	-76.3	1553.4
My,	-230.5	-19.7	-6.5	-6.2	**-133.2**	1626.1	367.8	21.4	6.6	6.6	**125.3**	2554.0
Mz,	313.9	7.9	-4.1	0.4	-105.4	**837.6**	-420.7	5.8	4.2	0.2	99.1	**3208.6**

Member 27

Fx,	**-624.1**	-6.7	-7.7	-5.8	-123.5	1996.4	**517.1**	12.8	7.6	-4.8	115.6	2283.5
Fy,	-192.3	**-86.3**	1.9	-64.2	-84.2	1605.0	86.5	**78.4**	-2.7	23.3	79.8	2573.4
Fz,	-66.2	-34.1	**-12.9**	-18.4	67.5	2017.9	-42.3	34.1	**12.8**	9.0	-75.5	2090.1
Mx,	-50.1	-31.0	-1.4	**-85.9**	-69.6	1953.9	-59.4	23.2	0.7	**64.3**	61.7	2187.0
My,	-96.1	21.3	-2.8	1.8	**-130.3**	1969.4	-153.6	-11.2	2.7	1.1	**122.3**	2588.1
Mz,	309.4	5.2	-3.7	-7.2	-92.5	**837.6**	-416.0	12.9	3.7	11.5	86.0	**3208.6**
Fx,	**-615.8**	62.3	8.5	30.0	-104.2	1844.8	**508.9**	120.2	-8.6	12.2	95.9	1995.6
Fy,	-185.7	**-17.4**	8.1	-11.5	-63.3	1498.2	79.8	**171.2**	-8.9	35.6	55.2	2279.9
Fz,	-31.4	65.2	**-16.4**	21.4	46.6	1925.4	168.7	99.1	**16.3**	35.5	-54.9	1647.7
Mx,	69.2	42.9	-8.2	**-43.0**	46.6	1854.2	-179.1	111.0	7.4	**99.1**	-58.4	1944.3
My,	-224.2	52.0	-0.1	35.8	**-120.6**	1600.3	361.5	130.9	0.0	7.4	**112.2**	2195.5
Mz,	411.4	51.6	2.6	17.8	-89.3	**728.0**	-308.8	108.0	-2.5	27.3	83.0	**2971.4**

Member 28

Fx,	**-608.2**	58.4	-2.0	23.5	-128.7	1864.3	**501.3**	121.4	1.6	8.5	121.4	2010.5
Fy,	-192.4	**-31.0**	10.3	-55.3	-111.5	1493.0	86.5	**181.5**	-10.9	57.5	106.7	2351.0
Fz,	-70.0	69.8	**-19.3**	27.1	69.8	1959.7	207.2	94.5	**18.8**	16.8	-77.0	1613.3
Mx,	-61.7	11.9	3.2	**-79.3**	-83.2	1846.6	-47.5	134.6	-3.8	**111.5**	75.4	2096.3
My,	-99.0	84.8	2.4	33.2	**-136.5**	1748.1	-150.7	106.9	-2.7	13.9	**129.1**	2270.0
Mz,	414.3	48.1	2.5	7.4	-97.9	**727.3**	-311.6	116.2	-2.7	42.3	91.9	**2972.1**
Fx,	**-600.0**	127.3	14.2	59.2	-83.8	1419.9	**493.0**	218.5	-14.6	20.9	74.8	1272.1

Fy,	-186.0	**34.0**	16.4	0.4	-53.4	1163.7	79.4	**277.9**	-17.1	67.6	44.6	1561.7
Fz,	-35.9	169.3	**-23.4**	67.6	18.1	1398.5	173.1	161.1	**22.9**	42.5	-27.3	1061.6
Mx,	-35.0	84.2	1.2	**-30.9**	-35.0	1437.3	-216.7	223.9	-1.9	**143.2**	23.0	1555.2
My,	-209.1	119.8	5.6	65.6	**-100.9**	1182.7	346.4	227.7	-6.0	13.5	**91.9**	1412.9
Mz,	409.2	90.9	9.7	31.9	-67.2	**441.1**	-306.7	224.4	-9.9	62.4	60.2	**2203.7**

Member 29

Fx,	**-587.1**	120.7	5.5	38.0	-132.7	1425.8	**480.2**	230.0	-7.1	33.4	128.2	1279.4
Fy,	-176.4	**19.3**	7.6	-45.4	-97.9	1161.9	68.7	**291.0**	-9.2	100.4	93.4	1581.5
Fz,	-79.4	182.4	**-26.2**	76.8	67.6	1419.1	214.8	141.4	**24.5**	7.8	-73.6	1003.4
Mx,	-62.4	74.6	9.4	**-74.2**	-89.5	1428.2	-47.9	233.5	-10.9	**169.7**	82.8	1411.5
My,	-93.0	137.7	8.1	48.6	**-135.2**	1275.1	-154.8	220.0	-8.9	48.0	**130.6**	1531.2
Mz,	421.8	84.3	11.5	12.1	-102.3	**439.7**	-319.3	235.0	-12.5	86.5	98.1	**2204.8**
Fx,	**-578.8**	223.7	21.7	105.6	-53.8	624.6	**471.9**	330.9	-23.3	45.8	42.3	43.8
Fy,	-169.7	**83.3**	13.8	11.0	-51.2	659.5	60.8	**395.3**	-15.4	111.6	38.3	215.2
Fz,	-46.7	286.0	**-30.8**	118.7	-17.8	339.9	-63.6	212.9	**29.2**	32.2	4.2	381.9
Mx,	-66.3	257.1	15.7	**-30.2**	-28.5	503.0	-183.0	333.0	-17.5	**201.6**	16.6	437.8
My,	-186.5	211.5	11.0	89.7	**-74.5**	388.3	78.1	327.2	-12.5	53.4	**62.9**	252.9
Mz,	525.8	294.4	-18.6	47.8	4.5	**-329.6**	-423.5	168.8	16.9	60.3	-15.6	**1113.9**

Member 30

Fx,	**-550.6**	206.1	8.6	52.2	-144.8	624.6	**443.7**	347.0	-14.6	90.8	149.9	46.6
Fy,	-143.5	**66.0**	15.6	-42.4	-115.0	654.9	35.5	**412.8**	-19.9	166.4	115.9	270.1
Fz,	-92.6	311.1	**-35.7**	155.5	69.0	272.4	-20.3	133.4	**29.7**	-21.9	-70.8	490.3
Mx,	-46.6	237.6	13.4	**-89.7**	-92.4	505.8	-203.0	344.1	-19.2	**244.7**	96.9	404.2
My,	-75.2	189.9	10.1	35.4	**-146.4**	561.3	-32.8	349.1	-15.9	97.1	**151.7**	112.6
Mz,	502.4	308.5	-20.9	94.7	80.5	**-327.6**	-401.2	150.3	16.1	-4.6	-78.5	**1113.9**
Fx,	**-542.3**	339.9	24.8	146.7	-52.0	-635.0	**435.4**	417.6	-30.8	84.2	30.2	-1647.2
Fy,	-131.3	**118.3**	23.1	0.9	-21.9	125.1	26.1	**522.0**	-26.4	176.7	10.1	-1735.6
Fz,	-64.5	446.3	**-40.8**	226.9	-54.6	-1466.5	-48.4	180.7	**34.9**	-14.6	25.9	-186.3
Mx,	-54.0	310.9	19.9	**-62.2**	-16.0	-738.7	-198.9	447.6	-26.4	**284.1**	-12.3	-1305.4
My,	-111.7	404.1	-35.4	207.4	**-115.0**	-1191.5	3.6	355.1	29.1	22.6	**93.0**	-1110.9
Mz,	516.2	483.6	-24.9	147.5	11.3	**-2092.2**	-412.1	120.8	21.0	-1.5	-24.5	**450.1**

Member 31

Fx,	**-507.0**	-332.6	-29.2	-135.9	-68.1	-577.7	**426.4**	-408.4	35.2	-78.6	46.0	-1667.8
Fy,	-49.5	**-525.6**	37.7	-182.0	8.9	-2017.4	-29.6	**-116.9**	-34.3	-2.9	-20.6	483.8
Fz,	-14.5	-164.1	**-38.6**	13.6	15.3	-139.3	-70.1	-443.0	**44.6**	-217.1	-42.5	-1455.4
Mx,	-61.6	-468.0	37.2	**-289.1**	-10.5	-1486.2	-23.3	-294.4	-30.9	**59.8**	-17.3	-678.9
My,	-116.3	-400.1	26.1	-191.1	**-120.6**	-1201.2	34.3	-335.2	-20.0	-20.2	**98.6**	-1044.8
Mz,	406.7	-490.2	38.6	-137.2	8.2	**-2127.0**	-485.5	-128.7	-34.3	-3.1	-21.4	**484.4**
Fx,	**-498.8**	-219.4	-13.0	-63.0	-145.6	623.0	**418.1**	-337.9	19.0	-85.3	150.5	37.8
Fy,	-40.1	**-416.2**	21.2	-169.2	126.0	-15.2	-39.6	**-66.5**	-17.5	26.7	-122.9	971.8
Fz,	-22.3	-115.3	**-29.4**	25.7	-119.3	515.8	-62.2	-329.8	**35.4**	-172.1	118.7	242.1
Mx,	-50.3	-361.0	20.2	**-250.2**	105.6	265.0	-32.4	-221.2	-14.3	**87.3**	-102.9	544.2
My,	-56.7	-196.7	-20.8	-58.1	**-161.5**	584.5	-159.8	-358.3	27.0	-89.0	**166.5**	263.9
Mz,	375.9	-298.7	21.7	-92.9	85.2	**-351.5**	-457.5	-170.1	-16.9	-6.5	-82.9	**1128.8**

Member 32

Fx,	**-530.4**	-236.0	-25.8	-113.2	-63.5	623.2	**449.8**	-322.8	27.3	-43.0	51.5	34.7
Fy,	-12.2	**-398.9**	26.3	-115.3	33.5	-73.0	-68.8	**-82.4**	-25.1	-22.3	-44.5	976.6
Fz,	-48.3	-198.0	**-33.0**	-36.6	-6.3	421.1	-169.4	-302.0	**34.6**	-118.5	-7.1	454.7
Mx,	-54.9	-340.7	5.8	**-207.4**	16.6	274.6	-26.6	-253.0	-4.1	**28.2**	-28.4	527.0
My,	-179.2	-226.5	-22.0	-96.4	**-70.5**	330.6	97.0	-311.4	23.4	-49.5	**58.6**	295.8
Mz,	401.4	-284.6	19.3	-46.3	5.9	**-353.5**	-481.7	-188.5	-17.6	-70.8	-17.1	**1128.8**
Fx,	**-522.1**	-133.0	-9.6	-45.6	-125.5	1427.0	**441.6**	-221.9	11.1	-30.6	120.5	1286.6
Fy,	-4.0	**-294.1**	10.1	-101.9	97.9	1294.0	-78.8	**-23.9**	-8.4	32.1	-104.0	1435.8
Fz,	-56.1	-127.4	**-23.7**	-10.0	-115.7	1179.7	-27.1	-199.3	**25.4**	-78.9	109.5	1384.2
Mx,	-17.2	-250.5	11.9	**-173.4**	89.0	1441.9	-63.6	-150.6	-10.3	**68.7**	-92.8	1653.3
My,	-94.3	-124.0	-18.5	-49.8	**-142.5**	1293.7	-121.4	-233.3	19.8	-40.5	**137.3**	1539.6
Mz,	-146.7	-85.8	-19.3	-14.0	-121.0	**420.7**	67.4	-241.4	20.2	-87.2	116.7	**2214.5**

Member 33

Fx,	**-536.8**	-139.6	-17.6	-68.0	-96.6	1428.1	**456.3**	-216.4	18.0	-17.6	86.9	1288.7
Fy,	3.5	**-281.4**	17.6	-69.8	42.6	1273.2	-85.1	**-37.4**	-16.7	-9.5	-53.7	1437.8
Fz,	-498.0	-163.4	**-26.8**	-50.9	-39.3	1258.1	281.3	-170.1	**27.1**	-63.5	29.5	1509.7
Mx,	-44.6	-240.8	2.4	**-149.6**	26.0	1418.5	-39.6	-73.9	-1.5	**22.8**	-39.9	1393.4

My,	236.1	-122.4	-16.6	-70 1	**-98.2**	1142.5	-105.4	-232.0	16.9	-13.6	**88.4**	1429.2
Mz,	-164.0	-92.5	-19.5	-33 9	-69.2	**422.2**	84.7	-230.2	19.6	-61.4	62.0	**2213.2**
Fx,	**-528.6**	-70.6	-1.4	-32.2	-122.1	1874.6	**448.0**	-119.3	1.8	-5.2	114.0	2070 4
Fy,	10.9	**-184.5**	11.4	-57.9	106.8	2073.9	-91.1	**26.4**	-10.6	**44.1**	-112.8	1763.9
Fz,	-489.3	-96.6	**-17.5**	-24 3	-120.8	1816.8	272.6	-70.9	**17.9**	-23.9	112.5	2078.5
Mx,	1.5	-151.3	4.7	**-114.3**	83.1	2136.5	-83.8	-2.7	-4.0	**68.2**	-91.5	1788.8
My,	-116.4	-69 1	-13.4	-35.5	**-144.9**	1760.6	-99.8	-123.2	13.6	-15.5	**136.5**	2316.2
Mz,	-156.4	-49.6	-3.3	-9.3	-103.5	**715.5**	76.7	-99.0	3.5	-36.2	96.7	**2976.8**

Member 34

Fx,	**-537.0**	-70.7	-13.0	-32.1	-115.7	1868.1	**456.5**	-113.3	13.1	-14.7	106.3	2038.1
Fy,	6.8	**-174.5**	9.8	-37.3	54.9	2003.4	-87.0	**13.8**	-8.9	3.8	-65.0	1768.9
Fz,	-505.9	-99.3	**-20.2**	-38.4	-70.7	1816.6	289.2	-68.3	**20.2**	-22.7	61.3	2078 7
Mx,	-134.6	-128.0	-8.5	**-107.4**	-54.9	1976.8	51.7	-33.1	9.4	**38.8**	42.0	1802.8
My,	-45.7	-53.3	-10.0	-37.6	**-118.1**	1912.7	-92.2	-136.2	10.0	-10.0	**108.6**	2232.0
Mz,	-160.2	-53.3	-3.4	-19.9	-92.2	**716.2**	80.5	-90.8	3.4	-21.2	84.6	**2976.3**
Fx,	**-528.7**	-1 7	3.2	3.7	-120.2	2004.5	**448.2**	14.6	-3.2	11.5	111.1	2282.0
Fy,	13.7	**-81.2**	3.6	-23.4	83.7	2297.9	-93.3	**81.7**	-2.8	54.1	-89.3	1876.2
Fz,	-497.1	-32.4	**-10.9**	-11.7	-122.3	2086.5	280.4	30.9	**10.9**	16.9	112.9	2189.2
Mx,	8.5	-39.8	-0.1	**-66.8**	70.8	2235.9	-90.4	40.2	0.9	**75.8**	-79.0	1887.1
My,	-131.4	-5.9	-8.0	-2.7	**-139.8**	1987.1	-85.1	13.1	8.2	4.9	**130.4**	2590.1
Mz,	-78.3	-1.0	-4.3	3.5	-114.2	**832.3**	155.7	5.5	4.5	-2.1	107.4	**3212.7**

Member 35

Fx,	**-529.7**	-9.2	-8.7	-3.2	-126.7	2004.5	**449.2**	12.4	8.6	-6.5	117.3	2292.3
Fy,	-136.6	**-86.8**	0.6	-61.7	-86.8	1595.5	56.0	**77.6**	-1.5	21.8	80.5	2517.7
Fz,	-94.9	-26.2	**-13.7**	-34.9	-71.8	2155.7	-121.8	24.7	**13.6**	26.4	62.4	2119.9
Mx,	-135.7	-45.1	-3.3	**-83.5**	-76.4	1611.1	53.4	35.6	2.7	**62.6**	67.7	2540.6
My,	214.0	18.4	-4.0	4 3	**-132.8**	1618.7	-82.9	-10.5	3.8	-0.6	**123.4**	2580.8
Mz,	-77.8	-3.8	-5.5	-4.6	-109.8	**832.3**	155.5	12.7	5.6	9.7	102.2	**3212.7**
Fx,	**-521.4**	59.7	7.6	32 5	-111.6	1864.3	**441.0**	119.8	-7.6	10.5	101.9	2006.5
Fy,	-130.0	**-17.8**	6.8	-9.0	-71.9	1490.6	49.3	**170.4**	-7.7	33.9	61.5	2293.8
Fz,	61.4	78.2	**-15.1**	19.7	56.5	2260.7	-143.6	86.1	**15.0**	38.1	-66.6	1479.7
Mx,	9.3	29.3	-7.3	**-44.6**	46.8	1528.1	-92.1	123.0	6.6	**101.6**	-59.0	2288.8
My,	-144.0	64.5	-1.1	38.4	**-128.7**	1931.2	-72.2	118.8	0.9	5.8	**118.6**	2202.4
Mz,	-67.9	39.1	0.3	20.4	-102.1	**726.2**	145.7	119.5	-0.1	25.5	95.1	**2976.7**

Member 36

Fx,	**-515.2**	58.0	-3.5	29.4	-132.2	1904.6	**434.8**	125.5	3.1	4.0	123.3	2031.1
Fy,	-136.8	**-31.4**	8.4	-52.7	-113 1	1485.6	56.0	**180.7**	-9.2	55.7	106.0	2374.7
Fz,	24.9	79.9	**-17.9**	18.0	75.8	2256.8	-241.6	84.6	**17.4**	26.7	-84.7	1651.9
Mx,	-129.0	-2.1	1.7	**-76.9**	-90.0	1513.0	47.6	147.6	-2.3	**109.9**	81.4	2432.5
My,	-163.0	69.7	1.3	35 5	**-140.7**	1420.3	294.3	118.2	-1.7	12.4	**131.5**	2277.3
Mz,	-64.5	35.5	-1 8	9.9	-113.2	**725.5**	142.5	127.8	1.7	40.6	106.0	**2977.4**
Fx,	**-506.9**	126.9	12.7	65.2	-93.9	1462.1	**426.5**	222.6	-13.1	16.4	83.1	1274.5
Fy,	-130.3	**33.5**	14.6	2.9	-63.2	1158.2	48.8	**277.2**	-15.3	65.8	51.9	1578.9
Fz,	42.7	179.4	**-22.1**	58.6	30.2	1702.9	-259.4	151.2	**21.6**	52.4	-41.4	1091.8
Mx,	-82.1	70.3	0.7	**-29.8**	-42.5	1115.0	-0.6	236.3	-1.4	**142.8**	29.7	1719.2
My,	-146.7	132.3	4.6	68.0	**-110.5**	1510.3	-69.5	215.5	-5.0	12.0	**99.4**	1421.5
Mz,	-55.1	78.4	7.4	34.4	-81 5	**442.7**	132 8	235.9	-7.5	60.7	73.7	**2209.8**

Member 37

Fx,	**-495.4**	118.2	4 6	40.6	-138.9	1458 6	**415.0**	230.3	-6.1	31.7	132.4	1275.3
Fy,	-124.9	**18.9**	6.3	-42.7	-104.8	1156.4	42.7	**290.1**	-7.8	98.4	97.9	1598.8
Fz,	0.4	195.1	**-24.8**	69.3	74.9	1746 4	-82.5	132.5	**23.0**	30.6	-81.2	855.2
Mx,	-114.6	60.7	7.9	**-71.5**	-97.9	1104.8	32.2	246 4	-9.5	**167.7**	90.2	1742.0
My,	-143.3	118.3	6.4	44 7	**-141.0**	956.9	62.1	230.8	-7.9	41 6	**134.3**	1688.1
Mz,	-42.0	71.8	7 2	14.7	-119.3	**441.3**	120 0	246.5	-8.1	84 6	113.6	**2211.0**
Fx,	**-487.1**	221 2	20.8	108.1	-64.4	668 4	**406.7**	331.1	-22.3	44.1	50.8	38.6
Fy,	-118.1	**82.9**	12 4	13.8	-64.3	655.6	34.8	**394.4**	-14.1	109.6	49 0	236.4
Fz,	16.8	298.7	**-29.5**	111.3	-4.4	663 0	-98.9	202.4	**27.8**	54.9	-9.9	74.3
Mx,	-70.9	255.2	3 0	**-27.8**	-33.9	179.8	-10.2	332.9	-4.9	**200.2**	20.5	617.7
My,	-141 9	223.8	9.8	91.8	**-85.8**	715.8	60.3	310.3	-11 4	52.1	**71.9**	-61.4
Mz,	95.2	282.1	-17.0	45.8	16.5	**-314.1**	-20.1	179.9	15.3	63.0	-30.4	**1114.9**

Member 38

Fx,	**-459.2**	203.7	7 6	55 0	-155 4	668.8	**378.9**	347.2	-13.6	88.8	158 2	41 5
Fy,	-92.6	**65.8**	14 2	-39.2	-127.4	651.0	10.7	**411.8**	-18.5	163.8	126 3	290 9
Fz,	-29.3	323.8	**-34.2**	153.0	81.9	599.2	-55 7	116.4	**28.3**	-18.8	-84 1	170 7
Mx,	-83.8	223.4	11.9	**-86.2**	-107.8	200.2	1.9	356.5	-17.7	**242.2**	110 4	566.3
My,	-108.4	171.9	8.9	36.1	**-156.9**	236.3	27.0	362.1	-14.8	94.6	**159.6**	437.3
Mz,	72.1	296.1	-19.3	92.1	91.1	**-312.1**	1.9	161.6	14.5	-1.4	-92.2	**1114.9**
Fx,	**-451.0**	337.5	23.8	149.5	-67.2	-580.1	**370.6**	417.7	-29.8	82.2	43.1	-1653 0
Fy,	-80.4	**118.1**	21.7	4.2	-40.6	121.9	1.3	**520.9**	-24.9	174.1	27.1	-1710.0
Fz,	-17.6	459 0	**-39.5**	224.4	-35.3	-1144.2	-67.4	163.6	**33.5**	-11.5	6 3	-482.0
Mx,	-74.7	296.6	18.5	**-58.7**	-38.1	-1032 9	-10.5	459.9	-24.9	**281.5**	8.0	-1145.9
My,	-67.5	417.0	-33.7	203.8	**-99.3**	-867.8	-13.8	338.1	27.4	26.6	**74.7**	-1404 5
Mz,	103.5	468.4	-25.7	144.9	24.9	**-2073.8**	-26.4	130.4	21.7	4.4	-41 3	**453.1**

Member 39

Fx,	**-416.4**	-324.6	-28.6	-134.9	-83.0	-522.7	**362.2**	-409.6	34.8	-78.8	58.8	-1675.5
Fy,	17.4	**-522.4**	37.3	-182.5	22.2	-1998.6	-73.0	**-116.9**	-33.9	-1.5	-37 1	404 1
Fz,	-68 4	-258.0	**-38.5**	-5.5	7.2	-862.9	13.9	-426.5	**44.6**	-217.4	-29 6	-1065 7
Mx,	17.3	-451.6	28.3	**-289.4**	-1.1	-1181.1	-77.6	-306.9	-21.8	**61.1**	-28.7	-1038 3
My,	-31 8	-366 4	26.1	-187.7	**-107.1**	-752.9	-23.4	-350.3	-20.0	-17.5	**82.6**	-1405 3
Mz,	16.7	-501.6	35.7	-137.7	24.9	**-2108.2**	-70.0	-117.1	-31.3	-1.7	-40.9	**487.7**
Fx,	**-408.1**	-211.4	-12.4	-62.0	-157.8	641.9	**354.0**	-339.0	18.6	-85.5	161.5	35.2
Fy,	26.8	**-413.1**	20.8	-169.8	137.7	-10.7	-82.9	**-66.5**	-17.1	28.1	-137.3	892 2
Fz,	-59 8	-187.4	**-29.3**	15.8	-126.9	112.8	5.3	-313.3	**35.4**	-172.4	132.0	610.5
Mx,	12 1	-344.6	21.3	**-250.5**	115.9	549.1	-70.1	-233.7	-15.3	**88.6**	-113 8	188.2
My,	-96 3	-212.0	-21.1	-52 1	**-174.9**	237.6	40.9	-340.9	27.4	-94.0	**178.2**	464.1
Mz,	3.1	-307 3	21.4	-93.6	95.8	**-347.1**	-59.2	-158.4	-16.6	-4.8	-95.9	**1133.0**

Member 40

Fx,	**-440.7**	-229 8	-25.5	-109 8	-74.0	637.4	**386.7**	-322.5	27.2	-45.0	60.6	35 8
Fy,	55 4	**-395.9**	26.0	-116.2	43.5	-68.4	-113.0	**-82.3**	-24.6	-20.5	-56.4	896.8
Fz.	-90 7	-210.7	**-32.9**	-34.6	-17.6	63.9	33.8	-285.8	**34.7**	-119.5	2 5	650 8
Mx.	38.0	-337.0	18 3	**-207.8**	27.7	540.8	-94.6	-252.8	-16.5	**29.5**	-40 4	188 8
My,	-129.4	-210.7	-21.4	-95.3	**-81.2**	700.8	74.1	-323.2	23.1	-49.8	**67.7**	-63.5
Mz.	28.5	-293.4	19.1	-47.3	13.9	**-349.1**	-83.6	-176.6	-17.4	-69.0	-26.8	**1132.9**
Fx,	**-432.4**	-126.8	-9.3	-42.2	-134.9	1413.3	**378.4**	-221.7	11.0	-32.7	129.3	1286.8
Fy,	63.6	**-291.1**	9.7	-102.8	106.4	1284.9	-123.1	**-23.7**	-7.9	33.9	-113.7	1355.3
Fz,	-82.1	-140.1	**-23.7**	-7.9	-126.7	826.8	25.1	-182.9	**25.5**	-79.9	119.7	1731 8
Mx,	31.3	-234.1	11.8	**-174.0**	97.0	1705.6	-87.1	-163.1	-10.1	**70.1**	-100.9	1300 1
My,	-120 0	-137.0	-18.3	-45.7	**-152.7**	939.9	244.8	-220.7	20.0	-48.3	**147.0**	1542.1
Mz,	193 1	-75.1	-11.8	-12.1	-116.3	**425.2**	-247.3	-248.9	12.9	-88.2	110.7	**2205.3**

Member 41

Fx,	**-447.5**	-131.0	-18.2	-59.5	-105.3	1402.3	**393.6**	-211.2	18.6	-23.1	95.5	1279.5
Fy,	73 2	**-278.4**	17.7	-71.1	54.1	1264.2	-131.5	**-37.1**	-16 7	-7.5	-66.1	1357.2
Fz.	-101 8	-164.3	**-26.7**	-49 0	-50.4	905.3	226.0	-167.8	**27.3**	-64.5	40.1	1503.9
Mx.	-5.1	-224.7	2 6	**-149.3**	25.1	1683.7	-55.4	-86.5	-1.4	**23.4**	-39.6	1038.9
My,	-152.9	-118.2	-16 0	-68.4	**-108.2**	1494.5	97.6	-230.7	16.6	-14.3	**97.9**	1252.8
Mz,	182.7	-81.7	-9.6	-31.7	-77.7	**426.7**	-237.1	-237.7	9.9	-62.7	69.5	**2204.1**
Fx,	**-439.3**	-62.0	-2.0	-23 8	-133.3	1810.1	**385.3**	-114.0	2.4	-10.7	125.2	2037.5
Fy,	80.6	**-181.5**	11 5	-59.1	118.9	2051.6	-137.6	**26.6**	-10.6	46.1	-125.2	1682.1
Fz,	-93.1	-97.4	**-17.4**	-22.4	-131.4	1467.7	37.3	-66.6	**18.0**	-24.9	123.7	2235.3
Mx,	30.6	-135.0	4.9	**-115.0**	89.3	2379.2	-89.2	-15.5	-3.9	**69.7**	-96.9	1440.9
My,	-125 8	-83.1	-13.1	-32 7	**-154.9**	1418.6	250.5	-109.8	13.6	-17.1	**147.0**	2307.8
Mz.	166.0	-31.1	-2.9	-7.3	-112.7	**724.1**	-222.7	-106.6	3.2	-37.3	105.5	**2948.9**

Member 42

Fx,	**-447.9**	-69 4	-12.9	-31.0	-125.6	1817.1	**393.9**	-115.0	13.1	-19.7	116.9	2039.0
Fy,	76.1	**-171.7**	9.7	-38.7	67.0	1981.1	-133.0	**14.1**	-8.7	6.1	-76.9	1687.2
Fz,	-109 8	-100 0	**-20.0**	-36.1	-81.3	1467.5	53.9	-64.1	**20.3**	-24.0	72.5	2235.5
Mx,	-124.2	-111.7	-7.9	**-104.8**	-68.6	2242.6	65.1	-45.3	9.1	**37.0**	56.4	1446.0
My,	-166 3	-50.1	-9.6	-34.9	**-127.3**	1907.7	111.0	-134.8	9.9	-11.8	**118.5**	2050.5
Mz,	162.5	-34.7	-3.0	-17.6	-102.4	**724.8**	-219.3	-98.5	3.1	-22.6	94.9	**2948.4**
Fx,	**-439.7**	-0.5	3.3	4.7	-129.6	1948.0	**385.7**	13.0	-3.1	6.6	121 8	2290.3
Fy,	83.0	**-78.5**	3.5	-25.1	95.4	2198.7	-139.4	**82.0**	-2.6	56.4	-100.3	1792.7
Fz,	-74 9	-33.2	**-10.9**	-9 7	-105.8	1744 6	199.1	33 2	**11.1**	15.9	98 1	2159 2
Mx.	21 3	-23.1	0 1	**-67.8**	77.9	2472 5	-79.4	27.5	0.9	**77.6**	-84.2	1542.7
My.	133.5	-7.6	-8 1	-0.6	**-149.5**	1631 4	-8.8	15.5	8.3	3.8	**141.7**	2576 7

Mz,	200.8	7.0	2.9	7.4	-108.5	**811.2**	-149.7	0.3	-2.8	-3.6	101.6	**3174.5**

Member 43

Fx,	**-441.0**	-2.3	-8.4	-0.1	-136.6	1926.0	**386.9**	10.9	8.5	-8.5	128.9	2306.9
Fy,	-85.7	**-85.7**	1.0	-59.1	-94.3	1588.3	32.3	**79.1**	-1.4	19.5	91.5	2482.1
Fz,	-85.1	-35.5	**-13.8**	-31.9	-81.7	1814.6	30.7	40.3	**13.8**	24.5	74.0	2174.3
Mx,	-139.4	-31.2	-2.7	**-80.5**	-87.5	1867.3	86.0	28.3	2.1	**60.4**	82.0	2154.3
My,	-179.8	21.1	-4.5	7.9	**-142.1**	1842.6	126.0	-1.2	4.6	-2.2	**134.3**	2360.6
Mz,	204.5	4.4	3.5	-0.1	-118.6	**811.1**	-153.5	7.4	-3.6	7.6	112.2	**3174.5**
Fx,	**-432.7**	66.6	7.8	35.7	-120.5	1754.8	**378.6**	118.3	-7.7	8.5	113.1	2027.7
Fy,	-79.1	**-16.8**	7.1	-6.3	-77.7	1479.0	25.6	**171.9**	-7.6	31.9	72.8	2185.1
Fz,	106.2	68.9	**-15.7**	17.8	64.0	1898.0	-160.6	101.9	**15.7**	41.0	-71.3	1695.6
Mx,	7.5	43.2	-7.0	**-46.5**	56.3	1764.3	-61.5	115.7	6.3	**104.2**	-65.1	1890.8
My,	-117.4	55.0	-0.9	41.3	**-137.8**	1578.5	243.3	132.4	1.0	3.8	**130.4**	2086.2
Mz,	192.3	53.1	1.6	23.3	-110.9	**695.4**	-144.0	111.5	-1.4	23.4	105.6	**2915.0**

Member 44

Fx,	**-426.8**	66.6	-3.6	35.4	-141.2	1766.6	**372.6**	123.3	3.3	-0.9	135.2	2055.2
Fy,	-81.2	**-29.9**	8.3	-48.3	-114.2	1475.2	28.0	**181.8**	-8.6	52.2	112.1	2264.5
Fz,	69.2	70.2	**-18.3**	15.0	85.3	1894.2	-123.6	100.6	**18.0**	30.9	-91.4	1699.5
Mx,	-151.2	14.1	2.1	**-72.4**	-101.2	1733.6	97.1	137.6	-2.5	**106.3**	95.7	2070.6
My,	-182.6	82.9	1.5	39.6	**-149.5**	1634.7	128.8	111.7	-1.6	10.8	**143.2**	2058.4
Mz,	199.8	49.9	1.3	14.2	-127.6	**694.7**	-151.3	119.3	-1.3	37.1	122.6	**2915.6**
Fx,	**-418.5**	135.5	12.6	71.2	-103.2	1285.4	**364.4**	220.4	-12.9	11.4	95.9	1308.2
Fy,	-74.8	**35.0**	14.5	7.3	-64.9	1141.3	20.8	**278.3**	-14.8	62.3	60.5	1453.4
Fz,	103.4	169.7	**-22.6**	55.5	37.6	1331.0	-157.8	167.2	**22.4**	56.6	-44.9	1120.3
Mx,	-16.2	96.0	-14.7	**-32.3**	24.2	1376.2	-39.2	216.8	14.1	**146.3**	-33.0	1289.1
My,	-102.8	121.0	4.3	61.0	**-119.4**	1100.7	48.7	218.6	-4.5	12.8	**112.2**	1349.1
Mz,	192.2	92.8	7.9	38.6	-88.4	**400.2**	-144.1	227.5	-7.8	57.3	83.2	**2133.3**

Member 45

Fx,	**-407.0**	128.4	4.7	48.1	-1[illegible]7.8	1282.2	**352.9**	216.4	-5.8	34.1	144.6	1213.2
Fy,	-76.5	**21.5**	6.4	-35.2	-131.1	1139.4	22.0	**290.3**	-7.7	92.0	130.7	1482.3
Fz,	61.0	184.6	**-25.2**	63.6	84.9	1374.2	-115.4	152.3	**23.6**	37.5	-87.1	1077.1
Mx,	-153.7	77.8	8.0	**-63.9**	-108.3	1306.1	98.4	235.4	-9.4	**161.2**	104.8	1371.4
My,	-180.0	131.1	6.4	35.5	**-149.4**	1243.5	126.1	220.0	-7.9	37.1	**146.9**	1331.5
Mz,	205.6	87.1	7.7	21.7	-127.3	**398.8**	-157.3	237.1	-8.5	78.4	124.8	**2134.4**
Fx,	**-398.8**	231.4	20.9	115.6	-72.8	446.1	**344.6**	317.3	-22.1	46.4	64.3	38.9
Fy,	-69.7	**85.4**	22.6	21.2	-49.8	627.7	14.0	**394.6**	-23.9	103.2	42.5	118.7
Fz,	93.7	288.2	**-30.1**	105.4	3.2	285.0	-148.2	222.2	**28.5**	62.0	-12.7	259.9
Mx,	-121.0	271.9	2.9	**-24.5**	-39.7	348.1	66.4	322.8	-4.8	**197.8**	29.4	242.0
My,	-83.0	216.1	10.1	99.4	**-94.4**	331.3	28.9	327.3	-11.6	45.6	**85.3**	131.9
Mz,	352.1	297.6	-16.5	44.6	36.1	**-387.9**	-302.1	171.5	15.0	70.0	-42.8	**1062.7**

Member 46

Fx,	**-369.9**	211.0	7.1	48.9	-166.5	420.8	**315.9**	332.4	-13.2	89.5	175.0	41.7
Fy,	-42.0	**70.1**	11.6	-26.3	-149.2	623.6	-11.5	**410.4**	-15.4	154.1	158.4	186.5
Fz,	46.8	311.5	**-34.9**	142.8	94.8	223.0	-103.6	136.7	**28.8**	-7.1	-91.1	388.5
Mx,	-138.3	242.6	14.5	**-73.5**	-129.0	367.3	83.0	343.7	-20.5	**230.3**	135.8	192.6
My,	-161.2	215.2	8.4	62.5	**-168.5**	463.1	106.9	344.1	-14.8	81.4	**176.9**	51.7
Mz,	326.9	308.1	-19.0	81.4	114.4	**-385.9**	-277.8	154.9	14.3	10.7	-106.6	**1062.7**
Fx,	**-361.7**	344.8	23.3	143.4	-80.8	-860.7	**307.7**	403.0	-29.4	82.8	61.6	-1586.4
Fy,	-29.5	**122.3**	29.2	16.8	-33.4	76.0	-21.0	**519.5**	-31.9	164.5	32.7	-1808.1
Fz,	74.9	446.7	**-40.3**	214.0	-25.9	-1517.8	-131.7	184.0	**34.2**	0.4	2.2	-303.1
Mx,	-145.6	315.8	21.0	**-46.1**	-47.6	-899.1	86.8	447.2	-27.7	**269.8**	20.5	-1515.2
My,	-45.5	351.0	13.8	148.5	**-97.6**	-964.5	-8.4	413.6	-20.1	83.2	**78.2**	-1541.7
Mz,	337.2	508.0	-33.1	146.0	26.3	**-2152.1**	-284.9	123.8	29.2	16.9	-32.4	**379.5**

Member 47

Fx,	**-325.3**	-358.4	-25.0	-138.4	-100.8	-808.0	**297.7**	-397.5	32.3	-77.2	81.6	-1601.2
Fy,	-163.4	**-530.4**	22.4	-174.3	45.5	-1748.9	191.7	**-123.4**	-18.7	-6.0	-49.0	-7.5
Fz,	-98.8	-181.1	**-33.5**	3.9	-18.5	-255.9	67.7	-435.0	**40.4**	-199.7	-6.6	-1507.0
Mx,	72.1	-462.1	23.7	**-276.1**	21.1	-1541.7	-100.6	-313.8	-15.6	**46.1**	-43.8	-822.7
My,	-49.4	-331.0	-21.9	-138.9	**-104.0**	-918.5	21.8	-423.9	29.1	-75.0	**84.8**	-1484.4
Mz,	272.2	-495.3	23.3	-129.6	46.4	**-2187.4**	-297.6	-143.1	-18.5	-4.3	-50.7	**413.3**
Fx,	**-317.0**	-245.1	-8.8	-65.4	-159.5	508.5	**289.5**	-326.9	16.1	-83.9	172.9	55.1

Fy,	-153.8	**-421.0**	15.9	-161.5	134.2	275.4	181.6	**-73.0**	-11.9	23.5	-121.0	510.0
Fz,	-106.8	-132.3	**-24.3**	15.9	-130.2	475.6	75.6	-321.7	**31.2**	-154.7	136.2	154.2
Mx,	83.6	-354.9	16.6	**-237.2**	117.9	182.8	-109.7	-240.5	-9.0	**73.5**	-100.7	487.5
My,	**-141.1**	-199.6	-16.6	-51.1	**-175.0**	491.5	113.9	-351.6	23.5	-84.8	**188.5**	16.1
Mz,	244.0	-303.7	18.5	-81.9	105.2	**-391.5**	-271.4	-181.9	-12.8	-9.5	-88.8	**1116.2**

Member 48

Fx,	**-347.2**	-259.2	-21.1	-111.2	-84.2	511.4	**319.6**	-312.8	23.6	-44.5	80.1	52.3
Fy,	-130.8	**-405.7**	13.0	-113.1	57.9	217.5	156.8	**-87.2**	-11.5	-20.3	-57.8	514.4
Fz,	-129.2	-223.2	**-27.5**	-57.7	-26.2	364.8	101.2	-298.3	**30.2**	-111.5	21.7	197.7
Mx,	66.2	-337.7	3.9	**-201.7**	24.6	194.8	-89.7	-269.1	-0.7	**21.8**	-26.1	468.6
My,	-72.2	-231.4	-18.1	-111.7	**-89.7**	278.5	44.6	-339.2	20.7	-42.3	**85.5**	287.7
Mz,	266.2	-292.0	16.2	-48.6	30.4	**-393.4**	-292.1	-200.0	-13.6	-65.6	-29.7	**1115.8**
Fx,	**-338.9**	-156.3	-4.9	-43.7	-125.1	1419.8	**311.4**	-212.0	7.4	-32.1	132.5	1259.5
Fy,	-122.6	**-300.9**	6.8	-99.6	102.4	1614.8	147.4	**-27.6**	-4.4	33.4	-94.9	992.5
Fz,	-137.2	-152.7	**-18.2**	-31.1	-111.0	1237.2	109.2	-195.3	**21.0**	-71.8	118.8	1281.8
Mx,	111.5	-246.0	7.2	**-166.2**	89.9	1341.4	-130.3	-172.7	-5.1	**61.0**	-75.0	1775.5
My,	-178.2	-141.5	-13.1	-56.3	**-141.1**	1325.6	152.2	-231.4	14.8	-33.7	**148.1**	1272.3
Mz,	-36.0	-94.4	-6.2	-12.4	-94.6	**446.1**	11.5	-239.6	7.7	-85.1	103.7	**2209.8**

Member 49

Fx,	**-348.9**	-163.8	-12.7	-64.7	-110.9	1384.4	**321.3**	-205.3	13.9	-19.9	113.8	1256.5
Fy,	-111.0	**-289.2**	5.6	-71.0	88.1	1600.4	136.7	**-40.2**	-4.2	-5.2	-84.1	994.0
Fz,	-153.9	-161.4	**-21.3**	-57.4	-54.8	1271.1	126.0	-186.6	**22.7**	-56.0	57.3	1247.8
Mx,	74.4	-237.9	0.6	**-145.8**	33.9	1323.3	-104.6	-83.3	1.0	**21.7**	-34.8	1367.0
My,	-75.1	-134.8	-12.4	-65.8	**-111.5**	1065.7	47.5	-233.3	13.7	-18.8	**114.2**	1613.3
Mz,	-43.2	-100.2	-6.0	-29.7	-72.2	**447.3**	18.1	-229.4	6.7	-62.5	80.0	**2208.7**
Fx,	**-340.7**	-94.9	3.5	-28.9	-114.0	1940.0	**313.0**	-108.2	-2.3	-7.6	122.6	1988.3
Fy,	-103.9	**-192.3**	-0.6	-59.0	98.3	2436.8	131.2	**23.8**	1.9	48.3	-86.5	1330.9
Fz,	-161.8	-94.5	**-12.0**	-30.8	-111.4	1873.4	133.8	-87.4	**13.4**	-16.4	120.3	1837.9
Mx,	124.8	-147.8	0.1	**-110.9**	80.8	2018.6	-152.8	-12.6	1.2	**67.5**	-73.2	1633.3
My,	-196.4	-83.4	-7.1	-39.0	**-135.3**	1838.9	166.9	-98.6	9.1	-16.6	**144.0**	1870.4
Mz,	-35.0	-42.6	0.6	-5.2	-87.7	**724.4**	12.8	-98.3	0.1	-37.1	98.0	**2968.8**

Member 50

Fx,	**-343.6**	-96.3	-7.8	-36.6	-122.7	1901.0	**315.8**	-101.2	8.6	-10.6	130.6	1935.4
Fy,	-104.6	**-183.3**	6.9	-40.5	85.6	2349.4	132.1	**11.6**	-5.3	9.0	-75.8	1336.5
Fz,	-150.9	-93.0	**-14.8**	-32.3	-56.0	1876.9	123.0	-89.0	**15.8**	-27.6	63.6	1834.4
Mx,	-18.4	-127.9	-3.8	**-101.3**	-62.1	1866.9	-10.2	-41.4	5.6	**34.6**	66.7	1815.6
My,	-66.1	-64.8	-5.2	-32.0	**-124.9**	1492.8	38.5	-137.3	6.2	-14.6	**132.5**	2469.2
Mz,	-34.9	-45.8	0.5	-14.6	-88.2	**724.9**	12.2	-90.8	-0.1	-24.2	99.5	**2968.4**
Fx,	**-335.3**	-27.4	8.4	-0.8	-103.7	2152.8	**307.5**	-4.1	-7.6	1.7	115.5	2198.7
Fy,	-98.1	**-90.2**	0.7	-26.5	100.8	2685.5	126.5	**79.9**	0.8	59.1	-83.4	1449.6
Fz,	5.8	-30.3	**-12.3**	-27.6	76.8	2341.4	-33.7	14.3	**13.3**	34.0	-64.7	1815.1
Mx,	127.5	-38.2	-4.2	**-66.9**	67.8	2082.9	-154.8	31.2	5.8	**77.7**	-54.6	1971.6
My,	-205.1	-19.9	-2.1	2.6	**-122.2**	2080.5	55.6	6.0	3.1	4.9	**134.4**	2243.8
Mz,	-27.4	-2.9	6.6	10.4	-72.8	**808.1**	3.0	-1.7	-6.1	-5.2	86.6	**3264.8**

Member 51

Fx,	**-330.8**	-23.6	-3.0	9.5	-126.6	2102.6	**302.7**	-9.7	3.2	-20.1	140.1	2197.8
Fy,	-256.0	**-93.4**	5.8	-56.1	-80.2	2006.6	284.6	**71.9**	-5.0	22.1	96.8	1625.0
Fz,	-5.3	-23.0	**-15.0**	-6.3	85.2	2407.3	28.8	4.8	**15.9**	-0.6	-73.0	1746.7
Mx,	-5.8	-41.7	2.3	**-76.9**	-69.5	1509.6	-21.7	23.5	-2.3	**56.9**	83.7	2610.8
My,	-27.6	7.2	1.2	11.7	**-132.7**	1527.8	51.4	-13.8	-0.3	-5.8	**144.8**	2882.3
Mz,	-20.5	-5.3	6.6	3.8	-93.5	**807.9**	-4.5	4.7	-6.2	3.5	109.0	**3264.8**
Fx,	**-322.5**	45.3	13.2	45.2	-86.0	2027.3	**294.4**	118.2	-13.0	6.1	100.5	1975.6
Fy,	-250.1	**-24.8**	11.9	-3.4	-42.5	1936.5	273.9	**163.7**	-11.9	28.4	56.6	1956.5
Fz,	12.8	45.9	**-19.1**	1.5	53.1	2385.4	10.7	101.8	**20.0**	57.8	-37.1	1477.1
Mx,	131.8	31.6	-10.5	**-49.5**	51.8	1382.4	-159.9	111.3	10.3	**107.3**	-38.6	2452.7
My,	-185.0	49.4	4.5	43.8	**-102.4**	2106.8	208.2	101.8	-3.7	17.0	**118.4**	1718.4
Mz,	8.1	41.1	13.4	26.8	-53.8	**702.6**	17.3	110.5	-13.1	19.6	70.0	**3067.8**

Member 52

Fx,	**-310.4**	42.8	2.5	40.9	-124.6	2086.0	**282.2**	110.8	-2.0	7.7	141.9	1731.2
Fy,	-242.0	**-36.4**	12.7	-40.9	-87.8	1935.2	263.9	**172.5**	-12.9	45.8	104.3	2000.9
Fz,	-26.8	66.2	**-21.5**	19.8	88.5	2500.1	50.2	81.6	**21.9**	26.8	-71.2	1362.4
Mx,	33.9	16.0	1.5	**-65.0**	-31.2	1341.0	-62.6	122.0	-1.6	**97.3**	48.2	2591.4

My,	-9.0	72.3	6.7	51.6	-132.3	1291.3	32.5	89.8	-6.1	-9.4	149.5	2741.1
Mz,	22.3	38.1	13.3	18.6	-97 5	**701.9**	2.5	117.1	-13.2	29.6	116 4	**3068.4**
Fx,	**-302.1**	111.7	18.7	76.6	-59.4	1712 0	**273.9**	207.9	-18.2	38.2	78 8	1040 6
Fy,	-236.5	**28.2**	18.8	14.7	-19.5	1638.1	257.4	**269.3**	-19.1	55.9	34.0	1236 0
Fz,	-10.0	165.6	**-26.2**	60.0	24.6	2007 4	33.4	148.2	**26.7**	52.9	-5.3	816.5
Mx,	114.9	89.4	-17.7	**-38.1**	11.9	886.0	-145.2	209.6	17.4	**150.5**	2 4	1971.1
My,	-181.7	120.9	10.3	78.5	**-75.7**	1747.0	204.9	196.3	-9.9	36.3	**95.0**	1024 2
Mz,	30.6	81.0	19.5	43.3	-23.6	**407.5**	-6.2	225.2	-19.4	49.6	42.5	**2349.3**

Member 53

Fx,	**-284.2**	108.1	10.0	65.5	-121.4	1714.2	**256.0**	211.5	-11.0	39.2	146.2	1038.4
Fy,	-228.4	**17.2**	20.5	-20.1	-97.6	1635.9	249.0	**279.2**	-21.5	79.5	118.8	1257.1
Fz,	-56.8	182.7	**-28.5**	77.4	84.7	2041.1	76.1	126.6	**27.6**	16.2	-64.0	762.1
Mx,	43.1	86.6	3.1	**-48.7**	-32.0	852.8	-74.2	212.3	-4.4	**142.5**	53.4	2012.9
My,	18.6	135.0	12.6	82.3	**-124.2**	789.3	6.4	183.9	-12.8	32.8	**148.9**	2001.2
Mz,	52.1	76.3	19.3	29.6	-87.1	**406.2**	-28.3	232.5	-20.1	63.9	111.4	**2350.3**
Fx,	**-275.9**	211.0	26.2	133.1	-22.3	969 8	**247.7**	282.1	-27.2	37.9	42.8	-45.8
Fy,	-222.7	**80.6**	26.6	36.1	5.7	1154 8	241.5	**383.8**	-27.7	90.9	8.7	-61.7
Fz,	-42.2	286.2	**-33.9**	118.6	-14.5	1013.3	61.5	196.7	**32.9**	41.2	30.8	7.4
Mx,	112.4	280.9	-23.9	**-21.7**	-10.7	-20.8	-135.7	296.9	22.8	**195.7**	34.6	1031.1
My,	-96.1	241.4	-28.1	104.7	**-56.2**	1045.4	119.5	247.0	27.1	63.3	**76.7**	-33.2
Mz,	144.9	283.3	-22.5	49.8	0.7	**-227.5**	-124.9	177.2	21.2	83.7	15.7	**1267.9**

Member 54

Fx,	**-243.8**	202.3	12.6	104.0	-121.3	968.0	**215.6**	292.8	-19.1	65.9	162.2	-38.5
Fy,	-191 8	**69.6**	26.4	2.2	-95.2	1151.4	212.0	**394.9**	-31.0	119.8	125.7	-59.6
Fz,	-83.3	303.0	**-38.7**	138.5	92.9	986.0	104.4	126.5	**33.2**	4.7	-58.1	51.7
Mx,	67.1	244.9	19.6	**-36.9**	-81.0	-3.5	-91.6	324.9	-24.8	**196.8**	123.3	987.2
My,	56.9	193.6	14.6	85.2	**-123.8**	-7.9	-33.7	297.2	-21.1	79.4	**164.8**	961.1
Mz,	119.0	291.6	-24.9	72.4	87.6	**-226.2**	-99.5	163.4	20.2	40.4	-56.5	**1268.0**
Fx,	**-235.5**	305.3	28.8	166.1	-10.5	-200.6	**207.4**	363.3	-35.3	59.2	22.3	-1488.3
Fy,	-179.0	**121.3**	34.2	44.2	48.2	615.8	202.4	**504.2**	-37.5	130.6	-30.3	-1986.0
Fz,	-74.1	437.8	**-44.7**	208.3	-50.0	-661.8	95.2	174.3	**39.2**	13.6	59.7	-648.9
Mx,	83.7	332.9	18.3	**-18.8**	37.3	-1404.2	-112.6	413.4	-24.2	**246.0**	-26.8	-505.4
My,	-124.4	382.6	-37.0	187.3	**-109.7**	-374.7	147.7	308.1	30.4	56.2	**121.4**	-1272.0
Mz,	152.7	485.1	-38.3	119.6	-16.7	**-2023.1**	-128.0	132.9	34.6	43.9	35.9	**622.0**

Member 55

Fx,	**-196.9**	-259.8	-12.9	-125.8	-53.3	-159.3	**190.7**	-269.4	21.8	-97.0	63.2	-1491.4
Fy,	98.2	**-420.2**	23.1	-124.8	-8.2	-1963.3	-104.6	**-45.5**	-18.0	-29.9	24.3	648.7
Fz,	89.9	-162.9	**-27.4**	-30.1	43.9	-848.8	-90.0	-277.6	**34.9**	-150.6	-34.5	-555.2
Mx,	-80.8	-313.8	19.8	**-210.6**	-4.2	-580.2	81.4	-182.7	-12.5	**-5.4**	15.6	-1056.2
My,	-124.6	-264.2	20.4	-130.2	**-93.5**	-380.8	125.8	-244.8	-11.5	-77.0	**103.3**	-1304.1
Mz,	108.7	-386.3	17.4	-108.0	19.3	**-2052.2**	-113.6	-45.6	-12.6	-26.8	-0.7	**649.7**
Fx,	**-190.1**	-155.3	2.2	-53.6	-59.6	569.3	**184.0**	-211.9	6.7	-102.4	102.1	-587.4
Fy,	105.9	**-328.1**	17.5	-113.2	68.0	-679.0	-113.3	**-4.6**	-12.0	-7.3	-34.1	797.7
Fz,	97.8	-123.1	**-19.6**	-20.6	-26.5	-346.1	-97.8	-183.4	**27.1**	-111.6	63.4	301.1
Mx,	-84.4	-223.5	13.4	**-175.5**	62.0	362.5	81.4	-155.2	-4.1	**12.3**	-26.0	-423.4
My,	55.8	-204.6	-6.2	-38.0	**-72.0**	-275.1	-54.6	-164.9	15.1	-118.0	**114.5**	228.2
Mz,	145.7	-220.2	14.1	-89.2	49.5	**-945.9**	-153.4	-102.9	-8.2	-40.2	-16.4	**944.2**

Member 56

Fx,	**-201.8**	-166.2	-8.5	-88.6	-39.9	569.0	**195.7**	-201.9	10.3	-73.5	58.5	-587.2
Fy,	111.6	**-318.4**	11.9	-84.1	10.1	-682.9	-118.9	**-13.4**	-10.9	-36.0	8.5	799.9
Fz,	103.1	-196.4	**-21.9**	-75.4	45.7	-471.2	-101.8	-160.1	**23.7**	-76.7	-27.1	364.5
Mx,	-88.2	-202.4	2.3	**-154.3**	17.0	382.6	86.9	-123.3	-0.7	**-12.7**	-0.7	-210.3
My,	-122.6	-155.3	20.2	-76.6	**-49.0**	429.7	123.8	-201.2	-18.4	-75.5	**67.6**	-536.4
Mz,	155.7	-212.3	11.2	-66.3	8.2	**-945.9**	-163.3	-115.1	-9.7	-78.4	8.6	**943.3**
Fx,	**-195.1**	-61.7	6.5	-12.0	-38.6	944.6	**188.9**	-144.4	-4.7	-74.5	63.7	69.4
Fy,	119.0	**-229.7**	6.6	-72.2	44.7	175.5	-129.0	**37.6**	-4.7	7.2	-23.2	932.1
Fz,	128.9	-139.9	**-15.8**	-53.8	5.8	125.7	-127.6	-75.3	**17.7**	-44.3	19.4	815.9
Mx,	-83.9	-125.3	3.1	**-122.1**	40.1	894.0	83.3	-59.0	-1.8	**24.4**	-17.7	278.6
My,	53.9	-114 5	-3 2	1.8	**-49.3**	287.1	-52.6	-93.9	4.9	-88.3	**74.5**	705.4
Mz,	123.2	-118.6	-6 3	-29.2	-15.2	**-313.8**	-129.1	-109.5	7.6	-59.7	39.6	**1332.3**

Member 57

Fx,	**-193.6**	-71.2	-5.0	-44.6	-42.8	944.2	**187.5**	-135.8	2.6	-49.2	64.2	69.8
Fy,	123.0	**-219.9**	4.4	-44.3	26.1	170.5	-133.1	**27.7**	-5.0	-23.2	-12.0	932 4
Fz,	102.0	-153.2	**-18.1**	-73.6	32 8	80.6	-99.7	-59.8	**16.0**	-26.9	-11.2	817.1
Mx,	-119.2	-101.5	-9.5	**-110.4**	7.6	826.8	119.1	-82.4	8.1	**3.9**	10.9	318.9
My,	-154.4	-45.5	4.2	-38.2	**-53.7**	801.8	155.7	-168.8	-6.5	-62.1	**75.1**	139.8
Mz,	116.7	-124.9	-7.5	-48.8	1.1	**-313.4**	-122.6	-101.2	5.6	-38.3	19.6	**1332.0**
Fx,	**-186.9**	9.6	10.1	10.4	-36.9	1035.6	**180.8**	-81.3	-12.4	-50.3	49.6	489 2
Fy,	130.5	**-137.7**	-0.9	-34.2	33.1	630.1	-139.4	**84.4**	-0.4	23.0	-21.2	984.4
Fz,	126.1	-97.6	**-14.5**	-42.7	0.3	523.8	-123.7	19.9	**12.4**	-3.7	13.7	906.6
Mx,	-87.1	-30.9	-4.4	**-79.7**	27.2	997.3	88.9	-11.0	2.2	**42.1**	-13.6	611.2
My,	61.4	-65.8	1.7	2.7	**-41.4**	726.3	-60.1	-11.9	-3.7	-37.9	**54.7**	726.1
Mz,	110.3	-52.8	-2.4	-25.0	-16.7	**8.4**	-115.7	-19.8	0.4	-26.2	30.8	**1527.5**

Member 58

Fx,	**-178.1**	2.0	7.1	-15.6	-55.3	1036.0	**172.0**	-74.4	-14.6	-31.4	81 4	488.9
Fy,	128.7	**-130.6**	-1.4	-16.0	32.6	542.4	-138.0	**73.0**	-1.5	-11.7	-18.8	988.7
Fz,	114.9	-93.4	**-16.8**	-42.1	37.9	628.8	-113.8	13.6	**10.2**	-11.1	-13.7	817.8
Mx,	-131.1	-1.1	-4.7	**-95.1**	-9.6	924.7	133.3	-63.8	-3.2	**38.3**	37.4	696.9
My,	-154.2	24.5	9.4	-18.0	**-59.0**	806.0	155.8	-104.1	-15.9	-37.2	**83.6**	637.0
Mz,	108.4	-57.8	-2.5	-39.8	-12.1	**8.3**	-113.9	-11.1	-2.5	-4.2	34.2	**1527.4**
Fx,	**-171.4**	84.7	12.2	33.6	-20.0	855.5	**165.2**	-21.8	-19.7	-26.5	18.6	686.8
Fy,	136.6	**-53.7**	-6.2	-3.4	19.5	569.9	-144.3	**135.5**	2.7	33.1	-15.9	858.2
Fz,	159.1	-15.4	**-24.3**	7.9	18.9	912.7	-158.0	70.9	**17.6**	-7.1	-19.1	578.4
Mx,	-99.4	57.8	-9.0	**-58.7**	10.2	729.7	102.8	17.7	0.6	**69.4**	-10.9	822.4
My,	78.4	1.2	8.8	15.4	**-32.5**	950.8	-78.9	46.6	-14.3	-18.0	**32.5**	463.5
Mz,	-130.2	16.0	2.6	-19.7	-12.1	**58.1**	132.0	61.1	-7.6	21.3	15.7	**1450.4**

Member 59

Fx,	**-158.3**	79.2	6.9	12.4	-43.8	856.0	**152.1**	-16.6	-25.4	-11.0	85.9	686.3
Fy,	98.1	**-57.9**	-3.8	-60.8	-9.6	460.3	-104.3	**136.9**	-13.4	51.3	49.3	1202.1
Fz,	146.0	-3.8	**-32.7**	36.0	96.2	949.6	-144.0	64.5	**16.7**	-41.0	-58.2	**464.8**
Mx,	-134.8	51.0	-1.5	**-86.5**	-14.9	627.6	137.7	26.6	-17.8	**88.1**	60.4	958.1
My,	-145.6	69.2	16.1	-37.9	**-58.5**	497.5	147.4	-7.6	-32.2	33.6	**96.5**	923.2
Mz,	-127.4	9.6	2.8	-38.7	-21.7	**57.6**	129.1	70.8	-14.1	46.7	50.6	**1450.7**
Fx,	**-159.4**	153.9	12.0	35.6	-9.2	402.2	**153.3**	50.0	-30.5	19.7	-16.6	651.6
Fy,	106.3	**-9.3**	3.2	-39.5	-9.5	371.4	-111.2	**214.4**	-18.7	60.0	-9.6	676.0
Fz,	152.8	80.1	**-37.7**	68.2	-32.9	788.0	-150.8	104.3	**21.7**	-26.7	12.2	176.9
Mx,	-141.7	100.4	5.5	**-54.6**	-8.1	273.8	144.6	102.7	-24.5	**105.6**	-16.8	777.2
My,	139.8	101.4	-33.2	86.1	**-37.4**	834.4	-5.4	80.5	6.0	-13.1	**21.5**	350.0
Mz,	-137.9	48.6	7.9	-18.6	-2.3	**-27.8**	132.0	156.5	-19.9	58.4	-11.7	**1039.9**

Member 60

Fx,	**-139.1**	168.9	-16.8	30.9	0.5	476.0	**133.1**	40.3	-20.3	48.6	69.5	494.5
Fy,	115.0	**-21.8**	-2.7	-79.5	-20.7	366.7	-120.9	**226.8**	-34.9	99.6	92.0	683.2
Fz,	131.0	107.9	**-64.0**	103.4	111.3	831.3	-129.7	97.2	**25.3**	-43.2	-38.1	182.4
Mx,	-131.5	86.7	1.6	**-91.5**	-29.7	268.2	133.1	114.7	-46.3	**135.5**	114 3	781.6
My,	-133.5	95.3	15.5	-54.5	**-57.4**	175.6	135.1	89.3	-54.2	93.9	**130.6**	788.8
Mz,	-128.4	39.4	8.6	-46.2	-41.7	**-28.7**	122.4	168.7	-37.4	92.7	96.8	**1040.5**
Fx,	**-145.8**	230.0	-1.7	54.1	-16.9	-233.6	**139.8**	95.9	-35.4	53.4	-49.1	223.3
Fy,	121.6	**23.4**	23.7	-26.0	34.1	228.3	-127.6	**318.5**	-52.5	108.9	-84.6	-239.7
Fz,	141.6	204.0	**-69.2**	157.7	-112.3	227.4	-140.2	135.0	**30.5**	-40.2	43.6	-225.0
Mx,	-138.8	137.0	29.6	**-42.5**	43.4	-225.1	140.4	203.3	-68.2	**160.5**	-111.8	227.9
My,	141.3	204.7	-69.2	158.4	**-112.5**	227.4	-139.9	134.0	30.5	-41.0	**43.7**	-224.9
Mz,	-129.0	294.3	-31.3	53.9	-48.0	**-239.4**	123.3	25.1	17.9	-16.3	25.2	**228.4**

Member 121

Fx,	**-1.8**	-0.0	-169.6	-0.0	360.5	-0.1	**0.3**	0.0	169.7	0.0	-481.4	0.1
Fy,	-0.9	**-0.0**	-219.5	0.6	585.4	-0.1	-0.8	**0.0**	219.5	-0.6	-727.1	0.1
Fz,	-1.0	-0.0	**-222.5**	0.2	584.3	-0.1	-1.0	0.0	**222.5**	-0.2	-746.1	0.1
Mx,	-0.4	-0.0	-189.3	**-1.0**	536.1	-0.1	-0.4	0.0	189.3	**1.0**	-599.6	0.1
My,	-1.2	0.0	219.0	0.1	**-755.1**	0.1	-0.3	-0.0	-213.3	-0.2	**618.7**	-0.1
Mz,	-0.9	-0.0	-219.5	0.6	589.7	**-0.1**	-0.9	0.0	219.5	-0.6	-731.4	**0.1**
Fx,	**-1.8**	-0.0	-169.6	-0.0	199.3	-0.0	**0.3**	0.0	169.7	0.0	-320.1	0.0
Fy,	-0.9	**-0.0**	-219.5	0.6	376.9	-0.1	-0.8	**0.0**	219.5	-0.6	-518.6	0.1
Fz,	-1.0	-0.0	**-222.5**	0.2	372.9	-0.1	-1.0	0.0	**222.5**	-0.2	-534.8	0.1
Mx,	-0.4	-0.0	-189.3	**-1.0**	356.3	-0.0	-0.4	0.0	189.3	**1.0**	-419.8	0.0
My,	-1.3	0.0	215.7	0.1	**-548.5**	0.1	-0.0	-0.0	-205.7	0.1	**418.8**	-0.0

Mz,	-0.9	-0.0	-219.5	0.6	381.2	**-0.1**	-0.9	0.0	219.5	-0.6	-522.9	**0.1**

Member 122

Fx,	**-5.0**	-0.3	-8.8	-0.0	26.1	2.2	**2.8**	1.2	47.3	0.0	-135.0	3.2
Fy,	-1.1	**-6.1**	-52.8	1.3	161.8	-16.9	-1.1	**6.1**	52.8	-1.3	-155.3	19.8
Fz,	-1.5	-2.8	**-63.9**	0.3	194.5	-6.8	-1.0	2.8	**63.9**	-0.3	-186.9	10.1
Mx,	-0.7	2.0	-49.4	**-1.7**	150.1	6.8	-0.6	-2.0	49.4	**1.7**	-146.2	-5.1
My,	-0.8	2.1	63.4	-0.4	**-191.1**	7.0	-1.0	-2.7	-63.6	0.3	**196.9**	-6.4
Mz,	-1.0	-6.1	-53.0	1.3	162.2	**-16.9**	-1.1	6.1	53.0	-1.3	-155.7	**19.8**
Fx,	**-5.0**	-0.3	-8.8	-0.0	17.8	2.4	**2.8**	1.2	47.3	0.0	-90.0	2.1
Fy,	-1.1	**-6.1**	-52.8	1.3	111.6	-11.0	-1.1	**6.1**	52.8	-1.3	-105.1	14.0
Fz,	-1.5	-2.8	**-63.9**	0.3	133.8	-4.1	-1.0	2.8	**63.9**	-0.3	-126.2	7.4
Mx,	-0.7	2.0	-49.4	**-1.7**	103.2	5.0	-0.6	-2.0	49.4	**1.7**	-99.3	-3.2
My,	-0.8	2.6	63.3	-0.6	**-131.0**	5.9	-1.0	-2.7	-63.6	0.3	**136.6**	-3.8
Mz,	-1.0	-6.1	-53.0	1.3	111.7	**-11.1**	-1.1	6.1	53.0	-1.3	-105.2	**14.0**

Member 123

Fx,	**-4.8**	-1.9	-39.5	-0.0	117.2	-1.5	**3.7**	1.9	39.6	0.0	-115.1	5.2
Fy,	-0.5	**-9.9**	-48.0	0.7	145.3	-27.3	-0.5	**9.9**	48.0	-0.7	-142.5	32.0
Fz,	-0.5	-3.5	**-58.2**	0.3	175.3	-8.2	-0.4	3.5	**58.2**	-0.3	-173.8	12.6
Mx,	-0.4	3.6	-44.3	**-1.0**	133.4	12.4	-0.3	-3.6	44.3	**1.0**	-132.2	-9.5
My,	-1.8	2.6	57.3	-0.2	**-175.1**	9.3	0.8	-4.8	-57.3	0.3	**177.0**	-11.7
Mz,	-0.5	-9.9	-47.6	0.7	144.2	**-27.3**	-0.5	9.9	47.6	-0.7	-141.4	**32.0**
Fx,	**-4.8**	-1.9	-39.5	-0.0	79.7	0.4	**3.7**	1.9	39.6	0.0	-77.4	3.3
Fy,	-0.5	**-9.9**	-48.0	0.7	99.7	-17.9	-0.5	**9.9**	48.0	-0.7	-96.9	22.6
Fz,	-0.5	-3.5	**-58.2**	0.3	120.0	-4.9	-0.4	3.5	**58.2**	-0.3	-118.5	9.2
Mx,	-0.4	3.6	-44.3	**-1.0**	91.4	9.0	-0.3	-3.6	44.3	**1.0**	-90.1	-6.1
My,	-1.8	2.6	57.3	-0.2	**-120.7**	6.9	0.8	-4.8	-57.3	0.3	**122.5**	-7.2
Mz,	-0.5	-9.9	-47.6	0.7	99.0	**-18.0**	-0.5	9.9	47.6	-0.7	-96.2	**22.7**

Member 124

Fx,	**-3.7**	-0.4	-16.2	0.0	47.1	3.6	**2.8**	0.4	16.3	-0.0	-48.8	0.4
Fy,	-0.4	**-11.5**	-43.9	0.1	131.3	-31.9	-0.4	**11.5**	43.9	-0.1	-132.2	37.3
Fz,	-0.6	-5.3	**-53.0**	0.3	157.8	-13.2	-0.5	5.3	**53.0**	-0.3	-160.2	18.5
Mx,	-0.4	3.9	41.0	**-0.5**	-123.7	13.6	-0.4	-3.9	-41.0	**0.5**	122.4	-9.9
My,	-1.5	5.3	52.9	-0.3	**-162.8**	18.7	0.3	-6.3	-52.9	0.3	**160.5**	-16.1
Mz,	-0.4	-11.5	-43.9	0.1	131.3	**-31.9**	-0.4	11.5	43.9	-0.1	-132.1	**37.3**
Fx,	**-3.7**	-0.4	-16.2	0.0	31.8	4.0	**2.8**	0.4	16.3	-0.0	-33.3	0.0
Fy,	-0.4	**-11.5**	-43.9	0.1	89.6	-21.0	-0.4	**11.5**	43.9	-0.1	-90.4	26.3
Fz,	-0.6	-5.3	**-53.0**	0.3	107.4	-8.1	-0.5	5.3	**53.0**	-0.3	-109.8	13.4
Mx,	-0.4	3.9	41.0	**-0.5**	-84.7	9.8	-0.4	-3.9	-41.0	**0.5**	83.4	-6.1
My,	-1.7	5.5	52.5	-0.3	**-112.6**	14.0	0.5	-6.3	-52.5	0.3	**110.4**	-10.1
Mz,	-0.4	-11.5	-43.6	0.1	89.0	**-21.0**	-0.4	11.5	43.6	-0.1	-89.8	**26.4**

Member 125

Fx,	**-5.7**	2.8	31.9	-0.0	-96.7	13.0	**3.7**	-2.8	-31.8	0.0	88.9	-9.2
Fy,	-1.0	**-11.0**	-41.9	-0.6	122.4	-30.3	-0.9	**11.0**	41.9	0.6	-129.0	35.7
Fz,	-1.0	-6.6	**-48.3**	0.1	140.8	-17.2	-1.2	6.6	**48.3**	-0.1	-149.4	22.4
Mx,	-0.5	-2.7	37.2	**-1.0**	-113.5	-6.9	-0.5	2.7	-37.2	**1.0**	109.9	9.4
My,	-2.0	7.1	47.8	-0.1	**-151.0**	24.2	-0.3	-7.6	-47.8	-0.0	**142.4**	-20.6
Mz,	-0.9	-11.0	-41.9	-0.6	122.5	**-30.5**	-1.0	11.0	41.9	0.6	-129.2	**35.9**
Fx,	**-5.7**	2.8	31.9	-0.0	-66.4	10.3	**3.7**	-2.8	-31.8	0.0	58.7	-6.5
Fy,	-1.0	**-11.0**	-41.9	-0.6	82.5	-19.8	-0.9	**11.0**	41.9	0.6	-89.2	25.3
Fz,	-1.0	-6.6	**-48.3**	0.1	95.0	-10.9	-1.2	6.6	**48.3**	-0.1	-103.6	16.1
Mx,	-0.5	-2.7	37.2	**-1.0**	-78.1	-4.3	-0.5	2.7	-37.2	**1.0**	74.5	6.8
My,	-2.0	7.1	47.8	-0.1	**-105.6**	17.4	-0.2	-7.0	-47.6	0.1	**97.1**	-12.4
Mz,	-0.9	-11.0	-41.9	-0.6	82.6	**-20.0**	-1.0	11.0	41.9	0.6	-89.3	**25.5**

Member 126

Fx,	**-9.1**	3.0	36.2	-0.0	-131.2	12.3	**4.4**	-3.0	-36.1	0.0	111.9	-9.4
Fy,	-2.6	**-9.0**	-49.1	-1.3	136.8	-24.9	-2.4	**9.0**	49.1	1.3	-157.1	28.9
Fz,	-2.3	-7.0	**-52.6**	-0.4	148.2	-19.0	-3.2	7.0	**52.6**	0.4	-170.7	23.0
Mx,	-1.6	-1.4	32.9	**-1.7**	-105.3	-3.0	-1.8	1.4	-32.9	**1.7**	91.3	5.2
My,	-3.9	6.5	52.3	0.3	**-172.7**	21.7	-0.8	-4.8	-52.2	-0.1	**153.5**	-13.6
Mz,	-2.4	-9.0	-49.0	-1.4	137.4	**-25.0**	-2.6	9.0	49.0	1.4	-157.8	**29.0**
Fx,	**-9.1**	3.0	36.2	-0.0	-96.8	9.5	**4.4**	-3.0	-36.1	0.0	77.6	-6.5
Fy,	-2.6	**-9.0**	-49.1	-1.3	90.1	-16.4	-2.4	**9.0**	49.1	1.3	-110.5	20.3
Fz,	-2.3	-7.0	**-52.6**	-0.4	98.3	-12.3	-3.2	7.0	**52.6**	0.4	-120.8	16.3
Mx,	-1.6	-1.4	32.9	**-1.7**	-74.1	-1.7	-1.8	1.4	-32.9	**1.7**	60.0	3.9
My,	-4.1	6.3	52.0	0.2	**-123.2**	15.2	-0.8	-4.8	-52.2	-0.1	**103.8**	-9.0
Mz,	-2.4	-9.0	-49.0	-1.4	90.8	**-16.5**	-2.6	9.0	49.0	1.4	-111.2	**20.5**

Member 127

Fx,	**-16.3**	2.9	24.6	0.3	-74.7	9.7	**5.5**	-2.9	-24.4	-0.3	72.2	-8.9
Fy,	-5.7	**-5.1**	-29.8	-0.5	88.4	-14.9	-5.7	**5.1**	29.8	0.5	-90.5	15.7
Fz,	-5.7	-4.0	**-33.7**	-1.9	99.3	-11.7	-4.5	4.0	**33.7**	1.9	-101.2	12.4
Mx,	-4.0	-3.3	-25.9	**-3.3**	76.9	-9.7	-3.5	3.3	25.9	**3.3**	-78.3	10.3
My,	-6.5	4.1	33.5	1.5	**-103.9**	12.7	-4.2	-4.0	-33.5	-1.8	**101.9**	-11.6
Mz,	-5.5	-5.1	-29.8	-0.5	88.5	**-14.9**	-5.9	5.1	29.8	0.4	-90.7	**15.7**
Fx,	**-16.3**	2.9	24.6	0.3	-51.3	6.9	**5.5**	-2.9	-24.4	-0.3	49.0	-6.1
Fy,	-5.7	**-5.1**	-29.8	-0.5	60.1	-10.0	-5.7	**5.1**	29.8	0.5	-62.2	10.8
Fz,	-5.7	-4.0	**-33.7**	-1.9	67.3	-7.8	-4.5	4.0	**33.7**	1.9	-69.2	8.6
Mx,	-4.0	-3.3	-25.9	**-3.3**	52.4	-6.5	-3.5	3.3	25.9	**3.3**	-53.7	7.1
My,	-7.3	4.4	33.5	1.6	**-72.0**	9.5	-4.2	-4.0	-33.5	-1.8	**70.1**	-7.9
Mz,	-5.5	-5.1	-29.8	-0.5	60.2	**-10.1**	-6.2	5.1	29.7	0.2	-62.0	**10.9**

Member 128

Fx,	**-9.5**	-0.7	-5.7	-0.1	34.5	4.0	**5.5**	0.7	6.1	0.1	-21.1	1.4
Fy,	-1.8	**-11.2**	-28.7	1.7	93.1	-30.0	-1.9	**11.2**	28.7	-1.7	-79.5	37.1
Fz,	-2.0	-1.1	**-34.1**	-3.2	109.8	-0.6	-1.9	1.1	**34.1**	3.2	-95.4	5.9
Mx,	-1.5	0.3	-24.1	**-4.3**	77.7	3.5	-1.2	-0.9	24.0	**4.3**	-67.7	-0.9
My,	0.2	3.9	32.7	0.6	**-98.8**	11.1	-4.0	-2.6	-33.1	-1.4	**114.0**	-1.6
Mz,	-1.7	-11.1	-28.5	1.9	92.3	**-30.1**	-1.9	11.1	28.6	-1.8	-79.0	**37.2**
Fx,	**-9.5**	-0.7	-5.7	-0.1	29.1	4.7	**5.5**	0.7	6.1	0.1	-15.3	0.7
Fy,	-1.8	**-11.2**	-28.7	1.7	65.8	-19.3	-1.9	**11.2**	28.7	-1.7	-52.2	26.4
Fz,	-2.0	-1.1	**-34.1**	-3.2	77.4	0.5	-1.9	1.1	**34.1**	3.2	-63.0	4.9
Mx,	-1.5	0.3	-24.1	**-4.3**	54.9	3.2	-1.2	-0.9	24.0	**4.3**	-44.9	0.0
My,	-0.4	3.8	31.7	0.6	**-68.2**	7.4	-3.6	-2.7	-31.9	-0.7	**83.2**	0.8
Mz,	-1.7	-11.1	-28.5	1.9	65.0	**-19.5**	-2.0	11.1	28.6	-1.9	-51.6	**26.6**

Member 129

Fx,	**-6.6**	3.2	19.4	0.5	-57.2	19.3	**5.6**	-3.2	-19.2	-0.6	60.5	-11.0
Fy,	-0.8	**-15.8**	-26.0	1.8	78.2	-41.9	-0.1	**15.8**	26.0	-1.8	-74.9	52.9
Fz,	-0.2	1.6	**-31.3**	-1.6	96.2	8.7	-0.5	-1.6	**31.3**	1.6	-93.4	-1.3
Mx,	-0.4	5.0	-23.2	**-3.7**	71.2	19.2	-0.3	-6.1	22.7	**3.6**	-67.1	-15.5
My,	-1.0	-1.8	30.7	1.7	**-93.7**	-2.6	-0.0	3.5	-30.5	-1.3	**96.7**	16.8
Mz,	-0.8	-15.8	-26.2	1.7	78.8	**-42.1**	-0.1	15.8	26.2	-1.7	-75.5	**53.1**
Fx,	**-6.6**	3.2	19.4	0.5	-38.8	16.2	**5.6**	-3.2	-19.2	-0.6	42.3	-8.0
Fy,	-0.8	**-15.8**	-26.0	1.8	53.5	-26.9	-0.1	**15.8**	26.0	-1.8	-50.2	37.9
Fz,	-0.2	1.6	**-31.3**	-1.6	66.5	7.1	-0.5	-1.6	**31.3**	1.6	-63.7	0.2
Mx,	-0.4	5.0	-23.2	**-3.7**	49.1	14.4	-0.3	-6.1	22.7	**3.6**	-45.5	-9.6
My,	-1.0	-1.8	30.7	1.8	**-64.5**	-0.9	-0.1	3.6	-30.4	-1.3	**67.8**	13.8
Mz,	-0.8	-15.7	-26.2	1.8	53.9	**-27.2**	-0.1	15.7	26.2	-1.8	-50.6	**38.2**

Member 130

Fx,	**-5.2**	-3.1	-13.3	-0.3	34.9	2.4	**4.9**	3.1	13.3	0.3	-34.0	7.4
Fy,	-0.1	**-18.6**	-17.0	0.9	51.5	-49.3	-0.1	**18.6**	17.0	-0.9	-50.7	62.5
Fz,	0.4	2.1	**-23.4**	-0.5	72.3	11.1	-0.6	-2.1	**23.4**	0.5	-71.7	-1.9
Mx,	-0.1	6.8	-15.3	**-2.2**	46.2	23.5	-0.1	-6.8	15.3	**2.2**	-45.7	-17.1
My,	-0.6	-2.1	23.4	0.5	**-71.7**	-1.9	0.3	2.2	-23.4	-0.5	**72.3**	11.6
Mz,	-0.1	-18.4	-17.3	0.9	52.3	**-49.6**	-0.1	18.4	17.3	-0.9	-51.5	**62.9**
Fx,	**-5.2**	-3.1	-13.3	-0.3	22.3	5.3	**4.9**	3.1	13.3	0.3	-21.3	4.5
Fy,	-0.1	**-18.6**	-17.0	0.9	35.3	-31.6	-0.1	**18.6**	17.0	-0.9	-34.5	44.8
Fz,	0.4	2.1	**-23.4**	-0.5	50.1	9.2	-0.6	-2.1	**23.4**	0.5	-49.4	0.1
Mx,	-0.1	6.8	-15.3	**-2.2**	31.7	17.1	-0.1	-6.8	15.3	**2.2**	-31.1	-10.6
My,	-0.6	-2.1	23.4	0.5	**-49.4**	0.1	0.3	2.2	-23.4	-0.5	**50.1**	9.5
Mz,	-0.1	-18.4	-17.3	0.9	35.8	**-32.1**	-0.1	18.4	17.3	-0.9	-35.0	**45.4**

Member 131

Fx,	**-4.5**	-3.4	-2.6	0.0	9.9	2.2	**4.3**	3.4	2.8	-0.0	-10.4	8.4
Fy,	-0.1	**-20.1**	-8.1	-0.0	24.3	-53.4	-0.1	**20.1**	8.1	0.0	-24.4	67.5
Fz,	-0.5	0.5	**-15.8**	0.6	46.6	6.9	0.3	-0.5	**15.8**	-0.6	-46.8	3.5
Mx,	-0.1	4.0	4.1	**-1.5**	-12.4	16.8	-0.1	-4.0	-4.1	1.5	12.3	-7.5

My,	-0.6	-0.5	15.5	-0.6	**-48.6**	4.1	0.5	0.5	-15.5	0.6	**48.4**	6.4
Mz,	-0.1	-20.0	-8.2	-0.0	24.7	**-53.9**	-0.1	20.0	8.2	0.0	-24.7	**68.0**
Fx,	**-4.5**	-3.4	-2.6	0.0	7.4	5.5	**4.3**	3.4	2.8	-0.0	-7.7	5.1
Fy,	-0.1	**-20.1**	-8.1	-0.0	16.6	-34.2	-0.1	**20.1**	8.1	0.0	-16.7	48.4
Fz,	-0.5	0.5	**-15.8**	0.6	31.6	6.4	0.3	-0.5	**15.8**	-0.6	-31.8	4.0
Mx,	-0.1	4.0	4.1	**-1.5**	-8.5	13.1	-0.1	-4.0	-4.1	**1.5**	8.4	-3.7
My,	-0.6	-0.5	15.5	-0.6	**-33.9**	4.5	0.5	0.5	-15.5	0.6	**33.7**	5.9
Mz,	-0.1	-20.0	-8.2	-0.0	16.9	**-34.9**	-0.1	20.0	8.2	0.0	-16.9	**49.0**

Member 132

Fx,	**-5.6**	0.9	0.8	-0.1	-2.3	14.8	**5.3**	-0.9	-0.7	0.1	0.7	-4.7
Fy,	-0.2	**-20.6**	-1.6	-0.9	4.3	-55.0	-0.1	**20.6**	1.6	0.9	-5.4	68.4
Fz,	-0.2	5.5	**-11.5**	0.9	33.7	22.3	-0.2	-5.5	**11.5**	-0.9	-35.1	-11.4
Mx,	-0.0	-3.8	4.1	**-2.2**	-12.3	-8.1	-0.2	3.1	-4.6	**2.2**	12.8	14.1
My,	-0.8	-5.5	11.0	-0.9	**-36.0**	-10.9	0.4	6.6	-11.0	0.9	**34.5**	23.9
Mz,	-0.1	-20.4	-1.3	-0.8	3.5	**-55.3**	-0.2	20.4	1.3	0.8	-4.6	**68.7**
Fx,	**-5.6**	0.9	0.8	-0.1	-1.6	13.9	**5.3**	-0.9	-0.7	0.1	0.0	-3.8
Fy,	-0.2	**-20.6**	-1.6	-0.9	2.8	-35.5	-0.1	**20.6**	1.6	0.9	-3.8	48.9
Fz,	-0.2	5.5	**-11.5**	0.9	22.7	17.0	-0.2	-5.5	**11.5**	-0.9	-24.2	-6.1
Mx,	-0.0	-3.8	4.1	**-2.2**	-8.4	-4.4	-0.2	3.1	-4.6	**2.2**	8.5	11.2
My,	0.8	-5.7	10.8	-0.9	**-25.6**	-5.9	-1.2	6.7	-10.8	0.9	**24.1**	17.9
Mz,	-0.1	-20.4	-1.3	-0.8	2.3	**-36.0**	-0.2	20.4	1.3	0.8	-3.3	**49.4**

Member 133

Fx,	-7.0	-6.4	8.9	0.6	-35.6	-9.1	**5.6**	6.4	-8.7	-0.6	30.0	17.7
Fy,	-0.7	**-19.8**	4.2	-1.4	-15.4	-53.2	-0.6	**19.8**	-4.2	1.4	10.2	65.4
Fz,	-1.0	4.6	**-18.9**	0.7	54.2	18.9	-0.5	-4.6	**18.9**	-0.7	-60.2	-8.9
Mx,	-0.5	-2.8	-5.2	**-3.6**	13.5	-5.5	-0.4	1.5	4.7	**3.7**	-15.5	8.7
My,	-0.0	-4.5	18.3	-0.7	**-60.9**	-8.3	-1.5	5.2	-18.3	0.8	**55.1**	19.2
Mz,	-0.6	-19.8	5.3	-1.7	-18.2	**-54.1**	-0.7	19.8	-4.2	1.4	10.1	**66.0**
Fx,	**-7.0**	-6.4	8.9	0.6	-27.2	-3.0	**5.6**	6.4	-8.7	-0.6	21.7	11.6
Fy,	-0.7	**-19.8**	4.2	-1.4	-11.4	-34.4	-0.6	**19.8**	-4.2	1.4	6.2	46.6
Fz,	-1.0	4.6	**-18.9**	0.7	36.3	14.5	-0.5	-4.6	**18.9**	-0.7	-42.2	-4.5
Mx,	-0.5	-2.8	-5.2	**-3.6**	8.6	-2.8	-0.4	1.5	4.7	**3.7**	-11.0	7.3
My,	-0.1	-4.8	18.3	-0.7	**-43.5**	-4.6	-1.5	5.2	-18.3	0.8	**37.7**	14.2
Mz,	-0.5	-19.7	5.4	-1.7	-13.2	**-35.4**	-0.7	19.7	-4.3	1.4	6.1	**47.2**

Member 134

Fx,	**-10.5**	-9.4	13.3	0.6	-67.3	-21.3	**5.3**	9.3	-13.4	-0.6	47.7	27.1
Fy,	-3.1	**-19.0**	11.8	-1.9	-47.2	-53.0	-2.7	**19.0**	-11.8	1.9	25.5	60.9
Fz,	-3.3	3.5	**-25.0**	-1.8	63.0	14.4	-3.0	-3.5	**25.0**	1.8	-86.3	-7.1
Mx,	-0.5	4.0	-14.7	**-4.4**	38.3	14.0	-3.4	-4.0	14.7	**4.4**	-53.0	-9.6
My,	-4.7	-8.2	23.0	0.8	**-91.7**	-18.5	-0.5	9.8	-22.9	-0.6	**72.1**	28.7
Mz,	-2.8	-19.0	11.8	-2.0	-46.0	**-53.3**	-3.0	19.0	-11.8	2.0	24.3	**61.2**
Fx,	**-10.5**	-9.4	13.3	0.6	-54.6	-12.4	**5.3**	9.3	-13.4	-0.6	35.0	18.2
Fy,	-3.1	**-19.0**	11.8	-1.9	-35.9	-34.9	-2.7	**19.0**	-11.8	1.9	14.2	42.8
Fz,	-3.3	3.5	**-25.0**	-1.8	39.2	11.0	-3.0	-3.5	**25.0**	1.8	-62.6	-3.8
Mx,	-0.5	4.0	-14.7	**-4.4**	24.4	10.2	-3.4	-4.0	14.7	**4.4**	-39.0	-5.8
My,	-4.8	-8.5	22.9	0.7	**-69.9**	-11.0	-0.4	9.9	-22.8	-0.5	**50.4**	19.6
Mz,	-2.8	-18.9	11.8	-2.1	-34.7	**-35.3**	-3.0	18.9	-11.8	2.0	12.9	**43.2**

Member 135

Fx,	**-22.7**	-12.7	-1.8	-0.1	7.4	-37.1	**7.1**	12.7	1.8	0.1	-7.5	37.9
Fy,	-9.6	**-16.9**	-8.6	-0.7	25.2	-50.2	-8.1	**16.9**	8.6	0.7	-25.2	51.2
Fz,	-6.0	-12.0	**-11.2**	-2.6	32.7	-35.7	-6.6	12.0	**11.2**	2.6	-32.7	36.4
Mx,	-5.9	-13.4	-6.2	**-4.7**	18.6	-39.9	-5.2	13.4	6.2	**4.7**	-18.6	40.5
My,	-6.0	12.1	11.1	2.6	**-35.8**	36.6	-6.6	-12.1	-11.1	-2.6	**35.8**	-35.9
Mz,	-8.7	-16.9	-8.6	-0.4	25.1	**-50.3**	-8.8	16.9	8.6	0.7	-25.2	**51.3**
Fx,	**-22.7**	-12.7	-1.8	-0.1	5.7	-25.0	**7.1**	12.7	1.8	0.1	-5.8	25.8
Fy,	-9.6	**-16.9**	-8.6	-0.7	17.0	-34.2	-8.1	**16.9**	8.6	0.7	-17.0	35.1
Fz,	-6.0	-12.0	**-11.2**	-2.6	22.1	-24.3	-6.6	12.0	**11.2**	2.6	-22.1	25.0
Mx,	-5.9	-13.4	-6.2	**-4.7**	12.7	-27.2	-5.2	13.4	6.2	**4.7**	-12.7	27.8
My,	-6.0	12.1	11.1	2.6	**-25.2**	25.1	-6.6	-12.1	-11.1	-2.6	**25.2**	-24.4
Mz,	-8.7	-16.9	-8.6	-0.4	16.9	**-34.2**	-9.2	16.9	8.7	0.9	-17.2	**35.2**

Member 136

Fx,	**-10.9**	-9.3	-22.5	-0.8	90.4	-21.6	**5.7**	9.3	22.8	0.8	-71.6	27.0
Fy,	-2.7	**-18.9**	-30.0	1.8	105.5	-52.7	-3.0	**18.9**	30.0	-1.8	-85.2	60.6
Fz,	-2.8	-8.0	**-37.9**	-3.4	123.7	-21.2	-2.5	8.0	**37.9**	3.4	-104.0	25.7
Mx,	-2.1	-3.7	-30.6	**-4.8**	99.5	-8.8	-1.9	3.7	30.6	**4.8**	-84.7	13.3
My,	0.3	10.3	36.2	0.8	**-109.6**	30.5	-5.3	-9.0	-36.7	**-1.6**	**129.8**	-20.8
Mz,	-2.4	-18.9	-29.9	1.9	105.2	**-53.0**	-3.3	18.9	29.9	-1.9	-83.9	**60.8**
Fx,	**-10.9**	-9.3	-22.5	-0.8	68.9	-12.8	**5.7**	9.3	22.8	0.8	-49.9	18.2
Fy,	-2.7	**-18.9**	-30.0	1.8	78.0	-34.7	-3.0	**18.9**	30.0	-1.8	-56.7	42.6
Fz,	-2.8	-8.0	**-37.9**	-3.4	87.8	-13.6	-2.5	8.0	**37.9**	3.4	-68.1	19.0
Mx,	-2.1	-3.7	-30.6	**-4.8**	70.5	-5.3	-1.9	3.7	30.6	**4.8**	-55.6	9.8
My,	-0.3	10.2	35.2	0.9	**-75.8**	20.3	-5.0	-9.0	-35.4	-1.0	**95.7**	-11.9
Mz,	-2.4	-18.8	-29.8	2.0	76.6	**-35.1**	-3.3	18.8	29.8	-2.0	-55.3	**42.9**

Member 137

Fx,	**-7.0**	-6.5	-17.7	-0.7	55.5	-9.6	**5.6**	6.5	17.7	0.7	-50.3	17.9
Fy,	-0.5	**-19.9**	-15.0	1.5	47.2	-53.3	-0.8	**19.9**	15.0	-1.5	-42.0	65.5
Fz,	-0.6	0.0	**-29.9**	-1.2	93.8	5.5	-1.0	-0.0	**29.9**	1.2	-87.5	5.0
Mx,	-0.5	1.3	-23.0	**-3.9**	70.8	8.0	-0.4	-3.0	23.0	**3.9**	-67.4	-6.1
My,	-1.2	0.9	29.3	1.6	**-88.6**	6.1	-0.3	-1.9	-29.4	-0.7	**94.5**	0.9
Mz,	-0.3	-19.7	-14.9	1.5	46.2	**-54.1**	-0.9	19.8	15.0	-1.4	-41.8	**66.1**
Fx,	**-7.0**	-6.5	-17.7	-0.7	38.6	-3.5	**5.6**	6.5	17.7	0.7	-33.4	11.8
Fy,	-0.5	**-19.9**	-15.0	1.5	32.9	**-34.4**	-0.8	**19.9**	15.0	-1.5	-27.7	46.6
Fz,	-0.6	0.0	**-29.9**	-1.2	65.4	5.5	-1.0	-0.0	**29.9**	1.2	-59.1	5.0
Mx,	-0.5	1.3	-23.0	**-3.9**	49.0	6.8	-0.4	-3.0	23.0	**3.9**	-45.6	-3.3
My,	-1.1	2.7	29.2	1.3	**-60.7**	8.5	-0.3	-2.2	-29.3	-0.6	**66.5**	2.1
Mz,	-0.3	-19.7	-14.9	1.6	32.0	**-35.3**	-0.9	19.7	15.1	-1.5	-27.5	**47.3**

Member 138

Fx,	**-5.3**	-4.8	-12.0	-0.4	31.4	-2.7	**4.9**	4.8	12.0	0.4	-30.1	12.6
Fy,	-0.1	**-20.9**	-7.0	0.8	21.3	-55.9	-0.2	**20.9**	7.0	-0.8	-20.3	59.3
Fz,	0.2	1.5	**-22.2**	-0.2	69.1	11.1	-0.7	-1.5	**22.2**	0.2	-67.5	1.6
Mx,	-0.1	4.0	-13.6	**-2.4**	41.4	15.2	-0.1	-4.0	13.6	**2.4**	-40.5	-8.6
My,	-0.7	0.1	22.2	0.0	**-67.6**	5.5	0.2	-0.1	-22.2	-0.0	**69.1**	7.2
Mz,	-0.1	-20.7	-7.3	0.7	22.2	**-56.2**	-0.2	20.7	7.3	-0.7	-21.2	69.6
Fx,	**-5.3**	-4.8	-12.0	-0.4	20.0	1.9	**4.9**	4.8	12.0	0.4	-18.7	8.1
Fy,	-0.1	**-20.9**	-7.0	0.8	14.7	-36.1	-0.2	**20.9**	7.0	-0.8	-13.7	49.4
Fz,	0.2	1.5	**-22.2**	-0.2	48.0	9.6	-0.7	-1.5	**22.2**	0.2	-46.5	3.0
Mx,	-0.1	4.0	-13.6	**-2.4**	28.4	11.4	-0.1	-4.0	13.6	**2.4**	-27.6	-4.8
My,	-0.9	0.1	21.7	0.0	**-46.5**	5.4	0.5	-0.1	-21.7	-0.0	**48.1**	7.3
Mz,	-0.1	-20.7	-7.3	0.7	15.3	**-36.6**	-0.2	20.7	7.3	-0.7	-14.3	50.0

Member 139

Fx,	**-4.5**	-0.9	2.1	-0.0	-4.1	10.2	**4.3**	-0.9	-4.2	0.0	10.4	-4.7
Fy,	-0.1	**-21.5**	-8.7	-0.1	26.2	-57.3	-0.1	**21.5**	8.7	0.1	-26.2	71.5
Fz,	-0.5	-0.4	**-14.7**	0.7	43.4	5.8	0.3	0.4	**14.7**	-0.7	-43.3	7.7
Mx,	-0.1	-4.7	-3.9	**-1.6**	11.7	-9.2	-0.1	4.7	3.9	**1.6**	-11.6	18.6
My,	-0.7	0.4	14.4	-0.7	**-45.4**	7.7	0.5	-0.4	-14.4	0.7	**45.4**	5.8
Mz,	-0.1	-21.3	-8.8	-0.1	26.3	**-57.8**	-0.1	21.3	8.8	0.1	-26.3	**72.0**
Fx,	**-4.5**	-0.9	2.1	-0.0	-2.1	11.0	**4.3**	-0.9	-4.2	0.0	6.5	-3.8
Fy,	-0.1	**-21.5**	-8.7	-0.1	17.9	-36.9	-0.1	**21.5**	8.7	0.1	-17.9	51.1
Fz,	-0.5	-0.4	**-14.7**	0.7	29.4	6.2	0.3	0.4	**14.7**	-0.7	-29.3	7.3
Mx,	-0.1	-4.7	-3.9	**-1.6**	8.0	-4.7	-0.1	4.7	3.9	**1.6**	-7.9	14.1
My,	-0.7	0.4	14.4	-0.7	**-31.7**	7.3	0.5	-0.4	-14.4	0.7	**31.7**	6.2
Mz,	-0.1	-21.3	-8.8	-0.1	18.0	**-37.6**	-0.1	21.3	8.8	0.1	-17.9	**51.8**

Member 140

Fx,	**-5.6**	-1.2	2.7	0.1	-7.6	8.5	**5.3**	1.2	-2.6	-0.1	6.4	1.8
Fy,	-0.1	**-21.7**	-0.7	-0.8	1.9	-58.3	-0.2	**21.7**	0.7	0.8	-2.7	71.8
Fz,	-1.9	5.6	**-13.2**	0.6	39.3	23.6	1.5	-5.6	**13.2**	-0.6	-40.5	-10.7
Mx,	-0.6	-3.2	-5.7	**-2.3**	18.5	-6.1	0.4	3.2	5.7	**2.3**	-19.2	13.0
My,	0.8	-3.4	12.8	-0.4	**-41.7**	-2.5	-1.2	3.4	-12.8	0.4	**40.4**	15.4
Mz,	-0.1	-21.5	-0.4	-0.8	1.0	**-58.7**	-0.2	21.5	0.4	0.8	-1.8	**72.1**
Fx,	**-5.6**	-1.2	2.7	0.1	-5.1	9.7	**5.3**	1.2	-2.6	-0.1	3.9	0.6
Fy,	-0.1	**-21.7**	-0.7	-0.8	1.2	-37.7	-0.2	**21.7**	0.7	0.8	-2.0	51.2
Fz,	-1.9	5.6	**-13.2**	0.6	26.7	18.3	1.5	-5.6	**13.2**	-0.6	-27.9	-5.4
Mx,	-0.6	-3.2	-5.7	**-2.3**	13.1	-3.1	0.4	3.2	5.7	**2.3**	-13.7	10.0
My,	0.8	-3.4	12.8	-0.4	**-29.5**	0.8	-1.2	3.4	-12.8	0.4	**28.3**	12.1

Mz_f	-0.1	-21.5	-0.4	-0.8	0.6	**-38.2**	-0.2	21.5	0.4	0.8	-1.4	**51.7**

Member 141

Fx_i	**-6.7**	-7.8	10.2	0.7	-38.5	-13.0	**5.6**	7.7	-10.1	-0.7	34.0	21.7
Fy_i	-0.4	**-21.5**	6.0	-1.4	-19.7	-58.2	-0.6	**21.5**	-6.0	1.4	15.5	70.6
Fz_i	-0.9	4.8	**-20.8**	-0.0	60.4	20.2	-0.4	-4.8	**20.8**	0.0	-65.5	-9.2
Mx_i	-0.3	-1.5	-9.6	**-3.8**	26.9	-1.5	-0.4	0.1	9.6	**3.9**	-29.7	4.5
My_i	0.1	-3.6	20.4	0.2	**-66.6**	-4.3	-1.4	3.5	-20.4	-0.3	**61.5**	15.0
Mz_i	-0.4	-21.5	6.0	-1.4	-19.5	**-58.9**	-0.7	21.5	-6.0	1.4	15.3	**71.2**
Fx_f	**-6.7**	-7.8	10.2	0.7	-28.8	-5.6	**5.6**	7.7	-10.1	-0.7	24.4	**14.4**
Fy_f	-0.4	**-21.5**	6.0	-1.4	-14.0	-37.8	-0.6	**21.5**	-6.0	1.4	9.8	50.1
Fz_f	-0.9	4.8	**-20.8**	-0.0	40.7	15.6	-0.4	-4.8	**20.8**	0.0	-45.7	**-4.6**
Mx_f	-0.3	-1.5	-9.6	**-3.8**	17.8	-0.1	-0.4	0.1	9.6	**3.9**	-20.6	4.4
My_f	0.0	-5.3	20.3	-0.0	**-47.3**	-3.4	-1.2	8.0	-20.0	0.1	**42.3**	18.9
Mz_f	-0.3	-21.2	6.3	-1.4	-14.1	**-38.5**	-0.7	21.4	-6.0	1.4	9.6	**50.8**

Member 142

Fx_i	**-9.5**	-11.7	18.4	0.8	-78.4	-28.1	**5.2**	11.7	-18.4	-0.8	62.7	34.2
Fy_i	-2.0	**-21.8**	18.2	-1.8	-62.0	-61.1	-2.7	**21.8**	-18.2	1.8	44.4	69.2
Fz_i	-1.8	8.1	**-31.7**	-3.0	88.7	26.5	-1.8	-8.1	**31.7**	3.0	-102.2	-22.0
Mx_i	-1.6	6.4	-28.1	**-4.8**	78.6	21.2	-1.6	-6.4	28.1	**4.8**	-90.5	-16.6
My_i	-3.4	-11.1	29.9	0.8	**-107.7**	-26.9	-0.6	12.2	-29.4	-0.9	**91.1**	36.0
Mz_i	-1.8	-21.7	18.1	-1.9	-60.9	**-61.4**	-3.0	21.7	-18.1	1.9	43.4	**69.5**
Fx_f	**-9.5**	-11.7	18.4	0.8	-60.9	-17.0	**5.2**	11.7	-18.4	-0.8	45.1	23.1
Fy_f	-2.0	**-21.8**	18.2	-1.8	-44.7	-40.4	-2.7	**21.8**	-18.2	1.8	27.1	48.5
Fz_f	-1.8	8.1	**-31.7**	-3.0	58.6	18.8	-1.8	-8.1	**31.7**	3.0	-72.1	-14.2
Mx_f	-1.6	6.4	-28.1	**-4.8**	51.9	15.2	-1.6	-6.4	28.1	**4.8**	-63.9	-10.6
My_f	-3.7	-11.1	29.4	0.8	**-79.4**	-16.3	-0.5	12.6	-29.2	-0.7	**63.3**	25.2
Mz_f	-1.6	-21.7	18.1	-1.9	-43.3	**-40.8**	-3.0	21.7	-18.1	2.0	26.1	**48.9**

Member 143

Fx_i	**-19.3**	-16.6	0.7	-0.1	-0.1	-48.5	**6.5**	16.6	-0.8	0.1	0.2	49.6
Fy_i	-5.7	**-21.6**	-3.2	-0.5	7.9	-64.1	-8.3	**21.6**	3.2	0.5	-7.9	65.4
Fz_i	-5.1	-14.0	**-9.5**	-2.8	27.7	-41.4	-7.0	14.0	**9.5**	2.8	-27.7	42.5
Mx_i	-4.8	-17.4	-3.4	**-4.8**	10.3	-51.8	-4.3	17.4	3.4	**4.8**	-10.3	52.7
My_i	-5.1	14.0	9.5	2.8	**-30.7**	42.5	-7.0	-14.0	-9.5	-2.8	**30.7**	-41.4
Mz_i	-5.1	-21.6	-3.2	-0.5	7.9	**-64.2**	-8.9	21.6	3.2	0.5	-7.9	**65.4**
Fx_f	**-19.3**	-16.6	0.7	-0.1	0.6	-32.7	**6.5**	16.6	-0.8	0.1	-0.5	33.9
Fy_f	-5.7	**-21.6**	-3.2	-0.5	4.9	-43.6	-8.3	**21.6**	3.2	0.5	-4.9	44.9
Fz_f	-5.1	-14.0	**-9.5**	-2.8	18.6	-28.1	-7.0	14.0	**9.5**	2.8	-18.6	29.2
Mx_f	-4.8	-17.4	-3.4	**-4.8**	7.0	-35.3	-4.3	17.4	3.4	**4.8**	-7.0	36.1
My_f	-5.1	14.0	9.5	2.8	**-21.7**	29.2	-7.0	-14.0	-9.5	-2.8	**21.7**	-28.1
Mz_f	-5.1	-21.6	-3.2	-0.5	4.9	**-43.6**	-9.2	21.6	3.3	0.7	-5.1	**44.9**

Member 144

Fx_i	**-9.9**	-11.7	-21.7	-0.9	83.8	-28.5	**5.6**	11.7	21.8	0.9	-68.3	34.1
Fy_i	-4.0	**-21.7**	-25.9	1.7	87.0	-60.8	-0.7	**21.7**	25.9	-1.7	-69.5	68.9
Fz_i	-2.2	-9.3	**-37.2**	-3.7	120.0	-25.1	-2.0	9.3	**37.2**	3.7	-104.0	30.7
Mx_i	-1.7	-6.1	-30.2	**-4.9**	97.2	-15.8	-1.6	6.1	30.2	**4.9**	-85.1	20.4
My_i	-0.8	10.2	36.9	3.1	**-107.5**	32.5	-4.2	-10.8	-36.2	-2.2	**124.2**	-26.3
Mz_i	-3.8	-21.6	-25.7	1.9	85.8	**-61.1**	-0.9	21.6	25.7	-1.9	-68.4	**69.2**
Fx_f	**-9.9**	-11.7	-21.7	-0.9	63.2	-17.4	**5.6**	11.7	21.8	0.9	-47.6	23.0
Fy_f	-4.0	**-21.7**	-25.9	1.7	62.4	-40.2	-0.7	**21.7**	25.9	-1.7	-45.0	48.4
Fz_f	-2.2	-9.3	**-37.2**	-3.7	84.6	-16.2	-2.0	9.3	**37.2**	3.7	-68.6	21.9
Mx_f	-1.7	-6.1	-30.2	**-4.9**	68.4	-10.0	-1.6	6.1	30.2	**4.9**	-56.4	14.7
My_f	-0.4	12.8	34.6	0.9	**-74.1**	25.7	-3.9	-11.5	-34.9	-1.0	**90.6**	-16.9
Mz_f	-3.7	-21.6	-25.7	1.9	61.0	**-40.6**	-0.9	21.6	25.7	-1.9	-43.7	**48.7**

Member 145

Fx_i	-6.7	-2.1	-4.8	-0.2	15.8	3.7	**5.6**	2.1	4.8	0.2	-11.3	4.7
Fy_i	-1.0	**-21.4**	-10.1	1.4	34.1	-57.8	-0.1	**21.4**	10.1	-1.4	-29.9	70.2
Fz_i	-0.4	-2.9	**-24.8**	-0.7	77.6	-3.6	-0.9	2.9	**24.8**	0.7	-72.5	14.3
Mx_i	-0.4	-0.0	-18.8	**-4.0**	57.8	4.2	-0.3	-1.8	18.9	**4.0**	-55.4	-2.3
My_i	-1.3	3.2	24.3	0.7	**-73.4**	13.4	-0.1	-3.2	-24.3	-0.7	**78.5**	-2.6
Mz_i	-0.9	-21.3	-10.2	1.4	33.9	**-58.6**	-0.1	21.4	10.1	-1.3	-29.7	**70.8**
Fx_f	-6.7	-2.1	-4.8	-0.2	11.2	5.7	**5.6**	2.1	4.8	0.2	-6.8	2.8
Fy_f	-1.0	**-21.4**	-10.1	1.4	24.5	-37.5	-0.1	**21.4**	10.1	-1.4	-20.3	49.8
Fz_f	-0.4	-2.9	**-24.8**	-0.7	54.0	-0.8	-0.9	2.9	**24.8**	0.7	-48.9	11.5
Mx_f	-0.4	-0.0	-18.8	**-4.0**	39.9	4.2	-0.3	-1.8	18.9	**4.0**	-37.4	-0.6
My_f	-1.1	6.0	24.0	0.4	**-50.4**	14.7	-0.1	-5.1	-24.2	-0.5	**55.4**	-2.8
Mz_f	-0.9	-21.2	-10.2	1.5	24.3	**-38.4**	-0.1	21.3	10.1	-1.4	-20.1	**50.5**

Member 146

Fx_i	**-5.2**	5.5	5.5	0.5	-21.6	28.5	**4.9**	-5.5	-5.6	-0.5	22.8	-18.5
Fy_i	-0.1	**-21.7**	-2.7	0.7	8.2	-58.4	-0.2	**21.7**	2.7	-0.7	-7.4	71.9
Fz_i	0.3	-2.2	**-17.1**	0.2	53.6	-0.5	-0.7	2.2	**17.1**	-0.2	-52.3	13.4
Mx_i	-0.1	3.3	-9.5	**-2.4**	28.8	13.3	-0.1	-3.3	9.5	**2.4**	-28.2	-6.6
My_i	-0.6	2.2	17.1	-0.2	**-52.4**	12.9	0.3	-2.2	-17.1	0.2	**53.6**	0.0
Mz_i	-0.1	-21.5	-3.0	0.7	9.1	**-58.7**	-0.2	21.5	3.0	-0.7	-8.2	**72.2**
Fx_f	**-5.2**	5.5	5.5	0.5	-16.3	23.3	**4.9**	-5.5	-5.6	-0.5	17.5	-13.2
Fy_f	-0.1	**-21.7**	-2.7	0.7	5.7	-37.8	-0.2	**21.7**	2.7	-0.7	-4.8	51.2
Fz_f	0.3	-2.2	**-17.1**	0.2	37.3	1.6	-0.7	2.2	**17.1**	-0.2	-36.1	11.2
Mx_f	-0.1	3.3	-9.5	**-2.4**	19.8	10.1	-0.1	-3.3	9.5	**2.4**	-19.1	-3.5
My_f	-0.9	0.7	16.7	0.0	**-36.3**	6.9	0.5	-0.7	-16.7	-0.0	**37.5**	6.0
Mz_f	-0.1	-21.5	-3.0	0.7	6.3	**-38.3**	-0.2	21.5	3.0	-0.7	-5.4	**51.8**

Member 147

Fx_i	**-4.5**	-1.0	2.8	-0.0	-6.2	10.1	**4.3**	4.9	-2.9	0.0	6.7	12.7
Fy_i	-0.5	**-22.0**	-4.5	-0.1	12.9	-58.9	0.3	**22.0**	4.5	0.1	-12.9	73.2
Fz_i	-0.5	4.5	**-10.2**	0.9	30.0	19.9	0.3	-4.5	**10.2**	-0.9	-29.9	-6.3
Mx_i	-0.1	-5.3	0.2	**-1.6**	-0.6	-10.8	-0.1	5.3	-0.2	**1.6**	0.6	20.3
My_i	-0.7	-4.5	10.0	-0.9	**-32.1**	-6.8	0.5	4.5	-10.0	0.9	**32.1**	20.5
Mz_i	-0.4	-21.8	-4.5	-0.1	12.9	**-59.4**	0.3	21.8	4.5	0.1	-12.9	**73.7**
Fx_f	**-4.5**	-1.0	2.8	-0.0	-3.5	11.0	**4.3**	4.9	-2.9	0.0	3.9	8.1
Fy_f	-0.5	**-22.0**	-4.5	-0.1	8.6	-38.0	0.3	**22.0**	4.5	0.1	-8.6	52.3
Fz_f	-0.5	4.5	**-10.2**	0.9	20.3	15.7	0.3	-4.5	**10.2**	-0.9	-20.2	-2.1
Mx_f	-0.1	-5.3	0.2	**-1.6**	-0.4	-5.8	-0.1	5.3	-0.2	**1.6**	0.4	15.3
My_f	1.0	-4.6	9.9	-0.9	**-22.6**	-2.9	-1.2	4.6	-9.9	0.9	**22.6**	16.5
Mz_f	-0.4	-21.8	-4.5	-0.1	8.6	**-38.6**	0.3	21.8	4.5	0.1	-8.6	**52.9**

Member 148

Fx_i	**-5.6**	-1.1	2.9	0.1	-8.3	8.9	**5.3**	5.9	-8.9	-0.4	25.3	15.7
Fy_i	-0.2	**-22.3**	3.6	-0.8	-11.5	-60.0	-0.0	**22.3**	-3.6	0.8	10.7	73.5
Fz_i	-0.6	1.9	**-17.5**	0.2	53.4	12.1	0.3	-1.9	**17.5**	-0.2	-54.6	0.9
Mx_i	0.1	-2.7	-10.6	**-2.4**	30.8	-4.6	-0.3	2.7	10.6	**2.4**	-31.4	11.5
My_i	0.7	-4.1	17.1	-0.3	**-54.7**	-4.7	-1.0	4.1	-17.1	0.3	**53.6**	17.7
Mz_i	-0.2	-22.0	3.9	-0.7	-12.4	**-60.3**	-0.0	22.0	-3.9	0.7	11.6	**73.9**
Fx_f	**-5.6**	-1.1	2.9	0.1	-5.5	10.0	**5.3**	5.9	-8.9	-0.4	16.8	10.2
Fy_f	-0.2	**-22.3**	3.6	-0.8	-8.1	-38.8	-0.0	**22.3**	-3.6	0.8	7.3	52.4
Fz_f	-0.6	1.9	**-17.5**	0.2	36.8	10.2	0.3	-1.9	**17.5**	-0.2	-38.0	2.8
Mx_f	0.1	-2.7	-10.6	**-2.4**	20.7	-2.0	-0.3	2.7	10.6	**2.4**	-21.3	9.0
My_f	0.7	-4.1	17.1	-0.3	**-38.6**	-0.8	-1.0	4.1	-17.1	0.3	**37.4**	13.8
Mz_f	-0.2	-22.0	3.9	-0.7	-8.7	**-39.4**	-0.0	22.0	-3.9	0.7	7.9	**52.9**

Member 149

Fx_i	**-6.7**	-8.6	14.5	0.8	-51.1	-15.4	**5.6**	8.6	-14.4	-0.8	46.8	24.3
Fy_i	-0.4	**-22.5**	10.9	-1.3	-34.3	-61.0	-0.6	**22.5**	-10.9	1.3	30.2	73.4
Fz_i	-0.8	3.0	**-25.2**	-0.8	73.8	14.4	-0.5	-3.0	**25.2**	0.8	-78.7	-3.4
Mx_i	-0.5	-0.7	-20.2	**-4.0**	60.0	1.1	-0.2	-0.8	20.3	**4.0**	-63.1	1.8
My_i	0.0	-3.4	24.7	0.7	**-79.7**	-3.2	-1.3	3.3	-24.7	-0.8	**74.8**	14.0
Mz_i	-0.4	-22.4	10.9	-1.3	-34.1	**-61.6**	-0.7	22.4	-10.9	1.3	30.0	**74.1**
Fx_f	**-6.7**	-8.6	14.5	0.8	-37.4	-7.2	**5.6**	8.6	-14.4	-0.8	33.1	16.1
Fy_f	-0.4	**-22.5**	10.9	-1.3	-23.9	-39.6	-0.6	**22.5**	-10.9	1.3	19.8	52.1
Fz_f	-0.8	3.0	**-25.2**	-0.8	49.8	11.6	-0.5	-3.0	**25.2**	0.8	-54.8	-0.5
Mx_f	-0.5	-0.7	-20.2	**-4.0**	40.8	1.7	-0.2	-0.8	20.3	**4.0**	-43.8	2.6
My_f	0.0	-5.3	24.6	0.4	**-56.3**	-2.9	-1.1	8.1	-24.4	-0.3	**51.5**	18.5
Mz_f	-0.4	-22.3	10.9	-1.3	-23.8	**-40.3**	-0.7	22.3	-10.9	1.3	19.7	**52.8**

Member 150

Fx_i	**-9.3**	-13.3	22.5	0.9	-90.4	-32.6	**5.2**	13.2	-22.7	-0.9	75.5	38.8
Fy_i	-1.9	**-23.5**	22.8	-1.6	-75.4	-66.2	-2.7	**23.5**	-22.8	1.6	58.4	74.4
Fz_i	-1.7	9.8	**-36.3**	-3.1	102.8	31.5	-1.8	-9.8	**36.3**	3.1	-115.8	-26.9
Mx_i	-1.5	7.9	-31.4	**-4.9**	88.9	25.9	-1.6	-7.9	31.4	**4.9**	-100.5	-21.3

My,	-3.4	-13.0	34.5	0.8	**-121.1**	-32.5	-0.5	14.2	-34.0	-0.9	**105.1**	41.9
Mz,	-1.6	-23.4	22.7	-1.7	-74.1	**-66.5**	-2.9	23.4	-22.7	1.8	57.4	**74.7**
Fx,	**-9.3**	-13.3	22.5	0.9	-69.0	-20.0	**5.2**	13.2	-22.7	-0.9	53.9	26.2
Fy,	-1.9	**-23.5**	22.8	-1.6	-53.7	-43.9	-2.7	**23.5**	-22.8	1.6	36.8	52.1
Fz,	-1.7	9.8	**-36.3**	-3.1	68.3	22.2	-1.8	-9.8	**36.3**	3.1	-81.3	-17.6
Mx,	-1.5	7.9	-31.4	**-4.9**	59.1	18.4	-1.6	-7.9	31.4	**4.9**	-70.6	-13.8
My,	-3.6	-13.1	34.0	0.9	**-88.5**	-20.2	-0.5	14.2	-33.9	-0.9	**72.9**	28.6
Mz,	-1.6	-23.4	22.7	-1.8	-52.4	**-44.3**	-2.9	23.4	-22.7	1.8	35.7	**52.4**

Member 365

Fx,	**-310.3**	-0.0	-39.0	-0.0	68.3	-0.0	**135.2**	0.0	-36.7	0.0	64.2	0.0
Fy,	-190.9	**-0.0**	-49.2	-0.0	86.2	-0.0	22.6	**0.0**	-25.7	0.0	45.0	0.0
Fz,	-45.0	0.0	**-116.6**	0.0	204.0	0.0	-135.9	-0.0	**10.0**	0.0	-17.5	-0.0
Mx,	-223.4	-0.0	-29.5	**-0.0**	51.7	-0.0	-159.2	-0.0	-51.0	**0.0**	89.3	-0.0
My,	-135.9	-0.0	10.0	0.0	**-17.5**	-0.0	-45.0	0.0	-116.6	0.0	**204.0**	0.0
Mz,	-206.3	-0.0	-46.1	-0.0	80.6	**-0.0**	25.0	0.0	-24.0	0.0	41.9	**0.0**
Fx,	**-310.3**	-0.0	-39.0	-0.0	0.0	0.0	**135.2**	0.0	-36.7	0.0	0.0	-0.0
Fy,	-190.9	**-0.0**	-49.2	-0.0	0.0	0.0	22.6	**0.0**	-25.7	0.0	0.0	-0.0
Fz,	-45.0	0.0	**-116.6**	0.0	0.0	-0.0	-135.9	-0.0	**10.0**	0.0	0.0	0.0
Mx,	-223.4	-0.0	-29.5	**-0.0**	0.0	0.0	-159.2	-0.0	-51.0	**0.0**	0.0	0.0
My,	-246.0	-0.0	-77.3	0.0	**0.0**	0.0	-194.8	-0.0	-29.7	0.0	**0.0**	0.0
Mz,	-5.5	0.0	-39.2	0.0	0.0	**-0.0**	-164.7	-0.0	-56.1	-0.0	0.0	**0.0**

Member 366

Fx,	**-865.2**	2.0	-21.1	0.0	167.6	3.4	**-223.8**	-26.0	4.3	0.0	89.0	-45.5
Fy,	-602.8	**-26.0**	-5.5	0.0	119.6	-45.5	-649.0	**2.0**	-15.7	0.0	186.2	3.4
Fz,	-735.5	-26.0	**-35.3**	0.0	316.1	-45.5	-350.7	2.0	**9.2**	0.0	41.9	3.4
Mx,	-753.0	-0.0	-17.7	**0.0**	199.7	-0.0	-436.0	-0.0	-3.4	**0.0**	165.2	-0.0
My,	-415.6	2.0	-0.9	0.0	**-14.1**	3.4	-678.9	-26.0	-25.2	0.0	**372.0**	-45.5
Mz,	-610.8	-26.0	-4.2	0.0	114.9	**-45.5**	-578.9	2.0	-15.6	0.0	177.6	**3.4**
Fx,	**-865.2**	-0.0	-21.1	0.0	130.7	0.0	**-223.8**	0.0	4.3	0.0	96.4	-0.0
Fy,	-621.5	**-0.0**	-5.5	0.0	109.9	0.0	-630.7	**0.0**	-15.7	0.0	158.7	-0.0
Fz,	-735.5	0.0	**-35.3**	0.0	254.4	-0.0	-350.7	-0.0	**9.2**	0.0	58.0	0.0
Mx,	-753.0	-0.0	-17.7	**0.0**	168.8	0.0	-436.0	-0.0	-3.4	**0.0**	159.3	0.0
My,	-340.2	0.0	-1.1	0.0	**-15.9**	-0.0	-760.5	-0.0	-25.1	0.0	**328.0**	0.0
Mz,	-686.2	0.0	-8.2	0.0	189.7	**-0.0**	-630.7	-0.0	-12.5	0.0	72.6	**0.0**

Member 367

Fx,	**-994.6**	-5.4	-73.6	-0.0	314.1	-9.5	**-254.5**	27.2	54.6	-0.0	2.7	47.6
Fy,	-692.3	**-27.2**	35.4	-0.0	161.9	-47.6	-775.5	**5.4**	-68.4	-0.0	293.5	9.5
Fz,	-913.0	27.2	**-88.4**	-0.0	473.6	47.6	-324.9	-5.4	**60.5**	0.0	-51.2	-9.5
Mx,	-840.9	-0.0	-17.5	**-0.0**	109.3	-0.0	-345.7	-0.0	10.4	**0.0**	61.3	-0.0
My,	-334.9	-27.2	60.3	0.0	**-53.3**	-47.6	-907.9	5.4	-88.0	-0.0	**479.0**	9.5
Mz,	-720.6	-27.2	28.7	-0.0	178.6	**-47.6**	-772.8	5.4	-62.9	-0.0	289.0	**9.5**
Fx,	**-994.6**	-0.0	-73.6	-0.0	185.4	0.0	**-254.5**	0.0	54.6	-0.0	98.2	-0.0
Fy,	-692.3	**-0.0**	35.4	-0.0	223.9	0.0	-775.6	**0.0**	-68.4	-0.0	173.7	-0.0
Fz,	-913.0	0.0	**-88.4**	-0.0	318.9	-0.0	-324.9	-0.0	**60.5**	0.0	54.7	0.0
Mx,	-840.9	-0.0	-17.5	**-0.0**	78.6	-0.0	-345.7	-0.0	10.4	**0.0**	79.5	-0.0
My,	-422.9	0.0	-38.0	-0.0	**10.4**	-0.0	-820.0	-0.0	10.3	-0.0	**366.8**	0.0
Mz,	-728.2	0.0	-1.5	-0.0	179.7	**-0.0**	-733.4	-0.0	-30.0	0.0	201.2	**0.0**

Member 368

Fx,	**-1002.4**	6.6	-67.4	0.0	354.2	11.6	**-237.6**	-33.0	49.3	0.0	-33.5	-57.8
Fy,	-711.0	**-33.0**	-24.9	0.0	261.2	-57.8	-730.5	**6.6**	-0.5	0.0	175.1	11.6
Fz,	-915.0	-33.0	**-80.4**	0.0	517.1	-57.8	-317.0	6.6	**55.0**	0.0	-92.9	11.6
Mx,	-733.0	-0.0	-14.8	**-0.0**	130.0	0.0	-530.0	-0.0	38.6	**0.0**	34.6	-0.0
My,	-320.4	6.6	54.9	0.0	**-94.1**	11.6	-915.4	-0.0	-80.3	0.0	**520.9**	0.0
Mz,	-710.7	-33.0	-24.3	0.0	254.3	**-57.8**	-713.1	6.6	-0.7	0.0	177.9	**11.6**
Fx,	**-1002.4**	-0.0	-67.4	0.0	236.1	0.0	**-237.6**	-0.0	49.3	0.0	52.7	0.0
Fy,	-711.0	**-0.0**	-24.9	0.0	217.7	0.0	-730.1	**0.0**	-0.5	0.0	174.3	-0.0
Fz,	-915.0	-0.0	**-80.4**	0.0	376.3	0.0	-317.0	-0.0	**55.0**	0.0	3.5	0.0
Mx,	-733.0	-0.0	-14.8	**-0.0**	104.1	0.0	-530.0	-0.0	38.6	**0.0**	102.0	0.0
My,	-356.9	-0.0	24.9	0.0	**0.8**	0.0	-880.5	-0.0	-50.2	0.0	**381.6**	0.0
Mz,	-743.6	0.0	-0.7	-0.0	187.2	**-0.0**	-705.6	-0.0	-28.7	0.0	226.2	**0.0**

Member 369

Fx,	**-1015.6**	-32.8	-72.1	0.0	382.7	-57.4	**-229.3**	6.6	54.9	0.0	-62.2	11.5
Fy,	-749.7	**-32.8**	5.5	0.0	158.8	-57.4	-661.5	**6.6**	-27.6	0.0	256.5	11.5
Fz,	-925.8	6.6	**-84.7**	0.0	545.8	11.5	-310.6	-32.8	**60.6**	0.0	-122.7	-57.4
Mx,	-839.7	0.0	-24.0	**0.0**	233.7	0.0	-466.9	0.0	44.3	**0.0**	3.8	0.0
My,	-312.8	-32.8	60.5	0.0	**-123.1**	-57.4	-927.3	6.6	-84.5	0.0	**548.9**	11.5
Mz,	-723.4	-32.8	8.1	0.0	125.4	**-57.4**	-665.8	6.6	-29.1	0.0	255.6	**11.5**
Fx,	**-1015.6**	-0.0	-72.1	0.0	256.4	0.0	**-229.3**	0.0	54.9	0.0	33.9	-0.0
Fy,	-749.7	**-0.0**	5.5	0.0	168.5	0.0	-661.5	**0.0**	-27.6	0.0	208.3	-0.0
Fz,	-925.8	0.0	**-84.7**	0.0	397.6	-0.0	-310.6	-0.0	**60.6**	0.0	-16.7	0.0
Mx,	-839.7	0.0	-24.0	**0.0**	191.8	-0.0	-466.9	0.0	44.3	**0.0**	81.4	-0.0
My,	-298.2	0.0	59.9	0.0	**-17.7**	-0.0	-942.9	-0.0	-83.9	0.0	**401.4**	0.0
Mz,	-742.5	0.0	-26.7	0.0	178.2	**-0.0**	-742.0	-0.0	4.7	0.0	176.2	**0.0**

Member 370

Fx,	**-1011.2**	6.6	-70.4	0.0	379.9	11.5	**-229.5**	-32.8	53.2	0.0	-60.0	-57.4
Fy,	-827.4	**-32.8**	-61.2	0.0	315.7	-57.4	-607.6	**6.6**	39.0	0.0	54.2	11.5
Fz,	-921.8	-32.8	**-83.0**	0.0	543.7	-57.4	-310.8	6.6	**58.8**	0.0	-120.5	11.5
Mx,	-843.3	0.0	-17.1	**0.0**	202.1	-0.0	-457.6	0.0	40.1	**0.0**	23.3	-0.0
My,	-312.0	6.6	58.7	0.0	**-120.8**	11.5	-923.6	-32.8	-82.8	0.0	**546.6**	-57.4
Mz,	-834.0	-32.8	-61.1	0.0	316.7	**-57.4**	-603.5	6.6	38.5	0.0	51.1	**11.5**
Fx,	**-1011.2**	-0.0	-70.4	0.0	256.8	0.0	**-229.5**	-0.0	53.2	0.0	33.1	0.0
Fy,	-827.4	**-0.0**	-61.2	0.0	208.6	0.0	-606.6	**0.0**	39.0	0.0	122.4	-0.0
Fz,	-921.8	-0.0	**-83.0**	0.0	398.5	0.0	-310.8	-0.0	**58.8**	0.0	-17.6	0.0
Mx,	-843.3	0.0	-17.1	**0.0**	172.2	-0.0	-457.6	0.0	40.1	**0.0**	93.5	-0.0
My,	-296.3	-0.0	58.1	0.0	**-18.4**	0.0	-940.1	-0.0	-82.3	0.0	**402.0**	0.0
Mz,	-632.5	0.0	38.2	0.0	136.7	**-0.0**	-816.7	-0.0	-59.0	0.0	193.0	**0.0**

Member 371

Fx,	**-1018.7**	-33.0	-67.9	-0.0	351.8	-57.8	**-241.5**	6.6	49.6	-0.0	-33.6	11.6
Fy,	-834.2	**-33.0**	-63.9	-0.0	331.4	-57.8	-608.3	**6.6**	37.8	-0.0	89.6	11.6
Fz,	-922.0	6.6	**-80.2**	-0.0	509.9	11.6	-325.6	-33.0	**54.6**	-0.0	-87.4	-57.8
Mx,	-837.2	-33.0	-60.6	**-0.0**	370.5	-57.8	-555.2	0.0	36.0	**-0.0**	54.0	0.0
My,	-331.7	-33.0	54.4	-0.0	**-88.9**	-57.8	-921.5	6.6	-79.9	-0.0	**513.7**	11.6
Mz,	-853.6	-33.0	-61.1	-0.0	318.5	**-57.8**	-586.6	6.6	35.5	-0.0	82.9	**11.6**
Fx,	**-1018.7**	-0.0	-67.9	-0.0	233.0	0.0	**-241.5**	0.0	49.6	**-0.0**	53.3	-0.0
Fy,	-834.2	**-0.0**	-63.9	-0.0	219.6	0.0	-608.3	**0.0**	37.8	-0.0	156.0	-0.0
Fz,	-922.0	0.0	**-80.2**	-0.0	369.6	-0.0	-325.6	-0.0	**54.6**	-0.0	8.2	0.0
Mx,	-837.2	-0.0	-60.6	**-0.0**	264.4	0.0	-555.2	0.0	36.0	**-0.0**	117.0	0.0
My,	-347.3	0.0	24.8	-0.0	**3.0**	-0.0	-908.1	-0.0	-50.2	-0.0	**377.3**	0.0
Mz,	-637.7	0.0	37.7	-0.0	157.3	**-0.0**	-818.0	-0.0	-63.1	-0.0	221.1	**0.0**

Member 372

Fx,	**-892.8**	27.5	-67.0	-0.0	273.8	48.1	**-168.9**	-5.5	49.0	-0.0	38.7	-9.6
Fy,	-619.6	**-27.5**	-55.6	-0.0	228.2	-48.1	-480.5	**5.5**	32.4	-0.0	165.7	9.6
Fz,	-739.0	-5.5	**-81.1**	-0.0	416.9	-9.6	-316.1	27.5	**55.6**	-0.0	-6.0	48.1
Mx,	-710.3	-0.0	-21.6	**-0.0**	273.9	0.0	-441.7	-0.0	38.0	**0.0**	90.8	0.0
My,	-317.4	27.5	54.7	-0.0	**-10.3**	48.1	-740.2	-5.5	-80.4	-0.0	**419.5**	-9.6
Mz,	-640.2	-27.5	-57.8	-0.0	248.4	**-48.1**	-477.8	5.5	33.0	-0.0	153.4	**9.6**
Fx,	**-892.8**	0.0	-67.0	-0.0	156.5	-0.0	**-168.9**	-0.0	49.0	-0.0	124.4	0.0
Fy,	-619.6	**-0.0**	-55.6	-0.0	130.8	0.0	-480.5	**0.0**	32.4	-0.0	222.4	-0.0
Fz,	-739.0	-0.0	**-81.1**	-0.0	274.9	0.0	-316.1	0.0	**55.6**	-0.0	91.3	-0.0
Mx,	-710.3	-0.0	-21.6	**-0.0**	236.1	0.0	-441.7	-0.0	38.0	**0.0**	157.4	0.0
My,	-339.8	-0.0	-39.8	-0.0	**13.0**	0.0	-724.9	0.0	14.7	-0.0	**351.6**	-0.0
Mz,	-482.3	0.0	32.3	-0.0	221.8	**-0.0**	-622.8	-0.0	-57.0	-0.0	138.0	**0.0**

Member 373

Fx,	**-326.4**	-136.2	-75.9	-0.0	132.8	-238.3	**-16.6**	130.1	26.6	-0.0	-46.5	227.7
Fy,	-313.5	**-136.3**	-63.9	-0.0	111.8	-238.6	-19.9	**130.2**	17.7	-0.0	-30.9	227.9
Fz,	-210.6	130.0	**-101.0**	0.0	176.8	227.5	-127.8	-128.7	**34.5**	0.0	-60.4	-225.2
Mx,	-260.2	-113.9	-32.8	**-0.0**	57.3	-199.4	-154.3	-127.3	-11.7	**0.0**	20.4	-222.7
My,	-127.8	-128.7	34.5	0.0	**-60.4**	-225.2	-210.6	130.0	-101.0	0.0	**176.8**	227.5
Mz,	-313.5	-136.3	-63.9	-0.0	111.8	**-238.6**	-19.9	130.2	17.7	-0.0	-30.9	**227.9**
Fx,	**-326.4**	-126.4	-75.9	-0.0	-0.0	0.0	**-16.6**	128.3	26.6	-0.0	0.0	0.0
Fy,	-312.4	**-130.8**	-63.9	0.0	-0.0	-0.0	-18.7	**124.1**	17.7	0.0	0.0	-0.0
Fz,	-210.6	120.2	**-101.0**	0.0	0.0	-0.0	-127.8	-126.8	**34.5**	0.0	-0.0	-0.0
Mx,	-260.2	-104.1	-32.8	**-0.0**	-0.0	0.0	-154.3	-125.4	-11.7	**0.0**	-0.0	-0.0
My,	-245.3	-123.2	-61.2	-0.0	**-0.0**	0.0	-137.1	126.7	-16.6	-0.0	**0.0**	0.0

Mz,	-172.4	-123.8	-32.2	0.0	-0.0	**-0.0**	-223.9	-102.4	-30.8	-0.0	-0.0	**0.0**

Member 374

Fx,	**-310.3**	0.0	39.0	0.0	-68.3	0.0	**123.5**	-0.0	26.8	-0.0	-46.8	-0.0
Fy,	-14.4	**-0.0**	60.9	0.0	-106.5	-0.0	-193.7	**0.0**	40.8	-0.0	-71.5	0.0
Fz,	-118.8	0.0	**-13.9**	-0.0	24.3	0.0	-45.0	-0.0	**116.6**	0.0	-204.0	-0.0
Mx,	-240.6	0.0	77.2	**-0.0**	-135.1	0.0	-113.0	0.0	-2.0	**0.0**	3.5	0.0
My,	-45.0	-0.0	116.6	0.0	**-204.0**	-0.0	-118.8	0.0	-13.9	-0.0	**24.3**	0.0
Mz,	-10.1	-0.0	60.4	0.0	-105.6	**-0.0**	-185.0	0.0	41.2	-0.0	-72.1	**0.0**
Fx,	**-310.3**	0.0	39.0	0.0	0.0	-0.0	**123.5**	-0.0	26.8	-0.0	0.0	0.0
Fy,	-14.4	**-0.0**	60.9	0.0	0.0	0.0	-193.7	**0.0**	40.8	-0.0	0.0	-0.0
Fz,	-118.8	0.0	**-13.9**	-0.0	0.0	-0.0	-45.0	-0.0	**116.6**	0.0	0.0	0.0
Mx,	-240.6	0.0	77.2	**-0.0**	0.0	-0.0	-113.0	0.0	-2.0	**0.0**	0.0	-0.0
My,	14.2	-0.0	72.9	0.0	**0.0**	0.0	-241.5	0.0	46.3	-0.0	**0.0**	-0.0
Mz,	-217.5	0.0	44.4	-0.0	0.0	**-0.0**	-15.2	-0.0	63.2	0.0	0.0	**0.0**

Member 375

Fx,	**-865.2**	2.0	21.1	0.0	-167.6	3.4	**-230.3**	-26.0	-5.8	-0.0	-73.4	-45.5
Fy,	-615.4	**-26.0**	17.4	0.0	-135.4	**-45.5**	-587.2	**2.0**	6.0	-0.0	-190.5	3.4
Fz,	-333.2	2.0	**-9.5**	-0.0	-36.0	3.4	-735.5	-26.0	**35.3**	0.0	-316.1	-45.5
Mx,	-404.5	-26.0	6.5	**-0.0**	-203.9	-45.5	-532.1	2.0	12.7	**0.0**	-87.5	3.4
My,	-678.9	-26.0	25.2	-0.0	**-372.0**	-45.5	-379.8	2.0	0.5	0.0	**19.4**	3.4
Mz,	-615.4	-26.0	17.4	0.0	-135.4	**-45.5**	-587.2	2.0	6.0	-0.0	-190.5	**3.4**
Fx,	**-865.2**	-0.0	21.1	0.0	-130.7	0.0	**-230.3**	-0.0	-5.8	-0.0	-83.6	0.0
Fy,	-615.4	**-0.0**	17.4	0.0	-105.0	0.0	-568.8	**0.0**	6.0	-0.0	-180.0	-0.0
Fz,	-333.2	-0.0	**-9.5**	-0.0	-52.6	0.0	-735.5	-0.0	**35.3**	0.0	-254.4	0.0
Mx,	-404.5	0.0	6.5	**-0.0**	-192.6	-0.0	-532.1	-0.0	12.7	**0.0**	-65.3	0.0
My,	-760.5	-0.0	25.1	-0.0	**-328.0**	0.0	-298.1	-0.0	0.6	0.0	**20.4**	0.0
Mz,	-646.7	0.0	7.3	-0.0	-190.5	**-0.0**	-593.4	-0.0	16.6	0.0	-96.1	**0.0**

Member 376

Fx,	**-994.6**	-5.4	73.6	-0.0	-314.1	-9.5	**-263.8**	27.2	-55.9	-0.0	15.6	47.6
Fy,	-646.5	**-27.2**	-38.0	0.0	-159.3	-47.6	-725.2	**5.4**	64.7	-0.0	-271.5	9.5
Fz,	-318.0	-5.4	**-60.3**	-0.0	58.2	-9.5	-913.0	27.2	**88.4**	0.0	-473.6	47.6
Mx,	-496.5	0.0	-2.0	**-0.0**	-190.2	0.0	-670.7	0.0	60.6	**0.0**	-232.5	0.0
My,	-907.9	5.4	88.0	0.0	**-479.0**	9.5	-316.2	-27.2	-60.1	-0.0	**59.8**	-47.6
Mz,	-644.1	-27.2	-39.2	0.0	-148.7	**-47.6**	-783.7	5.4	67.1	-0.0	-293.5	**9.5**
Fx,	**-994.6**	-0.0	73.6	-0.0	-185.4	0.0	**-263.8**	0.0	-55.9	-0.0	-82.1	-0.0
Fy,	-646.6	**-0.0**	-38.0	0.0	-225.8	0.0	-726.5	**0.0**	64.7	-0.0	-158.3	0.0
Fz,	-318.0	-0.0	**-60.3**	-0.0	-47.3	0.0	-913.0	0.0	**88.4**	0.0	-318.9	-0.0
Mx,	-496.5	0.0	-2.0	**-0.0**	-193.8	-0.0	-670.7	0.0	60.6	**0.0**	-126.4	-0.0
My,	-820.0	-0.0	-10.3	-0.0	**-366.8**	0.0	-403.7	0.0	38.0	-0.0	**-3.8**	-0.0
Mz,	-827.7	0.0	67.7	-0.0	-208.0	**-0.0**	-694.8	-0.0	-39.9	0.0	-170.6	**0.0**

Member 377

Fx,	**-1002.4**	6.6	67.4	0.0	-354.2	11.6	**-248.8**	-33.0	-51.2	-0.0	58.0	-57.8
Fy,	-870.9	**-33.0**	67.5	0.0	-381.8	-57.8	-514.2	**6.6**	-41.5	-0.0	-67.8	11.6
Fz,	-294.8	6.6	**-55.1**	-0.0	100.9	11.6	-915.0	-33.0	**80.4**	0.0	-517.1	-57.8
Mx,	-726.6	-0.0	7.5	**-0.0**	-245.7	-0.0	-367.7	-0.0	12.0	**0.0**	-135.3	-0.0
My,	-915.0	-33.0	80.3	0.0	**-520.9**	-57.8	-292.8	6.6	-55.0	-0.0	**102.6**	11.6
Mz,	-870.9	-33.0	67.5	0.0	-381.8	**-57.8**	-514.2	6.6	-41.5	-0.0	-67.8	**11.6**
Fx,	**-1002.4**	-0.0	67.4	0.0	-236.1	0.0	**-248.8**	0.0	-51.2	-0.0	-31.6	-0.0
Fy,	-871.0	**-0.0**	67.5	0.0	-263.7	0.0	-513.7	**0.0**	-41.5	-0.0	-140.4	-0.0
Fz,	-294.8	-0.0	**-55.1**	-0.0	4.5	0.0	-915.0	0.0	**80.4**	0.0	-376.3	-0.0
Mx,	-726.6	-0.0	7.5	**-0.0**	-232.5	0.0	-367.7	-0.0	12.0	**0.0**	-114.3	0.0
My,	-880.5	-0.0	50.2	0.0	**-381.6**	0.0	-325.0	0.0	-25.2	-0.0	**7.3**	-0.0
Mz,	-615.6	0.0	-38.8	-0.0	-161.3	**-0.0**	-791.3	-0.0	63.2	0.0	-220.1	**0.0**

Member 378

Fx,	**-1015.6**	-32.8	72.1	0.0	-382.7	-57.4	**-240.4**	6.6	-56.9	0.0	86.8	11.5
Fy,	-658.4	**-32.8**	-8.7	-0.0	-127.8	-57.4	-761.6	**6.6**	33.7	0.0	-299.2	11.5
Fz,	-286.8	-32.8	**-60.7**	0.0	129.6	-57.4	-925.8	6.6	**84.7**	0.0	-545.8	11.5
Mx,	-772.1	0.0	2.7	**-0.0**	-177.4	0.0	-634.9	-32.8	59.5	**0.0**	-282.7	-57.4
My,	-927.3	6.6	84.5	-0.0	**-548.9**	11.5	-284.2	-32.8	-60.5	0.0	**131.4**	-57.4
Mz,	-691.7	-32.8	-3.4	0.0	-154.9	**-57.4**	-713.7	6.6	27.0	-0.0	-237.6	**11.5**
Fx,	**-1015.6**	-0.0	72.1	0.0	-256.4	0.0	**-240.4**	0.0	-56.9	0.0	-12.7	0.0

Fy,	-658.4	**-0.0**	-8.7	-0.0	-143.1	0.0	-761.6	**0.0**	33.7	0.0	-240.3	0.0
Fz,	-286.8	-0.0	**-60.7**	0.0	23.4	0.0	-925.8	0.0	**84.7**	0.0	-397.6	0.0
Mx,	-772.1	0.0	2.7	**-0.0**	-172.7	-0.0	-634.9	-0.0	59.5	**0.0**	-178.5	0.0
My,	-942.9	-0.0	83.9	0.0	**-401.4**	0.0	-266.0	0.0	-60.3	0.0	**25.5**	0.0
Mz,	-803.2	0.0	36.3	0.0	-268.4	**-0.0**	-622.6	-0.0	-10.7	-0.0	-121.1	**0.0**

Member 379

Fx,	**-1011.2**	6.6	70.4	0.0	-379.9	11.5	**-240.4**	-32.8	-55.1	-0.0	84.6	-57.4
Fy,	-719.1	**-32.8**	-8.3	-0.0	-199.0	-57.4	-693.0	**6.6**	33.2	0.0	-236.1	11.5
Fz,	-287.0	6.6	**-58.9**	-0.0	127.7	11.5	-921.8	-32.8	**83.0**	0.0	-543.7	-57.4
Mx,	-806.0	-0.0	11.1	**-0.0**	-279.0	-0.0	-371.2	-0.0	8.5	**0.0**	-87.1	-0.0
My,	-923.6	-32.8	82.8	0.0	**-546.6**	-57.4	-285.1	6.6	-58.8	-0.0	**129.3**	11.5
Mz,	-719.1	-32.8	-8.3	-0.0	-199.0	**-57.4**	-693.0	6.6	33.2	0.0	-236.1	**11.5**
Fx,	**-1011.2**	-0.0	70.4	0.0	-256.8	0.0	**-240.4**	-0.0	-55.1	-0.0	-11.8	0.0
Fy,	-719.1	**-0.0**	-8.3	-0.0	-213.5	0.0	-692.5	**0.0**	33.2	0.0	-178.0	-0.0
Fz,	-287.0	-0.0	**-58.9**	-0.0	24.6	0.0	-921.8	-0.0	**83.0**	0.0	-398.5	0.0
Mx,	-806.0	-0.0	11.1	**-0.0**	-259.6	0.0	-371.2	-0.0	8.5	**0.0**	-72.2	0.0
My,	-940.1	-0.0	82.3	0.0	**-402.0**	0.0	-266.3	-0.0	-58.6	-0.0	**26.5**	0.0
Mz,	-749.8	0.0	35.9	0.0	-196.1	**-0.0**	-640.3	-0.0	-10.2	-0.0	-188.0	**0.0**

Member 380

Fx,	**-1018.7**	-33.0	67.9	0.0	-351.8	-57.8	**-251.1**	6.6	-50.6	0.0	51.0	11.6
Fy,	-883.9	**-33.0**	62.0	0.0	-345.2	-57.8	-623.4	**6.6**	-33.2	0.0	-112.9	11.6
Fz,	-316.2	-33.0	**-54.2**	0.0	92.6	-57.8	-922.0	6.6	**80.2**	0.0	-509.9	11.6
Mx,	-808.5	-0.0	9.4	**-0.0**	-200.2	-0.0	-632.7	-0.0	51.1	**0.0**	-249.7	-0.0
My,	-921.5	6.6	79.9	0.0	**-513.7**	11.6	-314.1	-33.0	-54.0	0.0	**94.4**	-57.8
Mz,	-891.6	-33.0	64.8	0.0	-356.8	**-57.8**	-633.8	6.6	-35.7	0.0	-107.7	**11.6**
Fx,	**-1018.7**	-0.0	67.9	0.0	-233.0	0.0	**-251.1**	0.0	-50.6	0.0	-37.5	-0.0
Fy,	-883.9	**-0.0**	62.0	0.0	-236.7	0.0	-623.4	**0.0**	-33.2	0.0	-171.1	-0.0
Fz,	-316.2	-0.0	**-54.2**	0.0	-2.3	0.0	-922.0	0.0	**80.2**	0.0	-369.6	-0.0
Mx,	-808.5	-0.0	9.4	**-0.0**	-183.7	0.0	-632.7	-0.0	51.1	**0.0**	-160.3	0.0
My,	-908.1	-0.0	50.2	0.0	**-377.3**	0.0	-325.8	0.0	-24.8	0.0	**3.1**	-0.0
Mz,	-648.5	0.0	-30.0	0.0	-197.2	**-0.0**	-865.8	-0.0	60.6	0.0	-225.5	**0.0**

Member 381

Fx,	**-892.8**	27.5	67.0	0.0	-273.8	48.1	**-175.3**	-5.5	-50.7	0.0	-23.4	-9.6
Fy,	-655.5	**-27.5**	61.9	0.0	-223.2	-48.1	-534.0	**5.5**	-40.1	0.0	-122.2	9.6
Fz,	-299.8	27.5	**-54.9**	0.0	13.6	48.1	-739.0	-5.5	**81.1**	0.0	-416.9	-9.6
Mx,	-692.4	0.0	2.9	**0.0**	-202.9	0.0	-478.6	-0.0	35.0	**0.0**	-168.1	-0.0
My,	-740.2	-5.5	80.4	0.0	**-419.5**	-9.6	-298.5	27.5	-54.7	0.0	15.2	48.1
Mz,	-655.5	-27.5	61.9	0.0	-223.2	**-48.1**	-534.0	5.5	-40.1	0.0	-122.2	**9.6**
Fx,	**-892.8**	0.0	67.0	0.0	-156.5	-0.0	**-175.3**	0.0	-50.7	0.0	-112.0	-0.0
Fy,	-655.5	**-0.0**	61.9	0.0	-114.9	0.0	-492.1	**0.0**	-40.1	0.0	-192.3	-0.0
Fz,	-299.8	0.0	**-54.9**	0.0	-82.5	-0.0	-739.0	0.0	**81.1**	0.0	-274.9	-0.0
Mx,	-692.4	0.0	2.9	**0.0**	-197.8	-0.0	-478.6	-0.0	35.0	**0.0**	-106.9	0.0
My,	-724.9	0.0	-14.7	0.0	**-351.6**	-0.0	-304.4	0.0	40.2	0.0	**-8.3**	-0.0
Mz,	-627.7	0.0	-35.9	0.0	-221.7	**-0.0**	-594.1	-0.0	60.9	0.0	-113.1	**0.0**

Member 382

Fx,	**-326.4**	-136.2	75.9	-0.0	-132.8	-238.3	**-29.6**	129.8	-28.2	0.0	49.4	227.2
Fy,	-313.5	**-136.3**	63.9	-0.0	-111.8	-238.6	-53.5	**130.1**	-7.0	-0.0	12.3	227.7
Fz,	-123.7	-128.5	**-34.7**	0.0	60.7	-225.0	-210.6	130.0	**101.0**	-0.0	-176.8	227.5
Mx,	-224.6	-111.9	47.6	**-0.0**	-83.2	-195.8	-179.1	-129.0	23.1	**0.0**	-40.4	-225.7
My,	-210.6	130.0	101.0	-0.0	**-176.8**	227.5	-123.7	-128.5	-34.7	0.0	**60.7**	-225.0
Mz,	-313.5	-136.3	63.9	-0.0	-111.8	**-238.6**	-53.5	130.1	-7.0	-0.0	12.3	**227.7**
Fx,	**-326.4**	-126.4	75.9	-0.0	-0.0	0.0	**-29.6**	128.0	-28.2	0.0	0.0	-0.0
Fy,	-312.4	**-130.8**	63.9	-0.0	0.0	0.0	-52.4	**124.0**	-7.0	-0.0	0.0	-0.0
Fz,	-123.7	-126.7	**-34.7**	0.0	0.0	0.0	-210.6	120.2	**101.0**	-0.0	0.0	-0.0
Mx,	-224.6	-102.1	47.6	**-0.0**	0.0	0.0	-179.1	-127.1	23.1	**0.0**	0.0	0.0
My,	-230.0	-99.2	43.0	0.0	**-0.0**	0.0	-179.5	100.7	47.2	-0.0	**0.0**	-0.0
Mz,	-234.3	116.5	55.4	-0.0	0.0	**-0.0**	-142.3	-126.8	-6.6	-0.0	0.0	**0.0**

Member 391

Fx,	**-865.2**	0.0	-21.1	0.0	130.7	0.0	**-223.8**	0.0	4.3	0.0	96.4	0.0
Fy,	-529.9	**0.0**	-11.2	0.0	122.5	0.0	-432.1	**0.0**	-2.7	0.0	114.4	0.0
Fz,	-735.5	0.0	**-35.3**	0.0	254.4	0.0	-350.7	0.0	**9.2**	0.0	58.0	0.0
Mx,	-529.9	0.0	-11.2	**0.0**	122.5	0.0	-432.1	0.0	-2.7	**0.0**	114.4	0.0

My,	-340.2	0.0	-1.1	0.0	**-15.9**	0.0	-760.5	0.0	-25.1	0.0	**328.0**	0.0
Mz,	-529.9	0.0	-11.2	0.0	122.5	**0.0**	-432.1	0.0	-2.7	0.0	114.4	**0.0**
Fx,	**-954.8**	2.0	-25.4	0.0	-182.4	-26.4	**-313.4**	-26.0	8.6	0.0	182.8	350.4
Fy,	-629.1	**-26.0**	-19.8	0.0	-141.5	350.4	-530.8	**2.0**	1.6	0.0	107.4	-26.4
Fz,	-825.1	-26.0	**-39.6**	0.0	-250.3	350.4	-440.3	2.0	**13.5**	0.0	210.9	-26.4
Mx,	-619.5	0.0	-11.2	**0.0**	-28.3	0.0	-521.7	0.0	1.6	**0.0**	107.4	0.0
My,	-824.5	-26.0	-39.6	0.0	**-250.6**	350.4	-439.7	2.0	13.5	0.0	**211.1**	-26.4
Mz,	-647.6	2.0	-19.8	0.0	-141.5	**-26.4**	-512.3	-26.0	1.6	0.0	107.4	**350.4**

Member 392

Fx,	**-994.6**	0.0	-73.6	0.0	185.4	0.0	**-254.5**	0.0	54.6	0.0	98.2	0.0
Fy,	-645.0	**0.0**	-20.9	0.0	168.6	0.0	-500.4	**0.0**	27.2	0.0	128.4	0.0
Fz,	-913.0	0.0	**-88.4**	0.0	318.9	0.0	-324.9	0.0	**60.5**	0.0	54.7	0.0
Mx,	-645.0	0.0	-20.9	**0.0**	168.6	0.0	-500.4	0.0	27.2	**0.0**	128.4	0.0
My,	-422.9	0.0	-38.0	0.0	**10.4**	0.0	-820.0	0.0	10.3	0.0	**366.8**	0.0
Mz,	-645.0	0.0	-20.9	0.0	168.6	**0.0**	-500.4	0.0	27.2	0.0	128.4	**0.0**
Fx,	**-1077.0**	-5.4	-77.6	0.0	-751.4	67.4	**-337.0**	27.2	58.5	0.0	799.2	-337.2
Fy,	-775.0	**-27.2**	-65.7	0.0	-634.6	337.2	-582.2	**5.4**	31.1	0.0	489.7	-67.4
Fz,	-995.4	27.2	**-92.4**	0.0	-801.4	-337.2	-407.3	-5.4	**64.5**	0.0	829.3	67.4
Mx,	-727.4	0.0	-20.9	**0.0**	-90.2	0.0	-582.9	0.0	31.1	**0.0**	489.7	0.0
My,	-997.2	27.2	-91.7	0.0	**-806.2**	-337.2	-400.9	-5.4	64.1	0.0	**830.8**	67.4
Mz,	-773.6	5.4	-65.7	0.0	-634.6	**-67.4**	-583.5	-27.2	31.1	0.0	489.7	**337.2**

Member 393

Fx,	**-1002.4**	0.0	-67.4	0.0	236.1	0.0	**-237.6**	0.0	49.3	0.0	52.7	0.0
Fy,	-636.9	**0.0**	-19.1	0.0	177.5	0.0	-484.3	**0.0**	25.2	0.0	99.4	0.0
Fz,	-915.0	0.0	**-80.4**	0.0	376.3	0.0	-317.0	0.0	**55.0**	0.0	3.5	0.0
Mx,	-636.9	0.0	-19.1	**0.0**	177.5	0.0	-484.3	0.0	25.2	**0.0**	99.4	0.0
My,	-356.9	0.0	24.9	0.0	**0.8**	0.0	-880.5	0.0	-50.2	0.0	**381.6**	0.0
Mz,	-636.9	0.0	-19.1	0.0	177.5	**0.0**	-484.3	0.0	25.2	0.0	99.4	**0.0**
Fx,	**-1105.8**	6.6	-72.4	0.0	-850.8	-102.7	**-341.0**	-33.0	54.3	0.0	857.6	513.7
Fy,	-798.5	**-33.0**	-62.6	0.0	-734.9	513.7	-587.9	**6.6**	30.2	0.0	529.4	-102.7
Fz,	-1018.4	-33.0	**-85.4**	0.0	-912.5	513.7	-420.3	6.6	**60.0**	0.0	897.6	-102.7
Mx,	-740.3	0.0	-19.1	**0.0**	-119.5	0.0	-587.7	0.0	30.2	**0.0**	529.4	0.0
My,	-1020.5	-33.0	-85.1	0.0	**-917.0**	513.7	-412.8	6.6	59.8	0.0	**899.6**	-102.7
Mz,	-799.1	6.6	-62.6	0.0	-734.9	**-102.7**	-587.3	-33.0	30.2	0.0	529.4	**513.7**

Member 394

Fx,	**-1015.6**	0.0	-72.1	0.0	256.4	0.0	**-229.3**	0.0	54.9	0.0	33.9	0.0
Fy,	-640.5	**0.0**	-19.2	0.0	181.4	0.0	-480.3	**0.0**	29.2	0.0	87.6	0.0
Fz,	-925.8	0.0	**-84.7**	0.0	397.6	0.0	-310.6	0.0	**60.6**	0.0	-16.7	0.0
Mx,	-640.5	0.0	-19.2	**0.0**	181.4	0.0	-480.3	0.0	29.2	**0.0**	87.6	0.0
My,	-298.2	0.0	59.9	0.0	**-17.7**	0.0	-942.9	0.0	-83.9	0.0	**401.4**	0.0
Mz	-640.5	0.0	-19.2	0.0	181.4	**0.0**	-480.3	0.0	29.2	0.0	87.6	**0.0**
Fx,	**-1123.0**	-32.8	-77.3	0.0	-950.8	529.9	**-336.8**	6.6	60.1	0.0	963.3	-105.8
Fy,	-813.7	**-32.8**	-67.3	0.0	-826.5	529.9	-587.6	**6.6**	34.4	0.0	600.8	-105.8
Fz,	-1033.2	6.6	**-89.8**	0.0	-1012.0	-105.8	-418.1	-32.8	**65.8**	0.0	1004.3	529.9
Mx,	-747.9	0.0	-19.2	**0.0**	-128.8	0.0	-587.7	0.0	34.4	**0.0**	600.8	0.0
My,	-1044.8	6.6	-89.5	0.0	**-1017.2**	-105.8	-399.0	-32.8	65.6	0.0	**1007.0**	529.9
Mz,	-813.4	6.6	-67.3	0.0	-826.5	**-105.8**	-587.9	-32.8	34.4	0.0	600.8	**529.9**

Member 395

Fx,	**-1011.2**	0.0	-70.4	0.0	256.8	0.0	**-229.5**	0.0	53.2	0.0	33.1	0.0
Fy,	-641.4	**0.0**	-18.9	0.0	181.2	0.0	-479.2	**0.0**	28.0	0.0	87.1	0.0
Fz,	-921.8	0.0	**-83.0**	0.0	398.5	0.0	-310.8	0.0	**58.8**	0.0	-17.6	0.0
Mx,	-641.4	0.0	-18.9	**0.0**	181.2	0.0	-479.2	0.0	28.0	**0.0**	87.1	0.0
My,	-296.3	0.0	58.1	0.0	**-18.5**	0.0	-940.1	0.0	-82.3	0.0	**402.0**	0.0
Mz,	-641.4	0.0	-18.9	0.0	181.2	**0.0**	-479.2	0.0	28.0	0.0	87.1	**0.0**
Fx,	**-1119.8**	6.6	-75.6	0.0	-935.2	-107.1	**-338.1**	-32.8	58.4	0.0	944.5	535.7
Fy,	-814.5	**-32.8**	-65.8	0.0	-812.3	535.7	-588.3	**6.6**	33.2	0.0	587.2	-107.1
Fz,	-1030.5	-32.8	**-88.2**	0.0	-999.3	535.7	-419.4	6.6	**64.0**	0.0	985.5	-107.1
Mx,	-750.0	0.0	-18.9	**0.0**	-128.2	0.0	-587.8	0.0	33.2	**0.0**	587.2	0.0
My,	-1034.3	-32.8	-87.9	0.0	**-1004.3**	535.7	-409.9	6.6	63.8	0.0	**988.2**	-107.1
Mz,	-815.5	6.6	-65.8	0.0	-812.3	**-107.1**	-587.3	-32.8	33.2	0.0	587.2	**535.7**

Member 396

Fx,	**-1018.7**	0.0	-67.9	0.0	233.0	0.0	**-241.5**	0.0	49.6	0.0	53.3	0.0
Fy,	-632.6	**0.0**	-19.7	0.0	178.3	0.0	-491.9	**0.0**	24.7	0.0	101.6	0.0
Fz,	-922.0	0.0	**-80.2**	0.0	369.6	0.0	-325.6	0.0	**54.6**	0.0	8.2	0.0
Mx,	-632.6	0.0	-19.7	**0.0**	178.3	0.0	-491.9	0.0	24.7	**0.0**	101.6	0.0
My,	-347.3	0.0	24.8	0.0	**3.0**	0.0	-908.1	0.0	-50.2	0.0	**377.3**	0.0
Mz,	-632.6	0.0	-19.7	0.0	178.3	**0.0**	-491.9	0.0	24.7	0.0	101.6	**0.0**
Fx,	**-1120.7**	-33.0	-72.8	0.0	-846.2	507.1	**-343.6**	6.6	54.5	0.0	852.5	-101.4
Fy,	-794.2	**-33.0**	-62.9	0.0	-728.9	507.1	-591.6	**6.6**	29.6	0.0	518.5	-101.4
Fz,	-1024.0	6.6	**-85.1**	0.0	-898.3	-101.4	-427.6	-33.0	**59.5**	0.0	884.1	507.1
Mx,	-734.6	0.0	-19.7	**0.0**	-124.6	0.0	-593.9	0.0	29.6	**0.0**	518.5	0.0
My,	-1026.7	6.6	-84.8	0.0	**-903.3**	-101.4	-421.6	-33.0	59.3	0.0	**886.2**	507.1
Mz,	-789.8	6.6	-62.9	0.0	-729.0	**-101.4**	-596.1	-33.0	29.6	0.0	518.5	**507.1**

Member 397

Fx,	**-892.8**	0.0	-67.0	0.0	156.5	0.0	**-168.9**	0.0	49.0	0.0	124.4	0.0
Fy,	-569.1	**0.0**	-20.6	0.0	144.0	0.0	-415.8	**0.0**	24.3	0.0	141.0	0.0
Fz,	-739.0	0.0	**-81.1**	0.0	274.9	0.0	-316.1	0.0	**55.6**	0.0	91.3	0.0
Mx,	-569.1	0.0	-20.6	**0.0**	144.0	0.0	-415.8	0.0	24.3	**0.0**	141.0	0.0
My,	-339.8	0.0	-39.8	0.0	**13.0**	0.0	-724.9	0.0	14.7	0.0	**351.5**	0.0
Mz,	-569.1	0.0	-20.6	0.0	144.0	**0.0**	-415.8	0.0	24.3	0.0	141.0	**0.0**
Fx,	**-969.0**	27.5	-70.7	0.0	-632.6	-315.1	**-245.1**	-5.5	52.6	0.0	706.5	63.0
Fy,	-663.8	**-27.5**	-60.9	0.0	-558.6	315.1	-514.1	**5.5**	28.0	0.0	440.6	-63.0
Fz,	-815.2	-5.5	**-84.8**	0.0	-675.7	63.0	-392.3	27.5	**59.3**	0.0	749.4	-315.1
Mx,	-645.3	0.0	-20.6	**0.0**	-92.5	0.0	-492.0	0.0	28.0	**0.0**	440.5	0.0
My,	-812.2	-5.5	-84.1	0.0	**-684.8**	63.0	-392.0	27.5	58.7	0.0	**754.5**	-315.1
Mz,	-705.7	5.5	-60.9	0.0	-558.4	**-63.0**	-472.2	-27.5	28.0	0.0	440.4	**315.1**

Member 398

Fx,	**-865.2**	0.0	21.1	0.0	-130.7	0.0	**-230.3**	0.0	-5.8	0.0	-83.6	0.0
Fy,	-669.7	**0.0**	12.3	0.0	-165.3	0.0	-460.5	**0.0**	9.8	0.0	-78.9	0.0
Fz,	-333.2	0.0	**-9.5**	0.0	-52.6	0.0	-735.5	0.0	**35.3**	0.0	-254.4	0.0
Mx,	-669.7	0.0	12.3	**0.0**	-165.3	0.0	-460.5	0.0	9.8	**0.0**	-78.9	0.0
My,	-760.5	0.0	25.1	0.0	**-328.0**	0.0	-298.1	0.0	0.6	0.0	**20.4**	0.0
Mz,	-669.7	0.0	12.3	0.0	-165.3	**0.0**	-460.5	0.0	9.8	0.0	-78.9	**0.0**
Fx,	**-954.8**	2.0	25.4	0.0	182.4	-26.4	**-319.9**	-26.0	-10.1	0.0	-190.7	350.4
Fy,	-731.1	**-26.0**	3.7	0.0	-112.8	350.4	-559.3	**2.0**	14.1	0.0	82.4	-26.4
Fz,	-422.8	2.0	**-13.8**	0.0	-210.2	-26.4	-825.1	-26.0	**39.6**	0.0	250.3	350.4
Mx,	-759.3	0.0	12.3	**0.0**	0.5	0.0	-550.1	0.0	14.1	**0.0**	82.5	0.0
My,	-424.1	2.0	-13.8	0.0	**-210.5**	-26.4	-824.5	-26.0	39.6	0.0	**250.6**	350.4
Mz,	-749.5	2.0	3.7	0.0	-112.8	**-26.4**	-540.8	-26.0	14.1	0.0	82.5	**350.4**

Member 399

Fx,	**-994.6**	0.0	73.6	0.0	-185.4	0.0	**-263.8**	0.0	-55.9	0.0	-82.1	0.0
Fy,	-786.2	**0.0**	5.4	0.0	-187.2	0.0	-573.4	**0.0**	39.2	0.0	-115.5	0.0
Fz,	-318.0	0.0	**-60.3**	0.0	-47.3	0.0	-913.0	0.0	**88.4**	0.0	-318.9	0.0
Mx,	-786.2	0.0	5.4	**0.0**	-187.2	0.0	-573.4	0.0	39.2	**0.0**	-115.5	0.0
My,	-820.0	0.0	-10.3	0.0	**-366.8**	0.0	-403.7	0.0	38.0	0.0	**-3.8**	0.0
Mz,	-786.2	0.0	5.4	0.0	-187.2	**0.0**	-573.4	0.0	39.2	0.0	-115.5	**0.0**
Fx,	**-1077.0**	-5.4	77.6	0.0	751.4	67.4	**-346.2**	27.2	-59.8	0.0	-799.3	-337.2
Fy,	-822.4	**-27.2**	-39.4	0.0	-664.9	337.2	-655.1	**5.4**	43.2	0.0	395.4	-67.4
Fz,	-400.4	-5.4	**-64.2**	0.0	-819.2	67.4	-995.4	27.2	**92.4**	0.0	801.5	-337.2
Mx,	-868.7	0.0	5.4	**0.0**	-120.5	0.0	-655.8	0.0	43.2	**0.0**	395.3	0.0
My,	-398.7	-5.4	-63.9	0.0	**-820.9**	67.4	-997.2	27.2	91.7	0.0	**806.2**	-337.2
Mz,	-821.1	5.4	-39.4	0.0	-664.8	**-67.4**	-656.4	-27.2	43.2	0.0	395.3	**337.2**

Member 400

Fx,	**-1002.4**	0.0	67.4	0.0	-236.1	0.0	**-248.8**	0.0	-51.2	0.0	-31.6	0.0
Fy,	-771.1	**0.0**	4.6	0.0	-182.0	0.0	-576.1	**0.0**	37.3	0.0	-145.1	0.0
Fz,	-294.8	0.0	**-55.1**	0.0	4.5	0.0	-915.0	0.0	**80.4**	0.0	-376.3	0.0
Mx,	-771.1	0.0	4.6	**0.0**	-182.0	0.0	-576.1	0.0	37.3	**0.0**	-145.1	0.0
My,	-880.5	0.0	50.2	0.0	**-381.6**	0.0	-325.0	0.0	-25.2	0.0	**7.3**	0.0
Mz,	-771.1	0.0	4.6	0.0	-182.0	**0.0**	-576.1	0.0	37.3	0.0	-145.1	**0.0**
Fx,	**-1105.8**	6.6	72.4	0.0	850.8	-102.7	**-352.1**	-33.0	-56.2	0.0	-866.6	513.7
Fy,	-815.6	**-33.0**	-39.0	0.0	-726.5	513.7	-679.6	**6.6**	42.3	0.0	473.2	-102.7
Fz,	-398.1	6.6	**-60.1**	0.0	-890.5	-102.7	-1018.4	-33.0	**85.4**	0.0	912.5	513.7
Mx,	-874.5	0.0	4.6	**0.0**	-111.1	0.0	-679.4	0.0	42.3	**0.0**	473.2	0.0
My,	-395.8	6.6	-59.9	0.0	**-891.6**	-102.7	-1020.5	-33.0	85.1	0.0	**916.9**	513.7

Mz,	-816.1	6.6	-39.0	0.0	-726.5	**-102.7**	-679.1	-33.0	42.3	0.0	473.2	**513.7**

Member 401

Fx,	**-1015.6**	0.0	72.1	0.0	-256.4	0.0	**-240.4**	0.0	-56.9	0.0	-12.7	0.0
Fy,	-772.1	**0.0**	3.2	0.0	-179.6	0.0	-583.6	**0.0**	40.4	0.0	-157.7	0.0
Fz,	-286.8	0.0	**-60.7**	0.0	23.4	0.0	-925.8	0.0	**84.7**	0.0	-397.6	0.0
Mx,	-772.1	0.0	3.2	**0.0**	-179.6	0.0	-583.6	0.0	40.4	**0.0**	-157.7	0.0
My,	-942.9	0.0	83.9	0.0	**-401.4**	0.0	-266.0	0.0	-60.3	0.0	**25.5**	0.0
Mz,	-772.1	0.0	3.2	0.0	-179.6	**0.0**	-583.6	0.0	40.4	0.0	-157.7	**0.0**
Fx,	**-1123.0**	-32.8	77.3	0.0	950.8	529.9	**-347.9**	6.6	-62.0	0.0	-973.3	-105.8
Fy,	-814.1	**-32.8**	-45.0	0.0	-826.3	529.9	-690.9	**6.6**	45.5	0.0	536.2	-105.8
Fz,	-394.3	-32.8	**-65.8**	0.0	-998.5	529.9	-1033.2	6.6	**89.8**	0.0	1012.0	-105.8
Mx,	-879.6	0.0	3.2	**0.0**	-128.7	0.0	-691.0	0.0	45.5	**0.0**	536.2	0.0
My,	-581.5	-32.8	-60.6	0.0	**-1001.6**	529.9	-1044.8	6.6	89.5	0.0	**1017.2**	-105.8
Mz,	-813.8	6.6	-45.0	0.0	-826.3	**-105.8**	-691.2	-32.8	45.5	0.0	536.2	**529.9**

Member 402

Fx,	**-1011.2**	0.0	70.4	0.0	-256.8	0.0	**-240.4**	0.0	-55.1	0.0	-11.8	0.0
Fy,	-773.1	**0.0**	3.5	0.0	-179.6	0.0	-581.4	**0.0**	39.4	0.0	-157.8	0.0
Fz,	-287.0	0.0	**-58.9**	0.0	24.6	0.0	-921.8	0.0	**83.0**	0.0	-398.5	0.0
Mx,	-773.1	0.0	3.5	**0.0**	-179.6	0.0	-581.4	0.0	39.4	**0.0**	-157.8	0.0
My,	-940.1	0.0	82.3	0.0	**-402.0**	0.0	-266.3	0.0	-58.6	0.0	**26.5**	0.0
Mz,	-773.1	0.0	3.5	0.0	-179.6	**0.0**	-581.4	0.0	39.4	0.0	-157.8	**0.0**
Fx,	**-1119.8**	6.6	75.6	0.0	935.2	-107.1	**-349.1**	-32.8	-60.3	0.0	-954.8	535.7
Fy,	-816.2	**-32.8**	-43.3	0.0	-806.7	535.7	-690.5	**6.6**	44.6	0.0	528.1	-107.1
Fz,	-395.6	6.6	**-64.1**	0.0	-979.9	-107.1	-1030.5	-32.8	**88.2**	0.0	999.2	535.7
Mx,	-881.7	0.0	3.5	**0.0**	-122.6	0.0	-690.1	0.0	44.6	**0.0**	528.1	0.0
My,	-588.7	6.6	-58.9	0.0	**-982.4**	-107.1	-1034.3	-32.8	87.9	0.0	**1004.3**	535.7
Mz,	-817.1	6.6	-43.3	0.0	-806.7	**-107.1**	-689.6	-32.8	44.6	0.0	528.1	**535.7**

Member 403

Fx,	**-1018.7**	0.0	67.9	0.0	-233.0	0.0	**-251.1**	0.0	-50.6	0.0	-37.5	0.0
Fy,	-767.8	**0.0**	4.5	0.0	-181.0	0.0	-581.4	**0.0**	37.3	0.0	-143.0	0.0
Fz,	-316.2	0.0	**-54.2**	0.0	-2.3	0.0	-922.0	0.0	**80.2**	0.0	-369.6	0.0
Mx,	-767.8	0.0	4.5	**0.0**	-181.0	0.0	-581.4	0.0	37.3	**0.0**	-143.0	0.0
My,	-908.1	0.0	50.2	0.0	**-377.3**	0.0	-325.8	0.0	-24.8	0.0	**3.1**	0.0
Mz,	-767.8	0.0	4.5	0.0	-181.0	**0.0**	-581.4	0.0	37.3	0.0	-143.0	**0.0**
Fx,	**-1120.7**	-33.0	72.8	0.0	846.2	507.1	**-353.2**	6.6	-55.5	0.0	-851.4	-101.4
Fy,	-815.1	**-33.0**	-38.7	0.0	-716.6	507.1	-681.1	**6.6**	42.2	0.0	466.3	-101.4
Fz,	-418.3	-33.0	**-59.1**	0.0	-871.7	507.1	-1024.0	6.6	**85.1**	0.0	898.3	-101.4
Mx,	-869.8	0.0	4.5	**0.0**	-112.3	0.0	-683.4	0.0	42.2	**0.0**	466.3	0.0
My,	-613.2	-33.0	-53.0	0.0	**-873.1**	507.1	-1026.7	6.6	84.8	0.0	**903.3**	-101.4
Mz,	-810.6	6.6	-38.7	0.0	-716.6	**-101.4**	-685.6	-33.0	42.2	0.0	466.3	**507.1**

Member 404

Fx,	**-892.8**	0.0	67.0	0.0	-156.5	0.0	**-175.3**	0.0	-50.7	0.0	-112.0	0.0
Fy,	-692.4	**0.0**	2.9	0.0	-197.8	0.0	-478.6	**0.0**	35.0	0.0	-106.9	0.0
Fz,	-299.8	0.0	**-54.9**	0.0	-82.5	0.0	-739.0	0.0	**81.1**	0.0	-274.9	0.0
Mx,	-692.4	0.0	2.9	**0.0**	-197.8	0.0	-478.6	0.0	35.0	**0.0**	-106.9	0.0
My,	-724.9	0.0	-14.7	0.0	**-351.6**	0.0	-304.4	0.0	40.2	0.0	**-8.3**	0.0
Mz,	-692.4	0.0	2.9	0.0	-197.8	**0.0**	-478.6	0.0	35.0	0.0	-106.9	**0.0**
Fx,	**-969.0**	27.5	70.7	0.0	632.7	-315.1	**-251.5**	-5.5	-54.3	0.0	-713.7	63.0
Fy,	-706.1	**-27.5**	-37.3	0.0	-630.2	315.1	-576.9	**5.5**	38.6	0.0	314.8	-63.0
Fz,	-376.0	27.5	**-58.6**	0.0	-732.7	-315.1	-815.2	-5.5	**84.8**	0.0	675.6	63.0
Mx,	-768.6	0.0	2.9	**0.0**	-164.2	0.0	-554.8	0.0	38.6	**0.0**	314.8	0.0
My,	-549.2	27.5	-52.8	0.0	**-744.5**	-315.1	-812.2	-5.5	84.1	0.0	**684.8**	63.0
Mz,	-748.0	5.5	-37.3	0.0	-630.3	**-63.0**	-535.0	-27.5	38.6	0.0	314.9	**315.1**

Member 405

Fx,	**-1353.4**	7.9	47.6	0.0	0.0	0.0	**1174.1**	13.4	-147.3	-0.0	0.0	0.0
Fy,	-329.0	**-171.9**	-98.3	-0.0	0.0	-0.0	125.8	**22.5**	33.4	0.0	0.0	0.0
Fz,	162.1	-158.8	**-181.1**	-0.0	0.0	0.0	-334.0	9.4	**79.7**	0.0	0.0	0.0
Mx,	13.4	11.9	-79.6	**-0.0**	0.0	0.0	669.0	3.1	-76.0	**0.0**	0.0	0.0
My,	-699.9	12.6	-68.9	-0.0	**0.0**	0.0	362.0	-162.9	-40.5	-0.0	**0.0**	-0.0
Mz,	779.0	-170.6	-104.1	-0.0	0.0	**-0.0**	-628.9	21.7	33.3	-0.0	0.0	**0.0**
Fx,	-1353.4	7.9	47.6	0.0	95.2	-15.7	**1174.1**	13.4	-147.3	-0.0	-294.6	-26.8
Fy,	-329.0	**-171.9**	-98.3	-0.0	-196.6	343.8	125.8	**22.5**	33.4	0.0	66.8	-44.9
Fz,	162.1	-158.8	**-181.1**	-0.0	-362.2	317.5	-334.0	9.4	**79.7**	0.0	159.4	-18.8
Mx,	13.4	11.9	-79.6	**-0.0**	-159.2	-23.8	669.0	3.1	-76.0	**0.0**	-152.0	-6.3
My,	162.1	-158.8	-181.1	-0.0	**-362.2**	317.5	-334.0	9.4	79.7	0.0	**159.4**	-18.8
Mz,	125.8	22.5	33.4	0.0	66.8	**-44.9**	-329.0	-171.9	-98.3	-0.0	-196.6	**343.8**

Member 406

Fx,	**-1353.4**	7.9	-47.6	0.0	0.0	0.0	**1174.1**	13.4	147.3	0.0	0.0	0.0
Fy,	-343.8	**-171.1**	104.2	0.0	0.0	-0.0	125.8	**22.5**	-33.4	0.0	0.0	0.0
Fz,	-352.3	8.1	**-79.8**	0.0	0.0	0.0	172.1	-158.8	**177.0**	0.0	0.0	-0.0
Mx,	193.8	7.7	39.0	**0.0**	0.0	0.0	-87.3	-163.2	39.1	**0.0**	0.0	-0.0
My,	-1051.8	-164.8	-18.4	0.0	**0.0**	-0.0	890.7	13.3	112.6	0.0	**0.0**	0.0
Mz,	-152.2	-170.7	105.0	0.0	0.0	**-0.0**	315.4	21.9	-37.2	0.0	0.0	**0.0**
Fx,	**-1353.4**	7.9	-47.6	0.0	-95.2	-15.7	**1174.1**	13.4	147.3	0.0	294.6	-26.8
Fy,	-343.8	**-171.1**	104.2	0.0	208.4	342.2	125.8	**22.5**	-33.4	0.0	-66.8	-44.9
Fz,	-352.3	8.1	**-79.8**	0.0	-159.6	-16.2	172.1	-158.8	**177.0**	0.0	354.1	317.5
Mx,	193.8	7.7	39.0	**0.0**	78.0	-15.3	-87.3	-163.2	39.1	**0.0**	78.1	326.3
My,	-352.3	8.1	-79.8	0.0	**-159.6**	-16.2	172.1	-158.8	177.0	0.0	**354.1**	317.5
Mz,	125.8	22.5	-33.4	0.0	-66.8	**-44.9**	-343.8	-171.1	104.2	0.0	208.4	**342.2**

Member 421

Fx,	**-1828.3**	3.9	-18.4	0.0	-402.7	-52.8	**-686.7**	-52.0	16.8	-0.0	414.8	700.7
Fy,	-1360.1	**-52.0**	-16.0	-0.0	51.6	700.7	-1090.1	**3.9**	15.8	0.0	275.2	-52.8
Fz,	-1381.3	-3.9	**-39.7**	-0.0	-516.6	52.8	-1508.3	0.0	**39.7**	0.0	516.6	0.0
Mx,	-1360.1	-52.0	-16.0	**-0.0**	51.6	700.7	-1090.1	3.9	15.8	**0.0**	275.2	-52.8
My,	-1319.0	-3.9	-11.6	-0.0	**-1355.7**	52.8	-1289.9	0.0	14.8	0.0	**1330.7**	0.0
Mz,	-1397.1	3.9	-16.0	0.0	51.6	**-52.8**	-1053.1	-52.0	15.8	-0.0	275.2	**700.7**
Fx,	**-1828.3**	3.9	-18.4	0.0	-421.0	-56.7	**-686.7**	-52.0	16.8	-0.0	431.7	752.7
Fy,	-1360.1	**-52.0**	-16.0	-0.0	35.6	752.7	-1090.1	**3.9**	15.8	0.0	290.9	-56.7
Fz,	-1381.3	-3.9	**-39.7**	-0.0	-556.4	56.7	-1508.3	0.0	**39.7**	0.0	556.4	0.0
Mx,	-1360.1	-52.0	-16.0	**-0.0**	35.6	752.7	-1090.1	3.9	15.8	**0.0**	290.9	-56.7
My,	-1315.6	-3.9	-11.9	-0.0	**-1367.3**	56.7	-1286.5	0.0	15.1	0.0	**1345.4**	0.0
Mz,	-1397.1	3.9	-16.0	0.0	35.6	**-56.7**	-1053.1	-52.0	15.8	-0.0	290.9	**752.7**

Member 422

Fx,	**-1990.3**	-10.9	105.1	-0.0	1638.6	134.9	**-811.3**	54.4	-106.3	0.0	-1609.6	-674.3
Fy,	-1597.4	**-54.4**	-105.1	-0.0	-1157.0	674.3	-1237.3	**10.9**	74.3	0.0	1103.8	-134.9
Fz,	-1564.1	-10.9	**-129.8**	-0.0	-1977.4	134.9	-1597.0	0.0	**129.8**	0.0	1977.3	0.0
Mx,	-1597.4	-54.4	-105.1	**-0.0**	-1157.0	674.3	-1237.3	10.9	74.3	**0.0**	1103.8	-134.9
My,	-1540.2	-10.9	-112.4	-0.0	**-2964.9**	134.9	-1498.4	0.0	112.9	0.0	**2884.6**	0.0
Mz,	-1594.7	10.9	-105.1	0.0	-1157.0	**-134.9**	-1240.0	-54.4	74.3	-0.0	1103.8	**674.3**
Fx,	**-1990.3**	-10.9	105.1	-0.0	1743.7	145.7	**-811.3**	54.4	-106.3	0.0	-1715.9	-728.7
Fy,	-1597.4	**-54.4**	-105.1	-0.0	-1262.2	728.7	-1237.3	**10.9**	74.3	0.0	1178.1	-145.7
Fz,	-1564.1	-10.9	**-129.8**	-0.0	-2107.2	145.7	-1597.0	0.0	**129.8**	0.0	2107.2	0.0
Mx,	-1597.4	-54.4	-105.1	**-0.0**	-1262.2	728.7	-1237.3	10.9	74.3	**0.0**	1178.1	-145.7
My,	-1538.4	-10.9	-112.6	-0.0	**-3077.3**	145.7	-1496.6	0.0	113.2	0.0	**2997.6**	0.0
Mz,	-1594.7	10.9	-105.1	0.0	-1262.2	**-145.7**	-1240.0	-54.4	74.3	-0.0	1178.1	**728.7**

Member 423

Fx,	**-2018.1**	13.2	-43.3	0.0	-673.3	-205.5	**-850.4**	-66.1	41.5	-0.0	699.3	1027.4
Fy,	-1614.1	**-66.1**	-101.6	-0.0	-1410.3	1027.4	-1267.5	**13.2**	72.4	0.0	1278.0	-205.5
Fz,	-1547.0	-13.2	**-124.6**	-0.0	-2166.0	205.5	-1638.9	0.0	**124.6**	0.0	2166.0	0.0
Mx,	-1614.1	-66.1	-101.6	**-0.0**	-1410.3	1027.4	-1267.5	13.2	72.4	**0.0**	1278.0	-205.5
My,	-1553.8	-13.2	-109.7	-0.0	**-3224.8**	205.5	-1554.4	0.0	109.9	0.0	**3139.9**	0.0
Mz,	-1615.2	13.2	-101.6	0.0	-1410.3	**-205.5**	-1266.4	-66.1	72.4	-0.0	1278.0	**1027.4**
Fx,	**-2018.1**	13.2	-43.3	0.0	-716.6	-218.7	**-850.4**	-66.1	41.5	-0.0	740.8	1093.5
Fy,	-1614.1	**-66.1**	-101.6	-0.0	-1511.9	1093.5	-1267.5	**13.2**	72.4	0.0	1350.4	-218.7
Fz,	-1547.0	-13.2	**-124.6**	-0.0	-2290.6	218.7	-1638.9	0.0	**124.6**	0.0	2290.6	0.0
Mx,	-1614.1	-66.1	-101.6	**-0.0**	-1511.9	1093.5	-1267.5	13.2	72.4	**0.0**	1350.4	-218.7
My,	-1552.1	-13.2	-109.9	-0.0	**-3334.6**	218.7	-1552.7	0.0	110.1	0.0	**3249.8**	0.0
Mz,	-1615.2	13.2	-101.6	0.0	-1511.9	**-218.7**	-1266.4	-66.1	72.4	-0.0	1350.4	**1093.5**

Member 424

Fx,	**-2034.3**	-65.6	-112.5	-0.0	-2130.9	1059.8	**-859.7**	13.1	110.5	0.0	2152.8	-211.6
Fy,	-1627.8	**-65.6**	-112.3	-0.0	-1651.5	1059.8	-1278.5	**13.1**	79.9	0.0	1446.7	-211.6
Fz,	-1630.7	65.6	**-135.4**	0.0	-2433.9	-1059.8	-1597.0	0.0	**135.4**	0.0	2433.9	0.0
Mx,	-1627.8	-65.6	-112.3	**-0.0**	-1651.5	1059.8	-1278.5	13.1	79.9	**0.0**	1446.7	-211.6

My,	-1532.4	65.6	-121.9	0.0	**-3503.4**	-1059.8	-1547.8	0.0	121.7	0.0	**3413.0**	0.0
Mz,	-1627.2	13.1	-112.3	0.0	-1651.5	**-211.6**	-1279.1	-65.6	79.9	-0.0	1446.7	**1059.8**
Fx,	**-2034.3**	-65.6	-112.5	-0.0	-2243.3	1125.4	**-859.7**	13.1	110.5	0.0	2263.3	-224.7
Fy,	-1627.8	**-65.6**	-112.3	-0.0	-1763.8	1125.4	-1278.5	**13.1**	79.9	0.0	1526.6	-224.7
Fz,	-1630.7	65.6	**-135.4**	0.0	-2569.3	-1125.4	-1597.0	0.0	**135.4**	0.0	2569.3	0.0
Mx,	-1627.8	-65.6	-112.3	**-0.0**	-1763.8	1125.4	-1278.5	13.1	79.9	**0.0**	1526.6	-224.7
My,	-1531.9	65.6	-121.9	0.0	**-3625.3**	-1125.4	-1547.3	0.0	121.8	0.0	**3534.8**	0.0
Mz,	-1627.2	13.1	-112.3	0.0	-1763.8	**-224.7**	-1279.1	-65.6	79.9	-0.0	1526.6	**1125.4**

Member 425

Fx,	**-2029.5**	13.1	109.5	0.0	2094.8	-214.3	**-860.8**	-65.6	-111.5	-0.0	-2073.9	1071.4
Fy,	-1630.7	**-65.6**	-109.1	-0.0	-1614.1	1071.4	-1278.8	**13.1**	77.8	0.0	1422.2	-214.3
Fz,	-1628.8	65.6	**-132.3**	0.0	-2391.6	-1071.4	-1585.4	0.0	**132.3**	0.0	2391.6	0.0
Mx,	-1630.7	-65.6	-109.1	**-0.0**	-1614.1	1071.4	-1278.8	13.1	77.8	**0.0**	1422.2	-214.3
My,	-1530.6	65.6	-118.4	0.0	**-3458.3**	-1071.4	-1565.6	0.0	118.4	0.0	**3370.0**	0.0
Mz,	-1632.6	13.1	-109.1	0.0	-1614.1	**-214.3**	-1276.9	-65.6	77.8	-0.0	1422.2	**1071.4**
Fx,	**-2029.5**	13.1	109.5	0.0	2204.3	-227.4	**-860.8**	-65.6	-111.5	-0.0	-2185.4	1137.0
Fy,	-1630.7	**-65.6**	-109.1	-0.0	-1723.2	1137.0	-1278.8	**13.1**	77.8	0.0	1500.0	-227.4
Fz,	-1628.8	65.6	**-132.3**	0.0	-2523.9	-1137.0	-1585.4	0.0	**132.3**	0.0	2523.9	0.0
Mx,	-1630.7	-65.6	-109.1	**-0.0**	-1723.2	1137.0	-1278.8	13.1	77.8	**0.0**	1500.0	-227.4
My,	-1528.8	65.6	-118.6	0.0	**-3576.7**	-1137.0	-1563.9	0.0	118.6	0.0	**3488.4**	0.0
Mz,	-1632.6	13.1	-109.1	0.0	-1723.2	**-227.4**	-1276.9	-65.6	77.8	-0.0	1500.0	**1137.0**

Member 426

Fx,	**-2050.5**	-66.1	101.1	-0.0	1854.7	1014.2	**-851.3**	13.2	-101.9	0.0	-1823.3	-202.8
Fy,	-1609.3	**-66.1**	-101.6	-0.0	-1383.0	1014.2	-1272.7	**13.2**	71.8	0.0	1253.4	-202.8
Fz,	-1597.7	66.1	**-122.7**	0.0	-2130.2	-1014.2	-1637.0	0.0	**122.7**	0.0	2130.2	0.0
Mx,	-1609.3	-66.1	-101.6	**-0.0**	-1383.0	1014.2	-1272.7	13.2	71.8	**0.0**	1253.4	-202.8
My,	-1590.8	66.1	-107.6	0.0	**-3188.0**	-1014.2	-1528.8	0.0	107.9	0.0	**3104.5**	0.0
Mz,	-1600.4	13.2	-101.6	0.0	-1383.0	**-202.8**	-1281.7	-66.1	71.8	-0.0	1253.4	**1014.2**
Fx,	**-2050.5**	-66.1	101.1	-0.0	1955.7	1080.3	**-851.3**	13.2	-101.9	0.0	-1925.2	-216.1
Fy,	-1609.3	**-66.1**	-101.6	-0.0	-1484.5	1080.3	-1272.7	**13.2**	71.8	0.0	1325.2	-216.1
Fz,	-1597.7	66.1	**-122.7**	0.0	-2252.9	-1080.3	-1637.0	0.0	**122.7**	0.0	2252.9	0.0
Mx,	-1609.3	-66.1	-101.6	**-0.0**	-1484.5	1080.3	-1272.7	13.2	71.8	**0.0**	1325.2	-216.1
My,	-1589.0	66.1	-107.8	0.0	**-3295.6**	-1080.3	-1527.0	0.0	108.1	0.0	**3212.3**	0.0
Mz,	-1600.4	13.2	-101.6	0.0	-1484.5	**-216.1**	-1281.7	-66.1	71.8	-0.0	1325.2	**1080.3**

Member 427

Fx,	**-1790.7**	55.0	-94.5	0.0	-1409.0	-630.3	**-608.9**	-11.0	92.7	-0.0	1419.2	126.1
Fy,	-1370.0	**-55.0**	-98.2	-0.0	-1061.9	630.3	-1090.9	**11.0**	66.6	0.0	943.7	-126.1
Fz,	-1423.0	55.0	**-121.0**	0.0	-1816.4	-630.3	-1324.2	0.0	**121.0**	0.0	1816.4	0.0
Mx,	-1370.0	-55.0	-98.2	**-0.0**	-1061.9	630.3	-1090.9	11.0	66.6	**0.0**	943.7	-126.1
My,	-1276.1	55.0	-105.7	0.0	**-2615.0**	-630.3	-1279.1	0.0	105.6	0.0	**2533.4**	0.0
Mz,	-1453.7	11.0	-98.2	0.0	-1061.9	**-126.1**	-1007.2	-55.0	66.6	-0.0	943.7	**630.3**
Fx,	**-1790.7**	55.0	-94.5	0.0	-1503.5	-685.3	**-608.9**	-11.0	92.7	-0.0	1511.9	137.1
Fy,	-1370.0	**-55.0**	-98.2	-0.0	-1160.1	685.3	-1090.9	**11.0**	66.6	0.0	1010.3	-137.1
Fz,	-1423.0	55.0	**-121.0**	0.0	-1937.4	-685.3	-1324.2	0.0	**121.0**	0.0	1937.4	0.0
Mx,	-1370.0	-55.0	-98.2	**-0.0**	-1160.1	685.3	-1090.9	11.0	66.6	**0.0**	1010.3	-137.1
My,	-1275.5	55.0	-105.7	0.0	**-2720.7**	-685.3	-1278.5	0.0	105.6	0.0	**2639.0**	0.0
Mz,	-1453.7	11.0	-98.2	0.0	-1160.1	**-137.1**	-1007.2	-55.0	66.6	-0.0	1010.3	**685.3**

DISPLACEMENTS

	x	y	z	x	y	z	x	y	z	x	y	z

*** Fin del listado ***

SUBANEJO Nº 13

ESFUERZOS DE ESTADOS DE CARGA PERMANENTE

hip pppilas

Program Envolvator (release 1.3 - Jun 1998)
Calculation date: 24-mar-1999 19:32 h. Listing date: 13-abr-1999 11:47 h.
Members: 419
Joints: 353
Envelope generated from:

Name	min	max
pppilas	1.00	1.00

	Fx	Fy	Fz	Mx	My	Mz	Fx	Fy	Fz	Mx	My	Mz
Member 1												
Fx,	**-0.0**	-0.0	0.0	-0.0	0.0	-0.1	**-0.0**	-0.0	0.0	-0.0	0.0	-0.1
Fy,	-0.0	**-0.0**	0.0	-0.0	0.0	-0.1	-0.0	**-0.0**	0.0	-0.0	0.0	-0.1
Fz,	-0.0	-0.0	**0.0**	-0.0	0.0	-0.1	-0.0	-0.0	**0.0**	-0.0	0.0	-0.1
Mx,	-0.0	-0.0	0.0	**-0.0**	0.0	-0.1	-0.0	-0.0	0.0	**-0.0**	0.0	-0.1
My,	-0.0	-0.0	0.0	-0.0	**0.0**	-0.1	-0.0	-0.0	0.0	-0.0	**0.0**	-0.1
Mz,	-0.0	-0.0	0.0	-0.0	0.0	**-0.1**	-0.0	-0.0	0.0	-0.0	0.0	**-0.1**
Fx,	**-0.0**	-0.0	0.0	-0.0	0.0	-0.1	**-0.0**	-0.0	0.0	-0.0	0.0	-0.1
Fy,	-0.0	**-0.0**	0.0	-0.0	0.0	-0.1	-0.0	**-0.0**	0.0	-0.0	0.0	-0.1
Fz,	-0.0	-0.0	**0.0**	-0.0	0.0	-0.1	-0.0	-0.0	**0.0**	-0.0	0.0	-0.1
Mx,	-0.0	-0.0	0.0	**-0.0**	0.0	-0.1	-0.0	-0.0	0.0	**-0.0**	0.0	-0.1
My,	-0.0	-0.0	0.0	-0.0	**0.0**	-0.1	-0.0	-0.0	0.0	-0.0	**0.0**	-0.1
Mz,	-0.0	-0.0	0.0	-0.0	0.0	**-0.1**	-0.0	-0.0	0.0	-0.0	0.0	**-0.1**
Member 2												
Fx,	**-0.0**	-0.0	0.0	-0.0	0.0	-0.1	**-0.0**	-0.0	0.0	-0.0	0.0	-0.1
Fy,	-0.0	**-0.0**	0.0	-0.0	0.0	-0.1	-0.0	**-0.0**	0.0	-0.0	0.0	-0.1
Fz,	-0.0	-0.0	**0.0**	-0.0	0.0	-0.1	-0.0	-0.0	**0.0**	-0.0	0.0	-0.1
Mx,	-0.0	-0.0	0.0	**-0.0**	0.0	-0.1	-0.0	-0.0	0.0	**-0.0**	0.0	-0.1
My,	-0.0	-0.0	0.0	-0.0	**0.0**	-0.1	-0.0	-0.0	0.0	-0.0	**0.0**	-0.1
Mz,	-0.0	-0.0	0.0	-0.0	0.0	**-0.1**	-0.0	-0.0	0.0	-0.0	0.0	**-0.1**
Fx,	**-0.0**	-0.0	0.0	-0.0	0.0	-0.1	**-0.0**	-0.0	0.0	-0.0	0.0	-0.1
Fy,	-0.0	**-0.0**	0.0	-0.0	0.0	-0.1	-0.0	**-0.0**	0.0	-0.0	0.0	-0.1
Fz,	-0.0	-0.0	**0.0**	-0.0	0.0	-0.1	-0.0	-0.0	**0.0**	-0.0	0.0	-0.1
Mx,	-0.0	-0.0	0.0	**-0.0**	0.0	-0.1	-0.0	-0.0	0.0	**-0.0**	0.0	-0.1
My,	-0.0	-0.0	0.0	-0.0	**0.0**	-0.1	-0.0	-0.0	0.0	-0.0	**0.0**	-0.1
Mz,	-0.0	-0.0	0.0	-0.0	0.0	**-0.1**	-0.0	-0.0	0.0	-0.0	0.0	**-0.1**
Member 3												
Fx,	**-0.0**	-0.0	0.0	-0.0	0.0	-0.1	**-0.0**	-0.0	0.0	-0.0	0.0	-0.1
Fy,	-0.0	**-0.0**	0.0	-0.0	0.0	-0.1	-0.0	**-0.0**	0.0	-0.0	0.0	-0.1
Fz,	-0.0	-0.0	**0.0**	-0.0	0.0	-0.1	-0.0	-0.0	**0.0**	-0.0	0.0	-0.1
Mx,	-0.0	-0.0	0.0	**-0.0**	0.0	-0.1	-0.0	-0.0	0.0	**-0.0**	0.0	-0.1
My,	-0.0	-0.0	0.0	-0.0	**0.0**	-0.1	-0.0	-0.0	0.0	-0.0	**0.0**	-0.1
Mz,	-0.0	-0.0	0.0	-0.0	0.0	**-0.1**	-0.0	-0.0	0.0	-0.0	0.0	**-0.1**
Fx,	**-0.0**	-0.0	0.0	-0.0	0.1	-0.0	**-0.0**	-0.0	0.0	-0.0	0.1	-0.0
Fy,	-0.0	**-0.0**	0.0	-0.0	0.1	-0.0	-0.0	**-0.0**	0.0	-0.0	0.1	-0.0
Fz,	-0.0	-0.0	**0.0**	-0.0	0.1	-0.0	-0.0	-0.0	**0.0**	-0.0	0.1	-0.0
Mx,	-0.0	-0.0	0.0	**-0.0**	0.1	-0.0	-0.0	-0.0	0.0	**-0.0**	0.1	-0.0
My,	-0.0	-0.0	0.0	-0.0	**0.1**	-0.0	-0.0	-0.0	0.0	-0.0	**0.1**	-0.0
Mz,	-0.0	-0.0	0.0	-0.0	0.1	**-0.0**	-0.0	-0.0	0.0	-0.0	0.1	**-0.0**
Member 4												
Fx,	**-0.0**	-0.0	0.0	-0.0	0.1	-0.0	**-0.0**	-0.0	0.0	-0.0	0.1	-0.0
Fy,	-0.0	**-0.0**	0.0	-0.0	0.1	-0.0	-0.0	**-0.0**	0.0	-0.0	0.1	-0.0
Fz,	-0.0	-0.0	**0.0**	-0.0	0.1	-0.0	-0.0	-0.0	**0.0**	-0.0	0.1	-0.0
Mx,	-0.0	-0.0	0.0	**-0.0**	0.1	-0.0	-0.0	-0.0	0.0	**-0.0**	0.1	-0.0
My,	-0.0	-0.0	0.0	-0.0	**0.1**	-0.0	-0.0	-0.0	0.0	-0.0	**0.1**	-0.0
Mz,	-0.0	-0.0	0.0	-0.0	0.1	**-0.0**	-0.0	-0.0	0.0	-0.0	0.1	**-0.0**
Fx,	**-0.0**	-0.0	0.0	-0.0	0.1	-0.0	**-0.0**	-0.0	0.0	-0.0	0.1	-0.0
Fy,	-0.0	**-0.0**	0.0	-0.0	0.1	-0.0	-0.0	**-0.0**	0.0	-0.0	0.1	-0.0
Fz,	-0.0	-0.0	**0.0**	-0.0	0.1	-0.0	-0.0	-0.0	**0.0**	-0.0	0.1	-0.0
Mx,	-0.0	-0.0	0.0	**-0.0**	0.1	-0.0	-0.0	-0.0	0.0	**-0.0**	0.1	-0.0
My,	-0.0	-0.0	0.0	-0.0	**0.1**	-0.0	-0.0	-0.0	0.0	-0.0	**0.1**	-0.0
Mz,	-0.0	-0.0	0.0	-0.0	0.1	**-0.0**	-0.0	-0.0	0.0	-0.0	0.1	**-0.0**
Member 5												
Fx,	**-0.0**	-0.0	0.0	-0.0	0.1	-0.0	**-0.0**	-0.0	0.0	-0.0	0.1	-0.0
Fy,	-0.0	**-0.0**	0.0	-0.0	0.1	-0.0	-0.0	**-0.0**	0.0	-0.0	0.1	-0.0
Fz,	-0.0	-0.0	**0.0**	-0.0	0.1	-0.0	-0.0	-0.0	**0.0**	-0.0	0.1	-0.0
Mx,	-0.0	-0.0	0.0	**-0.0**	0.1	-0.0	-0.0	-0.0	0.0	**-0.0**	0.1	-0.0
My,	-0.0	-0.0	0.0	-0.0	**0.1**	-0.0	-0.0	-0.0	0.0	-0.0	**0.1**	-0.0
Mz,	-0.0	-0.0	0.0	-0.0	0.1	**-0.0**	-0.0	-0.0	0.0	-0.0	0.1	**-0.0**
Fx,	**-0.0**	-0.0	0.0	-0.0	0.1	-0.0	**-0.0**	-0.0	0.0	-0.0	0.1	-0.0
Fy,	-0.0	**-0.0**	0.0	-0.0	0.1	-0.0	-0.0	**-0.0**	0.0	-0.0	0.1	-0.0
Fz,	-0.0	-0.0	**0.0**	-0.0	0.1	-0.0	-0.0	-0.0	**0.0**	-0.0	0.1	-0.0
Mx,	-0.0	-0.0	0.0	**-0.0**	0.1	-0.0	-0.0	-0.0	0.0	**-0.0**	0.1	-0.0
My,	-0.0	-0.0	0.0	-0.0	**0.1**	-0.0	-0.0	-0.0	0.0	-0.0	**0.1**	-0.0
Mz,	-0.0	-0.0	0.0	-0.0	0.1	**-0.0**	-0.0	-0.0	0.0	-0.0	0.1	**-0.0**
Member 6												
Fx,	**-0.0**	-0.0	0.0	-0.0	0.1	-0.0	**-0.0**	-0.0	0.0	-0.0	0.1	-0.0
Fy,	-0.0	**-0.0**	0.0	-0.0	0.1	-0.0	-0.0	**-0.0**	0.0	-0.0	0.1	-0.0
Fz,	-0.0	-0.0	**0.0**	-0.0	0.1	-0.0	-0.0	-0.0	**0.0**	-0.0	0.1	-0.0
Mx,	-0.0	-0.0	0.0	**-0.0**	0.1	-0.0	-0.0	-0.0	0.0	**-0.0**	0.1	-0.0
My,	-0.0	-0.0	0.0	-0.0	**0.1**	-0.0	-0.0	-0.0	0.0	-0.0	**0.1**	-0.0
Mz,	-0.0	-0.0	0.0	-0.0	0.1	**-0.0**	-0.0	-0.0	0.0	-0.0	0.1	**-0.0**
Fx,	**-0.0**	-0.0	0.0	-0.0	0.1	0.0	**-0.0**	-0.0	0.0	-0.0	0.1	0.0
Fy,	-0.0	**-0.0**	0.0	-0.0	0.1	0.0	-0.0	**-0.0**	0.0	-0.0	0.1	0.0
Fz,	-0.0	-0.0	**0.0**	-0.0	0.1	0.0	-0.0	-0.0	**0.0**	-0.0	0.1	0.0
Mx,	-0.0	-0.0	0.0	**-0.0**	0.1	0.0	-0.0	-0.0	0.0	**-0.0**	0.1	0.0
My,	-0.0	-0.0	0.0	-0.0	**0.1**	0.0	-0.0	-0.0	0.0	-0.0	**0.1**	0.0
Mz,	-0.0	-0.0	0.0	-0.0	0.1	**0.0**	-0.0	-0.0	0.0	-0.0	0.1	**0.0**
Member 7												
Fx,	**-0.0**	0.0	-0.0	0.0	0.1	0.0	**-0.0**	0.0	-0.0	0.0	0.1	0.0
Fy,	-0.0	**0.0**	-0.0	0.0	0.1	0.0	-0.0	**0.0**	-0.0	0.0	0.1	0.0
Fz,	-0.0	0.0	**-0.0**	0.0	0.1	0.0	-0.0	0.0	**-0.0**	0.0	0.1	0.0
Mx,	-0.0	0.0	-0.0	**0.0**	0.1	0.0	-0.0	0.0	-0.0	**0.0**	0.1	0.0
My,	-0.0	0.0	-0.0	0.0	**0.1**	0.0	-0.0	0.0	-0.0	0.0	**0.1**	0.0
Mz,	-0.0	0.0	-0.0	0.0	0.1	**0.0**	-0.0	0.0	-0.0	0.0	0.1	**0.0**
Fx,	**-0.0**	0.0	-0.0	0.0	0.1	-0.0	**-0.0**	0.0	-0.0	0.0	0.1	-0.0
Fy,	-0.0	**0.0**	-0.0	0.0	0.1	-0.0	-0.0	**0.0**	-0.0	0.0	0.1	-0.0
Fz,	-0.0	0.0	**-0.0**	0.0	0.1	-0.0	-0.0	0.0	**-0.0**	0.0	0.1	-0.0
Mx,	-0.0	0.0	-0.0	**0.0**	0.1	-0.0	-0.0	0.0	-0.0	**0.0**	0.1	-0.0
My,	-0.0	0.0	-0.0	0.0	**0.1**	-0.0	-0.0	0.0	-0.0	0.0	**0.1**	-0.0
Mz,	-0.0	0.0	-0.0	0.0	0.1	**0.0**	-0.0	0.0	-0.0	0.0	0.1	**0.0**
Member 8												
Fx,	**-0.0**	0.0	-0.0	0.0	0.1	-0.0	**-0.0**	0.0	-0.0	0.0	0.1	-0.0
Fy,	-0.0	**0.0**	-0.0	0.0	0.1	-0.0	-0.0	**0.0**	-0.0	0.0	0.1	-0.0
Fz,	-0.0	0.0	**-0.0**	0.0	0.1	-0.0	-0.0	0.0	**-0.0**	0.0	0.1	-0.0
Mx,	-0.0	0.0	-0.0	**0.0**	0.1	-0.0	-0.0	0.0	-0.0	**0.0**	0.1	-0.0
My,	-0.0	0.0	-0.0	0.0	**0.1**	-0.0	-0.0	0.0	-0.0	0.0	**0.1**	-0.0
Mz,	-0.0	0.0	-0.0	0.0	0.1	**-0.0**	-0.0	0.0	-0.0	0.0	0.1	**-0.0**
Fx,	**-0.0**	0.0	-0.0	0.0	0.1	-0.0	**-0.0**	0.0	-0.0	0.0	0.1	-0.0
Fy,	-0.0	**0.0**	-0.0	0.0	0.1	-0.0	-0.0	**0.0**	-0.0	0.0	0.1	-0.0
Fz,	-0.0	0.0	**-0.0**	0.0	0.1	-0.0	-0.0	0.0	**-0.0**	0.0	0.1	-0.0
Mx,	-0.0	0.0	-0.0	**0.0**	0.1	-0.0	-0.0	0.0	-0.0	**0.0**	0.1	-0.0
My,	-0.0	0.0	-0.0	0.0	**0.1**	-0.0	-0.0	0.0	-0.0	0.0	**0.1**	-0.0
Mz,	-0.0	0.0	-0.0	0.0	0.1	**-0.0**	-0.0	0.0	-0.0	0.0	0.1	**-0.0**
Member 9												
Fx,	**-0.0**	-0.0	-0.0	0.0	0.1	-0.0	**-0.0**	-0.0	-0.0	0.0	0.1	-0.0
Fy,	-0.0	**-0.0**	-0.0	0.0	0.1	-0.0	-0.0	**-0.0**	-0.0	0.0	0.1	-0.0
Fz,	-0.0	-0.0	**-0.0**	0.0	0.1	-0.0	-0.0	-0.0	**-0.0**	0.0	0.1	-0.0
Mx,	-0.0	-0.0	-0.0	**0.0**	0.1	-0.0	-0.0	-0.0	-0.0	**0.0**	0.1	-0.0
My,	-0.0	-0.0	-0.0	0.0	**0.1**	-0.0	-0.0	-0.0	-0.0	0.0	**0.1**	-0.0
Mz,	-0.0	-0.0	-0.0	0.0	0.1	**-0.0**	-0.0	-0.0	-0.0	0.0	0.1	**-0.0**
Fx,	**-0.0**	-0.0	-0.0	0.0	0.1	-0.0	**-0.0**	-0.0	-0.0	0.0	0.1	-0.0
Fy,	-0.0	**-0.0**	-0.0	0.0	0.1	-0.0	-0.0	**-0.0**	-0.0	0.0	0.1	-0.0
Fz,	-0.0	-0.0	**-0.0**	0.0	0.1	-0.0	-0.0	-0.0	**-0.0**	0.0	0.1	-0.0

Mx_t	-0.0	-0.0	-0.0	**0.0**	0.1	-0.0	-0.0	-0.0	-0.0	**0.0**	0.1	-0.0
My_t	-0.0	-0.0	-0.0	0.0	**0.1**	-0.0	-0.0	-0.0	-0.0	0.0	**0.1**	-0.0
Mz_t	-0.0	-0.0	-0.0	0.0	0.1	**-0.0**	-0.0	-0.0	-0.0	0.0	0.1	**-0.0**

Member 10

Fx_i	**-0.0**	-0.0	-0.0	0.0	**0.1**	-0.0	**-0.0**	-0.0	-0.0	0.0	0.1	-0.0
Fy_i	-0.0	**-0.0**	-0.0	0.0	0.1	-0.0	-0.0	**-0.0**	-0.0	0.0	0.1	-0.0
Fz_i	-0.0	-0.0	**-0.0**	0.0	0.1	-0.0	-0.0	-0.0	**-0.0**	0.0	0.1	-0.0
Mx_i	-0.0	-0.0	-0.0	**0.0**	0.1	-0.0	-0.0	-0.0	-0.0	**0.0**	0.1	-0.0
My_i	-0.0	-0.0	-0.0	0.0	**0.1**	-0.0	-0.0	-0.0	-0.0	0.0	**0.1**	-0.0
Mz_i	-0.0	-0.0	-0.0	0.0	0.1	**-0.0**	-0.0	-0.0	-0.0	0.0	0.1	**-0.0**
Fx_t	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0
Fy_t	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0
Fz_t	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0
Mx_t	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0
My_t	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0
Mz_t	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**

Member 11

Fx_i	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0
Fy_i	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0
Fz_i	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0
Mx_i	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0
My_i	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0
Mz_i	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**
Fx_t	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0
Fy_t	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0
Fz_t	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0
Mx_t	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0
My_t	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0
Mz_t	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**

Member 12

Fx_i	**-0.0**	0.0	-0.0	0.0	0.0	-0.0	**-0.0**	0.0	-0.0	0.0	0.0	-0.0
Fy_i	-0.0	**0.0**	-0.0	0.0	0.0	-0.0	-0.0	**0.0**	-0.0	0.0	0.0	-0.0
Fz_i	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	-0.0	0.0	**-0.0**	0.0	0.0	-0.0
Mx_i	-0.0	0.0	-0.0	**0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	0.0	-0.0
My_i	-0.0	0.0	-0.0	0.0	**0.0**	-0.0	-0.0	0.0	-0.0	0.0	**0.0**	-0.0
Mz_i	-0.0	0.0	-0.0	0.0	0.0	**-0.0**	-0.0	0.0	-0.0	0.0	0.0	**-0.0**
Fx_t	**-0.0**	0.0	-0.0	0.0	0.0	-0.0	**-0.0**	0.0	-0.0	0.0	0.0	-0.0
Fy_t	-0.0	**0.0**	-0.0	0.0	0.0	-0.0	-0.0	**0.0**	-0.0	0.0	0.0	-0.0
Fz_t	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	-0.0	0.0	**-0.0**	0.0	0.0	-0.0
Mx_t	-0.0	0.0	-0.0	**0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	0.0	-0.0
My_t	-0.0	0.0	-0.0	0.0	**0.0**	-0.0	-0.0	0.0	-0.0	0.0	**0.0**	-0.0
Mz_t	-0.0	0.0	-0.0	0.0	0.0	**-0.0**	-0.0	0.0	-0.0	0.0	0.0	**-0.0**

Member 13

Fx_i	**-0.0**	0.0	-0.0	0.0	0.0	-0.0	**-0.0**	0.0	-0.0	0.0	0.0	-0.0
Fy_i	-0.0	**0.0**	-0.0	0.0	0.0	-0.0	-0.0	**0.0**	-0.0	0.0	0.0	-0.0
Fz_i	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	-0.0	0.0	**-0.0**	0.0	0.0	-0.0
Mx_i	-0.0	0.0	-0.0	**0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	0.0	-0.0
My_i	-0.0	0.0	-0.0	0.0	**0.0**	-0.0	-0.0	0.0	-0.0	0.0	**0.0**	-0.0
Mz_i	-0.0	0.0	-0.0	0.0	0.0	**-0.0**	-0.0	0.0	-0.0	0.0	0.0	**-0.0**
Fx_t	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0
Fy_t	-0.0	**0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0	-0.0
Fz_t	-0.0	0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	0.0	-0.0	-0.0
Mx_t	-0.0	0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0	-0.0
My_t	-0.0	0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	0.0	**-0.0**	-0.0
Mz_t	-0.0	0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**-0.0**

Member 14

Fx_i	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0
Mx_i	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0
My_i	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**-0.0**	0.0
Mz_i	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**
Fx_t	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0
Fy_t	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_t	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0
Mx_t	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0
My_t	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**-0.0**	0.0
Mz_t	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**

Fx_t	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0
Fy_t	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_t	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0
Mx_t	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0
My_t	-0.0	0.0	-0.0	0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0
Mz_t	-0.0	0.0	-0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**

Member 15

Fx_i	**-0.0**	-0.0	0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	0.0
Fy_i	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0
Fz_i	-0.0	-0.0	**0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	0.0
Mx_i	-0.0	-0.0	0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	0.0
My_i	-0.0	-0.0	0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	0.0
Mz_i	-0.0	-0.0	0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**0.0**
Fx_t	**-0.0**	-0.0	0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	0.0
Fy_t	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0
Fz_t	-0.0	-0.0	**0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	0.0
Mx_t	-0.0	-0.0	0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	0.0
My_t	-0.0	-0.0	0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	0.0
Mz_t	-0.0	-0.0	0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**0.0**

Member 16

Fx_i	**-0.0**	0.0	0.0	-0.0	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	-0.0	0.0
Fy_i	-0.0	**0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	0.0	-0.0	-0.0	0.0
Fz_i	-0.0	0.0	**0.0**	-0.0	-0.0	0.0	-0.0	0.0	**0.0**	-0.0	-0.0	0.0
Mx_i	-0.0	0.0	0.0	**-0.0**	-0.0	0.0	-0.0	0.0	0.0	**-0.0**	-0.0	0.0
My_i	-0.0	0.0	0.0	-0.0	**-0.0**	0.0	-0.0	0.0	0.0	-0.0	**-0.0**	0.0
Mz_i	-0.0	0.0	0.0	-0.0	-0.0	**0.0**	-0.0	0.0	0.0	-0.0	-0.0	**0.0**
Fx_t	**-0.0**	0.0	0.0	-0.0	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	-0.0	0.0
Fy_t	-0.0	**0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	0.0	-0.0	-0.0	0.0
Fz_t	-0.0	0.0	**0.0**	-0.0	-0.0	0.0	-0.0	0.0	**0.0**	-0.0	-0.0	0.0
Mx_t	-0.0	0.0	0.0	**-0.0**	-0.0	0.0	-0.0	0.0	0.0	**-0.0**	-0.0	0.0
My_t	-0.0	0.0	0.0	-0.0	**-0.0**	0.0	-0.0	0.0	0.0	-0.0	**-0.0**	0.0
Mz_t	-0.0	0.0	0.0	-0.0	-0.0	**0.0**	-0.0	0.0	0.0	-0.0	-0.0	**0.0**

Member 17

Fx_i	**-0.0**	-0.0	0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	0.0
Fy_i	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0
Fz_i	-0.0	-0.0	**0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	0.0
Mx_i	-0.0	-0.0	0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	0.0
My_i	-0.0	-0.0	0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	0.0
Mz_i	-0.0	-0.0	0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**0.0**
Fx_t	**-0.0**	-0.0	0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	0.0
Fy_t	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0
Fz_t	-0.0	-0.0	**0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	0.0
Mx_t	-0.0	-0.0	0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	0.0
My_t	-0.0	-0.0	0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	0.0
Mz_t	-0.0	-0.0	0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**0.0**

Member 18

Fx_i	**-0.0**	0.0	0.0	-0.0	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	-0.0	0.0
Fy_i	-0.0	**0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	0.0	-0.0	-0.0	0.0
Fz_i	-0.0	0.0	**0.0**	-0.0	-0.0	0.0	-0.0	0.0	**0.0**	-0.0	-0.0	0.0
Mx_i	-0.0	0.0	0.0	**-0.0**	-0.0	0.0	-0.0	0.0	0.0	**-0.0**	-0.0	0.0
My_i	-0.0	0.0	0.0	-0.0	**-0.0**	0.0	-0.0	0.0	0.0	-0.0	**-0.0**	0.0
Mz_i	-0.0	0.0	0.0	-0.0	-0.0	**0.0**	-0.0	0.0	0.0	-0.0	-0.0	**0.0**
Fx_t	**-0.0**	0.0	0.0	-0.0	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	-0.0	0.0
Fy_t	-0.0	**0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	0.0	-0.0	-0.0	0.0
Fz_t	-0.0	0.0	**0.0**	-0.0	-0.0	0.0	-0.0	0.0	**0.0**	-0.0	-0.0	0.0
Mx_t	-0.0	0.0	0.0	**-0.0**	-0.0	0.0	-0.0	0.0	0.0	**-0.0**	-0.0	0.0
My_t	-0.0	0.0	0.0	-0.0	**-0.0**	0.0	-0.0	0.0	0.0	-0.0	**-0.0**	0.0
Mz_t	-0.0	0.0	0.0	-0.0	-0.0	**0.0**	-0.0	0.0	0.0	-0.0	-0.0	**0.0**

Member 19

Fx_i	**-0.0**	0.0	0.0	-0.0	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	-0.0	0.0
Fy_i	-0.0	**0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	0.0	-0.0	-0.0	0.0

Fz,	-0.0	0.0	**0.0**	-0.0	-0.0	0.0	-0.0	0.0	**0.0**	-0.0	-0.0	0.0
Mx,	-0.0	0.0	0.0	**-0.0**	-0.0	0.0	-0.0	0.0	0.0	**-0.0**	-0.0	0.0
My,	-0.0	0.0	0.0	-0.0	**-0.0**	0.0	-0.0	0.0	0.0	-0.0	**-0.0**	0.0
Mz,	-0.0	0.0	0.0	-0.0	-0.0	**0.0**	-0.0	0.0	0.0	-0.0	-0.0	**0.0**
Fx,	**-0.0**	0.0	0.0	-0.0	0.0	0.0	**-0.0**	0.0	0.0	-0.0	0.0	0.0
Fy,	-0.0	**0.0**	0.0	-0.0	0.0	0.0	-0.0	**0.0**	0.0	-0.0	0.0	0.0
Fz,	-0.0	0.0	**0.0**	-0.0	0.0	0.0	-0.0	0.0	**0.0**	-0.0	0.0	0.0
Mx,	-0.0	0.0	0.0	**-0.0**	0.0	0.0	-0.0	0.0	0.0	**-0.0**	0.0	0.0
My,	-0.0	0.0	0.0	-0.0	**0.0**	0.0	-0.0	0.0	0.0	-0.0	**0.0**	0.0
Mz,	-0.0	0.0	0.0	-0.0	0.0	**0.0**	-0.0	0.0	0.0	-0.0	0.0	**0.0**

Member 391

Fx,	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy,	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx,	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz,	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-89.6**	0.0	0.0	0.0	0.1	0.0	**-89.6**	0.0	0.0	0.0	0.1	0.0
Fy,	-89.6	**0.0**	0.0	0.0	0.1	0.0	-89.6	**0.0**	0.0	0.0	0.1	0.0
Fz,	-89.6	0.0	**0.0**	0.0	0.1	0.0	-89.6	0.0	**0.0**	0.0	0.1	0.0
Mx,	-89.6	0.0	0.0	**0.0**	0.1	0.0	-89.6	0.0	0.0	**0.0**	0.1	0.0
My,	-89.6	0.0	0.0	0.0	**0.1**	0.0	-89.6	0.0	0.0	0.0	**0.1**	0.0
Mz,	-89.6	0.0	0.0	0.0	0.1	**0.0**	-89.6	0.0	0.0	0.0	0.1	**0.0**

Member 392

Fx,	**0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0
Fy,	0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**-0.0**	0.0	-0.0	0.0
Mx,	0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0
My,	0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	-0.0	0.0	**-0.0**	0.0
Mz,	0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**
Fx,	**-82.4**	0.0	-0.0	0.0	-0.1	0.0	**-82.4**	0.0	-0.0	0.0	-0.1	0.0
Fy,	-82.4	**0.0**	-0.0	0.0	-0.1	0.0	-82.4	**0.0**	-0.0	0.0	-0.1	0.0
Fz,	-82.4	0.0	**-0.0**	0.0	-0.1	0.0	-82.4	0.0	**-0.0**	0.0	-0.1	0.0
Mx,	-82.4	0.0	-0.0	**0.0**	-0.1	0.0	-82.4	0.0	-0.0	**0.0**	-0.1	0.0
My,	-82.4	0.0	-0.0	0.0	**-0.1**	0.0	-82.4	0.0	-0.0	0.0	**-0.1**	0.0
Mz,	-82.4	0.0	-0.0	0.0	-0.1	**0.0**	-82.4	0.0	-0.0	0.0	-0.1	**0.0**

Member 393

Fx,	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy,	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx,	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz,	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-103.4**	0.0	0.0	0.0	0.0	0.0	**-103.4**	0.0	0.0	0.0	0.0	0.0
Fy,	-103.4	**0.0**	0.0	0.0	0.0	0.0	-103.4	**0.0**	0.0	0.0	0.0	0.0
Fz,	-103.4	0.0	**0.0**	0.0	0.0	0.0	-103.4	0.0	**0.0**	0.0	0.0	0.0
Mx,	-103.4	0.0	0.0	**0.0**	0.0	0.0	-103.4	0.0	0.0	**0.0**	0.0	0.0
My,	-103.4	0.0	0.0	0.0	**0.0**	0.0	-103.4	0.0	0.0	0.0	**0.0**	0.0
Mz,	-103.4	0.0	0.0	0.0	0.0	**0.0**	-103.4	0.0	0.0	0.0	0.0	**0.0**

Member 394

Fx,	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0
Fy,	-0.0	**0.0**	-0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0
Fz,	-0.0	0.0	**-0.0**	0.0	0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0
Mx,	-0.0	0.0	-0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0
My,	-0.0	0.0	-0.0	0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0
Mz,	-0.0	0.0	-0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**
Fx,	**-107.4**	0.0	-0.0	0.0	-0.0	0.0	**-107.4**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-107.4	**0.0**	-0.0	0.0	-0.0	0.0	-107.4	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-107.4	0.0	**-0.0**	0.0	-0.0	0.0	-107.4	0.0	**-0.0**	0.0	-0.0	0.0
Mx,	-107.4	0.0	-0.0	**0.0**	-0.0	0.0	-107.4	0.0	-0.0	**0.0**	-0.0	0.0
My,	-107.4	0.0	-0.0	0.0	**-0.0**	0.0	-107.4	0.0	-0.0	0.0	**-0.0**	0.0
Mz,	-107.4	0.0	-0.0	0.0	-0.0	**0.0**	-107.4	0.0	-0.0	0.0	-0.0	**0.0**

Member 395

Fx,	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0
Fy,	-0.0	**0.0**	-0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0
Fz,	-0.0	0.0	**-0.0**	0.0	0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0
Mx,	-0.0	0.0	-0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0
My,	-0.0	0.0	-0.0	0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0
Mz,	-0.0	0.0	-0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**
Fx,	**-108.6**	0.0	-0.0	0.0	-0.0	0.0	**-108.6**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-108.6	**0.0**	-0.0	0.0	-0.0	0.0	-108.6	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-108.6	0.0	**-0.0**	0.0	-0.0	0.0	-108.6	0.0	**-0.0**	0.0	-0.0	0.0
Mx,	-108.6	0.0	-0.0	**0.0**	-0.0	0.0	-108.6	0.0	-0.0	**0.0**	-0.0	0.0
My,	-108.6	0.0	-0.0	0.0	**-0.0**	0.0	-108.6	0.0	-0.0	0.0	**-0.0**	0.0
Mz,	-108.6	0.0	-0.0	0.0	-0.0	**0.0**	-108.6	0.0	-0.0	0.0	-0.0	**0.0**

Member 396

Fx,	**-0.0**	0.0	0.0	0.0	0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0
Fy,	-0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-0.0	0.0	**0.0**	0.0	0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0
Mx,	-0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0
Mz,	-0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-102.0**	0.0	0.0	0.0	0.0	0.0	**-102.0**	0.0	0.0	0.0	0.0	0.0
Fy,	-102.0	**0.0**	0.0	0.0	0.0	0.0	-102.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-102.0	0.0	**0.0**	0.0	0.0	0.0	-102.0	0.0	**0.0**	0.0	0.0	0.0
Mx,	-102.0	0.0	0.0	**0.0**	0.0	0.0	-102.0	0.0	0.0	**0.0**	0.0	0.0
My,	-102.0	0.0	0.0	0.0	**0.0**	0.0	-102.0	0.0	0.0	0.0	**0.0**	0.0
Mz,	-102.0	0.0	0.0	0.0	0.0	**0.0**	-102.0	0.0	0.0	0.0	0.0	**0.0**

Member 397

Fx,	**0.0**	0.0	0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	-0.0	0.0
Fy,	0.0	**0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0
Fz,	0.0	0.0	**0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0
Mx,	0.0	0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0
My,	0.0	0.0	0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**-0.0**	0.0
Mz,	0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**
Fx,	**-76.2**	0.0	0.0	0.0	0.0	0.0	**-76.2**	0.0	0.0	0.0	0.0	0.0
Fy,	-76.2	**0.0**	0.0	0.0	0.0	0.0	-76.2	**0.0**	0.0	0.0	0.0	0.0
Fz,	-76.2	0.0	**0.0**	0.0	0.0	0.0	-76.2	0.0	**0.0**	0.0	0.0	0.0
Mx,	-76.2	0.0	0.0	**0.0**	0.0	0.0	-76.2	0.0	0.0	**0.0**	0.0	0.0
My,	-76.2	0.0	0.0	0.0	**0.0**	0.0	-76.2	0.0	0.0	0.0	**0.0**	0.0
Mz,	-76.2	0.0	0.0	0.0	0.0	**0.0**	-76.2	0.0	0.0	0.0	0.0	**0.0**

Member 398

Fx,	**0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0
Fy,	0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**-0.0**	0.0	-0.0	0.0
Mx,	0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0
My,	0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	-0.0	0.0	**-0.0**	0.0
Mz,	0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**
Fx,	**-89.6**	0.0	-0.0	0.0	-0.1	0.0	**-89.6**	0.0	-0.0	0.0	-0.1	0.0
Fy,	-89.6	**0.0**	-0.0	0.0	-0.1	0.0	-89.6	**0.0**	-0.0	0.0	-0.1	0.0
Fz,	-89.6	0.0	**-0.0**	0.0	-0.1	0.0	-89.6	0.0	**-0.0**	0.0	-0.1	0.0
Mx,	-89.6	0.0	-0.0	**0.0**	-0.1	0.0	-89.6	0.0	-0.0	**0.0**	-0.1	0.0
My,	-89.6	0.0	-0.0	0.0	**-0.1**	0.0	-89.6	0.0	-0.0	0.0	**-0.1**	0.0
Mz,	-89.6	0.0	-0.0	0.0	-0.1	**0.0**	-89.6	0.0	-0.0	0.0	-0.1	**0.0**

Member 399

Fx,	**-0.0**	0.0	0.0	0.0	0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0
Fy,	-0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-0.0	0.0	**0.0**	0.0	0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0
Mx,	-0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0
Mz,	-0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-82.4**	0.0	0.0	0.0	0.1	0.0	**-82.4**	0.0	0.0	0.0	0.1	0.0
Fy,	-82.4	**0.0**	0.0	0.0	0.1	0.0	-82.4	**0.0**	0.0	0.0	0.1	0.0

Fz_i	-82.4	0.0	**0.0**	0.0	0.1	0.0	-82.4	0.0	**0.0**	0.0	0.1	0.0
Mx_i	-82.4	0.0	0.0	**0.0**	0.1	0.0	-82.4	0.0	0.0	**0.0**	0.1	0.0
My_i	-82.4	0.0	0.0	0.0	**0.1**	0.0	-82.4	0.0	0.0	0.0	**0.1**	0.0
Mz_i	-82.4	0.0	0.0	0.0	0.1	**0.0**	-82.4	0.0	0.0	0.0	0.1	**0.0**

Member 400

Fx_i	**0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**-0.0**	0.0	-0.0	0.0
Mx_i	0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0
My_i	0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	-0.0	0.0	**-0.0**	0.0
Mz_i	0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-103.4**	0.0	-0.0	0.0	-0.0	0.0	**-103.4**	0.0	-0.0	0.0	-0.0	0.0
Fy_f	-103.4	**0.0**	-0.0	0.0	-0.0	0.0	-103.4	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	-103.4	0.0	**-0.0**	0.0	-0.0	0.0	-103.4	0.0	**-0.0**	0.0	-0.0	0.0
Mx_f	-103.4	0.0	-0.0	**0.0**	-0.0	0.0	-103.4	0.0	-0.0	**0.0**	-0.0	0.0
My_f	-103.4	0.0	-0.0	0.0	**-0.0**	0.0	-103.4	0.0	-0.0	0.0	**-0.0**	0.0
Mz_f	-103.4	0.0	-0.0	0.0	-0.0	**0.0**	-103.4	0.0	-0.0	0.0	-0.0	**0.0**

Member 401

Fx_i	**-0.0**	0.0	0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	-0.0	0.0
Fy_i	-0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	-0.0	0.0
Fz_i	-0.0	0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	-0.0	0.0
Mx_i	-0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	-0.0	0.0
My_i	-0.0	0.0	0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**-0.0**	0.0
Mz_i	-0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	-0.0	**0.0**
Fx_f	**-107.4**	0.0	0.0	0.0	0.0	0.0	**-107.4**	0.0	0.0	0.0	0.0	0.0
Fy_f	-107.4	**0.0**	0.0	0.0	0.0	0.0	-107.4	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-107.4	0.0	**0.0**	0.0	0.0	0.0	-107.4	0.0	**0.0**	0.0	0.0	0.0
Mx_f	-107.4	0.0	0.0	**0.0**	0.0	0.0	-107.4	0.0	0.0	**0.0**	0.0	0.0
My_f	-107.4	0.0	0.0	0.0	**0.0**	0.0	-107.4	0.0	0.0	0.0	**0.0**	0.0
Mz_f	-107.4	0.0	0.0	0.0	0.0	**0.0**	-107.4	0.0	0.0	0.0	0.0	**0.0**

Member 402

Fx_i	**0.0**	0.0	0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	-0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0
Fz_i	0.0	0.0	**0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0
Mx_i	0.0	0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0
My_i	0.0	0.0	0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**-0.0**	0.0
Mz_i	0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**
Fx_f	**-108.6**	0.0	0.0	0.0	0.0	0.0	**-108.6**	0.0	0.0	0.0	0.0	0.0
Fy_f	-108.6	**0.0**	0.0	0.0	0.0	0.0	-108.6	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-108.6	0.0	**0.0**	0.0	0.0	0.0	-108.6	0.0	**0.0**	0.0	0.0	0.0
Mx_f	-108.6	0.0	0.0	**0.0**	0.0	0.0	-108.6	0.0	0.0	**0.0**	0.0	0.0
My_f	-108.6	0.0	0.0	0.0	**0.0**	0.0	-108.6	0.0	0.0	0.0	**0.0**	0.0
Mz_f	-108.6	0.0	0.0	0.0	0.0	**0.0**	-108.6	0.0	0.0	0.0	0.0	**0.0**

Member 403

Fx_i	**0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**-0.0**	0.0	-0.0	0.0
Mx_i	0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0
My_i	0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	-0.0	0.0	**-0.0**	0.0
Mz_i	0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-102.0**	0.0	-0.0	0.0	-0.0	0.0	**-102.0**	0.0	-0.0	0.0	-0.0	0.0
Fy_f	-102.0	**0.0**	-0.0	0.0	-0.0	0.0	-102.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	-102.0	0.0	**-0.0**	0.0	-0.0	0.0	-102.0	0.0	**-0.0**	0.0	-0.0	0.0
Mx_f	-102.0	0.0	-0.0	**0.0**	-0.0	0.0	-102.0	0.0	-0.0	**0.0**	-0.0	0.0
My_f	-102.0	0.0	-0.0	0.0	**-0.0**	0.0	-102.0	0.0	-0.0	0.0	**-0.0**	0.0
Mz_f	-102.0	0.0	-0.0	0.0	-0.0	**0.0**	-102.0	0.0	-0.0	0.0	-0.0	**0.0**

Member 404

Fx_i	**0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	0.0	0.0
Fy_i	0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0
Fz_i	0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**-0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	-0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**
Fx_f	**-76.2**	0.0	-0.0	0.0	-0.0	0.0	**-76.2**	0.0	-0.0	0.0	-0.0	0.0
Fy_f	-76.2	**0.0**	-0.0	0.0	-0.0	0.0	-76.2	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	-76.2	0.0	**-0.0**	0.0	-0.0	0.0	-76.2	0.0	**-0.0**	0.0	-0.0	0.0
Mx_f	-76.2	0.0	-0.0	**0.0**	-0.0	0.0	-76.2	0.0	-0.0	**0.0**	-0.0	0.0
My_f	-76.2	0.0	-0.0	0.0	**-0.0**	0.0	-76.2	0.0	-0.0	0.0	**-0.0**	0.0
Mz_f	-76.2	0.0	-0.0	0.0	-0.0	**0.0**	-76.2	0.0	-0.0	0.0	-0.0	**0.0**

Member 421

Fx_i	**-179.2**	0.0	-0.0	0.0	-0.0	0.0	**-179.2**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	-179.2	**0.0**	-0.0	0.0	-0.0	0.0	-179.2	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	-179.2	0.0	**-0.0**	0.0	-0.0	0.0	-179.2	0.0	**-0.0**	0.0	-0.0	0.0
Mx_i	-179.2	0.0	-0.0	**0.0**	-0.0	0.0	-179.2	0.0	-0.0	**0.0**	-0.0	0.0
My_i	-179.2	0.0	-0.0	0.0	**-0.0**	0.0	-179.2	0.0	-0.0	0.0	**-0.0**	0.0
Mz_i	-179.2	0.0	-0.0	0.0	-0.0	**0.0**	-179.2	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-179.2**	0.0	-0.0	0.0	-0.0	0.0	**-179.2**	0.0	-0.0	0.0	-0.0	0.0
Fy_f	-179.2	**0.0**	-0.0	0.0	-0.0	0.0	-179.2	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	-179.2	0.0	**-0.0**	0.0	-0.0	0.0	-179.2	0.0	**-0.0**	0.0	-0.0	0.0
Mx_f	-179.2	0.0	-0.0	**0.0**	-0.0	0.0	-179.2	0.0	-0.0	**0.0**	-0.0	0.0
My_f	-179.2	0.0	-0.0	0.0	**-0.0**	0.0	-179.2	0.0	-0.0	0.0	**-0.0**	0.0
Mz_f	-179.2	0.0	-0.0	0.0	-0.0	**0.0**	-179.2	0.0	-0.0	0.0	-0.0	**0.0**

Member 422

Fx_i	**-164.9**	0.0	-0.0	0.0	-0.0	0.0	**-164.9**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	-164.9	**0.0**	-0.0	0.0	-0.0	0.0	-164.9	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	-164.9	0.0	**-0.0**	0.0	-0.0	0.0	-164.9	0.0	**-0.0**	0.0	-0.0	0.0
Mx_i	-164.9	0.0	-0.0	**0.0**	-0.0	0.0	-164.9	0.0	-0.0	**0.0**	-0.0	0.0
My_i	-164.9	0.0	-0.0	0.0	**-0.0**	0.0	-164.9	0.0	-0.0	0.0	**-0.0**	0.0
Mz_i	-164.9	0.0	-0.0	0.0	-0.0	**0.0**	-164.9	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-164.9**	0.0	-0.0	0.0	-0.0	0.0	**-164.9**	0.0	-0.0	0.0	-0.0	0.0
Fy_f	-164.9	**0.0**	-0.0	0.0	-0.0	0.0	-164.9	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	-164.9	0.0	**-0.0**	0.0	-0.0	0.0	-164.9	0.0	**-0.0**	0.0	-0.0	0.0
Mx_f	-164.9	0.0	-0.0	**0.0**	-0.0	0.0	-164.9	0.0	-0.0	**0.0**	-0.0	0.0
My_f	-164.9	0.0	-0.0	0.0	**-0.0**	0.0	-164.9	0.0	-0.0	0.0	**-0.0**	0.0
Mz_f	-164.9	0.0	-0.0	0.0	-0.0	**0.0**	-164.9	0.0	-0.0	0.0	-0.0	**0.0**

Member 423

Fx_i	**-206.7**	0.0	0.0	0.0	0.0	0.0	**-206.7**	0.0	0.0	0.0	0.0	0.0
Fy_i	-206.7	**0.0**	0.0	0.0	0.0	0.0	-206.7	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-206.7	0.0	**0.0**	0.0	0.0	0.0	-206.7	0.0	**0.0**	0.0	0.0	0.0
Mx_i	-206.7	0.0	0.0	**0.0**	0.0	0.0	-206.7	0.0	0.0	**0.0**	0.0	0.0
My_i	-206.7	0.0	0.0	0.0	**0.0**	0.0	-206.7	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-206.7	0.0	0.0	0.0	0.0	**0.0**	-206.7	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-206.7**	0.0	0.0	0.0	0.0	0.0	**-206.7**	0.0	0.0	0.0	0.0	0.0
Fy_f	-206.7	**0.0**	0.0	0.0	0.0	0.0	-206.7	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-206.7	0.0	**0.0**	0.0	0.0	0.0	-206.7	0.0	**0.0**	0.0	0.0	0.0
Mx_f	-206.7	0.0	0.0	**0.0**	0.0	0.0	-206.7	0.0	0.0	**0.0**	0.0	0.0
My_f	-206.7	0.0	0.0	0.0	**0.0**	0.0	-206.7	0.0	0.0	0.0	**0.0**	0.0
Mz_f	-206.7	0.0	0.0	0.0	0.0	**0.0**	-206.7	0.0	0.0	0.0	0.0	**0.0**

Member 424

Fx_i	**-214.9**	0.0	0.0	0.0	0.0	0.0	**-214.9**	0.0	0.0	0.0	0.0	0.0
Fy_i	-214.9	**0.0**	0.0	0.0	0.0	0.0	-214.9	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-214.9	0.0	**0.0**	0.0	0.0	0.0	-214.9	0.0	**0.0**	0.0	0.0	0.0
Mx_i	-214.9	0.0	0.0	**0.0**	0.0	0.0	-214.9	0.0	0.0	**0.0**	0.0	0.0
My_i	-214.9	0.0	0.0	0.0	**0.0**	0.0	-214.9	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-214.9	0.0	0.0	0.0	0.0	**0.0**	-214.9	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-214.9**	0.0	0.0	0.0	0.0	0.0	**-214.9**	0.0	0.0	0.0	0.0	0.0
Fy_f	-214.9	**0.0**	0.0	0.0	0.0	0.0	-214.9	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-214.9	0.0	**0.0**	0.0	0.0	0.0	-214.9	0.0	**0.0**	0.0	0.0	0.0
Mx_f	-214.9	0.0	0.0	**0.0**	0.0	0.0	-214.9	0.0	0.0	**0.0**	0.0	0.0
My_f	-214.9	0.0	0.0	0.0	**0.0**	0.0	-214.9	0.0	0.0	0.0	**0.0**	0.0
Mz_f	-214.9	0.0	0.0	0.0	0.0	**0.0**	-214.9	0.0	0.0	0.0	0.0	**0.0**

Member 425

Fx_i	**-217.2**	0.0	0.0	0.0	0.0	0.0	**-217.2**	0.0	0.0	0.0	0.0	0.0

Fy,	-217.2	**0.0**	0.0	0.0	0.0	0.0	-217.2	**0.0**	0.0	0.0	0.0	0.0
Fz,	-217.2	0.0	**0.0**	0.0	0.0	0.0	-217.2	0.0	**0.0**	0.0	0.0	0.0
Mx,	-217.2	0.0	0.0	**0.0**	0.0	0.0	-217.2	0.0	0.0	**0.0**	0.0	0.0
My,	-217.2	0.0	0.0	0.0	**0.0**	0.0	-217.2	0.0	0.0	0.0	**0.0**	0.0
Mz,	-217.2	0.0	0.0	0.0	0.0	**0.0**	-217.2	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-217.2**	0.0	0.0	0.0	0.0	0.0	**-217.2**	0.0	0.0	0.0	0.0	0.0
Fy,	-217.2	**0.0**	0.0	0.0	0.0	0.0	-217.2	**0.0**	0.0	0.0	0.0	0.0
Fz,	-217.2	0.0	**0.0**	0.0	0.0	0.0	-217.2	0.0	**0.0**	0.0	0.0	0.0
Mx,	-217.2	0.0	0.0	**0.0**	0.0	0.0	-217.2	0.0	0.0	**0.0**	0.0	0.0
My,	-217.2	0.0	0.0	0.0	**0.0**	0.0	-217.2	0.0	0.0	0.0	**0.0**	0.0
Mz,	-217.2	0.0	0.0	0.0	0.0	**0.0**	-217.2	0.0	0.0	0.0	0.0	**0.0**

Member 426

Fx,	**-204.1**	0.0	0.0	0.0	0.0	0.0	**-204.1**	0.0	0.0	0.0	0.0	0.0
Fy,	-204.1	**0.0**	0.0	0.0	0.0	0.0	-204.1	**0.0**	0.0	0.0	0.0	0.0
Fz,	-204.1	0.0	**0.0**	0.0	0.0	0.0	-204.1	0.0	**0.0**	0.0	0.0	0.0
Mx,	-204.1	0.0	0.0	**0.0**	0.0	0.0	-204.1	0.0	0.0	**0.0**	0.0	0.0
My,	-204.1	0.0	0.0	0.0	**0.0**	0.0	-204.1	0.0	0.0	0.0	**0.0**	0.0
Mz,	-204.1	0.0	0.0	0.0	0.0	**0.0**	-204.1	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-204.1**	0.0	0.0	0.0	0.0	0.0	**-204.1**	0.0	0.0	0.0	0.0	0.0
Fy,	-204.1	**0.0**	0.0	0.0	0.0	0.0	-204.1	**0.0**	0.0	0.0	0.0	0.0
Fz,	-204.1	0.0	**0.0**	0.0	0.0	0.0	-204.1	0.0	**0.0**	0.0	0.0	0.0
Mx,	-204.1	0.0	0.0	**0.0**	0.0	0.0	-204.1	0.0	0.0	**0.0**	0.0	0.0
My,	-204.1	0.0	0.0	0.0	**0.0**	0.0	-204.1	0.0	0.0	0.0	**0.0**	0.0
Mz,	-204.1	0.0	0.0	0.0	0.0	**0.0**	-204.1	0.0	0.0	0.0	0.0	**0.0**

Member 427

Fx,	**-152.4**	0.0	-0.0	0.0	-0.0	0.0	**-152.4**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-152.4	**0.0**	-0.0	0.0	-0.0	0.0	-152.4	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-152.4	0.0	**-0.0**	0.0	-0.0	0.0	-152.4	0.0	**-0.0**	0.0	-0.0	0.0
Mx,	-152.4	0.0	-0.0	**0.0**	-0.0	0.0	-152.4	0.0	-0.0	**0.0**	-0.0	0.0
My,	-152.4	0.0	-0.0	0.0	**-0.0**	0.0	-152.4	0.0	-0.0	0.0	**-0.0**	0.0
Mz,	-152.4	0.0	-0.0	0.0	-0.0	**0.0**	-152.4	0.0	-0.0	0.0	-0.0	**0.0**
Fx,	**-152.4**	0.0	-0.0	0.0	-0.0	0.0	**-152.4**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-152.4	**0.0**	-0.0	0.0	-0.0	0.0	-152.4	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-152.4	0.0	**-0.0**	0.0	-0.0	0.0	-152.4	0.0	**-0.0**	0.0	-0.0	0.0
Mx,	-152.4	0.0	-0.0	**0.0**	-0.0	0.0	-152.4	0.0	-0.0	**0.0**	-0.0	0.0
My,	-152.4	0.0	-0.0	0.0	**-0.0**	0.0	-152.4	0.0	-0.0	0.0	**-0.0**	0.0
Mz,	-152.4	0.0	-0.0	0.0	-0.0	**0.0**	-152.4	0.0	-0.0	0.0	-0.0	**0.0**

*** Fin del listado ***

hip ppvigas

Program Envolvator (release 1.3 - Jun 1998)
Calculation date: 24-mar-1999 19:32 h. Listing date: 13-abr-1999 11:46 h.
Members: 419
Joints: 353
Envelope generated from:

Name	sync	gas
ppvigas	1.00	1.00

	Fx	Fy	Fz	Mx	My	Mz	Fx	Fy	Fz	Mx	My	Mz

Member 1

Fx,	**-0.6**	-44.3	0.0	0.0	0.0	-5.8	**-0.6**	-44.3	0.0	0.0	0.0	-5.8
Fy,	-0.6	**-44.3**	0.0	0.0	0.0	-5.8	-0.6	**-44.3**	0.0	0.0	0.0	-5.8
Fz,	-0.6	-44.3	**0.0**	0.0	0.0	-5.8	-0.6	-44.3	**0.0**	0.0	0.0	-5.8
Mx,	-0.6	-44.3	0.0	**0.0**	0.0	-5.8	-0.6	-44.3	0.0	**0.0**	0.0	-5.8
My,	-0.6	-44.3	0.0	0.0	**0.0**	-5.8	-0.6	-44.3	0.0	0.0	**0.0**	-5.8
Mz,	-0.6	-44.3	0.0	0.0	0.0	**-5.8**	-0.6	-44.3	0.0	0.0	0.0	**-5.8**
Fx,	**-0.6**	-28.6	0.0	0.0	0.0	127.8	**-0.6**	-28.6	0.0	0.0	0.0	127.8
Fy,	-0.6	**-28.6**	0.0	0.0	0.0	127.8	-0.6	**-28.6**	0.0	0.0	0.0	127.8
Fz,	-0.6	-28.6	**0.0**	0.0	0.0	127.8	-0.6	-28.6	**0.0**	0.0	0.0	127.8
Mx,	-0.6	-28.6	0.0	**0.0**	0.0	127.8	-0.6	-28.6	0.0	**0.0**	0.0	127.8
My,	-0.6	-28.6	0.0	0.0	**0.0**	127.8	-0.6	-28.6	0.0	0.0	**0.0**	127.8
Mz,	-0.6	-28.6	0.0	0.0	0.0	**127.8**	-0.6	-28.6	0.0	0.0	0.0	**127.8**

Member 2

Fx,	**-0.6**	-28.6	0.0	0.0	0.0	127.8	**-0.6**	-28.6	0.0	0.0	0.0	127.8
Fy,	-0.6	**-28.6**	0.0	0.0	0.0	127.8	-0.6	**-28.6**	0.0	0.0	0.0	127.8
Fz,	-0.6	-28.6	**0.0**	0.0	0.0	127.8	-0.6	-28.6	**0.0**	0.0	0.0	127.8
Mx,	-0.6	-28.6	0.0	**0.0**	0.0	127.8	-0.6	-28.6	0.0	**0.0**	0.0	127.8
My,	-0.6	-28.6	0.0	0.0	**0.0**	127.8	-0.6	-28.6	0.0	0.0	**0.0**	127.8
Mz,	-0.6	-28.6	0.0	0.0	0.0	**127.8**	-0.6	-28.6	0.0	0.0	0.0	**127.8**
Fx,	**-0.6**	-12.9	0.0	0.0	0.0	204.0	**-0.6**	-12.9	0.0	0.0	0.0	204.0
Fy,	-0.6	**-12.9**	0.0	0.0	0.0	204.0	-0.6	**-12.9**	0.0	0.0	0.0	204.0
Fz,	-0.6	-12.9	**0.0**	0.0	0.0	204.0	-0.6	-12.9	**0.0**	0.0	0.0	204.0
Mx,	-0.6	-12.9	0.0	**0.0**	0.0	204.0	-0.6	-12.9	0.0	**0.0**	0.0	204.0
My,	-0.6	-12.9	0.0	0.0	**0.0**	204.0	-0.6	-12.9	0.0	0.0	**0.0**	204.0
Mz,	-0.6	-12.9	0.0	0.0	0.0	**204.0**	-0.6	-12.9	0.0	0.0	0.0	**204.0**

Member 3

Fx,	**-0.6**	-12.9	0.0	0.0	0.0	204.0	**-0.6**	-12.9	0.0	0.0	0.0	204.0
Fy,	-0.6	**-12.9**	0.0	0.0	0.0	204.0	-0.6	**-12.9**	0.0	0.0	0.0	204.0
Fz,	-0.6	-12.9	**0.0**	0.0	0.0	204.0	-0.6	-12.9	**0.0**	0.0	0.0	204.0
Mx,	-0.6	-12.9	0.0	**0.0**	0.0	204.0	-0.6	-12.9	0.0	**0.0**	0.0	204.0
My,	-0.6	-12.9	0.0	0.0	**0.0**	204.0	-0.6	-12.9	0.0	0.0	**0.0**	204.0
Mz,	-0.6	-12.9	0.0	0.0	0.0	**204.0**	-0.6	-12.9	0.0	0.0	0.0	**204.0**
Fx,	**-0.6**	-0.3	0.0	0.0	0.1	228.1	**-0.6**	-0.3	0.0	0.0	0.1	228.1
Fy,	-0.6	**-0.3**	0.0	0.0	0.1	228.1	-0.6	**-0.3**	0.0	0.0	0.1	228.1
Fz,	-0.6	-0.3	**0.0**	0.0	0.1	228.1	-0.6	-0.3	**0.0**	0.0	0.1	228.1
Mx,	-0.6	-0.3	0.0	**0.0**	0.1	228.1	-0.6	-0.3	0.0	**0.0**	0.1	228.1
My,	-0.6	-0.3	0.0	0.0	**0.1**	228.1	-0.6	-0.3	0.0	0.0	**0.1**	228.1
Mz,	-0.6	-0.3	0.0	0.0	0.1	**228.1**	-0.6	-0.3	0.0	0.0	0.1	**228.1**

Member 4

Fx,	**-0.6**	-0.3	0.0	0.0	0.1	228.1	**-0.6**	-0.3	0.0	0.0	0.1	228.1
Fy,	-0.6	**-0.3**	0.0	0.0	0.1	228.1	-0.6	**-0.3**	0.0	0.0	0.1	228.1
Fz,	-0.6	-0.3	**0.0**	0.0	0.1	228.1	-0.6	-0.3	**0.0**	0.0	0.1	228.1
Mx,	-0.6	-0.3	0.0	**0.0**	0.1	228.1	-0.6	-0.3	0.0	**0.0**	0.1	228.1
My,	-0.6	-0.3	0.0	0.0	**0.1**	228.1	-0.6	-0.3	0.0	0.0	**0.1**	228.1
Mz,	-0.6	-0.3	0.0	0.0	0.1	**228.1**	-0.6	-0.3	0.0	0.0	0.1	**228.1**
Fx,	**-0.6**	12.4	0.0	0.0	0.1	205.9	**-0.6**	12.4	0.0	0.0	0.1	205.9
Fy,	-0.6	**12.4**	0.0	0.0	0.1	205.9	-0.6	**12.4**	0.0	0.0	0.1	205.9
Fz,	-0.6	12.4	**0.0**	0.0	0.1	205.9	-0.6	12.4	**0.0**	0.0	0.1	205.9
Mx,	-0.6	12.4	0.0	**0.0**	0.1	205.9	-0.6	12.4	0.0	**0.0**	0.1	205.9
My,	-0.6	12.4	0.0	0.0	**0.1**	205.9	-0.6	12.4	0.0	0.0	**0.1**	205.9
Mz,	-0.6	12.4	0.0	0.0	0.1	**205.9**	-0.6	12.4	0.0	0.0	0.1	**205.9**

Member 5

Fx_i	**-0.6**	12.4	0.0	0.0	0.1	205.9	**-0.6**	12.4	0.0	0.0	0.1	205.9
Fy_i	-0.6	**12.4**	0.0	0.0	0.1	205.9	-0.6	**12.4**	0.0	0.0	0.1	205.9
Fz_i	-0.6	12.4	**0.0**	0.0	0.1	205.9	-0.6	12.4	**0.0**	0.0	0.1	205.9
Mx_i	-0.6	12.4	0.0	**0.0**	0.1	205.9	-0.6	12.4	0.0	**0.0**	0.1	205.9
My_i	-0.6	12.4	0.0	0.0	**0.1**	205.9	-0.6	12.4	0.0	0.0	**0.1**	205.9
Mz_i	-0.6	12.4	0.0	0.0	0.1	**205.9**	-0.6	12.4	0.0	0.0	0.1	**205.9**
Fx_f	**-0.6**	28.1	0.0	0.0	0.1	131.7	**-0.6**	28.1	0.0	0.0	0.1	131.7
Fy_f	-0.6	**28.1**	0.0	0.0	0.1	131.7	-0.6	**28.1**	0.0	0.0	0.1	131.7
Fz_f	-0.6	28.1	**0.0**	0.0	0.1	131.7	-0.6	28.1	**0.0**	0.0	0.1	131.7
Mx_f	-0.6	28.1	0.0	**0.0**	0.1	131.7	-0.6	28.1	0.0	**0.0**	0.1	131.7
My_f	-0.6	28.1	0.0	0.0	**0.1**	131.7	-0.6	28.1	0.0	0.0	**0.1**	131.7
Mz_f	-0.6	28.1	0.0	0.0	0.1	**131.7**	-0.6	28.1	0.0	0.0	0.1	**131.7**

Member 6

Fx_i	**-0.6**	28.1	0.0	0.0	0.1	131.7	**-0.6**	28.1	0.0	0.0	0.1	131.7
Fy_i	-0.6	**28.1**	0.0	0.0	0.1	131.7	-0.6	**28.1**	0.0	0.0	0.1	131.7
Fz_i	-0.6	28.1	**0.0**	0.0	0.1	131.7	-0.6	28.1	**0.0**	0.0	0.1	131.7
Mx_i	-0.6	28.1	0.0	**0.0**	0.1	131.7	-0.6	28.1	0.0	**0.0**	0.1	131.7
My_i	-0.6	28.1	0.0	0.0	**0.1**	131.7	-0.6	28.1	0.0	0.0	**0.1**	131.7
Mz_i	-0.6	28.1	0.0	0.0	0.1	**131.7**	-0.6	28.1	0.0	0.0	0.1	**131.7**
Fx_f	**-0.6**	43.8	0.0	0.0	0.1	0.0	**-0.6**	43.8	0.0	0.0	0.1	0.0
Fy_f	-0.6	**43.8**	0.0	0.0	0.1	0.0	-0.6	**43.8**	0.0	0.0	0.1	0.0
Fz_f	-0.6	43.8	**0.0**	0.0	0.1	0.0	-0.6	43.8	**0.0**	0.0	0.1	0.0
Mx_f	-0.6	43.8	0.0	**0.0**	0.1	0.0	-0.6	43.8	0.0	**0.0**	0.1	0.0
My_f	-0.6	43.8	0.0	0.0	**0.1**	0.0	-0.6	43.8	0.0	0.0	**0.1**	0.0
Mz_f	-0.6	43.8	0.0	0.0	0.1	**0.0**	-0.6	43.8	0.0	0.0	0.1	**0.0**

Member 7

Fx_i	**-0.6**	-69.6	-0.0	0.0	0.1	0.0	**-0.6**	-69.6	-0.0	0.0	0.1	0.0
Fy_i	-0.6	**-69.6**	-0.0	0.0	0.1	0.0	-0.6	**-69.6**	-0.0	0.0	0.1	0.0
Fz_i	-0.6	-69.6	**-0.0**	0.0	0.1	0.0	-0.6	-69.6	**-0.0**	0.0	0.1	0.0
Mx_i	-0.6	-69.6	-0.0	**0.0**	0.1	0.0	-0.6	-69.6	-0.0	**0.0**	0.1	0.0
My_i	-0.6	-69.6	-0.0	0.0	**0.1**	0.0	-0.6	-69.6	-0.0	0.0	**0.1**	0.0
Mz_i	-0.6	-69.6	-0.0	0.0	0.1	**0.0**	-0.6	-69.6	-0.0	0.0	0.1	**0.0**
Fx_f	**-0.6**	-50.3	-0.0	0.0	0.1	269.7	**-0.6**	-50.3	-0.0	0.0	0.1	269.7
Fy_f	-0.6	**-50.3**	-0.0	0.0	0.1	269.7	-0.6	**-50.3**	-0.0	0.0	0.1	269.7
Fz_f	-0.6	-50.3	**-0.0**	0.0	0.1	269.7	-0.6	-50.3	**-0.0**	0.0	0.1	269.7
Mx_f	-0.6	-50.3	-0.0	**0.0**	0.1	269.7	-0.6	-50.3	-0.0	**0.0**	0.1	269.7
My_f	-0.6	-50.3	-0.0	0.0	**0.1**	269.7	-0.6	-50.3	-0.0	0.0	**0.1**	269.7
Mz_f	-0.6	-50.3	-0.0	0.0	0.1	**269.7**	-0.6	-50.3	-0.0	0.0	0.1	**269.7**

Member 8

Fx_i	**-0.6**	-50.3	-0.0	0.0	0.1	269.7	**-0.6**	-50.3	-0.0	0.0	0.1	269.7
Fy_i	-0.6	**-50.3**	-0.0	0.0	0.1	269.7	-0.6	**-50.3**	-0.0	0.0	0.1	269.7
Fz_i	-0.6	-50.3	**-0.0**	0.0	0.1	269.7	-0.6	-50.3	**-0.0**	0.0	0.1	269.7
Mx_i	-0.6	-50.3	-0.0	**0.0**	0.1	269.7	-0.6	-50.3	-0.0	**0.0**	0.1	269.7
My_i	-0.6	-50.3	-0.0	0.0	**0.1**	269.7	-0.6	-50.3	-0.0	0.0	**0.1**	269.7
Mz_i	-0.6	-50.3	-0.0	0.0	0.1	**269.7**	-0.6	-50.3	-0.0	0.0	0.1	**269.7**
Fx_f	**-0.6**	-31.1	-0.0	0.0	0.1	452.8	**-0.6**	-31.1	-0.0	0.0	0.1	452.8
Fy_f	-0.6	**-31.1**	-0.0	0.0	0.1	452.8	-0.6	**-31.1**	-0.0	0.0	0.1	452.8
Fz_f	-0.6	-31.1	**-0.0**	0.0	0.1	452.8	-0.6	-31.1	**-0.0**	0.0	0.1	452.8
Mx_f	-0.6	-31.1	-0.0	**0.0**	0.1	452.8	-0.6	-31.1	-0.0	**0.0**	0.1	452.8
My_f	-0.6	-31.1	-0.0	0.0	**0.1**	452.8	-0.6	-31.1	-0.0	0.0	**0.1**	452.8
Mz_f	-0.6	-31.1	-0.0	0.0	0.1	**452.8**	-0.6	-31.1	-0.0	0.0	0.1	**452.8**

Member 9

Fx_i	**-0.6**	-31.1	-0.0	0.0	0.1	452.8	**-0.6**	-31.1	-0.0	0.0	0.1	452.8
Fy_i	-0.6	**-31.1**	-0.0	0.0	0.1	452.8	-0.6	**-31.1**	-0.0	0.0	0.1	452.8
Fz_i	-0.6	-31.1	**-0.0**	0.0	0.1	452.8	-0.6	-31.1	**-0.0**	0.0	0.1	452.8
Mx_i	-0.6	-31.1	-0.0	**0.0**	0.1	452.8	-0.6	-31.1	-0.0	**0.0**	0.1	452.8
My_i	-0.6	-31.1	-0.0	0.0	**0.1**	452.8	-0.6	-31.1	-0.0	0.0	**0.1**	452.8
Mz_i	-0.6	-31.1	-0.0	0.0	0.1	**452.8**	-0.6	-31.1	-0.0	0.0	0.1	**452.8**
Fx_f	**-0.6**	-15.5	-0.0	0.0	0.1	557.6	**-0.6**	-15.5	-0.0	0.0	0.1	557.6
Fy_f	-0.6	-15.5	-0.0	0.0	0.1	557.6	-0.6	**-15.5**	-0.0	0.0	0.1	557.6
Fz_f	-0.6	-15.5	**-0.0**	0.0	0.1	557.6	-0.6	-15.5	**-0.0**	0.0	0.1	557.6
Mx_f	-0.6	-15.5	-0.0	**0.0**	0.1	557.6	-0.6	-15.5	-0.0	**0.0**	0.1	557.6
My_f	-0.6	-15.5	-0.0	0.0	**0.1**	557.6	-0.6	-15.5	-0.0	0.0	**0.1**	557.6
Mz_f	-0.6	-15.5	-0.0	0.0	0.1	**557.6**	-0.6	-15.5	-0.0	0.0	0.1	**557.6**

Member 10

Fx_i	**-0.6**	-15.5	-0.0	0.0	0.1	557.6	**-0.6**	-15.5	-0.0	0.0	0.1	557.6
Fy_i	-0.6	**-15.5**	-0.0	0.0	0.1	557.6	-0.6	**-15.5**	-0.0	0.0	0.1	557.6
Fz_i	-0.6	-15.5	**-0.0**	0.0	0.1	557.6	-0.6	-15.5	**-0.0**	0.0	0.1	557.6
Mx_i	-0.6	-15.5	-0.0	**0.0**	0.1	557.6	-0.6	-15.5	-0.0	**0.0**	0.1	557.6
My_i	-0.6	-15.5	-0.0	0.0	**0.1**	557.6	-0.6	-15.5	-0.0	0.0	**0.1**	557.6
Mz_i	-0.6	-15.5	-0.0	0.0	0.1	**557.6**	-0.6	-15.5	-0.0	0.0	0.1	**557.6**
Fx_f	**-0.6**	0.0	-0.0	0.0	0.1	592.5	**-0.6**	0.0	-0.0	0.0	0.1	592.5
Fy_f	-0.6	**0.0**	-0.0	0.0	0.1	592.5	-0.6	**0.0**	-0.0	0.0	0.1	592.5
Fz_f	-0.6	0.0	**-0.0**	0.0	0.1	592.5	-0.6	0.0	**-0.0**	0.0	0.1	592.5
Mx_f	-0.6	0.0	-0.0	**0.0**	0.1	592.5	-0.6	0.0	-0.0	**0.0**	0.1	592.5
My_f	-0.6	0.0	-0.0	0.0	**0.1**	592.5	-0.6	0.0	-0.0	0.0	**0.1**	592.5
Mz_f	-0.6	0.0	-0.0	0.0	0.1	**592.5**	-0.6	0.0	-0.0	0.0	0.1	**592.5**

Member 11

Fx_i	**-0.6**	0.0	-0.0	0.0	0.1	592.5	**-0.6**	0.0	-0.0	0.0	0.1	592.5
Fy_i	-0.6	**0.0**	-0.0	0.0	0.1	592.5	-0.6	**0.0**	-0.0	0.0	0.1	592.5
Fz_i	-0.6	0.0	**-0.0**	0.0	0.1	592.5	-0.6	0.0	**-0.0**	0.0	0.1	592.5
Mx_i	-0.6	0.0	-0.0	**0.0**	0.1	592.5	-0.6	0.0	-0.0	**0.0**	0.1	592.5
My_i	-0.6	0.0	-0.0	0.0	**0.1**	592.5	-0.6	0.0	-0.0	0.0	**0.1**	592.5
Mz_i	-0.6	0.0	-0.0	0.0	0.1	**592.5**	-0.6	0.0	-0.0	0.0	0.1	**592.5**
Fx_f	**-0.6**	15.5	-0.0	0.0	0.0	557.6	**-0.6**	15.5	-0.0	0.0	0.0	557.6
Fy_f	-0.6	**15.5**	-0.0	0.0	0.0	557.6	-0.6	**15.5**	-0.0	0.0	0.0	557.6
Fz_f	-0.6	15.5	**-0.0**	0.0	0.0	557.6	-0.6	15.5	**-0.0**	0.0	0.0	557.6
Mx_f	-0.6	15.5	-0.0	**0.0**	0.0	557.6	-0.6	15.5	-0.0	**0.0**	0.0	557.6
My_f	-0.6	15.5	-0.0	0.0	**0.0**	557.6	-0.6	15.5	-0.0	0.0	**0.0**	557.6
Mz_f	-0.6	15.5	-0.0	0.0	0.0	**557.6**	-0.6	15.5	-0.0	0.0	0.0	**557.6**

Member 12

Fx_i	**-0.6**	15.5	-0.0	0.0	0.0	557.6	**-0.6**	15.5	-0.0	0.0	0.0	557.6
Fy_i	-0.6	**15.5**	-0.0	0.0	0.0	557.6	-0.6	**15.5**	-0.0	0.0	0.0	557.6
Fz_i	-0.6	15.5	**-0.0**	0.0	0.0	557.6	-0.6	15.5	**-0.0**	0.0	0.0	557.6
Mx_i	-0.6	15.5	-0.0	**0.0**	0.0	557.6	-0.6	15.5	-0.0	**0.0**	0.0	557.6
My_i	-0.6	15.5	-0.0	0.0	**0.0**	557.6	-0.6	15.5	-0.0	0.0	**0.0**	557.6
Mz_i	-0.6	15.5	-0.0	0.0	0.0	**557.6**	-0.6	15.5	-0.0	0.0	0.0	**557.6**
Fx_f	**-0.6**	31.1	-0.0	0.0	0.0	452.8	**-0.6**	31.1	-0.0	0.0	0.0	452.8
Fy_f	-0.6	**31.1**	-0.0	0.0	0.0	452.8	-0.6	**31.1**	-0.0	0.0	0.0	452.8
Fz_f	-0.6	31.1	**-0.0**	0.0	0.0	452.8	-0.6	31.1	**-0.0**	0.0	0.0	452.8
Mx_f	-0.6	31.1	-0.0	**0.0**	0.0	452.8	-0.6	31.1	-0.0	**0.0**	0.0	452.8
My_f	-0.6	31.1	-0.0	0.0	**0.0**	452.8	-0.6	31.1	-0.0	0.0	**0.0**	452.8
Mz_f	-0.6	31.1	-0.0	0.0	0.0	**452.8**	-0.6	31.1	-0.0	0.0	0.0	**452.8**

Member 13

Fx_i	**-0.6**	31.1	-0.0	0.0	0.0	452.8	**-0.6**	31.1	-0.0	0.0	0.0	452.8
Fy_i	-0.6	**31.1**	-0.0	0.0	0.0	452.8	-0.6	**31.1**	-0.0	0.0	0.0	452.8
Fz_i	-0.6	31.1	**-0.0**	0.0	0.0	452.8	-0.6	31.1	**-0.0**	0.0	0.0	452.8
Mx_i	-0.6	31.1	-0.0	**0.0**	0.0	452.8	-0.6	31.1	-0.0	**0.0**	0.0	452.8
My_i	-0.6	31.1	-0.0	0.0	**0.0**	452.8	-0.6	31.1	-0.0	0.0	**0.0**	452.8
Mz_i	-0.6	31.1	-0.0	0.0	0.0	**452.8**	-0.6	31.1	-0.0	0.0	0.0	**452.8**
Fx_f	**-0.6**	50.3	-0.0	0.0	0.0	269.7	**-0.6**	50.3	-0.0	0.0	0.0	269.7
Fy_f	-0.6	**50.3**	-0.0	0.0	0.0	269.7	-0.6	**50.3**	-0.0	0.0	0.0	269.7
Fz_f	-0.6	50.3	**-0.0**	0.0	0.0	269.7	-0.6	50.3	**-0.0**	0.0	0.0	269.7
Mx_f	-0.6	50.3	-0.0	**0.0**	0.0	269.7	-0.6	50.3	-0.0	**0.0**	0.0	269.7
My_f	-0.6	50.3	-0.0	0.0	**0.0**	269.7	-0.6	50.3	-0.0	0.0	**0.0**	269.7
Mz_f	-0.6	50.3	-0.0	0.0	0.0	**269.7**	-0.6	50.3	-0.0	0.0	0.0	**269.7**

Member 14

Fx_i	**-0.6**	50.3	-0.0	0.0	0.0	269.7	**-0.6**	50.3	-0.0	0.0	0.0	269.7
Fy_i	-0.6	**50.3**	-0.0	0.0	0.0	269.7	-0.6	**50.3**	-0.0	0.0	0.0	269.7
Fz_i	-0.6	50.3	**-0.0**	0.0	0.0	269.7	-0.6	50.3	**-0.0**	0.0	0.0	269.7

Mx_i	-0.6	50.3	-0.0	**0.0**	0.0	269.7	-0.6	50.3	-0.0	**0.0**	0.0	269.7
My_i	-0.6	50.3	-0.0	0.0	**0.0**	269.7	-0.6	50.3	-0.0	0.0	**0.0**	269.7
Mz_i	-0.6	50.3	-0.0	0.0	0.0	**269.7**	-0.6	50.3	-0.0	0.0	0.0	**269.7**
Fx_f	**-0.6**	69.6	-0.0	0.0	0.0	0.0	**-0.6**	69.6	-0.0	0.0	0.0	0.0
Fy_f	-0.6	**69.6**	-0.0	0.0	0.0	0.0	-0.6	**69.6**	-0.0	0.0	0.0	0.0
Fz_f	-0.6	69.6	**-0.0**	0.0	0.0	0.0	-0.6	69.6	**-0.0**	0.0	0.0	0.0
Mx_f	-0.6	69.6	-0.0	**0.0**	0.0	0.0	-0.6	69.6	-0.0	**0.0**	0.0	0.0
My_f	-0.6	69.6	-0.0	0.0	**0.0**	0.0	-0.6	69.6	-0.0	0.0	**0.0**	0.0
Mz_f	-0.6	69.6	-0.0	0.0	0.0	**0.0**	-0.6	69.6	-0.0	0.0	0.0	**0.0**

Member 15

Fx_i	**-0.6**	-69.6	-0.0	-0.0	0.0	0.0	**-0.6**	-69.6	-0.0	-0.0	0.0	0.0
Fy_i	-0.6	**-69.6**	-0.0	-0.0	0.0	0.0	-0.6	**-69.6**	-0.0	-0.0	0.0	0.0
Fz_i	-0.6	-69.6	**-0.0**	-0.0	0.0	0.0	-0.6	-69.6	**-0.0**	-0.0	0.0	0.0
Mx_i	-0.6	-69.6	-0.0	**-0.0**	0.0	0.0	-0.6	-69.6	-0.0	**-0.0**	0.0	0.0
My_i	-0.6	-69.6	-0.0	-0.0	**0.0**	0.0	-0.6	-69.6	-0.0	-0.0	**0.0**	0.0
Mz_i	-0.6	-69.6	-0.0	-0.0	0.0	**0.0**	-0.6	-69.6	-0.0	-0.0	0.0	**0.0**
Fx_f	**-0.6**	-50.3	-0.0	-0.0	0.0	269.7	**-0.6**	-50.3	-0.0	-0.0	0.0	269.7
Fy_f	-0.6	**-50.3**	-0.0	-0.0	0.0	269.7	-0.6	**-50.3**	-0.0	-0.0	0.0	269.7
Fz_f	-0.6	-50.3	**-0.0**	-0.0	0.0	269.7	-0.6	-50.3	**-0.0**	-0.0	0.0	269.7
Mx_f	-0.6	-50.3	-0.0	**-0.0**	0.0	269.7	-0.6	-50.3	-0.0	**-0.0**	0.0	269.7
My_f	-0.6	-50.3	-0.0	-0.0	**0.0**	269.7	-0.6	-50.3	-0.0	-0.0	**0.0**	269.7
Mz_f	-0.6	-50.3	-0.0	-0.0	0.0	**269.7**	-0.6	-50.3	-0.0	-0.0	0.0	**269.7**

Member 16

Fx_i	**-0.6**	-50.3	-0.0	-0.0	0.0	269.7	**-0.6**	-50.3	-0.0	-0.0	0.0	269.7
Fy_i	-0.6	**-50.3**	-0.0	-0.0	0.0	269.7	-0.6	**-50.3**	-0.0	-0.0	0.0	269.7
Fz_i	-0.6	-50.3	**-0.0**	-0.0	0.0	269.7	-0.6	-50.3	**-0.0**	-0.0	0.0	269.7
Mx_i	-0.6	-50.3	-0.0	**-0.0**	0.0	269.7	-0.6	-50.3	-0.0	**-0.0**	0.0	269.7
My_i	-0.6	-50.3	-0.0	-0.0	**0.0**	269.7	-0.6	-50.3	-0.0	-0.0	**0.0**	269.7
Mz_i	-0.6	-50.3	-0.0	-0.0	0.0	**269.7**	-0.6	-50.3	-0.0	-0.0	0.0	**269.7**
Fx_f	**-0.6**	-31.0	-0.0	-0.0	0.0	452.8	**-0.6**	-31.0	-0.0	-0.0	0.0	452.8
Fy_f	-0.6	**-31.0**	-0.0	-0.0	0.0	452.8	-0.6	**-31.0**	-0.0	-0.0	0.0	452.8
Fz_f	-0.6	-31.0	**-0.0**	-0.0	0.0	452.8	-0.6	-31.0	**-0.0**	-0.0	0.0	452.8
Mx_f	-0.6	-31.0	-0.0	**-0.0**	0.0	452.8	-0.6	-31.0	-0.0	**-0.0**	0.0	452.8
My_f	-0.6	-31.0	-0.0	-0.0	**0.0**	452.8	-0.6	-31.0	-0.0	-0.0	**0.0**	452.8
Mz_f	-0.6	-31.0	-0.0	-0.0	0.0	**452.8**	-0.6	-31.0	-0.0	-0.0	0.0	**452.8**

Member 17

Fx_i	**-0.6**	-31.0	-0.0	-0.0	0.0	452.8	**-0.6**	-31.0	-0.0	-0.0	0.0	452.8
Fy_i	-0.6	**-31.0**	-0.0	-0.0	0.0	452.8	-0.6	**-31.0**	-0.0	-0.0	0.0	452.8
Fz_i	-0.6	-31.0	**-0.0**	-0.0	0.0	452.8	-0.6	-31.0	**-0.0**	-0.0	0.0	452.8
Mx_i	-0.6	-31.0	-0.0	**-0.0**	0.0	452.8	-0.6	-31.0	-0.0	**-0.0**	0.0	452.8
My_i	-0.6	-31.0	-0.0	-0.0	**0.0**	452.8	-0.6	-31.0	-0.0	-0.0	**0.0**	452.8
Mz_i	-0.6	-31.0	-0.0	-0.0	0.0	**452.8**	-0.6	-31.0	-0.0	-0.0	0.0	**452.8**
Fx_f	**-0.6**	-15.5	-0.0	-0.0	0.0	557.6	**-0.6**	-15.5	-0.0	-0.0	0.0	557.6
Fy_f	-0.6	**-15.5**	-0.0	-0.0	0.0	557.6	-0.6	**-15.5**	-0.0	-0.0	0.0	557.6
Fz_f	-0.6	-15.5	**-0.0**	-0.0	0.0	557.6	-0.6	-15.5	**-0.0**	-0.0	0.0	557.6
Mx_f	-0.6	-15.5	-0.0	**-0.0**	0.0	557.6	-0.6	-15.5	-0.0	**-0.0**	0.0	557.6
My_f	-0.6	-15.5	-0.0	-0.0	**0.0**	557.6	-0.6	-15.5	-0.0	-0.0	**0.0**	557.6
Mz_f	-0.6	-15.5	-0.0	-0.0	0.0	**557.6**	-0.6	-15.5	-0.0	-0.0	0.0	**557.6**

Member 18

Fx_i	**-0.6**	-15.5	-0.0	-0.0	0.0	557.6	**-0.6**	-15.5	-0.0	-0.0	0.0	557.6
Fy_i	-0.6	**-15.5**	-0.0	-0.0	0.0	557.6	-0.6	**-15.5**	-0.0	-0.0	0.0	557.6
Fz_i	-0.6	-15.5	**-0.0**	-0.0	0.0	557.6	-0.6	-15.5	**-0.0**	-0.0	0.0	557.6
Mx_i	-0.6	-15.5	-0.0	**-0.0**	0.0	557.6	-0.6	-15.5	-0.0	**-0.0**	0.0	557.6
My_i	-0.6	-15.5	-0.0	-0.0	**0.0**	557.6	-0.6	-15.5	-0.0	-0.0	**0.0**	557.6
Mz_i	-0.6	-15.5	-0.0	-0.0	0.0	**557.6**	-0.6	-15.5	-0.0	-0.0	0.0	**557.6**
Fx_f	**-0.6**	0.0	-0.0	-0.0	0.0	592.5	**-0.6**	0.0	-0.0	-0.0	0.0	592.5
Fy_f	-0.6	**0.0**	-0.0	-0.0	0.0	592.5	-0.6	**0.0**	-0.0	-0.0	0.0	592.5
Fz_f	-0.6	0.0	**-0.0**	-0.0	0.0	592.5	-0.6	0.0	**-0.0**	-0.0	0.0	592.5
Mx_f	-0.6	0.0	-0.0	**-0.0**	0.0	592.5	-0.6	0.0	-0.0	**-0.0**	0.0	592.5
My_f	-0.6	0.0	-0.0	-0.0	**0.0**	592.5	-0.6	0.0	-0.0	-0.0	**0.0**	592.5
Mz_f	-0.6	0.0	-0.0	-0.0	0.0	**592.5**	-0.6	0.0	-0.0	-0.0	0.0	**592.5**

Member 19

Fx_i	**-0.6**	0.0	-0.0	-0.0	0.0	592.5	**-0.6**	0.0	-0.0	-0.0	0.0	592.5
Fy_i	-0.6	**0.0**	-0.0	-0.0	0.0	592.5	-0.6	**0.0**	-0.0	-0.0	0.0	592.5
Fz_i	-0.6	0.0	**-0.0**	-0.0	0.0	592.5	-0.6	0.0	**-0.0**	-0.0	0.0	592.5
Mx_i	-0.6	0.0	-0.0	**-0.0**	0.0	592.5	-0.6	0.0	-0.0	**-0.0**	0.0	592.5
My_i	-0.6	0.0	-0.0	-0.0	**0.0**	592.5	-0.6	0.0	-0.0	-0.0	**0.0**	592.5
Mz_i	-0.6	0.0	-0.0	-0.0	0.0	**592.5**	-0.6	0.0	-0.0	-0.0	0.0	**592.5**
Fx_f	**-0.6**	15.5	-0.0	-0.0	0.0	557.6	**-0.6**	15.5	-0.0	-0.0	0.0	557.6
Fy_f	-0.6	**15.5**	-0.0	-0.0	0.0	557.6	-0.6	**15.5**	-0.0	-0.0	0.0	557.6
Fz_f	-0.6	15.5	**-0.0**	-0.0	0.0	557.6	-0.6	15.5	**-0.0**	-0.0	0.0	557.6
Mx_f	-0.6	15.5	-0.0	**-0.0**	0.0	557.6	-0.6	15.5	-0.0	**-0.0**	0.0	557.6
My_f	-0.6	15.5	-0.0	-0.0	**0.0**	557.6	-0.6	15.5	-0.0	-0.0	**0.0**	557.6
Mz_f	-0.6	15.5	-0.0	-0.0	0.0	**557.6**	-0.6	15.5	-0.0	-0.0	0.0	**557.6**

Member 20

Fx_i	**-0.6**	15.5	-0.0	-0.0	0.0	557.6	**-0.6**	15.5	-0.0	-0.0	0.0	557.6
Fy_i	-0.6	**15.5**	-0.0	-0.0	0.0	557.6	-0.6	**15.5**	-0.0	-0.0	0.0	557.6
Fz_i	-0.6	15.5	**-0.0**	-0.0	0.0	557.6	-0.6	15.5	**-0.0**	-0.0	0.0	557.6
Mx_i	-0.6	15.5	-0.0	**-0.0**	0.0	557.6	-0.6	15.5	-0.0	**-0.0**	0.0	557.6
My_i	-0.6	15.5	-0.0	-0.0	**0.0**	557.6	-0.6	15.5	-0.0	-0.0	**0.0**	557.6
Mz_i	-0.6	15.5	-0.0	-0.0	0.0	**557.6**	-0.6	15.5	-0.0	-0.0	0.0	**557.6**
Fx_f	**-0.6**	31.1	-0.0	-0.0	0.0	452.8	**-0.6**	31.1	-0.0	-0.0	0.0	452.8
Fy_f	-0.6	**31.1**	-0.0	-0.0	0.0	452.8	-0.6	**31.1**	-0.0	-0.0	0.0	452.8
Fz_f	-0.6	31.1	**-0.0**	-0.0	0.0	452.8	-0.6	31.1	**-0.0**	-0.0	0.0	452.8
Mx_f	-0.6	31.1	-0.0	**-0.0**	0.0	452.8	-0.6	31.1	-0.0	**-0.0**	0.0	452.8
My_f	-0.6	31.1	-0.0	-0.0	**0.0**	452.8	-0.6	31.1	-0.0	-0.0	**0.0**	452.8
Mz_f	-0.6	31.1	-0.0	-0.0	0.0	**452.8**	-0.6	31.1	-0.0	-0.0	0.0	**452.8**

Member 21

Fx_i	**-0.6**	31.1	-0.0	-0.0	0.0	452.8	**-0.6**	31.1	-0.0	-0.0	0.0	452.8
Fy_i	-0.6	**31.1**	-0.0	-0.0	0.0	452.8	-0.6	**31.1**	-0.0	-0.0	0.0	452.8
Fz_i	-0.6	31.1	**-0.0**	-0.0	0.0	452.8	-0.6	31.1	**-0.0**	-0.0	0.0	452.8
Mx_i	-0.6	31.1	-0.0	**-0.0**	0.0	452.8	-0.6	31.1	-0.0	**-0.0**	0.0	452.8
My_i	-0.6	31.1	-0.0	-0.0	**0.0**	452.8	-0.6	31.1	-0.0	-0.0	**0.0**	452.8
Mz_i	-0.6	31.1	-0.0	-0.0	0.0	**452.8**	-0.6	31.1	-0.0	-0.0	0.0	**452.8**
Fx_f	**-0.6**	50.3	-0.0	-0.0	0.0	269.7	**-0.6**	50.3	-0.0	-0.0	0.0	269.7
Fy_f	-0.6	**50.3**	-0.0	-0.0	0.0	269.7	-0.6	**50.3**	-0.0	-0.0	0.0	269.7
Fz_f	-0.6	50.3	**-0.0**	-0.0	0.0	269.7	-0.6	50.3	**-0.0**	-0.0	0.0	269.7
Mx_f	-0.6	50.3	-0.0	**-0.0**	0.0	269.7	-0.6	50.3	-0.0	**-0.0**	0.0	269.7
My_f	-0.6	50.3	-0.0	-0.0	**0.0**	269.7	-0.6	50.3	-0.0	-0.0	**0.0**	269.7
Mz_f	-0.6	50.3	-0.0	-0.0	0.0	**269.7**	-0.6	50.3	-0.0	-0.0	0.0	**269.7**

Member 22

Fx_i	**-0.6**	50.3	-0.0	-0.0	0.0	269.7	**-0.6**	50.3	-0.0	-0.0	0.0	269.7
Fy_i	-0.6	**50.3**	-0.0	-0.0	0.0	269.7	-0.6	**50.3**	-0.0	-0.0	0.0	269.7
Fz_i	-0.6	50.3	**-0.0**	-0.0	0.0	269.7	-0.6	50.3	**-0.0**	-0.0	0.0	269.7
Mx_i	-0.6	50.3	-0.0	**-0.0**	0.0	269.7	-0.6	50.3	-0.0	**-0.0**	0.0	269.7
My_i	-0.6	50.3	-0.0	-0.0	**0.0**	269.7	-0.6	50.3	-0.0	-0.0	**0.0**	269.7
Mz_i	-0.6	50.3	-0.0	-0.0	0.0	**269.7**	-0.6	50.3	-0.0	-0.0	0.0	**269.7**
Fx_f	**-0.6**	69.6	-0.0	-0.0	0.0	0.0	**-0.6**	69.6	-0.0	-0.0	0.0	0.0
Fy_f	-0.6	**69.6**	-0.0	-0.0	0.0	0.0	-0.6	**69.6**	-0.0	-0.0	0.0	0.0
Fz_f	-0.6	69.6	**-0.0**	-0.0	0.0	0.0	-0.6	69.6	**-0.0**	-0.0	0.0	0.0
Mx_f	-0.6	69.6	-0.0	**-0.0**	0.0	0.0	-0.6	69.6	-0.0	**-0.0**	0.0	0.0
My_f	-0.6	69.6	-0.0	-0.0	**0.0**	0.0	-0.6	69.6	-0.0	-0.0	**0.0**	0.0
Mz_f	-0.6	69.6	-0.0	-0.0	0.0	**0.0**	-0.6	69.6	-0.0	-0.0	0.0	**0.0**

Member 23

Fx_i	**-0.6**	-69.6	-0.0	0.0	0.0	0.0	**-0.6**	-69.6	-0.0	0.0	0.0	0.0
Fy_i	-0.6	**-69.6**	-0.0	0.0	0.0	0.0	-0.6	**-69.6**	-0.0	0.0	0.0	0.0
Fz_i	-0.6	-69.6	**-0.0**	0.0	0.0	0.0	-0.6	-69.6	**-0.0**	0.0	0.0	0.0
Mx_i	-0.6	-69.6	-0.0	**0.0**	0.0	0.0	-0.6	-69.6	-0.0	**0.0**	0.0	0.0
My_i	-0.6	-69.6	-0.0	0.0	**0.0**	0.0	-0.6	-69.6	-0.0	0.0	**0.0**	0.0
Mz_i	-0.6	-69.6	-0.0	0.0	0.0	**0.0**	-0.6	-69.6	-0.0	0.0	0.0	**0.0**
Fx_f	**-0.6**	-50.3	-0.0	0.0	0.0	269.7	**-0.6**	-50.3	-0.0	0.0	0.0	269.7
Fy_f	-0.6	**-50.3**	-0.0	0.0	0.0	269.7	-0.6	**-50.3**	-0.0	0.0	0.0	269.7

Fz_f	-0.6	-50.3	**-0.0**	0.0	0.0	269.7	-0.6	-50.3	**-0.0**	0.0	0.0	269.7
Mx_f	-0.6	-50.3	-0.0	**0.0**	0.0	269.7	-0.6	-50.3	-0.0	**0.0**	0.0	269.7
My_f	-0.6	-50.3	-0.0	0.0	**0.0**	269.7	-0.6	-50.3	-0.0	0.0	**0.0**	269.7
Mz_f	-0.6	-50.3	-0.0	0.0	0.0	**269.7**	-0.6	-50.3	-0.0	0.0	0.0	**269.7**

Member 24

Fx_i	**-0.6**	-50.3	-0.0	0.0	0.0	269.7	**-0.6**	-50.3	-0.0	0.0	0.0	269.7
Fy_i	-0.6	**-50.3**	-0.0	0.0	0.0	269.7	-0.6	**-50.3**	-0.0	0.0	0.0	269.7
Fz_i	-0.6	-50.3	**-0.0**	0.0	0.0	269.7	-0.6	-50.3	**-0.0**	0.0	0.0	269.7
Mx_i	-0.6	-50.3	-0.0	**0.0**	0.0	269.7	-0.6	-50.3	-0.0	**0.0**	0.0	269.7
My_i	-0.6	-50.3	-0.0	0.0	**0.0**	269.7	-0.6	-50.3	-0.0	0.0	**0.0**	269.7
Mz_i	-0.6	-50.3	-0.0	0.0	0.0	**269.7**	-0.6	-50.3	-0.0	0.0	0.0	**269.7**
Fx_f	**-0.6**	-31.1	-0.0	0.0	0.0	452.8	**-0.6**	-31.1	-0.0	0.0	0.0	452.8
Fy_f	-0.6	**-31.1**	-0.0	0.0	0.0	452.8	-0.6	**-31.1**	-0.0	0.0	0.0	452.8
Fz_f	-0.6	-31.1	**-0.0**	0.0	0.0	452.8	-0.6	-31.1	**-0.0**	0.0	0.0	452.8
Mx_f	-0.6	-31.1	-0.0	**0.0**	0.0	452.8	-0.6	-31.1	-0.0	**0.0**	0.0	452.8
My_f	-0.6	-31.1	-0.0	0.0	**0.0**	452.8	-0.6	-31.1	-0.0	0.0	**0.0**	452.8
Mz_f	-0.6	-31.1	-0.0	0.0	0.0	**452.8**	-0.6	-31.1	-0.0	0.0	0.0	**452.8**

Member 25

Fx_i	**-0.6**	-31.1	-0.0	0.0	0.0	452.8	**-0.6**	-31.1	-0.0	0.0	0.0	452.8
Fy_i	-0.6	**-31.1**	-0.0	0.0	0.0	452.8	-0.6	**-31.1**	-0.0	0.0	0.0	452.8
Fz_i	-0.6	-31.1	**-0.0**	0.0	0.0	452.8	-0.6	-31.1	**-0.0**	0.0	0.0	452.8
Mx_i	-0.6	-31.1	-0.0	**0.0**	0.0	452.8	-0.6	-31.1	-0.0	**0.0**	0.0	452.8
My_i	-0.6	-31.1	-0.0	0.0	**0.0**	452.8	-0.6	-31.1	-0.0	0.0	**0.0**	452.8
Mz_i	-0.6	-31.1	-0.0	0.0	0.0	**452.8**	-0.6	-31.1	-0.0	0.0	0.0	**452.8**
Fx_f	**-0.6**	-15.5	-0.0	0.0	0.0	557.6	**-0.6**	-15.5	-0.0	0.0	0.0	557.6
Fy_f	-0.6	**-15.5**	-0.0	0.0	0.0	557.6	-0.6	**-15.5**	-0.0	0.0	0.0	557.6
Fz_f	-0.6	-15.5	**-0.0**	0.0	0.0	557.6	-0.6	-15.5	**-0.0**	0.0	0.0	557.6
Mx_f	-0.6	-15.5	-0.0	**0.0**	0.0	557.6	-0.6	-15.5	-0.0	**0.0**	0.0	557.6
My_f	-0.6	-15.5	-0.0	0.0	**0.0**	557.6	-0.6	-15.5	-0.0	0.0	**0.0**	557.6
Mz_f	-0.6	-15.5	-0.0	0.0	0.0	**557.6**	-0.6	-15.5	-0.0	0.0	0.0	**557.6**

Member 26

Fx_i	**-0.6**	-15.5	-0.0	0.0	0.0	557.6	**-0.6**	-15.5	-0.0	0.0	0.0	557.6
Fy_i	-0.6	**-15.5**	-0.0	0.0	0.0	557.6	-0.6	**-15.5**	-0.0	0.0	0.0	557.6
Fz_i	-0.6	-15.5	**-0.0**	0.0	0.0	557.6	-0.6	-15.5	**-0.0**	0.0	0.0	557.6
Mx_i	-0.6	-15.5	-0.0	**0.0**	0.0	557.6	-0.6	-15.5	-0.0	**0.0**	0.0	557.6
My_i	-0.6	-15.5	-0.0	0.0	**0.0**	557.6	-0.6	-15.5	-0.0	0.0	**0.0**	557.6
Mz_i	-0.6	-15.5	-0.0	0.0	0.0	**557.6**	-0.6	-15.5	-0.0	0.0	0.0	**557.6**
Fx_f	**-0.6**	-0.0	-0.0	0.0	0.0	592.5	**-0.6**	-0.0	-0.0	0.0	0.0	592.5
Fy_f	-0.6	**-0.0**	-0.0	0.0	0.0	592.5	-0.6	**-0.0**	-0.0	0.0	0.0	592.5
Fz_f	-0.6	-0.0	**-0.0**	0.0	0.0	592.5	-0.6	-0.0	**-0.0**	0.0	0.0	592.5
Mx_f	-0.6	-0.0	-0.0	**0.0**	0.0	592.5	-0.6	-0.0	-0.0	**0.0**	0.0	592.5
My_f	-0.6	-0.0	-0.0	0.0	**0.0**	592.5	-0.6	-0.0	-0.0	0.0	**0.0**	592.5
Mz_f	-0.6	-0.0	-0.0	0.0	0.0	**592.5**	-0.6	-0.0	-0.0	0.0	0.0	**592.5**

Member 27

Fx_i	**-0.6**	-0.0	-0.0	0.0	0.0	592.5	**-0.6**	-0.0	-0.0	0.0	0.0	592.5
Fy_i	-0.6	**-0.0**	-0.0	0.0	0.0	592.5	-0.6	**-0.0**	-0.0	0.0	0.0	592.5
Fz_i	-0.6	-0.0	**-0.0**	0.0	0.0	592.5	-0.6	-0.0	**-0.0**	0.0	0.0	592.5
Mx_i	-0.6	-0.0	-0.0	**0.0**	0.0	592.5	-0.6	-0.0	-0.0	**0.0**	0.0	592.5
My_i	-0.6	-0.0	-0.0	0.0	**0.0**	592.5	-0.6	-0.0	-0.0	0.0	**0.0**	592.5
Mz_i	-0.6	-0.0	-0.0	0.0	0.0	**592.5**	-0.6	-0.0	-0.0	0.0	0.0	**592.5**
Fx_f	**-0.6**	15.5	-0.0	0.0	0.0	557.6	**-0.6**	15.5	-0.0	0.0	0.0	557.6
Fy_f	-0.6	**15.5**	-0.0	0.0	0.0	557.6	-0.6	**15.5**	-0.0	0.0	0.0	557.6
Fz_f	-0.6	15.5	**-0.0**	0.0	0.0	557.6	-0.6	15.5	**-0.0**	0.0	0.0	557.6
Mx_f	-0.6	15.5	-0.0	**0.0**	0.0	557.6	-0.6	15.5	-0.0	**0.0**	0.0	557.6
My_f	-0.6	15.5	-0.0	0.0	**0.0**	557.6	-0.6	15.5	-0.0	0.0	**0.0**	557.6
Mz_f	-0.6	15.5	-0.0	0.0	0.0	**557.6**	-0.6	15.5	-0.0	0.0	0.0	**557.6**

Member 28

Fx_i	**-0.6**	15.5	-0.0	0.0	0.0	557.6	**-0.6**	15.5	-0.0	0.0	0.0	557.6
Fy_i	-0.6	**15.5**	-0.0	0.0	0.0	557.6	-0.6	**15.5**	-0.0	0.0	0.0	557.6
Fz_i	-0.6	15.5	**-0.0**	0.0	0.0	557.6	-0.6	15.5	**-0.0**	0.0	0.0	557.6
Mx_i	-0.6	15.5	-0.0	**0.0**	0.0	557.6	-0.6	15.5	-0.0	**0.0**	0.0	557.6
My_i	-0.6	15.5	-0.0	0.0	**0.0**	557.6	-0.6	15.5	-0.0	0.0	**0.0**	557.6
Mz_i	-0.6	15.5	-0.0	0.0	0.0	**557.6**	-0.6	15.5	-0.0	0.0	0.0	**557.6**
Fx_f	**-0.6**	31.1	-0.0	0.0	0.0	452.8	**-0.6**	31.1	-0.0	0.0	0.0	452.8
Fy_f	-0.6	**31.1**	-0.0	0.0	0.0	452.8	-0.6	**31.1**	-0.0	0.0	0.0	452.8
Fz_f	-0.6	31.1	**-0.0**	0.0	0.0	452.8	-0.6	31.1	**-0.0**	0.0	0.0	452.8
Mx_f	-0.6	31.1	-0.0	**0.0**	0.0	452.8	-0.6	31.1	-0.0	**0.0**	0.0	452.8
My_f	-0.6	31.1	-0.0	0.0	**0.0**	452.8	-0.6	31.1	-0.0	0.0	**0.0**	452.8
Mz_f	-0.6	31.1	-0.0	0.0	0.0	**452.8**	-0.6	31.1	-0.0	0.0	0.0	**452.8**

Member 29

Fx_i	**-0.6**	31.1	-0.0	0.0	0.0	452.8	**-0.6**	31.1	-0.0	0.0	0.0	452.8
Fy_i	-0.6	**31.1**	-0.0	0.0	0.0	452.8	-0.6	**31.1**	-0.0	0.0	0.0	452.8
Fz_i	-0.6	31.1	**-0.0**	0.0	0.0	452.8	-0.6	31.1	**-0.0**	0.0	0.0	452.8
Mx_i	-0.6	31.1	-0.0	**0.0**	0.0	452.8	-0.6	31.1	-0.0	**0.0**	0.0	452.8
My_i	-0.6	31.1	-0.0	0.0	**0.0**	452.8	-0.6	31.1	-0.0	0.0	**0.0**	452.8
Mz_i	-0.6	31.1	-0.0	0.0	0.0	**452.8**	-0.6	31.1	-0.0	0.0	0.0	**452.8**
Fx_f	**-0.6**	50.3	-0.0	0.0	0.0	269.7	**-0.6**	50.3	-0.0	0.0	0.0	269.7
Fy_f	-0.6	**50.3**	-0.0	0.0	0.0	269.7	-0.6	**50.3**	-0.0	0.0	0.0	269.7
Fz_f	-0.6	50.3	**-0.0**	0.0	0.0	269.7	-0.6	50.3	**-0.0**	0.0	0.0	269.7
Mx_f	-0.6	50.3	-0.0	**0.0**	0.0	269.7	-0.6	50.3	-0.0	**0.0**	0.0	269.7
My_f	-0.6	50.3	-0.0	0.0	**0.0**	269.7	-0.6	50.3	-0.0	0.0	**0.0**	269.7
Mz_f	-0.6	50.3	-0.0	0.0	0.0	**269.7**	-0.6	50.3	-0.0	0.0	0.0	**269.7**

Member 30

Fx_i	**-0.6**	50.3	-0.0	0.0	0.0	269.7	**-0.6**	50.3	-0.0	0.0	0.0	269.7
Fy_i	-0.6	**50.3**	-0.0	0.0	0.0	269.7	-0.6	**50.3**	-0.0	0.0	0.0	269.7
Fz_i	-0.6	50.3	**-0.0**	0.0	0.0	269.7	-0.6	50.3	**-0.0**	0.0	0.0	269.7
Mx_i	-0.6	50.3	-0.0	**0.0**	0.0	269.7	-0.6	50.3	-0.0	**0.0**	0.0	269.7
My_i	-0.6	50.3	-0.0	0.0	**0.0**	269.7	-0.6	50.3	-0.0	0.0	**0.0**	269.7
Mz_i	-0.6	50.3	-0.0	0.0	0.0	**269.7**	-0.6	50.3	-0.0	0.0	0.0	**269.7**
Fx_f	**-0.6**	69.6	-0.0	0.0	0.0	0.0	**-0.6**	69.6	-0.0	0.0	0.0	0.0
Fy_f	-0.6	**69.6**	-0.0	0.0	0.0	0.0	-0.6	**69.6**	-0.0	0.0	0.0	0.0
Fz_f	-0.6	69.6	**-0.0**	0.0	0.0	0.0	-0.6	69.6	**-0.0**	0.0	0.0	0.0
Mx_f	-0.6	69.6	-0.0	**0.0**	0.0	0.0	-0.6	69.6	-0.0	**0.0**	0.0	0.0
My_f	-0.6	69.6	-0.0	0.0	**0.0**	0.0	-0.6	69.6	-0.0	0.0	**0.0**	0.0
Mz_f	-0.6	69.6	-0.0	0.0	0.0	**0.0**	-0.6	69.6	-0.0	0.0	0.0	**0.0**

Member 365

Fx_i	**-47.2**	-0.0	0.0	0.0	-0.0	-0.0	**-47.2**	-0.0	0.0	0.0	-0.0	-0.0
Fy_i	-47.2	**-0.0**	0.0	0.0	-0.0	-0.0	-47.2	**-0.0**	0.0	0.0	-0.0	-0.0
Fz_i	-47.2	-0.0	**0.0**	0.0	-0.0	-0.0	-47.2	-0.0	**0.0**	0.0	-0.0	-0.0
Mx_i	-47.2	-0.0	0.0	**0.0**	-0.0	-0.0	-47.2	-0.0	0.0	**0.0**	-0.0	-0.0
My_i	-47.2	-0.0	0.0	0.0	**-0.0**	-0.0	-47.2	-0.0	0.0	0.0	**-0.0**	-0.0
Mz_i	-47.2	-0.0	0.0	0.0	-0.0	**-0.0**	-47.2	-0.0	0.0	0.0	-0.0	**-0.0**
Fx_f	**-47.2**	-0.0	0.0	0.0	-0.0	0.0	**-47.2**	-0.0	0.0	0.0	-0.0	0.0
Fy_f	-47.2	**-0.0**	0.0	0.0	-0.0	0.0	-47.2	**-0.0**	0.0	0.0	-0.0	0.0
Fz_f	-47.2	-0.0	**0.0**	0.0	-0.0	0.0	-47.2	-0.0	**0.0**	0.0	-0.0	0.0
Mx_f	-47.2	-0.0	0.0	**0.0**	-0.0	0.0	-47.2	-0.0	0.0	**0.0**	-0.0	0.0
My_f	-47.2	-0.0	0.0	0.0	**-0.0**	0.0	-47.2	-0.0	0.0	0.0	**-0.0**	0.0
Mz_f	-47.2	-0.0	0.0	0.0	-0.0	**0.0**	-47.2	-0.0	0.0	0.0	-0.0	**0.0**

Member 366

Fx_i	**-113.3**	-0.0	0.0	0.0	-0.0	-0.0	**-113.3**	-0.0	0.0	0.0	-0.0	-0.0
Fy_i	-113.3	**-0.0**	0.0	0.0	-0.0	-0.0	-113.3	**-0.0**	0.0	0.0	-0.0	-0.0
Fz_i	-113.3	-0.0	**0.0**	0.0	-0.0	-0.0	-113.3	-0.0	**0.0**	0.0	-0.0	-0.0
Mx_i	-113.3	-0.0	0.0	**0.0**	-0.0	-0.0	-113.3	-0.0	0.0	**0.0**	-0.0	-0.0
My_i	-113.3	-0.0	0.0	0.0	**-0.0**	-0.0	-113.3	-0.0	0.0	0.0	**-0.0**	-0.0
Mz_i	-113.3	-0.0	0.0	0.0	-0.0	**-0.0**	-113.3	-0.0	0.0	0.0	-0.0	**-0.0**
Fx_f	**-113.3**	-0.0	0.0	0.0	0.0	0.0	**-113.3**	-0.0	0.0	0.0	0.0	0.0
Fy_f	-113.3	**-0.0**	0.0	0.0	0.0	0.0	-113.3	**-0.0**	0.0	0.0	0.0	0.0
Fz_f	-113.3	-0.0	**0.0**	0.0	0.0	0.0	-113.3	-0.0	**0.0**	0.0	0.0	0.0
Mx_f	-113.3	-0.0	0.0	**0.0**	0.0	0.0	-113.3	-0.0	0.0	**0.0**	0.0	0.0
My_f	-113.3	-0.0	0.0	0.0	**0.0**	0.0	-113.3	-0.0	0.0	0.0	**0.0**	0.0
Mz_f	-113.3	-0.0	0.0	0.0	0.0	**0.0**	-113.3	-0.0	0.0	0.0	0.0	**0.0**

Member 367

Fx,	**-139.1**	-0.0	-0.0	0.0	0.0	-0.0	**-139.1**	-0.0	-0.0	0.0	0.0	-0.0
Fy,	-139.1	**-0.0**	-0.0	0.0	0.0	-0.0	-139.1	**-0.0**	-0.0	0.0	0.0	-0.0
Fz,	-139.1	-0.0	**-0.0**	0.0	0.0	-0.0	-139.1	-0.0	**-0.0**	0.0	0.0	-0.0
Mx,	-139.1	-0.0	-0.0	**0.0**	0.0	-0.0	-139.1	-0.0	-0.0	**0.0**	0.0	-0.0
My,	-139.1	-0.0	-0.0	0.0	**0.0**	-0.0	-139.1	-0.0	-0.0	0.0	**0.0**	-0.0
Mz,	-139.1	-0.0	-0.0	0.0	0.0	**-0.0**	-139.1	-0.0	-0.0	0.0	0.0	**-0.0**
Fx,	**-139.1**	-0.0	-0.0	0.0	0.0	0.0	**-139.1**	-0.0	-0.0	0.0	0.0	0.0
Fy,	-139.1	**-0.0**	-0.0	0.0	0.0	0.0	-139.1	**-0.0**	-0.0	0.0	0.0	0.0
Fz,	-139.1	-0.0	**-0.0**	0.0	0.0	0.0	-139.1	-0.0	**-0.0**	0.0	0.0	0.0
Mx,	-139.1	-0.0	-0.0	**0.0**	0.0	0.0	-139.1	-0.0	-0.0	**0.0**	0.0	0.0
My,	-139.1	-0.0	-0.0	0.0	**0.0**	0.0	-139.1	-0.0	-0.0	0.0	**0.0**	0.0
Mz,	-139.1	-0.0	-0.0	0.0	0.0	**0.0**	-139.1	-0.0	-0.0	0.0	0.0	**0.0**

Member 368

Fx,	**-139.1**	-0.0	0.0	0.0	-0.0	0.0	**-139.1**	-0.0	0.0	0.0	-0.0	0.0
Fy,	-139.1	**-0.0**	0.0	0.0	-0.0	0.0	-139.1	**-0.0**	0.0	0.0	-0.0	0.0
Fz,	-139.1	-0.0	**0.0**	0.0	-0.0	0.0	-139.1	-0.0	**0.0**	0.0	-0.0	0.0
Mx,	-139.1	-0.0	0.0	**0.0**	-0.0	0.0	-139.1	-0.0	0.0	**0.0**	-0.0	0.0
My,	-139.1	-0.0	0.0	0.0	**-0.0**	0.0	-139.1	-0.0	0.0	0.0	**-0.0**	0.0
Mz,	-139.1	-0.0	0.0	0.0	-0.0	**0.0**	-139.1	-0.0	0.0	0.0	-0.0	**0.0**
Fx,	**-139.1**	-0.0	0.0	0.0	-0.0	0.0	**-139.1**	-0.0	0.0	0.0	-0.0	0.0
Fy,	-139.1	**-0.0**	0.0	0.0	-0.0	0.0	-139.1	**-0.0**	0.0	0.0	-0.0	0.0
Fz,	-139.1	-0.0	**0.0**	0.0	-0.0	0.0	-139.1	-0.0	**0.0**	0.0	-0.0	0.0
Mx,	-139.1	-0.0	0.0	**0.0**	-0.0	0.0	-139.1	-0.0	0.0	**0.0**	-0.0	0.0
My,	-139.1	-0.0	0.0	0.0	**-0.0**	0.0	-139.1	-0.0	0.0	0.0	**-0.0**	0.0
Mz,	-139.1	-0.0	0.0	0.0	-0.0	**0.0**	-139.1	-0.0	0.0	0.0	-0.0	**0.0**

Member 369

Fx,	**-139.1**	0.0	-0.0	-0.0	0.0	0.0	**-139.1**	0.0	-0.0	-0.0	0.0	0.0
Fy,	-139.1	**0.0**	-0.0	-0.0	0.0	0.0	-139.1	**0.0**	-0.0	-0.0	0.0	0.0
Fz,	-139.1	0.0	**-0.0**	-0.0	0.0	0.0	-139.1	0.0	**-0.0**	-0.0	0.0	0.0
Mx,	-139.1	0.0	-0.0	**-0.0**	0.0	0.0	-139.1	0.0	-0.0	**-0.0**	0.0	0.0
My,	-139.1	0.0	-0.0	-0.0	**0.0**	0.0	-139.1	0.0	-0.0	-0.0	**0.0**	0.0
Mz,	-139.1	0.0	-0.0	-0.0	0.0	**0.0**	-139.1	0.0	-0.0	-0.0	0.0	**0.0**
Fx,	**-139.1**	0.0	-0.0	-0.0	-0.0	-0.0	**-139.1**	0.0	-0.0	-0.0	-0.0	-0.0
Fy,	-139.1	**0.0**	-0.0	-0.0	-0.0	-0.0	-139.1	**0.0**	-0.0	-0.0	-0.0	-0.0
Fz,	-139.1	0.0	**-0.0**	-0.0	-0.0	-0.0	-139.1	0.0	**-0.0**	-0.0	-0.0	-0.0
Mx,	-139.1	0.0	-0.0	**-0.0**	-0.0	-0.0	-139.1	0.0	-0.0	**-0.0**	-0.0	-0.0
My,	-139.1	0.0	-0.0	-0.0	**-0.0**	-0.0	-139.1	0.0	-0.0	-0.0	**-0.0**	-0.0
Mz,	-139.1	0.0	-0.0	-0.0	-0.0	**-0.0**	-139.1	0.0	-0.0	-0.0	-0.0	**-0.0**

Member 370

Fx,	**-139.1**	-0.0	-0.0	0.0	0.0	-0.0	**-139.1**	-0.0	-0.0	0.0	0.0	-0.0
Fy,	-139.1	**-0.0**	-0.0	0.0	0.0	-0.0	-139.1	**-0.0**	-0.0	0.0	0.0	-0.0
Fz,	-139.1	-0.0	**-0.0**	0.0	0.0	-0.0	-139.1	-0.0	**-0.0**	0.0	0.0	-0.0
Mx,	-139.1	-0.0	-0.0	**0.0**	0.0	-0.0	-139.1	-0.0	-0.0	**0.0**	0.0	-0.0
My,	-139.1	-0.0	-0.0	0.0	**0.0**	-0.0	-139.1	-0.0	-0.0	0.0	**0.0**	-0.0
Mz,	-139.1	-0.0	-0.0	0.0	0.0	**-0.0**	-139.1	-0.0	-0.0	0.0	0.0	**-0.0**
Fx,	**-139.1**	-0.0	-0.0	0.0	-0.0	0.0	**-139.1**	-0.0	-0.0	0.0	-0.0	0.0
Fy,	-139.1	**-0.0**	-0.0	0.0	-0.0	0.0	-139.1	**-0.0**	-0.0	0.0	-0.0	0.0
Fz,	-139.1	-0.0	**-0.0**	0.0	-0.0	0.0	-139.1	-0.0	**-0.0**	0.0	-0.0	0.0
Mx,	-139.1	-0.0	-0.0	**0.0**	-0.0	0.0	-139.1	-0.0	-0.0	**0.0**	-0.0	0.0
My,	-139.1	-0.0	-0.0	0.0	**-0.0**	0.0	-139.1	-0.0	-0.0	0.0	**-0.0**	0.0
Mz,	-139.1	-0.0	-0.0	0.0	-0.0	**0.0**	-139.1	-0.0	-0.0	0.0	-0.0	**0.0**

Member 371

Fx,	**-139.1**	0.0	0.0	-0.0	0.0	0.0	**-139.1**	0.0	0.0	-0.0	0.0	0.0
Fy,	-139.1	**0.0**	0.0	-0.0	0.0	0.0	-139.1	**0.0**	0.0	-0.0	0.0	0.0
Fz,	-139.1	0.0	**0.0**	-0.0	0.0	0.0	-139.1	0.0	**0.0**	-0.0	0.0	0.0
Mx,	-139.1	0.0	0.0	**-0.0**	0.0	0.0	-139.1	0.0	0.0	**-0.0**	0.0	0.0
My,	-139.1	0.0	0.0	-0.0	**0.0**	0.0	-139.1	0.0	0.0	-0.0	**0.0**	0.0
Mz,	-139.1	0.0	0.0	-0.0	0.0	**0.0**	-139.1	0.0	0.0	-0.0	0.0	**0.0**
Fx,	**-139.1**	0.0	0.0	-0.0	0.0	0.0	**-139.1**	0.0	0.0	-0.0	0.0	0.0
Fy,	-139.1	**0.0**	0.0	-0.0	0.0	0.0	-139.1	**0.0**	0.0	-0.0	0.0	0.0
Fz,	-139.1	0.0	**0.0**	-0.0	0.0	0.0	-139.1	0.0	**0.0**	-0.0	0.0	0.0
Mx,	-139.1	0.0	0.0	**-0.0**	0.0	0.0	-139.1	0.0	0.0	**-0.0**	0.0	0.0
My,	-139.1	0.0	0.0	-0.0	**0.0**	0.0	-139.1	0.0	0.0	-0.0	**0.0**	0.0
Mz,	-139.1	0.0	0.0	-0.0	0.0	**0.0**	-139.1	0.0	0.0	-0.0	0.0	**0.0**

Fz,	-139.1	0.0	**0.0**	-0.0	0.0	0.0	-139.1	0.0	**0.0**	-0.0	0.0	0.0
Mx,	-139.1	0.0	0.0	**-0.0**	0.0	0.0	-139.1	0.0	0.0	**-0.0**	0.0	0.0
My,	-139.1	0.0	0.0	-0.0	**0.0**	0.0	-139.1	0.0	0.0	-0.0	**0.0**	0.0
Mz,	-139.1	0.0	0.0	-0.0	0.0	**0.0**	-139.1	0.0	0.0	-0.0	0.0	**0.0**

Member 372

Fx,	**-113.6**	-0.0	0.0	-0.0	-0.0	-0.0	**-113.6**	-0.0	0.0	-0.0	-0.0	-0.0
Fy,	-113.6	**-0.0**	0.0	-0.0	-0.0	-0.0	-113.6	**-0.0**	0.0	-0.0	-0.0	-0.0
Fz,	-113.6	-0.0	**0.0**	-0.0	-0.0	-0.0	-113.6	-0.0	**0.0**	-0.0	-0.0	-0.0
Mx,	-113.6	-0.0	0.0	**-0.0**	-0.0	-0.0	-113.6	-0.0	0.0	**-0.0**	-0.0	-0.0
My,	-113.6	-0.0	0.0	-0.0	**-0.0**	-0.0	-113.6	-0.0	0.0	-0.0	**-0.0**	-0.0
Mz,	-113.6	-0.0	0.0	-0.0	-0.0	**-0.0**	-113.6	-0.0	0.0	-0.0	-0.0	**-0.0**
Fx,	**-113.6**	-0.0	0.0	-0.0	-0.0	0.0	**-113.6**	-0.0	0.0	-0.0	-0.0	0.0
Fy,	-113.6	**-0.0**	0.0	-0.0	-0.0	0.0	-113.6	**-0.0**	0.0	-0.0	-0.0	0.0
Fz,	-113.6	-0.0	**0.0**	-0.0	-0.0	0.0	-113.6	-0.0	**0.0**	-0.0	-0.0	0.0
Mx,	-113.6	-0.0	0.0	**-0.0**	-0.0	0.0	-113.6	-0.0	0.0	**-0.0**	-0.0	0.0
My,	-113.6	-0.0	0.0	-0.0	**-0.0**	0.0	-113.6	-0.0	0.0	-0.0	**-0.0**	0.0
Mz,	-113.6	-0.0	0.0	-0.0	-0.0	**0.0**	-113.6	-0.0	0.0	-0.0	-0.0	**0.0**

Member 373

Fx,	**-44.1**	-0.6	-0.0	0.0	0.0	-1.0	**-44.1**	-0.6	-0.0	0.0	0.0	-1.0
Fy,	-44.1	**-0.6**	-0.0	0.0	0.0	-1.0	-44.1	**-0.6**	-0.0	0.0	0.0	-1.0
Fz,	-44.1	-0.6	**-0.0**	0.0	0.0	-1.0	-44.1	-0.6	**-0.0**	0.0	0.0	-1.0
Mx,	-44.1	-0.6	-0.0	**0.0**	0.0	-1.0	-44.1	-0.6	-0.0	**0.0**	0.0	-1.0
My,	-44.1	-0.6	-0.0	0.0	**0.0**	-1.0	-44.1	-0.6	-0.0	0.0	**0.0**	-1.0
Mz,	-44.1	-0.6	-0.0	0.0	0.0	**-1.0**	-44.1	-0.6	-0.0	0.0	0.0	**-1.0**
Fx,	**-44.1**	-0.6	-0.0	0.0	-0.0	-0.0	**-44.1**	-0.6	-0.0	0.0	-0.0	-0.0
Fy,	-44.1	**-0.6**	-0.0	0.0	-0.0	-0.0	-44.1	**-0.6**	-0.0	0.0	-0.0	-0.0
Fz,	-44.1	-0.6	**-0.0**	0.0	-0.0	-0.0	-44.1	-0.6	**-0.0**	0.0	-0.0	-0.0
Mx,	-44.1	-0.6	-0.0	**0.0**	-0.0	-0.0	-44.1	-0.6	-0.0	**0.0**	-0.0	-0.0
My,	-44.1	-0.6	-0.0	0.0	**-0.0**	-0.0	-44.1	-0.6	-0.0	0.0	**-0.0**	-0.0
Mz,	-44.1	-0.6	-0.0	0.0	-0.0	**-0.0**	-44.1	-0.6	-0.0	0.0	-0.0	**-0.0**

Member 374

Fx,	**-47.2**	0.0	-0.0	0.0	0.0	0.0	**-47.2**	0.0	-0.0	0.0	0.0	0.0
Fy,	-47.2	**0.0**	-0.0	0.0	0.0	0.0	-47.2	**0.0**	-0.0	0.0	0.0	0.0
Fz,	-47.2	0.0	**-0.0**	0.0	0.0	0.0	-47.2	0.0	**-0.0**	0.0	0.0	0.0
Mx,	-47.2	0.0	-0.0	**0.0**	0.0	0.0	-47.2	0.0	-0.0	**0.0**	0.0	0.0
My,	-47.2	0.0	-0.0	0.0	**0.0**	0.0	-47.2	0.0	-0.0	0.0	**0.0**	0.0
Mz,	-47.2	0.0	-0.0	0.0	0.0	**0.0**	-47.2	0.0	-0.0	0.0	0.0	**0.0**
Fx,	**-47.2**	0.0	-0.0	0.0	-0.0	-0.0	**-47.2**	0.0	-0.0	0.0	-0.0	-0.0
Fy,	-47.2	**0.0**	-0.0	0.0	-0.0	-0.0	-47.2	**0.0**	-0.0	0.0	-0.0	-0.0
Fz,	-47.2	0.0	**-0.0**	0.0	-0.0	-0.0	-47.2	0.0	**-0.0**	0.0	-0.0	-0.0
Mx,	-47.2	0.0	-0.0	**0.0**	-0.0	-0.0	-47.2	0.0	-0.0	**0.0**	-0.0	-0.0
My,	-47.2	0.0	-0.0	0.0	**-0.0**	-0.0	-47.2	0.0	-0.0	0.0	**-0.0**	-0.0
Mz,	-47.2	0.0	-0.0	0.0	-0.0	**-0.0**	-47.2	0.0	-0.0	0.0	-0.0	**-0.0**

Member 375

Fx,	**-113.3**	0.0	-0.0	0.0	0.0	0.0	**-113.3**	0.0	-0.0	0.0	0.0	0.0
Fy,	-113.3	**0.0**	-0.0	0.0	0.0	0.0	-113.3	**0.0**	-0.0	0.0	0.0	0.0
Fz,	-113.3	0.0	**-0.0**	0.0	0.0	0.0	-113.3	0.0	**-0.0**	0.0	0.0	0.0
Mx,	-113.3	0.0	-0.0	**0.0**	0.0	0.0	-113.3	0.0	-0.0	**0.0**	0.0	0.0
My,	-113.3	0.0	-0.0	0.0	**0.0**	0.0	-113.3	0.0	-0.0	0.0	**0.0**	0.0
Mz,	-113.3	0.0	-0.0	0.0	0.0	**0.0**	-113.3	0.0	-0.0	0.0	0.0	**0.0**
Fx,	**-113.3**	0.0	-0.0	0.0	-0.0	-0.0	**-113.3**	0.0	-0.0	0.0	-0.0	-0.0
Fy,	-113.3	**0.0**	-0.0	0.0	-0.0	-0.0	-113.3	**0.0**	-0.0	0.0	-0.0	-0.0
Fz,	-113.3	0.0	**-0.0**	0.0	-0.0	-0.0	-113.3	0.0	**-0.0**	0.0	-0.0	-0.0
Mx,	-113.3	0.0	-0.0	**0.0**	-0.0	-0.0	-113.3	0.0	-0.0	**0.0**	-0.0	-0.0
My,	-113.3	0.0	-0.0	0.0	**-0.0**	-0.0	-113.3	0.0	-0.0	0.0	**-0.0**	-0.0
Mz,	-113.3	0.0	-0.0	0.0	-0.0	**-0.0**	-113.3	0.0	-0.0	0.0	-0.0	**-0.0**

Member 376

Fx,	**-139.1**	0.0	0.0	0.0	-0.0	0.0	**-139.1**	0.0	0.0	0.0	-0.0	0.0
Fy,	-139.1	**0.0**	0.0	0.0	-0.0	0.0	-139.1	**0.0**	0.0	0.0	-0.0	0.0
Fz,	-139.1	0.0	**0.0**	0.0	-0.0	0.0	-139.1	0.0	**0.0**	0.0	-0.0	0.0
Mx,	-139.1	0.0	0.0	**0.0**	-0.0	0.0	-139.1	0.0	0.0	**0.0**	-0.0	0.0

My,	-139.1	0.0	0.0	0.0	**-0.0**	0.0	-139.1	0.0	0.0	0.0	**-0.0**	0.0
Mz,	-139.1	0.0	0.0	0.0	-0.0	**0.0**	-139.1	0.0	0.0	0.0	-0.0	**0.0**
Fx,	**-139.1**	0.0	0.0	0.0	-0.0	-0.0	**-139.1**	0.0	0.0	0.0	-0.0	-0.0
Fy,	-139.1	**0.0**	0.0	0.0	-0.0	-0.0	-139.1	**0.0**	0.0	0.0	-0.0	-0.0
Fz,	-139.1	0.0	**0.0**	0.0	-0.0	-0.0	-139.1	0.0	**0.0**	0.0	-0.0	-0.0
Mx,	-139.1	0.0	0.0	**0.0**	-0.0	-0.0	-139.1	0.0	0.0	**0.0**	-0.0	-0.0
My,	-139.1	0.0	0.0	0.0	**-0.0**	-0.0	-139.1	0.0	0.0	0.0	**-0.0**	-0.0
Mz,	-139.1	0.0	0.0	0.0	-0.0	**-0.0**	-139.1	0.0	0.0	0.0	-0.0	**-0.0**

Member 377

Fx,	**-139.1**	-0.0	-0.0	0.0	0.0	-0.0	**-139.1**	-0.0	-0.0	0.0	0.0	-0.0
Fy,	-139.1	**-0.0**	-0.0	0.0	0.0	-0.0	-139.1	**-0.0**	-0.0	0.0	0.0	-0.0
Fz,	-139.1	-0.0	**-0.0**	0.0	0.0	-0.0	-139.1	-0.0	**-0.0**	0.0	0.0	-0.0
Mx,	-139.1	-0.0	-0.0	**0.0**	0.0	-0.0	-139.1	-0.0	-0.0	**0.0**	0.0	-0.0
My,	-139.1	-0.0	-0.0	0.0	**0.0**	-0.0	-139.1	-0.0	-0.0	0.0	**0.0**	-0.0
Mz,	-139.1	-0.0	-0.0	0.0	0.0	**-0.0**	-139.1	-0.0	-0.0	0.0	0.0	**-0.0**
Fx,	**-139.1**	-0.0	-0.0	0.0	0.0	0.0	**-139.1**	-0.0	-0.0	0.0	0.0	0.0
Fy,	-139.1	**-0.0**	-0.0	0.0	0.0	0.0	-139.1	**-0.0**	-0.0	0.0	0.0	0.0
Fz,	-139.1	-0.0	**-0.0**	0.0	0.0	0.0	-139.1	-0.0	**-0.0**	0.0	0.0	0.0
Mx,	-139.1	-0.0	-0.0	**0.0**	0.0	0.0	-139.1	-0.0	-0.0	**0.0**	0.0	0.0
My,	-139.1	-0.0	-0.0	0.0	**0.0**	0.0	-139.1	-0.0	-0.0	0.0	**0.0**	0.0
Mz,	-139.1	-0.0	-0.0	0.0	0.0	**0.0**	-139.1	-0.0	-0.0	0.0	0.0	**0.0**

Member 378

Fx,	**-139.1**	0.0	0.0	0.0	-0.0	0.0	**-139.1**	0.0	0.0	0.0	-0.0	0.0
Fy,	-139.1	**0.0**	0.0	0.0	-0.0	0.0	-139.1	**0.0**	0.0	0.0	-0.0	0.0
Fz,	-139.1	0.0	**0.0**	0.0	-0.0	0.0	-139.1	0.0	**0.0**	0.0	-0.0	0.0
Mx,	-139.1	0.0	0.0	**0.0**	-0.0	0.0	-139.1	0.0	0.0	**0.0**	-0.0	0.0
My,	-139.1	0.0	0.0	0.0	**-0.0**	0.0	-139.1	0.0	0.0	0.0	**-0.0**	0.0
Mz,	-139.1	0.0	0.0	0.0	-0.0	**0.0**	-139.1	0.0	0.0	0.0	-0.0	**0.0**
Fx,	**-139.1**	0.0	0.0	0.0	0.0	-0.0	**-139.1**	0.0	0.0	0.0	0.0	-0.0
Fy,	-139.1	**0.0**	0.0	0.0	0.0	-0.0	-139.1	**0.0**	0.0	0.0	0.0	-0.0
Fz,	-139.1	0.0	**0.0**	0.0	0.0	-0.0	-139.1	0.0	**0.0**	0.0	0.0	-0.0
Mx,	-139.1	0.0	0.0	**0.0**	0.0	-0.0	-139.1	0.0	0.0	**0.0**	0.0	-0.0
My,	-139.1	0.0	0.0	0.0	**0.0**	-0.0	-139.1	0.0	0.0	0.0	**0.0**	-0.0
Mz,	-139.1	0.0	0.0	0.0	0.0	**-0.0**	-139.1	0.0	0.0	0.0	0.0	**-0.0**

Member 379

Fx,	**-139.1**	0.0	0.0	0.0	-0.0	0.0	**-139.1**	0.0	0.0	0.0	-0.0	0.0
Fy,	-139.1	**0.0**	0.0	0.0	-0.0	0.0	-139.1	**0.0**	0.0	0.0	-0.0	0.0
Fz,	-139.1	0.0	**0.0**	0.0	-0.0	0.0	-139.1	0.0	**0.0**	0.0	-0.0	0.0
Mx,	-139.1	0.0	0.0	**0.0**	-0.0	0.0	-139.1	0.0	0.0	**0.0**	-0.0	0.0
My,	-139.1	0.0	0.0	0.0	**-0.0**	0.0	-139.1	0.0	0.0	0.0	**-0.0**	0.0
Mz,	-139.1	0.0	0.0	0.0	-0.0	**0.0**	-139.1	0.0	0.0	0.0	-0.0	**0.0**
Fx,	**-139.1**	0.0	0.0	0.0	0.0	-0.0	**-139.1**	0.0	0.0	0.0	0.0	-0.0
Fy,	-139.1	**0.0**	0.0	0.0	0.0	-0.0	-139.1	**0.0**	0.0	0.0	0.0	-0.0
Fz,	-139.1	0.0	**0.0**	0.0	0.0	-0.0	-139.1	0.0	**0.0**	0.0	0.0	-0.0
Mx,	-139.1	0.0	0.0	**0.0**	0.0	-0.0	-139.1	0.0	0.0	**0.0**	0.0	-0.0
My,	-139.1	0.0	0.0	0.0	**0.0**	-0.0	-139.1	0.0	0.0	0.0	**0.0**	-0.0
Mz,	-139.1	0.0	0.0	0.0	0.0	**-0.0**	-139.1	0.0	0.0	0.0	0.0	**-0.0**

Member 380

Fx,	**-139.1**	-0.0	-0.0	0.0	-0.0	-0.0	**-139.1**	-0.0	-0.0	0.0	-0.0	-0.0
Fy,	-139.1	**-0.0**	-0.0	0.0	-0.0	-0.0	-139.1	**-0.0**	-0.0	0.0	-0.0	-0.0
Fz,	-139.1	-0.0	**-0.0**	0.0	-0.0	-0.0	-139.1	-0.0	**-0.0**	0.0	-0.0	-0.0
Mx,	-139.1	-0.0	-0.0	**0.0**	-0.0	-0.0	-139.1	-0.0	-0.0	**0.0**	-0.0	-0.0
My,	-139.1	-0.0	-0.0	0.0	**-0.0**	-0.0	-139.1	-0.0	-0.0	0.0	**-0.0**	-0.0
Mz,	-139.1	-0.0	-0.0	0.0	-0.0	**-0.0**	-139.1	-0.0	-0.0	0.0	-0.0	**-0.0**
Fx,	**-139.1**	-0.0	-0.0	0.0	-0.0	0.0	**-139.1**	-0.0	-0.0	0.0	-0.0	0.0
Fy,	-139.1	**-0.0**	-0.0	0.0	-0.0	0.0	-139.1	**-0.0**	-0.0	0.0	-0.0	0.0
Fz,	-139.1	-0.0	**-0.0**	0.0	-0.0	0.0	-139.1	-0.0	**-0.0**	0.0	-0.0	0.0
Mx,	-139.1	-0.0	-0.0	**0.0**	-0.0	0.0	-139.1	-0.0	-0.0	**0.0**	-0.0	0.0
My,	-139.1	-0.0	-0.0	0.0	**-0.0**	0.0	-139.1	-0.0	-0.0	0.0	**-0.0**	0.0
Mz,	-139.1	-0.0	-0.0	0.0	-0.0	**0.0**	-139.1	-0.0	-0.0	0.0	-0.0	**0.0**

Member 381

Fx,	**-113.6**	0.0	-0.0	0.0	0.0	0.0	**-113.6**	0.0	-0.0	0.0	0.0	0.0
Fy,	-113.6	**0.0**	-0.0	0.0	0.0	0.0	-113.6	**0.0**	-0.0	0.0	0.0	0.0
Fz,	-113.6	0.0	**-0.0**	0.0	0.0	0.0	-113.6	0.0	**-0.0**	0.0	0.0	0.0
Mx,	-113.6	0.0	-0.0	**0.0**	0.0	0.0	-113.6	0.0	-0.0	**0.0**	0.0	0.0
My,	-113.6	0.0	-0.0	0.0	**0.0**	0.0	-113.6	0.0	-0.0	0.0	**0.0**	0.0
Mz,	-113.6	0.0	-0.0	0.0	0.0	**0.0**	-113.6	0.0	-0.0	0.0	0.0	**0.0**
Fx,	**-113.6**	0.0	-0.0	0.0	0.0	0.0	**-113.6**	0.0	-0.0	0.0	0.0	0.0
Fy,	-113.6	**0.0**	-0.0	0.0	0.0	0.0	-113.6	**0.0**	-0.0	0.0	0.0	0.0
Fz,	-113.6	0.0	**-0.0**	0.0	0.0	0.0	-113.6	0.0	**-0.0**	0.0	0.0	0.0
Mx,	-113.6	0.0	-0.0	**0.0**	0.0	0.0	-113.6	0.0	-0.0	**0.0**	0.0	0.0
My,	-113.6	0.0	-0.0	0.0	**0.0**	0.0	-113.6	0.0	-0.0	0.0	**0.0**	0.0
Mz,	-113.6	0.0	-0.0	0.0	0.0	**0.0**	-113.6	0.0	-0.0	0.0	0.0	**0.0**

Member 382

Fx,	**-44.1**	-0.6	0.0	0.0	-0.0	-1.0	**-44.1**	-0.6	0.0	0.0	-0.0	-1.0
Fy,	-44.1	**-0.6**	0.0	0.0	-0.0	-1.0	-44.1	**-0.6**	0.0	0.0	-0.0	-1.0
Fz,	-44.1	-0.6	**0.0**	0.0	-0.0	-1.0	-44.1	-0.6	**0.0**	0.0	-0.0	-1.0
Mx,	-44.1	-0.6	0.0	**0.0**	-0.0	-1.0	-44.1	-0.6	0.0	**0.0**	-0.0	-1.0
My,	-44.1	-0.6	0.0	0.0	**-0.0**	-1.0	-44.1	-0.6	0.0	0.0	**-0.0**	-1.0
Mz,	-44.1	-0.6	0.0	0.0	-0.0	**-1.0**	-44.1	-0.6	0.0	0.0	-0.0	**-1.0**
Fx,	**-44.1**	-0.6	0.0	0.0	-0.0	-0.0	**-44.1**	-0.6	0.0	0.0	-0.0	-0.0
Fy,	-44.1	**-0.6**	0.0	0.0	-0.0	-0.0	-44.1	**-0.6**	0.0	0.0	-0.0	-0.0
Fz,	-44.1	-0.6	**0.0**	0.0	-0.0	-0.0	-44.1	-0.6	**0.0**	0.0	-0.0	-0.0
Mx,	-44.1	-0.6	0.0	**0.0**	-0.0	-0.0	-44.1	-0.6	0.0	**0.0**	-0.0	-0.0
My,	-44.1	-0.6	0.0	0.0	**-0.0**	-0.0	-44.1	-0.6	0.0	0.0	**-0.0**	-0.0
Mz,	-44.1	-0.6	0.0	0.0	-0.0	**-0.0**	-44.1	-0.6	0.0	0.0	-0.0	**-0.0**

Member 391

Fx,	**-113.3**	0.0	0.0	0.0	0.0	0.0	**-113.3**	0.0	0.0	0.0	0.0	0.0
Fy,	-113.3	**0.0**	0.0	0.0	0.0	0.0	-113.3	**0.0**	0.0	0.0	0.0	0.0
Fz,	-113.3	0.0	**0.0**	0.0	0.0	0.0	-113.3	0.0	**0.0**	0.0	0.0	0.0
Mx,	-113.3	0.0	0.0	**0.0**	0.0	0.0	-113.3	0.0	0.0	**0.0**	0.0	0.0
My,	-113.3	0.0	0.0	0.0	**0.0**	0.0	-113.3	0.0	0.0	0.0	**0.0**	0.0
Mz,	-113.3	0.0	0.0	0.0	0.0	**0.0**	-113.3	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-113.3**	0.0	0.0	0.0	0.1	0.0	**-113.3**	0.0	0.0	0.0	0.1	0.0
Fy,	-113.3	**0.0**	0.0	0.0	0.1	0.0	-113.3	**0.0**	0.0	0.0	0.1	0.0
Fz,	-113.3	0.0	**0.0**	0.0	0.1	0.0	-113.3	0.0	**0.0**	0.0	0.1	0.0
Mx,	-113.3	0.0	0.0	**0.0**	0.1	0.0	-113.3	0.0	0.0	**0.0**	0.1	0.0
My,	-113.3	0.0	0.0	0.0	**0.1**	0.0	-113.3	0.0	0.0	0.0	**0.1**	0.0
Mz,	-113.3	0.0	0.0	0.0	0.1	**0.0**	-113.3	0.0	0.0	0.0	0.1	**0.0**

Member 392

Fx,	**-139.1**	0.0	-0.0	0.0	0.0	0.0	**-139.1**	0.0	-0.0	0.0	0.0	0.0
Fy,	-139.1	**0.0**	-0.0	0.0	0.0	0.0	-139.1	**0.0**	-0.0	0.0	0.0	0.0
Fz,	-139.1	0.0	**-0.0**	0.0	0.0	0.0	-139.1	0.0	**-0.0**	0.0	0.0	0.0
Mx,	-139.1	0.0	-0.0	**0.0**	0.0	0.0	-139.1	0.0	-0.0	**0.0**	0.0	0.0
My,	-139.1	0.0	-0.0	0.0	**0.0**	0.0	-139.1	0.0	-0.0	0.0	**0.0**	0.0
Mz,	-139.1	0.0	-0.0	0.0	0.0	**0.0**	-139.1	0.0	-0.0	0.0	0.0	**0.0**
Fx,	**-139.1**	0.0	-0.0	0.0	-0.0	0.0	**-139.1**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-139.1	**0.0**	-0.0	0.0	-0.0	0.0	-139.1	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-139.1	0.0	**-0.0**	0.0	-0.0	0.0	-139.1	0.0	**-0.0**	0.0	-0.0	0.0
Mx,	-139.1	0.0	-0.0	**0.0**	-0.0	0.0	-139.1	0.0	-0.0	**0.0**	-0.0	0.0
My,	-139.1	0.0	-0.0	0.0	**-0.0**	0.0	-139.1	0.0	-0.0	0.0	**-0.0**	0.0
Mz,	-139.1	0.0	-0.0	0.0	-0.0	**0.0**	-139.1	0.0	-0.0	0.0	-0.0	**0.0**

Member 393

Fx,	**-139.1**	0.0	0.0	0.0	-0.0	0.0	**-139.1**	0.0	0.0	0.0	-0.0	0.0
Fy,	-139.1	**0.0**	0.0	0.0	-0.0	0.0	-139.1	**0.0**	0.0	0.0	-0.0	0.0
Fz,	-139.1	0.0	**0.0**	0.0	-0.0	0.0	-139.1	0.0	**0.0**	0.0	-0.0	0.0
Mx,	-139.1	0.0	0.0	**0.0**	-0.0	0.0	-139.1	0.0	0.0	**0.0**	-0.0	0.0
My,	-139.1	0.0	0.0	0.0	**-0.0**	0.0	-139.1	0.0	0.0	0.0	**-0.0**	0.0
Mz,	-139.1	0.0	0.0	0.0	-0.0	**0.0**	-139.1	0.0	0.0	0.0	-0.0	**0.0**
Fx,	**-139.1**	0.0	0.0	0.0	0.0	0.0	**-139.1**	0.0	0.0	0.0	0.0	0.0
Fy,	-139.1	**0.0**	0.0	0.0	0.0	0.0	-139.1	**0.0**	0.0	0.0	0.0	0.0
Fz,	-139.1	0.0	**0.0**	0.0	0.0	0.0	-139.1	0.0	**0.0**	0.0	0.0	0.0

Mx_f	-139.1	0.0	0.0	**0.0**	0.0	0.0	-139.1	0.0	0.0	**0.0**	0.0	0.0
My_f	-139.1	0.0	0.0	0.0	**0.0**	0.0	-139.1	0.0	0.0	0.0	**0.0**	0.0
Mz_f	-139.1	0.0	0.0	0.0	0.0	**0.0**	-139.1	0.0	0.0	0.0	0.0	**0.0**

Member 394

Fx_i	**-139.1**	0.0	-0.0	0.0	-0.0	0.0	**-139.1**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	-139.1	**0.0**	-0.0	0.0	-0.0	0.0	-139.1	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	-139.1	0.0	**-0.0**	0.0	-0.0	0.0	-139.1	0.0	**-0.0**	0.0	-0.0	0.0
Mx_i	-139.1	0.0	-0.0	**0.0**	-0.0	0.0	-139.1	0.0	-0.0	**0.0**	-0.0	0.0
My_i	-139.1	0.0	-0.0	0.0	**-0.0**	0.0	-139.1	0.0	-0.0	0.0	**-0.0**	0.0
Mz_i	-139.1	0.0	-0.0	0.0	-0.0	**0.0**	-139.1	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-139.1**	0.0	-0.0	0.0	-0.0	0.0	**-139.1**	0.0	-0.0	0.0	-0.0	0.0
Fy_f	-139.1	**0.0**	-0.0	0.0	-0.0	0.0	-139.1	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	-139.1	0.0	**-0.0**	0.0	-0.0	0.0	-139.1	0.0	**-0.0**	0.0	-0.0	0.0
Mx_f	-139.1	0.0	-0.0	**0.0**	-0.0	0.0	-139.1	0.0	-0.0	**0.0**	-0.0	0.0
My_f	-139.1	0.0	-0.0	0.0	**-0.0**	0.0	-139.1	0.0	-0.0	0.0	**-0.0**	0.0
Mz_f	-139.1	0.0	-0.0	0.0	-0.0	**0.0**	-139.1	0.0	-0.0	0.0	-0.0	**0.0**

Member 395

Fx_i	**-139.1**	0.0	-0.0	0.0	-0.0	0.0	**-139.1**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	-139.1	**0.0**	-0.0	0.0	-0.0	0.0	-139.1	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	-139.1	0.0	**-0.0**	0.0	-0.0	0.0	-139.1	0.0	**-0.0**	0.0	-0.0	0.0
Mx_i	-139.1	0.0	-0.0	**0.0**	-0.0	0.0	-139.1	0.0	-0.0	**0.0**	-0.0	0.0
My_i	-139.1	0.0	-0.0	0.0	**-0.0**	0.0	-139.1	0.0	-0.0	0.0	**-0.0**	0.0
Mz_i	-139.1	0.0	-0.0	0.0	-0.0	**0.0**	-139.1	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-139.1**	0.0	-0.0	0.0	-0.0	0.0	**-139.1**	0.0	-0.0	0.0	-0.0	0.0
Fy_f	-139.1	**0.0**	-0.0	0.0	-0.0	0.0	-139.1	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	-139.1	0.0	**-0.0**	0.0	-0.0	0.0	-139.1	0.0	**-0.0**	0.0	-0.0	0.0
Mx_f	-139.1	0.0	-0.0	**0.0**	-0.0	0.0	-139.1	0.0	-0.0	**0.0**	-0.0	0.0
My_f	-139.1	0.0	-0.0	0.0	**-0.0**	0.0	-139.1	0.0	-0.0	0.0	**-0.0**	0.0
Mz_f	-139.1	0.0	-0.0	0.0	-0.0	**0.0**	-139.1	0.0	-0.0	0.0	-0.0	**0.0**

Member 396

Fx_i	**-139.1**	0.0	0.0	0.0	0.0	0.0	**-139.1**	0.0	0.0	0.0	0.0	0.0
Fy_i	-139.1	**0.0**	0.0	0.0	0.0	0.0	-139.1	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-139.1	0.0	**0.0**	0.0	0.0	0.0	-139.1	0.0	**0.0**	0.0	0.0	0.0
Mx_i	-139.1	0.0	0.0	**0.0**	0.0	0.0	-139.1	0.0	0.0	**0.0**	0.0	0.0
My_i	-139.1	0.0	0.0	0.0	**0.0**	0.0	-139.1	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-139.1	0.0	0.0	0.0	0.0	**0.0**	-139.1	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-139.1**	0.0	0.0	0.0	0.0	0.0	**-139.1**	0.0	0.0	0.0	0.0	0.0
Fy_f	-139.1	**0.0**	0.0	0.0	0.0	0.0	-139.1	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-139.1	0.0	**0.0**	0.0	0.0	0.0	-139.1	0.0	**0.0**	0.0	0.0	0.0
Mx_f	-139.1	0.0	0.0	**0.0**	0.0	0.0	-139.1	0.0	0.0	**0.0**	0.0	0.0
My_f	-139.1	0.0	0.0	0.0	**0.0**	0.0	-139.1	0.0	0.0	0.0	**0.0**	0.0
Mz_f	-139.1	0.0	0.0	0.0	0.0	**0.0**	-139.1	0.0	0.0	0.0	0.0	**0.0**

Member 397

Fx_i	**-113.6**	0.0	0.0	0.0	-0.0	0.0	**-113.6**	0.0	0.0	0.0	-0.0	0.0
Fy_i	-113.6	**0.0**	0.0	0.0	-0.0	0.0	-113.6	**0.0**	0.0	0.0	-0.0	0.0
Fz_i	-113.6	0.0	**0.0**	0.0	-0.0	0.0	-113.6	0.0	**0.0**	0.0	-0.0	0.0
Mx_i	-113.6	0.0	0.0	**0.0**	-0.0	0.0	-113.6	0.0	0.0	**0.0**	-0.0	0.0
My_i	-113.6	0.0	0.0	0.0	**-0.0**	0.0	-113.6	0.0	0.0	0.0	**-0.0**	0.0
Mz_i	-113.6	0.0	0.0	0.0	-0.0	**0.0**	-113.6	0.0	0.0	0.0	-0.0	**0.0**
Fx_f	**-113.6**	0.0	0.0	0.0	0.0	0.0	**-113.6**	0.0	0.0	0.0	0.0	0.0
Fy_f	-113.6	**0.0**	0.0	0.0	0.0	0.0	-113.6	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-113.6	0.0	**0.0**	0.0	0.0	0.0	-113.6	0.0	**0.0**	0.0	0.0	0.0
Mx_f	-113.6	0.0	0.0	**0.0**	0.0	0.0	-113.6	0.0	0.0	**0.0**	0.0	0.0
My_f	-113.6	0.0	0.0	0.0	**0.0**	0.0	-113.6	0.0	0.0	0.0	**0.0**	0.0
Mz_f	-113.6	0.0	0.0	0.0	0.0	**0.0**	-113.6	0.0	0.0	0.0	0.0	**0.0**

Member 398

Fx_i	**-113.3**	0.0	-0.0	0.0	-0.0	0.0	**-113.3**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	-113.3	**0.0**	-0.0	0.0	-0.0	0.0	-113.3	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	-113.3	0.0	**-0.0**	0.0	-0.0	0.0	-113.3	0.0	**-0.0**	0.0	-0.0	0.0
Mx_i	-113.3	0.0	-0.0	**0.0**	-0.0	0.0	-113.3	0.0	-0.0	**0.0**	-0.0	0.0
My_i	-113.3	0.0	-0.0	0.0	**-0.0**	0.0	-113.3	0.0	-0.0	0.0	**-0.0**	0.0
Mz_i	-113.3	0.0	-0.0	0.0	-0.0	**0.0**	-113.3	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-113.3**	0.0	-0.0	0.0	-0.1	0.0	**-113.3**	0.0	-0.0	0.0	-0.1	0.0
Fy_f	-113.3	**0.0**	-0.0	0.0	-0.1	0.0	-113.3	**0.0**	-0.0	0.0	-0.1	0.0
Fz_f	-113.3	0.0	**-0.0**	0.0	-0.1	0.0	-113.3	0.0	**-0.0**	0.0	-0.1	0.0
Mx_f	-113.3	0.0	-0.0	**0.0**	-0.1	0.0	-113.3	0.0	-0.0	**0.0**	-0.1	0.0
My_f	-113.3	0.0	-0.0	0.0	**-0.1**	0.0	-113.3	0.0	-0.0	0.0	**-0.1**	0.0
Mz_f	-113.3	0.0	-0.0	0.0	-0.1	**0.0**	-113.3	0.0	-0.0	0.0	-0.1	**0.0**

Member 399

Fx_i	**-139.1**	0.0	0.0	0.0	-0.0	0.0	**-139.1**	0.0	0.0	0.0	-0.0	0.0
Fy_i	-139.1	**0.0**	0.0	0.0	-0.0	0.0	-139.1	**0.0**	0.0	0.0	-0.0	0.0
Fz_i	-139.1	0.0	**0.0**	0.0	-0.0	0.0	-139.1	0.0	**0.0**	0.0	-0.0	0.0
Mx_i	-139.1	0.0	0.0	**0.0**	-0.0	0.0	-139.1	0.0	0.0	**0.0**	-0.0	0.0
My_i	-139.1	0.0	0.0	0.0	**-0.0**	0.0	-139.1	0.0	0.0	0.0	**-0.0**	0.0
Mz_i	-139.1	0.0	0.0	0.0	-0.0	**0.0**	-139.1	0.0	0.0	0.0	-0.0	**0.0**
Fx_f	**-139.1**	0.0	0.0	0.0	0.0	0.0	**-139.1**	0.0	0.0	0.0	0.0	0.0
Fy_f	-139.1	**0.0**	0.0	0.0	0.0	0.0	-139.1	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-139.1	0.0	**0.0**	0.0	0.0	0.0	-139.1	0.0	**0.0**	0.0	0.0	0.0
Mx_f	-139.1	0.0	0.0	**0.0**	0.0	0.0	-139.1	0.0	0.0	**0.0**	0.0	0.0
My_f	-139.1	0.0	0.0	0.0	**0.0**	0.0	-139.1	0.0	0.0	0.0	**0.0**	0.0
Mz_f	-139.1	0.0	0.0	0.0	0.0	**0.0**	-139.1	0.0	0.0	0.0	0.0	**0.0**

Member 400

Fx_i	**-139.1**	0.0	-0.0	0.0	0.0	0.0	**-139.1**	0.0	-0.0	0.0	0.0	0.0
Fy_i	-139.1	**0.0**	-0.0	0.0	0.0	0.0	-139.1	**0.0**	-0.0	0.0	0.0	0.0
Fz_i	-139.1	0.0	**-0.0**	0.0	0.0	0.0	-139.1	0.0	**-0.0**	0.0	0.0	0.0
Mx_i	-139.1	0.0	-0.0	**0.0**	0.0	0.0	-139.1	0.0	-0.0	**0.0**	0.0	0.0
My_i	-139.1	0.0	-0.0	0.0	**0.0**	0.0	-139.1	0.0	-0.0	0.0	**0.0**	0.0
Mz_i	-139.1	0.0	-0.0	0.0	0.0	**0.0**	-139.1	0.0	-0.0	0.0	0.0	**0.0**
Fx_f	**-139.1**	0.0	-0.0	0.0	-0.0	0.0	**-139.1**	0.0	-0.0	0.0	-0.0	0.0
Fy_f	-139.1	**0.0**	-0.0	0.0	-0.0	0.0	-139.1	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	-139.1	0.0	**-0.0**	0.0	-0.0	0.0	-139.1	0.0	**-0.0**	0.0	-0.0	0.0
Mx_f	-139.1	0.0	-0.0	**0.0**	-0.0	0.0	-139.1	0.0	-0.0	**0.0**	-0.0	0.0
My_f	-139.1	0.0	-0.0	0.0	**-0.0**	0.0	-139.1	0.0	-0.0	0.0	**-0.0**	0.0
Mz_f	-139.1	0.0	-0.0	0.0	-0.0	**0.0**	-139.1	0.0	-0.0	0.0	-0.0	**0.0**

Member 401

Fx_i	**-139.1**	0.0	0.0	0.0	0.0	0.0	**-139.1**	0.0	0.0	0.0	0.0	0.0
Fy_i	-139.1	**0.0**	0.0	0.0	0.0	0.0	-139.1	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-139.1	0.0	**0.0**	0.0	0.0	0.0	-139.1	0.0	**0.0**	0.0	0.0	0.0
Mx_i	-139.1	0.0	0.0	**0.0**	0.0	0.0	-139.1	0.0	0.0	**0.0**	0.0	0.0
My_i	-139.1	0.0	0.0	0.0	**0.0**	0.0	-139.1	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-139.1	0.0	0.0	0.0	0.0	**0.0**	-139.1	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-139.1**	0.0	0.0	0.0	0.0	0.0	**-139.1**	0.0	0.0	0.0	0.0	0.0
Fy_f	-139.1	**0.0**	0.0	0.0	0.0	0.0	-139.1	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-139.1	0.0	**0.0**	0.0	0.0	0.0	-139.1	0.0	**0.0**	0.0	0.0	0.0
Mx_f	-139.1	0.0	0.0	**0.0**	0.0	0.0	-139.1	0.0	0.0	**0.0**	0.0	0.0
My_f	-139.1	0.0	0.0	0.0	**0.0**	0.0	-139.1	0.0	0.0	0.0	**0.0**	0.0
Mz_f	-139.1	0.0	0.0	0.0	0.0	**0.0**	-139.1	0.0	0.0	0.0	0.0	**0.0**

Member 402

Fx_i	**-139.1**	0.0	0.0	0.0	0.0	0.0	**-139.1**	0.0	0.0	0.0	0.0	0.0
Fy_i	-139.1	**0.0**	0.0	0.0	0.0	0.0	-139.1	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-139.1	0.0	**0.0**	0.0	0.0	0.0	-139.1	0.0	**0.0**	0.0	0.0	0.0
Mx_i	-139.1	0.0	0.0	**0.0**	0.0	0.0	-139.1	0.0	0.0	**0.0**	0.0	0.0
My_i	-139.1	0.0	0.0	0.0	**0.0**	0.0	-139.1	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-139.1	0.0	0.0	0.0	0.0	**0.0**	-139.1	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-139.1**	0.0	0.0	0.0	0.0	0.0	**-139.1**	0.0	0.0	0.0	0.0	0.0
Fy_f	-139.1	**0.0**	0.0	0.0	0.0	0.0	-139.1	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-139.1	0.0	**0.0**	0.0	0.0	0.0	-139.1	0.0	**0.0**	0.0	0.0	0.0
Mx_f	-139.1	0.0	0.0	**0.0**	0.0	0.0	-139.1	0.0	0.0	**0.0**	0.0	0.0
My_f	-139.1	0.0	0.0	0.0	**0.0**	0.0	-139.1	0.0	0.0	0.0	**0.0**	0.0
Mz_f	-139.1	0.0	0.0	0.0	0.0	**0.0**	-139.1	0.0	0.0	0.0	0.0	**0.0**

Member 403

Fx,	**-139.1**	0.0	-0.0	0.0	-0.0	0.0	**-139.1**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-139.1	**0.0**	-0.0	0.0	-0.0	0.0	-139.1	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-139.1	0.0	**-0.0**	0.0	-0.0	0.0	-139.1	0.0	**-0.0**	0.0	-0.0	0.0
Mx,	-139.1	0.0	-0.0	**0.0**	-0.0	0.0	-139.1	0.0	-0.0	**0.0**	-0.0	0.0
My,	-139.1	0.0	-0.0	0.0	**-0.0**	0.0	-139.1	0.0	-0.0	0.0	**-0.0**	0.0
Mz,	-139.1	0.0	-0.0	0.0	-0.0	**0.0**	-139.1	0.0	-0.0	0.0	-0.0	**0.0**
Fx,	**-139.1**	0.0	-0.0	0.0	-0.0	0.0	**-139.1**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-139.1	**0.0**	-0.0	0.0	-0.0	0.0	-139.1	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-139.1	0.0	**-0.0**	0.0	-0.0	0.0	-139.1	0.0	**-0.0**	0.0	-0.0	0.0
Mx,	-139.1	0.0	-0.0	**0.0**	-0.0	0.0	-139.1	0.0	-0.0	**0.0**	-0.0	0.0
My,	-139.1	0.0	-0.0	0.0	**-0.0**	0.0	-139.1	0.0	-0.0	0.0	**-0.0**	0.0
Mz,	-139.1	0.0	-0.0	0.0	-0.0	**0.0**	-139.1	0.0	-0.0	0.0	-0.0	**0.0**

Member 404

Fx,	**-113.6**	0.0	-0.0	0.0	0.0	0.0	**-113.6**	0.0	-0.0	0.0	**0.0**	0.0
Fy,	-113.6	**0.0**	-0.0	0.0	0.0	0.0	-113.6	**0.0**	-0.0	0.0	0.0	0.0
Fz,	-113.6	0.0	**-0.0**	0.0	0.0	0.0	-113.6	0.0	**-0.0**	0.0	0.0	0.0
Mx,	-113.6	0.0	-0.0	**0.0**	0.0	0.0	-113.6	0.0	-0.0	**0.0**	0.0	0.0
My,	-113.6	0.0	-0.0	0.0	**0.0**	0.0	-113.6	0.0	-0.0	0.0	**0.0**	0.0
Mz,	-113.6	0.0	-0.0	0.0	0.0	**0.0**	-113.6	0.0	-0.0	0.0	0.0	**0.0**
Fx,	**-113.6**	0.0	-0.0	0.0	-0.0	0.0	**-113.6**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-113.6	**0.0**	-0.0	0.0	-0.0	0.0	-113.6	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-113.6	0.0	**-0.0**	0.0	-0.0	0.0	-113.6	0.0	**-0.0**	0.0	-0.0	0.0
Mx,	-113.6	0.0	-0.0	**0.0**	-0.0	0.0	-113.6	0.0	-0.0	**0.0**	-0.0	0.0
My,	-113.6	0.0	-0.0	0.0	**-0.0**	0.0	-113.6	0.0	-0.0	0.0	**-0.0**	0.0
Mz,	-113.6	0.0	-0.0	0.0	-0.0	**0.0**	-113.6	0.0	-0.0	0.0	-0.0	**0.0**

Member 421

Fx,	**-226.7**	0.0	0.0	0.0	0.0	0.0	**-226.7**	0.0	0.0	0.0	0.0	0.0
Fy,	-226.7	**0.0**	0.0	0.0	0.0	0.0	-226.7	**0.0**	0.0	0.0	0.0	0.0
Fz,	-226.7	0.0	**0.0**	0.0	0.0	0.0	-226.7	0.0	**0.0**	0.0	0.0	0.0
Mx,	-226.7	0.0	0.0	**0.0**	0.0	0.0	-226.7	0.0	0.0	**0.0**	0.0	0.0
My,	-226.7	0.0	0.0	0.0	**0.0**	0.0	-226.7	0.0	0.0	0.0	**0.0**	0.0
Mz,	-226.7	0.0	0.0	0.0	0.0	**0.0**	-226.7	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-226.7**	0.0	0.0	0.0	0.0	0.0	**-226.7**	0.0	0.0	0.0	0.0	0.0
Fy,	-226.7	**0.0**	0.0	0.0	0.0	0.0	-226.7	**0.0**	0.0	0.0	0.0	0.0
Fz,	-226.7	0.0	**0.0**	0.0	0.0	0.0	-226.7	0.0	**0.0**	0.0	0.0	0.0
Mx,	-226.7	0.0	0.0	**0.0**	0.0	0.0	-226.7	0.0	0.0	**0.0**	0.0	0.0
My,	-226.7	0.0	0.0	0.0	**0.0**	0.0	-226.7	0.0	0.0	0.0	**0.0**	0.0
Mz,	-226.7	0.0	0.0	0.0	0.0	**0.0**	-226.7	0.0	0.0	0.0	0.0	**0.0**

Member 422

Fx,	**-278.3**	0.0	-0.0	0.0	0.0	0.0	**-278.3**	0.0	-0.0	0.0	0.0	0.0
Fy,	-278.3	**0.0**	-0.0	0.0	0.0	0.0	-278.3	**0.0**	-0.0	0.0	0.0	0.0
Fz,	-278.3	0.0	**-0.0**	0.0	0.0	0.0	-278.3	0.0	**-0.0**	0.0	0.0	0.0
Mx,	-278.3	0.0	-0.0	**0.0**	0.0	0.0	-278.3	0.0	-0.0	**0.0**	0.0	0.0
My,	-278.3	0.0	-0.0	0.0	**0.0**	0.0	-278.3	0.0	-0.0	0.0	**0.0**	0.0
Mz,	-278.3	0.0	-0.0	0.0	0.0	**0.0**	-278.3	0.0	-0.0	0.0	0.0	**0.0**
Fx,	**-278.3**	0.0	-0.0	0.0	0.0	0.0	**-278.3**	0.0	-0.0	0.0	0.0	0.0
Fy,	-278.3	**0.0**	-0.0	0.0	0.0	0.0	-278.3	**0.0**	-0.0	0.0	0.0	0.0
Fz,	-278.3	0.0	**-0.0**	0.0	0.0	0.0	-278.3	0.0	**-0.0**	0.0	0.0	0.0
Mx,	-278.3	0.0	-0.0	**0.0**	0.0	0.0	-278.3	0.0	-0.0	**0.0**	0.0	0.0
My,	-278.3	0.0	-0.0	0.0	**0.0**	0.0	-278.3	0.0	-0.0	0.0	**0.0**	0.0
Mz,	-278.3	0.0	-0.0	0.0	0.0	**0.0**	-278.3	0.0	-0.0	0.0	0.0	**0.0**

Member 423

Fx,	**-278.3**	0.0	0.0	0.0	0.0	0.0	**-278.3**	0.0	0.0	0.0	0.0	0.0
Fy,	-278.3	**0.0**	0.0	0.0	0.0	0.0	-278.3	**0.0**	0.0	0.0	0.0	0.0
Fz,	-278.3	0.0	**0.0**	0.0	0.0	0.0	-278.3	0.0	**0.0**	0.0	0.0	0.0
Mx,	-278.3	0.0	0.0	**0.0**	0.0	0.0	-278.3	0.0	0.0	**0.0**	0.0	0.0
My,	-278.3	0.0	0.0	0.0	**0.0**	0.0	-278.3	0.0	0.0	0.0	**0.0**	0.0
Mz,	-278.3	0.0	0.0	0.0	0.0	**0.0**	-278.3	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-278.3**	0.0	0.0	0.0	0.0	0.0	**-278.3**	0.0	0.0	0.0	0.0	0.0
Fy,	-278.3	**0.0**	0.0	0.0	0.0	0.0	-278.3	**0.0**	0.0	0.0	0.0	0.0
Fz,	-278.3	0.0	**0.0**	0.0	0.0	0.0	-278.3	0.0	**0.0**	0.0	0.0	0.0
Mx,	-278.3	0.0	0.0	**0.0**	0.0	0.0	-278.3	0.0	0.0	**0.0**	0.0	0.0
My,	-278.3	0.0	0.0	0.0	**0.0**	0.0	-278.3	0.0	0.0	0.0	**0.0**	0.0
Mz,	-278.3	0.0	0.0	0.0	0.0	**0.0**	-278.3	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-278.3**	0.0	0.0	0.0	0.0	0.0	**-278.3**	0.0	0.0	0.0	0.0	0.0
Fy,	-278.3	**0.0**	0.0	0.0	0.0	0.0	-278.3	**0.0**	0.0	0.0	0.0	0.0
Fz,	-278.3	0.0	**0.0**	0.0	0.0	0.0	-278.3	0.0	**0.0**	0.0	0.0	0.0
Mx,	-278.3	0.0	0.0	**0.0**	0.0	0.0	-278.3	0.0	0.0	**0.0**	0.0	0.0
My,	-278.3	0.0	0.0	0.0	**0.0**	0.0	-278.3	0.0	0.0	0.0	**0.0**	0.0
Mz,	-278.3	0.0	0.0	0.0	0.0	**0.0**	-278.3	0.0	0.0	0.0	0.0	**0.0**

Member 424

Fx,	**-278.3**	0.0	0.0	0.0	0.0	0.0	**-278.3**	0.0	0.0	0.0	0.0	0.0
Fy,	-278.3	**0.0**	0.0	0.0	0.0	0.0	-278.3	**0.0**	0.0	0.0	0.0	0.0
Fz,	-278.3	0.0	**0.0**	0.0	0.0	0.0	-278.3	0.0	**0.0**	0.0	0.0	0.0
Mx,	-278.3	0.0	0.0	**0.0**	0.0	0.0	-278.3	0.0	0.0	**0.0**	0.0	0.0
My,	-278.3	0.0	0.0	0.0	**0.0**	0.0	-278.3	0.0	0.0	0.0	**0.0**	0.0
Mz,	-278.3	0.0	0.0	0.0	0.0	**0.0**	-278.3	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-278.3**	0.0	0.0	0.0	0.0	0.0	**-278.3**	0.0	0.0	0.0	0.0	0.0
Fy,	-278.3	**0.0**	0.0	0.0	0.0	0.0	-278.3	**0.0**	0.0	0.0	0.0	0.0
Fz,	-278.3	0.0	**0.0**	0.0	0.0	0.0	-278.3	0.0	**0.0**	0.0	0.0	0.0
Mx,	-278.3	0.0	0.0	**0.0**	0.0	0.0	-278.3	0.0	0.0	**0.0**	0.0	0.0
My,	-278.3	0.0	0.0	0.0	**0.0**	0.0	-278.3	0.0	0.0	0.0	**0.0**	0.0
Mz,	-278.3	0.0	0.0	0.0	0.0	**0.0**	-278.3	0.0	0.0	0.0	0.0	**0.0**

Member 425

Fx,	**-278.3**	0.0	0.0	0.0	0.0	0.0	**-278.3**	0.0	0.0	0.0	0.0	0.0
Fy,	-278.3	**0.0**	0.0	0.0	0.0	0.0	-278.3	**0.0**	0.0	0.0	0.0	0.0
Fz,	-278.3	0.0	**0.0**	0.0	0.0	0.0	-278.3	0.0	**0.0**	0.0	0.0	0.0
Mx,	-278.3	0.0	0.0	**0.0**	0.0	0.0	-278.3	0.0	0.0	**0.0**	0.0	0.0
My,	-278.3	0.0	0.0	0.0	**0.0**	0.0	-278.3	0.0	0.0	0.0	**0.0**	0.0
Mz,	-278.3	0.0	0.0	0.0	0.0	**0.0**	-278.3	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-278.3**	0.0	0.0	0.0	0.0	0.0	**-278.3**	0.0	0.0	0.0	0.0	0.0
Fy,	-278.3	**0.0**	0.0	0.0	0.0	0.0	-278.3	**0.0**	0.0	0.0	0.0	0.0
Fz,	-278.3	0.0	**0.0**	0.0	0.0	0.0	-278.3	0.0	**0.0**	0.0	0.0	0.0
Mx,	-278.3	0.0	0.0	**0.0**	0.0	0.0	-278.3	0.0	0.0	**0.0**	0.0	0.0
My,	-278.3	0.0	0.0	0.0	**0.0**	0.0	-278.3	0.0	0.0	0.0	**0.0**	0.0
Mz,	-278.3	0.0	0.0	0.0	0.0	**0.0**	-278.3	0.0	0.0	0.0	0.0	**0.0**

Member 426

Fx,	**-278.3**	0.0	0.0	0.0	-0.0	0.0	**-278.3**	0.0	0.0	0.0	-0.0	0.0
Fy,	-278.3	**0.0**	0.0	0.0	-0.0	0.0	-278.3	**0.0**	0.0	0.0	-0.0	0.0
Fz,	-278.3	0.0	**0.0**	0.0	-0.0	0.0	-278.3	0.0	**0.0**	0.0	-0.0	0.0
Mx,	-278.3	0.0	0.0	**0.0**	-0.0	0.0	-278.3	0.0	0.0	**0.0**	-0.0	0.0
My,	-278.3	0.0	0.0	0.0	**-0.0**	0.0	-278.3	0.0	0.0	0.0	**-0.0**	0.0
Mz,	-278.3	0.0	0.0	0.0	-0.0	**0.0**	-278.3	0.0	0.0	0.0	-0.0	**0.0**
Fx,	**-278.3**	0.0	0.0	0.0	-0.0	0.0	**-278.3**	0.0	0.0	0.0	-0.0	0.0
Fy,	-278.3	**0.0**	0.0	0.0	-0.0	0.0	-278.3	**0.0**	0.0	0.0	-0.0	0.0
Fz,	-278.3	0.0	**0.0**	0.0	-0.0	0.0	-278.3	0.0	**0.0**	0.0	-0.0	0.0
Mx,	-278.3	0.0	0.0	**0.0**	-0.0	0.0	-278.3	0.0	0.0	**0.0**	-0.0	0.0
My,	-278.3	0.0	0.0	0.0	**-0.0**	0.0	-278.3	0.0	0.0	0.0	**-0.0**	0.0
Mz,	-278.3	0.0	0.0	0.0	-0.0	**0.0**	-278.3	0.0	0.0	0.0	-0.0	**0.0**

Member 427

Fx,	**-227.1**	0.0	-0.0	0.0	0.0	0.0	**-227.1**	0.0	-0.0	0.0	0.0	0.0
Fy,	-227.1	**0.0**	-0.0	0.0	0.0	0.0	-227.1	**0.0**	-0.0	0.0	0.0	0.0
Fz,	-227.1	0.0	**-0.0**	0.0	0.0	0.0	-227.1	0.0	**-0.0**	0.0	0.0	0.0
Mx,	-227.1	0.0	-0.0	**0.0**	0.0	0.0	-227.1	0.0	-0.0	**0.0**	0.0	0.0
My,	-227.1	0.0	-0.0	0.0	**0.0**	0.0	-227.1	0.0	-0.0	0.0	**0.0**	0.0
Mz,	-227.1	0.0	-0.0	0.0	0.0	**0.0**	-227.1	0.0	-0.0	0.0	0.0	**0.0**
Fx,	**-227.1**	0.0	-0.0	0.0	0.0	0.0	**-227.1**	0.0	-0.0	0.0	0.0	0.0
Fy,	-227.1	**0.0**	-0.0	0.0	0.0	0.0	-227.1	**0.0**	-0.0	0.0	0.0	0.0
Fz,	-227.1	0.0	**-0.0**	0.0	0.0	0.0	-227.1	0.0	**-0.0**	0.0	0.0	0.0
Mx,	-227.1	0.0	-0.0	**0.0**	0.0	0.0	-227.1	0.0	-0.0	**0.0**	0.0	0.0
My,	-227.1	0.0	-0.0	0.0	**0.0**	0.0	-227.1	0.0	-0.0	0.0	**0.0**	0.0
Mz,	-227.1	0.0	-0.0	0.0	0.0	**0.0**	-227.1	0.0	-0.0	0.0	0.0	**0.0**

DISPLACEMENTS

	x	y	z	x	y	z	x	y	z	x	y	z

Joint 1

x	**-0.0**	-0.0	0.0	0.1	-0.1	-182.6	**-0.0**	-0.0	0.0	0.1	-0.1	-182.6
y	-0.0	**-0.0**	0.0	0.1	-0.1	-182.6	-0.0	**-0.0**	0.0	0.1	-0.1	-182.6

z	-0.0	-0.0	**0.0**	0.1	-0.1	-182.6	-0.0	-0.0	**0.0**	0.1	-0.1	-182.6
x	-0.0	-0.0	0.0	**0.1**	-0.1	-182.6	-0.0	-0.0	0.0	**0.1**	-0.1	-182.6
y	-0.0	-0.0	0.0	0.1	**-0.1**	-182.6	-0.0	-0.0	0.0	0.1	**-0.1**	-182.6
z	-0.0	-0.0	0.0	0.1	-0.1	**-182.6**	-0.0	-0.0	0.0	0.1	-0.1	**-182.6**

Joint 2

x	**-0.0**	-0.6	0.0	0.1	-0.1	-157.1	**-0.0**	-0.6	0.0	0.1	-0.1	-157.1
y	-0.0	**-0.6**	0.0	0.1	-0.1	-157.1	-0.0	**-0.6**	0.0	0.1	-0.1	-157.1
z	-0.0	-0.6	**0.0**	0.1	-0.1	-157.1	-0.0	-0.6	**0.0**	0.1	-0.1	-157.1
x	-0.0	-0.6	0.0	**0.1**	-0.1	-157.1	-0.0	-0.6	0.0	**0.1**	-0.1	-157.1
y	-0.0	-0.6	0.0	0.1	**-0.1**	-157.1	-0.0	-0.6	0.0	0.1	**-0.1**	-157.1
z	-0.0	-0.6	0.0	0.1	-0.1	**-157.1**	-0.0	-0.6	0.0	0.1	-0.1	**-157.1**

Joint 3

x	**-0.0**	-1.1	0.0	0.1	-0.1	-90.8	**-0.0**	-1.1	0.0	0.1	-0.1	-90.8
y	-0.0	**-1.1**	0.0	0.1	-0.1	-90.8	-0.0	**-1.1**	0.0	0.1	-0.1	-90.8
z	-0.0	-1.1	**0.0**	0.1	-0.1	-90.8	-0.0	-1.1	**0.0**	0.1	-0.1	-90.8
x	-0.0	-1.1	0.0	**0.1**	-0.1	-90.8	-0.0	-1.1	0.0	**0.1**	-0.1	-90.8
y	-0.0	-1.1	0.0	0.1	**-0.1**	-90.8	-0.0	-1.1	0.0	0.1	**-0.1**	-90.8
z	-0.0	-1.1	0.0	0.1	-0.1	**-90.8**	-0.0	-1.1	0.0	0.1	-0.1	**-90.8**

Joint 4

x	**-0.0**	-1.3	0.0	0.1	-0.1	-14.0	**-0.0**	-1.3	0.0	0.1	-0.1	-14.0
y	-0.0	**-1.3**	0.0	0.1	-0.1	-14.0	-0.0	**-1.3**	0.0	0.1	-0.1	-14.0
z	-0.0	-1.3	**0.0**	0.1	-0.1	-14.0	-0.0	-1.3	**0.0**	0.1	-0.1	-14.0
x	-0.0	-1.3	0.0	**0.1**	-0.1	-14.0	-0.0	-1.3	0.0	**0.1**	-0.1	-14.0
y	-0.0	-1.3	0.0	0.1	**-0.1**	-14.0	-0.0	-1.3	0.0	0.1	**-0.1**	-14.0
z	-0.0	-1.3	0.0	0.1	-0.1	**-14.0**	-0.0	-1.3	0.0	0.1	-0.1	**-14.0**

Joint 5

x	**-0.0**	-1.2	0.0	0.1	-0.1	71.7	**-0.0**	-1.2	0.0	0.1	-0.1	71.7
y	-0.0	**-1.2**	0.0	0.1	-0.1	71.7	-0.0	**-1.2**	0.0	0.1	-0.1	71.7
z	-0.0	-1.2	**0.0**	0.1	-0.1	71.7	-0.0	-1.2	**0.0**	0.1	-0.1	71.7
x	-0.0	-1.2	0.0	**0.1**	-0.1	71.7	-0.0	-1.2	0.0	**0.1**	-0.1	71.7
y	-0.0	-1.2	0.0	0.1	**-0.1**	71.7	-0.0	-1.2	0.0	0.1	**-0.1**	71.7
z	-0.0	-1.2	0.0	0.1	-0.1	**71.7**	-0.0	-1.2	0.0	0.1	-0.1	**71.7**

Joint 6

x	**-0.0**	-0.8	0.0	0.1	-0.1	139.0	**-0.0**	-0.8	0.0	0.1	-0.1	139.0
y	-0.0	**-0.8**	0.0	0.1	-0.1	139.0	-0.0	**-0.8**	0.0	0.1	-0.1	139.0
z	-0.0	-0.8	**0.0**	0.1	-0.1	139.0	-0.0	-0.8	**0.0**	0.1	-0.1	139.0
x	-0.0	-0.8	0.0	**0.1**	-0.1	139.0	-0.0	-0.8	0.0	**0.1**	-0.1	139.0
y	-0.0	-0.8	0.0	0.1	**-0.1**	139.0	-0.0	-0.8	0.0	0.1	**-0.1**	139.0
z	-0.0	-0.8	0.0	0.1	-0.1	**139.0**	-0.0	-0.8	0.0	0.1	-0.1	**139.0**

Joint 7

x	**-0.0**	-0.2	0.0	0.1	-0.1	-779.6	**-0.0**	-0.2	0.0	0.1	-0.1	-779.6
y	-0.0	**-0.2**	0.0	0.1	-0.1	-779.6	-0.0	**-0.2**	0.0	0.1	-0.1	-779.6
z	-0.0	-0.2	**0.0**	0.1	-0.1	-779.6	-0.0	-0.2	**0.0**	0.1	-0.1	-779.6
x	-0.0	-0.2	0.0	**0.1**	-0.1	-779.6	-0.0	-0.2	0.0	**0.1**	-0.1	-779.6
y	-0.0	-0.2	0.0	0.1	**-0.1**	-779.6	-0.0	-0.2	0.0	0.1	**-0.1**	-779.6
z	-0.0	-0.2	0.0	0.1	-0.1	**-779.6**	-0.0	-0.2	0.0	0.1	-0.1	**-779.6**

Joint 8

x	**-0.0**	-3.5	0.0	0.2	-0.1	-668.4	**-0.0**	-3.5	0.0	0.2	-0.1	-668.4
y	-0.0	**-3.5**	0.0	0.2	-0.1	-668.4	-0.0	**-3.5**	0.0	0.2	-0.1	-668.4
z	-0.0	-3.5	**0.0**	0.2	-0.1	-668.4	-0.0	-3.5	**0.0**	0.2	-0.1	-668.4
x	-0.0	-3.5	0.0	**0.2**	-0.1	-668.4	-0.0	-3.5	0.0	**0.2**	-0.1	-668.4
y	-0.0	-3.5	0.0	0.2	**-0.1**	-668.4	-0.0	-3.5	0.0	0.2	**-0.1**	-668.4
z	-0.0	-3.5	0.0	0.2	-0.1	**-668.4**	-0.0	-3.5	0.0	0.2	-0.1	**-668.4**

Joint 9

x	**-0.0**	-6.1	0.0	0.2	-0.1	-492.9	**-0.0**	-6.1	0.0	0.2	-0.1	-492.9
y	-0.0	**-6.1**	0.0	0.2	-0.1	-492.9	-0.0	**-6.1**	0.0	0.2	-0.1	-492.9
z	-0.0	-6.1	**0.0**	0.2	-0.1	-492.9	-0.0	-6.1	**0.0**	0.2	-0.1	-492.9
x	-0.0	-6.1	0.0	**0.2**	-0.1	-492.9	-0.0	-6.1	0.0	**0.2**	-0.1	-492.9
y	-0.0	-6.1	0.0	0.2	**-0.1**	-492.9	-0.0	-6.1	0.0	0.2	**-0.1**	-492.9
z	-0.0	-6.1	0.0	0.2	-0.1	**-492.9**	-0.0	-6.1	0.0	0.2	-0.1	**-492.9**

Joint 10

x	**-0.0**	-7.8	0.0	0.2	-0.1	-249.6	**-0.0**	-7.8	0.0	0.2	-0.1	-249.6
y	-0.0	**-7.8**	0.0	0.2	-0.1	-249.6	-0.0	**-7.8**	0.0	0.2	-0.1	-249.6
z	-0.0	-7.8	**0.0**	0.2	-0.1	-249.6	-0.0	-7.8	**0.0**	0.2	-0.1	-249.6
x	-0.0	-7.8	0.0	**0.2**	-0.1	-249.6	-0.0	-7.8	0.0	**0.2**	-0.1	-249.6
y	-0.0	-7.8	0.0	0.2	**-0.1**	-249.6	-0.0	-7.8	0.0	0.2	**-0.1**	-249.6
z	-0.0	-7.8	0.0	0.2	-0.1	**-249.6**	-0.0	-7.8	0.0	0.2	-0.1	**-249.6**

Joint 11

x	**-0.0**	-8.4	0.0	0.2	-0.0	-0.6	**-0.0**	-8.4	0.0	0.2	-0.0	-0.6
y	-0.0	**-8.4**	0.0	0.2	-0.0	-0.6	-0.0	**-8.4**	0.0	0.2	-0.0	-0.6
z	-0.0	-8.4	**0.0**	0.2	-0.0	-0.6	-0.0	-8.4	**0.0**	0.2	-0.0	-0.6
x	-0.0	-8.4	0.0	**0.2**	-0.0	-0.6	-0.0	-8.4	0.0	**0.2**	-0.0	-0.6
y	-0.0	-8.4	0.0	0.2	**-0.0**	-0.6	-0.0	-8.4	0.0	0.2	**-0.0**	-0.6
z	-0.0	-8.4	0.0	0.2	-0.0	**-0.6**	-0.0	-8.4	0.0	0.2	-0.0	**-0.6**

Joint 12

x	**-0.0**	-7.8	0.0	0.3	-0.0	248.3	**-0.0**	-7.8	0.0	0.3	-0.0	248.3
y	-0.0	**-7.8**	0.0	0.3	-0.0	248.3	-0.0	**-7.8**	0.0	0.3	-0.0	248.3
z	-0.0	-7.8	**0.0**	0.3	-0.0	248.3	-0.0	-7.8	**0.0**	0.3	-0.0	248.3
x	-0.0	-7.8	0.0	**0.3**	-0.0	248.3	-0.0	-7.8	0.0	**0.3**	-0.0	248.3
y	-0.0	-7.8	0.0	0.3	**-0.0**	248.3	-0.0	-7.8	0.0	0.3	**-0.0**	248.3
z	-0.0	-7.8	0.0	0.3	-0.0	**248.3**	-0.0	-7.8	0.0	0.3	-0.0	**248.3**

Joint 13

x	**-0.0**	-6.2	0.0	0.3	-0.0	491.6	**-0.0**	-6.2	0.0	0.3	-0.0	491.6
y	-0.0	**-6.2**	0.0	0.3	-0.0	491.6	-0.0	**-6.2**	0.0	0.3	-0.0	491.6
z	-0.0	-6.2	**0.0**	0.3	-0.0	491.6	-0.0	-6.2	**0.0**	0.3	-0.0	491.6
x	-0.0	-6.2	0.0	**0.3**	-0.0	491.6	-0.0	-6.2	0.0	**0.3**	-0.0	491.6
y	-0.0	-6.2	0.0	0.3	**-0.0**	491.6	-0.0	-6.2	0.0	0.3	**-0.0**	491.6
z	-0.0	-6.2	0.0	0.3	-0.0	**491.6**	-0.0	-6.2	0.0	0.3	-0.0	**491.6**

Joint 14

x	**-0.0**	-3.5	0.0	0.3	-0.0	667.1	**-0.0**	-3.5	0.0	0.3	-0.0	667.1
y	-0.0	**-3.5**	0.0	0.3	-0.0	667.1	-0.0	**-3.5**	0.0	0.3	-0.0	667.1
z	-0.0	-3.5	**0.0**	0.3	-0.0	667.1	-0.0	-3.5	**0.0**	0.3	-0.0	667.1
x	-0.0	-3.5	0.0	**0.3**	-0.0	667.1	-0.0	-3.5	0.0	**0.3**	-0.0	667.1
y	-0.0	-3.5	0.0	0.3	**-0.0**	667.1	-0.0	-3.5	0.0	0.3	**-0.0**	667.1
z	-0.0	-3.5	0.0	0.3	-0.0	**667.1**	-0.0	-3.5	0.0	0.3	-0.0	**667.1**

Joint 15

x	**-0.0**	-0.2	0.0	0.3	-0.0	-780.4	**-0.0**	-0.2	0.0	0.3	-0.0	-780.4
y	-0.0	**-0.2**	0.0	0.3	-0.0	-780.4	-0.0	**-0.2**	0.0	0.3	-0.0	-780.4
z	-0.0	-0.2	**0.0**	0.3	-0.0	-780.4	-0.0	-0.2	**0.0**	0.3	-0.0	-780.4
x	-0.0	-0.2	0.0	**0.3**	-0.0	-780.4	-0.0	-0.2	0.0	**0.3**	-0.0	-780.4
y	-0.0	-0.2	0.0	0.3	**-0.0**	-780.4	-0.0	-0.2	0.0	0.3	**-0.0**	-780.4
z	-0.0	-0.2	0.0	0.3	-0.0	**-780.4**	-0.0	-0.2	0.0	0.3	-0.0	**-780.4**

Joint 16

x	**-0.0**	-3.5	0.0	0.3	-0.0	-669.1	**-0.0**	-3.5	0.0	0.3	-0.0	-669.1
y	-0.0	**-3.5**	0.0	0.3	-0.0	-669.1	-0.0	**-3.5**	0.0	0.3	-0.0	-669.1
z	-0.0	-3.5	**0.0**	0.3	-0.0	-669.1	-0.0	-3.5	**0.0**	0.3	-0.0	-669.1
x	-0.0	-3.5	0.0	**0.3**	-0.0	-669.1	-0.0	-3.5	0.0	**0.3**	-0.0	-669.1
y	-0.0	-3.5	0.0	0.3	**-0.0**	-669.1	-0.0	-3.5	0.0	0.3	**-0.0**	-669.1
z	-0.0	-3.5	0.0	0.3	-0.0	**-669.1**	-0.0	-3.5	0.0	0.3	-0.0	**-669.1**

Joint 17

x	**-0.0**	-6.2	0.0	0.3	-0.0	-493.7	**-0.0**	-6.2	0.0	0.3	-0.0	-493.7
y	-0.0	**-6.2**	0.0	0.3	-0.0	-493.7	-0.0	**-6.2**	0.0	0.3	-0.0	-493.7
z	-0.0	-6.2	**0.0**	0.3	-0.0	-493.7	-0.0	-6.2	**0.0**	0.3	-0.0	-493.7
x	-0.0	-6.2	0.0	**0.3**	-0.0	-493.7	-0.0	-6.2	0.0	**0.3**	-0.0	-493.7
y	-0.0	-6.2	0.0	0.3	**-0.0**	-493.7	-0.0	-6.2	0.0	0.3	**-0.0**	-493.7
z	-0.0	-6.2	0.0	0.3	-0.0	**-493.7**	-0.0	-6.2	0.0	0.3	-0.0	**-493.7**

Joint 18

x	**-0.0**	-7.9	0.0	0.3	-0.0	-250.3	**-0.0**	-7.9	0.0	0.3	-0.0	-250.3
y	-0.0	**-7.9**	0.0	0.3	-0.0	-250.3	-0.0	**-7.9**	0.0	0.3	-0.0	-250.3
z	-0.0	-7.9	**0.0**	0.3	-0.0	-250.3	-0.0	-7.9	**0.0**	0.3	-0.0	-250.3
x	-0.0	-7.9	0.0	**0.3**	-0.0	-250.3	-0.0	-7.9	0.0	**0.3**	-0.0	-250.3
y	-0.0	-7.9	0.0	0.3	**-0.0**	-250.3	-0.0	-7.9	0.0	0.3	**-0.0**	-250.3
z	-0.0	-7.9	0.0	0.3	-0.0	**-250.3**	-0.0	-7.9	0.0	0.3	-0.0	**-250.3**

Joint 19

x	**-0.0**	-8.4	0.0	0.3	-0.0	-1.4	**-0.0**	-8.4	0.0	0.3	-0.0	-1.4
y	-0.0	**-8.4**	0.0	0.3	-0.0	-1.4	-0.0	**-8.4**	0.0	0.3	-0.0	-1.4
z	-0.0	-8.4	**0.0**	0.3	-0.0	-1.4	-0.0	-8.4	**0.0**	0.3	-0.0	-1.4
x	-0.0	-8.4	0.0	**0.3**	-0.0	-1.4	-0.0	-8.4	0.0	**0.3**	-0.0	-1.4
y	-0.0	-8.4	0.0	0.3	**-0.0**	-1.4	-0.0	-8.4	0.0	0.3	**-0.0**	-1.4
z	-0.0	-8.4	0.0	0.3	-0.0	**-1.4**	-0.0	-8.4	0.0	0.3	-0.0	**-1.4**

Joint 20

x	**-0.0**	-7.9	0.0	0.3	-0.0	247.6	**-0.0**	-7.9	0.0	0.3	-0.0	247.6
y	-0.0	**-7.9**	0.0	0.3	-0.0	247.6	-0.0	**-7.9**	0.0	0.3	-0.0	247.6
z	-0.0	-7.9	**0.0**	0.3	-0.0	247.6	-0.0	-7.9	**0.0**	0.3	-0.0	247.6
x	-0.0	-7.9	0.0	**0.3**	-0.0	247.6	-0.0	-7.9	0.0	**0.3**	-0.0	247.6
y	-0.0	-7.9	0.0	0.3	**-0.0**	247.6	-0.0	-7.9	0.0	0.3	**-0.0**	247.6
z	-0.0	-7.9	0.0	0.3	-0.0	**247.6**	-0.0	-7.9	0.0	0.3	-0.0	**247.6**

Joint 21

x	**-0.0**	-6.2	0.0	0.3	-0.0	490.9	**-0.0**	-6.2	0.0	0.3	-0.0	490.9
y	-0.0	**-6.2**	0.0	0.3	-0.0	490.9	-0.0	**-6.2**	0.0	0.3	-0.0	490.9
z	-0.0	-6.2	**0.0**	0.3	-0.0	490.9	-0.0	-6.2	**0.0**	0.3	-0.0	490.9
x	-0.0	-6.2	0.0	**0.3**	-0.0	490.9	-0.0	-6.2	0.0	**0.3**	-0.0	490.9
y	-0.0	-6.2	0.0	0.3	**-0.0**	490.9	-0.0	-6.2	0.0	0.3	**-0.0**	490.9
z	-0.0	-6.2	0.0	0.3	-0.0	**490.9**	-0.0	-6.2	0.0	0.3	-0.0	**490.9**

Joint 22

x	**-0.0**	-3.6	0.0	0.3	-0.0	666.4	**-0.0**	-3.6	0.0	0.3	-0.0	666.4
y	-0.0	**-3.6**	0.0	0.3	-0.0	666.4	-0.0	**-3.6**	0.0	0.3	-0.0	666.4
z	-0.0	-3.6	**0.0**	0.3	-0.0	666.4	-0.0	-3.6	**0.0**	0.3	-0.0	666.4
x	-0.0	-3.6	0.0	**0.3**	-0.0	666.4	-0.0	-3.6	0.0	**0.3**	-0.0	666.4
y	-0.0	-3.6	0.0	0.3	**-0.0**	666.4	-0.0	-3.6	0.0	0.3	**-0.0**	666.4
z	-0.0	-3.6	0.0	0.3	-0.0	**666.4**	-0.0	-3.6	0.0	0.3	-0.0	**666.4**

Joint 23

x	**-0.0**	-0.3	0.0	0.3	-0.0	-779.2	**-0.0**	-0.3	0.0	0.3	-0.0	-779.2
y	-0.0	**-0.3**	0.0	0.3	-0.0	-779.2	-0.0	**-0.3**	0.0	0.3	-0.0	-779.2
z	-0.0	-0.3	**0.0**	0.3	-0.0	-779.2	-0.0	-0.3	**0.0**	0.3	-0.0	-779.2
x	-0.0	-0.3	0.0	**0.3**	-0.0	-779.2	-0.0	-0.3	0.0	**0.3**	-0.0	-779.2
y	-0.0	-0.3	0.0	0.3	**-0.0**	-779.2	-0.0	-0.3	0.0	0.3	**-0.0**	-779.2
z	-0.0	-0.3	0.0	0.3	-0.0	**-779.2**	-0.0	-0.3	0.0	0.3	-0.0	**-779.2**

Joint 24

x	**-0.0**	-3.6	0.0	0.3	-0.0	-668.0	**-0.0**	-3.6	0.0	0.3	-0.0	-668.0
y	-0.0	**-3.6**	0.0	0.3	-0.0	-668.0	-0.0	**-3.6**	0.0	0.3	-0.0	-668.0
z	-0.0	-3.6	**0.0**	0.3	-0.0	-668.0	-0.0	-3.6	**0.0**	0.3	-0.0	-668.0
x	-0.0	-3.6	0.0	**0.3**	-0.0	-668.0	-0.0	-3.6	0.0	**0.3**	-0.0	-668.0
y	-0.0	-3.6	0.0	0.3	**-0.0**	-668.0	-0.0	-3.6	0.0	0.3	**-0.0**	-668.0
z	-0.0	-3.6	0.0	0.3	-0.0	**-668.0**	-0.0	-3.6	0.0	0.3	-0.0	**-668.0**

Joint 25

x	**-0.0**	-6.2	0.0	0.3	-0.0	-492.6	**-0.0**	-6.2	0.0	0.3	-0.0	-492.6
y	-0.0	**-6.2**	0.0	0.3	-0.0	-492.6	-0.0	**-6.2**	0.0	0.3	-0.0	-492.6
z	-0.0	-6.2	**0.0**	0.3	-0.0	-492.6	-0.0	-6.2	**0.0**	0.3	-0.0	-492.6
x	-0.0	-6.2	0.0	**0.3**	-0.0	-492.6	-0.0	-6.2	0.0	**0.3**	-0.0	-492.6
y	-0.0	-6.2	0.0	0.3	**-0.0**	-492.6	-0.0	-6.2	0.0	0.3	**-0.0**	-492.6
z	-0.0	-6.2	0.0	0.3	-0.0	**-492.6**	-0.0	-6.2	0.0	0.3	-0.0	**-492.6**

Joint 26

x	**-0.0**	-7.9	0.0	0.3	-0.0	-249.2	**-0.0**	-7.9	0.0	0.3	-0.0	-249.2
y	-0.0	**-7.9**	0.0	0.3	-0.0	-249.2	-0.0	**-7.9**	0.0	0.3	-0.0	-249.2
z	-0.0	-7.9	**0.0**	0.3	-0.0	-249.2	-0.0	-7.9	**0.0**	0.3	-0.0	-249.2
x	-0.0	-7.9	0.0	**0.3**	-0.0	-249.2	-0.0	-7.9	0.0	**0.3**	-0.0	-249.2
y	-0.0	-7.9	0.0	0.3	**-0.0**	-249.2	-0.0	-7.9	0.0	0.3	**-0.0**	-249.2
z	-0.0	-7.9	0.0	0.3	-0.0	**-249.2**	-0.0	-7.9	0.0	0.3	-0.0	**-249.2**

Joint 27

x	**-0.0**	-8.5	0.0	0.3	-0.0	-0.3	**-0.0**	-8.5	0.0	0.3	-0.0	-0.3
y	-0.0	**-8.5**	0.0	0.3	-0.0	-0.3	-0.0	**-8.5**	0.0	0.3	-0.0	-0.3
z	-0.0	-8.5	**0.0**	0.3	-0.0	-0.3	-0.0	-8.5	**0.0**	0.3	-0.0	-0.3
x	-0.0	-8.5	0.0	**0.3**	-0.0	-0.3	-0.0	-8.5	0.0	**0.3**	-0.0	-0.3
y	-0.0	-8.5	0.0	0.3	**-0.0**	-0.3	-0.0	-8.5	0.0	0.3	**-0.0**	-0.3
z	-0.0	-8.5	0.0	0.3	-0.0	**-0.3**	-0.0	-8.5	0.0	0.3	-0.0	**-0.3**

Joint 28

x	**-0.0**	-7.9	0.0	0.3	-0.0	248.7	**-0.0**	-7.9	0.0	0.3	-0.0	248.7
y	-0.0	**-7.9**	0.0	0.3	-0.0	248.7	-0.0	**-7.9**	0.0	0.3	-0.0	248.7
z	-0.0	-7.9	**0.0**	0.3	-0.0	248.7	-0.0	-7.9	**0.0**	0.3	-0.0	248.7
x	-0.0	-7.9	0.0	**0.3**	-0.0	248.7	-0.0	-7.9	0.0	**0.3**	-0.0	248.7
y	-0.0	-7.9	0.0	0.3	**-0.0**	248.7	-0.0	-7.9	0.0	0.3	**-0.0**	248.7
z	-0.0	-7.9	0.0	0.3	-0.0	**248.7**	-0.0	-7.9	0.0	0.3	-0.0	**248.7**

Joint 29

x	**-0.0**	-6.2	0.0	0.3	-0.0	492.0	**-0.0**	-6.2	0.0	0.3	-0.0	492.0
y	-0.0	**-6.2**	0.0	0.3	-0.0	492.0	-0.0	**-6.2**	0.0	0.3	-0.0	492.0
z	-0.0	-6.2	**0.0**	0.3	-0.0	492.0	-0.0	-6.2	**0.0**	0.3	-0.0	492.0
x	-0.0	-6.2	0.0	**0.3**	-0.0	492.0	-0.0	-6.2	0.0	**0.3**	-0.0	492.0
y	-0.0	-6.2	0.0	0.3	**-0.0**	492.0	-0.0	-6.2	0.0	0.3	**-0.0**	492.0
z	-0.0	-6.2	0.0	0.3	-0.0	**492.0**	-0.0	-6.2	0.0	0.3	-0.0	**492.0**

Joint 30

x	**-0.0**	-3.6	0.0	0.3	-0.0	667.5	**-0.0**	-3.6	0.0	0.3	-0.0	667.5
y	-0.0	**-3.6**	0.0	0.3	-0.0	667.5	-0.0	**-3.6**	0.0	0.3	-0.0	667.5
z	-0.0	-3.6	**0.0**	0.3	-0.0	667.5	-0.0	-3.6	**0.0**	0.3	-0.0	667.5
x	-0.0	-3.6	0.0	**0.3**	-0.0	667.5	-0.0	-3.6	0.0	**0.3**	-0.0	667.5
y	-0.0	-3.6	0.0	0.3	**-0.0**	667.5	-0.0	-3.6	0.0	0.3	**-0.0**	667.5
z	-0.0	-3.6	0.0	0.3	-0.0	**667.5**	-0.0	-3.6	0.0	0.3	-0.0	**667.5**

Joint 52

x	**-0.0**	-7.8	0.0	0.2	0.1	251.6	**-0.0**	-7.8	0.0	0.2	0.1	251.6
y	-0.0	**-7.8**	0.0	0.2	0.1	251.6	-0.0	**-7.8**	0.0	0.2	0.1	251.6
z	-0.0	-7.8	**0.0**	0.2	0.1	251.6	-0.0	-7.8	**0.0**	0.2	0.1	251.6
x	-0.0	-7.8	0.0	**0.2**	0.1	251.6	-0.0	-7.8	0.0	**0.2**	0.1	251.6
y	-0.0	-7.8	0.0	0.2	**0.1**	251.6	-0.0	-7.8	0.0	0.2	**0.1**	251.6
z	-0.0	-7.8	0.0	0.2	0.1	**251.6**	-0.0	-7.8	0.0	0.2	0.1	**251.6**

Joint 53

x	**-0.0**	-6.1	0.0	0.2	0.1	494.9	**-0.0**	-6.1	0.0	0.2	0.1	494.9
y	-0.0	**-6.1**	0.0	0.2	0.1	494.9	-0.0	**-6.1**	0.0	0.2	0.1	494.9
z	-0.0	-6.1	**0.0**	0.2	0.1	494.9	-0.0	-6.1	**0.0**	0.2	0.1	494.9
x	-0.0	-6.1	0.0	**0.2**	0.1	494.9	-0.0	-6.1	0.0	**0.2**	0.1	494.9
y	-0.0	-6.1	0.0	0.2	**0.1**	494.9	-0.0	-6.1	0.0	0.2	**0.1**	494.9
z	-0.0	-6.1	0.0	0.2	0.1	**494.9**	-0.0	-6.1	0.0	0.2	0.1	**494.9**

Joint 54

x	**-0.0**	-3.5	0.0	0.2	0.1	670.4	**-0.0**	-3.5	0.0	0.2	0.1	670.4
y	-0.0	**-3.5**	0.0	0.2	0.1	670.4	-0.0	**-3.5**	0.0	0.2	0.1	670.4
z	-0.0	-3.5	**0.0**	0.2	0.1	670.4	-0.0	-3.5	**0.0**	0.2	0.1	670.4
x	-0.0	-3.5	0.0	**0.2**	0.1	670.4	-0.0	-3.5	0.0	**0.2**	0.1	670.4
y	-0.0	-3.5	0.0	0.2	**0.1**	670.4	-0.0	-3.5	0.0	0.2	**0.1**	670.4
z	-0.0	-3.5	0.0	0.2	0.1	**670.4**	-0.0	-3.5	0.0	0.2	0.1	**670.4**

Joint 55

x	**-0.0**	-0.2	0.0	0.2	0.1	-188.5	**-0.0**	-0.2	0.0	0.2	0.1	-188.5
y	-0.0	**-0.2**	0.0	0.2	0.1	-188.5	-0.0	**-0.2**	0.0	0.2	0.1	-188.5
z	-0.0	-0.2	**0.0**	0.2	0.1	-188.5	-0.0	-0.2	**0.0**	0.2	0.1	-188.5
x	-0.0	-0.2	0.0	**0.2**	0.1	-188.5	-0.0	-0.2	0.0	**0.2**	0.1	-188.5

y	-0.0	-0.2	0.0	0.2	**0.1**	-188.5	-0.0	-0.2	0.0	0.2	**0.1**	-188.5
z	-0.0	-0.2	0.0	0.2	0.1	**-188.5**	-0.0	-0.2	0.0	0.2	0.1	**-188.5**

Joint 56

x	**-0.0**	-0.8	0.0	**0.2**	0.1	-141.8	**-0.0**	-0.8	0.0	0.2	0.1	-141.8
y	-0.0	**-0.8**	0.0	0.2	0.1	-141.8	-0.0	**-0.8**	0.0	0.2	0.1	-141.8
z	-0.0	-0.8	**0.0**	0.2	0.1	-141.8	-0.0	-0.8	**0.0**	0.2	0.1	-141.8
x	-0.0	-0.8	0.0	**0.2**	0.1	-141.8	-0.0	-0.8	0.0	**0.2**	0.1	-141.8
y	-0.0	-0.8	0.0	0.2	**0.1**	-141.8	-0.0	-0.8	0.0	0.2	**0.1**	-141.8
z	-0.0	-0.8	0.0	0.2	0.1	**-141.8**	-0.0	-0.8	0.0	0.2	0.1	**-141.8**

Joint 57

x	**-0.0**	-1.2	0.0	0.2	0.1	-74.0	**-0.0**	-1.2	0.0	0.2	0.1	-74.0
y	-0.0	**-1.2**	0.0	0.2	0.1	-74.0	-0.0	**-1.2**	0.0	0.2	0.1	-74.0
z	-0.0	-1.2	**0.0**	0.2	0.1	-74.0	-0.0	-1.2	**0.0**	0.2	0.1	-74.0
x	-0.0	-1.2	0.0	**0.2**	0.1	-74.0	-0.0	-1.2	0.0	**0.2**	0.1	-74.0
y	-0.0	-1.2	0.0	0.2	**0.1**	-74.0	-0.0	-1.2	0.0	0.2	**0.1**	-74.0
z	-0.0	-1.2	0.0	0.2	0.1	**-74.0**	-0.0	-1.2	0.0	0.2	0.1	**-74.0**

Joint 58

x	**-0.0**	-1.3	0.0	0.3	0.1	12.5	**-0.0**	-1.3	0.0	0.3	0.1	12.5
y	-0.0	**-1.3**	0.0	0.3	0.1	12.5	-0.0	**-1.3**	0.0	0.3	0.1	12.5
z	-0.0	-1.3	**0.0**	0.3	0.1	12.5	-0.0	-1.3	**0.0**	0.3	0.1	12.5
x	-0.0	-1.3	0.0	**0.3**	0.1	12.5	-0.0	-1.3	0.0	**0.3**	0.1	12.5
y	-0.0	-1.3	0.0	0.3	**0.1**	12.5	-0.0	-1.3	0.0	0.3	**0.1**	12.5
z	-0.0	-1.3	0.0	0.3	0.1	**12.5**	-0.0	-1.3	0.0	0.3	0.1	**12.5**

Joint 59

x	**-0.0**	-1.1	0.0	0.3	0.1	90.2	**-0.0**	-1.1	0.0	0.3	0.1	90.2
y	-0.0	**-1.1**	0.0	0.3	0.1	90.2	-0.0	**-1.1**	0.0	0.3	0.1	90.2
z	-0.0	-1.1	**0.0**	0.3	0.1	90.2	-0.0	-1.1	**0.0**	0.3	0.1	90.2
x	-0.0	-1.1	0.0	**0.3**	0.1	90.2	-0.0	-1.1	0.0	**0.3**	0.1	90.2
y	-0.0	-1.1	0.0	0.3	**0.1**	90.2	-0.0	-1.1	0.0	0.3	**0.1**	90.2
z	-0.0	-1.1	0.0	0.3	0.1	**90.2**	-0.0	-1.1	0.0	0.3	0.1	**90.2**

Joint 60

x	**-0.0**	-0.6	0.0	0.3	0.1	157.9	**-0.0**	-0.6	0.0	0.3	0.1	157.9
y	-0.0	**-0.6**	0.0	0.3	0.1	157.9	-0.0	**-0.6**	0.0	0.3	0.1	157.9
z	-0.0	-0.6	**0.0**	0.3	0.1	157.9	-0.0	-0.6	**0.0**	0.3	0.1	157.9
x	-0.0	-0.6	0.0	**0.3**	0.1	157.9	-0.0	-0.6	0.0	**0.3**	0.1	157.9
y	-0.0	-0.6	0.0	0.3	**0.1**	157.9	-0.0	-0.6	0.0	0.3	**0.1**	157.9
z	-0.0	-0.6	0.0	0.3	0.1	**157.9**	-0.0	-0.6	0.0	0.3	0.1	**157.9**

Joint 61

x	**-0.0**	-0.0	0.0	0.3	0.1	185.1	**-0.0**	-0.0	0.0	0.3	0.1	185.1
y	-0.0	**-0.0**	0.0	0.3	0.1	185.1	-0.0	**-0.0**	0.0	0.3	0.1	185.1
z	-0.0	-0.0	**0.0**	0.3	0.1	185.1	-0.0	-0.0	**0.0**	0.3	0.1	185.1
x	-0.0	-0.0	0.0	**0.3**	0.1	185.1	-0.0	-0.0	0.0	**0.3**	0.1	185.1
y	-0.0	-0.0	0.0	0.3	**0.1**	185.1	-0.0	-0.0	0.0	0.3	**0.1**	185.1
z	-0.0	-0.0	0.0	0.3	0.1	**185.1**	-0.0	-0.0	0.0	0.3	0.1	**185.1**

*** Fin del listado ***

hip pp losa centro vano

Program Envolvator (release 1.3 - Jun 1998)
Calculation date: 24-mar-1999 19:32 h. Listing date: 13-abr-1999 11:46 h.
Members: 419
Joints: 353
Envelope generated from:

Name	min	max
pp losa centro vano	1.00	1.00

	Fx	Fy	Fz	Mx	My	Mz	Fx	Fy	Fz	Mx	My	Mz

Member 1

Fx,	**-0.7**	-51.2	0.2	-27.6	-31.2	-6.7	**-0.7**	-51.2	0.2	-27.6	-31.2	-6.7
Fy,	-0.7	**-51.2**	0.2	-27.6	-31.2	-6.7	-0.7	**-51.2**	0.2	-27.6	-31.2	-6.7
Fz,	-0.7	-51.2	**0.2**	-27.6	-31.2	-6.7	-0.7	-51.2	**0.2**	-27.6	-31.2	-6.7
Mx,	-0.7	-51.2	0.2	**-27.6**	-31.2	-6.7	-0.7	-51.2	0.2	**-27.6**	-31.2	-6.7
My,	-0.7	-51.2	0.2	-27.6	**-31.2**	-6.7	-0.7	-51.2	0.2	-27.6	**-31.2**	-6.7
Mz,	-0.7	-51.2	0.2	-27.6	-31.2	**-6.7**	-0.7	-51.2	0.2	-27.6	-31.2	**-6.7**
Fx,	**-0.7**	-33.8	0.2	-18.9	-30.5	149.1	**-0.7**	-33.8	0.2	-18.9	-30.5	149.1
Fy,	-0.7	**-33.8**	0.2	-18.9	-30.5	149.1	-0.7	**-33.8**	0.2	-18.9	-30.5	149.1
Fz,	-0.7	-33.8	**0.2**	-18.9	-30.5	149.1	-0.7	-33.8	**0.2**	-18.9	-30.5	149.1
Mx,	-0.7	-33.8	0.2	**-18.9**	-30.5	149.1	-0.7	-33.8	0.2	**-18.9**	-30.5	149.1
My,	-0.7	-33.8	0.2	-18.9	**-30.5**	149.1	-0.7	-33.8	0.2	-18.9	**-30.5**	149.1
Mz,	-0.7	-33.8	0.2	-18.9	-30.5	**149.1**	-0.7	-33.8	0.2	-18.9	-30.5	**149.1**

Member 2

Fx,	**-0.7**	-33.8	0.2	-18.9	-30.5	149.1	**-0.7**	-33.8	0.2	-18.9	-30.5	149.1
Fy,	-0.7	**-33.8**	0.2	-18.9	-30.5	149.1	-0.7	**-33.8**	0.2	-18.9	-30.5	149.1
Fz,	-0.7	-33.8	**0.2**	-18.9	-30.5	149.1	-0.7	-33.8	**0.2**	-18.9	-30.5	149.1
Mx,	-0.7	-33.8	0.2	**-18.9**	-30.5	149.1	-0.7	-33.8	0.2	**-18.9**	-30.5	149.1
My,	-0.7	-33.8	0.2	-18.9	**-30.5**	149.1	-0.7	-33.8	0.2	-18.9	**-30.5**	149.1
Mz,	-0.7	-33.8	0.2	-18.9	-30.5	**149.1**	-0.7	-33.8	0.2	-18.9	-30.5	**149.1**
Fx,	**-0.7**	-16.5	0.2	-10.1	-29.8	241.4	**-0.7**	-16.5	0.2	-10.1	-29.8	241.4
Fy,	-0.7	**-16.5**	0.2	-10.1	-29.8	241.4	-0.7	**-16.5**	0.2	-10.1	-29.8	241.4
Fz,	-0.7	-16.5	**0.2**	-10.1	-29.8	241.4	-0.7	-16.5	**0.2**	-10.1	-29.8	241.4
Mx,	-0.7	-16.5	0.2	**-10.1**	-29.8	241.4	-0.7	-16.5	0.2	**-10.1**	-29.8	241.4
My,	-0.7	-16.5	0.2	-10.1	**-29.8**	241.4	-0.7	-16.5	0.2	-10.1	**-29.8**	241.4
Mz,	-0.7	-16.5	0.2	-10.1	-29.8	**241.4**	-0.7	-16.5	0.2	-10.1	-29.8	**241.4**

Member 3

Fx,	**-0.7**	-16.5	0.2	-10.1	-29.8	241.4	**-0.7**	-16.5	0.2	-10.1	-29.8	241.4
Fy,	-0.7	**-16.5**	0.2	-10.1	-29.8	241.4	-0.7	**-16.5**	0.2	-10.1	-29.8	241.4
Fz,	-0.7	-16.5	**0.2**	-10.1	-29.8	241.4	-0.7	-16.5	**0.2**	-10.1	-29.8	241.4
Mx,	-0.7	-16.5	0.2	**-10.1**	-29.8	241.4	-0.7	-16.5	0.2	**-10.1**	-29.8	241.4
My,	-0.7	-16.5	0.2	-10.1	**-29.8**	241.4	-0.7	-16.5	0.2	-10.1	**-29.8**	241.4
Mz,	-0.7	-16.5	0.2	-10.1	-29.8	**241.4**	-0.7	-16.5	0.2	-10.1	-29.8	**241.4**
Fx,	**-0.7**	0.8	0.2	-1.3	-29.1	270.1	**-0.7**	0.8	0.2	-1.3	-29.1	270.1
Fy,	-0.7	**0.8**	0.2	-1.3	-29.1	270.1	-0.7	**0.8**	0.2	-1.3	-29.1	270.1
Fz,	-0.7	0.8	**0.2**	-1.3	-29.1	270.1	-0.7	0.8	**0.2**	-1.3	-29.1	270.1
Mx,	-0.7	0.8	0.2	**-1.3**	-29.1	270.1	-0.7	0.8	0.2	**-1.3**	-29.1	270.1
My,	-0.7	0.8	0.2	-1.3	**-29.1**	270.1	-0.7	0.8	0.2	-1.3	**-29.1**	270.1
Mz,	-0.7	0.8	0.2	-1.3	-29.1	**270.1**	-0.7	0.8	0.2	-1.3	-29.1	**270.1**

Member 4

Fx,	**-0.7**	0.8	0.2	-1.3	-29.1	270.1	**-0.7**	0.8	0.2	-1.3	-29.1	270.1
Fy,	-0.7	**0.8**	0.2	-1.3	-29.1	270.1	-0.7	**0.8**	0.2	-1.3	-29.1	270.1
Fz,	-0.7	0.8	**0.2**	-1.3	-29.1	270.1	-0.7	0.8	**0.2**	-1.3	-29.1	270.1
Mx,	-0.7	0.8	0.2	**-1.3**	-29.1	270.1	-0.7	0.8	0.2	**-1.3**	-29.1	270.1
My,	-0.7	0.8	0.2	-1.3	**-29.1**	270.1	-0.7	0.8	0.2	-1.3	**-29.1**	270.1
Mz,	-0.7	0.8	0.2	-1.3	-29.1	**270.1**	-0.7	0.8	0.2	-1.3	-29.1	**270.1**
Fx,	**-0.7**	18.1	0.2	7.4	-28.4	235.3	**-0.7**	18.1	0.2	7.4	-28.4	235.3
Fy,	-0.7	**18.1**	0.2	7.4	-28.4	235.3	-0.7	**18.1**	0.2	7.4	-28.4	235.3
Fz,	-0.7	18.1	**0.2**	7.4	-28.4	235.3	-0.7	18.1	**0.2**	7.4	-28.4	235.3
Mx,	-0.7	18.1	0.2	**7.4**	-28.4	235.3	-0.7	18.1	0.2	**7.4**	-28.4	235.3
My,	-0.7	18.1	0.2	7.4	**-28.4**	235.3	-0.7	18.1	0.2	7.4	**-28.4**	235.3
Mz,	-0.7	18.1	0.2	7.4	-28.4	**235.3**	-0.7	18.1	0.2	7.4	-28.4	**235.3**

Member 5

Fx,	**-0.7**	18.1	0.2	7.4	-28.4	235.3	**-0.7**	18.1	0.2	7.4	-28.4	235.3
Fy,	-0.7	**18.1**	0.2	7.4	-28.4	235.3	-0.7	**18.1**	0.2	7.4	-28.4	235.3
Fz,	-0.7	18.1	**0.2**	7.4	-28.4	235.3	-0.7	18.1	**0.2**	7.4	-28.4	235.3
Mx,	-0.7	18.1	0.2	**7.4**	-28.4	235.3	-0.7	18.1	0.2	**7.4**	-28.4	235.3
My,	-0.7	18.1	0.2	7.4	**-28.4**	235.3	-0.7	18.1	0.2	7.4	**-28.4**	235.3
Mz,	-0.7	18.1	0.2	7.4	-28.4	**235.3**	-0.7	18.1	0.2	7.4	-28.4	**235.3**
Fx,	**-0.7**	35.5	0.2	16.2	-27.7	137.0	**-0.7**	35.5	0.2	16.2	-27.7	137.0
Fy,	-0.7	**35.5**	0.2	16.2	-27.7	137.0	-0.7	**35.5**	0.2	16.2	-27.7	137.0
Fz,	-0.7	35.5	**0.2**	16.2	-27.7	137.0	-0.7	35.5	**0.2**	16.2	-27.7	137.0
Mx,	-0.7	35.5	0.2	**16.2**	-27.7	137.0	-0.7	35.5	0.2	**16.2**	-27.7	137.0
My,	-0.7	35.5	0.2	16.2	**-27.7**	137.0	-0.7	35.5	0.2	16.2	**-27.7**	137.0
Mz,	-0.7	35.5	0.2	16.2	-27.7	**137.0**	-0.7	35.5	0.2	16.2	-27.7	**137.0**

Member 6

Fx,	**-0.7**	35.5	0.2	16.2	-27.7	137.0	**-0.7**	35.5	0.2	16.2	-27.7	137.0
Fy,	-0.7	**35.5**	0.2	16.2	-27.7	137.0	-0.7	**35.5**	0.2	16.2	-27.7	137.0
Fz,	-0.7	35.5	**0.2**	16.2	-27.7	137.0	-0.7	35.5	**0.2**	16.2	-27.7	137.0
Mx,	-0.7	35.5	0.2	**16.2**	-27.7	137.0	-0.7	35.5	0.2	**16.2**	-27.7	137.0
My,	-0.7	35.5	0.2	16.2	**-27.7**	137.0	-0.7	35.5	0.2	16.2	**-27.7**	137.0
Mz,	-0.7	35.5	0.2	16.2	-27.7	**137.0**	-0.7	35.5	0.2	16.2	-27.7	**137.0**
Fx,	**-0.7**	37.9	0.2	16.2	-27.0	0.0	**-0.7**	37.9	0.2	16.2	-27.0	0.0
Fy,	-0.7	**37.9**	0.2	16.2	-27.0	0.0	-0.7	**37.9**	0.2	16.2	-27.0	0.0
Fz,	-0.7	37.9	**0.2**	16.2	-27.0	0.0	-0.7	37.9	**0.2**	16.2	-27.0	0.0
Mx,	-0.7	37.9	0.2	**16.2**	-27.0	0.0	-0.7	37.9	0.2	**16.2**	-27.0	0.0
My,	-0.7	37.9	0.2	16.2	**-27.0**	0.0	-0.7	37.9	0.2	16.2	**-27.0**	0.0
Mz,	-0.7	37.9	0.2	16.2	-27.0	**0.0**	-0.7	37.9	0.2	16.2	-27.0	**0.0**

Member 7

Fx,	**-0.7**	-67.4	0.9	-33.6	-27.0	0.0	**-0.7**	-67.4	0.9	-33.6	-27.0	0.0
Fy,	-0.7	**-67.4**	0.9	-33.6	-27.0	0.0	-0.7	**-67.4**	0.9	-33.6	-27.0	0.0
Fz,	-0.7	-67.4	**0.9**	-33.6	-27.0	0.0	-0.7	-67.4	**0.9**	-33.6	-27.0	0.0
Mx,	-0.7	-67.4	0.9	**-33.6**	-27.0	0.0	-0.7	-67.4	0.9	**-33.6**	-27.0	0.0
My,	-0.7	-67.4	0.9	-33.6	**-27.0**	0.0	-0.7	-67.4	0.9	-33.6	**-27.0**	0.0
Mz,	-0.7	-67.4	0.9	-33.6	-27.0	**0.0**	-0.7	-67.4	0.9	-33.6	-27.0	**0.0**
Fx,	**-0.7**	-63.8	0.9	-33.6	-23.1	298.9	**-0.7**	-63.8	0.9	-33.6	-23.1	298.9
Fy,	-0.7	**-63.8**	0.9	-33.6	-23.1	298.9	-0.7	**-63.8**	0.9	-33.6	-23.1	298.9
Fz,	-0.7	-63.8	**0.9**	-33.6	-23.1	298.9	-0.7	-63.8	**0.9**	-33.6	-23.1	298.9
Mx,	-0.7	-63.8	0.9	**-33.6**	-23.1	298.9	-0.7	-63.8	0.9	**-33.6**	-23.1	298.9
My,	-0.7	-63.8	0.9	-33.6	**-23.1**	298.9	-0.7	-63.8	0.9	-33.6	**-23.1**	298.9
Mz,	-0.7	-63.8	0.9	-33.6	-23.1	**298.9**	-0.7	-63.8	0.9	-33.6	-23.1	**298.9**

Member 8

Fx	**-0.7**	-63.8	0.9	-33.6	-23.1	298.9	**-0.7**	-63.8	0.9	-33.6	-23.1	298.9
Fy,	-0.7	**-63.8**	0.9	-33.6	-23.1	298.9	-0.7	**-63.8**	0.9	-33.6	-23.1	298.9
Fz,	-0.7	-63.8	**0.9**	-33.6	-23.1	298.9	-0.7	-63.8	**0.9**	-33.6	-23.1	298.9
Mx,	-0.7	-63.8	0.9	**-33.6**	-23.1	298.9	-0.7	-63.8	0.9	**-33.6**	-23.1	298.9
My,	-0.7	-63.8	0.9	-33.6	**-23.1**	298.9	-0.7	-63.8	0.9	-33.6	**-23.1**	298.9
Mz,	-0.7	-63.8	0.9	-33.6	-23.1	**298.9**	-0.7	-63.8	0.9	-33.6	-23.1	**298.9**
Fx,	**-0.7**	-42.5	0.9	-22.9	-19.1	538.1	**-0.7**	-42.5	0.9	-22.9	-19.1	538.1
Fy,	-0.7	**-42.5**	0.9	-22.9	-19.1	538.1	-0.7	**-42.5**	0.9	-22.9	-19.1	538.1
Fz,	-0.7	-42.5	**0.9**	-22.9	-19.1	538.1	-0.7	-42.5	**0.9**	-22.9	-19.1	538.1
Mx,	-0.7	-42.5	0.9	**-22.9**	-19.1	538.1	-0.7	-42.5	0.9	**-22.9**	-19.1	538.1
My,	-0.7	-42.5	0.9	-22.9	**-19.1**	538.1	-0.7	-42.5	0.9	-22.9	**-19.1**	538.1
Mz,	-0.7	-42.5	0.9	-22.9	-19.1	**538.1**	-0.7	-42.5	0.9	-22.9	-19.1	**538.1**

Member 9

Fx,	**-0.7**	-42.5	0.9	-22.9	-19.1	538.1	**-0.7**	-42.5	0.9	-22.9	-19.1	538.1
Fy,	-0.7	**-42.5**	0.9	-22.9	-19.1	538.1	-0.7	**-42.5**	0.9	-22.9	-19.1	538.1
Fz,	-0.7	-42.5	**0.9**	-22.9	-19.1	538.1	-0.7	-42.5	**0.9**	-22.9	-19.1	538.1
Mx,	-0.7	-42.5	0.9	**-22.9**	-19.1	538.1	-0.7	-42.5	0.9	**-22.9**	-19.1	538.1
My,	-0.7	-42.5	0.9	-22.9	**-19.1**	538.1	-0.7	-42.5	0.9	-22.9	**-19.1**	538.1
Mz,	-0.7	-42.5	0.9	-22.9	-19.1	**538.1**	-0.7	-42.5	0.9	-22.9	-19.1	**538.1**
Fx,	**-0.7**	-21.3	0.9	-12.1	-15.2	681.7	**-0.7**	-21.3	0.9	-12.1	-15.2	681.7
Fy,	-0.7	**-21.3**	0.9	-12.1	-15.2	681.7	-0.7	**-21.3**	0.9	-12.1	-15.2	681.7
Fz,	-0.7	-21.3	**0.9**	-12.1	-15.2	681.7	-0.7	-21.3	**0.9**	-12.1	-15.2	681.7
Mx,	-0.7	-21.3	0.9	**-12.1**	-15.2	681.7	-0.7	-21.3	0.9	**-12.1**	-15.2	681.7
My,	-0.7	-21.3	0.9	-12.1	**-15.2**	681.7	-0.7	-21.3	0.9	-12.1	**-15.2**	681.7
Mz,	-0.7	-21.3	0.9	-12.1	-15.2	**681.7**	-0.7	-21.3	0.9	-12.1	-15.2	**681.7**

Member 10

Fx,	**-0.7**	-21.3	0.9	-12.1	-15.2	681.7	**-0.7**	-21.3	0.9	-12.1	-15.2	681.7
Fy,	-0.7	**-21.3**	0.9	-12.1	-15.2	681.7	-0.7	**-21.3**	0.9	-12.1	-15.2	681.7
Fz,	-0.7	-21.3	**0.9**	-12.1	-15.2	681.7	-0.7	-21.3	**0.9**	-12.1	-15.2	681.7
Mx,	-0.7	-21.3	0.9	**-12.1**	-15.2	681.7	-0.7	-21.3	0.9	**-12.1**	-15.2	681.7
My,	-0.7	-21.3	0.9	-12.1	**-15.2**	681.7	-0.7	-21.3	0.9	-12.1	**-15.2**	681.7
Mz,	-0.7	-21.3	0.9	-12.1	-15.2	**681.7**	-0.7	-21.3	0.9	-12.1	-15.2	**681.7**
Fx,	**-0.7**	-0.0	0.9	-1.3	-11.2	729.5	**-0.7**	-0.0	0.9	-1.3	-11.2	729.5
Fy,	-0.7	**-0.0**	0.9	-1.3	-11.2	729.5	-0.7	**-0.0**	0.9	-1.3	-11.2	729.5
Fz,	-0.7	-0.0	**0.9**	-1.3	-11.2	729.5	-0.7	-0.0	**0.9**	-1.3	-11.2	729.5
Mx,	-0.7	-0.0	0.9	**-1.3**	-11.2	729.5	-0.7	-0.0	0.9	**-1.3**	-11.2	729.5
My,	-0.7	-0.0	0.9	-1.3	**-11.2**	729.5	-0.7	-0.0	0.9	-1.3	**-11.2**	729.5
Mz,	-0.7	-0.0	0.9	-1.3	-11.2	**729.5**	-0.7	-0.0	0.9	-1.3	-11.2	**729.5**

Member 11

Fx,	**-0.7**	-0.0	0.9	-1.3	-11.2	729.5	**-0.7**	-0.0	0.9	-1.3	-11.2	729.5
Fy,	-0.7	**-0.0**	0.9	-1.3	-11.2	729.5	-0.7	**-0.0**	0.9	-1.3	-11.2	729.5
Fz,	-0.7	-0.0	**0.9**	-1.3	-11.2	729.5	-0.7	-0.0	**0.9**	-1.3	-11.2	729.5
Mx,	-0.7	-0.0	0.9	**-1.3**	-11.2	729.5	-0.7	-0.0	0.9	**-1.3**	-11.2	729.5
My,	-0.7	-0.0	0.9	-1.3	**-11.2**	729.5	-0.7	-0.0	0.9	-1.3	**-11.2**	729.5
Mz,	-0.7	-0.0	0.9	-1.3	-11.2	**729.5**	-0.7	-0.0	0.9	-1.3	-11.2	**729.5**
Fx,	**-0.7**	21.3	0.9	9.4	-7.3	681.7	**-0.7**	21.3	0.9	9.4	-7.3	681.7
Fy,	-0.7	**21.3**	0.9	9.4	-7.3	681.7	-0.7	**21.3**	0.9	9.4	-7.3	681.7
Fz,	-0.7	21.3	**0.9**	9.4	-7.3	681.7	-0.7	21.3	**0.9**	9.4	-7.3	681.7
Mx,	-0.7	21.3	0.9	**9.4**	-7.3	681.7	-0.7	21.3	0.9	**9.4**	-7.3	681.7
My,	-0.7	21.3	0.9	9.4	**-7.3**	681.7	-0.7	21.3	0.9	9.4	**-7.3**	681.7
Mz,	-0.7	21.3	0.9	9.4	-7.3	**681.7**	-0.7	21.3	0.9	9.4	-7.3	**681.7**

Member 12

Fx,	**-0.7**	21.3	0.9	9.4	-7.3	681.7	**-0.7**	21.3	0.9	9.4	-7.3	681.7
Fy,	-0.7	**21.3**	0.9	9.4	-7.3	681.7	-0.7	**21.3**	0.9	9.4	-7.3	681.7
Fz,	-0.7	21.3	**0.9**	9.4	-7.3	681.7	-0.7	21.3	**0.9**	9.4	-7.3	681.7
Mx,	-0.7	21.3	0.9	**9.4**	-7.3	681.7	-0.7	21.3	0.9	**9.4**	-7.3	681.7
My,	-0.7	21.3	0.9	9.4	**-7.3**	681.7	-0.7	21.3	0.9	9.4	**-7.3**	681.7
Mz,	-0.7	21.3	0.9	9.4	-7.3	**681.7**	-0.7	21.3	0.9	9.4	-7.3	**681.7**
Fx,	**-0.7**	42.5	0.9	20.2	-3.3	538.2	**-0.7**	42.5	0.9	20.2	-3.3	538.2
Fy,	-0.7	**42.5**	0.9	20.2	-3.3	538.2	-0.7	**42.5**	0.9	20.2	-3.3	538.2
Fz,	-0.7	42.5	**0.9**	20.2	-3.3	538.2	-0.7	42.5	**0.9**	20.2	-3.3	538.2
Mx,	-0.7	42.5	0.9	**20.2**	-3.3	538.2	-0.7	42.5	0.9	**20.2**	-3.3	538.2
My,	-0.7	42.5	0.9	20.2	**-3.3**	538.2	-0.7	42.5	0.9	20.2	**-3.3**	538.2
Mz,	-0.7	42.5	0.9	20.2	-3.3	**538.2**	-0.7	42.5	0.9	20.2	-3.3	**538.2**

Member 13

Fx,	**-0.7**	42.5	0.9	20.2	-3.3	538.2	**-0.7**	42.5	0.9	20.2	-3.3	538.2
Fy,	-0.7	**42.5**	0.9	20.2	-3.3	538.2	-0.7	**42.5**	0.9	20.2	-3.3	538.2
Fz,	-0.7	42.5	**0.9**	20.2	-3.3	538.2	-0.7	42.5	**0.9**	20.2	-3.3	538.2
Mx,	-0.7	42.5	0.9	**20.2**	-3.3	538.2	-0.7	42.5	0.9	**20.2**	-3.3	538.2
My,	-0.7	42.5	0.9	20.2	**-3.3**	538.2	-0.7	42.5	0.9	20.2	**-3.3**	538.2
Mz,	-0.7	42.5	0.9	20.2	-3.3	**538.2**	-0.7	42.5	0.9	20.2	-3.3	**538.2**
Fx,	**-0.7**	63.8	0.9	30.9	0.6	299.0	**-0.7**	63.8	0.9	30.9	0.6	299.0
Fy,	-0.7	**63.8**	0.9	30.9	0.6	299.0	-0.7	**63.8**	0.9	30.9	0.6	299.0
Fz,	-0.7	63.8	**0.9**	30.9	0.6	299.0	-0.7	63.8	**0.9**	30.9	0.6	299.0
Mx,	-0.7	63.8	0.9	**30.9**	0.6	299.0	-0.7	63.8	0.9	**30.9**	0.6	299.0
My,	-0.7	63.8	0.9	30.9	**0.6**	299.0	-0.7	63.8	0.9	30.9	**0.6**	299.0
Mz,	-0.7	63.8	0.9	30.9	0.6	**299.0**	-0.7	63.8	0.9	30.9	0.6	**299.0**

Member 14

Fx,	**-0.7**	63.8	0.9	30.9	0.6	299.0	**-0.7**	63.8	0.9	30.9	0.6	299.0
Fy,	-0.7	**63.8**	0.9	30.9	0.6	299.0	-0.7	**63.8**	0.9	30.9	0.6	299.0
Fz,	-0.7	63.8	**0.9**	30.9	0.6	299.0	-0.7	63.8	**0.9**	30.9	0.6	299.0

Mx_i	-0.7	63.8	0.9	**30.9**	0.6	299.0	-0.7	63.8	0.9	30.9	0.6	299.0
My_i	-0.7	63.8	0.9	30.9	**0.6**	299.0	-0.7	63.8	0.9	30.9	**0.6**	299.0
Mz_i	-0.7	63.8	0.9	30.9	0.6	**299.0**	-0.7	63.8	0.9	30.9	0.6	**299.0**
Fx_f	**-0.7**	67.5	0.9	30.9	4.6	0.0	**-0.7**	**67.5**	0.9	30.9	4.6	0.0
Fy_f	-0.7	**67.5**	0.9	30.9	4.6	0.0	-0.7	**67.5**	0.9	30.9	4.6	0.0
Fz_f	-0.7	67.5	**0.9**	30.9	4.6	0.0	-0.7	67.5	**0.9**	30.9	4.6	0.0
Mx_f	-0.7	67.5	0.9	**30.9**	4.6	0.0	-0.7	67.5	0.9	**30.9**	4.6	0.0
My_f	-0.7	67.5	0.9	30.9	**4.6**	0.0	-0.7	67.5	0.9	30.9	**4.6**	0.0
Mz_f	-0.7	67.5	0.9	30.9	4.6	**0.0**	-0.7	67.5	0.9	30.9	4.6	**0.0**

Member 15

Fx_i	**-0.7**	-67.4	-0.2	-32.6	4.6	0.0	**-0.7**	-67.4	-0.2	-32.6	4.6	0.0
Fy_i	-0.7	**-67.4**	-0.2	-32.6	4.6	0.0	-0.7	**-67.4**	-0.2	-32.6	4.6	0.0
Fz_i	-0.7	-67.4	**-0.2**	-32.6	4.6	0.0	-0.7	-67.4	**-0.2**	-32.6	4.6	0.0
Mx_i	-0.7	-67.4	-0.2	**-32.6**	4.6	0.0	-0.7	-67.4	-0.2	**-32.6**	4.6	0.0
My_i	-0.7	-67.4	-0.2	-32.6	**4.6**	0.0	-0.7	-67.4	-0.2	-32.6	**4.6**	0.0
Mz_i	-0.7	-67.4	-0.2	-32.6	4.6	**0.0**	-0.7	-67.4	-0.2	-32.6	4.6	**0.0**
Fx_f	**-0.7**	-63.8	-0.2	-32.6	3.5	298.9	**-0.7**	-63.8	-0.2	-32.6	3.5	298.9
Fy_f	-0.7	**-63.8**	-0.2	-32.6	3.5	298.9	-0.7	**-63.8**	-0.2	-32.6	3.5	298.9
Fz_f	-0.7	-63.8	**-0.2**	-32.6	3.5	298.9	-0.7	-63.8	**-0.2**	-32.6	3.5	298.9
Mx_f	-0.7	-63.8	-0.2	**-32.6**	3.5	298.9	-0.7	-63.8	-0.2	**-32.6**	3.5	298.9
My_f	-0.7	-63.8	-0.2	-32.6	**3.5**	298.9	-0.7	-63.8	-0.2	-32.6	**3.5**	298.9
Mz_f	-0.7	-63.8	-0.2	-32.6	3.5	**298.9**	-0.7	-63.8	-0.2	-32.6	3.5	**298.9**

Member 16

Fx_i	**-0.7**	-63.8	-0.2	-32.6	3.5	298.9	**-0.7**	-63.8	-0.2	-32.6	3.5	298.9
Fy_i	-0.7	**-63.8**	-0.2	-32.6	3.5	298.9	-0.7	**-63.8**	-0.2	-32.6	3.5	298.9
Fz_i	-0.7	-63.8	**-0.2**	-32.6	3.5	298.9	-0.7	-63.8	**-0.2**	-32.6	3.5	298.9
Mx_i	-0.7	-63.8	-0.2	**-32.6**	3.5	298.9	-0.7	-63.8	-0.2	**-32.6**	3.5	298.9
My_i	-0.7	-63.8	-0.2	-32.6	**3.5**	298.9	-0.7	-63.8	-0.2	-32.6	**3.5**	298.9
Mz_i	-0.7	-63.8	-0.2	-32.6	3.5	**298.9**	-0.7	-63.8	-0.2	-32.6	3.5	**298.9**
Fx_f	**-0.7**	-42.5	-0.2	-21.8	2.4	538.1	**-0.7**	-42.5	-0.2	-21.8	2.4	538.1
Fy_f	-0.7	**-42.5**	-0.2	-21.8	2.4	538.1	-0.7	**-42.5**	-0.2	-21.8	2.4	538.1
Fz_f	-0.7	-42.5	**-0.2**	-21.8	2.4	538.1	-0.7	-42.5	**-0.2**	-21.8	2.4	538.1
Mx_f	-0.7	-42.5	-0.2	**-21.8**	2.4	538.1	-0.7	-42.5	-0.2	**-21.8**	2.4	538.1
My_f	-0.7	-42.5	-0.2	-21.8	**2.4**	538.1	-0.7	-42.5	-0.2	-21.8	**2.4**	538.1
Mz_f	-0.7	-42.5	-0.2	-21.8	2.4	**538.1**	-0.7	-42.5	-0.2	-21.8	2.4	**538.1**

Member 17

Fx_i	**-0.7**	-42.5	-0.2	-21.8	2.4	538.1	**-0.7**	-42.5	-0.2	-21.8	2.4	538.1
Fy_i	-0.7	**-42.5**	-0.2	-21.8	2.4	538.1	-0.7	**-42.5**	-0.2	-21.8	2.4	538.1
Fz_i	-0.7	-42.5	**-0.2**	-21.8	2.4	538.1	-0.7	-42.5	**-0.2**	-21.8	2.4	538.1
Mx_i	-0.7	-42.5	-0.2	**-21.8**	2.4	538.1	-0.7	-42.5	-0.2	**-21.8**	2.4	538.1
My_i	-0.7	-42.5	-0.2	-21.8	**2.4**	538.1	-0.7	-42.5	-0.2	-21.8	**2.4**	538.1
Mz_i	-0.7	-42.5	-0.2	-21.8	2.4	**538.1**	-0.7	-42.5	-0.2	-21.8	2.4	**538.1**
Fx_f	**-0.7**	-21.3	-0.2	-11.1	1.3	681.7	**-0.7**	-21.3	-0.2	-11.1	1.3	681.7
Fy_f	-0.7	**-21.3**	-0.2	-11.1	1.3	681.7	-0.7	**-21.3**	-0.2	-11.1	1.3	681.7
Fz_f	-0.7	-21.3	**-0.2**	-11.1	1.3	681.7	-0.7	-21.3	**-0.2**	-11.1	1.3	681.7
Mx_f	-0.7	-21.3	-0.2	**-11.1**	1.3	681.7	-0.7	-21.3	-0.2	**-11.1**	1.3	681.7
My_f	-0.7	-21.3	-0.2	-11.1	**1.3**	681.7	-0.7	-21.3	-0.2	-11.1	**1.3**	681.7
Mz_f	-0.7	-21.3	-0.2	-11.1	1.3	**681.7**	-0.7	-21.3	-0.2	-11.1	1.3	**681.7**

Member 18

Fx_i	**-0.7**	-21.3	-0.2	-11.1	1.3	681.7	**-0.7**	-21.3	-0.2	-11.1	1.3	681.7
Fy_i	-0.7	**-21.3**	-0.2	-11.1	1.3	681.7	-0.7	**-21.3**	-0.2	-11.1	1.3	681.7
Fz_i	-0.7	-21.3	**-0.2**	-11.1	1.3	681.7	-0.7	-21.3	**-0.2**	-11.1	1.3	681.7
Mx_i	-0.7	-21.3	-0.2	**-11.1**	1.3	681.7	-0.7	-21.3	-0.2	**-11.1**	1.3	681.7
My_i	-0.7	-21.3	-0.2	-11.1	**1.3**	681.7	-0.7	-21.3	-0.2	-11.1	**1.3**	681.7
Mz_i	-0.7	-21.3	-0.2	-11.1	1.3	**681.7**	-0.7	-21.3	-0.2	-11.1	1.3	**681.7**
Fx_f	**-0.7**	-0.0	-0.2	-0.3	0.3	729.5	**-0.7**	-0.0	-0.2	-0.3	0.3	729.5
Fy_f	-0.7	**-0.0**	-0.2	-0.3	0.3	729.5	-0.7	**-0.0**	-0.2	-0.3	0.3	729.5
Fz_f	-0.7	-0.0	**-0.2**	-0.3	0.3	729.5	-0.7	-0.0	**-0.2**	-0.3	0.3	729.5
Mx_f	-0.7	-0.0	-0.2	**-0.3**	0.3	729.5	-0.7	-0.0	-0.2	**-0.3**	0.3	729.5
My_f	-0.7	-0.0	-0.2	-0.3	**0.3**	729.5	-0.7	-0.0	-0.2	-0.3	**0.3**	729.5
Mz_f	-0.7	-0.0	-0.2	-0.3	0.3	**729.5**	-0.7	-0.0	-0.2	-0.3	0.3	**729.5**

Member 19

Fx_i	**-0.7**	-0.0	-0.2	-0.3	0.3	729.5	**-0.7**	**-0.0**	-0.2	-0.3	0.3	729.5
Fy_i	-0.7	**-0.0**	-0.2	-0.3	0.3	729.5	-0.7	**-0.0**	-0.2	-0.3	0.3	729.5
Fz_i	-0.7	-0.0	**-0.2**	-0.3	0.3	729.5	-0.7	-0.0	**-0.2**	-0.3	0.3	729.5
Mx_i	-0.7	-0.0	-0.2	**-0.3**	0.3	729.5	-0.7	-0.0	-0.2	**-0.3**	0.3	729.5
My_i	-0.7	-0.0	-0.2	-0.3	**0.3**	729.5	-0.7	-0.0	-0.2	-0.3	**0.3**	729.5
Mz_i	-0.7	-0.0	-0.2	-0.3	0.3	**729.5**	-0.7	-0.0	-0.2	-0.3	0.3	**729.5**
Fx_f	**-0.7**	21.3	-0.2	10.4	-0.8	681.7	**-0.7**	21.3	-0.2	10.4	-0.8	681.7
Fy_f	-0.7	**21.3**	-0.2	10.4	-0.8	681.7	-0.7	**21.3**	-0.2	10.4	-0.8	681.7
Fz_f	-0.7	21.3	**-0.2**	10.4	-0.8	681.7	-0.7	21.3	**-0.2**	10.4	-0.8	681.7
Mx_f	-0.7	21.3	-0.2	**10.4**	-0.8	681.7	-0.7	21.3	-0.2	**10.4**	-0.8	681.7
My_f	-0.7	21.3	-0.2	10.4	**-0.8**	681.7	-0.7	21.3	-0.2	10.4	**-0.8**	681.7
Mz_f	-0.7	21.3	-0.2	10.4	-0.8	**681.7**	-0.7	21.3	-0.2	10.4	-0.8	**681.7**

Member 20

Fx_i	**-0.7**	21.3	-0.2	10.4	-0.8	681.7	**-0.7**	21.3	-0.2	10.4	-0.8	681.7
Fy_i	-0.7	**21.3**	-0.2	10.4	-0.8	681.7	-0.7	**21.3**	-0.2	10.4	-0.8	681.7
Fz_i	-0.7	21.3	**-0.2**	10.4	-0.8	681.7	-0.7	21.3	**-0.2**	10.4	-0.8	681.7
Mx_i	-0.7	21.3	-0.2	**10.4**	-0.8	681.7	-0.7	21.3	-0.2	**10.4**	-0.8	681.7
My_i	-0.7	21.3	-0.2	10.4	**-0.8**	681.7	-0.7	21.3	-0.2	10.4	**-0.8**	681.7
Mz_i	-0.7	21.3	-0.2	10.4	-0.8	**681.7**	-0.7	21.3	-0.2	10.4	-0.8	**681.7**
Fx_f	**-0.7**	42.5	-0.2	21.2	-1.9	538.2	**-0.7**	42.5	-0.2	21.2	-1.9	538.2
Fy_f	-0.7	**42.5**	-0.2	21.2	-1.9	538.2	-0.7	**42.5**	-0.2	21.2	-1.9	538.2
Fz_f	-0.7	42.5	**-0.2**	21.2	-1.9	538.2	-0.7	42.5	**-0.2**	21.2	-1.9	538.2
Mx_f	-0.7	42.5	-0.2	**21.2**	-1.9	538.2	-0.7	42.5	-0.2	**21.2**	-1.9	538.2
My_f	-0.7	42.5	-0.2	21.2	**-1.9**	538.2	-0.7	42.5	-0.2	21.2	**-1.9**	538.2
Mz_f	-0.7	42.5	-0.2	21.2	-1.9	**538.2**	-0.7	42.5	-0.2	21.2	-1.9	**538.2**

Member 21

Fx_i	**-0.7**	42.5	-0.2	21.2	-1.9	538.2	**-0.7**	42.5	-0.2	21.2	-1.9	538.2
Fy_i	-0.7	**42.5**	-0.2	21.2	-1.9	538.2	-0.7	**42.5**	-0.2	21.2	-1.9	538.2
Fz_i	-0.7	42.5	**-0.2**	21.2	-1.9	538.2	-0.7	42.5	**-0.2**	21.2	-1.9	538.2
Mx_i	-0.7	42.5	-0.2	**21.2**	-1.9	538.2	-0.7	42.5	-0.2	**21.2**	-1.9	538.2
My_i	-0.7	42.5	-0.2	21.2	**-1.9**	538.2	-0.7	42.5	-0.2	21.2	**-1.9**	538.2
Mz_i	-0.7	42.5	-0.2	21.2	-1.9	**538.2**	-0.7	42.5	-0.2	21.2	-1.9	**538.2**
Fx_f	**-0.7**	63.8	-0.2	32.0	-3.0	299.0	**-0.7**	63.8	-0.2	32.0	-3.0	299.0
Fy_f	-0.7	**63.8**	-0.2	32.0	-3.0	299.0	-0.7	**63.8**	-0.2	32.0	-3.0	299.0
Fz_f	-0.7	63.8	**-0.2**	32.0	-3.0	299.0	-0.7	63.8	**-0.2**	32.0	-3.0	299.0
Mx_f	-0.7	63.8	-0.2	**32.0**	-3.0	299.0	-0.7	63.8	-0.2	**32.0**	-3.0	299.0
My_f	-0.7	63.8	-0.2	32.0	**-3.0**	299.0	-0.7	63.8	-0.2	32.0	**-3.0**	299.0
Mz_f	-0.7	63.8	-0.2	32.0	-3.0	**299.0**	-0.7	63.8	-0.2	32.0	-3.0	**299.0**

Member 22

Fx_i	**-0.7**	63.8	-0.2	32.0	-3.0	299.0	**-0.7**	63.8	-0.2	32.0	-3.0	299.0
Fy_i	-0.7	**63.8**	-0.2	32.0	-3.0	299.0	-0.7	**63.8**	-0.2	32.0	-3.0	299.0
Fz_i	-0.7	63.8	**-0.2**	32.0	-3.0	299.0	-0.7	63.8	**-0.2**	32.0	-3.0	299.0
Mx_i	-0.7	63.8	-0.2	**32.0**	-3.0	299.0	-0.7	63.8	-0.2	**32.0**	-3.0	299.0
My_i	-0.7	63.8	-0.2	32.0	**-3.0**	299.0	-0.7	63.8	-0.2	32.0	**-3.0**	299.0
Mz_i	-0.7	63.8	-0.2	32.0	-3.0	**299.0**	-0.7	63.8	-0.2	32.0	-3.0	**299.0**
Fx_f	**-0.7**	67.5	-0.2	32.0	-4.0	**0.0**	**-0.7**	67.5	-0.2	32.0	-4.0	0.0
Fy_f	-0.7	**67.5**	-0.2	32.0	-4.0	**0.0**	-0.7	**67.5**	-0.2	32.0	-4.0	0.0
Fz_f	-0.7	67.5	**-0.2**	32.0	-4.0	0.0	-0.7	67.5	**-0.2**	32.0	-4.0	0.0
Mx_f	-0.7	67.5	-0.2	**32.0**	-4.0	0.0	-0.7	67.5	-0.2	**32.0**	-4.0	0.0
My_f	-0.7	67.5	-0.2	32.0	**-4.0**	0.0	-0.7	67.5	-0.2	32.0	**-4.0**	0.0
Mz_f	-0.7	67.5	-0.2	32.0	-4.0	**0.0**	-0.7	67.5	-0.2	32.0	-4.0	**0.0**

Member 23

Fx_i	**-0.7**	-67.4	-0.0	-32.6	-4.0	0.0	**-0.7**	-67.4	-0.0	-32.6	-4.0	0.0
Fy_i	-0.7	**-67.4**	-0.0	-32.6	-4.0	0.0	-0.7	**-67.4**	-0.0	-32.6	-4.0	0.0
Fz_i	-0.7	-67.4	**-0.0**	-32.6	-4.0	0.0	-0.7	-67.4	**-0.0**	-32.6	-4.0	0.0
Mx_i	-0.7	-67.4	-0.0	**-32.6**	-4.0	0.0	-0.7	-67.4	-0.0	**-32.6**	-4.0	0.0
My_i	-0.7	-67.4	-0.0	-32.6	**-4.0**	0.0	-0.7	-67.4	-0.0	-32.6	**-4.0**	0.0
Mz_i	-0.7	-67.4	-0.0	-32.6	-4.0	**0.0**	-0.7	-67.4	-0.0	-32.6	-4.0	**0.0**
Fx_f	**-0.7**	-63.8	-0.0	-32.6	-4.1	298.9	**-0.7**	-63.8	-0.0	-32.6	-4.1	298.9
Fy_f	-0.7	**-63.8**	-0.0	-32.6	-4.1	298.9	-0.7	**-63.8**	-0.0	-32.6	-4.1	298.9

Fz_f	-0.7	-63.8	**-0.0**	-32.6	-4.1	298.9	-0.7	-63.8	**-0.0**	-32.6	-4.1	298.9
Mx_f	-0.7	-63.8	-0.0	**-32.6**	-4.1	298.9	-0.7	-63.8	-0.0	**-32.6**	-4.1	298.9
My_f	-0.7	-63.8	-0.0	-32.6	**-4.1**	298.9	-0.7	-63.8	-0.0	-32.6	**-4.1**	298.9
Mz_f	-0.7	-63.8	-0.0	-32.6	-4.1	**298.9**	-0.7	-63.8	-0.0	-32.6	-4.1	**298.9**

Member 24

Fx_i	**-0.7**	-63.8	-0.0	-32.6	-4.1	298.9	**-0.7**	-63.8	-0.0	-32.6	-4.1	298.9
Fy_i	-0.7	**-63.8**	-0.0	-32.6	-4.1	298.9	-0.7	**-63.8**	-0.0	-32.6	-4.1	298.9
Fz_i	-0.7	-63.8	**-0.0**	-32.6	-4.1	298.9	-0.7	-63.8	**-0.0**	-32.6	-4.1	298.9
Mx_i	-0.7	-63.8	-0.0	**-32.6**	-4.1	298.9	-0.7	-63.8	-0.0	**-32.6**	-4.1	298.9
My_i	-0.7	-63.8	-0.0	-32.6	**-4.1**	298.9	-0.7	-63.8	-0.0	-32.6	**-4.1**	298.9
Mz_i	-0.7	-63.8	-0.0	-32.6	-4.1	**298.9**	-0.7	-63.8	-0.0	-32.6	-4.1	**298.9**
Fx_f	**-0.7**	-42.5	-0.0	-21.8	-4.1	**538.1**	**-0.7**	-42.5	-0.0	-21.8	-4.1	**538.1**
Fy_f	-0.7	**-42.5**	-0.0	-21.8	-4.1	**538.1**	-0.7	**-42.5**	-0.0	-21.8	-4.1	**538.1**
Fz_f	-0.7	-42.5	**-0.0**	-21.8	-4.1	**538.1**	-0.7	-42.5	**-0.0**	-21.8	-4.1	**538.1**
Mx_f	-0.7	-42.5	-0.0	**-21.8**	-4.1	**538.1**	-0.7	-42.5	-0.0	**-21.8**	-4.1	**538.1**
My_f	-0.7	-42.5	-0.0	-21.8	**-4.1**	**538.1**	-0.7	-42.5	-0.0	-21.8	**-4.1**	**538.1**
Mz_f	-0.7	-42.5	-0.0	-21.8	-4.1	**538.1**	-0.7	-42.5	-0.0	-21.8	-4.1	**538.1**

Member 25

Fx_i	**-0.7**	-42.5	-0.0	-21.8	-4.1	538.1	**-0.7**	-42.5	-0.0	-21.8	-4.1	538.1
Fy_i	-0.7	**-42.5**	-0.0	-21.8	-4.1	538.1	-0.7	**-42.5**	-0.0	-21.8	-4.1	538.1
Fz_i	-0.7	-42.5	**-0.0**	-21.8	-4.1	538.1	-0.7	-42.5	**-0.0**	-21.8	-4.1	538.1
Mx_i	-0.7	-42.5	-0.0	**-21.8**	-4.1	538.1	-0.7	-42.5	-0.0	**-21.8**	-4.1	538.1
My_i	-0.7	-42.5	-0.0	-21.8	**-4.1**	538.1	-0.7	-42.5	-0.0	-21.8	**-4.1**	538.1
Mz_i	-0.7	-42.5	-0.0	-21.8	-4.1	**538.1**	-0.7	-42.5	-0.0	-21.8	-4.1	**538.1**
Fx_f	**-0.7**	-21.3	-0.0	-11.1	-4.1	681.7	**-0.7**	-21.3	-0.0	-11.1	-4.1	681.7
Fy_f	-0.7	**-21.3**	-0.0	-11.1	-4.1	681.7	-0.7	**-21.3**	-0.0	-11.1	-4.1	681.7
Fz_f	-0.7	-21.3	**-0.0**	-11.1	-4.1	681.7	-0.7	-21.3	**-0.0**	-11.1	-4.1	681.7
Mx_f	-0.7	-21.3	-0.0	**-11.1**	-4.1	681.7	-0.7	-21.3	-0.0	**-11.1**	-4.1	681.7
My_f	-0.7	-21.3	-0.0	-11.1	**-4.1**	681.7	-0.7	-21.3	-0.0	-11.1	**-4.1**	681.7
Mz_f	-0.7	-21.3	-0.0	-11.1	-4.1	**681.7**	-0.7	-21.3	-0.0	-11.1	-4.1	**681.7**

Member 26

Fx_i	**-0.7**	-21.3	-0.0	-11.1	-4.1	681.7	**-0.7**	-21.3	-0.0	-11.1	-4.1	681.7
Fy_i	-0.7	**-21.3**	-0.0	-11.1	-4.1	681.7	-0.7	**-21.3**	-0.0	-11.1	-4.1	681.7
Fz_i	-0.7	-21.3	**-0.0**	-11.1	-4.1	681.7	-0.7	-21.3	**-0.0**	-11.1	-4.1	681.7
Mx_i	-0.7	-21.3	-0.0	**-11.1**	-4.1	681.7	-0.7	-21.3	-0.0	**-11.1**	-4.1	681.7
My_i	-0.7	-21.3	-0.0	-11.1	**-4.1**	681.7	-0.7	-21.3	-0.0	-11.1	**-4.1**	681.7
Mz_i	-0.7	-21.3	-0.0	-11.1	-4.1	**681.7**	-0.7	-21.3	-0.0	-11.1	-4.1	**681.7**
Fx_f	**-0.7**	-0.0	-0.0	-0.3	-4.1	729.5	**-0.7**	-0.0	-0.0	-0.3	-4.1	729.5
Fy_f	-0.7	**-0.0**	-0.0	-0.3	-4.1	729.5	-0.7	**-0.0**	-0.0	-0.3	-4.1	729.5
Fz_f	-0.7	-0.0	**-0.0**	-0.3	-4.1	729.5	-0.7	-0.0	**-0.0**	-0.3	-4.1	729.5
Mx_f	-0.7	-0.0	-0.0	**-0.3**	-4.1	729.5	-0.7	-0.0	-0.0	**-0.3**	-4.1	729.5
My_f	-0.7	-0.0	-0.0	-0.3	**-4.1**	729.5	-0.7	-0.0	-0.0	-0.3	**-4.1**	729.5
Mz_f	-0.7	-0.0	-0.0	-0.3	-4.1	**729.5**	-0.7	-0.0	-0.0	-0.3	-4.1	**729.5**

Member 27

Fx_i	**-0.7**	-0.0	-0.0	-0.3	-4.1	729.5	**-0.7**	-0.0	-0.0	-0.3	-4.1	729.5
Fy_i	-0.7	**-0.0**	-0.0	-0.3	-4.1	729.5	-0.7	**-0.0**	-0.0	-0.3	-4.1	729.5
Fz_i	-0.7	-0.0	**-0.0**	-0.3	-4.1	729.5	-0.7	-0.0	**-0.0**	-0.3	-4.1	729.5
Mx_i	-0.7	-0.0	-0.0	**-0.3**	-4.1	729.5	-0.7	-0.0	-0.0	**-0.3**	-4.1	729.5
My_i	-0.7	-0.0	-0.0	-0.3	**-4.1**	729.5	-0.7	-0.0	-0.0	-0.3	**-4.1**	729.5
Mz_i	-0.7	-0.0	-0.0	-0.3	-4.1	**729.5**	-0.7	-0.0	-0.0	-0.3	-4.1	**729.5**
Fx_f	**-0.7**	21.3	-0.0	10.4	-4.1	681.7	**-0.7**	21.3	-0.0	10.4	-4.1	681.7
Fy_f	-0.7	**21.3**	-0.0	10.4	-4.1	681.7	-0.7	**21.3**	-0.0	10.4	-4.1	681.7
Fz_f	-0.7	21.3	**-0.0**	10.4	-4.1	681.7	-0.7	21.3	**-0.0**	10.4	-4.1	681.7
Mx_f	-0.7	21.3	-0.0	**10.4**	-4.1	681.7	-0.7	21.3	-0.0	**10.4**	-4.1	681.7
My_f	-0.7	21.3	-0.0	10.4	**-4.1**	681.7	-0.7	21.3	-0.0	10.4	**-4.1**	681.7
Mz_f	-0.7	21.3	-0.0	10.4	-4.1	**681.7**	-0.7	21.3	-0.0	10.4	-4.1	**681.7**

Member 28

Fx_i	**-0.7**	21.3	-0.0	10.4	-4.1	681.7	**-0.7**	21.3	-0.0	10.4	-4.1	681.7
Fy_i	-0.7	**21.3**	-0.0	10.4	-4.1	681.7	-0.7	**21.3**	-0.0	10.4	-4.1	681.7
Fz_i	-0.7	21.3	**-0.0**	10.4	-4.1	681.7	-0.7	21.3	**-0.0**	10.4	-4.1	681.7
Mx_i	-0.7	21.3	-0.0	**10.4**	-4.1	681.7	-0.7	21.3	-0.0	**10.4**	-4.1	681.7
My_i	-0.7	21.3	-0.0	10.4	**-4.1**	681.7	-0.7	21.3	-0.0	10.4	**-4.1**	681.7
Mz_i	-0.7	21.3	-0.0	10.4	-4.1	**681.7**	-0.7	21.3	-0.0	10.4	-4.1	**681.7**
Fx_f	**-0.7**	42.5	-0.0	21.2	-4.1	538.2	**-0.7**	42.5	-0.0	21.2	-4.1	538.2
Fy_f	-0.7	**42.5**	-0.0	21.2	-4.1	538.2	-0.7	**42.5**	-0.0	21.2	-4.1	538.2
Fz_f	-0.7	42.5	**-0.0**	21.2	-4.1	538.2	-0.7	42.5	**-0.0**	21.2	-4.1	538.2
Mx_f	-0.7	42.5	-0.0	**21.2**	-4.1	538.2	-0.7	42.5	-0.0	**21.2**	-4.1	538.2
My_f	-0.7	42.5	-0.0	21.2	**-4.1**	538.2	-0.7	42.5	-0.0	21.2	**-4.1**	538.2
Mz_f	-0.7	42.5	-0.0	21.2	-4.1	**538.2**	-0.7	42.5	-0.0	21.2	-4.1	**538.2**

Member 29

Fx_i	**-0.7**	42.5	-0.0	21.2	-4.1	538.2	**-0.7**	42.5	-0.0	21.2	-4.1	538.2
Fy_i	-0.7	**42.5**	-0.0	21.2	-4.1	538.2	-0.7	**42.5**	-0.0	21.2	-4.1	538.2
Fz_i	-0.7	42.5	**-0.0**	21.2	-4.1	538.2	-0.7	42.5	**-0.0**	21.2	-4.1	538.2
Mx_i	-0.7	42.5	-0.0	**21.2**	-4.1	538.2	-0.7	42.5	-0.0	**21.2**	-4.1	538.2
My_i	-0.7	42.5	-0.0	21.2	**-4.1**	538.2	-0.7	42.5	-0.0	21.2	**-4.1**	538.2
Mz_i	-0.7	42.5	-0.0	21.2	-4.1	**538.2**	-0.7	42.5	-0.0	21.2	-4.1	**538.2**
Fx_f	**-0.7**	63.8	-0.0	31.9	-4.1	299.0	**-0.7**	63.8	-0.0	31.9	-4.1	299.0
Fy_f	-0.7	**63.8**	-0.0	31.9	-4.1	299.0	-0.7	**63.8**	-0.0	31.9	-4.1	299.0
Fz_f	-0.7	63.8	**-0.0**	31.9	-4.1	299.0	-0.7	63.8	**-0.0**	31.9	-4.1	299.0
Mx_f	-0.7	63.8	-0.0	**31.9**	-4.1	299.0	-0.7	63.8	-0.0	**31.9**	-4.1	299.0
My_f	-0.7	63.8	-0.0	31.9	**-4.1**	299.0	-0.7	63.8	-0.0	31.9	**-4.1**	299.0
Mz_f	-0.7	63.8	-0.0	31.9	-4.1	**299.0**	-0.7	63.8	-0.0	31.9	-4.1	**299.0**

Member 30

Fx_i	**-0.7**	63.8	-0.0	31.9	-4.1	299.0	**-0.7**	63.8	-0.0	31.9	-4.1	299.0
Fy_i	-0.7	**63.8**	-0.0	31.9	-4.1	299.0	-0.7	**63.8**	-0.0	31.9	-4.1	299.0
Fz_i	-0.7	63.8	**-0.0**	31.9	-4.1	299.0	-0.7	63.8	**-0.0**	31.9	-4.1	299.0
Mx_i	-0.7	63.8	-0.0	**31.9**	-4.1	299.0	-0.7	63.8	-0.0	**31.9**	-4.1	299.0
My_i	-0.7	63.8	-0.0	31.9	**-4.1**	299.0	-0.7	63.8	-0.0	31.9	**-4.1**	299.0
Mz_i	-0.7	63.8	-0.0	31.9	-4.1	**299.0**	-0.7	63.8	-0.0	31.9	-4.1	**299.0**
Fx_f	**-0.7**	67.5	-0.0	31.9	-4.1	0.0	**-0.7**	67.5	-0.0	31.9	-4.1	0.0
Fy_f	-0.7	**67.5**	-0.0	31.9	-4.1	0.0	-0.7	**67.5**	-0.0	31.9	-4.1	0.0
Fz_f	-0.7	67.5	**-0.0**	31.9	-4.1	0.0	-0.7	67.5	**-0.0**	31.9	-4.1	0.0
Mx_f	-0.7	67.5	-0.0	**31.9**	-4.1	0.0	-0.7	67.5	-0.0	**31.9**	-4.1	0.0
My_f	-0.7	67.5	-0.0	31.9	**-4.1**	0.0	-0.7	67.5	-0.0	31.9	**-4.1**	0.0
Mz_f	-0.7	67.5	-0.0	31.9	-4.1	**0.0**	-0.7	67.5	-0.0	31.9	-4.1	**0.0**

Member 31

Fx_i	**-0.7**	-67.4	-0.0	-32.2	-4.1	0.0	**-0.7**	-67.4	-0.0	-32.2	-4.1	0.0
Fy_i	-0.7	**-67.4**	-0.0	-32.2	-4.1	0.0	-0.7	**-67.4**	-0.0	-32.2	-4.1	0.0
Fz_i	-0.7	-67.4	**-0.0**	-32.2	-4.1	0.0	-0.7	-67.4	**-0.0**	-32.2	-4.1	0.0
Mx_i	-0.7	-67.4	-0.0	**-32.2**	-4.1	0.0	-0.7	-67.4	-0.0	**-32.2**	-4.1	0.0
My_i	-0.7	-67.4	-0.0	-32.2	**-4.1**	0.0	-0.7	-67.4	-0.0	-32.2	**-4.1**	0.0
Mz_i	-0.7	-67.4	-0.0	-32.2	-4.1	**0.0**	-0.7	-67.4	-0.0	-32.2	-4.1	**0.0**
Fx_f	**-0.7**	-63.8	-0.0	-32.2	-4.3	298.9	**-0.7**	-63.8	-0.0	-32.2	-4.3	298.9
Fy_f	-0.7	**-63.8**	-0.0	-32.2	-4.3	298.9	-0.7	**-63.8**	-0.0	-32.2	-4.3	298.9
Fz_f	-0.7	-63.8	**-0.0**	-32.2	-4.3	298.9	-0.7	-63.8	**-0.0**	-32.2	-4.3	298.9
Mx_f	-0.7	-63.8	-0.0	**-32.2**	-4.3	298.9	-0.7	-63.8	-0.0	**-32.2**	-4.3	298.9
My_f	-0.7	-63.8	-0.0	-32.2	**-4.3**	298.9	-0.7	-63.8	-0.0	-32.2	**-4.3**	298.9
Mz_f	-0.7	-63.8	-0.0	-32.2	-4.3	**298.9**	-0.7	-63.8	-0.0	-32.2	-4.3	**298.9**

Member 32

Fx_i	**-0.7**	-63.8	-0.0	-32.2	-4.3	298.9	**-0.7**	-63.8	-0.0	-32.2	-4.3	298.9
Fy_i	-0.7	**-63.8**	-0.0	-32.2	-4.3	298.9	-0.7	**-63.8**	-0.0	-32.2	-4.3	298.9
Fz_i	-0.7	-63.8	**-0.0**	-32.2	-4.3	298.9	-0.7	-63.8	**-0.0**	-32.2	-4.3	298.9
Mx_i	-0.7	-63.8	-0.0	**-32.2**	-4.3	298.9	-0.7	-63.8	-0.0	**-32.2**	-4.3	298.9
My_i	-0.7	-63.8	-0.0	-32.2	**-4.3**	298.9	-0.7	-63.8	-0.0	-32.2	**-4.3**	298.9
Mz_i	-0.7	-63.8	-0.0	-32.2	-4.3	**298.9**	-0.7	-63.8	-0.0	-32.2	-4.3	**298.9**
Fx_f	**-0.7**	-42.5	-0.0	-21.5	-4.5	538.1	**-0.7**	-42.5	-0.0	-21.5	-4.5	538.1
Fy_f	-0.7	**-42.5**	-0.0	-21.5	-4.5	538.1	-0.7	**-42.5**	-0.0	-21.5	-4.5	538.1
Fz_f	-0.7	-42.5	**-0.0**	-21.5	-4.5	538.1	-0.7	-42.5	**-0.0**	-21.5	-4.5	538.1
Mx_f	-0.7	-42.5	-0.0	**-21.5**	-4.5	538.1	-0.7	-42.5	-0.0	**-21.5**	-4.5	538.1
My_f	-0.7	-42.5	-0.0	-21.5	**-4.5**	538.1	-0.7	-42.5	-0.0	-21.5	**-4.5**	538.1
Mz_f	-0.7	-42.5	-0.0	-21.5	-4.5	**538.1**	-0.7	-42.5	-0.0	-21.5	-4.5	**538.1**

Member 33

Fx_i	**-0.7**	-42.5	-0.0	-21.5	-4.5	538.1	**-0.7**	-42.5	-0.0	-21.5	-4.5	538.1
Fy_i	-0.7	**-42.5**	-0.0	-21.5	-4.5	538.1	-0.7	**-42.5**	-0.0	-21.5	-4.5	538.1
Fz_i	-0.7	-42.5	**-0.0**	-21.5	-4.5	538.1	-0.7	-42.5	**-0.0**	-21.5	-4.5	538.1
Mx_i	-0.7	-42.5	-0.0	**-21.5**	-4.5	538.1	-0.7	-42.5	-0.0	**-21.5**	-4.5	538.1
My_i	-0.7	-42.5	-0.0	-21.5	**-4.5**	538.1	-0.7	-42.5	-0.0	-21.5	**-4.5**	538.1
Mz_i	-0.7	-42.5	-0.0	-21.5	-4.5	**538.1**	-0.7	-42.5	-0.0	-21.5	-4.5	**538.1**
Fx_f	**-0.7**	-21.3	-0.0	-10.7	-4.6	681.7	**-0.7**	-21.3	-0.0	-10.7	-4.6	681.7
Fy_f	-0.7	**-21.3**	-0.0	-10.7	-4.6	681.7	-0.7	**-21.3**	-0.0	-10.7	-4.6	681.7
Fz_f	-0.7	-21.3	**-0.0**	-10.7	-4.6	681.7	-0.7	-21.3	**-0.0**	-10.7	-4.6	681.7
Mx_f	-0.7	-21.3	-0.0	**-10.7**	-4.6	681.7	-0.7	-21.3	-0.0	**-10.7**	-4.6	681.7
My_f	-0.7	-21.3	-0.0	-10.7	**-4.6**	681.7	-0.7	-21.3	-0.0	-10.7	**-4.6**	681.7
Mz_f	-0.7	-21.3	-0.0	-10.7	-4.6	**681.7**	-0.7	-21.3	-0.0	-10.7	-4.6	**681.7**

Member 34

Fx_i	**-0.7**	-21.3	-0.0	-10.7	-4.6	681.7	**-0.7**	-21.3	-0.0	-10.7	-4.6	681.7
Fy_i	-0.7	**-21.3**	-0.0	-10.7	-4.6	681.7	-0.7	**-21.3**	-0.0	-10.7	-4.6	681.7
Fz_i	-0.7	-21.3	**-0.0**	-10.7	-4.6	681.7	-0.7	-21.3	**-0.0**	-10.7	-4.6	681.7
Mx_i	-0.7	-21.3	-0.0	**-10.7**	-4.6	681.7	-0.7	-21.3	-0.0	**-10.7**	-4.6	681.7
My_i	-0.7	-21.3	-0.0	-10.7	**-4.6**	681.7	-0.7	-21.3	-0.0	-10.7	**-4.6**	681.7
Mz_i	-0.7	-21.3	-0.0	-10.7	-4.6	**681.7**	-0.7	-21.3	-0.0	-10.7	-4.6	**681.7**
Fx_f	**-0.7**	-0.0	-0.0	0.1	-4.8	729.5	**-0.7**	-0.0	-0.0	0.1	-4.8	729.5
Fy_f	-0.7	**-0.0**	-0.0	0.1	-4.8	729.5	-0.7	**-0.0**	-0.0	0.1	-4.8	729.5
Fz_f	-0.7	-0.0	**-0.0**	0.1	-4.8	729.5	-0.7	-0.0	**-0.0**	0.1	-4.8	729.5
Mx_f	-0.7	-0.0	-0.0	**0.1**	-4.8	729.5	-0.7	-0.0	-0.0	**0.1**	-4.8	729.5
My_f	-0.7	-0.0	-0.0	0.1	**-4.8**	729.5	-0.7	-0.0	-0.0	0.1	**-4.8**	729.5
Mz_f	-0.7	-0.0	-0.0	0.1	-4.8	**729.5**	-0.7	-0.0	-0.0	0.1	-4.8	**729.5**

Member 35

Fx_i	**-0.7**	-0.0	-0.0	0.1	-4.8	729.5	**-0.7**	-0.0	-0.0	0.1	-4.8	729.5
Fy_i	-0.7	**-0.0**	-0.0	0.1	-4.8	729.5	-0.7	**-0.0**	-0.0	0.1	-4.8	729.5
Fz_i	-0.7	-0.0	**-0.0**	0.1	-4.8	729.5	-0.7	-0.0	**-0.0**	0.1	-4.8	729.5
Mx_i	-0.7	-0.0	-0.0	**0.1**	-4.8	729.5	-0.7	-0.0	-0.0	**0.1**	-4.8	729.5
My_i	-0.7	-0.0	-0.0	0.1	**-4.8**	729.5	-0.7	-0.0	-0.0	0.1	**-4.8**	729.5
Mz_i	-0.7	-0.0	-0.0	0.1	-4.8	**729.5**	-0.7	-0.0	-0.0	0.1	-4.8	**729.5**
Fx_f	**-0.7**	21.3	-0.0	10.8	-5.0	681.7	**-0.7**	21.3	-0.0	10.8	-5.0	681.7
Fy_f	-0.7	**21.3**	-0.0	10.8	-5.0	681.7	-0.7	**21.3**	-0.0	10.8	-5.0	681.7
Fz_f	-0.7	21.3	**-0.0**	10.8	-5.0	681.7	-0.7	21.3	**-0.0**	10.8	-5.0	681.7
Mx_f	-0.7	21.3	-0.0	**10.8**	-5.0	681.7	-0.7	21.3	-0.0	**10.8**	-5.0	681.7
My_f	-0.7	21.3	-0.0	10.8	**-5.0**	681.7	-0.7	21.3	-0.0	10.8	**-5.0**	681.7
Mz_f	-0.7	21.3	-0.0	10.8	-5.0	**681.7**	-0.7	21.3	-0.0	10.8	-5.0	**681.7**

Member 36

Fx_i	**-0.7**	21.3	-0.0	10.8	-5.0	681.7	**-0.7**	21.3	-0.0	10.8	-5.0	681.7
Fy_i	-0.7	**21.3**	-0.0	10.8	-5.0	681.7	-0.7	**21.3**	-0.0	10.8	-5.0	681.7
Fz_i	-0.7	21.3	**-0.0**	10.8	-5.0	681.7	-0.7	21.3	**-0.0**	10.8	-5.0	681.7
Mx_i	-0.7	21.3	-0.0	**10.8**	-5.0	681.7	-0.7	21.3	-0.0	**10.8**	-5.0	681.7
My_i	-0.7	21.3	-0.0	10.8	**-5.0**	681.7	-0.7	21.3	-0.0	10.8	**-5.0**	681.7
Mz_i	-0.7	21.3	-0.0	10.8	-5.0	**681.7**	-0.7	21.3	-0.0	10.8	-5.0	**681.7**
Fx_f	**-0.7**	42.5	-0.0	21.6	-5.2	538.2	**-0.7**	42.5	-0.0	21.6	-5.2	538.2
Fy_f	-0.7	**42.5**	-0.0	21.6	-5.2	538.2	-0.7	**42.5**	-0.0	21.6	-5.2	538.2
Fz_f	-0.7	42.5	**-0.0**	21.6	-5.2	538.2	-0.7	42.5	**-0.0**	21.6	-5.2	538.2
Mx_f	-0.7	42.5	-0.0	**21.6**	-5.2	538.2	-0.7	42.5	-0.0	**21.6**	-5.2	538.2
My_f	-0.7	42.5	-0.0	21.6	**-5.2**	538.2	-0.7	42.5	-0.0	21.6	**-5.2**	538.2
Mz_f	-0.7	42.5	-0.0	21.6	-5.2	**538.2**	-0.7	42.5	-0.0	21.6	-5.2	**538.2**

Member 37

Fx_i	**-0.7**	42.5	-0.0	21.6	-5.2	538.2	**-0.7**	42.5	-0.0	21.6	-5.2	538.2
Fy_i	-0.7	**42.5**	-0.0	21.6	-5.2	538.2	-0.7	**42.5**	-0.0	21.6	-5.2	538.2
Fz_i	-0.7	42.5	**-0.0**	21.6	-5.2	538.2	-0.7	42.5	**-0.0**	21.6	-5.2	538.2
Mx_i	-0.7	42.5	-0.0	**21.6**	-5.2	538.2	-0.7	42.5	-0.0	**21.6**	-5.2	538.2
My_i	-0.7	42.5	-0.0	21.6	**-5.2**	538.2	-0.7	42.5	-0.0	21.6	**-5.2**	538.2
Mz_i	-0.7	42.5	-0.0	21.6	-5.2	**538.2**	-0.7	42.5	-0.0	21.6	-5.2	**538.2**
Fx_f	**-0.7**	63.8	-0.0	32.3	-5.3	299.0	**-0.7**	63.8	-0.0	32.3	-5.3	299.0
Fy_f	-0.7	**63.8**	-0.0	32.3	-5.3	299.0	-0.7	**63.8**	-0.0	32.3	-5.3	299.0
Fz_f	-0.7	63.8	**-0.0**	32.3	-5.3	299.0	-0.7	63.8	**-0.0**	32.3	-5.3	299.0
Mx_f	-0.7	63.8	-0.0	**32.3**	-5.3	299.0	-0.7	63.8	-0.0	**32.3**	-5.3	299.0
My_f	-0.7	63.8	-0.0	32.3	**-5.3**	299.0	-0.7	63.8	-0.0	32.3	**-5.3**	299.0
Mz_f	-0.7	63.8	-0.0	32.3	-5.3	**299.0**	-0.7	63.8	-0.0	32.3	-5.3	**299.0**

Member 38

Fx_i	**-0.7**	63.8	-0.0	32.3	-5.3	299.0	**-0.7**	63.8	-0.0	32.3	-5.3	299.0
Fy_i	-0.7	**63.8**	-0.0	32.3	-5.3	299.0	-0.7	**63.8**	-0.0	32.3	-5.3	299.0
Fz_i	-0.7	63.8	**-0.0**	32.3	-5.3	299.0	-0.7	63.8	**-0.0**	32.3	-5.3	299.0
Mx_i	-0.7	63.8	-0.0	**32.3**	-5.3	299.0	-0.7	63.8	-0.0	**32.3**	-5.3	299.0
My_i	-0.7	63.8	-0.0	32.3	**-5.3**	299.0	-0.7	63.8	-0.0	32.3	**-5.3**	299.0
Mz_i	-0.7	63.8	-0.0	32.3	-5.3	**299.0**	-0.7	63.8	-0.0	32.3	-5.3	**299.0**
Fx_f	**-0.7**	67.5	-0.0	32.3	-5.5	0.0	**-0.7**	67.5	-0.0	32.3	-5.5	0.0
Fy_f	-0.7	**67.5**	-0.0	32.3	-5.5	0.0	-0.7	**67.5**	-0.0	32.3	-5.5	0.0
Fz_f	-0.7	67.5	**-0.0**	32.3	-5.5	0.0	-0.7	67.5	**-0.0**	32.3	-5.5	0.0
Mx_f	-0.7	67.5	-0.0	**32.3**	-5.5	0.0	-0.7	67.5	-0.0	**32.3**	-5.5	0.0
My_f	-0.7	67.5	-0.0	32.3	**-5.5**	0.0	-0.7	67.5	-0.0	32.3	**-5.5**	0.0
Mz_f	-0.7	67.5	-0.0	32.3	-5.5	**0.0**	-0.7	67.5	-0.0	32.3	-5.5	**0.0**

Member 39

Fx_i	**-0.7**	-67.4	0.1	-31.9	-5.5	0.0	**-0.7**	-67.4	0.1	-31.9	-5.5	0.0
Fy_i	-0.7	**-67.4**	0.1	-31.9	-5.5	0.0	-0.7	**-67.4**	0.1	-31.9	-5.5	0.0
Fz_i	-0.7	-67.4	**0.1**	-31.9	-5.5	0.0	-0.7	-67.4	**0.1**	-31.9	-5.5	0.0
Mx_i	-0.7	-67.4	0.1	**-31.9**	-5.5	0.0	-0.7	-67.4	0.1	**-31.9**	-5.5	0.0
My_i	-0.7	-67.4	0.1	-31.9	**-5.5**	0.0	-0.7	-67.4	0.1	-31.9	**-5.5**	0.0
Mz_i	-0.7	-67.4	0.1	-31.9	-5.5	**0.0**	-0.7	-67.4	0.1	-31.9	-5.5	**0.0**
Fx_f	**-0.7**	-63.8	0.1	-31.9	-5.1	298.9	**-0.7**	-63.8	0.1	-31.9	-5.1	298.9
Fy_f	-0.7	**-63.8**	0.1	-31.9	-5.1	298.9	-0.7	**-63.8**	0.1	-31.9	-5.1	298.9
Fz_f	-0.7	-63.8	**0.1**	-31.9	-5.1	298.9	-0.7	-63.8	**0.1**	-31.9	-5.1	298.9
Mx_f	-0.7	-63.8	0.1	**-31.9**	-5.1	298.9	-0.7	-63.8	0.1	**-31.9**	-5.1	298.9
My_f	-0.7	-63.8	0.1	-31.9	**-5.1**	298.9	-0.7	-63.8	0.1	-31.9	**-5.1**	298.9
Mz_f	-0.7	-63.8	0.1	-31.9	-5.1	**298.9**	-0.7	-63.8	0.1	-31.9	-5.1	**298.9**

Member 40

Fx_i	**-0.7**	-63.8	0.1	-31.9	-5.1	298.9	**-0.7**	-63.8	0.1	-31.9	-5.1	298.9
Fy_i	-0.7	**-63.8**	0.1	-31.9	-5.1	298.9	-0.7	**-63.8**	0.1	-31.9	-5.1	298.9
Fz_i	-0.7	-63.8	**0.1**	-31.9	-5.1	298.9	-0.7	-63.8	**0.1**	-31.9	-5.1	298.9
Mx_i	-0.7	-63.8	0.1	**-31.9**	-5.1	298.9	-0.7	-63.8	0.1	**-31.9**	-5.1	298.9
My_i	-0.7	-63.8	0.1	-31.9	**-5.1**	298.9	-0.7	-63.8	0.1	-31.9	**-5.1**	298.9
Mz_i	-0.7	-63.8	0.1	-31.9	-5.1	**298.9**	-0.7	-63.8	0.1	-31.9	-5.1	**298.9**
Fx_f	**-0.7**	-42.5	0.1	-21.1	-4.7	538.1	**-0.7**	-42.5	0.1	-21.1	-4.7	538.1
Fy_f	-0.7	**-42.5**	0.1	-21.1	-4.7	538.1	-0.7	**-42.5**	0.1	-21.1	-4.7	538.1
Fz_f	-0.7	-42.5	**0.1**	-21.1	-4.7	538.1	-0.7	-42.5	**0.1**	-21.1	-4.7	538.1
Mx_f	-0.7	-42.5	0.1	**-21.1**	-4.7	538.1	-0.7	-42.5	0.1	**-21.1**	-4.7	538.1
My_f	-0.7	-42.5	0.1	-21.1	**-4.7**	538.1	-0.7	-42.5	0.1	-21.1	**-4.7**	538.1
Mz_f	-0.7	-42.5	0.1	-21.1	-4.7	**538.1**	-0.7	-42.5	0.1	-21.1	-4.7	**538.1**

Member 41

Fx_i	**-0.7**	-42.5	0.1	-21.1	-4.7	538.1	**-0.7**	-42.5	0.1	-21.1	-4.7	538.1
Fy_i	-0.7	**-42.5**	0.1	-21.1	-4.7	538.1	-0.7	**-42.5**	0.1	-21.1	-4.7	538.1
Fz_i	-0.7	-42.5	**0.1**	-21.1	-4.7	538.1	-0.7	-42.5	**0.1**	-21.1	-4.7	538.1
Mx_i	-0.7	-42.5	0.1	**-21.1**	-4.7	538.1	-0.7	-42.5	0.1	**-21.1**	-4.7	538.1
My_i	-0.7	-42.5	0.1	-21.1	**-4.7**	538.1	-0.7	-42.5	0.1	-21.1	**-4.7**	538.1
Mz_i	-0.7	-42.5	0.1	-21.1	-4.7	**538.1**	-0.7	-42.5	0.1	-21.1	-4.7	**538.1**
Fx_f	**-0.7**	-21.3	0.1	-10.4	-4.4	681.7	**-0.7**	-21.3	0.1	-10.4	-4.4	681.7
Fy_f	-0.7	**-21.3**	0.1	-10.4	-4.4	681.7	-0.7	**-21.3**	0.1	-10.4	-4.4	681.7
Fz_f	-0.7	-21.3	**0.1**	-10.4	-4.4	681.7	-0.7	-21.3	**0.1**	-10.4	-4.4	681.7
Mx_f	-0.7	-21.3	0.1	**-10.4**	-4.4	681.7	-0.7	-21.3	0.1	**-10.4**	-4.4	681.7
My_f	-0.7	-21.3	0.1	-10.4	**-4.4**	681.7	-0.7	-21.3	0.1	-10.4	**-4.4**	681.7
Mz_f	-0.7	-21.3	0.1	-10.4	-4.4	**681.7**	-0.7	-21.3	0.1	-10.4	-4.4	**681.7**

Member 42

Fx_i	**-0.7**	-21.3	0.1	-10.4	-4.4	681.7	**-0.7**	-21.3	0.1	-10.4	-4.4	681.7
Fy_i	-0.7	**-21.3**	0.1	-10.4	-4.4	681.7	-0.7	**-21.3**	0.1	-10.4	-4.4	681.7
Fz_i	-0.7	-21.3	**0.1**	-10.4	-4.4	681.7	-0.7	-21.3	**0.1**	-10.4	-4.4	681.7
Mx_i	-0.7	-21.3	0.1	**-10.4**	-4.4	681.7	-0.7	-21.3	0.1	**-10.4**	-4.4	681.7
My_i	-0.7	-21.3	0.1	-10.4	**-4.4**	681.7	-0.7	-21.3	0.1	-10.4	**-4.4**	681.7

Mz_i	-0.7	-21.3	0.1	-10.4	-4.4	**681.7**	-0.7	-21.3	0.1	-10.4	-4.4	**681.7**
Fx_f	**-0.7**	-0.0	0.1	0.4	-4.0	729.5	**-0.7**	-0.0	0.1	0.4	-4.0	729.5
Fy_f	-0.7	**-0.0**	0.1	0.4	-4.0	729.5	-0.7	**-0.0**	0.1	0.4	-4.0	729.5
Fz_f	-0.7	-0.0	**0.1**	0.4	-4.0	729.5	-0.7	-0.0	**0.1**	0.4	-4.0	729.5
Mx_f	-0.7	-0.0	0.1	**0.4**	-4.0	729.5	-0.7	-0.0	0.1	**0.4**	-4.0	729.5
My_f	-0.7	-0.0	0.1	0.4	**-4.0**	729.5	-0.7	-0.0	0.1	0.4	**-4.0**	729.5
Mz_f	-0.7	-0.0	0.1	0.4	-4.0	**729.5**	-0.7	-0.0	0.1	0.4	-4.0	**729.5**

Member 43

Fx_i	**-0.7**	-0.0	0.1	0.4	-4.0	729.5	**-0.7**	-0.0	0.1	0.4	-4.0	729.5
Fy_i	-0.7	**-0.0**	0.1	0.4	-4.0	729.5	-0.7	**-0.0**	0.1	0.4	-4.0	729.5
Fz_i	-0.7	-0.0	**0.1**	0.4	-4.0	729.5	-0.7	-0.0	**0.1**	0.4	-4.0	729.5
Mx_i	-0.7	-0.0	0.1	**0.4**	-4.0	729.5	-0.7	-0.0	0.1	**0.4**	-4.0	729.5
My_i	-0.7	-0.0	0.1	0.4	**-4.0**	729.5	-0.7	-0.0	0.1	0.4	**-4.0**	729.5
Mz_i	-0.7	-0.0	0.1	0.4	-4.0	**729.5**	-0.7	-0.0	0.1	0.4	-4.0	**729.5**
Fx_f	**-0.7**	21.3	0.1	11.1	-3.6	681.7	**-0.7**	21.3	0.1	11.1	-3.6	681.7
Fy_f	-0.7	**21.3**	0.1	11.1	-3.6	681.7	-0.7	**21.3**	0.1	11.1	-3.6	681.7
Fz_f	-0.7	21.3	**0.1**	11.1	-3.6	681.7	-0.7	21.3	**0.1**	11.1	-3.6	681.7
Mx_f	-0.7	21.3	0.1	**11.1**	-3.6	681.7	-0.7	21.3	0.1	**11.1**	-3.6	681.7
My_f	-0.7	21.3	0.1	11.1	**-3.6**	681.7	-0.7	21.3	0.1	11.1	**-3.6**	681.7
Mz_f	-0.7	21.3	0.1	11.1	-3.6	**681.7**	-0.7	21.3	0.1	11.1	-3.6	**681.7**

Member 44

Fx_i	**-0.7**	21.3	0.1	11.1	-3.6	681.7	**-0.7**	21.3	0.1	11.1	-3.6	681.7
Fy_i	-0.7	**21.3**	0.1	11.1	-3.6	681.7	-0.7	**21.3**	0.1	11.1	-3.6	681.7
Fz_i	-0.7	21.3	**0.1**	11.1	-3.6	681.7	-0.7	21.3	**0.1**	11.1	-3.6	681.7
Mx_i	-0.7	21.3	0.1	**11.1**	-3.6	681.7	-0.7	21.3	0.1	**11.1**	-3.6	681.7
My_i	-0.7	21.3	0.1	11.1	**-3.6**	681.7	-0.7	21.3	0.1	11.1	**-3.6**	681.7
Mz_i	-0.7	21.3	0.1	11.1	-3.6	**681.7**	-0.7	21.3	0.1	11.1	-3.6	**681.7**
Fx_f	**-0.7**	42.5	0.1	21.9	-3.3	538.2	**-0.7**	42.5	0.1	21.9	-3.3	538.2
Fy_f	-0.7	**42.5**	0.1	21.9	-3.3	538.2	-0.7	**42.5**	0.1	21.9	-3.3	538.2
Fz_f	-0.7	42.5	**0.1**	21.9	-3.3	538.2	-0.7	42.5	**0.1**	21.9	-3.3	538.2
Mx_f	-0.7	42.5	0.1	**21.9**	-3.3	538.2	-0.7	42.5	0.1	**21.9**	-3.3	538.2
My_f	-0.7	42.5	0.1	21.9	**-3.3**	538.2	-0.7	42.5	0.1	21.9	**-3.3**	538.2
Mz_f	-0.7	42.5	0.1	21.9	-3.3	**538.2**	-0.7	42.5	0.1	21.9	-3.3	**538.2**

Member 45

Fx_i	**-0.7**	42.5	0.1	21.9	-3.3	538.2	**-0.7**	42.5	0.1	21.9	-3.3	538.2
Fy_i	-0.7	**42.5**	0.1	21.9	-3.3	538.2	-0.7	**42.5**	0.1	21.9	-3.3	538.2
Fz_i	-0.7	42.5	**0.1**	21.9	-3.3	538.2	-0.7	42.5	**0.1**	21.9	-3.3	538.2
Mx_i	-0.7	42.5	0.1	**21.9**	-3.3	538.2	-0.7	42.5	0.1	**21.9**	-3.3	538.2
My_i	-0.7	42.5	0.1	21.9	**-3.3**	538.2	-0.7	42.5	0.1	21.9	**-3.3**	538.2
Mz_i	-0.7	42.5	0.1	21.9	-3.3	**538.2**	-0.7	42.5	0.1	21.9	-3.3	**538.2**
Fx_f	**-0.7**	63.8	0.1	32.7	-2.9	299.0	**-0.7**	63.8	0.1	32.7	-2.9	299.0
Fy_f	-0.7	**63.8**	0.1	32.7	-2.9	299.0	-0.7	**63.8**	0.1	32.7	-2.9	299.0
Fz_f	-0.7	63.8	**0.1**	32.7	-2.9	299.0	-0.7	63.8	**0.1**	32.7	-2.9	299.0
Mx_f	-0.7	63.8	0.1	**32.7**	-2.9	299.0	-0.7	63.8	0.1	**32.7**	-2.9	299.0
My_f	-0.7	63.8	0.1	32.7	**-2.9**	299.0	-0.7	63.8	0.1	32.7	**-2.9**	299.0
Mz_f	-0.7	63.8	0.1	32.7	-2.9	**299.0**	-0.7	63.8	0.1	32.7	-2.9	**299.0**

Member 46

Fx_i	**-0.7**	63.8	0.1	32.7	-2.9	299.0	**-0.7**	63.8	0.1	32.7	-2.9	299.0
Fy_i	-0.7	**63.8**	0.1	32.7	-2.9	299.0	-0.7	**63.8**	0.1	32.7	-2.9	299.0
Fz_i	-0.7	63.8	**0.1**	32.7	-2.9	299.0	-0.7	63.8	**0.1**	32.7	-2.9	299.0
Mx_i	-0.7	63.8	0.1	**32.7**	-2.9	299.0	-0.7	63.8	0.1	**32.7**	-2.9	299.0
My_i	-0.7	63.8	0.1	32.7	**-2.9**	299.0	-0.7	63.8	0.1	32.7	**-2.9**	299.0
Mz_i	-0.7	63.8	0.1	32.7	-2.9	**299.0**	-0.7	63.8	0.1	32.7	-2.9	**299.0**
Fx_f	**-0.7**	67.5	0.1	32.7	-2.5	0.0	**-0.7**	67.5	0.1	32.7	-2.5	0.0
Fy_f	-0.7	**67.5**	0.1	32.7	-2.5	0.0	-0.7	**67.5**	0.1	32.7	-2.5	0.0
Fz_f	-0.7	67.5	**0.1**	32.7	-2.5	0.0	-0.7	67.5	**0.1**	32.7	-2.5	0.0
Mx_f	-0.7	67.5	0.1	**32.7**	-2.5	0.0	-0.7	67.5	0.1	**32.7**	-2.5	0.0
My_f	-0.7	67.5	0.1	32.7	**-2.5**	0.0	-0.7	67.5	0.1	32.7	**-2.5**	0.0
Mz_f	-0.7	67.5	0.1	32.7	-2.5	**0.0**	-0.7	67.5	0.1	32.7	-2.5	**0.0**

Member 47

Fx_i	**-0.7**	-67.4	0.5	-32.3	-2.5	-0.0	**-0.7**	-67.4	0.5	-32.3	-2.5	-0.0
Fy_i	-0.7	**-67.4**	0.5	-32.3	-2.5	-0.0	-0.7	**-67.4**	0.5	-32.3	-2.5	-0.0
Fz_i	-0.7	-67.4	**0.5**	-32.3	-2.5	-0.0	-0.7	-67.4	**0.5**	-32.3	-2.5	-0.0
Mx_i	-0.7	-67.4	0.5	**-32.3**	-2.5	-0.0	-0.7	-67.4	0.5	**-32.3**	-2.5	-0.0
My_i	-0.7	-67.4	0.5	-32.3	**-2.5**	-0.0	-0.7	-67.4	0.5	-32.3	**-2.5**	-0.0
Mz_i	-0.7	-67.4	0.5	-32.3	-2.5	**-0.0**	-0.7	-67.4	0.5	-32.3	-2.5	**-0.0**
Fx_f	**-0.7**	-63.8	0.5	-32.3	-0.4	298.9	**-0.7**	-63.8	0.5	-32.3	-0.4	298.9
Fy_f	-0.7	**-63.8**	0.5	-32.3	-0.4	298.9	-0.7	**-63.8**	0.5	-32.3	-0.4	298.9
Fz_f	-0.7	-63.8	**0.5**	-32.3	-0.4	298.9	-0.7	-63.8	**0.5**	-32.3	-0.4	298.9
Mx_f	-0.7	-63.8	0.5	**-32.3**	-0.4	298.9	-0.7	-63.8	0.5	**-32.3**	-0.4	298.9
My_f	-0.7	-63.8	0.5	-32.3	**-0.4**	298.9	-0.7	-63.8	0.5	-32.3	**-0.4**	298.9
Mz_f	-0.7	-63.8	0.5	-32.3	-0.4	**298.9**	-0.7	-63.8	0.5	-32.3	-0.4	**298.9**

Member 48

Fx_i	**-0.7**	-63.8	0.5	-32.3	-0.4	298.9	**-0.7**	-63.8	0.5	-32.3	-0.4	298.9
Fy_i	-0.7	**-63.8**	0.5	-32.3	-0.4	298.9	-0.7	**-63.8**	0.5	-32.3	-0.4	298.9
Fz_i	-0.7	-63.8	**0.5**	-32.3	-0.4	298.9	-0.7	-63.8	**0.5**	-32.3	-0.4	298.9
Mx_i	-0.7	-63.8	0.5	**-32.3**	-0.4	298.9	-0.7	-63.8	0.5	**-32.3**	-0.4	298.9
My_i	-0.7	-63.8	0.5	-32.3	**-0.4**	298.9	-0.7	-63.8	0.5	-32.3	**-0.4**	298.9
Mz_i	-0.7	-63.8	0.5	-32.3	-0.4	**298.9**	-0.7	-63.8	0.5	-32.3	-0.4	**298.9**
Fx_f	**-0.7**	-42.5	0.5	-21.6	1.7	538.1	**-0.7**	-42.5	0.5	-21.6	1.7	538.1
Fy_f	-0.7	**-42.5**	0.5	-21.6	1.7	538.1	-0.7	**-42.5**	0.5	-21.6	1.7	538.1
Fz_f	-0.7	-42.5	**0.5**	-21.6	1.7	538.1	-0.7	-42.5	**0.5**	-21.6	1.7	538.1
Mx_f	-0.7	-42.5	0.5	**-21.6**	1.7	538.1	-0.7	-42.5	0.5	**-21.6**	1.7	538.1
My_f	-0.7	-42.5	0.5	-21.6	**1.7**	538.1	-0.7	-42.5	0.5	-21.6	**1.7**	538.1
Mz_f	-0.7	-42.5	0.5	-21.6	1.7	**538.1**	-0.7	-42.5	0.5	-21.6	1.7	**538.1**

Member 49

Fx_i	**-0.7**	-42.5	0.5	-21.6	1.7	538.1	**-0.7**	-42.5	0.5	-21.6	1.7	538.1
Fy_i	-0.7	**-42.5**	0.5	-21.6	1.7	538.1	-0.7	**-42.5**	0.5	-21.6	1.7	538.1
Fz_i	-0.7	-42.5	**0.5**	-21.6	1.7	538.1	-0.7	-42.5	**0.5**	-21.6	1.7	538.1
Mx_i	-0.7	-42.5	0.5	**-21.6**	1.7	538.1	-0.7	-42.5	0.5	**-21.6**	1.7	538.1
My_i	-0.7	-42.5	0.5	-21.6	**1.7**	538.1	-0.7	-42.5	0.5	-21.6	**1.7**	538.1
Mz_i	-0.7	-42.5	0.5	-21.6	1.7	**538.1**	-0.7	-42.5	0.5	-21.6	1.7	**538.1**
Fx_f	**-0.7**	-21.3	0.5	-10.8	3.8	681.7	**-0.7**	-21.3	0.5	-10.8	3.8	681.7
Fy_f	-0.7	**-21.3**	0.5	-10.8	3.8	681.7	-0.7	**-21.3**	0.5	-10.8	3.8	681.7
Fz_f	-0.7	-21.3	**0.5**	-10.8	3.8	681.7	-0.7	-21.3	**0.5**	-10.8	3.8	681.7
Mx_f	-0.7	-21.3	0.5	**-10.8**	3.8	681.7	-0.7	-21.3	0.5	**-10.8**	3.8	681.7
My_f	-0.7	-21.3	0.5	-10.8	**3.8**	681.7	-0.7	-21.3	0.5	-10.8	**3.8**	681.7
Mz_f	-0.7	-21.3	0.5	-10.8	3.8	**681.7**	-0.7	-21.3	0.5	-10.8	3.8	**681.7**

Member 50

Fx_i	**-0.7**	-21.3	0.5	-10.8	3.8	681.7	**-0.7**	-21.3	0.5	-10.8	3.8	681.7
Fy_i	-0.7	**-21.3**	0.5	-10.8	3.8	681.7	-0.7	**-21.3**	0.5	-10.8	3.8	681.7
Fz_i	-0.7	-21.3	**0.5**	-10.8	3.8	681.7	-0.7	-21.3	**0.5**	-10.8	3.8	681.7
Mx_i	-0.7	-21.3	0.5	**-10.8**	3.8	681.7	-0.7	-21.3	0.5	**-10.8**	3.8	681.7
My_i	-0.7	-21.3	0.5	-10.8	**3.8**	681.7	-0.7	-21.3	0.5	-10.8	**3.8**	681.7
Mz_i	-0.7	-21.3	0.5	-10.8	3.8	**681.7**	-0.7	-21.3	0.5	-10.8	3.8	**681.7**
Fx_f	**-0.7**	-0.0	0.5	-0.1	5.9	729.5	**-0.7**	-0.0	0.5	-0.1	5.9	729.5
Fy_f	-0.7	**-0.0**	0.5	-0.1	5.9	729.5	-0.7	**-0.0**	0.5	-0.1	5.9	729.5
Fz_f	-0.7	-0.0	**0.5**	-0.1	5.9	729.5	-0.7	-0.0	**0.5**	-0.1	5.9	729.5
Mx_f	-0.7	-0.0	0.5	**-0.1**	5.9	729.5	-0.7	-0.0	0.5	**-0.1**	5.9	729.5
My_f	-0.7	-0.0	0.5	-0.1	**5.9**	729.5	-0.7	-0.0	0.5	-0.1	**5.9**	729.5
Mz_f	-0.7	-0.0	0.5	-0.1	5.9	**729.5**	-0.7	-0.0	0.5	-0.1	5.9	**729.5**

Member 51

Fx_i	**-0.7**	-0.0	0.5	-0.1	5.9	729.5	**-0.7**	-0.0	0.5	-0.1	5.9	729.5
Fy_i	-0.7	**-0.0**	0.5	-0.1	5.9	729.5	-0.7	**-0.0**	0.5	-0.1	5.9	729.5
Fz_i	-0.7	-0.0	**0.5**	-0.1	5.9	729.5	-0.7	-0.0	**0.5**	-0.1	5.9	729.5
Mx_i	-0.7	-0.0	0.5	**-0.1**	5.9	729.5	-0.7	-0.0	0.5	**-0.1**	5.9	729.5
My_i	-0.7	-0.0	0.5	-0.1	**5.9**	729.5	-0.7	-0.0	0.5	-0.1	**5.9**	729.5
Mz_i	-0.7	-0.0	0.5	-0.1	5.9	**729.5**	-0.7	-0.0	0.5	-0.1	5.9	**729.5**
Fx_f	**-0.7**	21.3	0.5	10.7	8.0	681.7	**-0.7**	21.3	0.5	10.7	8.0	681.7
Fy_f	-0.7	**21.3**	0.5	10.7	8.0	681.7	-0.7	**21.3**	0.5	10.7	8.0	681.7
Fz_f	-0.7	21.3	**0.5**	10.7	8.0	681.7	-0.7	21.3	**0.5**	10.7	8.0	681.7
Mx_f	-0.7	21.3	0.5	**10.7**	8.0	681.7	-0.7	21.3	0.5	**10.7**	8.0	681.7

My_f	-0.7	21.3	0.5	10.7	**8.0**	681.7	-0.7	21.3	0.5	10.7	8.0	**681.7**
Mz_f	-0.7	21.3	0.5	10.7	8.0	**681.7**	-0.7	21.3	0.5	10.7	8.0	**681.7**

Member 52

Fx_i	**-0.7**	21.3	0.5	10.7	8.0	681.7	**-0.7**	21.3	0.5	10.7	8.0	681.7
Fy_i	-0.7	**21.3**	0.5	10.7	8.0	681.7	-0.7	**21.3**	0.5	10.7	8.0	681.7
Fz_i	-0.7	21.3	**0.5**	10.7	8.0	681.7	-0.7	21.3	**0.5**	10.7	8.0	681.7
Mx_i	-0.7	21.3	0.5	**10.7**	8.0	681.7	-0.7	21.3	0.5	**10.7**	8.0	681.7
My_i	-0.7	21.3	0.5	10.7	**8.0**	681.7	-0.7	21.3	0.5	10.7	**8.0**	681.7
Mz_i	-0.7	21.3	0.5	10.7	8.0	**681.7**	-0.7	21.3	0.5	10.7	8.0	**681.7**
Fx_f	**-0.7**	42.5	0.5	21.5	10.1	538.2	**-0.7**	42.5	0.5	21.5	10.1	538.2
Fy_f	-0.7	**42.5**	0.5	21.5	10.1	538.2	-0.7	**42.5**	0.5	21.5	10.1	538.2
Fz_f	-0.7	42.5	**0.5**	21.5	10.1	538.2	-0.7	42.5	**0.5**	21.5	10.1	538.2
Mx_f	-0.7	42.5	0.5	**21.5**	10.1	538.2	-0.7	42.5	0.5	**21.5**	10.1	538.2
My_f	-0.7	42.5	0.5	21.5	**10.1**	538.2	-0.7	42.5	0.5	21.5	**10.1**	538.2
Mz_f	-0.7	42.5	0.5	21.5	10.1	**538.2**	-0.7	42.5	0.5	21.5	10.1	**538.2**

Member 53

Fx_i	**-0.7**	42.5	0.5	21.5	10.1	538.2	**-0.7**	42.5	0.5	21.5	10.1	538.2
Fy_i	-0.7	**42.5**	0.5	21.5	10.1	538.2	-0.7	**42.5**	0.5	21.5	10.1	538.2
Fz_i	-0.7	42.5	**0.5**	21.5	10.1	538.2	-0.7	42.5	**0.5**	21.5	10.1	538.2
Mx_i	-0.7	42.5	0.5	**21.5**	10.1	538.2	-0.7	42.5	0.5	**21.5**	10.1	538.2
My_i	-0.7	42.5	0.5	21.5	**10.1**	538.2	-0.7	42.5	0.5	21.5	**10.1**	538.2
Mz_i	-0.7	42.5	0.5	21.5	10.1	**538.2**	-0.7	42.5	0.5	21.5	10.1	**538.2**
Fx_f	**-0.7**	63.8	0.5	32.2	12.2	299.0	**-0.7**	63.8	0.5	32.2	12.2	299.0
Fy_f	-0.7	**63.8**	0.5	32.2	12.2	299.0	-0.7	**63.8**	0.5	32.2	12.2	299.0
Fz_f	-0.7	63.8	**0.5**	32.2	12.2	299.0	-0.7	63.8	**0.5**	32.2	12.2	299.0
Mx_f	-0.7	63.8	0.5	**32.2**	12.2	299.0	-0.7	63.8	0.5	**32.2**	12.2	299.0
My_f	-0.7	63.8	0.5	32.2	**12.2**	299.0	-0.7	63.8	0.5	32.2	**12.2**	299.0
Mz_f	-0.7	63.8	0.5	32.2	12.2	**299.0**	-0.7	63.8	0.5	32.2	12.2	**299.0**

Member 54

Fx_i	**-0.7**	63.8	0.5	32.2	12.2	299.0	**-0.7**	63.8	0.5	32.2	12.2	299.0
Fy_i	-0.7	**63.8**	0.5	32.2	12.2	299.0	-0.7	**63.8**	0.5	32.2	12.2	299.0
Fz_i	-0.7	63.8	**0.5**	32.2	12.2	299.0	-0.7	63.8	**0.5**	32.2	12.2	299.0
Mx_i	-0.7	63.8	0.5	**32.2**	12.2	299.0	-0.7	63.8	0.5	**32.2**	12.2	299.0
My_i	-0.7	63.8	0.5	32.2	**12.2**	299.0	-0.7	63.8	0.5	32.2	**12.2**	299.0
Mz_i	-0.7	63.8	0.5	32.2	12.2	**299.0**	-0.7	63.8	0.5	32.2	12.2	**299.0**
Fx_f	**-0.7**	67.5	0.5	32.2	14.3	0.0	**-0.7**	67.5	0.5	32.2	14.3	0.0
Fy_f	-0.7	**67.5**	0.5	32.2	14.3	0.0	-0.7	**67.5**	0.5	32.2	14.3	0.0
Fz_f	-0.7	67.5	**0.5**	32.2	14.3	0.0	-0.7	67.5	**0.5**	32.2	14.3	0.0
Mx_f	-0.7	67.5	0.5	**32.2**	14.3	0.0	-0.7	67.5	0.5	**32.2**	14.3	0.0
My_f	-0.7	67.5	0.5	32.2	**14.3**	0.0	-0.7	67.5	0.5	32.2	**14.3**	0.0
Mz_f	-0.7	67.5	0.5	32.2	14.3	**0.0**	-0.7	67.5	0.5	32.2	14.3	**0.0**

Member 55

Fx_i	**-0.7**	-38.2	-0.6	-42.7	14.3	-0.0	**-0.7**	-38.2	-0.6	-42.7	14.3	-0.0
Fy_i	-0.7	**-38.2**	-0.6	-42.7	14.3	-0.0	-0.7	**-38.2**	-0.6	-42.7	14.3	-0.0
Fz_i	-0.7	-38.2	**-0.6**	-42.7	14.3	-0.0	-0.7	-38.2	**-0.6**	-42.7	14.3	-0.0
Mx_i	-0.7	-38.2	-0.6	**-42.7**	14.3	-0.0	-0.7	-38.2	-0.6	**-42.7**	14.3	-0.0
My_i	-0.7	-38.2	-0.6	-42.7	**14.3**	-0.0	-0.7	-38.2	-0.6	-42.7	**14.3**	-0.0
Mz_i	-0.7	-38.2	-0.6	-42.7	14.3	**-0.0**	-0.7	-38.2	-0.6	-42.7	14.3	**-0.0**
Fx_f	**-0.7**	-35.7	-0.6	-42.7	11.9	137.9	**-0.7**	-35.7	-0.6	-42.7	11.9	137.9
Fy_f	-0.7	**-35.7**	-0.6	-42.7	11.9	137.9	-0.7	**-35.7**	-0.6	-42.7	11.9	137.9
Fz_f	-0.7	-35.7	**-0.6**	-42.7	11.9	137.9	-0.7	-35.7	**-0.6**	-42.7	11.9	137.9
Mx_f	-0.7	-35.7	-0.6	**-42.7**	11.9	137.9	-0.7	-35.7	-0.6	**-42.7**	11.9	137.9
My_f	-0.7	-35.7	-0.6	-42.7	**11.9**	137.9	-0.7	-35.7	-0.6	-42.7	**11.9**	137.9
Mz_f	-0.7	-35.7	-0.6	-42.7	11.9	**137.9**	-0.7	-35.7	-0.6	-42.7	11.9	**137.9**

Member 56

Fx_i	**-0.7**	-35.7	-0.6	-42.7	11.9	137.9	**-0.7**	-35.7	-0.6	-42.7	11.9	137.9
Fy_i	-0.7	**-35.7**	-0.6	-42.7	11.9	137.9	-0.7	**-35.7**	-0.6	-42.7	11.9	137.9
Fz_i	-0.7	-35.7	**-0.6**	-42.7	11.9	137.9	-0.7	-35.7	**-0.6**	-42.7	11.9	137.9
Mx_i	-0.7	-35.7	-0.6	**-42.7**	11.9	137.9	-0.7	-35.7	-0.6	**-42.7**	11.9	137.9
My_i	-0.7	-35.7	-0.6	-42.7	**11.9**	137.9	-0.7	-35.7	-0.6	-42.7	**11.9**	137.9
Mz_i	-0.7	-35.7	-0.6	-42.7	11.9	**137.9**	-0.7	-35.7	-0.6	-42.7	11.9	**137.9**
Fx_f	**-0.7**	-18.4	-0.6	-33.9	9.5	237.2	**-0.7**	-18.4	-0.6	-33.9	9.5	237.2
Fy_f	-0.7	**-18.4**	-0.6	-33.9	9.5	237.2	-0.7	**-18.4**	-0.6	-33.9	9.5	237.2
Fz_f	-0.7	-18.4	**-0.6**	-33.9	9.5	237.2	-0.7	-18.4	**-0.6**	-33.9	9.5	237.2
Mx_f	-0.7	-18.4	-0.6	**-33.9**	9.5	237.2	-0.7	-18.4	-0.6	**-33.9**	9.5	237.2
My_f	-0.7	-18.4	-0.6	-33.9	**9.5**	237.2	-0.7	-18.4	-0.6	-33.9	**9.5**	237.2
Mz_f	-0.7	-18.4	-0.6	-33.9	9.5	**237.2**	-0.7	-18.4	-0.6	-33.9	9.5	**237.2**

Member 57

Fx_i	**-0.7**	-18.4	-0.6	-33.9	9.5	237.2	**-0.7**	-18.4	-0.6	-33.9	9.5	237.2
Fy_i	-0.7	**-18.4**	-0.6	-33.9	9.5	237.2	-0.7	**-18.4**	-0.6	-33.9	9.5	237.2
Fz_i	-0.7	-18.4	**-0.6**	-33.9	9.5	237.2	-0.7	-18.4	**-0.6**	-33.9	9.5	237.2
Mx_i	-0.7	-18.4	-0.6	**-33.9**	9.5	237.2	-0.7	-18.4	-0.6	**-33.9**	9.5	237.2
My_i	-0.7	-18.4	-0.6	-33.9	**9.5**	237.2	-0.7	-18.4	-0.6	-33.9	**9.5**	237.2
Mz_i	-0.7	-18.4	-0.6	-33.9	9.5	**237.2**	-0.7	-18.4	-0.6	-33.9	9.5	**237.2**
Fx_f	**-0.7**	-1.1	-0.6	-25.2	7.1	272.8	**-0.7**	-1.1	-0.6	-25.2	7.1	272.8
Fy_f	-0.7	**-1.1**	-0.6	-25.2	7.1	272.8	-0.7	**-1.1**	-0.6	-25.2	7.1	272.8
Fz_f	-0.7	-1.1	**-0.6**	-25.2	7.1	272.8	-0.7	-1.1	**-0.6**	-25.2	7.1	272.8
Mx_f	-0.7	-1.1	-0.6	**-25.2**	7.1	272.8	-0.7	-1.1	-0.6	**-25.2**	7.1	272.8
My_f	-0.7	-1.1	-0.6	-25.2	**7.1**	272.8	-0.7	-1.1	-0.6	-25.2	**7.1**	272.8
Mz_f	-0.7	-1.1	-0.6	-25.2	7.1	**272.8**	-0.7	-1.1	-0.6	-25.2	7.1	**272.8**

Member 58

Fx_i	**-0.7**	-1.1	-0.6	-25.2	7.1	272.8	**-0.7**	-1.1	-0.6	-25.2	7.1	272.8
Fy_i	-0.7	**-1.1**	-0.6	-25.2	7.1	272.8	-0.7	**-1.1**	-0.6	-25.2	7.1	272.8
Fz_i	-0.7	-1.1	**-0.6**	-25.2	7.1	272.8	-0.7	-1.1	**-0.6**	-25.2	7.1	272.8
Mx_i	-0.7	-1.1	-0.6	**-25.2**	7.1	272.8	-0.7	-1.1	-0.6	**-25.2**	7.1	272.8
My_i	-0.7	-1.1	-0.6	-25.2	**7.1**	272.8	-0.7	-1.1	-0.6	-25.2	**7.1**	272.8
Mz_i	-0.7	-1.1	-0.6	-25.2	7.1	**272.8**	-0.7	-1.1	-0.6	-25.2	7.1	**272.8**
Fx_f	**-0.7**	16.3	-0.6	-16.4	4.8	245.0	**-0.7**	16.3	-0.6	-16.4	4.8	245.0
Fy_f	-0.7	**16.3**	-0.6	-16.4	4.8	245.0	-0.7	**16.3**	-0.6	-16.4	4.8	245.0
Fz_f	-0.7	16.3	**-0.6**	-16.4	4.8	245.0	-0.7	16.3	**-0.6**	-16.4	4.8	245.0
Mx_f	-0.7	16.3	-0.6	**-16.4**	4.8	245.0	-0.7	16.3	-0.6	**-16.4**	4.8	245.0
My_f	-0.7	16.3	-0.6	-16.4	**4.8**	245.0	-0.7	16.3	-0.6	-16.4	**4.8**	245.0
Mz_f	-0.7	16.3	-0.6	-16.4	4.8	**245.0**	-0.7	16.3	-0.6	-16.4	4.8	**245.0**

Member 59

Fx_i	**-0.7**	16.3	-0.6	-16.4	4.8	245.0	**-0.7**	16.3	-0.6	-16.4	4.8	245.0
Fy_i	-0.7	**16.3**	-0.6	-16.4	4.8	245.0	-0.7	**16.3**	-0.6	-16.4	4.8	245.0
Fz_i	-0.7	16.3	**-0.6**	-16.4	4.8	245.0	-0.7	16.3	**-0.6**	-16.4	4.8	245.0
Mx_i	-0.7	16.3	-0.6	**-16.4**	4.8	245.0	-0.7	16.3	-0.6	**-16.4**	4.8	245.0
My_i	-0.7	16.3	-0.6	-16.4	**4.8**	245.0	-0.7	16.3	-0.6	-16.4	**4.8**	245.0
Mz_i	-0.7	16.3	-0.6	-16.4	4.8	**245.0**	-0.7	16.3	-0.6	-16.4	4.8	**245.0**
Fx_f	**-0.7**	33.6	-0.6	-7.6	2.4	153.7	**-0.7**	33.6	-0.6	-7.6	2.4	153.7
Fy_f	-0.7	**33.6**	-0.6	-7.6	2.4	153.7	-0.7	**33.6**	-0.6	-7.6	2.4	153.7
Fz_f	-0.7	33.6	**-0.6**	-7.6	2.4	153.7	-0.7	33.6	**-0.6**	-7.6	2.4	153.7
Mx_f	-0.7	33.6	-0.6	**-7.6**	2.4	153.7	-0.7	33.6	-0.6	**-7.6**	2.4	153.7
My_f	-0.7	33.6	-0.6	-7.6	**2.4**	153.7	-0.7	33.6	-0.6	-7.6	**2.4**	153.7
Mz_f	-0.7	33.6	-0.6	-7.6	2.4	**153.7**	-0.7	33.6	-0.6	-7.6	2.4	**153.7**

Member 60

Fx_i	**-0.7**	33.6	-0.6	-7.6	2.4	153.7	**-0.7**	33.6	-0.6	-7.6	2.4	153.7
Fy_i	-0.7	**33.6**	-0.6	-7.6	2.4	153.7	-0.7	**33.6**	-0.6	-7.6	2.4	153.7
Fz_i	-0.7	33.6	**-0.6**	-7.6	2.4	153.7	-0.7	33.6	**-0.6**	-7.6	2.4	153.7
Mx_i	-0.7	33.6	-0.6	**-7.6**	2.4	153.7	-0.7	33.6	-0.6	**-7.6**	2.4	153.7
My_i	-0.7	33.6	-0.6	-7.6	**2.4**	153.7	-0.7	33.6	-0.6	-7.6	**2.4**	153.7
Mz_i	-0.7	33.6	-0.6	-7.6	2.4	**153.7**	-0.7	33.6	-0.6	-7.6	2.4	**153.7**
Fx_f	**-0.7**	50.9	-0.6	1.1	-0.0	-1.2	**-0.7**	50.9	-0.6	1.1	-0.0	-1.2
Fy_f	-0.7	**50.9**	-0.6	1.1	-0.0	-1.2	-0.7	**50.9**	-0.6	1.1	-0.0	-1.2
Fz_f	-0.7	50.9	**-0.6**	1.1	-0.0	-1.2	-0.7	50.9	**-0.6**	1.1	-0.0	-1.2
Mx_f	-0.7	50.9	-0.6	**1.1**	-0.0	-1.2	-0.7	50.9	-0.6	**1.1**	-0.0	-1.2
My_f	-0.7	50.9	-0.6	1.1	**-0.0**	-1.2	-0.7	50.9	-0.6	1.1	**-0.0**	-1.2
Mz_f	-0.7	50.9	-0.6	1.1	-0.0	**-1.2**	-0.7	50.9	-0.6	1.1	-0.0	**-1.2**

Member 121

Fx_i	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0

Fy_1	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_1	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_1	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_1	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_1	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 122

Fx_1	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_1	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_1	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_1	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_1	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_1	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 123

Fx_1	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_1	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_1	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_1	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_1	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_1	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 124

Fx_1	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_1	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_1	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_1	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_1	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_1	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 125

Fx_1	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_1	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_1	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_1	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_1	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_1	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 126

Fx_1	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_1	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_1	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_1	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_1	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_1	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 127

Fx_1	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_1	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_1	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_1	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_1	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_1	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 128

Fx_1	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_1	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_1	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_1	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_1	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_1	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 129

Fx_1	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_1	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_1	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_1	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_1	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_1	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 130

Fx_1	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_1	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_1	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_1	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_1	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_1	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 131

Fx_i	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 132

Fx_i	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 133

Fx_i	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 134

Fx_i	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 135

Fx_i	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Fz_i	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 136

Fx_i	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 137

Fx_i	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 138

Fx_i	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 139

Fx_i	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 140

Fx_i	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 141

Fx_i	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 142

Fx_i	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 143

Fx_i	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 144

Fx_i	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 145

Fx_i	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 146

Fx_i	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 147

Fx_i	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 148

Fx_i	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 149

Fx_i	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0

Mx,	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz,	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx$_f$	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy$_f$	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz$_f$	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx$_f$	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My$_f$	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz$_f$	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 150

Fx,	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy,	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx,	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz,	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx$_f$	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy$_f$	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz$_f$	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx$_f$	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My$_f$	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz$_f$	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 365

Fx,	**-54.5**	0.0	-15.8	0.0	27.6	0.0	**-54.5**	0.0	-15.8	0.0	27.6	0.0
Fy,	-54.5	**0.0**	-15.8	0.0	27.6	0.0	-54.5	**0.0**	-15.8	0.0	27.6	0.0
Fz,	-54.5	0.0	**-15.8**	0.0	27.6	0.0	-54.5	0.0	**-15.8**	0.0	27.6	0.0
Mx,	-54.5	0.0	-15.8	**0.0**	27.6	0.0	-54.5	0.0	-15.8	**0.0**	27.6	0.0
My,	-54.5	0.0	-15.8	0.0	**27.6**	0.0	-54.5	0.0	-15.8	0.0	**27.6**	0.0
Mz,	-54.5	0.0	-15.8	0.0	27.6	**0.0**	-54.5	0.0	-15.8	0.0	27.6	**0.0**
Fx$_f$	**-54.5**	0.0	-15.8	0.0	0.0	-0.0	**-54.5**	0.0	-15.8	0.0	0.0	-0.0
Fy$_f$	-54.5	**0.0**	-15.8	0.0	0.0	-0.0	-54.5	**0.0**	-15.8	0.0	0.0	-0.0
Fz$_f$	-54.5	0.0	**-15.8**	0.0	0.0	-0.0	-54.5	0.0	**-15.8**	0.0	0.0	-0.0
Mx$_f$	-54.5	0.0	-15.8	**0.0**	0.0	-0.0	-54.5	0.0	-15.8	**0.0**	0.0	-0.0
My$_f$	-54.5	0.0	-15.8	0.0	**0.0**	-0.0	-54.5	0.0	-15.8	0.0	**0.0**	-0.0
Mz$_f$	-54.5	0.0	-15.8	0.0	0.0	**-0.0**	-54.5	0.0	-15.8	0.0	0.0	**-0.0**

Member 366

Fx,	**-105.4**	-0.0	-0.7	0.0	49.8	-0.0	**-105.4**	-0.0	-0.7	0.0	49.8	-0.0
Fy,	-105.4	**-0.0**	-0.7	0.0	49.8	-0.0	-105.4	**-0.0**	-0.7	0.0	49.8	-0.0
Fz,	-105.4	-0.0	**-0.7**	0.0	49.8	-0.0	-105.4	-0.0	**-0.7**	0.0	49.8	-0.0
Mx,	-105.4	-0.0	-0.7	**0.0**	49.8	-0.0	-105.4	-0.0	-0.7	**0.0**	49.8	-0.0
My.	-105.4	-0.0	-0.7	0.0	**49.8**	-0.0	-105.4	-0.0	-0.7	0.0	**49.8**	-0.0
Mz,	-105.4	-0.0	-0.7	0.0	49.8	**-0.0**	-105.4	-0.0	-0.7	0.0	49.8	**-0.0**
Fx$_f$	**-105.4**	-0.0	-0.7	0.0	48.6	0.0	**-105.4**	-0.0	-0.7	0.0	48.6	0.0
Fy$_f$	-105.4	**-0.0**	-0.7	0.0	48.6	0.0	-105.4	**-0.0**	-0.7	0.0	48.6	0.0
Fz$_f$	-105.4	-0.0	**-0.7**	0.0	48.6	0.0	-105.4	-0.0	**-0.7**	0.0	48.6	0.0
Mx$_f$	-105.4	-0.0	-0.7	**0.0**	48.6	0.0	-105.4	-0.0	-0.7	**0.0**	48.6	0.0
My$_f$	-105.4	-0.0	-0.7	0.0	**48.6**	0.0	-105.4	-0.0	-0.7	0.0	**48.6**	0.0
Mz$_f$	-105.4	-0.0	-0.7	0.0	48.6	**0.0**	-105.4	-0.0	-0.7	0.0	48.6	**0.0**

Member 367

Fx,	**-134.9**	-0.0	1.1	0.0	63.5	-0.0	**-134.9**	-0.0	1.1	0.0	63.5	-0.0
Fy,	-134.9	**-0.0**	1.1	0.0	63.5	-0.0	-134.9	**-0.0**	1.1	0.0	63.5	-0.0
Fz,	-134.9	-0.0	**1.1**	0.0	63.5	-0.0	-134.9	-0.0	**1.1**	0.0	63.5	-0.0
Mx,	-134.9	-0.0	1.1	**0.0**	63.5	-0.0	-134.9	-0.0	1.1	**0.0**	63.5	-0.0
My.	-134.9	-0.0	1.1	0.0	**63.5**	-0.0	-134.9	-0.0	1.1	0.0	**63.5**	-0.0
Mz.	-134.9	-0.0	1.1	0.0	63.5	**-0.0**	-134.9	-0.0	1.1	0.0	63.5	**-0.0**
Fx.	**-134.9**	-0.0	1.1	0.0	65.5	-0.0	**-134.9**	-0.0	1.1	0.0	65.5	-0.0
Fy$_f$	-134.9	**-0.0**	1.1	0.0	65.5	-0.0	-134.9	**-0.0**	1.1	0.0	65.5	-0.0
Fz.	-134.9	-0.0	**1.1**	0.0	65.5	-0.0	-134.9	-0.0	**1.1**	0.0	65.5	-0.0
Mx.	-134.9	-0.0	1.1	**0.0**	65.5	-0.0	-134.9	-0.0	1.1	**0.0**	65.5	-0.0
My$_f$	-134.9	-0.0	1.1	0.0	**65.5**	-0.0	-134.9	-0.0	1.1	0.0	**65.5**	-0.0
Mz.	-134.9	-0.0	1.1	0.0	65.5	**-0.0**	-134.9	-0.0	1.1	0.0	65.5	**-0.0**

Member 358

Fx,	**-134.9**	0.0	-0.2	0.0	64.5	0.0	**-134.9**	0.0	-0.2	0.0	64.5	0.0
Fy,	-134.9	**0.0**	-0.2	0.0	64.5	0.0	-134.9	**0.0**	-0.2	0.0	64.5	0.0
Fz,	-134.9	0.0	**-0.2**	0.0	64.5	0.0	-134.9	0.0	**-0.2**	0.0	64.5	0.0
Mx,	-134.9	0.0	-0.2	**0.0**	64.5	0.0	-134.9	0.0	-0.2	**0.0**	64.5	0.0
My,	-134.9	0.0	-0.2	0.0	**64.5**	0.0	-134.9	0.0	-0.2	0.0	**64.5**	0.0
Mz,	-134.9	0.0	-0.2	0.0	64.5	**0.0**	-134.9	0.0	-0.2	0.0	64.5	**0.0**
Fx$_f$	**-134.9**	0.0	-0.2	0.0	64.1	0.0	**-134.9**	0.0	-0.2	0.0	64.1	0.0
Fy$_f$	-134.9	**0.0**	-0.2	0.0	64.1	0.0	-134.9	**0.0**	-0.2	0.0	64.1	0.0
Fz$_f$	-134.9	0.0	**-0.2**	0.0	64.1	0.0	-134.9	0.0	**-0.2**	0.0	64.1	0.0
Mx$_f$	-134.9	0.0	-0.2	**0.0**	64.1	0.0	-134.9	0.0	-0.2	**0.0**	64.1	0.0
My$_f$	-134.9	0.0	-0.2	0.0	**64.1**	0.0	-134.9	0.0	-0.2	0.0	**64.1**	0.0
Mz$_f$	-134.9	0.0	-0.2	0.0	64.1	**0.0**	-134.9	0.0	-0.2	0.0	64.1	**0.0**

Member 369

Fx,	**-134.9**	0.0	0.0	0.0	64.1	0.0	**-134.9**	0.0	0.0	0.0	64.1	0.0
Fy,	-134.9	**0.0**	0.0	0.0	64.1	0.0	-134.9	**0.0**	0.0	0.0	64 1	0.0
Fz,	-134.9	0.0	**0.0**	0.0	64.1	0.0	-134.9	0.0	**0.0**	0.0	64.1	0.0
Mx,	-134.9	0.0	0.0	**0.0**	64.1	0.0	-134.9	0.0	0.0	**0.0**	64.1	0.0
My,	-134.9	0.0	0.0	0.0	**64.1**	0.0	-134.9	0.0	0.0	0.0	**64.1**	0.0
Mz,	-134.9	0.0	0.0	0.0	64.1	**0.0**	-134.9	0.0	0.0	0.0	64.1	**0.0**
Fx$_f$	**-134.9**	0.0	0.0	0.0	64.2	-0.0	**-134.9**	0.0	0.0	0.0	64.2	-0.0
Fy$_f$	-134.9	**0.0**	0.0	0.0	64.2	-0.0	-134.9	**0.0**	0.0	0.0	64.2	-0.0
Fz$_f$	-134.9	0.0	**0.0**	0.0	64.2	-0.0	-134.9	0.0	**0.0**	0.0	64.2	-0.0
Mx$_f$	-134.9	0.0	0.0	**0.0**	64.2	-0.0	-134.9	0.0	0.0	**0.0**	64.2	-0.0
My$_f$	-134.9	0.0	0.0	0.0	**64.2**	-0.0	-134.9	0.0	0.0	0.0	**64.2**	-0.0
Mz$_f$	-134.9	0.0	0.0	0.0	64.2	**-0.0**	-134.9	0.0	0.0	0.0	64.2	**-0.0**

Member 370

Fx.	**-134.9**	0.0	-0.1	0.0	64.2	0.0	**-134.9**	0.0	-0.1	0.0	64 2	0.0
Fy,	-134.9	**0.0**	-0.1	0.0	64.2	0.0	-134.9	**0.0**	-0.1	0.0	64.2	0.0
Fz,	-134.9	0.0	**-0.1**	0.0	64.2	0.0	-134.9	0.0	**-0.1**	0.0	64.2	0.0
Mx,	-134.9	0.0	-0.1	**0.0**	64.2	0.0	-134.9	0.0	-0.1	**0.0**	64.2	0.0
My,	-134.9	0.0	-0.1	0.0	**64.2**	0.0	-134.9	0.0	-0.1	0.0	**64.2**	0.0
Mz.	-134.9	0.0	-0.1	0.0	64.2	**0.0**	-134.9	0.0	-0.1	0.0	64.2	**0.0**
Fx$_f$	**-134.9**	0.0	-0.1	0.0	64.0	-0.0	**-134.9**	0.0	-0.1	0.0	64.0	-0.0
Fy$_f$	-134.9	**0.0**	-0.1	0.0	64.0	-0.0	-134.9	**0.0**	-0.1	0.0	64.0	-0.0
Fz$_f$	-134.9	0.0	**-0.1**	0.0	64.0	-0.0	-134.9	0.0	**-0.1**	0.0	64.0	-0.0
Mx$_f$	-134.9	0.0	-0.1	**0.0**	64.0	-0.0	-134.9	0.0	-0.1	**0.0**	64.0	-0.0
My$_f$	-134.9	0.0	-0.1	0.0	**64.0**	-0.0	-134.9	0.0	-0.1	0.0	**64.0**	-0.0
Mz$_f$	-134.9	0.0	-0.1	0.0	64.0	**-0.0**	-134.9	0.0	-0.1	0.0	64.0	**-0.0**

Member 371

Fx,	**-134.9**	0.0	-0.4	-0.0	65.0	0.0	**-134.9**	0.0	-0.4	-0.0	65.0	0.0
Fy,	-134.9	**0.0**	-0.4	-0.0	65.0	0.0	-134.9	**0.0**	-0.4	-0.0	65.0	0.0
Fz,	-134.9	0.0	**-0.4**	-0.0	65.0	0.0	-134.9	0.0	**-0.4**	-0.0	65.0	0.0
Mx,	-134.9	0.0	-0.4	**-0.0**	65.0	0.0	-134.9	0.0	-0.4	**-0.0**	65.0	0.0
My,	-134.9	0.0	-0.4	-0.0	**65.0**	0.0	-134.9	0.0	-0.4	-0.0	**65.0**	0.0
Mz,	-134.9	0.0	-0.4	-0.0	65.0	**0.0**	-134.9	0.0	-0.4	-0.0	65.0	**0.0**
Fx$_f$	**-134.9**	0.0	-0.4	-0.0	64.3	0.0	**-134.9**	0.0	-0.4	-0.0	64.3	0.0
Fy$_f$	-134.9	**0.0**	-0.4	-0.0	64.3	0.0	-134.9	**0.0**	-0.4	-0.0	64.3	0.0
Fz$_f$	-134.9	0.0	**-0.4**	-0.0	64.3	0.0	-134.9	0.0	**-0.4**	-0.0	64.3	0.0
Mx$_f$	-134.9	0.0	-0.4	**-0.0**	64.3	0.0	-134.9	0.0	-0.4	**-0.0**	64.3	0.0
My$_f$	-134.9	0.0	-0.4	-0.0	**64.3**	0.0	-134.9	0.0	-0.4	-0.0	**64.3**	0.0
Mz$_f$	-134.9	0.0	-0.4	-0.0	64.3	**0.0**	-134.9	0.0	-0.4	-0.0	64.3	**0.0**

Member 372

Fx,	**-105.6**	0.0	1.1	-0.0	74.9	0.0	**-105.6**	0.0	1.1	-0.0	74.9	0.0
Fy,	-105.6	**0.0**	1.1	-0.0	74.9	0.0	-105.6	**0.0**	1.1	-0.0	74.9	0.0
Fz,	-105.6	0.0	**1.1**	-0.0	74.9	0.0	-105.6	0.0	**1.1**	-0.0	74.9	0.0
Mx,	-105.6	0.0	1.1	**-0.0**	74.9	0.0	-105.6	0.0	1.1	**-0.0**	74.9	0.0
My,	-105.6	0.0	1.1	-0.0	**74.9**	0.0	-105.6	0.0	1.1	-0.0	**74.9**	0.0
Mz,	-105.6	0.0	1.1	-0.0	74.9	**0.0**	-105.6	0.0	1.1	-0.0	74.9	**0.0**
Fx.	**-105.6**	0.0	1.1	-0.0	76.8	0.0	**-105.6**	0.0	1.1	-0.0	76.8	0.0
Fy$_f$	-105.6	**0.0**	1.1	-0.0	76.8	0.0	-105.6	**0.0**	1.1	-0.0	76.8	0.0

Fz,	-105.6	0.0	**1.1**	-0.0	76.8	0.0	-105.6	0.0	**1.1**	-0.0	76.8	0.0
Mx,	-105.6	0.0	1.1	**-0.0**	76.8	0.0	-105.6	0.0	1.1	**-0.0**	76.8	0.0
My,	-105.6	0.0	1.1	-0.0	**76.8**	0.0	-105.6	0.0	1.1	-0.0	**76.8**	0.0
Mz,	-105.6	0.0	1.1	-0.0	76.8	**0.0**	-105.6	0.0	1.1	-0.0	76.8	**0.0**

Member 373

Fx,	**-50.9**	-0.7	-0.6	-0.0	1.1	-1.2	**-50.9**	-0.7	-0.6	-0.0	1.1	-1.2
Fy,	-50.9	**-0.7**	-0.6	-0.0	1.1	-1.2	-50.9	**-0.7**	-0.6	-0.0	1.1	-1.2
Fz,	-50.9	-0.7	**-0.6**	-0.0	1.1	-1.2	-50.9	-0.7	**-0.6**	-0.0	1.1	-1.2
Mx,	-50.9	-0.7	-0.6	**-0.0**	1.1	-1.2	-50.9	-0.7	-0.6	**-0.0**	1.1	-1.2
My,	-50.9	-0.7	-0.6	-0.0	**1.1**	-1.2	-50.9	-0.7	-0.6	-0.0	**1.1**	-1.2
Mz,	-50.9	-0.7	-0.6	-0.0	1.1	**-1.2**	-50.9	-0.7	-0.6	-0.0	1.1	**-1.2**
Fx,	**-50.9**	-0.7	-0.6	-0.0	-0.0	0.0	**-50.9**	-0.7	-0.6	-0.0	-0.0	0.0
Fy,	-50.9	**-0.7**	-0.6	-0.0	-0.0	0.0	-50.9	**-0.7**	-0.6	-0.0	-0.0	0.0
Fz,	-50.9	-0.7	**-0.6**	-0.0	-0.0	0.0	-50.9	-0.7	**-0.6**	-0.0	-0.0	0.0
Mx,	-50.9	-0.7	-0.6	**-0.0**	-0.0	0.0	-50.9	-0.7	-0.6	**-0.0**	-0.0	0.0
My,	-50.9	-0.7	-0.6	-0.0	**-0.0**	0.0	-50.9	-0.7	-0.6	-0.0	**-0.0**	0.0
Mz,	-50.9	-0.7	-0.6	-0.0	-0.0	**0.0**	-50.9	-0.7	-0.6	-0.0	-0.0	**0.0**

Member 374

Fx,	**-54.5**	0.0	15.8	0.0	-27.6	0.0	**-54.5**	0.0	15.8	0.0	-27.6	0.0
Fy,	-54.5	**0.0**	15.8	0.0	-27.6	0.0	-54.5	**0.0**	15.8	0.0	-27.6	0.0
Fz,	-54.5	0.0	**15.8**	0.0	-27.6	0.0	-54.5	0.0	**15.8**	0.0	-27.6	0.0
Mx,	-54.5	0.0	15.8	**0.0**	-27.6	0.0	-54.5	0.0	15.8	**0.0**	-27.6	0.0
My,	-54.5	0.0	15.8	0.0	**-27.6**	0.0	-54.5	0.0	15.8	0.0	**-27.6**	0.0
Mz,	-54.5	0.0	15.8	0.0	-27.6	**0.0**	-54.5	0.0	15.8	0.0	-27.6	**0.0**
Fx,	**-54.5**	0.0	15.8	0.0	0.0	-0.0	**-54.5**	0.0	15.8	0.0	0.0	-0.0
Fy,	-54.5	**0.0**	15.8	0.0	0.0	-0.0	-54.5	**0.0**	15.8	0.0	0.0	-0.0
Fz,	-54.5	0.0	**15.8**	0.0	0.0	-0.0	-54.5	0.0	**15.8**	0.0	0.0	-0.0
Mx,	-54.5	0.0	15.8	**0.0**	0.0	-0.0	-54.5	0.0	15.8	**0.0**	0.0	-0.0
My,	-54.5	0.0	15.8	0.0	0.0	-0.0	-54.5	0.0	15.8	0.0	**0.0**	-0.0
Mz,	-54.5	0.0	15.8	0.0	0.0	**-0.0**	-54.5	0.0	15.8	0.0	0.0	**-0.0**

Member 375

Fx,	**-105.4**	0.0	0.7	0.0	-49.8	0.0	**-105.4**	0.0	0.7	0.0	-49.8	0.0
Fy,	-105.4	**0.0**	0.7	0.0	-49.8	0.0	-105.4	**0.0**	0.7	0.0	-49.8	0.0
Fz,	-105.4	0.0	**0.7**	0.0	-49.8	0.0	-105.4	0.0	**0.7**	0.0	-49.8	0.0
Mx,	-105.4	0.0	0.7	**0.0**	-49.8	0.0	-105.4	0.0	0.7	**0.0**	-49.8	0.0
My,	-105.4	0.0	0.7	0.0	**-49.8**	0.0	-105.4	0.0	0.7	0.0	**-49.8**	0.0
Mz,	-105.4	0.0	0.7	0.0	-49.8	**0.0**	-105.4	0.0	0.7	0.0	-49.8	**0.0**
Fx,	**-105.4**	0.0	0.7	0.0	-48.6	-0.0	**-105.4**	0.0	0.7	0.0	-48.6	-0.0
Fy,	-105.4	**0.0**	0.7	0.0	-48.6	-0.0	-105.4	**0.0**	0.7	0.0	-48.6	-0.0
Fz,	-105.4	0.0	**0.7**	0.0	-48.6	-0.0	-105.4	0.0	**0.7**	0.0	-48.6	-0.0
Mx,	-105.4	0.0	0.7	**0.0**	-48.6	-0.0	-105.4	0.0	0.7	**0.0**	-48.6	-0.0
My,	-105.4	0.0	0.7	0.0	**-48.6**	-0.0	-105.4	0.0	0.7	0.0	**-48.6**	-0.0
Mz,	-105.4	0.0	0.7	0.0	-48.6	**-0.0**	-105.4	0.0	0.7	0.0	-48.6	**-0.0**

Member 376

Fx,	**-134.9**	-0.0	-1.1	0.0	-63.5	-0.0	**-134.9**	-0.0	-1.1	0.0	-63.5	-0.0
Fy,	-134.9	**-0.0**	-1.1	0.0	-63.5	-0.0	-134.9	**-0.0**	-1.1	0.0	-63.5	-0.0
Fz,	-134.9	-0.0	**-1.1**	0.0	-63.5	-0.0	-134.9	-0.0	**-1.1**	0.0	-63.5	-0.0
Mx,	-134.9	-0.0	-1.1	**0.0**	-63.5	-0.0	-134.9	-0.0	-1.1	**0.0**	-63.5	-0.0
My,	-134.9	-0.0	-1.1	0.0	**-63.5**	-0.0	-134.9	-0.0	-1.1	0.0	**-63.5**	-0.0
Mz,	-134.9	-0.0	-1.1	0.0	-63.5	**-0.0**	-134.9	-0.0	-1.1	0.0	-63.5	**-0.0**
Fx,	**-134.9**	-0.0	-1.1	0.0	-65.5	0.0	**-134.9**	-0.0	-1.1	0.0	-65.5	0.0
Fy,	-134.9	**-0.0**	-1.1	0.0	-65.5	0.0	-134.9	**-0.0**	-1.1	0.0	-65.5	0.0
Fz,	-134.9	-0.0	**-1.1**	0.0	-65.5	0.0	-134.9	-0.0	**-1.1**	0.0	-65.5	0.0
Mx,	-134.9	-0.0	-1.1	**0.0**	-65.5	0.0	-134.9	-0.0	-1.1	**0.0**	-65.5	0.0
My,	-134.9	-0.0	-1.1	0.0	**-65.5**	0.0	-134.9	-0.0	-1.1	0.0	**-65.5**	0.0
Mz,	-134.9	-0.0	-1.1	0.0	-65.5	**0.0**	-134.9	-0.0	-1.1	0.0	-65.5	**0.0**

Member 377

Fx,	**-134.9**	0.0	0.2	0.0	-64.5	0.0	**-134.9**	0.0	0.2	0.0	-64.5	0.0
Fy,	-134.9	**0.0**	0.2	0.0	-64.5	0.0	-134.9	**0.0**	0.2	0.0	-64.5	0.0
Fz,	-134.9	0.0	**0.2**	0.0	-64.5	0.0	-134.9	0.0	**0.2**	0.0	-64.5	0.0
Mx,	-134.9	0.0	0.2	**0.0**	-64.5	0.0	-134.9	0.0	0.2	**0.0**	-64.5	0.0
My,	-134.9	0.0	0.2	0.0	**-64.5**	0.0	-134.9	0.0	0.2	0.0	**-64.5**	0.0
Mz,	-134.9	0.0	0.2	0.0	-64.5	**0.0**	-134.9	0.0	0.2	0.0	-64.5	**0.0**
Fx,	**-134.9**	0.0	0.2	0.0	-64.1	0.0	**-134.9**	0.0	0.2	0.0	-64.1	0.0
Fy,	-134.9	**0.0**	0.2	0.0	-64.1	0.0	-134.9	**0.0**	0.2	0.0	-64.1	0.0
Fz,	-134.9	0.0	**0.2**	0.0	-64.1	0.0	-134.9	0.0	**0.2**	0.0	-64.1	0.0
Mx,	-134.9	0.0	0.2	**0.0**	-64.1	0.0	-134.9	0.0	0.2	**0.0**	-64.1	0.0
My,	-134.9	0.0	0.2	0.0	**-64.1**	0.0	-134.9	0.0	0.2	0.0	**-64.1**	0.0
Mz,	-134.9	0.0	0.2	0.0	-64.1	**0.0**	-134.9	0.0	0.2	0.0	-64.1	**0.0**

Member 378

Fx,	**-134.9**	0.0	-0.0	0.0	-64.1	0.0	**-134.9**	0.0	-0.0	0.0	-64.1	0.0
Fy,	-134.9	**0.0**	-0.0	0.0	-64.1	0.0	-134.9	**0.0**	-0.0	0.0	-64.1	0.0
Fz,	-134.9	0.0	**-0.0**	0.0	-64.1	0.0	-134.9	0.0	**-0.0**	0.0	-64.1	0.0
Mx,	-134.9	0.0	-0.0	**0.0**	-64.1	0.0	-134.9	0.0	-0.0	**0.0**	-64.1	0.0
My,	-134.9	0.0	-0.0	0.0	**-64.1**	0.0	-134.9	0.0	-0.0	0.0	**-64.1**	0.0
Mz,	-134.9	0.0	-0.0	0.0	-64.1	**0.0**	-134.9	0.0	-0.0	0.0	-64.1	**0.0**
Fx,	**-134.9**	0.0	-0.0	0.0	-64.2	-0.0	**-134.9**	0.0	-0.0	0.0	-64.2	-0.0
Fy,	-134.9	**0.0**	-0.0	0.0	-64.2	-0.0	-134.9	**0.0**	-0.0	0.0	-64.2	-0.0
Fz,	-134.9	0.0	**-0.0**	0.0	-64.2	-0.0	-134.9	0.0	**-0.0**	0.0	-64.2	-0.0
Mx,	-134.9	0.0	-0.0	**0.0**	-64.2	-0.0	-134.9	0.0	-0.0	**0.0**	-64.2	-0.0
My,	-134.9	0.0	-0.0	0.0	**-64.2**	-0.0	-134.9	0.0	-0.0	0.0	**-64.2**	-0.0
Mz,	-134.9	0.0	-0.0	0.0	-64.2	**-0.0**	-134.9	0.0	-0.0	0.0	-64.2	**-0.0**

Member 379

Fx,	**-134.9**	-0.0	0.1	0.0	-64.2	-0.0	**-134.9**	-0.0	0.1	0.0	-64.2	-0.0
Fy,	-134.9	**-0.0**	0.1	0.0	-64.2	-0.0	-134.9	**-0.0**	0.1	0.0	-64.2	-0.0
Fz,	-134.9	-0.0	**0.1**	0.0	-64.2	-0.0	-134.9	-0.0	**0.1**	0.0	-64.2	-0.0
Mx,	-134.9	-0.0	0.1	**0.0**	-64.2	-0.0	-134.9	-0.0	0.1	**0.0**	-64.2	-0.0
My,	-134.9	-0.0	0.1	0.0	**-64.2**	-0.0	-134.9	-0.0	0.1	0.0	**-64.2**	-0.0
Mz,	-134.9	-0.0	0.1	0.0	-64.2	**-0.0**	-134.9	-0.0	0.1	0.0	-64.2	**-0.0**
Fx,	**-134.9**	-0.0	0.1	0.0	-64.0	0.0	**-134.9**	-0.0	0.1	0.0	-64.0	0.0
Fy,	-134.9	**-0.0**	0.1	0.0	-64.0	0.0	-134.9	**-0.0**	0.1	0.0	-64.0	0.0
Fz,	-134.9	-0.0	**0.1**	0.0	-64.0	0.0	-134.9	-0.0	**0.1**	0.0	-64.0	0.0
Mx,	-134.9	-0.0	0.1	**0.0**	-64.0	0.0	-134.9	-0.0	0.1	**0.0**	-64.0	0.0
My,	-134.9	-0.0	0.1	0.0	**-64.0**	0.0	-134.9	-0.0	0.1	0.0	**-64.0**	0.0
Mz,	-134.9	-0.0	0.1	0.0	-64.0	**0.0**	-134.9	-0.0	0.1	0.0	-64.0	**0.0**

Member 380

Fx,	**-134.9**	-0.0	0.4	0.0	-65.0	-0.0	**-134.9**	-0.0	0.4	0.0	-65.0	-0.0
Fy,	-134.9	**-0.0**	0.4	0.0	-65.0	-0.0	-134.9	**-0.0**	0.4	0.0	-65.0	-0.0
Fz,	-134.9	-0.0	**0.4**	0.0	-65.0	-0.0	-134.9	-0.0	**0.4**	0.0	-65.0	-0.0
Mx,	-134.9	-0.0	0.4	**0.0**	-65.0	-0.0	-134.9	-0.0	0.4	**0.0**	-65.0	-0.0
My,	-134.9	-0.0	0.4	0.0	**-65.0**	-0.0	-134.9	-0.0	0.4	0.0	**-65.0**	-0.0
Mz,	-134.9	-0.0	0.4	0.0	-65.0	**-0.0**	-134.9	-0.0	0.4	0.0	-65.0	**-0.0**
Fx,	**-134.9**	-0.0	0.4	0.0	-64.3	0.0	**-134.9**	-0.0	0.4	0.0	-64.3	0.0
Fy,	-134.9	**-0.0**	0.4	0.0	-64.3	0.0	-134.9	**-0.0**	0.4	0.0	-64.3	0.0
Fz,	-134.9	-0.0	**0.4**	0.0	-64.3	0.0	-134.9	-0.0	**0.4**	0.0	-64.3	0.0
Mx,	-134.9	-0.0	0.4	**0.0**	-64.3	0.0	-134.9	-0.0	0.4	**0.0**	-64.3	0.0
My,	-134.9	-0.0	0.4	0.0	**-64.3**	0.0	-134.9	-0.0	0.4	0.0	**-64.3**	0.0
Mz,	-134.9	-0.0	0.4	0.0	-64.3	**0.0**	-134.9	-0.0	0.4	0.0	-64.3	**0.0**

Member 381

Fx,	**-105.6**	0.0	-1.1	0.0	-74.9	0.0	**-105.6**	0.0	-1.1	0.0	-74.9	0.0
Fy,	-105.6	**0.0**	-1.1	0.0	-74.9	0.0	-105.6	**0.0**	-1.1	0.0	-74.9	0.0
Fz,	-105.6	0.0	**-1.1**	0.0	-74.9	0.0	-105.6	0.0	**-1.1**	0.0	-74.9	0.0
Mx,	-105.6	0.0	-1.1	**0.0**	-74.9	0.0	-105.6	0.0	-1.1	**0.0**	-74.9	0.0
My,	-105.6	0.0	-1.1	0.0	**-74.9**	0.0	-105.6	0.0	-1.1	0.0	**-74.9**	0.0
Mz,	-105.6	0.0	-1.1	0.0	-74.9	**0.0**	-105.6	0.0	-1.1	0.0	-74.9	**0.0**
Fx,	**-105.6**	0.0	-1.1	0.0	-76.8	0.0	**-105.6**	0.0	-1.1	0.0	-76.8	0.0
Fy,	-105.6	**0.0**	-1.1	0.0	-76.8	0.0	-105.6	**0.0**	-1.1	0.0	-76.8	0.0
Fz,	-105.6	0.0	**-1.1**	0.0	-76.8	0.0	-105.6	0.0	**-1.1**	0.0	-76.8	0.0
Mx,	-105.6	0.0	-1.1	**0.0**	-76.8	0.0	-105.6	0.0	-1.1	**0.0**	-76.8	0.0
My,	-105.6	0.0	-1.1	0.0	**-76.8**	0.0	-105.6	0.0	-1.1	0.0	**-76.8**	0.0
Mz,	-105.6	0.0	-1.1	0.0	-76.8	**0.0**	-105.6	0.0	-1.1	0.0	-76.8	**0.0**

Member 382

Fx_i	**-50.9**	-0.7	0.6	0.0	-1.1	-1.2	**-50.9**	-0.7	0.6	0.0	-1.1	-1.2
Fy_i	-50.9	**-0.7**	0.6	0.0	-1.1	-1.2	-50.9	**-0.7**	0.6	0.0	-1.1	-1.2
Fz_i	-50.9	-0.7	**0.6**	0.0	-1.1	-1.2	-50.9	-0.7	**0.6**	0.0	-1.1	-1.2
Mx_i	-50.9	-0.7	0.6	**0.0**	-1.1	-1.2	-50.9	-0.7	0.6	**0.0**	-1.1	-1.2
My_i	-50.9	-0.7	0.6	0.0	**-1.1**	-1.2	-50.9	-0.7	0.6	0.0	**-1.1**	-1.2
Mz_i	-50.9	-0.7	0.6	0.0	-1.1	**-1.2**	-50.9	-0.7	0.6	0.0	-1.1	**-1.2**
Fx_f	**-50.9**	-0.7	0.6	0.0	0.0	-0.0	**-50.9**	-0.7	0.6	0.0	0.0	-0.0
Fy_f	-50.9	**-0.7**	0.6	0.0	0.0	-0.0	-50.9	**-0.7**	0.6	0.0	0.0	-0.0
Fz_f	-50.9	-0.7	**0.6**	0.0	0.0	-0.0	-50.9	-0.7	**0.6**	0.0	0.0	-0.0
Mx_f	-50.9	-0.7	0.6	**0.0**	0.0	-0.0	-50.9	-0.7	0.6	**0.0**	0.0	-0.0
My_f	-50.9	-0.7	0.6	0.0	**0.0**	-0.0	-50.9	-0.7	0.6	0.0	**0.0**	-0.0
Mz_f	-50.9	-0.7	0.6	0.0	0.0	**-0.0**	-50.9	-0.7	0.6	0.0	0.0	**-0.0**

Member 391

Fx_i	**-105.4**	0.0	-0.7	0.0	48.6	0.0	**-105.4**	0.0	-0.7	0.0	48.6	0.0
Fy_i	-105.4	**0.0**	-0.7	0.0	48.6	0.0	-105.4	**0.0**	-0.7	0.0	48.6	0.0
Fz_i	-105.4	0.0	**-0.7**	0.0	48.6	0.0	-105.4	0.0	**-0.7**	0.0	48.6	0.0
Mx_i	-105.4	0.0	-0.7	**0.0**	48.6	0.0	-105.4	0.0	-0.7	**0.0**	48.6	0.0
My_i	-105.4	0.0	-0.7	0.0	**48.6**	0.0	-105.4	0.0	-0.7	0.0	**48.6**	0.0
Mz_i	-105.4	0.0	-0.7	0.0	48.6	**0.0**	-105.4	0.0	-0.7	0.0	48.6	**0.0**
Fx_f	**-105.4**	0.0	-0.7	0.0	39.3	0.0	**-105.4**	0.0	-0.7	0.0	39.3	0.0
Fy_f	-105.4	**0.0**	-0.7	0.0	39.3	0.0	-105.4	**0.0**	-0.7	0.0	39.3	0.0
Fz_f	-105.4	0.0	**-0.7**	0.0	39.3	0.0	-105.4	0.0	**-0.7**	0.0	39.3	0.0
Mx_f	-105.4	0.0	-0.7	**0.0**	39.3	0.0	-105.4	0.0	-0.7	**0.0**	39.3	0.0
My_f	-105.4	0.0	-0.7	0.0	**39.3**	0.0	-105.4	0.0	-0.7	0.0	**39.3**	0.0
Mz_f	-105.4	0.0	-0.7	0.0	39.3	**0.0**	-105.4	0.0	-0.7	0.0	39.3	**0.0**

Member 392

Fx_i	**-134.9**	0.0	1.1	0.0	65.5	0.0	**-134.9**	0.0	1.1	0.0	65.5	0.0
Fy_i	-134.9	**0.0**	1.1	0.0	65.5	0.0	-134.9	**0.0**	1.1	0.0	65.5	0.0
Fz_i	-134.9	0.0	**1.1**	0.0	65.5	0.0	-134.9	0.0	**1.1**	0.0	65.5	0.0
Mx_i	-134.9	0.0	1.1	**0.0**	65.5	0.0	-134.9	0.0	1.1	**0.0**	65.5	0.0
My_i	-134.9	0.0	1.1	0.0	**65.5**	0.0	-134.9	0.0	1.1	0.0	**65.5**	0.0
Mz_i	-134.9	0.0	1.1	0.0	65.5	**0.0**	-134.9	0.0	1.1	0.0	65.5	**0.0**
Fx_f	**-134.9**	0.0	1.1	0.0	79.3	0.0	**-134.9**	0.0	1.1	0.0	79.3	0.0
Fy_f	-134.9	**0.0**	1.1	0.0	79.3	0.0	-134.9	**0.0**	1.1	0.0	79.3	0.0
Fz_f	-134.9	0.0	**1.1**	0.0	79.3	0.0	-134.9	0.0	**1.1**	0.0	79.3	0.0
Mx_f	-134.9	0.0	1.1	**0.0**	79.3	0.0	-134.9	0.0	1.1	**0.0**	79.3	0.0
My_f	-134.9	0.0	1.1	0.0	**79.3**	0.0	-134.9	0.0	1.1	0.0	**79.3**	0.0
Mz_f	-134.9	0.0	1.1	0.0	79.3	**0.0**	-134.9	0.0	1.1	0.0	79.3	**0.0**

Member 393

Fx_i	**-134.9**	0.0	-0.2	0.0	64.1	0.0	**-134.9**	0.0	-0.2	0.0	64.1	0.0
Fy_i	-134.9	**0.0**	-0.2	0.0	64.1	0.0	-134.9	**0.0**	-0.2	0.0	64.1	0.0
Fz_i	-134.9	0.0	**-0.2**	0.0	64.1	0.0	-134.9	0.0	**-0.2**	0.0	64.1	0.0
Mx_i	-134.9	0.0	-0.2	**0.0**	64.1	0.0	-134.9	0.0	-0.2	**0.0**	64.1	0.0
My_i	-134.9	0.0	-0.2	0.0	**64.1**	0.0	-134.9	0.0	-0.2	0.0	**64.1**	0.0
Mz_i	-134.9	0.0	-0.2	0.0	64.1	**0.0**	-134.9	0.0	-0.2	0.0	64.1	**0.0**
Fx_f	**-134.9**	0.0	-0.2	0.0	60.5	0.0	**-134.9**	0.0	-0.2	0.0	60.5	0.0
Fy_f	-134.9	**0.0**	-0.2	0.0	60.5	0.0	-134.9	**0.0**	-0.2	0.0	60.5	0.0
Fz_f	-134.9	0.0	**-0.2**	0.0	60.5	0.0	-134.9	0.0	**-0.2**	0.0	60.5	0.0
Mx_f	-134.9	0.0	-0.2	**0.0**	60.5	0.0	-134.9	0.0	-0.2	**0.0**	60.5	0.0
My_f	-134.9	0.0	-0.2	0.0	**60.5**	0.0	-134.9	0.0	-0.2	0.0	**60.5**	0.0
Mz_f	-134.9	0.0	-0.2	0.0	60.5	**0.0**	-134.9	0.0	-0.2	0.0	60.5	**0.0**

Member 394

Fx_i	**-134.9**	0.0	0.0	0.0	64.2	0.0	**-134.9**	0.0	0.0	0.0	64.2	0.0
Fy_i	-134.9	**0.0**	0.0	0.0	64.2	0.0	-134.9	**0.0**	0.0	0.0	64.2	0.0
Fz_i	-134.9	0.0	**0.0**	0.0	64.2	0.0	-134.9	0.0	**0.0**	0.0	64.2	0.0
Mx_i	-134.9	0.0	0.0	**0.0**	64.2	0.0	-134.9	0.0	0.0	**0.0**	64.2	0.0
My_i	-134.9	0.0	0.0	0.0	**64.2**	0.0	-134.9	0.0	0.0	0.0	**64.2**	0.0
Mz_i	-134.9	0.0	0.0	0.0	64.2	**0.0**	-134.9	0.0	0.0	0.0	64.2	**0.0**
Fx_f	**-134.9**	0.0	0.0	0.0	64.8	0.0	**-134.9**	0.0	0.0	0.0	64.8	0.0
Fy_f	-134.9	**0.0**	0.0	0.0	64.8	0.0	-134.9	**0.0**	0.0	0.0	64.8	0.0
Fz_f	-134.9	0.0	**0.0**	0.0	64.8	0.0	-134.9	0.0	**0.0**	0.0	64.8	0.0
Mx_f	-134.9	0.0	0.0	**0.0**	64.8	0.0	-134.9	0.0	0.0	**0.0**	64.8	0.0
My_f	-134.9	0.0	0.0	0.0	**64.8**	0.0	-134.9	0.0	0.0	0.0	**64.8**	0.0
Mz_f	-134.9	0.0	0.0	0.0	64.8	**0.0**	-134.9	0.0	0.0	0.0	64.8	**0.0**

Member 395

Fx_i	**-134.9**	0.0	-0.1	0.0	64.0	0.0	**-134.9**	0.0	-0.1	0.0	64.0	0.0
Fy_i	-134.9	**0.0**	-0.1	0.0	64.0	0.0	-134.9	**0.0**	-0.1	0.0	64.0	0.0
Fz_i	-134.9	0.0	**-0.1**	0.0	64.0	0.0	-134.9	0.0	**-0.1**	0.0	64.0	0.0
Mx_i	-134.9	0.0	-0.1	**0.0**	64.0	0.0	-134.9	0.0	-0.1	**0.0**	64.0	0.0
My_i	-134.9	0.0	-0.1	0.0	**64.0**	0.0	-134.9	0.0	-0.1	0.0	**64.0**	0.0
Mz_i	-134.9	0.0	-0.1	0.0	64.0	**0.0**	-134.9	0.0	-0.1	0.0	64.0	**0.0**
Fx_f	**-134.9**	0.0	-0.1	0.0	62.0	0.0	**-134.9**	0.0	-0.1	0.0	62.0	0.0
Fy_f	-134.9	**0.0**	-0.1	0.0	62.0	0.0	-134.9	**0.0**	-0.1	0.0	62.0	0.0
Fz_f	-134.9	0.0	**-0.1**	0.0	62.0	0.0	-134.9	0.0	**-0.1**	0.0	62.0	0.0
Mx_f	-134.9	0.0	-0.1	**0.0**	62.0	0.0	-134.9	0.0	-0.1	**0.0**	62.0	0.0
My_f	-134.9	0.0	-0.1	0.0	**62.0**	0.0	-134.9	0.0	-0.1	0.0	**62.0**	0.0
Mz_f	-134.9	0.0	-0.1	0.0	62.0	**0.0**	-134.9	0.0	-0.1	0.0	62.0	**0.0**

Member 396

Fx_i	**-134.9**	0.0	-0.4	0.0	64.3	0.0	**-134.9**	0.0	-0.4	0.0	64.3	0.0
Fy_i	-134.9	**0.0**	-0.4	0.0	64.3	0.0	-134.9	**0.0**	-0.4	0.0	64.3	0.0
Fz_i	-134.9	0.0	**-0.4**	0.0	64.3	0.0	-134.9	0.0	**-0.4**	0.0	64.3	0.0
Mx_i	-134.9	0.0	-0.4	**0.0**	64.3	0.0	-134.9	0.0	-0.4	**0.0**	64.3	0.0
My_i	-134.9	0.0	-0.4	0.0	**64.3**	0.0	-134.9	0.0	-0.4	0.0	**64.3**	0.0
Mz_i	-134.9	0.0	-0.4	0.0	64.3	**0.0**	-134.9	0.0	-0.4	0.0	64.3	**0.0**
Fx_f	**-134.9**	0.0	-0.4	0.0	58.4	0.0	**-134.9**	0.0	-0.4	0.0	58.4	0.0
Fy_f	-134.9	**0.0**	-0.4	0.0	58.4	0.0	-134.9	**0.0**	-0.4	0.0	58.4	0.0
Fz_f	-134.9	0.0	**-0.4**	0.0	58.4	0.0	-134.9	0.0	**-0.4**	0.0	58.4	0.0
Mx_f	-134.9	0.0	-0.4	**0.0**	58.4	0.0	-134.9	0.0	-0.4	**0.0**	58.4	0.0
My_f	-134.9	0.0	-0.4	0.0	**58.4**	0.0	-134.9	0.0	-0.4	0.0	**58.4**	0.0
Mz_f	-134.9	0.0	-0.4	0.0	58.4	**0.0**	-134.9	0.0	-0.4	0.0	58.4	**0.0**

Member 397

Fx_i	**-105.6**	0.0	1.1	0.0	76.8	0.0	**-105.6**	0.0	1.1	0.0	76.8	0.0
Fy_i	-105.6	**0.0**	1.1	0.0	76.8	0.0	-105.6	**0.0**	1.1	0.0	76.8	0.0
Fz_i	-105.6	0.0	**1.1**	0.0	76.8	0.0	-105.6	0.0	**1.1**	0.0	76.8	0.0
Mx_i	-105.6	0.0	1.1	**0.0**	76.8	0.0	-105.6	0.0	1.1	**0.0**	76.8	0.0
My_i	-105.6	0.0	1.1	0.0	**76.8**	0.0	-105.6	0.0	1.1	0.0	**76.8**	0.0
Mz_i	-105.6	0.0	1.1	0.0	76.8	**0.0**	-105.6	0.0	1.1	0.0	76.8	**0.0**
Fx_f	**-105.6**	0.0	1.1	0.0	89.6	0.0	**-105.6**	0.0	1.1	0.0	89.6	0.0
Fy_f	-105.6	**0.0**	1.1	0.0	89.6	0.0	-105.6	**0.0**	1.1	0.0	89.6	0.0
Fz_f	-105.6	0.0	**1.1**	0.0	89.6	0.0	-105.6	0.0	**1.1**	0.0	89.6	0.0
Mx_f	-105.6	0.0	1.1	**0.0**	89.6	0.0	-105.6	0.0	1.1	**0.0**	89.6	0.0
My_f	-105.6	0.0	1.1	0.0	**89.6**	0.0	-105.6	0.0	1.1	0.0	**89.6**	0.0
Mz_f	-105.6	0.0	1.1	0.0	89.6	**0.0**	-105.6	0.0	1.1	0.0	89.6	**0.0**

Member 398

Fx_i	**-105.4**	0.0	0.7	0.0	-48.6	0.0	**-105.4**	0.0	0.7	0.0	-48.6	0.0
Fy_i	-105.4	**0.0**	0.7	0.0	-48.6	0.0	-105.4	**0.0**	0.7	0.0	-48.6	0.0
Fz_i	-105.4	0.0	**0.7**	0.0	-48.6	0.0	-105.4	0.0	**0.7**	0.0	-48.6	0.0
Mx_i	-105.4	0.0	0.7	**0.0**	-48.6	0.0	-105.4	0.0	0.7	**0.0**	-48.6	0.0
My_i	-105.4	0.0	0.7	0.0	**-48.6**	0.0	-105.4	0.0	0.7	0.0	**-48.6**	0.0
Mz_i	-105.4	0.0	0.7	0.0	-48.6	**0.0**	-105.4	0.0	0.7	0.0	-48.6	**0.0**
Fx_f	**-105.4**	0.0	0.7	0.0	-39.3	0.0	**-105.4**	0.0	0.7	0.0	-39.3	0.0
Fy_f	-105.4	**0.0**	0.7	0.0	-39.3	0.0	-105.4	**0.0**	0.7	0.0	-39.3	0.0
Fz_f	-105.4	0.0	**0.7**	0.0	-39.3	0.0	-105.4	0.0	**0.7**	0.0	-39.3	0.0
Mx_f	-105.4	0.0	0.7	**0.0**	-39.3	0.0	-105.4	0.0	0.7	**0.0**	-39.3	0.0
My_f	-105.4	0.0	0.7	0.0	**-39.3**	0.0	-105.4	0.0	0.7	0.0	**-39.3**	0.0
Mz_f	-105.4	0.0	0.7	0.0	-39.3	**0.0**	-105.4	0.0	0.7	0.0	-39.3	**0.0**

Member 399

Fx_i	**-134.9**	0.0	-1.1	0.0	-65.5	0.0	**-134.9**	0.0	-1.1	0.0	-65.5	0.0
Fy_i	-134.9	**0.0**	-1.1	0.0	-65.5	0.0	-134.9	**0.0**	-1.1	0.0	-65.5	0.0
Fz_i	-134.9	0.0	**-1.1**	0.0	-65.5	0.0	-134.9	0.0	**-1.1**	0.0	-65.5	0.0
Mx_i	-134.9	0.0	-1.1	**0.0**	-65.5	0.0	-134.9	0.0	-1.1	**0.0**	-65.5	0.0
My_i	-134.9	0.0	-1.1	0.0	**-65.5**	0.0	-134.9	0.0	-1.1	0.0	**-65.5**	0.0

Mz,	-134.9	0.0	-1.1	0.0	-65.5	**0.0**	-134.9	0.0	-1.1	0.0	-65.5	**0.0**
Fx$_f$	**-134.9**	0.0	-1.1	0.0	-79.3	0.0	**-134.9**	0.0	-1.1	0.0	-79.3	0.0
Fy$_f$	-134.9	**0.0**	-1.1	0.0	-79.3	0.0	-134.9	**0.0**	-1.1	0.0	-79.3	0.0
Fz$_f$	-134.9	0.0	**-1.1**	0.0	-79.3	0.0	-134.9	0.0	**-1.1**	0.0	-79.3	0.0
Mx$_f$	-134.9	0.0	-1.1	**0.0**	-79.3	0.0	-134.9	0.0	-1.1	**0.0**	-79.3	0.0
My$_f$	-134.9	0.0	-1.1	0.0	**-79.3**	0.0	-134.9	0.0	-1.1	0.0	**-79.3**	0.0
Mz$_f$	-134.9	0.0	-1.1	0.0	-79.3	**0.0**	-134.9	0.0	-1.1	0.0	-79.3	**0.0**

Member 400

Fx,	**-134.9**	0.0	0.2	0.0	-64.1	0.0	**-134.9**	0.0	0.2	0.0	-64.1	0.0
Fy,	-134.9	**0.0**	0.2	0.0	-64.1	0.0	-134.9	**0.0**	0.2	0.0	-64.1	0.0
Fz,	-134.9	0.0	**0.2**	0.0	-64.1	0.0	-134.9	0.0	**0.2**	0.0	-64.1	0.0
Mx,	-134.9	0.0	0.2	**0.0**	-64.1	0.0	-134.9	0.0	0.2	**0.0**	-64.1	0.0
My,	-134.9	0.0	0.2	0.0	**-64.1**	0.0	-134.9	0.0	0.2	0.0	**-64.1**	0.0
Mz,	-134.9	0.0	0.2	0.0	-64.1	**0.0**	-134.9	0.0	0.2	0.0	-64.1	**0.0**
Fx$_f$	**-134.9**	0.0	0.2	0.0	-60.5	0.0	**-134.9**	0.0	0.2	0.0	-60.5	0.0
Fy$_f$	-134.9	**0.0**	0.2	0.0	-60.5	0.0	-134.9	**0.0**	0.2	0.0	-60.5	0.0
Fz$_f$	-134.9	0.0	**0.2**	0.0	-60.5	0.0	-134.9	0.0	**0.2**	0.0	-60.5	0.0
Mx$_f$	-134.9	0.0	0.2	**0.0**	-60.5	0.0	-134.9	0.0	0.2	**0.0**	-60.5	0.0
My$_f$	-134.9	0.0	0.2	0.0	**-60.5**	0.0	-134.9	0.0	0.2	0.0	**-60.5**	0.0
Mz$_f$	-134.9	0.0	0.2	0.0	-60.5	**0.0**	-134.9	0.0	0.2	0.0	-60.5	**0.0**

Member 401

Fx,	**-134.9**	0.0	-0.0	0.0	-64.2	0.0	**-134.9**	0.0	-0.0	0.0	-64.2	0.0
Fy,	-134.9	**0.0**	-0.0	0.0	-64.2	0.0	-134.9	**0.0**	-0.0	0.0	-64.2	0.0
Fz,	-134.9	0.0	**-0.0**	0.0	-64.2	0.0	-134.9	0.0	**-0.0**	0.0	-64.2	0.0
Mx,	-134.9	0.0	-0.0	**0.0**	-64.2	0.0	-134.9	0.0	-0.0	**0.0**	-64.2	0.0
My,	-134.9	0.0	-0.0	0.0	**-64.2**	0.0	-134.9	0.0	-0.0	0.0	**-64.2**	0.0
Mz,	-134.9	0.0	-0.0	0.0	-64.2	**0.0**	-134.9	0.0	-0.0	0.0	-64.2	**0.0**
Fx$_f$	**-134.9**	0.0	-0.0	0.0	-64.8	0.0	**-134.9**	0.0	-0.0	0.0	-64.8	0.0
Fy$_f$	-134.9	**0.0**	-0.0	0.0	-64.8	0.0	-134.9	**0.0**	-0.0	0.0	-64.8	0.0
Fz$_f$	-134.9	0.0	**-0.0**	0.0	-64.8	0.0	-134.9	0.0	**-0.0**	0.0	-64.8	0.0
Mx$_f$	-134.9	0.0	-0.0	**0.0**	-64.8	0.0	-134.9	0.0	-0.0	**0.0**	-64.8	0.0
My$_f$	-134.9	0.0	-0.0	0.0	**-64.8**	0.0	-134.9	0.0	-0.0	0.0	**-64.8**	0.0
Mz$_f$	-134.9	0.0	-0.0	0.0	-64.8	**0.0**	-134.9	0.0	-0.0	0.0	-64.8	**0.0**

Member 402

Fx,	**-134.9**	0.0	0.1	0.0	-64.0	0.0	**-134.9**	0.0	0.1	0.0	-64.0	0.0
Fy,	-134.9	**0.0**	0.1	0.0	-64.0	0.0	-134.9	**0.0**	0.1	0.0	-64.0	0.0
Fz,	-134.9	0.0	**0.1**	0.0	-64.0	0.0	-134.9	0.0	**0.1**	0.0	-64.0	0.0
Mx,	-134.9	0.0	0.1	**0.0**	-64.0	0.0	-134.9	0.0	0.1	**0.0**	-64.0	0.0
My,	-134.9	0.0	0.1	0.0	**-64.0**	0.0	-134.9	0.0	0.1	0.0	**-64.0**	0.0
Mz,	-134.9	0.0	0.1	0.0	-64.0	**0.0**	-134.9	0.0	0.1	0.0	-64.0	**0.0**
Fx$_f$	**-134.9**	0.0	0.1	0.0	-62.0	0.0	**-134.9**	0.0	0.1	0.0	-62.0	0.0
Fy$_f$	-134.9	**0.0**	0.1	0.0	-62.0	0.0	-134.9	**0.0**	0.1	0.0	-62.0	0.0
Fz$_f$	-134.9	0.0	**0.1**	0.0	-62.0	0.0	-134.9	0.0	**0.1**	0.0	-62.0	0.0
Mx$_f$	-134.9	0.0	0.1	**0.0**	-62.0	0.0	-134.9	0.0	0.1	**0.0**	-62.0	0.0
My$_f$	-134.9	0.0	0.1	0.0	**-62.0**	0.0	-134.9	0.0	0.1	0.0	**-62.0**	0.0
Mz$_f$	-134.9	0.0	0.1	0.0	-62.0	**0.0**	-134.9	0.0	0.1	0.0	-62.0	**0.0**

Member 403

Fx,	**-134.9**	0.0	0.4	0.0	-64.3	0.0	**-134.9**	0.0	0.4	0.0	-64.3	0.0
Fy,	-134.9	**0.0**	0.4	0.0	-64.3	0.0	-134.9	**0.0**	0.4	0.0	-64.3	0.0
Fz,	-134.9	0.0	**0.4**	0.0	-64.3	0.0	-134.9	0.0	**0.4**	0.0	-64.3	0.0
Mx,	-134.9	0.0	0.4	**0.0**	-64.3	0.0	-134.9	0.0	0.4	**0.0**	-64.3	0.0
My,	-134.9	0.0	0.4	0.0	**-64.3**	0.0	-134.9	0.0	0.4	0.0	**-64.3**	0.0
Mz,	-134.9	0.0	0.4	0.0	-64.3	**0.0**	-134.9	0.0	0.4	0.0	-64.3	**0.0**
Fx$_f$	**-134.9**	0.0	0.4	0.0	-58.4	0.0	**-134.9**	0.0	0.4	0.0	-58.4	0.0
Fy$_f$	-134.9	**0.0**	0.4	0.0	-58.4	0.0	-134.9	**0.0**	0.4	0.0	-58.4	0.0
Fz$_f$	-134.9	0.0	**0.4**	0.0	-58.4	0.0	-134.9	0.0	**0.4**	0.0	-58.4	0.0
Mx$_f$	-134.9	0.0	0.4	**0.0**	-58.4	0.0	-134.9	0.0	0.4	**0.0**	-58.4	0.0
My$_f$	-134.9	0.0	0.4	0.0	**-58.4**	0.0	-134.9	0.0	0.4	0.0	**-58.4**	0.0
Mz$_f$	-134.9	0.0	0.4	0.0	-58.4	**0.0**	-134.9	0.0	0.4	0.0	-58.4	**0.0**

Member 404

Fx,	**-105.6**	0.0	-1.1	0.0	-76.8	0.0	**-105.6**	0.0	-1.1	0.0	-76.8	0.0
Fy,	-105.6	**0.0**	-1.1	0.0	-76.8	0.0	-105.6	**0.0**	-1.1	0.0	-76.8	0.0
Fz,	-105.6	0.0	**-1.1**	0.0	-76.8	0.0	-105.6	0.0	**-1.1**	0.0	-76.8	0.0
Mx,	-105.6	0.0	-1.1	**0.0**	-76.8	0.0	-105.6	0.0	-1.1	**0.0**	-76.8	0.0
My,	-105.6	0.0	-1.1	0.0	**-76.8**	0.0	-105.6	0.0	-1.1	0.0	**-76.8**	0.0
Mz,	-105.6	0.0	-1.1	0.0	-76.8	**0.0**	-105.6	0.0	-1.1	0.0	-76.8	**0.0**
Fx$_f$	**-105.6**	0.0	-1.1	0.0	-89.6	0.0	**-105.6**	0.0	-1.1	0.0	-89.6	0.0
Fy$_f$	-105.6	**0.0**	-1.1	0.0	-89.6	0.0	-105.6	**0.0**	-1.1	0.0	-89.6	0.0
Fz$_f$	-105.6	0.0	**-1.1**	0.0	-89.6	0.0	-105.6	0.0	**-1.1**	0.0	-89.6	0.0
Mx$_f$	-105.6	0.0	-1.1	**0.0**	-89.6	0.0	-105.6	0.0	-1.1	**0.0**	-89.6	0.0
My$_f$	-105.6	0.0	-1.1	0.0	**-89.6**	0.0	-105.6	0.0	-1.1	0.0	**-89.6**	0.0
Mz$_f$	-105.6	0.0	-1.1	0.0	-89.6	**0.0**	-105.6	0.0	-1.1	0.0	-89.6	**0.0**

Member 421

Fx,	**-210.8**	0.0	0.0	0.0	0.0	0.0	**-210.8**	0.0	0.0	0.0	0.0	0.0
Fy,	-210.8	**0.0**	0.0	0.0	0.0	0.0	-210.8	**0.0**	0.0	0.0	0.0	0.0
Fz,	-210.8	0.0	**0.0**	0.0	0.0	0.0	-210.8	0.0	**0.0**	0.0	0.0	0.0
Mx,	-210.8	0.0	0.0	**0.0**	0.0	0.0	-210.8	0.0	0.0	**0.0**	0.0	0.0
My,	-210.8	0.0	0.0	0.0	**0.0**	0.0	-210.8	0.0	0.0	0.0	**0.0**	0.0
Mz,	-210.8	0.0	0.0	0.0	0.0	**0.0**	-210.8	0.0	0.0	0.0	0.0	**0.0**
Fx$_f$	**-210.8**	0.0	0.0	0.0	0.0	0.0	**-210.8**	0.0	0.0	0.0	0.0	0.0
Fy$_f$	-210.8	**0.0**	0.0	0.0	0.0	0.0	-210.8	**0.0**	0.0	0.0	0.0	0.0
Fz$_f$	-210.8	0.0	**0.0**	0.0	0.0	0.0	-210.8	0.0	**0.0**	0.0	0.0	0.0
Mx$_f$	-210.8	0.0	0.0	**0.0**	0.0	0.0	-210.8	0.0	0.0	**0.0**	0.0	0.0
My$_f$	-210.8	0.0	0.0	0.0	**0.0**	0.0	-210.8	0.0	0.0	0.0	**0.0**	0.0
Mz$_f$	-210.8	0.0	0.0	0.0	0.0	**0.0**	-210.8	0.0	0.0	0.0	0.0	**0.0**

Member 422

Fx,	**-269.8**	0.0	0.0	0.0	0.0	0.0	**-269.8**	0.0	0.0	0.0	0.0	0.0
Fy,	-269.8	**0.0**	0.0	0.0	0.0	0.0	-269.8	**0.0**	0.0	0.0	0.0	0.0
Fz,	-269.8	0.0	**0.0**	0.0	0.0	0.0	-269.8	0.0	**0.0**	0.0	0.0	0.0
Mx,	-269.8	0.0	0.0	**0.0**	0.0	0.0	-269.8	0.0	0.0	**0.0**	0.0	0.0
My,	-269.8	0.0	0.0	0.0	**0.0**	0.0	-269.8	0.0	0.0	0.0	0.0	0.0
Mz,	-269.8	0.0	0.0	0.0	0.0	**0.0**	-269.8	0.0	0.0	0.0	0.0	**0.0**
Fx$_f$	**-269.8**	0.0	0.0	0.0	0.0	0.0	**-269.8**	0.0	0.0	0.0	0.0	0.0
Fy$_f$	-269.8	**0.0**	0.0	0.0	0.0	0.0	-269.8	**0.0**	0.0	0.0	0.0	0.0
Fz$_f$	-269.8	0.0	**0.0**	0.0	0.0	0.0	-269.8	0.0	**0.0**	0.0	0.0	0.0
Mx$_f$	-269.8	0.0	0.0	**0.0**	0.0	0.0	-269.8	0.0	0.0	**0.0**	0.0	0.0
My$_f$	-269.8	0.0	0.0	0.0	**0.0**	0.0	-269.8	0.0	0.0	0.0	**0.0**	0.0
Mz$_f$	-269.8	0.0	0.0	0.0	0.0	**0.0**	-269.8	0.0	0.0	0.0	0.0	**0.0**

Member 423

Fx,	**-269.8**	0.0	-0.0	0.0	-0.0	0.0	**-269.8**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-269.8	**0.0**	-0.0	0.0	-0.0	0.0	-269.8	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-269.8	0.0	**-0.0**	0.0	-0.0	0.0	-269.8	0.0	**-0.0**	0.0	-0.0	0.0
Mx,	-269.8	0.0	-0.0	**0.0**	-0.0	0.0	-269.8	0.0	-0.0	**0.0**	-0.0	0.0
My,	-269.8	0.0	-0.0	0.0	**-0.0**	0.0	-269.8	0.0	-0.0	0.0	**-0.0**	0.0
Mz,	-269.8	0.0	-0.0	0.0	-0.0	**0.0**	-269.8	0.0	-0.0	0.0	-0.0	**0.0**
Fx$_f$	**-269.8**	0.0	-0.0	0.0	-0.0	0.0	**-269.8**	0.0	-0.0	0.0	-0.0	0.0
Fy$_f$	-269.8	**0.0**	-0.0	0.0	-0.0	0.0	-269.8	**0.0**	-0.0	0.0	-0.0	0.0
Fz$_f$	-269.8	0.0	**-0.0**	0.0	-0.0	0.0	-269.8	0.0	**-0.0**	0.0	-0.0	0.0
Mx$_f$	-269.8	0.0	-0.0	**0.0**	-0.0	0.0	-269.8	0.0	-0.0	**0.0**	-0.0	0.0
My$_f$	-269.8	0.0	-0.0	0.0	**-0.0**	0.0	-269.8	0.0	-0.0	0.0	**-0.0**	0.0
Mz$_f$	-269.8	0.0	-0.0	0.0	-0.0	**0.0**	-269.8	0.0	-0.0	0.0	-0.0	**0.0**

Member 424

Fx,	**-269.8**	0.0	-0.0	0.0	-0.0	0.0	**-269.8**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-269.8	**0.0**	-0.0	0.0	-0.0	0.0	-269.8	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-269.8	0.0	**-0.0**	0.0	-0.0	0.0	-269.8	0.0	**-0.0**	0.0	-0.0	0.0
Mx,	-269.8	0.0	-0.0	**0.0**	-0.0	0.0	-269.8	0.0	-0.0	**0.0**	-0.0	0.0
My,	-269.8	0.0	-0.0	0.0	**-0.0**	0.0	-269.8	0.0	-0.0	0.0	**-0.0**	0.0
Mz,	-269.8	0.0	-0.0	0.0	-0.0	**0.0**	-269.8	0.0	-0.0	0.0	-0.0	**0.0**
Fx$_f$	**-269.8**	0.0	-0.0	0.0	-0.0	0.0	**-269.8**	0.0	-0.0	0.0	-0.0	0.0
Fy$_f$	-269.8	**0.0**	-0.0	0.0	-0.0	0.0	-269.8	**0.0**	-0.0	0.0	-0.0	0.0
Fz$_f$	-269.8	0.0	**-0.0**	0.0	-0.0	0.0	-269.8	0.0	**-0.0**	0.0	-0.0	0.0
Mx$_f$	-269.8	0.0	-0.0	**0.0**	-0.0	0.0	-269.8	0.0	-0.0	**0.0**	-0.0	0.0

My_f	-269.8	0.0	-0.0	0.0	**-0.0**	0.0	-269.8	0.0	-0.0	0.0	**-0.0**	0.0
Mz_f	-269.8	0.0	-0.0	0.0	-0.0	**0.0**	-269.8	0.0	-0.0	0.0	-0.0	**0.0**

Member 425

Fx_i	**-269.8**	0.0	-0.0	0.0	-0.0	0.0	**-269.8**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	-269.8	**0.0**	-0.0	0.0	-0.0	0.0	-269.8	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	-269.8	0.0	**-0.0**	0.0	-0.0	0.0	-269.8	0.0	**-0.0**	0.0	-0.0	0.0
Mx_i	-269.8	0.0	-0.0	**0.0**	-0.0	0.0	-269.8	0.0	-0.0	**0.0**	-0.0	0.0
My_i	-269.8	0.0	-0.0	0.0	**-0.0**	0.0	-269.8	0.0	-0.0	0.0	**-0.0**	0.0
Mz_i	-269.8	0.0	-0.0	0.0	-0.0	**0.0**	-269.8	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-269.8**	0.0	-0.0	0.0	-0.0	0.0	**-269.8**	0.0	-0.0	0.0	-0.0	0.0
Fy_f	-269.8	**0.0**	-0.0	0.0	-0.0	0.0	-269.8	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	-269.8	0.0	**-0.0**	0.0	-0.0	0.0	-269.8	0.0	**-0.0**	0.0	-0.0	0.0
Mx_f	-269.8	0.0	-0.0	**0.0**	-0.0	0.0	-269.8	0.0	-0.0	**0.0**	-0.0	0.0
My_f	-269.8	0.0	-0.0	0.0	**-0.0**	0.0	-269.8	0.0	-0.0	0.0	**-0.0**	0.0
Mz_f	-269.8	0.0	-0.0	0.0	-0.0	**0.0**	-269.8	0.0	-0.0	0.0	-0.0	**0.0**

Member 426

Fx_i	**-269.8**	0.0	0.0	0.0	-0.0	0.0	**-269.8**	0.0	0.0	0.0	-0.0	0.0
Fy_i	-269.8	**0.0**	0.0	0.0	-0.0	0.0	-269.8	**0.0**	0.0	0.0	-0.0	0.0
Fz_i	-269.8	0.0	**0.0**	0.0	-0.0	0.0	-269.8	0.0	**0.0**	0.0	-0.0	0.0
Mx_i	-269.8	0.0	0.0	**0.0**	-0.0	0.0	-269.8	0.0	0.0	**0.0**	-0.0	0.0
My_i	-269.8	0.0	0.0	0.0	**-0.0**	0.0	-269.8	0.0	0.0	0.0	**-0.0**	0.0
Mz_i	-269.8	0.0	0.0	0.0	-0.0	**0.0**	-269.8	0.0	0.0	0.0	-0.0	**0.0**
Fx_f	**-269.8**	0.0	0.0	0.0	-0.0	0.0	**-269.8**	0.0	0.0	0.0	-0.0	0.0
Fy_f	-269.8	**0.0**	0.0	0.0	-0.0	0.0	-269.8	**0.0**	0.0	0.0	-0.0	0.0
Fz_f	-269.8	0.0	**0.0**	0.0	-0.0	0.0	-269.8	0.0	**0.0**	0.0	-0.0	0.0
Mx_f	-269.8	0.0	0.0	**0.0**	-0.0	0.0	-269.8	0.0	0.0	**0.0**	-0.0	0.0
My_f	-269.8	0.0	0.0	0.0	**-0.0**	0.0	-269.8	0.0	0.0	0.0	**-0.0**	0.0
Mz_f	-269.8	0.0	0.0	0.0	-0.0	**0.0**	-269.8	0.0	0.0	0.0	-0.0	**0.0**

Member 427

Fx_i	**-211.3**	0.0	0.0	0.0	0.0	0.0	**-211.3**	0.0	0.0	0.0	0.0	0.0
Fy_i	-211.3	**0.0**	0.0	0.0	0.0	0.0	-211.3	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-211.3	0.0	**0.0**	0.0	0.0	0.0	-211.3	0.0	**0.0**	0.0	0.0	0.0
Mx_i	-211.3	0.0	0.0	**0.0**	0.0	0.0	-211.3	0.0	0.0	**0.0**	0.0	0.0
My_i	-211.3	0.0	0.0	0.0	**0.0**	0.0	-211.3	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-211.3	0.0	0.0	0.0	0.0	**0.0**	-211.3	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-211.3**	0.0	0.0	0.0	0.0	0.0	**-211.3**	0.0	0.0	0.0	0.0	0.0
Fy_f	-211.3	**0.0**	0.0	0.0	0.0	0.0	-211.3	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-211.3	0.0	**0.0**	0.0	0.0	0.0	-211.3	0.0	**0.0**	0.0	0.0	0.0
Mx_f	-211.3	0.0	0.0	**0.0**	0.0	0.0	-211.3	0.0	0.0	**0.0**	0.0	0.0
My_f	-211.3	0.0	0.0	0.0	**0.0**	0.0	-211.3	0.0	0.0	0.0	**0.0**	0.0
Mz_f	-211.3	0.0	0.0	0.0	0.0	**0.0**	-211.3	0.0	0.0	0.0	0.0	**0.0**

DISPLACEMENTS

	x	y	z	x	y	z	x	y	z	x	y	z

Joint 1

x	**-0.0**	-0.0	-0.1	-39.7	34.7	-210.5	**-0.0**	-0.0	-0.1	-39.7	34.7	-210.5
y	-0.0	**-0.0**	-0.1	-39.7	34.7	-210.5	-0.0	**-0.0**	-0.1	-39.7	34.7	-210.5
z	-0.0	-0.0	**-0.1**	-39.7	34.7	-210.5	-0.0	-0.0	**-0.1**	-39.7	34.7	-210.5
x	-0.0	-0.0	-0.1	**-39.7**	34.7	-210.5	-0.0	-0.0	-0.1	**-39.7**	34.7	-210.5
y	-0.0	-0.0	-0.1	-39.7	**34.7**	-210.5	-0.0	-0.0	-0.1	-39.7	**34.7**	-210.5
z	-0.0	-0.0	-0.1	-39.7	34.7	**-210.5**	-0.0	-0.0	-0.1	-39.7	34.7	**-210.5**

Joint 2

x	**-0.0**	-0.7	-0.2	-109.6	31.6	-180.8	**-0.0**	-0.7	-0.2	-109.6	31.6	-180.8
y	-0.0	**-0.7**	-0.2	-109.6	31.6	-180.8	-0.0	**-0.7**	-0.2	-109.6	31.6	-180.8
z	-0.0	-0.7	**-0.2**	-109.6	31.6	-180.8	-0.0	-0.7	**-0.2**	-109.6	31.6	-180.8
x	-0.0	-0.7	-0.2	**-109.6**	31.6	-180.8	-0.0	-0.7	-0.2	**-109.6**	31.6	-180.8
y	-0.0	-0.7	-0.2	-109.6	**31.6**	-180.8	-0.0	-0.7	-0.2	-109.6	**31.6**	-180.8
z	-0.0	-0.7	-0.2	-109.6	31.6	**-180.8**	-0.0	-0.7	-0.2	-109.6	31.6	**-180.8**

Joint 3

x	**-0.0**	-1.3	-0.3	-153.1	28.5	-103.0	**-0.0**	-1.3	-0.3	-153.1	28.5	-103.0
y	-0.0	**-1.3**	-0.3	-153.1	28.5	-103.0	-0.0	**-1.3**	-0.3	-153.1	28.5	-103.0
z	-0.0	-1.3	**-0.3**	-153.1	28.5	-103.0	-0.0	-1.3	**-0.3**	-153.1	28.5	-103.0
x	-0.0	-1.3	-0.3	**-153.1**	28.5	-103.0	-0.0	-1.3	-0.3	**-153.1**	28.5	-103.0
y	-0.0	-1.3	-0.3	-153.1	**28.5**	-103.0	-0.0	-1.3	-0.3	-153.1	**28.5**	-103.0
z	-0.0	-1.3	-0.3	-153.1	28.5	**-103.0**	-0.0	-1.3	-0.3	-153.1	28.5	**-103.0**

Joint 4

x	**-0.0**	-1.5	-0.4	-170.3	25.5	-11.9	**-0.0**	-1.5	-0.4	-170.3	25.5	-11.9
y	-0.0	**-1.5**	-0.4	-170.3	25.5	-11.9	-0.0	**-1.5**	-0.4	-170.3	25.5	-11.9
z	-0.0	-1.5	**-0.4**	-170.3	25.5	-11.9	-0.0	-1.5	**-0.4**	-170.3	25.5	-11.9
x	-0.0	-1.5	-0.4	**-170.3**	25.5	-11.9	-0.0	-1.5	-0.4	**-170.3**	25.5	-11.9
y	-0.0	-1.5	-0.4	-170.3	**25.5**	-11.9	-0.0	-1.5	-0.4	-170.3	**25.5**	-11.9
z	-0.0	-1.5	-0.4	-170.3	25.5	**-11.9**	-0.0	-1.5	-0.4	-170.3	25.5	**-11.9**

Joint 5

x	**-0.0**	-1.3	-0.5	-161.1	22.6	88.2	**-0.0**	-1.3	-0.5	-161.1	22.6	88.2
y	-0.0	**-1.3**	-0.5	-161.1	22.6	88.2	-0.0	**-1.3**	-0.5	-161.1	22.6	88.2
z	-0.0	-1.3	**-0.5**	-161.1	22.6	88.2	-0.0	-1.3	**-0.5**	-161.1	22.6	88.2
x	-0.0	-1.3	-0.5	**-161.1**	22.6	88.2	-0.0	-1.3	-0.5	**-161.1**	22.6	88.2
y	-0.0	-1.3	-0.5	-161.1	**22.6**	88.2	-0.0	-1.3	-0.5	-161.1	**22.6**	88.2
z	-0.0	-1.3	-0.5	-161.1	22.6	**88.2**	-0.0	-1.3	-0.5	-161.1	22.6	**88.2**

Joint 6

x	**-0.0**	-0.9	-0.6	-125.6	19.8	162.5	**-0.0**	-0.9	-0.6	-125.6	19.8	162.5
y	-0.0	**-0.9**	-0.6	-125.6	19.8	162.5	-0.0	**-0.9**	-0.6	-125.6	19.8	162.5
z	-0.0	-0.9	**-0.6**	-125.6	19.8	162.5	-0.0	-0.9	**-0.6**	-125.6	19.8	162.5
x	-0.0	-0.9	-0.6	**-125.6**	19.8	162.5	-0.0	-0.9	-0.6	**-125.6**	19.8	162.5
y	-0.0	-0.9	-0.6	-125.6	**19.8**	162.5	-0.0	-0.9	-0.6	-125.6	**19.8**	162.5
z	-0.0	-0.9	-0.6	-125.6	19.8	**162.5**	-0.0	-0.9	-0.6	-125.6	19.8	**162.5**

Joint 7

x	**-0.0**	-0.2	-0.6	-76.9	17.0	-921.7	**-0.0**	-0.2	-0.6	-76.9	17.0	-921.7
y	-0.0	**-0.2**	-0.6	-76.9	17.0	-921.7	-0.0	**-0.2**	-0.6	-76.9	17.0	-921.7
z	-0.0	-0.2	**-0.6**	-76.9	17.0	-921.7	-0.0	-0.2	**-0.6**	-76.9	17.0	-921.7
x	-0.0	-0.2	-0.6	**-76.9**	17.0	-921.7	-0.0	-0.2	-0.6	**-76.9**	17.0	-921.7
y	-0.0	-0.2	-0.6	-76.9	**17.0**	-921.7	-0.0	-0.2	-0.6	-76.9	**17.0**	-921.7
z	-0.0	-0.2	-0.6	-76.9	17.0	**-921.7**	-0.0	-0.2	-0.6	-76.9	17.0	**-921.7**

Joint 8

x	**-0.0**	-4.1	-0.7	-200.9	13.9	-804.0	**-0.0**	-4.1	-0.7	-200.9	13.9	-804.0
y	-0.0	**-4.1**	-0.7	-200.9	13.9	-804.0	-0.0	**-4.1**	-0.7	-200.9	13.9	-804.0
z	-0.0	-4.1	**-0.7**	-200.9	13.9	-804.0	-0.0	-4.1	**-0.7**	-200.9	13.9	-804.0
x	-0.0	-4.1	-0.7	**-200.9**	13.9	-804.0	-0.0	-4.1	-0.7	**-200.9**	13.9	-804.0
y	-0.0	-4.1	-0.7	-200.9	**13.9**	-804.0	-0.0	-4.1	-0.7	-200.9	**13.9**	-804.0
z	-0.0	-4.1	-0.7	-200.9	13.9	**-804.0**	-0.0	-4.1	-0.7	-200.9	13.9	**-804.0**

Joint 9

x	**-0.0**	-7.3	-0.8	-305.1	11.2	-600.9	**-0.0**	-7.3	-0.8	-305.1	11.2	-600.9
y	-0.0	**-7.3**	-0.8	-305.1	11.2	-600.9	-0.0	**-7.3**	-0.8	-305.1	11.2	-600.9
z	-0.0	-7.3	**-0.8**	-305.1	11.2	-600.9	-0.0	-7.3	**-0.8**	-305.1	11.2	-600.9
x	-0.0	-7.3	-0.8	**-305.1**	11.2	-600.9	-0.0	-7.3	-0.8	**-305.1**	11.2	-600.9
y	-0.0	-7.3	-0.8	-305.1	**11.2**	-600.9	-0.0	-7.3	-0.8	-305.1	**11.2**	-600.9
z	-0.0	-7.3	-0.8	-305.1	11.2	**-600.9**	-0.0	-7.3	-0.8	-305.1	11.2	**-600.9**

Joint 10

x	**-0.0**	-9.4	-0.8	-369.6	9.1	-306.6	**-0.0**	-9.4	-0.8	-369.6	9.1	-306.6
y	-0.0	**-9.4**	-0.8	-369.6	9.1	-306.6	-0.0	**-9.4**	-0.8	-369.6	9.1	-306.6
z	-0.0	-9.4	**-0.8**	-369.6	9.1	-306.6	-0.0	-9.4	**-0.8**	-369.6	9.1	-306.6
x	-0.0	-9.4	-0.8	**-369.6**	9.1	-306.6	-0.0	-9.4	-0.8	**-369.6**	9.1	-306.6
y	-0.0	-9.4	-0.8	-369.6	**9.1**	-306.6	-0.0	-9.4	-0.8	-369.6	**9.1**	-306.6
z	-0.0	-9.4	-0.8	-369.6	9.1	**-306.6**	-0.0	-9.4	-0.8	-369.6	9.1	**-306.6**

Joint 11

x	**-0.0**	-10.1	-0.8	-394.4	7.4	-0.8	**-0.0**	-10.1	-0.8	-394.4	7.4	-0.8
y	-0.0	**-10.1**	-0.8	-394.4	7.4	-0.8	-0.0	**-10.1**	-0.8	-394.4	7.4	-0.8
z	-0.0	-10.1	**-0.8**	-394.4	7.4	-0.8	-0.0	-10.1	**-0.8**	-394.4	7.4	-0.8

x	-0.0	-10.1	-0.8	**-394.4**	7.4	-0.8	-0.0	-10.1	-0.8	**-394.4**	7.4	-0.8
y	-0.0	-10.1	-0.8	-394.4	**7.4**	-0.8	-0.0	-10.1	-0.8	-394.4	**7.4**	-0.8
z	-0.0	-10.1	-0.8	-394.4	7.4	**-0.8**	-0.0	-10.1	-0.8	-394.4	7.4	**-0.8**

Joint 12

x	**-0.0**	-9.4	-0.9	-379.5	6.3	305.0	**-0.0**	-9.4	-0.9	-379.5	6.3	305.0
y	-0.0	**-9.4**	-0.9	-379.5	6.3	305.0	-0.0	**-9.4**	-0.9	-379.5	6.3	305.0
z	-0.0	-9.4	**-0.9**	-379.5	6.3	305.0	-0.0	-9.4	**-0.9**	-379.5	6.3	305.0
x	-0.0	-9.4	-0.9	**-379.5**	6.3	305.0	-0.0	-9.4	-0.9	**-379.5**	6.3	305.0
y	-0.0	-9.4	-0.9	-379.5	**6.3**	305.0	-0.0	-9.4	-0.9	-379.5	**6.3**	305.0
z	-0.0	-9.4	-0.9	-379.5	6.3	**305.0**	-0.0	-9.4	-0.9	-379.5	6.3	**305.0**

Joint 13

x	**-0.0**	-7.3	-0.9	-324.9	5.6	599.2	**-0.0**	-7.3	-0.9	-324.9	5.6	599.2
y	-0.0	**-7.3**	-0.9	-324.9	5.6	599.2	-0.0	**-7.3**	-0.9	-324.9	5.6	599.2
z	-0.0	-7.3	**-0.9**	-324.9	5.6	599.2	-0.0	-7.3	**-0.9**	-324.9	5.6	599.2
x	-0.0	-7.3	-0.9	**-324.9**	5.6	599.2	-0.0	-7.3	-0.9	**-324.9**	5.6	599.2
y	-0.0	-7.3	-0.9	-324.9	**5.6**	599.2	-0.0	-7.3	-0.9	-324.9	**5.6**	599.2
z	-0.0	-7.3	-0.9	-324.9	5.6	**599.2**	-0.0	-7.3	-0.9	-324.9	5.6	**599.2**

Joint 14

x	**-0.0**	-4.1	-0.9	-230.7	5.5	802.3	**-0.0**	-4.1	-0.9	-230.7	5.5	802.3
y	-0.0	**-4.1**	-0.9	-230.7	5.5	802.3	-0.0	**-4.1**	-0.9	-230.7	5.5	802.3
z	-0.0	-4.1	**-0.9**	-230.7	5.5	802.3	-0.0	-4.1	**-0.9**	-230.7	5.5	802.3
x	-0.0	-4.1	-0.9	**-230.7**	5.5	802.3	-0.0	-4.1	-0.9	**-230.7**	5.5	802.3
y	-0.0	-4.1	-0.9	-230.7	**5.5**	802.3	-0.0	-4.1	-0.9	-230.7	**5.5**	802.3
z	-0.0	-4.1	-0.9	-230.7	5.5	**802.3**	-0.0	-4.1	-0.9	-230.7	5.5	**802.3**

Joint 15

x	**-0.0**	-0.2	-0.9	-116.6	5.8	-922.3	**-0.0**	-0.2	-0.9	-116.6	5.8	-922.3
y	-0.0	**-0.2**	-0.9	-116.6	5.8	-922.3	-0.0	**-0.2**	-0.9	-116.6	5.8	-922.3
z	-0.0	-0.2	**-0.9**	-116.6	5.8	-922.3	-0.0	-0.2	**-0.9**	-116.6	5.8	-922.3
x	-0.0	-0.2	-0.9	**-116.6**	5.8	-922.3	-0.0	-0.2	-0.9	**-116.6**	5.8	-922.3
y	-0.0	-0.2	-0.9	-116.6	**5.8**	-922.3	-0.0	-0.2	-0.9	-116.6	**5.8**	-922.3
z	-0.0	-0.2	-0.9	-116.6	5.8	**-922.3**	-0.0	-0.2	-0.9	-116.6	5.8	**-922.3**

Joint 16

x	**-0.0**	-4.2	-1.0	-236.8	6.3	-804.5	**-0.0**	-4.2	-1.0	-236.8	6.3	-804.5
y	-0.0	**-4.2**	-1.0	-236.8	6.3	-804.5	-0.0	**-4.2**	-1.0	-236.8	6.3	-804.5
z	-0.0	-4.2	**-1.0**	-236.8	6.3	-804.5	-0.0	-4.2	**-1.0**	-236.8	6.3	-804.5
x	-0.0	-4.2	-1.0	**-236.8**	6.3	-804.5	-0.0	-4.2	-1.0	**-236.8**	6.3	-804.5
y	-0.0	-4.2	-1.0	-236.8	**6.3**	-804.5	-0.0	-4.2	-1.0	-236.8	**6.3**	-804.5
z	-0.0	-4.2	-1.0	-236.8	6.3	**-804.5**	-0.0	-4.2	-1.0	-236.8	6.3	**-804.5**

Joint 17

x	**-0.0**	-7.4	-1.0	-337.2	6.6	-601.4	**-0.0**	-7.4	-1.0	-337.2	6.6	-601.4
y	-0.0	**-7.4**	-1.0	-337.2	6.6	-601.4	-0.0	**-7.4**	-1.0	-337.2	6.6	-601.4
z	-0.0	-7.4	**-1.0**	-337.2	6.6	-601.4	-0.0	-7.4	**-1.0**	-337.2	6.6	-601.4
x	-0.0	-7.4	-1.0	**-337.2**	6.6	-601.4	-0.0	-7.4	-1.0	**-337.2**	6.6	-601.4
y	-0.0	-7.4	-1.0	-337.2	**6.6**	-601.4	-0.0	-7.4	-1.0	-337.2	**6.6**	-601.4
z	-0.0	-7.4	-1.0	-337.2	6.6	**-601.4**	-0.0	-7.4	-1.0	-337.2	6.6	**-601.4**

Joint 18

x	**-0.0**	-9.4	-1.0	-397.8	6.9	-307.2	**-0.0**	-9.4	-1.0	-397.8	6.9	-307.2
y	-0.0	**-9.4**	-1.0	-397.8	6.9	-307.2	-0.0	**-9.4**	-1.0	-397.8	6.9	-307.2
z	-0.0	-9.4	**-1.0**	-397.8	6.9	-307.2	-0.0	-9.4	**-1.0**	-397.8	6.9	-307.2
x	-0.0	-9.4	-1.0	**-397.8**	6.9	-307.2	-0.0	-9.4	-1.0	**-397.8**	6.9	-307.2
y	-0.0	-9.4	-1.0	-397.8	**6.9**	-307.2	-0.0	-9.4	-1.0	-397.8	**6.9**	-307.2
z	-0.0	-9.4	-1.0	-397.8	6.9	**-307.2**	-0.0	-9.4	-1.0	-397.8	6.9	**-307.2**

Joint 19

x	**-0.0**	-10.1	-1.1	-418.8	7.0	-1.4	**-0.0**	-10.1	-1.1	-418.8	7.0	-1.4
y	-0.0	**-10.1**	-1.1	-418.8	7.0	-1.4	-0.0	**-10.1**	-1.1	-418.8	7.0	-1.4
z	-0.0	-10.1	**-1.1**	-418.8	7.0	-1.4	-0.0	-10.1	**-1.1**	-418.8	7.0	-1.4
x	-0.0	-10.1	-1.1	**-418.8**	7.0	-1.4	-0.0	-10.1	-1.1	**-418.8**	7.0	-1.4
y	-0.0	-10.1	-1.1	-418.8	**7.0**	-1.4	-0.0	-10.1	-1.1	-418.8	**7.0**	-1.4
z	-0.0	-10.1	-1.1	-418.8	7.0	**-1.4**	-0.0	-10.1	-1.1	-418.8	7.0	**-1.4**

Joint 20

x	**-0.0**	-9.4	-1.1	-400.1	6.9	304.5	**-0.0**	-9.4	-1.1	-400.1	6.9	304.5
y	-0.0	**-9.4**	-1.1	-400.1	6.9	304.5	-0.0	**-9.4**	-1.1	-400.1	6.9	304.5
z	-0.0	-9.4	**-1.1**	-400.1	6.9	304.5	-0.0	-9.4	**-1.1**	-400.1	6.9	304.5
x	-0.0	-9.4	-1.1	**-400.1**	6.9	304.5	-0.0	-9.4	-1.1	**-400.1**	6.9	304.5
y	-0.0	-9.4	-1.1	-400.1	**6.9**	304.5	-0.0	-9.4	-1.1	-400.1	**6.9**	304.5
z	-0.0	-9.4	-1.1	-400.1	6.9	**304.5**	-0.0	-9.4	-1.1	-400.1	6.9	**304.5**

Joint 21

x	**-0.0**	-7.4	-1.1	-341.8	6.8	598.7	**-0.0**	-7.4	-1.1	-341.8	6.8	598.7
y	-0.0	**-7.4**	-1.1	-341.8	6.8	598.7	-0.0	**-7.4**	-1.1	-341.8	6.8	598.7
z	-0.0	-7.4	**-1.1**	-341.8	6.8	598.7	-0.0	-7.4	**-1.1**	-341.8	6.8	598.7
x	-0.0	-7.4	-1.1	**-341.8**	6.8	598.7	-0.0	-7.4	-1.1	**-341.8**	6.8	598.7
y	-0.0	-7.4	-1.1	-341.8	**6.8**	598.7	-0.0	-7.4	-1.1	-341.8	**6.8**	598.7
z	-0.0	-7.4	-1.1	-341.8	6.8	**598.7**	-0.0	-7.4	-1.1	-341.8	6.8	**598.7**

Joint 22

x	**-0.0**	-4.2	-1.2	-243.7	6.5	801.8	**-0.0**	-4.2	-1.2	-243.7	6.5	801.8
y	-0.0	**-4.2**	-1.2	-243.7	6.5	801.8	-0.0	**-4.2**	-1.2	-243.7	6.5	801.8
z	-0.0	-4.2	**-1.2**	-243.7	6.5	801.8	-0.0	-4.2	**-1.2**	-243.7	6.5	801.8
x	-0.0	-4.2	-1.2	**-243.7**	6.5	801.8	-0.0	-4.2	-1.2	**-243.7**	6.5	801.8
y	-0.0	-4.2	-1.2	-243.7	**6.5**	801.8	-0.0	-4.2	-1.2	-243.7	**6.5**	801.8
z	-0.0	-4.2	-1.2	-243.7	6.5	**801.8**	-0.0	-4.2	-1.2	-243.7	6.5	**801.8**

Joint 23

x	**-0.0**	-0.2	-1.2	-125.8	6.0	-921.2	**-0.0**	-0.2	-1.2	-125.8	6.0	-921.2
y	-0.0	**-0.2**	-1.2	-125.8	6.0	-921.2	-0.0	**-0.2**	-1.2	-125.8	6.0	-921.2
z	-0.0	-0.2	**-1.2**	-125.8	6.0	-921.2	-0.0	-0.2	**-1.2**	-125.8	6.0	-921.2
x	-0.0	-0.2	-1.2	**-125.8**	6.0	-921.2	-0.0	-0.2	-1.2	**-125.8**	6.0	-921.2
y	-0.0	-0.2	-1.2	-125.8	**6.0**	-921.2	-0.0	-0.2	-1.2	-125.8	**6.0**	-921.2
z	-0.0	-0.2	-1.2	-125.8	6.0	**-921.2**	-0.0	-0.2	-1.2	-125.8	6.0	**-921.2**

Joint 24

x	**-0.0**	-4.2	-1.2	-246.1	5.5	-803.4	**-0.0**	-4.2	-1.2	-246.1	5.5	-803.4
y	-0.0	**-4.2**	-1.2	-246.1	5.5	-803.4	-0.0	**-4.2**	-1.2	-246.1	5.5	-803.4
z	-0.0	-4.2	**-1.2**	-246.1	5.5	-803.4	-0.0	-4.2	**-1.2**	-246.1	5.5	-803.4
x	-0.0	-4.2	-1.2	**-246.1**	5.5	-803.4	-0.0	-4.2	-1.2	**-246.1**	5.5	-803.4
y	-0.0	-4.2	-1.2	-246.1	**5.5**	-803.4	-0.0	-4.2	-1.2	-246.1	**5.5**	-803.4
z	-0.0	-4.2	-1.2	-246.1	5.5	**-803.4**	-0.0	-4.2	-1.2	-246.1	5.5	**-803.4**

Joint 25

x	**-0.0**	-7.4	-1.2	-346.5	5.0	-600.3	**-0.0**	-7.4	-1.2	-346.5	5.0	-600.3
y	-0.0	**-7.4**	-1.2	-346.5	5.0	-600.3	-0.0	**-7.4**	-1.2	-346.5	5.0	-600.3
z	-0.0	-7.4	**-1.2**	-346.5	5.0	-600.3	-0.0	-7.4	**-1.2**	-346.5	5.0	-600.3
x	-0.0	-7.4	-1.2	**-346.5**	5.0	-600.3	-0.0	-7.4	-1.2	**-346.5**	5.0	-600.3
y	-0.0	-7.4	-1.2	-346.5	**5.0**	-600.3	-0.0	-7.4	-1.2	-346.5	**5.0**	-600.3
z	-0.0	-7.4	-1.2	-346.5	5.0	**-600.3**	-0.0	-7.4	-1.2	-346.5	5.0	**-600.3**

Joint 26

x	**-0.0**	-9.5	-1.3	-407.2	4.5	-306.1	**-0.0**	-9.5	-1.3	-407.2	4.5	-306.1
y	-0.0	**-9.5**	-1.3	-407.2	4.5	-306.1	-0.0	**-9.5**	-1.3	-407.2	4.5	-306.1
z	-0.0	-9.5	**-1.3**	-407.2	4.5	-306.1	-0.0	-9.5	**-1.3**	-407.2	4.5	-306.1
x	-0.0	-9.5	-1.3	**-407.2**	4.5	-306.1	-0.0	-9.5	-1.3	**-407.2**	4.5	-306.1
y	-0.0	-9.5	-1.3	-407.2	**4.5**	-306.1	-0.0	-9.5	-1.3	-407.2	**4.5**	-306.1
z	-0.0	-9.5	-1.3	-407.2	4.5	**-306.1**	-0.0	-9.5	-1.3	-407.2	4.5	**-306.1**

Joint 27

x	**-0.0**	-10.2	-1.3	-428.2	4.0	-0.3	**-0.0**	-10.2	-1.3	-428.2	4.0	-0.3
y	-0.0	**-10.2**	-1.3	-428.2	4.0	-0.3	-0.0	**-10.2**	-1.3	-428.2	4.0	-0.3
z	-0.0	-10.2	**-1.3**	-428.2	4.0	-0.3	-0.0	-10.2	**-1.3**	-428.2	4.0	-0.3
x	-0.0	-10.2	-1.3	**-428.2**	4.0	-0.3	-0.0	-10.2	-1.3	**-428.2**	4.0	-0.3
y	-0.0	-10.2	-1.3	-428.2	**4.0**	-0.3	-0.0	-10.2	-1.3	-428.2	**4.0**	-0.3
z	-0.0	-10.2	-1.3	-428.2	4.0	**-0.3**	-0.0	-10.2	-1.3	-428.2	4.0	**-0.3**

Joint 28

x	**-0.0**	-9.5	-1.3	-409.6	3.5	305.5	-0.0	-9.5	-1.3	-409.6	3.5	305.5
y	-0.0	**-9.5**	-1.3	-409.6	3.5	305.5	-0.0	**-9.5**	-1.3	-409.6	3.5	305.5
z	-0.0	-9.5	**-1.3**	-409.6	3.5	305.5	-0.0	-9.5	**-1.3**	-409.6	3.5	305.5
x	-0.0	-9.5	-1.3	**-409.6**	3.5	305.5	-0.0	-9.5	-1.3	**-409.6**	3.5	305.5
y	-0.0	-9.5	-1.3	-409.6	**3.5**	305.5	-0.0	-9.5	-1.3	-409.6	**3.5**	305.5
z	-0.0	-9.5	-1.3	-409.6	3.5	**305.5**	-0.0	-9.5	-1.3	-409.6	3.5	**305.5**

Joint 29

x	**-0.0**	-7.4	-1.3	-351.3	3.0	599.8	**-0.0**	-7.4	-1.3	-351.3	3.0	599.8
y	-0.0	**-7.4**	-1.3	-351.3	3.0	599.8	-0.0	**-7.4**	-1.3	-351.3	3.0	599.8
z	-0.0	-7.4	**-1.3**	-351.3	3.0	599.8	-0.0	-7.4	**-1.3**	-351.3	3.0	599.8
x	-0.0	-7.4	-1.3	**-351.3**	3.0	599.8	-0.0	-7.4	-1.3	**-351.3**	3.0	599.8
y	-0.0	-7.4	-1.3	-351.3	**3.0**	599.8	-0.0	-7.4	-1.3	-351.3	**3.0**	599.8
z	-0.0	-7.4	-1.3	-351.3	3.0	**599.8**	-0.0	-7.4	-1.3	-351.3	3.0	**599.8**

Joint 30

x	**-0.0**	-4.2	-1.3	-253.3	2.5	802.9	**-0.0**	-4.2	-1.3	-253.3	2.5	802.9
y	-0.0	**-4.2**	-1.3	-253.3	2.5	802.9	-0.0	**-4.2**	-1.3	-253.3	2.5	802.9
z	-0.0	-4.2	**-1.3**	-253.3	2.5	802.9	-0.0	-4.2	**-1.3**	-253.3	2.5	802.9
x	-0.0	-4.2	-1.3	**-253.3**	2.5	802.9	-0.0	-4.2	-1.3	**-253.3**	2.5	802.9
y	-0.0	-4.2	-1.3	-253.3	**2.5**	802.9	-0.0	-4.2	-1.3	-253.3	**2.5**	802.9
z	-0.0	-4.2	-1.3	-253.3	2.5	**802.9**	-0.0	-4.2	-1.3	-253.3	2.5	**802.9**

Joint 31

x	**-0.0**	-0.3	-1.3	-135.4	2.0	-921.0	**-0.0**	-0.3	-1.3	-135.4	2.0	-921.0
y	-0.0	**-0.3**	-1.3	-135.4	2.0	-921.0	-0.0	**-0.3**	-1.3	-135.4	2.0	-921.0
z	-0.0	-0.3	**-1.3**	-135.4	2.0	-921.0	-0.0	-0.3	**-1.3**	-135.4	2.0	-921.0
x	-0.0	-0.3	-1.3	**-135.4**	2.0	-921.0	-0.0	-0.3	-1.3	**-135.4**	2.0	-921.0
y	-0.0	-0.3	-1.3	-135.4	**2.0**	-921.0	-0.0	-0.3	-1.3	-135.4	**2.0**	-921.0
z	-0.0	-0.3	-1.3	-135.4	2.0	**-921.0**	-0.0	-0.3	-1.3	-135.4	2.0	**-921.0**

Joint 32

x	**-0.0**	-4.2	-1.3	-254.3	1.4	-803.2	**-0.0**	-4.2	-1.3	-254.3	1.4	-803.2
y	-0.0	**-4.2**	-1.3	-254.3	1.4	-803.2	-0.0	**-4.2**	-1.3	-254.3	1.4	-803.2
z	-0.0	-4.2	**-1.3**	-254.3	1.4	-803.2	-0.0	-4.2	**-1.3**	-254.3	1.4	-803.2
x	-0.0	-4.2	-1.3	**-254.3**	1.4	-803.2	-0.0	-4.2	-1.3	**-254.3**	1.4	-803.2
y	-0.0	-4.2	-1.3	-254.3	**1.4**	-803.2	-0.0	-4.2	-1.3	-254.3	**1.4**	-803.2
z	-0.0	-4.2	-1.3	-254.3	1.4	**-803.2**	-0.0	-4.2	-1.3	-254.3	1.4	**-803.2**

Joint 33

x	**-0.0**	-7.4	-1.3	-353.2	0.9	-600.1	**-0.0**	-7.4	-1.3	-353.2	0.9	-600.1
y	-0.0	**-7.4**	-1.3	-353.2	0.9	-600.1	-0.0	**-7.4**	-1.3	-353.2	0.9	-600.1
z	-0.0	-7.4	**-1.3**	-353.2	0.9	-600.1	-0.0	-7.4	**-1.3**	-353.2	0.9	-600.1
x	-0.0	-7.4	-1.3	**-353.2**	0.9	-600.1	-0.0	-7.4	-1.3	**-353.2**	0.9	-600.1
y	-0.0	-7.4	-1.3	-353.2	**0.9**	-600.1	-0.0	-7.4	-1.3	-353.2	**0.9**	-600.1
z	-0.0	-7.4	-1.3	-353.2	0.9	**-600.1**	-0.0	-7.4	-1.3	-353.2	0.9	**-600.1**

Joint 34

x	**-0.0**	-9.5	-1.3	-412.6	0.3	-305.9	**-0.0**	-9.5	-1.3	-412.6	0.3	-305.9
y	-0.0	**-9.5**	-1.3	-412.6	0.3	-305.9	-0.0	**-9.5**	-1.3	-412.6	0.3	-305.9
z	-0.0	-9.5	**-1.3**	-412.6	0.3	-305.9	-0.0	-9.5	**-1.3**	-412.6	0.3	-305.9
x	-0.0	-9.5	-1.3	**-412.6**	0.3	-305.9	-0.0	-9.5	-1.3	**-412.6**	0.3	-305.9
y	-0.0	-9.5	-1.3	-412.6	**0.3**	-305.9	-0.0	-9.5	-1.3	-412.6	**0.3**	-305.9
z	-0.0	-9.5	-1.3	-412.6	0.3	**-305.9**	-0.0	-9.5	-1.3	-412.6	0.3	**-305.9**

Joint 35

x	**-0.0**	-10.2	-1.3	-432.2	-0.3	-0.1	**-0.0**	-10.2	-1.3	-432.2	-0.3	-0.1
y	-0.0	**-10.2**	-1.3	-432.2	-0.3	-0.1	-0.0	**-10.2**	-1.3	-432.2	-0.3	-0.1
z	-0.0	-10.2	**-1.3**	-432.2	-0.3	-0.1	-0.0	-10.2	**-1.3**	-432.2	-0.3	-0.1
x	-0.0	-10.2	-1.3	**-432.2**	-0.3	-0.1	-0.0	-10.2	-1.3	**-432.2**	-0.3	-0.1
y	-0.0	-10.2	-1.3	-432.2	**-0.3**	-0.1	-0.0	-10.2	-1.3	-432.2	**-0.3**	-0.1
z	-0.0	-10.2	-1.3	-432.2	-0.3	**-0.1**	-0.0	-10.2	-1.3	-432.2	-0.3	**-0.1**

Joint 36

x	**-0.0**	-9.5	-1.3	-412.1	-0.9	305.7	**-0.0**	-9.5	-1.3	-412.1	-0.9	305.7
y	-0.0	**-9.5**	-1.3	-412.1	-0.9	305.7	-0.0	**-9.5**	-1.3	-412.1	-0.9	305.7
z	-0.0	-9.5	**-1.3**	-412.1	-0.9	305.7	-0.0	-9.5	**-1.3**	-412.1	-0.9	305.7

x	-0.0	-9.5	-1.3	**-412.1**	-0.9	305.7	-0.0	-9.5	-1.3	**-412.1**	-0.9	305.7
y	-0.0	-9.5	-1.3	-412.1	**-0.9**	305.7	-0.0	-9.5	-1.3	-412.1	**-0.9**	305.7
z	-0.0	-9.5	-1.3	-412.1	-0.9	**305.7**	-0.0	-9.5	-1.3	-412.1	-0.9	**305.7**

Joint 37

x	**-0.0**	-7.4	-1.3	-352.4	-1.5	600.0	**-0.0**	-7.4	-1.3	-352.4	-1.5	600.0
y	-0.0	**-7.4**	-1.3	-352.4	-1.5	600.0	-0.0	**-7.4**	-1.3	-352.4	-1.5	600.0
z	-0.0	-7.4	**-1.3**	-352.4	-1.5	600.0	-0.0	-7.4	**-1.3**	-352.4	-1.5	600.0
x	-0.0	-7.4	-1.3	**-352.4**	-1.5	600.0	-0.0	-7.4	-1.3	**-352.4**	-1.5	600.0
y	-0.0	-7.4	-1.3	-352.4	**-1.5**	600.0	-0.0	-7.4	-1.3	-352.4	**-1.5**	600.0
z	-0.0	-7.4	-1.3	-352.4	-1.5	**600.0**	-0.0	-7.4	-1.3	-352.4	-1.5	**600.0**

Joint 38

x	**-0.0**	-4.2	-1.3	-253.0	-2.2	803.1	**-0.0**	-4.2	-1.3	-253.0	-2.2	803.1
y	-0.0	**-4.2**	-1.3	-253.0	-2.2	803.1	-0.0	**-4.2**	-1.3	-253.0	-2.2	803.1
z	-0.0	-4.2	**-1.3**	-253.0	-2.2	803.1	-0.0	-4.2	**-1.3**	-253.0	-2.2	803.1
x	-0.0	-4.2	-1.3	**-253.0**	-2.2	803.1	-0.0	-4.2	-1.3	**-253.0**	-2.2	803.1
y	-0.0	-4.2	-1.3	-253.0	**-2.2**	803.1	-0.0	-4.2	-1.3	-253.0	**-2.2**	803.1
z	-0.0	-4.2	-1.3	-253.0	-2.2	**803.1**	-0.0	-4.2	-1.3	-253.0	-2.2	**803.1**

Joint 39

x	**-0.0**	-0.3	-1.3	-133.7	-2.8	-920.5	**-0.0**	-0.3	-1.3	-133.7	-2.8	-920.5
y	-0.0	**-0.3**	-1.3	-133.7	-2.8	-920.5	-0.0	**-0.3**	-1.3	-133.7	-2.8	-920.5
z	-0.0	-0.3	**-1.3**	-133.7	-2.8	-920.5	-0.0	-0.3	**-1.3**	-133.7	-2.8	-920.5
x	-0.0	-0.3	-1.3	**-133.7**	-2.8	-920.5	-0.0	-0.3	-1.3	**-133.7**	-2.8	-920.5
y	-0.0	-0.3	-1.3	-133.7	**-2.8**	-920.5	-0.0	-0.3	-1.3	-133.7	**-2.8**	-920.5
z	-0.0	-0.3	-1.3	-133.7	-2.8	**-920.5**	-0.0	-0.3	-1.3	-133.7	-2.8	**-920.5**

Joint 40

x	**-0.0**	-4.2	-1.3	-251.4	-3.5	-802.7	**-0.0**	-4.2	-1.3	-251.4	-3.5	-802.7
y	-0.0	**-4.2**	-1.3	-251.4	-3.5	-802.7	-0.0	**-4.2**	-1.3	-251.4	-3.5	-802.7
z	-0.0	-4.2	**-1.3**	-251.4	-3.5	-802.7	-0.0	-4.2	**-1.3**	-251.4	-3.5	-802.7
x	-0.0	-4.2	-1.3	**-251.4**	-3.5	-802.7	-0.0	-4.2	-1.3	**-251.4**	-3.5	-802.7
y	-0.0	-4.2	-1.3	-251.4	**-3.5**	-802.7	-0.0	-4.2	-1.3	-251.4	**-3.5**	-802.7
z	-0.0	-4.2	-1.3	-251.4	-3.5	**-802.7**	-0.0	-4.2	-1.3	-251.4	-3.5	**-802.7**

Joint 41

x	**-0.0**	-7.4	-1.3	-349.1	-4.1	-599.6	**-0.0**	-7.4	-1.3	-349.1	-4.1	-599.6
y	-0.0	**-7.4**	-1.3	-349.1	-4.1	-599.6	-0.0	**-7.4**	-1.3	-349.1	-4.1	-599.6
z	-0.0	-7.4	**-1.3**	-349.1	-4.1	-599.6	-0.0	-7.4	**-1.3**	-349.1	-4.1	-599.6
x	-0.0	-7.4	-1.3	**-349.1**	-4.1	-599.6	-0.0	-7.4	-1.3	**-349.1**	-4.1	-599.6
y	-0.0	-7.4	-1.3	-349.1	**-4.1**	-599.6	-0.0	-7.4	-1.3	-349.1	**-4.1**	-599.6
z	-0.0	-7.4	-1.3	-349.1	-4.1	**-599.6**	-0.0	-7.4	-1.3	-349.1	-4.1	**-599.6**

Joint 42

x	**-0.0**	-9.5	-1.3	-407.2	-4.7	-305.4	**-0.0**	-9.5	-1.3	-407.2	-4.7	-305.4
y	-0.0	**-9.5**	-1.3	-407.2	-4.7	-305.4	-0.0	**-9.5**	-1.3	-407.2	-4.7	-305.4
z	-0.0	-9.5	**-1.3**	-407.2	-4.7	-305.4	-0.0	-9.5	**-1.3**	-407.2	-4.7	-305.4
x	-0.0	-9.5	-1.3	**-407.2**	-4.7	-305.4	-0.0	-9.5	-1.3	**-407.2**	-4.7	-305.4
y	-0.0	-9.5	-1.3	-407.2	**-4.7**	-305.4	-0.0	-9.5	-1.3	-407.2	**-4.7**	-305.4
z	-0.0	-9.5	-1.3	-407.2	-4.7	**-305.4**	-0.0	-9.5	-1.3	-407.2	-4.7	**-305.4**

Joint 43

x	**-0.0**	-10.2	-1.2	-425.7	-5.2	0.4	**-0.0**	-10.2	-1.2	-425.7	-5.2	0.4
y	-0.0	**-10.2**	-1.2	-425.7	-5.2	0.4	-0.0	**-10.2**	-1.2	-425.7	-5.2	0.4
z	-0.0	-10.2	**-1.2**	-425.7	-5.2	0.4	-0.0	-10.2	**-1.2**	-425.7	-5.2	0.4
x	-0.0	-10.2	-1.2	**-425.7**	-5.2	0.4	-0.0	-10.2	-1.2	**-425.7**	-5.2	0.4
y	-0.0	-10.2	-1.2	-425.7	**-5.2**	0.4	-0.0	-10.2	-1.2	-425.7	**-5.2**	0.4
z	-0.0	-10.2	-1.2	-425.7	-5.2	**0.4**	-0.0	-10.2	-1.2	-425.7	-5.2	**0.4**

Joint 44

x	**-0.0**	-9.5	-1.2	-404.4	-5.7	306.2	**-0.0**	-9.5	-1.2	-404.4	-5.7	306.2
y	-0.0	**-9.5**	-1.2	-404.4	-5.7	306.2	-0.0	**-9.5**	-1.2	-404.4	-5.7	306.2
z	-0.0	-9.5	**-1.2**	-404.4	-5.7	306.2	-0.0	-9.5	**-1.2**	-404.4	-5.7	306.2
x	-0.0	-9.5	-1.2	**-404.4**	-5.7	306.2	-0.0	-9.5	-1.2	**-404.4**	-5.7	306.2
y	-0.0	-9.5	-1.2	-404.4	**-5.7**	306.2	-0.0	-9.5	-1.2	-404.4	**-5.7**	306.2
z	-0.0	-9.5	-1.2	-404.4	-5.7	**306.2**	-0.0	-9.5	-1.2	-404.4	-5.7	**306.2**

Joint 45

x	**-0.0**	-7.4	-1.2	**-343.4**	-6.1	600.5	**-0.0**	-7.4	-1.2	-343.4	-6.1	600.5
y	-0.0	**-7.4**	-1.2	-343.4	-6.1	600.5	-0.0	**-7.4**	-1.2	-343.4	-6.1	600.5
z	-0.0	-7.4	**-1.2**	-343.4	-6.1	600.5	-0.0	-7.4	**-1.2**	-343.4	-6.1	600.5
x	-0.0	-7.4	-1.2	**-343.4**	-6.1	600.5	-0.0	-7.4	-1.2	**-343.4**	-6.1	600.5
y	-0.0	-7.4	-1.2	-343.4	**-6.1**	600.5	-0.0	-7.4	-1.2	-343.4	**-6.1**	600.5
z	-0.0	-7.4	-1.2	-343.4	-6.1	**600.5**	-0.0	-7.4	-1.2	-343.4	-6.1	**600.5**

Joint 46

x	**-0.0**	-4.2	-1.2	-242.8	-6.5	803.6	**-0.0**	-4.2	-1.2	-242.8	-6.5	803.6
y	-0.0	**-4.2**	-1.2	-242.8	-6.5	803.6	-0.0	**-4.2**	-1.2	-242.8	-6.5	803.6
z	-0.0	-4.2	**-1.2**	-242.8	-6.5	803.6	-0.0	-4.2	**-1.2**	-242.8	-6.5	803.6
x	-0.0	-4.2	-1.2	**-242.8**	-6.5	803.6	-0.0	-4.2	-1.2	**-242.8**	-6.5	803.6
y	-0.0	-4.2	-1.2	-242.8	**-6.5**	803.6	-0.0	-4.2	-1.2	-242.8	**-6.5**	803.6
z	-0.0	-4.2	-1.2	-242.8	-6.5	**803.6**	-0.0	-4.2	-1.2	-242.8	-6.5	**803.6**

Joint 47

x	**-0.0**	-0.2	-1.1	-122.3	-6.8	-918.2	**-0.0**	-0.2	-1.1	-122.3	-6.8	-918.2
y	-0.0	**-0.2**	-1.1	-122.3	-6.8	-918.2	-0.0	**-0.2**	-1.1	-122.3	-6.8	-918.2
z	-0.0	-0.2	**-1.1**	-122.3	-6.8	-918.2	-0.0	-0.2	**-1.1**	-122.3	-6.8	-918.2
x	-0.0	-0.2	-1.1	**-122.3**	-6.8	-918.2	-0.0	-0.2	-1.1	**-122.3**	-6.8	-918.2
y	-0.0	-0.2	-1.1	-122.3	**-6.8**	-918.2	-0.0	-0.2	-1.1	-122.3	**-6.8**	-918.2
z	-0.0	-0.2	-1.1	-122.3	-6.8	**-918.2**	-0.0	-0.2	-1.1	-122.3	-6.8	**-918.2**

Joint 48

x	**-0.0**	-4.2	-1.1	-241.6	-7.0	-800.4	**-0.0**	-4.2	-1.1	-241.6	-7.0	-800.4
y	-0.0	**-4.2**	-1.1	-241.6	-7.0	-800.4	-0.0	**-4.2**	-1.1	-241.6	-7.0	-800.4
z	-0.0	-4.2	**-1.1**	-241.6	-7.0	-800.4	-0.0	-4.2	**-1.1**	-241.6	-7.0	-800.4
x	-0.0	-4.2	-1.1	**-241.6**	-7.0	-800.4	-0.0	-4.2	-1.1	**-241.6**	-7.0	-800.4
y	-0.0	-4.2	-1.1	-241.6	**-7.0**	-800.4	-0.0	-4.2	-1.1	-241.6	**-7.0**	-800.4
z	-0.0	-4.2	-1.1	-241.6	-7.0	**-800.4**	-0.0	-4.2	-1.1	-241.6	-7.0	**-800.4**

Joint 49

x	**-0.0**	-7.4	-1.1	-341.0	-6.9	-597.3	**-0.0**	-7.4	-1.1	-341.0	-6.9	-597.3
y	-0.0	**-7.4**	-1.1	-341.0	-6.9	-597.3	-0.0	**-7.4**	-1.1	-341.0	-6.9	-597.3
z	-0.0	-7.4	**-1.1**	-341.0	-6.9	-597.3	-0.0	-7.4	**-1.1**	-341.0	-6.9	-597.3
x	-0.0	-7.4	-1.1	**-341.0**	-6.9	-597.3	-0.0	-7.4	-1.1	**-341.0**	-6.9	-597.3
y	-0.0	-7.4	-1.1	-341.0	**-6.9**	-597.3	-0.0	-7.4	-1.1	-341.0	**-6.9**	-597.3
z	-0.0	-7.4	-1.1	-341.0	-6.9	**-597.3**	-0.0	-7.4	-1.1	-341.0	-6.9	**-597.3**

Joint 50

x	**-0.0**	-9.4	-1.0	-400.8	-6.6	-303.1	**-0.0**	-9.4	-1.0	-400.8	-6.6	-303.1
y	-0.0	**-9.4**	-1.0	-400.8	-6.6	-303.1	-0.0	**-9.4**	-1.0	-400.8	-6.6	-303.1
z	-0.0	-9.4	**-1.0**	-400.8	-6.6	-303.1	-0.0	-9.4	**-1.0**	-400.8	-6.6	-303.1
x	-0.0	-9.4	-1.0	**-400.8**	-6.6	-303.1	-0.0	-9.4	-1.0	**-400.8**	-6.6	-303.1
y	-0.0	-9.4	-1.0	-400.8	**-6.6**	-303.1	-0.0	-9.4	-1.0	-400.8	**-6.6**	-303.1
z	-0.0	-9.4	-1.0	-400.8	-6.6	**-303.1**	-0.0	-9.4	-1.0	-400.8	-6.6	**-303.1**

Joint 51

x	**-0.0**	-10.1	-1.0	-420.8	-6.0	2.7	**-0.0**	-10.1	-1.0	-420.8	-6.0	2.7
y	-0.0	**-10.1**	-1.0	-420.8	-6.0	2.7	-0.0	**-10.1**	-1.0	-420.8	-6.0	2.7
z	-0.0	-10.1	**-1.0**	-420.8	-6.0	2.7	-0.0	-10.1	**-1.0**	-420.8	-6.0	2.7
x	-0.0	-10.1	-1.0	**-420.8**	-6.0	2.7	-0.0	-10.1	-1.0	**-420.8**	-6.0	2.7
y	-0.0	-10.1	-1.0	-420.8	**-6.0**	2.7	-0.0	-10.1	-1.0	-420.8	**-6.0**	2.7
z	-0.0	-10.1	-1.0	-420.8	-6.0	**2.7**	-0.0	-10.1	-1.0	-420.8	-6.0	**2.7**

Joint 52

x	**-0.0**	-9.4	-1.0	-401.2	-5.1	308.6	**-0.0**	-9.4	-1.0	-401.2	-5.1	308.6
y	-0.0	**-9.4**	-1.0	-401.2	-5.1	308.6	-0.0	**-9.4**	-1.0	-401.2	-5.1	308.6
z	-0.0	-9.4	**-1.0**	-401.2	-5.1	308.6	-0.0	-9.4	**-1.0**	-401.2	-5.1	308.6
x	-0.0	-9.4	-1.0	**-401.2**	-5.1	308.6	-0.0	-9.4	-1.0	**-401.2**	-5.1	308.6
y	-0.0	-9.4	-1.0	-401.2	**-5.1**	308.6	-0.0	-9.4	-1.0	-401.2	**-5.1**	308.6
z	-0.0	-9.4	-1.0	-401.2	-5.1	**308.6**	-0.0	-9.4	-1.0	-401.2	-5.1	**308.6**

Joint 53

x	**-0.0**	-7.3	-1.0	-341.9	-4.0	602.8	**-0.0**	-7.3	-1.0	-341.9	-4.0	602.8
y	-0.0	**-7.3**	-1.0	-341.9	-4.0	602.8	-0.0	**-7.3**	-1.0	-341.9	-4.0	602.8
z	-0.0	-7.3	**-1.0**	-341.9	-4.0	602.8	-0.0	-7.3	**-1.0**	-341.9	-4.0	602.8
x	-0.0	-7.3	-1.0	**-341.9**	-4.0	602.8	-0.0	-7.3	-1.0	**-341.9**	-4.0	602.8
y	-0.0	-7.3	-1.0	-341.9	**-4.0**	602.8	-0.0	-7.3	-1.0	-341.9	**-4.0**	602.8
z	-0.0	-7.3	-1.0	-341.9	-4.0	**602.8**	-0.0	-7.3	-1.0	-341.9	-4.0	**602.8**

Joint 54

x	**-0.0**	-4.1	-1.0	-242.9	-2.6	805.9	**-0.0**	-4.1	-1.0	-242.9	-2.6	805.9
y	-0.0	**-4.1**	-1.0	-242.9	-2.6	805.9	-0.0	**-4.1**	-1.0	-242.9	-2.6	805.9
z	-0.0	-4.1	**-1.0**	-242.9	-2.6	805.9	-0.0	-4.1	**-1.0**	-242.9	-2.6	805.9
x	-0.0	-4.1	-1.0	**-242.9**	-2.6	805.9	-0.0	-4.1	-1.0	**-242.9**	-2.6	805.9
y	-0.0	-4.1	-1.0	-242.9	**-2.6**	805.9	-0.0	-4.1	-1.0	-242.9	**-2.6**	805.9
z	-0.0	-4.1	-1.0	-242.9	-2.6	**805.9**	-0.0	-4.1	-1.0	-242.9	-2.6	**805.9**

Joint 55

x	**-0.0**	-0.1	-0.9	-124.1	-1.0	-211.0	**-0.0**	-0.1	-0.9	-124.1	-1.0	-211.0
y	-0.0	**-0.1**	-0.9	-124.1	-1.0	-211.0	-0.0	**-0.1**	-0.9	-124.1	-1.0	-211.0
z	-0.0	-0.1	**-0.9**	-124.1	-1.0	-211.0	-0.0	-0.1	**-0.9**	-124.1	-1.0	-211.0
x	-0.0	-0.1	-0.9	**-124.1**	-1.0	-211.0	-0.0	-0.1	-0.9	**-124.1**	-1.0	-211.0
y	-0.0	-0.1	-0.9	-124.1	**-1.0**	-211.0	-0.0	-0.1	-0.9	-124.1	**-1.0**	-211.0
z	-0.0	-0.1	-0.9	-124.1	-1.0	**-211.0**	-0.0	-0.1	-0.9	-124.1	-1.0	**-211.0**

Joint 56

x	**-0.0**	-0.9	-0.9	-252.4	0.4	-165.5	**-0.0**	-0.9	-0.9	-252.4	0.4	-165.5
y	-0.0	**-0.9**	-0.9	-252.4	0.4	-165.5	-0.0	**-0.9**	-0.9	-252.4	0.4	-165.5
z	-0.0	-0.9	**-0.9**	-252.4	0.4	-165.5	-0.0	-0.9	**-0.9**	-252.4	0.4	-165.5
x	-0.0	-0.9	-0.9	**-252.4**	0.4	-165.5	-0.0	-0.9	-0.9	**-252.4**	0.4	-165.5
y	-0.0	-0.9	-0.9	-252.4	**0.4**	-165.5	-0.0	-0.9	-0.9	-252.4	**0.4**	-165.5
z	-0.0	-0.9	-0.9	-252.4	0.4	**-165.5**	-0.0	-0.9	-0.9	-252.4	0.4	**-165.5**

Joint 57

x	**-0.0**	-1.3	-0.9	-367.5	1.5	-90.6	**-0.0**	-1.3	-0.9	-367.5	1.5	-90.6
y	-0.0	**-1.3**	-0.9	-367.5	1.5	-90.6	-0.0	**-1.3**	-0.9	-367.5	1.5	-90.6
z	-0.0	-1.3	**-0.9**	-367.5	1.5	-90.6	-0.0	-1.3	**-0.9**	-367.5	1.5	-90.6
x	-0.0	-1.3	-0.9	**-367.5**	1.5	-90.6	-0.0	-1.3	-0.9	**-367.5**	1.5	-90.6
y	-0.0	-1.3	-0.9	-367.5	**1.5**	-90.6	-0.0	-1.3	-0.9	-367.5	**1.5**	-90.6
z	-0.0	-1.3	-0.9	-367.5	1.5	**-90.6**	-0.0	-1.3	-0.9	-367.5	1.5	**-90.6**

Joint 58

x	**-0.0**	-1.5	-1.0	-456.3	2.3	10.3	**-0.0**	-1.5	-1.0	-456.3	2.3	10.3
y	-0.0	**-1.5**	-1.0	-456.3	2.3	10.3	-0.0	**-1.5**	-1.0	-456.3	2.3	10.3
z	-0.0	-1.5	**-1.0**	-456.3	2.3	10.3	-0.0	-1.5	**-1.0**	-456.3	2.3	10.3
x	-0.0	-1.5	-1.0	**-456.3**	2.3	10.3	-0.0	-1.5	-1.0	**-456.3**	2.3	10.3
y	-0.0	-1.5	-1.0	-456.3	**2.3**	10.3	-0.0	-1.5	-1.0	-456.3	**2.3**	10.3
z	-0.0	-1.5	-1.0	-456.3	2.3	**10.3**	-0.0	-1.5	-1.0	-456.3	2.3	**10.3**

Joint 59

x	**-0.0**	-1.3	-1.0	-518.8	2.9	102.6	**-0.0**	-1.3	-1.0	-518.8	2.9	102.6
y	-0.0	**-1.3**	-1.0	-518.8	2.9	102.6	-0.0	**-1.3**	-1.0	-518.8	2.9	102.6
z	-0.0	-1.3	**-1.0**	-518.8	2.9	102.6	-0.0	-1.3	**-1.0**	-518.8	2.9	102.6
x	-0.0	-1.3	-1.0	**-518.8**	2.9	102.6	-0.0	-1.3	-1.0	**-518.8**	2.9	102.6
y	-0.0	-1.3	-1.0	-518.8	**2.9**	102.6	-0.0	-1.3	-1.0	-518.8	**2.9**	102.6
z	-0.0	-1.3	-1.0	-518.8	2.9	**102.6**	-0.0	-1.3	-1.0	-518.8	2.9	**102.6**

Joint 60

x	**-0.0**	-0.7	-1.0	-554.9	3.3	182.0	**-0.0**	-0.7	-1.0	-554.9	3.3	182.0
y	-0.0	**-0.7**	-1.0	-554.9	3.3	182.0	-0.0	**-0.7**	-1.0	-554.9	3.3	182.0
z	-0.0	-0.7	**-1.0**	-554.9	3.3	182.0	-0.0	-0.7	**-1.0**	-554.9	3.3	182.0
x	-0.0	-0.7	-1.0	**-554.9**	3.3	182.0	-0.0	-0.7	-1.0	**-554.9**	3.3	182.0
y	-0.0	-0.7	-1.0	-554.9	**3.3**	182.0	-0.0	-0.7	-1.0	-554.9	**3.3**	182.0
z	-0.0	-0.7	-1.0	-554.9	3.3	**182.0**	-0.0	-0.7	-1.0	-554.9	3.3	**182.0**

Joint 61

x	**-0.0**	-0.0	-1.0	-564.6	3.4	213.7	**-0.0**	-0.0	-1.0	-564.6	3.4	213.7
y	-0.0	**-0.0**	-1.0	-564.6	3.4	213.7	-0.0	**-0.0**	-1.0	-564.6	3.4	213.7
z	-0.0	-0.0	**-1.0**	-564.6	3.4	213.7	-0.0	-0.0	**-1.0**	-564.6	3.4	213.7

x	-0.0	-0.0	-1.0	-564.6	3.4	213.7	-0.0	-0.0	-1.0	-564.6	3.4	213.7
y	-0.0	-0.0	-1.0	-564.6	3.4	213.7	-0.0	-0.0	-1.0	-564.6	3.4	213.7
z	-0.0	-0.0	-1.0	-564.6	3.4	213.7	-0.0	-0.0	-1.0	-564.6	3.4	213.7

*** Fin del listado ***

hip pp resto losa

Program Envolvator (release 1.3 - Jun 1998)
Calculation date: 24-mar-1999 19:32 h. Listing date: 13-abr-1999 11:47 h.
Members: 419
Joints: 353
Envelope generated from:

Name	min	max
pp resto losa	1.00	1.00

	Fx	Fy	Fz	Mx	My	Mz	Fx	Fy	Fz	Mx	My	Mz
Member 1												
Fx_i	**-0.0**	-0.0	0.0	-0.4	-0.0	-0.1	**-0.0**	-0.0	0.0	-0.4	-0.0	-0.1
Fy_i	-0.0	**-0.0**	0.0	-0.4	-0.0	-0.1	-0.0	**-0.0**	0.0	-0.4	-0.0	-0.1
Fz_i	-0.0	-0.0	**0.0**	-0.4	-0.0	-0.1	-0.0	-0.0	**0.0**	-0.4	**-0.0**	-0.1
Mx_i	-0.0	-0.0	0.0	**-0.4**	-0.0	-0.1	-0.0	-0.0	0.0	**-0.4**	-0.0	-0.1
My_i	-0.0	-0.0	0.0	-0.4	**-0.0**	-0.1	-0.0	-0.0	0.0	-0.4	**-0.0**	-0.1
Mz_i	-0.0	-0.0	0.0	-0.4	-0.0	**-0.1**	-0.0	-0.0	0.0	-0.4	-0.0	**-0.1**
Fx_f	**-0.0**	-0.0	0.0	-0.4	0.0	0.0	**-0.0**	-0.0	0.0	-0.4	0.0	0.0
Fy_f	-0.0	**-0.0**	0.0	-0.4	0.0	0.0	-0.0	**-0.0**	0.0	-0.4	0.0	0.0
Fz_f	-0.0	-0.0	**0.0**	-0.4	0.0	0.0	-0.0	-0.0	**0.0**	-0.4	0.0	0.0
Mx_f	-0.0	-0.0	0.0	**-0.4**	0.0	0.0	-0.0	-0.0	0.0	**-0.4**	0.0	0.0
My_f	-0.0	-0.0	0.0	-0.4	**0.0**	0.0	-0.0	-0.0	0.0	-0.4	**0.0**	0.0
Mz_f	-0.0	-0.0	0.0	-0.4	0.0	**0.0**	-0.0	-0.0	0.0	-0.4	0.0	**0.0**
Member 2												
Fx_i	**-0.0**	-0.0	-0.0	-0.4	0.0	0.0	**-0.0**	-0.0	-0.0	-0.4	0.0	0.0
Fy_i	-0.0	**-0.0**	-0.0	-0.4	0.0	0.0	-0.0	**-0.0**	-0.0	-0.4	0.0	0.0
Fz_i	-0.0	-0.0	**-0.0**	-0.4	0.0	0.0	-0.0	-0.0	**-0.0**	-0.4	0.0	0.0
Mx_i	-0.0	-0.0	-0.0	**-0.4**	0.0	0.0	-0.0	-0.0	-0.0	**-0.4**	0.0	0.0
My_i	-0.0	-0.0	-0.0	-0.4	**0.0**	0.0	-0.0	-0.0	-0.0	-0.4	**0.0**	0.0
Mz_i	-0.0	-0.0	-0.0	-0.4	0.0	**0.0**	-0.0	-0.0	-0.0	-0.4	0.0	**0.0**
Fx_f	**-0.0**	-0.0	-0.0	-0.4	-0.0	0.1	**-0.0**	-0.0	-0.0	-0.4	-0.0	0.1
Fy_f	-0.0	**-0.0**	-0.0	-0.4	-0.0	0.1	-0.0	**-0.0**	-0.0	-0.4	-0.0	0.1
Fz_f	-0.0	-0.0	**-0.0**	-0.4	-0.0	0.1	-0.0	-0.0	**-0.0**	-0.4	-0.0	0.1
Mx_f	-0.0	-0.0	-0.0	**-0.4**	-0.0	0.1	-0.0	-0.0	-0.0	**-0.4**	-0.0	0.1
My_f	-0.0	-0.0	-0.0	-0.4	**-0.0**	0.1	-0.0	-0.0	-0.0	-0.4	**-0.0**	0.1
Mz_f	-0.0	-0.0	-0.0	-0.4	-0.0	**0.1**	-0.0	-0.0	-0.0	-0.4	-0.0	**0.1**
Member 3												
Fx_i	**-0.0**	-0.0	-0.0	-0.5	0.1	0.1	**-0.0**	-0.0	-0.0	-0.5	0.1	0.1
Fy_i	-0.0	**-0.0**	-0.0	-0.5	0.1	0.1	-0.0	**-0.0**	-0.0	-0.5	0.1	0.1
Fz_i	-0.0	-0.0	**-0.0**	-0.5	0.1	0.1	-0.0	-0.0	**-0.0**	-0.5	0.1	0.1
Mx_i	-0.0	-0.0	-0.0	**-0.5**	0.1	0.1	-0.0	-0.0	-0.0	**-0.5**	0.1	0.1
My_i	-0.0	-0.0	-0.0	-0.5	**0.1**	0.1	-0.0	-0.0	-0.0	-0.5	**0.1**	0.1
Mz_i	-0.0	-0.0	-0.0	-0.5	0.1	**0.1**	-0.0	-0.0	-0.0	-0.5	0.1	**0.1**
Fx_f	**-0.0**	-0.0	-0.0	-0.5	-0.0	0.1	**-0.0**	-0.0	-0.0	-0.5	-0.0	0.1
Fy_f	-0.0	**-0.0**	-0.0	-0.5	-0.0	0.1	-0.0	**-0.0**	-0.0	-0.5	-0.0	0.1
Fz_f	-0.0	-0.0	**-0.0**	-0.5	-0.0	0.1	-0.0	-0.0	**-0.0**	-0.5	-0.0	0.1
Mx_f	-0.0	-0.0	-0.0	**-0.5**	-0.0	0.1	-0.0	-0.0	-0.0	**-0.5**	-0.0	0.1
My_f	-0.0	-0.0	-0.0	-0.5	**-0.0**	0.1	-0.0	-0.0	-0.0	-0.5	**-0.0**	0.1
Mz_f	-0.0	-0.0	-0.0	-0.5	-0.0	**0.1**	-0.0	-0.0	-0.0	-0.5	-0.0	**0.1**
Member 4												
Fx_i	**-0.0**	-0.0	-0.1	-0.5	0.1	0.1	**-0.0**	-0.0	-0.1	-0.5	0.1	0.1
Fy_i	-0.0	**-0.0**	-0.1	-0.5	0.1	0.1	-0.0	**-0.0**	-0.1	-0.5	0.1	0.1
Fz_i	-0.0	-0.0	**-0.1**	-0.5	0.1	0.1	-0.0	-0.0	**-0.1**	-0.5	0.1	0.1
Mx_i	-0.0	-0.0	-0.1	**-0.5**	0.1	0.1	-0.0	-0.0	-0.1	**-0.5**	0.1	0.1
My_i	-0.0	-0.0	-0.1	-0.5	**0.1**	0.1	-0.0	-0.0	-0.1	-0.5	**0.1**	0.1
Mz_i	-0.0	-0.0	-0.1	-0.5	0.1	**0.1**	-0.0	-0.0	-0.1	-0.5	0.1	**0.1**
Fx_f	**-0.0**	-0.0	-0.1	-0.5	-0.1	0.2	**-0.0**	-0.0	-0.1	-0.5	-0.1	0.2
Fy_f	-0.0	**-0.0**	-0.1	-0.5	-0.1	0.2	-0.0	**-0.0**	-0.1	-0.5	-0.1	0.2
Fz_f	-0.0	-0.0	**-0.1**	-0.5	-0.1	0.2	-0.0	-0.0	**-0.1**	-0.5	-0.1	0.2
Mx_f	-0.0	-0.0	-0.1	**-0.5**	-0.1	0.2	-0.0	-0.0	-0.1	**-0.5**	-0.1	0.2
My_f	-0.0	-0.0	-0.1	-0.5	**-0.1**	0.2	-0.0	-0.0	-0.1	-0.5	**-0.1**	0.2

Mz_f	-0.0	-0.0	-0.1	-0.5	-0.1	**0.2**	-0.0	-0.0	-0.1	-0.5	-0.1	**0.2**

Member 5

Fx_i	**-0.0**	-0.0	-0.2	-0.6	0.3	0.2	**-0.0**	-0.0	-0.2	-0.6	0.3	0.2
Fy_i	-0.0	**-0.0**	-0.2	-0.6	0.3	0.2	-0.0	**-0.0**	-0.2	-0.6	0.3	0.2
Fz_i	-0.0	-0.0	**-0.2**	-0.6	0.3	0.2	-0.0	-0.0	**-0.2**	-0.6	0.3	0.2
Mx_i	-0.0	-0.0	-0.2	**-0.6**	0.3	0.2	-0.0	-0.0	-0.2	**-0.6**	0.3	0.2
My_i	-0.0	-0.0	-0.2	-0.6	**0.3**	0.2	-0.0	-0.0	-0.2	-0.6	**0.3**	0.2
Mz_i	**-0.0**	-0.0	-0.2	-0.6	0.3	**0.2**	-0.0	-0.0	-0.2	-0.6	0.3	**0.2**
Fx_f	**-0.0**	-0.0	-0.2	-0.6	-0.3	0.3	**-0.0**	-0.0	-0.2	-0.6	-0.3	0.3
Fy_f	-0.0	**-0.0**	-0.2	-0.6	-0.3	0.3	-0.0	**-0.0**	-0.2	-0.6	-0.3	0.3
Fz_f	-0.0	-0.0	**-0.2**	-0.6	-0.3	0.3	-0.0	-0.0	**-0.2**	-0.6	-0.3	0.3
Mx_f	-0.0	-0.0	-0.2	**-0.6**	-0.3	0.3	-0.0	-0.0	-0.2	**-0.6**	-0.3	0.3
My_f	-0.0	-0.0	-0.2	-0.6	**-0.3**	0.3	-0.0	-0.0	-0.2	-0.6	**-0.3**	0.3
Mz_f	-0.0	-0.0	-0.2	-0.6	-0.3	**0.3**	-0.0	-0.0	-0.2	-0.6	-0.3	**0.3**

Member 6

Fx_i	**-0.0**	-0.0	-0.5	-0.6	0.9	0.3	**-0.0**	-0.0	-0.5	-0.6	0.9	0.3
Fy_i	-0.0	**-0.0**	-0.5	-0.6	0.9	0.3	-0.0	**-0.0**	-0.5	-0.6	0.9	0.3
Fz_i	-0.0	-0.0	**-0.5**	-0.6	0.9	0.3	-0.0	-0.0	**-0.5**	-0.6	0.9	0.3
Mx_i	-0.0	-0.0	-0.5	**-0.6**	0.9	0.3	-0.0	-0.0	-0.5	**-0.6**	0.9	0.3
My_i	-0.0	-0.0	-0.5	-0.6	**0.9**	0.3	-0.0	-0.0	-0.5	-0.6	**0.9**	0.3
Mz_i	-0.0	-0.0	-0.5	-0.6	0.9	**0.3**	-0.0	-0.0	-0.5	-0.6	0.9	**0.3**
Fx_f	**-0.0**	14.9	-0.5	3.7	-0.9	-24.5	**-0.0**	14.9	-0.5	3.7	-0.9	-24.5
Fy_f	-0.0	**14.9**	-0.5	3.7	-0.9	-24.5	-0.0	**14.9**	-0.5	3.7	-0.9	-24.5
Fz_f	-0.0	14.9	**-0.5**	3.7	-0.9	-24.5	-0.0	14.9	**-0.5**	3.7	-0.9	-24.5
Mx_f	-0.0	14.9	-0.5	**3.7**	-0.9	-24.5	-0.0	14.9	-0.5	**3.7**	-0.9	-24.5
My_f	-0.0	14.9	-0.5	3.7	**-0.9**	-24.5	-0.0	14.9	-0.5	3.7	**-0.9**	-24.5
Mz_f	-0.0	14.9	-0.5	3.7	-0.9	**-24.5**	-0.0	14.9	-0.5	3.7	-0.9	**-24.5**

Member 7

Fx_i	**-0.0**	-17.4	0.4	-4.9	-0.9	-24.5	**-0.0**	-17.4	0.4	-4.9	-0.9	-24.5
Fy_i	-0.0	**-17.4**	0.4	-4.9	-0.9	-24.5	-0.0	**-17.4**	0.4	-4.9	-0.9	-24.5
Fz_i	-0.0	-17.4	**0.4**	-4.9	-0.9	-24.5	-0.0	-17.4	**0.4**	-4.9	-0.9	-24.5
Mx_i	-0.0	-17.4	0.4	**-4.9**	-0.9	-24.5	-0.0	-17.4	0.4	**-4.9**	-0.9	-24.5
My_i	-0.0	-17.4	0.4	-4.9	**-0.9**	-24.5	-0.0	-17.4	0.4	-4.9	**-0.9**	-24.5
Mz_i	-0.0	-17.4	0.4	-4.9	-0.9	**-24.5**	-0.0	-17.4	0.4	-4.9	-0.9	**-24.5**
Fx_f	**-0.0**	0.2	0.4	0.4	0.8	10.5	**-0.0**	0.2	0.4	0.4	0.8	10.5
Fy_f	-0.0	**0.2**	0.4	0.4	0.8	10.5	-0.0	**0.2**	0.4	0.4	0.8	10.5
Fz_f	-0.0	0.2	**0.4**	0.4	0.8	10.5	-0.0	0.2	**0.4**	0.4	0.8	10.5
Mx_f	-0.0	0.2	0.4	**0.4**	0.8	10.5	-0.0	0.2	0.4	**0.4**	0.8	10.5
My_f	-0.0	0.2	0.4	0.4	**0.8**	10.5	-0.0	0.2	0.4	0.4	**0.8**	10.5
Mz_f	-0.0	0.2	0.4	0.4	0.8	**10.5**	-0.0	0.2	0.4	0.4	0.8	**10.5**

Member 8

Fx_i	**-0.0**	0.2	0.1	0.3	-0.2	10.5	**-0.0**	0.2	0.1	0.3	-0.2	10.5
Fy_i	-0.0	**0.2**	0.1	0.3	-0.2	10.5	-0.0	**0.2**	0.1	0.3	-0.2	10.5
Fz_i	-0.0	0.2	**0.1**	0.3	-0.2	10.5	-0.0	0.2	**0.1**	0.3	-0.2	10.5
Mx_i	-0.0	0.2	0.1	**0.3**	-0.2	10.5	-0.0	0.2	0.1	**0.3**	-0.2	10.5
My_i	-0.0	0.2	0.1	0.3	**-0.2**	10.5	-0.0	0.2	0.1	0.3	**-0.2**	10.5
Mz_i	-0.0	0.2	0.1	0.3	-0.2	**10.5**	-0.0	0.2	0.1	0.3	-0.2	**10.5**
Fx_f	**-0.0**	0.2	0.1	0.3	0.2	9.6	**-0.0**	0.2	0.1	0.3	0.2	9.6
Fy_f	-0.0	**0.2**	0.1	0.3	0.2	9.6	-0.0	**0.2**	0.1	0.3	0.2	9.6
Fz_f	-0.0	0.2	**0.1**	0.3	0.2	9.6	-0.0	0.2	**0.1**	0.3	0.2	9.6
Mx_f	-0.0	0.2	0.1	**0.3**	0.2	9.6	-0.0	0.2	0.1	**0.3**	0.2	9.6
My_f	-0.0	0.2	0.1	0.3	**0.2**	9.6	-0.0	0.2	0.1	0.3	**0.2**	9.6
Mz_f	-0.0	0.2	0.1	0.3	0.2	**9.6**	-0.0	0.2	0.1	0.3	0.2	**9.6**

Member 9

Fx_i	**-0.0**	0.2	0.0	0.2	-0.1	9.6	**-0.0**	0.2	0.0	0.2	-0.1	9.6
Fy_i	-0.0	**0.2**	0.0	0.2	-0.1	9.6	-0.0	**0.2**	0.0	0.2	-0.1	9.6
Fz_i	-0.0	0.2	**0.0**	0.2	-0.1	9.6	-0.0	0.2	**0.0**	0.2	-0.1	9.6
Mx_i	-0.0	0.2	0.0	**0.2**	-0.1	9.6	-0.0	0.2	0.0	**0.2**	-0.1	9.6
My_i	-0.0	0.2	0.0	0.2	**-0.1**	9.6	-0.0	0.2	0.0	0.2	**-0.1**	9.6
Mz_i	-0.0	0.2	0.0	0.2	-0.1	**9.6**	-0.0	0.2	0.0	0.2	-0.1	**9.6**
Fx_f	**-0.0**	0.2	0.0	0.2	0.1	8.7	**-0.0**	0.2	0.0	0.2	0.1	8.7
Fy_f	-0.0	**0.2**	0.0	0.2	0.1	8.7	-0.0	**0.2**	0.0	0.2	0.1	8.7
Fz_f	-0.0	0.2	**0.0**	0.2	0.1	8.7	-0.0	0.2	**0.0**	0.2	0.1	8.7
Mx_f	-0.0	0.2	0.0	**0.2**	0.1	8.7	-0.0	0.2	0.0	**0.2**	0.1	8.7
My_f	-0.0	0.2	0.0	0.2	**0.1**	8.7	-0.0	0.2	0.0	0.2	**0.1**	8.7
Mz_f	-0.0	0.2	0.0	0.2	0.1	**8.7**	-0.0	0.2	0.0	0.2	0.1	**8.7**

Member 10

Fx_i	**-0.0**	0.2	0.0	0.1	-0.0	8.7	**-0.0**	0.2	0.0	0.1	-0.0	8.7
Fy_i	-0.0	**0.2**	0.0	0.1	-0.0	8.7	-0.0	**0.2**	0.0	0.1	-0.0	8.7
Fz_i	-0.0	0.2	**0.0**	0.1	-0.0	8.7	-0.0	0.2	**0.0**	0.1	-0.0	8.7
Mx_i	-0.0	0.2	0.0	**0.1**	-0.0	8.7	-0.0	0.2	0.0	**0.1**	-0.0	8.7
My_i	-0.0	0.2	0.0	0.1	**-0.0**	8.7	-0.0	0.2	0.0	0.1	**-0.0**	8.7
Mz_i	-0.0	0.2	0.0	0.1	-0.0	**8.7**	-0.0	0.2	0.0	0.1	-0.0	**8.7**
Fx_f	**-0.0**	0.2	0.0	0.1	0.0	7.8	**-0.0**	0.2	0.0	**0.1**	0.0	7.8
Fy_f	-0.0	**0.2**	0.0	0.1	0.0	7.8	-0.0	**0.2**	0.0	0.1	0.0	7.8
Fz_f	-0.0	0.2	**0.0**	0.1	0.0	7.8	-0.0	0.2	**0.0**	0.1	0.0	7.8
Mx_f	-0.0	0.2	0.0	**0.1**	0.0	7.8	-0.0	0.2	0.0	**0.1**	0.0	7.8
My_f	-0.0	0.2	0.0	0.1	**0.0**	7.8	-0.0	0.2	0.0	0.1	**0.0**	7.8
Mz_f	-0.0	0.2	0.0	0.1	0.0	**7.8**	-0.0	0.2	0.0	0.1	0.0	**7.8**

Member 11

Fx_i	**-0.0**	0.2	-0.0	-0.1	0.0	7.8	**-0.0**	0.2	-0.0	-0.1	0.0	7.8
Fy_i	-0.0	**0.2**	-0.0	-0.1	0.0	7.8	-0.0	**0.2**	-0.0	-0.1	0.0	7.8
Fz_i	-0.0	0.2	**-0.0**	-0.1	0.0	7.8	-0.0	0.2	**-0.0**	-0.1	0.0	7.8
Mx_i	-0.0	0.2	-0.0	**-0.1**	0.0	7.8	-0.0	0.2	-0.0	**-0.1**	0.0	7.8
My_i	-0.0	0.2	-0.0	-0.1	**0.0**	7.8	-0.0	0.2	-0.0	-0.1	**0.0**	7.8
Mz_i	-0.0	0.2	-0.0	-0.1	0.0	**7.8**	-0.0	0.2	-0.0	-0.1	0.0	**7.8**
Fx_f	**-0.0**	0.2	-0.0	-0.1	-0.0	6.9	**-0.0**	0.2	-0.0	-0.1	-0.0	6.9
Fy_f	-0.0	**0.2**	-0.0	-0.1	-0.0	6.9	-0.0	**0.2**	-0.0	-0.1	-0.0	6.9
Fz_f	-0.0	0.2	**-0.0**	-0.1	-0.0	6.9	-0.0	0.2	**-0.0**	-0.1	-0.0	6.9
Mx_f	-0.0	0.2	-0.0	**-0.1**	-0.0	6.9	-0.0	0.2	-0.0	**-0.1**	-0.0	6.9
My_f	-0.0	0.2	-0.0	-0.1	**-0.0**	6.9	-0.0	0.2	-0.0	-0.1	**-0.0**	6.9
Mz_f	-0.0	0.2	-0.0	-0.1	-0.0	**6.9**	-0.0	0.2	-0.0	-0.1	-0.0	**6.9**

Member 12

Fx_i	**-0.0**	0.2	-0.0	-0.2	0.1	6.9	**-0.0**	0.2	-0.0	-0.2	0.1	6.9
Fy_i	-0.0	**0.2**	-0.0	-0.2	0.1	6.9	-0.0	**0.2**	-0.0	-0.2	0.1	6.9
Fz_i	-0.0	0.2	**-0.0**	-0.2	0.1	6.9	-0.0	0.2	**-0.0**	-0.2	0.1	6.9
Mx_i	-0.0	0.2	-0.0	**-0.2**	0.1	6.9	-0.0	0.2	-0.0	**-0.2**	0.1	6.9
My_i	-0.0	0.2	-0.0	-0.2	**0.1**	6.9	-0.0	0.2	-0.0	-0.2	**0.1**	6.9
Mz_i	-0.0	0.2	-0.0	-0.2	0.1	**6.9**	-0.0	0.2	-0.0	-0.2	0.1	**6.9**
Fx_f	**-0.0**	0.2	-0.0	-0.2	-0.1	6.0	**-0.0**	0.2	-0.0	-0.2	-0.1	6.0
Fy_f	-0.0	**0.2**	-0.0	-0.2	-0.1	6.0	-0.0	**0.2**	-0.0	-0.2	-0.1	6.0
Fz_f	-0.0	0.2	**-0.0**	-0.2	-0.1	6.0	-0.0	0.2	**-0.0**	-0.2	-0.1	6.0
Mx_f	-0.0	0.2	-0.0	**-0.2**	-0.1	6.0	-0.0	0.2	-0.0	**-0.2**	-0.1	6.0
My_f	-0.0	0.2	-0.0	-0.2	**-0.1**	6.0	-0.0	0.2	-0.0	-0.2	**-0.1**	6.0
Mz_f	-0.0	0.2	-0.0	-0.2	-0.1	**6.0**	-0.0	0.2	-0.0	-0.2	-0.1	**6.0**

Member 13

Fx_i	**-0.0**	0.2	-0.1	-0.3	0.3	6.0	**-0.0**	0.2	-0.1	-0.3	0.3	6.0
Fy_i	-0.0	**0.2**	-0.1	-0.3	0.3	6.0	-0.0	**0.2**	-0.1	-0.3	0.3	6.0
Fz_i	-0.0	0.2	**-0.1**	-0.3	0.3	6.0	-0.0	0.2	**-0.1**	-0.3	0.3	6.0
Mx_i	-0.0	0.2	-0.1	**-0.3**	0.3	6.0	-0.0	0.2	-0.1	**-0.3**	0.3	6.0
My_i	-0.0	0.2	-0.1	-0.3	**0.3**	6.0	-0.0	0.2	-0.1	-0.3	**0.3**	6.0
Mz_i	-0.0	0.2	-0.1	-0.3	0.3	**6.0**	-0.0	0.2	-0.1	-0.3	0.3	**6.0**
Fx_f	**-0.0**	0.2	-0.1	-0.3	-0.3	5.1	**-0.0**	0.2	-0.1	-0.3	-0.3	5.1
Fy_f	-0.0	**0.2**	-0.1	-0.3	-0.3	5.1	-0.0	**0.2**	-0.1	-0.3	-0.3	5.1
Fz_f	-0.0	0.2	**-0.1**	-0.3	-0.3	5.1	-0.0	0.2	**-0.1**	-0.3	-0.3	5.1
Mx_f	-0.0	0.2	-0.1	**-0.3**	-0.3	5.1	-0.0	0.2	-0.1	**-0.3**	-0.3	5.1
My_f	-0.0	0.2	-0.1	-0.3	**-0.3**	5.1	-0.0	0.2	-0.1	-0.3	**-0.3**	5.1
Mz_f	-0.0	0.2	-0.1	-0.3	-0.3	**5.1**	-0.0	0.2	-0.1	-0.3	-0.3	**5.1**

Member 14

Fx_i	**-0.0**	0.2	-0.5	-0.4	1.1	5.1	**-0.0**	0.2	-0.5	-0.4	1.1	5.1
Fy_i	-0.0	**0.2**	-0.5	-0.4	1.1	5.1	-0.0	**0.2**	-0.5	-0.4	1.1	5.1

Fz_i	-0.0	0.2	**-0.5**	-0.4	1.1	5.1	-0.0	0.2	**-0.5**	-0.4	1.1	5.1
Mx_i	-0.0	0.2	-0.5	**-0.4**	1.1	5.1	-0.0	0.2	-0.5	**-0.4**	1.1	5.1
My_i	-0.0	0.2	-0.5	-0.4	**1.1**	5.1	-0.0	0.2	-0.5	-0.4	**1.1**	5.1
Mz_i	-0.0	0.2	-0.5	-0.4	1.1	**5.1**	-0.0	0.2	-0.5	-0.4	1.1	**5.1**
Fx_f	**-0.0**	17.8	-0.5	4.9	-1.2	-31.7	**-0.0**	17.8	-0.5	4.9	-1.2	-31.7
Fy_f	-0.0	**17.8**	-0.5	4.9	-1.2	-31.7	-0.0	**17.8**	-0.5	4.9	-1.2	-31.7
Fz_f	**-0.0**	17.8	**-0.5**	4.9	-1.2	-31.7	-0.0	17.8	**-0.5**	4.9	-1.2	-31.7
Mx_f	-0.0	17.8	-0.5	**4.9**	-1.2	-31.7	-0.0	17.8	-0.5	**4.9**	-1.2	-31.7
My_f	-0.0	17.8	-0.5	4.9	**-1.2**	-31.7	-0.0	17.8	-0.5	4.9	**-1.2**	-31.7
Mz_f	-0.0	17.8	-0.5	4.9	-1.2	**-31.7**	-0.0	17.8	-0.5	4.9	-1.2	**-31.7**

Member 15

Fx_i	**-0.0**	-17.6	0.5	-5.0	-1.2	-31.7	**-0.0**	-17.6	0.5	-5.0	-1.2	-31.7
Fy_i	-0.0	**-17.6**	0.5	-5.0	-1.2	-31.7	-0.0	**-17.6**	0.5	-5.0	-1.2	-31.7
Fz_i	-0.0	-17.6	**0.5**	-5.0	-1.2	-31.7	-0.0	-17.6	**0.5**	-5.0	-1.2	-31.7
Mx_i	-0.0	-17.6	0.5	**-5.0**	-1.2	-31.7	-0.0	-17.6	0.5	**-5.0**	-1.2	-31.7
My_i	-0.0	-17.6	0.5	-5.0	**-1.2**	-31.7	-0.0	-17.6	0.5	-5.0	**-1.2**	-31.7
Mz_i	-0.0	-17.6	0.5	-5.0	-1.2	**-31.7**	-0.0	-17.6	0.5	-5.0	-1.2	**-31.7**
Fx_f	**-0.0**	-0.0	0.5	0.4	1.1	4.4	**-0.0**	-0.0	0.5	0.4	1.1	4.4
Fy_f	-0.0	**-0.0**	0.5	0.4	1.1	4.4	-0.0	**-0.0**	0.5	0.4	1.1	4.4
Fz_f	-0.0	-0.0	**0.5**	0.4	1.1	4.4	-0.0	-0.0	**0.5**	0.4	1.1	4.4
Mx_f	-0.0	-0.0	0.5	**0.4**	1.1	4.4	-0.0	-0.0	0.5	**0.4**	1.1	4.4
My_f	-0.0	-0.0	0.5	0.4	**1.1**	4.4	-0.0	-0.0	0.5	0.4	**1.1**	4.4
Mz_f	-0.0	-0.0	0.5	0.4	1.1	**4.4**	-0.0	-0.0	0.5	0.4	1.1	**4.4**

Member 16

Fx_i	**-0.0**	-0.0	0.1	0.3	-0.3	4.4	**-0.0**	-0.0	0.1	0.3	-0.3	4.4
Fy_i	-0.0	**-0.0**	0.1	0.3	-0.3	4.4	-0.0	**-0.0**	0.1	0.3	-0.3	4.4
Fz_i	-0.0	-0.0	**0.1**	0.3	-0.3	4.4	-0.0	-0.0	**0.1**	0.3	-0.3	4.4
Mx_i	-0.0	-0.0	0.1	**0.3**	-0.3	4.4	-0.0	-0.0	0.1	**0.3**	-0.3	4.4
My_i	-0.0	-0.0	0.1	0.3	**-0.3**	4.4	-0.0	-0.0	0.1	0.3	**-0.3**	4.4
Mz_i	-0.0	-0.0	0.1	0.3	-0.3	**4.4**	-0.0	-0.0	0.1	0.3	-0.3	**4.4**
Fx_f	**-0.0**	-0.0	0.1	0.3	0.3	4.6	**-0.0**	-0.0	0.1	0.3	0.3	4.6
Fy_f	-0.0	**-0.0**	0.1	0.3	0.3	4.6	-0.0	**-0.0**	0.1	0.3	0.3	4.6
Fz_f	-0.0	-0.0	**0.1**	0.3	0.3	4.6	-0.0	-0.0	**0.1**	0.3	0.3	4.6
Mx_f	-0.0	-0.0	0.1	**0.3**	0.3	4.6	-0.0	-0.0	0.1	**0.3**	0.3	4.6
My_f	-0.0	-0.0	0.1	0.3	**0.3**	4.6	-0.0	-0.0	0.1	0.3	**0.3**	4.6
Mz_f	-0.0	-0.0	0.1	0.3	0.3	**4.6**	-0.0	-0.0	0.1	0.3	0.3	**4.6**

Member 17

Fx_i	**-0.0**	-0.0	0.0	0.1	-0.1	4.6	**-0.0**	-0.0	0.0	0.1	-0.1	4.6
Fy_i	-0.0	**-0.0**	0.0	0.1	-0.1	4.6	-0.0	**-0.0**	0.0	0.1	-0.1	4.6
Fz_i	-0.0	-0.0	**0.0**	0.1	-0.1	4.6	-0.0	-0.0	**0.0**	0.1	-0.1	4.6
Mx_i	-0.0	-0.0	0.0	**0.1**	-0.1	4.6	-0.0	-0.0	0.0	**0.1**	-0.1	4.6
My_i	-0.0	-0.0	0.0	0.1	**-0.1**	4.6	-0.0	-0.0	0.0	0.1	**-0.1**	4.6
Mz_i	-0.0	-0.0	0.0	0.1	-0.1	**4.6**	-0.0	-0.0	0.0	0.1	-0.1	**4.6**
Fx_f	**-0.0**	-0.0	0.0	0.1	0.1	4.8	**-0.0**	-0.0	0.0	0.1	0.1	4.8
Fy_f	-0.0	**-0.0**	0.0	0.1	0.1	4.8	-0.0	**-0.0**	0.0	0.1	0.1	4.8
Fz_f	-0.0	-0.0	**0.0**	0.1	0.1	4.8	-0.0	-0.0	**0.0**	0.1	0.1	4.8
Mx_f	-0.0	-0.0	0.0	**0.1**	0.1	4.8	-0.0	-0.0	0.0	**0.1**	0.1	4.8
My_f	-0.0	-0.0	0.0	0.1	**0.1**	4.8	-0.0	-0.0	0.0	0.1	**0.1**	4.8
Mz_f	-0.0	-0.0	0.0	0.1	0.1	**4.8**	-0.0	-0.0	0.0	0.1	0.1	**4.8**

Member 18

Fx_i	**-0.0**	-0.0	0.0	0.0	-0.0	4.8	**-0.0**	-0.0	0.0	0.0	-0.0	4.8
Fy_i	-0.0	**-0.0**	0.0	0.0	-0.0	4.8	-0.0	**-0.0**	0.0	0.0	-0.0	4.8
Fz_i	-0.0	-0.0	**0.0**	0.0	-0.0	4.8	-0.0	-0.0	**0.0**	0.0	-0.0	4.8
Mx_i	-0.0	-0.0	0.0	**0.0**	-0.0	4.8	-0.0	-0.0	0.0	**0.0**	-0.0	4.8
My_i	-0.0	-0.0	0.0	0.0	**-0.0**	4.8	-0.0	-0.0	0.0	0.0	**-0.0**	4.8
Mz_i	-0.0	-0.0	0.0	0.0	-0.0	**4.8**	-0.0	-0.0	0.0	0.0	-0.0	**4.8**
Fx_f	**-0.0**	-0.0	0.0	0.0	0.0	5.0	**-0.0**	-0.0	0.0	0.0	0.0	5.0
Fy_f	-0.0	**-0.0**	0.0	0.0	0.0	5.0	-0.0	**-0.0**	0.0	0.0	0.0	5.0
Fz_f	-0.0	-0.0	**0.0**	0.0	0.0	5.0	-0.0	-0.0	**0.0**	0.0	0.0	5.0
Mx_f	-0.0	-0.0	0.0	**0.0**	0.0	5.0	-0.0	-0.0	0.0	**0.0**	0.0	5.0
My_f	-0.0	-0.0	0.0	0.0	**0.0**	5.0	-0.0	-0.0	0.0	0.0	**0.0**	5.0
Mz_f	-0.0	-0.0	0.0	0.0	0.0	**5.0**	-0.0	-0.0	0.0	0.0	0.0	**5.0**

Member 19

Fx_i	**-0.0**	-0.0	-0.0	-0.1	0.0	5.0	**-0.0**	-0.0	-0.0	-0.1	0.0	5.0
Fy_i	-0.0	**-0.0**	-0.0	-0.1	0.0	5.0	-0.0	**-0.0**	-0.0	-0.1	0.0	5.0
Fz_i	-0.0	-0.0	**-0.0**	-0.1	0.0	5.0	-0.0	-0.0	**-0.0**	-0.1	0.0	5.0
Mx_i	-0.0	-0.0	-0.0	**-0.1**	0.0	5.0	-0.0	-0.0	-0.0	**-0.1**	0.0	5.0
My_i	-0.0	-0.0	-0.0	-0.1	**0.0**	5.0	-0.0	-0.0	-0.0	-0.1	**0.0**	5.0
Mz_i	-0.0	-0.0	-0.0	-0.1	0.0	**5.0**	-0.0	-0.0	-0.0	-0.1	0.0	**5.0**
Fx_f	**-0.0**	-0.0	-0.0	-0.1	-0.0	5.2	**-0.0**	-0.0	-0.0	-0.1	-0.0	5.2
Fy_f	-0.0	**-0.0**	-0.0	-0.1	-0.0	5.2	-0.0	**-0.0**	-0.0	-0.1	-0.0	5.2
Fz_f	-0.0	-0.0	**-0.0**	-0.1	-0.0	5.2	-0.0	-0.0	**-0.0**	-0.1	-0.0	5.2
Mx_f	-0.0	-0.0	-0.0	**-0.1**	-0.0	5.2	-0.0	-0.0	-0.0	**-0.1**	-0.0	5.2
My_f	-0.0	-0.0	-0.0	-0.1	**-0.0**	5.2	-0.0	-0.0	-0.0	-0.1	**-0.0**	5.2
Mz_f	-0.0	-0.0	-0.0	-0.1	-0.0	**5.2**	-0.0	-0.0	-0.0	-0.1	-0.0	**5.2**

Member 20

Fx_i	**-0.0**	-0.0	-0.0	-0.2	0.1	5.2	**-0.0**	-0.0	-0.0	-0.2	0.1	5.2
Fy_i	-0.0	**-0.0**	-0.0	-0.2	0.1	5.2	-0.0	**-0.0**	-0.0	-0.2	0.1	5.2
Fz_i	-0.0	-0.0	**-0.0**	-0.2	0.1	5.2	-0.0	-0.0	**-0.0**	-0.2	0.1	5.2
Mx_i	-0.0	-0.0	-0.0	**-0.2**	0.1	5.2	-0.0	-0.0	-0.0	**-0.2**	0.1	5.2
My_i	-0.0	-0.0	-0.0	-0.2	**0.1**	5.2	-0.0	-0.0	-0.0	-0.2	**0.1**	5.2
Mz_i	-0.0	-0.0	-0.0	-0.2	0.1	**5.2**	-0.0	-0.0	-0.0	-0.2	0.1	**5.2**
Fx_f	**-0.0**	-0.0	-0.0	-0.2	-0.1	5.4	**-0.0**	-0.0	-0.0	-0.2	-0.1	5.4
Fy_f	-0.0	**-0.0**	-0.0	-0.2	-0.1	5.4	-0.0	**-0.0**	-0.0	-0.2	-0.1	5.4
Fz_f	-0.0	-0.0	**-0.0**	-0.2	-0.1	5.4	-0.0	-0.0	**-0.0**	-0.2	-0.1	5.4
Mx_f	-0.0	-0.0	-0.0	**-0.2**	-0.1	5.4	-0.0	-0.0	-0.0	**-0.2**	-0.1	5.4
My_f	-0.0	-0.0	-0.0	-0.2	**-0.1**	5.4	-0.0	-0.0	-0.0	-0.2	**-0.1**	5.4
Mz_f	-0.0	-0.0	-0.0	-0.2	-0.1	**5.4**	-0.0	-0.0	-0.0	-0.2	-0.1	**5.4**

Member 21

Fx_i	**-0.0**	-0.0	-0.1	-0.3	0.3	5.4	**-0.0**	-0.0	-0.1	-0.3	0.3	5.4
Fy_i	-0.0	**-0.0**	-0.1	-0.3	0.3	5.4	-0.0	**-0.0**	-0.1	-0.3	0.3	5.4
Fz_i	-0.0	-0.0	**-0.1**	-0.3	0.3	5.4	-0.0	-0.0	**-0.1**	-0.3	0.3	5.4
Mx_i	-0.0	-0.0	-0.1	**-0.3**	0.3	5.4	-0.0	-0.0	-0.1	**-0.3**	0.3	5.4
My_i	-0.0	-0.0	-0.1	-0.3	**0.3**	5.4	-0.0	-0.0	-0.1	-0.3	**0.3**	5.4
Mz_i	-0.0	-0.0	-0.1	-0.3	0.3	**5.4**	-0.0	-0.0	-0.1	-0.3	0.3	**5.4**
Fx_f	**-0.0**	-0.0	-0.1	-0.3	-0.2	5.7	**-0.0**	-0.0	-0.1	-0.3	-0.2	5.7
Fy_f	-0.0	**-0.0**	-0.1	-0.3	-0.2	5.7	-0.0	**-0.0**	-0.1	-0.3	-0.2	5.7
Fz_f	-0.0	-0.0	**-0.1**	-0.3	-0.2	5.7	-0.0	-0.0	**-0.1**	-0.3	-0.2	5.7
Mx_f	-0.0	-0.0	-0.1	**-0.3**	-0.2	5.7	-0.0	-0.0	-0.1	**-0.3**	-0.2	5.7
My_f	-0.0	-0.0	-0.1	-0.3	**-0.2**	5.7	-0.0	-0.0	-0.1	-0.3	**-0.2**	5.7
Mz_f	-0.0	-0.0	-0.1	-0.3	-0.2	**5.7**	-0.0	-0.0	-0.1	-0.3	-0.2	**5.7**

Member 22

Fx_i	**-0.0**	-0.0	-0.4	-0.5	0.9	5.7	**-0.0**	-0.0	-0.4	-0.5	0.9	5.7
Fy_i	-0.0	**-0.0**	-0.4	-0.5	0.9	5.7	-0.0	**-0.0**	-0.4	-0.5	0.9	5.7
Fz_i	-0.0	-0.0	**-0.4**	-0.5	0.9	5.7	-0.0	-0.0	**-0.4**	-0.5	0.9	5.7
Mx_i	-0.0	-0.0	-0.4	**-0.5**	0.9	5.7	-0.0	-0.0	-0.4	**-0.5**	0.9	5.7
My_i	-0.0	-0.0	-0.4	-0.5	**0.9**	5.7	-0.0	-0.0	-0.4	-0.5	**0.9**	5.7
Mz_i	-0.0	-0.0	-0.4	-0.5	0.9	**5.7**	-0.0	-0.0	-0.4	-0.5	0.9	**5.7**
Fx_f	**-0.0**	17.5	-0.4	4.9	-1.0	-30.0	**-0.0**	17.5	-0.4	4.9	-1.0	-30.0
Fy_f	-0.0	**17.5**	-0.4	4.9	-1.0	-30.0	-0.0	**17.5**	-0.4	4.9	-1.0	-30.0
Fz_f	-0.0	17.5	**-0.4**	4.9	-1.0	-30.0	-0.0	17.5	**-0.4**	4.9	-1.0	-30.0
Mx_f	-0.0	17.5	-0.4	**4.9**	-1.0	-30.0	-0.0	17.5	-0.4	**4.9**	-1.0	-30.0
My_f	-0.0	17.5	-0.4	4.9	**-1.0**	-30.0	-0.0	17.5	-0.4	4.9	**-1.0**	-30.0
Mz_f	-0.0	17.5	-0.4	4.9	-1.0	**-30.0**	-0.0	17.5	-0.4	4.9	-1.0	**-30.0**

Member 23

Fx_i	**-0.0**	-17.6	0.4	-4.9	-1.0	-30.0	**-0.0**	-17.6	0.4	-4.9	-1.0	-30.0
Fy_i	-0.0	**-17.6**	0.4	-4.9	-1.0	-30.0	-0.0	**-17.6**	0.4	-4.9	-1.0	-30.0
Fz_i	-0.0	-17.6	**0.4**	-4.9	-1.0	-30.0	-0.0	-17.6	**0.4**	-4.9	-1.0	-30.0
Mx_i	-0.0	-17.6	0.4	**-4.9**	-1.0	-30.0	-0.0	-17.6	0.4	**-4.9**	-1.0	-30.0
My_i	-0.0	-17.6	0.4	-4.9	**-1.0**	-30.0	-0.0	-17.6	0.4	-4.9	**-1.0**	-30.0
Mz_i	-0.0	-17.6	0.4	-4.9	-1.0	**-30.0**	-0.0	-17.6	0.4	-4.9	-1.0	**-30.0**
Fx_f	**-0.0**	0.0	0.4	0.4	0.9	5.8	**-0.0**	0.0	0.4	0.4	0.9	5.8

Fy_f	-0.0	**0.0**	0.4	0.4	0.9	5.8	-0.0	**0.0**	0.4	0.4	0.9	5.8
Fz_f	-0.0	0.0	**0.4**	0.4	0.9	5.8	-0.0	0.0	**0.4**	0.4	0.9	5.8
Mx_f	-0.0	0.0	0.4	**0.4**	0.9	5.8	-0.0	0.0	0.4	**0.4**	0.9	5.8
My_f	-0.0	0.0	0.4	0.4	**0.9**	5.8	-0.0	0.0	0.4	0.4	**0.9**	5.8
Mz_f	-0.0	0.0	0.4	0.4	0.9	**5.8**	-0.0	0.0	0.4	0.4	0.9	**5.8**

Member 24

Fx_1	**-0.0**	0.0	0.1	0.3	-0.2	5.8	**-0.0**	0.0	0.1	0.3	-0.2	5.8
Fy_1	-0.0	**0.0**	0.1	0.3	-0.2	5.8	-0.0	**0.0**	0.1	0.3	-0.2	5.8
Fz_1	-0.0	0.0	**0.1**	0.3	-0.2	5.8	-0.0	0.0	**0.1**	0.3	-0.2	5.8
Mx_1	-0.0	0.0	0.1	**0.3**	-0.2	5.8	-0.0	0.0	0.1	**0.3**	-0.2	5.8
My_1	-0.0	0.0	0.1	0.3	**-0.2**	5.8	-0.0	0.0	0.1	0.3	**-0.2**	5.8
Mz_1	-0.0	0.0	0.1	0.3	-0.2	**5.8**	-0.0	0.0	0.1	0.3	-0.2	**5.8**
Fx_f	**-0.0**	0.0	0.1	0.3	0.3	5.8	**-0.0**	0.0	0.1	0.3	0.3	5.8
Fy_f	-0.0	**0.0**	0.1	0.3	0.3	5.8	-0.0	**0.0**	0.1	0.3	0.3	5.8
Fz_f	-0.0	0.0	**0.1**	0.3	0.3	5.8	-0.0	0.0	**0.1**	0.3	0.3	5.8
Mx_f	-0.0	0.0	0.1	**0.3**	0.3	5.8	-0.0	0.0	0.1	**0.3**	0.3	5.8
My_f	-0.0	0.0	0.1	0.3	**0.3**	5.8	-0.0	0.0	0.1	0.3	**0.3**	5.8
Mz_f	-0.0	0.0	0.1	0.3	0.3	**5.8**	-0.0	0.0	0.1	0.3	0.3	**5.8**

Member 25

Fx_1	**-0.0**	0.0	0.0	0.2	-0.1	5.8	**-0.0**	0.0	0.0	0.2	-0.1	5.8
Fy_1	-0.0	**0.0**	0.0	0.2	-0.1	5.8	-0.0	**0.0**	0.0	0.2	-0.1	5.8
Fz_1	-0.0	0.0	**0.0**	0.2	-0.1	5.8	-0.0	0.0	**0.0**	0.2	-0.1	5.8
Mx_1	-0.0	0.0	0.0	**0.2**	-0.1	5.8	-0.0	0.0	0.0	**0.2**	-0.1	5.8
My_1	-0.0	0.0	0.0	0.2	**-0.1**	5.8	-0.0	0.0	0.0	0.2	**-0.1**	5.8
Mz_1	-0.0	0.0	0.0	0.2	-0.1	**5.8**	-0.0	0.0	0.0	0.2	-0.1	**5.8**
Fx_f	**-0.0**	0.0	0.0	0.2	0.1	5.7	**-0.0**	0.0	0.0	0.2	0.1	5.7
Fy_f	-0.0	**0.0**	0.0	0.2	0.1	5.7	-0.0	**0.0**	0.0	0.2	0.1	5.7
Fz_f	-0.0	0.0	**0.0**	0.2	0.1	5.7	-0.0	0.0	**0.0**	0.2	0.1	5.7
Mx_f	-0.0	0.0	0.0	**0.2**	0.1	5.7	-0.0	0.0	0.0	**0.2**	0.1	5.7
My_f	-0.0	0.0	0.0	0.2	**0.1**	5.7	-0.0	0.0	0.0	0.2	**0.1**	5.7
Mz_f	-0.0	0.0	0.0	0.2	0.1	**5.7**	-0.0	0.0	0.0	0.2	0.1	**5.7**

Member 26

Fx_1	**-0.0**	0.0	0.0	0.1	-0.0	5.7	**-0.0**	0.0	0.0	0.1	-0.0	5.7
Fy_1	-0.0	**0.0**	0.0	0.1	-0.0	5.7	-0.0	**0.0**	0.0	0.1	-0.0	5.7
Fz_1	-0.0	0.0	**0.0**	0.1	-0.0	5.7	-0.0	0.0	**0.0**	0.1	-0.0	5.7
Mx_1	-0.0	0.0	0.0	**0.1**	-0.0	5.7	-0.0	0.0	0.0	**0.1**	-0.0	5.7
My_1	-0.0	0.0	0.0	0.1	**-0.0**	5.7	-0.0	0.0	0.0	0.1	**-0.0**	5.7
Mz_1	-0.0	0.0	0.0	0.1	-0.0	**5.7**	-0.0	0.0	0.0	0.1	-0.0	**5.7**
Fx_f	**-0.0**	0.0	0.0	0.1	0.0	5.6	**-0.0**	0.0	0.0	0.1	0.0	5.6
Fy_f	-0.0	**0.0**	0.0	0.1	0.0	5.6	-0.0	**0.0**	0.0	0.1	0.0	5.6
Fz_f	-0.0	0.0	**0.0**	0.1	0.0	5.6	-0.0	0.0	**0.0**	0.1	0.0	5.6
Mx_f	-0.0	0.0	0.0	**0.1**	0.0	5.6	-0.0	0.0	0.0	**0.1**	0.0	5.6
My_f	-0.0	0.0	0.0	0.1	**0.0**	5.6	-0.0	0.0	0.0	0.1	**0.0**	5.6
Mz_f	-0.0	0.0	0.0	0.1	0.0	**5.6**	-0.0	0.0	0.0	0.1	0.0	**5.6**

Member 27

Fx_1	**-0.0**	0.0	-0.0	-0.1	0.0	5.6	**-0.0**	0.0	-0.0	-0.1	0.0	5.6
Fy_1	-0.0	**0.0**	-0.0	-0.1	0.0	5.6	-0.0	**0.0**	-0.0	-0.1	0.0	5.6
Fz_1	-0.0	0.0	**-0.0**	-0.1	0.0	5.6	-0.0	0.0	**-0.0**	-0.1	0.0	5.6
Mx_1	-0.0	0.0	-0.0	**-0.1**	0.0	5.6	-0.0	0.0	-0.0	**-0.1**	0.0	5.6
My_1	-0.0	0.0	-0.0	-0.1	**0.0**	5.6	-0.0	0.0	-0.0	-0.1	**0.0**	5.6
Mz_1	-0.0	0.0	-0.0	-0.1	0.0	**5.6**	-0.0	0.0	-0.0	-0.1	0.0	**5.6**
Fx_f	**-0.0**	0.0	-0.0	-0.1	-0.0	5.6	**-0.0**	0.0	-0.0	-0.1	-0.0	5.6
Fy_f	-0.0	**0.0**	-0.0	-0.1	-0.0	5.6	-0.0	**0.0**	-0.0	-0.1	-0.0	5.6
Fz_f	-0.0	0.0	**-0.0**	-0.1	-0.0	5.6	-0.0	0.0	**-0.0**	-0.1	-0.0	5.6
Mx_f	-0.0	0.0	-0.0	**-0.1**	-0.0	5.6	-0.0	0.0	-0.0	**-0.1**	-0.0	5.6
My_f	-0.0	0.0	-0.0	-0.1	**-0.0**	5.6	-0.0	0.0	-0.0	-0.1	**-0.0**	5.6
Mz_f	-0.0	0.0	-0.0	-0.1	-0.0	**5.6**	-0.0	0.0	-0.0	-0.1	-0.0	**5.6**

Member 28

Fx_1	**-0.0**	0.0	-0.0	-0.2	0.1	5.6	**-0.0**	0.0	-0.0	-0.2	0.1	5.6
Fy_1	-0.0	**0.0**	-0.0	-0.2	0.1	5.6	-0.0	**0.0**	-0.0	-0.2	0.1	5.6
Fz_1	-0.0	0.0	**-0.0**	-0.2	0.1	5.6	-0.0	0.0	**-0.0**	-0.2	0.1	5.6
Mx_1	-0.0	0.0	-0.0	**-0.2**	0.1	5.6	-0.0	0.0	-0.0	**-0.2**	0.1	5.6
My_1	-0.0	0.0	-0.0	-0.2	**0.1**	5.6	-0.0	0.0	-0.0	-0.2	**0.1**	5.6
Mz_1	-0.0	0.0	-0.0	-0.2	0.1	**5.6**	-0.0	0.0	-0.0	-0.2	0.1	**5.6**
Fx_f	**-0.0**	0.0	-0.0	-0.2	-0.1	5.5	**-0.0**	0.0	-0.0	-0.2	-0.1	5.5
Fy_f	-0.0	**0.0**	-0.0	-0.2	-0.1	5.5	-0.0	**0.0**	-0.0	-0.2	-0.1	5.5
Fz_f	-0.0	0.0	**-0.0**	-0.2	-0.1	5.5	-0.0	0.0	**-0.0**	-0.2	-0.1	5.5
Mx_f	-0.0	0.0	-0.0	**-0.2**	-0.1	5.5	-0.0	0.0	-0.0	**-0.2**	-0.1	5.5
My_f	-0.0	0.0	-0.0	-0.2	**-0.1**	5.5	-0.0	0.0	-0.0	-0.2	**-0.1**	5.5
Mz_f	-0.0	0.0	-0.0	-0.2	-0.1	**5.5**	-0.0	0.0	-0.0	-0.2	-0.1	**5.5**

Member 29

Fx_1	**-0.0**	0.0	-0.1	-0.3	0.2	5.5	**-0.0**	0.0	-0.1	-0.3	0.2	5.5
Fy_1	-0.0	**0.0**	-0.1	-0.3	0.2	5.5	-0.0	**0.0**	-0.1	-0.3	0.2	5.5
Fz_1	-0.0	0.0	**-0.1**	-0.3	0.2	5.5	-0.0	0.0	**-0.1**	-0.3	0.2	5.5
Mx_1	-0.0	0.0	-0.1	**-0.3**	0.2	5.5	-0.0	0.0	-0.1	**-0.3**	0.2	5.5
My_1	-0.0	0.0	-0.1	-0.3	**0.2**	5.5	-0.0	0.0	-0.1	-0.3	**0.2**	5.5
Mz_1	-0.0	0.0	-0.1	-0.3	0.2	**5.5**	-0.0	0.0	-0.1	-0.3	0.2	**5.5**
Fx_f	**-0.0**	0.0	-0.1	-0.3	-0.2	5.5	**-0.0**	0.0	-0.1	-0.3	-0.2	5.5
Fy_f	-0.0	**0.0**	-0.1	-0.3	-0.2	5.5	-0.0	**0.0**	-0.1	-0.3	-0.2	5.5
Fz_f	-0.0	0.0	**-0.1**	-0.3	-0.2	5.5	-0.0	0.0	**-0.1**	-0.3	-0.2	5.5
Mx_f	-0.0	0.0	-0.1	**-0.3**	-0.2	5.5	-0.0	0.0	-0.1	**-0.3**	-0.2	5.5
My_f	-0.0	0.0	-0.1	-0.3	**-0.2**	5.5	-0.0	0.0	-0.1	-0.3	**-0.2**	5.5
Mz_f	-0.0	0.0	-0.1	-0.3	-0.2	**5.5**	-0.0	0.0	-0.1	-0.3	-0.2	**5.5**

Member 30

Fx_1	**-0.0**	0.0	-0.4	-0.5	0.9	5.5	**-0.0**	0.0	-0.4	-0.5	0.9	5.5
Fy_1	-0.0	**0.0**	-0.4	-0.5	0.9	5.5	-0.0	**0.0**	-0.4	-0.5	0.9	5.5
Fz_1	-0.0	0.0	**-0.4**	-0.5	0.9	5.5	-0.0	0.0	**-0.4**	-0.5	0.9	5.5
Mx_1	-0.0	0.0	-0.4	**-0.5**	0.9	5.5	-0.0	0.0	-0.4	**-0.5**	0.9	5.5
My_1	-0.0	0.0	-0.4	-0.5	**0.9**	5.5	-0.0	0.0	-0.4	-0.5	**0.9**	5.5
Mz_1	-0.0	0.0	-0.4	-0.5	0.9	**5.5**	-0.0	0.0	-0.4	-0.5	0.9	**5.5**
Fx_f	**-0.0**	17.6	-0.4	4.9	-0.9	-30.5	**-0.0**	17.6	-0.4	4.9	-0.9	-30.5
Fy_f	-0.0	**17.6**	-0.4	4.9	-0.9	-30.5	-0.0	**17.6**	-0.4	4.9	-0.9	-30.5
Fz_f	-0.0	17.6	**-0.4**	4.9	-0.9	-30.5	-0.0	17.6	**-0.4**	4.9	-0.9	-30.5
Mx_f	-0.0	17.6	-0.4	**4.9**	-0.9	-30.5	-0.0	17.6	-0.4	**4.9**	-0.9	-30.5
My_f	-0.0	17.6	-0.4	4.9	**-0.9**	-30.5	-0.0	17.6	-0.4	4.9	**-0.9**	-30.5
Mz_f	-0.0	17.6	-0.4	4.9	-0.9	**-30.5**	-0.0	17.6	-0.4	4.9	-0.9	**-30.5**

Member 31

Fx_1	**-0.0**	-17.6	0.4	-4.9	-0.9	-30.5	**-0.0**	-17.6	0.4	-4.9	-0.9	-30.5
Fy_1	-0.0	**-17.6**	0.4	-4.9	-0.9	-30.5	-0.0	**-17.6**	0.4	-4.9	-0.9	-30.5
Fz_1	-0.0	-17.6	**0.4**	-4.9	-0.9	-30.5	-0.0	-17.6	**0.4**	-4.9	-0.9	-30.5
Mx_1	-0.0	-17.6	0.4	**-4.9**	-0.9	-30.5	-0.0	-17.6	0.4	**-4.9**	-0.9	-30.5
My_1	-0.0	-17.6	0.4	-4.9	**-0.9**	-30.5	-0.0	-17.6	0.4	-4.9	**-0.9**	-30.5
Mz_1	-0.0	-17.6	0.4	-4.9	-0.9	**-30.5**	-0.0	-17.6	0.4	-4.9	-0.9	**-30.5**
Fx_f	**-0.0**	-0.0	0.4	0.4	0.9	5.4	**-0.0**	-0.0	0.4	0.4	0.9	5.4
Fy_f	-0.0	**-0.0**	0.4	0.4	0.9	5.4	-0.0	**-0.0**	0.4	0.4	0.9	5.4
Fz_f	-0.0	-0.0	**0.4**	0.4	0.9	5.4	-0.0	-0.0	**0.4**	0.4	0.9	5.4
Mx_f	-0.0	-0.0	0.4	**0.4**	0.9	5.4	-0.0	-0.0	0.4	**0.4**	0.9	5.4
My_f	-0.0	-0.0	0.4	0.4	**0.9**	5.4	-0.0	-0.0	0.4	0.4	**0.9**	5.4
Mz_f	-0.0	-0.0	0.4	0.4	0.9	**5.4**	-0.0	-0.0	0.4	0.4	0.9	**5.4**

Member 32

Fx_1	**-0.0**	-0.0	0.1	0.3	-0.2	5.4	**-0.0**	-0.0	0.1	0.3	-0.2	5.4
Fy_1	-0.0	**-0.0**	0.1	0.3	-0.2	5.4	-0.0	**-0.0**	0.1	0.3	-0.2	5.4
Fz_1	-0.0	-0.0	**0.1**	0.3	-0.2	5.4	-0.0	-0.0	**0.1**	0.3	-0.2	5.4
Mx_1	-0.0	-0.0	0.1	**0.3**	-0.2	5.4	-0.0	-0.0	0.1	**0.3**	-0.2	5.4
My_1	-0.0	-0.0	0.1	0.3	**-0.2**	5.4	-0.0	-0.0	0.1	0.3	**-0.2**	5.4
Mz_1	-0.0	-0.0	0.1	0.3	-0.2	**5.4**	-0.0	-0.0	0.1	0.3	-0.2	**5.4**
Fx_f	**-0.0**	-0.0	0.1	0.3	0.2	5.5	**-0.0**	-0.0	0.1	0.3	0.2	5.5
Fy_f	-0.0	**-0.0**	0.1	0.3	0.2	5.5	-0.0	**-0.0**	0.1	0.3	0.2	5.5
Fz_f	-0.0	-0.0	**0.1**	0.3	0.2	5.5	-0.0	-0.0	**0.1**	0.3	0.2	5.5
Mx_f	-0.0	-0.0	0.1	**0.3**	0.2	5.5	-0.0	-0.0	0.1	**0.3**	0.2	5.5
My_f	-0.0	-0.0	0.1	0.3	**0.2**	5.5	-0.0	-0.0	0.1	0.3	**0.2**	5.5
Mz_f	-0.0	-0.0	0.1	0.3	0.2	**5.5**	-0.0	-0.0	0.1	0.3	0.2	**5.5**

Member 33

Fx,	**-0.0**	-0.0	0.0	0.2	-0.1	5.5	**-0.0**	-0.0	0.0	0.2	-0.1	5.5
Fy,	-0.0	**-0.0**	0.0	0.2	-0.1	5.5	-0.0	**-0.0**	0.0	0.2	-0.1	5.5
Fz,	-0.0	-0.0	**0.0**	0.2	-0.1	5.5	-0.0	-0.0	**0.0**	0.2	-0.1	5.5
Mx,	-0.0	-0.0	0.0	**0.2**	-0.1	5.5	-0.0	-0.0	0.0	**0.2**	-0.1	5.5
My,	-0.0	-0.0	0.0	0.2	**-0.1**	5.5	-0.0	-0.0	0.0	0.2	**-0.1**	5.5
Mz,	-0.0	-0.0	0.0	0.2	-0.1	**5.5**	-0.0	-0.0	0.0	0.2	-0.1	**5.5**
Fx$_f$	**-0.0**	-0.0	0.0	0.2	0.1	5.5	**-0.0**	-0.0	0.0	0.2	0.1	5.5
Fy$_f$	-0.0	**-0.0**	0.0	0.2	0.1	5.5	-0.0	**-0.0**	0.0	0.2	0.1	5.5
Fz$_f$	-0.0	-0.0	**0.0**	0.2	0.1	5.5	-0.0	-0.0	**0.0**	0.2	0.1	5.5
Mx$_f$	-0.0	-0.0	0.0	**0.2**	0.1	5.5	-0.0	-0.0	0.0	**0.2**	0.1	5.5
My$_f$	-0.0	-0.0	0.0	0.2	**0.1**	5.5	-0.0	-0.0	0.0	0.2	**0.1**	5.5
Mz$_f$	-0.0	-0.0	0.0	0.2	0.1	**5.5**	-0.0	-0.0	0.0	0.2	0.1	**5.5**

Member 34

Fx,	**-0.0**	-0.0	0.0	0.1	-0.0	5.5	**-0.0**	-0.0	0.0	0.1	-0.0	5.5
Fy,	-0.0	**-0.0**	0.0	0.1	-0.0	5.5	-0.0	**-0.0**	0.0	0.1	-0.0	5.5
Fz,	-0.0	-0.0	**0.0**	0.1	-0.0	5.5	-0.0	-0.0	**0.0**	0.1	-0.0	5.5
Mx,	-0.0	-0.0	0.0	**0.1**	-0.0	5.5	-0.0	-0.0	0.0	**0.1**	-0.0	5.5
My,	-0.0	-0.0	0.0	0.1	**-0.0**	5.5	-0.0	-0.0	0.0	0.1	**-0.0**	5.5
Mz,	-0.0	-0.0	0.0	0.1	-0.0	**5.5**	-0.0	-0.0	0.0	0.1	-0.0	**5.5**
Fx$_f$	**-0.0**	-0.0	0.0	0.1	0.0	5.6	**-0.0**	-0.0	0.0	0.1	0.0	5.6
Fy$_f$	-0.0	**-0.0**	0.0	0.1	0.0	5.6	-0.0	**-0.0**	0.0	0.1	0.0	5.6
Fz$_f$	-0.0	-0.0	**0.0**	0.1	0.0	5.6	-0.0	-0.0	**0.0**	0.1	0.0	5.6
Mx$_f$	-0.0	-0.0	0.0	**0.1**	0.0	5.6	-0.0	-0.0	0.0	**0.1**	0.0	5.6
My$_f$	-0.0	-0.0	0.0	0.1	**0.0**	5.6	-0.0	-0.0	0.0	0.1	**0.0**	5.6
Mz$_f$	-0.0	-0.0	0.0	0.1	0.0	**5.6**	-0.0	-0.0	0.0	0.1	0.0	**5.6**

Member 35

Fx,	**-0.0**	-0.0	-0.0	-0.1	0.0	5.6	**-0.0**	-0.0	-0.0	-0.1	0.0	5.6
Fy,	-0.0	**-0.0**	-0.0	-0.1	0.0	5.6	-0.0	**-0.0**	-0.0	-0.1	0.0	5.6
Fz,	-0.0	-0.0	**-0.0**	-0.1	0.0	5.6	-0.0	-0.0	**-0.0**	-0.1	0.0	5.6
Mx,	-0.0	-0.0	-0.0	**-0.1**	0.0	5.6	-0.0	-0.0	-0.0	**-0.1**	0.0	5.6
My,	-0.0	-0.0	-0.0	-0.1	**0.0**	5.6	-0.0	-0.0	-0.0	-0.1	**0.0**	5.6
Mz,	-0.0	-0.0	-0.0	-0.1	0.0	**5.6**	-0.0	-0.0	-0.0	-0.1	0.0	**5.6**
Fx$_f$	**-0.0**	-0.0	-0.0	-0.1	-0.0	5.6	**-0.0**	-0.0	-0.0	-0.1	-0.0	5.6
Fy$_f$	-0.0	**-0.0**	-0.0	-0.1	-0.0	5.6	-0.0	**-0.0**	-0.0	-0.1	-0.0	5.6
Fz$_f$	-0.0	-0.0	**-0.0**	-0.1	-0.0	5.6	-0.0	-0.0	**-0.0**	-0.1	-0.0	5.6
Mx$_f$	-0.0	-0.0	-0.0	**-0.1**	-0.0	5.6	-0.0	-0.0	-0.0	**-0.1**	-0.0	5.6
My$_f$	-0.0	-0.0	-0.0	-0.1	**-0.0**	5.6	-0.0	-0.0	-0.0	-0.1	**-0.0**	5.6
Mz$_f$	-0.0	-0.0	-0.0	-0.1	-0.0	**5.6**	-0.0	-0.0	-0.0	-0.1	-0.0	**5.6**

Member 36

Fx,	**-0.0**	-0.0	-0.0	-0.2	0.1	5.6	**-0.0**	-0.0	-0.0	-0.2	0.1	5.6
Fy,	-0.0	**-0.0**	-0.0	-0.2	0.1	5.6	-0.0	**-0.0**	-0.0	-0.2	0.1	5.6
Fz,	-0.0	-0.0	**-0.0**	-0.2	0.1	5.6	-0.0	-0.0	**-0.0**	-0.2	0.1	5.6
Mx,	-0.0	-0.0	-0.0	**-0.2**	0.1	5.6	-0.0	-0.0	-0.0	**-0.2**	0.1	5.6
My,	-0.0	-0.0	-0.0	-0.2	**0.1**	5.6	-0.0	-0.0	-0.0	-0.2	**0.1**	5.6
Mz,	-0.0	-0.0	-0.0	-0.2	0.1	**5.6**	-0.0	-0.0	-0.0	-0.2	0.1	**5.6**
Fx$_f$	**-0.0**	-0.0	-0.0	-0.2	-0.1	5.7	**-0.0**	-0.0	-0.0	-0.2	-0.1	5.7
Fy$_f$	-0.0	**-0.0**	-0.0	-0.2	-0.1	5.7	-0.0	**-0.0**	-0.0	-0.2	-0.1	5.7
Fz$_f$	-0.0	-0.0	**-0.0**	-0.2	-0.1	5.7	-0.0	-0.0	**-0.0**	-0.2	-0.1	5.7
Mx$_f$	-0.0	-0.0	-0.0	**-0.2**	-0.1	5.7	-0.0	-0.0	-0.0	**-0.2**	-0.1	5.7
My$_f$	-0.0	-0.0	-0.0	-0.2	**-0.1**	5.7	-0.0	-0.0	-0.0	-0.2	**-0.1**	5.7
Mz$_f$	-0.0	-0.0	-0.0	-0.2	-0.1	**5.7**	-0.0	-0.0	-0.0	-0.2	-0.1	**5.7**

Member 37

Fx,	**-0.0**	-0.0	-0.1	-0.3	0.2	5.7	**-0.0**	-0.0	-0.1	-0.3	0.2	5.7
Fy,	-0.0	**-0.0**	-0.1	-0.3	0.2	5.7	-0.0	**-0.0**	-0.1	-0.3	0.2	5.7
Fz,	-0.0	-0.0	**-0.1**	-0.3	0.2	5.7	-0.0	-0.0	**-0.1**	-0.3	0.2	5.7
Mx,	-0.0	-0.0	-0.1	**-0.3**	0.2	5.7	-0.0	-0.0	-0.1	**-0.3**	0.2	5.7
My,	-0.0	-0.0	-0.1	-0.3	**0.2**	5.7	-0.0	-0.0	-0.1	-0.3	**0.2**	5.7
Mz,	-0.0	-0.0	-0.1	-0.3	0.2	**5.7**	-0.0	-0.0	-0.1	-0.3	0.2	**5.7**
Fx$_f$	**-0.0**	-0.0	-0.1	-0.3	-0.2	5.7	**-0.0**	-0.0	-0.1	-0.3	-0.2	5.7
Fy$_f$	-0.0	**-0.0**	-0.1	-0.3	-0.2	5.7	-0.0	**-0.0**	-0.1	-0.3	-0.2	5.7
Fz$_f$	-0.0	-0.0	**-0.1**	-0.3	-0.2	5.7	-0.0	-0.0	**-0.1**	-0.3	-0.2	5.7
Mx$_f$	-0.0	-0.0	-0.1	**-0.3**	-0.2	5.7	-0.0	-0.0	-0.1	**-0.3**	-0.2	5.7
My$_f$	-0.0	-0.0	-0.1	-0.3	**-0.2**	5.7	-0.0	-0.0	-0.1	-0.3	**-0.2**	5.7
Mz$_f$	-0.0	-0.0	-0.1	-0.3	-0.2	**5.7**	-0.0	-0.0	-0.1	-0.3	-0.2	**5.7**

Member 38

Fx,	**-0.0**	-0.0	-0.4	-0.5	0.9	5.7	**-0.0**	-0.0	-0.4	-0.5	0.9	5.7
Fy,	-0.0	**-0.0**	-0.4	-0.5	0.9	5.7	-0.0	**-0.0**	-0.4	-0.5	0.9	5.7
Fz,	-0.0	-0.0	**-0.4**	-0.5	0.9	5.7	-0.0	-0.0	**-0.4**	-0.5	0.9	5.7
Mx,	-0.0	-0.0	-0.4	**-0.5**	0.9	5.7	-0.0	-0.0	-0.4	**-0.5**	0.9	5.7
My,	-0.0	-0.0	-0.4	-0.5	**0.9**	5.7	-0.0	-0.0	-0.4	-0.5	**0.9**	5.7
Mz,	-0.0	-0.0	-0.4	-0.5	0.9	**5.7**	-0.0	-0.0	-0.4	-0.5	0.9	**5.7**
Fx$_f$	**-0.0**	17.6	-0.4	4.9	-0.9	-30.1	**-0.0**	17.6	-0.4	4.9	-0.9	-30.1
Fy$_f$	-0.0	**17.6**	-0.4	4.9	-0.9	-30.1	-0.0	**17.6**	-0.4	4.9	-0.9	-30.1
Fz$_f$	-0.0	17.6	**-0.4**	4.9	-0.9	-30.1	-0.0	17.6	**-0.4**	4.9	-0.9	-30.1
Mx$_f$	-0.0	17.6	-0.4	**4.9**	-0.9	-30.1	-0.0	17.6	-0.4	**4.9**	-0.9	-30.1
My$_f$	-0.0	17.6	-0.4	4.9	**-0.9**	-30.1	-0.0	17.6	-0.4	4.9	**-0.9**	-30.1
Mz$_f$	-0.0	17.6	-0.4	4.9	-0.9	**-30.1**	-0.0	17.6	-0.4	4.9	-0.9	**-30.1**

Member 39

Fx,	**-0.0**	-17.6	0.4	-4.9	-0.9	-30.1	**-0.0**	-17.6	0.4	-4.9	-0.9	-30.1
Fy,	-0.0	**-17.6**	0.4	-4.9	-0.9	-30.1	-0.0	**-17.6**	0.4	-4.9	-0.9	-30.1
Fz,	-0.0	-17.6	**0.4**	-4.9	-0.9	-30.1	-0.0	-17.6	**0.4**	-4.9	-0.9	-30.1
Mx,	-0.0	-17.6	0.4	**-4.9**	-0.9	-30.1	-0.0	-17.6	0.4	**-4.9**	-0.9	-30.1
My,	-0.0	-17.6	0.4	-4.9	**-0.9**	-30.1	-0.0	-17.6	0.4	-4.9	**-0.9**	-30.1
Mz,	-0.0	-17.6	0.4	-4.9	-0.9	**-30.1**	-0.0	-17.6	0.4	-4.9	-0.9	**-30.1**
Fx$_f$	**-0.0**	0.0	0.4	0.5	0.9	5.6	**-0.0**	0.0	0.4	0.5	0.9	5.6
Fy$_f$	-0.0	**0.0**	0.4	0.5	0.9	5.6	-0.0	**0.0**	0.4	0.5	0.9	5.6
Fz$_f$	-0.0	0.0	**0.4**	0.5	0.9	5.6	-0.0	0.0	**0.4**	0.5	0.9	5.6
Mx$_f$	-0.0	0.0	0.4	**0.5**	0.9	5.6	-0.0	0.0	0.4	**0.5**	0.9	5.6
My$_f$	-0.0	0.0	0.4	0.5	**0.9**	5.6	-0.0	0.0	0.4	0.5	**0.9**	5.6
Mz$_f$	-0.0	0.0	0.4	0.5	0.9	**5.6**	-0.0	0.0	0.4	0.5	0.9	**5.6**

Member 40

Fx,	**-0.0**	0.0	0.1	0.3	-0.2	5.6	**-0.0**	0.0	0.1	0.3	-0.2	5.6
Fy,	-0.0	**0.0**	0.1	0.3	-0.2	5.6	-0.0	**0.0**	0.1	0.3	-0.2	5.6
Fz,	-0.0	0.0	**0.1**	0.3	-0.2	5.6	-0.0	0.0	**0.1**	0.3	-0.2	5.6
Mx,	-0.0	0.0	0.1	**0.3**	-0.2	5.6	-0.0	0.0	0.1	**0.3**	-0.2	5.6
My,	-0.0	0.0	0.1	0.3	**-0.2**	5.6	-0.0	0.0	0.1	0.3	**-0.2**	5.6
Mz,	-0.0	0.0	0.1	0.3	-0.2	**5.6**	-0.0	0.0	0.1	0.3	-0.2	**5.6**
Fx$_f$	**-0.0**	0.0	0.1	0.3	0.2	5.4	**-0.0**	0.0	0.1	0.3	0.2	5.4
Fy$_f$	-0.0	**0.0**	0.1	0.3	0.2	5.4	-0.0	**0.0**	0.1	0.3	0.2	5.4
Fz$_f$	-0.0	0.0	**0.1**	0.3	0.2	5.4	-0.0	0.0	**0.1**	0.3	0.2	5.4
Mx$_f$	-0.0	0.0	0.1	**0.3**	0.2	5.4	-0.0	0.0	0.1	**0.3**	0.2	5.4
My$_f$	-0.0	0.0	0.1	0.3	**0.2**	5.4	-0.0	0.0	0.1	0.3	**0.2**	5.4
Mz$_f$	-0.0	0.0	0.1	0.3	0.2	**5.4**	-0.0	0.0	0.1	0.3	0.2	**5.4**

Member 41

Fx,	**-0.0**	0.0	0.0	0.2	-0.1	5.4	**-0.0**	0.0	0.0	0.2	-0.1	5.4
Fy,	-0.0	**0.0**	0.0	0.2	-0.1	5.4	-0.0	**0.0**	0.0	0.2	-0.1	5.4
Fz,	-0.0	0.0	**0.0**	0.2	-0.1	5.4	-0.0	0.0	**0.0**	0.2	-0.1	5.4
Mx,	-0.0	0.0	0.0	**0.2**	-0.1	5.4	-0.0	0.0	0.0	**0.2**	-0.1	5.4
My,	-0.0	0.0	0.0	0.2	**-0.1**	5.4	-0.0	0.0	0.0	0.2	**-0.1**	5.4
Mz,	-0.0	0.0	0.0	0.2	-0.1	**5.4**	-0.0	0.0	0.0	0.2	-0.1	**5.4**
Fx$_f$	**-0.0**	0.0	0.0	0.2	0.1	5.3	**-0.0**	0.0	0.0	0.2	0.1	5.3
Fy$_f$	-0.0	**0.0**	0.0	0.2	0.1	5.3	-0.0	**0.0**	0.0	0.2	0.1	5.3
Fz$_f$	-0.0	0.0	**0.0**	0.2	0.1	5.3	-0.0	0.0	**0.0**	0.2	0.1	5.3
Mx$_f$	-0.0	0.0	0.0	**0.2**	0.1	5.3	-0.0	0.0	0.0	**0.2**	0.1	5.3
My$_f$	-0.0	0.0	0.0	0.2	**0.1**	5.3	-0.0	0.0	0.0	0.2	**0.1**	5.3
Mz$_f$	-0.0	0.0	0.0	0.2	0.1	**5.3**	-0.0	0.0	0.0	0.2	0.1	**5.3**

Member 42

Fx,	**-0.0**	0.0	0.0	0.1	-0.0	5.3	**-0.0**	0.0	0.0	0.1	-0.0	5.3
Fy,	-0.0	**0.0**	0.0	0.1	-0.0	5.3	-0.0	**0.0**	0.0	0.1	-0.0	5.3
Fz,	-0.0	0.0	**0.0**	0.1	-0.0	5.3	-0.0	0.0	**0.0**	0.1	-0.0	5.3
Mx,	-0.0	0.0	0.0	**0.1**	-0.0	5.3	-0.0	0.0	0.0	**0.1**	-0.0	5.3

My,	-0.0	0.0	0.0	0.1	**-0.0**	5.3	-0.0	0.0	0.0	0.1	**-0.0**	5.3
Mz,	-0.0	0.0	0.0	0.1	-0.0	**5.3**	-0.0	0.0	0.0	0.1	-0.0	**5.3**
Fx,	**-0.0**	0.0	0.0	0.1	0.0	5.1	**-0.0**	0.0	0.0	0.1	0.0	5.1
Fy,	-0.0	**0.0**	0.0	0.1	0.0	5.1	-0.0	**0.0**	0.0	0.1	0.0	5.1
Fz,	-0.0	0.0	**0.0**	0.1	0.0	5.1	-0.0	0.0	**0.0**	0.1	0.0	5.1
Mx,	**-0.0**	0.0	0.0	**0.1**	0.0	5.1	-0.0	0.0	0.0	**0.1**	0.0	5.1
My,	-0.0	0.0	0.0	0.1	**0.0**	5.1	-0.0	0.0	0.0	0.1	**0.0**	5.1
Mz,	-0.0	0.0	0.0	0.1	0.0	**5.1**	-0.0	0.0	0.0	0.1	0.0	**5.1**

Member 43

Fx,	**-0.0**	0.0	-0.0	-0.0	0.0	5.1	**-0.0**	0.0	-0.0	-0.0	0.0	5.1
Fy,	-0.0	**0.0**	-0.0	-0.0	0.0	5.1	-0.0	**0.0**	-0.0	-0.0	0.0	5.1
Fz,	-0.0	0.0	**-0.0**	-0.0	0.0	5.1	-0.0	0.0	**-0.0**	-0.0	0.0	5.1
Mx,	-0.0	0.0	-0.0	**-0.0**	0.0	5.1	-0.0	0.0	-0.0	**-0.0**	0.0	5.1
My,	-0.0	0.0	-0.0	-0.0	**0.0**	5.1	-0.0	0.0	-0.0	-0.0	**0.0**	5.1
Mz,	-0.0	0.0	-0.0	-0.0	0.0	**5.1**	-0.0	0.0	-0.0	-0.0	0.0	**5.1**
Fx,	**-0.0**	0.0	-0.0	-0.0	-0.0	5.0	**-0.0**	0.0	-0.0	-0.0	-0.0	5.0
Fy,	-0.0	**0.0**	-0.0	-0.0	-0.0	5.0	-0.0	**0.0**	-0.0	-0.0	-0.0	5.0
Fz,	-0.0	0.0	**-0.0**	-0.0	-0.0	5.0	-0.0	0.0	**-0.0**	-0.0	-0.0	5.0
Mx,	**-0.0**	0.0	-0.0	**-0.0**	-0.0	5.0	-0.0	0.0	-0.0	**-0.0**	-0.0	5.0
My,	-0.0	0.0	-0.0	-0.0	**-0.0**	5.0	-0.0	0.0	-0.0	-0.0	**-0.0**	5.0
Mz,	-0.0	0.0	-0.0	-0.0	-0.0	**5.0**	-0.0	0.0	-0.0	-0.0	-0.0	**5.0**

Member 44

Fx,	**-0.0**	0.0	-0.0	-0.2	0.1	5.0	**-0.0**	0.0	-0.0	-0.2	0.1	5.0
Fy,	-0.0	**0.0**	-0.0	-0.2	0.1	5.0	-0.0	**0.0**	-0.0	-0.2	0.1	5.0
Fz,	-0.0	0.0	**-0.0**	-0.2	0.1	5.0	-0.0	0.0	**-0.0**	-0.2	0.1	5.0
Mx,	-0.0	0.0	-0.0	**-0.2**	0.1	5.0	-0.0	0.0	-0.0	**-0.2**	0.1	5.0
My,	-0.0	0.0	-0.0	-0.2	**0.1**	5.0	-0.0	0.0	-0.0	-0.2	**0.1**	5.0
Mz,	-0.0	0.0	-0.0	-0.2	0.1	**5.0**	-0.0	0.0	-0.0	-0.2	0.1	**5.0**
Fx,	**-0.0**	0.0	-0.0	-0.2	-0.1	4.8	**-0.0**	0.0	-0.0	-0.2	-0.1	4.8
Fy,	-0.0	**0.0**	-0.0	-0.2	-0.1	4.8	-0.0	**0.0**	-0.0	-0.2	-0.1	4.8
Fz,	-0.0	0.0	**-0.0**	-0.2	-0.1	4.8	-0.0	0.0	**-0.0**	-0.2	-0.1	4.8
Mx,	-0.0	0.0	-0.0	**-0.2**	-0.1	4.8	-0.0	0.0	-0.0	**-0.2**	-0.1	4.8
My,	-0.0	0.0	-0.0	-0.2	**-0.1**	4.8	-0.0	0.0	-0.0	-0.2	**-0.1**	4.8
Mz,	-0.0	0.0	-0.0	-0.2	-0.1	**4.8**	-0.0	0.0	-0.0	-0.2	-0.1	**4.8**

Member 365

Fx,	**-0.1**	0.0	-0.2	0.0	0.4	0.0	**-0.1**	0.0	-0.2	0.0	0.4	0.0
Fy,	-0.1	**0.0**	-0.2	0.0	0.4	0.0	-0.1	**0.0**	-0.2	0.0	0.4	0.0
Fz,	-0.1	0.0	**-0.2**	0.0	0.4	0.0	-0.1	0.0	**-0.2**	0.0	0.4	0.0
Mx,	-0.1	0.0	-0.2	**0.0**	0.4	0.0	-0.1	0.0	-0.2	**0.0**	0.4	0.0
My,	-0.1	0.0	-0.2	0.0	**0.4**	0.0	-0.1	0.0	-0.2	0.0	**0.4**	0.0
Mz,	-0.1	0.0	-0.2	0.0	0.4	**0.0**	-0.1	0.0	-0.2	0.0	0.4	**0.0**
Fx,	**-0.1**	0.0	-0.2	0.0	-0.0	0.0	**-0.1**	0.0	-0.2	0.0	-0.0	0.0
Fy,	-0.1	**0.0**	-0.2	0.0	-0.0	0.0	-0.1	**0.0**	-0.2	0.0	-0.0	0.0
Fz,	-0.1	0.0	**-0.2**	0.0	-0.0	0.0	-0.1	0.0	**-0.2**	0.0	-0.0	0.0
Mx,	-0.1	0.0	-0.2	**0.0**	-0.0	0.0	-0.1	0.0	-0.2	**0.0**	-0.0	0.0
My,	-0.1	0.0	-0.2	0.0	**-0.0**	0.0	-0.1	0.0	-0.2	0.0	**-0.0**	0.0
Mz,	-0.1	0.0	-0.2	0.0	-0.0	**0.0**	-0.1	0.0	-0.2	0.0	-0.0	**0.0**

Member 366

Fx,	**-32.2**	-0.0	-0.8	0.0	8.7	0.0	**-32.2**	-0.0	-0.8	0.0	8.7	0.0
Fy,	-32.2	**-0.0**	-0.8	0.0	8.7	0.0	-32.2	**-0.0**	-0.8	0.0	8.7	0.0
Fz,	-32.2	-0.0	**-0.8**	0.0	8.7	0.0	-32.2	-0.0	**-0.8**	0.0	8.7	0.0
Mx,	-32.2	-0.0	-0.8	**0.0**	8.7	0.0	-32.2	-0.0	-0.8	**0.0**	8.7	0.0
My,	-32.2	-0.0	-0.8	0.0	**8.7**	0.0	-32.2	-0.0	-0.8	0.0	**8.7**	0.0
Mz,	-32.2	-0.0	-0.8	0.0	8.7	**0.0**	-32.2	-0.0	-0.8	0.0	8.7	**0.0**
Fx,	**-32.2**	-0.0	-0.8	0.0	7.2	0.0	**-32.2**	-0.0	-0.8	0.0	7.2	0.0
Fy,	-32.2	**-0.0**	-0.8	0.0	7.2	0.0	-32.2	**-0.0**	-0.8	0.0	7.2	0.0
Fz,	-32.2	-0.0	**-0.8**	0.0	7.2	0.0	-32.2	-0.0	**-0.8**	0.0	7.2	0.0
Mx,	-32.2	-0.0	-0.8	**0.0**	7.2	0.0	-32.2	-0.0	-0.8	**0.0**	7.2	0.0
My,	-32.2	-0.0	-0.8	0.0	**7.2**	0.0	-32.2	-0.0	-0.8	0.0	**7.2**	0.0
Mz,	-32.2	-0.0	-0.8	0.0	7.2	**0.0**	-32.2	-0.0	-0.8	0.0	7.2	**0.0**

Member 367

Fx,	**-35.4**	0.0	-1.0	0.0	9.9	0.0	**-35.4**	0.0	-1.0	0.0	9.9	0.0
Fy,	-35.4	**0.0**	-1.0	0.0	9.9	0.0	-35.4	**0.0**	-1.0	0.0	9.9	0.0
Fz,	-35.4	0.0	**-1.0**	0.0	9.9	0.0	-35.4	0.0	**-1.0**	0.0	9.9	0.0
Mx,	-35.4	0.0	-1.0	**0.0**	9.9	0.0	-35.4	0.0	-1.0	**0.0**	9.9	0.0
My,	-35.4	0.0	-1.0	0.0	**9.9**	0.0	-35.4	0.0	-1.0	0.0	**9.9**	0.0
Mz,	-35.4	0.0	-1.0	0.0	9.9	**0.0**	-35.4	0.0	-1.0	0.0	9.9	**0.0**
Fx,	**-35.4**	0.0	-1.0	0.0	8.1	-0.0	**-35.4**	0.0	-1.0	0.0	8.1	-0.0
Fy,	-35.4	**0.0**	-1.0	0.0	8.1	-0.0	-35.4	**0.0**	-1.0	0.0	8.1	-0.0
Fz,	-35.4	0.0	**-1.0**	0.0	8.1	-0.0	-35.4	0.0	**-1.0**	0.0	8.1	-0.0
Mx,	-35.4	0.0	-1.0	**0.0**	8.1	-0.0	-35.4	0.0	-1.0	**0.0**	8.1	-0.0
My,	-35.4	0.0	-1.0	0.0	**8.1**	-0.0	-35.4	0.0	-1.0	0.0	**8.1**	-0.0
Mz,	-35.4	0.0	-1.0	0.0	8.1	**-0.0**	-35.4	0.0	-1.0	0.0	8.1	**-0.0**

Member 368

Fx,	**-35.1**	-0.0	-0.8	0.0	9.8	-0.0	**-35.1**	-0.0	-0.8	0.0	9.8	-0.0
Fy,	-35.1	**-0.0**	-0.8	0.0	9.8	-0.0	-35.1	**-0.0**	-0.8	0.0	9.8	-0.0
Fz,	-35.1	-0.0	**-0.8**	0.0	9.8	-0.0	-35.1	-0.0	**-0.8**	0.0	9.8	-0.0
Mx,	-35.1	-0.0	-0.8	**0.0**	9.8	-0.0	-35.1	-0.0	-0.8	**0.0**	9.8	-0.0
My,	-35.1	-0.0	-0.8	0.0	**9.8**	-0.0	-35.1	-0.0	-0.8	0.0	**9.8**	-0.0
Mz,	-35.1	-0.0	-0.8	0.0	9.8	**-0.0**	-35.1	-0.0	-0.8	0.0	9.8	**-0.0**
Fx,	**-35.1**	-0.0	-0.8	0.0	8.3	0.0	**-35.1**	-0.0	-0.8	0.0	8.3	0.0
Fy,	-35.1	**-0.0**	-0.8	0.0	8.3	0.0	-35.1	**-0.0**	-0.8	0.0	8.3	0.0
Fz,	-35.1	-0.0	**-0.8**	0.0	8.3	0.0	-35.1	-0.0	**-0.8**	0.0	8.3	0.0
Mx,	-35.1	-0.0	-0.8	**0.0**	8.3	0.0	-35.1	-0.0	-0.8	**0.0**	8.3	0.0
My,	-35.1	-0.0	-0.8	0.0	**8.3**	0.0	-35.1	-0.0	-0.8	0.0	**8.3**	0.0
Mz,	-35.1	-0.0	-0.8	0.0	8.3	**0.0**	-35.1	-0.0	-0.8	0.0	8.3	**0.0**

Member 369

Fx,	**-35.2**	0.0	-0.8	0.0	9.8	0.0	**-35.2**	0.0	-0.8	0.0	9.8	0.0
Fy,	-35.2	**0.0**	-0.8	0.0	9.8	0.0	-35.2	**0.0**	-0.8	0.0	9.8	0.0
Fz,	-35.2	0.0	**-0.8**	0.0	9.8	0.0	-35.2	0.0	**-0.8**	0.0	9.8	0.0
Mx,	-35.2	0.0	-0.8	**0.0**	9.8	0.0	-35.2	0.0	-0.8	**0.0**	9.8	0.0
My,	-35.2	0.0	-0.8	0.0	**9.8**	0.0	-35.2	0.0	-0.8	0.0	**9.8**	0.0
Mz,	-35.2	0.0	-0.8	0.0	9.8	**0.0**	-35.2	0.0	-0.8	0.0	9.8	**0.0**
Fx,	**-35.2**	0.0	-0.8	0.0	8.4	0.0	**-35.2**	0.0	-0.8	0.0	8.4	0.0
Fy,	-35.2	**0.0**	-0.8	0.0	8.4	0.0	-35.2	**0.0**	-0.8	0.0	8.4	0.0
Fz,	-35.2	0.0	**-0.8**	0.0	8.4	0.0	-35.2	0.0	**-0.8**	0.0	8.4	0.0
Mx,	-35.2	0.0	-0.8	**0.0**	8.4	0.0	-35.2	0.0	-0.8	**0.0**	8.4	0.0
My,	-35.2	0.0	-0.8	0.0	**8.4**	0.0	-35.2	0.0	-0.8	0.0	**8.4**	0.0
Mz,	-35.2	0.0	-0.8	0.0	8.4	**0.0**	-35.2	0.0	-0.8	0.0	8.4	**0.0**

Member 370

Fx,	**-35.1**	-0.0	-0.8	0.0	9.8	-0.0	**-35.1**	-0.0	-0.8	0.0	9.8	-0.0
Fy,	-35.1	**-0.0**	-0.8	0.0	9.8	-0.0	-35.1	**-0.0**	-0.8	0.0	9.8	-0.0
Fz,	-35.1	-0.0	**-0.8**	0.0	9.8	-0.0	-35.1	-0.0	**-0.8**	0.0	9.8	-0.0
Mx,	-35.1	-0.0	-0.8	**0.0**	9.8	-0.0	-35.1	-0.0	-0.8	**0.0**	9.8	-0.0
My,	-35.1	-0.0	-0.8	0.0	**9.8**	-0.0	-35.1	-0.0	-0.8	0.0	**9.8**	-0.0
Mz,	-35.1	-0.0	-0.8	0.0	9.8	**-0.0**	-35.1	-0.0	-0.8	0.0	9.8	**-0.0**
Fx,	**-35.1**	-0.0	-0.8	0.0	8.4	0.0	**-35.1**	-0.0	-0.8	0.0	8.4	0.0
Fy,	-35.1	**-0.0**	-0.8	0.0	8.4	0.0	-35.1	**-0.0**	-0.8	0.0	8.4	0.0
Fz,	-35.1	-0.0	**-0.8**	0.0	8.4	0.0	-35.1	-0.0	**-0.8**	0.0	8.4	0.0
Mx,	-35.1	-0.0	-0.8	**0.0**	8.4	0.0	-35.1	-0.0	-0.8	**0.0**	8.4	0.0
My,	-35.1	-0.0	-0.8	0.0	**8.4**	0.0	-35.1	-0.0	-0.8	0.0	**8.4**	0.0
Mz,	-35.1	-0.0	-0.8	0.0	8.4	**0.0**	-35.1	-0.0	-0.8	0.0	8.4	**0.0**

Member 371

Fx,	**-35.4**	-0.0	-0.8	0.0	9.8	0.0	**-35.4**	-0.0	-0.8	0.0	9.8	0.0
Fy,	-35.4	**-0.0**	-0.8	0.0	9.8	0.0	-35.4	**-0.0**	-0.8	0.0	9.8	0.0
Fz,	-35.4	-0.0	**-0.8**	0.0	9.8	0.0	-35.4	-0.0	**-0.8**	0.0	9.8	0.0
Mx,	-35.4	-0.0	-0.8	**0.0**	9.8	0.0	-35.4	-0.0	-0.8	**0.0**	9.8	0.0
My,	-35.4	-0.0	-0.8	0.0	**9.8**	0.0	-35.4	-0.0	-0.8	0.0	**9.8**	0.0
Mz,	-35.4	-0.0	-0.8	0.0	9.8	**0.0**	-35.4	-0.0	-0.8	0.0	9.8	**0.0**
Fx,	**-35.4**	-0.0	-0.8	0.0	8.3	0.0	**-35.4**	-0.0	-0.8	0.0	8.3	0.0
Fy,	-35.4	**-0.0**	-0.8	0.0	8.3	0.0	-35.4	**-0.0**	-0.8	0.0	8.3	0.0

Fz_f	-35.4	-0.0	**-0.8**	0.0	8.3	0.0	-35.4	-0.0	**-0.8**	0.0	8.3	0.0
Mx_f	-35.4	-0.0	-0.8	**0.0**	8.3	0.0	-35.4	-0.0	-0.8	**0.0**	8.3	0.0
My_f	-35.4	-0.0	-0.8	0.0	**8.3**	0.0	-35.4	-0.0	-0.8	0.0	**8.3**	0.0
Mz_f	-35.4	-0.0	-0.8	0.0	8.3	**0.0**	-35.4	-0.0	-0.8	0.0	8.3	**0.0**

Member 372

Fx_i	**-32.3**	0.0	-1.0	0.0	8.8	0.0	**-32.3**	0.0	-1.0	0.0	8.8	0.0
Fy_i	-32.3	**0.0**	-1.0	0.0	8.8	0.0	-32.3	**0.0**	-1.0	0.0	8.8	0.0
Fz_i	-32.3	0.0	**-1.0**	0.0	8.8	0.0	-32.3	0.0	**-1.0**	0.0	8.8	0.0
Mx_i	-32.3	0.0	-1.0	**0.0**	8.8	0.0	-32.3	0.0	-1.0	**0.0**	8.8	0.0
My_i	-32.3	0.0	-1.0	0.0	**8.8**	0.0	-32.3	0.0	-1.0	0.0	**8.8**	0.0
Mz_i	-32.3	0.0	-1.0	0.0	8.8	**0.0**	-32.3	0.0	-1.0	0.0	8.8	**0.0**
Fx_f	**-32.3**	0.0	-1.0	0.0	7.1	0.0	**-32.3**	0.0	-1.0	0.0	7.1	0.0
Fy_f	-32.3	**0.0**	-1.0	0.0	7.1	0.0	-32.3	**0.0**	-1.0	0.0	7.1	0.0
Fz_f	-32.3	0.0	**-1.0**	0.0	7.1	0.0	-32.3	0.0	**-1.0**	0.0	7.1	0.0
Mx_f	-32.3	0.0	-1.0	**0.0**	7.1	0.0	-32.3	0.0	-1.0	**0.0**	7.1	0.0
My_f	-32.3	0.0	-1.0	0.0	**7.1**	0.0	-32.3	0.0	-1.0	0.0	**7.1**	0.0
Mz_f	-32.3	0.0	-1.0	0.0	7.1	**0.0**	-32.3	0.0	-1.0	0.0	7.1	**0.0**

Member 373

Fx_i	**0.0**	-0.0	-0.2	0.0	0.4	-0.0	**0.0**	-0.0	-0.2	0.0	0.4	-0.0
Fy_i	0.0	**-0.0**	-0.2	0.0	0.4	-0.0	0.0	**-0.0**	-0.2	0.0	0.4	-0.0
Fz_i	0.0	-0.0	**-0.2**	0.0	0.4	-0.0	0.0	-0.0	**-0.2**	0.0	0.4	-0.0
Mx_i	0.0	-0.0	-0.2	**0.0**	0.4	-0.0	0.0	-0.0	-0.2	**0.0**	0.4	-0.0
My_i	0.0	-0.0	-0.2	0.0	**0.4**	-0.0	0.0	-0.0	-0.2	0.0	**0.4**	-0.0
Mz_i	0.0	-0.0	-0.2	0.0	0.4	**-0.0**	0.0	-0.0	-0.2	0.0	0.4	**-0.0**
Fx_f	**0.0**	-0.0	-0.2	0.0	-0.0	-0.0	**0.0**	-0.0	-0.2	0.0	-0.0	-0.0
Fy_f	0.0	**-0.0**	-0.2	0.0	-0.0	-0.0	0.0	**-0.0**	-0.2	0.0	-0.0	-0.0
Fz_f	0.0	-0.0	**-0.2**	0.0	-0.0	-0.0	0.0	-0.0	**-0.2**	0.0	-0.0	-0.0
Mx_f	0.0	-0.0	-0.2	**0.0**	-0.0	-0.0	0.0	-0.0	-0.2	**0.0**	-0.0	-0.0
My_f	0.0	-0.0	-0.2	0.0	**-0.0**	-0.0	0.0	-0.0	-0.2	0.0	**-0.0**	-0.0
Mz_f	0.0	-0.0	-0.2	0.0	-0.0	**-0.0**	0.0	-0.0	-0.2	0.0	-0.0	**-0.0**

Member 374

Fx_i	**-0.1**	0.0	0.2	0.0	-0.4	0.0	**-0.1**	0.0	0.2	0.0	-0.4	0.0
Fy_i	-0.1	**0.0**	0.2	0.0	-0.4	0.0	-0.1	**0.0**	0.2	0.0	-0.4	0.0
Fz_i	-0.1	0.0	**0.2**	0.0	-0.4	0.0	-0.1	0.0	**0.2**	0.0	-0.4	0.0
Mx_i	-0.1	0.0	0.2	**0.0**	-0.4	0.0	-0.1	0.0	0.2	**0.0**	-0.4	0.0
My_i	-0.1	0.0	0.2	0.0	**-0.4**	0.0	-0.1	0.0	0.2	0.0	**-0.4**	0.0
Mz_i	-0.1	0.0	0.2	0.0	-0.4	**0.0**	-0.1	0.0	0.2	0.0	-0.4	**0.0**
Fx_f	**-0.1**	0.0	0.2	0.0	0.0	-0.0	**-0.1**	0.0	0.2	0.0	0.0	-0.0
Fy_f	-0.1	**0.0**	0.2	0.0	0.0	-0.0	-0.1	**0.0**	0.2	0.0	0.0	-0.0
Fz_f	-0.1	0.0	**0.2**	0.0	0.0	-0.0	-0.1	0.0	**0.2**	0.0	0.0	-0.0
Mx_f	-0.1	0.0	0.2	**0.0**	0.0	-0.0	-0.1	0.0	0.2	**0.0**	0.0	-0.0
My_f	-0.1	0.0	0.2	0.0	**0.0**	-0.0	-0.1	0.0	0.2	0.0	**0.0**	-0.0
Mz_f	-0.1	0.0	0.2	0.0	0.0	**-0.0**	-0.1	0.0	0.2	0.0	0.0	**-0.0**

Member 375

Fx_i	**-32.2**	0.0	0.8	0.0	-8.7	0.0	**-32.2**	0.0	0.8	0.0	-8.7	0.0
Fy_i	-32.2	**0.0**	0.8	0.0	-8.7	0.0	-32.2	**0.0**	0.8	0.0	-8.7	0.0
Fz_i	-32.2	0.0	**0.8**	0.0	-8.7	0.0	-32.2	0.0	**0.8**	0.0	-8.7	0.0
Mx_i	-32.2	0.0	0.8	**0.0**	-8.7	0.0	-32.2	0.0	0.8	**0.0**	-8.7	0.0
My_i	-32.2	0.0	0.8	0.0	**-8.7**	0.0	-32.2	0.0	0.8	0.0	**-8.7**	0.0
Mz_i	-32.2	0.0	0.8	0.0	-8.7	**0.0**	-32.2	0.0	0.8	0.0	-8.7	**0.0**
Fx_f	**-32.2**	0.0	0.8	0.0	-7.2	0.0	**-32.2**	0.0	0.8	0.0	-7.2	0.0
Fy_f	-32.2	**0.0**	0.8	0.0	-7.2	0.0	-32.2	**0.0**	0.8	0.0	-7.2	0.0
Fz_f	-32.2	0.0	**0.8**	0.0	-7.2	0.0	-32.2	0.0	**0.8**	0.0	-7.2	0.0
Mx_f	-32.2	0.0	0.8	**0.0**	-7.2	0.0	-32.2	0.0	0.8	**0.0**	-7.2	0.0
My_f	-32.2	0.0	0.8	0.0	**-7.2**	0.0	-32.2	0.0	0.8	0.0	**-7.2**	0.0
Mz_f	-32.2	0.0	0.8	0.0	-7.2	**0.0**	-32.2	0.0	0.8	0.0	-7.2	**0.0**

Member 376

Fx_i	**-35.4**	-0.0	1.0	0.0	-9.9	-0.0	**-35.4**	-0.0	1.0	0.0	-9.9	-0.0
Fy_i	-35.4	**-0.0**	1.0	0.0	-9.9	-0.0	-35.4	**-0.0**	1.0	0.0	-9.9	-0.0
Fz_i	-35.4	-0.0	**1.0**	0.0	-9.9	-0.0	-35.4	-0.0	**1.0**	0.0	-9.9	-0.0
Mx_i	-35.4	-0.0	1.0	**0.0**	-9.9	-0.0	-35.4	-0.0	1.0	**0.0**	-9.9	-0.0
My_i	-35.4	-0.0	1.0	0.0	**-9.9**	-0.0	-35.4	-0.0	1.0	0.0	**-9.9**	-0.0
Mz_i	-35.4	-0.0	1.0	0.0	-9.9	**-0.0**	-35.4	-0.0	1.0	0.0	-9.9	**-0.0**
Fx_f	**-35.4**	-0.0	1.0	0.0	-8.1	0.0	**-35.4**	-0.0	1.0	0.0	-8.1	0.0
Fy_f	-35.4	**-0.0**	1.0	0.0	-8.1	0.0	-35.4	**-0.0**	1.0	0.0	-8.1	0.0
Fz_f	-35.4	-0.0	**1.0**	0.0	-8.1	0.0	-35.4	-0.0	**1.0**	0.0	-8.1	0.0
Mx_f	-35.4	-0.0	1.0	**0.0**	-8.1	0.0	-35.4	-0.0	1.0	**0.0**	-8.1	0.0
My_f	-35.4	-0.0	1.0	0.0	**-8.1**	0.0	-35.4	-0.0	1.0	0.0	**-8.1**	0.0
Mz_f	-35.4	-0.0	1.0	0.0	-8.1	**0.0**	-35.4	-0.0	1.0	0.0	-8.1	**0.0**

Member 377

Fx_i	**-35.1**	0.0	0.8	0.0	-9.8	0.0	**-35.1**	0.0	0.8	0.0	-9.8	0.0
Fy_i	-35.1	**0.0**	0.8	0.0	-9.8	0.0	-35.1	**0.0**	0.8	0.0	-9.8	0.0
Fz_i	-35.1	0.0	**0.8**	0.0	-9.8	0.0	-35.1	0.0	**0.8**	0.0	-9.8	0.0
Mx_i	-35.1	0.0	0.8	**0.0**	-9.8	0.0	-35.1	0.0	0.8	**0.0**	-9.8	0.0
My_i	-35.1	0.0	0.8	0.0	**-9.8**	0.0	-35.1	0.0	0.8	0.0	**-9.8**	0.0
Mz_i	-35.1	0.0	0.8	0.0	-9.8	**0.0**	-35.1	0.0	0.8	0.0	-9.8	**0.0**
Fx_f	**-35.1**	0.0	0.8	0.0	-8.3	-0.0	**-35.1**	0.0	0.8	0.0	-8.3	-0.0
Fy_f	-35.1	**0.0**	0.8	0.0	-8.3	-0.0	-35.1	**0.0**	0.8	0.0	-8.3	-0.0
Fz_f	-35.1	0.0	**0.8**	0.0	-8.3	-0.0	-35.1	0.0	**0.8**	0.0	-8.3	-0.0
Mx_f	-35.1	0.0	0.8	**0.0**	-8.3	-0.0	-35.1	0.0	0.8	**0.0**	-8.3	-0.0
My_f	-35.1	0.0	0.8	0.0	**-8.3**	-0.0	-35.1	0.0	0.8	0.0	**-8.3**	-0.0
Mz_f	-35.1	0.0	0.8	0.0	-8.3	**-0.0**	-35.1	0.0	0.8	0.0	-8.3	**-0.0**

Member 378

Fx_i	**-35.2**	0.0	0.8	0.0	-9.8	0.0	**-35.2**	0.0	0.8	0.0	-9.8	0.0
Fy_i	-35.2	**0.0**	0.8	0.0	-9.8	0.0	-35.2	**0.0**	0.8	0.0	-9.8	0.0
Fz_i	-35.2	0.0	**0.8**	0.0	-9.8	0.0	-35.2	0.0	**0.8**	0.0	-9.8	0.0
Mx_i	-35.2	0.0	0.8	**0.0**	-9.8	0.0	-35.2	0.0	0.8	**0.0**	-9.8	0.0
My_i	-35.2	0.0	0.8	0.0	**-9.8**	0.0	-35.2	0.0	0.8	0.0	**-9.8**	0.0
Mz_i	-35.2	0.0	0.8	0.0	-9.8	**0.0**	-35.2	0.0	0.8	0.0	-9.8	**0.0**
Fx_f	**-35.2**	0.0	0.8	0.0	-8.4	-0.0	**-35.2**	0.0	0.8	0.0	-8.4	-0.0
Fy_f	-35.2	**0.0**	0.8	0.0	-8.4	-0.0	-35.2	**0.0**	0.8	0.0	-8.4	-0.0
Fz_f	-35.2	0.0	**0.8**	0.0	-8.4	-0.0	-35.2	0.0	**0.8**	0.0	-8.4	-0.0
Mx_f	-35.2	0.0	0.8	**0.0**	-8.4	-0.0	-35.2	0.0	0.8	**0.0**	-8.4	-0.0
My_f	-35.2	0.0	0.8	0.0	**-8.4**	-0.0	-35.2	0.0	0.8	0.0	**-8.4**	-0.0
Mz_f	-35.2	0.0	0.8	0.0	-8.4	**-0.0**	-35.2	0.0	0.8	0.0	-8.4	**-0.0**

Member 379

Fx_i	**-35.1**	0.0	0.8	0.0	-9.8	0.0	**-35.1**	0.0	0.8	0.0	-9.8	0.0
Fy_i	-35.1	**0.0**	0.8	0.0	-9.8	0.0	-35.1	**0.0**	0.8	0.0	-9.8	0.0
Fz_i	-35.1	0.0	**0.8**	0.0	-9.8	0.0	-35.1	0.0	**0.8**	0.0	-9.8	0.0
Mx_i	-35.1	0.0	0.8	**0.0**	-9.8	0.0	-35.1	0.0	0.8	**0.0**	-9.8	0.0
My_i	-35.1	0.0	0.8	0.0	**-9.8**	0.0	-35.1	0.0	0.8	0.0	**-9.8**	0.0
Mz_i	-35.1	0.0	0.8	0.0	-9.8	**0.0**	-35.1	0.0	0.8	0.0	-9.8	**0.0**
Fx_f	**-35.1**	0.0	0.8	0.0	-8.4	-0.0	**-35.1**	0.0	0.8	0.0	-8.4	-0.0
Fy_f	-35.1	**0.0**	0.8	0.0	-8.4	-0.0	-35.1	**0.0**	0.8	0.0	-8.4	-0.0
Fz_f	-35.1	0.0	**0.8**	0.0	-8.4	-0.0	-35.1	0.0	**0.8**	0.0	-8.4	-0.0
Mx_f	-35.1	0.0	0.8	**0.0**	-8.4	-0.0	-35.1	0.0	0.8	**0.0**	-8.4	-0.0
My_f	-35.1	0.0	0.8	0.0	**-8.4**	-0.0	-35.1	0.0	0.8	0.0	**-8.4**	-0.0
Mz_f	-35.1	0.0	0.8	0.0	-8.4	**-0.0**	-35.1	0.0	0.8	0.0	-8.4	**-0.0**

Member 380

Fx_i	**-35.4**	-0.0	0.8	0.0	-9.8	-0.0	**-35.4**	-0.0	0.8	0.0	-9.8	-0.0
Fy_i	-35.4	**-0.0**	0.8	0.0	-9.8	-0.0	-35.4	**-0.0**	0.8	0.0	-9.8	-0.0
Fz_i	-35.4	-0.0	**0.8**	0.0	-9.8	-0.0	-35.4	-0.0	**0.8**	0.0	-9.8	-0.0
Mx_i	-35.4	-0.0	0.8	**0.0**	-9.8	-0.0	-35.4	-0.0	0.8	**0.0**	-9.8	-0.0
My_i	-35.4	-0.0	0.8	0.0	**-9.8**	-0.0	-35.4	-0.0	0.8	0.0	**-9.8**	-0.0
Mz_i	-35.4	-0.0	0.8	0.0	-9.8	**-0.0**	-35.4	-0.0	0.8	0.0	-9.8	**-0.0**
Fx_f	**-35.4**	-0.0	0.8	0.0	-8.3	0.0	**-35.4**	-0.0	0.8	0.0	-8.3	0.0
Fy_f	-35.4	**-0.0**	0.8	0.0	-8.3	0.0	-35.4	**-0.0**	0.8	0.0	-8.3	0.0
Fz_f	-35.4	-0.0	**0.8**	0.0	-8.3	0.0	-35.4	-0.0	**0.8**	0.0	-8.3	0.0
Mx_f	-35.4	-0.0	0.8	**0.0**	-8.3	0.0	-35.4	-0.0	0.8	**0.0**	-8.3	0.0
My_f	-35.4	-0.0	0.8	0.0	**-8.3**	0.0	-35.4	-0.0	0.8	0.0	**-8.3**	0.0
Mz_f	-35.4	-0.0	0.8	0.0	-8.3	**0.0**	-35.4	-0.0	0.8	0.0	-8.3	**0.0**

Member 381

Fx_i	**-32.3**	-0.0	1.0	0.0	-8.8	-0.0	**-32.3**	-0.0	1.0	0.0	-8.8	-0.0
Fy_i	-32.3	**-0.0**	1.0	0.0	-8.8	-0.0	-32.3	**-0.0**	1.0	0.0	-8.8	-0.0
Fz_i	-32.3	-0.0	**1.0**	0.0	-8.8	-0.0	-32.3	-0.0	**1.0**	0.0	-8.8	-0.0
Mx_i	-32.3	-0.0	1.0	**0.0**	-8.8	-0.0	-32.3	-0.0	1.0	**0.0**	-8.8	-0.0
My_i	-32.3	-0.0	1.0	0.0	**-8.8**	-0.0	-32.3	-0.0	1.0	0.0	**-8.8**	-0.0
Mz_i	-32.3	-0.0	1.0	0.0	-8.8	**-0.0**	-32.3	-0.0	1.0	0.0	-8.8	**-0.0**
Fx_f	**-32.3**	-0.0	1.0	0.0	-7.1	0.0	**-32.3**	-0.0	1.0	0.0	-7.1	0.0
Fy_f	-32.3	**-0.0**	1.0	0.0	-7.1	0.0	-32.3	**-0.0**	1.0	0.0	-7.1	0.0
Fz_f	-32.3	-0.0	**1.0**	0.0	-7.1	0.0	-32.3	-0.0	**1.0**	0.0	-7.1	0.0
Mx_f	-32.3	-0.0	1.0	**0.0**	-7.1	0.0	-32.3	-0.0	1.0	**0.0**	-7.1	0.0
My_f	-32.3	-0.0	1.0	0.0	**-7.1**	0.0	-32.3	-0.0	1.0	0.0	**-7.1**	0.0
Mz_f	-32.3	-0.0	1.0	0.0	-7.1	**0.0**	-32.3	-0.0	1.0	0.0	-7.1	**0.0**

Member 382

Fx_i	**0.0**	-0.0	0.2	0.0	-0.4	-0.0	**0.0**	-0.0	0.2	0.0	-0.4	-0.0
Fy_i	0.0	**-0.0**	0.2	0.0	-0.4	-0.0	0.0	**-0.0**	0.2	0.0	-0.4	-0.0
Fz_i	0.0	-0.0	**0.2**	0.0	-0.4	-0.0	0.0	-0.0	**0.2**	0.0	-0.4	-0.0
Mx_i	0.0	-0.0	0.2	**0.0**	-0.4	-0.0	0.0	-0.0	0.2	**0.0**	-0.4	-0.0
My_i	0.0	-0.0	0.2	0.0	**-0.4**	-0.0	0.0	-0.0	0.2	0.0	**-0.4**	-0.0
Mz_i	0.0	-0.0	0.2	0.0	-0.4	**-0.0**	0.0	-0.0	0.2	0.0	-0.4	**-0.0**
Fx_f	**0.0**	-0.0	0.2	0.0	0.0	-0.0	**0.0**	-0.0	0.2	0.0	0.0	-0.0
Fy_f	0.0	**-0.0**	0.2	0.0	0.0	-0.0	0.0	**-0.0**	0.2	0.0	0.0	-0.0
Fz_f	0.0	-0.0	**0.2**	0.0	0.0	-0.0	0.0	-0.0	**0.2**	0.0	0.0	-0.0
Mx_f	0.0	-0.0	0.2	**0.0**	0.0	-0.0	0.0	-0.0	0.2	**0.0**	0.0	-0.0
My_f	0.0	-0.0	0.2	0.0	**0.0**	-0.0	0.0	-0.0	0.2	0.0	**0.0**	-0.0
Mz_f	0.0	-0.0	0.2	0.0	0.0	**-0.0**	0.0	-0.0	0.2	0.0	0.0	**-0.0**

Member 391

Fx_i	**-32.2**	0.0	-0.8	0.0	7.2	0.0	**-32.2**	0.0	-0.8	0.0	7.2	0.0
Fy_i	-32.2	**0.0**	-0.8	0.0	7.2	0.0	-32.2	**0.0**	-0.8	0.0	7.2	0.0
Fz_i	-32.2	0.0	**-0.8**	0.0	7.2	0.0	-32.2	0.0	**-0.8**	0.0	7.2	0.0
Mx_i	-32.2	0.0	-0.8	**0.0**	7.2	0.0	-32.2	0.0	-0.8	**0.0**	7.2	0.0
My_i	-32.2	0.0	-0.8	0.0	**7.2**	0.0	-32.2	0.0	-0.8	0.0	**7.2**	0.0
Mz_i	-32.2	0.0	-0.8	0.0	7.2	**0.0**	-32.2	0.0	-0.8	0.0	7.2	**0.0**
Fx_f	**-32.2**	0.0	-0.8	0.0	-4.1	0.0	**-32.2**	0.0	-0.8	0.0	-4.1	0.0
Fy_f	-32.2	**0.0**	-0.8	0.0	-4.1	0.0	-32.2	**0.0**	-0.8	0.0	-4.1	0.0
Fz_f	-32.2	0.0	**-0.8**	0.0	-4.1	0.0	-32.2	0.0	**-0.8**	0.0	-4.1	0.0
Mx_f	-32.2	0.0	-0.8	**0.0**	-4.1	0.0	-32.2	0.0	-0.8	**0.0**	-4.1	0.0
My_f	-32.2	0.0	-0.8	0.0	**-4.1**	0.0	-32.2	0.0	-0.8	0.0	**-4.1**	0.0
Mz_f	-32.2	0.0	-0.8	0.0	-4.1	**0.0**	-32.2	0.0	-0.8	0.0	-4.1	**0.0**

Member 392

Fx_i	**-35.4**	0.0	-1.0	0.0	8.1	0.0	**-35.4**	0.0	-1.0	0.0	8.1	0.0
Fy_i	-35.4	**0.0**	-1.0	0.0	8.1	0.0	-35.4	**0.0**	-1.0	0.0	8.1	0.0
Fz_i	-35.4	0.0	**-1.0**	0.0	8.1	0.0	-35.4	0.0	**-1.0**	0.0	8.1	0.0
Mx_i	-35.4	0.0	-1.0	**0.0**	8.1	0.0	-35.4	0.0	-1.0	**0.0**	8.1	0.0
My_i	-35.4	0.0	-1.0	0.0	**8.1**	0.0	-35.4	0.0	-1.0	0.0	**8.1**	0.0
Mz_i	-35.4	0.0	-1.0	0.0	8.1	**0.0**	-35.4	0.0	-1.0	0.0	8.1	**0.0**
Fx_f	**-35.4**	0.0	-1.0	0.0	-4.6	0.0	**-35.4**	0.0	-1.0	0.0	-4.6	0.0
Fy_f	-35.4	**0.0**	-1.0	0.0	-4.6	0.0	-35.4	**0.0**	-1.0	0.0	-4.6	0.0
Fz_f	-35.4	0.0	**-1.0**	0.0	-4.6	0.0	-35.4	0.0	**-1.0**	0.0	-4.6	0.0
Mx_f	-35.4	0.0	-1.0	**0.0**	-4.6	0.0	-35.4	0.0	-1.0	**0.0**	-4.6	0.0
My_f	-35.4	0.0	-1.0	0.0	**-4.6**	0.0	-35.4	0.0	-1.0	0.0	**-4.6**	0.0
Mz_f	-35.4	0.0	-1.0	0.0	-4.6	**0.0**	-35.4	0.0	-1.0	0.0	-4.6	**0.0**

Member 393

Fx_i	**-35.1**	0.0	-0.8	0.0	8.3	0.0	**-35.1**	0.0	-0.8	0.0	8.3	0.0
Fy_i	-35.1	**0.0**	-0.8	0.0	8.3	0.0	-35.1	**0.0**	-0.8	0.0	8.3	0.0
Fz_i	-35.1	0.0	**-0.8**	0.0	8.3	0.0	-35.1	0.0	**-0.8**	0.0	8.3	0.0
Mx_i	-35.1	0.0	-0.8	**0.0**	8.3	0.0	-35.1	0.0	-0.8	**0.0**	8.3	0.0
My_i	-35.1	0.0	-0.8	0.0	**8.3**	0.0	-35.1	0.0	-0.8	0.0	**8.3**	0.0
Mz_i	-35.1	0.0	-0.8	0.0	8.3	**0.0**	-35.1	0.0	-0.8	0.0	8.3	**0.0**
Fx_f	**-35.1**	0.0	-0.8	0.0	-4.6	0.0	**-35.1**	0.0	-0.8	0.0	-4.6	0.0
Fy_f	-35.1	**0.0**	-0.8	0.0	-4.6	0.0	-35.1	**0.0**	-0.8	0.0	-4.6	0.0
Fz_f	-35.1	0.0	**-0.8**	0.0	-4.6	0.0	-35.1	0.0	**-0.8**	0.0	-4.6	0.0
Mx_f	-35.1	0.0	-0.8	**0.0**	-4.6	0.0	-35.1	0.0	-0.8	**0.0**	-4.6	0.0
My_f	-35.1	0.0	-0.8	0.0	**-4.6**	0.0	-35.1	0.0	-0.8	0.0	**-4.6**	0.0
Mz_f	-35.1	0.0	-0.8	0.0	-4.6	**0.0**	-35.1	0.0	-0.8	0.0	-4.6	**0.0**

Member 394

Fx_i	**-35.2**	0.0	-0.8	0.0	8.4	0.0	**-35.2**	0.0	-0.8	0.0	8.4	0.0
Fy_i	-35.2	**0.0**	-0.8	0.0	8.4	0.0	-35.2	**0.0**	-0.8	0.0	8.4	0.0
Fz_i	-35.2	0.0	**-0.8**	0.0	8.4	0.0	-35.2	0.0	**-0.8**	0.0	8.4	0.0
Mx_i	-35.2	0.0	-0.8	**0.0**	8.4	0.0	-35.2	0.0	-0.8	**0.0**	8.4	0.0
My_i	-35.2	0.0	-0.8	0.0	**8.4**	0.0	-35.2	0.0	-0.8	0.0	**8.4**	0.0
Mz_i	-35.2	0.0	-0.8	0.0	8.4	**0.0**	-35.2	0.0	-0.8	0.0	8.4	**0.0**
Fx_f	**-35.2**	0.0	-0.8	0.0	-4.7	0.0	**-35.2**	0.0	-0.8	0.0	-4.7	0.0
Fy_f	-35.2	**0.0**	-0.8	0.0	-4.7	0.0	-35.2	**0.0**	-0.8	0.0	-4.7	0.0
Fz_f	-35.2	0.0	**-0.8**	0.0	-4.7	0.0	-35.2	0.0	**-0.8**	0.0	-4.7	0.0
Mx_f	-35.2	0.0	-0.8	**0.0**	-4.7	0.0	-35.2	0.0	-0.8	**0.0**	-4.7	0.0
My_f	-35.2	0.0	-0.8	0.0	**-4.7**	0.0	-35.2	0.0	-0.8	0.0	**-4.7**	0.0
Mz_f	-35.2	0.0	-0.8	0.0	-4.7	**0.0**	-35.2	0.0	-0.8	0.0	-4.7	**0.0**

Member 395

Fx_i	**-35.1**	0.0	-0.8	0.0	8.4	0.0	**-35.1**	0.0	-0.8	0.0	8.4	0.0
Fy_i	-35.1	**0.0**	-0.8	0.0	8.4	0.0	-35.1	**0.0**	-0.8	0.0	8.4	0.0
Fz_i	-35.1	0.0	**-0.8**	0.0	8.4	0.0	-35.1	0.0	**-0.8**	0.0	8.4	0.0
Mx_i	-35.1	0.0	-0.8	**0.0**	8.4	0.0	-35.1	0.0	-0.8	**0.0**	8.4	0.0
My_i	-35.1	0.0	-0.8	0.0	**8.4**	0.0	-35.1	0.0	-0.8	0.0	**8.4**	0.0
Mz_i	-35.1	0.0	-0.8	0.0	8.4	**0.0**	-35.1	0.0	-0.8	0.0	8.4	**0.0**
Fx_f	**-35.1**	0.0	-0.8	0.0	-4.7	0.0	**-35.1**	0.0	-0.8	0.0	-4.7	0.0
Fy_f	-35.1	**0.0**	-0.8	0.0	-4.7	0.0	-35.1	**0.0**	-0.8	0.0	-4.7	0.0
Fz_f	-35.1	0.0	**-0.8**	0.0	-4.7	0.0	-35.1	0.0	**-0.8**	0.0	-4.7	0.0
Mx_f	-35.1	0.0	-0.8	**0.0**	-4.7	0.0	-35.1	0.0	-0.8	**0.0**	-4.7	0.0
My_f	-35.1	0.0	-0.8	0.0	**-4.7**	0.0	-35.1	0.0	-0.8	0.0	**-4.7**	0.0
Mz_f	-35.1	0.0	-0.8	0.0	-4.7	**0.0**	-35.1	0.0	-0.8	0.0	-4.7	**0.0**

Member 396

Fx_i	**-35.4**	0.0	-0.8	0.0	8.3	0.0	**-35.4**	0.0	-0.8	0.0	8.3	0.0
Fy_i	-35.4	**0.0**	-0.8	0.0	8.3	0.0	-35.4	**0.0**	-0.8	0.0	8.3	0.0
Fz_i	-35.4	0.0	**-0.8**	0.0	8.3	0.0	-35.4	0.0	**-0.8**	0.0	8.3	0.0
Mx_i	-35.4	0.0	-0.8	**0.0**	8.3	0.0	-35.4	0.0	-0.8	**0.0**	8.3	0.0
My_i	-35.4	0.0	-0.8	0.0	**8.3**	0.0	-35.4	0.0	-0.8	0.0	**8.3**	0.0
Mz_i	-35.4	0.0	-0.8	0.0	8.3	**0.0**	-35.4	0.0	-0.8	0.0	8.3	**0.0**
Fx_f	**-35.4**	0.0	-0.8	0.0	-4.6	0.0	**-35.4**	0.0	-0.8	0.0	-4.6	0.0
Fy_f	-35.4	**0.0**	-0.8	0.0	-4.6	0.0	-35.4	**0.0**	-0.8	0.0	-4.6	0.0
Fz_f	-35.4	0.0	**-0.8**	0.0	-4.6	0.0	-35.4	0.0	**-0.8**	0.0	-4.6	0.0
Mx_f	-35.4	0.0	-0.8	**0.0**	-4.6	0.0	-35.4	0.0	-0.8	**0.0**	-4.6	0.0
My_f	-35.4	0.0	-0.8	0.0	**-4.6**	0.0	-35.4	0.0	-0.8	0.0	**-4.6**	0.0
Mz_f	-35.4	0.0	-0.8	0.0	-4.6	**0.0**	-35.4	0.0	-0.8	0.0	-4.6	**0.0**

Member 397

Fx_i	**-32.3**	0.0	-1.0	0.0	7.1	0.0	**-32.3**	0.0	-1.0	0.0	7.1	0.0
Fy_i	-32.3	**0.0**	-1.0	0.0	7.1	0.0	-32.3	**0.0**	-1.0	0.0	7.1	0.0
Fz_i	-32.3	0.0	**-1.0**	0.0	7.1	0.0	-32.3	0.0	**-1.0**	0.0	7.1	0.0
Mx_i	-32.3	0.0	-1.0	**0.0**	7.1	0.0	-32.3	0.0	-1.0	**0.0**	7.1	0.0
My_i	-32.3	0.0	-1.0	0.0	**7.1**	0.0	-32.3	0.0	-1.0	0.0	**7.1**	0.0
Mz_i	-32.3	0.0	-1.0	0.0	7.1	**0.0**	-32.3	0.0	-1.0	0.0	7.1	**0.0**
Fx_f	**-32.3**	0.0	-1.0	0.0	-4.0	0.0	**-32.3**	0.0	-1.0	0.0	-4.0	0.0
Fy_f	-32.3	**0.0**	-1.0	0.0	-4.0	0.0	-32.3	**0.0**	-1.0	0.0	-4.0	0.0
Fz_f	-32.3	0.0	**-1.0**	0.0	-4.0	0.0	-32.3	0.0	**-1.0**	0.0	-4.0	0.0
Mx_f	-32.3	0.0	-1.0	**0.0**	-4.0	0.0	-32.3	0.0	-1.0	**0.0**	-4.0	0.0
My_f	-32.3	0.0	-1.0	0.0	**-4.0**	0.0	-32.3	0.0	-1.0	0.0	**-4.0**	0.0
Mz_f	-32.3	0.0	-1.0	0.0	-4.0	**0.0**	-32.3	0.0	-1.0	0.0	-4.0	**0.0**

Member 398

Fx_i	**-32.2**	0.0	0.8	0.0	-7.2	0.0	**-32.2**	0.0	0.8	0.0	-7.2	0.0
Fy_i	-32.2	**0.0**	0.8	0.0	-7.2	0.0	-32.2	**0.0**	0.8	0.0	-7.2	0.0
Fz_i	-32.2	0.0	**0.8**	0.0	-7.2	0.0	-32.2	0.0	**0.8**	0.0	-7.2	0.0
Mx_i	-32.2	0.0	0.8	**0.0**	-7.2	0.0	-32.2	0.0	0.8	**0.0**	-7.2	0.0
My_i	-32.2	0.0	0.8	0.0	**-7.2**	0.0	-32.2	0.0	0.8	0.0	**-7.2**	0.0

Mz_i	-32.2	0.0	0.8	0.0	-7.2	**0.0**	-32.2	0.0	0.8	0.0	-7.2	**0.0**
Fx_f	**-32.2**	0.0	0.8	**0.0**	4.1	0.0	**-32.2**	0.0	0.8	0.0	4.1	0.0
Fy_f	-32.2	**0.0**	0.8	0.0	4.1	0.0	-32.2	**0.0**	0.8	0.0	4.1	0.0
Fz_f	-32.2	0.0	**0.8**	0.0	4.1	0.0	-32.2	0.0	**0.8**	0.0	4.1	0.0
Mx_f	-32.2	0.0	0.8	**0.0**	4.1	0.0	-32.2	0.0	0.8	**0.0**	4.1	0.0
My_f	-32.2	0.0	0.8	0.0	**4.1**	0.0	-32.2	0.0	0.8	0.0	**4.1**	0.0
Mz_f	-32.2	0.0	0.8	0.0	4.1	**0.0**	-32.2	0.0	0.8	0.0	4.1	**0.0**

Member 399

Fx_i	**-35.4**	0.0	1.0	0.0	-8.1	0.0	**-35.4**	0.0	1.0	0.0	-8.1	0.0
Fy_i	-35.4	**0.0**	1.0	0.0	-8.1	0.0	-35.4	**0.0**	1.0	0.0	-8.1	0.0
Fz_i	-35.4	0.0	**1.0**	0.0	-8.1	0.0	-35.4	0.0	**1.0**	0.0	-8.1	0.0
Mx_i	-35.4	0.0	1.0	**0.0**	-8.1	0.0	-35.4	0.0	1.0	**0.0**	-8.1	0.0
My_i	-35.4	0.0	1.0	0.0	**-8.1**	0.0	-35.4	0.0	1.0	0.0	**-8.1**	0.0
Mz_i	-35.4	0.0	1.0	0.0	-8.1	**0.0**	-35.4	0.0	1.0	0.0	-8.1	**0.0**
Fx_f	**-35.4**	0.0	1.0	0.0	4.6	0.0	**-35.4**	0.0	1.0	0.0	4.6	0.0
Fy_f	-35.4	**0.0**	1.0	0.0	4.6	0.0	-35.4	**0.0**	1.0	0.0	4.6	0.0
Fz_f	-35.4	0.0	**1.0**	0.0	4.6	0.0	-35.4	0.0	**1.0**	0.0	4.6	0.0
Mx_f	-35.4	0.0	1.0	**0.0**	4.6	0.0	-35.4	0.0	1.0	**0.0**	4.6	0.0
My_f	-35.4	0.0	1.0	0.0	**4.6**	0.0	-35.4	0.0	1.0	0.0	**4.6**	0.0
Mz_f	-35.4	0.0	1.0	0.0	4.6	**0.0**	-35.4	0.0	1.0	0.0	4.6	**0.0**

Member 400

Fx_i	**-35.1**	0.0	0.8	0.0	-8.3	0.0	**-35.1**	0.0	0.8	0.0	-8.3	0.0
Fy_i	-35.1	**0.0**	0.8	0.0	-8.3	0.0	-35.1	**0.0**	0.8	0.0	-8.3	0.0
Fz_i	-35.1	0.0	**0.8**	0.0	-8.3	0.0	-35.1	0.0	**0.8**	0.0	-8.3	0.0
Mx_i	-35.1	0.0	0.8	**0.0**	-8.3	0.0	-35.1	0.0	0.8	**0.0**	-8.3	0.0
My_i	-35.1	0.0	0.8	0.0	**-8.3**	0.0	-35.1	0.0	0.8	0.0	**-8.3**	0.0
Mz_i	-35.1	0.0	0.8	0.0	-8.3	**0.0**	-35.1	0.0	0.8	0.0	-8.3	**0.0**
Fx_f	**-35.1**	0.0	0.8	0.0	4.6	0.0	**-35.1**	0.0	0.8	0.0	4.6	0.0
Fy_f	-35.1	**0.0**	0.8	0.0	4.6	0.0	-35.1	**0.0**	0.8	0.0	4.6	0.0
Fz_f	-35.1	0.0	**0.8**	0.0	4.6	0.0	-35.1	0.0	**0.8**	0.0	4.6	0.0
Mx_f	-35.1	0.0	0.8	**0.0**	4.6	0.0	-35.1	0.0	0.8	**0.0**	4.6	0.0
My_f	-35.1	0.0	0.8	0.0	**4.6**	0.0	-35.1	0.0	0.8	0.0	**4.6**	0.0
Mz_f	-35.1	0.0	0.8	0.0	4.6	**0.0**	-35.1	0.0	0.8	0.0	4.6	**0.0**

Member 401

Fx_i	**-35.2**	0.0	0.8	0.0	-8.4	0.0	**-35.2**	0.0	0.8	0.0	-8.4	0.0
Fy_i	-35.2	**0.0**	0.8	0.0	-8.4	0.0	-35.2	**0.0**	0.8	0.0	-8.4	0.0
Fz_i	-35.2	0.0	**0.8**	0.0	-8.4	0.0	-35.2	0.0	**0.8**	0.0	-8.4	0.0
Mx_i	-35.2	0.0	0.8	**0.0**	-8.4	0.0	-35.2	0.0	0.8	**0.0**	-8.4	0.0
My_i	-35.2	0.0	0.8	0.0	**-8.4**	0.0	-35.2	0.0	0.8	0.0	**-8.4**	0.0
Mz_i	-35.2	0.0	0.8	0.0	-8.4	**0.0**	-35.2	0.0	0.8	0.0	-8.4	**0.0**
Fx_f	**-35.2**	0.0	0.8	0.0	4.7	0.0	**-35.2**	0.0	0.8	0.0	4.7	0.0
Fy_f	-35.2	**0.0**	0.8	0.0	4.7	0.0	-35.2	**0.0**	0.8	0.0	4.7	0.0
Fz_f	-35.2	0.0	**0.8**	0.0	4.7	0.0	-35.2	0.0	**0.8**	0.0	4.7	0.0
Mx_f	-35.2	0.0	0.8	**0.0**	4.7	0.0	-35.2	0.0	0.8	**0.0**	4.7	0.0
My_f	-35.2	0.0	0.8	0.0	**4.7**	0.0	-35.2	0.0	0.8	0.0	**4.7**	0.0
Mz_f	-35.2	0.0	0.8	0.0	4.7	**0.0**	-35.2	0.0	0.8	0.0	4.7	**0.0**

Member 402

Fx_i	**-35.1**	0.0	0.8	0.0	-8.4	0.0	**-35.1**	0.0	0.8	0.0	-8.4	0.0
Fy_i	-35.1	**0.0**	0.8	0.0	-8.4	0.0	-35.1	**0.0**	0.8	0.0	-8.4	0.0
Fz_i	-35.1	0.0	**0.8**	0.0	-8.4	0.0	-35.1	0.0	**0.8**	0.0	-8.4	0.0
Mx_i	-35.1	0.0	0.8	**0.0**	-8.4	0.0	-35.1	0.0	0.8	**0.0**	-8.4	0.0
My_i	-35.1	0.0	0.8	0.0	**-8.4**	0.0	-35.1	0.0	0.8	0.0	**-8.4**	0.0
Mz_i	-35.1	0.0	0.8	0.0	-8.4	**0.0**	-35.1	0.0	0.8	0.0	-8.4	**0.0**
Fx_f	**-35.1**	0.0	0.8	0.0	4.7	0.0	**-35.1**	0.0	0.8	0.0	4.7	0.0
Fy_f	-35.1	**0.0**	0.8	0.0	4.7	0.0	-35.1	**0.0**	0.8	0.0	4.7	0.0
Fz_f	-35.1	0.0	**0.8**	0.0	4.7	0.0	-35.1	0.0	**0.8**	0.0	4.7	0.0
Mx_f	-35.1	0.0	0.8	**0.0**	4.7	0.0	-35.1	0.0	0.8	**0.0**	4.7	0.0
My_f	-35.1	0.0	0.8	0.0	**4.7**	0.0	-35.1	0.0	0.8	0.0	**4.7**	0.0
Mz_f	-35.1	0.0	0.8	0.0	4.7	**0.0**	-35.1	0.0	0.8	0.0	4.7	**0.0**

Member 403

Fx_i	**-35.4**	0.0	0.8	0.0	-8.3	0.0	**-35.4**	0.0	0.8	0.0	-8.3	0.0
Fy_i	-35.4	**0.0**	0.8	0.0	-8.3	0.0	-35.4	**0.0**	0.8	0.0	-8.3	0.0
Fz_i	-35.4	0.0	**0.8**	0.0	-8.3	0.0	-35.4	0.0	**0.8**	0.0	-8.3	0.0
Mx_i	-35.4	0.0	0.8	**0.0**	-8.3	0.0	-35.4	0.0	0.8	**0.0**	-8.3	0.0
My_i	-35.4	0.0	0.8	0.0	**-8.3**	0.0	-35.4	0.0	0.8	0.0	**-8.3**	0.0
Mz_i	-35.4	0.0	0.8	0.0	-8.3	**0.0**	-35.4	0.0	0.8	0.0	-8.3	**0.0**
Fx_f	**-35.4**	0.0	0.8	0.0	4.6	0.0	**-35.4**	0.0	0.8	0.0	4.6	0.0
Fy_f	-35.4	**0.0**	0.8	0.0	4.6	0.0	-35.4	**0.0**	0.8	0.0	4.6	0.0
Fz_f	-35.4	0.0	**0.8**	0.0	4.6	0.0	-35.4	0.0	**0.8**	0.0	4.6	0.0
Mx_f	-35.4	0.0	0.8	**0.0**	4.6	0.0	-35.4	0.0	0.8	**0.0**	4.6	0.0
My_f	-35.4	0.0	0.8	0.0	**4.6**	0.0	-35.4	0.0	0.8	0.0	**4.6**	0.0
Mz_f	-35.4	0.0	0.8	0.0	4.6	**0.0**	-35.4	0.0	0.8	0.0	4.6	**0.0**

Member 404

Fx_i	**-32.3**	0.0	1.0	0.0	-7.1	0.0	**-32.3**	0.0	1.0	0.0	-7.1	0.0
Fy_i	-32.3	**0.0**	1.0	0.0	-7.1	0.0	-32.3	**0.0**	1.0	0.0	-7.1	0.0
Fz_i	-32.3	0.0	**1.0**	0.0	-7.1	0.0	-32.3	0.0	**1.0**	0.0	-7.1	0.0
Mx_i	-32.3	0.0	1.0	**0.0**	-7.1	0.0	-32.3	0.0	1.0	**0.0**	-7.1	0.0
My_i	-32.3	0.0	1.0	0.0	**-7.1**	0.0	-32.3	0.0	1.0	0.0	**-7.1**	0.0
Mz_i	-32.3	0.0	1.0	0.0	-7.1	**0.0**	-32.3	0.0	1.0	0.0	-7.1	**0.0**
Fx_f	**-32.3**	0.0	1.0	0.0	4.0	0.0	**-32.3**	0.0	1.0	0.0	4.0	0.0
Fy_f	-32.3	**0.0**	1.0	0.0	4.0	0.0	-32.3	**0.0**	1.0	0.0	4.0	0.0
Fz_f	-32.3	0.0	**1.0**	0.0	4.0	0.0	-32.3	0.0	**1.0**	0.0	4.0	0.0
Mx_f	-32.3	0.0	1.0	**0.0**	4.0	0.0	-32.3	0.0	1.0	**0.0**	4.0	0.0
My_f	-32.3	0.0	1.0	0.0	**4.0**	0.0	-32.3	0.0	1.0	0.0	**4.0**	0.0
Mz_f	-32.3	0.0	1.0	0.0	4.0	**0.0**	-32.3	0.0	1.0	0.0	4.0	**0.0**

Member 421

Fx_i	**-64.5**	0.0	0.0	0.0	-0.0	0.0	**-64.5**	0.0	0.0	0.0	-0.0	0.0
Fy_i	-64.5	**0.0**	0.0	0.0	-0.0	0.0	-64.5	**0.0**	0.0	0.0	-0.0	0.0
Fz_i	-64.5	0.0	**0.0**	0.0	-0.0	0.0	-64.5	0.0	**0.0**	0.0	-0.0	0.0
Mx_i	-64.5	0.0	0.0	**0.0**	-0.0	0.0	-64.5	0.0	0.0	**0.0**	-0.0	0.0
My_i	-64.5	0.0	0.0	0.0	**-0.0**	0.0	-64.5	0.0	0.0	0.0	**-0.0**	0.0
Mz_i	-64.5	0.0	0.0	0.0	-0.0	**0.0**	-64.5	0.0	0.0	0.0	-0.0	**0.0**
Fx_f	**-64.5**	0.0	0.0	0.0	-0.0	0.0	**-64.5**	0.0	0.0	0.0	-0.0	0.0
Fy_f	-64.5	**0.0**	0.0	0.0	-0.0	0.0	-64.5	**0.0**	0.0	0.0	-0.0	0.0
Fz_f	-64.5	0.0	**0.0**	0.0	-0.0	0.0	-64.5	0.0	**0.0**	0.0	-0.0	0.0
Mx_f	-64.5	0.0	0.0	**0.0**	-0.0	0.0	-64.5	0.0	0.0	**0.0**	-0.0	0.0
My_f	-64.5	0.0	0.0	0.0	**-0.0**	0.0	-64.5	0.0	0.0	0.0	**-0.0**	0.0
Mz_f	-64.5	0.0	0.0	0.0	-0.0	**0.0**	-64.5	0.0	0.0	0.0	-0.0	**0.0**

Member 422

Fx_i	**-70.8**	0.0	0.0	0.0	-0.0	0.0	**-70.8**	0.0	0.0	0.0	-0.0	0.0
Fy_i	-70.8	**0.0**	0.0	0.0	-0.0	0.0	-70.8	**0.0**	0.0	0.0	-0.0	0.0
Fz_i	-70.8	0.0	**0.0**	0.0	-0.0	0.0	-70.8	0.0	**0.0**	0.0	-0.0	0.0
Mx_i	-70.8	0.0	0.0	**0.0**	-0.0	0.0	-70.8	0.0	0.0	**0.0**	-0.0	0.0
My_i	-70.8	0.0	0.0	0.0	**-0.0**	0.0	-70.8	0.0	0.0	0.0	**-0.0**	0.0
Mz_i	-70.8	0.0	0.0	0.0	-0.0	**0.0**	-70.8	0.0	0.0	0.0	-0.0	**0.0**
Fx_f	**-70.8**	0.0	0.0	0.0	-0.0	0.0	**-70.8**	0.0	0.0	0.0	-0.0	0.0
Fy_f	-70.8	**0.0**	0.0	0.0	-0.0	0.0	-70.8	**0.0**	0.0	0.0	-0.0	0.0
Fz_f	-70.8	0.0	**0.0**	0.0	-0.0	0.0	-70.8	0.0	**0.0**	0.0	-0.0	0.0
Mx_f	-70.8	0.0	0.0	**0.0**	-0.0	0.0	-70.8	0.0	0.0	**0.0**	-0.0	0.0
My_f	-70.8	0.0	0.0	0.0	**-0.0**	0.0	-70.8	0.0	0.0	0.0	**-0.0**	0.0
Mz_f	-70.8	0.0	0.0	0.0	-0.0	**0.0**	-70.8	0.0	0.0	0.0	-0.0	**0.0**

Member 423

Fx_i	**-70.2**	0.0	-0.0	0.0	-0.0	0.0	**-70.2**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	-70.2	**0.0**	-0.0	0.0	-0.0	0.0	-70.2	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	-70.2	0.0	**-0.0**	0.0	-0.0	0.0	-70.2	0.0	**-0.0**	0.0	-0.0	0.0
Mx_i	-70.2	0.0	-0.0	**0.0**	-0.0	0.0	-70.2	0.0	-0.0	**0.0**	-0.0	0.0
My_i	-70.2	0.0	-0.0	0.0	**-0.0**	0.0	-70.2	0.0	-0.0	0.0	**-0.0**	0.0
Mz_i	-70.2	0.0	-0.0	0.0	-0.0	**0.0**	-70.2	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-70.2**	0.0	-0.0	0.0	-0.0	0.0	**-70.2**	0.0	-0.0	0.0	-0.0	0.0
Fy_f	-70.2	**0.0**	-0.0	0.0	-0.0	0.0	-70.2	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	-70.2	0.0	**-0.0**	0.0	-0.0	0.0	-70.2	0.0	**-0.0**	0.0	-0.0	0.0
Mx_f	-70.2	0.0	-0.0	**0.0**	-0.0	0.0	-70.2	0.0	-0.0	**0.0**	-0.0	0.0

My_r	-70.2	0.0	-0.0	0.0	**-0.0**	0.0	-70.2	0.0	-0.0	0.0	**-0.0**	0.0
Mz_r	-70.2	0.0	-0.0	0.0	-0.0	**0.0**	-70.2	0.0	-0.0	0.0	-0.0	**0.0**

Member 424

Fx_i	**-70.4**	0.0	0.0	0.0	-0.0	0.0	**-70.4**	0.0	0.0	0.0	-0.0	0.0
Fy_i	-70.4	**0.0**	0.0	0.0	-0.0	0.0	-70.4	**0.0**	0.0	0.0	-0.0	0.0
Fz_i	-70.4	0.0	**0.0**	0.0	-0.0	0.0	-70.4	0.0	**0.0**	0.0	-0.0	0.0
Mx_i	-70.4	0.0	0.0	**0.0**	-0.0	0.0	-70.4	0.0	0.0	**0.0**	-0.0	0.0
My_i	-70.4	0.0	0.0	0.0	**-0.0**	0.0	-70.4	0.0	0.0	0.0	**-0.0**	0.0
Mz_i	-70.4	0.0	0.0	0.0	-0.0	**0.0**	-70.4	0.0	0.0	0.0	-0.0	**0.0**
Fx_f	**-70.4**	0.0	0.0	0.0	-0.0	0.0	**-70.4**	0.0	0.0	0.0	-0.0	0.0
Fy_f	-70.4	**0.0**	0.0	0.0	-0.0	0.0	-70.4	**0.0**	0.0	0.0	-0.0	0.0
Fz_f	-70.4	0.0	**0.0**	0.0	-0.0	0.0	-70.4	0.0	**0.0**	0.0	-0.0	0.0
Mx_f	-70.4	0.0	0.0	**0.0**	-0.0	0.0	-70.4	0.0	0.0	**0.0**	-0.0	0.0
My_f	-70.4	0.0	0.0	0.0	**-0.0**	0.0	-70.4	0.0	0.0	0.0	**-0.0**	0.0
Mz_f	-70.4	0.0	0.0	0.0	-0.0	**0.0**	-70.4	0.0	0.0	0.0	-0.0	**0.0**

Member 425

Fx_i	**-70.2**	0.0	0.0	0.0	-0.0	0.0	**-70.2**	0.0	0.0	0.0	-0.0	0.0
Fy_i	-70.2	**0.0**	0.0	0.0	-0.0	0.0	-70.2	**0.0**	0.0	0.0	-0.0	0.0
Fz_i	-70.2	0.0	**0.0**	0.0	-0.0	0.0	-70.2	0.0	**0.0**	0.0	-0.0	0.0
Mx_i	-70.2	0.0	0.0	**0.0**	-0.0	0.0	-70.2	0.0	0.0	**0.0**	-0.0	0.0
My_i	-70.2	0.0	0.0	0.0	**-0.0**	0.0	-70.2	0.0	0.0	0.0	**-0.0**	0.0
Mz_i	-70.2	0.0	0.0	0.0	-0.0	**0.0**	-70.2	0.0	0.0	0.0	-0.0	**0.0**
Fx_f	**-70.2**	0.0	0.0	0.0	-0.0	0.0	**-70.2**	0.0	0.0	0.0	-0.0	0.0
Fy_f	-70.2	**0.0**	0.0	0.0	-0.0	0.0	-70.2	**0.0**	0.0	0.0	-0.0	0.0
Fz_f	-70.2	0.0	**0.0**	0.0	-0.0	0.0	-70.2	0.0	**0.0**	0.0	-0.0	0.0
Mx_f	-70.2	0.0	0.0	**0.0**	-0.0	0.0	-70.2	0.0	0.0	**0.0**	-0.0	0.0
My_f	-70.2	0.0	0.0	0.0	**-0.0**	0.0	-70.2	0.0	0.0	0.0	**-0.0**	0.0
Mz_f	-70.2	0.0	0.0	0.0	-0.0	**0.0**	-70.2	0.0	0.0	0.0	-0.0	**0.0**

Member 426

Fx_i	**-70.8**	0.0	-0.0	0.0	0.0	0.0	**-70.8**	0.0	-0.0	0.0	0.0	0.0
Fy_i	-70.8	**0.0**	-0.0	0.0	0.0	0.0	-70.8	**0.0**	-0.0	0.0	0.0	0.0
Fz_i	-70.8	0.0	**-0.0**	0.0	0.0	0.0	-70.8	0.0	**-0.0**	0.0	0.0	0.0
Mx_i	-70.8	0.0	-0.0	**0.0**	0.0	0.0	-70.8	0.0	-0.0	**0.0**	0.0	0.0
My_i	-70.8	0.0	-0.0	0.0	**0.0**	0.0	-70.8	0.0	-0.0	0.0	**0.0**	0.0
Mz_i	-70.8	0.0	-0.0	0.0	0.0	**0.0**	-70.8	0.0	-0.0	0.0	0.0	**0.0**
Fx_f	**-70.8**	0.0	-0.0	0.0	0.0	0.0	**-70.8**	0.0	-0.0	0.0	0.0	0.0
Fy_f	-70.8	**0.0**	-0.0	0.0	0.0	0.0	-70.8	**0.0**	-0.0	0.0	0.0	0.0
Fz_f	-70.8	0.0	**-0.0**	0.0	0.0	0.0	-70.8	0.0	**-0.0**	0.0	0.0	0.0
Mx_f	-70.8	0.0	-0.0	**0.0**	0.0	0.0	-70.8	0.0	-0.0	**0.0**	0.0	0.0
My_f	-70.8	0.0	-0.0	0.0	**0.0**	0.0	-70.8	0.0	-0.0	0.0	**0.0**	0.0
Mz_f	-70.8	0.0	-0.0	0.0	0.0	**0.0**	-70.8	0.0	-0.0	0.0	0.0	**0.0**

Member 427

Fx_i	**-64.5**	0.0	-0.0	0.0	0.0	0.0	**-64.5**	0.0	-0.0	0.0	0.0	0.0
Fy_i	-64.5	**0.0**	-0.0	0.0	0.0	0.0	-64.5	**0.0**	-0.0	0.0	0.0	0.0
Fz_i	-64.5	0.0	**-0.0**	0.0	0.0	0.0	-64.5	0.0	**-0.0**	0.0	0.0	0.0
Mx_i	-64.5	0.0	-0.0	**0.0**	0.0	0.0	-64.5	0.0	-0.0	**0.0**	0.0	0.0
My_i	-64.5	0.0	-0.0	0.0	**0.0**	0.0	-64.5	0.0	-0.0	0.0	**0.0**	0.0
Mz_i	-64.5	0.0	-0.0	0.0	0.0	**0.0**	-64.5	0.0	-0.0	0.0	0.0	**0.0**
Fx_f	**-64.5**	0.0	-0.0	0.0	0.0	0.0	**-64.5**	0.0	-0.0	0.0	0.0	0.0
Fy_f	-64.5	**0.0**	-0.0	0.0	0.0	0.0	-64.5	**0.0**	-0.0	0.0	0.0	0.0
Fz_f	-64.5	0.0	**-0.0**	0.0	0.0	0.0	-64.5	0.0	**-0.0**	0.0	0.0	0.0
Mx_f	-64.5	0.0	-0.0	**0.0**	0.0	0.0	-64.5	0.0	-0.0	**0.0**	0.0	0.0
My_f	-64.5	0.0	-0.0	0.0	**0.0**	0.0	-64.5	0.0	-0.0	0.0	**0.0**	0.0
Mz_f	-64.5	0.0	-0.0	0.0	0.0	**0.0**	-64.5	0.0	-0.0	0.0	0.0	**0.0**

*** Fin del listado ***

hip balasto

Program Envolvator (release 1.3 - Jun 1998)
Calculation date: 24-mar-1999 19:32 h. Listing date: 13-abr-1999 11:46 h.
Members: 419
Joints: 353
Envelope generated from:

Name	min	max
balasto	1.00	1.00

	Fx	Fy	Fz	Mx	My	Mz	Fx	Fy	Fz	Mx	My	Mz

Member 1

Fx_i	**-0.3**	-37.2	0.6	-21.4	-1.4	-2.9	**-0.3**	-37.2	0.6	-21.4	-1.4	-2.9
Fy_i	-0.3	**-37.2**	0.6	-21.4	-1.4	-2.9	-0.3	**-37.2**	0.6	-21.4	-1.4	-2.9
Fz_i	-0.3	-37.2	**0.6**	-21.4	-1.4	-2.9	-0.3	-37.2	**0.6**	-21.4	-1.4	-2.9
Mx_i	-0.3	-37.2	0.6	**-21.4**	-1.4	-2.9	-0.3	-37.2	0.6	**-21.4**	-1.4	-2.9
My_i	-0.3	-37.2	0.6	-21.4	**-1.4**	-2.9	-0.3	-37.2	0.6	-21.4	**-1.4**	-2.9
Mz_i	-0.3	-37.2	0.6	-21.4	-1.4	**-2.9**	-0.3	-37.2	0.6	-21.4	-1.4	**-2.9**
Fx_f	**-0.3**	-19.4	0.6	-13.9	0.8	100.8	**-0.3**	-19.4	0.6	-13.9	0.8	100.8
Fy_f	-0.3	**-19.4**	0.6	-13.9	0.8	100.8	-0.3	**-19.4**	0.6	-13.9	0.8	100.8
Fz_f	-0.3	-19.4	**0.6**	-13.9	0.8	100.8	-0.3	-19.4	**0.6**	-13.9	0.8	100.8
Mx_f	-0.3	-19.4	0.6	**-13.9**	0.8	100.8	-0.3	-19.4	0.6	**-13.9**	0.8	100.8
My_f	-0.3	-19.4	0.6	-13.9	**0.8**	100.8	-0.3	-19.4	0.6	-13.9	**0.8**	100.8
Mz_f	-0.3	-19.4	0.6	-13.9	0.8	**100.8**	-0.3	-19.4	0.6	-13.9	0.8	**100.8**

Member 2

Fx_i	**-0.3**	-19.4	0.2	-14.5	-0.4	100.8	**-0.3**	-19.4	0.2	-14.5	-0.4	100.8
Fy_i	-0.3	**-19.4**	0.2	-14.5	-0.4	100.8	-0.3	**-19.4**	0.2	-14.5	-0.4	100.8
Fz_i	-0.3	-19.4	**0.2**	-14.5	-0.4	100.8	-0.3	-19.4	**0.2**	-14.5	-0.4	100.8
Mx_i	-0.3	-19.4	0.2	**-14.5**	-0.4	100.8	-0.3	-19.4	0.2	**-14.5**	-0.4	100.8
My_i	-0.3	-19.4	0.2	-14.5	**-0.4**	100.8	-0.3	-19.4	0.2	-14.5	**-0.4**	100.8
Mz_i	-0.3	-19.4	0.2	-14.5	-0.4	**100.8**	-0.3	-19.4	0.2	-14.5	-0.4	**100.8**
Fx_f	**-0.3**	-1.6	0.2	-7.0	0.4	139.3	**-0.3**	-1.6	0.2	-7.0	0.4	139.3
Fy_f	-0.3	**-1.6**	0.2	-7.0	0.4	139.3	-0.3	**-1.6**	0.2	-7.0	0.4	139.3
Fz_f	-0.3	-1.6	**0.2**	-7.0	0.4	139.3	-0.3	-1.6	**0.2**	-7.0	0.4	139.3
Mx_f	-0.3	-1.6	0.2	**-7.0**	0.4	139.3	-0.3	-1.6	0.2	**-7.0**	0.4	139.3
My_f	-0.3	-1.6	0.2	-7.0	**0.4**	139.3	-0.3	-1.6	0.2	-7.0	**0.4**	139.3
Mz_f	-0.3	-1.6	0.2	-7.0	0.4	**139.3**	-0.3	-1.6	0.2	-7.0	0.4	**139.3**

Member 3

Fx_i	**-0.3**	-1.6	0.0	-7.8	-0.0	139.3	**-0.3**	-1.6	0.0	-7.8	-0.0	139.3
Fy_i	-0.3	**-1.6**	0.0	-7.8	-0.0	139.3	-0.3	**-1.6**	0.0	-7.8	-0.0	139.3
Fz_i	-0.3	-1.6	**0.0**	-7.8	-0.0	139.3	-0.3	-1.6	**0.0**	-7.8	-0.0	139.3
Mx_i	-0.3	-1.6	0.0	**-7.8**	-0.0	139.3	-0.3	-1.6	0.0	**-7.8**	-0.0	139.3
My_i	-0.3	-1.6	0.0	-7.8	**-0.0**	139.3	-0.3	-1.6	0.0	-7.8	**-0.0**	139.3
Mz_i	-0.3	-1.6	0.0	-7.8	-0.0	**139.3**	-0.3	-1.6	0.0	-7.8	-0.0	**139.3**
Fx_f	**-0.3**	16.1	0.0	-0.3	0.0	112.7	**-0.3**	16.1	0.0	-0.3	0.0	112.7
Fy_f	-0.3	**16.1**	0.0	-0.3	0.0	112.7	-0.3	**16.1**	0.0	-0.3	0.0	112.7
Fz_f	-0.3	16.1	**0.0**	-0.3	0.0	112.7	-0.3	16.1	**0.0**	-0.3	0.0	112.7
Mx_f	-0.3	16.1	0.0	**-0.3**	0.0	112.7	-0.3	16.1	0.0	**-0.3**	0.0	112.7
My_f	-0.3	16.1	0.0	-0.3	**0.0**	112.7	-0.3	16.1	0.0	-0.3	**0.0**	112.7
Mz_f	-0.3	16.1	0.0	-0.3	0.0	**112.7**	-0.3	16.1	0.0	-0.3	0.0	**112.7**

Member 4

Fx_i	**-0.3**	16.1	-0.2	-1.3	0.3	112.7	**-0.3**	16.1	-0.2	-1.3	0.3	112.7
Fy_i	-0.3	**16.1**	-0.2	-1.3	0.3	112.7	-0.3	**16.1**	-0.2	-1.3	0.3	112.7
Fz_i	-0.3	16.1	**-0.2**	-1.3	0.3	112.7	-0.3	16.1	**-0.2**	-1.3	0.3	112.7
Mx_i	-0.3	16.1	-0.2	**-1.3**	0.3	112.7	-0.3	16.1	-0.2	**-1.3**	0.3	112.7
My_i	-0.3	16.1	-0.2	-1.3	**0.3**	112.7	-0.3	16.1	-0.2	-1.3	**0.3**	112.7
Mz_i	-0.3	16.1	-0.2	-1.3	0.3	**112.7**	-0.3	16.1	-0.2	-1.3	0.3	**112.7**
Fx_f	**-0.3**	33.9	-0.2	6.2	-0.3	20.9	**-0.3**	33.9	-0.2	6.2	-0.3	20.9
Fy_f	-0.3	**33.9**	-0.2	6.2	-0.3	20.9	-0.3	**33.9**	-0.2	6.2	-0.3	20.9
Fz_f	-0.3	33.9	**-0.2**	6.2	-0.3	20.9	-0.3	33.9	**-0.2**	6.2	-0.3	20.9
Mx_f	-0.3	33.9	-0.2	**6.2**	-0.3	20.9	-0.3	33.9	-0.2	**6.2**	-0.3	20.9

My,	-0.3	33.9	-0.2	6.2	**-0.3**	20.9	-0.3	33.9	-0.2	6.2	-0.3	20.9
Mz,	-0.3	33.9	-0.2	6.2	-0.3	**20.9**	-0.3	33.9	-0.2	6.2	-0.3	**20.9**

Member 5

Fx,	**-0.3**	33.9	-0.6	5.3	1.0	20.9	**-0.3**	33.9	-0.6	5.3	1.0	20.9
Fy,	-0.3	**33.9**	-0.6	5.3	1.0	20.9	-0.3	**33.9**	-0.6	5.3	1.0	20.9
Fz,	-0.3	33.9	**-0.6**	5.3	1.0	20.9	-0.3	33.9	**-0.6**	5.3	1.0	20.9
Mx,	-0.3	33.9	-0.6	**5.3**	1.0	20.9	-0.3	33.9	-0.6	**5.3**	1.0	20.9
My,	-0.3	33.9	-0.6	5.3	**1.0**	20.9	-0.3	33.9	-0.6	5.3	**1.0**	20.9
Mz,	-0.3	33.9	-0.6	5.3	1.0	**20.9**	-0.3	33.9	-0.6	5.3	1.0	**20.9**
Fx,	**-0.3**	51.7	-0.6	12.8	-1.0	-136.0	**-0.3**	51.7	-0.6	12.8	-1.0	-136.0
Fy,	-0.3	**51.7**	-0.6	12.8	-1.0	-136.0	-0.3	**51.7**	-0.6	12.8	-1.0	-136.0
Fz,	-0.3	51.7	**-0.6**	12.8	-1.0	-136.0	-0.3	51.7	**-0.6**	12.8	-1.0	-136.0
Mx,	-0.3	51.7	-0.6	**12.8**	-1.0	-136.0	-0.3	51.7	-0.6	**12.8**	-1.0	-136.0
My,	-0.3	51.7	-0.6	12.8	**-1.0**	-136.0	-0.3	51.7	-0.6	12.8	**-1.0**	-136.0
Mz,	-0.3	51.7	-0.6	12.8	-1.0	**-136.0**	-0.3	51.7	-0.6	12.8	-1.0	**-136.0**

Member 6

Fx,	**-0.3**	51.7	-1.4	12.2	2.6	-136.0	**-0.3**	51.7	-1.4	12.2	2.6	-136.0
Fy,	-0.3	**51.7**	-1.4	12.2	2.6	-136.0	-0.3	**51.7**	-1.4	12.2	2.6	-136.0
Fz,	-0.3	51.7	**-1.4**	12.2	2.6	-136.0	-0.3	51.7	**-1.4**	12.2	2.6	-136.0
Mx,	-0.3	51.7	-1.4	**12.2**	2.6	-136.0	-0.3	51.7	-1.4	**12.2**	2.6	-136.0
My,	-0.3	51.7	-1.4	12.2	**2.6**	-136.0	-0.3	51.7	-1.4	12.2	**2.6**	-136.0
Mz,	-0.3	51.7	-1.4	12.2	2.6	**-136.0**	-0.3	51.7	-1.4	12.2	2.6	**-136.0**
Fx,	**-0.3**	69.4	-1.4	19.7	-2.7	-358.0	**-0.3**	69.4	-1.4	19.7	-2.7	-358.0
Fy,	-0.3	**69.4**	-1.4	19.7	-2.7	-358.0	-0.3	**69.4**	-1.4	19.7	-2.7	-358.0
Fz,	-0.3	69.4	**-1.4**	19.7	-2.7	-358.0	-0.3	69.4	**-1.4**	19.7	-2.7	-358.0
Mx,	-0.3	69.4	-1.4	**19.7**	-2.7	-358.0	-0.3	69.4	-1.4	**19.7**	-2.7	-358.0
My,	-0.3	69.4	-1.4	19.7	**-2.7**	-358.0	-0.3	69.4	-1.4	19.7	**-2.7**	-358.0
Mz,	-0.3	69.4	-1.4	19.7	-2.7	**-358.0**	-0.3	69.4	-1.4	19.7	-2.7	**-358.0**

Member 7

Fx,	**-0.3**	-83.9	1.0	-29.7	-2.3	-358.0	**-0.3**	-83.9	1.0	-29.7	-2.3	-358.0
Fy,	-0.3	**-83.9**	1.0	-29.7	-2.3	-358.0	-0.3	**-83.9**	1.0	-29.7	-2.3	-358.0
Fz,	-0.3	-83.9	**1.0**	-29.7	-2.3	-358.0	-0.3	-83.9	**1.0**	-29.7	-2.3	-358.0
Mx,	-0.3	-83.9	1.0	**-29.7**	-2.3	-358.0	-0.3	-83.9	1.0	**-29.7**	-2.3	-358.0
My,	-0.3	-83.9	1.0	-29.7	**-2.3**	-358.0	-0.3	-83.9	1.0	-29.7	**-2.3**	-358.0
Mz,	-0.3	-83.9	1.0	-29.7	-2.3	**-358.0**	-0.3	-83.9	1.0	-29.7	-2.3	**-358.0**
Fx,	**-0.3**	-62.1	1.0	-20.5	2.2	-29.6	**-0.3**	-62.1	1.0	-20.5	2.2	-29.6
Fy,	-0.3	**-62.1**	1.0	-20.5	2.2	-29.6	-0.3	**-62.1**	1.0	-20.5	2.2	-29.6
Fz,	-0.3	-62.1	**1.0**	-20.5	2.2	-29.6	-0.3	-62.1	**1.0**	-20.5	2.2	-29.6
Mx,	-0.3	-62.1	1.0	**-20.5**	2.2	-29.6	-0.3	-62.1	1.0	**-20.5**	2.2	-29.6
My,	-0.3	-62.1	1.0	-20.5	**2.2**	-29.6	-0.3	-62.1	1.0	-20.5	**2.2**	-29.6
Mz,	-0.3	-62.1	1.0	-20.5	2.2	**-29.6**	-0.3	-62.1	1.0	-20.5	2.2	**-29.6**

Member 8

Fx,	**-0.3**	-62.1	0.3	-21.8	-0.6	-29.6	**-0.3**	-62.1	0.3	-21.8	-0.6	-29.6
Fy,	-0.3	**-62.1**	0.3	-21.8	-0.6	-29.6	-0.3	**-62.1**	0.3	-21.8	-0.6	-29.6
Fz,	-0.3	-62.1	**0.3**	-21.8	-0.6	-29.6	-0.3	-62.1	**0.3**	-21.8	-0.6	-29.6
Mx,	-0.3	-62.1	0.3	**-21.8**	-0.6	-29.6	-0.3	-62.1	0.3	**-21.8**	-0.6	-29.6
My,	-0.3	-62.1	0.3	-21.8	**-0.6**	-29.6	-0.3	-62.1	0.3	-21.8	**-0.6**	-29.6
Mz,	-0.3	-62.1	0.3	-21.8	-0.6	**-29.6**	-0.3	-62.1	0.3	-21.8	-0.6	**-29.6**
Fx,	**-0.3**	-40.3	0.3	-12.6	0.6	200.6	**-0.3**	-40.3	0.3	-12.6	0.6	200.6
Fy,	-0.3	**-40.3**	0.3	-12.6	0.6	200.6	-0.3	**-40.3**	0.3	-12.6	0.6	200.6
Fz,	-0.3	-40.3	**0.3**	-12.6	0.6	200.6	-0.3	-40.3	**0.3**	-12.6	0.6	200.6
Mx,	-0.3	-40.3	0.3	**-12.6**	0.6	200.6	-0.3	-40.3	0.3	**-12.6**	0.6	200.6
My,	-0.3	-40.3	0.3	-12.6	**0.6**	200.6	-0.3	-40.3	0.3	-12.6	**0.6**	200.6
Mz,	-0.3	-40.3	0.3	-12.6	0.6	**200.6**	-0.3	-40.3	0.3	-12.6	0.6	**200.6**

Member 9

Fx,	**-0.3**	-40.3	0.1	-14.6	-0.1	200.6	**-0.3**	-40.3	0.1	-14.6	-0.1	200.6
Fy,	-0.3	**-40.3**	0.1	-14.6	-0.1	200.6	-0.3	**-40.3**	0.1	-14.6	-0.1	200.6
Fz,	-0.3	-40.3	**0.1**	-14.6	-0.1	200.6	-0.3	-40.3	**0.1**	-14.6	-0.1	200.6
Mx,	-0.3	-40.3	0.1	**-14.6**	-0.1	200.6	-0.3	-40.3	0.1	**-14.6**	-0.1	200.6
My,	-0.3	-40.3	0.1	-14.6	**-0.1**	200.6	-0.3	-40.3	0.1	-14.6	**-0.1**	200.6
Mz,	-0.3	-40.3	0.1	-14.6	-0.1	**200.6**	-0.3	-40.3	0.1	-14.6	-0.1	**200.6**
Fx,	**-0.3**	-18.5	0.1	-5.5	0.2	332.8	**-0.3**	-18.5	0.1	-5.5	0.2	332.8
Fy,	-0.3	**-18.5**	0.1	-5.5	0.2	332.8	-0.3	**-18.5**	0.1	-5.5	0.2	332.8
Fz,	-0.3	-18.5	**0.1**	-5.5	0.2	332.8	-0.3	-18.5	**0.1**	-5.5	0.2	332.8
Mx,	-0.3	-18.5	0.1	**-5.5**	0.2	332.8	-0.3	-18.5	0.1	**-5.5**	0.2	332.8
My,	-0.3	-18.5	0.1	-5.5	**0.2**	332.8	-0.3	-18.5	0.1	-5.5	**0.2**	332.8
Mz,	-0.3	-18.5	0.1	-5.5	0.2	**332.8**	-0.3	-18.5	0.1	-5.5	0.2	**332.8**

Member 10

Fx,	**-0.3**	-18.5	0.0	-7.9	-0.0	332.8	**-0.3**	-18.5	0.0	-7.9	-0.0	332.8
Fy,	-0.3	**-18.5**	0.0	-7.9	-0.0	332.8	-0.3	**-18.5**	0.0	-7.9	-0.0	332.8
Fz,	-0.3	-18.5	**0.0**	-7.9	-0.0	332.8	-0.3	-18.5	**0.0**	-7.9	-0.0	332.8
Mx,	-0.3	-18.5	0.0	**-7.9**	-0.0	332.8	-0.3	-18.5	0.0	**-7.9**	-0.0	332.8
My,	-0.3	-18.5	0.0	-7.9	**-0.0**	332.8	-0.3	-18.5	0.0	-7.9	**-0.0**	332.8
Mz,	-0.3	-18.5	0.0	-7.9	-0.0	**332.8**	-0.3	-18.5	0.0	-7.9	-0.0	**332.8**
Fx,	**-0.3**	3.3	0.0	1.3	0.0	366.8	**-0.3**	3.3	0.0	1.3	0.0	366.8
Fy,	-0.3	**3.3**	0.0	1.3	0.0	366.8	-0.3	**3.3**	0.0	1.3	0.0	366.8
Fz,	-0.3	3.3	**0.0**	1.3	0.0	366.8	-0.3	3.3	**0.0**	1.3	0.0	366.8
Mx,	-0.3	3.3	0.0	**1.3**	0.0	366.8	-0.3	3.3	0.0	**1.3**	0.0	366.8
My,	-0.3	3.3	0.0	1.3	**0.0**	366.8	-0.3	3.3	0.0	1.3	**0.0**	366.8
Mz,	-0.3	3.3	0.0	1.3	0.0	**366.8**	-0.3	3.3	0.0	1.3	0.0	**366.8**

Member 11

Fx,	**-0.3**	3.3	-0.0	-1.3	0.0	366.8	**-0.3**	3.3	-0.0	-1.3	0.0	366.8
Fy,	-0.3	**3.3**	-0.0	-1.3	0.0	366.8	-0.3	**3.3**	-0.0	-1.3	0.0	366.8
Fz,	-0.3	3.3	**-0.0**	-1.3	0.0	366.8	-0.3	3.3	**-0.0**	-1.3	0.0	366.8
Mx,	-0.3	3.3	-0.0	**-1.3**	0.0	366.8	-0.3	3.3	-0.0	**-1.3**	0.0	366.8
My,	-0.3	3.3	-0.0	-1.3	**0.0**	366.8	-0.3	3.3	-0.0	-1.3	**0.0**	366.8
Mz,	-0.3	3.3	-0.0	-1.3	0.0	**366.8**	-0.3	3.3	-0.0	-1.3	0.0	**366.8**
Fx,	**-0.3**	25.1	-0.0	7.8	-0.0	302.7	**-0.3**	25.1	-0.0	7.8	-0.0	302.7
Fy,	-0.3	**25.1**	-0.0	7.8	-0.0	302.7	-0.3	**25.1**	-0.0	7.8	-0.0	302.7
Fz,	-0.3	25.1	**-0.0**	7.8	-0.0	302.7	-0.3	25.1	**-0.0**	7.8	-0.0	302.7
Mx,	-0.3	25.1	-0.0	**7.8**	-0.0	302.7	-0.3	25.1	-0.0	**7.8**	-0.0	302.7
My,	-0.3	25.1	-0.0	7.8	**-0.0**	302.7	-0.3	25.1	-0.0	7.8	**-0.0**	302.7
Mz,	-0.3	25.1	-0.0	7.8	-0.0	**302.7**	-0.3	25.1	-0.0	7.8	-0.0	**302.7**

Member 12

Fx,	**-0.3**	25.1	-0.1	5.4	0.2	302.7	**-0.3**	25.1	-0.1	5.4	0.2	302.7
Fy,	-0.3	**25.1**	-0.1	5.4	0.2	302.7	-0.3	**25.1**	-0.1	5.4	0.2	302.7
Fz,	-0.3	25.1	**-0.1**	5.4	0.2	302.7	-0.3	25.1	**-0.1**	5.4	0.2	302.7
Mx,	-0.3	25.1	-0.1	**5.4**	0.2	302.7	-0.3	25.1	-0.1	**5.4**	0.2	302.7
My,	-0.3	25.1	-0.1	5.4	**0.2**	302.7	-0.3	25.1	-0.1	5.4	**0.2**	302.7
Mz,	-0.3	25.1	-0.1	5.4	0.2	**302.7**	-0 3	25.1	-0.1	5.4	0.2	**302.7**
Fx,	**-0.3**	47.0	-0.1	14.5	-0.2	140.5	**-0.3**	47.0	-0.1	14.5	-0.2	140.5
Fy,	-0.3	**47.0**	-0.1	14.5	-0.2	140.5	-0.3	**47.0**	-0.1	14.5	-0.2	140.5
Fz,	-0.3	47.0	**-0.1**	14.5	-0.2	140.5	-0.3	47.0	**-0.1**	14.5	-0.2	140.5
Mx,	-0.3	47.0	-0.1	**14.5**	-0.2	140.5	-0.3	47.0	-0.1	**14.5**	-0.2	140.5
My,	-0.3	47.0	-0.1	14.5	**-0.2**	140.5	-0.3	47.0	-0.1	14.5	**-0.2**	140.5
Mz,	-0.3	47.0	-0.1	14.5	-0.2	**140.5**	-0.3	47.0	-0.1	14.5	-0.2	**140.5**

Member 13

Fx,	**-0.3**	47.0	-0.3	12.5	0.8	140.5	**-0.3**	47.0	-0.3	12.5	0.8	140.5
Fy,	-0.3	**47.0**	-0.3	12.5	0.8	140.5	-0.3	**47.0**	-0.3	12.5	0.8	140.5
Fz,	-0.3	47.0	**-0.3**	12.5	0.8	140.5	-0.3	47.0	**-0.3**	12.5	0.8	140.5
Mx,	-0.3	47.0	-0.3	**12.5**	0.8	140.5	-0.3	47.0	-0.3	**12.5**	0.8	140.5
My,	-0.3	47.0	-0.3	12.5	**0.8**	140.5	-0.3	47.0	-0.3	12.5	**0.8**	140.5
Mz,	-0.3	47.0	-0.3	12.5	0.8	**140.5**	-0.3	47.0	-0.3	12.5	0.8	**140.5**
Fx,	**-0.3**	68.8	-0.3	21.7	-0.7	-119.9	**-0.3**	68.8	-0.3	21.7	-0.7	-119.9
Fy,	-0.3	**68.8**	-0.3	21.7	-0.7	-119.9	-0.3	**68.8**	-0.3	21.7	-0.7	-119.9
Fz,	-0.3	68.8	**-0.3**	21.7	-0.7	-119.9	-0.3	68.8	**-0.3**	21.7	-0.7	-119.9
Mx,	-0.3	68.8	-0.3	**21.7**	-0.7	-119.9	-0.3	68.8	-0.3	**21.7**	-0.7	-119.9
My,	-0.3	68.8	-0.3	21.7	**-0.7**	-119.9	-0.3	68.8	-0.3	21.7	**-0.7**	-119.9
Mz,	-0.3	68.8	-0.3	21.7	-0.7	**-119.9**	-0.3	68.8	-0.3	21.7	-0.7	**-119.9**

Member 14

Fx_i	**-0.3**	68.8	-1.3	20.4	3.0	-119.9	**-0.3**	68.8	-1.3	20.4	3.0	-119.9
Fy_i	-0.3	**68.8**	-1.3	20.4	3.0	-119.9	-0.3	**68.8**	-1.3	20.4	3.0	-119.9
Fz_i	-0.3	68.8	**-1.3**	20.4	3.0	-119.9	-0.3	68.8	**-1.3**	20.4	3.0	-119.9
Mx_i	-0.3	68.8	-1.3	**20.4**	3.0	-119.9	-0.3	68.8	-1.3	**20.4**	3.0	-119.9
My_i	-0.3	68.8	-1.3	20.4	**3.0**	-119.9	-0.3	68.8	-1.3	20.4	**3.0**	-119.9
Mz_i	-0.3	68.8	-1.3	20.4	3.0	**-119.9**	-0.3	68.8	-1.3	20.4	3.0	**-119.9**
Fx_f	**-0.3**	90.6	-1.3	29.6	-3.1	-478.4	**-0.3**	90.6	-1.3	29.6	-3.1	-478.4
Fy_f	-0.3	**90.6**	-1.3	29.6	-3.1	-478.4	-0.3	**90.6**	-1.3	29.6	-3.1	-478.4
Fz_f	-0.3	90.6	**-1.3**	29.6	-3.1	-478.4	-0.3	90.6	**-1.3**	29.6	-3.1	-478.4
Mx_f	-0.3	90.6	-1.3	**29.6**	-3.1	-478.4	-0.3	90.6	-1.3	**29.6**	-3.1	-478.4
My_f	-0.3	90.6	-1.3	29.6	**-3.1**	-478.4	-0.3	90.6	-1.3	29.6	**-3.1**	-478.4
Mz_f	-0.3	90.6	-1.3	29.6	-3.1	**-478.4**	-0.3	90.6	-1.3	29.6	-3.1	**-478.4**

Member 15

Fx_i	**-0.3**	-88.0	1.3	-29.7	-3.1	-478.4	**-0.3**	-88.0	1.3	-29.7	-3.1	-478.4
Fy_i	-0.3	**-88.0**	1.3	-29.7	-3.1	-478.4	-0.3	**-88.0**	1.3	-29.7	-3.1	-478.4
Fz_i	-0.3	-88.0	**1.3**	-29.7	-3.1	-478.4	-0.3	-88.0	**1.3**	-29.7	-3.1	-478.4
Mx_i	-0.3	-88.0	1.3	**-29.7**	-3.1	-478.4	-0.3	-88.0	1.3	**-29.7**	-3.1	-478.4
My_i	-0.3	-88.0	1.3	-29.7	**-3.1**	-478.4	-0.3	-88.0	1.3	-29.7	**-3.1**	-478.4
Mz_i	-0.3	-88.0	1.3	-29.7	-3.1	**-478.4**	-0.3	-88.0	1.3	-29.7	-3.1	**-478.4**
Fx_f	**-0.3**	-66.2	1.3	-20.6	3.0	-131.6	**-0.3**	-66.2	1.3	-20.6	3.0	-131.6
Fy_f	-0.3	**-66.2**	1.3	-20.6	3.0	-131.6	-0.3	**-66.2**	1.3	-20.6	3.0	-131.6
Fz_f	-0.3	-66.2	**1.3**	-20.6	3.0	-131.6	-0.3	-66.2	**1.3**	-20.6	3.0	-131.6
Mx_f	-0.3	-66.2	1.3	**-20.6**	3.0	-131.6	-0.3	-66.2	1.3	**-20.6**	3.0	-131.6
My_f	-0.3	-66.2	1.3	-20.6	**3.0**	-131.6	-0.3	-66.2	1.3	-20.6	**3.0**	-131.6
Mz_f	-0.3	-66.2	1.3	-20.6	3.0	**-131.6**	-0.3	-66.2	1.3	-20.6	3.0	**-131.6**

Member 16

Fx_i	**-0.3**	-66.2	0.3	-21.8	-0.7	-131.6	**-0.3**	-66.2	0.3	-21.8	-0.7	-131.6
Fy_i	-0.3	**-66.2**	0.3	-21.8	-0.7	-131.6	-0.3	**-66.2**	0.3	-21.8	-0.7	-131.6
Fz_i	-0.3	-66.2	**0.3**	-21.8	-0.7	-131.6	-0.3	-66.2	**0.3**	-21.8	-0.7	-131.6
Mx_i	-0.3	-66.2	0.3	**-21.8**	-0.7	-131.6	-0.3	-66.2	0.3	**-21.8**	-0.7	-131.6
My_i	-0.3	-66.2	0.3	-21.8	**-0.7**	-131.6	-0.3	-66.2	0.3	-21.8	**-0.7**	-131.6
Mz_i	-0.3	-66.2	0.3	-21.8	-0.7	**-131.6**	-0.3	-66.2	0.3	-21.8	-0.7	**-131.6**
Fx_f	**-0.3**	-44.4	0.3	-12.7	0.8	117.1	**-0.3**	-44.4	0.3	-12.7	0.8	117.1
Fy_f	-0.3	**-44.4**	0.3	-12.7	0.8	117.1	-0.3	**-44.4**	0.3	-12.7	0.8	117.1
Fz_f	-0.3	-44.4	**0.3**	-12.7	0.8	117.1	-0.3	-44.4	**0.3**	-12.7	0.8	117.1
Mx_f	-0.3	-44.4	0.3	**-12.7**	0.8	117.1	-0.3	-44.4	0.3	**-12.7**	0.8	117.1
My_f	-0.3	-44.4	0.3	-12.7	**0.8**	117.1	-0.3	-44.4	0.3	-12.7	**0.8**	117.1
Mz_f	-0.3	-44.4	0.3	-12.7	0.8	**117.1**	-0.3	-44.4	0.3	-12.7	0.8	**117.1**

Member 17

Fx_i	**-0.3**	-44.4	0.1	-14.7	-0.2	117.1	**-0.3**	-44.4	0.1	-14.7	-0.2	117.1
Fy_i	-0.3	**-44.4**	0.1	-14.7	-0.2	117.1	-0.3	**-44.4**	0.1	-14.7	-0.2	117.1
Fz_i	-0.3	-44.4	**0.1**	-14.7	-0.2	117.1	-0.3	-44.4	**0.1**	-14.7	-0.2	117.1
Mx_i	-0.3	-44.4	0.1	**-14.7**	-0.2	117.1	-0.3	-44.4	0.1	**-14.7**	-0.2	117.1
My_i	-0.3	-44.4	0.1	-14.7	**-0.2**	117.1	-0.3	-44.4	0.1	-14.7	**-0.2**	117.1
Mz_i	-0.3	-44.4	0.1	-14.7	-0.2	**117.1**	-0.3	-44.4	0.1	-14.7	-0.2	**117.1**
Fx_f	**-0.3**	-22.5	0.1	-5.5	0.2	267.6	**-0.3**	-22.5	0.1	-5.5	0.2	267.6
Fy_f	-0.3	**-22.5**	0.1	-5.5	0.2	267.6	-0.3	**-22.5**	0.1	-5.5	0.2	267.6
Fz_f	-0.3	-22.5	**0.1**	-5.5	0.2	267.6	-0.3	-22.5	**0.1**	-5.5	0.2	267.6
Mx_f	-0.3	-22.5	0.1	**-5.5**	0.2	267.6	-0.3	-22.5	0.1	**-5.5**	0.2	267.6
My_f	-0.3	-22.5	0.1	-5.5	**0.2**	267.6	-0.3	-22.5	0.1	-5.5	**0.2**	267.6
Mz_f	-0.3	-22.5	0.1	-5.5	0.2	**267.6**	-0.3	-22.5	0.1	-5.5	0.2	**267.6**

Member 18

Fx_i	**-0.3**	-22.5	0.0	-8.0	-0.0	267.6	**-0.3**	-22.5	0.0	-8.0	-0.0	267.6
Fy_i	-0.3	**-22.5**	0.0	-8.0	-0.0	267.6	-0.3	**-22.5**	0.0	-8.0	-0.0	267.6
Fz_i	-0.3	-22.5	**0.0**	-8.0	-0.0	267.6	-0.3	-22.5	**0.0**	-8.0	-0.0	267.6
Mx_i	-0.3	-22.5	0.0	**-8.0**	-0.0	267.6	-0.3	-22.5	0.0	**-8.0**	-0.0	267.6
My_i	-0.3	-22.5	0.0	-8.0	**-0.0**	267.6	-0.3	-22.5	0.0	-8.0	**-0.0**	267.6
Mz_i	-0.3	-22.5	0.0	-8.0	-0.0	**267.6**	-0.3	-22.5	0.0	-8.0	-0.0	**267.6**
Fx_f	**-0.3**	-0.7	0.0	1.1	0.0	320.0	**-0.3**	-0.7	0.0	1.1	0.0	320.0
Fy_f	-0.3	**-0.7**	0.0	1.1	0.0	320.0	-0.3	**-0.7**	0.0	1.1	0.0	320.0
Fz_f	-0.3	-0.7	**0.0**	1.1	0.0	320.0	-0.3	-0.7	**0.0**	1.1	0.0	320.0
Mx_f	-0.3	-0.7	0.0	**1.1**	0.0	320.0	-0.3	-0.7	0.0	**1.1**	0.0	320.0
My_f	-0.3	-0.7	0.0	1.1	**0.0**	320.0	-0.3	-0.7	0.0	1.1	**0.0**	320.0
Mz_f	-0.3	-0.7	0.0	1.1	0.0	**320.0**	-0.3	-0.7	0.0	1.1	0.0	**320.0**

Member 19

Fx_i	**-0.3**	-0.7	-0.0	-1.5	0.0	320.0	**-0.3**	-0.7	-0.0	-1.5	0.0	320.0
Fy_i	-0.3	**-0.7**	-0.0	-1.5	0.0	320.0	-0.3	**-0.7**	-0.0	-1.5	0.0	320.0
Fz_i	-0.3	-0.7	**-0.0**	-1.5	0.0	320.0	-0.3	-0.7	**-0.0**	-1.5	0.0	320.0
Mx_i	-0.3	-0.7	-0.0	**-1.5**	0.0	320.0	-0.3	-0.7	-0.0	**-1.5**	0.0	320.0
My_i	-0.3	-0.7	-0.0	-1.5	**0.0**	320.0	-0.3	-0.7	-0.0	-1.5	**0.0**	320.0
Mz_i	-0.3	-0.7	-0.0	-1.5	0.0	**320.0**	-0.3	-0.7	-0.0	-1.5	0.0	**320.0**
Fx_f	**-0.3**	21.1	-0.0	7.7	-0.0	274.3	**-0.3**	21.1	-0.0	7.7	-0.0	274.3
Fy_f	-0.3	**21.1**	-0.0	7.7	-0.0	274.3	-0.3	**21.1**	-0.0	7.7	-0.0	274.3
Fz_f	-0.3	21.1	**-0.0**	7.7	-0.0	274.3	-0.3	21.1	**-0.0**	7.7	-0.0	274.3
Mx_f	-0.3	21.1	-0.0	**7.7**	-0.0	274.3	-0.3	21.1	-0.0	**7.7**	-0.0	274.3
My_f	-0.3	21.1	-0.0	7.7	**-0.0**	274.3	-0.3	21.1	-0.0	7.7	**-0.0**	274.3
Mz_f	-0.3	21.1	-0.0	7.7	-0.0	**274.3**	-0.3	21.1	-0.0	7.7	-0.0	**274.3**

Member 20

Fx_i	**-0.3**	21.1	-0.1	5.2	0.2	274.3	**-0.3**	21.1	-0.1	5.2	0.2	274.3
Fy_i	-0.3	**21.1**	-0.1	5.2	0.2	274.3	-0.3	**21.1**	-0.1	5.2	0.2	274.3
Fz_i	-0.3	21.1	**-0.1**	5.2	0.2	274.3	-0.3	21.1	**-0.1**	5.2	0.2	274.3
Mx_i	-0.3	21.1	-0.1	**5.2**	0.2	274.3	-0.3	21.1	-0.1	**5.2**	0.2	274.3
My_i	-0.3	21.1	-0.1	5.2	**0.2**	274.3	-0.3	21.1	-0.1	5.2	**0.2**	274.3
Mz_i	-0.3	21.1	-0.1	5.2	0.2	**274.3**	-0.3	21.1	-0.1	5.2	0.2	**274.3**
Fx_f	**-0.3**	42.9	-0.1	14.4	-0.2	130.5	**-0.3**	42.9	-0.1	14.4	-0.2	130.5
Fy_f	-0.3	**42.9**	-0.1	14.4	-0.2	130.5	-0.3	**42.9**	-0.1	14.4	-0.2	130.5
Fz_f	-0.3	42.9	**-0.1**	14.4	-0.2	130.5	-0.3	42.9	**-0.1**	14.4	-0.2	130.5
Mx_f	-0.3	42.9	-0.1	**14.4**	-0.2	130.5	-0.3	42.9	-0.1	**14.4**	-0.2	130.5
My_f	-0.3	42.9	-0.1	14.4	**-0.2**	130.5	-0.3	42.9	-0.1	14.4	**-0.2**	130.5
Mz_f	-0.3	42.9	-0.1	14.4	-0.2	**130.5**	-0.3	42.9	-0.1	14.4	-0.2	**130.5**

Member 21

Fx_i	**-0.3**	42.9	-0.3	12.3	0.7	130.5	**-0.3**	42.9	-0.3	12.3	0.7	130.5
Fy_i	-0.3	**42.9**	-0.3	12.3	0.7	130.5	-0.3	**42.9**	-0.3	12.3	0.7	130.5
Fz_i	-0.3	42.9	**-0.3**	12.3	0.7	130.5	-0.3	42.9	**-0.3**	12.3	0.7	130.5
Mx_i	-0.3	42.9	-0.3	**12.3**	0.7	130.5	-0.3	42.9	-0.3	**12.3**	0.7	130.5
My_i	-0.3	42.9	-0.3	12.3	**0.7**	130.5	-0.3	42.9	-0.3	12.3	**0.7**	130.5
Mz_i	-0.3	42.9	-0.3	12.3	0.7	**130.5**	-0.3	42.9	-0.3	12.3	0.7	**130.5**
Fx_f	**-0.3**	64.7	-0.3	21.5	-0.6	-111.5	**-0.3**	64.7	-0.3	21.5	-0.6	-111.5
Fy_f	-0.3	**64.7**	-0.3	21.5	-0.6	-111.5	-0.3	**64.7**	-0.3	21.5	-0.6	-111.5
Fz_f	-0.3	64.7	**-0.3**	21.5	-0.6	-111.5	-0.3	64.7	**-0.3**	21.5	-0.6	-111.5
Mx_f	-0.3	64.7	-0.3	**21.5**	-0.6	-111.5	-0.3	64.7	-0.3	**21.5**	-0.6	-111.5
My_f	-0.3	64.7	-0.3	21.5	**-0.6**	-111.5	-0.3	64.7	-0.3	21.5	**-0.6**	-111.5
Mz_f	-0.3	64.7	-0.3	21.5	-0.6	**-111.5**	-0.3	64.7	-0.3	21.5	-0.6	**-111.5**

Member 22

Fx_i	**-0.3**	64.7	-1.1	20.1	2.4	-111.5	**-0.3**	64.7	-1.1	20.1	2.4	-111.5
Fy_i	-0.3	**64.7**	-1.1	20.1	2.4	-111.5	-0.3	**64.7**	-1.1	20.1	2.4	-111.5
Fz_i	-0.3	64.7	**-1.1**	20.1	2.4	-111.5	-0.3	64.7	**-1.1**	20.1	2.4	-111.5
Mx_i	-0.3	64.7	-1.1	**20.1**	2.4	-111.5	-0.3	64.7	-1.1	**20.1**	2.4	-111.5
My_i	-0.3	64.7	-1.1	20.1	**2.4**	-111.5	-0.3	64.7	-1.1	20.1	**2.4**	-111.5
Mz_i	-0.3	64.7	-1.1	20.1	2.4	**-111.5**	-0.3	64.7	-1.1	20.1	2.4	**-111.5**
Fx_f	**-0.3**	86.5	-1.1	29.3	-2.5	-451.5	**-0.3**	86.5	-1.1	29.3	-2.5	-451.5
Fy_f	-0.3	**86.5**	-1.1	29.3	-2.5	-451.5	-0.3	**86.5**	-1.1	29.3	-2.5	-451.5
Fz_f	-0.3	86.5	**-1.1**	29.3	-2.5	-451.5	-0.3	86.5	**-1.1**	29.3	-2.5	-451.5
Mx_f	-0.3	86.5	-1.1	**29.3**	-2.5	-451.5	-0.3	86.5	-1.1	**29.3**	-2.5	-451.5
My_f	-0.3	86.5	-1.1	29.3	**-2.5**	-451.5	-0.3	86.5	-1.1	29.3	**-2.5**	-451.5
Mz_f	-0.3	86.5	-1.1	29.3	-2.5	**-451.5**	-0.3	86.5	-1.1	29.3	-2.5	**-451.5**

Member 23

Fx_i	**-0.3**	-87.0	1.1	-29.4	-2.5	-451.5	**-0.3**	-87.0	1.1	-29.4	-2.5	-451.5
Fy_i	-0.3	**-87.0**	1.1	-29.4	-2.5	-451.5	-0.3	**-87.0**	1.1	-29.4	-2.5	-451.5
Fz_i	-0.3	-87.0	**1.1**	-29.4	-2.5	-451.5	-0.3	-87.0	**1.1**	-29.4	-2.5	-451.5

Mx_i	-0.3	-87.0	1.1	**-29.4**	-2.5	-451.5	-0.3	-87.0	1.1	**-29.4**	-2.5	-451.5
My_i	-0.3	-87.0	1.1	-29.4	**-2.5**	-451.5	-0.3	-87.0	1.1	-29.4	**-2.5**	-451.5
Mz_i	-0.3	-87.0	1.1	-29.4	-2.5	**-451.5**	-0.3	-87.0	1.1	-29.4	-2.5	**-451.5**
Fx_f	**-0.3**	-65.2	1.1	-20.3	2.4	-109.0	**-0.3**	-65.2	1.1	-20.3	2.4	-109.0
Fy_f	-0.3	**-65.2**	1.1	-20.3	2.4	-109.0	-0.3	**-65.2**	1.1	-20.3	2.4	-109.0
Fz_f	-0.3	-65.2	**1.1**	-20.3	2.4	-109.0	-0.3	-65.2	**1.1**	-20.3	2.4	-109.0
Mx_f	-0.3	-65.2	1.1	**-20.3**	2.4	-109.0	-0.3	-65.2	1.1	**-20.3**	2.4	-109.0
My_f	-0.3	-65.2	1.1	-20.3	**2.4**	-109.0	-0.3	-65.2	1.1	-20.3	**2.4**	-109.0
Mz_f	-0.3	-65.2	1.1	-20.3	2.4	**-109.0**	-0.3	-65.2	1.1	-20.3	2.4	**-109.0**

Member 24

Fx_i	**-0.3**	-65.2	0.3	-21.6	-0.6	-109.0	**-0.3**	-65.2	0.3	-21.6	-0.6	-109.0
Fy_i	-0.3	**-65.2**	0.3	-21.6	-0.6	-109.0	-0.3	**-65.2**	0.3	-21.6	-0.6	-109.0
Fz_i	-0.3	-65.2	**0.3**	-21.6	-0.6	-109.0	-0.3	-65.2	**0.3**	-21.6	-0.6	-109.0
Mx_i	-0.3	-65.2	0.3	**-21.6**	-0.6	-109.0	-0.3	-65.2	0.3	**-21.6**	-0.6	-109.0
My_i	-0.3	-65.2	0.3	-21.6	**-0.6**	-109.0	-0.3	-65.2	0.3	-21.6	**-0.6**	-109.0
Mz_i	-0.3	-65.2	0.3	-21.6	-0.6	**-109.0**	-0.3	-65.2	0.3	-21.6	-0.6	**-109.0**
Fx_f	**-0.3**	-43.4	0.3	-12.5	0.7	135.4	**-0.3**	-43.4	0.3	-12.5	0.7	135.4
Fy_f	-0.3	**-43.4**	0.3	-12.5	0.7	135.4	-0.3	**-43.4**	0.3	-12.5	0.7	135.4
Fz_f	-0.3	-43.4	**0.3**	-12.5	0.7	135.4	-0.3	-43.4	**0.3**	-12.5	0.7	135.4
Mx_f	-0.3	-43.4	0.3	**-12.5**	0.7	135.4	-0.3	-43.4	0.3	**-12.5**	0.7	135.4
My_f	-0.3	-43.4	0.3	-12.5	**0.7**	135.4	-0.3	-43.4	0.3	-12.5	**0.7**	135.4
Mz_f	-0.3	-43.4	0.3	-12.5	0.7	**135.4**	-0.3	-43.4	0.3	-12.5	0.7	**135.4**

Member 25

Fx_i	**-0.3**	-43.4	0.1	-14.5	-0.2	135.4	**-0.3**	-43.4	0.1	-14.5	-0.2	135.4
Fy_i	-0.3	**-43.4**	0.1	-14.5	-0.2	135.4	-0.3	**-43.4**	0.1	-14.5	-0.2	135.4
Fz_i	-0.3	-43.4	**0.1**	-14.5	-0.2	135.4	-0.3	-43.4	**0.1**	-14.5	-0.2	135.4
Mx_i	-0.3	-43.4	0.1	**-14.5**	-0.2	135.4	-0.3	-43.4	0.1	**-14.5**	-0.2	135.4
My_i	-0.3	-43.4	0.1	-14.5	**-0.2**	135.4	-0.3	-43.4	0.1	-14.5	**-0.2**	135.4
Mz_i	-0.3	-43.4	0.1	-14.5	-0.2	**135.4**	-0.3	-43.4	0.1	-14.5	-0.2	**135.4**
Fx_f	**-0.3**	-21.6	0.1	-5.4	0.2	281.7	**-0.3**	-21.6	0.1	-5.4	0.2	281.7
Fy_f	-0.3	**-21.6**	0.1	-5.4	0.2	281.7	-0.3	**-21.6**	0.1	-5.4	0.2	281.7
Fz_f	-0.3	-21.6	**0.1**	-5.4	0.2	281.7	-0.3	-21.6	**0.1**	-5.4	0.2	281.7
Mx_f	-0.3	-21.6	0.1	**-5.4**	0.2	281.7	-0.3	-21.6	0.1	**-5.4**	0.2	281.7
My_f	-0.3	-21.6	0.1	-5.4	**0.2**	281.7	-0.3	-21.6	0.1	-5.4	**0.2**	281.7
Mz_f	-0.3	-21.6	0.1	-5.4	0.2	**281.7**	-0.3	-21.6	0.1	-5.4	0.2	**281.7**

Member 26

Fx_i	**-0.3**	-21.6	0.0	-7.9	-0.0	281.7	**-0.3**	-21.6	0.0	-7.9	-0.0	281.7
Fy_i	-0.3	**-21.6**	0.0	-7.9	-0.0	281.7	-0.3	**-21.6**	0.0	-7.9	-0.0	281.7
Fz_i	-0.3	-21.6	**0.0**	-7.9	-0.0	281.7	-0.3	-21.6	**0.0**	-7.9	-0.0	281.7
Mx_i	-0.3	-21.6	0.0	**-7.9**	-0.0	281.7	-0.3	-21.6	0.0	**-7.9**	-0.0	281.7
My_i	-0.3	-21.6	0.0	-7.9	**-0.0**	281.7	-0.3	-21.6	0.0	-7.9	**-0.0**	281.7
Mz_i	-0.3	-21.6	0.0	-7.9	-0.0	**281.7**	-0.3	-21.6	0.0	-7.9	-0.0	**281.7**
Fx_f	**-0.3**	0.2	0.0	1.3	0.0	329.9	**-0.3**	0.2	0.0	1.3	0.0	329.9
Fy_f	-0.3	**0.2**	0.0	1.3	0.0	329.9	-0.3	**0.2**	0.0	1.3	0.0	329.9
Fz_f	-0.3	0.2	**0.0**	1.3	0.0	329.9	-0.3	0.2	**0.0**	1.3	0.0	329.9
Mx_f	-0.3	0.2	0.0	**1.3**	0.0	329.9	-0.3	0.2	0.0	**1.3**	0.0	329.9
My_f	-0.3	0.2	0.0	1.3	**0.0**	329.9	-0.3	0.2	0.0	1.3	**0.0**	329.9
Mz_f	-0.3	0.2	0.0	1.3	0.0	**329.9**	-0.3	0.2	0.0	1.3	0.0	**329.9**

Member 27

Fx_i	**-0.3**	0.2	-0.0	-1.4	0.0	329.9	**-0.3**	0.2	-0.0	-1.4	0.0	329.9
Fy_i	-0.3	**0.2**	-0.0	-1.4	0.0	329.9	-0.3	**0.2**	-0.0	-1.4	0.0	329.9
Fz_i	-0.3	0.2	**-0.0**	-1.4	0.0	329.9	-0.3	0.2	**-0.0**	-1.4	0.0	329.9
Mx_i	-0.3	0.2	-0.0	**-1.4**	0.0	329.9	-0.3	0.2	-0.0	**-1.4**	0.0	329.9
My_i	-0.3	0.2	-0.0	-1.4	**0.0**	329.9	-0.3	0.2	-0.0	-1.4	**0.0**	329.9
Mz_i	-0.3	0.2	-0.0	-1.4	0.0	**329.9**	-0.3	0.2	-0.0	-1.4	0.0	**329.9**
Fx_f	**-0.3**	22.0	-0.0	7.8	-0.0	280.0	**-0.3**	22.0	-0.0	7.8	-0.0	280.0
Fy_f	-0.3	**22.0**	-0.0	7.8	-0.0	280.0	-0.3	**22.0**	-0.0	7.8	-0.0	280.0
Fz_f	-0.3	22.0	**-0.0**	7.8	-0.0	280.0	-0.3	22.0	**-0.0**	7.8	-0.0	280.0
Mx_f	-0.3	22.0	-0.0	**7.8**	-0.0	280.0	-0.3	22.0	-0.0	**7.8**	-0.0	280.0
My_f	-0.3	22.0	-0.0	7.8	**-0.0**	280.0	-0.3	22.0	-0.0	7.8	**-0.0**	280.0
Mz_f	-0.3	22.0	-0.0	7.8	-0.0	**280.0**	-0.3	22.0	-0.0	7.8	-0.0	**280.0**

Member 28

Fx_i	**-0.3**	22.0	-0.1	5.3	0.2	280.0	**-0.3**	22.0	-0.1	5.3	0.2	280.0
Fy_i	-0.3	**22.0**	-0.1	5.3	0.2	280.0	-0.3	**22.0**	-0.1	5.3	0.2	280.0
Fz_i	-0.3	22.0	**-0.1**	5.3	0.2	280.0	-0.3	22.0	**-0.1**	5.3	0.2	280.0
Mx_i	-0.3	22.0	-0.1	**5.3**	0.2	280.0	-0.3	22.0	-0.1	**5.3**	0.2	280.0
My_i	-0.3	22.0	-0.1	5.3	**0.2**	280.0	-0.3	22.0	-0.1	5.3	**0.2**	280.0
Mz_i	-0.3	22.0	-0.1	5.3	0.2	**280.0**	-0.3	22.0	-0.1	5.3	0.2	**280.0**
Fx_f	**-0.3**	43.8	-0.1	14.5	-0.1	131.9	**-0.3**	43.8	-0.1	14.5	-0.1	131.9
Fy_f	-0.3	**43.8**	-0.1	14.5	-0.1	131.9	-0.3	**43.8**	-0.1	14.5	-0.1	131.9
Fz_f	-0.3	43.8	**-0.1**	14.5	-0.1	131.9	-0.3	43.8	**-0.1**	14.5	-0.1	131.9
Mx_f	-0.3	43.8	-0.1	**14.5**	-0.1	131.9	-0.3	43.8	-0.1	**14.5**	-0.1	131.9
My_f	-0.3	43.8	-0.1	14.5	**-0.1**	131.9	-0.3	43.8	-0.1	14.5	**-0.1**	131.9
Mz_f	-0.3	43.8	-0.1	14.5	-0.1	**131.9**	-0.3	43.8	-0.1	14.5	-0.1	**131.9**

Member 29

Fx_i	**-0.3**	43.8	-0.3	12.4	0.6	131.9	**-0.3**	43.8	-0.3	12.4	0.6	131.9
Fy_i	-0.3	**43.8**	-0.3	12.4	0.6	131.9	-0.3	**43.8**	-0.3	12.4	0.6	131.9
Fz_i	-0.3	43.8	**-0.3**	12.4	0.6	131.9	-0.3	43.8	**-0.3**	12.4	0.6	131.9
Mx_i	-0.3	43.8	-0.3	**12.4**	0.6	131.9	-0.3	43.8	-0.3	**12.4**	0.6	131.9
My_i	-0.3	43.8	-0.3	12.4	**0.6**	131.9	-0.3	43.8	-0.3	12.4	**0.6**	131.9
Mz_i	-0.3	43.8	-0.3	12.4	0.6	**131.9**	-0.3	43.8	-0.3	12.4	0.6	**131.9**
Fx_f	**-0.3**	65.6	-0.3	21.5	-0.6	-114.3	**-0.3**	65.6	-0.3	21.5	-0.6	-114.3
Fy_f	-0.3	**65.6**	-0.3	21.5	-0.6	-114.3	-0.3	**65.6**	-0.3	21.5	-0.6	-114.3
Fz_f	-0.3	65.6	**-0.3**	21.5	-0.6	-114.3	-0.3	65.6	**-0.3**	21.5	-0.6	-114.3
Mx_f	-0.3	65.6	-0.3	**21.5**	-0.6	-114.3	-0.3	65.6	-0.3	**21.5**	-0.6	-114.3
My_f	-0.3	65.6	-0.3	21.5	**-0.6**	-114.3	-0.3	65.6	-0.3	21.5	**-0.6**	-114.3
Mz_f	-0.3	65.6	-0.3	21.5	-0.6	**-114.3**	-0.3	65.6	-0.3	21.5	-0.6	**-114.3**

Member 30

Fx_i	**-0.3**	65.6	-1.1	20.2	2.3	-114.3	**-0.3**	65.6	-1.1	20.2	2.3	-114.3
Fy_i	-0.3	**65.6**	-1.1	20.2	2.3	-114.3	-0.3	**65.6**	-1.1	20.2	2.3	-114.3
Fz_i	-0.3	65.6	**-1.1**	20.2	2.3	-114.3	-0.3	65.6	**-1.1**	20.2	2.3	-114.3
Mx_i	-0.3	65.6	-1.1	**20.2**	2.3	-114.3	-0.3	65.6	-1.1	**20.2**	2.3	-114.3
My_i	-0.3	65.6	-1.1	20.2	**2.3**	-114.3	-0.3	65.6	-1.1	20.2	**2.3**	-114.3
Mz_i	-0.3	65.6	-1.1	20.2	2.3	**-114.3**	-0.3	65.6	-1.1	20.2	2.3	**-114.3**
Fx_f	**-0.3**	87.4	-1.1	29.4	-2.4	-458.6	**-0.3**	87.4	-1.1	29.4	-2.4	-458.6
Fy_f	-0.3	**87.4**	-1.1	29.4	-2.4	-458.6	-0.3	**87.4**	-1.1	29.4	-2.4	-458.6
Fz_f	-0.3	87.4	**-1.1**	29.4	-2.4	-458.6	-0.3	87.4	**-1.1**	29.4	-2.4	-458.6
Mx_f	-0.3	87.4	-1.1	**29.4**	-2.4	-458.6	-0.3	87.4	-1.1	**29.4**	-2.4	-458.6
My_f	-0.3	87.4	-1.1	29.4	**-2.4**	-458.6	-0.3	87.4	-1.1	29.4	**-2.4**	-458.6
Mz_f	-0.3	87.4	-1.1	29.4	-2.4	**-458.6**	-0.3	87.4	-1.1	29.4	-2.4	**-458.6**

Member 31

Fx_i	**-0.3**	-87.4	1.1	-29.4	-2.4	-458.6	**-0.3**	-87.4	1.1	-29.4	-2.4	-458.6
Fy_i	-0.3	**-87.4**	1.1	-29.4	-2.4	-458.6	-0.3	**-87.4**	1.1	-29.4	-2.4	-458.6
Fz_i	-0.3	-87.4	**1.1**	-29.4	-2.4	-458.6	-0.3	-87.4	**1.1**	-29.4	-2.4	-458.6
Mx_i	-0.3	-87.4	1.1	**-29.4**	-2.4	-458.6	-0.3	-87.4	1.1	**-29.4**	-2.4	-458.6
My_i	-0.3	-87.4	1.1	-29.4	**-2.4**	-458.6	-0.3	-87.4	1.1	-29.4	**-2.4**	-458.6
Mz_i	-0.3	-87.4	1.1	-29.4	-2.4	**-458.6**	-0.3	-87.4	1.1	-29.4	-2.4	**-458.6**
Fx_f	**-0.3**	-65.6	1.1	-20.2	2.3	-114.4	**-0.3**	-65.6	1.1	-20.2	2.3	-114.4
Fy_f	-0.3	**-65.6**	1.1	-20.2	2.3	-114.4	-0.3	**-65.6**	1.1	-20.2	2.3	-114.4
Fz_f	-0.3	-65.6	**1.1**	-20.2	2.3	-114.4	-0.3	-65.6	**1.1**	-20.2	2.3	-114.4
Mx_f	-0.3	-65.6	1.1	**-20.2**	2.3	-114.4	-0.3	-65.6	1.1	**-20.2**	2.3	-114.4
My_f	-0.3	-65.6	1.1	-20.2	**2.3**	-114.4	-0.3	-65.6	1.1	-20.2	**2.3**	-114.4
Mz_f	-0.3	-65.6	1.1	-20.2	2.3	**-114.4**	-0.3	-65.6	1.1	-20.2	2.3	**-114.4**

Member 32

Fx_i	**-0.3**	-65.6	0.3	-21.6	-0.6	-114.4	**-0.3**	-65.6	0.3	-21.6	-0.6	-114.4
Fy_i	-0.3	**-65.6**	0.3	-21.6	-0.6	-114.4	-0.3	**-65.6**	0.3	-21.6	-0.6	-114.4
Fz_i	-0.3	-65.6	**0.3**	-21.6	-0.6	-114.4	-0.3	-65.6	**0.3**	-21.6	-0.6	-114.4
Mx_i	-0.3	-65.6	0.3	**-21.6**	-0.6	-114.4	-0.3	-65.6	0.3	**-21.6**	-0.6	-114.4
My_i	-0.3	-65.6	0.3	-21.6	**-0.6**	-114.4	-0.3	-65.6	0.3	-21.6	**-0.6**	-114.4
Mz_i	-0.3	-65.6	0.3	-21.6	-0.6	**-114.4**	-0.3	-65.6	0.3	-21.6	-0.6	**-114.4**

Fx_f	**-0.3**	-43.8	0.3	-12.4	0.6	131.7	**-0.3**	-43.8	0.3	-12.4	0.6	131.7
Fy_f	-0.3	**-43.8**	0.3	-12.4	0.6	131.7	-0.3	**-43.8**	0.3	-12.4	0.6	131.7
Fz_f	-0.3	-43.8	**0.3**	-12.4	0.6	131.7	-0.3	-43.8	**0.3**	-12.4	0.6	131.7
Mx_f	-0.3	-43.8	0.3	**-12.4**	0.6	131.7	-0.3	-43.8	0.3	**-12.4**	0.6	131.7
My_f	-0.3	-43.8	0.3	-12.4	**0.6**	131.7	-0.3	-43.8	0.3	-12.4	**0.6**	131.7
Mz_f	-0.3	-43.8	0.3	-12.4	0.6	**131.7**	-0.3	-43.8	0.3	-12.4	0.6	**131.7**

Member 33

Fx_i	**-0.3**	-43.8	0.1	-14.5	-0.1	131.7	**-0.3**	-43.8	0.1	-14.5	-0.1	131.7
Fy_i	-0.3	**-43.8**	0.1	-14.5	-0.1	131.7	-0.3	**-43.8**	0.1	-14.5	-0.1	131.7
Fz_i	-0.3	-43.8	**0.1**	-14.5	-0.1	131.7	-0.3	-43.8	**0.1**	-14.5	-0.1	131.7
Mx_i	-0.3	-43.8	0.1	**-14.5**	-0.1	131.7	-0.3	-43.8	0.1	**-14.5**	-0.1	131.7
My_i	-0.3	-43.8	0.1	-14.5	**-0.1**	131.7	-0.3	-43.8	0.1	-14.5	**-0.1**	131.7
Mz_i	-0.3	-43.8	0.1	-14.5	-0.1	**131.7**	-0.3	-43.8	0.1	-14.5	-0.1	**131.7**
Fx_f	**-0.3**	-22.0	0.1	-5.3	0.2	279.7	**-0.3**	-22.0	0.1	-5.3	0.2	279.7
Fy_f	-0.3	**-22.0**	0.1	-5.3	0.2	279.7	-0.3	**-22.0**	0.1	-5.3	0.2	279.7
Fz_f	-0.3	-22.0	**0.1**	-5.3	0.2	279.7	-0.3	-22.0	**0.1**	-5.3	0.2	279.7
Mx_f	-0.3	-22.0	0.1	**-5.3**	0.2	279.7	-0.3	-22.0	0.1	**-5.3**	0.2	279.7
My_f	-0.3	-22.0	0.1	-5.3	**0.2**	279.7	-0.3	-22.0	0.1	-5.3	**0.2**	279.7
Mz_f	-0.3	-22.0	0.1	-5.3	0.2	**279.7**	-0.3	-22.0	0.1	-5.3	0.2	**279.7**

Member 34

Fx_i	**-0.3**	-22.0	0.0	-7.8	-0.0	279.7	**-0.3**	-22.0	0.0	-7.8	-0.0	279.7
Fy_i	-0.3	**-22.0**	0.0	-7.8	-0.0	279.7	-0.3	**-22.0**	0.0	-7.8	-0.0	279.7
Fz_i	-0.3	-22.0	**0.0**	-7.8	-0.0	279.7	-0.3	-22.0	**0.0**	-7.8	-0.0	279.7
Mx_i	-0.3	-22.0	0.0	**-7.8**	-0.0	279.7	-0.3	-22.0	0.0	**-7.8**	-0.0	279.7
My_i	-0.3	-22.0	0.0	-7.8	**-0.0**	279.7	-0.3	-22.0	0.0	-7.8	**-0.0**	279.7
Mz_i	-0.3	-22.0	0.0	-7.8	-0.0	**279.7**	-0.3	-22.0	0.0	-7.8	-0.0	**279.7**
Fx_f	**-0.3**	-0.2	0.0	1.3	0.0	329.6	**-0.3**	-0.2	0.0	1.3	0.0	329.6
Fy_f	-0.3	**-0.2**	0.0	1.3	0.0	329.6	-0.3	**-0.2**	0.0	1.3	0.0	329.6
Fz_f	-0.3	-0.2	**0.0**	1.3	0.0	329.6	-0.3	-0.2	**0.0**	1.3	0.0	329.6
Mx_f	-0.3	-0.2	0.0	**1.3**	0.0	329.6	-0.3	-0.2	0.0	**1.3**	0.0	329.6
My_f	-0.3	-0.2	0.0	1.3	**0.0**	329.6	-0.3	-0.2	0.0	1.3	**0.0**	329.6
Mz_f	-0.3	-0.2	0.0	1.3	0.0	**329.6**	-0.3	-0.2	0.0	1.3	0.0	**329.6**

Member 35

Fx_i	**-0.3**	-0.2	-0.0	-1.3	0.0	329.6	**-0.3**	-0.2	-0.0	-1.3	0.0	329.6
Fy_i	-0.3	**-0.2**	-0.0	-1.3	0.0	329.6	-0.3	**-0.2**	-0.0	-1.3	0.0	329.6
Fz_i	-0.3	-0.2	**-0.0**	-1.3	0.0	329.6	-0.3	-0.2	**-0.0**	-1.3	0.0	329.6
Mx_i	-0.3	-0.2	-0.0	**-1.3**	0.0	329.6	-0.3	-0.2	-0.0	**-1.3**	0.0	329.6
My_i	-0.3	-0.2	-0.0	-1.3	**0.0**	329.6	-0.3	-0.2	-0.0	-1.3	**0.0**	329.6
Mz_i	-0.3	-0.2	-0.0	-1.3	0.0	**329.6**	-0.3	-0.2	-0.0	-1.3	0.0	**329.6**
Fx_f	**-0.3**	21.6	-0.0	7.8	-0.0	281.3	**-0.3**	21.6	-0.0	7.8	-0.0	281.3
Fy_f	-0.3	**21.6**	-0.0	7.8	-0.0	281.3	-0.3	**21.6**	-0.0	7.8	-0.0	281.3
Fz_f	-0.3	21.6	**-0.0**	7.8	-0.0	281.3	-0.3	21.6	**-0.0**	7.8	-0.0	281.3
Mx_f	-0.3	21.6	-0.0	**7.8**	-0.0	281.3	-0.3	21.6	-0.0	**7.8**	-0.0	281.3
My_f	-0.3	21.6	-0.0	7.8	**-0.0**	281.3	-0.3	21.6	-0.0	7.8	**-0.0**	281.3
Mz_f	-0.3	21.6	-0.0	7.8	-0.0	**281.3**	-0.3	21.6	-0.0	7.8	-0.0	**281.3**

Member 36

Fx_i	**-0.3**	21.6	-0.1	5.3	0.2	281.3	**-0.3**	21.6	-0.1	5.3	0.2	281.3
Fy_i	-0.3	**21.6**	-0.1	5.3	0.2	281.3	-0.3	**21.6**	-0.1	5.3	0.2	281.3
Fz_i	-0.3	21.6	**-0.1**	5.3	0.2	281.3	-0.3	21.6	**-0.1**	5.3	0.2	281.3
Mx_i	-0.3	21.6	-0.1	**5.3**	0.2	281.3	-0.3	21.6	-0.1	**5.3**	0.2	281.3
My_i	-0.3	21.6	-0.1	5.3	**0.2**	281.3	-0.3	21.6	-0.1	5.3	**0.2**	281.3
Mz_i	-0.3	21.6	-0.1	5.3	0.2	**281.3**	-0.3	21.6	-0.1	5.3	0.2	**281.3**
Fx_f	**-0.3**	43.4	-0.1	14.5	-0.1	135.0	**-0.3**	43.4	-0.1	14.5	-0.1	135.0
Fy_f	-0.3	**43.4**	-0.1	14.5	-0.1	135.0	-0.3	**43.4**	-0.1	14.5	-0.1	135.0
Fz_f	-0.3	43.4	**-0.1**	14.5	-0.1	135.0	-0.3	43.4	**-0.1**	14.5	-0.1	135.0
Mx_f	-0.3	43.4	-0.1	**14.5**	-0.1	135.0	-0.3	43.4	-0.1	**14.5**	-0.1	135.0
My_f	-0.3	43.4	-0.1	14.5	**-0.1**	135.0	-0.3	43.4	-0.1	14.5	**-0.1**	135.0
Mz_f	-0.3	43.4	-0.1	14.5	-0.1	**135.0**	-0.3	43.4	-0.1	14.5	-0.1	**135.0**

Member 37

Fx_i	**-0.3**	43.4	-0.3	12.4	0.6	135.0	**-0.3**	43.4	-0.3	12.4	0.6	135.0
Fy_i	-0.3	**43.4**	-0.3	12.4	0.6	135.0	-0.3	**43.4**	-0.3	12.4	0.6	135.0
Fz_i	-0.3	43.4	**-0.3**	12.4	0.6	135.0	-0.3	43.4	**-0.3**	12.4	0.6	135.0
Mx_i	-0.3	43.4	-0.3	**12.4**	0.6	135.0	-0.3	43.4	-0.3	**12.4**	0.6	135.0
My_i	-0.3	43.4	-0.3	12.4	**0.6**	135.0	-0.3	43.4	-0.3	12.4	**0.6**	135.0
Mz_i	-0.3	43.4	-0.3	12.4	0.6	**135.0**	-0.3	43.4	-0.3	12.4	0.6	**135.0**
Fx_f	**-0.3**	65.2	-0.3	21.6	-0.6	-109.5	**-0.3**	65.2	-0.3	21.6	-0.6	-109.5
Fy_f	-0.3	**65.2**	-0.3	21.6	-0.6	-109.5	-0.3	**65.2**	-0.3	21.6	-0.6	-109.5
Fz_f	-0.3	65.2	**-0.3**	21.6	-0.6	-109.5	-0.3	65.2	**-0.3**	21.6	-0.6	-109.5
Mx_f	-0.3	65.2	-0.3	**21.6**	-0.6	-109.5	-0.3	65.2	-0.3	**21.6**	-0.6	-109.5
My_f	-0.3	65.2	-0.3	21.6	**-0.6**	-109.5	-0.3	65.2	-0.3	21.6	**-0.6**	-109.5
Mz_f	-0.3	65.2	-0.3	21.6	-0.6	**-109.5**	-0.3	65.2	-0.3	21.6	-0.6	**-109.5**

Member 38

Fx_i	**-0.3**	65.2	-1.0	20.2	2.3	-109.5	**-0.3**	65.2	-1.0	20.2	2.3	-109.5
Fy_i	-0.3	**65.2**	-1.0	20.2	2.3	-109.5	-0.3	**65.2**	-1.0	20.2	2.3	-109.5
Fz_i	-0.3	65.2	**-1.0**	20.2	2.3	-109.5	-0.3	65.2	**-1.0**	20.2	2.3	-109.5
Mx_i	-0.3	65.2	-1.0	**20.2**	2.3	-109.5	-0.3	65.2	-1.0	**20.2**	2.3	-109.5
My_i	-0.3	65.2	-1.0	20.2	**2.3**	-109.5	-0.3	65.2	-1.0	20.2	**2.3**	-109.5
Mz_i	-0.3	65.2	-1.0	20.2	2.3	**-109.5**	-0.3	65.2	-1.0	20.2	2.3	**-109.5**
Fx_f	**-0.3**	87.0	-1.0	29.4	-2.4	-452.2	**-0.3**	87.0	-1.0	29.4	-2.4	-452.2
Fy_f	-0.3	**87.0**	-1.0	29.4	-2.4	-452.2	-0.3	**87.0**	-1.0	29.4	-2.4	-452.2
Fz_f	-0.3	87.0	**-1.0**	29.4	-2.4	-452.2	-0.3	87.0	**-1.0**	29.4	-2.4	-452.2
Mx_f	-0.3	87.0	-1.0	**29.4**	-2.4	-452.2	-0.3	87.0	-1.0	**29.4**	-2.4	-452.2
My_f	-0.3	87.0	-1.0	29.4	**-2.4**	-452.2	-0.3	87.0	-1.0	29.4	**-2.4**	-452.2
Mz_f	-0.3	87.0	-1.0	29.4	-2.4	**-452.2**	-0.3	87.0	-1.0	29.4	-2.4	**-452.2**

Member 39

Fx_i	**-0.3**	-86.5	1.0	-29.3	-2.4	-452.2	**-0.3**	-86.5	1.0	-29.3	-2.4	-452.2
Fy_i	-0.3	**-86.5**	1.0	-29.3	-2.4	-452.2	-0.3	**-86.5**	1.0	-29.3	-2.4	-452.2
Fz_i	-0.3	-86.5	**1.0**	-29.3	-2.4	-452.2	-0.3	-86.5	**1.0**	-29.3	-2.4	-452.2
Mx_i	-0.3	-86.5	1.0	**-29.3**	-2.4	-452.2	-0.3	-86.5	1.0	**-29.3**	-2.4	-452.2
My_i	-0.3	-86.5	1.0	-29.3	**-2.4**	-452.2	-0.3	-86.5	1.0	-29.3	**-2.4**	-452.2
Mz_i	-0.3	-86.5	1.0	-29.3	-2.4	**-452.2**	-0.3	-86.5	1.0	-29.3	-2.4	**-452.2**
Fx_f	**-0.3**	-64.7	1.0	-20.2	2.3	-111.8	**-0.3**	-64.7	1.0	-20.2	2.3	-111.8
Fy_f	-0.3	**-64.7**	1.0	-20.2	2.3	-111.8	-0.3	**-64.7**	1.0	-20.2	2.3	-111.8
Fz_f	-0.3	-64.7	**1.0**	-20.2	2.3	-111.8	-0.3	-64.7	**1.0**	-20.2	2.3	-111.8
Mx_f	-0.3	-64.7	1.0	**-20.2**	2.3	-111.8	-0.3	-64.7	1.0	**-20.2**	2.3	-111.8
My_f	-0.3	-64.7	1.0	-20.2	**2.3**	-111.8	-0.3	-64.7	1.0	-20.2	**2.3**	-111.8
Mz_f	-0.3	-64.7	1.0	-20.2	2.3	**-111.8**	-0.3	-64.7	1.0	-20.2	2.3	**-111.8**

Member 40

Fx_i	**-0.3**	-64.7	0.3	-21.5	-0.6	-111.8	**-0.3**	-64.7	0.3	-21.5	-0.6	-111.8
Fy_i	-0.3	**-64.7**	0.3	-21.5	-0.6	-111.8	-0.3	**-64.7**	0.3	-21.5	-0.6	-111.8
Fz_i	-0.3	-64.7	**0.3**	-21.5	-0.6	-111.8	-0.3	-64.7	**0.3**	-21.5	-0.6	-111.8
Mx_i	-0.3	-64.7	0.3	**-21.5**	-0.6	-111.8	-0.3	-64.7	0.3	**-21.5**	-0.6	-111.8
My_i	-0.3	-64.7	0.3	-21.5	**-0.6**	-111.8	-0.3	-64.7	0.3	-21.5	**-0.6**	-111.8
Mz_i	-0.3	-64.7	0.3	-21.5	-0.6	**-111.8**	-0.3	-64.7	0.3	-21.5	-0.6	**-111.8**
Fx_f	**-0.3**	-42.9	0.3	-12.4	0.6	130.5	**-0.3**	-42.9	0.3	-12.4	0.6	130.5
Fy_f	-0.3	**-42.9**	0.3	-12.4	0.6	130.5	-0.3	**-42.9**	0.3	-12.4	0.6	130.5
Fz_f	-0.3	-42.9	**0.3**	-12.4	0.6	130.5	-0.3	-42.9	**0.3**	-12.4	0.6	130.5
Mx_f	-0.3	-42.9	0.3	**-12.4**	0.6	130.5	-0.3	-42.9	0.3	**-12.4**	0.6	130.5
My_f	-0.3	-42.9	0.3	-12.4	**0.6**	130.5	-0.3	-42.9	0.3	-12.4	**0.6**	130.5
Mz_f	-0.3	-42.9	0.3	-12.4	0.6	**130.5**	-0.3	-42.9	0.3	-12.4	0.6	**130.5**

Member 41

Fx_i	**-0.3**	-42.9	0.1	-14.4	-0.1	130.5	**-0.3**	-42.9	0.1	-14.4	-0.1	130.5
Fy_i	-0.3	**-42.9**	0.1	-14.4	-0.1	130.5	-0.3	**-42.9**	0.1	-14.4	-0.1	130.5
Fz_i	-0.3	-42.9	**0.1**	-14.4	-0.1	130.5	-0.3	-42.9	**0.1**	-14.4	-0.1	130.5
Mx_i	-0.3	-42.9	0.1	**-14.4**	-0.1	130.5	-0.3	-42.9	0.1	**-14.4**	-0.1	130.5
My_i	-0.3	-42.9	0.1	-14.4	**-0.1**	130.5	-0.3	-42.9	0.1	-14.4	**-0.1**	130.5
Mz_i	-0.3	-42.9	0.1	-14.4	-0.1	**130.5**	-0.3	-42.9	0.1	-14.4	-0.1	**130.5**
Fx_f	**-0.3**	-21.1	0.1	-5.3	0.2	274.6	**-0.3**	-21.1	0.1	-5.3	0.2	274.6
Fy_f	-0.3	**-21.1**	0.1	-5.3	0.2	274.6	-0.3	**-21.1**	0.1	-5.3	0.2	274.6
Fz_f	-0.3	-21.1	**0.1**	-5.3	0.2	274.6	-0.3	-21.1	**0.1**	-5.3	0.2	274.6
Mx_f	-0.3	-21.1	0.1	**-5.3**	0.2	274.6	-0.3	-21.1	0.1	**-5.3**	0.2	274.6

My,	-0.3	-21.1	0.1	-5.3	**0.2**	274.6	-0.3	-21.1	0.1	-5.3	**0.2**	274.6
Mz,	-0.3	-21.1	0.1	-5.3	0.2	**274.6**	-0.3	-21.1	0.1	-5.3	0.2	**274.6**

Member 42

Fx,	**-0.3**	-21.1	0.0	-7.8	-0.0	274.6	**-0.3**	-21.1	0.0	-7.8	-0.0	274.6
Fy,	-0.3	**-21.1**	0.0	-7.8	-0.0	274.6	-0.3	**-21.1**	0.0	-7.8	-0.0	274.6
Fz,	-0.3	-21.1	**0.0**	-7.8	-0.0	274.6	-0.3	-21.1	**0.0**	-7.8	-0.0	274.6
Mx,	-0.3	-21.1	0.0	**-7.8**	-0.0	274.6	-0.3	-21.1	0.0	**-7.8**	-0.0	274.6
My,	-0.3	-21.1	0.0	-7.8	**-0.0**	274.6	-0.3	-21.1	0.0	-7.8	**-0.0**	274.6
Mz,	-0.3	-21.1	0.0	-7.8	-0.0	**274.6**	-0.3	-21.1	0.0	-7.8	-0.0	**274.6**
Fx,	**-0.3**	0.7	0.0	1.4	0.0	320.6	**-0.3**	0.7	0.0	1.4	0.0	320.6
Fy,	-0.3	**0.7**	0.0	1.4	0.0	320.6	-0.3	**0.7**	0.0	1.4	0.0	320.6
Fz,	-0.3	0.7	**0.0**	1.4	0.0	320.6	-0.3	0.7	**0.0**	1.4	0.0	320.6
Mx,	-0.3	0.7	0.0	**1.4**	0.0	320.6	-0.3	0.7	0.0	**1.4**	0.0	320.6
My,	-0.3	0.7	0.0	1.4	**0.0**	320.6	-0.3	0.7	0.0	1.4	**0.0**	320.6
Mz,	-0.3	0.7	0.0	1.4	0.0	**320.6**	-0.3	0.7	0.0	1.4	0.0	**320.6**

Member 43

Fx,	**-0.3**	0.7	-0.0	-1.3	0.0	320.6	**-0.3**	0.7	-0.0	-1.3	0.0	320.6
Fy,	-0.3	**0.7**	-0.0	-1.3	0.0	320.6	-0.3	**0.7**	-0.0	-1.3	0.0	320.6
Fz,	-0.3	0.7	**-0.0**	-1.3	0.0	320.6	-0.3	0.7	**-0.0**	-1.3	0.0	320.6
Mx,	-0.3	0.7	-0.0	**-1.3**	0.0	320.6	-0.3	0.7	-0.0	**-1.3**	0.0	320.6
My,	-0.3	0.7	-0.0	-1.3	**0.0**	320.6	-0.3	0.7	-0.0	-1.3	**0.0**	320.6
Mz,	-0.3	0.7	-0.0	-1.3	0.0	**320.6**	-0.3	0.7	-0.0	-1.3	0.0	**320.6**
Fx,	**-0.3**	22.5	-0.0	7.9	-0.0	268.5	**-0.3**	22.5	-0.0	7.9	-0.0	268.5
Fy,	-0.3	**22.5**	-0.0	7.9	-0.0	268.5	-0.3	**22.5**	-0.0	7.9	-0.0	268.5
Fz,	-0.3	22.5	**-0.0**	7.9	-0.0	268.5	-0.3	22.5	**-0.0**	7.9	-0.0	268.5
Mx,	-0.3	22.5	-0.0	**7.9**	-0.0	268.5	-0.3	22.5	-0.0	**7.9**	-0.0	268.5
My,	-0.3	22.5	-0.0	7.9	**-0.0**	268.5	-0.3	22.5	-0.0	7.9	**-0.0**	268.5
Mz,	-0.3	22.5	-0.0	7.9	-0.0	**268.5**	-0.3	22.5	-0.0	7.9	-0.0	**268.5**

Member 44

Fx,	**-0.3**	22.5	-0.1	5.4	0.2	268.5	**-0.3**	22.5	-0.1	5.4	0.2	268.5
Fy,	-0.3	**22.5**	-0.1	5.4	0.2	268.5	-0.3	**22.5**	-0.1	5.4	0.2	268.5
Fz,	-0.3	22.5	**-0.1**	5.4	0.2	268.5	-0.3	22.5	**-0.1**	5.4	0.2	268.5
Mx,	-0.3	22.5	-0.1	**5.4**	0.2	268.5	-0.3	22.5	-0.1	**5.4**	0.2	268.5
My,	-0.3	22.5	-0.1	5.4	**0.2**	268.5	-0.3	22.5	-0.1	5.4	**0.2**	268.5
Mz,	-0.3	22.5	-0.1	5.4	0.2	**268.5**	-0.3	22.5	-0.1	5.4	0.2	**268.5**
Fx,	**-0.3**	44.3	-0.1	14.6	-0.2	118.3	**-0.3**	44.3	-0.1	14.6	-0.2	118.3
Fy,	-0.3	**44.3**	-0.1	14.6	-0.2	118.3	-0.3	**44.3**	-0.1	14.6	-0.2	118.3
Fz,	-0.3	44.3	**-0.1**	14.6	-0.2	118.3	-0.3	44.3	**-0.1**	14.6	-0.2	118.3
Mx,	-0.3	44.3	-0.1	**14.6**	-0.2	118.3	-0.3	44.3	-0.1	**14.6**	-0.2	118.3
My,	-0.3	44.3	-0.1	14.6	**-0.2**	118.3	-0.3	44.3	-0.1	14.6	**-0.2**	118.3
Mz,	-0.3	44.3	-0.1	14.6	-0.2	**118.3**	-0.3	44.3	-0.1	14.6	-0.2	**118.3**

Member 45

Fx,	**-0.3**	44.3	-0.3	12.5	0.7	118.3	**-0.3**	44.3	-0.3	12.5	0.7	118.3
Fy,	-0.3	**44.3**	-0.3	12.5	0.7	118.3	-0.3	**44.3**	-0.3	12.5	0.7	118.3
Fz,	-0.3	44.3	**-0.3**	12.5	0.7	118.3	-0.3	44.3	**-0.3**	12.5	0.7	118.3
Mx,	-0.3	44.3	-0.3	**12.5**	0.7	118.3	-0.3	44.3	-0.3	**12.5**	0.7	118.3
My,	-0.3	44.3	-0.3	12.5	**0.7**	118.3	-0.3	44.3	-0.3	12.5	**0.7**	118.3
Mz,	-0.3	44.3	-0.3	12.5	0.7	**118.3**	-0.3	44.3	-0.3	12.5	0.7	**118.3**
Fx,	**-0.3**	66.1	-0.3	21.6	-0.6	-130.0	**-0.3**	66.1	-0.3	21.6	-0.6	-130.0
Fy,	-0.3	**66.1**	-0.3	21.6	-0.6	-130.0	-0.3	**66.1**	-0.3	21.6	-0.6	-130.0
Fz,	-0.3	66.1	**-0.3**	21.6	-0.6	-130.0	-0.3	66.1	**-0.3**	21.6	-0.6	-130.0
Mx,	-0.3	66.1	-0.3	**21.6**	-0.6	-130.0	-0.3	66.1	-0.3	**21.6**	-0.6	-130.0
My,	-0.3	66.1	-0.3	21.6	**-0.6**	-130.0	-0.3	66.1	-0.3	21.6	**-0.6**	-130.0
Mz,	-0.3	66.1	-0.3	21.6	-0.6	**-130.0**	-0.3	66.1	-0.3	21.6	-0.6	**-130.0**

Member 46

Fx,	**-0.3**	66.1	-1.1	20.3	2.4	-130.0	**-0.3**	66.1	-1.1	20.3	2.4	-130.0
Fy,	-0.3	**66.1**	-1.1	20.3	2.4	-130.0	-0.3	**66.1**	-1.1	20.3	2.4	-130.0
Fz,	-0.3	66.1	**-1.1**	20.3	2.4	-130.0	-0.3	66.1	**-1.1**	20.3	2.4	-130.0
Mx,	-0.3	66.1	-1.1	**20.3**	2.4	-130.0	-0.3	66.1	-1.1	**20.3**	2.4	-130.0
My,	-0.3	66.1	-1.1	20.3	**2.4**	-130.0	-0.3	66.1	-1.1	20.3	**2.4**	-130.0
Mz,	-0.3	66.1	-1.1	20.3	2.4	**-130.0**	-0.3	66.1	-1.1	20.3	2.4	**-130.0**
Fx,	**-0.3**	87.9	-1.1	29.5	-2.5	**-476.5**	**-0.3**	87.9	-1.1	29.5	-2.5	-476.5
Fy,	-0.3	**87.9**	-1.1	29.5	-2.5	**-476.5**	-0.3	**87.9**	-1.1	29.5	-2.5	-476.5
Fz,	-0.3	87.9	**-1.1**	29.5	-2.5	**-476.5**	-0.3	87.9	**-1.1**	29.5	-2.5	-476.5
Mx,	-0.3	87.9	-1.1	**29.5**	-2.5	-476.5	-0.3	87.9	-1.1	**29.5**	-2.5	-476.5
My,	-0.3	87.9	-1.1	29.5	**-2.5**	-476.5	-0.3	87.9	-1.1	29.5	**-2.5**	-476.5
Mz,	-0.3	87.9	-1.1	29.5	-2.5	**-476.5**	-0.3	87.9	-1.1	29.5	-2.5	**-476.5**

Member 47

Fx,	**-0.3**	-90.4	1.1	-29.2	-2.5	-476.5	**-0.3**	-90.4	1.1	-29.2	-2.5	-476.5
Fy,	-0.3	**-90.4**	1.1	-29.2	-2.5	-476.5	-0.3	**-90.4**	1.1	-29.2	-2.5	-476.5
Fz,	-0.3	-90.4	**1.1**	-29.2	-2.5	-476.5	-0.3	-90.4	**1.1**	-29.2	-2.5	-476.5
Mx,	-0.3	-90.4	1.1	**-29.2**	-2.5	-476.5	-0.3	-90.4	1.1	**-29.2**	-2.5	-476.5
My,	-0.3	-90.4	1.1	-29.2	**-2.5**	-476.5	-0.3	-90.4	1.1	-29.2	**-2.5**	-476.5
Mz,	-0.3	-90.4	1.1	-29.2	-2.5	**-476.5**	-0.3	-90.4	1.1	-29.2	-2.5	**-476.5**
Fx,	**-0.3**	-68.6	1.1	-20.1	2.4	-118.6	**-0.3**	-68.6	1.1	-20.1	2.4	-118.6
Fy,	-0.3	**-68.6**	1.1	-20.1	2.4	-118.6	-0.3	**-68.6**	1.1	-20.1	2.4	-118.6
Fz,	-0.3	-68.6	**1.1**	-20.1	2.4	-118.6	-0.3	-68.6	**1.1**	-20.1	2.4	-118.6
Mx,	-0.3	-68.6	1.1	**-20.1**	2.4	-118.6	-0.3	-68.6	1.1	**-20.1**	2.4	-118.6
My,	-0.3	-68.6	1.1	-20.1	**2.4**	-118.6	-0.3	-68.6	1.1	-20.1	**2.4**	-118.6
Mz,	-0.3	-68.6	1.1	-20.1	2.4	**-118.6**	-0.3	-68.6	1.1	-20.1	2.4	**-118.6**

Member 48

Fx,	**-0.3**	-68.6	0.3	-21.4	-0.6	-118.6	**-0.3**	-68.6	0.3	-21.4	-0.6	-118.6
Fy,	-0.3	**-68.6**	0.3	-21.4	-0.6	-118.6	-0.3	**-68.6**	0.3	-21.4	-0.6	-118.6
Fz,	-0.3	-68.6	**0.3**	-21.4	-0.6	-118.6	-0.3	-68.6	**0.3**	-21.4	-0.6	-118.6
Mx,	-0.3	-68.6	0.3	**-21.4**	-0.6	-118.6	-0.3	-68.6	0.3	**-21.4**	-0.6	-118.6
My,	-0.3	-68.6	0.3	-21.4	**-0.6**	-118.6	-0.3	-68.6	0.3	-21.4	**-0.6**	-118.6
Mz,	-0.3	-68.6	0.3	-21.4	-0.6	**-118.6**	-0.3	-68.6	0.3	-21.4	-0.6	**-118.6**
Fx,	**-0.3**	-46.8	0.3	-12.2	0.7	141.2	**-0.3**	-46.8	0.3	-12.2	0.7	141.2
Fy,	-0.3	**-46.8**	0.3	-12.2	0.7	141.2	-0.3	**-46.8**	0.3	-12.2	0.7	141.2
Fz,	-0.3	-46.8	**0.3**	-12.2	0.7	141.2	-0.3	-46.8	**0.3**	-12.2	0.7	141.2
Mx,	-0.3	-46.8	0.3	**-12.2**	0.7	141.2	-0.3	-46.8	0.3	**-12.2**	0.7	141.2
My,	-0.3	-46.8	0.3	-12.2	**0.7**	141.2	-0.3	-46.8	0.3	-12.2	**0.7**	141.2
Mz,	-0.3	-46.8	0.3	-12.2	0.7	**141.2**	-0.3	-46.8	0.3	-12.2	0.7	**141.2**

Member 49

Fx,	**-0.3**	-46.8	0.1	-14.3	-0.2	141.2	**-0.3**	-46.8	0.1	-14.3	-0.2	141.2
Fy,	-0.3	**-46.8**	0.1	-14.3	-0.2	141.2	-0.3	**-46.8**	0.1	-14.3	-0.2	141.2
Fz,	-0.3	-46.8	**0.1**	-14.3	-0.2	141.2	-0.3	-46.8	**0.1**	-14.3	-0.2	141.2
Mx,	-0.3	-46.8	0.1	**-14.3**	-0.2	141.2	-0.3	-46.8	0.1	**-14.3**	-0.2	141.2
My,	-0.3	-46.8	0.1	-14.3	**-0.2**	141.2	-0.3	-46.8	0.1	-14.3	**-0.2**	141.2
Mz,	-0.3	-46.8	0.1	-14.3	-0.2	**141.2**	-0.3	-46.8	0.1	-14.3	-0.2	**141.2**
Fx,	**-0.3**	-25.0	0.1	-5.1	0.2	302.9	**-0.3**	-25.0	0.1	-5.1	0.2	302.9
Fy,	-0.3	**-25.0**	0.1	-5.1	0.2	302.9	-0.3	**-25.0**	0.1	-5.1	0.2	302.9
Fz,	-0.3	-25.0	**0.1**	-5.1	0.2	302.9	-0.3	-25.0	**0.1**	-5.1	0.2	302.9
Mx,	-0.3	-25.0	0.1	**-5.1**	0.2	302.9	-0.3	-25.0	0.1	**-5.1**	0.2	302.9
My,	-0.3	-25.0	0.1	-5.1	**0.2**	302.9	-0.3	-25.0	0.1	-5.1	**0.2**	302.9
Mz,	-0.3	-25.0	0.1	-5.1	0.2	**302.9**	-0.3	-25.0	0.1	-5.1	0.2	**302.9**

Member 50

Fx,	**-0.3**	-25.0	0.0	-7.6	-0.0	302.9	**-0.3**	-25.0	0.0	-7.6	-0.0	302.9
Fy,	-0.3	**-25.0**	0.0	-7.6	-0.0	302.9	-0.3	**-25.0**	0.0	-7.6	-0.0	302.9
Fz,	-0.3	-25.0	**0.0**	-7.6	-0.0	302.9	-0.3	-25.0	**0.0**	-7.6	-0.0	302.9
Mx,	-0.3	-25.0	0.0	**-7.6**	-0.0	302.9	-0.3	-25.0	0.0	**-7.6**	-0.0	302.9
My,	-0.3	-25.0	0.0	-7.6	**-0.0**	302.9	-0.3	-25.0	0.0	-7.6	**-0.0**	302.9
Mz,	-0.3	-25.0	0.0	-7.6	-0.0	**302.9**	-0.3	-25.0	0.0	-7.6	-0.0	**302.9**
Fx,	**-0.3**	-3.2	0.0	1.6	0.0	366.5	**-0.3**	-3.2	0.0	1.6	0.0	366.5
Fy,	-0.3	**-3.2**	0.0	1.6	0.0	366.5	-0.3	**-3.2**	0.0	1.6	0.0	366.5
Fz,	-0.3	-3.2	**0.0**	1.6	0.0	366.5	-0.3	-3.2	**0.0**	1.6	0.0	366.5
Mx,	-0.3	-3.2	0.0	**1.6**	0.0	366.5	-0.3	-3.2	0.0	**1.6**	0.0	366.5
My,	-0.3	-3.2	0.0	1.6	**0.0**	366.5	-0.3	-3.2	0.0	1.6	**0.0**	366.5
Mz,	-0.3	-3.2	0.0	1.6	0.0	**366.5**	-0.3	-3.2	0.0	1.6	0.0	**366.5**

Member 51

Fx_i	**-0.3**	-3.2	-0.0	-1.0	0.0	366.5	**-0.3**	-3.2	-0.0	-1.0	0.0	366.5
Fy_i	-0.3	**-3.2**	-0.0	-1.0	0.0	366.5	-0.3	**-3.2**	-0.0	-1.0	0.0	366.5
Fz_i	-0.3	-3.2	**-0.0**	-1.0	0.0	366.5	-0.3	-3.2	**-0.0**	-1.0	0.0	366.5
Mx_i	-0.3	-3.2	-0.0	**-1.0**	0.0	366.5	-0.3	-3.2	-0.0	**-1.0**	0.0	366.5
My_i	-0.3	-3.2	-0.0	-1.0	**0.0**	366.5	-0.3	-3.2	-0.0	-1.0	**0.0**	366.5
Mz_i	-0.3	-3.2	-0.0	-1.0	0.0	**366.5**	-0.3	-3.2	-0.0	-1.0	0.0	**366.5**
Fx_f	**-0.3**	18.6	-0.0	8.1	-0.0	331.9	**-0.3**	18.6	-0.0	8.1	-0.0	331.9
Fy_f	-0.3	**18.6**	-0.0	8.1	-0.0	331.9	-0.3	**18.6**	-0.0	8.1	-0.0	331.9
Fz_f	-0.3	18.6	**-0.0**	8.1	-0.0	331.9	-0.3	18.6	**-0.0**	8.1	-0.0	331.9
Mx_f	-0.3	18.6	-0.0	**8.1**	-0.0	331.9	-0.3	18.6	-0.0	**8.1**	-0.0	331.9
My_f	-0.3	18.6	-0.0	8.1	**-0.0**	331.9	-0.3	18.6	-0.0	8.1	**-0.0**	331.9
Mz_f	-0.3	18.6	-0.0	8.1	-0.0	**331.9**	-0.3	18.6	-0.0	8.1	-0.0	**331.9**

Member 52

Fx_i	**-0.3**	18.6	-0.1	5.7	0.2	331.9	**-0.3**	18.6	-0.1	5.7	0.2	331.9
Fy_i	-0.3	**18.6**	-0.1	5.7	0.2	331.9	-0.3	**18.6**	-0.1	5.7	0.2	331.9
Fz_i	-0.3	18.6	**-0.1**	5.7	0.2	331.9	-0.3	18.6	**-0.1**	5.7	0.2	331.9
Mx_i	-0.3	18.6	-0.1	**5.7**	0.2	331.9	-0.3	18.6	-0.1	**5.7**	0.2	331.9
My_i	-0.3	18.6	-0.1	5.7	**0.2**	331.9	-0.3	18.6	-0.1	5.7	**0.2**	331.9
Mz_i	-0.3	18.6	-0.1	5.7	0.2	**331.9**	-0.3	18.6	-0.1	5.7	0.2	**331.9**
Fx_f	**-0.3**	40.4	-0.1	14.9	-0.2	199.3	**-0.3**	40.4	-0.1	14.9	-0.2	199.3
Fy_f	-0.3	**40.4**	-0.1	14.9	-0.2	199.3	-0.3	**40.4**	-0.1	14.9	-0.2	199.3
Fz_f	-0.3	40.4	**-0.1**	14.9	-0.2	199.3	-0.3	40.4	**-0.1**	14.9	-0.2	199.3
Mx_f	-0.3	40.4	-0.1	**14.9**	-0.2	199.3	-0.3	40.4	-0.1	**14.9**	-0.2	199.3
My_f	-0.3	40.4	-0.1	14.9	**-0.2**	199.3	-0.3	40.4	-0.1	14.9	**-0.2**	199.3
Mz_f	-0.3	40.4	-0.1	14.9	-0.2	**199.3**	-0.3	40.4	-0.1	14.9	-0.2	**199.3**

Member 53

Fx_i	**-0.3**	40.4	-0.3	12.8	0.7	199.3	**-0.3**	40.4	-0.3	12.8	0.7	199.3
Fy_i	-0.3	**40.4**	-0.3	12.8	0.7	199.3	-0.3	**40.4**	-0.3	12.8	0.7	199.3
Fz_i	-0.3	40.4	**-0.3**	12.8	0.7	199.3	-0.3	40.4	**-0.3**	12.8	0.7	199.3
Mx_i	-0.3	40.4	-0.3	**12.8**	0.7	199.3	-0.3	40.4	-0.3	**12.8**	0.7	199.3
My_i	-0.3	40.4	-0.3	12.8	**0.7**	199.3	-0.3	40.4	-0.3	12.8	**0.7**	199.3
Mz_i	-0.3	40.4	-0.3	12.8	0.7	**199.3**	-0.3	40.4	-0.3	12.8	0.7	**199.3**
Fx_f	**-0.3**	62.2	-0.3	22.0	-0.6	-31.5	**-0.3**	62.2	-0.3	22.0	-0.6	-31.5
Fy_f	-0.3	**62.2**	-0.3	22.0	-0.6	-31.5	-0.3	**62.2**	-0.3	22.0	-0.6	-31.5
Fz_f	-0.3	62.2	**-0.3**	22.0	-0.6	-31.5	-0.3	62.2	**-0.3**	22.0	-0.6	-31.5
Mx_f	-0.3	62.2	-0.3	**22.0**	-0.6	-31.5	-0.3	62.2	-0.3	**22.0**	-0.6	-31.5
My_f	-0.3	62.2	-0.3	22.0	**-0.6**	-31.5	-0.3	62.2	-0.3	22.0	**-0.6**	-31.5
Mz_f	-0.3	62.2	-0.3	22.0	-0.6	**-31.5**	-0.3	62.2	-0.3	22.0	-0.6	**-31.5**

Member 54

Fx_i	**-0.3**	62.2	-1.2	20.8	2.6	-31.5	**-0.3**	62.2	-1.2	20.8	2.6	-31.5
Fy_i	-0.3	**62.2**	-1.2	20.8	2.6	-31.5	-0.3	**62.2**	-1.2	20.8	2.6	-31.5
Fz_i	-0.3	62.2	**-1.2**	20.8	2.6	-31.5	-0.3	62.2	**-1.2**	20.8	2.6	-31.5
Mx_i	-0.3	62.2	-1.2	**20.8**	2.6	-31.5	-0.3	62.2	-1.2	**20.8**	2.6	-31.5
My_i	-0.3	62.2	-1.2	20.8	**2.6**	-31.5	-0.3	62.2	-1.2	20.8	**2.6**	-31.5
Mz_i	-0.3	62.2	-1.2	20.8	2.6	**-31.5**	-0.3	62.2	-1.2	20.8	2.6	**-31.5**
Fx_f	**-0.3**	84.0	-1.2	29.9	-2.7	-360.4	**-0.3**	84.0	-1.2	29.9	-2.7	-360.4
Fy_f	-0.3	**84.0**	-1.2	29.9	-2.7	-360.4	-0.3	**84.0**	-1.2	29.9	-2.7	-360.4
Fz_f	-0.3	84.0	**-1.2**	29.9	-2.7	-360.4	-0.3	84.0	**-1.2**	29.9	-2.7	-360.4
Mx_f	-0.3	84.0	-1.2	**29.9**	-2.7	-360.4	-0.3	84.0	-1.2	**29.9**	-2.7	-360.4
My_f	-0.3	84.0	-1.2	29.9	**-2.7**	-360.4	-0.3	84.0	-1.2	29.9	**-2.7**	-360.4
Mz_f	-0.3	84.0	-1.2	29.9	-2.7	**-360.4**	-0.3	84.0	-1.2	29.9	-2.7	**-360.4**

Member 55

Fx_i	**-0.3**	-69.7	1.6	-19.9	-3.0	-360.4	**-0.3**	-69.7	1.6	-19.9	-3.0	-360.4
Fy_i	-0.3	**-69.7**	1.6	-19.9	-3.0	-360.4	-0.3	**-69.7**	1.6	-19.9	-3.0	-360.4
Fz_i	-0.3	-69.7	**1.6**	-19.9	-3.0	-360.4	-0.3	-69.7	**1.6**	-19.9	-3.0	-360.4
Mx_i	-0.3	-69.7	1.6	**-19.9**	-3.0	-360.4	-0.3	-69.7	1.6	**-19.9**	-3.0	-360.4
My_i	-0.3	-69.7	1.6	-19.9	**-3.0**	-360.4	-0.3	-69.7	1.6	-19.9	**-3.0**	-360.4
Mz_i	-0.3	-69.7	1.6	-19.9	-3.0	**-360.4**	-0.3	-69.7	1.6	-19.9	-3.0	**-360.4**
Fx_f	**-0.3**	-51.9	1.6	-12.4	2.9	-137.6	**-0.3**	-51.9	1.6	-12.4	2.9	-137.6
Fy_f	-0.3	**-51.9**	1.6	-12.4	2.9	-137.6	-0.3	**-51.9**	1.6	-12.4	2.9	-137.6
Fz_f	-0.3	-51.9	**1.6**	-12.4	2.9	-137.6	-0.3	-51.9	**1.6**	-12.4	2.9	-137.6
Mx_f	-0.3	-51.9	1.6	**-12.4**	2.9	-137.6	-0.3	-51.9	1.6	**-12.4**	2.9	-137.6
My_f	-0.3	-51.9	1.6	-12.4	**2.9**	-137.6	-0.3	-51.9	1.6	-12.4	**2.9**	-137.6
Mz_f	-0.3	-51.9	1.6	-12.4	2.9	**-137.6**	-0.3	-51.9	1.6	-12.4	2.9	**-137.6**

Member 56

Fx_i	**-0.3**	-51.9	0.5	-13.0	-0.9	-137.6	**-0.3**	-51.9	0.5	-13.0	-0.9	-137.6
Fy_i	-0.3	**-51.9**	0.5	-13.0	-0.9	-137.6	-0.3	**-51.9**	0.5	-13.0	-0.9	-137.6
Fz_i	-0.3	-51.9	**0.5**	-13.0	-0.9	-137.6	-0.3	-51.9	**0.5**	-13.0	-0.9	-137.6
Mx_i	-0.3	-51.9	0.5	**-13.0**	-0.9	-137.6	-0.3	-51.9	0.5	**-13.0**	-0.9	-137.6
My_i	-0.3	-51.9	0.5	-13.0	**-0.9**	-137.6	-0.3	-51.9	0.5	-13.0	**-0.9**	-137.6
Mz_i	-0.3	-51.9	0.5	-13.0	-0.9	**-137.6**	-0.3	-51.9	0.5	-13.0	-0.9	**-137.6**
Fx_f	**-0.3**	-34.1	0.5	-5.5	0.9	20.1	**-0.3**	-34.1	0.5	-5.5	0.9	20.1
Fy_f	-0.3	**-34.1**	0.5	-5.5	0.9	20.1	-0.3	**-34.1**	0.5	-5.5	0.9	20.1
Fz_f	-0.3	-34.1	**0.5**	-5.5	0.9	20.1	-0.3	-34.1	**0.5**	-5.5	0.9	20.1
Mx_f	-0.3	-34.1	0.5	**-5.5**	0.9	20.1	-0.3	-34.1	0.5	**-5.5**	0.9	20.1
My_f	-0.3	-34.1	0.5	-5.5	**0.9**	20.1	-0.3	-34.1	0.5	-5.5	**0.9**	20.1
Mz_f	-0.3	-34.1	0.5	-5.5	0.9	**20.1**	-0.3	-34.1	0.5	-5.5	0.9	**20.1**

Member 57

Fx_i	**-0.3**	-34.1	-0.2	-6.4	0.3	20.1	**-0.3**	-34.1	-0.2	-6.4	0.3	20.1
Fy_i	-0.3	**-34.1**	-0.2	-6.4	0.3	20.1	-0.3	**-34.1**	-0.2	-6.4	0.3	20.1
Fz_i	-0.3	-34.1	**-0.2**	-6.4	0.3	20.1	-0.3	-34.1	**-0.2**	-6.4	0.3	20.1
Mx_i	-0.3	-34.1	-0.2	**-6.4**	0.3	20.1	-0.3	-34.1	-0.2	**-6.4**	0.3	20.1
My_i	-0.3	-34.1	-0.2	-6.4	**0.3**	20.1	-0.3	-34.1	-0.2	-6.4	**0.3**	20.1
Mz_i	-0.3	-34.1	-0.2	-6.4	0.3	**20.1**	-0.3	-34.1	-0.2	-6.4	0.3	**20.1**
Fx_f	**-0.3**	-16.4	-0.2	1.1	-0.3	112.7	**-0.3**	-16.4	-0.2	1.1	-0.3	112.7
Fy_f	-0.3	**-16.4**	-0.2	1.1	-0.3	112.7	-0.3	**-16.4**	-0.2	1.1	-0.3	112.7
Fz_f	-0.3	-16.4	**-0.2**	1.1	-0.3	112.7	-0.3	-16.4	**-0.2**	1.1	-0.3	112.7
Mx_f	-0.3	-16.4	-0.2	**1.1**	-0.3	112.7	-0.3	-16.4	-0.2	**1.1**	-0.3	112.7
My_f	-0.3	-16.4	-0.2	1.1	**-0.3**	112.7	-0.3	-16.4	-0.2	1.1	**-0.3**	112.7
Mz_f	-0.3	-16.4	-0.2	1.1	-0.3	**112.7**	-0.3	-16.4	-0.2	1.1	-0.3	**112.7**

Member 58

Fx_i	**-0.3**	-16.4	-1.0	0.1	1.8	112.7	**-0.3**	-16.4	-1.0	0.1	1.8	112.7
Fy_i	-0.3	**-16.4**	-1.0	0.1	1.8	112.7	-0.3	**-16.4**	-1.0	0.1	1.8	112.7
Fz_i	-0.3	-16.4	**-1.0**	0.1	1.8	112.7	-0.3	-16.4	**-1.0**	0.1	1.8	112.7
Mx_i	-0.3	-16.4	-1.0	**0.1**	1.8	112.7	-0.3	-16.4	-1.0	**0.1**	1.8	112.7
My_i	-0.3	-16.4	-1.0	0.1	**1.8**	112.7	-0.3	-16.4	-1.0	0.1	**1.8**	112.7
Mz_i	-0.3	-16.4	-1.0	0.1	1.8	**112.7**	-0.3	-16.4	-1.0	0.1	1.8	**112.7**
Fx_f	**-0.3**	1.4	-1.0	7.6	-1.7	140.1	**-0.3**	1.4	-1.0	7.6	-1.7	140.1
Fy_f	-0.3	**1.4**	-1.0	7.6	-1.7	140.1	-0.3	**1.4**	-1.0	7.6	-1.7	140.1
Fz_f	-0.3	1.4	**-1.0**	7.6	-1.7	140.1	-0.3	1.4	**-1.0**	7.6	-1.7	140.1
Mx_f	-0.3	1.4	-1.0	**7.6**	-1.7	140.1	-0.3	1.4	-1.0	**7.6**	-1.7	140.1
My_f	-0.3	1.4	-1.0	7.6	**-1.7**	140.1	-0.3	1.4	-1.0	7.6	**-1.7**	140.1
Mz_f	-0.3	1.4	-1.0	7.6	-1.7	**140.1**	-0.3	1.4	-1.0	7.6	-1.7	**140.1**

Member 59

Fx_i	**-0.3**	1.4	-2.7	6.8	5.1	140.1	**-0.3**	1.4	-2.7	6.8	5.1	140.1
Fy_i	-0.3	**1.4**	-2.7	6.8	5.1	140.1	-0.3	**1.4**	-2.7	6.8	5.1	140.1
Fz_i	-0.3	1.4	**-2.7**	6.8	5.1	140.1	-0.3	1.4	**-2.7**	6.8	5.1	140.1
Mx_i	-0.3	1.4	-2.7	**6.8**	5.1	140.1	-0.3	1.4	-2.7	**6.8**	5.1	140.1
My_i	-0.3	1.4	-2.7	6.8	**5.1**	140.1	-0.3	1.4	-2.7	6.8	**5.1**	140.1
Mz_i	-0.3	1.4	-2.7	6.8	5.1	**140.1**	-0.3	1.4	-2.7	6.8	5.1	**140.1**
Fx_f	**-0.3**	19.2	-2.7	14.3	-4.8	102.4	**-0.3**	19.2	-2.7	14.3	-4.8	102.4
Fy_f	-0.3	**19.2**	-2.7	14.3	-4.8	102.4	-0.3	**19.2**	-2.7	14.3	-4.8	102.4
Fz_f	-0.3	19.2	**-2.7**	14.3	-4.8	102.4	-0.3	19.2	**-2.7**	14.3	-4.8	102.4
Mx_f	-0.3	19.2	-2.7	**14.3**	-4.8	102.4	-0.3	19.2	-2.7	**14.3**	-4.8	102.4
My_f	-0.3	19.2	-2.7	14.3	**-4.8**	102.4	-0.3	19.2	-2.7	14.3	**-4.8**	102.4
Mz_f	-0.3	19.2	-2.7	14.3	-4.8	**102.4**	-0.3	19.2	-2.7	14.3	-4.8	**102.4**

Member 60

Fx_i	**-0.3**	19.2	-6.9	13.8	12.6	102.4	**-0.3**	19.2	-6.9	13.8	12.6	102.4
Fy_i	-0.3	**19.2**	-6.9	13.8	12.6	102.4	-0.3	**19.2**	-6.9	13.8	12.6	102.4
Fz_i	-0.3	19.2	**-6.9**	13.8	12.6	102.4	-0.3	19.2	**-6.9**	13.8	12.6	102.4

Mx_i	-0.3	19.2	-6.9	**13.8**	12.6	102.4	-0.3	19.2	-6.9	**13.8**	12.6	102.4
My_i	-0.3	19.2	-6.9	13.8	**12.6**	102.4	-0.3	19.2	-6.9	13.8	**12.6**	102.4
Mz_i	-0.3	19.2	-6.9	13.8	12.6	**102.4**	-0.3	19.2	-6.9	13.8	12.6	**102.4**
Fx_f	**-0.3**	36.9	-6.9	21.2	-12.8	-0.5	**-0.3**	36.9	-6.9	21.2	-12.8	-0.5
Fy_f	-0.3	**36.9**	-6.9	21.2	-12.8	-0.5	-0.3	**36.9**	-6.9	21.2	-12.8	-0.5
Fz_f	-0.3	36.9	**-6.9**	21.2	-12.8	-0.5	-0.3	36.9	**-6.9**	21.2	-12.8	-0.5
Mx_f	-0.3	36.9	-6.9	**21.2**	-12.8	-0.5	-0.3	36.9	-6.9	**21.2**	-12.8	-0.5
My_f	-0.3	36.9	-6.9	21.2	**-12.8**	-0.5	-0.3	36.9	-6.9	21.2	**-12.8**	-0.5
Mz_f	-0.3	36.9	-6.9	21.2	-12.8	**-0.5**	-0.3	36.9	-6.9	21.2	-12.8	**-0.5**

Member 121

Fx_i	**-0.3**	-0.0	-0.0	-0.0	-21.3	0.0	**-0.3**	-0.0	-0.0	-0.0	-21.3	0.0
Fy_i	-0.3	**-0.0**	-0.0	-0.0	-21.3	0.0	-0.3	**-0.0**	-0.0	-0.0	-21.3	0.0
Fz_i	-0.3	-0.0	**-0.0**	-0.0	-21.3	0.0	-0.3	-0.0	**-0.0**	-0.0	-21.3	0.0
Mx_i	-0.3	-0.0	-0.0	**-0.0**	-21.3	0.0	-0.3	-0.0	-0.0	**-0.0**	-21.3	0.0
My_i	-0.3	-0.0	-0.0	-0.0	**-21.3**	0.0	-0.3	-0.0	-0.0	-0.0	**-21.3**	0.0
Mz_i	-0.3	-0.0	-0.0	-0.0	-21.3	**0.0**	-0.3	-0.0	-0.0	-0.0	-21.3	**0.0**
Fx_f	**-0.3**	-0.0	-0.0	-0.0	-21.3	0.0	**-0.3**	-0.0	-0.0	-0.0	-21.3	0.0
Fy_f	-0.3	**-0.0**	-0.0	-0.0	-21.3	0.0	-0.3	**-0.0**	-0.0	-0.0	-21.3	0.0
Fz_f	-0.3	-0.0	**-0.0**	-0.0	-21.3	0.0	-0.3	-0.0	**-0.0**	-0.0	-21.3	0.0
Mx_f	-0.3	-0.0	-0.0	**-0.0**	-21.3	0.0	-0.3	-0.0	-0.0	**-0.0**	-21.3	0.0
My_f	-0.3	-0.0	-0.0	-0.0	**-21.3**	0.0	-0.3	-0.0	-0.0	-0.0	**-21.3**	0.0
Mz_f	-0.3	-0.0	-0.0	-0.0	-21.3	**0.0**	-0.3	-0.0	-0.0	-0.0	-21.3	**0.0**

Member 122

Fx_i	**-0.4**	-0.0	-0.0	-0.0	1.2	0.5	**-0.4**	-0.0	-0.0	-0.0	1.2	0.5
Fy_i	-0.4	**-0.0**	-0.0	-0.0	1.2	0.5	-0.4	**-0.0**	-0.0	-0.0	1.2	0.5
Fz_i	-0.4	-0.0	**-0.0**	-0.0	1.2	0.5	-0.4	-0.0	**-0.0**	-0.0	1.2	0.5
Mx_i	-0.4	-0.0	-0.0	**-0.0**	1.2	0.5	-0.4	-0.0	-0.0	**-0.0**	1.2	0.5
My_i	-0.4	-0.0	-0.0	-0.0	**1.2**	0.5	-0.4	-0.0	-0.0	-0.0	**1.2**	0.5
Mz_i	-0.4	-0.0	-0.0	-0.0	1.2	**0.5**	-0.4	-0.0	-0.0	-0.0	1.2	**0.5**
Fx_f	**-0.4**	-0.0	-0.0	-0.0	1.2	0.5	**-0.4**	-0.0	-0.0	-0.0	1.2	0.5
Fy_f	-0.4	**-0.0**	-0.0	-0.0	1.2	0.5	-0.4	**-0.0**	-0.0	-0.0	1.2	0.5
Fz_f	-0.4	-0.0	**-0.0**	-0.0	1.2	0.5	-0.4	-0.0	**-0.0**	-0.0	1.2	0.5
Mx_f	-0.4	-0.0	-0.0	**-0.0**	1.2	0.5	-0.4	-0.0	-0.0	**-0.0**	1.2	0.5
My_f	-0.4	-0.0	-0.0	-0.0	**1.2**	0.5	-0.4	-0.0	-0.0	-0.0	**1.2**	0.5
Mz_f	-0.4	-0.0	-0.0	-0.0	1.2	**0.5**	-0.4	-0.0	-0.0	-0.0	1.2	**0.5**

Member 123

Fx_i	**-0.2**	-0.0	-0.0	-0.0	0.4	0.8	**-0.2**	-0.0	-0.0	-0.0	0.4	0.8
Fy_i	-0.2	**-0.0**	-0.0	-0.0	0.4	0.8	-0.2	**-0.0**	-0.0	-0.0	0.4	0.8
Fz_i	-0.2	-0.0	**-0.0**	-0.0	0.4	0.8	-0.2	-0.0	**-0.0**	-0.0	0.4	0.8
Mx_i	-0.2	-0.0	-0.0	**-0.0**	0.4	0.8	-0.2	-0.0	-0.0	**-0.0**	0.4	0.8
My_i	-0.2	-0.0	-0.0	-0.0	**0.4**	0.8	-0.2	-0.0	-0.0	-0.0	**0.4**	0.8
Mz_i	-0.2	-0.0	-0.0	-0.0	0.4	**0.8**	-0.2	-0.0	-0.0	-0.0	0.4	**0.8**
Fx_f	**-0.2**	-0.0	-0.0	-0.0	0.4	0.8	**-0.2**	-0.0	-0.0	-0.0	0.4	0.8
Fy_f	-0.2	**-0.0**	-0.0	-0.0	0.4	0.8	-0.2	**-0.0**	-0.0	-0.0	0.4	0.8
Fz_f	-0.2	-0.0	**-0.0**	-0.0	0.4	0.8	-0.2	-0.0	**-0.0**	-0.0	0.4	0.8
Mx_f	-0.2	-0.0	-0.0	**-0.0**	0.4	0.8	-0.2	-0.0	-0.0	**-0.0**	0.4	0.8
My_f	-0.2	-0.0	-0.0	-0.0	**0.4**	0.8	-0.2	-0.0	-0.0	-0.0	**0.4**	0.8
Mz_f	-0.2	-0.0	-0.0	-0.0	0.4	**0.8**	-0.2	-0.0	-0.0	-0.0	0.4	**0.8**

Member 124

Fx_i	**-0.2**	-0.0	-0.0	0.0	-0.3	0.9	**-0.2**	-0.0	-0.0	0.0	-0.3	0.9
Fy_i	-0.2	**-0.0**	-0.0	0.0	-0.3	0.9	-0.2	**-0.0**	-0.0	0.0	-0.3	0.9
Fz_i	-0.2	-0.0	**-0.0**	0.0	-0.3	0.9	-0.2	-0.0	**-0.0**	0.0	-0.3	0.9
Mx_i	-0.2	-0.0	-0.0	**0.0**	-0.3	0.9	-0.2	-0.0	-0.0	**0.0**	-0.3	0.9
My_i	-0.2	-0.0	-0.0	0.0	**-0.3**	0.9	-0.2	-0.0	-0.0	0.0	**-0.3**	0.9
Mz_i	-0.2	-0.0	-0.0	0.0	-0.3	**0.9**	-0.2	-0.0	-0.0	0.0	-0.3	**0.9**
Fx_f	**-0.2**	-0.0	-0.0	0.0	-0.3	0.9	**-0.2**	-0.0	-0.0	0.0	-0.3	0.9
Fy_f	-0.2	**-0.0**	-0.0	0.0	-0.3	0.9	-0.2	**-0.0**	-0.0	0.0	-0.3	0.9
Fz_f	-0.2	-0.0	**-0.0**	0.0	-0.3	0.9	-0.2	-0.0	**-0.0**	0.0	-0.3	0.9
Mx_f	-0.2	-0.0	-0.0	**0.0**	-0.3	0.9	-0.2	-0.0	-0.0	**0.0**	-0.3	0.9
My_f	-0.2	-0.0	-0.0	0.0	**-0.3**	0.9	-0.2	-0.0	-0.0	0.0	**-0.3**	0.9
Mz_f	-0.2	-0.0	-0.0	0.0	-0.3	**0.9**	-0.2	-0.0	-0.0	0.0	-0.3	**0.9**

Member 125

Fx_i	**-0.4**	-0.0	-0.0	0.0	-1.4	0.9	**-0.4**	-0.0	-0.0	0.0	-1.4	0.9
Fy_i	-0.4	**-0.0**	-0.0	0.0	-1.4	0.9	-0.4	**-0.0**	-0.0	0.0	-1.4	0.9
Fz_i	-0.4	-0.0	**-0.0**	0.0	-1.4	0.9	-0.4	-0.0	**-0.0**	0.0	-1.4	0.9
Mx_i	-0.4	-0.0	-0.0	**0.0**	-1.4	0.9	-0.4	-0.0	-0.0	**0.0**	-1.4	0.9
My_i	-0.4	-0.0	-0.0	0.0	**-1.4**	0.9	-0.4	-0.0	-0.0	0.0	**-1.4**	0.9
Mz_i	-0.4	-0.0	-0.0	0.0	-1.4	**0.9**	-0.4	-0.0	-0.0	0.0	-1.4	**0.9**
Fx_f	**-0.4**	-0.0	-0.0	0.0	-1.4	0.9	**-0.4**	-0.0	-0.0	0.0	-1.4	0.9
Fy_f	-0.4	**-0.0**	-0.0	0.0	-1.4	0.9	-0.4	**-0.0**	-0.0	0.0	-1.4	0.9
Fz_f	-0.4	-0.0	**-0.0**	0.0	-1.4	0.9	-0.4	-0.0	**-0.0**	0.0	-1.4	0.9
Mx_f	-0.4	-0.0	-0.0	**0.0**	-1.4	0.9	-0.4	-0.0	-0.0	**0.0**	-1.4	0.9
My_f	-0.4	-0.0	-0.0	0.0	**-1.4**	0.9	-0.4	-0.0	-0.0	0.0	**-1.4**	0.9
Mz_f	-0.4	-0.0	-0.0	0.0	-1.4	**0.9**	-0.4	-0.0	-0.0	0.0	-1.4	**0.9**

Member 126

Fx_i	**-0.9**	-0.0	-0.0	0.0	-3.6	0.6	**-0.9**	-0.0	-0.0	0.0	-3.6	0.6
Fy_i	-0.9	**-0.0**	-0.0	0.0	-3.6	0.6	-0.9	**-0.0**	-0.0	0.0	-3.6	0.6
Fz_i	-0.9	-0.0	**-0.0**	0.0	-3.6	0.6	-0.9	-0.0	**-0.0**	0.0	-3.6	0.6
Mx_i	-0.9	-0.0	-0.0	**0.0**	-3.6	0.6	-0.9	-0.0	-0.0	**0.0**	-3.6	0.6
My_i	-0.9	-0.0	-0.0	0.0	**-3.6**	0.6	-0.9	-0.0	-0.0	0.0	**-3.6**	0.6
Mz_i	-0.9	-0.0	-0.0	0.0	-3.6	**0.6**	-0.9	-0.0	-0.0	0.0	-3.6	**0.6**
Fx_f	**-0.9**	-0.0	-0.0	0.0	-3.6	0.6	**-0.9**	-0.0	-0.0	0.0	-3.6	0.6
Fy_f	-0.9	**-0.0**	-0.0	0.0	-3.6	0.6	-0.9	**-0.0**	-0.0	0.0	-3.6	0.6
Fz_f	-0.9	-0.0	**-0.0**	0.0	-3.6	0.6	-0.9	-0.0	**-0.0**	0.0	-3.6	0.6
Mx_f	-0.9	-0.0	-0.0	**0.0**	-3.6	0.6	-0.9	-0.0	-0.0	**0.0**	-3.6	0.6
My_f	-0.9	-0.0	-0.0	0.0	**-3.6**	0.6	-0.9	-0.0	-0.0	0.0	**-3.6**	0.6
Mz_f	-0.9	-0.0	-0.0	0.0	-3.6	**0.6**	-0.9	-0.0	-0.0	0.0	-3.6	**0.6**

Member 127

Fx_i	**-2.3**	-0.0	-0.0	-0.0	-0.4	0.2	**-2.3**	-0.0	-0.0	-0.0	-0.4	0.2
Fy_i	-2.3	**-0.0**	-0.0	-0.0	-0.4	0.2	-2.3	**-0.0**	-0.0	-0.0	-0.4	0.2
Fz_i	-2.3	-0.0	**-0.0**	-0.0	-0.4	0.2	-2.3	-0.0	**-0.0**	-0.0	-0.4	0.2
Mx_i	-2.3	-0.0	-0.0	**-0.0**	-0.4	0.2	-2.3	-0.0	-0.0	**-0.0**	-0.4	0.2
My_i	-2.3	-0.0	-0.0	-0.0	**-0.4**	0.2	-2.3	-0.0	-0.0	-0.0	**-0.4**	0.2
Mz_i	-2.3	-0.0	-0.0	-0.0	-0.4	**0.2**	-2.3	-0.0	-0.0	-0.0	-0.4	**0.2**
Fx_f	**-2.3**	-0.0	-0.0	-0.0	-0.4	0.2	**-2.3**	-0.0	-0.0	-0.0	-0.4	0.2
Fy_f	-2.3	**-0.0**	-0.0	-0.0	-0.4	0.2	-2.3	**-0.0**	-0.0	-0.0	-0.4	0.2
Fz_f	-2.3	-0.0	**-0.0**	-0.0	-0.4	0.2	-2.3	-0.0	**-0.0**	-0.0	-0.4	0.2
Mx_f	-2.3	-0.0	-0.0	**-0.0**	-0.4	0.2	-2.3	-0.0	-0.0	**-0.0**	-0.4	0.2
My_f	-2.3	-0.0	-0.0	-0.0	**-0.4**	0.2	-2.3	-0.0	-0.0	-0.0	**-0.4**	0.2
Mz_f	-2.3	-0.0	-0.0	-0.0	-0.4	**0.2**	-2.3	-0.0	-0.0	-0.0	-0.4	**0.2**

Member 128

Fx_i	**-0.7**	-0.0	-0.0	-0.0	2.7	1.3	**-0.7**	-0.0	-0.0	-0.0	2.7	1.3
Fy_i	-0.7	**-0.0**	-0.0	-0.0	2.7	1.3	-0.7	**-0.0**	-0.0	-0.0	2.7	1.3
Fz_i	-0.7	-0.0	**-0.0**	-0.0	2.7	1.3	-0.7	-0.0	**-0.0**	-0.0	2.7	1.3
Mx_i	-0.7	-0.0	-0.0	**-0.0**	2.7	1.3	-0.7	-0.0	-0.0	**-0.0**	2.7	1.3
My_i	-0.7	-0.0	-0.0	-0.0	**2.7**	1.3	-0.7	-0.0	-0.0	-0.0	**2.7**	1.3
Mz_i	-0.7	-0.0	-0.0	-0.0	2.7	**1.3**	-0.7	-0.0	-0.0	-0.0	2.7	**1.3**
Fx_f	**-0.7**	-0.0	-0.0	-0.0	2.7	1.3	**-0.7**	-0.0	-0.0	-0.0	2.7	1.3
Fy_f	-0.7	**-0.0**	-0.0	-0.0	2.7	1.3	-0.7	**-0.0**	-0.0	-0.0	2.7	1.3
Fz_f	-0.7	-0.0	**-0.0**	-0.0	2.7	1.3	-0.7	-0.0	**-0.0**	-0.0	2.7	1.3
Mx_f	-0.7	-0.0	-0.0	**-0.0**	2.7	1.3	-0.7	-0.0	-0.0	**-0.0**	2.7	1.3
My_f	-0.7	-0.0	-0.0	-0.0	**2.7**	1.3	-0.7	-0.0	-0.0	-0.0	**2.7**	1.3
Mz_f	-0.7	-0.0	-0.0	-0.0	2.7	**1.3**	-0.7	-0.0	-0.0	-0.0	2.7	**1.3**

Member 129

Fx_i	**-0.2**	-0.0	-0.0	-0.0	0.7	2.0	**-0.2**	-0.0	-0.0	-0.0	0.7	2.0
Fy_i	-0.2	**-0.0**	-0.0	-0.0	0.7	2.0	-0.2	**-0.0**	-0.0	-0.0	0.7	2.0
Fz_i	-0.2	-0.0	**-0.0**	-0.0	0.7	2.0	-0.2	-0.0	**-0.0**	-0.0	0.7	2.0
Mx_i	-0.2	-0.0	-0.0	**-0.0**	0.7	2.0	-0.2	-0.0	-0.0	**-0.0**	0.7	2.0
My_i	-0.2	-0.0	-0.0	-0.0	**0.7**	2.0	-0.2	-0.0	-0.0	-0.0	**0.7**	2.0
Mz_i	-0.2	-0.0	-0.0	-0.0	0.7	**2.0**	-0.2	-0.0	-0.0	-0.0	0.7	**2.0**

Fx_f	**-0.2**	-0.0	-0.0	-0.0	0.7	2.0	**-0.2**	-0.0	-0.0	-0.0	0.7	2.0
Fy_f	-0.2	**-0.0**	-0.0	-0.0	0.7	2.0	-0.2	**-0.0**	-0.0	-0.0	0.7	2.0
Fz_f	-0.2	-0.0	**-0.0**	-0.0	0.7	2.0	-0.2	-0.0	**-0.0**	-0.0	0.7	2.0
Mx_f	-0.2	-0.0	-0.0	**-0.0**	0.7	2.0	-0.2	-0.0	-0.0	**-0.0**	0.7	2.0
My_f	-0.2	-0.0	-0.0	-0.0	**0.7**	2.0	-0.2	-0.0	-0.0	-0.0	**0.7**	2.0
Mz_f	-0.2	-0.0	-0.0	-0.0	0.7	**2.0**	-0.2	-0.0	-0.0	-0.0	0.7	**2.0**

Member 130

Fx_i	**-0.1**	-0.0	-0.0	-0.0	0.2	2.5	**-0.1**	-0.0	-0.0	-0.0	0.2	2.5
Fy_i	-0.1	**-0.0**	-0.0	-0.0	0.2	2.5	-0.1	**-0.0**	-0.0	-0.0	0.2	2.5
Fz_i	-0.1	-0.0	**-0.0**	-0.0	0.2	2.5	-0.1	-0.0	**-0.0**	-0.0	0.2	2.5
Mx_i	-0.1	-0.0	-0.0	**-0.0**	0.2	2.5	-0.1	-0.0	-0.0	**-0.0**	0.2	2.5
My_i	-0.1	-0.0	-0.0	-0.0	**0.2**	2.5	-0.1	-0.0	-0.0	-0.0	**0.2**	2.5
Mz_i	-0.1	-0.0	-0.0	-0.0	0.2	**2.5**	-0.1	-0.0	-0.0	-0.0	0.2	**2.5**
Fx_f	**-0.1**	-0.0	-0.0	-0.0	0.2	2.5	**-0.1**	-0.0	-0.0	-0.0	0.2	2.5
Fy_f	-0.1	**-0.0**	-0.0	-0.0	0.2	2.5	-0.1	**-0.0**	-0.0	-0.0	0.2	2.5
Fz_f	-0.1	-0.0	**-0.0**	-0.0	0.2	2.5	-0.1	-0.0	**-0.0**	-0.0	0.2	2.5
Mx_f	-0.1	-0.0	-0.0	**-0.0**	0.2	2.5	-0.1	-0.0	-0.0	**-0.0**	0.2	2.5
My_f	-0.1	-0.0	-0.0	-0.0	**0.2**	2.5	-0.1	-0.0	-0.0	-0.0	**0.2**	2.5
Mz_f	-0.1	-0.0	-0.0	-0.0	0.2	**2.5**	-0.1	-0.0	-0.0	-0.0	0.2	**2.5**

Member 131

Fx_i	**-0.0**	-0.0	-0.0	-0.0	-0.0	2.6	**-0.0**	-0.0	-0.0	-0.0	-0.0	2.6
Fy_i	-0.0	**-0.0**	-0.0	-0.0	-0.0	2.6	-0.0	**-0.0**	-0.0	-0.0	-0.0	2.6
Fz_i	-0.0	-0.0	**-0.0**	-0.0	-0.0	2.6	-0.0	-0.0	**-0.0**	-0.0	-0.0	2.6
Mx_i	-0.0	-0.0	-0.0	**-0.0**	-0.0	2.6	-0.0	-0.0	-0.0	**-0.0**	-0.0	2.6
My_i	-0.0	-0.0	-0.0	-0.0	**-0.0**	2.6	-0.0	-0.0	-0.0	-0.0	**-0.0**	2.6
Mz_i	-0.0	-0.0	-0.0	-0.0	-0.0	**2.6**	-0.0	-0.0	-0.0	-0.0	-0.0	**2.6**
Fx_f	**-0.0**	-0.0	-0.0	-0.0	-0.0	2.6	**-0.0**	-0.0	-0.0	-0.0	-0.0	2.6
Fy_f	-0.0	**-0.0**	-0.0	-0.0	-0.0	2.6	-0.0	**-0.0**	-0.0	-0.0	-0.0	2.6
Fz_f	-0.0	-0.0	**-0.0**	-0.0	-0.0	2.6	-0.0	-0.0	**-0.0**	-0.0	-0.0	2.6
Mx_f	-0.0	-0.0	-0.0	**-0.0**	-0.0	2.6	-0.0	-0.0	-0.0	**-0.0**	-0.0	2.6
My_f	-0.0	-0.0	-0.0	-0.0	**-0.0**	2.6	-0.0	-0.0	-0.0	-0.0	**-0.0**	2.6
Mz_f	-0.0	-0.0	-0.0	-0.0	-0.0	**2.6**	-0.0	-0.0	-0.0	-0.0	-0.0	**2.6**

Member 132

Fx_i	**-0.1**	-0.0	-0.0	0.0	-0.2	2.5	**-0.1**	-0.0	-0.0	0.0	-0.2	2.5
Fy_i	-0.1	**-0.0**	-0.0	0.0	-0.2	2.5	-0.1	**-0.0**	-0.0	0.0	-0.2	2.5
Fz_i	-0.1	-0.0	**-0.0**	0.0	-0.2	2.5	-0.1	-0.0	**-0.0**	0.0	-0.2	2.5
Mx_i	-0.1	-0.0	-0.0	**0.0**	-0.2	2.5	-0.1	-0.0	-0.0	**0.0**	-0.2	2.5
My_i	-0.1	-0.0	-0.0	0.0	**-0.2**	2.5	-0.1	-0.0	-0.0	0.0	**-0.2**	2.5
Mz_i	-0.1	-0.0	-0.0	0.0	-0.2	**2.5**	-0.1	-0.0	-0.0	0.0	-0.2	**2.5**
Fx_f	**-0.1**	-0.0	-0.0	0.0	-0.2	2.5	**-0.1**	-0.0	-0.0	0.0	-0.2	2.5
Fy_f	-0.1	**-0.0**	-0.0	0.0	-0.2	2.5	-0.1	**-0.0**	-0.0	0.0	-0.2	2.5
Fz_f	-0.1	-0.0	**-0.0**	0.0	-0.2	2.5	-0.1	-0.0	**-0.0**	0.0	-0.2	2.5
Mx_f	-0.1	-0.0	-0.0	**0.0**	-0.2	2.5	-0.1	-0.0	-0.0	**0.0**	-0.2	2.5
My_f	-0.1	-0.0	-0.0	0.0	**-0.2**	2.5	-0.1	-0.0	-0.0	0.0	**-0.2**	2.5
Mz_f	-0.1	-0.0	-0.0	0.0	-0.2	**2.5**	-0.1	-0.0	-0.0	0.0	-0.2	**2.5**

Member 133

Fx_i	**-0.3**	-0.0	-0.0	0.0	-1.0	2.0	**-0.3**	-0.0	-0.0	0.0	-1.0	2.0
Fy_i	-0.3	**-0.0**	-0.0	0.0	-1.0	2.0	-0.3	**-0.0**	-0.0	0.0	-1.0	2.0
Fz_i	-0.3	-0.0	**-0.0**	0.0	-1.0	2.0	-0.3	-0.0	**-0.0**	0.0	-1.0	2.0
Mx_i	-0.3	-0.0	-0.0	**0.0**	-1.0	2.0	-0.3	-0.0	-0.0	**0.0**	-1.0	2.0
My_i	-0.3	-0.0	-0.0	0.0	**-1.0**	2.0	-0.3	-0.0	-0.0	0.0	**-1.0**	2.0
Mz_i	-0.3	-0.0	-0.0	0.0	-1.0	**2.0**	-0.3	-0.0	-0.0	0.0	-1.0	**2.0**
Fx_f	**-0.3**	-0.0	-0.0	0.0	-1.0	2.0	**-0.3**	-0.0	-0.0	0.0	-1.0	2.0
Fy_f	-0.3	**-0.0**	-0.0	0.0	-1.0	2.0	-0.3	**-0.0**	-0.0	0.0	-1.0	2.0
Fz_f	-0.3	-0.0	**-0.0**	0.0	-1.0	2.0	-0.3	-0.0	**-0.0**	0.0	-1.0	2.0
Mx_f	-0.3	-0.0	-0.0	**0.0**	-1.0	2.0	-0.3	-0.0	-0.0	**0.0**	-1.0	2.0
My_f	-0.3	-0.0	-0.0	0.0	**-1.0**	2.0	-0.3	-0.0	-0.0	0.0	**-1.0**	2.0
Mz_f	-0.3	-0.0	-0.0	0.0	-1.0	**2.0**	-0.3	-0.0	-0.0	0.0	-1.0	**2.0**

Member 134

Fx_i	**-1.0**	-0.0	-0.0	0.0	-3.7	1.3	**-1.0**	-0.0	-0.0	0.0	-3.7	1.3
Fy_i	-1.0	**-0.0**	-0.0	0.0	-3.7	1.3	-1.0	**-0.0**	-0.0	0.0	-3.7	1.3
Fz_i	-1.0	-0.0	**-0.0**	0.0	-3.7	1.3	-1.0	-0.0	**-0.0**	0.0	-3.7	1.3
Mx_i	-1.0	-0.0	-0.0	**0.0**	-3.7	1.3	-1.0	-0.0	-0.0	**0.0**	-3.7	1.3
My_i	-1.0	-0.0	-0.0	0.0	**-3.7**	1.3	-1.0	-0.0	-0.0	0.0	**-3.7**	1.3
Mz_i	-1.0	-0.0	-0.0	0.0	-3.7	**1.3**	-1.0	-0.0	-0.0	0.0	-3.7	**1.3**
Fx_f	**-1.0**	-0.0	-0.0	0.0	-3.7	1.3	**-1.0**	-0.0	-0.0	0.0	-3.7	1.3
Fy_f	-1.0	**-0.0**	-0.0	0.0	-3.7	1.3	-1.0	**-0.0**	-0.0	0.0	-3.7	1.3
Fz_f	-1.0	-0.0	**-0.0**	0.0	-3.7	1.3	-1.0	-0.0	**-0.0**	0.0	-3.7	1.3
Mx_f	-1.0	-0.0	-0.0	**0.0**	-3.7	1.3	-1.0	-0.0	-0.0	**0.0**	-3.7	1.3
My_f	-1.0	-0.0	-0.0	0.0	**-3.7**	1.3	-1.0	-0.0	-0.0	0.0	**-3.7**	1.3
Mz_f	-1.0	-0.0	-0.0	0.0	-3.7	**1.3**	-1.0	-0.0	-0.0	0.0	-3.7	**1.3**

Member 135

Fx_i	**-3.5**	-0.0	-0.0	-0.0	-0.0	0.2	**-3.5**	-0.0	-0.0	-0.0	-0.0	0.2
Fy_i	-3.5	**-0.0**	-0.0	-0.0	-0.0	0.2	-3.5	**-0.0**	-0.0	-0.0	-0.0	0.2
Fz_i	-3.5	-0.0	**-0.0**	-0.0	-0.0	0.2	-3.5	-0.0	**-0.0**	-0.0	-0.0	0.2
Mx_i	-3.5	-0.0	-0.0	**-0.0**	-0.0	0.2	-3.5	-0.0	-0.0	**-0.0**	-0.0	0.2
My_i	-3.5	-0.0	-0.0	-0.0	**-0.0**	0.2	-3.5	-0.0	-0.0	-0.0	**-0.0**	0.2
Mz_i	-3.5	-0.0	-0.0	-0.0	-0.0	**0.2**	-3.5	-0.0	-0.0	-0.0	-0.0	**0.2**
Fx_f	**-3.5**	-0.0	-0.0	-0.0	-0.0	0.2	**-3.5**	-0.0	-0.0	-0.0	-0.0	0.2
Fy_f	-3.5	**-0.0**	-0.0	-0.0	-0.0	0.2	-3.5	**-0.0**	-0.0	-0.0	-0.0	0.2
Fz_f	-3.5	-0.0	**-0.0**	-0.0	-0.0	0.2	-3.5	-0.0	**-0.0**	-0.0	-0.0	0.2
Mx_f	-3.5	-0.0	-0.0	**-0.0**	-0.0	0.2	-3.5	-0.0	-0.0	**-0.0**	-0.0	0.2
My_f	-3.5	-0.0	-0.0	-0.0	**-0.0**	0.2	-3.5	-0.0	-0.0	-0.0	**-0.0**	0.2
Mz_f	-3.5	-0.0	-0.0	-0.0	-0.0	**0.2**	-3.5	-0.0	-0.0	-0.0	-0.0	**0.2**

Member 136

Fx_i	**-1.0**	-0.0	-0.0	-0.0	3.7	1.3	**-1.0**	-0.0	-0.0	-0.0	3.7	1.3
Fy_i	-1.0	**-0.0**	-0.0	-0.0	3.7	1.3	-1.0	**-0.0**	-0.0	-0.0	3.7	1.3
Fz_i	-1.0	-0.0	**-0.0**	-0.0	3.7	1.3	-1.0	-0.0	**-0.0**	-0.0	3.7	1.3
Mx_i	-1.0	-0.0	-0.0	**-0.0**	3.7	1.3	-1.0	-0.0	-0.0	**-0.0**	3.7	1.3
My_i	-1.0	-0.0	-0.0	-0.0	**3.7**	1.3	-1.0	-0.0	-0.0	-0.0	**3.7**	1.3
Mz_i	-1.0	-0.0	-0.0	-0.0	3.7	**1.3**	-1.0	-0.0	-0.0	-0.0	3.7	**1.3**
Fx_f	**-1.0**	-0.0	-0.0	-0.0	3.7	1.3	**-1.0**	-0.0	-0.0	-0.0	3.7	1.3
Fy_f	-1.0	**-0.0**	-0.0	-0.0	3.7	1.3	-1.0	**-0.0**	-0.0	-0.0	3.7	1.3
Fz_f	-1.0	-0.0	**-0.0**	-0.0	3.7	1.3	-1.0	-0.0	**-0.0**	-0.0	3.7	1.3
Mx_f	-1.0	-0.0	-0.0	**-0.0**	3.7	1.3	-1.0	-0.0	-0.0	**-0.0**	3.7	1.3
My_f	-1.0	-0.0	-0.0	-0.0	**3.7**	1.3	-1.0	-0.0	-0.0	-0.0	**3.7**	1.3
Mz_f	-1.0	-0.0	-0.0	-0.0	3.7	**1.3**	-1.0	-0.0	-0.0	-0.0	3.7	**1.3**

Member 137

Fx_i	**-0.3**	-0.0	-0.0	-0.0	1.0	2.0	**-0.3**	-0.0	-0.0	-0.0	1.0	2.0
Fy_i	-0.3	**-0.0**	-0.0	-0.0	1.0	2.0	-0.3	**-0.0**	-0.0	-0.0	1.0	2.0
Fz_i	-0.3	-0.0	**-0.0**	-0.0	1.0	2.0	-0.3	-0.0	**-0.0**	-0.0	1.0	2.0
Mx_i	-0.3	-0.0	-0.0	**-0.0**	1.0	2.0	-0.3	-0.0	-0.0	**-0.0**	1.0	2.0
My_i	-0.3	-0.0	-0.0	-0.0	**1.0**	2.0	-0.3	-0.0	-0.0	-0.0	**1.0**	2.0
Mz_i	-0.3	-0.0	-0.0	-0.0	1.0	**2.0**	-0.3	-0.0	-0.0	-0.0	1.0	**2.0**
Fx_f	**-0.3**	-0.0	-0.0	-0.0	1.0	2.0	**-0.3**	-0.0	-0.0	-0.0	1.0	2.0
Fy_f	-0.3	**-0.0**	-0.0	-0.0	1.0	2.0	-0.3	**-0.0**	-0.0	-0.0	1.0	2.0
Fz_f	-0.3	-0.0	**-0.0**	-0.0	1.0	2.0	-0.3	-0.0	**-0.0**	-0.0	1.0	2.0
Mx_f	-0.3	-0.0	-0.0	**-0.0**	1.0	2.0	-0.3	-0.0	-0.0	**-0.0**	1.0	2.0
My_f	-0.3	-0.0	-0.0	-0.0	**1.0**	2.0	-0.3	-0.0	-0.0	-0.0	**1.0**	2.0
Mz_f	-0.3	-0.0	-0.0	-0.0	1.0	**2.0**	-0.3	-0.0	-0.0	-0.0	1.0	**2.0**

Member 138

Fx_i	**-0.1**	-0.0	-0.0	-0.0	0.2	2.5	**-0.1**	-0.0	-0.0	-0.0	0.2	2.5
Fy_i	-0.1	**-0.0**	-0.0	-0.0	0.2	2.5	-0.1	**-0.0**	-0.0	-0.0	0.2	2.5
Fz_i	-0.1	-0.0	**-0.0**	-0.0	0.2	2.5	-0.1	-0.0	**-0.0**	-0.0	0.2	2.5
Mx_i	-0.1	-0.0	-0.0	**-0.0**	0.2	2.5	-0.1	-0.0	-0.0	**-0.0**	0.2	2.5
My_i	-0.1	-0.0	-0.0	-0.0	**0.2**	2.5	-0.1	-0.0	-0.0	-0.0	**0.2**	2.5
Mz_i	-0.1	-0.0	-0.0	-0.0	0.2	**2.5**	-0.1	-0.0	-0.0	-0.0	0.2	**2.5**
Fx_f	**-0.1**	-0.0	-0.0	-0.0	0.2	2.5	**-0.1**	-0.0	-0.0	-0.0	0.2	2.5
Fy_f	-0.1	**-0.0**	-0.0	-0.0	0.2	2.5	-0.1	**-0.0**	-0.0	-0.0	0.2	2.5
Fz_f	-0.1	-0.0	**-0.0**	-0.0	0.2	2.5	-0.1	-0.0	**-0.0**	-0.0	0.2	2.5
Mx_f	-0.1	-0.0	-0.0	**-0.0**	0.2	2.5	-0.1	-0.0	-0.0	**-0.0**	0.2	2.5

My_i	-0.1	-0.0	-0.0	-0.0	**0.2**	2.5	-0.1	-0.0	-0.0	-0.0	**0.2**	2.5
Mz_i	-0.1	-0.0	-0.0	-0.0	0.2	**2.5**	-0.1	-0.0	-0.0	-0.0	0.2	**2.5**

Member 139

Fx_i	**-0.0**	-0.0	-0.0	-0.0	0.0	2.6	**-0.0**	-0.0	-0.0	-0.0	0.0	2.6
Fy_i	-0.0	**-0.0**	-0.0	-0.0	0.0	2.6	-0.0	**-0.0**	-0.0	-0.0	0.0	2.6
Fz_i	-0.0	-0.0	**-0.0**	-0.0	0.0	2.6	-0.0	-0.0	**-0.0**	-0.0	0.0	2.6
Mx_i	-0.0	-0.0	-0.0	**-0.0**	0.0	2.6	-0.0	-0.0	-0.0	**-0.0**	0.0	2.6
My_i	-0.0	-0.0	-0.0	-0.0	**0.0**	2.6	-0.0	-0.0	-0.0	-0.0	**0.0**	2.6
Mz_i	-0.0	-0.0	-0.0	-0.0	0.0	**2.6**	-0.0	-0.0	-0.0	-0.0	0.0	**2.6**
Fx_f	**-0.0**	-0.0	-0.0	-0.0	0.0	2.6	**-0.0**	-0.0	-0.0	-0.0	0.0	2.6
Fy_f	-0.0	**-0.0**	-0.0	-0.0	0.0	2.6	-0.0	**-0.0**	-0.0	-0.0	0.0	2.6
Fz_f	-0.0	-0.0	**-0.0**	-0.0	0.0	2.6	-0.0	-0.0	**-0.0**	-0.0	0.0	2.6
Mx_f	-0.0	-0.0	-0.0	**-0.0**	0.0	2.6	-0.0	-0.0	-0.0	**-0.0**	0.0	2.6
My_f	-0.0	-0.0	-0.0	-0.0	**0.0**	2.6	-0.0	-0.0	-0.0	-0.0	**0.0**	2.6
Mz_f	-0.0	-0.0	-0.0	-0.0	0.0	**2.6**	-0.0	-0.0	-0.0	-0.0	0.0	**2.6**

Member 140

Fx_i	**-0.1**	-0.0	-0.0	0.0	-0.2	2.5	**-0.1**	-0.0	-0.0	0.0	-0.2	2.5
Fy_i	-0.1	**-0.0**	-0.0	0.0	-0.2	2.5	-0.1	**-0.0**	-0.0	0.0	-0.2	2.5
Fz_i	-0.1	-0.0	**-0.0**	0.0	-0.2	2.5	-0.1	-0.0	**-0.0**	0.0	-0.2	2.5
Mx_i	-0.1	-0.0	-0.0	**0.0**	-0.2	2.5	-0.1	-0.0	-0.0	**0.0**	-0.2	2.5
My_i	-0.1	-0.0	-0.0	0.0	**-0.2**	2.5	-0.1	-0.0	-0.0	0.0	**-0.2**	2.5
Mz_i	-0.1	-0.0	-0.0	0.0	-0.2	**2.5**	-0.1	-0.0	-0.0	0.0	-0.2	**2.5**
Fx_f	**-0.1**	-0.0	-0.0	0.0	-0.2	2.5	**-0.1**	-0.0	-0.0	0.0	-0.2	2.5
Fy_f	-0.1	**-0.0**	-0.0	0.0	-0.2	2.5	-0.1	**-0.0**	-0.0	0.0	-0.2	2.5
Fz_f	-0.1	-0.0	**-0.0**	0.0	-0.2	2.5	-0.1	-0.0	**-0.0**	0.0	-0.2	2.5
Mx_f	-0.1	-0.0	-0.0	**0.0**	-0.2	2.5	-0.1	-0.0	-0.0	**0.0**	-0.2	2.5
My_f	-0.1	-0.0	-0.0	0.0	**-0.2**	2.5	-0.1	-0.0	-0.0	0.0	**-0.2**	2.5
Mz_f	-0.1	-0.0	-0.0	0.0	-0.2	**2.5**	-0.1	-0.0	-0.0	0.0	-0.2	**2.5**

Member 141

Fx_i	**-0.2**	-0.0	-0.0	0.0	-0.8	2.1	**-0.2**	-0.0	-0.0	0.0	-0.8	2.1
Fy_i	-0.2	**-0.0**	-0.0	0.0	-0.8	2.1	-0.2	**-0.0**	-0.0	0.0	-0.8	2.1
Fz_i	-0.2	-0.0	**-0.0**	0.0	-0.8	2.1	-0.2	-0.0	**-0.0**	0.0	-0.8	2.1
Mx_i	-0.2	-0.0	-0.0	**0.0**	-0.8	2.1	-0.2	-0.0	-0.0	**0.0**	-0.8	2.1
My_i	-0.2	-0.0	-0.0	0.0	**-0.8**	2.1	-0.2	-0.0	-0.0	0.0	**-0.8**	2.1
Mz_i	-0.2	-0.0	-0.0	0.0	-0.8	**2.1**	-0.2	-0.0	-0.0	0.0	-0.8	**2.1**
Fx_f	**-0.2**	-0.0	-0.0	0.0	-0.8	2.1	**-0.2**	-0.0	-0.0	0.0	-0.8	2.1
Fy_f	-0.2	**-0.0**	-0.0	0.0	-0.8	2.1	-0.2	**-0.0**	-0.0	0.0	-0.8	2.1
Fz_f	-0.2	-0.0	**-0.0**	0.0	-0.8	2.1	-0.2	-0.0	**-0.0**	0.0	-0.8	2.1
Mx_f	-0.2	-0.0	-0.0	**0.0**	-0.8	2.1	-0.2	-0.0	-0.0	**0.0**	-0.8	2.1
My_f	-0.2	-0.0	-0.0	0.0	**-0.8**	2.1	-0.2	-0.0	-0.0	0.0	**-0.8**	2.1
Mz_f	-0.2	-0.0	-0.0	0.0	-0.8	**2.1**	-0.2	-0.0	-0.0	0.0	-0.8	**2.1**

Member 142

Fx_i	**-0.8**	-0.0	0.0	0.0	-3.0	1.3	**-0.8**	-0.0	0.0	0.0	-3.0	1.3
Fy_i	-0.8	**-0.0**	0.0	0.0	-3.0	1.3	-0.8	**-0.0**	0.0	0.0	-3.0	1.3
Fz_i	-0.8	-0.0	**0.0**	0.0	-3.0	1.3	-0.8	-0.0	**0.0**	0.0	-3.0	1.3
Mx_i	-0.8	-0.0	0.0	**0.0**	-3.0	1.3	-0.8	-0.0	0.0	**0.0**	-3.0	1.3
My_i	-0.8	-0.0	0.0	0.0	**-3.0**	1.3	-0.8	-0.0	0.0	0.0	**-3.0**	1.3
Mz_i	-0.8	-0.0	0.0	0.0	-3.0	**1.3**	-0.8	-0.0	0.0	0.0	-3.0	**1.3**
Fx_f	**-0.8**	-0.0	0.0	0.0	-3.0	1.3	**-0.8**	-0.0	0.0	0.0	-3.0	1.3
Fy_f	-0.8	**-0.0**	0.0	0.0	-3.0	1.3	-0.8	**-0.0**	0.0	0.0	-3.0	1.3
Fz_f	-0.8	-0.0	**0.0**	0.0	-3.0	1.3	-0.8	-0.0	**0.0**	0.0	-3.0	1.3
Mx_f	-0.8	-0.0	0.0	**0.0**	-3.0	1.3	-0.8	-0.0	0.0	**0.0**	-3.0	1.3
My_f	-0.8	-0.0	0.0	0.0	**-3.0**	1.3	-0.8	-0.0	0.0	0.0	**-3.0**	1.3
Mz_f	-0.8	-0.0	0.0	0.0	-3.0	**1.3**	-0.8	-0.0	0.0	0.0	-3.0	**1.3**

Member 143

Fx_i	**-2.8**	-0.0	0.0	-0.0	0.0	0.3	**-2.8**	-0.0	0.0	-0.0	0.0	0.3
Fy_i	-2.8	**-0.0**	0.0	-0.0	0.0	0.3	-2.8	**-0.0**	0.0	-0.0	0.0	0.3
Fz_i	-2.8	-0.0	**0.0**	-0.0	0.0	0.3	-2.8	-0.0	**0.0**	-0.0	0.0	0.3
Mx_i	-2.8	-0.0	0.0	**-0.0**	0.0	0.3	-2.8	-0.0	0.0	**-0.0**	0.0	0.3
My_i	-2.8	-0.0	0.0	-0.0	**0.0**	0.3	-2.8	-0.0	0.0	-0.0	**0.0**	0.3
Mz_i	-2.8	-0.0	0.0	-0.0	0.0	**0.3**	-2.8	-0.0	0.0	-0.0	0.0	**0.3**
Fx_f	**-2.8**	-0.0	0.0	-0.0	0.0	0.3	**-2.8**	-0.0	0.0	-0.0	0.0	0.3
Fy_f	-2.8	**-0.0**	0.0	-0.0	0.0	0.3	-2.8	**-0.0**	0.0	-0.0	0.0	0.3
Fz_f	-2.8	-0.0	**0.0**	-0.0	0.0	0.3	-2.8	-0.0	**0.0**	-0.0	0.0	0.3
Mx_f	-2.8	-0.0	0.0	**-0.0**	0.0	0.3	-2.8	-0.0	0.0	**-0.0**	0.0	0.3
My_f	-2.8	-0.0	0.0	-0.0	**0.0**	0.3	-2.8	-0.0	0.0	-0.0	**0.0**	0.3
Mz_f	-2.8	-0.0	0.0	-0.0	0.0	**0.3**	-2.8	-0.0	0.0	-0.0	0.0	**0.3**

Member 144

Fx_i	**-0.8**	-0.0	-0.0	-0.0	3.0	1.3	**-0.8**	-0.0	-0.0	-0.0	3.0	1.3
Fy_i	-0.8	**-0.0**	-0.0	-0.0	3.0	1.3	-0.8	**-0.0**	-0.0	-0.0	3.0	1.3
Fz_i	-0.8	-0.0	**-0.0**	-0.0	3.0	1.3	-0.8	-0.0	**-0.0**	-0.0	3.0	1.3
Mx_i	-0.8	-0.0	-0.0	**-0.0**	3.0	1.3	-0.8	-0.0	-0.0	**-0.0**	3.0	1.3
My_i	-0.8	-0.0	-0.0	-0.0	**3.0**	1.3	-0.8	-0.0	-0.0	-0.0	**3.0**	1.3
Mz_i	-0.8	-0.0	-0.0	-0.0	3.0	**1.3**	-0.8	-0.0	-0.0	-0.0	3.0	**1.3**
Fx_f	**-0.8**	-0.0	-0.0	-0.0	3.0	1.3	**-0.8**	-0.0	-0.0	-0.0	3.0	1.3
Fy_f	-0.8	**-0.0**	-0.0	-0.0	3.0	1.3	-0.8	**-0.0**	-0.0	-0.0	3.0	1.3
Fz_f	-0.8	-0.0	**-0.0**	-0.0	3.0	1.3	-0.8	-0.0	**-0.0**	-0.0	3.0	1.3
Mx_f	-0.8	-0.0	-0.0	**-0.0**	3.0	1.3	-0.8	-0.0	-0.0	**-0.0**	3.0	1.3
My_f	-0.8	-0.0	-0.0	-0.0	**3.0**	1.3	-0.8	-0.0	-0.0	-0.0	**3.0**	1.3
Mz_f	-0.8	-0.0	-0.0	-0.0	3.0	**1.3**	-0.8	-0.0	-0.0	-0.0	3.0	**1.3**

Member 145

Fx_i	**-0.2**	-0.0	0.0	-0.0	0.8	2.1	**-0.2**	-0.0	0.0	-0.0	0.8	2.1
Fy_i	-0.2	**-0.0**	0.0	-0.0	0.8	2.1	-0.2	**-0.0**	0.0	-0.0	0.8	2.1
Fz_i	-0.2	-0.0	**0.0**	-0.0	0.8	2.1	-0.2	-0.0	**0.0**	-0.0	0.8	2.1
Mx_i	-0.2	-0.0	0.0	**-0.0**	0.8	2.1	-0.2	-0.0	0.0	**-0.0**	0.8	2.1
My_i	-0.2	-0.0	0.0	-0.0	**0.8**	2.1	-0.2	-0.0	0.0	-0.0	**0.8**	2.1
Mz_i	-0.2	-0.0	0.0	-0.0	0.8	**2.1**	-0.2	-0.0	0.0	-0.0	0.8	**2.1**
Fx_f	**-0.2**	-0.0	0.0	-0.0	0.8	2.1	**-0.2**	-0.0	0.0	-0.0	0.8	2.1
Fy_f	-0.2	**-0.0**	0.0	-0.0	0.8	2.1	-0.2	**-0.0**	0.0	-0.0	0.8	2.1
Fz_f	-0.2	-0.0	**0.0**	-0.0	0.8	2.1	-0.2	-0.0	**0.0**	-0.0	0.8	2.1
Mx_f	-0.2	-0.0	0.0	**-0.0**	0.8	2.1	-0.2	-0.0	0.0	**-0.0**	0.8	2.1
My_f	-0.2	-0.0	0.0	-0.0	**0.8**	2.1	-0.2	-0.0	0.0	-0.0	**0.8**	2.1
Mz_f	-0.2	-0.0	0.0	-0.0	0.8	**2.1**	-0.2	-0.0	0.0	-0.0	0.8	**2.1**

Member 146

Fx_i	**-0.1**	-0.0	0.0	-0.0	0.2	2.5	**-0.1**	-0.0	0.0	-0.0	0.2	2.5
Fy_i	-0.1	**-0.0**	0.0	-0.0	0.2	2.5	-0.1	**-0.0**	0.0	-0.0	0.2	2.5
Fz_i	-0.1	-0.0	**0.0**	-0.0	0.2	2.5	-0.1	-0.0	**0.0**	-0.0	0.2	2.5
Mx_i	-0.1	-0.0	0.0	**-0.0**	0.2	2.5	-0.1	-0.0	0.0	**-0.0**	0.2	2.5
My_i	-0.1	-0.0	0.0	-0.0	**0.2**	2.5	-0.1	-0.0	0.0	-0.0	**0.2**	2.5
Mz_i	-0.1	-0.0	0.0	-0.0	0.2	**2.5**	-0.1	-0.0	0.0	-0.0	0.2	**2.5**
Fx_f	**-0.1**	-0.0	0.0	-0.0	0.2	2.5	**-0.1**	-0.0	0.0	-0.0	0.2	2.5
Fy_f	-0.1	**-0.0**	0.0	-0.0	0.2	2.5	-0.1	**-0.0**	0.0	-0.0	0.2	2.5
Fz_f	-0.1	-0.0	**0.0**	-0.0	0.2	2.5	-0.1	-0.0	**0.0**	-0.0	0.2	2.5
Mx_f	-0.1	-0.0	0.0	**-0.0**	0.2	2.5	-0.1	-0.0	0.0	**-0.0**	0.2	2.5
My_f	-0.1	-0.0	0.0	-0.0	**0.2**	2.5	-0.1	-0.0	0.0	-0.0	**0.2**	2.5
Mz_f	-0.1	-0.0	0.0	-0.0	0.2	**2.5**	-0.1	-0.0	0.0	-0.0	0.2	**2.5**

Member 147

Fx_i	**-0.0**	-0.0	0.0	-0.0	0.0	2.7	**-0.0**	-0.0	0.0	-0.0	0.0	2.7
Fy_i	-0.0	**-0.0**	0.0	-0.0	0.0	2.7	-0.0	**-0.0**	0.0	-0.0	0.0	2.7
Fz_i	-0.0	-0.0	**0.0**	-0.0	0.0	2.7	-0.0	-0.0	**0.0**	-0.0	0.0	2.7
Mx_i	-0.0	-0.0	0.0	**-0.0**	0.0	2.7	-0.0	-0.0	0.0	**-0.0**	0.0	2.7
My_i	-0.0	-0.0	0.0	-0.0	**0.0**	2.7	-0.0	-0.0	0.0	-0.0	**0.0**	2.7
Mz_i	-0.0	-0.0	0.0	-0.0	0.0	**2.7**	-0.0	-0.0	0.0	-0.0	0.0	**2.7**
Fx_f	**-0.0**	-0.0	0.0	-0.0	0.0	2.7	**-0.0**	-0.0	0.0	-0.0	0.0	2.7
Fy_f	-0.0	**-0.0**	0.0	-0.0	0.0	2.7	-0.0	**-0.0**	0.0	-0.0	0.0	2.7
Fz_f	-0.0	-0.0	**0.0**	-0.0	0.0	2.7	-0.0	-0.0	**0.0**	-0.0	0.0	2.7
Mx_f	-0.0	-0.0	0.0	**-0.0**	0.0	2.7	-0.0	-0.0	0.0	**-0.0**	0.0	2.7
My_f	-0.0	-0.0	0.0	-0.0	**0.0**	2.7	-0.0	-0.0	0.0	-0.0	**0.0**	2.7
Mz_f	-0.0	-0.0	0.0	-0.0	0.0	**2.7**	-0.0	-0.0	0.0	-0.0	0.0	**2.7**

Member 148

Fx_i	**-0.1**	-0.0	0.0	0.0	-0.2	2.5	**-0.1**	-0.0	0.0	0.0	-0.2	2.5
Fy_i	-0.1	**-0.0**	0.0	0.0	-0.2	2.5	-0.1	**-0.0**	0.0	0.0	-0.2	2.5
Fz_i	-0.1	-0.0	**0.0**	0.0	-0.2	2.5	-0.1	-0.0	**0.0**	0.0	-0.2	2.5
Mx_i	-0.1	-0.0	0.0	**0.0**	-0.2	2.5	-0.1	-0.0	0.0	**0.0**	-0.2	2.5
My_i	-0.1	-0.0	0.0	0.0	**-0.2**	2.5	-0.1	-0.0	0.0	0.0	**-0.2**	2.5
Mz_i	-0.1	-0.0	0.0	0.0	-0.2	**2.5**	-0.1	-0.0	0.0	0.0	-0.2	**2.5**
Fx_f	**-0.1**	-0.0	0.0	0.0	-0.2	2.5	**-0.1**	-0.0	0.0	0.0	-0.2	2.5
Fy_f	-0.1	**-0.0**	0.0	0.0	-0.2	2.5	-0.1	**-0.0**	0.0	0.0	-0.2	2.5
Fz_f	-0.1	-0.0	**0.0**	0.0	-0.2	2.5	-0.1	-0.0	**0.0**	0.0	-0.2	2.5
Mx_f	-0.1	-0.0	0.0	**0.0**	-0.2	2.5	-0.1	-0.0	0.0	**0.0**	-0.2	2.5
My_f	-0.1	-0.0	0.0	0.0	**-0.2**	2.5	-0.1	-0.0	0.0	0.0	**-0.2**	2.5
Mz_f	-0.1	-0.0	0.0	0.0	-0.2	**2.5**	-0.1	-0.0	0.0	0.0	-0.2	**2.5**

Member 149

Fx_i	**-0.2**	-0.0	0.0	0.0	-0.8	2.1	**-0.2**	-0.0	0.0	0.0	-0.8	2.1
Fy_i	-0.2	**-0.0**	0.0	0.0	-0.8	2.1	-0.2	**-0.0**	0.0	0.0	-0.8	2.1
Fz_i	-0.2	-0.0	**0.0**	0.0	-0.8	2.1	-0.2	-0.0	**0.0**	0.0	-0.8	2.1
Mx_i	-0.2	-0.0	0.0	**0.0**	-0.8	2.1	-0.2	-0.0	0.0	**0.0**	-0.8	2.1
My_i	-0.2	-0.0	0.0	0.0	**-0.8**	2.1	-0.2	-0.0	0.0	0.0	**-0.8**	2.1
Mz_i	-0.2	-0.0	0.0	0.0	-0.8	**2.1**	-0.2	-0.0	0.0	0.0	-0.8	**2.1**
Fx_f	**-0.2**	-0.0	0.0	0.0	-0.8	2.1	**-0.2**	-0.0	0.0	0.0	-0.8	2.1
Fy_f	-0.2	**-0.0**	0.0	0.0	-0.8	2.1	-0.2	**-0.0**	0.0	0.0	-0.8	2.1
Fz_f	-0.2	-0.0	**0.0**	0.0	-0.8	2.1	-0.2	-0.0	**0.0**	0.0	-0.8	2.1
Mx_f	-0.2	-0.0	0.0	**0.0**	-0.8	2.1	-0.2	-0.0	0.0	**0.0**	-0.8	2.1
My_f	-0.2	-0.0	0.0	0.0	**-0.8**	2.1	-0.2	-0.0	0.0	0.0	**-0.8**	2.1
Mz_f	-0.2	-0.0	0.0	0.0	-0.8	**2.1**	-0.2	-0.0	0.0	0.0	-0.8	**2.1**

Member 150

Fx_i	**-0.8**	-0.0	0.0	0.0	-2.9	1.3	**-0.8**	-0.0	0.0	0.0	-2.9	1.3
Fy_i	-0.8	**-0.0**	0.0	0.0	-2.9	1.3	-0.8	**-0.0**	0.0	0.0	-2.9	1.3
Fz_i	-0.8	-0.0	**0.0**	0.0	-2.9	1.3	-0.8	-0.0	**0.0**	0.0	-2.9	1.3
Mx_i	-0.8	-0.0	0.0	**0.0**	-2.9	1.3	-0.8	-0.0	0.0	**0.0**	-2.9	1.3
My_i	-0.8	-0.0	0.0	0.0	**-2.9**	1.3	-0.8	-0.0	0.0	0.0	**-2.9**	1.3
Mz_i	-0.8	-0.0	0.0	0.0	-2.9	**1.3**	-0.8	-0.0	0.0	0.0	-2.9	**1.3**
Fx_f	**-0.8**	-0.0	0.0	0.0	-2.9	1.3	**-0.8**	-0.0	0.0	0.0	-2.9	1.3
Fy_f	-0.8	**-0.0**	0.0	0.0	-2.9	1.3	-0.8	**-0.0**	0.0	0.0	-2.9	1.3
Fz_f	-0.8	-0.0	**0.0**	0.0	-2.9	1.3	-0.8	-0.0	**0.0**	0.0	-2.9	1.3
Mx_f	-0.8	-0.0	0.0	**0.0**	-2.9	1.3	-0.8	-0.0	0.0	**0.0**	-2.9	1.3
My_f	-0.8	-0.0	0.0	0.0	**-2.9**	1.3	-0.8	-0.0	0.0	0.0	**-2.9**	1.3
Mz_f	-0.8	-0.0	0.0	0.0	-2.9	**1.3**	-0.8	-0.0	0.0	0.0	-2.9	**1.3**

Member 365

Fx_i	**-38.6**	-0.0	-12.2	0.0	21.4	-0.0	**-38.6**	-0.0	-12.2	0.0	21.4	-0.0
Fy_i	-38.6	**-0.0**	-12.2	0.0	21.4	-0.0	-38.6	**-0.0**	-12.2	0.0	21.4	-0.0
Fz_i	-38.6	-0.0	**-12.2**	0.0	21.4	-0.0	-38.6	-0.0	**-12.2**	0.0	21.4	-0.0
Mx_i	-38.6	-0.0	-12.2	**0.0**	21.4	-0.0	-38.6	-0.0	-12.2	**0.0**	21.4	-0.0
My_i	-38.6	-0.0	-12.2	0.0	**21.4**	-0.0	-38.6	-0.0	-12.2	0.0	**21.4**	-0.0
Mz_i	-38.6	-0.0	-12.2	0.0	21.4	**-0.0**	-38.6	-0.0	-12.2	0.0	21.4	**-0.0**
Fx_f	**-38.6**	-0.0	-12.2	0.0	0.0	0.0	**-38.6**	-0.0	-12.2	0.0	0.0	0.0
Fy_f	-38.6	**-0.0**	-12.2	0.0	0.0	0.0	-38.6	**-0.0**	-12.2	0.0	0.0	0.0
Fz_f	-38.6	-0.0	**-12.2**	0.0	0.0	0.0	-38.6	-0.0	**-12.2**	0.0	0.0	0.0
Mx_f	-38.6	-0.0	-12.2	**0.0**	0.0	0.0	-38.6	-0.0	-12.2	**0.0**	0.0	0.0
My_f	-38.6	-0.0	-12.2	0.0	**0.0**	0.0	-38.6	-0.0	-12.2	0.0	**0.0**	0.0
Mz_f	-38.6	-0.0	-12.2	0.0	0.0	**0.0**	-38.6	-0.0	-12.2	0.0	0.0	**0.0**

Member 366

Fx_i	**-153.3**	0.0	-4.7	0.0	49.2	0.0	**-153.3**	0.0	-4.7	0.0	49.2	0.0
Fy_i	-153.3	**0.0**	-4.7	0.0	49.2	0.0	-153.3	**0.0**	-4.7	0.0	49.2	0.0
Fz_i	-153.3	0.0	**-4.7**	0.0	49.2	0.0	-153.3	0.0	**-4.7**	0.0	49.2	0.0
Mx_i	-153.3	0.0	-4.7	**0.0**	49.2	0.0	-153.3	0.0	-4.7	**0.0**	49.2	0.0
My_i	-153.3	0.0	-4.7	0.0	**49.2**	0.0	-153.3	0.0	-4.7	0.0	**49.2**	0.0
Mz_i	-153.3	0.0	-4.7	0.0	49.2	**0.0**	-153.3	0.0	-4.7	0.0	49.2	**0.0**
Fx_f	**-153.3**	0.0	-4.7	0.0	40.8	-0.0	**-153.3**	0.0	-4.7	0.0	40.8	-0.0
Fy_f	-153.3	**0.0**	-4.7	0.0	40.8	-0.0	-153.3	**0.0**	-4.7	0.0	40.8	-0.0
Fz_f	-153.3	0.0	**-4.7**	0.0	40.8	-0.0	-153.3	0.0	**-4.7**	0.0	40.8	-0.0
Mx_f	-153.3	0.0	-4.7	**0.0**	40.8	-0.0	-153.3	0.0	-4.7	**0.0**	40.8	-0.0
My_f	-153.3	0.0	-4.7	0.0	**40.8**	-0.0	-153.3	0.0	-4.7	0.0	**40.8**	-0.0
Mz_f	-153.3	0.0	-4.7	0.0	40.8	**-0.0**	-153.3	0.0	-4.7	0.0	40.8	**-0.0**

Member 367

Fx_i	**-178.5**	0.0	-6.1	0.0	59.1	0.0	**-178.5**	0.0	-6.1	0.0	59.1	0.0
Fy_i	-178.5	**0.0**	-6.1	0.0	59.1	0.0	-178.5	**0.0**	-6.1	0.0	59.1	0.0
Fz_i	-178.5	0.0	**-6.1**	0.0	59.1	0.0	-178.5	0.0	**-6.1**	0.0	59.1	0.0
Mx_i	-178.5	0.0	-6.1	**0.0**	59.1	0.0	-178.5	0.0	-6.1	**0.0**	59.1	0.0
My_i	-178.5	0.0	-6.1	0.0	**59.1**	0.0	-178.5	0.0	-6.1	0.0	**59.1**	0.0
Mz_i	-178.5	0.0	-6.1	0.0	59.1	**0.0**	-178.5	0.0	-6.1	0.0	59.1	**0.0**
Fx_f	**-178.5**	0.0	-6.1	0.0	48.4	0.0	**-178.5**	0.0	-6.1	0.0	48.4	0.0
Fy_f	-178.5	**0.0**	-6.1	0.0	48.4	0.0	-178.5	**0.0**	-6.1	0.0	48.4	0.0
Fz_f	-178.5	0.0	**-6.1**	0.0	48.4	0.0	-178.5	0.0	**-6.1**	0.0	48.4	0.0
Mx_f	-178.5	0.0	-6.1	**0.0**	48.4	0.0	-178.5	0.0	-6.1	**0.0**	48.4	0.0
My_f	-178.5	0.0	-6.1	0.0	**48.4**	0.0	-178.5	0.0	-6.1	0.0	**48.4**	0.0
Mz_f	-178.5	0.0	-6.1	0.0	48.4	**0.0**	-178.5	0.0	-6.1	0.0	48.4	**0.0**

Member 368

Fx_i	**-173.5**	0.0	-5.0	0.0	58.5	0.0	**-173.5**	0.0	-5.0	0.0	58.5	0.0
Fy_i	-173.5	**0.0**	-5.0	0.0	58.5	0.0	-173.5	**0.0**	-5.0	0.0	58.5	0.0
Fz_i	-173.5	0.0	**-5.0**	0.0	58.5	0.0	-173.5	0.0	**-5.0**	0.0	58.5	0.0
Mx_i	-173.5	0.0	-5.0	**0.0**	58.5	0.0	-173.5	0.0	-5.0	**0.0**	58.5	0.0
My_i	-173.5	0.0	-5.0	0.0	**58.5**	0.0	-173.5	0.0	-5.0	0.0	**58.5**	0.0
Mz_i	-173.5	0.0	-5.0	0.0	58.5	**0.0**	-173.5	0.0	-5.0	0.0	58.5	**0.0**
Fx_f	**-173.5**	0.0	-5.0	0.0	49.8	-0.0	**-173.5**	0.0	-5.0	0.0	49.8	-0.0
Fy_f	-173.5	**0.0**	-5.0	0.0	49.8	-0.0	-173.5	**0.0**	-5.0	0.0	49.8	-0.0
Fz_f	-173.5	0.0	**-5.0**	0.0	49.8	-0.0	-173.5	0.0	**-5.0**	0.0	49.8	-0.0
Mx_f	-173.5	0.0	-5.0	**0.0**	49.8	-0.0	-173.5	0.0	-5.0	**0.0**	49.8	-0.0
My_f	-173.5	0.0	-5.0	0.0	**49.8**	-0.0	-173.5	0.0	-5.0	0.0	**49.8**	-0.0
Mz_f	-173.5	0.0	-5.0	0.0	49.8	**-0.0**	-173.5	0.0	-5.0	0.0	49.8	**-0.0**

Member 369

Fx_i	**-174.8**	-0.0	-4.8	0.0	58.5	-0.0	**-174.8**	-0.0	-4.8	0.0	58.5	-0.0
Fy_i	-174.8	**-0.0**	-4.8	0.0	58.5	-0.0	-174.8	**-0.0**	-4.8	0.0	58.5	-0.0
Fz_i	-174.8	-0.0	**-4.8**	0.0	58.5	-0.0	-174.8	-0.0	**-4.8**	0.0	58.5	-0.0
Mx_i	-174.8	-0.0	-4.8	**0.0**	58.5	-0.0	-174.8	-0.0	-4.8	**0.0**	58.5	-0.0
My_i	-174.8	-0.0	-4.8	0.0	**58.5**	-0.0	-174.8	-0.0	-4.8	0.0	**58.5**	-0.0
Mz_i	-174.8	-0.0	-4.8	0.0	58.5	**-0.0**	-174.8	-0.0	-4.8	0.0	58.5	**-0.0**
Fx_f	**-174.8**	-0.0	-4.8	0.0	50.0	0.0	**-174.8**	-0.0	-4.8	0.0	50.0	0.0
Fy_f	-174.8	**-0.0**	-4.8	0.0	50.0	0.0	-174.8	**-0.0**	-4.8	0.0	50.0	0.0
Fz_f	-174.8	-0.0	**-4.8**	0.0	50.0	0.0	-174.8	-0.0	**-4.8**	0.0	50.0	0.0
Mx_f	-174.8	-0.0	-4.8	**0.0**	50.0	0.0	-174.8	-0.0	-4.8	**0.0**	50.0	0.0
My_f	-174.8	-0.0	-4.8	0.0	**50.0**	0.0	-174.8	-0.0	-4.8	0.0	**50.0**	0.0
Mz_f	-174.8	-0.0	-4.8	0.0	50.0	**0.0**	-174.8	-0.0	-4.8	0.0	50.0	**0.0**

Member 370

Fx_i	**-173.6**	-0.0	-4.8	0.0	58.4	-0.0	**-173.6**	-0.0	-4.8	0.0	58.4	-0.0
Fy_i	-173.6	**-0.0**	-4.8	0.0	58.4	-0.0	-173.6	**-0.0**	-4.8	0.0	58.4	-0.0
Fz_i	-173.6	-0.0	**-4.8**	0.0	58.4	-0.0	-173.6	-0.0	**-4.8**	0.0	58.4	-0.0
Mx_i	-173.6	-0.0	-4.8	**0.0**	58.4	-0.0	-173.6	-0.0	-4.8	**0.0**	58.4	-0.0
My_i	-173.6	-0.0	-4.8	0.0	**58.4**	-0.0	-173.6	-0.0	-4.8	0.0	**58.4**	-0.0
Mz_i	-173.6	-0.0	-4.8	0.0	58.4	**-0.0**	-173.6	-0.0	-4.8	0.0	58.4	**-0.0**
Fx_f	**-173.6**	-0.0	-4.8	0.0	50.1	0.0	**-173.6**	-0.0	-4.8	0.0	50.1	0.0
Fy_f	-173.6	**-0.0**	-4.8	0.0	50.1	0.0	-173.6	**-0.0**	-4.8	0.0	50.1	0.0
Fz_f	-173.6	-0.0	**-4.8**	0.0	50.1	0.0	-173.6	-0.0	**-4.8**	0.0	50.1	0.0
Mx_f	-173.6	-0.0	-4.8	**0.0**	50.1	0.0	-173.6	-0.0	-4.8	**0.0**	50.1	0.0
My_f	-173.6	-0.0	-4.8	0.0	**50.1**	0.0	-173.6	-0.0	-4.8	0.0	**50.1**	0.0
Mz_f	-173.6	-0.0	-4.8	0.0	50.1	**0.0**	-173.6	-0.0	-4.8	0.0	50.1	**0.0**

Member 371

Fx_i	**-178.3**	-0.0	-5.0	0.0	58.5	-0.0	**-178.3**	-0.0	-5.0	0.0	58.5	-0.0
Fy_i	-178.3	**-0.0**	-5.0	0.0	58.5	-0.0	-178.3	**-0.0**	-5.0	0.0	58.5	-0.0
Fz_i	-178.3	-0.0	**-5.0**	0.0	58.5	-0.0	-178.3	-0.0	**-5.0**	0.0	58.5	-0.0

Mx,	-178.3	-0.0	-5.0	**0.0**	58.5	-0.0	-178.3	-0.0	-5.0	**0.0**	58.5	-0.0
My,	-178.3	-0.0	-5.0	0.0	**58.5**	-0.0	-178.3	-0.0	-5.0	0.0	**58.5**	-0.0
Mz,	-178.3	-0.0	-5.0	0.0	58.5	**-0.0**	-178.3	-0.0	-5.0	0.0	58.5	**-0.0**
Fx,	**-178.3**	-0.0	-5.0	0.0	49.6	0.0	**-178.3**	-0.0	-5.0	0.0	49.6	0.0
Fy,	-178.3	**-0.0**	-5.0	0.0	49.6	0.0	-178.3	**-0.0**	-5.0	0.0	49.6	0.0
Fz,	-178.3	-0.0	**-5.0**	0.0	49.6	0.0	-178.3	-0.0	**-5.0**	0.0	49.6	0.0
Mx,	-178.3	-0.0	-5.0	**0.0**	49.6	0.0	-178.3	-0.0	-5.0	**0.0**	49.6	0.0
My,	-178.3	-0.0	-5.0	0.0	**49.6**	0.0	-178.3	-0.0	-5.0	0.0	**49.6**	0.0
Mz,	-178.3	-0.0	-5.0	0.0	49.6	**0.0**	-178.3	-0.0	-5.0	0.0	49.6	**0.0**

Member 372

Fx,	**-153.7**	-0.0	-5.5	0.0	49.7	-0.0	**-153.7**	-0.0	-5.5	0.0	49.7	-0.0
Fy,	-153.7	**-0.0**	-5.5	0.0	49.7	-0.0	-153.7	**-0.0**	-5.5	0.0	49.7	-0.0
Fz,	-153.7	-0.0	**-5.5**	0.0	49.7	-0.0	-153.7	-0.0	**-5.5**	0.0	49.7	-0.0
Mx,	-153.7	-0.0	-5.5	**0.0**	49.7	-0.0	-153.7	-0.0	-5.5	**0.0**	49.7	-0.0
My,	-153.7	-0.0	-5.5	0.0	**49.7**	-0.0	-153.7	-0.0	-5.5	0.0	**49.7**	-0.0
Mz,	-153.7	-0.0	-5.5	0.0	49.7	**-0.0**	-153.7	-0.0	-5.5	0.0	49.7	**-0.0**
Fx,	**-153.7**	-0.0	-5.5	0.0	40.1	0.0	**-153.7**	-0.0	-5.5	0.0	40.1	0.0
Fy,	-153.7	**-0.0**	-5.5	0.0	40.1	0.0	-153.7	**-0.0**	-5.5	0.0	40.1	0.0
Fz,	-153.7	-0.0	**-5.5**	0.0	40.1	0.0	-153.7	-0.0	**-5.5**	0.0	40.1	0.0
Mx,	-153.7	-0.0	-5.5	**0.0**	40.1	0.0	-153.7	-0.0	-5.5	**0.0**	40.1	0.0
My,	-153.7	-0.0	-5.5	0.0	**40.1**	0.0	-153.7	-0.0	-5.5	0.0	**40.1**	0.0
Mz,	-153.7	-0.0	-5.5	0.0	40.1	**0.0**	-153.7	-0.0	-5.5	0.0	40.1	**0.0**

Member 373

Fx,	**-36.9**	-0.3	-12.1	0.0	21.2	-0.5	**-36.9**	-0.3	-12.1	0.0	21.2	-0.5
Fy,	-36.9	**-0.3**	-12.1	0.0	21.2	-0.5	-36.9	**-0.3**	-12.1	0.0	21.2	-0.5
Fz,	-36.9	-0.3	**-12.1**	0.0	21.2	-0.5	-36.9	-0.3	**-12.1**	0.0	21.2	-0.5
Mx,	-36.9	-0.3	-12.1	**0.0**	21.2	-0.5	-36.9	-0.3	-12.1	**0.0**	21.2	-0.5
My,	-36.9	-0.3	-12.1	0.0	**21.2**	-0.5	-36.9	-0.3	-12.1	0.0	**21.2**	-0.5
Mz,	-36.9	-0.3	-12.1	0.0	21.2	**-0.5**	-36.9	-0.3	-12.1	0.0	21.2	**-0.5**
Fx,	**-36.9**	-0.3	-12.1	0.0	0.0	0.0	**-36.9**	-0.3	-12.1	0.0	0.0	0.0
Fy,	-36.9	**-0.3**	-12.1	0.0	0.0	0.0	-36.9	**-0.3**	-12.1	0.0	0.0	0.0
Fz,	-36.9	-0.3	**-12.1**	0.0	0.0	0.0	-36.9	-0.3	**-12.1**	0.0	0.0	0.0
Mx,	-36.9	-0.3	-12.1	**0.0**	0.0	0.0	-36.9	-0.3	-12.1	**0.0**	0.0	0.0
My,	-36.9	-0.3	-12.1	0.0	**0.0**	0.0	-36.9	-0.3	-12.1	0.0	**0.0**	0.0
Mz,	-36.9	-0.3	-12.1	0.0	0.0	**0.0**	-36.9	-0.3	-12.1	0.0	0.0	**0.0**

Member 374

Fx,	**-38.6**	-0.0	12.2	0.0	-21.4	-0.0	**-38.6**	-0.0	12.2	0.0	-21.4	-0.0
Fy,	-38.6	**-0.0**	12.2	0.0	-21.4	-0.0	-38.6	**-0.0**	12.2	0.0	-21.4	-0.0
Fz,	-38.6	-0.0	**12.2**	0.0	-21.4	-0.0	-38.6	-0.0	**12.2**	0.0	-21.4	-0.0
Mx,	-38.6	-0.0	12.2	**0.0**	-21.4	-0.0	-38.6	-0.0	12.2	**0.0**	-21.4	-0.0
My,	-38.6	-0.0	12.2	0.0	**-21.4**	-0.0	-38.6	-0.0	12.2	0.0	**-21.4**	-0.0
Mz,	-38.6	-0.0	12.2	0.0	-21.4	**-0.0**	-38.6	-0.0	12.2	0.0	-21.4	**-0.0**
Fx,	**-38.6**	-0.0	12.2	0.0	0.0	0.0	**-38.6**	-0.0	12.2	0.0	0.0	0.0
Fy,	-38.6	**-0.0**	12.2	0.0	0.0	0.0	-38.6	**-0.0**	12.2	0.0	0.0	0.0
Fz,	-38.6	-0.0	**12.2**	0.0	0.0	0.0	-38.6	-0.0	**12.2**	0.0	0.0	0.0
Mx,	-38.6	-0.0	12.2	**0.0**	0.0	0.0	-38.6	-0.0	12.2	**0.0**	0.0	0.0
My,	-38.6	-0.0	12.2	0.0	**0.0**	0.0	-38.6	-0.0	12.2	0.0	**0.0**	0.0
Mz,	-38.6	-0.0	12.2	0.0	0.0	**0.0**	-38.6	-0.0	12.2	0.0	0.0	**0.0**

Member 375

Fx,	**-153.3**	0.0	4.7	0.0	-49.2	0.0	**-153.3**	0.0	4.7	0.0	-49.2	0.0
Fy,	-153.3	**0.0**	4.7	0.0	-49.2	0.0	-153.3	**0.0**	4.7	0.0	-49.2	0.0
Fz,	-153.3	0.0	**4.7**	0.0	-49.2	0.0	-153.3	0.0	**4.7**	0.0	-49.2	0.0
Mx,	-153.3	0.0	4.7	**0.0**	-49.2	0.0	-153.3	0.0	4.7	**0.0**	-49.2	0.0
My,	-153.3	0.0	4.7	0.0	**-49.2**	0.0	-153.3	0.0	4.7	0.0	**-49.2**	0.0
Mz,	-153.3	0.0	4.7	0.0	-49.2	**0.0**	-153.3	0.0	4.7	0.0	-49.2	**0.0**
Fx,	**-153.3**	0.0	4.7	0.0	-40.8	-0.0	**-153.3**	0.0	4.7	0.0	-40.8	-0.0
Fy,	-153.3	**0.0**	4.7	0.0	-40.8	-0.0	-153.3	**0.0**	4.7	0.0	-40.8	-0.0
Fz,	-153.3	0.0	**4.7**	0.0	-40.8	-0.0	-153.3	0.0	**4.7**	0.0	-40.8	-0.0
Mx,	-153.3	0.0	4.7	**0.0**	-40.8	-0.0	-153.3	0.0	4.7	**0.0**	-40.8	-0.0
My,	-153.3	0.0	4.7	0.0	**-40.8**	-0.0	-153.3	0.0	4.7	0.0	**-40.8**	-0.0
Mz,	-153.3	0.0	4.7	0.0	-40.8	**-0.0**	-153.3	0.0	4.7	0.0	-40.8	**-0.0**

Member 376

Fx,	**-178.5**	0.0	6.1	0.0	-59.1	0.0	**-178.5**	0.0	6.1	0.0	-59.1	0.0
Fy,	-178.5	**0.0**	6.1	0.0	-59.1	0.0	-178.5	**0.0**	6.1	0.0	-59.1	0.0
Fz,	-178.5	0.0	**6.1**	0.0	-59.1	0.0	-178.5	0.0	**6.1**	0.0	-59.1	0.0
Mx,	-178.5	0.0	6.1	**0.0**	-59.1	0.0	-178.5	0.0	6.1	**0.0**	-59.1	0.0
My,	-178.5	0.0	6.1	0.0	**-59.1**	0.0	-178.5	0.0	6.1	0.0	**-59.1**	0.0
Mz,	-178.5	0.0	6.1	0.0	-59.1	**0.0**	-178.5	0.0	6.1	0.0	-59.1	**0.0**
Fx,	**-178.5**	0.0	6.1	0.0	-48.4	-0.0	**-178.5**	0.0	6.1	0.0	-48.4	-0.0
Fy,	-178.5	**0.0**	6.1	0.0	-48.4	-0.0	-178.5	**0.0**	6.1	0.0	-48.4	-0.0
Fz,	-178.5	0.0	**6.1**	0.0	-48.4	-0.0	-178.5	0.0	**6.1**	0.0	-48.4	-0.0
Mx,	-178.5	0.0	6.1	**0.0**	-48.4	-0.0	-178.5	0.0	6.1	**0.0**	-48.4	-0.0
My,	-178.5	0.0	6.1	0.0	**-48.4**	-0.0	-178.5	0.0	6.1	0.0	**-48.4**	-0.0
Mz,	-178.5	0.0	6.1	0.0	-48.4	**-0.0**	-178.5	0.0	6.1	0.0	-48.4	**-0.0**

Member 377

Fx,	**-173.5**	-0.0	5.0	0.0	-58.5	-0.0	**-173.5**	-0.0	5.0	0.0	-58.5	-0.0
Fy,	-173.5	**-0.0**	5.0	0.0	-58.5	-0.0	-173.5	**-0.0**	5.0	0.0	-58.5	-0.0
Fz,	-173.5	-0.0	**5.0**	0.0	-58.5	-0.0	-173.5	-0.0	**5.0**	0.0	-58.5	-0.0
Mx,	-173.5	-0.0	5.0	**0.0**	-58.5	-0.0	-173.5	-0.0	5.0	**0.0**	-58.5	-0.0
My,	-173.5	-0.0	5.0	0.0	**-58.5**	-0.0	-173.5	-0.0	5.0	0.0	**-58.5**	-0.0
Mz,	-173.5	-0.0	5.0	0.0	-58.5	**-0.0**	-173.5	-0.0	5.0	0.0	-58.5	**-0.0**
Fx,	**-173.5**	-0.0	5.0	0.0	-49.8	0.0	**-173.5**	-0.0	5.0	0.0	-49.8	0.0
Fy,	-173.5	**-0.0**	5.0	0.0	-49.8	0.0	-173.5	**-0.0**	5.0	0.0	-49.8	0.0
Fz,	-173.5	-0.0	**5.0**	0.0	-49.8	0.0	-173.5	-0.0	**5.0**	0.0	-49.8	0.0
Mx,	-173.5	-0.0	5.0	**0.0**	-49.8	0.0	-173.5	-0.0	5.0	**0.0**	-49.8	0.0
My,	-173.5	-0.0	5.0	0.0	**-49.8**	0.0	-173.5	-0.0	5.0	0.0	**-49.8**	0.0
Mz,	-173.5	-0.0	5.0	0.0	-49.8	**0.0**	-173.5	-0.0	5.0	0.0	-49.8	**0.0**

Member 378

Fx,	**-174.8**	-0.0	4.8	-0.0	-58.5	-0.0	**-174.8**	-0.0	4.8	-0.0	-58.5	-0.0
Fy,	-174.8	**-0.0**	4.8	-0.0	-58.5	-0.0	-174.8	**-0.0**	4.8	-0.0	-58.5	-0.0
Fz,	-174.8	-0.0	**4.8**	-0.0	-58.5	-0.0	-174.8	-0.0	**4.8**	-0.0	-58.5	-0.0
Mx,	-174.8	-0.0	4.8	**-0.0**	-58.5	-0.0	-174.8	-0.0	4.8	**-0.0**	-58.5	-0.0
My,	-174.8	-0.0	4.8	-0.0	**-58.5**	-0.0	-174.8	-0.0	4.8	-0.0	**-58.5**	-0.0
Mz,	-174.8	-0.0	4.8	-0.0	-58.5	**-0.0**	-174.8	-0.0	4.8	-0.0	-58.5	**-0.0**
Fx,	**-174.8**	-0.0	4.8	-0.0	-50.0	0.0	**-174.8**	-0.0	4.8	-0.0	-50.0	0.0
Fy,	-174.8	**-0.0**	4.8	-0.0	-50.0	0.0	-174.8	**-0.0**	4.8	-0.0	-50.0	0.0
Fz,	-174.8	-0.0	**4.8**	-0.0	-50.0	0.0	-174.8	-0.0	**4.8**	-0.0	-50.0	0.0
Mx,	-174.8	-0.0	4.8	**-0.0**	-50.0	0.0	-174.8	-0.0	4.8	**-0.0**	-50.0	0.0
My,	-174.8	-0.0	4.8	-0.0	**-50.0**	0.0	-174.8	-0.0	4.8	-0.0	**-50.0**	0.0
Mz,	-174.8	-0.0	4.8	-0.0	-50.0	**0.0**	-174.8	-0.0	4.8	-0.0	-50.0	**0.0**

Member 379

Fx,	**-173.6**	-0.0	4.8	0.0	-58.4	-0.0	**-173.6**	-0.0	4.8	0.0	-58.4	-0.0
Fy,	-173.6	**-0.0**	4.8	0.0	-58.4	-0.0	-173.6	**-0.0**	4.8	0.0	-58.4	-0.0
Fz,	-173.6	-0.0	**4.8**	0.0	-58.4	-0.0	-173.6	-0.0	**4.8**	0.0	-58.4	-0.0
Mx,	-173.6	-0.0	4.8	**0.0**	-58.4	-0.0	-173.6	-0.0	4.8	**0.0**	-58.4	-0.0
My,	-173.6	-0.0	4.8	0.0	**-58.4**	-0.0	-173.6	-0.0	4.8	0.0	**-58.4**	-0.0
Mz,	-173.6	-0.0	4.8	0.0	-58.4	**-0.0**	-173.6	-0.0	4.8	0.0	-58.4	**-0.0**
Fx,	**-173.6**	-0.0	4.8	0.0	-50.1	0.0	**-173.6**	-0.0	4.8	0.0	-50.1	0.0
Fy,	-173.6	**-0.0**	4.8	0.0	-50.1	0.0	-173.6	**-0.0**	4.8	0.0	-50.1	0.0
Fz,	-173.6	-0.0	**4.8**	0.0	-50.1	0.0	-173.6	-0.0	**4.8**	0.0	-50.1	0.0
Mx,	-173.6	-0.0	4.8	**0.0**	-50.1	0.0	-173.6	-0.0	4.8	**0.0**	-50.1	0.0
My,	-173.6	-0.0	4.8	0.0	**-50.1**	0.0	-173.6	-0.0	4.8	0.0	**-50.1**	0.0
Mz,	-173.6	-0.0	4.8	0.0	-50.1	**0.0**	-173.6	-0.0	4.8	0.0	-50.1	**0.0**

Member 380

Fx,	**-178.3**	-0.0	5.0	0.0	-58.5	-0.0	**-178.3**	-0.0	5.0	0.0	-58.5	-0.0
Fy,	-178.3	**-0.0**	5.0	0.0	-58.5	-0.0	-178.3	**-0.0**	5.0	0.0	-58.5	-0.0
Fz,	-178.3	-0.0	**5.0**	0.0	-58.5	-0.0	-178.3	-0.0	**5.0**	0.0	-58.5	-0.0
Mx,	-178.3	-0.0	5.0	**0.0**	-58.5	-0.0	-178.3	-0.0	5.0	**0.0**	-58.5	-0.0
My,	-178.3	-0.0	5.0	0.0	**-58.5**	-0.0	-178.3	-0.0	5.0	0.0	**-58.5**	-0.0
Mz,	-178.3	-0.0	5.0	0.0	-58.5	**-0.0**	-178.3	-0.0	5.0	0.0	-58.5	**-0.0**

Fx_f	**-178.3**	-0.0	5.0	0.0	-49.6	0.0	**-178.3**	-0.0	5.0	0.0	-49.6	0.0
Fy_f	-178.3	**-0.0**	5.0	0.0	-49.6	0.0	-178.3	**-0.0**	5.0	0.0	-49.6	0.0
Fz_f	-178.3	-0.0	**5.0**	0.0	-49.6	0.0	-178.3	-0.0	**5.0**	0.0	-49.6	0.0
Mx_f	-178.3	-0.0	5.0	**0.0**	-49.6	0.0	-178.3	-0.0	5.0	**0.0**	-49.6	0.0
My_f	-178.3	-0.0	5.0	0.0	**-49.6**	0.0	-178.3	-0.0	5.0	0.0	**-49.6**	0.0
Mz_f	-178.3	-0.0	5.0	0.0	-49.6	**0.0**	-178.3	-0.0	5.0	0.0	-49.6	**0.0**

Member 381

Fx_i	**-153.7**	0.0	5.5	0.0	-49.7	0.0	**-153.7**	0.0	5.5	0.0	-49.7	0.0
Fy_i	-153.7	**0.0**	5.5	0.0	-49.7	0.0	-153.7	**0.0**	5.5	0.0	-49.7	0.0
Fz_i	-153.7	0.0	**5.5**	0.0	-49.7	0.0	-153.7	0.0	**5.5**	0.0	-49.7	0.0
Mx_i	-153.7	0.0	5.5	**0.0**	-49.7	0.0	-153.7	0.0	5.5	**0.0**	-49.7	0.0
My_i	-153.7	0.0	5.5	0.0	**-49.7**	0.0	-153.7	0.0	5.5	0.0	**-49.7**	0.0
Mz_i	-153.7	0.0	5.5	0.0	-49.7	**0.0**	-153.7	0.0	5.5	0.0	-49.7	**0.0**
Fx_f	**-153.7**	0.0	5.5	0.0	-40.1	0.0	**-153.7**	0.0	5.5	0.0	-40.1	0.0
Fy_f	-153.7	**0.0**	5.5	0.0	-40.1	0.0	-153.7	**0.0**	5.5	0.0	-40.1	0.0
Fz_f	-153.7	0.0	**5.5**	0.0	-40.1	0.0	-153.7	0.0	**5.5**	0.0	-40.1	0.0
Mx_f	-153.7	0.0	5.5	**0.0**	-40.1	0.0	-153.7	0.0	5.5	**0.0**	-40.1	0.0
My_f	-153.7	0.0	5.5	0.0	**-40.1**	0.0	-153.7	0.0	5.5	0.0	**-40.1**	0.0
Mz_f	-153.7	0.0	5.5	0.0	-40.1	**0.0**	-153.7	0.0	5.5	0.0	-40.1	**0.0**

Member 382

Fx_i	**-36.9**	-0.3	12.1	-0.0	-21.2	-0.5	**-36.9**	-0.3	12.1	-0.0	-21.2	-0.5
Fy_i	-36.9	**-0.3**	12.1	-0.0	-21.2	-0.5	-36.9	**-0.3**	12.1	-0.0	-21.2	-0.5
Fz_i	-36.9	-0.3	**12.1**	-0.0	-21.2	-0.5	-36.9	-0.3	**12.1**	-0.0	-21.2	-0.5
Mx_i	-36.9	-0.3	12.1	**-0.0**	-21.2	-0.5	-36.9	-0.3	12.1	**-0.0**	-21.2	-0.5
My_i	-36.9	-0.3	12.1	-0.0	**-21.2**	-0.5	-36.9	-0.3	12.1	-0.0	**-21.2**	-0.5
Mz_i	-36.9	-0.3	12.1	-0.0	-21.2	**-0.5**	-36.9	-0.3	12.1	-0.0	-21.2	**-0.5**
Fx_f	**-36.9**	-0.3	12.1	-0.0	0.0	-0.0	**-36.9**	-0.3	12.1	-0.0	0.0	-0.0
Fy_f	-36.9	**-0.3**	12.1	-0.0	0.0	-0.0	-36.9	**-0.3**	12.1	-0.0	0.0	-0.0
Fz_f	-36.9	-0.3	**12.1**	-0.0	0.0	-0.0	-36.9	-0.3	**12.1**	-0.0	0.0	-0.0
Mx_f	-36.9	-0.3	12.1	**-0.0**	0.0	-0.0	-36.9	-0.3	12.1	**-0.0**	0.0	-0.0
My_f	-36.9	-0.3	12.1	-0.0	**0.0**	-0.0	-36.9	-0.3	12.1	-0.0	**0.0**	-0.0
Mz_f	-36.9	-0.3	12.1	-0.0	0.0	**-0.0**	-36.9	-0.3	12.1	-0.0	0.0	**-0.0**

Member 391

Fx_i	**-153.3**	0.0	-4.7	0.0	40.8	0.0	**-153.3**	0.0	-4.7	0.0	40.8	0.0
Fy_i	-153.3	**0.0**	-4.7	0.0	40.8	0.0	-153.3	**0.0**	-4.7	0.0	40.8	0.0
Fz_i	-153.3	0.0	**-4.7**	0.0	40.8	0.0	-153.3	0.0	**-4.7**	0.0	40.8	0.0
Mx_i	-153.3	0.0	-4.7	**0.0**	40.8	0.0	-153.3	0.0	-4.7	**0.0**	40.8	0.0
My_i	-153.3	0.0	-4.7	0.0	**40.8**	0.0	-153.3	0.0	-4.7	0.0	**40.8**	0.0
Mz_i	-153.3	0.0	-4.7	0.0	40.8	**0.0**	-153.3	0.0	-4.7	0.0	40.8	**0.0**
Fx_f	**-153.3**	0.0	-4.7	0.0	-23.1	0.0	**-153.3**	0.0	-4.7	0.0	-23.1	0.0
Fy_f	-153.3	**0.0**	-4.7	0.0	-23.1	0.0	-153.3	**0.0**	-4.7	0.0	-23.1	0.0
Fz_f	-153.3	0.0	**-4.7**	0.0	-23.1	0.0	-153.3	0.0	**-4.7**	0.0	-23.1	0.0
Mx_f	-153.3	0.0	-4.7	**0.0**	-23.1	0.0	-153.3	0.0	-4.7	**0.0**	-23.1	0.0
My_f	-153.3	0.0	-4.7	0.0	**-23.1**	0.0	-153.3	0.0	-4.7	0.0	**-23.1**	0.0
Mz_f	-153.3	0.0	-4.7	0.0	-23.1	**0.0**	-153.3	0.0	-4.7	0.0	-23.1	**0.0**

Member 392

Fx_i	**-178.5**	0.0	-6.1	0.0	48.4	0.0	**-178.5**	0.0	-6.1	0.0	48.4	0.0
Fy_i	-178.5	**0.0**	-6.1	0.0	48.4	0.0	-178.5	**0.0**	-6.1	0.0	48.4	0.0
Fz_i	-178.5	0.0	**-6.1**	0.0	48.4	0.0	-178.5	0.0	**-6.1**	0.0	48.4	0.0
Mx_i	-178.5	0.0	-6.1	**0.0**	48.4	0.0	-178.5	0.0	-6.1	**0.0**	48.4	0.0
My_i	-178.5	0.0	-6.1	0.0	**48.4**	0.0	-178.5	0.0	-6.1	0.0	**48.4**	0.0
Mz_i	-178.5	0.0	-6.1	0.0	48.4	**0.0**	-178.5	0.0	-6.1	0.0	48.4	**0.0**
Fx_f	**-178.5**	0.0	-6.1	0.0	-27.6	0.0	**-178.5**	0.0	-6.1	0.0	-27.6	0.0
Fy_f	-178.5	**0.0**	-6.1	0.0	-27.6	0.0	-178.5	**0.0**	-6.1	0.0	-27.6	0.0
Fz_f	-178.5	0.0	**-6.1**	0.0	-27.6	0.0	-178.5	0.0	**-6.1**	0.0	-27.6	0.0
Mx_f	-178.5	0.0	-6.1	**0.0**	-27.6	0.0	-178.5	0.0	-6.1	**0.0**	-27.6	0.0
My_f	-178.5	0.0	-6.1	0.0	**-27.6**	0.0	-178.5	0.0	-6.1	0.0	**-27.6**	0.0
Mz_f	-178.5	0.0	-6.1	0.0	-27.6	**0.0**	-178.5	0.0	-6.1	0.0	-27.6	**0.0**

Member 393

Fx_i	**-173.5**	0.0	-5.0	0.0	49.8	0.0	**-173.5**	0.0	-5.0	0.0	49.8	0.0
Fy_i	-173.5	**0.0**	-5.0	0.0	49.8	0.0	-173.5	**0.0**	-5.0	0.0	49.8	0.0
Fz_i	-173.5	0.0	**-5.0**	0.0	49.8	0.0	-173.5	0.0	**-5.0**	0.0	49.8	0.0
Mx_i	-173.5	0.0	-5.0	**0.0**	49.8	0.0	-173.5	0.0	-5.0	**0.0**	49.8	0.0
My_i	-173.5	0.0	-5.0	0.0	**49.8**	0.0	-173.5	0.0	-5.0	0.0	**49.8**	0.0
Mz_i	-173.5	0.0	-5.0	0.0	49.8	**0.0**	-173.5	0.0	-5.0	0.0	49.8	**0.0**
Fx_f	**-173.5**	0.0	-5.0	0.0	-27.9	0.0	**-173.5**	0.0	-5.0	0.0	-27.9	0.0
Fy_f	-173.5	**0.0**	-5.0	0.0	-27.9	0.0	-173.5	**0.0**	-5.0	0.0	-27.9	0.0
Fz_f	-173.5	0.0	**-5.0**	0.0	-27.9	0.0	-173.5	0.0	**-5.0**	0.0	-27.9	0.0
Mx_f	-173.5	0.0	-5.0	**0.0**	-27.9	0.0	-173.5	0.0	-5.0	**0.0**	-27.9	0.0
My_f	-173.5	0.0	-5.0	0.0	**-27.9**	0.0	-173.5	0.0	-5.0	0.0	**-27.9**	0.0
Mz_f	-173.5	0.0	-5.0	0.0	-27.9	**0.0**	-173.5	0.0	-5.0	0.0	-27.9	**0.0**

Member 394

Fx_i	**-174.8**	0.0	-4.8	0.0	50.0	0.0	**-174.8**	0.0	-4.8	0.0	50.0	0.0
Fy_i	-174.8	**0.0**	-4.8	0.0	50.0	0.0	-174.8	**0.0**	-4.8	0.0	50.0	0.0
Fz_i	-174.8	0.0	**-4.8**	0.0	50.0	0.0	-174.8	0.0	**-4.8**	0.0	50.0	0.0
Mx_i	-174.8	0.0	-4.8	**0.0**	50.0	0.0	-174.8	0.0	-4.8	**0.0**	50.0	0.0
My_i	-174.8	0.0	-4.8	0.0	**50.0**	0.0	-174.8	0.0	-4.8	0.0	**50.0**	0.0
Mz_i	-174.8	0.0	-4.8	0.0	50.0	**0.0**	-174.8	0.0	-4.8	0.0	50.0	**0.0**
Fx_f	**-174.8**	0.0	-4.8	0.0	-27.9	0.0	**-174.8**	0.0	-4.8	0.0	-27.9	0.0
Fy_f	-174.8	**0.0**	-4.8	0.0	-27.9	0.0	-174.8	**0.0**	-4.8	0.0	-27.9	0.0
Fz_f	-174.8	0.0	**-4.8**	0.0	-27.9	0.0	-174.8	0.0	**-4.8**	0.0	-27.9	0.0
Mx_f	-174.8	0.0	-4.8	**0.0**	-27.9	0.0	-174.8	0.0	-4.8	**0.0**	-27.9	0.0
My_f	-174.8	0.0	-4.8	0.0	**-27.9**	0.0	-174.8	0.0	-4.8	0.0	**-27.9**	0.0
Mz_f	-174.8	0.0	-4.8	0.0	-27.9	**0.0**	-174.8	0.0	-4.8	0.0	-27.9	**0.0**

Member 395

Fx_i	**-173.6**	0.0	-4.8	0.0	50.1	0.0	**-173.6**	0.0	-4.8	0.0	50.1	0.0
Fy_i	-173.6	**0.0**	-4.8	0.0	50.1	0.0	-173.6	**0.0**	-4.8	0.0	50.1	0.0
Fz_i	-173.6	0.0	**-4.8**	0.0	50.1	0.0	-173.6	0.0	**-4.8**	0.0	50.1	0.0
Mx_i	-173.6	0.0	-4.8	**0.0**	50.1	0.0	-173.6	0.0	-4.8	**0.0**	50.1	0.0
My_i	-173.6	0.0	-4.8	0.0	**50.1**	0.0	-173.6	0.0	-4.8	0.0	**50.1**	0.0
Mz_i	-173.6	0.0	-4.8	0.0	50.1	**0.0**	-173.6	0.0	-4.8	0.0	50.1	**0.0**
Fx_f	**-173.6**	0.0	-4.8	0.0	-27.9	0.0	**-173.6**	0.0	-4.8	0.0	-27.9	0.0
Fy_f	-173.6	**0.0**	-4.8	0.0	-27.9	0.0	-173.6	**0.0**	-4.8	0.0	-27.9	0.0
Fz_f	-173.6	0.0	**-4.8**	0.0	-27.9	0.0	-173.6	0.0	**-4.8**	0.0	-27.9	0.0
Mx_f	-173.6	0.0	-4.8	**0.0**	-27.9	0.0	-173.6	0.0	-4.8	**0.0**	-27.9	0.0
My_f	-173.6	0.0	-4.8	0.0	**-27.9**	0.0	-173.6	0.0	-4.8	0.0	**-27.9**	0.0
Mz_f	-173.6	0.0	-4.8	0.0	-27.9	**0.0**	-173.6	0.0	-4.8	0.0	-27.9	**0.0**

Member 396

Fx_i	**-178.3**	0.0	-5.0	0.0	49.6	0.0	**-178.3**	0.0	-5.0	0.0	49.6	0.0
Fy_i	-178.3	**0.0**	-5.0	0.0	49.6	0.0	-178.3	**0.0**	-5.0	0.0	49.6	0.0
Fz_i	-178.3	0.0	**-5.0**	0.0	49.6	0.0	-178.3	0.0	**-5.0**	0.0	49.6	0.0
Mx_i	-178.3	0.0	-5.0	**0.0**	49.6	0.0	-178.3	0.0	-5.0	**0.0**	49.6	0.0
My_i	-178.3	0.0	-5.0	0.0	**49.6**	0.0	-178.3	0.0	-5.0	0.0	**49.6**	0.0
Mz_i	-178.3	0.0	-5.0	0.0	49.6	**0.0**	-178.3	0.0	-5.0	0.0	49.6	**0.0**
Fx_f	**-178.3**	0.0	-5.0	0.0	-27.8	0.0	**-178.3**	0.0	-5.0	0.0	-27.8	0.0
Fy_f	-178.3	**0.0**	-5.0	0.0	-27.8	0.0	-178.3	**0.0**	-5.0	0.0	-27.8	0.0
Fz_f	-178.3	0.0	**-5.0**	0.0	-27.8	0.0	-178.3	0.0	**-5.0**	0.0	-27.8	0.0
Mx_f	-178.3	0.0	-5.0	**0.0**	-27.8	0.0	-178.3	0.0	-5.0	**0.0**	-27.8	0.0
My_f	-178.3	0.0	-5.0	0.0	**-27.8**	0.0	-178.3	0.0	-5.0	0.0	**-27.8**	0.0
Mz_f	-178.3	0.0	-5.0	0.0	-27.8	**0.0**	-178.3	0.0	-5.0	0.0	-27.8	**0.0**

Member 397

Fx_i	**-153.7**	0.0	-5.5	0.0	40.1	0.0	**-153.7**	0.0	-5.5	0.0	40.1	0.0
Fy_i	-153.7	**0.0**	-5.5	0.0	40.1	0.0	-153.7	**0.0**	-5.5	0.0	40.1	0.0
Fz_i	-153.7	0.0	**-5.5**	0.0	40.1	0.0	-153.7	0.0	**-5.5**	0.0	40.1	0.0
Mx_i	-153.7	0.0	-5.5	**0.0**	40.1	0.0	-153.7	0.0	-5.5	**0.0**	40.1	0.0
My_i	-153.7	0.0	-5.5	0.0	**40.1**	0.0	-153.7	0.0	-5.5	0.0	**40.1**	0.0
Mz_i	-153.7	0.0	-5.5	0.0	40.1	**0.0**	-153.7	0.0	-5.5	0.0	40.1	**0.0**
Fx_f	**-153.7**	0.0	-5.5	0.0	-23.0	0.0	**-153.7**	0.0	-5.5	0.0	-23.0	0.0
Fy_f	-153.7	**0.0**	-5.5	0.0	-23.0	0.0	-153.7	**0.0**	-5.5	0.0	-23.0	0.0
Fz_f	-153.7	0.0	**-5.5**	0.0	-23.0	0.0	-153.7	0.0	**-5.5**	0.0	-23.0	0.0
Mx_f	-153.7	0.0	-5.5	**0.0**	-23.0	0.0	-153.7	0.0	-5.5	**0.0**	-23.0	0.0

My,	-153.7	0.0	-5.5	0.0	**-23.0**	0.0	-153.7	0.0	-5.5	0.0	**-23.0**	0.0
Mz,	-153.7	0.0	-5.5	0.0	-23.0	**0.0**	-153.7	0.0	-5.5	0.0	-23.0	**0.0**

Member 398

Fx,	**-153.3**	0.0	4.7	0.0	-40.8	0.0	**-153.3**	0.0	**4.7**	0.0	-40.8	0.0
Fy,	-153.3	**0.0**	4.7	0.0	-40.8	0.0	-153.3	**0.0**	4.7	0.0	-40.8	0.0
Fz,	-153.3	0.0	**4.7**	0.0	-40.8	0.0	-153.3	0.0	**4.7**	0.0	-40.8	0.0
Mx,	-153.3	0.0	4.7	**0.0**	-40.8	0.0	-153.3	0.0	4.7	**0.0**	-40.8	0.0
My,	-153.3	0.0	4.7	0.0	**-40.8**	0.0	-153.3	0.0	4.7	0.0	**-40.8**	0.0
Mz,	-153.3	0.0	4.7	0.0	-40.8	**0.0**	-153.3	0.0	4.7	0.0	-40.8	**0.0**
Fx,	**-153.3**	0.0	4.7	0.0	23.1	0.0	**-153.3**	0.0	4.7	0.0	23.1	0.0
Fy,	-153.3	**0.0**	4.7	0.0	23.1	0.0	-153.3	**0.0**	4.7	0.0	23.1	0.0
Fz,	-153.3	0.0	**4.7**	0.0	23.1	0.0	-153.3	0.0	**4.7**	0.0	23.1	0.0
Mx,	-153.3	0.0	4.7	**0.0**	23.1	0.0	-153.3	0.0	4.7	**0.0**	23.1	0.0
My,	-153.3	0.0	4.7	0.0	**23.1**	0.0	-153.3	0.0	4.7	0.0	**23.1**	0.0
Mz,	-153.3	0.0	4.7	0.0	23.1	**0.0**	-153.3	0.0	4.7	0.0	23.1	**0.0**

Member 399

Fx,	**-178.5**	0.0	6.1	0.0	-48.4	0.0	**-178.5**	0.0	6.1	0.0	-48.4	0.0
Fy,	-178.5	**0.0**	6.1	0.0	-48.4	0.0	-178.5	**0.0**	6.1	0.0	-48.4	0.0
Fz,	-178.5	0.0	**6.1**	0.0	-48.4	0.0	-178.5	0.0	**6.1**	0.0	-48.4	0.0
Mx,	-178.5	0.0	6.1	**0.0**	-48.4	0.0	-178.5	0.0	6.1	**0.0**	-48.4	0.0
My,	-178.5	0.0	6.1	0.0	**-48.4**	0.0	-178.5	0.0	6.1	0.0	**-48.4**	0.0
Mz,	-178.5	0.0	6.1	0.0	-48.4	**0.0**	-178.5	0.0	6.1	0.0	-48.4	**0.0**
Fx,	**-178.5**	0.0	6.1	0.0	27.6	0.0	**-178.5**	0.0	6.1	0.0	27.6	0.0
Fy,	-178.5	**0.0**	6.1	0.0	27.6	0.0	-178.5	**0.0**	6.1	0.0	27.6	0.0
Fz,	-178.5	0.0	**6.1**	0.0	27.6	0.0	-178.5	0.0	**6.1**	0.0	27.6	0.0
Mx,	-178.5	0.0	6.1	**0.0**	27.6	0.0	-178.5	0.0	6.1	**0.0**	27.6	0.0
My,	-178.5	0.0	6.1	0.0	**27.6**	0.0	-178.5	0.0	6.1	0.0	**27.6**	0.0
Mz,	-178.5	0.0	6.1	0.0	27.6	**0.0**	-178.5	0.0	6.1	0.0	27.6	**0.0**

Member 400

Fx,	**-173.5**	0.0	5.0	0.0	-49.8	0.0	**-173.5**	0.0	5.0	0.0	-49.8	0.0
Fy,	-173.5	**0.0**	5.0	0.0	-49.8	0.0	-173.5	**0.0**	5.0	0.0	-49.8	0.0
Fz,	-173.5	0.0	**5.0**	0.0	-49.8	0.0	-173.5	0.0	**5.0**	0.0	-49.8	0.0
Mx,	-173.5	0.0	5.0	**0.0**	-49.8	0.0	-173.5	0.0	5.0	**0.0**	-49.8	0.0
My,	-173.5	0.0	5.0	0.0	**-49.8**	0.0	-173.5	0.0	5.0	0.0	**-49.8**	0.0
Mz,	-173.5	0.0	5.0	0.0	-49.8	**0.0**	-173.5	0.0	5.0	0.0	-49.8	**0.0**
Fx,	**-173.5**	0.0	5.0	0.0	27.9	0.0	**-173.5**	0.0	5.0	0.0	27.9	0.0
Fy,	-173.5	**0.0**	5.0	0.0	27.9	0.0	-173.5	**0.0**	5.0	0.0	27.9	0.0
Fz,	-173.5	0.0	**5.0**	0.0	27.9	0.0	-173.5	0.0	**5.0**	0.0	27.9	0.0
Mx,	-173.5	0.0	5.0	**0.0**	27.9	0.0	-173.5	0.0	5.0	**0.0**	27.9	0.0
My,	-173.5	0.0	5.0	0.0	**27.9**	0.0	-173.5	0.0	5.0	0.0	**27.9**	0.0
Mz,	-173.5	0.0	5.0	0.0	27.9	**0.0**	-173.5	0.0	5.0	0.0	27.9	**0.0**

Member 401

Fx,	**-174.8**	0.0	4.8	0.0	-50.0	0.0	**-174.8**	0.0	4.8	0.0	-50.0	0.0
Fy,	-174.8	**0.0**	4.8	0.0	-50.0	0.0	-174.8	**0.0**	4.8	0.0	-50.0	0.0
Fz,	-174.8	0.0	**4.8**	0.0	-50.0	0.0	-174.8	0.0	**4.8**	0.0	-50.0	0.0
Mx,	-174.8	0.0	4.8	**0.0**	-50.0	0.0	-174.8	0.0	4.8	**0.0**	-50.0	0.0
My,	-174.8	0.0	4.8	0.0	**-50.0**	0.0	-174.8	0.0	4.8	0.0	**-50.0**	0.0
Mz,	-174.8	0.0	4.8	0.0	-50.0	**0.0**	-174.8	0.0	4.8	0.0	-50.0	**0.0**
Fx,	**-174.8**	0.0	4.8	0.0	27.9	0.0	**-174.8**	0.0	4.8	0.0	27.9	0.0
Fy,	-174.8	**0.0**	4.8	0.0	27.9	0.0	-174.8	**0.0**	4.8	0.0	27.9	0.0
Fz,	-174.8	0.0	**4.8**	0.0	27.9	0.0	-174.8	0.0	**4.8**	0.0	27.9	0.0
Mx,	-174.8	0.0	4.8	**0.0**	27.9	0.0	-174.8	0.0	4.8	**0.0**	27.9	0.0
My,	-174.8	0.0	4.8	0.0	**27.9**	0.0	-174.8	0.0	4.8	0.0	**27.9**	0.0
Mz,	-174.8	0.0	4.8	0.0	27.9	**0.0**	-174.8	0.0	4.8	0.0	27.9	**0.0**

Member 402

Fx,	**-173.6**	0.0	4.8	0.0	-50.1	0.0	**-173.6**	0.0	4.8	0.0	-50.1	0.0
Fy,	-173.6	**0.0**	4.8	0.0	-50.1	0.0	-173.6	**0.0**	4.8	0.0	-50.1	0.0
Fz,	-173.6	0.0	**4.8**	0.0	-50.1	0.0	-173.6	0.0	**4.8**	0.0	-50.1	0.0
Mx,	-173.6	0.0	4.8	**0.0**	-50.1	0.0	-173.6	0.0	4.8	**0.0**	-50.1	0.0
My,	-173.6	0.0	4.8	0.0	**-50.1**	0.0	-173.6	0.0	4.8	0.0	**-50.1**	0.0
Mz,	-173.6	0.0	4.8	0.0	-50.1	**0.0**	-173.6	0.0	4.8	0.0	-50.1	**0.0**
Fx,	**-173.6**	0.0	4.8	0.0	27.9	0.0	**-173.6**	0.0	4.8	0.0	27.9	0.0
Fy,	-173.6	**0.0**	4.8	0.0	27.9	0.0	-173.6	**0.0**	4.8	0.0	27.9	0.0
Fz,	-173.6	0.0	**4.8**	0.0	27.9	0.0	-173.6	0.0	**4.8**	0.0	27.9	0.0
Mx,	-173.6	0.0	4.8	**0.0**	27.9	0.0	-173.6	0.0	4.8	**0.0**	27.9	0.0
My,	-173.6	0.0	4.8	0.0	**27.9**	0.0	-173.6	0.0	4.8	0.0	**27.9**	0.0
Mz,	-173.6	0.0	4.8	0.0	27.9	**0.0**	-173.6	0.0	4.8	0.0	27.9	**0.0**

Member 403

Fx,	**-178.3**	0.0	5.0	0.0	-49.6	0.0	**-178.3**	0.0	5.0	0.0	-49.6	0.0
Fy,	-178.3	**0.0**	5.0	0.0	-49.6	0.0	-178.3	**0.0**	5.0	0.0	-49.6	0.0
Fz,	-178.3	0.0	**5.0**	0.0	-49.6	0.0	-178.3	0.0	**5.0**	0.0	-49.6	0.0
Mx,	-178.3	0.0	5.0	**0.0**	-49.6	0.0	-178.3	0.0	5.0	**0.0**	-49.6	0.0
My,	-178.3	0.0	5.0	0.0	**-49.6**	0.0	-178.3	0.0	5.0	0.0	**-49.6**	0.0
Mz,	-178.3	0.0	5.0	0.0	-49.6	**0.0**	-178.3	0.0	5.0	0.0	-49.6	**0.0**
Fx,	**-178.3**	0.0	5.0	0.0	27.8	0.0	**-178.3**	0.0	5.0	0.0	27.8	0.0
Fy,	-178.3	**0.0**	5.0	0.0	27.8	0.0	-178.3	**0.0**	5.0	0.0	27.8	0.0
Fz,	-178.3	0.0	**5.0**	0.0	27.8	0.0	-178.3	0.0	**5.0**	0.0	27.8	0.0
Mx,	-178.3	0.0	5.0	**0.0**	27.8	0.0	-178.3	0.0	5.0	**0.0**	27.8	0.0
My,	-178.3	0.0	5.0	0.0	**27.8**	0.0	-178.3	0.0	5.0	0.0	**27.8**	0.0
Mz,	-178.3	0.0	5.0	0.0	27.8	**0.0**	-178.3	0.0	5.0	0.0	27.8	**0.0**

Member 404

Fx,	**-153.7**	0.0	5.5	0.0	-40.1	0.0	**-153.7**	0.0	5.5	0.0	-40.1	0.0
Fy,	-153.7	**0.0**	5.5	0.0	-40.1	0.0	-153.7	**0.0**	5.5	0.0	-40.1	0.0
Fz,	-153.7	0.0	**5.5**	0.0	-40.1	0.0	-153.7	0.0	**5.5**	0.0	-40.1	0.0
Mx,	-153.7	0.0	5.5	**0.0**	-40.1	0.0	-153.7	0.0	5.5	**0.0**	-40.1	0.0
My,	-153.7	0.0	5.5	0.0	**-40.1**	0.0	-153.7	0.0	5.5	0.0	**-40.1**	0.0
Mz,	-153.7	0.0	5.5	0.0	-40.1	**0.0**	-153.7	0.0	5.5	0.0	-40.1	**0.0**
Fx,	**-153.7**	0.0	5.5	0.0	23.0	0.0	**-153.7**	0.0	5.5	0.0	23.0	0.0
Fy,	-153.7	**0.0**	5.5	0.0	23.0	0.0	-153.7	**0.0**	5.5	0.0	23.0	0.0
Fz,	-153.7	0.0	**5.5**	0.0	23.0	0.0	-153.7	0.0	**5.5**	0.0	23.0	0.0
Mx,	-153.7	0.0	5.5	**0.0**	23.0	0.0	-153.7	0.0	5.5	**0.0**	23.0	0.0
My,	-153.7	0.0	5.5	0.0	**23.0**	0.0	-153.7	0.0	5.5	0.0	**23.0**	0.0
Mz,	-153.7	0.0	5.5	0.0	23.0	**0.0**	-153.7	0.0	5.5	0.0	23.0	**0.0**

Member 421

Fx,	**-306.6**	0.0	0.0	0.0	0.0	0.0	**-306.6**	0.0	0.0	0.0	0.0	0.0
Fy,	-306.6	**0.0**	0.0	0.0	0.0	0.0	-306.6	**0.0**	0.0	0.0	0.0	0.0
Fz,	-306.6	0.0	**0.0**	0.0	0.0	0.0	-306.6	0.0	**0.0**	0.0	0.0	0.0
Mx,	-306.6	0.0	0.0	**0.0**	0.0	0.0	-306.6	0.0	0.0	**0.0**	0.0	0.0
My,	-306.6	0.0	0.0	0.0	**0.0**	0.0	-306.6	0.0	0.0	0.0	**0.0**	0.0
Mz,	-306.6	0.0	0.0	0.0	0.0	**0.0**	-306.6	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-306.6**	0.0	0.0	0.0	0.0	0.0	**-306.6**	0.0	0.0	0.0	0.0	0.0
Fy,	-306.6	**0.0**	0.0	0.0	0.0	0.0	-306.6	**0.0**	0.0	0.0	0.0	0.0
Fz,	-306.6	0.0	**0.0**	0.0	0.0	0.0	-306.6	0.0	**0.0**	0.0	0.0	0.0
Mx,	-306.6	0.0	0.0	**0.0**	0.0	0.0	-306.6	0.0	0.0	**0.0**	0.0	0.0
My,	-306.6	0.0	0.0	0.0	**0.0**	0.0	-306.6	0.0	0.0	0.0	**0.0**	0.0
Mz,	-306.6	0.0	0.0	0.0	0.0	**0.0**	-306.6	0.0	0.0	0.0	0.0	**0.0**

Member 422

Fx,	**-357.1**	0.0	0.0	0.0	-0.0	0.0	**-357.1**	0.0	0.0	0.0	-0.0	0.0
Fy,	-357.1	**0.0**	0.0	0.0	-0.0	0.0	-357.1	**0.0**	0.0	0.0	-0.0	0.0
Fz,	-357.1	0.0	**0.0**	0.0	-0.0	0.0	-357.1	0.0	**0.0**	0.0	-0.0	0.0
Mx,	-357.1	0.0	0.0	**0.0**	-0.0	0.0	-357.1	0.0	0.0	**0.0**	-0.0	0.0
My,	-357.1	0.0	0.0	0.0	**-0.0**	0.0	-357.1	0.0	0.0	0.0	**-0.0**	0.0
Mz,	-357.1	0.0	0.0	0.0	-0.0	**0.0**	-357.1	0.0	0.0	0.0	-0.0	**0.0**
Fx,	**-357.1**	0.0	0.0	0.0	-0.0	0.0	**-357.1**	0.0	0.0	0.0	-0.0	0.0
Fy,	-357.1	**0.0**	0.0	0.0	-0.0	0.0	-357.1	**0.0**	0.0	0.0	-0.0	0.0
Fz,	-357.1	0.0	**0.0**	0.0	-0.0	0.0	-357.1	0.0	**0.0**	0.0	-0.0	0.0
Mx,	-357.1	0.0	0.0	**0.0**	-0.0	0.0	-357.1	0.0	0.0	**0.0**	-0.0	0.0
My,	-357.1	0.0	0.0	0.0	**-0.0**	0.0	-357.1	0.0	0.0	0.0	**-0.0**	0.0
Mz,	-357.1	0.0	0.0	0.0	-0.0	**0.0**	-357.1	0.0	0.0	0.0	-0.0	**0.0**

Member 423

Fx,	**-347.0**	0.0	0.0	0.0	-0.0	0.0	**-347.0**	0.0	0.0	0.0	-0.0	0.0
Fy,	-347.0	**0.0**	0.0	0.0	-0.0	0.0	-347.0	**0.0**	0.0	0.0	-0.0	0.0
Fz,	-347.0	0.0	**0.0**	0.0	-0.0	0.0	-347.0	0.0	**0.0**	0.0	-0.0	0.0
Mx,	-347.0	0.0	0.0	**0.0**	-0.0	0.0	-347.0	0.0	0.0	**0.0**	-0.0	0.0
My,	-347.0	0.0	0.0	0.0	**-0.0**	0.0	-347.0	0.0	0.0	0.0	**-0.0**	0.0
Mz,	-347.0	0.0	0.0	0.0	-0.0	**0.0**	-347.0	0.0	0.0	0.0	-0.0	**0.0**
Fx,	**-347.0**	0.0	0.0	0.0	-0.0	0.0	**-347.0**	0.0	0.0	0.0	-0.0	0.0
Fy,	-347.0	**0.0**	0.0	0.0	-0.0	0.0	-347.0	**0.0**	0.0	0.0	-0.0	0.0
Fz,	-347.0	0.0	**0.0**	0.0	-0.0	0.0	-347.0	0.0	**0.0**	0.0	-0.0	0.0
Mx,	-347.0	0.0	0.0	**0.0**	-0.0	0.0	-347.0	0.0	0.0	**0.0**	-0.0	0.0
My,	-347.0	0.0	0.0	0.0	**-0.0**	0.0	-347.0	0.0	0.0	0.0	**-0.0**	0.0
Mz,	-347.0	0.0	0.0	0.0	-0.0	**0.0**	-347.0	0.0	0.0	0.0	-0.0	**0.0**

Member 424

Fx,	**-349.6**	0.0	-0.0	0.0	-0.0	0.0	**-349.6**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-349.6	**0.0**	-0.0	0.0	-0.0	0.0	-349.6	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-349.6	0.0	**-0.0**	0.0	-0.0	0.0	-349.6	0.0	**-0.0**	0.0	-0.0	0.0
Mx,	-349.6	0.0	-0.0	**0.0**	-0.0	0.0	-349.6	0.0	-0.0	**0.0**	-0.0	0.0
My,	-349.6	0.0	-0.0	0.0	**-0.0**	0.0	-349.6	0.0	-0.0	0.0	**-0.0**	0.0
Mz,	-349.6	0.0	-0.0	0.0	-0.0	**0.0**	-349.6	0.0	-0.0	0.0	-0.0	**0.0**
Fx,	**-349.6**	0.0	-0.0	0.0	-0.0	0.0	**-349.6**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-349.6	**0.0**	-0.0	0.0	-0.0	0.0	-349.6	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-349.6	0.0	**-0.0**	0.0	-0.0	0.0	-349.6	0.0	**-0.0**	0.0	-0.0	0.0
Mx,	-349.6	0.0	-0.0	**0.0**	-0.0	0.0	-349.6	0.0	-0.0	**0.0**	-0.0	0.0
My,	-349.6	0.0	-0.0	0.0	**-0.0**	0.0	-349.6	0.0	-0.0	0.0	**-0.0**	0.0
Mz,	-349.6	0.0	-0.0	0.0	-0.0	**0.0**	-349.6	0.0	-0.0	0.0	-0.0	**0.0**

Member 425

Fx,	**-347.2**	0.0	-0.0	0.0	-0.0	0.0	**-347.2**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-347.2	**0.0**	-0.0	0.0	-0.0	0.0	-347.2	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-347.2	0.0	**-0.0**	0.0	-0.0	0.0	-347.2	0.0	**-0.0**	0.0	-0.0	0.0
Mx,	-347.2	0.0	-0.0	**0.0**	-0.0	0.0	-347.2	0.0	-0.0	**0.0**	-0.0	0.0
My,	-347.2	0.0	-0.0	0.0	**-0.0**	0.0	-347.2	0.0	-0.0	0.0	**-0.0**	0.0
Mz,	-347.2	0.0	-0.0	0.0	-0.0	**0.0**	-347.2	0.0	-0.0	0.0	-0.0	**0.0**
Fx,	**-347.2**	0.0	-0.0	0.0	-0.0	0.0	**-347.2**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-347.2	**0.0**	-0.0	0.0	-0.0	0.0	-347.2	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-347.2	0.0	**-0.0**	0.0	-0.0	0.0	-347.2	0.0	**-0.0**	0.0	-0.0	0.0
Mx,	-347.2	0.0	-0.0	**0.0**	-0.0	0.0	-347.2	0.0	-0.0	**0.0**	-0.0	0.0
My,	-347.2	0.0	-0.0	0.0	**-0.0**	0.0	-347.2	0.0	-0.0	0.0	**-0.0**	0.0
Mz,	-347.2	0.0	-0.0	0.0	-0.0	**0.0**	-347.2	0.0	-0.0	0.0	-0.0	**0.0**

Member 426

Fx,	**-356.7**	0.0	0.0	0.0	-0.0	0.0	**-356.7**	0.0	0.0	0.0	-0.0	0.0
Fy,	-356.7	**0.0**	0.0	0.0	-0.0	0.0	-356.7	**0.0**	0.0	0.0	-0.0	0.0
Fz,	-356.7	0.0	**0.0**	0.0	-0.0	0.0	-356.7	0.0	**0.0**	0.0	-0.0	0.0
Mx,	-356.7	0.0	0.0	**0.0**	-0.0	0.0	-356.7	0.0	0.0	**0.0**	-0.0	0.0
My,	-356.7	0.0	0.0	0.0	**-0.0**	0.0	-356.7	0.0	0.0	0.0	**-0.0**	0.0
Mz,	-356.7	0.0	0.0	0.0	-0.0	**0.0**	-356.7	0.0	0.0	0.0	-0.0	**0.0**
Fx,	**-356.7**	0.0	0.0	0.0	-0.0	0.0	**-356.7**	0.0	0.0	0.0	-0.0	0.0
Fy,	-356.7	**0.0**	0.0	0.0	-0.0	0.0	-356.7	**0.0**	0.0	0.0	-0.0	0.0
Fz,	-356.7	0.0	**0.0**	0.0	-0.0	0.0	-356.7	0.0	**0.0**	0.0	-0.0	0.0
Mx,	-356.7	0.0	0.0	**0.0**	-0.0	0.0	-356.7	0.0	0.0	**0.0**	-0.0	0.0
My,	-356.7	0.0	0.0	0.0	**-0.0**	0.0	-356.7	0.0	0.0	0.0	**-0.0**	0.0
Mz,	-356.7	0.0	0.0	0.0	-0.0	**0.0**	-356.7	0.0	0.0	0.0	-0.0	**0.0**

Member 427

Fx,	**-307.3**	0.0	0.0	0.0	-0.0	0.0	**-307.3**	0.0	0.0	0.0	-0.0	0.0
Fy,	-307.3	**0.0**	0.0	0.0	-0.0	0.0	-307.3	**0.0**	0.0	0.0	-0.0	0.0
Fz,	-307.3	0.0	**0.0**	0.0	-0.0	0.0	-307.3	0.0	**0.0**	0.0	-0.0	0.0
Mx,	-307.3	0.0	0.0	**0.0**	-0.0	0.0	-307.3	0.0	0.0	**0.0**	-0.0	0.0
My,	-307.3	0.0	0.0	0.0	**-0.0**	0.0	-307.3	0.0	0.0	0.0	**-0.0**	0.0
Mz,	-307.3	0.0	0.0	0.0	-0.0	**0.0**	-307.3	0.0	0.0	0.0	-0.0	**0.0**
Fx,	**-307.3**	0.0	0.0	0.0	-0.0	0.0	**-307.3**	0.0	0.0	0.0	-0.0	0.0
Fy,	-307.3	**0.0**	0.0	0.0	-0.0	0.0	-307.3	**0.0**	0.0	0.0	-0.0	0.0
Fz,	-307.3	0.0	**0.0**	0.0	-0.0	0.0	-307.3	0.0	**0.0**	0.0	-0.0	0.0
Mx,	-307.3	0.0	0.0	**0.0**	-0.0	0.0	-307.3	0.0	0.0	**0.0**	-0.0	0.0
My,	-307.3	0.0	0.0	0.0	**-0.0**	0.0	-307.3	0.0	0.0	0.0	**-0.0**	0.0
Mz,	-307.3	0.0	0.0	0.0	-0.0	**0.0**	-307.3	0.0	0.0	0.0	-0.0	**0.0**

DISPLACEMENTS

	x	y	z	x	y	z	x	y	z	x	y	z

Joint 1

x	**-0.0**	-0.0	-0.0	-0.0	0.0	-89.4	**-0.0**	-0.0	-0.0	-0.0	0.0	-89.4
y	-0.0	**-0.0**	-0.0	-0.0	0.0	-89.4	-0.0	**-0.0**	-0.0	-0.0	0.0	-89.4
z	-0.0	-0.0	**-0.0**	-0.0	0.0	-89.4	-0.0	-0.0	**-0.0**	-0.0	0.0	-89.4
x	-0.0	-0.0	-0.0	**-0.0**	0.0	-89.4	-0.0	-0.0	-0.0	**-0.0**	0.0	-89.4
y	-0.0	-0.0	-0.0	-0.0	**0.0**	-89.4	-0.0	-0.0	-0.0	-0.0	**0.0**	-89.4
z	-0.0	-0.0	-0.0	-0.0	0.0	**-89.4**	-0.0	-0.0	-0.0	-0.0	0.0	**-89.4**

Joint 2

x	**-0.0**	-0.3	-0.0	-53.2	-0.0	-68.3	**-0.0**	-0.3	-0.0	-53.2	-0.0	-68.3
y	-0.0	**-0.3**	-0.0	-53.2	-0.0	-68.3	-0.0	**-0.3**	-0.0	-53.2	-0.0	-68.3
z	-0.0	-0.3	**-0.0**	-53.2	-0.0	-68.3	-0.0	-0.3	**-0.0**	-53.2	-0.0	-68.3
x	-0.0	-0.3	-0.0	**-53.2**	-0.0	-68.3	-0.0	-0.3	-0.0	**-53.2**	-0.0	-68.3
y	-0.0	-0.3	-0.0	-53.2	**-0.0**	-68.3	-0.0	-0.3	-0.0	-53.2	**-0.0**	-68.3
z	-0.0	-0.3	-0.0	-53.2	-0.0	**-68.3**	-0.0	-0.3	-0.0	-53.2	-0.0	**-68.3**

Joint 3

x	**-0.0**	-0.5	-0.0	-85.4	-0.0	-19.6	**-0.0**	-0.5	-0.0	-85.4	-0.0	-19.6
y	-0.0	**-0.5**	-0.0	-85.4	-0.0	-19.6	-0.0	**-0.5**	-0.0	-85.4	-0.0	-19.6
z	-0.0	-0.5	**-0.0**	-85.4	-0.0	-19.6	-0.0	-0.5	**-0.0**	-85.4	-0.0	-19.6
x	-0.0	-0.5	-0.0	**-85.4**	-0.0	-19.6	-0.0	-0.5	-0.0	**-85.4**	-0.0	-19.6
y	-0.0	-0.5	-0.0	-85.4	**-0.0**	-19.6	-0.0	-0.5	-0.0	-85.4	**-0.0**	-19.6
z	-0.0	-0.5	-0.0	-85.4	-0.0	**-19.6**	-0.0	-0.5	-0.0	-85.4	-0.0	**-19.6**

Joint 4

x	**-0.0**	-0.5	-0.0	-97.7	0.0	26.3	**-0.0**	-0.5	-0.0	-97.7	0.0	26.3
y	-0.0	**-0.5**	-0.0	-97.7	0.0	26.3	-0.0	**-0.5**	-0.0	-97.7	0.0	26.3
z	-0.0	-0.5	**-0.0**	-97.7	0.0	26.3	-0.0	-0.5	**-0.0**	-97.7	0.0	26.3
x	-0.0	-0.5	-0.0	**-97.7**	0.0	26.3	-0.0	-0.5	-0.0	**-97.7**	0.0	26.3
y	-0.0	-0.5	-0.0	-97.7	**0.0**	26.3	-0.0	-0.5	-0.0	-97.7	**0.0**	26.3
z	-0.0	-0.5	-0.0	-97.7	0.0	**26.3**	-0.0	-0.5	-0.0	-97.7	0.0	**26.3**

Joint 5

x	**-0.0**	-0.3	-0.0	-90.3	0.0	54.3	**-0.0**	-0.3	-0.0	-90.3	0.0	54.3
y	-0.0	**-0.3**	-0.0	-90.3	0.0	54.3	-0.0	**-0.3**	-0.0	-90.3	0.0	54.3
z	-0.0	-0.3	**-0.0**	-90.3	0.0	54.3	-0.0	-0.3	**-0.0**	-90.3	0.0	54.3
x	-0.0	-0.3	-0.0	**-90.3**	0.0	54.3	-0.0	-0.3	-0.0	**-90.3**	0.0	54.3
y	-0.0	-0.3	-0.0	-90.3	**0.0**	54.3	-0.0	-0.3	-0.0	-90.3	**0.0**	54.3
z	-0.0	-0.3	-0.0	-90.3	0.0	**54.3**	-0.0	-0.3	-0.0	-90.3	0.0	**54.3**

Joint 6

x	**-0.0**	-0.1	-0.0	-63.0	0.0	34.1	**-0.0**	-0.1	-0.0	-63.0	0.0	34.1
y	-0.0	**-0.1**	-0.0	-63.0	0.0	34.1	-0.0	**-0.1**	-0.0	-63.0	0.0	34.1
z	-0.0	-0.1	**-0.0**	-63.0	0.0	34.1	-0.0	-0.1	**-0.0**	-63.0	0.0	34.1
x	-0.0	-0.1	-0.0	**-63.0**	0.0	34.1	-0.0	-0.1	-0.0	**-63.0**	0.0	34.1
y	-0.0	-0.1	-0.0	-63.0	**0.0**	34.1	-0.0	-0.1	-0.0	-63.0	**0.0**	34.1
z	-0.0	-0.1	-0.0	-63.0	0.0	**34.1**	-0.0	-0.1	-0.0	-63.0	0.0	**34.1**

Joint 7

x	**-0.0**	-0.2	-0.0	-15.2	0.0	-142.1	**-0.0**	-0.2	-0.0	-15.2	0.0	-142.1
y	-0.0	**-0.2**	-0.0	-15.2	0.0	-142.1	-0.0	**-0.2**	-0.0	-15.2	0.0	-142.1
z	-0.0	-0.2	**-0.0**	-15.2	0.0	-142.1	-0.0	-0.2	**-0.0**	-15.2	0.0	-142.1
x	-0.0	-0.2	-0.0	**-15.2**	0.0	-142.1	-0.0	-0.2	-0.0	**-15.2**	0.0	-142.1
y	-0.0	-0.2	-0.0	-15.2	**0.0**	-142.1	-0.0	-0.2	-0.0	-15.2	**0.0**	-142.1
z	-0.0	-0.2	-0.0	-15.2	0.0	**-142.1**	-0.0	-0.2	-0.0	-15.2	0.0	**-142.1**

Joint 8

x	**-0.0**	-1.4	-0.0	-107.7	-0.0	-308.6	**-0.0**	-1.4	-0.0	-107.7	-0.0	-308.6
y	-0.0	**-1.4**	-0.0	-107.7	-0.0	-308.6	-0.0	**-1.4**	-0.0	-107.7	-0.0	-308.6
z	-0.0	-1.4	**-0.0**	-107.7	-0.0	-308.6	-0.0	-1.4	**-0.0**	-107.7	-0.0	-308.6
x	-0.0	-1.4	-0.0	**-107.7**	-0.0	-308.6	-0.0	-1.4	-0.0	**-107.7**	-0.0	-308.6
y	-0.0	-1.4	-0.0	-107.7	**-0.0**	-308.6	-0.0	-1.4	-0.0	-107.7	**-0.0**	-308.6
z	-0.0	-1.4	-0.0	-107.7	-0.0	**-308.6**	-0.0	-1.4	-0.0	-107.7	-0.0	**-308.6**

Joint 9

x	**-0.0**	-2.7	-0.0	-171.2	-0.0	-264.0	**-0.0**	-2.7	-0.0	-171.2	-0.0	-264.0
y	-0.0	**-2.7**	-0.0	-171.2	-0.0	-264.0	-0.0	**-2.7**	-0.0	-171.2	-0.0	-264.0
z	-0.0	-2.7	**-0.0**	-171.2	-0.0	-264.0	-0.0	-2.7	**-0.0**	-171.2	-0.0	-264.0
x	-0.0	-2.7	-0.0	**-171.2**	-0.0	-264.0	-0.0	-2.7	-0.0	**-171.2**	-0.0	-264.0
y	-0.0	-2.7	-0.0	-171.2	**-0.0**	-264.0	-0.0	-2.7	-0.0	-171.2	**-0.0**	-264.0
z	-0.0	-2.7	-0.0	-171.2	-0.0	**-264.0**	-0.0	-2.7	-0.0	-171.2	-0.0	**-264.0**

Joint 10

x	**-0.0**	-3.6	-0.0	-208.2	-0.0	-133.1	**-0.0**	-3.6	-0.0	-208.2	-0.0	-133.1
y	-0.0	**-3.6**	-0.0	-208.2	-0.0	-133.1	-0.0	**-3.6**	-0.0	-208.2	-0.0	-133.1
z	-0.0	-3.6	**-0.0**	-208.2	-0.0	-133.1	-0.0	-3.6	**-0.0**	-208.2	-0.0	-133.1
x	-0.0	-3.6	-0.0	**-208.2**	-0.0	-133.1	-0.0	-3.6	-0.0	**-208.2**	-0.0	-133.1
y	-0.0	-3.6	-0.0	-208.2	**-0.0**	-133.1	-0.0	-3.6	-0.0	-208.2	**-0.0**	-133.1
z	-0.0	-3.6	-0.0	-208.2	-0.0	**-133.1**	-0.0	-3.6	-0.0	-208.2	-0.0	**-133.1**

Joint 11

x	**-0.0**	-3.9	0.0	-220.4	-0.0	20.3	**-0.0**	-3.9	0.0	-220.4	-0.0	20.3
y	-0.0	**-3.9**	0.0	-220.4	-0.0	20.3	-0.0	**-3.9**	0.0	-220.4	-0.0	20.3
z	-0.0	-3.9	**0.0**	-220.4	-0.0	20.3	-0.0	-3.9	**0.0**	-220.4	-0.0	20.3
x	-0.0	-3.9	0.0	**-220.4**	-0.0	20.3	-0.0	-3.9	0.0	**-220.4**	-0.0	20.3
y	-0.0	-3.9	0.0	-220.4	**-0.0**	20.3	-0.0	-3.9	0.0	-220.4	**-0.0**	20.3
z	-0.0	-3.9	0.0	-220.4	-0.0	**20.3**	-0.0	-3.9	0.0	-220.4	-0.0	**20.3**

Joint 12

x	**-0.0**	-3.5	-0.0	-208.4	0.0	167.2	**-0.0**	-3.5	-0.0	-208.4	0.0	167.2
y	-0.0	**-3.5**	-0.0	-208.4	0.0	167.2	-0.0	**-3.5**	-0.0	-208.4	0.0	167.2
z	-0.0	-3.5	**-0.0**	-208.4	0.0	167.2	-0.0	-3.5	**-0.0**	-208.4	0.0	167.2
x	-0.0	-3.5	-0.0	**-208.4**	0.0	167.2	-0.0	-3.5	-0.0	**-208.4**	0.0	167.2
y	-0.0	-3.5	-0.0	-208.4	**0.0**	167.2	-0.0	-3.5	-0.0	-208.4	**0.0**	167.2
z	-0.0	-3.5	-0.0	-208.4	0.0	**167.2**	-0.0	-3.5	-0.0	-208.4	0.0	**167.2**

Joint 13

x	**-0.0**	-2.4	-0.0	-171.7	0.0	276.6	**-0.0**	-2.4	-0.0	-171.7	0.0	276.6
y	-0.0	**-2.4**	-0.0	-171.7	0.0	276.6	-0.0	**-2.4**	-0.0	-171.7	0.0	276.6
z	-0.0	-2.4	**-0.0**	-171.7	0.0	276.6	-0.0	-2.4	**-0.0**	-171.7	0.0	276.6
x	-0.0	-2.4	-0.0	**-171.7**	0.0	276.6	-0.0	-2.4	-0.0	**-171.7**	0.0	276.6
y	-0.0	-2.4	-0.0	-171.7	**0.0**	276.6	-0.0	-2.4	-0.0	-171.7	**0.0**	276.6
z	-0.0	-2.4	-0.0	-171.7	0.0	**276.6**	-0.0	-2.4	-0.0	-171.7	0.0	**276.6**

Joint 14

x	**-0.0**	-1.1	-0.0	-108.6	0.0	285.4	**-0.0**	-1.1	-0.0	-108.6	0.0	285.4
y	-0.0	**-1.1**	-0.0	-108.6	0.0	285.4	-0.0	**-1.1**	-0.0	-108.6	0.0	285.4
z	-0.0	-1.1	**-0.0**	-108.6	0.0	285.4	-0.0	-1.1	**-0.0**	-108.6	0.0	285.4
x	-0.0	-1.1	-0.0	**-108.6**	0.0	285.4	-0.0	-1.1	-0.0	**-108.6**	0.0	285.4
y	-0.0	-1.1	-0.0	-108.6	**0.0**	285.4	-0.0	-1.1	-0.0	-108.6	**0.0**	285.4
z	-0.0	-1.1	-0.0	-108.6	0.0	**285.4**	-0.0	-1.1	-0.0	-108.6	0.0	**285.4**

Joint 15

x	**-0.0**	-0.3	-0.0	-16.4	-0.0	29.2	**-0.0**	-0.3	-0.0	-16.4	-0.0	29.2
y	-0.0	**-0.3**	-0.0	-16.4	-0.0	29.2	-0.0	**-0.3**	-0.0	-16.4	-0.0	29.2
z	-0.0	-0.3	**-0.0**	-16.4	-0.0	29.2	-0.0	-0.3	**-0.0**	-16.4	-0.0	29.2
x	-0.0	-0.3	-0.0	**-16.4**	-0.0	29.2	-0.0	-0.3	-0.0	**-16.4**	-0.0	29.2
y	-0.0	-0.3	-0.0	-16.4	**-0.0**	29.2	-0.0	-0.3	-0.0	-16.4	**-0.0**	29.2
z	-0.0	-0.3	-0.0	-16.4	-0.0	**29.2**	-0.0	-0.3	-0.0	-16.4	-0.0	**29.2**

Joint 16

x	**-0.0**	-0.9	-0.0	-109.1	-0.0	-231.5	**-0.0**	-0.9	-0.0	-109.1	-0.0	-231.5
y	-0.0	**-0.9**	-0.0	-109.1	-0.0	-231.5	-0.0	**-0.9**	-0.0	-109.1	-0.0	-231.5
z	-0.0	-0.9	**-0.0**	-109.1	-0.0	-231.5	-0.0	-0.9	**-0.0**	-109.1	-0.0	-231.5
x	-0.0	-0.9	-0.0	**-109.1**	-0.0	-231.5	-0.0	-0.9	-0.0	**-109.1**	-0.0	-231.5
y	-0.0	-0.9	-0.0	-109.1	**-0.0**	-231.5	-0.0	-0.9	-0.0	-109.1	**-0.0**	-231.5
z	-0.0	-0.9	-0.0	-109.1	-0.0	**-231.5**	-0.0	-0.9	-0.0	-109.1	-0.0	**-231.5**

Joint 17

x	**-0.0**	-2.0	-0.0	-172.8	-0.0	-231.1	**-0.0**	-2.0	-0.0	-172.8	-0.0	-231.1
y	-0.0	**-2.0**	-0.0	-172.8	-0.0	-231.1	-0.0	**-2.0**	-0.0	-172.8	-0.0	-231.1
z	-0.0	-2.0	**-0.0**	-172.8	-0.0	-231.1	-0.0	-2.0	**-0.0**	-172.8	-0.0	-231.1
x	-0.0	-2.0	-0.0	**-172.8**	-0.0	-231.1	-0.0	-2.0	-0.0	**-172.8**	-0.0	-231.1
y	-0.0	-2.0	-0.0	-172.8	**-0.0**	-231.1	-0.0	-2.0	-0.0	-172.8	**-0.0**	-231.1
z	-0.0	-2.0	-0.0	-172.8	-0.0	**-231.1**	-0.0	-2.0	-0.0	-172.8	-0.0	**-231.1**

Joint 18

x	**-0.0**	-2.8	0.0	-210.2	-0.0	-135.6	**-0.0**	-2.8	0.0	-210.2	-0.0	-135.6
y	-0.0	**-2.8**	0.0	-210.2	-0.0	-135.6	-0.0	**-2.8**	0.0	-210.2	-0.0	-135.6
z	-0.0	-2.8	**0.0**	-210.2	-0.0	-135.6	-0.0	-2.8	**0.0**	-210.2	-0.0	-135.6
x	-0.0	-2.8	0.0	**-210.2**	-0.0	-135.6	-0.0	-2.8	0.0	**-210.2**	-0.0	-135.6
y	-0.0	-2.8	0.0	-210.2	**-0.0**	-135.6	-0.0	-2.8	0.0	-210.2	**-0.0**	-135.6
z	-0.0	-2.8	0.0	-210.2	-0.0	**-135.6**	-0.0	-2.8	0.0	-210.2	-0.0	**-135.6**

Joint 19

x	**-0.0**	-3.1	0.0	-222.8	-0.0	-6.2	**-0.0**	-3.1	0.0	-222.8	-0.0	-6.2
y	-0.0	**-3.1**	0.0	-222.8	-0.0	-6.2	-0.0	**-3.1**	0.0	-222.8	-0.0	-6.2
z	-0.0	-3.1	**0.0**	-222.8	-0.0	-6.2	-0.0	-3.1	**0.0**	-222.8	-0.0	-6.2
x	-0.0	-3.1	0.0	**-222.8**	-0.0	-6.2	-0.0	-3.1	0.0	**-222.8**	-0.0	-6.2
y	-0.0	-3.1	0.0	-222.8	**-0.0**	-6.2	-0.0	-3.1	0.0	-222.8	**-0.0**	-6.2
z	-0.0	-3.1	0.0	-222.8	-0.0	**-6.2**	-0.0	-3.1	0.0	-222.8	-0.0	**-6.2**

Joint 20

x	**-0.0**	-2.9	0.0	-211.4	0.0	124.7	**-0.0**	-2.9	0.0	-211.4	0.0	124.7
y	-0.0	**-2.9**	0.0	-211.4	0.0	124.7	-0.0	**-2.9**	0.0	-211.4	0.0	124.7
z	-0.0	-2.9	**0.0**	-211.4	0.0	124.7	-0.0	-2.9	**0.0**	-211.4	0.0	124.7
x	-0.0	-2.9	0.0	**-211.4**	0.0	124.7	-0.0	-2.9	0.0	**-211.4**	0.0	124.7
y	-0.0	-2.9	0.0	-211.4	**0.0**	124.7	-0.0	-2.9	0.0	-211.4	**0.0**	124.7
z	-0.0	-2.9	0.0	-211.4	0.0	**124.7**	-0.0	-2.9	0.0	-211.4	0.0	**124.7**

Joint 21

x	**-0.0**	-2.0	-0.0	-175.3	0.0	225.0	**-0.0**	-2.0	-0.0	-175.3	0.0	225.0
y	-0.0	**-2.0**	-0.0	-175.3	0.0	225.0	-0.0	**-2.0**	-0.0	-175.3	0.0	225.0
z	-0.0	-2.0	**-0.0**	-175.3	0.0	225.0	-0.0	-2.0	**-0.0**	-175.3	0.0	225.0
x	-0.0	-2.0	-0.0	**-175.3**	0.0	225.0	-0.0	-2.0	-0.0	**-175.3**	0.0	225.0
y	-0.0	-2.0	-0.0	-175.3	**0.0**	225.0	-0.0	-2.0	-0.0	-175.3	**0.0**	225.0
z	-0.0	-2.0	-0.0	-175.3	0.0	**225.0**	-0.0	-2.0	-0.0	-175.3	0.0	**225.0**

Joint 22

x	**-0.0**	-1.0	-0.0	-113.0	0.0	233.4	**-0.0**	-1.0	-0.0	-113.0	0.0	233.4
y	-0.0	**-1.0**	-0.0	-113.0	0.0	233.4	-0.0	**-1.0**	-0.0	-113.0	0.0	233.4
z	-0.0	-1.0	**-0.0**	-113.0	0.0	233.4	-0.0	-1.0	**-0.0**	-113.0	0.0	233.4
x	-0.0	-1.0	-0.0	**-113.0**	0.0	233.4	-0.0	-1.0	-0.0	**-113.0**	0.0	233.4
y	-0.0	-1.0	-0.0	-113.0	**0.0**	233.4	-0.0	-1.0	-0.0	-113.0	**0.0**	233.4
z	-0.0	-1.0	-0.0	-113.0	0.0	**233.4**	-0.0	-1.0	-0.0	-113.0	0.0	**233.4**

Joint 23

x	**-0.0**	-0.3	-0.0	-21.8	-0.0	-7.4	**-0.0**	-0.3	-0.0	-21.8	-0.0	-7.4
y	-0.0	**-0.3**	-0.0	-21.8	-0.0	-7.4	-0.0	**-0.3**	-0.0	-21.8	-0.0	-7.4
z	-0.0	-0.3	**-0.0**	-21.8	-0.0	-7.4	-0.0	-0.3	**-0.0**	-21.8	-0.0	-7.4
x	-0.0	-0.3	-0.0	**-21.8**	-0.0	-7.4	-0.0	-0.3	-0.0	**-21.8**	-0.0	-7.4
y	-0.0	-0.3	-0.0	-21.8	**-0.0**	-7.4	-0.0	-0.3	-0.0	-21.8	**-0.0**	-7.4
z	-0.0	-0.3	-0.0	-21.8	-0.0	**-7.4**	-0.0	-0.3	-0.0	-21.8	-0.0	**-7.4**

Joint 24

x	**-0.0**	-1.0	-0.0	-113.5	-0.0	-247.2	**-0.0**	-1.0	-0.0	-113.5	-0.0	-247.2
y	-0.0	**-1.0**	-0.0	-113.5	-0.0	-247.2	-0.0	**-1.0**	-0.0	-113.5	-0.0	-247.2
z	-0.0	-1.0	**-0.0**	-113.5	-0.0	-247.2	-0.0	-1.0	**-0.0**	-113.5	-0.0	-247.2
x	-0.0	-1.0	-0.0	**-113.5**	-0.0	-247.2	-0.0	-1.0	-0.0	**-113.5**	-0.0	-247.2

y	-0.0	-1.0	-0.0	-113.5	-0.0	-247.2	-0.0	-1.0	-0.0	-113.5	-0.0	-247.2
z	-0.0	-1.0	-0.0	-113.5	-0.0	**-247.2**	-0.0	-1.0	-0.0	-113.5	-0.0	**-247.2**

Joint 25

x	**-0.0**	-2.2	-0.0	-176.4	-0.0	-237.0	**-0.0**	-2.2	-0.0	-176.4	-0.0	-237.0
y	-0.0	**-2.2**	-0.0	-176.4	-0.0	-237.0	-0.0	**-2.2**	-0.0	-176.4	-0.0	-237.0
z	-0.0	-2.2	**-0.0**	-176.4	-0.0	-237.0	-0.0	-2.2	**-0.0**	-176.4	-0.0	-237.0
x	-0.0	-2.2	-0.0	**-176.4**	-0.0	-237.0	-0.0	-2.2	-0.0	**-176.4**	-0.0	-237.0
y	-0.0	-2.2	-0.0	-176.4	**-0.0**	-237.0	-0.0	-2.2	-0.0	-176.4	**-0.0**	-237.0
z	-0.0	-2.2	-0.0	-176.4	-0.0	**-237.0**	-0.0	-2.2	-0.0	-176.4	-0.0	**-237.0**

Joint 26

x	**-0.0**	-3.0	0.0	-213.1	-0.0	-133.8	**-0.0**	-3.0	0.0	-213.1	-0.0	-133.8
y	-0.0	**-3.0**	0.0	-213.1	-0.0	-133.8	-0.0	**-3.0**	0.0	-213.1	-0.0	-133.8
z	-0.0	-3.0	**0.0**	-213.1	-0.0	-133.8	-0.0	-3.0	**0.0**	-213.1	-0.0	-133.8
x	-0.0	-3.0	0.0	**-213.1**	-0.0	-133.8	-0.0	-3.0	0.0	**-213.1**	-0.0	-133.8
y	-0.0	-3.0	0.0	-213.1	**-0.0**	-133.8	-0.0	-3.0	0.0	-213.1	**-0.0**	-133.8
z	-0.0	-3.0	0.0	-213.1	-0.0	**-133.8**	-0.0	-3.0	0.0	-213.1	-0.0	**-133.8**

Joint 27

x	**-0.0**	-3.3	0.0	-225.2	-0.0	0.8	**-0.0**	-3.3	0.0	-225.2	-0.0	0.8
y	-0.0	**-3.3**	0.0	-225.2	-0.0	0.8	-0.0	**-3.3**	0.0	-225.2	-0.0	0.8
z	-0.0	-3.3	**0.0**	-225.2	-0.0	0.8	-0.0	-3.3	**0.0**	-225.2	-0.0	0.8
x	-0.0	-3.3	0.0	**-225.2**	-0.0	0.8	-0.0	-3.3	0.0	**-225.2**	-0.0	0.8
y	-0.0	-3.3	0.0	-225.2	**-0.0**	0.8	-0.0	-3.3	0.0	-225.2	**-0.0**	0.8
z	-0.0	-3.3	0.0	-225.2	-0.0	**0.8**	-0.0	-3.3	0.0	-225.2	-0.0	**0.8**

Joint 28

x	**-0.0**	-3.0	0.0	-213.3	0.0	135.0	**-0.0**	-3.0	0.0	-213.3	0.0	135.0
y	-0.0	**-3.0**	0.0	-213.3	0.0	135.0	-0.0	**-3.0**	0.0	-213.3	0.0	135.0
z	-0.0	-3.0	**0.0**	-213.3	0.0	135.0	-0.0	-3.0	**0.0**	-213.3	0.0	135.0
x	-0.0	-3.0	0.0	**-213.3**	0.0	135.0	-0.0	-3.0	0.0	**-213.3**	0.0	135.0
y	-0.0	-3.0	0.0	-213.3	**0.0**	135.0	-0.0	-3.0	0.0	-213.3	**0.0**	135.0
z	-0.0	-3.0	0.0	-213.3	0.0	**135.0**	-0.0	-3.0	0.0	-213.3	0.0	**135.0**

Joint 29

x	**-0.0**	-2.2	-0.0	-176.9	0.0	237.0	**-0.0**	-2.2	-0.0	-176.9	0.0	237.0
y	-0.0	**-2.2**	-0.0	-176.9	0.0	237.0	-0.0	**-2.2**	-0.0	-176.9	0.0	237.0
z	-0.0	-2.2	**-0.0**	-176.9	0.0	237.0	-0.0	-2.2	**-0.0**	-176.9	0.0	237.0
x	-0.0	-2.2	-0.0	**-176.9**	0.0	237.0	-0.0	-2.2	-0.0	**-176.9**	0.0	237.0
y	-0.0	-2.2	-0.0	-176.9	**0.0**	237.0	-0.0	-2.2	-0.0	-176.9	**0.0**	237.0
z	-0.0	-2.2	-0.0	-176.9	0.0	**237.0**	-0.0	-2.2	-0.0	-176.9	0.0	**237.0**

Joint 30

x	**-0.0**	-1.0	-0.0	-114.3	0.0	245.0	**-0.0**	-1.0	-0.0	-114.3	0.0	245.0
y	-0.0	**-1.0**	-0.0	-114.3	0.0	245.0	-0.0	**-1.0**	-0.0	-114.3	0.0	245.0
z	-0.0	-1.0	**-0.0**	-114.3	0.0	245.0	-0.0	-1.0	**-0.0**	-114.3	0.0	245.0
x	-0.0	-1.0	-0.0	**-114.3**	0.0	245.0	-0.0	-1.0	-0.0	**-114.3**	0.0	245.0
y	-0.0	-1.0	-0.0	-114.3	**0.0**	245.0	-0.0	-1.0	-0.0	-114.3	**0.0**	245.0
z	-0.0	-1.0	-0.0	-114.3	0.0	**245.0**	-0.0	-1.0	-0.0	-114.3	0.0	**245.0**

Joint 31

x	**-0.0**	-0.3	-0.0	-22.9	-0.0	-0.0	**-0.0**	-0.3	-0.0	-22.9	-0.0	-0.0
y	-0.0	**-0.3**	-0.0	-22.9	-0.0	-0.0	-0.0	**-0.3**	-0.0	-22.9	-0.0	-0.0
z	-0.0	-0.3	**-0.0**	-22.9	-0.0	-0.0	-0.0	-0.3	**-0.0**	-22.9	-0.0	-0.0
x	-0.0	-0.3	-0.0	**-22.9**	-0.0	-0.0	-0.0	-0.3	-0.0	**-22.9**	-0.0	-0.0
y	-0.0	-0.3	-0.0	-22.9	**-0.0**	-0.0	-0.0	-0.3	-0.0	-22.9	**-0.0**	-0.0
z	-0.0	-0.3	-0.0	-22.9	-0.0	**-0.0**	-0.0	-0.3	-0.0	-22.9	-0.0	**-0.0**

Joint 32

x	**-0.0**	-1.0	-0.0	-114.4	-0.0	-245.1	**-0.0**	-1.0	-0.0	-114.4	-0.0	-245.1
y	-0.0	**-1.0**	-0.0	-114.4	-0.0	-245.1	-0.0	**-1.0**	-0.0	-114.4	-0.0	-245.1
z	-0.0	-1.0	**-0.0**	-114.4	-0.0	-245.1	-0.0	-1.0	**-0.0**	-114.4	-0.0	-245.1
x	-0.0	-1.0	-0.0	**-114.4**	-0.0	-245.1	-0.0	-1.0	-0.0	**-114.4**	-0.0	-245.1
y	-0.0	-1.0	-0.0	-114.4	**-0.0**	-245.1	-0.0	-1.0	-0.0	-114.4	**-0.0**	-245.1
z	-0.0	-1.0	-0.0	-114.4	-0.0	**-245.1**	-0.0	-1.0	-0.0	-114.4	-0.0	**-245.1**

Joint 33

x	**-0.0**	-2.2	-0.0	-177.1	-0.0	-237.1	**-0.0**	-2.2	-0.0	-177.1	-0.0	-237.1
y	-0.0	**-2.2**	-0.0	-177.1	-0.0	-237.1	-0.0	**-2.2**	-0.0	-177.1	-0.0	-237.1
z	-0.0	-2.2	**-0.0**	-177.1	-0.0	-237.1	-0.0	-2.2	**-0.0**	-177.1	-0.0	-237.1
x	-0.0	-2.2	-0.0	**-177.1**	-0.0	-237.1	-0.0	-2.2	-0.0	**-177.1**	-0.0	-237.1
y	-0.0	-2.2	-0.0	-177.1	**-0.0**	-237.1	-0.0	-2.2	-0.0	-177.1	**-0.0**	-237.1
z	-0.0	-2.2	-0.0	-177.1	-0.0	**-237.1**	-0.0	-2.2	-0.0	-177.1	-0.0	**-237.1**

Joint 34

x	**-0.0**	-3.0	0.0	-213.7	-0.0	-135.2	**-0.0**	-3.0	0.0	-213.7	-0.0	-135.2
y	-0.0	**-3.0**	0.0	-213.7	-0.0	-135.2	-0.0	**-3.0**	0.0	-213.7	-0.0	-135.2
z	-0.0	-3.0	**0.0**	-213.7	-0.0	-135.2	-0.0	-3.0	**0.0**	-213.7	-0.0	-135.2
x	-0.0	-3.0	0.0	**-213.7**	-0.0	-135.2	-0.0	-3.0	0.0	**-213.7**	-0.0	-135.2
y	-0.0	-3.0	0.0	-213.7	**-0.0**	-135.2	-0.0	-3.0	0.0	-213.7	**-0.0**	-135.2
z	-0.0	-3.0	0.0	-213.7	-0.0	**-135.2**	-0.0	-3.0	0.0	-213.7	-0.0	**-135.2**

Joint 35

x	**-0.0**	-3.3	0.0	-225.7	-0.0	-1.1	**-0.0**	-3.3	0.0	-225.7	-0.0	-1.1
y	-0.0	**-3.3**	0.0	-225.7	-0.0	-1.1	-0.0	**-3.3**	0.0	-225.7	-0.0	-1.1
z	-0.0	-3.3	**0.0**	-225.7	-0.0	-1.1	-0.0	-3.3	**0.0**	-225.7	-0.0	-1.1
x	-0.0	-3.3	0.0	**-225.7**	-0.0	-1.1	-0.0	-3.3	0.0	**-225.7**	-0.0	-1.1
y	-0.0	-3.3	0.0	-225.7	**-0.0**	-1.1	-0.0	-3.3	0.0	-225.7	**-0.0**	-1.1
z	-0.0	-3.3	0.0	-225.7	-0.0	**-1.1**	-0.0	-3.3	0.0	-225.7	-0.0	**-1.1**

Joint 36

x	**-0.0**	-3.0	0.0	-213.8	0.0	133.3	**-0.0**	-3.0	0.0	-213.8	0.0	133.3
y	-0.0	**-3.0**	0.0	-213.8	0.0	133.3	-0.0	**-3.0**	0.0	-213.8	0.0	133.3
z	-0.0	-3.0	**0.0**	-213.8	0.0	133.3	-0.0	-3.0	**0.0**	-213.8	0.0	133.3
x	-0.0	-3.0	0.0	**-213.8**	0.0	133.3	-0.0	-3.0	0.0	**-213.8**	0.0	133.3
y	-0.0	-3.0	0.0	-213.8	**0.0**	133.3	-0.0	-3.0	0.0	-213.8	**0.0**	133.3
z	-0.0	-3.0	0.0	-213.8	0.0	**133.3**	-0.0	-3.0	0.0	-213.8	0.0	**133.3**

Joint 37

x	**-0.0**	-2.2	-0.0	-177.2	0.0	236.3	**-0.0**	-2.2	-0.0	-177.2	0.0	236.3
y	-0.0	**-2.2**	-0.0	-177.2	0.0	236.3	-0.0	**-2.2**	-0.0	-177.2	0.0	236.3
z	-0.0	-2.2	**-0.0**	-177.2	0.0	236.3	-0.0	-2.2	**-0.0**	-177.2	0.0	236.3
x	-0.0	-2.2	-0.0	**-177.2**	0.0	236.3	-0.0	-2.2	-0.0	**-177.2**	0.0	236.3
y	-0.0	-2.2	-0.0	-177.2	**0.0**	236.3	-0.0	-2.2	-0.0	-177.2	**0.0**	236.3
z	-0.0	-2.2	-0.0	-177.2	0.0	**236.3**	-0.0	-2.2	-0.0	-177.2	0.0	**236.3**

Joint 38

x	**-0.0**	-1.0	-0.0	-114.6	0.0	246.2	**-0.0**	-1.0	-0.0	-114.6	0.0	246.2
y	-0.0	**-1.0**	-0.0	-114.6	0.0	246.2	-0.0	**-1.0**	-0.0	-114.6	0.0	246.2
z	-0.0	-1.0	**-0.0**	-114.6	0.0	246.2	-0.0	-1.0	**-0.0**	-114.6	0.0	246.2
x	-0.0	-1.0	-0.0	**-114.6**	0.0	246.2	-0.0	-1.0	-0.0	**-114.6**	0.0	246.2
y	-0.0	-1.0	-0.0	-114.6	**0.0**	246.2	-0.0	-1.0	-0.0	-114.6	**0.0**	246.2
z	-0.0	-1.0	-0.0	-114.6	0.0	**246.2**	-0.0	-1.0	-0.0	-114.6	0.0	**246.2**

Joint 39

x	**-0.0**	-0.3	-0.0	-23.2	0.0	5.9	**-0.0**	-0.3	-0.0	-23.2	0.0	5.9
y	-0.0	**-0.3**	-0.0	-23.2	0.0	5.9	-0.0	**-0.3**	-0.0	-23.2	0.0	5.9
z	-0.0	-0.3	**-0.0**	-23.2	0.0	5.9	-0.0	-0.3	**-0.0**	-23.2	0.0	5.9
x	-0.0	-0.3	-0.0	**-23.2**	0.0	5.9	-0.0	-0.3	-0.0	**-23.2**	0.0	5.9
y	-0.0	-0.3	-0.0	-23.2	**0.0**	5.9	-0.0	-0.3	-0.0	-23.2	**0.0**	5.9
z	-0.0	-0.3	-0.0	-23.2	0.0	**5.9**	-0.0	-0.3	-0.0	-23.2	0.0	**5.9**

Joint 40

x	**-0.0**	-1.0	-0.0	-114.5	-0.0	-235.2	**-0.0**	-1.0	-0.0	-114.5	-0.0	-235.2
y	-0.0	**-1.0**	-0.0	-114.5	-0.0	-235.2	-0.0	**-1.0**	-0.0	-114.5	-0.0	-235.2
z	-0.0	-1.0	**-0.0**	-114.5	-0.0	-235.2	-0.0	-1.0	**-0.0**	-114.5	-0.0	-235.2
x	-0.0	-1.0	-0.0	**-114.5**	-0.0	-235.2	-0.0	-1.0	-0.0	**-114.5**	-0.0	-235.2
y	-0.0	-1.0	-0.0	-114.5	**-0.0**	-235.2	-0.0	-1.0	-0.0	-114.5	**-0.0**	-235.2
z	-0.0	-1.0	-0.0	-114.5	-0.0	**-235.2**	-0.0	-1.0	-0.0	-114.5	-0.0	**-235.2**

Joint 41

x	**-0.0**	-2.1	-0.0	-177.0	-0.0	-226.9	**-0.0**	-2.1	-0.0	-177.0	-0.0	-226.9
y	-0.0	**-2.1**	-0.0	-177.0	-0.0	-226.9	-0.0	**-2.1**	-0.0	-177.0	-0.0	-226.9
z	-0.0	-2.1	**-0.0**	-177.0	-0.0	-226.9	-0.0	-2.1	**-0.0**	-177.0	-0.0	-226.9
x	-0.0	-2.1	-0.0	**-177.0**	-0.0	-226.9	-0.0	-2.1	-0.0	**-177.0**	-0.0	-226.9
y	-0.0	-2.1	-0.0	-177.0	**-0.0**	-226.9	-0.0	-2.1	-0.0	-177.0	**-0.0**	-226.9
z	-0.0	-2.1	-0.0	-177.0	-0.0	**-226.9**	-0.0	-2.1	-0.0	-177.0	-0.0	**-226.9**

Joint 42

x	**-0.0**	-2.9	0.0	-213.4	-0.0	-126.5	**-0.0**	-2.9	0.0	-213.4	-0.0	-126.5
y	-0.0	**-2.9**	0.0	-213.4	-0.0	-126.5	-0.0	**-2.9**	0.0	-213.4	-0.0	-126.5
z	-0.0	-2.9	**0.0**	-213.4	-0.0	-126.5	-0.0	-2.9	**0.0**	-213.4	-0.0	-126.5
x	-0.0	-2.9	0.0	**-213.4**	-0.0	-126.5	-0.0	-2.9	0.0	**-213.4**	-0.0	-126.5
y	-0.0	-2.9	0.0	-213.4	**-0.0**	-126.5	-0.0	-2.9	0.0	-213.4	**-0.0**	-126.5
z	-0.0	-2.9	0.0	-213.4	-0.0	**-126.5**	-0.0	-2.9	0.0	-213.4	-0.0	**-126.5**

Joint 43

x	**-0.0**	-3.2	0.0	-225.2	0.0	4.5	**-0.0**	-3.2	0.0	-225.2	0.0	4.5
y	-0.0	**-3.2**	0.0	-225.2	0.0	4.5	-0.0	**-3.2**	0.0	-225.2	0.0	4.5
z	-0.0	-3.2	**0.0**	-225.2	0.0	4.5	-0.0	-3.2	**0.0**	-225.2	0.0	4.5
x	-0.0	-3.2	0.0	**-225.2**	0.0	4.5	-0.0	-3.2	0.0	**-225.2**	0.0	4.5
y	-0.0	-3.2	0.0	-225.2	**0.0**	4.5	-0.0	-3.2	0.0	-225.2	**0.0**	4.5
z	-0.0	-3.2	0.0	-225.2	0.0	**4.5**	-0.0	-3.2	0.0	-225.2	0.0	**4.5**

Joint 44

x	**-0.0**	-2.9	0.0	-213.0	0.0	134.3	**-0.0**	-2.9	0.0	-213.0	0.0	134.3
y	-0.0	**-2.9**	0.0	-213.0	0.0	134.3	-0.0	**-2.9**	0.0	-213.0	0.0	134.3
z	-0.0	-2.9	**0.0**	-213.0	0.0	134.3	-0.0	-2.9	**0.0**	-213.0	0.0	134.3
x	-0.0	-2.9	0.0	**-213.0**	0.0	134.3	-0.0	-2.9	0.0	**-213.0**	0.0	134.3
y	-0.0	-2.9	0.0	-213.0	**0.0**	134.3	-0.0	-2.9	0.0	-213.0	**0.0**	134.3
z	-0.0	-2.9	0.0	-213.0	0.0	**134.3**	-0.0	-2.9	0.0	-213.0	0.0	**134.3**

Joint 45

x	**-0.0**	-2.0	-0.0	-176.2	0.0	230.3	**-0.0**	-2.0	-0.0	-176.2	0.0	230.3
y	-0.0	**-2.0**	-0.0	-176.2	0.0	230.3	-0.0	**-2.0**	-0.0	-176.2	0.0	230.3
z	-0.0	-2.0	**-0.0**	-176.2	0.0	230.3	-0.0	-2.0	**-0.0**	-176.2	0.0	230.3
x	-0.0	-2.0	-0.0	**-176.2**	0.0	230.3	-0.0	-2.0	-0.0	**-176.2**	0.0	230.3
y	-0.0	-2.0	-0.0	-176.2	**0.0**	230.3	-0.0	-2.0	-0.0	-176.2	**0.0**	230.3
z	-0.0	-2.0	-0.0	-176.2	0.0	**230.3**	-0.0	-2.0	-0.0	-176.2	0.0	**230.3**

Joint 46

x	**-0.0**	-0.9	-0.0	-113.2	0.0	231.4	**-0.0**	-0.9	-0.0	-113.2	0.0	231.4
y	-0.0	**-0.9**	-0.0	-113.2	0.0	231.4	-0.0	**-0.9**	-0.0	-113.2	0.0	231.4
z	-0.0	-0.9	**-0.0**	-113.2	0.0	231.4	-0.0	-0.9	**-0.0**	-113.2	0.0	231.4
x	-0.0	-0.9	-0.0	**-113.2**	0.0	231.4	-0.0	-0.9	-0.0	**-113.2**	0.0	231.4
y	-0.0	-0.9	-0.0	-113.2	**0.0**	231.4	-0.0	-0.9	-0.0	-113.2	**0.0**	231.4
z	-0.0	-0.9	-0.0	-113.2	0.0	**231.4**	-0.0	-0.9	-0.0	-113.2	0.0	**231.4**

Joint 47

x	**-0.0**	-0.3	-0.0	-21.4	0.0	-27.9	**-0.0**	-0.3	-0.0	-21.4	0.0	-27.9
y	-0.0	**-0.3**	-0.0	-21.4	0.0	-27.9	-0.0	**-0.3**	-0.0	-21.4	0.0	-27.9
z	-0.0	-0.3	**-0.0**	-21.4	0.0	-27.9	-0.0	-0.3	**-0.0**	-21.4	0.0	-27.9
x	-0.0	-0.3	-0.0	**-21.4**	0.0	-27.9	-0.0	-0.3	-0.0	**-21.4**	0.0	-27.9
y	-0.0	-0.3	-0.0	-21.4	**0.0**	-27.9	-0.0	-0.3	-0.0	-21.4	**0.0**	-27.9
z	-0.0	-0.3	-0.0	-21.4	0.0	**-27.9**	-0.0	-0.3	-0.0	-21.4	0.0	**-27.9**

Joint 48

x	**-0.0**	-1.2	-0.0	-112.4	-0.0	-282.8	**-0.0**	-1.2	-0.0	-112.4	-0.0	-282.8
y	-0.0	**-1.2**	-0.0	-112.4	-0.0	-282.8	-0.0	**-1.2**	-0.0	-112.4	-0.0	-282.8
z	-0.0	-1.2	**-0.0**	-112.4	-0.0	-282.8	-0.0	-1.2	**-0.0**	-112.4	-0.0	-282.8
x	-0.0	-1.2	-0.0	**-112.4**	-0.0	-282.8	-0.0	-1.2	-0.0	**-112.4**	-0.0	-282.8
y	-0.0	-1.2	-0.0	-112.4	**-0.0**	-282.8	-0.0	-1.2	-0.0	-112.4	**-0.0**	-282.8
z	-0.0	-1.2	-0.0	-112.4	-0.0	**-282.8**	-0.0	-1.2	-0.0	-112.4	-0.0	**-282.8**

Joint 49

x	**-0.0**	-2.5	-0.0	-174.4	-0.0	-273.5	**-0.0**	-2.5	-0.0	-174.4	-0.0	-273.5
y	-0.0	**-2.5**	-0.0	-174.4	-0.0	-273.5	-0.0	**-2.5**	-0.0	-174.4	-0.0	-273.5
z	-0.0	-2.5	**-0.0**	-174.4	-0.0	-273.5	-0.0	-2.5	**-0.0**	-174.4	-0.0	-273.5
x	-0.0	-2.5	-0.0	**-174.4**	-0.0	-273.5	-0.0	-2.5	-0.0	**-174.4**	-0.0	-273.5
y	-0.0	-2.5	-0.0	-174.4	**-0.0**	-273.5	-0.0	-2.5	-0.0	-174.4	**-0.0**	-273.5
z	-0.0	-2.5	-0.0	-174.4	-0.0	**-273.5**	-0.0	-2.5	-0.0	-174.4	-0.0	**-273.5**

Joint 50

x	**-0.0**	-3.5	0.0	-210.1	-0.0	-163.8	**-0.0**	-3.5	0.0	-210.1	-0.0	-163.8
y	-0.0	**-3.5**	0.0	-210.1	-0.0	-163.8	-0.0	**-3.5**	0.0	-210.1	-0.0	-163.8
z	-0.0	-3.5	**0.0**	-210.1	-0.0	-163.8	-0.0	-3.5	**0.0**	-210.1	-0.0	-163.8
x	-0.0	-3.5	0.0	**-210.1**	-0.0	-163.8	-0.0	-3.5	0.0	**-210.1**	-0.0	-163.8
y	-0.0	-3.5	0.0	-210.1	**-0.0**	-163.8	-0.0	-3.5	0.0	-210.1	**-0.0**	-163.8
z	-0.0	-3.5	0.0	-210.1	-0.0	**-163.8**	-0.0	-3.5	0.0	-210.1	-0.0	**-163.8**

Joint 51

x	**-0.0**	-3.9	0.0	-221.2	0.0	-16.9	**-0.0**	-3.9	0.0	-221.2	0.0	-16.9
y	-0.0	**-3.9**	0.0	-221.2	0.0	-16.9	-0.0	**-3.9**	0.0	-221.2	0.0	-16.9
z	-0.0	-3.9	**0.0**	-221.2	0.0	-16.9	-0.0	-3.9	**0.0**	-221.2	0.0	-16.9
x	-0.0	-3.9	0.0	**-221.2**	0.0	-16.9	-0.0	-3.9	0.0	**-221.2**	0.0	-16.9
y	-0.0	-3.9	0.0	-221.2	**0.0**	-16.9	-0.0	-3.9	0.0	-221.2	**0.0**	-16.9
z	-0.0	-3.9	0.0	-221.2	0.0	**-16.9**	-0.0	-3.9	0.0	-221.2	0.0	**-16.9**

Joint 52

x	**-0.0**	-3.6	0.0	-208.1	0.0	136.3	**-0.0**	-3.6	0.0	-208.1	0.0	136.3
y	-0.0	**-3.6**	0.0	-208.1	0.0	136.3	-0.0	**-3.6**	0.0	-208.1	0.0	136.3
z	-0.0	-3.6	**0.0**	-208.1	0.0	136.3	-0.0	-3.6	**0.0**	-208.1	0.0	136.3
x	-0.0	-3.6	0.0	**-208.1**	0.0	136.3	-0.0	-3.6	0.0	**-208.1**	0.0	136.3
y	-0.0	-3.6	0.0	-208.1	**0.0**	136.3	-0.0	-3.6	0.0	-208.1	**0.0**	136.3
z	-0.0	-3.6	0.0	-208.1	0.0	**136.3**	-0.0	-3.6	0.0	-208.1	0.0	**136.3**

Joint 53

x	**-0.0**	-2.7	-0.0	-170.2	0.0	266.7	**-0.0**	-2.7	-0.0	-170.2	0.0	266.7
y	-0.0	**-2.7**	-0.0	-170.2	0.0	266.7	-0.0	**-2.7**	-0.0	-170.2	0.0	266.7
z	-0.0	-2.7	**-0.0**	-170.2	0.0	266.7	-0.0	-2.7	**-0.0**	-170.2	0.0	266.7
x	-0.0	-2.7	-0.0	**-170.2**	0.0	266.7	-0.0	-2.7	-0.0	**-170.2**	0.0	266.7
y	-0.0	-2.7	-0.0	-170.2	**0.0**	266.7	-0.0	-2.7	-0.0	-170.2	**0.0**	266.7
z	-0.0	-2.7	-0.0	-170.2	0.0	**266.7**	-0.0	-2.7	-0.0	-170.2	0.0	**266.7**

Joint 54

x	**-0.0**	-1.4	-0.0	-105.9	0.0	310.5	**-0.0**	-1.4	-0.0	-105.9	0.0	310.5
y	-0.0	**-1.4**	-0.0	-105.9	0.0	310.5	-0.0	**-1.4**	-0.0	-105.9	0.0	310.5
z	-0.0	-1.4	**-0.0**	-105.9	0.0	310.5	-0.0	-1.4	**-0.0**	-105.9	0.0	310.5
x	-0.0	-1.4	-0.0	**-105.9**	0.0	310.5	-0.0	-1.4	-0.0	**-105.9**	0.0	310.5
y	-0.0	-1.4	-0.0	-105.9	**0.0**	310.5	-0.0	-1.4	-0.0	-105.9	**0.0**	310.5
z	-0.0	-1.4	-0.0	-105.9	0.0	**310.5**	-0.0	-1.4	-0.0	-105.9	0.0	**310.5**

Joint 55

x	**-0.0**	-0.2	-0.0	-12.4	-0.0	142.1	**-0.0**	-0.2	-0.0	-12.4	-0.0	142.1
y	-0.0	**-0.2**	-0.0	-12.4	-0.0	142.1	-0.0	**-0.2**	-0.0	-12.4	-0.0	142.1
z	-0.0	-0.2	**-0.0**	-12.4	-0.0	142.1	-0.0	-0.2	**-0.0**	-12.4	-0.0	142.1
x	-0.0	-0.2	-0.0	**-12.4**	-0.0	142.1	-0.0	-0.2	-0.0	**-12.4**	-0.0	142.1
y	-0.0	-0.2	-0.0	-12.4	**-0.0**	142.1	-0.0	-0.2	-0.0	-12.4	**-0.0**	142.1
z	-0.0	-0.2	-0.0	-12.4	-0.0	**142.1**	-0.0	-0.2	-0.0	-12.4	-0.0	**142.1**

Joint 56

x	**-0.0**	-0.1	-0.0	-60.9	-0.0	-35.6	**-0.0**	-0.1	-0.0	-60.9	-0.0	-35.6
y	-0.0	**-0.1**	-0.0	-60.9	-0.0	-35.6	-0.0	**-0.1**	-0.0	-60.9	-0.0	-35.6
z	-0.0	-0.1	**-0.0**	-60.9	-0.0	-35.6	-0.0	-0.1	**-0.0**	-60.9	-0.0	-35.6
x	-0.0	-0.1	-0.0	**-60.9**	-0.0	-35.6	-0.0	-0.1	-0.0	**-60.9**	-0.0	-35.6
y	-0.0	-0.1	-0.0	-60.9	**-0.0**	-35.6	-0.0	-0.1	-0.0	-60.9	**-0.0**	-35.6
z	-0.0	-0.1	-0.0	-60.9	-0.0	**-35.6**	-0.0	-0.1	-0.0	-60.9	-0.0	**-35.6**

Joint 57

x	**-0.0**	-0.3	-0.0	-88.8	-0.0	-56.2	**-0.0**	-0.3	-0.0	-88.8	-0.0	-56.2
y	-0.0	**-0.3**	-0.0	-88.8	-0.0	-56.2	-0.0	**-0.3**	-0.0	-88.8	-0.0	-56.2
z	-0.0	-0.3	**-0.0**	-88.8	-0.0	-56.2	-0.0	-0.3	**-0.0**	-88.8	-0.0	-56.2

x	-0.0	-0.3	-0.0	**-88.8**	-0.0	-56.2	-0.0	-0.3	-0.0	-88.8	-0.0	-56.2
y	-0.0	-0.3	-0.0	-88.8	**-0.0**	-56.2	-0.0	-0.3	-0.0	-88.8	**-0.0**	-56.2
z	-0.0	-0.3	-0.0	-88.8	-0.0	**-56.2**	-0.0	-0.3	-0.0	-88.8	-0.0	**-56.2**

Joint 58

x	**-0.0**	-0.4	-0.0	-96.8	0.0	-28.4	**-0.0**	-0.4	-0.0	-96.8	0.0	-28.4
y	-0.0	**-0.4**	-0.0	-96.8	0.0	-28.4	-0.0	**-0.4**	-0.0	-96.8	0.0	-28.4
z	-0.0	-0.4	**-0.0**	-96.8	0.0	-28.4	-0.0	-0.4	**-0.0**	-96.8	0.0	-28.4
x	-0.0	-0.4	-0.0	**-96.8**	0.0	-28.4	-0.0	-0.4	-0.0	**-96.8**	0.0	-28.4
y	-0.0	-0.4	-0.0	-96.8	**0.0**	-28.4	-0.0	-0.4	-0.0	-96.8	**0.0**	-28.4
z	-0.0	-0.4	-0.0	-96.8	0.0	**-28.4**	-0.0	-0.4	-0.0	-96.8	0.0	**-28.4**

Joint 59

x	**-0.0**	-0.5	-0.0	-85.1	0.0	17.7	**-0.0**	-0.5	-0.0	-85.1	0.0	17.7
y	-0.0	**-0.5**	-0.0	-85.1	0.0	17.7	-0.0	**-0.5**	-0.0	-85.1	0.0	17.7
z	-0.0	-0.5	**-0.0**	-85.1	0.0	17.7	-0.0	-0.5	**-0.0**	-85.1	0.0	17.7
x	-0.0	-0.5	-0.0	**-85.1**	0.0	17.7	-0.0	-0.5	-0.0	**-85.1**	0.0	17.7
y	-0.0	-0.5	-0.0	-85.1	**0.0**	17.7	-0.0	-0.5	-0.0	-85.1	**0.0**	17.7
z	-0.0	-0.5	-0.0	-85.1	0.0	**17.7**	-0.0	-0.5	-0.0	-85.1	0.0	**17.7**

Joint 60

x	**-0.0**	-0.3	-0.0	-53.4	0.0	66.8	**-0.0**	-0.3	-0.0	-53.4	0.0	66.8
y	-0.0	**-0.3**	-0.0	-53.4	0.0	66.8	-0.0	**-0.3**	-0.0	-53.4	0.0	66.8
z	-0.0	-0.3	**-0.0**	-53.4	0.0	66.8	-0.0	-0.3	**-0.0**	-53.4	0.0	66.8
x	-0.0	-0.3	-0.0	**-53.4**	0.0	66.8	-0.0	-0.3	-0.0	**-53.4**	0.0	66.8
y	-0.0	-0.3	-0.0	-53.4	**0.0**	66.8	-0.0	-0.3	-0.0	-53.4	**0.0**	66.8
z	-0.0	-0.3	-0.0	-53.4	0.0	**66.8**	-0.0	-0.3	-0.0	-53.4	0.0	**66.8**

Joint 61

x	**-0.0**	-0.0	-0.0	-0.9	0.0	88.7	**-0.0**	-0.0	-0.0	-0.9	0.0	88.7
y	-0.0	**-0.0**	-0.0	-0.9	0.0	88.7	-0.0	**-0.0**	-0.0	-0.9	0.0	88.7
z	-0.0	-0.0	**-0.0**	-0.9	0.0	88.7	-0.0	-0.0	**-0.0**	-0.9	0.0	88.7
x	-0.0	-0.0	-0.0	**-0.9**	0.0	88.7	-0.0	-0.0	-0.0	**-0.9**	0.0	88.7
y	-0.0	-0.0	-0.0	-0.9	**0.0**	88.7	-0.0	-0.0	-0.0	-0.9	**0.0**	88.7
z	-0.0	-0.0	-0.0	-0.9	0.0	**88.7**	-0.0	-0.0	-0.0	-0.9	0.0	**88.7**

*** Fin del listado ***

hip resto carga muerta

Program Envolvator (release 1.3 - Jun 1998)
Calculation date: 24-mar-1999 19:32 h. Listing date: 13-abr-1999 11:46 h.
Members: 419
Joints: 353
Envelope generated from:

Name	Min	Max
resto carga muerta	1.00	1.00

	Fx	Fy	Fz	Mx	My	Mz	Fx	Fy	Fz	Mx	My	Mz

Member 1

Fx_1	**-0.1**	-10.2	0.0	-0.0	-0.0	-0.8	**-0.1**	-10.2	0.0	-0.0	-0.0	-0.8
Fy_1	-0.1	**-10.2**	0.0	-0.0	-0.0	-0.8	-0.1	**-10.2**	0.0	-0.0	-0.0	-0.8
Fz_1	-0.1	-10.2	**0.0**	-0.0	-0.0	-0.8	-0.1	-10.2	**0.0**	-0.0	-0.0	-0.8
Mx_1	-0.1	-10.2	0.0	**-0.0**	-0.0	-0.8	-0.1	-10.2	0.0	**-0.0**	-0.0	-0.8
My_1	-0.1	-10.2	0.0	-0.0	**-0.0**	-0.8	-0.1	-10.2	0.0	-0.0	**-0.0**	-0.8
Mz_1	-0.1	-10.2	0.0	-0.0	-0.0	**-0.8**	-0.1	-10.2	0.0	-0.0	-0.0	**-0.8**
Fx_f	**-0.1**	-5.3	0.0	-0.0	-0.0	27.6	**-0.1**	-5.3	0.0	-0.0	-0.0	27.6
Fy_f	-0.1	**-5.3**	0.0	-0.0	-0.0	27.6	-0.1	**-5.3**	0.0	-0.0	-0.0	27.6
Fz_f	-0.1	-5.3	**0.0**	-0.0	-0.0	27.6	-0.1	-5.3	**0.0**	-0.0	-0.0	27.6
Mx_f	-0.1	-5.3	0.0	**-0.0**	-0.0	27.6	-0.1	-5.3	0.0	**-0.0**	-0.0	27.6
My_f	-0.1	-5.3	0.0	-0.0	**-0.0**	27.6	-0.1	-5.3	0.0	-0.0	**-0.0**	27.6
Mz_f	-0.1	-5.3	0.0	-0.0	-0.0	**27.6**	-0.1	-5.3	0.0	-0.0	-0.0	**27.6**

Member 2

Fx_1	**-0.1**	-5.3	0.0	-0.0	-0.0	27.6	**-0.1**	-5.3	0.0	-0.0	-0.0	27.6
Fy_1	-0.1	**-5.3**	0.0	-0.0	-0.0	27.6	-0.1	**-5.3**	0.0	-0.0	-0.0	27.6
Fz_1	-0.1	-5.3	**0.0**	-0.0	-0.0	27.6	-0.1	-5.3	**0.0**	-0.0	-0.0	27.6
Mx_1	-0.1	-5.3	0.0	**-0.0**	-0.0	27.6	-0.1	-5.3	0.0	**-0.0**	-0.0	27.6
My_1	-0.1	-5.3	0.0	-0.0	**-0.0**	27.6	-0.1	-5.3	0.0	-0.0	**-0.0**	27.6
Mz_1	-0.1	-5.3	0.0	-0.0	-0.0	**27.6**	-0.1	-5.3	0.0	-0.0	-0.0	**27.6**
Fx_f	**-0.1**	-0.4	0.0	-0.0	-0.0	38.2	**-0.1**	-0.4	0.0	-0.0	-0.0	38.2
Fy_f	-0.1	**-0.4**	0.0	-0.0	-0.0	38.2	-0.1	**-0.4**	0.0	-0.0	-0.0	38.2
Fz_f	-0.1	-0.4	**0.0**	-0.0	-0.0	38.2	-0.1	-0.4	**0.0**	-0.0	-0.0	38.2
Mx_f	-0.1	-0.4	0.0	**-0.0**	-0.0	38.2	-0.1	-0.4	0.0	**-0.0**	-0.0	38.2
My_f	-0.1	-0.4	0.0	-0.0	**-0.0**	38.2	-0.1	-0.4	0.0	-0.0	**-0.0**	38.2
Mz_f	-0.1	-0.4	0.0	-0.0	-0.0	**38.2**	-0.1	-0.4	0.0	-0.0	-0.0	**38.2**

Member 3

Fx_1	**-0.1**	-0.4	0.0	-0.0	-0.0	38.2	**-0.1**	-0.4	0.0	-0.0	-0.0	38.2
Fy_1	-0.1	**-0.4**	0.0	-0.0	-0.0	38.2	-0.1	**-0.4**	0.0	-0.0	-0.0	38.2
Fz_1	-0.1	-0.4	**0.0**	-0.0	-0.0	38.2	-0.1	-0.4	**0.0**	-0.0	-0.0	38.2
Mx_1	-0.1	-0.4	0.0	**-0.0**	-0.0	38.2	-0.1	-0.4	0.0	**-0.0**	-0.0	38.2
My_1	-0.1	-0.4	0.0	-0.0	**-0.0**	38.2	-0.1	-0.4	0.0	-0.0	**-0.0**	38.2
Mz_1	-0.1	-0.4	0.0	-0.0	-0.0	**38.2**	-0.1	-0.4	0.0	-0.0	-0.0	**38.2**
Fx_f	**-0.1**	4.4	0.0	-0.0	0.0	30.9	**-0.1**	4.4	0.0	-0.0	0.0	30.9
Fy_f	-0.1	**4.4**	0.0	-0.0	0.0	30.9	-0.1	**4.4**	0.0	-0.0	0.0	30.9
Fz_f	-0.1	4.4	**0.0**	-0.0	0.0	30.9	-0.1	4.4	**0.0**	-0.0	0.0	30.9
Mx_f	-0.1	4.4	0.0	**-0.0**	0.0	30.9	-0.1	4.4	0.0	**-0.0**	0.0	30.9
My_f	-0.1	4.4	0.0	-0.0	**0.0**	30.9	-0.1	4.4	0.0	-0.0	**0.0**	30.9
Mz_f	-0.1	4.4	0.0	-0.0	0.0	**30.9**	-0.1	4.4	0.0	-0.0	0.0	**30.9**

Member 4

Fx_1	**-0.1**	4.4	0.0	-0.0	-0.0	30.9	**-0.1**	4.4	0.0	-0.0	-0.0	30.9
Fy_1	-0.1	**4.4**	0.0	-0.0	-0.0	30.9	-0.1	**4.4**	0.0	-0.0	-0.0	30.9
Fz_1	-0.1	4.4	**0.0**	-0.0	-0.0	30.9	-0.1	4.4	**0.0**	-0.0	-0.0	30.9
Mx_1	-0.1	4.4	0.0	**-0.0**	-0.0	30.9	-0.1	4.4	0.0	**-0.0**	-0.0	30.9
My_1	-0.1	4.4	0.0	-0.0	**-0.0**	30.9	-0.1	4.4	0.0	-0.0	**-0.0**	30.9
Mz_1	-0.1	4.4	0.0	-0.0	-0.0	**30.9**	-0.1	4.4	0.0	-0.0	-0.0	**30.9**
Fx_f	**-0.1**	9.3	0.0	-0.0	0.0	5.7	**-0.1**	9.3	0.0	-0.0	0.0	5.7
Fy_f	-0.1	**9.3**	0.0	-0.0	0.0	5.7	-0.1	**9.3**	0.0	-0.0	0.0	5.7
Fz_f	-0.1	9.3	**0.0**	-0.0	0.0	5.7	-0.1	9.3	**0.0**	-0.0	0.0	5.7
Mx_f	-0.1	9.3	0.0	**-0.0**	0.0	5.7	-0.1	9.3	0.0	**-0.0**	0.0	5.7
My_f	-0.1	9.3	0.0	-0.0	**0.0**	5.7	-0.1	9.3	0.0	-0.0	**0.0**	5.7
Mz_f	-0.1	9.3	0.0	-0.0	0.0	**5.7**	-0.1	9.3	0.0	-0.0	0.0	**5.7**

Member 5

Fx_i	**-0.1**	9.3	0.0	-0.0	-0.0	5.7	**-0.1**	9.3	0.0	-0.0	-0.0	5.7
Fy_i	-0.1	**9.3**	0.0	-0.0	-0.0	5.7	-0.1	**9.3**	0.0	-0.0	-0.0	5.7
Fz_i	-0.1	9.3	**0.0**	-0.0	-0.0	5.7	-0.1	9.3	**0.0**	-0.0	-0.0	5.7
Mx_i	-0.1	9.3	0.0	**-0.0**	-0.0	5.7	-0.1	9.3	0.0	**-0.0**	-0.0	5.7
My_i	-0.1	9.3	0.0	-0.0	**-0.0**	5.7	-0.1	9.3	0.0	-0.0	**-0.0**	5.7
Mz_i	-0.1	9.3	0.0	-0.0	-0.0	**5.7**	-0.1	9.3	0.0	-0.0	-0.0	**5.7**
Fx_f	**-0.1**	14.2	0.0	-0.0	0.0	-37.3	**-0.1**	14.2	0.0	-0.0	0.0	-37.3
Fy_f	-0.1	**14.2**	0.0	-0.0	0.0	-37.3	-0.1	**14.2**	0.0	-0.0	0.0	-37.3
Fz_f	-0.1	14.2	**0.0**	-0.0	0.0	-37.3	-0.1	14.2	**0.0**	-0.0	0.0	-37.3
Mx_f	-0.1	14.2	0.0	**-0.0**	0.0	-37.3	-0.1	14.2	0.0	**-0.0**	0.0	-37.3
My_f	-0.1	14.2	0.0	-0.0	**0.0**	-37.3	-0.1	14.2	0.0	-0.0	**0.0**	-37.3
Mz_f	-0.1	14.2	0.0	-0.0	0.0	**-37.3**	-0.1	14.2	0.0	-0.0	0.0	**-37.3**

Member 6

Fx_i	**-0.1**	14.2	0.0	-0.0	-0.0	-37.3	**-0.1**	14.2	0.0	-0.0	-0.0	-37.3
Fy_i	-0.1	**14.2**	0.0	-0.0	-0.0	-37.3	-0.1	**14.2**	0.0	-0.0	-0.0	-37.3
Fz_i	-0.1	14.2	**0.0**	-0.0	-0.0	-37.3	-0.1	14.2	**0.0**	-0.0	-0.0	-37.3
Mx_i	-0.1	14.2	0.0	**-0.0**	-0.0	-37.3	-0.1	14.2	0.0	**-0.0**	-0.0	-37.3
My_i	-0.1	14.2	0.0	-0.0	**-0.0**	-37.3	-0.1	14.2	0.0	-0.0	**-0.0**	-37.3
Mz_i	-0.1	14.2	0.0	-0.0	-0.0	**-37.3**	-0.1	14.2	0.0	-0.0	-0.0	**-37.3**
Fx_f	**-0.1**	19.0	0.0	-0.0	0.0	-98.1	**-0.1**	19.0	0.0	-0.0	0.0	-98.1
Fy_f	-0.1	**19.0**	0.0	-0.0	0.0	-98.1	-0.1	**19.0**	0.0	-0.0	0.0	-98.1
Fz_f	-0.1	19.0	**0.0**	-0.0	0.0	-98.1	-0.1	19.0	**0.0**	-0.0	0.0	-98.1
Mx_f	-0.1	19.0	0.0	**-0.0**	0.0	-98.1	-0.1	19.0	0.0	**-0.0**	0.0	-98.1
My_f	-0.1	19.0	0.0	-0.0	**0.0**	-98.1	-0.1	19.0	0.0	-0.0	**0.0**	-98.1
Mz_f	-0.1	19.0	0.0	-0.0	0.0	**-98.1**	-0.1	19.0	0.0	-0.0	0.0	**-98.1**

Member 7

Fx_i	**-0.1**	-23.0	-0.0	0.0	0.0	-98.1	**-0.1**	-23.0	-0.0	0.0	0.0	-98.1
Fy_i	-0.1	**-23.0**	-0.0	0.0	0.0	-98.1	-0.1	**-23.0**	-0.0	0.0	0.0	-98.1
Fz_i	-0.1	-23.0	**-0.0**	0.0	0.0	-98.1	-0.1	-23.0	**-0.0**	0.0	0.0	-98.1
Mx_i	-0.1	-23.0	-0.0	**0.0**	0.0	-98.1	-0.1	-23.0	-0.0	**0.0**	0.0	-98.1
My_i	-0.1	-23.0	-0.0	0.0	**0.0**	-98.1	-0.1	-23.0	-0.0	0.0	**0.0**	-98.1
Mz_i	-0.1	-23.0	-0.0	0.0	0.0	**-98.1**	-0.1	-23.0	-0.0	0.0	0.0	**-98.1**
Fx_f	**-0.1**	-17.0	-0.0	0.0	-0.0	-8.1	**-0.1**	-17.0	-0.0	0.0	-0.0	-8.1
Fy_f	-0.1	**-17.0**	-0.0	0.0	-0.0	-8.1	-0.1	**-17.0**	-0.0	0.0	-0.0	-8.1
Fz_f	-0.1	-17.0	**-0.0**	0.0	-0.0	-8.1	-0.1	-17.0	**-0.0**	0.0	-0.0	-8.1
Mx_f	-0.1	-17.0	-0.0	**0.0**	-0.0	-8.1	-0.1	-17.0	-0.0	**0.0**	-0.0	-8.1
My_f	-0.1	-17.0	-0.0	0.0	**-0.0**	-8.1	-0.1	-17.0	-0.0	0.0	**-0.0**	-8.1
Mz_f	-0.1	-17.0	-0.0	0.0	-0.0	**-8.1**	-0.1	-17.0	-0.0	0.0	-0.0	**-8.1**

Member 8

Fx_i	**-0.1**	-17.0	-0.0	0.0	0.0	-8.1	**-0.1**	-17.0	-0.0	0.0	0.0	-8.1
Fy_i	-0.1	**-17.0**	-0.0	0.0	0.0	-8.1	-0.1	**-17.0**	-0.0	0.0	0.0	-8.1
Fz_i	-0.1	-17.0	**-0.0**	0.0	0.0	-8.1	-0.1	-17.0	**-0.0**	0.0	0.0	-8.1
Mx_i	-0.1	-17.0	-0.0	**0.0**	0.0	-8.1	-0.1	-17.0	-0.0	**0.0**	0.0	-8.1
My_i	-0.1	-17.0	-0.0	0.0	**0.0**	-8.1	-0.1	-17.0	-0.0	0.0	**0.0**	-8.1
Mz_i	-0.1	-17.0	-0.0	0.0	0.0	**-8.1**	-0.1	-17.0	-0.0	0.0	0.0	**-8.1**
Fx_f	**-0.1**	-11.0	-0.0	0.0	-0.0	55.0	**-0.1**	-11.0	-0.0	0.0	-0.0	55.0
Fy_f	-0.1	**-11.0**	-0.0	0.0	-0.0	55.0	-0.1	**-11.0**	-0.0	0.0	-0.0	55.0
Fz_f	-0.1	-11.0	**-0.0**	0.0	-0.0	55.0	-0.1	-11.0	**-0.0**	0.0	-0.0	55.0
Mx_f	-0.1	-11.0	-0.0	**0.0**	-0.0	55.0	-0.1	-11.0	-0.0	**0.0**	-0.0	55.0
My_f	-0.1	-11.0	-0.0	0.0	**-0.0**	55.0	-0.1	-11.0	-0.0	0.0	**-0.0**	55.0
Mz_f	-0.1	-11.0	-0.0	0.0	-0.0	**55.0**	-0.1	-11.0	-0.0	0.0	-0.0	**55.0**

Member 9

Fx_i	**-0.1**	-11.0	-0.0	0.0	0.0	55.0	**-0.1**	-11.0	-0.0	0.0	0.0	55.0
Fy_i	-0.1	**-11.0**	-0.0	0.0	0.0	55.0	-0.1	**-11.0**	-0.0	0.0	0.0	55.0
Fz_i	-0.1	-11.0	**-0.0**	0.0	0.0	55.0	-0.1	-11.0	**-0.0**	0.0	0.0	55.0
Mx_i	-0.1	-11.0	-0.0	**0.0**	0.0	55.0	-0.1	-11.0	-0.0	**0.0**	0.0	55.0
My_i	-0.1	-11.0	-0.0	0.0	**0.0**	55.0	-0.1	-11.0	-0.0	0.0	**0.0**	55.0
Mz_i	-0.1	-11.0	-0.0	0.0	0.0	**55.0**	-0.1	-11.0	-0.0	0.0	0.0	**55.0**
Fx_f	**-0.1**	-5.1	-0.0	0.0	-0.0	91.2	**-0.1**	-5.1	-0.0	0.0	-0.0	91.2
Fy_f	-0.1	**-5.1**	-0.0	0.0	-0.0	91.2	-0.1	**-5.1**	-0.0	0.0	-0.0	91.2
Fz_f	-0.1	-5.1	**-0.0**	0.0	-0.0	91.2	-0.1	-5.1	**-0.0**	0.0	-0.0	91.2
Mx_f	-0.1	-5.1	-0.0	**0.0**	-0.0	91.2	-0.1	-5.1	-0.0	**0.0**	-0.0	91.2
My_f	-0.1	-5.1	-0.0	0.0	**-0.0**	91.2	-0.1	-5.1	-0.0	0.0	**-0.0**	91.2
Mz_f	-0.1	-5.1	-0.0	0.0	-0.0	**91.2**	-0.1	-5.1	-0.0	0.0	-0.0	**91.2**

Member 10

Fx_i	**-0.1**	-5.1	-0.0	-0.0	0.0	91.2	**-0.1**	-5.1	-0.0	-0.0	0.0	91.2
Fy_i	-0.1	**-5.1**	-0.0	-0.0	0.0	91.2	-0.1	**-5.1**	-0.0	-0.0	0.0	91.2
Fz_i	-0.1	-5.1	**-0.0**	-0.0	0.0	91.2	-0.1	-5.1	**-0.0**	-0.0	0.0	91.2
Mx_i	-0.1	-5.1	-0.0	**-0.0**	0.0	91.2	-0.1	-5.1	-0.0	**-0.0**	0.0	91.2
My_i	-0.1	-5.1	-0.0	-0.0	**0.0**	91.2	-0.1	-5.1	-0.0	-0.0	**0.0**	91.2
Mz_i	-0.1	-5.1	-0.0	-0.0	0.0	**91.2**	-0.1	-5.1	-0.0	-0.0	0.0	**91.2**
Fx_f	**-0.1**	0.9	-0.0	-0.0	-0.0	100.5	**-0.1**	0.9	-0.0	-0.0	-0.0	100.5
Fy_f	-0.1	**0.9**	-0.0	-0.0	-0.0	100.5	-0.1	**0.9**	-0.0	-0.0	-0.0	100.5
Fz_f	-0.1	0.9	**-0.0**	-0.0	-0.0	100.5	-0.1	0.9	**-0.0**	-0.0	-0.0	100.5
Mx_f	-0.1	0.9	-0.0	**-0.0**	-0.0	100.5	-0.1	0.9	-0.0	**-0.0**	-0.0	100.5
My_f	-0.1	0.9	-0.0	-0.0	**-0.0**	100.5	-0.1	0.9	-0.0	-0.0	**-0.0**	100.5
Mz_f	-0.1	0.9	-0.0	-0.0	-0.0	**100.5**	-0.1	0.9	-0.0	-0.0	-0.0	**100.5**

Member 11

Fx_i	**-0.1**	0.9	0.0	-0.0	-0.0	100.5	**-0.1**	0.9	0.0	-0.0	-0.0	100.5
Fy_i	-0.1	**0.9**	0.0	-0.0	-0.0	100.5	-0.1	**0.9**	0.0	-0.0	-0.0	100.5
Fz_i	-0.1	0.9	**0.0**	-0.0	-0.0	100.5	-0.1	0.9	**0.0**	-0.0	-0.0	100.5
Mx_i	-0.1	0.9	0.0	**-0.0**	-0.0	100.5	-0.1	0.9	0.0	**-0.0**	-0.0	100.5
My_i	-0.1	0.9	0.0	-0.0	**-0.0**	100.5	-0.1	0.9	0.0	-0.0	**-0.0**	100.5
Mz_i	-0.1	0.9	0.0	-0.0	-0.0	**100.5**	-0.1	0.9	0.0	-0.0	-0.0	**100.5**
Fx_f	**-0.1**	6.9	0.0	-0.0	0.0	82.9	**-0.1**	6.9	0.0	-0.0	0.0	82.9
Fy_f	-0.1	**6.9**	0.0	-0.0	0.0	82.9	-0.1	**6.9**	0.0	-0.0	0.0	82.9
Fz_f	-0.1	6.9	**0.0**	-0.0	0.0	82.9	-0.1	6.9	**0.0**	-0.0	0.0	82.9
Mx_f	-0.1	6.9	0.0	**-0.0**	0.0	82.9	-0.1	6.9	0.0	**-0.0**	0.0	82.9
My_f	-0.1	6.9	0.0	-0.0	**0.0**	82.9	-0.1	6.9	0.0	-0.0	**0.0**	82.9
Mz_f	-0.1	6.9	0.0	-0.0	0.0	**82.9**	-0.1	6.9	0.0	-0.0	0.0	**82.9**

Member 12

Fx_i	**-0.1**	6.9	0.0	-0.0	-0.0	82.9	**-0.1**	6.9	0.0	-0.0	-0.0	82.9
Fy_i	-0.1	**6.9**	0.0	-0.0	-0.0	82.9	-0.1	**6.9**	0.0	-0.0	-0.0	82.9
Fz_i	-0.1	6.9	**0.0**	-0.0	-0.0	82.9	-0.1	6.9	**0.0**	-0.0	-0.0	82.9
Mx_i	-0.1	6.9	0.0	**-0.0**	-0.0	82.9	-0.1	6.9	0.0	**-0.0**	-0.0	82.9
My_i	-0.1	6.9	0.0	-0.0	**-0.0**	82.9	-0.1	6.9	0.0	-0.0	**-0.0**	82.9
Mz_i	-0.1	6.9	0.0	-0.0	-0.0	**82.9**	-0.1	6.9	0.0	-0.0	-0.0	**82.9**
Fx_f	**-0.1**	12.9	0.0	-0.0	0.0	38.5	**-0.1**	12.9	0.0	-0.0	0.0	38.5
Fy_f	-0.1	**12.9**	0.0	-0.0	0.0	38.5	-0.1	**12.9**	0.0	-0.0	0.0	38.5
Fz_f	-0.1	12.9	**0.0**	-0.0	0.0	38.5	-0.1	12.9	**0.0**	-0.0	0.0	38.5
Mx_f	-0.1	12.9	0.0	**-0.0**	0.0	38.5	-0.1	12.9	0.0	**-0.0**	0.0	38.5
My_f	-0.1	12.9	0.0	-0.0	**0.0**	38.5	-0.1	12.9	0.0	-0.0	**0.0**	38.5
Mz_f	-0.1	12.9	0.0	-0.0	0.0	**38.5**	-0.1	12.9	0.0	-0.0	0.0	**38.5**

Member 13

Fx_i	**-0.1**	12.9	0.0	-0.0	-0.0	38.5	**-0.1**	12.9	0.0	-0.0	-0.0	38.5
Fy_i	-0.1	**12.9**	0.0	-0.0	-0.0	38.5	-0.1	**12.9**	0.0	-0.0	-0.0	38.5
Fz_i	-0.1	12.9	**0.0**	-0.0	-0.0	38.5	-0.1	12.9	**0.0**	-0.0	-0.0	38.5
Mx_i	-0.1	12.9	0.0	**-0.0**	-0.0	38.5	-0.1	12.9	0.0	**-0.0**	-0.0	38.5
My_i	-0.1	12.9	0.0	-0.0	**-0.0**	38.5	-0.1	12.9	0.0	-0.0	**-0.0**	38.5
Mz_i	-0.1	12.9	0.0	-0.0	-0.0	**38.5**	-0.1	12.9	0.0	-0.0	-0.0	**38.5**
Fx_f	**-0.1**	18.8	0.0	-0.0	0.0	-32.8	**-0.1**	18.8	0.0	-0.0	0.0	-32.8
Fy_f	-0.1	**18.8**	0.0	-0.0	0.0	-32.8	-0.1	**18.8**	0.0	-0.0	0.0	-32.8
Fz_f	-0.1	18.8	**0.0**	-0.0	0.0	-32.8	-0.1	18.8	**0.0**	-0.0	0.0	-32.8
Mx_f	-0.1	18.8	0.0	**-0.0**	0.0	-32.8	-0.1	18.8	0.0	**-0.0**	0.0	-32.8
My_f	-0.1	18.8	0.0	-0.0	**0.0**	-32.8	-0.1	18.8	0.0	-0.0	**0.0**	-32.8
Mz_f	-0.1	18.8	0.0	-0.0	0.0	**-32.8**	-0.1	18.8	0.0	-0.0	0.0	**-32.8**

Member 14

Fx_i	**-0.1**	18.8	0.0	-0.0	-0.0	-32.8	**-0.1**	18.8	0.0	-0.0	-0.0	-32.8
Fy_i	-0.1	**18.8**	0.0	-0.0	-0.0	-32.8	-0.1	**18.8**	0.0	-0.0	-0.0	-32.8
Fz_i	-0.1	18.8	**0.0**	-0.0	-0.0	-32.8	-0.1	18.8	**0.0**	-0.0	-0.0	-32.8
Mx_i	-0.1	18.8	0.0	**-0.0**	-0.0	-32.8	-0.1	18.8	0.0	**-0.0**	-0.0	-32.8
My_i	-0.1	18.8	0.0	-0.0	**-0.0**	-32.8	-0.1	18.8	0.0	-0.0	**-0.0**	-32.8
Mz_i	-0.1	18.8	0.0	-0.0	-0.0	**-32.8**	-0.1	18.8	0.0	-0.0	-0.0	**-32.8**
Fx_f	**-0.1**	24.8	0.0	-0.0	0.0	-131.1	**-0.1**	24.8	0.0	-0.0	0.0	-131.1

Fy,	-0.1	**24.8**	0.0	-0.0	0.0	-131.1	-0.1	**24.8**	0.0	-0.0	0.0	-131.1
Fz,	-0.1	24.8	**0.0**	-0.0	0.0	-131.1	-0.1	24.8	**0.0**	-0.0	0.0	-131.1
Mx,	-0.1	24.8	0.0	**-0.0**	0.0	-131.1	-0.1	24.8	0.0	**-0.0**	0.0	-131.1
My,	-0.1	24.8	0.0	-0.0	**0.0**	-131.1	-0.1	24.8	0.0	-0.0	**0.0**	-131.1
Mz,	-0.1	24.8	0.0	-0.0	0.0	**-131.1**	-0.1	24.8	0.0	-0.0	0.0	**-131.1**

Member 15

Fx,	**-0.1**	-24.1	-0.0	0.0	0.0	-131.1	**-0.1**	-24.1	-0.0	0.0	0.0	-131.1
Fy,	-0.1	**-24.1**	-0.0	0.0	0.0	-131.1	-0.1	**-24.1**	-0.0	0.0	0.0	-131.1
Fz,	-0.1	-24.1	**-0.0**	0.0	0.0	-131.1	-0.1	-24.1	**-0.0**	0.0	0.0	-131.1
Mx,	-0.1	-24.1	-0.0	**0.0**	0.0	-131.1	-0.1	-24.1	-0.0	**0.0**	0.0	-131.1
My,	-0.1	-24.1	-0.0	0.0	**0.0**	-131.1	-0.1	-24.1	-0.0	0.0	**0.0**	-131.1
Mz,	-0.1	-24.1	-0.0	0.0	0.0	**-131.1**	-0.1	-24.1	-0.0	0.0	0.0	**-131.1**
Fx,	**-0.1**	-18.1	-0.0	0.0	-0.0	-36.0	**-0.1**	-18.1	-0.0	0.0	-0.0	-36.0
Fy,	-0.1	**-18.1**	-0.0	0.0	-0.0	-36.0	-0.1	**-18.1**	-0.0	0.0	-0.0	-36.0
Fz,	-0.1	-18.1	**-0.0**	0.0	-0.0	-36.0	-0.1	-18.1	**-0.0**	0.0	-0.0	-36.0
Mx,	-0.1	-18.1	-0.0	**0.0**	-0.0	-36.0	-0.1	-18.1	-0.0	**0.0**	-0.0	-36.0
My,	-0.1	-18.1	-0.0	0.0	**-0.0**	-36.0	-0.1	-18.1	-0.0	0.0	**-0.0**	-36.0
Mz,	-0.1	-18.1	-0.0	0.0	-0.0	**-36.0**	-0.1	-18.1	-0.0	0.0	-0.0	**-36.0**

Member 16

Fx,	**-0.1**	-18.1	-0.0	0.0	0.0	-36.0	**-0.1**	-18.1	-0.0	0.0	0.0	-36.0
Fy,	-0.1	**-18.1**	-0.0	0.0	0.0	-36.0	-0.1	**-18.1**	-0.0	0.0	0.0	-36.0
Fz,	-0.1	-18.1	**-0.0**	0.0	0.0	-36.0	-0.1	-18.1	**-0.0**	0.0	0.0	-36.0
Mx,	-0.1	-18.1	-0.0	**0.0**	0.0	-36.0	-0.1	-18.1	-0.0	**0.0**	0.0	-36.0
My,	-0.1	-18.1	-0.0	0.0	**0.0**	-36.0	-0.1	-18.1	-0.0	0.0	**0.0**	-36.0
Mz,	-0.1	-18.1	-0.0	0.0	0.0	**-36.0**	-0.1	-18.1	-0.0	0.0	0.0	**-36.0**
Fx,	**-0.1**	-12.2	-0.0	0.0	-0.0	32.1	**-0.1**	-12.2	-0.0	0.0	-0.0	32.1
Fy,	-0.1	**-12.2**	-0.0	0.0	-0.0	32.1	-0.1	**-12.2**	-0.0	0.0	-0.0	32.1
Fz,	-0.1	-12.2	**-0.0**	0.0	-0.0	32.1	-0.1	-12.2	**-0.0**	0.0	-0.0	32.1
Mx,	-0.1	-12.2	-0.0	**0.0**	-0.0	32.1	-0.1	-12.2	-0.0	**0.0**	-0.0	32.1
My,	-0.1	-12.2	-0.0	0.0	**-0.0**	32.1	-0.1	-12.2	-0.0	0.0	**-0.0**	32.1
Mz,	-0.1	-12.2	-0.0	0.0	-0.0	**32.1**	-0.1	-12.2	-0.0	0.0	-0.0	**32.1**

Member 17

Fx,	**-0.1**	-12.2	-0.0	0.0	0.0	32.1	**-0.1**	-12.2	-0.0	0.0	0.0	32.1
Fy,	-0.1	**-12.2**	-0.0	0.0	0.0	32.1	-0.1	**-12.2**	-0.0	0.0	0.0	32.1
Fz,	-0.1	-12.2	**-0.0**	0.0	0.0	32.1	-0.1	-12.2	**-0.0**	0.0	0.0	32.1
Mx,	-0.1	-12.2	-0.0	**0.0**	0.0	32.1	-0.1	-12.2	-0.0	**0.0**	0.0	32.1
My,	-0.1	-12.2	-0.0	0.0	**0.0**	32.1	-0.1	-12.2	-0.0	0.0	**0.0**	32.1
Mz,	-0.1	-12.2	-0.0	0.0	0.0	**32.1**	-0.1	-12.2	-0.0	0.0	0.0	**32.1**
Fx,	**-0.1**	-6.2	-0.0	0.0	-0.0	73.3	**-0.1**	-6.2	-0.0	0.0	-0.0	73.3
Fy,	-0.1	**-6.2**	-0.0	0.0	-0.0	73.3	-0.1	**-6.2**	-0.0	0.0	-0.0	73.3
Fz,	-0.1	-6.2	**-0.0**	0.0	-0.0	73.3	-0.1	-6.2	**-0.0**	0.0	-0.0	73.3
Mx,	-0.1	-6.2	-0.0	**0.0**	-0.0	73.3	-0.1	-6.2	-0.0	**0.0**	-0.0	73.3
My,	-0.1	-6.2	-0.0	0.0	**-0.0**	73.3	-0.1	-6.2	-0.0	0.0	**-0.0**	73.3
Mz,	-0.1	-6.2	-0.0	0.0	-0.0	**73.3**	-0.1	-6.2	-0.0	0.0	-0.0	**73.3**

Member 18

Fx,	**-0.1**	-6.2	-0.0	0.0	0.0	73.3	**-0.1**	-6.2	-0.0	0.0	0.0	73.3
Fy,	-0.1	**-6.2**	-0.0	0.0	0.0	73.3	-0.1	**-6.2**	-0.0	0.0	0.0	73.3
Fz,	-0.1	-6.2	**-0.0**	0.0	0.0	73.3	-0.1	-6.2	**-0.0**	0.0	0.0	73.3
Mx,	-0.1	-6.2	-0.0	**0.0**	0.0	73.3	-0.1	-6.2	-0.0	**0.0**	0.0	73.3
My,	-0.1	-6.2	-0.0	0.0	**0.0**	73.3	-0.1	-6.2	-0.0	0.0	**0.0**	73.3
Mz,	-0.1	-6.2	-0.0	0.0	0.0	**73.3**	-0.1	-6.2	-0.0	0.0	0.0	**73.3**
Fx,	**-0.1**	-0.2	-0.0	0.0	-0.0	87.7	**-0.1**	-0.2	-0.0	0.0	-0.0	87.7
Fy,	-0.1	**-0.2**	-0.0	0.0	-0.0	87.7	-0.1	**-0.2**	-0.0	0.0	-0.0	87.7
Fz,	-0.1	-0.2	**-0.0**	0.0	-0.0	87.7	-0.1	-0.2	**-0.0**	0.0	-0.0	87.7
Mx,	-0.1	-0.2	-0.0	**0.0**	-0.0	87.7	-0.1	-0.2	-0.0	**0.0**	-0.0	87.7
My,	-0.1	-0.2	-0.0	0.0	**-0.0**	87.7	-0.1	-0.2	-0.0	0.0	**-0.0**	87.7
Mz,	-0.1	-0.2	-0.0	0.0	-0.0	**87.7**	-0.1	-0.2	-0.0	0.0	-0.0	**87.7**

Member 19

Fx,	**-0.1**	-0.2	0.0	-0.0	0.0	87.7	**-0.1**	-0.2	0.0	-0.0	0.0	87.7
Fy,	-0.1	**-0.2**	0.0	-0.0	0.0	87.7	-0.1	**-0.2**	0.0	-0.0	0.0	87.7
Fz,	-0.1	-0.2	**0.0**	-0.0	0.0	87.7	-0.1	-0.2	**0.0**	-0.0	0.0	87.7
Mx,	-0.1	-0.2	0.0	**-0.0**	0.0	87.7	-0.1	-0.2	0.0	**-0.0**	0.0	87.7
My,	-0.1	-0.2	0.0	-0.0	**0.0**	87.7	-0.1	-0.2	0.0	-0.0	**0.0**	87.7
Mz,	-0.1	-0.2	0.0	-0.0	0.0	**87.7**	-0.1	-0.2	0.0	-0.0	0.0	**87.7**
Fx,	**-0.1**	5.8	0.0	-0.0	0.0	75.2	**-0.1**	5.8	0.0	-0.0	0.0	75.2
Fy,	-0.1	**5.8**	0.0	-0.0	0.0	75.2	-0.1	**5.8**	0.0	-0.0	0.0	75.2
Fz,	-0.1	5.8	**0.0**	-0.0	0.0	75.2	-0.1	5.8	**0.0**	-0.0	0.0	75.2
Mx,	-0.1	5.8	0.0	**-0.0**	0.0	75.2	-0.1	5.8	0.0	**-0.0**	0.0	75.2
My,	-0.1	5.8	0.0	-0.0	**0.0**	75.2	-0.1	5.8	0.0	-0.0	**0.0**	75.2
Mz,	-0.1	5.8	0.0	-0.0	0.0	**75.2**	-0.1	5.8	0.0	-0.0	0.0	**75.2**

Member 20

Fx,	**-0.1**	5.8	0.0	-0.0	-0.0	75.2	**-0.1**	5.8	0.0	-0.0	-0.0	75.2
Fy,	-0.1	**5.8**	0.0	-0.0	-0.0	75.2	-0.1	**5.8**	0.0	-0.0	-0.0	75.2
Fz,	-0.1	5.8	**0.0**	-0.0	-0.0	75.2	-0.1	5.8	**0.0**	-0.0	-0.0	75.2
Mx,	-0.1	5.8	0.0	**-0.0**	-0.0	75.2	-0.1	5.8	0.0	**-0.0**	-0.0	75.2
My,	-0.1	5.8	0.0	-0.0	**-0.0**	75.2	-0.1	5.8	0.0	-0.0	**-0.0**	75.2
Mz,	-0.1	5.8	0.0	-0.0	-0.0	**75.2**	-0.1	5.8	0.0	-0.0	-0.0	**75.2**
Fx,	**-0.1**	11.7	0.0	-0.0	0.0	35.7	**-0.1**	11.7	0.0	-0.0	0.0	35.7
Fy,	-0.1	**11.7**	0.0	-0.0	0.0	35.7	-0.1	**11.7**	0.0	-0.0	0.0	35.7
Fz,	-0.1	11.7	**0.0**	-0.0	0.0	35.7	-0.1	11.7	**0.0**	-0.0	0.0	35.7
Mx,	-0.1	11.7	0.0	**-0.0**	0.0	35.7	-0.1	11.7	0.0	**-0.0**	0.0	35.7
My,	-0.1	11.7	0.0	-0.0	**0.0**	35.7	-0.1	11.7	0.0	-0.0	**0.0**	35.7
Mz,	-0.1	11.7	0.0	-0.0	0.0	**35.7**	-0.1	11.7	0.0	-0.0	0.0	**35.7**

Member 21

Fx,	**-0.1**	11.7	0.0	-0.0	-0.0	35.7	**-0.1**	11.7	0.0	-0.0	-0.0	35.7
Fy,	-0.1	**11.7**	0.0	-0.0	-0.0	35.7	-0.1	**11.7**	0.0	-0.0	-0.0	35.7
Fz,	-0.1	11.7	**0.0**	-0.0	-0.0	35.7	-0.1	11.7	**0.0**	-0.0	-0.0	35.7
Mx,	-0.1	11.7	0.0	**-0.0**	-0.0	35.7	-0.1	11.7	0.0	**-0.0**	-0.0	35.7
My,	-0.1	11.7	0.0	-0.0	**-0.0**	35.7	-0.1	11.7	0.0	-0.0	**-0.0**	35.7
Mz,	-0.1	11.7	0.0	-0.0	-0.0	**35.7**	-0.1	11.7	0.0	-0.0	-0.0	**35.7**
Fx,	**-0.1**	17.7	0.0	-0.0	0.0	-30.5	**-0.1**	17.7	0.0	-0.0	0.0	-30.5
Fy,	-0.1	**17.7**	0.0	-0.0	0.0	-30.5	-0.1	**17.7**	0.0	-0.0	0.0	-30.5
Fz,	-0.1	17.7	**0.0**	-0.0	0.0	-30.5	-0.1	17.7	**0.0**	-0.0	0.0	-30.5
Mx,	-0.1	17.7	0.0	**-0.0**	0.0	-30.5	-0.1	17.7	0.0	**-0.0**	0.0	-30.5
My,	-0.1	17.7	0.0	-0.0	**0.0**	-30.5	-0.1	17.7	0.0	-0.0	**0.0**	-30.5
Mz,	-0.1	17.7	0.0	-0.0	0.0	**-30.5**	-0.1	17.7	0.0	-0.0	0.0	**-30.5**

Member 22

Fx,	**-0.1**	17.7	0.0	-0.0	-0.0	-30.5	**-0.1**	17.7	0.0	-0.0	-0.0	-30.5
Fy,	-0.1	**17.7**	0.0	-0.0	-0.0	-30.5	-0.1	**17.7**	0.0	-0.0	-0.0	-30.5
Fz,	-0.1	17.7	**0.0**	-0.0	-0.0	-30.5	-0.1	17.7	**0.0**	-0.0	-0.0	-30.5
Mx,	-0.1	17.7	0.0	**-0.0**	-0.0	-30.5	-0.1	17.7	0.0	**-0.0**	-0.0	-30.5
My,	-0.1	17.7	0.0	-0.0	**-0.0**	-30.5	-0.1	17.7	0.0	-0.0	**-0.0**	-30.5
Mz,	-0.1	17.7	0.0	-0.0	-0.0	**-30.5**	-0.1	17.7	0.0	-0.0	-0.0	**-30.5**
Fx,	**-0.1**	23.7	0.0	-0.0	0.0	-123.7	**-0.1**	23.7	0.0	-0.0	0.0	-123.7
Fy,	-0.1	**23.7**	0.0	-0.0	0.0	-123.7	-0.1	**23.7**	0.0	-0.0	0.0	-123.7
Fz,	-0.1	23.7	**0.0**	-0.0	0.0	-123.7	-0.1	23.7	**0.0**	-0.0	0.0	-123.7
Mx,	-0.1	23.7	0.0	**-0.0**	0.0	-123.7	-0.1	23.7	0.0	**-0.0**	0.0	-123.7
My,	-0.1	23.7	0.0	-0.0	**0.0**	-123.7	-0.1	23.7	0.0	-0.0	**0.0**	-123.7
Mz,	-0.1	23.7	0.0	-0.0	0.0	**-123.7**	-0.1	23.7	0.0	-0.0	0.0	**-123.7**

Member 23

Fx,	**-0.1**	-23.8	-0.0	0.0	0.0	-123.7	**-0.1**	-23.8	-0.0	0.0	0.0	-123.7
Fy,	-0.1	**-23.8**	-0.0	0.0	0.0	-123.7	-0.1	**-23.8**	-0.0	0.0	0.0	-123.7
Fz,	-0.1	-23.8	**-0.0**	0.0	0.0	-123.7	-0.1	-23.8	**-0.0**	0.0	0.0	-123.7
Mx,	-0.1	-23.8	-0.0	**0.0**	0.0	-123.7	-0.1	-23.8	-0.0	**0.0**	0.0	-123.7
My,	-0.1	-23.8	-0.0	0.0	**0.0**	-123.7	-0.1	-23.8	-0.0	0.0	**0.0**	-123.7
Mz,	-0.1	-23.8	-0.0	0.0	0.0	**-123.7**	-0.1	-23.8	-0.0	0.0	0.0	**-123.7**
Fx,	**-0.1**	-17.9	-0.0	0.0	-0.0	-29.9	**-0.1**	-17.9	-0.0	0.0	-0.0	-29.9
Fy,	-0.1	**-17.9**	-0.0	0.0	-0.0	-29.9	-0.1	**-17.9**	-0.0	0.0	-0.0	-29.9
Fz,	-0.1	-17.9	**-0.0**	0.0	-0.0	-29.9	-0.1	-17.9	**-0.0**	0.0	-0.0	-29.9
Mx,	-0.1	-17.9	-0.0	**0.0**	-0.0	-29.9	-0.1	-17.9	-0.0	**0.0**	-0.0	-29.9
My,	-0.1	-17.9	-0.0	0.0	**-0.0**	-29.9	-0.1	-17.9	-0.0	0.0	**-0.0**	-29.9
Mz,	-0.1	-17.9	-0.0	0.0	-0.0	**-29.9**	-0.1	-17.9	-0.0	0.0	-0.0	**-29.9**

Member 24

Fx,	**-0.1**	-17.9	-0.0	0.0	0.0	-29.9	**-0.1**	-17.9	-0.0	0.0	0.0	-29.9
Fy,	-0.1	**-17.9**	-0.0	0.0	0.0	-29.9	-0.1	**-17.9**	-0.0	0.0	0.0	-29.9

Fz,	-0.1	-17.9	**-0.0**	0.0	0.0	-29.9	-0.1	-17.9	**-0.0**	0.0	0.0	-29.9
Mx,	-0.1	-17.9	-0.0	**0.0**	0.0	-29.9	-0.1	-17.9	-0.0	**0.0**	0.0	-29.9
My,	-0.1	-17.9	-0.0	0.0	**0.0**	-29.9	-0.1	-17.9	-0.0	0.0	**0.0**	-29.9
Mz,	-0.1	-17.9	-0.0	0.0	0.0	**-29.9**	-0.1	-17.9	-0.0	0.0	0.0	**-29.9**
Fx,	**-0.1**	-11.9	-0.0	0.0	-0.0	37.1	**-0.1**	-11.9	-0.0	0.0	-0.0	37.1
Fy,	-0.1	**-11.9**	-0.0	0.0	-0.0	37.1	-0.1	**-11.9**	-0.0	0.0	-0.0	37.1
Fz,	-0.1	-11.9	**-0.0**	0.0	-0.0	37.1	-0.1	-11.9	**-0.0**	0.0	-0.0	37.1
Mx,	-0.1	-11.9	-0.0	**0.0**	-0.0	37.1	-0.1	-11.9	-0.0	**0.0**	-0.0	37.1
My,	-0.1	-11.9	-0.0	0.0	**-0.0**	37.1	-0.1	-11.9	-0.0	0.0	**-0.0**	37.1
Mz,	-0.1	-11.9	-0.0	0.0	-0.0	**37.1**	-0.1	-11.9	-0.0	0.0	-0.0	**37.1**

Member 25

Fx,	**-0.1**	-11.9	-0.0	0.0	0.0	37.1	**-0.1**	-11.9	-0.0	0.0	0.0	37.1
Fy,	-0.1	**-11.9**	-0.0	0.0	0.0	37.1	-0.1	**-11.9**	-0.0	0.0	0.0	37.1
Fz,	-0.1	-11.9	**-0.0**	0.0	0.0	37.1	-0.1	-11.9	**-0.0**	0.0	0.0	37.1
Mx,	-0.1	-11.9	-0.0	**0.0**	0.0	37.1	-0.1	-11.9	-0.0	**0.0**	0.0	37.1
My,	-0.1	-11.9	-0.0	0.0	**0.0**	37.1	-0.1	-11.9	-0.0	0.0	**0.0**	37.1
Mz,	-0.1	-11.9	-0.0	0.0	0.0	**37.1**	-0.1	-11.9	-0.0	0.0	0.0	**37.1**
Fx,	**-0.1**	-5.9	-0.0	0.0	-0.0	77.2	**-0.1**	-5.9	-0.0	0.0	-0.0	77.2
Fy,	-0.1	**-5.9**	-0.0	0.0	-0.0	77.2	-0.1	**-5.9**	-0.0	0.0	-0.0	77.2
Fz,	-0.1	-5.9	**-0.0**	0.0	-0.0	77.2	-0.1	-5.9	**-0.0**	0.0	-0.0	77.2
Mx,	-0.1	-5.9	-0.0	**0.0**	-0.0	77.2	-0.1	-5.9	-0.0	**0.0**	-0.0	77.2
My,	-0.1	-5.9	-0.0	0.0	**-0.0**	77.2	-0.1	-5.9	-0.0	0.0	**-0.0**	77.2
Mz,	-0.1	-5.9	-0.0	0.0	-0.0	**77.2**	-0.1	-5.9	-0.0	0.0	-0.0	**77.2**

Member 26

Fx,	**-0.1**	-5.9	-0.0	0.0	0.0	77.2	**-0.1**	-5.9	-0.0	0.0	0.0	77.2
Fy,	-0.1	**-5.9**	-0.0	0.0	0.0	77.2	-0.1	**-5.9**	-0.0	0.0	0.0	77.2
Fz,	-0.1	-5.9	**-0.0**	0.0	0.0	77.2	-0.1	-5.9	**-0.0**	0.0	0.0	77.2
Mx,	-0.1	-5.9	-0.0	**0.0**	0.0	77.2	-0.1	-5.9	-0.0	**0.0**	0.0	77.2
My,	-0.1	-5.9	-0.0	0.0	**0.0**	77.2	-0.1	-5.9	-0.0	0.0	**0.0**	77.2
Mz,	-0.1	-5.9	-0.0	0.0	0.0	**77.2**	-0.1	-5.9	-0.0	0.0	0.0	**77.2**
Fx,	**-0.1**	0.1	-0.0	0.0	-0.0	90.4	**-0.1**	0.1	-0.0	0.0	-0.0	90.4
Fy,	-0.1	**0.1**	-0.0	0.0	-0.0	90.4	-0.1	**0.1**	-0.0	0.0	-0.0	90.4
Fz,	-0.1	0.1	**-0.0**	0.0	-0.0	90.4	-0.1	0.1	**-0.0**	0.0	-0.0	90.4
Mx,	-0.1	0.1	-0.0	**0.0**	-0.0	90.4	-0.1	0.1	-0.0	**0.0**	-0.0	90.4
My,	-0.1	0.1	-0.0	0.0	**-0.0**	90.4	-0.1	0.1	-0.0	0.0	**-0.0**	90.4
Mz,	-0.1	0.1	-0.0	0.0	-0.0	**90.4**	-0.1	0.1	-0.0	0.0	-0.0	**90.4**

Member 27

Fx,	**-0.1**	0.1	0.0	-0.0	0.0	90.4	**-0.1**	0.1	**0.0**	-0.0	0.0	90.4
Fy,	-0.1	**0.1**	0.0	-0.0	0.0	90.4	-0.1	**0.1**	0.0	-0.0	0.0	90.4
Fz,	-0.1	0.1	**0.0**	-0.0	0.0	90.4	-0.1	0.1	**0.0**	-0.0	0.0	90.4
Mx,	-0.1	0.1	0.0	**-0.0**	0.0	90.4	-0.1	0.1	0.0	**-0.0**	0.0	90.4
My,	-0.1	0.1	0.0	-0.0	**0.0**	90.4	-0.1	0.1	0.0	-0.0	**0.0**	90.4
Mz,	-0.1	0.1	0.0	-0.0	0.0	**90.4**	-0.1	0.1	0.0	-0.0	0.0	**90.4**
Fx,	**-0.1**	6.0	0.0	-0.0	0.0	76.7	**-0.1**	6.0	0.0	-0.0	0.0	76.7
Fy,	-0.1	**6.0**	0.0	-0.0	0.0	76.7	-0.1	**6.0**	0.0	-0.0	0.0	76.7
Fz,	-0.1	6.0	**0.0**	-0.0	0.0	76.7	-0.1	6.0	**0.0**	-0.0	0.0	76.7
Mx,	-0.1	6.0	0.0	**-0.0**	0.0	76.7	-0.1	6.0	0.0	**-0.0**	0.0	76.7
My,	-0.1	6.0	0.0	-0.0	**0.0**	76.7	-0.1	6.0	0.0	-0.0	**0.0**	76.7
Mz,	-0.1	6.0	0.0	-0.0	0.0	**76.7**	-0.1	6.0	0.0	-0.0	0.0	**76.7**

Member 28

Fx,	**-0.1**	6.0	0.0	-0.0	-0.0	76.7	**-0.1**	6.0	0.0	-0.0	-0.0	76.7
Fy,	-0.1	**6.0**	0.0	-0.0	-0.0	76.7	-0.1	**6.0**	0.0	-0.0	-0.0	76.7
Fz,	-0.1	6.0	**0.0**	-0.0	-0.0	76.7	-0.1	6.0	**0.0**	-0.0	-0.0	76.7
Mx,	-0.1	6.0	0.0	**-0.0**	-0.0	76.7	-0.1	6.0	0.0	**-0.0**	-0.0	76.7
My,	-0.1	6.0	0.0	-0.0	**-0.0**	76.7	-0.1	6.0	0.0	-0.0	**-0.0**	76.7
Mz,	-0.1	6.0	0.0	-0.0	-0.0	**76.7**	-0.1	6.0	0.0	-0.0	-0.0	**76.7**
Fx,	**-0.1**	12.0	0.0	-0.0	0.0	36.1	**-0.1**	12.0	0.0	-0.0	0.0	36.1
Fy,	-0.1	**12.0**	0.0	-0.0	0.0	36.1	-0.1	**12.0**	0.0	-0.0	0.0	36.1
Fz,	-0.1	12.0	**0.0**	-0.0	0.0	36.1	-0.1	12.0	**0.0**	-0.0	0.0	36.1
Mx,	-0.1	12.0	0.0	**-0.0**	0.0	36.1	-0.1	12.0	0.0	**-0.0**	0.0	36.1
My,	-0.1	12.0	0.0	-0.0	**0.0**	36.1	-0.1	12.0	0.0	-0.0	**0.0**	36.1
Mz,	-0.1	12.0	0.0	-0.0	0.0	**36.1**	-0.1	12.0	0.0	-0.0	0.0	**36.1**

Member 29

Fx,	**-0.1**	12.0	0.0	-0.0	-0.0	36.1	**-0.1**	12.0	0.0	-0.0	-0.0	36.1
Fy,	-0.1	**12.0**	0.0	-0.0	-0.0	36.1	-0.1	**12.0**	0.0	-0.0	-0.0	36.1
Fz,	-0.1	12.0	**0.0**	-0.0	-0.0	36.1	-0.1	12.0	**0.0**	-0.0	-0.0	36.1
Mx,	-0.1	12.0	0.0	**-0.0**	-0.0	36.1	-0.1	12.0	0.0	**-0.0**	-0.0	36.1
My,	-0.1	12.0	0.0	-0.0	**-0.0**	36.1	-0.1	12.0	0.0	-0.0	**-0.0**	36.1
Mz,	-0.1	12.0	0.0	-0.0	-0.0	**36.1**	-0.1	12.0	0.0	-0.0	-0.0	**36.1**
Fx,	**-0.1**	18.0	0.0	-0.0	0.0	-31.3	**-0.1**	18.0	0.0	-0.0	0.0	-31.3
Fy,	-0.1	**18.0**	0.0	-0.0	0.0	-31.3	-0.1	**18.0**	0.0	-0.0	0.0	-31.3
Fz,	-0.1	18.0	**0.0**	-0.0	0.0	-31.3	-0.1	18.0	**0.0**	-0.0	0.0	-31.3
Mx,	-0.1	18.0	0.0	**-0.0**	0.0	-31.3	-0.1	18.0	0.0	**-0.0**	0.0	-31.3
My,	-0.1	18.0	0.0	-0.0	**0.0**	-31.3	-0.1	18.0	0.0	-0.0	**0.0**	-31.3
Mz,	-0.1	18.0	0.0	-0.0	0.0	**-31.3**	-0.1	18.0	0.0	-0.0	0.0	**-31.3**

Member 30

Fx,	**-0.1**	18.0	0.0	-0.0	-0.0	-31.3	**-0.1**	18.0	0.0	-0.0	-0.0	-31.3
Fy,	-0.1	**18.0**	0.0	-0.0	-0.0	-31.3	-0.1	**18.0**	0.0	-0.0	-0.0	-31.3
Fz,	-0.1	18.0	**0.0**	-0.0	-0.0	-31.3	-0.1	18.0	**0.0**	-0.0	-0.0	-31.3
Mx,	-0.1	18.0	0.0	**-0.0**	-0.0	-31.3	-0.1	18.0	0.0	**-0.0**	-0.0	-31.3
My,	-0.1	18.0	0.0	-0.0	**-0.0**	-31.3	-0.1	18.0	0.0	-0.0	**-0.0**	-31.3
Mz,	-0.1	18.0	0.0	-0.0	-0.0	**-31.3**	-0.1	18.0	0.0	-0.0	-0.0	**-31.3**
Fx,	**-0.1**	23.9	0.0	-0.0	0.0	-125.6	**-0.1**	23.9	0.0	-0.0	0.0	-125.6
Fy,	-0.1	**23.9**	0.0	-0.0	0.0	-125.6	-0.1	**23.9**	0.0	-0.0	0.0	-125.6
Fz,	-0.1	23.9	**0.0**	-0.0	0.0	-125.6	-0.1	23.9	**0.0**	-0.0	0.0	-125.6
Mx,	-0.1	23.9	0.0	**-0.0**	0.0	-125.6	-0.1	23.9	0.0	**-0.0**	0.0	-125.6
My,	-0.1	23.9	0.0	-0.0	**0.0**	-125.6	-0.1	23.9	0.0	-0.0	**0.0**	-125.6
Mz,	-0.1	23.9	0.0	-0.0	0.0	**-125.6**	-0.1	23.9	0.0	-0.0	0.0	**-125.6**

Member 31

Fx,	**-0.1**	-23.9	-0.0	0.0	0.0	-125.6	**-0.1**	-23.9	-0.0	0.0	0.0	-125.6
Fy,	-0.1	**-23.9**	-0.0	0.0	0.0	-125.6	-0.1	**-23.9**	-0.0	0.0	0.0	-125.6
Fz,	-0.1	-23.9	**-0.0**	0.0	0.0	-125.6	-0.1	-23.9	**-0.0**	0.0	0.0	-125.6
Mx,	-0.1	-23.9	-0.0	**0.0**	0.0	-125.6	-0.1	-23.9	-0.0	**0.0**	0.0	-125.6
My,	-0.1	-23.9	-0.0	0.0	**0.0**	-125.6	-0.1	-23.9	-0.0	0.0	**0.0**	-125.6
Mz,	-0.1	-23.9	-0.0	0.0	0.0	**-125.6**	-0.1	-23.9	-0.0	0.0	0.0	**-125.6**
Fx,	**-0.1**	-18.0	-0.0	0.0	-0.0	-31.3	**-0.1**	-18.0	-0.0	0.0	-0.0	-31.3
Fy,	-0.1	**-18.0**	-0.0	0.0	-0.0	-31.3	-0.1	**-18.0**	-0.0	0.0	-0.0	-31.3
Fz,	-0.1	-18.0	**-0.0**	0.0	-0.0	-31.3	-0.1	-18.0	**-0.0**	0.0	-0.0	-31.3
Mx,	-0.1	-18.0	-0.0	**0.0**	-0.0	-31.3	-0.1	-18.0	-0.0	**0.0**	-0.0	-31.3
My,	-0.1	-18.0	-0.0	0.0	**-0.0**	-31.3	-0.1	-18.0	-0.0	0.0	**-0.0**	-31.3
Mz,	-0.1	-18.0	-0.0	0.0	-0.0	**-31.3**	-0.1	-18.0	-0.0	0.0	-0.0	**-31.3**

Member 32

Fx,	**-0.1**	-18.0	-0.0	0.0	0.0	-31.3	**-0.1**	-18.0	-0.0	0.0	0.0	-31.3
Fy,	-0.1	**-18.0**	-0.0	0.0	0.0	-31.3	-0.1	**-18.0**	-0.0	0.0	0.0	-31.3
Fz,	-0.1	-18.0	**-0.0**	0.0	0.0	-31.3	-0.1	-18.0	**-0.0**	0.0	0.0	-31.3
Mx,	-0.1	-18.0	-0.0	**0.0**	0.0	-31.3	-0.1	-18.0	-0.0	**0.0**	0.0	-31.3
My,	-0.1	-18.0	-0.0	0.0	**0.0**	-31.3	-0.1	-18.0	-0.0	0.0	**0.0**	-31.3
Mz,	-0.1	-18.0	-0.0	0.0	0.0	**-31.3**	-0.1	-18.0	-0.0	0.0	0.0	**-31.3**
Fx,	**-0.1**	-12.0	-0.0	0.0	-0.0	36.1	**-0.1**	-12.0	-0.0	0.0	-0.0	36.1
Fy,	-0.1	**-12.0**	-0.0	0.0	-0.0	36.1	-0.1	**-12.0**	-0.0	0.0	-0.0	36.1
Fz,	-0.1	-12.0	**-0.0**	0.0	-0.0	36.1	-0.1	-12.0	**-0.0**	0.0	-0.0	36.1
Mx,	-0.1	-12.0	-0.0	**0.0**	-0.0	36.1	-0.1	-12.0	-0.0	**0.0**	-0.0	36.1
My,	-0.1	-12.0	-0.0	0.0	**-0.0**	36.1	-0.1	-12.0	-0.0	0.0	**-0.0**	36.1
Mz,	-0.1	-12.0	-0.0	0.0	0.0	**36.1**	-0.1	-12.0	-0.0	0.0	0.0	**36.1**

Member 33

Fx,	**-0.1**	-12.0	-0.0	0.0	0.0	36.1	**-0.1**	-12.0	-0.0	0.0	0.0	36.1
Fy,	-0.1	**-12.0**	-0.0	0.0	0.0	36.1	-0.1	**-12.0**	-0.0	0.0	0.0	36.1
Fz,	-0.1	-12.0	**-0.0**	0.0	0.0	36.1	-0.1	-12.0	**-0.0**	0.0	0.0	36.1
Mx,	-0.1	-12.0	-0.0	**0.0**	0.0	36.1	-0.1	-12.0	-0.0	**0.0**	0.0	36.1
My,	-0.1	-12.0	-0.0	0.0	**0.0**	36.1	-0.1	-12.0	-0.0	0.0	**0.0**	36.1
Mz,	-0.1	-12.0	-0.0	0.0	0.0	**36.1**	-0.1	-12.0	-0.0	0.0	0.0	**36.1**
Fx,	**-0.1**	-6.0	-0.0	0.0	-0.0	76.6	**-0.1**	-6.0	-0.0	0.0	-0.0	76.6
Fy,	-0.1	**-6.0**	-0.0	0.0	-0.0	76.6	-0.1	**-6.0**	-0.0	0.0	-0.0	76.6
Fz,	-0.1	-6.0	**-0.0**	0.0	-0.0	76.6	-0.1	-6.0	**-0.0**	0.0	-0.0	76.6
Mx,	-0.1	-6.0	-0.0	**0.0**	-0.0	76.6	-0.1	-6.0	-0.0	**0.0**	-0.0	76.6
My,	-0.1	-6.0	-0.0	0.0	**-0.0**	76.6	-0.1	-6.0	-0.0	0.0	**-0.0**	76.6

Mz_e	-0.1	-6.0	-0.0	0.0	-0.0	**76.6**	-0.1	-6.0	-0.0	0.0	-0.0	**76.6**

Member 34

Fx_i	**-0.1**	-6.0	-0.0	0.0	0.0	76.6	**-0.1**	-6.0	-0.0	0.0	0.0	76.6
Fy_i	-0.1	**-6.0**	-0.0	0.0	0.0	76.6	-0.1	**-6.0**	-0.0	0.0	0.0	76.6
Fz_i	-0.1	-6.0	**-0.0**	0.0	0.0	76.6	-0.1	-6.0	**-0.0**	0.0	0.0	76.6
Mx_i	-0.1	-6.0	-0.0	**0.0**	0.0	76.6	-0.1	-6.0	-0.0	**0.0**	0.0	76.6
My_i	-0.1	-6.0	-0.0	0.0	**0.0**	76.6	-0.1	-6.0	-0.0	0.0	**0.0**	76.6
Mz_i	-0.1	-6.0	-0.0	0.0	0.0	**76.6**	-0.1	-6.0	-0.0	0.0	0.0	**76.6**
Fx_f	**-0.1**	-0.0	-0.0	0.0	-0.0	90.3	**-0.1**	-0.0	-0.0	0.0	-0.0	90.3
Fy_f	-0.1	**-0.0**	-0.0	0.0	-0.0	90.3	-0.1	**-0.0**	-0.0	0.0	-0.0	90.3
Fz_f	-0.1	-0.0	**-0.0**	0.0	-0.0	90.3	-0.1	-0.0	**-0.0**	0.0	-0.0	90.3
Mx_f	-0.1	-0.0	-0.0	**0.0**	-0.0	90.3	-0.1	-0.0	-0.0	**0.0**	-0.0	90.3
My_f	-0.1	-0.0	-0.0	0.0	**-0.0**	90.3	-0.1	-0.0	-0.0	0.0	**-0.0**	90.3
Mz_f	-0.1	-0.0	-0.0	0.0	-0.0	**90.3**	-0.1	-0.0	-0.0	0.0	-0.0	**90.3**

Member 35

Fx_i	**-0.1**	-0.0	0.0	-0.0	-0.0	90.3	**-0.1**	-0.0	0.0	-0.0	-0.0	90.3
Fy_i	-0.1	**-0.0**	0.0	-0.0	-0.0	90.3	-0.1	**-0.0**	0.0	-0.0	-0.0	90.3
Fz_i	-0.1	-0.0	**0.0**	-0.0	-0.0	90.3	-0.1	-0.0	**0.0**	-0.0	-0.0	90.3
Mx_i	-0.1	-0.0	0.0	**-0.0**	-0.0	90.3	-0.1	-0.0	0.0	**-0.0**	-0.0	90.3
My_i	-0.1	-0.0	0.0	-0.0	**-0.0**	90.3	-0.1	-0.0	0.0	-0.0	**-0.0**	90.3
Mz_i	-0.1	-0.0	0.0	-0.0	-0.0	**90.3**	-0.1	-0.0	0.0	-0.0	-0.0	**90.3**
Fx_f	**-0.1**	5.9	0.0	-0.0	0.0	77.1	**-0.1**	5.9	0.0	-0.0	0.0	77.1
Fy_f	-0.1	**5.9**	0.0	-0.0	0.0	77.1	-0.1	**5.9**	0.0	-0.0	0.0	77.1
Fz_f	-0.1	5.9	**0.0**	-0.0	0.0	77.1	-0.1	5.9	**0.0**	-0.0	0.0	77.1
Mx_f	-0.1	5.9	0.0	**-0.0**	0.0	77.1	-0.1	5.9	0.0	**-0.0**	0.0	77.1
My_f	-0.1	5.9	0.0	-0.0	**0.0**	77.1	-0.1	5.9	0.0	-0.0	**0.0**	77.1
Mz_f	-0.1	5.9	0.0	-0.0	0.0	**77.1**	-0.1	5.9	0.0	-0.0	0.0	**77.1**

Member 36

Fx_i	**-0.1**	5.9	0.0	-0.0	-0.0	77.1	**-0.1**	5.9	0.0	-0.0	-0.0	77.1
Fy_i	-0.1	**5.9**	0.0	-0.0	-0.0	77.1	-0.1	**5.9**	0.0	-0.0	-0.0	77.1
Fz_i	-0.1	5.9	**0.0**	-0.0	-0.0	77.1	-0.1	5.9	**0.0**	-0.0	-0.0	77.1
Mx_i	-0.1	5.9	0.0	**-0.0**	-0.0	77.1	-0.1	5.9	0.0	**-0.0**	-0.0	77.1
My_i	-0.1	5.9	0.0	-0.0	**-0.0**	77.1	-0.1	5.9	0.0	-0.0	**-0.0**	77.1
Mz_i	-0.1	5.9	0.0	-0.0	-0.0	**77.1**	-0.1	5.9	0.0	-0.0	-0.0	**77.1**
Fx_f	**-0.1**	11.9	0.0	-0.0	0.0	37.0	**-0.1**	11.9	0.0	-0.0	0.0	37.0
Fy_f	-0.1	**11.9**	0.0	-0.0	0.0	37.0	-0.1	**11.9**	0.0	-0.0	0.0	37.0
Fz_f	-0.1	11.9	**0.0**	-0.0	0.0	37.0	-0.1	11.9	**0.0**	-0.0	0.0	37.0
Mx_f	-0.1	11.9	0.0	**-0.0**	0.0	37.0	-0.1	11.9	0.0	**-0.0**	0.0	37.0
My_f	-0.1	11.9	0.0	-0.0	**0.0**	37.0	-0.1	11.9	0.0	-0.0	**0.0**	37.0
Mz_f	-0.1	11.9	0.0	-0.0	0.0	**37.0**	-0.1	11.9	0.0	-0.0	0.0	**37.0**

Member 37

Fx_i	**-0.1**	11.9	0.0	-0.0	-0.0	37.0	**-0.1**	11.9	0.0	-0.0	-0.0	37.0
Fy_i	-0.1	**11.9**	0.0	-0.0	-0.0	37.0	-0.1	**11.9**	0.0	-0.0	-0.0	37.0
Fz_i	-0.1	11.9	**0.0**	-0.0	-0.0	37.0	-0.1	11.9	**0.0**	-0.0	-0.0	37.0
Mx_i	-0.1	11.9	0.0	**-0.0**	-0.0	37.0	-0.1	11.9	0.0	**-0.0**	-0.0	37.0
My_i	-0.1	11.9	0.0	-0.0	**-0.0**	37.0	-0.1	11.9	0.0	-0.0	**-0.0**	37.0
Mz_i	-0.1	11.9	0.0	-0.0	-0.0	**37.0**	-0.1	11.9	0.0	-0.0	-0.0	**37.0**
Fx_f	**-0.1**	17.9	0.0	-0.0	0.0	-30.0	**-0.1**	17.9	0.0	-0.0	0.0	-30.0
Fy_f	-0.1	**17.9**	0.0	-0.0	0.0	-30.0	-0.1	**17.9**	0.0	-0.0	0.0	-30.0
Fz_f	-0.1	17.9	**0.0**	-0.0	0.0	-30.0	-0.1	17.9	**0.0**	-0.0	0.0	-30.0
Mx_f	-0.1	17.9	0.0	**-0.0**	0.0	-30.0	-0.1	17.9	0.0	**-0.0**	0.0	-30.0
My_f	-0.1	17.9	0.0	-0.0	**0.0**	-30.0	-0.1	17.9	0.0	-0.0	**0.0**	-30.0
Mz_f	-0.1	17.9	0.0	-0.0	0.0	**-30.0**	-0.1	17.9	0.0	-0.0	0.0	**-30.0**

Member 38

Fx_i	**-0.1**	17.9	0.0	-0.0	-0.0	-30.0	**-0.1**	17.9	0.0	-0.0	-0.0	-30.0
Fy_i	-0.1	**17.9**	0.0	-0.0	-0.0	-30.0	-0.1	**17.9**	0.0	-0.0	-0.0	-30.0
Fz_i	-0.1	17.9	**0.0**	-0.0	-0.0	-30.0	-0.1	17.9	**0.0**	-0.0	-0.0	-30.0
Mx_i	-0.1	17.9	0.0	**-0.0**	-0.0	-30.0	-0.1	17.9	0.0	**-0.0**	-0.0	-30.0
My_i	-0.1	17.9	0.0	-0.0	**-0.0**	-30.0	-0.1	17.9	0.0	-0.0	**-0.0**	-30.0
Mz_i	-0.1	17.9	0.0	-0.0	-0.0	**-30.0**	-0.1	17.9	0.0	-0.0	-0.0	**-30.0**
Fx_f	**-0.1**	23.8	0.0	-0.0	0.0	-123.9	**-0.1**	23.8	0.0	-0.0	0.0	-123.9
Fy_f	-0.1	**23.8**	0.0	-0.0	0.0	-123.9	-0.1	**23.8**	0.0	-0.0	0.0	-123.9
Fz_f	-0.1	23.8	**0.0**	-0.0	0.0	-123.9	-0.1	23.8	**0.0**	-0.0	0.0	-123.9
Mx_f	-0.1	23.8	0.0	**-0.0**	0.0	-123.9	-0.1	23.8	0.0	**-0.0**	0.0	-123.9
My_f	-0.1	23.8	0.0	-0.0	**0.0**	-123.9	-0.1	23.8	0.0	-0.0	**0.0**	-123.9
Mz_f	-0.1	23.8	0.0	-0.0	0.0	**-123.9**	-0.1	23.8	0.0	-0.0	0.0	**-123.9**

Member 39

Fx_i	**-0.1**	-23.7	-0.0	0.0	0.0	-123.9	**-0.1**	-23.7	-0.0	0.0	0.0	-123.9
Fy_i	-0.1	**-23.7**	-0.0	0.0	0.0	-123.9	-0.1	**-23.7**	-0.0	0.0	0.0	-123.9
Fz_i	-0.1	-23.7	**-0.0**	0.0	0.0	-123.9	-0.1	-23.7	**-0.0**	0.0	0.0	-123.9
Mx_i	-0.1	-23.7	-0.0	**0.0**	0.0	-123.9	-0.1	-23.7	-0.0	**0.0**	0.0	-123.9
My_i	-0.1	-23.7	-0.0	0.0	**0.0**	-123.9	-0.1	-23.7	-0.0	0.0	**0.0**	-123.9
Mz_i	-0.1	-23.7	-0.0	0.0	0.0	**-123.9**	-0.1	-23.7	-0.0	0.0	0.0	**-123.9**
Fx_f	**-0.1**	-17.7	-0.0	0.0	-0.0	-30.6	**-0.1**	-17.7	-0.0	0.0	-0.0	-30.6
Fy_f	-0.1	**-17.7**	-0.0	0.0	-0.0	-30.6	-0.1	**-17.7**	-0.0	0.0	-0.0	-30.6
Fz_f	-0.1	-17.7	**-0.0**	0.0	-0.0	-30.6	-0.1	-17.7	**-0.0**	0.0	-0.0	-30.6
Mx_f	-0.1	-17.7	-0.0	**0.0**	-0.0	-30.6	-0.1	-17.7	-0.0	**0.0**	-0.0	-30.6
My_f	-0.1	-17.7	-0.0	0.0	**-0.0**	-30.6	-0.1	-17.7	-0.0	0.0	**-0.0**	-30.6
Mz_f	-0.1	-17.7	-0.0	0.0	-0.0	**-30.6**	-0.1	-17.7	-0.0	0.0	-0.0	**-30.6**

Member 40

Fx_i	**-0.1**	-17.7	-0.0	0.0	0.0	-30.6	**-0.1**	-17.7	-0.0	0.0	0.0	-30.6
Fy_i	-0.1	**-17.7**	-0.0	0.0	0.0	-30.6	-0.1	**-17.7**	-0.0	0.0	0.0	-30.6
Fz_i	-0.1	-17.7	**-0.0**	0.0	0.0	-30.6	-0.1	-17.7	**-0.0**	0.0	0.0	-30.6
Mx_i	-0.1	-17.7	-0.0	**0.0**	0.0	-30.6	-0.1	-17.7	-0.0	**0.0**	0.0	-30.6
My_i	-0.1	-17.7	-0.0	0.0	**0.0**	-30.6	-0.1	-17.7	-0.0	0.0	**0.0**	-30.6
Mz_i	-0.1	-17.7	-0.0	0.0	0.0	**-30.6**	-0.1	-17.7	-0.0	0.0	0.0	**-30.6**
Fx_f	**-0.1**	-11.8	-0.0	0.0	-0.0	35.7	**-0.1**	-11.8	-0.0	0.0	-0.0	35.7
Fy_f	-0.1	**-11.8**	-0.0	0.0	-0.0	35.7	-0.1	**-11.8**	-0.0	0.0	-0.0	35.7
Fz_f	-0.1	-11.8	**-0.0**	0.0	-0.0	35.7	-0.1	-11.8	**-0.0**	0.0	-0.0	35.7
Mx_f	-0.1	-11.8	-0.0	**0.0**	-0.0	35.7	-0.1	-11.8	-0.0	**0.0**	-0.0	35.7
My_f	-0.1	-11.8	-0.0	0.0	**-0.0**	35.7	-0.1	-11.8	-0.0	0.0	**-0.0**	35.7
Mz_f	-0.1	-11.8	-0.0	0.0	-0.0	**35.7**	-0.1	-11.8	-0.0	0.0	-0.0	**35.7**

Member 41

Fx_i	**-0.1**	-11.8	-0.0	0.0	0.0	35.7	**-0.1**	-11.8	-0.0	0.0	0.0	35.7
Fy_i	-0.1	**-11.8**	-0.0	0.0	0.0	35.7	-0.1	**-11.8**	-0.0	0.0	0.0	35.7
Fz_i	-0.1	-11.8	**-0.0**	0.0	0.0	35.7	-0.1	-11.8	**-0.0**	0.0	0.0	35.7
Mx_i	-0.1	-11.8	-0.0	**0.0**	0.0	35.7	-0.1	-11.8	-0.0	**0.0**	0.0	35.7
My_i	-0.1	-11.8	-0.0	0.0	**0.0**	35.7	-0.1	-11.8	-0.0	0.0	**0.0**	35.7
Mz_i	-0.1	-11.8	-0.0	0.0	0.0	**35.7**	-0.1	-11.8	-0.0	0.0	0.0	**35.7**
Fx_f	**-0.1**	-5.8	-0.0	0.0	-0.0	75.2	**-0.1**	-5.8	-0.0	0.0	-0.0	75.2
Fy_f	-0.1	**-5.8**	-0.0	0.0	-0.0	75.2	-0.1	**-5.8**	-0.0	0.0	-0.0	75.2
Fz_f	-0.1	-5.8	**-0.0**	0.0	-0.0	75.2	-0.1	-5.8	**-0.0**	0.0	-0.0	75.2
Mx_f	-0.1	-5.8	-0.0	**0.0**	-0.0	75.2	-0.1	-5.8	-0.0	**0.0**	-0.0	75.2
My_f	-0.1	-5.8	-0.0	0.0	**-0.0**	75.2	-0.1	-5.8	-0.0	0.0	**-0.0**	75.2
Mz_f	-0.1	-5.8	-0.0	0.0	-0.0	**75.2**	-0.1	-5.8	-0.0	0.0	-0.0	**75.2**

Member 42

Fx_i	**-0.1**	-5.8	-0.0	0.0	0.0	75.2	**-0.1**	-5.8	-0.0	0.0	0.0	75.2
Fy_i	-0.1	**-5.8**	-0.0	0.0	0.0	75.2	-0.1	**-5.8**	-0.0	0.0	0.0	75.2
Fz_i	-0.1	-5.8	**-0.0**	0.0	0.0	75.2	-0.1	-5.8	**-0.0**	0.0	0.0	75.2
Mx_i	-0.1	-5.8	-0.0	**0.0**	0.0	75.2	-0.1	-5.8	-0.0	**0.0**	0.0	75.2
My_i	-0.1	-5.8	-0.0	0.0	**0.0**	75.2	-0.1	-5.8	-0.0	0.0	**0.0**	75.2
Mz_i	-0.1	-5.8	-0.0	0.0	0.0	**75.2**	-0.1	-5.8	-0.0	0.0	0.0	**75.2**
Fx_f	**-0.1**	0.2	-0.0	0.0	0.0	87.8	**-0.1**	0.2	-0.0	0.0	0.0	87.8
Fy_f	-0.1	**0.2**	-0.0	0.0	0.0	87.8	-0.1	**0.2**	-0.0	0.0	0.0	87.8
Fz_f	-0.1	0.2	**-0.0**	0.0	0.0	87.8	-0.1	0.2	**-0.0**	0.0	0.0	87.8
Mx_f	-0.1	0.2	-0.0	**0.0**	0.0	87.8	-0.1	0.2	-0.0	**0.0**	0.0	87.8
My_f	-0.1	0.2	-0.0	0.0	**0.0**	87.8	-0.1	0.2	-0.0	0.0	**0.0**	87.8
Mz_f	-0.1	0.2	-0.0	0.0	0.0	**87.8**	-0.1	0.2	-0.0	0.0	0.0	**87.8**

Member 43

Fx_i	**-0.1**	0.2	0.0	-0.0	0.0	87.8	**-0.1**	0.2	0.0	-0.0	0.0	87.8
Fy_i	-0.1	**0.2**	0.0	-0.0	0.0	87.8	-0.1	**0.2**	0.0	-0.0	0.0	87.8
Fz_i	-0.1	0.2	**0.0**	-0.0	0.0	87.8	-0.1	0.2	**0.0**	-0.0	0.0	87.8
Mx_i	-0.1	0.2	0.0	**-0.0**	0.0	87.8	-0.1	0.2	0.0	**-0.0**	0.0	87.8
My_i	-0.1	0.2	0.0	-0.0	**0.0**	87.8	-0.1	0.2	0.0	-0.0	**0.0**	87.8
Mz_i	-0.1	0.2	0.0	-0.0	0.0	**87.8**	-0.1	0.2	0.0	-0.0	0.0	**87.8**

Fx,	**-0.1**	6.2	0.0	-0.0	0.0	73.6	-0.1	6.2	0.0	-0.0	0.0	73.6
Fy,	-0.1	**6.2**	0.0	-0.0	0.0	73.6	-0.1	**6.2**	0.0	-0.0	0.0	73.6
Fz,	-0.1	6.2	**0.0**	-0.0	0.0	73.6	-0.1	6.2	**0.0**	-0.0	0.0	73.6
Mx,	-0.1	6.2	0.0	**-0.0**	0.0	73.6	-0.1	6.2	0.0	**-0.0**	0.0	73.6
My,	-0.1	6.2	0.0	-0.0	**0.0**	73.6	-0.1	6.2	0.0	-0.0	**0.0**	73.6
Mz,	-0.1	6.2	0.0	-0.0	0.0	**73.6**	-0.1	6.2	0.0	-0.0	0.0	**73.6**

Member 44

Fx,	**-0.1**	6.2	0.0	-0.0	-0.0	73.6	**-0.1**	6.2	0.0	-0.0	-0.0	73.6
Fy,	-0.1	**6.2**	0.0	-0.0	-0.0	73.6	-0.1	**6.2**	0.0	-0.0	-0.0	73.6
Fz,	-0.1	6.2	**0.0**	-0.0	-0.0	73.6	-0.1	6.2	**0.0**	-0.0	-0.0	73.6
Mx,	-0.1	6.2	0.0	**-0.0**	-0.0	73.6	-0.1	6.2	0.0	**-0.0**	-0.0	73.6
My,	-0.1	6.2	0.0	-0.0	**-0.0**	73.6	-0.1	6.2	0.0	-0.0	**-0.0**	73.6
Mz,	-0.1	6.2	0.0	-0.0	-0.0	**73.6**	-0.1	6.2	0.0	-0.0	-0.0	**73.6**
Fx,	**-0.1**	12.1	0.0	-0.0	0.0	32.4	**-0.1**	12.1	0.0	-0.0	0.0	32.4
Fy,	-0.1	**12.1**	0.0	-0.0	0.0	32.4	-0.1	**12.1**	0.0	-0.0	0.0	32.4
Fz,	-0.1	12.1	**0.0**	-0.0	0.0	32.4	-0.1	12.1	**0.0**	-0.0	0.0	32.4
Mx,	-0.1	12.1	0.0	**-0.0**	0.0	32.4	-0.1	12.1	0.0	**-0.0**	0.0	32.4
My,	-0.1	12.1	0.0	-0.0	**0.0**	32.4	-0.1	12.1	0.0	-0.0	**0.0**	32.4
Mz,	-0.1	12.1	0.0	-0.0	0.0	**32.4**	-0.1	12.1	0.0	-0.0	0.0	**32.4**

Member 45

Fx,	**-0.1**	12.1	0.0	-0.0	-0.0	32.4	**-0.1**	12.1	0.0	-0.0	-0.0	32.4
Fy,	-0.1	**12.1**	0.0	-0.0	-0.0	32.4	-0.1	**12.1**	0.0	-0.0	-0.0	32.4
Fz,	-0.1	12.1	**0.0**	-0.0	-0.0	32.4	-0.1	12.1	**0.0**	-0.0	-0.0	32.4
Mx,	-0.1	12.1	0.0	**-0.0**	-0.0	32.4	-0.1	12.1	0.0	**-0.0**	-0.0	32.4
My,	-0.1	12.1	0.0	-0.0	**-0.0**	32.4	-0.1	12.1	0.0	-0.0	**-0.0**	32.4
Mz,	-0.1	12.1	0.0	-0.0	-0.0	**32.4**	-0.1	12.1	0.0	-0.0	-0.0	**32.4**
Fx,	**-0.1**	18.1	0.0	-0.0	0.0	-35.6	**-0.1**	18.1	0.0	-0.0	0.0	-35.6
Fy,	-0.1	**18.1**	0.0	-0.0	0.0	-35.6	-0.1	**18.1**	0.0	-0.0	0.0	-35.6
Fz,	-0.1	18.1	**0.0**	-0.0	0.0	-35.6	-0.1	18.1	**0.0**	-0.0	0.0	-35.6
Mx,	-0.1	18.1	0.0	**-0.0**	0.0	-35.6	-0.1	18.1	0.0	**-0.0**	0.0	-35.6
My,	-0.1	18.1	0.0	-0.0	**0.0**	-35.6	-0.1	18.1	0.0	-0.0	**0.0**	-35.6
Mz,	-0.1	18.1	0.0	-0.0	0.0	**-35.6**	-0.1	18.1	0.0	-0.0	0.0	**-35.6**

Member 46

Fx,	**-0.1**	18.1	0.0	-0.0	-0.0	-35.6	**-0.1**	18.1	0.0	-0.0	-0.0	-35.6
Fy,	-0.1	**18.1**	0.0	-0.0	-0.0	-35.6	-0.1	**18.1**	0.0	-0.0	-0.0	-35.6
Fz,	-0.1	18.1	**0.0**	-0.0	-0.0	-35.6	-0.1	18.1	**0.0**	-0.0	-0.0	-35.6
Mx,	-0.1	18.1	0.0	**-0.0**	-0.0	-35.6	-0.1	18.1	0.0	**-0.0**	-0.0	-35.6
My,	-0.1	18.1	0.0	-0.0	**-0.0**	-35.6	-0.1	18.1	0.0	-0.0	**-0.0**	-35.6
Mz,	-0.1	18.1	0.0	-0.0	-0.0	**-35.6**	-0.1	18.1	0.0	-0.0	-0.0	**-35.6**
Fx,	**-0.1**	24.1	0.0	-0.0	0.0	-130.5	**-0.1**	24.1	0.0	-0.0	0.0	-130.5
Fy,	-0.1	**24.1**	0.0	-0.0	0.0	-130.5	-0.1	**24.1**	0.0	-0.0	0.0	-130.5
Fz,	-0.1	24.1	**0.0**	-0.0	0.0	-130.5	-0.1	24.1	**0.0**	-0.0	0.0	-130.5
Mx,	-0.1	24.1	0.0	**-0.0**	0.0	-130.5	-0.1	24.1	0.0	**-0.0**	0.0	-130.5
My,	-0.1	24.1	0.0	-0.0	**0.0**	-130.5	-0.1	24.1	0.0	-0.0	**0.0**	-130.5
Mz,	-0.1	24.1	0.0	-0.0	0.0	**-130.5**	-0.1	24.1	0.0	-0.0	0.0	**-130.5**

Member 47

Fx,	**-0.1**	-24.8	-0.0	0.0	0.0	-130.5	**-0.1**	-24.8	-0.0	0.0	0.0	-130.5
Fy,	-0.1	**-24.8**	-0.0	0.0	0.0	-130.5	-0.1	**-24.8**	-0.0	0.0	0.0	-130.5
Fz,	-0.1	-24.8	**-0.0**	0.0	0.0	-130.5	-0.1	-24.8	**-0.0**	0.0	0.0	-130.5
Mx,	-0.1	-24.8	-0.0	**0.0**	0.0	-130.5	-0.1	-24.8	-0.0	**0.0**	0.0	-130.5
My,	-0.1	-24.8	-0.0	0.0	**0.0**	-130.5	-0.1	-24.8	-0.0	0.0	**0.0**	-130.5
Mz,	-0.1	-24.8	-0.0	0.0	0.0	**-130.5**	-0.1	-24.8	-0.0	0.0	0.0	**-130.5**
Fx,	**-0.1**	-18.8	-0.0	0.0	-0.0	-32.5	**-0.1**	-18.8	-0.0	0.0	-0.0	-32.5
Fy,	-0.1	**-18.8**	-0.0	0.0	-0.0	-32.5	-0.1	**-18.8**	-0.0	0.0	-0.0	-32.5
Fz,	-0.1	-18.8	**-0.0**	0.0	-0.0	-32.5	-0.1	-18.8	**-0.0**	0.0	-0.0	-32.5
Mx,	-0.1	-18.8	-0.0	**0.0**	-0.0	-32.5	-0.1	-18.8	-0.0	**0.0**	-0.0	-32.5
My,	-0.1	-18.8	-0.0	0.0	**-0.0**	-32.5	-0.1	-18.8	-0.0	0.0	**-0.0**	-32.5
Mz,	-0.1	-18.8	-0.0	0.0	-0.0	**-32.5**	-0.1	-18.8	-0.0	0.0	-0.0	**-32.5**

Member 48

Fx,	**-0.1**	-18.8	-0.0	0.0	0.0	-32.5	**-0.1**	-18.8	-0.0	0.0	0.0	-32.5
Fy,	-0.1	**-18.8**	-0.0	0.0	0.0	-32.5	-0.1	**-18.8**	-0.0	0.0	0.0	-32.5
Fz,	-0.1	-18.8	**-0.0**	0.0	0.0	-32.5	-0.1	-18.8	**-0.0**	0.0	0.0	-32.5
Mx,	-0.1	-18.8	-0.0	**0.0**	0.0	-32.5	-0.1	-18.8	-0.0	**0.0**	0.0	-32.5
My,	-0.1	-18.8	-0.0	0.0	**0.0**	-32.5	-0.1	-18.8	-0.0	0.0	**0.0**	-32.5
Mz,	-0.1	-18.8	-0.0	0.0	0.0	**-32.5**	-0.1	-18.8	-0.0	0.0	0.0	**-32.5**
Fx,	**-0.1**	-12.8	-0.0	0.0	-0.0	38.7	**-0.1**	-12.8	-0.0	0.0	-0.0	38.7
Fy,	-0.1	**-12.8**	-0.0	0.0	-0.0	38.7	-0.1	**-12.8**	-0.0	0.0	-0.0	38.7
Fz,	-0.1	-12.8	**-0.0**	0.0	-0.0	38.7	-0.1	-12.8	**-0.0**	0.0	-0.0	38.7
Mx,	-0.1	-12.8	-0.0	**0.0**	-0.0	38.7	-0.1	-12.8	-0.0	**0.0**	-0.0	38.7
My,	-0.1	-12.8	-0.0	0.0	**-0.0**	38.7	-0.1	-12.8	-0.0	0.0	**-0.0**	38.7
Mz,	-0.1	-12.8	-0.0	0.0	-0.0	**38.7**	-0.1	-12.8	-0.0	0.0	-0.0	**38.7**

Member 49

Fx,	**-0.1**	-12.8	-0.0	0.0	0.0	38.7	**-0.1**	-12.8	-0.0	0.0	0.0	38.7
Fy,	-0.1	**-12.8**	-0.0	0.0	0.0	38.7	-0.1	**-12.8**	-0.0	0.0	0.0	38.7
Fz,	-0.1	-12.8	**-0.0**	0.0	0.0	38.7	-0.1	-12.8	**-0.0**	0.0	0.0	38.7
Mx,	-0.1	-12.8	-0.0	**0.0**	0.0	38.7	-0.1	-12.8	-0.0	**0.0**	0.0	38.7
My,	-0.1	-12.8	-0.0	0.0	**0.0**	38.7	-0.1	-12.8	-0.0	0.0	**0.0**	38.7
Mz,	-0.1	-12.8	-0.0	0.0	0.0	**38.7**	-0.1	-12.8	-0.0	0.0	0.0	**38.7**
Fx,	**-0.1**	-6.9	-0.0	0.0	-0.0	83.0	**-0.1**	-6.9	-0.0	0.0	-0.0	83.0
Fy,	-0.1	**-6.9**	-0.0	0.0	-0.0	83.0	-0.1	**-6.9**	-0.0	0.0	-0.0	83.0
Fz,	-0.1	-6.9	**-0.0**	0.0	-0.0	83.0	-0.1	-6.9	**-0.0**	0.0	-0.0	83.0
Mx,	-0.1	-6.9	-0.0	**0.0**	-0.0	83.0	-0.1	-6.9	-0.0	**0.0**	-0.0	83.0
My,	-0.1	-6.9	-0.0	0.0	**-0.0**	83.0	-0.1	-6.9	-0.0	0.0	**-0.0**	83.0
Mz,	-0.1	-6.9	-0.0	0.0	-0.0	**83.0**	-0.1	-6.9	-0.0	0.0	-0.0	**83.0**

Member 50

Fx,	**-0.1**	-6.9	-0.0	0.0	0.0	83.0	**-0.1**	-6.9	-0.0	0.0	0.0	83.0
Fy,	-0.1	**-6.9**	-0.0	0.0	0.0	83.0	-0.1	**-6.9**	-0.0	0.0	0.0	83.0
Fz,	-0.1	-6.9	**-0.0**	0.0	0.0	83.0	-0.1	-6.9	**-0.0**	0.0	0.0	83.0
Mx,	-0.1	-6.9	-0.0	**0.0**	0.0	83.0	-0.1	-6.9	-0.0	**0.0**	0.0	83.0
My,	-0.1	-6.9	-0.0	0.0	**0.0**	83.0	-0.1	-6.9	-0.0	0.0	**0.0**	83.0
Mz,	-0.1	-6.9	-0.0	0.0	0.0	**83.0**	-0.1	-6.9	-0.0	0.0	0.0	**83.0**
Fx,	**-0.1**	-0.9	-0.0	0.0	0.0	100.4	**-0.1**	-0.9	-0.0	0.0	0.0	100.4
Fy,	-0.1	**-0.9**	-0.0	0.0	0.0	100.4	-0.1	**-0.9**	-0.0	0.0	0.0	100.4
Fz,	-0.1	-0.9	**-0.0**	0.0	0.0	100.4	-0.1	-0.9	**-0.0**	0.0	0.0	100.4
Mx,	-0.1	-0.9	-0.0	**0.0**	0.0	100.4	-0.1	-0.9	-0.0	**0.0**	0.0	100.4
My,	-0.1	-0.9	-0.0	0.0	**0.0**	100.4	-0.1	-0.9	-0.0	0.0	**0.0**	100.4
Mz,	-0.1	-0.9	-0.0	0.0	0.0	**100.4**	-0.1	-0.9	-0.0	0.0	0.0	**100.4**

Member 51

Fx,	**-0.1**	-0.9	0.0	0.0	0.0	100.4	**-0.1**	-0.9	0.0	0.0	0.0	100.4
Fy,	-0.1	**-0.9**	0.0	0.0	0.0	100.4	-0.1	**-0.9**	0.0	0.0	0.0	100.4
Fz,	-0.1	-0.9	**0.0**	0.0	0.0	100.4	-0.1	-0.9	**0.0**	0.0	0.0	100.4
Mx,	-0.1	-0.9	0.0	**0.0**	0.0	100.4	-0.1	-0.9	0.0	**0.0**	0.0	100.4
My,	-0.1	-0.9	0.0	0.0	**0.0**	100.4	-0.1	-0.9	0.0	0.0	**0.0**	100.4
Mz,	-0.1	-0.9	0.0	0.0	0.0	**100.4**	-0.1	-0.9	0.0	0.0	0.0	**100.4**
Fx,	**-0.1**	5.1	0.0	0.0	0.0	90.9	**-0.1**	5.1	0.0	0.0	0.0	90.9
Fy,	-0.1	**5.1**	0.0	0.0	0.0	90.9	-0.1	**5.1**	0.0	0.0	0.0	90.9
Fz,	-0.1	5.1	**0.0**	0.0	0.0	90.9	-0.1	5.1	**0.0**	0.0	0.0	90.9
Mx,	-0.1	5.1	0.0	**0.0**	0.0	90.9	-0.1	5.1	0.0	**0.0**	0.0	90.9
My,	-0.1	5.1	0.0	0.0	**0.0**	90.9	-0.1	5.1	0.0	0.0	**0.0**	90.9
Mz,	-0.1	5.1	0.0	0.0	0.0	**90.9**	-0.1	5.1	0.0	0.0	0.0	**90.9**

Member 52

Fx,	**-0.1**	5.1	0.0	-0.0	-0.0	90.9	**-0.1**	5.1	0.0	-0.0	-0.0	90.9
Fy,	-0.1	**5.1**	0.0	-0.0	-0.0	90.9	-0.1	**5.1**	0.0	-0.0	-0.0	90.9
Fz,	-0.1	5.1	**0.0**	-0.0	-0.0	90.9	-0.1	5.1	**0.0**	-0.0	-0.0	90.9
Mx,	-0.1	5.1	0.0	**-0.0**	-0.0	90.9	-0.1	5.1	0.0	**-0.0**	-0.0	90.9
My,	-0.1	5.1	0.0	-0.0	**-0.0**	90.9	-0.1	5.1	0.0	-0.0	**-0.0**	90.9
Mz,	-0.1	5.1	0.0	-0.0	-0.0	**90.9**	-0.1	5.1	0.0	-0.0	-0.0	**90.9**
Fx,	**-0.1**	11.1	0.0	-0.0	0.0	54.6	**-0.1**	11.1	0.0	-0.0	0.0	54.6
Fy,	-0.1	**11.1**	0.0	-0.0	0.0	54.6	-0.1	**11.1**	0.0	-0.0	0.0	54.6
Fz,	-0.1	11.1	**0.0**	-0.0	0.0	54.6	-0.1	11.1	**0.0**	-0.0	0.0	54.6
Mx,	-0.1	11.1	0.0	**-0.0**	0.0	54.6	-0.1	11.1	0.0	**-0.0**	0.0	54.6
My,	-0.1	11.1	0.0	-0.0	**0.0**	54.6	-0.1	11.1	0.0	-0.0	**0.0**	54.6
Mz,	-0.1	11.1	0.0	-0.0	0.0	**54.6**	-0.1	11.1	0.0	-0.0	0.0	**54.6**

Member 53

Fx,	**-0.1**	11.1	0.0	-0.0	-0.0	54.6	**-0.1**	11.1	0.0	-0.0	-0.0	54.6
Fy,	-0.1	**11.1**	0.0	-0.0	-0.0	54.6	-0.1	**11.1**	0.0	-0.0	-0.0	54.6
Fz,	-0.1	11.1	**0.0**	-0.0	-0.0	54.6	-0.1	11.1	**0.0**	-0.0	-0.0	54.6
Mx,	-0.1	11.1	0.0	**-0.0**	-0.0	54.6	-0.1	11.1	0.0	**-0.0**	-0.0	54.6
My,	-0.1	11.1	0.0	-0.0	**-0.0**	54.6	-0.1	11.1	0.0	-0.0	**-0.0**	54.6
Mz,	-0.1	11.1	0.0	-0.0	-0.0	**54.6**	-0.1	11.1	0.0	-0.0	-0.0	**54.6**
Fx,	**-0.1**	17.0	0.0	-0.0	0.0	-8.6	**-0.1**	17.0	0.0	-0.0	0.0	-8.6
Fy,	-0.1	**17.0**	0.0	-0.0	0.0	-8.6	-0.1	**17.0**	0.0	-0.0	0.0	-8.6
Fz,	-0.1	17.0	**0.0**	-0.0	0.0	-8.6	-0.1	17.0	**0.0**	-0.0	0.0	-8.6
Mx,	-0.1	17.0	0.0	**-0.0**	0.0	-8.6	-0.1	17.0	0.0	**-0.0**	0.0	-8.6
My,	-0.1	17.0	0.0	-0.0	**0.0**	-8.6	-0.1	17.0	0.0	-0.0	**0.0**	-8.6
Mz,	-0.1	17.0	0.0	-0.0	0.0	**-8.6**	-0.1	17.0	0.0	-0.0	0.0	**-8.6**

Member 54

Fx,	**-0.1**	17.0	0.0	-0.0	-0.0	-8.6	**-0.1**	17.0	0.0	-0.0	-0.0	-8.6
Fy,	-0.1	**17.0**	0.0	-0.0	-0.0	-8.6	-0.1	**17.0**	0.0	-0.0	-0.0	-8.6
Fz,	-0.1	17.0	**0.0**	-0.0	-0.0	-8.6	-0.1	17.0	**0.0**	-0.0	-0.0	-8.6
Mx,	-0.1	17.0	0.0	**-0.0**	-0.0	-8.6	-0.1	17.0	0.0	**-0.0**	-0.0	-8.6
My,	-0.1	17.0	0.0	-0.0	**-0.0**	-8.6	-0.1	17.0	0.0	-0.0	**-0.0**	-8.6
Mz,	-0.1	17.0	0.0	-0.0	-0.0	**-8.6**	-0.1	17.0	0.0	-0.0	-0.0	**-8.6**
Fx,	**-0.1**	23.0	0.0	-0.0	0.0	-98.7	**-0.1**	23.0	0.0	-0.0	0.0	-98.7
Fy,	-0.1	**23.0**	0.0	-0.0	0.0	-98.7	-0.1	**23.0**	0.0	-0.0	0.0	-98.7
Fz,	-0.1	23.0	**0.0**	-0.0	0.0	-98.7	-0.1	23.0	**0.0**	-0.0	0.0	-98.7
Mx,	-0.1	23.0	0.0	**-0.0**	0.0	-98.7	-0.1	23.0	0.0	**-0.0**	0.0	-98.7
My,	-0.1	23.0	0.0	-0.0	**0.0**	-98.7	-0.1	23.0	0.0	-0.0	**0.0**	-98.7
Mz,	-0.1	23.0	0.0	-0.0	0.0	**-98.7**	-0.1	23.0	0.0	-0.0	0.0	**-98.7**

Member 55

Fx,	**-0.1**	-19.1	-0.0	0.0	0.0	-98.7	**-0.1**	-19.1	-0.0	0.0	0.0	-98.7
Fy,	-0.1	**-19.1**	-0.0	0.0	0.0	-98.7	-0.1	**-19.1**	-0.0	0.0	0.0	-98.7
Fz,	-0.1	-19.1	**-0.0**	0.0	0.0	-98.7	-0.1	-19.1	**-0.0**	0.0	0.0	-98.7
Mx,	-0.1	-19.1	-0.0	**0.0**	0.0	-98.7	-0.1	-19.1	-0.0	**0.0**	0.0	-98.7
My,	-0.1	-19.1	-0.0	0.0	**0.0**	-98.7	-0.1	-19.1	-0.0	0.0	**0.0**	-98.7
Mz,	-0.1	-19.1	-0.0	0.0	0.0	**-98.7**	-0.1	-19.1	-0.0	0.0	0.0	**-98.7**
Fx,	**-0.1**	-14.2	-0.0	0.0	-0.0	-37.7	**-0.1**	-14.2	-0.0	0.0	-0.0	-37.7
Fy,	-0.1	**-14.2**	-0.0	0.0	-0.0	-37.7	-0.1	**-14.2**	-0.0	0.0	-0.0	-37.7
Fz,	-0.1	-14.2	**-0.0**	0.0	-0.0	-37.7	-0.1	-14.2	**-0.0**	0.0	-0.0	-37.7
Mx,	-0.1	-14.2	-0.0	**0.0**	-0.0	-37.7	-0.1	-14.2	-0.0	**0.0**	-0.0	-37.7
My,	-0.1	-14.2	-0.0	0.0	**-0.0**	-37.7	-0.1	-14.2	-0.0	0.0	**-0.0**	-37.7
Mz,	-0.1	-14.2	-0.0	0.0	-0.0	**-37.7**	-0.1	-14.2	-0.0	0.0	-0.0	**-37.7**

Member 56

Fx,	**-0.1**	-14.2	-0.0	0.0	0.0	-37.7	**-0.1**	-14.2	-0.0	0.0	0.0	-37.7
Fy,	-0.1	**-14.2**	-0.0	0.0	0.0	-37.7	-0.1	**-14.2**	-0.0	0.0	0.0	-37.7
Fz,	-0.1	-14.2	**-0.0**	0.0	0.0	-37.7	-0.1	-14.2	**-0.0**	0.0	0.0	-37.7
Mx,	-0.1	-14.2	-0.0	**0.0**	0.0	-37.7	-0.1	-14.2	-0.0	**0.0**	0.0	-37.7
My,	-0.1	-14.2	-0.0	0.0	**0.0**	-37.7	-0.1	-14.2	-0.0	0.0	**0.0**	-37.7
Mz,	-0.1	-14.2	-0.0	0.0	0.0	**-37.7**	-0.1	-14.2	-0.0	0.0	0.0	**-37.7**
Fx,	**-0.1**	-9.3	-0.0	0.0	-0.0	5.5	**-0.1**	-9.3	-0.0	0.0	-0.0	5.5
Fy,	-0.1	**-9.3**	-0.0	0.0	-0.0	5.5	-0.1	**-9.3**	-0.0	0.0	-0.0	5.5
Fz,	-0.1	-9.3	**-0.0**	0.0	-0.0	5.5	-0.1	-9.3	**-0.0**	0.0	-0.0	5.5
Mx,	-0.1	-9.3	-0.0	**0.0**	-0.0	5.5	-0.1	-9.3	-0.0	**0.0**	-0.0	5.5
My,	-0.1	-9.3	-0.0	0.0	**-0.0**	5.5	-0.1	-9.3	-0.0	0.0	**-0.0**	5.5
Mz,	-0.1	-9.3	-0.0	0.0	-0.0	**5.5**	-0.1	-9.3	-0.0	0.0	-0.0	**5.5**

Member 57

Fx,	**-0.1**	-9.3	-0.0	0.0	0.0	5.5	**-0.1**	-9.3	-0.0	0.0	0.0	5.5
Fy,	-0.1	**-9.3**	-0.0	0.0	0.0	5.5	-0.1	**-9.3**	-0.0	0.0	0.0	5.5
Fz,	-0.1	-9.3	**-0.0**	0.0	0.0	5.5	-0.1	-9.3	**-0.0**	0.0	0.0	5.5
Mx,	-0.1	-9.3	-0.0	**0.0**	0.0	5.5	-0.1	-9.3	-0.0	**0.0**	0.0	5.5
My,	-0.1	-9.3	-0.0	0.0	**0.0**	5.5	-0.1	-9.3	-0.0	0.0	**0.0**	5.5
Mz,	-0.1	-9.3	-0.0	0.0	0.0	**5.5**	-0.1	-9.3	-0.0	0.0	0.0	**5.5**
Fx,	**-0.1**	-4.5	-0.0	0.0	-0.0	30.9	**-0.1**	-4.5	-0.0	0.0	-0.0	30.9
Fy,	-0.1	**-4.5**	-0.0	0.0	-0.0	30.9	-0.1	**-4.5**	-0.0	0.0	-0.0	30.9
Fz,	-0.1	-4.5	**-0.0**	0.0	-0.0	30.9	-0.1	-4.5	**-0.0**	0.0	-0.0	30.9
Mx,	-0.1	-4.5	-0.0	**0.0**	-0.0	30.9	-0.1	-4.5	-0.0	**0.0**	-0.0	30.9
My,	-0.1	-4.5	-0.0	0.0	**-0.0**	30.9	-0.1	-4.5	-0.0	0.0	**-0.0**	30.9
Mz,	-0.1	-4.5	-0.0	0.0	-0.0	**30.9**	-0.1	-4.5	-0.0	0.0	-0.0	**30.9**

Member 58

Fx,	**-0.1**	-4.5	-0.0	0.0	0.0	30.9	**-0.1**	-4.5	-0.0	0.0	0.0	30.9
Fy,	-0.1	**-4.5**	-0.0	0.0	0.0	30.9	-0.1	**-4.5**	-0.0	0.0	0.0	30.9
Fz,	-0.1	-4.5	**-0.0**	0.0	0.0	30.9	-0.1	-4.5	**-0.0**	0.0	0.0	30.9
Mx,	-0.1	-4.5	-0.0	**0.0**	0.0	30.9	-0.1	-4.5	-0.0	**0.0**	0.0	30.9
My,	-0.1	-4.5	-0.0	0.0	**0.0**	30.9	-0.1	-4.5	-0.0	0.0	**0.0**	30.9
Mz,	-0.1	-4.5	-0.0	0.0	0.0	**30.9**	-0.1	-4.5	-0.0	0.0	0.0	**30.9**
Fx,	**-0.1**	0.4	-0.0	0.0	-0.0	38.4	**-0.1**	0.4	-0.0	0.0	-0.0	38.4
Fy,	-0.1	**0.4**	-0.0	0.0	-0.0	38.4	-0.1	**0.4**	-0.0	0.0	-0.0	38.4
Fz,	-0.1	0.4	**-0.0**	0.0	-0.0	38.4	-0.1	0.4	**-0.0**	0.0	-0.0	38.4
Mx,	-0.1	0.4	-0.0	**0.0**	-0.0	38.4	-0.1	0.4	-0.0	**0.0**	-0.0	38.4
My,	-0.1	0.4	-0.0	0.0	**-0.0**	38.4	-0.1	0.4	-0.0	0.0	**-0.0**	38.4
Mz,	-0.1	0.4	-0.0	0.0	-0.0	**38.4**	-0.1	0.4	-0.0	0.0	-0.0	**38.4**

Member 59

Fx,	**-0.1**	0.4	-0.0	0.0	0.0	38.4	**-0.1**	0.4	-0.0	0.0	0.0	38.4
Fy,	-0.1	**0.4**	-0.0	0.0	0.0	38.4	-0.1	**0.4**	-0.0	0.0	0.0	38.4
Fz,	-0.1	0.4	**-0.0**	0.0	0.0	38.4	-0.1	0.4	**-0.0**	0.0	0.0	38.4
Mx,	-0.1	0.4	-0.0	**0.0**	0.0	38.4	-0.1	0.4	-0.0	**0.0**	0.0	38.4
My,	-0.1	0.4	-0.0	0.0	**0.0**	38.4	-0.1	0.4	-0.0	0.0	**0.0**	38.4
Mz,	-0.1	0.4	-0.0	0.0	0.0	**38.4**	-0.1	0.4	-0.0	0.0	0.0	**38.4**
Fx,	**-0.1**	5.3	-0.0	0.0	-0.0	28.0	**-0.1**	5.3	-0.0	0.0	-0.0	28.0
Fy,	-0.1	**5.3**	-0.0	0.0	-0.0	28.0	-0.1	**5.3**	-0.0	0.0	-0.0	28.0
Fz,	-0.1	5.3	**-0.0**	0.0	-0.0	28.0	-0.1	5.3	**-0.0**	0.0	-0.0	28.0
Mx,	-0.1	5.3	-0.0	**0.0**	-0.0	28.0	-0.1	5.3	-0.0	**0.0**	-0.0	28.0
My,	-0.1	5.3	-0.0	0.0	**-0.0**	28.0	-0.1	5.3	-0.0	0.0	**-0.0**	28.0
Mz,	-0.1	5.3	-0.0	0.0	-0.0	**28.0**	-0.1	5.3	-0.0	0.0	-0.0	**28.0**

Member 60

Fx,	**-0.1**	5.3	-0.0	0.0	0.0	28.0	**-0.1**	5.3	-0.0	0.0	0.0	28.0
Fy,	-0.1	**5.3**	-0.0	0.0	0.0	28.0	-0.1	**5.3**	-0.0	0.0	0.0	28.0
Fz,	-0.1	5.3	**-0.0**	0.0	0.0	28.0	-0.1	5.3	**-0.0**	0.0	0.0	28.0
Mx,	-0.1	5.3	-0.0	**0.0**	0.0	28.0	-0.1	5.3	-0.0	**0.0**	0.0	28.0
My,	-0.1	5.3	-0.0	0.0	**0.0**	28.0	-0.1	5.3	-0.0	0.0	**0.0**	28.0
Mz,	-0.1	5.3	-0.0	0.0	0.0	**28.0**	-0.1	5.3	-0.0	0.0	0.0	**28.0**
Fx,	**-0.1**	10.1	-0.0	0.0	-0.0	-0.1	**-0.1**	10.1	-0.0	0.0	-0.0	-0.1
Fy,	-0.1	**10.1**	-0.0	0.0	-0.0	-0.1	-0.1	**10.1**	-0.0	0.0	-0.0	-0.1
Fz,	-0.1	10.1	**-0.0**	0.0	-0.0	-0.1	-0.1	10.1	**-0.0**	0.0	-0.0	-0.1
Mx,	-0.1	10.1	-0.0	**0.0**	-0.0	-0.1	-0.1	10.1	-0.0	**0.0**	-0.0	-0.1
My,	-0.1	10.1	-0.0	0.0	**-0.0**	-0.1	-0.1	10.1	-0.0	0.0	**-0.0**	-0.1
Mz,	-0.1	10.1	-0.0	0.0	-0.0	**-0.1**	-0.1	10.1	-0.0	0.0	-0.0	**-0.1**

Member 121

Fx,	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0
Fy,	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0
Fz,	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0
Mx,	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0
My,	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0
Mz,	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**
Fx,	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0
Fy,	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0
Fz,	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0
Mx,	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0
My,	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0
Mz,	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**

Member 122

Fx,	**0.0**	-0.0	-0.0	-0.0	0.0	0.0	**0.0**	-0.0	-0.0	-0.0	0.0	0.0
Fy,	0.0	**-0.0**	-0.0	-0.0	0.0	0.0	0.0	**-0.0**	-0.0	-0.0	0.0	0.0
Fz,	0.0	-0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**-0.0**	-0.0	0.0	0.0
Mx,	0.0	-0.0	-0.0	**-0.0**	0.0	0.0	0.0	-0.0	-0.0	**-0.0**	0.0	0.0
My,	0.0	-0.0	-0.0	-0.0	**0.0**	0.0	0.0	-0.0	-0.0	-0.0	**0.0**	0.0
Mz,	0.0	-0.0	-0.0	-0.0	0.0	**0.0**	0.0	-0.0	-0.0	-0.0	0.0	**0.0**
Fx,	**0.0**	-0.0	-0.0	-0.0	0.0	0.0	**0.0**	-0.0	-0.0	-0.0	0.0	0.0
Fy,	0.0	**-0.0**	-0.0	-0.0	0.0	0.0	0.0	**-0.0**	-0.0	-0.0	0.0	0.0
Fz,	0.0	-0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**-0.0**	-0.0	0.0	0.0

Mx_f	0.0	-0.0	-0.0	**-0.0**	0.0	0.0	0.0	-0.0	-0.0	**-0.0**	0.0	0.0
My_f	0.0	-0.0	-0.0	-0.0	**0.0**	0.0	0.0	-0.0	-0.0	-0.0	**0.0**	0.0
Mz_f	0.0	-0.0	-0.0	-0.0	0.0	**0.0**	0.0	-0.0	-0.0	-0.0	0.0	**0.0**

Member 123

Fx_i	**0.0**	-0.0	-0.0	-0.0	0.0	0.0	**0.0**	-0.0	-0.0	-0.0	0.0	0.0
Fy_i	0.0	**-0.0**	-0.0	-0.0	0.0	0.0	0.0	**-0.0**	-0.0	-0.0	0.0	0.0
Fz_i	0.0	-0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**-0.0**	-0.0	0.0	0.0
Mx_i	0.0	-0.0	-0.0	**-0.0**	0.0	0.0	0.0	-0.0	-0.0	**-0.0**	0.0	0.0
My_i	0.0	-0.0	-0.0	-0.0	**0.0**	0.0	0.0	-0.0	-0.0	-0.0	**0.0**	0.0
Mz_i	0.0	-0.0	-0.0	-0.0	0.0	**0.0**	0.0	-0.0	-0.0	-0.0	0.0	**0.0**
Fx_f	**0.0**	-0.0	-0.0	-0.0	0.0	0.0	**0.0**	-0.0	-0.0	-0.0	0.0	0.0
Fy_f	0.0	**-0.0**	-0.0	-0.0	0.0	0.0	0.0	**-0.0**	-0.0	-0.0	0.0	0.0
Fz_f	0.0	-0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**-0.0**	-0.0	0.0	0.0
Mx_f	0.0	-0.0	-0.0	**-0.0**	0.0	0.0	0.0	-0.0	-0.0	**-0.0**	0.0	0.0
My_f	0.0	-0.0	-0.0	-0.0	**0.0**	0.0	0.0	-0.0	-0.0	-0.0	**0.0**	0.0
Mz_f	0.0	-0.0	-0.0	-0.0	0.0	**0.0**	0.0	-0.0	-0.0	-0.0	0.0	**0.0**

Member 124

Fx_i	**0.0**	-0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0	-0.0	0.0	0.0	0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0
Fz_i	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0
Mx_i	0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	-0.0	-0.0	0.0	**0.0**	0.0
My_i	0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0	-0.0	-0.0	0.0	0.0	**0.0**
Mz_i	0.0	-0.0	-0.0	0.0	0.0	**0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	-0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0	-0.0	0.0	0.0	0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0
Fz_f	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0
Mx_f	0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0
My_f	0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**	0.0
Mz_f	0.0	-0.0	-0.0	0.0	0.0	**0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**

Member 125

Fx_i	**0.0**	-0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0	-0.0	0.0	0.0	0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0
Fz_i	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0
Mx_i	0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0
My_i	0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**	0.0
Mz_i	0.0	-0.0	-0.0	0.0	0.0	**0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	-0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0	-0.0	0.0	0.0	0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0
Fz_f	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0
Mx_f	0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0
My_f	0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**	0.0
Mz_f	0.0	-0.0	-0.0	0.0	0.0	**0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**

Member 126

Fx_i	**0.0**	-0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0	-0.0	0.0	0.0	0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0
Fz_i	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0
Mx_i	0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0
My_i	0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**	0.0
Mz_i	0.0	-0.0	-0.0	0.0	0.0	**0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	-0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0	-0.0	0.0	0.0	0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0
Fz_f	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0
Mx_f	0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0
My_f	0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**	0.0
Mz_f	0.0	-0.0	-0.0	0.0	0.0	**0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**

Member 127

Fx_i	**0.0**	-0.0	-0.0	-0.0	0.0	0.0	**0.0**	-0.0	-0.0	-0.0	0.0	0.0
Fy_i	0.0	**-0.0**	-0.0	-0.0	0.0	0.0	0.0	**-0.0**	-0.0	-0.0	0.0	0.0
Fz_i	0.0	-0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**-0.0**	-0.0	0.0	0.0
Mx_i	0.0	-0.0	-0.0	**-0.0**	0.0	0.0	0.0	-0.0	-0.0	**-0.0**	0.0	0.0
My_i	0.0	-0.0	-0.0	-0.0	**0.0**	0.0	0.0	-0.0	-0.0	-0.0	**0.0**	0.0
Mz	0.0	-0.0	-0.0	-0.0	0.0	**0.0**	0.0	-0.0	-0.0	-0.0	0.0	**0.0**

Fx_f	**0.0**	-0.0	-0.0	-0.0	0.0	0.0	**0.0**	-0.0	-0.0	-0.0	0.0	0.0
Fy_f	0.0	**-0.0**	-0.0	-0.0	0.0	0.0	0.0	**-0.0**	-0.0	-0.0	0.0	0.0
Fz_f	0.0	-0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**-0.0**	-0.0	0.0	0.0
Mx_f	0.0	-0.0	-0.0	**-0.0**	0.0	0.0	0.0	-0.0	-0.0	**-0.0**	0.0	0.0
My_f	0.0	-0.0	-0.0	-0.0	**0.0**	0.0	0.0	-0.0	-0.0	-0.0	**0.0**	0.0
Mz_f	0.0	-0.0	-0.0	-0.0	0.0	**0.0**	0.0	-0.0	-0.0	-0.0	0.0	**0.0**

Member 128

Fx_i	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0
Fy_i	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0
Fz_i	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0
Mx_i	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0
My_i	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0
Mz_i	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**
Fx_f	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0
Fy_f	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0
Fz_f	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0
Mx_f	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0
My_f	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0
Mz_f	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**

Member 129

Fx_i	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0
Fy_i	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0
Fz_i	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0
Mx_i	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0
My_i	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0
Mz_i	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**
Fx_f	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0
Fy_f	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0
Fz_f	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0
Mx_f	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0
My_f	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0
Mz_f	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**

Member 130

Fx_i	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0
Fy_i	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0
Fz_i	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0
Mx_i	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0
My_i	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0
Mz_i	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**
Fx_f	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0
Fy_f	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0
Fz_f	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0
Mx_f	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0
My_f	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0
Mz_f	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**

Member 131

Fx_i	**0.0**	-0.0	-0.0	-0.0	0.0	0.0	**0.0**	-0.0	-0.0	-0.0	0.0	0.0
Fy_i	0.0	**-0.0**	-0.0	-0.0	0.0	0.0	0.0	**-0.0**	-0.0	-0.0	0.0	0.0
Fz_i	0.0	-0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**-0.0**	-0.0	0.0	0.0
Mx_i	0.0	-0.0	-0.0	**-0.0**	0.0	0.0	0.0	-0.0	-0.0	**-0.0**	0.0	0.0
My_i	0.0	-0.0	-0.0	-0.0	**0.0**	0.0	0.0	-0.0	-0.0	-0.0	**0.0**	0.0
Mz_i	0.0	-0.0	-0.0	-0.0	0.0	**0.0**	0.0	-0.0	-0.0	-0.0	0.0	**0.0**
Fx_f	**0.0**	-0.0	-0.0	-0.0	0.0	0.0	**0.0**	-0.0	-0.0	-0.0	0.0	0.0
Fy_f	0.0	**-0.0**	-0.0	-0.0	0.0	0.0	0.0	**-0.0**	-0.0	-0.0	0.0	0.0
Fz_f	0.0	-0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**-0.0**	-0.0	0.0	0.0
Mx_f	0.0	-0.0	-0.0	**-0.0**	0.0	0.0	0.0	-0.0	-0.0	**-0.0**	0.0	0.0
My_f	0.0	-0.0	-0.0	-0.0	**0.0**	0.0	0.0	-0.0	-0.0	-0.0	**0.0**	0.0
Mz_f	0.0	-0.0	-0.0	-0.0	0.0	**0.0**	0.0	-0.0	-0.0	-0.0	0.0	**0.0**

Member 132

Fx_i	**0.0**	-0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0	-0.0	0.0	0.0	0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0
Fz_i	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0
Mx_i	0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0

My,	0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**	0.0
Mz,	0.0	-0.0	-0.0	0.0	0.0	**0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**
Fx,	**0.0**	-0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0	-0.0	0.0	0.0	0.0
Fy,	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0
Fz,	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0
Mx,	0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0
My,	0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**	0.0
Mz,	0.0	-0.0	-0.0	0.0	0.0	**0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**
Fx,	**0.0**	-0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0	-0.0	0.0	0.0	0.0
Fy,	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0
Fz,	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0
Mx,	0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0
My,	0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**	0.0
Mz,	0.0	-0.0	-0.0	0.0	0.0	**0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**
Fx,	**0.0**	-0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0	-0.0	0.0	0.0	0.0
Fy,	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0
Fz,	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0
Mx,	0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0
My,	0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**	0.0
Mz,	0.0	-0.0	-0.0	0.0	0.0	**0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**
Fx,	**0.0**	-0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0	-0.0	0.0	0.0	0.0
Fy,	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0
Fz,	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0
Mx,	0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0
My,	0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**	0.0
Mz,	0.0	-0.0	-0.0	0.0	0.0	**0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**

Member 133

Fx,	**0.0**	-0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0	-0.0	0.0	0.0	0.0
Fy,	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0
Fz,	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0
Mx,	0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0
My,	0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**	0.0
Mz,	0.0	-0.0	-0.0	0.0	0.0	**0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**
Fx,	**0.0**	-0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0	-0.0	0.0	0.0	0.0
Fy,	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0
Fz,	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0
Mx,	0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0
My,	0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**	0.0
Mz,	0.0	-0.0	-0.0	0.0	0.0	**0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**

Member 134

Fx,	**0.0**	-0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0	-0.0	0.0	0.0	0.0
Fy,	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0
Fz,	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0
Mx,	0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0
My,	0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**	0.0
Mz,	0.0	-0.0	-0.0	0.0	0.0	**0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**
Fx,	**0.0**	-0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0	-0.0	0.0	0.0	0.0
Fy,	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0
Fz,	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0
Mx,	0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0
My,	0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**	0.0
Mz,	0.0	-0.0	-0.0	0.0	0.0	**0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**

Member 135

Fx,	**0.0**	-0.0	-0.0	-0.0	0.0	0.0	**0.0**	-0.0	-0.0	-0.0	0.0	0.0
Fy,	0.0	**-0.0**	-0.0	-0.0	0.0	0.0	0.0	**-0.0**	-0.0	-0.0	0.0	0.0
Fz,	0.0	-0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**-0.0**	-0.0	0.0	0.0
Mx,	0.0	-0.0	-0.0	**-0.0**	0.0	0.0	0.0	-0.0	-0.0	**-0.0**	0.0	0.0
My,	0.0	-0.0	-0.0	-0.0	**0.0**	0.0	0.0	-0.0	-0.0	-0.0	**0.0**	0.0
Mz,	0.0	-0.0	-0.0	-0.0	0.0	**0.0**	0.0	-0.0	-0.0	-0.0	0.0	**0.0**
Fx,	**0.0**	-0.0	-0.0	-0.0	0.0	0.0	**0.0**	-0.0	-0.0	-0.0	0.0	0.0
Fy,	0.0	**-0.0**	-0.0	-0.0	0.0	0.0	0.0	**-0.0**	-0.0	-0.0	0.0	0.0
Fz,	0.0	-0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**-0.0**	-0.0	0.0	0.0
Mx,	0.0	-0.0	-0.0	**-0.0**	0.0	0.0	0.0	-0.0	-0.0	**-0.0**	0.0	0.0
My,	0.0	-0.0	-0.0	-0.0	**0.0**	0.0	0.0	-0.0	-0.0	-0.0	**0.0**	0.0
Mz,	0.0	-0.0	-0.0	-0.0	0.0	**0.0**	0.0	-0.0	-0.0	-0.0	0.0	**0.0**

Member 136

Fx,	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0
Fy,	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0
Fz,	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0
Mx,	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0
My,	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0
Mz,	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**
Fx,	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0
Fy,	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0
Fz,	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0
Mx,	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0
My,	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0
Mz,	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**

Member 137

Fx,	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0
Fy,	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0
Fz,	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0
Mx,	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0
My,	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0
Mz,	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**
Fx,	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0
Fy,	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0
Fz,	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0
Mx,	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0
My,	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0
Mz,	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**

Fy,	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0
Fz,	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0
Mx,	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0
My,	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0
Mz,	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**
Fx,	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0
Fy,	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0
Fz,	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0
Mx,	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0
My,	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0
Mz,	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**

Member 138

Fx,	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0
Fy,	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0
Fz,	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0
Mx,	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0
My,	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0
Mz,	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**
Fx,	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0
Fy,	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0
Fz,	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0
Mx,	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0
My,	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0
Mz,	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**

Member 139

Fx,	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0
Fy,	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0
Fz,	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0
Mx,	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0
My,	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0
Mz,	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**
Fx,	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0
Fy,	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0
Fz,	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0
Mx,	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0
My,	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0
Mz,	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**

Member 140

Fx,	**0.0**	-0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0	-0.0	0.0	0.0	0.0
Fy,	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0
Fz,	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0
Mx,	0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0
My,	0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**	0.0
Mz,	0.0	-0.0	-0.0	0.0	0.0	**0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**
Fx,	**0.0**	-0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0	-0.0	0.0	0.0	0.0
Fy,	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0
Fz,	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0
Mx,	0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0
My,	0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**	0.0
Mz,	0.0	-0.0	-0.0	0.0	0.0	**0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**

Member 141

Fx,	**0.0**	-0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0	-0.0	0.0	0.0	0.0
Fy,	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0
Fz,	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0
Mx,	0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0
My,	0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**	0.0
Mz,	0.0	-0.0	-0.0	0.0	0.0	**0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**
Fx,	**0.0**	-0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0	-0.0	0.0	0.0	0.0
Fy,	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0
Fz,	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0
Mx,	0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0
My,	0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**	0.0
Mz,	0.0	-0.0	-0.0	0.0	0.0	**0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**

Member 142

Fx,	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0
Fy,	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0
Fz,	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0
Mx,	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0
My,	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0
Mz,	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**
Fx,	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0
Fy,	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0
Fz,	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0
Mx,	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0
My,	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0
Mz,	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**

Member 143

Fx,	**0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0	-0.0	0.0
Fy,	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0
Fz,	0.0	-0.0	**0.0**	-0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	-0.0	0.0
Mx,	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	-0.0	0.0	**-0.0**	-0.0	0.0
My,	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**-0.0**	0.0
Mz,	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**
Fx,	**0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0	-0.0	0.0
Fy,	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0
Fz,	0.0	-0.0	**0.0**	-0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	-0.0	0.0
Mx,	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	-0.0	0.0	**-0.0**	-0.0	0.0
My,	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**-0.0**	0.0
Mz,	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**

Member 144

Fx,	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0
Fy,	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0
Fz,	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0
Mx,	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0
My,	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0
Mz,	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**
Fx,	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0
Fy,	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0
Fz,	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0
Mx,	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0
My,	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0
Mz,	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**

Member 145

Fx,	**0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0	-0.0	0.0
Fy,	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0
Fz,	0.0	-0.0	**0.0**	-0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	-0.0	0.0
Mx,	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	-0.0	0.0	**-0.0**	-0.0	0.0
My,	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**-0.0**	0.0
Mz,	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**
Fx,	**0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0	-0.0	0.0
Fy,	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0
Fz,	0.0	-0.0	**0.0**	-0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	-0.0	0.0
Mx,	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	-0.0	0.0	**-0.0**	-0.0	0.0
My,	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**-0.0**	0.0
Mz,	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**

Member 146

Fx,	**0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0	-0.0	0.0
Fy,	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0
Fz,	0.0	-0.0	**0.0**	-0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	-0.0	0.0
Mx,	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	-0.0	0.0	**-0.0**	-0.0	0.0
My,	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**-0.0**	0.0
Mz,	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**
Fx,	**0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0	-0.0	0.0
Fy,	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0
Fz,	0.0	-0.0	**0.0**	-0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	-0.0	0.0
Mx,	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	-0.0	0.0	**-0.0**	-0.0	0.0
My,	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**-0.0**	0.0
Mz,	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**

My,	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**-0.0**	0.0
Mz,	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**

Member 147

Fx,	**0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0	-0.0	0.0
Fy,	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0
Fz,	0.0	-0.0	**0.0**	-0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	-0.0	0.0
Mx,	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	-0.0	0.0	**-0.0**	-0.0	0.0
My,	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**-0.0**	0.0
Mz,	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**
Fx,	**0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0	-0.0	0.0
Fy,	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0
Fz,	0.0	-0.0	**0.0**	-0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	-0.0	0.0
Mx,	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	-0.0	0.0	**-0.0**	-0.0	0.0
My,	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**-0.0**	0.0
Mz,	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**

Member 148

Fx,	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0
Fy,	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0
Fz,	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0
Mx,	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0
My,	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0
Mz,	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**
Fx,	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0
Fy,	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0
Fz,	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0
Mx,	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0
My,	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0
Mz,	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**

Member 149

Fx,	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0
Fy,	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0
Fz,	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0
Mx,	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0
My,	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0
Mz,	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**
Fx,	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0
Fy,	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0
Fz,	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0
Mx,	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0
My,	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0
Mz,	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**

Member 150

Fx,	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0
Fy,	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0
Fz,	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0
Mx,	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0
My,	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0
Mz,	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**
Fx,	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0
Fy,	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0
Fz,	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0
Mx,	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0
My,	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0
Mz,	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**

Member 365

Fx,	**-10.6**	-0.0	-0.0	0.0	0.0	-0.0	**-10.6**	-0.0	-0.0	0.0	0.0	-0.0
Fy,	-10.6	**-0.0**	-0.0	0.0	0.0	-0.0	-10.6	**-0.0**	-0.0	0.0	0.0	-0.0
Fz,	-10.6	-0.0	**-0.0**	0.0	0.0	-0.0	-10.6	-0.0	**-0.0**	0.0	0.0	-0.0
Mx,	-10.6	-0.0	-0.0	**0.0**	0.0	-0.0	-10.6	-0.0	-0.0	**0.0**	0.0	-0.0
My,	-10.6	-0.0	-0.0	0.0	**0.0**	-0.0	-10.6	-0.0	-0.0	0.0	**0.0**	-0.0
Mz,	-10.6	-0.0	-0.0	0.0	0.0	**-0.0**	-10.6	-0.0	-0.0	0.0	0.0	**-0.0**
Fx,	**-10.6**	-0.0	-0.0	0.0	-0.0	0.0	**-10.6**	-0.0	-0.0	0.0	-0.0	0.0

Fy_f	-10.6	**-0.0**	-0.0	0.0	-0.0	0.0	-10.6	**-0.0**	-0.0	0.0	-0.0	0.0
Fz_f	-10.6	-0.0	**-0.0**	0.0	-0.0	0.0	-10.6	-0.0	**-0.0**	0.0	-0.0	0.0
Mx_f	-10.6	-0.0	-0.0	**0.0**	-0.0	0.0	-10.6	-0.0	-0.0	**0.0**	-0.0	0.0
My_f	-10.6	-0.0	-0.0	0.0	**-0.0**	0.0	-10.6	-0.0	-0.0	0.0	**-0.0**	0.0
Mz_f	-10.6	-0.0	-0.0	0.0	-0.0	**0.0**	-10.6	-0.0	-0.0	0.0	-0.0	**0.0**

Member 366

Fx_i	**-42.0**	0.0	0.0	-0.0	-0.0	0.0	**-42.0**	0.0	0.0	-0.0	-0.0	0.0
Fy_i	-42.0	**0.0**	0.0	-0.0	-0.0	0.0	-42.0	**0.0**	0.0	-0.0	-0.0	0.0
Fz_i	-42.0	0.0	**0.0**	-0.0	-0.0	0.0	-42.0	0.0	**0.0**	-0.0	-0.0	0.0
Mx_i	-42.0	0.0	0.0	**-0.0**	-0.0	0.0	-42.0	0.0	0.0	**-0.0**	-0.0	0.0
My_i	-42.0	0.0	0.0	-0.0	**-0.0**	0.0	-42.0	0.0	0.0	-0.0	**-0.0**	0.0
Mz_i	-42.0	0.0	0.0	-0.0	-0.0	**0.0**	-42.0	0.0	0.0	-0.0	-0.0	**0.0**
Fx_f	**-42.0**	0.0	0.0	-0.0	0.0	0.0	**-42.0**	0.0	0.0	-0.0	0.0	0.0
Fy_f	-42.0	**0.0**	0.0	-0.0	0.0	0.0	-42.0	**0.0**	0.0	-0.0	0.0	0.0
Fz_f	-42.0	0.0	**0.0**	-0.0	0.0	0.0	-42.0	0.0	**0.0**	-0.0	0.0	0.0
Mx_f	-42.0	0.0	0.0	**-0.0**	0.0	0.0	-42.0	0.0	0.0	**-0.0**	0.0	0.0
My_f	-42.0	0.0	0.0	-0.0	**0.0**	0.0	-42.0	0.0	0.0	-0.0	**0.0**	0.0
Mz_f	-42.0	0.0	0.0	-0.0	0.0	**0.0**	-42.0	0.0	0.0	-0.0	0.0	**0.0**

Member 367

Fx_i	**-48.9**	0.0	0.0	0.0	-0.0	-0.0	**-48.9**	0.0	0.0	0.0	-0.0	-0.0
Fy_i	-48.9	**0.0**	0.0	0.0	-0.0	-0.0	-48.9	**0.0**	0.0	0.0	-0.0	-0.0
Fz_i	-48.9	0.0	**0.0**	0.0	-0.0	-0.0	-48.9	0.0	**0.0**	0.0	-0.0	-0.0
Mx_i	-48.9	0.0	0.0	**0.0**	-0.0	-0.0	-48.9	0.0	0.0	**0.0**	-0.0	-0.0
My_i	-48.9	0.0	0.0	0.0	**-0.0**	-0.0	-48.9	0.0	0.0	0.0	**-0.0**	-0.0
Mz_i	-48.9	0.0	0.0	0.0	-0.0	**-0.0**	-48.9	0.0	0.0	0.0	-0.0	**-0.0**
Fx_f	**-48.9**	0.0	0.0	0.0	0.0	-0.0	**-48.9**	0.0	0.0	0.0	0.0	-0.0
Fy_f	-48.9	**0.0**	0.0	0.0	0.0	-0.0	-48.9	**0.0**	0.0	0.0	0.0	-0.0
Fz_f	-48.9	0.0	**0.0**	0.0	0.0	-0.0	-48.9	0.0	**0.0**	0.0	0.0	-0.0
Mx_f	-48.9	0.0	0.0	**-0.0**	0.0	-0.0	-48.9	0.0	0.0	**-0.0**	0.0	-0.0
My_f	-48.9	0.0	0.0	-0.0	**0.0**	-0.0	-48.9	0.0	0.0	0.0	**0.0**	-0.0
Mz_f	-48.9	0.0	0.0	-0.0	0.0	**-0.0**	-48.9	0.0	0.0	0.0	0.0	**-0.0**

Member 368

Fx_i	**-47.5**	-0.0	0.0	0.0	-0.0	-0.0	**-47.5**	-0.0	0.0	0.0	-0.0	-0.0
Fy_i	-47.5	**-0.0**	0.0	0.0	-0.0	-0.0	-47.5	**-0.0**	0.0	0.0	-0.0	-0.0
Fz_i	-47.5	-0.0	**0.0**	0.0	-0.0	-0.0	-47.5	-0.0	**0.0**	0.0	-0.0	-0.0
Mx_i	-47.5	-0.0	0.0	**0.0**	-0.0	-0.0	-47.5	-0.0	0.0	**0.0**	-0.0	-0.0
My_i	-47.5	-0.0	0.0	0.0	**-0.0**	-0.0	-47.5	-0.0	0.0	0.0	**-0.0**	-0.0
Mz_i	-47.5	-0.0	0.0	0.0	-0.0	**-0.0**	-47.5	-0.0	0.0	0.0	-0.0	**-0.0**
Fx_f	**-47.5**	-0.0	0.0	0.0	0.0	0.0	**-47.5**	-0.0	0.0	0.0	0.0	0.0
Fy_f	-47.5	**-0.0**	0.0	0.0	0.0	0.0	-47.5	**-0.0**	0.0	0.0	0.0	0.0
Fz_f	-47.5	-0.0	**0.0**	0.0	0.0	0.0	-47.5	-0.0	**0.0**	0.0	0.0	0.0
Mx_f	-47.5	-0.0	0.0	**0.0**	0.0	0.0	-47.5	-0.0	0.0	**0.0**	0.0	0.0
My_f	-47.5	-0.0	0.0	0.0	**0.0**	0.0	-47.5	-0.0	0.0	0.0	**0.0**	0.0
Mz_f	-47.5	-0.0	0.0	0.0	0.0	**0.0**	-47.5	-0.0	0.0	0.0	0.0	**0.0**

Member 369

Fx_i	**-47.9**	0.0	0.0	-0.0	-0.0	0.0	**-47.9**	0.0	0.0	-0.0	-0.0	0.0
Fy_i	-47.9	**0.0**	0.0	-0.0	-0.0	0.0	-47.9	**0.0**	0.0	-0.0	-0.0	0.0
Fz_i	-47.9	0.0	**0.0**	-0.0	-0.0	0.0	-47.9	0.0	**0.0**	-0.0	-0.0	0.0
Mx_i	-47.9	0.0	0.0	**-0.0**	-0.0	0.0	-47.9	0.0	0.0	**-0.0**	-0.0	0.0
My_i	-47.9	0.0	0.0	-0.0	**-0.0**	0.0	-47.9	0.0	0.0	-0.0	**-0.0**	0.0
Mz_i	-47.9	0.0	0.0	-0.0	-0.0	**0.0**	-47.9	0.0	0.0	-0.0	-0.0	**0.0**
Fx_f	**-47.9**	0.0	0.0	-0.0	0.0	-0.0	**-47.9**	0.0	0.0	-0.0	0.0	-0.0
Fy_f	-47.9	**0.0**	0.0	-0.0	0.0	-0.0	-47.9	**0.0**	0.0	-0.0	0.0	-0.0
Fz_f	-47.9	0.0	**0.0**	-0.0	0.0	-0.0	-47.9	0.0	**0.0**	-0.0	0.0	-0.0
Mx_f	-47.9	0.0	0.0	**-0.0**	0.0	-0.0	-47.9	0.0	0.0	**-0.0**	0.0	-0.0
My_f	-47.9	0.0	0.0	-0.0	**0.0**	-0.0	-47.9	0.0	0.0	-0.0	**0.0**	-0.0
Mz_f	-47.9	0.0	0.0	-0.0	0.0	**-0.0**	-47.9	0.0	0.0	-0.0	0.0	**-0.0**

Member 370

Fx_i	**-47.6**	-0.0	0.0	0.0	-0.0	-0.0	**-47.6**	-0.0	0.0	0.0	-0.0	-0.0
Fy_i	-47.6	**-0.0**	0.0	0.0	-0.0	-0.0	-47.6	**-0.0**	0.0	0.0	-0.0	-0.0
Fz_i	-47.6	-0.0	**0.0**	0.0	-0.0	-0.0	-47.6	-0.0	**0.0**	0.0	-0.0	-0.0
Mx_i	-47.6	-0.0	0.0	**0.0**	-0.0	-0.0	-47.6	-0.0	0.0	**0.0**	-0.0	-0.0
My_i	-47.6	-0.0	0.0	0.0	**-0.0**	-0.0	-47.6	-0.0	0.0	0.0	**-0.0**	-0.0
Mz_i	-47.6	-0.0	0.0	0.0	-0.0	**-0.0**	-47.6	-0.0	0.0	0.0	-0.0	**-0.0**
Fx_f	**-47.6**	-0.0	0.0	0.0	0.0	0.0	**-47.6**	-0.0	0.0	0.0	0.0	0.0
Fy_f	-47.6	**-0.0**	0.0	0.0	0.0	0.0	-47.6	**-0.0**	0.0	0.0	0.0	0.0
Fz_f	-47.6	-0.0	**0.0**	0.0	0.0	0.0	-47.6	-0.0	**0.0**	0.0	0.0	0.0
Mx_f	-47.6	-0.0	0.0	**0.0**	0.0	0.0	-47.6	-0.0	0.0	**0.0**	0.0	0.0
My_f	-47.6	-0.0	0.0	0.0	**0.0**	0.0	-47.6	-0.0	0.0	0.0	**0.0**	0.0
Mz_f	-47.6	-0.0	0.0	0.0	0.0	**0.0**	-47.6	-0.0	0.0	0.0	0.0	**0.0**

Member 371

Fx_i	**-48.9**	0.0	0.0	0.0	-0.0	0.0	**-48.9**	0.0	0.0	0.0	-0.0	0.0
Fy_i	-48.9	**0.0**	0.0	0.0	-0.0	0.0	-48.9	**0.0**	0.0	0.0	-0.0	0.0
Fz_i	-48.9	0.0	**0.0**	0.0	-0.0	0.0	-48.9	0.0	**0.0**	0.0	-0.0	0.0
Mx_i	-48.9	0.0	0.0	**0.0**	-0.0	0.0	-48.9	0.0	0.0	**0.0**	-0.0	0.0
My_i	-48.9	0.0	0.0	0.0	**-0.0**	0.0	-48.9	0.0	0.0	0.0	**-0.0**	0.0
Mz_i	-48.9	0.0	0.0	0.0	-0.0	**0.0**	-48.9	0.0	0.0	0.0	-0.0	**0.0**
Fx_f	**-48.9**	0.0	0.0	0.0	0.0	-0.0	**-48.9**	0.0	0.0	0.0	0.0	-0.0
Fy_f	-48.9	**0.0**	0.0	0.0	0.0	-0.0	-48.9	**0.0**	0.0	0.0	0.0	-0.0
Fz_f	-48.9	0.0	**0.0**	0.0	0.0	-0.0	-48.9	0.0	**0.0**	0.0	0.0	-0.0
Mx_f	-48.9	0.0	0.0	**0.0**	0.0	-0.0	-48.9	0.0	0.0	**0.0**	0.0	-0.0
My_f	-48.9	0.0	0.0	0.0	**0.0**	-0.0	-48.9	0.0	0.0	0.0	**0.0**	-0.0
Mz_f	-48.9	0.0	0.0	0.0	0.0	**-0.0**	-48.9	0.0	0.0	0.0	0.0	**-0.0**

Member 372

Fx_i	**-42.1**	-0.0	0.0	0.0	-0.0	0.0	**-42.1**	-0.0	0.0	0.0	-0.0	0.0
Fy_i	-42.1	**-0.0**	0.0	0.0	-0.0	0.0	-42.1	**-0.0**	0.0	0.0	-0.0	0.0
Fz_i	-42.1	-0.0	**0.0**	0.0	-0.0	0.0	-42.1	-0.0	**0.0**	0.0	-0.0	0.0
Mx_i	-42.1	-0.0	0.0	**0.0**	-0.0	0.0	-42.1	-0.0	0.0	**0.0**	-0.0	0.0
My_i	-42.1	-0.0	0.0	0.0	**-0.0**	0.0	-42.1	-0.0	0.0	0.0	**-0.0**	0.0
Mz_i	-42.1	-0.0	0.0	0.0	-0.0	**0.0**	-42.1	-0.0	0.0	0.0	-0.0	**0.0**
Fx_f	**-42.1**	-0.0	0.0	0.0	0.0	0.0	**-42.1**	-0.0	0.0	0.0	0.0	0.0
Fy_f	-42.1	**-0.0**	0.0	0.0	0.0	0.0	-42.1	**-0.0**	0.0	0.0	0.0	0.0
Fz_f	-42.1	-0.0	**0.0**	0.0	0.0	0.0	-42.1	-0.0	**0.0**	0.0	0.0	0.0
Mx_f	-42.1	-0.0	0.0	**0.0**	0.0	0.0	-42.1	-0.0	0.0	**0.0**	0.0	0.0
My_f	-42.1	-0.0	0.0	0.0	**0.0**	0.0	-42.1	-0.0	0.0	0.0	**0.0**	0.0
Mz_f	-42.1	-0.0	0.0	0.0	0.0	**0.0**	-42.1	-0.0	0.0	0.0	0.0	**0.0**

Member 373

Fx_i	**-10.1**	-0.1	-0.0	0.0	0.0	-0.1	**-10.1**	-0.1	-0.0	0.0	0.0	-0.1
Fy_i	-10.1	**-0.1**	-0.0	0.0	0.0	-0.1	-10.1	**-0.1**	-0.0	0.0	0.0	-0.1
Fz_i	-10.1	-0.1	**-0.0**	0.0	0.0	-0.1	-10.1	-0.1	**-0.0**	0.0	0.0	-0.1
Mx_i	-10.1	-0.1	-0.0	**0.0**	0.0	-0.1	-10.1	-0.1	-0.0	**0.0**	0.0	-0.1
My_i	-10.1	-0.1	-0.0	0.0	**0.0**	-0.1	-10.1	-0.1	-0.0	0.0	**0.0**	-0.1
Mz_i	-10.1	-0.1	-0.0	0.0	0.0	**-0.1**	-10.1	-0.1	-0.0	0.0	0.0	**-0.1**
Fx_f	**-10.1**	-0.1	-0.0	0.0	0.0	0.0	**-10.1**	-0.1	-0.0	0.0	0.0	0.0
Fy_f	-10.1	**-0.1**	-0.0	0.0	0.0	0.0	-10.1	**-0.1**	-0.0	0.0	0.0	0.0
Fz_f	-10.1	-0.1	**-0.0**	0.0	0.0	0.0	-10.1	-0.1	**-0.0**	0.0	0.0	0.0
Mx_f	-10.1	-0.1	-0.0	**0.0**	0.0	0.0	-10.1	-0.1	-0.0	**0.0**	0.0	0.0
My_f	-10.1	-0.1	-0.0	0.0	**0.0**	0.0	-10.1	-0.1	-0.0	0.0	**0.0**	0.0
Mz_f	-10.1	-0.1	-0.0	0.0	0.0	**0.0**	-10.1	-0.1	-0.0	0.0	0.0	**0.0**

Member 374

Fx_i	**-10.6**	0.0	0.0	-0.0	-0.0	0.0	**-10.6**	0.0	0.0	-0.0	-0.0	0.0
Fy_i	-10.6	**0.0**	0.0	-0.0	-0.0	0.0	-10.6	**0.0**	0.0	-0.0	-0.0	0.0
Fz_i	-10.6	0.0	**0.0**	-0.0	-0.0	0.0	-10.6	0.0	**0.0**	-0.0	-0.0	0.0
Mx_i	-10.6	0.0	0.0	**-0.0**	-0.0	0.0	-10.6	0.0	0.0	**-0.0**	-0.0	0.0
My_i	-10.6	0.0	0.0	-0.0	**-0.0**	0.0	-10.6	0.0	0.0	-0.0	**-0.0**	0.0
Mz_i	-10.6	0.0	0.0	-0.0	-0.0	**0.0**	-10.6	0.0	0.0	-0.0	-0.0	**0.0**
Fx_f	**-10.6**	0.0	0.0	-0.0	0.0	-0.0	**-10.6**	0.0	0.0	-0.0	0.0	-0.0
Fy_f	-10.6	**0.0**	0.0	-0.0	0.0	-0.0	-10.6	**0.0**	0.0	-0.0	0.0	-0.0
Fz_f	-10.6	0.0	**0.0**	-0.0	0.0	-0.0	-10.6	0.0	**0.0**	-0.0	0.0	-0.0
Mx_f	-10.6	0.0	0.0	**-0.0**	0.0	-0.0	-10.6	0.0	0.0	**-0.0**	0.0	-0.0
My_f	-10.6	0.0	0.0	-0.0	**0.0**	-0.0	-10.6	0.0	0.0	-0.0	**0.0**	-0.0
Mz_f	-10.6	0.0	0.0	-0.0	0.0	**-0.0**	-10.6	0.0	0.0	-0.0	0.0	**-0.0**

Member 375

Fx_i	**-42.0**	0.0	-0.0	0.0	0.0	0.0	**-42.0**	0.0	-0.0	0.0	0.0	0.0
Fy_i	-42.0	**0.0**	-0.0	0.0	0.0	0.0	-42.0	**0.0**	-0.0	0.0	0.0	0.0

Fz,	-42.0	0.0	**-0.0**	0.0	0.0	0.0	-42.0	0.0	**-0.0**	0.0	0.0	0.0
Mx,	-42.0	0.0	-0.0	**0.0**	0.0	0.0	-42.0	0.0	-0.0	**0.0**	0.0	0.0
My,	-42.0	0.0	-0.0	0.0	**0.0**	0.0	-42.0	0.0	-0.0	0.0	**0.0**	0.0
Mz,	-42.0	0.0	-0.0	0.0	0.0	**0.0**	-42.0	0.0	-0.0	0.0	0.0	**0.0**
Fx,	**-42.0**	0.0	-0.0	0.0	-0.0	-0.0	**-42.0**	0.0	-0.0	0.0	-0.0	-0.0
Fy,	-42.0	**0.0**	-0.0	0.0	-0.0	-0.0	-42.0	**0.0**	-0.0	0.0	-0.0	-0.0
Fz,	-42.0	0.0	**-0.0**	0.0	-0.0	-0.0	-42.0	0.0	**-0.0**	0.0	-0.0	-0.0
Mx,	-42.0	0.0	-0.0	**0.0**	-0.0	-0.0	-42.0	0.0	-0.0	**0.0**	-0.0	-0.0
My,	-42.0	0.0	-0.0	0.0	**-0.0**	-0.0	-42.0	0.0	-0.0	0.0	**-0.0**	-0.0
Mz,	-42.0	0.0	-0.0	0.0	-0.0	**-0.0**	-42.0	0.0	-0.0	0.0	-0.0	**-0.0**

Member 376

Fx,	**-48.9**	-0.0	-0.0	0.0	0.0	-0.0	**-48.9**	-0.0	-0.0	0.0	0.0	-0.0
Fy,	-48.9	**-0.0**	-0.0	0.0	0.0	-0.0	-48.9	**-0.0**	-0.0	0.0	0.0	-0.0
Fz,	-48.9	-0.0	**-0.0**	0.0	0.0	-0.0	-48.9	-0.0	**-0.0**	0.0	0.0	-0.0
Mx,	-48.9	-0.0	-0.0	**0.0**	0.0	-0.0	-48.9	-0.0	-0.0	**0.0**	0.0	-0.0
My,	-48.9	-0.0	-0.0	0.0	**0.0**	-0.0	-48.9	-0.0	-0.0	0.0	**0.0**	-0.0
Mz,	-48.9	-0.0	-0.0	0.0	0.0	**-0.0**	-48.9	-0.0	-0.0	0.0	0.0	**-0.0**
Fx,	**-48.9**	-0.0	-0.0	0.0	-0.0	0.0	**-48.9**	-0.0	-0.0	0.0	-0.0	0.0
Fy,	-48.9	**-0.0**	-0.0	0.0	-0.0	0.0	-48.9	**-0.0**	-0.0	0.0	-0.0	0.0
Fz,	-48.9	-0.0	**-0.0**	0.0	-0.0	0.0	-48.9	-0.0	**-0.0**	0.0	-0.0	0.0
Mx,	-48.9	-0.0	-0.0	**0.0**	-0.0	0.0	-48.9	-0.0	-0.0	**0.0**	-0.0	0.0
My,	-48.9	-0.0	-0.0	0.0	**-0.0**	0.0	-48.9	-0.0	-0.0	0.0	**-0.0**	0.0
Mz,	-48.9	-0.0	-0.0	0.0	0.0	**0.0**	-48.9	-0.0	-0.0	0.0	0.0	**0.0**

Member 377

Fx,	**-47.5**	-0.0	-0.0	0.0	0.0	-0.0	**-47.5**	-0.0	-0.0	0.0	0.0	-0.0
Fy,	-47.5	**-0.0**	-0.0	0.0	0.0	-0.0	-47.5	**-0.0**	-0.0	0.0	0.0	-0.0
Fz,	-47.5	-0.0	**-0.0**	0.0	0.0	-0.0	-47.5	-0.0	**-0.0**	0.0	0.0	-0.0
Mx,	-47.5	-0.0	-0.0	**0.0**	0.0	-0.0	-47.5	-0.0	-0.0	**0.0**	0.0	-0.0
My,	-47.5	-0.0	-0.0	0.0	**0.0**	-0.0	-47.5	-0.0	-0.0	0.0	**0.0**	-0.0
Mz,	-47.5	-0.0	-0.0	0.0	0.0	**-0.0**	-47.5	-0.0	-0.0	0.0	0.0	**-0.0**
Fx,	**-47.5**	-0.0	-0.0	0.0	-0.0	0.0	**-47.5**	-0.0	-0.0	0.0	-0.0	0.0
Fy,	-47.5	**-0.0**	-0.0	0.0	-0.0	0.0	-47.5	**-0.0**	-0.0	0.0	-0.0	0.0
Fz,	-47.5	-0.0	**-0.0**	0.0	-0.0	0.0	-47.5	-0.0	**-0.0**	0.0	-0.0	0.0
Mx,	-47.5	-0.0	-0.0	**0.0**	-0.0	0.0	-47.5	-0.0	-0.0	**0.0**	-0.0	0.0
My,	-47.5	-0.0	-0.0	0.0	**-0.0**	0.0	-47.5	-0.0	-0.0	0.0	**-0.0**	0.0
Mz,	-47.5	-0.0	-0.0	0.0	-0.0	**0.0**	-47.5	-0.0	-0.0	0.0	-0.0	**0.0**

Member 378

Fx,	**-47.9**	-0.0	-0.0	-0.0	0.0	-0.0	**-47.9**	-0.0	-0.0	-0.0	0.0	-0.0
Fy,	-47.9	**-0.0**	-0.0	-0.0	0.0	-0.0	-47.9	**-0.0**	-0.0	-0.0	0.0	-0.0
Fz,	-47.9	-0.0	**-0.0**	-0.0	0.0	-0.0	-47.9	-0.0	**-0.0**	-0.0	0.0	-0.0
Mx,	-47.9	-0.0	-0.0	**-0.0**	0.0	-0.0	-47.9	-0.0	-0.0	**-0.0**	0.0	-0.0
My,	-47.9	-0.0	-0.0	-0.0	**0.0**	-0.0	-47.9	-0.0	-0.0	-0.0	**0.0**	-0.0
Mz,	-47.9	-0.0	-0.0	-0.0	0.0	**-0.0**	-47.9	-0.0	-0.0	-0.0	0.0	**-0.0**
Fx,	**-47.9**	-0.0	-0.0	-0.0	-0.0	0.0	**-47.9**	-0.0	-0.0	-0.0	-0.0	0.0
Fy,	-47.9	**-0.0**	-0.0	-0.0	-0.0	0.0	-47.9	**-0.0**	-0.0	-0.0	-0.0	0.0
Fz,	-47.9	-0.0	**-0.0**	-0.0	-0.0	0.0	-47.9	-0.0	**-0.0**	-0.0	-0.0	0.0
Mx,	-47.9	-0.0	-0.0	**-0.0**	-0.0	0.0	-47.9	-0.0	-0.0	**-0.0**	-0.0	0.0
My,	-47.9	-0.0	-0.0	-0.0	**-0.0**	0.0	-47.9	-0.0	-0.0	-0.0	**-0.0**	0.0
Mz,	-47.9	-0.0	-0.0	-0.0	-0.0	**0.0**	-47.9	-0.0	-0.0	-0.0	-0.0	**0.0**

Member 379

Fx,	**-47.6**	0.0	-0.0	0.0	0.0	0.0	**-47.6**	0.0	-0.0	0.0	0.0	0.0
Fy,	-47.6	**0.0**	-0.0	0.0	0.0	0.0	-47.6	**0.0**	-0.0	0.0	0.0	0.0
Fz,	-47.6	0.0	**-0.0**	0.0	0.0	0.0	-47.6	0.0	**-0.0**	0.0	0.0	0.0
Mx,	-47.6	0.0	-0.0	**0.0**	0.0	0.0	-47.6	0.0	-0.0	**0.0**	0.0	0.0
My,	-47.6	0.0	-0.0	0.0	**0.0**	0.0	-47.6	0.0	-0.0	0.0	**0.0**	0.0
Mz,	-47.6	0.0	-0.0	0.0	0.0	**0.0**	-47.6	0.0	-0.0	0.0	0.0	**0.0**
Fx,	**-47.6**	0.0	-0.0	0.0	-0.0	-0.0	**-47.6**	0.0	-0.0	0.0	-0.0	-0.0
Fy,	-47.6	**0.0**	-0.0	0.0	-0.0	-0.0	-47.6	**0.0**	-0.0	0.0	-0.0	-0.0
Fz,	-47.6	0.0	**-0.0**	0.0	-0.0	-0.0	-47.6	0.0	**-0.0**	0.0	-0.0	-0.0
Mx,	-47.6	0.0	-0.0	**0.0**	-0.0	-0.0	-47.6	0.0	-0.0	**0.0**	-0.0	-0.0
My,	-47.6	0.0	-0.0	0.0	**-0.0**	-0.0	-47.6	0.0	-0.0	0.0	**-0.0**	-0.0
Mz,	-47.6	0.0	-0.0	0.0	-0.0	**-0.0**	-47.6	0.0	-0.0	0.0	-0.0	**-0.0**

Member 380

Fx,	**-48.9**	0.0	-0.0	0.0	0.0	0.0	**-48.9**	0.0	-0.0	0.0	0.0	0.0
Fy,	-48.9	**0.0**	-0.0	0.0	0.0	0.0	-48.9	**0.0**	-0.0	0.0	0.0	0.0
Fz,	-48.9	0.0	**-0.0**	0.0	0.0	0.0	-48.9	0.0	**-0.0**	0.0	0.0	0.0
Mx,	-48.9	0.0	-0.0	**0.0**	0.0	0.0	-48.9	0.0	-0.0	**0.0**	0.0	0.0
My,	-48.9	0.0	-0.0	0.0	**0.0**	0.0	-48.9	0.0	-0.0	0.0	**0.0**	0.0
Mz,	-48.9	0.0	-0.0	0.0	0.0	**0.0**	-48.9	0.0	-0.0	0.0	0.0	**0.0**
Fx,	**-48.9**	0.0	-0.0	0.0	-0.0	-0.0	**-48.9**	0.0	-0.0	0.0	-0.0	-0.0
Fy,	-48.9	**0.0**	-0.0	0.0	-0.0	-0.0	-48.9	**0.0**	-0.0	0.0	-0.0	-0.0
Fz,	-48.9	0.0	**-0.0**	0.0	-0.0	-0.0	-48.9	0.0	**-0.0**	0.0	-0.0	-0.0
Mx,	-48.9	0.0	-0.0	**0.0**	-0.0	-0.0	-48.9	0.0	-0.0	**0.0**	-0.0	-0.0
My,	-48.9	0.0	-0.0	0.0	**-0.0**	-0.0	-48.9	0.0	-0.0	0.0	**-0.0**	-0.0
Mz,	-48.9	0.0	-0.0	0.0	-0.0	**-0.0**	-48.9	0.0	-0.0	0.0	-0.0	**-0.0**

Member 381

Fx,	**-42.1**	0.0	-0.0	0.0	0.0	0.0	**-42.1**	0.0	-0.0	0.0	0.0	0.0
Fy,	-42.1	**0.0**	-0.0	0.0	0.0	0.0	-42.1	**0.0**	-0.0	0.0	0.0	0.0
Fz,	-42.1	0.0	**-0.0**	0.0	0.0	0.0	-42.1	0.0	**-0.0**	0.0	0.0	0.0
Mx,	-42.1	0.0	-0.0	**0.0**	0.0	0.0	-42.1	0.0	-0.0	**0.0**	0.0	0.0
My,	-42.1	0.0	-0.0	0.0	**0.0**	0.0	-42.1	0.0	-0.0	0.0	**0.0**	0.0
Mz,	-42.1	0.0	-0.0	0.0	0.0	**0.0**	-42.1	0.0	-0.0	0.0	0.0	**0.0**
Fx,	**-42.1**	0.0	-0.0	0.0	-0.0	-0.0	**-42.1**	0.0	-0.0	0.0	-0.0	-0.0
Fy,	-42.1	**0.0**	-0.0	0.0	-0.0	-0.0	-42.1	**0.0**	-0.0	0.0	-0.0	-0.0
Fz,	-42.1	0.0	**-0.0**	0.0	-0.0	-0.0	-42.1	0.0	**-0.0**	0.0	-0.0	-0.0
Mx,	-42.1	0.0	-0.0	**0.0**	-0.0	-0.0	-42.1	0.0	-0.0	**0.0**	-0.0	-0.0
My,	-42.1	0.0	-0.0	0.0	**-0.0**	-0.0	-42.1	0.0	-0.0	0.0	**-0.0**	-0.0
Mz,	-42.1	0.0	-0.0	0.0	-0.0	**-0.0**	-42.1	0.0	-0.0	0.0	-0.0	**-0.0**

Member 382

Fx,	**-10.1**	-0.1	0.0	0.0	-0.0	-0.1	**-10.1**	-0.1	0.0	0.0	-0.0	-0.1
Fy,	-10.1	**-0.1**	0.0	0.0	-0.0	-0.1	-10.1	**-0.1**	0.0	0.0	-0.0	-0.1
Fz,	-10.1	-0.1	**0.0**	0.0	-0.0	-0.1	-10.1	-0.1	**0.0**	0.0	-0.0	-0.1
Mx,	-10.1	-0.1	0.0	**0.0**	-0.0	-0.1	-10.1	-0.1	0.0	**0.0**	-0.0	-0.1
My,	-10.1	-0.1	0.0	0.0	**-0.0**	-0.1	-10.1	-0.1	0.0	0.0	**-0.0**	-0.1
Mz,	-10.1	-0.1	0.0	0.0	-0.0	**-0.1**	-10.1	-0.1	0.0	0.0	-0.0	**-0.1**
Fx,	**-10.1**	-0.1	0.0	0.0	-0.0	-0.0	**-10.1**	-0.1	0.0	0.0	-0.0	-0.0
Fy,	-10.1	**-0.1**	0.0	0.0	-0.0	-0.0	-10.1	**-0.1**	0.0	0.0	-0.0	-0.0
Fz,	-10.1	-0.1	**0.0**	0.0	-0.0	-0.0	-10.1	-0.1	**0.0**	0.0	-0.0	-0.0
Mx,	-10.1	-0.1	0.0	**0.0**	-0.0	-0.0	-10.1	-0.1	0.0	**0.0**	-0.0	-0.0
My,	-10.1	-0.1	0.0	0.0	**-0.0**	-0.0	-10.1	-0.1	0.0	0.0	**-0.0**	-0.0
Mz,	-10.1	-0.1	0.0	0.0	-0.0	**-0.0**	-10.1	-0.1	0.0	0.0	-0.0	**-0.0**

Member 391

Fx,	**-42.0**	0.0	0.0	0.0	0.0	0.0	**-42.0**	0.0	0.0	0.0	0.0	0.0
Fy,	-42.0	**0.0**	0.0	0.0	0.0	0.0	-42.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-42.0	0.0	**0.0**	0.0	0.0	0.0	-42.0	0.0	**0.0**	0.0	0.0	0.0
Mx,	-42.0	0.0	0.0	**0.0**	0.0	0.0	-42.0	0.0	0.0	**0.0**	0.0	0.0
My,	-42.0	0.0	0.0	0.0	**0.0**	0.0	-42.0	0.0	0.0	0.0	**0.0**	0.0
Mz,	-42.0	0.0	0.0	0.0	0.0	**0.0**	-42.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-42.0**	0.0	0.0	0.0	0.1	0.0	**-42.0**	0.0	0.0	0.0	0.1	0.0
Fy,	-42.0	**0.0**	0.0	0.0	0.1	0.0	-42.0	**0.0**	0.0	0.0	0.1	0.0
Fz,	-42.0	0.0	**0.0**	0.0	0.1	0.0	-42.0	0.0	**0.0**	0.0	0.1	0.0
Mx,	-42.0	0.0	0.0	**0.0**	0.1	0.0	-42.0	0.0	0.0	**0.0**	0.1	0.0
My,	-42.0	0.0	0.0	0.0	**0.1**	0.0	-42.0	0.0	0.0	0.0	**0.1**	0.0
Mz,	-42.0	0.0	0.0	0.0	0.1	**0.0**	-42.0	0.0	0.0	0.0	0.1	**0.0**

Member 392

Fx,	**-48.9**	0.0	0.0	0.0	0.0	0.0	**-48.9**	0.0	0.0	0.0	0.0	0.0
Fy,	-48.9	**0.0**	0.0	0.0	0.0	0.0	-48.9	**0.0**	0.0	0.0	0.0	0.0
Fz,	-48.9	0.0	**0.0**	0.0	0.0	0.0	-48.9	0.0	**0.0**	0.0	0.0	0.0
Mx,	-48.9	0.0	0.0	**0.0**	0.0	0.0	-48.9	0.0	0.0	**0.0**	0.0	0.0
My,	-48.9	0.0	0.0	0.0	**0.0**	0.0	-48.9	0.0	0.0	0.0	**0.0**	0.0
Mz,	-48.9	0.0	0.0	0.0	0.0	**0.0**	-48.9	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-48.9**	0.0	0.0	0.0	0.2	0.0	**-48.9**	0.0	0.0	0.0	0.2	0.0
Fy,	-48.9	**0.0**	0.0	0.0	0.2	0.0	-48.9	**0.0**	0.0	0.0	0.2	0.0
Fz,	-48.9	0.0	**0.0**	0.0	0.2	0.0	-48.9	0.0	**0.0**	0.0	0.2	0.0
Mx,	-48.9	0.0	0.0	**0.0**	0.2	0.0	-48.9	0.0	0.0	**0.0**	0.2	0.0
My,	-48.9	0.0	0.0	0.0	**0.2**	0.0	-48.9	0.0	0.0	0.0	**0.2**	0.0

Mz_f	-48.9	0.0	0.0	0.0	0.2	**0.0**	-48.9	0.0	0.0	0.0	0.2	**0.0**

Member 393

Fx_i	**-47.5**	0.0	0.0	0.0	0.0	0.0	**-47.5**	0.0	0.0	0.0	0.0	0.0
Fy_i	-47.5	**0.0**	0.0	0.0	0.0	0.0	-47.5	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-47.5	0.0	**0.0**	0.0	0.0	0.0	-47.5	0.0	**0.0**	0.0	0.0	0.0
Mx_i	-47.5	0.0	0.0	**0.0**	0.0	0.0	-47.5	0.0	0.0	**0.0**	0.0	0.0
My_i	-47.5	0.0	0.0	0.0	**0.0**	0.0	-47.5	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-47.5	0.0	0.0	0.0	0.0	**0.0**	-47.5	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-47.5**	0.0	0.0	0.0	0.1	0.0	**-47.5**	0.0	0.0	0.0	0.1	0.0
Fy_f	-47.5	**0.0**	0.0	0.0	0.1	0.0	-47.5	**0.0**	0.0	0.0	0.1	0.0
Fz_f	-47.5	0.0	**0.0**	0.0	0.1	0.0	-47.5	0.0	**0.0**	0.0	0.1	0.0
Mx_f	-47.5	0.0	0.0	**0.0**	0.1	0.0	-47.5	0.0	0.0	**0.0**	0.1	0.0
My_f	-47.5	0.0	0.0	0.0	**0.1**	0.0	-47.5	0.0	0.0	0.0	**0.1**	0.0
Mz_f	-47.5	0.0	0.0	0.0	0.1	**0.0**	-47.5	0.0	0.0	0.0	0.1	**0.0**

Member 394

Fx_i	**-47.9**	0.0	0.0	0.0	0.0	0.0	**-47.9**	0.0	0.0	0.0	0.0	0.0
Fy_i	-47.9	**0.0**	0.0	0.0	0.0	0.0	-47.9	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-47.9	0.0	**0.0**	0.0	0.0	0.0	-47.9	0.0	**0.0**	0.0	0.0	0.0
Mx_i	-47.9	0.0	0.0	**0.0**	0.0	0.0	-47.9	0.0	0.0	**0.0**	0.0	0.0
My_i	-47.9	0.0	0.0	0.0	**0.0**	0.0	-47.9	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-47.9	0.0	0.0	0.0	0.0	**0.0**	-47.9	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-47.9**	0.0	0.0	0.0	0.1	0.0	**-47.9**	0.0	0.0	0.0	0.1	0.0
Fy_f	-47.9	**0.0**	0.0	0.0	0.1	0.0	-47.9	**0.0**	0.0	0.0	0.1	0.0
Fz_f	-47.9	0.0	**0.0**	0.0	0.1	0.0	-47.9	0.0	**0.0**	0.0	0.1	0.0
Mx_f	-47.9	0.0	0.0	**0.0**	0.1	0.0	-47.9	0.0	0.0	**0.0**	0.1	0.0
My_f	-47.9	0.0	0.0	0.0	**0.1**	0.0	-47.9	0.0	0.0	0.0	**0.1**	0.0
Mz_f	-47.9	0.0	0.0	0.0	0.1	**0.0**	-47.9	0.0	0.0	0.0	0.1	**0.0**

Member 395

Fx_i	**-47.6**	0.0	0.0	0.0	0.0	0.0	**-47.6**	0.0	0.0	0.0	0.0	0.0
Fy_i	-47.6	**0.0**	0.0	0.0	0.0	0.0	-47.6	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-47.6	0.0	**0.0**	0.0	0.0	0.0	-47.6	0.0	**0.0**	0.0	0.0	0.0
Mx_i	-47.6	0.0	0.0	**0.0**	0.0	0.0	-47.6	0.0	0.0	**0.0**	0.0	0.0
My_i	-47.6	0.0	0.0	0.0	**0.0**	0.0	-47.6	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-47.6	0.0	0.0	0.0	0.0	**0.0**	-47.6	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-47.6**	0.0	0.0	0.0	0.1	0.0	**-47.6**	0.0	0.0	0.0	0.1	0.0
Fy_f	-47.6	**0.0**	0.0	0.0	0.1	0.0	-47.6	**0.0**	0.0	0.0	0.1	0.0
Fz_f	-47.6	0.0	**0.0**	0.0	0.1	0.0	-47.6	0.0	**0.0**	0.0	0.1	0.0
Mx_f	-47.6	0.0	0.0	**0.0**	0.1	0.0	-47.6	0.0	0.0	**0.0**	0.1	0.0
My_f	-47.6	0.0	0.0	0.0	**0.1**	0.0	-47.6	0.0	0.0	0.0	**0.1**	0.0
Mz_f	-47.6	0.0	0.0	0.0	0.1	**0.0**	-47.6	0.0	0.0	0.0	0.1	**0.0**

Member 396

Fx_i	**-48.9**	0.0	0.0	0.0	0.0	0.0	**-48.9**	0.0	0.0	0.0	0.0	0.0
Fy_i	-48.9	**0.0**	0.0	0.0	0.0	0.0	-48.9	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-48.9	0.0	**0.0**	0.0	0.0	0.0	-48.9	0.0	**0.0**	0.0	0.0	0.0
Mx_i	-48.9	0.0	0.0	**0.0**	0.0	0.0	-48.9	0.0	0.0	**0.0**	0.0	0.0
My_i	-48.9	0.0	0.0	0.0	**0.0**	0.0	-48.9	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-48.9	0.0	0.0	0.0	0.0	**0.0**	-48.9	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-48.9**	0.0	0.0	0.0	0.1	0.0	**-48.9**	0.0	0.0	0.0	0.1	0.0
Fy_f	-48.9	**0.0**	0.0	0.0	0.1	0.0	-48.9	**0.0**	0.0	0.0	0.1	0.0
Fz_f	-48.9	0.0	**0.0**	0.0	0.1	0.0	-48.9	0.0	**0.0**	0.0	0.1	0.0
Mx_f	-48.9	0.0	0.0	**0.0**	0.1	0.0	-48.9	0.0	0.0	**0.0**	0.1	0.0
My_f	-48.9	0.0	0.0	0.0	**0.1**	0.0	-48.9	0.0	0.0	0.0	**0.1**	0.0
Mz_f	-48.9	0.0	0.0	0.0	0.1	**0.0**	-48.9	0.0	0.0	0.0	0.1	**0.0**

Member 397

Fx_i	**-42.1**	0.0	0.0	0.0	0.0	0.0	**-42.1**	0.0	0.0	0.0	0.0	0.0
Fy_i	-42.1	**0.0**	0.0	0.0	0.0	0.0	-42.1	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-42.1	0.0	**0.0**	0.0	0.0	0.0	-42.1	0.0	**0.0**	0.0	0.0	0.0
Mx_i	-42.1	0.0	0.0	**0.0**	0.0	0.0	-42.1	0.0	0.0	**0.0**	0.0	0.0
My_i	-42.1	0.0	0.0	0.0	**0.0**	0.0	-42.1	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-42.1	0.0	0.0	0.0	0.0	**0.0**	-42.1	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-42.1**	0.0	0.0	0.0	0.2	0.0	**-42.1**	0.0	0.0	0.0	0.2	0.0
Fy_f	-42.1	**0.0**	0.0	0.0	0.2	0.0	-42.1	**0.0**	0.0	0.0	0.2	0.0
Fz_f	-42.1	0.0	**0.0**	0.0	0.2	0.0	-42.1	0.0	**0.0**	0.0	0.2	0.0
Mx_f	-42.1	0.0	0.0	**0.0**	0.2	0.0	-42.1	0.0	0.0	**0.0**	0.2	0.0
My_f	-42.1	0.0	0.0	0.0	**0.2**	0.0	-42.1	0.0	0.0	0.0	**0.2**	0.0
Mz_f	-42.1	0.0	0.0	0.0	0.2	**0.0**	-42.1	0.0	0.0	0.0	0.2	**0.0**

Member 398

Fx_i	**-42.0**	0.0	-0.0	0.0	-0.0	0.0	**-42.0**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	-42.0	**0.0**	-0.0	0.0	-0.0	0.0	-42.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	-42.0	0.0	**-0.0**	0.0	-0.0	0.0	-42.0	0.0	**-0.0**	0.0	-0.0	0.0
Mx_i	-42.0	0.0	-0.0	**0.0**	-0.0	0.0	-42.0	0.0	-0.0	**0.0**	-0.0	0.0
My_i	-42.0	0.0	-0.0	0.0	**-0.0**	0.0	-42.0	0.0	-0.0	0.0	**-0.0**	0.0
Mz_i	-42.0	0.0	-0.0	0.0	-0.0	**0.0**	-42.0	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-42.0**	0.0	-0.0	0.0	-0.1	0.0	**-42.0**	0.0	-0.0	0.0	-0.1	0.0
Fy_f	-42.0	**0.0**	-0.0	0.0	-0.1	0.0	-42.0	**0.0**	-0.0	0.0	-0.1	0.0
Fz_f	-42.0	0.0	**-0.0**	0.0	-0.1	0.0	-42.0	0.0	**-0.0**	0.0	-0.1	0.0
Mx_f	-42.0	0.0	-0.0	**0.0**	-0.1	0.0	-42.0	0.0	-0.0	**0.0**	-0.1	0.0
My_f	-42.0	0.0	-0.0	0.0	**-0.1**	0.0	-42.0	0.0	-0.0	0.0	**-0.1**	0.0
Mz_f	-42.0	0.0	-0.0	0.0	-0.1	**0.0**	-42.0	0.0	-0.0	0.0	-0.1	**0.0**

Member 399

Fx_i	**-48.9**	0.0	-0.0	0.0	-0.0	0.0	**-48.9**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	-48.9	**0.0**	-0.0	0.0	-0.0	0.0	-48.9	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	-48.9	0.0	**-0.0**	0.0	-0.0	0.0	-48.9	0.0	**-0.0**	0.0	-0.0	0.0
Mx_i	-48.9	0.0	-0.0	**0.0**	-0.0	0.0	-48.9	0.0	-0.0	**0.0**	-0.0	0.0
My_i	-48.9	0.0	-0.0	0.0	**-0.0**	0.0	-48.9	0.0	-0.0	0.0	**-0.0**	0.0
Mz_i	-48.9	0.0	-0.0	0.0	-0.0	**0.0**	-48.9	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-48.9**	0.0	-0.0	0.0	-0.2	0.0	**-48.9**	0.0	-0.0	0.0	-0.2	0.0
Fy_f	-48.9	**0.0**	-0.0	0.0	-0.2	0.0	-48.9	**0.0**	-0.0	0.0	-0.2	0.0
Fz_f	-48.9	0.0	**-0.0**	0.0	-0.2	0.0	-48.9	0.0	**-0.0**	0.0	-0.2	0.0
Mx_f	-48.9	0.0	-0.0	**0.0**	-0.2	0.0	-48.9	0.0	-0.0	**0.0**	-0.2	0.0
My_f	-48.9	0.0	-0.0	0.0	**-0.2**	0.0	-48.9	0.0	-0.0	0.0	**-0.2**	0.0
Mz_f	-48.9	0.0	-0.0	0.0	-0.2	**0.0**	-48.9	0.0	-0.0	0.0	-0.2	**0.0**

Member 400

Fx_i	**-47.5**	0.0	-0.0	0.0	-0.0	0.0	**-47.5**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	-47.5	**0.0**	-0.0	0.0	-0.0	0.0	-47.5	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	-47.5	0.0	**-0.0**	0.0	-0.0	0.0	-47.5	0.0	**-0.0**	0.0	-0.0	0.0
Mx_i	-47.5	0.0	-0.0	**0.0**	-0.0	0.0	-47.5	0.0	-0.0	**0.0**	-0.0	0.0
My_i	-47.5	0.0	-0.0	0.0	**-0.0**	0.0	-47.5	0.0	-0.0	0.0	**-0.0**	0.0
Mz_i	-47.5	0.0	-0.0	0.0	-0.0	**0.0**	-47.5	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-47.5**	0.0	-0.0	0.0	-0.1	0.0	**-47.5**	0.0	-0.0	0.0	-0.1	0.0
Fy_f	-47.5	**0.0**	-0.0	0.0	-0.1	0.0	-47.5	**0.0**	-0.0	0.0	-0.1	0.0
Fz_f	-47.5	0.0	**-0.0**	0.0	-0.1	0.0	-47.5	0.0	**-0.0**	0.0	-0.1	0.0
Mx_f	-47.5	0.0	-0.0	**0.0**	-0.1	0.0	-47.5	0.0	-0.0	**0.0**	-0.1	0.0
My_f	-47.5	0.0	-0.0	0.0	**-0.1**	0.0	-47.5	0.0	-0.0	0.0	**-0.1**	0.0
Mz_f	-47.5	0.0	-0.0	0.0	-0.1	**0.0**	-47.5	0.0	-0.0	0.0	-0.1	**0.0**

Member 401

Fx_i	**-47.9**	0.0	-0.0	0.0	-0.0	0.0	**-47.9**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	-47.9	**0.0**	-0.0	0.0	-0.0	0.0	-47.9	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	-47.9	0.0	**-0.0**	0.0	-0.0	0.0	-47.9	0.0	**-0.0**	0.0	-0.0	0.0
Mx_i	-47.9	0.0	-0.0	**0.0**	-0.0	0.0	-47.9	0.0	-0.0	**0.0**	-0.0	0.0
My_i	-47.9	0.0	-0.0	0.0	**-0.0**	0.0	-47.9	0.0	-0.0	0.0	**-0.0**	0.0
Mz_i	-47.9	0.0	-0.0	0.0	-0.0	**0.0**	-47.9	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-47.9**	0.0	-0.0	0.0	-0.1	0.0	**-47.9**	0.0	-0.0	0.0	-0.1	0.0
Fy_f	-47.9	**0.0**	-0.0	0.0	-0.1	0.0	-47.9	**0.0**	-0.0	0.0	-0.1	0.0
Fz_f	-47.9	0.0	**-0.0**	0.0	-0.1	0.0	-47.9	0.0	**-0.0**	0.0	-0.1	0.0
Mx_f	-47.9	0.0	-0.0	**0.0**	-0.1	0.0	-47.9	0.0	-0.0	**0.0**	-0.1	0.0
My_f	-47.9	0.0	-0.0	0.0	**-0.1**	0.0	-47.9	0.0	-0.0	0.0	**-0.1**	0.0
Mz_f	-47.9	0.0	-0.0	0.0	-0.1	**0.0**	-47.9	0.0	-0.0	0.0	-0.1	**0.0**

Member 402

Fx_i	**-47.6**	0.0	-0.0	0.0	-0.0	0.0	**-47.6**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	-47.6	**0.0**	-0.0	0.0	-0.0	0.0	-47.6	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	-47.6	0.0	**-0.0**	0.0	-0.0	0.0	-47.6	0.0	**-0.0**	0.0	-0.0	0.0
Mx_i	-47.6	0.0	-0.0	**0.0**	-0.0	0.0	-47.6	0.0	-0.0	**0.0**	-0.0	0.0
My_i	-47.6	0.0	-0.0	0.0	**-0.0**	0.0	-47.6	0.0	-0.0	0.0	**-0.0**	0.0
Mz_i	-47.6	0.0	-0.0	0.0	-0.0	**0.0**	-47.6	0.0	-0.0	0.0	-0.0	**0.0**

Fx_i	**-47.6**	0.0	-0.0	0.0	-0.1	0.0	**-47.6**	0.0	-0.0	0.0	-0.1	0.0
Fy_i	-47.6	**0.0**	-0.0	0.0	-0.1	0.0	-47.6	**0.0**	-0.0	0.0	-0.1	0.0
Fz_i	-47.6	0.0	**-0.0**	0.0	-0.1	0.0	-47.6	0.0	**-0.0**	0.0	-0.1	0.0
Mx_i	-47.6	0.0	-0.0	**0.0**	-0.1	0.0	-47.6	0.0	-0.0	**0.0**	-0.1	0.0
My_i	-47.6	0.0	-0.0	0.0	**-0.1**	0.0	-47.6	0.0	-0.0	0.0	**-0.1**	0.0
Mz_i	-47.6	0.0	-0.0	0.0	-0.1	**0.0**	-47.6	0.0	-0.0	0.0	-0.1	**0.0**

Member 403

Fx_i	**-48.9**	0.0	-0.0	0.0	-0.0	0.0	**-48.9**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	-48.9	**0.0**	-0.0	0.0	-0.0	0.0	-48.9	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	-48.9	0.0	**-0.0**	0.0	-0.0	0.0	-48.9	0.0	**-0.0**	0.0	-0.0	0.0
Mx_i	-48.9	0.0	-0.0	**0.0**	-0.0	0.0	-48.9	0.0	-0.0	**0.0**	-0.0	0.0
My_i	-48.9	0.0	-0.0	0.0	**-0.0**	0.0	-48.9	0.0	-0.0	0.0	**-0.0**	0.0
Mz_i	-48.9	0.0	-0.0	0.0	-0.0	**0.0**	-48.9	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-48.9**	0.0	-0.0	0.0	-0.1	0.0	**-48.9**	0.0	-0.0	0.0	-0.1	0.0
Fy_f	-48.9	**0.0**	-0.0	0.0	-0.1	0.0	-48.9	**0.0**	-0.0	0.0	-0.1	0.0
Fz_f	-48.9	0.0	**-0.0**	0.0	-0.1	0.0	-48.9	0.0	**-0.0**	0.0	-0.1	0.0
Mx_f	-48.9	0.0	-0.0	**0.0**	-0.1	0.0	-48.9	0.0	-0.0	**0.0**	-0.1	0.0
My_f	-48.9	0.0	-0.0	0.0	**-0.1**	0.0	-48.9	0.0	-0.0	0.0	**-0.1**	0.0
Mz_f	-48.9	0.0	-0.0	0.0	-0.1	**0.0**	-48.9	0.0	-0.0	0.0	-0.1	**0.0**

Member 404

Fx_i	**-42.1**	0.0	-0.0	0.0	-0.0	0.0	**-42.1**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	-42.1	**0.0**	-0.0	0.0	-0.0	0.0	-42.1	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	-42.1	0.0	**-0.0**	0.0	-0.0	0.0	-42.1	0.0	**-0.0**	0.0	-0.0	0.0
Mx_i	-42.1	0.0	-0.0	**0.0**	-0.0	0.0	-42.1	0.0	-0.0	**0.0**	-0.0	0.0
My_i	-42.1	0.0	-0.0	0.0	**-0.0**	0.0	-42.1	0.0	-0.0	0.0	**-0.0**	0.0
Mz_i	-42.1	0.0	-0.0	0.0	-0.0	**0.0**	-42.1	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-42.1**	0.0	-0.0	0.0	-0.2	0.0	**-42.1**	0.0	-0.0	0.0	-0.2	0.0
Fy_f	-42.1	**0.0**	-0.0	0.0	-0.2	0.0	-42.1	**0.0**	-0.0	0.0	-0.2	0.0
Fz_f	-42.1	0.0	**-0.0**	0.0	-0.2	0.0	-42.1	0.0	**-0.0**	0.0	-0.2	0.0
Mx_f	-42.1	0.0	-0.0	**0.0**	-0.2	0.0	-42.1	0.0	-0.0	**0.0**	-0.2	0.0
My_f	-42.1	0.0	-0.0	0.0	**-0.2**	0.0	-42.1	0.0	-0.0	0.0	**-0.2**	0.0
Mz_f	-42.1	0.0	-0.0	0.0	-0.2	**0.0**	-42.1	0.0	-0.0	0.0	-0.2	**0.0**

Member 421

Fx_i	**-84.0**	0.0	0.0	0.0	0.0	0.0	**-84.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	-84.0	**0.0**	0.0	0.0	0.0	0.0	-84.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-84.0	0.0	**0.0**	0.0	0.0	0.0	-84.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	-84.0	0.0	0.0	**0.0**	0.0	0.0	-84.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-84.0	0.0	0.0	0.0	**0.0**	0.0	-84.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-84.0	0.0	0.0	0.0	0.0	**0.0**	-84.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-84.0**	0.0	0.0	0.0	0.0	0.0	**-84.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	-84.0	**0.0**	0.0	0.0	0.0	0.0	-84.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-84.0	0.0	**0.0**	0.0	0.0	0.0	-84.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	-84.0	0.0	0.0	**0.0**	0.0	0.0	-84.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-84.0	0.0	0.0	0.0	**0.0**	0.0	-84.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	-84.0	0.0	0.0	0.0	0.0	**0.0**	-84.0	0.0	0.0	0.0	0.0	**0.0**

Member 422

Fx_i	**-97.8**	0.0	0.0	0.0	-0.0	0.0	**-97.8**	0.0	0.0	0.0	-0.0	0.0
Fy_i	-97.8	**0.0**	0.0	0.0	-0.0	0.0	-97.8	**0.0**	0.0	0.0	-0.0	0.0
Fz_i	-97.8	0.0	**0.0**	0.0	-0.0	0.0	-97.8	0.0	**0.0**	0.0	-0.0	0.0
Mx_i	-97.8	0.0	0.0	**0.0**	-0.0	0.0	-97.8	0.0	0.0	**0.0**	-0.0	0.0
My_i	-97.8	0.0	0.0	0.0	**-0.0**	0.0	-97.8	0.0	0.0	0.0	**-0.0**	0.0
Mz_i	-97.8	0.0	0.0	0.0	-0.0	**0.0**	-97.8	0.0	0.0	0.0	-0.0	**0.0**
Fx_f	**-97.8**	0.0	0.0	0.0	-0.0	0.0	**-97.8**	0.0	0.0	0.0	-0.0	0.0
Fy_f	-97.8	**0.0**	0.0	0.0	-0.0	0.0	-97.8	**0.0**	0.0	0.0	-0.0	0.0
Fz_f	-97.8	0.0	**0.0**	0.0	-0.0	0.0	-97.8	0.0	**0.0**	0.0	-0.0	0.0
Mx_f	-97.8	0.0	0.0	**0.0**	-0.0	0.0	-97.8	0.0	0.0	**0.0**	-0.0	0.0
My_f	-97.8	0.0	0.0	0.0	**-0.0**	0.0	-97.8	0.0	0.0	0.0	**-0.0**	0.0
Mz_f	-97.8	0.0	0.0	0.0	-0.0	**0.0**	-97.8	0.0	0.0	0.0	-0.0	**0.0**

Member 423

Fx_i	**-95.1**	0.0	0.0	0.0	-0.0	0.0	**-95.1**	0.0	0.0	0.0	-0.0	0.0
Fy_i	-95.1	**0.0**	0.0	0.0	-0.0	0.0	-95.1	**0.0**	0.0	0.0	-0.0	0.0
Fz_i	-95.1	0.0	**0.0**	0.0	-0.0	0.0	-95.1	0.0	**0.0**	0.0	-0.0	0.0
Mx_i	-95.1	0.0	0.0	**0.0**	-0.0	0.0	-95.1	0.0	0.0	**0.0**	-0.0	0.0
My_i	-95.1	0.0	0.0	0.0	**-0.0**	0.0	-95.1	0.0	0.0	0.0	**-0.0**	0.0
Mz_i	-95.1	0.0	0.0	0.0	-0.0	**0.0**	-95.1	0.0	0.0	0.0	-0.0	**0.0**
Fx_f	**-95.1**	0.0	0.0	0.0	-0.0	0.0	**-95.1**	0.0	0.0	0.0	-0.0	0.0
Fy_f	-95.1	**0.0**	0.0	0.0	-0.0	0.0	-95.1	**0.0**	0.0	0.0	-0.0	0.0
Fz_f	-95.1	0.0	**0.0**	0.0	-0.0	0.0	-95.1	0.0	**0.0**	0.0	-0.0	0.0
Mx_f	-95.1	0.0	0.0	**0.0**	-0.0	0.0	-95.1	0.0	0.0	**0.0**	-0.0	0.0
My_f	-95.1	0.0	0.0	0.0	**-0.0**	0.0	-95.1	0.0	0.0	0.0	**-0.0**	0.0
Mz_f	-95.1	0.0	0.0	0.0	-0.0	**0.0**	-95.1	0.0	0.0	0.0	-0.0	**0.0**

Member 424

Fx_i	**-95.8**	0.0	-0.0	0.0	-0.0	0.0	**-95.8**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	-95.8	**0.0**	-0.0	0.0	-0.0	0.0	-95.8	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	-95.8	0.0	**-0.0**	0.0	-0.0	0.0	-95.8	0.0	**-0.0**	0.0	-0.0	0.0
Mx_i	-95.8	0.0	-0.0	**0.0**	-0.0	0.0	-95.8	0.0	-0.0	**0.0**	-0.0	0.0
My_i	-95.8	0.0	-0.0	0.0	**-0.0**	0.0	-95.8	0.0	-0.0	0.0	**-0.0**	0.0
Mz_i	-95.8	0.0	-0.0	0.0	-0.0	**0.0**	-95.8	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-95.8**	0.0	-0.0	0.0	-0.0	0.0	**-95.8**	0.0	-0.0	0.0	-0.0	0.0
Fy_f	-95.8	**0.0**	-0.0	0.0	-0.0	0.0	-95.8	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	-95.8	0.0	**-0.0**	0.0	-0.0	0.0	-95.8	0.0	**-0.0**	0.0	-0.0	0.0
Mx_f	-95.8	0.0	-0.0	**0.0**	-0.0	0.0	-95.8	0.0	-0.0	**0.0**	-0.0	0.0
My_f	-95.8	0.0	-0.0	0.0	**-0.0**	0.0	-95.8	0.0	-0.0	0.0	**-0.0**	0.0
Mz_f	-95.8	0.0	-0.0	0.0	-0.0	**0.0**	-95.8	0.0	-0.0	0.0	-0.0	**0.0**

Member 425

Fx_i	**-95.1**	0.0	-0.0	0.0	-0.0	0.0	**-95.1**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	-95.1	**0.0**	-0.0	0.0	-0.0	0.0	-95.1	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	-95.1	0.0	**-0.0**	0.0	-0.0	0.0	-95.1	0.0	**-0.0**	0.0	-0.0	0.0
Mx_i	-95.1	0.0	-0.0	**0.0**	-0.0	0.0	-95.1	0.0	-0.0	**0.0**	-0.0	0.0
My_i	-95.1	0.0	-0.0	0.0	**-0.0**	0.0	-95.1	0.0	-0.0	0.0	**-0.0**	0.0
Mz_i	-95.1	0.0	-0.0	0.0	-0.0	**0.0**	-95.1	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-95.1**	0.0	-0.0	0.0	-0.0	0.0	**-95.1**	0.0	-0.0	0.0	-0.0	0.0
Fy_f	-95.1	**0.0**	-0.0	0.0	-0.0	0.0	-95.1	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	-95.1	0.0	**-0.0**	0.0	-0.0	0.0	-95.1	0.0	**-0.0**	0.0	-0.0	0.0
Mx_f	-95.1	0.0	-0.0	**0.0**	-0.0	0.0	-95.1	0.0	-0.0	**0.0**	-0.0	0.0
My_f	-95.1	0.0	-0.0	0.0	**-0.0**	0.0	-95.1	0.0	-0.0	0.0	**-0.0**	0.0
Mz_f	-95.1	0.0	-0.0	0.0	-0.0	**0.0**	-95.1	0.0	-0.0	0.0	-0.0	**0.0**

Member 426

Fx_i	**-97.7**	0.0	0.0	0.0	-0.0	0.0	**-97.7**	0.0	0.0	0.0	-0.0	0.0
Fy_i	-97.7	**0.0**	0.0	0.0	-0.0	0.0	-97.7	**0.0**	0.0	0.0	-0.0	0.0
Fz_i	-97.7	0.0	**0.0**	0.0	-0.0	0.0	-97.7	0.0	**0.0**	0.0	-0.0	0.0
Mx_i	-97.7	0.0	0.0	**0.0**	-0.0	0.0	-97.7	0.0	0.0	**0.0**	-0.0	0.0
My_i	-97.7	0.0	0.0	0.0	**-0.0**	0.0	-97.7	0.0	0.0	0.0	**-0.0**	0.0
Mz_i	-97.7	0.0	0.0	0.0	-0.0	**0.0**	-97.7	0.0	0.0	0.0	-0.0	**0.0**
Fx_f	**-97.7**	0.0	0.0	0.0	-0.0	0.0	**-97.7**	0.0	0.0	0.0	-0.0	0.0
Fy_f	-97.7	**0.0**	0.0	0.0	-0.0	0.0	-97.7	**0.0**	0.0	0.0	-0.0	0.0
Fz_f	-97.7	0.0	**0.0**	0.0	-0.0	0.0	-97.7	0.0	**0.0**	0.0	-0.0	0.0
Mx_f	-97.7	0.0	0.0	**0.0**	-0.0	0.0	-97.7	0.0	0.0	**0.0**	-0.0	0.0
My_f	-97.7	0.0	0.0	0.0	**-0.0**	0.0	-97.7	0.0	0.0	0.0	**-0.0**	0.0
Mz_f	-97.7	0.0	0.0	0.0	-0.0	**0.0**	-97.7	0.0	0.0	0.0	-0.0	**0.0**

Member 427

Fx_i	**-84.2**	0.0	0.0	0.0	-0.0	0.0	**-84.2**	0.0	0.0	0.0	-0.0	0.0
Fy_i	-84.2	**0.0**	0.0	0.0	-0.0	0.0	-84.2	**0.0**	0.0	0.0	-0.0	0.0
Fz_i	-84.2	0.0	**0.0**	0.0	-0.0	0.0	-84.2	0.0	**0.0**	0.0	-0.0	0.0
Mx_i	-84.2	0.0	0.0	**0.0**	-0.0	0.0	-84.2	0.0	0.0	**0.0**	-0.0	0.0
My_i	-84.2	0.0	0.0	0.0	**-0.0**	0.0	-84.2	0.0	0.0	0.0	**-0.0**	0.0
Mz_i	-84.2	0.0	0.0	0.0	-0.0	**0.0**	-84.2	0.0	0.0	0.0	-0.0	**0.0**
Fx_f	**-84.2**	0.0	0.0	0.0	-0.0	0.0	**-84.2**	0.0	0.0	0.0	-0.0	0.0
Fy_f	-84.2	**0.0**	0.0	0.0	-0.0	0.0	-84.2	**0.0**	0.0	0.0	-0.0	0.0
Fz_f	-84.2	0.0	**0.0**	0.0	-0.0	0.0	-84.2	0.0	**0.0**	0.0	-0.0	0.0
Mx_f	-84.2	0.0	0.0	**0.0**	-0.0	0.0	-84.2	0.0	0.0	**0.0**	-0.0	0.0
My_f	-84.2	0.0	0.0	0.0	**-0.0**	0.0	-84.2	0.0	0.0	0.0	**-0.0**	0.0
Mz_f	-84.2	0.0	0.0	0.0	-0.0	**0.0**	-84.2	0.0	0.0	0.0	-0.0	**0.0**

DISPLACEMENTS

	x	y	z	x	y	z	x	y	z	x	y	z
Joint 1												
x	**-0.0**	-0.0	-0.0	-0.0	0.0	-24.5	**-0.0**	-0.0	-0.0	-0.0	0.0	-24.5
y	-0.0	**-0.0**	-0.0	-0.0	0.0	-24.5	-0.0	**-0.0**	-0.0	-0.0	0.0	-24.5
z	-0.0	-0.0	**-0.0**	-0.0	0.0	-24.5	-0.0	-0.0	**-0.0**	-0.0	0.0	-24.5
x	-0.0	-0.0	-0.0	**-0.0**	0.0	-24.5	-0.0	-0.0	-0.0	**-0.0**	0.0	-24.5
y	-0.0	-0.0	-0.0	-0.0	**0.0**	-24.5	-0.0	-0.0	-0.0	-0.0	**0.0**	-24.5
z	-0.0	-0.0	-0.0	-0.0	0.0	**-24.5**	-0.0	-0.0	-0.0	-0.0	0.0	**-24.5**
Joint 2												
x	**-0.0**	-0.1	0.0	-0.0	-0.0	-18.7	**-0.0**	-0.1	0.0	-0.0	-0.0	-18.7
y	-0.0	**-0.1**	0.0	-0.0	-0.0	-18.7	-0.0	**-0.1**	0.0	-0.0	-0.0	-18.7
z	-0.0	-0.1	**0.0**	-0.0	-0.0	-18.7	-0.0	-0.1	**0.0**	-0.0	-0.0	-18.7
x	-0.0	-0.1	0.0	**-0.0**	-0.0	-18.7	-0.0	-0.1	0.0	**-0.0**	-0.0	-18.7
y	-0.0	-0.1	0.0	-0.0	**-0.0**	-18.7	-0.0	-0.1	0.0	-0.0	**-0.0**	-18.7
z	-0.0	-0.1	0.0	-0.0	-0.0	**-18.7**	-0.0	-0.1	0.0	-0.0	-0.0	**-18.7**
Joint 3												
x	**-0.0**	-0.1	0.0	-0.0	-0.0	-5.4	**-0.0**	-0.1	0.0	-0.0	-0.0	-5.4
y	-0.0	**-0.1**	0.0	-0.0	-0.0	-5.4	-0.0	**-0.1**	0.0	-0.0	-0.0	-5.4
z	-0.0	-0.1	**0.0**	-0.0	-0.0	-5.4	-0.0	-0.1	**0.0**	-0.0	-0.0	-5.4
x	-0.0	-0.1	0.0	**-0.0**	-0.0	-5.4	-0.0	-0.1	0.0	**-0.0**	-0.0	-5.4
y	-0.0	-0.1	0.0	-0.0	**-0.0**	-5.4	-0.0	-0.1	0.0	-0.0	**-0.0**	-5.4
z	-0.0	-0.1	0.0	-0.0	-0.0	**-5.4**	-0.0	-0.1	0.0	-0.0	-0.0	**-5.4**
Joint 4												
x	**-0.0**	-0.1	0.0	-0.0	-0.0	7.2	**-0.0**	-0.1	0.0	-0.0	-0.0	7.2
y	-0.0	**-0.1**	0.0	-0.0	-0.0	7.2	-0.0	**-0.1**	0.0	-0.0	-0.0	7.2
z	-0.0	-0.1	**0.0**	-0.0	-0.0	7.2	-0.0	-0.1	**0.0**	-0.0	-0.0	7.2
x	-0.0	-0.1	0.0	**-0.0**	-0.0	7.2	-0.0	-0.1	0.0	**-0.0**	-0.0	7.2
y	-0.0	-0.1	0.0	-0.0	**-0.0**	7.2	-0.0	-0.1	0.0	-0.0	**-0.0**	7.2
z	-0.0	-0.1	0.0	-0.0	-0.0	**7.2**	-0.0	-0.1	0.0	-0.0	-0.0	**7.2**
Joint 5												
x	**-0.0**	-0.1	0.0	-0.0	-0.0	14.9	**-0.0**	-0.1	0.0	-0.0	-0.0	14.9
y	-0.0	**-0.1**	0.0	-0.0	-0.0	14.9	-0.0	**-0.1**	0.0	-0.0	-0.0	14.9
z	-0.0	-0.1	**0.0**	-0.0	-0.0	14.9	-0.0	-0.1	**0.0**	-0.0	-0.0	14.9
x	-0.0	-0.1	0.0	**-0.0**	-0.0	14.9	-0.0	-0.1	0.0	**-0.0**	-0.0	14.9
y	-0.0	-0.1	0.0	-0.0	**-0.0**	14.9	-0.0	-0.1	0.0	-0.0	**-0.0**	14.9
z	-0.0	-0.1	0.0	-0.0	-0.0	**14.9**	-0.0	-0.1	0.0	-0.0	-0.0	**14.9**
Joint 6												
x	**-0.0**	-0.0	0.0	-0.0	-0.0	9.3	**-0.0**	-0.0	0.0	-0.0	-0.0	9.3
y	-0.0	**-0.0**	0.0	-0.0	-0.0	9.3	-0.0	**-0.0**	0.0	-0.0	-0.0	9.3
z	-0.0	-0.0	**0.0**	-0.0	-0.0	9.3	-0.0	-0.0	**0.0**	-0.0	-0.0	9.3
x	-0.0	-0.0	0.0	**-0.0**	-0.0	9.3	-0.0	-0.0	0.0	**-0.0**	-0.0	9.3
y	-0.0	-0.0	0.0	-0.0	**-0.0**	9.3	-0.0	-0.0	0.0	-0.0	**-0.0**	9.3
z	-0.0	-0.0	0.0	-0.0	-0.0	**9.3**	-0.0	-0.0	0.0	-0.0	-0.0	**9.3**
Joint 7												
x	**-0.0**	-0.1	0.0	-0.0	-0.0	-38.9	**-0.0**	-0.1	0.0	-0.0	-0.0	-38.9
y	-0.0	**-0.1**	0.0	-0.0	-0.0	-38.9	-0.0	**-0.1**	0.0	-0.0	-0.0	-38.9
z	-0.0	-0.1	**0.0**	-0.0	-0.0	-38.9	-0.0	-0.1	**0.0**	-0.0	-0.0	-38.9
x	-0.0	-0.1	0.0	**-0.0**	-0.0	-38.9	-0.0	-0.1	0.0	**-0.0**	-0.0	-38.9
y	-0.0	-0.1	0.0	-0.0	**-0.0**	-38.9	-0.0	-0.1	0.0	-0.0	**-0.0**	-38.9
z	-0.0	-0.1	0.0	-0.0	-0.0	**-38.9**	-0.0	-0.1	0.0	-0.0	-0.0	**-38.9**
Joint 8												
x	**-0.0**	-0.4	0.0	-0.0	-0.0	-84.6	**-0.0**	-0.4	0.0	-0.0	-0.0	-84.6
y	-0.0	**-0.4**	0.0	-0.0	-0.0	-84.6	-0.0	**-0.4**	0.0	-0.0	-0.0	-84.6
z	-0.0	-0.4	**0.0**	-0.0	-0.0	-84.6	-0.0	-0.4	**0.0**	-0.0	-0.0	-84.6
x	-0.0	-0.4	0.0	**-0.0**	-0.0	-84.6	-0.0	-0.4	0.0	**-0.0**	-0.0	-84.6
y	-0.0	-0.4	0.0	-0.0	**-0.0**	-84.6	-0.0	-0.4	0.0	-0.0	**-0.0**	-84.6
z	-0.0	-0.4	0.0	-0.0	-0.0	**-84.6**	-0.0	-0.4	0.0	-0.0	-0.0	**-84.6**
Joint 9												
x	**-0.0**	-0.7	0.0	-0.0	-0.0	-72.3	**-0.0**	-0.7	0.0	-0.0	-0.0	-72.3
y	-0.0	**-0.7**	0.0	-0.0	-0.0	-72.3	-0.0	**-0.7**	0.0	-0.0	-0.0	-72.3
z	-0.0	-0.7	**0.0**	-0.0	-0.0	-72.3	-0.0	-0.7	**0.0**	-0.0	-0.0	-72.3
x	-0.0	-0.7	0.0	**-0.0**	-0.0	-72.3	-0.0	-0.7	0.0	**-0.0**	-0.0	-72.3
y	-0.0	-0.7	0.0	-0.0	**-0.0**	-72.3	-0.0	-0.7	0.0	-0.0	**-0.0**	-72.3
z	-0.0	-0.7	0.0	-0.0	-0.0	**-72.3**	-0.0	-0.7	0.0	-0.0	-0.0	**-72.3**
Joint 10												
x	**-0.0**	-1.0	0.0	-0.0	-0.0	-36.5	**-0.0**	-1.0	0.0	-0.0	-0.0	-36.5
y	-0.0	**-1.0**	0.0	-0.0	-0.0	-36.5	-0.0	**-1.0**	0.0	-0.0	-0.0	-36.5
z	-0.0	-1.0	**0.0**	-0.0	-0.0	-36.5	-0.0	-1.0	**0.0**	-0.0	-0.0	-36.5
x	-0.0	-1.0	0.0	**-0.0**	-0.0	-36.5	-0.0	-1.0	0.0	**-0.0**	-0.0	-36.5
y	-0.0	-1.0	0.0	-0.0	**-0.0**	-36.5	-0.0	-1.0	0.0	-0.0	**-0.0**	-36.5
z	-0.0	-1.0	0.0	-0.0	-0.0	**-36.5**	-0.0	-1.0	0.0	-0.0	-0.0	**-36.5**
Joint 11												
x	**-0.0**	-1.1	0.0	**-0.0**	-0.0	5.5	**-0.0**	-1.1	0.0	-0.0	-0.0	5.5
y	-0.0	**-1.1**	0.0	-0.0	**-0.0**	5.5	-0.0	**-1.1**	0.0	-0.0	-0.0	5.5
z	-0.0	-1.1	**0.0**	-0.0	-0.0	5.5	-0.0	-1.1	**0.0**	-0.0	-0.0	5.5
x	-0.0	-1.1	0.0	**-0.0**	-0.0	5.5	-0.0	-1.1	0.0	**-0.0**	-0.0	5.5
y	-0.0	-1.1	0.0	-0.0	**-0.0**	5.5	-0.0	-1.1	0.0	-0.0	**-0.0**	5.5
z	-0.0	-1.1	0.0	-0.0	-0.0	**5.5**	-0.0	-1.1	0.0	-0.0	-0.0	**5.5**
Joint 12												
x	**-0.0**	-0.9	0.0	-0.0	-0.0	45.8	**-0.0**	-0.9	0.0	-0.0	-0.0	45.8
y	-0.0	**-0.9**	0.0	-0.0	-0.0	45.8	-0.0	**-0.9**	0.0	-0.0	-0.0	45.8
z	-0.0	-0.9	**0.0**	-0.0	-0.0	45.8	-0.0	-0.9	**0.0**	-0.0	-0.0	45.8
x	-0.0	-0.9	0.0	**-0.0**	-0.0	45.8	-0.0	-0.9	0.0	**-0.0**	-0.0	45.8
y	-0.0	-0.9	0.0	-0.0	**-0.0**	45.8	-0.0	-0.9	0.0	-0.0	**-0.0**	45.8
z	-0.0	-0.9	0.0	-0.0	-0.0	**45.8**	-0.0	-0.9	0.0	-0.0	-0.0	**45.8**
Joint 13												
x	**-0.0**	-0.7	0.0	-0.0	-0.0	75.8	**-0.0**	-0.7	0.0	-0.0	-0.0	75.8
y	-0.0	**-0.7**	0.0	-0.0	-0.0	75.8	-0.0	**-0.7**	0.0	-0.0	-0.0	75.8
z	-0.0	-0.7	**0.0**	-0.0	-0.0	75.8	-0.0	-0.7	**0.0**	-0.0	-0.0	75.8
x	-0.0	-0.7	0.0	**-0.0**	-0.0	75.8	-0.0	-0.7	0.0	**-0.0**	-0.0	75.8
y	-0.0	-0.7	0.0	-0.0	**-0.0**	75.8	-0.0	-0.7	0.0	-0.0	**-0.0**	75.8
z	-0.0	-0.7	0.0	-0.0	-0.0	**75.8**	-0.0	-0.7	0.0	-0.0	-0.0	**75.8**
Joint 14												
x	**-0.0**	-0.3	0.0	-0.0	-0.0	78.2	**-0.0**	-0.3	0.0	-0.0	-0.0	78.2
y	-0.0	**-0.3**	0.0	-0.0	-0.0	78.2	-0.0	**-0.3**	0.0	-0.0	-0.0	78.2
z	-0.0	-0.3	**0.0**	-0.0	-0.0	78.2	-0.0	-0.3	**0.0**	-0.0	-0.0	78.2
x	-0.0	-0.3	0.0	**-0.0**	-0.0	78.2	-0.0	-0.3	0.0	**-0.0**	-0.0	78.2
y	-0.0	-0.3	0.0	-0.0	**-0.0**	78.2	-0.0	-0.3	0.0	-0.0	**-0.0**	78.2
z	-0.0	-0.3	0.0	-0.0	-0.0	**78.2**	-0.0	-0.3	0.0	-0.0	-0.0	**78.2**
Joint 15												
x	**-0.0**	-0.1	0.0	-0.0	-0.0	8.0	**-0.0**	-0.1	0.0	-0.0	-0.0	8.0
y	-0.0	**-0.1**	0.0	-0.0	-0.0	8.0	-0.0	**-0.1**	0.0	-0.0	-0.0	8.0
z	-0.0	-0.1	**0.0**	-0.0	-0.0	8.0	-0.0	-0.1	**0.0**	-0.0	-0.0	8.0
x	-0.0	-0.1	0.0	**-0.0**	-0.0	8.0	-0.0	-0.1	0.0	**-0.0**	-0.0	8.0
y	-0.0	-0.1	0.0	-0.0	**-0.0**	8.0	-0.0	-0.1	0.0	-0.0	**-0.0**	8.0
z	-0.0	-0.1	0.0	-0.0	-0.0	**8.0**	-0.0	-0.1	0.0	-0.0	-0.0	**8.0**
Joint 16												
x	**-0.0**	-0.2	0.0	-0.0	-0.0	-63.4	**-0.0**	-0.2	0.0	-0.0	-0.0	-63.4
y	-0.0	**-0.2**	0.0	-0.0	-0.0	-63.4	-0.0	**-0.2**	0.0	-0.0	-0.0	-63.4
z	-0.0	-0.2	**0.0**	-0.0	-0.0	-63.4	-0.0	-0.2	**0.0**	-0.0	-0.0	-63.4
x	-0.0	-0.2	0.0	**-0.0**	-0.0	-63.4	-0.0	-0.2	0.0	**-0.0**	-0.0	-63.4
y	-0.0	-0.2	0.0	-0.0	**-0.0**	-63.4	-0.0	-0.2	0.0	-0.0	**-0.0**	-63.4
z	-0.0	-0.2	0.0	-0.0	-0.0	**-63.4**	-0.0	-0.2	0.0	-0.0	-0.0	**-63.4**
Joint 17												
x	**-0.0**	-0.5	0.0	-0.0	-0.0	-63.3	**-0.0**	-0.5	0.0	-0.0	-0.0	-63.3
y	-0.0	**-0.5**	0.0	-0.0	-0.0	-63.3	-0.0	**-0.5**	0.0	-0.0	-0.0	-63.3
z	-0.0	-0.5	**0.0**	-0.0	-0.0	-63.3	-0.0	-0.5	**0.0**	-0.0	-0.0	-63.3
x	-0.0	-0.5	0.0	**-0.0**	-0.0	-63.3	-0.0	-0.5	0.0	**-0.0**	-0.0	-63.3
y	-0.0	-0.5	0.0	-0.0	**-0.0**	-63.3	-0.0	-0.5	0.0	-0.0	**-0.0**	-63.3
z	-0.0	-0.5	0.0	-0.0	-0.0	**-63.3**	-0.0	-0.5	0.0	-0.0	-0.0	**-63.3**

Joint 18

x	**-0.0**	-0.8	0.0	-0.0	-0.0	-37.1	**-0.0**	-0.8	0.0	-0.0	-0.0	-37.1
y	-0.0	**-0.8**	0.0	-0.0	-0.0	-37.1	-0.0	**-0.8**	0.0	-0.0	-0.0	-37.1
z	-0.0	-0.8	**0.0**	-0.0	-0.0	-37.1	-0.0	-0.8	**0.0**	-0.0	-0.0	-37.1
x	-0.0	-0.8	0.0	**-0.0**	-0.0	-37.1	-0.0	-0.8	0.0	**-0.0**	-0.0	-37.1
y	-0.0	-0.8	0.0	-0.0	**-0.0**	-37.1	-0.0	-0.8	0.0	-0.0	**-0.0**	-37.1
z	-0.0	-0.8	0.0	-0.0	-0.0	**-37.1**	-0.0	-0.8	0.0	-0.0	-0.0	**-37.1**

Joint 19

x	**-0.0**	-0.9	0.0	-0.0	-0.0	-1.7	**-0.0**	-0.9	0.0	-0.0	-0.0	-1.7
y	-0.0	**-0.9**	0.0	-0.0	-0.0	-1.7	-0.0	**-0.9**	0.0	-0.0	-0.0	-1.7
z	-0.0	-0.9	**0.0**	-0.0	-0.0	-1.7	-0.0	-0.9	**0.0**	-0.0	-0.0	-1.7
x	-0.0	-0.9	0.0	**-0.0**	-0.0	-1.7	-0.0	-0.9	0.0	**-0.0**	-0.0	-1.7
y	-0.0	-0.9	0.0	-0.0	**-0.0**	-1.7	-0.0	-0.9	0.0	-0.0	**-0.0**	-1.7
z	-0.0	-0.9	0.0	-0.0	-0.0	**-1.7**	-0.0	-0.9	0.0	-0.0	-0.0	**-1.7**

Joint 20

x	**-0.0**	-0.8	0.0	-0.0	-0.0	34.2	**-0.0**	-0.8	0.0	-0.0	-0.0	34.2
y	-0.0	**-0.8**	0.0	-0.0	-0.0	34.2	-0.0	**-0.8**	0.0	-0.0	-0.0	34.2
z	-0.0	-0.8	**0.0**	-0.0	-0.0	34.2	-0.0	-0.8	**0.0**	-0.0	-0.0	34.2
x	-0.0	-0.8	0.0	**-0.0**	-0.0	34.2	-0.0	-0.8	0.0	**-0.0**	-0.0	34.2
y	-0.0	-0.8	0.0	-0.0	**-0.0**	34.2	-0.0	-0.8	0.0	-0.0	**-0.0**	34.2
z	-0.0	-0.8	0.0	-0.0	-0.0	**34.2**	-0.0	-0.8	0.0	-0.0	-0.0	**34.2**

Joint 21

x	**-0.0**	-0.6	0.0	-0.0	-0.0	61.6	**-0.0**	-0.6	0.0	-0.0	-0.0	61.6
y	-0.0	**-0.6**	0.0	-0.0	-0.0	61.6	-0.0	**-0.6**	0.0	-0.0	-0.0	61.6
z	-0.0	-0.6	**0.0**	-0.0	-0.0	61.6	-0.0	-0.6	**0.0**	-0.0	-0.0	61.6
x	-0.0	-0.6	0.0	**-0.0**	-0.0	61.6	-0.0	-0.6	0.0	**-0.0**	-0.0	61.6
y	-0.0	-0.6	0.0	-0.0	**-0.0**	61.6	-0.0	-0.6	0.0	-0.0	**-0.0**	61.6
z	-0.0	-0.6	0.0	-0.0	-0.0	**61.6**	-0.0	-0.6	0.0	-0.0	-0.0	**61.6**

Joint 22

x	**-0.0**	-0.3	0.0	-0.0	-0.0	63.9	**-0.0**	-0.3	0.0	-0.0	-0.0	63.9
y	-0.0	**-0.3**	0.0	-0.0	-0.0	63.9	-0.0	**-0.3**	0.0	-0.0	-0.0	63.9
z	-0.0	-0.3	**0.0**	-0.0	-0.0	63.9	-0.0	-0.3	**0.0**	-0.0	-0.0	63.9
x	-0.0	-0.3	0.0	**-0.0**	-0.0	63.9	-0.0	-0.3	0.0	**-0.0**	-0.0	63.9
y	-0.0	-0.3	0.0	-0.0	**-0.0**	63.9	-0.0	-0.3	0.0	-0.0	**-0.0**	63.9
z	-0.0	-0.3	0.0	-0.0	-0.0	**63.9**	-0.0	-0.3	0.0	-0.0	-0.0	**63.9**

Joint 23

x	**-0.0**	-0.1	0.0	-0.0	-0.0	-2.0	**-0.0**	-0.1	0.0	-0.0	-0.0	-2.0
y	-0.0	**-0.1**	0.0	-0.0	-0.0	-2.0	-0.0	**-0.1**	0.0	-0.0	-0.0	-2.0
z	-0.0	-0.1	**0.0**	-0.0	-0.0	-2.0	-0.0	-0.1	**0.0**	-0.0	-0.0	-2.0
x	-0.0	-0.1	0.0	**-0.0**	-0.0	-2.0	-0.0	-0.1	0.0	**-0.0**	-0.0	-2.0
y	-0.0	-0.1	0.0	-0.0	**-0.0**	-2.0	-0.0	-0.1	0.0	-0.0	**-0.0**	-2.0
z	-0.0	-0.1	0.0	-0.0	-0.0	**-2.0**	-0.0	-0.1	0.0	-0.0	-0.0	**-2.0**

Joint 24

x	**-0.0**	-0.3	0.0	-0.0	-0.0	-67.7	**-0.0**	-0.3	0.0	-0.0	-0.0	-67.7
y	-0.0	**-0.3**	0.0	-0.0	-0.0	-67.7	-0.0	**-0.3**	0.0	-0.0	-0.0	-67.7
z	-0.0	-0.3	**0.0**	-0.0	-0.0	-67.7	-0.0	-0.3	**0.0**	-0.0	-0.0	-67.7
x	-0.0	-0.3	0.0	**-0.0**	-0.0	-67.7	-0.0	-0.3	0.0	**-0.0**	-0.0	-67.7
y	-0.0	-0.3	0.0	-0.0	**-0.0**	-67.7	-0.0	-0.3	0.0	-0.0	**-0.0**	-67.7
z	-0.0	-0.3	0.0	-0.0	-0.0	**-67.7**	-0.0	-0.3	0.0	-0.0	-0.0	**-67.7**

Joint 25

x	**-0.0**	-0.6	0.0	-0.0	-0.0	-64.9	**-0.0**	-0.6	0.0	-0.0	-0.0	-64.9
y	-0.0	**-0.6**	0.0	-0.0	-0.0	-64.9	-0.0	**-0.6**	0.0	-0.0	-0.0	-64.9
z	-0.0	-0.6	**0.0**	-0.0	-0.0	-64.9	-0.0	-0.6	**0.0**	-0.0	-0.0	-64.9
x	-0.0	-0.6	0.0	**-0.0**	-0.0	-64.9	-0.0	-0.6	0.0	**-0.0**	-0.0	-64.9
y	-0.0	-0.6	0.0	-0.0	**-0.0**	-64.9	-0.0	-0.6	0.0	-0.0	**-0.0**	-64.9
z	-0.0	-0.6	0.0	-0.0	-0.0	**-64.9**	-0.0	-0.6	0.0	-0.0	-0.0	**-64.9**

Joint 26

x	**-0.0**	-0.8	0.0	-0.0	-0.0	-36.6	**-0.0**	-0.8	0.0	-0.0	-0.0	-36.6
y	-0.0	**-0.8**	0.0	-0.0	-0.0	-36.6	-0.0	**-0.8**	0.0	-0.0	-0.0	-36.6
z	-0.0	-0.8	**0.0**	-0.0	-0.0	-36.6	-0.0	-0.8	**0.0**	-0.0	-0.0	-36.6
x	-0.0	-0.8	0.0	**-0.0**	-0.0	-36.6	-0.0	-0.8	0.0	**-0.0**	-0.0	-36.6
y	-0.0	-0.8	0.0	-0.0	**-0.0**	-36.6	-0.0	-0.8	0.0	-0.0	**-0.0**	-36.6
z	-0.0	-0.8	0.0	-0.0	-0.0	**-36.6**	-0.0	-0.8	0.0	-0.0	-0.0	**-36.6**

Joint 27

x	**-0.0**	-0.9	0.0	-0.0	-0.0	0.2	**-0.0**	-0.9	0.0	-0.0	-0.0	0.2
y	-0.0	**-0.9**	0.0	-0.0	-0.0	0.2	-0.0	**-0.9**	0.0	-0.0	-0.0	0.2
z	-0.0	-0.9	**0.0**	-0.0	-0.0	0.2	-0.0	-0.9	**0.0**	-0.0	-0.0	0.2
x	-0.0	-0.9	0.0	**-0.0**	-0.0	0.2	-0.0	-0.9	0.0	**-0.0**	-0.0	0.2
y	-0.0	-0.9	0.0	-0.0	**-0.0**	0.2	-0.0	-0.9	0.0	-0.0	**-0.0**	0.2
z	-0.0	-0.9	0.0	-0.0	-0.0	**0.2**	-0.0	-0.9	0.0	-0.0	-0.0	**0.2**

Joint 28

x	**-0.0**	-0.8	0.0	-0.0	-0.0	37.0	**-0.0**	-0.8	0.0	-0.0	-0.0	37.0
y	-0.0	**-0.8**	0.0	-0.0	-0.0	37.0	-0.0	**-0.8**	0.0	-0.0	-0.0	37.0
z	-0.0	-0.8	**0.0**	-0.0	-0.0	37.0	-0.0	-0.8	**0.0**	-0.0	-0.0	37.0
x	-0.0	-0.8	0.0	**-0.0**	-0.0	37.0	-0.0	-0.8	0.0	**-0.0**	-0.0	37.0
y	-0.0	-0.8	0.0	-0.0	**-0.0**	37.0	-0.0	-0.8	0.0	-0.0	**-0.0**	37.0
z	-0.0	-0.8	0.0	-0.0	-0.0	**37.0**	-0.0	-0.8	0.0	-0.0	-0.0	**37.0**

Joint 29

x	**-0.0**	-0.6	0.0	-0.0	-0.0	64.9	**-0.0**	-0.6	0.0	-0.0	-0.0	64.9
y	-0.0	**-0.6**	0.0	-0.0	-0.0	64.9	-0.0	**-0.6**	0.0	-0.0	-0.0	64.9
z	-0.0	-0.6	**0.0**	-0.0	-0.0	64.9	-0.0	-0.6	**0.0**	-0.0	-0.0	64.9
x	-0.0	-0.6	0.0	**-0.0**	-0.0	64.9	-0.0	-0.6	0.0	**-0.0**	-0.0	64.9
y	-0.0	-0.6	0.0	-0.0	**-0.0**	64.9	-0.0	-0.6	0.0	-0.0	**-0.0**	64.9
z	-0.0	-0.6	0.0	-0.0	-0.0	**64.9**	-0.0	-0.6	0.0	-0.0	-0.0	**64.9**

Joint 30

x	**-0.0**	-0.3	0.0	-0.0	-0.0	67.1	**-0.0**	-0.3	0.0	-0.0	-0.0	67.1
y	-0.0	**-0.3**	0.0	-0.0	-0.0	67.1	-0.0	**-0.3**	0.0	-0.0	-0.0	67.1
z	-0.0	-0.3	**0.0**	-0.0	-0.0	67.1	-0.0	-0.3	**0.0**	-0.0	-0.0	67.1
x	-0.0	-0.3	0.0	**-0.0**	-0.0	67.1	-0.0	-0.3	0.0	**-0.0**	-0.0	67.1
y	-0.0	-0.3	0.0	-0.0	**-0.0**	67.1	-0.0	-0.3	0.0	-0.0	**-0.0**	67.1
z	-0.0	-0.3	0.0	-0.0	-0.0	**67.1**	-0.0	-0.3	0.0	-0.0	-0.0	**67.1**

Joint 31

x	**-0.0**	-0.1	0.0	-0.0	-0.0	-0.0	**-0.0**	-0.1	0.0	-0.0	-0.0	-0.0
y	-0.0	**-0.1**	0.0	-0.0	-0.0	-0.0	-0.0	**-0.1**	0.0	-0.0	-0.0	-0.0
z	-0.0	-0.1	**0.0**	-0.0	-0.0	-0.0	-0.0	-0.1	**0.0**	-0.0	-0.0	-0.0
x	-0.0	-0.1	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.1	0.0	**-0.0**	-0.0	-0.0
y	-0.0	-0.1	0.0	-0.0	**-0.0**	-0.0	-0.0	-0.1	0.0	-0.0	**-0.0**	-0.0
z	-0.0	-0.1	0.0	-0.0	-0.0	**-0.0**	-0.0	-0.1	0.0	-0.0	-0.0	**-0.0**

Joint 32

x	**-0.0**	-0.3	0.0	-0.0	-0.0	-67.2	**-0.0**	-0.3	0.0	-0.0	-0.0	-67.2
y	-0.0	**-0.3**	0.0	-0.0	-0.0	-67.2	-0.0	**-0.3**	0.0	-0.0	-0.0	-67.2
z	-0.0	-0.3	**0.0**	-0.0	-0.0	-67.2	-0.0	-0.3	**0.0**	-0.0	-0.0	-67.2
x	-0.0	-0.3	0.0	**-0.0**	-0.0	-67.2	-0.0	-0.3	0.0	**-0.0**	-0.0	-67.2
y	-0.0	-0.3	0.0	-0.0	**-0.0**	-67.2	-0.0	-0.3	0.0	-0.0	**-0.0**	-67.2
z	-0.0	-0.3	0.0	-0.0	-0.0	**-67.2**	-0.0	-0.3	0.0	-0.0	-0.0	**-67.2**

Joint 33

x	**-0.0**	-0.6	0.0	-0.0	-0.0	-65.0	**-0.0**	-0.6	0.0	-0.0	-0.0	-65.0
y	-0.0	**-0.6**	0.0	-0.0	-0.0	-65.0	-0.0	**-0.6**	0.0	-0.0	-0.0	-65.0
z	-0.0	-0.6	**0.0**	-0.0	-0.0	-65.0	-0.0	-0.6	**0.0**	-0.0	-0.0	-65.0
x	-0.0	-0.6	0.0	**-0.0**	-0.0	-65.0	-0.0	-0.6	0.0	**-0.0**	-0.0	-65.0
y	-0.0	-0.6	0.0	-0.0	**-0.0**	-65.0	-0.0	-0.6	0.0	-0.0	**-0.0**	-65.0
z	-0.0	-0.6	0.0	-0.0	-0.0	**-65.0**	-0.0	-0.6	0.0	-0.0	-0.0	**-65.0**

Joint 34

x	**-0.0**	-0.8	0.0	-0.0	-0.0	-37.0	**-0.0**	-0.8	0.0	-0.0	-0.0	-37.0
y	-0.0	**-0.8**	0.0	-0.0	-0.0	-37.0	-0.0	**-0.8**	0.0	-0.0	-0.0	-37.0
z	-0.0	-0.8	**0.0**	-0.0	-0.0	-37.0	-0.0	-0.8	**0.0**	-0.0	-0.0	-37.0
x	-0.0	-0.8	0.0	**-0.0**	-0.0	-37.0	-0.0	-0.8	0.0	**-0.0**	-0.0	-37.0
y	-0.0	-0.8	0.0	-0.0	**-0.0**	-37.0	-0.0	-0.8	0.0	-0.0	**-0.0**	-37.0
z	-0.0	-0.8	0.0	-0.0	-0.0	**-37.0**	-0.0	-0.8	0.0	-0.0	-0.0	**-37.0**

Joint 35

x	**-0.0**	-0.9	0.0	-0.0	-0.0	-0.3	**-0.0**	-0.9	0.0	-0.0	-0.0	-0.3
y	-0.0	**-0.9**	0.0	-0.0	-0.0	-0.3	-0.0	**-0.9**	0.0	-0.0	-0.0	-0.3
z	-0.0	-0.9	**0.0**	-0.0	-0.0	-0.3	-0.0	-0.9	**0.0**	-0.0	-0.0	-0.3
x	-0.0	-0.9	0.0	**-0.0**	-0.0	-0.3	-0.0	-0.9	0.0	**-0.0**	-0.0	-0.3
y	-0.0	-0.9	0.0	-0.0	**-0.0**	-0.3	-0.0	-0.9	0.0	-0.0	**-0.0**	-0.3
z	-0.0	-0.9	0.0	-0.0	-0.0	**-0.3**	-0.0	-0.9	0.0	-0.0	-0.0	**-0.3**

Joint 36

x	**-0.0**	-0.8	0.0	-0.0	0.0	36.5	**-0.0**	-0.8	0.0	-0.0	0.0	36.5
y	-0.0	**-0.8**	0.0	-0.0	0.0	36.5	-0.0	**-0.8**	0.0	-0.0	0.0	36.5
z	-0.0	-0.8	**0.0**	-0.0	0.0	36.5	-0.0	-0.8	**0.0**	-0.0	0.0	36.5
x	-0.0	-0.8	0.0	**-0.0**	0.0	36.5	-0.0	-0.8	0.0	**-0.0**	0.0	36.5
y	-0.0	-0.8	0.0	-0.0	**0.0**	36.5	-0.0	-0.8	0.0	-0.0	**0.0**	36.5
z	-0.0	-0.8	0.0	-0.0	0.0	**36.5**	-0.0	-0.8	0.0	-0.0	0.0	**36.5**

Joint 37

x	**-0.0**	-0.6	0.0	-0.0	0.0	64.7	**-0.0**	-0.6	0.0	-0.0	0.0	64.7
y	-0.0	**-0.6**	0.0	-0.0	0.0	64.7	-0.0	**-0.6**	0.0	-0.0	0.0	64.7
z	-0.0	-0.6	**0.0**	-0.0	0.0	64.7	-0.0	-0.6	**0.0**	-0.0	0.0	64.7
x	-0.0	-0.6	0.0	**-0.0**	0.0	64.7	-0.0	-0.6	0.0	**-0.0**	0.0	64.7
y	-0.0	-0.6	0.0	-0.0	**0.0**	64.7	-0.0	-0.6	0.0	-0.0	**0.0**	64.7
z	-0.0	-0.6	0.0	-0.0	0.0	**64.7**	-0.0	-0.6	0.0	-0.0	0.0	**64.7**

Joint 38

x	**-0.0**	-0.3	0.0	-0.0	0.0	67.5	**-0.0**	-0.3	0.0	-0.0	0.0	67.5
y	-0.0	**-0.3**	0.0	-0.0	0.0	67.5	-0.0	**-0.3**	0.0	-0.0	0.0	67.5
z	-0.0	-0.3	**0.0**	-0.0	0.0	67.5	-0.0	-0.3	**0.0**	-0.0	0.0	67.5
x	-0.0	-0.3	0.0	**-0.0**	0.0	67.5	-0.0	-0.3	0.0	**-0.0**	0.0	67.5
y	-0.0	-0.3	0.0	-0.0	**0.0**	67.5	-0.0	-0.3	0.0	-0.0	**0.0**	67.5
z	-0.0	-0.3	0.0	-0.0	0.0	**67.5**	-0.0	-0.3	0.0	-0.0	0.0	**67.5**

Joint 39

x	**-0.0**	-0.1	0.0	-0.0	0.0	1.6	**-0.0**	-0.1	0.0	-0.0	0.0	1.6
y	-0.0	**-0.1**	0.0	-0.0	0.0	1.6	-0.0	**-0.1**	0.0	-0.0	0.0	1.6
z	-0.0	-0.1	**0.0**	-0.0	0.0	1.6	-0.0	-0.1	**0.0**	-0.0	0.0	1.6
x	-0.0	-0.1	0.0	**-0.0**	0.0	1.6	-0.0	-0.1	0.0	**-0.0**	0.0	1.6
y	-0.0	-0.1	0.0	-0.0	**0.0**	1.6	-0.0	-0.1	0.0	-0.0	**0.0**	1.6
z	-0.0	-0.1	0.0	-0.0	0.0	**1.6**	-0.0	-0.1	0.0	-0.0	0.0	**1.6**

Joint 40

x	**-0.0**	-0.3	0.0	-0.0	0.0	-64.4	**-0.0**	-0.3	0.0	-0.0	0.0	-64.4
y	-0.0	**-0.3**	0.0	-0.0	0.0	-64.4	-0.0	**-0.3**	0.0	-0.0	0.0	-64.4
z	-0.0	-0.3	**0.0**	-0.0	0.0	-64.4	-0.0	-0.3	**0.0**	-0.0	0.0	-64.4
x	-0.0	-0.3	0.0	**-0.0**	0.0	-64.4	-0.0	-0.3	0.0	**-0.0**	0.0	-64.4
y	-0.0	-0.3	0.0	-0.0	**0.0**	-64.4	-0.0	-0.3	0.0	-0.0	**0.0**	-64.4
z	-0.0	-0.3	0.0	-0.0	0.0	**-64.4**	-0.0	-0.3	0.0	-0.0	0.0	**-64.4**

Joint 41

x	**-0.0**	-0.6	0.0	-0.0	0.0	-62.2	**-0.0**	-0.6	0.0	-0.0	0.0	-62.2
y	-0.0	**-0.6**	0.0	-0.0	0.0	-62.2	-0.0	**-0.6**	0.0	-0.0	0.0	-62.2
z	-0.0	-0.6	**0.0**	-0.0	0.0	-62.2	-0.0	-0.6	**0.0**	-0.0	0.0	-62.2
x	-0.0	-0.6	0.0	**-0.0**	0.0	-62.2	-0.0	-0.6	0.0	**-0.0**	0.0	-62.2
y	-0.0	-0.6	0.0	-0.0	**0.0**	-62.2	-0.0	-0.6	0.0	-0.0	**0.0**	-62.2
z	-0.0	-0.6	0.0	-0.0	0.0	**-62.2**	-0.0	-0.6	0.0	-0.0	0.0	**-62.2**

Joint 42

x	**-0.0**	-0.8	0.0	-0.0	0.0	-34.7	**-0.0**	-0.8	0.0	-0.0	0.0	-34.7
y	-0.0	**-0.8**	0.0	-0.0	0.0	-34.7	-0.0	**-0.8**	0.0	-0.0	0.0	-34.7
z	-0.0	-0.8	**0.0**	-0.0	0.0	-34.7	-0.0	-0.8	**0.0**	-0.0	0.0	-34.7
x	-0.0	-0.8	0.0	**-0.0**	0.0	-34.7	-0.0	-0.8	0.0	**-0.0**	0.0	-34.7
y	-0.0	-0.8	0.0	-0.0	**0.0**	-34.7	-0.0	-0.8	0.0	-0.0	**0.0**	-34.7
z	-0.0	-0.8	0.0	-0.0	0.0	**-34.7**	-0.0	-0.8	0.0	-0.0	0.0	**-34.7**

Joint 43

x	**-0.0**	-0.9	0.0	-0.0	0.0	1.2	**-0.0**	-0.9	0.0	-0.0	0.0	1.2
y	-0.0	**-0.9**	0.0	-0.0	0.0	1.2	-0.0	**-0.9**	0.0	-0.0	0.0	1.2
z	-0.0	-0.9	**0.0**	-0.0	0.0	1.2	-0.0	-0.9	**0.0**	-0.0	0.0	1.2

Joint 44

x	**-0.0**	-0.8	0.0	-0.0	0.0	36.8	**-0.0**	-0.8	0.0	-0.0	0.0	36.8
y	-0.0	**-0.8**	0.0	-0.0	0.0	36.8	-0.0	**-0.8**	0.0	-0.0	0.0	36.8
z	-0.0	-0.8	**0.0**	-0.0	0.0	36.8	-0.0	-0.8	**0.0**	-0.0	0.0	36.8
x	-0.0	-0.8	0.0	**-0.0**	0.0	36.8	-0.0	-0.8	0.0	**-0.0**	0.0	36.8
y	-0.0	-0.8	0.0	-0.0	**0.0**	36.8	-0.0	-0.8	0.0	-0.0	**0.0**	36.8
z	-0.0	-0.8	0.0	-0.0	0.0	**36.8**	-0.0	-0.8	0.0	-0.0	0.0	**36.8**

Joint 45

x	**-0.0**	-0.6	0.0	-0.0	0.0	63.1	**-0.0**	-0.6	0.0	-0.0	0.0	63.1
y	-0.0	**-0.6**	0.0	-0.0	0.0	63.1	-0.0	**-0.6**	0.0	-0.0	0.0	63.1
z	-0.0	-0.6	**0.0**	-0.0	0.0	63.1	-0.0	-0.6	**0.0**	-0.0	0.0	63.1
x	-0.0	-0.6	0.0	**-0.0**	0.0	63.1	-0.0	-0.6	0.0	**-0.0**	0.0	63.1
y	-0.0	-0.6	0.0	-0.0	**0.0**	63.1	-0.0	-0.6	0.0	-0.0	**0.0**	63.1
z	-0.0	-0.6	0.0	-0.0	0.0	**63.1**	-0.0	-0.6	0.0	-0.0	0.0	**63.1**

Joint 46

x	**-0.0**	-0.3	0.0	-0.0	0.0	63.4	**-0.0**	-0.3	0.0	-0.0	0.0	63.4
y	-0.0	**-0.3**	0.0	-0.0	0.0	63.4	-0.0	**-0.3**	0.0	-0.0	0.0	63.4
z	-0.0	-0.3	**0.0**	-0.0	0.0	63.4	-0.0	-0.3	**0.0**	-0.0	0.0	63.4
x	-0.0	-0.3	0.0	**-0.0**	0.0	63.4	-0.0	-0.3	0.0	**-0.0**	0.0	63.4
y	-0.0	-0.3	0.0	-0.0	**0.0**	63.4	-0.0	-0.3	0.0	-0.0	**0.0**	63.4
z	-0.0	-0.3	0.0	-0.0	0.0	**63.4**	-0.0	-0.3	0.0	-0.0	0.0	**63.4**

Joint 47

x	**-0.0**	-0.1	0.0	-0.0	0.0	-7.7	**-0.0**	-0.1	0.0	-0.0	0.0	-7.7
y	-0.0	**-0.1**	0.0	-0.0	0.0	-7.7	-0.0	**-0.1**	0.0	-0.0	0.0	-7.7
z	-0.0	-0.1	**0.0**	-0.0	0.0	-7.7	-0.0	-0.1	**0.0**	-0.0	0.0	-7.7
x	-0.0	-0.1	0.0	**-0.0**	0.0	-7.7	-0.0	-0.1	0.0	**-0.0**	0.0	-7.7
y	-0.0	-0.1	0.0	-0.0	**0.0**	-7.7	-0.0	-0.1	0.0	-0.0	**0.0**	-7.7
z	-0.0	-0.1	0.0	-0.0	0.0	**-7.7**	-0.0	-0.1	0.0	-0.0	0.0	**-7.7**

Joint 48

x	**-0.0**	-0.3	0.0	-0.0	0.0	-77.5	**-0.0**	-0.3	0.0	-0.0	0.0	-77.5
y	-0.0	**-0.3**	0.0	-0.0	0.0	-77.5	-0.0	**-0.3**	0.0	-0.0	0.0	-77.5
z	-0.0	-0.3	**0.0**	-0.0	0.0	-77.5	-0.0	-0.3	**0.0**	-0.0	0.0	-77.5
x	-0.0	-0.3	0.0	**-0.0**	0.0	-77.5	-0.0	-0.3	0.0	**-0.0**	0.0	-77.5
y	-0.0	-0.3	0.0	-0.0	**0.0**	-77.5	-0.0	-0.3	0.0	-0.0	**0.0**	-77.5
z	-0.0	-0.3	0.0	-0.0	0.0	**-77.5**	-0.0	-0.3	0.0	-0.0	0.0	**-77.5**

Joint 49

x	**-0.0**	-0.7	0.0	-0.0	0.0	-74.9	**-0.0**	-0.7	0.0	-0.0	0.0	-74.9
y	-0.0	**-0.7**	0.0	-0.0	0.0	-74.9	-0.0	**-0.7**	0.0	-0.0	0.0	-74.9
z	-0.0	-0.7	**0.0**	-0.0	0.0	-74.9	-0.0	-0.7	**0.0**	-0.0	0.0	-74.9
x	-0.0	-0.7	0.0	**-0.0**	0.0	-74.9	-0.0	-0.7	0.0	**-0.0**	0.0	-74.9
y	-0.0	-0.7	0.0	-0.0	**0.0**	-74.9	-0.0	-0.7	0.0	-0.0	**0.0**	-74.9
z	-0.0	-0.7	0.0	-0.0	0.0	**-74.9**	-0.0	-0.7	0.0	-0.0	0.0	**-74.9**

Joint 50

x	**-0.0**	-1.0	0.0	-0.0	0.0	-44.9	**-0.0**	-1.0	0.0	-0.0	0.0	-44.9
y	-0.0	**-1.0**	0.0	-0.0	0.0	-44.9	-0.0	**-1.0**	0.0	-0.0	0.0	-44.9
z	-0.0	-1.0	**0.0**	-0.0	0.0	-44.9	-0.0	-1.0	**0.0**	-0.0	0.0	-44.9
x	-0.0	-1.0	0.0	**-0.0**	0.0	-44.9	-0.0	-1.0	0.0	**-0.0**	0.0	-44.9
y	-0.0	-1.0	0.0	-0.0	**0.0**	-44.9	-0.0	-1.0	0.0	-0.0	**0.0**	-44.9
z	-0.0	-1.0	0.0	-0.0	0.0	**-44.9**	-0.0	-1.0	0.0	-0.0	0.0	**-44.9**

Joint 51

x	**-0.0**	-1.1	0.0	-0.0	0.0	-4.6	**-0.0**	-1.1	0.0	-0.0	0.0	-4.6
y	-0.0	**-1.1**	0.0	-0.0	0.0	-4.6	-0.0	**-1.1**	0.0	-0.0	0.0	-4.6
z	-0.0	-1.1	**0.0**	-0.0	0.0	-4.6	-0.0	-1.1	**0.0**	-0.0	0.0	-4.6
x	-0.0	-1.1	0.0	**-0.0**	0.0	-4.6	-0.0	-1.1	0.0	**-0.0**	0.0	-4.6
y	-0.0	-1.1	0.0	-0.0	**0.0**	-4.6	-0.0	-1.1	0.0	-0.0	**0.0**	-4.6
z	-0.0	-1.1	0.0	-0.0	0.0	**-4.6**	-0.0	-1.1	0.0	-0.0	0.0	**-4.6**

Joint 52

x	**-0.0**	-1.0	0.0	-0.0	0.0	37.3	**-0.0**	-1.0	0.0	-0.0	0.0	37.3
y	-0.0	**-1.0**	0.0	-0.0	0.0	37.3	-0.0	**-1.0**	0.0	-0.0	0.0	37.3
z	-0.0	-1.0	**0.0**	-0.0	0.0	37.3	-0.0	-1.0	**0.0**	-0.0	0.0	37.3
x	-0.0	-1.0	0.0	**-0.0**	0.0	37.3	-0.0	-1.0	0.0	**-0.0**	0.0	37.3
y	-0.0	-1.0	0.0	-0.0	**0.0**	37.3	-0.0	-1.0	0.0	-0.0	**0.0**	37.3
z	-0.0	-1.0	0.0	-0.0	0.0	**37.3**	-0.0	-1.0	0.0	-0.0	0.0	**37.3**

Joint 53

x	**-0.0**	-0.7	0.0	-0.0	0.0	73.1	**-0.0**	-0.7	0.0	-0.0	0.0	73.1
y	-0.0	**-0.7**	0.0	-0.0	0.0	73.1	-0.0	**-0.7**	0.0	-0.0	0.0	73.1
z	-0.0	-0.7	**0.0**	-0.0	0.0	73.1	-0.0	-0.7	**0.0**	-0.0	0.0	73.1
x	-0.0	-0.7	0.0	**-0.0**	0.0	73.1	-0.0	-0.7	0.0	**-0.0**	0.0	73.1
y	-0.0	-0.7	0.0	-0.0	**0.0**	73.1	-0.0	-0.7	0.0	-0.0	**0.0**	73.1
z	-0.0	-0.7	0.0	-0.0	0.0	**73.1**	-0.0	-0.7	0.0	-0.0	0.0	**73.1**

Joint 54

x	**-0.0**	-0.4	0.0	-0.0	0.0	85.1	**-0.0**	-0.4	0.0	-0.0	0.0	85.1
y	-0.0	**-0.4**	0.0	-0.0	0.0	85.1	-0.0	**-0.4**	0.0	-0.0	0.0	85.1
z	-0.0	-0.4	**0.0**	-0.0	0.0	85.1	-0.0	-0.4	**0.0**	-0.0	0.0	85.1
x	-0.0	-0.4	0.0	**-0.0**	0.0	85.1	-0.0	-0.4	0.0	**-0.0**	0.0	85.1
y	-0.0	-0.4	0.0	-0.0	**0.0**	85.1	-0.0	-0.4	0.0	-0.0	**0.0**	85.1
z	-0.0	-0.4	0.0	-0.0	0.0	**85.1**	-0.0	-0.4	0.0	-0.0	0.0	**85.1**

Joint 55

x	**-0.0**	-0.1	0.0	-0.0	0.0	38.9	**-0.0**	-0.1	0.0	-0.0	0.0	38.9
y	-0.0	**-0.1**	0.0	-0.0	0.0	38.9	-0.0	**-0.1**	0.0	-0.0	0.0	38.9
z	-0.0	-0.1	**0.0**	-0.0	0.0	38.9	-0.0	-0.1	**0.0**	-0.0	0.0	38.9
x	-0.0	-0.1	0.0	**-0.0**	0.0	38.9	-0.0	-0.1	0.0	**-0.0**	0.0	38.9
y	-0.0	-0.1	0.0	-0.0	**0.0**	38.9	-0.0	-0.1	0.0	-0.0	**0.0**	38.9
z	-0.0	-0.1	0.0	-0.0	0.0	**38.9**	-0.0	-0.1	0.0	-0.0	0.0	**38.9**

Joint 56

x	**-0.0**	-0.0	0.0	-0.0	0.0	-9.7	**-0.0**	-0.0	0.0	-0.0	0.0	-9.7
y	-0.0	**-0.0**	0.0	-0.0	0.0	-9.7	-0.0	**-0.0**	0.0	-0.0	0.0	-9.7
z	-0.0	-0.0	**0.0**	-0.0	0.0	-9.7	-0.0	-0.0	**0.0**	-0.0	0.0	-9.7
x	-0.0	-0.0	0.0	**-0.0**	0.0	-9.7	-0.0	-0.0	0.0	**-0.0**	0.0	-9.7
y	-0.0	-0.0	0.0	-0.0	**0.0**	-9.7	-0.0	-0.0	0.0	-0.0	**0.0**	-9.7
z	-0.0	-0.0	0.0	-0.0	0.0	**-9.7**	-0.0	-0.0	0.0	-0.0	0.0	**-9.7**

Joint 57

x	**-0.0**	-0.1	0.0	-0.0	0.0	-15.4	**-0.0**	-0.1	0.0	-0.0	0.0	-15.4
y	-0.0	**-0.1**	0.0	-0.0	0.0	-15.4	-0.0	**-0.1**	0.0	-0.0	0.0	-15.4
z	-0.0	-0.1	**0.0**	-0.0	0.0	-15.4	-0.0	-0.1	**0.0**	-0.0	0.0	-15.4
x	-0.0	-0.1	0.0	**-0.0**	0.0	-15.4	-0.0	-0.1	0.0	**-0.0**	0.0	-15.4
y	-0.0	-0.1	0.0	-0.0	**0.0**	-15.4	-0.0	-0.1	0.0	-0.0	**0.0**	-15.4
z	-0.0	-0.1	0.0	-0.0	0.0	**-15.4**	-0.0	-0.1	0.0	-0.0	0.0	**-15.4**

Joint 58

x	**-0.0**	-0.1	0.0	-0.0	0.0	-7.8	**-0.0**	-0.1	0.0	-0.0	0.0	-7.8
y	-0.0	**-0.1**	0.0	-0.0	0.0	-7.8	-0.0	**-0.1**	0.0	-0.0	0.0	-7.8
z	-0.0	-0.1	**0.0**	-0.0	0.0	-7.8	-0.0	-0.1	**0.0**	-0.0	0.0	-7.8
x	-0.0	-0.1	0.0	**-0.0**	0.0	-7.8	-0.0	-0.1	0.0	**-0.0**	0.0	-7.8
y	-0.0	-0.1	0.0	-0.0	**0.0**	-7.8	-0.0	-0.1	0.0	-0.0	**0.0**	-7.8
z	-0.0	-0.1	0.0	-0.0	0.0	**-7.8**	-0.0	-0.1	0.0	-0.0	0.0	**-7.8**

Joint 59

x	**-0.0**	-0.1	0.0	-0.0	0.0	4.8	**-0.0**	-0.1	0.0	-0.0	0.0	4.8
y	-0.0	**-0.1**	0.0	-0.0	0.0	4.8	-0.0	**-0.1**	0.0	-0.0	0.0	4.8
z	-0.0	-0.1	**0.0**	-0.0	0.0	4.8	-0.0	-0.1	**0.0**	-0.0	0.0	4.8
x	-0.0	-0.1	0.0	**-0.0**	0.0	4.8	-0.0	-0.1	0.0	**-0.0**	0.0	4.8
y	-0.0	-0.1	0.0	-0.0	**0.0**	4.8	-0.0	-0.1	0.0	-0.0	**0.0**	4.8
z	-0.0	-0.1	0.0	-0.0	0.0	**4.8**	-0.0	-0.1	0.0	-0.0	0.0	**4.8**

Joint 60

x	**-0.0**	-0.1	0.0	-0.0	0.0	18.3	**-0.0**	-0.1	0.0	-0.0	0.0	18.3
y	-0.0	**-0.1**	0.0	-0.0	0.0	18.3	-0.0	**-0.1**	0.0	-0.0	0.0	18.3
z	-0.0	-0.1	**0.0**	-0.0	0.0	18.3	-0.0	-0.1	**0.0**	-0.0	0.0	18.3
x	-0.0	-0.1	0.0	**-0.0**	0.0	18.3	-0.0	-0.1	0.0	**-0.0**	0.0	18.3
y	-0.0	-0.1	0.0	-0.0	**0.0**	18.3	-0.0	-0.1	0.0	-0.0	**0.0**	18.3
z	-0.0	-0.1	0.0	-0.0	0.0	**18.3**	-0.0	-0.1	0.0	-0.0	0.0	**18.3**

Joint 61

x	**-0.0**	-0.0	0.0	0.0	0.0	24.3	**-0.0**	-0.0	0.0	0.0	0.0	24.3
y	-0.0	**-0.0**	0.0	0.0	0.0	24.3	-0.0	**-0.0**	0.0	0.0	0.0	24.3
z	-0.0	-0.0	**0.0**	0.0	0.0	24.3	-0.0	-0.0	**0.0**	0.0	0.0	24.3
x	-0.0	-0.0	0.0	**0.0**	0.0	24.3	-0.0	-0.0	0.0	**0.0**	0.0	24.3
y	-0.0	-0.0	0.0	0.0	**0.0**	24.3	-0.0	-0.0	0.0	0.0	**0.0**	24.3
z	-0.0	-0.0	0.0	0.0	0.0	**24.3**	-0.0	-0.0	0.0	0.0	0.0	**24.3**

*** Fin del listado ***

SUBANEJO Nº 14

ESFUERZOS DE SOBRECARGAS DE USO

sc uso RENFE (sin coef. impacto)

Program Envolvator (release 1.3 - Jun 1998)
Calculation date: 13-abr-1999 12:10 h. Listing date: 13-abr-1999 12:35 h.
Members: 419
Joints: 353
Envelope generated from:

Name	min	max
sc tren A	0.00	1.00
sc tren B	0.00	1.00

	Fx	Fy	Fz	Mx	My	Mz	Fx	Fy	Fz	Mx	My	Mz
Member 1												
Fx_i	**-53.1**	-68.6	11.1	-43.8	-73.0	-4.2	**52.4**	-59.9	-8.0	-65.4	65.6	-7.7
Fy_i	-12.9	**-118.4**	4.8	-43.4	-23.2	-14.8	-14.7	**34.4**	2.2	-1.4	-17.5	8.8
Fz_i	47.0	-5.9	**-9.9**	3.3	65.8	-1.8	-49.1	-68.8	**12.4**	-54.6	-72.3	-4.3
Mx_i	-2.7	-90.9	4.5	**-124.8**	-12.5	-7.8	12.3	-11.6	-4.4	**25.9**	20.9	-3.3
My_i	-52.1	-69.2	12.0	-54.2	**-74.6**	-4.4	50.7	-9.7	-9.4	-8.8	**68.3**	-2.1
Mz_i	-8.1	-111.3	3.4	-38.5	-15.9	**-14.9**	-18.4	34.3	3.0	-1.9	-22.6	**8.8**
Fx_f	**-53.1**	-35.6	11.1	-34.1	-32.4	186.9	**52.4**	-49.3	-8.0	-54.3	36.3	190.7
Fy_f	-12.6	**-82.1**	4.5	-32.9	-5.8	287.3	-14.9	**38.1**	2.3	1.6	-9.4	-71.6
Fz_f	47.0	-5.2	**-9.9**	-1.6	29.3	18.6	-49.1	-36.6	**12.4**	-40.1	-26.7	188.9
Mx_f	-3.0	-55.2	4.0	**-90.9**	3.1	197.0	17.7	9.3	-4.0	**26.1**	10.3	25.1
My_f	-50.0	12.4	8.3	-13.0	**-34.4**	-39.9	51.0	-48.4	-6.9	-46.9	**37.6**	244.6
Mz_f	-14.7	34.4	2.2	-1.4	-9.5	**-117.2**	-12.9	-76.1	4.8	-29.1	-5.8	**338.2**
Member 2												
Fx_i	**-44.4**	-23.8	9.9	-29.0	-61.6	154.8	**43.7**	-49.7	-8.8	-56.7	59.5	183.2
Fy_i	-7.1	**-80.8**	2.3	-29.7	-12.0	287.0	-15.2	**37.8**	2.9	0.2	-19.4	-71.4
Fz_i	38.1	-10.4	**-10.1**	-22.6	57.5	37.4	-39.6	-34.8	**11.1**	-31.5	-59.6	191.7
Mx_i	-1.5	-53.9	2.1	**-89.6**	-5.0	197.5	13.3	7.8	-4.0	**22.0**	20.8	24.5
My_i	-43.5	-34.4	10.4	-30.9	**-62.3**	190.0	42.7	-23.1	-9.3	-32.6	**60.4**	78.6
Mz_i	-12.6	34.3	2.2	-1.3	-15.5	**-117.1**	-10.5	-75.1	3.4	-27.6	-17.5	**338.0**
Fx_f	**-44.4**	9.2	9.9	-19.4	-25.3	181.6	**43.7**	-12.1	-8.8	-17.3	27.2	302.6
Fy_f	-6.7	**-53.4**	2.0	-24.5	-3.7	388.5	-15.4	**48.2**	3.1	6.1	-8.6	-109.4
Fz_f	38.1	-10.4	**-10.1**	-22.6	20.4	75.6	-39.6	-1.8	**11.1**	-21.8	-18.9	258.9
Mx_f	-1.9	-26.4	2.0	**-65.9**	2.0	204.9	4.4	22.8	-1.2	**35.7**	2.3	174.1
My_f	-42.1	14.9	8.1	-12.9	**-27.1**	-93.2	42.2	-10.7	-7.8	-11.7	**28.6**	298.4
Mz_f	-12.6	34.3	2.2	-1.3	-7.3	**-243.0**	-9.8	-36.9	3.1	-15.3	-5.0	**545.3**
Member 3												
Fx_i	**-35.9**	12.8	9.1	-8.6	-51.6	190.0	**35.4**	-17.8	-8.6	-28.9	50.8	266.2
Fy_i	-5.0	**-50.7**	1.3	-18.4	-8.1	382.6	-12.9	**47.1**	3.3	2.7	-17.7	-103.5
Fz_i	28.9	-27.7	**-10.4**	-43.1	48.7	185.5	-30.1	2.3	**10.5**	-12.2	-48.9	259.3
Mx_i	7.6	-24.4	-0.0	**-59.4**	8.1	232.1	1.1	19.8	-1.0	**25.4**	2.9	172.7
My_i	-34.9	2.8	9.6	-12.2	**-52.4**	256.2	34.1	-26.2	-9.5	-43.1	**52.2**	174.1
Mz_i	-10.4	34.3	2.2	-1.1	-13.3	**-242.9**	-7.7	-35.4	2.5	-13.5	-13.0	**545.3**
Fx_f	**-35.9**	45.8	9.1	1.0	-18.2	82.6	**35.4**	14.4	-8.6	5.0	19.3	272.4
Fy_f	-5.0	**-29.7**	1.1	-13.0	-3.6	353.7	-11.5	**62.9**	2.9	10.2	-5.1	-66.2
Fz_f	28.9	4.6	**-10.4**	-9.3	10.7	227.8	-30.1	35.3	**10.5**	-2.5	-10.5	190.5
Mx_f	6.9	-2.6	0.2	**-40.1**	7.6	89.7	1.5	39.2	-1.2	**43.5**	-0.7	235.0
My_f	-27.9	14.9	3.6	-8.4	**-21.2**	-123.1	27.7	22.1	-3.5	18.6	**21.6**	241.5
Mz_f	-12.4	34.4	2.8	-1.3	-6.1	**-369.0**	-5.7	0.6	1.8	-2.1	-3.0	**610.5**
Member 4												
Fx_i	**-28.0**	37.1	8.1	12.1	-41.9	-42.0	**27.6**	8.5	-8.7	-14.5	43.1	256.5
Fy_i	4.1	**-30.2**	-2.8	-29.3	8.6	264.6	-11.5	**64.6**	4.7	9.9	-18.9	-87.7
Fz_i	19.5	5.9	**-10.8**	-17.9	39.9	266.8	-20.7	40.5	**10.0**	9.8	-38.5	191.5
Mx_i	6.8	-25.5	-3.2	**-41.7**	12.7	208.5	-3.6	36.6	1.0	**36.3**	-5.4	307.0
My	-26.6	52.9	9.0	17.4	**-42.8**	76.9	25.7	15.7	-9.8	-12.3	**44.3**	313.1
Mz_i	-9.6	34.6	2.6	-0.5	-13.2	**-369.0**	-4.2	2.2	1.5	-0.3	-7.6	**610.5**
Fx_f	**-28.0**	37.8	8.1	7.2	-12.1	-179.2	**27.6**	40.8	-8.7	19.3	11.2	166.2
Fy_f	-2.9	**-16.3**	-0.9	-4.3	-5.2	209.9	-10.6	**92.0**	4.3	16.0	-1.5	-144.8
Fz_f	19.5	43.5	**-10.8**	21.5	0.5	178.9	-20.7	73.5	**10.0**	19.4	-1.9	-17.6
Mx_f	18.6	2.6	-8.3	**-24.4**	4.0	-70.0	-11.7	73.2	3.4	**54.0**	-5.1	105.3
My_f	-15.5	-0.2	-2.5	-2.3	**-19.9**	24.1	15.9	20.1	1.7	3.0	**19.4**	-56.4
Mz_f	-9.8	34.6	2.7	-0.5	-3.6	**-496.0**	-4.0	43.1	1.3	12.9	-2.3	**527.6**
Member 5												
Fx_i	**-22.1**	24.7	3.1	20.3	-26.8	-181.9	**21.7**	45.4	-4.1	13.7	28.7	118.9
Fy_i	1.6	**-18.3**	-2.4	-17.8	5.5	204.9	-5.7	**95.3**	3.9	24.9	-11.7	-121.4
Fz_i	10.0	46.4	**-11.6**	8.9	32.0	210.1	-11.2	55.6	**9.2**	19.4	-27.5	-141.5
Mx_i	7.8	-7.1	-8.8	**-38.8**	24.5	23.2	-4.8	80.6	3.2	**61.3**	-10.4	66.0
My_i	-19.2	55.8	7.8	22.0	**-33.3**	-126.5	17.4	48.1	-10.5	9.3	**37.3**	189.2
Mz_i	-6.9	35.0	2.1	0.5	-9.5	**-496.0**	-2.7	44.6	0.8	14.7	-4.9	**527.7**
Fx_f	**-22.1**	24.7	3.1	20.3	-15.4	-272.3	**21.7**	46.1	-4.1	8.8	13.7	-48.9
Fy_f	1.6	**-10.2**	-1.9	-5.7	-2.5	159.9	-5.6	**125.9**	3.9	31.2	2.7	-421.0
Fz_f	10.0	83.9	**-11.6**	48.3	-10.5	-28.0	-11.2	56.3	**9.2**	14.6	6.2	-346.7
Mx_f	7.9	0.6	-7.6	**-26.0**	-5.6	-66.4	-4.9	110.3	2.5	**85.5**	-0.0	-185.3
My_f	-12.5	90.6	-7.2	52.0	**-25.5**	-106.5	16.2	19.6	2.8	1.1	**21.5**	-196.9
Mz_f	-7.0	35.0	2.1	0.5	-1.9	**-624.2**	-2.5	81.2	0.8	23.5	-1.7	**298.7**
Member 6												
Fx_i	**-17.8**	**31.1**	-3.7	7.7	-20.8	-31.5	**17.2**	40.2	1.0	12.4	25.7	-181.9
Fy_i	-0.3	**-11.2**	-2.1	-9.2	2.8	159.0	-0.4	**128.1**	1.1	36.3	-1.3	-420.0
Fz_i	0.6	88.5	**-13.6**	40.5	26.9	-95.0	-3.2	54.1	**7.8**	15.1	-18.6	-325.9
Mx_i	-0.1	-2.7	-8.2	**-34.6**	15.5	-58.4	0.1	113.0	-0.4	**89.5**	1.1	-193.2
My_i	-14.5	22.1	4.5	3.1	**-31.7**	-293.6	11.4	75.3	-10.4	40.3	**38.3**	-33.5
Mz_i	-3.7	35.3	0.4	1.6	-4.9	**-624.4**	-1.0	81.8	-0.1	23.6	-2.6	**299.0**
Fx_f	**-17.8**	63.4	-3.7	22.3	-34.5	-204.7	**17.2**	41.0	1.0	7.5	29.3	-330.7
Fy_f	-3.9	**-8.1**	-0.4	-1.7	-7.9	158.5	-0.7	**163.6**	0.7	44.3	1.5	-911.9
Fz_f	0.6	126.0	**-13.6**	79.9	-23.2	-489.1	-3.2	54.9	**7.8**	10.3	10.0	-525.7
Mx_f	-2.9	22.6	-4.9	**-32.5**	-13.3	-124.0	-0.9	147.3	-1.8	**121.0**	-4.5	-628.3
My_f	-15.2	126.5	-9.9	78.4	**-42.9**	-494.7	16.3	18.3	2.4	-2.9	**31.4**	-269.7
Mz_f	-1.0	157.3	0.5	38.3	1.0	**-941.3**	-4.0	-8.1	-0.4	-1.7	-8.4	**158.6**
Member 7												
Fx_i	**-17.2**	-59.1	3.1	-93.2	-35.9	-156.1	**16.6**	-74.9	-1.1	13.6	31.5	-404.0
Fy_i	0.4	**-215.1**	2.8	-67.6	-3.6	-924.3	-0.0	**24.8**	0.1	8.5	-1.5	146.8
Fz_i	5.3	-18.4	**-4.5**	-26.3	20.7	-82.2	-4.8	-181.7	**8.2**	-158.5	-26.8	-760.3
Mx_i	-4.3	-162.1	4.8	**-182.3**	-18.3	-589.5	5.5	-75.8	-1.0	**73.5**	12.7	-401.9
My_i	-15.3	-154.7	6.0	-147.1	**-40.8**	-600.2	15.3	-28.7	-2.3	21.8	**33.5**	-171.6
Mz_i	1.1	-210.8	3.4	-62.5	-3.8	**-941.4**	-3.9	22.9	0.4	-1.0	-8.9	**158.6**
Fx_f	**-17.2**	-19.5	3.1	-75.4	-22.1	20.9	**16.6**	-74.0	-1.1	7.7	26.4	-68.9
Fy_f	1.0	**-171.2**	2.5	-59.3	9.2	-116.0	2.6	**28.6**	-0.2	19.7	3.0	73.1
Fz_f	5.3	-17.5	**-4.5**	-32.3	0.5	-1.3	-4.8	-136.8	**8.2**	-111.4	10.1	-47.8
Mx_f	-2.8	-120.9	4.2	**-143.5**	4.6	-10.3	4.7	-73.5	-0.6	**76.2**	7.7	-7.5
My_f	-15.4	-7.2	2.1	-55.2	**-23.3**	53.8	14.6	-121.0	1.6	-43.7	**30.5**	-79.8
Mz_f	-0.4	-70.1	1.8	-0.6	5.5	**-260.2**	-1.8	-66.5	1.9	-41.7	-0.5	200.3
Member 8												
Fx_i	**-18.2**	-16.4	2.1	-71.8	-21.8	25.3	**17.7**	-75.8	-1.6	0.5	20.8	-70.0
Fy_i	-0.3	**-167.7**	0.9	-52.6	-1.0	-116.1	2.3	**26.3**	-0.6	12.4	3.0	73.9
Fz_i	2.6	-21.2	**-4.5**	-45.1	13.3	4.3	-4.4	-115.5	**5.0**	-62.8	-15.4	-61.3
Mx_i	-3.1	-131.1	2.2	**-141.6**	-7.7	-40.2	4.4	-77.9	-0.9	**62.6**	6.7	-10.9
My_i	-15.9	-87.6	3.4	-103.6	**-23.3**	18.1	16.0	-46.2	-2.4	11.2	**21.8**	-82.6
Mz_i	-0.1	-70.5	0.5	-2.6	0.0	**-261.0**	-1.7	-64.4	0.9	-38.1	-4.4	200.6
Fx_f	**-18.2**	-16.4	2.1	-71.8	-12.5	99.1	**17.7**	-74.9	-1.6	-5.5	13.5	269.3
Fy_f	-0.6	**-129.9**	0.8	-49.8	2.3	397.1	2.1	**35.7**	-0.4	29.8	0.5	62.0
Fz_f	2.6	-20.3	**-4.5**	-51.1	-6.8	97.8	-4.4	-65.4	**5.0**	-10.2	7.1	342.9
Mx_f	-1.6	-96.1	1.6	**-116.0**	2.3	330.3	4.6	-61.6	-0.8	**73.2**	3.1	430.4
My_f	-14.2	-17.0	-0.4	-66.4	**-15.4**	99.2	12.7	-70.7	1.9	2.9	**17.5**	358.8
Mz_f	-0.3	12.0	0.4	-1.7	0.1	**-185.3**	-1.2	-108.2	1.1	-27.4	2.3	**652.2**
Member 9												
Fx_i	**-16.7**	-9.9	0.7	-52.8	-17.1	96.1	**16.1**	-84.3	-0.7	-29.1	17.1	272.2
Fy_i	-0.5	**-124.3**	0.4	-37.8	-0.3	376.1	-0.8	**31.7**	0.7	6.7	-3.1	87.7
Fz_i	-2.0	-24.4	**-4.6**	-34.9	8.8	77.9	0.9	-63.4	**4.6**	-8.3	-9.0	395.9
Mx_i	1.1	-104.0	0.4	**-109.8**	0.5	363.6	3.0	-45.6	-1.1	**45.7**	5.7	305.2

My,	-14.7	-9.7	2.1	-52.4	**-19.6**	102.5	14.4	-55.8	-2.1	-12.0	**19.3**	147.9
Mz,	-0.2	12.0	0.2	-1.3	-1.1	**-185.1**	-0.5	-105.9	0.7	-27.4	-1.1	**651.7**
Fx,	**-16.7**	-9.9	0.7	-52.8	-14.0	140.6	**16.1**	-33.3	-0.7	17.6	14.0	535.8
Fy,	-1.4	**-92.0**	0.3	-35.6	0.6	637.7	0.6	**47.2**	0.3	42.3	0.5	136.0
Fz,	-2.0	-23.5	**-4.6**	-40.8	-11.8	185.7	0.9	-23.8	**4.6**	9.5	11.9	592.0
Mx,	0.9	-72.6	0.3	**-88.6**	1.8	553.7	-0.8	30.8	-0.6	**64.7**	-1.7	197.7
My,	-11.3	-17.7	-3.2	-42.9	**-17.8**	113.2	10.3	-31.8	3.2	24.1	**18.3**	649.4
Mz,	-0.9	16.2	0.5	-1.5	-0.4	**-243.7**	-0.2	-60.2	0.6	-13.3	2.3	**1021.6**

Member 10

Fx,	**-16.9**	2.6	-1.0	-11.6	-13.5	183.9	**16.3**	-42.7	1.1	-22.5	13.3	548.6
Fy,	-0.9	**-85.7**	0.3	-24.2	-0.4	592.2	0.5	**42.7**	0.4	10.0	-1.1	196.1
Fz,	-7.2	-16.5	**-4.6**	-22.6	3.7	186.0	5.9	-29.2	**4.6**	-11.4	-3.8	588.7
Mx,	4.0	-62.2	0.7	**-81.2**	2.7	496.3	-4.6	20.4	-0.5	**43.4**	-3.2	240.7
My,	-13.1	2.4	1.8	-23.8	**-17.3**	144.5	13.2	-42.7	-1.8	-23.0	**17.3**	519.3
Mz,	-0.4	16.2	0.4	-0.9	-2.1	**-243.6**	0.3	-57.8	0.5	-14.5	0.4	**1021.3**
Fx,	**-16.9**	2.6	-1.0	-11.6	-18.2	172.4	**16.3**	5.7	1.1	21.5	18.3	635.4
Fy,	-2.0	**-58.7**	0.2	-18.2	-0.3	655.5	1.7	**64.0**	0.6	19.9	2.3	215.9
Fz,	-7.2	-16.5	**-4.6**	-22.6	-17.1	260.4	5.9	11.3	**4.6**	0.4	16.9	628.8
Mx,	3.3	-35.2	0.6	**-59.9**	4.9	475.0	-4.0	42.0	-0.4	**65.8**	-4.7	337.8
My,	-14.7	-8.1	-3.4	-16.9	**-21.8**	161.6	13.3	14.4	3.5	12.6	**21.8**	713.6
Mz,	-0.4	16.2	0.4	-0.8	-0.1	**-316.4**	0.2	-10.6	0.6	0.3	2.7	**1165.8**

Member 11

Fx,	**-19.0**	1.6	-3.3	9.3	-10.5	151.2	**18.5**	1.5	3.2	-19.7	10.8	683.6
Fy,	-0.1	**-57.2**	0.2	-19.4	0.8	464.1	1.1	**63.8**	0.5	20.0	-0.6	409.9
Fz,	-12.5	-11.5	**-4.6**	-8.1	-1.6	255.8	11.2	7.2	**4.5**	-18.4	1.6	633.5
Mx,	7.1	-34.3	0.3	**-64.1**	6.7	350.2	-7.6	40.3	-0.4	**57.1**	-6.5	483.7
My,	-14.2	14.5	0.6	11.1	**-15.6**	138.1	13.9	-13.1	-0.8	-28.1	**15.8**	634.8
Mz,	0.1	16.3	0.4	0.1	-1.5	**-316.4**	0.8	-8.2	0.5	-1.4	0.9	**1165.8**
Fx,	**-19.0**	1.6	-3.3	9.3	-25.4	144.2	**18.5**	47.3	3.2	-5.5	25.1	575.1
Fy,	-1.6	**-35.3**	-0.0	-9.8	-0.4	412.5	2.5	**90.1**	0.6	25.6	3.2	325.6
Fz,	-12.5	-11.5	**-4.6**	-8.1	-22.5	307.4	11.2	47.7	**4.5**	-6.5	22.0	509.9
Mx,	6.4	-11.5	0.3	**-41.6**	7.3	208.7	-6.9	66.3	-0.4	**78.3**	-7.5	483.1
My,	-18.3	1.3	-3.7	10.4	**-26.0**	166.0	16.6	51.5	3.7	-7.0	**25.7**	594.6
Mz,	-0.0	16.3	0.4	0.1	0.2	**-389.7**	1.0	42.8	0.5	15.2	3.4	**1085.2**

Member 12

Fx,	**-22.8**	9.8	-3.6	30.7	-13.7	151.5	**22.1**	41.2	3.2	-32.5	14.5	587.5
Fy,	-3.1	**-39.5**	-1.0	-41.6	0.3	304.5	4.4	**96.2**	1.1	36.8	1.2	424.3
Fz,	-17.6	-9.4	**-4.8**	-6.0	-6.4	306.5	16.3	50.3	**4.4**	-16.4	7.1	374.4
Mx,	-0.5	-26.5	-2.5	**-64.7**	5.2	169.4	-1.8	80.2	1.4	**87.3**	-4.7	519.0
My,	-18.6	25.8	-1.3	46.9	**-15.6**	107.6	18.0	28.1	0.9	-18.9	**16.4**	560.9
Mz,	0.4	16.5	0.3	1.4	-1.0	**-389.8**	1.6	45.2	0.4	14.1	2.0	**1085.5**
Fx,	**-22.8**	9.8	-3.6	30.7	-29.8	107.5	**22.1**	86.9	3.2	-18.2	28.8	294.2
Fy,	-3.9	**-22.0**	-1.0	-17.7	-5.0	217.1	5.7	**127.6**	1.3	39.0	7.9	149.9
Fz,	-17.6	30.2	**-4.8**	35.6	-27.9	259.8	16.3	90.8	**4.4**	-4.5	26.9	57.0
Mx,	4.0	46.4	-0.9	**-44.2**	2.1	283.3	-1.4	110.8	1.3	**108.4**	1.9	299.5
My,	-21.7	4.7	-4.1	28.2	**-30.5**	170.9	20.4	90.2	3.8	-17.7	**29.6**	282.7
Mz,	0.2	16.6	0.3	1.5	0.1	**-464.2**	1.4	90.9	0.3	28.3	3.4	**780.1**

Member 13

Fx,	**-26.9**	8.1	-4.3	32.2	-16.1	170.0	**26.1**	88.8	3.0	-25.0	18.9	287.8
Fy,	-2.4	**-26.4**	-1.2	-39.2	1.4	156.1	6.9	**133.1**	0.7	50.8	4.9	167.4
Fz,	-22.5	36.7	**-5.3**	29.1	-10.1	281.5	21.4	91.8	**4.0**	-3.6	13.2	58.8
Mx,	1.3	59.5	-1.3	**-77.5**	4.5	416.0	-0.7	105.8	0.1	**118.6**	-0.5	257.5
My,	-23.5	20.6	-2.9	59.3	**-17.0**	81.5	22.7	76.2	1.4	-1.4	**20.0**	276.8
Mz,	0.6	17.0	-0.1	3.2	0.1	**-464.4**	1.9	93.3	-0.1	28.5	3.5	**780.6**
Fx,	**-26.9**	55.6	-4.3	82.1	-35.6	26.2	**26.1**	139.9	3.0	-8.4	32.6	-231.6
Fy,	-1.5	**-15.3**	-0.7	-16.1	-2.1	92.9	7.6	**170.3**	0.7	53.4	8.6	-353.4
Fz,	-22.5	81.6	**-5.3**	76.2	-33.9	11.4	21.4	92.7	**4.0**	-9.5	31.2	-356.4
Mx,	1.0	76.2	-1.3	**-67.0**	-1.6	-24.3	-1.4	141.5	-0.3	**143.5**	-1.8	-148.0
My,	-26.0	54.6	-4.7	82.3	**-36.1**	27.4	24.5	138.1	3.5	-12.7	**33.2**	-227.4
Mz,	6.6	68.1	0.5	-20.1	7.1	**-591.7**	-4.5	85.4	-0.7	69.6	-4.8	**307.6**

Member 14

Fx,	**-27.6**	52.4	-6.3	73.4	-26.4	27.3	**26.9**	141.4	1.4	-6.2	36.9	-229.4
Fy,	-5.3	**-19.1**	-2.3	-36.6	-1.7	27.7	9.4	**174.9**	-0.9	72.3	16.0	-283.7
Fz,	-15.3	118.5	**-8.6**	77.4	-4.0	-139.2	20.3	60.7	**3.4**	-18.5	24.0	-302.3
Mx,	-0.5	69.6	-1.9	**-87.3**	3.9	-20.6	-1.2	126.0	-2.9	**150.9**	5.0	-154.6
My,	-25.2	16.9	-4.1	61.6	**-28.8**	30.1	23.1	115.0	-1.2	37.0	**38.4**	-256.5
Mz,	7.0	67.9	-1.2	-21.3	12.3	**-590.3**	-4.4	88.4	-2.1	75.0	-0.1	**306.4**
Fx,	**-27.6**	99.9	-6.3	123.3	-54.8	-311.9	**26.9**	142.3	1.4	-12.1	43.2	-867.8
Fy,	-3.3	**-15.0**	-1.5	-26.1	-7.1	52.9	8.7	**218.5**	-1.3	80.0	9.7	-1106.5
Fz,	-15.3	168.7	**-8.6**	130.1	-42.5	-788.2	20.3	61.6	**3.4**	-24.4	39.1	-577.3
Mx,	0.5	72.4	-1.4	**-83.9**	-1.9	-406.3	-3.6	173.4	-4.0	**188.3**	-14.2	-752.1
My,	-26.5	125.6	-7.1	132.9	**-55.5**	-468.4	24.7	134.4	2.8	-29.2	**44.4**	-815.3
Mz,	9.3	210.2	-2.7	54.0	6.9	**-1199.6**	-7.0	-11.9	-0.5	-1.1	-9.9	**176.4**

Member 15

Fx,	**-26.5**	-89.2	5.4	-107.2	-58.2	-312.4	**25.6**	-127.8	-0.6	3.9	46.8	-873.8
Fy,	10.6	**-224.7**	2.3	-79.3	12.9	-1113.5	-5.0	**26.7**	0.4	23.7	-8.0	84.8
Fz,	8.2	-5.7	**-4.3**	20.7	25.3	-129.2	-6.6	-178.1	**9.6**	-142.3	-33.4	-850.7
Mx,	0.5	-171.1	5.1	**-193.9**	-10.2	-753.4	-1.3	-72.6	0.1	**89.3**	-2.0	-429.8
My,	-25.6	-123.4	6.3	-119.9	**-59.3**	-435.3	23.2	-86.5	-2.5	27.9	**48.2**	-742.1
Mz,	9.1	-215.7	3.4	-71.7	7.4	**-1199.2**	-6.6	23.7	0.5	-0.4	-11.0	**176.4**
Fx,	**-26.5**	-44.3	5.4	-60.1	-33.9	-11.4	**25.6**	-126.9	-0.6	-2.0	43.9	-300.7
Fy,	11.5	**-181.0**	1.9	-71.2	23.7	-264.9	-7.0	**30.8**	1.1	34.2	-8.2	6.9
Fz,	8.2	-4.8	**-4.3**	14.7	6.0	-105.4	-6.6	-128.0	**9.6**	-89.7	10.0	-154.8
Mx,	3.0	-123.2	4.1	**-156.1**	15.0	-159.3	-2.4	-70.0	0.6	**92.2**	-2.6	-46.1
My,	-23.9	-11.9	3.4	-64.9	**-35.2**	5.0	23.6	-148.1	0.6	-6.2	**45.2**	-245.5
Mz,	7.6	-73.3	1.8	16.4	16.4	**-562.9**	-4.3	-77.5	2.3	-71.1	-0.2	**259.9**

Member 16

Fx,	**-28.2**	-50.6	3.0	-85.5	-34.0	14.6	**27.3**	-137.4	-1.8	16.7	31.1	-235.5
Fy,	9.4	**-176.3**	0.2	-53.0	8.5	-331.8	-5.3	**26.9**	0.3	18.2	-4.8	38.4
Fz,	5.6	-38.2	**-4.5**	-44.3	16.2	-208.2	-12.5	-114.2	**5.8**	-84.6	-25.4	-21.2
Mx,	2.3	-138.8	1.9	**-149.2**	-1.5	-164.1	-2.3	-76.5	0.2	**72.3**	-2.4	-50.1
My,	-26.8	-69.7	4.2	-81.2	**-35.7**	12.2	25.6	-119.5	-2.8	10.3	**32.8**	-298.4
Mz,	8.3	-73.5	-0.0	15.2	7.7	**-564.2**	-4.3	-74.5	1.0	-65.5	-5.3	261.1
Fx,	**-28.2**	-5.7	3.0	-38.4	-20.4	135.8	**27.3**	-86.4	-1.8	33.3	22.9	267.2
Fy,	8.8	**-138.8**	0.1	-50.2	8.4	213.7	-5.7	**36.5**	0.5	35.8	-3.3	29.1
Fz,	5.6	-37.3	**-4.5**	-50.2	-4.0	-38.1	-12.5	-64.0	**5.8**	-32.0	0.9	377.0
Mx,	4.4	-104.0	1.2	**-123.7**	7.5	239.9	-2.1	-59.9	0.3	**83.0**	-1.2	389.5
My,	-25.4	-7.5	1.4	-32.3	**-22.0**	133.0	24.0	-87.4	0.0	25.9	**24.8**	251.1
Mz,	1.1	-2.8	0.2	-4.2	2.7	**-468.4**	3.5	-103.9	0.8	-28.2	4.7	**743.5**

Member 17

Fx,	**-25.8**	-4.1	2.0	-33.0	-29.2	139.3	**24.8**	-89.9	-1.7	19.8	28.2	268.3
Fy,	7.9	**-133.3**	-0.5	-38.7	8.5	196.9	-4.7	**32.6**	1.0	5.9	-5.6	113.7
Fz,	5.9	-29.5	**-4.8**	-21.8	17.0	-48.9	-6.9	-66.7	**5.2**	-50.0	-18.3	359.6
Mx,	6.8	-109.4	-0.3	**-113.2**	7.8	287.1	-1.1	-45.2	-0.3	**49.4**	-0.0	272.1
My,	-24.3	-1.4	3.2	-23.4	**-31.0**	99.4	23.0	-81.7	-2.8	17.4	**30.1**	150.5
Mz,	0.7	-2.3	-0.2	-2.3	2.4	**-468.3**	3.8	-101.5	0.4	-28.0	2.2	**742.9**
Fx,	**-25.8**	-4.1	2.0	-33.0	-20.3	157.7	**24.8**	-44.1	-1.7	34.0	20.7	572.0
Fy,	6.6	**-101.3**	-0.6	-36.5	4.6	492.7	-4.4	**47.9**	0.6	41.5	-1.8	155.4
Fz,	5.9	-28.6	**-4.8**	-27.7	-4.5	81.7	-6.9	-21.8	**5.2**	-2.9	5.0	560.0
Mx,	6.5	-78.4	-0.4	**-92.0**	5.9	496.3	-8.6	29.5	0.6	**68.4**	-6.9	134.3
My,	-22.0	-8.0	-0.7	-26.4	**-23.2**	177.4	21.5	-40.9	0.7	20.0	**23.8**	543.1
Mz,	0.0	-2.1	-0.0	-2.1	1.3	**-458.6**	4.4	-55.9	0.2	-14.0	4.1	**1093.6**

Member 18

Fx,	**-24.1**	1.9	0.9	-10.4	-25.1	159.5	**23.2**	-49.6	-0.7	6.2	24.7	564.3
Fy,	4.5	**-95.0**	-0.1	-25.3	4.0	401.2	-1.0	**43.8**	0.3	9.5	-0.4	258.4
Fz,	-0.3	-22.8	**-4.9**	-13.5	11.1	123.8	-0.7	-26.4	**5.0**	-25.5	-11.7	518.0
Mx,	1.4	-63.7	1.3	**-81.8**	-1.3	461.4	-2.4	14.0	-1.2	**43.5**	0.6	151.2
My,	-22.5	4.7	2.4	-12.9	**-27.4**	154.0	21.2	-51.0	-2.3	10.0	**27.1**	562.5
Mz,	-0.1	-1.8	-0.1	-0.6	1.4	**-458.5**	4.5	-53.5	0.1	-15.1	3.6	**1093.3**
Fx,	**-24.1**	1.9	0.9	-10.4	-21.1	150.8	**23.2**	-3.8	-0.7	20.5	21.4	680.5

Fy,	2.8	**-68.3**	-0.1	-19.3	1.8	502.0	0.9	**65.7**	0.3	20.0	2.8	279.0
Fz,	-0.3	-21.9	**-4.9**	-19.4	-11.1	224.4	-0.7	18.5	**5.0**	21.7	10.8	530.8
Mx,	0.5	-37.0	1.3	**-60.5**	3.7	442.9	-1.6	36.2	-1.1	**65.9**	-3.9	283.3
My,	-21.8	-12.8	-1.4	-15.5	**-24.7**	139.7	21.0	5.4	1.4	9.8	**24.7**	626.4
Mz,	-0.6	4.2	0.2	-1.0	1.1	**-451.1**	4.4	-6.3	0.2	-0.3	4.0	**1218.3**

Member 19

Fx,	**-24.2**	4.8	-0.4	8.4	-22.3	181.7	**23.4**	-7.2	0.6	-13.4	21.9	656.5
Fy,	3.5	**-67.9**	-0.3	-19.8	3.4	332.1	0.7	**66.0**	0.2	19.6	1.5	448.3
Fz,	-5.8	-14.6	**-5.0**	-3.5	5.6	223.4	4.9	12.7	**4.9**	-2.6	-5.9	531.8
Mx,	6.2	-36.6	0.7	**-67.2**	4.9	261.3	-6.9	33.7	-0.9	**59.4**	-4.7	453.9
My,	-21.3	13.6	1.7	13.7	**-24.9**	145.5	20.3	-16.0	-1.7	-11.2	**24.8**	693.9
Mz,	-0.4	4.5	0.1	0.4	0.6	**-451.1**	4.5	-3.9	0.1	-2.0	3.6	**1218.3**
Fx,	**-24.2**	4.8	-0.4	8.4	-24.2	159.9	**23.4**	43.9	0.6	3.2	24.7	571.2
Fy,	1.6	**-46.3**	-0.4	-10.1	0.0	326.5	2.4	**92.8**	0.3	25.0	4.3	357.0
Fz,	-5.8	-14.6	**-5.0**	-3.5	-16.8	289.0	4.9	63.7	**4.9**	44.2	16.3	355.2
Mx,	5.3	-14.1	0.8	**-44.6**	7.3	128.1	-6.1	60.1	-0.9	**80.5**	-7.9	496.2
My,	-21.2	-5.3	-2.6	11.3	**-26.8**	169.8	20.2	48.1	2.5	-8.0	**26.5**	567.8
Mz,	-0.8	4.5	0.1	0.5	0.7	**-471.5**	4.5	47.2	0.1	14.6	4.0	**1118.1**

Member 20

Fx,	**-25.4**	1.4	-1.5	20.7	-21.2	158.9	**24.6**	36.8	1.2	-25.5	21.8	539.0
Fy,	-1.4	**-50.6**	-0.8	-42.2	-0.2	223.2	3.9	**99.3**	0.8	36.2	3.3	449.8
Fz,	-10.1	10.0	**-5.1**	5.9	1.7	518.9	9.5	44.3	**4.8**	25.8	-0.9	197.4
Mx,	-2.9	-31.4	-1.1	**-69.9**	-0.7	144.8	-0.5	76.6	0.9	**90.9**	-2.2	498.4
My,	-21.9	20.5	0.7	39.8	**-23.1**	100.7	20.6	29.2	-1.0	-25.6	**23.5**	604.0
Mz,	-0.7	4.9	-0.0	2.0	0.7	**-471.6**	4.7	49.6	-0.0	13.6	4.0	**1118.4**
Fx,	**-25.4**	1.4	-1.5	20.7	-28.1	152.7	**24.6**	82.6	1.2	-11.2	27.2	265.4
Fy,	-1.4	**-33.9**	-1.2	-5.9	-4.6	170.3	5.3	**131.0**	0.9	38.2	8.5	162.3
Fz,	-10.1	54.8	**-5.1**	53.0	-21.4	369.2	9.5	45.2	**4.8**	19.8	20.7	-4.2
Mx,	1.8	42.6	0.1	**-49.8**	2.4	287.6	-0.0	107.4	0.8	**111.8**	2.0	296.2
My,	-22.3	-0.3	-3.8	31.8	**-30.6**	161.3	21.2	87.0	3.5	-23.0	**29.8**	271.6
Mz,	-0.7	4.9	0.1	2.1	0.7	**-493.5**	4.7	95.3	-0.1	27.8	3.8	**793.4**

Member 21

Fx,	**-27.3**	3.9	-3.1	32.5	-19.7	157.6	**26.4**	84.4	2.1	-28.2	21.8	279.8
Fy,	-2.0	**-37.8**	-0.6	-41.2	-1.2	123.5	6.0	**136.7**	0.5	50.5	6.0	181.6
Fz,	-15.6	53.7	**-5.6**	43.0	-2.7	384.4	15.5	36.7	**4.5**	-3.0	5.7	-70.5
Mx,	1.0	57.1	-0.6	**-83.8**	2.5	406.4	2.0	101.0	0.0	**122.9**	2.3	270.7
My,	-24.6	20.2	-0.8	46.1	**-22.6**	46.1	24.8	82.9	0.3	-14.4	**24.8**	256.9
Mz,	-0.4	5.4	-0.2	3.9	1.3	**-493.7**	4.6	97.7	-0.5	28.1	5.1	**793.9**
Fx,	**-27.3**	51.4	-3.1	82.4	-33.5	32.4	**26.4**	135.5	2.1	-11.5	31.1	-219.8
Fy,	-1.2	**-27.9**	-0.3	-17.2	-2.5	114.2	6.8	**174.0**	0.5	53.0	9.0	-355.2
Fz,	-15.6	103.9	**-5.6**	95.6	-28.1	26.9	15.5	37.6	**4.5**	-8.9	25.9	-237.6
Mx,	0.6	73.7	-0.5	**-73.2**	-0.2	-23.3	1.3	136.7	-0.3	**147.6**	0.8	-112.9
My,	-25.5	51.0	-4.7	85.6	**-35.9**	39.2	24.4	136.1	3.7	-17.0	**33.5**	-226.0
Mz,	5.5	69.9	0.5	-21.0	8.1	**-592.9**	-1.8	76.3	-1.2	70.8	-5.2	**325.2**

Member 22

Fx,	**-27.4**	47.4	-5.6	77.0	-28.1	38.1	**26.5**	137.6	1.8	-12.9	36.1	-222.0
Fy,	-4.3	**-31.9**	-1.4	-35.3	-4.4	67.5	9.3	**178.9**	-0.8	71.9	17.5	-287.8
Fz,	-15.1	116.7	**-8.3**	92.2	-4.0	-50.2	15.1	14.8	**4.2**	-11.6	14.0	-160.1
Mx,	-0.0	67.1	-1.0	**-93.8**	2.7	-19.3	-0.9	121.9	-2.8	**155.3**	5.3	-142.2
My,	-24.6	18.6	-2.9	51.0	**-30.5**	-20.6	24.2	135.0	-0.6	-1.2	**39.1**	-234.9
Mz,	5.3	72.2	-1.1	-15.9	12.5	**-591.5**	-1.9	77.0	-2.1	70.4	0.7	**324.0**
Fx,	**-27.4**	95.0	-5.6	126.9	-53.2	-278.8	**26.5**	138.5	1.8	-18.9	44.2	-843.1
Fy,	-2.3	**-27.7**	-0.7	-24.5	-6.0	149.7	8.7	**222.4**	-1.2	79.5	12.1	-1127.9
Fz,	-15.1	166.8	**-8.3**	144.9	-41.6	-691.0	15.1	15.7	**4.2**	-17.5	32.6	-228.8
Mx,	0.9	69.9	-0.6	**-90.1**	0.5	-393.7	-3.2	169.4	-3.7	**192.5**	-12.9	-731.7
My,	-26.3	113.0	-6.6	117.3	**-54.4**	-363.4	25.6	124.5	2.5	-10.7	**45.4**	-848.7
Mz,	7.8	213.6	-2.4	53.4	8.3	**-1217.2**	-4.4	-23.8	-0.9	2.2	-9.8	**243.2**

Member 23

Fx,	**-26.1**	-93.2	4.9	-121.8	-56.8	-285.0	**25.2**	-140.1	-1.1	17.5	47.8	-846.8
Fy,	8.6	**-225.2**	1.4	-79.7	14.4	-1127.9	-2.5	**28.8**	0.6	23.9	-7.1	150.7
Fz,	9.4	-19.3	-3.9	11.4	26.3	-358.5	-6.5	-176.3	**8.2**	-139.1	-29.9	-814.8
Mx,	0.8	-170.5	4.0	**-193.9**	-7.2	-730.4	-2.1	-71.2	0.3	**90.4**	-4.0	-397.3
My,	-25.5	-109.6	5.4	-112.0	**-57.8**	-355.6	24.7	-124.8	-1.4	9.2	**48.6**	-843.9
Mz,	7.3	-210.5	2.6	-54.2	9.5	**-1217.2**	-4.5	25.8	0.6	-0.7	-10.7	**243.1**
Fx,	**-26.1**	-48.4	4.9	-74.7	-34.7	34.2	**25.2**	-139.2	-1.1	11.6	42.8	-218.4
Fy,	9.3	**-181.6**	1.1	-71.8	21.4	-277.1	-4.4	**33.0**	1.2	34.7	-6.5	63.6
Fz,	9.4	-18.4	**-3.9**	5.5	8.9	-273.8	-6.5	-126.1	**8.2**	-86.4	6.9	-137.2
Mx,	3.1	-122.8	3.1	**-156.5**	13.0	-139.9	-3.1	-68.5	0.7	**93.6**	-3.4	-19.4
My,	-25.2	-48.1	4.0	-75.1	**-36.2**	32.2	23.9	-141.2	0.3	10.1	**44.8**	-245.7
Mz,	5.8	-74.2	1.2	16.1	15.6	**-582.3**	-2.3	-75.3	1.9	-71.2	-1.2	**320.3**

Member 24

Fx,	**-28.2**	-50.6	2.6	-84.3	-33.6	34.4	**27.4**	-137.6	-1.6	14.2	31.1	-220.7
Fy,	7.7	**-176.8**	-0.3	-53.0	9.7	-344.2	-1.8	**29.0**	0.3	16.7	-3.2	109.9
Fz,	9.1	-28.9	**-4.1**	-16.9	18.7	-204.1	-10.4	-112.8	**5.3**	-83.2	-22.1	7.9
Mx,	4.4	-136.7	1.0	**-149.1**	2.6	-116.7	-2.8	-75.2	0.4	**73.2**	-3.4	-23.3
My,	-27.3	-46.0	3.7	-69.7	**-35.4**	16.9	26.2	-120.7	-2.7	10.8	**33.0**	-286.4
Mz,	6.8	-71.8	-0.4	21.3	9.2	**-583.6**	-2.8	-74.6	1.0	-71.6	-5.8	321.5
Fx,	**-28.2**	-5.7	2.6	-37.2	-21.6	155.5	**27.4**	-86.6	-1.6	30.9	23.8	282.9
Fy,	6.9	**-139.4**	-0.3	-50.4	7.5	203.4	-2.1	**38.7**	0.5	34.4	-1.8	91.2
Fz,	9.1	-28.0	**-4.1**	-22.8	0.3	-76.3	-10.4	-62.6	**5.3**	-30.5	1.8	399.6
Mx,	6.2	-102.0	0.4	**-123.8**	7.4	278.0	-2.5	-58.6	0.5	**84.0**	-1.2	410.8
My,	-24.9	-5.0	0.6	-27.1	**-23.4**	157.5	23.9	-82.0	0.5	21.9	**25.7**	250.0
Mz,	2.5	-3.6	0.1	-3.9	2.0	**-486.0**	2.2	-101.4	0.5	-28.4	4.7	**795.0**

Member 25

Fx,	**-26.0**	-4.0	1.8	-30.9	-29.5	158.1	**25.3**	-89.2	-1.5	18.4	28.7	281.6
Fy,	5.7	**-133.8**	-0.7	-38.4	8.5	184.7	-2.4	**34.9**	0.9	5.8	-5.0	161.3
Fz,	5.1	-42.1	**-4.5**	-26.3	15.5	5.2	-6.1	-52.3	**4.8**	-44.7	-16.6	340.0
Mx,	5.6	-108.6	-0.6	**-113.1**	7.3	304.9	-2.2	-43.9	-0.2	**49.8**	-1.6	293.1
My,	-24.2	-2.8	3.1	-31.3	**-30.9**	159.6	23.2	-88.8	-2.8	21.2	**30.1**	277.9
Mz,	2.1	-3.1	-0.3	-2.2	2.0	**-485.8**	2.2	-99.0	0.2	-28.0	3.1	**794.5**
Fx,	**-26.0**	-4.0	1.8	-30.9	-21.3	175.9	**25.3**	-43.5	-1.5	32.6	21.8	582.3
Fy,	4.2	**-101.9**	-0.7	-36.2	3.9	482.6	-1.9	**50.2**	0.6	41.7	-1.2	192.1
Fz,	5.1	-41.2	**-4.5**	-32.2	-4.6	192.6	-6.1	-7.4	**4.8**	2.4	4.9	475.7
Mx,	5.2	-77.6	-0.7	**-92.0**	3.9	510.1	-8.5	30.2	0.9	**69.3**	-6.1	143.6
My,	-23.2	-16.2	-0.6	-37.2	**-24.4**	76.6	22.9	-37.1	0.6	18.0	**24.8**	572.0
Mz,	1.9	-3.0	-0.1	-2.0	1.0	**-472.1**	2.4	-53.3	0.0	-13.9	3.8	**1133.5**

Member 26

Fx,	**-25.0**	3.4	0.2	-6.6	-24.9	159.9	**24.2**	-43.9	-0.1	2.9	24.5	551.4
Fy,	2.5	**-95.5**	-0.2	-25.2	4.3	390.3	0.7	**46.1**	0.2	9.5	-0.5	296.8
Fz,	0.4	-44.2	**-4.6**	-27.3	11.0	256.3	-0.9	-12.4	**4.7**	-19.0	-11.1	476.6
Mx,	0.7	-61.2	0.9	**-81.8**	-1.1	508.4	-1.7	13.2	-0.8	**44.1**	0.5	130.3
My,	-23.2	4.3	2.2	-13.5	**-27.8**	173.6	22.2	-51.0	-2.1	8.6	**27.5**	580.1
Mz,	1.7	-2.7	-0.2	-0.5	1.4	**-472.1**	2.3	-50.9	-0.1	-15.0	3.7	**1133.2**
Fx,	**-25.0**	3.4	0.2	-6.6	-23.8	144.6	**24.2**	1.9	-0.1	17.1	23.9	641.7
Fy,	0.8	**-68.8**	-0.2	-19.1	1.5	493.3	2.8	**68.0**	0.2	20.0	2.4	307.1
Fz,	0.4	-32.7	**-4.6**	-22.1	-9.7	428.3	-0.9	32.4	**4.7**	28.2	9.8	426.7
Mx,	-0.3	-34.5	0.9	**-60.5**	2.0	478.3	-0.8	35.5	-0.8	**66.4**	-2.3	266.2
My,	-22.8	-13.6	-1.3	-15.0	**-25.6**	138.5	22.2	7.2	1.3	9.7	**25.5**	646.2
Mz,	1.7	-2.7	-0.2	-0.5	0.5	**-459.9**	2.2	-3.7	0.0	-0.2	3.5	**1246.4**

Member 27

Fx,	**-25.1**	0.3	-0.7	6.5	-22.8	115.2	**24.4**	-1.2	0.6	-17.5	22.9	620.6
Fy,	1.4	**-68.5**	-0.4	-19.7	3.5	322.4	2.2	**68.4**	0.1	19.7	1.3	477.0
Fz,	-4.8	-32.7	**-4.6**	-29.0	5.9	427.1	4.3	32.5	**4.6**	21.5	-5.8	427.9
Mx,	5.4	-34.2	0.7	**-67.3**	4.2	243.9	-6.2	33.0	-0.8	**60.1**	-4.1	499.2
My,	-22.0	13.4	1.7	13.9	**-25.5**	160.8	21.1	-14.9	-1.7	-10.9	**25.4**	702.0
Mz,	1.4	-2.4	-0.2	0.9	1.3	**-459.9**	2.2	-1.3	-0.0	-1.9	3.5	**1246.4**
Fx,	**-25.1**	0.3	-0.7	6.5	-26.1	114.0	**24.4**	44.6	0.6	-3.3	25.8	524.0
Fy,	-0.5	**-46.9**	-0.4	-10.0	-0.1	319.3	4.0	**95.2**	0.1	25.0	3.6	375.3
Fz,	-4.8	12.1	**-4.6**	18.1	-15.0	475.7	4.3	43.9	**4.6**	26.7	14.9	251.3
Mx,	4.5	-11.7	0.7	**-44.7**	6.4	99.7	-5.3	59.5	-0.8	**81.2**	-6.9	534.8
My,	-22.4	-4.6	-2.6	12.6	**-28.1**	178.9	21.7	50.3	2.5	-8.8	**27.8**	578.8

Mz_f	1.0	3.7	-0.0	0.6	0.3	**-476.4**	2.4	49.8	-0.0	14.7	3.6	**1134.4**

Member 28

Fx_i	**-26.1**	1.3	-1.4	23.4	-22.3	160.1	**25.4**	38.0	1.2	-27.3	22.7	552.2
Fy_i	-3.3	**-51.3**	-0.7	-41.9	-0.5	215.5	5.3	**101.7**	0.6	36.2	3.3	468.2
Fz_i	-10.9	10.9	**-4.8**	6.2	0.1	524.6	10.4	45.2	**4.5**	25.9	0.7	202.3
Mx_i	-3.5	-30.6	-0.7	**-70.4**	-1.8	149.6	0.4	77.5	0.7	**91.7**	-0.8	503.6
My_i	-24.3	19.4	0.1	35.4	**-24.3**	90.9	23.4	37.0	-0.3	-20.2	**24.6**	553.4
Mz_i	1.0	4.1	-0.1	2.1	0.5	**-476.5**	2.4	52.2	-0.1	13.6	3.9	**1134.7**
Fx_f	**-26.1**	1.3	-1.4	23.4	-28.6	154.3	**25.4**	83.8	1.2	-13.1	28.0	273.2
Fy_f	-3.6	**-34.5**	-1.1	-5.7	-4.9	165.4	6.8	**133.4**	0.6	38.3	7.5	169.9
Fz_f	-10.9	55.8	**-4.8**	53.3	-21.4	370.7	10.4	46.1	**4.5**	19.9	20.8	-3.1
Mx_f	1.6	43.5	0.2	**-50.3**	2.5	288.6	0.9	108.3	0.6	**112.6**	2.4	297.6
My_f	-24.4	1.4	-3.3	30.9	**-31.6**	164.4	23.6	88.1	3.0	-21.8	**30.8**	275.0
Mz_f	1.0	4.1	0.0	2.2	0.3	**-494.9**	2.4	98.0	-0.2	27.8	3.2	**797.9**

Member 29

Fx_i	**-28.5**	4.9	-3.0	34.6	-21.0	163.8	**27.8**	86.4	2.1	-30.0	23.1	281.0
Fy_i	-3.8	**-38.6**	-0.5	-41.2	-1.5	118.4	7.2	**139.2**	0.3	50.7	6.1	189.2
Fz_i	-14.6	61.5	**-5.3**	30.9	-2.5	395.4	13.8	22.1	**4.2**	2.5	4.9	-115.8
Mx_i	0.6	58.0	-0.4	**-84.5**	1.7	407.3	2.1	101.9	-0.3	**123.7**	3.1	272.5
My_i	-25.2	16.2	-0.6	49.4	**-23.6**	39.0	25.1	85.4	-0.1	-15.4	**25.9**	261.2
Mz_i	1.2	4.6	-0.3	3.9	1.1	**-495.1**	2.3	100.4	-0.6	28.3	4.9	**798.4**
Fx_f	**-28.5**	52.4	-3.0	84.5	-34.7	34.1	**27.8**	137.5	2.1	-13.3	32.5	-227.4
Fy_f	-3.0	**-28.7**	-0.1	-17.1	-2.2	112.3	8.0	**176.5**	0.2	53.2	8.0	-358.8
Fz_f	-14.6	111.6	**-5.3**	83.6	-26.3	3.2	13.8	23.0	**4.2**	-3.5	23.9	-217.4
Mx_f	0.3	74.6	-0.3	**-73.9**	-0.2	-26.5	1.4	137.7	-0.6	**148.4**	0.4	-115.4
My_f	-27.0	48.2	-4.2	70.7	**-36.2**	11.2	26.2	121.2	3.2	-10.4	**33.9**	-292.9
Mz_f	7.3	72.2	0.3	-21.0	7.4	**-596.1**	-4.3	75.9	-1.2	71.2	-5.7	**323.1**

Member 30

Fx_i	**-28.1**	49.1	-5.0	75.7	-30.7	35.6	**27.4**	138.8	1.3	-11.6	38.6	-225.1
Fy_i	-5.2	**-32.7**	-1.1	-35.5	-4.3	65.3	10.0	**181.5**	-1.1	72.4	16.6	-291.4
Fz_i	-11.8	122.6	**-8.0**	82.4	0.2	-85.6	14.1	7.9	**4.0**	-10.5	13.4	-149.1
Mx_i	0.0	67.9	-0.8	**-94.5**	2.2	-22.5	-1.1	122.9	-3.0	**156.2**	5.3	-144.5
My_i	-26.3	23.1	-3.5	60.2	**-32.0**	-23.1	26.1	141.1	-0.0	-8.4	**40.4**	-251.1
Mz_i	6.9	74.6	-1.2	-15.7	12.0	**-594.8**	-4.3	76.6	-2.1	70.7	-0.1	**321.9**
Fx_f	**-28.1**	96.6	-5.0	125.6	-53.1	-288.7	**27.4**	139.7	1.3	-17.6	44.5	-851.9
Fy_f	-3.3	**-28.5**	-0.5	-24.6	-4.9	151.1	9.3	**225.0**	-1.4	79.9	10.1	**-1143.0**
Fz_f	-11.8	172.8	**-8.0**	135.0	-35.7	-753.1	14.1	8.8	**4.0**	-16.4	31.3	-186.7
Mx_f	0.9	70.8	-0.3	**-90.7**	1.1	-400.9	-3.4	170.3	-3.8	**193.2**	-13.5	-738.2
My_f	-27.1	113.7	-5.8	116.1	**-54.3**	-368.6	25.9	116.5	2.9	-27.9	**46.5**	-805.1
Mz_f	9.0	216.1	-2.6	53.7	6.8	**-1232.0**	-6.7	-24.4	-0.8	2.4	-10.2	**243.8**

Member 31

Fx_i	**-26.4**	-92.5	4.9	-122.9	-57.6	-289.0	**25.7**	-140.3	-1.1	18.4	48.7	-853.2
Fy_i	9.3	**-225.7**	1.4	-80.2	12.2	-1142.2	-3.9	**28.5**	0.5	24.4	-5.9	151.3
Fz_i	13.4	-9.2	**-3.9**	16.5	33.1	-190.0	-10.2	-173.4	**8.0**	-136.1	-36.3	-749.0
Mx_i	-1.5	-170.9	3.8	**-194.1**	-10.9	-737.3	-0.4	-71.4	0.3	**90.6**	-1.1	-403.1
My_i	-25.6	-110.2	5.8	-112.1	**-59.1**	-367.9	24.4	-116.4	-2.8	27.8	**51.2**	-804.2
Mz_i	8.4	-210.9	2.5	-54.6	8.1	**-1232.0**	-6.5	23.1	0.5	-0.5	-10.7	**243.8**
Fx_f	**-26.4**	-47.7	4.9	-75.7	-35.7	27.0	**25.7**	-139.4	-1.1	12.4	43.7	-223.8
Fy_f	9.9	**-182.1**	1.1	-72.4	19.1	-289.4	-5.7	**32.7**	1.1	35.3	-5.6	65.6
Fz_f	13.4	-8.3	**-3.9**	10.5	15.5	-150.5	-10.2	-123.2	**8.0**	-83.4	-0.2	-84.4
Mx_f	0.8	-123.2	3.0	**-156.7**	8.5	-145.1	-1.4	-68.8	0.8	**93.9**	-0.3	-23.9
My_f	-24.8	-12.5	3.5	-62.0	**-36.7**	31.0	24.8	-141.6	-0.1	9.9	**44.8**	-251.2
Mz_f	7.0	-74.7	1.2	15.7	14.1	**-595.4**	-4.3	-75.7	2.0	-71.3	-1.3	**323.0**

Member 32

Fx_i	**-28.4**	-50.8	3.0	-84.1	-34.5	25.8	**27.8**	-138.1	-1.9	14.1	32.1	-226.3
Fy_i	8.4	**-177.2**	-0.2	-53.3	8.3	-356.7	-3.2	**28.7**	0.2	17.0	-2.4	112.2
Fz_i	13.6	-21.5	**-4.2**	1.2	23.0	-215.8	-13.8	-113.2	**5.3**	-83.0	-25.5	2.6
Mx_i	2.3	-137.2	1.0	**-149.2**	0.4	-121.5	-1.7	-75.5	0.4	**73.4**	-2.2	-28.0
My_i	-27.2	-46.8	4.1	-70.0	**-36.2**	3.7	26.4	-120.9	-3.1	11.3	**33.9**	-293.4
Mz_i	7.8	-72.3	-0.4	21.1	8.0	**-596.7**	-4.8	-75.0	1.1	-71.7	-5.9	**324.2**
Fx_f	**-28.4**	-6.0	3.0	-37.0	-21.1	148.0	**27.8**	-87.1	-1.9	30.7	23.5	279.5
Fy_f	7.7	**-139.8**	-0.2	-50.6	6.5	192.7	-3.4	**38.4**	0.3	34.7	-1.4	95.0
Fz_f	13.6	-20.6	**-4.2**	-4.8	4.3	-121.1	-13.8	-63.0	**5.3**	-30.4	-1.7	396.2
Mx_f	4.0	-102.5	0.4	**-124.0**	5.2	275.3	-1.4	-58.8	0.4	**84.2**	-0.2	407.1
My_f	-24.8	-15.3	0.7	-46.4	**-23.4**	44.3	25.2	-82.4	0.1	22.1	**25.6**	247.8
Mz_f	-0.1	-4.6	0.1	-3.9	1.5	**-495.7**	3.9	-101.2	0.6	-28.7	4.5	**797.8**

Member 33

Fx_i	**-25.8**	-3.3	2.0	-30.1	-29.8	148.0	**25.3**	-91.1	-1.7	17.4	29.1	283.7
Fy_i	6.9	**-134.1**	-0.6	-38.5	7.6	173.9	-4.3	**34.5**	0.9	5.7	-5.1	165.4
Fz_i	9.0	-50.3	**-4.5**	-30.0	19.4	30.6	-9.5	-52.7	**4.8**	-44.6	-20.0	336.6
Mx_i	3.8	-109.0	-0.5	**-113.2**	5.2	301.3	-1.1	-44.2	-0.2	**49.9**	-0.3	290.2
My_i	-24.5	-2.4	3.2	-32.2	**-31.5**	150.4	23.8	-88.8	-2.9	21.9	**30.7**	272.7
Mz_i	-0.4	-4.1	-0.2	-2.2	1.2	**-495.5**	4.0	-98.7	0.2	-28.2	2.7	**797.3**
Fx_f	**-25.8**	-3.3	2.0	-30.1	-20.7	162.8	**25.3**	-45.4	-1.7	31.6	21.4	593.0
Fy_f	5.4	**-102.2**	-0.6	-36.3	3.4	473.3	-3.8	**49.9**	0.6	41.7	-1.1	197.8
Fz_f	9.0	-49.4	**-4.5**	-35.9	-0.7	255.1	-9.5	-7.9	**4.8**	2.5	1.4	474.2
Mx_f	3.4	-78.0	-0.6	**-92.1**	2.3	508.3	-6.4	30.0	0.7	**69.6**	-4.4	141.2
My_f	-23.3	-16.8	-0.2	-37.0	**-24.0**	73.1	23.4	-36.2	0.4	20.7	**24.4**	541.5
Mz_f	-0.5	-4.1	-0.1	-2.1	0.6	**-477.2**	4.0	-53.0	0.1	-14.0	3.6	**1134.9**

Member 34

Fx_i	**-24.7**	3.4	0.7	-6.5	-25.7	153.5	**24.3**	-44.3	-0.6	2.8	25.5	551.5
Fy_i	4.0	**-95.8**	-0.1	-25.2	3.5	380.9	-1.2	**45.7**	0.3	9.4	-0.6	302.7
Fz_i	3.8	-44.4	**-4.6**	-27.3	14.4	254.2	-4.4	-12.9	**4.6**	-18.8	-14.6	475.0
Mx_i	-2.8	-60.1	0.8	**-81.9**	-4.3	540.2	1.8	11.4	-0.7	**44.3**	3.7	94.8
My_i	-22.3	3.8	2.5	-13.3	**-28.0**	169.5	22.2	-51.3	-2.4	8.5	**27.7**	577.4
Mz_i	-0.7	-3.7	-0.1	-0.5	0.9	**-477.1**	4.1	-50.6	0.0	-15.0	3.3	**1134.6**
Fx_f	**-24.7**	3.4	0.7	-6.5	-22.5	138.1	**24.3**	1.4	-0.6	17.1	22.9	644.0
Fy_f	2.2	**-69.1**	-0.1	-19.1	1.2	485.4	0.8	**67.6**	0.2	19.9	2.5	314.7
Fz_f	3.8	-33.0	**-4.6**	-22.1	-6.2	427.5	-4.4	32.0	**4.6**	28.3	6.3	426.9
Mx_f	-3.7	-33.4	0.8	**-60.6**	-1.8	505.2	2.7	33.7	-0.6	**66.6**	1.5	238.8
My_f	-21.4	-12.5	-1.6	-14.3	**-25.0**	175.1	21.0	12.4	1.7	10.2	**25.0**	688.0
Mz_f	-0.7	-3.7	-0.1	-0.5	0.3	**-460.3**	4.0	-3.4	0.1	-0.3	3.5	**1246.3**

Member 35

Fx_i	**-24.5**	-0.0	-0.4	6.7	-23.1	110.6	**24.1**	-2.4	0.4	-17.7	23.2	638.2
Fy_i	2.9	**-68.8**	-0.3	-19.7	2.8	314.4	0.3	**68.1**	0.1	19.6	1.3	484.6
Fz_i	-1.4	-33.0	**-4.6**	-29.0	9.4	426.3	0.8	32.1	**4.6**	21.6	-9.2	428.1
Mx_i	1.8	-33.7	0.4	**-67.3**	1.3	228.5	-2.6	31.8	-0.5	**60.2**	-1.2	514.0
My_i	-21.1	13.3	1.9	14.0	**-25.4**	150.9	21.0	-13.7	-1.9	-11.0	**25.4**	687.6
Mz_i	-0.9	-3.4	-0.2	0.9	0.8	**-460.3**	4.1	-0.9	0.1	-1.9	3.2	**1246.3**
Fx_f	**-24.5**	-0.0	-0.4	6.7	-24.8	110.7	**24.1**	43.4	0.4	-3.4	24.8	547.2
Fy_f	1.1	**-47.3**	-0.3	-10.0	-0.3	312.9	2.0	**94.9**	0.2	25.0	3.7	384.4
Fz_f	-1.4	11.9	**-4.6**	18.1	-11.5	476.1	0.8	43.5	**4.6**	26.8	11.4	253.4
Mx_f	0.9	-11.3	0.4	**-44.7**	2.2	82.3	-1.7	58.3	-0.5	**81.3**	-2.7	554.8
My_f	-22.1	-5.0	-2.3	12.7	**-27.4**	181.5	22.0	50.2	2.2	-8.9	**27.1**	581.4
Mz_f	-1.0	2.7	0.0	0.5	0.4	**-472.1**	4.0	50.1	0.1	14.7	3.5	**1132.8**

Member 36

Fx_i	**-25.3**	3.9	-1.6	27.7	-21.0	184.3	**24.9**	42.6	1.4	-30.8	21.7	587.8
Fy_i	-1.7	**-51.6**	-0.7	-41.8	-0.8	209.0	3.6	**101.3**	0.6	36.1	3.5	477.3
Fz_i	-6.5	6.8	**-4.8**	-3.6	4.4	475.2	6.0	48.6	**4.5**	35.7	-3.7	254.3
Mx_i	-6.4	-31.1	-1.0	**-70.2**	-4.2	153.2	4.2	77.1	0.8	**91.7**	2.7	505.0
My_i	-22.8	18.7	0.5	35.4	**-24.2**	94.5	23.0	36.6	-0.7	-20.1	**24.5**	557.0
Mz_i	-0.9	3.0	-0.0	2.0	0.5	**-472.1**	4.1	52.6	-0.0	13.6	3.5	**1133.1**
Fx_f	**-25.3**	3.9	-1.6	27.7	-28.4	167.0	**24.9**	88.4	1.4	-16.5	28.1	288.1
Fy_f	-2.2	**-34.9**	-1.0	-5.7	-5.1	160.5	5.1	**133.1**	0.6	38.2	7.8	180.5
Fz_f	-6.5	51.6	**-4.8**	43.6	-17.0	339.9	6.0	49.5	**4.5**	29.8	16.3	33.4
Mx_f	-0.7	43.4	0.0	**-50.2**	-0.3	289.6	4.7	107.9	0.7	**112.5**	6.6	300.8
My_f	-23.8	1.1	-2.9	30.8	**-30.6**	168.8	23.8	88.0	2.7	-21.8	**29.9**	278.4
Mz_f	-0.9	3.1	0.1	2.1	0.6	**-485.8**	4.1	98.3	-0.1	27.8	3.1	**794.8**

Member 37

Fx_i	**-27.5**	4.7	-2.7	34.7	-20.9	163.8	27.2	86.1	1.8	-30.0	23.2	287.7
Fy_i	-2.6	**-38.9**	-0.6	-41.1	-1.9	113.7	6.4	**138.8**	0.4	50.5	6.9	199.9
Fz_i	-10.8	61.8	**-5.3**	29.0	1.3	399.5	8.9	21.1	**4.1**	4.5	0.3	-117.3
Mx_i	-2.1	57.9	-0.5	**-84.2**	-0.6	409.4	6.0	101.5	-0.1	**123.6**	6.6	275.7
My_i	-24.3	15.9	-0.6	48.2	**-23.3**	33.5	24.6	82.8	-0.3	-21.6	**25.5**	253.4
Mz_i	-0.6	3.6	-0.2	3.9	1.2	**-486.0**	4.0	100.7	-0.5	28.2	4.4	**795.3**
Fx_f	**-27.5**	52.2	-2.7	84.6	-33.1	35.1	**27.2**	137.2	1.8	-13.4	31.2	-219.5
Fy_f	-1.8	**-29.1**	-0.3	-17.0	-3.1	109.2	7.2	**176.1**	0.3	53.0	9.2	-346.5
Fz_f	-10.8	112.0	**-5.3**	81.7	-22.5	5.7	8.9	22.0	**4.1**	-1.5	18.9	-214.3
Mx_f	-2.4	74.4	-0.5	**-73.6**	-3.2	-23.5	5.2	137.3	-0.5	**148.2**	4.5	-110.3
My_f	-26.1	47.6	-3.9	70.1	**-35.1**	21.5	26.0	121.1	2.9	-9.9	**32.8**	-287.4
Mz_f	5.4	71.9	0.4	-21.2	7.6	**-583.5**	-2.5	75.6	-1.1	71.2	-5.6	**319.6**

Member 38

Fx_i	**-27.0**	48.8	-4.6	75.5	-30.1	36.9	**26.6**	138.6	1.0	-11.3	38.2	-217.0
Fy_i	-4.5	**-33.1**	-1.2	-35.5	-4.9	62.3	9.4	**181.1**	-1.0	72.1	18.1	-279.3
Fz_i	-8.3	122.2	**-7.9**	82.2	5.5	-78.7	9.9	7.6	**3.9**	-10.1	7.4	-146.5
Mx_i	-3.0	67.8	-0.9	**-94.0**	-2.1	-19.7	2.5	122.5	-2.8	**155.9**	10.4	-139.3
My_i	-25.3	21.8	-3.4	56.8	**-31.3**	-28.1	25.5	141.0	-0.3	-8.2	**39.5**	-247.8
Mz_i	5.0	74.2	-1.2	-16.0	12.2	**-582.2**	-2.3	76.3	-1.9	70.9	-0.4	**318.4**
Fx_f	**-27.0**	96.3	-4.6	125.4	-50.8	-286.4	**26.6**	139.5	1.0	-17.2	42.6	-842.6
Fy_f	-2.6	**-28.9**	-0.6	-24.6	-6.1	149.9	8.7	**224.6**	-1.3	79.6	12.1	-1129.1
Fz_f	-8.3	172.3	**-7.9**	134.8	-30.2	-744.2	9.9	8.5	**3.9**	-16.1	24.8	-182.5
Mx_f	-2.0	70.7	-0.5	**-90.2**	-3.8	-397.7	0.1	169.9	-3.6	**192.9**	-7.6	-731.0
My_f	-26.1	113.6	-5.5	114.6	**-52.5**	-359.8	24.9	116.3	2.5	-27.3	**44.2**	-801.1
Mz_f	7.2	215.7	-2.5	53.3	7.2	**-1217.7**	-4.9	-25.8	-0.7	1.0	-10.0	**241.8**

Member 39

Fx_i	**-25.3**	-92.3	5.1	-123.4	-56.4	-286.4	**25.0**	-139.3	-1.4	18.9	48.1	-846.6
Fy_i	7.3	**-223.3**	1.2	-80.1	12.8	-1127.8	-2.0	**27.7**	0.4	24.6	-6.0	149.0
Fz_i	13.7	-8.4	**-4.3**	16.4	34.5	-184.2	-10.6	-172.6	**8.3**	-135.7	-37.5	-742.7
Mx_i	-2.5	-170.3	3.9	**-193.7**	-12.9	-732.7	0.8	-70.4	0.1	**90.4**	1.7	-395.0
My_i	-24.6	-86.8	5.7	-106.6	**-57.7**	-284.1	23.2	-115.9	-3.0	28.4	**49.2**	-800.2
Mz_i	6.6	-208.6	2.3	-54.5	8.9	**-1217.8**	-4.5	22.4	0.7	-0.6	-11.1	**241.8**
Fx_f	**-25.3**	-47.4	5.1	-76.2	-33.4	28.4	**25.0**	-138.4	-1.4	12.9	41.9	-221.8
Fy_f	8.0	**-179.7**	0.9	-72.3	18.7	-285.8	-3.8	**31.9**	1.0	35.5	-6.3	66.8
Fz_f	13.7	-7.5	**-4.3**	10.5	15.2	-148.4	-10.6	-122.4	**8.3**	-83.0	-0.3	-81.7
Mx_f	-0.3	-122.6	3.1	**-156.3**	6.8	-143.2	-0.2	-67.7	0.5	**93.7**	1.4	-20.7
My_f	-23.6	-47.7	3.4	-69.7	**-35.5**	21.1	23.5	-139.4	0.7	5.2	**43.8**	-242.7
Mz_f	5.0	-72.3	1.0	15.8	13.4	**-592.1**	-2.2	-76.3	2.2	-71.3	-0.3	**324.6**

Member 40

Fx	**-27.2**	-53.1	2.7	-82.1	-33.0	21.2	**27.0**	-135.2	-1.8	12.9	30.9	-219.8
Fy_i	6.3	**-174.8**	-0.4	-53.3	8.5	-353.1	-1.6	**27.9**	0.0	17.1	-2.5	113.5
Fz_i	13.5	-20.8	**-4.6**	1.0	23.9	-213.4	-13.9	-112.2	**5.6**	-82.5	-26.3	5.1
Mx_i	1.1	-136.6	1.1	**-148.6**	-1.1	-119.6	0.1	-74.4	0.1	**73.0**	0.1	-24.8
My_i	-25.4	-45.7	4.3	-70.5	**-35.3**	6.6	25.3	-120.2	-3.3	11.9	**33.0**	-292.1
Mz_i	5.5	-70.0	-0.6	21.1	8.0	**-593.5**	-2.2	-75.6	1.3	-71.6	-5.7	**325.8**
Fx_f	**-27.2**	-8.2	2.7	-35.0	-20.7	153.5	**27.0**	-84.1	-1.8	29.5	23.0	272.8
Fy_f	5.5	**-137.4**	-0.4	-50.6	5.9	185.6	-1.7	**37.6**	0.2	34.9	-2.1	99.9
Fz_f	13.5	-19.9	**-4.6**	-4.9	3.3	-122.0	-13.9	-62.1	**5.6**	-29.9	-0.9	394.6
Mx_f	2.6	-101.8	0.5	**-123.4**	4.2	274.3	0.4	-57.8	0.2	**83.7**	1.1	405.6
My_f	-24.1	-15.4	0.2	-46.8	**-23.9**	36.0	24.7	-83.5	0.6	13.0	**26.1**	257.4
Mz_f	1.9	-5.5	0.3	-3.9	1.8	**-493.9**	2.0	-98.7	0.5	-28.7	4.4	**793.5**

Member 41

Fx_i	**-25.5**	-2.5	0.8	-22.0	-27.1	137.1	**25.4**	-81.6	-0.7	12.0	26.9	265.3
Fy_i	4.7	**-131.8**	-0.8	-38.5	7.7	166.8	-1.3	**33.7**	1.2	5.7	-4.8	170.2
Fz_i	8.4	-49.5	**-4.8**	-30.1	19.6	29.4	-9.0	-52.0	**5.1**	-44.2	-20.3	335.5
Mx_i	1.4	-108.3	-0.4	**-112.6**	2.7	300.2	1.2	-43.4	-0.5	**49.4**	2.4	287.3
My_i	-22.8	-1.2	3.3	-32.6	**-30.5**	147.8	22.9	-87.9	-3.0	22.5	**29.8**	270.3
Mz_i	1.8	-5.0	-0.0	-2.1	1.1	**-493.8**	2.0	-96.2	0.1	-28.2	3.1	**793.0**
Fx_f	**-25.5**	-2.5	0.8	-22.0	-23.7	148.3	**25.4**	-35.8	-0.7	26.3	23.6	531.5
Fy_f	3.1	**-99.9**	-0.7	-36.3	2.8	455.8	-1.6	**49.1**	0.7	41.8	-0.8	205.8
Fz_f	8.4	-48.6	**-4.8**	-36.0	-2.1	250.0	-9.0	-7.1	**5.1**	2.9	2.8	469.6

Mx_f	1.0	-77.3	-0.5	**-91.5**	0.2	504.2	-4.0	31.0	0.6	**69.2**	-2.7	139.2
My_f	-23.9	-18.8	-0.4	-35.6	**-25.0**	86.3	23.8	-37.1	0.6	19.6	**25.3**	550.2
Mz_f	1.8	-5.0	0.1	-2.0	1.3	**-471.4**	2.0	-50.5	-0.0	-14.0	3.3	**1119.2**

Member 42

Fx_i	**-24.9**	-5.5	0.2	-8.0	-25.3	157.1	**24.8**	-43.6	-0.2	-1.8	25.2	533.5
Fy_i	1.6	**-93.5**	-0.3	-25.2	3.5	363.5	1.5	**45.0**	0.4	9.4	-0.2	310.6
Fz_i	2.8	-43.6	**-4.9**	-27.3	14.2	249.1	-3.4	-12.1	**5.0**	-18.5	-14.4	470.5
Mx_i	-4.7	-58.7	0.9	**-81.3**	-6.3	555.3	3.7	11.5	-0.8	**44.0**	5.7	70.5
My_i	-21.6	4.2	2.4	-12.8	**-27.2**	165.0	21.7	-50.3	-2.3	8.2	**26.9**	572.5
Mz_i	1.8	-4.6	0.0	-0.5	1.0	**-471.3**	1.9	-48.0	-0.1	-15.1	3.4	**1118.9**
Fx_f	**-24.9**	-5.5	0.2	-8.0	-24.2	182.1	**24.8**	2.2	-0.2	12.4	24.2	622.5
Fy_f	-0.2	**-66.8**	-0.3	-19.1	0.4	457.6	3.5	**66.9**	0.3	20.0	3.6	325.7
Fz_f	2.8	-32.1	**-4.9**	-22.2	-8.0	418.5	-3.4	32.8	**5.0**	28.6	8.1	419.2
Mx_f	-5.6	-32.0	0.9	**-60.0**	-3.3	514.2	4.6	33.8	-0.8	**66.4**	3.0	213.7
My_f	-21.9	-12.8	-2.0	-14.4	**-26.6**	155.5	21.8	14.6	2.0	10.6	**26.5**	694.7
Mz_f	1.9	-4.6	0.0	-0.5	1.2	**-450.5**	1.7	-0.8	-0.0	-0.3	2.9	**1219.2**

Member 43

Fx_i	**-25.2**	-3.2	-0.6	5.8	-23.9	139.5	**25.0**	-1.8	0.4	-17.2	24.0	632.0
Fy_i	0.1	**-66.5**	-0.4	-19.7	2.3	287.0	3.4	**67.4**	0.3	19.7	2.1	494.6
Fz_i	-2.7	-32.1	**-5.0**	-28.9	8.8	417.3	2.2	32.7	**4.9**	21.8	-8.6	420.3
Mx_i	-0.0	-35.8	0.8	**-66.9**	-1.6	267.6	-0.8	35.5	-1.0	**60.1**	1.7	458.3
My_i	-23.7	12.4	0.7	15.0	**-25.5**	128.8	23.8	-5.9	-0.7	-10.4	**25.4**	530.0
Mz_i	1.9	-4.3	-0.0	0.9	1.2	**-450.6**	1.6	1.6	-0.1	-2.0	3.2	**1219.3**
Fx_f	**-25.2**	-3.2	-0.6	5.8	-26.4	153.9	**25.0**	44.0	0.4	-3.0	26.0	538.4
Fy_f	-1.8	**-45.0**	-0.5	-10.0	-1.7	275.6	5.2	**94.2**	0.4	25.0	5.5	397.0
Fz_f	-2.7	12.8	**-5.0**	18.2	-13.7	462.8	2.2	44.2	**4.9**	26.9	13.6	242.5
Mx_f	-0.8	-13.4	0.9	**-44.3**	1.4	131.0	0.1	62.0	-1.0	**81.1**	-1.9	482.4
My_f	-23.7	-4.1	-2.5	12.7	**-29.3**	167.8	23.2	50.7	2.4	-8.6	**29.0**	573.0
Mz_f	2.5	1.7	0.3	0.5	2.3	**-456.8**	1.5	52.6	-0.1	14.7	2.7	**1094.4**

Member 44

Fx_i	**-26.7**	3.8	-2.2	29.7	-21.7	170.5	**26.3**	43.4	1.8	-32.5	22.3	573.0
Fy_i	-4.5	**-49.4**	-0.8	-41.7	-1.7	172.8	7.5	**100.7**	0.8	36.2	5.2	489.4
Fz_i	-8.3	7.8	**-5.1**	-3.2	3.5	462.0	7.8	49.2	**4.8**	35.7	-2.7	243.4
Mx_i	-7.4	-29.8	-0.9	**-69.8**	-5.3	135.8	4.3	77.7	0.6	**91.6**	3.3	493.9
My_i	-24.1	15.4	0.1	35.2	**-24.7**	81.7	24.4	39.9	-0.3	-17.7	**25.1**	532.3
Mz_i	2.8	2.0	0.2	2.0	1.6	**-456.9**	1.5	55.1	-0.2	13.6	3.2	**1094.7**
Fx_f	**-26.7**	3.8	-2.2	29.7	-31.5	153.5	**26.3**	89.2	1.8	-18.3	30.6	269.7
Fy_f	-5.8	**-32.7**	-1.2	-5.8	-7.4	114.1	9.0	**132.5**	0.9	38.2	10.5	195.1
Fz_f	-8.3	52.6	**-5.1**	43.9	-19.6	322.0	7.8	50.1	**4.8**	29.8	18.9	19.9
Mx_f	-1.7	44.3	0.0	**-50.0**	-1.4	272.7	4.7	108.5	0.5	**112.5**	6.2	286.7
My_f	-24.7	0.5	-3.7	21.4	**-33.1**	112.0	24.4	81.8	3.4	-16.8	**32.3**	153.1
Mz_f	2.9	2.2	0.3	2.3	2.9	**-466.2**	1.0	100.7	-0.4	27.6	1.4	**745.0**

Member 45

Fx_i	**-29.3**	5.5	-3.0	35.1	-22.4	150.7	**28.9**	81.6	2.2	-20.6	24.2	155.8
Fy_i	-6.1	**-36.9**	-0.9	-43.0	-3.3	51.9	10.6	**138.2**	0.5	50.4	9.2	212.8
Fz_i	-13.0	62.9	**-5.7**	29.7	0.0	381.6	11.1	21.5	**4.5**	4.4	1.5	-127.3
Mx_i	-3.6	59.0	-0.6	**-83.8**	-1.9	390.5	6.1	102.0	-0.3	**123.2**	7.3	261.6
My_i	-26.3	4.9	-1.0	22.9	**-24.1**	132.7	26.0	82.9	-0.0	-16.9	**26.3**	265.0
Mz_i	3.4	2.8	0.0	4.3	2.5	**-466.4**	0.7	103.1	-0.7	27.8	3.7	**745.6**
Fx_f	**-29.3**	53.0	-3.0	85.0	-36.0	18.6	**28.9**	122.1	2.2	-8.7	34.1	-302.6
Fy_f	-5.2	**-27.0**	-0.5	-19.0	-5.5	38.5	11.4	**175.6**	0.5	52.8	12.1	-331.3
Fz_f	-13.0	113.1	**-5.7**	82.4	-25.6	-17.2	11.1	22.4	**4.5**	-1.6	21.6	-226.3
Mx_f	-3.8	75.6	-0.6	**-73.3**	-4.9	-47.3	5.2	137.8	-0.7	**147.9**	4.2	-127.0
My_f	-28.6	48.8	-4.1	70.7	**-37.9**	-3.4	28.3	121.4	3.1	-10.2	**35.5**	-300.0
Mz_f	9.7	73.5	0.4	-15.1	10.0	**-561.6**	-5.7	75.4	-1.1	65.0	-6.9	**261.0**

Member 46

Fx_i	**-28.9**	45.4	-5.5	58.7	-31.8	-3.7	**28.7**	124.7	1.6	-2.8	40.0	-300.4
Fy_i	-7.7	**-31.1**	-1.4	-35.2	-8.0	10.7	14.9	**180.6**	-0.6	74.4	24.0	-246.5
Fz_i	-9.9	123.2	**-8.5**	83.1	4.2	-99.9	12.5	18.9	**4.2**	-5.7	9.8	-288.6
Mx_i	-4.6	68.9	-0.9	**-93.6**	-4.6	-43.2	2.8	122.8	-3.1	**155.4**	11.7	-154.2

My,	-27.2	13.8	-3.4	61.7	-33.5	0.8	27.4	141.4	-0.0	-9.5	**41.8**	-262.8
Mz,	9.6	73.4	-1.1	-16.0	16.0	**-560.3**	-5.9	78.5	-2.2	70.7	-2.3	**259.9**
Fx,	**-28.9**	92.9	-5.5	108.6	-56.3	-311.6	**28.7**	125.6	1.6	-8.7	47.4	-863.4
Fy,	-5.6	**-26.9**	-0.7	-24.4	-9.4	89.5	14.2	**224.1**	-0.9	82.0	19.5	-1094.6
Fz,	-9.9	173.4	**-8.5**	135.8	-34.2	-770.0	12.5	19.8	**4.2**	-11.6	28.9	-375.6
Mx,	-3.5	71.8	-0.5	**-89.9**	-6.1	-425.8	0.1	170.3	-4.0	**192.6**	-8.4	-748.7
My,	-28.5	114.9	-5.9	115.4	**-56.8**	-391.1	27.1	116.7	2.7	-27.3	**47.8**	-814.3
Mz,	11.1	221.0	-2.4	70.9	10.6	**-1197.7**	-8.4	-23.7	-0.8	0.6	-13.0	**176.6**

Member 47

Fx,	**-27.9**	-96.5	3.8	-116.4	-58.9	-318.3	**27.7**	-143.5	0.0	10.5	49.9	-867.6
Fy,	11.4	**-219.4**	1.5	-80.2	15.8	-1103.6	-3.7	**15.2**	1.3	26.4	-7.3	54.0
Fz,	11.3	-14.6	**-3.0**	6.7	28.4	-210.5	-9.3	-173.0	**7.9**	-121.6	-34.8	-763.4
Mx,	-1.4	-173.8	3.0	**-187.9**	-9.4	-758.5	2.2	-73.1	2.0	**83.4**	0.1	-407.6
My,	-27.3	-96.5	4.6	-116.9	**-60.0**	-316.5	26.1	-135.1	-1.4	28.1	**50.8**	-814.2
Mz,	10.6	-205.3	2.7	-54.7	12.0	**-1197.9**	-8.2	11.9	0.2	0.9	-13.4	**176.6**
Fx,	**-27.9**	-51.6	3.8	-69.3	-41.8	15.4	**27.7**	-142.6	0.0	4.5	50.1	-223.7
Fy,	12.0	**-175.8**	1.2	-72.3	22.9	-279.3	-5.6	**19.5**	2.0	37.2	-3.4	28.0
Fz,	11.3	-13.7	**-3.0**	0.7	14.6	-146.8	-9.3	-128.2	**7.9**	-74.5	0.6	-89.7
Mx,	0.8	-126.2	2.1	**-150.4**	6.2	-153.5	1.4	-70.4	2.4	**86.6**	8.4	-20.8
My,	-26.9	-25.2	3.1	-55.9	**-42.1**	-38.1	27.3	-143.9	0.6	5.0	**50.7**	-250.4
Mz,	9.5	-68.1	1.7	21.0	20.8	**-589.4**	-6.4	-87.5	1.3	-75.1	-7.7	**308.9**

Member 48

Fx,	**-31.4**	-54.0	2.3	-78.6	-36.6	17.6	**31.1**	-140.3	-1.3	9.2	34.3	-225.9
Fy,	10.7	**-171.1**	-0.2	-53.4	10.5	-347.0	-1.2	**15.5**	0.7	16.4	-1.4	93.1
Fz,	9.9	-36.6	**-3.8**	-33.4	18.8	-200.0	-11.0	-115.1	**5.1**	-74.8	-22.3	-10.3
Mx,	1.9	-139.9	-0.1	**-143.3**	2.2	-128.5	3.8	-77.0	2.0	**66.6**	-0.4	-24.6
My,	-30.8	-53.4	2.8	-79.5	**-37.2**	20.8	30.4	-139.1	-1.8	12.1	**34.8**	-225.7
Mz,	11.0	-68.2	0.2	20.2	10.6	**-590.8**	-7.8	-84.5	0.2	-69.6	-7.7	**310.2**
Fx,	**-31.4**	-9.1	2.3	-31.5	-26.2	154.0	**31.1**	-89.2	-1.3	25.8	28.4	289.6
Fy,	9.5	**-133.8**	-0.3	-50.7	8.5	175.2	-2.2	**25.4**	1.1	37.7	1.5	141.0
Fz,	9.9	-35.7	**-3.8**	-39.3	1.9	-37.2	-11.0	-65.0	**5.1**	-22.1	0.5	392.1
Mx,	3.5	-105.2	-0.8	**-118.1**	1.8	280.5	4.3	-60.2	2.0	**77.3**	9.2	416.9
My,	-30.1	-19.9	1.4	-54.0	**-27.0**	54.1	30.6	-87.9	-0.9	27.0	**29.0**	259.7
Mz,	-2.1	-17.0	-0.2	-2.9	-1.2	**-463.7**	6.2	-94.1	0.6	-28.7	6.9	**781.8**

Member 49

Fx,	**-29.4**	-9.1	1.7	-26.8	-33.3	107.0	**29.2**	-90.4	-1.5	15.0	32.7	286.3
Fy,	9.1	**-128.2**	-0.6	-38.6	10.0	156.4	-6.7	**21.4**	0.6	6.9	-6.9	204.1
Fz,	4.2	-39.0	**-4.2**	-37.3	13.9	13.6	-4.7	-64.8	**4.5**	-32.4	-14.6	348.1
Mx,	1.2	-111.3	-1.5	**-108.3**	4.5	304.7	6.7	-46.9	1.7	**44.0**	3.2	287.3
My,	-29.2	-7.0	2.0	-28.2	**-33.9**	157.8	28.9	-91.2	-1.7	16.4	**33.1**	285.2
Mz,	-2.8	-16.5	-0.5	-1.2	-0.3	**-463.6**	6.4	-91.7	0.3	-28.2	5.0	**781.3**
Fx,	**-29.4**	-9.1	1.7	-26.8	-25.5	147.9	**29.2**	-44.6	-1.5	29.3	25.8	592.1
Fy,	7.0	**-96.6**	-0.7	-36.2	5.0	431.4	-3.6	**38.2**	0.9	41.8	-0.6	286.2
Fz,	4.2	-38.1	**-4.2**	-43.2	-5.0	187.1	-4.7	-19.9	**4.5**	14.7	5.8	539.7
Mx,	0.4	-80.6	-1.7	**-87.0**	-3.4	524.3	-1.7	26.2	2.5	**64.5**	4.5	163.5
My,	-28.7	-17.6	1.0	-41.2	**-26.6**	89.4	27.7	-44.5	-0.5	28.3	**26.9**	571.4
Mz,	-3.1	-16.4	-0.4	-1.0	-2.7	**-389.6**	6.7	-46.0	0.2	-14.1	6.4	**1087.3**

Member 50

Fx,	**-27.9**	-7.4	1.0	-16.5	-30.1	85.5	**27.5**	-49.9	-1.4	5.6	30.7	602.6
Fy,	6.6	**-90.6**	-0.1	-25.3	6.4	333.0	-3.9	**34.2**	0.1	9.9	-3.1	389.4
Fz,	-0.8	-28.0	**-4.3**	-19.0	9.3	187.0	0.3	-30.0	**4.4**	-21.7	-9.4	539.8
Mx,	-5.2	-65.0	0.3	**-78.5**	-5.9	525.1	4.7	9.5	-0.2	**41.9**	5.7	166.5
My,	-27.2	-0.1	1.9	-10.4	**-31.5**	191.1	27.0	-52.4	-1.8	6.5	**31.2**	592.9
Mz,	-3.7	-16.2	-0.5	0.3	-1.3	**-389.6**	6.8	-43.6	0.1	-15.1	5.8	**1087.0**
Fx,	**-27.9**	-7.4	1.0	-16.5	-25.6	118.8	**27.5**	-4.1	-1.4	19.9	24.4	720.3
Fy,	4.0	**-64.1**	-0.1	-19.6	3.5	417.0	-1.2	**56.5**	0.0	20.3	-0.2	449.6
Fz,	-0.8	-27.1	**-4.3**	-24.9	-10.3	310.9	0.3	14.9	**4.4**	25.5	10.4	568.8
Mx,	-6.7	-38.8	0.2	**-57.0**	-6.1	517.2	6.1	32.1	-0.1	**64.2**	6.2	315.6
My,	-25.2	-14.6	-0.8	-17.4	**-27.1**	190.3	24.9	7.2	0.8	15.4	**26.8**	768.1
Mz,	-3.6	-16.2	-0.5	0.3	-3.4	**-316.9**	6.7	3.7	0.2	-0.4	6.2	**1167.0**

Member 51

Fx,	**-26.9**	1.3	0.7	14.6	-28.4	97.0	**26.4**	-11.9	-0.8	-16.6	28.4	715.2
Fy,	6.4	**-64.4**	-0.1	-20.0	6.5	222.0	-4.2	**58.1**	-0.4	19.6	-2.9	647.7
Fz,	-5.2	-20.1	**-4.4**	-9.5	5.0	307.2	4.6	7.9	**4.3**	-2.9	-4.8	572.4
Mx,	0.2	-42.5	0.6	**-66.2**	-0.7	341.8	-1.2	34.9	-0.8	**60.3**	0.8	468.8
My,	-25.6	8.6	1.6	15.7	**-29.4**	190.6	25.4	-13.9	-1.6	-10.4	**29.3**	707.6
Mz,	-4.1	-16.0	-0.5	1.5	-1.6	**-316.9**	6.8	6.1	0.1	-2.0	5.8	**1167.0**
Fx,	**-26.9**	1.3	0.7	14.6	-25.3	91.2	**26.4**	33.9	-0.8	-2.4	24.6	666.9
Fy,	4.1	**-43.2**	-0.1	-9.6	3.8	205.2	-1.6	**85.3**	-0.3	24.9	-1.8	586.2
Fz,	-5.2	-9.5	**-4.4**	1.6	-14.9	372.9	4.6	58.9	**4.3**	43.8	14.7	417.4
Mx,	-1.1	-20.7	0.6	**-43.6**	0.7	244.1	0.3	61.8	-0.8	**81.4**	-1.3	489.9
My,	-24.6	-5.4	-1.6	13.6	**-28.4**	196.8	24.2	41.1	1.6	-10.1	**27.9**	683.5
Mz,	-4.8	-13.0	-0.4	0.5	-4.3	**-246.0**	7.2	57.2	0.1	14.7	6.7	**1021.9**

Member 52

Fx,	**-27.1**	7.3	-0.9	38.8	-25.0	188.6	**26.6**	32.5	0.6	-37.8	25.3	693.1
Fy,	1.7	**-47.9**	0.3	-45.4	1.4	127.2	-2.7	**91.9**	-0.4	37.1	-1.6	631.6
Fz,	-8.6	11.9	**-4.6**	12.7	1.8	526.1	8.1	37.5	**4.2**	20.6	-0.9	264.1
Mx,	0.0	-31.2	0.6	**-65.9**	-0.8	197.6	-1.0	72.1	-0.7	**89.1**	0.4	549.2
My,	-25.7	12.2	0.8	41.0	**-27.6**	117.1	24.9	26.5	-1.1	-32.8	**27.9**	626.9
Mz,	-5.3	-12.8	-0.4	1.5	-2.9	**-246.0**	7.4	59.6	0.0	13.6	6.5	**1022.1**
Fx,	**-27.1**	7.3	-0.9	38.8	-29.1	155.9	**26.6**	78.3	0.6	-23.6	28.2	439.0
Fy,	2.0	**-31.7**	0.1	-9.8	2.8	70.6	-0.4	**124.1**	-0.3	39.1	-0.8	369.5
Fz,	-8.6	56.8	**-4.6**	59.9	-18.8	373.7	8.1	38.4	**4.2**	14.6	18.0	93.2
Mx,	8.7	44.8	1.8	**-46.2**	13.0	305.4	-0.1	103.3	-0.7	**110.1**	-1.9	360.2
My,	-24.6	6.8	-2.8	39.5	**-30.8**	167.2	23.7	85.4	2.5	33.3	**29.7**	268.2
Mz,	-5.6	-11.4	-0.3	2.4	-4.8	**-190.3**	7.5	105.2	-0.1	27.7	6.5	**652.5**

Member 53

Fx,	**-28.3**	11.0	-2.2	53.7	-23.4	153.0	**27.8**	72.5	1.1	-44.9	25.7	437.2
Fy,	-0.3	**-36.1**	0.1	-36.9	0.1	85.2	1.5	**130.0**	-0.5	51.8	2.5	390.1
Fz,	-13.2	72.8	**-5.2**	62.1	-1.3	422.2	9.3	8.8	**3.9**	-14.7	0.9	-7.2
Mx,	11.8	60.6	1.6	**-73.8**	8.6	430.0	-2.0	95.2	-1.7	**116.7**	1.7	338.9
My,	-25.3	17.0	0.2	60.9	**-25.8**	56.1	24.8	65.9	-1.2	-35.4	**27.9**	423.8
Mz,	-5.9	-11.2	-0.6	3.7	-3.1	**-190.5**	7.6	107.6	-0.5	28.0	8.1	**653.1**
Fx,	**-28.3**	50.6	-2.2	95.3	-33.1	14.3	**27.8**	123.6	1.1	-28.2	30.5	-8.7
Fy,	0.4	**-26.6**	0.4	-13.2	2.0	75.7	2.9	**167.7**	-0.5	54.5	1.6	-124.7
Fz,	-13.2	117.7	**-5.2**	109.2	-24.7	-10.4	9.3	9.7	**3.9**	-20.7	18.4	-48.8
Mx,	11.1	76.9	1.6	**-63.3**	15.1	-9.1	-2.6	131.3	-2.0	**141.7**	-7.2	-26.2
My,	-26.8	50.5	-3.8	90.9	**-35.3**	26.0	26.0	82.4	2.5	9.2	**32.0**	-97.8
Mz,	-0.2	71.3	-0.4	5.0	-0.2	**-269.5**	0.8	64.3	-0.7	40.6	-1.0	**199.5**

Member 54

Fx,	**-27.1**	51.4	-5.4	89.2	-28.7	-2.0	**26.3**	81.8	0.1	5.9	39.9	-69.9
Fy,	0.4	**-29.2**	0.0	-21.6	1.5	74.9	5.3	**171.8**	-2.5	63.1	13.3	-125.0
Fz,	-5.5	130.9	**-8.7**	111.8	11.5	-48.7	6.1	-1.8	**3.9**	-22.1	0.7	-7.5
Mx,	11.2	72.4	1.3	**-77.2**	14.5	-5.6	-4.9	122.0	-4.5	**144.4**	2.4	-9.7
My,	-25.7	21.9	-2.7	76.5	**-33.1**	-23.7	24.5	118.4	-2.3	31.0	**43.2**	-32.2
Mz,	-0.2	71.5	-2.0	4.6	5.4	**-268.8**	0.5	66.6	-1.8	44.7	4.4	**199.1**
Fx,	**-27.1**	98.9	-5.4	139.1	-53.2	-340.9	**26.3**	82.7	0.1	-0.0	40.6	-439.8
Fy,	2.6	**-25.3**	0.8	-11.3	6.9	149.2	4.6	**215.6**	-2.8	71.2	0.2	-938.0
Fz,	-5.5	181.1	**-8.7**	164.4	-27.5	-753.4	6.1	-0.9	**3.9**	-28.1	18.4	-1.3
Mx,	12.1	74.9	1.8	**-74.0**	23.2	-397.6	-9.4	161.7	-5.8	**182.6**	-27.6	-592.1
My,	-26.8	99.7	-6.0	139.4	**-54.1**	-345.5	26.0	81.9	0.8	-0.3	**41.5**	-435.2
Mz,	4.5	211.7	-3.4	66.9	-0.5	**-955.2**	-4.0	-23.0	-0.4	0.7	-6.9	**159.1**

Member 55

Fx,	**-25.4**	-108.8	9.7	-64.8	-59.9	-348.1	**24.6**	-38.3	-2.2	-23.1	45.6	-432.8
Fy,	3.9	**-168.2**	4.4	-44.1	-0.8	-921.3	1.2	**8.6**	-0.8	2.9	3.9	155.9
Fz,	18.4	-33.5	**-4.4**	-1.9	39.0	-421.1	-16.1	-128.5	**11.0**	-87.6	-46.8	-606.0
Mx,	4.3	-146.2	3.8	**-126.2**	1.8	-616.1	-6.6	-25.7	2.0	**36.2**	-14.9	-158.8
My,	-24.9	-109.2	10.1	-62.7	**-60.0**	-365.5	23.8	-46.9	-3.1	-26.1	**45.8**	-544.6
Mz,	4.1	-161.1	4.3	-37.4	-0.6	**-955.1**	-3.9	8.5	0.4	0.5	-7.0	**159.1**
Fx,	**-25.4**	-71.3	9.7	-25.3	-24.5	-17.8	**24.6**	-37.6	-2.2	-27.9	37.4	-293.7

Fy,	4.5	**-130.5**	3.9	-34.9	15.4	-382.9	-0.9	**11.8**	0.2	10.1	-0.9	156.1
Fz,	18.4	-32.8	**-4.4**	-6.7	22.9	-299.6	-16.1	-90.9	**11.0**	-48.2	-6.6	-200.4
Mx,	7.2	-109.8	2.2	**-94.0**	17.8	-157.0	-9.6	-0.6	4.5	**39.5**	-8.6	-111.7
My,	-22.6	-56.4	6.3	18.0	**-26.2**	39.4	23.8	-57.8	-0.9	-45.8	**38.9**	-355.5
Mz,	6.1	-35.1	2.1	-4.4	12.5	**-628.1**	-5.0	-87.2	2.4	-21.2	-1.6	**301.9**

Member 56

Fx,	**-24.3**	-74.9	7.0	-37.7	-36.8	-18.5	**23.5**	-34.2	-4.6	-18.8	32.3	-293.1
Fy,	4.6	**-127.6**	0.2	-27.7	4.9	-385.1	-3.6	**10.6**	0.9	5.5	-5.0	157.7
Fz,	20.5	-38.7	**-4.9**	-28.8	30.2	-132.9	-22.6	-69.7	**7.1**	-30.6	-35.6	-154.7
Mx,	5.8	-107.3	-0.6	**-90.5**	8.1	-153.4	-8.3	-4.5	3.0	**30.1**	-14.2	-121.7
My,	-24.2	-62.1	7.0	-30.4	**-36.8**	-29.2	23.4	-47.0	-4.6	-26.0	**32.4**	-282.4
Mz,	5.8	-34.6	0.1	-2.9	4.9	**-627.9**	-4.8	-86.2	1.0	-19.8	-5.3	**301.5**
Fx,	**-24.3**	-37.3	7.0	1.7	-11.2	185.6	**23.5**	-33.4	-4.6	-23.6	15.5	-169.1
Fy,	5.4	**-96.3**	0.1	-21.8	6.1	-99.3	-3.6	**19.6**	1.0	29.8	-1.7	189.0
Fz,	20.5	-37.9	**-4.9**	-33.6	12.4	7.5	-22.6	-32.2	**7.1**	8.8	-9.6	33.8
Mx,	7.9	-76.1	-1.3	**-66.2**	6.6	62.0	-10.6	7.8	3.6	**43.2**	-4.3	14.5
My,	-22.0	-30.0	5.6	17.1	**-11.5**	232.3	22.8	-53.4	-4.1	-41.2	**15.9**	-157.6
Mz,	5.4	-34.5	0.2	-2.8	5.0	**-501.1**	-4.5	-44.9	1.0	-8.7	-1.1	**544.3**

Member 57

Fx,	**-19.0**	-41.5	5.4	-13.0	-28.5	185.5	**18.3**	-29.7	-5.8	-13.8	29.2	-169.0
Fy,	3.5	**-92.2**	-1.7	-10.6	6.9	-128.8	-4.1	**16.3**	1.3	12.5	-6.3	200.1
Fz,	17.4	-45.6	**-6.3**	-33.6	29.7	-38.0	-17.9	-20.3	**5.8**	8.9	-28.8	65.2
Mx,	5.0	-70.8	-2.6	**-61.9**	10.8	56.4	-5.9	0.1	2.2	**30.5**	-10.2	2.9
My,	-18.7	-26.3	5.7	0.3	**-29.0**	112.6	18.0	-45.7	-6.2	-27.8	**29.9**	-93.1
Mz,	4.4	-34.2	-0.5	-1.7	4.6	**-501.1**	-3.9	-42.6	-0.4	-4.8	-1.6	**544.2**
Fx,	**-19.0**	-3.9	5.4	26.5	-8.8	265.3	**18.3**	-28.9	-5.8	-18.6	7.9	-61.6
Fy,	4.0	**-66.3**	-1.7	-6.1	1.1	8.7	-4.8	**29.6**	1.3	28.3	-1.9	282.2
Fz,	17.4	-45.6	**-6.3**	-33.6	6.7	129.1	-17.9	12.6	**5.8**	37.9	-7.4	79.3
Mx,	5.8	-46.2	-2.7	**-43.2**	1.7	101.9	-6.1	12.1	2.2	**45.6**	-2.3	94.1
My,	-17.8	-10.1	4.4	16.3	**-9.1**	397.5	18.0	-28.4	-5.3	-9.6	**8.3**	-165.8
Mz,	4.2	-34.2	-0.5	-1.6	2.5	**-375.7**	-3.6	-4.4	-0.4	7.2	-2.9	**637.3**

Member 58

Fx,	**-13.7**	-6.7	3.4	15.7	-19.5	265.6	**13.1**	-26.6	-7.2	-13.0	26.5	-61.9
Fy,	0.7	**-64.4**	-2.1	-4.4	4.5	-51.5	-1.2	**28.4**	-0.7	11.3	0.9	355.6
Fz,	9.6	-32.7	**-9.7**	-9.9	26.6	301.7	-11.6	-2.3	**5.6**	10.0	-22.3	-35.7
Mx,	-3.5	-33.8	-0.4	**-46.6**	-2.4	201.8	2.7	-2.6	-4.0	**46.9**	10.7	49.9
My,	-12.8	8.2	5.2	23.8	**-22.6**	79.6	11.6	-42.7	-9.1	-26.7	**29.4**	183.0
Mz,	3.2	-34.1	-0.6	-1.2	3.4	**-375.8**	-3.0	-1.7	-2.9	12.2	3.9	**637.3**
Fx,	**-13.7**	29.0	3.4	47.5	-7.0	219.9	**13.1**	-26.6	-7.2	-13.0	0.2	35.8
Fy,	1.8	**-47.3**	-2.1	2.4	-2.4	-83.5	-1.6	**49.9**	-0.8	18.6	-2.0	386.3
Fz,	9.6	4.9	**-9.7**	29.6	-6.9	346.4	-11.6	-1.6	**5.6**	5.2	-1.7	-28.6
Mx,	-3.2	-14.1	0.2	**-29.0**	-2.8	108.4	2.4	18.3	-4.6	**65.3**	-5.3	185.2
My,	-10.5	20.2	-1.2	33.7	**-11.5**	432.9	11.2	-21.7	-4.0	-1.1	**3.5**	-137.8
Mz,	2.8	-34.0	-0.4	-1.2	1.2	**-251.0**	-2.6	36.5	-3.0	24.3	-6.5	**578.7**

Member 59

Fx,	**-8.4**	28.9	-0.9	44.3	-6.1	222.2	**7.9**	-20.3	-7.1	8.1	21.0	-85.8
Fy,	1.7	**-48.3**	-3.3	-25.7	7.1	-125.4	-2.4	**54.1**	-6.9	41.7	11.9	432.5
Fz,	4.9	11.4	**-18.5**	35.5	40.6	379.7	-6.3	-8.7	**6.2**	-6.6	-18.2	-61.8
Mx,	-3.4	-21.4	-0.4	**-42.6**	-2.6	81.6	2.0	26.0	-11.6	**74.9**	24.6	212.3
My,	-6.8	-3.7	6.0	-2.5	**-18.3**	-26.5	5.4	6.4	-18.3	31.4	**40.7**	344.4
Mz,	2.0	-34.2	-0.1	-1.7	1.3	**-251.0**	-2.2	39.8	-8.8	31.4	16.0	**578.8**
Fx,	**-8.4**	29.7	-0.9	39.5	-9.3	114.7	**7.9**	-20.3	-7.1	8.1	-5.2	-11.5
Fy,	2.5	**-37.8**	-1.3	-6.0	-0.7	-82.4	-2.5	**83.4**	-7.7	48.4	-14.8	322.9
Fz,	4.9	54.2	**-18.5**	80.5	-27.3	261.1	-6.3	-8.0	**6.2**	-11.4	4.6	-31.3
Mx,	-3.6	-10.0	1.6	**-29.5**	-1.0	30.8	2.1	52.9	-13.9	**94.6**	-21.9	203.9
My,	4.1	55.5	-18.1	81.9	**-27.4**	265.0	-5.6	-5.5	5.9	-15.0	**4.8**	-21.2
Mz,	1.7	-34.2	0.2	-2.0	1.1	**-125.6**	-1.9	79.8	-9.1	44.2	-16.6	**366.1**

Member 60

Fx,	**-3.3**	64.6	-22.5	71.1	38.6	250.4	**2.8**	-18.2	-5.5	10.7	12.5	-65.7
Fy,	0.9	**-39.7**	-3.4	-19.5	6.3	-85.0	-1.7	**88.0**	-21.6	61.2	39.0	323.3

Fz,	1.0	54.9	**-41.1**	80.0	76.9	260.9	-1.9	-4.7	**8.6**	-16.1	-17.8	-15.9
Mx,	-1.3	-14.3	0.2	**-38.0**	-2.0	25.7	0.4	56.9	-33.2	**99.7**	61.9	209.1
My,	-1.9	-4.7	8.6	-16.1	**-17.8**	-15.9	1.0	54.9	-41.1	80.0	**76.9**	260.9
Mz,	1.1	-34.7	1.3	-3.4	-2.0	**-125.7**	-1.7	83.7	-23.9	54.5	43.3	**366.3**
Fx,	**-3.3**	70.6	-22.5	71.8	-43.9	-1.9	**2.8**	-18.2	-5.5	10.7	-7.5	1.1
Fy,	1.1	**-34.7**	1.3	-3.4	2.6	1.6	-1.7	**122.0**	-23.9	66.5	-44.3	-2.9
Fz,	1.0	92.5	**-41.1**	119.4	-73.7	-1.4	-1.9	-3.9	**8.6**	-20.9	13.6	-0.0
Mx,	-1.7	-3.8	8.5	**-21.2**	13.6	-0.0	0.7	91.5	-40.8	**120.6**	-73.5	-1.3
My,	0.7	93.6	-41.0	120.2	**-73.9**	-1.5	-1.7	-5.3	8.6	-21.2	**13.7**	0.1
Mz,	-1.3	105.5	-6.0	15.9	-11.6	**-3.2**	0.4	-23.1	-5.2	19.6	-9.3	**2.1**

Member 121

Fx,	**-1.4**	0.0	-0.0	0.0	-116.5	0.0	**0.2**	-0.0	-0.0	-0.0	13.8	-0.0
Fy,	-0.6	**-0.0**	-37.5	0.8	61.3	-0.0	-0.6	**0.0**	37.5	-0.8	-163.9	0.0
Fz,	-0.8	-0.0	**-40.9**	0.3	58.3	-0.0	-0.8	0.0	**40.9**	-0.3	-187.2	0.0
Mx,	-0.2	0.0	1.5	**-1.0**	-22.6	0.0	-0.2	-0.0	-1.5	**1.0**	-13.7	-0.0
My,	-0.9	0.0	38.8	-0.1	**-190.0**	0.0	-0.0	-0.0	-28.6	-0.1	**85.9**	-0.0
Mz,	-0.6	-0.0	-37.5	0.8	61.3	**-0.0**	-0.6	0.0	37.5	-0.8	-163.9	**0.0**
Fx,	**-1.4**	0.0	-0.0	0.0	-116.5	0.0	**0.2**	-0.0	-0.0	-0.0	13.8	-0.0
Fy,	-0.6	**-0.0**	-37.5	0.8	25.7	-0.0	-0.6	**0.0**	37.5	-0.8	-128.2	0.0
Fz,	-0.8	-0.0	**-40.9**	0.3	19.4	-0.0	-0.8	0.0	**40.9**	-0.3	-148.3	0.0
Mx,	-0.2	0.0	1.5	**-1.0**	-21.2	0.0	-0.2	-0.0	-1.5	**1.0**	-15.1	-0.0
My,	-1.0	0.0	36.5	-0.1	**-154.4**	0.0	0.1	-0.0	-24.5	0.2	**60.4**	-0.0
Mz,	-0.6	-0.0	-37.5	0.8	25.7	**-0.0**	-0.6	0.0	37.5	-0.8	-128.2	**0.0**

Member 122

Fx,	**-2.2**	-0.0	0.0	-0.0	6.6	2.7	**0.3**	0.0	-0.0	-0.0	-0.8	-0.3
Fy,	-0.9	**-4.8**	-6.6	1.5	22.8	-13.2	-0.9	**4.8**	6.6	-1.5	-16.9	15.6
Fz,	-1.3	-2.4	**-9.6**	0.6	32.7	-5.6	-1.3	2.4	**9.6**	-0.6	-24.7	8.9
Mx,	-0.3	3.6	3.6	-1.7	-9.9	11.1	-0.3	-3.6	-3.6	**1.7**	11.7	-10.3
My,	-0.2	1.1	9.3	-0.5	**-27.7**	3.5	-1.4	-2.3	-9.5	0.6	**32.8**	-5.2
Mz,	-0.9	-4.8	-6.4	1.5	22.1	**-13.2**	-1.0	4.8	6.4	-1.5	-16.2	**15.6**
Fx,	**-2.2**	-0.0	0.0	-0.0	6.6	2.7	**0.3**	0.0	-0.0	-0.0	-0.8	-0.3
Fy,	-0.9	**-4.8**	-6.6	1.5	16.5	-8.7	-0.9	**4.8**	6.6	-1.5	-10.6	11.1
Fz,	-1.3	-2.4	**-9.6**	0.6	23.6	-3.3	-1.3	2.4	**9.6**	-0.6	-15.6	6.6
Mx,	-0.3	3.6	3.6	-1.7	-6.5	7.7	-0.3	-3.6	-3.6	**1.7**	8.3	-6.9
My,	-0.1	1.7	9.2	-0.7	**-18.9**	3.6	-1.4	-2.3	-9.5	0.6	**23.8**	-3.0
Mz,	-0.9	-4.8	-6.4	1.5	16.0	**-8.7**	-1.0	4.8	6.4	-1.5	-10.1	**11.1**

Member 123

Fx,	**-1.1**	-0.0	0.0	0.0	2.3	4.4	**0.1**	-0.0	0.0	0.0	-0.3	-0.5
Fy,	-0.4	**-8.0**	-6.5	0.9	20.8	-22.0	-0.4	**8.0**	6.5	-0.9	-18.5	25.8
Fz,	-0.4	-2.3	**-9.5**	0.4	29.2	-5.1	-0.4	2.3	**9.5**	-0.4	-27.7	9.0
Mx,	-0.2	6.1	3.6	**-1.0**	-10.6	19.0	-0.2	-6.1	-3.6	**1.0**	11.2	-17.7
My,	-0.2	0.5	9.4	-0.2	**-28.1**	2.6	-0.6	-4.1	-9.5	0.4	**30.0**	-9.7
Mz,	-0.4	-8.0	-6.5	0.9	20.8	**-22.0**	-0.4	8.0	6.5	-0.9	-18.5	**25.8**
Fx,	**-1.1**	-0.0	0.0	0.0	2.3	4.4	**0.1**	-0.0	0.0	0.0	-0.3	-0.5
Fy,	-0.4	**-8.0**	-6.5	0.9	14.6	-14.4	-0.4	**8.0**	6.5	-0.9	-12.2	18.2
Fz,	-0.4	-2.3	**-9.5**	0.4	20.2	-2.8	-0.4	2.3	**9.5**	-0.4	-18.7	6.8
Mx,	-0.2	6.1	3.6	**-1.0**	-7.1	13.2	-0.2	-6.1	-3.6	**1.0**	7.7	-11.9
My,	-0.2	0.4	9.4	-0.2	**-19.2**	1.9	-0.6	-4.0	-9.4	0.4	**21.0**	-5.6
Mz,	-0.4	-7.9	-6.3	0.9	14.1	**-14.4**	-0.5	7.9	6.3	-0.9	-11.8	**18.2**

Member 124

Fx,	**-1.0**	-0.0	-0.0	0.0	-1.6	5.0	**0.1**	0.0	0.0	0.0	0.2	-0.6
Fy,	-0.4	**-9.3**	-6.5	0.2	19.3	-25.9	-0.4	**9.3**	6.5	-0.2	-19.9	30.2
Fz,	-0.4	-3.8	**-9.5**	0.3	27.7	-9.1	-0.4	3.8	**9.5**	-0.3	-29.2	13.9
Mx,	-0.2	2.8	4.4	**-0.5**	-13.5	9.1	-0.2	-2.8	-4.4	**0.5**	12.9	-7.6
My,	-0.4	3.2	9.5	-0.3	**-29.2**	11.7	-0.5	-5.1	-9.5	0.2	**27.9**	-12.6
Mz,	-0.4	-9.3	-6.5	0.2	19.3	**-25.9**	-0.4	9.3	6.5	-0.2	-19.9	**30.2**
Fx,	**-1.0**	-0.0	-0.0	0.0	-1.6	5.0	**0.1**	0.0	0.0	0.0	0.2	-0.6
Fy,	-0.4	**-9.3**	-6.5	0.2	13.1	-17.0	-0.4	**9.3**	6.5	-0.2	-13.7	21.3
Fz,	-0.4	-3.8	**-9.5**	0.3	18.7	-5.4	-0.4	3.8	**9.5**	-0.3	-20.2	10.3
Mx,	-0.2	2.8	4.4	**-0.5**	-9.3	6.4	-0.2	-2.8	-4.4	**0.5**	8.7	-5.0
My,	-0.3	3.5	9.4	-0.3	**-20.2**	9.2	-0.5	-5.1	-9.5	0.2	**19.0**	-7.7

Mz$_r$	-0.4	-9.3	-6.5	0.2	13.1	**-17.0**	-0.4	9.3	6.5	-0.2	-13.7	**21.3**

Member 125

Fx$_i$	**-1.9**	-0.0	-0.0	0.0	-7.2	4.5	**0.2**	-0.0	0.0	0.0	0.9	-0.6
Fy$_i$	-0.6	**-8.8**	-6.6	-0.7	17.8	-24.6	-0.5	**8.9**	6.4	0.7	-20.9	28.5
Fz$_i$	-0.8	-4.6	**-9.5**	0.0	25.5	-11.6	-0.8	4.6	**9.5**	-0.0	-31.4	16.1
Mx$_i$	-0.3	-6.1	-3.0	**-0.8**	7.8	-17.5	-0.3	6.1	3.0	**0.8**	-10.0	18.9
My$_i$	-0.8	5.3	9.5	0.1	**-31.4**	18.3	-0.8	-5.9	-9.4	-0.2	**25.5**	-15.8
Mz$_i$	-0.6	-8.8	-6.6	-0.7	17.8	**-24.6**	-0.5	8.9	6.4	0.7	-20.9	**28.5**
Fx$_r$	**-1.9**	-0.0	-0.0	0.0	-7.2	4.5	**0.2**	-0.0	0.0	0.0	0.9	-0.6
Fy$_r$	-0.6	**-8.8**	-6.6	-0.7	11.5	-16.2	-0.5	**8.9**	6.4	0.7	-14.8	20.1
Fz$_r$	-0.8	-4.6	**-9.5**	0.0	16.5	-7.2	-0.8	4.6	**9.5**	-0.0	-22.4	11.7
Mx$_r$	-0.3	-6.1	-3.0	**-0.8**	5.0	-11.7	-0.3	6.1	3.0	**0.8**	-7.2	13.1
My$_r$	-0.8	5.3	9.5	0.1	**-22.4**	13.3	-0.6	-5.1	-9.2	-0.0	**16.7**	-8.8
Mz$_r$	-0.5	-8.8	-6.3	-0.7	11.1	**-16.2**	-0.6	8.8	6.6	0.7	-15.5	**20.1**

Member 126

Fx$_i$	**-4.7**	-0.0	-0.0	0.0	-18.8	3.2	**0.6**	-0.0	0.0	-0.0	2.3	-0.4
Fy$_i$	-1.7	**-6.3**	-7.2	-1.5	14.8	-17.4	-1.7	**6.3**	7.2	1.5	-28.5	20.1
Fz$_i$	-2.0	-4.3	**-9.9**	-0.6	21.9	-11.4	-2.0	4.3	**9.9**	0.6	-37.7	14.6
Mx$_i$	-0.7	-4.8	-3.0	**-1.8**	6.2	-13.8	-0.7	4.8	3.0	**1.8**	-12.0	14.8
My$_i$	-2.3	3.7	9.6	0.5	**-38.1**	12.8	-1.0	-3.4	-9.3	-0.4	**23.9**	-9.5
Mz$_i$	-1.7	-6.3	-7.2	-1.5	14.8	**-17.4**	-1.7	6.3	7.2	1.5	-28.5	**20.1**
Fx$_r$	**-4.7**	-0.0	-0.0	0.0	-18.8	3.2	**0.6**	-0.0	0.0	-0.0	2.3	-0.4
Fy$_r$	-1.7	**-6.3**	-7.2	-1.5	8.0	-11.4	-1.7	**6.3**	7.2	1.5	-21.6	14.2
Fz$_r$	-2.0	-4.3	**-9.9**	-0.6	12.5	-7.3	-2.0	4.3	**9.9**	0.6	-28.2	10.5
Mx$_r$	-0.7	-4.8	-3.0	**-1.8**	3.3	-9.3	-0.7	4.8	3.0	**1.8**	-9.1	10.2
My$_r$	-2.5	3.4	9.3	0.4	**-29.2**	8.7	-0.8	-2.4	-8.9	-0.3	**15.1**	-4.6
Mz$_r$	-1.7	-6.2	-7.2	-1.5	8.0	**-11.4**	-1.7	6.2	7.2	1.5	-21.6	**14.2**

Member 127

Fx$_i$	**-12.2**	-0.0	-0.0	0.0	-2.2	0.8	**1.5**	-0.0	0.0	-0.0	0.3	-0.1
Fy$_i$	-5.0	**-1.9**	-3.6	-0.4	9.8	-5.5	-5.0	**1.9**	3.6	0.4	-11.6	6.2
Fz$_i$	-4.5	-1.2	**-5.5**	-2.0	15.6	-3.2	-3.8	1.0	**5.5**	1.9	-17.1	3.2
Mx$_i$	-1.9	-0.2	-1.3	**-3.4**	3.4	-0.4	-1.9	0.2	1.3	**3.4**	-4.1	0.7
My$_i$	-5.3	1.3	5.4	1.5	**-17.3**	4.1	-3.6	-1.0	-5.4	-1.8	**15.6**	-2.7
Mz$_i$	-4.9	-1.9	-3.5	-0.4	9.7	**-5.5**	-5.1	1.9	3.6	0.3	-11.8	**6.2**
Fx$_r$	**-12.2**	-0.0	-0.0	0.0	-2.2	0.8	**1.5**	-0.0	0.0	-0.0	0.3	-0.1
Fy$_r$	-5.0	**-1.9**	-3.6	-0.4	6.4	-3.6	-5.0	**1.9**	3.6	0.4	-8.2	4.3
Fz$_r$	-4.5	-1.2	**-5.5**	-2.0	10.4	-2.1	-3.8	1.0	**5.5**	1.9	-11.9	2.2
Mx$_r$	-1.9	-0.2	-1.3	**-3.4**	2.2	-0.2	-1.9	0.2	1.3	**3.4**	-2.9	0.5
My$_r$	-5.3	1.3	5.4	1.5	**-12.1**	2.9	-3.6	-1.0	-5.4	-1.8	**10.5**	-1.7
Mz$_r$	-4.8	-1.9	-3.5	-0.3	6.4	**-3.6**	-5.6	1.9	3.7	0.4	-8.7	**4.4**

Member 128

Fx$_i$	**-3.9**	-0.0	0.0	-0.0	14.4	6.5	**0.5**	0.0	-0.0	-0.0	-1.8	-0.8
Fy$_i$	-1.4	**-7.6**	-0.0	3.0	5.4	-19.9	-1.4	**7.6**	0.0	-3.0	5.1	25.7
Fz$_i$	-1.3	3.4	**-4.3**	-2.9	17.6	11.9	-1.3	-3.4	**4.3**	2.9	-8.2	-8.6
Mx$_i$	-0.6	5.2	-0.4	**-4.0**	3.5	16.7	-0.6	-5.2	0.4	**4.0**	0.9	-14.6
My$_i$	0.2	-1.7	3.8	1.7	**-12.1**	-4.8	-3.6	0.4	-3.2	-0.4	**23.2**	7.2
Mz$_i$	-1.4	-7.6	-0.0	3.1	5.3	**-19.9**	-1.4	7.6	0.1	-3.0	5.1	**25.7**
Fx$_r$	**-3.9**	-0.0	0.0	-0.0	14.4	6.5	**0.5**	0.0	-0.0	-0.0	-1.8	-0.8
Fy$_r$	-1.4	**-7.6**	-0.0	3.0	5.3	-12.7	-1.4	**7.6**	0.0	-3.0	5.1	18.5
Fz$_r$	-1.3	3.4	**-4.3**	-2.9	13.6	8.7	-1.3	-3.4	**4.3**	2.9	-4.1	-5.3
Mx$_r$	-0.6	5.2	-0.4	**-4.0**	3.0	11.7	-0.6	-5.2	0.4	**4.0**	1.3	-9.7
My$_r$	0.2	-1.7	3.8	1.6	**-8.5**	-3.3	-3.7	0.1	-3.0	0.0	**20.2**	6.4
Mz$_r$	-1.4	-7.6	-0.0	3.1	5.1	**-12.7**	-1.5	7.6	0.0	-3.1	5.3	**18.5**

Member 129

Fx$_i$	**-1.0**	-0.0	-0.0	0.0	3.9	10.3	**0.1**	-0.0	-0.0	0.0	-0.5	-1.3
Fy$_i$	-0.3	**-12.8**	-1.3	2.6	5.1	-33.9	-0.3	**12.8**	1.3	-2.6	-2.6	43.1
Fz$_i$	-0.2	6.0	**-5.1**	-1.2	16.0	20.2	-0.1	-6.3	**5.2**	1.3	-15.0	-16.8
Mx$_i$	-0.1	10.1	0.8	**-3.2**	-1.8	31.8	-0.1	-10.1	-0.8	**3.2**	2.9	-28.5
My$_i$	-0.1	-6.6	5.1	1.5	**-15.1**	-18.4	-0.6	8.2	-4.8	-0.9	**16.5**	30.3
Mz$_i$	-0.3	-12.8	-1.3	2.6	5.0	**-34.0**	-0.3	12.8	1.3	-2.6	-2.4	**43.3**
Fx$_r$	**-1.0**	-0.0	-0.0	0.0	3.9	10.3	**0.1**	-0.0	-0.0	0.0	-0.5	-1.3
Fy$_r$	-0.3	**-12.8**	-1.3	2.6	3.9	-21.7	-0.3	**12.8**	1.3	-2.6	-1.4	30.9
Fz$_r$	-0.2	6.0	**-5.1**	-1.2	11.1	14.5	-0.1	-6.3	**5.2**	1.3	-10.0	-10.8
Mx$_r$	-0.1	10.1	0.8	**-3.2**	-1.1	22.3	-0.1	-10.1	-0.8	**3.2**	2.1	-19.0
My$_r$	-0.1	-6.6	5.1	1.6	**-10.2**	-12.2	-0.6	8.3	-4.7	-0.9	**12.0**	22.8
Mz$_r$	-0.3	-12.8	-1.3	2.6	3.8	**-21.9**	-0.3	12.8	1.3	-2.6	-1.3	**31.2**

Member 130

Fx$_i$	**-0.3**	0.0	0.0	-0.0	0.9	12.4	**0.0**	-0.0	-0.0	-0.0	-0.1	-1.6
Fy$_i$	-0.1	**-16.1**	-1.4	1.5	4.5	-42.6	-0.1	**16.1**	1.4	-1.5	-3.9	53.9
Fz$_i$	-0.0	6.2	**-5.1**	-0.2	15.5	21.8	-0.0	-6.9	**5.2**	0.3	-15.4	-17.8
Mx$_i$	-0.0	8.0	1.7	**-2.0**	-5.0	26.0	-0.0	-8.0	-1.7	**2.0**	5.3	-22.0
My$_i$	-0.0	-7.0	5.2	0.3	**-15.4**	-18.2	-0.1	5.9	-5.1	-0.1	**15.6**	21.4
Mz$_i$	-0.1	-16.1	-1.5	1.5	4.8	**-42.8**	-0.1	16.1	1.5	-1.5	-4.2	**54.2**
Fx$_r$	**-0.3**	0.0	0.0	-0.0	0.9	12.4	**0.0**	-0.0	-0.0	-0.0	-0.1	-1.6
Fy$_r$	-0.1	**-16.1**	-1.4	1.5	3.1	-27.3	-0.1	**16.1**	1.4	-1.5	-2.6	38.7
Fz$_r$	-0.0	6.2	**-5.1**	-0.2	10.7	15.9	-0.0	-6.9	**5.2**	0.3	-10.5	-11.3
Mx$_r$	-0.0	8.0	1.7	**-2.0**	-3.4	18.4	-0.0	-8.0	-1.7	**2.0**	3.6	-14.4
My$_r$	-0.0	-7.0	5.2	0.3	**-10.5**	-11.6	-0.1	5.9	-5.1	-0.1	**10.7**	15.7
Mz$_r$	-0.1	-16.0	-1.5	1.5	3.4	**-27.6**	-0.1	16.0	1.5	-1.5	-2.8	**38.9**

Member 131

Fx$_i$	**-0.1**	-0.0	0.0	-0.0	-0.1	13.6	**0.0**	0.0	0.0	-0.0	0.0	-1.7
Fy$_i$	-0.0	**-17.5**	-1.7	0.3	5.2	-46.6	-0.0	**17.5**	1.7	-0.3	-5.2	58.6
Fz$_i$	-0.0	4.4	**-5.1**	0.7	15.3	17.1	-0.0	-5.4	**5.2**	-0.7	-15.6	-12.8
Mx$_i$	-0.0	1.2	2.0	**-1.6**	-6.1	5.7	-0.0	-1.2	-2.0	**1.6**	6.1	-1.5
My$_i$	-0.0	-5.4	5.2	-0.7	**-15.6**	-12.8	-0.0	4.4	-5.1	0.7	**15.3**	17.1
Mz$_i$	-0.0	-17.5	-1.6	0.3	4.8	**-46.9**	-0.1	17.5	1.6	-0.3	-4.9	**58.8**
Fx$_r$	**-0.1**	-0.0	0.0	-0.0	-0.1	13.6	**0.0**	0.0	0.0	-0.0	0.0	-1.7
Fy$_r$	-0.0	**-17.5**	-1.7	0.3	3.5	-29.9	-0.0	**17.5**	1.7	-0.3	-3.6	41.9
Fz$_r$	-0.0	4.4	**-5.1**	0.7	10.4	12.9	-0.0	-5.4	**5.2**	-0.7	-10.7	-7.7
Mx$_r$	-0.0	1.2	2.0	**-1.6**	-4.2	4.6	-0.0	-1.2	-2.0	**1.6**	4.2	-0.4
My$_r$	-0.0	-5.4	5.2	-0.7	**-10.7**	-7.7	-0.0	4.4	-5.1	0.7	**10.4**	12.9
Mz$_r$	-0.0	-17.3	-1.6	0.3	3.2	**-30.3**	-0.1	17.3	1.6	-0.3	-3.3	**42.3**

Member 132

Fx$_i$	**-0.4**	0.0	0.0	0.0	-1.3	12.1	**0.0**	-0.0	0.0	-0.0	0.2	-1.6
Fy$_i$	-0.1	**-17.2**	-1.8	-1.0	5.0	-46.1	-0.1	**17.2**	1.8	1.0	-5.8	57.4
Fz$_i$	-0.1	1.0	**-5.1**	1.4	14.9	7.2	-0.1	-2.0	**5.2**	-1.4	-16.0	-2.1
Mx$_i$	-0.1	-5.3	3.0	**-1.8**	-9.3	-13.4	-0.1	5.3	-3.0	**1.8**	8.8	18.4
My$_i$	-0.1	-2.0	5.2	-1.4	**-16.0**	-2.0	-0.1	3.5	-5.1	1.5	**14.9**	12.5
Mz$_i$	-0.1	-17.2	-1.8	-1.1	4.9	**-46.3**	-0.1	17.2	1.8	1.1	-5.7	**57.6**
Fx$_r$	**-0.4**	0.0	0.0	0.0	-1.3	12.1	**0.0**	-0.0	0.0	-0.0	0.2	-1.6
Fy$_r$	-0.1	**-17.2**	-1.8	-1.0	3.3	-29.7	-0.1	**17.2**	1.8	1.0	-4.1	41.0
Fz$_r$	-0.1	1.0	**-5.1**	1.4	10.0	6.3	-0.1	-2.0	**5.2**	-1.4	-11.1	-0.2
Mx$_r$	-0.1	-5.3	3.0	**-1.8**	-6.4	-8.3	-0.1	5.3	-3.0	**1.8**	5.9	13.4
My$_r$	-0.1	-2.0	5.2	-1.4	**-11.1**	-0.1	-0.1	3.5	-5.1	1.5	**10.1**	9.3
Mz$_r$	-0.1	-17.2	-1.6	-1.1	3.0	**-30.0**	-0.1	17.2	1.6	1.1	-3.7	**41.3**

Member 133

Fx$_i$	**-1.3**	0.0	-0.0	-0.0	-5.1	10.1	**0.2**	-0.0	0.0	0.0	0.6	-1.3
Fy$_i$	-0.4	**-14.8**	-1.8	-2.4	3.7	-39.9	-0.4	**14.8**	1.8	2.4	-6.8	49.1
Fz$_i$	-0.5	-2.7	**-5.1**	1.5	13.4	-4.0	-0.5	2.0	**5.2**	-1.6	-17.4	9.8
Mx$_i$	-0.2	-12.0	-0.8	**-3.0**	1.5	-34.3	-0.2	12.0	0.8	**3.0**	-3.1	37.6
My$_i$	-0.5	2.7	5.1	-1.4	**-17.5**	12.2	-0.4	-1.0	-5.1	1.8	**13.7**	-0.9
Mz$_i$	-0.4	-14.8	-1.7	-2.5	3.7	**-40.0**	-0.4	14.8	1.7	2.5	-6.8	**49.3**
Fx$_r$	**-1.3**	0.0	-0.0	-0.0	-5.1	10.1	**0.2**	-0.0	0.0	0.0	0.6	-1.3
Fy$_r$	-0.4	**-14.8**	-1.8	-2.4	2.0	-25.8	-0.4	**14.8**	1.8	2.4	-5.2	35.0
Fz$_r$	-0.5	-2.7	**-5.1**	1.5	8.5	-1.4	-0.5	2.0	**5.2**	-1.6	-12.5	7.9
Mx$_r$	-0.2	-12.0	-0.8	**-3.0**	0.7	-22.9	-0.2	12.0	0.8	**3.0**	-2.3	26.2
My$_r$	-0.6	2.3	5.0	-1.5	**-12.6**	8.8	-0.4	-1.0	-5.1	1.8	**8.9**	0.0
Mz$_r$	-0.4	-14.8	-1.7	-2.5	2.1	**-26.0**	-0.4	14.8	1.7	2.5	-5.1	**35.3**

Member 134

Fx_i	**-5.1**	-0.0	-0.0	0.0	-19.2	6.5	**0.6**	-0.0	0.0	0.0	2.4	-0.8
Fy_i	-1.9	**-10.0**	-1.2	-3.3	-3.4	-27.0	-1.9	**10.0**	1.2	3.3	-10.8	32.8
Fz_i	-2.0	-9.0	**-2.8**	-2.3	1.0	-24.4	-2.0	9.0	**2.8**	2.3	-15.6	29.6
Mx_i	-0.8	-7.3	-0.9	**-4.3**	-0.3	-20.8	-0.8	7.3	0.9	**4.3**	-5.9	22.9
My_i	-5.0	0.5	1.3	0.1	**-22.6**	7.9	0.3	-2.4	-1.7	-0.5	**6.4**	-8.0
Mz_i	-1.9	-9.9	-1.2	-3.4	-3.2	**-27.0**	-1.9	9.9	1.2	3.4	-10.9	**32.9**
Fx_f	**-5.1**	-0.0	-0.0	0.0	-19.2	6.5	**0.6**	-0.0	0.0	0.0	2.4	-0.8
Fy_f	-1.9	**-10.0**	-1.2	-3.3	-4.5	-17.5	-1.9	**10.0**	1.2	3.3	-9.6	23.4
Fz_f	-2.0	-9.0	**-2.8**	-2.3	-1.6	-15.9	-2.0	9.0	**2.8**	2.3	-13.0	21.1
Mx_f	-0.8	-7.3	-0.9	**-4.3**	-1.2	-13.9	-0.8	7.3	0.9	**4.3**	-5.0	16.0
My_f	-5.0	0.5	1.3	0.1	**-21.3**	7.3	0.5	-0.1	-1.4	0.1	**4.8**	-0.8
Mz_f	-1.8	-9.9	-1.3	-3.4	-4.2	**-17.5**	-2.0	9.9	1.3	3.3	-10.0	**23.4**

Member 135

Fx_i	**-17.9**	0.0	0.0	0.0	-0.0	1.0	**2.3**	-0.0	0.0	-0.0	0.0	-0.1
Fy_i	-6.7	**-3.4**	-0.9	-0.4	2.7	-9.8	-6.7	**3.4**	0.9	0.4	-2.7	10.6
Fz_i	-3.9	-0.3	**-2.9**	-3.1	8.6	-0.7	-3.9	0.3	**2.9**	3.1	-8.6	1.2
Mx_i	-2.9	0.0	-0.6	**-5.3**	1.7	0.2	-2.9	-0.0	0.6	**5.3**	-1.7	0.1
My_i	-3.9	0.3	2.9	3.1	**-8.6**	1.2	-3.9	-0.3	-2.9	-3.1	**8.6**	-0.7
Mz_i	-6.4	-3.4	-0.8	-0.0	2.5	**-9.8**	-6.7	3.4	0.9	0.4	-2.7	**10.6**
Fx_f	**-17.9**	0.0	0.0	0.0	-0.0	1.0	**2.3**	-0.0	0.0	-0.0	0.0	-0.1
Fy_f	-6.7	**-3.4**	-0.9	-0.4	1.8	-6.6	-6.7	**3.4**	0.9	0.4	-1.8	7.3
Fz_f	-3.9	-0.3	**-2.9**	-3.1	5.8	-0.4	-3.9	0.3	**2.9**	3.1	-5.9	0.9
Mx_f	-2.9	0.0	-0.6	**-5.3**	1.2	0.2	-2.9	-0.0	0.6	**5.3**	-1.2	0.1
My_f	-3.9	0.3	2.9	3.1	**-5.9**	0.9	-3.9	-0.3	-2.9	-3.1	**5.8**	-0.4
Mz_f	-6.4	-3.4	-0.8	-0.0	1.7	**-6.6**	-7.2	3.4	1.0	0.8	-2.0	**7.3**

Member 136

Fx_i	**-5.1**	-0.0	-0.0	0.0	19.2	6.6	**0.6**	0.0	-0.0	-0.0	-2.4	-0.8
Fy_i	-1.9	**-9.9**	-0.9	3.4	9.7	-26.9	-1.9	**9.9**	0.9	-3.4	4.3	32.8
Fz_i	-1.7	2.8	**-4.4**	-2.9	19.6	10.1	-1.7	-2.8	**4.4**	2.9	-6.9	-6.6
Mx_i	-0.8	7.1	-0.5	**-4.5**	4.5	22.4	-0.8	-7.1	0.5	**4.5**	1.5	-20.3
My_i	0.3	-1.4	3.9	1.7	**-12.8**	-3.9	-4.9	0.6	-3.1	-0.4	**27.5**	7.8
Mz_i	-1.9	-9.9	-0.9	3.4	9.7	**-26.9**	-1.9	9.9	0.9	-3.4	4.3	**32.8**
Fx_f	**-5.1**	-0.0	-0.0	0.0	19.2	6.6	**0.6**	0.0	-0.0	-0.0	-2.4	-0.8
Fy_f	-1.9	**-9.9**	-0.9	3.4	8.9	-17.4	-1.9	**9.9**	0.9	-3.4	5.2	23.3
Fz_f	-1.7	2.8	**-4.4**	-2.9	15.4	7.4	-1.7	-2.8	**4.4**	2.9	-2.7	-3.9
Mx_f	-0.8	7.1	-0.5	**-4.5**	4.0	15.6	-0.8	-7.1	0.5	**4.5**	2.0	-13.6
My_f	0.3	-1.4	3.8	1.8	**-9.1**	-2.9	-5.0	0.1	-2.8	-0.1	**24.7**	6.7
Mz_f	-1.8	-9.9	-0.8	3.5	8.5	**-17.5**	-1.9	9.9	0.8	-3.5	5.5	**23.3**

Member 137

Fx_i	**-1.3**	0.0	-0.0	-0.0	5.1	10.4	**0.2**	0.0	-0.0	-0.0	-0.6	-1.3
Fy_i	-0.4	**-15.0**	-0.3	2.6	2.5	-40.3	-0.4	**15.0**	0.3	-2.6	0.7	49.6
Fz_i	-0.6	9.4	**-5.6**	-0.7	19.0	33.2	-0.6	-10.1	**5.6**	0.9	-14.5	-25.5
Mx_i	-0.2	11.8	0.1	**-3.3**	0.5	37.1	-0.2	-11.8	-0.1	**3.3**	0.9	-33.8
My_i	-0.2	-7.5	5.4	1.1	**-15.3**	-20.5	-0.7	6.8	-5.4	0.1	**19.2**	27.0
Mz_i	-0.4	-14.9	-0.1	2.7	2.0	**-40.4**	-0.4	14.9	0.1	-2.7	1.2	**49.7**
Fx_f	**-1.3**	0.0	-0.0	-0.0	5.1	10.4	**0.2**	0.0	-0.0	-0.0	-0.6	-1.3
Fy_f	-0.4	**-15.0**	-0.3	2.6	2.2	-26.1	-0.4	**15.0**	0.3	-2.6	1.0	35.4
Fz_f	-0.6	9.4	**-5.6**	-0.7	13.7	24.3	-0.6	-10.1	**5.6**	0.9	-9.2	-16.0
Mx_f	-0.2	11.8	0.1	**-3.3**	0.6	25.8	-0.2	-11.8	-0.1	**3.3**	0.9	-22.5
My_f	-0.2	-5.1	5.3	0.7	**-10.2**	-9.1	-0.8	6.4	-5.4	0.1	**14.0**	19.7
Mz_f	-0.4	-14.9	-0.1	2.7	1.8	**-26.3**	-0.4	14.9	0.1	-2.7	1.4	**35.6**

Member 138

Fx_i	**-0.4**	-0.0	-0.0	0.0	1.3	12.5	**0.0**	-0.0	-0.0	0.0	-0.2	-1.6
Fy_i	-0.1	**-17.8**	0.1	1.3	0.0	-47.6	-0.1	**17.8**	-0.1	-1.3	0.8	59.0
Fz_i	-0.2	8.9	**-5.6**	0.3	17.3	33.0	-0.2	-10.1	**5.6**	-0.2	-16.2	-24.7
Mx_i	-0.0	6.6	3.3	**-2.1**	-9.6	21.8	-0.0	-6.6	-3.3	**2.1**	10.0	-17.9
My_i	-0.1	-8.0	5.6	-0.4	**-16.2**	-19.5	-0.2	6.8	-5.6	0.6	**17.3**	27.8
Mz_i	-0.1	-17.7	0.2	1.3	-0.2	**-47.8**	-0.1	17.7	-0.2	-1.3	1.0	**59.2**
Fx_f	**-0.4**	-0.0	-0.0	0.0	1.3	12.5	**0.0**	-0.0	-0.0	0.0	-0.2	-1.6
Fy_f	-0.1	**-17.8**	0.1	1.3	0.1	-30.7	-0.1	**17.8**	-0.1	-1.3	0.6	42.1
Fz_f	-0.2	8.9	**-5.6**	0.3	12.0	24.5	-0.2	-10.1	5.6	-0.2	-10.9	-15.1
Mx_f	-0.0	6.6	3.3	**-2.1**	-6.5	15.5	-0.0	-6.6	-3.3	2.1	6.9	-11.6
My_f	-0.1	-8.0	5.6	-0.4	**-10.9**	-11.8	-0.2	6.8	-5.6	0.6	**12.0**	21.3
Mz_f	-0.1	-17.7	0.1	1.3	0.2	**-31.0**	-0.1	17.7	-0.1	-1.3	0.6	**42.4**

Member 139

Fx_i	**-0.2**	-0.0	-0.0	-0.0	0.1	13.8	**0.0**	-0.0	0.0	-0.0	-0.0	-1.7
Fy_i	-0.0	**-18.5**	-0.0	-0.0	0.2	-49.6	-0.0	**18.5**	0.0	0.0	-0.1	61.7
Fz_i	-0.1	5.8	**-5.6**	1.0	16.7	24.2	-0.1	-7.3	**5.6**	-1.0	-16.7	-15.9
Mx_i	-0.0	0.3	3.2	**-1.7**	-9.6	3.0	-0.0	-0.3	-3.2	**1.7**	9.6	1.2
My_i	-0.1	-7.3	5.6	-1.0	**-16.7**	-15.9	-0.1	5.8	-5.6	1.0	**16.7**	24.2
Mz_i	-0.0	-18.5	-0.0	-0.0	0.1	**-49.8**	-0.1	18.5	0.4	-0.1	-1.2	**61.9**
Fx_f	**-0.2**	-0.0	-0.0	-0.0	0.1	13.8	**0.0**	-0.0	0.0	-0.0	-0.0	-1.7
Fy_f	-0.0	**-18.5**	-0.0	-0.0	0.1	-32.0	-0.0	**18.5**	0.0	0.0	-0.1	44.0
Fz_f	-0.1	5.8	**-5.6**	1.0	11.5	18.7	-0.1	-7.3	**5.6**	-1.0	-11.4	-9.0
Mx_f	-0.0	0.3	3.2	**-1.7**	-6.5	2.7	-0.0	-0.3	-3.2	**1.7**	6.5	1.5
My_f	-0.1	-7.3	5.6	-1.0	**-11.4**	-9.0	-0.1	5.8	-5.6	1.0	**11.5**	18.7
Mz_f	-0.0	-18.3	-0.0	-0.0	0.0	**-32.3**	-0.1	18.3	0.4	-0.1	-0.8	**44.4**

Member 140

Fx_i	**-0.3**	0.0	-0.0	0.0	-1.0	12.6	**0.0**	-0.0	0.0	0.0	0.1	-1.6
Fy_i	-0.1	**-17.9**	-0.5	-1.3	1.2	-47.9	-0.1	**17.9**	0.5	1.3	-1.8	59.3
Fz_i	-0.1	0.6	**-5.6**	1.3	16.3	8.2	-0.1	-2.0	**5.6**	-1.4	-17.2	-0.4
Mx_i	-0.0	-6.7	4.0	**-2.1**	-12.3	-18.0	-0.0	6.7	-4.0	**2.1**	12.0	21.9
My_i	-0.1	2.2	5.6	-1.1	**-17.2**	14.3	-0.1	-2.2	-5.6	1.1	**16.3**	-1.7
Mz_i	-0.1	-17.8	-0.5	-1.3	1.3	**-48.1**	-0.1	17.8	0.5	1.3	-1.9	**59.5**
Fx_f	**-0.3**	0.0	-0.0	0.0	-1.0	12.6	**0.0**	-0.0	0.0	0.0	0.1	-1.6
Fy_f	-0.1	**-17.9**	-0.5	-1.3	0.7	-30.9	-0.1	**17.9**	0.5	1.3	-1.3	42.3
Fz_f	-0.1	0.6	**-5.6**	1.3	11.0	7.6	-0.1	-2.0	**5.6**	-1.4	-11.9	1.5
Mx_f	-0.0	-6.7	4.0	**-2.1**	-8.4	-11.7	-0.0	6.7	-4.0	**2.1**	8.2	15.6
My_f	-0.1	2.2	5.6	-1.1	**-11.9**	12.1	-0.1	-2.2	-5.6	1.1	**11.0**	0.5
Mz_f	-0.1	-17.8	-0.4	-1.3	0.6	**-31.2**	-0.1	17.8	0.4	1.3	-1.2	**42.6**

Member 141

Fx_i	**-1.1**	0.0	0.0	0.0	-4.2	10.3	**0.1**	0.0	0.0	0.0	0.5	-1.3
Fy_i	-0.3	**-15.2**	-0.4	-2.6	0.0	-40.9	-0.3	**15.2**	0.4	2.6	-2.6	50.2
Fz_i	-0.5	-3.9	**-5.6**	1.0	14.8	-6.5	-0.5	2.9	**5.6**	-1.2	-18.5	13.5
Mx_i	-0.1	-11.9	0.4	**-3.3**	-1.8	-34.0	-0.1	11.9	-0.4	**3.3**	0.7	37.4
My_i	-0.5	5.7	5.6	-0.6	**-18.7**	23.0	-0.2	-0.9	-5.3	1.2	**15.2**	-1.1
Mz_i	-0.3	-15.1	-0.5	-2.7	0.3	**-41.0**	-0.3	15.1	0.5	2.7	-2.9	**50.4**
Fx_f	**-1.1**	0.0	0.0	0.0	-4.2	10.3	**0.1**	0.0	0.0	0.0	0.5	-1.3
Fy_f	-0.3	**-15.2**	-0.4	-2.6	-0.4	-26.4	-0.3	**15.2**	0.4	2.6	-2.2	35.8
Fz_f	-0.5	-3.9	**-5.6**	1.0	9.5	-2.8	-0.5	2.9	**5.6**	-1.2	-13.2	10.7
Mx_f	-0.1	-11.9	0.4	**-3.3**	-1.4	-22.7	-0.1	11.9	-0.4	**3.3**	0.3	26.1
My_f	-0.6	3.0	5.4	-0.9	**-13.5**	13.5	-0.2	0.1	-5.3	1.2	**10.2**	1.2
Mz_f	-0.3	-15.1	-0.5	-2.7	-0.2	**-26.6**	-0.3	15.1	0.5	2.7	-2.4	**36.0**

Member 142

Fx_i	**-4.2**	0.0	-0.0	-0.0	-15.6	6.7	**0.5**	0.0	-0.0	-0.0	2.0	-0.9
Fy_i	-1.5	**-10.3**	0.1	-3.5	-6.2	-27.8	-1.5	**10.3**	-0.1	3.5	-5.3	33.8
Fz_i	-1.0	-5.3	**-4.2**	-2.6	9.1	-14.9	-1.0	5.2	**4.2**	2.5	-16.3	17.0
Mx_i	-0.7	-7.4	-0.3	**-4.5**	-1.5	-21.0	-0.7	7.4	0.3	**4.5**	-3.5	23.2
My_i	-3.9	1.1	2.8	0.2	**-23.0**	9.6	0.1	-1.8	-3.6	-1.5	**11.4**	-5.3
Mz_i	-1.5	-10.2	0.1	-3.5	-6.1	**-27.8**	-1.6	10.2	-0.1	3.5	-5.4	**33.8**
Fx_f	**-4.2**	0.0	-0.0	-0.0	-15.6	6.7	**0.5**	0.0	-0.0	-0.0	2.0	-0.9
Fy_f	-1.5	**-10.3**	0.1	-3.5	-6.0	-18.0	-1.5	**10.3**	-0.1	3.5	-5.5	24.1
Fz_f	-1.0	-5.3	**-4.2**	-2.6	5.1	-9.8	-1.0	5.2	**4.2**	2.5	-12.3	12.0
Mx_f	-0.7	-7.4	-0.3	**-4.5**	-1.8	-14.0	-0.7	7.4	0.3	**4.5**	-3.2	16.2
My_f	-4.0	0.4	2.6	-0.0	**-20.4**	7.4	0.3	-0.6	-3.4	-0.9	**8.1**	-1.4
Mz_f	-1.4	-10.2	0.1	-3.5	-5.4	**-18.0**	-1.6	10.2	-0.1	3.6	-5.7	**24.1**

Member 143

Fx_i	**-14.5**	-0.0	-0.0	0.0	0.0	1.3	**1.8**	0.0	0.0	-0.0	-0.0	-0.2
Fy_i	-5.2	**-4.1**	0.2	-0.1	-0.5	-11.7	-5.2	**4.1**	-0.2	0.1	0.5	12.6
Fz_i	-5.1	1.8	**-3.4**	-3.6	10.1	6.0	-5.1	-1.8	**3.4**	3.6	-10.1	-5.0
Mx_i	-2.3	-0.0	-0.3	**-5.4**	0.8	0.2	-2.3	0.0	0.3	**5.4**	-0.8	0.3

My,	-5.1	-1.8	3.4	3.6	**-10.1**	-5.0	-5.1	1.8	-3.4	-3.6	**10.1**	6.0
Mz,	-5.2	-4.1	0.2	-0.1	-0.5	**-11.7**	-5.2	4.1	-0.2	0.1	0.5	**12.6**
Fx,	**-14.5**	-0.0	**-0.0**	0.0	0.0	1.3	**1.8**	0.0	0.0	-0.0	-0.0	-0.2
Fy,	-5.2	**-4.1**	0.2	-0.1	-0.3	-7.8	-5.2	**4.1**	-0.2	0.1	0.3	8.8
Fz,	-5.1	1.8	**-3.4**	-3.6	6.9	4.2	-5.1	-1.8	**3.4**	3.6	-6.9	-3.3
Mx,	-2.3	-0.0	-0.3	**-5.4**	0.6	0.2	-2.3	0.0	0.3	**5.4**	-0.6	0.2
My,	-5.1	-1.8	3.4	3.6	**-6.9**	-3.3	-5.1	1.8	-3.4	-3.6	**6.9**	4.2
Mz,	-5.2	-4.1	0.2	-0.1	-0.3	**-7.8**	-5.6	4.0	-0.0	0.4	0.1	**8.8**

Member 144

Fx,	**-4.2**	-0.0	-0.0	0.0	15.6	6.9	**0.5**	0.0	0.0	-0.0	-2.0	-0.9
Fy,	-1.5	**-10.2**	-0.6	3.4	7.6	-27.7	-1.5	**10.2**	0.6	-3.4	3.9	33.8
Fz,	-1.4	4.0	**-4.6**	-3.2	19.0	13.7	-1.4	-4.0	**4.7**	3.2	-8.8	-10.0
Mx,	-0.7	7.3	-0.2	**-4.5**	3.1	22.9	-0.7	-7.3	0.2	**4.5**	1.8	-20.7
My,	0.1	-2.5	4.2	2.0	**-13.2**	-6.9	-3.8	1.5	-3.6	-1.2	**24.9**	10.1
Mz,	-1.5	-10.2	-0.6	3.4	7.6	**-27.7**	-1.5	10.2	0.6	-3.4	3.9	**33.8**
Fx,	**-4.2**	-0.0	-0.0	0.0	15.6	6.9	**0.5**	0.0	0.0	-0.0	-2.0	-0.9
Fy,	-1.5	**-10.2**	-0.6	3.4	7.0	-18.0	-1.5	**10.2**	0.6	-3.4	4.5	24.0
Fz,	-1.4	4.0	**-4.6**	-3.2	14.6	9.9	-1.4	-4.0	**4.7**	3.2	-4.4	-6.3
Mx,	-0.7	7.3	-0.2	**-4.5**	2.9	16.0	-0.7	-7.3	0.2	**4.5**	2.0	-13.8
My,	0.2	-1.3	4.1	1.6	**-9.3**	-2.6	-4.0	0.3	-3.2	0.0	**21.6**	7.1
Mz,	-1.4	-10.2	-0.6	3.5	6.4	**-18.0**	-1.6	10.2	0.5	-3.5	4.8	**24.1**

Member 145

Fx,	**-1.1**	-0.0	-0.0	0.0	4.2	10.6	**0.1**	-0.0	0.0	-0.0	-0.5	-1.3
Fy,	-0.3	**-15.2**	0.1	2.6	0.9	-40.8	-0.3	**15.2**	-0.1	-2.6	1.7	50.2
Fz,	-0.5	7.3	**-5.2**	0.1	17.4	27.1	-0.5	-7.3	**5.2**	-0.1	-13.7	-16.8
Mx,	-0.2	11.9	0.1	**-3.3**	0.2	37.5	-0.2	-11.9	-0.1	**3.3**	1.0	-34.1
My,	-0.3	-6.2	5.0	-0.2	**-14.0**	-16.0	-0.6	6.9	-5.1	0.1	**17.6**	27.6
Mz,	-0.3	-15.1	0.3	2.7	0.5	**-41.0**	-0.3	15.1	-0.3	-2.7	2.1	**50.4**
Fx,	**-1.1**	-0.0	-0.0	0.0	4.2	10.6	**0.1**	-0.0	0.0	-0.0	-0.5	-1.3
Fy,	-0.3	**-15.2**	0.1	2.6	1.0	-26.4	-0.3	**15.2**	-0.1	-2.6	1.6	35.8
Fz,	-0.5	7.3	**-5.2**	0.1	12.5	20.2	-0.5	-7.3	**5.2**	-0.1	-8.7	-9.8
Mx,	-0.2	11.9	0.1	**-3.3**	0.3	26.2	-0.2	-11.9	-0.1	**3.3**	0.8	-22.8
My,	-0.2	-2.6	4.8	-0.6	**-9.3**	-4.7	-0.6	4.5	-5.0	0.4	**12.7**	16.9
Mz,	-0.3	-15.1	0.3	2.7	0.7	**-26.6**	-0.3	15.1	-0.3	-2.7	1.9	**36.0**

Member 146

Fx,	**-0.3**	0.0	0.0	-0.0	1.0	12.7	**0.0**	-0.0	-0.0	0.0	-0.1	-1.6
Fy,	-0.1	**-17.9**	0.5	1.3	-1.1	-48.0	-0.1	**17.9**	-0.5	-1.3	1.7	59.5
Fz,	-0.1	5.0	**-5.2**	0.9	16.0	21.4	-0.1	-5.0	**5.2**	-0.9	-15.1	-8.6
Mx,	-0.0	6.8	3.5	**-2.1**	-10.4	22.3	-0.0	-6.8	-3.5	**2.1**	10.7	-18.3
My,	-0.1	-6.2	5.2	-0.8	**-15.1**	-12.9	-0.1	5.0	-5.2	0.9	**16.0**	21.4
Mz,	-0.1	-17.9	0.5	1.3	-1.2	**-48.2**	-0.1	17.9	-0.5	-1.3	1.9	**59.7**
Fx,	**-0.3**	0.0	0.0	-0.0	1.0	12.7	**0.0**	-0.0	-0.0	0.0	-0.1	-1.6
Fy,	-0.1	**-17.9**	0.5	1.3	-0.6	-31.0	-0.1	**17.9**	-0.5	-1.3	1.3	42.5
Fz,	-0.1	5.0	**-5.2**	0.9	11.1	16.6	-0.1	-5.0	**5.2**	-0.9	-10.2	-3.9
Mx,	-0.0	6.8	3.5	**-2.1**	-7.1	15.9	-0.0	-6.8	-3.5	**2.1**	7.3	-11.9
My,	-0.1	-8.2	5.2	-0.5	**-10.2**	-12.0	-0.1	7.0	-5.2	0.6	**11.1**	21.6
Mz,	-0.1	-17.8	0.4	1.3	-0.6	**-31.3**	-0.1	17.8	-0.4	-1.3	1.2	**42.7**

Member 147

Fx,	**-0.1**	0.0	-0.0	-0.0	0.0	13.9	**0.0**	0.0	0.0	-0.0	-0.0	-1.7
Fy,	-0.0	**-18.6**	0.3	-0.0	-0.9	-49.9	-0.0	**18.6**	-0.3	0.0	0.9	62.0
Fz,	-0.1	-0.0	**-5.2**	1.2	15.6	6.6	-0.1	0.0	**5.2**	-1.2	-15.6	6.9
Mx,	-0.0	0.2	3.0	**-1.7**	-8.9	2.8	-0.0	-0.2	-3.0	**1.7**	9.0	1.5
My,	-0.1	0.0	5.2	-1.2	**-15.6**	6.9	-0.1	-0.0	-5.2	1.2	**15.6**	6.6
Mz,	-0.0	-18.6	0.3	-0.0	-1.0	**-50.1**	-0.0	18.6	-0.3	0.0	1.0	**62.3**
Fx,	**-0.1**	0.0	-0.0	-0.0	0.0	13.9	**0.0**	0.0	0.0	-0.0	-0.0	-1.7
Fy,	-0.0	**-18.6**	0.3	-0.0	-0.6	-32.2	-0.0	**18.6**	-0.3	0.0	0.6	44.3
Fz,	-0.1	-0.0	**-5.2**	1.2	10.6	6.7	-0.1	0.0	5.2	-1.2	-10.6	6.9
Mx,	-0.0	0.2	3.0	**-1.7**	-6.1	2.6	-0.0	-0.2	-3.0	**1.7**	6.1	1.7
My,	-0.1	0.0	5.2	-1.2	**-10.6**	6.9	-0.1	-0.0	-5.2	1.2	**10.6**	6.7
Mz,	-0.0	-18.4	0.3	-0.0	-0.7	**-32.5**	-0.0	18.4	-0.3	0.0	0.7	**44.6**

Member 148

Fx,	**-0.3**	0.0	0.0	-0.0	-1.0	12.3	**0.0**	-0.0	-0.0	0.0	0.1	-1.6
Fy,	-0.1	**-17.9**	-0.1	-1.3	0.1	-48.1	-0.1	**17.9**	0.1	1.3	-0.7	59.6
Fz,	-0.1	-5.1	**-5.2**	0.9	15.1	-9.0	-0.1	5.1	**5.2**	-0.9	-16.0	21.7
Mx,	-0.0	-6.7	3.6	**-2.1**	-11.0	-18.1	-0.0	6.7	-3.6	**2.1**	10.8	22.1
My,	-0.1	2.2	5.2	-1.1	**-16.0**	14.3	-0.1	-2.2	-5.2	1.1	**15.1**	-1.6
Mz,	-0.1	-17.9	-0.2	-1.3	0.2	**-48.3**	-0.1	17.9	0.2	1.3	-0.9	**59.8**
Fx,	**-0.3**	0.0	0.0	-0.0	-1.0	12.3	**0.0**	-0.0	-0.0	0.0	0.1	-1.6
Fy,	-0.1	**-17.9**	-0.1	-1.3	-0.0	-31.0	-0.1	**17.9**	0.1	1.3	-0.6	42.5
Fz,	-0.1	-5.1	**-5.2**	0.9	10.2	-4.1	-0.1	5.1	**5.2**	-0.9	-11.1	16.8
Mx,	-0.0	-6.7	3.6	**-2.1**	-7.6	-11.7	-0.0	6.7	-3.6	**2.1**	7.3	15.7
My,	-0.1	2.2	5.2	-1.1	**-11.1**	12.2	-0.1	-2.2	-5.2	1.1	**10.2**	0.6
Mz,	-0.1	-17.9	-0.1	-1.3	-0.1	**-31.3**	-0.1	17.9	0.1	1.3	-0.5	**42.8**

Member 149

Fx,	**-1.0**	-0.0	-0.0	-0.0	-4.0	10.4	**0.1**	-0.0	-0.0	-0.0	0.5	-1.3
Fy,	-0.3	**-15.2**	-0.0	-2.6	-1.1	-41.0	-0.3	**15.2**	0.0	2.6	-1.4	50.5
Fz,	-0.5	-7.4	**-5.2**	0.1	13.7	-17.0	-0.5	7.4	**5.2**	-0.1	-17.3	27.4
Mx,	-0.1	-11.9	0.4	**-3.3**	-1.6	-34.1	-0.1	11.9	-0.4	**3.3**	0.5	37.5
My,	-0.6	7.1	5.1	-0.1	**-17.5**	27.8	-0.2	-2.6	-5.0	0.6	**14.3**	-6.9
Mz,	-0.3	-15.2	-0.2	-2.7	-0.7	**-41.2**	-0.3	15.2	0.2	2.7	-1.7	**50.6**
Fx,	**-1.0**	-0.0	-0.0	-0.0	-4.0	10.4	**0.1**	-0.0	-0.0	-0.0	0.5	-1.3
Fy,	-0.3	**-15.2**	-0.0	-2.6	-1.1	-26.5	-0.3	**15.2**	0.0	2.6	-1.3	36.0
Fz,	-0.5	-7.4	**-5.2**	0.1	8.8	-10.0	-0.5	7.4	**5.2**	-0.1	-12.4	20.3
Mx,	-0.1	-11.9	0.4	**-3.3**	-1.3	-22.8	-0.1	11.9	-0.4	**3.3**	0.2	26.1
My,	-0.6	4.1	5.0	-0.5	**-12.6**	16.4	-0.1	-0.9	-4.9	0.8	**9.6**	-1.6
Mz,	-0.3	-15.2	-0.2	-2.7	-0.9	**-26.7**	-0.3	15.2	0.2	2.7	-1.6	**36.2**

Member 150

Fx,	**-4.0**	-0.0	-0.0	-0.0	-15.1	6.8	**0.5**	0.0	-0.0	0.0	1.9	-0.9
Fy,	-1.5	**-10.4**	0.1	-3.4	-5.8	-28.1	-1.5	**10.4**	-0.1	3.4	-5.3	34.2
Fz,	-0.9	-5.3	**-4.2**	-2.6	9.2	-14.8	-1.0	5.2	**4.2**	2.5	-16.1	16.9
Mx,	-0.6	-7.4	-0.2	**-4.6**	-1.9	-21.0	-0.6	7.4	0.2	**4.6**	-3.0	23.3
My,	-3.9	0.7	2.7	0.1	**-22.6**	8.6	0.2	-1.4	-3.6	-1.6	**11.7**	-4.2
Mz,	-1.4	-10.4	0.1	-3.4	-5.4	**-28.1**	-1.5	10.4	-0.1	3.4	-5.3	**34.2**
Fx,	**-4.0**	-0.0	-0.0	-0.0	-15.1	6.8	**0.5**	0.0	-0.0	0.0	1.9	-0.9
Fy,	-1.5	**-10.4**	0.1	-3.4	-5.7	-18.2	-1.5	**10.4**	-0.1	3.4	-5.4	24.4
Fz,	-0.9	-5.3	**-4.2**	-2.6	5.2	-9.8	-1.0	5.2	**4.2**	2.5	-12.1	12.0
Mx,	-0.6	-7.4	-0.2	**-4.6**	-2.0	-14.0	-0.6	7.4	0.2	**4.6**	-2.8	16.2
My,	-3.9	0.4	2.7	-0.1	**-20.1**	7.4	0.2	-1.4	-3.6	-1.6	**8.2**	-2.8
Mz,	-1.3	-10.3	0.0	-3.5	-5.0	**-18.3**	-1.5	10.3	-0.0	3.5	-5.7	**24.4**

Member 365

Fx,	**-125.8**	0.0	-24.4	0.0	42.8	0.0	**38.7**	-0.0	-0.8	-0.0	1.4	-0.0
Fy,	-12.9	**-0.0**	-13.8	0.0	24.1	-0.0	-55.2	**0.0**	-24.8	-0.0	43.4	0.0
Fz,	-95.0	0.0	**-71.3**	0.0	124.8	0.0	-13.0	-0.0	**14.8**	-0.0	-25.9	-0.0
Mx,	-61.5	0.0	-42.3	**-0.0**	74.1	0.0	-46.7	-0.0	-27.9	**0.0**	48.8	-0.0
My,	-13.0	-0.0	14.8	-0.0	**-25.9**	-0.0	-95.0	0.0	-71.3	0.0	**124.8**	0.0
Mz,	-14.0	-0.0	-20.7	0.0	36.2	**-0.0**	-54.9	0.0	-24.7	-0.0	43.3	**0.0**
Fx,	**-125.8**	0.0	-24.4	0.0	0.0	-0.0	**38.7**	-0.0	-0.8	-0.0	0.0	0.0
Fy,	-12.9	**-0.0**	-13.8	0.0	-0.0	0.0	-55.2	**0.0**	-24.8	-0.0	0.0	-0.0
Fz,	-95.0	0.0	**-71.3**	0.0	0.0	-0.0	-13.0	-0.0	**14.8**	-0.0	-0.0	0.0
Mx,	-61.5	0.0	-42.3	**-0.0**	0.0	-0.0	-46.7	-0.0	-27.9	**0.0**	-0.0	0.0
My,	-17.9	-0.0	-16.4	0.0	**-0.0**	0.0	-63.0	0.0	-37.1	0.0	**0.0**	-0.0
Mz,	-64.3	0.0	-37.8	0.0	0.0	**-0.0**	-4.8	-0.0	1.1	-0.0	-0.0	**0.0**

Member 366

Fx,	**-369.1**	0.0	-10.7	-0.0	102.8	0.0	**31.0**	-0.0	-0.0	-0.0	-0.6	-0.0
Fy,	-217.3	**-0.0**	-5.7	-0.0	55.2	-0.0	-206.0	**0.0**	-8.9	-0.0	86.8	0.0
Fz,	-322.9	0.0	**-26.2**	-0.0	265.0	-0.0	-101.8	-0.0	**6.3**	0.0	-64.9	-0.0
Mx,	-276.3	-0.0	-18.2	**-0.0**	184.8	-0.0	-26.5	-0.0	-2.7	**0.0**	33.3	-0.0
My,	-105.0	-0.0	6.3	0.0	**-65.2**	-0.0	-311.4	-0.0	-26.0	-0.0	**266.3**	-0.0
Mz,	-186.1	-0.0	-5.1	-0.0	48.7	**-0.0**	-195.2	0.0	-8.3	-0.0	81.6	**0.0**
Fx,	**-369.1**	0.0	-10.7	-0.0	84.1	-0.0	**31.0**	-0.0	-0.0	-0.0	-0.7	0.0

Fy,	-217.3	**-0.0**	-5.7	-0.0	45.2	0.0	-206.0	**0.0**	-8.9	-0.0	71.2	-0.0
Fz,	-322.9	0.0	**-26.2**	-0.0	219.2	-0.0	-101.8	-0.0	**6.3**	0.0	-53.9	0.0
Mx,	-276.3	-0.0	-18.2	**-0.0**	153.0	-0.0	-26.5	-0.0	-2.7	**0.0**	28.5	0.0
My,	-105.1	-0.0	6.2	0.0	**-54.3**	0.0	-309.4	-0.0	-25.9	-0.0	**220.8**	-0.0
Mz,	-226.1	0.0	-10.7	-0.0	87.4	**-0.0**	-112.7	-0.0	-2.3	-0.0	16.4	**0.0**
Fx,	-372.2	-0.0	**-28.6**	-0.0	309.9	-0.0	0.1	-0.0	**6.9**	-0.0	-53.3	-0.0
Mx,	-301.9	-0.0	-12.0	**-0.0**	105.1	-0.0	-58.2	-0.0	-2.7	**0.0**	27.9	-0.0
My,	-174.9	-0.0	5.2	-0.0	**-79.5**	0.0	-370.8	-0.0	-28.3	-0.0	**312.7**	-0.0
Mz,	-283.8	-0.0	-13.6	-0.0	185.0	**-0.0**	-251.8	0.0	-12.1	0.0	131.7	**0.0**

Member 367

Fx,	**-428.0**	-0.0	-17.9	-0.0	131.1	-0.0	**36.5**	-0.0	2.9	0.0	-9.0	-0.0
Fy,	-194.5	**-0.0**	-11.5	-0.0	83.1	-0.0	-198.3	**0.0**	-11.7	-0.0	110.4	0.0
Fz,	-378.4	-0.0	**-34.4**	-0.0	311.7	0.0	4.1	0.0	**7.9**	0.0	-51.5	0.0
Mx,	-58.0	-0.0	2.5	**-0.0**	-34.8	-0.0	0.2	-0.0	0.3	**0.0**	4.8	-0.0
My,	-174.6	-0.0	6.2	0.0	**-80.4**	-0.0	-370.2	-0.0	-34.1	-0.0	**315.1**	0.0
Mz,	-166.6	-0.0	-10.7	-0.0	81.4	**-0.0**	-245.4	0.0	-7.7	-0.0	58.3	**0.0**
Fx,	**-428.0**	-0.0	-17.9	-0.0	99.8	0.0	**36.5**	-0.0	2.9	0.0	-3.9	0.0
Fy,	-194.5	**-0.0**	-11.5	-0.0	63.0	0.0	-198.3	**0.0**	-11.7	-0.0	89.9	-0.0
Fz,	-378.4	-0.0	**-34.4**	-0.0	251.5	0.0	4.1	0.0	**7.9**	0.0	-37.7	0.0
Mx,	-58.0	-0.0	2.5	**-0.0**	-30.5	0.0	0.2	-0.0	0.3	**0.0**	5.3	0.0
My,	-175.9	-0.0	5.9	0.0	**-69.6**	0.0	-370.0	-0.0	-33.0	-0.0	**256.4**	0.0
Mz,	-235.3	0.0	-12.2	-0.0	84.3	**-0.0**	-205.8	-0.0	-10.3	-0.0	55.8	**0.0**

Member 368

Fx,	**-432.4**	0.0	-14.4	-0.0	131.1	-0.0	**49.7**	0.0	2.7	0.0	-11.1	0.0
Fy,	-256.2	**-0.0**	-10.2	0.0	93.2	-0.0	-237.9	**0.0**	-14.2	0.0	198.9	0.0
Fz,	-362.8	0.0	**-28.9**	-0.0	314.7	0.0	-1.0	-0.0	**7.7**	-0.0	-59.1	-0.0
Mx,	-290.4	0.0	-9.4	**-0.0**	90.2	0.0	-1.6	-0.0	0.4	**0.0**	-4.7	-0.0
My,	-171.3	-0.0	6.4	-0.0	**-86.5**	0.0	-361.9	0.0	-28.8	-0.0	**317.4**	0.0
Mz,	-198.9	-0.0	-9.3	0.0	80.6	**-0.0**	-252.4	0.0	-13.9	0.0	195.9	**0.0**
Fx,	**-432.4**	0.0	-14.4	-0.0	105.9	-0.0	**49.7**	0.0	2.7	0.0	-6.3	-0.0
Fy,	-256.2	**-0.0**	-10.2	0.0	75.3	0.0	-237.9	**0.0**	-14.2	0.0	174.0	-0.0
Fz,	-362.8	0.0	**-28.9**	-0.0	264.0	-0.0	-1.0	-0.0	**7.7**	-0.0	-45.6	0.0
Mx,	-290.4	0.0	-9.4	**-0.0**	73.7	-0.0	-1.6	-0.0	0.4	**0.0**	-4.0	0.0
My,	-171.5	-0.0	6.3	-0.0	**-75.4**	0.0	-359.1	0.0	-28.0	0.0	**267.5**	-0.0
Mz,	-246.6	0.0	-14.3	0.0	176.5	**-0.0**	-193.6	-0.0	-4.0	0.0	25.5	**0.0**

Member 369

Fx,	**-435.5**	0.0	-14.2	-0.0	132.3	0.0	**50.2**	0.0	2.8	0.0	-11.7	0.0
Fy,	-202.9	**-0.0**	-6.9	0.0	82.3	-0.0	-171.9	**0.0**	-8.6	-0.0	113.3	0.0
Fz,	-362.4	0.0	**-28.2**	-0.0	316.0	0.0	-4.4	0.0	**7.8**	0.0	-61.0	0.0
Mx,	-349.2	0.0	-13.8	**-0.0**	127.5	0.0	-2.3	0.0	-0.1	**0.0**	6.3	0.0
My,	-172.4	0.0	6.2	-0.0	**-86.6**	0.0	-363.6	0.0	-28.0	-0.0	**317.9**	0.0
Mz,	-260.4	-0.0	-9.6	0.0	112.4	**-0.0**	-170.6	0.0	-8.1	0.0	108.2	**0.0**
Fx,	**-435.5**	0.0	-14.2	-0.0	107.4	-0.0	**50.2**	0.0	2.8	0.0	-6.8	-0.0
Fy,	-202.9	**-0.0**	-6.9	0.0	70.2	0.0	-171.9	**0.0**	-8.6	-0.0	98.2	-0.0
Fz,	-362.4	0.0	**-28.2**	-0.0	266.7	0.0	-4.4	0.0	**7.8**	0.0	-47.4	-0.0
Mx,	-349.2	0.0	-13.8	**-0.0**	103.4	-0.0	-2.3	0.0	-0.1	**0.0**	6.1	-0.0
My,	-173.0	0.0	6.0	-0.0	**-75.8**	-0.0	-360.5	0.0	-27.5	0.0	**269.3**	0.0
Mz,	-150.9	0.0	-8.5	-0.0	99.9	**-0.0**	-172.0	-0.0	-9.0	0.0	79.3	**0.0**

Member 370

Fx,	**-432.7**	-0.0	-13.9	0.0	131.8	-0.0	**49.9**	0.0	2.8	-0.0	-12.1	0.0
Fy,	-257.3	**-0.0**	-12.1	-0.0	158.7	-0.0	-221.1	**0.0**	-8.9	-0.0	99.8	0.0
Fz,	-361.3	-0.0	**-28.0**	0.0	316.4	-0.0	-2.9	-0.0	**7.8**	-0.0	-61.7	0.0
Mx,	-299.4	-0.0	-11.7	**-0.0**	179.8	-0.0	-37.6	-0.0	-3.1	**0.0**	34.2	-0.0
My,	-171.2	-0.0	6.4	-0.0	**-87.2**	-0.0	-362.7	-0.0	-27.9	0.0	**318.1**	-0.0
Mz,	-210.0	-0.0	-10.3	-0.0	139.5	**-0.0**	-217.5	0.0	-8.9	-0.0	98.7	**0.0**
Fx,	**-432.7**	-0.0	-13.9	0.0	107.5	0.0	**49.9**	0.0	2.8	-0.0	-7.1	-0.0
Fy,	-257.3	**-0.0**	-12.1	-0.0	137.4	0.0	-221.1	**0.0**	-8.9	-0.0	84.3	-0.0
Fz,	-361.3	-0.0	**-28.0**	0.0	267.4	0.0	-2.9	-0.0	**7.8**	-0.0	-48.0	0.0
Mx,	-299.4	-0.0	-11.7	**-0.0**	159.3	0.0	-37.6	-0.0	-3.1	**0.0**	28.7	0.0
My,	-171.3	-0.0	6.3	-0.0	**-76.1**	0.0	-359.7	-0.0	-27.4	0.0	**269.7**	0.0
Mz,	-251.5	0.0	-9.4	0.0	83.7	**-0.0**	-239.6	-0.0	-11.5	-0.0	133.3	**0.0**

Member 371

Fx,	**-428.6**	-0.0	-14.9	-0.0	132.1	-0.0	**37.1**	0.0	2.5	-0.0	-10.1	0.0
Fy,	-252.0	**-0.0**	-13.0	-0.0	174.6	-0.0	-228.3	**0.0**	-11.9	-0.0	128.0	0.0
Fz,	-372.2	-0.0	**-28.6**	-0.0	309.9	-0.0	0.1	-0.0	**6.9**	-0.0	-53.3	-0.0
Mx,	-301.9	-0.0	-12.0	**-0.0**	105.1	-0.0	-58.2	-0.0	-2.7	**0.0**	27.9	-0.0
My,	-174.9	-0.0	5.2	-0.0	**-79.5**	0.0	-370.8	-0.0	-28.3	-0.0	**312.7**	-0.0
Mz,	-283.8	-0.0	-13.6	-0.0	185.0	**-0.0**	-251.8	0.0	-12.1	0.0	131.7	**0.0**
Fx,	**-428.6**	-0.0	-14.9	-0.0	105.9	0.0	**37.1**	0.0	2.5	-0.0	-5.7	-0.0
Fy,	-252.0	**-0.0**	-13.0	-0.0	151.9	0.0	-228.3	**0.0**	-11.9	-0.0	107.1	-0.0
Fz,	-372.2	-0.0	**-28.6**	-0.0	259.8	0.0	0.1	-0.0	**6.9**	-0.0	-41.3	-0.0
Mx,	-301.9	-0.0	-12.0	**-0.0**	85.2	0.0	-58.2	-0.0	-2.7	**0.0**	23.1	0.0
My,	-175.2	-0.0	5.1	-0.0	**-70.5**	0.0	-368.3	-0.0	-27.8	-0.0	**263.5**	0.0
Mz,	-268.3	0.0	-13.0	-0.0	108.0	**-0.0**	-249.9	-0.0	-11.8	-0.0	131.8	**0.0**

Member 372

Fx,	**-375.0**	0.0	-17.0	-0.0	109.1	0.0	**32.2**	0.0	2.9	0.0	-7.4	0.0
Fy,	-164.2	**-0.0**	-6.3	-0.0	74.3	-0.0	-169.8	**0.0**	-8.9	-0.0	87.0	0.0
Fz,	-322.3	-0.0	**-32.3**	-0.0	267.1	-0.0	-4.8	0.0	**8.4**	0.0	-43.7	0.0
Mx,	-60.4	0.0	-0.3	**-0.0**	-9.8	-0.0	-37.7	-0.0	-0.8	**0.0**	3.5	-0.0
My,	-100.9	-0.0	6.8	0.0	**-63.5**	-0.0	-322.4	-0.0	-31.5	-0.0	**270.1**	-0.0
Mz,	-172.4	-0.0	-6.0	0.0	70.3	**-0.0**	-161.2	0.0	-8.3	-0.0	86.7	**0.0**
Fx,	**-375.0**	0.0	-17.0	-0.0	79.4	-0.0	**32.2**	0.0	2.9	0.0	-2.4	-0.0
Fy,	-164.2	**-0.0**	-6.3	-0.0	63.2	0.0	-169.8	**0.0**	-8.9	-0.0	71.4	-0.0
Fz,	-322.3	-0.0	**-32.3**	-0.0	210.5	0.0	-4.8	0.0	**8.4**	0.0	-29.1	-0.0
Mx,	-60.4	0.0	-0.3	**-0.0**	-10.3	-0.0	-37.7	-0.0	-0.8	**0.0**	2.1	0.0
My,	-102.1	-0.0	6.1	0.0	**-52.2**	0.0	-307.9	0.0	-29.1	-0.0	**216.8**	-0.0
Mz,	-211.7	0.0	-11.8	0.0	93.4	**-0.0**	-128.7	-0.0	-5.2	-0.0	53.3	**0.0**

Member 373

Fx,	**-124.3**	-1.5	-42.1	-0.0	73.8	-2.7	**35.1**	0.9	2.7	0.0	-4.8	1.5
Fy,	-121.6	**-1.6**	-40.4	-0.0	70.7	-2.8	33.2	**0.9**	2.7	0.0	-4.6	1.6
Fz,	-93.7	-0.9	**-69.0**	-0.0	120.7	-1.6	5.1	0.2	**11.8**	0.0	-20.6	0.3
Mx,	-87.9	-0.9	-28.6	**-0.0**	50.0	-1.5	-9.0	0.4	-18.0	**0.0**	31.5	0.7
My,	5.1	0.2	11.8	0.0	**-20.6**	0.3	-93.7	-0.9	-69.0	-0.0	**120.7**	-1.6
Mz,	-121.6	-1.6	-40.4	-0.0	70.7	**-2.8**	33.2	0.9	2.7	0.0	-4.6	**1.6**
Fx,	**-124.3**	-1.5	-42.1	-0.0	0.0	0.0	**35.1**	0.9	2.7	0.0	-0.0	0.0
Fy,	-121.6	**-1.6**	-40.4	-0.0	0.0	0.0	33.2	**0.9**	2.7	0.0	-0.0	-0.0
Fz,	-93.7	-0.9	**-69.0**	-0.0	0.0	0.0	5.1	0.2	**11.8**	0.0	-0.0	-0.0
Mx,	-87.9	-0.9	-28.6	**-0.0**	-0.0	0.0	-9.0	0.4	-18.0	**0.0**	-0.0	-0.0
My,	-69.4	-0.5	-19.3	-0.0	**-0.0**	0.0	-50.4	-0.5	-39.0	-0.0	**0.0**	0.0
Mz,	-15.9	0.2	-15.9	0.0	-0.0	**-0.0**	-32.8	-0.2	-10.0	-0.0	-0.0	**0.0**

Member 374

Fx,	**-125.9**	0.0	24.7	0.0	-43.2	0.0	**38.7**	-0.0	0.8	-0.0	-1.4	-0.0
Fy,	-44.9	**-0.0**	32.3	-0.0	-56.5	-0.0	-58.5	**0.0**	23.9	-0.0	-41.9	0.0
Fz,	-13.0	0.0	**-14.8**	0.0	25.9	0.0	-95.0	-0.0	**71.3**	-0.0	-124.8	-0.0
Mx,	-49.5	0.0	13.1	**-0.0**	-23.0	0.0	1.6	-0.0	1.0	**0.0**	-1.7	-0.0
My,	-95.0	-0.0	71.3	-0.0	**-124.8**	-0.0	-13.0	0.0	-14.8	0.0	**25.9**	0.0
Mz,	-45.4	-0.0	34.0	-0.0	-59.5	**-0.0**	-62.8	0.0	25.9	-0.0	-45.3	**0.0**
Fx,	**-125.9**	0.0	24.7	0.0	-0.0	-0.0	**38.7**	-0.0	0.8	-0.0	0.0	0.0
Fy,	-44.9	**-0.0**	32.3	-0.0	-0.0	0.0	-58.5	**0.0**	23.9	-0.0	-0.0	-0.0
Fz,	-13.0	0.0	**-14.8**	0.0	-0.0	-0.0	-95.0	-0.0	**71.3**	-0.0	-0.0	-0.0
Mx,	-49.5	0.0	13.1	**-0.0**	0.0	-0.0	1.6	-0.0	1.0	**0.0**	-0.0	0.0
My,	-65.7	-0.0	31.5	-0.0	**-0.0**	0.0	-76.0	0.0	19.2	-0.0	**0.0**	-0.0
Mz,	-80.9	0.0	30.3	-0.0	-0.0	**-0.0**	-36.6	-0.0	6.6	-0.0	-0.0	**0.0**

Member 375

Fx,	**-369.1**	-0.0	10.7	0.0	-102.8	-0.0	**31.0**	0.0	0.0	-0.0	0.6	0.0
Fy,	-218.6	**-0.0**	11.8	0.0	-124.6	-0.0	-174.0	**0.0**	4.2	0.0	-41.3	0.0
Fz,	-101.8	-0.0	**-6.3**	0.0	64.9	-0.0	-322.9	-0.0	**26.2**	-0.0	-265.0	-0.0
Mx,	-269.8	-0.0	15.3	**-0.0**	-166.4	-0.0	-73.4	0.0	6.3	**0.0**	-66.7	0.0
My,	-311.4	-0.0	26.0	-0.0	**-266.3**	-0.0	-105.0	-0.0	-6.3	0.0	**65.2**	-0.0
Mz,	-218.6	-0.0	11.8	0.0	-124.6	**-0.0**	-174.0	0.0	4.2	0.0	-41.3	**0.0**
Fx,	**-369.1**	-0.0	10.7	0.0	-84.1	0.0	**31.0**	0.0	0.0	-0.0	0.7	-0.0
Fy,	-218.6	**-0.0**	11.8	0.0	-103.9	0.0	-174.0	**0.0**	4.2	0.0	-34.0	-0.0
Fz,	-101.8	-0.0	**-6.3**	0.0	53.9	0.0	-322.9	-0.0	**26.2**	-0.0	-219.2	0.0
Mx,	-269.8	-0.0	15.3	**-0.0**	-139.7	0.0	-73.4	0.0	6.3	**0.0**	-55.7	-0.0
My,	-309.4	-0.0	25.9	-0.0	**-220.8**	0.0	-105.1	-0.0	-6.2	0.0	**54.3**	0.0

Mz_f	-202.8	0.0	5.3	0.0	-43.0	**-0.0**	-152.1	-0.0	9.3	0.0	-82.0	0.0

Member 376

Fx_i	**-428.0**	-0.0	17.9	0.0	-131.1	-0.0	**36.5**	-0.0	-2.9	-0.0	9.0	-0.0
Fy_i	-246.9	**-0.0**	13.5	0.0	-105.1	-0.0	-258.4	**0.0**	16.1	-0.0	-161.3	0.0
Fz_i	4.0	-0.0	**-7.9**	-0.0	52.0	-0.0	-378.4	0.0	**34.4**	0.0	-311.7	0.0
Mx_i	-17.6	-0.0	-2.0	**-0.0**	6.3	-0.0	-50.0	-0.0	0.7	**0.0**	7.2	-0.0
My_i	-370.2	0.0	34.1	0.0	**-315.1**	0.0	-174.6	-0.0	-6.2	0.0	**80.4**	-0.0
Mz_i	-280.5	-0.0	14.4	0.0	-111.0	**-0.0**	-194.0	0.0	12.1	-0.0	-125.8	**0.0**
Fx_f	**-428.0**	-0.0	17.9	0.0	-99.8	0.0	**36.5**	-0.0	-2.9	-0.0	3.9	0.0
Fy_f	-246.9	**-0.0**	13.5	0.0	-81.5	0.0	-258.4	**0.0**	16.1	-0.0	-133.2	-0.0
Fz_f	4.0	-0.0	**-7.9**	-0.0	38.1	0.0	-378.4	0.0	**34.4**	0.0	-251.5	-0.0
Mx_f	-17.6	-0.0	-2.0	**-0.0**	2.7	0.0	-50.0	-0.0	0.7	**0.0**	8.5	0.0
My_f	-370.0	0.0	33.0	-0.0	**-256.4**	-0.0	-175.9	0.0	-5.9	0.0	**69.6**	-0.0
Mz_f	-273.5	0.0	18.8	-0.0	-150.6	**-0.0**	-283.4	-0.0	15.8	0.0	-111.2	**0.0**

Member 377

Fx_i	**-432.4**	-0.0	14.4	0.0	-131.1	-0.0	**49.7**	0.0	-2.7	-0.0	11.1	0.0
Fy_i	-228.8	**-0.0**	10.2	0.0	-95.3	-0.0	-134.2	**0.0**	6.0	-0.0	-100.0	0.0
Fz_i	-1.9	0.0	**-7.7**	-0.0	59.6	0.0	-362.8	-0.0	**28.9**	0.0	-314.7	-0.0
Mx_i	-308.2	-0.0	16.6	**-0.0**	-180.1	-0.0	-85.3	-0.0	3.6	**0.0**	-42.2	-0.0
My_i	-361.9	-0.0	28.8	0.0	**-317.4**	-0.0	-171.3	0.0	-6.4	-0.0	**86.5**	0.0
Mz_i	-228.8	-0.0	10.2	0.0	-95.3	**-0.0**	-134.2	0.0	6.0	-0.0	-100.0	**0.0**
Fx_f	**-432.4**	-0.0	14.4	0.0	-105.9	0.0	**49.7**	0.0	-2.7	-0.0	6.3	-0.0
Fy_f	-228.8	**-0.0**	10.2	0.0	-77.4	0.0	-134.2	**0.0**	6.0	-0.0	-89.4	-0.0
Fz_f	-1.9	0.0	**-7.7**	-0.0	46.1	-0.0	-362.8	-0.0	**28.9**	0.0	-264.0	0.0
Mx_f	-308.2	-0.0	16.6	**-0.0**	-151.0	0.0	-85.3	-0.0	3.6	**0.0**	-35.9	0.0
My_f	-359.1	-0.0	28.0	0.0	**-267.5**	0.0	-171.5	0.0	-6.3	-0.0	**75.4**	-0.0
Mz_f	-202.3	0.0	8.9	-0.0	-115.1	**-0.0**	-159.3	-0.0	6.4	0.0	-48.5	**0.0**

Member 378

Fx_i	**-435.5**	0.0	14.2	0.0	-132.3	0.0	**50.2**	-0.0	-2.8	-0.0	11.7	-0.0
Fy_i	-207.1	**-0.0**	8.5	-0.0	-103.8	-0.0	-203.4	**0.0**	7.1	0.0	-66.9	0.0
Fz_i	-4.5	-0.0	**-7.8**	0.0	61.5	-0.0	-362.4	0.0	**28.2**	-0.0	-316.0	0.0
Mx_i	-315.0	-0.0	9.2	**-0.0**	-132.1	-0.0	-74.1	0.0	1.0	**0.0**	-6.2	0.0
My_i	-363.6	0.0	28.0	-0.0	**-317.9**	0.0	-172.4	0.0	-6.2	0.0	**86.6**	0.0
Mz_i	-188.2	-0.0	7.6	-0.0	-95.3	**-0.0**	-203.9	0.0	8.7	0.0	-85.8	**0.0**
Fx_f	**-435.5**	0.0	14.2	0.0	-107.4	-0.0	**50.2**	-0.0	-2.8	-0.0	6.8	-0.0
Fy_f	-207.1	**-0.0**	8.5	-0.0	-89.0	0.0	-203.4	**0.0**	7.1	0.0	-54.4	-0.0
Fz_f	-4.5	-0.0	**-7.8**	0.0	47.8	-0.0	-362.4	0.0	**28.2**	-0.0	-266.7	-0.0
Mx_f	-315.0	-0.0	9.2	**-0.0**	-116.0	0.0	-74.1	0.0	1.0	**0.0**	-4.5	-0.0
My_f	-360.5	0.0	27.5	-0.0	**-269.3**	-0.0	-173.0	0.0	-6.0	0.0	**75.8**	-0.0
Mz_f	-184.9	0.0	7.0	0.0	-50.4	**-0.0**	-228.3	-0.0	6.8	0.0	-68.1	**0.0**

Member 379

Fx_i	**-432.7**	0.0	13.9	0.0	-131.8	0.0	**49.9**	-0.0	-2.8	0.0	12.1	-0.0
Fy_i	-267.8	**-0.0**	16.0	0.0	-217.8	-0.0	-156.3	**0.0**	4.3	0.0	-13.4	0.0
Fz_i	-3.1	-0.0	**-7.8**	0.0	62.1	-0.0	-361.3	-0.0	**28.0**	0.0	-316.4	-0.0
Mx_i	-4.6	-0.0	-3.2	**-0.0**	38.5	-0.0	-0.5	-0.0	-0.2	**0.0**	0.7	-0.0
My_i	-362.7	-0.0	27.9	0.0	**-318.1**	-0.0	-171.2	0.0	-6.4	0.0	**87.2**	0.0
Mz_i	-267.8	-0.0	16.0	0.0	-217.8	**-0.0**	-156.3	0.0	4.3	0.0	-13.4	**0.0**
Fx_f	**-432.7**	0.0	13.9	0.0	-107.5	-0.0	**49.9**	-0.0	-2.8	0.0	7.1	0.0
Fy_f	-267.8	**-0.0**	16.0	0.0	-189.9	0.0	-156.3	**0.0**	4.3	0.0	-5.9	-0.0
Fz_f	-3.1	-0.0	**-7.8**	0.0	48.5	0.0	-361.3	-0.0	**28.0**	0.0	-267.4	0.0
Mx_f	-4.6	-0.0	-3.2	**-0.0**	32.9	0.0	-0.5	-0.0	-0.2	**0.0**	0.4	0.0
My_f	-359.7	-0.0	27.4	0.0	**-269.7**	0.0	-171.3	0.0	-6.3	0.0	**76.1**	-0.0
Mz_f	-263.4	0.0	9.1	0.0	-53.4	**-0.0**	-152.8	-0.0	8.1	0.0	-108.9	**0.0**

Member 380

Fx_i	**-428.6**	-0.0	14.9	-0.0	-132.1	-0.0	**37.1**	0.0	-2.5	0.0	10.1	0.0
Fy_i	-214.7	**-0.0**	4.2	0.0	-57.2	-0.0	-205.7	**0.0**	6.9	0.0	-80.3	0.0
Fz_i	-1.2	0.0	**-6.9**	0.0	53.9	0.0	-372.2	-0.0	**28.6**	-0.0	-309.9	-0.0
Mx_i	-371.7	-0.0	14.0	**-0.0**	-124.1	-0.0	-67.6	-0.0	2.4	**0.0**	-41.2	-0.0
My_i	-370.8	-0.0	28.3	-0.0	**-312.7**	-0.0	-174.9	-0.0	-5.2	0.0	**79.5**	-0.0
Mz_i	-231.7	-0.0	4.6	0.0	-57.0	**-0.0**	-146.0	0.0	4.7	0.0	-61.6	**0.0**
Fx_f	**-428.6**	-0.0	14.9	-0.0	-105.9	0.0	**37.1**	0.0	-2.5	0.0	5.7	-0.0
Fy_f	-214.7	**-0.0**	4.2	0.0	-49.9	0.0	-205.7	**0.0**	6.9	0.0	-68.3	-0.0
Fz_f	-1.2	0.0	**-6.9**	0.0	41.8	-0.0	-372.2	-0.0	**28.6**	-0.0	-259.8	0.0
Mx_f	-371.7	-0.0	14.0	**-0.0**	-99.6	0.0	-67.6	-0.0	2.4	**0.0**	-36.9	0.0
My_f	-368.3	-0.0	27.8	-0.0	**-263.5**	0.0	-175.2	-0.0	-5.1	0.0	**70.5**	0.0
Mz_f	-181.7	0.0	3.7	-0.0	-23.9	**-0.0**	-187.5	-0.0	4.1	0.0	-54.4	**0.0**

Member 381

Fx_i	**-375.0**	-0.0	17.0	0.0	-109.1	-0.0	**32.2**	-0.0	-2.9	0.0	7.4	-0.0
Fy_i	-224.7	**-0.0**	15.1	0.0	-97.1	-0.0	-156.3	**0.0**	4.2	0.0	-54.5	0.0
Fz_i	-4.8	0.0	**-8.4**	0.0	43.7	0.0	-322.3	-0.0	**32.3**	0.0	-267.1	-0.0
Mx_i	-286.5	-0.0	21.6	**0.0**	-194.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-322.4	-0.0	31.5	0.0	**-270.1**	-0.0	-100.9	0.0	-6.8	0.0	**63.5**	0.0
Mz_i	-224.7	-0.0	15.1	0.0	-97.1	**-0.0**	-156.3	0.0	4.2	0.0	-54.5	**0.0**
Fx_f	**-375.0**	-0.0	17.0	0.0	-79.4	0.0	**32.2**	-0.0	-2.9	0.0	2.4	0.0
Fy_f	-224.7	**-0.0**	15.1	0.0	-70.7	0.0	-156.3	**0.0**	4.2	0.0	-47.2	-0.0
Fz_f	-4.8	0.0	**-8.4**	0.0	29.1	-0.0	-322.3	-0.0	**32.3**	0.0	-210.5	0.0
Mx_f	-286.5	-0.0	21.6	**0.0**	-156.2	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-307.9	-0.0	29.1	0.0	**-216.8**	0.0	-102.1	0.0	-6.1	0.0	**52.2**	-0.0
Mz_f	-251.4	0.0	5.8	0.0	-54.5	**-0.0**	-199.1	-0.0	13.2	0.0	-64.6	**0.0**

Member 382

Fx_i	**-124.3**	-1.5	42.1	-0.0	-73.8	-2.7	**35.1**	0.9	-2.7	0.0	4.8	1.5
Fy_i	-121.6	**-1.6**	40.4	-0.0	-70.7	-2.8	33.2	**0.9**	-2.7	0.0	4.6	1.6
Fz_i	5.1	0.2	**-11.8**	0.0	20.6	0.3	-93.7	-0.9	**69.0**	-0.0	-120.7	-1.6
Mx_i	-74.8	-0.6	49.4	**-0.0**	-86.4	-1.0	6.2	0.1	-4.9	**0.0**	8.5	0.2
My_i	-93.7	-0.9	69.0	-0.0	**-120.7**	-1.6	5.1	0.2	-11.8	0.0	**20.6**	0.3
Mz_i	-121.6	-1.6	40.4	-0.0	-70.7	**-2.8**	33.2	0.9	-2.7	0.0	4.6	**1.6**
Fx_f	**-124.3**	-1.5	42.1	-0.0	0.0	-0.0	**35.1**	0.9	-2.7	0.0	0.0	0.0
Fy_f	-121.6	**-1.6**	40.4	-0.0	0.0	-0.0	33.2	**0.9**	-2.7	0.0	-0.0	0.0
Fz_f	5.1	0.2	**-11.8**	0.0	-0.0	0.0	-93.7	-0.9	**69.0**	-0.0	0.0	-0.0
Mx_f	-74.8	-0.6	49.4	**-0.0**	0.0	-0.0	6.2	0.1	-4.9	**0.0**	-0.0	0.0
My_f	-49.3	-0.6	20.9	0.0	**-0.0**	-0.0	-47.3	-0.2	40.0	-0.0	**0.0**	-0.0
Mz_f	-65.6	-1.0	39.8	-0.0	0.0	**-0.0**	2.6	0.6	2.9	-0.0	-0.0	**0.0**

Member 391

Fx_i	**-369.1**	0.0	-10.7	0.0	84.1	0.0	**31.0**	0.0	-0.0	0.0	-0.7	0.0
Fy_i	-284.8	**0.0**	-18.5	0.0	158.7	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-322.9	0.0	**-26.2**	0.0	219.2	0.0	-101.8	0.0	**6.3**	0.0	-53.9	0.0
Mx_i	-284.8	0.0	-18.5	**0.0**	158.7	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-105.1	0.0	6.2	0.0	**-54.3**	0.0	-309.4	0.0	-25.9	0.0	**220.8**	0.0
Mz_i	-284.8	0.0	-18.5	0.0	158.7	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-369.1**	0.0	-10.7	0.0	-59.9	0.0	**31.0**	0.0	-0.0	0.0	-1.4	0.0
Fy_f	-284.8	**0.0**	-18.5	0.0	-91.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-322.9	0.0	**-26.2**	0.0	-133.9	0.0	-101.8	0.0	**6.3**	0.0	30.9	0.0
Mx_f	-284.8	0.0	-18.5	**0.0**	-91.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-321.7	0.0	-26.1	0.0	**-134.4**	0.0	-5.3	0.0	4.9	0.0	**32.5**	0.0
Mz_f	-284.8	0.0	-18.5	0.0	-91.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 392

Fx_i	**-428.0**	0.0	-17.9	0.0	99.8	0.0	**36.5**	0.0	2.9	0.0	-3.9	0.0
Fy_i	-331.6	**0.0**	-23.9	0.0	188.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-378.4	0.0	**-34.4**	0.0	251.5	0.0	4.1	0.0	**7.9**	0.0	-37.7	0.0
Mx_i	-331.6	0.0	-23.9	**0.0**	188.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-175.9	0.0	5.9	0.0	**-69.6**	0.0	-370.0	0.0	-33.0	0.0	**256.4**	0.0
Mz_i	-331.6	0.0	-23.9	0.0	188.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-428.0**	0.0	-17.9	0.0	-121.7	0.0	**36.5**	0.0	2.9	0.0	32.2	0.0
Fy_f	-331.6	**0.0**	-23.9	0.0	-108.7	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-378.4	0.0	**-34.4**	0.0	-174.8	0.0	4.1	0.0	**7.9**	0.0	60.4	0.0
Mx_f	-331.6	0.0	-23.9	**0.0**	-108.7	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-381.4	0.0	-34.1	0.0	**-176.6**	0.0	-19.1	0.0	3.8	0.0	**67.9**	0.0
Mz_f	-331.6	0.0	-23.9	0.0	-108.7	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 393

Fx,	**-432.4**	0.0	-14.4	0.0	105.9	0.0	**49.7**	0.0	2.7	0.0	-6.3	0.0
Fy,	-322.3	**0.0**	-19.5	0.0	193.4	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-362.8	0.0	**-28.9**	0.0	264.0	0.0	-1.0	0.0	**7.7**	0.0	-45.6	0.0
Mx,	-322.3	0.0	-19.5	**0.0**	193.4	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-171.5	0.0	6.3	0.0	**-75.4**	0.0	-359.1	0.0	-28.0	0.0	**267.5**	0.0
Mz,	-322.3	0.0	-19.5	0.0	193.4	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-432.4**	0.0	-14.4	0.0	-117.9	0.0	**49.7**	0.0	2.7	0.0	35.9	0.0
Fy,	-322.3	**0.0**	-19.5	0.0	-109.3	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-362.8	0.0	**-28.9**	0.0	-185.5	0.0	-1.0	0.0	**7.7**	0.0	74.1	0.0
Mx,	-322.3	0.0	-19.5	**0.0**	-109.3	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-366.6	0.0	-28.8	0.0	**-187.1**	0.0	-16.0	0.0	5.3	0.0	**77.9**	0.0
Mz,	-322.3	0.0	-19.5	0.0	-109.3	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 394

Fx,	**-435.5**	0.0	-14.2	0.0	107.4	0.0	**50.2**	0.0	2.8	0.0	-6.8	0.0
Fy,	-324.7	**0.0**	-18.8	0.0	194.5	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-362.4	0.0	**-28.2**	0.0	266.7	0.0	-4.4	0.0	**7.8**	0.0	-47.4	0.0
Mx,	-324.7	0.0	-18.8	**0.0**	194.5	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-173.0	0.0	6.0	0.0	**-75.8**	0.0	-360.5	0.0	-27.5	0.0	**269.3**	0.0
Mz,	-324.7	0.0	-18.8	0.0	194.5	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-435.5**	0.0	-14.2	0.0	-122.3	**0.0**	**50.2**	0.0	2.8	0.0	38.5	0.0
Fy,	-324.7	**0.0**	-18.8	0.0	-109.6	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-362.4	0.0	**-28.2**	0.0	-188.7	0.0	-4.4	0.0	**7.8**	0.0	78.7	0.0
Mx,	-324.7	0.0	-18.8	**0.0**	-109.6	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-378.4	0.0	-28.0	0.0	**-191.1**	0.0	-11.3	0.0	4.9	0.0	**84.1**	0.0
Mz,	-324.7	0.0	-18.8	0.0	-109.6	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 395

Fx,	**-432.7**	0.0	-13.9	0.0	107.5	0.0	**49.9**	0.0	2.8	0.0	-7.1	0.0
Fy,	-322.4	**0.0**	-18.6	0.0	194.6	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-361.3	0.0	**-28.0**	0.0	267.4	0.0	-2.9	0.0	**7.8**	0.0	-48.0	0.0
Mx,	-322.4	0.0	-18.6	**0.0**	194.6	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-171.3	0.0	6.3	0.0	**-76.1**	0.0	-359.7	0.0	-27.4	0.0	**269.7**	0.0
Mz,	-322.4	0.0	-18.6	0.0	194.6	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-432.7**	0.0	-13.9	0.0	-119.7	0.0	**49.9**	0.0	2.8	0.0	39.4	0.0
Fy,	-322.4	**0.0**	-18.6	0.0	-109.6	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-361.3	0.0	**-28.0**	0.0	-190.1	0.0	-2.9	0.0	**7.8**	0.0	79.2	0.0
Mx,	-322.4	0.0	-18.6	**0.0**	-109.6	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-367.2	0.0	-27.9	0.0	**-192.4**	0.0	-19.9	0.0	4.9	0.0	**84.3**	0.0
Mz,	-322.4	0.0	-18.6	0.0	-109.6	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 396

Fx,	**-428.6**	0.0	-14.9	0.0	105.9	0.0	**37.1**	0.0	2.5	0.0	-5.7	0.0
Fy,	-331.1	**0.0**	-19.7	0.0	192.9	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-372.2	0.0	**-28.6**	0.0	259.8	0.0	0.1	0.0	**6.9**	0.0	-41.3	0.0
Mx,	-331.1	0.0	-19.7	**0.0**	192.9	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-175.2	0.0	5.1	0.0	**-70.5**	0.0	-368.3	0.0	-27.8	0.0	**263.5**	0.0
Mz,	-331.1	0.0	-19.7	0.0	192.9	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-428.6**	0.0	-14.9	0.0	-123.4	0.0	**37.1**	0.0	2.5	0.0	33.3	0.0
Fy,	-331.1	**0.0**	-19.7	0.0	-109.2	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-372.2	0.0	**-28.6**	0.0	-179.7	0.0	0.1	0.0	**6.9**	0.0	64.6	0.0
Mx,	-331.1	0.0	-19.7	**0.0**	-109.2	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-376.6	0.0	-28.5	0.0	**-181.6**	0.0	-22.0	0.0	3.5	0.0	**71.4**	0.0
Mz,	-331.1	0.0	-19.7	0.0	-109.2	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 397

Fx,	**-375.0**	0.0	-17.0	0.0	79.4	0.0	**32.2**	0.0	2.9	0.0	-2.4	0.0
Fy,	-286.5	**0.0**	-21.6	0.0	156.2	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-322.3	0.0	**-32.3**	0.0	210.5	0.0	-4.8	0.0	**8.4**	0.0	-29.1	0.0
Mx,	-285.5	0.0	-21.6	**0.0**	156.2	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-102.1	0.0	6.1	0.0	**-52.2**	0.0	-307.9	0.0	-29.1	0.0	**216.8**	0.0
Mz,	-286.5	0.0	-21.6	0.0	156.2	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-375.0**	0.0	-17.0	0.0	-115.4	0.0	**32.2**	0.0	2.9	0.0	30.6	0.0
Fy,	-286.5	**0.0**	-21.6	0.0	-91.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-322.3	0.0	**-32.3**	0.0	-159.5	0.0	-4.8	0.0	**8.4**	0.0	66.8	0.0
Mx,	-286.5	0.0	-21.6	**0.0**	-91.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-316.0	0.0	-31.7	0.0	**-166.9**	0.0	-25.5	0.0	5.5	0.0	**73.5**	0.0
Mz,	-286.5	0.0	-21.6	0.0	-91.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 398

Fx,	**-369.1**	0.0	10.7	0.0	-84.1	0.0	**31.0**	0.0	0.0	0.0	0.7	0.0
Fy,	-284.8	**0.0**	18.5	0.0	-158.7	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-101.8	0.0	**-6.3**	0.0	53.9	0.0	-322.9	0.0	**26.2**	0.0	-219.2	0.0
Mx,	-284.8	0.0	18.5	**0.0**	-158.7	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-309.4	0.0	25.9	0.0	**-220.8**	0.0	-105.1	0.0	-6.2	0.0	**54.3**	0.0
Mz,	-284.8	0.0	18.5	0.0	-158.7	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-369.1**	0.0	10.7	0.0	59.9	0.0	**31.0**	0.0	0.0	0.0	1.4	0.0
Fy,	-284.8	**0.0**	18.5	0.0	91.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-101.8	0.0	**-6.3**	0.0	-30.9	0.0	-322.9	0.0	**26.2**	0.0	133.9	0.0
Mx,	-284.8	0.0	18.5	**0.0**	91.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-7.8	0.0	-4.9	0.0	**-32.6**	0.0	-321.7	0.0	26.1	0.0	**134.4**	0.0
Mz,	-284.8	0.0	18.5	0.0	91.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 399

Fx,	**-428.0**	0.0	17.9	0.0	-99.8	0.0	**36.5**	0.0	-2.9	0.0	3.9	0.0
Fy,	-331.6	**0.0**	23.9	0.0	-188.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	4.0	0.0	**-7.9**	0.0	38.1	0.0	-378.4	0.0	**34.4**	0.0	-251.5	0.0
Mx,	-331.6	0.0	23.9	**0.0**	-188.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-370.0	0.0	33.0	0.0	**-256.4**	0.0	-175.9	0.0	-5.9	0.0	**69.6**	0.0
Mz,	-331.6	0.0	23.9	0.0	-188.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-428.0**	0.0	17.9	0.0	121.7	0.0	**36.5**	0.0	-2.9	0.0	-32.2	0.0
Fy,	-331.6	**0.0**	23.9	0.0	108.7	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	4.0	0.0	**-7.9**	0.0	-60.1	0.0	-378.4	0.0	**34.4**	0.0	174.8	0.0
Mx,	-331.6	0.0	23.9	**0.0**	108.7	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-19.2	0.0	-3.9	0.0	**-67.6**	0.0	-381.4	0.0	34.1	0.0	**176.6**	0.0
Mz,	-331.6	0.0	23.9	0.0	108.7	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 400

Fx,	**-432.4**	0.0	14.4	0.0	-105.9	0.0	**49.7**	0.0	-2.7	0.0	6.3	0.0
Fy,	-322.3	**0.0**	19.5	0.0	-193.4	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-1.9	0.0	**-7.7**	0.0	46.1	0.0	-362.8	0.0	**28.9**	0.0	-264.0	0.0
Mx,	-322.3	0.0	19.5	**0.0**	-193.4	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-359.1	0.0	28.0	0.0	**-267.5**	0.0	-171.5	0.0	-6.3	0.0	**75.4**	0.0
Mz,	-322.3	0.0	19.5	0.0	-193.4	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-432.4**	0.0	14.4	0.0	117.9	0.0	**49.7**	0.0	-2.7	0.0	-35.9	0.0
Fy,	-322.3	**0.0**	19.5	0.0	109.3	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-1.9	0.0	**-7.7**	0.0	-73.8	0.0	-362.8	0.0	**28.9**	0.0	185.5	0.0
Mx,	-322.3	0.0	19.5	**0.0**	109.3	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-16.8	0.0	-5.3	0.0	**-77.6**	0.0	-366.6	0.0	28.8	0.0	**187.1**	0.0
Mz,	-322.3	0.0	19.5	0.0	109.3	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 401

Fx,	**-435.5**	0.0	14.2	0.0	-107.4	0.0	**50.2**	0.0	-2.8	0.0	6.8	0.0
Fy,	-324.7	**0.0**	18.8	0.0	-194.5	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-4.5	0.0	**-7.8**	0.0	47.8	0.0	-362.4	0.0	**28.2**	0.0	-266.7	0.0
Mx,	-324.7	0.0	18.8	**0.0**	-194.5	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-360.5	0.0	27.5	0.0	**-269.3**	0.0	-173.0	0.0	-6.0	0.0	**75.8**	0.0
Mz,	-324.7	0.0	18.8	0.0	-194.5	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-435.5**	0.0	14.2	0.0	122.3	0.0	**50.2**	0.0	-2.8	0.0	-38.5	0.0
Fy,	-324.7	**0.0**	18.8	0.0	109.6	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-4.5	0.0	**-7.8**	0.0	-78.5	0.0	-362.4	0.0	**28.2**	0.0	188.7	0.0
Mx,	-324.7	0.0	18.8	**0.0**	109.6	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-12.1	0.0	-4.9	0.0	**-83.8**	0.0	-378.4	0.0	28.0	0.0	**191.1**	0.0
Mz,	-324.7	0.0	18.8	0.0	109.6	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 402

Fx,	**-432.7**	0.0	13.9	0.0	-107.5	0.0	**49.9**	0.0	-2.8	0.0	7.1	0.0
Fy,	-322.4	**0.0**	18.6	0.0	-194.6	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-3.1	0.0	**-7.8**	0.0	48.5	0.0	-361.3	0.0	**28.0**	0.0	-267.4	0.0
Mx,	-322.4	0.0	18.6	**0.0**	-194.6	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0

My,	-359.7	0.0	27.4	0.0	-269.7	0.0	-171.3	0.0	-6.3	0.0	76.1	0.0
Mz,	-322.4	0.0	18.6	0.0	-194.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fx,	-432.7	0.0	13.9	0.0	119.7	0.0	49.9	0.0	-2.8	0.0	-39.4	0.0
Fy,	-322.4	0.0	18.6	0.0	109.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fz,	-3.1	0.0	-7.8	0.0	-79.0	0.0	-361.3	0.0	28.0	0.0	190.1	0.0
Mx,	-322.4	0.0	18.6	0.0	109.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
My,	-20.7	0.0	-4.9	0.0	-84.0	0.0	-367.2	0.0	27.9	0.0	192.4	0.0
Mz,	-322.4	0.0	18.6	0.0	109.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Member 403

Fx,	-428.6	0.0	14.9	0.0	-105.9	0.0	37.1	0.0	-2.5	0.0	5.7	0.0
Fy,	-331.1	0.0	19.7	0.0	-192.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fz,	-1.2	0.0	-6.9	0.0	41.8	0.0	-372.2	0.0	28.6	0.0	-259.8	0.0
Mx,	-331.1	0.0	19.7	0.0	-192.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
My,	-368.3	0.0	27.8	0.0	-263.5	0.0	-175.2	0.0	-5.1	0.0	70.5	0.0
Mz,	-331.1	0.0	19.7	0.0	-192.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fx,	-428.6	0.0	14.9	0.0	123.4	0.0	37.1	0.0	-2.5	0.0	-33.3	0.0
Fy,	-331.1	0.0	19.7	0.0	109.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fz,	-1.2	0.0	-6.9	0.0	-64.1	0.0	-372.2	0.0	28.6	0.0	179.7	0.0
Mx,	-331.1	0.0	19.7	0.0	109.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
My,	-22.0	0.0	-3.5	0.0	-71.4	0.0	-376.6	0.0	28.5	0.0	181.6	0.0
Mz,	-331.1	0.0	19.7	0.0	109.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Member 404

Fx,	-375.0	0.0	17.0	0.0	-79.4	0.0	32.2	0.0	-2.9	0.0	2.4	0.0
Fy,	-286.5	0.0	21.6	0.0	-156.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fz,	-4.8	0.0	-8.4	0.0	29.1	0.0	-322.3	0.0	32.3	0.0	-210.5	0.0
Mx,	-286.5	0.0	21.6	0.0	-156.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
My,	-307.9	0.0	29.1	0.0	-216.8	0.0	-102.1	0.0	-6.1	0.0	52.2	0.0
Mz,	-286.5	0.0	21.6	0.0	-156.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fx,	-375.0	0.0	17.0	0.0	115.4	0.0	32.2	0.0	-2.9	0.0	-30.6	0.0
Fy,	-286.5	0.0	21.6	0.0	91.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fz,	-4.8	0.0	-8.4	0.0	-66.8	0.0	-322.3	0.0	32.3	0.0	159.5	0.0
Mx,	-286.5	0.0	21.6	0.0	91.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
My,	-25.5	0.0	-5.5	0.0	-73.5	0.0	-316.0	0.0	31.7	0.0	166.9	0.0
Mz,	-286.5	0.0	21.6	0.0	91.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Member 421

Fx,	-705.2	0.0	-0.0	0.0	-0.0	0.0	57.3	0.0	-0.0	0.0	0.0	0.0
Fy,	-569.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fz,	-426.2	0.0	-19.7	0.0	-77.7	0.0	-426.2	0.0	19.7	0.0	77.7	0.0
Mx,	-569.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
My,	-322.1	0.0	6.6	0.0	-806.4	0.0	-324.3	0.0	-6.5	0.0	806.5	0.0
Mz,	-569.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fx,	-705.2	0.0	-0.0	0.0	-0.0	0.0	57.3	0.0	-0.0	0.0	0.0	0.0
Fy,	-569.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fz,	-426.2	0.0	-19.7	0.0	-97.4	0.0	-426.2	0.0	19.7	0.0	97.4	0.0
Mx,	-569.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
My,	-323.9	0.0	5.8	0.0	-799.9	0.0	-326.1	0.0	-5.6	0.0	800.1	0.0
Mz,	-569.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Member 422

Fx,	-810.4	0.0	0.0	0.0	-0.0	0.0	64.9	0.0	0.0	0.0	-0.0	0.0
Fy,	-663.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fz,	-369.6	0.0	-16.0	0.0	-226.8	0.0	-389.3	0.0	16.0	0.0	263.9	0.0
Mx,	-663.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
My,	-374.9	0.0	-0.2	0.0	-1052.0	0.0	-376.9	0.0	0.5	0.0	1053.3	0.0
Mz,	-663.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fx,	-810.4	0.0	0.0	0.0	0.0	0.0	64.9	0.0	0.0	0.0	0.0	0.0
Fy,	-663.2	0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fz,	-369.6	0.0	-16.0	0.0	-242.9	0.0	-389.3	0.0	16.0	0.0	279.9	0.0
Mx,	-663.2	0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
My,	-372.5	0.0	-0.6	0.0	-1052.3	0.0	-374.5	0.0	0.8	0.0	1053.8	0.0
Mz,	-663.2	0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Member 423

Fx,	-817.4	0.0	0.0	0.0	-0.0	0.0	90.5	0.0	-0.0	0.0	0.0	0.0
Fy,	-644.5	0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fz,	-365.8	0.0	-15.9	0.0	-116.0	0.0	-385.6	0.0	15.8	0.0	152.5	0.0
Mx,	-644.5	0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
My,	-361.5	0.0	-1.9	0.0	-1057.6	0.0	-363.5	0.0	2.0	0.0	1058.0	0.0
Mz,	-644.5	0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fx,	-817.4	0.0	0.0	0.0	0.0	0.0	90.5	0.0	-0.0	0.0	0.0	0.0
Fy,	-644.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fz,	-365.8	0.0	-15.9	0.0	-131.9	0.0	-385.6	0.0	15.8	0.0	168.4	0.0
Mx,	-644.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
My,	-359.2	0.0	-2.1	0.0	-1059.5	0.0	-361.3	0.0	2.3	0.0	1060.2	0.0
Mz,	-644.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Member 424

Fx,	-822.8	0.0	0.0	0.0	0.0	0.0	91.0	0.0	0.0	0.0	0.0	0.0
Fy,	-649.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fz,	-368.3	0.0	-15.7	0.0	-132.8	0.0	-388.1	0.0	15.6	0.0	169.4	0.0
Mx,	-649.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
My,	-366.4	0.0	-2.6	0.0	-1075.7	0.0	-367.0	0.0	2.8	0.0	1076.6	0.0
Mz,	-649.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fx,	-822.8	0.0	0.0	0.0	0.0	0.0	91.0	0.0	0.0	0.0	0.0	0.0
Fy,	-649.4	0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fz,	-368.3	0.0	-15.7	0.0	-148.5	0.0	-388.1	0.0	15.6	0.0	185.0	0.0
Mx,	-649.4	0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
My,	-366.6	0.0	-2.7	0.0	-1078.4	0.0	-367.2	0.0	2.8	0.0	1079.4	0.0
Mz,	-649.4	0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Member 425

Fx,	-817.5	0.0	0.0	0.0	-0.0	0.0	90.3	0.0	-0.0	0.0	0.0	0.0
Fy,	-644.9	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fz,	-366.8	0.0	-15.8	0.0	-125.0	0.0	-386.6	0.0	15.7	0.0	161.5	0.0
Mx,	-644.9	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
My,	-363.3	0.0	-2.7	0.0	-1072.8	0.0	-363.9	0.0	2.8	0.0	1073.8	0.0
Mz,	-644.9	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fx,	-817.5	0.0	0.0	0.0	-0.0	0.0	90.3	0.0	-0.0	0.0	0.0	0.0
Fy,	-644.9	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fz,	-366.8	0.0	-15.8	0.0	-140.8	0.0	-386.6	0.0	15.7	0.0	177.3	0.0
Mx,	-644.9	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
My,	-361.0	0.0	-2.9	0.0	-1075.5	0.0	-361.6	0.0	3.0	0.0	1076.6	0.0
Mz,	-644.9	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Member 426

Fx,	-809.5	0.0	-0.0	0.0	0.0	0.0	65.1	0.0	0.0	0.0	0.0	0.0
Fy,	-662.2	0.0	-0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fz,	-375.0	0.0	-14.4	0.0	-115.3	0.0	-394.5	0.0	14.3	0.0	152.1	0.0
Mx,	-662.2	0.0	-0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
My,	-376.5	0.0	-0.9	0.0	-1060.2	0.0	-376.5	0.0	0.9	0.0	1060.2	0.0
Mz,	-662.2	0.0	-0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fx,	-809.5	0.0	-0.0	0.0	0.0	0.0	65.1	0.0	0.0	0.0	0.0	0.0
Fy,	-662.2	0.0	-0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fz,	-375.0	0.0	-14.4	0.0	-129.7	0.0	-394.5	0.0	14.3	0.0	166.4	0.0
Mx,	-662.2	0.0	-0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
My,	-374.2	0.0	-1.2	0.0	-1061.1	0.0	-374.2	0.0	1.2	0.0	1061.1	0.0
Mz,	-662.2	0.0	-0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Member 427

Fx,	-706.4	0.0	0.0	0.0	0.0	0.0	57.0	0.0	-0.0	0.0	0.0	0.0
Fy,	-573.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fz,	-330.6	0.0	-18.5	0.0	-275.0	0.0	-349.2	0.0	18.4	0.0	308.9	0.0
Mx,	-573.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
My,	-327.4	0.0	-5.3	0.0	-954.8	0.0	-327.4	0.0	5.3	0.0	954.8	0.0
Mz,	-573.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fx,	-706.4	0.0	0.0	0.0	-0.0	0.0	57.0	0.0	-0.0	0.0	0.0	0.0

Fy_f	-573.0	**0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-330.6	0.0	**-18.5**	0.0	-293.5	0.0	-349.2	0.0	**18.4**	0.0	327.3	0.0
Mx_f	-573.0	0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-326.6	0.0	-5.3	0.0	**-960.1**	0.0	-326.6	0.0	5.3	0.0	**960.1**	0.0
Mz_f	-573.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

DISPLACEMENTS

	x	y	z	x	y	z	x	y	z	x	y	z
Joint 1												
x	**-0.0**	-0.0	0.0	0.3	-0.3	-155.2	**0.0**	-0.0	-0.0	-0.6	0.4	-267.5
y	-0.0	**-0.0**	0.0	-0.0	-0.0	-460.1	-0.0	**0.0**	0.0	0.1	-0.1	273.8
z	0.0	-0.0	**-0.0**	-0.6	0.4	-271.3	-0.0	-0.0	**0.0**	0.3	-0.3	-1.1
x	0.0	-0.0	-0.0	**-0.6**	0.4	-270.4	-0.0	-0.0	0.0	**0.3**	-0.3	-0.3
y	**-0.0**	-0.0	0.0	0.3	**-0.3**	-4.9	0.0	-0.0	-0.0	-0.6	**0.4**	-271.3
z	-0.0	-0.0	-0.0	-0.0	-0.0	**-461.8**	-0.0	0.0	0.0	0.1	-0.1	**274.0**
Joint 2												
x	**-0.0**	-0.5	0.0	-124.9	-5.6	-104.2	**0.0**	-0.9	-0.0	-211.5	5.6	-215.0
y	-0.0	**-1.6**	0.0	-101.4	-1.0	-396.3	-0.0	**1.6**	0.0	-5.5	-1.8	253.0
z	0.0	-0.9	**-0.0**	-211.5	5.6	-215.0	-0.0	-0.4	**0.0**	-113.7	-5.6	-85.8
x	-0.0	-0.9	0.0	**-306.3**	-0.2	-202.1	0.0	-0.3	-0.0	**70.5**	1.3	-79.3
y	-0.0	-0.5	0.0	-124.8	**-5.6**	-104.2	0.0	-0.9	-0.0	-211.5	**5.6**	-215.0
z	-0.0	-1.6	0.0	-101.3	-1.0	**-396.3**	-0.0	1.0	0.0	-5.6	-1.8	**253.0**
Joint 3												
x	**-0.0**	-0.7	0.0	-204.6	-10.0	-13.2	**0.0**	-1.5	-0.0	-328.3	10.0	-98.4
y	-0.0	**-2.8**	0.0	-166.1	-1.7	-221.3	-0.0	**1.8**	0.0	-11.0	-3.3	183.2
z	0.0	-1.5	**-0.0**	-328.5	10.0	-98.2	-0.0	-0.7	**0.0**	-204.4	-10.0	-13.4
x	-0.0	-1.4	0.0	**-495.0**	-0.4	-77.0	0.0	-0.2	-0.0	**113.6**	2.1	-17.8
y	-0.0	-0.7	0.0	-204.6	**-10.0**	-13.3	0.0	-1.5	-0.0	-328.3	**10.0**	-98.3
z	-0.0	-2.8	0.0	-166.1	-1.7	**-221.3**	-0.0	1.8	0.0	-11.0	-3.3	**183.2**
Joint 4												
x	**-0.0**	-0.1	0.1	-213.4	-13.5	74.6	**0.0**	-1.6	-0.1	-331.7	13.5	24.5
y	-0.0	**-3.2**	0.0	-189.6	-2.3	-15.5	-0.0	**2.3**	0.0	-14.9	-4.5	76.4
z	0.0	-1.6	**-0.1**	-369.0	13.6	24.2	-0.0	-0.6	**0.1**	-226.8	-13.6	67.7
x	-0.0	-1.4	0.0	**-567.6**	-0.2	43.6	0.0	0.1	-0.0	**128.2**	2.0	12.3
y	-0.0	-0.1	0.1	-213.4	**-13.6**	74.6	0.0	-1.6	-0.1	-331.7	**13.6**	24.6
z	-0.0	-1.9	0.0	-80.2	-1.8	**-46.8**	-0.0	1.1	0.0	-96.2	-4.8	**104.2**
Joint 5												
x	-0.0	0.2	0.1	-168.8	-16.2	66.0	**0.0**	-1.3	-0.1	-310.5	16.1	127.0
y	-0.0	-2.8	0.0	-170.7	-2.8	209.9	-0.0	**2.3**	0.0	-16.1	-5.3	-90.7
z	0.0	-1.3	**-0.1**	-343.5	16.2	132.0	-0.0	-0.3	**0.1**	-183.2	-16.2	103.3
x	0.0	-1.1	-0.0	**-519.5**	2.7	136.9	0.0	-0.1	-0.0	**116.8**	1.3	28.2
y	-0.0	0.2	0.1	-168.8	**-16.2**	66.0	**0.0**	-1.3	-0.1	-310.6	**16.2**	127.0
z	-0.0	2.3	0.0	-13.8	-4.2	**-91.5**	-0.0	-2.8	0.0	-171.0	-4.0	**210.2**
Joint 6												
x	**-0.1**	0.2	0.2	-89.5	-18.0	-14.4	**0.1**	-0.7	-0.2	-194.2	18.0	152.2
y	-0.0	**-1.7**	0.0	-109.6	-3.2	374.4	-0.0	**1.6**	0.1	-14.5	-5.9	-307.5
z	0.1	-0.7	**-0.2**	-234.0	18.1	156.1	-0.1	0.3	**0.2**	-86.8	-18.0	-22.3
x	0.0	-0.6	-0.0	**-349.8**	4.5	138.0	-0.0	-0.2	-0.0	**68.2**	-1.2	63.4
y	-0.1	0.2	0.2	-89.4	**-18.1**	-14.4	0.1	-0.7	-0.2	-194.3	**18.2**	152.2
z	-0.0	1.6	0.1	-15.0	-5.9	**-308.7**	-0.0	-1.7	0.0	-109.6	-3.2	**374.4**
Joint 7												
x	**-0.1**	-0.3	0.3	24.8	-19.6	-343.6	**0.1**	-0.3	-0.3	-75.3	19.6	36.5
y	-0.0	**-0.6**	0.1	-20.4	-7.4	-472.6	-0.0	**0.0**	0.0	1.8	-2.2	162.8
z	0.1	-0.4	**-0.3**	-87.2	19.4	-17.2	-0.1	-0.3	**0.3**	20.5	-19.4	-354.6
x	0.1	-0.4	-0.2	**-93.8**	17.5	-103.9	-0.1	-0.2	0.2	**34.8**	-16.7	-309.3
y	-0.1	-0.3	0.3	24.9	**-19.7**	-343.1	0.1	-0.3	-0.3	-75.4	**19.8**	36.0
z	-0.0	-0.4	0.1	-10.2	-6.4	**-798.0**	-0.0	-0.2	0.0	-6.9	-3.3	**450.9**
Joint 8												
x	**-0.1**	-2.5	0.4	103.4	-20.9	-531.8	**0.1**	-0.5	-0.4	-357.9	20.9	-99.5
y	-0.0	**-5.0**	0.1	-198.6	-6.8	-1100.6	-0.0	**1.7**	0.1	-14.0	-4.2	379.0
z	0.1	-0.6	**-0.4**	-388.4	20.8	-125.5	-0.1	-2.6	**0.4**	120.5	-20.4	-603.2
x	0.0	-2.2	-0.1	**-649.2**	3.5	-468.1	-0.0	-2.4	0.1	**276.8**	-1.3	-557.9
y	-0.1	-2.5	0.4	103.4	**-21.0**	-530.7	0.1	-0.5	-0.4	-358.0	**21.1**	-99.8
z	-0.0	-4.9	0.1	-197.8	-6.6	**-1101.1**	-0.0	1.7	0.1	-13.2	-4.2	**379.0**
Joint 9												
x	**-0.1**	-4.7	0.4	197.2	-21.5	-418.0	**0.1**	-0.9	-0.4	-547.9	21.6	-108.1
y	-0.0	**-9.6**	0.2	-328.0	-6.7	-922.7	-0.0	**3.3**	0.1	-20.6	-4.5	314.8
z	0.1	-1.2	**-0.5**	-604.9	21.2	-138.3	-0.1	-5.2	**0.5**	219.4	-21.0	-509.8
x	0.0	-4.1	-0.1	**-1043.6**	1.3	-360.6	-0.0	-6.0	0.1	**483.3**	-0.8	-567.2
y	-0.1	-4.7	0.4	197.3	**-21.7**	-417.7	0.1	-0.9	-0.4	-548.0	**21.8**	-109.2
z	-0.0	-9.6	0.2	-328.5	-6.6	**-924.6**	-0.0	3.3	0.1	-19.5	-4.5	**314.9**
Joint 10												
x	**-0.1**	-6.0	0.5	289.8	-21.9	-183.2	**0.1**	-1.1	-0.5	-664.9	22.0	-81.4
y	-0.0	**-12.9**	0.2	-403.6	-6.5	-516.1	-0.0	**4.5**	0.1	-25.0	-4.7	216.2
z	0.1	-1.8	**-0.6**	-757.5	21.2	-101.4	-0.1	-7.0	**0.6**	286.9	-21.1	-261.2
x	-0.0	-6.9	-0.1	**-1265.4**	0.1	-207.8	-0.0	-8.0	0.1	**651.4**	-0.1	-300.4
y	-0.1	-6.0	0.5	289.9	**-22.1**	-183.1	0.1	-1.1	-0.5	-665.1	**22.2**	-81.6
z	-0.0	-11.8	0.2	-471.7	-6.0	**-524.4**	-0.0	3.4	0.1	43.7	-5.0	**222.1**
Joint 11												
x	**-0.1**	-6.3	0.6	287.8	-22.1	65.9	**0.1**	-1.4	-0.6	-711.8	22.2	-33.5
y	-0.0	**-14.2**	0.2	-426.3	-6.2	-42.8	-0.0	**5.2**	0.1	-28.1	-4.9	96.2
z	0.1	-2.1	**-0.7**	-829.8	21.2	-34.2	-0.1	-7.7	**0.6**	310.8	-21.0	37.2
x	0.0	-9.6	-0.0	**-1334.5**	0.4	15.0	0.0	-8.7	0.1	**718.1**	0.6	2.5
y	-0.1	-6.3	0.6	288.0	**-22.3**	66.1	0.1	-1.4	-0.6	-712.1	**22.4**	-33.6
z	-0.0	-6.4	0.1	-213.1	-3.7	**-185.3**	-0.0	-2.6	0.2	-152.0	-6.4	**225.9**
Joint 12												
x	**-0.1**	-5.3	0.7	224.0	-22.0	294.1	**0.1**	-1.4	-0.7	-675.7	22.1	35.2
y	-0.0	**-13.3**	0.2	-399.7	-5.9	447.2	-0.0	**5.3**	0.1	-28.0	-4.9	-55.0
z	0.1	-1.4	**-0.7**	-665.6	21.4	30.2	-0.1	-5.2	**0.7**	197.7	-21.2	275.4
x	0.0	-6.7	-0.1	**-1280.4**	3.5	254.6	0.0	-8.0	0.1	**670.9**	0.6	304.4
y	-0.1	-5.3	0.7	224.2	**-22.2**	294.1	0.1	-1.4	-0.7	-676.1	**22.4**	35.1
z	0.0	0.9	-0.4	69.6	11.1	**-83.5**	-0.0	-9.3	0.4	-563.0	-11.6	**467.2**
Joint 13												
x	**-0.1**	-3.9	0.7	36.3	-21.7	481.2	**0.1**	-2.2	-0.7	-671.5	21.8	185.4
y	-0.0	**-10.2**	0.3	-321.7	-5.6	900.0	-0.0	**4.6**	0.2	-22.9	-5.0	-258.4
z	0.1	-1.3	**-0.8**	-622.5	21.0	101.1	-0.1	-3.7	**0.8**	149.8	-20.9	462.0
x	0.0	-3.7	-0.2	**-1068.1**	3.9	381.0	-0.0	-6.0	0.1	**511.2**	0.4	567.1
y	-0.1	-3.1	0.7	32.6	**-21.9**	435.6	0.1	-2.2	-0.8	-671.9	**22.1**	185.7
z	-0.0	4.6	0.2	-22.9	-4.8	**-258.4**	-0.0	-10.2	0.3	-321.4	-5.9	**900.7**
Joint 14												
x	**-0.1**	-1.3	0.8	6.5	-21.2	411.0	**0.1**	-1.0	-0.8	-403.7	21.3	218.4
y	-0.0	**-5.5**	0.3	-185.9	-4.7	1154.1	-0.0	**2.9**	0.2	-12.7	-5.4	-496.1
z	0.1	-0.7	**-0.9**	-460.5	19.9	137.6	-0.1	-1.6	**0.9**	107.5	-19.8	451.2
x	0.0	-2.0	-0.3	**-671.2**	6.3	469.5	-0.0	-2.2	0.4	**297.0**	-9.3	531.6
y	-0.1	-1.3	0.8	7.0	**-21.4**	409.9	0.1	-1.0	-0.8	-404.2	**21.5**	219.8
z	-0.0	2.9	0.2	-12.1	-5.0	**-497.6**	-0.0	-5.5	0.3	-187.1	-5.2	**1154.3**
Joint 15												
x	**-0.1**	-0.2	0.7	66.4	-20.5	-103.7	**0.1**	-0.3	-0.7	-115.6	20.6	269.6
y	-0.0	**-0.6**	0.5	18.7	-7.4	-77.8	0.0	**0.1**	-0.2	-23.0	6.0	132.3
z	0.1	-0.3	**-1.0**	-163.0	18.0	-0.4	-0.1	-0.4	**1.0**	104.8	-18.0	-27.2
x	0.0	-0.4	-1.0	**-166.1**	16.7	11.6	-0.1	-0.3	1.0	**107.6**	-17.3	-120.6
y	-0.1	-0.2	0.7	61.4	**-20.7**	-189.9	0.1	-0.3	-0.7	-109.4	**20.8**	239.1
z	-0.0	-0.3	0.3	9.9	-6.0	**-990.3**	-0.0	-0.3	0.3	7.4	-3.4	**1042.5**
Joint 16												
x	**-0.1**	-2.2	0.5	161.1	-21.5	-482.9	**0.1**	0.4	-0.5	-350.9	21.6	19.8

y	-0.0	**-5.5**	0.3	-182.2	-5.7	-1190.6	-0.0	**3.4**	0.2	-17.6	-2.7	629.8
z	0.0	-0.7	**-1.1**	-474.4	15.6	-140.7	-0.0	-1.8	**1.1**	98.7	-15.7	-490.2
x	0.0	-1.6	-0.2	**-684.3**	2.9	-383.9	-0.0	-2.1	0.1	**311.8**	-2.2	-512.1
y	-0.1	-2.2	0.6	161.7	**-21.7**	-484.8	0.1	0.4	-0.6	-351.8	**21.8**	21.0
z	-0.0	-5.5	0.3	-181.4	-5.7	**-1191.5**	-0.0	3.4	0.2	-16.0	-2.9	**630.2**

Joint 17

x	**-0.1**	-4.2	0.5	270.9	-22.5	-390.2	**0.1**	0.3	-0.5	-567.0	22.6	-71.2
y	-0.0	**-10.5**	0.4	-316.7	-5.3	-965.3	-0.0	**5.7**	0.2	-29.2	-2.7	404.5
z	0.0	-1.7	**-1.2**	-637.3	14.7	-157.2	-0.0	-4.3	**1.2**	85.0	-14.8	-493.1
x	0.0	-3.2	-0.1	**-1102.8**	3.0	-328.1	-0.0	-5.7	0.0	**553.0**	-2.8	-552.1
y	-0.1	-4.2	0.6	271.1	**-22.7**	-391.2	0.1	0.3	-0.6	-567.5	**22.9**	-70.2
z	-0.0	-10.5	0.4	-316.0	-5.2	**-967.1**	-0.0	5.5	0.2	-27.5	-3.5	**414.2**

Joint 18

x	**-0.1**	-5.7	0.6	204.1	-23.3	-195.6	**0.1**	-1.2	-0.6	-688.1	23.5	-157.6
y	-0.0	**-13.9**	0.4	-394.0	-4.9	-519.7	-0.0	**7.1**	0.2	-36.9	-2.5	183.8
z	0.0	-2.3	**-1.2**	-717.8	13.4	-86.7	-0.0	-6.1	**1.2**	123.7	-13.5	-288.0
x	0.0	-6.1	-0.1	**-1331.9**	2.3	-218.7	-0.0	-7.7	0.0	**733.4**	-2.4	-302.7
y	-0.1	-5.7	0.6	204.4	**-23.6**	-196.4	0.1	-1.1	-0.6	-693.3	**23.7**	-148.2
z	0.0	-11.2	0.6	-515.2	-1.3	**-534.7**	-0.0	4.3	0.0	86.1	-7.0	**225.0**

Joint 19

x	**-0.1**	-5.7	0.6	21.8	-23.9	77.7	**0.1**	-1.8	-0.6	-654.2	24.1	-82.2
y	-0.0	**-15.1**	0.4	-418.9	-4.3	-19.8	-0.0	**7.4**	0.2	-40.6	-2.0	-1.2
z	0.0	-2.5	**-1.3**	-752.1	12.4	-3.6	-0.0	-6.8	**1.3**	145.2	-12.5	-13.8
x	0.0	-8.9	-0.1	**-1397.6**	2.8	1.4	-0.0	-8.4	0.1	**795.0**	-2.1	-13.3
y	-0.1	-5.7	0.6	22.3	**-24.2**	76.9	0.1	-1.8	-0.6	-654.8	**24.3**	-81.3
z	0.0	-4.0	0.3	-136.7	-1.4	**-248.4**	-0.0	-3.2	0.3	-143.7	-5.5	**236.3**

Joint 20

x	**-0.1**	-4.8	0.7	-12.2	-24.1	296.2	**0.1**	-2.0	-0.7	-681.6	24.3	8.5
y	-0.0	**-14.0**	0.4	-394.8	-3.7	488.4	-0.0	**7.1**	0.3	-37.9	-3.6	-174.3
z	0.0	-2.4	**-1.3**	-730.1	12.1	72.3	-0.0	-6.2	**1.3**	132.6	-11.3	260.0
x	0.0	-6.2	-0.1	**-1337.9**	4.9	208.0	-0.0	-7.8	0.0	**733.4**	-0.3	286.8
y	-0.1	-4.8	0.7	-12.1	**-24.4**	296.2	0.1	-2.0	-0.7	-681.8	**24.4**	8.5
z	0.0	3.9	0.0	92.7	2.8	**-214.9**	-0.0	-10.9	0.7	-521.3	-8.7	**503.0**

Joint 21

x	**-0.1**	0.6	0.5	-346.4	-24.2	51.9	**0.1**	-1.7	-0.5	-200.7	24.4	123.6
y	-0.0	**-10.7**	0.4	-318.8	-3.2	952.2	-0.0	**5.8**	0.3	-30.5	-3.5	-404.1
z	0.0	-1.9	**-1.4**	-661.4	11.1	154.7	-0.0	-4.5	**1.4**	87.7	-11.0	482.5
x	0.0	-3.4	-0.2	**-1114.7**	5.0	323.8	-0.0	-5.8	0.1	**553.8**	-0.8	542.8
y	-0.1	0.5	0.5	-346.5	**-24.6**	53.3	0.1	-1.7	-0.5	-200.8	**24.6**	123.0
z	-0.0	5.6	0.3	-28.0	-2.2	**-412.5**	-0.0	-10.7	0.5	-318.7	-3.5	**953.0**

Joint 22

x	**-0.1**	0.4	0.6	-257.8	-24.4	-0.5	**0.1**	-1.5	-0.6	-172.1	24.7	304.3
y	-0.0	**-5.8**	0.5	-186.0	-2.6	1208.1	-0.0	**3.5**	0.3	-16.3	-3.4	-643.5
z	0.0	-1.1	**-1.4**	-499.1	9.6	202.2	-0.0	-2.1	**1.4**	83.1	-9.6	522.2
x	0.0	-1.9	-0.3	**-704.2**	6.9	422.2	-0.0	-2.1	0.6	**316.5**	-8.5	507.9
y	-0.1	0.3	0.6	-258.0	**-24.9**	2.3	0.1	-1.5	-0.6	-172.2	**24.9**	303.0
z	-0.0	3.5	0.3	-17.1	-3.4	**-644.9**	-0.0	-5.8	0.5	-186.0	-2.6	**1208.1**

Joint 23

x	**-0.1**	-0.3	0.6	26.2	-24.5	-335.0	**0.1**	-0.3	-0.6	-96.7	24.9	222.4
y	-0.0	**-0.8**	0.7	13.3	-4.4	-31.9	0.0	**0.1**	-0.4	-30.1	3.7	36.4
z	0.0	-0.3	**-1.5**	-197.3	9.1	-33.5	-0.0	-0.5	**1.5**	120.4	-9.1	-103.5
x	0.0	-0.5	-1.4	**-203.2**	8.4	-58.2	-0.0	-0.4	1.4	**127.7**	-8.3	-94.7
y	-0.1	-0.3	0.6	26.2	**-25.1**	-331.6	0.1	-0.3	-0.6	-96.7	**25.2**	219.5
z	-0.0	-0.4	0.4	8.3	-4.1	**-1094.9**	0.0	-0.4	0.4	7.9	-1.0	**1081.4**

Joint 24

x	**-0.1**	-2.4	0.5	132.9	-25.0	-506.9	**0.1**	0.2	-0.5	-324.1	25.6	-16.9
y	-0.0	**-5.9**	0.5	-184.7	-3.1	-1237.4	0.0	**3.4**	0.3	-17.4	-0.9	648.4
z	0.0	-1.1	**-1.5**	-502.5	7.9	-211.2	-0.0	-2.2	**1.5**	90.0	-7.9	-546.4

x	-0.0	-1.8	-0.4	**-706.9**	-1.2	-395.5	-0.0	-2.2	0.6	**318.2**	-1.2	-525.8
y	-0.1	-2.4	0.5	132.6	**-25.9**	-501.3	0.1	0.2	-0.5	-323.9	**26.0**	-20.4
z	-0.0	-5.9	0.5	-182.0	-3.3	**-1238.0**	0.0	3.4	0.3	-17.4	-0.9	**648.4**

Joint 25

x	**-0.1**	-4.8	0.5	152.3	-25.4	-436.1	**0.1**	-0.8	-0.5	-529.1	26.0	-157.4
y	-0.0	**-11.0**	0.5	-316.9	-3.0	-984.5	0.0	**5.8**	0.3	-30.9	-0.7	413.3
z	0.0	-2.0	**-1.6**	-667.3	6.6	-165.1	-0.0	-4.7	**1.5**	102.2	-6.7	-505.2
x	-0.0	-3.4	-0.2	**-1121.4**	0.0	-331.6	-0.0	-6.0	0.1	**558.6**	-1.4	-557.8
y	-0.1	-4.7	0.5	152.0	**-26.4**	-430.7	0.1	-0.9	-0.5	-525.7	**26.5**	-170.1
z	-0.0	-11.0	0.5	-316.0	-2.7	**-986.4**	0.0	5.6	0.3	-28.9	-2.0	**421.8**

Joint 26

x	**-0.1**	-5.1	0.5	144.1	-25.6	-149.9	**0.1**	-1.2	-0.6	-589.0	26.3	-131.8
y	-0.0	**-14.4**	0.5	-393.7	-2.5	-517.1	0.0	**7.2**	0.3	-38.3	-0.6	185.2
z	0.0	-2.6	**-1.6**	-745.6	5.7	-84.1	-0.0	-6.5	**1.6**	141.2	-5.8	-283.7
x	-0.0	-6.3	-0.2	**-1347.4**	-0.6	-215.0	-0.0	-7.9	0.0	**740.2**	-1.1	-300.0
y	-0.1	-5.0	0.5	143.5	**-26.8**	-146.1	0.1	-1.3	-0.6	-588.4	**26.9**	-134.8
z	-0.0	-11.4	0.7	-521.8	1.0	**-531.7**	-0.0	4.0	0.1	91.9	-5.2	**225.4**

Joint 27

x	**-0.1**	-5.3	0.7	136.0	-25.4	73.6	**0.1**	-1.7	-0.7	-662.7	26.1	-78.9
y	-0.0	**-15.6**	0.5	-418.4	-1.9	-2.8	0.0	**7.6**	0.3	-40.2	-0.5	-14.5
z	0.0	-2.7	**-1.6**	-777.0	5.0	4.3	-0.0	-7.1	**1.6**	161.7	-5.1	-0.7
x	-0.0	-9.1	-0.2	**-1410.6**	0.6	9.1	-0.0	-8.6	0.1	**801.8**	-1.2	-5.1
y	-0.1	-5.2	0.7	135.4	**-26.8**	76.0	0.1	-1.8	-0.7	-662.1	**26.8**	-80.7
z	-0.0	-3.9	0.4	-138.1	1.0	**-249.5**	-0.0	-3.7	0.4	-142.4	-3.9	**250.8**

Joint 28

x	**-0.1**	-0.6	0.5	-273.5	-25.8	140.2	**0.1**	-3.5	-0.5	-304.9	25.8	66.1
y	-0.0	**-14.5**	0.5	-393.8	-1.1	515.0	0.0	**7.2**	0.3	-38.5	-2.0	-180.8
z	0.0	-2.6	**-1.6**	-749.8	5.3	84.3	-0.0	-6.5	**1.6**	135.3	-5.2	282.5
x	0.0	-6.3	-0.2	**-1348.8**	2.7	217.4	-0.0	-7.9	0.1	**739.5**	0.3	298.8
y	-0.1	-0.6	0.5	-273.4	**-26.8**	140.2	0.1	-3.6	-0.5	-304.5	**26.7**	66.0
z	0.0	4.0	0.1	90.7	5.0	**-221.1**	-0.0	-11.4	0.8	-519.2	-6.6	**529.1**

Joint 29

x	**-0.1**	0.4	0.5	-399.7	-26.2	62.7	**0.1**	-2.8	-0.5	-167.8	25.9	251.1
y	-0.0	**-11.0**	0.5	-318.0	-0.5	983.8	0.0	**5.9**	0.4	-30.4	-2.2	-412.1
z	0.0	-2.0	**-1.7**	-680.0	4.2	168.3	-0.0	-4.7	**1.6**	100.8	-4.2	504.9
x	0.0	-3.5	-0.3	**-1123.9**	3.3	334.3	-0.0	-6.0	0.1	**558.3**	-0.9	556.3
y	-0.1	0.4	0.5	-399.2	**-26.9**	61.6	0.1	-2.9	-0.5	-167.7	**26.9**	253.7
z	0.0	5.6	0.3	-28.2	-0.4	**-421.0**	-0.0	-11.0	0.5	-317.4	-1.1	**984.6**

Joint 30

x	**-0.1**	0.4	-0.0	-283.5	-25.9	-42.1	**0.1**	-1.4	-0.5	-129.5	25.7	283.1
y	-0.0	**-5.9**	0.5	-184.9	-0.0	1238.9	0.0	**3.5**	0.4	-15.5	-2.1	-651.3
z	0.0	-1.1	**-1.7**	-514.9	3.4	215.7	-0.0	-2.2	**1.7**	94.3	-3.3	544.3
x	0.0	-2.0	-0.4	**-712.3**	5.6	432.6	-0.0	-2.2	0.7	**321.6**	-5.9	519.6
y	-0.1	0.9	0.5	-241.9	**-26.7**	-124.9	0.1	-1.4	-0.6	-130.1	**26.7**	289.2
z	0.0	3.5	0.4	-16.3	-2.2	**-652.7**	-0.0	-5.9	0.5	-184.9	-0.0	**1238.9**

Joint 31

x	**-0.1**	-0.3	0.1	-8.8	-26.2	-321.1	**0.1**	-0.3	-0.5	-79.4	25.9	256.3
y	-0.0	**-0.8**	0.8	16.8	-1.9	-7.6	-0.0	**0.1**	-0.5	-33.6	1.9	-6.1
z	0.0	-0.3	**-1.7**	-212.3	3.4	-26.3	-0.0	-0.5	**1.7**	131.5	-3.5	-92.2
x	0.0	-0.5	-1.6	**-218.0**	3.2	-49.3	-0.0	-0.5	1.6	**138.6**	-3.1	-97.7
y	-0.1	-0.3	0.1	-7.5	**-26.9**	-326.7	0.1	-0.3	-0.1	-22.3	**26.9**	327.0
z	0.0	-0.4	0.5	10.6	-2.7	**-1099.6**	-0.0	-0.4	0.4	9.3	1.4	**1100.5**

Joint 32

x	**-0.1**	-2.1	0.1	144.2	-26.6	-445.4	**0.1**	0.1	-0.5	-308.6	26.0	-36.4
y	0.0	**-5.9**	0.6	-183.3	-1.6	-1238.2	-0.0	**3.5**	0.4	-17.1	1.1	653.1
z	0.0	-1.1	**-1.7**	-513.8	2.5	-204.8	-0.0	-2.2	**1.7**	98.1	-2.6	-543.8
x	-0.0	-1.8	-0.4	**-712.6**	-2.6	-393.3	0.0	-2.2	0.7	**321.8**	2.0	-528.1
y	-0.1	-2.1	0.1	145.8	**-27.2**	-451.6	0.1	0.7	-0.1	-297.7	**27.2**	93.2

z	0.0	-5.9	0.5	-180.5	-1.8	**-1238.8**	-0.0	3.5	0.4	-17.1	1.1	**653.1**

Joint 33

x	**-0.1**	-3.5	0.1	191.5	-26.7	-312.6	**0.1**	0.4	-0.1	-424.3	26.7	-64.5
y	0.0	**-11.0**	0.6	-316.0	-1.6	-983.6	-0.0	**5.9**	0.4	-31.0	1.3	412.2
z	0.0	-1.9	**-1.7**	-677.2	1.5	-163.1	-0.0	-4.7	**1.7**	109.5	-1.6	-504.5
x	-0.0	-3.4	-0.3	**-1125.2**	-0.8	-331.4	-0.0	-6.0	0.1	**559.4**	-1.7	-557.9
y	-0.1	-3.6	0.1	193.5	**-27.3**	-318.6	0.1	0.5	-0.1	-426.3	**27.3**	-58.5
z	0.0	-11.0	0.6	-315.0	-1.2	**-985.5**	-0.0	5.6	0.3	-29.0	-0.1	**420.5**

Joint 34

x	**-0.1**	-4.6	0.2	264.5	-26.8	-130.0	**0.1**	0.1	-0.2	-544.4	26.8	-91.4
y	0.0	**-14.5**	0.6	-393.1	-1.1	-515.2	-0.0	**7.2**	0.3	-38.7	1.3	180.6
z	0.0	-2.5	**-1.7**	-756.8	1.0	-82.7	-0.0	-6.5	**1.7**	150.2	-1.1	-282.9
x	-0.0	-6.3	-0.2	**-1350.2**	-0.6	-216.1	-0.0	-7.9	0.1	**741.0**	-2.2	-301.2
y	-0.1	-4.6	0.2	265.2	**-27.1**	-131.6	0.1	0.1	-0.2	-545.1	**27.1**	-89.7
z	0.0	-11.4	0.8	-519.9	3.9	**-529.6**	-0.0	4.0	0.1	90.3	-4.8	**220.5**

Joint 35

x	**-0.1**	-0.2	0.0	-52.0	-26.2	105.3	**0.1**	-4.6	-0.0	-243.3	26.2	-107.6
y	0.0	**-15.6**	0.6	-417.6	-0.4	-0.6	-0.0	**7.6**	0.3	-41.0	1.2	-20.2
z	-0.0	-2.7	**-1.7**	-783.4	0.1	2.8	-0.0	-7.2	**1.7**	166.3	-0.3	-1.5
x	0.0	-9.2	-0.2	**-1413.0**	1.2	7.3	-0.0	-8.6	0.1	**802.7**	-2.3	-6.6
y	-0.1	-3.7	0.2	63.8	**-26.6**	104.3	0.1	-1.3	-0.2	-359.1	**26.6**	-106.7
z	0.0	-3.8	0.5	-137.7	2.2	**-251.1**	-0.0	-3.8	0.4	-142.9	-2.0	**248.8**

Joint 36

x	**-0.1**	0.1	-0.2	-540.9	-26.4	88.1	0.1	-4.9	0.2	240.4	26.1	131.5
y	0.0	**-14.5**	0.6	-393.2	0.1	516.9	-0.0	**7.2**	0.3	-39.4	-0.2	-185.8
z	-0.0	-2.6	**-1.7**	-756.0	0.4	82.8	-0.0	-6.6	**1.7**	138.3	-0.4	279.5
x	0.0	-6.4	-0.2	**-1351.0**	3.0	215.7	-0.0	-8.0	0.1	**740.7**	-0.4	297.5
y	-0.1	-1.4	-0.5	-585.4	**-26.7**	142.5	0.1	-5.0	0.5	141.9	**26.8**	144.8
z	0.0	4.1	0.1	90.1	4.6	**-225.8**	-0.0	-11.5	0.8	-518.9	-3.1	**530.8**

Joint 37

x	**-0.1**	-0.7	-0.4	-450.2	-25.9	150.6	**0.1**	-3.9	0.1	174.1	26.0	331.9
y	0.0	**-11.0**	0.6	-317.4	0.7	984.5	-0.0	**5.8**	0.3	-31.7	-0.3	-413.9
z	-0.0	-2.1	**-1.7**	-683.4	-0.5	168.7	0.0	-4.7	**1.7**	103.0	0.6	506.5
x	0.0	-3.5	-0.3	**-1126.2**	2.7	333.5	-0.0	-6.0	0.1	**559.5**	-0.3	556.1
y	-0.1	-0.7	-0.4	-448.7	**-26.7**	153.3	0.1	-3.9	0.4	106.8	**26.6**	346.2
z	-0.0	5.6	0.3	-29.2	1.3	**-422.8**	0.0	-11.0	0.6	-317.1	0.3	**985.4**

Joint 38

x	**-0.1**	0.2	-0.4	-309.3	-25.5	12.1	**0.1**	-2.3	0.1	135.5	25.8	479.2
y	0.0	**-5.9**	0.6	-184.2	1.2	1237.8	-0.0	**3.4**	0.3	-17.4	-0.3	-647.6
z	-0.0	-1.2	**-1.7**	-517.2	-1.6	217.8	0.0	-2.3	**1.7**	95.5	1.7	548.5
x	0.0	-2.0	-0.4	**-714.4**	3.9	433.2	-0.0	-2.2	0.7	**322.0**	-2.5	523.4
y	-0.1	0.1	-0.4	-307.7	**-26.3**	18.0	0.1	-2.4	0.4	116.5	**26.2**	497.4
z	-0.0	3.4	0.3	-18.2	-0.3	**-649.0**	0.0	-5.9	0.6	-184.2	1.2	**1237.8**

Joint 39

x	**-0.1**	-0.3	-0.5	-73.9	-24.8	-282.4	**0.1**	-0.3	0.0	-14.7	25.2	337.7
y	-0.0	**-0.8**	0.8	14.1	1.1	15.6	0.0	**0.1**	-0.5	-34.6	-1.0	-38.7
z	-0.0	-0.4	**-1.7**	-213.1	-2.6	12.6	0.0	-0.5	**1.7**	131.4	2.9	104.2
x	-0.0	-0.5	-1.6	**-219.0**	-3.1	26.0	0.0	-0.5	1.6	**138.6**	2.7	87.8
y	-0.1	-0.3	-0.4	-72.2	**-25.6**	-268.7	0.1	-0.3	0.4	9.8	**25.6**	331.7
z	-0.0	-0.4	0.4	7.8	-0.7	**-1082.0**	0.0	-0.4	0.5	10.1	2.5	**1094.7**

Joint 40

x	**-0.1**	-1.9	-0.5	-147.4	-24.4	-409.4	**0.1**	0.9	0.5	-235.0	25.1	145.8
y	-0.0	**-5.8**	0.5	-185.8	0.7	-1209.4	0.0	**3.4**	0.4	-16.3	2.0	643.5
z	-0.0	-1.0	**-1.7**	-510.5	-3.6	-190.2	0.0	-2.2	**1.7**	94.4	3.5	-523.1
x	-0.0	-1.8	-0.4	**-709.8**	-5.2	-385.8	0.0	-2.2	0.7	**316.5**	6.6	-518.0
y	-0.1	-1.4	-0.5	-131.1	**-25.4**	-280.5	0.1	0.9	0.5	-241.0	**25.4**	130.8
z	-0.0	-5.8	0.5	-183.0	0.5	**-1210.0**	0.0	3.4	0.4	-16.3	2.0	**643.5**

Joint 41

x	**-0.1**	-3.8	-0.5	-206.7	-24.2	-335.7	**0.1**	1.2	0.4	-409.9	25.0	19.4
y	-0.0	**-10.8**	0.5	-318.3	0.8	-954.1	0.0	**5.8**	0.4	-30.2	2.1	402.5
z	-0.0	-1.8	**-1.7**	-671.0	-4.9	-149.6	0.0	-4.5	**1.7**	103.6	4.8	-485.7
x	-0.0	-3.4	-0.2	**-1119.4**	-4.2	-323.2	0.0	-5.9	0.0	**551.2**	2.0	-545.4
y	-0.1	-2.7	-0.5	-175.4	**-25.3**	-234.3	0.1	0.5	0.4	-391.1	**25.4**	-49.7
z	-0.0	-10.8	0.5	-317.4	1.1	**-956.0**	0.0	5.5	0.3	-27.6	0.7	**409.7**

Joint 42

x	**-0.1**	-6.2	-0.6	-597.1	-23.5	-187.0	0.1	0.9	0.4	-307.4	24.7	-50.3
y	-0.0	**-14.1**	0.5	-395.2	1.4	-490.5	0.0	**7.1**	0.4	-38.1	2.1	172.7
z	-0.0	-2.3	**-1.6**	-743.6	-6.4	-73.8	0.0	-6.3	**1.6**	138.0	6.2	-267.0
x	-0.0	-6.2	-0.1	**-1342.0**	-4.3	-208.9	-0.0	-7.8	-0.0	**730.7**	1.4	-290.6
y	-0.1	-2.3	-0.4	-189.5	**-24.9**	-1.4	0.1	0.7	0.4	-320.2	**25.0**	-61.6
z	-0.0	-11.0	0.8	-521.7	6.2	**-505.0**	0.0	3.8	0.1	90.7	-3.8	**211.9**

Joint 43

x	**-0.1**	-3.9	-0.7	-671.7	-23.5	93.4	**0.1**	-3.5	0.6	58.2	24.5	-102.1
y	-0.0	**-15.2**	0.5	-420.0	1.9	15.0	0.0	**7.4**	0.3	-40.0	2.2	-24.8
z	-0.0	-2.5	**-1.6**	-769.4	-7.5	5.9	0.0	-6.9	**1.6**	154.1	7.4	8.1
x	-0.0	-9.0	-0.1	**-1402.6**	-3.5	12.6	-0.0	-8.5	-0.0	**790.7**	1.6	0.5
y	-0.1	-1.8	-0.7	-639.8	**-24.7**	91.9	0.1	-5.0	0.7	114.4	**24.7**	-71.7
z	-0.0	-3.3	0.4	-140.4	4.0	**-237.3**	0.0	-4.0	0.4	-141.9	-0.6	**245.6**

Joint 44

x	**-0.1**	-2.0	-0.7	-564.4	-23.1	142.9	**0.1**	-4.6	0.6	152.7	24.0	146.0
y	-0.0	**-14.0**	0.5	-395.6	2.2	518.4	0.0	**7.0**	0.3	-38.2	1.1	-185.2
z	-0.0	-2.5	**-1.6**	-738.2	-8.1	85.1	0.0	-6.3	**1.6**	125.0	8.2	287.0
x	-0.0	-6.2	-0.1	**-1338.7**	-2.2	217.0	0.0	-7.8	-0.0	**727.9**	3.6	299.0
y	-0.1	-1.2	-0.6	-596.8	**-24.6**	144.1	0.1	-4.9	0.6	155.4	**24.6**	145.9
z	0.0	4.2	-0.0	80.4	7.2	**-225.4**	-0.0	-11.3	0.8	-510.5	-2.4	**532.4**

Joint 45

x	**-0.1**	-1.5	-0.6	-504.6	-22.5	205.5	**0.1**	-3.7	0.6	251.3	23.4	353.7
y	-0.0	**-10.6**	0.5	-319.5	2.6	965.1	0.0	**5.7**	0.3	-30.6	1.3	-404.9
z	-0.0	-1.9	**-1.5**	-664.9	-9.9	162.2	0.0	-4.5	**1.5**	88.3	9.9	496.5
x	-0.0	-3.4	-0.2	**-1112.1**	-3.0	329.4	0.0	-5.8	-0.0	**546.7**	3.3	549.3
y	-0.1	-0.8	-0.6	-533.0	**-24.1**	171.9	0.1	-4.8	0.6	105.2	**24.0**	445.6
z	0.0	5.4	0.3	-27.8	2.5	**-414.8**	-0.0	-10.5	0.5	-319.6	2.5	**965.9**

Joint 46

x	**-0.1**	-0.2	-0.6	-323.6	-21.5	69.9	**0.1**	-2.0	0.5	149.7	22.6	438.3
y	-0.0	**-5.6**	0.5	-186.1	3.0	1191.9	0.0	**3.3**	0.3	-16.8	1.5	-628.1
z	-0.0	-1.1	**-1.5**	-499.4	-11.5	203.6	0.0	-2.1	**1.5**	82.6	11.5	522.7
x	-0.0	-1.9	-0.3	**-699.8**	-2.1	418.3	0.0	-2.1	0.5	**309.5**	4.8	503.8
y	-0.1	0.3	-0.5	-332.2	**-23.4**	-9.2	0.1	-2.3	0.5	143.4	**23.3**	484.1
z	0.0	3.3	0.3	-17.1	1.7	**-629.7**	-0.0	-5.6	0.5	-186.5	3.0	**1192.0**

Joint 47

x	**-0.1**	-0.3	-0.8	-112.2	-20.6	-0.4	**0.1**	-0.4	0.9	49.5	20.7	-39.2
y	0.0	**-0.8**	0.8	18.6	4.3	49.8	-0.0	**0.1**	-0.4	-27.8	-3.7	-131.0
z	-0.0	-0.3	**-1.4**	-196.2	-12.8	-40.6	0.0	-0.5	**1.4**	120.4	12.8	-135.5
x	-0.0	-0.5	-1.3	**-200.7**	-12.8	-5.8	0.0	-0.5	1.4	**127.2**	12.7	57.3
y	-0.1	-0.3	-0.7	-102.3	**-22.7**	-278.3	0.1	-0.3	0.7	33.2	**22.6**	296.7
z	0.0	-0.4	0.4	8.7	1.7	**-1040.4**	-0.0	-0.4	0.4	7.0	3.8	**992.7**

Joint 48

x	**-0.1**	0.2	-0.8	-115.2	-20.5	66.3	**0.1**	-2.6	0.9	-199.3	22.0	-655.4
y	0.0	**-5.5**	0.5	-185.2	3.9	-1151.4	-0.0	**2.9**	0.3	-14.4	2.5	500.8
z	-0.1	-0.9	**-1.4**	-529.0	-14.1	-159.6	0.0	-2.3	**1.4**	148.9	13.2	-563.0
x	-0.0	-2.0	-0.4	**-689.2**	-4.7	-437.2	0.0	-2.2	0.7	**303.0**	7.1	-532.9
y	-0.1	-1.6	-0.9	-267.1	**-22.8**	-335.7	0.1	-0.4	0.9	-90.5	**22.6**	-173.3
z	0.0	-5.5	0.5	-183.4	4.1	**-1151.7**	-0.0	2.9	0.3	-14.4	2.5	**500.8**

Joint 49

x	**-0.1**	0.9	-0.8	-62.7	-20.6	89.3	**0.1**	-5.7	0.9	-384.6	22.8	-631.2
y	0.0	**-10.2**	0.4	-319.2	4.7	-896.6	-0.0	**4.6**	0.3	-23.9	2.3	262.0
z	-0.1	-2.0	**-1.3**	-716.1	-15.0	-163.8	0.0	-5.0	**1.3**	167.3	14.0	-549.8
x	-0.0	-3.8	-0.3	**-1080.6**	-2.6	-372.8	-0.0	-6.0	0.2	**514.8**	1.0	-565.3
y	-0.1	-2.1	-1.0	-567.6	**-23.7**	-181.0	0.1	-3.4	1.0	-51.8	**23.6**	-455.7
z	0.0	-10.2	0.4	-317.2	4.9	**-898.5**	-0.0	4.6	0.3	-24.5	1.9	**262.0**

Joint 50

x	**-0.1**	0.5	-0.8	-206.9	-21.4	37.4	**0.1**	-7.9	0.8	-449.2	23.5	-385.2
y	0.0	**-13.3**	0.4	-395.6	5.3	-443.7	-0.0	**5.3**	0.3	-28.1	1.8	58.9
z	-0.1	-2.5	**-1.2**	-797.6	-14.5	-82.9	0.0	-6.9	**1.2**	201.1	14.5	-314.2
x	-0.0	-6.7	-0.3	**-1288.1**	-2.2	-246.9	-0.0	-8.0	0.2	**674.4**	0.6	-303.5
y	-0.1	-3.2	-0.9	-727.2	**-24.8**	-69.0	0.1	-6.2	0.9	-13.6	**24.7**	-316.7
z	0.0	-9.4	0.6	-556.3	11.5	**-463.6**	-0.0	0.8	-0.3	152.3	-6.5	**87.0**

Joint 51

x	**-0.1**	-0.6	-0.9	-594.5	-23.4	27.9	**0.1**	-9.8	0.8	-83.7	24.5	-43.4
y	0.0	**-14.2**	0.4	-420.4	6.5	43.9	-0.0	**5.2**	0.3	-27.3	1.3	-92.4
z	-0.1	-2.7	**-1.2**	-845.1	-15.7	4.3	0.0	-7.7	**1.2**	226.8	15.7	-23.7
x	-0.0	-9.6	-0.2	**-1340.1**	-1.7	-8.1	0.0	-8.7	0.2	**721.5**	2.0	-1.8
y	-0.1	-1.5	-0.9	-691.4	**-25.9**	16.5	0.1	-6.2	0.9	271.4	**25.8**	-65.5
z	0.0	-2.8	0.3	-145.2	7.6	**-222.2**	-0.0	-6.2	0.3	-203.9	-0.5	**188.7**

Joint 52

x	**-0.1**	-0.6	-0.8	-623.2	-24.2	64.8	**0.1**	-8.6	0.7	123.3	25.9	295.3
y	0.0	**-12.9**	0.4	-395.4	7.6	520.5	-0.0	**4.5**	0.3	-22.4	0.6	-212.7
z	-0.1	-2.4	**-1.1**	-819.5	-16.6	92.0	0.0	-7.2	**1.1**	209.0	16.6	276.0
x	0.0	-6.9	-0.3	**-1269.6**	-0.2	215.1	0.0	-8.0	0.2	**654.2**	2.9	303.9
y	-0.1	-1.4	-0.8	-641.0	**-27.0**	77.7	0.1	-6.1	0.8	276.0	**26.8**	188.6
z	-0.0	3.4	0.2	41.3	3.9	**-219.2**	0.0	-11.8	0.4	-457.3	4.5	**529.1**

Joint 53

x	**-0.1**	-0.3	-0.8	-495.9	-25.5	78.0	**0.1**	-6.6	0.7	89.5	26.7	608.4
y	0.0	**-9.6**	0.3	-319.3	8.6	927.7	-0.0	**3.3**	0.3	-13.2	-0.1	-312.4
z	-0.1	-1.9	**-1.0**	-727.4	-17.4	177.5	0.0	-5.3	**1.0**	155.5	17.4	536.3
x	-0.0	-4.3	-0.3	**-1048.8**	-0.7	388.5	0.0	-6.0	0.2	**486.5**	3.9	570.6
y	-0.1	-0.9	-0.7	-517.6	**-28.1**	109.3	0.1	-4.7	0.7	230.3	**27.9**	421.8
z	-0.0	3.3	0.2	-12.4	1.0	**-312.6**	0.0	-9.6	0.3	-320.1	7.4	**928.7**

Joint 54

x	**-0.1**	-0.2	-0.7	-347.6	-27.1	60.9	**0.1**	-3.2	0.6	130.6	28.5	698.0
y	0.0	**-4.9**	0.3	-187.8	9.6	1106.0	-0.0	**1.7**	0.2	0.0	-2.0	-372.7
z	-0.1	-0.9	**-0.9**	-510.0	-17.7	202.4	0.0	-2.5	**0.9**	103.3	17.7	598.3
x	-0.0	-2.3	-0.4	**-658.5**	-1.4	498.9	0.0	-2.3	0.6	**293.1**	6.9	561.1
y	-0.1	-0.8	-0.7	-421.9	**-29.5**	169.2	0.1	-3.1	0.7	143.4	**29.3**	684.0
z	-0.0	1.7	0.3	0.9	-0.7	**-378.8**	0.0	-4.9	0.3	-187.7	9.5	**1106.0**

Joint 55

x	-0.1	-0.2	-0.6	-101.7	-28.5	-121.3	**0.1**	-0.3	0.5	55.7	30.7	501.6
y	0.0	**-0.5**	0.5	27.9	3.9	469.0	-0.0	**0.0**	-0.2	-21.2	-6.8	-157.2
z	-0.1	-0.3	**-0.9**	-144.6	-18.9	8.9	0.0	-0.3	**0.9**	86.4	18.9	259.5
x	-0.1	-0.3	-0.9	**-145.7**	-17.8	97.3	0.0	-0.3	0.8	**90.5**	19.5	295.5
y	-0.1	-0.2	-0.5	-92.8	**-31.3**	54.3	0.1	-0.3	0.5	55.0	**31.1**	489.7
z	-0.0	-0.2	0.3	21.8	-3.0	**-461.6**	0.1	-0.3	0.2	6.7	10.6	**802.4**

Joint 56

x	**-0.1**	-0.8	-0.5	-217.5	-30.8	-169.9	**0.1**	1.0	0.4	-22.1	31.6	183.3
y	-0.0	**-1.8**	0.3	-71.8	-3.3	-390.9	0.1	**1.6**	0.2	-7.2	11.2	310.6
z	-0.1	-0.7	**-0.8**	-322.7	-19.6	-162.5	0.0	-0.1	**0.8**	-42.9	19.6	-82.3
x	-0.0	-0.5	-0.5	**-376.0**	-3.5	-133.2	0.0	-0.2	0.4	**97.3**	4.5	-55.0
y	-0.1	-0.4	-0.5	-165.9	**-32.9**	-72.7	0.1	0.6	0.5	-41.8	**32.6**	102.6
z	-0.0	-1.8	0.3	-71.8	-3.3	**-390.9**	0.1	1.6	0.2	-7.2	11.2	**310.6**

Joint 57

x	**-0.1**	-1.2	-0.4	-268.1	-32.1	-99.5	**0.1**	1.3	0.3	-62.9	32.5	42.3
y	-0.0	**-2.9**	0.3	-119.6	-3.6	-222.8	0.1	**2.3**	0.1	-15.6	11.7	91.6
z	-0.1	-1.3	**-0.7**	-429.3	-20.1	-130.7	0.0	-0.5	**0.7**	-127.0	20.1	-118.0
x	-0.0	-1.0	-0.4	**-549.6**	1.6	-130.5	-0.0	-0.4	0.3	**143.8**	-0.9	-65.6
y	-0.1	-0.6	-0.4	-156.4	**-33.9**	-46.2	0.1	0.8	0.3	-119.8	**33.7**	-6.9
z	-0.0	-2.9	0.4	-121.1	-2.0	**-222.9**	0.1	2.3	0.1	-14.1	10.0	**91.7**

Joint 58

x	**-0.1**	-1.3	-0.3	-200.3	-33.9	5.2	**0.1**	1.3	0.2	-96.6	33.2	-56.4
y	-0.0	**-3.3**	0.3	-118.6	-3.9	10.7	0.1	**2.4**	0.1	-20.6	12.0	-78.5
z	-0.1	-1.4	**-0.7**	-524.5	-16.6	-31.6	0.0	-1.3	**0.7**	-114.9	**16.6**	-45.2
x	-0.0	-1.3	-0.5	**-622.0**	3.7	-43.5	-0.0	-0.2	0.3	**166.7**	-4.4	5.8
y	-0.1	-0.8	-0.2	-82.1	**-34.8**	12.9	0.1	0.6	0.2	-164.9	**34.5**	-62.9
z	0.0	1.1	0.3	-42.1	4.8	**-108.1**	-0.0	-1.8	0.1	-71.7	3.5	**45.6**

Joint 59

x	**-0.1**	-1.1	-0.1	-113.9	-34.5	96.2	**0.1**	1.0	0.1	-104.3	33.7	-111.8
y	-0.0	**-2.9**	0.4	-65.8	-4.0	227.1	0.1	**1.9**	0.0	-24.1	12.3	-187.9
z	-0.1	-1.0	**-0.6**	-484.4	-13.8	50.7	0.0	-1.4	**0.6**	-2.2	13.8	84.3
x	0.0	-1.2	-0.5	**-601.9**	8.5	64.8	-0.0	-0.7	0.3	**196.8**	-10.2	66.3
y	-0.1	-0.6	-0.1	1.1	**-35.4**	57.6	0.1	0.4	0.1	-176.7	**35.2**	-71.3
z	0.1	1.9	0.0	-24.0	12.3	**-187.9**	-0.0	-2.9	0.4	-65.9	-4.0	**227.1**

Joint 60

x	**-0.1**	-0.6	-0.0	-14.9	-34.9	161.2	**0.1**	0.5	-0.0	-96.8	34.3	-129.7
y	-0.0	**-1.7**	0.4	44.5	-4.1	415.1	0.1	**1.0**	-0.0	-28.3	12.4	-260.8
z	-0.0	-0.4	**-0.6**	-458.3	-2.0	79.9	-0.0	-1.0	**0.6**	171.5	2.1	238.8
x	0.0	-0.7	-0.5	**-499.7**	9.7	172.1	-0.1	-0.8	0.5	**236.1**	-14.2	209.7
y	-0.1	-0.3	0.0	52.5	**-35.8**	88.4	0.1	0.1	-0.0	-154.6	**35.5**	-45.8
z	0.1	1.0	-0.0	-28.2	12.4	**-260.8**	-0.0	-1.7	0.4	44.5	-4.1	**415.1**

Joint 61

x	**-0.1**	-0.0	0.1	67.1	-35.0	183.0	**0.1**	-0.0	-0.1	-79.1	34.4	-130.2
y	-0.0	**-0.0**	0.4	226.9	-2.7	485.5	0.1	**0.0**	-0.1	-41.5	10.5	-284.3
z	0.0	-0.0	**-0.6**	-338.5	19.2	121.7	-0.1	-0.0	**0.6**	334.0	-19.1	320.7
x	0.0	-0.0	-0.6	**-338.5**	19.2	121.7	-0.1	-0.0	0.6	**334.0**	-19.1	320.7
y	-0.1	-0.0	0.2	93.3	**-35.9**	98.8	0.1	-0.0	-0.2	-96.1	**35.7**	-27.7
z	0.1	0.0	-0.1	-36.5	12.2	**-284.9**	-0.0	-0.0	0.4	221.6	-3.9	**490.4**

*** Fin del listado ***

sc uso RENFE (con coef impacto 1.16)

Program Envolvator (release 1.3 - Jun 1998)
Calculation date: 13-abr-1999 12:38 h. Listing date: 13-abr-1999 12:38 h.
Members: 419
Joints: 353
Envelope generated from:

Name	min	max
sc tren A	0.00	1.16
sc tren B	0.00	1.16

	Fx	Fy	Fz	Mx	My	Mz	Fx	Fy	Fz	Mx	My	Mz
Member 1												
Fx_i	**-61.6**	-79.6	12.9	-50.8	-84.7	-4.9	**60.8**	-69.4	-9.3	-75.9	76.1	-8.9
Fy_i	-14.9	**-137.4**	5.5	-50.3	-26.9	-17.1	-17.1	**39.9**	2.5	-1.6	-20.3	10.2
Fz_i	54.5	-6.9	**-11.5**	3.8	76.4	-2.1	-56.9	-79.8	**14.4**	-63.4	-83.9	-5.0
Mx_i	-3.2	-105.5	5.2	**-144.7**	-14.5	-9.1	14.3	-13.5	-5.1	**30.0**	24.3	-3.8
My_i	-60.4	-80.2	13.9	-62.8	**-86.5**	-5.1	58.9	-11.3	-10.9	-10.2	**79.2**	-2.4
Mz_i	-9.4	-129.1	4.0	-44.7	-18.5	**-17.2**	-21.4	39.8	3.4	-2.2	-26.3	**10.3**
Fx_f	**-61.6**	-41.3	12.9	-39.6	-37.5	216.8	**60.8**	-57.2	-9.3	-63.0	42.1	221.3
Fy_f	-14.6	**-95.2**	5.2	-38.2	-6.8	333.3	-17.2	**44.2**	2.7	1.8	-10.9	-83.0
Fz_f	54.5	-6.0	**-11.5**	-1.8	34.0	21.6	-56.9	-42.4	**14.4**	-46.5	-31.0	219.1
Mx_f	-3.5	-64.0	4.6	**-105.4**	3.6	228.5	20.5	10.7	-4.7	**30.3**	11.9	29.1
My_f	-58.0	14.4	9.7	-15.1	**-40.0**	-46.3	59.1	-56.1	-8.0	-54.4	**43.6**	283.8
Mz_f	-17.1	39.9	2.5	-1.6	-11.0	**-135.9**	-15.0	-88.3	5.5	-33.8	-6.7	**392.3**
Member 2												
Fx_i	**-51.5**	-27.6	11.5	-33.7	-71.4	179.6	**50.7**	-57.6	-10.2	-65.8	69.0	212.5
Fy_i	-8.2	**-93.8**	2.7	-34.5	-13.9	333.0	-17.6	**43.9**	3.4	0.3	-22.5	-82.8
Fz_i	44.2	-12.1	**-11.7**	-26.2	66.7	43.3	-45.9	-40.4	**12.9**	-36.5	-69.1	222.4
Mx_i	-1.7	-62.5	2.4	**-103.9**	-5.8	229.1	15.5	9.1	-4.6	**25.5**	24.1	28.4
My_i	-50.5	-39.9	12.0	-35.8	**-72.3**	220.4	49.5	-26.8	-10.8	-37.9	**70.1**	91.2
Mz_i	-14.6	39.8	2.6	-1.6	-18.0	**-135.8**	-12.2	-87.1	4.0	-32.0	-20.2	**392.1**
Fx_f	**-51.5**	10.7	11.5	-22.4	-29.4	210.6	**50.7**	-14.1	-10.2	-20.0	31.6	351.0
Fy_f	-7.8	**-62.0**	2.4	-28.4	-4.3	450.6	-17.8	**55.9**	3.6	7.1	-9.9	-126.9
Fz_f	44.2	-12.1	**-11.7**	-26.2	23.6	87.7	-45.9	-2.1	**12.9**	-25.3	-21.9	300.3
Mx_f	-2.2	-30.6	2.3	**-76.5**	2.4	237.7	5.1	26.4	-1.4	**41.5**	2.6	202.0
My_f	-48.9	17.3	9.4	-15.0	**-31.4**	-108.1	49.0	-12.4	-9.1	-13.6	**33.2**	346.1
Mz_f	-14.6	39.8	2.6	-1.6	-8.5	**-281.8**	-11.4	-42.8	3.5	-17.7	-5.7	**632.6**
Member 3												
Fx_i	**-41.6**	14.8	10.6	-10.0	-59.8	220.4	**41.1**	-20.7	-10.0	-33.5	58.9	308.8
Fy_i	-5.8	**-58.8**	1.5	-21.3	-9.4	443.8	-15.0	**54.6**	3.8	3.1	-20.6	-120.1
Fz_i	33.6	-32.1	**-12.0**	-50.0	56.5	215.1	-35.0	2.6	**12.1**	-14.1	-55.7	300.8
Mx_i	8.8	-28.3	-0.1	**-69.0**	9.4	269.3	1.3	23.0	-1.1	**29.5**	3.4	200.4
My_i	-40.5	3.2	11.2	-14.2	**-60.7**	297.1	39.5	-30.4	-11.1	-50.0	**60.6**	201.9
Mz_i	-12.1	39.8	2.5	-1.3	-15.4	**-281.8**	-9.0	-41.1	2.9	-15.6	-15.1	**632.5**
Fx_f	**-41.6**	53.1	10.6	1.2	-21.2	95.8	**41.1**	16.8	-10.0	5.8	22.4	316.0
Fy_f	-5.8	**-34.4**	1.3	-15.1	-4.2	410.3	-13.3	**73.0**	3.3	11.8	-5.9	-76.8
Fz_f	33.6	5.3	**-12.0**	-10.7	12.4	264.3	-35.0	40.9	**12.1**	-2.9	-12.2	221.0
Mx_f	8.0	-3.0	0.2	**-46.5**	8.8	104.1	1.8	45.5	-1.4	**50.5**	-0.8	272.6
My_f	-32.4	17.3	4.1	-9.8	**-24.6**	-142.8	32.1	25.7	-4.1	21.6	**25.1**	280.2
Mz_f	-14.3	39.9	3.2	-1.5	-7.1	**-428.0**	-6.6	0.7	2.1	-2.4	-3.5	**708.2**
Member 4												
Fx_i	**-32.5**	43.0	9.4	14.0	-48.6	-48.7	**32.0**	9.9	-10.1	-16.9	50.0	297.6
Fy_i	4.7	**-35.0**	-3.2	-34.0	10.0	306.9	-13.3	**75.0**	5.5	11.5	-21.9	-101.7
Fz_i	22.6	6.9	**-12.5**	-20.8	46.3	309.5	-24.0	47.0	**11.6**	11.3	-44.6	222.1
Mx_i	7.9	-29.5	-3.7	**-48.4**	14.7	241.8	-4.1	42.5	1.2	**42.1**	-6.3	356.1
My_i	-30.9	61.4	10.4	20.2	**-49.6**	89.2	29.8	18.2	-11.4	-14.2	**51.4**	363.2
Mz_i	-11.2	40.2	3.0	-0.6	-15.3	**-428.0**	-4.9	2.5	1.7	-0.4	-8.8	**708.2**
Fx_f	**-32.5**	43.8	9.4	8.4	-14.0	-207.9	**32.0**	47.3	-10.1	22.4	13.0	192.7
Fy_f	-3.4	**-18.9**	-1.0	-5.0	-6.1	243.5	-12.4	**106.7**	5.0	18.6	-1.7	-168.0
Fz_f	22.6	50.4	**-12.5**	25.0	0.6	207.5	-24.0	85.3	**11.6**	22.5	-2.2	-20.4
Mx_f	21.5	3.0	-9.6	**-28.3**	4.6	-81.2	-13.5	84.9	4.0	**62.7**	-6.0	122.1
My_f	-18.0	-0.2	-2.9	-2.7	-23.1	27.9	18.5	23.4	1.9	3.5	22.5	-65.5
Mz_f	-11.4	40.2	3.2	-0.6	-4.2	**-575.3**	-4.6	50.0	1.5	15.0	-2.7	**612.0**
Member 5												
Fx_i	**-25.6**	28.6	3.6	23.5	-31.1	-211.0	**25.1**	52.6	-4.7	15.9	33.3	137.9
Fy_i	1.8	**-21.2**	-2.8	-20.7	6.3	237.7	-6.6	**110.5**	4.5	28.9	-13.6	-140.8
Fz_i	11.6	53.8	**-13.4**	10.3	37.1	243.7	-13.0	64.5	**10.7**	22.5	-31.9	-164.1
Mx_i	9.1	-8.3	-10.2	**-45.0**	28.4	26.9	-5.6	93.5	3.7	**71.1**	-12.0	76.5
My_i	-22.3	64.8	9.1	25.5	**-38.6**	-146.8	20.2	55.8	-12.2	10.8	**43.3**	219.5
Mz_i	-8.0	40.6	2.4	0.6	-11.0	**-575.4**	-3.1	51.7	1.0	17.0	-5.7	**612.1**
Fx_f	**-25.6**	28.6	3.6	23.5	-17.8	-315.9	**25.1**	53.5	-4.7	10.2	15.9	-56.7
Fy_f	1.8	**-11.9**	-2.2	-6.6	-2.9	185.5	-6.5	**146.1**	4.5	36.1	3.1	-488.3
Fz_f	11.6	97.3	**-13.4**	56.0	-12.1	-32.4	-13.0	65.3	**10.7**	16.9	7.2	-402.1
Mx_f	9.2	0.7	-8.8	**-30.2**	-6.5	-77.0	-5.7	127.9	2.9	**99.2**	-0.0	-215.0
My_f	-14.5	105.1	-8.4	60.3	**-29.6**	-123.5	18.7	22.7	3.3	1.3	**24.9**	-228.4
Mz_f	-8.1	40.6	2.4	0.6	-2.2	**-724.1**	-2.9	94.2	0.9	27.3	-2.0	**346.5**
Member 6												
Fx_i	**-20.7**	36.1	-4.3	9.0	-24.2	-36.5	**20.0**	46.7	1.1	14.4	29.8	-211.0
Fy_i	-0.3	**-13.0**	-2.4	-10.7	3.3	184.5	-0.5	**148.6**	1.3	42.1	-1.5	-487.3
Fz_i	0.7	102.6	**-15.8**	46.9	31.1	-110.2	-3.7	62.8	**9.1**	17.5	-21.6	-378.1
Mx_i	-0.2	-3.1	-9.6	**-40.2**	18.0	-67.7	0.1	131.0	-0.4	**103.8**	1.3	-224.1
My_i	-16.8	25.6	5.2	3.6	**-36.8**	-340.5	13.3	87.3	-12.0	46.7	**44.4**	-38.9
Mz_i	-4.3	41.0	0.5	1.8	-5.6	**-724.3**	-1.1	94.9	-0.2	27.4	-3.0	**346.9**
Fx_f	**-20.7**	73.5	-4.3	25.8	-40.0	-237.5	**20.0**	47.5	1.1	8.7	34.0	-383.6
Fy_f	-4.5	**-9.4**	-0.5	-2.0	-9.2	183.9	-0.8	**189.7**	0.8	51.4	1.8	-1057.8
Fz_f	0.7	146.2	**-15.8**	92.7	-26.9	-567.3	-3.7	63.7	**9.1**	11.9	11.6	-609.8
Mx_f	-3.3	26.2	-5.7	**-37.7**	-15.4	-143.8	-1.0	170.9	-2.1	**140.3**	-5.2	-728.8
My_f	-17.6	146.8	-11.4	90.9	**-49.8**	-573.8	18.9	21.2	2.7	-3.4	**36.4**	-312.9
Mz_f	-1.2	182.5	0.6	44.5	1.1	**-1091.9**	-4.6	-9.4	-0.5	-2.0	-9.7	**183.9**
Member 7												
Fx_i	**-19.9**	-68.6	3.6	-108.2	-41.7	-181.1	**19.3**	-86.9	-1.3	15.8	36.5	-468.6
Fy_i	0.5	**-249.5**	3.2	-78.4	-4.2	-1072.2	-0.1	**28.8**	0.1	9.9	-1.7	170.3
Fz_i	6.1	-21.4	**-5.2**	-30.5	24.0	-95.3	-5.5	-210.7	**9.5**	-183.9	-31.1	-881.9
Mx_i	-5.0	-188.1	5.5	**-211.5**	-21.2	-683.9	6.3	-88.0	-1.2	**85.2**	14.8	-466.2
My_i	-17.7	-179.4	6.9	-170.7	**-47.3**	-696.2	17.8	-33.3	-2.7	25.3	**38.8**	-199.1
Mz_i	1.2	-244.6	4.0	-72.5	-4.4	**-1092.1**	-4.5	26.6	0.4	-1.2	-10.3	**184.0**
Fx_f	**-19.9**	-22.7	3.6	-87.5	-25.6	24.3	**19.3**	-85.9	-1.3	8.9	30.6	-79.9
Fy_f	1.1	**-198.6**	2.9	-68.8	10.7	-134.6	3.0	**33.1**	-0.3	22.9	3.5	84.8
Fz_f	6.1	-20.3	**-5.2**	-37.4	0.5	-1.5	-5.5	-158.7	**9.5**	-129.2	11.7	-55.5
Mx_f	-3.3	-140.3	4.8	**-166.5**	5.4	-11.9	5.5	-85.3	-0.7	**88.4**	8.9	-8.7
My_f	-17.9	-8.3	2.4	-64.0	**-27.1**	62.4	16.9	-140.4	1.9	-50.7	**35.4**	-92.6
Mz_f	-0.4	-81.3	2.0	-0.7	6.4	**-301.9**	-2.1	-77.2	2.1	-48.4	-0.6	**232.3**
Member 8												
Fx_i	**-21.2**	-19.0	2.4	-83.3	-25.3	29.3	**20.5**	-88.0	-1.9	0.6	24.1	-81.2
Fy_i	-0.3	**-194.6**	1.0	-61.0	-1.2	-134.7	2.7	**30.6**	-0.7	14.4	3.5	85.7
Fz_i	3.1	-24.6	**-5.2**	-52.4	15.4	5.0	-5.1	-134.0	**5.8**	-72.9	-17.8	-71.1
Mx_i	-3.6	-152.0	2.5	**-164.2**	-8.9	-46.6	5.1	-90.4	-1.0	**72.6**	7.8	-12.6
My_i	-18.5	-101.6	3.9	-120.2	**-27.1**	21.0	18.6	-53.6	-2.7	12.9	**25.3**	-95.8
Mz_i	-0.1	-81.7	0.6	-3.0	0.0	**-302.7**	-2.0	-74.7	1.0	-44.2	-5.1	**232.7**
Fx_f	**-21.2**	-19.0	2.4	-83.3	-14.5	115.0	**20.5**	-86.9	-1.9	-6.3	15.7	312.4
Fy_f	-0.7	**-150.7**	0.9	-57.7	2.7	460.6	2.4	**41.4**	-0.5	34.6	0.6	71.9
Fz_f	3.1	-23.6	**-5.2**	-59.3	-7.9	113.4	-5.1	-75.8	**5.8**	-11.8	8.3	397.8
Mx_f	-1.9	-111.5	1.9	**-134.5**	2.7	383.2	5.3	-71.5	-0.9	**84.9**	3.6	499.2
My_f	-16.4	-19.8	-0.5	-77.0	**-17.8**	115.1	14.8	-82.0	2.2	3.4	**20.3**	416.2
Mz_f	-0.4	13.9	0.5	-2.0	0.2	**-214.9**	-1.4	-125.5	1.3	-31.8	2.7	**756.6**
Member 9												
Fx_i	**-19.3**	-11.5	0.8	-61.2	-19.9	111.5	**18.7**	-97.8	-0.8	-33.8	19.9	315.7
Fy_i	-0.6	**-144.2**	0.5	-43.9	-0.3	436.3	-0.9	**36.8**	0.8	7.8	-3.6	101.7
Fz_i	-2.4	-28.3	**-5.3**	-40.5	10.2	90.4	1.0	-73.5	**5.4**	-9.7	-10.4	459.2
Mx_i	1.3	-120.6	0.5	**-127.4**	0.5	421.8	3.4	-53.0	-1.3	**53.0**	6.7	354.0
My_i	-17.1	-11.2	2.5	-60.8	**-22.7**	118.9	16.8	-64.8	-2.5	-14.0	**22.4**	171.6
Mz_i	-0.3	13.9	0.2	-1.5	-1.3	**-214.7**	-0.6	-122.9	0.8	-31.8	-1.3	**756.0**

Fx,	**-19.3**	-11.5	0.8	-61.2	-16.2	163.1	**18.7**	-38.6	-0.8	20.4	16.2	621.6
Fy,	-1.6	**-106.8**	0.4	-41.3	0.7	739.7	0.7	**54.7**	0.3	49.1	0.6	157.8
Fz,	-2.4	-27.3	**-5.3**	-47.4	-13.6	215.4	1.0	-27.6	**5.4**	11.0	13.8	686.8
Mx,	1.0	-84.2	0.3	**-102.8**	2.1	642.3	-0.9	35.8	-0.7	**75.0**	-2.0	229.4
My,	-13.1	-20.5	-3.7	-49.7	**-20.7**	131.4	12.0	-36.9	3.7	28.0	**21.2**	753.4
Mz,	-1.1	18.8	0.6	-1.7	-0.5	**-282.7**	-0.2	-69.9	0.7	-15.4	2.7	**1185.0**

Member 10

Fx,	**-19.7**	3.0	-1.2	-13.5	-15.7	213.4	**18.9**	-49.6	1.3	-26.1	15.4	636.4
Fy,	-1.0	**-99.4**	0.4	-28.1	-0.4	687.0	0.6	**49.5**	0.5	11.6	-1.2	227.4
Fz,	-8.4	-19.2	**-5.3**	-26.2	4.3	215.7	6.9	-33.8	**5.3**	-13.3	-4.4	682.9
Mx,	4.6	-72.2	0.8	**-94.2**	3.2	575.7	-5.4	23.6	-0.6	**50.4**	-3.7	279.2
My,	-15.1	2.8	2.1	-27.6	**-20.0**	167.7	15.3	-49.5	-2.1	-26.7	**20.0**	602.4
Mz,	-0.5	18.8	0.5	-1.0	-2.4	**-282.5**	0.4	-67.1	0.6	-16.8	0.4	**1184.7**
Fx,	**-19.7**	3.0	-1.2	-13.5	-21.1	200.0	**18.9**	6.6	1.3	24.9	21.2	737.0
Fy,	-2.3	**-68.0**	0.2	-21.1	-0.4	760.4	2.0	**74.2**	0.7	23.1	2.7	250.5
Fz,	-8.4	-19.2	**-5.3**	-26.2	-19.8	302.1	6.9	13.2	**5.3**	0.5	19.6	729.5
Mx,	3.8	-40.9	0.7	**-69.5**	5.7	551.0	-4.7	48.8	-0.5	**76.4**	-5.5	391.8
My,	-17.1	-9.3	-3.9	-19.6	**-25.3**	187.4	15.4	16.7	4.0	14.7	**25.3**	827.8
Mz,	-0.5	18.8	0.5	-1.0	-0.1	**-367.1**	0.3	-12.3	0.7	0.4	3.2	**1352.4**

Member 11

Fx,	**-22.1**	1.8	-3.8	10.7	-12.2	175.4	**21.4**	1.7	3.7	-22.9	12.5	793.0
Fy,	-0.1	**-66.3**	0.2	-22.5	0.9	538.4	1.3	**74.0**	0.5	23.2	-0.7	475.5
Fz,	-14.5	-13.3	**-5.4**	-9.5	-1.8	296.8	13.0	8.4	**5.3**	-21.3	1.9	734.8
Mx,	8.2	-39.8	0.4	**-74.3**	7.8	406.2	-8.9	46.7	-0.5	**66.3**	-7.5	561.0
My,	-16.4	16.8	0.7	12.9	**-18.1**	160.2	16.1	-15.2	-0.9	-32.6	**18.3**	736.4
Mz,	0.1	18.9	0.5	0.1	-1.8	**-367.0**	1.0	-9.6	0.6	-1.6	1.1	**1352.4**
Fx,	**-22.1**	1.8	-3.8	10.7	-29.5	167.2	**21.4**	54.8	3.7	-6.3	29.1	667.1
Fy,	-1.8	**-41.0**	-0.0	-11.4	-0.4	478.5	2.9	**104.5**	0.7	29.6	3.8	377.7
Fz,	-14.5	-13.3	**-5.4**	-9.5	-26.1	356.6	13.0	55.4	**5.3**	-7.5	25.6	591.4
Mx,	7.4	-13.4	0.3	**-48.2**	8.5	242.1	-8.0	76.9	-0.4	**90.9**	-8.7	560.4
My,	-21.2	1.5	-4.3	12.1	**-30.2**	192.6	19.3	59.7	4.2	-8.2	**29.8**	689.8
Mz,	-0.1	18.9	0.5	0.1	0.2	**-452.1**	1.1	49.7	0.6	17.7	3.9	**1258.8**

Member 12

Fx,	**-26.4**	11.3	-4.2	35.6	-15.9	175.7	**25.7**	47.8	3.7	-37.7	16.8	681.5
Fy,	-3.6	**-45.8**	-1.1	-48.3	0.3	353.2	5.1	**111.5**	1.3	42.6	1.4	492.2
Fz,	-20.4	-10.9	**-5.5**	-7.0	-7.4	355.5	18.9	58.3	**5.1**	-19.0	8.2	434.3
Mx,	-0.6	-30.8	-2.8	**-75.1**	6.0	196.5	-2.1	93.1	1.6	**101.3**	-5.4	602.0
My,	-21.6	30.0	-1.5	54.4	**-18.1**	124.8	20.9	32.6	1.0	-21.9	**19.0**	650.6
Mz,	0.5	19.2	0.4	1.6	-1.1	**-452.2**	1.8	52.5	0.4	16.4	2.3	**1259.1**
Fx,	**-26.4**	11.3	-4.2	35.6	-34.6	124.7	**25.7**	100.9	3.7	-21.2	33.4	341.3
Fy,	-4.6	**-25.5**	-1.2	-20.5	-5.8	251.9	6.6	**148.0**	1.5	45.2	9.1	173.9
Fz,	-20.4	35.0	**-5.5**	41.3	-32.3	301.3	18.9	105.3	**5.1**	-5.2	31.2	66.1
Mx,	4.6	53.8	-1.1	**-51.3**	2.5	328.6	-1.6	128.5	1.5	**125.7**	2.2	347.5
My,	-25.2	5.4	-4.8	32.7	**-35.4**	198.3	23.7	104.6	4.4	-20.6	**34.4**	327.9
Mz,	0.2	19.3	0.3	1.8	0.2	**-538.5**	1.6	105.5	0.4	32.8	3.9	**904.9**

Member 13

Fx,	**-31.2**	9.3	-5.0	37.3	-18.6	197.2	**30.3**	103.0	3.5	-29.0	22.0	333.8
Fy,	-2.8	**-30.6**	-1.4	-45.5	1.6	181.1	8.0	**154.4**	0.8	58.9	5.6	194.2
Fz,	-26.1	42.6	**-6.1**	33.8	-11.8	326.6	24.8	106.5	**4.6**	-4.2	15.3	68.2
Mx,	1.5	69.0	-1.5	**-90.0**	5.2	482.5	-0.8	122.8	0.1	**137.6**	-0.5	298.7
My,	-27.3	23.9	-3.3	68.8	**-19.7**	94.5	26.3	88.4	1.7	-1.6	**23.2**	321.1
Mz,	0.7	19.7	-0.1	3.7	0.2	**-538.7**	2.2	108.2	-0.1	33.1	4.1	**905.5**
Fx,	**-31.2**	64.5	-5.0	95.2	-41.3	30.4	**30.3**	162.3	3.5	-9.7	37.8	-268.6
Fy,	-1.7	**-17.7**	-0.9	-18.7	-2.5	107.8	8.9	**197.6**	0.8	61.9	10.0	-409.9
Fz,	-26.1	94.6	**-6.1**	88.4	-39.4	13.2	24.8	107.5	**4.6**	-11.0	36.2	-413.4
Mx,	1.1	88.4	-1.5	**-77.8**	-1.9	-28.2	-1.6	164.1	-0.4	**166.4**	-2.1	-171.6
My,	-30.2	63.3	-5.5	95.4	**-41.9**	31.8	28.4	160.2	4.0	-14.7	**38.5**	-263.7
Mz,	7.6	79.0	0.6	-23.3	8.2	**-686.4**	-5.2	99.1	-0.8	80.7	-5.6	**356.9**

Member 14

Fx,	**-32.1**	60.8	-7.3	85.2	-30.7	31.7	**31.1**	164.1	1.6	-7.2	42.8	-266.1
Fy,	-6.2	**-22.2**	-2.7	-42.5	-2.0	32.1	10.9	**202.9**	-1.1	83.8	18.5	-329.1
Fz,	-17.8	137.5	**-9.9**	89.8	-4.7	-161.5	23.6	70.4	**3.9**	-21.4	27.8	-350.6
Mx,	-0.6	80.7	-2.2	**-101.3**	4.5	-23.9	-1.4	146.2	-3.4	**175.0**	5.8	-179.3
My,	-29.2	19.6	-4.8	71.5	**-33.4**	34.9	26.8	133.4	-1.4	42.9	**44.6**	-297.5
Mz,	8.1	78.7	-1.4	-24.7	14.3	**-684.8**	-5.1	102.6	-2.4	87.0	-0.1	**355.4**
Fx,	**-32.1**	115.9	-7.3	143.1	-63.5	-361.9	**31.1**	165.1	1.6	-14.0	50.2	-1006.7
Fy,	-3.8	**-17.4**	-1.7	-30.3	-8.3	61.4	10.1	**253.4**	-1.5	92.9	11.3	-1283.5
Fz,	-17.8	195.7	-9.9	150.9	-49.3	-914.3	23.6	71.4	**3.9**	-28.3	45.4	-669.7
Mx,	0.6	84.0	-1.6	**-97.3**	-2.2	-471.3	-4.2	201.1	-4.6	**218.4**	-16.4	-884.1
My,	-30.7	145.7	-8.2	154.2	**-64.4**	-543.4	28.6	155.9	3.2	-33.9	**51.5**	-945.8
Mz,	10.8	243.8	-3.1	62.7	8.0	**-1391.5**	-8.1	-13.8	-0.6	-1.3	-11.5	**204.6**

Member 15

Fx,	**-30.7**	-103.5	6.3	-124.3	-67.5	-362.4	**29.7**	-148.3	-0.7	4.6	54.3	-1013.6
Fy,	12.4	**-260.6**	2.6	-92.0	15.0	-1291.7	-5.8	**30.9**	0.5	27.5	-9.2	98.3
Fz,	9.5	-6.7	**-5.0**	24.0	29.4	-149.9	-7.6	-206.6	**11.2**	-165.1	-38.7	-985.8
Mx,	0.5	-198.5	5.9	**-224.9**	-11.8	-874.0	-1.5	-84.2	0.1	**103.6**	-2.3	-498.5
My,	-29.7	-143.1	7.3	-139.1	**-68.8**	-505.0	26.9	-100.4	-2.9	32.3	**55.9**	-860.8
Mz,	10.6	-250.2	4.0	-83.2	8.6	**-1391.1**	-7.7	27.5	0.6	-0.5	-12.7	**204.6**
Fx,	**-30.7**	-51.4	6.3	-69.7	-39.3	-13.2	**29.7**	-147.2	-0.7	-2.3	50.9	-348.8
Fy,	13.3	**-210.0**	2.2	-82.6	27.5	-307.3	-8.2	**35.7**	1.3	39.7	-9.5	7.9
Fz,	9.5	-5.6	**-5.0**	17.1	7.0	-122.3	-7.6	-148.4	**11.2**	-104.0	11.6	-191.2
Mx,	3.5	-143.0	4.8	**-181.1**	17.4	-184.7	-2.8	-81.2	0.7	**107.0**	-3.0	-53.4
My,	-27.7	-13.9	4.0	-75.3	**-40.8**	5.8	27.4	-171.8	0.7	-7.2	**52.5**	-284.8
Mz,	8.9	-85.1	2.1	19.0	19.1	**-653.0**	-5.0	-89.9	2.7	-82.5	-0.3	**301.5**

Member 16

Fx,	**-32.7**	-58.7	3.5	-99.2	-39.4	17.0	**31.6**	-159.4	-2.1	19.4	36.1	-273.1
Fy,	10.9	**-204.5**	0.2	-61.4	9.8	-384.9	-6.1	**31.2**	0.4	21.2	-5.6	44.5
Fz,	6.5	-44.4	**-5.2**	-51.4	18.8	-241.5	-14.5	-132.4	**6.8**	-98.2	-29.5	-24.5
Mx,	2.7	-161.0	2.2	**-173.0**	-1.8	-190.3	-2.7	-88.8	0.2	**83.9**	-2.8	-58.1
My,	-31.1	-80.8	4.8	-94.2	**-41.4**	14.1	29.7	-138.6	-3.2	11.9	**38.0**	-346.1
Mz,	9.6	-85.3	-0.0	17.6	9.0	**-654.5**	-5.0	-86.5	1.2	-76.0	-6.1	**302.9**
Fx,	**-32.7**	-6.6	3.5	-44.5	-23.7	157.5	**31.6**	-100.2	-2.1	38.7	26.5	309.9
Fy,	10.2	**-161.0**	0.1	-58.3	9.8	247.9	-6.6	**42.4**	0.6	41.6	-3.8	33.7
Fz,	6.5	-43.3	**-5.2**	-58.3	-4.7	-44.3	-14.5	-74.3	**6.8**	-37.1	1.0	437.3
Mx,	5.1	-120.6	1.4	**-143.5**	8.8	278.2	-2.4	-69.5	0.3	**96.3**	-1.4	451.9
My,	-29.5	-8.7	1.6	-37.5	**-25.5**	154.3	27.8	-101.4	0.0	30.0	**28.7**	291.3
Mz,	1.3	-3.2	0.2	-4.9	3.2	**-543.4**	4.0	-120.5	1.0	-32.7	5.5	**862.4**

Member 17

Fx,	**-29.9**	-4.7	2.3	-38.3	-33.9	161.6	**28.8**	-104.3	-1.9	22.9	32.7	311.2
Fy,	9.2	**-154.6**	-0.6	-44.8	9.8	228.4	-5.4	**37.9**	1.1	6.8	-6.5	131.9
Fz,	6.9	-34.2	**-5.5**	-25.3	19.7	-56.7	-8.0	-77.4	**6.0**	-58.0	-21.2	417.1
Mx,	7.9	-126.9	-0.3	**-131.3**	9.0	333.0	-1.2	-52.4	-0.4	**57.3**	-0.0	315.7
My,	-28.2	-1.7	3.7	-27.1	**-36.0**	115.3	26.7	-94.7	-3.3	20.1	**34.9**	174.5
Mz,	0.8	-2.7	-0.3	-2.7	2.8	**-543.2**	4.4	-117.8	0.5	-32.5	2.6	**861.8**
Fx,	**-29.9**	-4.7	2.3	-38.3	-23.6	182.9	**28.8**	-51.2	-1.9	39.5	24.1	663.5
Fy,	7.6	**-117.6**	-0.6	-42.3	5.4	571.5	-5.1	**55.6**	0.7	48.2	-2.1	180.3
Fz,	6.9	-33.1	**-5.5**	-32.2	-5.2	94.8	-8.0	-25.3	**6.0**	-3.4	5.8	649.6
Mx,	7.6	-90.9	-0.5	**-106.7**	6.8	575.7	-10.0	34.2	0.7	**79.4**	-8.0	155.8
My,	-25.5	-9.3	-0.8	-30.7	**-26.9**	205.7	25.0	-47.4	0.9	23.2	**27.6**	630.0
Mz,	0.0	-2.5	-0.0	-2.4	1.5	**-532.0**	5.1	-64.9	0.2	-16.3	4.8	**1268.6**

Member 18

Fx,	**-28.0**	2.2	1.0	-12.1	-29.1	185.0	**26.9**	-57.5	-0.9	7.2	28.7	654.6
Fy,	5.2	**-110.1**	-0.1	-29.4	4.6	465.3	-1.2	**50.8**	0.3	11.0	-0.5	299.7
Fz,	-0.3	-26.4	**-5.7**	-15.6	12.9	143.6	-0.8	-30.6	**5.8**	-29.5	-13.6	600.9
Mx,	1.6	-73.9	1.5	**-94.9**	-1.5	535.2	-2.8	16.2	-1.4	**50.5**	0.7	175.4
My,	-26.1	5.4	2.8	-15.0	**-31.8**	178.7	24.6	-59.2	-2.7	11.6	**31.4**	652.5
Mz,	-0.1	-2.1	-0.1	-0.7	1.6	**-531.9**	5.2	-62.1	0.1	-17.5	4.2	**1268.2**
Fx,	**-28.0**	2.2	1.0	-12.1	-24.5	174.9	**26.9**	-4.4	-0.9	23.8	24.8	789.4
Fy,	3.3	**-79.2**	-0.2	-22.3	2.1	582.3	1.1	**76.2**	0.3	23.2	3.3	323.7
Fz,	-0.3	-25.4	**-5.7**	-22.5	-12.8	260.3	-0.8	21.5	**5.8**	25.1	12.6	615.7
Mx,	0.6	-43.0	1.5	**-70.2**	4.3	513.7	-1.9	42.0	-1.3	**76.4**	-4.6	328.6
My,	-25.3	-14.9	-1.6	-18.0	**-28.7**	162.1	24.4	6.3	1.6	11.4	**28.6**	726.6

Mz_e	-0.7	4.9	0.2	-1.2	1.2	**-523.3**	5.1	-7.3	0.2	-0.4	4.7	**1413.2**

Member 19

Fx_i	**-28.0**	5.6	-0.5	9.8	-25.8	210.8	**27.1**	-8.3	0.7	-15.6	25.4	761.5
Fy_i	4.0	**-78.7**	-0.4	-23.0	4.0	385.3	0.8	**76.6**	0.2	22.7	1.8	520.0
Fz_i	-6.8	-16.9	**-5.8**	-4.0	6.5	259.2	5.6	14.7	**5.7**	-3.0	-6.9	616.9
Mx_i	7.2	-42.5	0.8	**-78.0**	5.6	303.1	-8.1	39.0	-1.1	**68.9**	-5.4	538.1
My_i	-24.7	15.7	2.0	15.9	**-28.9**	168.8	23.6	-18.5	-2.0	-13.0	**28.8**	804.9
Mz_i	-0.5	5.2	0.1	0.5	0.7	**-523.3**	5.3	-4.5	0.1	-2.3	4.2	**1413.2**
Fx_f	**-28.0**	5.6	-0.5	9.8	-28.1	185.5	**27.1**	50.9	0.7	3.7	28.7	662.5
Fy_f	1.9	**-53.7**	-0.4	-11.8	0.0	378.7	2.7	**107.7**	0.3	29.0	5.0	414.2
Fz_f	-6.8	-16.9	**-5.8**	-4.0	-19.5	335.3	5.6	73.9	**5.7**	51.2	18.9	412.0
Mx_f	6.2	-16.4	0.9	**-51.7**	8.5	148.6	-7.0	69.7	-1.1	**93.4**	-9.1	575.6
My_f	-24.6	-6.2	-3.0	13.1	**-31.1**	197.0	23.4	55.8	2.9	-9.3	**30.7**	658.7
Mz_f	-0.9	5.2	0.1	0.5	0.8	**-546.9**	5.2	54.7	0.1	17.0	4.7	**1297.0**

Member 20

Fx_i	**-29.5**	1.6	-1.8	24.0	-24.5	184.3	**28.5**	42.7	1.4	-29.6	25.3	625.2
Fy_i	-1.6	**-58.7**	-0.9	-48.9	-0.2	258.9	4.5	**115.1**	0.9	42.0	3.8	521.7
Fz_i	-11.7	11.5	**-5.9**	6.8	2.0	602.0	11.1	51.4	**5.6**	29.9	-1.1	229.0
Mx_i	-3.4	-36.5	-1.2	**-81.1**	-0.8	168.0	-0.6	88.9	1.0	**105.4**	-2.5	578.2
My_i	-25.4	23.8	0.8	46.1	**-26.8**	116.8	23.8	33.8	-1.2	-29.7	**27.2**	700.7
Mz_i	-0.8	5.6	-0.0	2.3	0.8	**-547.0**	5.4	57.6	-0.0	15.8	4.6	**1297.3**
Fx_f	**-29.5**	1.6	-1.8	24.0	-32.6	177.1	**28.5**	95.8	1.4	-13.0	31.5	307.8
Fy_f	-1.6	**-39.3**	-1.3	-6.8	-5.4	197.5	6.2	**151.9**	1.0	44.4	9.9	188.3
Fz_f	-11.7	63.6	**-5.9**	61.5	-24.8	428.2	11.1	52.5	**5.6**	23.0	24.0	-4.8
Mx_f	2.1	49.4	0.1	**-57.7**	2.8	333.6	-0.0	124.6	0.9	**129.7**	2.3	343.6
My_f	-25.8	-0.4	-4.4	36.9	**-35.5**	187.1	24.6	100.9	4.1	-25.7	**34.6**	315.0
Mz_f	-0.9	5.7	0.1	2.4	0.9	**-572.4**	5.5	110.6	-0.1	32.2	4.4	**920.3**

Member 21

Fx_i	**-31.7**	4.5	-3.6	37.7	-22.8	182.8	**30.7**	98.0	2.4	-32.7	25.3	324.6
Fy_i	-2.3	**-43.9**	-0.8	-47.8	-1.4	143.2	6.9	**158.6**	0.6	58.6	7.0	210.7
Fz_i	-18.1	62.3	**-6.6**	49.8	-3.1	445.9	18.0	42.6	**5.2**	-3.5	6.6	-81.7
Mx_i	1.1	66.3	-0.7	**-97.2**	2.9	471.4	2.3	117.1	0.0	**142.5**	2.6	314.1
My_i	-28.5	23.5	-0.9	53.4	**-26.2**	53.4	28.7	96.1	0.3	-16.7	**28.8**	298.0
Mz_i	-0.5	6.3	-0.2	4.6	1.5	**-572.7**	5.4	113.3	-0.6	32.6	5.9	**920.9**
Fx_f	**-31.7**	59.7	-3.6	95.6	-38.8	37.6	**30.7**	157.2	2.4	-13.4	36.1	-254.9
Fy_f	-1.4	**-32.4**	-0.3	-19.9	-2.9	132.4	7.9	**201.8**	0.5	61.5	10.5	-412.0
Fz_f	-18.1	120.5	**-6.6**	110.9	-32.6	31.2	18.0	43.6	**5.2**	-10.4	30.0	-275.7
Mx_f	0.7	85.5	-0.6	**-85.0**	-0.3	-27.0	1.5	158.6	-0.4	**171.2**	1.0	-130.9
My_f	-29.6	59.1	-5.5	99.3	**-41.6**	45.4	28.3	157.9	4.3	-19.7	**38.9**	-262.2
Mz_f	6.4	81.1	0.6	-24.3	9.4	**-687.8**	-2.1	88.5	-1.4	82.2	-6.1	**377.3**

Member 22

Fx_i	**-31.8**	55.0	-6.5	89.3	-32.5	44.2	**30.7**	159.6	2.1	-15.0	41.9	-257.5
Fy_i	-4.9	**-37.0**	-1.6	-40.9	-5.1	78.3	10.8	**207.5**	-1.0	83.4	20.3	-333.9
Fz_i	-17.5	135.4	**-9.7**	107.0	-4.7	-58.3	17.5	17.2	**4.8**	-13.4	16.2	-185.7
Mx_i	-0.0	77.8	-1.2	**-108.8**	3.1	-22.4	-1.0	141.5	-3.3	**180.2**	6.1	-165.0
My_i	-28.5	21.6	-3.4	59.2	**-35.4**	-23.9	28.1	156.6	-0.7	-1.4	**45.4**	-272.5
Mz_i	6.2	83.7	-1.3	-18.4	14.5	**-686.2**	-2.2	89.3	-2.4	81.7	0.8	**375.9**
Fx_f	**-31.8**	110.1	-6.5	147.2	-61.7	-323.5	**30.7**	160.6	2.1	-21.9	51.3	-978.0
Fy_f	-2.7	**-32.1**	-0.8	-28.4	-7.0	173.6	10.1	**258.0**	-1.4	92.2	14.0	-1308.3
Fz_f	-17.5	193.5	**-9.7**	168.1	-48.2	-801.5	17.5	18.2	**4.8**	-20.3	37.9	-265.4
Mx_f	1.0	81.1	-0.6	**-104.5**	0.6	-456.7	-3.7	196.5	-4.3	**223.3**	-15.0	-848.8
My_f	-30.5	131.1	-7.6	136.1	**-63.1**	-421.5	29.7	144.4	2.9	-12.5	**52.7**	-984.4
Mz_f	9.1	247.7	-2.8	61.9	9.6	**-1412.0**	-5.1	-27.6	-1.0	2.5	-11.3	**282.1**

Member 23

Fx_i	**-30.3**	-108.2	5.7	-141.3	-65.9	-330.6	**29.2**	-162.5	-1.3	20.4	55.4	-982.3
Fy_i	10.0	**-261.3**	1.7	-92.4	16.7	-1308.3	-2.9	**33.4**	0.7	27.8	-8.3	174.8
Fz_i	11.0	-22.3	**-4.5**	13.3	30.5	-415.9	-7.6	-204.5	**9.5**	-161.3	-34.7	-945.1
Mx_i	0.9	-197.7	4.6	**-224.9**	-8.3	-847.2	-2.4	-82.6	0.3	**104.8**	-4.6	-460.9
My_i	-29.6	-127.1	6.3	-129.9	**-67.0**	-412.5	28.6	-144.7	-1.6	10.7	**56.4**	-978.9
Mz_i	8.4	-244.1	3.0	-62.9	11.0	**-1411.9**	-5.2	30.0	0.6	-0.8	-12.4	**282.0**
Fx_f	**-30.3**	-56.1	5.7	-86.7	-40.2	39.6	**29.2**	-161.5	-1.3	13.5	49.7	-253.3
Fy_f	10.8	**-210.7**	1.3	-83.3	24.8	-321.4	-5.1	**38.2**	1.4	40.3	-7.5	73.7
Fz_f	11.0	-21.3	**-4.5**	6.4	10.3	-317.6	-7.6	-146.3	**9.5**	-100.2	8.0	-159.2
Mx_f	3.6	-142.4	3.6	**-181.5**	15.1	-162.3	-3.6	-79.5	0.9	**108.6**	-4.0	-22.5
My_f	-29.3	-55.9	4.6	-87.1	**-42.0**	37.3	27.7	-163.8	0.4	11.7	**52.0**	-285.0
Mz_f	6.8	-86.0	1.4	18.7	18.0	**-675.5**	-2.6	-87.3	2.3	-82.5	-1.3	**371.5**

Member 24

Fx_i	**-32.7**	-58.7	3.1	-97.8	-38.9	39.9	**31.8**	-159.7	-1.9	16.5	36.1	-256.0
Fy_i	8.9	**-205.1**	-0.3	-61.5	11.2	-399.3	-2.1	**33.7**	0.3	19.4	-3.7	127.5
Fz_i	10.6	-33.5	**-4.8**	-19.6	21.7	-236.8	-12.1	-130.8	**6.2**	-96.5	-25.7	9.2
Mx_i	5.1	-158.6	1.1	**-172.9**	3.0	-135.4	-3.3	-87.3	0.5	**84.9**	-4.0	-27.0
My_i	-31.6	-53.4	4.3	-80.8	**-41.0**	19.7	30.4	-140.1	-3.2	12.5	**38.3**	-332.3
Mz_i	7.9	-83.3	-0.5	24.7	10.6	**-677.0**	-3.2	-86.6	1.2	-83.1	-6.7	**372.9**
Fx_f	**-32.7**	-6.6	3.1	-43.1	-25.1	180.3	**31.8**	**-100.4**	-1.9	35.8	27.6	328.2
Fy_f	8.0	**-161.7**	-0.4	-58.4	8.7	236.0	-2.4	**44.9**	0.5	39.9	-2.1	105.8
Fz_f	10.6	-32.4	**-4.8**	-26.5	0.4	-88.5	-12.1	-72.6	**6.2**	-35.4	2.1	463.6
Mx_f	7.2	-118.3	0.4	**-143.6**	8.6	322.5	-2.9	-68.0	0.5	**97.4**	-1.4	476.5
My_f	-28.9	-5.8	0.7	-31.4	**-27.1**	182.7	27.7	-95.2	0.6	25.5	**29.8**	290.0
Mz_f	2.9	-4.2	0.1	-4.6	2.3	**-563.8**	2.5	-117.7	0.6	-33.0	5.4	**922.2**

Member 25

Fx_i	**-30.2**	-4.6	2.1	-35.9	-34.2	183.4	**29.3**	-103.5	-1.8	21.3	33.3	326.6
Fy_i	6.6	**-155.2**	-0.8	-44.5	9.9	214.3	-2.7	**40.5**	1.0	6.7	-5.9	187.1
Fz_i	5.9	-48.8	**-5.2**	-30.5	17.9	6.0	-7.1	-60.7	**5.5**	-51.9	-19.3	394.4
Mx_i	6.5	-125.9	-0.7	**-131.2**	8.5	353.6	-2.5	-50.9	-0.2	**57.8**	-1.8	340.0
My_i	-28.1	-3.3	3.6	-36.3	**-35.9**	185.1	26.9	-103.0	-3.3	24.6	**35.0**	322.4
Mz_i	2.4	-3.6	-0.3	-2.5	2.3	**-563.6**	2.6	-114.9	0.2	-32.5	3.6	**921.6**
Fx_f	**-30.2**	-4.6	2.1	-35.9	-24.7	204.1	**29.3**	-50.4	-1.8	37.9	25.3	675.5
Fy_f	4.9	**-118.2**	-0.8	-42.0	4.6	559.8	-2.2	**58.2**	0.7	48.3	-1.4	222.8
Fz_f	5.9	-47.8	**-5.2**	-37.3	-5.3	223.4	-7.1	-8.6	**5.5**	2.8	5.7	551.9
Mx_f	6.1	-90.0	-0.8	**-106.7**	4.6	591.8	-9.9	35.1	1.0	**80.3**	-7.0	166.6
My_f	-26.9	-18.8	-0.7	-43.1	**-28.3**	88.9	26.6	-43.1	0.7	20.9	**28.7**	663.5
Mz_f	2.2	-3.5	-0.1	-2.3	1.1	**-547.7**	2.8	-61.9	0.0	-16.1	4.4	**1314.8**

Member 26

Fx_i	**-29.0**	3.9	0.3	-7.6	-28.8	185.5	**28.1**	-50.9	-0.2	3.3	28.5	639.6
Fy_i	2.9	**-110.7**	-0.3	-29.2	5.0	452.8	0.9	**53.5**	0.2	11.0	-0.6	344.3
Fz_i	0.4	-51.2	**-5.3**	-31.6	12.7	297.3	-1.1	-14.4	**5.4**	-22.0	-12.9	552.9
Mx_i	0.8	-71.0	1.1	**-94.9**	-1.3	589.7	-1.9	15.3	-1.0	**51.2**	0.6	151.2
My_i	-26.9	5.0	2.5	-15.7	**-32.2**	201.4	25.7	-59.1	-2.4	10.0	**31.9**	672.9
Mz_i	1.9	-3.1	-0.2	-0.6	1.6	**-547.6**	2.7	-59.0	-0.1	-17.4	4.3	**1314.5**
Fx_f	**-29.0**	3.9	0.3	-7.6	-27.6	167.8	**28.1**	2.2	-0.2	19.8	27.7	744.4
Fy_f	0.9	**-79.8**	-0.3	-22.2	1.8	572.2	3.2	**78.9**	0.2	23.2	2.8	356.3
Fz_f	0.4	-37.9	**-5.3**	-25.7	-11.2	496.9	-1.1	37.6	**5.4**	32.7	11.4	495.0
Mx_f	-0.3	-40.1	1.0	**-70.2**	2.4	554.8	-1.0	41.1	-0.9	**77.1**	-2.7	308.8
My_f	-26.5	-15.8	-1.5	-17.4	**-29.7**	160.7	25.7	8.4	1.5	11.3	**29.6**	749.6
Mz_f	1.9	-3.1	-0.2	-0.6	0.6	**-533.5**	2.6	-4.3	0.0	-0.3	4.1	**1445.8**

Member 27

Fx_i	**-29.1**	0.3	-0.9	7.6	-26.4	133.6	**28.3**	-1.3	0.7	-20.3	26.6	719.9
Fy_i	1.6	**-79.4**	-0.4	-22.9	4.1	373.9	2.6	**79.4**	0.1	22.8	1.6	553.4
Fz_i	-5.6	-38.0	**-5.4**	-33.7	6.8	495.5	5.0	37.7	**5.3**	25.0	-6.7	496.4
Mx_i	6.3	-39.7	0.8	**-78.1**	4.9	282.9	-7.2	38.2	-1.0	**69.7**	-4.8	579.1
My_i	-25.5	15.6	2.0	16.1	**-29.6**	186.5	24.5	-17.3	-2.0	-12.6	**29.5**	814.3
Mz_i	1.6	-2.8	-0.3	1.1	1.5	**-533.5**	2.6	-1.5	-0.0	-2.2	4.1	**1445.8**
Fx_f	**-29.1**	0.3	-0.9	7.6	-30.2	132.2	**28.3**	51.8	0.7	-3.8	29.9	607.8
Fy_f	-0.6	**-54.4**	-0.5	-11.6	-0.2	370.4	4.6	**110.4**	0.2	29.0	4.2	435.3
Fz_f	-5.6	14.1	**-5.4**	21.0	-17.4	551.8	5.0	51.0	**5.3**	30.9	17.3	291.5
Mx_f	5.3	-13.6	0.8	**-51.9**	7.4	115.7	-6.1	69.0	-1.0	**94.2**	-8.0	620.4
My_f	-26.0	-5.3	-3.0	14.6	**-32.6**	207.5	25.2	58.3	2.9	-10.2	**32.3**	671.4
Mz_f	1.2	4.3	-0.0	0.6	0.3	**-552.7**	2.8	57.8	-0.0	17.1	4.2	**1315.9**

Member 28

Fx_i	**-30.3**	1.5	-1.6	27.1	-25.8	185.7	**29.4**	44.1	1.3	-31.7	26.4	640.6
Fy_i	-3.8	**-59.5**	-0.8	-48.6	-0.6	249.9	6.1	**118.0**	0.7	42.0	3.9	543.1

Fz_i	-12.6	12.6	**-5.5**	7.2	0.1	608.6	12.0	52.4	**5.2**	30.0	0.8	234.7
Mx_i	-4.1	-35.5	-0.8	**-81.6**	-2.1	173.5	0.5	89.9	0.8	**106.4**	-1.0	584.2
My_i	-28.2	22.5	0.1	41.1	**-28.1**	105.5	27.2	42.9	-0.3	-23.4	**28.5**	641.9
Mz_i	1.2	4.7	-0.1	2.4	0.6	**-552.8**	2.8	60.6	-0.1	15.8	4.6	**1316.2**
Fx_f	**-30.3**	1.5	-1.6	27.1	-33.2	179.0	**29.4**	97.2	1.3	-15.1	32.4	317.0
Fy_f	-4.2	**-40.1**	-1.3	-6.7	-5.6	191.9	7.9	**154.8**	0.7	44.4	8.7	197.1
Fz_f	-12.6	64.7	**-5.5**	61.8	-24.9	430.0	12.0	53.5	**5.2**	23.1	24.1	-3.6
Mx_f	1.9	50.5	0.3	**-58.4**	2.9	334.7	1.0	125.6	0.7	**130.6**	2.8	345.2
My_f	-28.3	1.7	-3.8	35.8	**-36.6**	190.8	27.4	102.2	3.5	-25.3	**35.8**	319.0
Mz_f	1.2	4.8	0.0	2.5	0.4	**-574.1**	2.8	113.6	-0.3	32.2	3.7	**925.5**

Member 29

Fx_i	**-33.1**	5.7	-3.5	40.1	-24.4	190.0	**32.2**	100.2	2.4	-34.8	26.8	325.9
Fy_i	-4.4	**-44.7**	-0.6	-47.8	-1.8	137.4	8.3	**161.4**	0.3	58.8	7.0	219.5
Fz_i	-16.9	71.3	**-6.1**	35.9	-2.9	458.7	16.0	25.7	**4.9**	2.9	5.7	-134.3
Mx_i	0.7	67.3	-0.4	**-98.1**	2.0	472.4	2.5	118.2	-0.3	**143.5**	3.6	316.1
My_i	-29.2	18.7	-0.7	57.4	**-27.4**	45.2	29.1	99.1	-0.1	-17.9	**30.0**	303.0
Mz_i	1.3	5.4	-0.3	4.6	1.2	**-574.3**	2.6	116.5	-0.7	32.9	5.7	**926.1**
Fx_f	**-33.1**	60.8	-3.5	98.0	-40.3	39.6	**32.2**	159.5	2.4	-15.5	37.7	-263.8
Fy_f	-3.5	**-33.3**	-0.2	-19.9	-2.5	130.3	9.3	**204.7**	0.3	61.7	9.3	-416.2
Fz_f	-16.9	129.5	**-6.1**	97.0	-30.5	3.7	16.0	26.7	**4.9**	-4.0	27.7	-252.2
Mx_f	0.3	86.6	-0.4	**-85.7**	-0.2	-30.7	1.6	159.7	-0.7	**172.1**	0.5	-133.8
My_f	-31.3	55.9	-4.8	82.0	**-42.0**	13.0	30.4	140.6	3.7	-12.1	**39.4**	-339.8
Mz_f	8.4	83.8	0.4	-24.4	8.6	**-691.5**	-5.0	88.0	-1.4	82.5	-6.7	**374.8**

Member 30

Fx_i	**-32.6**	56.9	-5.8	87.9	-35.7	41.3	**31.8**	161.1	1.5	-13.5	44.8	-261.1
Fy_i	-6.1	**-37.9**	-1.3	-41.2	-5.0	75.8	11.5	**210.5**	-1.3	84.0	19.3	-338.1
Fz_i	-13.6	142.2	**-9.2**	95.6	0.2	-99.3	16.3	9.2	**4.6**	-12.1	15.6	-173.0
Mx_i	0.0	78.8	-0.9	**-109.7**	2.5	-26.1	-1.3	142.6	-3.5	**181.2**	6.1	-167.6
My_i	-30.6	26.8	-4.1	69.9	**-37.2**	-26.8	30.3	163.6	-0.0	-9.7	**46.9**	-291.2
Mz_i	7.9	86.5	-1.4	-18.2	13.9	**-689.9**	-5.0	88.8	-2.4	82.1	-0.1	**373.4**
Fx_f	**-32.6**	112.0	-5.8	145.7	-61.6	-334.8	**31.8**	162.1	1.5	-20.4	51.7	-988.2
Fy_f	-3.9	**-33.1**	-0.5	-28.6	-5.7	175.3	10.8	**261.0**	-1.6	92.7	11.7	-1325.9
Fz_f	-13.6	200.4	**-9.2**	156.7	-41.4	-873.6	16.3	10.2	**4.6**	-19.0	36.3	-216.5
Mx_f	1.1	82.1	-0.4	**-105.3**	1.2	-465.1	-4.0	197.6	-4.4	**224.1**	-15.7	-856.4
My_f	-31.5	131.8	-6.8	134.7	**-63.0**	-427.5	30.0	135.1	3.4	-32.4	**53.9**	-934.0
Mz_f	10.4	250.7	-3.0	62.2	7.9	**-1429.1**	-7.8	-28.3	-1.0	2.7	-11.8	**282.8**

Member 31

Fx_i	**-30.7**	-107.3	5.6	-142.5	-66.8	-335.2	**29.9**	-162.8	-1.3	21.3	56.5	-989.7
Fy_i	10.8	**-261.8**	1.7	-93.0	14.2	-1325.0	-4.5	**33.0**	0.5	28.3	-6.8	175.5
Fz_i	15.6	-10.7	**-4.5**	19.1	38.4	-220.4	-11.9	-201.1	**9.3**	-157.8	-42.1	-868.8
Mx_i	-1.7	-198.2	4.4	**-225.1**	-12.6	-855.3	-0.5	-82.9	0.4	**105.1**	-1.3	-467.6
My_i	-29.7	-127.8	6.7	-130.0	**-68.6**	-426.8	28.3	-135.0	-3.3	32.2	**59.3**	-932.9
Mz_i	9.8	-244.7	3.0	-63.3	9.4	**-1429.1**	-7.5	26.8	0.6	-0.6	-12.4	**282.8**
Fx_f	**-30.7**	-55.3	5.6	-87.9	-41.4	31.4	**29.9**	-161.7	-1.3	14.4	50.7	-259.6
Fy_f	11.5	**-211.3**	1.3	-83.9	22.2	-335.7	-6.6	**37.9**	1.3	40.9	-6.5	76.1
Fz_f	15.6	-9.7	**-4.5**	12.2	18.0	-174.5	-11.9	-142.9	**9.3**	-96.7	-0.3	-98.0
Mx_f	0.9	-142.9	3.5	**-181.8**	9.9	-168.3	-1.6	-79.8	0.9	**108.9**	-0.3	-27.7
My_f	-28.8	-14.5	4.1	-71.9	**-42.6**	35.9	28.8	-164.3	-0.1	11.5	**52.0**	-291.4
Mz_f	8.1	-86.6	1.4	18.2	16.3	**-690.6**	-5.0	-87.8	2.3	-82.7	-1.5	**374.7**

Member 32

Fx_i	**-32.9**	-59.0	3.5	-97.6	-40.0	30.0	**32.2**	-160.3	-2.2	16.4	37.3	-262.6
Fy_i	9.8	**-205.6**	-0.2	-61.8	9.6	-413.8	-3.7	**33.3**	0.2	19.7	-2.7	130.1
Fz_i	15.8	-24.9	**-4.8**	1.4	26.7	-250.3	-16.0	-131.3	**6.1**	-96.3	-29.6	3.0
Mx_i	2.6	-159.2	1.2	**-173.0**	0.4	-141.0	-2.0	-87.5	0.4	**85.2**	-2.6	-32.4
My_i	-31.5	-54.3	4.7	-81.2	**-42.0**	4.3	30.6	-140.3	-3.6	13.1	**39.4**	-340.3
Mz_i	9.1	-83.8	-0.4	24.5	9.3	**-692.2**	-5.5	-87.0	1.2	-83.2	-6.8	**376.0**
Fx_f	**-32.9**	-6.9	3.5	-42.9	-24.5	171.7	**32.2**	-101.0	-2.2	35.7	27.2	324.3
Fy_f	8.9	**-162.1**	-0.3	-58.7	7.5	223.5	-4.0	**44.5**	0.4	40.3	-1.7	110.3
Fz_f	15.8	-23.9	**-4.8**	-5.5	5.0	-140.4	-16.0	-73.1	**6.1**	-35.2	-2.0	459.6
Mx_f	4.6	-118.9	0.5	**-143.8**	6.0	319.4	-1.6	-68.2	0.5	**97.7**	-0.2	472.2
My_f	-28.7	-17.8	0.9	-53.9	**-27.1**	51.4	29.2	-95.6	0.1	25.6	**29.7**	287.4
Mz_f	-0.2	-5.4	0.1	-4.5	1.7	**-575.0**	4.5	-117.4	0.7	-33.3	5.2	**925.5**

Member 33

Fx_i	**-30.0**	-3.8	2.4	-34.9	-34.6	171.6	**29.4**	-105.7	-2.0	20.1	33.7	329.1
Fy_i	8.0	**-155.6**	-0.7	-44.6	8.8	201.7	-5.0	**40.1**	1.1	6.6	-5.9	191.8
Fz_i	10.5	-58.4	**-5.2**	-34.8	22.5	35.5	-11.1	-61.2	**5.5**	-51.7	-23.3	390.5
Mx_i	4.4	-126.4	-0.6	**-131.3**	6.0	349.5	-1.2	-51.3	-0.2	**57.9**	-0.4	336.6
My_i	-28.4	-2.8	3.7	-37.3	**-36.5**	174.5	27.6	-103.0	-3.4	25.4	**35.6**	316.3
Mz_i	-0.5	-4.8	-0.2	-2.5	1.4	**-574.8**	4.6	-114.5	0.3	-32.7	3.2	**924.9**
Fx_f	**-30.0**	-3.8	2.4	-34.9	-24.0	188.9	**29.4**	-52.6	-2.0	36.7	24.8	687.9
Fy_f	6.3	**-118.6**	-0.7	-42.1	4.0	549.1	-4.4	**57.8**	0.7	48.4	-1.3	229.5
Fz_f	10.5	-57.4	**-5.2**	-41.6	-0.8	295.9	-11.1	-9.1	**5.5**	3.0	1.6	550.0
Mx_f	3.9	-90.5	-0.7	**-106.8**	2.7	589.7	-7.4	34.8	0.9	**80.7**	-5.2	163.8
My_f	-27.1	-19.4	-0.3	-42.9	**-27.9**	84.8	27.1	-42.0	0.5	24.0	**28.3**	628.1
Mz_f	-0.6	-4.7	-0.1	-2.4	0.7	**-553.5**	4.7	-61.5	0.2	-16.2	4.2	**1316.5**

Member 34

Fx_i	**-28.7**	4.0	0.8	-7.6	-29.9	178.1	**28.2**	-51.4	-0.7	3.3	29.5	639.7
Fy_i	4.6	**-111.1**	-0.2	-29.3	4.1	441.9	-1.4	**53.1**	0.3	10.9	-0.6	351.1
Fz_i	4.4	-51.6	**-5.3**	-31.7	16.7	294.9	-5.0	-14.9	**5.4**	-21.8	-16.9	551.1
Mx_i	-3.3	-69.7	0.9	**-95.0**	-5.0	626.7	2.1	13.2	-0.8	**51.3**	4.3	109.9
My_i	-25.8	4.4	2.9	-15.5	**-32.5**	196.6	25.8	-59.5	-2.8	9.9	**32.2**	659.8
Mz_i	-0.8	-4.3	-0.2	-0.6	1.1	**-553.4**	4.7	-58.7	0.0	-17.4	3.8	**1316.1**
Fx_f	**-28.7**	4.0	0.8	-7.6	-26.1	160.2	**28.2**	1.7	-0.7	19.8	26.6	747.0
Fy_f	2.6	**-80.2**	-0.1	-22.2	1.4	563.1	0.9	**78.4**	0.2	23.1	2.9	365.0
Fz_f	4.4	-38.3	**-5.3**	-25.7	-7.2	496.0	-5.0	37.2	**5.4**	32.8	7.3	495.2
Mx_f	-4.3	-38.8	0.9	**-70.2**	-2.1	586.0	3.1	39.1	-0.7	**77.3**	1.8	277.0
My_f	-24.8	-14.5	-1.8	-16.6	**-29.1**	203.1	24.4	14.4	2.0	11.8	**29.0**	798.1
Mz_f	-0.8	-4.3	-0.2	-0.6	0.3	**-534.0**	4.6	-3.9	0.1	-0.3	4.1	**1445.7**

Member 35

Fx_i	**-28.4**	-0.0	-0.4	7.7	-26.8	128.4	**28.0**	-2.8	0.4	-20.5	27.0	740.3
Fy_i	3.4	**-79.8**	-0.3	-22.9	3.3	364.7	0.3	**78.9**	0.1	22.7	1.5	562.1
Fz_i	-1.6	-38.3	**-5.4**	-33.7	10.9	494.6	1.0	37.2	**5.3**	25.1	-10.7	496.6
Mx_i	2.1	-39.1	0.4	**-78.1**	1.5	265.1	-3.0	36.9	-0.6	**69.8**	-1.4	596.2
My_i	-24.5	15.4	2.2	16.3	**-29.5**	175.1	24.3	-15.9	-2.2	-12.7	**29.4**	797.6
Mz_i	-1.0	-4.0	-0.2	1.0	1.0	**-534.0**	4.8	-1.1	0.1	-2.3	3.7	**1445.7**
Fx_f	**-28.4**	-0.0	-0.4	7.7	-28.7	128.4	**28.0**	50.3	0.4	-3.9	28.8	634.8
Fy_f	1.2	**-54.8**	-0.3	-11.6	-0.4	362.9	2.4	**110.0**	0.2	29.0	4.3	445.9
Fz_f	-1.6	13.8	**-5.4**	21.0	-13.4	552.3	1.0	50.5	**5.3**	31.1	13.2	293.9
Mx_f	1.1	-13.1	0.5	**-51.8**	2.5	95.5	-1.9	67.6	-0.6	**94.3**	-3.1	643.5
My_f	-25.6	-5.8	-2.7	14.7	**-31.8**	210.5	25.5	58.2	2.6	-10.3	**31.5**	674.4
Mz_f	-1.2	3.1	0.0	0.6	0.5	**-547.6**	4.7	58.1	0.1	17.0	4.0	**1314.1**

Member 36

Fx_i	**-29.3**	4.5	-1.9	32.2	-24.4	213.8	**28.9**	49.4	1.7	-35.7	25.2	681.8
Fy_i	-1.9	**-59.9**	-0.8	-48.5	-0.9	242.4	4.1	**117.6**	0.7	41.9	4.1	553.6
Fz_i	-7.6	7.8	**-5.5**	-4.1	5.1	551.3	7.0	56.4	**5.2**	41.4	-4.3	294.9
Mx_i	-7.4	-36.1	-1.1	**-81.4**	-4.9	177.7	4.9	89.4	0.9	**106.3**	3.1	585.8
My_i	-26.5	21.7	0.6	41.1	**-28.0**	109.6	26.7	42.5	-0.8	-23.3	**28.4**	646.1
Mz_i	-1.1	3.5	-0.0	2.3	0.5	**-547.7**	4.8	61.0	-0.0	15.8	4.0	**1314.4**
Fx_f	**-29.3**	4.5	-1.9	32.2	-33.0	193.7	**28.9**	102.5	1.7	-19.2	32.6	334.2
Fy_f	-2.5	**-40.5**	-1.1	-6.6	-5.9	186.2	5.9	**154.4**	0.7	44.3	9.1	209.4
Fz_f	-7.6	59.9	**-5.5**	50.5	-19.7	394.2	7.0	57.4	**5.2**	34.5	19.0	38.8
Mx_f	-0.8	50.3	0.0	**-58.2**	-0.4	335.9	5.5	125.2	0.8	**130.6**	7.6	348.9
My_f	-27.7	1.3	-3.4	35.8	**-35.5**	195.8	27.6	102.0	3.1	-25.2	**34.6**	322.9
Mz_f	-1.1	3.6	0.1	2.4	0.6	**-563.6**	4.8	114.0	-0.1	32.2	3.6	**921.9**

Member 37

Fx_i	**-31.9**	5.5	-3.1	40.2	-24.2	190.0	**31.5**	99.9	2.1	-34.8	26.9	333.7
Fy_i	-3.0	**-45.2**	-0.7	-47.7	-2.2	131.8	7.4	**161.0**	0.4	58.6	8.0	231.8
Fz_i	-12.6	71.7	**-6.1**	33.7	1.5	463.4	10.3	24.5	**4.8**	5.2	0.4	-136.0
Mx_i	-2.4	67.1	-0.6	**-97.7**	-0.7	474.9	6.9	117.8	-0.1	**143.3**	7.6	319.9
My_i	-28.2	18.4	-0.7	55.9	**-27.0**	38.9	28.5	96.0	-0.3	-25.1	**29.5**	293.9
Mz_i	-0.7	4.2	-0.2	4.6	1.4	**-563.8**	4.6	116.8	-0.6	32.7	5.1	**922.5**
Fx_f	**-31.9**	60.6	-3.1	98.1	-38.4	40.8	**31.5**	159.1	2.1	-15.5	36.2	-254.6

Fy_i	-2.0	**-33.7**	-0.3	-19.7	-3.6	126.7	8.4	**204.3**	0.4	61.4	10.7	-401.9
Fz_i	-12.6	129.9	**-6.1**	94.8	-26.1	6.6	10.3	25.5	**4.8**	-1.7	21.9	-248.6
Mx_i	-2.8	86.3	-0.6	**-85.4**	-3.8	-27.2	6.0	159.2	-0.5	**171.9**	5.2	-127.9
My_i	-30.2	55.2	-4.5	81.3	**-40.7**	24.9	30.1	140.5	3.4	-11.4	**38.0**	-333.3
Mz_i	6.3	83.3	0.4	-24.6	8.8	**-676.8**	-2.9	87.7	-1.2	82.6	-6.5	**370.7**

Member 38

Fx_i	**-31.3**	56.6	-5.3	87.5	-35.0	42.8	**30.9**	160.8	1.1	-13.1	**44.3**	-251.7
Fy_i	-5.2	**-38.4**	-1.4	-41.1	-5.7	72.3	10.9	**210.0**	-1.1	83.6	21.0	-324.0
Fz_i	-9.6	141.7	**-9.2**	95.3	6.4	-91.3	11.5	8.8	**4.5**	-11.7	8.6	-169.9
Mx_i	-3.5	78.6	-1.1	**-109.0**	-2.4	-22.9	2.9	142.0	-3.2	**180.9**	12.0	-161.6
My_i	-29.4	25.3	-3.9	65.9	**-36.3**	-32.6	29.5	163.5	-0.4	-9.5	**45.9**	-287.5
Mz_i	5.8	86.0	-1.4	-18.6	14.1	**-675.3**	-2.7	88.5	-2.2	82.2	-0.5	**369.4**
Fx_f	**-31.3**	111.8	-5.3	145.4	-58.9	-332.2	**30.9**	161.8	1.1	-20.0	49.4	-977.5
Fy_f	-3.0	**-33.5**	-0.7	-28.5	-7.1	173.9	10.1	**260.5**	-1.5	92.4	14.0	-1309.8
Fz_f	-9.6	199.9	**-9.2**	156.4	-35.1	-863.2	11.5	9.8	**4.5**	-18.6	28.8	-211.7
Mx_f	-2.4	82.0	-0.6	**-104.6**	-4.4	-461.3	0.2	197.0	-4.2	**223.8**	-8.8	-847.9
My_f	-30.3	131.8	-6.4	133.0	**-61.0**	-417.4	28.9	134.9	2.9	-31.7	**51.2**	-929.3
Mz_f	8.4	250.2	-2.9	61.9	8.4	**-1412.5**	-5.6	-29.9	-0.8	1.1	-11.7	**280.5**

Member 39

Fx_i	**-29.4**	-107.0	5.9	-143.1	-65.4	-332.2	**29.0**	-161.6	-1.6	21.9	55.8	-982.1
Fy_i	8.5	**-259.0**	1.4	-92.9	14.8	-1308.2	-2.4	**32.1**	0.4	28.5	-7.0	172.8
Fz_i	15.9	-9.7	**-5.0**	19.1	40.1	-213.6	-12.3	-200.2	**9.6**	-157.4	-43.5	-861.5
Mx_i	-2.9	-197.5	4.5	**-224.6**	-15.0	-849.9	0.9	-81.6	0.1	**104.9**	1.9	-458.3
My_i	-28.5	-100.7	6.6	-123.7	**-66.9**	-329.5	26.9	-134.4	-3.5	32.9	**57.1**	-928.2
Mz_i	7.7	-241.9	2.7	-63.2	10.3	**-1412.6**	-5.2	25.9	0.9	-0.7	-12.9	**280.5**
Fx_f	**-29.4**	-55.0	5.9	-88.4	-38.8	32.9	**29.0**	-160.5	-1.6	15.0	48.7	-257.3
Fy_f	9.2	**-208.5**	1.1	-83.8	21.7	-331.5	-4.5	**37.0**	1.1	41.1	-7.3	77.5
Fz_f	15.9	-8.7	**-5.0**	12.2	17.6	-172.1	-12.3	-142.0	**9.6**	-96.3	-0.3	-94.8
Mx_f	-0.4	-142.2	3.6	**-181.3**	7.9	-166.1	-0.2	-78.5	0.6	**108.7**	1.6	-24.1
My_f	-27.4	-55.3	4.0	-80.8	**-41.2**	24.5	27.3	-161.7	0.8	6.0	**50.8**	-281.5
Mz_f	5.8	-83.9	1.2	18.3	15.6	**-686.9**	-2.6	-88.5	2.5	-82.7	-0.4	**376.5**

Member 40

Fx_i	**-31.5**	-61.6	3.2	-95.2	-38.3	24.6	**31.3**	-156.8	-2.0	14.9	35.9	-254.9
Fy_i	7.3	**-202.8**	-0.4	-61.8	9.9	-409.6	-1.8	**32.3**	0.0	19.9	-2.9	131.6
Fz_i	15.6	-24.1	**-5.3**	1.2	27.7	-247.6	-16.1	-130.2	**6.5**	-95.7	-30.5	5.9
Mx_i	1.2	-158.4	1.3	**-172.4**	-1.2	-138.7	0.1	-86.3	0.2	**84.6**	0.1	-28.7
My_i	-29.5	-53.0	5.0	-81.8	**-40.9**	7.6	29.4	-139.4	-3.8	13.8	**38.3**	-338.8
Mz_i	6.4	-81.2	-0.7	24.5	9.3	**-688.4**	-2.6	-87.7	1.5	-83.1	-6.6	**377.9**
Fx_f	**-31.5**	-9.5	3.2	-40.6	-24.0	178.0	**31.3**	-97.6	-2.0	34.2	26.7	316.5
Fy_f	6.3	**-159.4**	-0.5	-58.7	6.9	215.3	-2.0	**43.6**	0.2	40.4	-2.5	115.9
Fz_f	15.6	-23.1	**-5.3**	-5.7	3.9	-141.5	-16.1	-72.0	**6.5**	-34.7	-1.1	457.7
Mx_f	3.1	-118.1	0.6	**-143.2**	4.9	318.2	0.5	-67.0	0.2	**97.1**	1.3	470.5
My_f	-27.9	-17.8	0.2	-54.2	**-27.7**	41.8	28.6	-96.9	0.6	15.1	**30.3**	298.6
Mz_f	2.2	-6.4	0.3	-4.5	2.1	**-573.0**	2.4	-114.5	0.5	-33.3	5.1	**920.5**

Member 41

Fx_i	**-29.5**	-2.9	0.9	-25.6	-31.4	159.1	**29.5**	-94.6	-0.8	14.0	31.2	307.7
Fy_i	5.4	**-152.9**	-0.9	-44.6	9.0	193.5	-1.5	**39.1**	1.4	6.6	-5.6	197.4
Fz_i	9.8	-57.4	**-5.6**	-34.9	22.7	34.1	-10.4	-60.3	**5.9**	-51.3	-23.5	389.2
Mx_i	1.6	-125.6	-0.5	**-130.6**	3.1	348.2	1.4	-50.3	-0.5	**57.3**	2.8	333.3
My_i	-26.4	-1.4	3.8	-37.8	**-35.4**	171.5	26.6	-102.0	-3.5	26.1	**34.5**	313.5
Mz_i	2.1	-5.8	-0.0	-2.5	1.3	**-572.8**	2.3	-111.6	0.1	-32.7	3.6	**919.9**
Fx_f	**-29.5**	-2.9	0.9	-25.6	-27.5	172.1	**29.5**	-41.5	-0.8	30.5	27.4	616.5
Fy_f	3.7	**-115.9**	-0.9	-42.1	3.2	528.7	-1.8	**57.0**	0.8	48.5	-1.0	238.7
Fz_f	9.8	-56.4	**-5.6**	-41.8	-2.4	290.0	-10.4	-8.2	**5.9**	3.4	3.2	544.8
Mx_f	1.1	-89.7	-0.6	**-106.1**	0.2	584.8	-4.7	36.0	0.6	**80.3**	-3.2	161.5
My_f	-27.7	-21.8	-0.5	-41.3	**-29.0**	100.2	27.6	-43.1	0.7	22.7	**29.4**	638.2
Mz_f	2.1	-5.8	0.1	-2.4	1.5	**-546.8**	2.3	-58.6	-0.0	-16.2	3.9	**1298.3**

Member 42

Fx_i	**-28.9**	-6.4	0.3	-9.3	-29.4	182.3	**28.8**	-50.5	-0.3	-2.1	29.2	618.8
Fy_i	1.8	**-108.5**	-0.3	-29.3	4.0	421.6	1.8	**52.2**	0.5	11.0	-0.2	360.3
Fz_i	3.3	-50.5	**-5.7**	-31.7	16.5	289.0	-3.9	-14.1	**5.8**	-21.5	-16.7	545.8
Mx_i	-5.4	-68.1	1.0	**-94.4**	-7.4	644.2	4.3	13.4	-1.0	**51.0**	6.6	81.8
My_i	-25.1	4.9	2.7	-14.8	**-31.5**	191.4	25.2	-58.3	-2.7	9.5	**31.2**	664.1
Mz_i	2.1	-5.4	0.0	-0.6	1.2	**-546.7**	2.2	-55.7	-0.1	-17.5	4.0	**1297.9**
Fx_f	**-28.9**	-6.4	0.3	-9.3	-28.1	211.2	**28.8**	2.6	-0.3	14.4	28.1	722.2
Fy_f	-0.3	**-77.5**	-0.3	-22.2	0.5	530.8	4.1	**77.6**	0.4	23.2	4.2	377.8
Fz_f	3.3	-37.2	**-5.7**	-25.7	-9.3	485.4	-3.9	38.0	**5.8**	33.2	9.4	486.2
Mx_f	-6.5	-37.2	1.0	**-69.6**	-3.8	596.5	5.3	39.2	-0.9	**77.0**	3.5	247.9
My_f	-25.4	-14.9	-2.4	-16.7	**-30.9**	180.3	25.3	16.9	2.4	12.2	**30.8**	805.9
Mz_f	2.2	-5.3	0.0	-0.6	1.4	**-522.6**	2.0	-1.0	-0.1	-0.3	3.4	**1414.3**

Member 43

Fx_i	**-29.3**	-3.7	-0.7	6.7	-27.7	161.8	**29.0**	-2.1	0.5	-20.0	27.8	733.2
Fy_i	0.1	**-77.2**	-0.5	-22.9	2.6	333.0	**4.0**	**78.2**	0.4	22.8	2.5	573.8
Fz_i	-3.2	-37.2	**-5.8**	-33.5	10.2	484.0	2.5	38.0	**5.7**	25.3	-10.0	487.6
Mx_i	-0.0	**-41.5**	1.0	**-77.6**	-1.9	310.4	-0.9	41.1	-1.2	**69.7**	2.0	531.6
My_i	-27.5	14.3	0.8	17.4	**-29.6**	149.5	27.6	-6.9	-0.8	-12.1	**29.5**	730.8
Mz_i	2.2	-5.0	-0.0	1.1	1.4	**-522.6**	1.9	1.8	-0.1	-2.3	3.7	**1414.3**
Fx_f	**-29.3**	-3.7	-0.7	6.7	-30.7	178.5	**29.0**	51.0	0.5	-3.4	30.1	624.6
Fy_f	-2.1	**-52.2**	-0.5	-11.6	-2.0	319.7	6.1	**109.3**	0.4	29.0	6.4	460.5
Fz_f	-3.2	14.8	**-5.8**	21.1	-15.9	536.9	2.5	51.3	**5.7**	31.3	15.8	281.3
Mx_f	-1.0	-15.5	1.1	**-51.3**	1.7	152.0	0.1	71.9	-1.2	**94.1**	-2.2	559.6
My_f	-27.5	-4.8	-2.9	14.7	**-34.0**	194.6	26.9	58.9	2.8	-10.0	**33.6**	664.6
Mz_f	2.9	2.0	0.3	0.6	2.6	**-529.9**	1.8	61.1	-0.1	17.0	3.1	**1269.5**

Member 44

Fx_i	**-31.0**	4.4	-2.5	34.4	-25.1	197.8	**30.5**	50.4	2.1	-37.7	25.9	664.7
Fy_i	-5.2	**-57.3**	-0.9	-48.4	-1.9	200.4	8.7	**116.9**	1.0	42.0	6.0	567.7
Fz_i	-9.7	9.0	**-6.0**	-3.7	4.0	535.9	9.0	57.1	**5.6**	41.4	-3.1	282.4
Mx_i	-8.6	-34.6	-1.0	**-81.0**	-6.1	157.5	5.0	90.1	0.7	**106.3**	3.8	572.9
My_i	-28.0	17.9	0.2	40.8	**-28.6**	94.8	28.3	46.3	-0.3	-20.6	**29.1**	617.5
Mz_i	3.3	2.4	0.2	2.3	1.8	**-530.0**	1.7	63.9	-0.2	15.8	3.7	**1269.9**
Fx_f	**-31.0**	4.4	-2.5	34.4	-36.5	178.1	**30.5**	103.5	2.1	-21.2	35.5	312.8
Fy_f	-6.7	**-37.9**	-1.4	-6.7	-8.6	132.4	10.5	**153.7**	1.0	44.4	12.2	226.3
Fz_f	-9.7	61.1	**-6.0**	50.9	-22.8	373.6	9.0	58.1	**5.6**	34.5	22.0	23.1
Mx_f	-2.0	51.4	0.0	**-58.0**	-1.6	316.3	5.4	125.9	0.6	**130.5**	7.2	332.6
My_f	-28.7	0.6	-4.3	24.8	**-38.3**	129.9	28.3	94.9	3.9	-19.4	**37.4**	177.6
Mz_f	3.4	2.6	0.4	2.7	3.3	**-540.8**	1.1	116.8	-0.5	32.0	1.6	**864.2**

Member 45

Fx_i	**-34.0**	6.3	-3.5	40.7	-26.0	174.9	**33.6**	94.7	2.5	-23.9	28.1	180.7
Fy_i	-7.1	**-42.8**	-1.0	-49.9	-3.8	60.2	12.3	**160.3**	0.6	58.4	10.6	246.9
Fz_i	-15.1	73.0	**-6.6**	34.5	0.0	442.6	12.8	25.0	**5.2**	5.0	1.7	-147.7
Mx_i	-4.1	68.5	-0.8	**-97.3**	-2.2	452.9	7.1	118.3	-0.4	**143.0**	8.5	303.4
My_i	-30.5	5.6	-1.2	26.5	**-28.0**	153.9	30.2	96.2	-0.0	-19.6	**30.5**	307.4
Mz_i	4.0	3.2	0.0	5.0	2.9	**-541.0**	0.8	119.6	-0.9	32.2	4.3	**864.9**
Fx_f	**-34.0**	61.5	-3.5	98.6	-41.7	21.6	**33.6**	141.6	2.5	-10.1	39.5	-351.0
Fy_f	-6.0	**-31.3**	-0.6	-22.0	-6.4	44.7	13.2	**203.7**	0.5	61.3	14.1	-384.3
Fz_f	-15.1	131.2	**-6.6**	95.6	-29.7	-19.9	12.8	26.0	**5.2**	-1.8	25.1	-262.5
Mx_f	-4.4	87.7	-0.7	**-85.0**	-5.7	-54.9	6.0	159.9	-0.8	**171.6**	4.9	-147.4
My_f	-33.2	56.6	-4.7	82.0	**-44.0**	-3.9	32.8	140.9	3.6	-11.8	**41.2**	-348.0
Mz_f	11.3	85.3	0.5	-17.5	11.6	**-651.4**	-6.6	87.5	-1.2	75.4	-8.0	**302.8**

Member 46

Fx_i	**-33.6**	52.7	-6.3	68.1	-36.8	-4.3	**33.3**	144.6	1.9	-3.2	46.4	-348.5
Fy_i	-9.0	**-36.1**	-1.6	-40.8	-9.3	12.4	17.3	**209.5**	-0.7	86.3	27.8	-285.9
Fz_i	-11.5	142.9	**-9.9**	96.4	4.9	-115.8	14.5	21.9	**4.9**	-6.6	11.4	-334.8
Mx_i	-5.3	79.9	-1.1	**-108.6**	-5.4	-50.2	3.2	142.5	-3.6	**180.3**	13.6	-178.9
My_i	-31.5	16.0	-3.9	71.5	**-38.9**	1.0	31.8	164.0	-0.0	-11.1	**48.5**	-304.9
Mz_i	11.2	85.2	-1.3	-18.6	18.5	**-649.9**	-6.8	91.0	-2.5	82.0	-2.7	**301.5**
Fx_f	**-33.6**	107.8	-6.3	126.0	-65.4	-361.4	**33.3**	145.6	1.9	-10.1	54.9	-1001.5
Fy_f	-6.5	**-31.2**	-0.8	-28.3	-10.9	103.8	16.4	**260.0**	-1.0	95.1	22.6	-1259.7
Fz_f	-11.5	201.1	**-9.9**	157.5	-39.7	-893.2	14.5	23.0	**4.9**	-13.5	33.5	-435.7
Mx_f	-4.1	83.3	-0.5	**-104.3**	-7.1	-493.9	0.2	197.5	-4.6	**223.4**	-9.7	-868.5
My_f	-33.1	133.3	-6.8	133.9	**-65.9**	-453.7	31.5	135.4	3.1	-31.7	**55.4**	-944.6
Mz_f	12.9	256.4	-2.8	82.3	12.3	**-1389.3**	-9.7	-27.4	-1.0	0.7	-15.1	**204.9**

Member 47

Fx_i	**-32.4**	-111.9	4.4	-135.1	-68.3	-369.2	**32.1**	-166.5	0.1	12.1	57.8	-1006.4
Fy_i	13.2	**-254.5**	1.7	-93.0	18.4	-1280.2	-4.3	**17.7**	1.5	30.7	-8.5	62.7
Fz_i	13.1	-16.9	**-3.5**	7.7	32.9	-244.2	-10.8	-200.7	**9.1**	-141.0	-40.4	-885.6
Mx_i	-1.7	-201.6	3.5	**-217.9**	-10.9	-879.9	2.6	-84.9	2.3	**96.8**	0.1	-472.9
My_i	-31.7	-112.0	5.3	-135.7	**-69.6**	-367.1	30.3	-156.7	-1.6	32.6	**59.0**	-944.5
Mz_i	12.3	-238.1	3.2	-63.5	13.9	**-1389.6**	-9.6	13.8	0.2	1.0	-15.6	**204.8**
Fx_f	**-32.4**	-59.8	4.4	-80.4	-48.5	17.9	**32.1**	-165.5	0.1	5.2	58.1	-259.5
Fy_f	13.9	**-203.9**	1.3	-83.9	26.6	-323.9	-6.5	**22.6**	2.3	43.2	-4.0	32.4
Fz_f	13.1	-15.9	**-3.5**	0.8	17.0	-170.3	-10.8	-148.7	**9.1**	-86.4	0.8	-104.1
Mx_f	0.9	-146.4	2.4	**-174.5**	7.1	-178.1	1.6	-81.7	2.8	**100.5**	9.7	-24.1
My_f	-31.2	-29.3	3.6	-64.8	**-48.8**	-44.2	31.7	-166.9	0.7	5.8	**58.8**	-290.5
Mz_f	11.0	-79.0	2.0	24.4	24.1	**-683.7**	-7.4	-101.5	1.5	-87.2	-8.9	**358.3**

Member 48

Fx_i	**-36.4**	-62.6	2.7	-91.2	-42.5	20.4	**36.1**	-162.7	-1.5	10.6	39.8	-262.0
Fy_i	12.4	**-198.4**	-0.2	-62.0	12.2	-402.5	-1.4	**18.0**	0.8	19.1	-1.6	108.0
Fz_i	11.5	-42.5	**-4.4**	-38.7	21.9	-232.0	-12.8	-133.6	**5.9**	-86.7	-25.9	-12.0
Mx_i	2.2	-162.2	-0.1	**-166.3**	2.6	-149.0	4.4	-89.3	2.3	**77.2**	-0.4	-26.6
My_i	-35.7	-61.9	3.3	-92.2	**-43.2**	24.1	35.3	-161.3	-2.1	14.1	**40.4**	-261.8
Mz_i	12.8	-79.1	0.3	23.4	12.3	**-685.3**	-9.0	-98.0	0.2	-80.8	-8.9	**359.8**
Fx_f	**-36.4**	-10.5	2.7	-36.6	-30.4	178.6	**36.1**	-103.5	-1.5	29.9	32.9	336.0
Fy_f	11.1	**-155.2**	-0.3	-58.8	9.8	203.2	-2.6	**29.5**	1.3	43.7	1.8	163.6
Fz_f	11.5	-41.4	**-4.4**	-45.6	2.2	-43.2	-12.8	-75.4	**5.9**	-25.6	0.6	454.9
Mx_f	4.0	-122.0	-0.9	**-137.0**	2.1	325.3	5.0	-69.9	2.4	**89.7**	10.6	483.7
My_f	-34.9	-23.1	1.6	-62.7	**-31.3**	62.8	35.5	-102.0	-1.0	31.3	**33.6**	301.2
Mz_f	-2.4	-19.7	-0.2	-3.3	-1.4	**-537.9**	7.2	-109.2	0.7	-33.3	8.0	**906.9**

Member 49

Fx_i	**-34.2**	-10.5	2.0	-31.0	-38.6	124.1	**33.8**	-104.8	-1.8	17.4	38.0	332.2
Fy_i	10.5	**-148.7**	-0.7	-44.7	11.6	181.4	-7.8	**24.8**	0.7	8.0	-8.1	236.7
Fz_i	4.8	-45.2	**-4.9**	-43.3	16.2	15.8	-5.4	-75.1	**5.3**	-37.6	-17.0	403.8
Mx_i	1.4	-129.1	-1.8	**-125.6**	5.2	353.4	7.8	-54.4	2.0	**51.0**	3.8	333.2
My_i	-33.8	-8.2	2.4	-32.7	**-39.3**	183.0	33.5	-105.7	-2.0	19.1	**38.4**	330.9
Mz_i	-3.2	-19.2	-0.6	-1.4	-0.4	**-537.8**	7.4	-106.4	0.3	-32.8	5.8	**906.3**
Fx_f	**-34.2**	-10.5	2.0	-31.0	-29.6	171.5	**33.8**	-51.7	-1.8	34.0	29.9	686.9
Fy_f	8.1	**-112.1**	-0.8	-42.0	5.8	500.4	-4.2	**44.3**	1.0	48.5	-0.7	332.0
Fz_f	4.8	-44.2	**-4.9**	-50.2	-5.8	217.0	-5.4	-23.1	**5.3**	17.0	6.7	626.1
Mx_f	0.4	-93.5	-1.9	**-101.0**	-4.0	608.2	-2.0	30.4	2.9	**74.8**	5.2	189.7
My_f	-33.3	-20.4	1.1	-47.8	**-30.9**	103.7	32.1	-51.6	-0.6	32.9	**31.1**	662.8
Mz_f	-3.6	-19.1	-0.5	-1.2	-3.2	**-452.0**	7.8	-53.4	0.2	-16.4	7.4	**1261.3**

Member 50

Fx_i	**-32.4**	-8.6	1.2	-19.1	-34.9	99.2	**31.9**	-57.9	-1.6	6.5	35.7	699.1
Fy_i	7.7	**-105.0**	-0.1	-29.3	7.5	386.2	-4.5	**39.7**	0.1	11.5	-3.6	451.8
Fz_i	-0.9	-32.5	**-5.0**	-22.0	10.8	216.9	0.3	-34.8	**5.1**	-25.1	-10.9	626.2
Mx_i	-6.1	-75.4	0.3	**-91.0**	-6.8	609.1	5.5	11.0	-0.3	**48.6**	6.7	193.2
My_i	-31.5	-0.1	2.2	-12.1	**-36.5**	221.6	31.3	-60.7	-2.1	7.5	**36.2**	687.8
Mz_i	-4.3	-18.7	-0.6	0.4	-1.5	**-451.9**	7.9	-50.5	0.1	-17.6	6.7	**1260.9**
Fx_f	**-32.4**	-8.6	1.2	-19.1	-29.7	137.8	**31.9**	-4.8	-1.6	23.0	28.3	835.5
Fy_f	4.7	**-74.4**	-0.1	-22.8	4.1	483.7	-1.4	**65.5**	0.0	23.6	-0.2	521.5
Fz_f	-0.9	-31.4	**-5.0**	-28.9	-11.9	360.6	0.3	17.3	**5.1**	29.5	12.1	659.8
Mx_f	-7.7	-45.0	0.3	**-66.2**	-7.0	599.9	7.1	37.2	-0.2	**74.5**	7.2	366.1
My_f	-29.2	-17.0	-0.9	-20.2	**-31.4**	220.8	28.9	8.3	0.9	17.9	**31.1**	891.0
Mz_f	-4.1	-18.7	-0.6	0.4	-4.0	**-367.6**	7.7	4.3	0.2	-0.4	7.2	**1353.7**

Member 51

Fx_i	**-31.2**	1.5	0.8	16.9	-32.9	112.5	**30.6**	-13.8	-1.0	-19.3	32.9	829.6
Fy_i	7.4	**-74.7**	-0.1	-23.2	7.5	257.5	-4.9	**67.5**	-0.4	22.8	-3.3	751.4
Fz_i	-6.0	-23.3	**-5.1**	-11.0	5.8	356.4	5.4	9.2	**5.0**	-3.4	-5.6	664.0
Mx_i	0.3	-49.3	0.7	**-76.8**	-0.9	396.5	-1.4	40.5	-0.9	**70.0**	0.9	543.8
My_i	-29.7	9.9	1.9	18.2	**-34.1**	221.1	29.5	-16.2	-1.9	-12.0	**34.0**	820.9
Mz_i	-4.8	-18.5	-0.6	1.7	-1.9	**-367.6**	7.9	7.1	0.1	-2.3	6.7	**1353.7**
Fx_f	**-31.2**	1.5	0.8	16.9	-29.3	105.8	**30.6**	39.3	-1.0	-2.7	28.5	773.7
Fy_f	4.7	**-50.2**	-0.1	-11.1	4.4	238.0	-1.9	**99.0**	-0.3	28.9	-2.0	680.0
Fz_f	-6.0	-11.0	-5.1	1.9	-17.2	432.6	5.4	68.4	**5.0**	50.8	17.1	484.1
Mx_f	-1.2	-24.0	0.7	**-50.5**	0.8	283.2	0.4	71.7	-0.9	**94.4**	-1.5	568.3
My_f	-28.5	-6.3	-1.9	15.7	**-32.9**	228.3	28.1	47.7	1.8	-11.7	**32.4**	792.8
Mz_f	-5.6	-15.0	-0.4	0.6	-5.0	**-285.3**	8.3	66.3	0.2	17.0	7.7	**1185.3**

Member 52

Fx_i	**-31.4**	8.4	-1.1	45.0	-29.0	218.8	**30.9**	37.7	0.8	-43.9	29.4	804.0
Fy_i	1.9	**-55.6**	0.4	-52.6	1.7	147.6	-3.1	**106.6**	-0.4	43.0	-1.8	732.7
Fz_i	-10.0	13.8	**-5.3**	14.8	2.0	610.3	9.4	43.5	**4.9**	23.8	-1.1	306.4
Mx_i	0.0	-36.2	0.8	**-76.4**	-0.9	229.2	-1.2	83.6	-0.8	**103.4**	0.5	637.1
My_i	-29.8	14.2	1.0	47.5	**-32.0**	135.8	28.9	30.8	-1.3	-38.0	**32.4**	727.2
Mz_i	-6.1	-14.9	-0.5	1.8	-3.3	**-285.4**	8.5	69.1	0.0	15.8	7.6	**1185.7**
Fx_f	**-31.4**	8.4	-1.1	45.0	-33.8	180.8	**30.9**	90.8	0.8	-27.4	32.8	509.2
Fy_f	2.3	**-36.8**	0.1	-11.3	3.2	81.9	-0.4	**143.9**	-0.3	45.4	-0.9	428.6
Fz_f	-10.0	65.9	**-5.3**	69.4	-21.8	433.5	9.4	44.6	**4.9**	17.0	20.9	108.1
Mx_f	10.1	52.0	2.0	**-53.6**	15.1	354.2	-0.1	119.8	-0.9	**127.7**	-2.2	417.8
My_f	-28.5	7.8	-3.3	45.8	**-35.7**	194.0	27.5	99.0	2.9	38.6	**34.4**	311.2
Mz_f	-6.4	-13.3	-0.4	2.8	-5.6	**-220.8**	8.7	122.1	-0.1	32.1	7.5	**756.9**

Member 53

Fx_i	**-32.8**	12.8	-2.5	62.3	-27.1	177.4	**32.2**	84.1	1.2	-52.0	29.8	507.2
Fy_i	-0.4	**-41.8**	0.1	-42.8	0.2	98.9	1.7	**150.8**	-0.6	60.1	2.9	452.6
Fz_i	-15.3	84.5	**-6.0**	72.0	-1.5	489.8	10.8	10.2	**4.5**	-17.1	1.1	-8.4
Mx_i	13.7	70.3	1.8	**-85.6**	10.0	498.8	-2.3	110.4	-1.9	**135.4**	2.0	393.2
My_i	-29.3	19.8	0.3	70.7	**-30.0**	65.1	28.7	76.4	-1.4	-41.1	**32.3**	491.6
Mz_i	-6.8	-12.9	-0.7	4.3	-3.5	**-221.0**	8.8	124.8	-0.6	32.5	9.4	**757.6**
Fx_f	**-32.8**	58.7	-2.5	110.6	-38.4	16.6	**32.2**	143.4	1.2	-32.7	35.4	-10.1
Fy_f	0.4	**-30.9**	0.5	-15.3	2.3	87.8	3.4	**194.5**	-0.6	63.2	1.8	-144.6
Fz_f	-15.3	136.5	**-6.0**	126.7	-28.7	-12.1	10.8	11.2	**4.5**	-24.0	21.3	-56.6
Mx_f	12.9	89.2	1.9	**-73.5**	17.5	-10.6	-3.0	152.3	-2.3	**164.4**	-8.3	-30.4
My_f	-31.1	58.6	-4.5	105.5	**-41.0**	30.2	30.1	95.6	2.9	10.7	**37.1**	-113.4
Mz_f	-0.3	82.7	-0.5	5.8	-0.3	**-312.7**	0.9	74.6	-0.8	47.1	-1.1	**231.5**

Member 54

Fx_i	**-31.4**	59.6	-6.3	103.5	-33.3	-2.3	**30.5**	94.8	0.2	6.8	46.3	-81.1
Fy_i	0.5	**-33.8**	0.1	-25.0	1.8	86.8	6.1	**199.3**	-2.9	73.3	15.4	-145.0
Fz_i	-6.4	151.9	**-10.1**	129.6	13.4	-56.5	7.1	-2.1	**4.6**	-25.7	0.8	-8.7
Mx_i	12.9	84.0	1.5	**-89.6**	16.8	-6.4	-5.7	141.5	-5.2	**167.5**	2.8	-11.2
My_i	-29.8	25.4	-3.2	88.7	**-38.4**	-27.5	28.5	137.4	-2.7	35.9	**50.1**	-37.4
Mz_i	-0.2	83.0	-2.3	5.3	6.3	**-311.8**	0.5	77.3	-2.1	51.9	5.1	**230.9**
Fx_f	**-31.4**	114.8	-6.3	161.4	-61.7	-395.5	**30.5**	95.9	0.2	-0.0	47.1	-510.2
Fy_f	3.1	**-29.3**	0.9	-13.1	8.0	173.0	5.3	**250.1**	-3.3	82.6	0.2	-1088.0
Fz_f	-6.4	210.0	**-10.1**	190.7	-31.9	-874.0	7.1	-1.1	**4.6**	-32.6	21.4	-1.5
Mx_f	14.1	86.9	2.1	**-85.9**	26.9	-461.2	-10.9	187.6	-6.8	**211.8**	-32.0	-686.8
My_f	-31.1	115.7	-7.0	161.7	**-62.8**	-400.8	30.2	95.0	0.9	-0.4	**48.2**	-504.9
Mz_f	5.2	245.5	-4.0	77.6	-0.6	**-1108.0**	-4.7	-26.7	-0.5	0.8	-8.0	**184.6**

Member 55

Fx_i	**-29.4**	-126.2	11.2	-75.1	-69.5	-403.7	**28.5**	-44.4	-2.6	-26.8	52.9	-502.1
Fy_i	4.5	**-195.1**	5.1	-51.2	-0.9	-1068.8	1.4	**10.0**	-0.9	3.4	4.5	180.9
Fz_i	21.4	-38.9	**-5.1**	-2.2	45.2	-488.5	-18.7	-149.0	**12.7**	-101.6	-54.3	-702.9
Mx_i	5.0	-169.6	4.4	**-146.4**	2.1	-714.7	-7.6	-29.9	2.4	**42.0**	-17.3	-184.2
My_i	-28.9	-126.7	11.7	-72.8	**-69.6**	-423.9	27.6	-54.4	-3.6	-30.3	**53.2**	-631.7
Mz_i	4.8	-186.9	5.0	-43.4	-0.7	**-1107.9**	-4.6	9.9	0.4	0.6	-8.1	**184.5**
Fx_f	**-29.4**	-82.7	11.2	-29.4	-28.4	-20.7	**28.5**	-43.6	-2.6	-32.4	43.4	-340.7
Fy_f	5.2	**-151.4**	4.5	-40.5	17.9	-444.2	-1.1	**13.7**	0.2	11.8	-1.0	181.1
Fz_f	21.4	-38.0	**-5.1**	-7.8	26.6	-347.5	-18.7	-105.4	**12.7**	-55.9	-7.6	-232.4
Mx_f	8.4	-127.4	2.6	**-109.1**	20.6	-182.2	-11.1	-0.7	5.2	**45.8**	-10.0	-129.6
My_f	-26.2	-65.4	7.3	20.9	**-30.4**	45.7	27.6	-67.1	-1.0	-53.1	**45.1**	-412.4
Mz_f	7.0	-40.7	2.4	-5.1	14.5	**-728.6**	-5.8	-101.2	2.8	-24.6	-1.9	**350.2**

Member 56

Fx_i	**-28.2**	-86.9	8.1	-43.7	-42.6	-21.4	**27.3**	-39.6	-5.3	-21.8	37.4	-340.0
Fy_i	5.4	**-148.0**	0.3	-32.2	5.7	-446.7	-4.2	**12.3**	1.0	6.4	-5.8	183.0
Fz_i	23.8	-44.9	**-5.6**	-33.4	35.0	-154.2	-26.3	-80.9	**8.2**	-35.5	-41.3	-179.4
Mx_i	6.8	-124.5	-0.7	**-105.0**	9.4	-178.0	-9.6	-5.2	3.5	**34.9**	-16.5	-141.2

My,	-28.1	-72.0	8.1	-35.3	**-42.7**	-33.9	27.2	-54.5	-5.3	-30.2	**37.5**	-327.6
Mz,	6.8	-40.1	0.1	-3.3	5.7	**-728.4**	-5.6	-100.0	1.2	-23.0	-6.2	**349.8**
Fx,	**-28.2**	-43.3	8.1	2.0	-13.0	215.3	**27.3**	-38.8	-5.3	-27.4	18.0	-196.2
Fy,	6.2	**-111.7**	0.1	-25.2	7.1	-115.2	-4.2	**22.7**	1.1	34.6	-1.9	219.2
Fz,	23.8	-44.0	**-5.6**	-39.0	14.4	8.7	-26.3	-37.3	**8.2**	10.2	-11.1	39.2
Mx,	9.2	-88.3	-1.5	**-76.7**	7.6	72.0	-12.3	9.0	4.2	**50.1**	-5.0	16.9
My,	-25.5	-34.8	6.5	19.9	**-13.3**	269 4	26.4	-61.9	-4.7	-47.8	**18.4**	-182.8
Mz,	6.3	-40.1	0.2	-3.2	5.8	**-581.3**	-5.2	-52.1	1.2	-10.1	-1.3	**631.4**

Member 57

Fx,	**-22.0**	-48.1	6.2	-15.0	-33.0	215.1	**21.2**	-34.4	-6.8	-16.0	33.9	-196.1
Fy,	4.0	**-106.9**	-1.9	-12.3	8.0	-149.4	-4.8	**18.9**	1.5	14.5	-7.3	232.1
Fz,	20.2	-52.9	**-7.3**	-39.0	34.5	-44.0	-20.8	-23.6	**6.8**	10.3	-33.4	75.6
Mx,	5.8	-82.1	-3.0	**-71.8**	12.5	65.5	-6.9	0.1	2.6	**35.4**	-11.8	3.3
My,	-21.7	-30.5	6.6	0.4	**-33.7**	130.6	20.9	-53.1	-7.2	-32.3	**34.7**	-108.0
Mz,	5.1	-39.7	-0.6	-1.9	5.3	**-581.3**	-4.5	-49.5	-0.4	-5.6	-1.9	**631.2**
Fx,	**-22.0**	-4.6	6.2	30.7	-10.2	307.8	**21.2**	-33.6	-6.8	-21.6	9.1	-71.4
Fy,	4.7	**-76.9**	-2.0	-7.0	1.3	10.1	-5.5	**34.4**	1.6	32.8	-2.2	327.4
Fz,	20.2	-52.9	**-7.3**	-39.0	7.8	149.7	-20.8	14.7	**6.8**	44.0	-8.6	92.0
Mx,	6.8	-53.6	-3.1	**-50.1**	2.0	118.1	-7.1	14.0	2.5	**52.9**	-2.6	109.1
My,	-20.7	-11.7	5.0	18.9	**-10.6**	461.1	20.8	-32.9	-6.2	-11.1	**9.6**	-192.3
Mz,	4.9	-39.6	-0.5	-1.9	2.9	**-435.8**	-4.2	-5.1	-0.5	8.3	-3.3	**739.3**

Member 58

Fx,	**-15.9**	-7.7	3.9	18.2	-22.6	308.1	**15.1**	-30.9	-8.3	-15.1	30.7	-71.8
Fy,	0.9	**-74.7**	-2.4	-5.1	5.2	-59.7	-1.4	**33.0**	-0.8	13.1	1.0	412.5
Fz,	11.1	-37.9	**-11.2**	-11.4	33.1	349.9	-13.5	-2.7	**6.5**	11.6	-25.8	**-41.4**
Mx,	-4.1	-39.2	-0.5	**-54.0**	-2.7	234.1	3.1	-3.0	-4.7	**54.4**	12.4	57.9
My,	-14.9	9.5	6.1	27.6	**-26.2**	92.4	13.4	-49.6	-10.6	-31.0	**34.1**	212.3
Mz,	3.8	-39.5	-0.7	-1.3	4.0	**-435.9**	-3.5	-2.0	-3.3	14.1	4.5	**739.3**
Fx,	**-15.9**	33.6	3.9	55.1	-8.1	255.1	**15.1**	-30.9	-8.3	-15.1	0.2	41.5
Fy,	2.1	**-54.8**	-2.4	2.7	-2.8	-96.9	-1.8	**57.9**	-1.0	21.6	-2.4	448.1
Fz,	11.1	5.7	**-11.2**	34.3	-8.0	401.9	-13.5	-1.8	**6.5**	6.0	-2.0	-33.2
Mx,	-3.8	-16.3	0.2	**-33.6**	-3.3	125.8	2.8	21.3	-5.4	**75.8**	-6.1	214.8
My,	-12.1	23.5	-1.4	39.1	**-13.3**	502.2	13.0	-25.1	-4.7	-1.3	**4.0**	-159.9
Mz,	3.3	-39.4	-0.5	-1.4	1.4	**-291.1**	-3.0	42.4	-3.5	28.2	-7.6	**671.3**

Member 59

Fx,	**-9.7**	33.6	-1.0	51.4	-7.1	257.7	**9.1**	-23.5	-8.3	9.4	24.3	-99.5
Fy,	1.9	**-56.0**	-3.8	-29.8	8.3	-145.4	-2.8	**62.8**	-8.0	48.3	13.8	501.7
Fz,	5.6	13.2	**-21.5**	41.2	47.1	440.5	-7.4	-10.1	**7.2**	-7.6	-21.1	-71.7
Mx,	-4.0	-24.8	-0.5	**-49.5**	-3.0	94.7	2.4	30.1	-13.5	**86.9**	28.6	246.3
My,	-7.9	-4.3	7.0	-2.8	**-21.2**	-30.7	6.2	7.4	-21.3	36.5	**47.2**	399.6
Mz,	2.4	-39.7	-0.1	-2.0	1.5	**-291.2**	-2.5	46.2	-10.3	36.4	18.6	**671.4**
Fx,	**-9.7**	34.4	-1.0	45.8	-10.8	133.1	**9.1**	-23.5	-8.3	9.4	-6.0	-13.3
Fy,	2.9	**-43.9**	-1.5	-7.0	-0.8	-95.6	-2.9	**96.8**	-9.0	56.1	-17.2	374.6
Fz,	5.6	62.9	**-21.5**	93.4	-31.7	302.9	-7.4	-9.2	**7.2**	-13.2	5.3	-36.3
Mx,	-4.2	-11.6	1.8	**-34.2**	-1.1	35.7	2.5	61.4	-16.2	**109.7**	-25.4	236.5
My,	4.7	64.4	-21.0	95.0	**-31.8**	307.4	-6.5	-6.4	6.9	-17.4	**5.6**	-24.6
Mz,	2.0	-39.7	0.2	-2.3	1.3	**-145.7**	-2.2	92.6	-10.5	51.3	-19.2	**424.7**

Member 60

Fx,	**-3.8**	74.9	-26.1	82.5	44.7	290.4	**3.2**	-21.1	-6.3	12.4	14.5	-76.2
Fy,	1.0	**-46.1**	-4.0	-22.6	7.3	-98.6	-2.0	**102.1**	-25.0	71.0	45.2	375.0
Fz,	1.2	63.7	**-47.7**	92.8	89.2	302.6	-2.2	-5.4	**9.9**	-18.6	-20.7	-18.4
Mx,	-1.5	-16.6	0.2	**-44.1**	-2.3	29.9	0.5	66.1	-38.5	**115.7**	71.8	242.5
My,	-2.2	-5.4	9.9	-18.6	**-20.7**	-18.4	1.2	63.7	-47.7	92.8	**89.2**	302.6
Mz,	1.3	-40.3	1.5	-3.9	-2.4	**-145.8**	-2.0	97.1	-27.7	63.2	50.2	**425.0**
Fx,	**-3.8**	81.9	-26.1	83.3	-50.9	-2.3	**3.2**	-21.1	-6.3	12.4	-8.8	1.3
Fy,	1.3	**-40.3**	1.5	-3.9	3.0	1.8	-2.0	**141.5**	-27.7	77.2	-51.4	-3.3
Fz,	1.2	107.3	**-47.7**	138.5	-85.5	-1.7	-2.2	-4.6	**9.9**	-24.2	15.8	-0.0
Mx,	-2.0	-4.4	9.8	**-24.6**	15.7	-0.0	0.8	106.1	-47.4	**139.9**	-85.3	-1.5
My,	0.9	108.5	-47.6	139.4	**-85.7**	-1.8	-2.0	-6.2	9.9	-24.5	**15.9**	0.1
Mz,	-1.5	122.4	-7.0	18.4	-13.5	**-3.7**	0.5	-26.7	-6.1	22.7	-10.8	**2.4**

Member 121

Fx,	**-1.7**	0.0	-0.0	0.0	-135.2	0.0	**0.2**	-0.0	-0.0	-0.0	16.0	-0.0
Fy,	-0.7	**-0.0**	-43.5	0.9	71.1	-0.0	-0.7	**0.0**	43.5	-0.9	-190.1	0.0
Fz,	-0.9	-0.0	**-47.5**	0.3	67.6	-0.0	-0.9	0.0	**47.5**	-0.3	-217.1	0.0
Mx,	-0.3	0.0	1.7	**-1.2**	-26.3	0.0	-0.3	-0.0	-1.7	**1.2**	-15.9	-0.0
My,	-1.1	0.0	45.0	-0.1	**-220.4**	0.0	-0.0	-0.0	-33.2	-0.1	**99.7**	-0.0
Mz,	-0.7	-0.0	-43.5	0.9	71.1	**-0.0**	-0.7	0.0	43.5	-0.9	-190.1	**0.0**
Fx,	**-1.7**	0.0	-0.0	0.0	-135.2	0.0	**0.2**	-0.0	-0.0	-0.0	16.0	-0.0
Fy,	-0.7	**-0.0**	-43.5	0.9	29.8	-0.0	-0.7	**0.0**	43.5	-0.9	-148.7	0.0
Fz,	-0.9	-0.0	**-47.5**	0.3	22.5	-0.0	-0.9	0.0	**47.5**	-0.3	-172.0	0.0
Mx,	-0.3	0.0	1.7	**-1.2**	-24.6	0.0	-0.3	-0.0	-1.7	**1.2**	-17.5	-0.0
My,	-1.1	0.0	42.3	-0.1	**-179.1**	0.0	0.1	-0.0	-28.4	0.2	**70.1**	-0.0
Mz,	-0.7	-0.0	-43.5	0.9	29.8	**-0.0**	-0.7	0.0	43.5	-0.9	-148.7	**0.0**

Member 122

Fx,	**-2.5**	-0.0	0.0	-0.0	7.6	3.2	**0.3**	0.0	-0.0	-0.0	-0.9	-0.4
Fy,	-1.1	**-5.6**	-7.7	1.8	26.4	-15.4	-1.1	**5.6**	7.7	-1.8	-19.6	18.1
Fz,	-1.5	-2.8	**-11.1**	0.6	37.9	-6.5	-1.5	2.8	**11.1**	-0.6	-28.7	10.3
Mx,	-0.4	4.1	4.2	**-2.0**	-11.5	12.9	-0.4	-4.1	-4.2	**2.0**	13.6	-11.9
My,	-0.2	1.2	10.8	-0.6	**-32.1**	4.0	-1.6	-2.7	-11.1	0.7	**38.1**	-6.1
Mz,	-1.1	-5.6	-7.4	1.8	25.6	**-15.4**	-1.1	5.6	7.4	-1.8	-18.8	**18.1**
Fx,	**-2.5**	-0.0	0.0	-0.0	7.6	3.2	**0.3**	0.0	-0.0	-0.0	-0.9	-0.4
Fy,	-1.1	**-5.6**	-7.7	1.8	19.1	-10.1	-1.1	**5.6**	7.7	-1.8	-12.3	12.8
Fz,	-1.5	-2.8	**-11.1**	0.6	27.4	-3.9	-1.5	2.8	**11.1**	-0.6	-18.1	7.6
Mx,	-0.4	4.1	4.2	**-2.0**	-7.5	8.9	-0.4	-4.1	-4.2	**2.0**	9.6	-8.0
My,	-0.1	2.0	10.7	-0.9	**-21.9**	4.2	-1.6	-2.7	-11.1	0.7	**27.6**	-3.5
Mz,	-1.1	-5.6	-7.4	1.8	18.6	**-10.1**	-1.1	5.6	7.4	-1.8	-11.8	**12.8**

Member 123

Fx,	**-1.3**	-0.0	0.0	0.0	2.7	5.1	**0.2**	-0.0	0.0	0.0	-0.3	-0.6
Fy,	-0.5	**-9.2**	-7.6	1.1	24.1	-25.5	-0.5	**9.2**	7.6	-1.1	-21.4	29.9
Fz,	-0.5	-2.7	**-11.0**	0.4	33.9	-5.9	-0.5	2.7	**11.0**	-0.4	-32.1	10.4
Mx,	-0.2	7.1	4.2	**-1.2**	-12.3	22.1	-0.2	-7.1	-4.2	**1.2**	13.0	-20.5
My,	-0.3	0.6	10.9	-0.3	**-32.6**	3.0	-0.7	-4.7	-11.0	0.5	**34.8**	-11.2
Mz,	-0.5	-9.2	-7.6	1.1	24.1	**-25.5**	-0.5	9.2	7.6	-1.1	-21.4	**29.9**
Fx,	**-1.3**	-0.0	0.0	0.0	2.7	5.1	**0.2**	-0.0	0.0	0.0	-0.3	-0.6
Fy,	-0.5	**-9.2**	-7.6	1.1	16.9	-16.7	-0.5	**9.2**	7.6	-1.1	-14.2	21.1
Fz,	-0.5	-2.7	**-11.0**	0.4	23.5	-3.3	-0.5	2.7	**11.0**	-0.4	-21.6	7.8
Mx,	-0.2	7.1	4.2	**-1.2**	-8.3	15.3	-0.2	-7.1	-4.2	**1.2**	9.0	-13.8
My,	-0.2	0.5	10.9	-0.3	**-22.2**	2.2	-0.7	-4.6	-10.9	0.5	**24.4**	-6.5
Mz,	-0.5	-9.2	-7.3	1.1	16.4	**-16.7**	-0.5	9.2	7.3	-1.1	-13.7	**21.1**

Member 124

Fx,	**-1.2**	-0.0	-0.0	0.0	-1.8	5.8	**0.1**	0.0	0.0	0.0	0.2	-0.7
Fy,	-0.4	**-10.8**	-7.6	0.2	22.4	-30.0	-0.4	**10.8**	7.6	-0.2	-23.1	35.0
Fz,	-0.5	-4.4	**-11.0**	0.3	32.2	-10.5	-0.5	4.4	**11.0**	-0.3	-33.8	16.1
Mx,	-0.2	3.2	5.1	**-0.5**	-15.6	10.5	-0.2	-3.2	-5.1	**0.5**	15.0	-8.8
My,	-0.4	3.7	11.0	-0.4	**-33.9**	13.6	-0.6	-6.0	-11.0	0.3	**32.4**	-14.6
Mz,	-0.4	-10.8	-7.6	0.2	22.4	**-30.0**	-0.4	10.8	7.6	-0.2	-23.1	**35.0**
Fx,	**-1.2**	-0.0	-0.0	0.0	-1.8	5.8	**0.1**	0.0	0.0	0.0	0.2	-0.7
Fy,	-0.4	**-10.8**	-7.6	0.2	15.2	-19.7	-0.4	**10.8**	7.6	-0.2	-15.9	24.7
Fz,	-0.5	-4.4	**-11.0**	0.3	21.7	-6.3	-0.5	4.4	**11.0**	-0.3	-23.4	11.9
Mx,	-0.2	3.2	5.1	**-0.5**	-10.8	7.5	-0.2	-3.2	-5.1	**0.5**	10.1	-5.8
My,	-0.4	4.0	10.9	-0.3	**-23.4**	10.7	-0.6	-6.0	-11.0	0.3	**22.0**	-8.9
Mz,	-0.4	-10.8	-7.6	0.2	15.2	**-19.7**	-0.4	10.8	7.6	-0.2	-15.9	**24.7**

Member 125

Fx,	**-2.2**	-0.0	-0.0	0.0	-8.3	5.3	**0.3**	-0.0	0.0	0.0	1.0	-0.7
Fy,	-0.7	**-10.3**	-7.6	-0.8	20.6	-28.5	-0.6	**10.3**	7.4	0.8	-24.2	33.1
Fz,	-0.9	-5.4	**-11.0**	0.0	29.6	-13.5	-0.9	5.4	**11.0**	-0.0	-36.4	18.7
Mx,	-0.3	-7.0	-3.4	**-1.0**	9.1	-20.3	-0.3	7.0	3.4	**1.0**	-11.6	21.9
My,	-1.0	6.1	11.0	0.1	**-36.4**	21.2	-0.9	-6.9	-11.0	-0.2	**29.6**	-18.3
Mz,	-0.7	-10.3	-7.6	-0.8	20.6	**-28.5**	-0.6	10.3	7.4	0.8	-24.2	**33.1**
Fx,	**-2.2**	-0.0	-0.0	0.0	-8.3	5.3	**0.3**	-0.0	0.0	0.0	1.0	-0.7
Fy,	-0.7	**-10.3**	-7.6	-0.8	13.3	-18.8	-0.6	**10.3**	7.4	0.8	-17.2	23.3
Fz,	-0.9	-5.4	**-11.0**	0.0	19.2	-8.4	-0.9	5.4	**11.0**	-0.0	-26.0	13.6

Mx_f	-0.3	-7.0	-3.4	**-1.0**	5.8	-13.6	-0.3	7.0	3.4	1.0	-8.3	15.2
My_f	-1.0	6.1	11.0	0.1	**-26.0**	15.4	-0.7	-5.9	-10.7	-0.0	**19.3**	-10.2
Mz_f	-0.6	-10.2	-7.3	-0.8	12.9	**-18.8**	-0.7	10.3	7.6	0.8	-18.0	**23.3**

Member 126

Fx_i	**-5.4**	-0.0	-0.0	0.0	-21.8	3.7	**0.7**	-0.0	0.0	-0.0	2.7	-0.5
Fy_i	-2.0	**-7.3**	-8.4	-1.8	17.2	-20.2	-2.0	**7.3**	8.4	1.8	-33.0	23.4
Fz_i	-2.3	-5.0	**-11.5**	-0.7	25.4	-13.2	-2.3	5.0	**11.5**	0.7	-43.7	17.0
Mx_i	-0.8	-5.5	-3.5	**-2.1**	7.2	-16.0	-0.8	5.5	3.5	**2.1**	-13.9	17.1
My_i	-2.7	4.2	11.2	0.5	**-44.1**	14.9	-1.2	-3.9	-10.8	-0.5	**27.7**	-11.1
Mz_i	-2.0	-7.3	-8.4	-1.8	17.2	**-20.2**	-2.0	7.3	8.4	1.8	-33.0	**23.4**
Fx_f	**-5.4**	-0.0	-0.0	0.0	-21.8	3.7	**0.7**	-0.0	0.0	-0.0	2.7	-0.5
Fy_f	-2.0	**-7.3**	-8.4	-1.8	9.2	-13.3	-2.0	**7.3**	8.4	1.8	-25.1	16.5
Fz_f	-2.3	-5.0	**-11.5**	-0.7	14.5	-8.4	-2.3	5.0	**11.5**	0.7	-32.7	12.2
Mx_f	-0.8	-5.5	-3.5	**-2.1**	3.8	-10.7	-0.8	5.5	3.5	**2.1**	-10.6	11.9
My_f	-2.9	3.9	10.8	0.4	**-33.8**	10.1	-0.9	-2.7	-10.4	-0.3	**17.5**	-5.4
Mz_f	-2.0	-7.2	-8.3	-1.8	9.2	**-13.3**	-2.0	7.2	8.3	1.8	-25.1	**16.5**

Member 127

Fx_i	**-14.1**	-0.0	-0.0	0.0	-2.6	1.0	**1.8**	-0.0	0.0	-0.0	0.3	-0.1
Fy_i	-5.8	**-2.3**	-4.2	-0.5	11.4	-6.4	-5.8	**2.3**	4.2	0.5	-13.5	7.2
Fz_i	-5.2	-1.4	**-6.3**	-2.3	18.1	-3.7	-4.4	1.1	**6.4**	2.2	-19.9	3.7
Mx_i	-2.2	-0.2	-1.5	**-3.9**	4.0	-0.5	-2.2	0.2	1.5	**3.9**	-4.8	0.8
My_i	-6.1	1.5	6.3	1.7	**-20.1**	4.8	-4.1	-1.1	-6.3	-2.1	**18.2**	-3.1
Mz_i	-5.7	-2.3	-4.1	-0.4	11.3	**-6.4**	-5.9	2.3	4.2	0.4	-13.7	**7.2**
Fx_f	**-14.1**	-0.0	-0.0	0.0	-2.6	1.0	1.8	-0.0	0.0	-0.0	0.3	-0.1
Fy_f	-5.8	**-2.3**	-4.2	-0.5	7.5	-4.2	-5.8	**2.3**	4.2	0.5	-9.6	5.0
Fz_f	-5.2	-1.4	**-6.3**	-2.3	12.1	-2.4	-4.4	1.1	**6.4**	2.2	-13.8	2.6
Mx_f	-2.2	-0.2	-1.5	**-3.9**	2.6	-0.3	-2.2	0.2	1.5	**3.9**	-3.4	0.6
My_f	-6.1	1.5	6.3	1.7	**-14.1**	3.4	-4.1	-1.1	-6.3	-2.1	**12.2**	-2.0
Mz_f	-5.6	-2.3	-4.1	-0.3	7.4	**-4.2**	-6.5	2.2	4.3	0.5	-10.1	**5.0**

Member 128

Fx_i	**-4.5**	-0.0	0.0	-0.0	16.7	7.6	**0.6**	0.0	-0.0	-0.0	-2.1	-1.0
Fy_i	-1.6	**-8.8**	-0.1	3.5	6.2	-23.1	-1.6	**8.8**	0.1	-3.5	5.9	29.8
Fz_i	-1.5	3.9	**-5.0**	-3.3	20.5	13.8	-1.5	-4.0	**5.0**	3.4	-9.5	-9.9
Mx_i	-0.7	6.0	-0.5	**-4.6**	4.0	19.3	-0.7	-6.0	0.5	**4.6**	1.0	-17.0
My_i	0.2	-1.9	4.5	2.0	**-14.1**	-5.5	-4.2	0.5	-3.7	-0.4	**26.9**	8.3
Mz_i	-1.6	-8.8	-0.1	3.5	6.1	**-23.1**	-1.7	8.8	0.1	-3.5	6.0	**29.8**
Fx_f	**-4.5**	-0.0	0.0	-0.0	16.7	7.6	**0.6**	0.0	-0.0	-0.0	-2.1	-1.0
Fy_f	-1.6	**-8.8**	-0.1	3.5	6.2	-14.7	-1.6	**8.8**	0.1	-3.5	6.0	21.4
Fz_f	-1.5	3.9	**-5.0**	-3.3	15.7	10.1	-1.5	-4.0	**5.0**	3.4	-4.7	-6.2
Mx_f	-0.7	6.0	-0.5	**-4.6**	3.5	13.6	-0.7	-6.0	0.5	**4.6**	1.5	-11.2
My_f	0.2	-2.0	4.4	1.9	**-9.9**	-3.8	-4.3	0.1	-3.5	0.0	**23.5**	7.4
Mz_f	-1.6	-8.8	-0.0	3.6	5.9	**-14.8**	-1.7	8.8	0.1	-3.6	6.2	**21.5**

Member 129

Fx_i	**-1.2**	-0.0	-0.0	0.0	4.5	12.0	**0.1**	-0.0	-0.0	0.0	-0.6	-1.5
Fy_i	-0.4	**-14.9**	-1.5	3.0	5.9	-39.3	-0.4	**14.9**	1.5	-3.0	-3.0	50.0
Fz_i	-0.2	6.9	**-6.0**	-1.4	18.6	23.4	-0.2	-7.3	**6.0**	1.5	-17.4	-19.5
Mx_i	-0.2	11.7	0.9	**-3.7**	-2.1	36.9	-0.2	-11.7	-0.9	**3.7**	3.3	-33.1
My_i	-0.1	-7.7	5.9	1.8	**-17.5**	-21.4	-0.6	9.5	-5.6	-1.0	**19.1**	35.1
Mz_i	-0.4	-14.8	-1.5	3.0	5.8	**-39.5**	-0.4	14.8	1.5	-3.0	-2.8	**50.2**
Fx_f	**-1.2**	-0.0	-0.0	0.0	4.5	12.0	**0.1**	-0.0	-0.0	0.0	-0.6	-1.5
Fy_f	-0.4	**-14.9**	-1.5	3.0	4.5	-25.2	-0.4	**14.9**	1.5	-3.0	-1.6	35.9
Fz_f	-0.2	6.9	**-6.0**	-1.4	12.9	16.8	-0.2	-7.3	**6.0**	1.5	-11.7	-12.6
Mx_f	-0.2	11.7	0.9	**-3.7**	-1.2	25.8	-0.2	-11.7	-0.9	**3.7**	2.5	-22.0
My_f	-0.1	-7.6	5.9	1.8	**-11.8**	-14.1	-0.7	9.6	-5.5	-1.1	**13.9**	26.4
Mz_f	-0.4	-14.8	-1.5	3.0	4.4	**-25.4**	-0.4	14.8	1.5	-3.0	-1.5	**36.1**

Member 130

Fx_i	**-0.3**	0.0	0.0	-0.0	1.1	14.4	**0.0**	-0.0	-0.0	-0.0	-0.1	-1.8
Fy_i	-0.1	**-18.7**	-1.6	1.7	5.2	-49.5	-0.1	**18.7**	1.6	-1.7	-4.5	62.6
Fz_i	-0.1	7.2	**-6.0**	-0.2	18.0	25.3	-0.1	-8.0	**6.0**	0.3	-17.9	-20.6
Mx_i	-0.0	9.3	2.0	**-2.4**	-5.8	30.1	-0.0	-9.3	-2.0	**2.4**	6.1	-25.6
My_i	-0.1	-8.1	6.0	0.3	**-17.9**	-21.1	-0.1	6.9	-6.0	-0.1	**18.0**	24.8
Mz_i	-0.1	-18.6	-1.7	1.7	5.5	**-49.7**	-0.1	18.6	1.7	-1.7	-4.9	62.8
Fx_f	**-0.3**	0.0	0.0	-0.0	1.1	14.4	**0.0**	-0.0	-0.0	-0.0	-0.1	-1.8
Fy_f	-0.1	**-18.7**	-1.6	1.7	3.7	-31.7	-0.1	**18.7**	1.6	-1.7	-3.0	44.8
Fz_f	-0.1	7.2	**-6.0**	-0.2	12.4	18.4	-0.1	-8.0	**6.0**	0.3	-12.2	-13.1
Mx_f	-0.0	9.3	2.0	**-2.4**	-3.9	21.3	-0.0	-9.3	-2.0	**2.4**	4.2	-16.7
My_f	-0.1	-8.1	6.0	0.3	-12.2	-13.5	-0.1	6.9	-6.0	-0.1	**12.4**	18.2
Mz_f	-0.1	-18.6	-1.8	1.7	3.9	**-32.0**	-0.1	18.6	1.8	-1.7	-3.2	**45.2**

Member 131

Fx_i	**-0.2**	-0.0	0.0	-0.0	-0.1	15.8	**0.0**	0.0	0.0	-0.0	0.0	-2.0
Fy_i	-0.1	**-20.3**	-2.0	0.3	6.0	-54.1	-0.1	**20.3**	2.0	-0.3	-6.1	68.0
Fz_i	-0.1	5.1	**-6.0**	0.9	17.8	19.8	-0.0	-6.2	**6.0**	-0.8	-18.1	-14.8
Mx_i	-0.0	1.4	2.4	**-1.8**	-7.1	6.6	-0.0	-1.4	-2.4	**1.8**	7.1	-1.8
My_i	-0.0	-6.2	6.0	-0.8	**-18.1**	-14.8	-0.1	5.1	-6.0	0.9	**17.8**	19.8
Mz_i	-0.1	-20.3	-1.9	0.3	5.6	**-54.4**	-0.1	20.3	1.9	-0.3	-5.6	**68.3**
Fx_f	**-0.2**	-0.0	0.0	-0.0	-0.1	15.8	**0.0**	0.0	0.0	-0.0	0.0	-2.0
Fy_f	-0.1	**-20.3**	-2.0	0.3	4.1	-34.7	-0.1	**20.3**	2.0	-0.3	-4.2	48.6
Fz_f	-0.1	5.1	**-6.0**	0.9	12.1	14.9	-0.0	-6.2	**6.0**	-0.8	-12.4	-8.9
Mx_f	-0.0	1.4	2.4	**-1.8**	-4.9	5.3	-0.0	-1.4	-2.4	**1.8**	4.8	-0.5
My_f	-0.0	-6.2	6.0	-0.8	**-12.4**	-8.9	-0.1	5.1	-6.0	0.9	**12.1**	14.9
Mz_f	-0.0	-20.1	-1.8	0.3	3.7	**-35.1**	-0.1	20.1	1.8	-0.3	-3.8	**49.0**

Member 132

Fx_i	**-0.4**	0.0	0.0	0.0	-1.5	14.0	**0.1**	-0.0	0.0	-0.0	0.2	-1.8
Fy_i	-0.1	**-20.0**	-2.1	-1.2	5.9	-53.4	-0.1	**20.0**	2.1	1.2	-6.8	66.6
Fz_i	-0.2	1.1	**-6.0**	1.6	17.3	8.4	-0.2	-2.3	**6.0**	-1.6	-18.6	-2.4
Mx_i	-0.1	-6.1	3.5	**-2.1**	-10.7	-15.5	-0.1	6.2	-3.5	**2.1**	10.2	21.4
My_i	-0.2	-2.3	6.0	-1.6	**-18.6**	-2.3	-0.1	4.0	-5.9	1.7	**17.3**	14.5
Mz_i	-0.1	-20.0	-2.0	-1.2	5.7	**-53.7**	-0.1	20.0	2.0	1.2	-6.6	**66.8**
Fx_f	**-0.4**	0.0	0.0	0.0	-1.5	14.0	**0.1**	-0.0	0.0	-0.0	0.2	-1.8
Fy_f	-0.1	**-20.0**	-2.1	-1.2	3.9	-34.4	-0.1	**20.0**	2.1	1.2	-4.8	47.6
Fz_f	-0.2	1.1	**-6.0**	1.6	11.6	7.3	-0.2	-2.3	**6.0**	-1.6	-12.9	-0.2
Mx_f	-0.1	-6.1	3.5	**-2.1**	-7.4	-9.7	-0.1	6.2	-3.5	**2.1**	6.9	15.5
My_f	-0.2	-2.3	6.0	-1.6	**-12.9**	-0.1	-0.1	4.0	-5.9	1.7	**11.7**	10.7
Mz_f	-0.1	-19.9	-1.9	-1.2	3.4	**-34.7**	-0.1	19.9	1.9	1.2	-4.3	**47.9**

Member 133

Fx_i	**-1.5**	0.0	-0.0	-0.0	-6.0	11.7	**0.2**	-0.0	0.0	0.0	0.8	-1.5
Fy_i	-0.5	**-17.2**	-2.0	-2.8	4.3	-46.3	-0.5	**17.2**	2.0	2.8	-7.9	57.0
Fz_i	-0.6	-3.1	**-6.0**	1.7	15.5	-4.6	-0.6	2.3	**6.0**	-1.9	-20.2	11.4
Mx_i	-0.2	-13.9	-0.9	**-3.5**	1.7	-39.7	-0.2	13.9	0.9	**3.5**	-3.5	43.6
My_i	-0.6	3.1	6.0	-1.7	**-20.2**	14.2	-0.5	-1.2	-5.9	2.0	**15.9**	-1.1
Mz_i	-0.5	-17.2	-2.0	-2.8	4.3	**-46.4**	-0.5	17.2	2.0	2.9	-7.8	**57.2**
Fx_f	**-1.5**	0.0	-0.0	-0.0	-6.0	11.7	**0.2**	-0.0	0.0	0.0	0.8	-1.5
Fy_f	-0.5	**-17.2**	-2.0	-2.8	2.4	-29.9	-0.5	**17.2**	2.0	2.8	-6.0	40.7
Fz_f	-0.6	-3.1	**-6.0**	1.7	9.8	-1.7	-0.6	2.3	**6.0**	-1.9	-14.5	9.1
Mx_f	-0.2	-13.9	-0.9	**-3.5**	0.9	-26.6	-0.2	13.9	0.9	**3.5**	-2.7	30.4
My_f	-0.7	2.6	5.9	-1.7	**-14.6**	10.3	-0.5	-1.2	-5.9	2.0	**10.3**	0.0
Mz_f	-0.5	-17.2	-2.0	-2.8	2.4	**-30.1**	-0.5	17.2	2.0	2.9	-6.0	**40.9**

Member 134

Fx_i	**-5.9**	-0.0	-0.0	0.0	-22.2	7.5	**0.8**	-0.0	0.0	0.0	2.8	-1.0
Fy_i	-2.2	**-11.6**	-1.4	-3.8	-3.9	-31.3	-2.2	**11.6**	1.4	3.8	-12.5	38.1
Fz_i	-2.3	-10.4	**-3.2**	-2.7	1.2	-28.3	-2.3	10.4	**3.2**	2.7	-18.2	34.3
Mx_i	-1.0	-8.4	-1.1	**-5.0**	-0.3	-24.1	-1.0	8.4	1.1	**5.0**	-6.8	26.5
My_i	-5.8	0.6	1.5	0.1	**-26.2**	9.1	0.3	-2.8	-2.0	-0.6	**7.4**	-9.3
Mz_i	-2.2	-11.5	-1.4	-3.9	-3.7	**-31.3**	-2.2	11.5	1.4	3.9	-12.7	**38.1**
Fx_f	**-5.9**	-0.0	-0.0	0.0	-22.2	7.5	**0.8**	-0.0	0.0	0.0	2.8	-1.0
Fy_f	-2.2	**-11.6**	-1.4	-3.8	-5.3	-20.3	-2.2	**11.6**	1.4	3.8	-11.1	27.1
Fz_f	-2.3	-10.4	**-3.2**	-2.7	-1.9	-18.4	-2.3	10.4	**3.2**	2.7	-15.1	24.4
Mx_f	-1.0	-8.4	-1.1	**-5.0**	-1.3	-16.1	-1.0	8.4	1.1	**5.0**	-5.8	18.5
My_f	-5.8	0.6	1.5	0.1	**-24.8**	8.5	0.6	-0.1	-1.6	0.2	**5.5**	-0.9
Mz_f	-2.1	-11.5	-1.5	-4.0	-4.9	**-20.4**	-2.3	11.5	1.6	3.9	-11.6	**27.2**

Member 135

Fx_i	**-20.7**	0.0	0.0	0.0	-0.0	1.1	**2.6**	-0.0	0.0	-0.0	0.0	-0.1
Fy_i	-7.8	**-3.9**	-1.0	-0.5	3.1	-11.4	-7.8	**3.9**	1.0	0.5	-3.1	12.3
Fz_i	-4.5	-0.4	**-3.3**	-3.6	9.9	-0.8	-4.6	0.4	**3.3**	3.6	-10.0	1.4
Mx_i	-3.3	0.0	-0.7	**-6.1**	2.0	0.2	-3.3	-0.0	0.7	**6.1**	-2.0	0.1
My_i	-4.6	0.4	3.3	3.6	**-10.0**	1.4	-4.5	-0.4	-3.3	-3.6	**9.9**	-0.8
Mz_i	-7.5	-3.9	-1.0	-0.0	2.9	**-11.4**	-7.8	3.9	1.0	0.5	-3.1	**12.3**
Fx_f	**-20.7**	0.0	0.0	0.0	-0.0	1.1	**2.6**	-0.0	0.0	-0.0	0.0	-0.1
Fy_f	-7.8	**-3.9**	-1.0	-0.5	2.1	-7.6	-7.8	**3.9**	1.0	0.5	-2.1	8.5
Fz_f	-4.5	-0.4	**-3.3**	-3.6	6.8	-0.5	-4.6	0.4	**3.3**	3.6	-6.8	1.0
Mx_f	-3.3	0.0	-0.7	**-6.1**	1.4	0.2	-3.3	-0.0	0.7	**6.1**	-1.4	0.2
My_f	-4.6	0.4	3.3	3.6	**-6.8**	1.0	-4.5	-0.4	-3.3	-3.6	**6.8**	-0.5
Mz_f	-7.5	-3.9	-1.0	-0.0	2.0	**-7.7**	-8.4	3.9	1.1	0.9	-2.3	**8.5**

Member 136

Fx_i	**-5.9**	-0.0	-0.0	0.0	22.2	7.7	**0.8**	0.0	-0.0	-0.0	-2.8	-1.0
Fy_i	-2.2	**-11.5**	-1.0	4.0	11.3	-31.2	-2.2	**11.5**	1.0	-4.0	5.0	38.0
Fz_i	-2.0	3.2	**-5.1**	-3.4	22.8	11.7	-2.0	-3.2	**5.1**	3.4	-8.0	-7.6
Mx_i	-0.9	8.3	-0.6	**-5.2**	5.2	26.0	-0.9	-8.3	0.6	**5.2**	1.8	-23.6
My_i	0.3	-1.6	4.5	1.9	**-14.8**	-4.5	-5.6	0.7	-3.6	-0.5	**31.9**	9.1
Mz_i	-2.2	-11.5	-1.0	4.0	11.3	**-31.2**	-2.2	11.5	1.0	-4.0	5.0	**38.0**
Fx_f	**-5.9**	-0.0	-0.0	0.0	22.2	7.7	**0.8**	0.0	-0.0	-0.0	-2.8	-1.0
Fy_f	-2.2	**-11.5**	-1.0	4.0	10.3	-20.2	-2.2	**11.5**	1.0	-4.0	6.0	27.1
Fz_f	-2.0	3.2	**-5.1**	-3.4	17.9	8.6	-2.0	-3.2	**5.1**	3.4	-3.1	-4.6
Mx_f	-0.9	8.3	-0.6	**-5.2**	4.6	18.1	-0.9	-8.3	0.6	**5.2**	2.3	-15.7
My_f	0.4	-1.7	4.4	2.1	**-10.6**	-3.4	-5.9	0.1	-3.3	-0.1	**28.6**	7.7
Mz_f	-2.1	-11.5	-0.9	4.1	9.9	**-20.3**	-2.2	11.5	0.9	-4.1	6.4	**27.1**

Member 137

Fx_i	**-1.5**	0.0	-0.0	-0.0	6.0	12.1	**0.2**	0.0	-0.0	-0.0	-0.8	-1.5
Fy_i	-0.5	**-17.4**	-0.3	3.0	2.8	-46.7	-0.5	**17.4**	0.3	-3.0	0.9	57.5
Fz_i	-0.7	10.9	**-6.5**	-0.8	22.0	38.5	-0.7	-11.7	**6.5**	1.0	-16.8	-29.6
Mx_i	-0.2	13.7	0.1	**-3.8**	0.6	43.0	-0.2	-13.7	-0.1	**3.8**	1.1	-39.2
My_i	-0.3	-8.7	6.3	1.3	**-17.7**	-23.8	-0.9	7.9	-6.3	0.1	**22.2**	31.3
Mz_i	-0.5	-17.3	-0.2	3.1	2.3	**-46.9**	-0.5	17.3	0.2	-3.1	1.4	**57.7**
Fx_f	**-1.5**	0.0	-0.0	-0.0	6.0	12.1	**0.2**	0.0	-0.0	-0.0	-0.8	-1.5
Fy_f	-0.5	**-17.4**	-0.3	3.0	2.5	-30.2	-0.5	**17.4**	0.3	-3.0	1.2	41.0
Fz_f	-0.7	10.9	**-6.5**	-0.8	15.9	28.2	-0.7	-11.7	**6.5**	1.0	-10.7	-18.5
Mx_f	-0.2	13.7	0.1	**-3.8**	0.6	30.0	-0.2	-13.7	-0.1	**3.8**	1.0	-26.1
My_f	-0.2	-6.0	6.1	0.8	**-11.8**	-10.6	-0.9	7.4	-6.2	0.2	**16.2**	22.9
Mz_f	-0.5	-17.3	-0.2	3.1	2.1	**-30.5**	-0.5	17.3	0.2	-3.1	1.6	**41.2**

Member 138

Fx_i	**-0.4**	-0.0	-0.0	0.0	1.5	14.5	**0.1**	-0.0	-0.0	0.0	-0.2	-1.9
Fy_i	-0.1	**-20.6**	0.1	1.5	0.0	-55.2	-0.1	**20.6**	-0.1	-1.5	0.9	68.4
Fz_i	-0.2	10.3	**-6.5**	0.3	20.0	38.3	-0.2	-11.8	**6.5**	-0.2	-18.8	-28.6
Mx_i	-0.1	7.7	3.8	**-2.4**	-11.2	25.3	-0.1	-7.7	-3.8	**2.4**	11.6	-20.7
My_i	-0.2	-9.3	6.5	-0.5	**-18.8**	-22.6	-0.2	7.9	-6.5	0.7	**20.1**	32.2
Mz_i	-0.1	-20.6	0.2	1.5	-0.2	**-55.5**	-0.1	20.6	-0.2	-1.5	1.1	**68.7**
Fx_f	**-0.4**	-0.0	-0.0	0.0	1.5	14.5	**0.1**	-0.0	-0.0	0.0	-0.2	-1.9
Fy_f	-0.1	**-20.6**	0.1	1.5	0.2	-35.7	-0.1	**20.6**	-0.1	-1.5	0.7	48.8
Fz_f	-0.2	10.3	**-6.5**	0.3	13.9	28.5	-0.2	-11.8	**6.5**	-0.2	-12.6	-17.5
Mx_f	-0.1	7.7	3.8	**-2.4**	-7.6	18.0	-0.1	-7.7	-3.8	**2.4**	8.0	-13.4
My_f	-0.2	-9.3	6.5	-0.5	**-12.7**	-13.7	-0.2	7.9	-6.5	0.7	**13.9**	24.7
Mz_f	-0.1	-20.5	0.1	1.5	0.2	**-36.0**	-0.1	20.5	-0.1	-1.5	0.7	**49.1**

Member 139

Fx_i	**-0.2**	-0.0	-0.0	-0.0	0.1	16.0	**0.0**	-0.0	0.0	-0.0	-0.0	-2.0
Fy_i	-0.1	**-21.5**	-0.1	-0.0	0.2	-57.5	-0.1	**21.5**	0.1	0.0	-0.1	71.5
Fz_i	-0.1	6.8	**-6.5**	1.2	19.4	28.1	-0.1	-8.5	**6.5**	-1.2	-19.4	-18.5
Mx_i	-0.0	0.4	3.7	**-2.0**	-11.1	3.5	-0.0	-0.4	-3.7	**2.0**	11.1	1.4
My_i	-0.1	-8.5	6.5	-1.2	**-19.4**	-18.5	-0.1	6.8	-6.5	1.2	**19.4**	28.1
Mz_i	-0.0	-21.4	-0.0	-0.0	0.1	**-57.8**	-0.1	21.4	0.5	-0.1	-1.4	**71.8**
Fx_f	**-0.2**	-0.0	-0.0	-0.0	0.1	16.0	**0.0**	-0.0	0.0	-0.0	-0.0	-2.0
Fy_f	-0.1	**-21.5**	-0.1	-0.0	0.1	-37.1	-0.1	**21.5**	0.1	0.0	-0.1	51.1
Fz_f	-0.1	6.8	**-6.5**	1.2	13.3	21.6	-0.1	-8.5	**6.5**	-1.2	-13.2	-10.4
Mx_f	-0.0	0.4	3.7	**-2.0**	-7.6	3.2	-0.0	-0.4	-3.7	**2.0**	7.6	1.7

My_f	-0.1	-8.5	6.5	-1.2	**-13.2**	-10.4	-0.1	6.8	-6.5	1.2	**13.3**	21.6
Mz_f	-0.0	-21.2	-0.0	-0.0	0.0	**-37.5**	-0.1	21.2	0.5	-0.1	-1.0	**51.5**

Member 140

Fx_i	**-0.3**	0.0	-0.0	0.0	-1.2	14.7	**0.0**	-0.0	0.0	0.0	0.1	-1.9
Fy_i	-0.1	**-20.7**	-0.6	-1.5	1.4	-55.6	-0.1	**20.7**	0.6	1.5	-2.1	68.8
Fz_i	-0.2	0.8	**-6.5**	1.5	18.9	9.6	-0.1	-2.4	**6.5**	-1.7	-19.9	-0.5
Mx_i	-0.0	-7.7	4.7	**-2.4**	-14.2	-20.9	-0.0	7.7	-4.7	**2.4**	13.9	25.5
My_i	-0.2	2.6	6.5	-1.3	**-19.9**	16.5	-0.1	-2.6	-6.5	1.3	**18.9**	-1.9
Mz_i	-0.1	-20.7	-0.6	-1.5	1.5	**-55.8**	-0.1	20.7	0.6	1.5	-2.2	**69.0**
Fx_f	**-0.3**	0.0	-0.0	0.0	-1.2	14.7	**0.0**	-0.0	0.0	0.0	0.1	-1.9
Fy_f	-0.1	**-20.7**	-0.6	-1.5	0.8	-35.9	-0.1	**20.7**	0.6	1.5	-1.5	49.1
Fz_f	-0.2	0.8	**-6.5**	1.5	12.7	8.8	-0.1	-2.4	**6.5**	-1.7	-13.8	1.7
Mx_f	-0.0	-7.7	4.7	**-2.4**	-9.8	-13.5	-0.0	7.7	-4.7	**2.4**	9.5	18.1
My_f	-0.2	2.6	6.5	-1.3	**-13.8**	14.1	-0.1	-2.6	-6.5	1.3	**12.8**	0.5
Mz_f	-0.1	-20.6	-0.5	-1.5	0.7	**-36.2**	-0.1	20.6	0.5	1.5	-1.4	**49.4**

Member 141

Fx_i	**-1.3**	0.0	0.0	0.0	-4.8	12.0	**0.2**	0.0	0.0	0.0	0.6	-1.6
Fy_i	-0.4	**-17.6**	-0.5	-3.0	0.0	-47.4	-0.4	**17.6**	0.5	3.0	-3.0	58.3
Fz_i	-0.6	-4.5	**-6.5**	1.1	17.2	-7.6	-0.5	3.4	**6.5**	-1.4	-21.5	15.7
Mx_i	-0.2	-13.8	0.5	**-3.8**	-2.1	-39.5	-0.2	13.8	-0.5	**3.8**	0.8	43.4
My_i	-0.6	6.6	6.4	-0.7	**-21.7**	26.7	-0.2	-1.1	-6.2	1.4	**17.6**	-1.3
Mz_i	-0.4	-17.6	-0.6	-3.1	0.4	**-47.6**	-0.4	17.6	0.6	3.1	-3.4	**58.5**
Fx_f	**-1.3**	0.0	0.0	0.0	-4.8	12.0	**0.2**	0.0	0.0	0.0	0.6	-1.6
Fy_f	-0.4	**-17.6**	-0.5	-3.0	-0.5	-30.7	-0.4	**17.6**	0.5	3.0	-2.5	41.6
Fz_f	-0.6	-4.5	**-6.5**	1.1	11.1	-3.3	-0.5	3.4	**6.5**	-1.4	-15.3	12.4
Mx_f	-0.2	-13.8	0.5	**-3.8**	-1.7	-26.4	-0.2	13.8	-0.5	**3.8**	0.3	30.2
My_f	-0.7	3.5	6.3	-1.1	**-15.6**	15.6	-0.2	0.1	-6.1	1.4	**11.8**	1.4
Mz_f	-0.4	-17.6	-0.6	-3.1	-0.2	**-30.9**	-0.4	17.6	0.6	3.1	-2.8	**41.8**

Member 142

Fx_i	**-4.8**	0.0	-0.0	-0.0	-18.1	7.8	**0.6**	0.0	-0.0	-0.0	2.3	-1.0
Fy_i	-1.8	**-11.9**	0.2	-4.0	-7.2	-32.2	-1.8	**11.9**	-0.2	4.0	-6.2	39.2
Fz_i	-1.1	-6.2	**-4.9**	-3.0	10.6	-17.3	-1.1	6.1	**4.9**	2.9	-18.9	19.7
Mx_i	-0.8	-8.5	-0.4	**-5.3**	-1.7	-24.3	-0.8	8.5	0.4	**5.3**	-4.1	26.9
My_i	-4.5	1.3	3.2	0.2	**-26.6**	11.1	0.2	-2.1	-4.2	-1.8	**13.2**	-6.1
Mz_i	-1.8	-11.9	0.1	-4.1	-7.1	**-32.2**	-1.8	11.9	-0.1	4.1	-6.3	**39.2**
Fx_f	**-4.8**	0.0	-0.0	-0.0	-18.1	7.8	**0.6**	0.0	-0.0	-0.0	2.3	-1.0
Fy_f	-1.8	**-11.9**	0.2	-4.0	-7.0	-20.9	-1.8	**11.9**	-0.2	4.0	-6.3	27.9
Fz_f	-1.1	-6.2	**-4.9**	-3.0	5.9	-11.4	-1.1	6.1	**4.9**	2.9	-14.3	13.9
Mx_f	-0.8	-8.5	-0.4	**-5.3**	-2.1	-16.2	-0.8	8.5	0.4	**5.3**	-3.7	18.8
My_f	-4.7	0.5	3.0	-0.0	**-23.7**	8.5	0.4	-0.7	-3.9	-1.0	**9.4**	-1.6
Mz_f	-1.6	-11.8	0.1	-4.0	-6.2	**-20.9**	-1.8	11.8	-0.1	4.1	-6.6	**28.0**

Member 143

Fx_i	**-16.9**	-0.0	-0.0	0.0	0.0	1.5	**2.1**	0.0	0.0	-0.0	-0.0	-0.2
Fy_i	-6.1	**-4.7**	0.2	-0.1	-0.5	-13.6	-6.1	**4.7**	-0.2	0.1	0.5	14.7
Fz_i	-6.0	2.1	**-3.9**	-4.1	11.7	6.9	-6.0	-2.1	**3.9**	4.1	-11.7	-5.8
Mx_i	-2.7	-0.0	-0.3	**-6.3**	1.0	0.2	-2.7	0.0	0.3	**6.3**	-1.0	0.3
My_i	-6.0	-2.1	3.9	4.1	**-11.7**	-5.8	-6.0	2.1	-3.9	-4.1	**11.7**	6.9
Mz_i	-6.1	-4.7	0.2	-0.1	-0.5	**-13.6**	-6.1	4.7	-0.2	0.1	0.6	**14.7**
Fx_f	**-16.9**	-0.0	-0.0	0.0	0.0	1.5	**2.1**	0.0	0.0	-0.0	-0.0	-0.2
Fy_f	-6.1	**-4.7**	0.2	-0.1	-0.4	-9.1	-6.1	**4.7**	-0.2	0.1	0.4	10.2
Fz_f	-6.0	2.1	**-3.9**	-4.1	8.0	4.9	-6.0	-2.1	**3.9**	4.1	-8.0	-3.8
Mx_f	-2.7	-0.0	-0.3	**-6.3**	0.7	0.2	-2.7	0.0	0.3	**6.3**	-0.7	0.3
My_f	-6.0	-2.1	3.9	4.1	**-8.0**	-3.8	-6.0	2.1	-3.9	-4.1	**8.0**	4.9
Mz_f	-6.1	-4.7	0.2	-0.1	-0.4	**-9.1**	-6.5	4.7	-0.0	0.5	0.1	**10.2**

Member 144

Fx_i	**-4.8**	-0.0	-0.0	0.0	18.1	8.0	**0.6**	0.0	0.0	-0.0	-2.3	-1.0
Fy_i	-1.8	**-11.9**	-0.7	4.0	8.8	-32.1	-1.8	**11.9**	0.7	-4.0	4.6	39.2
Fz_i	-1.6	4.6	**-5.4**	-3.7	22.1	15.9	-1.6	-4.6	**5.4**	3.7	-10.2	-11.7
Mx_i	-0.8	8.4	-0.3	**-5.3**	3.6	26.5	-0.8	-8.4	0.3	**5.3**	2.1	-24.0
My_i	0.1	-2.9	4.9	2.3	**-15.3**	-8.0	-4.4	1.8	-4.2	-1.3	**28.8**	11.7
Mz_i	-1.8	-11.9	-0.7	4.0	8.8	**-32.1**	-1.8	11.9	0.7	-4.0	4.6	**39.2**

Fx,	**-4.8**	-0.0	-0.0	0.0	18.1	8.0	**0.6**	0.0	0.0	-0.0	-2.3	-1.0
Fy,	-1.8	**-11.9**	-0.7	4.0	8.1	-20.8	-1.8	**11.9**	0.7	-4.0	5.2	27.9
Fz,	-1.6	4.6	**-5.4**	-3.7	17.0	11.5	-1.6	-4.6	**5.4**	3.7	-5.1	-7.3
Mx,	-0.8	8.4	-0.3	**-5.3**	3.3	18.5	-0.8	-8.4	0.3	**5.3**	2.3	-16.0
My,	0.3	-1.5	4.7	1.9	**-10.7**	-3.0	-4.7	0.4	-3.7	0.0	**25.1**	8.2
Mz,	-1.6	-11.8	-0.7	4.0	7.4	**-20.9**	-1.8	11.8	0.6	-4.1	5.6	**27.9**

Member 145

Fx,	**-1.3**	-0.0	-0.0	0.0	4.8	12.3	**0.2**	-0.0	0.0	-0.0	-0.6	-1.6
Fy,	-0.4	**-17.6**	0.2	3.0	1.0	-47.4	-0.4	**17.6**	-0.2	-3.0	2.0	58.3
Fz,	-0.6	8.5	**-6.0**	0.2	20.2	31.5	-0.6	-8.5	**6.0**	-0.2	-15.8	-19.4
Mx,	-0.2	13.9	0.1	**-3.9**	0.2	43.5	-0.2	-13.9	-0.1	**3.9**	1.1	-39.6
My,	-0.4	-7.2	5.9	-0.2	**-16.2**	-18.5	-0.7	8.1	-5.9	0.1	**20.4**	32.0
Mz,	-0.4	-17.5	0.3	3.1	0.5	**-47.5**	-0.4	17.5	-0.3	-3.1	2.5	**58.5**
Fx,	**-1.3**	-0.0	-0.0	0.0	4.8	12.3	**0.2**	-0.0	0.0	-0.0	-0.6	-1.6
Fy,	-0.4	**-17.6**	0.2	3.0	1.2	-30.6	-0.4	**17.6**	-0.2	-3.0	1.9	41.6
Fz,	-0.6	8.5	**-6.0**	0.2	14.5	23.4	-0.6	-8.5	**6.0**	-0.2	-10.1	-11.4
Mx,	-0.2	13.9	0.1	**-3.9**	0.4	30.3	-0.2	-13.9	-0.1	**3.9**	1.0	-26.4
My,	-0.2	-3.1	5.6	-0.6	**-10.7**	-5.4	-0.7	5.2	-5.8	0.5	**14.8**	19.7
Mz,	-0.4	-17.5	0.3	3.1	0.8	**-30.9**	-0.4	17.5	-0.3	-3.1	2.2	**41.8**

Member 146

Fx,	**-0.3**	0.0	0.0	-0.0	1.2	14.7	**0.0**	-0.0	-0.0	0.0	-0.1	-1.9
Fy,	-0.1	**-20.8**	0.5	1.5	-1.2	-55.7	-0.1	**20.8**	-0.5	-1.5	2.0	69.0
Fz,	-0.2	5.8	**-6.0**	1.0	18.6	24.8	-0.2	-5.8	**6.0**	-1.0	-17.5	-10.0
Mx,	-0.0	7.9	4.1	**-2.4**	-12.1	25.9	-0.0	-7.9	-4.1	**2.4**	12.4	-21.2
My,	-0.1	-7.2	6.0	-0.9	**-17.5**	-14.9	-0.2	5.8	-6.0	1.0	**18.6**	24.8
Mz,	-0.1	-20.7	0.6	1.5	-1.4	**-55.9**	-0.1	20.7	-0.6	-1.5	2.2	**69.2**
Fx,	**-0.3**	0.0	0.0	-0.0	1.2	14.7	**0.0**	-0.0	-0.0	0.0	-0.1	-1.9
Fy,	-0.1	**-20.8**	0.5	1.5	-0.7	-35.9	-0.1	**20.8**	-0.5	-1.5	1.5	49.3
Fz,	-0.2	5.8	**-6.0**	1.0	12.9	19.3	-0.2	-5.8	**6.0**	-1.0	-11.8	-4.5
Mx,	-0.0	7.9	4.1	**-2.4**	-8.2	18.4	-0.0	-7.9	-4.1	**2.4**	8.5	-13.8
My,	-0.1	-9.5	6.0	-0.5	**-11.8**	-13.9	-0.2	8.1	-6.0	0.7	**12.9**	25.1
Mz,	-0.1	-20.7	0.5	1.5	-0.7	**-36.3**	-0.1	20.7	-0.5	-1.5	1.4	**49.6**

Member 147

Fx,	**-0.2**	0.0	-0.0	-0.0	0.0	16.1	**0.0**	0.0	0.0	-0.0	-0.0	-2.0
Fy,	-0.0	**-21.6**	0.4	-0.0	-1.1	-57.8	-0.0	**21.6**	-0.4	0.0	1.1	71.9
Fz,	-0.1	-0.0	**-6.0**	1.4	18.1	7.7	-0.1	0.0	**6.0**	-1.4	-18.0	8.0
Mx,	-0.0	0.2	3.5	**-2.0**	-10.4	3.2	-0.0	-0.2	-3.5	**2.0**	10.4	1.7
My,	-0.1	0.0	6.0	-1.4	**-18.0**	8.0	-0.1	-0.0	-6.0	1.4	**18.1**	7.7
Mz,	-0.0	-21.5	0.4	-0.0	-1.1	**-58.1**	-0.1	21.5	-0.4	0.0	1.1	**72.2**
Fx,	**-0.2**	0.0	-0.0	-0.0	0.0	16.1	**0.0**	0.0	0.0	-0.0	-0.0	-2.0
Fy,	-0.0	**-21.6**	0.4	-0.0	-0.7	-37.3	-0.0	**21.6**	-0.4	0.0	0.7	51.4
Fz,	-0.1	-0.0	**-6.0**	1.4	12.3	7.8	-0.1	0.0	**6.0**	-1.4	-12.3	7.9
Mx,	-0.0	0.2	3.5	**-2.0**	-7.1	3.0	-0.0	-0.2	-3.5	**2.0**	7.1	2.0
My,	-0.1	0.0	6.0	-1.4	**-12.3**	7.9	-0.1	-0.0	-6.0	1.4	**12.3**	7.8
Mz,	-0.0	-21.3	0.4	-0.0	-0.8	**-37.7**	-0.1	21.3	-0.4	0.0	0.8	**51.8**

Member 148

Fx,	**-0.3**	0.0	0.0	-0.0	-1.1	14.3	**0.0**	-0.0	-0.0	0.0	0.1	-1.9
Fy,	-0.1	**-20.8**	-0.2	-1.5	0.1	-55.8	-0.1	**20.8**	0.2	1.5	-0.8	69.1
Fz,	-0.1	-5.9	**-6.0**	1.0	17.5	-10.4	-0.1	5.9	**6.0**	-1.0	-18.6	25.1
Mx,	-0.0	-7.8	4.2	**-2.4**	-12.8	-21.0	-0.0	7.8	-4.2	**2.4**	12.5	25.6
My,	-0.2	2.6	6.0	-1.3	**-18.6**	16.5	-0.1	-2.6	-6.0	1.3	**17.5**	-1.8
Mz,	-0.1	-20.8	-0.2	-1.5	0.3	**-56.0**	-0.1	20.8	0.2	1.5	-1.0	**69.3**
Fx,	**-0.3**	0.0	0.0	-0.0	-1.1	14.3	**0.0**	-0.0	-0.0	0.0	0.1	-1.9
Fy,	-0.1	**-20.8**	-0.2	-1.5	-0.0	-36.0	-0.1	**20.8**	0.2	1.5	-0.7	49.3
Fz,	-0.1	-5.9	**-6.0**	1.0	11.8	-4.8	-0.1	5.9	**6.0**	-1.0	-12.8	19.5
Mx,	-0.0	-7.8	4.2	**-2.4**	-8.8	-13.6	-0.0	7.8	-4.2	**2.4**	8.5	18.3
My,	-0.2	2.6	6.0	-1.3	**-12.8**	14.1	-0.1	-2.6	-6.0	1.3	**11.8**	0.6
Mz,	-0.1	-20.7	-0.1	-1.5	-0.1	**-36.3**	-0.1	20.7	0.1	1.5	-0.6	**49.6**

Member 149

Fx,	**-1.2**	-0.0	-0.0	-0.0	-4.7	12.1	**0.2**	-0.0	-0.0	-0.0	0.6	-1.6
Fy,	-0.4	**-17.7**	-0.1	-3.0	-1.3	-47.6	-0.4	**17.7**	0.1	3.0	-1.6	58.5
Fz,	-0.5	-8.6	**-6.0**	0.1	15.9	-19.7	-0.5	8.6	**6.0**	-0.1	-20.1	31.7
Mx,	-0.2	-13.8	0.4	**-3.8**	-1.9	-39.6	-0.2	13.8	-0.4	**3.8**	0.6	43.5
My,	-0.7	8.2	5.9	-0.1	**-20.2**	32.3	-0.2	-3.0	-5.8	0.7	**16.6**	-8.0
Mz,	-0.4	-17.6	-0.2	-3.1	-0.8	**-47.8**	-0.4	17.6	0.2	3.1	-2.0	**58.7**
Fx,	**-1.2**	-0.0	-0.0	-0.0	-4.7	12.1	**0.2**	-0.0	-0.0	-0.0	0.6	-1.6
Fy,	-0.4	**-17.7**	-0.1	-3.0	-1.3	-30.8	-0.4	**17.7**	0.1	3.0	-1.5	41.7
Fz,	-0.5	-8.6	**-6.0**	0.1	10.2	-11.6	-0.5	8.6	**6.0**	-0.1	-14.4	23.6
Mx,	-0.2	-13.8	0.4	**-3.8**	-1.5	-26.4	-0.2	13.8	-0.4	**3.8**	0.2	30.3
My,	-0.7	4.7	5.8	-0.6	**-14.7**	19.0	-0.1	-1.1	-5.7	0.9	**11.1**	-1.8
Mz,	-0.4	-17.6	-0.2	-3.1	-1.0	**-31.0**	-0.4	17.6	0.2	3.1	-1.8	**42.0**

Member 150

Fx,	**-4.7**	-0.0	-0.0	-0.0	-17.5	7.9	**0.6**	0.0	-0.0	0.0	2.2	-1.0
Fy,	-1.7	**-12.0**	0.1	-4.0	-6.7	-32.6	-1.7	**12.0**	-0.1	4.0	-6.2	39.7
Fz,	-1.1	-6.2	**-4.9**	-3.0	10.7	-17.2	-1.1	6.0	**4.9**	2.9	-18.7	19.6
Mx,	-0.8	-8.6	-0.2	**-5.3**	-2.2	-24.4	-0.8	8.6	0.2	**5.3**	-3.5	27.0
My,	-4.5	0.9	3.2	0.1	**-26.2**	10.0	0.2	-1.7	-4.2	-1.9	**13.5**	-4.8
Mz,	-1.6	-12.0	0.1	-3.9	-6.2	**-32.6**	-1.7	12.0	-0.1	4.0	-6.2	**39.7**
Fx,	**-4.7**	-0.0	-0.0	-0.0	-17.5	7.9	**0.6**	0.0	-0.0	0.0	2.2	-1.0
Fy,	-1.7	**-12.0**	0.1	-4.0	-6.6	-21.1	-1.7	**12.0**	-0.1	4.0	-6.3	28.3
Fz,	-1.1	-6.2	**-4.9**	-3.0	6.0	-11.3	-1.1	6.0	**4.9**	2.9	-14.1	13.9
Mx,	-0.8	-8.6	-0.2	**-5.3**	-2.4	-16.3	-0.8	8.6	0.2	**5.3**	-3.3	18.8
My,	-4.5	0.5	3.1	-0.1	**-23.3**	8.6	0.3	-1.7	-4.2	-1.8	**9.5**	-3.3
Mz,	-1.6	-12.0	0.0	-4.0	-5.9	**-21.2**	-1.8	12.0	-0.0	4.1	-6.6	**28.3**

Member 365

Fx,	**-145.9**	0.0	-28.3	0.0	49.6	0.0	**44.9**	-0.0	-0.9	-0.0	1.6	-0.0
Fy,	-15.0	**-0.0**	-16.0	0.0	28.0	-0.0	-64.1	**0.0**	-28.7	-0.0	50.3	0.0
Fz,	-110.1	0.0	**-82.7**	0.0	144.7	0.0	-15.1	-0.0	**17.2**	-0.0	-30.0	-0.0
Mx,	-71.3	0.0	-49.1	**-0.0**	85.9	0.0	-54.2	-0.0	-32.4	**0.0**	56.6	-0.0
My,	-15.1	-0.0	17.2	-0.0	**-30.0**	-0.0	-110.1	0.0	-82.7	0.0	**144.7**	0.0
Mz,	-16.2	-0.0	-24.0	0.0	41.9	**-0.0**	-63.7	0.0	-28.7	-0.0	50.2	**0.0**
Fx,	**-145.9**	0.0	-28.3	0.0	0.0	-0.0	**44.9**	-0.0	-0.9	-0.0	0.0	0.0
Fy,	-15.0	**-0.0**	-16.0	0.0	-0.0	0.0	-64.1	**0.0**	-28.7	-0.0	0.0	-0.0
Fz,	-110.1	0.0	**-82.7**	0.0	0.0	-0.0	-15.1	-0.0	**17.2**	-0.0	-0.0	0.0
Mx,	-71.3	0.0	-49.1	**-0.0**	0.0	-0.0	-54.2	-0.0	-32.4	**0.0**	-0.0	0.0
My,	-20.8	-0.0	-19.0	0.0	**-0.0**	0.0	-73.1	0.0	-43.0	0.0	**0.0**	-0.0
Mz,	-74.6	0.0	-43.9	0.0	0.0	**-0.0**	-5.5	-0.0	1.3	-0.0	-0.0	**0.0**

Member 366

Fx,	**-428.1**	0.0	-12.4	-0.0	119.3	0.0	**36.0**	-0.0	-0.1	-0.0	-0.7	-0.0
Fy,	-252.0	**-0.0**	-6.6	-0.0	64.1	-0.0	-238.9	**0.0**	-10.3	-0.0	100.7	0.0
Fz,	-374.6	0.0	**-30.4**	-0.0	307.4	-0.0	-118.1	-0.0	**7.3**	0.0	-75.3	-0.0
Mx,	-320.5	-0.0	-21.1	**-0.0**	214.4	-0.0	-30.8	-0.0	-3.1	**0.0**	38.6	-0.0
My,	-121.8	-0.0	7.3	0.0	**-75.6**	-0.0	-361.2	-0.0	-30.1	-0.0	**308.9**	-0.0
Mz,	-215.9	-0.0	-5.9	-0.0	56.5	**-0.0**	-226.5	0.0	-9.7	-0.0	94.7	**0.0**
Fx,	**-428.1**	0.0	-12.4	-0.0	97.6	-0.0	**36.0**	-0.0	-0.1	-0.0	-0.8	0.0
Fy,	-252.0	**-0.0**	-6.6	-0.0	52.5	0.0	-238.9	**0.0**	-10.3	-0.0	82.6	-0.0
Fz,	-374.6	0.0	**-30.4**	-0.0	254.2	-0.0	-118.1	-0.0	**7.3**	0.0	-62.5	0.0
Mx,	-320.5	-0.0	-21.1	**-0.0**	177.4	-0.0	-30.8	-0.0	-3.1	**0.0**	33.2	0.0
My,	-121.9	-0.0	7.2	0.0	**-63.0**	0.0	-358.9	-0.0	-30.1	-0.0	**256.1**	-0.0
Mz,	-262.3	0.0	-12.4	-0.0	101.3	**-0.0**	-130.8	-0.0	-2.6	-0.0	19.0	**0.0**

Member 367

Fx,	**-496.5**	-0.0	-20.7	-0.0	152.1	-0.0	**42.4**	-0.0	3.4	0.0	-10.4	-0.0
Fy,	-225.7	**-0.0**	-13.3	-0.0	96.4	-0.0	-230.0	**0.0**	-13.6	-0.0	128.0	0.0
Fz,	-439.0	-0.0	**-39.9**	-0.0	361.6	0.0	4.8	0.0	**9.2**	0.0	-59.7	0.0
Mx,	-67.3	-0.0	2.9	**-0.0**	-40.4	-0.0	0.3	-0.0	0.3	**0.0**	5.5	-0.0
My,	-202.6	-0.0	7.2	0.0	**-93.2**	-0.0	-429.4	-0.0	-39.5	-0.0	**365.5**	0.0
Mz,	-193.3	-0.0	-12.4	-0.0	94.4	**-0.0**	-284.6	0.0	-8.9	-0.0	67.6	**0.0**
Fx,	**-496.5**	-0.0	-20.7	-0.0	115.8	0.0	**42.4**	-0.0	3.4	0.0	-4.5	0.0
Fy,	-225.7	**-0.0**	-13.3	-0.0	73.1	0.0	-230.0	**0.0**	-13.6	-0.0	104.2	-0.0
Fz,	-439.0	-0.0	**-39.9**	-0.0	291.8	0.0	4.8	0.0	**9.2**	0.0	-43.7	0.0
Mx,	-67.3	-0.0	2.9	**-0.0**	-35.3	0.0	0.3	-0.0	0.3	**0.0**	6.1	0.0
My,	-204.0	-0.0	6.9	0.0	**-80.8**	0.0	-429.2	-0.0	-38.3	-0.0	**297.4**	0.0

Mz_f	-272.9	0.0	-14.1	-0.0	97.8	**-0.0**	-238.8	-0.0	-12.0	-0.0	64.8	**0.0**

Member 368

Fx_i	**-501.5**	0.0	-16.7	-0.0	152.0	-0.0	**57.7**	0.0	3.2	0.0	-12.9	0.0
Fy_i	-297.2	**-0.0**	-11.8	0.0	108.1	-0.0	-276.0	**0.0**	-16.5	0.0	230.7	0.0
Fz_i	-420.9	0.0	**-33.6**	-0.0	365.0	0.0	-1.2	-0.0	**8.9**	-0.0	-68.6	-0.0
Mx_i	-336.9	0.0	-10.9	**-0.0**	104.6	0.0	-1.9	-0.0	0.5	**0.0**	-5.5	-0.0
My_i	-198.7	-0.0	7.4	-0.0	**-100.3**	0.0	-419.8	0.0	-33.4	-0.0	**368.1**	0.0
Mz_i	-230.7	-0.0	-10.7	0.0	93.5	**-0.0**	-292.8	0.0	-16.1	0.0	227.2	**0.0**
Fx_f	**-501.5**	0.0	-16.7	-0.0	122.8	-0.0	**57.7**	0.0	3.2	0.0	-7.4	-0.0
Fy_f	-297.2	**-0.0**	-11.8	0.0	87.4	0.0	-276.0	**0.0**	-16.5	0.0	201.8	-0.0
Fz_f	-420.9	0.0	**-33.6**	-0.0	306.3	-0.0	-1.2	-0.0	**8.9**	-0.0	-52.9	0.0
Mx_f	-336.9	0.0	-10.9	**-0.0**	85.5	-0.0	-1.9	-0.0	0.5	**0.0**	-4.6	0.0
My_f	-198.9	-0.0	7.3	-0.0	**-87.5**	0.0	-416.6	0.0	-32.5	0.0	**310.3**	-0.0
Mz_f	-286.1	0.0	-16.6	0.0	204.8	**-0.0**	-224.6	-0.0	-4.6	0.0	29.6	**0.0**

Member 369

Fx_i	**-505.2**	0.0	-16.5	-0.0	153.4	0.0	**58.3**	0.0	3.3	0.0	-13.6	0.0
Fy_i	-235.3	**-0.0**	-8.0	0.0	95.5	-0.0	-199.4	**0.0**	-10.0	-0.0	131.4	0.0
Fz_i	-420.4	0.0	**-32.7**	-0.0	366.6	0.0	-5.1	0.0	**9.1**	0.0	-70.8	0.0
Mx_i	-405.1	0.0	-16.0	**-0.0**	147.9	0.0	-2.6	0.0	-0.2	**0.0**	7.3	0.0
My_i	-200.0	0.0	7.2	-0.0	**-100.4**	0.0	-421.7	0.0	-32.5	-0.0	**368.8**	0.0
Mz_i	-302.0	-0.0	-11.1	0.0	130.4	**-0.0**	-197.9	0.0	-9.4	0.0	125.5	**0.0**
Fx_f	**-505.2**	0.0	-16.5	-0.0	124.6	-0.0	**58.3**	0.0	3.3	0.0	-7.9	-0.0
Fy_f	-235.3	**-0.0**	-8.0	0.0	81.4	0.0	-199.4	**0.0**	-10.0	-0.0	113.9	-0.0
Fz_f	-420.4	0.0	**-32.7**	-0.0	309.4	0.0	-5.1	0.0	**9.1**	0.0	-55.0	-0.0
Mx_f	-405.1	0.0	-16.0	**-0.0**	120.0	-0.0	-2.6	0.0	-0.2	**0.0**	7.0	-0.0
My_f	-200.6	0.0	7.0	-0.0	**-87.9**	-0.0	-418.2	0.0	-31.9	0.0	**312.4**	0.0
Mz_f	-175.1	0.0	-9.8	-0.0	115.8	**-0.0**	-199.5	-0.0	-10.4	0.0	92.0	**0.0**

Member 370

Fx_i	**-501.9**	-0.0	-16.1	0.0	152.9	-0.0	**57.9**	0.0	3.3	-0.0	-14.0	0.0
Fy_i	-298.5	**-0.0**	-14.1	-0.0	184.1	-0.0	-256.5	**0.0**	-10.3	-0.0	115.8	0.0
Fz_i	-419.1	-0.0	**-32.5**	0.0	367.1	-0.0	-3.4	-0.0	**9.0**	-0.0	-71.5	0.0
Mx_i	-347.3	-0.0	-13.6	**-0.0**	208.6	-0.0	-43.6	-0.0	-3.6	**0.0**	39.6	-0.0
My_i	-198.6	-0.0	7.4	-0.0	**-101.2**	-0.0	-420.7	-0.0	-32.4	0.0	**369.0**	-0.0
Mz_i	-243.6	-0.0	-12.0	-0.0	161.8	**-0.0**	-252.3	0.0	-10.3	-0.0	114.5	**0.0**
Fx_f	**-501.9**	-0.0	-16.1	0.0	124.7	0.0	**57.9**	0.0	3.3	-0.0	-8.2	-0.0
Fy_f	-298.5	**-0.0**	-14.1	-0.0	159.4	0.0	-256.5	**0.0**	-10.3	-0.0	97.7	-0.0
Fz_f	-419.1	-0.0	**-32.5**	0.0	310.2	0.0	-3.4	-0.0	**9.0**	-0.0	-55.7	0.0
Mx_f	-347.3	-0.0	-13.6	**-0.0**	184.8	0.0	-43.6	-0.0	-3.6	**0.0**	33.3	0.0
My_f	-198.8	-0.0	7.3	-0.0	**-88.3**	0.0	-417.3	-0.0	-31.8	0.0	**312.8**	0.0
Mz_f	-291.7	0.0	-10.9	0.0	97.1	**-0.0**	-277.9	-0.0	-13.4	-0.0	154.6	**0.0**

Member 371

Fx_i	**-497.2**	-0.0	-17.3	-0.0	153.2	-0.0	**43.0**	0.0	2.9	-0.0	-11.7	0.0
Fy_i	-292.4	**-0.0**	-15.0	-0.0	202.5	-0.0	-264.8	**0.0**	-13.8	-0.0	148.4	0.0
Fz_i	-431.8	-0.0	**-33.2**	-0.0	359.5	-0.0	0.1	-0.0	**8.0**	-0.0	-61.9	-0.0
Mx_i	-350.2	-0.0	-13.9	**-0.0**	123.1	-0.0	-67.5	-0.0	-3.1	**0.0**	32.3	-0.0
My_i	-202.8	-0.0	6.0	-0.0	**-92.2**	0.0	-430.1	-0.0	-32.8	-0.0	**362.8**	-0.0
Mz_i	-329.3	-0.0	-15.7	-0.0	214.6	**-0.0**	-292.1	0.0	-14.1	0.0	152.8	**0.0**
Fx_f	**-497.2**	-0.0	-17.3	-0.0	122.9	0.0	**43.0**	0.0	2.9	-0.0	-6.6	-0.0
Fy_f	-292.4	**-0.0**	-15.0	-0.0	176.2	0.0	-264.8	**0.0**	-13.8	-0.0	124.3	-0.0
Fz_f	-431.8	-0.0	**-33.2**	-0.0	301.4	0.0	0.1	-0.0	**8.0**	-0.0	-47.9	-0.0
Mx_f	-350.2	-0.0	-13.9	**-0.0**	98.8	0.0	-67.5	-0.0	-3.1	**0.0**	26.8	0.0
My_f	-203.2	-0.0	5.9	-0.0	**-81.8**	0.0	-427.3	-0.0	-32.2	-0.0	**305.6**	0.0
Mz_f	-311.2	0.0	-15.1	-0.0	125.3	**-0.0**	-289.9	-0.0	-13.7	-0.0	152.9	**0.0**

Member 372

Fx_i	**-435.0**	0.0	-19.7	-0.0	126.6	0.0	**37.3**	0.0	3.3	0.0	-8.6	0.0
Fy_i	-190.4	**-0.0**	-7.4	-0.0	86.2	-0.0	-196.9	**0.0**	-10.3	-0.0	100.9	0.0
Fz_i	-373.9	-0.0	**-37.5**	-0.0	309.8	-0.0	-5.6	0.0	**9.7**	0.0	-50.7	0.0
Mx_i	-70.0	0.0	-0.4	**-0.0**	-11.3	-0.0	-43.7	-0.0	-1.0	**0.0**	4.1	-0.0
My_i	-117.1	-0.0	7.8	0.0	**-73.6**	-0.0	-374.0	-0.0	-36.5	-0.0	**313.4**	-0.0
Mz_i	-200.0	-0.0	-6.9	0.0	81.6	**-0.0**	-187.0	0.0	-9.6	-0.0	100.6	**0.0**
Fx_f	**-435.0**	0.0	-19.7	-0.0	92.1	-0.0	**37.3**	0.0	3.3	0.0	-2.8	-0.0
Fy_f	-190.4	**-0.0**	-7.4	-0.0	73.3	0.0	-196.9	**0.0**	-10.3	-0.0	82.9	-0.0
Fz_f	-373.9	-0.0	**-37.5**	-0.0	244.2	0.0	-5.6	0.0	**9.7**	0.0	-33.7	-0.0
Mx_f	-70.0	0.0	-0.4	**-0.0**	-12.0	-0.0	-43.7	-0.0	-1.0	**0.0**	2.4	0.0
My_f	-118.4	-0.0	7.1	0.0	**-60.6**	0.0	-357.1	0.0	-33.8	-0.0	**251.5**	-0.0
Mz_f	-245.6	0.0	-13.7	0.0	108.3	**-0.0**	-149.3	-0.0	-6.0	-0.0	61.8	**0.0**

Member 373

Fx_i	**-144.2**	-1.8	-48.9	-0.0	85.6	-3.1	**40.8**	1.0	3.2	0.0	-5.6	1.7
Fy_i	-141.0	**-1.8**	-46.9	-0.0	82.0	-3.2	38.5	**1.1**	3.1	0.0	-5.4	1.9
Fz_i	-108.7	-1.1	**-80.0**	-0.0	140.0	-1.9	6.0	0.2	**13.7**	0.0	-23.9	0.4
Mx_i	-101.9	-1.0	-33.2	**-0.0**	58.0	-1.8	-10.5	0.5	-20.9	**0.0**	36.5	0.8
My_i	6.0	0.2	13.7	0.0	**-23.9**	0.4	-108.7	-1.1	-80.0	-0.0	**140.0**	-1.9
Mz_i	-141.0	-1.8	-46.9	-0.0	82.0	**-3.2**	38.5	1.1	3.1	0.0	-5.4	**1.9**
Fx_f	**-144.2**	-1.8	-48.9	-0.0	0.0	0.0	**40.8**	1.0	3.2	0.0	-0.0	0.0
Fy_f	-141.0	**-1.8**	-46.9	-0.0	0.0	0.0	38.5	**1.1**	3.1	0.0	-0.0	-0.0
Fz_f	-108.7	-1.1	**-80.0**	-0.0	0.0	0.0	6.0	0.2	**13.7**	0.0	-0.0	-0.0
Mx_f	-101.9	-1.0	-33.2	**-0.0**	-0.0	0.0	-10.5	0.5	-20.9	**0.0**	-0.0	-0.0
My_f	-80.5	-0.6	-22.4	-0.0	**-0.0**	0.0	-58.4	-0.6	-45.3	-0.0	**0.0**	0.0
Mz_f	-18.5	0.2	-18.4	0.0	-0.0	**-0.0**	-38.0	-0.2	-11.7	-0.0	-0.0	**0.0**

Member 374

Fx_i	**-146.1**	0.0	28.6	0.0	-50.1	0.0	**44.9**	-0.0	0.9	-0.0	-1.6	-0.0
Fy_i	-52.0	**-0.0**	37.4	-0.0	-65.5	-0.0	-67.8	**0.0**	27.8	-0.0	-48.6	0.0
Fz_i	-15.1	0.0	**-17.2**	0.0	30.0	0.0	-110.1	-0.0	**82.7**	-0.0	-144.7	-0.0
Mx_i	-57.4	0.0	15.2	**-0.0**	-26.7	0.0	1.8	-0.0	1.1	**0.0**	-2.0	-0.0
My_i	-110.1	-0.0	82.7	-0.0	**-144.7**	-0.0	-15.1	0.0	-17.2	0.0	**30.0**	0.0
Mz_i	-52.6	-0.0	39.5	-0.0	-69.1	**-0.0**	-72.8	0.0	30.0	-0.0	-52.5	**0.0**
Fx_f	**-146.1**	0.0	28.6	0.0	-0.0	-0.0	**44.9**	-0.0	0.9	-0.0	0.0	0.0
Fy_f	-52.0	**-0.0**	37.4	-0.0	-0.0	0.0	-67.8	**0.0**	27.8	-0.0	-0.0	-0.0
Fz_f	-15.1	0.0	**-17.2**	0.0	-0.0	-0.0	-110.1	-0.0	**82.7**	-0.0	-0.0	-0.0
Mx_f	-57.4	0.0	15.2	**-0.0**	0.0	-0.0	1.8	-0.0	1.1	**0.0**	-0.0	0.0
My_f	-76.2	-0.0	36.5	-0.0	**-0.0**	0.0	-88.1	0.0	22.3	-0.0	**0.0**	-0.0
Mz_f	-93.9	0.0	35.2	-0.0	-0.0	**-0.0**	-42.5	-0.0	7.7	-0.0	-0.0	**0.0**

Member 375

Fx_i	**-428.1**	-0.0	12.4	0.0	-119.3	-0.0	**36.0**	0.0	0.1	-0.0	0.7	0.0
Fy_i	-253.6	**-0.0**	13.7	0.0	-144.5	-0.0	-201.9	**0.0**	4.8	0.0	-47.9	0.0
Fz_i	-118.1	-0.0	**-7.3**	0.0	75.3	-0.0	-374.6	-0.0	**30.4**	-0.0	-307.4	-0.0
Mx_i	-313.0	-0.0	17.7	**-0.0**	-193.1	-0.0	-85.1	0.0	7.3	**0.0**	-77.4	0.0
My_i	-361.2	-0.0	30.1	-0.0	**-308.9**	-0.0	-121.8	-0.0	-7.3	0.0	**75.6**	-0.0
Mz_i	-253.6	-0.0	13.7	0.0	-144.5	**-0.0**	-201.9	0.0	4.8	0.0	-47.9	**0.0**
Fx_f	**-428.1**	-0.0	12.4	0.0	-97.6	0.0	**36.0**	0.0	0.1	-0.0	0.8	-0.0
Fy_f	-253.6	**-0.0**	13.7	0.0	-120.5	0.0	-201.9	**0.0**	4.8	0.0	-39.5	-0.0
Fz_f	-118.1	-0.0	**-7.3**	0.0	62.5	0.0	-374.6	-0.0	**30.4**	-0.0	-254.2	0.0
Mx_f	-313.0	-0.0	17.7	**-0.0**	-162.0	0.0	-85.1	0.0	7.3	**0.0**	-64.6	-0.0
My_f	-358.9	-0.0	30.1	-0.0	**-256.1**	0.0	-121.9	-0.0	-7.2	0.0	**63.0**	0.0
Mz_f	-235.2	0.0	6.2	0.0	-49.9	**-0.0**	-176.4	-0.0	10.8	0.0	-95.1	**0.0**

Member 376

Fx_i	**-496.5**	-0.0	20.7	0.0	-152.1	-0.0	**42.4**	-0.0	-3.4	-0.0	10.4	-0.0
Fy_i	-286.4	**-0.0**	15.6	0.0	-121.9	-0.0	-299.8	**0.0**	18.7	-0.0	-187.1	0.0
Fz_i	4.6	-0.0	**-9.2**	-0.0	60.3	-0.0	-439.0	0.0	**39.9**	0.0	-361.6	0.0
Mx_i	-20.4	-0.0	-2.4	**-0.0**	7.3	-0.0	-58.0	-0.0	0.8	**0.0**	8.4	-0.0
My_i	-429.4	0.0	39.5	0.0	**-365.5**	0.0	-202.6	-0.0	-7.2	0.0	**93.2**	-0.0
Mz_i	-325.3	-0.0	16.7	0.0	-128.7	**-0.0**	-225.1	0.0	14.1	-0.0	-145.9	**0.0**
Fx_f	**-496.5**	-0.0	20.7	0.0	-115.8	0.0	**42.4**	-0.0	-3.4	-0.0	4.5	0.0
Fy_f	-286.4	**-0.0**	15.6	0.0	-94.6	0.0	-299.8	**0.0**	18.7	-0.0	-154.5	-0.0
Fz_f	4.6	-0.0	**-9.2**	-0.0	44.2	0.0	-439.0	0.0	**39.9**	0.0	-291.8	-0.0
Mx_f	-20.4	-0.0	-2.4	**-0.0**	3.1	0.0	-58.0	-0.0	0.8	**0.0**	9.9	0.0
My_f	-429.2	0.0	38.3	-0.0	**-297.4**	-0.0	-204.0	0.0	-6.9	0.0	**80.8**	-0.0
Mz_f	-317.3	0.0	21.8	-0.0	-174.6	**-0.0**	-328.7	-0.0	18.3	0.0	-129.0	**0.0**

Member 377

Fx_i	**-501.5**	-0.0	16.7	0.0	-152.0	-0.0	**57.7**	0.0	-3.2	-0.0	12.9	0.0
Fy_i	-265.4	**-0.0**	11.8	0.0	-110.5	-0.0	-155.6	**0.0**	7.0	-0.0	-116.0	0.0

Fz_i	-2.2	0.0	**-8.9**	-0.0	69.2	0.0	-420.9	-0.0	**33.6**	0.0	-365.0	-0.0
Mx_i	-357.5	-0.0	19.2	**-0.0**	-208.9	-0.0	-99.0	-0.0	4.1	**0.0**	-48.9	-0.0
My_i	-419.8	-0.0	33.4	0.0	**-368.1**	-0.0	-198.7	0.0	-7.4	-0.0	**100.3**	0.0
Mz_i	-265.4	-0.0	11.8	0.0	-110.5	**-0.0**	-155.6	0.0	7.0	-0.0	-116.0	**0.0**
Fx_f	**-501.5**	-0.0	16.7	0.0	-122.8	0.0	**57.7**	0.0	-3.2	-0.0	7.4	-0.0
Fy_f	-265.4	**-0.0**	11.8	0.0	-89.8	0.0	-155.6	**0.0**	7.0	-0.0	-103.7	-0.0
Fz_f	-2.2	0.0	**-8.9**	-0.0	53.5	-0.0	-420.9	-0.0	**33.6**	0.0	-306.3	0.0
Mx_f	-357.5	-0.0	19.2	**-0.0**	-175.2	0.0	-99.0	-0.0	4.1	**0.0**	-41.7	0.0
My_f	-416.6	-0.0	32.5	0.0	**-310.3**	0.0	-198.9	0.0	-7.3	-0.0	**87.5**	-0.0
Mz_f	-234.7	0.0	10.3	-0.0	-133.6	**-0.0**	-184.8	-0.0	7.4	0.0	-56.2	**0.0**

Member 378

Fx_i	**-505.2**	0.0	16.5	0.0	-153.4	0.0	**58.3**	-0.0	-3.3	-0.0	13.6	-0.0
Fy_i	-240.2	**-0.0**	9.8	-0.0	-120.4	-0.0	-235.9	**0.0**	8.3	0.0	-77.6	0.0
Fz_i	-5.2	-0.0	**-9.1**	0.0	71.3	-0.0	-420.4	0.0	**32.7**	-0.0	-366.6	0.0
Mx_i	-365.4	-0.0	10.7	**-0.0**	-153.2	-0.0	-85.9	0.0	1.1	**0.0**	-7.2	0.0
My_i	-421.7	0.0	32.5	-0.0	**-368.8**	0.0	-200.0	0.0	-7.2	0.0	**100.4**	0.0
Mz_i	-218.4	-0.0	8.8	-0.0	-110.5	**-0.0**	-236.6	0.0	10.1	0.0	-99.5	**0.0**
Fx_f	**-505.2**	0.0	16.5	0.0	-124.6	-0.0	**58.3**	-0.0	-3.3	-0.0	7.9	-0.0
Fy_f	-240.2	**-0.0**	9.8	-0.0	-103.2	0.0	-235.9	**0.0**	8.3	0.0	-63.1	-0.0
Fz_f	-5.2	-0.0	**-9.1**	0.0	55.5	-0.0	-420.4	0.0	**32.7**	-0.0	-309.4	-0.0
Mx_f	-365.4	-0.0	10.7	**-0.0**	-134.6	0.0	-85.9	0.0	1.1	**0.0**	-5.3	-0.0
My_f	-418.2	0.0	31.9	-0.0	**-312.4**	-0.0	-200.6	0.0	-7.0	0.0	**87.9**	-0.0
Mz_f	-214.5	0.0	8.1	0.0	-58.5	**-0.0**	-264.9	-0.0	7.9	0.0	-79.0	**0.0**

Member 379

Fx_i	**-501.9**	0.0	16.1	0.0	-152.9	0.0	**57.9**	-0.0	-3.3	0.0	14.0	-0.0
Fy_i	-310.6	**-0.0**	18.5	0.0	-252.7	-0.0	-181.4	**0.0**	5.0	0.0	-15.6	0.0
Fz_i	-3.6	-0.0	**-9.0**	0.0	72.1	-0.0	-419.1	-0.0	**32.5**	0.0	-367.1	-0.0
Mx_i	-5.4	-0.0	-3.8	**-0.0**	44.7	-0.0	-0.6	-0.0	-0.2	**0.0**	0.8	-0.0
My_i	-420.7	-0.0	32.4	0.0	**-369.0**	-0.0	-198.6	0.0	-7.4	0.0	**101.2**	0.0
Mz_i	-310.6	-0.0	18.5	0.0	-252.7	**-0.0**	-181.4	0.0	5.0	0.0	-15.6	**0.0**
Fx_f	**-501.9**	0.0	16.1	0.0	-124.7	-0.0	**57.9**	-0.0	-3.3	0.0	8.2	0.0
Fy_f	-310.6	**-0.0**	18.5	0.0	-220.3	0.0	-181.4	**0.0**	5.0	0.0	-6.8	-0.0
Fz_f	-3.6	-0.0	**-9.0**	0.0	56.2	0.0	-419.1	-0.0	**32.5**	0.0	-310.2	0.0
Mx_f	-5.4	-0.0	-3.8	**-0.0**	38.1	0.0	-0.6	-0.0	-0.2	**0.0**	0.4	0.0
My_f	-417.3	-0.0	31.8	0.0	**-312.8**	0.0	-198.8	0.0	-7.3	0.0	**88.3**	-0.0
Mz_f	-305.5	0.0	10.5	0.0	-62.0	**-0.0**	-177.3	-0.0	9.4	0.0	-126.4	**0.0**

Member 380

Fx_i	**-497.2**	-0.0	17.3	-0.0	-153.2	-0.0	**43.0**	0.0	-2.9	0.0	11.7	0.0
Fy_i	-249.1	**-0.0**	4.8	0.0	-66.4	-0.0	-238.6	**0.0**	8.0	0.0	-93.1	0.0
Fz_i	-1.4	0.0	**-8.0**	0.0	62.6	0.0	-431.8	-0.0	**33.2**	-0.0	-359.5	-0.0
Mx_i	-431.2	-0.0	16.2	**-0.0**	-143.9	-0.0	-78.4	-0.0	2.8	**0.0**	-47.7	-0.0
My_i	-430.1	-0.0	32.8	-0.0	**-362.8**	-0.0	-202.8	-0.0	-6.0	0.0	**92.2**	-0.0
Mz_i	-268.7	-0.0	5.3	0.0	-66.1	**-0.0**	-169.3	0.0	5.4	0.0	-71.4	**0.0**
Fx_f	**-497.2**	-0.0	17.3	-0.0	-122.9	0.0	**43.0**	0.0	-2.9	0.0	6.6	-0.0
Fy_f	-249.1	**-0.0**	4.8	0.0	-57.9	0.0	-238.6	**0.0**	8.0	0.0	-79.2	-0.0
Fz_f	-1.4	0.0	**-8.0**	0.0	48.5	-0.0	-431.8	-0.0	**33.2**	-0.0	-301.4	0.0
Mx_f	-431.2	-0.0	16.2	**-0.0**	-115.6	0.0	-78.4	-0.0	2.8	**0.0**	-42.8	0.0
My_f	-427.3	-0.0	32.2	-0.0	**-305.6**	0.0	-203.2	-0.0	-5.9	0.0	**81.8**	0.0
Mz_f	-210.7	0.0	4.3	-0.0	-27.7	**-0.0**	-217.5	-0.0	4.7	0.0	-63.1	**0.0**

Member 381

Fx_i	**-435.0**	-0.0	19.7	0.0	-126.6	-0.0	**37.3**	-0.0	-3.3	0.0	8.6	-0.0
Fy_i	-260.7	**-0.0**	17.5	0.0	-112.6	-0.0	-181.3	**0.0**	4.9	0.0	-63.3	0.0
Fz_i	-5.6	0.0	**-9.7**	0.0	50.7	0.0	-373.9	-0.0	**37.5**	0.0	-309.8	-0.0
Mx_i	-332.4	-0.0	25.0	**0.0**	-225.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-374.0	-0.0	36.5	0.0	**-313.4**	-0.0	-117.1	0.0	-7.8	0.0	**73.6**	0.0
Mz_i	-260.7	-0.0	17.5	0.0	-112.6	**-0.0**	-181.3	0.0	4.9	0.0	-63.3	**0.0**
Fx_f	**-435.0**	-0.0	19.7	0.0	-92.1	0.0	**37.3**	-0.0	-3.3	0.0	2.8	0.0
Fy_f	-260.7	**-0.0**	17.5	0.0	-82.0	0.0	-181.3	**0.0**	4.9	0.0	-54.7	-0.0
Fz_f	-5.6	0.0	**-9.7**	0.0	33.7	-0.0	-373.9	-0.0	**37.5**	0.0	-244.2	0.0
Mx_f	-332.4	-0.0	25.0	**0.0**	-181.2	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-357.1	-0.0	33.8	0.0	**-251.5**	0.0	-118.4	0.0	-7.1	0.0	**60.6**	-0.0
Mz_f	-291.6	0.0	6.7	0.0	-63.2	**-0.0**	-231.0	-0.0	15.3	0.0	-74.9	**0.0**

Member 382

Fx_i	**-144.2**	-1.8	48.9	-0.0	-85.6	-3.1	**40.8**	1.0	-3.2	0.0	5.6	1.7
Fy_i	-141.0	**-1.8**	46.9	-0.0	-82.0	-3.2	38.5	**1.1**	-3.1	0.0	5.4	1.9
Fz_i	6.0	0.2	**-13.7**	0.0	23.9	**0.4**	-108.7	-1.1	**80.0**	-0.0	-140.0	-1.9
Mx_i	-86.8	-0.7	57.3	**-0.0**	-100.2	-1.2	7.1	0.2	-5.7	**0.0**	9.9	0.3
My_i	-108.7	-1.1	80.0	-0.0	**-140.0**	-1.9	6.0	0.2	-13.7	0.0	**23.9**	0.4
Mz_i	-141.0	-1.8	46.9	-0.0	-82.0	**-3.2**	38.5	1.1	-3.1	0.0	5.4	**1.9**
Fx_f	**-144.2**	-1.8	48.9	-0.0	0.0	-0.0	**40.8**	1.0	-3.2	0.0	0.0	0.0
Fy_f	-141.0	**-1.8**	46.9	-0.0	0.0	-0.0	38.5	**1.1**	-3.1	0.0	-0.0	0.0
Fz_f	6.0	0.2	**-13.7**	0.0	-0.0	0.0	-108.7	-1.1	**80.0**	-0.0	0.0	-0.0
Mx_f	-86.8	-0.7	57.3	**-0.0**	0.0	-0.0	7.1	0.2	-5.7	**0.0**	-0.0	0.0
My_f	-57.2	-0.7	24.2	0.0	**-0.0**	-0.0	-54.8	-0.2	46.4	-0.0	**0.0**	-0.0
Mz_f	-76.1	-1.1	46.1	-0.0	0.0	**-0.0**	3.1	0.7	3.4	-0.0	-0.0	**0.0**

Member 391

Fx_i	**-428.1**	0.0	-12.4	0.0	97.6	0.0	**36.0**	0.0	-0.1	0.0	-0.8	0.0
Fy_i	-330.3	**0.0**	-21.5	0.0	184.1	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-374.6	0.0	**-30.4**	0.0	254.2	0.0	-118.1	0.0	**7.3**	0.0	-62.5	0.0
Mx_i	-330.3	0.0	-21.5	**0.0**	184.1	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-121.9	0.0	7.2	0.0	**-63.0**	0.0	-358.9	0.0	-30.1	0.0	**256.1**	0.0
Mz_i	-330.3	0.0	-21.5	0.0	184.1	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-428.1**	0.0	-12.4	0.0	-69.5	0.0	**36.0**	0.0	-0.1	0.0	-1.6	0.0
Fy_f	-330.3	**0.0**	-21.5	0.0	-105.5	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-374.6	0.0	**-30.4**	0.0	-155.4	0.0	-118.1	0.0	**7.3**	0.0	35.9	0.0
Mx_f	-330.3	0.0	-21.5	**0.0**	-105.5	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-373.2	0.0	-30.3	0.0	**-155.8**	0.0	-6.1	0.0	5.6	0.0	**37.7**	0.0
Mz_f	-330.3	0.0	-21.5	0.0	-105.5	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 392

Fx_i	**-496.5**	0.0	-20.7	0.0	115.8	0.0	**42.4**	0.0	3.4	0.0	-4.5	0.0
Fy_i	-384.6	**0.0**	-27.8	0.0	218.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-439.0	0.0	**-39.9**	0.0	291.8	0.0	4.8	0.0	**9.2**	0.0	-43.7	0.0
Mx_i	-384.6	0.0	-27.8	**0.0**	218.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-204.0	0.0	6.9	0.0	**-80.8**	0.0	-429.2	0.0	-38.3	0.0	**297.4**	0.0
Mz_i	-384.6	0.0	-27.8	0.0	218.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-496.5**	0.0	-20.7	0.0	-141.2	0.0	**42.4**	0.0	3.4	0.0	37.3	0.0
Fy_f	-384.6	**0.0**	-27.8	0.0	-126.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-439.0	0.0	**-39.9**	0.0	-202.8	0.0	4.8	0.0	**9.2**	0.0	70.1	0.0
Mx_f	-384.6	0.0	-27.8	**0.0**	-126.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-442.4	0.0	-39.6	0.0	**-204.8**	0.0	-22.1	0.0	4.5	0.0	**78.8**	0.0
Mz_f	-384.6	0.0	-27.8	0.0	-126.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 393

Fx_i	**-501.5**	0.0	-16.7	0.0	122.8	0.0	**57.7**	0.0	3.2	0.0	-7.4	0.0
Fy_i	-373.8	**0.0**	-22.6	0.0	224.3	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-420.9	0.0	**-33.6**	0.0	306.3	0.0	-1.2	0.0	**8.9**	0.0	-52.9	0.0
Mx_i	-373.8	0.0	-22.6	**0.0**	224.3	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-198.9	0.0	7.3	0.0	**-87.5**	0.0	-416.6	0.0	-32.5	0.0	**310.3**	0.0
Mz_i	-373.8	0.0	-22.6	0.0	224.3	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-501.5**	0.0	-16.7	0.0	-136.8	0.0	**57.7**	0.0	3.2	0.0	41.7	0.0
Fy_f	-373.8	**0.0**	-22.6	0.0	-126.8	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-420.9	0.0	**-33.6**	0.0	-215.2	0.0	-1.2	0.0	**8.9**	0.0	85.9	0.0
Mx_f	-373.8	0.0	-22.6	**0.0**	-126.8	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-425.3	0.0	-33.4	0.0	**-217.0**	0.0	-18.5	0.0	6.1	0.0	**90.4**	0.0
Mz_f	-373.8	0.0	-22.6	0.0	-126.8	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 394

Fx_i	**-505.2**	0.0	-16.5	0.0	124.6	0.0	**58.3**	0.0	3.3	0.0	-7.9	0.0
Fy_i	-376.6	**0.0**	-21.8	0.0	225.6	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-420.4	0.0	**-32.7**	0.0	309.4	0.0	-5.1	0.0	**9.1**	0.0	-55.0	0.0
Mx_i	-376.6	0.0	-21.8	**0.0**	225.6	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-200.6	0.0	7.0	0.0	**-87.9**	0.0	-418.2	0.0	-31.9	0.0	**312.4**	0.0
Mz_i	-376.6	0.0	-21.8	0.0	225.6	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-505.2**	0.0	-16.5	0.0	-141.9	0.0	**58.3**	0.0	3.3	0.0	44.7	0.0

Fy_f	-376.6	**0.0**	-21.8	0.0	-127.1	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-420.4	0.0	**-32.7**	0.0	-218.9	0.0	-5.1	0.0	**9.1**	0.0	91.3	0.0
Mx_f	-376.6	0.0	-21.8	**0.0**	-127.1	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-439.0	0.0	-32.5	0.0	**-221.6**	0.0	-13.1	0.0	5.7	0.0	**97.6**	0.0
Mz_f	-376.6	0.0	-21.8	0.0	-127.1	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 395

Fx_i	**-501.9**	0.0	-16.1	0.0	124.7	0.0	**57.9**	0.0	3.3	0.0	-8.2	0.0
Fy_i	-374.0	**0.0**	-21.6	0.0	225.8	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-419.1	0.0	**-32.5**	0.0	310.2	0.0	-3.4	0.0	**9.0**	0.0	-55.7	0.0
Mx_i	-374.0	0.0	-21.6	**0.0**	225.8	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-198.8	0.0	7.3	0.0	**-88.3**	0.0	-417.3	0.0	-31.8	0.0	**312.8**	0.0
Mz_i	-374.0	0.0	-21.6	0.0	225.8	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-501.9**	0.0	-16.1	0.0	-138.8	0.0	**57.9**	0.0	3.3	0.0	45.7	0.0
Fy_f	-374.0	**0.0**	-21.6	0.0	-127.1	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-419.1	0.0	**-32.5**	0.0	-220.5	0.0	-3.4	0.0	**9.0**	0.0	91.9	0.0
Mx_f	-374.0	0.0	-21.6	**0.0**	-127.1	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-426.0	0.0	-32.3	0.0	**-223.2**	0.0	-23.1	0.0	5.7	0.0	**97.8**	0.0
Mz_f	-374.0	0.0	-21.6	0.0	-127.1	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 396

Fx_i	**-497.2**	0.0	-17.3	0.0	122.9	0.0	**43.0**	0.0	2.9	0.0	-6.6	0.0
Fy_i	-384.1	**0.0**	-22.8	0.0	223.7	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-431.8	0.0	**-33.2**	0.0	301.4	0.0	0.1	0.0	**8.0**	0.0	-47.9	0.0
Mx_i	-384.1	0.0	-22.8	**0.0**	223.7	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-203.2	0.0	5.9	0.0	**-81.8**	0.0	-427.3	0.0	-32.2	0.0	**305.6**	0.0
Mz_i	-384.1	0.0	-22.8	0.0	223.7	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-497.2**	0.0	-17.3	0.0	-143.2	0.0	**43.0**	0.0	2.9	0.0	38.7	0.0
Fy_f	-384.1	**0.0**	-22.8	0.0	-126.6	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-431.8	0.0	**-33.2**	0.0	-208.5	0.0	0.1	0.0	**8.0**	0.0	74.9	0.0
Mx_f	-384.1	0.0	-22.8	**0.0**	-126.6	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-436.8	0.0	-33.0	0.0	**-210.7**	0.0	-25.5	0.0	4.1	0.0	**82.8**	0.0
Mz_f	-384.1	0.0	-22.8	0.0	-126.6	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 397

Fx_i	**-435.0**	0.0	-19.7	0.0	92.1	0.0	**37.3**	0.0	3.3	0.0	-2.8	0.0
Fy_i	-332.4	**0.0**	-25.0	0.0	181.2	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-373.9	0.0	**-37.5**	0.0	244.2	0.0	-5.6	0.0	**9.7**	0.0	-33.7	0.0
Mx_i	-332.4	0.0	-25.0	**0.0**	181.2	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-118.4	0.0	7.1	0.0	**-60.6**	0.0	-357.1	0.0	-33.8	0.0	**251.5**	0.0
Mz_i	-332.4	0.0	-25.0	0.0	181.2	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-435.0**	0.0	-19.7	0.0	-133.9	0.0	**37.3**	0.0	3.3	0.0	35.5	0.0
Fy_f	-332.4	**0.0**	-25.0	0.0	-105.6	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-373.9	0.0	**-37.5**	0.0	-185.1	0.0	-5.6	0.0	**9.7**	0.0	77.5	0.0
Mx_f	-332.4	0.0	-25.0	**0.0**	-105.6	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-366.6	0.0	-36.8	0.0	**-193.6**	0.0	-29.6	0.0	6.3	0.0	**85.2**	0.0
Mz_f	-332.4	0.0	-25.0	0.0	-105.6	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 398

Fx_i	**-428.1**	0.0	12.4	0.0	-97.6	0.0	**36.0**	0.0	0.1	0.0	0.8	0.0
Fy_i	-330.3	**0.0**	21.5	0.0	-184.1	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-118.1	0.0	**-7.3**	0.0	62.5	0.0	-374.6	0.0	**30.4**	0.0	-254.2	0.0
Mx_i	-330.3	0.0	21.5	**0.0**	-184.1	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-358.9	0.0	30.1	0.0	**-256.1**	0.0	-121.9	0.0	-7.2	0.0	**63.0**	0.0
Mz_i	-330.3	0.0	21.5	0.0	-184.1	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-428.1**	0.0	12.4	0.0	69.5	0.0	**36.0**	0.0	0.1	0.0	1.6	0.0
Fy_f	-330.3	**0.0**	21.5	0.0	105.5	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-118.1	0.0	**-7.3**	0.0	-35.9	0.0	-374.6	0.0	**30.4**	0.0	155.4	0.0
Mx_f	-330.3	0.0	21.5	**0.0**	105.5	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-9.0	0.0	-5.7	0.0	**-37.8**	0.0	-373.2	0.0	30.3	0.0	**155.8**	0.0
Mz_f	-330.3	0.0	21.5	0.0	105.5	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 399

Fx_i	**-496.5**	0.0	20.7	0.0	-115.8	0.0	**42.4**	0.0	-3.4	0.0	4.5	0.0
Fy_i	-384.6	**0.0**	27.8	0.0	-218.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	4.6	0.0	**-9.2**	0.0	44.2	0.0	-439.0	0.0	**39.9**	0.0	-291.8	0.0
Mx_i	-384.6	0.0	27.8	**0.0**	-218.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-429.2	0.0	38.3	0.0	**-297.4**	0.0	-204.0	0.0	-6.9	0.0	**80.8**	0.0
Mz_i	-384.6	0.0	27.8	0.0	-218.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-496.5**	0.0	20.7	0.0	141.2	0.0	**42.4**	0.0	-3.4	0.0	-37.3	0.0
Fy_f	-384.6	**0.0**	27.8	0.0	126.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	4.6	0.0	**-9.2**	0.0	-69.7	0.0	-439.0	0.0	**39.9**	0.0	202.8	0.0
Mx_f	-384.6	0.0	27.8	**0.0**	126.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-22.3	0.0	-4.5	0.0	**-78.4**	0.0	-442.4	0.0	39.6	0.0	**204.8**	0.0
Mz_f	-384.6	0.0	27.8	0.0	126.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 400

Fx_i	**-501.5**	0.0	16.7	0.0	-122.8	0.0	**57.7**	0.0	-3.2	0.0	7.4	0.0
Fy_i	-373.8	**0.0**	22.6	0.0	-224.3	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-2.2	0.0	**-8.9**	0.0	53.5	0.0	-420.9	0.0	**33.6**	0.0	-306.3	0.0
Mx_i	-373.8	0.0	22.6	**0.0**	-224.3	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-416.6	0.0	32.5	0.0	**-310.3**	0.0	-198.9	0.0	-7.3	0.0	**87.5**	0.0
Mz_i	-373.8	0.0	22.6	0.0	-224.3	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-501.5**	0.0	16.7	0.0	136.8	0.0	**57.7**	0.0	-3.2	0.0	-41.7	0.0
Fy_f	-373.8	**0.0**	22.6	0.0	126.8	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-2.2	0.0	**-8.9**	0.0	-85.6	0.0	-420.9	0.0	**33.6**	0.0	215.2	0.0
Mx_f	-373.8	0.0	22.6	**0.0**	126.8	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-19.5	0.0	-6.1	0.0	**-90.0**	0.0	-425.3	0.0	33.4	0.0	**217.0**	0.0
Mz_f	-373.8	0.0	22.6	0.0	126.8	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 401

Fx_i	**-505.2**	0.0	16.5	0.0	-124.6	0.0	**58.3**	0.0	-3.3	0.0	7.9	0.0
Fy_i	-376.6	**0.0**	21.8	0.0	-225.6	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-5.2	0.0	**-9.1**	0.0	55.5	0.0	-420.4	0.0	**32.7**	0.0	-309.4	0.0
Mx_i	-376.6	0.0	21.8	**0.0**	-225.6	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-418.2	0.0	31.9	0.0	**-312.4**	0.0	-200.6	0.0	-7.0	0.0	**87.9**	0.0
Mz_i	-376.6	0.0	21.8	0.0	-225.6	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-505.2**	0.0	16.5	0.0	141.9	0.0	**58.3**	0.0	-3.3	0.0	-44.7	0.0
Fy_f	-376.6	**0.0**	21.8	0.0	127.1	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-5.2	0.0	**-9.1**	0.0	-91.0	0.0	-420.4	0.0	**32.7**	0.0	218.9	0.0
Mx_f	-376.6	0.0	21.8	**0.0**	127.1	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-14.1	0.0	-5.7	0.0	**-97.2**	0.0	-439.0	0.0	32.5	0.0	**221.6**	0.0
Mz_f	-376.6	0.0	21.8	0.0	127.1	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 402

Fx_i	**-501.9**	0.0	16.1	0.0	-124.7	0.0	**57.9**	0.0	-3.3	0.0	8.2	0.0
Fy_i	-374.0	**0.0**	21.6	0.0	-225.8	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-3.6	0.0	**-9.0**	0.0	56.2	0.0	-419.1	0.0	**32.5**	0.0	-310.2	0.0
Mx_i	-374.0	0.0	21.6	**0.0**	-225.8	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-417.3	0.0	31.8	0.0	**-312.8**	0.0	-198.8	0.0	-7.3	0.0	**88.3**	0.0
Mz_i	-374.0	0.0	21.6	0.0	-225.8	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-501.9**	0.0	16.1	0.0	138.8	0.0	**57.9**	0.0	-3.3	0.0	-45.7	0.0
Fy_f	-374.0	**0.0**	21.6	0.0	127.1	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-3.6	0.0	**-9.0**	0.0	-91.6	0.0	-419.1	0.0	**32.5**	0.0	220.5	0.0
Mx_f	-374.0	0.0	21.6	**0.0**	127.1	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-24.0	0.0	-5.7	0.0	**-97.4**	0.0	-426.0	0.0	32.3	0.0	**223.2**	0.0
Mz_f	-374.0	0.0	21.6	0.0	127.1	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 403

Fx_i	**-497.2**	0.0	17.3	0.0	-122.9	0.0	**43.0**	0.0	-2.9	0.0	6.6	0.0
Fy_i	-384.1	**0.0**	22.8	0.0	-223.7	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-1.4	0.0	**-8.0**	0.0	48.5	0.0	-431.8	0.0	**33.2**	0.0	-301.4	0.0
Mx_i	-384.1	0.0	22.8	**0.0**	-223.7	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-427.3	0.0	32.2	0.0	**-305.6**	0.0	-203.2	0.0	-5.9	0.0	**81.8**	0.0
Mz_i	-384.1	0.0	22.8	0.0	-223.7	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-497.2**	0.0	17.3	0.0	143.2	0.0	**43.0**	0.0	-2.9	0.0	-38.7	0.0
Fy_f	-384.1	**0.0**	22.8	0.0	126.6	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-1.4	0.0	**-8.0**	0.0	-74.4	0.0	-431.8	0.0	**33.2**	0.0	208.5	0.0
Mx_f	-384.1	0.0	22.8	**0.0**	126.6	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-25.5	0.0	-4.1	0.0	**-82.8**	0.0	-436.8	0.0	33.0	0.0	**210.7**	0.0
Mz_f	-384.1	0.0	22.8	0.0	126.6	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 404

Fx_i	**-435.0**	0.0	19.7	0.0	-92.1	0.0	**37.3**	0.0	-3.3	0.0	2.8	0.0
Fy_i	-332.4	**0.0**	25.0	0.0	-181.2	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-5.6	0.0	**-9.7**	0.0	33.7	0.0	-373.9	0.0	**37.5**	0.0	-244.2	0.0
Mx_i	-332.4	0.0	25.0	**0.0**	-181.2	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-357.1	0.0	33.8	0.0	**-251.5**	0.0	-118.4	0.0	-7.1	0.0	**60.6**	0.0
Mz_i	-332.4	0.0	25.0	0.0	-181.2	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-435.0**	0.0	19.7	0.0	133.9	0.0	**37.3**	0.0	-3.3	0.0	-35.5	0.0
Fy_f	-332.4	**0.0**	25.0	0.0	105.6	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-5.6	0.0	**-9.7**	0.0	-77.5	0.0	-373.9	0.0	37.5	0.0	185.1	0.0
Mx_f	-332.4	0.0	25.0	**0.0**	105.6	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-29.6	0.0	-6.3	0.0	**-85.2**	0.0	-366.6	0.0	36.8	0.0	**193.6**	0.0
Mz_f	-332.4	0.0	25.0	0.0	105.6	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 421

Fx_i	**-818.0**	0.0	-0.0	0.0	-0.0	0.0	**66.4**	0.0	-0.0	0.0	0.0	0.0
Fy_i	-660.7	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-494.3	0.0	**-22.8**	0.0	-90.1	0.0	-494.3	0.0	**22.8**	0.0	90.1	0.0
Mx_i	-660.7	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-373.6	0.0	7.7	0.0	**-935.4**	0.0	-376.2	0.0	-7.5	0.0	**935.5**	0.0
Mz_i	-660.7	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-818.0**	0.0	-0.0	0.0	-0.0	0.0	**66.4**	0.0	-0.0	0.0	0.0	0.0
Fy_f	-660.7	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-494.3	0.0	**-22.8**	0.0	-113.0	0.0	-494.3	0.0	22.8	0.0	113.0	0.0
Mx_f	-660.7	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-375.7	0.0	6.7	0.0	**-927.9**	0.0	-378.2	0.0	-6.5	0.0	**928.1**	0.0
Mz_f	-660.7	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 422

Fx_i	**-940.1**	0.0	0.0	0.0	-0.0	0.0	**75.3**	0.0	0.0	0.0	-0.0	0.0
Fy_i	-769.3	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-428.7	0.0	**-18.6**	0.0	-263.1	0.0	-451.6	0.0	**18.5**	0.0	306.1	0.0
Mx_i	-769.3	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-434.9	0.0	-0.3	0.0	**-1220.4**	0.0	-437.2	0.0	0.5	0.0	**1221.8**	0.0
Mz_i	-769.3	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-940.1**	0.0	0.0	0.0	0.0	0.0	**75.3**	0.0	0.0	0.0	0.0	0.0
Fy_f	-769.3	**0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-428.7	0.0	**-18.6**	0.0	-281.7	0.0	-451.6	0.0	**18.5**	0.0	324.6	0.0
Mx_f	-769.3	0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-432.3	0.0	-0.6	0.0	**-1220.6**	0.0	-434.5	0.0	0.9	0.0	**1222.4**	0.0
Mz_f	-769.3	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 423

Fx_i	**-948.2**	0.0	0.0	0.0	-0.0	0.0	**105.0**	0.0	-0.0	0.0	0.0	0.0
Fy_i	-747.6	**0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-424.4	0.0	**-18.5**	0.0	-134.5	0.0	-447.3	0.0	**18.4**	0.0	176.9	0.0
Mx_i	-747.6	0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-419.3	0.0	-2.2	0.0	**-1226.8**	0.0	-421.7	0.0	2.4	0.0	**1227.3**	0.0
Mz_i	-747.6	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-948.2**	0.0	0.0	0.0	0.0	0.0	**105.0**	0.0	-0.0	0.0	0.0	0.0
Fy_f	-747.6	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-424.4	0.0	**-18.5**	0.0	-153.0	0.0	-447.3	0.0	**18.4**	0.0	195.3	0.0
Mx_f	-747.6	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-416.7	0.0	-2.5	0.0	**-1229.1**	0.0	-419.1	0.0	2.7	0.0	**1229.8**	0.0
Mz_f	-747.6	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 424

Fx_i	**-954.5**	0.0	0.0	0.0	0.0	0.0	**105.6**	0.0	0.0	0.0	0.0	0.0
Fy_i	-753.3	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-427.3	0.0	**-18.2**	0.0	-154.1	0.0	-450.2	0.0	**18.1**	0.0	196.5	0.0
Mx_i	-753.3	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-425.0	0.0	-3.1	0.0	**-1247.8**	0.0	-425.8	0.0	3.2	0.0	**1248.9**	0.0
Mz_i	-753.3	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-954.5**	0.0	0.0	0.0	0.0	0.0	**105.6**	0.0	0.0	0.0	0.0	0.0
Fy_f	-753.3	**0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-427.3	0.0	**-18.2**	0.0	-172.2	0.0	-450.2	0.0	**18.1**	0.0	214.6	0.0
Mx_f	-753.3	0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-425.2	0.0	-3.1	0.0	**-1250.9**	0.0	-425.9	0.0	3.3	0.0	**1252.1**	0.0
Mz_f	-753.3	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 425

Fx_i	**-948.3**	0.0	0.0	0.0	-0.0	0.0	**104.8**	0.0	-0.0	0.0	0.0	0.0
Fy_i	-748.1	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-425.5	0.0	**-18.3**	0.0	-145.0	0.0	-448.4	0.0	**18.2**	0.0	187.4	0.0
Mx_i	-748.1	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-421.4	0.0	-3.1	0.0	**-1244.5**	0.0	-422.1	0.0	3.2	0.0	**1245.6**	0.0
Mz_i	-748.1	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-948.3**	0.0	0.0	0.0	-0.0	0.0	**104.8**	0.0	-0.0	0.0	0.0	0.0
Fy_f	-748.1	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-425.5	0.0	**-18.3**	0.0	-163.3	0.0	-448.4	0.0	**18.2**	0.0	205.6	0.0
Mx_f	-748.1	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-418.7	0.0	-3.4	0.0	**-1247.6**	0.0	-419.5	0.0	3.5	0.0	**1248.9**	0.0
Mz_f	-748.1	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 426

Fx_i	**-939.1**	0.0	-0.0	0.0	0.0	0.0	**75.5**	0.0	0.0	0.0	0.0	0.0
Fy_i	-768.2	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-435.0	0.0	**-16.7**	0.0	-133.8	0.0	-457.7	0.0	**16.6**	0.0	176.4	0.0
Mx_i	-768.2	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-436.7	0.0	-1.1	0.0	**-1229.9**	0.0	-436.7	0.0	1.1	0.0	**1229.9**	0.0
Mz_i	-768.2	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-939.1**	0.0	-0.0	0.0	0.0	0.0	**75.5**	0.0	0.0	0.0	0.0	0.0
Fy_f	-768.2	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-435.0	0.0	**-16.7**	0.0	-150.5	0.0	-457.7	0.0	**16.6**	0.0	193.0	0.0
Mx_f	-768.2	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-434.0	0.0	-1.4	0.0	**-1230.9**	0.0	-434.0	0.0	1.4	0.0	**1230.9**	0.0
Mz_f	-768.2	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 427

Fx_i	**-819.5**	0.0	0.0	0.0	0.0	0.0	**66.1**	0.0	-0.0	0.0	0.0	0.0
Fy_i	-664.7	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-383.5	0.0	**-21.5**	0.0	-319.0	0.0	-405.0	0.0	**21.4**	0.0	358.3	0.0
Mx_i	-664.7	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-379.7	0.0	-6.1	0.0	**-1107.5**	0.0	-379.7	0.0	6.1	0.0	**1107.5**	0.0
Mz_i	-664.7	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-819.5**	0.0	0.0	0.0	-0.0	0.0	**66.1**	0.0	-0.0	0.0	0.0	0.0
Fy_f	-664.7	**0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-383.5	0.0	**-21.5**	0.0	-340.5	0.0	-405.0	0.0	**21.4**	0.0	379.6	0.0
Mx_f	-664.7	0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-378.9	0.0	-6.2	0.0	**-1113.7**	0.0	-378.9	0.0	6.2	0.0	1113.7	0.0
Mz_f	-664.7	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

DISPLACEMENTS

	x	y	z	x	y	z	x	y	z	x	y	z

Joint 1

x	**-0.0**	-0.0	0.0	0.3	-0.3	-180.1	**0.0**	-0.0	-0.0	-0.7	0.5	-310.3
y	-0.0	**-0.0**	0.0	-0.0	-0.0	-533.7	-0.0	**0.0**	0.0	0.1	-0.1	317.6
z	0.0	-0.0	**-0.0**	-0.7	0.5	-314.7	-0.0	-0.0	**0.0**	0.4	-0.3	-1.2
x	0.0	-0.0	-0.0	**-0.7**	0.5	-313.7	-0.0	-0.0	0.0	**0.4**	-0.3	-0.4
y	-0.0	-0.0	0.0	0.4	**-0.3**	-5.7	0.0	-0.0	-0.0	-0.7	**0.5**	-314.7
z	-0.0	-0.0	-0.0	-0.0	-0.0	**-535.7**	-0.0	0.0	0.0	0.1	-0.1	**317.9**

Joint 2

x	**-0.0**	-0.6	0.0	-144.8	-6.5	-120.8	**0.0**	-1.1	-0.0	-245.3	6.5	-249.4
y	-0.0	**-1.9**	0.0	-117.6	-1.2	-459.7	-0.0	**1.1**	0.0	-6.4	-2.1	293.5
z	0.0	-1.1	**-0.0**	-245.3	6.5	-249.4	-0.0	-0.4	**0.0**	-131.9	-6.5	-99.5
x	-0.0	-1.0	0.0	**-355.3**	-0.3	-234.4	0.0	-0.4	-0.0	**81.8**	1.5	-92.0
y	-0.0	-0.6	0.0	-144.8	**-6.5**	-120.9	0.0	-1.1	-0.0	-245.3	**6.5**	-249.4
z	-0.0	-1.9	0.0	-117.5	-1.1	**-459.7**	-0.0	1.1	0.0	-6.6	-2.1	**293.5**

Joint 3

x	**-0.0**	-0.8	0.0	-237.4	-11.6	-15.4	**0.0**	-1.7	-0.0	-380.8	11.6	-114.1
y	-0.0	**-3.2**	0.0	-192.7	-2.0	-256.7	-0.0	**2.1**	0.0	-12.7	-3.8	212.5
z	0.0	-1.7	**-0.0**	-381.0	11.6	-113.9	-0.0	-0.8	**0.0**	-237.2	-11.6	-15.5
x	-0.0	-1.6	0.0	**-574.2**	-0.5	-89.3	0.0	-0.2	-0.0	**131.8**	2.5	-20.7
y	-0.0	-0.8	0.0	-237.3	**-11.6**	-15.4	0.0	-1.7	-0.0	-380.8	**11.6**	-114.0
z	-0.0	-3.2	0.0	-192.7	-2.0	**-256.7**	-0.0	2.1	0.0	-12.7	-3.8	**212.5**

Joint 4

x	**-0.0**	-0.1	0.1	-247.6	-15.7	86.6	**0.0**	-1.8	-0.1	-384.8	15.6	28.5
y	-0.0	**-3.7**	0.0	-219.9	-2.7	-17.9	-0.0	**2.7**	0.0	-17.3	-5.2	88.7
z	0.0	-1.9	**-0.1**	-428.0	15.7	28.1	-0.0	-0.7	**0.1**	-263.1	-15.7	78.5
x	-0.0	-1.6	0.0	**-658.4**	-0.2	50.5	0.0	0.2	-0.0	**148.8**	2.4	14.3
y	-0.0	-0.1	0.1	-247.6	**-15.7**	86.6	0.0	-1.8	-0.1	-384.8	**15.7**	28.5
z	-0.0	-2.2	0.0	-93.1	-2.1	**-54.2**	-0.0	1.2	0.0	-111.6	-5.6	**120.9**

Joint 5

x	**-0.1**	0.2	0.2	-195.8	-18.8	76.5	**0.1**	-1.5	-0.2	-360.2	18.7	147.3
y	-0.0	**-3.3**	0.0	-198.1	-3.3	243.5	-0.0	**2.6**	0.1	-18.7	-6.2	**-105.2**
z	0.1	-1.5	**-0.2**	-398.4	18.8	153.2	-0.1	-0.3	**0.2**	-212.5	-18.8	119.9
x	0.0	-1.2	-0.0	**-602.6**	3.1	158.8	0.0	-0.1	-0.0	**135.5**	1.5	32.8
y	-0.1	0.2	0.2	-195.8	**-18.8**	76.5	0.1	-1.5	-0.2	-360.3	**18.8**	147.3
z	-0.0	2.6	0.0	-16.0	-4.9	**-106.1**	-0.0	-3.3	0.0	-198.3	-4.6	**243.8**

Joint 6

x	**-0.1**	0.3	0.2	-103.8	-20.9	-16.8	**0.1**	-0.8	-0.2	-225.3	20.9	176.6
y	-0.0	**-2.0**	0.0	-127.1	-3.7	434.3	-0.0	**1.8**	0.1	-16.8	-6.9	-356.7
z	0.1	-0.8	**-0.2**	-271.4	20.9	181.1	-0.1	0.3	**0.2**	-100.7	-20.9	-25.9
x	0.0	-0.7	-0.0	**-405.7**	5.2	160.1	-0.0	-0.2	-0.0	**79.1**	-1.3	73.6
y	-0.1	0.3	0.2	-103.7	**-21.0**	-16.7	0.1	-0.8	-0.2	-225.4	**21.1**	176.5
z	-0.0	1.8	0.1	-17.4	-6.9	**-358.1**	-0.0	-2.0	0.0	-127.1	-3.7	**434.3**

Joint 7

x	**-0.1**	-0.3	0.3	28.7	-22.7	-398.6	**0.1**	-0.3	-0.3	-87.3	22.8	42.3
y	-0.0	**-0.7**	0.1	-23.7	-8.6	-548.2	-0.0	**0.1**	0.0	2.1	-2.5	188.8
z	0.1	-0.4	**-0.3**	-101.1	22.5	-20.0	-0.1	-0.3	**0.3**	23.8	-22.5	-411.3
x	0.1	-0.5	-0.3	**-108.8**	20.3	-120.5	-0.1	-0.2	0.3	**40.3**	-19.4	-358.8
y	-0.1	-0.3	0.3	28.8	**-22.8**	-398.0	0.1	-0.3	-0.3	-87.5	**23.0**	41.8
z	-0.0	-0.4	0.1	-11.8	-7.4	**-925.7**	-0.0	-0.2	0.1	-8.0	-3.8	**523.0**

Joint 8

x	**-0.1**	-2.9	0.4	119.9	-24.2	-616.9	**0.1**	-0.5	-0.4	-415.2	24.3	-115.4
y	-0.0	**-5.8**	0.1	-230.4	-7.8	-1276.7	-0.0	**2.0**	0.1	-16.3	-4.8	439.6
z	0.1	-0.6	**-0.4**	-450.5	24.2	-145.6	-0.1	-3.1	**0.4**	139.8	-23.6	-699.7
x	0.0	-2.6	-0.1	**-753.0**	4.0	-543.0	-0.0	-2.7	0.1	**321.1**	-1.5	-647.1
y	-0.1	-2.9	0.4	119.9	**-24.3**	-615.6	0.1	-0.5	-0.4	-415.3	**24.5**	-115.8
z	-0.0	-5.7	0.1	-229.5	-7.7	**-1277.3**	-0.0	2.0	0.1	-15.3	-4.9	**439.6**

Joint 9

x	**-0.1**	-5.4	0.5	228.8	-25.0	-484.8	**0.1**	-1.1	-0.5	-635.6	25.1	-125.4
y	-0.0	**-11.2**	0.2	-380.5	-7.7	-1070.3	-0.0	**3.8**	0.1	-23.9	-5.2	365.2
z	0.1	-1.4	**-0.5**	-701.7	24.5	-160.4	-0.1	-6.1	**0.5**	254.5	-24.4	-591.4
x	0.0	-4.8	-0.1	**-1210.6**	1.5	-418.2	-0.0	-7.0	0.1	**560.6**	-0.9	-658.0
y	-0.1	-5.4	0.5	228.9	**-25.1**	-484.5	0.1	-1.1	-0.5	-635.6	**25.3**	-126.7
z	-0.0	-11.1	0.2	-381.1	-7.6	**-1072.5**	-0.0	3.8	0.1	-22.6	-5.2	**365.3**

Joint 10

x	**-0.1**	-6.9	0.6	336.1	-25.4	-212.6	**0.1**	-1.2	-0.6	-771.3	25.5	-94.4
y	-0.0	**-15.0**	0.2	-468.2	-7.6	-598.6	-0.0	**5.2**	0.1	-29.0	-5.5	250.8
z	0.1	-2.0	**-0.6**	-878.7	24.6	-117.7	-0.1	-8.2	**0.6**	332.8	-24.4	-303.0
x	-0.0	-8.0	-0.1	**-1467.8**	0.1	-241.0	-0.0	-9.3	0.1	**755.6**	-0.1	-348.5
y	-0.1	-6.9	0.6	336.3	**-25.6**	-212.4	0.1	-1.2	-0.6	-771.5	**25.8**	-94.7
z	-0.0	-13.7	0.2	-547.2	-6.9	**-608.4**	-0.0	3.9	0.1	50.7	-5.8	**257.6**

Joint 11

x	**-0.1**	-7.3	0.7	333.9	-25.6	76.5	**0.1**	-1.6	-0.7	-825.7	25.7	-38.8
y	-0.0	**-16.5**	0.2	-494.5	-7.2	-49.6	-0.0	**6.0**	0.1	-32.6	-5.7	111.6
z	0.1	-2.5	**-0.8**	-962.6	24.5	-39.6	-0.1	-9.0	**0.8**	360.5	-24.4	43.1
x	0.0	-11.1	-0.1	**-1548.0**	0.5	17.4	0.0	-10.1	0.1	**833.0**	0.7	2.9
y	-0.1	-7.3	0.7	334.1	**-25.8**	76.7	0.1	-1.6	-0.7	-826.0	**26.0**	-39.0
z	-0.0	-7.4	0.1	-247.2	-4.3	**-215.0**	-0.0	-3.1	0.2	-176.4	-7.4	**262.0**

Joint 12

x	**-0.1**	-6.2	0.8	259.8	-25.6	341.1	**0.1**	-1.6	-0.8	-783.8	25.7	40.8
y	-0.0	**-15.4**	0.3	-463.7	-6.9	518.8	-0.0	**6.1**	0.2	-32.5	-5.7	-63.9
z	0.1	-1.7	**-0.9**	-772.1	24.8	35.1	-0.1	-6.0	**0.9**	229.3	-24.6	319.5
x	0.0	-7.8	-0.2	**-1485.2**	4.1	295.3	0.0	-9.3	0.1	**778.3**	0.7	353.1
y	-0.1	-6.2	0.8	260.1	**-25.8**	341.1	0.1	-1.6	-0.8	-784.2	**26.0**	40.8
z	0.0	1.0	-0.4	80.8	12.8	**-96.9**	-0.0	-10.8	0.5	-653.0	-13.4	**541.9**

Joint 13

x	**-0.1**	-4.6	0.9	42.2	-25.2	558.2	**0.1**	-2.5	-0.9	-778.9	25.3	215.1
y	-0.0	**-11.8**	0.3	-373.2	-6.5	1044.0	-0.0	**5.3**	0.2	-26.5	-5.8	-299.7
z	0.1	-1.5	**-1.0**	-722.1	24.3	117.3	-0.1	-4.3	**1.0**	173.8	-24.2	535.9
x	0.0	-4.3	-0.2	**-1239.0**	4.6	441.9	-0.0	-7.0	0.1	**593.0**	0.5	657.8
y	-0.1	-3.6	0.9	37.8	**-25.5**	505.3	0.1	-2.5	-0.9	-779.4	**25.6**	215.4
z	-0.0	5.3	0.2	-26.5	-5.6	**-299.8**	-0.0	-11.8	0.3	-372.8	-6.8	**1044.8**

Joint 14

x	**-0.1**	-1.6	0.9	7.5	-24.6	476.7	**0.1**	-1.2	-0.9	-468.3	24.7	253.4
y	-0.0	**-6.4**	0.3	-215.7	-5.5	1338.7	-0.0	**3.4**	0.2	-14.8	-6.3	-575.4
z	0.1	-0.8	**-1.1**	-534.2	23.0	159.6	-0.1	-1.9	**1.1**	124.7	-22.9	523.4
x	0.0	-2.3	-0.3	**-778.5**	7.3	544.6	-0.0	-2.5	0.5	**344.6**	-10.8	616.7
y	-0.1	-1.5	0.9	8.1	**-24.8**	475.5	0.1	-1.2	-0.9	-468.9	**25.0**	255.0
z	-0.0	3.4	0.2	-14.0	-5.8	**-577.2**	-0.0	-6.4	0.3	-217.0	-6.0	**1339.0**

Joint 15

x	**-0.1**	-0.3	0.8	77.0	-23.7	-120.3	**0.1**	-0.3	-0.8	-134.1	23.9	312.7
y	-0.0	**-0.7**	0.6	21.7	-8.6	-90.2	0.0	**0.1**	-0.3	-26.7	7.0	153.4
z	0.1	-0.3	**-1.2**	-189.1	20.9	-0.4	-0.1	-0.4	**1.2**	121.6	-20.9	-31.6
x	0.1	-0.4	-1.1	**-192.7**	19.4	13.5	-0.1	-0.4	1.1	**124.8**	-20.1	-139.8
y	-0.1	-0.3	0.8	71.2	**-24.0**	-220.3	0.1	-0.3	-0.8	-126.9	**24.2**	277.4
z	-0.0	-0.4	0.3	11.5	-6.9	**-1148.7**	-0.0	-0.3	0.3	8.6	-3.9	**1209.3**

Joint 16

x	**-0.1**	-2.5	0.6	186.9	-24.9	-560.2	**0.1**	0.5	-0.6	-407.0	25.0	23.0
y	-0.0	**-6.4**	0.4	-211.4	-6.6	-1381.1	-0.0	**4.0**	0.3	-20.4	-3.1	730.6
z	0.1	-0.8	**-1.3**	-550.3	18.2	-163.2	-0.1	-2.1	**1.3**	114.5	-18.2	-568.6
x	0.0	-1.9	-0.2	**-793.8**	3.3	-445.3	-0.0	-2.4	0.1	**361.7**	-2.5	-594.1
y	-0.1	-2.6	0.7	187.5	**-25.2**	-562.4	0.1	0.5	-0.7	-408.1	**25.3**	24.4
z	-0.0	-6.4	0.4	-210.5	-6.6	**-1382.1**	-0.0	4.0	0.3	-18.5	-3.3	**731.0**

Joint 17

x	**-0.1**	-4.9	0.6	314.2	-26.1	-452.7	**0.1**	0.3	-0.6	-657.8	26.3	-82.6
y	-0.0	**-12.1**	0.4	-367.4	-6.2	-1119.8	-0.0	**6.6**	0.3	-33.9	-3.1	469.2
z	0.1	-2.0	**-1.4**	-739.3	17.1	-182.4	-0.1	-5.0	**1.3**	98.6	-17.1	-572.0
x	0.0	-3.7	-0.2	**-1279.2**	3.5	-380.6	-0.0	-6.6	0.0	**641.4**	-3.3	-640.4
y	-0.1	-4.9	0.6	314.4	**-26.4**	-453.8	0.1	0.3	-0.6	-658.2	**26.5**	-81.5
z	-0.0	-12.1	0.4	-366.6	-6.1	**-1121.9**	-0.0	6.4	0.3	-31.9	-4.1	**480.4**

Joint 18

x	**-0.1**	-6.6	0.7	236.8	-27.1	-226.9	**0.1**	-1.4	-0.7	-798.2	27.2	-182.8
y	-0.0	**-16.1**	0.5	-457.0	-5.7	-602.9	-0.0	**8.2**	0.3	-42.9	-2.9	213.2
z	0.0	-2.7	**-1.4**	-832.7	15.6	-100.6	-0.0	-7.1	**1.4**	143.5	-15.7	-334.0
x	0.0	-7.0	-0.1	**-1545.0**	2.7	-253.7	-0.0	-8.9	0.0	**850.8**	-2.8	-351.1
y	-0.1	-6.6	0.7	237.1	**-27.4**	-227.8	0.1	-1.2	-0.7	-804.2	**27.5**	-171.9
z	0.0	-13.0	0.7	-597.7	-1.5	-620.3	-0.0	4.9	0.0	99.8	-8.1	**261.0**

Joint 19

x	**-0.1**	-6.6	0.7	25.3	-27.8	90.1	**0.1**	-2.1	-0.7	-758.9	28.0	-95.4
y	-0.0	**-17.5**	0.5	-485.9	-5.0	-23.0	-0.0	**8.6**	0.3	-47.1	-2.3	-1.4
z	0.0	-2.8	**-1.5**	-872.4	14.4	-4.2	-0.0	-7.9	**1.5**	168.4	-14.5	-16.0
x	0.0	-10.4	-0.1	**-1621.3**	3.2	1.6	-0.0	-9.8	0.1	**922.3**	-2.5	-15.4

y	-0.1	-6.6	0.7	25.9	**-28.1**	89.2	0.1	-2.1	-0.7	-759.5	**28.2**	-94.3
z	0.0	-4.7	0.4	-158.6	-1.6	**-288.1**	-0.0	-3.7	0.4	-166.7	-6.4	**274.1**

Joint 20

x	**-0.1**	-5.6	0.8	-14.2	-28.0	343.6	**0.1**	-2.3	-0.9	-790.7	28.2	9.9
y	-0.0	**-16.3**	0.5	-457.9	-4.3	566.6	-0.0	**8.2**	0.3	-44.0	-4.1	-202.2
z	0.0	-2.8	**-1.6**	-846.9	14.0	83.9	-0.0	-7.2	**1.6**	153.8	-13.2	301.6
x	0.0	-7.2	-0.1	**-1552.0**	5.7	241.3	-0.0	-9.0	0.0	**850.8**	-0.4	332.7
y	-0.1	-5.6	0.8	-14.0	**-28.3**	343.6	0.1	-2.3	-0.9	-790.9	**28.4**	9.8
z	0.0	4.5	0.0	107.5	3.2	**-249.2**	-0.0	-12.7	0.8	-604.8	-10.1	**583.4**

Joint 21

x	**-0.1**	0.6	0.6	-401.8	-28.0	60.2	**0.1**	-1.9	-0.6	-232.8	28.3	143.4
y	-0.0	**-12.5**	0.5	-369.9	-3.7	1104.6	-0.0	**6.7**	0.3	-35.4	-4.1	-468.8
z	0.0	-2.2	**-1.6**	-767.2	12.8	179.4	-0.0	-5.2	**1.6**	101.7	-12.7	559.7
x	0.0	-3.9	-0.2	**-1293.0**	5.8	375.6	-0.0	-6.8	0.1	**642.4**	-1.0	629.6
y	-0.1	0.6	0.6	-401.9	**-28.5**	61.8	0.1	-1.9	-0.6	-233.0	**28.5**	142.7
z	-0.0	6.5	0.3	-32.4	-2.5	**-478.5**	-0.0	-12.4	0.5	-369.7	-4.1	**1105.5**

Joint 22

x	**-0.1**	0.4	0.6	-299.0	-28.3	-0.6	**0.1**	-1.7	-0.7	-199.6	28.7	353.0
y	-0.0	**-6.7**	0.5	-215.7	-3.1	1401.4	-0.0	**4.0**	0.4	-18.9	-3.9	-746.5
z	0.0	-1.2	**-1.7**	-578.9	11.2	234.6	-0.0	-2.5	**1.7**	96.4	-11.1	605.8
x	0.0	-2.2	-0.4	**-816.8**	8.0	489.8	-0.0	-2.5	0.7	**367.1**	-9.9	589.1
y	-0.1	0.4	0.6	-299.2	**-28.8**	2.7	0.1	-1.7	-0.7	-199.7	**28.9**	351.5
z	-0.0	4.0	0.4	-19.9	-4.0	**-748.0**	-0.0	-6.7	0.5	-215.7	-3.1	**1401.4**

Joint 23

x	**-0.1**	-0.4	0.7	30.4	-28.4	-388.6	**0.1**	-0.4	-0.7	-112.2	28.9	258.0
y	-0.0	-0.9	0.8	15.4	-5.1	-37.1	0.0	**0.1**	-0.5	-35.0	4.3	42.2
z	0.0	-0.4	**-1.7**	-228.9	10.6	-38.9	-0.0	-0.5	**1.7**	139.6	-10.6	-120.1
x	0.0	-0.5	-1.6	**-235.7**	9.8	-67.5	-0.0	-0.5	1.6	**148.1**	-9.6	-109.8
y	-0.1	-0.4	0.7	30.4	**-29.1**	-384.6	0.1	-0.4	-0.7	-112.2	**29.3**	254.7
z	-0.0	-0.4	0.5	9.6	-4.7	**-1270.1**	0.0	-0.4	0.5	9.2	-1.1	**1254.4**

Joint 24

x	**-0.1**	-2.8	0.5	154.2	-29.1	-587.9	**0.1**	0.2	-0.5	-375.9	29.7	-19.7
y	-0.0	**-6.8**	0.6	-214.2	-3.6	-1435.4	0.0	**4.0**	0.4	-20.2	-1.0	752.2
z	0.0	-1.3	**-1.8**	-582.9	9.2	-245.0	-0.0	-2.6	**1.8**	104.4	-9.2	-633.8
x	-0.0	-2.1	-0.4	**-820.0**	-1.3	-458.8	-0.0	-2.6	0.7	**369.1**	-1.4	-609.9
y	-0.1	-2.7	0.5	153.9	**-30.0**	-581.5	0.1	0.2	-0.5	-375.7	**30.1**	-23.6
z	-0.0	-6.8	0.6	-211.1	-3.9	**-1436.1**	0.0	4.0	0.4	-20.2	-1.0	**752.2**

Joint 25

x	**-0.1**	-5.6	0.6	176.6	-29.5	-505.9	**0.1**	-0.9	-0.6	-613.7	30.2	-182.6
y	-0.0	**-12.8**	0.6	-367.6	-3.5	-1142.0	0.0	**6.8**	0.4	-35.8	-0.8	479.4
z	0.0	-2.3	**-1.8**	-774.0	7.7	-191.5	-0.0	-5.4	**1.8**	118.6	-7.7	-586.0
x	-0.0	-4.0	-0.3	**-1300.8**	0.0	-384.7	-0.0	-6.9	0.1	**648.0**	-1.6	-647.0
y	-0.1	-5.5	0.6	176.3	**-30.6**	-499.7	0.1	-1.0	-0.6	-609.8	**30.8**	-197.3
z	-0.0	-12.7	0.6	-366.5	-3.1	**-1144.2**	0.0	6.5	0.4	-33.5	-2.3	**489.2**

Joint 26

x	**-0.1**	-5.9	0.6	167.1	-29.7	-173.9	**0.1**	-1.4	-0.7	-683.2	30.5	-152.9
y	-0.0	**-16.7**	0.6	-456.7	-2.9	-599.8	0.0	**8.3**	0.4	-44.5	-0.7	214.8
z	0.0	-3.0	**-1.8**	-864.9	6.6	-97.6	-0.0	-7.6	**1.8**	163.8	-6.7	-329.1
x	-0.0	-7.3	-0.2	**-1562.9**	-0.7	-249.4	-0.0	-9.2	0.1	**858.7**	-1.3	-348.0
y	-0.1	-5.8	0.6	166.4	**-31.1**	-169.4	0.1	-1.5	-0.7	-682.6	**31.2**	-156.4
z	-0.0	-13.3	0.9	-605.2	1.1	**-616.7**	-0.0	4.7	0.1	106.6	-6.0	**261.4**

Joint 27

x	**-0.1**	-6.1	0.8	157.7	-29.5	85.4	**0.1**	-2.0	-0.8	-768.7	30.3	-91.5
y	-0.0	**-18.1**	0.6	-485.3	-2.2	-3.2	0.0	**8.8**	0.4	-46.6	-0.6	-16.8
z	0.0	-3.1	**-1.9**	-901.3	5.8	5.0	-0.0	-8.3	**1.9**	187.6	-5.9	-0.8
x	-0.0	-10.6	-0.2	**-1636.3**	0.6	10.5	-0.0	-10.0	0.1	**930.1**	-1.4	-5.9
y	-0.1	-6.0	0.8	157.1	**-31.1**	88.1	0.1	-2.1	-0.8	-768.0	**31.1**	-93.6
z	-0.0	-4.5	0.5	-160.2	1.2	**-289.4**	-0.0	-4.3	0.5	-165.2	-4.6	**290.9**

Joint 28

x	**-0.1**	-0.7	0.5	-317.3	-30.0	162.6	**0.1**	-4.1	-0.6	-353.7	30.0	76.6
y	-0.0	**-16.8**	0.6	-456.8	-1.3	597.4	0.0	**8.3**	0.4	-44.6	-2.4	-209.7
z	0.0	-3.0	**-1.9**	-869.8	6.1	97.7	-0.0	-7.6	**1.9**	157.0	-6.0	327.7
x	0.0	-7.4	-0.2	**-1564.6**	3.1	252.2	-0.0	-9.2	0.1	**857.8**	0.4	346.6
y	-0.1	-0.7	0.5	-317.1	**-31.0**	162.7	0.1	-4.2	-0.6	-353.2	**31.0**	76.6
z	0.0	4.6	0.1	105.3	5.8	**-256.5**	-0.0	-13.2	0.9	-602.3	-7.7	**613.8**

Joint 29

x	**-0.1**	0.5	0.5	-463.6	-30.4	72.7	**0.1**	-3.3	-0.6	-194.7	30.1	291.3
y	-0.0	**-12.8**	0.6	-368.9	-0.6	1141.2	0.0	**6.8**	0.4	-35.3	-2.5	-478.0
z	0.0	-2.4	**-1.9**	-788.7	4.9	195.2	-0.0	-5.4	**1.9**	117.0	-4.9	585.6
x	0.0	-4.0	-0.3	**-1303.8**	3.8	387.8	-0.0	-6.9	0.1	**647.6**	-1.0	645.4
y	-0.1	0.5	0.5	-463.1	**-31.2**	71.5	0.1	-3.3	-0.6	-194.6	**31.2**	294.3
z	0.0	6.5	0.4	-32.7	-0.5	**-488.3**	-0.0	-12.8	0.6	-368.2	-1.3	**1142.2**

Joint 30

x	**-0.1**	0.5	-0.0	-328.8	-30.0	-48.9	**0.1**	-1.6	-0.6	-150.3	29.8	328.4
y	-0.0	**-6.9**	0.6	-214.4	-0.0	1437.2	0.0	**4.0**	0.4	-18.0	-2.5	-755.5
z	0.0	-1.3	**-1.9**	-597.3	3.9	250.2	-0.0	-2.6	**1.9**	109.4	-3.9	631.4
x	0.0	-2.3	-0.5	**-826.3**	6.5	501.8	-0.0	-2.5	0.8	**373.1**	-6.9	602.7
y	-0.1	1.0	0.6	-280.6	**-31.0**	-144.8	0.1	-1.6	-0.6	-150.9	**31.0**	335.4
z	0.0	4.0	0.4	-19.0	-2.5	**-757.1**	-0.0	-6.9	0.6	-214.4	-0.0	**1437.2**

Joint 31

x	**-0.1**	-0.3	0.1	-10.2	-30.4	-372.5	**0.1**	-0.3	-0.6	-92.1	30.0	297.3
y	0.0	**-0.9**	1.0	19.5	-2.2	-8.8	-0.0	**0.1**	-0.5	-38.9	2.2	-7.1
z	0.0	-0.4	**-2.0**	-246.3	4.0	-30.6	-0.0	-0.6	**1.9**	152.5	-4.0	-107.0
x	0.0	-0.5	-1.8	**-252.9**	3.7	-57.2	-0.0	-0.5	1.9	**160.8**	-3.6	-113.3
y	-0.1	-0.3	0.1	-8.7	**-31.2**	-379.0	0.1	-0.3	-0.1	-25.8	**31.2**	379.3
z	0.0	-0.4	0.5	12.3	-3.1	**-1275.5**	-0.0	-0.4	0.5	10.7	1.6	**1276.6**

Joint 32

x	**-0.1**	-2.4	0.1	167.3	-30.9	-516.7	**0.1**	0.1	-0.5	-358.0	30.2	-42.3
y	0.0	**-6.9**	0.6	-212.6	-1.9	-1436.3	-0.0	**4.0**	0.4	-19.9	1.3	757.6
z	0.0	-1.3	**-2.0**	-596.0	2.9	-237.6	-0.0	-2.6	**2.0**	113.8	-3.0	-630.8
x	-0.0	-2.1	-0.5	**-826.7**	-3.1	-456.2	0.0	-2.6	0.9	**373.3**	2.3	-612.6
y	-0.1	-2.5	0.1	169.1	**-31.5**	-523.9	0.1	0.8	-0.1	-345.4	**31.5**	108.2
z	0.0	-6.8	0.6	-209.4	-2.1	**-1437.0**	-0.0	4.0	0.4	-19.9	1.3	**757.6**

Joint 33

x	**-0.1**	-4.1	0.1	222.1	-30.9	-362.6	**0.1**	0.5	-0.1	-492.1	30.9	-74.9
y	0.0	**-12.8**	0.6	-366.5	-1.8	-1140.9	-0.0	**6.8**	0.4	-36.0	1.5	478.2
z	0.0	-2.3	**-2.0**	-785.5	1.8	-189.2	-0.0	-5.4	**2.0**	127.0	-1.9	-585.3
x	-0.0	-4.0	-0.3	**-1305.3**	-0.9	-384.4	-0.0	-6.9	0.1	**648.9**	-2.0	-647.1
y	-0.1	-4.2	0.1	224.5	**-31.6**	-369.6	0.1	0.5	-0.1	-494.5	**31.6**	-67.9
z	0.0	-12.8	0.7	-365.4	-1.4	**-1143.2**	-0.0	6.5	0.4	-33.6	-0.2	**487.7**

Joint 34

x	**-0.1**	-5.3	0.2	306.8	-31.1	-150.8	**0.1**	0.1	-0.2	-631.5	31.1	-106.0
y	0.0	**-16.8**	0.6	-456.0	-1.3	-597.6	-0.0	**8.4**	0.4	-44.9	1.5	209.5
z	0.0	-2.9	**-2.0**	-877.9	1.2	-95.9	-0.0	-7.6	**2.0**	174.3	-1.3	-328.2
x	-0.0	-7.3	-0.2	**-1566.3**	-0.7	-250.7	-0.0	-9.2	0.1	**859.6**	-2.5	-349.4
y	-0.1	-5.4	0.2	307.6	**-31.5**	-152.7	0.1	0.1	-0.2	-632.3	**31.5**	-104.1
z	0.0	-13.2	1.0	-603.1	4.5	**-614.3**	-0.0	4.6	0.1	104.8	-5.6	**255.7**

Joint 35

x	**-0.1**	-0.3	0.0	-60.3	-30.4	122.2	**0.1**	-5.6	-0.0	-282.2	30.4	-124.8
y	0.0	**-18.1**	0.7	-484.5	-0.5	-0.7	-0.0	**8.8**	0.4	-47.6	1.4	-23.5
z	-0.0	-3.2	**-2.0**	-908.7	0.2	3.3	-0.0	-8.4	**2.0**	192.9	-0.3	-1.7
x	0.0	-10.6	-0.2	**-1639.0**	1.4	8.5	-0.0	-10.0	0.1	**931.2**	-2.6	-7.6
y	-0.1	-4.3	0.2	74.0	**-30.9**	121.0	0.1	-1.5	-0.2	-416.6	**30.9**	-123.7
z	0.0	-4.4	0.5	-159.8	2.6	**-291.3**	-0.0	-4.4	0.5	-165.7	-2.3	**288.6**

Joint 36

x	**-0.1**	0.1	-0.2	-627.4	-30.6	102.2	**0.1**	-5.7	0.2	278.9	30.3	152.5

y	0.0	**-16.8**	0.7	-456.1	0.1	599.6	-0 0	**8.3**	0.4	-45.7	-0.2	-215.5
z	-0.0	-3.1	**-2.0**	-876.9	0.5	96.0	-0.0	-7.6	**2.0**	160.4	-0.4	324.3
x	0.0	-7.4	-0.3	**-1567.2**	3.5	250.2	-0 0	-9.2	0.1	**859.2**	-0.4	345.1
y	-0.1	-1.6	-0.6	-679.0	**-31.0**	165.4	0.1	-5.8	0.6	164.6	**31.1**	168.0
z	0.0	4.7	0.1	104.5	5.4	**-261.9**	-0.0	-13.3	0.9	-601.9	-3.6	**615.7**

Joint 37

x	**-0.1**	-0.8	-0.5	-522.2	-30.1	174.7	**0.1**	-4.5	0.1	202.0	30.2	385.0
y	0.0	**-12.8**	0.6	-368.2	0.9	1142.0	-0.0	**6.8**	0.4	-36.7	-0.4	-480.1
z	-0.0	-2.4	**-2.0**	-792.7	-0.6	195.7	0.0	-5.5	**2.0**	119.5	0.6	587.6
x	0.0	-4.0	-0.4	**-1306.4**	3.2	386.8	-0.0	-7.0	0.1	**649.0**	-0.3	645.1
y	-0.1	-0.8	-0.5	-520.5	**-30.9**	177.8	0.1	-4.5	0.4	123.8	**30.9**	401.6
z	-0.0	6.5	0.4	-33.9	1.5	**-490.4**	0.0	-12.7	0.7	-367.8	0.3	**1143.1**

Joint 38

x	**-0.1**	0.2	-0.5	-358.8	-29.6	14.1	**0.1**	-2.7	0.1	157.2	29.9	555.8
y	0.0	**-6.9**	0.6	-213.7	1.4	1435.9	-0.0	**4.0**	0.4	-20.2	-0.3	-751.3
z	-0.0	-1.4	**-2.0**	-600.0	-1.9	252.7	0.0	-2.6	**2.0**	110.8	1.9	636.2
x	0.0	-2.3	-0.5	**-828.7**	4.5	502.5	-0.0	-2.6	0.8	**373.6**	-2.9	607.1
y	-0.1	0.2	-0.5	-356.9	**-30.5**	20.9	0.1	-2.7	0.4	135.1	**30.4**	576.9
z	-0.0	4.0	0.4	-21.1	-0.3	**-752.9**	0.0	-6.9	0.6	-213.7	1.4	**1435.9**

Joint 39

x	**-0.1**	-0.3	-0.5	-85.8	-28.8	-327.6	**0.1**	-0.3	0.0	-17.1	29.2	391.8
y	-0.0	**-0.9**	0.9	16.4	1.3	18.1	0.0	**0.1**	-0.6	-40.1	-1.1	-44.8
z	-0.0	-0.4	**-2.0**	-247.2	-3.0	14.6	0.0	-0.6	**2.0**	152.4	3.4	120.8
x	-0.0	-0.5	-1.8	**-254.0**	-3.6	30.2	0.0	-0.5	1.9	**160.8**	3.2	101.8
y	-0.1	-0.3	-0.5	-83.8	**-29.7**	-311.7	0.1	-0.4	0.5	11.4	**29.7**	384.8
z	-0.0	-0.4	0.5	9.0	-0.8	**-1255.2**	0.0	-0.5	0.5	11.7	2.9	**1269.9**

Joint 40

x	**-0.1**	-2.2	-0.6	-171.0	-28.3	-474.8	**0.1**	1.1	0.6	-272.6	29.1	169.2
y	-0.0	**-6.7**	0.6	-215 5	0.8	-1402.9	0.0	**4.0**	0.4	-18.9	2.3	746.5
z	-0.0	-1.2	**-2.0**	-592.2	-4.2	-220.6	0.0	-2.5	**2.0**	109.5	4.1	-606.8
x	-0.0	-2.1	-0.5	**-823.3**	-6.0	-447.5	0.0	-2.6	0.8	**367.1**	7.7	-600.8
y	-0.1	-1.6	-0.6	-152.1	**-29.4**	-325.4	0.1	1.0	0.6	-279.5	**29.5**	151.7
z	-0.0	-6.7	0.6	-212.3	0 6	**-1403.6**	0.0	4.0	0.4	-18.9	2.3	**746.5**

Joint 41

x	**-0.1**	-4.4	-0.6	-239.8	-28.1	-389.4	**0.1**	1.3	0.5	-475.5	29.0	22.5
y	-0.0	**-12.5**	0.6	-369.2	0.9	-1106.7	0.0	**6.7**	0.4	-35.0	2.4	466.9
z	-0.0	-2.1	**-1.9**	-778.3	-5.7	-173.5	0.0	-5.2	**1.9**	120.1	5.6	-563 5
x	-0.0	-3.9	-0.3	**-1298.5**	-4.9	-374.9	0.0	-6.8	0.0	**639.4**	2.3	-632.7
y	-0.1	-3.2	-0.6	-203.5	**-29.3**	-271.8	0.1	0.6	0.5	-453.6	**29.4**	-57.7
z	-0.0	-12.5	0.6	-368.1	1.3	**-1108.9**	0.0	6.4	0.4	-32.0	0.8	**475.3**

Joint 42

x	**-0.1**	-7.2	-0.7	-692.6	-27.3	-216.9	**0.1**	1.1	0.5	-356.6	28.7	-58.4
y	-0.0	**-16.3**	0.6	-458.4	1.6	-569.0	0.0	**8.2**	0.4	-44.2	2.4	200 4
z	-0.0	-2.7	**-1.9**	-862.5	-7.4	-85.6	0.0	-7.3	**1.9**	160.1	7.2	-309.7
x	-0.0	-7.2	-0.2	**-1556.7**	-5.0	-242.3	-0.0	-9.0	-0.0	**847.6**	1.6	-337.1
y	-0.1	-2.7	-0.5	-219.8	**-28.9**	-1.6	0.1	0.8	0.5	-371.4	**28.9**	-71.5
z	-0.0	-12.8	0.9	-605.1	7.2	**-585.9**	0.0	4.5	0.1	105.2	-4.4	**245.8**

Joint 43

x	**-0.1**	-4.6	-0.8	-779.1	-27.2	108.4	**0.1**	-4.0	0.7	67.5	28.4	-118.5
y	-0.0	**-17.6**	0.6	-487.3	2.2	17.4	0.0	**8.6**	0.4	-46.3	2.6	-28.8
z	-0.0	-2.9	**-1.9**	-892.5	-8.7	6.8	0.0	-8.0	**1.9**	178.8	8.6	9.4
x	-0.0	-10.5	-0.1	**-1627.0**	-4.0	14.6	-0.0	-9.8	-0.0	**917.2**	1.9	0.6
y	-0.1	-2.1	-0.8	-742.1	**-28.7**	106.6	0 1	-5.8	0.8	132.7	**28.7**	-83.2
z	-0.0	-3.9	0.4	-162.8	4.7	**-275.2**	0.0	-4.6	0.5	-164.6	-0.6	**284.9**

Joint 44

x	**-0.1**	-2.3	-0.8	-654.7	-26.8	165.8	**0.1**	-5.3	0.7	177.2	27.8	169.4
y	-0.0	**-16.2**	0.6	-458.9	2.6	601.3	0.0	**8.1**	0.4	-44.3	1.3	-214.8
z	-0.0	-2.9	**-1.8**	-856.3	-9.4	98.7	0 0	-7.3	**1.8**	145.0	9.5	332.9
x	-0.0	-7.2	-0.1	**-1552.9**	-2.6	251.7	0.0	-9.0	-0.1	**844.3**	4.1	346.8

y	-0.1	-1.4	-0.7	-692.3	**-28.6**	167 1	0.1	-5.7	0.7	180.3	**28.5**	169.3
z	0.0	4.9	-0.0	93.2	8.4	**-261.5**	-0.0	-13.1	1.0	-592.1	-2 7	**617.6**

Joint 45

x	**-0.1**	-1.7	-0.7	-585.4	-26.1	238.4	**0.1**	-4.3	0.7	291.5	27.1	410.3
y	-0.0	**-12.2**	0.6	-370.7	3.0	1119.5	0.0	**6.6**	0.4	-35.5	1 5	-469.7
z	-0.0	-2.2	**-1.8**	-771.3	-11.4	188.2	0.0	-5.2	**1.8**	102.4	11.5	576.0
x	-0.0	-3.9	-0.2	**-1290.0**	-3.5	382.1	0.0	-6.7	-0.0	**634.2**	3.9	637.1
y	-0.1	-0.9	-0.7	-618 3	**-28.0**	199.4	0.1	-5.6	0.7	122.0	**27.8**	516.9
z	0.0	6.3	0.4	-32.3	2.9	**-481.2**	-0.0	-12.2	0.6	-370.8	2 9	**1120.4**

Joint 46

x	**-0.1**	-0.2	-0.7	-375.4	-25.0	81.1	**0.1**	-2.3	0.6	173.6	26.2	508.4
y	-0.0	**-6.5**	0.5	-215.8	3.5	1382.6	0.0	**3.9**	0.4	-19.5	1 8	-728.6
z	-0.0	-1.2	**-1.7**	-579.3	-13.4	236.2	0.0	-2.4	**1.7**	95.8	13.4	606.4
x	-0.0	-2.2	-0.4	**-811.7**	-2.4	485.2	0.0	-2.4	0.6	**359.0**	5.5	584.4
y	-0.1	**0.4**	-0.6	-385.4	**-27.2**	-10.6	0.1	-2.6	0.6	166.4	**27.0**	561.5
z	0.0	3.9	0.4	-19.8	1.9	**-730.4**	-0.0	-6.5	0.5	-216.3	3.4	**1382.7**

Joint 47

x	**-0.1**	-0.3	-0.9	-130.1	-23.9	-0.5	**0.1**	-0.5	**1.0**	57.4	24.1	-45.4
y	0.0	**-0.9**	0.9	21.5	5.0	57.7	-0.0	**0.1**	-0.4	-32.2	-4.3	-152.0
z	-0.1	-0.4	**-1.7**	-227.5	-14.9	-47.1	0.0	-0.5	**1.7**	139.7	14.8	-157.2
x	-0 0	-0.5	-1.5	**-232.9**	-14.9	-6.8	0.0	-0.5	1.6	**147.6**	14.8	66.5
y	-0.1	-0.4	-0.8	-118.6	**-26.3**	-322.9	0.1	-0.4	0.8	38.5	**26.2**	344.2
z	0.0	-0.4	0.5	10.1	2.0	**-1206.9**	-0.0	-0.5	0.4	8.1	4.4	**1151.6**

Joint 48

x	**-0.1**	0.2	-1.0	-133.6	-23.8	76.9	**0.1**	-3.1	1.1	-231.1	25.5	-760 2
y	0 0	**-6.4**	0.5	-214.9	4.6	-1335.7	-0.0	**3.3**	0.3	-16.7	2.9	581.0
z	-0.1	-1.0	**-1.6**	-613.6	-16.3	-185.2	0.0	-2.7	**1.6**	172.7	15.4	-653.1
x	-0.0	-2.3	-0.5	**-799.4**	-5.5	-507.2	0.0	-2.6	0.8	**351.5**	8.2	-618 1
y	-0.1	-1.9	-1.0	-309.8	**-26.4**	-389.5	0.1	-0.4	1.0	-105.0	**26.3**	-201.1
z	0.0	-6.4	0.5	-212.8	4.7	**-1336.0**	-0.0	3.3	0.3	-16.7	2.9	**581.0**

Joint 49

x	**-0.1**	1.0	-0.9	-72.8	-23.8	103.6	**0.1**	-6.6	1.0	-446.1	26.5	-732.2
y	0.0	**-11.9**	0.5	-370.3	5.5	-1040.1	-0.0	**5.3**	0.3	-27.7	2.7	303.9
z	-0.1	-2.3	**-1.5**	-830.6	-17.4	-190.0	0.0	-5.9	**1.5**	194.1	16.3	-637.8
x	-0.0	-4.4	-0.4	**-1253.5**	-3.0	-432.4	-0.0	-7.0	0.2	**597.2**	1 2	-655.7
y	-0.1	-2.4	-1.1	-658.5	**-27.5**	-209.9	0.1	-4.0	1.1	-60.1	**27.4**	-528.6
z	0.0	-11.9	0.5	-367.9	5.7	**-1042.3**	-0.0	5.3	0.3	-28.4	2 2	**303.9**

Joint 50

x	**-0.1**	0.6	-0.9	-240.0	-24.8	43 4	**0.1**	-9.2	0.9	-521.1	27.2	-446.9
y	0.0	**-15.4**	0.5	-458.8	6.2	-514.7	-0.0	**6.1**	0.3	-32.5	2.1	68.3
z	-0.1	-2.9	**-1.4**	-925.2	-16.8	-96.1	0.0	-8.1	**1.4**	233.3	16.8	-364.5
x	-0.0	-7.8	-0.3	**-1494.2**	-2.6	-286.5	-0.0	-9.3	0.2	**782.3**	0.7	-352.0
y	-0.1	-3.7	-1.1	-843.6	**-28.8**	-80.1	0.1	-7.2	1.0	-15 8	**28.6**	-357.4
z	0.1	-10.8	0.7	-645.3	13.4	**-537.8**	-0.1	0.9	-0.3	176.6	-7.6	**101.0**

Joint 51

x	**-0.1**	-0.7	-1.0	-689.6	-27.1	32.3	**0.1**	-11.4	0.9	-97.1	28.5	-50.3
y	0.0	**-16.5**	0.4	-487.7	7.5	50.9	-0.0	**6.0**	0.3	-31.7	1.5	-107.2
z	-0.1	-3.1	**-1.4**	-980.3	-18.2	5.0	0.0	-9.0	**1.4**	263.1	18.2	-27.5
x	-0.0	-11.1	-0.3	**-1554.5**	-1.9	-9.4	0.0	-10.1	0.2	**836.9**	2.3	-2.1
y	-0.1	-1.8	-1.0	-802 0	**-30.1**	19.2	0.1	-7.2	1.0	314.8	**29.9**	-75.9
z	0.0	-3.3	0.4	-168.4	8.8	**-257.7**	-0.0	-7.2	0.3	-236.5	-0.6	**218.8**

Joint 52

x	**-0.1**	-0.7	-1.0	-722.9	-28.0	75.2	**0.1**	-10.0	0.8	143 1	30 0	342.6
y	0.0	**-15.0**	0.4	-458.7	8 8	603.7	-0.0	**5.2**	0.3	-26.0	0.7	-246.8
z	-0.1	-2.8	**-1.3**	-950.6	-19.2	106.7	0.0	-8.3	**1.3**	242.4	19.2	320.2
x	0.0	-8.0	-0.3	**-1472.7**	-0.3	249.5	0.0	-9.3	0.2	**758.9**	3.3	352.6
y	-0 1	-1.6	-0.9	-743.6	**-31.3**	90.1	0.1	-7.1	0.9	320.2	**31.1**	218.8
z	-0 0	3.9	0.2	47.9	4.5	**-254.3**	0 0	-13.7	0.5	-530.5	5.2	**613.8**

Joint 53

x	**-0.1**	-0.4	-0.9	-575.2	-29.6	90.5	**0.1**	-7.7	0.8	103.8	31.0	705.7
y	0.1	**-11.1**	0.4	-370.4	10.0	1076.1	-0.0	**3.8**	0.3	-15.3	-0.1	-362.4
z	-0.1	-2.2	**-1.2**	-843.7	-20.2	205.9	0.0	-6.2	**1.2**	180.4	20.2	622.1
x	-0.0	-5.0	-0.4	**-1216.6**	-0.8	450.6	0.0	-7.0	0.2	**564.3**	4.5	661.9
y	-0.1	-1.0	-0.8	-600.4	**-32.6**	126.7	0.1	-5.4	0.8	267.2	**32.4**	489.3
z	-0.0	3.8	0.3	-14.4	1.1	**-362.6**	0.0	-11.1	0.4	-371.3	8.6	**1077.3**

Joint 54

x	**-0.1**	-0.3	-0.8	-403.3	-31.5	70.6	**0.1**	-3.7	0.7	151.5	33.0	809.6
y	0.1	**-5.7**	0.3	-217.8	11.1	1282.9	-0.0	**2.0**	0.3	0.0	-2.3	-432.4
z	-0.1	-1.1	**-1.1**	-591.6	-20.5	234.8	0.0	-2.9	**1.1**	119.8	20.6	694.0
x	-0.0	-2.7	-0.4	**-763.9**	-1.6	578.7	0.0	-2.7	0.7	**340.0**	8.0	650.8
y	-0.1	-0.9	-0.8	-489.4	**-34.2**	196.3	0.1	-3.6	0.8	166.3	**34.0**	793.4
z	-0.0	2.0	0.3	1.1	-0.8	**-439.4**	0.1	-5.7	0.3	-217.8	11.0	**1283.0**

Joint 55

x	**-0.1**	-0.3	-0.7	-118.0	-33.1	-140.8	**0.1**	-0.3	0.6	64.6	35.6	581.9
y	0.0	**-0.6**	0.6	32.4	4.5	544.1	-0.0	**0.0**	-0.2	-24.6	-7.9	-182.3
z	-0.1	-0.3	**-1.0**	-167.7	-21.9	10.3	0.0	-0.4	**1.0**	100.2	21.9	301.0
x	-0.1	-0.4	-1.0	**-169.0**	-20.7	112.9	0.1	-0.3	1.0	**104.9**	22.7	342.8
y	-0.1	-0.2	-0.6	-107.6	**-36.3**	63.0	0.1	-0.3	0.6	63.9	**36.1**	568.1
z	-0.0	-0.2	0.3	25.3	-3.5	**-535.5**	0.1	-0.4	0.2	7.8	12.3	**930.7**

Joint 56

x	**-0.1**	-0.9	-0.6	-252.3	-35.7	-197.1	**0.1**	1.1	0.5	-25.7	36.7	212.7
y	-0.1	**-2.1**	0.4	-83.2	-3.9	-453.4	0.1	**1.9**	0.2	-8.4	13.0	360.3
z	-0.1	-0.8	**-0.9**	-374.4	-22.8	-188.4	0.0	-0.2	**0.9**	-49.8	22.7	-95.4
x	-0.0	-0.6	-0.6	**-436.2**	-4.1	-154.5	0.0	-0.2	0.4	**112.9**	5.2	-63.8
y	-0.1	-0.4	-0.5	-192.4	**-38.1**	-84.3	0.1	0.7	0.5	-48.5	**37.9**	119.0
z	-0.1	-2.1	0.4	-83.3	-3.9	**-453.4**	0.1	1.9	0.2	-8.4	13.0	**360.3**

Joint 57

x	**-0.1**	-1.4	-0.5	-311.0	-37.2	-115.4	**0.1**	1.6	0.4	-72.9	37.7	49.1
y	-0.1	**-3.4**	0.4	-138.8	-4.2	-258.4	0.1	**2.7**	0.1	-18.1	13.5	106.3
z	-0.1	-1.5	**-0.8**	-497.9	-23.3	-151.6	0.1	-0.6	**0.8**	-147.3	23.3	-136.9
x	-0.0	-1.1	-0.5	**-637.5**	1.9	-151.4	-0.0	-0.5	0.4	**166.8**	-1.0	-76.1
y	-0.1	-0.7	-0.4	-181.5	**-39.4**	-53.6	0.1	0.9	0.4	-139.0	**39.1**	-8.0
z	-0.0	-3.4	0.4	-140.5	-2.3	**-258.6**	0.1	2.7	0.1	-16.4	11.6	**106.4**

Joint 58

x	**-0.1**	-1.5	-0.3	-232.3	-39.3	6.0	**0.1**	1.5	0.3	-112.0	38.5	-65.4
y	-0.1	**-3.9**	0.4	-137.6	-4.5	12.4	0.1	**2.7**	0.1	-23.9	14.0	-91.0
z	-0.1	-1.7	**-0.8**	-608.5	-19.2	-36.7	0.0	-1.5	**0.8**	-133.3	19.2	-52.5
x	-0.0	-1.5	-0.5	**-721.5**	4.3	-50.5	-0.0	-0.3	0.3	**193.4**	-5.1	6.7
y	-0.1	-0.9	-0.3	-95.2	**-40.4**	14.9	0.1	0.7	0.3	-191.3	**40.1**	-72.9
z	0.0	1.2	0.4	-48.8	5.6	**-125.5**	-0.0	-2.1	0.1	-83.2	4.1	**52.9**

Joint 59

x	**-0.1**	-1.3	-0.2	-132.2	-40.1	111.6	**0.1**	1.1	0.1	-121.0	39.1	-129.7
y	-0.1	**-3.4**	0.4	-76.3	-4.7	263.5	0.1	**2.1**	0.0	-27.9	14.2	-217.9
z	-0.1	-1.2	**-0.7**	-561.9	-16.0	58.8	0.0	-1.6	**0.7**	-2.5	16.0	97.8
x	0.0	-1.4	-0.6	**-698.2**	9.9	75.2	-0.0	-0.8	0.4	**228.3**	-11.8	76.9
y	-0.1	-0.7	-0.1	1.3	**-41.1**	66.8	0.1	0.4	0.1	-205.0	**40.8**	-82.7
z	0.1	2.1	0.0	-27.9	14.3	**-217.9**	-0.1	-3.4	0.4	-76.4	-4.7	**263.5**

Joint 60

x	**-0.1**	-0.7	-0.0	-17.3	-40.5	187.0	**0.1**	0.6	-0.0	-112.3	39.7	-150.4
y	-0.1	**-2.0**	0.4	51.6	-4.7	481.5	0.1	**1.2**	-0.0	-32.8	14.4	-302.6
z	-0.0	-0.4	**-0.7**	-531.6	-2.3	92.7	-0.0	-1.1	**0.7**	199.0	2.5	277.1
x	0.0	-0.9	-0.6	**-579.7**	11.3	199.7	-0.1	-1.0	0.6	**273.8**	-16.5	243.2
y	-0.1	-0.4	0.0	60.9	**-41.5**	102.6	0.1	0.1	-0.0	-179.3	**41.2**	-53.2
z	0.1	1.2	-0.0	-32.7	14.4	**-302.6**	-0.1	-2.0	0.4	51.6	-4.7	**481.5**

Joint 61

x	**-0.1**	-0.0	0.1	77.9	-40.6	212.2	**0.1**	-0.0	-0.2	-91.8	39.9	-151.0
y	-0.1	**-0.0**	0.5	263.2	-3.1	564.3	0.1	**0.0**	-0.1	-48.2	12.2	-329.8
z	0.0	-0.0	**-0.7**	-392.7	22.2	141.2	-0.1	-0.0	**0.7**	387.4	-22.1	372.1
x	0.0	-0.0	-0.7	**-392.7**	22.2	141.2	-0.1	-0.0	0.7	**387.4**	-22.1	372.1
y	-0.1	-0.0	0.2	108.3	**-41.7**	114.6	0.1	-0.0	-0.2	-111.5	**41.4**	-32.2
z	0.1	0.0	-0.1	-42.3	14.2	**-330.5**	-0.1	-0.0	0.4	257.0	-4.5	**568.8**

*** Fin del listado ***

Sobrecarga tren 77 ambas vias

Program Envolvator (release 1.3 - Jun 1998)
Calculation date: 29-abr-1999 12:02 h. Listing date: 29-abr-1999 12:04 h.
Members: 419
Joints: 353
Envelope generated from:

Name	a/c	p/c
Tren 77 Via 1	0.00	0.81
Tren 77 Via 2	0.00	0.81

	Fx	Fy	Fz	Mx	My	Mz	Fx	Fy	Fz	Mx	My	Mz
Member 1												
Fx_i	**-39.1**	-49.4	8.5	-41.8	-54.4	-2.8	**38.6**	-34.8	-6.2	-40.4	48.8	-5.2
Fy_i	-8.5	**-113.0**	3.6	-57.7	-16.5	-11.7	-11.5	**27.3**	2.0	-2.2	-14.2	7.0
Fz_i	35.1	-3.8	**-7.3**	-3.9	48.9	-1.5	-36.7	-50.6	**9.4**	-44.4	-54.2	-2.9
Mx_i	-2.1	-94.3	3.8	**-122.4**	-10.4	-6.8	11.0	-13.8	-3.1	**10.3**	16.8	-4.0
My_i	-38.4	-50.8	9.1	-44.1	**-55.5**	-3.0	37.4	-6.7	-7.0	-13.1	**50.3**	-1.7
Mz_i	-8.6	-102.2	3.6	-49.3	-16.6	**-13.2**	-11.5	27.3	2.0	-2.2	-14.2	**7.0**
Fx_f	**-39.1**	-24.7	8.5	-30.7	-23.3	133.0	**38.6**	-34.8	-6.2	-40.4	26.2	122.5
Fy_f	-8.5	**-80.4**	3.4	-40.9	-3.7	282.4	-11.5	**30.2**	2.2	0.5	-6.8	-59.2
Fz_f	35.1	-3.8	**-7.3**	-3.9	22.0	12.5	-36.7	-25.9	**9.4**	-33.3	-19.8	137.2
Mx_f	-1.9	-61.5	3.2	**-86.3**	2.9	218.1	10.3	-7.6	-2.6	**13.2**	5.5	118.1
My_f	-36.6	11.5	6.3	-16.5	**-25.0**	-38.4	36.6	-32.1	-4.8	-33.3	**27.4**	157.1
Mz_f	-11.5	27.3	2.0	-2.2	-6.9	**-93.1**	-8.6	-77.5	3.6	-38.2	-3.5	**316.4**
Member 2												
Fx_i	**-32.4**	-16.1	7.6	-28.0	-45.6	108.5	**31.9**	-34.7	-6.8	-41.1	44.1	116.7
Fy_i	-7.1	**-79.6**	2.2	-40.1	-11.7	282.4	-9.7	**30.0**	2.0	-0.1	-12.5	-59.2
Fz_i	28.3	-8.3	**-7.6**	-17.7	42.9	28.5	-29.4	-24.4	**8.4**	-30.2	-44.5	137.7
Mx_i	-1.0	-61.0	1.6	**-87.0**	-3.7	218.5	10.5	7.3	-2.9	**9.6**	16.0	14.2
My_i	-31.6	-24.7	8.0	-30.0	**-46.1**	138.5	31.2	-18.0	-7.1	-25.4	**44.7**	60.1
Mz_i	-9.6	27.4	1.9	-2.0	-12.3	**-93.1**	-7.1	-77.0	2.3	-38.2	-11.9	**316.3**
Fx_f	**-32.4**	8.6	7.6	-16.9	-17.8	122.1	**31.9**	-10.0	-6.8	-15.2	19.1	198.7
Fy_f	-6.8	**-53.3**	2.1	-29.7	-3.5	386.2	-7.4	**39.7**	1.6	11.0	-3.6	-14.8
Fz_f	28.3	-8.3	**-7.6**	-17.7	14.9	58.9	-29.4	0.3	**8.4**	-19.1	-13.7	182.0
Mx_f	-0.6	-34.9	1.2	**-61.0**	1.9	256.3	10.9	21.8	-2.5	**27.0**	6.4	106.9
My_f	-30.9	12.8	6.0	-13.2	**-19.8**	-84.8	30.8	-7.6	-5.7	-9.1	**21.0**	224.2
Mz_f	-9.6	27.4	1.9	-2.0	-5.2	**-193.6**	-7.1	-31.7	2.3	-17.9	-3.4	**511.4**
Member 3												
Fx_i	**-26.3**	11.3	6.3	-9.2	-37.0	122.7	**25.8**	-13.0	-6.2	-22.2	36.8	200.6
Fy_i	-6.0	**-51.1**	1.9	-25.4	-10.0	376.1	-6.1	**38.1**	1.4	5.7	-7.8	-11.0
Fz_i	21.3	-21.5	**-7.9**	-33.6	36.4	142.9	-22.2	2.8	**7.9**	-13.4	-36.4	182.3
Mx_i	4.3	-32.8	0.2	**-57.9**	4.3	257.2	5.4	18.7	-2.7	**16.3**	10.5	105.1
My_i	-25.2	3.2	7.4	-13.2	**-38.5**	179.2	24.5	-20.2	-7.4	-33.8	**38.5**	135.0
Mz_i	-7.8	27.6	1.8	-1.4	-10.3	**-193.6**	-5.7	-30.6	1.8	-17.2	-9.5	**511.4**
Fx_f	**-26.3**	36.0	6.3	1.9	-14.1	36.1	**25.8**	11.7	-6.2	3.6	14.2	203.0
Fy_f	-5.7	**-30.0**	1.6	-16.5	-3.3	347.0	-6.2	**59.6**	1.6	16.2	-2.4	5.1
Fz_f	21.3	3.2	**-7.9**	-7.7	7.4	176.4	-22.2	27.5	**7.9**	-2.3	-7.4	126.7
Mx_f	4.8	-11.6	-0.2	**-35.7**	4.7	165.1	5.6	40.2	-2.8	**38.5**	0.6	187.0
My_f	-21.2	10.6	2.9	-5.5	**-15.8**	-89.1	20.8	17.1	-2.8	13.1	**16.0**	177.4
Mz_f	-7.8	27.6	1.8	-1.4	-3.5	**-294.9**	-5.6	3.6	1.7	-0.9	-2.9	**568.1**
Member 4												
Fx_i	**-20.6**	28.9	5.8	8.5	-30.5	-50.4	**20.2**	7.3	-6.3	-11.0	31.4	190.9
Fy_i	2.8	**-30.7**	-1.9	-35.6	5.8	269.3	-6.9	**59.4**	2.9	15.7	-11.3	98.0
Fz_i	14.1	0.8	**-8.3**	-16.9	29.8	176.1	-15.0	31.0	**7.5**	5.8	-28.4	126.9
Mx_i	12.8	-19.6	-6.6	**-39.0**	25.3	123.4	-6.5	46.6	2.4	**33.0**	-10.6	222.9
My_i	-18.7	40.5	6.8	11.6	**-31.0**	39.2	18.0	8.3	-7.6	-12.6	**32.5**	211.4
Mz_i	-6.0	27.9	1.6	-0.6	-8.0	**-294.8**	-4.1	5.1	1.4	0.3	-7.2	**568.1**
Fx_f	**-20.6**	28.9	5.8	8.5	-9.1	-156.4	**20.2**	32.0	-6.3	14.9	8.2	118.8
Fy_f	-1.8	**-13.9**	-0.5	-6.2	-3.3	181.1	-6.8	**83.8**	2.9	24.9	-0.5	2.2
Fz_f	14.1	25.5	**-8.3**	9.0	-0.5	128.0	-15.0	55.7	**7.5**	16.9	-0.9	-32.0
Mx_f	12.9	-2.8	-7.0	**-17.2**	0.6	-10.3	-6.1	71.0	2.0	**55.5**	-2.3	170.3
My_f	-12.4	-0.7	-1.1	-1.5	**-14.3**	32.0	12.8	12.9	0.4	5.2	13.8	-28.1
Mz_f	-6.0	27.9	1.6	-0.6	-2.1	**-397.2**	-4.0	28.3	1.2	12.0	-2.3	**474.4**
Member 5												
Fx_i	**-16.5**	18.5	2.4	15.5	-20.1	-130.1	**16.0**	33.9	-3.4	13.1	21.9	82.9
Fy_i	1.0	**-15.9**	-2.5	-20.4	5.2	176.4	-3.6	**86.3**	2.1	29.6	-6.5	6.9
Fz_i	6.9	27.9	**-9.0**	-0.3	24.1	151.8	-7.9	41.8	**6.7**	16.1	-19.7	-126.8
Mx_i	4.7	-7.1	-6.6	**-31.7**	17.2	97.1	-2.1	76.1	1.5	**59.3**	-4.6	146.0
My_i	-14.4	42.6	5.4	19.1	**-24.1**	-117.1	13.4	32.6	-7.4	6.3	**27.4**	104.1
Mz_i	-4.2	28.3	1.0	0.3	-5.1	**-397.3**	-2.7	29.7	0.7	13.4	-4.5	**474.4**
Fx_f	**-16.5**	18.5	2.4	15.5	-11.3	-197.9	**16.0**	33.9	-3.4	13.1	9.5	-41.5
Fy_f	0.7	**-7.5**	-0.9	-3.9	-1.3	125.3	-3.6	**114.1**	1.8	40.5	0.5	-236.0
Fz_f	6.9	62.9	**-9.0**	36.4	-9.0	0.8	-7.9	41.8	**6.7**	16.1	5.0	-279.9
Mx_f	6.1	-0.3	-5.8	**-13.1**	-4.1	-63.8	-2.2	103.7	0.6	**85.7**	-0.8	-60.5
My_f	-9.1	65.4	-5.4	38.8	**-18.8**	-30.1	8.7	14.9	3.0	11.8	**14.6**	-130.1
Mz_f	-4.2	28.3	1.0	0.3	-1.4	**-501.0**	-2.7	85.2	0.7	38.4	-2.0	**269.7**
Member 6												
Fx_i	**-12.8**	23.8	-2.3	7.5	-15.6	-9.7	**12.3**	27.1	-0.4	14.0	20.3	-112.8
Fy_i	-0.1	**-8.0**	-1.1	-5.6	1.5	125.4	-0.6	**115.4**	-0.6	42.5	1.3	-236.1
Fz_i	-0.1	66.1	**-11.0**	29.6	20.6	-50.6	-1.5	42.2	**5.3**	20.5	-11.4	-267.5
Mx_i	0.2	-2.8	-6.5	**-20.0**	12.8	-57.7	0.5	105.2	-1.7	**86.7**	4.2	-66.5
My_i	-10.9	14.9	2.6	7.9	**-22.6**	-216.7	8.6	57.9	-7.8	31.4	**28.8**	-27.2
Mz_i	-2.2	28.6	-0.5	1.2	-1.1	**-501.1**	-1.2	85.9	-0.5	38.6	-1.9	**269.7**
Fx_f	**-12.8**	48.5	-2.3	18.6	-23.9	-142.3	**12.3**	27.1	-0.4	14.0	18.9	-212.3
Fy_f	-2.8	**-5.7**	0.2	0.1	-4.8	123.1	-0.8	**137.9**	-1.0	50.5	-2.1	-671.7
Fz_f	-0.1	111.4	**-11.0**	77.1	-19.7	-371.1	-1.5	42.2	**5.3**	20.5	8.0	-422.3
Mx_f	-2.2	28.7	-3.8	**-15.9**	-10.3	-148.3	-0.7	126.1	-3.3	**110.7**	-7.1	-440.6
My_f	-11.0	109.4	-7.6	76.0	**-31.9**	-342.4	10.6	16.1	1.4	19.3	**20.5**	-190.3
Mz_f	-0.9	110.6	-0.9	35.8	-1.9	**-742.5**	-2.7	-5.7	0.2	0.1	-4.9	**123.1**
Member 7												
Fx_i	**-12.0**	-78.5	3.9	-103.9	-28.9	-249.2	**11.6**	-50.3	0.4	-10.4	19.3	-283.5
Fy_i	-0.8	**-179.9**	2.4	-82.7	-5.3	-676.1	0.6	**18.9**	0.3	5.5	-0.6	113.9
Fz_i	4.7	-11.9	**-2.9**	-31.3	15.9	-55.1	-4.5	-154.5	**6.3**	-138.6	-22.2	-545.0
Mx_i	-4.3	-145.4	3.8	**-163.9**	-16.1	-440.7	3.7	-57.9	0.1	**45.4**	6.8	-331.1
My_i	-10.9	-109.3	4.9	-106.8	**-30.6**	-413.5	10.5	-13.3	-1.6	5.2	**23.2**	-88.3
Mz_i	0.3	-165.5	2.7	-62.4	-4.3	**-742.7**	-2.3	17.5	0.6	-1.9	-6.2	**123.2**
Fx_f	**-12.0**	-37.9	3.9	-61.4	-11.6	-2.0	**11.6**	-50.3	0.4	-10.4	20.9	-57.0
Fy_f	-0.0	**-145.4**	2.2	-64.6	6.2	-35.6	2.5	**21.8**	0.1	14.1	3.9	57.7
Fz_f	4.7	-11.9	**-2.9**	-31.3	2.6	-1.4	-4.5	-93.4	**6.3**	-74.5	6.2	8.2
Mx_f	-2.6	-110.8	3.2	**-125.4**	2.8	44.9	3.4	-55.3	0.3	**50.2**	7.2	-40.0
My_f	-10.5	-3.8	1.7	-39.5	**-15.3**	43.6	10.1	-78.5	1.7	-37.2	**22.5**	-54.5
Mz_f	-0.7	-53.6	1.8	-6.1	4.4	**-221.3**	-0.4	-74.9	1.8	-47.1	2.2	190.9
Member 8												
Fx_i	**-12.7**	-37.3	1.6	-61.4	-15.4	-0.3	**12.3**	-49.2	-0.5	-13.2	13.1	-53.8
Fy_i	-1.1	**-143.6**	0.6	-63.2	-1.4	-37.3	2.4	**20.3**	-0.3	9.4	2.7	57.3
Fz_i	2.2	-15.1	**-3.2**	-39.5	9.9	2.9	-3.8	-78.7	**3.8**	-44.3	-12.1	-1.7
Mx_i	-3.0	-119.6	1.5	**-127.6**	-6.2	19.3	4.4	-57.6	-0.6	**39.6**	5.9	-34.4
My_i	-11.1	-56.2	2.7	-69.2	**-17.2**	2.6	10.7	-27.4	-1.9	1.3	**15.2**	-57.4
Mz_i	-0.5	-53.7	0.6	-7.6	-0.8	**-221.8**	-0.3	-73.0	0.7	-44.5	-2.3	**191.1**
Fx_f	**-12.7**	-7.0	1.6	-29.7	-8.1	99.3	**12.3**	-49.2	-0.5	-13.2	10.7	167.5
Fy_f	-0.9	**-113.2**	0.5	-51.9	1.1	386.4	1.4	**29.2**	-0.0	34.2	0.9	86.4
Fz_f	2.2	-15.1	**-3.2**	-39.5	-4.6	70.7	-3.8	-38.1	**3.8**	-1.8	4.9	246.1
Mx_f	-2.1	-89.4	1.4	**-99.3**	1.1	337.7	4.1	-38.5	-0.5	**51.3**	3.2	387.3
My_f	-9.9	-11.3	-0.1	-44.6	**-10.2**	66.5	9.5	-43.0	1.2	-0.2	**12.5**	229.0
Mz_f	-0.3	7.4	0.6	-1.2	0.7	**-158.9**	-0.6	-98.9	0.7	-34.9	1.6	**564.3**
Member 9												
Fx_i	**-11.6**	-3.5	0.6	-24.9	-12.1	100.3	**11.2**	-52.7	-0.3	-25.1	11.5	166.4
Fy_i	-0.7	**-109.7**	0.2	-45.9	-0.2	371.3	-0.0	**25.2**	0.4	10.3	-1.6	107.1
Fz_i	-1.2	-18.3	**-3.4**	-28.2	6.7	55.4	0.6	-45.5	**3.5**	-8.6	-6.8	289.3
Mx_i	-0.0	-96.4	0.3	**-99.1**	-0.5	358.4	3.1	-33.6	-0.7	**27.6**	5.0	190.1
My_i	-9.5	-24.2	2.0	-41.0	**-13.8**	193.9	9.0	-31.6	-1.8	-8.2	**13.3**	66.7
Mz_i	0.0	7.6	0.3	-0.8	-1.1	**-158.9**	-0.4	-97.0	0.3	-35.7	-0.4	**564.0**

Fx_f	**-11.6**	-3.5	0.6	-24.9	-9.5	116.1	**11.2**	-22.4	-0.3	6.7	10.1	335.2
Fy_f	-1.0	**-83.0**	0.1	-36.9	0.2	601.1	1.0	**41.2**	0.2	43.5	1.0	156.3
Fz_f	-1.2	-18.3	**-3.4**	-28.2	-8.4	137.8	0.6	-15.2	**3.5**	5.0	8.8	425.7
Mx_f	0.0	-69.7	0.2	**-74.9**	0.7	533.0	0.4	30.6	-0.4	**52.0**	-0.0	197.9
My_f	-7.3	-14.6	-2.4	-37.1	**-12.2**	101.5	6.5	-37.6	2.5	14.4	**12.7**	554.9
Mz_f	0.3	9.0	0.2	-0.3	0.2	**-194.6**	-0.8	-37.0	0.3	-11.2	0.9	**862.1**

Member 10

Fx_i	**-11.8**	1.6	-0.5	-8.2	-10.0	111.8	**11.5**	-27.4	0.5	-18.6	9.9	339.5
Fy_i	-0.8	**-79.3**	0.1	-32.7	-0.2	561.7	1.2	**36.8**	0.4	11.5	-0.2	204.5
Fz_i	-5.1	-13.0	**-3.4**	-15.1	3.0	138.0	4.2	-20.4	**3.4**	-14.1	-3.0	430.9
Mx_i	2.6	-63.4	0.4	**-75.0**	1.8	489.1	-2.7	20.6	-0.3	**31.5**	-1.9	270.1
My_i	-9.7	2.7	1.1	-8.7	**-12.0**	118.9	9.3	-28.5	-1.0	-18.1	**11.9**	332.4
Mz_i	0.4	9.4	0.1	0.5	-0.3	**-194.7**	-0.5	-35.1	0.2	-13.2	-0.2	**862.1**
Fx_f	**-11.8**	1.6	-0.5	-8.2	-12.1	104.6	**11.5**	2.9	0.5	13.2	12.2	394.8
Fy_f	-1.5	**-55.8**	0.1	-22.7	-0.5	630.1	2.3	**55.9**	0.5	23.2	2.9	227.3
Fz_f	-5.1	-13.0	**-3.4**	-15.1	-12.3	196.6	4.2	9.9	**3.4**	-0.4	12.3	454.6
Mx_f	2.1	-39.8	0.3	**-51.1**	3.1	492.0	-1.8	39.9	-0.2	**54.8**	-2.1	357.4
My_f	-9.8	-8.1	-2.7	-14.3	**-15.4**	157.5	8.7	17.6	2.7	13.9	**15.4**	630.3
Mz_f	0.2	13.3	0.4	-0.7	0.5	**-246.5**	-0.4	1.8	0.3	5.5	1.1	**981.2**

Member 11

Fx_i	**-13.2**	2.8	-2.5	9.4	-6.7	129.7	**12.8**	7.0	2.4	-14.7	6.9	594.7
Fy_i	0.9	**-55.4**	0.5	-27.7	0.7	491.3	0.9	**55.3**	0.3	22.0	-0.4	398.8
Fz_i	-8.9	-8.9	**-3.4**	-5.9	-0.8	196.1	8.0	5.7	**3.4**	-16.2	0.9	455.2
Mx_i	5.4	-40.3	0.5	**-59.7**	4.6	395.5	-4.9	38.8	-0.3	**45.5**	-4.1	453.0
My_i	-10.1	11.7	0.4	11.7	**-10.8**	103.3	9.7	-7.2	-0.5	-15.9	**11.0**	396.1
Mz_i	0.6	13.6	0.3	0.0	-0.7	**-246.4**	-0.1	3.8	0.2	3.2	0.3	**981.2**
Fx_f	**-13.2**	2.8	-2.5	9.4	-18.1	117.0	**12.8**	47.6	2.4	3.6	17.9	457.1
Fy_f	-0.2	**-35.1**	0.3	-15.0	1.5	448.1	1.9	**77.7**	0.5	30.6	2.4	324.2
Fz_f	-8.9	-8.9	**-3.4**	-5.9	-16.3	236.0	8.0	36.0	**3.4**	-2.6	16.1	361.4
Mx_f	4.6	-19.6	0.3	**-34.5**	5.6	290.9	-4.2	61.1	-0.3	**67.1**	-4.6	445.6
My_f	-12.7	1.4	-2.8	9.7	**-18.6**	148.8	11.5	50.4	2.8	1.8	**18.5**	478.6
Mz_f	0.6	13.6	0.3	0.0	0.9	-307.6	-0.1	39.7	0.3	18.7	1.4	**919.3**

Member 12

Fx_i	**-16.1**	7.1	-2.8	24.7	-8.9	153.2	**15.7**	41.8	2.5	-20.3	9.7	481.6
Fy_i	-1.3	**-40.0**	-0.6	-50.5	0.9	334.3	3.1	**81.6**	0.8	35.9	1.0	398.6
Fz_i	-12.7	-7.4	**-3.6**	-5.0	-4.3	234.9	11.9	38.3	**3.2**	-10.4	5.1	269.2
Mx_i	-0.3	-32.1	-1.8	**-58.9**	3.8	234.0	-0.7	70.9	0.9	**70.0**	-2.5	471.5
My_i	-12.4	17.7	-0.6	31.4	**-10.8**	60.7	12.0	17.0	0.3	-12.3	**11.5**	350.5
Mz_i	1.1	14.0	0.2	1.1	-0.0	**-307.6**	0.2	41.6	0.2	16.8	0.8	**919.5**
Fx_f	**-16.1**	7.1	-2.8	24.7	-21.7	121.3	**15.7**	72.1	2.5	-6.7	20.9	225.3
Fy_f	-2.4	**-22.3**	-0.7	-23.6	-3.1	245.9	3.9	**107.5**	0.8	43.1	5.2	167.8
Fz_f	-12.7	22.9	**-3.6**	26.8	-20.4	199.8	11.9	68.6	**3.2**	3.2	19.7	28.5
Mx_f	-1.5	-14.4	-2.0	**-31.9**	-5.8	110.3	-0.4	96.4	0.8	**91.5**	1.7	283.9
My_f	-15.4	4.8	-3.2	24.5	**-22.1**	147.2	14.5	74.2	2.9	-7.4	**21.5**	209.9
Mz_f	1.1	14.0	0.2	1.1	1.1	**-370.6**	-0.1	78.7	0.1	36.1	1.1	**673.3**

Member 13

Fx_i	**-19.3**	7.5	-3.5	27.6	-10.6	146.5	**18.8**	72.7	2.2	-14.8	13.5	213.9
Fy_i	-1.2	**-27.0**	-0.9	-45.7	1.6	200.3	4.6	**111.0**	0.2	49.1	3.7	184.5
Fz_i	-16.5	21.3	**-4.1**	18.5	-7.0	198.7	15.7	69.6	**2.8**	3.8	10.0	29.8
Mx_i	0.1	29.9	-1.1	**-56.9**	2.9	352.5	-0.7	91.8	-0.4	**95.9**	0.4	254.9
My_i	-16.3	18.8	-2.1	51.4	**-11.2**	22.5	16.2	62.2	1.1	5.9	**14.2**	235.9
Mz_i	1.5	14.6	-0.1	2.5	1.3	**-370.6**	0.2	80.1	-0.3	33.9	1.8	**673.5**
Fx_f	**-19.3**	37.8	-3.5	59.4	-26.3	44.5	**18.8**	103.0	2.2	-1.2	23.6	-181.6
Fy_f	-2.2	**-13.0**	-1.0	-18.6	-3.6	98.7	4.6	**140.8**	0.1	58.0	4.4	-239.4
Fz_f	-16.5	51.6	**-4.1**	50.2	-25.3	34.6	15.7	69.6	**2.8**	3.8	22.6	-283.4
Mx_f	0.8	58.9	-1.0	**-42.6**	-1.1	-50.9	-2.5	118.2	-0.9	**122.0**	-4.2	-46.4
My_f	-18.7	37.4	-3.7	59.9	**-26.6**	47.8	17.8	102.6	2.4	-2.6	**23.9**	-183.7
Mz_f	5.0	52.3	0.2	-12.4	4.9	**-472.5**	-3.6	79.0	-0.6	68.0	-3.9	**284.4**

Member 14

Fx_i	**-20.0**	35.0	-5.4	51.1	-17.3	45.2	**19.6**	104.5	0.6	1.1	27.7	-179.7
Fy_i	-5.1	**-16.4**	-2.8	-37.0	-0.6	44.5	5.4	**143.4**	-1.5	68.8	11.1	-187.1
Fz_i	-11.3	79.4	**-6.9**	50.0	-1.7	-81.5	14.0	44.6	**1.8**	-5.1	17.7	-240.4
Mx_i	0.0	54.1	-1.7	**-57.8**	4.3	-47.8	-0.8	113.9	-2.6	**122.8**	4.9	-62.5
My_i	-17.1	15.1	-3.3	52.4	**-18.5**	26.6	16.6	95.1	-1.4	35.9	**28.8**	-159.1
Mz_i	5.2	52.1	-1.4	-13.5	10.2	**-471.4**	-3.4	81.0	-2.0	70.8	0.8	**283.4**
Fx_f	**-20.0**	96.2	-5.4	115.3	-41.4	-254.6	**19.6**	104.5	0.6	1.1	30.6	-649.9
Fy_f	-1.6	**-11.0**	-1.3	-18.7	-4.4	31.7	4.2	**177.8**	-1.8	84.2	1.9	-839.3
Fz_f	-11.3	140.5	**-6.9**	114.2	-32.7	-580.8	14.0	44.6	**1.8**	-5.1	25.8	-441.1
Mx_f	0.5	56.8	-1.5	**-52.8**	-2.4	-336.6	-4.8	145.0	-3.9	**161.3**	-15.9	-545.3
My_f	-19.2	116.4	-5.9	124.0	**-41.9**	-375.3	18.6	104.8	0.8	1.5	**30.9**	-653.3
Mz_f	5.2	143.3	-2.7	55.2	1.0	**-920.9**	-3.5	-8.0	-0.4	1.0	-5.0	**132.7**

Member 15

Fx_i	**-19.2**	-73.0	4.6	-86.8	-43.8	-256.3	**18.7**	-92.1	0.1	-5.2	33.0	-653.1
Fy_i	5.3	**-186.7**	2.3	-90.4	3.4	-814.3	-2.2	**19.9**	0.5	16.1	-3.7	62.4
Fz_i	6.4	-1.6	**-2.6**	3.6	18.1	-84.0	-6.6	-130.5	**7.5**	-113.7	-28.6	-605.0
Mx_i	-2.1	-151.1	4.3	**-171.3**	-13.2	-547.1	-0.1	-55.2	0.7	**56.5**	-1.5	-348.0
My_i	-18.7	-88.8	5.1	-91.5	**-44.5**	-311.2	17.6	-68.5	-0.3	-3.9	**33.4**	-594.0
Mz_i	5.1	-172.4	3.1	-65.6	1.2	**-921.0**	-3.3	17.7	0.6	-2.5	-5.7	**132.7**
Fx_f	**-19.2**	-32.4	4.6	-44.2	-23.0	-34.1	**18.7**	-92.1	0.1	-5.2	33.2	-238.5
Fy_f	6.6	**-152.1**	2.0	-72.5	15.3	-142.0	-3.8	**23.1**	1.1	24.1	-2.8	4.9
Fz_f	6.4	-1.6	**-2.6**	3.6	6.3	-77.0	-6.6	-90.0	**7.5**	-71.1	5.1	-123.7
Mx_f	0.7	-116.6	3.5	**-133.2**	9.5	-34.5	-0.5	-52.5	1.0	**61.5**	1.5	-67.0
My_f	-18.4	-37.6	4.1	-62.8	**-23.5**	-8.5	17.2	-110.4	1.1	-4.0	**34.3**	-195.6
Mz_f	4.4	-56.2	1.9	9.4	11.4	**-448.8**	-1.6	-80.8	2.1	-67.0	3.4	**240.0**

Member 16

Fx_i	**-20.4**	-38.6	2.4	-68.0	-25.0	-6.4	**19.9**	-104.8	-1.2	6.8	22.3	-189.2
Fy_i	4.9	**-149.6**	0.3	-62.8	3.8	-194.6	-2.5	**20.5**	0.2	13.3	-2.1	28.0
Fz_i	3.2	-27.1	**-3.1**	-40.2	10.6	-155.3	-9.6	-72.7	**4.4**	-56.9	-19.3	-38.2
Mx_i	-0.3	-124.6	1.5	**-132.6**	-3.3	-62.8	0.1	-57.1	0.3	**46.7**	-0.4	-70.2
My_i	-19.5	-51.2	3.2	-59.9	**-26.2**	-16.6	18.7	-89.1	-1.8	-1.3	**23.6**	-238.2
Mz_i	4.9	-56.3	0.3	8.3	3.8	**-449.8**	-1.6	-78.3	0.7	-63.1	-2.0	**240.7**
Fx_f	**-20.4**	-8.3	2.4	-36.2	-14.4	99.2	**19.9**	-74.5	-1.2	20.5	17.1	214.4
Fy_f	5.3	**-119.4**	0.2	-51.6	5.2	253.4	-4.4	**29.9**	0.7	38.5	-1.9	63.8
Fz_f	3.2	-27.1	**-3.1**	-40.2	-3.4	-33.3	-9.6	-42.4	**4.4**	-25.1	0.5	220.9
Mx_f	1.1	-94.6	1.2	**-104.5**	4.0	275.6	-0.5	-37.7	0.4	**58.6**	0.7	353.4
My_f	-18.6	-9.6	1.4	-32.1	**-15.2**	97.3	17.7	-74.3	-0.0	17.2	**18.1**	201.9
Mz_f	0.6	-3.6	0.5	-3.0	2.7	**-372.3**	2.5	-95.5	0.5	-35.7	3.2	**636.4**

Member 17

Fx_i	**-18.6**	-6.0	1.6	-29.8	-21.5	102.2	**18.0**	-78.2	-1.3	6.7	20.8	215.0
Fy_i	5.0	**-116.1**	-0.4	-46.4	5.3	235.5	-2.6	**26.0**	0.6	9.5	-3.1	129.7
Fz_i	5.1	-20.2	**-3.5**	-16.2	13.1	-57.6	-5.5	-43.7	**3.8**	-36.1	-13.9	207.7
Mx_i	3.5	-100.0	-0.1	**-101.4**	3.9	307.0	0.8	-33.4	-0.3	**30.1**	1.6	163.3
My_i	-17.6	-2.9	2.4	-18.9	**-22.6**	55.6	16.7	-61.0	-2.1	6.3	**21.9**	95.8
Mz_i	0.5	-3.1	0.1	-1.6	1.2	**-372.3**	2.5	-93.6	0.1	-36.2	1.7	**636.0**
Fx_f	**-18.6**	-6.0	1.6	-29.8	-14.2	129.3	**18.0**	-47.9	-1.3	20.4	14.8	499.0
Fy_f	4.5	**-89.6**	-0.4	-37.5	3.0	490.2	-2.3	**42.4**	0.5	42.9	-0.3	180.1
Fz_f	5.1	-20.2	**-3.5**	-16.2	-2.4	33.2	-5.5	-13.4	**3.8**	-4.3	3.3	336.0
Mx_f	3.6	-73.6	-0.2	**-77.2**	3.3	494.5	-5.0	30.1	0.5	**54.7**	-3.5	158.5
My_f	-16.3	-8.9	-0.0	-23.3	**-16.1**	148.7	15.6	-45.6	0.4	10.0	**16.9**	477.0
Mz_f	0.5	-3.1	0.1	-1.6	1.8	**-358.4**	2.1	-33.6	0.1	-11.7	1.9	**918.8**

Member 18

Fx_i	**-17.2**	0.1	0.9	-9.1	-18.3	130.6	**16.6**	-53.7	-0.8	-5.9	18.2	493.2
Fy_i	2.9	**-86.0**	-0.2	-33.5	2.7	425.0	0.5	**38.1**	0.1	11.6	1.2	260.7
Fz_i	0.4	-17.3	**-3.6**	-10.1	8.7	64.6	-0.8	-16.3	**3.7**	-19.3	-8.9	304.6
Mx_i	0.4	-64.1	1.0	**-75.5**	-1.6	468.3	-0.5	16.5	-0.8	**31.4**	1.5	214.1
My_i	-16.3	2.1	1.7	-10.8	**-19.9**	126.5	15.4	-54.6	-1.7	-3.2	**19.7**	491.7
Mz_i	0.5	-2.6	0.0	-0.4	1.4	**-358.4**	2.1	-31.7	0.0	-13.7	1.5	**918.8**
Fx_f	**-17.2**	0.1	0.9	-9.1	-14.5	130.0	**16.6**	7.4	-0.8	21.6	14.7	592.6
Fy_f	1.8	**-62.8**	-0.2	-23.4	0.9	520.3	2.1	**57.6**	0.1	23.2	3.4	280.4
Fz_f	0.4	-17.3	**-3.6**	-10.1	-7.4	142.5	-0.8	14.0	**3.7**	12.5	7.6	309.6
Mx_f	-0.3	-40.8	0.9	**-51.5**	2.0	471.6	0.9	36.1	-0.9	**54.7**	-0.9	323.0
My_f	-14.9	-10.6	-1.2	-13.1	-17.5	132.0	14.3	11.0	1.3	11.7	**17.6**	566.2

Mz_f	0.4	4.3	0.1	-0.9	1.6	**-347.7**	2.4	5.2	0.0	5.0	1.9	**1022.5**

Member 19

Fx_i	**-17.0**	3.9	-0.1	8.9	-16.0	153.4	**16.4**	3.0	0.1	-8.9	16.2	577.9
Fy_i	3.6	**-63.3**	-0.0	-26.9	3.2	366.4	0.4	**57.6**	0.2	21.5	0.9	427.0
Fz_i	-3.6	-13.1	**-3.7**	-2.3	4.8	141.7	3.2	9.9	**3.6**	-4.9	-4.7	310.3
Mx_i	5.2	-40.9	0.7	**-61.9**	3.8	347.3	-4.5	34.5	-0.6	**47.0**	-3.1	446.2
My_i	-15.0	10.3	1.4	12.9	**-17.9**	126.5	14.4	-3.2	-1.4	-7.9	**18.0**	602.4
Mz_i	0.5	4.7	0.1	0.2	1.3	**-347.7**	2.4	7.2	-0.0	2.7	1.9	**1022.5**
Fx_f	**-17.0**	3.9	-0.1	8.9	-16.5	135.8	**16.4**	43.6	0.1	9.4	16.5	458.1
Fy_f	2.3	**-43.2**	-0.1	-14.1	1.5	356.9	1.7	**80.2**	0.2	30.1	3.1	343.7
Fz_f	-3.6	-13.1	**-3.7**	-2.3	-11.7	200.7	3.2	40.2	**3.6**	26.9	11.6	197.8
Mx_f	4.2	-20.5	0.6	**-36.6**	5.8	243.4	-3.6	57.0	-0.6	**68.5**	-4.7	459.5
My_f	-14.7	-3.5	-2.1	10.4	**-19.2**	152.8	14.1	48.2	2.1	0.7	**19.1**	461.0
Mz_f	0.5	4.7	0.1	0.2	1.6	**-369.0**	2.4	43.0	0.0	18.2	1.9	**944.6**

Member 20

Fx_i	**-18.0**	2.3	-1.4	19.1	-14.4	144.2	**17.5**	38.6	1.1	-15.3	14.9	446.3
Fy_i	0.1	**-48.3**	-0.4	-50.9	0.6	273.9	2.5	**84.3**	0.6	35.4	2.2	419.9
Fz_i	-7.0	1.9	**-3.8**	2.7	1.7	321.4	6.6	25.2	**3.5**	12.8	-1.0	77.1
Mx_i	-1.5	-36.1	-0.7	**-62.9**	0.0	219.3	-0.1	68.5	0.6	**72.4**	-1.2	458.6
My_i	-15.1	16.7	0.7	34.9	**-16.4**	90.9	14.1	31.8	-1.0	-16.7	**16.8**	478.2
Mz_i	0.6	5.2	-0.0	1.5	1.6	**-369.0**	2.4	45.0	-0.1	16.4	2.0	**944.8**
Fx_f	**-18.0**	2.3	-1.4	19.1	-20.5	133.9	**17.5**	68.9	1.1	-1.7	19.9	204.3
Fy_f	-0.2	**-30.8**	-0.6	-13.1	-2.1	232.3	3.4	**110.2**	0.6	42.4	5.6	177.5
Fz_f	-7.0	32.2	**-3.8**	34.5	-15.3	244.9	6.6	25.2	**3.5**	12.8	14.7	-36.3
Mx_f	-2.8	-18.7	-0.8	**-35.9**	-4.8	113.0	0.2	94.2	0.5	**93.8**	1.5	281.9
My_f	-16.0	1.2	-2.9	27.1	**-22.2**	139.8	15.4	72.4	2.6	-10.5	**21.7**	201.3
Mz_f	0.6	5.2	-0.0	1.5	1.5	**-392.6**	2.1	82.0	-0.1	35.7	1.4	**683.3**

Member 21

Fx_i	**-19.7**	4.4	-2.6	27.9	-13.3	137.5	**19.1**	70.5	1.6	-15.9	15.6	207.0
Fy_i	-0.8	**-35.6**	-0.5	-47.2	-0.2	176.0	3.7	**113.8**	0.1	48.8	4.2	195.6
Fz_i	-11.2	33.2	**-4.2**	29.0	-1.5	263.5	10.5	25.5	**3.1**	13.5	3.9	-49.4
Mx_i	0.0	27.9	-0.6	**-61.4**	1.6	345.0	1.2	88.4	-0.3	**98.8**	2.2	265.8
My_i	-16.7	17.1	-0.4	40.6	**-15.6**	43.3	17.9	69.0	0.3	-4.0	**17.6**	199.2
Mz_i	0.7	5.8	-0.3	3.0	2.4	**-392.6**	2.1	83.4	-0.4	33.5	2.5	**683.5**
Fx_f	**-19.7**	34.7	-2.6	59.6	-24.8	49.3	**19.1**	100.8	1.6	-2.2	22.7	-178.6
Fy_f	-1.7	**-21.7**	-0.5	-20.0	-3.3	113.3	3.7	**143.5**	0.1	57.6	4.7	-240.7
Fz_f	-11.2	63.5	**-4.2**	60.8	-20.6	46.0	10.5	25.5	**3.1**	13.5	17.8	-163.9
Mx_f	0.8	57.1	-0.5	**-47.1**	-0.0	-49.9	-0.6	114.7	-0.8	**124.8**	-2.1	-19.9
My_f	-18.1	29.9	-3.7	46.6	**-26.3**	27.5	17.4	90.7	2.7	2.8	**24.1**	-233.9
Mz_f	3.9	53.6	0.1	-12.8	5.2	**-473.1**	-1.3	72.1	-0.8	68.6	-3.8	**297.6**

Member 22

Fx_i	**-19.9**	31.5	-4.6	53.4	-19.0	52.3	**19.3**	102.7	0.8	-2.1	27.5	-178.9
Fy_i	-3.7	**-25.3**	-1.8	-35.8	-2.5	78.7	5.2	**146.3**	-1.2	68.3	11.7	-190.2
Fz_i	-11.6	73.9	**-6.5**	50.5	-2.9	-32.0	9.8	7.8	**2.6**	-2.0	9.3	-115.5
Mx_i	0.4	52.3	-1.1	**-62.5**	3.4	-46.7	-0.7	111.2	-2.5	**125.8**	4.7	-54.0
My_i	-17.8	9.3	-2.8	34.2	**-20.5**	8.8	17.8	105.1	-0.7	5.2	**29.2**	-171.8
Mz_i	3.6	55.4	-1.3	-9.1	10.0	**-472.1**	-1.2	72.4	-1.8	66.8	1.3	**296.6**
Fx_f	**-19.9**	92.6	-4.6	117.6	-39.8	-231.5	**19.3**	102.7	0.8	-2.1	31.1	-641.3
Fy_f	-0.4	**-20.6**	-0.5	-16.6	-2.6	110.4	4.1	**180.6**	-1.5	83.6	4.1	-854.6
Fz_f	-11.6	135.0	**-6.5**	114.7	-32.3	-506.6	9.8	7.8	**2.6**	-2.0	20.8	-150.8
Mx_f	0.8	55.0	-0.9	**-57.4**	-0.5	-327.3	-4.5	142.1	-3.5	**164.0**	-14.5	-522.9
My_f	-19.0	104.8	-5.4	105.1	**-40.7**	-295.9	18.6	93.6	1.3	9.3	**31.9**	-654.0
Mz_f	4.0	145.6	-2.2	54.6	2.4	**-933.1**	-1.8	-15.9	-0.6	2.1	-5.0	**182.4**

Member 23

Fx_i	**-18.9**	-77.9	4.0	-103.5	-42.2	-236.2	**18.4**	-105.8	-0.2	4.9	33.4	-652.3
Fy_i	3.8	**-187.0**	1.6	-90.3	4.7	-824.5	-0.5	**21.5**	0.6	16.1	-3.1	111.5
Fz_i	5.7	-1.1	**-2.4**	3.5	15.8	-69.5	-5.5	-129.5	**6.4**	-112.1	-24.1	-579.3
Mx_i	-1.7	-150.6	3.5	**-170.9**	-10.6	-529.3	-1.0	-54.2	0.8	**57.3**	-3.3	-326.5
My_i	-18.4	-88.3	4.5	-89.5	**-43.1**	-290.3	18.0	-92.1	-0.5	-6.2	**34.2**	-642.3
Mz_i	3.8	-172.8	2.4	-65.4	3.1	**-933.2**	-1.7	19.3	0.5	-2.8	-5.3	**182.4**
Fx_f	**-18.9**	-37.3	4.0	-61.0	-24.0	8.1	**18.4**	-105.8	-0.2	4.9	32.7	-176.1
Fy_f	5.0	**-152.6**	1.4	-72.6	13.7	-150.8	-1.9	**24.7**	1.1	24.4	-2.0	47.3
Fz_f	5.7	-1.1	**-2.4**	3.5	5.0	-64.6	-5.5	-88.9	**6.4**	-69.5	4.5	-102.8
Mx_f	1.0	-116.2	2.8	**-133.2**	8.3	-19.3	-1.4	-51.5	1.0	**62.4**	-0.1	-49.4
My_f	-18.4	-37.2	3.6	-61.2	**-24.9**	6.9	17.6	-106.0	0.6	6.0	**33.7**	-192.1
Mz_f	3.3	-56.8	1.4	9.5	10.9	**-463.5**	-0.3	-79.1	1.7	-67.0	2.2	**285.5**

Member 24

Fx_i	**-20.4**	-38.6	2.1	-66.9	-24.7	8.6	**20.0**	-105.0	-1.1	5.0	22.5	-178.2
Fy_i	3.3	**-150.0**	0.1	-62.7	4.2	-203.9	0.0	**22.1**	0.1	12.1	-0.8	81.7
Fz_i	7.4	-22.5	**-2.8**	-23.9	14.0	-147.9	-8.1	-71.7	**4.0**	-55.7	-16.9	-16.4
Mx_i	1.5	-123.2	0.8	**-132.3**	-0.1	-26.6	-0.5	-56.1	0.4	**47.4**	-1.2	-49.9
My_i	-19.7	-33.3	2.9	-50.2	**-25.9**	-14.1	19.0	-89.9	-1.9	-1.6	**23.8**	-229.3
Mz_i	4.1	-55.0	-0.0	13.2	5.1	**-464.5**	-0.6	-78.4	0.6	-67.7	-2.6	**286.2**
Fx_f	**-20.4**	-8.3	2.1	-35.1	-15.1	114.0	**20.0**	-74.7	-1.1	18.6	17.5	226.3
Fy_f	3.6	**-119.8**	-0.0	-51.6	4.5	245.5	-1.8	**31.5**	0.6	37.5	-1.0	110.9
Fz_f	7.4	-22.5	**-2.8**	-23.9	1.3	-46.6	-8.1	-41.4	**4.0**	-23.9	1.1	237.9
Mx_f	2.8	-93.2	0.6	**-104.4**	4.4	304.9	-1.0	-36.7	0.5	**59.4**	0.3	369.3
My_f	-18.1	-7.6	0.8	-27.9	**-16.2**	116.3	17.5	-71.0	0.3	12.2	**18.6**	207.9
Mz_f	2.1	-4.4	0.3	-2.9	2.3	**-385.7**	1.1	-93.6	0.3	-35.5	2.8	**675.2**

Member 25

Fx_i	-18.7	-5.9	1.6	-28.3	-21.7	116.4	**18.2**	-77.8	-1.3	5.9	21.1	225.0
Fy_i	3.4	**-116.4**	-0.5	-46.2	5.4	226.5	-1.0	**27.7**	0.5	9.4	-2.8	165.6
Fz_i	4.5	-29.8	**-3.2**	-19.4	12.0	-17.2	-4.9	-32.8	**3.5**	-32.1	-12.6	192.8
Mx_i	3.0	-99.4	-0.3	**-101.2**	3.9	320.1	-0.5	-32.5	-0.2	**30.4**	0.1	179.4
My_i	-17.7	-5.0	2.2	-28.5	**-22.5**	116.9	17.1	-77.5	-2.0	8.0	**21.9**	222.8
Mz_i	2.0	-3.8	0.0	-1.5	1.4	**-385.7**	1.0	-91.7	0.0	-36.1	1.9	**674.9**
Fx_f	**-18.7**	-5.9	1.6	-28.3	-14.6	142.8	**18.2**	-47.5	-1.3	19.6	15.3	507.0
Fy_f	2.8	**-90.0**	-0.5	-37.2	2.6	482.7	-0.6	**44.1**	0.4	43.0	-0.1	208.0
Fz_f	4.5	-29.8	**-3.2**	-19.4	-2.5	116.9	-4.9	-2.5	**3.5**	-0.3	3.2	272.0
Mx_f	3.0	-73.0	-0.4	**-77.1**	2.3	504.7	-5.2	30.7	0.7	**55.3**	-3.4	166.0
My_f	-15.7	-15.3	-0.6	-32.2	**-17.0**	85.7	15.5	-42.5	0.7	7.7	**17.5**	508.0
Mz_f	2.2	-3.8	-0.0	-1.5	1.6	**-368.7**	0.6	-31.6	0.1	-11.6	1.7	**948.8**

Member 26

Fx_i	**-17.7**	1.3	0.4	-6.1	-18.1	130.8	**17.2**	-49.4	-0.3	-8.4	17.9	483.1
Fy_i	1.5	**-86.3**	-0.2	-33.3	2.9	417.0	1.7	**39.9**	0.1	11.6	1.0	289.6
Fz_i	0.7	-26.6	**-3.3**	-14.5	8.4	116.2	-1.1	-5.6	**3.4**	-14.3	-8.5	272.6
Mx_i	0.4	-62.2	0.7	**-75.3**	-0.9	504.1	-0.4	15.9	-0.5	**31.9**	0.9	198.6
My_i	-16.6	1.8	1.6	-11.2	**-20.1**	141.3	16.0	-54.6	-1.6	-4.2	**20.0**	505.1
Mz_i	2.0	-3.3	-0.1	-0.3	1.8	**-368.7**	0.6	-29.7	-0.0	-13.6	1.6	**948.8**
Fx_f	**-17.7**	1.3	0.4	-6.1	-16.3	124.9	**17.2**	11.8	-0.3	19.2	16.5	563.1
Fy_f	0.4	**-63.2**	-0.2	-23.2	0.8	513.8	3.4	**59.3**	0.0	23.2	2.9	301.7
Fz_f	0.7	-26.6	**-3.3**	-14.5	-6.6	236.0	-1.1	24.7	**3.4**	17.4	6.7	229.7
Mx_f	-0.3	-38.9	0.6	**-51.4**	1.3	498.6	0.9	35.5	-0.6	**55.2**	-0.2	310.2
My_f	-15.7	-11.2	-1.1	-12.6	**-18.1**	131.2	15.3	12.7	1.1	11.8	**18.2**	575.8
Mz_f	1.6	1.6	0.3	-1.5	1.8	**-354.3**	0.8	7.2	-0.0	5.1	1.7	**1043.6**

Member 27

Fx_i	**-17.6**	-0.5	-0.8	5.9	-15.4	123.1	**17.1**	4.7	0.7	-13.8	15.5	561.9
Fy_i	2.3	**-63.7**	-0.1	-26.7	3.5	359.1	1.5	**59.4**	0.1	21.6	0.7	448.7
Fz_i	-3.1	-26.9	**-3.4**	-20.2	4.7	235.1	2.7	25.0	**3.3**	13.5	-4.6	230.6
Mx_i	5.0	-39.0	0.6	**-61.9**	3.8	334.3	-4.2	34.0	-0.5	**47.5**	-2.9	473.4
My_i	-15.3	10.3	1.4	13.1	**-18.3**	137.8	14.7	-2.4	-1.4	-7.6	**18.3**	608.7
Mz_i	1.9	2.0	0.3	-0.4	0.7	**-354.2**	0.8	9.2	-0.1	2.8	1.9	**1043.6**
Fx_f	**-17.6**	-0.5	-0.8	5.9	-18.8	125.3	**17.1**	45.2	0.7	4.5	18.7	434.7
Fy_f	0.9	**-43.6**	-0.1	-13.9	1.5	351.5	2.8	**82.0**	0.1	30.2	2.5	357.5
Fz_f	-3.1	3.4	**-3.4**	11.6	-10.5	288.1	2.7	25.0	**3.3**	13.5	10.4	118.2
Mx_f	3.9	-18.6	0.6	**-36.7**	5.4	221.9	-3.2	56.5	-0.6	**69.0**	-4.3	489.1
My_f	-15.7	-2.8	-2.0	11.3	**-20.2**	159.5	15.3	49.8	2.0	0.2	**20.1**	469.5
Mz_f	1.8	4.1	-0.0	0.3	1.2	**-372.7**	0.8	45.0	-0.0	18.3	1.7	**956.9**

Member 28

Fx_i	**-18.5**	2.2	-1.2	21.0	-15.2	145.0	**18.1**	39.8	1.0	-17.0	15.8	449.3
Fy_i	-1.3	**-48.7**	-0.4	-50.6	0.5	268.1	3.7	**86.1**	0.4	35.4	2.2	433.8

Fz_i	-7.6	2.5	-3.5	3.1	0.5	325.6	7.2	25.8	3.2	12.8	0.2	80.7
Mx_i	-1.8	-35.5	-0.5	-63.1	-0.7	223.0	0.4	69.2	0.4	73.0	-0.3	462.5
My_i	-16.7	16.0	0.3	31.6	-17.1	82.6	16.1	37.7	-0.5	-12.6	17.5	440.0
Mz_i	1.8	4.6	-0.1	1.6	1.5	-372.7	0.8	47.0	-0.1	16.4	2.0	957.0
Fx_f	-18.5	2.2	-1.2	21.0	-20.8	135.0	18.1	70.1	1.0	-3.3	20.3	201.9
Fy_f	-1.7	-31.3	-0.6	-12.9	-2.1	228.8	4.5	112.0	0.4	42.5	4.9	183.2
Fz_f	-7.6	32.8	-3.5	34.8	-15.3	246.1	7.2	25.8	3.2	12.8	14.7	-35.6
Mx_f	-3.1	-18.0	-0.5	-36.1	-4.2	113.7	0.7	94.8	0.3	94.4	1.6	283.0
My_f	-17.6	2.5	-2.4	26.3	-22.8	142.0	17.2	73.3	2.1	-9.6	22.3	204.0
Mz_f	1.8	4.6	-0.1	1.6	1.0	-393.6	0.4	84.0	-0.1	35.7	1.1	686.7

Member 29

Fx_i	-20.4	5.3	-2.5	29.3	-14.4	141.6	20.0	71.9	1.5	-17.1	16.7	208.5
Fy_i	-2.0	-36.2	-0.4	-47.1	-0.3	172.3	4.6	115.7	0.0	48.9	4.1	201.3
Fz_i	-10.4	39.1	-4.0	19.9	-1.3	272.0	8.2	13.0	2.9	5.5	2.2	-99.0
Mx_i	-0.0	28.6	-0.4	-61.9	1.2	345.9	1.0	89.1	-0.5	99.3	2.4	266.9
My_i	-17.0	14.0	-0.3	43.3	-16.2	37.6	18.3	69.9	0.1	-5.9	18.5	199.8
Mz_i	1.8	5.3	-0.4	3.2	2.1	-393.6	0.4	85.4	-0.4	33.6	2.4	686.9
Fx_f	-20.4	35.6	-2.5	61.1	-25.5	49.6	20.0	102.2	1.5	-3.4	23.5	-183.4
Fy_f	-3.0	-22.2	-0.4	-20.0	-2.9	112.0	4.6	145.4	-0.1	57.7	4.0	-243.3
Fz_f	-10.4	69.4	-4.0	51.6	-19.2	28.0	8.2	13.0	2.9	5.5	15.1	-157.4
Mx_f	0.8	57.8	-0.3	-47.6	0.2	-52.4	-0.9	115.3	-0.9	125.3	-2.6	-21.6
My_f	-19.3	30.8	-3.2	45.4	-26.4	24.5	18.9	91.3	2.2	4.0	24.3	-234.4
Mz_f	5.0	55.4	-0.0	-12.9	4.5	-475.5	-3.0	71.7	-0.8	68.8	-3.9	296.0

Member 30

Fx_i	-20.3	32.6	-4.1	52.4	-21.0	50.4	19.9	103.8	0.4	-0.9	29.2	-181.3
Fy_i	-4.4	-25.9	-1.5	-36.0	-2.4	77.2	5.8	148.3	-1.3	68.6	11.0	-192.8
Fz_i	-9.5	82.0	-6.2	54.1	-0.4	-40.1	9.0	2.5	2.5	-1.1	8.9	-107.2
Mx_i	0.5	53.0	-1.0	-62.9	3.2	-49.2	-1.0	111.8	-2.5	126.4	4.4	-55.6
My_i	-19.1	12.7	-3.2	41.0	-21.6	6.6	19.1	109.7	-0.3	-0.1	30.1	-183.8
Mz_i	4.6	57.2	-1.4	-9.0	9.2	-474.5	-2.9	72.0	-1.8	67.1	1.0	295.1
Fx_f	-20.3	93.8	-4.1	116.5	-39.3	-238.7	19.9	103.8	0.4	-0.9	31.0	-648.2
Fy_f	-1.2	-21.2	-0.4	-16.6	-2.0	111.4	4.7	182.5	-1.6	83.8	2.9	-865.7
Fz_f	-9.5	143.1	-6.2	118.3	-28.3	-551.2	9.0	2.5	2.5	-1.1	19.9	-118.6
Mx_f	0.9	55.8	-0.8	-57.8	-0.0	-333.3	-4.8	142.6	-3.4	164.4	-14.8	-527.1
My_f	-19.5	105.2	-4.8	104.2	-40.3	-299.5	19.4	94.2	0.8	10.7	31.8	-657.1
Mz_f	5.0	147.5	-2.3	54.7	1.5	-944.0	-3.5	-16.3	-0.6	2.3	-5.2	182.7

Member 31

Fx_i	-19.0	-77.3	4.0	-103.9	-42.6	-238.9	18.7	-106.0	-0.2	5.2	34.0	-657.2
Fy_i	4.6	-187.3	1.6	-90.5	3.6	-835.1	-1.8	21.2	0.5	16.4	-2.7	111.9
Fz_i	8.9	-3.8	-2.4	1.6	21.6	-128.3	-7.8	-127.2	6.2	-109.8	-27.9	-528.6
Mx_i	-2.9	-150.9	3.4	-170.9	-12.5	-534.4	-0.2	-54.4	0.8	57.4	-1.8	-330.8
My_i	-18.4	-88.7	4.7	-89.4	-43.8	-298.7	18.2	-92.3	-0.8	-6.1	35.2	-647.4
Mz_i	4.9	-166.5	2.5	-45.8	2.1	-944.1	-3.3	17.7	0.7	-4.6	-5.9	182.8
Fx_f	-19.0	-36.8	4.0	-61.3	-24.5	3.0	18.7	-106.0	-0.2	5.2	33.0	-180.3
Fy_f	5.8	-152.9	1.3	-72.9	12.4	-160.0	-3.2	24.4	1.0	24.7	-1.9	48.9
Fz_f	8.9	-3.8	-2.4	1.6	10.6	-111.0	-7.8	-86.7	6.2	-67.2	0.0	-62.3
Mx_f	-0.2	-116.5	2.7	-133.3	5.8	-23.2	-0.6	-51.7	1.0	62.5	1.4	-52.7
My_f	-18.4	-37.7	3.7	-61.0	-25.0	-0.1	18.2	-106.4	0.2	6.0	33.4	-196.4
Mz_f	4.2	-57.1	1.5	9.2	9.9	-473.3	-1.9	-79.4	1.6	-67.1	1.9	287.5

Member 32

Fx_i	-20.4	-38.7	2.4	-66.9	-25.3	2.4	20.1	-105.4	-1.4	5.0	23.2	-182.6
Fy_i	4.2	-150.2	0.1	-62.8	3.5	-213.3	-1.4	21.8	0.1	12.2	-0.6	83.5
Fz_i	8.7	-14.3	-2.9	-5.2	15.2	-161.3	-10.1	-72.0	4.0	-55.6	-18.8	-20.6
Mx_i	0.5	-123.5	0.8	-132.3	-1.1	-30.4	-0.2	-56.3	0.4	47.5	-0.8	-53.1
My_i	-19.5	-33.8	3.1	-50.4	-26.4	-23.8	19.1	-90.1	-2.1	-1.3	24.3	-234.9
Mz_i	4.9	-55.3	0.0	13.1	4.4	-474.3	-2.2	-78.7	0.7	-67.8	-2.8	288.3
Fx_f	-20.4	-8.4	2.4	-35.1	-14.5	108.5	20.1	-75.1	-1.4	18.6	17.0	223.7
Fy_f	4.5	-120.1	0.0	-51.7	4.0	237.4	-3.1	31.3	0.5	37.8	-1.0	113.9
Fz_f	8.7	-14.3	-2.9	-5.2	2.3	-96.9	-10.1	-41.7	4.0	-23.8	-1.0	235.1
Mx_f	1.8	-93.5	0.6	-104.4	3.3	302.4	-0.7	-36.9	0.4	59.5	0.5	367.1
My_f	-17.8	-15.5	0.8	-42.6	-16.1	29.7	18.4	-71.3	-0.0	12.2	18.4	206.3
Mz_f	0.3	-5.2	0.4	-3.0	2.1	-392.9	2.2	-93.4	0.4	-35.6	2.5	677.3

Member 33

Fx_i	-18.4	-5.4	1.7	-27.7	-21.7	108.7	18.2	-79.3	-1.4	5.2	21.2	226.7
Fy_i	4.3	-116.7	-0.4	-46.2	4.7	218.4	-2.6	27.5	0.6	9.4	-2.9	168.7
Fz_i	6.5	-30.0	-3.2	-19.4	13.9	-19.4	-6.8	-33.1	3.5	-32.0	-14.5	189.9
Mx_i	2.2	-99.7	-0.2	-101.2	2.9	317.4	-0.2	-32.7	-0.2	30.5	0.4	177.2
My_i	-17.7	-4.8	2.3	-28.9	-22.7	110.3	17.3	-77.4	-2.0	8.3	22.2	218.5
Mz_i	0.2	-4.6	0.0	-1.5	1.1	-392.9	2.2	-91.4	0.1	-36.1	1.4	677.0
Fx_f	-18.4	-5.4	1.7	-27.7	-14.2	132.8	18.2	-49.0	-1.4	18.8	14.9	515.3
Fy_f	3.8	-90.3	-0.4	-37.3	2.3	475.8	-2.0	43.9	0.4	43.0	-0.1	212.3
Fz_f	6.5	-30.0	-3.2	-19.4	-0.5	115.6	-6.8	-2.8	3.5	-0.2	1.2	270.5
Mx_f	2.2	-73.3	-0.3	-77.1	1.7	503.3	-4.2	30.6	0.5	55.5	-2.8	164.3
My_f	-15.8	-15.7	-0.4	-32.2	-16.7	83.4	15.9	-41.8	0.6	9.7	17.2	484.1
Mz_f	0.5	-4.5	-0.0	-1.5	1.4	-372.4	1.8	-31.4	0.1	-11.6	1.5	949.9

Member 34

Fx_i	-17.4	1.3	0.7	-6.0	-18.5	125.9	17.2	-49.7	-0.6	-8.4	18.4	483.2
Fy_i	2.6	-86.6	-0.2	-33.3	2.4	410.0	0.1	39.6	0.1	11.5	0.9	294.1
Fz_i	2.7	-26.8	-3.3	-14.5	10.4	114.9	-3.1	-5.9	3.4	-14.2	-10.5	271.2
Mx_i	-1.6	-61.3	0.6	-75.3	-2.7	528.5	1.5	14.6	-0.4	32.0	2.7	171.5
My_i	-15.7	1.4	1.9	-11.1	-20.1	138.1	15.8	-54.9	-1.9	-4.2	20.0	503.1
Mz_i	0.3	-4.1	-0.1	-0.3	1.5	-372.4	1.8	-29.5	0.0	-13.6	1.2	949.9
Fx_f	-17.4	1.3	0.7	-6.0	-15.3	119.9	17.2	11.4	-0.6	19.1	15.7	564.9
Fy_f	1.5	-63.4	-0.1	-23.2	0.6	507.9	1.8	59.1	0.1	23.1	2.9	307.4
Fz_f	2.7	-26.8	-3.3	-14.5	-4.6	235.6	-3.1	24.4	3.4	17.5	4.7	229.7
Mx_f	-2.3	-38.0	0.5	-51.4	-0.9	519.2	2.9	34.2	-0.5	55.3	2.0	289.3
My_f	-14.7	-10.2	-1.3	-12.1	-17.7	159.3	14.5	16.5	1.5	12.1	17.8	607.5
Mz_f	-0.0	0.8	0.4	-1.5	1.8	-354.5	2.1	7.4	0.0	5.1	1.6	1043.6

Member 35

Fx_i	-17.2	-0.6	-0.5	6.0	-15.6	119.9	17.0	3.7	0.5	-13.9	15.8	575.1
Fy_i	3.5	-64.0	-0.0	-26.7	3.1	353.2	0.0	59.1	0.1	21.6	0.7	454.4
Fz_i	-1.1	-27.1	-3.4	-20.2	6.7	234.8	0.7	24.7	3.3	13.6	-6.6	230.6
Mx_i	2.9	-38.7	0.4	-61.9	2.3	322.7	-2.1	33.1	-0.3	47.6	-1.3	484.7
My_i	-14.6	10.3	1.5	13.3	-18.1	129.8	14.5	-1.6	-1.6	-7.7	18.2	598.2
Mz_i	0.4	1.3	0.3	-0.5	0.6	-354.4	2.1	9.4	0.0	2.8	1.5	1043.6
Fx_f	-17.2	-0.6	-0.5	6.0	-17.8	122.8	17.0	44.3	0.5	4.4	18.0	452.4
Fy_f	2.1	-43.9	-0.1	-13.9	1.5	346.7	1.3	81.7	0.1	30.1	2.6	364.3
Fz_f	-1.1	3.2	-3.4	11.6	-8.5	288.7	0.7	24.7	3.3	13.6	8.4	119.5
Mx_f	1.8	-18.2	0.4	-36.7	2.9	208.6	-1.2	55.6	-0.4	69.1	-1.8	504.3
My_f	-15.5	-3.1	-1.8	11.3	-19.7	161.6	15.6	49.6	1.7	0.2	19.6	471.5
Mz_f	0.1	3.4	0.0	0.3	1.2	-369.4	2.1	45.2	0.0	18.2	1.7	955.7

Member 36

Fx_i	-17.9	4.3	-1.4	24.3	-14.4	163.4	17.8	43.3	1.2	-19.6	15.1	476.6
Fy_i	0.1	-49.0	-0.4	-50.6	0.4	263.2	2.3	85.9	0.4	35.3	2.2	440.6
Fz_i	-4.8	-0.6	-3.5	-4.4	3.2	288.0	4.4	28.5	3.2	20.4	-2.5	120.2
Mx_i	-3.3	-35.9	-0.6	-63.0	-1.8	225.7	2.6	68.9	0.5	73.0	1.7	463.6
My_i	-15.5	15.5	0.5	31.7	-16.9	85.4	15.7	37.4	-0.7	-12.6	17.4	442.7
Mz_i	0.2	3.9	-0.1	1.5	1.3	-369.4	2.2	47.2	-0.0	16.4	1.7	955.9
Fx_f	-17.9	4.3	-1.4	24.3	-20.6	144.2	17.8	73.6	1.2	-6.0	20.4	213.8
Fy_f	-0.4	-31.6	-0.5	-12.9	-2.1	225.2	3.1	111.8	0.4	42.4	5.0	191.2
Fz_f	-4.8	29.7	-3.5	27.4	-12.5	222.7	4.4	28.5	3.2	20.4	11.9	-7.9
Mx_f	-4.6	-18.4	-0.7	-35.9	-6.1	118.2	2.9	94.5	0.4	94.4	4.0	285.3
My_f	-17.1	2.3	-2.1	26.3	-22.1	145.3	17.2	73.2	1.9	-9.6	21.6	206.6
Mz_f	0.2	3.9	-0.1	1.5	1.0	-386.8	1.9	84.3	-0.1	35.7	1.2	684.3

Member 37

Fx_i	-19.7	5.2	-2.2	29.3	-14.3	141.5	19.6	71.7	1.3	-17.0	16.8	213.7
Fy_i	-0.7	-36.4	-0.4	-47.1	-0.2	168.6	3.6	115.4	0.1	48.8	4.4	209.3
Fz_i	-8.1	37.6	-3.9	16.9	1.0	267.9	7.7	20.6	2.8	23.0	1.6	-53.2
Mx_i	-1.3	28.5	-0.6	-61.7	0.2	347.5	3.1	88.8	-0.4	99.3	4.3	269.3
My_i	-17.4	11.8	-0.8	36.9	-15.9	64.4	17.9	67.9	-0.0	-10.6	18.2	193.8
Mz_i	0.2	4.5	-0.4	3.1	2.1	-386.9	1.9	85.6	-0.3	33.6	2.2	684.5
Fx_f	-19.7	35.5	-2.2	61.0	-24.2	50.1	19.6	102.0	1.3	-3.3	22.6	-177.2

Fy_f	-1.6	-22.5	-0.4	-19.9	-3.1	109.6	3.6	**145.1**	-0.0	57.6	4.5	-234.1
Fz_f	-8.1	67.9	**-3.9**	48.6	-16.8	30.8	7.7	20.6	**2.8**	23.0	14.4	-145.8
Mx_f	-0.6	57.7	-0.5	**-47.3**	-1.4	-50.2	1.2	115.0	-0.8	**125.2**	-0.3	-17.8
My_f	-18.7	30.4	-3.0	45.1	**-25.6**	32.0	18.8	91.1	2.0	4.3	**23.5**	-229.9
Mz_f	3.5	55.1	0.0	-13.0	4.6	**-466.0**	-1.6	71.5	-0.7	68.9	-3.8	**293.4**

Member 38

Fx_i	**-19.4**	32.5	-3.8	52.2	-20.5	51.3	**19.3**	103.6	0.2	-0.7	28.8	-175.1
Fy_i	-3.6	**-26.2**	-1.6	-36.0	-2.5	74.9	5.1	**148.0**	-1.2	68.4	11.7	-183.7
Fz_i	-7.3	81.6	**-6.2**	54.0	2.9	-34.7	6.4	2.3	**2.4**	-0.9	5.1	-105.5
Mx_i	-1.1	52.9	-1.0	**-62.5**	0.9	-47.1	1.1	111.5	-2.4	**126.2**	7.3	-51.8
My_i	-18.3	11.8	-3.1	38.4	**-21.1**	1.8	18.6	109.5	-0.5	0.1	**29.4**	-180.6
Mz_i	3.1	56.9	-1.4	-9.2	9.2	**-465.0**	-1.3	71.8	-1.7	67.1	0.9	**292.5**
Fx_f	**-19.4**	93.6	-3.8	116.4	-37.7	-237.1	**19.3**	103.6	0.2	-0.7	29.6	-641.1
Fy_f	-0.4	**-21.5**	-0.5	-16.6	-2.5	110.5	4.0	**182.2**	-1.5	83.6	4.1	-855.3
Fz_f	-7.3	142.8	**-6.2**	118.2	-24.9	-544.2	6.4	2.3	**2.4**	-0.9	15.9	-115.7
Mx_f	-0.8	55.7	-0.9	**-57.4**	-2.8	-330.8	-2.7	142.3	-3.3	**164.3**	-11.3	-521.8
My_f	-18.8	105.2	-4.6	103.2	**-39.1**	-293.2	19.1	94.2	0.7	11.2	**30.6**	-652.4
Mz_f	3.6	147.2	-2.2	54.5	1.8	**-933.2**	-2.0	-19.2	-0.6	2.8	-5.2	**181.1**

Member 39

Fx_i	**-18.2**	-77.2	4.2	-104.3	-41.8	-237.1	**18.1**	-105.2	-0.4	5.6	33.7	-652.2
Fy_i	3.0	**-185.5**	1.5	-90.4	3.7	-824.4	-0.3	**20.6**	0.4	16.5	-2.6	110.1
Fz_i	9.1	-3.2	**-2.7**	1.5	22.5	-123.6	-8.1	-126.7	**6.4**	-109.4	-28.8	-524.2
Mx_i	-3.6	-150.4	3.4	**-170.5**	-13.8	-530.9	0.6	-53.6	0.6	**57.2**	0.0	-324.9
My_i	-17.6	-70.9	4.7	-85.2	**-42.7**	-234.7	17.8	-91.3	-1.0	-5.0	**34.3**	-642.7
Mz_i	3.5	-164.7	2.4	-45.7	2.6	**-933.4**	-1.8	15.7	0.7	-2.5	-5.7	**181.1**
Fx_f	**-18.2**	-36.6	4.2	-61.7	-22.9	4.0	**18.1**	-105.2	-0.4	5.6	31.7	-178.9
Fy_f	4.2	**-151.1**	1.2	-72.7	11.8	-157.4	-1.7	**23.8**	0.9	24.8	-2.2	49.8
Fz_f	9.1	-3.2	**-2.7**	1.5	10.3	-109.2	-8.1	-86.1	**6.4**	-66.8	-0.1	-60.5
Mx_f	-0.9	-116.0	2.7	**-132.9**	4.7	-21.7	0.2	-50.9	0.8	**62.4**	2.5	-50.3
My_f	-17.1	-36.7	3.2	-57.2	**-24.1**	-0.5	17.2	-104.7	0.7	2.5	**32.5**	-190.7
Mz_f	2.9	-55.4	1.3	9.3	9.7	**-470.8**	-0.4	-79.9	1.8	-67.1	2.4	**288.7**

Member 40

Fx_i	**-19.5**	-40.4	2.3	-65.5	-24.3	-1.0	**19.5**	-103.2	-1.3	4.3	22.4	-177.9
Fy_i	2.5	**-148.5**	-0.0	-62.7	3.6	-210.6	-0.1	**21.2**	-0.0	12.4	-0.6	84.4
Fz_i	8.5	-13.7	**-3.1**	-5.3	15.7	-159.4	-10.1	-71.4	**4.2**	-55.2	-19.3	-18.9
Mx_i	-0.1	-122.9	0.9	**-131.9**	-1.9	-28.9	0.8	-55.6	0.2	**47.1**	0.6	-50.7
My_i	-18.2	-33.0	3.3	-50.7	**-25.6**	-21.7	18.3	-89.5	-2.3	-0.8	**23.6**	-233.9
Mz_i	3.4	-53.6	-0.1	13.1	4.6	**-471.9**	-0.5	-79.2	0.8	-67.7	-2.8	**289.5**
Fx_f	**-19.5**	-10.1	2.3	-33.7	-14.1	112.7	**19.5**	-72.9	-1.3	17.9	16.5	218.5
Fy_f	2.8	**-118.3**	-0.1	-51.7	3.5	232.1	-1.9	**30.7**	0.4	37.9	-1.6	117.4
Fz_f	8.5	-13.7	**-3.1**	-5.3	1.5	-98.0	-10.1	-41.1	**4.2**	-23.4	-0.4	234.3
Mx_f	1.1	-93.0	0.6	**-104.0**	2.8	301.6	0.4	-36.1	0.3	**59.2**	1.3	366.1
My_f	-17.7	-15.2	0.7	-40.3	**-16.3**	28.0	17.9	-72.1	0.3	5.4	**18.6**	213.6
Mz_f	2.1	-5.8	0.5	-3.0	2.7	**-391.6**	0.5	-91.5	0.3	-35.6	2.2	**674.1**

Member 41

Fx_i	**-18.0**	-4.7	0.8	-21.6	-19.7	101.0	**18.1**	-72.1	-0.7	1.2	19.7	212.0
Fy_i	2.6	**-114.9**	-0.5	-46.2	4.7	213.1	-0.7	**26.9**	0.7	9.4	-2.8	172.2
Fz_i	6.1	-29.3	**-3.5**	-19.5	14.2	-20.3	-6.5	-32.5	**3.7**	-31.7	-14.8	189.1
Mx_i	0.7	-99.2	-0.2	**-100.7**	1.4	316.5	0.9	-31.9	-0.4	**30.1**	1.9	179.2
My_i	-16.5	-3.8	2.4	-29.1	**-22.1**	108.4	16.7	-76.7	-2.2	8.7	**21.5**	216.6
Mz_i	2.2	-5.2	0.2	-1.5	1.3	**-391.6**	0.4	-89.5	-0.0	-36.1	1.5	**673.8**
Fx_f	**-18.0**	-4.7	0.8	-21.6	-16.2	122.0	**18.1**	-41.7	-0.7	14.9	16.4	468.0
Fy_f	2.0	**-88.5**	-0.5	-37.2	1.7	462.5	-0.5	**43.3**	0.4	43.1	-0.2	218.3
Fz_f	6.1	-29.3	**-3.5**	-19.5	-1.4	111.7	-6.5	-2.2	**3.7**	0.1	2.0	267.3
Mx_f	0.6	-72.8	-0.3	**-76.6**	0.3	500.1	-2.7	31.3	0.4	**55.3**	-1.6	162.9
My_f	-16.2	-16.4	-0.5	-31.2	**-17.4**	87.9	16.3	-42.1	0.7	9.1	**17.9**	487.3
Mz_f	2.4	-5.2	0.1	-1.5	2.1	**-368.1**	0.0	-29.5	0.0	-11.6	1.1	**938.1**

Member 42

Fx_i	**-17.4**	-5.5		-7.2	-18.2	128.8	**17.4**	-49.2	-0.4	-11.9	18.2	469.5
Fy_i	0.8	**-84.8**	3	-33.3	2.3	396.8	2.1	**39.1**	0.2	11.6	1.1	300.1
Fz_i	2.1	-26.2	5	-14.5	10.4	111.1	-2.5	-5.4	**3.6**	-14.0	-10.5	267.9
Mx_i	-2.8	-60.3	0.6	**-74.9**	-3.9	539.9	2.8	14.7	-0.4	**31.9**	4.0	152.8
My_i	-15.1	1.8	1.9	-10.7	**-19.5**	134.7	15.3	-54.1	-1.8	-4.4	**19.4**	499.4
Mz_i	2.4	-4.7	0.0	-0.3	1.8	**-368.1**	-0.0	-27.6	-0.1	-13.6	1.1	**938.1**
Fx_f	**-17.4**	-5.5	0.4	-7.2	-16.4	153.5	**17.4**	11.9	-0.4	15.6	16.4	548.8
Fy_f	-0.4	**-61.7**	-0.3	-23.2	-0.0	486.9	3.8	**58.5**	0.2	23.2	3.6	315.7
Fz_f	2.1	-26.2	**-3.6**	-14.5	-5.7	228.8	-2.5	24.9	**3.6**	17.8	5.8	224.0
Mx_f	-3.6	-36.9	0.5	**-51.1**	-2.1	525.8	4.2	34.3	-0.5	**55.1**	3.2	269.8
My_f	-15.0	-10.5	-1.7	-12.1	**-18.8**	144.5	15.0	18.2	1.7	12.4	**18.9**	612.6
Mz_f	2.4	-4.7	0.0	-0.3	2.0	**-346.8**	0.2	9.3	-0.1	5.1	1.0	**1023.2**

Member 43

Fx_i	**-17.7**	-1.9	-0.6	6.3	-16.2	132.0	**17.6**	4.5	0.5	-13.7	16.4	565.0
Fy_i	1.7	**-62.3**	-0.2	-26.8	2.9	332.6	2.2	**58.6**	0.3	21.6	1.1	461.9
Fz_i	-1.9	-26.4	**-3.6**	-20.1	6.4	227.9	1.5	25.2	**3.6**	13.8	-6.3	224.9
Mx_i	1.8	-40.2	0.7	**-61.6**	0.5	352.2	-1.0	35.9	-0.6	**47.5**	0.6	442.2
My_i	-16.3	9.7	0.7	14.0	**-18.0**	112.8	16.4	4.2	-0.7	-7.2	**18.1**	554.5
Mz_i	2.5	-4.3	0.0	0.7	1.9	**-346.8**	0.1	11.3	-0.1	2.8	1.3	**1023.3**
Fx_f	**-17.7**	-1.9	-0.6	6.3	-18.9	140.5	**17.6**	45.0	0.5	4.6	18.7	438.7
Fy_f	0.2	**-42.2**	-0.2	-14.0	0.7	318.5	3.5	**81.3**	0.3	30.2	3.6	373.7
Fz_f	-1.9	3.9	**-3.6**	11.7	-9.9	278.6	1.5	25.2	**3.6**	13.8	9.8	111.7
Mx_f	0.7	-19.8	0.7	**-36.3**	2.4	245.3	-0.1	58.4	-0.7	**69.0**	-1.3	449.1
My_f	-16.7	-2.4	-1.9	11.3	**-21.0**	151.5	16.5	50.0	1.8	0.4	**20.9**	464.8
Mz_f	2.6	2.6	0.1	0.3	2.2	**-357.7**	0.1	47.1	-0.1	18.3	1.0	**926.8**

Member 44

Fx_i	**-18.9**	4.2	-1.8	25.9	-14.8	153.1	**18.8**	43.9	1.5	-21.0	15.5	465.3
Fy_i	-1.5	**-47.4**	-0.4	-50.5	0.2	235.9	4.8	**85.4**	0.6	35.4	3.1	449.6
Fz_i	-6.0	0.1	**-3.7**	-4.1	2.6	278.0	5.6	28.9	**3.4**	20.4	-1.9	112.3
Mx_i	-3.9	-34.9	-0.7	**-62.7**	-2.3	212.0	2.3	69.3	0.4	**73.0**	1.8	455.3
My_i	-16.3	13.0	0.3	31.7	**-17.1**	75.3	16.5	39.8	-0.5	-10.9	**17.6**	424.5
Mz_i	2.7	3.1	0.1	1.6	2.0	**-357.8**	0.1	49.1	-0.2	16.4	1.4	**927.0**
Fx_f	**-18.9**	4.2	-1.8	25.9	-22.9	134.1	**18.8**	74.2	1.5	-7.3	22.3	199.7
Fy_f	-2.7	**-29.9**	-0.6	-12.9	-3.3	190.1	5.6	**111.3**	0.6	42.5	6.5	201.9
Fz_f	-6.0	30.4	-3.7	27.7	-14.2	209.2	5.6	28.9	**3.4**	20.4	13.6	-17.7
Mx_f	-5.2	-17.4	-0.7	**-35.7**	-6.6	100.3	2.6	95.0	0.3	**94.4**	3.5	274.9
My_f	-17.6	0.5	-2.7	15.2	**-23.9**	87.8	17.6	61.5	2.5	-5.5	**23.3**	102.2
Mz_f	2.7	3.1	0.1	1.6	2.2	**-371.8**	-0.3	86.2	-0.2	35.7	0.4	**646.9**

Member 45

Fx_i	**-20.9**	5.8	-2.4	29.6	-15.5	131.7	**20.8**	61.5	1.6	-8.3	17.3	103.9
Fy_i	-2.8	**-34.9**	-0.6	-48.5	-0.8	121.8	6.1	**115.0**	0.1	48.8	5.6	218.9
Fz_i	-9.5	38.4	**-4.2**	17.4	0.2	254.3	9.1	20.9	**3.1**	22.9	2.5	-62.9
Mx_i	-1.8	29.3	-0.7	**-61.4**	-0.1	333.1	2.4	89.1	-0.6	**99.1**	4.0	258.8
My_i	-18.8	5.2	-1.1	20.8	**-16.5**	118.2	18.9	68.3	0.1	-9.0	**18.9**	197.0
Mz_i	2.9	3.7	-0.3	3.1	2.9	**-371.8**	-0.3	87.5	-0.5	33.6	1.8	**647.1**
Fx_f	**-20.9**	36.1	-2.4	61.4	-26.2	37.4	**20.8**	91.8	1.6	5.3	24.7	-241.1
Fy_f	-3.7	**-21.0**	-0.6	-21.4	-4.4	56.2	6.1	**144.7**	0.1	57.6	6.0	-222.8
Fz_f	-9.5	68.7	**-4.2**	49.2	-18.8	13.4	9.1	20.9	**3.1**	22.9	16.3	-157.1
Mx_f	-0.9	58.5	-0.5	**-47.1**	-2.0	-68.3	0.4	115.4	-0.9	**125.1**	-1.4	-30.2
My_f	-20.5	31.3	-3.1	45.6	**-27.7**	13.7	20.5	91.4	2.1	4.1	**25.5**	-239.3
Mz_f	6.0	56.4	-0.0	-8.3	5.4	**-449.3**	-3.6	71.4	-0.7	64.1	-4.2	**249.3**

Member 46

Fx_i	**-20.8**	28.3	-4.6	34.6	-21.4	13.6	**20.8**	94.4	0.7	10.7	30.2	-239.7
Fy_i	-5.6	**-24.7**	-1.7	-35.8	-4.1	36.1	8.7	**147.7**	-0.9	70.3	15.3	-159.0
Fz_i	-8.4	82.4	**-6.6**	54.7	2.1	-50.8	7.5	2.6	**2.6**	-0.9	6.2	-114.4
Mx_i	-1.8	53.8	-1.1	**-62.4**	-0.1	-65.1	0.5	111.8	-2.7	**126.0**	7.2	-63.7
My_i	-20.3	34.1	-3.8	52.4	**-22.5**	31.0	20.0	104.4	-0.3	-1.8	**31.2**	-204.8
Mz_i	5.8	56.3	-1.4	-9.2	10.9	**-448.3**	-3.6	73.5	-1.9	67.0	0.0	**248.4**
Fx_f	**-20.8**	89.4	-4.6	98.8	-42.0	-255.9	**20.8**	94.4	0.7	10.7	33.2	-664.4
Fy_f	-2.1	**-20.0**	-0.6	-16.5	-4.0	65.4	7.5	**181.9**	-1.2	85.5	8.7	-829.3
Fz_f	-8.4	143.6	**-6.6**	118.9	-27.7	-564.0	7.5	2.6	**2.6**	-0.9	17.9	-126.1
Mx_f	-1.3	56.5	-0.9	**-57.3**	-3.8	-352.3	-3.5	142.7	-3.6	**164.2**	-13.1	-535.2
My_f	-20.5	106.2	-4.8	104.0	**-42.3**	-316.5	20.7	94.4	0.7	10.8	**33.2**	-662.9
Mz_f	6.1	174.4	-2.3	67.1	3.4	**-917.5**	-4.3	-17.6	-0.7	2.6	-6.9	**132.3**

Member 47

Fx_i	**-20.0**	-80.3	3.4	-99.4	-43.8	-260.8	**20.1**	-108.3	0.5	-0.5	35.0	-667.7
Fy_i	5.4	**-182.7**	1.7	-90.5	5.0	-807.2	-2.0	**11.2**	1.2	18.8	-4.4	33.5
Fz_i	3.7	-10.1	**-1.8**	-11.0	11.4	-154.5	-7.4	-127.4	**6.2**	-101.0	-27.4	-541.1
Mx_i	-2.5	-153.0	2.9	**-166.5**	-11.0	-549.7	1.5	-55.7	2.0	52.2	-1.4	-334.1
My_i	-19.7	-80.3	3.8	-99.8	**-44.5**	-258.9	19.7	-107.4	0.1	1.7	**35.6**	-663.3
Mz_i	6.4	-162.1	2.7	-45.9	4.7	**-917.4**	-4.2	7.9	0.3	-1.3	-6.9	**132.3**
Fx_f	**-20.0**	-39.7	3.4	-56.8	-28.6	-5.6	**20.1**	-108.3	0.5	-0.5	37.4	-180.4
Fy_f	6.8	**-148.2**	1.4	-72.8	14.4	-152.7	-3.5	**14.4**	1.7	27.1	-0.7	15.9
Fz_f	3.7	-10.1	-1.8	-11.0	3.4	-108.9	-7.4	-86.8	**6.2**	-58.4	0.5	-74.0
Mx_f	0.4	-118.5	2.1	**-128.8**	5.3	-28.8	1.2	-52.9	2.2	**57.3**	7.2	-50.4
My_f	-19.4	-19.5	2.9	-46.5	**-28.8**	-45.8	19.8	-107.7	0.8	2.8	**37.7**	-196.2
Mz_f	6.0	-52.1	1.7	13.6	14.5	**-468.9**	-3.2	-88.4	1.3	-70.4	-2.2	**277.0**

Member 48

Fx_i	**-22.5**	-41.0	1.9	-62.8	-26.8	-3.7	**22.5**	-107.0	-0.9	1.4	24.7	-182.3
Fy_i	5.4	**-145.7**	0.1	-62.8	4.7	-206.2	-0.0	**11.8**	0.4	11.9	0.3	68.9
Fz_i	7.8	-23.1	**-2.7**	-23.4	14.2	-157.4	-8.2	-74.4	**3.9**	-51.5	-16.8	-29.6
Mx_i	0.8	-125.3	0.2	**-128.1**	0.4	-35.6	3.2	-57.4	1.5	**42.5**	0.1	-50.6
My_i	-22.1	-40.6	2.2	-63.3	**-27.2**	-1.4	22.1	-106.1	-1.2	3.6	**25.0**	-182.0
Mz_i	7.1	-52.2	0.4	12.7	6.3	**-470.0**	-4.1	-85.9	0.1	-66.5	-4.0	**277.9**
Fx_f	**-22.5**	-10.7	1.9	-31.0	-18.2	112.8	**22.5**	-76.7	-0.9	15.0	20.5	231.0
Fy_f	5.7	**-115.5**	0.0	-51.7	5.4	223.9	-1.3	**22.2**	1.1	35.9	2.2	141.9
Fz_f	7.8	-23.1	-2.7	-23.4	2.1	-53.4	-8.2	-44.1	**3.9**	-19.8	0.6	236.9
Mx_f	2.1	-95.3	-0.1	**-100.2**	2.0	305.5	2.6	-38.1	1.6	**54.6**	6.3	374.6
My_f	-20.5	-16.7	0.8	-45.9	**-18.8**	47.2	22.1	-75.4	-0.7	15.7	**20.9**	215.1
Mz_f	-1.0	-14.4	0.1	-2.1	0.2	**-368.9**	3.8	-88.1	0.5	-35.7	4.2	**665.2**

Member 49

Fx_i	**-20.9**	-9.7	1.4	-24.9	-24.1	77.5	**20.9**	-78.6	-1.2	3.2	23.7	228.0
Fy_i	5.7	**-112.1**	-0.5	-46.0	6.3	211.0	-3.5	**18.4**	0.8	17.9	-4.3	187.8
Fz_i	2.9	-24.3	**-3.1**	-26.4	10.1	-20.2	-3.3	-42.9	**3.4**	-24.2	-10.7	203.7
Mx_i	1.5	-101.2	-0.9	**-97.6**	3.3	319.5	-3.7	10.6	2.0	**26.5**	-7.9	53.3
My_i	-20.8	-8.2	1.6	-26.0	**-24.4**	115.8	20.8	-79.1	-1.3	4.3	**23.9**	227.6
Mz_i	-1.4	-13.9	-0.2	-0.7	0.1	**-368.9**	3.8	-86.1	0.1	-36.2	2.9	**664.9**
Fx_f	**-20.9**	-9.7	1.4	-24.9	-17.8	121.1	**20.9**	-48.3	-1.2	16.8	18.2	513.5
Fy_f	4.9	**-85.8**	-0.5	-37.0	3.4	448.5	-1.5	**35.1**	0.7	43.2	0.9	278.8
Fz_f	2.9	-24.3	**-3.1**	-26.4	-3.9	89.2	-3.3	-12.6	**3.4**	7.6	4.6	328.4
Mx_f	1.3	-75.0	-1.0	**-73.5**	-1.1	512.9	-1.8	27.3	1.9	**51.8**	3.0	179.2
My_f	-20.0	-14.6	0.5	-35.6	**-19.0**	79.9	18.1	-22.3	0.5	8.4	**19.6**	335.7
Mz_f	-1.1	-13.8	-0.3	-0.7	-0.8	**-306.6**	3.4	-26.1	0.2	-11.6	3.1	**913.6**

Member 50

Fx_i	**-19.7**	-5.5	0.4	-13.3	-20.6	81.5	**19.5**	-46.9	-0.5	-1.7	20.8	461.3
Fy_i	4.4	**-82.3**	-0.1	-33.4	4.2	366.4	-1.1	**31.1**	-0.1	13.1	-0.2	396.9
Fz_i	-0.8	-17.7	**-3.2**	-11.1	6.7	89.1	0.4	-19.1	**3.3**	-16.6	-6.8	328.5
Mx_i	-2.4	-64.6	0.2	**-72.9**	-3.1	513.5	2.7	14.3	-0.1	**30.6**	3.2	213.5
My_i	-19.2	-1.4	1.5	-8.8	**-22.6**	154.0	19.2	-55.6	-1.4	-5.7	**22.5**	514.3
Mz_i	-1.6	-13.4	-0.4	0.4	0.2	**-306.6**	3.5	-24.1	0.1	-13.6	2.6	**913.6**
Fx_f	**-19.7**	-5.5	0.4	-13.3	-18.7	106.1	**19.5**	-16.6	-0.5	11.9	18.5	604.3
Fy_f	2.9	**-59.3**	-0.1	-23.2	2.4	447.0	1.1	**50.8**	-0.2	24.5	1.3	445.6
Fz_f	-0.8	-17.7	**-3.2**	-11.1	-7.8	168.9	0.4	11.2	**3.3**	15.2	7.9	346.5
Mx_f	-3.5	-41.4	0.2	**-49.0**	-3.2	520.4	4.5	34.1	-0.2	**53.8**	4.5	329.5
My_f	-18.3	-9.8	-0.9	-9.4	**-20.1**	106.3	17.7	6.7	0.9	14.6	**20.2**	387.2
Mz_f	-1.6	-13.4	-0.4	0.4	-1.4	**-246.2**	3.8	12.8	0.1	5.1	3.4	**982.6**

Member 51

Fx_i	**-19.6**	2.8	-0.4	12.5	-18.5	56.1	**19.1**	-26.8	-0.3	-21.5	19.9	603.2
Fy_i	6.2	**-60.5**	0.0	-26.5	6.1	279.9	-2.4	**51.9**	-0.1	21.8	-1.7	571.8
Fz_i	-4.0	-13.1	**-3.3**	-1.2	3.5	166.2	3.6	6.5	**3.2**	-4.2	-3.4	349.2
Mx_i	2.7	-44.8	0.6	**-61.0**	1.5	402.6	-1.3	35.8	-0.5	**47.8**	-0.2	446.0
My_i	-17.9	6.7	1.3	14.6	**-20.9**	159.6	17.8	-1.6	-1.3	-7.1	**21.0**	611.9
Mz_i	-2.0	-13.1	-0.4	1.2	-0.1	**-246.2**	3.9	14.8	0.1	2.9	3.2	**982.6**
Fx_f	**-19.6**	2.8	-0.4	12.5	-20.1	43.6	**19.1**	34.3	-0.3	6.0	18.5	581.6
Fy_f	4.3	**-40.7**	-0.0	-13.6	4.2	261.5	-0.4	**74.8**	-0.1	30.3	-0.3	509.6
Fz_f	-4.0	-13.1	**-3.3**	-1.2	-11.2	225.0	3.6	36.8	3.2	27.6	11.1	251.8
Mx_f	1.1	-24.6	0.5	**-35.7**	2.4	319.6	0.2	58.6	-0.5	**69.4**	-1.0	448.9
My_f	-17.8	-3.0	-1.7	10.5	**-21.5**	115.5	17.2	30.1	1.6	17.5	21.3	324.0
Mz_f	-3.0	-9.1	-0.2	0.0	-2.3	**-196.1**	4.0	50.7	0.1	18.3	3.5	**869.5**

Member 52

Fx_i	**-20.4**	5.0	-1.1	23.6	-17.7	103.2	**19.8**	22.2	0.7	-4.2	18.4	336.3
Fy_i	2.5	**-46.1**	-0.0	-50.8	2.7	211.1	**-1.5**	**79.1**	-0.2	36.3	-1.0	553.1
Fz_i	-6.6	3.1	**-3.4**	6.8	1.2	342.4	6.2	20.6	**3.1**	10.7	-0.5	134.5
Mx_i	1.9	-35.3	0.5	**-59.6**	1.3	250.0	-1.0	65.5	-0.4	**71.4**	-0.1	492.6
My_i	-18.8	11.9	0.3	36.0	**-19.4**	97.4	18.5	26.2	-0.5	-23.0	**20.0**	549.4
Mz_i	-3.2	-8.7	-0.2	1.2	-1.5	**-196.0**	4.1	52.7	-0.0	16.5	3.5	**869.6**
Fx_f	**-20.4**	5.0	-1.1	23.6	-22.5	80.8	**19.8**	52.5	0.7	27.6	21.8	168.4
Fy_f	2.7	**-28.9**	-0.2	-13.5	2.5	164.8	-0.2	**105.3**	-0.1	43.4	-0.3	328.5
Fz_f	-6.6	33.4	**-3.4**	38.6	-14.1	260.3	6.2	20.6	**3.1**	10.7	13.4	41.6
Mx_f	-0.0	-18.2	0.4	**-32.6**	1.3	146.2	-0.3	91.4	-0.5	**92.9**	-1.6	324.1
My_f	-19.2	4.1	-2.1	25.0	**-23.7**	100.2	18.5	53.3	1.8	26.1	**23.0**	149.0
Mz_f	-3.4	-7.3	-0.4	1.8	-3.0	**-161.6**	3.7	89.7	-0.0	35.9	3.0	**573.7**

Member 53

Fx_i	**-21.6**	7.6	-2.3	31.9	-16.1	82.0	**21.0**	49.8	1.1	12.2	19.1	167.2
Fy_i	0.7	**-34.1**	-0.0	-43.9	1.3	142.9	0.6	**109.2**	-0.5	50.4	1.5	347.4
Fz_i	-10.1	46.3	**-4.0**	39.5	-1.1	298.6	5.6	3.2	**2.7**	-6.6	-0.1	-17.5
Mx_i	9.5	31.1	0.8	**-53.6**	8.1	364.5	-2.5	84.4	-1.4	**94.6**	0.6	310.7
My_i	-18.7	16.1	-0.2	52.2	**-18.2**	39.7	19.8	43.0	-0.3	2.4	**21.0**	228.8
Mz_i	-3.7	-6.9	-0.7	2.9	-0.9	**-161.6**	3.8	91.1	-0.4	33.7	4.2	**573.9**
Fx_f	**-21.6**	37.9	-2.3	63.7	-26.6	-20.5	**21.0**	49.8	1.1	12.2	23.8	-56.9
Fy_f	-1.0	**-20.6**	-0.1	-16.9	-0.6	82.7	0.9	**139.2**	-0.5	59.4	-0.4	-73.1
Fz_f	-10.1	76.6	**-4.0**	71.3	-18.9	22.1	5.6	3.2	**2.7**	-6.6	12.0	-32.0
Mx_f	10.2	60.0	0.9	**-39.6**	12.6	-40.6	-4.6	110.9	-1.8	**121.0**	-8.8	39.7
My_f	-20.6	33.7	-3.0	56.9	**-27.2**	53.0	20.1	51.7	1.7	16.1	**24.4**	-71.5
Mz_f	-0.9	54.3	-0.5	9.4	-1.2	**-226.7**	1.9	64.2	-0.5	41.3	0.6	**198.3**

Member 54

Fx_i	**-20.9**	37.8	-4.5	61.4	-21.2	-21.5	**20.3**	52.0	-0.4	15.4	32.1	-50.5
Fy_i	-0.7	**-23.2**	-0.9	-25.3	1.7	83.2	2.6	**141.5**	-2.3	62.5	8.6	-74.3
Fz_i	-5.5	85.7	**-6.8**	70.9	7.1	-7.7	4.7	-4.2	**2.4**	-8.2	1.9	-2.8
Mx_i	9.6	56.7	0.3	**-50.4**	14.6	-37.7	-4.8	106.0	-3.8	**118.9**	0.9	12.3
My_i	-19.8	15.1	-3.1	47.0	**-22.9**	-42.6	19.2	72.6	-1.8	24.5	**33.9**	-34.9
Mz_i	-0.9	54.5	-2.0	8.9	4.4	**-226.2**	1.7	66.3	-1.8	44.4	6.2	**198.1**
Fx_f	**-20.9**	68.1	-4.5	93.2	-41.5	-259.6	**20.3**	52.0	-0.4	15.4	30.2	-284.3
Fy_f	3.0	**-19.0**	0.4	-7.0	6.2	113.8	1.2	**175.8**	-2.6	78.2	-4.3	-718.2
Fz_f	-5.5	146.8	**-6.8**	135.0	-23.3	-535.6	4.7	-4.2	**2.4**	-8.2	12.8	16.0
Mx_f	10.0	59.2	0.5	**-45.5**	17.0	-335.0	-9.7	136.9	-4.8	**157.7**	-25.8	-429.9
My_f	-20.6	95.1	-5.0	116.9	**-42.4**	-263.9	20.1	49.4	-0.0	9.8	**30.9**	-277.6
Mz_f	2.5	168.4	-2.9	67.0	-2.6	**-749.2**	-2.0	-17.3	-0.6	2.2	-4.2	**121.8**

Member 55

Fx_i	**-19.5**	-109.1	8.0	-77.2	-46.9	-264.9	**18.9**	-26.2	-1.1	-24.6	34.1	-279.3
Fy_i	0.8	**-146.2**	4.2	-55.3	-5.7	-661.0	0.0	**5.5**	-0.0	0.6	0.3	118.9
Fz_i	12.7	-12.5	**-2.6**	-8.7	26.4	-106.1	-12.1	-96.9	**8.9**	-68.9	-36.6	-445.9
Mx_i	1.8	-132.4	3.8	**-119.4**	-2.8	-439.9	-5.1	-25.7	2.1	**18.1**	-12.4	-152.6
My_i	-19.1	-85.4	8.3	-54.9	**-47.0**	-279.0	18.5	-27.6	-1.5	-31.3	**34.2**	-262.2
Mz_i	2.4	-112.4	3.9	-35.2	-3.1	**-749.0**	-2.1	5.5	0.5	-0.8	-4.1	**121.7**
Fx_f	**-19.5**	-63.9	8.0	-29.7	-17.7	41.2	**18.9**	-26.2	-1.1	-24.6	30.0	-183.0
Fy_f	1.7	**-115.1**	3.7	-39.7	10.6	-247.9	-1.6	**8.0**	0.7	6.1	-1.1	122.9
Fz_f	12.7	-12.5	**-2.6**	-8.7	17.0	-60.4	-12.1	-61.9	**8.9**	-32.2	-3.9	-165.2
Mx_f	4.5	-101.3	2.6	**-85.5**	13.8	-77.5	-9.4	2.0	4.6	**23.9**	-7.9	-78.4
My_f	-19.0	-49.4	7.2	-19.3	**-18.4**	73.0	18.5	-40.7	-0.4	-35.1	**30.8**	-214.8
Mz_f	3.3	-28.6	2.3	-2.3	8.6	**-501.7**	-2.8	-73.5	2.6	-33.5	1.9	**262.3**

Member 56

Fx_i	**-18.7**	-66.7	5.4	-39.9	-28.2	40.8	**18.1**	-24.2	-3.4	-19.5	24.8	-182.7
Fy_i	1.7	**-113.4**	0.7	-36.2	1.2	-249.5	-1.6	**7.4**	0.5	3.9	-2.4	124.5
Fz_i	17.1	-31.1	**-3.5**	-28.0	24.2	-99.3	-17.7	-46.0	**5.5**	-21.5	-27.7	-102.3
Mx_i	2.5	-100.2	0.2	**-84.4**	3.2	-75.4	-8.0	-0.9	2.9	**16.0**	-13.7	-82.9

My,	-18.5	-42.4	5.5	-21.5	**-28.4**	-36.8	18.0	-34.8	-3.5	-27.9	**24.9**	-164.8
Mz,	3.2	-28.1	0.5	-1.1	1.6	**-501.7**	-2.7	-72.0	0.9	-31.0	-3.1	**262.3**
Fx,	**-18.7**	-21.5	5.4	7.6	-8.4	181.9	**18.1**	-24.2	-3.4	-19.5	12.2	-93.9
Fy,	2.5	**-85.6**	0.4	-26.4	4.0	-3.5	-4.5	**17.9**	1.5	23.9	-1.5	198.5
Fz,	17.1	-31.1	**-3.5**	-28.0	11.3	14.7	-17.7	-21.4	**5.5**	4.4	-7.4	21.3
Mx,	4.4	-72.5	-0.5	**-59.5**	4.5	124.0	-9.0	11.2	3.2	**35.3**	-3.3	46.0
My,	-18.2	-7.2	5.2	18.0	**-8.5**	161.0	17.6	-38.5	-3.2	-29.9	**12.4**	-73.1
Mz,	3.2	-28.1	0.5	-1.1	3.6	**-398.6**	-3.5	-39.5	0.9	-13.2	-0.6	**491.1**

Member 57

Fx,	**-14.6**	-24.4	3.8	-3.2	-21.2	181.8	**14.1**	-22.2	-4.8	-14.8	23.1	-93.9
Fy,	0.9	**-82.6**	-1.2	-18.3	3.8	-8.2	-3.6	**15.6**	1.1	16.2	-5.3	198.5
Fz,	13.8	-33.7	**-5.0**	-25.5	23.6	-25.7	-13.3	-16.6	**4.3**	1.0	-21.4	17.8
Mx,	3.0	-68.5	-1.9	**-57.7**	7.5	106.1	-6.6	4.8	2.0	**23.5**	-10.2	62.5
My,	-14.3	-17.9	4.1	1.1	**-21.7**	61.7	13.8	-33.7	-5.0	-25.5	**23.6**	-25.7
Mz,	2.6	-27.7	-0.2	0.0	2.3	**-398.6**	-3.0	-37.9	-0.4	-11.3	-1.0	**491.1**
Fx,	**-14.6**	0.3	3.8	22.7	-7.2	225.9	**14.1**	-22.2	-4.8	-14.8	5.6	-12.5
Fy,	1.7	**-57.9**	-1.4	-11.0	-0.3	84.2	-3.2	**32.9**	0.7	39.2	-1.4	293.4
Fz,	13.8	-33.7	**-5.0**	-25.5	5.1	97.8	-13.3	8.1	**4.3**	26.9	-5.5	33.3
Mx,	4.4	-43.9	-2.4	**-37.6**	1.0	150.9	-6.3	22.1	1.6	**46.5**	-3.1	197.0
My,	-14.0	-3.3	3.4	17.7	**-7.3**	296.7	13.5	-22.3	-4.0	-5.1	**6.2**	-143.7
Mz,	2.6	-27.7	-0.2	0.0	1.7	**-297.1**	-2.8	-14.6	-0.5	0.3	-2.4	**582.6**

Member 58

Fx,	**-10.6**	-1.2	1.6	15.8	-13.0	226.1	**10.0**	-21.4	-6.5	-13.6	22.2	-12.7
Fy,	-0.1	**-57.2**	-1.8	-10.4	3.3	0.6	-0.7	**31.7**	-1.4	19.1	2.8	367.9
Fz,	8.1	-24.3	**-7.9**	-10.2	23.4	200.2	-8.7	-3.4	**3.8**	6.1	-16.1	-53.0
Mx,	-2.2	-33.9	-1.4	**-41.0**	0.8	203.7	0.1	9.1	-3.1	**42.4**	6.4	141.5
My,	-9.5	4.8	3.6	15.9	**-16.2**	33.5	9.3	-32.3	-7.5	-21.8	**23.9**	110.1
Mz,	2.1	-27.3	-0.5	1.0	2.3	**-297.1**	-2.4	-12.4	-2.8	3.6	4.1	**582.6**
Fx,	**-10.6**	23.5	1.6	41.7	-7.0	185.1	**10.0**	-21.4	-6.5	-13.6	-1.5	65.6
Fy,	1.0	**-37.1**	-1.6	0.4	-2.3	-76.7	-0.8	**53.2**	-1.7	29.3	-2.7	396.7
Fz,	8.1	0.4	**-7.9**	15.7	-5.4	244.0	-8.7	-3.4	**3.8**	6.1	-2.0	-40.7
Mx,	-1.5	-12.9	-1.2	**-21.1**	-3.5	104.4	0.4	30.7	-3.9	**64.7**	-6.0	246.7
My,	-7.1	12.7	-2.2	24.2	**-9.9**	405.2	8.8	-17.8	-3.6	2.9	**1.9**	-117.9
Mz,	2.1	-27.3	-0.5	1.0	0.5	**-196.9**	-2.4	43.1	-2.8	28.6	-5.9	**522.1**

Member 59

Fx,	**-6.5**	24.4	-3.3	41.5	0.3	186.8	**5.9**	-22.6	-10.1	-17.9	24.9	64.0
Fy,	1.4	**-37.9**	-5.3	-29.1	10.9	-52.8	-2.0	**56.2**	-6.7	42.0	11.8	423.7
Fz,	3.1	5.7	**-15.6**	23.1	33.2	283.5	-4.8	-8.9	**3.5**	-2.3	-11.5	-67.4
Mx,	-1.9	-20.3	-3.2	**-33.7**	4.1	74.1	0.5	36.6	-10.7	**68.4**	21.4	280.2
My,	-5.2	-5.0	3.4	0.8	**-11.6**	-40.3	3.4	1.9	-15.5	19.9	**33.3**	256.5
Mz,	1.5	-27.1	-0.7	1.6	2.1	**-196.9**	-2.0	45.6	-8.0	33.0	14.5	**522.1**
Fx,	**-6.5**	24.4	-3.3	41.5	-11.7	97.5	**5.9**	2.1	-10.1	8.0	-12.1	101.6
Fy,	1.7	**-29.8**	-1.5	-1.8	-1.6	-64.6	-2.1	**73.0**	-7.2	47.6	-13.7	276.9
Fz,	3.1	30.4	**-15.6**	49.0	-24.1	217.2	-4.8	-8.9	**3.5**	-2.3	1.3	-34.9
Mx,	-2.0	-12.1	-1.9	**-21.5**	-5.4	47.5	0.6	53.1	-12.0	**82.2**	-20.0	201.6
My,	2.1	52.3	-15.3	71.7	**-24.2**	269.6	-4.2	-9.8	3.2	-3.1	**1.4**	-37.9
Mz,	1.5	-27.1	-0.6	1.6	-0.4	**-97.5**	-2.1	69.1	-8.7	44.2	-16.4	**339.8**

Member 60

Fx,	**-2.6**	46.5	-20.2	62.8	35.0	169.0	**2.1**	-14.7	-5.5	11.6	11.9	-53.1
Fy,	0.7	**-32.5**	-9.5	-25.7	17.4	-14.7	-1.7	**76.4**	-20.8	58.3	37.6	277.7
Fz,	0.3	51.7	**-35.9**	69.5	66.7	266.1	-1.4	-9.5	**3.1**	-4.3	-7.3	-34.5
Mx,	-0.8	-16.3	-6.8	**-31.2**	11.4	43.7	-0.2	56.4	-29.8	**86.4**	55.0	205.7
My,	-1.4	-9.5	3.1	-4.3	**-7.3**	-34.5	0.5	31.1	-35.9	48.7	**66.8**	216.8
Mz,	1.0	-27.0	-0.9	2.0	1.9	**-97.6**	-1.6	72.1	-23.4	51.4	42.3	**339.9**
Fx,	-2.6	46.5	-20.2	62.8	-39.2	-1.4	**2.1**	-14.7	-5.5	11.6	-8.2	0.8
Fy,	1.0	**-27.0**	-0.9	2.0	-1.4	1.2	-1.6	**107.0**	-23.4	67.1	-43.4	-2.4
Fz,	0.3	86.6	**-35.9**	106.2	-65.0	-1.4	-1.4	-9.5	**3.1**	-4.3	3.9	0.3
Mx,	-1.2	-4.8	2.8	**-5.5**	3.8	0.0	0.3	85.9	-35.7	**107.7**	-64.7	-0.9
My,	0.1	87.6	-35.9	106.7	**-65.1**	-1.5	-1.2	-10.4	3.0	-4.8	**4.0**	0.4
Mz,	-0.8	84.2	-7.6	20.5	-14.2	**-2.8**	0.2	-15.8	-7.1	23.5	-12.8	**1.6**

Member 121

Fx,	**-1.4**	0.0	0.0	0.0	-110.8	0.0	**0.0**	-0.0	0.0	0.0	0.0	-0.0
Fy,	-0.7	**-0.0**	-27.9	0.6	28.4	-0.0	-0.7	**0.0**	27.9	-0.6	-139.1	0.0
Fz,	-0.8	-0.0	**-30.5**	0.2	26.1	-0.0	-0.8	0.0	**30.5**	-0.2	-157.0	0.0
Mx,	-0.3	0.0	2.2	**-0.9**	-28.4	0.0	-0.3	-0.0	-2.2	**0.9**	-15.1	-0.0
My,	-0.9	0.0	29.1	0.0	**-161.7**	0.0	-0.1	-0.0	-19.8	-0.0	**53.9**	-0.0
Mz,	-0.7	-0.0	-27.9	0.6	28.4	**-0.0**	-0.7	0.0	27.9	-0.6	-139.1	**0.0**
Fx,	**-1.4**	0.0	0.0	0.0	-110.8	0.0	**0.0**	-0.0	0.0	0.0	0.0	-0.0
Fy,	-0.7	**-0.0**	-27.9	0.6	1.9	-0.0	-0.7	**0.0**	27.9	-0.6	-112.6	0.0
Fz,	-0.8	-0.0	**-30.5**	0.2	-2.9	-0.0	-0.8	0.0	**30.5**	-0.2	-128.0	0.0
Mx,	-0.3	0.0	2.2	**-0.9**	-26.3	0.0	-0.3	-0.0	-2.2	**0.9**	-17.2	-0.0
My,	-0.9	0.0	28.3	0.0	**-134.2**	0.0	-0.0	-0.0	-18.3	0.1	**35.5**	-0.0
Mz,	-0.7	-0.0	-27.9	0.6	1.9	**-0.0**	-0.7	0.0	27.9	-0.6	-112.6	**0.0**

Member 122

Fx,	**-2.1**	0.0	0.0	0.0	6.4	2.3	**0.0**	0.0	-0.0	-0.0	0.0	0.0
Fy,	-0.9	**-4.3**	-4.2	1.4	15.5	-11.7	-0.9	**4.3**	4.2	-1.4	-9.7	14.2
Fz,	-1.0	-1.4	**-7.3**	0.4	24.7	-3.1	-1.0	1.4	**7.3**	-0.4	-18.8	5.6
Mx,	-0.4	3.2	2.8	**-1.5**	-7.2	10.2	-0.4	-3.2	-2.8	**1.5**	9.5	-9.2
My,	-0.3	0.8	7.1	-0.4	**-20.6**	2.9	-1.0	-1.4	-7.3	0.4	**24.7**	-3.1
Mz,	-0.9	-4.3	-4.2	1.4	15.5	**-11.7**	-0.9	4.3	4.2	-1.4	-9.7	**14.2**
Fx,	**-2.1**	0.0	0.0	0.0	6.4	2.3	**0.0**	0.0	-0.0	-0.0	0.0	0.0
Fy,	-0.9	**-4.3**	-4.2	1.4	11.5	-7.6	-0.9	**4.3**	4.2	-1.4	-5.7	10.1
Fz,	-1.0	-1.4	**-7.3**	0.4	17.8	-1.7	-1.0	1.4	**7.3**	-0.4	-11.9	4.2
Mx,	-0.4	3.2	2.8	**-1.5**	-4.6	7.1	-0.4	-3.2	-2.8	**1.5**	6.8	-6.1
My,	-0.2	1.3	7.0	-0.6	**-13.9**	3.0	-1.0	-1.4	-7.3	0.4	**17.8**	-1.7
Mz,	-0.9	-4.3	-4.2	1.4	11.5	**-7.6**	-0.9	4.3	4.2	-1.4	-5.7	**10.1**

Member 123

Fx,	**-1.0**	0.0	-0.0	0.0	2.5	3.4	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy,	-0.4	**-7.1**	-4.1	0.8	13.6	-19.2	-0.4	**7.1**	4.1	-0.8	-11.2	23.3
Fz,	-0.3	-1.2	**-7.2**	0.3	22.1	-2.1	-0.3	1.2	**7.2**	-0.3	-21.1	5.3
Mx,	-0.2	5.6	2.8	**-0.9**	-8.0	17.8	-0.2	-5.6	-2.8	**0.9**	8.8	-16.1
My,	-0.2	0.3	7.1	-0.2	**-21.3**	2.1	-0.5	-2.6	-7.2	0.3	**22.7**	-5.7
Mz,	-0.4	-7.1	-4.1	0.8	13.6	**-19.2**	-0.4	7.1	4.1	-0.8	-11.2	**23.3**
Fx,	-1.0	0.0	-0.0	0.0	2.5	3.4	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy,	-0.4	**-7.1**	-4.1	0.8	9.7	-12.5	-0.4	**7.1**	4.1	-0.8	-7.3	16.6
Fz,	-0.3	-1.2	**-7.2**	0.3	15.3	-1.0	-0.3	1.2	**7.2**	-0.3	-14.3	4.1
Mx,	-0.2	5.6	2.8	**-0.9**	-5.3	12.4	-0.2	-5.6	-2.8	**0.9**	6.1	-10.7
My,	-0.2	0.3	7.1	-0.2	**-14.5**	1.8	-0.5	-2.6	-7.2	0.3	**15.8**	-3.3
Mz,	-0.4	-7.1	-4.1	0.8	9.7	**-12.5**	-0.4	7.1	4.1	-0.8	-7.3	**16.6**

Member 124

Fx,	**-0.8**	0.0	0.0	-0.0	-0.7	3.6	**0.0**	-0.0	0.0	-0.0	0.0	0.0
Fy,	-0.3	**-8.3**	-4.3	0.2	12.6	-22.7	-0.3	**8.3**	4.3	-0.2	-13.2	27.4
Fz,	-0.4	-2.4	**-7.2**	0.3	20.8	-5.4	-0.4	2.4	**7.2**	-0.3	-22.4	9.3
Mx,	-0.2	1.2	2.8	**-0.4**	-8.6	4.8	-0.2	-1.2	-2.8	**0.4**	8.1	-2.5
My,	-0.4	2.4	7.2	-0.3	**-22.4**	9.3	-0.4	-3.5	-7.2	0.2	**21.0**	-8.1
Mz,	-0.3	-8.3	-4.3	0.2	12.6	**-22.7**	-0.3	8.3	4.3	-0.2	-13.2	**27.4**
Fx,	**-0.8**	0.0	0.0	-0.0	-0.7	3.6	**0.0**	-0.0	0.0	-0.0	0.0	0.0
Fy,	-0.3	**-8.3**	-4.3	0.2	8.5	-14.8	-0.3	**8.3**	4.3	-0.2	-9.1	19.4
Fz,	-0.4	-2.4	**-7.2**	0.3	14.0	-3.0	-0.4	2.4	**7.2**	-0.3	-15.6	7.0
Mx,	-0.2	1.2	2.8	**-0.4**	-5.9	3.6	-0.2	-1.2	-2.8	**0.4**	5.5	-1.4
My,	-0.3	2.7	7.2	-0.3	**-15.6**	7.4	-0.4	-3.5	-7.2	0.2	**14.1**	-4.8
Mz,	-0.3	-8.3	-4.3	0.2	8.5	**-14.8**	-0.3	8.3	4.3	-0.2	-9.1	**19.4**

Member 125

Fx,	**-1.5**	-0.0	0.0	-0.0	-5.8	3.5	**0.0**	-0.0	0.0	0.0	0.0	0.0
Fy,	-0.5	**-7.7**	-4.3	-0.7	11.0	-20.9	-0.5	**7.7**	4.3	0.7	-14.8	25.0
Fz,	-0.7	-3.3	**-7.2**	0.1	18.8	-8.1	-0.7	3.3	**7.2**	-0.1	-24.5	11.9
Mx,	-0.3	-5.7	-2.0	**-0.8**	4.8	-16.1	-0.3	5.7	2.0	**0.8**	-7.4	18.0
My,	-0.8	3.8	7.2	0.0	**-24.5**	13.5	-0.7	-4.3	-7.2	-0.1	**18.8**	-11.2
Mz,	-0.5	-7.7	-4.3	-0.7	11.0	**-20.9**	-0.5	7.7	4.3	0.7	-14.8	**25.0**
Fx,	**-1.5**	-0.0	0.0	-0.0	-5.8	3.5	**0.0**	-0.0	0.0	0.0	0.0	0.0
Fy,	-0.5	**-7.7**	-4.3	-0.7	6.9	-13.6	-0.5	**7.7**	4.3	0.7	-10.7	17.8
Fz,	-0.7	-3.3	-7.2	0.1	11.9	-4.9	-0.7	3.3	**7.2**	-0.1	-17.6	8.7

Mx_f	-0.3	-5.7	-2.0	**-0.8**	2.9	-10.7	-0.3	5.7	2.0	**0.8**	-5.5	12.6
My_f	-0.8	3.8	7.2	0.0	**-17.6**	9.9	-0.6	-3.7	-7.0	0.0	**12.0**	-6.2
Mz_f	-0.5	-7.7	-4.3	-0.7	6.9	**-13.6**	-0.5	7.7	4.3	0.7	-10.7	**17.8**

Member 126

Fx_i	**-3.8**	0.0	0.0	0.0	-15.2	2.6	**0.0**	0.0	0.0	-0.0	0.0	0.0
Fy_i	-1.6	**-5.5**	-5.0	-1.4	8.6	-14.9	-1.6	**5.5**	5.0	1.4	-21.6	17.8
Fz_i	-1.9	-3.5	**-7.4**	-0.4	14.6	-9.1	-1.9	3.5	**7.4**	0.4	-29.7	12.0
Mx_i	-0.8	-4.2	-2.4	**-1.5**	3.8	-11.9	-0.8	4.2	2.4	**1.5**	-10.4	13.1
My_i	-2.1	3.0	7.2	0.4	**-30.0**	10.7	-1.0	-2.5	-6.7	-0.4	**16.2**	-6.8
Mz_i	-1.6	-5.5	-5.0	-1.4	8.6	**-14.9**	-1.6	5.5	5.0	1.4	-21.6	**17.8**
Fx_f	**-3.8**	0.0	0.0	0.0	-15.2	2.6	**0.0**	0.0	0.0	-0.0	0.0	0.0
Fy_f	-1.6	**-5.5**	-5.0	-1.4	3.8	-9.7	-1.6	**5.5**	5.0	1.4	-16.8	12.7
Fz_f	-1.9	-3.5	**-7.4**	-0.4	7.6	-5.7	-1.9	3.5	**7.4**	0.4	-22.7	8.7
Mx_f	-0.8	-4.2	-2.4	**-1.5**	1.5	-7.9	-0.8	4.2	2.4	**1.5**	-8.1	9.1
My_f	-2.2	2.8	7.0	0.3	**-23.3**	7.4	-0.8	-1.7	-6.5	-0.3	**9.8**	-3.2
Mz_f	-1.6	-5.5	-5.0	-1.4	3.8	**-9.7**	-1.6	5.5	5.0	1.4	-16.8	**12.7**

Member 127

Fx_i	**-9.8**	-0.0	0.0	0.0	-1.8	0.7	**0.0**	-0.0	0.0	-0.0	0.0	0.0
Fy_i	-4.7	**-1.6**	-2.6	-0.5	6.9	-4.4	-4.7	**1.6**	2.6	0.5	-8.6	5.1
Fz_i	-3.5	-0.7	**-4.0**	-1.5	11.4	-2.0	-3.5	0.7	**4.0**	1.5	-12.6	2.5
Mx_i	-2.1	-0.2	-1.0	**-2.8**	2.6	-0.4	-2.1	0.2	1.0	**2.8**	-3.4	0.7
My_i	-4.1	0.8	4.0	1.1	**-12.7**	2.7	-3.4	-0.7	-4.0	-1.4	**11.4**	-1.9
Mz_i	-4.7	-1.6	-2.6	-0.5	6.9	**-4.4**	-4.8	1.6	2.6	0.4	-8.7	**5.1**
Fx_f	**-9.8**	-0.0	0.0	0.0	-1.8	0.7	**0.0**	-0.0	0.0	-0.0	0.0	0.0
Fy_f	-4.7	**-1.6**	-2.6	-0.5	4.4	-2.9	-4.7	**1.6**	2.6	0.5	-6.1	3.6
Fz_f	-3.5	-0.7	**-4.0**	-1.5	7.6	-1.3	-3.5	0.7	**4.0**	1.5	-8.8	1.8
Mx_f	-2.1	-0.2	-1.0	**-2.8**	1.7	-0.2	-2.1	0.2	1.0	**2.8**	-2.4	0.5
My_f	-5.0	1.1	3.9	1.2	**-9.0**	2.7	-3.4	-0.7	-4.0	-1.4	**7.6**	-1.2
Mz_f	-4.7	-1.6	-2.6	-0.5	4.4	**-2.9**	-5.2	1.6	2.7	0.5	-6.5	**3.6**

Member 128

Fx_i	**-3.1**	0.0	0.0	-0.0	11.6	4.6	**0.0**	0.0	0.0	-0.0	-0.0	0.0
Fy_i	-1.4	**-6.6**	0.2	2.6	4.5	-16.9	-1.4	**6.6**	-0.2	-2.6	5.6	22.7
Fz_i	-1.2	2.9	**-3.1**	-2.3	13.5	10.4	-1.2	-2.9	**3.1**	2.3	-4.9	-7.1
Mx_i	-0.7	4.7	-0.4	**-3.2**	3.9	15.2	-0.7	-4.7	0.4	**3.2**	1.4	-12.8
My_i	-0.3	-1.6	2.8	1.7	**-7.5**	-4.0	-2.9	1.1	-2.1	-0.6	**17.2**	8.0
Mz_i	-1.4	-6.6	0.1	2.5	4.7	**-16.9**	-1.4	6.6	-0.1	-2.5	5.3	**22.7**
Fx_f	**-3.1**	0.0	0.0	-0.0	11.6	4.6	**0.0**	0.0	0.0	-0.0	-0.0	0.0
Fy_f	-1.4	**-6.6**	0.2	2.6	4.7	-10.7	-1.4	**6.6**	-0.2	-2.6	5.4	16.4
Fz_f	-1.2	2.9	**-3.1**	-2.3	10.6	7.6	-1.2	-2.9	**3.1**	2.3	-2.0	-4.3
Mx_f	-0.7	4.7	-0.4	**-3.2**	3.5	10.7	-0.7	-4.7	0.4	**3.2**	1.8	-8.4
My_f	-0.3	-1.6	2.8	1.7	**-4.9**	-2.5	-3.1	1.0	-1.9	0.0	**15.3**	6.8
Mz_f	-1.4	-6.6	0.1	2.5	4.8	**-10.7**	-1.4	6.6	-0.1	-2.5	5.2	**16.4**

Member 129

Fx_i	**-0.8**	-0.0	0.0	-0.0	3.1	7.1	**0.0**	0.0	0.0	0.0	-0.0	0.0
Fy_i	-0.3	**-10.9**	-0.7	2.1	3.3	-28.2	-0.3	**10.9**	0.7	-2.1	-0.9	37.2
Fz_i	-0.2	4.8	**-3.8**	-0.9	12.1	16.4	-0.2	-4.8	**3.8**	0.9	-10.9	-12.2
Mx_i	-0.2	8.4	0.6	**-2.6**	-1.2	26.9	-0.2	-8.4	-0.6	**2.6**	2.4	-23.2
My_i	-0.1	-4.9	3.8	1.1	**-10.9**	-13.0	-0.5	6.6	-3.5	-0.6	**12.4**	24.2
Mz_i	-0.3	-10.9	-0.7	2.1	3.3	**-28.2**	-0.3	10.9	0.7	-2.1	-0.9	**37.2**
Fx_f	**-0.8**	-0.0	0.0	-0.0	3.1	7.1	**0.0**	0.0	0.0	0.0	-0.0	0.0
Fy_f	-0.3	**-10.9**	-0.7	2.1	2.7	-17.9	-0.3	**10.9**	0.7	-2.1	-0.2	26.9
Fz_f	-0.2	4.8	**-3.8**	-0.9	8.5	11.9	-0.2	-4.8	**3.8**	0.9	-7.2	-7.7
Mx_f	-0.2	8.4	0.6	**-2.6**	-0.6	19.0	-0.2	-8.4	-0.6	**2.6**	1.8	-15.3
My_f	-0.1	-5.0	3.8	1.1	**-7.3**	-8.4	-0.5	6.8	-3.5	-0.7	**9.1**	18.2
Mz_f	-0.3	-10.9	-0.7	2.1	2.7	**-17.9**	-0.3	10.9	0.7	-2.1	-0.2	**26.9**

Member 130

Fx_i	**-0.2**	0.0	-0.0	-0.0	0.7	8.6	**0.0**	-0.0	-0.0	0.0	-0.0	-0.0
Fy_i	-0.1	**-13.5**	-0.7	1.0	2.4	-35.1	-0.1	**13.5**	0.7	-1.0	-1.8	46.0
Fz_i	-0.0	5.3	**-3.8**	-0.1	11.6	18.6	-0.0	-5.3	**3.8**	0.1	-11.4	-13.1
Mx_i	-0.0	6.9	1.1	**-1.7**	-3.3	23.0	-0.0	-6.9	-1.1	**1.7**	3.6	-18.5
My_i	-0.0	-5.3	3.8	0.1	**-11.4**	-13.1	-0.1	5.4	-3.8	-0.1	**11.6**	19.1
Mz_i	-0.1	-13.5	-0.7	1.0	2.4	**-35.1**	-0.1	13.5	0.7	-1.0	-1.8	**46.0**
Fx_f	**-0.2**	0.0	-0.0	-0.0	0.7	8.6	**0.0**	-0.0	-0.0	0.0	-0.0	-0.0
Fy_f	-0.1	**-13.5**	-0.7	1.0	1.7	-22.3	-0.1	**13.5**	0.7	-1.0	-1.2	33.1
Fz_f	-0.0	5.3	**-3.8**	-0.1	8.0	13.6	-0.0	-5.3	**3.8**	0.1	-7.7	-8.0
Mx_f	-0.0	6.9	1.1	**-1.7**	-2.2	16.4	-0.0	-6.9	-1.1	**1.7**	2.5	-12.0
My_f	-0.0	-5.3	3.8	0.1	**-7.7**	-8.0	-0.1	5.4	-3.8	-0.1	**8.0**	14.0
Mz_f	-0.1	-13.5	-0.7	1.0	1.7	**-22.3**	-0.1	13.5	0.7	-1.0	-1.2	**33.1**

Member 131

Fx_i	**-0.1**	-0.0	-0.0	-0.0	-0.1	9.3	**0.0**	0.0	-0.0	-0.0	0.0	0.0
Fy_i	-0.0	**-14.6**	-1.0	0.1	3.0	-38.1	-0.0	**14.6**	1.0	-0.1	-3.0	49.7
Fz_i	-0.0	4.2	**-3.8**	0.6	11.4	15.8	-0.0	-4.2	**3.8**	-0.6	-11.6	-9.2
Mx_i	-0.0	0.5	1.4	**-1.4**	-4.4	4.2	-0.0	-0.5	-1.4	**1.4**	4.3	1.2
My_i	-0.0	-4.2	3.8	-0.6	**-11.6**	-9.2	-0.0	4.2	-3.8	0.6	**11.4**	15.8
Mz_i	-0.0	-14.6	-1.0	0.1	3.0	**-38.1**	-0.0	14.6	1.0	-0.1	-3.0	**49.7**
Fx_f	**-0.1**	-0.0	-0.0	-0.0	-0.1	9.3	**0.0**	0.0	-0.0	-0.0	0.0	0.0
Fy_f	-0.0	**-14.6**	-1.0	0.1	2.0	-24.2	-0.0	**14.6**	1.0	-0.1	-2.1	35.8
Fz_f	-0.0	4.2	**-3.8**	0.6	7.8	11.8	-0.0	-4.2	**3.8**	-0.6	-7.9	-5.3
Mx_f	-0.0	0.5	1.4	**-1.4**	-3.0	3.7	-0.0	-0.5	-1.4	**1.4**	3.0	1.7
My_f	-0.0	-4.2	3.8	-0.6	**-7.9**	-5.3	-0.0	4.2	-3.8	0.6	**7.8**	11.8
Mz_f	-0.0	-14.6	-1.0	0.1	2.0	**-24.2**	-0.0	14.6	1.0	-0.1	-2.1	**35.8**

Member 132

Fx_i	**-0.3**	0.0	-0.0	-0.0	-1.0	8.9	**0.0**	-0.0	-0.0	-0.0	0.0	0.0
Fy_i	-0.1	**-14.4**	-1.0	-0.9	2.8	-37.8	-0.1	**14.4**	1.0	0.9	-3.5	48.8
Fz_i	-0.1	1.5	**-3.8**	1.1	11.0	8.2	-0.1	-1.5	**3.8**	-1.1	-12.0	-0.9
Mx_i	-0.1	-3.6	2.2	**-1.5**	-6.9	-7.4	-0.1	3.6	-2.2	**1.5**	6.2	14.1
My_i	-0.1	-1.5	3.8	-1.1	**-12.0**	-0.9	-0.1	2.6	-3.8	1.1	**11.0**	10.3
Mz_i	-0.1	-14.4	-1.0	-0.9	2.8	**-37.8**	-0.1	14.4	1.0	0.9	-3.5	**48.8**
Fx_f	**-0.3**	0.0	-0.0	-0.0	-1.0	8.9	**0.0**	-0.0	-0.0	-0.0	0.0	0.0
Fy_f	-0.1	**-14.4**	-1.0	-0.9	1.8	-24.1	-0.1	**14.4**	1.0	0.9	-2.5	35.1
Fz_f	-0.1	1.5	**-3.8**	1.1	7.4	6.7	-0.1	-1.5	**3.8**	-1.1	-8.3	0.5
Mx_f	-0.1	-3.6	2.2	**-1.5**	-4.8	-4.0	-0.1	3.6	-2.2	**1.5**	4.2	10.7
My_f	-0.1	-1.5	3.8	-1.1	**-8.3**	0.5	-0.1	2.6	-3.8	1.1	**7.4**	7.8
Mz_f	-0.1	-14.4	-1.0	-0.9	1.8	**-24.1**	-0.1	14.4	1.0	0.9	-2.5	**35.1**

Member 133

Fx_i	**-1.1**	0.0	-0.0	0.0	-4.1	7.6	**0.0**	-0.0	-0.0	-0.0	0.0	0.0
Fy_i	-0.4	**-12.5**	-1.1	-2.0	1.9	-32.8	-0.4	**12.5**	1.1	2.0	-4.9	41.9
Fz_i	-0.5	-1.6	**-3.8**	1.2	9.6	-1.4	-0.5	1.6	**3.8**	-1.2	-13.4	8.3
Mx_i	-0.2	-9.6	-0.3	**-2.4**	-0.0	-26.9	-0.2	9.6	0.3	**2.4**	-1.6	30.7
My_i	-0.5	1.6	3.8	-1.2	**-13.4**	8.3	-0.4	-1.0	-3.8	1.3	**9.7**	-0.5
Mz_i	-0.4	-12.5	-1.1	-2.0	1.9	**-32.8**	-0.4	12.5	1.1	2.0	-4.9	**41.9**
Fx_f	**-1.1**	0.0	-0.0	0.0	-4.1	7.6	**0.0**	-0.0	-0.0	-0.0	0.0	0.0
Fy_f	-0.4	**-12.5**	-1.1	-2.0	0.8	-21.0	-0.4	**12.5**	1.1	2.0	-3.8	30.1
Fz_f	-0.5	-1.6	**-3.8**	1.2	5.9	0.1	-0.5	1.6	**3.8**	-1.2	-9.7	6.8
Mx_f	-0.2	-9.6	-0.3	**-2.4**	-0.3	-17.8	-0.2	9.6	0.3	**2.4**	-1.3	21.6
My_f	-0.5	1.3	3.8	-1.2	**-9.8**	6.2	-0.4	-1.0	-3.8	1.3	**6.1**	0.4
Mz_f	-0.4	-12.5	-1.1	-2.0	0.8	**-21.0**	-0.4	12.5	1.1	2.0	-3.8	**30.1**

Member 134

Fx_i	**-4.1**	-0.0	-0.0	0.0	-15.3	5.1	**0.0**	0.0	0.0	-0.0	0.0	0.0
Fy_i	-1.8	**-8.3**	-1.0	-2.7	-3.9	-22.1	-1.8	**8.3**	1.0	2.7	-9.7	27.9
Fz_i	-2.1	-5.7	**-2.0**	-1.2	-1.6	-14.6	-2.1	5.7	**2.0**	1.2	-13.7	19.7
Mx_i	-0.9	-5.9	-0.7	**-3.4**	-1.1	-16.7	-0.9	5.9	0.7	**3.4**	-5.5	19.0
My_i	-3.9	1.4	1.1	0.1	**-17.7**	8.9	-0.3	-2.0	-1.3	-0.4	**2.9**	-5.9
Mz_i	-1.8	-8.3	-1.0	-2.7	-3.9	**-22.1**	-1.8	8.3	1.0	2.7	-9.7	**27.9**
Fx_f	**-4.1**	-0.0	-0.0	0.0	-15.3	5.1	**0.0**	0.0	0.0	-0.0	0.0	0.0
Fy_f	-1.8	**-8.3**	-1.0	-2.7	-4.8	-14.2	-1.8	**8.3**	1.0	2.7	-8.8	20.0
Fz_f	-2.1	-5.7	**-2.0**	-1.2	-3.5	-9.2	-2.1	5.7	**2.0**	1.2	-11.8	14.3
Mx_f	-0.9	-5.9	-0.7	**-3.4**	-1.8	-11.0	-0.9	5.9	0.7	**3.4**	-4.8	13.3
My_f	-4.0	1.3	1.0	0.1	**-16.7**	7.3	-0.1	-0.1	-1.1	0.1	**1.9**	-0.0
Mz_f	-1.8	-8.3	-1.0	-2.7	-4.8	**-14.2**	-1.8	8.3	1.0	2.6	-8.9	**20.0**

Member 135

Fx_i	**-14.3**	-0.0	0.0	-0.0	-0.0	0.8	**0.0**	-0.0	0.0	-0.0	-0.0	0.0
Fy_i	-6.4	-2.7	-0.6	-0.6	1.8	-7.6	-6.4	**2.7**	0.6	0.6	-1.8	8.3
Fz_i	-3.9	-0.3	**-2.1**	-2.2	6.2	-0.8	-3.9	0.3	**2.1**	2.2	-6.2	1.2
Mx_i	-3.2	-0.0	-0.5	**-4.1**	1.4	0.1	-3.2	0.0	0.5	**4.1**	-1.4	0.3
My_i	-3.9	0.3	2.1	2.2	**-6.2**	1.2	-3.9	-0.3	-2.1	-2.2	**6.2**	-0.8
Mz_i	-6.2	-2.7	-0.5	-0.3	1.6	**-7.6**	-6.4	2.7	0.6	0.6	-1.8	**8.3**
Fx_f	**-14.3**	-0.0	0.0	-0.0	-0.0	0.8	**0.0**	-0.0	0.0	-0.0	-0.0	0.0
Fy_f	-6.4	**-2.7**	-0.6	-0.6	1.2	-5.1	-6.4	**2.7**	0.6	0.6	-1.2	5.8
Fz_f	-3.9	-0.3	**-2.1**	-2.2	4.2	-0.5	-3.9	0.3	**2.1**	2.2	-4.2	0.9
Mx_f	-3.2	-0.0	-0.5	**-4.1**	0.9	0.1	-3.2	0.0	0.5	**4.1**	-0.9	0.2
My_f	-3.9	0.3	2.1	2.2	**-4.2**	0.9	-3.9	-0.3	-2.1	-2.2	**4.2**	-0.5
Mz_f	-6.2	-2.7	-0.5	-0.3	1.1	**-5.1**	-6.8	2.6	0.7	0.8	-1.4	**5.8**

Member 136

Fx_i	**-4.1**	0.0	0.0	0.0	15.3	4.6	**0.0**	0.0	0.0	0.0	-0.0	0.0
Fy_i	-1.8	**-8.3**	-0.4	2.8	7.7	-21.9	-1.8	**8.3**	0.4	-2.8	5.6	27.7
Fz_i	-1.6	2.5	**-3.2**	-2.3	15.4	9.0	-1.6	-2.5	**3.2**	2.3	-3.7	-5.7
Mx_i	-0.9	6.1	-0.4	**-3.5**	4.7	19.5	-0.9	-6.1	0.4	**3.5**	2.1	-17.1
My_i	-0.3	-1.3	2.9	1.7	**-7.6**	-3.2	-3.8	1.0	-2.1	-0.6	**20.5**	7.8
Mz_i	-1.8	-8.3	-0.4	2.8	7.7	**-21.9**	-1.8	8.3	0.4	-2.8	5.6	**27.7**
Fx_f	**-4.1**	0.0	0.0	0.0	15.3	4.6	**0.0**	0.0	0.0	0.0	-0.0	0.0
Fy_f	-1.8	**-8.3**	-0.4	2.8	7.4	-14.1	-1.8	**8.3**	0.4	-2.8	5.9	19.8
Fz_f	-1.6	2.5	**-3.2**	-2.3	12.4	6.7	-1.6	-2.5	**3.2**	2.3	-0.7	-3.3
Mx_f	-0.9	6.1	-0.4	**-3.5**	4.3	13.7	-0.9	-6.1	0.4	**3.5**	2.5	-11.3
My_f	-0.3	-1.4	2.8	1.8	**-4.9**	-2.2	-4.1	1.0	-1.7	-0.1	**18.7**	7.0
Mz_f	-1.8	-8.3	-0.4	2.8	7.4	**-14.1**	-1.8	8.3	0.4	-2.8	5.9	**19.8**

Member 137

Fx_i	**-1.1**	0.0	0.0	0.0	4.1	7.2	**0.0**	-0.0	0.0	0.0	-0.0	0.0
Fy_i	-0.4	**-12.4**	-0.0	2.2	1.6	-32.7	-0.4	**12.4**	0.0	-2.2	1.4	41.8
Fz_i	-0.5	6.3	**-4.1**	-0.5	14.3	22.6	-0.5	-6.3	**4.1**	0.5	-10.1	-15.3
Mx_i	-0.2	9.6	0.2	**-2.6**	0.4	30.7	-0.2	-9.6	-0.2	**2.6**	1.3	-26.9
My_i	-0.3	-5.4	3.9	0.8	**-10.6**	-14.0	-0.6	4.4	-4.0	0.1	**14.4**	17.9
Mz_i	-0.4	-12.4	-0.0	2.2	1.6	**-32.7**	-0.4	12.4	0.0	-2.2	1.4	**41.8**
Fx_f	**-1.1**	0.0	0.0	0.0	4.1	7.2	**0.0**	-0.0	0.0	0.0	-0.0	0.0
Fy_f	-0.4	**-12.4**	-0.0	2.2	1.6	-20.9	-0.4	**12.4**	0.0	-2.2	1.4	30.0
Fz_f	-0.5	6.3	**-4.1**	-0.5	10.4	16.6	-0.5	-6.3	**4.1**	0.5	-6.3	-9.3
Mx_f	-0.2	9.6	0.2	**-2.6**	0.5	21.5	-0.2	-9.6	-0.2	**2.6**	1.1	-17.8
My_f	-0.2	-3.6	3.8	0.5	**-7.0**	-5.6	-0.7	4.1	-3.9	0.2	**10.6**	13.1
Mz_f	-0.4	-12.4	-0.0	2.2	1.6	**-20.9**	-0.4	12.4	0.0	-2.2	1.4	**30.0**

Member 138

Fx_i	**-0.3**	0.0	-0.0	0.0	1.0	8.7	**0.0**	0.0	0.0	0.0	-0.0	-0.0
Fy_i	-0.1	**-14.7**	0.2	0.9	-0.2	-38.6	-0.1	**14.7**	-0.2	-0.9	1.0	49.6
Fz_i	-0.1	6.2	**-4.1**	0.2	12.7	22.9	-0.1	-6.2	**4.1**	-0.2	-11.7	-14.0
Mx_i	-0.1	5.9	2.2	**-1.7**	-6.5	20.0	-0.1	-5.9	-2.2	**1.7**	6.8	-15.6
My_i	-0.1	-4.6	4.1	-0.4	**-11.7**	-10.1	-0.2	4.6	-4.1	0.4	**12.7**	19.0
Mz_i	-0.1	-14.7	0.2	0.9	-0.2	**-38.6**	-0.1	14.7	-0.2	-0.9	1.0	**49.6**
Fx_f	**-0.3**	0.0	-0.0	0.0	1.0	8.7	**0.0**	0.0	0.0	0.0	-0.0	-0.0
Fy_f	-0.1	**-14.7**	0.2	0.9	-0.0	-24.7	-0.1	**14.7**	-0.2	-0.9	0.8	35.6
Fz_f	-0.1	6.2	**-4.1**	0.2	8.9	17.1	-0.1	-6.2	**4.1**	-0.2	-7.9	-8.2
Mx_f	-0.1	5.9	2.2	**-1.7**	-4.4	14.4	-0.1	-5.9	-2.2	**1.7**	4.7	-9.9
My_f	-0.1	-4.6	4.1	-0.4	**-7.9**	-5.7	-0.2	4.6	-4.1	0.4	**8.9**	14.6
Mz_f	-0.1	-14.7	0.2	0.9	-0.0	**-24.7**	-0.1	14.7	-0.2	-0.9	0.8	**35.6**

Member 139

Fx_i	**-0.1**	0.0	-0.0	0.0	0.1	9.6	**0.0**	0.0	-0.0	-0.0	0.0	0.0
Fy_i	-0.0	**-15.4**	-0.3	0.0	0.9	-40.3	-0.0	**15.4**	0.3	-0.0	-0.9	51.9
Fz_i	-0.1	4.2	**-4.1**	0.7	12.3	17.3	-0.1	-4.2	**4.1**	-0.7	-12.2	-7.8
Mx_i	-0.0	-0.2	2.2	**-1.5**	-6.7	2.3	-0.0	0.2	-2.2	**1.5**	6.7	3.2
My_i	-0.1	-4.2	4.1	-0.7	**-12.2**	-7.8	-0.1	4.2	-4.1	0.7	**12.3**	17.3
Mz_i	-0.0	-15.4	-0.3	0.0	0.9	**-40.3**	-0.0	15.4	0.3	-0.0	-0.9	**51.9**
Fx_f	**-0.1**	0.0	-0.0	0.0	0.1	9.6	**0.0**	0.0	-0.0	-0.0	0.0	0.0
Fy_f	-0.0	**-15.4**	-0.3	0.0	0.6	-25.7	-0.0	**15.4**	0.3	-0.0	-0.6	37.3
Fz_f	-0.1	4.2	**-4.1**	0.7	8.4	13.4	-0.1	-4.2	**4.1**	-0.7	-8.3	-3.8
Mx_f	-0.0	-0.2	2.2	**-1.5**	-4.6	2.4	-0.0	0.2	-2.2	**1.5**	4.6	3.1
My_f	-0.1	-4.2	4.1	-0.7	-8.3	-3.8	-0.1	4.2	-4.1	0.7	**8.4**	13.4
Mz_f	-0.0	-15.4	-0.3	0.0	0.6	**-25.7**	-0.0	15.4	0.3	-0.0	-0.6	**37.3**

Member 140

Fx_i	**-0.2**	-0.0	0.0	0.0	-0.8	9.1	**0.0**	0.0	-0.0	-0.0	0.0	0.0
Fy_i	-0.1	**-14.9**	-0.3	-1.1	0.7	-39.1	-0.1	**14.9**	0.3	1.1	-1.3	50.2
Fz_i	-0.1	0.6	**-4.1**	1.0	11.8	6.4	-0.1	-0.6	**4.1**	-1.0	-12.6	2.7
Mx_i	-0.0	-6.2	2.7	**-1.7**	-8.3	-16.3	-0.0	6.2	-2.7	**1.7**	8.0	20.9
My_i	-0.1	1.6	4.1	-0.8	**-12.6**	10.3	-0.1	-1.6	-4.1	0.8	**11.8**	-1.2
Mz_i	-0.1	-14.9	-0.3	-1.1	0.7	**-39.1**	-0.1	14.9	0.3	1.1	-1.3	**50.2**
Fx_f	**-0.2**	-0.0	0.0	0.0	-0.8	9.1	**0.0**	0.0	-0.0	-0.0	0.0	0.0
Fy_f	-0.1	**-14.9**	-0.3	-1.1	0.4	-24.9	-0.1	**14.9**	0.3	1.1	-1.0	36.0
Fz_f	-0.1	0.6	**-4.1**	1.0	8.0	5.8	-0.1	-0.6	**4.1**	-1.0	-8.8	3.3
Mx_f	-0.0	-6.2	2.7	**-1.7**	-5.7	-10.4	-0.0	6.2	-2.7	**1.7**	5.4	15.0
My_f	-0.1	1.6	4.1	-0.8	**-8.8**	8.8	-0.1	-1.6	-4.1	0.8	**8.0**	0.3
Mz_f	-0.1	-14.9	-0.3	-1.1	0.4	**-24.9**	-0.1	14.9	0.3	1.1	-1.0	**36.0**

Member 141

Fx_i	**-0.9**	-0.0	0.0	0.0	-3.3	7.7	**0.0**	0.0	-0.0	0.0	0.0	0.0
Fy_i	-0.3	**-12.7**	-0.4	-2.2	-0.0	-33.5	-0.3	**12.7**	0.4	2.2	-2.4	42.7
Fz_i	-0.4	-2.8	**-4.1**	0.7	10.5	-4.4	-0.4	2.8	**4.1**	-0.7	-13.9	12.2
Mx_i	-0.2	-9.8	0.3	**-2.6**	-1.7	-27.6	-0.2	9.8	-0.3	**2.6**	0.4	31.5
My_i	-0.5	4.0	4.1	-0.5	**-14.0**	16.6	-0.4	-4.1	-4.1	0.4	**10.6**	-9.1
Mz_i	-0.3	-12.7	-0.4	-2.2	-0.0	**-33.5**	-0.3	12.7	0.4	2.2	-2.4	**42.7**
Fx_f	**-0.9**	-0.0	0.0	0.0	-3.3	7.7	**0.0**	0.0	-0.0	0.0	0.0	0.0
Fy_f	-0.3	**-12.7**	-0.4	-2.2	-0.4	-21.4	-0.3	**12.7**	0.4	2.2	-2.0	30.6
Fz_f	-0.4	-2.8	**-4.1**	0.7	6.7	-1.8	-0.4	2.8	**4.1**	-0.7	-10.0	9.6
Mx_f	-0.2	-9.8	0.3	**-2.6**	-1.4	-18.3	-0.2	9.8	-0.3	**2.6**	0.0	22.1
My_f	-0.5	2.3	4.0	-0.7	**-10.2**	10.2	-0.2	0.4	-3.7	0.8	**6.8**	2.0
Mz_f	-0.3	-12.7	-0.4	-2.2	-0.4	**-21.4**	-0.3	12.7	0.4	2.2	-2.0	**30.6**

Member 142

Fx_i	**-3.3**	-0.0	-0.0	-0.0	-12.5	5.3	**0.0**	-0.0	-0.0	0.0	0.0	0.0
Fy_i	-1.5	**-8.5**	-0.1	-2.8	-5.1	-22.6	-1.5	**8.5**	0.1	2.8	-5.8	28.6
Fz_i	-0.9	-3.8	**-3.1**	-1.9	5.7	-10.2	-0.9	3.8	**3.1**	1.9	-12.6	12.6
Mx_i	-0.7	-6.0	-0.4	**-3.6**	-1.6	-16.7	-0.7	6.0	0.4	**3.6**	-3.8	19.2
My_i	-3.0	1.1	2.1	-0.1	**-17.5**	8.1	-0.3	-1.3	-2.7	-1.1	**7.1**	-3.2
Mz_i	-1.5	-8.5	-0.1	-2.8	-5.1	**-22.6**	-1.5	8.5	0.1	2.8	-5.8	**28.6**
Fx_f	**-3.3**	-0.0	-0.0	-0.0	-12.5	5.3	**0.0**	-0.0	-0.0	0.0	0.0	0.0
Fy_f	-1.5	**-8.5**	-0.1	-2.8	-5.3	-14.5	-1.5	**8.5**	0.1	2.8	-5.7	20.5
Fz_f	-0.9	-3.8	**-3.1**	-1.9	2.8	-6.6	-0.9	3.8	**3.1**	1.9	-9.7	9.0
Mx_f	-0.7	-6.0	-0.4	**-3.6**	-2.0	-11.1	-0.7	6.0	0.4	**3.6**	-3.4	13.5
My_f	-3.2	1.2	1.7	-0.1	**-15.5**	7.3	-0.1	-0.4	-2.5	-0.7	**4.7**	-0.3
Mz_f	-1.4	-8.5	-0.1	-2.7	-4.9	**-14.5**	-1.5	8.5	0.1	2.8	-5.7	**20.5**

Member 143

Fx_i	**-11.6**	0.0	0.0	0.0	0.0	1.0	**0.0**	0.0	0.0	0.0	-0.0	0.0
Fy_i	-5.0	**-3.1**	0.1	-0.4	-0.3	-8.9	-5.0	**3.1**	-0.1	0.4	0.3	9.9
Fz_i	-4.0	1.4	**-2.4**	-2.5	7.1	4.5	-4.0	-1.4	**2.4**	2.5	-7.1	-3.8
Mx_i	-2.6	-0.1	-0.3	**-4.2**	0.8	0.1	-2.6	0.1	0.3	**4.2**	-0.8	0.4
My_i	-4.0	-1.4	2.4	2.5	**-7.1**	-3.8	-4.0	1.4	-2.4	-2.5	**7.1**	4.5
Mz_i	-5.0	-3.1	0.1	-0.4	-0.3	**-8.9**	-5.0	3.1	-0.1	0.4	0.3	**9.9**
Fx_f	**-11.6**	0.0	0.0	0.0	0.0	1.0	**0.0**	0.0	0.0	0.0	-0.0	0.0
Fy_f	-5.0	**-3.1**	0.1	-0.4	-0.2	-6.0	-5.0	**3.1**	-0.1	0.4	0.2	6.9
Fz_f	-4.0	1.4	**-2.4**	-2.5	4.8	3.2	-4.0	-1.4	**2.4**	2.5	-4.8	-2.5
Mx_f	-2.6	-0.1	-0.3	**-4.2**	0.5	0.1	-2.6	0.1	0.3	**4.2**	-0.5	0.3
My_f	-4.0	-1.4	2.4	2.5	**-4.8**	-2.5	-4.0	1.4	-2.4	-2.5	**4.8**	3.2
Mz_f	-5.0	-3.1	0.1	-0.4	-0.2	**-6.0**	-5.3	3.1	-0.0	0.6	0.0	**6.9**

Member 144

Fx_i	**-3.3**	0.0	-0.0	0.0	12.5	4.8	**0.0**	-0.0	0.0	0.0	-0.0	0.0
Fy_i	-1.5	**-8.5**	-0.2	2.9	6.0	-22.5	-1.5	**8.5**	0.2	-2.9	4.9	28.4
Fz_i	-1.3	3.2	**-3.3**	-2.5	14.7	11.5	-1.3	-3.2	**3.3**	2.5	-5.3	-8.0
Mx_i	-0.7	6.2	-0.3	**-3.6**	3.6	19.8	-0.7	-6.2	0.3	**3.6**	1.9	-17.3
My_i	-0.3	-2.2	3.1	2.0	**-8.2**	-5.5	-3.0	1.7	-2.4	-1.2	**18.3**	9.5
Mz_i	-1.5	-8.5	-0.2	2.9	6.0	**-22.5**	-1.5	8.5	0.2	-2.9	4.9	**28.4**

Fx_i	**-3.3**	0.0	-0.0	0.0	12.5	4.8	**0.0**	-0.0	0.0	0.0	-0.0	0.0
Fy_i	-1.5	**-8.5**	-0.2	2.9	5.9	-14.4	-1.5	**8.5**	0.2	-2.9	5.0	20.4
Fz_i	-1.3	3.2	**-3.3**	-2.5	11.5	8.4	-1.3	-3.2	**3.3**	2.5	-2.2	-4.9
Mx_i	-0.7	6.2	-0.3	**-3.6**	3.3	13.9	-0.7	-6.2	0.3	**3.6**	2.2	-11.4
My_i	-0.2	-1.3	3.0	1.7	**-5.3**	-1.8	-3.3	1.0	-1.9	0.1	**16.2**	7.0
Mz_i	-1.4	-8.5	-0.2	2.8	5.6	**-14.4**	-1.5	8.5	0.2	-2.9	5.0	**20.4**

Member 145

Fx_i	**-0.9**	0.0	0.0	-0.0	3.3	7.4	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0
Fy_i	-0.3	**-12.6**	0.2	2.2	0.6	-33.1	-0.3	**12.6**	-0.2	-2.2	1.9	42.2
Fz_i	-0.4	4.7	**-3.8**	0.2	13.0	18.0	-0.4	-4.7	**3.8**	-0.2	-9.6	-10.5
Mx_i	-0.2	9.7	0.2	**-2.7**	0.2	31.0	-0.2	-9.7	-0.2	**2.7**	1.2	-27.2
My_i	-0.4	-4.5	3.7	-0.1	**-9.8**	-10.8	-0.5	4.5	-3.7	0.1	**13.1**	18.3
Mz_i	-0.3	-12.6	0.2	2.2	0.6	**-33.1**	-0.3	12.6	-0.2	-2.2	1.9	**42.2**
Fx_f	**-0.9**	0.0	0.0	-0.0	3.3	7.4	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0
Fy_f	-0.3	**-12.6**	0.2	2.2	0.8	-21.2	-0.3	**12.6**	-0.2	-2.2	1.7	30.3
Fz_f	-0.4	4.7	**-3.8**	0.2	9.4	13.5	-0.4	-4.7	**3.8**	-0.2	-6.1	-6.0
Mx_f	-0.2	9.7	0.2	**-2.7**	0.3	21.8	-0.2	-9.7	-0.2	**2.7**	1.0	-18.0
My_f	-0.2	-1.7	3.4	-0.5	**-6.3**	-2.2	-0.5	2.6	-3.7	0.4	**9.6**	11.0
Mz_f	-0.3	-12.6	0.3	2.2	0.7	**-21.2**	-0.3	12.6	-0.2	-2.2	1.7	**30.3**

Member 146

Fx_i	**-0.2**	0.0	0.0	0.0	0.8	8.8	**0.0**	-0.0	-0.0	0.0	-0.0	0.0
Fy_i	-0.1	**-14.8**	0.4	0.9	-0.9	-38.9	-0.1	**14.8**	-0.4	-0.9	1.5	49.9
Fz_i	-0.1	3.2	**-3.8**	0.7	11.8	14.0	-0.1	-3.2	**3.8**	-0.7	-10.9	-5.0
Mx_i	-0.0	6.1	2.4	**-1.7**	-7.0	20.5	-0.0	-6.1	-2.4	**1.7**	7.3	-15.9
My_i	-0.1	-3.2	3.8	-0.7	**-10.9**	-5.0	-0.1	3.2	-3.8	0.7	**11.8**	14.0
Mz_i	-0.1	-14.8	0.4	0.9	-0.9	**-38.9**	-0.1	14.8	-0.4	-0.9	1.5	**49.9**
Fx_f	**-0.2**	0.0	0.0	0.0	0.8	8.8	**0.0**	-0.0	-0.0	0.0	-0.0	0.0
Fy_f	-0.1	**-14.8**	0.4	0.9	-0.5	-24.8	-0.1	**14.8**	-0.4	-0.9	1.1	35.9
Fz_f	-0.1	3.2	**-3.8**	0.7	8.2	11.0	-0.1	-3.2	**3.8**	-0.7	-7.3	-2.0
Mx_f	-0.0	6.1	2.4	**-1.7**	-4.7	14.7	-0.0	-6.1	-2.4	**1.7**	5.0	-10.2
My_f	-0.1	-4.7	3.8	-0.5	**-7.3**	-5.8	-0.1	4.7	-3.8	0.5	**8.2**	14.9
Mz_f	-0.1	-14.8	0.4	0.9	-0.5	**-24.8**	-0.1	14.8	-0.4	-0.9	1.1	**35.9**

Member 147

Fx_i	**-0.1**	0.0	0.0	-0.0	0.0	9.7	**0.0**	-0.0	0.0	0.0	0.0	0.0
Fy_i	-0.0	**-15.4**	-0.1	-0.0	0.3	-40.4	-0.0	**15.4**	0.1	0.0	-0.3	52.2
Fz_i	-0.1	-0.3	**-3.8**	0.9	11.3	3.9	-0.1	0.3	**3.8**	-0.9	-11.3	5.7
Mx_i	-0.0	-0.2	2.1	**-1.5**	-6.2	2.1	-0.0	0.2	-2.1	**1.5**	6.2	3.4
My_i	-0.1	0.3	3.8	-0.9	**-11.3**	5.7	-0.1	-0.3	-3.8	0.9	**11.3**	3.9
Mz_i	-0.0	-15.4	-0.1	-0.0	0.3	**-40.4**	-0.0	15.4	0.1	0.0	-0.3	**52.2**
Fx_f	**-0.1**	0.0	0.0	-0.0	0.0	9.7	**0.0**	-0.0	0.0	0.0	0.0	0.0
Fy_f	-0.0	**-15.4**	-0.1	-0.0	0.2	-25.8	-0.0	**15.4**	0.1	0.0	-0.2	37.5
Fz_f	-0.1	-0.3	**-3.8**	0.9	7.8	4.2	-0.1	0.3	**3.8**	-0.9	-7.7	5.4
Mx_f	-0.0	-0.2	2.1	**-1.5**	-4.3	2.3	-0.0	0.2	-2.1	**1.5**	4.3	3.2
My_f	-0.1	0.3	3.8	-0.9	**-7.7**	5.4	-0.1	-0.3	-3.8	0.9	**7.8**	4.2
Mz_f	-0.0	-15.4	-0.1	-0.0	0.2	**-25.8**	-0.0	15.4	0.1	0.0	-0.2	**37.5**

Member 148

Fx_i	**-0.2**	0.0	-0.0	-0.0	-0.8	9.2	**0.0**	-0.0	0.0	0.0	0.0	0.0
Fy_i	-0.1	**-14.9**	-0.1	-1.1	0.1	-39.2	-0.1	**14.9**	0.1	1.1	-0.6	50.3
Fz_i	-0.1	-3.8	**-3.8**	0.7	11.0	-6.8	-0.1	3.8	**3.8**	-0.7	-11.7	16.0
Mx_i	-0.0	-6.2	2.4	**-1.7**	-7.5	-16.4	-0.0	6.2	-2.4	**1.7**	7.2	21.0
My_i	-0.1	1.6	3.8	-0.8	**-11.7**	10.3	-0.1	-1.6	-3.8	0.8	**11.0**	-1.1
Mz_i	-0.1	-14.9	-0.1	-1.1	0.1	**-39.2**	-0.1	14.9	0.1	1.1	-0.6	**50.3**
Fx_f	**-0.2**	0.0	-0.0	-0.0	-0.8	9.2	**0.0**	-0.0	0.0	0.0	0.0	0.0
Fy_f	-0.1	**-14.9**	-0.1	-1.1	-0.0	-25.0	-0.1	**14.9**	0.1	1.1	-0.5	36.2
Fz_f	-0.1	-3.8	**-3.8**	0.7	7.4	-3.2	-0.1	3.8	**3.8**	-0.7	-8.1	12.4
Mx_f	-0.0	-6.2	2.4	**-1.7**	-5.2	-10.5	-0.0	6.2	-2.4	**1.7**	4.9	15.1
My_f	-0.1	1.6	3.8	-0.8	**-8.1**	8.8	-0.1	-1.6	-3.8	0.8	**7.4**	0.4
Mz_f	-0.1	-14.9	-0.1	-1.1	-0.0	**-25.0**	-0.1	14.9	0.1	1.1	-0.5	**36.2**

Member 149

Fx_i	-0.8	-0.0	0.0	0.0	-3.2	7.8	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	-0.3	**-12.7**	-0.2	-2.2	-0.7	-33.6	-0.3	**12.7**	0.2	2.2	-1.7	42.8
Fz_i	-0.4	-5.5	**-3.8**	0.1	9.7	-12.4	-0.4	5.5	**3.8**	-0.1	-12.9	20.3
Mx_i	-0.2	-9.9	0.3	**-2.6**	-1.6	-27.7	-0.2	9.9	-0.3	**2.6**	0.3	31.5
My_i	-0.5	5.1	3.7	-0.2	**-13.0**	20.4	-0.3	-5.2	-3.7	0.1	**9.8**	-12.8
Mz_i	-0.3	-12.7	-0.2	-2.2	-0.7	**-33.6**	-0.3	12.7	0.2	2.2	-1.7	**42.8**
Fx_f	**-0.8**	-0.0	0.0	0.0	-3.2	7.8	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	-0.3	**-12.7**	-0.2	-2.2	-0.9	-21.5	-0.3	**12.7**	0.2	2.2	-1.5	30.7
Fz_f	-0.4	-5.5	**-3.8**	0.1	6.1	-7.3	-0.4	5.5	**3.8**	-0.1	-9.4	15.1
Mx_f	-0.2	-9.9	0.3	**-2.6**	-1.3	-18.3	-0.2	9.9	-0.3	**2.6**	-0.0	22.2
My_f	-0.5	3.2	3.7	-0.4	**-9.5**	12.5	-0.2	-0.5	-3.5	0.5	**6.5**	-0.1
Mz_f	-0.3	-12.7	-0.2	-2.2	-0.9	**-21.5**	-0.3	12.7	0.2	2.2	-1.5	**30.7**

Member 150

Fx_i	**-3.2**	-0.0	-0.0	-0.0	-12.0	5.4	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	-1.4	**-8.6**	-0.2	-2.8	-4.8	-22.9	-1.4	**8.6**	0.2	2.8	-5.8	28.9
Fz_i	-0.9	-3.8	**-3.1**	-1.9	5.8	-10.2	-0.9	3.8	**3.1**	1.9	-12.5	12.6
Mx_i	-0.7	-6.0	-0.3	**-3.6**	-1.8	-16.8	-0.7	6.0	0.3	**3.6**	-3.4	19.2
My_i	-2.9	0.9	2.0	-0.2	**-17.0**	7.5	-0.2	-1.0	-2.7	-1.2	**7.3**	-2.4
Mz_i	-1.3	-8.6	-0.2	-2.7	-4.5	**-22.9**	-1.4	8.6	0.2	2.8	-5.8	**28.9**
Fx_f	**-3.2**	-0.0	-0.0	-0.0	-12.0	5.4	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	-1.4	**-8.6**	-0.2	-2.8	-5.0	-14.7	-1.4	**8.6**	0.2	2.8	-5.6	20.7
Fz_f	-0.9	-3.8	**-3.1**	-1.9	2.9	-6.6	-0.9	3.8	**3.1**	1.9	-9.6	9.0
Mx_f	-0.7	-6.0	-0.3	**-3.6**	-2.1	-11.1	-0.7	6.0	0.3	**3.6**	-3.1	13.5
My_f	-3.2	0.9	1.6	-0.1	**-15.1**	6.7	-0.2	-1.0	-2.7	-1.2	**4.8**	-1.4
Mz_f	-1.3	-8.6	-0.2	-2.7	-4.7	**-14.7**	-1.4	8.6	0.2	2.8	-5.6	**20.7**

Member 365

Fx_i	**-118.9**	0.0	-33.0	0.0	57.7	0.0	**30.8**	-0.0	-1.3	-0.0	2.3	-0.0
Fy_i	-35.6	**-0.0**	-10.4	-0.0	18.2	-0.0	-55.4	**0.0**	-26.7	0.0	46.7	0.0
Fz_i	-97.8	0.0	**-69.9**	0.0	122.4	0.0	-15.6	-0.0	**5.9**	0.0	-10.3	-0.0
Mx_i	-45.2	0.0	-18.3	**-0.0**	32.1	0.0	-11.0	0.0	-7.7	**0.0**	13.5	0.0
My_i	-15.6	-0.0	5.9	0.0	**-10.3**	-0.0	-97.8	0.0	-69.9	0.0	**122.4**	0.0
Mz_i	-33.9	-0.0	-7.8	-0.0	13.7	**-0.0**	-53.7	0.0	-24.7	0.0	43.3	**0.0**
Fx_f	**-118.9**	0.0	-33.0	0.0	-0.0	-0.0	**30.8**	-0.0	-1.3	-0.0	-0.0	0.0
Fy_f	-35.6	**-0.0**	-10.4	-0.0	-0.0	0.0	-55.4	**0.0**	-26.7	0.0	0.0	-0.0
Fz_f	-97.8	0.0	**-69.9**	0.0	-0.0	-0.0	-15.6	-0.0	**5.9**	0.0	0.0	0.0
Mx_f	-45.2	0.0	-18.3	**-0.0**	-0.0	-0.0	-11.0	0.0	-7.7	**0.0**	0.0	-0.0
My_f	-85.5	-0.0	-37.3	0.0	**-0.0**	0.0	-24.7	-0.0	-20.4	0.0	**0.0**	0.0
Mz_f	-77.6	0.0	-40.4	0.0	0.0	**-0.0**	-10.3	-0.0	-15.8	0.0	0.0	**0.0**

Member 366

Fx_i	**-286.4**	0.0	-11.1	-0.0	111.0	0.0	**23.1**	-0.0	-0.4	-0.0	2.1	-0.0
Fy_i	-164.7	**-0.0**	-2.9	0.0	30.8	-0.0	-162.6	**0.0**	-8.7	-0.0	88.6	0.0
Fz_i	-258.2	0.0	**-21.7**	-0.0	221.8	0.0	-75.9	0.0	**2.6**	0.0	-28.0	0.0
Mx_i	-236.3	0.0	-13.8	**-0.0**	137.0	0.0	-48.7	0.0	-3.8	**0.0**	42.5	0.0
My_i	-78.4	0.0	2.6	0.0	**-28.3**	0.0	-249.4	0.0	-21.5	-0.0	**222.7**	0.0
Mz_i	-125.3	-0.0	-2.8	0.0	29.2	**-0.0**	-91.1	0.0	-7.4	0.0	76.9	**0.0**
Fx_f	**-286.4**	0.0	-11.1	-0.0	91.6	0.0	**23.1**	-0.0	-0.4	-0.0	1.4	0.0
Fy_f	-164.7	**-0.0**	-2.9	0.0	25.7	0.0	-162.6	**0.0**	-8.7	-0.0	73.4	-0.0
Fz_f	-258.2	0.0	**-21.7**	-0.0	183.9	-0.0	-75.9	0.0	**2.6**	0.0	-23.5	0.0
Mx_f	-236.3	0.0	-13.8	**-0.0**	112.8	-0.0	-48.7	0.0	-3.8	**0.0**	35.8	-0.0
My_f	-78.4	0.0	2.6	0.0	**-23.8**	0.0	-249.4	0.0	-21.5	-0.0	**185.1**	-0.0
Mz_f	-183.6	0.0	-8.3	-0.0	68.8	**-0.0**	-145.6	-0.0	-2.8	0.0	24.0	**0.0**

Member 367

Fx_i	**-327.9**	0.0	-16.0	-0.0	135.6	0.0	**26.1**	-0.0	1.0	-0.0	-2.1	-0.0
Fy_i	-167.8	**-0.0**	-12.2	-0.0	117.2	-0.0	-164.4	**0.0**	-12.3	-0.0	107.7	0.0
Fz_i	-297.7	-0.0	**-27.1**	-0.0	252.0	-0.0	9.1	-0.0	**3.0**	-0.0	-10.5	-0.0
Mx_i	-258.3	-0.0	-8.6	**-0.0**	77.7	0.0	-35.9	0.0	-2.3	**0.0**	28.0	0.0
My_i	-132.7	-0.0	1.5	-0.0	**-33.9**	-0.0	-293.0	-0.0	-26.8	-0.0	**256.9**	-0.0
Mz_i	-183.1	-0.0	-12.2	-0.0	116.7	**-0.0**	-190.2	0.0	-13.6	-0.0	120.4	**0.0**
Fx_f	**-327.9**	0.0	-16.0	-0.0	107.5	0.0	**26.1**	-0.0	1.0	-0.0	-0.4	0.0
Fy_f	-167.8	**-0.0**	-12.2	-0.0	95.8	0.0	-164.4	**0.0**	-12.3	-0.0	86.1	-0.0
Fz_f	-297.7	-0.0	**-27.1**	-0.0	204.5	0.0	9.1	-0.0	**3.0**	-0.0	-5.3	0.0
Mx_f	-258.3	-0.0	-8.6	**-0.0**	62.7	0.0	-35.9	0.0	-2.3	**0.0**	24.0	-0.0
My_f	-131.6	-0.0	1.3	-0.0	**-31.4**	0.0	-292.9	-0.0	-26.0	-0.0	**210.8**	0.0

Mz_f	-157.2	0.0	-10.2	-0.0	64.9	**-0.0**	-168.8	-0.0	-12.9	-0.0	100.4	**0.0**

Member 368

Fx_i	**-330.9**	-0.0	-13.0	-0.0	134.6	-0.0	**35.8**	-0.0	1.1	-0.0	-3.6	-0.0
Fy_i	-145.7	**-0.0**	-8.0	-0.0	113.8	-0.0	-167.7	**0.0**	-8.1	-0.0	91.1	0.0
Fz_i	-286.2	-0.0	**-22.7**	-0.0	254.2	-0.0	4.5	-0.0	**3.3**	0.0	-16.2	-0.0
Mx_i	-177.8	-0.0	-11.4	**-0.0**	112.9	-0.0	-71.5	-0.0	-1.0	**0.0**	3.7	-0.0
My_i	-128.8	-0.0	2.1	-0.0	**-38.3**	-0.0	-286.7	-0.0	-22.6	-0.0	**257.7**	-0.0
Mz_i	-143.1	-0.0	-7.9	0.0	113.0	**-0.0**	-163.5	0.0	-7.9	0.0	87.8	**0.0**
Fx_f	**-330.9**	-0.0	-13.0	-0.0	111.9	0.0	**35.8**	-0.0	1.1	-0.0	-1.6	0.0
Fy_f	-145.7	**-0.0**	-8.0	-0.0	99.8	0.0	-167.7	**0.0**	-8.1	-0.0	76.9	-0.0
Fz_f	-286.2	-0.0	**-22.7**	-0.0	214.5	0.0	4.5	-0.0	**3.3**	0.0	-10.4	0.0
Mx_f	-177.8	-0.0	-11.4	**-0.0**	92.8	-0.0	-71.5	-0.0	-1.0	**0.0**	1.9	0.0
My_f	-129.0	-0.0	2.1	0.0	**-34.7**	0.0	-284.6	-0.0	-22.0	-0.0	**218.5**	0.0
Mz_f	-181.1	0.0	-9.4	-0.0	93.3	**-0.0**	-140.4	-0.0	-10.8	-0.0	104.8	**0.0**

Member 369

Fx_i	**-333.1**	-0.0	-12.7	-0.0	135.0	-0.0	**36.1**	-0.0	1.1	-0.0	-3.8	-0.0
Fy_i	-188.5	**-0.0**	-7.9	-0.0	98.8	-0.0	-101.1	**0.0**	-5.8	0.0	85.9	0.0
Fz_i	-285.7	0.0	**-22.1**	-0.0	255.0	0.0	2.4	-0.0	**3.4**	0.0	-17.5	0.0
Mx_i	-241.1	-0.0	-9.7	**-0.0**	105.8	-0.0	-5.5	0.0	-0.7	**0.0**	1.0	0.0
My_i	-129.7	0.0	2.1	-0.0	**-38.2**	0.0	-287.7	0.0	-21.9	-0.0	**257.8**	0.0
Mz_i	-162.7	-0.0	-5.6	0.0	66.6	**-0.0**	-105.0	0.0	-7.1	0.0	83.8	**0.0**
Fx_f	**-333.1**	-0.0	-12.7	-0.0	112.8	0.0	**36.1**	-0.0	1.1	-0.0	-1.8	0.0
Fy_f	-188.5	**-0.0**	-7.9	-0.0	84.9	0.0	-101.1	**0.0**	-5.8	0.0	75.8	-0.0
Fz_f	-285.7	0.0	**-22.1**	-0.0	216.4	0.0	2.4	-0.0	**3.4**	0.0	-11.5	0.0
Mx_f	-241.1	-0.0	-9.7	**-0.0**	88.8	0.0	-5.5	0.0	-0.7	**0.0**	-0.3	-0.0
My_f	-130.1	0.0	1.9	-0.0	**-34.7**	-0.0	-285.4	0.0	-21.5	-0.0	**219.7**	0.0
Mz_f	-175.9	0.0	-5.7	0.0	56.6	**-0.0**	-187.1	-0.0	-8.0	-0.0	81.7	**0.0**

Member 370

Fx_i	**-331.0**	-0.0	-12.4	-0.0	134.6	-0.0	**35.9**	-0.0	1.2	0.0	-4.2	-0.0
Fy_i	-165.8	**-0.0**	-7.8	-0.0	74.1	-0.0	-140.7	**0.0**	-5.9	-0.0	65.2	0.0
Fz_i	-284.9	-0.0	**-21.9**	-0.0	255.2	-0.0	3.5	0.0	**3.4**	0.0	-18.0	-0.0
Mx_i	-244.2	0.0	-9.2	**-0.0**	94.0	-0.0	-1.3	0.0	-1.2	**0.0**	12.8	0.0
My_i	-128.7	-0.0	2.2	-0.0	**-38.7**	-0.0	-287.1	-0.0	-21.9	-0.0	**257.9**	-0.0
Mz_i	-175.0	-0.0	-7.5	-0.0	70.8	**-0.0**	-144.6	0.0	-6.6	-0.0	66.3	**0.0**
Fx_f	**-331.0**	-0.0	-12.4	-0.0	112.9	-0.0	**35.9**	-0.0	1.2	0.0	-2.0	0.0
Fy_f	-165.8	**-0.0**	-7.8	-0.0	60.4	0.0	-140.7	**0.0**	-5.9	-0.0	54.9	-0.0
Fz_f	-284.9	-0.0	**-21.9**	-0.0	216.9	0.0	3.5	0.0	**3.4**	0.0	-12.0	-0.0
Mx_f	-244.2	0.0	-9.2	**-0.0**	77.9	-0.0	-1.3	0.0	-1.2	**0.0**	10.8	-0.0
My_f	-128.9	-0.0	2.2	-0.0	**-34.9**	0.0	-284.9	-0.0	-21.5	-0.0	**220.0**	0.0
Mz_f	-165.2	0.0	-7.3	-0.0	73.2	**-0.0**	-156.5	-0.0	-5.0	-0.0	40.8	**0.0**

Member 371

Fx_i	**-328.2**	-0.0	-13.4	-0.0	135.2	-0.0	**26.3**	0.0	1.0	0.0	-2.9	0.0
Fy_i	-194.0	**-0.0**	-9.5	0.0	96.5	-0.0	-117.4	**0.0**	-7.0	-0.0	92.4	0.0
Fz_i	-293.3	-0.0	**-22.5**	0.0	250.9	-0.0	6.8	0.0	**2.7**	-0.0	-11.9	0.0
Mx_i	-230.9	-0.0	-15.8	**-0.0**	189.6	-0.0	-49.1	-0.0	-1.8	**0.0**	10.7	-0.0
My_i	-133.1	-0.0	1.3	0.0	**-33.3**	-0.0	-293.2	-0.0	-22.3	-0.0	**254.4**	-0.0
Mz_i	-217.4	-0.0	-9.8	0.0	92.6	**-0.0**	-91.7	0.0	-6.3	-0.0	76.5	**0.0**
Fx_f	**-328.2**	-0.0	-13.4	-0.0	111.9	0.0	**26.3**	0.0	1.0	0.0	-1.2	-0.0
Fy_f	-194.0	**-0.0**	-9.5	0.0	80.0	0.0	-117.4	**0.0**	-7.0	-0.0	80.1	-0.0
Fz_f	-293.3	-0.0	**-22.5**	0.0	211.4	0.0	6.8	0.0	2.7	-0.0	-7.2	-0.0
Mx_f	-230.9	-0.0	-15.8	**-0.0**	162.0	0.0	-49.1	-0.0	-1.8	**0.0**	7.4	0.0
My_f	-133.3	-0.0	1.2	0.0	**-31.2**	0.0	-291.7	-0.0	-21.8	-0.0	**215.7**	0.0
Mz_f	-143.7	0.0	-7.5	-0.0	86.5	**-0.0**	-180.8	-0.0	-8.4	0.0	76.4	**0.0**

Member 372

Fx_i	**-290.4**	0.0	-15.3	0.0	116.5	0.0	**23.1**	0.0	1.1	0.0	-2.3	0.0
Fy_i	-127.0	**-0.0**	-9.3	0.0	77.5	-0.0	-179.7	**0.0**	-11.5	-0.0	122.9	0.0
Fz_i	-258.0	0.0	**-25.8**	0.0	222.3	0.0	0.5	0.0	**3.7**	0.0	-8.0	0.0
Mx_i	-212.0	0.0	-16.0	**-0.0**	168.0	0.0	-42.1	0.0	-1.8	**0.0**	7.4	0.0
My_i	-77.7	0.0	2.3	0.0	**-26.1**	0.0	-260.0	0.0	-25.2	0.0	**224.3**	0.0
Mz_i	-152.2	-0.0	-10.9	0.0	88.5	**-0.0**	-178.0	0.0	-12.4	0.0	129.6	**0.0**
Fx_f	**-290.4**	0.0	-15.3	0.0	89.7	-0.0	**23.1**	0.0	1.1	0.0	-0.4	-0.0
Fy_f	-127.0	**-0.0**	-9.3	0.0	61.3	0.0	-179.7	**0.0**	-11.5	-0.0	102.9	-0.0
Fz_f	-258.0	0.0	**-25.8**	0.0	177.2	-0.0	0.5	0.0	**3.7**	0.0	-1.5	-0.0
Mx_f	-212.0	0.0	-16.0	**-0.0**	140.0	-0.0	-42.1	0.0	-1.8	**0.0**	4.3	-0.0
My_f	-78.2	0.0	1.9	0.0	**-22.4**	-0.0	-249.3	0.0	-23.7	0.0	**181.4**	-0.0
Mz_f	-182.8	0.0	-11.9	-0.0	104.4	**-0.0**	-130.0	-0.0	-10.4	0.0	68.4	**0.0**

Member 373

Fx_i	**-108.7**	-1.3	-41.3	-0.0	72.2	-2.3	**26.9**	0.7	-1.1	0.0	2.0	1.2
Fy_i	-98.8	**-1.4**	-38.0	-0.0	66.5	-2.4	25.8	**0.7**	0.1	0.0	-0.1	1.3
Fz_i	-87.6	-0.9	**-61.1**	-0.0	106.9	-1.5	5.7	0.2	**2.8**	0.0	-4.9	0.3
Mx_i	-83.0	-1.1	-20.7	**-0.0**	36.2	-1.9	14.8	0.4	-4.8	**0.0**	8.4	0.8
My_i	5.7	0.2	2.8	0.0	**-4.9**	0.3	-87.6	-0.9	-61.1	-0.0	**106.9**	-1.5
Mz_i	-98.8	-1.4	-38.0	-0.0	66.5	**-2.4**	25.8	0.7	0.1	0.0	-0.1	**1.3**
Fx_f	**-108.7**	-1.3	-41.3	-0.0	-0.0	0.0	**26.9**	0.7	-1.1	0.0	-0.0	-0.0
Fy_f	-98.8	**-1.4**	-38.0	-0.0	-0.0	0.0	25.8	**0.7**	0.1	0.0	-0.0	-0.0
Fz_f	-87.6	-0.9	-61.1	-0.0	-0.0	0.0	5.7	0.2	**2.8**	0.0	0.0	-0.0
Mx_f	-83.0	-1.1	-20.7	**-0.0**	0.0	0.0	14.8	0.4	-4.8	**0.0**	0.0	-0.0
My_f	-66.8	-0.3	-41.3	0.0	**-0.0**	-0.0	-39.7	-0.5	-17.5	-0.0	**0.0**	-0.0
Mz_f	-4.2	0.2	-8.7	0.0	0.0	**-0.0**	-59.0	-0.7	-35.4	-0.0	0.0	**0.0**

Member 374

Fx_i	**-118.9**	0.0	33.0	0.0	-57.7	0.0	**30.8**	-0.0	1.3	0.0	-2.3	-0.0
Fy_i	-51.0	**-0.0**	36.6	-0.0	-64.0	-0.0	-39.9	**0.0**	15.7	0.0	-27.5	0.0
Fz_i	-15.6	0.0	**-5.9**	0.0	10.3	0.0	-97.8	0.0	**69.9**	0.0	-122.4	0.0
Mx_i	-78.3	-0.0	52.6	**-0.0**	-92.0	-0.0	-10.4	-0.0	4.9	**0.0**	-8.6	-0.0
My_i	-97.8	0.0	69.9	0.0	**-122.4**	0.0	-15.6	0.0	-5.9	0.0	**10.3**	0.0
Mz_i	-48.1	-0.0	34.3	-0.0	-60.0	**-0.0**	-29.8	0.0	17.9	0.0	-31.3	**0.0**
Fx_f	**-118.9**	0.0	33.0	0.0	0.0	-0.0	**30.8**	-0.0	1.3	0.0	-0.0	0.0
Fy_f	-51.0	**-0.0**	36.6	-0.0	0.0	0.0	-39.9	**0.0**	15.7	0.0	0.0	-0.0
Fz_f	-15.6	0.0	**-5.9**	0.0	-0.0	-0.0	-97.8	0.0	**69.9**	0.0	0.0	-0.0
Mx_f	-78.3	-0.0	52.6	**-0.0**	0.0	0.0	-10.4	-0.0	4.9	**0.0**	-0.0	-0.0
My_f	-33.1	-0.0	32.8	0.0	**-0.0**	0.0	-74.9	0.0	36.9	-0.0	**0.0**	-0.0
Mz_f	-61.9	0.0	21.8	-0.0	0.0	**-0.0**	-53.7	-0.0	36.4	-0.0	0.0	**0.0**

Member 375

Fx_i	**-286.4**	-0.0	11.1	0.0	-111.0	-0.0	**23.1**	0.0	0.4	-0.0	-2.1	0.0
Fy_i	-152.5	**-0.0**	8.4	0.0	-86.8	-0.0	-116.2	**0.0**	5.4	-0.0	-53.2	0.0
Fz_i	-75.9	-0.0	**-2.6**	0.0	28.0	-0.0	-258.2	-0.0	**21.7**	0.0	-221.8	-0.0
Mx_i	-171.4	0.0	13.1	**-0.0**	-142.0	0.0	-49.2	-0.0	2.6	**0.0**	-26.1	-0.0
My_i	-249.4	0.0	21.5	0.0	**-222.7**	0.0	-78.4	-0.0	-2.6	0.0	**28.3**	-0.0
Mz_i	-152.5	-0.0	8.4	0.0	-86.8	**-0.0**	-116.2	0.0	5.4	-0.0	-53.2	**0.0**
Fx_f	**-286.4**	-0.0	11.1	0.0	-91.6	0.0	**23.1**	0.0	0.4	-0.0	-1.4	-0.0
Fy_f	-152.5	**-0.0**	8.4	0.0	-72.0	0.0	-116.2	**0.0**	5.4	-0.0	-43.7	-0.0
Fz_f	-75.9	-0.0	**-2.6**	0.0	23.5	0.0	-258.2	-0.0	**21.7**	0.0	-183.9	0.0
Mx_f	-171.4	0.0	13.1	**-0.0**	-119.0	-0.0	-49.2	-0.0	2.6	**0.0**	-21.7	0.0
My_f	-249.4	0.0	21.5	0.0	**-185.1**	-0.0	-78.4	-0.0	-2.6	0.0	**23.8**	0.0
Mz_f	-187.0	0.0	8.3	-0.0	-68.1	**-0.0**	-128.2	-0.0	5.8	0.0	-48.8	**0.0**

Member 376

Fx_i	**-327.9**	0.0	16.0	-0.0	-135.6	0.0	**26.1**	-0.0	-1.0	-0.0	2.1	-0.0
Fy_i	-146.5	**-0.0**	10.5	0.0	-128.4	-0.0	-105.1	**0.0**	7.8	-0.0	-72.1	0.0
Fz_i	9.1	-0.0	**-3.0**	-0.0	10.5	-0.0	-297.7	0.0	**27.1**	0.0	-252.0	0.0
Mx_i	-257.1	0.0	11.4	**-0.0**	-118.1	-0.0	-74.2	-0.0	2.9	**0.0**	-28.3	-0.0
My_i	-293.0	0.0	26.8	-0.0	**-256.9**	0.0	-132.7	0.0	-1.5	-0.0	**33.9**	0.0
Mz_i	-144.5	-0.0	9.6	0.0	-118.5	**-0.0**	-163.1	0.0	9.8	-0.0	-93.3	**0.0**
Fx_f	**-327.9**	0.0	16.0	-0.0	-107.5	-0.0	**26.1**	-0.0	-1.0	-0.0	0.4	0.0
Fy_f	-146.5	**-0.0**	10.5	0.0	-110.1	0.0	-105.1	**0.0**	7.8	-0.0	-58.5	-0.0
Fz_f	9.1	-0.0	**-3.0**	-0.0	5.3	0.0	-297.7	0.0	**27.1**	0.0	-204.5	-0.0
Mx_f	-257.1	0.0	11.4	**-0.0**	-98.2	-0.0	-74.2	-0.0	2.9	**0.0**	-23.2	0.0
My_f	-292.9	0.0	26.0	-0.0	-210.8	-0.0	-131.6	0.0	-1.3	-0.0	**31.4**	-0.0
Mz_f	-207.5	0.0	13.5	-0.0	-113.0	**-0.0**	-194.8	-0.0	5.8	0.0	-49.9	**0.0**

Member 377

Fx_i	**-330.9**	-0.0	13.0	0.0	-134.6	-0.0	**35.8**	-0.0	-1.1	0.0	3.6	-0.0
Fy_i	-208.7	**-0.0**	13.1	0.0	-154.7	-0.0	-66.4	**0.0**	3.7	0.0	-63.5	0.0

Fz,	4.5	0.0	**-3.3**	-0.0	16.2	0.0	-286.2	-0.0	**22.7**	0.0	-254.2	-0.0
Mx,	-160.6	-0.0	11.2	**-0.0**	-151.4	-0.0	-111.8	-0.0	7.0	**0.0**	-76.2	-0.0
My,	-286.7	-0.0	22.6	0.0	**-257.7**	-0.0	-128.8	-0.0	-2.1	0.0	**38.3**	-0.0
Mz,	-208.7	-0.0	13.1	0.0	-154.7	**-0.0**	-66.4	0.0	3.7	0.0	-63.5	**0.0**
Fx,	**-330.9**	-0.0	13.0	0.0	-111.9	0.0	**35.8**	-0.0	-1.1	0.0	1.6	0.0
Fy,	-208.7	**-0.0**	13.1	0.0	-131.7	0.0	-66.4	**0.0**	3.7	0.0	-57.0	-0.0
Fz,	4.5	0.0	**-3.3**	-0.0	10.4	-0.0	-286.2	-0.0	**22.7**	0.0	-214.5	0.0
Mx,	-160.6	-0.0	11.2	**-0.0**	-131.9	0.0	-111.8	-0.0	7.0	**0.0**	-64.0	0.0
My,	-284.6	-0.0	22.0	0.0	**-218.5**	0.0	-129.0	-0.0	-2.1	0.0	**34.7**	0.0
Mz,	-163.6	0.0	6.9	-0.0	-85.0	**-0.0**	-133.4	-0.0	8.3	0.0	-80.9	**0.0**

Member 378

Fx,	**-333.1**	0.0	12.7	0.0	-135.0	0.0	**36.1**	0.0	-1.1	-0.0	3.8	0.0
Fy,	-110.1	**-0.0**	6.2	-0.0	-73.4	-0.0	-188.4	**0.0**	10.5	0.0	-122.9	0.0
Fz,	2.4	0.0	**-3.4**	-0.0	17.5	0.0	-285.7	0.0	**22.1**	-0.0	-255.0	0.0
Mx,	-201.1	0.0	9.2	**-0.0**	-99.5	0.0	-21.6	-0.0	1.3	**0.0**	-15.9	-0.0
My,	-287.7	0.0	21.9	-0.0	**-257.8**	0.0	-129.7	0.0	-2.1	0.0	**38.2**	0.0
Mz,	-139.2	-0.0	7.8	-0.0	-87.9	**-0.0**	-144.7	0.0	7.5	-0.0	-73.9	**0.0**
Fx,	**-333.1**	0.0	12.7	0.0	-112.8	-0.0	**36.1**	0.0	-1.1	-0.0	1.8	0.0
Fy,	-110.1	**-0.0**	6.2	-0.0	-62.6	0.0	-188.4	**0.0**	10.5	0.0	-104.6	-0.0
Fz,	2.4	0.0	**-3.4**	-0.0	11.5	-0.0	-285.7	0.0	**22.1**	-0.0	-216.4	-0.0
Mx,	-201.1	0.0	9.2	**-0.0**	-83.4	-0.0	-21.6	-0.0	1.3	**0.0**	-13.6	0.0
My,	-285.4	0.0	21.5	-0.0	**-219.7**	-0.0	-130.1	0.0	-1.9	-0.0	**34.7**	-0.0
Mz,	-229.3	0.0	13.3	0.0	-134.5	**-0.0**	-72.4	-0.0	4.0	-0.0	-39.0	**0.0**

Member 379

Fx,	**-331.0**	0.0	12.4	0.0	-134.6	0.0	**35.9**	-0.0	-1.2	-0.0	4.2	-0.0
Fy,	-181.8	**-0.0**	9.4	-0.0	-150.2	-0.0	-130.4	**0.0**	6.9	0.0	-54.2	0.0
Fz,	3.5	-0.0	**-3.4**	0.0	18.0	-0.0	-284.9	-0.0	**21.9**	0.0	-255.2	0.0
Mx,	-233.8	-0.0	16.1	**-0.0**	-197.3	-0.0	-35.3	-0.0	0.8	**0.0**	-8.1	-0.0
My,	-287.1	-0.0	21.9	0.0	**-257.9**	-0.0	-128.7	0.0	-2.2	0.0	**38.7**	0.0
Mz,	-181.8	-0.0	9.4	-0.0	-150.2	**-0.0**	-130.4	0.0	6.9	0.0	-54.2	**0.0**
Fx,	**-331.0**	0.0	12.4	0.0	-112.9	-0.0	**35.9**	-0.0	-1.2	-0.0	2.0	0.0
Fy,	-181.8	**-0.0**	9.4	-0.0	-133.7	0.0	-130.4	**0.0**	6.9	0.0	-42.2	-0.0
Fz,	3.5	-0.0	**-3.4**	0.0	12.0	0.0	-284.9	-0.0	**21.9**	0.0	-216.9	0.0
Mx,	-233.8	-0.0	16.1	**-0.0**	-169.1	0.0	-35.3	-0.0	0.8	**0.0**	-6.7	0.0
My,	-284.9	-0.0	21.5	0.0	**-220.0**	0.0	-128.9	0.0	-2.2	0.0	**34.9**	-0.0
Mz,	-185.3	0.0	9.9	0.0	-64.7	**-0.0**	-105.8	-0.0	7.3	-0.0	-103.8	**0.0**

Member 380

Fx,	**-328.2**	-0.0	13.4	-0.0	-135.2	-0.0	**26.3**	0.0	-1.0	0.0	2.9	0.0
Fy,	-244.2	**-0.0**	10.8	-0.0	-124.0	-0.0	-142.9	**0.0**	8.4	-0.0	-101.9	0.0
Fz,	6.8	0.0	**-2.7**	0.0	11.9	-0.0	-293.3	-0.0	**22.5**	-0.0	-250.9	-0.0
Mx,	-243.5	-0.0	10.2	**-0.0**	-101.1	-0.0	-27.3	-0.0	1.3	**0.0**	-26.0	-0.0
My,	-293.2	0.0	22.3	-0.0	**-254.4**	0.0	-133.1	0.0	-1.3	-0.0	**33.3**	0.0
Mz,	-238.2	-0.0	10.7	0.0	-124.8	**-0.0**	-144.0	0.0	8.9	-0.0	-107.4	**0.0**
Fx,	**-328.2**	-0.0	13.4	-0.0	-111.9	0.0	**26.3**	0.0	-1.0	0.0	1.2	-0.0
Fy,	-244.2	**-0.0**	10.8	-0.0	-105.0	0.0	-142.9	**0.0**	8.4	-0.0	-87.2	-0.0
Fz,	6.8	0.0	**-2.7**	0.0	7.2	-0.0	-293.3	-0.0	**22.5**	-0.0	-211.4	-0.0
Mx,	-243.5	-0.0	10.2	**-0.0**	-83.2	0.0	-27.3	-0.0	1.3	**0.0**	-23.6	-0.0
My,	-291.7	-0.0	21.8	-0.0	**-215.7**	-0.0	-133.3	0.0	-1.2	-0.0	**31.2**	-0.0
Mz,	-169.2	0.0	11.5	0.0	-111.7	**-0.0**	-224.9	-0.0	9.6	-0.0	-95.5	**0.0**

Member 381

Fx,	**-290.4**	-0.0	15.3	0.0	-116.5	-0.0	**23.1**	-0.0	-1.1	0.0	2.3	-0.0
Fy,	-162.9	**-0.0**	10.1	0.0	-55.9	-0.0	-84.2	**0.0**	4.3	0.0	-52.0	0.0
Fz,	0.5	0.0	**-3.7**	0.0	8.0	0.0	-258.0	-0.0	**25.8**	0.0	-222.3	-0.0
Mx,	-216.9	-0.0	19.4	**0.0**	-174.7	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-260.0	-0.0	25.2	0.0	**-224.3**	-0.0	-77.7	0.0	-2.3	0.0	**26.1**	0.0
Mz,	-162.9	-0.0	10.1	0.0	-55.9	**-0.0**	-84.2	0.0	4.3	0.0	-52.0	**0.0**
Fx,	**-290.4**	-0.0	15.3	0.0	-89.7	0.0	**23.1**	-0.0	-1.1	0.0	0.4	0.0
Fy,	-162.9	**-0.0**	10.1	0.0	-38.3	0.0	-84.2	**0.0**	4.3	0.0	-44.4	-0.0
Fz,	0.5	0.0	**-3.7**	0.0	1.5	-0.0	-258.0	-0.0	**25.8**	0.0	-177.2	0.0
Mx,	-216.9	-0.0	19.4	**0.0**	-140.7	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-249.3	-0.0	23.7	0.0	**-181.4**	0.0	-78.2	0.0	-1.9	0.0	**22.4**	-0.0
Mz,	-182.7	0.0	8.4	0.0	-76.0	**-0.0**	-138.6	-0.0	9.2	0.0	-34.2	**0.0**

Member 382

Fx,	**-108.7**	-1.3	41.3	-0.0	-72.2	-2.3	**26.9**	0.7	1.1	-0.0	-2.0	1.2
Fy,	-98.8	**-1.4**	38.0	-0.0	-66.5	-2.4	25.8	**0.7**	-0.1	-0.0	0.1	1.3
Fz,	5.7	0.2	**-2.8**	0.0	4.9	0.3	**-87.6**	-0.9	**61.1**	-0.0	-106.9	-1.5
Mx,	-54.3	-0.4	44.7	**-0.0**	-78.2	-0.6	-0.9	-0.0	0.0	**0.0**	-0.1	-0.0
My,	-87.6	-0.9	61.1	-0.0	**-106.9**	-1.5	5.7	0.2	-2.8	0.0	**4.9**	0.3
Mz,	-98.8	-1.4	38.0	-0.0	-66.5	**-2.4**	25.8	0.7	-0.1	-0.0	0.1	**1.3**
Fx,	**-108.7**	-1.3	41.3	-0.0	0.0	-0.0	**26.9**	0.7	1.1	-0.0	0.0	0.0
Fy,	-98.8	**-1.4**	38.0	-0.0	0.0	-0.0	25.8	**0.7**	-0.1	-0.0	0.0	0.0
Fz,	5.7	0.2	**-2.8**	0.0	0.0	0.0	**-87.6**	-0.9	**61.1**	-0.0	0.0	-0.0
Mx,	-54.3	-0.4	44.7	**-0.0**	0.0	-0.0	-0.9	-0.0	0.0	**0.0**	-0.0	-0.0
My,	-74.7	-0.8	31.0	-0.0	**-0.0**	-0.0	-40.7	-0.1	40.3	-0.0	**0.0**	0.0
Mz,	-90.3	-1.2	32.4	-0.0	0.0	**-0.0**	**0.4**	0.3	6.4	-0.0	0.0	**0.0**

Member 391

Fx,	**-286.4**	0.0	-11.1	0.0	91.6	0.0	**23.1**	0.0	-0.4	0.0	1.4	0.0
Fy,	-213.1	**0.0**	-16.5	0.0	141.6	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-258.2	0.0	**-21.7**	0.0	183.9	0.0	-75.9	0.0	**2.6**	0.0	-23.5	0.0
Mx,	-213.1	0.0	-16.5	**0.0**	141.6	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-78.4	0.0	2.6	0.0	**-23.8**	0.0	-249.4	0.0	-21.5	0.0	**185.1**	0.0
Mz,	-213.1	0.0	-16.5	0.0	141.6	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-286.4**	0.0	-11.1	0.0	-57.9	0.0	**23.1**	0.0	-0.4	0.0	-4.1	0.0
Fy,	-213.1	**0.0**	-16.5	0.0	-81.3	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-258.2	0.0	**-21.7**	0.0	-108.3	0.0	-75.9	0.0	**2.6**	0.0	11.7	0.0
Mx,	-213.1	0.0	-16.5	**0.0**	-81.3	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-257.4	0.0	-21.6	0.0	**-108.4**	0.0	1.1	0.0	1.4	0.0	**13.5**	0.0
Mz,	-213.1	0.0	-16.5	0.0	-81.3	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 392

Fx,	**-327.9**	0.0	-16.0	0.0	107.5	0.0	**26.1**	0.0	1.0	0.0	-0.4	0.0
Fy,	-248.1	**0.0**	-21.4	0.0	167.6	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-297.7	0.0	**-27.1**	0.0	204.5	0.0	9.1	0.0	**3.0**	0.0	-5.3	0.0
Mx,	-248.1	0.0	-21.4	**0.0**	167.6	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-131.6	0.0	1.3	0.0	**-31.4**	0.0	-292.9	0.0	-26.0	0.0	**210.8**	0.0
Mz,	-248.1	0.0	-21.4	0.0	167.6	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-327.9**	0.0	-16.0	0.0	-91.2	0.0	**26.1**	0.0	1.0	0.0	12.2	0.0
Fy,	-248.1	**0.0**	-21.4	0.0	-97.1	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-297.7	0.0	**-27.1**	0.0	-131.2	0.0	9.1	0.0	**3.0**	0.0	31.8	0.0
Mx,	-248.1	0.0	-21.4	**0.0**	-97.1	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-296.2	0.0	-26.7	0.0	**-134.9**	0.0	-9.5	0.0	-0.0	0.0	**37.1**	0.0
Mz,	-248.1	0.0	-21.4	0.0	-97.1	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 393

Fx,	**-330.9**	0.0	-13.0	0.0	111.9	0.0	**35.8**	0.0	1.1	0.0	-1.6	0.0
Fy,	-241.1	**0.0**	-17.4	0.0	172.5	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-286.2	0.0	**-22.7**	0.0	214.5	0.0	4.5	0.0	**3.3**	0.0	-10.4	0.0
Mx,	-241.1	0.0	-17.4	**0.0**	172.5	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-129.0	0.0	2.1	0.0	**-34.7**	0.0	-284.6	0.0	-22.0	0.0	**218.5**	0.0
Mz,	-241.1	0.0	-17.4	0.0	172.5	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-330.9**	0.0	-13.0	0.0	-89.7	0.0	**35.8**	0.0	1.1	0.0	15.6	0.0
Fy,	-241.1	**0.0**	-17.4	0.0	-97.7	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-286.2	0.0	**-22.7**	0.0	-138.3	0.0	4.5	0.0	**3.3**	0.0	40.6	0.0
Mx,	-241.1	0.0	-17.4	**0.0**	-97.7	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-285.5	0.0	-22.6	0.0	**-141.7**	0.0	-6.4	0.0	1.5	0.0	**43.1**	0.0
Mz,	-241.1	0.0	-17.4	0.0	-97.7	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 394

Fx,	**-333.1**	0.0	-12.7	0.0	112.8	0.0	**36.1**	0.0	1.1	0.0	-1.8	0.0
Fy,	-242.9	**0.0**	-16.8	0.0	173.5	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-285.7	0.0	**-22.1**	0.0	216.4	0.0	2.4	0.0	**3.4**	0.0	-11.5	0.0
Mx,	-242.9	0.0	-16.8	**0.0**	173.5	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-130.1	0.0	1.9	0.0	**-34.7**	0.0	-285.4	0.0	-21.5	0.0	**219.7**	0.0
Mz,	-242.9	0.0	-16.8	0.0	173.5	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-333.1**	0.0	-12.7	0.0	-92.0	0.0	**36.1**	0.0	1.1	0.0	16.8	0.0

Fy_f	-242.9	**0.0**	-16.8	0.0	-97.9	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-285.7	0.0	**-22.1**	0.0	-139.8	0.0	2.4	0.0	**3.4**	0.0	43.4	0.0
Mx_f	-242.9	0.0	-16.8	**0.0**	-97.9	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-294.4	0.0	-21.9	0.0	**-143.9**	0.0	-2.9	0.0	1.3	0.0	**47.0**	0.0
Mz_f	-242.9	0.0	-16.8	0.0	-97.9	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 395

Fx_i	**-331.0**	0.0	-12.4	0.0	112.9	0.0	**35.9**	0.0	1.2	0.0	-2.0	0.0
Fy_i	-241.3	**0.0**	-16.6	0.0	173.6	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-284.9	0.0	**-21.9**	0.0	216.9	0.0	3.5	0.0	**3.4**	0.0	-12.0	0.0
Mx_i	-241.3	0.0	-16.6	**0.0**	173.6	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-128.9	0.0	2.2	0.0	**-34.9**	0.0	-284.9	0.0	-21.5	0.0	**220.0**	0.0
Mz_i	-241.3	0.0	-16.6	0.0	173.6	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-331.0**	0.0	-12.4	0.0	-90.4	0.0	**35.9**	0.0	1.2	0.0	18.3	0.0
Fy_f	-241.3	**0.0**	-16.6	0.0	-97.8	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-284.9	0.0	**-21.9**	0.0	-141.1	0.0	3.5	0.0	**3.4**	0.0	43.9	0.0
Mx_f	-241.3	0.0	-16.6	**0.0**	-97.8	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-285.9	0.0	-21.8	0.0	**-145.1**	0.0	-9.5	0.0	1.3	0.0	**47.3**	0.0
Mz_f	-241.3	0.0	-16.6	0.0	-97.8	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 396

Fx_i	**-328.2**	0.0	-13.4	0.0	111.9	0.0	**26.3**	0.0	1.0	0.0	-1.2	0.0
Fy_i	-247.5	**0.0**	-17.6	0.0	172.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-293.3	0.0	**-22.5**	0.0	211.4	0.0	6.8	0.0	**2.7**	0.0	-7.2	0.0
Mx_i	-247.5	0.0	-17.6	**0.0**	172.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-133.3	0.0	1.2	0.0	**-31.2**	0.0	-291.7	0.0	-21.8	0.0	**215.7**	0.0
Mz_i	-247.5	0.0	-17.6	0.0	172.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-328.2**	0.0	-13.4	0.0	-93.0	0.0	**26.3**	0.0	1.0	0.0	13.8	0.0
Fy_f	-247.5	**0.0**	-17.6	0.0	-97.5	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-293.3	0.0	**-22.5**	0.0	-134.3	0.0	6.8	0.0	**2.7**	0.0	34.3	0.0
Mx_f	-247.5	0.0	-17.6	**0.0**	-97.5	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-293.1	0.0	-22.4	0.0	**-138.2**	0.0	-11.6	0.0	0.2	0.0	**39.0**	0.0
Mz_f	-247.5	0.0	-17.6	0.0	-97.5	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 397

Fx_i	**-290.4**	0.0	-15.3	0.0	89.7	0.0	**23.1**	0.0	1.1	0.0	-0.4	0.0
Fy_i	-216.9	**0.0**	-19.4	0.0	140.7	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-258.0	0.0	**-25.8**	0.0	177.2	0.0	0.5	0.0	**3.7**	0.0	-1.5	0.0
Mx_i	-216.9	0.0	-19.4	**0.0**	140.7	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-78.2	0.0	1.9	0.0	**-22.4**	0.0	-249.3	0.0	-23.7	0.0	**181.4**	0.0
Mz_i	-216.9	0.0	-19.4	0.0	140.7	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-290.4**	0.0	-15.3	0.0	-85.8	0.0	**23.1**	0.0	1.1	0.0	11.7	0.0
Fy_f	-216.9	**0.0**	-19.4	0.0	-82.1	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-258.0	0.0	**-25.8**	0.0	-118.1	0.0	0.5	0.0	**3.7**	0.0	41.1	0.0
Mx_f	-216.9	0.0	-19.4	**0.0**	-82.1	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-249.6	0.0	-25.5	0.0	**-125.0**	0.0	-17.0	0.0	1.6	0.0	**45.0**	0.0
Mz_f	-216.9	0.0	-19.4	0.0	-82.1	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 398

Fx_i	**-286.4**	0.0	11.1	0.0	-91.6	0.0	**23.1**	0.0	0.4	0.0	-1.4	0.0
Fy_i	-213.1	**0.0**	16.5	0.0	-141.6	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-75.9	0.0	**-2.6**	0.0	23.5	0.0	-258.2	0.0	**21.7**	0.0	-183.9	0.0
Mx_i	-213.1	0.0	16.5	**0.0**	-141.6	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-249.4	0.0	21.5	0.0	**-185.1**	0.0	-78.4	0.0	-2.6	0.0	**23.8**	0.0
Mz_i	-213.1	0.0	16.5	0.0	-141.6	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-286.4**	0.0	11.1	0.0	57.9	0.0	**23.1**	0.0	0.4	0.0	4.1	0.0
Fy_f	-213.1	**0.0**	16.5	0.0	81.3	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-75.9	0.0	**-2.6**	0.0	-11.7	0.0	-258.2	0.0	**21.7**	0.0	108.3	0.0
Mx_f	-213.1	0.0	16.5	**0.0**	81.3	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	1.1	0.0	-1.4	0.0	**-13.5**	0.0	-257.4	0.0	21.6	0.0	**108.4**	0.0
Mz_f	-213.1	0.0	16.5	0.0	81.3	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 399

Fx_i	**-327.9**	0.0	16.0	0.0	-107.5	0.0	**26.1**	0.0	-1.0	0.0	0.4	0.0
Fy_i	-248.1	**0.0**	21.4	0.0	-167.6	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	9.1	0.0	**-3.0**	0.0	5.3	0.0	-297.7	0.0	**27.1**	0.0	-204.5	0.0
Mx_i	-248.1	0.0	21.4	**0.0**	-167.6	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-292.9	0.0	26.0	0.0	**-210.8**	0.0	-131.6	0.0	-1.3	0.0	**31.4**	0.0
Mz_i	-248.1	0.0	21.4	0.0	-167.6	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-327.9**	0.0	16.0	0.0	91.2	0.0	**26.1**	0.0	-1.0	0.0	-12.2	0.0
Fy_f	-248.1	**0.0**	21.4	0.0	97.1	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	9.1	0.0	**-3.0**	0.0	-31.8	0.0	-297.7	0.0	**27.1**	0.0	131.2	0.0
Mx_f	-248.1	0.0	21.4	**0.0**	97.1	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-9.5	0.0	0.0	0.0	**-37.1**	0.0	-296.2	0.0	26.7	0.0	**134.9**	0.0
Mz_f	-248.1	0.0	21.4	0.0	97.1	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 400

Fx_i	**-330.9**	0.0	13.0	0.0	-111.9	0.0	**35.8**	0.0	-1.1	0.0	1.6	0.0
Fy_i	-241.1	**0.0**	17.4	0.0	-172.5	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	4.5	0.0	**-3.3**	0.0	10.4	0.0	-286.2	0.0	**22.7**	0.0	-214.5	0.0
Mx_i	-241.1	0.0	17.4	**0.0**	-172.5	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-284.6	0.0	22.0	0.0	**-218.5**	0.0	-129.0	0.0	-2.1	0.0	**34.7**	0.0
Mz_i	-241.1	0.0	17.4	0.0	-172.5	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-330.9**	0.0	13.0	0.0	89.7	0.0	**35.8**	0.0	-1.1	0.0	-15.6	0.0
Fy_f	-241.1	**0.0**	17.4	0.0	97.7	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	4.5	0.0	**-3.3**	0.0	-40.6	0.0	-286.2	0.0	**22.7**	0.0	138.3	0.0
Mx_f	-241.1	0.0	17.4	**0.0**	97.7	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-6.4	0.0	-1.5	0.0	**-43.1**	0.0	-285.5	0.0	22.6	0.0	**141.7**	0.0
Mz_f	-241.1	0.0	17.4	0.0	97.7	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 401

Fx_i	**-333.1**	0.0	12.7	0.0	-112.8	0.0	**36.1**	0.0	-1.1	0.0	1.8	0.0
Fy_i	-242.9	**0.0**	16.8	0.0	-173.5	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	2.4	0.0	**-3.4**	0.0	11.5	0.0	-285.7	0.0	**22.1**	0.0	-216.4	0.0
Mx_i	-242.9	0.0	16.8	**0.0**	-173.5	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-285.4	0.0	21.5	0.0	**-219.7**	0.0	-130.1	0.0	-1.9	0.0	**34.7**	0.0
Mz_i	-242.9	0.0	16.8	0.0	-173.5	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-333.1**	0.0	12.7	0.0	92.0	0.0	**36.1**	0.0	-1.1	0.0	-16.8	0.0
Fy_f	-242.9	**0.0**	16.8	0.0	97.9	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	2.4	0.0	**-3.4**	0.0	-43.4	0.0	-285.7	0.0	**22.1**	0.0	139.8	0.0
Mx_f	-242.9	0.0	16.8	**0.0**	97.9	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-2.9	0.0	-1.3	0.0	**-47.0**	0.0	-294.4	0.0	21.9	0.0	**143.9**	0.0
Mz_f	-242.9	0.0	16.8	0.0	97.9	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 402

Fx_i	**-331.0**	0.0	12.4	0.0	-112.9	0.0	**35.9**	0.0	-1.2	0.0	2.0	0.0
Fy_i	-241.3	**0.0**	16.6	0.0	-173.6	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	3.5	0.0	**-3.4**	0.0	12.0	0.0	-284.9	0.0	**21.9**	0.0	-216.9	0.0
Mx_i	-241.3	0.0	16.6	**0.0**	-173.6	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-284.9	0.0	21.5	0.0	**-220.0**	0.0	-128.9	0.0	-2.2	0.0	**34.9**	0.0
Mz_i	-241.3	0.0	16.6	0.0	-173.6	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-331.0**	0.0	12.4	0.0	90.4	0.0	**35.9**	0.0	-1.2	0.0	-18.3	0.0
Fy_f	-241.3	**0.0**	16.6	0.0	97.8	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	3.5	0.0	**-3.4**	0.0	-43.9	0.0	-284.9	0.0	**21.9**	0.0	141.1	0.0
Mx_f	-241.3	0.0	16.6	**0.0**	97.8	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-9.5	0.0	-1.3	0.0	**-47.3**	0.0	-285.9	0.0	21.8	0.0	**145.1**	0.0
Mz_f	-241.3	0.0	16.6	0.0	97.8	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 403

Fx_i	**-328.2**	0.0	13.4	0.0	-111.9	0.0	**26.3**	0.0	-1.0	0.0	1.2	0.0
Fy_i	-247.5	**0.0**	17.6	0.0	-172.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	6.8	0.0	**-2.7**	0.0	7.2	0.0	-293.3	0.0	**22.5**	0.0	-211.4	0.0
Mx_i	-247.5	0.0	17.6	**0.0**	-172.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-291.7	0.0	21.8	0.0	**-215.7**	0.0	-133.3	0.0	-1.2	0.0	**31.2**	0.0
Mz_i	-247.5	0.0	17.6	0.0	-172.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-328.2**	0.0	13.4	0.0	93.0	0.0	**26.3**	0.0	-1.0	0.0	-13.8	0.0
Fy_f	-247.5	**0.0**	17.6	0.0	97.5	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	6.8	0.0	**-2.7**	0.0	-34.3	0.0	-293.3	0.0	**22.5**	0.0	134.3	0.0
Mx_f	-247.5	0.0	17.6	**0.0**	97.5	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-11.6	0.0	-0.2	0.0	**-39.0**	0.0	-293.1	0.0	22.4	0.0	**138.2**	0.0
Mz_f	-247.5	0.0	17.6	0.0	97.5	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 404

Fx,	**-290.4**	0.0	15.3	0.0	-89.7	0.0	**23.1**	0.0	-1.1	0.0	0.4	0.0
Fy,	-216.9	**0.0**	19.4	0.0	-140.7	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	0.5	0.0	**-3.7**	0.0	1.5	0.0	-258.0	0.0	**25.8**	0.0	-177.2	0.0
Mx,	-216.9	0.0	19.4	**0.0**	-140.7	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-249.3	0.0	23.7	0.0	**-181.4**	0.0	-78.2	0.0	-1.9	0.0	**22.4**	0.0
Mz,	-216.9	0.0	19.4	0.0	-140.7	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-290.4**	0.0	15.3	0.0	85.8	0.0	**23.1**	0.0	-1.1	0.0	-11.7	0.0
Fy,	-216.9	**0.0**	19.4	0.0	82.1	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	0.5	0.0	**-3.7**	0.0	-41.1	0.0	-258.0	0.0	**25.8**	0.0	118.1	0.0
Mx,	-216.9	0.0	19.4	**0.0**	82.1	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-17.0	0.0	-1.6	0.0	**-45.0**	0.0	-249.6	0.0	25.5	0.0	**125.0**	0.0
Mz,	-216.9	0.0	19.4	0.0	82.1	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 405

Fx,	**-65.8**	1.7	-10.7	0.0	0.0	0.0	**65.3**	3.0	-41.3	-0.0	0.0	0.0
Fy,	-17.2	**-3.5**	0.7	0.0	0.0	-0.0	-20.5	**6.6**	-23.8	0.0	0.0	0.0
Fz,	14.2	3.4	**-65.8**	-0.0	0.0	-0.0	-29.4	1.1	**5.8**	0.0	0.0	0.0
Mx,	34.5	3.4	-62.5	**-0.0**	0.0	-0.0	-19.1	0.0	1.1	**0.0**	-0.0	0.0
My,	-3.7	2.2	-26.1	-0.0	**-0.0**	0.0	1.1	1.6	-35.5	-0.0	**0.0**	-0.0
Mz,	18.8	-2.3	-12.3	-0.0	0.0	**-0.0**	-24.6	5.7	-20.7	-0.0	0.0	**0.0**
Fx,	**-65.8**	1.7	-10.7	0.0	-21.4	-3.3	**65.3**	3.0	-41.3	-0.0	-82.6	-5.9
Fy,	-17.2	**-3.5**	0.7	0.0	1.5	7.0	-20.5	**6.6**	-23.8	0.0	-47.6	-13.1
Fz,	14.2	3.4	**-65.8**	-0.0	-131.7	-6.8	-29.4	1.1	**5.8**	0.0	11.7	-2.2
Mx,	34.5	3.4	-62.5	**-0.0**	-125.0	-6.8	-19.1	0.0	1.1	**0.0**	2.1	-0.1
My,	14.2	3.4	-65.8	-0.0	**-131.7**	-6.8	-29.4	1.1	5.8	0.0	**11.7**	-2.2
Mz,	-20.5	6.6	-23.8	0.0	-47.6	**-13.1**	-17.2	-3.5	0.7	0.0	1.5	**7.0**

Member 406

Fx,	**-65.8**	1.7	10.7	-0.0	-0.0	0.0	**65.3**	3.0	41.3	0.0	-0.0	0.0
Fy,	-17.2	**-3.5**	-0.7	0.0	-0.0	-0.0	-20.5	**6.6**	23.8	0.0	0.0	0.0
Fz,	-29.4	1.1	**-5.8**	-0.0	0.0	0.0	14.2	3.4	**65.8**	0.0	0.0	0.0
Mx,	-46.0	1.8	14.9	**-0.0**	-0.0	0.0	14.8	1.3	22.2	**0.0**	-0.0	0.0
My,	-7.7	1.9	20.7	0.0	**-0.0**	0.0	5.1	0.6	25.8	0.0	**0.0**	0.0
Mz,	0.3	-3.2	0.2	0.0	-0.0	**-0.0**	-10.6	5.9	19.9	-0.0	-0.0	**0.0**
Fx,	**-65.8**	1.7	10.7	-0.0	21.4	-3.3	**65.3**	3.0	41.3	0.0	82.6	-5.9
Fy,	-17.2	**-3.5**	-0.7	0.0	-1.5	7.0	-20.5	**6.6**	23.8	0.0	47.6	-13.1
Fz,	-29.4	1.1	**-5.8**	-0.0	-11.7	-2.2	14.2	3.4	**65.8**	0.0	131.7	-6.8
Mx,	-46.0	1.8	14.9	**-0.0**	29.7	-3.5	14.8	1.3	22.2	**0.0**	44.5	-2.6
My,	-29.4	1.1	-5.8	-0.0	**-11.7**	-2.2	14.2	3.4	65.8	0.0	**131.7**	-6.8
Mz,	-20.5	6.6	23.8	0.0	47.6	**-13.1**	-17.2	-3.5	-0.7	0.0	-1.5	**7.0**

Member 421

Fx,	**-544.8**	0.0	-0.0	0.0	0.0	0.0	**45.9**	0.0	-0.0	0.0	0.0	0.0
Fy,	-426.1	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-340.7	0.0	**-15.3**	0.0	-119.0	0.0	-340.7	0.0	**15.3**	0.0	119.0	0.0
Mx,	-426.1	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-248.3	0.0	2.4	0.0	**-632.3**	0.0	-248.3	0.0	-2.4	0.0	**632.3**	0.0
Mz,	-426.1	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-544.8**	0.0	-0.0	0.0	-0.0	0.0	**45.9**	0.0	-0.0	0.0	0.0	0.0
Fy,	-426.1	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-340.7	0.0	**-15.3**	0.0	-134.2	0.0	-340.7	0.0	**15.3**	0.0	134.2	0.0
Mx,	-426.1	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-249.7	0.0	1.7	0.0	**-630.0**	0.0	-249.7	0.0	-1.7	0.0	**630.0**	0.0
Mz,	-426.1	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 422

Fx,	**-620.1**	0.0	-0.0	0.0	-0.0	0.0	**51.3**	0.0	0.0	0.0	0.0	0.0
Fy,	-496.2	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-290.3	0.0	**-11.8**	0.0	-269.7	0.0	-290.3	0.0	**11.8**	0.0	269.7	0.0
Mx,	-496.2	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-287.8	0.0	-1.5	0.0	**-788.0**	0.0	-287.8	0.0	1.5	0.0	**788.0**	0.0
Mz,	-496.2	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-620.1**	0.0	-0.0	0.0	-0.0	0.0	**51.3**	0.0	0.0	0.0	-0.0	0.0
Fy,	-496.2	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-290.3	0.0	-11.8	0.0	-281.4	0.0	-290.3	0.0	**11.8**	0.0	281.4	0.0
Mx,	-496.2	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-286.0	0.0	-1.8	0.0	**-789.5**	0.0	-286.0	0.0	1.8	0.0	**789.5**	0.0
Mz,	-496.2	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 423

Fx,	**-625.4**	0.0	-0.0	0.0	-0.0	0.0	**70.5**	0.0	0.0	0.0	0.0	0.0
Fy,	-482.2	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-283.3	0.0	**-11.5**	0.0	-192.9	0.0	-283.3	0.0	**11.5**	0.0	192.9	0.0
Mx,	-482.2	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-278.5	0.0	-2.5	0.0	**-791.3**	0.0	-278.5	0.0	2.5	0.0	**791.3**	0.0
Mz,	-482.2	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-625.4**	0.0	-0.0	0.0	0.0	0.0	**70.5**	0.0	0.0	0.0	0.0	0.0
Fy,	-482.2	**0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-283.3	0.0	**-11.5**	0.0	-204.3	0.0	-283.3	0.0	**11.5**	0.0	204.3	0.0
Mx,	-482.2	0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-276.8	0.0	-2.7	0.0	**-794.0**	0.0	-276.8	0.0	2.7	0.0	**794.0**	0.0
Mz,	-482.2	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 424

Fx,	**-629.4**	0.0	0.0	0.0	0.0	0.0	**70.8**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-485.8	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-285.1	0.0	**-11.2**	0.0	-203.8	0.0	-285.1	0.0	**11.2**	0.0	203.8	0.0
Mx,	-485.8	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-281.1	0.0	-2.9	0.0	**-802.5**	0.0	-281.1	0.0	2.9	0.0	**802.5**	0.0
Mz,	-485.8	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-629.4**	0.0	0.0	0.0	-0.0	0.0	**70.8**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-485.8	**0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-285.1	0.0	**-11.2**	0.0	-215.0	0.0	-285.1	0.0	**11.2**	0.0	215.0	0.0
Mx,	-485.8	0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-281.3	0.0	-2.9	0.0	**-805.4**	0.0	-281.3	0.0	2.9	0.0	**805.4**	0.0
Mz,	-485.8	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 425

Fx,	**-625.4**	0.0	-0.0	0.0	-0.0	0.0	**70.3**	0.0	0.0	0.0	-0.0	0.0
Fy,	-482.6	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-283.4	0.0	**-11.3**	0.0	-199.4	0.0	-283.4	0.0	**11.3**	0.0	199.4	0.0
Mx,	-482.6	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-278.8	0.0	-2.9	0.0	**-801.1**	0.0	-278.8	0.0	2.9	0.0	**801.1**	0.0
Mz,	-482.6	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-625.4**	0.0	-0.0	0.0	-0.0	0.0	**70.3**	0.0	0.0	0.0	0.0	0.0
Fy,	-482.6	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-283.4	0.0	**-11.3**	0.0	-210.7	0.0	-283.4	0.0	**11.3**	0.0	210.7	0.0
Mx,	-482.6	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-277.0	0.0	-3.1	0.0	**-804.0**	0.0	-277.0	0.0	3.1	0.0	**804.0**	0.0
Mz,	-482.6	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 426

Fx,	**-619.8**	0.0	0.0	0.0	0.0	0.0	**51.5**	0.0	0.0	0.0	0.0	0.0
Fy,	-494.9	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-291.5	0.0	**-10.4**	0.0	-191.8	0.0	-291.5	0.0	**10.4**	0.0	191.8	0.0
Mx,	-494.9	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-288.4	0.0	-1.7	0.0	**-792.9**	0.0	-288.4	0.0	1.7	0.0	**792.9**	0.0
Mz,	-494.9	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-619.8**	0.0	0.0	0.0	-0.0	0.0	**51.5**	0.0	0.0	0.0	-0.0	0.0
Fy,	-494.9	**0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-291.5	0.0	**-10.4**	0.0	-202.2	0.0	-291.5	0.0	**10.4**	0.0	202.2	0.0
Mx,	-494.9	0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-286.6	0.0	-1.9	0.0	**-794.6**	0.0	-286.6	0.0	1.9	0.0	**794.6**	0.0
Mz,	-494.9	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 427

Fx,	**-545.6**	0.0	0.0	0.0	-0.0	0.0	**45.7**	0.0	0.0	0.0	-0.0	0.0
Fy,	-433.8	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-257.9	0.0	**-13.9**	0.0	-312.3	0.0	-257.9	0.0	**13.9**	0.0	312.3	0.0
Mx,	-433.8	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0

My_i	-255.9	0.0	-5.4	0.0	**-722.5**	0.0	-255.9	0.0	5.4	0.0	722.5	0.0
Mz_i	-433.8	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-545.6**	0.0	0.0	0.0	-0.0	0.0	**45.7**	0.0	0.0	0.0	0.0	0.0
Fy_f	-433.8	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-257.9	0.0	**-13.9**	0.0	-326.2	0.0	-257.9	0.0	**13.9**	0.0	326.2	0.0
Mx_f	-433.8	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-255.4	0.0	-5.4	0.0	**-727.9**	0.0	-255.4	0.0	5.4	0.0	**727.9**	0.0
Mz_f	-433.8	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

DISPLACEMENTS

	x	y	z	x	y	z	x	y	z	x	y	z
Joint 1												
x	**-0.0**	-0.0	0.0	0.2	-0.2	-103.8	**0.0**	-0.0	-0.0	-0.4	0.3	-185.0
y	-0.0	**-0.0**	-0.0	-0.1	0.0	-365.5	-0.0	**0.0**	0.0	0.1	-0.1	219.4
z	0.0	-0.0	**-0.0**	-0.5	0.3	-215.5	-0.0	-0.0	**0.0**	0.2	-0.2	9.9
x	0.0	-0.0	-0.0	**-0.5**	0.3	-214.8	-0.0	-0.0	0.0	**0.2**	-0.2	10.4
y	-0.0	-0.0	0.0	0.2	**-0.2**	6.9	0.0	-0.0	-0.0	-0.5	**0.3**	-215.5
z	-0.0	-0.0	-0.0	-0.0	0.0	**-410.9**	-0.0	0.0	0.0	0.1	-0.1	**219.4**
Joint 2												
x	**-0.0**	-0.3	0.0	-114.9	-4.1	-66.6	**0.0**	-0.6	-0.0	-146.8	4.1	-149.5
y	-0.0	**-1.4**	0.0	-131.7	-1.0	-349.2	-0.0	**0.8**	0.0	-6.7	-1.1	202.7
z	0.0	-0.6	**-0.0**	-146.8	4.1	-149.5	-0.0	-0.2	**0.0**	-106.4	-4.1	-52.6
x	-0.0	-0.9	0.0	**-284.5**	-0.2	-212.5	0.0	-0.4	-0.0	**30.8**	1.2	-102.0
y	-0.0	-0.3	0.0	-114.9	**-4.1**	-66.6	0.0	-0.6	-0.0	-146.8	**4.1**	-149.5
z	-0.0	-1.4	0.0	-118.9	-1.0	**-352.9**	-0.0	0.8	0.0	-6.7	-1.1	**202.7**
Joint 3												
x	**-0.0**	-0.4	0.0	-187.8	-7.3	-2.3	**0.0**	-1.0	-0.0	-231.6	7.3	-71.6
y	-0.0	**-2.5**	0.0	-202.5	-1.8	-201.0	-0.0	**1.4**	0.0	-12.6	-2.0	147.1
z	0.0	-1.0	**-0.0**	-231.7	7.3	-71.4	-0.0	-0.4	**0.0**	-187.7	-7.3	-2.4
x	-0.0	-1.5	0.0	**-461.1**	-0.3	-84.4	0.0	-0.4	-0.0	**47.4**	2.0	-43.9
y	-0.0	-0.4	0.0	-187.8	**-7.3**	-2.3	0.0	-1.0	-0.0	-231.6	**7.3**	-71.5
z	-0.0	-2.5	0.0	-202.5	-1.8	**-201.0**	-0.0	1.4	0.0	-12.6	-2.0	**147.1**
Joint 4												
x	**-0.0**	0.0	0.1	-200.5	-9.9	58.5	**0.0**	-1.1	-0.1	-238.7	9.8	11.3
y	-0.0	**-2.9**	0.0	-240.8	-2.4	-12.2	-0.0	**1.8**	0.0	-16.8	-2.7	61.8
z	0.0	-1.2	**-0.1**	-267.2	9.9	11.1	-0.0	-0.3	**0.1**	-210.8	-9.9	53.2
x	-0.0	-1.6	0.0	**-525.5**	-0.1	28.4	0.0	0.2	-0.0	**52.7**	1.7	9.8
y	-0.0	0.0	0.1	-200.5	**-9.9**	58.5	0.0	-1.1	-0.1	-238.7	**9.9**	11.3
z	-0.0	-1.7	0.0	-90.4	-1.6	**-46.3**	-0.0	0.1	0.0	-94.0	-2.2	**87.4**
Joint 5												
x	**-0.0**	0.3	0.1	-149.1	-11.8	42.5	**0.0**	-0.7	-0.1	-208.0	11.7	79.7
y	-0.0	**-2.5**	0.0	-210.4	-2.8	195.0	-0.0	**1.8**	0.0	-18.7	-3.2	-72.5
z	0.0	-1.0	**-0.1**	-262.1	11.8	85.7	-0.0	-0.1	**0.1**	-176.9	-11.7	73.0
x	0.0	-1.2	-0.0	**-477.1**	2.0	120.9	0.0	-0.1	-0.0	**48.4**	2.0	35.2
y	-0.0	0.3	0.1	-149.0	**-11.8**	42.5	0.0	-0.7	-0.1	-208.0	**11.8**	79.7
z	-0.0	1.8	0.0	-18.7	-3.2	**-72.5**	-0.0	-2.5	0.0	-210.4	-2.8	**195.0**
Joint 6												
x	**-0.0**	0.3	0.1	-83.9	-13.2	-28.0	**0.0**	-0.5	-0.1	-151.0	13.1	111.5
y	-0.0	**-1.5**	0.0	-128.1	-3.2	334.7	-0.0	**1.3**	0.0	-17.8	-3.6	-246.8
z	0.0	-0.6	**-0.2**	-202.4	13.0	106.5	-0.0	0.3	**0.1**	-94.0	-13.0	-29.6
x	0.0	-0.7	-0.0	**-325.8**	2.8	155.9	0.0	-0.3	-0.0	**23.7**	0.8	97.9
y	-0.0	0.3	0.1	-83.9	**-13.2**	-27.9	0.0	-0.5	-0.1	-151.0	**13.2**	111.4
z	-0.0	1.3	0.0	-17.8	-3.6	**-246.8**	-0.0	-1.5	0.0	-128.1	-3.2	**334.7**
Joint 7												
x	**-0.0**	-0.2	0.2	12.7	-14.4	-286.2	**0.0**	-0.2	-0.2	-58.5	14.3	13.1
y	-0.0	**-0.4**	0.1	-28.9	-3.6	-391.1	-0.0	**0.0**	0.0	2.3	-2.7	129.6
z	0.0	-0.2	**-0.2**	-62.8	14.3	-43.3	-0.0	-0.2	**0.2**	10.2	-14.3	-300.1
x	0.0	-0.3	-0.2	**-77.5**	12.4	-68.0	-0.0	-0.1	0.2	**19.9**	-12.3	-256.0
y	-0.0	-0.2	0.2	12.8	**-14.4**	-285.8	0.0	-0.2	-0.2	-58.6	**14.4**	12.7
z	-0.0	-0.3	0.1	-14.3	-3.8	**-639.8**	-0.0	-0.1	0.0	-9.8	-3.4	**381.5**
Joint 8												
x	**-0.0**	-1.8	0.3	24.6	-15.4	-388.9	**0.0**	-0.4	-0.3	-275.0	15.3	-80.4
y	-0.0	**-4.0**	0.1	-218.5	-3.9	-885.5	-0.0	**1.4**	0.1	-17.5	-2.7	296.0
z	0.0	-0.5	**-0.3**	-319.8	15.2	-118.8	-0.0	-2.2	**0.3**	60.8	-15.2	-500.8
x	0.0	-2.1	-0.1	**-553.8**	2.2	-446.3	-0.0	-1.9	0.1	**174.4**	-1.7	-454.7
y	-0.0	-1.8	0.3	24.6	**-15.5**	-388.1	0.0	-0.4	-0.3	-275.1	**15.5**	-80.6
z	-0.0	-4.0	0.1	-207.8	-4.0	**-887.3**	-0.0	1.4	0.1	-17.5	-2.7	**296.0**
Joint 9												
x	**-0.1**	-3.4	0.3	62.8	-16.0	-303.4	**0.0**	-0.7	-0.3	-420.6	15.9	-87.0
y	-0.0	**-7.7**	0.1	-352.2	-4.0	-753.4	-0.0	**2.6**	0.1	-22.9	-2.7	231.9
z	0.0	-1.1	**-0.3**	-505.3	15.4	-126.5	-0.0	-4.3	**0.3**	105.8	-15.4	-431.6
x	0.0	-4.0	-0.1	**-881.8**	0.9	-328.8	-0.0	-4.7	0.1	**312.4**	-1.5	-464.3
y	-0.0	-3.4	0.3	62.9	**-16.0**	-303.1	0.0	-0.8	-0.3	-420.6	**16.0**	-87.9
z	-0.0	-7.7	0.1	-352.2	-4.0	**-753.4**	-0.0	2.5	0.1	-20.8	-3.9	**247.4**
Joint 10												
x	**-0.1**	-4.3	0.4	109.8	-16.3	-130.0	**0.1**	-0.9	-0.4	-507.2	16.2	-65.6
y	-0.0	**-10.4**	0.1	-451.1	-4.0	-421.8	-0.0	**3.5**	0.1	-25.5	-4.0	172.5
z	0.0	-1.6	**-0.4**	-636.3	15.4	-91.0	-0.0	-5.9	**0.4**	129.3	-15.4	-225.4
x	-0.0	-6.5	-0.0	**-1057.3**	-0.1	-185.6	-0.0	-6.3	0.1	**423.2**	0.1	-259.1
y	-0.0	-4.3	0.4	109.9	**-16.4**	-129.9	0.0	-0.9	-0.4	-507.4	**16.4**	-65.7
z	-0.0	-9.4	0.1	-471.4	-3.8	**-440.9**	-0.0	2.7	0.1	21.9	-4.3	**176.8**
Joint 11												
x	**-0.1**	-4.5	0.4	98.5	-16.3	52.4	**0.1**	-1.2	-0.4	-542.3	16.3	-27.4
y	-0.0	**-11.4**	0.1	-479.8	-3.9	-18.3	-0.0	**4.1**	0.1	-28.3	-4.0	79.6
z	0.0	-1.9	**-0.5**	-695.6	15.3	-30.0	-0.0	-6.4	**0.5**	137.2	-15.3	37.2
x	-0.0	-8.5	-0.0	**-1109.6**	-0.0	28.6	0.0	-6.7	0.1	**458.4**	0.7	37.6
y	-0.0	-4.5	0.4	98.7	**-16.5**	52.6	0.0	-1.2	-0.4	-542.5	**16.5**	-27.5
z	-0.0	-5.8	0.1	-261.6	-3.8	**-164.1**	-0.0	-2.9	0.1	-124.1	-3.9	**190.6**
Joint 12												
x	**-0.1**	-3.8	0.5	56.7	-16.1	218.9	**0.1**	-1.1	-0.5	-519.0	16.1	25.9
y	-0.0	**-10.7**	0.2	-453.2	-3.9	358.2	-0.0	**4.2**	0.1	-28.2	-4.0	-39.1
z	0.0	-1.2	**-0.5**	-510.8	15.7	21.8	-0.0	-3.7	**0.5**	36.2	-15.7	205.0
x	0.0	-6.5	-0.1	**-1060.7**	2.1	241.5	0.0	-6.4	0.1	**438.3**	0.9	265.1
y	-0.0	-3.8	0.5	56.9	**-16.3**	218.9	0.0	-1.1	-0.5	-519.2	**16.3**	25.9
z	0.0	0.7	-0.1	110.2	3.4	**-70.8**	-0.0	-7.6	0.3	-547.6	-7.5	**395.2**
Joint 13												
x	**-0.1**	-2.2	0.6	-66.7	-15.7	321.2	**0.0**	-1.6	-0.6	-471.3	15.7	126.8
y	-0.0	**-8.2**	0.2	-351.9	-3.8	733.1	-0.0	**3.6**	0.2	-24.3	-3.9	-200.5
z	0.0	-1.0	**-0.6**	-481.0	15.3	77.2	-0.0	-2.7	**0.6**	17.5	-15.3	339.1
x	0.0	-4.0	-0.1	**-895.2**	2.8	379.4	0.0	-4.7	0.1	**335.2**	0.8	462.0
y	-0.0	-2.2	0.6	-66.4	**-15.9**	320.8	0.0	-1.6	-0.6	-471.8	**15.9**	127.4
z	-0.0	3.6	0.2	-24.3	-3.9	**-200.5**	-0.0	-8.2	0.2	-341.6	-3.7	**733.7**
Joint 14												
x	**-0.1**	-0.8	0.6	-11.7	-15.2	266.2	**0.0**	-0.7	-0.6	-311.0	15.2	160.4
y	-0.0	**-4.4**	0.2	-201.0	-3.6	930.6	-0.0	**2.3**	0.2	-15.1	-3.8	-392.6
z	0.0	-0.6	**-0.7**	-375.1	14.4	108.6	-0.0	-1.1	**0.7**	18.9	-14.3	324.1
x	0.0	-1.9	-0.2	**-577.3**	3.8	419.8	-0.0	-1.8	0.3	**189.3**	-5.7	443.2
y	-0.0	-0.8	0.6	-11.3	**-15.4**	265.4	0.0	-0.7	-0.6	-311.4	**15.4**	161.5
z	-0.0	2.3	0.2	-15.1	-3.8	**-392.6**	-0.0	-4.4	0.2	-201.0	-3.6	**930.6**
Joint 15												
x	**-0.0**	-0.2	0.5	38.9	-14.7	-74.2	**0.0**	-0.2	-0.5	-84.4	14.7	203.1
y	-0.0	**-0.5**	0.2	-12.3	-3.3	-51.7	0.0	**0.0**	-0.1	-9.7	3.4	109.4
z	0.0	-0.2	**-0.7**	-128.2	12.7	9.5	-0.0	-0.3	**0.7**	69.9	-12.7	-48.5
x	0.0	-0.3	-0.7	**-130.3**	11.8	10.0	-0.0	-0.2	0.7	**72.0**	-12.2	-102.7
y	-0.0	-0.2	0.5	35.1	**-14.9**	-140.1	0.0	-0.2	-0.5	-79.6	**14.9**	179.9
z	-0.0	-0.2	0.2	0.4	-3.6	**-790.9**	-0.0	-0.2	0.2	-0.1	-3.3	**827.3**
Joint 16												

x	**-0.1**	-1.6	0.4	67.4	-15.6	-349.0	**0.0**	0.3	-0.4	-269.0	15.6	5.9
y	-0.0	**-4.4**	0.2	-208.2	-3.3	-956.7	-0.0	**2.7**	0.2	-15.0	-3.0	490.8
z	0.0	-0.6	**-0.8**	-383.0	10.6	-110.9	-0.0	-1.5	**0.8**	45.1	-10.7	-408.8
x	0.0	-1.8	-0.1	**-578.2**	1.5	-399.9	-0.0	-1.7	0.0	**200.2**	-1.5	-417.5
y	-0.0	-1.6	0.4	67.6	**-15.8**	-350.4	0.0	0.3	-0.4	-269.4	**15.8**	6.8
z	-0.0	-4.4	0.2	-197.2	-3.4	**-958.4**	-0.0	2.7	0.2	-17.1	-3.0	**491.3**

Joint 17

x	**-0.1**	-3.0	0.4	120.0	-16.3	-282.3	**0.1**	0.1	-0.4	-437.1	16.3	-59.9
y	-0.0	**-8.4**	0.2	-344.4	-3.2	-786.7	-0.0	**4.5**	0.2	-26.0	-2.7	309.8
z	0.0	-1.4	**-0.8**	-531.5	9.8	-129.2	-0.0	-3.6	**0.8**	16.7	-9.8	-412.3
x	0.0	-3.4	-0.1	**-922.8**	1.5	-311.2	-0.0	-4.4	0.0	**365.1**	-1.8	-445.4
y	-0.0	-3.1	0.4	120.1	**-16.5**	-283.0	0.1	0.1	-0.4	-437.4	**16.5**	-59.2
z	-0.0	-8.4	0.2	-344.4	-3.2	**-786.7**	-0.0	4.2	0.2	-25.8	-3.1	**321.9**

Joint 18

x	**-0.1**	-4.2	0.5	56.8	-16.8	-140.2	**0.1**	-1.0	-0.5	-538.9	16.8	-123.4
y	-0.0	**-11.2**	0.2	-445.3	-3.0	-424.6	-0.0	**5.5**	0.2	-31.9	-2.5	135.9
z	0.0	-1.9	**-0.9**	-611.4	8.6	-74.0	-0.0	-5.1	**0.9**	22.4	-8.7	-239.8
x	0.0	-5.9	-0.1	**-1103.0**	1.5	-193.1	-0.0	-6.1	0.0	**484.7**	-1.6	-263.4
y	-0.1	-4.2	0.5	57.9	**-17.0**	-140.7	0.1	-0.9	-0.5	-543.8	**17.0**	-116.3
z	0.0	-9.0	0.4	-508.9	-0.9	**-448.4**	-0.0	3.4	0.1	57.4	-5.1	**178.6**

Joint 19

x	**-0.1**	-3.9	0.5	-11.4	-17.0	63.4	**0.1**	-1.4	-0.5	-526.1	17.1	-65.9
y	-0.0	**-12.2**	0.3	-475.7	-2.7	-0.0	-0.0	**5.8**	0.2	-36.5	-2.8	24.7
z	0.0	-2.0	**-0.9**	-641.8	7.8	-5.4	-0.0	-5.6	**0.9**	31.0	-7.8	2.4
x	0.0	-8.1	-0.0	**-1153.6**	2.0	8.1	-0.0	-6.5	0.0	**514.0**	-1.4	23.2
y	-0.1	-3.9	0.5	-11.0	**-17.2**	62.8	0.1	-1.4	-0.5	-526.5	**17.2**	-65.2
z	-0.0	-3.7	0.3	-118.8	-2.5	**-209.4**	-0.0	-3.3	0.3	-119.7	-2.6	**199.2**

Joint 20

x	**-0.1**	-3.3	0.6	-43.9	-16.9	215.3	**0.1**	-1.6	-0.6	-542.2	17.0	3.0
y	-0.0	**-11.3**	0.3	-451.0	-2.6	390.0	-0.0	**5.5**	0.3	-35.8	-2.6	-128.9
z	0.0	-2.2	**-1.0**	-612.9	8.7	61.9	-0.0	-5.2	**1.0**	8.5	-8.7	235.2
x	0.0	-6.1	-0.1	**-1101.7**	3.1	209.7	0.0	-6.2	0.0	**483.0**	0.6	252.2
y	-0.1	-3.3	0.6	-43.9	**-17.1**	215.3	0.1	-1.5	-0.6	-542.4	**17.1**	3.0
z	-0.0	3.1	0.1	64.7	1.0	**-170.4**	-0.0	-8.9	0.4	-522.5	-5.6	**423.7**

Joint 21

x	**-0.1**	0.8	0.4	-263.7	-16.8	10.2	**0.1**	-1.2	-0.4	-178.7	17.0	87.0
y	-0.0	**-8.6**	0.3	-351.4	-2.4	773.5	-0.0	**4.6**	0.3	-30.5	-2.4	-310.2
z	0.0	-1.7	**-1.0**	-549.0	7.8	134.4	-0.0	-3.7	**1.0**	0.4	-7.8	406.6
x	0.0	-3.7	-0.1	**-928.9**	3.5	340.1	-0.0	-4.6	0.0	**364.9**	0.2	443.9
y	-0.1	0.8	0.4	-263.8	**-17.1**	11.3	0.1	-1.2	-0.4	-178.8	**17.1**	86.5
z	-0.0	4.3	0.3	-25.2	-1.9	**-320.0**	-0.0	-8.6	0.3	-340.9	-2.3	**774.4**

Joint 22

x	**-0.1**	0.5	0.4	-188.2	-16.9	-45.9	**0.1**	-1.0	-0.4	-153.6	17.2	216.1
y	-0.0	**-4.6**	0.3	-201.9	-2.1	972.1	-0.0	**2.7**	0.3	-19.3	-2.2	-503.4
z	0.0	-1.0	**-1.0**	-423.9	6.6	179.6	-0.0	-1.8	**1.0**	16.2	-6.5	431.8
x	0.0	-1.8	-0.2	**-602.0**	4.2	385.6	-0.0	-1.8	0.4	**201.1**	-4.7	421.9
y	-0.1	0.5	0.4	-188.4	**-17.3**	-43.6	0.1	-1.0	-0.4	-153.7	**17.3**	215.0
z	-0.0	2.7	0.3	-19.3	-2.2	**-503.4**	-0.0	-4.6	0.3	-201.9	-2.1	**972.1**

Joint 23

x	**-0.1**	-0.2	0.4	12.2	-17.2	-242.3	**0.1**	-0.3	-0.4	-76.6	17.4	159.3
y	-0.0	**-0.6**	0.3	-21.6	-2.5	54.7	0.0	**0.1**	-0.2	-14.3	2.2	37.7
z	0.0	-0.3	**-1.1**	-154.3	6.7	-15.7	-0.0	-0.3	**1.1**	76.8	-6.7	-106.0
x	0.0	-0.4	-1.0	**-158.2**	6.2	-17.1	-0.0	-0.3	1.0	**81.6**	-4.9	90.2
y	-0.1	-0.2	0.4	12.1	**-17.6**	-239.6	0.1	-0.3	-0.4	-76.6	**17.6**	157.1
z	-0.0	-0.3	0.3	-1.5	-1.9	**-869.6**	-0.0	-0.3	0.3	-2.3	-1.9	**856.9**

Joint 24

x	**-0.1**	-1.7	0.4	54.2	-17.5	-368.4	**0.1**	0.1	-0.4	-259.1	17.8	-20.7
y	-0.0	**-4.7**	0.3	-209.9	-1.7	-991.6	0.0	**2.7**	0.3	-17.4	-1.4	504.9
z	0.0	-0.9	-1.1	-404.2	5.4	-164.6	-0.0	-1.8	**1.1**	34.2	-5.4	-451.4
x	-0.0	-1.9	-0.2	**-594.7**	-1.0	-409.2	-0.0	-1.8	0.4	**201.4**	-1.3	-433.7
y	-0.1	-1.7	0.4	53.9	**-18.1**	-364.2	0.1	0.1	-0.4	-258.9	**18.1**	-23.3
z	-0.0	-4.7	0.3	-198.7	-1.7	**-993.3**	0.0	2.7	0.3	-19.6	-1.5	**505.2**

Joint 25

x	**-0.1**	-3.5	0.5	45.2	-17.6	-319.1	**0.1**	-0.6	-0.5	-425.8	18.0	-124.0
y	-0.0	**-8.8**	0.3	-345.5	-1.5	-801.1	0.0	**4.6**	0.3	-28.2	-1.1	316.6
z	0.0	-1.6	**-1.1**	-553.9	4.3	-134.9	-0.0	-3.9	**1.1**	26.3	-4.3	-421.4
x	-0.0	-3.6	-0.2	**-936.9**	-0.6	-313.8	-0.0	-4.6	0.0	**367.1**	-1.1	-449.9
y	-0.1	-3.5	0.5	44.9	**-18.4**	-315.0	0.1	-0.7	-0.5	-423.2	**18.4**	-133.7
z	-0.0	-8.8	0.3	-345.5	-1.5	**-801.1**	0.0	4.3	0.3	-27.6	-1.6	**327.6**

Joint 26

x	**-0.1**	-3.9	0.5	14.7	-17.6	-108.7	**0.1**	-0.9	-0.5	-486.0	18.0	-102.9
y	-0.0	**-11.6**	0.3	-445.9	-1.3	-422.6	0.0	**5.6**	0.3	-33.7	-0.9	137.0
z	0.0	-2.1	**-1.1**	-632.0	3.4	-71.8	-0.0	-5.4	**1.1**	32.7	-3.4	-236.6
x	-0.0	-6.1	-0.1	**-1114.9**	-0.7	-190.7	-0.0	-6.3	0.0	**488.1**	-1.0	-261.4
y	-0.1	-3.8	0.5	14.2	**-18.5**	-105.7	0.1	-1.0	-0.5	-485.6	**18.5**	-105.2
z	-0.0	-9.2	0.5	-515.0	0.5	**-446.1**	-0.0	3.2	0.2	61.5	-3.4	**178.8**

Joint 27

x	**-0.1**	-4.0	0.6	-11.3	-17.2	62.1	**0.1**	-1.3	-0.6	-534.2	17.7	-63.6
y	-0.0	**-12.5**	0.3	-476.0	-1.1	12.9	-0.0	**5.8**	0.3	-36.5	-2.9	10.6
z	0.0	-2.2	**-1.1**	-660.2	2.8	0.9	-0.0	-5.9	**1.1**	41.0	-2.8	12.3
x	-0.0	-8.3	-0.1	**-1163.5**	0.5	13.9	-0.0	-6.7	0.0	**517.8**	-0.9	29.5
y	-0.1	-3.9	0.6	-11.7	**-18.3**	64.0	0.1	-1.4	-0.6	-533.7	**18.3**	-65.0
z	-0.0	-3.6	0.3	-120.7	-1.1	**-210.3**	0.0	-3.7	0.3	-118.9	-1.1	**210.2**

Joint 28

x	**-0.1**	-0.4	0.4	-281.8	-17.3	111.2	**0.1**	-1.8	-0.4	-242.9	17.4	24.5
y	-0.0	**-11.6**	0.3	-450.9	-1.0	410.0	0.0	**5.6**	0.3	-36.6	-1.2	-133.8
z	0.0	-2.3	**-1.2**	-628.7	4.1	71.0	-0.0	-5.4	**1.2**	18.2	-4.1	249.7
x	0.0	-6.2	-0.1	**-1109.9**	1.6	217.1	0.0	-6.3	0.0	**486.6**	0.9	261.2
y	-0.1	-0.3	0.4	-281.7	**-18.0**	111.2	0.1	-1.8	-0.4	-242.5	**18.0**	24.4
z	0.0	3.2	0.2	63.1	2.7	**-175.3**	-0.0	-9.2	0.5	-521.8	-4.1	**443.4**

Joint 29

x	**-0.1**	0.4	0.4	-354.9	-17.6	47.9	**0.1**	-2.0	-0.4	-169.7	17.5	180.4
y	-0.0	**-8.8**	0.3	-351.3	-0.6	797.1	0.0	**4.6**	0.3	-30.6	-1.1	-316.2
z	0.0	-1.8	**-1.2**	-562.6	3.2	144.8	-0.0	-3.9	**1.2**	8.8	-3.2	423.4
x	0.0	-3.8	-0.2	**-935.8**	2.3	348.2	-0.0	-4.7	0.0	**367.4**	0.1	454.1
y	-0.1	0.4	0.4	-354.6	**-18.2**	47.1	0.1	-2.1	-0.4	-169.6	**18.2**	182.4
z	0.0	4.3	0.3	-25.6	-0.4	-326.6	-0.0	-8.8	0.3	-340.7	-0.6	**798.1**

Joint 30

x	**-0.1**	0.4	0.4	-201.0	-17.4	-43.7	**0.1**	-0.9	-0.4	-131.7	17.3	195.2
y	-0.0	**-4.7**	0.3	-201.6	-0.4	995.2	0.0	**2.7**	0.3	-18.9	-1.0	-509.3
z	0.0	-1.1	**-1.2**	-435.5	2.3	189.9	-0.0	-1.8	**1.2**	23.3	-2.3	448.4
x	0.0	-1.9	-0.3	**-607.9**	3.4	393.4	-0.0	-1.8	0.5	**203.9**	-2.9	431.1
y	-0.1	0.7	0.5	-209.8	**-18.1**	-99.4	0.1	-1.0	-0.5	-132.1	**18.1**	199.9
z	0.0	2.7	0.3	-18.9	-1.0	**-509.3**	-0.0	-4.7	0.3	-201.6	-0.4	**995.2**

Joint 31

x	**-0.1**	-0.2	0.0	-15.9	-17.5	-229.2	**0.1**	-0.2	-0.4	-66.2	17.6	182.5
y	0.0	**-0.6**	0.4	-21.1	-1.2	73.0	-0.0	**0.1**	-0.2	-15.9	1.0	29.8
z	0.0	-0.3	**-1.2**	-165.1	2.8	-10.2	-0.0	-0.4	**1.2**	83.9	-2.8	-97.6
x	0.0	-0.4	-1.1	**-169.0**	2.7	-10.3	-0.0	-0.3	1.1	**88.6**	-1.2	100.3
y	-0.1	-0.2	0.4	9.8	**-18.1**	-234.7	0.1	-0.2	-0.4	-66.9	**18.1**	188.2
z	0.0	-0.3	0.3	-0.1	-0.8	**-873.1**	-0.0	-0.3	0.3	-1.7	-0.2	**871.2**

Joint 32

x	**-0.1**	-1.7	0.4	54.3	-17.8	-356.6	**0.1**	0.0	-0.4	-260.0	17.7	-32.7
y	0.0	**-4.7**	0.3	-209.2	-0.6	-992.1	-0.0	**2.7**	0.3	-17.2	0.2	508.4
z	0.0	-0.9	**-1.2**	-412.5	1.8	-159.7	-0.0	-1.8	**1.2**	39.3	-1.8	-449.5
x	-0.0	-1.9	-0.2	**-598.6**	-1.7	-411.0	-0.0	-1.8	0.5	**203.1**	0.4	-426.9
y	-0.1	-1.7	0.4	54.7	**-18.4**	-366.6	0.1	0.1	-0.4	-261.5	**18.4**	-24.5

z	0.0	-4.7	0.3	-198.0	-0.6	**-993.9**	-0.0	2.7	0.3	-19.5	0.0	**508.7**

Joint 33

x	**-0.1**	-2.5	0.1	99.7	-17.7	-220.8	**0.1**	-0.6	-0.5	-383.9	17.8	-124.5
y	0.0	**-8.8**	0.3	-345.2	-0.5	-800.4	-0.0	**4.6**	0.3	-28.4	0.4	315.8
z	0.0	-1.5	**-1.2**	-561.2	0.9	-133.3	-0.0	-3.9	**1.2**	31.0	-0.9	-420.9
x	-0.0	-3.6	-0.2	**-939.7**	-1.0	-313.6	-0.0	-4.6	0.1	**367.2**	-1.7	-449.9
y	-0.1	-3.0	0.5	18.7	**-18.4**	-263.8	0.1	-0.5	-0.5	-388.0	**18.3**	-111.3
z	0.0	-8.8	0.3	-345.2	-0.5	**-800.4**	-0.0	4.3	0.3	-27.7	-0.2	**326.6**

Joint 34

x	**-0.1**	-3.3	0.1	133.8	-17.8	-87.7	**0.1**	-1.2	-0.5	-482.9	17.5	-117.7
y	0.0	**-11.6**	0.4	-445.7	-0.3	-421.2	-0.0	**5.6**	0.3	-34.0	0.6	133.6
z	0.0	-2.0	**-1.2**	-640.3	0.3	-70.6	-0.0	-5.4	**1.2**	38.9	-0.3	-235.9
x	-0.0	-6.1	-0.1	**-1117.0**	-0.6	-191.5	-0.0	-6.3	0.1	**488.3**	-2.0	-262.2
y	-0.1	-3.9	0.5	15.7	**-18.1**	-107.6	0.1	-1.0	-0.5	-488.6	**18.1**	-106.8
z	0.0	-9.2	0.5	-514.3	2.3	**-444.5**	-0.0	3.2	0.2	60.7	-2.7	**175.1**

Joint 35

x	**-0.1**	0.1	0.0	-99.5	-17.4	84.4	**0.1**	-2.9	-0.5	-447.4	17.0	-80.3
y	0.0	**-12.6**	0.4	-475.9	-0.1	14.5	-0.0	**5.8**	0.3	-37.1	-1.5	6.2
z	-0.0	-2.2	**-1.2**	-664.9	-0.5	-0.1	0.0	-6.0	**1.2**	43.9	0.5	11.8
x	0.0	-8.3	-0.1	**-1165.2**	1.3	12.6	-0.0	-6.7	0.1	**518.2**	-1.9	28.4
y	-0.1	-2.6	0.1	-11.0	**-17.7**	83.6	0.0	-0.8	-0.1	-326.9	**17.7**	-83.6
z	0.0	-3.5	0.4	-120.6	-0.2	**-211.5**	-0.0	-3.8	0.3	-119.1	0.5	**208.7**

Joint 36

x	**-0.1**	-1.0	-0.5	-489.2	-17.3	113.6	**0.1**	-3.6	0.2	115.7	17.1	91.8
y	0.0	**-11.6**	0.4	-450.9	-0.0	411.4	-0.0	**5.6**	0.3	-37.2	0.2	-137.5
z	0.0	-2.4	**-1.2**	-631.8	1.0	69.9	-0.0	-5.5	**1.2**	19.9	-1.0	249.1
x	0.0	-6.3	-0.1	**-1111.5**	2.1	215.8	-0.0	-6.3	0.1	**487.3**	0.2	260.2
y	-0.1	-1.1	-0.5	-486.5	**-17.9**	113.5	0.1	-3.9	0.5	3.5	**17.9**	110.1
z	0.0	3.2	0.2	62.6	2.8	**-178.8**	-0.0	-9.3	0.5	-521.7	-1.8	**444.6**

Joint 37

x	**-0.1**	-0.3	-0.4	-393.7	-17.5	90.1	**0.1**	-3.0	0.4	32.0	17.7	261.3
y	0.0	**-8.8**	0.4	-351.1	0.2	797.6	-0.0	**4.6**	0.3	-31.6	0.4	-317.5
z	-0.0	-1.9	**-1.2**	-565.1	0.0	145.2	-0.0	-3.9	**1.2**	10.1	-0.0	424.6
x	0.0	-3.8	-0.2	**-937.5**	2.3	347.6	-0.0	-4.7	0.1	**368.2**	0.2	453.9
y	-0.1	-0.3	-0.4	-392.6	**-18.0**	92.2	0.1	-2.9	0.4	33.0	**18.0**	255.5
z	-0.0	4.3	0.3	-26.3	1.0	**-327.9**	0.0	-8.8	0.3	-340.7	0.3	**798.6**

Joint 38

x	**-0.1**	0.2	-0.4	-264.1	-17.4	1.8	**0.1**	-1.7	0.1	69.8	17.2	349.5
y	0.0	**-4.7**	0.4	-201.3	0.4	994.4	-0.0	**2.7**	0.3	-20.3	0.5	-506.5
z	-0.0	-1.1	**-1.2**	-437.3	-1.0	191.6	0.0	-1.9	**1.2**	24.0	1.0	451.4
x	0.0	-1.9	-0.3	**-609.6**	2.6	393.8	-0.0	-1.8	0.5	**204.2**	-0.7	433.9
y	-0.1	0.1	-0.4	-262.8	**-17.9**	6.3	0.1	-1.7	0.4	60.6	**17.9**	357.6
z	-0.0	2.7	0.3	-20.3	0.5	**-506.5**	0.0	-4.7	0.4	-201.3	0.4	**994.4**

Joint 39

x	**-0.1**	-0.2	-0.4	-65.8	-16.9	-209.8	**0.1**	-0.2	-0.0	-17.2	16.8	241.6
y	-0.0	**-0.6**	0.4	-23.0	0.4	90.4	0.0	**0.1**	-0.2	-17.4	-0.8	-38.8
z	-0.0	-0.3	**-1.2**	-165.7	-2.3	71.1	0.0	-0.4	**1.2**	83.9	2.3	108.6
x	-0.0	-0.4	-1.1	**-169.9**	-0.7	-4.2	0.0	-0.3	1.1	**88.6**	3.2	90.8
y	-0.1	-0.2	-0.4	-64.6	**-17.5**	-199.4	0.1	-0.2	0.4	7.1	**17.5**	227.6
z	-0.0	-0.3	0.3	-2.3	0.7	**-860.0**	0.0	-0.3	0.3	-1.2	0.6	**866.8**

Joint 40

x	**-0.1**	-1.4	-0.4	-146.3	-16.5	-297.5	**0.1**	0.8	0.4	-202.4	16.6	121.5
y	-0.0	**-4.6**	0.3	-211.0	1.0	-970.5	0.0	**2.7**	0.3	-16.8	1.0	501.2
z	-0.0	-0.8	**-1.2**	-410.3	-2.3	-148.5	0.0	-1.8	**1.2**	36.7	2.3	-434.0
x	-0.0	-1.9	-0.3	**-596.8**	-3.3	-401.8	0.0	-1.8	0.5	**199.2**	3.6	-422.4
y	-0.1	-1.0	-0.4	-133.8	**-17.2**	-198.9	0.1	0.7	0.4	-207.9	**17.2**	95.2
z	-0.0	-4.6	0.3	-199.8	0.9	**-972.3**	0.0	2.7	0.3	-19.1	0.8	**501.5**

Joint 41

x	**-0.1**	-2.1	-0.4	-174.5	-16.4	-186.0	**0.1**	1.0	0.3	-355.8	16.6	24.6
y	-0.0	**-8.6**	0.3	-346.8	1.1	-778.3	0.0	**4.5**	0.3	-27.9	1.3	308.5
z	-0.0	-1.5	**-1.2**	-557.0	-3.4	-122.9	0.0	-3.8	**1.2**	27.0	3.4	-406.9
x	-0.0	-3.6	-0.2	**-935.7**	-3.2	-307.2	-0.0	-4.5	-0.0	**361.4**	0.7	-440.7
y	-0.1	-2.0	-0.4	-176.9	**-17.2**	-170.3	0.1	0.4	0.4	-347.2	**17.2**	-42.0
z	-0.0	-8.6	0.3	-346.8	1.1	**-778.3**	0.0	4.2	0.3	-27.2	0.7	**318.4**

Joint 42

x	**-0.1**	-3.8	-0.5	-470.8	-15.9	-109.9	**0.1**	0.9	0.3	-297.2	16.4	-32.5
y	-0.0	**-11.3**	0.3	-447.3	1.3	-402.6	0.0	**5.5**	0.3	-33.4	1.5	127.6
z	-0.0	-1.9	**-1.2**	-630.9	-4.6	-63.8	0.0	-5.2	**1.2**	30.4	4.6	-224.0
x	-0.0	-6.0	-0.1	**-1111.3**	-3.0	-185.9	-0.0	-6.1	-0.0	**481.2**	0.4	-254.4
y	-0.1	-1.4	-0.4	-172.1	**-16.9**	1.9	0.1	0.6	0.4	-316.6	**16.9**	-51.1
z	-0.0	-8.9	0.5	-515.6	3.9	**-426.1**	0.0	3.0	0.2	61.1	-1.9	**168.6**

Joint 43

x	**-0.1**	-3.0	-0.5	-567.4	-15.8	76.9	**0.1**	-2.4	0.5	-5.9	16.3	-78.8
y	-0.0	**-12.2**	0.3	-477.4	1.4	26.2	0.0	**5.7**	0.3	-34.5	1.7	-25.6
z	-0.0	-2.0	**-1.1**	-655.0	-5.6	2.3	0.0	-5.7	**1.1**	35.6	5.6	18.9
x	-0.0	-8.2	-0.0	**-1158.1**	-1.8	16.6	-0.0	-6.5	-0.0	**510.0**	0.6	33.6
y	-0.0	-1.4	-0.6	-543.0	**-16.8**	75.8	0.1	-3.9	0.6	-16.5	**16.8**	-58.7
z	-0.0	-3.2	0.3	-122.6	1.3	**-201.0**	0.0	-3.9	0.3	-118.3	1.5	**206.3**

Joint 44

x	**-0.1**	-1.6	-0.5	-468.7	-15.7	113.7	**0.1**	-3.4	0.6	44.0	16.5	101.9
y	-0.0	**-11.2**	0.3	-445.6	1.5	415.5	0.0	**5.4**	0.3	-36.1	1.3	-137.0
z	-0.0	-2.2	**-1.1**	-619.0	-4.8	70.2	0.0	-5.2	**1.1**	9.9	4.8	250.7
x	-0.0	-6.1	-0.1	**-1102.9**	-1.4	216.8	0.0	-6.2	-0.0	**478.8**	2.7	261.3
y	-0.0	-0.6	-0.5	-502.1	**-16.9**	90.6	0.1	-3.6	0.5	46.0	**16.9**	101.8
z	0.0	3.3	0.1	55.5	5.1	**-178.5**	-0.0	-9.2	0.5	-515.2	-1.5	**445.8**

Joint 45

x	**-0.1**	-1.0	-0.5	-415.2	-15.4	135.5	**0.1**	-2.7	0.5	123.8	16.2	258.0
y	-0.0	**-8.5**	0.3	-352.5	1.6	783.0	0.0	**4.4**	0.3	-30.4	1.6	-310.7
z	-0.0	-1.7	**-1.1**	-551.8	-6.3	140.3	0.0	-3.7	**1.1**	0.6	6.3	417.1
x	-0.0	-3.7	-0.1	**-927.6**	-1.6	344.3	0.0	-4.5	-0.0	**359.9**	2.5	448.8
y	-0.0	-0.4	-0.5	-436.9	**-16.7**	109.7	0.1	-3.3	0.5	68.8	**16.7**	304.6
z	0.0	4.2	0.3	-25.2	2.2	**-321.9**	-0.0	-8.5	0.3	-342.2	1.7	**784.0**

Joint 46

x	**-0.1**	-0.1	-0.5	-261.1	-14.9	49.5	**0.1**	-1.5	0.5	67.9	15.9	327.1
y	-0.0	**-4.5**	0.3	-202.9	1.7	959.9	0.0	**2.6**	0.3	-19.0	1.9	-491.7
z	-0.0	-1.0	**-1.1**	-424.4	-7.9	180.8	0.0	-1.7	**1.1**	16.1	7.9	432.0
x	-0.0	-1.8	-0.2	**-599.4**	-1.3	382.3	0.0	-1.7	0.4	**196.7**	3.8	423.8
y	-0.0	0.3	-0.5	-267.7	**-16.3**	-11.0	0.1	-1.6	0.5	68.3	**16.3**	346.1
z	0.0	2.6	0.3	-19.0	1.9	**-491.7**	-0.0	-4.5	0.3	-202.9	1.7	**959.9**

Joint 47

x	**-0.1**	-0.2	-0.6	-87.9	-14.2	3.2	**0.1**	-0.3	0.7	33.8	14.5	-23.9
y	0.0	**-0.6**	0.4	-18.0	1.7	114.9	-0.0	**0.0**	-0.2	-12.6	-2.0	-108.1
z	-0.0	-0.3	**-1.0**	-153.5	-9.7	52.6	0.0	-0.3	**1.0**	77.9	9.7	65.2
x	-0.0	-0.4	-0.9	**-156.8**	-7.7	-26.9	0.0	-0.3	1.0	**81.8**	9.4	73.6
y	-0.0	-0.3	-0.5	-80.3	**-15.8**	-209.5	0.0	-0.2	0.5	17.3	**15.8**	209.2
z	0.0	-0.3	0.3	-0.9	2.3	**-828.1**	-0.0	-0.3	0.3	-3.3	1.7	**790.0**

Joint 48

x	**-0.1**	0.2	-0.6	-103.0	-14.0	58.9	**0.1**	-1.8	0.7	-150.7	15.2	-462.6
y	0.0	**-4.4**	0.3	-209.7	2.8	-926.2	-0.0	**2.3**	0.3	-14.9	2.0	393.8
z	-0.0	-0.7	**-1.0**	-424.2	-9.9	-124.4	0.0	-1.9	**1.0**	73.7	9.9	-465.1
x	-0.0	-2.0	-0.3	**-581.4**	-2.4	-438.1	0.0	-1.8	0.5	**190.4**	3.9	-437.3
y	-0.0	-1.2	-0.6	-219.1	**-15.7**	-248.7	0.1	-0.2	0.6	-109.0	**15.7**	-122.1
z	0.0	-4.4	0.3	-198.7	2.8	**-927.1**	-0.0	2.3	0.2	-17.2	1.7	**394.1**

Joint 49

x	**-0.1**	0.7	-0.6	-63.9	-14.0	71.0	**0.1**	-3.9	0.6	-291.7	15.8	-450.2
y	0.0	-8.2	0.3	-346.0	3.2	-733.7	-0.0	**3.6**	0.3	-22.6	2.0	202.7

z	-0.0	-1.6	**-0.9**	-590.4	-10.7	-133.3	0.0	-4.2	**0.9**	67.9	10.7	-456.4
x	-0.0	-3.8	-0.3	**-907.2**	-1.6	-341.1	-0.0	-4.7	0.2	**335.6**	-0.4	-455.6
y	-0.0	-1.5	-0.7	-450.1	**-16.4**	-135.8	0.1	-2.3	0.7	-49.5	**16.4**	-321.3
z	0.0	-8.2	0.3	-346.0	3.2	**-733.7**	-0.0	3.6	0.2	-24.9	1.7	**203.0**

Joint 50

x	**-0.1**	0.6	-0.6	-173.3	-14.6	28.7	**0.1**	-5.6	0.6	-386.0	16.3	-281.4
y	0.0	**-10.7**	0.3	-446.7	3.6	-366.2	-0.0	**4.1**	0.2	-25.2	2.0	41.9
z	-0.0	-2.0	**-0.9**	-673.1	-11.5	-65.7	0.0	-5.7	**0.9**	80.9	11.5	-258.2
x	-0.0	-6.4	-0.2	**-1072.1**	-0.8	-211.7	-0.0	-6.3	0.1	**440.9**	-0.6	-263.6
y	-0.0	-2.1	-0.7	-567.3	**-17.2**	-52.1	0.1	-4.2	0.7	-26.0	**17.2**	-227.9
z	0.0	-7.6	0.4	-537.1	6.9	**-393.1**	-0.0	0.7	-0.1	106.2	-3.1	**72.9**

Joint 51

x	**-0.1**	-0.4	-0.7	-463.3	-16.2	15.6	**0.1**	-5.7	0.6	-168.8	17.5	-44.4
y	0.0	**-11.5**	0.2	-476.9	4.0	48.6	-0.0	**4.1**	0.2	-23.9	1.9	-76.5
z	-0.0	-2.1	**-0.8**	-706.2	-12.6	5.0	0.0	-6.3	**0.8**	96.5	12.6	-4.6
x	0.0	-8.6	-0.2	**-1113.2**	0.5	3.1	-0.0	-6.8	0.1	**461.4**	0.1	31.3
y	-0.1	-1.0	-0.7	-547.3	**-18.1**	7.5	0.1	-4.5	0.7	120.8	**18.1**	-53.8
z	0.0	-2.8	0.2	-124.3	4.0	**-188.6**	-0.0	-6.0	0.2	-268.3	1.3	**165.8**

Joint 52

x	**-0.1**	-0.4	-0.6	-486.4	-16.8	41.8	**0.1**	-6.7	0.6	77.7	18.1	227.3
y	0.0	**-10.4**	0.2	-445.2	4.4	417.3	-0.0	**3.5**	0.2	-19.5	1.8	-169.5
z	-0.0	-2.2	**-0.8**	-672.0	-11.7	76.8	0.0	-5.9	**0.8**	76.3	11.7	246.3
x	0.0	-6.6	-0.2	**-1054.3**	0.9	215.6	0.0	-6.4	0.1	**425.0**	1.4	261.6
y	-0.1	-1.0	-0.6	-500.0	**-19.0**	51.7	0.1	-4.4	0.6	120.8	**19.0**	131.5
z	-0.0	2.7	0.2	28.1	2.8	**-174.0**	0.0	-9.5	0.2	-474.7	3.4	**443.6**

Joint 53

x	**-0.1**	-0.3	-0.6	-379.6	-18.2	58.8	**0.1**	-4.9	0.6	118.2	19.1	456.0
y	0.0	**-7.7**	0.2	-351.2	4.7	753.6	-0.0	**2.6**	0.2	-16.6	-0.6	-230.3
z	-0.0	-1.7	**-0.7**	-588.7	-12.7	152.2	0.0	-4.3	**0.7**	53.8	12.7	446.0
x	0.0	-4.2	-0.2	**-883.2**	0.1	366.0	0.0	-4.8	0.2	**317.6**	4.4	472.1
y	-0.1	-0.6	-0.5	-400.9	**-19.8**	76.3	0.1	-3.4	0.5	98.8	**19.8**	301.5
z	-0.0	2.6	0.2	-12.3	1.6	**-245.0**	0.0	-7.7	0.2	-341.4	4.8	**754.8**

Joint 54

x	**-0.1**	-0.2	-0.5	-265.3	-19.3	53.8	**0.1**	-2.6	0.5	68.5	20.0	564.8
y	0.0	**-3.9**	0.2	-201.1	5.2	891.8	-0.0	**1.4**	0.2	-6.0	-0.9	-296.4
z	-0.0	-0.9	**-0.7**	-424.3	-13.3	182.1	0.0	-2.0	**0.7**	34.5	13.3	486.4
x	-0.0	-2.1	-0.2	**-568.1**	-1.0	436.4	0.0	-1.9	0.4	**187.7**	6.5	460.4
y	-0.1	-0.7	-0.5	-347.4	**-20.7**	141.1	0.1	-2.5	0.5	78.3	**20.7**	554.1
z	-0.0	1.4	0.2	-6.0	-0.9	**-296.4**	0.0	-3.9	0.2	-201.1	5.2	**891.8**

Joint 55

x	**-0.1**	-0.2	-0.1	-49.8	-19.2	-122.1	**0.1**	-0.2	0.4	40.6	21.7	398.5
y	-0.0	**-0.4**	0.2	-2.1	0.8	368.4	-0.0	**0.0**	-0.1	-8.5	-4.6	-125.6
z	-0.0	-0.2	**-0.6**	-102.8	-10.9	18.3	0.0	-0.2	**0.6**	57.1	10.9	210.1
x	-0.1	-0.3	-0.6	**-110.1**	-13.8	119.6	0.0	-0.2	0.6	**60.3**	11.5	237.7
y	-0.1	-0.1	-0.4	-74.6	**-22.1**	54.6	0.1	-0.2	0.4	40.1	**22.1**	389.4
z	-0.0	-0.1	0.2	12.6	-0.5	**-387.8**	0.0	-0.3	0.1	-1.1	5.5	**640.0**

Joint 56

x	**-0.1**	-0.9	-0.1	-212.3	-20.5	-194.2	**0.1**	0.8	0.3	-23.3	22.4	144.4
y	-0.0	**-1.5**	0.2	-108.7	-1.0	-337.3	0.0	**1.3**	0.1	-6.3	6.3	246.0
z	-0.0	-0.4	**-0.6**	-227.4	-11.2	-110.1	0.0	-0.1	**0.6**	-53.8	11.2	-53.7
x	-0.0	-0.5	-0.3	**-330.2**	-2.6	-114.7	-0.0	-0.3	0.3	**44.8**	-1.2	-100.3
y	-0.1	-0.3	-0.4	-181.3	**-23.2**	-58.3	0.1	0.5	0.4	-39.0	**23.1**	87.1
z	-0.0	-1.5	0.2	-95.4	-0.7	**-341.3**	0.0	1.3	0.1	-8.1	5.9	**246.5**

Joint 57

x	**-0.1**	-1.2	-0.0	-256.0	-22.0	-86.9	**0.1**	1.1	0.3	-60.1	22.9	33.5
y	-0.0	**-2.5**	0.2	-165.7	-0.9	-204.4	0.0	**1.9**	0.1	-9.7	6.6	71.4
z	-0.0	-1.0	**-0.5**	-359.7	-8.1	-103.7	0.0	-1.1	**0.5**	-116.6	8.1	-146.9
x	-0.0	-1.2	-0.1	**-492.7**	1.0	-129.2	-0.0	-0.6	0.2	**66.0**	-0.9	-85.9
y	-0.1	-0.5	-0.3	-169.2	**-24.1**	-29.0	0.1	0.7	0.3	-116.3	**24.1**	-5.9
z	-0.0	-2.5	0.2	-165.7	-0.9	**-204.4**	0.0	1.9	0.1	-11.5	6.2	**71.8**

Joint 58

x	**-0.1**	-1.4	0.1	-226.5	-22.8	12.8	**0.1**	1.1	0.2	-74.8	23.6	-46.3
y	-0.0	**-2.9**	0.2	-189.6	-1.1	2.8	0.0	**1.9**	0.1	-9.7	6.8	-63.5
z	-0.0	-1.1	**-0.5**	-432.0	-6.2	-26.6	0.0	-1.6	**0.5**	-114.2	6.2	-37.2
x	-0.0	-1.5	-0.3	**-551.5**	2.4	-36.0	-0.0	-0.3	0.3	**77.9**	-5.3	6.8
y	-0.1	-0.6	-0.2	-107.2	**-24.8**	16.3	0.1	0.5	0.2	-143.9	**24.8**	-50.5
z	0.0	0.2	0.2	-52.5	0.8	**-90.7**	-0.0	-1.8	0.1	-75.6	1.7	**43.1**

Joint 59

x	**-0.1**	-1.2	0.1	-130.0	-23.4	100.1	**0.1**	0.8	0.1	-72.8	24.0	-91.5
y	-0.0	**-2.6**	0.2	-139.7	-1.2	200.8	0.0	**1.5**	0.1	-6.9	7.0	-149.7
z	-0.0	-0.7	**-0.5**	-406.1	-4.8	32.6	-0.0	-1.4	**0.5**	-23.9	4.9	92.0
x	0.0	-1.2	-0.4	**-533.9**	7.7	63.1	-0.0	-0.9	0.3	**122.0**	-10.6	88.3
y	-0.1	-0.5	-0.1	-42.9	**-25.4**	47.7	0.1	0.3	0.1	-142.7	**25.4**	-57.4
z	0.0	1.5	0.1	-6.9	7.0	**-149.7**	-0.0	-2.6	0.2	-139.7	-1.2	**200.8**

Joint 60

x	**-0.1**	-0.7	0.2	12.2	-23.7	164.1	**0.1**	0.4	0.0	-57.1	24.5	-106.5
y	-0.0	**-1.5**	0.3	-23.8	-1.2	365.1	0.0	**0.8**	0.0	-2.0	7.1	-206.8
z	-0.0	-0.3	**-0.5**	-404.5	3.9	58.2	-0.0	-1.0	**0.5**	133.1	-3.7	233.7
x	0.0	-0.8	-0.4	**-441.2**	8.2	179.5	-0.0	-0.8	0.4	**178.8**	-12.9	193.3
y	-0.1	-0.3	-0.0	4.0	**-25.7**	68.3	0.1	0.1	0.0	-112.7	**25.8**	-38.5
z	0.0	0.8	0.0	-2.0	7.1	**-206.8**	-0.0	-1.5	0.3	-23.8	-1.2	**365.1**

Joint 61

x	**-0.1**	-0.0	0.3	178.4	-23.8	186.0	**0.1**	-0.0	-0.1	-30.0	24.6	-107.2
y	-0.0	**-0.0**	0.3	161.8	-2.3	415.6	0.0	**0.0**	0.0	1.7	6.6	-225.2
z	0.0	-0.0	**-0.5**	-293.6	16.4	98.5	-0.1	-0.0	**0.5**	288.9	-16.3	301.8
x	0.0	-0.0	-0.5	**-293.6**	16.4	98.5	-0.1	-0.0	0.5	**288.9**	-16.3	301.8
y	-0.1	-0.0	0.1	48.6	**-25.8**	75.0	0.1	-0.0	-0.1	-50.3	**25.9**	-24.5
z	0.0	0.0	0.0	4.2	7.1	**-225.5**	-0.0	-0.0	0.3	144.1	-1.2	**427.7**

*** Fin del listado ***

Tren 77 Via 1

Program Envolvator (release 1.3 - Jun 1998)
Calculation date: 24-mar-1999 19:49 h. Listing date: 13-abr-1999 11:48 h.
Members: 419
Joints: 353
Envelope generated from:

Name	γ_{1C}	γ_{3C}
Sin ripado 1 uic	0.00	1.00
Con ripado afuera 1 uic	0.00	1.00
Con ripado adentro 1 uic	0.00	1.00

	Fx	Fy	Fz	Mx	My	Mz	Fx	Fy	Fz	Mx	My	Mz
Member 1												
Fx,	**-27.0**	-53.0	5.0	-24.3	-35.9	-2.7	**21.1**	-44.6	-3.6	-39.2	26.8	-7.5
Fy,	-3.5	**-122.9**	0.7	-29.9	-5.5	-12.2	-17.8	**22.3**	3.6	-10.3	-23.9	6.2
Fz,	18.9	-12.8	**-4.4**	-12.8	27.0	-3.5	-25.8	-52.6	**5.4**	-24.5	-35.5	-2.6
Mx,	4.6	-99.8	1.0	**-109.7**	1.6	-6.2	-3.4	-27.6	-0.3	**3.4**	-2.5	-7.2
My,	-26.8	-53.3	5.2	-24.3	**-36.1**	-2.8	20.4	-12.3	-4.3	-12.9	**28.0**	-3.4
Mz,	-3.7	-109.6	0.7	-19.6	-5.6	**-14.1**	-17.8	22.3	3.6	-10.3	-23.9	**6.2**
Fx,	**-27.0**	-22.6	5.0	-10.6	-17.6	135.9	**21.1**	-44.6	-3.6	-39.2	13.7	155.9
Fy,	-3.6	**-82.7**	0.5	-9.2	-3.3	290.0	-17.9	**25.9**	3.8	-6.9	-10.5	-33.8
Fz,	18.9	-12.8	**-4.4**	-12.8	10.7	43.3	-25.8	-22.2	**5.4**	-10.8	-15.9	134.5
Mx,	4.8	-59.3	0.3	**-65.2**	4.5	210.6	-4.3	-19.9	0.3	**7.0**	-3.5	182.2
My,	-26.3	17.4	4.3	-8.4	**-18.1**	-58.9	19.2	-41.3	-1.9	-30.3	**14.9**	199.0
Mz,	-17.8	22.3	3.6	-10.3	-10.7	**-75.7**	-3.7	-79.1	0.7	-5.9	-3.2	**331.9**
Member 2												
Fx,	**-22.8**	-14.4	4.6	-14.1	-30.9	104.5	**16.9**	-47.3	-4.1	-47.9	24.3	155.6
Fy,	-3.7	**-85.8**	0.1	-19.2	-4.2	288.7	-14.6	**26.3**	3.7	-5.7	-20.8	-33.4
Fz,	14.5	-13.7	**-4.7**	-16.1	23.4	42.9	-21.4	-23.5	**5.0**	-15.3	-30.3	134.2
Mx,	3.9	-62.9	-0.7	**-77.2**	5.1	209.9	-0.6	-0.7	-0.2	**4.8**	0.0	54.2
My,	-22.7	-24.1	4.8	-15.1	**-31.1**	136.0	16.7	-26.6	-4.3	-28.6	**24.7**	85.3
Mz,	-14.5	23.1	3.6	-8.0	-20.6	**-75.2**	-3.8	-82.6	0.2	-16.9	-4.5	**330.5**
Fx,	**-22.8**	16.1	4.6	-0.4	-13.9	101.4	**16.9**	-16.8	-4.1	-16.0	9.3	273.1
Fy,	-3.4	**-53.4**	-0.1	-6.4	-4.0	371.2	-11.8	**38.2**	3.2	7.9	-5.5	60.9
Fz,	14.5	-13.7	**-4.7**	-16.1	6.1	93.2	-21.4	7.0	**5.0**	-1.6	-11.8	164.5
Mx,	4.5	-30.6	-1.1	**-45.1**	2.5	211.1	-0.1	17.2	0.3	**26.3**	0.8	204.3
My,	-22.3	18.1	4.2	-6.5	**-14.3**	-125.2	16.2	-13.9	-2.7	-8.5	**11.3**	304.8
Mz,	-14.5	23.1	3.6	-8.0	-7.4	**-159.9**	-3.8	-26.7	0.2	8.2	-3.8	**525.8**
Member 3												
Fx,	**-18.7**	15.0	4.5	-4.1	-26.6	101.5	**13.5**	-21.6	-3.2	-27.5	19.1	275.6
Fy,	-3.6	**-57.7**	-0.3	-20.0	-3.5	370.5	-9.1	**37.4**	3.0	5.1	-14.0	61.1
Fz,	10.3	-31.6	**-4.9**	-39.7	19.5	193.2	-16.9	5.1	**4.9**	-7.9	-25.5	164.5
Mx,	6.0	-35.5	-1.7	**-60.0**	9.1	214.1	-3.1	15.0	0.2	**17.4**	-3.2	200.8
My,	-18.6	4.6	4.5	-7.8	**-26.6**	167.4	12.6	-29.9	-4.6	-39.9	**21.0**	182.4
Mz,	-11.2	24.5	3.6	-3.7	-17.2	**-159.5**	-3.9	-32.3	-0.0	-9.7	-4.2	**525.1**
Fx,	**-18.7**	45.5	4.5	9.6	-10.1	-9.3	**13.5**	8.9	-3.2	4.5	7.5	298.8
Fy,	-3.2	**-31.5**	-0.6	-9.0	-4.7	314.4	-9.2	**64.0**	3.1	18.1	-2.9	116.3
Fz,	10.3	-1.1	**-4.9**	-7.7	1.4	253.1	-16.9	35.5	**4.9**	5.8	-7.7	90.1
Mx,	6.5	-9.3	-2.1	**-32.5**	2.6	82.1	-2.8	41.6	0.1	**44.9**	-2.3	331.5
My,	-16.5	13.5	2.5	-2.9	**-11.6**	-137.5	9.8	17.3	-0.8	15.5	**8.3**	255.2
Mz,	-11.2	24.5	3.6	-3.7	-4.2	**-249.4**	-3.7	9.8	-0.1	10.4	-4.3	**575.2**
Member 4												
Fx,	**-14.7**	31.7	4.2	4.3	-22.0	-115.9	**10.6**	3.8	-3.4	-12.7	16.6	298.6
Fy,	2.0	**-35.4**	-2.7	-44.2	6.6	301.8	-6.4	**61.8**	3.0	11.0	-11.3	116.5
Fz,	5.8	-5.7	**-5.2**	-23.2	15.6	253.0	-12.5	34.0	**4.7**	0.5	-20.8	90.3
Mx,	5.6	-29.7	-4.1	**-44.7**	13.1	247.3	-3.7	53.9	1.6	**29.6**	-6.4	166.4
My,	-14.6	45.0	4.4	7.8	**-22.2**	-9.0	8.7	3.7	-4.8	-17.8	**17.5**	295.2
Mz,	-7.9	26.5	3.5	2.3	-13.7	**-249.2**	-3.9	3.4	-0.2	-10.1	-3.8	**575.2**
Fx,	**-14.7**	31.7	4.2	4.3	-6.5	-232.0	**10.6**	34.3	-3.4	19.3	4.1	228.8
Fy,	-3.7	**-14.6**	-1.0	-7.9	-6.0	183.6	-6.2	**92.1**	2.9	22.4	-0.2	40.3
Fz,	5.8	24.8	**-5.2**	8.8	-3.6	217.9	-12.5	64.5	**4.7**	14.2	-3.4	-90.2
Mx,	5.7	-9.0	-4.6	**-17.8**	-2.8	102.5	-3.3	84.0	1.2	**57.4**	-0.9	114.7
My,	-8.9	-6.7	-0.6	-5.3	**-9.8**	83.7	7.3	17.0	0.1	7.0	**7.6**	-51.5
Mz,	-7.9	26.5	3.5	2.3	-1.0	**-346.6**	-3.7	32.1	-0.5	4.4	-4.9	**470.2**
Member 5												
Fx,	**-11.9**	15.8	2.2	3.8	-15.6	-191.2	**8.2**	40.3	-1.2	22.5	10.3	162.4
Fy,	-0.6	**-17.2**	-3.5	-26.0	5.5	177.8	-3.3	**89.7**	2.6	14.4	-7.6	40.9
Fz,	1.4	27.3	**-5.9**	-3.7	12.5	247.6	-8.2	46.0	**4.5**	9.0	-16.0	-180.2
Mx,	1.8	-12.9	-4.1	**-28.9**	9.2	246.5	-1.9	83.7	0.3	**43.5**	-2.1	67.3
My,	-10.5	45.5	4.2	8.8	**-17.7**	-173.8	7.1	33.1	-4.2	4.3	**14.9**	187.0
Mz,	-4.6	28.8	3.2	8.9	-9.9	**-346.7**	-4.1	26.6	-0.7	-13.1	-3.2	**470.8**
Fx,	**-11.9**	15.8	2.2	3.8	-7.5	-249.3	**8.2**	40.3	-1.2	22.5	5.7	14.7
Fy,	-0.9	**-6.9**	-1.4	-5.7	-3.8	106.2	-3.3	**123.9**	2.2	27.9	1.3	-197.0
Fz,	1.4	70.5	**-5.9**	41.6	-9.3	87.4	-8.2	46.0	**4.5**	9.0	0.5	-348.9
Mx,	3.5	-4.4	-3.0	**-6.0**	-2.1	62.6	-2.0	117.8	-0.8	**76.2**	-3.1	-150.0
My,	-5.2	72.5	-5.0	42.7	**-14.0**	57.7	6.8	14.1	0.6	3.6	**7.8**	-188.4
Mz,	-4.6	28.8	3.2	8.9	1.9	**-452.3**	-4.1	95.2	-0.7	17.8	-5.7	**255.1**
Member 6												
Fx,	**-8.7**	21.8	-1.2	2.0	-11.4	56.0	**6.8**	32.4	-0.3	12.1	11.4	-165.1
Fy,	-1.9	**-7.7**	-1.7	-8.3	-0.3	106.3	-0.8	**122.4**	1.4	22.4	-3.0	-196.4
Fz,	-2.8	73.1	**-7.7**	30.5	9.7	23.5	-3.7	46.5	**4.0**	11.5	-12.7	-341.5
Mx,	-0.2	-5.6	-3.4	**-8.9**	5.7	69.6	-0.5	115.3	-2.7	**65.7**	4.5	-156.3
My,	-7.5	17.6	2.6	9.8	**-16.6**	-252.9	3.6	62.9	-5.6	26.8	**16.0**	10.3
Mz,	-1.2	30.6	2.6	14.3	-5.9	**-452.9**	-3.8	91.6	-1.1	6.4	-4.8	**256.3**
Fx,	**-8.7**	52.3	-1.2	15.7	-15.9	-79.7	**6.8**	32.4	-0.3	12.1	10.2	-284.0
Fy,	-5.2	**-4.8**	-0.1	-1.3	-9.3	95.6	-1.0	**150.2**	0.9	32.3	0.9	-660.6
Fz,	-2.8	128.9	-7.7	89.2	-18.7	-340.8	-3.7	46.5	**4.0**	11.5	1.9	-511.9
Mx,	-3.2	33.2	-0.0	**-3.8**	-5.7	-34.1	-2.0	141.0	-4.7	**95.4**	-11.4	-564.6
My,	-7.6	126.8	-7.0	89.1	**-24.7**	-297.6	6.6	12.4	0.2	4.5	**10.9**	-234.7
Mz,	-1.0	120.3	2.0	28.6	2.9	**-718.2**	-5.2	-4.8	-0.1	-1.3	-9.3	**95.6**
Member 7												
Fx,	**-8.4**	-71.8	2.8	-67.7	-20.7	-187.0	**6.2**	-61.4	-0.4	-7.0	11.6	-345.7
Fy,	-0.4	**-180.7**	1.2	-4.5	-2.4	-655.0	-4.5	**12.8**	1.1	-11.0	-11.3	95.8
Fz,	2.8	-4.8	**-1.9**	-0.4	9.6	-38.6	-4.8	-159.8	**4.3**	-99.8	-18.3	-517.0
Mx,	-4.1	-138.1	3.0	**-104.5**	-14.2	-366.1	1.4	-81.1	0.4	**37.2**	1.4	-438.9
My,	-7.8	-111.5	3.6	-75.9	**-22.0**	-388.1	5.7	-21.7	-1.2	1.2	**12.9**	-144.6
Mz,	0.4	-164.3	1.1	14.2	-0.8	**-719.4**	-4.5	12.8	1.1	-11.0	-11.3	**95.8**
Fx,	**-8.4**	-21.7	2.8	-15.2	-8.0	4.8	**6.2**	-61.4	-0.4	-7.0	9.8	-69.5
Fy,	0.5	**-138.1**	0.9	17.8	3.8	-50.6	-2.1	**16.3**	0.8	-0.3	-2.5	73.9
Fz,	2.8	-4.8	**-1.9**	-0.4	1.0	-17.2	-4.8	-84.3	**4.3**	-20.6	1.2	26.4
Mx,	-2.0	-95.4	2.3	**-56.9**	1.6	47.2	1.0	-77.9	0.6	**43.1**	3.0	-36.1
My,	-7.7	13.1	1.1	-4.1	**-11.1**	57.6	5.2	-89.9	0.9	-26.4	**11.0**	-64.0
Mz,	0.1	-53.8	0.3	14.5	2.0	**-231.8**	-3.3	-73.9	1.7	-2.4	-2.8	**201.6**
Member 8												
Fx,	**-9.0**	-24.6	1.3	-23.0	-11.5	3.1	**6.4**	-61.8	-0.3	-15.8	6.8	-64.4
Fy,	0.6	**-141.7**	0.2	5.4	0.7	-53.2	-2.0	**15.4**	0.6	-3.6	-3.7	74.2
Fz,	1.2	-4.9	**-2.0**	-1.1	5.8	-17.4	-3.7	-90.1	**2.5**	-41.1	-9.1	24.9
Mx,	-1.8	-112.1	1.4	**-74.0**	-5.3	16.7	0.9	-80.8	0.3	**33.4**	0.6	-38.8
My,	-8.3	-47.6	1.8	-32.4	**-12.0**	12.9	5.5	-40.0	-1.3	-6.3	**8.5**	-79.0
Mz,	-0.1	-53.8	-0.2	14.0	0.9	**-232.8**	-2.7	-77.8	1.3	-15.2	-6.0	**200.4**
Fx,	**-9.0**	12.8	1.3	16.3	-5.5	29.8	**6.4**	-61.8	-0.3	-15.8	5.6	213.6
Fy,	0.8	**-104.2**	0.1	19.4	1.8	310.0	-3.3	**26.3**	1.0	27.0	-1.3	154.1
Fz,	1.2	-4.9	**-2.0**	-1.1	-3.2	4.7	-3.7	-40.0	**2.5**	11.5	2.1	299.2
Mx,	-0.8	-74.8	1.2	**-39.0**	1.6	249.9	0.6	-57.2	0.3	**47.9**	1.6	525.6
My,	-7.4	6.2	0.2	-3.3	**-6.8**	-12.4	4.9	-52.9	0.9	1.3	**6.6**	291.3
Mz,	-3.1	1.1	0.8	-15.1	-1.6	**-141.2**	0.7	-87.0	0.4	39.1	2.1	**527.9**
Member 9												
Fx,	**-8.2**	11.7	0.6	8.5	-9.0	28.5	**6.0**	-68.3	-0.0	-35.4	5.8	213.6
Fy,	0.8	**-110.6**	-0.0	-1.8	1.4	307.8	-2.6	**22.7**	1.1	4.6	-5.5	162.9
Fz,	-0.7	-15.4	**-2.0**	-4.8	4.0	-15.7	0.0	-49.3	**2.2**	3.8	-4.5	346.9

Mx,	1.8	-94.2	0 2	**-65.8**	1.1	280.0	0.4	-49.8	0.1	**22.9**	0.5	282.6
My,	-7.5	-12.9	1.2	-9.6	**-9.8**	140.5	4.5	-45.1	-1.3	-17.5	**7.1**	102.3
Mz,	-2.4	2.8	0.7	-10.0	-4.3	**-140.7**	0.9	-96.4	0.2	8.4	1.0	**525.4**
Fx,	**-8.2**	11.7	0.6	8.5	-6.3	-23.9	**6.0**	-30.9	-0.0	3.9	5.7	436.7
Fy,	0.4	**-77.7**	-0.1	9.2	0.8	479.7	-1.3	**42.5**	0.8	45.6	0.3	261.5
Fz,	-0.7	-15.4	**-2.0**	-4.8	-5.1	53.6	0.0	-11.8	**2.2**	20.7	5.4	484.4
Mx,	1.8	-61.3	0.0	**-35.9**	1.6	384.2	-2.9	29.5	0.6	**53.0**	-1.1	329.6
My,	-5.5	-4.2	-1.3	-2.5	**-8.0**	-44.1	3.3	-44.1	1.7	22.1	**7.3**	668.0
Mz,	-2.3	2.8	0.7	-10.0	-1.1	**-153.4**	0.9	-20.9	0.2	42.4	2.0	**783.7**

Member 10

Fx,	**-8.1**	7.5	-0.1	4.9	-7.4	-23.3	**6.4**	-36.3	0.5	-26.6	5.0	435.4
Fy,	0.2	**-85.3**	-0.1	-15.9	1.1	478.2	-0.0	**37.4**	1.2	7.4	-3.0	279.8
Fz,	-3.0	-17.0	**-2.1**	-10.9	1.7	53.2	2.4	-20.0	**2.2**	-5.9	-2.0	483.8
Mx,	3.3	-66.0	-0.1	**-67.2**	3.3	440.6	-3.9	18.8	0.5	**30.4**	**-4.8**	272.3
My,	-7.0	10.1	0.9	5.8	**-8.6**	-18.8	5.3	-38.9	-0.5	-27.5	**6.2**	430.9
Mz,	-1.6	4.8	0.7	-4.0	-3.5	**-153.1**	1.1	-33.2	0.2	2.8	1.3	**782.5**
Fx,	**-8.1**	7.5	-0.1	4.9	-7.8	-57.0	**6.4**	1.1	0.5	12.6	7.3	514.6
Fy,	-0.7	**-56.4**	-0.2	-3.5	-0.6	506.2	1.3	**61.0**	1.3	21.8	3.9	344.1
Fz,	-3.0	-17.0	**-2.1**	-10.9	-7.5	129.7	2.4	17.4	**2.2**	10.9	7.8	489.6
Mx,	2.7	-36.9	-0.2	**-37.8**	2.0	389.3	-2.8	42.7	0.6	**59.2**	-1.0	409.8
My,	-6 8	-7.0	-1.6	-3.8	**-9.9**	1.1	4.8	23.9	1.8	21.8	**9.1**	765.1
Mz,	-1.9	9.7	1.0	-5.6	0.1	**-186.7**	1.3	12.4	0.2	26.0	2.4	**883.9**

Member 11

Fx.	**-8.7**	-4.7	-1.4	-5.9	-4.9	-24.8	**7.5**	9.2	1.6	-15.9	3.5	738.1
Fy.	-0.9	**-63.9**	-0.2	-27.9	0.2	505.4	2.8	**55.0**	1.3	2.1	-0.5	345.0
Fz.	-5.3	-20.0	**-2.1**	-21.7	-0.5	129.4	4.9	9.3	**2.1**	-15.8	0.5	489.9
Mx.	2.9	-45.9	-0.3	**-67.3**	3.3	394.5	-2.6	35.2	0.6	**31.0**	-3.5	404.7
My.	-7.1	11.1	0.5	5.0	**-7.6**	-72.5	5.8	-12.7	-0.1	-23.6	**5.8**	530.2
Mz.	-0.7	12.0	1.0	1.4	-3.4	**-186.5**	1.5	-0.9	0.2	-17.0	1.7	**883.9**
Fx,	**-8.7**	-4.7	-1.4	-5.9	-11.4	-3.5	**7.5**	59.3	1.6	6.7	10.9	565.4
Fy,	-2 3	**-38.8**	-0.4	-12.2	-2.6	431.9	4.0	**82.7**	1.5	12.8	7.0	312.6
Fz.	-5.3	-20.0	**-2.1**	-21.7	-9.9	219.5	4.9	46.7	**2.1**	1.0	10.1	**364.0**
Mx.	1.9	-20.3	-0.4	**-36.2**	0.7	247.6	-1.7	62.8	0.6	**57.7**	0.1	452.7
My.	-8.5	-7.9	-1.6	-7.7	**-11.7**	36.5	6.6	64.4	1.9	5.3	**11.2**	554.3
Mz,	-0.7	12.0	1.0	1.4	1.2	**-240.5**	1.5	44.8	0.2	5.9	2.6	**827.9**

Member 12

Fx,	**-10.4**	-9.7	-1.7	-14.3	-6.0	36.6	**9.3**	51.1	1.7	-25.9	5.3	575.4
Fy,	-3.1	**-45.7**	-0.7	-58.8	-1.0	410.4	5.7	**76.7**	1.4	-7.2	2.2	314.2
Fz.	-7.6	-24.8	**-2.2**	-38.3	-2.6	219.4	6.9	47.1	**2.1**	-14.7	2.6	291.3
Mx.	-1.1	-40.6	-1.2	**-62.4**	1.4	416.7	1.6	67.7	1.2	**29.9**	-0.7	284.7
My.	-8.3	7.7	-0.2	3.7	**-7.3**	-90.0	7.5	18.8	0.4	-16.2	**6.3**	471.4
Mz.	0.5	14.8	1.0	9.8	-2.1	**-240.5**	1.7	32.2	0.2	-34.6	2.0	**829.2**
Fx,	**-10.4**	-9.7	-1.7	-14.3	-13.7	80.3	**9.3**	88.5	1.7	-9.1	12.8	261.1
Fy,	-4.5	**-23.9**	-0.9	-25.5	-6.1	284.9	6.6	**108.6**	1.5	1.6	9.7	137.6
Fz.	-7.6	12.6	**-2.2**	0.9	-12.4	246.8	6.9	84.5	**2.1**	2.2	12.1	-4.8
Mx,	-2.5	-18.8	-1.4	**-29.2**	-5.9	268.3	1.9	99.3	1.1	**56.4**	4.9	142.1
My,	-9.7	-13.3	-1.9	-15.3	**-13.8**	122.6	8.7	92.2	1.8	-9.2	**13.2**	225.1
Mz.	0.5	14.8	1.0	9.8	2.3	**-307.3**	1.4	78.0	0.1	-10.8	2.2	**611.7**

Member 13

Fx.	**-12.2**	-15.7	-2.1	-26.8	-6.8	123.7	**11.4**	86.5	1.6	-28.5	7.5	227.4
Fy.	-5.3	**-29.3**	-1.1	-44.0	-2.4	285.0	8.3	**103.9**	1.3	-14.2	5.1	139.8
Fz.	-9.9	6.8	**-2.6**	-18.9	-3.9	247.2	9.3	82.3	**1.9**	-5.8	5.5	-3.2
Mx.	1.5	38.8	-0.2	**-50.4**	1.9	572.8	0.7	82.7	-0.1	**34.0**	1.3	99.1
My.	-9.6	-0.8	-0.9	1.2	**-7.1**	-54.1	9.4	73.2	0.6	1.5	**7.9**	296.9
Mz	1.6	18.0	0.8	19.2	-0.6	**-307.7**	1.5	68.3	-0.0	-42.4	2.2	**614.1**
Fx,	**-12.2**	21.7	-2.1	12 5	-16.5	110.2	**11.4**	123.9	1.6	-11.7	14.9	-245.9
Fy,	-6.5	**-11.9**	-1.2	-10.6	-8.9	141.1	8.3	**140.6**	1.2	-3.3	10.8	-234.4
FZ,	-9.9	44.3	**-2.6**	20.4	-15.7	132.2	9.3	82.3	**1.9**	-5.8	14.2	-373.5
Mx,	2.4	74.7	0.1	**-32.8**	2.5	66.0	-1.6	115.3	-0.7	**66.3**	-2 8	-134.9
My,	-11.7	20.8	-2.3	12.5	**-16.7**	113.1	10.7	124.0	1.7	-11.5	**15.0**	-249.1
Mz.	6.3	62.2	1.4	-4.2	9.1	**-432.7**	-4.1	70.1	-0.7	7.0	-5.1	**267.7**

Member 14

Fx,	**-12.5**	17.0	-3.8	-0.5	-9.8	113.5	**12.0**	122.5	0.9	-16.8	15.8	-243.5
Fy,	-6.6	**-14.4**	-1.9	-19.0	-5.5	141.1	8.6	**138.7**	0.3	-10.5	12.4	-231.8
Fz,	-8 5	71.8	**-4.6**	10.1	-2.7	9.5	9.1	57.6	**1.4**	-3.9	11.5	-330.5
Mx,	2.4	71.6	-0.4	**-43.1**	4.3	68.7	0.9	103.5	-1.6	**51.6**	5.6	-148.3
My,	-9.2	-8.2	-1.4	-2.2	**-11.0**	78.8	9.6	110.7	-0.8	30.6	**16.0**	-176.3
Mz,	7.2	63.9	0.6	0.7	9.1	**-432.1**	-4.2	65.9	-1.1	-6.8	-3.0	**269.0**
Fx,	**-12.5**	92.4	-3.8	78.7	-26.7	-138.4	**12.0**	122.5	0.9	-16.8	19.9	-794.9
Fy,	-2.2	**-7.8**	-0.1	3.5	-3.2	99.0	7.2	**181.1**	-0.1	8.6	10.6	-854.2
Fz,	-8.5	147.3	**-4.6**	89.3	-23.3	-489.1	9.1	57.6	**1.4**	-3.9	17.7	-589.7
Mx,	2.9	74.9	-0.1	**-37.0**	4.2	-309.1	-4.0	142.0	-3.1	**99.2**	-12.6	-577.4
My,	-11.6	116.7	-4.3	87.9	**-27.2**	-285.3	11.4	122.8	1.0	-16.5	**20.1**	-799.2
Mz,	8.0	147.3	0.2	9.4	12.3	**-887.7**	-6.4	-7.0	-0.6	2.5	-10.3	**107.3**

Member 15

Fx,	**-11.8**	-69.5	3.6	-63.6	-28.6	-138.2	**11.6**	-111.3	-0.3	4.2	21.1	-799.0
Fy,	6.2	**-189.6**	0.6	-14.9	9.3	-830.4	-2.6	**13.4**	0.5	-8.7	-5.0	106.0
Fz,	3.8	-9.8	**-1.6**	-4.7	10.4	-155.0	-6.3	-130.1	**5.0**	-75.0	-22.2	-531.5
Mx.	-2.7	-146.0	3.5	**-110.8**	-12.3	-541.3	2.8	-78.3	0.1	**37.9**	4.4	-368.9
My,	-11.6	-89.6	4.0	-70.7	**-29.2**	-207.3	11.0	-82.7	-0.5	5.4	**21.4**	-729.2
Mz,	7.9	-173.1	0.4	3.6	12.7	**-888.3**	-5.7	13.3	1.3	-10.4	-12.4	**107.4**
Fx,	**-11.8**	-19.4	3.6	-11.0	-12.5	43.4	**11.6**	-111.3	-0.3	4.2	19.9	-298.1
Fy,	7.8	**-146.9**	0.2	7.2	14.1	-184.3	-4.5	**17.2**	1.2	1.2	-4.5	85.6
Fz,	3.8	-9.8	**-1.6**	-4.7	3.1	-110.8	-6.3	-80.0	**5.0**	-22.5	0.2	-77.0
Mx,	0.8	-103.4	2.6	**-63.8**	7.7	-90.9	2.2	-75.0	0.4	**44.0**	4.6	23.9
My,	-11.2	-18.6	3.2	-11.6	**-12.9**	44.6	10.7	-128.6	0.2	17.2	**20.5**	-234.6
Mz,	7.7	-65.6	-0.4	1.8	12.4	**-417.9**	-4.2	-72.1	1.9	-1.2	-2.3	**237.0**

Member 16

Fx,	**-12.3**	-21.4	1.8	-21.4	-15.9	44.7	**12.5**	-130.1	-0.7	11.5	13.9	-237.3
Fy,	8.2	**-149.2**	-0.7	-0.9	9.5	-186.7	-4.3	**16.1**	0.9	-2.7	-5.9	85.8
Fz.	4.0	-22.4	**-2.0**	-6.9	8.5	-233.6	-7.0	-71.4	**2.9**	-35.1	-13.1	44.5
Mx.	0.1	-119.4	1.3	**-78.3**	-2.4	-124.8	3.1	-78.1	0.1	**34.2**	2.6	20.9
My,	-11.8	-43.4	2.4	-31.5	**-16.7**	64.2	11.9	-110.9	-1.1	1.4	**14.6**	-298.3
Mz.	7.6	-63.9	-1.1	6.3	9.9	**-418.6**	-3.4	-76.1	1.4	-14.3	-6.1	**235.8**
Fx,	**-12.3**	16.0	1.8	17.9	-7.7	57.0	**12.5**	-92.7	-0.7	28.3	10.8	264.2
Fy,	8.7	**-111.9**	-0.8	12.8	6.6	206.7	-6.7	**27.6**	1.5	28.4	-2.9	171 6
Fz,	4.0	-22.4	**-2.0**	-6.9	-0.6	-132.7	-7.0	-34.0	**2.9**	4.1	-0.3	281.7
Mx,	1.9	-82.4	0.9	**-43.6**	4.4	137.9	2.3	-54.2	0.2	**49.0**	2.6	577.8
My,	-10.9	12.3	1.1	19.8	**-8.6**	62.4	11.1	-89.7	-0.1	25.8	**11.4**	258.6
Mz,	1.6	-10.3	0.0	-23.0	2.3	**-306.2**	3.4	-83.9	0.2	40.1	3.6	**581.4**

Member 17

Fx,	**-11.0**	12.6	1.1	9.3	-12.9	58.2	**11.5**	-98.9	-0.8	7.5	13.2	261.7
Fy,	7.5	**-117.1**	-1.0	-4.6	9.5	204.5	-3.9	**23.8**	1.4	5.0	-6.4	181.4
Fz,	1.4	-22.0	**-2.2**	-6.7	6.3	-133.1	-4.6	-41.4	**2.4**	-21.6	-9.6	280.8
Mx,	4.8	-100.1	-0.3	**-67.6**	5.9	181.7	2.3	-47.4	0.0	**23.3**	2.0	327.1
My,	-10.2	12.8	1.7	10.2	**-14.0**	59.3	10.7	-78.1	-1.1	5.5	**13.6**	116.8
Mz,	1.4	-7.0	-0.1	-13.2	2.2	**-305.6**	3.4	-93.5	0.1	8.8	2.9	578.8
Fx,	**-11.0**	12.6	1.1	9.3	-7.9	1.6	**11.5**	-61.5	-0.8	24.4	9.4	622.7
Fy,	6.9	**-84.4**	-1.1	6.5	4.2	400.9	-3.5	**44.0**	1.2	46.2	-0.4	281.1
Fz,	1.4	-22.0	**-2.2**	-6.7	-3.6	-33.9	-4.6	-4.0	**2.4**	17.6	1.1	382.9
Mx,	4.9	-67.5	-0.5	**-37.8**	4.2	308.1	-4.9	31.1	1.0	**53.6**	-2.8	348.7
My,	-9.6	3.7	0.3	11.7	**-9.0**	57.7	9.8	-52.9	0.4	18.4	**11.2**	567.5
Mz,	1.4	-7.0	-0.1	-13.2	1.8	**-274.0**	3.4	-18.1	0.1	42.8	3.3	**824.2**

Member 18

Fx.	**-10.0**	8.4	0.7	5.3	-11.0	18.2	**10.7**	-68.2	-0.4	-9.8	11.6	601.7
Fy.	5.6	**-91.1**	-1.1	-15.7	7.8	399.4	-0.5	**38.7**	1.3	7.3	-2.8	300.6
Fz.	-1.0	-23.1	**-2.3**	-10.4	4.0	-37.8	-2.2	-12.1	**2.2**	-11.8	-7.0	386.0
Mx.	3.0	-64.6	-0.1	**-67.4**	3.4	461.0	-2.7	13.3	0.4	**30.9**	-3.6	194.7
My,	-9.1	12.5	1.3	5.2	**-12.0**	-3.5	10.1	-71.6	-0.8	-8.8	**12.5**	620.8
Mz,	1.3	-3.8	-0.1	-3.6	2.2	**-273.8**	3.5	-30.5	0.0	2.6	3.1	**823.0**

Fx_f	**-10.0**	8.4	0.7	5.3	-8.0	-19.8	**10.7**	7.3	-0.4	24.2	9 7	733.1
Fy_f	4.3	**-62.5**	-1.1	-3.3	1.5	449.6	1.4	**62.7**	1.3	21.6	5.0	362.6
Fz_f	-1.0	-23.1	**-2.3**	-10.4	-6.2	66.2	-2.2	25.3	**2.2**	27.5	3.1	356.5
Mx_f	2.3	-35.8	-0.1	**-37.9**	2.2	399.5	-1.1	37.5	0.3	**59.6**	-0.3	361.0
My_f	-7.7	-8.8	-1.0	-2.8	**-10.1**	23.5	9.8	17.0	0.5	20.5	**11.6**	671.4
Mz_f	0.6	2.2	0.4	-5.2	2.0	**-257.7**	3.8	15.1	0.0	25.7	3.6	**912.3**

Member 19

Fx_i	**-9.5**	-0.3	0.2	-3.5	-9.6	50.3	**10.9**	2.7	0.3	-12.9	10.2	671.2
Fy_i	3.1	**-69.4**	-1.1	-25.7	5.3	448.7	2.9	**56.6**	1.3	1.6	0.6	363.5
Fz_i	-3.6	-25.6	**-2.3**	-19.6	1.5	65.7	0.3	17.6	**2.2**	0.5	-4.4	357.0
Mx_i	3.1	-44.7	-0.2	**-67.8**	3.5	408.1	-1.8	30.3	0.3	**32.8**	-2.1	352.4
My_i	-8.5	10.9	0.9	2.2	**-10.6**	-48.3	9.2	-7.9	-0.8	-13.1	**11.6**	767.2
Mz_i	1.0	5.2	0.4	3.9	0.8	**-257.7**	3.8	1.6	0.0	-17.7	3.4	**912.4**
Fx_f	**-9.5**	-0.3	0.2	-3.5	-8.6	51.5	**10.9**	52.8	0.3	9.6	11.6	528.1
Fy_f	1.4	**-44.5**	-1.2	-9.9	-1.7	397.4	4.5	**84.5**	1.3	12.2	8.1	325.6
Fz_f	-3.6	-25.6	**-2.3**	-19.6	-8.9	180.8	0.3	55.0	2.2	39.7	5.5	193.5
Mx_f	1.9	-19.4	-0.3	**-36.6**	1.0	253.5	-0.6	58.1	0.3	**59.4**	0.4	424.2
My_f	-8.3	-13.8	-1.4	-6.2	**-11.4**	45.7	9.0	63.8	1.2	5.6	**12.3**	550.5
Mz_f	1.0	5.2	0.4	3.9	2.4	**-281.2**	3.8	47.2	0.0	5.2	3.6	**844.8**

Member 20

Fx_i	**-10.3**	-12.3	-1.1	-15.7	-7.5	68.2	**11.4**	47.7	0.5	-20.7	10.4	512.8
Fy_i	-1.5	**-51.0**	-1.1	-56.0	0.6	375.5	6.0	**78.4**	1.3	-8.1	3.7	327.2
Fz_i	-5.3	-12.3	**-2.4**	-25.8	0.0	330.8	1.9	32.1	**2.1**	11.3	-2.6	44.1
Mx_i	-1.0	-39.5	-1.0	**-63.1**	1.1	424.7	2.2	63.0	0.8	**32.4**	0.8	254.1
My_i	-8.4	7.6	0.5	1.0	**-9.5**	-53.7	9.4	36.0	-0.4	-22.9	**10.8**	620.7
Mz_i	1.4	8.5	0.3	13.6	1.3	**-281.4**	3.8	34.6	0.0	-35.6	3.5	**846.1**
Fx_f	**-10.3**	-12.3	-1.1	-15.7	-12.5	123.4	**11.4**	85.1	0.5	-3.8	12.4	213.9
Fy_f	-1.8	**-29.5**	-1.3	-9.3	-5.2	285.4	7.0	**110.4**	1.3	0.6	10.6	143.4
Fz_f	-5.3	25.1	**-2.4**	13.4	-10.8	302.0	1.9	32.1	**2.1**	11.3	7.1	-100.4
Mx_f	-2.5	-17.9	-1.2	**-29.7**	-5.4	270.5	2.6	94.7	0.7	**58.8**	4.8	133.2
My_f	-8.8	-18.9	-1.9	-12.6	**-13.3**	111.0	10.0	93.9	1.5	-9.9	**13.9**	227.5
Mz_f	1.4	8.5	0.3	13.6	2.8	**-319.6**	3.4	80.3	-0.0	-11.8	3.1	**617.8**

Member 21

Fx_i	**-11.5**	-19.1	-1.7	-25.3	-7.3	115.9	**12.2**	86.1	1.0	-27.7	9.9	225.8
Fy_i	-4.3	**-34.7**	-1.4	-40.8	-1.6	272.9	8.5	**105.7**	1.2	-15.4	6.6	145.7
Fz_i	-7.8	17.8	**-2.8**	-11.9	-1.7	302.6	4.4	31.5	**2.0**	8.1	0.3	-99.7
Mx_i	2.3	40.9	-0.2	**-51.6**	3.0	578.9	3.1	76.6	-0.1	**36.9**	3.8	106.1
My_i	-8.5	1.2	0.0	-4.0	**-8.6**	4.3	11.4	78.1	0.2	-20.5	**11.5**	212.3
Mz_i	1.8	11.8	0.2	23.5	2.0	**-320.2**	3.4	70.4	-0.1	-43.6	3.5	**620.3**
Fx_f	**-11.5**	18.3	-1.7	14.0	-15.1	117.8	**12.2**	123.5	1.0	-10.8	14.6	-245.7
Fy_f	-5.5	**-17.5**	-1.4	-7.3	-9.0	153.6	8.5	**142.4**	1.1	-4.5	11.6	-236.2
Fz_f	-7.8	55.2	**-2.8**	27.4	-14.2	138.4	4.4	31.5	**2.0**	8.1	9.2	-241.6
Mx_f	3.2	77.0	-0.0	**-33.9**	3.3	62.2	0.8	**109.0**	-0.6	**69.0**	0.1	-100.0
My_f	-10.4	16.1	-2.5	14.7	**-16.2**	124.6	11.0	113.0	1.7	-1.9	**15.4**	-315.8
Mz_f	6.6	63.4	1.4	-5.2	10.4	**-433.9**	-2.2	64.8	-1.4	11.1	-5.7	**280.6**

Member 22

Fx_i	**-11.7**	11.4	-3.4	2.0	-9.8	125.5	**12.2**	124.2	0.7	-17.5	17.0	-248.0
Fy_i	-6.1	**-20.1**	-2.0	-15.8	-5.4	153.5	8.8	**140.3**	0.3	-12.0	13.6	-233.8
Fz_i	-8.1	63.7	**-4.4**	9.6	-2.8	71.9	5.0	17.9	**1.5**	7.0	4.6	-173.8
Mx_i	2.9	73.9	-0.4	**-44.2**	5.5	64.9	1.0	98.2	-1.7	**54.4**	5.9	-135.7
My_i	-10.6	-10.9	-2.3	-16.5	**-11.0**	55.5	10.9	123.8	-0.1	-10.1	**17.7**	-216.1
Mz_i	7.3	65.1	0.8	-0.6	10.3	**-433.2**	-3.2	60.7	-1.8	-2.4	-1.5	**281.7**
Fx_f	**-11.7**	86.9	-3.4	81.2	-25.1	-101.4	**12.2**	124.2	0.7	-17.5	20.3	-807.0
Fy_f	-2.0	**-14.2**	-0.5	7.9	-4.6	142.2	7.4	**182.6**	-0.0	6.8	12.2	-872.6
Fz_f	-8.1	139 1	**-4.4**	88.8	-22.5	-390.1	5.0	17.9	**1.5**	7.0	11.5	-254.2
Mx_f	3.4	77.2	-0.1	**-37.9**	5.1	-323.4	-3.8	136.3	-2.9	**101.5**	-11.5	-538.8
My_f	-11.0	108.3	-3.9	87.2	**-25.7**	-177.9	11.5	112.7	1.1	-3.8	**20.8**	-821.4
Mz_f	8.2	148.7	0.4	7.8	14.3	**-894.9**	-5.2	-12.4	-1.2	7.4	-11.2	**144.4**

Member 23

Fx_i	**-11.1**	-68.2	3.2	-62.3	-26.7	-106.2	**11.6**	-128.7	-0.2	17.2	21.5	-819.1
Fy_i	6.2	**-189.6**	0.3	-14.4	11.7	-837.5	-2.0	**14.8**	0.5	-8.1	-5 4	142 6
Fz_i	3.0	-9.8	**-1.5**	-4.6	8.4	-155.5	-5.6	-128.6	**4.3**	-72.9	-18.9	-500 5
Mx_i	-2.0	-145.8	2.9	**-109.5**	-9.5	-541.3	2.2	-76.7	0.1	**38.3**	4.1	-328 5
My_i	-10.6	-88.4	3.4	-68.3	**-27.2**	-173.1	11.2	**-111.6**	-0.5	4.0	**22.4**	-808.1
Mz_i	7.9	-173.2	0.1	3.9	15.2	**-895.5**	-4.9	14.7	1.2	-10.1	-12.2	**144.5**
Fx_f	**-11.1**	-18.1	3.2	-9.7	-12.5	69.6	**11.6**	-128.7	-0.2	17.2	20.5	-240.0
Fy_f	7.7	**-147.1**	-0.1	7.4	14.9	-191.4	-3.7	**18.7**	1.1	2.1	-4.9	116.1
Fz_f	3.0	-9.8	**-1.5**	-4.6	1.8	-111.5	-5.6	-78.5	**4.3**	-20.3	0.2	-52 8
Mx_f	1.4	-103.3	2.0	**-63.0**	7.5	-92.0	1.7	-73.4	0.3	**44.6**	4.2	57.6
My_f	-10.6	-18.0	2.6	-10.0	**-13.6**	68.0	11.3	-128.8	-0.2	17.2	**20.7**	-240.2
Mz_f	7.1	-65.9	-0.6	1.6	12.6	**-427.3**	-3.0	-70.5	1.6	-0.3	-2.5	269.9

Member 24

Fx_i	**-11.8**	-21.2	1.4	-20.4	-14.8	67.7	**12.8**	-130.3	-0.8	11.3	14.8	-242.7
Fy_i	8.2	**-149.4**	-0.8	-0.9	10.7	-193.7	-3.7	**17.5**	0.9	-2.2	-6.0	116.3
Fz_i	3.2	-22.4	**-1.9**	-6.8	7.2	-235.9	-6.2	-70.1	**2.6**	-33.9	-11.5	70 3
Mx_i	2.9	-118.3	0.7	**-77.7**	1.5	-103.6	2.2	-76.5	0.1	**34.6**	2.5	54.6
My_i	-11.3	-20.7	2.0	-19.6	**-15.9**	73.4	12.1	-112.0	-1.1	1.9	**15.2**	-307.4
Mz_i	7.1	-64.2	-1.2	6.0	10.5	**-428.0**	-2.4	-74.6	1.3	-13.8	-5.6	**268.6**
Fx_f	**-11.8**	16.2	1.4	18.8	-8.5	78.9	**12.8**	-92.9	-0.8	28.2	11.1	259.4
Fy_f	8.6	**-112.1**	-0.9	12.7	7.2	200.4	-5.8	**29.1**	1.4	29.3	-3.0	196.5
Fz_f	3.2	-22.4	**-1.9**	-6.8	-1.2	-135.0	-6.2	-32.7	**2.6**	5.4	0.1	301.7
Mx_f	4.4	-81.3	0.3	**-43.2**	5.3	154.0	1.6	-52.5	0.2	**49.5**	2.4	604.6
My_f	-10.9	11.7	0.9	22.3	**-9.0**	89.2	10.8	-84.6	0.2	21.2	**11.9**	244.0
Mz_f	3.0	-10.8	-0.2	-23.2	2.3	**-315.0**	2.5	-82.2	0.2	40.6	3.5	**608.6**

Member 25

Fx_i	**-10.8**	12.5	1.0	10.3	-12.8	81.7	**11.7**	-98.4	-0.9	7.0	13.7	254.9
Fy_i	7.3	**-117.3**	-1.1	-4.7	10.4	198.2	-3.2	**25.2**	1.2	5.2	-6.4	207.0
Fz_i	1.7	-34.3	**-2.0**	-10.8	6.1	-96.0	-4.7	-28.0	**2.2**	-16.9	-9.2	261.4
Mx_i	5.2	-100.1	-0.5	**-67.4**	6.1	181.5	1.3	-45.8	-0.0	**23.4**	1.5	353.3
My_i	-9.6	14.0	1.6	10.6	**-13.4**	80.1	11.3	-99.1	-1.0	7.4	**14.0**	257.0
Mz_i	2.6	-7.5	-0.3	-13.4	2.9	**-314.5**	2.5	-92.0	0.1	8.9	3.0	**606.0**
Fx_f	**-10.8**	12.5	1.0	10.3	-8.4	25.5	**11.7**	-61.0	-0.9	23.8	9.8	613.5
Fy_f	6.6	**-84.7**	-1.1	6.3	4.7	395.5	-2.6	**45.4**	1.1	46.6	-0.4	300 2
Fz_f	1.7	-34.3	**-2.0**	-10.8	-3.0	58.6	-4.7	9.4	**2.2**	22.4	0.7	303.3
Mx_f	5.2	-67.5	-0.6	**-37.7**	3.8	307.5	-4.6	32.2	1.0	**54.1**	-1.9	362.7
My_f	-8.1	-4.9	-0.6	-0.8	**-9.5**	-10.2	10.6	-49.1	0.3	17.9	**11.6**	581.6
Mz_f	2.9	-7.5	-0.3	-13.4	1.8	**-280.7**	2.5	-16.5	0.1	42.9	3.3	**844.5**

Member 26

Fx_i	**-10.0**	7.2	0.5	6.3	-11.0	49.3	**11.2**	-62.4	0 0	-12.5	11.2	563.5
Fy_i	5.3	**-91.4**	-1.1	-15.9	8.5	394.0	0.2	**40.0**	1.2	7.2	-2 8	320.5
Fz_i	-0.6	-37.1	**-2.1**	-21.2	3.8	57.8	-2.4	2.8	**2.1**	-0.8	-6.7	303.4
Mx_i	2.8	-63.7	-0.1	**-67.5**	3.0	477.2	-1.9	13.4	0.4	**31.2**	-2.6	192 1
My_i	-9.4	12.3	1.0	4.3	**-11.8**	17.7	10.1	-71.8	-1.0	-8.9	**13.0**	617.3
Mz_i	2.5	-4.2	-0.4	-3.8	3.0	**-280.6**	2.5	-29.1	0.0	2.4	3.1	**843.4**
Fx_f	**-10.0**	7.2	0.5	6.3	-8.7	16.7	**11.2**	13.0	0.0	21.5	11.4	668.9
Fy_f	3.9	**-62.8**	-1.1	-3.4	1.9	445.2	2.2	**64.0**	1.1	21.5	4.3	376.9
Fz_f	-0.6	-37.1	**-2.1**	-21.2	-5.5	224.5	-2.4	40.2	**2.1**	38.4	2.8	206.7
Mx_f	1.9	-34.9	-0.1	**-38.0**	1.6	411.3	-0.2	37.6	0.3	**59.9**	0.7	358.1
My_f	-8.4	-10.1	-0.9	-2.6	**-10.6**	11 8	10.4	19.3	0.4	20.2	**11.8**	689.6
Mz_f	1.9	1.8	0.2	-5.2	2.0	**-262.0**	2.8	16.5	0.0	25.5	3.5	**926.3**

Member 27

Fx_i	**-9.8**	-6.6	-0.7	-8.2	-8.0	14.7	**11.3**	6.3	0.2	-14.1	10.9	669.0
Fy_i	2.6	**-69.6**	-1.2	-25.8	5.8	444.3	3.4	**57.9**	1.1	1.3	0.6	377.8
Fz_i	-2.9	-42.3	**-2.1**	-40.0	1.6	223.9	-0.1	35.3	**2.1**	20.8	-4 3	207.2
Mx_i	2.4	-43.5	-0.2	**-68.1**	3.0	421.2	-0 5	30.0	0.2	**33.0**	-1.1	348.4
My_i	-8.7	10.7	0.8	2.1	**-10.7**	-25.8	9.3	-7.3	-0.9	-13.3	**11.9**	756.3
Mz_i	2.1	4 8	0.2	3.9	1.4	**-261.9**	2.9	2.9	0.0	-18.2	3.5	**926.3**
Fx_f	**-9.8**	-6.6	-0.7	-8.2	-11.2	44.6	**11.3**	56.4	0.2	8.4	11.9	509.6
Fy_f	0.8	**-44.8**	-1.2	-10.0	-1.2	394.1	5.0	**85.8**	1.1	11.8	7.3	334.5
Fz_f	-2.9	-4.9	**-2.1**	-0.8	-7.9	330.3	-0.1	35.3	**2.1**	20.8	5.1	48.5
Mx_f	1.0	-18.2	-0.2	**-36.9**	0.7	261.0	0.7	57.8	0 2	**59.6**	1.1	421.5

My_i	-9.0	-14.1	-1.3	-6.0	**-11.9**	43.5	9.8	65.7	1.2	4.8	**12.9**	562.4
Mz_f	2.1	4.8	0.2	3.9	2.2	**-283.6**	2.8	48.6	0.0	4.8	3.5	**852.6**

Member 28

Fx_i	**-10.7**	-13.3	-1.1	-14.8	-8.1	62.1	**11.6**	49.6	0.4	-22.1	10.8	521.6
Fy_i	-1.8	**-51.3**	-1.0	-55.9	0.9	371.9	6.3	**79.6**	1.1	-8.5	3.6	336.1
Fz_i	-5.3	-12.1	**-2.2**	-26.0	-0.6	330.2	2.3	32.8	**2.0**	11.1	-1.8	49.2
Mx_i	-1.9	-38.3	-0.9	**-63.5**	0.4	432.0	3.6	62.7	0.7	**32.5**	2.0	251.6
My_i	-8.7	5.8	0.4	-0.1	**-9.8**	-11.9	11.0	43.6	-0.0	-20.2	**11.5**	528.1
Mz_i	2.3	8.1	0.2	13.6	1.6	**-283.8**	2.8	35.9	-0.0	-36.1	3.5	**854.0**
Fx_f	**-10.7**	-13.3	-1.1	-14.8	-12.9	121.9	**11.6**	87.0	0.4	-5.3	12.5	214.2
Fy_f	-2.4	**-29.7**	-1.3	-9.4	-4.7	283.3	7.3	**111.6**	1.1	0.2	9.5	146.8
Fz_f	-5.3	25.3	**-2.2**	13.3	-10.5	300.6	2.3	32.8	**2.0**	11.1	7.3	-98.3
Mx_f	-3.5	-16.7	-0.9	**-30.1**	-5.3	272.4	4.0	94.4	0.6	**58.9**	5.2	132.2
My_f	-9.9	-17.0	-1.6	-13.4	**-13.7**	114.1	11.2	93.6	1.2	-9.7	**14.3**	227.1
Mz_f	2.3	8.1	0.2	13.6	2.4	**-320.3**	2.4	81.6	-0.0	-12.3	3.0	**619.8**

Member 29

Fx_i	**-11.9**	-19.4	-1.6	-25.0	-8.1	115.7	**12.8**	87.8	1.0	-29.1	10.5	229.2
Fy_i	-4.6	**-35.0**	-1.2	-40.8	-1.2	270.5	8.5	**106.9**	0.9	-15.8	6.2	149.1
Fz_i	-6.7	29.2	**-2.6**	-11.6	-1.1	340.9	3.7	20.9	**1.9**	7.5	-0.0	-137.4
Mx_i	1.7	42.2	-0.2	**-52.1**	2.8	580.9	3.8	76.3	-0.2	**37.0**	4.2	105.3
My_i	-9.0	-3.2	-0.1	-2.2	**-8.9**	-6.1	11.6	79.5	0.0	-22.1	**12.0**	215.4
Mz_i	2.5	11.5	0.0	23.6	2.1	**-320.8**	2.4	71.8	-0.1	-44.1	3.4	**622.3**
Fx_f	**-11.9**	18.0	-1.6	14.3	-15.4	118.7	**12.8**	125.3	1.0	-12.2	15.2	-250.3
Fy_f	-5.7	**-17.8**	-1.2	-7.3	-8.0	152.6	8.5	**143.6**	0.9	-5.0	10.3	-238.3
Fz_f	-6.7	66.6	**-2.6**	27.6	-12.7	125.4	3.7	20.9	**1.9**	7.5	8.4	-231.7
Mx_f	2.7	78.3	-0.1	**-34.4**	3.1	58.2	1.5	108.7	-0.7	**69.1**	-0.1	-99.1
My_f	-11.2	17.9	-2.2	13.7	**-16.2**	119.7	12.0	112.2	1.3	-1.4	**15.5**	-313.5
Mz_f	6.8	64.6	1.2	-5.6	9.2	**-435.9**	-2.7	64.6	-1.4	11.1	-5.2	**279.6**

Member 30

Fx_i	**-11.9**	13.1	-3.0	0.9	-11.1	122.1	**12.5**	124.0	0.5	-17.3	18.1	-247.9
Fy_i	-6.1	**-20.4**	-1.8	-15.9	-4.6	152.5	8.7	**141.6**	0.2	-12.3	12.5	-235.8
Fz_i	-7.0	70.8	**-4.1**	7.9	-1.8	57.6	4.3	11.5	**1.5**	8.1	4.0	-162.5
Mx_i	2.4	75.2	-0.4	**-44.6**	5.3	61.0	1.5	97.8	-1.7	**54.4**	6.0	-134.7
My_i	-11.0	-11.5	-2.3	-15.7	**-11.8**	56.0	12.2	129.8	0.4	-16.0	**18.3**	-230.1
Mz_i	7.4	66.3	0.6	-0.9	9.4	**-435.2**	-3.7	60.4	-1.7	-2.4	-0.9	**280.8**
Fx_f	**-11.9**	88.6	-3.0	80.1	-24.8	-112.5	**12.5**	124.0	0.5	-17.3	20.2	-805.8
Fy_f	-2.1	**-14.6**	-0.5	8.0	-3.6	142.4	7.3	**183.9**	-0.2	6.5	10.4	-880.2
Fz_f	-7.0	146.3	**-4.1**	87.1	-20.4	-436.5	4.3	11.5	**1.5**	8.1	10.6	-214.4
Mx_f	2.8	78.6	-0.2	**-38.3**	4.8	-333.6	-3.1	135.9	-2.8	**101.4**	-11.3	-535.9
My_f	-11.3	109.4	-3.6	86.5	**-25.5**	-186.5	12.1	111.9	0.8	-3.2	**20.7**	-815.5
Mz_f	8.3	149.9	0.2	7.5	12.5	**-902.5**	-5.6	-12.6	-1.1	7.5	-10.2	**144.3**

Member 31

Fx_i	**-11.2**	-67.7	3.0	-62.9	-26.7	-112.4	**11.8**	-128.7	-0.4	17.1	22.2	-816.7
Fy_i	6.3	**-189.9**	0.3	-14.8	10.0	-845.0	-2.2	**14.6**	0.6	-8.1	-4.2	142.7
Fz_i	4.7	-12.9	**-1.4**	-7.3	11.7	-224.8	-6.9	-125.8	**4.2**	-69.9	-21.4	-437.7
Mx_i	-2.7	-146.1	2.8	**-109.4**	-10.2	-547.9	2.7	-76.8	0.2	**38.0**	4.3	-327.7
My_i	-10.6	-89.1	3.6	-68.4	**-27.6**	-186.0	11.5	-111.4	-0.7	3.8	**22.9**	-804.7
Mz_i	7.9	-173.4	0.1	3.5	13.5	**-903.0**	-5.2	14.4	1.3	-10.3	-11.4	**144.4**
Fx_f	**-11.2**	-17.6	3.0	-10.3	-13.1	61.3	**11.8**	-128.7	-0.4	17.1	20.6	-237.7
Fy_f	7.7	**-147.4**	-0.0	7.0	13.2	-197.7	-3.9	**18.6**	1.2	2.2	-3.5	117.2
Fz_f	4.7	-12.9	**-1.4**	-7.3	5.2	-166.5	-6.9	-75.7	**4.2**	-17.3	-2.6	-2.8
Mx_f	0.6	-103.6	1.9	**-63.0**	6.4	-97.5	2.3	-73.4	0.4	**44.4**	4.9	58.9
My_f	-10.6	-18.7	2.7	-9.9	**-13.6**	57.6	11.6	-128.6	-0.4	17.1	**20.7**	-237.5
Mz_f	7.0	-66.2	-0.6	1.1	10.8	**-433.8**	-3.3	-70.7	1.7	-0.5	-1.2	**271.1**

Member 32

Fx_i	**-11.8**	-21.6	1.6	-20.5	-15.2	58.0	**12.9**	-130.2	-0.9	11.3	15.1	-240.2
Fy_i	8.1	**-149.6**	-0.8	-1.2	9.5	-200.0	-3.6	**17.3**	0.9	-2.1	-5.2	117.4
Fz_i	4.5	-22.4	**-1.8**	-6.8	8.6	-235.8	-7.0	-70.5	**2.6**	-33.8	-12.5	65.1
Mx_i	2.0	-118.7	0.7	**-77.7**	1.1	-109.2	2.9	-76.5	0.1	**34.5**	2.3	56.0
My_i	-11.2	-21.6	2.2	-19.9	**-16.2**	59.7	12.2	-111.8	-1.3	1.8	**15.5**	-304.9
Mz_i	6.8	-64.5	-1.1	5.8	9.1	**-434.5**	-2.5	-74.8	1.4	-13.9	-5.0	**269.8**
Fx_f	**-11.8**	15.8	1.6	18.7	-8.0	71.0	**12.9**	-92.8	-0.9	28.1	10.9	261.5
Fy_f	8.4	**-112.4**	-0.9	12.4	6.2	195.1	-5.8	**29.0**	1.5	29.4	-2.0	198.4
Fz_f	4.5	-22.4	**-1.8**	-6.8	0.3	-135.0	-7.0	-33.1	**2.6**	5.5	-0.8	298.2
Mx_f	3.5	-81.7	0.4	**-43.2**	5.0	150.2	2.3	-52.5	0.2	**49.3**	2.5	605.9
My_f	-10.4	1.8	0.9	4.0	**-8.8**	-20.1	11.4	-84.4	0.1	21.1	**12.0**	247.3
Mz_f	2.2	-11.4	-0.0	-23.4	2.8	**-319.9**	3.0	-82.1	0.2	40.4	3.1	**610.0**

Member 33

Fx_i	**-10.5**	12.1	1.1	10.3	-12.9	73.7	**11.7**	-98.3	-1.0	6.9	14.0	257.6
Fy_i	7.2	**-117.5**	-1.0	-4.9	9.2	192.9	-3.2	**25.0**	1.4	5.1	-5.6	209.0
Fz_i	3.1	-34.3	**-2.0**	-10.8	7.5	-96.0	-5.5	-28.4	**2.2**	-16.8	-10.2	257.9
Mx_i	4.2	-100.6	-0.4	**-67.4**	5.7	177.1	1.9	-45.8	0.1	**23.3**	1.5	354.6
My_i	-9.9	14.1	1.6	9.9	**-13.6**	70.7	11.3	-98.9	-1.1	7.3	**14.3**	258.8
Mz_i	2.0	-8.0	-0.1	-13.5	2.9	**-319.3**	3.0	-91.9	0.1	8.8	2.5	**607.4**
Fx_f	**-10.5**	12.1	1.1	10.3	-7.8	19.2	**11.7**	-60.9	-1.0	23.7	9.5	615.7
Fy_f	6.5	**-84.9**	-1.0	6.1	3.8	391.1	-2.5	**45.2**	1.2	46.7	0.8	303.0
Fz_f	3.1	-34.3	**-2.0**	-10.8	-1.4	58.4	-5.5	9.0	**2.2**	22.5	-0.2	301.5
Mx_f	4.2	-68.0	-0.5	**-37.7**	3.6	305.3	-3.0	32.3	1.0	**54.2**	-1.1	363.0
My_f	-8.0	-5.5	-0.4	-0.9	**-9.2**	-14.8	11.0	-48.9	0.1	17.8	**11.6**	584.1
Mz_f	2.3	-8.0	-0.2	-13.5	2.4	**-283.2**	3.0	-16.4	0.1	42.8	2.9	**845.3**

Member 34

Fx_i	**-9.5**	7.0	0.8	6.3	-11.1	42.1	**11.3**	-62.3	-0.1	-12.6	11.6	566.3
Fy_i	5.2	**-91.6**	-1.1	-16.0	7.4	389.5	0.3	**39.9**	1.2	7.1	-1.9	323.2
Fz_i	0.8	-37.0	**-2.0**	-21.2	5.3	57.6	-3.2	2.4	**2.1**	-0.8	-7.6	301.6
Mx_i	1.4	-63.9	-0.1	**-67.5**	2.1	475.3	0.1	13.3	0.4	**31.2**	-1.0	192.1
My_i	-8.9	11.7	1.2	4.4	**-11.8**	13.2	10.2	-71.6	-1.1	-9.0	**13.0**	618.3
Mz_i	2.0	-4.8	-0.2	-3.9	3.1	**-283.1**	3.0	-28.9	0.1	2.3	2.6	**844.1**
Fx_f	**-9.5**	7.0	0.8	6.3	-7.7	10.4	**11.3**	13.2	-0.1	21.4	11.3	671.1
Fy_f	3.9	**-63.0**	-1.1	-3.5	1.1	441.5	2.3	**63.9**	1.2	21.4	5.6	380.4
Fz_f	0.8	-37.0	**-2.0**	-21.2	-3.8	224.2	-3.2	39.8	**2.1**	38.5	1.9	206.6
Mx_f	0.5	-35.1	-0.1	**-38.0**	0.7	410.6	1.8	37.5	0.3	**59.9**	2.2	358.5
My_f	-8.1	-10.7	-0.7	-2.6	**-10.1**	10.0	9.6	25.3	0.9	20.6	**11.8**	743.7
Mz_f	1.5	1.2	0.3	-5.3	2.9	**-262.1**	3.4	16.6	0.0	25.4	3.1	**926.3**

Member 35

Fx_i	**-9.3**	-7.1	-0.5	-8.2	-8.1	11.5	**11.3**	6.4	0.1	-14.2	11.3	671.2
Fy_i	2.7	**-69.8**	-1.1	-25.8	4.8	440.7	3.6	**57.7**	1.2	1.1	1.6	381.3
Fz_i	-1.5	-42.3	**-2.1**	-40.1	3.1	223.6	-0.8	34.9	**2.1**	20.8	-5.2	207.1
Mx_i	1.3	-43.5	-0.2	**-68.1**	2.2	421.6	1.2	29.7	0.3	**33.0**	0.3	347.6
My_i	-7.9	10.0	1.0	2.1	**-10.5**	-26.0	9.5	-5.6	-0.9	-13.4	**11.8**	743.3
Mz_i	1.9	4.3	0.3	3.8	1.8	**-262.1**	3.4	3.1	0.0	-18.2	3.0	**926.4**
Fx_f	**-9.3**	-7.1	-0.5	-8.2	-10.3	43.6	**11.3**	56.5	0.1	8.4	11.6	511.2
Fy_f	0.9	**-45.0**	-1.1	-10.0	-1.9	391.2	5.2	**85.6**	1.2	11.7	8.5	338.8
Fz_f	-1.5	-4.9	**-2.1**	-0.8	-6.2	329.8	-0.8	34.9	**2.1**	20.8	4.2	50.1
Mx_f	-0.1	-18.3	-0.3	**-36.9**	-0.3	261.7	2.4	57.5	0.3	**59.6**	2.9	422.1
My_f	-8.6	-14.5	-1.1	-6.0	**-11.3**	45.3	10.2	66.0	1.1	4.8	**13.0**	563.2
Mz_f	1.9	4.3	0.3	3.8	3.3	**-281.5**	3.4	48.7	0.0	4.8	3.1	**851.9**

Member 36

Fx_i	**-10.0**	-13.8	-0.8	-14.8	-8.0	61.0	**11.6**	54.4	0.8	-25.5	9.9	552.8
Fy_i	-1.5	**-51.4**	-1.0	-55.9	0.4	368.9	6.6	**79.4**	1.2	-8.7	4.6	340.5
Fz_i	-3.8	-12.1	**-2.2**	-26.0	1.0	329.7	1.6	32.4	**2.0**	11.2	-2.7	50.8
Mx_i	-2.5	-38.2	-0.9	**-63.5**	-0.6	431.1	4.8	62.3	0.7	**32.5**	3.6	253.8
My_i	-7.8	5.0	0.6	-0.1	**-9.5**	-8.8	11.1	43.8	-0.1	-20.3	**11.6**	528.7
Mz_i	2.3	7.6	0.3	13.4	2.3	**-281.7**	3.4	36.1	0.0	-36.1	3.1	**853.3**
Fx_f	**-10.0**	-13.8	-0.8	-14.8	-11.8	123.0	**11.6**	91.8	0.8	-8.6	13.6	223.6
Fy_f	-2.2	**-29.9**	-1.2	-9.3	-5.2	281.0	7.6	**111.4**	1.2	0.0	10.8	152.1
Fz_f	-3.8	25.3	**-2.2**	13.2	-8.7	300.0	1.6	32.4	**2.0**	11.2	6.5	-94.9
Mx_f	-4.1	-16.7	-1.0	**-30.1**	-6.4	271.2	5.2	93.9	0.6	**58.9**	7.0	136.2
My_f	-9.3	-17.5	-1.4	-13.5	**-12.9**	118.3	11.4	93.7	1.1	-9.8	**14.2**	226.8
Mz_f	2.3	7.6	0.3	13.4	3.6	**-315.8**	3.0	81.8	-0.0	-12.3	2.6	**618.3**

Member 37

Fx_i	**-11.0**	-19.7	-1.4	-25.1	-7.8	117.3	**12.8**	88.0	0.9	-29.2	10.9	230.0
Fy_i	-4.2	**-35.2**	-1.2	-40.7	-1.8	268.2	9.0	**106.7**	1.0	-16.1	7.4	154.4
Fz_i	-5.2	29.2	**-2.5**	-11.7	0.5	340.3	3.0	20.5	**1.9**	7.5	-0.9	-134.0
Mx_i	2.0	42.4	-0.2	**-52.1**	2.3	578.4	5.0	75.8	-0.1	**36.9**	5.7	109.4
My_i	-10.0	-6.2	-0.8	-10.2	**-8.6**	27.1	11.5	79.7	-0.1	-22.2	**12.0**	215.2
Mz_i	2.7	10.9	0.2	23.3	2.9	**-316.3**	3.0	72.0	-0.1	-44.1	3.0	**620.8**
Fx_f	**-11.0**	17.7	-1.4	14.2	-14.2	121.9	**12.8**	125.4	0.9	-12.3	15.1	-250.2
Fy_f	-5.4	**-18.0**	-1.2	-7.2	-8.6	151.0	8.9	**143.4**	0.9	-5.3	11.7	-232.0
Fz_f	-5.2	66.6	**-2.5**	27.5	-10.9	124.7	3.0	20.5	**1.9**	7.5	7.7	-226.4
Mx_f	2.9	78.5	-0.1	**-34.4**	2.7	54.5	2.7	108.2	-0.6	**69.0**	1.8	-93.0
My_f	-10.4	17.2	-2.0	13.3	**-15.3**	129.5	12.3	112.3	1.3	-1.4	**15.4**	-314.4
Mz_f	7.2	64.3	1.3	-5.9	10.8	**-429.5**	-2.4	64.4	-1.3	11.2	-5.6	**277.9**

Member 38

Fx_i	**-11.0**	12.8	-2.8	0.6	-10.5	125.7	**12.4**	124.1	0.4	-17.3	18.3	-247.7
Fy_i	-5.5	**-20.5**	-1.8	-15.9	-4.9	150.6	9.0	**141.3**	0.2	-12.8	14.1	-229.5
Fz_i	-5.6	70.8	**-4.1**	7.8	0.4	56.9	3.7	11.1	**1.5**	8.2	2.8	-157.3
Mx_i	2.3	75.4	-0.4	**-44.5**	4.3	56.7	2.6	97.3	-1.6	**54.3**	8.2	-128.6
My_i	-10.0	-12.2	-2.1	-15.9	**-11.1**	62.6	12.2	130.0	0.3	-16.0	**18.3**	-231.2
Mz_i	7.8	66.0	0.7	-1.4	11.2	**-428.7**	-3.2	60.3	-1.6	-2.3	-1.9	**279.1**
Fx_f	**-11.0**	88.2	-2.8	79.8	-23.3	-107.2	**12.4**	124.1	0.4	-17.3	20.0	-805.0
Fy_f	-1.6	**-14.7**	-0.5	8.1	-3.9	141.2	7.7	**183.6**	-0.1	5.9	12.4	-872.5
Fz_f	-5.6	146.3	**-4.1**	87.0	-18.0	-437.2	3.7	11.1	**1.5**	8.2	9.5	-267.4
Mx_f	2.8	78.8	-0.1	**-38.2**	3.9	-338.8	-2.0	135.4	-2.7	**101.2**	-8.7	-527.6
My_f	-10.5	109.3	-3.4	85.3	**-24.2**	-177.7	12.3	112.1	0.7	-3.3	**20.6**	-817.1
Mz_f	8.6	149.6	0.3	7.0	14.6	**-894.7**	-5.0	-14.5	-1.3	10.4	-11.0	**143.0**

Member 39

Fx_i	**-10.3**	-67.0	3.1	-63.0	-25.7	-107.1	**11.7**	-128.6	-0.4	17.0	22.4	-816.7
Fy_i	6.5	**-188.6**	0.2	-15.1	12.3	-837.2	-1.6	**14.2**	0.6	-8.0	-4.9	141.4
Fz_i	4.8	-12.2	**-1.5**	-7.6	12.7	-220.7	-6.3	-125.7	**4.3**	-69.8	-21.4	-435.4
Mx_i	-1.8	-146.6	2.9	**-109.4**	-10.2	-550.9	3.0	-75.5	0.1	**37.7**	6.1	-318.1
My_i	-9.9	-66.9	3.4	-63.1	**-26.4**	-105.8	11.4	-111.6	-0.8	3.9	**22.8**	-806.5
Mz_i	8.2	-172.2	0.0	3.2	15.9	**-895.2**	-4.7	12.2	1.3	-7.6	-12.0	**143.0**
Fx_f	**-10.3**	-16.9	3.1	-10.5	-11.9	63.5	**11.7**	-128.6	-0.4	17.0	20.5	-238.0
Fy_f	7.9	**-146.1**	-0.2	6.7	15.1	-195.6	-3.3	**18.2**	1.2	2.3	-4.0	117.8
Fz_f	4.8	-12.2	**-1.5**	-7.6	5.7	-165.9	-6.3	-75.6	**4.3**	-17.3	-2.0	-0.8
Mx_f	1.5	-104.1	2.0	**-62.9**	6.6	-98.4	2.5	-72.1	0.4	**44.1**	6.4	62.6
My_f	-9.9	-20.0	2.5	-8.3	**-12.5**	55.3	11.3	-125.5	0.1	14.0	**20.7**	-230.6
Mz_f	7.1	-65.0	-0.7	0.8	12.3	**-431.8**	-2.6	-71.0	1.9	-0.5	-1.0	**271.8**

Member 40

Fx_i	**-10.9**	-23.5	1.3	-18.8	-13.9	54.6	**12.9**	-128.4	-0.7	9.8	14.6	-236.5
Fy_i	8.4	**-148.4**	-0.9	-1.7	11.0	-197.9	-3.0	**16.9**	1.0	-2.0	-5.6	118.0
Fz_i	4.4	-21.6	**-2.0**	-7.0	9.2	-235.1	-6.1	-70.5	**2.8**	-33.7	-12.4	67.1
Mx_i	3.0	-119.2	0.7	**-77.6**	1.1	-110.1	3.2	-75.2	0.1	**34.0**	3.7	59.7
My_i	-10.0	-20.4	2.3	-20.4	**-15.4**	62.9	12.0	-112.0	-1.4	1.8	**15.4**	-305.8
Mz_i	7.0	-63.3	-1.2	5.3	10.4	**-432.5**	-1.6	-75.1	1.5	-13.8	-5.3	**270.5**
Fx_f	**-10.9**	14.0	1.3	20.4	-7.8	76.0	**12.9**	-91.0	-0.7	26.6	11.5	257.2
Fy_f	8.7	**-111.2**	-1.0	12.0	7.2	191.7	-5.3	**28.6**	1.5	29.5	-2.2	200.6
Fz_f	4.4	-21.6	**-2.0**	-7.0	0.4	-137.8	-6.1	-33.1	**2.8**	5.5	-0.0	300.0
Mx_f	4.5	-82.2	0.4	**-43.2**	5.2	151.2	2.6	-51.2	0.2	**48.9**	3.7	603.8
My_f	-10.2	1.3	0.8	5.2	**-8.2**	-18.4	12.3	-83.1	0.3	19.5	**12.9**	244.0
Mz_f	3.0	-11.8	0.1	-23.4	2.9	**-319.0**	3.2	-80.8	0.1	40.0	4.2	**608.0**

Member 41

Fx_i	**-10.0**	9.4	0.8	12.3	-11.7	80.2	**12.5**	-90.6	-0.0	1.3	12.4	242.5
Fy_i	7.4	**-116.3**	-1.1	-5.4	10.6	189.5	-2.1	**24.6**	1.5	5.2	-5.8	211.2
Fz_i	2.9	-33.5	**-2.1**	-11.0	8.0	-98.7	-4.5	-28.4	**2.4**	-16.7	-10.0	259.7
Mx_i	4.6	-100.9	-0.4	**-67.3**	5.2	178.2	2.1	-44.5	0.0	**22.8**	2.7	352.5
My_i	-8.6	15.3	1.7	9.5	**-12.8**	68.8	11.4	-98.9	-1.1	7.3	**14.2**	258.5
Mz_i	2.9	-8.5	-0.0	-13.5	2.6	**-318.4**	3.2	-90.6	0.0	8.4	3.8	**605.4**
Fx_f	**-10.0**	9.4	0.8	12.3	-7.9	38.0	**12.5**	-53.2	-0.0	18.2	12.4	566.0
Fy_f	6.7	**-83.7**	-1.1	5.7	4.7	382.3	-1.9	**44.9**	1.2	46.8	0.4	305.6
Fz_f	2.9	-33.5	**-2.1**	-11.0	-1.5	52.2	-4.5	9.0	**2.4**	22.5	0.8	303.2
Mx_f	4.5	-68.4	-0.5	**-37.6**	3.2	308.0	-2.2	33.5	1.0	**53.9**	0.5	355.6
My_f	-8.1	-6.2	-0.5	0.2	**-9.1**	-9.8	12.3	-49.1	0.2	17.7	**12.7**	584.9
Mz_f	3.2	-8.5	-0.1	-13.5	2.7	**-280.3**	3.2	-15.1	0.0	42.4	3.9	**837.4**

Member 42

Fx_i	**-9.3**	-1.1	0.4	4.8	-10.0	43.8	**12.5**	-60.7	0.1	-13.5	12.2	556.4
Fy_i	5.3	**-90.4**	-1.2	-16.4	8.6	380.8	1.6	**39.5**	1.4	7.1	-1.9	326.9
Fz_i	0.5	-36.2	**-2.2**	-21.3	5.7	51.4	-2.0	2.4	**2.3**	-0.8	-7.2	303.2
Mx_i	1.9	-64.3	-0.1	**-67.4**	1.8	478.4	0.7	14.5	0.4	**31.0**	0.3	184.2
My_i	-8.1	11.8	1.2	4.5	**-11.0**	13.4	10.4	-70.9	-1.1	-9.3	**13.0**	613.6
Mz_i	3.1	-5.2	-0.1	-3.8	3.0	**-280.2**	3.2	-27.6	-0.0	1.9	3.9	**836.3**
Fx_f	**-9.3**	-1.1	0.4	4.8	-8.1	48.7	**12.5**	14.8	0.1	20.5	12.6	653.8
Fy_f	3.9	**-61.8**	-1.2	-3.9	1.9	427.4	3.6	**63.5**	1.4	21.4	6.4	385.5
Fz_f	0.5	-36.2	**-2.2**	-21.3	-4.0	214.4	-2.0	39.8	**2.3**	38.5	3.1	208.2
Mx_f	1.0	-35.5	-0.1	**-37.9**	0.5	415.7	2.4	38.7	0.3	**59.7**	3.6	344.9
My_f	-8.1	-11.4	-0.9	-2.7	**-10.1**	-20.5	10.9	26.5	1.1	20.6	**13.2**	760.1
Mz_f	3.1	-5.2	-0.1	-3.8	2.5	**-256.7**	3.5	18.0	-0.0	25.0	4.2	**912.5**

Member 43

Fx_i	**-9.5**	-8.3	-0.6	-8.0	-7.9	22.6	**12.7**	6.3	0.2	-14.2	12.2	672.3
Fy_i	2.6	**-68.5**	-1.2	-26.0	5.8	426.6	5.1	**57.4**	1.3	1.1	1.8	386.4
Fz_i	-2.0	-41.5	**-2.2**	-40.1	3.3	213.8	0.6	34.9	**2.3**	20.8	-4.6	208.7
Mx_i	1.2	-44.1	-0.1	**-68.0**	1.8	428.3	2.4	31.1	0.3	**32.9**	1.8	332.3
My_i	-8.1	7.1	0.8	2.4	**-9.9**	0.4	12.3	2.4	-0.1	-13.2	**12.4**	671.4
Mz_i	2.9	-2.2	-0.1	5.2	2.9	**-256.8**	3.5	4.5	-0.0	-18.5	4.2	**912.6**
Fx_f	**-9.5**	-8.3	-0.6	-8.0	-10.5	60.1	**12.7**	56.4	0.2	8.3	12.9	512.8
Fy_f	0.8	**-43.7**	-1.2	-10.2	-1.3	371.6	6.7	**85.3**	1.3	11.7	9.5	345.2
Fz_f	-2.0	-4.0	**-2.2**	-0.8	-6.6	316.2	0.6	34.9	**2.3**	20.8	5.6	51.6
Mx_f	-0.2	-18.9	-0.2	**-36.8**	-0.3	271.1	3.5	59.0	0.2	**59.5**	4.0	400.0
My_f	-9.1	-13.5	-1.1	-6.1	**-11.3**	29.8	11.9	65.7	1.2	4.7	**14.5**	567.2
Mz_f	3.6	3.8	0.5	3.8	4.3	**-273.7**	3.5	50.1	-0.0	4.5	4.1	**832.0**

Member 44

Fx_i	**-10.4**	-14.3	-1.1	-13.9	-7.7	36.3	**13.3**	55.4	1.0	-26.3	10.9	564.1
Fy_i	-1.0	**-50.1**	-1.0	-55.7	1.7	349.9	8.3	**79.1**	1.3	-8.8	5.1	346.8
Fz_i	-4.4	-11.2	**-2.3**	-25.8	1.1	316.1	3.1	32.4	**2.2**	11.2	-1.9	52.3
Mx_i	-2.7	-37.0	-0.8	**-63.3**	-0.3	414.1	6.1	62.0	0.7	**32.5**	4.3	258.0
My_i	-7.9	2.0	0.5	0.7	**-8.9**	-10.6	12.7	46.0	0.0	-19.5	**12.5**	503.6
Mz_i	4.1	7.0	0.4	13.4	2.8	**-273.9**	3.5	37.5	-0.0	-36.2	4.2	**833.3**
Fx_f	**-10.4**	-14.3	-1.1	-13.9	-12.5	100.8	**13.3**	92.8	1.0	-9.5	15.6	230.7
Fy_f	-2.4	**-28.6**	-1.3	-9.4	-4.7	255.9	9.2	**111.1**	1.3	-0.1	11.9	159.6
Fz_f	-4.4	26.2	**-2.3**	13.4	-9.2	282.2	3.1	32.4	**2.2**	11.2	8.1	-93.5
Mx_f	-4.3	-15.4	-0.9	**-29.9**	-5.8	248.9	6.3	93.7	0.6	**58.9**	7.4	141.5
My_f	-9.4	-15.7	-1.8	-14.1	**-13.1**	99.8	12.9	78.4	1.5	-5.2	**16.1**	112.3
Mz_f	4.1	7.0	0.4	13.4	4.7	**-305.6**	3.0	83.2	-0.1	-12.4	3.5	**591.9**

Member 45

Fx_i	**-11.5**	-18.7	-1.5	-24.9	-7.8	98.5	**14.7**	74.6	1.3	-18.4	11.5	114.1
Fy_i	-3.6	**-33.8**	-1.2	-40.4	-0.4	243.8	10.7	**106.3**	1.1	-16.2	8.1	161.9
Fz_i	-5.9	30.2	**-2.7**	-11.2	0.5	322.3	4.8	20.5	**2.1**	7.5	0.1	-132.4
Mx_i	1.8	43.8	-0.2	**-52.0**	2.9	553.6	6.0	75.5	-0.2	**36.9**	6.3	115.1
My_i	-10.6	-13.8	-1.0	-28.0	**-8.3**	104.1	13.1	79.6	-0.0	-22.1	**13.1**	218.1
Mz_i	4.7	10.4	0.3	23.2	3.6	**-306.2**	3.0	73.4	-0.2	-44.0	4.0	**594.4**
Fx_f	**-11.5**	18.7	-1.5	14.3	-14.7	98.5	**14.7**	112.0	1.3	-1.5	17.6	-305.9
Fy_f	-4.8	**-16.7**	-1.2	-6.9	-6.9	121.1	10.6	**143.1**	1.0	-5.3	12.8	-223.3
Fz_f	-5.9	67.6	**-2.7**	28.0	-11.6	102.1	4.8	20.5	**2.1**	7.5	9.4	-224.9
Mx_f	2.9	79.8	-0.1	**-34.3**	3.4	24.0	3.4	107.9	-0.7	**69.0**	1.7	-86.2
My_f	-11.2	18.5	-2.1	13.8	**-15.7**	100.5	14.7	112.0	1.4	-1.5	**17.6**	-305.9
Mz_f	9.5	63.9	1.4	-6.0	12.4	**-418.4**	-2.7	65.8	-1.4	11.3	-5.3	**246.4**

Member 46

Fx_i	**-11.7**	14.5	-3.3	0.3	-10.0	100.6	**14.6**	111.8	0.7	-3.4	20.2	-304.2
Fy_i	-5.3	**-19.2**	-1.8	-15.3	-3.3	121.0	10.7	**141.0**	0.3	-12.8	15.3	-220.8
Fz_i	-6.3	71.9	**-4.3**	8.5	0.6	35.0	5.3	11.2	**1.6**	8.1	4.4	-156.4

Mx_i	2.2	76.6	-0.3	**-44.5**	5.0	27.0	3.5	97.1	-1.8	**54.4**	8.9	-121.7
My_i	-11.2	14.9	-2.7	0.7	**-10.8**	94.3	14.2	123.9	0.4	-17.4	**20.5**	-242.6
Mz_i	10.0	65.6	0.9	-1.4	12.9	**-417.7**	-3.7	61.7	-1.7	-2.2	-1.0	**247.6**
Fx_f	**-11.7**	90.0	-3.3	79.5	-24.7	**-140.4**	**14.6**	111.8	0.7	-3.4	23.5	-807.1
Fy_f	-1.0	**-13.4**	-0.4	8.4	-1.6	106.2	9.3	**183.3**	-0.0	6.0	13.8	-862.8
Fz_f	-6.3	147.3	**-4.3**	87.7	-19.0	-463.9	5.3	11.2	**1.6**	8.1	11.8	-205.6
Mx_f	2.7	80.0	-0.1	**-38.2**	4.9	-373.6	-1.5	135.2	-2.9	**101.5**	-9.3	-519.8
My_f	-11.4	110.7	-3.6	86.1	**-25.0**	-213.5	14.6	111.8	0.8	-3.4	**23.5**	-807.3
Mz_f	10.2	175.1	0.1	-2.3	15.3	**-883.8**	-5.3	-13.3	-1.3	10.3	-10.4	**107.2**

Member 47

Fx_i	**-11.3**	-72.8	2.4	-59.1	-25.3	-146.8	**14.0**	-127.2	-0.2	15.9	25.3	-807.7
Fy_i	8.4	**-187.0**	0.6	-16.6	13.3	-826.6	-1.3	**8.0**	-0.2	-3.3	-0.7	99.8
Fz_i	3.5	-11.9	**-1.5**	-8.3	10.1	-217.7	-4.6	-129.8	**4.1**	-66.6	-17.6	-463.7
Mx_i	-1.2	-151.7	2.4	**-105.9**	-7.0	-585.2	5.2	-73.3	0.6	**36.3**	7.3	-303.5
My_i	-10.9	-72.5	2.9	-59.1	**-26.0**	-143.1	14.0	-127.2	-0.2	15.9	**25.3**	-807.6
Mz_i	10.4	-170.4	0.4	1.7	17.4	**-883.3**	-5.5	6.9	0.3	-2.7	-9.8	**107.1**
Fx_f	**-11.3**	-22.7	2.4	-6.6	-14.6	49.8	**14.0**	-127.2	-0.2	15.9	24.4	-235.2
Fy_f	10.1	**-144.4**	0.2	5.2	18.2	-192.0	-3.1	**11.9**	0.4	6.8	-3.5	104.2
Fz_f	3.5	-11.9	**-1.5**	-8.3	3.2	-164.3	-4.6	-79.7	**4.1**	-14.0	1.0	-10.6
Mx_f	2.3	-109.1	1.5	**-59.4**	8.2	-109.5	4.8	-69.9	0.9	**42.5**	9.9	67.4
My_f	-10.7	3.1	2.0	9.8	**-14.7**	-11.6	14.0	-127.2	-0.2	15.9	**24.4**	-235.2
Mz_f	8.5	-63.8	-0.3	-0.4	14.3	**-429.3**	-2.7	-75.9	1.0	4.1	-2.0	**260.4**

Member 48

Fx_i	**-12.6**	-25.9	1.2	-17.3	-15.1	49.7	**15.6**	-128.7	-0.8	10.2	17.3	-237.7
Fy_i	11.1	**-146.7**	-0.5	-2.9	12.1	-194.4	-3.5	**10.5**	0.2	2.2	-3.3	104.3
Fz_i	3.1	-21.1	**-1.9**	-7.7	7.6	-233.0	-4.7	-74.8	**2.4**	-30.5	-10.0	56.8
Mx_i	3.8	-124.0	0.2	**-74.3**	3.8	-120.7	6.1	-72.9	0.5	**32.6**	4.6	64.7
My_i	-12.3	-25.0	1.5	-17.3	**-15.3**	52.6	15.6	-128.7	-0.8	10.2	**17.3**	-237.6
Mz_i	8.9	-62.0	-0.9	4.3	10.9	**-430.0**	-2.6	-80.2	0.6	-9.7	-3.6	**259.0**
Fx_f	**-12.6**	11.6	1.2	22.0	-9.7	81.9	**15.6**	-91.3	-0.8	27.0	13.7	257.3
Fy_f	11.5	**-109.4**	-0.6	10.7	9.9	187.4	-5.1	**23.4**	1.1	33.0	-2.2	212.8
Fz_f	3.1	-21.1	**-1.9**	-7.7	-1.0	-138.3	-4.7	-37.4	**2.4**	8.7	0.9	309.4
Mx_f	5.4	-87.0	-0.1	**-39.8**	5.5	162.5	5.3	-49.0	0.6	**47.5**	6.4	598.7
My_f	-10.5	3.2	0.1	2.7	**-10.2**	-5.0	15.3	-89.6	-0.6	25.7	**13.9**	257.4
Mz_f	1.1	-17.8	-1.0	-19.0	-0.5	**-306.1**	6.2	-78.6	0.6	38.6	7.2	**602.9**

Member 49

Fx_i	**-11.7**	6.2	0.8	11.7	-13.3	38.6	**14.5**	-96.4	-0.8	5.7	16.3	253.6
Fy_i	10.5	**-114.5**	-0.8	-6.4	12.1	185.2	-4.1	**19.1**	0.9	18.5	-5.6	212.9
Fz_i	0.8	-20.6	**-2.1**	-7.4	5.5	-138.6	-2.5	-45.2	**2.0**	-18.2	-7.0	308.4
Mx_i	5.4	-105.4	-0.9	**-64.7**	7.7	188.2	-4.4	14.0	1.4	**22.2**	-7.6	196.5
My_i	-11.7	8.9	0.9	12.4	**-13.5**	82.0	14.5	-97.5	-0.9	6.4	**16.5**	254.9
Mz_i	-0.2	-14.7	-1.1	-9.8	2.9	**-305.7**	6.7	-88.3	0.5	7.2	5.3	**600.4**
Fx_f	**-11.7**	6.2	0.8	11.7	-9.7	10.8	**14.5**	-59.0	-0.8	22.5	12.4	603.1
Fy_f	9.6	**-82.0**	-0.8	4.7	7.5	370.5	-1.7	**39.7**	0.7	49.7	**0.4**	341.5
Fz_f	0.8	-20.6	**-2.1**	-7.4	-3.8	-45.7	-2.5	-7.8	**2.0**	21.1	2.1	427.5
Mx_f	5.2	-72.9	-1.0	**-35.0**	3.2	338.8	-2.0	34.6	1.3	**53.4**	0.7	348.2
My_f	-10.7	-0.0	-0.2	-0.3	**-11.0**	-48.1	12.8	-25.4	-0.1	12.6	**12.9**	428.8
Mz_f	0.1	-14.7	-1.2	-9.8	-1.9	**-239.7**	6.7	-12.8	0.5	41.1	7.4	**822.0**

Member 50

Fx_i	**-11.2**	1.0	-0.3	-0.8	-10.3	-53.2	**13.6**	-58.6	-0.8	-4.5	15.1	556.1
Fy_i	8.6	**-88.5**	-0.9	-17.1	10.3	369.1	-1.5	**33.8**	0.5	9.3	-2.3	361.8
Fz_i	-1.6	-21.4	**-2.1**	-10.8	3.2	-46.2	-0.4	-16.6	**1.9**	-9.6	-4.6	427.1
Mx_i	2.1	-68.8	-0.5	**-65.7**	3.3	506.8	1.2	15.3	0.5	**30.7**	-0.0	179.2
My_i	-10.9	7.2	0.8	6.3	**-12.4**	42.3	13.4	-70.1	-1.0	-9.7	**15.4**	607.9
Mz_i	-1.3	-11.9	-1.2	-1.5	2.0	**-239.6**	7.2	-25.2	0.4	1.1	5.8	**820.9**
Fx_f	**-11.2**	1.0	-0.3	-0.8	-11.4	-57.8	**13.6**	-21.2	-0.8	12.3	11.7	735.6
Fy_f	6.8	**-60.1**	-0.9	-4.5	4.7	409.6	1.2	**58.1**	0.5	23.4	2.6	442.5
Fz_f	-1.6	-21.4	**-2.1**	-10.8	-6.2	49.9	-0.4	20.8	**1.9**	29.6	4.0	417.7
Mx_f	0.8	-40.2	-0.5	**-36.1**	-0.1	466.5	3.5	39.8	0.5	**59.4**	4.4	332.8
My_f	-10.4	-8.7	-0.8	-2.6	**-11.9**	-46.3	11.9	11.3	0.4	20.8	**13.0**	498.7
Mz_f	-1.3	-11.9	-1.2	-1.5	-3.3	**-186.3**	7.6	20.5	0.4	24.2	8.2	**885.4**

Member 51

Fx_i	**-11.5**	-0.6	-0.4	0.7	-10.1	-78.3	**12.7**	-32.7	-0.8	-25.0	14.2	735.4
Fy_i	5.8	**-66.7**	-0.9	-26.2	7.6	408.8	1.7	**51.3**	0.5	1.2	1.0	443.3
Fz_i	-3.5	-23.9	**-2.1**	-19.4	1.4	46.8	1.2	12.8	**1.9**	0.6	-2.9	420.7
Mx_i	1.0	-48.6	-0.5	**-67.5**	2.4	473.1	3.1	31.6	0.4	**32.8**	2.2	326.3
My_i	-9.9	5.3	0.8	2.7	**-11.5**	19.3	12.5	-4.1	-0.9	-13.1	**14.3**	729.7
Mz_i	-2.6	-9.5	-1.2	5.5	0.7	**-186.5**	8.1	7.2	0.4	-18.8	6.8	**885.5**
Fx_f	**-11.5**	-0.6	-0.4	0.7	-12.1	-75.5	**12.7**	42.8	-0.8	9.0	10.8	706.9
Fy_f	3.4	**-42.3**	-0.9	-10.3	1.2	350.2	4.1	**79.6**	0.5	11.7	5.5	423.9
Fz_f	-3.5	-23.9	**-2.1**	-19.4	-8.2	154.4	1.2	50.2	**1.9**	39.9	5.6	279.0
Mx_f	-0.9	-23.6	-0.6	**-36.3**	-2.0	340.5	4.9	59.8	0.3	**59.4**	5.5	386.4
My_f	-10.3	-11.4	-1.3	-4.9	**-13.0**	-17.7	11.4	41.2	0.8	26.3	**13.5**	419.8
Mz_f	-3.8	-4.7	-0.9	4.1	-5.1	**-154.3**	8.1	52.8	0.4	4.2	8.8	**792.1**

Member 52

Fx_i	**-12.2**	-8.8	-0.9	-8.4	-9.8	-20.2	**12.8**	29.1	0.3	-4.3	12.3	423.0
Fy_i	-0.7	**-48.5**	-0.9	-54.9	1.1	329.3	**4.7**	**72.5**	0.5	-11.5	3.9	425.5
Fz_i	-4.5	-10.0	**-2.3**	-24.5	0.6	300.1	2.0	26.1	**1.8**	8.8	-2.0	133.9
Mx_i	-0.4	-35.4	-0.5	**-62.6**	0.7	394.0	4.1	55.9	0.1	**30.6**	4.1	334.0
My_i	-11.7	0.6	-0.4	0.1	**-10.6**	-50.5	11.9	32.6	-0.8	-26.6	**13.5**	698.5
Mz_i	-4.8	-2.6	-0.9	10.2	-2.0	**-154.6**	8.7	40.5	0.4	-35.7	7.4	**793.5**
Fx_f	**-12.2**	-8.8	-0.9	-8.4	-13.9	19.6	**12.8**	66.5	0.3	35.0	13.6	207.8
Fy_f	-0.4	**-27.3**	-1.0	-8.9	-2.8	234.3	6.4	**104.9**	0.5	-2.7	7.7	261.3
Fz_f	-4.5	27.4	**-2.3**	14.7	-9.6	260.9	2.0	26.1	**1.8**	8.8	6.3	16.6
Mx_f	-2.7	-14.2	-0.6	**-29.2**	-4.3	228.8	4.9	87.9	0.0	**57.2**	5.2	238.4
My_f	-11.1	-11.4	-1.7	-9.0	**-14.6**	38.4	11.7	69.1	1.1	35.6	**14.3**	188.9
Mz_f	-4.8	-2.6	-0.9	10.2	-6.2	**-143.0**	8.2	86.2	0.4	-11.8	8.7	**538.6**

Member 53

Fx_i	**-13.2**	-12.7	-1.8	-14.6	-8.8	17.5	**13.4**	62.8	0.6	13.9	12.2	211.2
Fy_i	-4.1	**-32.2**	-1.2	-38.7	-1.5	222.9	7.0	**99.0**	0.3	-22.2	6.5	263.7
Fz_i	-5.6	33.4	**-2.8**	-7.7	0.8	277.2	2.8	11.5	**1.8**	1.0	-1.0	1.6
Mx_i	7.4	47.1	0.2	**-50.3**	6.7	502.1	3.0	68.5	-0.8	**32.5**	5.1	218.5
My_i	-12.3	-1.4	-0.9	0.5	**-10.2**	-56.1	12.5	51.5	-0.3	-1.1	**13.5**	284.8
Mz_i	-5.8	-0.7	-1.1	15.7	-2.7	**-143.4**	8.6	76.8	0.2	-42.4	7.7	**541.1**
Fx_f	**-13.2**	24.7	-1.8	24.7	-16.9	-9.4	**13.4**	62.8	0.6	13.9	14.8	-71.4
Fy_f	-6.2	**-15.6**	-1.2	-5.4	-9.0	104.0	7.3	**136.1**	0.3	-11.1	8.1	-94.5
Fz_f	-5.6	70.8	**-2.8**	31.5	-11.6	42.6	2.8	11.5	**1.8**	1.0	6.9	-50.2
Mx_f	8.2	82.8	0.3	**-33.0**	8.7	-37.2	0.4	101.2	-1.3	**65.0**	-2.2	44.6
My_f	-12.4	19.2	-2.2	16.3	**-17.3**	82.1	12.8	64.1	0.9	15.1	**15.2**	-96.9
Mz_f	1.5	54.2	0.2	-13.3	2.5	**-236.2**	0.1	67.7	-1.1	12.6	-2.5	**210.6**

Member 54

Fx_i	**-12.9**	22.5	-3.4	16.9	-11.7	-9.6	**12.7**	60.3	-0.1	5.0	19.5	-69.8
Fy_i	-6.5	**-17.8**	-1.9	-12.7	-5.5	103.9	7.0	**132.9**	-0.5	-21.8	12.0	-91.8
Fz_i	-5.1	73.6	**-4.8**	12.0	3.2	10.8	2.4	3.0	**1.6**	0.1	0.2	-16.8
Mx_i	7.5	79.9	-0.0	**-42.4**	11.0	-34.2	-0.1	89.2	-2.4	**47.7**	5.6	13.5
My_i	-12.2	-5.3	-2.5	-0.6	**-12.6**	-41.2	11.9	88.1	-1.0	22.5	**20.5**	-38.1
Mz_i	1.7	54.4	-0.4	-13.0	4.1	**-235.2**	-0.8	63.9	-1.6	0.1	2.0	**211.7**
Fx_f	**-12.9**	59.9	-3.4	56.1	-26.9	-194.8	**12.7**	60.3	-0.1	5.0	19.1	-341.3
Fy_f	-1.9	**-12.6**	-0.4	9.8	-3.6	92.7	5.3	**175.3**	-0.9	-2.5	6.3	-698.7
Fz_f	-5.1	149.0	**-4.8**	91.2	-18.5	-495.8	2.4	3.0	**1.6**	0.1	7.3	-30.3
Mx_f	8.0	83.1	0.2	**-36.4**	12.2	-445.9	-6.1	127.3	-3.7	**95.5**	-17.2	-344.8
My_f	-12.7	92.8	-3.9	84.9	**-27.8**	-196.6	12.6	60.2	0.3	5.1	**19.9**	-340.8
Mz_f	6.5	167.2	-0.8	-10.9	8.3	**-722.0**	-4.3	-12.6	-1.2	11.3	-9.1	**94.3**

Member 55

Fx_i	**-12.2**	-123.3	5.7	-93.1	-30.5	-200.6	**11.7**	-25.6	-1.6	-15.1	22.5	-335.2
Fy_i	2.8	**-158.6**	1.0	-41.0	3.3	-643.1	-1.9	**4.7**	0.4	1.6	-3.8	92.5
Fz_i	10.0	-17.1	**-1.8**	-10.8	20.3	-174.9	-10.4	-102.1	**6.1**	-71.8	-28.4	-361.8
Mx_i	-1.1	-148.5	3.7	**-107.4**	-8.3	-552.2	-1.4	-30.5	0.3	**3.5**	-2.1	-61.9
My_i	-12.1	-93.7	5.8	-67.5	**-30.6**	-201.5	11.7	-25.6	-1.6	-15.1	**22.5**	-335.2
Mz_i	5.9	-120.7	0.3	-31.1	9.6	**-720.8**	-4.3	4.6	1.0	0.4	-9.0	**94.1**

Fx_i	**-12.2**	-67.4	5.7	-34.5	-9.5	135.5	**11.7**	-25.6	-1.6	-15.1	15.8	-241.5
Fy_i	4.0	**-120.2**	0.4	-21.8	8.1	-213.4	-3.9	**7.7**	1.4	8.5	-3.9	105.3
Fz_i	10.0	-17.1	**-1.8**	-10.8	13.6	-112.3	-10.4	-59.0	**6.1**	-26.5	-6.1	-79.5
Mx_i	2.3	-110.1	2.2	**-65.5**	8.4	-159.5	-6.7	3.7	3.4	**10.7**	-4.9	25.1
My_i	-11.8	-52.3	5.0	-27.9	**-10.2**	180.7	11.3	-40.7	-0.9	-21.6	**17.5**	-286.7
Mz_i	7.5	-30.2	-0.5	-17.4	10.9	**-453.8**	-6.3	-74.9	2.1	-1.8	-5.6	**246.0**

Member 56

Fx_i	**-11.7**	-71.5	3.7	-48.3	-18.2	134.9	**11.2**	-25.6	-2.6	-15.4	16.0	-241.4
Fy_i	3.8	**-121.5**	-0.6	-26.3	5.3	-214.0	-3.7	**6.9**	1.0	5.7	-5.5	105.2
Fz_i	10.4	-33.7	**-2.6**	-20.9	15.5	-165.7	-10.9	-45.5	**3.8**	-27.0	-17.8	-26.4
Mx_i	1.6	-112.6	0.3	**-76.1**	1.6	-150.1	-5.8	2.0	2.1	**7.0**	-9.7	15.2
My_i	-11.5	-41.4	3.8	-25.6	**-18.4**	39.1	11.1	-37.7	-2.6	-22.3	**16.1**	-231.2
Mz_i	7.2	-28.3	-1.2	-11.5	9.0	**-453.1**	-6.1	-78.1	1.5	-11.9	-8.1	**244.9**
Fx_f	**-11.7**	-15.7	3.7	10.3	-4.5	269.3	**11.2**	-25.6	-2.6	-15.4	6.6	-147.5
Fy_f	4.8	**-87.1**	-1.0	-14.2	3.4	21.7	-7.2	**19.8**	2.2	30.4	-2.9	205.2
Fz_f	10.4	-33.7	**-2.6**	-20.9	6.0	-42.2	-10.9	-15.0	**3.8**	5.0	-3.8	84.4
Mx_f	4.0	-78.4	-0.5	**-45.4**	3.4	55.3	-7.2	16.8	2.5	**30.8**	-2.4	163.2
My_f	-11.3	-0.2	3.5	18.2	**-4.6**	257.8	10.8	-41.1	-2.3	-23.3	**6.8**	-136.0
Mz_f	7.2	-28.3	-1.2	-11.5	4.7	**-349.4**	-5.8	-37.3	1.3	10.8	-2.7	**486.3**

Member 57

Fx_i	**-9.2**	-20.9	2.7	-7.2	-13.9	269.0	**8.7**	-26.2	-3.4	-17.6	15.0	-147.6
Fy_i	3.6	**-89.2**	-1.6	-21.3	6.8	21.1	-5.7	**16.7**	1.8	20.2	-8.7	205.1
Fz_i	8.6	-39.4	**-3.5**	-28.0	15.3	-93.2	-9.0	-14.0	**3.0**	-4.1	-14.3	135.1
Mx_i	2.5	-81.9	-1.6	**-59.7**	6.0	63.8	-5.2	13.2	1.7	**20.7**	-8.2	154.1
My_i	-9.0	-14.0	3.0	-4.1	**-14.3**	135.1	8.6	-39.4	-3.5	-28.0	**15.3**	-93.2
Mz_i	5.7	-26.0	-1.5	-4.7	8.0	**-349.3**	-4.8	-42.7	0.8	-6.5	-5.5	**485.5**
Fx_f	**-9.2**	9.6	2.7	24.8	-3.8	289.6	**8.7**	-26.2	-3.4	-17.6	2.6	-51.6
Fy_f	4.6	**-58.6**	-1.8	-12.3	1.5	88.1	-5.3	**38.1**	1.3	48.6	-2.4	331.4
Fz_f	8.6	-39.4	**-3.5**	-28.0	2.3	51.1	-9.0	16.4	**3.0**	27.9	-3.4	130.7
Mx_f	4.3	-51.5	-2.2	**-34.9**	0.6	109.4	-4.8	34.5	1.3	**49.1**	-2.0	293.5
My_f	-8.5	5.2	2.2	18.7	**-4.0**	377.1	8.1	-26.3	-2.4	-5.7	**3.4**	-213.5
Mz_f	5.7	-26.0	-1.5	-4.7	2.7	**-253.9**	-4.5	-13.9	0.7	7.8	-2.5	**583.4**

Member 58

Fx_i	**-6.8**	4.5	1.8	7.7	-9.6	289.7	**6.2**	-27.9	-4.8	-23.4	15.2	-51.8
Fy_i	3.2	**-60.6**	-2.6	-19.0	8.2	87.7	-3.7	**33.7**	1.0	13.0	-5.1	349.0
Fz_i	5.6	-32.5	**-5.4**	-28.3	16.0	151.8	-6.1	3.6	**2.5**	8.0	-10.6	29.8
Mx_i	0.1	-38.3	-3.0	**-49.8**	6.3	293.3	-0.7	12.2	-0.5	**33.9**	0.3	109.5
My_i	-6.5	13.7	2.3	18.6	**-10.6**	130.8	6.0	-42.6	-5.3	-38.9	**16.0**	50.9
Mz_i	4.2	-24.1	-1.6	0.9	6.7	**-254.1**	-3.6	-20.0	-0.2	-11.8	-2.4	**583.3**
Fx_f	**-6.8**	35.0	1.8	39.7	-3.1	217.2	**6.2**	-27.9	-4.8	-23.4	-2.5	50.5
Fy_f	4.5	**-35.8**	-2.4	-5.6	-0.0	-44.3	-3.9	**60.2**	0.6	25.6	-2.1	404.5
Fz_f	5.6	-2.0	**-5.4**	3.7	-3.9	215.2	-6.1	3.6	**2.5**	8.0	-1.4	16.5
Mx_f	0.9	-12.3	-2.8	**-25.2**	-3.7	157.7	-0.2	38.9	-1.5	**61.4**	-2.6	235.8
My_f	-3.2	20.3	-2.1	13.9	**-6.2**	463.4	5.5	-22.1	-2.2	1.1	**1.2**	-150.5
Mz_f	4.2	-24.1	-1.6	0.9	0.9	**-165.7**	-3.6	48.5	-0.2	19.0	-3.0	**525.9**

Member 59

Fx_i	**-4.3**	31.3	-0.1	26.5	-3.5	219.2	**3.7**	-31.4	-8.3	-33.8	19.2	48.7
Fy_i	2.5	**-36.3**	-7.4	-33.7	16.3	11.8	-2.7	**56.4**	-0.5	13.3	-1.1	405.2
Fz_i	2.7	-3.0	**-10.2**	-11.3	22.1	248.7	-3.2	-2.0	**2.1**	1.0	-7.1	-16.8
Mx_i	0.4	-16.2	-6.1	**-37.7**	12.2	157.9	-0.3	33.9	-4.2	**44.5**	7.9	236.0
My_i	-3.7	2.7	2.0	4.9	**-7.2**	16.6	3.2	-7.8	-10.0	-15.1	**22.2**	215.3
Mz_i	2.7	-23.0	-1.6	4.3	5.3	**-166.1**	-2.6	43.3	-2.1	2.3	2.2	**526.7**
Fx_f	**-4.3**	31.3	-0.1	26.5	-4.0	104.4	**3.7**	-0.9	-8.3	-1.8	-11.2	107.8
Fy_f	2.9	**-26.4**	-2.6	0.0	-2.2	-41.2	-2.8	**77.2**	-1.2	20.3	-4.1	271.4
Fz_f	2.7	27.4	**-10.2**	20.7	-15.2	203.9	-3.2	-2.0	**2.1**	1.0	0.7	-9.3
Mx_f	0.3	-6.1	-4.5	**-22.7**	-7.6	92.4	-0.2	54.3	-5.8	**61.5**	-10.2	180.5
My_f	1.5	54.4	-9.8	48.8	**-15.4**	268.7	-2.5	-3.3	1.8	-0.1	**0.8**	-13.3
Mz_f	2.7	-23.0	-1.6	4.3	-0.7	**-81.9**	-2.4	73.0	-2.6	15.3	-6.2	**348.3**

Member 60

Fx_i	**-1.9**	50.9	-8.6	31.3	14.4	184.6	**1.5**	-20.7	-2.3	5.3	5.3	-74.6

Fy_i	1.0	**-29.6**	-12.3	-29.4	23.2	20.0	-1.7	**75.2**	-4.9	13.9	7.9	272.7
Fz_i	0.2	46.6	**-22.5**	26.6	41.8	265.4	-1.0	-2.6	**1.7**	-0.7	-4.1	-9.3
Mx_i	-0.3	-11.0	-10.5	**-33.8**	19.0	87.2	-0.3	**51.4**	-15.1	**47.5**	27.6	186.7
My_i	-1.0	-2.6	1.7	-0.7	**-4.1**	-9.3	0.5	21.3	-22.5	0.9	**41.9**	204.5
Mz_i	1.3	-22.8	-1.7	4.8	4.0	**-82.4**	-1.6	69.9	-8.0	5.3	13.8	**349.6**
Fx_f	**-1.9**	50.9	-8.6	31.3	-17.3	-2.1	**1.5**	-20.7	-2.3	5.3	-3.1	1.1
Fy_f	1.3	**-22.8**	-1.7	4.8	-2.4	1.2	-1.6	**113.1**	-8.0	24.8	-15.6	-3.2
Fz_f	0.2	89.8	**-22.5**	71.9	-40.8	-2.0	-1.0	-2.6	**1.7**	-0.7	2.0	0.1
Mx_f	-0.7	3.2	1.4	**-2.1**	1.8	-0.2	0.3	87.8	-22.4	**73.8**	-40.7	-1.4
My_f	0.0	90.9	-22.5	72.5	**-41.0**	-2.1	-0.8	-3.7	1.6	-1.3	**2.2**	0.2
Mz_f	-1.7	101.6	-7.1	21.2	-13.9	**-3.3**	0.9	-22.1	-1.0	3.9	-1.4	**1.3**

Member 121

Fx_i	**-0.8**	0.0	18.6	-0.5	-124.3	0.0	**0.0**	**0.0**	0.6	-0.0	-1.8	0.0
Fy_i	-0.0	**-0.0**	-11.2	0.2	33.2	-0.0	-0.8	**0.0**	23.3	-0.6	-137.8	0.0
Fz_i	-0.2	-0.0	**-14.4**	-0.3	30.3	-0.0	-0.8	0.0	**23.3**	-0.6	-137.9	0.0
Mx_i	-0.3	0.0	-3.9	**-0.8**	-14.7	0.0	-0.0	-0.0	-6.6	0.3	19.3	-0.0
My_i	-0.8	0.0	23.3	-0.6	**-137.9**	0.0	-0.1	-0.0	-13.0	0.0	**34.7**	-0.0
Mz_i	-0.0	-0.0	-11.2	0.2	33.2	**-0.0**	-0.8	0.0	23.3	-0.6	-137.8	**0.0**
Fx_f	**-0.8**	0.0	18.6	-0.5	-106.6	0.0	**0.0**	0.0	0.6	-0.0	-1.2	0.0
Fy_f	-0.0	**-0.0**	-11.2	0.2	22.6	-0.0	-0.8	**0.0**	23.3	-0.6	-115.7	0.0
Fz_f	-0.2	-0.0	**-14.4**	-0.3	16.6	-0.0	-0.8	0.0	**23.3**	-0.6	-115.8	0.0
Mx_f	-0.3	0.0	-3.9	**-0.8**	-18.4	0.0	-0.0	-0.0	-6.6	0.3	13.0	-0.0
My_f	-0.8	0.0	23.3	-0.6	**-115.8**	0.0	-0.0	-0.0	-11.3	0.2	**22.8**	-0.0
Mz_f	-0.0	-0.0	-11.2	0.2	22.6	**-0.0**	-0.8	0.0	23.3	-0.6	-115.7	**0.0**

Member 122

Fx_i	**-1.3**	3.6	1.3	-0.7	-0.0	12.2	**0.0**	0.0	0.1	0.0	-0.2	0.0
Fy_i	-0.0	**-0.8**	-3.4	0.5	10.1	-2.2	-1.1	**4.6**	1.8	-1.2	-1.8	15.3
Fz_i	-0.3	1.4	**-4.5**	-0.3	14.4	4.5	-0.9	3.1	**4.5**	-0.9	-10.8	10.6
Mx_i	-0.4	3.2	0.1	**-1.4**	1.0	10.3	-0.0	-0.8	-3.3	0.5	9.9	-2.2
My_i	-0.3	1.0	4.4	-0.4	**-12.7**	3.3	-0.3	1.4	-4.5	-0.3	**14.4**	4.5
Mz_i	-0.0	-0.8	-3.4	0.5	10.1	**-2.2**	-1.1	4.6	1.8	-1.2	-1.8	**15.3**
Fx_f	**-1.3**	3.6	1.3	-0.7	1.2	8.8	**0.0**	0.0	0.1	0.0	-0.1	0.0
Fy_f	-0.0	**-0.8**	-3.4	0.5	6.9	-1.5	-1.1	**4.6**	1.8	-1.2	-0.1	10.9
Fz_f	-0.3	1.4	**-4.5**	-0.3	10.2	3.2	-0.9	3.1	**4.5**	-0.9	-6.5	7.6
Mx_f	-0.4	3.2	0.1	**-1.4**	1.2	7.3	-0.0	-0.8	-3.3	**0.5**	6.8	-1.5
My_f	-0.3	1.0	4.4	-0.4	**-8.4**	2.4	-0.3	1.4	-4.5	-0.3	**10.2**	3.2
Mz_f	-0.0	-0.8	-3.4	0.5	6.9	**-1.5**	-1.1	4.6	1.8	-1.2	-0.1	**10.9**

Member 123

Fx_i	**-0.6**	5.0	1.2	-0.3	-1.9	17.2	**0.0**	-0.0	0.4	0.0	-1.2	-0.0
Fy_i	-0.0	**-1.4**	-3.4	0.4	10.0	-4.3	-0.5	**7.3**	1.8	-0.6	-3.7	24.4
Fz_i	-0.2	1.9	**-4.4**	-0.0	13.7	6.3	-0.3	3.4	**4.5**	-0.4	-13.1	11.6
Mx_i	-0.2	5.5	0.1	**-0.8**	0.2	17.6	-0.0	-1.4	-3.3	**0.4**	9.8	-4.3
My_i	-0.2	2.0	4.4	-0.3	**-13.2**	6.8	-0.2	1.9	-4.4	-0.0	**13.7**	6.3
Mz_i	-0.0	-1.4	-3.4	0.4	10.0	**-4.3**	-0.5	7.3	1.8	-0.6	-3.7	**24.4**
Fx_f	**-0.6**	5.0	1.2	-0.3	-0.8	12.4	**0.0**	-0.0	0.4	0.0	-0.8	-0.0
Fy_f	-0.0	**-1.4**	-3.4	0.4	6.8	-2.9	-0.5	**7.3**	1.8	-0.6	-2.0	17.5
Fz_f	-0.2	1.9	**-4.4**	-0.0	9.5	4.5	-0.3	3.4	**4.5**	-0.4	-8.9	8.3
Mx_f	-0.2	5.5	0.1	**-0.8**	0.3	12.3	-0.0	-1.4	-3.3	**0.4**	6.6	-2.9
My_f	-0.2	2.0	4.4	-0.3	**-9.0**	4.9	-0.2	1.9	-4.4	-0.0	**9.5**	4.5
Mz_f	-0.0	-1.4	-3.4	0.4	6.8	**-2.9**	-0.5	7.3	1.8	-0.6	-2.0	**17.5**

Member 124

Fx_i	**-0.5**	5.1	1.2	0.2	-3.9	17.6	**0.0**	-0.0	0.4	0.0	-1.2	-0.1
Fy_i	-0.1	**-2.0**	-3.4	0.2	9.7	-6.0	-0.3	**8.3**	1.9	-0.0	-5.8	27.3
Fz_i	-0.1	1.6	**-4.4**	0.2	13.2	5.3	-0.3	4.6	**4.5**	-0.1	-14.2	**15.5**
Mx_i	-0.1	3.6	0.6	**-0.2**	-1.9	11.6	-0.2	2.1	-2.9	**0.3**	8.5	7.1
My_i	-0.3	4.6	4.5	-0.1	**-14.2**	15.5	-0.1	1.6	-4.4	0.2	**13.2**	5.3
Mz_i	-0.1	-2.0	-3.4	0.2	9.7	**-6.0**	-0.3	8.3	1.9	-0.0	-5.8	**27.7**
Fx_f	**-0.5**	5.1	1.2	0.2	-2.8	12.7	**0.0**	-0.0	0.4	0.0	-0.8	-0.0
Fy_f	-0.1	**-2.0**	-3.4	0.2	6.5	-4.1	-0.3	**8.3**	1.9	-0.0	-4.0	19.8
Fz_f	-0.1	1.6	**-4.4**	0.2	8.9	3.9	-0.3	4.6	**4.5**	-0.1	-9.9	11.1
Mx_f	-0.1	3.6	0.6	**-0.2**	-1.3	8.1	-0.2	2.1	-2.9	**0.3**	5.7	5.1

My,	-0.3	4.6	4.5	-0.1	-9.9	11.1	-0.1	1.6	-4.4	0.2	**8.9**	3 9
Mz,	-0.1	-2.0	-3.4	0.2	6.5	**-4.1**	-0.3	8.3	1.9	-0.0	-4.0	**19.8**

Member 125

Fx,	**-1.0**	4.5	2.4	0.4	-10.7	15.5	**0.0**	-0.0	0.4	-0.0	-1.2	-0.1
Fy,	-0.2	**-2.2**	-3.4	-0.2	9.1	-6.7	-0.4	**7.2**	1.9	0.7	-7.2	24.1
Fz,	-0.2	0.5	**-4.4**	0.3	12 5	2.2	-0.7	4.7	**4.4**	0.3	-16.0	15 8
Mx,	-0.3	-1.8	-2.6	**-0.2**	6.7	-5.3	-0.1	5.2	-0.1	**0.8**	-0.0	16 6
My,	-0.7	5.3	4.4	0.4	**-16.0**	17.8	-0.2	-0.5	-4.4	0.2	**12.5**	-1.2
Mz,	-0.2	-2.2	-3.4	-0.2	9.1	**-6.7**	-0.4	7.2	1.9	0.7	-7.2	**24.1**
Fx,	**-1.0**	4.5	2.4	0.4	-8.4	11.3	**0.0**	-0.0	0.4	-0.0	-0.8	-0.1
Fy,	-0.2	**-2.2**	-3.4	-0.2	5.9	-4.6	-0.4	**7.2**	1.9	0.7	-5.3	17.3
Fz,	-0.2	0.5	**-4.4**	0.3	8.2	1.6	-0.7	4.7	**4.4**	0.3	-11.8	11.3
Mx,	-0.3	-1.8	-2.6	**-0.2**	4.2	-3.6	-0.1	5.2	-0.1	**0.8**	-0.1	11 6
My,	-0.7	5.3	4.4	0.4	**-11.8**	12.8	-0.2	-0.5	-4.4	0.2	**8.3**	-0.7
Mz,	-0.2	-2.2	-3.4	-0.2	5.9	**-4.6**	-0.4	7.2	1.9	0.7	-5.3	**17.3**

Member 126

Fx,	**-2.3**	3.2	2.0	0.4	-15.4	11.3	**0.0**	-0.0	0.1	-0.0	-0.3	-0.1
Fy,	-0.6	**-1.8**	-3.5	-0.6	8.1	-5.4	-1.4	**4.9**	2.7	1.0	-13.7	15.5
Fz,	-0.6	-0.4	**-5.0**	0.1	12.6	-0.8	-1.7	**4.0**	**4.2**	0.7	-19.5	13.5
Mx,	-0.6	-1 8	-3.4	**-0.6**	7.8	-5.4	-0.4	3.3	-0.5	**1.3**	-0.2	10.6
My,	-1.8	4.0	4.1	0.7	**-19.7**	13.6	-0.5	-1.3	-4.9	-0.3	**12.8**	-3.9
Mz	-0.6	-1.8	-3.5	-0.6	8.1	**-5.4**	-1.4	4.9	2.7	1.0	-13.7	**16.5**
Fx,	**-2.3**	3.2	2.0	0.4	-13.5	8.3	**0.0**	-0.0	0.1	-0.0	-0.2	-0.1
Fy,	-0.6	**-1.8**	-3.5	-0.6	4.8	-3.7	-1.4	**4.9**	2.7	1.0	-11.1	11.8
Fz,	-0.6	-0.4	**-5.0**	0.1	7.9	-0.5	-1.7	4.0	**4.2**	0.7	-15.5	9.7
Mx,	-0.6	-1.8	-3.4	**-0.6**	4.6	-3.7	-0.4	3.3	-0.5	**1.3**	-0.7	7.5
My,	-2.0	3.8	3.9	0.6	**-15.9**	9.3	-0.5	-1.3	-4.9	-0.3	**8.2**	-2.6
Mz,	-0.6	-1.8	-3.5	-0.6	4.8	**-3.7**	-1.4	4.9	2.7	1.0	-11.1	**11.8**

Member 127

Fx,	**-6.1**	1.7	0.7	-0.3	-3.1	5.6	**0.0**	-0.0	0.3	-0.0	-1.0	-0.0
Fy,	-0.4	**-0.2**	-1.7	-0.6	4.9	-0.5	-5.5	**1.8**	1.5	-0.0	-5.6	5.7
Fz,	-1.3	0.2	**-2.8**	-1.3	8.0	0.6	-3.0	1.1	**2.2**	0.5	-7.1	3.5
Mx,	-1.5	0.4	-1.5	**-2.1**	4.4	1.4	-1.1	0.7	-0.3	**1.3**	0.8	2.0
My,	-3.6	1.3	2.2	0.3	-7.2	4.0	-1.3	0.2	-2.8	-1.3	**8.0**	0.6
Mz,	-0 4	-0.2	-1.7	-0.6	4.9	**-0.5**	-5.6	1.8	1.6	-0.1	-5.7	**5.7**
Fx,	**-6.1**	1.7	0.7	-0.3	-2.5	3.9	**0.0**	-0.0	0.3	-0.0	-0.7	-0.0
Fy,	-0.4	**-0.2**	-1.7	-0.6	3.3	-0.4	-5.5	**1.8**	1.5	-0.0	-4.1	4.0
Fz,	-1.3	0.2	**-2.8**	-1.3	5.4	0.4	-3.0	1.1	**2.2**	0.5	-5.0	2.4
Mx,	-1.5	0.4	-1.5	**-2.1**	2.9	1.0	-1.1	0.7	-0.3	**1.3**	0.5	1.4
My,	-4.6	1.7	2.1	0.4	**-5.2**	3.7	-1.3	0.2	-2.8	-1.3	**5.4**	0.4
Mz,	-0.4	-0.2	-1.7	-0.6	3 3	**-0.4**	-5.9	1.8	1.4	-0.3	-3.8	**4.0**

Member 128

Fx,	**-1.9**	4.6	-0.1	-1.4	7.4	16.5	**0.0**	-0.0	0.9	-0.0	-2.8	-0.0
Fy,	-0.3	**-1.1**	0.2	0 7	0.3	-3.4	-1.4	**7.0**	-0.0	-2.5	5.3	24.5
Fz,	-0 5	4.2	**-1.9**	-2.8	7.3	13.9	-1.0	0.6	**1.9**	0.1	-2.2	2.6
Mx,	-0.5	4.7	-0.5	**-3.2**	3.2	15.5	-0.4	-1.1	0.0	**0.8**	1.3	-3.1
My,	-0.1	0.1	1.8	-0.2	**-5.0**	0.7	-1.7	5.6	-1.4	-2.0	**10.7**	20.1
Mz	-0.3	-1.1	0.1	0.7	0.6	**-3.4**	-1.4	7.0	0.1	-2.4	5.0	**24.5**
Fx,	**-1.9**	4.6	-0.1	-1.4	7.3	12.2	**0.0**	-0.0	0.9	-0.0	-1.9	-0.0
Fy,	-0.3	**-1.1**	0.2	0.7	0.5	-2.3	-1.4	**7.0**	-0.0	-2.5	5 3	17.8
Fz,	-0.5	4.2	**-1.9**	-2.8	5.5	9.9	-1.0	0.6	**1.9**	0.1	-0.4	2.0
Mx,	-0.5	4.7	-0.5	**-3.2**	2.8	11.0	-0.4	-1.1	0.0	**0.8**	1.4	-2.1
My,	-0.1	0 1	1.8	-0.2	**-3.3**	0.5	-1.9	5.8	-1.2	-1.5	**9.4**	15.0
Mz,	-0.3	-1 1	0.1	0.7	0.7	**-2.3**	-1.4	7.0	0.1	-2.4	5.1	**17.8**

Member 129

Fx,	**-0.5**	7.6	-0.5	-1.3	3.5	27.2	**0.0**	0.0	0.5	-0.0	-1 6	0.1
Fy,	-0.1	**-1.7**	-0.8	0.5	2.7	-5.1	-0.3	**11.7**	0.1	-2.2	0.9	40.7
Fz,	-0.1	6.5	**-2.4**	-1 5	7.8	21.2	-0.1	0.6	**2.3**	-0.4	-6 6	2.6
Mx,	-0.1	8.9	-0.3	**-2.6**	1 5	28.9	-0.1	-1.4	-1.1	**0.5**	3.5	-4.2
My,	-0 0	0.4	2.3	-0.2	**-6.7**	1.6	-0.5	8.5	-2.0	-1.2	**8.0**	30.1
Mz,	-0.1	-1.7	-0.8	0 5	2.7	**-5.1**	-0.3	11.7	0.1	-2.2	0.9	**40.7**
Fx,	**-0.5**	7.6	-0.5	-1.3	3.0	20.0	**0.0**	0.0	0.5	-0.0	-1.1	0.1
Fy,	-0.1	**-1.7**	-0.8	0.5	2.0	-3.5	-0.3	**11.7**	0.1	-2.2	1.0	29.5
Fz,	-0.1	6.5	**-2.4**	-1.5	5.5	15.1	-0.1	0.6	**2.3**	-0.4	-4.4	2.0
Mx,	-0.1	8.9	-0.3	**-2.6**	1.2	20.4	-0.1	-1.4	-1.1	**0.5**	2.5	-2.9
My,	-0.0	0.4	2.3	-0.2	**-4.6**	1.2	-0.5	8 5	-2.0	-1.2	**6.1**	22.0
Mz,	-0.1	-1.7	-0.8	0.5	2.0	**-3.5**	-0.3	11 7	0.1	-2.2	1.0	**29.5**

Member 130

Fx,	**-0.1**	9.6	-0.4	-0.7	1.7	34.1	**0.0**	0.0	0.1	-0.0	-0.3	0.0
Fy,	-0.0	**-2.0**	-0.8	0.3	2.5	-6.0	-0.1	**14.7**	0.1	-1.0	0.0	50.7
Fz,	-0:0	8.1	**-2.4**	-0.6	7.4	26.6	-0.0	1.6	**2.3**	-0.5	-6.9	6.1
Mx,	-0.0	9.1	0.0	**-1.6**	0.1	29.5	-0.0	0.5	-1.4	**0.5**	4.3	2.0
My,	-0.0	1.6	2.3	-0.5	**-6.9**	6.1	-0.0	8.1	-2.4	-0.6	**7.4**	26.6
Mz,	-0.0	-2.0	-0.8	0.3	2.5	**-6.0**	-0.1	14.7	0.1	-1.0	0.0	**50.7**
Fx,	**-0.1**	9.6	-0.4	-0.7	1.3	25.0	**0.0**	0.0	0.1	-0.0	-0.2	0.0
Fy,	-0.0	**-2.0**	-0.8	0.3	1.7	-4.1	-0.1	**14.7**	0.1	-1.0	0.1	36.7
Fz,	-0.0	8.1	**-2.4**	-0.6	5.1	18.9	-0.0	1.6	**2.3**	-0.5	-4.7	4.6
Mx,	-0.0	9.1	0.0	**-1.6**	0.1	20.9	-0.0	0.5	-1.4	**0.5**	3.0	1.5
My,	-0.0	1.6	2.3	-0.5	**-4.7**	4.6	-0.0	8.1	-2.4	-0.6	**5.1**	18.9
Mz,	-0.0	-2.0	-0.8	0.3	1.7	**-4.1**	-0.1	14.7	0.1	-1.0	0.1	**36.7**

Member 131

Fx,	**-0.1**	10.5	0.4	0.0	-1.2	37.4	**0.0**	-0.0	0.3	0.0	-0.9	-0.1
Fy,	-0.0	**-2.3**	-1.2	0.2	3.5	-6.9	-0.0	**15.7**	0.1	0.0	-0.2	54.3
Fz,	-0.0	8.2	**-2.4**	0.3	7.3	26.8	-0.0	3.0	**2.3**	-0.4	-7.0	10 8
Mx,	-0.0	6.6	0.3	**-0.8**	-0.9	21.4	-0.0	6.0	-1.5	**0.9**	4.4	19.6
My,	-0.0	3.0	2.3	-0.4	**-7.0**	10.8	-0.0	8.2	-2.4	0.3	**7.3**	26.8
Mz,	-0.0	-2.3	-1.2	0.2	3.5	**-6.9**	-0.0	15.7	0.1	0.0	-0.2	**54.3**
Fx,	**-0.1**	10.5	0.4	0.0	-0.9	27.4	**0.0**	-0.0	0.3	0.0	-0.6	-0.0
Fy,	-0.0	**-2.3**	-1.2	0.2	2.4	-4.7	-0.0	**15.7**	0.1	0.0	-0.1	39.4
Fz,	-0.0	8.2	**-2.4**	0.3	5.0	19.0	-0.0	3.0	**2.3**	-0.4	-4.8	7 9
Mx,	-0.0	6.6	0.3	**-0.8**	-0.6	15.2	-0.0	6.0	-1.5	**0.9**	3.0	14 0
My,	-0.0	3.0	2.3	-0.4	**-4.8**	7.9	-0.0	8.2	-2.4	0.3	**5.0**	19.0
Mz,	-0.0	-2.3	-1.2	0.2	2.4	**-4.7**	-0.0	15.7	0.1	0.0	-0.1	**39.4**

Member 132

Fx,	**-0.2**	9.9	0.4	0.8	-1.8	35.2	**0.0**	-0.0	0.3	0.0	-0.9	-0.1
Fy,	-0.0	**-2.8**	-1.2	-0.0	3.4	-8.4	-0.1	**15.0**	0.1	1.1	-0.6	51.7
Fz,	-0.1	6.6	**-2.4**	1.2	7.1	22.1	-0.1	4 8	**2.3**	-0.1	-7.3	16.6
Mx,	-0.1	3.7	0.9	**-0.3**	-2.9	12.8	-0.1	8.1	-1.8	**1.6**	5.2	26.7
My,	-0 1	4.8	2.3	-0.1	**-7.3**	16.6	-0.0	5.4	-2.4	1.2	7.1	18.0
Mz,	-0.0	-2.8	-1.2	-0.0	3.4	**-8.4**	-0.1	15 0	0.1	1.1	-0.6	**51.7**
Fx,	**-0.2**	9.9	0.4	0.8	-1.4	25.8	**0.0**	-0.0	0.3	0.0	-0.6	-0.1
Fy,	-0.0	**-2.8**	-1.2	-0.0	2.3	-5.7	-0.1	**15.0**	0.1	1.1	**-0.5**	37.4
Fz,	-0.1	6.6	**-2.4**	1.2	4.8	15.8	-0.1	4.8	**2.3**	-0.1	-5.1	**12.1**
Mx,	-0.1	3.7	0.9	**-0.3**	-2.1	9.3	-0.1	8.1	-1.8	**1.6**	3.5	19.0
My,	-0.1	4.8	2.3	-0.1	**-5.1**	12.1	-0.0	5.4	-2.4	1.2	**4.8**	12.9
Mz,	-0.0	-2.8	-1.2	-0.0	2.3	**-5.7**	-0.1	15.0	0.1	1.1	-0.5	**37.4**

Member 133

Fx,	**-0.7**	7.9	0.4	1.4	-3.7	28.4	**0.0**	-0.0	0.3	-0.0	-0.9	-0.1
Fy,	-0.1	**-3.2**	-1.2	-0.4	2.9	-9.4	-0.3	**12.2**	0.2	2.1	-2.0	42.2
Fz,	-0.2	3.7	**-2.4**	1.8	6.5	12.9	-0.4	5.8	**2.3**	0.3	-8.5	19.8
Mx,	-0.1	-2.6	-0.7	**-0.4**	1.5	-7.6	-0.1	9.3	-0.3	**2.6**	0.5	30.1
My,	-0.4	5.8	2.3	0.3	**-8.5**	19.8	-0.2	2.2	-2.4	1 6	6.6	8 0
Mz,	-0.1	-3.2	-1.2	-0.4	2.9	**-9.4**	-0.3	12.2	0.2	2.1	-2.0	**42.2**
Fx,	**-0.7**	7.9	0.4	1.4	-3.3	20.9	**0.0**	-0.0	0.3	-0.0	-0.6	-0.1
Fy,	-0 1	**-3.2**	-1.2	-0.4	1.8	-6.4	-0.3	**12.2**	0.2	2.1	-1.8	30.6
Fz,	-0 2	3.7	**-2.4**	1 8	4.2	9.4	-0.4	5.8	**2.3**	0.3	-6.3	14.3
Mx,	-0 1	-2.6	-0.7	**-0.4**	0.9	-5.2	-0.1	9.3	-0.3	**2.6**	0.2	21.3
My,	-0 5	5.4	2.2	0.3	**-6.3**	13.6	-0.2	2.2	-2.4	1.6	**4.3**	5.9
Mz,	-0.1	-3.2	-1.2	-0.4	1.8	**-6.4**	-0.3	12.2	0.2	2.1	-1.8	**30.6**

Member 134

Fx_i	**-2.5**	5.0	0.1	1.5	-9.6	18.1	**0.0**	-0.0	0.0	-0.0	-0.0	-0.1
Fy_i	-0.6	**-2.8**	-0.9	-1.0	0.5	-8.3	-1.7	**7.5**	0.3	2.4	-7.4	26.0
Fz_i	-0.7	-1.0	**-1.4**	-0.0	1.6	-2.7	-1.9	6.0	**1.1**	1.5	-10.4	20.8
Mx_i	-0.6	-2.8	-0.9	**-1.0**	0.5	-8.2	-0.5	4.5	0.1	**3.2**	-2.2	15.0
My_i	-2.5	4.8	0.7	1.4	**-11.3**	17.5	-0.3	-2.2	-1.2	-0.5	**2.6**	-6.6
Mz_i	-0.6	-2.8	-0.9	-1.0	0.5	**-8.3**	-1.7	7.5	0.3	2.4	-7.4	**26.0**
Fx_f	**-2.5**	5.0	0.1	1.5	-9.6	13.4	**0.0**	-0.0	0.0	-0.0	-0.0	-0.1
Fy_f	-0.6	**-2.8**	-0.9	-1.0	-0.3	-5.7	-1.7	**7.5**	0.3	2.4	-7.0	18.8
Fz_f	-0.7	-1.0	**-1.4**	-0.0	0.3	-1.7	-1.9	6.0	**1.1**	1.5	-9.3	15.1
Mx_f	-0.6	-2.8	-0.9	**-1.0**	-0.3	-5.6	-0.5	4.5	0.1	**3.2**	-2.1	10.7
My_f	-2.5	4.8	0.7	1.4	**-10.7**	12.9	-0.1	0.1	-0.9	0.1	**1.7**	0.5
Mz_f	-0.6	-2.8	-0.9	-1.0	-0.3	**-5.7**	-1.7	7.5	0.3	2.4	-7.0	**18.8**

Member 135

Fx_i	**-8.8**	1.9	-0.2	0.2	0.6	6.3	**0.0**	-0.0	0.1	-0.0	-0.3	-0.1
Fy_i	-1.5	**-1.0**	-0.7	-0.6	2.0	-2.8	-6.4	**2.3**	0.1	0.1	-0.2	7.3
Fz_i	-2.0	0.1	**-1.3**	-1.5	3.9	0.4	-2.8	0.5	**1.2**	1.2	-3.7	1.7
Mx_i	-1.9	0.0	-0.4	**-2.5**	1.2	0.2	-2.0	0.1	0.1	**2.6**	-0.4	0.4
My_i	-2.8	0.5	1.2	1.2	**-3.7**	1.7	-2.0	0.1	-1.3	-1.5	**3.9**	0.4
Mz_i	-1.3	-1.0	-0.6	-0.2	1.8	**-2.8**	-6.4	2.3	0.1	0.1	-0.2	**7.3**
Fx_f	**-8.8**	1.9	-0.2	0.2	0.4	4.5	**0.0**	-0.0	0.1	-0.0	-0.2	-0.1
Fy_f	-1.5	**-1.0**	-0.7	-0.6	1.4	-1.9	-6.4	**2.3**	0.1	0.1	-0.1	5.1
Fz_f	-2.0	0.1	**-1.3**	-1.5	2.7	0.3	-2.8	0.5	**1.2**	1.2	-2.5	1.2
Mx_f	-1.9	0.0	-0.4	**-2.5**	0.8	0.2	-2.0	0.1	0.1	**2.6**	-0.3	0.3
My_f	-2.8	0.5	1.2	1.2	**-2.5**	1.2	-2.0	0.1	-1.3	-1.5	**2.7**	0.3
Mz_f	-1.3	-1.0	-0.6	-0.2	1.3	**-1.9**	-6.8	2.3	0.1	0.4	-0.3	**5.1**

Member 136

Fx_i	**-2.5**	3.9	-0.0	-1.2	9.6	14.6	**0.0**	-0.0	0.8	-0.0	-2.3	-0.0
Fy_i	-0.5	**-2.8**	-0.2	1.0	2.5	-8.4	-1.7	**7.4**	0.3	-2.5	5.3	25.6
Fz_i	-0.6	3.2	**-2.0**	-2.7	8.5	11.0	-1.3	0.2	**1.9**	0.2	-0.8	1.4
Mx_i	-0.6	4.8	-0.7	**-3.3**	4.0	15.6	-0.6	-2.8	-0.1	**1.1**	2.5	-8.2
My_i	-0.1	0.3	1.7	-0.2	**-4.7**	1.1	-2.3	4.8	-1.4	-1.8	**12.8**	17.7
Mz_i	-0.5	-2.8	-0.2	1.0	2.5	**-8.4**	-1.7	7.4	0.3	-2.5	5.3	**25.6**
Fx_f	**-2.5**	3.9	-0.0	-1.2	9.5	10.9	**0.0**	-0.0	0.8	-0.0	-1.6	-0.0
Fy_f	-0.5	**-2.8**	-0.2	1.0	2.3	-5.7	-1.7	**7.4**	0.3	-2.5	5.6	18.6
Fz_f	-0.6	3.2	**-2.0**	-2.7	6.5	7.9	-1.3	0.2	**1.9**	0.2	1.0	1.2
Mx_f	-0.6	4.8	-0.7	**-3.3**	3.4	11.1	-0.6	-2.8	-0.1	**1.1**	2.4	-5.6
My_f	-0.0	0.2	1.6	-0.0	**-3.1**	0.5	-2.5	5.2	-1.1	-1.5	**11.6**	13.9
Mz_f	-0.5	-2.8	-0.2	1.0	2.3	**-5.7**	-1.7	7.4	0.3	-2.5	5.6	**18.6**

Member 137

Fx_i	**-0.7**	6.9	-0.5	-1.2	3.9	25.1	**0.0**	0.0	0.3	-0.0	-0.8	0.1
Fy_i	-0.1	**-3.3**	-0.0	0.5	0.6	-9.8	-0.3	**12.0**	0.0	-2.2	1.3	41.6
Fz_i	-0.5	7.4	**-2.5**	-0.9	9.3	25.8	-0.2	-0.4	**2.6**	-0.4	-7.0	-0.3
Mx_i	-0.1	9.1	-0.1	**-2.7**	0.9	29.4	-0.1	-2.8	-0.3	**0.6**	1.4	-8.3
My_i	-0.2	-0.4	2.6	-0.4	**-7.0**	-0.2	-0.5	7.4	-2.5	-0.9	**9.3**	25.8
Mz_i	-0.1	-3.3	-0.0	0.5	0.6	**-9.8**	-0.3	12.0	0.0	-2.2	1.3	**41.6**
Fx_f	**-0.7**	6.9	-0.5	-1.2	3.5	18.6	**0.0**	0.0	0.3	-0.0	-0.6	0.1
Fy_f	-0.1	**-3.3**	-0.0	0.5	0.6	-6.7	-0.3	**12.0**	0.0	-2.2	1.3	30.1
Fz_f	-0.5	7.4	**-2.5**	-0.9	6.9	18.8	-0.2	-0.4	**2.6**	-0.4	-4.5	0.1
Mx_f	-0.1	9.1	-0.1	**-2.7**	0.8	20.8	-0.1	-2.8	-0.3	**0.6**	1.1	-5.6
My_f	-0.1	0.0	2.5	-0.4	**-4.6**	0.9	-0.5	7.0	-2.4	-0.9	**6.9**	18.0
Mz_f	-0.1	-3.3	-0.0	0.5	0.6	**-6.7**	-0.3	12.0	0.0	-2.2	1.3	**30.1**

Member 138

Fx_i	**-0.2**	9.0	-0.5	-0.7	2.0	32.5	**0.0**	0.0	0.1	-0.0	-0.3	0.0
Fy_i	-0.0	**-3.2**	0.2	0.2	-0.3	-9.6	-0.1	**14.9**	-0.1	-1.0	0.6	51.4
Fz_i	-0.1	8.4	**-2.5**	-0.2	7.9	29.4	-0.1	0.8	**2.6**	-0.5	-7.5	3.8
Mx_i	-0.1	8.0	1.1	**-1.7**	-3.2	26.5	-0.0	0.7	-1.6	**0.5**	4.9	2.6
My_i	-0.1	0.8	2.6	-0.5	**-7.5**	3.8	-0.1	8.4	-2.5	-0.2	**7.9**	29.3
Mz_i	-0.0	-3.2	0.2	0.2	-0.3	**-9.6**	-0.1	14.9	-0.1	-1.0	0.6	**51.4**
Fx_f	**-0.2**	9.0	-0.5	-0.7	1.6	23.9	**0.0**	0.0	0.1	-0.0	-0.2	0.0
Fy_f	-0.0	**-3.2**	0.2	0.2	-0.2	-6.5	-0.1	**14.9**	-0.1	-1.0	0.5	37.3
Fz_f	-0.1	8.4	**-2.5**	-0.2	5.5	21.4	-0.1	0.8	2.6	-0.5	-5.1	3.0
Mx_f	-0.1	8.0	1.1	**-1.7**	-2.1	18.8	-0.0	0.7	-1.6	**0.5**	3.3	1.9
My_f	-0.1	0.8	2.6	-0.5	**-5.1**	3.0	-0.1	8.4	-2.5	-0.2	**5.5**	21.4
Mz_f	-0.0	-3.2	0.2	0.2	-0.2	**-6.5**	-0.1	14.9	-0.1	-1.0	0.5	**37.3**

Member 139

Fx_i	**-0.1**	10.4	-0.5	0.1	1.5	37.1	**0.0**	-0.0	0.2	0.0	-0.7	-0.1
Fy_i	-0.0	**-3.1**	-0.4	0.1	1.3	-9.1	-0.0	**15.9**	-0.1	0.1	0.2	54.8
Fz_i	-0.0	7.6	**-2.5**	0.4	7.5	27.0	-0.0	2.5	**2.6**	-0.5	-7.7	9.2
Mx_i	-0.0	5.9	1.3	**-0.9**	-3.9	19.4	-0.0	6.1	-1.5	**0.9**	4.4	20.0
My_i	-0.0	2.5	2.6	-0.5	**-7.7**	9.2	-0.0	7.6	-2.5	0.4	**7.5**	27.0
Mz_i	-0.0	-3.1	-0.4	0.1	1.3	**-9.1**	-0.0	15.9	-0.1	0.1	0.2	**54.8**
Fx_f	**-0.1**	10.4	-0.5	0.1	1.0	27.2	**0.0**	-0.0	0.2	0.0	-0.5	-0.0
Fy_f	-0.0	**-3.1**	-0.4	0.1	0.9	-6.2	-0.0	**15.9**	-0.1	0.1	0.1	39.7
Fz_f	-0.0	7.6	**-2.5**	0.4	5.2	19.7	-0.0	2.5	**2.6**	-0.5	-5.3	6.9
Mx_f	-0.0	5.9	1.3	**-0.9**	-2.7	13.8	-0.0	6.1	-1.5	**0.9**	3.0	14.2
My_f	-0.0	2.5	2.6	-0.5	**-5.3**	6.9	-0.0	7.6	-2.5	0.4	**5.2**	19.7
Mz_f	-0.0	-3.1	-0.4	0.1	0.9	**-6.2**	-0.0	15.9	-0.1	0.1	0.1	**39.7**

Member 140

Fx_i	**-0.1**	9.7	0.5	0.6	-1.9	34.7	**0.0**	-0.0	0.2	0.0	-0.7	-0.1
Fy_i	-0.0	**-3.3**	-0.4	-0.2	1.1	-9.7	-0.1	**15.1**	-0.0	1.1	-0.2	52.1
Fz_i	-0.1	5.2	**-2.5**	0.9	7.3	18.9	-0.1	4.5	2.6	-0.3	-8.0	15.8
Mx_i	-0.0	0.7	1.7	**-0.5**	-5.3	2.5	-0.0	8.3	-1.6	**1.6**	4.7	27.4
My_i	-0.1	7.2	2.6	-0.1	**-8.0**	25.1	-0.0	2.5	-2.5	0.7	**7.3**	9.5
Mz_i	-0.0	-3.3	-0.4	-0.2	1.1	**-9.7**	-0.1	15.1	-0.0	1.1	-0.2	**52.1**
Fx_f	**-0.1**	9.7	0.5	0.6	-1.4	25.5	**0.0**	-0.0	0.2	0.0	-0.5	-0.1
Fy_f	-0.0	**-3.3**	-0.4	-0.2	0.7	-6.6	-0.1	**15.1**	-0.0	1.1	-0.2	37.7
Fz_f	-0.1	5.2	**-2.5**	0.9	4.9	13.9	-0.1	4.5	2.6	-0.3	-5.6	11.5
Mx_f	-0.0	0.7	1.7	**-0.5**	-3.6	1.8	-0.0	8.3	-1.6	**1.6**	3.2	19.5
My_f	-0.1	7.2	2.6	-0.1	**-5.6**	18.3	-0.0	2.5	-2.5	0.7	**4.9**	7.2
Mz_f	-0.0	-3.3	-0.4	-0.2	0.7	**-6.6**	-0.1	15.1	-0.0	1.1	-0.2	**37.7**

Member 141

Fx_i	**-0.5**	7.9	0.5	1.2	-3.4	28.5	**0.0**	-0.0	0.2	0.0	-0.5	-0.1
Fy_i	-0.1	**-3.3**	-0.4	-0.6	0.8	-9.9	-0.3	**12.3**	0.1	2.1	-1.3	42.5
Fz_i	-0.2	2.2	**-2.5**	1.0	6.7	8.9	-0.3	5.7	**2.6**	0.2	-9.0	19.6
Mx_i	-0.1	-2.8	0.3	**-0.6**	-1.2	-8.3	-0.1	9.3	-0.2	**2.6**	0.0	30.3
My_i	-0.4	7.3	2.5	0.6	**-9.1**	25.3	-0.2	0.6	-2.5	0.6	**6.8**	3.1
Mz_i	-0.1	-3.3	-0.4	-0.6	0.8	**-9.9**	-0.3	12.3	0.1	2.1	-1.3	**42.5**
Fx_f	**-0.5**	7.9	0.5	1.2	-3.0	21.0	**0.0**	-0.0	0.2	0.0	-0.3	-0.1
Fy_f	-0.1	**-3.3**	-0.4	-0.6	0.4	-6.8	-0.3	**12.3**	0.1	2.1	-1.2	30.8
Fz_f	-0.2	2.2	**-2.5**	1.0	4.3	6.7	-0.3	5.7	**2.6**	0.2	-6.6	14.2
Mx_f	-0.1	-2.8	0.3	**-0.6**	-0.9	-5.7	-0.1	9.3	-0.2	**2.6**	-0.1	21.4
My_f	-0.4	7.3	2.5	0.6	**-6.7**	18.4	-0.2	0.6	-2.5	0.6	**4.4**	2.6
Mz_f	-0.1	-3.3	-0.4	-0.6	0.4	**-6.8**	-0.3	12.3	0.1	2.1	-1.2	**30.8**

Member 142

Fx_i	**-2.1**	5.2	0.2	1.4	-8.4	18.8	**0.0**	-0.0	-0.1	0.0	0.4	-0.1
Fy_i	-0.4	**-2.8**	-0.1	-1.1	-1.3	-8.4	-1.4	**7.7**	0.0	2.4	-5.2	26.6
Fz_i	-0.7	-1.3	**-1.9**	-0.4	3.3	-3.4	-0.5	3.5	**1.9**	2.0	-7.3	11.5
Mx_i	-0.5	-2.8	-0.1	**-1.1**	-1.4	-8.4	-0.4	4.6	0.4	**3.3**	-2.7	15.0
My_i	-1.9	5.2	1.3	1.3	**-11.2**	18.7	-0.1	-0.0	-1.7	0.0	**4.4**	0.2
Mz_i	-0.4	-2.8	-0.1	-1.1	-1.3	**-8.4**	-1.4	7.7	0.0	2.4	-5.2	**26.6**
Fx_f	**-2.1**	5.2	0.2	1.4	-8.2	13.9	**0.0**	-0.0	-0.1	0.0	0.3	-0.1
Fy_f	-0.4	**-2.8**	-0.1	-1.1	-1.4	-5.7	-1.4	**7.7**	0.0	2.4	-5.2	19.3
Fz_f	-0.7	-1.3	**-1.9**	-0.4	1.4	-2.2	-0.5	3.5	**1.9**	2.0	-5.6	8.2
Mx_f	-0.5	-2.8	-0.1	**-1.1**	-1.5	-5.7	-0.4	4.6	0.4	**3.3**	-2.4	10.7
My_f	-2.0	4.9	1.2	1.2	**-10.0**	13.2	-0.1	0.3	-1.5	0.1	**3.0**	0.8
Mz_f	-0.3	-2.8	-0.1	-1.0	-1.0	**-5.7**	-1.4	7.7	0.0	2.4	-5.2	**19.3**

Member 143

Fx_i	**-7.2**	2.3	-0.1	0.1	0.3	7.4	**0.0**	-0.0	-0.0	-0.0	0.0	-0.1
Fy_i	-1.0	**-1.2**	-0.0	-0.4	0.1	-3.4	-5.2	**2.7**	-0.2	0.1	0.5	8.6
Fz_i	-3.9	1.3	**-1.4**	-1.2	4.3	4.3	-1.1	-0.4	1.5	1.9	-4.4	-1.0

Mx_i	-1.6	0.0	-0.0	**-2.6**	0.1	0.2	-1.6	0.1	0.3	**2.6**	-0.9	0.4
My_i	-1.1	-0.4	1.5	1.9	**-4.4**	-1.0	-3.9	1.3	-1.4	-1.2	**4.3**	4.3
Mz_i	-1.0	-1.2	-0.0	-0.4	0.1	**-3.4**	-5.2	2.7	-0.2	0.1	0.5	**8.6**
Fx_f	**-7.2**	2.3	-0.1	0.1	0.2	5.3	**0.0**	-0.0	-0.0	-0.0	0.0	-0.1
Fy_f	**-1.0**	**-1.2**	-0.0	-0.4	0.1	-2.3	-5.2	**2.7**	-0.2	0.1	0.4	6.0
Fz_f	-3.9	1.3	**-1.4**	-1.2	2.9	3.1	-1.1	-0.4	**1.5**	1.9	-3.0	-0.7
Mx_f	-1.6	0.0	-0.0	**-2.6**	0.1	0.2	-1.6	0.1	0.3	**2.6**	-0.6	0.3
My_f	-1.1	-0.4	1.5	1.9	**-3.0**	-0.7	-3.9	1.3	-1.4	-1.2	**2.9**	3.1
Mz_f	-1.0	-1.2	-0.0	-0.4	0.1	**-2.3**	-5.6	2.7	-0.1	0.4	0.1	**6.0**

Member 144

Fx_i	**-2.1**	4.2	-0.0	-1.3	7.8	15.6	**0.0**	-0.0	0.6	-0.0	-1.7	-0.1
Fy_i	-0.4	**-2.9**	-0.1	1.1	1.9	-8.4	-1.4	**7.6**	0.1	-2.5	4.6	26.4
Fz_i	-0.4	4.1	**-2.2**	-2.8	8.1	13.7	-1.1	0.1	**2.0**	0.3	-1.7	1.2
Mx_i	-0.5	4.9	-0.5	**-3.3**	3.2	16.0	-0.5	-2.8	-0.2	**1.1**	2.2	-8.2
My_i	-0.1	0.3	1.7	-0.2	**-4.9**	1.2	-1.9	5.0	-1.5	-1.8	**11.6**	18.4
Mz_i	-0.4	-2.9	-0.1	1.1	1.9	**-8.4**	-1.4	7.6	0.1	-2.5	4.6	**26.4**
Fx_f	**-2.1**	4.2	-0.0	-1.3	7.8	11.6	**0.0**	-0.0	0.6	-0.0	-1.2	-0.0
Fy_f	-0.4	**-2.9**	-0.1	1.1	1.8	-5.7	-1.4	**7.6**	0.1	-2.5	4.8	19.2
Fz_f	-0.4	4.1	**-2.2**	-2.8	6.0	9.8	-1.1	0.1	**2.0**	0.3	0.1	1.1
Mx_f	-0.5	4.9	-0.5	**-3.3**	2.7	11.4	-0.5	-2.8	-0.2	**1.1**	2.1	-5.6
My_f	-0.1	0.3	1.7	-0.2	**-3.3**	0.9	-2.0	5.3	-1.3	-1.3	**10.2**	14.2
Mz_f	-0.3	-2.8	-0.1	1.0	1.5	**-5.7**	-1.4	7.6	0.1	-2.5	4.8	**19.2**

Member 145

Fx_i	**-0.5**	7.1	-0.4	-1.2	3.2	25.9	**0.0**	0.0	0.1	-0.0	-0.4	0.1
Fy_i	-0.1	**-3.3**	0.2	0.6	-0.2	-9.9	-0.3	**12.2**	-0.1	-2.2	1.2	42.1
Fz_i	-0.4	6.5	**-2.3**	-0.5	8.4	22.7	-0.2	0.7	**2.3**	-0.7	-6.4	3.5
Mx_i	-0.1	9.2	-0.0	**-2.7**	0.5	29.8	-0.1	-2.8	-0.2	**0.6**	1.0	-8.3
My_i	-0.1	-0.4	2.3	-0.4	**-6.4**	-0.2	-0.4	7.6	-2.3	-0.9	**8.5**	26.4
Mz_i	-0.1	-3.3	0.2	0.6	-0.2	**-9.9**	-0.3	12.2	-0.1	-2.2	1.2	**42.1**
Fx_f	**-0.5**	7.1	-0.4	-1.2	2.9	19.1	**0.0**	0.0	0.1	-0.0	-0.3	0.0
Fy_f	-0.1	**-3.3**	0.2	0.6	0.0	-6.7	-0.3	**12.2**	-0.1	-2.2	1.2	30.5
Fz_f	-0.4	6.5	**-2.3**	-0.5	6.2	16.5	-0.2	0.7	**2.3**	-0.7	-4.1	2.9
Mx_f	-0.1	9.2	-0.0	**-2.7**	0.5	21.1	-0.1	-2.8	-0.2	**0.6**	0.8	-5.7
My_f	-0.1	-0.4	2.3	-0.4	**-4.2**	0.2	-0.4	7.6	-2.3	-0.9	**6.3**	19.2
Mz_f	-0.1	-3.3	0.3	0.5	-0.1	**-6.7**	-0.3	12.2	-0.1	-2.2	1.2	**30.5**

Member 146

Fx_i	**-0.1**	9.2	-0.4	-0.7	1.8	32.9	**0.0**	-0.0	-0.0	-0.0	0.1	-0.0
Fy_i	-0.0	**-3.2**	0.3	0.2	-0.9	-9.6	-0.1	**15.0**	-0.1	-1.0	0.7	51.8
Fz_i	-0.1	6.6	**-2.3**	0.0	7.4	23.2	-0.0	2.7	**2.3**	-0.8	-6.9	10.4
Mx_i	-0.0	8.2	1.3	**-1.7**	-3.9	26.8	-0.0	0.7	-1.6	**0.5**	4.8	2.4
My_i	-0.0	2.7	2.3	-0.8	**-6.9**	10.4	-0.1	6.6	-2.3	0.0	**7.4**	23.2
Mz_i	-0.0	-3.2	0.3	0.2	-0.9	**-9.6**	-0.1	15.0	-0.1	-1.0	0.7	**51.8**
Fx_f	**-0.1**	9.2	-0.4	-0.7	1.4	24.2	**0.0**	-0.0	-0.0	-0.0	0.0	-0.0
Fy_f	-0.0	**-3.2**	0.3	0.2	-0.6	-6.6	-0.1	**15.0**	-0.1	-1.0	0.5	37.5
Fz_f	-0.1	6.5	**-2.3**	0.0	5.1	16.9	-0.0	2.7	**2.3**	-0.8	-4.6	7.8
Mx_f	-0.0	8.2	1.3	**-1.7**	-2.6	19.1	-0.0	0.7	-1.6	**0.5**	3.3	1.8
My_f	-0.0	0.8	2.3	-0.5	**-4.6**	3.1	-0.1	8.5	-2.3	-0.2	**5.1**	21.7
Mz_f	-0.0	-3.2	0.3	0.2	-0.6	**-6.6**	-0.1	15.0	-0.1	-1.0	0.5	**37.5**

Member 147

Fx_i	**-0.1**	10.4	-0.5	0.1	1.5	37.3	**0.0**	-0.0	0.2	0.0	-0.6	-0.1
Fy_i	-0.0	**-3.1**	-0.2	0.1	0.7	-9.1	-0.0	**16.0**	-0.1	0.1	0.3	55.1
Fz_i	-0.0	4.9	**-2.3**	0.5	7.1	17.6	-0.0	5.3	**2.3**	-0.6	-7.1	18.9
Mx_i	-0.0	5.9	1.3	**-0.9**	-3.9	19.4	-0.0	6.2	-1.3	**0.9**	3.8	20.2
My_i	-0.0	5.3	2.3	-0.6	**-7.1**	18.9	-0.0	4.9	-2.3	0.5	**7.1**	17.6
Mz_i	-0.0	-3.1	-0.2	0.1	0.7	**-9.1**	-0.0	16.0	-0.1	0.1	0.3	**55.1**
Fx_f	**-0.1**	10.4	-0.5	0.1	1.1	27.4	**0.0**	-0.0	0.2	0.0	-0.4	-0.1
Fy_f	-0.0	**-3.1**	-0.2	0.1	0.4	-6.2	-0.0	**16.0**	-0.1	0.1	0.2	39.9
Fz_f	-0.0	4.9	**-2.3**	0.5	4.8	13.0	-0.0	5.3	**2.3**	-0.6	-4.8	13.9
Mx_f	-0.0	5.9	1.3	**-0.9**	-2.7	13.8	-0.0	6.2	-1.3	**0.9**	2.6	14.4
My_f	-0.0	5.3	2.3	-0.6	**-4.8**	13.9	-0.0	4.9	-2.3	0.5	**4.8**	13.0
Mz_f	-0.0	-3.1	-0.2	0.1	0.4	**-6.2**	-0.0	16.0	-0.1	0.1	0.2	**39.9**

Member 148

Fx_i	**-0.1**	9.7	0.4	0.7	-1.6	34.9	**0.0**	-0.0	0.2	0.0	-0.6	-0.1
Fy_i	-0.0	**-3.3**	-0.2	-0.2	0.6	-9.7	-0.1	**15.1**	-0.1	1.1	-0.0	52.2
Fz_i	-0.0	2.5	**-2.3**	0.7	6.9	9.6	-0.1	7.2	**2.3**	-0.1	-7.3	25.2
Mx_i	-0.0	0.7	1.7	**-0.5**	-5.1	2.5	-0.0	8.4	-1.3	**1.7**	3.9	27.5
My_i	-0.1	7.2	2.3	-0.1	**-7.3**	25.2	-0.0	2.5	-2.3	0.7	**6.9**	9.6
Mz_i	-0.0	-3.3	-0.2	-0.2	0.6	**-9.7**	-0.1	15.1	-0.1	1.1	-0.0	**52.2**
Fx_f	**-0.1**	9.7	0.4	0.7	-1.2	25.6	**0.0**	-0.0	0.2	0.0	-0.4	-0.1
Fy_f	-0.0	**-3.3**	-0.2	-0.2	0.3	-6.6	-0.1	**15.1**	-0.1	1.1	-0.1	37.8
Fz_f	-0.0	2.5	**-2.3**	0.7	4.7	7.3	-0.1	7.2	**2.3**	-0.1	-5.1	18.3
Mx_f	-0.0	0.7	1.7	**-0.5**	-3.5	1.8	-0.0	8.4	-1.3	**1.7**	2.6	19.5
My_f	-0.1	7.2	2.3	-0.1	**-5.1**	18.3	-0.0	2.5	-2.3	0.7	**4.7**	7.3
Mz_f	-0.0	-3.3	-0.2	-0.2	0.3	**-6.6**	-0.1	15.1	-0.1	1.1	-0.1	**37.8**

Member 149

Fx_i	**-0.5**	7.9	0.4	1.2	-3.1	28.6	**0.0**	-0.0	0.1	0.0	-0.4	-0.1
Fy_i	-0.1	**-3.4**	-0.2	-0.6	0.2	-10.0	-0.3	**12.3**	-0.0	2.1	-1.0	42.6
Fz_i	-0.2	0.6	**-2.3**	0.7	6.4	3.2	-0.4	7.3	**2.3**	0.6	-8.4	25.4
Mx_i	-0.1	-2.8	0.4	**-0.6**	-1.4	-8.4	-0.1	9.3	-0.0	**2.7**	-0.3	30.3
My_i	-0.4	8.4	2.3	0.9	**-8.4**	29.1	-0.1	-0.5	-2.3	0.3	**6.4**	-0.5
Mz_i	-0.1	-3.4	-0.2	-0.6	0.2	**-10.0**	-0.3	12.3	-0.0	2.1	-1.0	**42.6**
Fx_f	**-0.5**	7.9	0.4	1.2	-2.8	21.1	**0.0**	-0.0	0.1	0.0	-0.2	-0.1
Fy_f	-0.1	**-3.4**	-0.2	-0.6	0.0	-6.8	-0.3	**12.3**	-0.0	2.1	-1.0	30.9
Fz_f	-0.2	0.6	**-2.3**	0.7	4.2	2.6	-0.4	7.3	**2.3**	0.6	-6.2	18.4
Mx_f	-0.1	-2.8	0.4	**-0.6**	-1.1	-5.7	-0.1	9.3	-0.0	**2.7**	-0.4	21.4
My_f	-0.4	8.4	2.3	0.9	**-6.2**	21.1	-0.1	-0.5	-2.3	0.3	**4.2**	-0.1
Mz_f	-0.1	-3.4	-0.2	-0.6	0.0	**-6.8**	-0.3	12.3	-0.0	2.1	-1.0	**30.9**

Member 150

Fx_i	**-2.0**	5.2	0.3	1.4	-8.2	18.9	**0.0**	-0.1	-0.3	0.0	1.0	-0.2
Fy_i	-0.4	**-2.9**	-0.1	-1.0	-1.1	-8.6	-1.3	**7.7**	0.0	2.4	-5.1	26.8
Fz_i	-0.7	-1.3	**-1.9**	-0.4	3.2	-3.4	-0.5	3.4	**1.9**	2.0	-7.4	11.4
Mx_i	-0.4	-2.9	0.1	**-1.1**	-1.8	-8.5	-0.4	4.5	0.4	**3.3**	-2.7	15.0
My_i	-1.9	4.9	1.2	1.2	**-10.9**	18.0	-0.1	0.3	-1.5	0.1	**4.4**	1.0
Mz_i	-0.3	-2.9	-0.1	-1.0	-0.8	**-8.6**	-1.3	7.7	0.0	2.4	-5.1	**26.8**
Fx_f	**-2.0**	5.2	0.3	1.4	-8.0	14.0	**0.0**	-0.1	-0.3	0.0	0.7	-0.1
Fy_f	-0.4	**-2.9**	-0.1	-1.0	-1.3	-5.8	-1.3	**7.7**	0.0	2.4	-5.1	19.4
Fz_f	-0.7	-1.3	**-1.9**	-0.4	1.4	-2.2	-0.5	3.4	**1.9**	2.0	-5.6	8.2
Mx_f	-0.4	-2.9	0.1	**-1.1**	-1.8	-5.8	-0.4	4.5	0.4	**3.3**	-2.4	10.7
My_f	-1.9	4.9	1.2	1.2	**-9.8**	13.3	-0.1	0.3	-1.5	0.1	**3.0**	0.8
Mz_f	-0.3	-2.9	-0.1	-1.0	-0.9	**-5.8**	-1.3	7.7	0.0	2.4	-5.1	**19.4**

Member 365

Fx_i	**-128.7**	0.0	-17.1	0.0	29.9	0.0	**25.3**	-0.0	-5.9	-0.0	10.3	-0.0
Fy_i	-47.8	**-0.0**	-9.2	-0.0	16.1	-0.0	-68.5	**0.0**	-27.4	0.0	47.9	0.0
Fz_i	-102.7	0.0	**-62.7**	0.0	109.7	0.0	-31.0	-0.0	**1.9**	-0.0	-3.4	-0.0
Mx_i	-55.3	0.0	-12.7	**-0.0**	22.3	0.0	-15.1	0.0	-8.0	**0.0**	14.0	0.0
My_i	-31.0	-0.0	1.9	-0.0	**-3.4**	-0.0	-102.7	0.0	-62.7	0.0	**109.7**	0.0
Mz_i	-47.5	-0.0	-9.3	-0.0	16.4	**-0.0**	-66.7	0.0	-25.1	0.0	43.8	**0.0**
Fx_f	**-128.7**	0.0	-17.1	0.0	-0.0	-0.0	**25.3**	-0.0	-5.9	-0.0	0.0	0.0
Fy_f	-47.8	**-0.0**	-9.2	-0.0	-0.0	0.0	-68.5	**0.0**	-27.4	0.0	0.0	-0.0
Fz_f	-102.7	0.0	**-62.7**	0.0	0.0	-0.0	-31.0	-0.0	**1.9**	-0.0	0.0	0.0
Mx_f	-55.3	0.0	-12.7	**-0.0**	0.0	-0.0	-15.1	0.0	-8.0	**0.0**	0.0	-0.0
My_f	-102.2	-0.0	-36.6	0.0	**-0.0**	0.0	-32.5	-0.0	-21.7	0.0	**0.0**	0.0
Mz_f	-95.7	0.0	-42.4	0.0	0.0	**-0.0**	-17.0	-0.0	-16.0	0.0	0.0	**0.0**

Member 366

Fx_i	**-296.1**	-0.0	-2.9	0.0	26.8	0.0	**17.6**	-0.0	-1.2	-0.0	9.9	-0.0
Fy_i	-194.2	**-0.0**	-1.1	0.0	7.6	-0.0	-165.8	**0.0**	-3.9	-0.0	37.3	0.0
Fz_i	-262.7	0.0	**-15.8**	-0.0	163.6	0.0	-103.7	0.0	**2.0**	0.0	-25.3	0.0
Mx_i	-246.0	0.0	-7.4	**-0.0**	73.7	0.0	-50.6	0.0	-3.0	**0.0**	31.7	0.0
My_i	-107.3	0.0	2.0	0.0	**-25.4**	0.0	-250.5	-0.0	-15.7	-0.0	**164.4**	-0.0
Mz_i	-148.6	-0.0	-1.6	-0.0	12.2	**-0.0**	-78.1	0.0	-2.3	0.0	23.2	**0.0**

Fx,	**-296.1**	-0.0	-2.9	0.0	21.7	0.0	**17.6**	-0.0	-1.2	-0.0	7.7	-0.0
Fy,	-194.2	**-0.0**	-1.1	0.0	5.7	0.0	-165.8	**0.0**	-3.9	-0.0	30.5	-0.0
Fz,	-262.7	0.0	**-15.8**	-0.0	135.9	-0.0	-103.7	0.0	**2.0**	0.0	-21.8	-0.0
Mx,	-246.0	0.0	-7.4	**-0.0**	60.7	-0.0	-50.6	0.0	-3.0	**0.0**	26.5	-0.0
My,	-107.6	0.0	2.0	0.0	**-22.0**	-0.0	-250.4	-0.0	-15.7	-0.0	**136.9**	-0.0
Mz,	-200.3	0.0	-4.8	-0.0	38.5	**-0.0**	-168.6	-0.0	-0.7	0.0	1.5	**0.0**

Member 367

Fx,	**-334.3**	-0.0	-4.7	-0.0	20.6	0.0	**20.5**	-0.0	-0.7	-0.0	9.9	-0.0
Fy,	-174.4	**-0.0**	-7.5	-0.0	66.0	-0.0	-162.0	**0.0**	-5.1	-0.0	42.9	0.0
Fz,	-301.9	-0.0	**-17.5**	-0.0	168.0	-0.0	1.5	-0.0	1.5	0.0	-0.8	-0.0
Mx,	-288.8	-0.0	-5.3	**-0.0**	19.6	-0.0	-40.8	-0.0	-2.3	**0.0**	24.9	-0.0
My,	-174.8	-0.0	-0.1	-0.0	**-29.1**	-0.0	-292.2	-0.0	-17.4	-0.0	**169.7**	-0.0
Mz,	-198.5	-0.0	-8.6	-0.0	75.4	**-0.0**	-190.3	0.0	-6.1	-0.0	53.0	**0.0**
Fx,	**-334.3**	-0.0	-4.7	-0.0	12.4	0.0	**20.5**	-0.0	-0.7	-0.0	8.8	0.0
Fy,	-174.4	**-0.0**	-7.5	-0.0	52.9	0.0	-162.0	**0.0**	-5.1	-0.0	34.0	-0.0
Fz,	-301.9	-0.0	**-17.5**	-0.0	137.3	0.0	1.5	-0.0	**1.5**	0.0	1.8	0.0
Mx,	-288.8	-0.0	-5.3	**-0.0**	10.3	0.0	-40.8	-0.0	-2.3	**0.0**	20.9	0.0
My,	-173.8	-0.0	-0.3	-0.0	**-29.5**	0.0	-291.5	-0.0	-16.9	-0.0	**139.8**	0.0
Mz,	-168.7	0.0	-5.7	-0.0	34.4	**-0.0**	-171.5	-0.0	-7.3	0.0	51.6	**0.0**

Member 368

Fx,	**-335.6**	-0.0	-3.5	0.0	17.8	-0.0	**27.4**	0.0	-1.0	-0.0	13.2	-0.0
Fy,	-154.3	**-0.0**	-6.4	-0.0	78.1	-0.0	-174.7	**0.0**	-4.6	-0.0	42.0	0.0
Fz,	-284.9	-0.0	**-14.8**	-0.0	167.8	-0.0	-9.2	-0.0	**1.5**	0.0	-2.9	-0.0
Mx,	-168.1	0.0	-3.6	**-0.0**	16.6	-0.0	-91.5	-0.0	-1.4	**0.0**	6.6	-0.0
My,	-175.4	-0.0	0.2	-0.0	**-29.6**	-0.0	-281.8	-0.0	-14.7	-0.0	**168.7**	-0.0
Mz,	-152.2	-0.0	-6.5	-0.0	79.2	**-0.0**	-172.2	0.0	-4.6	-0.0	42.8	**0.0**
Fx,	**-335.6**	-0.0	-3.5	0.0	11.7	0.0	**27.4**	0.0	-1.0	-0.0	11.4	-0.0
Fy,	-154.3	**-0.0**	-6.4	-0.0	66.8	0.0	-174.7	**0.0**	-4.6	-0.0	34.0	-0.0
Fz,	-284.9	-0.0	**-14.8**	-0.0	141.9	0.0	-9.2	-0.0	**1.5**	0.0	-0.3	0.0
Mx,	-168.1	0.0	-3.6	**-0.0**	10.2	-0.0	-91.5	-0.0	-1.4	**0.0**	4.2	0.0
My,	-175.6	-0.0	0.2	-0.0	**-29.3**	0.0	-279.0	-0.0	-14.3	-0.0	**143.3**	0.0
Mz,	-187.5	0.0	-5.6	-0.0	45.7	**-0.0**	-141.6	-0.0	-6.5	-0.0	67.6	**0.0**

Member 369

Fx,	**-337.1**	-0.0	-3.5	-0.0	17.9	-0.0	**27.5**	-0.0	-1.0	-0.0	13.3	-0.0
Fy,	-204.8	**-0.0**	-6.1	-0.0	57.8	-0.0	-96.7	**0.0**	-3.4	0.0	40.0	0.0
Fz,	-283.7	0.0	**-14.3**	-0.0	168.0	0.0	-11.4	0.0	**1.5**	0.0	-4.1	0.0
Mx,	-254.2	-0.0	-4.7	**-0.0**	24.2	-0.0	-6.7	0.0	-0.4	**0.0**	0.0	0.0
My,	-176.4	0.0	0.0	-0.0	**-29.1**	0.0	-282.0	0.0	-14.3	-0.0	**168.1**	0.0
Mz,	-171.0	-0.0	-2.8	0.0	13.0	**-0.0**	-101.9	0.0	-3.3	0.0	39.5	**0.0**
Fx,	**-337.1**	-0.0	-3.5	-0.0	11.7	0.0	**27.5**	-0.0	-1.0	-0.0	11.5	0.0
Fy,	-204.8	**-0.0**	-6.1	-0.0	47.1	0.0	-96.7	**0.0**	-3.4	0.0	34.0	-0.0
Fz,	-283.7	0.0	**-14.3**	-0.0	142.9	-0.0	-11.4	0.0	**1.5**	0.0	-1.4	0.0
Mx,	-254.2	-0.0	-4.7	**-0.0**	15.9	0.0	-6.7	0.0	-0.4	**0.0**	-0.8	-0.0
My,	-177.6	0.0	-0.1	-0.0	**-29.1**	-0.0	-278.7	0.0	-13.8	-0.0	**143.5**	-0.0
Mz,	-185.4	0.0	-3.0	0.0	3.0	**-0.0**	-204.5	-0.0	-6.1	-0.0	47.2	**0.0**

Member 370

Fx,	**-335.5**	-0.0	-3.3	-0.0	17.4	-0.0	**27.2**	-0.0	-0.9	0.0	13.1	-0.0
Fy,	-164.5	**-0.0**	-2.0	-0.0	-0.5	-0.0	-147.5	**0.0**	-2.5	0.0	12.5	0.0
Fz,	-283.0	-0.0	**-14.2**	0.0	168.1	-0.0	-10.9	-0.0	**1.5**	0.0	-4.3	-0.0
Mx,	-263.9	-0.0	-4.7	**-0.0**	21.3	-0.0	3.9	0.0	-0.3	**0.0**	2.6	0.0
My,	-175.4	-0.0	0.2	-0.0	**-29.4**	-0.0	-282.2	-0.0	-14.2	0.0	**168.2**	-0.0
Mz,	-175.7	-0.0	-1.8	-0.0	-4.5	**-0.0**	-155.3	0.0	-3.6	-0.0	25.0	**0.0**
Fx,	**-335.5**	-0.0	-3.3	-0.0	11.7	-0.0	**27.2**	-0.0	-0.9	0.0	11.4	0.0
Fy,	-164.5	**-0.0**	-2.0	-0.0	-4.0	0.0	-147.5	**0.0**	-2.5	0.0	8.2	-0.0
Fz,	-283.0	-0.0	**-14.2**	0.0	143.2	0.0	-10.9	-0.0	**1.5**	0.0	-1.6	-0.0
Mx,	-263.9	-0.0	-4.7	**-0.0**	13.1	-0.0	3.9	0.0	-0.3	**0.0**	2.1	-0.0
My,	-175.7	-0.0	0.2	-0.0	**-29.1**	0.0	-279.3	-0.0	-13.8	0.0	**143.6**	0.0
Mz,	-177.8	0.0	-4.3	-0.0	29.2	**-0.0**	-164.9	-0.0	-2.0	-0.0	-4.1	**0.0**

Member 371

Fx,	**-333.8**	-0.0	-3.8	0.0	19.4	-0.0	**20.8**	0.0	-0.4	0.0	9.2	0.0
Fy,	-185.0	**-0.0**	-1.8	0.0	2.2	-0.0	-119.2	**0.0**	-4.9	-0.0	49.6	0.0
Fz,	-295.3	0.0	**-14.5**	0.0	164.7	0.0	-1.4	-0.0	**1.5**	-0.0	-2.1	-0.0
Mx,	-237.1	0.0	-10.0	**-0.0**	123.8	0.0	-55.6	-0.0	-0.6	**0.0**	-0.8	-0.0
My,	-175.4	-0.0	-0.1	0.0	**-28.2**	-0.0	-291.7	0.0	-14.4	0.0	**165.7**	0.0
Mz,	-214.2	-0.0	-1.9	0.0	-2.9	**-0.0**	-89.8	0.0	-3.6	-0.0	33.2	**0.0**
Fx,	**-333.8**	-0.0	-3.8	0.0	12.7	0.0	**20.8**	0.0	-0.4	0.0	8.5	-0.0
Fy,	-185.0	**-0.0**	-1.8	0.0	-1.0	0.0	-119.2	**0.0**	-4.9	-0.0	40.9	-0.0
Fz,	-295.3	0.0	**-14.5**	0.0	139.3	-0.0	-1.4	-0.0	**1.5**	-0.0	0.5	0.0
Mx,	-237.1	0.0	-10.0	**-0.0**	106.4	-0.0	-55.6	-0.0	-0.6	**0.0**	-1.8	0.0
My,	-176.0	-0.0	-0.2	0.0	**-28.4**	0.0	-289.2	0.0	-13.9	0.0	**140.7**	-0.0
Mz,	-151.5	0.0	-5.5	-0.0	49.0	**-0.0**	-173.3	-0.0	-1.5	0.0	0.5	**0.0**

Member 372

Fx,	**-298.2**	0.0	-5.0	0.0	33.7	0.0	**17.3**	0.0	-0.8	0.0	8.1	0.0
Fy,	-124.9	**-0.0**	-3.3	0.0	30.3	-0.0	-216.8	**0.0**	-12.0	-0.0	128.5	0.0
Fz,	-261.6	0.0	**-17.2**	0.0	164.8	0.0	-8.4	-0.0	**2.1**	0.0	0.9	-0.0
Mx,	-221.7	0.0	-11.2	**-0.0**	123.2	0.0	-49.5	0.0	-1.2	**0.0**	3.3	0.0
My,	-106.0	0.0	0.5	0.0	**-21.1**	0.0	-261.8	0.0	-16.7	0.0	**166.2**	0.0
Mz,	-152.5	-0.0	-4.7	0.0	42.6	**-0.0**	-209.5	0.0	-12.1	0.0	125.5	**0.0**
Fx,	**-298.2**	0.0	-5.0	0.0	24.9	-0.0	**17.3**	0.0	-0.8	0.0	6.7	-0.0
Fy,	-124.9	**-0.0**	-3.3	0.0	24.6	0.0	-216.8	**0.0**	-12.0	-0.0	107.4	-0.0
Fz,	-261.6	0.0	**-17.2**	0.0	134.7	-0.0	-8.4	-0.0	**2.1**	0.0	4.6	0.0
Mx,	-221.7	0.0	-11.2	**-0.0**	103.6	-0.0	-49.5	0.0	-1.2	**0.0**	1.2	-0.0
My,	-107.6	0.0	0.3	0.0	**-20.4**	-0.0	-249.5	0.0	-16.1	0.0	**137.7**	-0.0
Mz,	-218.8	0.0	-12.3	-0.0	106.9	**-0.0**	-123.4	-0.0	-3.4	0.0	25.0	**0.0**

Member 373

Fx,	**-113.4**	-1.4	-14.7	-0.0	25.7	-2.4	**23.3**	0.6	-1.8	0.0	3.2	1.0
Fy,	-102.2	**-1.4**	-13.1	-0.0	22.9	-2.4	22.5	**0.6**	-1.4	0.0	2.4	1.0
Fz,	-89.0	-0.9	**-38.0**	-0.0	66.6	-1.5	-1.7	-0.1	**1.4**	-0.0	-2.5	-0.2
Mx,	-94.0	-1.2	-14.1	**-0.0**	24.7	-2.1	13.4	0.3	-0.8	**0.0**	1.4	0.5
My,	-1.7	-0.1	1.4	-0.0	**-2.5**	-0.2	-89.0	-0.9	-38.0	-0.0	**66.6**	-1.5
Mz,	-102.2	-1.4	-13.1	-0.0	22.9	**-2.4**	22.5	0.6	-1.4	0.0	2.4	**1.0**
Fx,	**-113.4**	-1.4	-14.7	-0.0	-0.0	0.0	**23.3**	0.6	-1.8	0.0	-0.0	-0.0
Fy,	-102.2	**-1.4**	-13.1	-0.0	0.0	0.0	22.5	**0.6**	-1.4	0.0	-0.0	-0.0
Fz,	-89.0	-0.9	**-38.0**	-0.0	-0.0	0.0	-1.7	-0.1	**1.4**	-0.0	0.0	-0.0
Mx,	-94.0	-1.2	-14.1	**-0.0**	-0.0	0.0	13.4	0.3	-0.8	**0.0**	-0.0	-0.0
My,	-77.0	-0.4	-31.5	0.0	**-0.0**	-0.0	-43.8	-0.7	-5.4	-0.0	**0.0**	-0.0
Mz,	-8.3	0.0	-3.3	0.0	-0.0	**-0.0**	-65.0	-0.8	-28.2	-0.0	-0.0	0.0

Member 374

Fx,	**-18.0**	-0.0	23.6	0.0	-41.3	-0.0	**12.7**	-0.0	-4.3	0.0	7.5	-0.0
Fy,	2.5	**-0.0**	4.8	0.0	-8.4	-0.0	-1.7	**0.0**	7.6	-0.0	-13.3	0.0
Fz,	11.7	-0.0	**-5.3**	-0.0	9.3	-0.0	-18.0	-0.0	**23.6**	0.0	-41.3	-0.0
Mx,	-3.3	-0.0	13.1	**-0.0**	-22.9	-0.0	-2.6	0.0	3.5	**0.0**	-6.2	0.0
My,	-18.0	-0.0	23.6	0.0	**-41.3**	-0.0	11.7	-0.0	-5.3	-0.0	**9.3**	-0.0
Mz,	5.4	-0.0	1.9	0.0	-3.3	**-0.0**	-10.5	0.0	17.2	0.0	-30.1	**0.0**
Fx,	**-18.0**	-0.0	23.6	0.0	0.0	0.0	**12.7**	-0.0	-4.3	0.0	-0.0	0.0
Fy,	2.5	**-0.0**	4.8	0.0	-0.0	0.0	-1.7	**0.0**	7.6	-0.0	0.0	-0.0
Fz,	11.7	-0.0	**-5.3**	-0.0	0.0	0.0	-18.0	-0.0	**23.6**	0.0	0.0	0.0
Mx,	-3.3	-0.0	13.1	**-0.0**	0.0	0.0	-2.6	0.0	3.5	**0.0**	-0.0	-0.0
My,	-2.8	-0.0	12.9	0.0	**-0.0**	0.0	6.3	-0.0	-2.0	-0.0	**0.0**	0.0
Mz,	-2.6	0.0	8.6	-0.0	0.0	**-0.0**	1.6	-0.0	5.0	0.0	-0.0	**0.0**

Member 375

Fx,	**-57.6**	0.0	10.8	0.0	-110.3	0.0	**11.0**	0.0	-0.7	-0.0	7.3	0.0
Fy,	-44.3	**-0.0**	8.5	0.0	-90.4	-0.0	-16.4	**0.0**	4.1	0.0	-39.1	0.0
Fz,	10.0	0.0	**-1.2**	0.0	9.3	0.0	-56.1	0.0	**11.0**	-0.0	-110.3	0.0
Mx,	-28.7	0.0	6.1	**-0.0**	-68.4	0.0	-4.1	0.0	0.9	**0.0**	-9.0	0.0
My,	-57.4	0.0	10.9	-0.0	**-110.6**	0.0	10.5	0.0	-1.2	0.0	**9.6**	0.0
Mz,	-44.3	-0.0	8.5	0.0	-90.4	**-0.0**	-16.4	0.0	4.1	0.0	-39.1	**0.0**
Fx,	**-57.6**	0.0	10.8	0.0	-91.4	-0.0	**11.0**	0.0	-0.7	-0.0	6.0	-0.0
Fy,	-44.3	**-0.0**	8.5	0.0	-75.5	0.0	-16.4	**0.0**	4.1	0.0	-32.0	-0.0
Fz,	10.0	0.0	**-1.2**	0.0	7.2	-0.0	-56.1	0.0	**11.0**	-0.0	-91.1	-0.0
Mx,	-28.7	0.0	6.1	**-0.0**	-57.8	-0.0	-4.1	0.0	0.9	**0.0**	-7.4	-0.0

My,	-57.5	0.0	10.8	-0.0	**-91.6**	-0.0	10.8	0.0	-1.2	0.0	**7.4**	-0.0
Mz,	-33.9	0.0	7.4	0.0	-62.3	**-0.0**	-35.8	-0.0	6.5	0.0	-57.4	**0.0**

Member 376

Fx,	**-70.6**	0.0	15.1	-0.0	-146.8	0.0	**11.7**	-0.0	-1.9	-0.0	12.6	-0.0
Fy,	-26.4	**-0.0**	4.1	0.0	-68.3	-0.0	-40.6	**0.0**	8.1	-0.0	-91.3	0.0
Fz,	9.7	-0.0	**-2.2**	0.0	12.2	-0.0	-65.6	0.0	**15.9**	0.0	-143.0	0.0
Mx,	-25.3	-0.0	4.4	**-0.0**	-66.1	-0.0	-10.4	0.0	1.8	**0.0**	-25.6	-0.0
My,	-69.5	0.0	15.6	-0.0	**-147.5**	0.0	11.1	-0.0	-2.0	0.0	**12.7**	-0.0
Mz,	-21.6	-0.0	3.2	0.0	-57.5	**-0.0**	-46.3	0.0	9.1	-0.0	-102.4	**0.0**
Fx,	**-70.6**	0.0	15.1	-0.0	-120.3	-0.0	**11.7**	-0.0	-1.9	-0.0	9.2	0.0
Fy,	-26.4	**-0.0**	4.1	0.0	-61.2	0.0	-40.6	**0.0**	8.1	-0.0	-77.2	-0.0
Fz,	9.7	-0.0	**-2.2**	0.0	8.3	0.0	-65.6	0.0	**15.9**	0.0	-115.2	-0.0
Mx,	-25.3	-0.0	4.4	**-0.0**	-58.4	0.0	-10.4	0.0	1.8	**0.0**	-22.5	-0.0
My,	-70.1	0.0	15.1	-0.0	**-120.4**	-0.0	11.4	-0.0	-1.9	0.0	**9.3**	0.0
Mz.	-43.9	0.0	9.2	-0.0	-83.8	**-0.0**	-21.6	-0.0	3.5	0.0	-51.1	**0.0**

Member 377

Fx,	**-72.9**	0.0	12.6	0.0	-148.3	0.0	**16.8**	0.0	-2.4	-0.0	17.6	0.0
Fy,	-33.2	**-0.0**	6.6	-0.0	-81.6	-0.0	-20.8	**0.0**	2.4	0.0	-49.9	0.0
Fz,	14.7	0.0	**-2.6**	-0.0	17.1	0.0	-68.4	0.0	**13.3**	0.0	-146.1	0.0
Mx;	-33.0	-0.0	5.9	**-0.0**	-85.1	-0.0	-14.3	0.0	2.9	**0.0**	-31.6	0.0
My;	-72.1	0.0	13.2	0.0	**-149.5**	0.0	16.4	0.0	-2.4	-0.0	**17.7**	0.0
Mz,	-33.2	-0.0	6.6	-0.0	-81.6	**-0.0**	-20.8	0.0	2.4	0.0	-49.9	**0.0**
Fx,	**-72.9**	0.0	12.6	0.0	-126.4	-0.0	**16.8**	0.0	-2.4	-0.0	13.4	-0.0
Fy,	-33.2	**-0.0**	6.6	-0.0	-70.0	0.0	-20.8	**0.0**	2.4	0.0	-45.7	-0.0
Fz,	14.7	0.0	**-2.6**	-0.0	12.6	-0.0	-68.4	0.0	**13.3**	0.0	-122.9	-0.0
Mx,	-33.0	-0.0	5.9	**-0.0**	-74.8	0.0	-14.3	0.0	2.9	**0.0**	-26.5	-0.0
My,	-72.4	0.0	12.9	0.0	**-126.5**	-0.0	16.4	0.0	-2.4	-0.0	**13.5**	-0.0
Mz,	-23.4	0.0	3.0	-0.0	-56.2	**-0.0**	-22.1	-0.0	4.7	0.0	-45.4	**0.0**

Member 378

Fx,	**-74.2**	0.0	12.1	0.0	-148.8	0.0	**17.1**	-0.0	-2.4	-0.0	17.9	-0.0
Fy.	-25.7	**-0.0**	4.0	-0.0	-61.8	-0.0	-45.8	**0.0**	8.4	-0.0	-103.0	0.0
Fz.	14.3	-0.0	**-2.7**	-0.0	17.5	-0.0	-69.0	0.0	**12.9**	0.0	-146.8	0.0
Mx,	-41.6	-0.0	7.1	**-0.0**	-104.0	-0.0	-9.4	-0.0	1.7	**0.0**	-21.6	-0.0
My,	-73.2	0.0	12.8	0.0	**-150.2**	0.0	16.4	-0.0	-2.6	0.0	**18.1**	-0.0
Mz.	-31.5	-0.0	5.2	-0.0	-77.0	**-0.0**	-37.1	0.0	7.1	-0.0	-85.5	**0.0**
Fx,	**-74.2**	0.0	12.1	0.0	-127.6	-0.0	**17.1**	-0.0	-2.4	-0.0	13.7	0.0
Fy,	-25.7	**-0.0**	4.0	-0.0	-54.9	0.0	-45.8	**0.0**	8.4	-0.0	-88.3	-0.0
Fz,	14.3	-0.0	**-2.7**	-0.0	12.8	0.0	-69.0	0.0	**12.9**	0.0	-124.2	-0.0
Mx,	-41.6	-0.0	7.1	**-0.0**	-91.6	0.0	-9.4	-0.0	1.7	**0.0**	-18.6	-0.0
My.	-73.6	0.0	12.8	0.0	**-127.8**	-0.0	17.0	-0.0	-2.4	-0.0	**13.8**	0.0
Mz.	-57.4	0.0	10.6	-0.0	-109.8	**-0.0**	-18.0	-0.0	2.6	-0.0	-41.0	**0.0**

Member 379

Fx,	**-73.2**	0.0	12.1	0.0	-148.8	0.0	**17.1**	-0.0	-2.5	-0.0	18.2	-0.0
Fy,	-32.6	**-0.0**	3.9	0.0	-82.6	-0.0	-28.3	**0.0**	6.2	0.0	-63.3	0.0
Fz,	15.2	0.0	**-2.7**	-0.0	17.9	0.0	-68.7	0.0	**12.8**	0.0	-147.0	0.0
Mx,	-46.5	0.0	9.5	**-0.0**	-116.1	0.0	-3.0	-0.0	0.5	**0.0**	-5.5	-0.0
My,	-72.2	0.0	12.8	0.0	**-150.2**	0.0	16.5	0.0	-2.6	-0.0	**18.4**	0.0
Mz,	-32.6	-0.0	3.9	0.0	-82.6	**-0.0**	-28.3	0.0	6.2	0.0	-63.3	**0.0**
Fx,	**-73.2**	0.0	12.1	0.0	-127.7	-0.0	**17.1**	-0.0	-2.5	-0.0	13.9	0.0
Fy,	-32.6	**-0.0**	3.9	0.0	-75.8	0.0	-28.3	**0.0**	6.2	0.0	-52.5	-0.0
Fz,	15.2	0.0	**-2.7**	-0.0	13.2	-0.0	-68.7	0.0	**12.8**	0.0	-124.5	-0.0
Mx,	-46.5	0.0	9.5	**-0.0**	-99.4	-0.0	-3.0	-0.0	0.5	**0.0**	-4.6	0.0
My,	-72.4	0.0	12.7	0.0	**-127.9**	-0.0	16.7	-0.0	-2.5	-0.0	**14.0**	0.0
Mz,	-42.0	0.0	8.9	0.0	-80.0	**-0.0**	-25.3	-0.0	3.1	0.0	-57.6	**0.0**

Member 380

Fx.	**-71.4**	-0.0	12.7	0.0	-147.6	-0.0	**11.7**	0.0	-1.6	0.0	12.8	0.0
Fy,	-38.1	**-0.0**	6.2	-0.0	-83.0	-0.0	-17.9	**0.0**	3.4	-0.0	-48.1	0.0
Fz,	9.8	0.0	**-1.8**	0.0	12.6	0.0	-66.8	-0.0	**13.3**	-0.0	-145.0	-0.0
Mx,	-43.9	-0.0	8.3	**-0.0**	-103.4	-0.0	-1.9	-0.0	0.1	**0.0**	-5.0	-0.0
My.	-70.3	0.0	13.1	-0.0	**-148.3**	-0.0	11.1	0.0	-1.7	0.0	**13.0**	0.0

Mz,	-34.6	-0.0	5.6	-0.0	-73.1	**-0.0**	-19.9	0.0	3.8	-0.0	-54.0	**0.0**
Fx,	**-71.4**	-0.0	12.7	**0.0**	-125.4	0.0	**11.7**	0.0	-1.6	0.0	10.0	-0.0
Fy,	-38.1	**-0.0**	6.2	-0.0	-72.0	0.0	-17.9	**0.0**	3.4	-0.0	-42.1	-0.0
Fz,	9.8	0.0	**-1.8**	0.0	9.4	-0.0	-66.8	-0.0	**13.3**	-0.0	-121.7	0.0
Mx,	-43.9	-0.0	8.3	**-0.0**	-88.9	0.0	-1.9	-0.0	0.1	**0.0**	-4.7	-0.0
My,	-70.8	-0.0	13.0	-0.0	**-125.5**	0.0	11.4	0.0	-1.7	0.0	**10.0**	-0.0
Mz,	-31.5	0.0	6.6	-0.0	-64.4	**-0.0**	-31.6	-0.0	5.0	-0.0	-61.3	**0.0**

Member 381

Fx,	**-60.2**	-0.0	13.9	0.0	-110.2	-0.0	**11.2**	-0.0	-2.1	0.0	10.9	-0.0
Fy,	-22.9	**-0.0**	8.4	0.0	-48.8	-0.0	-29.3	**0.0**	4.4	0.0	-56.6	0.0
Fz,	9.0	-0.0	**-2.4**	0.0	10.7	-0.0	-56.9	-0.0	**14.6**	0.0	-109.6	-0.0
Mx,	-44.9	-0.0	12.7	**0.0**	-89.2	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-59.1	-0.0	14.4	0.0	**-110.8**	-0.0	10.1	-0.0	-2.3	0.0	**11.1**	-0.0
Mz,	-22.9	-0.0	8.4	0.0	-48.8	**-0.0**	-29.3	0.0	4.4	0.0	-56.6	**0.0**
Fx,	**-60.2**	-0.0	13.9	0.0	-85.9	0.0	**11.2**	-0.0	-2.1	0.0	7.2	0.0
Fy,	-22.9	**-0.0**	8.4	0.0	-34.1	0.0	-29.3	**0.0**	4.4	0.0	-49.0	-0.0
Fz,	9.0	-0.0	**-2.4**	0.0	6.5	0.0	-56.9	-0.0	**14.6**	0.0	-84.0	0.0
Mx,	-44.9	-0.0	12.7	**0.0**	-67.1	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-58.2	0.0	13.2	0.0	**-86.2**	-0.0	11.0	-0.0	-2.1	0.0	**7.2**	0.0
Mz,	-34.0	0.0	5.4	0.0	-62.4	**-0.0**	-20.0	-0.0	7.6	0.0	-25.5	**0.0**

Member 382

Fx,	**-20.8**	-0.3	36.3	-0.0	-63.5	-0.5	**9.9**	0.3	-0.4	-0.0	0.7	0.5
Fy,	-19.7	**-0.3**	33.8	-0.0	-59.1	-0.5	9.4	**0.3**	-1.5	-0.0	2.6	0.6
Fz,	8.8	0.3	**-2.0**	0.0	3.6	0.5	-19.2	-0.2	**37.4**	-0.0	-65.4	-0.4
Mx,	-11.5	0.0	35.6	**-0.0**	-62.3	0.0	1.7	0.1	-0.4	**0.0**	0.7	0.1
My,	-19.2	-0.2	37.4	-0.0	**-65.4**	-0.4	8.8	0.3	-2.0	0.0	**3.6**	0.5
Mz,	-19.7	-0.3	33.8	-0.0	-59.1	**-0.5**	9.4	0.3	-1.5	-0.0	2.6	**0.6**
Fx,	**-20.8**	-0.3	36.3	-0.0	0.0	-0.0	**9.9**	0.3	-0.4	-0.0	0.0	0.0
Fy,	-19.7	**-0.3**	33.8	-0.0	0.0	-0.0	9.4	**0.3**	-1.5	-0.0	0.0	0.0
Fz,	8.8	0.3	**-2.0**	0.0	0.0	0.0	-19.2	-0.2	**37.4**	-0.0	0.0	-0.0
Mx,	-11.5	0.0	35.6	**-0.0**	0.0	-0.0	1.7	0.1	-0.4	**0.0**	-0.0	0.0
My,	-4.1	-0.0	7.2	0.0	**-0.0**	0.0	-13.7	-0.1	36.3	-0.0	**0.0**	-0.0
Mz,	-16.4	-0.2	26.3	-0.0	0.0	**-0.0**	6.7	0.2	-0.6	-0.0	0.0	**0.0**

Member 391

Fx,	**-296.1**	0.0	-2.9	0.0	21.7	0.0	**17.6**	0.0	-1.2	0.0	7.7	0.0
Fy,	-223.2	**0.0**	-11.7	0.0	102.5	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-262.7	0.0	**-15.8**	0.0	135.9	0.0	-103.7	0.0	**2.0**	0.0	-21.8	0.0
Mx,	-223.2	0.0	-11.7	**0.0**	102.5	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-107.6	0.0	2.0	0.0	**-22.0**	0.0	-250.4	0.0	-15.7	0.0	**136.9**	0.0
Mz,	-223.2	0.0	-11.7	0.0	102.5	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-296.1**	0.0	-2.9	0.0	-17.5	0.0	**17.6**	0.0	-1.2	0.0	-9.0	0.0
Fy,	-223.2	**0.0**	-11.7	0.0	-55.6	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-262.7	0.0	**-15.8**	0.0	-77.2	0.0	-103.7	0.0	**2.0**	0.0	4.9	0.0
Mx,	-223.2	0.0	-11.7	**0.0**	-55.6	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-263.1	0.0	-15.8	0.0	**-77.2**	0.0	-7.5	0.0	0.5	0.0	**6.7**	0.0
Mz,	-223.2	0.0	-11.7	0.0	-55.6	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 392

Fx,	**-334.3**	0.0	-4.7	0.0	12.4	0.0	**20.5**	0.0	-0.7	0.0	8.8	0.0
Fy,	-252.8	**0.0**	-13.1	0.0	106.3	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-301.9	0.0	**-17.5**	0.0	137.3	0.0	1.5	0.0	**1.5**	0.0	1.8	0.0
Mx,	-252.8	0.0	-13.1	**0.0**	106.3	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-173.8	0.0	-0.3	0.0	**-29.5**	0.0	-291.5	0.0	-16.9	0.0	**139.8**	0.0
Mz,	-252.8	0.0	-13.1	0.0	106.3	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-334.3**	0.0	-4.7	0.0	-45.7	0.0	**20.5**	0.0	-0.7	0.0	0.4	0.0
Fy,	-252.8	**0.0**	-13.1	0.0	-55.6	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-301.9	0.0	**-17.5**	0.0	-80.1	0.0	1.5	0.0	**1.5**	0.0	20.4	0.0
Mx,	-252.8	0.0	-13.1	**0.0**	-55.6	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-303.8	0.0	-17.2	0.0	**-80.8**	0.0	4.6	0.0	1.4	0.0	**20.9**	0.0
Mz,	-252.8	0.0	-13.1	0.0	-55.6	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 393

Fx_i	-335.6	0.0	-3.5	0.0	11.7	0.0	**27.4**	0.0	-1.0	0.0	11.4	0.0
Fy_i	-246.8	**0.0**	-10.8	0.0	109.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-284.9	0.0	**-14.8**	0.0	141.9	0.0	-9.2	0.0	**1.5**	0.0	-0.3	0.0
Mx_i	-246.8	0.0	-10.8	**0.0**	109.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-175.6	0.0	0.2	0.0	**-29.3**	0.0	-279.0	0.0	-14.3	0.0	**143.3**	0.0
Mz_i	-246.8	0.0	-10.8	0.0	109.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	-335.6	0.0	-3.5	0.0	-42.0	0.0	**27.4**	0.0	-1.0	0.0	-4.3	0.0
Fy_f	-246.8	**0.0**	-10.8	0.0	-58.4	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-284.9	0.0	**-14.8**	0.0	-87.5	0.0	-9.2	0.0	**1.5**	0.0	22.6	0.0
Mx_f	-246.8	0.0	-10.8	**0.0**	-58.4	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-287.3	0.0	-14.8	0.0	**-88.3**	0.0	-4.6	0.0	1.5	0.0	**23.5**	0.0
Mz_f	-246.8	0.0	-10.8	0.0	-58.4	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 394

Fx_i	**-337.1**	0.0	-3.5	0.0	11.7	0.0	**27.5**	0.0	-1.0	0.0	11.5	0.0
Fy_i	-248.0	**0.0**	-10.5	0.0	109.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-283.7	0.0	**-14.3**	0.0	142.9	0.0	-11.4	0.0	**1.5**	0.0	-1.4	0.0
Mx_i	-248.0	0.0	-10.5	**0.0**	109.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-177.6	0.0	-0.1	0.0	**-29.1**	0.0	-278.7	0.0	-13.8	0.0	**143.5**	0.0
Mz_i	-248.0	0.0	-10.5	0.0	109.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-337.1**	0.0	-3.5	0.0	-45.1	0.0	**27.5**	0.0	-1.0	0.0	-4.9	0.0
Fy_f	-248.0	**0.0**	-10.5	0.0	-59.8	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-283.7	0.0	**-14.3**	0.0	-88.4	0.0	-11.4	0.0	**1.5**	0.0	22.8	0.0
Mx_f	-248.0	0.0	-10.5	**0.0**	-59.8	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-297.7	0.0	-14.3	0.0	**-90.0**	0.0	4.7	0.0	1.5	0.0	**24.4**	0.0
Mz_f	-248.0	0.0	-10.5	0.0	-59.8	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 395

Fx_i	**-335.5**	0.0	-3.3	0.0	11.7	0.0	**27.2**	0.0	-0.9	0.0	11.4	0.0
Fy_i	-246.9	**0.0**	-10.4	0.0	109.3	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-283.0	0.0	**-14.2**	0.0	143.2	0.0	-10.9	0.0	**1.5**	0.0	-1.6	0.0
Mx_i	-245.9	0.0	-10.4	**0.0**	109.3	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-175.7	0.0	0.2	0.0	**-29.1**	0.0	-279.3	0.0	-13.8	0.0	**143.6**	0.0
Mz_i	-245.9	0.0	-10.4	0.0	109.3	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-335.5**	0.0	-3.3	0.0	-42.0	0.0	**27.2**	0.0	-0.9	0.0	-4.1	0.0
Fy_f	-246.9	**0.0**	-10.4	0.0	-60.4	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-283.0	0.0	**-14.2**	0.0	-89.4	0.0	-10.9	0.0	**1.5**	0.0	23.6	0.0
Mx_f	-246.9	0.0	-10.4	**0.0**	-60.4	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-287.5	0.0	-14.2	0.0	**-90.9**	0.0	-4.2	0.0	1.5	0.0	**25.2**	0.0
Mz_f	-246.9	0.0	-10.4	0.0	-60.4	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 396

Fx_i	**-333.8**	0.0	-3.8	0.0	12.7	0.0	**20.8**	0.0	-0.4	0.0	8.5	0.0
Fy_i	-251.3	**0.0**	-10.5	0.0	107.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-295.3	0.0	**-14.5**	0.0	139.3	0.0	-1.4	0.0	**1.5**	0.0	0.5	0.0
Mx_i	-251.3	0.0	-10.5	**0.0**	107.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-176.0	0.0	-0.2	0.0	**-28.4**	0.0	-289.2	0.0	-13.9	0.0	**140.7**	0.0
Mz_i	-251.3	0.0	-10.5	0.0	107.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-333.8**	0.0	-3.8	0.0	-45.6	0.0	**20.8**	0.0	-0.4	0.0	2.5	0.0
Fy_f	-251.3	**0.0**	-10.5	0.0	-54.4	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-295.3	0.0	**-14.5**	0.0	-83.4	0.0	-1.4	0.0	**1.5**	0.0	23.4	0.0
Mx_f	-251.3	0.0	-10.5	**0.0**	-54.4	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-298.4	0.0	-14.5	0.0	**-84.3**	0.0	1.7	0.0	1.5	0.0	**24.3**	0.0
Mz_f	-251.3	0.0	-10.5	0.0	-54.4	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 397

Fx_i	**-298.2**	0.0	-5.0	0.0	24.9	0.0	**17.3**	0.0	-0.8	0.0	6.7	0.0
Fy_i	-222.9	**0.0**	-11.4	0.0	106.6	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-261.6	0.0	**-17.2**	0.0	134.7	0.0	-8.4	0.0	**2.1**	0.0	4.6	0.0
Mx_i	-222.9	0.0	-11.4	**0.0**	106.6	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-107.6	0.0	0.3	0.0	**-20.4**	0.0	-249.5	0.0	-16.1	0.0	**137.7**	0.0
Mz_i	-222.9	0.0	-11.4	0.0	106.6	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-298.2**	0.0	-5.0	0.0	-32.9	0.0	**17.3**	0.0	-0.8	0.0	-3.0	0.0
Fy_f	-222.9	**0.0**	-11.4	0.0	-23.5	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-261.6	0.0	**-17.2**	0.0	-62.5	0.0	-8.4	0.0	**2.1**	0.0	29.2	0.0
Mx_f	-222.9	0.0	-11.4	**0.0**	-23.5	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-256.5	0.0	-17.1	0.0	**-65.3**	0.0	-13.5	0.0	2.0	0.0	**32.1**	0.0
Mz_f	-222.9	**0.0**	-11.4	0.0	-23.5	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 398

Fx_i	**-57.6**	0.0	10.8	0.0	-91.4	0.0	**11.0**	0.0	-0.7	0.0	6.0	0.0
Fy_i	-39.8	**0.0**	8.7	0.0	-72.2	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	10.0	0.0	**-1.2**	0.0	7.2	0.0	-56.1	0.0	**11.0**	0.0	-91.1	0.0
Mx_i	-39.8	0.0	8.7	**0.0**	-72.2	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-57.5	0.0	10.8	0.0	**-91.6**	0.0	10.8	0.0	-1.2	0.0	**7.4**	0.0
Mz_i	-39.8	0.0	8.7	0.0	-72.2	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-57.6**	0.0	10.8	0.0	53.9	0.0	**11.0**	0.0	-0.7	0.0	-4.0	0.0
Fy_f	-39.8	**0.0**	8.7	0.0	44.7	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	10.0	0.0	**-1.2**	0.0	-9.6	0.0	-56.1	0.0	**11.0**	0.0	56.6	0.0
Mx_f	-39.8	0.0	8.7	**0.0**	44.7	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	8.9	0.0	-1.2	0.0	**-9.9**	0.0	-54.7	0.0	10.9	0.0	**56.6**	0.0
Mz_f	-39.8	0.0	8.7	0.0	44.7	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 399

Fx_i	**-70.6**	0.0	15.1	0.0	-120.3	0.0	**11.7**	0.0	-1.9	0.0	9.2	0.0
Fy_i	-53.5	**0.0**	13.3	0.0	-100.7	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	9.7	0.0	**-2.2**	0.0	8.3	0.0	-65.6	0.0	**15.9**	0.0	-115.2	0.0
Mx_i	-53.5	0.0	13.3	**0.0**	-100.7	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-70.1	0.0	15.1	0.0	**-120.4**	0.0	11.4	0.0	-1.9	0.0	**9.3**	0.0
Mz_i	-53.5	0.0	13.3	0.0	-100.7	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-70.6**	0.0	15.1	0.0	67.0	0.0	**11.7**	0.0	-1.9	0.0	-14.7	0.0
Fy_f	-53.5	**0.0**	13.3	0.0	64.3	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	9.7	0.0	-2.2	0.0	-18.9	0.0	-65.6	0.0	**15.9**	0.0	81.9	0.0
Mx_f	-53.5	0.0	13.3	**0.0**	64.3	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-16.3	0.0	1.5	0.0	**-24.9**	0.0	-61.9	0.0	15.7	0.0	**85.8**	0.0
Mz_f	-53.5	0.0	13.3	0.0	64.3	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 400

Fx_i	**-72.9**	0.0	12.6	0.0	-126.4	0.0	**16.8**	0.0	-2.4	0.0	13.4	0.0
Fy_i	-50.9	**0.0**	10.7	0.0	-103.9	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	14.7	0.0	**-2.6**	0.0	12.6	0.0	-68.4	0.0	**13.3**	0.0	-122.9	0.0
Mx_i	-50.9	0.0	10.7	**0.0**	-103.9	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-72.4	0.0	12.9	0.0	**-126.5**	0.0	16.4	0.0	-2.4	0.0	**13.5**	0.0
Mz_i	-50.9	0.0	10.7	0.0	-103.9	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-72.9**	0.0	12.6	0.0	68.8	0.0	**16.8**	0.0	-2.4	0.0	-23.6	0.0
Fy_f	-50.9	**0.0**	10.7	0.0	62.2	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	14.7	0.0	**-2.6**	0.0	-27.5	0.0	-68.4	0.0	**13.3**	0.0	83.2	0.0
Mx_f	-50.9	0.0	10.7	**0.0**	62.2	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-3.4	0.0	-0.4	0.0	**-29.7**	0.0	-65.1	0.0	13.1	0.0	**86.7**	0.0
Mz_f	-50.9	0.0	10.7	0.0	62.2	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 401

Fx_i	**-74.2**	0.0	12.1	0.0	-127.6	0.0	**17.1**	0.0	-2.4	0.0	13.7	0.0
Fy_i	-51.9	**0.0**	10.3	0.0	-105.1	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	14.3	0.0	**-2.7**	0.0	12.8	0.0	-69.0	0.0	**12.9**	0.0	-124.2	0.0
Mx_i	-51.9	0.0	10.3	**0.0**	-105.1	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-73.6	0.0	12.8	0.0	**-127.8**	0.0	17.0	0.0	-2.4	0.0	**13.8**	0.0
Mz_i	-51.9	0.0	10.3	0.0	-105.1	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-74.2**	0.0	12.1	0.0	68.4	0.0	**17.1**	0.0	-2.4	0.0	-25.5	0.0
Fy_f	-51.9	**0.0**	10.3	0.0	61.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	14.3	0.0	-2.7	0.0	-30.8	0.0	-69.0	0.0	**12.9**	0.0	84.2	0.0
Mx_f	-51.9	0.0	10.3	**0.0**	61.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-8.3	0.0	-0.1	0.0	**-33.6**	0.0	-65.7	0.0	12.8	0.0	**87.7**	0.0
Mz_f	-51.9	0.0	10.3	0.0	61.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 402

Fx_i	**-73.2**	0.0	12.1	0.0	-127.7	0.0	**17.1**	0.0	-2.5	0.0	13.9	0.0
Fy_i	-51.0	**0.0**	10.1	0.0	-105.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	15.2	0.0	**-2.7**	0.0	13.2	0.0	-68.7	0.0	**12.8**	0.0	-124.5	0.0

Mx,	-51.0	0.0	10.1	**0.0**	-105.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-72.4	0.0	12.7	0.0	**-127.9**	0.0	16.7	0.0	-2.5	0.0	**14.0**	0.0
Mz,	-51.0	0.0	10.1	0.0	-105.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-73.2**	0.0	12.1	0.0	69.7	0.0	**17.1**	0.0	-2.5	0.0	-26.6	0.0
Fy,	-51.0	**0.0**	10.1	0.0	60.3	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	15.2	0.0	**-2.7**	0.0	-30.6	0.0	-68.7	0.0	**12.8**	0.0	84.9	0.0
Mx,	-51.0	0.0	10.1	**0.0**	60.3	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-7.5	0.0	-0.1	0.0	**-33.3**	0.0	-65.4	0.0	12.7	0.0	**88.3**	0.0
Mz,	-51.0	0.0	10.1	0.0	60.3	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 403

Fx,	**-71.4**	0.0	12.7	0.0	-125.4	0.0	**11.7**	0.0	-1.6	0.0	10.0	0.0
Fy,	-54.2	**0.0**	11.2	0.0	-105.3	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	9.8	0.0	**-1.8**	0.0	9.4	0.0	-65.8	0.0	**13.3**	0.0	-121.7	0.0
Mx,	-54.2	0.0	11.2	**0.0**	-105.3	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-70.8	0.0	13.0	0.0	**-125.5**	0.0	11.4	0.0	-1.7	0.0	**10.0**	0.0
Mz,	-54.2	0.0	11.2	0.0	-105.3	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-71.4**	0.0	12.7	0.0	69.2	0.0	**11.7**	0.0	-1.6	0.0	-14.5	0.0
Fy,	-54.2	**0.0**	11.2	0.0	66.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	9.8	0.0	**-1.8**	0.0	-18.9	0.0	-66.8	0.0	**13.3**	0.0	82.5	0.0
Mx,	-54.2	0.0	11.2	**0.0**	66.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-15.9	0.0	1.2	0.0	**-23.8**	0.0	-63.5	0.0	13.2	0.0	**86.4**	0.0
Mz,	-54.2	0.0	11.2	0.0	66.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 404

Fx,	**-60.2**	0.0	13.9	0.0	-85.9	0.0	**11.2**	0.0	-2.1	0.0	7.2	0.0
Fy,	-44.9	**0.0**	12.7	0.0	-67.1	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	9.0	0.0	**-2.4**	0.0	6.5	0.0	-56.9	0.0	**14.6**	0.0	-84.0	0.0
Mx,	-44.9	0.0	12.7	**0.0**	-67.1	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-58.2	0.0	13.2	0.0	**-86.2**	0.0	11.0	0.0	-2.1	0.0	**7.2**	0.0
Mz,	-44.9	0.0	12.7	0.0	-67.1	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-60.2**	0.0	13.9	0.0	73.0	0.0	**11.2**	0.0	-2.1	0.0	-17.4	0.0
Fy,	-44.9	**0.0**	12.7	0.0	77.9	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	9.0	0.0	**-2.4**	0.0	-21.5	0.0	-56.9	0.0	**14.6**	0.0	83.3	0.0
Mx,	-44.9	0.0	12.7	**0.0**	77.9	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-7.5	0.0	0.0	0.0	**-23.5**	0.0	-51.7	0.0	14.4	0.0	**89.0**	0.0
Mz,	-44.9	0.0	12.7	0.0	77.9	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 421

Fx,	**-336.3**	0.0	4.7	0.0	-751.0	0.0	**28.4**	0.0	-2.4	0.0	2.6	0.0
Fy,	-263.0	**0.0**	-3.1	0.0	-561.2	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-194.1	0.0	**-10.4**	0.0	-558.4	0.0	-226.5	0.0	**8.5**	0.0	-411.5	0.0
Mx,	-263.0	0.0	-3.1	**0.0**	-561.2	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-321.6	0.0	3.0	0.0	**-758.1**	0.0	15.0	0.0	0.1	0.0	**22.6**	0.0
Mz,	-263.0	0.0	-3.1	0.0	-561.2	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-336.3**	0.0	4.7	0.0	-746.3	0.0	**28.4**	0.0	-2.4	0.0	**0.1**	0.0
Fy,	-263.0	**0.0**	-3.1	0.0	-564.2	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-194.1	0.0	**-10.4**	0.0	-568.7	0.0	-226.5	0.0	**8.5**	0.0	-403.0	0.0
Mx,	-263.0	0.0	-3.1	**0.0**	-564.2	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-317.4	0.0	2.6	0.0	**-755.1**	0.0	9.2	0.0	0.5	0.0	**22.7**	0.0
Mz,	-263.0	0.0	-3.1	0.0	-564.2	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 422

Fx,	**-382.8**	0.0	3.9	0.0	-888.8	0.0	**31.7**	0.0	-3.8	0.0	-2.6	0.0
Fy,	-306.3	**0.0**	0.3	0.0	-589.1	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-204.0	0.0	**-7.6**	0.0	-518.2	0.0	-154.4	0.0	**6.9**	0.0	-185.3	0.0
Mx,	-306.3	0.0	0.3	**0.0**	-589.1	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-367.2	0.0	1.0	0.0	**-908.6**	0.0	11.9	0.0	2.9	0.0	**64.2**	0.0
Mz,	-306.3	0.0	0.3	0.0	-589.1	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-382.8**	0.0	3.9	0.0	-884.9	0.0	**31.7**	0.0	-3.8	0.0	-6.4	0.0
Fy,	-306.3	**0.0**	0.3	0.0	-588.9	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-204.0	0.0	**-7.6**	0.0	-525.8	0.0	-154.4	0.0	**6.9**	0.0	-178.3	0.0
Mx,	-306.3	0.0	0.3	**0.0**	-588.9	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-365.0	0.0	0.7	0.0	**-907.6**	0.0	11.9	0.0	2.9	0.0	**67.1**	0.0
Mz,	-306.3	0.0	0.3	0.0	-588.9	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 423

Fx,	**-386.0**	0.0	3.9	0.0	-879.2	0.0	**43.5**	0.0	-4.8	0.0	-16.2	0.0
Fy,	-297.7	**0.0**	-0.1	0.0	-584.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-161.2	0.0	**-7.6**	0.0	-469.6	0.0	-188.6	0.0	**6.6**	0.0	-231.5	0.0
Mx,	-297.7	0.0	-0.1	**0.0**	-584.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-354.9	0.0	-0.2	0.0	**-907.2**	0.0	11.1	0.0	2.8	0.0	**69.8**	0.0
Mz,	-297.7	0.0	-0.1	0.0	-584.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-386.0**	0.0	3.9	0.0	-875.3	0.0	**43.5**	0.0	-4.8	0.0	-20.9	0.0
Fy,	-297.7	**0.0**	-0.1	0.0	-584.1	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-161.2	0.0	**-7.6**	0.0	-477.2	0.0	-188.6	0.0	**6.6**	0.0	-224.9	0.0
Mx,	-297.7	0.0	-0.1	**0.0**	-584.1	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-352.8	0.0	-0.5	0.0	**-907.6**	0.0	11.1	0.0	2.8	0.0	**72.6**	0.0
Mz,	-297.7	0.0	-0.1	0.0	-584.1	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 424

Fx,	**-388.5**	0.0	3.4	0.0	-886.8	0.0	**43.7**	0.0	-4.9	0.0	-22.4	0.0
Fy,	-299.9	**0.0**	-0.2	0.0	-587.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-165.8	0.0	**-7.4**	0.0	-476.8	0.0	-186.2	0.0	**6.5**	0.0	-225.2	0.0
Mx,	-299.9	0.0	-0.2	**0.0**	-587.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-358.6	0.0	-0.7	0.0	**-918.9**	0.0	11.5	0.0	2.8	0.0	**71.9**	0.0
Mz,	-299.9	0.0	-0.2	0.0	-587.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-388.5**	0.0	3.4	0.0	-883.4	0.0	**43.7**	0.0	-4.9	0.0	-27.4	0.0
Fy,	-299.9	**0.0**	-0.2	0.0	-587.2	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-165.8	0.0	**-7.4**	0.0	-484.2	0.0	-186.2	0.0	**6.5**	0.0	-218.7	0.0
Mx,	-299.9	0.0	-0.2	**0.0**	-587.2	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-358.0	0.0	-0.7	0.0	**-919.6**	0.0	10.7	0.0	2.9	0.0	**74.7**	0.0
Mz,	-299.9	0.0	-0.2	0.0	-587.2	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 425

Fx,	-386.1	0.0	3.8	0.0	-878.4	0.0	**43.4**	0.0	-5.0	0.0	-26.1	0.0
Fy,	-297.9	**0.0**	-0.3	0.0	-587.6	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-161.6	0.0	**-7.4**	0.0	-473.7	0.0	-188.3	0.0	**6.5**	0.0	-227.6	0.0
Mx,	-297.9	0.0	-0.3	**0.0**	-587.6	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-355.5	0.0	-0.7	0.0	**-915.5**	0.0	11.3	0.0	2.9	0.0	**73.4**	0.0
Mz,	-297.9	0.0	-0.3	0.0	-587.6	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-386.1**	0.0	3.8	0.0	-874.6	0.0	**43.4**	0.0	-5.0	0.0	-31.1	0.0
Fy,	-297.9	**0.0**	-0.3	0.0	-587.8	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-161.6	0.0	**-7.4**	0.0	-481.2	0.0	-188.3	0.0	**6.5**	0.0	-221.0	0.0
Mx,	-297.9	0.0	-0.3	**0.0**	-587.8	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-353.4	0.0	-0.9	0.0	**-916.3**	0.0	11.3	0.0	2.9	0.0	**76.4**	0.0
Mz,	-297.9	0.0	-0.3	0.0	-587.8	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 426

Fx,	**-382.6**	0.0	3.3	0.0	-886.1	0.0	**31.8**	0.0	-3.3	0.0	-4.5	0.0
Fy,	-305.5	**0.0**	0.6	0.0	-579.8	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-175.8	0.0	**-6.5**	0.0	-468.0	0.0	-184.0	0.0	**6.4**	0.0	-231.2	0.0
Mx,	-305.5	0.0	0.6	**0.0**	-579.8	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-366.6	0.0	0.9	0.0	**-905.3**	0.0	10.6	0.0	3.0	0.0	**73.5**	0.0
Mz,	-305.5	0.0	0.6	0.0	-579.8	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-382.6**	0.0	3.3	0.0	-882.7	0.0	**31.8**	0.0	-3.3	0.0	-7.8	0.0
Fy,	-305.5	**0.0**	0.6	0.0	-579.1	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-175.8	0.0	**-6.5**	0.0	-474.5	0.0	-184.0	0.0	**6.4**	0.0	-224.9	0.0
Mx,	-305.5	0.0	0.6	**0.0**	-579.1	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-364.4	0.0	0.7	0.0	**-904.4**	0.0	10.6	0.0	3.0	0.0	**76.6**	0.0
Mz,	-305.5	0.0	0.6	0.0	-579.1	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 427

Fx,	**-336.8**	0.0	2.2	0.0	-793.4	0.0	**28.2**	0.0	-4.3	0.0	-17.3	0.0
Fy,	-267.8	**0.0**	1.3	0.0	-479.4	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-186.0	0.0	**-9.0**	0.0	-496.6	0.0	-132.4	0.0	**8.1**	0.0	-111.1	0.0
Mx,	-267.8	0.0	1.3	**0.0**	-479.4	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-314.3	0.0	-2.0	0.0	**-816.8**	0.0	-1.6	0.0	4.6	0.0	**75.2**	0.0
Mz,	-267.8	0.0	1.3	0.0	-479.4	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Fx,	-336.8	0.0	2.2	0.0	-791.2	0.0	28.2	0.0	-4.3	0.0	-21.7	0.0
Fy,	-267.8	0.0	1.3	0.0	-478.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fz,	-186.0	0.0	-9.0	0.0	-505.7	0.0	-132.4	0.0	8.1	0.0	-102.9	0.0
Mx,	-267.8	0.0	1.3	0.0	-478.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
My,	-313.7	0.0	-2.1	0.0	-818.8	0.0	-1.6	0.0	4.6	0.0	79.8	0.0
Mz,	-267.8	0.0	1.3	0.0	-478.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0

DISPLACEMENTS

	x	y	z	x	y	z	x	y	z	x	y	z
Joint 1												
x	-0.0	-0.0	0.0	0.1	-0.1	-89.0	0.0	-0.0	-0.0	-0.3	0.2	-248.8
y	-0.0	-0.0	-0.0	-0.0	0.0	-361.4	-0.0	0.0	0.0	0.1	-0.1	186.2
z	0.0	-0.0	-0.0	-0.4	0.3	-282.8	-0.0	-0.0	0.0	0.2	-0.1	13.2
x	0.0	-0.0	-0.0	-0.4	0.3	-282.0	-0.0	-0.0	0.0	0.2	-0.1	13.2
y	-0.0	-0.0	0.0	0.2	-0.1	13.2	0.0	-0.0	-0.0	-0.4	0.3	-282.8
z	-0.0	-0.0	-0.0	-0.0	0.0	-417.4	-0.0	0.0	0.0	0.1	-0.1	186.2
Joint 2												
x	-0.0	-0.3	0.0	-52.2	-2.8	-49.1	0.0	-0.9	-0.0	-148.7	2.2	-208.6
y	-0.0	-1.5	0.0	-38.3	-0.4	-352.2	-0.0	0.7	0.0	-30.8	-1.8	172.7
z	0.0	-0.9	-0.0	-148.7	2.3	-208.6	-0.0	-0.2	0.0	-41.7	-2.8	-31.7
x	0.0	-0.8	-0.0	-226.9	0.5	-183.7	-0.0	-0.8	0.0	10.1	-0.3	-195.2
y	-0.0	-0.3	0.0	-52.2	-2.8	-49.1	0.0	-0.9	-0.0	-148.7	2.3	-208.6
z	-0.0	-1.5	0.0	-22.5	-0.4	-356.8	-0.0	0.7	0.0	-30.8	-1.8	172.7
Joint 3												
x	-0.0	-0.3	0.0	-77.0	-5.1	14.2	0.0	-1.5	-0.0	-232.3	3.9	-109.2
y	-0.0	-2.5	0.0	-34.7	-0.8	-201.4	-0.0	1.2	0.0	-55.0	-3.3	127.1
z	0.0	-1.5	-0.0	-232.3	4.0	-108.5	-0.0	-0.3	0.0	-76.9	-5.1	13.6
x	0.0	-1.3	-0.0	-353.9	0.9	-57.6	-0.0	-1.0	0.0	9.3	-0.7	-102.3
y	-0.0	-0.3	0.0	-77.0	-5.1	14.2	0.0	-1.5	-0.0	-232.3	4.0	-109.2
z	-0.0	-2.5	0.0	-34.7	-0.8	-201.4	-0.0	1.2	0.0	-55.0	-3.3	127.1
Joint 4												
x	-0.0	0.3	0.0	-67.1	-7.0	69.8	0.0	-1.7	-0.0	-270.6	5.2	1.5
y	-0.0	-2.9	0.0	-47.4	-1.2	-8.9	-0.0	1.6	0.0	-66.2	-4.3	55.7
z	0.0	-1.7	-0.0	-270.6	5.2	1.5	-0.0	-0.2	0.0	-79.8	-7.0	63.2
x	0.0	-1.4	-0.0	-398.8	1.4	41.0	-0.0	-0.4	0.0	7.8	-2.1	-5.2
y	-0.0	0.3	0.0	-67.1	-7.0	69.8	0.0	-1.7	-0.0	-270.6	5.3	1.5
z	-0.0	-1.7	0.0	-19.5	-0.9	-49.3	-0.0	-0.4	0.0	-75.4	-3.6	86.6
Joint 5												
x	-0.0	0.5	0.1	-43.8	-8.4	34.3	0.0	-1.2	-0.1	-235.6	6.1	109.0
y	-0.0	-2.5	0.0	-41.5	-1.7	200.1	-0.0	1.6	0.0	-59.4	-5.1	-59.9
z	0.0	-1.4	-0.1	-271.2	6.1	111.5	-0.0	0.1	0.1	-57.8	-8.4	69.0
x	0.0	-0.9	-0.0	-370.4	3.1	109.3	-0.0	-0.8	0.0	12.5	-2.3	70.5
y	-0.0	0.5	0.1	-43.8	-8.4	34.3	0.0	-1.2	-0.1	-235.6	6.2	108.9
z	-0.0	1.6	0.0	-59.4	-5.1	-59.9	-0.0	-2.5	0.0	-41.5	-1.7	200.1
Joint 6												
x	-0.0	0.5	0.1	-17.2	-9.4	-65.5	0.0	-0.8	-0.1	-163.1	6.9	179.4
y	-0.0	-1.5	0.0	-28.8	-2.1	335.2	-0.0	1.1	0.1	-32.5	-5.5	-214.9
z	0.0	-0.9	-0.1	-226.5	6.6	173.3	-0.0	0.5	0.1	-17.2	-9.4	-65.5
x	0.0	-0.5	-0.0	-271.8	3.6	118.6	-0.0	-0.8	0.0	12.2	-3.5	196.2
y	-0.0	0.5	0.1	-17.2	-9.4	-65.5	0.0	-0.8	-0.1	-163.1	6.9	179.4
z	-0.0	1.1	0.1	-32.5	-5.5	-214.9	-0.0	-1.5	0.0	-28.8	-2.1	335.2
Joint 7												
x	-0.0	-0.2	0.1	17.2	-10.3	-371.9	0.0	-0.2	-0.1	-37.8	7.5	129.3
y	-0.0	-0.5	0.1	-2.7	-4.1	-313.9	-0.0	0.0	0.0	1.1	-4.1	98.3
z	0.0	-0.3	-0.1	-43.0	7.4	58.8	-0.0	-0.2	0.1	17.2	-10.3	-370.1
x	0.0	-0.4	-0.1	-57.4	5.9	26.4	-0.0	-0.2	0.1	18.2	-9.6	-334.9
y	-0.0	-0.2	0.1	17.2	-10.3	-371.6	0.0	-0.2	-0.1	-37.8	7.5	128.9
z	-0.0	-0.3	0.1	10.5	-5.6	-576.7	-0.0	-0.2	0.0	-6.8	-2.8	359.0

Joint 8												
x	-0.0	-2.2	0.2	56.6	-11.1	-472.0	0.0	0.0	-0.1	-97.3	7.9	10.5
y	-0.0	-3.6	0.1	118.9	-5.4	-799.7	-0.0	1.2	0.0	-74.7	-3.6	243.4
z	0.0	0.1	-0.1	-97.4	7.9	11.7	-0.0	-2.6	0.2	101.2	-10.9	-611.7
x	0.0	-1.4	-0.0	-294.4	1.4	-265.8	-0.0	-2.8	0.1	153.2	-5.4	-670.0
y	-0.0	-2.2	0.2	56.5	-11.1	-471.2	0.0	0.0	-0.1	-97.3	8.0	10.3
z	-0.0	-3.6	0.1	132.1	-5.6	-801.9	-0.0	1.2	0.0	-74.7	-3.6	243.4
Joint 9												
x	-0.0	-4.2	0.2	123.1	-11.7	-362.2	0.0	0.0	-0.2	-95.2	8.0	-21.4
y	-0.0	-7.0	0.1	261.8	-5.4	-678.1	-0.0	2.1	0.1	-130.4	-4.0	177.3
z	0.0	0.0	-0.2	-94.2	8.0	-24.4	-0.0	-5.3	0.2	177.0	-11.0	-519.6
x	0.0	-2.4	-0.0	-391.8	0.4	-154.6	-0.0	-6.8	0.1	266.7	-5.6	-666.1
y	-0.0	-4.2	0.2	123.1	-11.7	-362.2	0.0	0.0	-0.2	-95.2	8.1	-22.3
z	-0.0	-7.0	0.1	261.8	-5.4	-678.1	-0.0	2.1	0.1	-127.9	-5.4	196.5
Joint 10												
x	-0.0	-5.3	0.3	172.0	-12.1	-150.3	0.0	0.1	-0.2	-87.0	8.0	-46.3
y	-0.0	-9.4	0.2	347.3	-5.2	-375.9	-0.0	2.8	0.1	-169.0	-5.8	136.4
z	0.0	-0.1	-0.2	-97.3	7.9	-45.1	-0.0	-7.1	0.3	226.3	-11.1	-264.6
x	-0.0	-4.5	-0.0	-400.9	-0.6	-84.8	-0.0	-9.2	0.2	363.6	-5.4	-391.1
y	-0.0	-5.3	0.3	172.0	-12.1	-150.3	0.0	0.1	-0.2	-87.1	8.1	-46.4
z	-0.0	-8.2	0.2	304.9	-4.8	-397.2	-0.0	1.8	0.1	-110.5	-6.2	141.8
Joint 11												
x	-0.0	-5.5	0.3	183.2	-12.3	73.4	0.0	-0.2	-0.2	-99.2	8.0	-54.4
y	-0.0	-10.3	0.2	382.5	-5.0	-8.3	-0.0	3.3	0.1	-189.6	-6.1	65.7
z	0.0	-0.4	-0.2	-109.2	7.7	-48.6	-0.0	-7.8	0.3	254.4	-11.1	54.7
x	-0.0	-6.7	-0.0	-394.8	-0.3	49.2	-0.0	-9.9	0.2	387.1	-5.0	17.8
y	-0.0	-5.5	0.3	183.2	-12.3	73.5	0.0	-0.2	-0.2	-99.2	8.0	-54.5
z	-0.0	-5.2	0.1	180.1	-2.7	-169.4	-0.0	-3.6	0.2	116.3	-7.4	190.0
Joint 12												
x	-0.0	-4.7	0.4	151.1	-12.3	270.4	0.0	-0.4	-0.2	-126.8	7.8	-34.8
y	-0.0	-9.6	0.2	346.6	-4.7	324.9	-0.0	3.4	0.2	-184.5	-6.2	-25.8
z	0.0	-0.5	-0.3	-139.7	7.4	-34.5	-0.0	-4.4	0.4	137.9	-12.0	252.2
x	0.0	-4.5	-0.0	-403.1	1.5	181.0	-0.0	-9.5	0.2	368.3	-4.9	351.2
y	-0.0	-4.7	0.4	151.2	-12.3	270.4	0.0	-0.4	-0.2	-126.9	7.8	-34.8
z	-0.0	-0.6	-0.0	-25.0	-0.8	-60.7	-0.0	-5.9	0.3	220.5	-8.6	367.2
Joint 13												
x	-0.0	-2.3	0.4	100.1	-12.0	361.2	0.0	-1.5	-0.3	-252.5	7.5	80.3
y	-0.0	-7.4	0.2	267.5	-4.4	662.7	-0.0	3.0	0.2	-148.4	-6.2	-156.2
z	0.0	-0.6	-0.3	-195.7	6.9	0.3	-0.0	-3.1	0.4	107.8	-12.0	407.7
x	0.0	-2.2	-0.1	-402.1	2.3	228.0	-0.0	-7.2	0.2	278.5	-4.8	657.7
y	-0.0	-2.3	0.4	100.3	-12.1	360.9	0.0	-1.5	-0.3	-252.6	7.5	80.4
z	-0.0	3.0	0.2	-148.4	-6.2	-156.2	-0.0	-7.4	0.2	267.5	-4.4	662.7
Joint 14												
x	-0.0	-0.8	0.5	76.2	-11.7	290.6	0.0	-0.7	-0.2	-185.2	7.2	139.1
y	-0.0	-3.9	0.2	143.0	-4.1	835.7	-0.0	1.9	0.2	-77.6	-6.0	-322.0
z	0.0	-0.5	-0.3	-222.2	6.2	48.7	-0.0	-1.3	0.5	71.8	-11.5	384.4
x	0.0	-0.9	-0.2	-319.0	3.1	211.4	-0.0	-3.1	0.3	168.1	-5.6	696.2
y	-0.0	-0.8	0.5	76.5	-11.7	290.0	0.0	-0.7	-0.2	-185.4	7.3	139.6
z	-0.0	1.9	0.2	-77.6	-6.0	-322.0	-0.0	-3.9	0.2	143.0	-4.1	835.7
Joint 15												
x	-0.0	-0.2	0.4	44.0	-11.1	-198.4	0.0	-0.2	-0.2	-46.4	7.3	291.7
y	-0.0	-0.5	0.3	28.0	-4.2	8.1	-0.0	0.0	-0.0	-7.4	-0.9	79.1
z	0.0	-0.2	-0.4	-74.5	5.1	19.6	-0.0	-0.3	0.5	59.6	-10.6	-60.3
x	0.0	-0.3	-0.3	-77.0	4.5	34.9	-0.0	-0.3	0.5	60.0	-10.4	-138.3
y	-0.0	-0.2	0.4	39.1	-11.1	-278.4	0.0	-0.2	-0.2	-46.6	7.3	292.4
z	-0.0	-0.3	0.2	23.6	-5.6	-692.2	-0.0	-0.2	0.2	22.7	-3.6	718.4

Joint 16

x	**-0.0**	-2.4	0.4	72.8	-11.8	-498.7	**0.0**	0.9	-0.2	-74.4	7.7	134.2
y	-0.0	**-3.9**	0.3	136.3	-5.1	-852.1	-0.0	**2.2**	0.3	-90.1	-3.1	393.2
z	0.0	-0.4	**-0.4**	-179.2	3.7	-39.1	-0.0	-1.8	**0.6**	91.4	-9.5	-488.1
x	0.0	-0.7	-0.1	**-318.9**	0.4	-169.7	-0.0	-3.1	0.3	**170.4**	-4.8	-713.3
y	-0.0	-2.4	0.4	72.8	**-11.8**	-498.8	0.0	0.9	-0.2	-74.5	**7.7**	134.3
z	-0.0	-3.9	0.3	150.0	-5.2	**-854.2**	-0.0	2.2	0.3	-92.6	-3.1	**393.9**

Joint 17

x	**-0.0**	-4.4	0.4	139.7	-12.1	-376.2	**0.0**	1.3	-0.1	-98.7	8.2	21.3
y	-0.0	**-7.5**	0.3	283.2	-4.8	-701.7	-0.0	**3.6**	0.3	-174.9	-2.8	236.6
z	0.0	-0.9	**-0.4**	-162.7	3.5	-60.5	-0.0	-4.1	**0.6**	135.4	-8.6	-474.0
x	0.0	-1.4	-0.1	**-430.3**	0.3	-117.2	-0.0	-7.3	0.3	**287.9**	-4.9	-689.3
y	-0.0	-4.4	0.4	139.7	**-12.1**	-376.3	0.0	1.3	-0.1	-98.7	**8.2**	21.4
z	-0.0	-7.5	0.3	283.2	-4.8	**-701.7**	-0.0	3.4	0.3	-168.1	-4.7	**247.7**

Joint 18

x	**-0.0**	-5.5	0.4	177.9	-12.2	-151.9	**0.0**	0.2	-0.1	-116.9	8.6	-116.8
y	-0.0	**-10.0**	0.3	370.0	-4.4	-377.2	-0.0	**4.4**	0.3	-223.6	-2.5	98.8
z	0.0	-1.1	**-0.4**	-115.8	2.8	-29.3	-0.0	-5.8	**0.7**	171.6	-7.9	-276.3
x	0.0	-3.5	-0.0	**-441.7**	0.1	-92.9	-0.0	-9.8	0.3	**386.0**	-4.5	-392.5
y	-0.0	-5.5	0.4	179.1	**-12.3**	-151.9	0.0	0.3	-0.1	-121.5	**8.7**	-108.7
z	-0.0	-7.3	0.5	273.9	-1.6	**-404.3**	-0.0	1.8	0.1	-107.6	-7.3	**139.8**

Joint 19

x	**-0.0**	-4.9	0.5	153.8	-12.2	103.1	**0.0**	-0.6	-0.2	-140.7	8.9	-108.2
y	-0.0	**-10.8**	0.3	404.3	-3.9	5.2	-0.0	**4.6**	0.3	-238.7	-4.5	20.4
z	0.0	-1.1	**-0.4**	-101.9	2.3	-1.3	-0.0	-6.5	**0.7**	189.4	-7.3	2.5
x	0.0	-5.9	0.0	**-432.3**	0.9	14.4	-0.0	-10.5	0.3	**408.8**	-4.0	31.3
y	-0.0	-4.9	0.5	154.1	**-12.3**	102.7	0.0	-0.6	-0.2	-141.0	**8.9**	-107.7
z	0.0	-4.2	0.3	137.3	0.0	**-207.1**	-0.0	-4.0	0.3	133.7	-7.1	**197.6**

Joint 20

x	**-0.0**	-4.0	0.5	136.5	-12.1	282.0	**0.0**	-1.0	-0.2	-214.5	8.9	-65.0
y	-0.0	**-10.1**	0.4	365.4	-3.5	347.5	-0.0	**4.4**	0.3	-224.3	-4.3	-95.1
z	0.0	-1.5	**-0.4**	-118.6	4.1	24.5	-0.0	-5.8	**0.7**	190.4	-6.7	267.7
x	0.0	-3.7	-0.0	**-437.4**	2.3	125.1	-0.0	-9.9	0.4	**387.5**	-3.5	374.4
y	-0.0	-4.0	0.5	136.5	**-12.1**	282.0	0.0	-1.0	-0.2	-214.7	**9.0**	-65.0
z	0.0	1.4	0.2	-98.3	1.5	**-135.2**	-0.0	-7.1	0.5	268.1	-6.9	**385.4**

Joint 21

x	**-0.0**	1.5	0.4	-56.1	-11.9	-22.1	**0.0**	-2.1	-0.1	-242.1	9.0	139.1
y	-0.0	**-7.7**	0.4	282.5	-3.0	690.8	-0.0	**3.6**	0.4	-174.3	-4.0	-238.2
z	0.0	-1.3	**-0.5**	-180.4	3.6	71.2	-0.0	-4.1	**0.8**	149.7	-6.0	458.3
x	0.0	-1.7	-0.1	**-429.2**	2.7	158.0	-0.0	-7.5	0.4	**293.7**	-3.4	686.5
y	-0.0	1.5	0.4	-56.2	**-12.0**	-21.7	0.0	-2.1	-0.1	-242.1	**9.1**	138.8
z	-0.0	3.4	0.3	-165.4	-1.7	**-247.3**	-0.0	-7.7	0.4	282.5	-3.0	**690.8**

Joint 22

x	**-0.0**	1.1	0.4	-20.5	-11.8	-154.0	**0.0**	-1.7	-0.1	-184.3	9.2	340.7
y	-0.0	**-4.1**	0.4	153.5	-2.6	864.4	-0.0	**2.2**	0.4	-87.7	-3.7	-403.3
z	0.0	-0.8	**-0.5**	-219.3	2.9	119.7	-0.0	-1.9	**0.8**	103.4	-5.2	480.8
x	0.0	-0.7	-0.2	**-337.4**	3.4	147.4	-0.0	-3.2	0.4	**177.8**	-4.3	724.4
y	-0.0	1.1	0.4	-20.8	**-12.1**	-152.8	0.0	-1.7	-0.1	-184.2	**9.3**	339.9
z	-0.0	2.2	0.4	-87.7	-3.7	**-403.3**	-0.0	-4.1	0.4	153.5	-2.6	**864.4**

Joint 23

x	**-0.0**	-0.2	0.4	28.2	-11.9	-403.1	**0.0**	-0.3	-0.2	-47.0	9.3	309.0
y	-0.0	**-0.6**	0.5	31.8	-2.9	24.1	0.0	**0.0**	-0.0	-7.2	-0.5	27.3
z	0.0	-0.3	**-0.5**	-88.1	2.3	37.1	-0.0	-0.4	**0.8**	70.4	-6.0	-141.6
x	0.0	-0.4	-0.4	**-91.9**	2.0	37.1	-0.0	-0.4	0.8	**71.0**	-4.1	100.3
y	-0.0	-0.2	0.4	27.8	**-12.3**	-400.5	0.0	-0.3	-0.2	-46.8	**9.5**	307.1
z	-0.0	-0.3	0.4	29.9	-3.2	**-748.5**	-0.0	-0.3	0.4	27.9	-2.1	**738.5**

Joint 24

x	**-0.0**	-2.4	0.4	73.9	-12.0	-498.1	**0.0**	0.7	-0.1	-57.2	9.5	97.1
y	-0.0	**-4.2**	0.4	145.5	-2.6	-875.7	-0.0	**2.2**	0.4	-85.4	-1.4	403.2
z	0.0	-0.6	**-0.5**	-184.0	1.7	-85.4	-0.0	-2.1	**0.8**	106.4	-5.0	-516.6
x	-0.0	-0.8	-0.2	**-327.1**	-1.5	-164.9	-0.0	-3.3	0.4	**179.3**	-2.0	-736.7
y	-0.0	-2.4	0.4	73.4	**-12.5**	-493.9	0.0	0.7	-0.1	-56.8	**9.8**	94.5
z	-0.0	-4.1	0.4	159.2	-2.8	**-877.9**	-0.0	2.2	0.4	-88.1	-1.5	**403.5**

Joint 25

x	**-0.0**	-4.4	0.5	140.3	-11.8	-376.2	**0.0**	0.3	-0.1	-81.3	9.8	-61.8
y	-0.0	**-7.8**	0.4	294.1	-2.3	-710.7	0.0	**3.6**	0.4	-171.1	-1.0	241.6
z	0.0	-0.9	**-0.5**	-167.9	1.1	-58.5	-0.0	-4.4	**0.9**	152.6	-4.2	-484.6
x	-0.0	-1.4	-0.1	**-434.9**	-1.3	-111.5	-0.0	-7.6	0.4	**298.4**	-2.4	-698.9
y	-0.0	-4.4	0.5	139.6	**-12.5**	-372.0	0.0	0.2	-0.1	-77.9	**10.2**	-73.3
z	-0.0	-7.8	0.4	294.1	-2.3	**-710.7**	-0.0	3.4	0.4	-165.2	-3.5	**251.9**

Joint 26

x	**-0.0**	-4.8	0.5	143.6	-11.6	-111.0	**0.0**	-0.1	-0.1	-109.3	9.9	-104.5
y	-0.0	**-10.3**	0.4	381.2	-1.9	-374.9	0.0	**4.4**	0.4	-220.4	-0.7	99.9
z	0.0	-1.1	**-0.5**	-119.5	0.4	-26.9	-0.0	-6.2	**0.9**	189.2	-3.8	-272.7
x	-0.0	-3.5	-0.0	**-444.2**	-1.4	-89.7	-0.0	-10.1	0.4	**397.0**	-2.0	-390.8
y	-0.0	-4.8	0.5	142.8	**-12.5**	-107.5	0.0	-0.1	-0.1	-108.7	**10.3**	-107.3
z	-0.0	-7.3	0.6	278.3	0.3	**-401.7**	-0.0	1.5	0.2	-98.4	-5.5	**140.0**

Joint 27

x	**-0.0**	-4.9	0.6	152.9	-11.2	98.0	**0.0**	-0.6	-0.2	-149.7	9.7	-103.9
y	-0.0	**-11.1**	0.4	414.8	-1.5	14.8	-0.0	**4.6**	0.4	-236.3	-3.1	18.9
z	0.0	-1.1	**-0.5**	-104.6	0.1	0.2	-0.0	-6.8	**0.9**	206.0	-3.3	14.3
x	0.0	-5.9	0.0	**-433.8**	-0.1	15.8	-0.0	-10.7	0.4	**419.1**	-1.6	40.8
y	-0.0	-4.8	0.6	152.2	**-12.2**	100.1	0.0	-0.6	-0.2	-149.1	**10.3**	-105.7
z	-0.0	-4.1	0.4	140.2	1.7	**-207.0**	-0.0	-4.2	0.4	143.8	-5.0	**206.1**

Joint 28

x	**-0.0**	0.4	0.4	-14.0	-11.4	121.5	**0.0**	-2.7	-0.1	-223.7	9.5	14.7
y	-0.0	**-10.3**	0.5	374.4	-1.0	361.7	-0.0	**4.4**	0.4	-222.0	-2.9	-98.0
z	0.0	-1.5	-0.5	-121.1	2.2	25.3	-0.0	-6.1	**0.9**	204.7	-2.8	285.0
x	0.0	-3.7	-0.0	**-438.5**	1.3	124.7	-0.0	-10.2	0.5	**396.3**	-1.4	388.7
y	-0.0	0.4	0.4	-14.2	**-12.0**	121.5	0.0	-2.7	-0.1	-223.2	**10.3**	14.6
z	0.0	1.5	0.2	-96.5	3.3	**-137.7**	-0.0	-7.4	0.6	278.0	-4.6	**399.2**

Joint 29

x	**-0.0**	1.5	0.4	-58.0	-11.5	-31.6	**0.0**	-3.2	-0.1	-231.4	9.7	262.4
y	-0.0	**-7.8**	0.5	289.5	-0.6	707.4	-0.0	**3.7**	0.4	-171.8	-2.6	-241.9
z	0.0	-1.3	**-0.5**	-183.2	1.7	70.9	-0.0	-4.3	**0.9**	161.5	-2.2	478.8
x	0.0	-1.7	-0.1	**-430.7**	2.0	156.4	-0.0	-7.6	0.5	**300.8**	-1.6	703.1
y	-0.0	1.6	0.4	-57.9	**-12.0**	-32.5	0.0	-3.3	-0.1	-231.2	**10.4**	264.9
z	0.0	3.4	0.4	-162.7	-0.0	**-251.2**	-0.0	-7.8	0.5	289.5	-0.6	**707.4**

Joint 30

x	**-0.0**	1.0	0.4	-30.8	-11.3	-167.0	**0.0**	-1.8	-0.1	-182.2	9.6	349.5
y	-0.0	**-4.2**	0.5	158.7	-0.2	880.5	-0.0	**2.2**	0.4	-84.8	-2.4	-406.9
z	0.0	-0.8	**-0.5**	-222.6	1.3	118.8	-0.0	-2.0	**0.9**	112.5	-1.5	501.3
x	0.0	-0.7	-0.2	**-339.5**	2.9	145.1	-0.0	-3.3	0.5	**183.2**	-2.4	738.7
y	-0.0	1.4	0.4	-42.6	**-11.8**	-233.5	0.0	-1.8	-0.1	-182.6	**10.5**	355.2
z	-0.0	2.2	0.4	-84.8	-2.4	**-406.9**	-0.0	-4.2	0.5	158.7	-0.2	**880.5**

Joint 31

x	**-0.0**	-0.2	0.4	29.4	-11.3	-405.1	**0.0**	-0.2	-0.1	-30.5	9.9	346.2
y	0.0	**-0.6**	0.5	36.3	-1.1	36.5	-0.0	**0.1**	-0.0	-7.1	-0.4	22.4
z	0.0	-0.3	**-0.5**	-92.7	0.8	34.9	-0.0	-0.4	**0.9**	77.7	-2.6	-129.3
x	0.0	-0.4	-0.5	**-96.4**	0.7	34.9	0.0	-0.4	0.9	**78.1**	-0.8	115.0
y	-0.0	-0.2	0.4	30.4	**-11.9**	-410.3	0.0	-0.2	-0.1	-31.2	**10.5**	353.2
z	-0.0	-0.3	0.5	33.6	-1.9	**-750.7**	-0.0	-0.3	0.4	31.5	0.3	**748.3**

Joint 32

x	**-0.0**	-2.4	0.5	74.6	-11.4	-493.9	**0.0**	0.7	-0.0	-55.0	10.1	87.8
y	0.0	**-4.2**	0.5	148.2	-1.5	-876.0	-0.0	**2.2**	0.5	-83.1	1.1	405.6
z	-0.0	-0.6	**-0.5**	-187.6	0.4	-80.4	-0.0	-2.1	**0.9**	111.8	-1.8	-516.9
x	-0.0	-0.8	-0.2	**-329.1**	-2.0	-165.6	0.0	-3.3	0.5	**182.5**	-0.1	-731.3

y	-0.0	-2.4	0.5	75.9	**-11.8**	-499.6	0.0	0.7	-0.1	-56.7	**10.8**	97.8
z	0.0	-4.2	0.5	162.0	-1.5	**-878.2**	-0.0	2.2	0.4	-85.9	0.8	**406.0**

Joint 33

x	**-0.0**	-3.8	0.5	103.9	-11.1	-310.7	**0.0**	0.1	-0.1	-76.1	10.5	-79.0
y	0.0	**-7.8**	0.5	296.3	-1.2	-710.2	-0.0	**3.7**	0.4	-169.6	1.5	241.2
z	-0.0	-0.9	**-0.5**	-171.2	-0.1	-57.0	-0.0	-4.4	**0.9**	157.3	-1.2	-484.6
x	-0.0	-1.4	-0.1	**-436.1**	-1.5	-112.5	0.0	-7.6	0.5	**300.7**	-1.0	-698.2
y	-0.0	-3.9	0.5	105.8	**-11.6**	-315.9	0.0	0.3	-0.1	-81.1	**11.0**	-63.2
z	0.0	-7.8	0.5	296.3	-1.2	**-710.2**	-0.0	3.4	0.4	-164.0	-1.2	**251.3**

Joint 34

x	**-0.0**	-4.9	0.5	144.6	-11.1	-109.0	**0.0**	-0.3	-0.1	-102.1	10.4	-119.9
y	0.0	**-10.3**	0.5	383.1	-0.8	-373.9	-0.0	**4.4**	0.4	-219.5	1.8	97.7
z	-0.0	-1.0	**-0.5**	-124.3	-0.4	-24.7	0.0	-6.3	**1.0**	193.7	-0.8	-273.2
x	-0.0	-3.6	-0.0	**-444.8**	-1.1	-91.8	0.0	-10.1	0.5	**398.8**	-0.9	-390.0
y	-0.0	-4.9	0.5	145.4	**-11.3**	-110.2	0.0	-0.1	-0.1	-109.3	**11.0**	-106.9
z	0.0	-7.3	0.7	280.3	2.1	**-400.6**	-0.0	1.5	0.2	-97.7	-3.8	**137.6**

Joint 35

Smax UIC. una vía.

x	**-0.0**	-0.3	0.4	-10.8	-10.6	132.0	**0.0**	-2.9	-0.1	-156.6	10.2	-126.5
y	0.0	-11.1	0.5	416.4	-0.4	16.0	-0.0	**4.6**	0.4	-235.9	-0.7	16.0
z	-0.0	-1.2	**-0.5**	-105.5	-0.7	-0.6	0.0	-6.9	**1.0**	210.1	-0.1	14.5
x	-0.0	-5.9	-0.0	**-434.1**	0.7	13.3	0.0	-10.7	0.5	**420.8**	-0.5	41.8
y	-0.0	-3.6	0.5	98.5	**-10.8**	131.3	0.0	-0.3	0.4	-7.9	**11.0**	-130.8
z	0.0	-4.1	0.5	141.2	2.9	**-207.8**	-0.0	-4.3	0.4	145.0	-2.7	**205.2**

Joint 36

x	**-0.0**	-0.2	-0.1	-108.8	-10.1	116.5	**0.0**	-4.9	0.5	147.7	11.1	110.3
y	0.0	**-10.3**	0.5	375.8	-0.0	362.7	-0.0	**4.4**	0.4	-221.9	-0.4	-100.5
z	-0.0	-1.5	**-0.5**	-122.1	1.4	24.0	0.0	-6.1	**1.0**	207.0	0.2	285.3
x	0.0	-3.7	-0.0	**-438.9**	2.0	122.4	0.0	-10.2	0.5	**397.7**	-0.1	389.7
y	-0.0	-0.3	-0.1	-105.3	**-10.8**	115.4	0.0	-4.9	0.5	146.9	**11.3**	110.3
z	0.0	1.5	0.2	-96.4	4.4	**-139.9**	-0.0	-7.5	0.7	279.5	-2.0	**400.0**

Joint 37

x	**-0.0**	0.5	-0.1	-87.7	-10.1	39.2	**0.0**	-3.9	0.5	107.3	11.3	316.3
y	0.0	**-7.8**	0.5	290.9	0.3	707.8	-0.0	**3.6**	0.4	-172.3	0.0	-242.8
z	-0.0	-1.3	**-0.5**	-184.1	0.9	69.3	0.0	-4.4	**1.0**	163.2	0.9	481.5
x	0.0	-1.7	-0.1	**-431.3**	2.3	155.0	0.0	-7.7	0.5	**301.9**	0.3	704.9
y	-0.0	0.5	-0.0	-86.2	**-10.7**	41.2	0.0	-3.9	0.5	106.4	**11.6**	315.4
z	-0.0	3.4	0.4	-163.0	2.7	**-252.0**	0.0	-7.8	0.5	290.9	0.3	**707.8**

Joint 38

x	**-0.0**	0.8	-0.1	-60.4	-9.8	-122.3	**0.0**	-2.4	0.5	76.0	11.5	499.9
y	0.0	**-4.2**	0.5	160.1	0.7	880.1	-0.0	**2.2**	0.4	-86.2	0.4	-405.1
z	-0.0	-0.8	**-0.5**	-223.5	0.5	116.8	0.0	-2.1	**0.9**	113.4	1.7	506.7
x	0.0	-0.7	-0.2	**-340.3**	2.6	142.9	0.0	-3.3	0.5	**183.6**	0.1	744.1
y	-0.0	0.8	-0.0	-59.0	**-10.5**	-117.9	0.0	-2.4	0.5	75.1	**11.7**	498.0
z	-0.0	2.2	0.4	-86.2	0.4	**-405.1**	0.0	-4.2	0.5	160.1	0.7	**880.1**

Joint 39

x	**-0.0**	-0.2	-0.1	-31.6	-9.3	-372.8	**0.0**	-0.2	0.4	29.0	11.5	409.1
y	-0.0	**-0.6**	0.5	33.4	2.0	48.1	0.0	**0.1**	-0.0	-7.9	0.6	-28.2
z	-0.0	-0.3	**-0.6**	-93.8	-0.0	34.1	0.0	-0.4	**0.9**	77.4	2.8	126.0
x	-0.0	-0.4	-0.5	**-97.5**	-0.0	33.9	0.0	-0.4	0.9	**77.6**	2.8	126.3
y	-0.0	-0.2	-0.1	-30.4	**-10.0**	-362.1	0.0	-0.2	0.4	28.0	**11.7**	404.9
z	-0.0	-0.3	0.4	30.5	1.0	**-741.6**	0.0	-0.3	0.5	33.1	1.1	**745.5**

Joint 40

x	**-0.0**	-2.2	-0.1	-173.5	-9.0	-444.9	**0.0**	1.4	0.4	-41.0	11.3	225.6
y	-0.0	**-4.1**	0.4	144.1	1.8	-861.0	0.0	**2.2**	0.5	-81.5	1.9	400.9
z	-0.0	-0.6	**-0.5**	-188.2	-0.6	-79.2	0.0	-2.0	**0.9**	108.3	2.2	-498.6
x	-0.0	-0.8	-0.2	**-328.7**	-2.5	-171.4	0.0	-3.2	0.5	**178.6**	3.2	-716.0
y	-0.0	-1.8	-0.1	-183.3	**-9.8**	-347.5	0.0	1.3	0.4	-40.8	**11.5**	221.6
z	-0.0	-4.1	0.4	157.8	1.7	**-863.1**	0.0	2.2	0.5	-84.4	1.6	**401.3**

Joint 41

x	**-0.0**	-3.3	-0.1	-230.7	-8.8	-260.3	**0.0**	1.9	0.4	-81.4	11.3	80.2
y	-0.0	**-7.7**	0.4	290.5	2.2	-694.7	0.0	**3.6**	0.5	-168.0	2.2	236.4
z	-0.0	-0.9	**-0.5**	-171.7	-1.2	-54.7	0.0	-4.3	**0.9**	151.8	3.0	-469.1
x	-0.0	-1.5	-0.1	**-435.0**	-2.3	-116.0	-0.0	-7.4	0.4	**295.0**	2.5	-681.9
y	-0.0	-3.2	-0.1	-235.9	**-9.7**	-244.7	0.0	1.5	0.4	-53.2	**11.6**	24.4
z	-0.0	-7.7	0.4	290.5	2.2	**-694.7**	0.0	3.4	0.4	-162.4	-0.4	**246.0**

Joint 42

x	**-0.0**	-4.1	-0.1	-234.4	-8.4	-78.8	**0.0**	1.4	0.4	-66.5	11.4	-56.5
y	-0.0	**-10.1**	0.4	375.6	2.8	-360.8	0.0	**4.4**	0.5	-217.7	2.6	93.8
z	-0.0	-1.1	**-0.5**	-122.8	-1.8	-26.5	0.0	-6.0	**0.9**	184.1	3.8	-257.3
x	-0.0	-3.6	-0.0	**-443.4**	-1.9	-93.9	-0.0	-9.9	0.4	**391.3**	2.8	-376.9
y	-0.0	-2.5	-0.1	-230.7	**-9.3**	4.6	0.0	1.4	0.3	**-64.4**	**11.5**	-60.2
z	0.0	-7.1	0.6	272.9	5.8	**-387.5**	-0.0	1.4	0.2	-96.3	-3.2	**133.5**

Joint 43

x	**-0.0**	-2.6	-0.1	-181.8	-8.0	122.0	**0.0**	-3.6	0.5	100.8	11.5	-130.2
y	-0.0	**-10.9**	0.4	407.4	3.3	24.5	0.0	**4.5**	0.4	-231.9	2.9	-21.2
z	-0.0	-1.1	**-0.5**	-105.6	-2.3	-3.9	0.0	-6.6	**0.9**	198.6	4.5	25.4
x	0.0	-6.0	0.0	**-432.4**	-0.5	13.3	-0.0	-10.5	0.4	**411.9**	3.3	49.8
y	-0.0	-0.6	-0.2	-154.9	**-9.0**	119.2	0.0	-4.9	0.6	158.2	**11.7**	-99.3
z	0.0	-3.8	0.4	132.5	6.6	**-199.9**	-0.0	-4.4	0.5	146.2	-1.8	**203.9**

Joint 44

x	**-0.0**	-0.7	-0.2	-79.4	-7.6	116.0	**0.0**	-4.7	0.5	141.3	11.5	111.5
y	0.0	**-10.0**	0.4	365.8	3.8	364.0	0.0	**4.3**	0.4	-220.3	0.5	-100.0
z	-0.0	-1.5	**-0.5**	-119.5	-0.5	25.0	0.0	-5.8	**0.9**	194.8	5.4	286.6
x	0.0	-3.8	-0.0	**-436.6**	0.6	124.0	0.0	-9.9	0.4	**387.9**	3.9	390.3
y	-0.0	0.4	-0.1	-123.9	**-8.9**	87.9	0.0	-4.9	0.5	148.3	**12.0**	110.8
z	0.0	1.8	0.2	-104.5	7.4	**-139.6**	0.0	-7.5	0.6	279.4	-0.4	**401.4**

Joint 45

x	**-0.0**	-0.0	-0.2	-61.3	-7.3	70.0	**0.0**	-4.2	0.5	129.0	11.6	361.9
y	0.0	**-7.6**	0.4	280.6	4.3	698.1	0.0	**3.6**	0.4	-170.9	1.1	-238.0
z	-0.0	-1.3	**-0.5**	-181.1	-1.3	72.4	0.0	-4.1	**0.8**	151.2	6.5	470.4
x	0.0	-1.7	-0.1	**-428.0**	0.5	159.0	0.0	-7.4	0.4	**291.8**	4.2	693.8
y	-0.0	0.6	-0.1	-90.8	**-8.6**	41.0	0.0	-4.5	0.5	143.9	**12.1**	377.3
z	0.0	3.3	0.4	-161.4	3.6	**-247.8**	0.0	-7.6	0.4	280.6	4.3	**698.1**

Joint 46

x	**-0.0**	0.5	-0.2	-55.5	-6.7	-72.3	**0.0**	-2.3	0.5	74.4	11.7	484.6
y	0.0	**-4.0**	0.3	150.0	4.8	856.2	0.0	**2.1**	0.4	-85.1	1.6	-394.9
z	-0.0	-0.9	**-0.5**	-220.1	-1.9	122.5	0.0	-1.9	**0.8**	102.9	7.8	479.5
x	0.0	-0.8	-0.2	**-336.2**	0.9	150.6	0.0	-3.2	0.4	**174.1**	4.5	720.8
y	-0.0	0.9	-0.1	-65.1	**-8.1**	-139.7	0.0	-2.4	0.5	76.2	**12.1**	499.4
z	0.0	2.1	0.4	-85.1	1.6	**-394.9**	0.0	-4.0	0.3	150.0	4.8	**856.2**

Joint 47

x	**-0.0**	-0.2	-0.4	-60.6	-6.3	-126.5	**0.0**	-0.3	0.6	52.4	10.6	135.2
y	0.0	**-0.6**	0.5	34.1	3.3	64.9	-0.0	**0.0**	-0.1	-11.1	2.9	-77.7
z	-0.0	-0.3	**-0.5**	-89.7	-2.6	50.2	0.0	-0.4	**0.8**	69.1	9.4	63.4
x	-0.0	-0.4	-0.5	**-92.8**	-2.0	34.9	0.0	-0.4	0.8	**69.3**	9.2	74.4
y	-0.0	-0.3	-0.2	-49.3	**-7.6**	-375.3	0.0	-0.2	0.4	30.0	**11.9**	-406.3
z	0.0	-0.3	0.4	31.4	2.4	**-719.8**	0.0	-0.3	0.3	23.2	5.3	**690.9**

Joint 48

x	**-0.0**	-0.4	-0.4	-157.7	-6.3	-40.3	**0.0**	-1.4	0.7	81.6	11.7	-385.0
y	0.0	**-4.0**	0.4	139.2	3.4	-830.5	0.0	**1.9**	0.3	-73.4	6.1	323.0
z	-0.0	-0.3	-0.5	-196.6	-2.8	-6.6	0.0	-2.3	**0.7**	120.6	9.4	-572.5
x	-0.0	-1.1	-0.2	**-316.7**	-0.8	-235.4	0.0	-3.1	0.4	**174.0**	5.4	-685.0
y	-0.0	-1.6	-0.2	-171.9	**-7.4**	-319.6	0.0	0.3	0.6	37.7	**12.0**	-40.3
z	0.0	-3.9	0.4	152.8	3.5	**-831.6**	0.0	1.9	0.3	-76.2	5.8	**323.4**

Joint 49

x	**-0.0**	-0.2	-0.3	-168.5	-6.5	20.5	**0.0**	-3.2	0.6	118.1	12.7	-404.9
y	0.0	**-7.4**	0.4	280.1	4.3	-663.2	0.0	**3.0**	0.3	-143.4	6.4	158.2
z	-0.0	-0.6	**-0.5**	-185.3	-3.0	-27.9	0.0	**-4.9**	**0.7**	183.9	10.2	-543.0
x	-0.0	-2.0	-0.2	**-411.4**	0.0	-180.9	0.0	-7.1	0.4	**284.5**	4.9	-649.3
y	-0.0	-1.4	-0.3	-213.5	**-7.4**	-92.6	0.0	-2.4	0.6	109.7	**12.9**	-358.3
z	0.0	-7.4	0.4	280.1	4.3	**-663.2**	0.0	2.9	0.2	-146.2	6.0	**158.6**

Joint 50

x	**-0.0**	0.1	-0.4	-140.4	-6.7	41.1	**0.0**	-4.8	0.6	166.6	13.7	-268.8
y	0.0	**-9.7**	0.4	360.5	5.1	-334.2	0.0	**3.4**	0.2	-179.5	6.5	28.4
z	-0.0	-0.7	**-0.5**	-143.6	-3.5	-3.4	0.0	-6.8	**0.6**	220.7	10.7	-309.1
x	-0.0	-4.4	-0.1	**-410.9**	1.1	-143.7	0.0	-9.4	0.4	**376.1**	5.2	-349.9
y	-0.0	-1.5	-0.3	-173.8	**-7.5**	0.5	0.0	-4.7	0.6	161.2	**13.7**	-265.2
z	0.0	-5.8	0.5	229.8	8.7	**-365.5**	-0.0	-0.6	0.0	-25.8	0.6	**63.1**

Joint 51

x	**-0.0**	0.3	-0.3	-112.7	-7.1	37.4	**0.0**	-5.6	0.5	193.0	14.5	-67.2
y	0.0	**-10.3**	0.4	389.1	6.0	41.8	0.0	**3.3**	0.2	-184.9	6.4	-62.9
z	-0.0	-0.7	**-0.4**	-130.9	-4.0	11.8	0.0	-7.5	**0.6**	243.2	11.6	-8.0
x	0.0	-6.8	-0.1	**-396.1**	3.0	-13.3	0.0	-10.0	0.3	**394.3**	6.0	66.5
y	-0.0	0.0	-0.3	-93.9	**-7.9**	28.2	0.0	-5.6	0.5	193.0	**14.5**	-67.2
z	0.0	-3.5	0.3	118.2	8.4	**-188.5**	0.0	-5.4	0.2	186.9	2.8	**170.9**

Joint 52

x	**-0.0**	0.5	-0.3	-102.2	-7.3	21.4	**0.1**	-7.7	0.5	257.2	14.6	252.7
y	0.0	**-9.4**	0.3	345.9	7.0	367.3	0.0	**2.8**	0.2	-164.7	6.2	-133.6
z	-0.0	-0.9	**-0.4**	-147.3	-2.3	25.1	0.0	-6.9	**0.5**	240.7	12.2	288.7
x	0.0	-4.7	-0.1	**-397.9**	3.8	123.6	0.0	-9.3	0.3	**368.5**	7.2	393.4
y	-0.0	0.0	-0.3	-68.9	**-8.2**	28.4	0.0	-5.4	0.5	180.7	**15.2**	156.5
z	0.0	1.8	0.2	-105.9	7.3	**-139.3**	0.0	-8.3	0.3	309.5	5.8	**399.8**

Joint 53

x	**-0.0**	0.4	-0.3	-73.6	-8.5	1.0	**0.1**	-5.9	0.4	200.9	15.5	544.2
y	0.0	**-7.0**	0.3	262.6	8.0	679.2	-0.0	**2.1**	0.1	-128.8	3.0	-175.9
z	-0.0	-0.8	**-0.4**	-202.2	-2.7	55.7	0.0	-5.0	**0.5**	185.9	13.0	517.9
x	0.0	-2.6	-0.2	**-393.6**	3.4	202.9	0.0	-6.9	0.3	**274.2**	8.2	675.6
y	-0.0	0.2	-0.3	-62.8	**-8.7**	8.2	0.1	-4.2	0.4	131.6	**15.8**	357.9
z	0.0	2.1	0.1	-123.4	5.7	**-194.1**	0.0	-7.0	0.3	262.6	8.0	**679.2**

Joint 54

x	**-0.0**	0.1	-0.3	-104.4	-9.1	-19.1	**0.1**	-3.1	0.3	108.6	16.3	675.1
y	0.0	**-3.6**	0.2	137.7	9.1	808.3	-0.0	**1.2**	0.1	-70.8	2.4	-243.4
z	-0.0	-0.5	**-0.4**	-229.1	-3.3	77.4	0.0	-2.4	**0.4**	104.6	13.1	567.6
x	0.0	-1.3	-0.3	**-314.3**	2.6	248.7	0.0	-2.8	0.3	**163.0**	8.6	680.5
y	-0.0	-0.0	-0.3	-96.9	**-9.2**	-1.4	0.1	-3.1	0.3	108.6	**16.3**	675.1
z	-0.0	1.2	0.1	-70.8	2.4	**-243.4**	0.0	-3.6	0.2	137.7	9.1	**808.3**

Joint 55

x	**-0.0**	-0.2	-0.2	-52.9	-8.6	-211.0	**0.1**	-0.2	0.3	29.2	17.3	487.3
y	0.0	**-0.4**	0.1	7.1	6.7	290.8	-0.0	**0.0**	-0.0	-2.8	0.1	-95.3
z	-0.0	-0.2	**-0.4**	-70.8	0.4	-74.7	0.0	-0.3	**0.4**	38.5	13.9	274.2
x	-0.0	-0.3	-0.4	**-79.9**	-3.2	50.4	0.0	-0.2	0.3	**39.4**	14.7	320.4
y	-0.0	-0.1	-0.2	-46.9	**-9.9**	-65.3	0.1	-0.2	0.3	29.2	**17.3**	487.3
z	-0.0	-0.2	0.1	1.4	1.4	**-363.2**	0.0	-0.3	0.2	20.9	10.3	**578.0**

Joint 56

x	**-0.0**	-1.1	-0.2	-226.9	-9.5	-231.7	**0.1**	0.9	0.2	-23.2	18.1	173.6
y	-0.0	**-1.5**	0.1	-30.5	0.5	-333.0	0.0	**1.1**	0.2	-28.9	11.9	215.4
z	-0.0	-0.7	**-0.4**	-214.2	0.7	-165.5	0.0	0.1	**0.3**	-21.8	14.5	-26.7
x	-0.0	-0.3	-0.3	**-289.2**	-0.7	-82.5	0.0	-0.7	0.1	**18.9**	5.0	-173.7
y	-0.0	-0.7	-0.2	-216.6	**-10.4**	-120.8	0.1	0.7	0.2	-15.1	**18.2**	122.4
z	-0.0	-1.5	0.1	-14.1	0.7	**-337.8**	0.0	1.1	0.1	-31.3	11.5	**216.0**

Joint 57

x	**-0.0**	-1.5	-0.2	-262.7	-10.9	-91.2	**0.1**	1.3	0.1	-59.6	18.5	41.7
y	-0.0	**-2.5**	0.1	-19.5	0.3	-207.3	0.0	**1.6**	0.1	-63.6	12.7	59.8
z	-0.0	-1.3	**-0.4**	-298.9	0.8	-119.4	0.0	-1.1	**0.2**	-52.9	10.9	-153.0
x	-0.0	-0.9	-0.3	**-413.1**	1.2	-119.4	-0.0	-1.3	0.1	**17.3**	3.1	-127.2
y	-0.0	-1.0	-0.2	-226.8	**-11.0**	-50.0	0.1	1.0	0.2	-50.0	**18.7**	6.6
z	-0.0	-2.5	0.1	-19.5	0.3	**-207.3**	0.0	1.6	0.1	-65.8	12.2	**60.3**

Joint 58

x	**-0.0**	-1.6	-0.2	-232.6	-11.4	26.0	**0.1**	1.3	0.1	-79.1	18.9	-53.6
y	-0.0	**-2.9**	0.1	-26.7	-0.1	-1.2	0.1	**1.6**	0.1	-77.9	13.2	-57.1
z	-0.0	-1.3	**-0.4**	-356.6	2.2	-26.5	0.0	-1.7	**0.2**	-59.2	9.8	-38.1
x	-0.0	-1.3	-0.3	**-454.3**	3.1	-50.2	0.0	-0.7	0.1	**10.1**	2.8	26.6
y	-0.0	-1.1	-0.1	-163.1	**-11.6**	33.6	0.1	0.8	0.1	-73.6	**19.1**	-63.9
z	0.0	-0.2	0.0	-83.6	11.1	**-89.1**	-0.0	-1.9	0.1	-1.8	-1.2	**45.5**

Joint 59

x	**-0.0**	-1.3	-0.1	-159.0	-11.8	121.2	**0.1**	1.0	0.0	-86.4	19.2	-108.4
y	-0.0	**-2.6**	0.1	-14.0	-0.4	198.7	0.1	**1.3**	0.0	-75.2	13.7	-130.4
z	0.0	-0.8	**-0.4**	-336.6	3.2	36.2	0.0	-1.6	**0.2**	-38.3	9.2	107.2
x	0.0	-1.1	-0.3	**-447.7**	7.8	42.0	-0.0	-1.5	0.1	**38.2**	-1.5	144.9
y	-0.0	-0.9	-0.1	-91.0	**-12.0**	89.6	0.1	0.6	0.0	-92.9	**19.4**	-87.4
z	0.1	1.3	0.0	-75.2	13.7	**-130.4**	-0.0	-2.6	0.1	-14.0	-0.4	**198.7**

Joint 60

x	**-0.0**	-0.7	-0.1	-76.9	-12.0	185.8	**0.1**	0.5	-0.1	-83.3	19.5	-127.2
y	-0.0	**-1.5**	0.1	13.4	-0.5	365.0	0.1	**0.7**	-0.0	-62.2	13.9	-178.4
z	0.0	-0.2	**-0.4**	-353.8	8.4	35.8	-0.0	-1.2	**0.2**	31.8	3.6	296.9
x	0.0	-0.7	-0.4	**-387.1**	8.1	162.5	-0.0	-1.1	0.1	**63.8**	-2.4	273.1
y	-0.0	-0.5	-0.1	-43.4	**-12.2**	125.1	0.1	0.2	-0.0	-96.1	**19.6**	-75.7
z	0.1	0.7	-0.0	-62.2	13.9	**-178.4**	-0.0	-1.5	0.1	13.4	-0.5	**365.0**

Joint 61

x	**-0.0**	-0.0	-0.0	-15.9	-12.1	206.6	**0.1**	-0.0	-0.1	-71.5	19.6	-128.3
y	-0.0	**-0.0**	0.0	27.8	0.8	416.2	0.1	**0.0**	-0.1	-50.1	13.4	-193.9
z	0.0	-0.0	**-0.5**	-272.7	14.8	70.3	-0.0	-0.0	**0.2**	88.3	-5.5	375.6
x	0.0	-0.0	-0.5	**-272.7**	14.8	70.3	-0.0	-0.0	0.2	**88.3**	-5.5	375.6
y	-0.0	-0.0	-0.0	-8.7	**-12.3**	136.4	0.1	-0.0	-0.1	-69.7	**19.6**	-62.6
z	0.1	0.0	-0.1	-47.6	14.0	**-194.2**	-0.0	-0.0	0.1	56.5	-0.6	**428.8**

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Fx_i	**-5.1**	-2.1	3.7	2.6	4.6	22.8	**5.1**	2.1	-4.9	-2.6	-7.1	-22.8
Fy_i	-1.0	**-2.1**	4.2	2.7	10.0	23.5	1.0	**2.1**	-4.2	-2.7	-10.0	-23.5
Fz_i	-4.0	2.1	**-5.7**	-2.6	-18.5	-23.5	4.0	-2.1	**5.7**	2.6	18.5	23.5
Mx_i	1.6	2.1	-3.9	**-2.7**	-8.8	-23.5	-1.6	-2.1	3.9	**2.7**	8.8	23.5
My_i	-4.0	2.1	-5.7	-2.6	**-18.5**	-23.5	4.0	-2.1	5.7	2.6	**18.5**	23.5
Mz_i	0.5	2.1	-4.3	-2.7	-10.8	**-23.6**	-0.5	-2.1	4.3	2.7	10.8	**23.6**

Member 10

Fx_i	**-8.8**	0.8	-3.3	-6.6	-2.8	-23.3	**8.8**	-0.8	7.1	6.6	3.2	23.3
Fy_i	3.7	**-0.8**	4.2	6.7	-4.1	23.4	-3.7	**0.8**	-4.2	-6.7	4.1	-23.4
Fz_i	-8.8	0.8	**-7.1**	-6.6	-3.2	-23.3	8.8	-0.8	**7.1**	6.6	3.2	23.3
Mx_i	-3.2	0.8	-4.1	**-6.7**	4.4	-23.4	3.2	-0.8	4.1	**6.7**	-4.4	23.4
My_i	-1.6	-0.8	0.0	6.5	**-9.2**	22.6	1.6	0.8	-0.0	-6.5	**9.2**	-22.6
Mz_i	-4.4	0.8	-4.3	-6.6	3.8	**-23.4**	4.4	-0.8	4.3	6.6	-3.8	**23.4**
Fx_f	**-8.8**	0.8	-1.3	-0.2	-13.3	-26.9	**8.8**	-0.8	0.1	0.2	10.8	26.9
Fy_f	3.7	**-0.8**	2.2	0.3	10.2	27.0	-3.7	**0.8**	-2.2	-0.3	-10.2	-27.0
Fz_f	-8.5	0.8	**-3.6**	-0.2	-18.1	-26.9	8.5	-0.8	**3.6**	0.2	18.1	26.9
Mx_f	-3.2	0.8	-2.1	**-0.3**	-9.4	-27.0	3.2	-0.8	2.1	**0.3**	9.4	27.0
My_f	-8.5	0.8	-3.6	-0.2	**-18.1**	-26.9	8.5	-0.8	3.6	0.2	**18.1**	26.9
Mz_f	-4.4	0.8	-2.3	-0.3	-11.2	**-27.0**	4.4	-0.8	2.3	0.3	11.2	**27.0**

Member 11

Fx_i	**-10.8**	-0.7	-1.2	-4.5	-9.8	-26.9	**10.8**	0.7	5.0	4.5	10.2	26.9
Fy_i	-4.5	**-0.7**	-1.0	-4.2	-3.8	-25.9	4.5	**0.7**	1.0	4.2	3.8	25.9
Fz_i	-10.8	-0.7	**-5.0**	-4.5	-10.2	-26.9	10.8	0.7	**5.0**	4.5	10.2	26.9
Mx_i	-5.6	-0.7	-2.1	**-4.6**	-2.4	-27.0	5.6	0.7	2.1	**4.6**	2.4	27.0
My_i	-10.8	-0.7	-5.0	-4.5	**-10.2**	-26.9	10.8	0.7	5.0	4.5	**10.2**	26.9
Mz_i	-7.0	-0.7	-2.4	-4.6	-3.3	**-27.0**	7.0	0.7	2.4	4.6	3.3	**27.0**
Fx_f	**-10.8**	-0.7	0.8	1.8	-10.5	-23.9	**10.8**	0.7	-2.0	-1.8	8.0	23.9
Fy_f	-4.5	**-0.7**	1.0	2.1	-3.8	-22.9	4.5	**0.7**	-1.0	-2.1	3.8	22.9
Fz_f	0.2	0.7	**-2.2**	-2.1	-3.2	23.0	-0.2	-0.7	**2.2**	2.1	3.2	-23.0
Mx_f	5.1	0.7	-0.9	**-2.2**	4.8	22.9	-5.1	-0.7	0.9	**2.2**	-4.8	-22.9
My_f	-10.5	-0.7	-1.4	1.8	**-15.2**	-24.0	10.5	0.7	1.4	-1.8	**15.2**	24.0
Mz_f	-7.0	-0.7	-0.4	1.8	-9.4	**-24.1**	7.0	0.7	0.4	-1.8	9.4	**24.1**

Member 12

Fx_i	**-10.4**	-2.5	1.0	-3.6	-14.2	-24.1	**10.4**	2.5	2.8	3.6	14.6	24.1
Fy_i	-6.5	**-2.5**	-0.2	-3.7	-7.5	-24.2	6.5	**2.5**	0.2	3.7	7.5	24.2
Fz_i	-0.5	2.4	**-3.5**	3.2	0.0	23.1	0.5	-2.4	**3.5**	-3.2	-0.0	-23.1
Mx_i	-5.7	-2.5	-0.1	**-3.7**	-7.0	-24.2	5.7	2.5	0.1	**3.7**	7.0	24.2
My_i	-10.4	-2.5	-2.8	-3.6	**-14.6**	-24.1	10.4	2.5	2.8	3.6	**14.6**	24.1
Mz_i	-7.4	-2.5	-0.4	-3.7	-8.1	**-24.2**	7.4	2.5	0.4	3.7	8.1	**24.2**
Fx_f	**-10.4**	-2.5	3.0	2.8	-5.2	-13.0	**10.4**	2.5	-4.2	-2.8	2.7	13.0
Fy_f	-6.5	**-2.5**	1.8	2.7	-4.0	-13.0	6.5	**2.5**	-1.8	-2.7	4.0	13.0
Fz_f	10.4	2.5	**-4.2**	-2.8	2.7	13.0	-10.4	-2.5	**4.2**	2.8	-2.7	-13.0
Mx_f	4.2	2.4	-2.8	**-3.3**	-0.7	12.2	-4.2	-2.4	2.8	**3.3**	0.7	-12.2
My_f	-10.0	-2.5	0.8	2.7	**-9.8**	-13.0	10.0	2.5	-0.8	-2.7	**9.8**	13.0
Mz_f	-7.4	-2.5	1.6	2.7	-5.4	**-13.0**	7.4	2.5	-1.6	-2.7	5.4	**13.0**

Member 13

Fx_i	**-7.4**	-5.0	3.2	-4.7	-16.1	-13.2	**7.4**	5.0	0.6	4.7	16.5	13.2
Fy_i	-4.5	**-5.0**	1.8	-4.8	-10.1	-13.3	4.5	**5.0**	-1.8	4.8	10.1	13.3
Fz_i	-2.9	4.7	**-5.3**	3.7	1.7	12.4	2.9	-4.7	**5.3**	-3.7	-1.7	-12.4
Mx_i	-4.5	-5.0	1.7	**-4.8**	-9.9	-13.3	4.5	5.0	-1.7	**4.8**	9.9	13.3
My_i	-7.4	-5.0	-0.6	-4.7	**-16.5**	-13.2	7.4	5.0	0.6	4.7	**16.5**	13.2
Mz_i	-5.6	-5.0	1.5	-4.8	-10.5	**-13.3**	5.6	5.0	-1.5	4.8	10.5	**13.3**
Fx_f	**-7.4**	-5.0	5.2	1.7	2.6	9.1	**7.4**	5.0	-6.4	-1.7	-5.2	-9.1
Fy_f	-4.5	**-5.0**	3.8	1.6	2.5	9.1	4.5	**5.0**	-3.8	-1.6	-2.5	-9.1
Fz_f	7.4	5.0	**-6.4**	-1.7	-5.2	-9.1	-7.4	-5.0	**6.4**	1.7	5.2	9.1
Mx_f	0.1	4.7	-5.0	**-2.8**	-9.6	-8.9	-0.1	-4.7	5.0	**2.8**	9.6	8.9
My_f	-2.4	4.7	-5.8	-2.7	**-13.9**	-8.9	2.4	-4.7	5.8	2.7	**13.9**	8.9
Mz_f	0.6	4.9	-4.3	-1.8	-7.6	**-9.2**	-0.6	-4.9	4.3	1.8	7.6	**9.2**

Member 14

Fx_i	**-6.3**	7.9	-3.4	6.7	-0.7	-8.7	**6.3**	-7.9	7.1	-6.7	1.1	8.7
Fy_i	-0.3	**-8.4**	3.9	-8.8	-10.5	8.9	0.3	**8.4**	-3.9	8.8	10.5	-8.9
Fz_i	-6.3	7.9	**-7.1**	6.7	-1.1	-8.7	6.3	-7.9	**7.1**	-6.7	1.1	8.7
Mx_i	-0.3	-8.4	3.6	**-8.8**	-9.9	8.9	0.3	8.4	-3.6	**8.8**	9.9	-8.9
My_i	-1.8	-8.4	1.5	-8.7	**-16.5**	8.8	1.8	8.4	-1.5	8.7	**16.5**	-8.8
Mz_i	-3.7	8.3	-4.3	8.4	5.5	**-8.9**	3.7	-8.3	4.3	-8.4	-5.5	**8.9**
Fx_f	**-6.3**	7.9	-5.3	0.3	-20.3	-44.2	**6.3**	-7.9	**4.1**	**-0.3**	17.7	44.2
Fy_f	-0.3	**-8.4**	5.9	-2.4	11.3	46.8	0.3	**8.4**	-5.9	2.4	-11.3	-46.8
Fz_f	1.8	8.4	**-8.5**	2.3	-14.8	-46.7	-1.8	-8.4	**8.5**	-2.3	14.8	46.7
Mx_f	-0.3	-8.4	5.6	**-2.4**	10.8	46.8	0.3	8.4	-5.6	**2.4**	-10.8	-46.8
My_f	-6.0	7.9	-7.6	0.3	**-24.8**	-44.1	6.0	-7.9	7.6	-0.3	**24.8**	44.1
Mz_f	-0.7	8.4	-5.9	2.4	-12.8	**-46.8**	0.7	-8.4	5.9	-2.4	12.8	**46.8**

Member 15

Fx_i	**-4.7**	-8.3	8.9	2.1	-27.0	-44.2	**4.7**	8.3	-5.1	-2.1	27.4	44.2
Fy_i	1.6	**-8.9**	10.5	0.2	-19.2	-46.8	-1.6	**8.9**	-10.8	-0.2	19.8	46.8
Fz_i	-2.8	8.8	**-12.8**	-0.1	13.1	46.8	2.8	-8.8	**12.8**	0.1	-13.1	-46.8
Mx_i	4.7	8.3	-5.1	**-2.1**	27.4	44.2	-4.7	-8.3	5.1	**2.1**	-27.4	-44.2
My_i	-4.7	-8.3	5.1	2.1	**-27.4**	-44.2	4.7	8.3	-5.1	-2.1	**27.4**	44.2
Mz_i	1.6	-8.9	10.5	0.2	-19.2	**-46.8**	-1.6	8.9	-10.8	-0.2	19.8	**46.8**
Fx_f	**-4.7**	-8.3	7.0	-4.3	8.8	-6.9	**4.7**	8.3	-8.2	4.3	-11.3	6.9
Fy_f	1.6	**-8.9**	8.5	-6.2	23.7	-7.0	-1.6	**8.9**	-8.8	6.2	-24.3	7.0
Fz_f	-2.6	8.8	**-9.3**	6.3	-27.4	7.0	2.6	-8.8	**9.3**	-6.3	27.4	-7.0
Mx_f	2.8	-8.8	5.8	**-6.3**	20.1	-7.0	-2.8	8.8	-5.8	**6.3**	-20.1	7.0
My_f	-2.6	8.8	-9.3	6.3	**-27.4**	7.0	2.6	-8.8	9.3	-6.3	**27.4**	-7.0
Mz_f	-0.6	-8.7	6.9	-5.8	16.1	**-7.0**	0.6	8.7	-6.9	5.8	-16.1	**7.0**

Member 16

Fx_i	**-11.9**	5.4	-6.9	-4.1	2.1	7.3	**11.9**	-5.4	10.7	4.1	-1.7	-7.3
Fy_i	10.5	**-5.4**	8.4	4.1	-6.8	-7.3	-10.5	**5.4**	-8.7	-4.1	7.5	7.3
Fz_i	-11.9	5.4	**-10.7**	-4.1	1.7	7.3	11.9	-5.4	**10.7**	4.1	-1.7	-7.3
Mx_i	-2.8	5.1	-7.7	**-5.1**	13.0	7.2	2.8	-5.1	7.7	**5.1**	-13.0	-7.2
My_i	1.6	-5.1	3.3	5.1	**-13.2**	-7.2	-1.6	5.1	-3.3	-5.1	**13.2**	7.2
Mz_i	7.0	-5.4	7.9	4.3	-9.3	**-7.3**	-7.0	5.4	-7.9	-4.3	9.3	**7.3**
Fx_f	**-11.9**	5.4	-4.9	2.3	-24.6	-17.0	**11.9**	-5.4	3.7	-2.3	22.1	17.0
Fy_f	10.5	**-5.4**	6.4	-2.2	26.5	17.0	-10.5	**5.4**	-6.7	2.2	-27.1	-17.0
Fz_f	-11.7	5.4	**-7.2**	2.3	-29.5	-17.0	11.7	-5.4	**7.2**	-2.3	29.5	17.0
Mx_f	10.7	-5.4	4.3	**-2.3**	22.0	17.0	-10.7	5.4	-4.3	**2.3**	-22.0	-17.0
My_f	-11.7	5.4	-7.2	2.3	**-29.5**	-17.0	11.7	-5.4	7.2	-2.3	**29.5**	17.0
Mz_f	-10.5	5.4	-6.4	2.2	-26.5	**-17.0**	10.5	-5.4	6.7	-2.2	27.1	**17.0**

Member 17

Fx_i	**-18.1**	2.9	-4.8	-5.2	-8.9	-16.7	**18.1**	-2.9	8.6	5.2	9.3	16.7
Fy_i	13.7	**-2.9**	6.0	5.4	1.9	16.7	-13.7	**2.9**	-6.0	-5.4	-1.9	-16.7
Fz_i	-18.1	2.9	**-8.6**	-5.2	-9.3	-16.7	18.1	-2.9	**8.6**	5.2	9.3	16.7
Mx_i	-9.1	2.8	-5.6	**-5.7**	2.0	-15.7	9.1	-2.8	5.6	**5.7**	-2.0	15.7
My_i	-18.1	2.9	-8.6	-5.2	**-9.3**	-16.7	18.1	-2.9	8.6	5.2	**9.3**	16.7
Mz_i	-17.8	2.9	-7.1	-5.3	-3.5	**-16.7**	17.8	-2.9	7.1	5.3	3.5	**16.7**
Fx_f	**-18.1**	2.9	-2.8	1.1	-26.0	-29.8	**18.1**	-2.9	1.6	**-1.1**	23.5	29.8
Fy_f	13.7	**-2.9**	4.0	-1.0	24.2	29.8	-13.7	**2.9**	-4.0	1.0	-24.2	-29.8
Fz_f	-17.8	2.9	**-5.1**	1.1	-30.9	-29.8	17.8	-2.9	**5.1**	-1.1	30.9	29.8
Mx_f	15.7	-2.9	2.4	**-1.2**	22.8	29.7	-15.7	2.9	-2.4	**1.2**	-22.8	-29.7
My_f	-17.8	2.9	-5.1	1.1	**-30.9**	-29.8	17.8	-2.9	5.1	-1.1	**30.9**	29.8
Mz_f	-16.6	2.9	-4.3	1.1	-27.9	**-29.8**	16.6	-2.9	4.6	-1.1	28.5	**29.8**

Member 18

Fx_i	**-21.8**	1.0	-2.7	-4.7	-17.5	-29.6	**21.8**	-1.0	6.5	4.7	17.9	29.6
Fy_i	16.6	**-1.0**	3.7	4.9	9.9	29.5	-16.6	**1.0**	-3.7	-4.9	-9.9	-29.5
Fz_i	-21.8	1.0	**-6.5**	-4.7	-17.9	-29.6	21.8	-1.0	**6.5**	4.7	17.9	29.6
Mx_i	-13.9	0.9	-3.5	**-4.9**	-7.6	-28.2	13.9	-0.9	3.5	**4.9**	7.6	28.2
My_i	-21.8	1.0	-6.5	-4.7	**-17.9**	-29.6	21.8	-1.0	6.5	4.7	**17.9**	29.6
Mz_i	-21.6	1.0	-4.9	-4.7	-12.1	**-29.6**	21.6	-1.0	4.9	4.7	12.1	**29.6**
Fx_f	**-21.8**	1.0	-0.7	1.7	-25.0	-33.9	**21.8**	-1.0	-0.5	-1.7	22.5	33.9
Fy_f	16.6	**-1.0**	1.7	-1.5	22.1	33.9	-16.6	**1.0**	-1.7	1.5	-22.1	-33.9
Fz_f	-21.6	1.0	**-3.0**	1.6	-29.9	-34.0	21.6	-1.0	**3.0**	-1.6	29.9	34.0
Mx_f	17.7	-0.9	0.6	**-1.7**	20.7	33.8	-17.7	0.9	-0.6	**1.7**	-20.7	-33.8
My_f	-21.6	1.0	-3.0	1.6	**-29.9**	-34.0	21.6	-1.0	3.0	-1.6	**29.9**	34.0
Mz_f	-19.2	1.0	-2.1	1.6	-25.5	**-34.0**	19.2	-1.0	2.2	-1.6	25.7	**34.0**

Member 19

Fx_i	**-23.2**	-0.9	-0.5	-3.8	-23.6	-34.0	**23.2**	0.9	4.3	3.8	24.0	34.0
Fy_i	-19.1	**-0.9**	-0.5	-3.7	-19.6	-33.8	19.1	**0.9**	0.5	3.7	19.6	33.8
Fz_i	-23.2	-0.9	**-4.3**	-3.8	-24.0	-34.0	23.2	0.9	**4.3**	3.8	24.0	34.0
Mx_i	-17.3	-0.8	-1.5	**-3.9**	-15.5	-33.8	17.3	0.8	1.5	**3.9**	15.5	33.8
My_i	-23.2	-0.9	-4.3	-3.8	**-24.0**	-34.0	23.2	0.9	4.3	3.8	**24.0**	34.0
Mz_i	**-21.6**	-0.9	-2.0	-3.9	-18.7	**-34.0**	21.6	0.9	2.3	3.9	18.1	**34.0**
Fx_f	**-23.2**	-0.9	1.4	2.6	-21.6	-30.1	**23.2**	0.9	-2.6	-2.6	19.1	30.1
Fy_f	-19.1	**-0.9**	1.5	2.7	-17.4	-29.9	19.1	**0.9**	-1.5	-2.7	17.4	29.9
Fz_f	11.1	0.8	**-2.7**	-2.7	6.7	28.5	-11.1	-0.8	**2.7**	2.7	-6.7	-28.5
Mx_f	16.7	0.8	-1.4	**-2.8**	15.2	28.6	-16.7	-0.8	1.4	**2.8**	-15.2	-28.6
My_f	-22.9	-0.9	-0.8	2.6	**-26.4**	-30.1	22.9	0.9	0.8	-2.6	**26.4**	30.1
Mz_f	-20.4	-0.8	-0.1	2.5	-22.2	**-30.2**	20.4	0.8	0.1	-2.5	22.2	**30.2**

Member 20

Fx_i	**-22.1**	-3.0	1.6	-3.8	-27.3	-30.3	**22.1**	3.0	2.2	3.8	27.7	30.3
Fy_i	-22.1	**-3.0**	1.6	-3.8	-27.3	-30.3	22.1	**3.0**	2.2	3.8	27.7	30.3
Fz_i	9.8	2.9	**-4.0**	3.4	11.6	28.6	-9.8	-2.9	**4.0**	-3.4	-11.6	-28.6
Mx_i	-17.5	-3.0	0.3	**-3.9**	-19.9	-30.2	17.5	3.0	-0.3	**3.9**	19.9	30.2
My_i	-22.1	-3.0	-2.2	-3.8	**-27.7**	-30.3	22.1	3.0	2.2	3.8	**27.7**	30.3
Mz_i	-20.4	-3.0	-0.2	-3.9	-21.7	**-30.3**	20.4	3.0	0.2	3.9	21.7	**30.3**
Fx_f	**-22.1**	-3.0	3.6	2.6	-15.7	-16.9	**22.1**	3.0	-4.8	-2.6	13.2	16.9
Fy_f	-22.1	**-3.0**	3.6	2.6	-15.7	-16.9	22.1	**3.0**	-4.8	-2.6	13.2	16.9
Fz_f	22.1	3.0	**-4.8**	-2.6	13.2	16.9	-22.1	-3.0	**4.8**	2.6	-13.2	-16.9
Mx_f	14.4	2.9	-3.5	**-3.1**	8.2	15.8	-14.4	-2.9	3.5	**3.1**	-8.2	-15.8
My_f	-21.8	-3.0	1.3	2.5	**-20.5**	-16.9	21.8	3.0	-1.3	-2.5	**20.5**	16.9
Mz_f	-20.4	-3.0	1.8	2.5	-17.9	**-16.9**	20.4	3.0	-1.8	-2.5	17.9	**16.9**

Member 21

Fx_i	**-18.6**	-5.9	3.7	-6.3	-28.6	-17.2	**18.6**	5.9	0.1	6.3	29.0	17.2
Fy_i	-16.9	**-5.9**	2.2	-6.4	-23.6	-17.2	16.9	**5.9**	-2.2	6.4	23.6	17.2
Fz_i	6.8	5.6	**-5.9**	5.2	12.7	16.0	-6.8	-5.6	**5.9**	-5.2	-12.7	-16.0
Mx_i	-15.8	-5.9	2.2	**-6.4**	-22.3	-17.1	15.8	5.9	-2.2	**6.4**	22.3	17.1
My_i	-18.6	-5.9	-0.1	-6.3	**-29.0**	-17.2	18.6	5.9	0.1	6.3	**29.0**	17.2
Mz_i	-18.2	-5.9	1.4	-6.3	-23.1	**-17.2**	18.2	5.9	-1.4	6.3	23.1	**17.2**
Fx_f	**-18.6**	-5.9	5.7	0.1	-7.4	9.5	**18.6**	5.9	-6.9	-0.1	4.9	-9.5
Fy_f	-16.9	**-5.9**	4.2	0.0	-9.1	9.5	16.9	**5.9**	-4.2	-0.0	9.1	-9.5
Fz_f	18.6	5.9	**-6.9**	-0.1	4.9	-9.5	-18.6	-5.9	**6.9**	0.1	-4.9	9.5
Mx_f	9.6	5.6	-5.6	**-1.2**	-1.4	-9.3	-9.6	-5.6	5.6	**1.2**	1.4	9.3
My_f	-18.2	-5.9	3.4	0.1	**-12.2**	9.5	18.2	5.9	-3.4	-0.1	**12.2**	-9.5
Mz_f	11.6	5.9	-4.8	-0.2	2.5	**-9.6**	-11.6	-5.9	4.8	0.2	-2.5	**9.6**

Member 22

Fx_i	**-11.2**	-10.2	5.8	-12.7	-31.7	9.2	**11.2**	10.2	-2.0	12.7	32.1	-9.2
Fy_i	-10.9	**-10.2**	4.6	-12.7	-28.5	9.2	10.9	**10.2**	-4.6	12.7	28.5	-9.2
Fz_i	1.6	9.5	**-7.7**	10.5	12.3	-9.0	-1.6	-9.5	**7.7**	-10.5	-12.3	9.0
Mx_i	-9.8	-10.2	4.1	**-12.7**	-25.6	9.2	9.8	10.2	-4.1	**12.7**	25.6	-9.2
My_i	-11.2	-10.2	2.0	-12.7	**-32.1**	9.2	11.2	10.2	-2.0	12.7	**32.1**	-9.2
Mz_i	5.6	10.1	-4.8	12.4	20.7	**-9.3**	-5.6	-10.1	4.8	-12.4	-20.7	**9.3**
Fx_f	**-11.2**	-10.2	7.8	-6.3	-1.0	54.9	**11.2**	10.2	-9.0	6.3	-1.5	-54.9
Fy_f	-10.9	**-10.2**	6.6	-6.3	-3.3	55.0	10.9	**10.2**	-6.6	6.3	3.3	-55.0
Fz_f	11.2	10.2	**-9.0**	6.3	-1.5	-54.9	-11.2	-10.2	**9.0**	-6.3	1.5	54.9
Mx_f	-9.8	-10.2	6.0	**-6.3**	-2.8	55.0	9.8	10.2	-6.0	**6.3**	2.8	-55.0
My_f	1.9	9.5	-8.2	4.0	**-14.1**	-51.7	-1.9	-9.5	8.2	-4.0	**14.1**	51.7
Mz_f	9.8	10.2	-6.3	6.3	2.2	**-55.0**	-9.8	-10.2	6.3	-6.3	-2.2	**55.0**

Member 23

Fx_i	**-11.4**	10.4	-7.7	4.9	-2.8	55.0	**11.4**	-10.4	11.5	-4.9	3.2	-55.0
Fy_i	11.2	**-10.4**	9.0	-4.9	-0.4	-55.0	-11.2	**10.4**	-10.0	4.9	2.7	55.0
Fz_i	-11.4	10.4	**-11.5**	4.9	-3.2	55.0	11.4	-10.4	**11.5**	-4.9	3.2	-55.0
Mx_i	11.4	-10.4	11.5	**-4.9**	3.2	-55.0	-11.4	10.4	-11.5	**4.9**	-3.2	55.0
My_i	2.3	-9.7	4.1	-2.6	**-14.4**	-51.7	-2.3	9.7	-4.1	2.6	**14.4**	51.7
Mz_i	11.2	-10.4	9.0	-4.9	-0.4	**-55.0**	-11.2	10.4	-9.0	4.9	0.4	**55.0**
Fx_f	**-11.4**	10.4	-5.7	11.3	-33.0	8.3	**11.4**	-10.4	4.5	-11.3	30.5	-8.3
Fy_f	11.2	**-10.4**	7.0	-11.3	35.4	-8.3	-11.2	**10.4**	-8.0	11.3	-37.8	8.3
Fz_f	-11.2	10.4	**-8.0**	11.3	-37.8	8.3	11.2	-10.4	**8.0**	-11.3	37.8	-8.3
Mx_f	11.4	-10.4	4.5	**-11.3**	30.5	-8.3	-11.4	10.4	-4.5	**11.3**	-30.5	8.3
My_f	-11.2	10.4	-8.0	11.3	**-37.8**	8.3	11.2	-10.4	8.0	-11.3	**37.8**	-8.3
Mz_f	7.0	-10.2	5.7	-10.8	24.9	**-8.3**	-7.0	10.2	-5.7	10.8	-24.9	**8.3**

Member 24

Fx_i	**-20.2**	6.1	-5.6	-1.5	-9.3	8.6	**20.2**	-6.1	9.4	1.5	9.7	-8.6
Fy_i	20.0	**-6.1**	6.8	1.5	6.3	-8.6	-20.0	**6.1**	-6.8	-1.5	-6.3	8.6
Fz_i	-20.2	6.1	**-9.4**	-1.5	-9.7	8.6	20.2	-6.1	**9.4**	1.5	9.7	-8.6
Mx_i	-9.6	5.8	-6.7	**-2.6**	3.8	8.4	9.6	-5.8	6.7	**2.6**	-3.8	-8.4
My_i	-20.2	6.1	-9.4	-1.5	**-9.7**	8.6	20.2	-6.1	9.4	1.5	**9.7**	-8.6
Mz_i	14.3	-6.1	5.7	1.7	3.1	**-8.7**	-14.3	6.1	-5.7	-1.7	-3.1	**8.7**
Fx_f	**-20.2**	6.1	-3.6	4.9	-30.0	-19.0	**20.2**	-6.1	2.4	**-4.9**	27.5	19.0
Fy_f	20.0	**-6.1**	4.9	-4.9	32.6	19.0	-20.0	**6.1**	-4.9	4.9	-32.6	-19.0
Fz_f	-20.0	6.1	**-5.9**	4.9	-35.0	-19.0	20.0	-6.1	**5.9**	-4.9	35.0	19.0
Mx_f	19.0	-6.1	3.0	**-5.0**	27.3	19.0	-19.0	6.1	-3.0	**5.0**	-27.3	-19.0
My_f	-20.0	6.1	-5.9	4.9	**-35.0**	-19.0	20.0	-6.1	5.9	-4.9	**35.0**	19.0
Mz_f	-20.0	6.1	-5.9	4.9	-35.0	**-19.0**	20.0	-6.1	5.9	-4.9	35.0	**19.0**

Member 25

Fx_i	**-25.0**	3.2	-3.5	-3.9	-18.8	-18.7	**25.0**	-3.2	7.3	3.9	19.2	18.7
Fy_i	21.4	**-3.2**	4.8	4.1	12.2	18.7	-21.4	**3.2**	-4.8	-4.1	-12.1	-18.7
Fz_i	-25.0	3.2	**-7.3**	-3.9	-19.2	-18.7	25.0	-3.2	**7.3**	3.9	19.2	18.7
Mx_i	-15.6	3.1	-4.4	**-4.5**	-7.3	-17.6	15.6	-3.1	4.4	**4.5**	7.3	17.6
My_i	-25.0	3.2	-7.3	-3.9	**-19.2**	-18.7	25.0	-3.2	7.3	3.9	**19.2**	18.7
Mz_i	-25.0	3.2	-7.3	-3.9	-19.2	**-18.7**	25.0	-3.2	7.3	3.9	19.2	**18.7**
Fx_f	**-25.0**	3.2	-1.5	2.5	-30.0	-33.1	**25.0**	-3.2	0.3	-2.5	27.5	33.1
Fy_f	21.4	**-3.2**	2.8	-2.3	29.4	33.1	-21.4	**3.2**	-2.9	2.3	-29.4	-33.1
Fz_f	-24.7	3.2	**-3.8**	2.4	-34.9	-33.1	24.7	-3.2	**3.8**	-2.4	34.9	33.1
Mx_f	21.6	-3.2	1.3	**-2.5**	26.0	33.0	-21.6	3.2	-1.3	**2.5**	-26.0	-33.0
My_f	-24.7	3.2	-3.8	2.4	**-34.9**	-33.1	24.7	-3.2	3.8	-2.4	**34.9**	33.1
Mz_f	-24.7	3.2	-2.7	2.4	-32.6	**-33.1**	24.7	-3.2	3.8	-2.4	34.9	**33.1**

Member 26

Fx_i	**-27.3**	1.0	-1.4	-4.1	-25.9	-33.0	**27.3**	-1.0	5.2	4.1	26.3	33.0
Fy_i	21.9	**-1.0**	2.5	4.2	18.0	32.8	-21.9	**1.0**	-2.5	-4.2	-18.0	-32.8
Fz_i	-27.3	1.0	**-5.2**	-4.1	-26.3	-33.0	27.3	-1.0	**5.2**	4.1	26.3	33.0
Mx_i	-19.1	1.0	-2.3	**-4.3**	-15.4	-31.3	19.1	-1.0	2.3	**4.3**	15.4	31.3
My_i	-27.3	1.0	-5.2	-4.1	**-26.3**	-33.0	27.3	-1.0	5.2	4.1	**26.3**	33.0
Mz_i	-27.3	1.0	-1.4	-4.1	-25.9	**-33.0**	27.3	-1.0	5.2	4.1	26.3	**33.0**
Fx_f	**-27.3**	1.0	0.6	2.3	-27.6	-37.6	**27.3**	-1.0	-1.8	-2.3	25.0	37.6
Fy_f	21.9	**-1.0**	0.5	-2.1	24.7	37.5	-21.9	**1.0**	-0.5	2.1	-24.7	-37.5
Fz_f	14.4	-1.0	-1.9	-2.2	11.6	35.6	-14.4	1.0	**1.9**	2.2	-11.6	-35.6
Mx_f	22.3	-1.0	-0.6	**-2.4**	22.6	37.4	-22.3	1.0	0.6	**2.4**	-22.6	-37.4
My_f	-27.0	1.0	-1.7	2.3	**-32.4**	-37.6	27.0	-1.0	1.7	-2.3	**32.4**	37.6
Mz_f	-25.7	1.0	-0.9	2.2	-29.4	**-37.6**	25.7	-1.0	1.1	-2.2	29.9	**37.6**

Member 27

Fx_i	**-27.2**	-0.9	0.8	-3.6	-30.5	-37.6	**27.2**	0.9	3.0	3.6	30.9	37.6
Fy_i	-22.2	**-0.9**	0.7	-3.5	-25.4	-37.4	22.2	**0.9**	-0.7	3.5	25.4	37.4
Fz_i	13.9	0.9	**-3.3**	3.5	14.0	35.6	-13.9	-0.9	**3.3**	-3.5	-14.0	-35.6
Mx_i	-21.2	-0.9	-0.3	**-3.7**	-22.2	-37.4	21.2	0.9	0.3	**3.7**	22.2	37.4
My_i	-27.2	-0.9	-3.0	-3.6	**-30.9**	-37.6	27.2	0.9	3.0	3.6	**30.9**	37.6
Mz_i	-26.8	-0.9	-0.5	-3.7	-27.4	**-37.6**	26.8	0.9	1.5	3.7	25.1	**37.6**
Fx_f	**-27.2**	-0.9	2.7	2.8	-22.7	-33.4	**27.2**	0.9	-3.9	-2.8	20.2	33.4
Fy_f	-22.2	**-0.9**	2.7	2.9	-17.8	-33.2	22.2	**0.9**	-2.7	-2.9	17.8	33.2
Fz_f	27.2	0.9	**-3.9**	-2.8	20.2	33.4	-27.2	-0.9	**3.9**	2.8	-20.2	-33.4
Mx_f	19.9	0.9	-2.5	**-3.0**	15.8	31.7	-19.9	-0.9	2.5	**3.0**	-15.8	-31.7
My_f	-26.8	-0.9	0.5	2.7	**-27.5**	-33.4	26.8	0.9	-0.5	-2.7	**27.5**	33.4
Mz_f	-25.5	-0.9	1.2	2.7	-24.4	**-33.4**	25.5	0.9	-1.0	-2.7	25.0	**33.4**

Member 28

Fx_i	**-24.6**	-3.2	2.9	-4.2	-32.8	-33.6	**24.6**	3.2	0.9	4.2	33.2	33.6
Fy_i	-23.4	**-3.2**	3.2	-4.1	-32.3	-33.6	23.4	**3.2**	-3.5	4.1	32.9	33.6
Fz_i	11.7	3.1	-5.1	3.6	15.9	31.7	-11.7	-3.1	**5.1**	-3.6	-15.9	-31.7

Mx,	-20.8	-3.2	1.5	**-4.2**	-25.8	-33.5	20.8	3.2	-1.5	**4.2**	25.8	33.5
My,	-24.6	-3.2	-0.9	-4.2	**-33.2**	-33.6	24.6	3.2	0.9	4.2	**33.2**	33.6
Mz,	-24.3	-3.2	1.6	-4.2	-29.6	**-33.6**	24.3	3.2	-0.6	4.2	27.3	**33.6**
Fx,	**-24.6**	-3.2	4.9	2.2	-15.4	-19.1	**24.6**	3.2	-6.1	-2.2	12.9	19.1
Fy,	-23.4	**-3.2**	5.2	2.3	-13.5	-19.0	23.4	**3.2**	-5.5	-2.3	12.8	19.0
Fz,	24.6	3.2	**-6.1**	-2.2	12.9	19.1	-24.6	-3.2	**6.1**	2.2	-12.9	-19.1
Mx,	15.5	3.1	-4.7	**-2.8**	6.5	17.8	-15.5	-3.1	4.7	**2.8**	-6.5	-17.8
My,	-24.3	-3.2	2.6	2.2	**-20.2**	-19.1	24.3	3.2	-2.6	-2.2	**20.2**	19.1
Mz,	-23.0	-3.2	3.1	2.2	-17.7	**-19.1**	23.0	3.2	-3.1	-2.2	17.7	**19.1**

Member 29

Fx,	**-19.7**	-6.4	5.0	-7.4	-32.6	-19.4	**19.7**	6.4	-1.2	7.4	33.0	19.4
Fy,	-19.3	**-6.4**	3.7	-7.5	-29.4	-19.4	19.3	**6.4**	-3.7	7.5	29.4	19.4
Fz,	7.5	6.1	**-7.0**	6.3	15.8	18.1	-7.5	-6.1	**7.0**	-6.3	-15.8	-18.1
Mx,	-16.9	-6.4	3.4	**-7.5**	-26.3	-19.4	16.9	6.4	-3.4	**7.5**	26.3	19.4
My,	-19.7	-6.4	1.2	-7.4	**-33.0**	-19.4	19.7	6.4	-1.2	7.4	**33.0**	19.4
Mz,	-19.3	-6.4	2.7	-7.5	-27.1	**-19.4**	19.3	6.4	-2.7	7.5	27.1	**19.4**
Fx,	**-19.7**	-6.4	7.0	-1.1	-5.7	9.6	**19.7**	6.4	-8.2	1.1	3.1	-9.6
Fy,	-19.3	**-6.4**	5.7	-1.1	-8.1	9.6	19.3	**6.4**	-5.7	1.1	8.1	-9.6
Fz,	19.7	6.4	**-8.2**	1.1	3.1	-9.6	-19.7	-6.4	**8.2**	-1.1	-3.1	9.6
Mx,	-16.9	-6.4	5.4	**-1.1**	-6.4	9.6	16.9	6.4	-5.4	**1.1**	6.4	-9.6
My,	-19.3	-6.4	4.7	-1.1	**-10.5**	9.6	19.3	6.4	-4.7	1.1	**10.5**	-9.6
Mz,	12.7	6.4	-6.0	0.9	0.9	**-9.7**	-12.7	-6.4	6.0	-0.9	-0.9	**9.7**

Member 30

Fx,	**-11.0**	-11.2	7.1	-15.3	-34.2	9.3	**11.0**	11.2	-3.3	15.3	34.6	-9.3
Fy,	-10.7	**-11.2**	5.9	-15.4	-30.9	9.3	10.7	**11.2**	-5.9	15.4	30.9	-9.3
Fz,	1.1	10.5	**-8.8**	12.9	13.9	-9.0	-1.1	-10.5	**8.8**	-12.9	-13.9	9.0
Mx,	-10.7	-11.2	4.8	**-15.4**	-28.6	9.3	10.7	11.2	-4.8	**15.4**	28.6	-9.3
My,	-11.0	-11.2	3.3	-15.3	**-34.6**	9.3	11.0	11.2	-3.3	15.3	**34.6**	-9.3
Mz,	5.4	11.1	-6.0	14.9	23.0	**-9.3**	-5.4	-11.1	6.0	-14.9	-23.0	**9.3**
Fx,	**-11.0**	-11.2	9.1	-9.0	2.3	59.6	**11.0**	11.2	-10.3	9.0	-4.8	-59.6
Fy,	-10.7	**-11.2**	7.8	-9.0	-0.1	59.7	10.7	**11.2**	-7.8	9.0	0.1	-59.7
Fz,	11.0	11.2	**-10.3**	9.0	-4.8	-59.6	-11.0	-11.2	**10.3**	-9.0	4.8	59.6
Mx,	-10.7	-11.2	6.8	**-9.0**	-2.5	59.7	10.7	11.2	-6.8	**9.0**	2.5	-59.7
My,	1.4	10.5	-9.3	6.5	**-17.5**	-56.1	-1.4	-10.5	9.3	-6.5	**17.5**	56.1
Mz,	10.7	11.2	-7.8	9.0	0.1	**-59.7**	-10.7	-11.2	7.8	-9.0	-0.1	**59.7**

Member 31

Fx,	**-10.8**	11.3	-8.1	8.5	-0.8	59.7	**10.8**	-11.3	11.9	-8.5	1.2	-59.7
Fy,	10.8	**-11.3**	8.1	-8.5	0.8	-59.7	-10.8	**11.3**	-8.1	8.5	-0.8	59.7
Fz,	-10.8	11.3	**-11.9**	8.5	-1.2	59.7	10.8	-11.3	**11.9**	-8.5	1.2	-59.7
Mx,	10.8	-11.3	11.9	**-8.5**	1.2	-59.7	-10.8	11.3	-11.9	**8.5**	-1.2	59.7
My,	1.5	-10.5	4.6	-6.0	**-16.9**	-56.1	-1.5	10.5	-4.6	6.0	**16.9**	56.1
Mz,	10.8	-11.3	8.1	-8.5	0.8	**-59.7**	-10.8	11.3	-8.1	8.5	-0.8	**59.7**
Fx,	**-10.8**	11.3	-6.2	14.8	-33.0	8.9	**10.8**	-11.3	5.0	-14.8	30.5	-8.9
Fy,	10.8	**-11.3**	6.2	-14.8	33.0	-8.9	-10.8	**11.3**	-6.2	14.8	-33.0	8.9
Fz,	-10.6	11.3	**-8.5**	14.8	-37.9	8.9	10.6	-11.3	**8.5**	-14.8	37.9	-8.9
Mx,	10.8	-11.3	5.0	**-14.8**	30.5	-8.9	-10.8	11.3	-5.0	**14.8**	-30.5	8.9
My,	-10.6	11.3	-8.5	14.8	**-37.9**	8.9	10.6	-11.3	8.5	-14.8	**37.9**	-8.9
Mz,	5.8	-11.1	6.2	-14.4	24.0	**-9.0**	-5.8	11.1	-6.2	14.4	-24.0	**9.0**

Member 32

Fx,	**-20.0**	6.5	-6.0	0.6	-8.1	9.3	**20.0**	-6.5	9.8	-0.6	8.5	-9.3
Fy,	20.0	**-6.5**	6.0	-0.6	8.1	-9.3	-20.0	**6.5**	-6.0	0.6	-8.1	9.3
Fz,	-20.0	6.5	**-9.8**	0.6	-8.5	9.3	20.0	-6.5	**9.8**	-0.6	8.5	-9.3
Mx,	-10.3	6.2	-7.0	**-0.7**	3.7	9.0	10.3	-6.2	7.0	**0.7**	-3.7	-9.0
My,	-20.0	6.5	-9.8	0.6	**-8.5**	9.3	20.0	-6.5	9.8	-0.6	**8.5**	-9.3
Mz,	13.7	-6.5	6.1	-0.4	1.5	**-9.4**	-13.7	6.5	-6.1	0.4	-1.5	**9.4**
Fx,	**-20.0**	6.5	-4.1	7.0	-30.8	-20.1	**20.0**	-6.5	2.9	-7.0	28.3	20.1
Fy,	20.0	**-6.5**	4.1	-7.0	30.8	20.1	-20.0	**6.5**	-4.1	7.0	-30.8	-20.1
Fz,	-19.8	6.5	**-6.3**	6.9	-35.8	-20.1	19.8	-6.5	**6.3**	-6.9	35.8	20.1
Mx,	17.6	-6.5	3.7	**-7.0**	27.5	20.0	-17.6	6.5	-3.7	**7.0**	-27.5	-20.0
My,	-19.8	6.5	-6.3	6.9	**-35.8**	-20.1	19.8	-6.5	6.3	-6.9	**35.8**	20.1
Mz,	-19.8	6.5	-5.3	6.9	-33.4	**-20.1**	19.8	-6.5	6.3	-6.9	35.8	**20.1**

Member 33

Fx,	**-25.3**	3.3	-3.9	-2.7	-18.1	-19.7	**25.3**	-3.3	7.7	2.7	18.5	19.7
Fy,	22.7	**-3.3**	5.4	2.8	12.3	19.7	-22.7	**3.3**	-5.4	-2.8	-12.1	-19.7
Fz,	-25.3	3.3	**-7.7**	-2.7	-18.5	-19.7	25.3	-3.3	**7.7**	2.7	18.5	19.7
Mx,	-15.9	3.2	-4.9	**-3.3**	-6.3	-18.5	15.9	-3.2	4.9	**3.3**	6.3	18.5
My,	-25.3	3.3	-7.7	-2.7	**-18.5**	-19.7	25.3	-3.3	7.7	2.7	**18.5**	19.7
Mz,	-25.3	3.3	-3.9	-2.7	-18.1	**-19.7**	25.3	-3.3	7.7	2.7	18.5	**19.7**
Fx,	**-25.3**	3.3	-1.9	3.7	-31.3	-34.6	**25.3**	-3.3	0.7	-3.7	28.8	34.6
Fy,	22.7	**-3.3**	3.4	-3.6	32.0	34.6	-22.7	**3.3**	-3.5	3.6	-32.2	-34.6
Fz,	-25.0	3.3	**-4.2**	3.6	-36.2	-34.6	25.0	-3.3	**4.2**	-3.6	36.2	34.6
Mx,	21.8	-3.3	1.7	**-3.7**	27.3	34.5	-21.8	3.3	-1.7	**3.7**	-27.3	-34.5
My,	-25.0	3.3	-4.2	3.6	**-36.2**	-34.6	25.0	-3.3	4.2	-3.6	**36.2**	34.6
Mz,	-25.3	3.3	-1.9	3.7	-31.3	**-34.6**	25.3	-3.3	0.7	-3.7	28.8	**34.6**

Member 34

Fx,	**-28.1**	1.0	-1.8	-3.3	-25.7	-34.4	**28.1**	-1.0	5.6	3.3	26.1	34.4
Fy,	22.8	**-1.0**	2.9	3.4	17.9	34.3	-22.8	**1.0**	-2.9	-3.4	-17.9	-34.3
Fz,	-28.1	1.0	**-5.6**	-3.3	-26.1	-34.4	28.1	-1.0	**5.6**	3.3	26.1	34.4
Mx,	-20.5	1.0	-2.8	**-3.5**	-15.9	-32.7	20.5	-1.0	2.8	**3.5**	15.9	32.7
My,	-28.1	1.0	-5.6	-3.3	**-26.1**	-34.4	28.1	-1.0	5.6	3.3	**26.1**	34.4
Mz,	-26.8	1.0	-1.5	-3.3	-25.1	**-34.4**	26.8	-1.0	1.2	3.3	25.8	**34.4**
Fx,	**-28.1**	1.0	0.2	3.1	-29.4	-38.9	**28.1**	-1.0	-1.4	-3.1	26.9	38.9
Fy,	22.8	**-1.0**	1.0	-2.9	26.7	38.8	-22.8	**1.0**	-1.0	2.9	-26.7	-38.8
Fz,	-27.8	1.0	**-2.1**	3.1	-34.3	-38.9	27.8	-1.0	**2.1**	-3.1	34.3	38.9
Mx,	22.4	-1.0	-0.1	**-3.2**	23.8	38.7	-22.4	1.0	0.1	**3.2**	-23.8	-38.7
My,	-27.8	1.0	-2.1	3.1	**-34.3**	-38.9	27.8	-1.0	2.1	-3.1	**34.3**	38.9
Mz,	-27.8	1.0	-1.1	3.1	-31.9	**-38.9**	27.8	-1.0	2.1	-3.1	34.3	**38.9**

Member 35

Fx,	**-28.5**	-1.0	0.3	-3.0	-30.9	-38.9	**28.5**	1.0	3.5	3.0	31.3	38.9
Fy,	-23.4	**-1.0**	0.3	-2.8	-25.7	-38.8	23.4	**1.0**	-0.3	2.8	25.7	38.8
Fz,	-28.5	-1.0	**-3.5**	-3.0	-31.3	-38.9	28.5	1.0	**3.5**	3.0	31.3	38.9
Mx,	-23.2	-1.0	-0.9	**-3.1**	-23.0	-38.8	23.2	1.0	0.9	**3.1**	23.0	38.8
My,	-28.5	-1.0	-3.5	-3.0	**-31.3**	-38.9	28.5	1.0	3.5	3.0	**31.3**	38.9
Mz,	-28.5	-1.0	0.3	-3.0	-30.9	**-38.9**	28.5	1.0	3.5	3.0	31.3	**38.9**
Fx,	**-28.5**	-1.0	2.3	3.4	-25.0	-34.4	**28.5**	1.0	-3.5	-3.4	22.5	34.4
Fy,	-23.4	**-1.0**	2.2	3.5	-20.0	-34.2	23.4	**1.0**	-2.2	-3.5	20.0	34.2
Fz,	28.5	1.0	**-3.5**	-3.4	22.5	34.4	-28.5	-1.0	**3.5**	3.4	-22.5	-34.4
Mx,	20.4	1.0	-2.1	**-3.7**	17.2	32.6	-20.4	-1.0	2.1	**3.7**	-17.2	-32.6
My,	-28.2	-1.0	0.0	3.4	**-29.9**	-34.4	28.2	1.0	-0.0	-3.4	**29.9**	34.4
Mz,	-28.2	-1.0	1.0	3.4	-27.5	**-34.4**	28.2	1.0	-0.0	-3.4	29.9	**34.4**

Member 36

Fx,	**-26.5**	-3.3	2.4	-3.5	-33.6	-34.6	**26.5**	3.3	1.4	3.5	34.0	34.6
Fy,	-24.1	**-3.3**	2.7	-3.4	-31.9	-34.6	24.1	**3.3**	-2.8	3.4	32.1	34.6
Fz,	13.5	3.2	**-4.6**	3.0	16.6	32.7	-13.5	-3.2	**4.6**	-3.0	-16.6	-32.7
Mx,	-22.8	-3.3	1.0	**-3.6**	-26.7	-34.5	22.8	3.3	-1.0	**3.6**	26.7	34.5
My,	-26.5	-3.3	-1.4	-3.5	**-34.0**	-34.6	26.5	3.3	1.4	3.5	**34.0**	34.6
Mz,	-26.5	-3.3	2.4	-3.5	-33.6	**-34.6**	26.5	3.3	1.4	3.5	34.0	**34.6**
Fx,	**-26.5**	-3.3	4.4	2.9	-18.3	-19.7	**26.5**	3.3	-5.6	-2.9	15.7	19.7
Fy,	-24.1	**-3.3**	4.7	3.0	-15.3	-19.7	24.1	**3.3**	-4.8	-3.0	15.1	19.7
Fz,	26.5	3.3	**-5.6**	-2.9	15.7	19.7	-26.5	-3.3	**5.6**	2.9	-15.7	-19.7
Mx,	17.2	3.2	-4.2	**-3.5**	9.3	18.5	-17.2	-3.2	4.2	**3.5**	-9.3	-18.5
My,	-26.2	-3.3	2.1	2.9	**-23.1**	-19.7	26.2	3.3	-2.1	-2.9	**23.1**	19.7
Mz,	-26.2	-3.3	2.1	2.9	-23.1	**-19.7**	26.2	3.3	-2.1	-2.9	23.1	**19.7**

Member 37

Fx,	**-22.1**	-6.5	4.5	-6.7	-34.0	-20.0	**22.1**	6.5	-0.7	6.7	34.4	20.0
Fy,	-21.8	**-6.5**	3.3	-6.8	-30.8	-20.0	21.8	**6.5**	-3.3	6.8	30.8	20.0
Fz,	9.8	6.2	**-6.5**	5.5	17.0	18.7	-9.8	-6.2	**6.5**	-5.5	-17.0	-18.7
Mx,	-19.4	-6.5	3.0	**-6.8**	-27.7	-20.0	19.4	6.5	-3.0	**6.8**	27.7	20.0
My,	-22.1	-6.5	0.7	-6.7	**-34.4**	-20.0	22.1	6.5	-0.7	6.7	**34.4**	20.0
Mz,	-22.1	-6.5	0.7	-6.7	-34.4	**-20.0**	22.1	6.5	-0.7	6.7	34.4	**20.0**
Fx,	**-22.1**	-6.5	6.5	-0.3	-9.1	9.2	**22.1**	6.5	-7.7	0.3	6.6	-9.2
Fy,	-21.8	**-6.5**	5.3	-0.4	-11.6	9.2	21.8	**6.5**	-5.3	0.4	11.6	-9.2

Fz_f	22.1	6.5	**-7.7**	0.3	6.6	-9.2	-22.1	-6.5	**7.7**	-0.3	-6.6	9.2
Mx_f	12.5	6.2	-6.2	**-0.9**	0.1	-8.9	-12.5	-6.2	6.2	**0.9**	-0.1	8.9
My_f	-21.8	-6.5	4.2	-0.4	**-13.9**	9.2	21.8	6.5	-4.2	0.4	**13.9**	-9.2
Mz_f	15.7	6.4	-5.4	0.2	5.0	**-9.3**	-15.7	-6.4	5.4	-0.2	-5.0	**9.3**

Member 38

Fx_1	**-13.6**	-11.2	6.6	-14.5	-37.1	8.8	**13.6**	11.2	-2.9	14.5	37.5	-8.8
Fy_1	-13.3	**-11.2**	5.4	-14.5	-33.9	8.9	13.3	**11.2**	-5.4	14.5	33.9	-8.9
Fz_1	3.6	10.5	**-8.3**	12.0	16.7	-8.6	-3.6	-10.5	**8.3**	-12.0	-16.7	8.6
Mx_1	-13.3	-11.2	4.4	**-14.5**	-31.5	8.9	13.3	11.2	-4.4	**14.5**	31.5	-8.9
My_1	-13.6	-11.2	2.9	-14.5	**-37.5**	8.8	13.6	11.2	-2.9	14.5	**37.5**	-8.8
Mz_1	8.5	11.1	-5.4	14.1	26.6	**-8.9**	-8.5	-11.1	5.4	-14.1	-26.6	**8.9**
Fx_f	**-13.6**	-11.2	8.6	-8.1	-2.7	59.2	**13.6**	11.2	-9.8	8.1	0.2	-59.2
Fy_f	-13.3	**-11.2**	7.4	-8.1	-5.1	59.3	13.3	**11.2**	-7.4	8.1	5.1	-59.3
Fz_f	13.6	11.2	**-9.8**	8.1	0.2	-59.2	-13.6	-11.2	**9.8**	-8.1	-0.2	59.2
Mx_f	-13.3	-11.2	6.3	**-8.1**	-7.5	59.3	13.3	11.2	-6.3	**8.1**	7.5	-59.3
My_f	3.9	10.5	-8.8	5.6	**-12.5**	-55.7	-3.9	-10.5	8.8	-5.6	**12.5**	55.7
Mz_f	13.3	11.2	-7.4	8.1	5.1	**-59.3**	-13.3	-11.2	7.4	-8.1	-5.1	**59.3**

Member 39

Fx_1	**-13.6**	11.1	-8.1	8.8	-5.3	59.2	**13.6**	-11.1	11.9	-8.8	5.7	-59.2
Fy_1	13.6	**-11.1**	8.1	-8.8	5.3	-59.2	-13.6	**11.1**	-8.1	8.8	-5.3	59.2
Fz_1	-13.6	11.1	**-11.9**	8.8	-5.7	59.2	13.6	-11.1	**11.9**	-8.8	5.7	-59.2
Mx_1	12.5	-11.1	7.4	**-8.8**	4.9	-59.2	-12.5	11.1	-7.4	**8.8**	-4.9	59.2
My_1	4.2	-10.4	4.6	-6.3	**-12.7**	-55.7	-4.2	10.4	-4.6	6.3	**12.7**	55.7
Mz_1	13.6	-11.1	8.1	-8.8	5.3	**-59.2**	-13.6	11.1	-8.1	8.8	-5.3	**59.2**
Fx_f	**-13.6**	11.1	-6.1	15.2	-37.2	9.3	**13.6**	-11.1	4.9	-15.2	34.7	-9.3
Fy_f	13.6	**-11.1**	6.1	-15.2	37.2	-9.3	-13.6	**11.1**	-6.1	15.2	-37.2	9.3
Fz_f	-13.4	11.1	**-8.4**	15.1	-42.1	9.3	13.4	-11.1	**8.4**	-15.1	42.1	-9.3
Mx_f	12.5	-11.1	5.5	**-15.2**	33.9	-9.3	-12.5	11.1	-5.5	**15.2**	-33.9	9.3
My_f	-13.4	11.1	-8.4	15.1	**-42.1**	9.3	13.4	-11.1	8.4	-15.1	**42.1**	-9.3
Mz_f	8.4	-11.0	6.2	-14.7	27.9	**-9.4**	-8.4	11.0	-6.2	14.7	-27.9	**9.4**

Member 40

Fx_1	**-23.2**	6.4	-6.0	1.0	-11.4	9.6	**23.2**	-6.4	9.8	-1.0	11.8	-9.6
Fy_1	23.2	**-6.4**	6.0	-1.0	11.4	-9.6	-23.2	**6.4**	-6.0	1.0	-11.4	9.6
Fz_1	-23.2	6.4	**-9.8**	1.0	-11.8	9.6	23.2	-6.4	**9.8**	-1.0	11.8	-9.6
Mx_1	20.7	-6.4	5.6	**-1.1**	9.8	-9.6	-20.7	6.4	-5.6	**1.1**	-9.8	9.6
My_1	-23.2	6.4	-9.8	1.0	**-11.8**	9.6	23.2	-6.4	9.8	-1.0	**11.8**	-9.6
Mz_1	16.3	-6.3	6.2	-0.8	4.1	**-9.7**	-16.3	6.3	-6.2	0.8	-4.1	**9.7**
Fx_f	**-23.2**	6.4	-4.0	7.4	-33.8	-19.2	**23.2**	-6.4	2.8	-7.4	31.3	19.2
Fy_f	23.2	**-6.4**	4.0	-7.4	33.8	19.2	-23.2	**6.4**	-4.0	7.4	-33.8	-19.2
Fz_f	-23.0	6.4	**-6.3**	7.4	-38.8	-19.2	23.0	-6.4	**6.3**	-7.4	38.8	19.2
Mx_f	20.7	-6.4	3.6	**-7.4**	30.5	19.1	-20.7	6.4	-3.6	**7.4**	-30.5	-19.1
My_f	-23.0	6.4	-6.3	7.4	**-38.8**	-19.2	23.0	-6.4	6.3	-7.4	**38.8**	19.2
Mz_f	-23.2	6.4	-2.8	7.4	-31.3	**-19.2**	23.2	-6.4	2.8	-7.4	31.3	**19.2**

Member 41

Fx_1	**-28.3**	3.2	-3.9	-2.2	-21.3	-18.9	**28.3**	-3.2	7.7	2.2	21.7	18.9
Fy_1	27.0	**-3.2**	5.4	2.3	16.6	18.8	-27.0	**3.2**	-5.6	-2.3	-16.0	-18.8
Fz_1	-28.3	3.2	**-7.7**	-2.2	-21.7	-18.9	28.3	-3.2	**7.7**	2.2	21.7	18.9
Mx_1	-19.8	3.1	-4.8	**-2.8**	-10.6	-17.6	19.8	-3.1	4.8	**2.8**	10.6	17.6
My_1	-28.3	3.2	-7.7	-2.2	**-21.7**	-18.9	28.3	-3.2	7.7	2.2	**21.7**	18.9
Mz_1	-27.0	3.2	-3.2	-2.2	-21.4	**-18.9**	27.0	-3.2	3.2	2.2	21.4	**18.9**
Fx_f	**-28.3**	3.2	-1.9	4.2	-34.3	-33.3	**28.3**	-3.2	0.7	-4.2	31.8	33.3
Fy_f	27.0	**-3.2**	3.4	-4.1	36.2	33.2	-27.0	**3.2**	-3.6	4.1	-36.8	-33.2
Fz_f	-28.1	3.2	**-4.2**	4.1	-39.2	-33.3	28.1	-3.2	**4.2**	-4.1	39.2	33.3
Mx_f	23.9	-3.2	1.8	**-4.2**	29.6	33.2	-23.9	3.2	-1.8	**4.2**	-29.6	-33.2
My_f	-28.1	3.2	-4.2	4.1	**-39.2**	-33.3	28.1	-3.2	4.2	-4.1	**39.2**	33.3
Mz_f	-28.3	3.2	-0.7	4.2	-31.8	**-33.3**	28.3	-3.2	0.7	-4.2	31.8	**33.3**

Member 42

Fx_1	**-31.1**	0.9	-1.7	-2.7	-28.9	-33.1	**31.1**	-0.9	5.5	2.7	29.3	33.1
Fy_1	26.8	**-0.9**	3.0	2.8	21.7	32.9	-26.8	**0.9**	-3.0	-2.8	-21.7	-32.9
Fz_1	-31.1	0.9	**-5.5**	-2.7	-29.3	-33.1	31.1	-0.9	**5.5**	2.7	29.3	33.1
Mx_1	-23.7	0.9	-2.8	**-3.0**	-19.1	-31.4	23.7	-0.9	2.8	**3.0**	19.1	31.4
My_1	-31.1	0.9	-5.5	-2.7	**-29.3**	-33.1	31.1	-0.9	5.5	2.7	**29.3**	33.1
Mz_1	-29.8	0.9	-1.1	-2.7	-29.0	**-33.1**	29.8	-0.9	1.1	2.7	29.0	**33.1**
Fx_f	**-31.1**	0.9	0.2	3.7	-32.3	-37.2	**31.1**	-0.9	-1.4	-3.7	29.8	37.2
Fy_f	26.8	**-0.9**	1.0	-3.6	30.7	37.1	-26.8	**0.9**	-1.0	3.6	-30.7	-37.1
Fz_f	-17.8	0.9	**-2.1**	3.5	-23.9	-35.2	17.8	-0.9	**2.1**	-3.5	23.9	35.2
Mx_f	25.3	-0.9	-0.1	**-3.8**	26.7	37.0	-25.3	0.9	0.1	**3.8**	-26.7	-37.0
My_f	-30.9	0.9	-2.0	3.7	**-37.2**	-37.2	30.9	-0.9	2.0	-3.7	**37.2**	37.2
Mz_f	-31.1	0.9	0.2	3.7	-32.3	**-37.2**	31.1	-0.9	-1.4	-3.7	29.8	**37.2**

Member 43

Fx_1	**-31.5**	-1.0	0.4	-2.2	-34.0	-37.2	**31.5**	1.0	3.4	2.2	34.4	37.2
Fy_1	-26.3	**-1.0**	0.3	-2.1	-28.7	-37.1	26.3	**1.0**	-0.3	2.1	28.7	37.1
Fz_1	-31.5	-1.0	**-3.4**	-2.2	-34.4	-37.2	31.5	1.0	**3.4**	2.2	34.4	37.2
Mx_1	-26.5	-1.0	-0.8	**-2.3**	-26.3	-37.0	26.5	1.0	0.8	**2.3**	26.3	37.0
My_1	-31.5	-1.0	-3.4	-2.2	**-34.4**	-37.2	31.5	1.0	3.4	2.2	**34.4**	37.2
Mz_1	-30.2	-1.0	0.7	-2.2	-33.5	**-37.2**	30.2	1.0	-1.0	2.2	34.1	**37.2**
Fx_f	**-31.5**	-1.0	2.4	4.2	-27.9	-32.6	**31.5**	1.0	-3.6	-4.2	25.4	32.6
Fy_f	-26.3	**-1.0**	2.3	4.3	-22.8	-32.5	26.3	**1.0**	-2.3	-4.3	22.8	32.5
Fz_f	31.5	1.0	**-3.6**	-4.2	25.4	32.6	-31.5	-1.0	**3.6**	4.2	-25.4	-32.6
Mx_f	23.2	1.0	-2.1	**-4.4**	20.0	31.0	-23.2	-1.0	2.1	**4.4**	-20.0	-31.0
My_f	-31.2	-1.0	0.1	4.2	**-32.8**	-32.6	31.2	1.0	-0.1	-4.2	**32.8**	32.6
Mz_f	-31.2	-1.0	1.1	4.2	-30.4	**-32.6**	31.2	1.0	-0.1	-4.2	32.8	**32.6**

Member 44

Fx_1	**-29.5**	-3.2	2.5	-2.3	-36.7	-32.8	**29.5**	3.2	1.3	2.3	37.1	32.8
Fy_1	-26.0	**-3.2**	2.7	-2.2	-33.7	-32.8	26.0	**3.2**	-2.7	2.2	33.7	32.8
Fz_1	16.5	3.0	**-4.6**	1.8	19.6	30.9	-16.5	-3.0	**4.6**	-1.8	-19.6	-30.9
Mx_1	-25.9	-3.2	1.1	**-2.4**	-30.0	-32.7	25.9	3.2	-1.1	**2.4**	30.0	32.7
My_1	-29.5	-3.2	-1.3	-2.3	**-37.1**	-32.8	29.5	3.2	1.3	2.3	**37.1**	32.8
Mz_1	-29.5	-3.2	2.5	-2.3	-36.7	**-32.8**	29.5	3.2	1.3	2.3	37.1	**32.8**
Fx_f	**-29.5**	-3.2	4.5	4.1	-21.1	-18.5	**29.5**	3.2	-5.7	-4.1	18.6	18.5
Fy_f	-26.0	**-3.2**	4.7	4.2	-17.2	-18.4	26.0	**3.2**	-4.7	-4.2	17.2	18.4
Fz_f	29.5	3.2	**-5.7**	-4.1	18.6	18.5	-29.5	-3.2	**5.7**	4.1	-18.6	-18.5
Mx_f	20.0	3.1	-4.2	**-4.6**	12.2	17.3	-20.0	-3.1	4.2	**4.6**	-12.2	-17.3
My_f	-29.2	-3.2	2.2	4.1	**-26.0**	-18.5	29.2	3.2	-2.2	-4.1	**26.0**	18.5
Mz_f	-29.2	-3.2	2.2	4.1	-26.0	**-18.5**	29.2	3.2	-2.2	-4.1	26.0	**18.5**

Member 45

Fx_1	**-25.0**	-6.1	4.6	-4.6	-37.0	-18.8	**25.0**	6.1	-0.8	4.6	37.5	18.8
Fy_1	-25.0	**-6.1**	4.6	-4.6	-37.0	-18.8	25.0	**6.1**	-4.6	4.6	37.0	18.8
Fz_1	12.8	5.7	**-6.5**	3.5	20.0	17.5	-12.8	-5.7	**6.5**	-3.5	-20.0	-17.5
Mx_1	-23.5	-6.1	2.8	**-4.7**	-31.5	-18.8	23.5	6.1	-2.8	**4.7**	31.5	18.8
My_1	-25.0	-6.1	0.8	-4.6	**-37.5**	-18.8	25.0	6.1	-0.8	4.6	**37.5**	18.8
Mz_1	-25.0	-6.1	0.8	-4.6	-37.5	**-18.8**	25.0	6.1	-0.8	4.6	37.5	**18.8**
Fx_f	**-25.0**	-6.1	6.6	1.7	-11.9	8.6	**25.0**	6.1	-7.8	-1.7	9.4	-8.6
Fy_f	-25.0	**-6.1**	6.6	1.7	-11.9	8.6	25.0	**6.1**	-6.6	-1.7	11.9	-8.6
Fz_f	25.0	6.1	**-7.8**	-1.7	9.4	-8.6	-25.0	-6.1	**7.8**	1.7	-9.4	8.6
Mx_f	14.3	5.8	-6.4	**-2.9**	1.4	-8.3	-14.3	-5.8	6.4	**2.9**	-1.4	8.3
My_f	-24.7	-6.1	4.3	1.7	**-16.7**	8.6	24.7	6.1	-4.3	-1.7	**16.7**	-8.6
Mz_f	20.3	6.0	-5.3	-1.8	10.0	**-8.6**	-20.3	-6.0	5.3	1.8	-10.0	**8.6**

Member 46

Fx_1	**-16.1**	-10.2	6.7	-10.8	-41.1	8.2	**16.1**	10.2	-2.9	10.8	41.5	-8.2
Fy_1	-16.1	**-10.2**	6.7	-10.8	-41.1	8.2	16.1	**10.2**	-2.9	10.8	41.5	-8.2
Fz_1	6.2	9.5	**-8.3**	8.4	20.6	-8.0	-6.2	-9.5	**8.3**	-8.4	-20.6	8.0
Mx_1	-15.9	-10.2	4.4	**-10.8**	-35.6	8.2	15.9	10.2	-4.4	**10.8**	35.6	-8.2
My_1	-16.1	-10.2	2.9	-10.8	**-41.5**	8.2	16.1	10.2	-2.9	10.8	**41.5**	-8.2
Mz_1	12.2	10.1	-5.4	10.4	32.2	**-8.2**	-12.2	-10.1	5.4	-10.4	-32.2	**8.2**
Fx_f	**-16.1**	-10.2	8.7	-4.4	-6.5	54.3	**16.1**	10.2	-9.9	4.4	3.9	-54.3
Fy_f	-16.1	**-10.2**	8.7	-4.4	-6.5	54.3	16.1	**10.2**	-9.9	4.4	3.9	-54.3
Fz_f	16.1	10.2	**-9.9**	4.4	3.9	-54.3	-16.1	-10.2	**9.9**	-4.4	-3.9	54.3
Mx_f	-15.9	-10.2	6.4	**-4.4**	-11.3	54.3	15.9	10.2	-6.4	**4.4**	11.3	-54.3
My_f	-15.9	-10.2	6.4	-4.4	**-11.3**	54.3	15.9	10.2	-6.4	4.4	**11.3**	-54.3
Mz_f	16.1	10.2	-8.7	4.4	6.5	**-54.3**	-16.1	-10.2	8.7	-4.4	-6.5	**54.3**

Member 47

Fx_i	**-15.5**	10.0	-6.7	5.9	-11.2	54.3	**15.5**	-10.0	10.5	-5.9	11.6	-54.3
Fy_i	14.4	**-10.0**	6.4	-5.9	10.0	-54.3	-14.4	**10.0**	-6.4	5.9	-10.0	54.3
Fz_i	-15.5	10.0	**-10.5**	5.9	-11.6	54.3	15.5	-10.0	**10.5**	-5.9	11.6	-54.3
Mx_i	14.4	-10.0	6.1	**-5.9**	10.7	-54.3	-14.4	10.0	-6.1	**5.9**	-10.7	54.3
My_i	-15.5	10.0	-10.5	5.9	**-11.6**	54.3	15.5	-10.0	10.5	-5.9	**11.6**	-54.3
Mz_i	14.4	-10.0	6.4	-5.9	10.0	**-54.3**	-14.4	10.0	-6.4	5.9	-10.0	**54.3**
Fx_f	**-15.5**	10.0	-4.8	12.3	-37.0	9.4	**15.5**	-10.0	3.6	-12.3	34.5	-9.4
Fy_f	14.4	**-10.0**	4.4	-12.3	34.4	-9.4	-14.4	**10.0**	-4.4	12.3	-34.4	9.4
Fz_f	-15.3	10.0	**-7.0**	12.3	-42.0	9.3	15.3	-10.0	**7.0**	-12.3	42.0	-9.3
Mx_f	14.4	-10.0	4.1	**-12.3**	33.7	-9.4	-14.4	10.0	-4.1	**12.3**	-33.7	9.4
My_f	-15.3	10.0	-7.0	12.3	**-42.0**	9.3	15.3	-10.0	7.0	-12.3	**42.0**	-9.3
Mz_f	10.1	-9.9	4.8	-12.0	27.6	**-9.4**	-10.1	9.9	-4.8	12.0	-27.6	**9.4**

Member 48

Fx_i	**-23.8**	5.8	-4.6	-0.2	-15.1	9.6	**23.8**	-5.8	8.4	0.2	15.5	-9.6
Fy_i	22.5	**-5.8**	4.3	0.2	14.5	-9.7	-22.5	**5.8**	-4.3	-0.2	-14.5	9.7
Fz_i	-23.8	5.8	**-8.4**	-0.2	-15.5	9.6	23.8	-5.8	**8.4**	0.2	15.5	-9.6
Mx_i	-14.1	5.5	-5.6	**-1.4**	-3.1	9.4	14.1	-5.5	5.6	**1.4**	3.1	-9.4
My_i	-23.8	5.8	-8.4	-0.2	**-15.5**	9.6	23.8	-5.8	8.4	0.2	**15.5**	-9.6
Mz_i	16.8	-5.8	4.8	0.3	7.5	**-9.7**	-16.8	5.8	-4.8	-0.3	-7.5	**9.7**
Fx_f	**-23.8**	5.8	-2.6	6.2	-31.4	-16.5	**23.8**	-5.8	1.4	-6.2	28.9	16.5
Fy_f	22.5	**-5.8**	2.3	-6.2	29.4	16.5	-22.5	**5.8**	-2.3	6.2	-29.4	-16.5
Fz_f	-23.7	5.8	**-4.9**	6.1	-36.4	-16.5	23.7	-5.8	**4.9**	-6.1	36.4	16.5
Mx_f	21.3	-5.8	2.3	**-6.2**	28.0	16.5	-21.3	5.8	-2.3	**6.2**	-28.0	-16.5
My_f	-23.7	5.8	-4.9	6.1	**-36.4**	-16.5	23.7	-5.8	4.9	-6.1	**36.4**	16.5
Mz_f	-22.5	5.8	-2.0	6.2	-28.7	**-16.5**	22.5	-5.8	2.0	-6.2	28.7	**16.5**

Member 49

Fx_i	**-27.5**	2.9	-2.5	-2.5	-23.6	-16.2	**27.5**	-2.9	6.3	2.5	24.0	16.2
Fy_i	26.1	**-2.9**	2.2	2.5	22.9	16.2	-26.1	**2.9**	-2.2	-2.5	-22.9	-16.2
Fz_i	-27.5	2.9	**-6.3**	-2.5	-24.0	-16.2	27.5	-2.9	**6.3**	2.5	24.0	16.2
Mx_i	-19.0	2.8	-3.5	**-3.1**	-12.8	-15.1	19.0	-2.8	3.5	**3.1**	12.8	15.1
My_i	-27.5	2.9	-6.3	-2.5	**-24.0**	-16.2	27.5	-2.9	6.3	2.5	**24.0**	16.2
Mz_i	-24.9	2.9	-2.1	-2.4	-21.8	**-16.2**	24.9	-2.9	2.1	2.4	21.8	**16.2**
Fx_f	**-27.5**	2.9	-0.5	3.9	-30.3	-29.4	**27.5**	-2.9	-0.7	-3.9	27.8	29.4
Fy_f	26.1	**-2.9**	0.2	-3.9	28.3	29.4	-26.1	**2.9**	-0.2	3.9	-28.3	-29.4
Fz_f	-27.3	2.9	**-2.8**	3.9	-35.2	-29.4	27.3	-2.9	**2.8**	-3.9	35.2	29.4
Mx_f	23.0	-2.9	0.4	**-4.0**	25.6	29.4	-23.0	2.9	-0.4	**4.0**	-25.6	-29.4
My_f	-27.3	2.9	-2.8	3.9	**-35.2**	-29.4	27.3	-2.9	2.8	-3.9	**35.2**	29.4
Mz_f	-26.1	2.9	0.1	3.9	-27.6	**-29.4**	26.1	-2.9	-0.1	-3.9	27.6	**29.4**

Member 50

Fx_i	**-28.7**	0.9	-0.3	-2.3	-29.6	-29.2	**28.7**	-0.9	4.1	2.3	30.0	29.2
Fy_i	26.1	**-0.9**	1.8	2.4	23.7	29.1	-26.1	**0.9**	-1.8	-2.4	-23.7	-29.1
Fz_i	-28.7	0.9	**-4.1**	-2.3	-30.0	-29.2	28.7	-0.9	**4.1**	2.3	30.0	29.2
Mx_i	-21.3	0.9	-1.4	**-2.6**	-19.8	-27.7	21.3	-0.9	1.4	**2.6**	19.8	27.7
My_i	-28.7	0.9	-4.1	-2.3	**-30.0**	-29.2	28.7	-0.9	4.1	2.3	**30.0**	29.2
Mz_i	-26.2	0.9	-0.0	-2.3	-27.8	**-29.3**	26.2	-0.9	0.0	2.3	27.8	**29.3**
Fx_f	**-28.7**	0.9	1.6	4.1	-26.7	-33.1	**28.7**	-0.9	-2.8	-4.1	24.2	33.1
Fy_f	26.1	**-0.9**	-0.2	-4.0	27.4	33.0	-26.1	**0.9**	0.2	4.0	-27.4	-33.0
Fz_f	28.7	-0.9	**-2.8**	-4.1	24.2	33.1	-28.7	0.9	**2.8**	4.1	-24.2	-33.1
Mx_f	22.9	-0.9	-1.5	**-4.1**	21.2	33.0	-22.9	0.9	1.5	**4.1**	-21.2	-33.0
My_f	-28.5	0.9	-0.6	4.0	**-31.6**	-33.1	28.5	-0.9	0.6	-4.0	**31.6**	33.1
Mz_f	-26.2	0.9	2.0	4.1	-23.4	**-33.2**	26.2	-0.9	-2.0	-4.1	23.4	**33.2**

Member 51

Fx_i	**-27.5**	-0.8	1.8	-1.1	-33.2	-33.1	**27.5**	0.8	2.0	1.1	33.6	33.1
Fy_i	-22.4	**-0.9**	1.7	-1.0	-27.8	-33.1	22.4	**0.9**	-1.7	1.0	27.8	33.1
Fz_i	14.3	0.8	**-4.1**	1.1	16.1	31.4	-14.3	-0.8	**4.1**	-1.1	-16.1	-31.4
Mx_i	-21.0	-0.8	0.7	**-1.2**	-24.2	-31.5	21.0	0.8	-0.7	**1.2**	24.2	31.5
My_i	-27.5	-0.8	-2.0	-1.1	**-33.6**	-33.1	27.5	0.8	2.0	1.1	**33.6**	33.1
Mz_i	-24.0	-0.9	1.9	-1.0	-30.0	**-33.2**	24.0	0.9	-1.9	1.0	30.0	**33.2**
Fx_f	**-27.5**	-0.8	3.8	5.3	-20.7	-29.3	**27.5**	0.8	-5.0	-5.3	18.2	29.3
Fy_f	-22.4	**-0.9**	3.6	5.4	-15.8	-29.3	22.4	**0.9**	-3.6	-5.4	15.8	29.3
Fz_f	27.5	0.8	**-5.0**	-5.3	18.2	29.3	-27.5	-0.8	**5.0**	5.3	-18.2	-29.3
Mx_f	20.8	0.9	-3.3	**-5.4**	14.9	29.1	-20.8	-0.9	3.3	**5.4**	-14.9	-29.1
My_f	-27.2	-0.8	1.5	5.3	**-25.5**	-29.3	27.2	0.8	-1.5	-5.3	**25.5**	29.3
Mz_f	-25.1	-0.8	4.0	5.3	-17.7	**-29.3**	25.1	0.8	-4.1	-5.3	17.5	**29.3**

Member 52

Fx_i	**-23.8**	-2.6	3.9	-0.0	-34.3	-29.4	**23.8**	2.6	-0.1	0.0	34.7	29.4
Fy_i	-19.6	**-2.6**	3.9	0.1	-30.1	-29.5	19.6	**2.6**	-3.9	-0.1	30.1	29.5
Fz_i	11.3	2.5	**-5.9**	-0.3	17.1	27.9	-11.3	-2.5	**5.9**	0.3	-17.1	-27.9
Mx_i	14.2	2.5	-3.6	**-0.3**	23.8	28.1	-14.2	-2.5	3.6	**0.3**	-23.8	-28.1
My_i	-23.8	-2.6	0.1	-0.0	**-34.7**	-29.4	23.8	2.6	-0.1	0.0	**34.7**	29.4
Mz_i	-20.5	-2.6	4.0	0.0	-31.3	**-29.5**	20.5	2.6	-4.1	-0.0	31.3	**29.5**
Fx_f	**-23.8**	-2.6	5.9	6.3	-12.2	-17.7	**23.8**	2.6	-7.1	-6.3	9.6	17.7
Fy_f	-19.6	**-2.6**	5.9	6.5	-8.0	-17.7	19.6	**2.6**	-5.9	-6.5	8.0	17.7
Fz_f	23.8	2.6	**-7.1**	-6.3	9.6	17.7	-23.8	-2.6	**7.1**	6.3	-9.6	-17.7
Mx_f	14.2	2.5	-5.5	**-6.7**	3.3	16.8	-14.2	-2.5	5.5	**6.7**	-3.3	-16.8
My_f	-23.4	-2.6	3.6	6.3	**-16.9**	-17.6	23.4	2.6	-3.6	-6.3	**16.9**	17.6
Mz_f	-20.5	-2.6	6.0	6.4	-8.6	**-17.7**	20.5	2.6	-6.0	-6.4	8.6	**17.7**

Member 53

Fx_i	**-17.6**	-4.8	6.1	-0.3	-32.9	-17.9	**17.6**	4.8	-2.3	0.3	33.3	17.9
Fy_i	-15.5	**-4.8**	6.3	-0.2	-31.3	-18.0	15.5	**4.8**	-6.4	0.2	31.5	18.0
Fz_i	6.2	4.6	**-7.7**	-0.6	16.2	17.0	-6.2	-4.6	**7.7**	0.6	-16.2	-17.0
Mx_i	6.6	4.6	-6.2	**-0.6**	22.1	17.0	-6.6	-4.6	6.2	**0.6**	-22.1	-17.0
My_i	-17.6	-4.8	2.3	-0.3	**-33.3**	-17.9	17.6	4.8	-2.3	0.3	**33.3**	17.9
Mz_i	-13.7	-4.8	6.0	-0.1	-28.9	**-18.0**	13.7	4.8	-6.0	0.1	28.9	**18.0**
Fx_f	**-17.6**	-4.8	8.0	6.1	-1.2	3.7	**17.6**	4.8	-9.3	-6.1	-1.3	-3.7
Fy_f	-15.5	**-4.8**	8.3	6.2	1.6	3.6	15.5	**4.8**	-8.4	-6.2	-1.8	-3.6
Fz_f	17.6	4.8	**-9.3**	-6.1	-1.3	-3.7	-17.6	-4.8	**9.3**	6.1	1.3	3.7
Mx_f	6.6	4.6	-8.1	**-7.0**	-10.2	-3.5	-6.6	-4.6	8.1	**7.0**	10.2	3.5
My_f	6.6	4.6	-8.1	-7.0	**-10.2**	-3.5	-6.6	-4.6	8.1	7.0	**10.2**	3.5
Mz_f	11.8	4.7	-6.9	-6.3	-2.2	**-4.0**	-11.8	-4.7	6.9	6.3	2.2	**4.0**

Member 54

Fx_i	**-8.0**	-7.7	8.2	-2.7	-32.1	3.4	**8.0**	7.7	-4.4	2.7	32.5	-3.4
Fy_i	-6.2	**-7.7**	8.5	-2.6	-29.9	3.3	6.2	**7.7**	-8.5	2.6	30.1	-3.3
Fz_i	-0.7	7.2	**-9.5**	1.0	12.8	-3.2	0.7	-7.2	**9.5**	-1.0	-12.8	3.2
Mx_i	-8.0	-7.7	4.4	**-2.7**	-32.5	3.4	8.0	7.7	-4.4	**2.7**	32.5	-3.4
My_i	-8.0	-7.7	4.4	-2.7	**-32.5**	3.4	8.0	7.7	-4.4	2.7	**32.5**	-3.4
Mz_i	3.6	7.6	-6.9	2.3	22.4	**-3.7**	-3.6	-7.6	6.9	-2.3	-22.4	**3.7**
Fx_f	**-8.0**	-7.7	10.2	3.7	9.2	38.2	**8.0**	7.7	-11.4	-3.7	-11.8	-38.2
Fy_f	-6.2	**-7.7**	10.4	3.7	12.6	38.1	6.2	**7.7**	-10.5	-3.7	-12.8	-38.1
Fz_f	8.0	7.7	**-11.4**	-3.7	-11.8	-38.2	-8.0	-7.7	**11.4**	3.7	11.8	38.2
Mx_f	-0.7	7.2	-6.5	**-5.4**	-14.5	-35.7	0.7	-7.2	6.5	**5.4**	14.5	35.7
My_f	-0.3	7.2	-10.0	-5.3	**-21.5**	-35.7	0.3	-7.2	10.0	5.3	**21.5**	35.7
Mz_f	8.0	7.7	-10.2	-3.7	-9.2	**-38.2**	-8.0	-7.7	10.2	3.7	9.2	**38.2**

Member 55

Fx_i	**-5.3**	7.9	-4.8	1.7	-1.0	38.1	**5.3**	-7.9	8.1	-1.7	1.7	-38.1
Fy_i	2.4	**-7.9**	5.6	-1.0	-5.2	-37.9	-2.4	**7.9**	-5.7	1.0	5.4	37.9
Fz_i	-5.3	7.9	**-8.1**	1.7	-1.7	38.1	5.3	-7.9	**8.1**	-1.7	1.7	-38.1
Mx_i	1.7	-7.8	4.8	**-2.1**	-5.0	-37.9	-1.7	7.8	-4.8	**2.1**	5.0	37.9
My_i	-2.7	-7.2	1.7	-0.5	**-13.6**	-35.6	2.7	7.2	-1.7	0.5	**13.6**	35.6
Mz_i	4.4	-7.9	4.4	-1.9	0.2	**-38.1**	-4.4	7.9	-4.4	1.9	-0.2	**38.1**
Fx_f	**-5.3**	7.9	-3.2	6.9	-15.5	9.1	**5.3**	-7.9	1.5	-6.9	12.8	-9.1
Fy_f	2.4	**-7.9**	4.0	-6.2	12.2	-9.0	-2.4	**7.9**	-4.0	6.2	-12.4	9.0
Fz_f	-4.7	7.9	**-5.2**	6.7	-18.3	9.1	4.7	-7.9	**5.2**	-6.7	18.3	-9.1
Mx_f	1.7	-7.8	3.2	**-7.3**	9.6	-9.3	-1.7	7.8	-3.2	**7.3**	-9.6	9.3
My_f	-4.7	7.9	-5.2	6.7	**-18.3**	9.1	4.7	-7.9	5.2	-6.7	**18.3**	-9.1
Mz_f	0.4	-7.7	3.5	-7.1	8.0	**-9.4**	-0.4	7.7	-3.5	7.1	-8.0	**9.4**

Member 56

Fx_i	**-9.2**	5.2	-3.1	-1.3	-4.5	9.1	**9.2**	-5.2	6.0	1.3	3.0	-9.1
Fy_i	4.9	**-5.3**	3.7	1.9	-0.9	-9.0	-4.9	**5.3**	-3.7	-1.9	0.9	9.0
Fz_i	-9.2	5.2	**-6.0**	-1.3	-3.0	9.1	9.2	-5.2	**6.0**	1.3	3.0	-9.1
Mx_i	-4.9	5.3	-3.7	**-1.9**	0.9	9.0	4.9	-5.3	3.7	**1.9**	-0.9	-9.0
My_i	0.6	-4.8	4.5	1.6	**-6.7**	-9.2	-0.6	4.8	-4.5	-1.6	**6.7**	9.2

Mz_i	3.7	-5.1	3.5	0.8	-1.7	**-9.4**	-3.7	5.1	-3.5	-0.8	1.7	**9.4**
Fx_f	**-9.2**	5.2	-1.5	3.9	-13.0	-10.0	**9.2**	-5.2	-0.6	-3.9	10.5	10.0
Fy_f	4.9	**-5.3**	2.1	-3.3	9.9	10.4	-4.9	**5.3**	-2.1	3.3	-9.9	-10.4
Fz_f	0.3	4.8	**-3.9**	3.8	-6.6	-8.3	-0.3	-4.8	**3.9**	-3.8	6.6	8.3
Mx_f	4.0	-4.7	1.2	**-4.5**	7.2	7.9	-4.0	4.7	-1.2	**4.5**	-7.2	-7.9
My_f	-8.0	5.2	-3.1	3.7	**-14.8**	-10.1	8.0	-5.2	3.1	-3.7	**14.8**	10.1
Mz_f	-4.9	5.3	-2.0	3.3	-9.7	**-10.4**	4.9	-5.3	2.0	-3.3	9.7	**10.4**

Member 57

Fx_i	**-10.3**	2.9	-1.6	-3.3	-8.5	-10.1	**10.3**	-2.9	3.8	3.3	6.0	10.1
Fy_i	6.8	**-2.9**	2.0	3.8	4.3	10.3	-6.8	**2.9**	-2.2	-3.8	-3.8	-10.3
Fz_i	-10.3	2.9	**-3.8**	-3.3	-6.0	-10.1	10.3	-2.9	**3.8**	3.3	6.0	10.1
Mx_i	-6.8	2.9	-2.2	**-3.8**	-3.8	-10.3	6.8	-2.9	2.2	**3.8**	3.8	10.3
My_i	-9.8	2.9	-0.1	-3.2	**-10.8**	-9.9	9.8	-2.9	0.1	3.2	**10.8**	9.9
Mz_i	-6.8	2.9	-2.0	-3.8	-4.3	**-10.3**	6.8	-2.9	2.0	3.8	4.3	**10.3**
Fx_f	**-10.3**	2.9	0.0	1.9	-11.3	-20.6	**10.3**	-2.9	-2.8	-1.9	9.5	20.6
Fy_f	6.8	**-2.9**	0.3	-1.4	8.5	21.0	-6.8	**2.9**	-0.6	1.4	-9.0	-21.0
Fz_f	-1.7	2.6	**-2.9**	2.7	-4.7	-17.6	1.7	-2.6	**2.9**	-2.7	4.7	17.6
Mx_f	5.1	-2.5	-0.5	**-3.1**	5.3	17.2	-5.1	2.5	0.5	**3.1**	-5.3	-17.2
My_f	-8.7	2.9	-1.1	1.7	**-11.7**	-20.8	8.7	-2.9	1.1	-1.7	**11.7**	20.8
Mz_f	-6.8	2.9	-0.3	1.4	-8.5	**-21.0**	6.8	-2.9	0.6	-1.4	9.0	**21.0**

Member 58

Fx_i	**-9.4**	0.6	0.9	-4.9	-12.1	-20.6	**9.4**	-0.6	-2.0	4.9	14.1	20.6
Fy_i	7.3	**-0.7**	0.8	5.4	6.9	21.0	-7.3	**0.7**	-0.8	-5.4	-6.9	-21.0
Fz_i	-2.7	0.5	**-2.1**	-3.4	0.1	-17.5	2.7	-0.5	**2.1**	3.4	-0.1	17.5
Mx_i	-7.3	0.7	-0.8	**-5.4**	-6.9	-21.0	7.3	-0.7	0.8	**5.4**	6.9	21.0
My_i	-9.4	0.6	2.0	-4.9	**-14.1**	-20.6	9.4	-0.6	-2.0	4.9	**14.1**	20.6
Mz_i	-7.3	0.7	-0.1	-5.4	-8.1	**-21.0**	7.3	-0.7	0.8	5.4	6.9	**21.0**
Fx_f	**-9.4**	0.6	2.5	0.3	-5.9	-23.0	**9.4**	-0.6	-3.6	-0.3	3.9	23.0
Fy_f	7.3	**-0.7**	-0.8	0.2	6.8	23.4	-7.3	**0.7**	0.8	-0.2	-6.8	-23.4
Fz_f	9.3	-0.6	**-5.0**	-0.1	7.4	23.2	-9.3	0.6	**5.0**	0.1	-7.4	-23.2
Mx_f	4.8	-0.5	-2.3	**-2.3**	1.6	19.1	-4.8	0.5	2.3	**2.3**	-1.6	-19.1
My_f	-9.3	0.6	5.0	0.1	**-7.4**	-23.2	9.3	-0.6	-5.0	-0.1	**7.4**	23.2
Mz_f	-7.3	0.7	1.5	-0.1	-5.6	**-23.4**	7.3	-0.7	-0.8	0.2	6.8	**23.4**

Member 59

Fx_i	**-7.0**	-1.8	2.7	-7.2	-13.0	-23.2	**7.0**	1.8	-4.0	7.2	15 4	23.2
Fy_i	-6.2	**-1.8**	2.0	-7.5	-10.9	-23.5	6.2	**1.8**	-2.0	7.5	10.9	23.5
Fz_i	7.0	1.8	**-4.0**	7.2	15.4	23.2	-7.0	-1.8	**4.0**	-7.2	-15.4	-23.2
Mx_i	-6.2	-1.8	0.3	**-7.6**	-7.9	-23.5	6.2	1.8	-0.3	**7.6**	7.9	23.5
My_i	-7.0	-1.8	4.0	-7.2	**-15.4**	-23.2	7.0	1.8	-4.0	7.2	**15.4**	23.2
Mz_i	-6.2	-1.8	2.0	-7.5	-10.9	**-23.5**	6.2	1.8	-2.0	7.5	10.9	**23.5**
Fx_f	**-7.0**	-1.8	4.3	-2.0	-0.2	-16.6	**7.0**	1.8	-5.6	2.0	-2.1	16.6
Fy_f	-6.2	**-1.8**	3.6	-2.3	-0.7	-16.8	6.2	**1.8**	-3.6	2.3	0.7	16.8
Fz_f	7.0	1.8	**-5.6**	2.0	-2.1	16.6	-7.0	-1.8	**5.6**	-2.0	2.1	-16.6
Mx_f	-6.2	-1.8	1.9	**-2.3**	-3.7	-16.8	6.2	1.8	-1.9	**2.3**	3.7	16.8
My_f	3.0	1.5	-4.4	-1.3	**-4.1**	13.5	-3.0	-1.5	4.4	1.3	**4.1**	-13.5
Mz_f	-6.2	-1.8	3.6	-2.3	-0.7	**-16.8**	6.2	1.8	-1.9	2.3	3.7	**16.8**

Member 60

Fx_i	**-2.7**	-4.8	4.8	-11.3	-12.4	-17.0	**2.7**	4.8	-0.7	11.4	13.3	17.0
Fy_i	-2.7	**-4.8**	4.8	-11.3	-12.4	-17.0	2.7	**4.8**	-0.7	11.4	13.3	17.0
Fz_i	0.8	3.9	**-5.6**	5.7	3.7	13.6	-0.8	-3.9	**5.6**	-5.7	-3.7	-13.6
Mx_i	-2.7	-4.8	0.7	**-11.4**	-13.3	-17.0	2.7	4.8	-0.7	**11.4**	13.3	17.0
My_i	-2.7	-4.8	0.7	-11.4	**-13.3**	-17.0	2.7	4.8	-0.7	11.4	**13.3**	17.0
Mz_i	-2.7	-4.8	4.8	-11.3	-12.4	**-17.0**	2.7	4.8	-4.8	11.3	12.4	**17.0**
Fx_f	**-2.7**	-4.8	6.4	-6.1	8.2	0.7	**2.7**	4.8	-7.3	6.2	-9.7	-0.7
Fy_f	-2.7	**-4.8**	6.4	-6.1	8.2	0.7	2.7	**4.8**	-7.3	6.2	-9.7	-0.7
Fz_f	2.7	4.8	**-7.3**	6.2	-9.7	-0.7	-2.7	-4.8	**7.3**	-6.2	9.7	0.7
Mx_f	-2.7	-4.8	7.3	**-6.2**	9.7	0.7	2.7	4.8	-7.3	**6.2**	-9.7	-0.7
My_f	2.7	4.8	-7.3	6.2	**-9.7**	-0.7	-2.7	-4.8	7.3	-6.2	**9.7**	0.7
Mz_f	1.9	4.5	-5.3	4.0	-6.8	**-0.7**	-1.9	-4.5	5.3	-4.0	6.8	**0.7**

Member 121

Fx_i	**-0.1**	-0.0	-56.5	-0.0	165.3	-0.0	**0.1**	0.0	53.2	0.0	-155.4	0.0
Fy_i	-0.0	**-0.0**	-59.4	-0.0	178.2	-0.0	-0.0	**0.0**	59.4	0.0	-178.2	0.0
Fz_i	-0.0	-0.0	**-59.5**	-0.0	178.5	-0.0	-0.0	0.0	**59.5**	0.0	-178.6	0.0
Mx_i	-0.0	-0.0	-59.4	**-0.0**	178.2	-0.0	-0.0	0.0	59.4	**0.0**	-178.2	0.0
My_i	-0.0	0.0	58.5	0.0	**-178.6**	0.0	0.0	-0.0	-58.5	-0.0	**178.6**	-0.0
Mz_i	0.0	-0.0	-59.4	-0.0	178.2	**-0.0**	-0.0	0.0	59.4	0.0	-178.2	**0.0**
Fx_f	**-0.1**	-0.0	-56.5	-0.0	111.6	-0.0	**0.1**	0.0	53.2	0.0	-104.8	0.0
Fy_f	-0.0	**-0.0**	-59.4	-0.0	121.8	-0.0	-0.0	**0.0**	59.4	0.0	-121.8	0.0
Fz_f	-0.0	-0.0	**-59.5**	-0.0	122.0	-0.0	-0.0	0.0	**59.5**	0.0	-122.1	0.0
Mx_f	-0.0	-0.0	-59.4	**-0.0**	121.8	-0.0	-0.0	0.0	59.4	**0.0**	-121.8	0.0
My_f	-0.0	0.0	58.5	0.0	**-123.1**	0.0	0.0	-0.0	-58.5	-0.0	**123.1**	-0.0
Mz_f	0.0	-0.0	-59.4	-0.0	121.8	**-0.0**	-0.0	0.0	59.4	0.0	-121.8	**0.0**

Member 122

Fx_i	**-0.8**	-0.5	-16.5	-0.0	47.7	-1.6	**0.8**	0.5	13.4	0.0	-38.3	1.6
Fy_i	-0.0	**-0.5**	-16.0	-0.0	48.1	-1.6	-0.0	**0.5**	16.0	0.0	-48.1	1.6
Fz_i	-0.3	-0.5	**-17.2**	-0.0	49.9	-1.6	-0.3	0.5	**17.2**	0.0	-53.0	1.6
Mx_i	-0.0	-0.5	-16.5	**-0.0**	49.6	-1.6	-0.0	0.5	16.5	**0.0**	-49.7	1.6
My_i	-0.3	0.5	17.2	0.0	**-53.0**	1.6	0.3	-0.5	-17.2	-0.0	**53.0**	-1.6
Mz_i	0.0	-0.5	-16.0	-0.0	48.1	**-1.6**	-0.0	0.5	16.0	0.0	-48.1	**1.6**
Fx_f	**-0.8**	-0.5	-16.5	-0.0	32.0	-1.1	**0.8**	0.5	13.4	0.0	-25.5	1.1
Fy_f	-0.0	**-0.5**	-16.0	-0.0	32.9	-1.1	-0.0	**0.5**	16.0	0.0	-32.9	1.1
Fz_f	-0.3	-0.5	**-17.2**	-0.0	33.7	-1.1	-0.3	0.5	**17.2**	0.0	-36.7	1.1
Mx_f	-0.0	-0.5	-16.5	**-0.0**	33.9	-1.1	-0.0	0.5	16.5	**0.0**	-33.9	1.1
My_f	-0.3	0.5	17.2	0.0	**-36.7**	1.1	0.3	-0.5	-17.2	-0.0	**36.7**	-1.1
Mz_f	0.0	-0.5	-16.0	-0.0	32.9	**-1.1**	-0.0	0.5	16.0	0.0	-32.9	**1.1**

Member 123

Fx_i	**-0.8**	-0.8	-15.2	-0.0	43.5	-2.5	**0.8**	0.8	11.5	0.0	-32.6	2.5
Fy_i	-0.0	**-0.9**	-14.4	-0.0	43.3	-2.6	-0.0	**0.9**	14.4	0.0	-43.3	2.6
Fz_i	-0.2	-0.8	**-15.4**	-0.0	45.2	-2.5	-0.2	0.8	**15.4**	0.0	-47.2	2.5
Mx_i	-0.0	-0.8	-14.9	**-0.0**	44.7	-2.5	-0.0	0.8	14.9	**0.0**	-44.8	2.5
My_i	-0.8	0.8	15.2	0.0	**-47.6**	2.5	0.8	-0.8	-15.2	-0.0	**47.6**	-2.5
Mz_i	0.0	-0.9	-14.4	-0.0	43.3	**-2.6**	-0.0	0.9	14.4	0.0	-43.3	**2.6**
Fx_f	**-0.8**	-0.8	-15.2	-0.0	29.1	-1.7	**0.8**	0.8	11.5	0.0	-21.6	1.7
Fy_f	-0.0	**-0.9**	-14.4	-0.0	29.6	-1.7	-0.0	**0.9**	14.4	0.0	-29.6	1.7
Fz_f	-0.2	-0.8	**-15.4**	-0.0	30.6	-1.7	-0.2	0.8	**15.4**	0.0	-32.6	1.7
Mx_f	-0.0	-0.8	-14.9	**-0.0**	30.6	-1.7	-0.0	0.8	14.9	**0.0**	-30.6	1.7
My_f	-0.8	0.8	15.2	0.0	**-33.2**	1.7	0.8	-0.8	-15.2	-0.0	**33.2**	-1.7
Mz_f	0.0	-0.9	-14.4	-0.0	29.6	**-1.7**	-0.0	0.9	14.4	0.0	-29.6	**1.7**

Member 124

Fx_i	**-0.7**	1.0	11.8	-0.0	-33.3	3.1	**0.7**	-1.0	-12.0	0.0	34.0	-3.1
Fy_i	-0.0	**-1.1**	-12.9	0.0	38.8	-3.2	-0.0	**1.1**	12.9	-0.0	-38.8	3.2
Fz_i	-0.6	-1.1	**-13.8**	0.0	39.4	-3.2	-0.6	1.1	**13.8**	-0.0	-43.4	3.2
Mx_i	0.0	1.1	12.2	**-0.0**	-36.7	3.2	0.0	-1.1	-12.2	**0.0**	36.7	-3.2
My_i	-0.6	1.1	13.8	-0.0	**-43.4**	3.2	0.6	-1.1	-13.8	0.0	**43.4**	-3.2
Mz_i	0.0	-1.1	-12.9	0.0	38.8	**-3.2**	-0.0	1.1	12.9	-0.0	-38.8	**3.2**
Fx_f	**-0.7**	1.0	11.8	-0.0	-22.1	2.1	**0.7**	-1.0	-12.0	0.0	22.6	-2.1
Fy_f	-0.0	**-1.1**	-12.9	0.0	26.5	-2.2	-0.0	**1.1**	12.9	-0.0	-26.5	2.2
Fz_f	-0.6	-1.1	**-13.8**	0.0	26.3	-2.2	-0.6	1.1	**13.8**	-0.0	-30.3	2.2
Mx_f	0.0	1.1	12.2	**-0.0**	-25.1	2.2	0.0	-1.1	-12.2	**0.0**	25.1	-2.2
My_f	-0.6	1.1	13.8	-0.0	**-30.3**	2.2	0.6	-1.1	-13.8	0.0	**30.3**	-2.2
Mz_f	0.0	-1.1	-12.9	0.0	26.5	**-2.2**	-0.0	1.1	12.9	-0.0	-26.5	**2.2**

Member 125

Fx_i	**-0.9**	1.1	10.1	-0.0	-28.7	3.4	**0.9**	-1.2	-10.7	0.0	30.4	-3.5
Fy_i	-0.0	**-1.2**	-11.5	0.0	34.4	-3.5	-0.0	**1.2**	11.5	-0.0	-34.4	3.5
Fz_i	-0.5	-1.2	**-12.3**	0.0	35.1	-3.5	-0.5	1.2	**12.3**	-0.0	-38.8	3.5
Mx_i	0.0	1.2	11.8	**-0.0**	-35.4	3.5	0.0	-1.2	-11.8	**0.0**	35.5	-3.5
My_i	-0.5	1.2	12.3	-0.0	**-38.8**	3.5	0.5	-1.2	-12.3	0.0	**38.8**	-3.5
Mz_i	0.0	-1.2	-11.5	0.0	34.4	**-3.5**	-0.0	1.2	11.5	-0.0	-34.4	**3.5**
Fx_f	**-0.9**	1.1	10.1	-0.0	-19.1	2.3	**0.9**	-1.2	-10.7	0.0	20.3	-2.4
Fy_f	-0.0	**-1.2**	-11.5	0.0	23.5	-2.4	-0.0	**1.2**	11.5	-0.0	-23.5	2.4
Fz_f	-0.5	-1.2	**-12.3**	0.0	23.4	-2.4	-0.5	1.2	**12.3**	-0.0	-27.1	2.4
Mx_f	0.0	1.2	11.8	**-0.0**	-24.2	2.4	0.0	-1.2	-11.8	**0.0**	24.3	-2.4

My_f	-0.5	1.2	12.3	-0.0	**-27.1**	2.4	0.5	-1.2	-12.3	0.0	**27.1**	-2.4
Mz_f	0.0	-1.2	-11.5	0.0	23.5	**-2.4**	-0.0	1.2	11.5	-0.0	-23.5	**2.4**

Member 126

Fx_i	**-1.0**	1.1	12.1	-0.0	-35.5	3.4	**1.0**	-1.2	-12.5	0.0	36.9	-3.5
Fy_i	-0.0	**-1.2**	-13.5	0.0	40.6	-3.6	-0.0	**1.2**	13.5	-0.0	-40.6	3.6
Fz_i	-0.4	-1.2	**-13.7**	0.0	39.4	-3.6	-0.4	1.2	**13.7**	-0.0	-43.0	3.6
Mx_i	-0.0	1.1	11.8	**-0.0**	-35.4	3.4	-0.0	-1.1	-11.8	**0.0**	35.4	-3.4
My_i	-0.4	1.2	13.7	-0.0	**-43.0**	3.6	0.4	-1.2	-13.7	0.0	**43.0**	-3.6
Mz_i	0.0	-1.2	-13.5	0.0	40.6	**-3.6**	-0.0	1.2	13.5	-0.0	-40.6	**3.6**
Fx_f	**-1.0**	1.1	12.1	-0.0	-24.1	2.3	**1.0**	-1.2	-12.5	0.0	25.0	-2.4
Fy_f	-0.0	**-1.2**	-13.5	0.0	27.7	-2.4	-0.0	**1.2**	13.5	-0.0	-27.7	2.4
Fz_f	-0.4	-1.2	**-13.7**	0.0	26.3	-2.4	-0.4	1.2	**13.7**	-0.0	-30.0	2.4
Mx_f	-0.0	1.1	11.8	**-0.0**	-24.2	2.3	-0.0	-1.1	-11.8	**0.0**	24.2	-2.3
My_f	-0.4	1.2	13.7	-0.0	**-30.0**	2.4	0.4	-1.2	-13.7	0.0	**30.0**	-2.4
Mz_f	0.0	-1.2	-13.5	0.0	27.7	**-2.4**	-0.0	1.2	13.5	-0.0	-27.7	**2.4**

Member 127

Fx_i	**-1.2**	0.9	6.6	0.1	-21.0	2.8	**1.2**	-1.1	-8.1	-0.1	25.4	-3.2
Fy_i	-0.0	**-1.1**	-8.6	-0.1	25.8	-3.2	-0.0	**1.1**	8.6	0.1	-26.0	3.2
Fz_i	-0.3	-1.1	**-8.9**	-0.1	25.1	-3.2	-0.3	1.1	**8.9**	0.1	-28.2	3.2
Mx_i	-0.0	-1.1	-7.9	**-0.1**	23.8	-3.2	-0.0	1.1	7.9	**0.1**	-23.8	3.2
My_i	-0.3	1.1	8.9	0.1	**-28.2**	3.2	0.3	-1.1	-8.9	-0.1	**28.2**	-3.2
Mz_i	0.0	-1.1	-8.6	-0.1	26.0	**-3.2**	-0.0	1.1	8.6	0.1	-26.0	**3.2**
Fx_f	**-1.2**	0.9	6.6	0.1	-14.7	1.9	**1.2**	-1.1	-8.1	-0.1	17.7	-2.2
Fy_f	-0.0	**-1.1**	-8.6	-0.1	17.6	-2.2	-0.0	**1.1**	8.6	0.1	-17.8	2.2
Fz_f	-0.3	-1.1	**-8.9**	-0.1	16.7	-2.2	-0.3	1.1	**8.9**	0.1	-19.7	2.2
Mx_f	-0.0	-1.1	-7.9	**-0.1**	16.3	-2.2	-0.0	1.1	7.9	**0.1**	-16.3	2.2
My_f	-0.3	1.1	8.9	0.1	**-19.7**	2.2	0.3	-1.1	-8.9	-0.1	**19.7**	-2.2
Mz_f	0.0	-1.1	-8.6	-0.1	17.8	**-2.2**	-0.0	1.1	8.6	0.1	-17.8	**2.2**

Member 128

Fx_i	**-1.4**	1.3	5.1	0.2	-16.4	4.0	**1.4**	-1.4	-8.3	-0.3	25.9	-4.2
Fy_i	-0.1	**-1.4**	-8.7	-0.3	25.7	-4.2	-0.1	**1.4**	8.7	0.3	-26.5	4.2
Fz_i	-0.4	-1.4	**-9.0**	-0.3	25.7	-4.2	-0.4	1.4	**9.0**	0.3	-28.6	4.2
Mx_i	-0.0	-1.4	-7.3	**-0.3**	21.8	-4.2	-0.0	1.4	7.3	**0.3**	-21.8	4.2
My_i	-0.4	1.4	9.0	0.3	**-28.6**	4.2	0.4	-1.4	-9.0	-0.3	**28.6**	-4.2
Mz_i	0.1	-1.4	-8.7	-0.3	26.5	**-4.2**	-0.1	1.4	8.7	0.3	-26.5	**4.2**
Fx_f	**-1.4**	1.3	5.1	0.2	-11.5	2.7	**1.4**	-1.4	-8.3	-0.3	18.0	-2.9
Fy_f	-0.1	**-1.4**	-8.7	-0.3	17.4	-2.9	-0.1	**1.4**	8.7	0.3	-18.2	2.9
Fz_f	-0.4	-1.4	**-9.0**	-0.3	17.1	-2.9	-0.4	1.4	**9.0**	0.3	-20.0	2.9
Mx_f	-0.0	-1.4	-7.3	**-0.3**	14.9	-2.9	-0.0	1.4	7.3	**0.3**	-14.9	2.9
My_f	-0.4	1.4	9.0	0.3	**-20.0**	2.9	0.4	-1.4	-9.0	-0.3	**20.0**	-2.9
Mz_f	0.1	-1.4	-8.7	-0.3	18.2	**-2.9**	-0.1	1.4	8.7	0.3	-18.2	**2.9**

Member 129

Fx_i	**-1.4**	1.3	5.3	0.2	-16.9	3.9	**1.4**	-1.4	-7.2	-0.2	22.5	-4.1
Fy_i	-0.1	**-1.4**	-7.9	-0.2	23.2	-4.1	-0.1	**1.4**	7.9	0.2	-24.0	4.1
Fz_i	-0.4	-1.4	**-8.1**	-0.2	22.8	-4.1	-0.4	1.4	**8.1**	0.2	-25.7	4.1
Mx_i	-0.0	-1.4	-7.1	**-0.2**	21.2	-4.1	-0.0	1.4	7.1	**0.2**	-21.2	4.1
My_i	-0.4	1.4	8.1	0.2	**-25.7**	4.1	0.4	-1.4	-8.1	-0.2	**25.7**	-4.1
Mz_i	0.1	-1.4	-7.9	-0.2	24.0	**-4.1**	-0.1	1.4	7.9	0.2	-24.0	**4.1**
Fx_f	**-1.4**	1.3	5.3	0.2	-11.8	2.7	**1.4**	-1.4	-7.2	-0.2	15.7	-2.8
Fy_f	-0.1	**-1.4**	-7.9	-0.2	15.8	-2.8	-0.1	**1.4**	7.9	0.2	-16.5	2.8
Fz_f	-0.4	-1.4	**-8.1**	-0.2	15.1	-2.8	-0.4	1.4	**8.1**	0.2	-18.0	2.8
Mx_f	-0.0	-1.4	-7.1	**-0.2**	14.5	-2.8	-0.0	1.4	7.1	**0.2**	-14.5	2.8
My_f	-0.4	1.4	8.1	0.2	**-18.0**	2.8	0.4	-1.4	-8.1	-0.2	**18.0**	-2.8
Mz_f	0.1	-1.4	-7.9	-0.2	16.5	**-2.8**	-0.1	1.4	7.9	0.2	-16.5	**2.8**

Member 130

Fx_i	**-1.4**	-1.3	-4.8	-0.1	13.3	-4.0	**1.4**	1.3	3.3	0.1	-8.9	3.9
Fy_i	-0.0	**-1.3**	-5.2	-0.1	15.6	-4.0	-0.0	**1.3**	5.2	0.1	-15.8	4.0
Fz_i	-0.4	-1.3	**-5.7**	-0.1	15.5	-4.0	-0.4	1.3	**5.7**	0.1	-18.4	4.0
Mx_i	-0.0	-1.3	-4.9	**-0.1**	14.6	-4.0	-0.0	1.3	4.9	**0.1**	-14.6	4.0
My_i	-0.4	1.3	5.7	0.1	**-18.4**	4.0	0.4	-1.3	-5.7	-0.1	**18.4**	-4.0
Mz_i	0.0	-1.3	-5.2	-0.1	15.8	**-4.0**	-0.0	1.3	5.2	0.1	-15.8	**4.0**
Fx_f	**-1.4**	-1.3	-4.8	-0.1	8.8	-2.7	**1.4**	1.3	3.3	0.1	-5.8	2.7
Fy_f	-0.0	**-1.3**	-5.2	-0.1	10.6	-2.7	-0.0	**1.3**	5.2	0.1	-10.8	2.7
Fz_f	-0.4	-1.3	**-5.7**	-0.1	10.1	-2.7	-0.4	1.3	**5.7**	0.1	-13.0	2.7
Mx_f	-0.0	-1.3	-4.9	**-0.1**	9.9	-2.7	-0.0	1.3	4.9	**0.1**	-10.0	2.7
My_f	-0.4	1.3	5.7	0.1	**-13.0**	2.7	0.4	-1.3	-5.7	-0.1	**13.0**	-2.7
Mz_f	0.0	-1.3	-5.2	-0.1	10.8	**-2.7**	-0.0	1.3	5.2	0.1	-10.8	**2.7**

Member 131

Fx_i	**-1.4**	-1.5	-2.3	0.0	6.0	-4.4	**1.4**	1.4	1.3	-0.0	-2.8	4.3
Fy_i	-0.0	**-1.5**	-2.5	0.0	7.4	-4.4	-0.0	**1.5**	2.5	-0.0	-7.4	4.4
Fz_i	-0.4	-1.5	**-3.2**	0.0	8.2	-4.4	-0.4	1.5	**3.2**	-0.0	-11.1	4.4
Mx_i	-0.0	1.4	1.1	**-0.0**	-3.4	4.2	-0.0	-1.4	-1.1	**0.0**	3.3	-4.2
My_i	-0.4	1.5	3.2	-0.0	**-11.1**	4.4	0.4	-1.5	-3.2	0.0	**11.1**	-4.4
Mz_i	0.0	-1.5	-2.5	0.0	7.4	**-4.4**	-0.0	1.5	2.5	-0.0	-7.4	**4.4**
Fx_f	**-1.4**	-1.5	-2.3	0.0	3.8	-3.0	**1.4**	1.4	1.3	-0.0	-1.6	2.9
Fy_f	-0.0	**-1.5**	-2.5	0.0	5.1	-3.0	-0.0	**1.5**	2.5	-0.0	-5.1	3.0
Fz_f	-0.4	-1.5	**-3.2**	0.0	5.1	-3.0	-0.4	1.5	**3.2**	-0.0	-8.1	3.0
Mx_f	-0.0	1.4	1.1	**-0.0**	-2.3	2.9	-0.0	-1.4	-1.1	**0.0**	2.3	-2.9
My_f	-0.4	1.5	3.2	-0.0	**-8.1**	3.0	0.4	-1.5	-3.2	0.0	**8.1**	-3.0
Mz_f	0.0	-1.5	-2.5	0.0	5.1	**-3.0**	-0.0	1.5	2.5	-0.0	-5.1	**3.0**

Member 132

Fx_i	**-1.4**	-1.8	0.1	0.1	-1.3	-5.4	**1.4**	1.7	-0.7	-0.1	3.2	5.2
Fy_i	-0.0	**-1.8**	-0.2	0.1	0.7	-5.5	-0.0	**1.8**	0.2	-0.1	-0.8	5.5
Fz_i	-0.4	1.7	**-1.6**	-0.1	3.5	5.2	-0.4	-1.7	**1.6**	0.1	-6.4	-5.2
Mx_i	0.0	1.8	0.4	**-0.1**	-1.1	5.5	0.0	-1.8	-0.4	**0.1**	1.3	-5.5
My_i	-0.4	-1.7	1.6	0.1	**-6.4**	-5.2	0.4	1.7	-1.6	-0.1	**6.4**	5.2
Mz_i	0.0	-1.8	-0.2	0.1	0.8	**-5.5**	-0.0	1.8	0.2	-0.1	-0.8	**5.5**
Fx_f	**-1.4**	-1.8	0.1	0.1	-1.2	-3.7	**1.4**	1.7	-0.7	-0.1	2.5	3.6
Fy_f	-0.0	**-1.8**	-0.2	0.1	0.5	-3.7	-0.0	**1.8**	0.2	-0.1	-0.5	3.7
Fz_f	-0.4	1.7	**-1.6**	-0.1	1.9	3.6	-0.4	-1.7	**1.6**	0.1	-4.8	-3.6
Mx_f	0.0	1.8	0.4	**-0.1**	-0.7	3.7	0.0	-1.8	-0.4	**0.1**	0.9	-3.7
My_f	0.4	-1.8	1.6	0.1	**-4.8**	-3.7	-0.4	1.8	-1.6	-0.1	**4.8**	3.7
Mz_f	0.0	-1.8	-0.2	0.1	0.5	**-3.7**	-0.0	1.8	0.2	-0.1	-0.5	3.7

Member 133

Fx_i	**-1.4**	-2.5	2.5	0.2	-8.6	-7.4	**1.4**	2.3	-2.8	-0.2	9.2	7.0
Fy_i	-0.0	**-2.5**	2.0	0.2	-6.0	-7.5	-0.0	**2.5**	-2.0	-0.2	5.8	7.5
Fz_i	0.4	2.5	**-4.0**	-0.2	10.4	7.4	0.4	-2.5	**4.0**	0.2	-13.6	-7.4
Mx_i	0.1	2.5	-1.8	**-0.2**	5.8	7.5	0.1	-2.5	1.8	**0.2**	-5.1	-7.5
My_i	0.4	-2.5	4.0	0.2	**-13.6**	-7.4	-0.4	2.5	-4.0	-0.2	**13.6**	7.4
Mz_i	0.0	-2.5	2.0	0.2	-5.8	**-7.5**	-0.0	2.5	-2.0	-0.2	5.8	**7.5**
Fx_f	**-1.4**	-2.5	2.5	0.2	-6.2	-5.1	**1.4**	2.3	-2.8	-0.2	6.6	4.8
Fy_f	-0.0	**-2.5**	2.0	0.2	-4.2	-5.1	-0.0	**2.5**	-2.0	-0.2	4.0	5.1
Fz_f	0.4	2.5	**-4.0**	-0.2	6.6	5.1	0.4	-2.5	**4.0**	0.2	-9.8	-5.1
Mx_f	0.1	2.5	-1.8	**-0.2**	4.1	5.1	0.1	-2.5	1.8	**0.2**	-3.3	-5.1
My_f	0.4	-2.5	4.0	0.2	**-9.8**	-5.1	-0.4	2.5	-4.0	-0.2	**9.8**	5.1
Mz_f	0.0	-2.5	2.0	0.2	-4.0	**-5.1**	-0.0	2.5	-2.0	-0.2	4.0	5.1

Member 134

Fx_i	**-1.4**	-3.4	5.2	0.2	-16.5	-10.3	**1.4**	3.2	-3.9	-0.2	12.8	9.4
Fy_i	-0.1	**-3.5**	4.2	0.2	-13.0	-10.4	-0.1	**3.5**	-4.2	-0.2	12.2	10.4
Fz_i	0.4	3.4	**-6.5**	-0.2	18.0	10.3	0.4	-3.4	**6.5**	0.2	-21.2	-10.3
Mx_i	0.4	3.5	-4.2	**-0.2**	14.1	10.4	0.4	-3.5	4.2	**0.2**	-11.1	-10.4
My_i	0.4	-3.4	6.5	0.2	**-21.2**	-10.3	-0.4	3.4	-6.5	-0.2	**21.2**	10.3
Mz_i	0.1	-3.5	4.2	0.2	-12.2	**-10.4**	-0.1	3.5	-4.2	-0.2	12.2	**10.4**
Fx_f	**-1.4**	-3.4	5.2	0.2	-11.6	-7.1	**1.4**	3.2	-3.9	-0.2	9.0	6.5
Fy_f	-0.1	**-3.5**	4.2	0.2	-9.0	-7.1	-0.1	**3.5**	-4.2	-0.2	8.2	7.1
Fz_f	0.4	3.4	**-6.5**	-0.2	11.8	7.0	0.4	-3.4	**6.5**	0.2	-15.0	-7.0
Mx_f	0.4	3.5	-4.2	**-0.2**	10.1	7.1	0.4	-3.5	4.2	**0.2**	-7.2	-7.1
My_f	0.4	-3.4	6.5	0.2	**-15.0**	-7.0	-0.4	3.4	-6.5	-0.2	**15.0**	7.0
Mz_f	0.1	-3.5	4.2	0.2	-8.2	**-7.1**	-0.1	3.5	-4.2	-0.2	8.2	**7.1**

Member 135

Fx_i	**-1.4**	-4.4	-1.4	-0.0	3.3	-13.3	**1.4**	3.9	1.2	0.0	-2.6	11.8

Fy_i	-0.4	**-4.4**	-2.3	-0.0	5.4	-13.3	-0.4	**4.4**	2.3	0.0	-8.4	13.3
Fz_i	0.4	-3.9	**-2.5**	-0.0	5.9	-11.8	0.4	3.9	**2.5**	0.0	-9.1	11.8
Mx_i	-0.0	-4.3	-1.7	**-0.0**	5.1	-13.0	-0.0	4.3	1.7	**0.0**	-5.1	13.0
My_i	0.4	3.9	2.5	0.0	**-9.1**	11.8	-0.4	-3.9	-2.5	-0.0	**9.1**	-11.8
Mz_i	0.4	-4.4	-2.3	-0.0	8.4	**-13.3**	-0.4	4.4	2.3	0.0	-8.4	**13.3**
Fx_f	**-1.4**	-4.4	-1.4	-0.0	2.0	-9.1	**1.4**	3.9	1.2	0.0	-1.5	8.0
Fy_f	-0.4	**-4.4**	-2.3	-0.0	3.3	-9.1	-0.4	**4.4**	2.3	0.0	-6.2	9.1
Fz_f	0.4	-3.9	**-2.5**	-0.0	3.5	-8.1	0.4	3.9	**2.5**	0.0	-6.7	8.1
Mx_f	-0.0	-4.3	-1.7	**-0.0**	3.5	-8.9	-0.0	4.3	1.7	**0.0**	-3.5	8.9
My_f	0.4	3.9	2.5	0.0	**-6.7**	8.1	-0.4	-3.9	-2.5	-0.0	**6.7**	-8.1
Mz_f	0.4	-4.4	-2.3	-0.0	6.2	**-9.1**	-0.4	4.4	2.3	0.0	-6.2	**9.1**

Member 136

Fx_i	**-1.4**	-3.4	-9.3	-0.3	27.1	-10.3	**1.4**	3.1	6.1	0.3	-17.3	9.4
Fy_i	-1.4	**-3.4**	-9.3	-0.3	27.1	-10.3	-1.4	**3.4**	9.3	0.3	-29.0	10.3
Fz_i	-0.4	-3.4	**-10.1**	-0.3	28.8	-10.3	-0.4	3.4	**10.1**	0.3	-31.8	10.3
Mx_i	-0.0	-3.4	-9.2	**-0.3**	27.4	-10.3	-0.0	3.4	9.2	**0.3**	-27.5	10.3
My_i	-0.4	3.4	10.1	0.3	**-31.8**	10.3	0.4	-3.4	-10.1	-0.3	**31.8**	-10.3
Mz_i	1.4	-3.4	-9.3	-0.3	29.0	**-10.3**	-1.4	3.4	9.3	0.3	-29.0	**10.3**
Fx_f	**-1.4**	-3.4	-9.3	-0.3	18.2	-7.1	**1.4**	3.1	6.1	0.3	-11.5	6.4
Fy_f	-1.4	**-3.4**	-9.3	-0.3	18.2	-7.1	-1.4	**3.4**	9.3	0.3	-20.1	7.1
Fz_f	-0.4	-3.4	**-10.1**	-0.3	19.2	-7.1	-0.4	3.4	**10.1**	0.3	-22.2	7.1
Mx_f	-0.0	-3.4	-9.2	**-0.3**	18.7	-7.0	-0.0	3.4	9.2	**0.3**	-18.8	7.0
My_f	-0.4	3.4	10.1	0.3	**-22.2**	7.1	0.4	-3.4	-10.1	-0.3	**22.2**	-7.1
Mz_f	1.4	-3.4	-9.3	-0.3	20.1	**-7.1**	-1.4	3.4	9.3	0.3	-20.1	**7.1**

Member 137

Fx_i	**-1.4**	-2.5	-6.4	-0.3	18.3	-7.5	**1.4**	2.3	4.9	0.3	-13.6	7.0
Fy_i	-0.4	**-2.5**	-4.9	-0.3	16.3	-7.5	-0.4	**2.5**	4.9	0.3	-13.1	7.5
Fz_i	-0.4	-2.5	**-7.4**	-0.3	20.6	-7.5	-0.4	2.5	**7.4**	0.3	-23.5	7.5
Mx_i	-0.0	-2.5	-6.9	**-0.3**	20.5	-7.5	-0.0	2.5	6.9	**0.3**	-20.6	7.5
My_i	-0.4	2.5	7.4	0.3	**-23.5**	7.5	0.4	-2.5	-7.4	-0.3	**23.5**	-7.5
Mz_i	0.4	-2.5	-4.9	-0.3	13.1	**-7.5**	-0.4	2.5	4.9	0.3	-13.1	**7.5**
Fx_f	**-1.4**	-2.5	-6.4	-0.3	12.2	-5.1	**1.4**	2.3	4.9	0.3	-9.0	4.8
Fy_f	-0.4	**-2.5**	-4.9	-0.3	11.6	-5.1	-0.4	**2.5**	4.9	0.3	-8.4	5.1
Fz_f	-0.4	-2.5	**-7.4**	-0.3	13.6	-5.1	-0.4	2.5	**7.4**	0.3	-16.5	5.1
Mx_f	-0.0	-2.5	-6.9	**-0.3**	14.0	-5.1	-0.0	2.5	6.9	**0.3**	-14.1	5.1
My_f	-0.4	2.5	7.4	0.3	**-16.5**	5.1	0.4	-2.5	-7.4	-0.3	**16.5**	-5.1
Mz_f	0.4	-2.5	-4.9	-0.3	8.4	**-5.1**	-0.4	2.5	4.9	0.3	-8.4	**5.1**

Member 138

Fx_i	**-1.4**	-1.9	-4.0	-0.2	11.1	-5.8	**1.4**	1.9	2.8	0.2	-7.4	5.6
Fy_i	-0.4	**-1.9**	-2.5	-0.2	9.1	-5.8	-0.4	**1.9**	2.5	0.2	-5.9	5.8
Fz_i	-0.4	-1.9	**-5.0**	-0.2	13.4	-5.8	-0.4	1.9	**5.0**	0.2	-16.4	5.8
Mx_i	-0.0	-1.9	-4.5	**-0.2**	13.4	-5.8	-0.0	1.9	4.5	**0.2**	-13.4	5.8
My_i	-0.4	1.9	5.0	0.2	**-16.4**	5.8	0.4	-1.9	-5.0	-0.2	**16.4**	-5.8
Mz_i	0.4	-1.9	-2.5	-0.2	5.9	**-5.8**	-0.4	1.9	2.5	0.2	-5.9	**5.8**
Fx_f	**-1.4**	-1.9	-4.0	-0.2	7.3	-4.0	**1.4**	1.9	2.8	0.2	-4.8	3.8
Fy_f	-0.4	**-1.9**	-2.5	-0.2	6.7	-4.0	-0.4	**1.9**	2.5	0.2	-3.6	4.0
Fz_f	-0.4	-1.9	**-5.0**	-0.2	8.7	-4.0	-0.4	1.9	**5.0**	0.2	-11.6	4.0
Mx_f	-0.0	-1.9	-4.5	**-0.2**	9.1	-4.0	-0.0	1.9	4.5	**0.2**	-9.2	4.0
My_f	-0.4	1.9	5.0	0.2	**-11.6**	4.0	0.4	-1.9	-5.0	-0.2	**11.6**	-4.0
Mz_f	0.4	-1.9	-2.5	-0.2	3.6	**-4.0**	-0.4	1.9	2.5	0.2	-3.6	**4.0**

Member 139

Fx_i	**-1.4**	-1.8	-1.6	-0.0	3.9	-5.4	**1.4**	1.8	0.7	0.0	-1.3	5.3
Fy_i	-0.1	**-1.8**	-2.4	-0.0	6.8	-5.4	-0.1	**1.8**	2.4	0.0	-7.6	5.4
Fz_i	-0.4	-1.8	**-2.6**	-0.0	6.3	-5.4	-0.4	1.8	**2.6**	0.0	-9.2	5.4
Mx_i	-0.0	-1.8	-1.8	**-0.0**	5.5	-5.4	-0.0	1.8	1.8	**0.0**	-5.5	5.4
My_i	-0.4	1.8	2.6	0.0	**-9.2**	5.4	0.4	-1.8	-2.6	-0.0	**9.2**	-5.4
Mz_i	0.1	-1.8	-2.4	-0.0	7.6	**-5.4**	-0.1	1.8	2.4	0.0	-7.6	**5.4**
Fx_f	**-1.4**	-1.8	-1.6	-0.0	2.4	-3.7	**1.4**	1.8	0.7	0.0	-0.6	3.6
Fy_f	-0.1	**-1.8**	-2.4	-0.0	4.5	-3.7	-0.1	**1.8**	2.4	0.0	-5.3	3.7
Fz_f	-0.4	-1.8	**-2.6**	-0.0	3.8	-3.7	-0.4	1.8	**2.6**	0.0	-6.7	3.7
Mx_f	-0.0	-1.8	-1.8	**-0.0**	3.8	-3.7	-0.0	1.8	1.8	**0.0**	-3.8	3.7
My_f	-0.4	1.8	2.6	0.0	**-6.7**	3.7	0.4	-1.8	-2.6	-0.0	**6.7**	-3.7
Mz_f	0.1	-1.8	-2.4	-0.0	5.3	**-3.7**	-0.1	1.8	2.4	0.0	-5.3	**3.7**

Member 140

Fx_i	**-1.4**	2.0	-1.3	-0.1	2.9	6.1	**1.4**	-2.1	0.8	0.2	-1.3	-6.4
Fy_i	-0.0	**-2.1**	0.1	0.2	-0.5	-6.4	-0.0	**2.1**	-0.1	-0.2	0.3	6.4
Fz_i	0.4	2.1	**-2.3**	-0.2	5.2	6.4	0.4	-2.1	**2.3**	0.2	-8.4	-6.4
Mx_i	0.4	2.1	-2.3	**-0.2**	5.2	6.4	0.4	-2.1	2.3	**0.2**	-8.4	-6.4
My_i	0.4	-2.1	2.3	0.2	**-8.4**	-6.4	-0.4	2.1	-2.3	-0.2	**8.4**	6.4
Mz_i	0.0	-2.1	0.1	0.2	-0.3	**-6.4**	-0.0	2.1	-0.1	-0.2	0.3	**6.4**
Fx_f	**-1.4**	2.0	-1.3	-0.1	1.7	4.2	**1.4**	-2.1	0.8	0.2	-0.6	-4.4
Fy_f	-0.0	**-2.1**	0.1	0.2	-0.4	-4.4	-0.0	**2.1**	-0.1	-0.2	0.2	4.4
Fz_f	0.4	2.1	**-2.3**	-0.2	3.1	4.4	0.4	-2.1	**2.3**	0.2	-6.2	-4.4
Mx_f	0.4	2.1	-2.3	**-0.2**	3.1	4.4	0.4	-2.1	2.3	**0.2**	-6.2	-4.4
My_f	0.4	-2.1	2.3	0.2	**-6.2**	-4.4	-0.4	2.1	-2.3	-0.2	**6.2**	4.4
Mz_f	0.0	-2.1	0.1	0.2	-0.2	**-4.4**	-0.0	2.1	-0.1	-0.2	0.2	**4.4**

Member 141

Fx_i	**-1.4**	-2.9	3.2	0.3	-10.4	-8.8	**1.4**	2.8	-3.4	-0.3	11.1	8.3
Fy_i	-0.1	**-2.9**	2.4	0.3	-7.5	-8.8	-0.1	**2.9**	-2.4	-0.3	6.7	8.8
Fz_i	0.4	2.9	**-4.7**	-0.3	12.4	8.8	0.4	-2.9	**4.7**	0.3	-15.6	-8.8
Mx_i	1.4	2.9	-3.2	**-0.3**	10.4	8.8	1.4	-2.9	3.2	**0.3**	-8.5	-8.8
My_i	0.4	-2.9	4.7	0.3	**-15.6**	-8.8	-0.4	2.9	-4.7	-0.3	**15.6**	8.8
Mz_i	0.1	-2.9	2.4	0.3	-6.7	**-8.8**	-0.1	2.9	-2.4	-0.3	6.7	**8.8**
Fx_f	**-1.4**	-2.9	3.2	0.3	-7.4	-6.0	**1.4**	2.8	-3.4	-0.3	7.9	5.6
Fy_f	-0.1	**-2.9**	2.4	0.3	-5.2	-6.0	-0.1	**2.9**	-2.4	-0.3	4.5	6.0
Fz_f	0.4	2.9	**-4.7**	-0.3	8.0	6.0	0.4	-2.9	**4.7**	0.3	-11.2	-6.0
Mx_f	1.4	2.9	-3.2	**-0.3**	7.4	6.0	1.4	-2.9	3.2	**0.3**	-5.5	-6.0
My_f	0.4	-2.9	4.7	0.3	**-11.2**	-6.0	-0.4	2.9	-4.7	-0.3	**11.2**	6.0
Mz_f	0.1	-2.9	2.4	0.3	-4.5	**-6.0**	-0.1	2.9	-2.4	-0.3	4.5	**6.0**

Member 142

Fx_i	**-1.4**	-4.2	7.0	0.3	-21.9	-12.7	**1.4**	3.9	-5.6	-0.3	17.8	11.7
Fy_i	-0.4	**-4.2**	6.0	0.3	-19.4	-12.7	-0.4	**4.2**	-6.0	-0.3	16.5	12.7
Fz_i	0.4	4.2	**-8.4**	-0.3	23.5	12.7	0.4	-4.2	**8.4**	0.3	-26.7	-12.7
Mx_i	0.4	4.2	-8.4	**-0.3**	23.5	12.7	0.4	-4.2	8.4	**0.3**	-26.7	-12.7
My_i	0.4	-4.2	8.4	0.3	**-26.7**	-12.7	-0.4	4.2	-8.4	-0.3	**26.7**	12.7
Mz_i	0.4	-4.2	6.0	0.3	-16.5	**-12.7**	-0.4	4.2	-6.0	-0.3	16.5	**12.7**
Fx_f	**-1.4**	-4.2	7.0	0.3	-15.3	-8.7	**1.4**	3.9	-5.6	-0.3	12.5	8.0
Fy_f	-0.4	**-4.2**	6.0	0.3	-13.7	-8.7	-0.4	**4.2**	-6.0	-0.3	10.8	8.7
Fz_f	0.4	4.2	**-8.4**	-0.3	15.5	8.7	0.4	-4.2	**8.4**	0.3	-18.7	-8.7
Mx_f	0.4	4.2	-8.4	**-0.3**	15.5	8.7	0.4	-4.2	8.4	**0.3**	-18.7	-8.7
My_f	0.4	-4.2	8.4	0.3	**-18.7**	-8.7	-0.4	4.2	-8.4	-0.3	**18.7**	8.7
Mz_f	0.4	-4.2	6.0	0.3	-10.8	**-8.7**	-0.4	4.2	-6.0	-0.3	10.8	**8.7**

Member 143

Fx_i	**-1.4**	-5.8	-0.5	-0.0	0.5	-17.3	**1.4**	5.1	0.4	0.0	-0.3	15.4
Fy_i	-1.4	**-5.8**	-0.5	-0.0	0.5	-17.3	-1.4	**5.8**	0.5	0.0	-2.5	17.3
Fz_i	0.4	-5.2	**-1.7**	-0.0	3.6	-15.5	0.4	5.2	**1.7**	0.0	-6.8	15.5
Mx_i	-0.0	-5.6	-0.8	**-0.0**	2.5	-16.9	-0.0	5.6	0.8	**0.0**	-2.5	16.9
My_i	0.4	5.2	1.7	0.0	**-6.8**	15.5	-0.4	-5.2	-1.7	-0.0	**6.8**	-15.5
Mz_i	1.4	-5.8	-0.5	-0.0	2.5	**-17.3**	-1.4	5.8	0.5	0.0	-2.5	**17.3**
Fx_f	**-1.4**	-5.8	-0.5	-0.0	0.0	-11.8	**1.4**	5.1	0.4	0.0	0.1	10.5
Fy_f	-1.4	**-5.8**	-0.5	-0.0	0.0	-11.8	-1.4	**5.8**	0.5	0.0	-2.0	11.8
Fz_f	0.4	-5.2	**-1.7**	-0.0	2.0	-10.6	0.4	5.2	**1.7**	0.0	-5.2	10.6
Mx_f	-0.0	-5.6	-0.8	**-0.0**	1.7	-11.5	-0.0	5.6	0.8	**0.0**	-1.7	11.5
My_f	0.4	5.2	1.7	0.0	**-5.2**	10.6	-0.4	-5.2	-1.7	-0.0	**5.2**	-10.6
Mz_f	1.4	-5.8	-0.5	-0.0	2.0	**-11.8**	-1.4	5.8	0.5	0.0	-2.0	**11.8**

Member 144

Fx_i	**-1.4**	-4.2	-9.0	-0.3	26.2	-12.7	**1.4**	3.9	5.8	0.3	-16.3	11.6
Fy_i	-0.4	**-4.2**	-7.6	-0.3	24.3	-12.7	-0.4	**4.2**	7.6	0.3	-21.1	12.7
Fz_i	-0.4	-4.2	**-9.8**	-0.3	28.0	-12.7	-0.4	4.2	**9.8**	0.3	-30.9	12.7
Mx_i	-0.0	-4.2	-9.2	**-0.3**	27.4	-12.7	-0.0	4.2	9.2	**0.3**	-27.6	12.7
My_i	-0.4	4.2	9.8	0.3	**-30.9**	12.7	0.4	-4.2	-9.8	-0.3	**30.9**	-12.7
Mz_i	0.4	-4.2	-7.6	-0.3	21.1	**-12.7**	-0.4	4.2	7.6	0.3	-21.1	**12.7**

Fx_f	**-1.4**	-4.2	-9.0	-0.3	17.6	-8.7	**1.4**	3.9	5.8	0.3	-10.8	7.9	Fz_i	0.4	3.2	**-6.1**	-0.3	16.7	9.6	0.4	-3.2	**6.1**	0.3	-19.9	-9.6
Fy_f	-0.4	**-4.2**	-7.6	-0.3	17.1	-8.7	-0.4	**4.2**	7.6	0.3	-13.9	8.7	Mx_i	0.4	3.2	-6.1	**-0.3**	16.7	9.6	0.4	-3.2	6.1	**0.3**	-19.9	-9.6
Fz_f	-0.4	-4.2	**-9.8**	-0.3	18.6	-8.7	-0.4	4.2	**9.8**	0.3	-21.6	8.7	My_i	0.4	-3.2	6.1	0.3	**-19.9**	-9.6	-0.4	3.2	-6.1	-0.3	**19.9**	9.6
Mx_f	-0.0	-4.2	-9.2	**-0.3**	18.7	-8.7	-0.0	4.2	9.2	**0.3**	-18.9	8.7	Mz_i	0.1	-3.2	3.8	0.3	-10.9	**-9.7**	-0.1	3.2	-3.8	-0.3	10.9	**9.7**
My_f	-0.4	4.2	9.8	0.3	**-21.6**	8.7	0.4	-4.2	-9.8	-0.3	**21.6**	-8.7													
Mz_f	0.4	-4.2	-7.6	-0.3	13.9	**-8.7**	-0.4	4.2	7.6	0.3	-13.9	**8.7**	Fx_f	**-1.4**	-3.2	4.6	0.3	-10.4	-6.6	**1.4**	3.0	-4.6	-0.3	10.4	6.2
													Fy_f	-0.1	**-3.2**	3.8	0.3	-8.1	-6.6	-0.1	**3.2**	-3.8	-0.3	7.3	6.6
Member 145													Fz_f	0.4	3.2	**-6.1**	-0.3	10.9	6.6	0.4	-3.2	**6.1**	0.3	-14.1	-6.6
													Mx_f	0.4	3.2	-6.1	**-0.3**	10.9	6.6	0.4	-3.2	6.1	**0.3**	-14.1	-6.6
Fx_i	**-1.4**	2.8	3.7	0.3	-12.0	8.3	**1.4**	-2.9	-4.9	-0.3	15.8	-8.8	My_f	0.4	-3.2	6.1	0.3	**-14.1**	-6.6	-0.4	3.2	-6.1	-0.3	**14.1**	6.6
Fy_i	-0.1	**-2.9**	-3.5	-0.3	11.1	-8.8	-0.1	**2.9**	3.5	0.3	-10.2	8.8	Mz_f	0.1	-3.2	3.8	0.3	-7.3	**-6.6**	-0.1	3.2	-3.8	-0.3	7.3	**6.6**
Fz_i	-0.4	-2.9	**-5.9**	-0.3	16.2	-8.8	-0.4	2.9	**5.9**	0.3	-19.1	8.8													
Mx_i	-0.0	-2.9	-5.6	**-0.3**	16.6	-8.8	-0.0	2.9	5.6	**0.3**	-16.8	8.8	Member 150												
My_i	-0.4	2.9	5.9	0.3	**-19.1**	8.8	0.4	-2.9	-5.9	-0.3	**19.1**	-8.8													
Mz_i	0.1	-2.9	-3.5	-0.3	10.2	**-8.8**	-0.1	2.9	3.5	0.3	-10.2	**8.8**	Fx_i	**-1.4**	-4.7	8.4	0.3	-26.1	-14.2	**1.4**	4.4	-6.8	-0.3	21.3	13.1
													Fy_i	-0.4	**-4.8**	7.4	0.3	-23.5	-14.3	-0.4	**4.8**	-7.4	-0.3	20.6	14.3
Fx_f	**-1.4**	2.8	3.7	0.3	-8.5	5.6	**1.4**	-2.9	-4.9	-0.3	11.1	-6.0	Fz_i	0.4	4.7	**-9.7**	-0.3	27.7	14.2	0.4	-4.7	**9.7**	0.3	-30.8	-14.2
Fy_f	-0.1	**-2.9**	-3.5	-0.3	7.7	-6.0	-0.1	**2.9**	3.5	0.3	-6.8	6.0	Mx_i	0.1	4.7	-9.5	**-0.3**	28.0	14.2	0.1	-4.7	9.5	**0.3**	-28.9	-14.2
Fz_f	-0.4	-2.9	**-5.9**	-0.3	10.6	-6.0	-0.4	2.9	**5.9**	0.3	-13.5	6.0	My_i	0.4	-4.7	9.7	0.3	**-30.8**	-14.2	-0.4	4.7	-9.7	-0.3	**30.8**	14.2
Mx_f	-0.0	-2.9	-5.6	**-0.3**	11.3	-6.0	-0.0	2.9	5.6	**0.3**	-11.5	6.0	Mz_i	0.4	-4.8	7.4	0.3	-20.6	**-14.3**	-0.4	4.8	-7.4	-0.3	20.6	**14.3**
My_f	-0.4	2.9	5.9	0.3	**-13.5**	6.0	0.4	-2.9	-5.9	-0.3	**13.5**	-6.0													
Mz_f	0.1	-2.9	-3.5	-0.3	6.8	**-6.0**	-0.1	2.9	3.5	0.3	-6.8	**6.0**	Fx_f	**-1.4**	-4.7	8.4	0.3	-18.1	-9.7	**1.4**	4.4	-6.8	-0.3	14.9	8.9
													Fy_f	-0.4	**-4.8**	7.4	0.3	-16.5	-9.7	-0.4	**4.8**	-7.4	-0.3	13.6	9.7
Member 146													Fz_f	0.4	4.7	**-9.7**	-0.3	18.4	9.7	0.4	-4.7	**9.7**	0.3	-21.6	-9.7
													Mx_f	0.1	4.7	-9.5	**-0.3**	19.0	9.7	0.1	-4.7	9.5	**0.3**	-19.9	-9.7
Fx_i	**-1.4**	2.1	1.6	0.2	-5.8	6.2	**1.4**	-2.2	-2.6	-0.2	8.7	-6.5	My_f	0.4	-4.7	9.7	0.3	**-21.6**	-9.7	-0.4	4.7	-9.7	-0.3	**21.6**	9.7
Fy_i	-0.1	**-2.2**	-1.2	-0.2	3.9	-6.5	-0.1	**2.2**	1.2	0.2	-3.1	6.5	Mz_f	0.4	-4.8	7.4	0.3	-13.6	**-9.7**	-0.4	4.8	-7.4	-0.3	13.6	**9.7**
Fz_i	-0.4	-2.2	**-3.5**	-0.2	9.1	-6.5	-0.4	2.2	**3.5**	0.2	-12.0	6.5													
Mx_i	-0.0	-2.2	-3.2	**-0.2**	9.5	-6.5	-0.0	2.2	3.2	**0.2**	-9.7	6.5	Member 365												
My_i	-0.4	2.2	3.5	0.2	**-12.0**	6.5	0.4	-2.2	-3.5	-0.2	**12.0**	-6.5													
Mz_i	0.1	-2.2	-1.2	-0.2	3.1	**-6.5**	-0.1	2.2	1.2	0.2	-3.1	**6.5**	Fx_i	**-1.1**	0.0	6.9	0.0	-12.0	0.0	**1.1**	-0.0	-6.9	0.0	12.0	-0.0
													Fy_i	1.1	**-0.0**	-6.9	0.0	12.0	-0.0	-1.1	**0.0**	6.9	0.0	-12.0	0.0
Fx_f	**-1.4**	2.1	1.6	0.2	-4.3	4.3	**1.4**	-2.2	-2.6	-0.2	6.2	-4.5	Fz_i	1.1	-0.0	**-6.9**	0.0	12.0	-0.0	-1.1	0.0	**6.9**	0.0	-12.0	0.0
Fy_f	-0.1	**-2.2**	-1.2	-0.2	2.8	-4.5	-0.1	**2.2**	1.2	0.2	-1.9	4.5	Mx_i	-1.1	0.0	6.9	**-0.0**	-12.0	0.0	1.1	-0.0	-6.8	**0.0**	12.0	-0.0
Fz_f	-0.4	-2.2	**-3.5**	-0.2	5.7	-4.5	-0.4	2.2	**3.5**	0.2	-8.7	4.5	My_i	-1.1	0.0	6.9	0.0	**-12.0**	0.0	1.1	-0.0	-6.9	0.0	**12.0**	-0.0
Mx_f	-0.0	-2.2	-3.2	**-0.2**	6.5	-4.5	-0.0	2.2	3.2	**0.2**	-6.7	4.5	Mz_i	1.1	-0.0	-6.8	0.0	12.0	**-0.0**	-1.1	0.0	6.8	0.0	-12.0	**0.0**
My_f	-0.4	2.2	3.5	0.2	**-8.7**	4.5	0.4	-2.2	-3.5	-0.2	**8.7**	-4.5													
Mz_f	0.1	-2.2	-1.2	-0.2	1.9	**-4.5**	-0.1	2.2	1.2	0.2	-1.9	**4.5**	Fx_f	**-1.1**	0.0	6.9	0.0	0.0	-0.0	**1.1**	-0.0	-6.9	0.0	-0.0	0.0
													Fy_f	1.1	**-0.0**	-6.9	0.0	-0.0	0.0	-1.1	**0.0**	6.9	0.0	0.0	-0.0
Member 147													Fz_f	1.1	-0.0	**-6.9**	0.0	-0.0	0.0	-1.1	0.0	**6.9**	0.0	-0.0	0.0
													Mx_f	-1.1	0.0	6.9	**-0.0**	0.0	-0.0	1.1	-0.0	-6.8	**0.0**	-0.0	-0.0
Fx_i	**-1.4**	-2.0	-0.2	-0.0	-0.4	-5.9	**1.4**	1.9	-0.5	0.0	2.3	5.7	My_f	1.1	-0.0	-6.9	0.0	**-0.0**	0.0	-1.1	0.0	6.9	0.0	**0.0**	-0.0
Fy_i	-0.4	**-2.0**	-1.1	-0.0	1.9	-5.9	-0.4	**2.0**	1.1	0.0	-4.8	5.9	Mz_f	-1.1	0.0	6.9	0.0	0.0	**-0.0**	1.1	-0.0	-6.9	0.0	-0.0	**0.0**
Fz_i	-0.4	1.9	**-1.4**	0.0	2.8	5.7	-0.4	-1.9	**1.4**	-0.0	-5.7	-5.7													
Mx_i	-0.0	-2.0	-0.6	**-0.0**	1.7	-5.9	-0.0	2.0	0.6	**0.0**	-1.7	5.9	Member 366												
My_i	-0.4	-1.9	1.4	-0.0	**-5.7**	-5.7	0.4	1.9	-1.4	0.0	**5.7**	5.7													
Mz_i	0.4	-2.0	-1.1	-0.0	4.8	**-5.9**	-0.4	2.0	1.1	0.0	-4.8	**5.9**	Fx_i	**-9.7**	-0.0	-1.7	0.0	-15.0	-0.0	**9.7**	0.0	1.7	0.0	15.0	0.0
													Fy_i	-9.7	**-0.0**	-1.7	0.0	-15.0	-0.0	9.7	**0.0**	1.7	0.0	15.0	0.0
Fx_f	**-1.4**	-2.0	-0.2	-0.0	-0.6	-4.0	**1.4**	1.9	-0.5	0.0	1.9	3.9	Fz_i	-9.7	-0.0	**-1.7**	0.0	-15.0	-0.0	9.7	0.0	**1.7**	0.0	15.0	0.0
Fy_f	-0.4	**-2.0**	-1.1	-0.0	0.8	-4.0	-0.4	**2.0**	1.1	0.0	-3.8	4.0	Mx_i	-9.6	-0.0	-1.6	**-0.0**	-15.3	-0.0	9.6	0.0	1.6	**0.0**	15.3	0.0
Fz_f	-0.4	1.9	**-1.4**	0.0	1.4	3.9	-0.4	-1.9	**1.4**	-0.0	-4.3	-3.9	My_i	-9.2	-0.0	-1.1	0.0	**-16.6**	-0.0	9.2	0.0	1.1	0.0	**16.6**	0.0
Mx_f	-0.0	-2.0	-0.6	**-0.0**	1.1	-4.0	-0.0	2.0	0.6	**0.0**	-1.2	4.0	Mz_i	-9.2	-0.0	-1.1	0.0	-16.5	**-0.0**	9.2	0.0	1.1	0.0	16.5	**0.0**
My_f	0.4	-2.0	1.3	-0.0	**-4.3**	-4.0	-0.4	2.0	-1.3	0.0	**4.3**	4.0													
Mz_f	0.4	-2.0	-1.1	-0.0	3.8	**-4.0**	-0.4	2.0	1.1	0.0	-3.8	**4.0**	Fx_f	**-9.7**	-0.0	-1.7	0.0	-17.9	0.0	**9.7**	0.0	1.7	0.0	17.9	-0.0
													Fy_f	-9.7	**-0.0**	-1.7	0.0	-17.9	0.0	9.7	**0.0**	1.7	0.0	17.9	-0.0
Member 148													Fz_f	-9.7	-0.0	**-1.7**	0.0	-17.9	0.0	9.7	0.0	**1.7**	0.0	17.9	-0.0
													Mx_f	-9.6	-0.0	-1.6	**-0.0**	-18.1	0.0	9.6	0.0	1.6	**0.0**	18.1	-0.0
Fx_i	**-1.4**	-2.3	2.2	0.2	-7.6	-6.9	**1.4**	2.2	-2.5	-0.2	8.5	6.6	My_f	-9.2	-0.0	-1.1	0.0	**-18.4**	0.0	9.2	0.0	1.1	0.0	**18.4**	-0.0
Fy_i	-0.0	**-2.3**	1.5	0.2	-4.7	-6.9	-0.0	**2.3**	-1.5	-0.2	4.5	6.9	Mz_f	9.7	0.0	1.7	0.0	17.9	**-0.0**	-9.7	-0.0	-1.7	0.0	-17.9	**0.0**
Fz_i	0.4	2.3	**-3.7**	-0.2	9.6	6.9	0.4	-2.3	**3.7**	0.2	-12.8	-6.9													
Mx_i	0.1	2.3	-3.6	**-0.2**	10.3	6.9	0.1	-2.3	3.6	**0.2**	-11.2	-6.9	Member 367												
My_i	0.4	-2.3	3.7	0.2	**-12.8**	-6.9	-0.4	2.3	-3.7	-0.2	**12.8**	6.9													
Mz_i	0.0	-2.3	1.5	0.2	-4.5	**-6.9**	-0.0	2.3	-1.5	-0.2	4.5	**6.9**	Fx_i	**-21.7**	0.0	-16.5	0.0	15.6	0.0	**21.7**	-0.0	16.5	0.0	-15.6	-0.0
													Fy_i	21.6	**-0.0**	16.3	0.0	-15.2	-0.0	-21.6	**0.0**	-16.3	0.0	15.2	0.0
Fx_f	**-1.4**	-2.3	2.2	0.2	-5.5	-4.7	**1.4**	2.2	-2.5	-0.2	6.1	4.5	Fz_i	-21.7	0.0	**-16.5**	0.0	15.6	0.0	21.7	-0.0	**16.5**	0.0	-15.6	-0.0
Fy_f	-0.0	**-2.3**	1.5	0.2	-3.3	-4.7	-0.0	**2.3**	-1.5	-0.2	3.1	4.7	Mx_i	-21.2	0.0	-15.7	**-0.0**	13.5	0.0	21.2	-0.0	15.7	**0.0**	-13.5	-0.0
Fz_f	0.4	2.3	**-3.7**	-0.2	6.0	4.7	0.4	-2.3	**3.7**	0.2	-9.2	-4.7	My_i	21.7	-0.0	16.5	0.0	**-15.6**	-0.0	-21.7	0.0	-16.5	0.0	**15.6**	0.0
Mx_f	0.1	2.3	-3.6	**-0.2**	6.9	4.7	0.1	-2.3	3.6	**0.2**	-7.8	-4.7	Mz_i	20.2	-0.0	14.3	0.0	-10.5	**-0.0**	-20.2	0.0	-14.3	0.0	10.5	**0.0**
My_f	0.4	-2.3	3.7	0.2	**-9.2**	-4.7	-0.4	2.3	-3.7	-0.2	**9.2**	4.7													
Mz_f	0.0	-2.3	1.5	0.2	-3.1	**-4.7**	-0.0	2.3	-1.5	-0.2	3.1	**4.7**	Fx_f	**-21.7**	0.0	-16.5	0.0	-13.3	-0.0	**21.7**	-0.0	16.5	0.0	13.3	0.0
													Fy_f	21.6	**-0.0**	16.3	0.0	13.5	0.0	-21.6	**0.0**	-16.3	0.0	-13.5	-0.0
Member 149													Fz_f	-21.7	0.0	**-16.5**	0.0	-13.3	-0.0	21.7	-0.0	**16.5**	0.0	13.3	0.0
													Mx_f	-21.2	0.0	-15.7	**-0.0**	-13.9	-0.0	21.2	-0.0	15.7	**0.0**	13.9	0.0
Fx_i	**-1.4**	-3.2	4.6	0.3	-14.7	-9.6	**1.4**	3.0	-4.6	-0.3	14.7	9.0	My_f	-20.1	0.0	-14.1	0.0	**-14.7**	-0.0	20.1	-0.0	14.1	0.0	**14.7**	0.0
Fy_i	-0.1	**-3.2**	3.8	0.3	-11.7	-9.7	-0.1	**3.2**	-3.8	-0.3	10.9	9.7	Mz_f	-21.6	0.0	-16.3	0.0	-13.5	**-0.0**	21.6	-0.0	16.3	0.0	13.5	**0.0**

Member 368

Fx_i	**-26.3**	0.0	-15.7	0.0	28.5	0.0	**26.3**	-0.0	15.7	0.0	-28.5	-0.0
Fy_i	26.2	**-0.0**	15.5	0.0	-27.9	-0.0	-26.2	**0.0**	-15.5	0.0	27.9	0.0
Fz_i	-26.3	0.0	**-15.7**	-0.0	28.5	0.0	26.3	-0.0	**15.7**	0.0	-28.5	-0.0
Mx_i	-25.9	0.0	-15.2	**-0.0**	26.8	0.0	25.9	-0.0	15.2	**0.0**	-26.8	-0.0
My_i	26.3	-0.0	15.7	0.0	**-28.5**	-0.0	-26.3	0.0	-15.7	-0.0	**28.5**	0.0
Mz_i	26.2	-0.0	15.5	0.0	-27.9	**-0.0**	-26.2	0.0	-15.5	0.0	27.9	**0.0**
Fx_f	**-26.3**	0.0	-15.7	0.0	1.1	-0.0	**26.3**	-0.0	15.7	0.0	-1.1	0.0
Fy_f	26.2	**-0.0**	15.5	0.0	-0.8	0.0	-26.2	**0.0**	-15.5	0.0	0.8	-0.0
Fz_f	-26.3	0.0	**-15.7**	-0.0	1.1	-0.0	26.3	-0.0	**15.7**	0.0	-1.1	0.0
Mx_f	-25.9	0.0	-15.2	**-0.0**	0.3	-0.0	25.9	-0.0	15.2	**0.0**	-0.3	0.0
My_f	-24.3	0.0	-13.6	0.0	**-1.8**	-0.0	24.3	-0.0	13.6	-0.0	**1.8**	0.0
Mz_f	-26.2	0.0	-15.5	0.0	0.8	**-0.0**	26.2	-0.0	15.5	0.0	-0.8	**0.0**

Member 369

Fx_i	**-29.1**	-0.0	-17.4	0.0	37.3	-0.0	**29.1**	0.0	17.4	0.0	-37.3	0.0
Fy_i	-27.2	**-0.0**	-15.6	0.0	31.3	-0.0	27.2	**0.0**	15.6	0.0	-31.3	0.0
Fz_i	-29.1	-0.0	**-17.4**	0.0	37.3	-0.0	29.1	0.0	**17.4**	0.0	-37.3	0.0
Mx_i	-28.3	-0.0	-16.6	**-0.0**	34.6	-0.0	28.7	0.0	16.9	**0.0**	-35.8	0.0
My_i	29.1	0.0	17.4	0.0	**-37.3**	0.0	-29.1	-0.0	-17.4	0.0	**37.3**	-0.0
Mz_i	-27.2	-0.0	-15.6	0.0	31.3	**-0.0**	27.2	0.0	15.6	0.0	-31.3	**0.0**
Fx_f	**-29.1**	-0.0	-17.4	0.0	6.9	0.0	**29.1**	0.0	17.4	0.0	-6.9	-0.0
Fy_f	-27.2	**-0.0**	-15.6	0.0	4.0	0.0	27.2	**0.0**	15.6	0.0	-4.0	-0.0
Fz_f	-29.1	-0.0	**-17.4**	0.0	6.9	0.0	29.1	0.0	**17.4**	0.0	-6.9	-0.0
Mx_f	-28.3	-0.0	-16.6	**-0.0**	5.6	0.0	28.7	0.0	16.9	**0.0**	-6.2	-0.0
My_f	29.1	0.0	17.4	0.0	**-6.9**	-0.0	-29.1	-0.0	-17.4	0.0	**6.9**	0.0
Mz_f	27.2	0.0	15.6	0.0	-4.0	**-0.0**	-27.2	-0.0	-15.6	0.0	4.0	**0.0**

Member 370

Fx_i	**-28.8**	-0.0	-16.8	0.0	36.5	-0.0	**28.8**	0.0	16.8	0.0	-36.5	0.0
Fy_i	-27.2	**-0.0**	-15.3	0.0	31.3	-0.0	27.2	**0.0**	15.3	0.0	-31.3	0.0
Fz_i	-28.8	-0.0	**-16.8**	0.0	36.5	-0.0	28.8	0.0	**16.8**	0.0	-36.5	0.0
Mx_i	-28.7	-0.0	-16.7	**-0.0**	35.9	-0.0	26.8	0.0	14.9	**0.0**	-29.9	0.0
My_i	28.8	0.0	16.8	0.0	**-36.5**	0.0	-28.8	-0.0	-16.8	0.0	**36.5**	-0.0
Mz_i	-27.0	-0.0	-15.1	0.0	30.7	**-0.0**	27.0	0.0	15.1	0.0	-30.7	**0.0**
Fx_f	**-28.8**	-0.0	-16.8	0.0	7.1	0.0	**28.8**	0.0	16.8	0.0	-7.1	-0.0
Fy_f	-27.2	**-0.0**	-15.3	0.0	4.5	0.0	27.2	**0.0**	15.3	0.0	-4.5	-0.0
Fz_f	-28.8	-0.0	**-16.8**	0.0	7.1	0.0	28.8	0.0	**16.8**	0.0	-7.1	-0.0
Mx_f	-28.7	-0.0	-16.7	**-0.0**	6.8	0.0	26.8	0.0	14.9	**0.0**	-3.8	-0.0
My_f	28.8	0.0	16.8	0.0	**-7.1**	-0.0	-28.8	-0.0	-16.8	0.0	**7.1**	0.0
Mz_f	27.2	0.0	15.3	0.0	-4.5	**-0.0**	-27.2	-0.0	-15.3	0.0	4.5	**0.0**

Member 371

Fx_i	**-25.8**	-0.0	-15.6	-0.0	27.2	-0.0	**25.8**	0.0	15.6	0.0	-27.2	0.0
Fy_i	-25.6	**-0.0**	-15.3	-0.0	26.2	-0.0	25.6	**0.0**	15.3	0.0	-26.2	0.0
Fz_i	-25.8	-0.0	**-15.6**	-0.0	27.2	-0.0	25.8	0.0	**15.6**	0.0	-27.2	0.0
Mx_i	-24.1	-0.0	-13.8	**-0.0**	21.7	-0.0	24.1	0.0	13.8	**0.0**	-21.7	0.0
My_i	25.8	0.0	15.6	0.0	**-27.2**	0.0	-25.8	-0.0	-15.6	-0.0	**27.2**	-0.0
Mz_i	-25.7	-0.0	-15.4	-0.0	26.7	**-0.0**	25.7	0.0	15.4	0.0	-26.7	**0.0**
Fx_f	**-25.8**	-0.0	-15.6	-0.0	-0.0	0.0	**25.8**	0.0	15.6	0.0	0.0	-0.0
Fy_f	-25.6	**-0.0**	-15.3	-0.0	-0.5	0.0	25.6	**0.0**	15.3	0.0	0.5	-0.0
Fz_f	-25.8	-0.0	**-15.6**	-0.0	-0.0	0.0	25.8	0.0	**15.6**	0.0	0.0	-0.0
Mx_f	-24.1	-0.0	-13.8	**-0.0**	-2.4	0.0	24.1	0.0	13.8	**0.0**	2.4	-0.0
My_f	-23.8	-0.0	-13.4	-0.0	**-3.0**	0.0	23.8	0.0	13.4	0.0	**3.0**	-0.0
Mz_f	25.6	0.0	15.3	0.0	0.5	**-0.0**	-25.6	-0.0	-15.3	-0.0	-0.5	**0.0**

Member 372

Fx_i	**-19.0**	-0.0	-15.0	0.0	8.2	-0.0	**19.0**	0.0	15.0	0.0	-8.2	0.0
Fy_i	-18.8	**-0.0**	-14.7	0.0	7.9	-0.0	18.8	**0.0**	14.7	-0.0	-7.9	0.0
Fz_i	-19.0	-0.0	**-15.0**	0.0	8.4	-0.0	19.0	0.0	**15.0**	0.0	-8.4	0.0
Mx_i	-17.5	-0.0	-12.7	**-0.0**	3.8	-0.0	17.9	0.0	13.3	**0.0**	-5.0	0.0
My_i	19.0	0.0	15.0	0.0	**-8.4**	0.0	-19.0	-0.0	-15.0	0.0	**8.4**	-0.0
Mz_i	-18.9	-0.0	-14.9	0.0	8.3	**-0.0**	18.9	0.0	14.9	-0.0	-8.3	**0.0**
Fx_f	**-19.0**	-0.0	-15.0	0.0	-17.9	0.0	**19.0**	0.0	15.0	0.0	17.9	-0.0
Fy_f	-18.8	**-0.0**	-14.7	0.0	-17.9	0.0	18.8	**0.0**	14.7	-0.0	17.9	-0.0
Fz_f	-19.0	-0.0	**-15.0**	0.0	-17.8	0.0	19.0	0.0	**15.0**	0.0	17.8	-0.0
Mx_f	-17.5	-0.0	-12.7	**-0.0**	-18.4	0.0	17.9	0.0	13.3	**0.0**	18.3	-0.0
My_f	-18.8	-0.0	-14.2	0.0	**-18.5**	0.0	18.8	0.0	14.2	0.0	**18.5**	-0.0
Mz_f	18.8	0.0	14.7	-0.0	17.9	**-0.0**	-18.8	-0.0	-14.7	0.0	-17.9	**0.0**

Member 373

Fx_i	**-6.8**	-0.3	-6.9	0.0	12.0	-0.6	**6.8**	0.3	6.9	-0.0	-12.0	0.6
Fy_i	-6.2	**-0.3**	-5.2	0.0	9.0	-0.6	6.2	**0.3**	5.2	-0.0	-9.0	0.6
Fz_i	-6.8	-0.3	**-6.9**	0.0	12.0	-0.6	6.8	0.3	**6.9**	-0.0	-12.0	0.6
Mx_i	6.3	0.3	5.3	**-0.0**	-9.3	0.6	-6.3	-0.3	-5.3	**0.0**	9.3	-0.6
My_i	6.8	0.3	6.9	-0.0	**-12.0**	0.6	-6.8	-0.3	-6.9	0.0	**12.0**	-0.6
Mz_i	-6.2	-0.3	-5.2	0.0	9.0	**-0.6**	6.2	0.3	5.2	-0.0	-9.0	**0.6**
Fx_f	**-6.8**	-0.3	-6.9	0.0	-0.0	-0.0	**6.8**	0.3	6.9	-0.0	0.0	0.0
Fy_f	-6.2	**-0.3**	-5.2	0.0	-0.0	-0.0	6.2	**0.3**	5.2	-0.0	0.0	0.0
Fz_f	-6.8	-0.3	**-6.9**	0.0	-0.0	-0.0	6.8	0.3	**6.9**	-0.0	0.0	0.0
Mx_f	6.3	0.3	5.3	**-0.0**	0.0	0.0	-6.3	-0.3	-5.3	**0.0**	-0.0	-0.0
My_f	-5.3	-0.3	-2.7	0.0	**-0.0**	-0.0	5.3	0.3	2.7	-0.0	**0.0**	0.0
Mz_f	-6.3	-0.3	-5.3	0.0	-0.0	**-0.0**	6.3	0.3	5.3	-0.0	0.0	**0.0**

Member 374

Fx_i	**-1.1**	0.0	-6.9	0.0	12.0	0.0	**1.1**	-0.0	6.9	0.0	-12.0	-0.0
Fy_i	1.1	**-0.0**	6.8	0.0	-11.9	-0.0	-1.1	**0.0**	-6.8	-0.0	11.9	0.0
Fz_i	-1.1	0.0	**-6.9**	0.0	12.0	0.0	1.1	-0.0	**6.9**	0.0	-12.0	-0.0
Mx_i	1.1	-0.0	6.9	**-0.0**	-12.0	-0.0	-1.1	0.0	-6.9	**0.0**	12.0	0.0
My_i	1.1	-0.0	6.9	0.0	**-12.0**	-0.0	-1.1	0.0	-6.9	0.0	**12.0**	0.0
Mz_i	1.1	-0.0	6.8	0.0	-11.9	**-0.0**	-1.1	0.0	-6.8	-0.0	11.9	**0.0**
Fx_f	**-1.1**	0.0	-6.9	0.0	0.0	-0.0	**1.1**	-0.0	6.9	0.0	-0.0	0.0
Fy_f	1.1	**-0.0**	6.8	0.0	-0.0	0.0	-1.1	**0.0**	-6.8	-0.0	0.0	-0.0
Fz_f	-1.1	0.0	**-6.9**	0.0	0.0	-0.0	1.1	-0.0	**6.9**	0.0	-0.0	0.0
Mx_f	1.1	-0.0	6.9	**-0.0**	-0.0	0.0	-1.1	0.0	-6.9	**0.0**	0.0	-0.0
My_f	1.1	-0.0	6.9	0.0	**-0.0**	0.0	-1.1	0.0	-6.9	0.0	**0.0**	-0.0
Mz_f	-1.1	0.0	-6.8	-0.0	0.0	**-0.0**	1.1	-0.0	6.8	0.0	-0.0	**0.0**

Member 375

Fx_i	**-9.7**	-0.0	1.7	0.0	15.0	-0.0	**9.7**	0.0	-1.7	-0.0	-15.0	0.0
Fy_i	-9.2	**-0.0**	1.1	0.0	16.5	-0.0	9.7	**0.0**	-1.7	-0.0	-15.0	0.0
Fz_i	9.7	0.0	**-1.7**	-0.0	-15.0	0.0	-9.7	-0.0	**1.7**	0.0	15.0	-0.0
Mx_i	9.7	0.0	-1.7	**-0.0**	-15.0	0.0	-9.7	-0.0	1.7	**0.0**	15.0	-0.0
My_i	9.2	0.0	-1.1	-0.0	**-16.6**	0.0	-9.2	-0.0	1.1	0.0	**16.6**	-0.0
Mz_i	-9.2	-0.0	1.1	0.0	16.5	**-0.0**	9.7	0.0	-1.7	-0.0	-15.0	**0.0**
Fx_f	**-9.7**	-0.0	1.7	0.0	17.9	0.0	**9.7**	0.0	-1.7	-0.0	-17.9	-0.0
Fy_f	-9.2	**-0.0**	1.1	0.0	18.4	0.0	9.7	**0.0**	-1.7	-0.0	-17.9	-0.0
Fz_f	9.7	0.0	**-1.7**	-0.0	-17.9	-0.0	-9.7	-0.0	**1.7**	0.0	17.9	0.0
Mx_f	9.7	0.0	-1.7	**-0.0**	-17.9	-0.0	-9.7	-0.0	1.7	**0.0**	17.9	0.0
My_f	9.2	0.0	-1.1	-0.0	**-18.4**	-0.0	-9.2	-0.0	1.1	0.0	**18.4**	0.0
Mz_f	9.2	0.0	-1.1	-0.0	-18.4	**-0.0**	-9.7	-0.0	1.7	0.0	17.9	**0.0**

Member 376

Fx_i	**-21.7**	0.0	16.5	0.0	-15.6	0.0	**21.7**	-0.0	-16.5	0.0	15.6	-0.0
Fy_i	21.5	**-0.0**	-16.1	-0.0	14.6	-0.0	-21.5	**0.0**	16.1	0.0	-14.6	0.0
Fz_i	21.7	-0.0	**-16.5**	0.0	15.6	-0.0	-21.7	0.0	**16.5**	0.0	-15.6	0.0
Mx_i	21.3	-0.0	-15.8	**-0.0**	13.8	-0.0	-21.7	0.0	16.5	**0.0**	-15.5	0.0
My_i	-21.7	0.0	16.5	0.0	**-15.6**	0.0	21.7	-0.0	-16.5	0.0	**15.6**	-0.0
Mz_i	21.5	-0.0	-16.1	-0.0	14.6	**-0.0**	-21.5	0.0	16.1	0.0	-14.6	**0.0**
Fx_f	**-21.7**	0.0	16.5	0.0	13.3	-0.0	**21.7**	-0.0	-16.5	0.0	-13.3	0.0
Fy_f	21.5	**-0.0**	-16.1	-0.0	-13.6	0.0	-21.5	**0.0**	16.1	0.0	13.6	-0.0
Fz_f	21.7	-0.0	**-16.5**	0.0	-13.3	0.0	-21.7	0.0	**16.5**	0.0	13.3	-0.0
Mx_f	21.3	-0.0	-15.8	**-0.0**	-13.8	0.0	-21.7	0.0	16.5	**0.0**	13.3	-0.0
My_f	20.1	-0.0	-14.1	0.0	**-14.7**	0.0	-20.1	0.0	14.1	0.0	**14.7**	-0.0
Mz_f	-21.5	0.0	16.2	0.0	13.6	**-0.0**	21.5	-0.0	-16.2	0.0	-13.6	**0.0**

Member 377

Fx_i	**-26.3**	-0.0	15.7	0.0	-28.5	-0.0	**26.3**	0.0	-15.7	0.0	28.5	0.0
Fy_i	-26.2	**-0.0**	15.5	0.0	-27.9	-0.0	26.2	**0.0**	-15.5	0.0	27.9	0.0
Fz_i	26.3	0.0	**-15.7**	0.0	28.5	0.0	-26.3	-0.0	**15.7**	0.0	-28.5	-0.0

Mx_i	25.3	0.0	-14.7	**-0.0**	25.3	0.0	-25.3	-0.0	14.7	**0.0**	-25.3	-0.0
My_i	-26.3	-0.0	15.7	0.0	**-28.5**	-0.0	26.3	0.0	-15.7	0.0	**28.5**	0.0
Mz_i	-26.2	-0.0	15.5	0.0	-27.9	**-0.0**	26.2	0.0	-15.5	0.0	27.9	**0.0**
Fx_f	**-26.3**	-0.0	15.7	0.0	-1.1	0.0	**26.3**	0.0	-15.7	0.0	1.1	-0.0
Fy_f	-26.2	**-0.0**	15.5	0.0	-0.8	0.0	26.2	**0.0**	-15.5	0.0	0.8	-0.0
Fz_f	26.3	0.0	**-15.7**	0.0	1.1	-0.0	-26.3	-0.0	**15.7**	0.0	-1.1	0.0
Mx_f	25.3	0.0	-14.7	**-0.0**	-0.3	-0.0	-25.3	-0.0	14.7	**0.0**	0.3	0.0
My_f	24.3	0.0	-13.6	0.0	**-1.8**	-0.0	-24.3	-0.0	13.6	0.0	**1.8**	0.0
Mz_f	26.2	0.0	-15.5	0.0	0.8	**-0.0**	-26.2	-0.0	15.5	0.0	-0.8	**0.0**

Member 378

Fx_i	**-29.1**	-0.0	17.4	0.0	-37.3	-0.0	**29.1**	0.0	-17.4	0.0	37.3	0.0
Fy_i	-27.6	**-0.0**	15.9	0.0	-32.6	-0.0	27.6	**0.0**	-15.9	0.0	32.6	0.0
Fz_i	29.1	0.0	**-17.4**	0.0	37.3	0.0	-29.1	-0.0	**17.4**	0.0	-37.3	-0.0
Mx_i	27.4	0.0	-15.7	**-0.0**	31.8	0.0	-28.8	-0.0	17.0	**0.0**	-36.1	-0.0
My_i	-29.1	-0.0	17.4	0.0	**-37.3**	-0.0	29.1	0.0	-17.4	0.0	**37.3**	0.0
Mz_i	-27.2	-0.0	15.6	0.0	-31.2	**-0.0**	27.2	0.0	-15.6	0.0	31.2	**0.0**
Fx_f	**-29.1**	-0.0	17.4	0.0	-6.9	0.0	**29.1**	0.0	-17.4	0.0	6.9	-0.0
Fy_f	-27.6	**-0.0**	15.9	0.0	-4.7	0.0	27.6	**0.0**	-15.9	0.0	4.7	-0.0
Fz_f	29.1	0.0	**-17.4**	0.0	6.9	-0.0	-29.1	-0.0	**17.4**	0.0	-6.9	0.0
Mx_f	27.4	0.0	-15.7	**-0.0**	4.3	-0.0	-28.8	-0.0	17.0	**0.0**	-6.3	0.0
My_f	-29.1	-0.0	17.4	0.0	**-6.9**	0.0	29.1	0.0	-17.4	0.0	6.9	-0.0
Mz_f	27.6	0.0	-15.9	0.0	4.7	**-0.0**	-27.6	-0.0	15.9	0.0	-4.7	**0.0**

Member 379

Fx_i	**-28.8**	-0.0	16.8	0.0	-36.5	-0.0	**28.8**	0.0	-16.8	0.0	36.5	0.0
Fy_i	-26.7	**-0.0**	14.8	0.0	-29.5	-0.0	26.7	**0.0**	-14.8	0.0	29.5	0.0
Fz_i	28.8	0.0	**-16.8**	0.0	36.5	0.0	-28.8	-0.0	**16.8**	0.0	-36.5	-0.0
Mx_i	27.8	0.0	-15.8	**-0.0**	33.1	0.0	-27.8	-0.0	15.8	**0.0**	-33.1	-0.0
My_i	-28.8	-0.0	16.8	0.0	**-36.5**	-0.0	28.8	0.0	-16.8	0.0	**36.5**	0.0
Mz_i	-26.7	-0.0	14.8	0.0	-29.5	**-0.0**	26.7	0.0	-14.8	0.0	29.5	**0.0**
Fx_f	**-28.8**	-0.0	16.8	0.0	-7.1	0.0	**28.8**	0.0	-16.8	0.0	7.1	-0.0
Fy_f	-26.7	**-0.0**	14.8	0.0	-3.6	0.0	26.7	**0.0**	-14.8	0.0	3.6	-0.0
Fz_f	28.8	0.0	**-16.8**	0.0	7.1	-0.0	-28.8	-0.0	**16.8**	0.0	-7.1	0.0
Mx_f	27.8	0.0	-15.8	**-0.0**	5.4	-0.0	-27.8	-0.0	15.8	**0.0**	-5.4	0.0
My_f	-28.8	-0.0	16.8	0.0	**-7.1**	0.0	28.8	0.0	-16.8	0.0	**7.1**	-0.0
Mz_f	26.7	0.0	-14.8	0.0	3.6	**-0.0**	-26.7	-0.0	14.8	0.0	-3.6	**0.0**

Member 380

Fx_i	**-25.8**	-0.0	15.6	-0.0	-27.2	-0.0	**25.8**	0.0	-15.6	0.0	27.2	0.0
Fy_i	-25.8	**-0.0**	15.5	0.0	-27.0	-0.0	25.8	**0.0**	-15.5	0.0	27.0	0.0
Fz_i	25.8	0.0	**-15.6**	0.0	27.2	0.0	-25.8	-0.0	**15.6**	-0.0	-27.2	-0.0
Mx_i	23.8	0.0	-13.5	**-0.0**	20.7	0.0	-24.4	-0.0	14.1	**0.0**	-22.6	-0.0
My_i	-25.8	-0.0	15.6	-0.0	**-27.2**	-0.0	25.8	0.0	-15.6	0.0	**27.2**	0.0
Mz_i	-25.6	-0.0	15.3	0.0	-26.2	**-0.0**	25.6	0.0	-15.3	0.0	26.2	**0.0**
Fx_f	**-25.8**	-0.0	15.6	-0.0	0.0	0.0	**25.8**	0.0	-15.6	0.0	-0.0	-0.0
Fy_f	-25.8	**-0.0**	15.5	0.0	0.1	0.0	25.8	**0.0**	-15.5	0.0	-0.1	-0.0
Fz_f	25.8	0.0	**-15.6**	0.0	-0.0	-0.0	-25.8	-0.0	**15.6**	-0.0	0.0	0.0
Mx_f	23.8	0.0	-13.5	**-0.0**	-2.9	-0.0	-24.4	-0.0	14.1	**0.0**	2.0	0.0
My_f	23.8	0.0	-13.4	-0.0	**-3.0**	-0.0	-23.8	-0.0	13.4	0.0	**3.0**	0.0
Mz_f	25.8	0.0	-15.5	0.0	-0.1	**-0.0**	-25.8	-0.0	15.5	0.0	0.1	**0.0**

Member 381

Fx_i	**-19.0**	-0.0	15.0	0.0	-8.2	-0.0	**19.0**	0.0	-15.0	0.0	8.2	0.0
Fy_i	-19.0	**-0.0**	15.0	0.0	-8.2	-0.0	19.0	**0.0**	-15.0	0.0	8.2	0.0
Fz_i	19.0	0.0	**-15.0**	0.0	8.4	0.0	-19.0	-0.0	**15.0**	0.0	-8.4	-0.0
Mx_i	18.8	0.0	-14.2	**0.0**	6.4	0.0	-18.2	-0.0	13.8	**0.0**	-6.1	-0.0
My_i	-19.0	-0.0	15.0	0.0	**-8.4**	-0.0	19.0	0.0	-15.0	0.0	**8.4**	0.0
Mz_i	-19.0	-0.0	15.0	0.0	-8.2	**-0.0**	19.0	0.0	-15.0	0.0	8.2	**0.0**
Fx_f	**-19.0**	-0.0	15.0	0.0	17.9	0.0	**19.0**	0.0	-15.0	0.0	-17.9	-0.0
Fy_f	-19.0	**-0.0**	15.0	0.0	17.9	0.0	19.0	**0.0**	-15.0	0.0	-17.9	-0.0
Fz_f	19.0	0.0	**-15.0**	0.0	-17.8	-0.0	-19.0	-0.0	**15.0**	0.0	17.8	0.0
Mx_f	18.8	0.0	-14.2	**0.0**	-18.5	-0.0	-18.2	-0.0	13.8	**0.0**	18.1	0.0
My_f	18.8	0.0	-14.2	0.0	**-18.5**	-0.0	-18.8	-0.0	14.2	0.0	**18.5**	0.0
Mz_f	19.0	0.0	-15.0	0.0	-17.9	**-0.0**	-19.0	-0.0	15.0	0.0	17.9	**0.0**

Member 382

Fx_i	**-6.8**	-0.3	6.9	-0.0	-12.0	-0.6	**6.8**	0.3	-6.9	0.0	12.0	0.6
Fy_i	-6.2	**-0.3**	5.2	-0.0	-9.0	-0.6	6.2	**0.3**	-5.2	0.0	9.0	0.6
Fz_i	6.8	0.3	**-6.9**	0.0	12.0	0.6	-6.8	-0.3	**6.9**	-0.0	-12.0	-0.6
Mx_i	5.3	0.3	-2.7	**-0.0**	4.7	0.6	-5.9	-0.3	4.6	**0.0**	-8.0	-0.5
My_i	-6.8	-0.3	6.9	-0.0	**-12.0**	-0.6	6.8	0.3	-6.9	0.0	**12.0**	0.6
Mz_i	-6.2	-0.3	5.2	-0.0	-9.0	**-0.6**	6.2	0.3	-5.2	0.0	9.0	**0.6**
Fx_f	**-6.8**	-0.3	6.9	-0.0	-0.0	-0.0	**6.8**	0.3	-6.9	0.0	0.0	0.0
Fy_f	-6.2	**-0.3**	5.2	-0.0	-0.0	-0.0	6.2	**0.3**	-5.2	0.0	0.0	0.0
Fz_f	6.8	0.3	**-6.9**	0.0	0.0	0.0	-6.8	-0.3	**6.9**	-0.0	-0.0	-0.0
Mx_f	5.3	0.3	-2.7	**-0.0**	0.0	0.0	-5.9	-0.3	4.6	**0.0**	-0.0	-0.0
My_f	-5.5	-0.3	3.3	0.0	**-0.0**	-0.0	5.5	0.3	-3.3	0.0	**0.0**	0.0
Mz_f	-5.7	-0.3	4.1	0.0	-0.0	**-0.0**	5.7	0.3	-4.1	-0.0	0.0	**0.0**

Member 391

Fx_i	**-9.7**	0.0	-1.7	0.0	-17.9	0.0	**9.7**	0.0	1.7	0.0	17.9	0.0
Fy_i	-9.4	**0.0**	-1.4	0.0	-18.2	0.0	9.4	**0.0**	1.4	0.0	18.2	0.0
Fz_i	-9.7	0.0	**-1.7**	0.0	-17.9	0.0	9.7	0.0	**1.7**	0.0	17.9	0.0
Mx_i	-9.4	0.0	-1.4	**0.0**	-18.2	0.0	9.4	0.0	1.4	**0.0**	18.2	0.0
My_i	-9.2	0.0	-1.1	0.0	**-18.4**	0.0	9.2	0.0	1.1	0.0	**18.4**	0.0
Mz_i	-9.4	0.0	-1.4	0.0	-18.2	**0.0**	9.4	0.0	1.4	0.0	18.2	**0.0**
Fx_f	**-9.7**	0.0	-1.7	0.0	-40.5	0.0	**9.7**	0.0	1.7	0.0	40.5	0.0
Fy_f	-9.4	**0.0**	-1.4	0.0	-36.6	0.0	9.4	**0.0**	1.4	0.0	36.6	0.0
Fz_f	-9.7	0.0	**-1.7**	0.0	-40.5	0.0	9.7	0.0	**1.7**	0.0	40.5	0.0
Mx_f	-9.4	0.0	-1.4	**0.0**	-36.6	0.0	9.4	0.0	1.4	**0.0**	36.6	0.0
My_f	-9.7	0.0	-1.7	0.0	**-40.5**	0.0	9.7	0.0	1.7	0.0	**40.5**	0.0
Mz_f	-9.4	0.0	-1.4	0.0	-36.6	**0.0**	9.4	0.0	1.4	0.0	36.6	**0.0**

Member 392

Fx_i	**-21.7**	0.0	-16.5	0.0	-13.3	0.0	**21.7**	0.0	16.5	0.0	13.3	0.0
Fy_i	-20.9	**0.0**	-15.3	0.0	-14.0	0.0	20.9	**0.0**	15.3	0.0	14.0	0.0
Fz_i	-21.7	0.0	**-16.5**	0.0	-13.3	0.0	21.7	0.0	**16.5**	0.0	13.3	0.0
Mx_i	-20.9	0.0	-15.3	**0.0**	-14.0	0.0	20.9	0.0	15.3	**0.0**	14.0	0.0
My_i	-20.1	0.0	-14.1	0.0	**-14.7**	0.0	20.1	0.0	14.1	0.0	**14.7**	0.0
Mz_i	-20.9	0.0	-15.3	0.0	-14.0	**0.0**	20.9	0.0	15.3	0.0	14.0	**0.0**
Fx_f	**-21.7**	0.0	-16.5	0.0	-218.0	0.0	**21.7**	0.0	16.5	0.0	218.0	0.0
Fy_f	-20.9	**0.0**	-15.3	0.0	-203.7	0.0	20.9	**0.0**	15.3	0.0	203.7	0.0
Fz_f	-21.7	0.0	**-16.5**	0.0	-218.0	0.0	21.7	0.0	**16.5**	0.0	218.0	0.0
Mx_f	-20.9	0.0	-15.3	**0.0**	-203.7	0.0	20.9	0.0	15.3	**0.0**	203.7	0.0
My_f	-21.7	0.0	-16.5	0.0	**-218.0**	0.0	21.7	0.0	16.5	0.0	**218.0**	0.0
Mz_f	-20.9	0.0	-15.3	0.0	-203.7	**0.0**	20.9	0.0	15.3	0.0	203.7	**0.0**

Member 393

Fx_i	**-26.3**	0.0	-15.7	0.0	1.1	0.0	**26.3**	0.0	15.7	0.0	-1.1	0.0
Fy_i	-25.3	**0.0**	-14.6	0.0	-0.4	0.0	25.3	**0.0**	14.7	0.0	0.4	0.0
Fz_i	-26.3	0.0	**-15.7**	0.0	1.1	0.0	26.3	0.0	**15.7**	0.0	-1.1	0.0
Mx_i	-25.3	0.0	-14.6	**0.0**	-0.4	0.0	25.3	0.0	14.7	**0.0**	0.4	0.0
My_i	-24.3	0.0	-13.6	0.0	**-1.8**	0.0	24.3	0.0	13.6	0.0	**1.8**	0.0
Mz_i	-25.3	0.0	-14.6	0.0	-0.4	**0.0**	25.3	0.0	14.7	0.0	0.4	**0.0**
Fx_f	**-26.3**	0.0	-15.7	0.0	-242.3	0.0	**26.3**	0.0	15.7	0.0	242.3	0.0
Fy_f	-25.3	**0.0**	-14.6	0.0	-228.1	0.0	25.3	**0.0**	14.7	0.0	228.2	0.0
Fz_f	-26.3	0.0	**-15.7**	0.0	-242.4	0.0	26.3	0.0	**15.7**	0.0	242.4	0.0
Mx_f	-25.3	0.0	-14.6	**0.0**	-228.1	0.0	25.3	0.0	14.7	**0.0**	228.2	0.0
My_f	-26.3	0.0	-15.7	0.0	**-242.4**	0.0	26.3	0.0	15.7	0.0	**242.4**	0.0
Mz_f	-25.3	0.0	-14.6	0.0	-228.1	**0.0**	25.3	0.0	14.7	0.0	228.2	**0.0**

Member 394

Fx_i	**-29.1**	0.0	-17.4	0.0	6.9	0.0	**29.1**	0.0	17.4	0.0	-6.9	0.0
Fy_i	-28.0	**0.0**	-16.3	0.0	5.2	0.0	28.0	**0.0**	16.3	0.0	-5.2	0.0
Fz_i	-29.1	0.0	**-17.4**	0.0	6.9	0.0	29.1	0.0	**17.4**	0.0	-6.9	0.0
Mx_i	-28.0	0.0	-16.3	**0.0**	5.2	0.0	28.0	0.0	16.3	**0.0**	-5.2	0.0
My_i	29.1	0.0	17.4	0.0	**-6.9**	0.0	-29.1	0.0	-17.4	0.0	**6.9**	0.0
Mz_i	-28.0	0.0	-16.3	0.0	5.2	**0.0**	28.0	0.0	16.3	0.0	-5.2	**0.0**
Fx_f	**-29.1**	0.0	-17.4	0.0	-273.4	0.0	**29.1**	0.0	17.4	0.0	273.4	0.0
Fy_f	-28.0	**0.0**	-16.3	0.0	-258.2	0.0	28.0	**0.0**	16.3	0.0	258.4	0.0

Fz,	-29.1	0.0	-17.4	0.0	-273.4	0.0	29.1	0.0	**17.4**	0.0	273.4	0.0
Mx,	-28.0	0.0	-16.3	**0.0**	-258.2	0.0	28.0	0.0	16.3	**0.0**	258.4	0.0
My,	-29.1	0.0	-17.4	0.0	**-273.4**	0.0	29.1	0.0	17.4	0.0	**273.4**	0.0
Mz,	-28.0	0.0	-16.3	0.0	-258.2	**0.0**	28.0	0.0	16.3	0.0	258.4	**0.0**

Member 395

Fx,	**-28.8**	0.0	-16.8	0.0	7.1	0.0	**28.8**	0.0	16.8	0.0	-7.1	0.0
Fy,	-27.8	**0.0**	-15.8	0.0	5.3	0.0	27.8	**0.0**	15.8	0.0	-5.3	0.0
Fz,	-28.8	0.0	**-16.8**	0.0	7.1	0.0	28.8	0.0	**16.8**	0.0	-7.1	0.0
Mx,	-27.8	0.0	-15.8	**0.0**	5.3	0.0	27.8	0.0	15.8	**0.0**	-5.3	0.0
My,	28.8	0.0	16.8	0.0	**-7.1**	0.0	-28.8	0.0	-16.8	0.0	**7.1**	0.0
Mz,	-27.8	0.0	-15.8	0.0	5.3	**0.0**	27.8	0.0	15.8	0.0	-5.3	**0.0**
Fx,	**-28.8**	0.0	-16.8	0.0	-267.9	0.0	**28.8**	0.0	16.8	0.0	267.9	0.0
Fy,	-27.8	**0.0**	-15.8	0.0	-252.9	0.0	27.8	**0.0**	15.8	0.0	252.9	0.0
Fz,	-28.8	0.0	**-16.8**	0.0	-267.9	0.0	28.8	0.0	**16.8**	0.0	267.9	0.0
Mx,	-27.8	0.0	-15.8	**0.0**	-252.9	0.0	27.8	0.0	15.8	**0.0**	252.9	0.0
My,	-28.8	0.0	-16.8	0.0	**-267.9**	0.0	28.8	0.0	16.8	0.0	**267.9**	0.0
Mz,	-27.8	0.0	-15.8	0.0	-252.9	**0.0**	27.8	0.0	15.8	0.0	252.9	**0.0**

Member 396

Fx,	**-25.8**	0.0	-15.6	0.0	-0.0	0.0	**25.8**	0.0	15.6	0.0	0.0	0.0
Fy,	-24.9	**0.0**	-14.6	0.0	-1.4	0.0	24.8	**0.0**	14.5	0.0	1.5	0.0
Fz,	-25.8	0.0	**-15.6**	0.0	-0.0	0.0	25.8	0.0	**15.6**	0.0	0.0	0.0
Mx,	-24.9	0.0	-14.6	**0.0**	-1.4	0.0	24.8	0.0	14.5	**0.0**	1.5	0.0
My,	-23.8	0.0	-13.4	0.0	**-3.0**	0.0	23.8	0.0	13.4	0.0	**3.0**	0.0
Mz,	-24.9	0.0	-14.6	0.0	-1.4	**0.0**	24.8	0.0	14.5	0.0	1.5	**0.0**
Fx,	**-25.8**	0.0	-15.6	0.0	-238.6	0.0	**25.8**	0.0	15.6	0.0	238.7	0.0
Fy,	-24.9	**0.0**	-14.6	0.0	-224.7	0.0	24.8	**0.0**	14.5	0.0	223.9	0.0
Fz,	-25.8	0.0	**-15.6**	0.0	-238.7	0.0	25.8	0.0	**15.6**	0.0	238.7	0.0
Mx,	-24.9	0.0	-14.6	**0.0**	-224.7	0.0	24.8	0.0	14.5	**0.0**	223.9	0.0
My,	-25.8	0.0	-15.6	0.0	**-238.7**	0.0	25.8	0.0	15.6	0.0	**238.7**	0.0
Mz,	-24.9	0.0	-14.6	0.0	-224.7	**0.0**	24.8	0.0	14.5	0.0	223.9	**0.0**

Member 397

Fx,	**-19.0**	0.0	-15.0	0.0	-17.9	0.0	**19.0**	0.0	15.0	0.0	17.9	0.0
Fy,	-18.8	**0.0**	-14.2	0.0	-18.5	0.0	18.2	**0.0**	13.8	0.0	18.1	0.0
Fz,	-19.0	0.0	**-15.0**	0.0	-17.8	0.0	19.0	0.0	**15.0**	0.0	17.8	0.0
Mx,	-18.8	0.0	-14.2	**0.0**	-18.5	0.0	18.2	0.0	13.8	**0.0**	18.1	0.0
My,	-18.8	0.0	-14.2	0.0	**-18.5**	0.0	18.8	0.0	14.2	0.0	**18.5**	0.0
Mz,	-18.8	0.0	-14.2	0.0	-18.5	**0.0**	18.2	0.0	13.8	0.0	18.1	**0.0**
Fx,	**-19.0**	0.0	-15.0	0.0	-189.3	0.0	**19.0**	0.0	15.0	0.0	189.3	0.0
Fy,	-18.8	**0.0**	-14.2	0.0	-181.4	0.0	18.2	**0.0**	13.8	0.0	176.7	0.0
Fz,	-19.0	0.0	**-15.0**	0.0	-189.7	0.0	19.0	0.0	**15.0**	0.0	189.7	0.0
Mx,	-18.8	0.0	-14.2	**0.0**	-181.4	0.0	18.2	0.0	13.8	**0.0**	176.7	0.0
My,	-19.0	0.0	-15.0	0.0	**-189.7**	0.0	19.0	0.0	15.0	0.0	**189.7**	0.0
Mz,	-18.8	0.0	-14.2	0.0	-181.4	**0.0**	18.2	0.0	13.8	0.0	176.7	**0.0**

Member 398

Fx,	**-9.7**	0.0	1.7	0.0	17.9	0.0	**9.7**	0.0	-1.7	0.0	-17.9	0.0
Fy,	9.4	**0.0**	-1.4	0.0	-18.2	0.0	-9.4	**0.0**	1.4	0.0	18.2	0.0
Fz,	9.7	0.0	**-1.7**	0.0	-17.9	0.0	-9.7	0.0	**1.7**	0.0	17.9	0.0
Mx,	9.4	0.0	-1.4	**0.0**	-18.2	0.0	-9.4	0.0	1.4	**0.0**	18.2	0.0
My,	9.2	0.0	-1.1	0.0	**-18.4**	0.0	-9.2	0.0	1.1	0.0	**18.4**	0.0
Mz,	9.4	0.0	-1.4	0.0	-18.2	**0.0**	-9.4	0.0	1.4	0.0	18.2	**0.0**
Fx,	**-9.7**	0.0	1.7	0.0	40.5	0.0	**9.7**	0.0	-1.7	0.0	-40.5	0.0
Fy,	9.4	**0.0**	-1.4	0.0	-36.6	0.0	-9.4	**0.0**	1.4	0.0	36.6	0.0
Fz,	9.7	0.0	**-1.7**	0.0	-40.5	0.0	-9.7	0.0	**1.7**	0.0	40.5	0.0
Mx,	9.4	0.0	-1.4	**0.0**	-36.6	0.0	-9.4	0.0	1.4	**0.0**	36.6	0.0
My,	9.7	0.0	-1.7	0.0	**-40.5**	0.0	-9.7	0.0	1.7	0.0	**40.5**	0.0
Mz,	9.4	0.0	-1.4	0.0	-36.6	**0.0**	-9.4	0.0	1.4	0.0	36.6	**0.0**

Member 399

Fx,	**-21.7**	0.0	16.5	0.0	13.3	0.0	**21.7**	0.0	-16.5	0.0	-13.3	0.0
Fy,	20.9	**0.0**	-15.3	0.0	-14.0	0.0	-20.9	**0.0**	15.3	0.0	14.0	0.0
Fz,	21.7	0.0	**-16.5**	0.0	-13.3	0.0	-21.7	0.0	**16.5**	0.0	13.3	0.0
Mx,	20.9	0.0	-15.3	**0.0**	-14.0	0.0	-20.9	0.0	15.3	**0.0**	14.0	0.0
My,	20.1	0.0	-14.1	0.0	**-14.7**	0.0	-20.1	0.0	14.1	0.0	**14.7**	0.0
Mz,	20.9	0.0	-15.3	0.0	-14.0	**0.0**	-20.9	0.0	15.3	0.0	14.0	**0.0**
Fx,	**-21.7**	0.0	16.5	0.0	218.0	0.0	**21.7**	0.0	-16.5	0.0	-218.0	0.0
Fy,	20.9	**0.0**	-15.3	0.0	-203.7	0.0	-20.9	**0.0**	15.3	0.0	203.7	0.0
Fz,	21.7	0.0	**-16.5**	0.0	-218.0	0.0	-21.7	0.0	**16.5**	0.0	218.0	0.0
Mx,	20.9	0.0	-15.3	**0.0**	-203.7	0.0	-20.9	0.0	15.3	**0.0**	203.7	0.0
My,	21.7	0.0	-16.5	0.0	**-218.0**	0.0	-21.7	0.0	16.5	0.0	**218.0**	0.0
Mz,	20.9	0.0	-15.3	0.0	-203.7	**0.0**	-20.9	0.0	15.3	0.0	203.7	**0.0**

Member 400

Fx,	**-26.3**	0.0	15.7	0.0	-1.1	0.0	**26.3**	0.0	-15.7	0.0	1.1	0.0
Fy,	25.3	**0.0**	-14.6	0.0	-0.4	0.0	-25.3	**0.0**	14.7	0.0	0.4	0.0
Fz,	25.3	0.0	**-15.7**	0.0	1.1	0.0	-26.3	0.0	**15.7**	0.0	-1.1	0.0
Mx,	25.3	0.0	-14.6	**0.0**	-0.4	0.0	-25.3	0.0	14.7	**0.0**	0.4	0.0
My,	24.3	0.0	-13.6	0.0	**-1.8**	0.0	-24.3	0.0	13.6	0.0	**1.8**	0.0
Mz,	25.3	0.0	-14.6	0.0	-0.4	**0.0**	-25.3	0.0	14.7	0.0	0.4	**0.0**
Fx,	**-26.3**	0.0	15.7	0.0	242.3	0.0	**26.3**	0.0	-15.7	0.0	-242.3	0.0
Fy,	25.3	**0.0**	-14.6	0.0	-228.1	0.0	-25.3	**0.0**	14.7	0.0	228.2	0.0
Fz,	26.3	0.0	**-15.7**	0.0	-242.4	0.0	-26.3	0.0	**15.7**	0.0	242.4	0.0
Mx,	25.3	0.0	-14.6	**0.0**	-228.1	0.0	-25.3	0.0	14.7	**0.0**	228.2	0.0
My,	26.3	0.0	-15.7	0.0	**-242.4**	0.0	-26.3	0.0	15.7	0.0	**242.4**	0.0
Mz,	25.3	0.0	-14.6	0.0	-228.1	**0.0**	-25.3	0.0	14.7	0.0	228.2	**0.0**

Member 401

Fx,	**-29.1**	0.0	17.4	0.0	-6.9	0.0	**29.1**	0.0	-17.4	0.0	6.9	0.0
Fy,	28.0	**0.0**	-16.3	0.0	5.2	0.0	-28.0	**0.0**	16.3	0.0	-5.2	0.0
Fz,	29.1	0.0	**-17.4**	0.0	6.9	0.0	-29.1	0.0	**17.4**	0.0	-6.9	0.0
Mx,	28.0	0.0	-16.3	**0.0**	5.2	0.0	-28.0	0.0	16.3	**0.0**	-5.2	0.0
My,	-29.1	0.0	17.4	0.0	**-6.9**	0.0	29.1	0.0	-17.4	0.0	**6.9**	0.0
Mz,	28.0	0.0	-16.3	0.0	5.2	**0.0**	-28.0	0.0	16.3	0.0	-5.2	**0.0**
Fx,	**-29.1**	0.0	17.4	0.0	273.4	0.0	**29.1**	0.0	-17.4	0.0	-273.4	0.0
Fy,	28.0	**0.0**	-16.3	0.0	-258.2	0.0	-28.0	**0.0**	16.3	0.0	258.4	0.0
Fz,	29.1	0.0	**-17.4**	0.0	-273.4	0.0	-29.1	0.0	**17.4**	0.0	273.4	0.0
Mx,	28.0	0.0	-16.3	**0.0**	-258.2	0.0	-28.0	0.0	16.3	**0.0**	258.4	0.0
My,	29.1	0.0	-17.4	0.0	**-273.4**	0.0	-29.1	0.0	17.4	0.0	**273.4**	0.0
Mz,	28.0	0.0	-16.3	0.0	-258.2	**0.0**	-28.0	0.0	16.3	0.0	258.4	**0.0**

Member 402

Fx,	**-28.8**	0.0	16.8	0.0	-7.1	0.0	**28.8**	0.0	-16.8	0.0	7.1	0.0
Fy,	27.8	**0.0**	-15.8	0.0	5.3	0.0	-27.8	**0.0**	15.8	0.0	-5.3	0.0
Fz,	28.8	0.0	**-16.8**	0.0	7.1	0.0	-28.8	0.0	**16.8**	0.0	-7.1	0.0
Mx,	27.8	0.0	-15.8	**0.0**	5.3	0.0	-27.8	0.0	15.8	**0.0**	-5.3	0.0
My,	-28.8	0.0	16.8	0.0	**-7.1**	0.0	28.8	0.0	-16.8	0.0	**7.1**	0.0
Mz,	27.8	0.0	-15.8	0.0	5.3	**0.0**	-27.8	0.0	15.8	0.0	-5.3	**0.0**
Fx,	**-28.8**	0.0	16.8	0.0	267.9	0.0	**28.8**	0.0	-16.8	0.0	-267.9	0.0
Fy,	27.8	**0.0**	-15.8	0.0	-252.9	0.0	-27.8	**0.0**	15.8	0.0	252.9	0.0
Fz,	28.8	0.0	**-16.8**	0.0	-267.9	0.0	-28.8	0.0	**16.8**	0.0	267.9	0.0
Mx,	27.8	0.0	-15.8	**0.0**	-252.9	0.0	-27.8	0.0	15.8	**0.0**	252.9	0.0
My,	28.8	0.0	-16.8	0.0	**-267.9**	0.0	-28.8	0.0	16.8	0.0	**267.9**	0.0
Mz,	27.8	0.0	-15.8	0.0	-252.9	**0.0**	-27.8	0.0	15.8	0.0	252.9	**0.0**

Member 403

Fx,	**-25.8**	0.0	15.6	0.0	0.0	0.0	**25.8**	0.0	-15.6	0.0	-0.0	0.0
Fy,	24.9	**0.0**	-14.6	0.0	-1.4	0.0	-24.8	**0.0**	14.5	0.0	1.5	0.0
Fz,	25.8	0.0	**-15.6**	0.0	-0.0	0.0	-25.8	0.0	**15.6**	0.0	0.0	0.0
Mx,	24.9	0.0	-14.6	**0.0**	-1.4	0.0	-24.8	0.0	14.5	**0.0**	1.5	0.0
My,	23.8	0.0	-13.4	0.0	**-3.0**	0.0	-23.8	0.0	13.4	0.0	**3.0**	0.0
Mz,	24.9	0.0	-14.6	0.0	-1.4	**0.0**	-24.8	0.0	14.5	0.0	1.5	**0.0**
Fx,	**-25.8**	0.0	15.6	0.0	238.7	0.0	**25.8**	0.0	-15.6	0.0	-238.6	0.0
Fy,	24.9	**0.0**	-14.6	0.0	-224.7	0.0	-24.8	**0.0**	14.5	0.0	223.9	0.0
Fz,	25.8	0.0	**-15.6**	0.0	-238.7	0.0	-25.8	0.0	**15.6**	0.0	238.7	0.0
Mx,	24.9	0.0	-14.6	**0.0**	-224.7	0.0	-24.8	0.0	14.5	**0.0**	223.9	0.0
My,	25.8	0.0	-15.6	0.0	**-238.7**	0.0	-25.8	0.0	15.6	0.0	**238.7**	0.0
Mz,	24.9	0.0	-14.6	0.0	-224.7	**0.0**	-24.8	0.0	14.5	0.0	223.9	**0.0**

Member 404

Fx,	**-19.0**	0.0	15.0	0.0	17.9	0.0	**19.0**	0.0	-15.0	0.0	-17.9	0.0
Fy,	18.8	**0.0**	-14.2	0.0	-18.5	0.0	-18.2	**0.0**	13.8	0.0	18.1	0.0
Fz,	19.0	0.0	**-15.0**	0.0	-17.8	0.0	-19.0	0.0	**15.0**	0.0	17.8	0.0
Mx,	18.8	0.0	-14.2	**0.0**	-18.5	0.0	-18.2	0.0	13.8	**0.0**	18.1	0.0
My,	18.8	0.0	-14.2	0.0	**-18.5**	0.0	-18.8	0.0	14.2	0.0	**18.5**	0.0
Mz,	18.8	0.0	-14.2	0.0	-18.5	**0.0**	-18.2	0.0	13.8	0.0	18.1	**0.0**
Fx,	**-19.0**	0.0	15.0	0.0	189.3	0.0	**19.0**	0.0	-15.0	0.0	-189.3	0.0
Fy,	18.8	**0.0**	-14.2	0.0	-181.4	0.0	-18.2	**0.0**	13.8	0.0	176.7	0.0
Fz,	19.0	0.0	**-15.0**	0.0	-189.7	0.0	-19.0	0.0	**15.0**	0.0	189.7	0.0
Mx,	18.8	0.0	-14.2	**0.0**	-181.4	0.0	-18.2	0.0	13.8	**0.0**	176.7	0.0
My,	19.0	0.0	-15.0	0.0	**-189.7**	0.0	-19.0	0.0	15.0	0.0	**189.7**	0.0
Mz,	18.8	0.0	-14.2	0.0	-181.4	**0.0**	-18.2	0.0	13.8	0.0	176.7	**0.0**

Member 421

(405) y (406) ver al final de este estado de carga

Fx,	**-0.0**	0.0	-3.2	0.0	-137.3	0.0	**0.0**	0.0	3.2	0.0	137.3	0.0
Fy,	-0.0	**0.0**	-2.7	0.0	-129.8	0.0	0.0	**0.0**	2.7	0.0	129.8	0.0
Fz,	-0.0	0.0	**-3.4**	0.0	-139.1	0.0	-0.0	0.0	**3.4**	0.0	139.1	0.0
Mx,	-0.0	0.0	-2.7	**0.0**	-129.8	0.0	0.0	0.0	2.7	**0.0**	129.8	0.0
My,	-0.0	0.0	-3.4	0.0	**-139.1**	0.0	-0.0	0.0	3.4	0.0	**139.1**	0.0
Mz,	-0.0	0.0	-2.7	0.0	-129.8	**0.0**	0.0	0.0	2.7	0.0	129.8	**0.0**
Fx,	**-0.0**	0.0	-3.2	0.0	-140.5	0.0	**0.0**	0.0	3.2	0.0	140.5	0.0
Fy,	-0.0	**0.0**	-2.7	0.0	-132.6	0.0	0.0	**0.0**	2.7	0.0	132.6	0.0
Fz,	-0.0	0.0	**-3.4**	0.0	-142.5	0.0	-0.0	0.0	**3.4**	0.0	142.5	0.0
Mx,	-0.0	0.0	-2.7	**0.0**	-132.6	0.0	0.0	0.0	2.7	**0.0**	132.6	0.0
My,	-0.0	0.0	-3.4	0.0	**-142.5**	0.0	-0.0	0.0	3.4	0.0	**142.5**	0.0
Mz,	-0.0	0.0	-2.7	0.0	-132.6	**0.0**	0.0	0.0	2.7	0.0	132.6	**0.0**

Member 422

Fx,	**-0.0**	0.0	28.2	0.0	499.5	0.0	**0.0**	0.0	-28.2	0.0	-499.5	0.0
Fy,	0.0	**0.0**	-30.6	0.0	-532.7	0.0	-0.0	**0.0**	30.6	0.0	532.7	0.0
Fz,	-0.0	0.0	**-33.0**	0.0	-566.4	0.0	-0.0	0.0	**33.0**	0.0	566.4	0.0
Mx,	0.0	0.0	-30.6	**0.0**	-532.7	0.0	-0.0	0.0	30.6	**0.0**	532.7	0.0
My,	-0.0	0.0	-33.0	0.0	**-566.4**	0.0	-0.0	0.0	33.0	0.0	**566.4**	0.0
Mz,	0.0	0.0	-30.6	0.0	-532.7	**0.0**	-0.0	0.0	30.6	0.0	532.7	**0.0**
Fx,	**-0.0**	0.0	28.2	0.0	527.7	0.0	**0.0**	0.0	-28.2	0.0	-527.7	0.0
Fy,	0.0	**0.0**	-30.6	0.0	-563.3	0.0	-0.0	**0.0**	30.6	0.0	563.3	0.0
Fz,	-0.0	0.0	**-33.0**	0.0	-599.4	0.0	-0.0	0.0	**33.0**	0.0	599.4	0.0
Mx,	0.0	0.0	-30.6	**0.0**	-563.3	0.0	-0.0	0.0	30.6	**0.0**	563.3	0.0
My,	-0.0	0.0	-33.0	0.0	**-599.4**	0.0	-0.0	0.0	33.0	0.0	**599.4**	0.0
Mz,	0.0	0.0	-30.6	0.0	-563.3	**0.0**	-0.0	0.0	30.6	0.0	563.3	**0.0**

Member 423

Fx,	**-0.0**	0.0	30.3	0.0	624.7	0.0	**0.0**	0.0	-30.3	0.0	-624.7	0.0
Fy,	0.0	**0.0**	-29.3	0.0	-608.1	0.0	-0.0	**0.0**	29.3	0.0	608.3	0.0
Fz,	-0.0	0.0	**-31.3**	0.0	-642.6	0.0	-0.0	0.0	**31.3**	0.0	642.6	0.0
Mx,	0.0	0.0	-29.3	**0.0**	-608.1	0.0	-0.0	0.0	29.3	**0.0**	608.3	0.0
My,	-0.0	0.0	-31.3	0.0	**-642.6**	0.0	-0.0	0.0	31.3	0.0	**642.6**	0.0
Mz,	0.0	0.0	-29.3	0.0	-608.1	**0.0**	-0.0	0.0	29.3	0.0	608.3	**0.0**
Fx,	**-0.0**	0.0	30.3	0.0	655.0	0.0	**0.0**	0.0	-30.3	0.0	-655.0	0.0
Fy,	0.0	**0.0**	-29.3	0.0	-637.4	0.0	-0.0	**0.0**	29.3	0.0	637.6	0.0
Fz,	-0.0	0.0	**-31.3**	0.0	-673.9	0.0	-0.0	0.0	**31.3**	0.0	673.9	0.0
Mx,	0.0	0.0	-29.3	**0.0**	-637.4	0.0	-0.0	0.0	29.3	**0.0**	637.6	0.0
My,	-0.0	0.0	-31.3	0.0	**-673.9**	0.0	-0.0	0.0	31.3	0.0	**673.9**	0.0
Mz,	0.0	0.0	-29.3	0.0	-637.4	**0.0**	-0.0	0.0	29.3	0.0	637.6	**0.0**

Member 424

Fx,	**-0.0**	0.0	-34.7	0.0	-721.3	0.0	**0.0**	0.0	34.7	0.0	721.3	0.0
Fy,	-0.0	**0.0**	-32.6	0.0	-684.3	0.0	0.0	**0.0**	32.6	0.0	684.7	0.0
Fz,	-0.0	0.0	**-34.7**	0.0	-721.3	0.0	-0.0	0.0	**34.7**	0.0	721.3	0.0
Mx,	-0.0	0.0	-32.6	**0.0**	-684.3	0.0	0.0	0.0	32.6	**0.0**	684.7	0.0
My,	-0.0	0.0	-34.7	0.0	**-721.3**	0.0	-0.0	0.0	34.7	0.0	**721.3**	0.0
Mz,	-0.0	0.0	-32.6	0.0	-684.3	**0.0**	0.0	0.0	32.6	0.0	684.7	**0.0**
Fx,	**-0.0**	0.0	-34.7	0.0	-756.0	0.0	**0.0**	0.0	34.7	0.0	756.0	0.0
Fy,	-0.0	**0.0**	-32.6	0.0	-716.9	0.0	0.0	**0.0**	32.6	0.0	717.4	0.0
Fz,	-0.0	0.0	**-34.7**	0.0	-756.0	0.0	-0.0	0.0	**34.7**	0.0	756.0	0.0
Mx,	-0.0	0.0	-32.6	**0.0**	-716.9	0.0	0.0	0.0	32.6	**0.0**	717.4	0.0
My,	-0.0	0.0	-34.7	0.0	**-756.0**	0.0	-0.0	0.0	34.7	0.0	**756.0**	0.0
Mz,	-0.0	0.0	-32.6	0.0	-716.9	**0.0**	0.0	0.0	32.6	0.0	717.4	**0.0**

Member 425

Fx,	**-0.0**	0.0	29.6	0.0	636.0	0.0	**0.0**	0.0	-29.6	0.0	-636.0	0.0
Fy,	0.0	**0.0**	-31.6	0.0	-672.3	0.0	-0.0	**0.0**	31.6	0.0	672.4	0.0
Fz,	-0.0	0.0	**-33.7**	0.0	-708.8	0.0	-0.0	0.0	**33.7**	0.0	708.8	0.0
Mx,	0.0	0.0	-31.6	**0.0**	-672.3	0.0	-0.0	0.0	31.6	**0.0**	672.4	0.0
My,	-0.0	0.0	-33.7	0.0	**-708.8**	0.0	-0.0	0.0	33.7	0.0	**708.8**	0.0
Mz,	0.0	0.0	-31.6	0.0	-672.3	**0.0**	-0.0	0.0	31.6	0.0	672.4	**0.0**
Fx,	**-0.0**	0.0	29.6	0.0	665.5	0.0	**0.0**	0.0	-29.6	0.0	-665.5	0.0
Fy,	0.0	**0.0**	-31.6	0.0	-703.9	0.0	-0.0	**0.0**	31.6	0.0	704.0	0.0
Fz,	-0.0	0.0	**-33.7**	0.0	-742.5	0.0	-0.0	0.0	**33.7**	0.0	742.5	0.0
Mx,	0.0	0.0	-31.6	**0.0**	-703.9	0.0	-0.0	0.0	31.6	**0.0**	704.0	0.0
My,	-0.0	0.0	-33.7	0.0	**-742.5**	0.0	-0.0	0.0	33.7	0.0	**742.5**	0.0
Mz,	0.0	0.0	-31.6	0.0	-703.9	**0.0**	-0.0	0.0	31.6	0.0	704.0	**0.0**

Member 426

Fx,	**-0.0**	0.0	28.1	0.0	582.2	0.0	**0.0**	0.0	-28.1	0.0	-582.2	0.0
Fy,	-0.0	**0.0**	-29.1	0.0	-598.8	0.0	-0.0	**0.0**	29.0	0.0	596.7	0.0
Fz,	-0.0	0.0	**-31.1**	0.0	-632.4	0.0	-0.0	0.0	**31.1**	0.0	632.4	0.0
Mx,	-0.0	0.0	-29.1	**0.0**	-598.8	0.0	-0.0	0.0	29.0	**0.0**	596.7	0.0
My,	-0.0	0.0	-31.1	0.0	**-632.4**	0.0	-0.0	0.0	31.1	0.0	**632.4**	0.0
Mz,	-0.0	0.0	-29.1	0.0	-598.8	**0.0**	-0.0	0.0	29.0	0.0	596.7	**0.0**
Fx,	**-0.0**	0.0	28.1	0.0	610.3	0.0	**0.0**	0.0	-28.1	0.0	-610.3	0.0
Fy,	-0.0	**0.0**	-29.1	0.0	-627.9	0.0	-0.0	**0.0**	29.0	0.0	625.7	0.0
Fz,	-0.0	0.0	**-31.1**	0.0	-663.5	0.0	-0.0	0.0	**31.1**	0.0	663.5	0.0
Mx,	-0.0	0.0	-29.1	**0.0**	-627.9	0.0	-0.0	0.0	29.0	**0.0**	625.7	0.0
My,	-0.0	0.0	-31.1	0.0	**-663.5**	0.0	-0.0	0.0	31.1	0.0	**663.5**	0.0
Mz,	-0.0	0.0	-29.1	0.0	-627.9	**0.0**	-0.0	0.0	29.0	0.0	625.7	**0.0**

Member 427

Fx,	**-0.0**	0.0	-25.6	0.0	-434.4	0.0	**0.0**	0.0	25.6	0.0	434.4	0.0
Fy,	0.0	**0.0**	-28.4	0.0	-475.3	0.0	0.0	**0.0**	27.7	0.0	462.6	0.0
Fz,	-0.0	0.0	**-30.0**	0.0	-493.2	0.0	-0.0	0.0	**30.0**	0.0	493.2	0.0
Mx,	0.0	0.0	-28.4	**0.0**	-475.3	0.0	0.0	0.0	27.7	**0.0**	462.6	0.0
My,	-0.0	0.0	-30.0	0.0	**-493.2**	0.0	-0.0	0.0	30.0	0.0	**493.2**	0.0
Mz,	0.0	0.0	-28.4	0.0	-475.3	**0.0**	0.0	0.0	27.7	0.0	462.6	**0.0**
Fx,	**-0.0**	0.0	-25.6	0.0	-460.0	0.0	**0.0**	0.0	25.6	0.0	460.0	0.0
Fy,	0.0	**0.0**	-28.4	0.0	-503.7	0.0	0.0	**0.0**	27.7	0.0	490.3	0.0
Fz,	-0.0	0.0	**-30.0**	0.0	-523.1	0.0	-0.0	0.0	**30.0**	0.0	523.1	0.0
Mx,	0.0	0.0	-28.4	**0.0**	-503.7	0.0	0.0	0.0	27.7	**0.0**	490.3	0.0
My,	-0.0	0.0	-30.0	0.0	**-523.2**	0.0	-0.0	0.0	30.0	0.0	**523.2**	0.0
Mz,	0.0	0.0	-28.4	0.0	-503.7	**0.0**	0.0	0.0	27.7	0.0	490.3	**0.0**

DISPLACEMENTS

x	y	z	x	y	z	x	y	z	x	y	z

*** Fin del listado ***

F. centrífuga

Fx_i	**-19.0**	0.0	15.0	0.0	17.9	0.0	**19.0**	0.0	-15.0	0.0	-17.9	0.0
Fy_i	18.8	**0.0**	-14.2	0.0	-18.5	0.0	-18.2	**0.0**	13.8	0.0	18.1	0.0
Fz_i	19.0	0.0	**-15.0**	0.0	-17.8	0.0	-19.0	0.0	**15.0**	0.0	17.8	0.0
Mx_i	18.8	0.0	-14.2	**0.0**	-18.5	0.0	-18.2	0.0	13.8	**0.0**	18.1	0.0
My_i	18.8	0.0	-14.2	0.0	**-18.5**	0.0	-18.8	0.0	14.2	0.0	**18.5**	0.0
Mz_i	18.8	0.0	-14.2	0.0	-18.5	**0.0**	-18.2	0.0	13.8	0.0	18.1	**0.0**
Fx_f	**-19.0**	0.0	15.0	0.0	189.3	0.0	**19.0**	0.0	-15.0	0.0	-189.3	0.0
Fy_f	18.8	**0.0**	-14.2	0.0	-181.4	0.0	-18.2	**0.0**	13.8	0.0	176.7	0.0
Fz_f	19.0	0.0	**-15.0**	0.0	-189.7	0.0	-19.0	0.0	**15.0**	0.0	189.7	0.0
Mx_f	18.8	0.0	-14.2	**0.0**	-181.4	0.0	-18.2	0.0	13.8	**0.0**	176.7	0.0
My_f	19.0	0.0	-15.0	0.0	**-189.7**	0.0	-19.0	0.0	15.0	0.0	**189.7**	0.0
Mz_f	18.8	0.0	-14.2	0.0	-181.4	**0.0**	-18.2	0.0	13.8	0.0	176.7	**0.0**

Member 405

Fx_i	**-150.0**	0.0	26.4	0.0	-0.0	0.0	**150.0**	-0.0	-26.4	0.0	0.0	-0.0
Fy_i	150.0	**-0.0**	-26.4	0.0	0.0	-0.0	-150.0	**0.0**	26.4	0.0	-0.0	0.0
Fz_i	140.2	-0.0	**-29.5**	0.0	0.0	-0.0	-140.2	0.0	**29.5**	0.0	-0.0	0.0
Mx_i	-127.1	0.0	22.9	**-0.0**	-0.0	0.0	127.4	-0.0	-22.7	**0.0**	0.0	-0.0
My_i	-147.3	0.0	25.5	0.0	**-0.0**	0.0	147.3	-0.0	-25.5	0.0	**0.0**	-0.0
Mz_i	149.9	-0.0	-26.2	0.0	0.0	**-0.0**	-149.9	0.0	26.2	0.0	-0.0	**0.0**
Fx_f	**-150.0**	0.0	26.4	0.0	52.8	-0.1	**150.0**	-0.0	-26.4	0.0	-52.8	0.1
Fy_f	150.0	**-0.0**	-26.4	0.0	-52.8	0.1	-150.0	**0.0**	26.4	0.0	52.8	-0.1
Fz_f	140.2	-0.0	**-29.5**	0.0	-58.9	0.1	-140.2	0.0	**29.5**	0.0	58.9	-0.1
Mx_f	-127.1	0.0	22.9	**-0.0**	45.8	-0.1	127.4	-0.0	-22.7	**0.0**	-45.4	0.1
My_f	140.2	-0.0	-29.5	0.0	**-58.9**	0.1	-140.2	0.0	29.5	0.0	**58.9**	-0.1
Mz_f	-150.0	0.0	26.4	0.0	52.8	**-0.1**	150.0	-0.0	-26.4	0.0	-52.8	**0.1**

Member 406

Fx_i	**-150.0**	0.0	-26.4	-0.0	-0.0	0.0	**150.0**	-0.0	26.4	0.0	0.0	-0.0
Fy_i	150.0	**-0.0**	26.4	0.0	0.0	-0.0	-150.0	**0.0**	-26.4	-0.0	-0.0	0.0
Fz_i	-140.2	0.0	**-29.5**	-0.0	-0.0	0.0	140.2	-0.0	**29.5**	0.0	0.0	-0.0
Mx_i	-146.4	0.0	-25.3	**-0.0**	-0.0	0.0	150.0	-0.0	26.4	**0.0**	0.0	-0.0
My_i	-150.0	0.0	-26.4	-0.0	**-0.0**	0.0	150.0	-0.0	26.4	0.0	**0.0**	-0.0
Mz_i	149.8	-0.0	26.6	0.0	0.0	**-0.0**	-149.8	0.0	-26.6	-0.0	-0.0	**0.0**
Fx_f	**-150.0**	0.0	-26.4	-0.0	-52.8	-0.1	**150.0**	-0.0	26.4	0.0	52.8	0.1
Fy_f	150.0	**-0.0**	26.4	0.0	52.8	0.1	-150.0	**0.0**	-26.4	-0.0	-52.8	-0.1
Fz_f	-140.2	0.0	**-29.5**	-0.0	-58.9	-0.1	140.2	-0.0	**29.5**	0.0	58.9	0.1
Mx_f	-146.4	0.0	-25.3	**-0.0**	-50.7	-0.1	150.0	-0.0	26.4	**0.0**	52.8	0.1
My_f	-140.2	0.0	-29.5	-0.0	**-58.9**	-0.1	140.2	-0.0	29.5	0.0	**58.9**	0.1
Mz_f	-150.0	0.0	-26.4	-0.0	-52.8	**-0.1**	150.0	-0.0	26.4	0.0	52.8	**0.1**

Member 421

Fx_i	**-0.0**	0.0	-3.2	0.0	-137.3	0.0	**0.0**	0.0	3.2	0.0	137.3	0.0
Fy_i	-0.0	**0.0**	-2.7	0.0	-129.8	0.0	0.0	**0.0**	2.7	0.0	129.8	0.0
Fz_i	-0.0	0.0	**-3.4**	0.0	-139.1	0.0	-0.0	0.0	**3.4**	0.0	139.1	0.0
Mx_i	-0.0	0.0	-2.7	**0.0**	-129.8	0.0	0.0	0.0	2.7	**0.0**	129.8	0.0
My_i	-0.0	0.0	-3.4	0.0	**-139.1**	0.0	-0.0	0.0	3.4	0.0	**139.1**	0.0
Mz_i	-0.0	0.0	-2.7	0.0	-129.8	**0.0**	0.0	0.0	2.7	0.0	129.8	**0.0**
Fx_f	**-0.0**	0.0	-3.2	0.0	-140.5	0.0	**0.0**	0.0	3.2	0.0	140.5	0.0
Fy_f	-0.0	**0.0**	-2.7	0.0	-132.6	0.0	0.0	**0.0**	2.7	0.0	132.6	0.0
Fz_f	-0.0	0.0	**-3.4**	0.0	-142.5	0.0	-0.0	0.0	**3.4**	0.0	142.5	0.0
Mx_f	-0.0	0.0	-2.7	**0.0**	-132.6	0.0	0.0	0.0	2.7	**0.0**	132.6	0.0
My_f	-0.0	0.0	-3.4	0.0	**-142.5**	0.0	-0.0	0.0	3.4	0.0	**142.5**	0.0
Mz_f	-0.0	0.0	-2.7	0.0	-132.6	**0.0**	0.0	0.0	2.7	0.0	132.6	**0.0**

Member 422

Fx_i	**-0.0**	0.0	28.2	0.0	499.5	0.0	**0.0**	0.0	-28.2	0.0	-499.5	0.0
Fy_i	0.0	**0.0**	-30.6	0.0	-532.7	0.0	-0.0	**0.0**	30.6	0.0	532.7	0.0
Fz_i	-0.0	0.0	**-33.0**	0.0	-566.4	0.0	-0.0	0.0	**33.0**	0.0	566.4	0.0
Mx_i	0.0	0.0	-30.6	**0.0**	-532.7	0.0	-0.0	0.0	30.6	**0.0**	532.7	0.0
My_i	-0.0	0.0	-33.0	0.0	**-566.4**	0.0	-0.0	0.0	33.0	0.0	**566.4**	0.0
Mz_i	0.0	0.0	-30.6	0.0	-532.7	**0.0**	-0.0	0.0	30.6	0.0	532.7	**0.0**
Fx_f	**-0.0**	0.0	28.2	0.0	527.7	0.0	**0.0**	0.0	-28.2	0.0	-527.7	0.0
Fy_f	0.0	**0.0**	-30.6	0.0	-563.3	0.0	-0.0	**0.0**	30.6	0.0	563.3	0.0
Fz_f	-0.0	0.0	**-33.0**	0.0	-599.4	0.0	-0.0	0.0	**33.0**	0.0	599.4	0.0

hip frenado RENFE

Program Envolvator (release 1.3 - Jun 1998)
Calculation date: 24-mar-1999 19:46 h. Listing date: 13-abr-1999 11:47 h.
Members: 419
Joints: 353
Envelope generated from:

Name	min	max
frenado	-1.00	1.00

	Fx	Fy	Fz	Mx	My	Mz	Fx	Fy	Fz	Mx	My	Mz

Member 1

Fx_i	**-307.6**	-3.8	-0.0	-0.0	0.0	0.0	**307.6**	3.8	0.0	0.0	-0.0	-0.0
Fy_i	-307.6	**-3.8**	-0.0	-0.0	0.0	0.0	307.6	**3.8**	0.0	0.0	-0.0	-0.0
Fz_i	-307.6	-3.8	**-0.0**	-0.0	0.0	0.0	307.6	3.8	**0.0**	0.0	-0.0	-0.0
Mx_i	-307.6	-3.8	-0.0	**-0.0**	0.0	0.0	307.6	3.8	0.0	**0.0**	-0.0	-0.0
My_i	307.6	3.8	0.0	0.0	**-0.0**	-0.0	-307.6	-3.8	-0.0	-0.0	**0.0**	0.0
Mz_i	307.6	3.8	0.0	0.0	-0.0	**-0.0**	-307.6	-3.8	-0.0	-0.0	0.0	**0.0**
Fx_f	**-303.1**	-3.8	-0.0	-0.0	0.0	0.0	**303.1**	3.8	0.0	0.0	-0.0	-0.0
Fy_f	-303.1	**-3.8**	-0.0	-0.0	0.0	0.0	303.1	**3.8**	0.0	0.0	-0.0	-0.0
Fz_f	-303.1	-3.8	**-0.0**	-0.0	0.0	0.0	303.1	3.8	**0.0**	0.0	-0.0	-0.0
Mx_f	-303.1	-3.8	-0.0	**-0.0**	0.0	0.0	303.1	3.8	0.0	**0.0**	-0.0	-0.0
My_f	303.1	3.8	0.0	0.0	**-0.0**	-0.0	-303.1	-3.8	-0.0	-0.0	**0.0**	0.0
Mz_f	303.1	3.8	0.0	0.0	-0.0	**-0.0**	-303.1	-3.8	-0.0	-0.0	0.0	**0.0**

Member 2

Fx_i	**-303.1**	-3.8	-0.0	-0.0	0.0	0.0	**303.1**	3.8	0.0	0.0	-0.0	-0.0
Fy_i	-303.1	**-3.8**	-0.0	-0.0	0.0	0.0	303.1	**3.8**	0.0	0.0	-0.0	-0.0
Fz_i	-303.1	-3.8	**-0.0**	-0.0	0.0	0.0	303.1	3.8	**0.0**	0.0	-0.0	-0.0
Mx_i	-303.1	-3.8	-0.0	**-0.0**	0.0	0.0	303.1	3.8	0.0	**0.0**	-0.0	-0.0
My_i	303.1	3.8	0.0	0.0	**-0.0**	-0.0	-303.1	-3.8	-0.0	-0.0	**0.0**	0.0
Mz_i	303.1	3.8	0.0	0.0	-0.0	**-0.0**	-303.1	-3.8	-0.0	-0.0	0.0	**0.0**
Fx_f	**-298.7**	-3.8	-0.0	-0.0	0.0	0.0	**298.7**	3.8	0.0	0.0	-0.0	-0.0
Fy_f	-298.7	**-3.8**	-0.0	-0.0	0.0	0.0	298.7	**3.8**	0.0	0.0	-0.0	-0.0
Fz_f	-298.7	-3.8	**-0.0**	-0.0	0.0	0.0	298.7	3.8	**0.0**	0.0	-0.0	-0.0
Mx_f	-298.7	-3.8	-0.0	**-0.0**	0.0	0.0	298.7	3.8	0.0	**0.0**	-0.0	-0.0
My_f	298.7	3.8	0.0	0.0	**-0.0**	-0.0	-298.7	-3.8	-0.0	-0.0	**0.0**	0.0
Mz_f	298.7	3.8	0.0	0.0	-0.0	**-0.0**	-298.7	-3.8	-0.0	-0.0	0.0	**0.0**

Member 3

Fx_i	**-298.7**	-3.8	-0.0	-0.0	0.0	0.0	**298.7**	3.8	0.0	0.0	-0.0	-0.0
Fy_i	-298.7	**-3.8**	-0.0	-0.0	0.0	0.0	298.7	**3.8**	0.0	0.0	-0.0	-0.0
Fz_i	-298.7	-3.8	**-0.0**	-0.0	0.0	0.0	298.7	3.8	**0.0**	0.0	-0.0	-0.0
Mx_i	-298.7	-3.8	-0.0	**-0.0**	0.0	0.0	298.7	3.8	0.0	**0.0**	-0.0	-0.0
My_i	298.7	3.8	0.0	0.0	**-0.0**	-0.0	-298.7	-3.8	-0.0	-0.0	**0.0**	0.0
Mz_i	298.7	3.8	0.0	0.0	-0.0	**-0.0**	-298.7	-3.8	-0.0	-0.0	0.0	**0.0**
Fx_f	**-294.3**	-3.8	-0.0	-0.0	0.0	-0.0	**294.3**	3.8	0.0	0.0	-0.0	0.0
Fy_f	-294.3	**-3.8**	-0.0	-0.0	0.0	-0.0	294.3	**3.8**	0.0	0.0	-0.0	0.0
Fz_f	-294.3	-3.8	**-0.0**	-0.0	0.0	-0.0	294.3	3.8	**0.0**	0.0	-0.0	0.0
Mx_f	-294.3	-3.8	-0.0	**-0.0**	0.0	-0.0	294.3	3.8	0.0	**0.0**	-0.0	0.0
My_f	294.3	3.8	0.0	0.0	**-0.0**	0.0	-294.3	-3.8	-0.0	-0.0	**0.0**	-0.0
Mz_f	-294.3	-3.8	-0.0	-0.0	0.0	**-0.0**	294.3	3.8	0.0	0.0	-0.0	**0.0**

Member 4

Fx_i	**-294.3**	-3.8	0.0	-0.0	0.0	-0.0	**294.3**	3.8	-0.0	0.0	-0.0	0.0
Fy_i	-294.3	**-3.8**	0.0	-0.0	0.0	-0.0	294.3	**3.8**	-0.0	0.0	-0.0	0.0
Fz_i	294.3	3.8	**-0.0**	0.0	-0.0	0.0	-294.3	-3.8	**0.0**	-0.0	0.0	-0.0
Mx_i	-294.3	-3.8	0.0	**-0.0**	0.0	-0.0	294.3	3.8	-0.0	**0.0**	-0.0	0.0
My_i	294.3	3.8	-0.0	0.0	**-0.0**	0.0	-294.3	-3.8	0.0	-0.0	**0.0**	-0.0
Mz_i	-294.3	-3.8	0.0	-0.0	0.0	**-0.0**	294.3	3.8	-0.0	0.0	-0.0	**0.0**
Fx_f	**-289.8**	-3.8	0.0	-0.0	0.0	-0.0	**289.8**	3.8	-0.0	0.0	-0.0	0.0
Fy_f	-289.8	**-3.8**	0.0	-0.0	0.0	-0.0	289.8	**3.8**	-0.0	0.0	-0.0	0.0
Fz_f	289.8	3.8	**-0.0**	0.0	-0.0	0.0	-289.8	-3.8	**0.0**	-0.0	0.0	-0.0
Mx_f	-289.8	-3.8	0.0	**-0.0**	0.0	-0.0	289.8	3.8	-0.0	**0.0**	-0.0	0.0

My_f	289.8	3.8	-0.0	0.0	**-0.0**	0.0	-289.8	-3.8	0.0	-0.0	**0.0**	-0.0
Mz_f	-289.8	-3.8	0.0	-0.0	0.0	**-0.0**	289.8	3.8	-0.0	0.0	-0.0	**0.0**

Member 5

Fx_i	**-289.8**	-3.8	0.0	-0.0	0.0	-0.0	**289.8**	3.8	-0.0	0.0	-0.0	0.0
Fy_i	-289.8	**-3.8**	0.0	-0.0	0.0	-0.0	289.8	**3.8**	-0.0	0.0	-0.0	0.0
Fz_i	289.8	3.8	**-0.0**	0.0	-0.0	0.0	-289.8	-3.8	**0.0**	-0.0	0.0	-0.0
Mx_i	-289.8	-3.8	0.0	**-0.0**	0.0	-0.0	289.8	3.8	-0.0	**0.0**	-0.0	0.0
My_i	289.8	3.8	-0.0	0.0	**-0.0**	0.0	-289.8	-3.8	0.0	-0.0	**0.0**	-0.0
Mz_i	-289.8	-3.8	0.0	-0.0	0.0	**-0.0**	289.8	3.8	-0.0	0.0	-0.0	**0.0**
Fx_f	**-285.4**	-3.8	0.0	-0.0	0.0	-0.0	**285.4**	3.8	-0.0	0.0	-0.0	0.0
Fy_f	-285.4	**-3.8**	0.0	-0.0	0.0	-0.0	285.4	**3.8**	-0.0	0.0	-0.0	0.0
Fz_f	285.4	3.8	**-0.0**	0.0	-0.0	0.0	-285.4	-3.8	**0.0**	-0.0	0.0	-0.0
Mx_f	-285.4	-3.8	0.0	**-0.0**	0.0	-0.0	285.4	3.8	-0.0	**0.0**	-0.0	0.0
My_f	285.4	3.8	-0.0	0.0	**-0.0**	0.0	-285.4	-3.8	0.0	-0.0	**0.0**	-0.0
Mz_f	-285.4	-3.8	0.0	-0.0	0.0	**-0.0**	285.4	3.8	-0.0	0.0	-0.0	**0.0**

Member 6

Fx_i	**-285.4**	-3.8	0.0	-0.0	-0.0	-0.0	**285.4**	3.8	-0.0	0.0	0.0	0.0
Fy_i	-285.4	**-3.8**	0.0	-0.0	-0.0	-0.0	285.4	**3.8**	-0.0	0.0	0.0	0.0
Fz_i	285.4	3.8	**-0.0**	0.0	0.0	0.0	-285.4	-3.8	**0.0**	-0.0	-0.0	-0.0
Mx_i	-285.4	-3.8	0.0	**-0.0**	-0.0	-0.0	285.4	3.8	-0.0	**0.0**	0.0	0.0
My_i	-285.4	-3.8	0.0	-0.0	**-0.0**	-0.0	285.4	3.8	-0.0	0.0	**0.0**	0.0
Mz_i	-285.4	-3.8	0.0	-0.0	-0.0	**-0.0**	285.4	3.8	-0.0	0.0	0.0	**0.0**
Fx_f	**-280.9**	-3.8	0.0	-0.0	0.0	-0.0	**280.9**	3.8	-0.0	0.0	-0.0	0.0
Fy_f	-280.9	**-3.8**	0.0	-0.0	0.0	-0.0	280.9	**3.8**	-0.0	0.0	-0.0	0.0
Fz_f	280.9	3.8	**-0.0**	0.0	-0.0	0.0	-280.9	-3.8	**0.0**	-0.0	0.0	-0.0
Mx_f	-280.9	-3.8	0.0	**-0.0**	0.0	-0.0	280.9	3.8	-0.0	**0.0**	-0.0	0.0
My_f	280.9	3.8	-0.0	0.0	**-0.0**	0.0	-280.9	-3.8	0.0	-0.0	**0.0**	-0.0
Mz_f	-280.9	-3.8	0.0	-0.0	0.0	**-0.0**	280.9	3.8	-0.0	0.0	-0.0	**0.0**

Member 7

Fx_i	**-280.9**	-3.8	-0.0	0.0	0.0	-0.0	**280.9**	3.8	0.0	-0.0	-0.0	0.0
Fy_i	-280.9	**-3.8**	-0.0	0.0	0.0	-0.0	280.9	**3.8**	0.0	-0.0	-0.0	0.0
Fz_i	-280.9	-3.8	**-0.0**	0.0	0.0	-0.0	280.9	3.8	**0.0**	-0.0	-0.0	0.0
Mx_i	280.9	3.8	0.0	**-0.0**	-0.0	0.0	-280.9	-3.8	-0.0	**0.0**	0.0	-0.0
My_i	280.9	3.8	0.0	-0.0	**-0.0**	0.0	-280.9	-3.8	-0.0	0.0	**0.0**	-0.0
Mz_i	-280.9	-3.8	-0.0	0.0	0.0	**-0.0**	280.9	3.8	0.0	-0.0	-0.0	**0.0**
Fx_f	**-275.5**	-3.8	-0.0	0.0	-0.0	-0.0	**275.5**	3.8	0.0	-0.0	0.0	0.0
Fy_f	-275.5	**-3.8**	-0.0	0.0	-0.0	-0.0	275.5	**3.8**	0.0	-0.0	0.0	0.0
Fz_f	-275.5	-3.8	**-0.0**	0.0	-0.0	-0.0	275.5	3.8	**0.0**	-0.0	0.0	0.0
Mx_f	275.5	3.8	0.0	**-0.0**	0.0	0.0	-275.5	-3.8	-0.0	**0.0**	-0.0	-0.0
My_f	-275.5	-3.8	-0.0	0.0	**-0.0**	-0.0	275.5	3.8	0.0	-0.0	**0.0**	0.0
Mz_f	-275.5	-3.8	-0.0	0.0	-0.0	**-0.0**	275.5	3.8	0.0	-0.0	0.0	**0.0**

Member 8

Fx_i	**-275.5**	-3.8	-0.0	0.0	0.0	-0.0	**275.5**	3.8	0.0	-0.0	-0.0	0.0
Fy_i	-275.5	**-3.8**	-0.0	0.0	0.0	-0.0	275.5	**3.8**	0.0	-0.0	-0.0	0.0
Fz_i	-275.5	-3.8	**-0.0**	0.0	0.0	-0.0	275.5	3.8	**0.0**	-0.0	-0.0	0.0
Mx_i	275.5	3.8	0.0	**-0.0**	-0.0	0.0	-275.5	-3.8	-0.0	**0.0**	0.0	-0.0
My_i	275.5	3.8	0.0	-0.0	**-0.0**	0.0	-275.5	-3.8	-0.0	0.0	**0.0**	-0.0
Mz_i	-275.5	-3.8	-0.0	0.0	0.0	**-0.0**	275.5	3.8	0.0	-0.0	-0.0	**0.0**
Fx_f	**-270.1**	-3.8	-0.0	0.0	-0.0	-0.0	**270.1**	3.8	0.0	-0.0	0.0	0.0
Fy_f	-270.1	**-3.8**	-0.0	0.0	-0.0	-0.0	270.1	**3.8**	0.0	-0.0	0.0	0.0
Fz_f	-270.1	-3.8	**-0.0**	0.0	-0.0	-0.0	270.1	3.8	**0.0**	-0.0	0.0	0.0
Mx_f	270.1	3.8	0.0	**-0.0**	0.0	0.0	-270.1	-3.8	-0.0	**0.0**	-0.0	-0.0
My_f	-270.1	-3.8	-0.0	0.0	**-0.0**	-0.0	270.1	3.8	0.0	-0.0	**0.0**	0.0
Mz_f	-270.1	-3.8	-0.0	0.0	-0.0	**-0.0**	270.1	3.8	0.0	-0.0	0.0	**0.0**

Member 9

Fx_i	**-270.1**	-3.8	-0.0	0.0	0.0	-0.0	**270.1**	3.8	0.0	-0.0	-0.0	0.0
Fy_i	-270.1	**-3.8**	-0.0	0.0	0.0	-0.0	270.1	**3.8**	0.0	-0.0	-0.0	0.0
Fz_i	-270.1	-3.8	**-0.0**	0.0	0.0	-0.0	270.1	3.8	**0.0**	-0.0	-0.0	0.0
Mx_i	270.1	3.8	0.0	**-0.0**	-0.0	0.0	-270.1	-3.8	-0.0	**0.0**	0.0	-0.0
My_i	270.1	3.8	0.0	-0.0	**-0.0**	0.0	-270.1	-3.8	-0.0	0.0	**0.0**	-0.0
Mz_i	-270.1	-3.8	-0.0	0.0	0.0	**-0.0**	270.1	3.8	0.0	-0.0	-0.0	**0.0**
Fx_f	**-264.6**	-3.8	-0.0	0.0	-0.0	-0.0	**264.6**	3.8	0.0	-0.0	0.0	0.0
Fy_f	-264.6	**-3.8**	-0.0	0.0	-0.0	-0.0	264.6	**3.8**	0.0	-0.0	0.0	0.0
Fz_f	-264.6	-3.8	**-0.0**	0.0	-0.0	-0.0	264.6	3.8	**0.0**	-0.0	0.0	0.0
Mx_f	264.6	3.8	0.0	**-0.0**	0.0	0.0	-264.6	-3.8	-0.0	**0.0**	-0.0	-0.0
My_f	-264.6	-3.8	-0.0	0.0	**-0.0**	-0.0	264.6	3.8	0.0	-0.0	**0.0**	0.0
Mz_f	-264.6	-3.8	-0.0	0.0	-0.0	**-0.0**	264.6	3.8	0.0	-0.0	0.0	**0.0**

Member 10

Fx_i	**-264.6**	-3.8	-0.0	0.0	0.0	-0.0	**264.6**	3.8	0.0	-0.0	-0.0	0.0
Fy_i	-264.6	**-3.8**	-0.0	0.0	0.0	-0.0	264.6	**3.8**	0.0	-0.0	-0.0	0.0
Fz_i	-264.6	-3.8	**-0.0**	0.0	0.0	-0.0	264.6	3.8	**0.0**	-0.0	-0.0	0.0
Mx_i	264.6	3.8	0.0	**-0.0**	-0.0	0.0	-264.6	-3.8	-0.0	**0.0**	0.0	-0.0
My_i	264.6	3.8	0.0	-0.0	**-0.0**	0.0	-264.6	-3.8	-0.0	0.0	**0.0**	-0.0
Mz_i	-264.6	-3.8	-0.0	0.0	0.0	**-0.0**	264.6	3.8	0.0	-0.0	-0.0	**0.0**
Fx_f	**-259.2**	-3.8	-0.0	0.0	0.0	0.0	**259.2**	3.8	0.0	-0.0	-0.0	-0.0
Fy_f	-259.2	**-3.8**	-0.0	0.0	0.0	0.0	259.2	**3.8**	0.0	-0.0	-0.0	-0.0
Fz_f	-259.2	-3.8	**-0.0**	0.0	0.0	0.0	259.2	3.8	**0.0**	-0.0	-0.0	-0.0
Mx_f	259.2	3.8	0.0	**-0.0**	-0.0	-0.0	-259.2	-3.8	-0.0	**0.0**	0.0	0.0
My_f	259.2	3.8	0.0	-0.0	**-0.0**	-0.0	-259.2	-3.8	-0.0	0.0	**0.0**	0.0
Mz_f	259.2	3.8	0.0	-0.0	-0.0	**-0.0**	-259.2	-3.8	-0.0	0.0	0.0	**0.0**

Member 11

Fx_i	**-259.2**	-3.8	-0.0	0.0	0.0	0.0	**259.2**	3.8	0.0	-0.0	-0.0	-0.0
Fy_i	-259.2	**-3.8**	-0.0	0.0	0.0	0.0	259.2	**3.8**	0.0	-0.0	-0.0	-0.0
Fz_i	-259.2	-3.8	**-0.0**	0.0	0.0	0.0	259.2	3.8	**0.0**	-0.0	-0.0	-0.0
Mx_i	259.2	3.8	0.0	**-0.0**	-0.0	-0.0	-259.2	-3.8	-0.0	**0.0**	0.0	0.0
My_i	259.2	3.8	0.0	-0.0	**-0.0**	-0.0	-259.2	-3.8	-0.0	0.0	**0.0**	0.0
Mz_i	259.2	3.8	0.0	-0.0	-0.0	**-0.0**	-259.2	-3.8	-0.0	0.0	0.0	**0.0**
Fx_f	**-253.7**	-3.8	-0.0	0.0	0.0	0.0	**253.7**	3.8	0.0	-0.0	-0.0	-0.0
Fy_f	-253.7	**-3.8**	-0.0	0.0	0.0	0.0	253.7	**3.8**	0.0	-0.0	-0.0	-0.0
Fz_f	-253.7	-3.8	**-0.0**	0.0	0.0	0.0	253.7	3.8	**0.0**	-0.0	-0.0	-0.0
Mx_f	253.7	3.8	0.0	**-0.0**	-0.0	-0.0	-253.7	-3.8	-0.0	**0.0**	0.0	0.0
My_f	253.7	3.8	0.0	-0.0	**-0.0**	-0.0	-253.7	-3.8	-0.0	0.0	**0.0**	0.0
Mz_f	253.7	3.8	0.0	-0.0	-0.0	**-0.0**	-253.7	-3.8	-0.0	0.0	0.0	**0.0**

Member 12

Fx_i	**-253.7**	-3.8	-0.0	0.0	0.0	0.0	**253.7**	3.8	0.0	-0.0	-0.0	-0.0
Fy_i	-253.7	**-3.8**	-0.0	0.0	0.0	0.0	253.7	**3.8**	0.0	-0.0	-0.0	-0.0
Fz_i	-253.7	-3.8	**-0.0**	0.0	0.0	0.0	253.7	3.8	**0.0**	-0.0	-0.0	-0.0
Mx_i	253.7	3.8	0.0	**-0.0**	-0.0	-0.0	-253.7	-3.8	-0.0	**0.0**	0.0	0.0
My_i	253.7	3.8	0.0	-0.0	**-0.0**	-0.0	-253.7	-3.8	-0.0	0.0	**0.0**	0.0
Mz_i	253.7	3.8	0.0	-0.0	-0.0	**-0.0**	-253.7	-3.8	-0.0	0.0	0.0	**0.0**
Fx_f	**-248.3**	-3.8	-0.0	0.0	0.0	0.0	**248.3**	3.8	0.0	-0.0	-0.0	-0.0
Fy_f	-248.3	**-3.8**	-0.0	0.0	0.0	0.0	248.3	**3.8**	0.0	-0.0	-0.0	-0.0
Fz_f	-248.3	-3.8	**-0.0**	0.0	0.0	0.0	248.3	3.8	**0.0**	-0.0	-0.0	-0.0
Mx_f	248.3	3.8	0.0	**-0.0**	-0.0	-0.0	-248.3	-3.8	-0.0	**0.0**	0.0	0.0
My_f	248.3	3.8	0.0	-0.0	**-0.0**	-0.0	-248.3	-3.8	-0.0	0.0	**0.0**	0.0
Mz_f	248.3	3.8	0.0	-0.0	-0.0	**-0.0**	-248.3	-3.8	-0.0	0.0	0.0	**0.0**

Member 13

Fx_i	**-248.3**	-3.8	-0.0	0.0	0.0	0.0	**248.3**	3.8	0.0	-0.0	-0.0	-0.0
Fy_i	-248.3	**-3.8**	-0.0	0.0	0.0	0.0	248.3	**3.8**	0.0	-0.0	-0.0	-0.0
Fz_i	-248.3	-3.8	**-0.0**	0.0	0.0	0.0	248.3	3.8	**0.0**	-0.0	-0.0	-0.0
Mx_i	248.3	3.8	0.0	**-0.0**	-0.0	-0.0	-248.3	-3.8	-0.0	**0.0**	0.0	0.0
My_i	248.3	3.8	0.0	-0.0	**-0.0**	-0.0	-248.3	-3.8	-0.0	0.0	**0.0**	0.0
Mz_i	248.3	3.8	0.0	-0.0	-0.0	**-0.0**	-248.3	-3.8	-0.0	0.0	0.0	**0.0**
Fx_f	**-242.8**	-3.8	-0.0	0.0	-0.0	0.0	**242.8**	3.8	0.0	-0.0	0.0	-0.0
Fy_f	-242.8	**-3.8**	-0.0	0.0	-0.0	0.0	242.8	**3.8**	0.0	-0.0	0.0	-0.0
Fz_f	-242.8	-3.8	**-0.0**	0.0	-0.0	0.0	242.8	3.8	**0.0**	-0.0	0.0	-0.0
Mx_f	242.8	3.8	0.0	**-0.0**	0.0	-0.0	-242.8	-3.8	-0.0	**0.0**	-0.0	0.0
My_f	-242.8	-3.8	-0.0	0.0	**-0.0**	0.0	242.8	3.8	0.0	-0.0	**0.0**	-0.0
Mz_f	242.8	3.8	0.0	-0.0	0.0	**-0.0**	-242.8	-3.8	-0.0	0.0	-0.0	**0.0**

Member 14

Fx_i	**-242.8**	-3.8	-0.0	0.0	0.0	0.0	**242.8**	3.8	0.0	-0.0	-0.0	-0.0
Fy_i	-242.8	**-3.8**	-0.0	0.0	0.0	0.0	242.8	**3.8**	0.0	-0.0	-0.0	-0.0
Fz_i	-242.8	-3.8	**-0.0**	0.0	0.0	0.0	242.8	3.8	**0.0**	-0.0	-0.0	-0.0
Mx_i	242.8	3.8	0.0	**-0.0**	-0.0	-0.0	-242.8	-3.8	-0.0	**0.0**	0.0	0.0
My_i	242.8	3.8	0.0	-0.0	**-0.0**	-0.0	-242.8	-3.8	-0.0	0.0	**0.0**	0.0
Mz_i	242.8	3.8	0.0	-0.0	-0.0	**-0.0**	-242.8	-3.8	-0.0	0.0	0.0	**0.0**
Fx_f	**-237.4**	-3.8	-0.0	0.0	-0.0	0.0	**237.4**	3.8	0.0	-0.0	**0.0**	-0.0
Fy_f	-237.4	**-3.8**	-0.0	0.0	-0.0	0.0	237.4	**3.8**	0.0	-0.0	0.0	-0.0
Fz_f	-237.4	-3.8	**-0.0**	0.0	-0.0	0.0	237.4	3.8	**0.0**	-0.0	0.0	-0.0
Mx_f	237.4	3.8	0.0	**-0.0**	0.0	-0.0	-237.4	-3.8	-0.0	**0.0**	-0.0	0.0
My_f	-237.4	-3.8	-0.0	0.0	**-0.0**	0.0	237.4	3.8	0.0	-0.0	**0.0**	-0.0
Mz_f	237.4	3.8	0.0	-0.0	0.0	**-0.0**	-237.4	-3.8	-0.0	0.0	-0.0	**0.0**

Member 15

Fx_i	**-237.4**	-3.8	0.0	-0.0	-0.0	0.0	**237.4**	3.8	-0.0	0.0	0.0	-0.0
Fy_i	-237.4	**-3.8**	0.0	-0.0	-0.0	0.0	237.4	**3.8**	-0.0	0.0	0.0	-0.0
Fz_i	237.4	3.8	**-0.0**	0.0	0.0	-0.0	-237.4	-3.8	**0.0**	-0.0	-0.0	0.0
Mx_i	-237.4	-3.8	0.0	**-0.0**	-0.0	0.0	237.4	3.8	-0.0	**0.0**	0.0	-0.0
My_i	-237.4	-3.8	0.0	-0.0	**-0.0**	0.0	237.4	3.8	-0.0	0.0	**0.0**	-0.0
Mz_i	237.4	3.8	-0.0	0.0	0.0	**-0.0**	-237.4	-3.8	0.0	-0.0	-0.0	**0.0**
Fx_f	**-231.9**	-3.8	0.0	-0.0	0.0	0.0	**231.9**	3.8	-0.0	0.0	-0.0	-0.0
Fy_f	-231.9	**-3.8**	0.0	-0.0	0.0	0.0	231.9	**3.8**	-0.0	0.0	-0.0	-0.0
Fz_f	231.9	3.8	**-0.0**	0.0	-0.0	-0.0	-231.9	-3.8	**0.0**	-0.0	0.0	0.0
Mx_f	-231.9	-3.8	0.0	**-0.0**	0.0	0.0	231.9	3.8	-0.0	**0.0**	-0.0	-0.0
My_f	231.9	3.8	-0.0	0.0	**-0.0**	-0.0	-231.9	-3.8	0.0	-0.0	**0.0**	0.0
Mz_f	231.9	3.8	-0.0	0.0	-0.0	**-0.0**	-231.9	-3.8	0.0	-0.0	0.0	**0.0**

Member 16

Fx_i	**-231.9**	-3.8	-0.0	-0.0	0.0	0.0	**231.9**	3.8	0.0	0.0	-0.0	-0.0
Fy_i	-231.9	**-3.8**	-0.0	-0.0	0.0	0.0	231.9	**3.8**	0.0	0.0	-0.0	-0.0
Fz_i	-231.9	-3.8	**-0.0**	-0.0	0.0	0.0	231.9	3.8	**0.0**	0.0	-0.0	-0.0
Mx_i	-231.9	-3.8	-0.0	**-0.0**	0.0	0.0	231.9	3.8	0.0	**0.0**	-0.0	-0.0
My_i	231.9	3.8	0.0	0.0	**-0.0**	-0.0	-231.9	-3.8	-0.0	-0.0	**0.0**	0.0
Mz_i	231.9	3.8	0.0	0.0	-0.0	**-0.0**	-231.9	-3.8	-0.0	-0.0	0.0	**0.0**
Fx_f	**-226.5**	-3.8	-0.0	-0.0	-0.0	-0.0	**226.5**	3.8	0.0	0.0	0.0	0.0
Fy_f	-226.5	**-3.8**	-0.0	-0.0	-0.0	-0.0	226.5	**3.8**	0.0	0.0	0.0	0.0
Fz_f	-226.5	-3.8	**-0.0**	-0.0	-0.0	-0.0	226.5	3.8	**0.0**	0.0	0.0	0.0
Mx_f	-226.5	-3.8	-0.0	**-0.0**	-0.0	-0.0	226.5	3.8	0.0	**0.0**	0.0	0.0
My_f	-226.5	-3.8	-0.0	-0.0	**-0.0**	-0.0	226.5	3.8	0.0	0.0	**0.0**	0.0
Mz_f	-226.5	-3.8	-0.0	-0.0	-0.0	**-0.0**	226.5	3.8	0.0	0.0	0.0	**0.0**

Member 17

Fx_i	**-226.5**	-3.8	-0.0	-0.0	-0.0	-0.0	**226.5**	3.8	0.0	0.0	0.0	0.0
Fy_i	-226.5	**-3.8**	-0.0	-0.0	-0.0	-0.0	226.5	**3.8**	0.0	0.0	0.0	0.0
Fz_i	-226.5	-3.8	**-0.0**	-0.0	-0.0	-0.0	226.5	3.8	**0.0**	0.0	0.0	0.0
Mx_i	-226.5	-3.8	-0.0	**-0.0**	-0.0	-0.0	226.5	3.8	0.0	**0.0**	0.0	0.0
My_i	-226.5	-3.8	-0.0	-0.0	**-0.0**	-0.0	226.5	3.8	0.0	0.0	**0.0**	0.0
Mz_i	-226.5	-3.8	-0.0	-0.0	-0.0	**-0.0**	226.5	3.8	0.0	0.0	0.0	**0.0**
Fx_f	**-221.1**	-3.8	-0.0	-0.0	-0.0	-0.0	**221.1**	3.8	0.0	0.0	0.0	0.0
Fy_f	-221.1	**-3.8**	-0.0	-0.0	-0.0	-0.0	221.1	**3.8**	0.0	0.0	0.0	0.0
Fz_f	-221.1	-3.8	**-0.0**	-0.0	-0.0	-0.0	221.1	3.8	**0.0**	0.0	0.0	0.0
Mx_f	-221.1	-3.8	-0.0	**-0.0**	-0.0	-0.0	221.1	3.8	0.0	**0.0**	0.0	0.0
My_f	-221.1	-3.8	-0.0	-0.0	**-0.0**	-0.0	221.1	3.8	0.0	0.0	**0.0**	0.0
Mz_f	-221.1	-3.8	-0.0	-0.0	-0.0	**-0.0**	221.1	3.8	0.0	0.0	0.0	**0.0**

Member 18

Fx_i	**-221.1**	-3.8	-0.0	-0.0	-0.0	-0.0	**221.1**	3.8	0.0	0.0	0.0	0.0
Fy_i	-221.1	**-3.8**	-0.0	-0.0	-0.0	-0.0	221.1	**3.8**	0.0	0.0	0.0	0.0
Fz_i	-221.1	-3.8	**-0.0**	-0.0	-0.0	-0.0	221.1	3.8	**0.0**	0.0	0.0	0.0
Mx_i	-221.1	-3.8	-0.0	**-0.0**	-0.0	-0.0	221.1	3.8	0.0	**0.0**	0.0	0.0
My_i	-221.1	-3.8	-0.0	-0.0	**-0.0**	-0.0	221.1	3.8	0.0	0.0	**0.0**	0.0
Mz_i	-221.1	-3.8	-0.0	-0.0	-0.0	**-0.0**	221.1	3.8	0.0	0.0	0.0	**0.0**
Fx_f	**-215.6**	-3.8	-0.0	-0.0	-0.0	-0.0	**215.6**	3.8	0.0	0.0	0.0	0.0
Fy_f	-215.6	**-3.8**	-0.0	-0.0	-0.0	-0.0	215.6	**3.8**	0.0	0.0	0.0	0.0
Fz_f	-215.6	-3.8	**-0.0**	-0.0	-0.0	-0.0	215.6	3.8	**0.0**	0.0	0.0	0.0
Mx_f	-215.6	-3.8	-0.0	**-0.0**	-0.0	-0.0	215.6	3.8	0.0	**0.0**	0.0	0.0
My_f	-215.6	-3.8	-0.0	-0.0	**-0.0**	-0.0	215.6	3.8	0.0	0.0	**0.0**	0.0
Mz_f	-215.6	-3.8	-0.0	-0.0	-0.0	**-0.0**	215.6	3.8	0.0	0.0	0.0	**0.0**

Member 19

Fx_i	**-215.6**	-3.8	-0.0	-0.0	-0.0	-0.0	**215.6**	3.8	0.0	0.0	0.0	0.0
Fy_i	-215.6	**-3.8**	-0.0	-0.0	-0.0	-0.0	215.6	**3.8**	0.0	0.0	0.0	0.0
Fz_i	-215.6	-3.8	**-0.0**	-0.0	-0.0	-0.0	215.6	3.8	**0.0**	0.0	0.0	0.0
Mx_i	-215.6	-3.8	-0.0	**-0.0**	-0.0	-0.0	215.6	3.8	0.0	**0.0**	0.0	0.0
My_i	-215.6	-3.8	-0.0	-0.0	**-0.0**	-0.0	215.6	3.8	0.0	0.0	**0.0**	0.0
Mz_i	-215.6	-3.8	-0.0	-0.0	-0.0	**-0.0**	215.6	3.8	0.0	0.0	0.0	**0.0**
Fx_f	**-210.2**	-3.8	-0.0	-0.0	-0.0	-0.0	**210.2**	3.8	0.0	0.0	0.0	0.0
Fy_f	-210.2	**-3.8**	-0.0	-0.0	-0.0	-0.0	210.2	**3.8**	0.0	0.0	0.0	0.0
Fz_f	-210.2	-3.8	**-0.0**	-0.0	-0.0	-0.0	210.2	3.8	**0.0**	0.0	0.0	0.0
Mx_f	-210.2	-3.8	-0.0	**-0.0**	-0.0	-0.0	210.2	3.8	0.0	**0.0**	0.0	0.0
My_f	-210.2	-3.8	-0.0	-0.0	**-0.0**	-0.0	210.2	3.8	0.0	0.0	**0.0**	0.0
Mz_f	-210.2	-3.8	-0.0	-0.0	-0.0	**-0.0**	210.2	3.8	0.0	0.0	0.0	**0.0**

Member 20

Fx_i	**-210.2**	-3.8	-0.0	-0.0	0.0	-0.0	**210.2**	3.8	0.0	0.0	-0.0	0.0
Fy_i	-210.2	**-3.8**	-0.0	-0.0	0.0	-0.0	210.2	**3.8**	0.0	0.0	-0.0	0.0
Fz_i	-210.2	-3.8	**-0.0**	-0.0	0.0	-0.0	210.2	3.8	**0.0**	0.0	-0.0	0.0
Mx_i	-210.2	-3.8	-0.0	**-0.0**	0.0	-0.0	210.2	3.8	0.0	**0.0**	-0.0	0.0
My_i	210.2	3.8	0.0	0.0	**-0.0**	0.0	-210.2	-3.8	-0.0	-0.0	**0.0**	-0.0
Mz_i	-210.2	-3.8	-0.0	-0.0	0.0	**-0.0**	210.2	3.8	0.0	0.0	-0.0	**0.0**
Fx_f	**-204.7**	-3.8	-0.0	-0.0	-0.0	-0.0	**204.7**	3.8	0.0	0.0	0.0	0.0
Fy_f	-204.7	**-3.8**	-0.0	-0.0	-0.0	-0.0	204.7	**3.8**	0.0	0.0	0.0	0.0
Fz_f	-204.7	-3.8	**-0.0**	-0.0	-0.0	-0.0	204.7	3.8	**0.0**	0.0	0.0	0.0
Mx_f	-204.7	-3.8	-0.0	**-0.0**	-0.0	-0.0	204.7	3.8	0.0	**0.0**	0.0	0.0
My_f	-204.7	-3.8	-0.0	-0.0	**-0.0**	-0.0	204.7	3.8	0.0	0.0	**0.0**	0.0
Mz_f	-204.7	-3.8	-0.0	-0.0	-0.0	**-0.0**	204.7	3.8	0.0	0.0	0.0	**0.0**

Member 21

Fx_i	**-204.7**	-3.8	0.0	-0.0	-0.0	-0.0	**204.7**	3.8	-0.0	0.0	0.0	0.0
Fy_i	-204.7	**-3.8**	0.0	-0.0	-0.0	-0.0	204.7	**3.8**	-0.0	0.0	0.0	0.0
Fz_i	204.7	3.8	**-0.0**	0.0	0.0	0.0	-204.7	-3.8	**0.0**	-0.0	-0.0	-0.0
Mx_i	-204.7	-3.8	0.0	**-0.0**	-0.0	-0.0	204.7	3.8	-0.0	**0.0**	0.0	0.0
My_i	-204.7	-3.8	0.0	-0.0	**-0.0**	-0.0	204.7	3.8	-0.0	0.0	**0.0**	0.0
Mz_i	-204.7	-3.8	0.0	-0.0	-0.0	**-0.0**	204.7	3.8	-0.0	0.0	0.0	**0.0**
Fx_f	**-199.3**	-3.8	0.0	-0.0	-0.0	-0.0	**199.3**	3.8	-0.0	0.0	0.0	0.0
Fy_f	-199.3	**-3.8**	0.0	-0.0	-0.0	-0.0	199.3	**3.8**	-0.0	0.0	0.0	0.0
Fz_f	199.3	3.8	**-0.0**	0.0	0.0	0.0	-199.3	-3.8	**0.0**	-0.0	-0.0	-0.0
Mx_f	-199.3	-3.8	0.0	**-0.0**	-0.0	-0.0	199.3	3.8	-0.0	**0.0**	0.0	0.0
My_f	-199.3	-3.8	0.0	-0.0	**-0.0**	-0.0	199.3	3.8	-0.0	0.0	**0.0**	0.0
Mz_f	-199.3	-3.8	0.0	-0.0	-0.0	**-0.0**	199.3	3.8	-0.0	0.0	0.0	**0.0**

Member 22

Fx_i	**-199.3**	-3.8	0.0	-0.0	-0.0	-0.0	**199.3**	3.8	-0.0	0.0	0.0	0.0
Fy_i	-199.3	**-3.8**	0.0	-0.0	-0.0	-0.0	199.3	**3.8**	-0.0	0.0	0.0	0.0
Fz_i	199.3	3.8	**-0.0**	0.0	0.0	0.0	-199.3	-3.8	**0.0**	-0.0	-0.0	-0.0
Mx_i	-199.3	-3.8	0.0	**-0.0**	-0.0	-0.0	199.3	3.8	-0.0	**0.0**	0.0	0.0
My_i	-199.3	-3.8	0.0	-0.0	**-0.0**	-0.0	199.3	3.8	-0.0	0.0	**0.0**	0.0
Mz_i	-199.3	-3.8	0.0	-0.0	-0.0	**-0.0**	199.3	3.8	-0.0	0.0	0.0	**0.0**
Fx_f	**-193.8**	-3.8	0.0	-0.0	0.0	-0.0	**193.8**	3.8	-0.0	0.0	-0.0	0.0
Fy_f	-193.8	**-3.8**	0.0	-0.0	0.0	-0.0	193.8	**3.8**	-0.0	0.0	-0.0	0.0
Fz_f	193.8	3.8	**-0.0**	0.0	-0.0	0.0	-193.8	-3.8	**0.0**	-0.0	0.0	-0.0
Mx_f	-193.8	-3.8	0.0	**-0.0**	0.0	-0.0	193.8	3.8	-0.0	**0.0**	-0.0	0.0
My_f	193.8	3.8	-0.0	0.0	**-0.0**	0.0	-193.8	-3.8	0.0	-0.0	**0.0**	-0.0
Mz_f	-193.8	-3.8	0.0	-0.0	0.0	**-0.0**	193.8	3.8	-0.0	0.0	-0.0	**0.0**

Member 23

Fx_i	**-193.8**	-3.8	-0.0	0.0	0.0	-0.0	**193.8**	3.8	0.0	-0.0	-0.0	0.0
Fy_i	-193.8	**-3.8**	-0.0	0.0	0.0	-0.0	193.8	**3.8**	0.0	-0.0	-0.0	0.0
Fz_i	-193.8	-3.8	**-0.0**	0.0	0.0	-0.0	193.8	3.8	**0.0**	-0.0	-0.0	0.0

Mx,	193.8	3.8	0.0	**-0.0**	-0.0	0.0	-193.8	-3.8	-0.0	**0.0**	0.0	-0.0
My,	193.8	3.8	0.0	-0.0	**-0.0**	0.0	-193.8	-3.8	-0.0	0.0	**0.0**	-0.0
Mz,	-193.8	-3.8	-0.0	0.0	0.0	**-0.0**	193.8	3.8	0.0	-0.0	-0.0	**0.0**
Fx,	**-188.4**	-3.8	-0.0	0.0	-0.0	-0.0	**188.4**	3.8	0.0	-0.0	0.0	0.0
Fy,	-188.4	**-3.8**	-0.0	0.0	-0.0	-0.0	188.4	**3.8**	0.0	-0.0	0.0	0.0
Fz,	-188.4	-3.8	**-0.0**	0.0	-0.0	-0.0	188.4	3.8	**0.0**	-0.0	0.0	0.0
Mx,	188.4	3.8	0.0	**-0.0**	0.0	0.0	-188.4	-3.8	-0.0	**0.0**	-0.0	-0.0
My,	-188.4	-3.8	-0.0	0.0	**-0.0**	-0.0	188.4	3.8	0.0	-0.0	**0.0**	0.0
Mz,	-188.4	-3.8	-0.0	0.0	-0.0	**-0.0**	188.4	3.8	0.0	-0.0	0.0	**0.0**

Member 24

Fx,	**-188.4**	-3.8	-0.0	0.0	-0.0	-0.0	**188.4**	3.8	0.0	-0.0	0.0	0.0
Fy,	-188.4	**-3.8**	-0.0	0.0	-0.0	-0.0	188.4	**3.8**	0.0	-0.0	0.0	0.0
Fz,	-188.4	-3.8	**-0.0**	0.0	-0.0	-0.0	188.4	3.8	**0.0**	-0.0	0.0	0.0
Mx,	188.4	3.8	0.0	**-0.0**	0.0	0.0	-188.4	-3.8	-0.0	**0.0**	-0.0	-0.0
My,	-188.4	-3.8	-0.0	0.0	**-0.0**	-0.0	188.4	3.8	0.0	-0.0	**0.0**	0.0
Mz,	-188.4	-3.8	-0.0	0.0	-0.0	**-0.0**	188.4	3.8	0.0	-0.0	0.0	**0.0**
Fx,	**-182.9**	-3.8	-0.0	0.0	-0.0	0.0	**182.9**	3.8	0.0	-0.0	0.0	-0.0
Fy,	-182.9	**-3.8**	-0.0	0.0	-0.0	0.0	182.9	**3.8**	0.0	-0.0	0.0	-0.0
Fz,	-182.9	-3.8	**-0.0**	0.0	-0.0	0.0	182.9	3.8	**0.0**	-0.0	0.0	-0.0
Mx,	182.9	3.8	0.0	**-0.0**	0.0	-0.0	-182.9	-3.8	-0.0	**0.0**	-0.0	0.0
My,	-182.9	-3.8	-0.0	0.0	**-0.0**	0.0	182.9	3.8	0.0	-0.0	**0.0**	-0.0
Mz,	182.9	3.8	0.0	-0.0	0.0	**-0.0**	-182.9	-3.8	-0.0	0.0	-0.0	**0.0**

Member 25

Fx,	**-182.9**	-3.8	-0.0	0.0	-0.0	0.0	**182.9**	3.8	0.0	-0.0	0.0	-0.0
Fy,	-182.9	**-3.8**	-0.0	0.0	-0.0	0.0	182.9	**3.8**	0.0	-0.0	0.0	-0.0
Fz,	-182.9	-3.8	**-0.0**	0.0	-0.0	0.0	182.9	3.8	**0.0**	-0.0	0.0	-0.0
Mx,	182.9	3.8	0.0	**-0.0**	0.0	-0.0	-182.9	-3.8	-0.0	**0.0**	-0.0	0.0
My,	-182.9	-3.8	-0.0	0.0	**-0.0**	0.0	182.9	3.8	0.0	-0.0	**0.0**	-0.0
Mz,	182.9	3.8	0.0	-0.0	0.0	**-0.0**	-182.9	-3.8	-0.0	0.0	-0.0	**0.0**
Fx,	**-177.5**	-3.8	-0.0	0.0	-0.0	0.0	**177.5**	3.8	0.0	-0.0	0.0	-0.0
Fy,	-177.5	**-3.8**	-0.0	0.0	-0.0	0.0	177.5	**3.8**	0.0	-0.0	0.0	-0.0
Fz,	-177.5	-3.8	**-0.0**	0.0	-0.0	0.0	177.5	3.8	**0.0**	-0.0	0.0	-0.0
Mx,	177.5	3.8	0.0	**-0.0**	0.0	-0.0	-177.5	-3.8	-0.0	**0.0**	-0.0	0.0
My,	-177.5	-3.8	-0.0	0.0	**-0.0**	0.0	177.5	3.8	0.0	-0.0	**0.0**	-0.0
Mz,	177.5	3.8	0.0	-0.0	0.0	**-0.0**	-177.5	-3.8	-0.0	0.0	-0.0	**0.0**

Member 26

Fx,	**-177.5**	-3.8	-0.0	0.0	-0.0	0.0	**177.5**	3.8	0.0	-0.0	0.0	-0.0
Fy,	-177.5	**-3.8**	-0.0	0.0	-0.0	0.0	177.5	**3.8**	0.0	-0.0	0.0	-0.0
Fz,	-177.5	-3.8	**-0.0**	0.0	-0.0	0.0	177.5	3.8	**0.0**	-0.0	0.0	-0.0
Mx,	177.5	3.8	0.0	**-0.0**	0.0	-0.0	-177.5	-3.8	-0.0	**0.0**	-0.0	0.0
My,	-177.5	-3.8	-0.0	0.0	**-0.0**	0.0	177.5	3.8	0.0	-0.0	**0.0**	-0.0
Mz,	177.5	3.8	0.0	-0.0	0.0	**-0.0**	-177.5	-3.8	-0.0	0.0	-0.0	**0.0**
Fx,	**-172.0**	-3.8	-0.0	0.0	-0.0	0.0	**172.0**	3.8	0.0	-0.0	0.0	-0.0
Fy,	-172.0	**-3.8**	-0.0	0.0	-0.0	0.0	172.0	**3.8**	0.0	-0.0	0.0	-0.0
Fz,	-172.0	-3.8	**-0.0**	0.0	-0.0	0.0	172.0	3.8	**0.0**	-0.0	0.0	-0.0
Mx,	172.0	3.8	0.0	**-0.0**	0.0	-0.0	-172.0	-3.8	-0.0	**0.0**	-0.0	0.0
My,	-172.0	-3.8	-0.0	0.0	**-0.0**	0.0	172.0	3.8	0.0	-0.0	**0.0**	-0.0
Mz,	172.0	3.8	0.0	-0.0	0.0	**-0.0**	-172.0	-3.8	-0.0	0.0	-0.0	**0.0**

Member 27

Fx,	**-172.0**	-3.8	-0.0	0.0	0.0	0.0	**172.0**	3.8	0.0	-0.0	-0.0	-0.0
Fy,	-172.0	**-3.8**	-0.0	0.0	0.0	0.0	172.0	**3.8**	0.0	-0.0	-0.0	-0.0
Fz,	-172.0	-3.8	**-0.0**	0.0	0.0	0.0	172.0	3.8	**0.0**	-0.0	-0.0	-0.0
Mx,	172.0	3.8	0.0	**-0.0**	-0.0	-0.0	-172.0	-3.8	-0.0	**0.0**	0.0	0.0
My,	172.0	3.8	0.0	-0.0	**-0.0**	-0.0	-172.0	-3.8	-0.0	0.0	**0.0**	0.0
Mz,	172.0	3.8	0.0	-0.0	-0.0	**-0.0**	-172.0	-3.8	-0.0	0.0	0.0	**0.0**
Fx,	**-166.6**	-3.8	-0.0	0.0	-0.0	0.0	**166.6**	3.8	0.0	-0.0	0.0	-0.0
Fy,	-166.6	**-3.8**	-0.0	0.0	-0.0	0.0	166.6	**3.8**	0.0	-0.0	0.0	-0.0
Fz,	-166.6	-3.8	**-0.0**	0.0	-0.0	0.0	166.6	3.8	**0.0**	-0.0	0.0	-0.0
Mx,	166.6	3.8	0.0	**-0.0**	0.0	-0.0	-166.6	-3.8	-0.0	**0.0**	-0.0	0.0
My,	-166.6	-3.8	-0.0	0.0	**-0.0**	0.0	166.6	3.8	0.0	-0.0	**0.0**	-0.0
Mz,	166.6	3.8	0.0	-0.0	0.0	**-0.0**	-166.6	-3.8	-0.0	0.0	-0.0	**0.0**

Member 28

Fx,	**-166.6**	-3.8	-0.0	0.0	0.0	0.0	**166.6**	3.8	0.0	-0.0	-0.0	-0.0
Fy,	-166.6	**-3.8**	-0.0	0.0	0.0	0.0	166.6	**3.8**	0.0	-0.0	-0.0	-0.0
Fz,	-166.6	-3.8	**-0.0**	0.0	0.0	0.0	166.6	3.8	**0.0**	-0.0	-0.0	-0.0
Mx,	166.6	3.8	0.0	**-0.0**	-0.0	-0.0	-166.6	-3.8	-0.0	**0.0**	0.0	0.0
My,	166.6	3.8	0.0	-0.0	**-0.0**	-0.0	-166.6	-3.8	-0.0	0.0	**0.0**	0.0
Mz,	166.6	3.8	0.0	-0.0	-0.0	**-0.0**	-166.6	-3.8	-0.0	0.0	0.0	**0.0**
Fx,	**-161.2**	-3.8	-0.0	0.0	-0.0	0.0	**161.2**	3.8	0.0	-0.0	0.0	-0.0
Fy,	-161.2	**-3.8**	-0.0	0.0	-0.0	0.0	161.2	**3.8**	0.0	-0.0	0.0	-0.0
Fz,	-161.2	-3.8	**-0.0**	0.0	-0.0	0.0	161.2	3.8	**0.0**	-0.0	0.0	-0.0
Mx,	161.2	3.8	0.0	**-0.0**	0.0	-0.0	-161.2	-3.8	-0.0	**0.0**	-0.0	0.0
My,	-161.2	-3.8	-0.0	0.0	**-0.0**	0.0	161.2	3.8	0.0	-0.0	**0.0**	-0.0
Mz,	161.2	3.8	0.0	-0.0	0.0	**-0.0**	-161.2	-3.8	-0.0	0.0	-0.0	**0.0**

Member 29

Fx,	**-161.2**	-3.8	-0.0	0.0	0.0	0.0	**161.2**	3.8	0.0	-0.0	-0.0	-0.0
Fy,	-161.2	**-3.8**	-0.0	0.0	0.0	0.0	161.2	**3.8**	0.0	-0.0	-0.0	-0.0
Fz,	-161.2	-3.8	**-0.0**	0.0	0.0	0.0	161.2	3.8	**0.0**	-0.0	-0.0	-0.0
Mx,	161.2	3.8	0.0	**-0.0**	-0.0	-0.0	-161.2	-3.8	-0.0	**0.0**	0.0	0.0
My,	161.2	3.8	0.0	-0.0	**-0.0**	-0.0	-161.2	-3.8	-0.0	0.0	**0.0**	0.0
Mz,	161.2	3.8	0.0	-0.0	-0.0	**-0.0**	-161.2	-3.8	-0.0	0.0	0.0	**0.0**
Fx,	**-155.7**	-3.8	-0.0	0.0	-0.0	0.0	**155.7**	3.8	0.0	-0.0	0.0	-0.0
Fy,	-155.7	**-3.8**	-0.0	0.0	-0.0	0.0	155.7	**3.8**	0.0	-0.0	0.0	-0.0
Fz,	-155.7	-3.8	**-0.0**	0.0	-0.0	0.0	155.7	3.8	**0.0**	-0.0	0.0	-0.0
Mx,	155.7	3.8	0.0	**-0.0**	0.0	-0.0	-155.7	-3.8	-0.0	**0.0**	-0.0	0.0
My,	-155.7	-3.8	-0.0	0.0	**-0.0**	0.0	155.7	3.8	0.0	-0.0	**0.0**	-0.0
Mz,	155.7	3.8	0.0	-0.0	0.0	**-0.0**	-155.7	-3.8	-0.0	0.0	-0.0	**0.0**

Member 30

Fx,	**-155.7**	-3.8	-0.0	0.0	0.0	0.0	**155.7**	3.8	0.0	-0.0	-0.0	-0.0
Fy,	-155.7	**-3.8**	-0.0	0.0	0.0	0.0	155.7	**3.8**	0.0	-0.0	-0.0	-0.0
Fz,	-155.7	-3.8	**-0.0**	0.0	0.0	0.0	155.7	3.8	**0.0**	-0.0	-0.0	-0.0
Mx,	155.7	3.8	0.0	**-0.0**	-0.0	-0.0	-155.7	-3.8	-0.0	**0.0**	0.0	0.0
My,	155.7	3.8	0.0	-0.0	**-0.0**	-0.0	-155.7	-3.8	-0.0	0.0	**0.0**	0.0
Mz,	155.7	3.8	0.0	-0.0	-0.0	**-0.0**	-155.7	-3.8	-0.0	0.0	0.0	**0.0**
Fx,	**-150.3**	-3.8	-0.0	0.0	-0.0	0.0	**150.3**	3.8	0.0	-0.0	0.0	-0.0
Fy,	-150.3	**-3.8**	-0.0	0.0	-0.0	0.0	150.3	**3.8**	0.0	-0.0	0.0	-0.0
Fz,	-150.3	-3.8	**-0.0**	0.0	-0.0	0.0	150.3	3.8	**0.0**	-0.0	0.0	-0.0
Mx,	150.3	3.8	0.0	**-0.0**	0.0	-0.0	-150.3	-3.8	-0.0	**0.0**	-0.0	0.0
My,	-150.3	-3.8	-0.0	0.0	**-0.0**	0.0	150.3	3.8	0.0	-0.0	**0.0**	-0.0
Mz,	150.3	3.8	0.0	-0.0	0.0	**-0.0**	-150.3	-3.8	-0.0	0.0	-0.0	**0.0**

Member 31

Fx,	**-150.3**	-3.8	0.0	-0.0	-0.0	0.0	**150.3**	3.8	-0.0	0.0	0.0	-0.0
Fy,	-150.3	**-3.8**	0.0	-0.0	-0.0	0.0	150.3	**3.8**	-0.0	0.0	0.0	-0.0
Fz,	150.3	3.8	**-0.0**	0.0	-0.0	0.0	-150.3	-3.8	**0.0**	-0.0	-0.0	0.0
Mx,	-150.3	-3.8	0.0	**-0.0**	-0.0	0.0	150.3	3.8	-0.0	**0.0**	0.0	-0.0
My,	-150.3	-3.8	0.0	-0.0	**-0.0**	0.0	150.3	3.8	-0.0	0.0	**0.0**	-0.0
Mz,	150.3	3.8	-0.0	0.0	0.0	**-0.0**	-150.3	-3.8	0.0	-0.0	-0.0	0.0
Fx,	**-144.8**	-3.8	0.0	-0.0	0.0	0.0	**144.8**	3.8	-0.0	0.0	-0.0	-0.0
Fy,	-144.8	**-3.8**	0.0	-0.0	0.0	0.0	144.8	**3.8**	-0.0	0.0	-0.0	-0.0
Fz,	144.8	3.8	**-0.0**	0.0	-0.0	-0.0	-144.8	-3.8	**0.0**	-0.0	0.0	0.0
Mx,	-144.8	-3.8	0.0	**-0.0**	0.0	0.0	144.8	3.8	-0.0	**0.0**	-0.0	-0.0
My,	144.8	3.8	-0.0	0.0	**-0.0**	-0.0	-144.8	-3.8	0.0	-0.0	**0.0**	0.0
Mz,	144.8	3.8	-0.0	0.0	-0.0	**-0.0**	-144.8	-3.8	0.0	-0.0	0.0	**0.0**

Member 32

Fx,	**-144.8**	-3.8	0.0	-0.0	-0.0	0.0	**144.8**	3.8	-0.0	0.0	0.0	-0.0
Fy,	-144.8	**-3.8**	0.0	-0.0	-0.0	0.0	144.8	**3.8**	-0.0	0.0	0.0	-0.0
Fz,	144.8	3.8	**-0.0**	0.0	0.0	-0.0	-144.8	-3.8	**0.0**	-0.0	-0.0	0.0
Mx,	-144.8	-3.8	0.0	**-0.0**	-0.0	0.0	144.8	3.8	-0.0	**0.0**	0.0	-0.0
My,	-144.8	-3.8	0.0	-0.0	**-0.0**	0.0	144.8	3.8	-0.0	0.0	**0.0**	-0.0
Mz,	144.8	3.8	-0.0	0.0	0.0	**-0.0**	-144.8	-3.8	0.0	-0.0	-0.0	**0.0**

Fx_f	**-139.4**	-3.8	0.0	-0.0	0.0	-0.0	**139.4**	3.8	-0.0	0.0	-0.0	0.0
Fy_f	-139.4	**-3.8**	0.0	-0.0	0.0	-0.0	139.4	**3.8**	-0.0	0.0	-0.0	0.0
Fz_f	139.4	3.8	**-0.0**	0.0	-0.0	0.0	-139.4	-3.8	**0.0**	-0.0	0.0	-0.0
Mx_f	-139.4	-3.8	0.0	**-0.0**	0.0	-0.0	139.4	3.8	-0.0	**0.0**	-0.0	0.0
My_f	139.4	3.8	-0.0	0.0	**-0.0**	0.0	-139.4	-3.8	0.0	-0.0	**0.0**	-0.0
Mz_f	-139.4	-3.8	0.0	-0.0	0.0	**-0.0**	139.4	3.8	-0.0	0.0	-0.0	**0.0**

Member 33

Fx_i	**-139.4**	-3.8	-0.0	-0.0	0.0	-0.0	**139.4**	3.8	0.0	0.0	-0.0	0.0
Fy_i	-139.4	**-3.8**	-0.0	-0.0	0.0	-0.0	139.4	**3.8**	0.0	0.0	-0.0	0.0
Fz_i	-139.4	-3.8	**-0.0**	-0.0	0.0	-0.0	139.4	3.8	**0.0**	0.0	-0.0	0.0
Mx_i	-139.4	-3.8	-0.0	**-0.0**	0.0	-0.0	139.4	3.8	0.0	**0.0**	-0.0	0.0
My_i	139.4	3.8	0.0	0.0	**-0.0**	0.0	-139.4	-3.8	-0.0	-0.0	**0.0**	-0.0
Mz_i	-139.4	-3.8	-0.0	-0.0	0.0	**-0.0**	139.4	3.8	0.0	0.0	-0.0	**0.0**
Fx_f	**-133.9**	-3.8	-0.0	-0.0	0.0	-0.0	**133.9**	3.8	0.0	0.0	-0.0	0.0
Fy_f	-133.9	**-3.8**	-0.0	-0.0	0.0	-0.0	133.9	**3.8**	0.0	0.0	-0.0	0.0
Fz_f	-133.9	-3.8	**-0.0**	-0.0	0.0	-0.0	133.9	3.8	**0.0**	0.0	-0.0	0.0
Mx_f	-133.9	-3.8	-0.0	**-0.0**	0.0	-0.0	133.9	3.8	0.0	**0.0**	-0.0	0.0
My_f	133.9	3.8	0.0	0.0	**-0.0**	0.0	-133.9	-3.8	-0.0	-0.0	**0.0**	-0.0
Mz_f	-133.9	-3.8	-0.0	-0.0	0.0	**-0.0**	133.9	3.8	0.0	0.0	-0.0	**0.0**

Member 34

Fx_i	**-133.9**	-3.8	-0.0	-0.0	0.0	-0.0	**133.9**	3.8	0.0	0.0	-0.0	0.0
Fy_i	-133.9	**-3.8**	-0.0	-0.0	0.0	-0.0	133.9	**3.8**	0.0	0.0	-0.0	0.0
Fz_i	-133.9	-3.8	**-0.0**	-0.0	0.0	-0.0	133.9	3.8	**0.0**	0.0	-0.0	0.0
Mx_i	-133.9	-3.8	-0.0	**-0.0**	0.0	-0.0	133.9	3.8	0.0	**0.0**	-0.0	0.0
My_i	133.9	3.8	0.0	0.0	**-0.0**	0.0	-133.9	-3.8	-0.0	-0.0	**0.0**	-0.0
Mz_i	-133.9	-3.8	-0.0	-0.0	0.0	**-0.0**	133.9	3.8	0.0	0.0	-0.0	**0.0**
Fx_f	**-128.5**	-3.8	-0.0	-0.0	0.0	-0.0	**128.5**	3.8	0.0	0.0	-0.0	0.0
Fy_f	-128.5	**-3.8**	-0.0	-0.0	0.0	-0.0	128.5	**3.8**	0.0	0.0	-0.0	0.0
Fz_f	-128.5	-3.8	**-0.0**	-0.0	0.0	-0.0	128.5	3.8	**0.0**	0.0	-0.0	0.0
Mx_f	-128.5	-3.8	-0.0	**-0.0**	0.0	-0.0	128.5	3.8	0.0	**0.0**	-0.0	0.0
My_f	128.5	3.8	0.0	0.0	**-0.0**	0.0	-128.5	-3.8	-0.0	-0.0	**0.0**	-0.0
Mz_f	-128.5	-3.8	-0.0	-0.0	0.0	**-0.0**	128.5	3.8	0.0	0.0	-0.0	**0.0**

Member 35

Fx_i	**-128.5**	-3.8	-0.0	-0.0	0.0	-0.0	**128.5**	3.8	0.0	0.0	-0.0	0.0
Fy_i	-128.5	**-3.8**	-0.0	-0.0	0.0	-0.0	128.5	**3.8**	0.0	0.0	-0.0	0.0
Fz_i	-128.5	-3.8	**-0.0**	-0.0	0.0	-0.0	128.5	3.8	**0.0**	0.0	-0.0	0.0
Mx_i	-128.5	-3.8	-0.0	**-0.0**	0.0	-0.0	128.5	3.8	0.0	**0.0**	-0.0	0.0
My_i	128.5	3.8	0.0	0.0	**-0.0**	0.0	-128.5	-3.8	-0.0	-0.0	**0.0**	-0.0
Mz_i	-128.5	-3.8	-0.0	-0.0	0.0	**-0.0**	128.5	3.8	0.0	0.0	-0.0	**0.0**
Fx_f	**-123.0**	-3.8	-0.0	-0.0	0.0	-0.0	**123.0**	3.8	0.0	0.0	-0.0	0.0
Fy_f	-123.0	**-3.8**	-0.0	-0.0	0.0	-0.0	123.0	**3.8**	0.0	0.0	-0.0	0.0
Fz_f	-123.0	-3.8	**-0.0**	-0.0	0.0	-0.0	123.0	3.8	**0.0**	0.0	-0.0	0.0
Mx_f	-123.0	-3.8	-0.0	**-0.0**	0.0	-0.0	123.0	3.8	0.0	**0.0**	-0.0	0.0
My_f	123.0	3.8	0.0	0.0	**-0.0**	0.0	-123.0	-3.8	-0.0	-0.0	**0.0**	-0.0
Mz_f	-123.0	-3.8	-0.0	-0.0	0.0	**-0.0**	123.0	3.8	0.0	0.0	-0.0	**0.0**

Member 36

Fx_i	**-123.0**	-3.8	0.0	-0.0	-0.0	-0.0	**123.0**	3.8	-0.0	0.0	0.0	0.0
Fy_i	-123.0	**-3.8**	0.0	-0.0	-0.0	-0.0	123.0	**3.8**	-0.0	0.0	0.0	0.0
Fz_i	123.0	3.8	**-0.0**	0.0	0.0	0.0	-123.0	-3.8	**0.0**	-0.0	-0.0	-0.0
Mx_i	-123.0	-3.8	0.0	**-0.0**	-0.0	-0.0	123.0	3.8	-0.0	**0.0**	0.0	0.0
My_i	-123.0	-3.8	0.0	-0.0	**-0.0**	-0.0	123.0	3.8	-0.0	0.0	**0.0**	0.0
Mz_i	-123.0	-3.8	0.0	-0.0	-0.0	**-0.0**	123.0	3.8	-0.0	0.0	0.0	**0.0**
Fx_f	**-117.6**	-3.8	0.0	-0.0	0.0	-0.1	**117.6**	3.8	-0.0	0.0	-0.0	0.1
Fy_f	-117.6	**-3.8**	0.0	-0.0	0.0	-0.1	117.6	**3.8**	-0.0	0.0	-0.0	0.1
Fz_f	117.6	3.8	**-0.0**	0.0	-0.0	0.1	-117.6	-3.8	**0.0**	-0.0	0.0	-0.1
Mx_f	-117.6	-3.8	0.0	**-0.0**	0.0	-0.1	117.6	3.8	-0.0	**0.0**	-0.0	0.1
My_f	117.6	3.8	-0.0	0.0	**-0.0**	0.1	-117.6	-3.8	0.0	-0.0	**0.0**	-0.1
Mz_f	-117.6	-3.8	0.0	-0.0	0.0	**-0.1**	117.6	3.8	-0.0	0.0	-0.0	**0.1**

Member 37

Fx_i	**-117.6**	-3.8	0.0	-0.0	-0.0	-0.1	**117.6**	3.8	-0.0	0.0	0.0	0.1
Fy_i	-117.6	**-3.8**	0.0	-0.0	-0.0	-0.1	117.6	**3.8**	-0.0	0.0	0.0	0.1
Fz_i	117.6	3.8	**-0.0**	0.0	0.0	0.1	-117.6	-3.8	**0.0**	-0.0	-0.0	-0.1
Mx_i	-117.6	-3.8	0.0	**-0.0**	-0.0	-0.1	117.6	3.8	-0.0	**0.0**	0.0	0.1
My_i	-117.6	-3.8	0.0	-0.0	**-0.0**	-0.1	117.6	3.8	-0.0	0.0	**0.0**	0.1
Mz_i	-117.6	-3.8	0.0	-0.0	-0.0	**-0.1**	117.6	3.8	-0.0	0.0	0.0	**0.1**
Fx_f	**-112.2**	-3.8	0.0	-0.0	0.0	-0.1	**112.2**	3.8	-0.0	0.0	-0.0	0.1
Fy_f	-112.2	**-3.8**	0.0	-0.0	0.0	-0.1	112.2	**3.8**	-0.0	0.0	-0.0	0.1
Fz_f	112.2	3.8	**-0.0**	0.0	-0.0	0.1	-112.2	-3.8	**0.0**	-0.0	0.0	-0.1
Mx_f	-112.2	-3.8	0.0	**-0.0**	0.0	-0.1	112.2	3.8	-0.0	**0.0**	-0.0	0.1
My_f	112.2	3.8	-0.0	0.0	**-0.0**	0.1	-112.2	-3.8	0.0	-0.0	**0.0**	-0.1
Mz_f	-112.2	-3.8	0.0	-0.0	0.0	**-0.1**	112.2	3.8	-0.0	0.0	-0.0	**0.1**

Member 38

Fx_i	**-112.2**	-3.8	0.0	-0.0	-0.0	-0.1	**112.2**	3.8	-0.0	0.0	0.0	0.1
Fy_i	-112.2	**-3.8**	0.0	-0.0	-0.0	-0.1	112.2	**3.8**	-0.0	0.0	0.0	0.1
Fz_i	112.2	3.8	**-0.0**	0.0	0.0	0.1	-112.2	-3.8	**0.0**	-0.0	-0.0	-0.1
Mx_i	-112.2	-3.8	0.0	**-0.0**	-0.0	-0.1	112.2	3.8	-0.0	**0.0**	0.0	0.1
My_i	-112.2	-3.8	0.0	-0.0	**-0.0**	-0.1	112.2	3.8	-0.0	0.0	**0.0**	0.1
Mz_i	-112.2	-3.8	0.0	-0.0	-0.0	**-0.1**	112.2	3.8	-0.0	0.0	0.0	**0.1**
Fx_f	**-106.7**	-3.8	0.0	-0.0	0.0	-0.1	**106.7**	3.8	-0.0	0.0	-0.0	0.1
Fy_f	-106.7	**-3.8**	0.0	-0.0	0.0	-0.1	106.7	**3.8**	-0.0	0.0	-0.0	0.1
Fz_f	106.7	3.8	**-0.0**	0.0	-0.0	0.1	-106.7	-3.8	**0.0**	-0.0	0.0	-0.1
Mx_f	-106.7	-3.8	0.0	**-0.0**	0.0	-0.1	106.7	3.8	-0.0	**0.0**	-0.0	0.1
My_f	106.7	3.8	-0.0	0.0	**-0.0**	0.1	-106.7	-3.8	0.0	-0.0	**0.0**	-0.1
Mz_f	-106.7	-3.8	0.0	-0.0	0.0	**-0.1**	106.7	3.8	-0.0	0.0	-0.0	0.1

Member 39

Fx_i	**-106.7**	-3.8	-0.0	0.0	0.0	-0.1	**106.7**	3.8	0.0	-0.0	-0.0	0.1
Fy_i	-106.7	**-3.8**	-0.0	0.0	0.0	-0.1	106.7	**3.8**	0.0	-0.0	-0.0	0.1
Fz_i	-106.7	-3.8	**-0.0**	0.0	0.0	-0.1	106.7	3.8	**0.0**	-0.0	-0.0	0.1
Mx_i	106.7	3.8	0.0	**-0.0**	-0.0	0.1	-106.7	-3.8	-0.0	**0.0**	0.0	-0.1
My_i	106.7	3.8	0.0	-0.0	**-0.0**	0.1	-106.7	-3.8	-0.0	0.0	**0.0**	-0.1
Mz_i	-106.7	-3.8	-0.0	0.0	0.0	**-0.1**	106.7	3.8	0.0	-0.0	-0.0	**0.1**
Fx_f	**-101.3**	-3.8	-0.0	0.0	-0.0	-0.0	**101.3**	3.8	0.0	-0.0	0.0	0.0
Fy_f	-101.3	**-3.8**	-0.0	0.0	-0.0	-0.0	101.3	**3.8**	0.0	-0.0	0.0	0.0
Fz_f	-101.3	-3.8	**-0.0**	0.0	-0.0	-0.0	101.3	3.8	**0.0**	-0.0	0.0	0.0
Mx_f	101.3	3.8	0.0	**-0.0**	0.0	0.0	-101.3	-3.8	-0.0	**0.0**	-0.0	-0.0
My_f	-101.3	-3.8	-0.0	0.0	**-0.0**	-0.0	101.3	3.8	0.0	-0.0	**0.0**	0.0
Mz_f	-101.3	-3.8	-0.0	0.0	-0.0	**-0.0**	101.3	3.8	0.0	-0.0	0.0	**0.0**

Member 40

Fx_i	**-101.3**	-3.8	-0.0	0.0	0.0	-0.0	**101.3**	3.8	0.0	-0.0	-0.0	0.0
Fy_i	-101.3	**-3.8**	-0.0	0.0	0.0	-0.0	101.3	**3.8**	0.0	-0.0	-0.0	0.0
Fz_i	-101.3	-3.8	**-0.0**	0.0	0.0	-0.0	101.3	3.8	**0.0**	-0.0	-0.0	0.0
Mx_i	101.3	3.8	0.0	**-0.0**	-0.0	0.0	-101.3	-3.8	-0.0	**0.0**	0.0	-0.0
My_i	101.3	3.8	0.0	-0.0	**-0.0**	0.0	-101.3	-3.8	-0.0	0.0	**0.0**	-0.0
Mz_i	-101.3	-3.8	-0.0	0.0	0.0	**-0.0**	101.3	3.8	0.0	-0.0	-0.0	**0.0**
Fx_f	**-95.8**	-3.8	-0.0	0.0	-0.0	0.0	**95.8**	3.8	0.0	-0.0	0.0	-0.0
Fy_f	-95.8	**-3.8**	-0.0	0.0	-0.0	0.0	95.8	**3.8**	0.0	-0.0	0.0	-0.0
Fz_f	-95.8	-3.8	**-0.0**	0.0	-0.0	0.0	95.8	3.8	**0.0**	-0.0	0.0	-0.0
Mx_f	95.8	3.8	0.0	**-0.0**	0.0	-0.0	-95.8	-3.8	-0.0	**0.0**	-0.0	0.0
My_f	-95.8	-3.8	-0.0	0.0	**-0.0**	0.0	95.8	3.8	0.0	-0.0	**0.0**	-0.0
Mz_f	95.8	3.8	0.0	-0.0	0.0	**-0.0**	-95.8	-3.8	-0.0	0.0	-0.0	**0.0**

Member 41

Fx_i	**-95.8**	-3.8	-0.0	0.0	0.0	0.0	**95.8**	3.8	0.0	-0.0	-0.0	-0.0
Fy_i	-95.8	**-3.8**	-0.0	0.0	0.0	0.0	95.8	**3.8**	0.0	-0.0	-0.0	-0.0
Fz_i	-95.8	-3.8	**-0.0**	0.0	0.0	0.0	95.8	3.8	**0.0**	-0.0	-0.0	-0.0
Mx_i	95.8	3.8	0.0	**-0.0**	-0.0	-0.0	-95.8	-3.8	-0.0	**0.0**	0.0	0.0
My_i	95.8	3.8	0.0	-0.0	**-0.0**	-0.0	-95.8	-3.8	-0.0	0.0	**0.0**	0.0
Mz_i	95.8	3.8	0.0	-0.0	-0.0	**-0.0**	-95.8	-3.8	-0.0	0.0	0.0	**0.0**
Fx_f	**-90.4**	-3.8	-0.0	0.0	-0.0	0.1	**90.4**	3.8	0.0	-0.0	0.0	-0.1
Fy_f	-90.4	**-3.8**	-0.0	0.0	-0.0	0.1	90.4	**3.8**	0.0	-0.0	0.0	-0.1
Fz_f	-90.4	-3.8	**-0.0**	0.0	-0.0	0.1	90.4	3.8	**0.0**	-0.0	0.0	-0.1
Mx_f	90.4	3.8	0.0	**-0.0**	0.0	-0.1	-90.4	-3.8	-0.0	**0.0**	-0.0	0.1

My_f	-90.4	-3.8	-0.0	0.0	**-0.0**	0.1	90.4	3.8	0.0	-0.0	**0.0**	-0.1
Mz_f	90.4	3.8	0.0	-0.0	0.0	**-0.1**	-90.4	-3.8	-0.0	0.0	-0.0	**0.1**

Member 42

Fx_i	**-90.4**	-3.8	-0.0	0.0	**0.0**	0.1	**90.4**	3.8	0.0	-0.0	-0.0	-0.1
Fy_i	-90.4	**-3.8**	-0.0	0.0	0.0	0.1	90.4	**3.8**	0.0	-0.0	-0.0	-0.1
Fz_i	-90.4	-3.8	**-0.0**	0.0	0.0	0.1	90.4	3.8	**0.0**	-0.0	-0.0	-0.1
Mx_i	90.4	3.8	0.0	**-0.0**	-0.0	-0.1	-90.4	-3.8	-0.0	**0.0**	0.0	0.1
My_i	90.4	3.8	0.0	-0.0	**-0.0**	-0.1	-90.4	-3.8	-0.0	0.0	**0.0**	0.1
Mz_i	90.4	3.8	0.0	-0.0	-0.0	**-0.1**	-90.4	-3.8	-0.0	0.0	0.0	**0.1**
Fx_f	**-84.9**	-3.8	-0.0	0.0	0.0	0.2	**84.9**	3.8	0.0	-0.0	**-0.0**	-0.2
Fy_f	-84.9	**-3.8**	-0.0	0.0	0.0	0.2	84.9	**3.8**	0.0	-0.0	-0.0	-0.2
Fz_f	-84.9	-3.8	**-0.0**	0.0	0.0	0.2	84.9	3.8	**0.0**	-0.0	-0.0	-0.2
Mx_f	84.9	3.8	0.0	**-0.0**	-0.0	-0.2	-84.9	-3.8	-0.0	**0.0**	0.0	0.2
My_f	84.9	3.8	0.0	-0.0	**-0.0**	-0.2	-84.9	-3.8	-0.0	0.0	**0.0**	0.2
Mz_f	84.9	3.8	0.0	-0.0	-0.0	**-0.2**	-84.9	-3.8	-0.0	0.0	0.0	**0.2**

Member 43

Fx_i	**-84.9**	-3.8	-0.0	0.0	0.0	0.2	**84.9**	3.8	0.0	-0.0	-0.0	-0.2
Fy_i	-84.9	**-3.8**	-0.0	0.0	0.0	0.2	84.9	**3.8**	0.0	-0.0	-0.0	-0.2
Fz_i	-84.9	-3.8	**-0.0**	0.0	0.0	0.2	84.9	3.8	**0.0**	-0.0	-0.0	-0.2
Mx_i	84.9	3.8	0.0	**-0.0**	-0.0	-0.2	-84.9	-3.8	-0.0	**0.0**	0.0	0.2
My_i	84.9	3.8	0.0	-0.0	**-0.0**	-0.2	-84.9	-3.8	-0.0	0.0	**0.0**	0.2
Mz_i	84.9	3.8	0.0	-0.0	-0.0	**-0.2**	-84.9	-3.8	-0.0	0.0	0.0	**0.2**
Fx_f	**-79.5**	-3.8	-0.0	0.0	-0.0	0.2	**79.5**	3.8	0.0	-0.0	0.0	-0.2
Fy_f	-79.5	**-3.8**	-0.0	0.0	-0.0	0.2	79.5	**3.8**	0.0	-0.0	0.0	-0.2
Fz_f	-79.5	-3.8	**-0.0**	0.0	-0.0	0.2	79.5	3.8	**0.0**	-0.0	0.0	-0.2
Mx_f	79.5	3.8	0.0	**-0.0**	0.0	-0.2	-79.5	-3.8	-0.0	**0.0**	-0.0	0.2
My_f	-79.5	-3.8	-0.0	0.0	**-0.0**	0.2	79.5	3.8	0.0	-0.0	**0.0**	-0.2
Mz_f	79.5	3.8	0.0	-0.0	0.0	**-0.2**	-79.5	-3.8	-0.0	0.0	-0.0	**0.2**

Member 44

Fx_i	**-79.5**	-3.8	-0.0	0.0	0.0	0.2	**79.5**	3.8	0.0	-0.0	-0.0	-0.2
Fy_i	-79.5	**-3.8**	-0.0	0.0	0.0	0.2	79.5	**3.8**	0.0	-0.0	-0.0	-0.2
Fz_i	-79.5	-3.8	**-0.0**	0.0	0.0	0.2	79.5	3.8	**0.0**	-0.0	-0.0	-0.2
Mx_i	79.5	3.8	0.0	**-0.0**	-0.0	-0.2	-79.5	-3.8	-0.0	**0.0**	0.0	0.2
My_i	79.5	3.8	0.0	-0.0	**-0.0**	-0.2	-79.5	-3.8	-0.0	0.0	**0.0**	0.2
Mz_i	79.5	3.8	0.0	-0.0	-0.0	**-0.2**	-79.5	-3.8	-0.0	0.0	0.0	**0.2**
Fx_f	**-74.0**	-3.8	-0.0	0.0	-0.0	0.3	**74.0**	3.8	0.0	-0.0	0.0	-0.3
Fy_f	-74.0	**-3.8**	-0.0	0.0	-0.0	0.3	74.0	**3.8**	0.0	-0.0	0.0	-0.3
Fz_f	-74.0	-3.8	**-0.0**	0.0	-0.0	0.3	74.0	3.8	**0.0**	-0.0	0.0	-0.3
Mx_f	74.0	3.8	0.0	**-0.0**	0.0	-0.3	-74.0	-3.8	-0.0	**0.0**	-0.0	0.3
My_f	-74.0	-3.8	-0.0	0.0	**-0.0**	0.3	74.0	3.8	0.0	-0.0	**0.0**	-0.3
Mz_f	74.0	3.8	0.0	-0.0	0.0	**-0.3**	-74.0	-3.8	-0.0	0.0	-0.0	**0.3**

Member 45

Fx_i	**-74.0**	-3.8	-0.0	0.0	0.0	0.3	**74.0**	3.8	0.0	-0.0	-0.0	-0.3
Fy_i	-74.0	**-3.8**	-0.0	0.0	0.0	0.3	74.0	**3.8**	0.0	-0.0	-0.0	-0.3
Fz_i	-74.0	-3.8	**-0.0**	0.0	0.0	0.3	74.0	3.8	**0.0**	-0.0	-0.0	-0.3
Mx_i	74.0	3.8	0.0	**-0.0**	-0.0	-0.3	-74.0	-3.8	-0.0	**0.0**	0.0	0.3
My_i	74.0	3.8	0.0	-0.0	**-0.0**	-0.3	-74.0	-3.8	-0.0	0.0	**0.0**	0.3
Mz_i	74.0	3.8	0.0	-0.0	-0.0	**-0.3**	-74.0	-3.8	-0.0	0.0	0.0	**0.3**
Fx_f	**-68.6**	-3.8	-0.0	0.0	-0.0	0.3	**68.6**	3.8	0.0	-0.0	0.0	-0.3
Fy_f	-68.6	**-3.8**	-0.0	0.0	-0.0	0.3	68.6	**3.8**	0.0	-0.0	0.0	-0.3
Fz_f	-68.6	-3.8	**-0.0**	0.0	-0.0	0.3	68.6	3.8	**0.0**	-0.0	0.0	-0.3
Mx_f	68.6	3.8	0.0	**-0.0**	0.0	-0.3	-68.6	-3.8	-0.0	**0.0**	-0.0	0.3
My_f	-68.6	-3.8	-0.0	0.0	**-0.0**	0.3	68.6	3.8	0.0	-0.0	**0.0**	-0.3
Mz_f	68.6	3.8	0.0	-0.0	0.0	**-0.3**	-68.6	-3.8	-0.0	0.0	-0.0	**0.3**

Member 46

Fx_i	**-68.6**	-3.8	-0.0	0.0	0.0	0.3	**68.6**	3.8	0.0	-0.0	-0.0	-0.3
Fy_i	-68.6	**-3.8**	-0.0	0.0	0.0	0.3	68.6	**3.8**	0.0	-0.0	-0.0	-0.3
Fz_i	-68.6	-3.8	**-0.0**	0.0	0.0	0.3	68.6	3.8	**0.0**	-0.0	-0.0	-0.3
Mx_i	68.6	3.8	0.0	**-0.0**	-0.0	-0.3	-68.6	-3.8	-0.0	**0.0**	0.0	0.3
My_i	68.6	3.8	0.0	-0.0	**-0.0**	-0.3	-68.6	-3.8	-0.0	0.0	**0.0**	0.3
Mz_i	68.6	3.8	0.0	-0.0	-0.0	**-0.3**	-68.6	-3.8	-0.0	0.0	0.0	**0.3**
Fx_f	**-63.1**	-3.8	-0.0	0.0	-0.0	0.4	**63.1**	3.8	0.0	-0.0	0.0	-0.4
Fy_f	-63.1	**-3.8**	-0.0	0.0	-0.0	0.4	63.1	**3.8**	0.0	-0.0	0.0	-0.4
Fz_f	-63.1	-3.8	**-0.0**	0.0	-0.0	0.4	63.1	3.8	**0.0**	-0.0	0.0	-0.4
Mx_f	63.1	3.8	0.0	**-0.0**	0.0	-0.4	-63.1	-3.8	-0.0	**0.0**	-0.0	0.4
My_f	-63.1	-3.8	-0.0	0.0	**-0.0**	0.4	63.1	3.8	0.0	-0.0	**0.0**	-0.4
Mz_f	63.1	3.8	0.0	-0.0	0.0	**-0.4**	-63.1	-3.8	-0.0	0.0	-0.0	**0.4**

Member 47

Fx_i	**-63.1**	-3.7	0.0	-0.0	-0.0	0.4	**63.1**	3.7	-0.0	0.0	0.0	-0.4
Fy_i	-63.1	**-3.7**	0.0	-0.0	-0.0	0.4	63.1	**3.7**	-0.0	0.0	0.0	-0.4
Fz_i	63.1	3.7	**-0.0**	0.0	0.0	-0.4	-63.1	-3.7	**0.0**	-0.0	-0.0	0.4
Mx_i	-63.1	-3.7	0.0	**-0.0**	-0.0	0.4	63.1	3.7	-0.0	**0.0**	0.0	-0.4
My_i	-63.1	-3.7	0.0	-0.0	**-0.0**	0.4	63.1	3.7	-0.0	0.0	**0.0**	-0.4
Mz_i	63.1	3.7	-0.0	0.0	0.0	**-0.4**	-63.1	-3.7	0.0	-0.0	-0.0	**0.4**
Fx_f	**-57.7**	-3.7	0.0	-0.0	0.0	0.1	**57.7**	3.7	-0.0	0.0	-0.0	-0.1
Fy_f	-57.7	**-3.7**	0.0	-0.0	0.0	0.1	57.7	**3.7**	-0.0	0.0	-0.0	-0.1
Fz_f	57.7	3.7	**-0.0**	0.0	-0.0	-0.1	-57.7	-3.7	**0.0**	-0.0	0.0	0.1
Mx_f	-57.7	-3.7	0.0	**-0.0**	0.0	0.1	57.7	3.7	-0.0	**0.0**	-0.0	-0.1
My_f	57.7	3.7	-0.0	0.0	**-0.0**	-0.1	-57.7	-3.7	0.0	-0.0	**0.0**	0.1
Mz_f	57.7	3.7	-0.0	0.0	-0.0	**-0.1**	-57.7	-3.7	0.0	-0.0	0.0	**0.1**

Member 48

Fx_i	**-57.7**	-3.7	0.0	-0.0	-0.0	0.1	**57.7**	3.7	-0.0	0.0	0.0	-0.1
Fy_i	-57.7	**-3.7**	0.0	-0.0	-0.0	0.1	57.7	**3.7**	-0.0	0.0	0.0	-0.1
Fz_i	57.7	3.7	**-0.0**	0.0	0.0	-0.1	-57.7	-3.7	**0.0**	-0.0	-0.0	0.1
Mx_i	-57.7	-3.7	0.0	**-0.0**	-0.0	0.1	57.7	3.7	-0.0	**0.0**	0.0	-0.1
My_i	-57.7	-3.7	0.0	-0.0	**-0.0**	0.1	57.7	3.7	-0.0	0.0	**0.0**	-0.1
Mz_i	57.7	3.7	-0.0	0.0	0.0	**-0.1**	-57.7	-3.7	0.0	-0.0	0.0	**0.1**
Fx_f	**-52.3**	-3.7	0.0	-0.0	0.0	-0.2	**52.3**	3.7	-0.0	0.0	-0.0	0.2
Fy_f	-52.3	**-3.7**	0.0	-0.0	0.0	-0.2	52.3	**3.7**	-0.0	0.0	-0.0	0.2
Fz_f	52.3	3.7	**-0.0**	0.0	-0.0	0.2	-52.3	-3.7	**0.0**	-0.0	0.0	-0.2
Mx_f	-52.3	-3.7	0.0	**-0.0**	0.0	-0.2	52.3	3.7	-0.0	**0.0**	-0.0	0.2
My_f	52.3	3.7	-0.0	0.0	**-0.0**	0.2	-52.3	-3.7	0.0	-0.0	**0.0**	-0.2
Mz_f	-52.3	-3.7	0.0	-0.0	0.0	**-0.2**	52.3	3.7	-0.0	0.0	-0.0	**0.2**

Member 49

Fx_i	**-52.3**	-3.7	0.0	-0.0	-0.0	-0.2	**52.3**	3.7	-0.0	0.0	0.0	0.2
Fy_i	-52.3	**-3.7**	0.0	-0.0	-0.0	-0.2	52.3	**3.7**	-0.0	0.0	0.0	0.2
Fz_i	52.3	3.7	**-0.0**	0.0	0.0	0.2	-52.3	-3.7	**0.0**	-0.0	-0.0	-0.2
Mx_i	-52.3	-3.7	0.0	**-0.0**	-0.0	-0.2	52.3	3.7	-0.0	**0.0**	0.0	0.2
My_i	-52.3	-3.7	0.0	-0.0	**-0.0**	-0.2	52.3	3.7	-0.0	0.0	**0.0**	0.2
Mz_i	-52.3	-3.7	0.0	-0.0	-0.0	**-0.2**	52.3	3.7	-0.0	0.0	0.0	**0.2**
Fx_f	**-46.8**	-3.7	0.0	-0.0	0.0	-0.5	**46.8**	3.7	-0.0	0.0	-0.0	0.5
Fy_f	-46.8	**-3.7**	0.0	-0.0	0.0	-0.5	46.8	**3.7**	-0.0	0.0	-0.0	0.5
Fz_f	46.8	3.7	**-0.0**	0.0	-0.0	0.5	-46.8	-3.7	**0.0**	-0.0	0.0	-0.5
Mx_f	-46.8	-3.7	0.0	**-0.0**	0.0	-0.5	46.8	3.7	-0.0	**0.0**	-0.0	0.5
My_f	46.8	3.7	-0.0	0.0	**-0.0**	0.5	-46.8	-3.7	0.0	-0.0	**0.0**	-0.5
Mz_f	-46.8	-3.7	0.0	-0.0	0.0	**-0.5**	46.8	3.7	-0.0	0.0	-0.0	**0.5**

Member 50

Fx_i	**-46.8**	-3.7	0.0	-0.0	-0.0	-0.5	**46.8**	3.7	-0.0	0.0	0.0	0.5
Fy_i	-46.8	**-3.7**	0.0	-0.0	-0.0	-0.5	46.8	**3.7**	-0.0	0.0	0.0	0.5
Fz_i	46.8	3.7	**-0.0**	0.0	0.0	0.5	-46.8	-3.7	**0.0**	-0.0	-0.0	-0.5
Mx_i	-46.8	-3.7	0.0	**-0.0**	-0.0	-0.5	46.8	3.7	-0.0	**0.0**	0.0	0.5
My_i	-46.8	-3.7	0.0	-0.0	**-0.0**	-0.5	46.8	3.7	-0.0	0.0	**0.0**	0.5
Mz_i	-46.8	-3.7	0.0	-0.0	-0.0	**-0.5**	46.8	3.7	-0.0	0.0	0.0	**0.5**
Fx_f	**-41.4**	-3.7	0.0	-0.0	0.0	-0.8	**41.4**	3.7	-0.0	0.0	-0.0	0.8
Fy_f	-41.4	**-3.7**	0.0	-0.0	0.0	-0.8	41.4	**3.7**	-0.0	0.0	-0.0	0.8
Fz_f	41.4	3.7	**-0.0**	0.0	-0.0	0.8	-41.4	-3.7	**0.0**	-0.0	0.0	-0.8
Mx_f	-41.4	-3.7	0.0	**-0.0**	0.0	-0.8	41.4	3.7	-0.0	**0.0**	-0.0	0.8
My_f	41.4	3.7	-0.0	0.0	**-0.0**	0.8	-41.4	-3.7	0.0	-0.0	**0.0**	-0.8
Mz_f	-41.4	-3.7	0.0	-0.0	0.0	**-0.8**	41.4	3.7	-0.0	0.0	-0.0	**0.8**

Member 51

Fx,	**-41.4**	-3.7	0.0	-0.0	-0.0	-0.8	**41.4**	3.7	-0.0	0.0	0.0	0.8
Fy,	-41.4	**-3.7**	0.0	-0.0	-0.0	-0.8	41.4	**3.7**	-0.0	0.0	0.0	0.8
Fz,	41.4	3.7	**-0.0**	0.0	0.0	0.8	-41.4	-3.7	**0.0**	-0.0	-0.0	-0.8
Mx,	-41.4	-3.7	0.0	**-0.0**	-0.0	-0.8	41.4	3.7	-0.0	**0.0**	0.0	0.8
My,	-41.4	-3.7	0.0	-0.0	**-0.0**	-0.8	41.4	3.7	-0.0	0.0	**0.0**	0.8
Mz,	-41.4	-3.7	0.0	-0.0	-0.0	**-0.8**	41.4	3.7	-0.0	0.0	0.0	**0.8**
Fx,	**-35.9**	-3.7	0.0	-0.0	0.0	-1.1	**35.9**	3.7	-0.0	0.0	-0.0	1.1
Fy,	-35.9	**-3.7**	0.0	-0.0	0.0	-1.1	35.9	**3.7**	-0.0	0.0	-0.0	1.1
Fz,	35.9	3.7	**-0.0**	0.0	-0.0	1.1	-35.9	-3.7	**0.0**	-0.0	0.0	-1.1
Mx,	-35.9	-3.7	0.0	**-0.0**	0.0	-1.1	35.9	3.7	-0.0	**0.0**	-0.0	1.1
My,	35.9	3.7	-0.0	0.0	**-0.0**	1.1	-35.9	-3.7	0.0	-0.0	**0.0**	-1.1
Mz,	-35.9	-3.7	0.0	-0.0	0.0	**-1.1**	35.9	3.7	-0.0	0.0	-0.0	**1.1**

Member 52

Fx,	**-35.9**	-3.7	0.0	-0.0	-0.0	-1.1	**35.9**	3.7	-0.0	0.0	0.0	1.1
Fy,	-35.9	**-3.7**	0.0	-0.0	-0.0	-1.1	35.9	**3.7**	-0.0	0.0	0.0	1.1
Fz,	35.9	3.7	**-0.0**	0.0	0.0	1.1	-35.9	-3.7	**0.0**	-0.0	-0.0	-1.1
Mx,	-35.9	-3.7	0.0	**-0.0**	-0.0	-1.1	35.9	3.7	-0.0	**0.0**	0.0	1.1
My,	-35.9	-3.7	0.0	-0.0	**-0.0**	-1.1	35.9	3.7	-0.0	0.0	**0.0**	1.1
Mz,	-35.9	-3.7	0.0	-0.0	-0.0	**-1.1**	35.9	3.7	-0.0	0.0	0.0	**1.1**
Fx,	**-30.5**	-3.7	0.0	-0.0	0.0	-1.4	**30.5**	3.7	-0.0	0.0	-0.0	1.4
Fy,	-30.5	**-3.7**	0.0	-0.0	0.0	-1.4	30.5	**3.7**	-0.0	0.0	-0.0	1.4
Fz,	30.5	3.7	**-0.0**	0.0	-0.0	1.4	-30.5	-3.7	**0.0**	-0.0	0.0	-1.4
Mx,	-30.5	-3.7	0.0	**-0.0**	0.0	-1.4	30.5	3.7	-0.0	**0.0**	-0.0	1.4
My,	30.5	3.7	-0.0	0.0	**-0.0**	1.4	-30.5	-3.7	0.0	-0.0	**0.0**	-1.4
Mz,	-30.5	-3.7	0.0	-0.0	0.0	**-1.4**	30.5	3.7	-0.0	0.0	-0.0	**1.4**

Member 53

Fx,	**-30.5**	-3.7	0.0	-0.0	-0.0	-1.4	**30.5**	3.7	-0.0	0.0	0.0	1.4
Fy,	-30.5	**-3.7**	0.0	-0.0	-0.0	-1.4	30.5	**3.7**	-0.0	0.0	0.0	1.4
Fz,	30.5	3.7	**-0.0**	0.0	0.0	1.4	-30.5	-3.7	**0.0**	-0.0	-0.0	-1.4
Mx,	-30.5	-3.7	0.0	**-0.0**	-0.0	-1.4	30.5	3.7	-0.0	**0.0**	0.0	1.4
My,	-30.5	-3.7	0.0	-0.0	**-0.0**	-1.4	30.5	3.7	-0.0	0.0	**0.0**	1.4
Mz,	-30.5	-3.7	0.0	-0.0	-0.0	**-1.4**	30.5	3.7	-0.0	0.0	0.0	**1.4**
Fx,	**-25.0**	-3.7	0.0	-0.0	0.0	-1.6	**25.0**	3.7	-0.0	0.0	-0.0	1.6
Fy,	-25.0	**-3.7**	0.0	-0.0	0.0	-1.6	25.0	**3.7**	-0.0	0.0	-0.0	1.6
Fz,	25.0	3.7	**-0.0**	0.0	-0.0	1.6	-25.0	-3.7	**0.0**	-0.0	0.0	-1.6
Mx,	-25.0	-3.7	0.0	**-0.0**	0.0	-1.6	25.0	3.7	-0.0	**0.0**	-0.0	1.6
My,	25.0	3.7	-0.0	0.0	**-0.0**	1.6	-25.0	-3.7	0.0	-0.0	**0.0**	-1.6
Mz,	-25.0	-3.7	0.0	-0.0	0.0	**-1.6**	25.0	3.7	-0.0	0.0	-0.0	**1.6**

Member 54

Fx,	**-25.0**	-3.7	0.0	-0.0	-0.0	-1.6	**25.0**	3.7	-0.0	0.0	0.0	1.6
Fy,	-25.0	**-3.7**	0.0	-0.0	-0.0	-1.6	25.0	**3.7**	-0.0	0.0	0.0	1.6
Fz,	25.0	3.7	**-0.0**	0.0	0.0	1.6	-25.0	-3.7	**0.0**	-0.0	-0.0	-1.6
Mx,	-25.0	-3.7	0.0	**-0.0**	-0.0	-1.6	25.0	3.7	-0.0	**0.0**	0.0	1.6
My,	-25.0	-3.7	0.0	-0.0	**-0.0**	-1.6	25.0	3.7	-0.0	0.0	**0.0**	1.6
Mz,	-25.0	-3.7	0.0	-0.0	-0.0	**-1.6**	25.0	3.7	-0.0	0.0	0.0	**1.6**
Fx,	**-19.6**	-3.7	0.0	-0.0	0.0	-1.9	**19.6**	3.7	-0.0	0.0	-0.0	1.9
Fy,	-19.6	**-3.7**	0.0	-0.0	0.0	-1.9	19.6	**3.7**	-0.0	0.0	-0.0	1.9
Fz,	19.6	3.7	**-0.0**	0.0	-0.0	1.9	-19.6	-3.7	**0.0**	-0.0	0.0	-1.9
Mx,	-19.6	-3.7	0.0	**-0.0**	0.0	-1.9	19.6	3.7	-0.0	**0.0**	-0.0	1.9
My,	19.6	3.7	-0.0	0.0	**-0.0**	1.9	-19.6	-3.7	0.0	-0.0	**0.0**	-1.9
Mz,	-19.6	-3.7	0.0	-0.0	0.0	**-1.9**	19.6	3.7	-0.0	0.0	-0.0	**1.9**

Member 55

Fx,	**-19.6**	-4.4	-0.0	0.0	0.0	-1.9	**19.6**	4.4	0.0	-0.0	-0.0	1.9
Fy,	-19.6	**-4.4**	-0.0	0.0	0.0	-1.9	19.6	**4.4**	0.0	-0.0	-0.0	1.9
Fz	-19.6	-4.4	**-0.0**	0.0	0.0	-1.9	19.6	4.4	**0.0**	-0.0	-0.0	1.9
Mx,	19.6	4.4	0.0	**-0.0**	-0.0	1.9	-19.6	-4.4	-0.0	**0.0**	0.0	-1.9
My,	19.6	4.4	0.0	-0.0	**-0.0**	1.9	-19.6	-4.4	-0.0	0.0	**0.0**	-1.9
Mz,	-19.6	-4.4	-0.0	0.0	0.0	**-1.9**	19.6	4.4	0.0	-0.0	-0.0	**1.9**
Fx,	**-15.1**	-4.4	-0.0	0.0	-0.0	0.4	**15.1**	4.4	0.0	-0.0	0.0	-0.4
Fy,	-15.1	**-4.4**	-0.0	0.0	-0.0	0.4	15.1	**4.4**	0.0	-0.0	0.0	-0.4
Fz,	-15.1	-4.4	**-0.0**	0.0	-0.0	0.4	15.1	4.4	**0.0**	-0.0	0.0	-0.4
Mx,	15.1	4.4	0.0	**-0.0**	0.0	-0.4	-15.1	-4.4	-0.0	**0.0**	-0.0	0.4
My,	-15.1	-4.4	-0.0	0.0	**-0.0**	0.4	15.1	4.4	0.0	-0.0	**0.0**	-0.4
Mz,	15.1	4.4	0.0	-0.0	0.0	**-0.4**	-15.1	-4.4	-0.0	0.0	-0.0	**0.4**

Member 56

Fx,	**-15.1**	-4.4	-0.0	0.0	0.0	0.4	**15.1**	4.4	0.0	-0.0	-0.0	-0.4
Fy,	-15.1	**-4.4**	-0.0	0.0	0.0	0.4	15.1	**4.4**	0.0	-0.0	-0.0	-0.4
Fz,	-15.1	-4.4	**-0.0**	0.0	0.0	0.4	15.1	4.4	**0.0**	-0.0	-0.0	-0.4
Mx,	15.1	4.4	0.0	**-0.0**	-0.0	-0.4	-15.1	-4.4	-0.0	**0.0**	0.0	0.4
My,	15.1	4.4	0.0	-0.0	**-0.0**	-0.4	-15.1	-4.4	-0.0	0.0	**0.0**	0.4
Mz,	15.1	4.4	0.0	-0.0	-0.0	**-0.4**	-15.1	-4.4	-0.0	0.0	0.0	**0.4**
Fx,	**-10.7**	-4.4	-0.0	0.0	-0.0	2.8	**10.7**	4.4	0.0	-0.0	0.0	-2.8
Fy,	-10.7	**-4.4**	-0.0	0.0	-0.0	2.8	10.7	**4.4**	0.0	-0.0	0.0	-2.8
Fz,	-10.7	-4.4	**-0.0**	0.0	-0.0	2.8	10.7	4.4	**0.0**	-0.0	0.0	-2.8
Mx,	10.7	4.4	0.0	**-0.0**	0.0	-2.8	-10.7	-4.4	-0.0	**0.0**	-0.0	2.8
My,	-10.7	-4.4	-0.0	0.0	**-0.0**	2.8	10.7	4.4	0.0	-0.0	**0.0**	-2.8
Mz,	10.7	4.4	0.0	-0.0	0.0	**-2.8**	-10.7	-4.4	-0.0	0.0	-0.0	**2.8**

Member 57

Fx,	**-10.7**	-4.4	-0.0	0.0	0.0	2.8	**10.7**	4.4	0.0	-0.0	-0.0	-2.8
Fy,	-10.7	**-4.4**	-0.0	0.0	0.0	2.8	10.7	**4.4**	0.0	-0.0	-0.0	-2.8
Fz,	-10.7	-4.4	**-0.0**	0.0	0.0	2.8	10.7	4.4	**0.0**	-0.0	-0.0	-2.8
Mx,	10.7	4.4	0.0	**-0.0**	-0.0	-2.8	-10.7	-4.4	-0.0	**0.0**	0.0	2.8
My,	10.7	4.4	0.0	-0.0	**-0.0**	-2.8	-10.7	-4.4	-0.0	0.0	**0.0**	2.8
Mz,	10.7	4.4	0.0	-0.0	-0.0	**-2.8**	-10.7	-4.4	-0.0	0.0	0.0	**2.8**
Fx,	**-6.3**	-4.4	-0.0	0.0	-0.0	5.2	**6.3**	4.4	0.0	-0.0	0.0	-5.2
Fy,	-6.3	**-4.4**	-0.0	0.0	-0.0	5.2	6.3	**4.4**	0.0	-0.0	0.0	-5.2
Fz,	-6.3	-4.4	**-0.0**	0.0	-0.0	5.2	6.3	4.4	**0.0**	-0.0	0.0	-5.2
Mx,	6.3	4.4	0.0	**-0.0**	0.0	-5.2	-6.3	-4.4	-0.0	**0.0**	-0.0	5.2
My,	-6.3	-4.4	-0.0	0.0	**-0.0**	5.2	6.3	4.4	0.0	-0.0	**0.0**	-5.2
Mz,	6.3	4.4	0.0	-0.0	0.0	**-5.2**	-6.3	-4.4	-0.0	0.0	-0.0	**5.2**

Member 58

Fx,	**-6.3**	-4.4	-0.0	0.0	0.0	5.2	**6.3**	4.4	0.0	-0.0	-0.0	-5.2
Fy,	-6.3	**-4.4**	-0.0	0.0	0.0	5.2	6.3	**4.4**	0.0	-0.0	-0.0	-5.2
Fz,	-6.3	-4.4	**-0.0**	0.0	0.0	5.2	6.3	4.4	**0.0**	-0.0	-0.0	-5.2
Mx,	6.3	4.4	0.0	**-0.0**	-0.0	-5.2	-6.3	-4.4	-0.0	**0.0**	0.0	5.2
My,	6.3	4.4	0.0	-0.0	**-0.0**	-5.2	-6.3	-4.4	-0.0	0.0	**0.0**	5.2
Mz,	6.3	4.4	0.0	-0.0	-0.0	**-5.2**	-6.3	-4.4	-0.0	0.0	0.0	**5.2**
Fx,	**-1.8**	-4.4	-0.0	0.0	-0.0	7.6	**1.8**	4.4	0.0	-0.0	0.0	-7.6
Fy,	-1.8	**-4.4**	-0.0	0.0	-0.0	7.6	1.8	**4.4**	0.0	-0.0	0.0	-7.6
Fz,	-1.8	-4.4	**-0.0**	0.0	-0.0	7.6	1.8	4.4	**0.0**	-0.0	0.0	-7.6
Mx,	1.8	4.4	0.0	**-0.0**	0.0	-7.6	-1.8	-4.4	-0.0	**0.0**	-0.0	7.6
My,	-1.8	-4.4	-0.0	0.0	**-0.0**	7.6	1.8	4.4	0.0	-0.0	**0.0**	-7.6
Mz,	1.8	4.4	0.0	-0.0	0.0	**-7.6**	-1.8	-4.4	-0.0	0.0	-0.0	**7.6**

Member 59

Fx,	**-1.8**	-4.4	-0.0	0.0	0.0	7.6	**1.8**	4.4	0.0	-0.0	-0.0	-7.6
Fy,	-1.8	**-4.4**	-0.0	0.0	0.0	7.6	1.8	**4.4**	0.0	-0.0	-0.0	-7.6
Fz,	-1.8	-4.4	**-0.0**	0.0	0.0	7.6	1.8	4.4	**0.0**	-0.0	-0.0	-7.6
Mx,	1.8	4.4	0.0	**-0.0**	-0.0	-7.6	-1.8	-4.4	-0.0	**0.0**	0.0	7.6
My,	1.8	4.4	0.0	-0.0	**-0.0**	-7.6	-1.8	-4.4	-0.0	0.0	**0.0**	7.6
Mz,	1.8	4.4	0.0	-0.0	-0.0	**-7.6**	-1.8	-4.4	-0.0	0.0	0.0	**7.6**
Fx,	**-2.6**	4.4	0.0	-0.0	0.0	-9.9	**2.6**	-4.4	-0.0	0.0	-0.0	9.9
Fy,	2.6	**-4.4**	-0.0	0.0	-0.0	9.9	-2.6	**4.4**	0.0	-0.0	0.0	-9.9
Fz,	2.6	-4.4	**-0.0**	0.0	-0.0	9.9	-2.6	4.4	**0.0**	-0.0	0.0	-9.9
Mx,	-2.6	4.4	0.0	**-0.0**	0.0	-9.9	2.6	-4.4	-0.0	**0.0**	-0.0	9.9
My,	2.6	-4.4	-0.0	0.0	**-0.0**	9.9	-2.6	4.4	0.0	-0.0	**0.0**	-9.9
Mz,	-2.6	4.4	0.0	-0.0	0.0	**-9.9**	2.6	-4.4	-0.0	0.0	-0.0	**9.9**

Member 60

Fx,	**-2.6**	4.4	0.0	-0.0	-0.0	-9.9	**2.6**	-4.4	-0.0	0.0	0.0	9.9
Fy,	2.6	**-4.4**	-0.0	0.0	0.0	9.9	-2.6	**4.4**	0.0	-0.0	-0.0	-9.9
Fz,	2.6	-4.4	**-0.0**	0.0	0.0	9.9	-2.6	4.4	**0.0**	-0.0	-0.0	-9.9

Mx,	-2.6	4.4	0.0	-0.0	-0.0	-9.9	2.6	-4.4	-0.0	0.0	0.0	9.9
My,	-2.6	4.4	0.0	-0.0	-0.0	-9.9	2.6	-4.4	-0.0	0.0	0.0	9.9
Mz,	-2.6	4.4	0.0	-0.0	-0.0	-9.9	2.6	-4.4	-0.0	0.0	0.0	9.9
Fx,	-7.0	4.4	0.0	-0.0	0.0	-12.3	7.0	-4.4	-0.0	0.0	-0.0	12.3
Fy,	7.0	-4.4	-0.0	0.0	-0.0	12.3	-7.0	4.4	0.0	-0.0	0.0	-12.3
Fz,	7.0	-4.4	-0.0	0.0	-0.0	12.3	-7.0	4.4	0.0	-0.0	0.0	-12.3
Mx,	-7.0	4.4	0.0	-0.0	0.0	-12.3	7.0	-4.4	-0.0	0.0	-0.0	12.3
My,	7.0	-4.4	-0.0	0.0	-0.0	12.3	-7.0	4.4	0.0	-0.0	0.0	-12.3
Mz,	-7.0	4.4	0.0	-0.0	0.0	-12.3	7.0	-4.4	-0.0	0.0	-0.0	12.3

Member 370

Fx,	-0.0	0.0	0.0	0.0	-0.0	0.0	0.0	-0.0	-0.0	0.0	0.0	-0.0
Fy,	0.0	-0.0	-0.0	0.0	0.0	-0.0	-0.0	0.0	0.0	0.0	-0.0	0.0
Fz,	0.0	-0.0	-0.0	0.0	0.0	-0.0	-0.0	0.0	0.0	0.0	-0.0	0.0
Mx,	0.0	-0.0	-0.0	0.0	0.0	-0.0	-0.0	0.0	0.0	0.0	-0.0	0.0
My,	-0.0	0.0	0.0	0.0	-0.0	0.0	0.0	-0.0	-0.0	0.0	0.0	-0.0
Mz,	0.0	-0.0	-0.0	0.0	0.0	-0.0	-0.0	0.0	0.0	0.0	-0.0	0.0
Fx,	-0.0	0.0	0.0	0.0	0.0	-0.0	0.0	-0.0	-0.0	0.0	-0.0	0.0
Fy,	0.0	-0.0	-0.0	0.0	-0.0	0.0	-0.0	0.0	0.0	0.0	0.0	-0.0
Fz,	0.0	-0.0	-0.0	0.0	-0.0	0.0	-0.0	0.0	0.0	0.0	0.0	-0.0
Mx,	0.0	-0.0	-0.0	0.0	0.0	-0.0	-0.0	0.0	0.0	0.0	0.0	-0.0
My,	0.0	-0.0	-0.0	0.0	-0.0	0.0	0.0	-0.0	-0.0	0.0	0.0	-0.0
Mz,	-0.0	0.0	0.0	0.0	0.0	-0.0	0.0	-0.0	-0.0	0.0	-0.0	0.0

Member 371

Fx,	-0.1	0.0	0.0	0.0	-0.0	0.0	0.1	-0.0	-0.0	0.0	0.0	-0.0
Fy,	0.1	-0.0	-0.0	0.0	0.0	-0.0	-0.1	0.0	0.0	0.0	-0.0	0.0
Fz,	0.1	-0.0	-0.0	0.0	0.0	-0.0	-0.1	0.0	0.0	0.0	-0.0	0.0
Mx,	-0.1	0.0	0.0	0.0	-0.0	0.0	0.1	-0.0	-0.0	0.0	0.0	-0.0
My,	-0.1	0.0	0.0	0.0	-0.0	0.0	0.1	-0.0	-0.0	0.0	0.0	-0.0
Mz,	0.1	-0.0	-0.0	0.0	0.0	-0.0	-0.1	0.0	0.0	0.0	-0.0	0.0
Fx,	-0.1	0.0	0.0	0.0	0.0	-0.0	0.1	-0.0	-0.0	0.0	0.0	-0.0
Fy,	0.1	-0.0	-0.0	0.0	-0.0	0.0	-0.1	0.0	0.0	0.0	0.0	-0.0
Fz,	0.1	-0.0	-0.0	0.0	-0.0	0.0	-0.1	0.0	0.0	0.0	0.0	-0.0
Mx,	-0.1	0.0	0.0	0.0	0.0	-0.0	0.1	-0.0	-0.0	0.0	0.0	-0.0
My,	0.1	-0.0	-0.0	0.0	-0.0	0.0	-0.1	0.0	0.0	0.0	0.0	-0.0
Mz,	-0.1	0.0	0.0	0.0	0.0	-0.0	0.1	-0.0	-0.0	0.0	-0.0	0.0

Member 372

Fx,	-0.7	-0.0	0.0	0.0	-0.0	-0.0	0.7	0.0	-0.0	0.0	0.0	0.0
Fy,	-0.7	-0.0	0.0	0.0	-0.0	-0.0	0.7	0.0	-0.0	0.0	0.0	0.0
Fz,	0.7	0.0	-0.0	0.0	0.0	0.0	-0.7	-0.0	0.0	0.0	-0.0	-0.0
Mx,	0.7	0.0	-0.0	0.0	0.0	0.0	-0.7	-0.0	0.0	0.0	-0.0	-0.0
My,	-0.7	-0.0	0.0	0.0	-0.0	-0.0	0.7	0.0	-0.0	0.0	0.0	0.0
Mz,	-0.7	-0.0	0.0	0.0	-0.0	-0.0	0.7	0.0	-0.0	0.0	0.0	0.0
Fx,	-0.7	-0.0	0.0	0.0	0.0	0.0	0.7	0.0	-0.0	0.0	-0.0	-0.0
Fy,	-0.7	-0.0	0.0	0.0	0.0	0.0	0.7	0.0	-0.0	0.0	-0.0	-0.0
Fz,	0.7	0.0	-0.0	0.0	-0.0	-0.0	-0.7	-0.0	0.0	0.0	0.0	0.0
Mx,	0.7	0.0	-0.0	0.0	-0.0	-0.0	-0.7	-0.0	0.0	0.0	0.0	0.0
My,	0.7	0.0	-0.0	0.0	-0.0	-0.0	-0.7	-0.0	0.0	0.0	0.0	0.0
Mz,	0.7	0.0	-0.0	0.0	-0.0	-0.0	-0.7	-0.0	0.0	0.0	0.0	0.0

Member 373

Fx,	-4.4	-7.0	0.0	0.0	-0.0	-12.3	4.4	7.0	-0.0	-0.0	0.0	12.3
Fy,	-4.4	-7.0	0.0	0.0	-0.0	-12.3	4.4	7.0	-0.0	-0.0	0.0	12.3
Fz,	4.4	7.0	-0.0	-0.0	0.0	12.3	-4.4	-7.0	0.0	0.0	-0.0	-12.3
Mx,	4.4	7.0	-0.0	-0.0	0.0	12.3	-4.4	-7.0	0.0	0.0	-0.0	-12.3
My,	-4.4	-7.0	0.0	0.0	-0.0	-12.3	4.4	7.0	-0.0	-0.0	0.0	12.3
Mz,	-4.4	-7.0	0.0	0.0	-0.0	-12.3	4.4	7.0	-0.0	-0.0	0.0	12.3
Fx,	-4.4	-7.0	0.0	0.0	-0.0	0.0	4.4	7.0	-0.0	-0.0	0.0	-0.0
Fy,	-4.4	-7.0	0.0	0.0	-0.0	0.0	4.4	7.0	-0.0	-0.0	0.0	-0.0
Fz,	4.4	7.0	-0.0	-0.0	0.0	-0.0	-4.4	-7.0	0.0	0.0	-0.0	0.0
Mx,	4.4	7.0	-0.0	-0.0	0.0	-0.0	-4.4	-7.0	0.0	0.0	-0.0	0.0
My,	-4.4	-7.0	0.0	0.0	-0.0	0.0	4.4	7.0	-0.0	-0.0	0.0	-0.0

Mz,	4.4	7.0	-0.0	-0.0	0.0	-0.0	-4.4	-7.0	0.0	0.0	-0.0	0.0

Member 374

Fx,	-3.8	-0.0	0.0	0.0	-0.0	-0.0	3.8	0.0	-0.0	0.0	0.0	0.0
Fy,	-3.8	-0.0	0.0	0.0	-0.0	-0.0	3.8	0.0	-0.0	0.0	0.0	0.0
Fz,	3.8	0.0	-0.0	0.0	0.0	0.0	-3.8	-0.0	0.0	0.0	-0.0	-0.0
Mx,	3.8	0.0	-0.0	0.0	0.0	0.0	-3.8	-0.0	0.0	0.0	-0.0	-0.0
My,	-3.8	-0.0	0.0	0.0	-0.0	-0.0	3.8	0.0	-0.0	0.0	0.0	0.0
Mz,	-3.8	-0.0	0.0	0.0	-0.0	-0.0	3.8	0.0	-0.0	0.0	0.0	0.0
Fx,	-3.8	-0.0	0.0	0.0	0.0	-0.0	3.8	0.0	-0.0	0.0	-0.0	0.0
Fy,	-3.8	-0.0	0.0	0.0	0.0	-0.0	3.8	0.0	-0.0	0.0	-0.0	0.0
Fz,	3.8	0.0	-0.0	0.0	-0.0	0.0	-3.8	-0.0	0.0	0.0	0.0	-0.0
Mx,	3.8	0.0	-0.0	0.0	-0.0	0.0	-3.8	-0.0	0.0	0.0	0.0	-0.0
My,	3.8	0.0	-0.0	0.0	-0.0	0.0	-3.8	-0.0	0.0	0.0	0.0	-0.0
Mz,	-3.8	-0.0	0.0	0.0	0.0	-0.0	3.8	0.0	-0.0	0.0	-0.0	0.0

Member 375

Fx,	-0.0	-0.0	-0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	-0.0	0.0
Fy,	-0.0	-0.0	-0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	-0.0	0.0
Fz,	-0.0	-0.0	-0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	-0.0	0.0
Mx,	0.0	0.0	0.0	0.0	-0.0	0.0	-0.0	-0.0	-0.0	0.0	0.0	-0.0
My,	0.0	0.0	0.0	0.0	-0.0	0.0	-0.0	-0.0	-0.0	0.0	0.0	-0.0
Mz,	-0.0	-0.0	-0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	-0.0	0.0
Fx,	-0.0	-0.0	-0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0
Fy,	-0.0	-0.0	-0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0
Fz,	-0.0	-0.0	-0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0
Mx,	0.0	0.0	0.0	0.0	-0.0	0.0	-0.0	-0.0	-0.0	0.0	0.0	0.0
My,	0.0	0.0	0.0	0.0	-0.0	0.0	-0.0	-0.0	-0.0	0.0	0.0	-0.0
Mz,	-0.0	-0.0	-0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	-0.0	0.0

Member 376

Fx,	-0.0	-0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0	-0.0
Fy,	-0.0	-0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0	-0.0
Fz,	-0.0	-0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0	-0.0
Mx,	-0.0	-0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0	-0.0
My,	0.0	0.0	0.0	0.0	-0.0	-0.0	-0.0	-0.0	-0.0	0.0	0.0	0.0
Mz,	0.0	0.0	0.0	0.0	-0.0	-0.0	-0.0	-0.0	-0.0	0.0	0.0	0.0
Fx,	-0.0	-0.0	-0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0
Fy,	-0.0	-0.0	-0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0
Fz,	-0.0	-0.0	-0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0
Mx,	-0.0	-0.0	-0.0	0.0	-0.0	0.0	-0.0	-0.0	-0.0	0.0	0.0	0.0
My,	-0.0	-0.0	-0.0	0.0	-0.0	0.0	-0.0	-0.0	-0.0	0.0	0.0	-0.0
Mz,	0.0	0.0	0.0	0.0	-0.0	0.0	-0.0	-0.0	-0.0	0.0	-0.0	0.0

Member 377

Fx,	-0.0	-0.0	-0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	-0.0	0.0
Fy,	-0.0	-0.0	-0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	-0.0	0.0
Fz,	-0.0	-0.0	-0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	-0.0	0.0
Mx,	0.0	0.0	0.0	0.0	-0.0	0.0	-0.0	-0.0	-0.0	0.0	0.0	-0.0
My,	0.0	0.0	0.0	0.0	-0.0	0.0	-0.0	-0.0	-0.0	0.0	0.0	-0.0
Mz,	-0.0	-0.0	-0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	-0.0	0.0
Fx,	-0.0	-0.0	-0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0
Fy,	-0.0	-0.0	-0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0
Fz,	-0.0	-0.0	-0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0
Mx,	0.0	-0.0	0.0	0.0	-0.0	0.0	-0.0	-0.0	-0.0	0.0	-0.0	0.0
My,	-0.0	-0.0	-0.0	0.0	-0.0	0.0	-0.0	-0.0	-0.0	0.0	0.0	-0.0
Mz,	0.0	0.0	0.0	0.0	-0.0	0.0	-0.0	-0.0	-0.0	0.0	-0.0	0.0

Member 378

Fx,	-0.0	-0.0	-0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	-0.0	0.0
Fy,	-0.0	-0.0	-0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	-0.0	0.0
Fz,	-0.0	-0.0	-0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	-0.0	0.0
Mx,	-0.0	-0.0	-0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	-0.0	0.0
My,	0.0	0.0	0.0	0.0	-0.0	0.0	-0.0	-0.0	-0.0	0.0	0.0	-0.0
Mz,	-0.0	-0.0	-0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	-0.0	0.0

Fx_i	**-0.0**	-0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0
Fy_i	-0.0	**-0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	-0.0
Fz_i	-0.0	-0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0
Mx_i	-0.0	-0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0
My_i	-0.0	-0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0
Mz_i	0.0	0.0	0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**0.0**

Member 379

Fx_i	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	-0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0
Fz_i	-0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0
Mx_i	0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**
Fx_f	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0
My_f	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**0.0**

Member 380

Fx_i	**-0.1**	-0.0	-0.0	0.0	0.0	0.0	**0.1**	0.0	0.0	0.0	-0.0	-0.0
Fy_i	-0.1	**-0.0**	-0.0	0.0	0.0	0.0	0.1	**0.0**	0.0	0.0	-0.0	-0.0
Fz_i	-0.1	-0.0	**-0.0**	0.0	0.0	0.0	0.1	0.0	**0.0**	0.0	-0.0	-0.0
Mx_i	-0.1	-0.0	-0.0	**0.0**	0.0	0.0	0.1	0.0	0.0	**0.0**	-0.0	-0.0
My_i	0.1	0.0	0.0	0.0	**-0.0**	-0.0	-0.1	-0.0	-0.0	0.0	**0.0**	0.0
Mz_i	0.1	0.0	0.0	0.0	-0.0	**-0.0**	-0.1	-0.0	-0.0	0.0	0.0	**0.0**
Fx_f	**-0.1**	-0.0	-0.0	0.0	-0.0	0.0	**0.1**	0.0	0.0	0.0	0.0	-0.0
Fy_f	-0.1	**-0.0**	-0.0	0.0	-0.0	0.0	0.1	**0.0**	0.0	0.0	0.0	-0.0
Fz_f	-0.1	-0.0	**-0.0**	0.0	-0.0	0.0	0.1	0.0	**0.0**	0.0	0.0	-0.0
Mx_f	-0.1	-0.0	-0.0	**0.0**	-0.0	0.0	0.1	0.0	0.0	**0.0**	0.0	-0.0
My_f	-0.1	-0.0	-0.0	0.0	**-0.0**	0.0	0.1	0.0	0.0	0.0	**0.0**	-0.0
Mz_f	0.1	0.0	0.0	0.0	0.0	**-0.0**	-0.1	-0.0	-0.0	0.0	-0.0	**0.0**

Member 381

Fx_i	**-0.7**	-0.0	-0.0	0.0	0.0	-0.0	**0.7**	0.0	0.0	0.0	-0.0	0.0
Fy_i	-0.7	**-0.0**	-0.0	0.0	0.0	-0.0	0.7	**0.0**	0.0	0.0	-0.0	0.0
Fz_i	-0.7	-0.0	**-0.0**	0.0	0.0	-0.0	0.7	0.0	**0.0**	0.0	-0.0	0.0
Mx_i	0.7	0.0	0.0	**0.0**	-0.0	0.0	-0.7	-0.0	-0.0	**0.0**	0.0	-0.0
My_i	0.7	0.0	0.0	0.0	**-0.0**	0.0	-0.7	-0.0	-0.0	0.0	**0.0**	-0.0
Mz_i	-0.7	-0.0	-0.0	0.0	0.0	**-0.0**	0.7	0.0	0.0	0.0	-0.0	**0.0**
Fx_f	**-0.7**	-0.0	-0.0	0.0	-0.0	0.0	**0.7**	0.0	0.0	0.0	0.0	-0.0
Fy_f	-0.7	**-0.0**	-0.0	0.0	-0.0	0.0	0.7	**0.0**	0.0	0.0	0.0	-0.0
Fz_f	-0.7	-0.0	**-0.0**	0.0	-0.0	0.0	0.7	0.0	**0.0**	0.0	0.0	-0.0
Mx_f	0.7	0.0	0.0	**0.0**	0.0	-0.0	-0.7	-0.0	-0.0	**0.0**	-0.0	0.0
My_f	-0.7	-0.0	-0.0	0.0	**-0.0**	0.0	0.7	0.0	0.0	0.0	**0.0**	-0.0
Mz_f	0.7	0.0	0.0	0.0	0.0	**-0.0**	-0.7	-0.0	-0.0	0.0	-0.0	**0.0**

Member 382

Fx_i	**-4.4**	-7.0	-0.0	0.0	0.0	-12.3	**4.4**	7.0	0.0	-0.0	-0.0	12.3
Fy_i	-4.4	**-7.0**	-0.0	0.0	0.0	-12.3	4.4	**7.0**	0.0	-0.0	-0.0	12.3
Fz_i	-4.4	-7.0	**-0.0**	0.0	0.0	-12.3	4.4	7.0	**0.0**	-0.0	-0.0	12.3
Mx_i	4.4	7.0	0.0	**-0.0**	-0.0	12.3	-4.4	-7.0	-0.0	**0.0**	0.0	-12.3
My_i	4.4	7.0	0.0	-0.0	**-0.0**	12.3	-4.4	-7.0	-0.0	0.0	**0.0**	-12.3
Mz_i	-4.4	-7.0	-0.0	0.0	0.0	**-12.3**	4.4	7.0	0.0	-0.0	-0.0	**12.3**
Fx_f	**-4.4**	-7.0	-0.0	0.0	-0.0	0.0	**4.4**	7.0	0.0	-0.0	0.0	-0.0
Fy_f	-4.4	**-7.0**	-0.0	0.0	-0.0	0.0	4.4	**7.0**	0.0	-0.0	0.0	-0.0
Fz_f	-4.4	-7.0	**-0.0**	0.0	-0.0	0.0	4.4	7.0	**0.0**	-0.0	0.0	-0.0
Mx_f	4.4	7.0	0.0	**-0.0**	0.0	-0.0	-4.4	-7.0	-0.0	**0.0**	-0.0	0.0
My_f	-4.4	-7.0	-0.0	0.0	**-0.0**	0.0	4.4	7.0	0.0	-0.0	**0.0**	-0.0
Mz_f	4.4	7.0	0.0	-0.0	0.0	**-0.0**	-4.4	-7.0	-0.0	0.0	-0.0	**0.0**

Member 391

Fx_i	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0
Fy_f	0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**

Member 392

Fx_i	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0
My_i	0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0
Fy_f	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0
My_f	0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**

Member 393

Fx_i	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0
Fy_f	0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**

Member 394

Fx_i	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0
My_i	0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0
Fy_f	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0
My_f	0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**

Member 395

Fx_i	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0
Fy_f	0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0

Mx,	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0
My,	0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0
Mz,	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**

Member 396

Fx,	**-0.1**	0.0	0.0	0.0	0.0	0.0	**0.1**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-0.1	**0.0**	0.0	0.0	0.0	0.0	0.1	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	0.1	0.0	**-0.0**	0.0	-0.0	0.0	-0.1	0.0	**0.0**	0.0	0.0	0.0
Mx,	-0.1	0.0	0.0	**0.0**	0.0	0.0	0.1	0.0	-0.0	**0.0**	-0.0	0.0
My,	0.1	0.0	-0.0	0.0	**-0.0**	0.0	-0.1	0.0	0.0	0.0	**0.0**	0.0
Mz,	-0.1	0.0	0.0	0.0	0.0	**0.0**	0.1	0.0	-0.0	0.0	-0.0	**0.0**
Fx,	**-0.1**	0.0	0.0	0.0	0.0	0.0	**0.1**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-0.1	**0.0**	0.0	0.0	0.0	0.0	0.1	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	0.1	0.0	**-0.0**	0.0	-0.0	0.0	-0.1	0.0	**0.0**	0.0	0.0	0.0
Mx,	-0.1	0.0	0.0	**0.0**	0.0	0.0	0.1	0.0	-0.0	**0.0**	-0.0	0.0
My,	0.1	0.0	-0.0	0.0	**-0.0**	0.0	-0.1	0.0	0.0	0.0	**0.0**	0.0
Mz,	-0.1	0.0	0.0	0.0	0.0	**0.0**	0.1	0.0	-0.0	0.0	-0.0	**0.0**

Member 397

Fx,	**-0.7**	0.0	0.0	0.0	0.0	0.0	**0.7**	0.0	-0.0	0.0	-0.0	0.0
Fy,	0.7	**0.0**	-0.0	0.0	**-0.0**	0.0	-0.7	**0.0**	0.0	0.0	0.0	0.0
Fz,	0.7	0.0	**-0.0**	0.0	-0.0	0.0	-0.7	0.0	**0.0**	0.0	0.0	0.0
Mx,	0.7	0.0	-0.0	**0.0**	-0.0	0.0	-0.7	0.0	0.0	**0.0**	0.0	0.0
My,	0.7	0.0	-0.0	0.0	**-0.0**	0.0	-0.7	0.0	0.0	0.0	**0.0**	0.0
Mz,	0.7	0.0	-0.0	0.0	-0.0	**0.0**	-0.7	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-0.7**	0.0	0.0	0.0	0.0	0.0	**0.7**	0.0	-0.0	0.0	-0.0	0.0
Fy,	0.7	**0.0**	-0.0	0.0	-0.0	0.0	-0.7	**0.0**	0.0	0.0	0.0	0.0
Fz,	0.7	0.0	**-0.0**	0.0	-0.0	0.0	-0.7	0.0	**0.0**	0.0	0.0	0.0
Mx,	0.7	0.0	-0.0	**0.0**	-0.0	0.0	-0.7	0.0	0.0	**0.0**	0.0	0.0
My,	0.7	0.0	-0.0	0.0	**-0.0**	0.0	-0.7	0.0	0.0	0.0	**0.0**	0.0
Mz,	0.7	0.0	-0.0	0.0	-0.0	**0.0**	-0.7	0.0	0.0	0.0	0.0	**0.0**

Member 398

Fx,	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy,	0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx,	0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0
My,	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz,	0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**
Fx,	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy,	0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx,	0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0
My,	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz,	0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**

Member 399

Fx,	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy,	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx,	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz,	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy,	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx,	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz,	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 400

Fx,	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy,	0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx,	0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0
My,	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz,	0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**
Fx,	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy,	0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx,	0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0
My,	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz,	0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**

My,	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz,	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**
Fx,	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy,	0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx,	0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0
My,	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz,	0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**

Member 401

Fx,	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy,	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx,	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz,	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy,	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx,	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My,	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz,	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 402

Fx,	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy,	0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx,	0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0
My,	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz,	0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**
Fx,	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy,	0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx,	0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0
My,	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz,	0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**

Member 403

Fx,	**-0.1**	0.0	-0.0	0.0	-0.0	0.0	**0.1**	0.0	0.0	0.0	0.0	0.0
Fy,	-0.1	**0.0**	-0.0	0.0	-0.0	0.0	0.1	**0.0**	0.0	0.0	0.0	0.0
Fz,	-0.1	0.0	**-0.0**	0.0	-0.0	0.0	0.1	0.0	**0.0**	0.0	0.0	0.0
Mx,	-0.1	0.0	-0.0	**0.0**	-0.0	0.0	0.1	0.0	0.0	**0.0**	0.0	0.0
My,	-0.1	0.0	-0.0	0.0	**-0.0**	0.0	0.1	0.0	0.0	0.0	**0.0**	0.0
Mz,	-0.1	0.0	-0.0	0.0	-0.0	**0.0**	0.1	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-0.1**	0.0	-0.0	0.0	-0.0	0.0	**0.1**	0.0	0.0	0.0	0.0	0.0
Fy,	-0.1	**0.0**	-0.0	0.0	-0.0	0.0	0.1	**0.0**	0.0	0.0	0.0	0.0
Fz,	-0.1	0.0	**-0.0**	0.0	-0.0	0.0	0.1	0.0	**0.0**	0.0	0.0	0.0
Mx,	-0.1	0.0	-0.0	**0.0**	-0.0	0.0	0.1	0.0	0.0	**0.0**	0.0	0.0
My,	-0.1	0.0	-0.0	0.0	**-0.0**	0.0	0.1	0.0	0.0	0.0	**0.0**	0.0
Mz,	-0.1	0.0	-0.0	0.0	-0.0	**0.0**	0.1	0.0	0.0	0.0	0.0	**0.0**

Member 404

Fx,	**-0.7**	0.0	-0.0	0.0	-0.0	0.0	**0.7**	0.0	0.0	0.0	0.0	0.0
Fy,	0.7	**0.0**	0.0	0.0	0.0	0.0	-0.7	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-0.7	0.0	**-0.0**	0.0	-0.0	0.0	0.7	0.0	**0.0**	0.0	0.0	0.0
Mx,	0.7	0.0	0.0	**0.0**	0.0	0.0	-0.7	0.0	-0.0	**0.0**	-0.0	0.0
My,	-0.7	0.0	-0.0	0.0	**-0.0**	0.0	0.7	0.0	0.0	0.0	**0.0**	0.0
Mz,	0.7	0.0	0.0	0.0	0.0	**0.0**	-0.7	0.0	-0.0	0.0	-0.0	**0.0**
Fx,	**-0.7**	0.0	-0.0	0.0	-0.0	0.0	**0.7**	0.0	0.0	0.0	0.0	0.0
Fy,	0.7	**0.0**	0.0	0.0	0.0	0.0	-0.7	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-0.7	0.0	**-0.0**	0.0	-0.0	0.0	0.7	0.0	**0.0**	0.0	0.0	0.0
Mx,	0.7	0.0	0.0	**0.0**	0.0	0.0	-0.7	0.0	-0.0	**0.0**	-0.0	0.0
My,	-0.7	0.0	-0.0	0.0	**-0.0**	0.0	0.7	0.0	0.0	0.0	**0.0**	0.0
Mz,	0.7	0.0	0.0	0.0	0.0	**0.0**	-0.7	0.0	-0.0	0.0	-0.0	**0.0**

Member 421

Fx_i	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0
Fy_f	0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**

Member 422

Fx_i	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 423

Fx_i	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0
Fy_f	0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**

Member 424

Fx_i	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0
My_i	0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0
Fy_f	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0
My_f	0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**

Member 425

Fx_i	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0
My_i	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0
My_f	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**

Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0
My_f	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**

Member 426

Fx_i	**-0.2**	0.0	0.0	0.0	0.0	0.0	**0.2**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	-0.2	**0.0**	0.0	0.0	0.0	0.0	0.2	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	0.2	0.0	**-0.0**	0.0	-0.0	0.0	-0.2	0.0	**0.0**	0.0	0.0	0.0
Mx_i	-0.2	0.0	0.0	**0.0**	0.0	0.0	0.2	0.0	-0.0	**0.0**	-0.0	0.0
My_i	0.2	0.0	-0.0	0.0	**-0.0**	0.0	-0.2	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-0.2	0.0	0.0	0.0	0.0	**0.0**	0.2	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-0.2**	0.0	0.0	0.0	0.0	0.0	**0.2**	0.0	-0.0	0.0	-0.0	0.0
Fy_f	-0.2	**0.0**	0.0	0.0	0.0	0.0	0.2	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	0.2	0.0	**-0.0**	0.0	-0.0	0.0	-0.2	0.0	**0.0**	0.0	0.0	0.0
Mx_f	-0.2	0.0	0.0	**0.0**	0.0	0.0	0.2	0.0	-0.0	**0.0**	-0.0	0.0
My_f	0.2	0.0	-0.0	0.0	**-0.0**	0.0	-0.2	0.0	0.0	0.0	**0.0**	0.0
Mz_f	-0.2	0.0	0.0	0.0	0.0	**0.0**	0.2	0.0	-0.0	0.0	-0.0	**0.0**

Member 427

Fx_i	**-1.4**	0.0	-0.0	0.0	-0.0	0.0	**1.4**	0.0	0.0	0.0	0.0	0.0
Fy_i	1.4	**0.0**	0.0	0.0	0.0	0.0	-1.4	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	-1.4	0.0	**-0.0**	0.0	-0.0	0.0	1.4	0.0	**0.0**	0.0	0.0	0.0
Mx_i	1.4	0.0	0.0	**0.0**	0.0	0.0	-1.4	0.0	-0.0	**0.0**	-0.0	0.0
My_i	-1.4	0.0	-0.0	0.0	**-0.0**	0.0	1.4	0.0	0.0	0.0	**0.0**	0.0
Mz_i	1.4	0.0	0.0	0.0	0.0	**0.0**	-1.4	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-1.4**	0.0	-0.0	0.0	-0.0	0.0	**1.4**	0.0	0.0	0.0	0.0	0.0
Fy_f	1.4	**0.0**	0.0	0.0	0.0	0.0	-1.4	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	-1.4	0.0	**-0.0**	0.0	-0.0	0.0	1.4	0.0	**0.0**	0.0	0.0	0.0
Mx_f	1.4	0.0	0.0	**0.0**	0.0	0.0	-1.4	0.0	-0.0	**0.0**	-0.0	0.0
My_f	-1.4	0.0	-0.0	0.0	**-0.0**	0.0	1.4	0.0	0.0	0.0	**0.0**	0.0
Mz_f	1.4	0.0	0.0	0.0	0.0	**0.0**	-1.4	0.0	-0.0	0.0	-0.0	**0.0**

*** Fin del listado ***

SUBANEJO Nº 15

ESFUERZOS DE OTRAS SOBRECARGAS

hip viento

Program Envolvator (release 1.3 - Jun 1998)
Calculation date: 20-abr-1999 21:01 h. Listing date: 27-abr-1999 09:10 h.
Members: 419
Joints: 353
Envelope generated from:

Name	min.	max.
viento	-1.00	1.00

	Fx	Fy	Fz	Mx	My	Mz	Fx	Fy	Fz	Mx	My	Mz
Member 1												
Fx_1	**-173.1**	-1.4	37.1	14.9	-239.1	-0.1	**173.1**	1.4	-37.1	-14.9	239.1	0.1
Fy_1	-173.1	**-1.4**	37.1	14.9	-239.1	-0.1	173.1	**1.4**	-37.1	-14.9	239.1	0.1
Fz_1	173.1	1.4	**-37.1**	-14.9	239.1	0.1	-173.1	-1.4	**37.1**	14.9	-239.1	-0.1
Mx_1	173.1	1.4	-37.1	**-14.9**	239.1	0.1	-173.1	-1.4	37.1	**14.9**	-239.1	-0.1
My_1	-173.1	-1.4	37.1	14.9	**-239.1**	-0.1	173.1	1.4	-37.1	-14.9	**239.1**	0.1
Mz_1	-173.1	-1.4	37.1	14.9	-239.1	**-0.1**	173.1	1.4	-37.1	-14.9	239.1	**0.1**
Fx_f	**-173.1**	-1.4	33.7	8.7	-109.3	4.9	**173.1**	1.4	-33.7	-8.7	109.3	-4.9
Fy_f	-173.1	**-1.4**	33.7	8.7	-109.3	4.9	173.1	**1.4**	-33.7	-8.7	109.3	-4.9
Fz_f	173.1	1.4	**-33.7**	-8.7	109.3	-4.9	-173.1	-1.4	**33.7**	8.7	-109.3	4.9
Mx_f	173.1	1.4	-33.7	**-8.7**	109.3	-4.9	-173.1	-1.4	33.7	**8.7**	-109.3	4.9
My_f	-173.1	-1.4	33.7	8.7	**-109.3**	4.9	173.1	1.4	-33.7	-8.7	**109.3**	-4.9
Mz_f	173.1	1.4	-33.7	-8.7	109.3	**-4.9**	-173.1	-1.4	33.7	8.7	-109.3	**4.9**
Member 2												
Fx_2	**-142.1**	-0.7	33.7	10.8	-202.5	4.9	**142.1**	0.7	-33.7	-10.8	202.5	-4.9
Fy_2	-142.1	**-0.7**	33.7	10.8	-202.5	4.9	142.1	**0.7**	-33.7	-10.8	202.5	-4.9
Fz_2	142.1	0.7	**-33.7**	-10.8	202.5	-4.9	-142.1	-0.7	**33.7**	10.8	-202.5	4.9
Mx_2	142.1	0.7	-33.7	**-10.8**	202.5	-4.9	-142.1	-0.7	33.7	**10.8**	-202.5	4.9
My_2	-142.1	-0.7	33.7	10.8	**-202.5**	4.9	142.1	0.7	-33.7	-10.8	**202.5**	-4.9
Mz_2	142.1	0.7	-33.7	-10.8	202.5	**-4.9**	-142.1	-0.7	33.7	10.8	-202.5	**4.9**
Fx_f	**-142.1**	-0.7	30.2	4.6	-85.4	7.5	**142.1**	0.7	-30.2	-4.6	85.4	-7.5
Fy_f	-142.1	**-0.7**	30.2	4.6	-85.4	7.5	142.1	**0.7**	-30.2	-4.6	85.4	-7.5
Fz_f	142.1	0.7	**-30.2**	-4.6	85.4	-7.5	-142.1	-0.7	**30.2**	4.6	-85.4	7.5
Mx_f	142.1	0.7	-30.2	**-4.6**	85.4	-7.5	-142.1	-0.7	30.2	**4.6**	-85.4	7.5
My_f	-142.1	-0.7	30.2	4.6	**-85.4**	7.5	142.1	0.7	-30.2	-4.6	**85.4**	-7.5
Mz_f	142.1	0.7	-30.2	-4.6	85.4	**-7.5**	-142.1	-0.7	30.2	4.6	-85.4	**7.5**
Member 3												
Fx_3	**-114.4**	0.4	30.2	7.9	-168.4	7.5	**114.4**	-0.4	-30.2	-7.9	168.4	-7.5
Fy_3	114.4	**-0.4**	-30.2	-7.9	168.4	-7.5	-114.4	**0.4**	30.2	7.9	-168.4	7.5
Fz_3	114.4	-0.4	**-30.2**	-7.9	168.4	-7.5	-114.4	0.4	**30.2**	7.9	-168.4	7.5
Mx_3	114.4	-0.4	-30.2	**-7.9**	168.4	-7.5	-114.4	0.4	30.2	**7.9**	-168.4	7.5
My_3	-114.4	0.4	30.2	7.9	**-168.4**	7.5	114.4	-0.4	-30.2	-7.9	**168.4**	-7.5
Mz_3	114.4	-0.4	-30.2	-7.9	168.4	**-7.5**	-114.4	0.4	30.2	7.9	-168.4	**7.5**
Fx_f	**-114.4**	0.4	26.8	1.7	-63.9	6.0	**114.4**	-0.4	-26.8	-1.7	63.9	-6.0
Fy_f	114.4	**-0.4**	-26.8	-1.7	63.9	-6.0	-114.4	**0.4**	26.8	1.7	-63.9	6.0
Fz_f	114.4	-0.4	**-26.8**	-1.7	63.9	-6.0	-114.4	0.4	**26.8**	1.7	-63.9	6.0
Mx_f	114.4	-0.4	-26.8	**-1.7**	63.9	-6.0	-114.4	0.4	26.8	**1.7**	-63.9	6.0
My_f	-114.4	0.4	26.8	1.7	**-63.9**	6.0	114.4	-0.4	-26.8	-1.7	**63.9**	-6.0
Mz_f	114.4	-0.4	-26.8	-1.7	63.9	**-6.0**	-114.4	0.4	26.8	1.7	-63.9	**6.0**
Member 4												
Fx_4	**-89.9**	1.8	26.8	6.0	-137.4	6.0	**89.9**	-1.8	-26.8	-6.0	137.4	-6.0
Fy_4	89.9	**-1.8**	-26.8	-6.0	137.4	-6.0	-89.9	**1.8**	26.8	6.0	-137.4	6.0
Fz_4	89.9	-1.8	**-26.8**	-6.0	137.4	-6.0	-89.9	1.8	**26.8**	6.0	-137.4	6.0
Mx_4	89.9	-1.8	-26.8	**-6.0**	137.4	-6.0	-89.9	1.8	26.8	**6.0**	-137.4	6.0
My_4	-89.9	1.8	26.8	6.0	**-137.4**	6.0	89.9	-1.8	-26.8	-6.0	**137.4**	-6.0
Mz_4	89.9	-1.8	-26.8	-6.0	137.4	**-6.0**	-89.9	1.8	26.8	6.0	-137.4	**6.0**
Fx_f	**-89.9**	1.8	23.3	-0.2	-45.5	-0.7	**89.9**	-1.8	-23.3	0.2	45.5	0.7
Fy_f	89.9	**-1.8**	-23.3	0.2	45.5	0.7	-89.9	**1.8**	23.3	-0.2	-45.5	-0.7
Fz_f	89.9	-1.8	**-23.3**	0.2	45.5	0.7	-89.9	1.8	**23.3**	-0.2	-45.5	-0.7
Mx_f	-89.9	1.8	23.3	**-0.2**	-45.5	-0.7	89.9	-1.8	-23.3	**0.2**	45.5	0.7
My_f	-89.9	1.8	23.3	-0.2	**-45.5**	-0.7	89.9	-1.8	-23.3	0.2	**45.5**	0.7
Mz_f	-89.9	1.8	23.3	-0.2	-45.5	**-0.7**	89.9	-1.8	-23.3	0.2	45.5	**0.7**

Member 5

Fx_5	**-68.5**	3.5	23.3	4.8	-109.7	-0.7	**68.5**	-3.5	-23.3	-4.8	109.7	0.7
Fy_5	68.5	**-3.5**	-23.3	-4.8	109.7	0.7	-68.5	**3.5**	23.3	4.8	-109.7	-0.7
Fz_5	68.5	-3.5	**-23.3**	-4.8	109.7	0.7	-68.5	3.5	**23.3**	4.8	-109.7	-0.7
Mx_5	68.5	-3.5	-23.3	**-4.8**	109.7	0.7	-68.5	3.5	23.3	**4.8**	-109.7	-0.7
My_5	-68.5	3.5	23.3	4.8	**-109.7**	-0.7	68.5	-3.5	-23.3	-4.8	**109.7**	0.7
Mz_5	-68.5	3.5	23.3	4.8	-109.7	**-0.7**	68.5	-3.5	-23.3	-4.8	109.7	**0.7**
Fx_f	**-68.5**	3.5	19.9	-1.4	-30.5	-13.4	**68.5**	-3.5	-19.9	1.4	30.5	13.4
Fy_f	68.5	**-3.5**	-19.9	1.4	30.5	13.4	-68.5	**3.5**	19.9	-1.4	-30.5	-13.4
Fz_f	68.5	-3.5	**-19.9**	1.4	30.5	13.4	-68.5	3.5	**19.9**	-1.4	-30.5	-13.4
Mx_f	-68.5	3.5	19.9	**-1.4**	-30.5	-13.4	68.5	-3.5	-19.9	**1.4**	30.5	13.4
My_f	-68.5	3.5	19.9	-1.4	**-30.5**	-13.4	68.5	-3.5	-19.9	1.4	**30.5**	13.4
Mz_f	-68.5	3.5	19.9	-1.4	-30.5	**-13.4**	68.5	-3.5	-19.9	1.4	30.5	**13.4**

Member 6

Fx_6	**-43.3**	5.3	19.9	4.0	-106.1	-13.4	**43.3**	-5.3	-19.9	-4.0	106.1	13.4
Fy_6	43.3	**-5.3**	-19.9	-4.0	106.1	13.4	-43.3	**5.3**	19.9	4.0	-106.1	-13.4
Fz_6	43.3	-5.3	**-19.9**	-4.0	106.1	13.4	-43.3	5.3	**19.9**	4.0	-106.1	-13.4
Mx_6	43.3	-5.3	-19.9	**-4.0**	106.1	13.4	-43.3	5.3	19.9	**4.0**	-106.1	-13.4
My_6	-43.3	5.3	19.9	4.0	**-106.1**	-13.4	43.3	-5.3	-19.9	-4.0	**106.1**	13.4
Mz_6	-43.3	5.3	19.9	4.0	-106.1	**-13.4**	43.3	-5.3	-19.9	-4.0	106.1	**13.4**
Fx_f	**-43.3**	5.3	16.4	-2.2	-39.5	-32.9	**43.3**	-5.3	-16.4	2.2	39.5	32.9
Fy_f	43.3	**-5.3**	-16.4	2.2	39.5	32.9	-43.3	**5.3**	16.4	-2.2	-39.5	-32.9
Fz_f	43.3	-5.3	**-16.4**	2.2	39.5	32.9	-43.3	5.3	**16.4**	-2.2	-39.5	-32.9
Mx_f	-43.3	5.3	16.4	**-2.2**	-39.5	-32.9	43.3	-5.3	-16.4	**2.2**	39.5	32.9
My_f	-43.3	5.3	16.4	-2.2	**-39.5**	-32.9	43.3	-5.3	-16.4	2.2	**39.5**	32.9
Mz_f	-43.3	5.3	16.4	-2.2	-39.5	**-32.9**	43.3	-5.3	-16.4	2.2	39.5	**32.9**

Member 7

Fx_7	**-28.2**	-7.0	20.0	15.0	-84.9	-33.1	**28.2**	7.0	-20.0	-15.0	84.9	33.1
Fy_7	28.2	**-7.0**	-20.0	-15.0	84.9	33.1	-28.2	**7.0**	20.0	15.0	-84.9	-33.1
Fz_7	28.2	7.0	**-20.0**	-15.0	84.9	33.1	-28.2	-7.0	**20.0**	15.0	-84.9	-33.1
Mx_7	28.2	7.0	-20.0	**-15.0**	84.9	33.1	-28.2	-7.0	20.0	**15.0**	-84.9	-33.1
My_7	-28.2	-7.0	20.0	15.0	**-84.9**	-33.1	28.2	7.0	-20.0	-15.0	**84.9**	33.1
Mz_7	-28.2	-7.0	20.0	15.0	-84.9	**-33.1**	28.2	7.0	-20.0	-15.0	84.9	**33.1**
Fx_f	**-28.2**	-7.0	15.8	7.4	-4.4	-1.6	**28.2**	7.0	-15.8	-7.4	4.4	1.6
Fy_f	-28.2	**-7.0**	15.8	7.4	-4.4	-1.6	28.2	**7.0**	-15.8	-7.4	4.4	1.6
Fz_f	28.2	7.0	**-15.8**	-7.4	4.4	1.6	-28.2	-7.0	**15.8**	7.4	-4.4	-1.6
Mx_f	28.2	7.0	-15.8	**-7.4**	4.4	1.6	-28.2	-7.0	15.8	**7.4**	-4.4	-1.6
My_f	-28.2	-7.0	15.8	7.4	**-4.4**	-1.6	28.2	7.0	-15.8	-7.4	**4.4**	1.6
Mz_f	-28.2	-7.0	15.8	7.4	-4.4	**-1.6**	28.2	7.0	-15.8	-7.4	4.4	**1.6**

Member 8

Fx_8	**-14.1**	-4.9	15.8	13.8	-46.5	-1.9	**14.1**	4.9	-15.8	-13.8	46.5	1.9
Fy_8	-14.1	**-4.9**	15.8	13.8	-46.5	-1.9	14.1	**4.9**	-15.8	-13.8	46.5	1.9
Fz_8	14.1	4.9	**-15.8**	-13.8	46.5	1.9	-14.1	-4.9	**15.8**	13.8	-46.5	-1.9
Mx_8	14.1	4.9	-15.8	**-13.8**	46.5	1.9	-14.1	-4.9	15.8	**13.8**	-46.5	-1.9
My_8	-14.1	-4.9	15.8	13.8	**-46.5**	-1.9	14.1	4.9	-15.8	-13.8	**46.5**	1.9
Mz_8	-14.1	-4.9	15.8	13.8	-46.5	**-1.9**	14.1	4.9	-15.8	-13.8	46.5	**1.9**
Fx_f	**-14.1**	-4.9	11.5	6.2	14.9	20.1	**14.1**	4.9	-11.5	-6.2	-14.9	-20.1
Fy_f	-14.1	**-4.9**	11.5	6.2	14.9	20.1	14.1	**4.9**	-11.5	-6.2	-14.9	-20.1
Fz_f	14.1	4.9	**-11.5**	-6.2	-14.9	-20.1	-14.1	-4.9	**11.5**	6.2	14.9	20.1
Mx_f	14.1	4.9	-11.5	**-6.2**	-14.9	-20.1	-14.1	-4.9	11.5	**6.2**	14.9	20.1
My_f	14.1	4.9	-11.5	-6.2	**-14.9**	-20.1	-14.1	-4.9	11.5	6.2	**14.9**	20.1
Mz_f	14.1	4.9	-11.5	-6.2	-14.9	**-20.1**	-14.1	-4.9	11.5	6.2	14.9	**20.1**

Member 9

Fx_9	**-1.2**	-3.0	11.5	11.8	-23.9	19.8	**1.2**	3.0	-11.5	-11.8	23.9	-19.8
Fy_9	-1.2	**-3.0**	11.5	11.8	-23.9	19.8	1.2	**3.0**	-11.5	-11.8	23.9	-19.8
Fz_9	1.2	3.0	**-11.5**	-11.8	23.9	-19.8	-1.2	-3.0	**11.5**	11.8	-23.9	19.8
Mx_9	1.2	3.0	-11.5	**-11.8**	23.9	-19.8	-1.2	-3.0	11.5	**11.8**	-23.9	19.8
My_9	-1.2	-3.0	11.5	11.8	**-23.9**	19.8	1.2	3.0	-11.5	-11.8	**23.9**	-19.8
Mz_9	1.2	3.0	-11.5	-11.8	23.9	**-19.8**	-1.2	-3.0	11.5	11.8	-23.9	**19.8**
Fx_f	**-1.2**	-3.0	7.3	4.2	18.5	33.4	**1.2**	3.0	-7.3	-4.2	-18.5	-33.4

Fy_f	-1.2	**-3.0**	7.3	4.2	18.5	33.4	1.2	**3.0**	-7.3	-4.2	-18.5	-33.4
Fz_f	1.2	3.0	**-7.3**	-4.2	-18.5	-33.4	-1.2	-3.0	**7.3**	4.2	18.5	33.4
Mx_f	1.2	3.0	-7.3	**-4.2**	-18.5	-33.4	-1.2	-3.0	7.3	**4.2**	18.5	33.4
My_f	1.2	3.0	-7.3	-4.2	**-18.5**	-33.4	-1.2	-3.0	7.3	4.2	**18.5**	33.4
Mz_f	1.2	3.0	-7.3	-4 2	-18.5	**-33.4**	-1.2	-3.0	7.3	4.2	18.5	**33.4**

Member 10

Fx_i	**-7.0**	1.3	-7.3	-9.5	6.1	-33.2	**7.0**	-1.3	7.3	9.5	-6.1	33.2
Fy_i	7.0	**-1.3**	7.3	9.5	-6.1	33.2	-7.0	**1.3**	-7.3	-9.5	6.1	-33.2
Fz_i	-7.0	1.3	**-7.3**	-9.5	6.1	-33.2	7.0	-1.3	**7.3**	9.5	-6.1	33.2
Mx_i	-7.0	1.3	-7.3	**-9.5**	6.1	-33.2	7.0	-1.3	7.3	**9.5**	-6.1	33.2
My_i	7.0	-1.3	7.3	9.5	**-6.1**	33.2	-7.0	1.3	-7.3	-9.5	**6.1**	-33.2
Mz_i	-7.0	1.3	-7.3	-9.5	6.1	**-33.2**	7.0	-1.3	7.3	9.5	-6.1	**33.2**
Fx_f	**-7.0**	1.3	-3.1	-1.9	-17.3	-38.8	**7.0**	-1.3	3.1	1.9	17.3	38.8
Fy_f	7.0	**-1.3**	3.1	1.9	17.3	38.8	-7.0	**1.3**	-3.1	-1.9	-17.3	-38.8
Fz_f	-7.0	1.3	**-3.1**	-1.9	-17.3	-38.8	7.0	-1.3	**3.1**	1.9	17.3	38.8
Mx_f	-7.0	1.3	-3.1	**-1.9**	-17.3	-38.8	7.0	-1.3	3.1	**1.9**	17.3	38.8
My_f	-7.0	1.3	-3.1	-1.9	**-17.3**	-38.8	7.0	-1.3	3.1	1.9	**17.3**	38.8
Mz_f	-7.0	1.3	-3.1	-1.9	-17.3	**-38.8**	7.0	-1.3	3.1	1.9	17.3	**38.8**

Member 11

Fx_i	**-10.5**	-0.8	-3.1	-7.9	-6.9	-38.8	**10.5**	0.8	3.1	7.9	6.9	38.8
Fy_i	-10.5	**-0.8**	-3.1	-7.9	-6.9	-38.8	10.5	**0.8**	3.1	7.9	6.9	38.8
Fz_i	-10.5	-0.8	**-3.1**	-7.9	-6.9	-38.8	10.5	0.8	**3.1**	7.9	6.9	38.8
Mx_i	-10.5	-0.8	-3.1	**-7.9**	-6.9	-38.8	10.5	0.8	3.1	**7.9**	6.9	38.8
My_i	-10.5	-0.8	-3.1	-7.9	**-6.9**	-38.8	10.5	0.8	3.1	7.9	**6.9**	38.8
Mz_i	-10.5	-0.8	-3.1	-7 9	-6.9	**-38.8**	10.5	0.8	3.1	7.9	6.9	**38.8**
Fx_f	**-10.5**	-0 8	1.1	-0.3	-11.2	-35.4	**10.5**	0.8	-1.1	0.3	11.2	35.4
Fy_f	-10.5	**-0.8**	1.1	-0.3	-11.2	-35.4	10 5	**0.8**	-1.1	0.3	11 2	35.4
Fz_f	10.5	0.8	**-1.1**	0.3	11.2	35.4	-10.5	-0.8	**1.1**	-0.3	-11.2	-35.4
Mx_f	-10.5	-0.8	1.1	**-0.3**	-11.2	-35.4	10.5	0.8	-1.1	**0.3**	11.2	35.4
My_f	-10.5	-0.8	1.1	-0.3	**-11.2**	-35.4	10.5	0.8	-1.1	0.3	**11.2**	35.4
Mz_f	-10.5	-0.8	1.1	-0.3	-11.2	**-35.4**	10.5	0.8	-1.1	0.3	11.2	**35.4**

Member 12

Fx_i	**-9.2**	-3.5	1.1	-8.4	-15.1	-35.6	**9.2**	3.5	-1 1	8.4	15.1	35.6
Fy_i	-9.2	**-3.5**	1.1	-8.4	-15.1	-35.6	9.2	**3.5**	-1 1	8.4	15 1	35.6
Fz_i	9.2	3.5	**-1.1**	8.4	15.1	35.6	-9.2	-3.5	**1.1**	-8.4	-15.1	-35.6
Mx_i	-9.2	-3.5	1.1	**-8.4**	-15.1	-35.6	9.2	3.5	-1.1	**8.4**	15.1	35.6
My_i	-9.2	-3.5	1.1	-8.4	**-15.1**	-35.6	9.2	3.5	-1.1	8.4	**15.1**	35.6
Mz_i	-9.2	-3.5	1 1	-8.4	-15.1	**-35.6**	9.2	3.5	-1.1	8.4	15.1	**35.6**
Fx_f	**-9.2**	-3.5	5.4	-0 8	-0.4	-20.0	**9.2**	3.5	-5.4	0.8	0 4	20.0
Fy_f	-9.2	**-3.5**	5.4	-0 8	-0.4	-20.0	9.2	**3.5**	-5.4	0.8	0.4	20.0
Fz_f	9.2	3.5	**-5.4**	0 8	0.4	20.0	-9.2	-3.5	**5.4**	-0 8	-0 4	-20 0
Mx_f	-9.2	-3.5	5.4	**-0.8**	-0.4	-20.0	9.2	3 5	-5.4	**0.8**	0 4	20.0
My_f	-9.2	-3.5	5.4	-0 8	**-0.4**	-20.0	9.2	3.5	-5 4	0.8	**0.4**	20.0
Mz_f	-9.2	-3.5	5.4	-0 8	-0.4	**-20.0**	9.2	3.5	-5.4	0.8	0.4	**20.0**

Member 13

Fx_i	**-3.2**	-7.5	5.4	-12.8	-18.5	-20.4	**3.2**	7.5	-5.4	12.8	18.5	20.4
Fy_i	-3.2	**-7.5**	5.4	-12.8	-18.5	-20.4	3.2	**7.5**	-5.4	12.8	18.5	20.4
Fz_i	3.2	7.5	**-5.4**	12.8	18.5	20.4	-3.2	-7.5	**5.4**	-12.8	-18.5	-20.4
Mx_i	-3.2	-7.5	5 4	**-12.8**	-18.5	-20.4	3.2	7.5	-5.4	**12.8**	18.5	20.4
My_i	-3.2	-7.5	5.4	-12.8	**-18.5**	-20.4	3.2	7.5	-5.4	12.8	**18.5**	20.4
Mz_i	-3.2	-7.5	5.4	-12.8	-18.5	**-20.4**	3.2	7.5	-5.4	12.8	18.5	**20.4**
Fx_f	**-3.2**	-7.5	9.6	-5.2	15.2	13.3	**3.2**	7.5	-9.6	5.2	-15.2	-13.3
Fy_f	-3.2	**-7.5**	9.6	-5.2	15.2	13.3	3.2	**7.5**	-9.6	5.2	-15.2	-13.3
Fz_f	3.2	7.5	**-9.6**	5.2	-15.2	-13.3	-3.2	-7.5	**9.6**	-5.2	15.2	13.3
Mx_f	-3.2	-7.5	9.6	**-5.2**	15.2	13.3	3.2	7.5	-9.6	**5.2**	-15.2	-13.3
My_f	3.2	7.5	-9.6	5.2	**-15.2**	-13.3	-3.2	-7.5	9.6	-5.2	**15.2**	13.3
Mz_f	3.2	7.5	-9.6	5 2	-15.2	**-13.3**	-3.2	-7.5	9 6	-5 2	15.2	**13.3**

Member 14

Fx	**-6.7**	13.5	-9.6	23.4	14.4	-12.9	**6.7**	-13.5	9.6	-23.4	-14.4	12.9
Fy	6.7	**-13.5**	9.6	-23.4	-14.4	12.9	-6.7	**13.5**	-9.6	23.4	14.4	-12.9
Fz	-6.7	13.5	**-9.6**	23.4	14.4	-12.9	6.7	-13.5	**9.6**	-23.4	-14.4	12.9
Mx_i	6.7	-13.5	9.6	**-23.4**	-14.4	12.9	-6.7	13.5	-9.6	**23.4**	14.4	-12.9
My_i	6.7	-13.5	9.6	-23.4	**-14.4**	12.9	-6.7	13.5	-9.6	23.4	**14.4**	-12.9
Mz_i	-6.7	13.5	-9.6	23.4	14.4	**-12.9**	6.7	-13.5	9.6	-23.4	-14.4	**12.9**
Fx_f	**-6.7**	13.5	-13.8	15.8	-38.3	-73.8	**6.7**	-13.5	13.8	-15.8	38.3	73.8
Fy_f	6.7	**-13.5**	13.8	-15.8	38.3	73.8	-6.7	**13.5**	-13.8	15.8	-38.3	-73.8
Fz_f	-6.7	13.5	**-13.8**	15.8	-38.3	-73.8	6.7	-13.5	**13.8**	-15.8	38.3	73.8
Mx_f	6.7	-13.5	13.8	**-15.8**	38.3	73.8	-6.7	13.5	-13.8	**15.8**	-38.3	-73.8
My_f	-6.7	13.5	-13.8	15.8	**-38.3**	-73.8	6.7	-13.5	13.8	-15.8	**38.3**	73.8
Mz_f	-6.7	13.5	-13.8	15.8	-38.3	**-73.8**	6.7	-13.5	13.8	-15.8	38.3	**73.8**

Member 15

Fx_i	**-3.9**	-14.4	19.4	-10.3	-46.6	-73.8	**3.9**	14.4	-19.4	10.3	46.6	73.8
Fy_i	-3.9	**-14.4**	19.4	-10.3	-46.6	-73.8	3.9	**14.4**	-19.4	10.3	46.6	73 8
Fz_i	3.9	14.4	**-19.4**	10.3	46.6	73.8	-3.9	-14.4	**19.4**	-10.3	-46.6	-73.8
Mx_i	-3.9	-14.4	19.4	**-10.3**	-46.6	-73.8	3.9	14.4	-19.4	**10.3**	46.6	73.8
My_i	-3.9	-14.4	19.4	-10.3	**-46.6**	-73.8	3.9	14.4	-19.4	10.3	**46.6**	73.8
Mz_i	-3.9	-14.4	19.4	-10.3	-46.6	**-73.8**	3.9	14.4	-19.4	10.3	46.6	**73.8**
Fx_f	**-3.9**	-14.4	15.1	-17.9	31.0	-9.0	**3.9**	14.4	-15.1	17.9	-31.0	9.0
Fy_f	-3.9	**-14.4**	15.1	-17.9	31.0	-9.0	3.9	**14.4**	-15.1	17.9	-31.0	9.0
Fz_f	3.9	14.4	**-15.1**	17.9	-31.0	9.0	-3.9	-14.4	**15.1**	-17.9	31 0	-9.0
Mx_f	-3.9	-14.4	15.1	**-17.9**	31.0	-9.0	3.9	14.4	-15.1	**17.9**	-31.0	9.0
My_f	3.9	14.4	-15.1	17.9	**-31.0**	9.0	-3.9	-14.4	15.1	-17.9	**31.0**	-9.0
Mz_f	-3.9	-14.4	15.1	-17.9	31.0	**-9.0**	3.9	14.4	-15 1	17.9	-31 0	**9.0**

Member 16

Fx_i	**-12.5**	8.4	-15.1	-0 1	18.3	9.5	**12.5**	-8.4	15.1	0 1	-18.3	-9 5
Fy_i	12.5	**-8.4**	15.1	0.1	-18.3	-9.5	-12.5	**8.4**	-15.1	-0.1	18 3	9.5
Fz_i	-12.5	8.4	**-15.1**	-0 1	18.3	9.5	12.5	-8.4	**15.1**	0 1	-18.3	-9.5
Mx_i	-12.5	8.4	-15.1	**-0.1**	18.3	9.5	12.5	-8.4	15.1	**0.1**	-18.3	-9.5
My_i	12.5	-8.4	15.1	0.1	**-18.3**	-9.5	-12.5	8.4	-15.1	-0 1	**18.3**	9.5
Mz_i	12.5	-8.4	15.1	0.1	-18.3	**-9.5**	-12.5	8.4	-15.1	-0.1	18 3	**9.5**
Fx_f	**-12.5**	8.4	-10.9	7.5	-40.3	-28.2	**12.5**	-8.4	10.9	-7.5	40 3	28 2
Fy_f	12.5	**-8.4**	10.9	-7.5	40.3	28.2	-12.5	**8.4**	-10.9	7 5	-40 3	-28.2
Fz_f	-12.5	8.4	**-10.9**	7.5	-40.3	-28.2	12.5	-8.4	**10.9**	-7.5	40.3	28.2
Mx_f	12.5	-8 4	10.9	**-7.5**	40.3	28.2	-12.5	8.4	-10.9	**7.5**	-40 3	-28.2
My_f	-12.5	8.4	-10.9	7.5	**-40.3**	-28.2	12.5	-8.4	10.9	-7.5	**40.3**	28.2
Mz_f	-12 5	8 4	-10.9	7.5	-40.3	**-28.2**	12.5	-8.4	10.9	-7.5	40.3	**28.2**

Member 17

Fx_i	**-24.7**	4.3	-10.9	-4.6	-3.6	-27.8	**24.7**	-4.3	10.9	4.6	3 6	27.8
Fy_i	24.7	**-4.3**	10.9	4.6	3.6	27.8	-24.7	**4.3**	-10.9	-4.6	-3 6	-27.8
Fz_i	-24.7	4.3	**-10.9**	-4.6	-3.6	-27.8	24.7	-4.3	**10.9**	4.6	3 6	27.8
Mx_i	-24.7	4 3	-10 9	**-4.6**	-3.6	-27.8	24.7	-4.3	10.9	**4.6**	3 6	27 8
My_i	-24.7	4.3	-10 9	-4.6	**-3.6**	-27.8	24.7	-4.3	10.9	4 6	**3.6**	27 8
Mz_i	-24.7	4.3	-10.9	-4.6	-3.6	**-27.8**	24.7	-4.3	10.9	4.6	3.6	**27.8**
Fx_f	**-24.7**	4.3	-6.7	3.0	-43.1	-47.3	**24.7**	-4.3	6.7	-3.0	43.1	47.3
Fy_f	24.7	**-4.3**	6.7	-3.0	43.1	47.3	-24.7	**4.3**	-6.7	3.0	-43.1	-47.3
Fz_f	-24.7	4.3	**-6.7**	3.0	-43.1	-47.3	24.7	-4.3	**6.7**	-3.0	43.1	47.3
Mx_f	24.7	-4.3	6.7	**-3.0**	43.1	47.3	-24.7	4.3	-6.7	**3.0**	-43.1	-47.3
My_f	-24.7	4.3	-6.7	3.0	**-43.1**	-47.3	24.7	-4.3	6.7	-3.0	**43.1**	47.3
Mz_f	-24.7	4.3	-6.7	3.0	-43.1	**-47.3**	24.7	-4.3	6.7	-3.0	43.1	**47.3**

Member 18

Fx_i	**-32.2**	1.4	-6.7	-5.8	-20.7	-47.1	**32.2**	-1.4	6.7	5.8	20.7	47.1
Fy_i	32.2	**-1.4**	6.7	5.8	20.7	47.1	-32.2	**1.4**	-6.7	-5.8	-20.7	-47.1
Fz_i	-32.2	1.4	**-6.7**	-5.8	-20.7	-47.1	32.2	-1.4	**6.7**	5.8	20.7	47.1
Mx_i	-32.2	1.4	-6.7	**-5.8**	-20.7	-47.1	32.2	-1.4	6.7	**5.8**	20.7	47.1
My_i	-32.2	1.4	-6.7	-5.8	**-20.7**	-47.1	32.2	-1.4	6.7	5 8	**20.7**	47.1
Mz_i	-32.2	1.4	-6.7	-5.8	-20.7	**-47.1**	32.2	-1.4	6.7	5.8	20.7	**47.1**
Fx_f	**-32.2**	1 4	-2 4	1 8	-41.2	-53.5	**32.2**	-1 4	2.4	-1.8	41.2	53.5
Fy_f	32.2	**-1.4**	2 4	-1.8	41.2	53.5	-32.2	**1.4**	-2.4	1.8	-41 2	-53.5
Fz_f	-32.2	1 4	**-2.4**	1.8	-41.2	-53.5	32.2	-1.4	**2.4**	-1.8	41.2	53.5
Mx_f	32.2	-1.4	2 4	**-1.8**	41.2	53.5	-32.2	1.4	-2.4	**1.8**	-41.2	-53.5
My_f	-32.2	1 4	-2 4	1 8	**-41.2**	-53.5	32.2	-1.4	2.4	-1.8	**41.2**	53.5
Mz_f	-32.2	1 4	-2.4	1.8	-41.2	**-53.5**	32.2	-1.4	2.4	-1.8	41.2	**53.5**

Member 19

Fx_i	**-35.0**	-1.2	-2.4	-6.2	-32.9	-53.5	**35.0**	1.2	2.4	6.2	32.9	53.5
Fy_i	-35.0	**-1.2**	-2.4	-6.2	-32.9	-53.5	35.0	**1.2**	2.4	6.2	32.9	53.5
Fz_i	-35.0	-1.2	**-2.4**	-6.2	-32.9	-53.5	35.0	1.2	**2.4**	6.2	32.9	53.5
Mx_i	-35.0	-1.2	-2.4	**-6.2**	-32.9	-53.5	35.0	1.2	2.4	**6.2**	32.9	53.5
My_i	-35.0	-1.2	-2.4	-6.2	**-32.9**	-53.5	35.0	1.2	2.4	6.2	**32.9**	53.5
Mz_i	-35.0	-1.2	-2.4	-6.2	-32.9	**-53.5**	35.0	1.2	2.4	6.2	32.9	**53.5**
Fx_f	**-35.0**	-1.2	1.8	1.4	-34.4	-47.9	**35.0**	1.2	-1.8	-1.4	34.4	47.9
Fy_f	-35.0	**-1.2**	1.8	1.4	-34.4	-47.9	35.0	**1.2**	-1.8	-1.4	34.4	47.9
Fz_f	35.0	1.2	**-1.8**	-1.4	34.4	47.9	-35.0	-1.2	**1.8**	1.4	-34.4	-47.9
Mx_f	35.0	1.2	-1.8	**-1.4**	34.4	47.9	-35.0	-1.2	1.8	**1.4**	-34.4	-47.9
My_f	-35.0	-1.2	1.8	1.4	**-34.4**	-47.9	35.0	1.2	-1.8	-1.4	**34.4**	47.9
Mz_f	-35.0	-1.2	1.8	1.4	-34.4	**-47.9**	35.0	1.2	-1.8	-1.4	34.4	**47.9**

Member 20

Fx_i	**-33.0**	-4.5	1.8	-8.5	-40.4	-48.2	**33.0**	4.5	-1.8	8.5	40.4	48.2
Fy_i	-33.0	**-4.5**	1.8	-8.5	-40.4	-48.2	33.0	**4.5**	-1.8	8.5	40.4	48.2
Fz_i	33.0	4.5	**-1.8**	8.5	40.4	48.2	-33.0	-4.5	**1.8**	-8.5	-40.4	-48.2
Mx_i	-33.0	-4.5	1.8	**-8.5**	-40.4	-48.2	33.0	4.5	-1.8	**8.5**	40.4	48.2
My_i	-33.0	-4.5	1.8	-8.5	**-40.4**	-48.2	33.0	4.5	-1.8	8.5	**40.4**	48.2
Mz_i	-33.0	-4.5	1.8	-8.5	-40.4	**-48.2**	33.0	4.5	-1.8	8.5	40.4	**48.2**
Fx_f	**-33.0**	-4.5	6.0	-0.9	-22.9	-27.7	**33.0**	4.5	-6.0	0.9	22.9	27.7
Fy_f	-33.0	**-4.5**	6.0	-0.9	-22.9	-27.7	33.0	**4.5**	-6.0	0.9	22.9	27.7
Fz_f	33.0	4.5	**-6.0**	0.9	22.9	27.7	-33.0	-4.5	**6.0**	-0.9	-22.9	-27.7
Mx_f	-33.0	-4.5	6.0	**-0.9**	-22.9	-27.7	33.0	4.5	-6.0	**0.9**	22.9	27.7
My_f	-33.0	-4.5	6.0	-0.9	**-22.9**	-27.7	33.0	4.5	-6.0	0.9	**22.9**	27.7
Mz_f	-33.0	-4.5	6.0	-0.9	-22.9	**-27.7**	33.0	4.5	-6.0	0.9	22.9	**27.7**

Member 21

Fx_i	**-26.2**	-9.5	6.0	-15.7	-43.2	-28.1	**26.2**	9.5	-6.0	15.7	43.2	28.1
Fy_i	-26.2	**-9.5**	6.0	-15.7	-43.2	-28.1	26.2	**9.5**	-6.0	15.7	43.2	28.1
Fz_i	26.2	9.5	**-6.0**	15.7	43.2	28.1	-26.2	-9.5	**6.0**	-15.7	-43.2	-28.1
Mx_i	-26.2	-9.5	6.0	**-15.7**	-43.2	-28.1	26.2	9.5	-6.0	**15.7**	43.2	28.1
My_i	-26.2	-9.5	6.0	-15.7	**-43.2**	-28.1	26.2	9.5	-6.0	15.7	**43.2**	28.1
Mz_i	-26.2	-9.5	6.0	-15.7	-43.2	**-28.1**	26.2	9.5	-6.0	15.7	43.2	**28.1**
Fx_f	**-26.2**	-9.5	10.2	-8.1	-6.6	14.5	**26.2**	9.5	-10.2	8.1	6.6	-14.5
Fy_f	-26.2	**-9.5**	10.2	-8.1	-6.6	14.5	26.2	**9.5**	-10.2	8.1	6.6	-14.5
Fz_f	26.2	9.5	**-10.2**	8.1	6.6	-14.5	-26.2	-9.5	**10.2**	-8.1	-6.6	14.5
Mx_f	-26.2	-9.5	10.2	**-8.1**	-6.6	14.5	26.2	9.5	-10.2	**8.1**	6.6	-14.5
My_f	-26.2	-9.5	10.2	-8.1	**-6.6**	14.5	26.2	9.5	-10.2	8.1	**6.6**	-14.5
Mz_f	26.2	9.5	-10.2	8.1	6.6	**-14.5**	-26.2	-9.5	10.2	-8.1	-6.6	**14.5**

Member 22

Fx_i	**-13.1**	-17.1	10.2	-31.0	-46.0	14.0	**13.1**	17.1	-10.2	31.0	46.0	-14.0
Fy_i	-13.1	**-17.1**	10.2	-31.0	-46.0	14.0	13.1	**17.1**	-10.2	31.0	46.0	-14.0
Fz_i	13.1	17.1	**-10.2**	31.0	46.0	-14.0	-13.1	-17.1	**10.2**	-31.0	-46.0	14.0
Mx_i	-13.1	-17.1	10.2	**-31.0**	-46.0	14.0	13.1	17.1	-10.2	**31.0**	46.0	-14.0
My_i	-13.1	-17.1	10.2	-31.0	**-46.0**	14.0	13.1	17.1	-10.2	31.0	**46.0**	-14.0
Mz_i	13.1	17.1	-10.2	31.0	46.0	**-14.0**	-13.1	-17.1	10.2	-31.0	-46.0	**14.0**
Fx_f	**-13.1**	-17.1	14.5	-23.4	9.6	91.1	**13.1**	17.1	-14.5	23.4	-9.6	-91.1
Fy_f	-13.1	**-17.1**	14.5	-23.4	9.6	91.1	13.1	**17.1**	-14.5	23.4	-9.6	-91.1
Fz_f	13.1	17.1	**-14.5**	23.4	-9.6	-91.1	-13.1	-17.1	**14.5**	-23.4	9.6	91.1
Mx_f	-13.1	-17.1	14.5	**-23.4**	9.6	91.1	13.1	17.1	-14.5	**23.4**	-9.6	-91.1
My_f	13.1	17.1	-14.5	23.4	**-9.6**	-91.1	-13.1	-17.1	14.5	-23.4	**9.6**	91.1
Mz_f	13.1	17.1	-14.5	23.4	-9.6	**-91.1**	-13.1	-17.1	14.5	-23.4	9.6	**91.1**

Member 23

Fx_i	**-14.2**	17.6	-16.8	20.5	13.0	91.1	**14.2**	-17.6	16.8	-20.5	-13.0	-91.1
Fy_i	14.2	**-17.6**	16.8	-20.5	-13.0	-91.1	-14.2	**17.6**	-16.8	20.5	13.0	91.1
Fz_i	-14.2	17.6	**-16.8**	20.5	13.0	91.1	14.2	-17.6	**16.8**	-20.5	-13.0	-91.1
Mx_i	14.2	-17.6	16.8	**-20.5**	-13.0	-91.1	-14.2	17.6	-16.8	**20.5**	13.0	91.1
My_i	14.2	-17.6	16.8	-20.5	**-13.0**	-91.1	-14.2	17.6	-16.8	20.5	**13.0**	91.1
Mz_i	14.2	-17.6	16.8	-20.5	-13.0	**-91.1**	-14.2	17.6	-16.8	20.5	13.0	**91.1**
Fx_f	**-14.2**	17.6	-12.5	28.1	-52.9	12.1	**14.2**	-17.6	12.5	-28.1	52.9	-12.1
Fy_f	14.2	**-17.6**	12.5	-28.1	52.9	-12.1	-14.2	**17.6**	-12.5	28.1	-52.9	12.1
Fz_f	-14.2	17.6	**-12.5**	28.1	-52.9	12.1	14.2	-17.6	**12.5**	-28.1	52.9	-12.1
Mx_f	14.2	-17.6	12.5	**-28.1**	52.9	-12.1	-14.2	17.6	-12.5	**28.1**	-52.9	12.1
My_f	-14.2	17.6	-12.5	28.1	**-52.9**	12.1	14.2	-17.6	12.5	-28.1	**52.9**	-12.1
Mz_f	14.2	-17.6	12.5	-28.1	52.9	**-12.1**	-14.2	17.6	-12.5	28.1	-52.9	**12.1**

Member 24

Fx_i	**-30.1**	9.9	-12.5	5.2	-5.3	12.7	**30.1**	-9.9	12.5	-5.2	5.3	-12.7
Fy_i	30.1	**-9.9**	12.5	-5.2	5.3	-12.7	-30.1	**9.9**	-12.5	5.2	-5.3	12.7
Fz_i	-30.1	9.9	**-12.5**	5.2	-5.3	12.7	30.1	-9.9	**12.5**	-5.2	5.3	-12.7
Mx_i	30.1	-9.9	12.5	**-5.2**	5.3	-12.7	-30.1	9.9	-12.5	**5.2**	-5.3	12.7
My_i	-30.1	9.9	-12.5	5.2	**-5.3**	12.7	30.1	-9.9	12.5	-5.2	**5.3**	-12.7
Mz_i	30.1	-9.9	12.5	-5.2	5.3	**-12.7**	-30.1	9.9	-12.5	5.2	-5.3	**12.7**
Fx_f	**-30.1**	9.9	-8.3	12.8	-52.2	-32.0	**30.1**	-9.9	8.3	-12.8	52.2	32.0
Fy_f	30.1	**-9.9**	8.3	-12.8	52.2	32.0	-30.1	**9.9**	-8.3	12.8	-52.2	-32.0
Fz_f	-30.1	9.9	**-8.3**	12.8	-52.2	-32.0	30.1	-9.9	**8.3**	-12.8	52.2	32.0
Mx_f	30.1	-9.9	8.3	**-12.8**	52.2	32.0	-30.1	9.9	-8.3	**12.8**	-52.2	-32.0
My_f	-30.1	9.9	-8.3	12.8	**-52.2**	-32.0	30.1	-9.9	8.3	-12.8	**52.2**	32.0
Mz_f	-30.1	9.9	-8.3	12.8	-52.2	**-32.0**	30.1	-9.9	8.3	-12.8	52.2	**32.0**

Member 25

Fx_i	**-39.4**	5.0	-8.3	-2.0	-24.2	-31.5	**39.4**	-5.0	8.3	2.0	24.2	31.5
Fy_i	39.4	**-5.0**	8.3	2.0	24.2	31.5	-39.4	**5.0**	-8.3	-2.0	-24.2	-31.5
Fz_i	-39.4	5.0	**-8.3**	-2.0	-24.2	-31.5	39.4	-5.0	**8.3**	2.0	24.2	31.5
Mx_i	-39.4	5.0	-8.3	**-2.0**	-24.2	-31.5	39.4	-5.0	8.3	**2.0**	24.2	31.5
My_i	-39.4	5.0	-8.3	-2.0	**-24.2**	-31.5	39.4	-5.0	8.3	2.0	**24.2**	31.5
Mz_i	-39.4	5.0	-8.3	-2.0	-24.2	**-31.5**	39.4	-5.0	8.3	2.0	24.2	**31.5**
Fx_f	**-39.4**	5.0	-4.1	5.6	-52.0	-54.0	**39.4**	-5.0	4.1	-5.6	52.0	54.0
Fy_f	39.4	**-5.0**	4.1	-5.6	52.0	54.0	-39.4	**5.0**	-4.1	5.6	-52.0	-54.0
Fz_f	-39.4	5.0	**-4.1**	5.6	-52.0	-54.0	39.4	-5.0	**4.1**	-5.6	52.0	54.0
Mx_f	39.4	-5.0	4.1	**-5.6**	52.0	54.0	-39.4	5.0	-4.1	**5.6**	-52.0	-54.0
My_f	-39.4	5.0	-4.1	5.6	**-52.0**	-54.0	39.4	-5.0	4.1	-5.6	**52.0**	54.0
Mz_f	-39.4	5.0	-4.1	5.6	-52.0	**-54.0**	39.4	-5.0	4.1	-5.6	52.0	**54.0**

Member 26

Fx_i	**-44.0**	1.6	-4.1	-4.6	-38.3	-53.7	**44.0**	-1.6	4.1	4.6	38.3	53.7
Fy_i	44.0	**-1.6**	4.1	4.6	38.3	53.7	-44.0	**1.6**	-4.1	-4.6	-38.3	-53.7
Fz_i	-44.0	1.6	**-4.1**	-4.6	-38.3	-53.7	44.0	-1.6	**4.1**	4.6	38.3	53.7
Mx_i	-44.0	1.6	-4.1	**-4.6**	-38.3	-53.7	44.0	-1.6	4.1	**4.6**	38.3	53.7
My_i	-44.0	1.6	-4.1	-4.6	**-38.3**	-53.7	44.0	-1.6	4.1	4.6	**38.3**	53.7
Mz_i	-44.0	1.6	-4.1	-4.6	-38.3	**-53.7**	44.0	-1.6	4.1	4.6	38.3	**53.7**
Fx_f	**-44.0**	1.6	0.2	3.0	-47.1	-60.9	**44.0**	-1.6	-0.2	-3.0	47.1	60.9
Fy_f	44.0	**-1.6**	-0.2	-3.0	47.1	60.9	-44.0	**1.6**	0.2	3.0	-47.1	-60.9
Fz_f	44.0	-1.6	**-0.2**	-3.0	47.1	60.9	-44.0	1.6	**0.2**	3.0	-47.1	-60.9
Mx_f	44.0	-1.6	-0.2	**-3.0**	47.1	60.9	-44.0	1.6	0.2	**3.0**	-47.1	-60.9
My_f	-44.0	1.6	0.2	3.0	**-47.1**	-60.9	44.0	-1.6	-0.2	-3.0	**47.1**	60.9
Mz_f	-44.0	1.6	0.2	3.0	-47.1	**-60.9**	44.0	-1.6	-0.2	-3.0	47.1	**60.9**

Member 27

Fx_i	**-43.8**	-1.4	0.2	-5.9	-47.6	-60.9	**43.8**	1.4	-0.2	5.9	47.6	60.9
Fy_i	-43.8	**-1.4**	0.2	-5.9	-47.6	-60.9	43.8	**1.4**	-0.2	5.9	47.6	60.9
Fz_i	43.8	1.4	**-0.2**	5.9	47.6	60.9	-43.8	-1.4	**0.2**	-5.9	-47.6	-60.9
Mx_i	-43.8	-1.4	0.2	**-5.9**	-47.6	-60.9	43.8	1.4	-0.2	**5.9**	47.6	60.9
My_i	-43.8	-1.4	0.2	-5.9	**-47.6**	-60.9	43.8	1.4	-0.2	5.9	**47.6**	60.9
Mz_i	-43.8	-1.4	0.2	-5.9	-47.6	**-60.9**	43.8	1.4	-0.2	5.9	47.6	**60.9**
Fx_f	**-43.8**	-1.4	4.4	1.7	-37.4	-54.6	**43.8**	1.4	-4.4	-1.7	37.4	54.6
Fy_f	-43.8	**-1.4**	4.4	1.7	-37.4	-54.6	43.8	**1.4**	-4.4	-1.7	37.4	54.6
Fz_f	43.8	1.4	**-4.4**	-1.7	37.4	54.6	-43.8	-1.4	**4.4**	1.7	-37.4	-54.6
Mx_f	43.8	1.4	-4.4	**-1.7**	37.4	54.6	-43.8	-1.4	4.4	**1.7**	-37.4	-54.6
My_f	-43.8	-1.4	4.4	1.7	**-37.4**	-54.6	43.8	1.4	-4.4	-1.7	**37.4**	54.6
Mz_f	-43.8	-1.4	4.4	1.7	-37.4	**-54.6**	43.8	1.4	-4.4	-1.7	37.4	**54.6**

Member 28

Fx_i	**-38.9**	-5.0	4.4	-9.3	-52.2	-54.9	**38.9**	5.0	-4.4	9.3	52.2	54.9
Fy_i	-38.9	**-5.0**	4.4	-9.3	-52.2	-54.9	38.9	**5.0**	-4.4	9.3	52.2	54.9
Fz_i	38.9	5.0	**-4.4**	9.3	52.2	54.9	-38.9	-5.0	**4.4**	-9.3	-52.2	-54.9
Mx_i	-38.9	-5.0	4.4	**-9.3**	-52.2	-54.9	38.9	5.0	-4.4	**9.3**	52.2	54.9

My_i	-38.9	-5.0	4.4	-9.3	**-52.2**	-54.9	38.9	5.0	-4.4	9.3	52.2	54.9
Mz_i	-38.9	-5.0	4.4	-9.3	-52.2	**-54.9**	38.9	5.0	-4.4	9.3	52.2	**54.9**
Fx_f	**-38.9**	-5.0	8.6	-1.7	-22.9	-32.2	**38.9**	5.0	-8.6	1.7	22.9	32.2
Fy_f	-38.9	**-5.0**	8.6	-1.7	-22.9	-32.2	38.9	**5.0**	-8.6	1.7	22.9	32.2
Fz_f	38.9	5.0	**-8.6**	1.7	22.9	32.2	-38.9	-5.0	**8.6**	-1.7	-22.9	-32.2
Mx_f	-38.9	-5.0	8.6	**-1.7**	-22.9	-32.2	38.9	5.0	-8.6	**1.7**	22.9	32.2
My_f	-38.9	-5.0	8.6	-1.7	**-22.9**	-32.2	38.9	5.0	-8.6	1.7	**22.9**	32.2
Mz_f	-38.9	-5.0	8.6	-1.7	-22.9	**-32.2**	38.9	5.0	-8.6	1.7	22.9	**32.2**

Member 29

Fx_i	**-29.2**	-10.5	8.6	-18.2	-52.0	-32.8	**29.2**	10.5	-8.6	18.2	52.0	32.8
Fy_i	-29.2	**-10.5**	8.6	-18.2	-52.0	-32.8	29.2	**10.5**	-8.6	18.2	52.0	32.8
Fz_i	29.2	10.5	**-8.6**	18.2	52.0	32.8	-29.2	-10.5	**8.6**	-18.2	-52.0	-32.8
Mx_i	-29.2	-10.5	8.6	**-18.2**	-52.0	-32.8	29.2	10.5	-8.6	**18.2**	52.0	32.8
My_i	-29.2	-10.5	8.6	-18.2	**-52.0**	-32.8	29.2	10.5	-8.6	18.2	**52.0**	32.8
Mz_i	-29.2	-10.5	8.6	-18.2	-52.0	**-32.8**	29.2	10.5	-8.6	18.2	52 0	**32.8**
Fx_f	**-29.2**	-10.5	12.8	-10.6	-3.7	14.7	**29.2**	10.5	-12.8	10.6	3.7	-14.7
Fy_f	-29.2	**-10.5**	12.8	-10.6	-3.7	14.7	29.2	**10.5**	-12.8	10.6	3.7	-14.7
Fz_f	29.2	10.5	**-12.8**	10.6	3.7	-14.7	-29.2	-10.5	**12.8**	-10.6	-3.7	14.7
Mx_f	-29.2	-10.5	12.8	**-10.6**	-3.7	14.7	29.2	10.5	-12.8	**10.6**	3.7	-14.7
My_f	-29.2	-10.5	12.8	-10.6	**-3.7**	14.7	29.2	10.5	-12.8	10.6	**3.7**	-14.7
Mz_f	29.2	10.5	-12.8	10.6	3.7	**-14.7**	-29.2	-10.5	12.8	-10.6	-3.7	**14.7**

Member 30

Fx_i	**-13.1**	-19.2	12.8	-36.7	-51.9	14.1	**13.1**	19.2	-12.8	36.7	51.9	-14.1
Fy_i	-13.1	**-19.2**	12.8	-36.7	-51.9	14.1	13.1	**19.2**	-12.8	36.7	51.9	-14.1
Fz_i	13.1	19.2	**-12.8**	36.7	51.9	-14.1	-13.1	-19.2	**12.8**	-36.7	-51 9	14.1
Mx_i	-13.1	-19.2	12.8	**-36.7**	-51.9	14.1	13.1	19.2	-12.8	**36.7**	51 9	-14.1
My_i	-13.1	-19.2	12.8	-36.7	**-51.9**	14.1	13 1	19.2	-12.8	36.7	**51.9**	-14 1
Mz_i	13.1	19.2	-12.8	36.7	51.9	**-14.1**	-13.1	-19.2	12.8	-36.7	-51 9	**14.1**
Fx_f	**-13.1**	-19.2	17.1	-29.1	15.4	100.7	**13.1**	19.2	-17.1	29.1	-15.4	-100.7
Fy_f	-13.1	**-19.2**	17.1	-29.1	15.4	100.7	13.1	**19.2**	-17.1	29.1	-15.4	-100.7
Fz_f	13.1	19.2	**-17.1**	29.1	-15.4	-100 7	-13.1	-19.2	**17.1**	-29 1	15.4	100.7
Mx_f	-13.1	-19.2	17.1	**-29.1**	15.4	100.7	13.1	19.2	-17.1	**29.1**	-15.4	-100.7
My_f	13.1	19.2	-17.1	29.1	**-15.4**	-100.7	-13.1	-19.2	17 1	-29.1	**15.4**	100.7
Mz_f	13.1	19.2	-17.1	29.1	-15.4	**-100.7**	-13.1	-19.2	17.1	-29.1	15.4	**100.7**

Member 31

Fx_i	**-13.4**	19.4	-17.7	27.9	16.3	100.7	**13.4**	-19.4	17.7	-27.9	-16.3	-100.7
Fy_i	13.4	**-19.4**	17.7	-27.9	-16.3	-100 7	-13.4	**19.4**	-17.7	27.9	16.3	100.7
Fz_i	-13.4	19.4	**-17.7**	27.9	16.3	100.7	13.4	-19.4	**17.7**	-27.9	-16.3	-100.7
Mx_i	13.4	-19.4	17.7	**-27.9**	-16.3	-100 7	-13.4	19.4	-17.7	**27.9**	16.3	100.7
My_i	13.4	-19.4	17.7	-27.9	**-16.3**	-100.7	-13.4	19 4	-17 7	27.9	**16.3**	100.7
Mz_i	13.4	-19.4	17.7	-27.9	-16.3	**-100.7**	-13.4	19 4	-17.7	27 9	16 3	**100.7**
Fx_f	**-13.4**	19.4	-13.5	35.5	-53.8	13.4	**13.4**	-19.4	13.5	-35.5	53.8	-13.4
Fy_f	13.4	**-19.4**	13.5	-35.5	53.8	-13.4	-13.4	**19.4**	-13.5	35.5	-53.8	13.4
Fz_f	-13.4	19.4	**-13.5**	35.5	-53.8	13.4	13.4	-19.4	**13.5**	-35.5	53.8	-13.4
Mx_f	13.4	-19.4	13.5	**-35.5**	53.8	-13.4	-13.4	19.4	-13.5	**35.5**	-53.8	13.4
My_f	-13 4	19.4	-13.5	35.5	**-53.8**	13.4	13.4	-19.4	13.5	-35.5	**53.8**	-13.4
Mz_f	13.4	-19.4	13.5	-35.5	53.8	**-13.4**	-13.4	19.4	-13.5	35.5	-53.8	**13.4**

Member 32

Fx_i	**-30.2**	10.7	-13.5	9.5	-3.4	14.0	**30.2**	-10.7	13.5	-9.5	3.4	-14.0
Fy_i	30.2	**-10.7**	13.5	-9.5	3.4	-14 0	-30.2	**10.7**	-13.5	9.5	-3.4	14.0
Fz_i	-30.2	10.7	**-13.5**	9.5	-3.4	14 0	30.2	-10.7	**13.5**	-9.5	3.4	-14.0
Mx_i	30.2	-10.7	13.5	**-9.5**	3.4	-14 0	-30.2	10.7	-13.5	**9.5**	-3.4	14.0
My_i	-30.2	10.7	-13.5	9.5	**-3.4**	14.0	30.2	-10.7	13.5	-9.5	**3.4**	-14.0
Mz_i	30.2	-10.7	13.5	-9.5	3.4	**-14.0**	-30.2	10.7	-13.5	9.5	-3.4	**14.0**
Fx_f	**-30.2**	10.7	-9.2	17.1	-54.4	-34.2	**30.2**	-10.7	9.2	-17 1	54.4	34.2
Fy_f	30.2	**-10.7**	9.2	-17.1	54.4	34.2	-30.2	**10.7**	-9.2	17.1	-54.4	-34.2
Fz_f	-30.2	10.7	**-9.2**	17.1	-54.4	-34.2	30.2	-10.7	**9.2**	-17.1	54.4	34.2
Mx_f	30.2	-10.7	9.2	**-17.1**	54.4	34.2	-30.2	10.7	-9.2	**17.1**	-54.4	-34.2
My_f	-30.2	10.7	-9.2	17.1	**-54.4**	-34.2	30.2	-10.7	9.2	-17.1	**54.4**	34.2
Mz_f	-30 2	10.7	-9.2	17.1	-54.4	**-34.2**	30.2	-10.7	9.2	-17 1	54.4	**34.2**

Member 33

Fx_i	**-40.6**	5.2	-9.2	0.6	-23.3	-33.7	**40.6**	-5.2	9.2	-0.6	23.3	33.7
Fy_i	40.6	**-5.2**	9.2	-0.6	23.3	33.7	-40.6	**5.2**	-9.2	0.6	-23.3	-33.7
Fz_i	-40.6	5.2	**-9.2**	0.6	-23.3	-33.7	40.6	-5.2	**9.2**	-0.6	23.3	33.7
Mx_i	40.6	-5.2	9.2	**-0.6**	23.3	33.7	-40.6	5.2	-9.2	**0.6**	-23.3	-33.7
My_i	-40.6	5.2	-9.2	0.6	**-23.3**	-33.7	40.6	-5.2	9.2	-0.6	**23.3**	33.7
Mz_i	-40.6	5.2	-9.2	0.6	-23.3	**-33.7**	40.6	-5.2	9.2	-0.6	23.3	**33.7**
Fx_f	**-40.6**	5.2	-5.0	8.2	-55.4	-57.1	**40.6**	-5.2	5.0	-8.2	55.4	57.1
Fy_f	40.6	**-5.2**	5.0	-8.2	55.4	57.1	-40.6	**5.2**	-5.0	8.2	-55.4	-57.1
Fz_f	-40.6	5.2	**-5.0**	8.2	-55.4	-57.1	40.6	-5.2	**5.0**	-8.2	55.4	57.1
Mx_f	40.6	-5.2	5.0	**-8.2**	55.4	57.1	-40.6	5.2	-5.0	**8.2**	-55.4	-57.1
My_f	-40.6	5.2	-5.0	8.2	**-55.4**	-57.1	40.6	-5.2	5.0	-8.2	**55.4**	57.1
Mz_f	-40.6	5.2	-5.0	8.2	-55.4	**-57.1**	40.6	-5.2	5.0	-8.2	55.4	**57.1**

Member 34

Fx_i	**-46.2**	1.5	-5.0	-2.9	-38.5	-56.8	**46.2**	-1.5	5.0	2.9	38.5	56.8
Fy_i	46.2	**-1.5**	5.0	2.9	38.5	56.8	-46.2	**1.5**	-5.0	-2.9	-38.5	-56.8
Fz_i	-46.2	1.5	**-5.0**	-2.9	-38.5	-56.8	46.2	-1.5	**5.0**	2.9	38.5	56.8
Mx_i	-46.2	1.5	-5.0	**-2.9**	-38.5	-56.8	46.2	-1.5	5.0	**2.9**	38.5	56.8
My_i	-46.2	1.5	-5.0	-2.9	**-38.5**	-56.8	46.2	-1.5	5.0	2.9	**38.5**	56.8
Mz_i	-46.2	1.5	-5.0	-2.9	-38.5	**-56.8**	46.2	-1.5	5.0	2.9	38.5	**56.8**
Fx_f	**-46.2**	1.5	-0.8	4.7	-51.5	-63.7	**46.2**	-1.5	0.8	-4.7	51.5	63.7
Fy_f	46.2	**-1.5**	0.8	-4.7	51.5	63.7	-46.2	**1.5**	-0.8	4.7	-51.5	-63.7
Fz_f	-46.2	1.5	**-0.8**	4.7	-51.5	-63.7	46.2	-1.5	**0.8**	-4.7	51.5	63.7
Mx_f	46.2	-1.5	0.8	**-4.7**	51.5	63.7	-46.2	1.5	-0.8	**4.7**	-51.5	-63.7
My_f	-46.2	1.5	-0.8	4.7	**-51.5**	-63.7	46.2	-1.5	0.8	-4.7	**51.5**	63.7
Mz_f	-46.2	1.5	-0.8	4.7	-51.5	**-63.7**	46.2	-1.5	0.8	-4.7	51.5	**63.7**

Member 35

Fx_i	**-47.1**	-1.6	-0.8	-4.5	-48.9	-63.7	**47.1**	1.6	0.8	4.5	48.9	63.7
Fy_i	-47.1	**-1.6**	-0.8	-4.5	-48.9	-63.7	47.1	**1.6**	0.8	4.5	48.9	63.7
Fz_i	-47.1	-1.6	**-0.8**	-4.5	-48.9	-63.7	47.1	1.6	**0.8**	4.5	48.9	63.7
Mx_i	-47.1	-1.6	-0.8	**-4.5**	-48.9	-63.7	47.1	1.6	0.8	**4.5**	48.9	63.7
My_i	-47.1	-1.6	-0.8	-4.5	**-48.9**	-63.7	47.1	1.6	0.8	4.5	**48.9**	63.7
Mz_i	-47.1	-1.6	-0.8	-4.5	-48.9	**-63.7**	47.1	1.6	0.8	4 5	48.9	**63.7**
Fx_f	**-47.1**	-1.6	3 5	3.1	-42.9	-56.7	**47.1**	1.6	-3.5	-3 1	42.9	56.7
Fy_f	-47.1	**-1.6**	3.5	3.1	-42.9	-56.7	47.1	**1.6**	-3.5	-3.1	42.9	56.7
Fz_f	47.1	1.6	**-3.5**	-3.1	42.9	56.7	-47.1	-1.6	**3.5**	3.1	-42.9	-56.7
Mx_f	47.1	1.6	-3.5	**-3.1**	42.9	56.7	-47.1	1.6	-3.5	**3.1**	-42.9	56.7
My_f	-47.1	-1.6	3.5	3.1	**-42.9**	-56.7	47.1	1.6	-3.5	-3.1	**42.9**	56.7
Mz_f	-47.1	-1.6	3.5	3.1	-42.9	**-56.7**	47.1	1.6	-3.5	-3.1	42.9	**56.7**

Member 36

Fx_i	**-43.2**	-5.2	3.5	-7.9	-54.5	-57.0	**43.2**	5.2	-3.5	7.9	54.5	57.0
Fy_i	-43.2	**-5.2**	3.5	-7.9	-54.5	-57.0	43.2	**5.2**	-3.5	7.9	54.5	57.0
Fz_i	43.2	5.2	**-3.5**	7.9	54.5	57.0	-43.2	-5.2	**3.5**	-7.9	-54.5	-57.0
Mx_i	-43.2	-5.2	3.5	**-7.9**	-54.5	-57.0	43.2	5.2	-3.5	**7.9**	54.5	57.0
My_i	-43.2	-5.2	3.5	-7.9	**-54.5**	-57.0	43.2	5.2	-3.5	7.9	**54.5**	57.0
Mz_i	-43.2	-5.2	3.5	-7.9	-54.5	**-57.0**	43.2	5.2	-3.5	7.9	54.5	**57.0**
Fx_f	**-43.2**	-5.2	7.7	-0.3	-29.4	-33.6	**43.2**	5.2	-7.7	0.3	29.4	33.6
Fy_f	-43.2	**-5.2**	7.7	-0.3	-29.4	-33.6	43.2	**5.2**	-7.7	0.3	29.4	33.6
Fz_f	43.2	5.2	**-7.7**	0.3	29.4	33.6	-43.2	-5.2	**7.7**	-0.3	-29.4	-33.6
Mx_f	-43.2	-5.2	7.7	**-0.3**	-29.4	-33.6	43.2	5.2	-7.7	**0.3**	29.4	33.6
My_f	-43.2	-5.2	7.7	-0.3	**-29.4**	-33.6	43.2	5.2	-7.7	0.3	**29.4**	33.6
Mz_f	-43.2	-5.2	7.7	-0.3	-29.4	**-33.6**	43.2	5.2	-7.7	0.3	29.4	**33.6**

Member 37

Fx_i	**-34.6**	-10.7	7.7	-16.6	-55.3	-34.1	**34.6**	10.7	-7.7	16.6	55.3	34.1
Fy_i	-34.6	**-10.7**	7.7	-16.6	-55.3	-34.1	34.6	**10.7**	-7.7	16.6	55.3	34.1
Fz_i	34.6	10.7	**-7.7**	16.6	55.3	34.1	-34.6	-10.7	**7.7**	-16.6	-55.3	-34.1
Mx_i	-34.6	-10.7	7.7	**-16.6**	-55.3	-34.1	34.6	10.7	-7.7	**16.6**	55.3	34.1
My_i	-34.6	-10.7	7.7	-16.6	**-55.3**	-34.1	34.6	10.7	-7.7	16.6	**55.3**	34.1
Mz_i	-34.6	-10.7	7.7	-16.6	-55.3	**-34.1**	34.6	10.7	-7.7	16.6	55.3	**34.1**
Fx_f	**-34.6**	-10.7	11.9	-9.0	-11.3	13.8	**34.6**	10.7	-11.9	9.0	11.3	-13.8
Fy_f	-34.6	**-10.7**	11.9	-9.0	-11.3	13.8	34.6	**10.7**	-11.9	9.0	11.3	-13.8
Fz_f	34.6	10.7	**-11.9**	9.0	11.3	-13.8	-34.6	-10.7	**11.9**	-9.0	-11.3	13.8

Mx_f	-34.6	-10.7	11.9	**-9.0**	-11.3	13.8	34.6	10.7	-11.9	9.0	11.3	-13.8
My_f	-34.6	-10.7	11.9	-9.0	**-11.3**	13.8	34.6	10.7	-11.9	9.0	**11.3**	-13.8
Mz_f	34.6	10.7	-11.9	9.0	11.3	**-13.8**	-34.6	-10.7	11.9	-9.0	-11.3	**13.8**

Member 38

Fx_i	**-18.8**	-19.3	11.9	-34.8	-58.6	13.3	**18.8**	19.3	-11.9	34.8	58.6	-13.3
Fy_i	-18.8	**-19.3**	11.9	-34.8	-58.6	13.3	18.8	**19.3**	-11.9	34.8	58.6	-13.3
Fz_i	18.8	19.3	**-11.9**	34.8	58.6	-13.3	-18.8	-19.3	**11.9**	-34.8	-58.6	13.3
Mx_i	-18.8	-19.3	11.9	**-34.8**	-58.6	13.3	18.8	19.3	-11.9	**34.8**	58.6	-13.3
My_i	-18.8	-19.3	11.9	-34.8	**-58.6**	13.3	18.8	19.3	-11.9	34.8	**58.6**	-13.3
Mz_i	18.8	19.3	-11.9	34.8	58.6	**-13.3**	-18.8	-19.3	11.9	-34.8	-58.6	**13.3**
Fx_f	**-18.8**	-19.3	16.1	-27.2	4.6	99.9	**18.8**	19.3	-16.1	27.2	-4.6	-99.9
Fy_f	-18.8	**-19.3**	16.1	-27.2	4.6	99.9	18.8	**19.3**	-16.1	27.2	-4.6	-99.9
Fz_f	18.8	19.3	**-16.1**	27.2	-4.6	-99.9	-18.8	-19.3	**16.1**	-27.2	4.6	99.9
Mx_f	-18.8	-19.3	16.1	**-27.2**	4.6	99.9	18.8	19.3	-16.1	**27.2**	-4.6	-99.9
My_f	18.8	19.3	-16.1	27.2	**-4.6**	-99.9	-18.8	-19.3	16.1	-27.2	**4.6**	99.9
Mz_f	18.8	19.3	-16.1	27.2	-4.6	**-99.9**	-18.8	-19.3	16.1	-27.2	4.6	**99.9**

Member 39

Fx_i	**-19.5**	19.1	-17.6	28.6	6.7	99.9	**19.5**	-19.1	17.6	-28.6	-6.7	-99.9
Fy_i	19.5	**-19.1**	17.6	-28.6	-6.7	-99.9	-19.5	**19.1**	-17.6	28.6	6.7	99.9
Fz_i	-19.5	19.1	**-17.6**	28.6	6.7	99.9	19.5	-19.1	**17.6**	-28.6	-6.7	-99.9
Mx_i	19.5	-19.1	17.6	**-28.6**	-6.7	-99.9	-19.5	19.1	-17.6	**28.6**	6.7	99.9
My_i	19.5	-19.1	17.6	-28.6	**-6.7**	-99.9	-19.5	19.1	-17.6	28.6	**6.7**	99.9
Mz_i	19.5	-19.1	17.6	-28.6	-6.7	**-99.9**	-19.5	19.1	-17.6	28.6	6.7	**99.9**
Fx_f	**-19.5**	19.1	-13.3	36.2	-62.8	14.2	**19.5**	-19.1	13.3	-36.2	62.8	-14.2
Fy_f	19.5	**-19.1**	13.3	-36.2	62.8	-14.2	-19.5	**19.1**	-13.3	36.2	-62.8	14.2
Fz_f	-19.5	19.1	**-13.3**	36.2	-62.8	14.2	19.5	-19.1	**13.3**	-36.2	62.8	-14.2
Mx_f	19.5	-19.1	13.3	**-36.2**	62.8	-14.2	-19.5	19.1	-13.3	**36.2**	-62.8	14.2
My_f	-19.5	19.1	-13.3	36.2	**-62.8**	14.2	19.5	-19.1	13.3	-36.2	**62.8**	-14.2
Mz_f	19.5	-19.1	13.3	-36.2	62.8	**-14.2**	-19.5	19.1	-13.3	36.2	-62.8	**14.2**

Member 40

Fx.	**-37.0**	10.4	-13.3	10.4	-10.5	14.7	**37.0**	-10.4	13.3	-10.4	10.5	-14.7
Fy.	37.0	**-10.4**	13.3	-10.4	10.5	-14.7	-37.0	**10.4**	-13.3	10.4	-10.5	14.7
Fz.	-37.0	10.4	**-13.3**	10.4	-10.5	14.7	37.0	-10.4	**13.3**	-10.4	10.5	-14.7
Mx.	37.0	-10.4	13.3	**-10.4**	10.5	-14.7	-37.0	10.4	-13.3	**10.4**	-10.5	14.7
My.	-37.0	10.4	-13.3	10.4	**-10.5**	14.7	37.0	-10.4	13.3	-10.4	**10.5**	-14.7
Mz.	37.0	-10.4	13.3	-10.4	10.5	**-14.7**	-37.0	10.4	-13.3	10.4	-10.5	**14.7**
Fx.	**-37.0**	10.4	-9.1	18.0	-60.9	-32.3	**37.0**	-10.4	9.1	-18.0	60.9	32.3
Fy.	37.0	**-10.4**	9.1	-18.0	60.9	32.3	-37.0	**10.4**	-9.1	18.0	-60.9	-32.3
Fz.	-37.0	10.4	**-9.1**	18.0	-60.9	-32.3	37.0	-10.4	**9.1**	-18.0	60.9	32.3
Mx.	37.0	-10.4	9.1	**-18.0**	60.9	32.3	-37.0	10.4	-9.1	**18.0**	-60.9	-32.3
My.	-37.0	10.4	-9.1	18.0	**-60.9**	-32.3	37.0	-10.4	9.1	-18.0	**60.9**	32.3
Mz.	-37.0	10.4	-9.1	18.0	-60.9	**-32.3**	37.0	-10.4	9.1	-18.0	60.9	**32.3**

Member 41

Fx.	**-47.2**	5.0	-9.1	1.6	-30.2	-31.8	**47.2**	-5.0	9.1	-1.6	30.2	31.8
Fy.	47.2	**-5.0**	9.1	-1.6	30.2	31.8	-47.2	**5.0**	-9.1	1.6	-30.2	-31.8
Fz.	-47.2	5.0	**-9.1**	1.6	-30.2	-31.8	47.2	-5.0	**9.1**	-1.6	30.2	31.8
Mx.	47.2	-5.0	9.1	**-1.6**	30.2	31.8	-47.2	5.0	-9.1	**1.6**	-30.2	-31.8
My.	-47.2	5.0	-9.1	1.6	**-30.2**	-31.8	47.2	-5.0	9.1	-1.6	**30.2**	31.8
Mz.	-47.2	5.0	-9.1	1.6	-30.2	**-31.8**	47.2	-5.0	9.1	-1.6	30.2	**31.8**
Fx.	**-47.2**	5.0	-4.9	9.2	-61.6	-54.3	**47.2**	-5.0	4.9	-9.2	61.6	54.3
Fy.	47.2	**-5.0**	4.9	-9.2	61.6	54.3	-47.2	**5.0**	-4.9	9.2	-61.6	-54.3
Fz.	-47.2	5.0	**-4.9**	9.2	-61.6	-54.3	47.2	-5.0	**4.9**	-9.2	61.6	54.3
Mx.	47.2	-5.0	4.9	**-9.2**	61.6	54.3	-47.2	5.0	-4.9	**9.2**	-61.6	-54.3
My.	-47.2	5.0	-4.9	9.2	**-61.6**	-54.3	47.2	-5.0	4.9	-9.2	**61.6**	54.3
Mz.	-47.2	5.0	-4.9	9.2	-61.6	**-54.3**	47.2	-5.0	4.9	-9.2	61.6	**54.3**

Member 42

Fx.	**-52.6**	1.4	-4.9	-1.6	-45.3	-54.0	**52.6**	-1.4	4.9	1.6	45.3	54.0
Fy.	52.6	**-1.4**	4.9	1.6	45.3	54.0	-52.6	**1.4**	-4.9	-1.6	-45.3	-54.0
Fz.	-52.6	1.4	**-4.9**	-1.6	-45.3	-54.0	52.6	-1.4	**4.9**	1.6	45.3	54.0
Mx.	-52.6	1.4	-4.9	**-1.6**	-45.3	-54.0	52.6	-1.4	4.9	**1.6**	45.3	54.0
My.	-52.6	1.4	-4.9	-1.6	**-45.3**	-54.0	52.6	-1.4	4.9	1.6	**45.3**	54.0
Mz.	-52.6	1.4	-4.9	-1.6	-45.3	**-54.0**	52.6	-1.4	4.9	1.6	45.3	**54.0**
Fx.	**-52.6**	1.4	-4.9	-1.6	-45.3	-60.2	**52.6**	-1.4	4.9	-6.0	57.6	60.2
Fy.	52.6	**-1.4**	0.6	-6.0	57.6	60.2	-52.6	**1.4**	-0.6	6.0	-57.6	-60.2
Fz.	-52.6	1.4	**-0.6**	6.0	-57.6	-60.2	52.6	-1.4	**0.6**	-6.0	57.6	60.2
Mx.	52.6	-1.4	0.6	**-6.0**	57.6	60.2	-52.6	1.4	-0.6	**6.0**	-57.6	-60.2
My.	-52.6	1.4	-0.6	6.0	**-57.6**	-60.2	52.6	-1.4	0.6	-6.0	**57.6**	60.2
Mz.	-52.6	1.4	-0.6	6.0	-57.6	**-60.2**	52.6	-1.4	0.6	-6.0	57.6	**60.2**

Member 43

Fx.	**-53.3**	-1.6	-0.6	-2.9	-55.5	-60.2	**53.3**	1.6	0.6	2.9	55.5	60.2
Fy.	-53.3	**-1.6**	-0.6	-2.9	-55.5	-60.2	53.3	**1.6**	0.6	2.9	55.5	60.2
Fz.	-53.3	-1.6	**-0.6**	-2.9	-55.5	-60.2	53.3	1.6	**0.6**	2.9	55.5	60.2
Mx.	-53.3	-1.6	-0.6	**-2.9**	-55.5	-60.2	53.3	1.6	0.6	**2.9**	55.5	60.2
My.	-53.3	-1.6	-0.6	-2.9	**-55.5**	-60.2	53.3	1.6	0.6	2.9	**55.5**	60.2
Mz.	-53.3	-1.6	-0.6	-2.9	-55.5	**-60.2**	53.3	1.6	0.6	2.9	55.5	**60.2**
Fx.	**-53.3**	-1.6	3.6	4.7	-48.8	-53.1	**53.3**	1.6	-3.6	-4.7	48.8	53.1
Fy.	-53.3	**-1.6**	3.6	4.7	-48.8	-53.1	53.3	**1.6**	-3.6	-4.7	48.8	53.1
Fz.	53.3	1.6	**-3.6**	-4.7	48.8	53.1	-53.3	-1.6	**3.6**	4.7	-48.8	-53.1
Mx.	53.3	1.6	-3.6	**-4.7**	48.8	53.1	-53.3	-1.6	3.6	**4.7**	-48.8	-53.1
My.	-53.3	-1.6	3.6	4.7	**-48.8**	-53.1	53.3	1.6	-3.6	-4.7	**48.8**	53.1
Mz.	-53.3	-1.6	3.6	4.7	-48.8	**-53.1**	53.3	1.6	-3.6	-4.7	48.8	**53.1**

Member 44

Fx.	**-49.3**	-4.9	3.6	-5.3	-60.9	-53.4	**49.3**	4.9	-3.6	5.3	60.9	53.4
Fy.	-49.3	**-4.9**	3.6	-5.3	-60.9	-53.4	49.3	**4.9**	-3.6	5.3	60.9	53.4
Fz.	49.3	4.9	**-3.6**	5.3	60.9	53.4	-49.3	-4.9	**3.6**	-5.3	-60.9	-53.4
Mx.	-49.3	-4.9	3.6	**-5.3**	-60.9	-53.4	49.3	4.9	-3.6	**5.3**	60.9	53.4
My.	-49.3	-4.9	3.6	-5.3	**-60.9**	-53.4	49.3	4.9	-3.6	5.3	**60.9**	53.4
Mz.	-49.3	-4.9	3.6	-5.3	-60.9	**-53.4**	49.3	4.9	-3.6	5.3	60.9	**53.4**
Fx.	**-49.3**	-4.9	7.8	2.3	-35.2	-31.2	**49.3**	4.9	-7.8	-2.3	35.2	31.2
Fy.	-49.3	**-4.9**	7.8	2.3	-35.2	-31.2	49.3	**4.9**	-7.8	-2.3	35.2	31.2
Fz.	49.3	4.9	**-7.8**	-2.3	35.2	31.2	-49.3	-4.9	**7.8**	2.3	-35.2	-31.2
Mx.	-49.3	4.9	-7.8	**-2.3**	35.2	31.2	-49.3	-4.9	7.8	**2.3**	-35.2	-31.2
My.	-49.3	-4.9	7.8	2.3	**-35.2**	-31.2	49.3	4.9	-7.8	-2.3	**35.2**	31.2
Mz.	-49.3	-4.9	7.8	2.3	-35.2	**-31.2**	49.3	4.9	-7.8	-2.3	35.2	**31.2**

Member 45

Fx	**-40.5**	-9.8	7.8	-12.2	-61.6	-31.7	**40.5**	9.8	-7.8	12.2	61.6	31.7
Fy	-40.5	**-9.8**	7.8	-12.2	-61.6	-31.7	40.5	**9.8**	-7.8	12.2	61.6	31.7
Fz	40.5	9.8	**-7.8**	12.2	61.6	31.7	-40.5	-9.8	**7.8**	-12.2	-61.6	-31.7
Mx	-40.5	-9.8	7.8	**-12.2**	-61.6	-31.7	40.5	9.8	-7.8	**12.2**	61.6	31.7
My	-40.5	-9.8	7.8	-12.2	**-61.6**	-31.7	40.5	9.8	-7.8	12.2	**61.6**	31.7
Mz	-40.5	-9.8	7.8	-12.2	-61.6	**-31.7**	40.5	9.8	-7.8	12.2	61.6	**31.7**
Fx.	**-40.5**	-9.8	12.1	-4.6	-16.9	12.1	**40.5**	9.8	-12.1	4.6	16.9	-12.1
Fy.	-40.5	**-9.8**	12.1	-4.6	-16.9	12.1	40.5	**9.8**	-12.1	4.6	16.9	-12.1
Fz.	40.5	9.8	**-12.1**	4.6	16.9	-12.1	-40.5	-9.8	**12.1**	-4.6	-16.9	12.1
Mx.	-40.5	-9.8	12.1	**-4.6**	-16.9	12.1	40.5	9.8	-12.1	**4.6**	16.9	-12.1
My.	-40.5	-9.8	12.1	-4.6	**-16.9**	12.1	40.5	9.8	-12.1	4.6	**16.9**	-12.1
Mz.	40.5	9.8	-12.1	4.6	16.9	**-12.1**	-40.5	-9.8	12.1	-4.6	-16.9	**12.1**

Member 46

Fx.	**-23.9**	-17.2	12.1	-26.9	-66.7	11.6	**23.9**	17.2	-12.1	26.9	66.7	-11.6
Fy.	-23.9	**-17.2**	12.1	-26.9	-66.7	11.6	23.9	**17.2**	-12.1	26.9	66.7	-11.6
Fz.	23.9	17.2	**-12.1**	26.9	66.7	-11.6	-23.9	-17.2	**12.1**	-26.9	-66.7	11.6
Mx	-23.9	-17.2	12.1	**-26.9**	-66.7	11.6	23.9	17.2	-12.1	**26.9**	66.7	-11.6
My.	-23.9	-17.2	12.1	-26.9	**-66.7**	11.6	23.9	17.2	-12.1	26.9	**66.7**	-11.6
Mz	23.9	17.2	-12.1	26.9	66.7	**-11.6**	-23.9	-17.2	12.1	-26.9	-66.7	**11.6**
Fx.	**-23.9**	-17.2	16.3	-19.3	-2.9	89.0	**23.9**	17.2	-16.3	19.3	2.9	-89.0
Fy.	-23.9	**-17.2**	16.3	-19.3	-2.9	89.0	23.9	**17.2**	-16.3	19.3	2.9	-89.0
Fz.	23.9	17.2	**-16.3**	19.3	2.9	-89.0	-23.9	-17.2	**16.3**	-19.3	-2.9	89.0
Mx.	-23.9	-17.2	16.3	**-19.3**	-2.9	89.0	23.9	17.2	-16.3	**19.3**	2.9	-89.0
My.	-23.9	-17.2	16.3	-19.3	**-2.9**	89.0	23.9	17.2	-16.3	19.3	**2.9**	-89.0
Mz.	23.9	17.2	-16.3	19.3	2.9	**-89.0**	-23.9	-17.2	16.3	-19.3	-2.9	**89.0**

Member 47

Fx_i	**-23.1**	16.6	-14.7	22.9	-5.3	88.9	**23.1**	-16.6	14.7	-22.9	5.3	-88.9
Fy_i	23.1	**-16.6**	14.7	-22.9	5.3	-88.9	-23.1	**16.6**	-14.7	22.9	-5.3	88.9
Fz_i	-23.1	16.6	**-14.7**	22.9	-5.3	88.9	23.1	-16.6	**14.7**	-22.9	5.3	-88.9
Mx_i	23.1	-16.6	14.7	**-22.9**	5.3	-88.9	-23.1	16.6	-14.7	**22.9**	-5.3	88.9
My_i	-23.1	16.6	-14.7	22.9	**-5.3**	88.9	23.1	-16.6	14.7	-22.9	**5.3**	-88.9
Mz_i	23.1	-16.6	14.7	-22.9	5.3	**-88.9**	-23.1	16.6	-14.7	22.9	-5.3	**88.9**
Fx_f	**-23.1**	16.6	-10.5	30.5	-61.9	14.0	**23.1**	-16.6	10.5	-30.5	61.9	-14.0
Fy_f	23.1	**-16.6**	10.5	-30.5	61.9	-14.0	-23.1	**16.6**	-10.5	30.5	-61.9	14.0
Fz_f	-23.1	16.6	**-10.5**	30.5	-61.9	14.0	23.1	-16.6	**10.5**	-30.5	61.9	-14.0
Mx_f	23.1	-16.6	10.5	**-30.5**	61.9	-14.0	-23.1	16.6	-10.5	**30.5**	-61.9	14.0
My_f	-23.1	16.6	-10.5	30.5	**-61.9**	14.0	23.1	-16.6	10.5	-30.5	**61.9**	-14.0
Mz_f	23.1	-16.6	10.5	-30.5	61.9	**-14.0**	-23.1	16.6	-10.5	30.5	-61.9	**14.0**

Member 48

Fx_i	**-37.8**	9.2	-10.5	8.1	-17.8	14.5	**37.8**	-9.2	10.5	-8.1	17.8	-14.5
Fy_i	37.8	**-9.2**	10.5	-8.1	17.8	-14.5	-37.8	**9.2**	-10.5	8.1	-17.8	14.5
Fz_i	-37.8	9.2	**-10.5**	8.1	-17.8	14.5	37.8	-9.2	**10.5**	-8.1	17.8	-14.5
Mx_i	37.8	-9.2	10.5	**-8.1**	17.8	-14.5	-37.8	9.2	-10.5	**8.1**	-17.8	14.5
My_i	-37.8	9.2	-10.5	8.1	**-17.8**	14.5	37.8	-9.2	10.5	-8.1	**17.8**	-14.5
Mz_i	37.8	-9.2	10.5	-8.1	17.8	**-14.5**	-37.8	9.2	-10.5	8.1	-17.8	**14.5**
Fx_f	**-37.8**	9.2	-6.2	15.7	-55.4	-26.8	**37.8**	-9.2	6.2	-15.7	55.4	26.8
Fy_f	37.8	**-9.2**	6.2	-15.7	55.4	26.8	-37.8	**9.2**	-6.2	15.7	-55.4	-26.8
Fz_f	-37.8	9.2	**-6.2**	15.7	-55.4	-26.8	37.8	-9.2	**6.2**	-15.7	55.4	26.8
Mx_f	37.8	-9.2	6.2	**-15.7**	55.4	26.8	-37.8	9.2	-6.2	**15.7**	-55.4	-26.8
My_f	-37.8	9.2	-6.2	15.7	**-55.4**	-26.8	37.8	-9.2	6.2	-15.7	**55.4**	26.8
Mz_f	-37.8	9.2	-6.2	15.7	-55.4	**-26.8**	37.8	-9.2	6.2	-15.7	55.4	**26.8**

Member 49

Fx_i	**-44.8**	4.4	-6.2	1.3	-34.3	-26.3	**44.8**	-4.4	6.2	-1.3	34.3	26.3
Fy_i	44.8	**-4.4**	6.2	-1.3	34.3	26.3	-44.8	**4.4**	-6.2	1.3	-34.3	-26.3
Fz_i	-44.8	4.4	**-6.2**	1.3	-34.3	-26.3	44.8	-4.4	**6.2**	-1.3	34.3	26.3
Mx_i	44.8	-4.4	6.2	**-1.3**	34.3	26.3	-44.8	4.4	-6.2	**1.3**	-34.3	-26.3
My_i	-44.8	4.4	-6.2	1.3	**-34.3**	-26.3	44.8	-4.4	6.2	-1.3	**34.3**	26.3
Mz_i	-44.8	4.4	-6.2	1.3	-34.3	**-26.3**	44.8	-4.4	6.2	-1.3	34.3	**26.3**
Fx_f	**-44.8**	4.4	-2.0	8.9	-52.9	-46.0	**44.8**	-4.4	2.0	-8.9	52.9	46.0
Fy_f	44.8	**-4.4**	2.0	-8.9	52.9	46.0	-44.8	**4.4**	-2.0	8.9	-52.9	-46.0
Fz_f	-44.8	4.4	**-2.0**	8.9	-52.9	-46.0	44.8	-4.4	**2.0**	-8.9	52.9	46.0
Mx_f	44.8	-4.4	2.0	**-8.9**	52.9	46.0	-44.8	4.4	-2.0	**8.9**	-52.9	-46.0
My_f	-44.8	4.4	-2.0	8.9	**-52.9**	-46.0	44.8	-4.4	2.0	-8.9	**52.9**	46.0
Mz_f	-44.8	4.4	-2.0	8.9	-52.9	**-46.0**	44.8	-4.4	2.0	-8.9	52.9	**46.0**

Member 50

Fx_i	**-47.1**	1.2	-2.0	-0.7	-46.1	-45.7	**47.1**	-1.2	2.0	0.7	46.1	45.7
Fy_i	47.1	**-1.2**	2.0	0.7	46.1	45.7	-47.1	**1.2**	-2.0	-0.7	-46.1	-45.7
Fz_i	-47.1	1.2	**-2.0**	-0.7	-46.1	-45.7	47.1	-1.2	**2.0**	0.7	46.1	45.7
Mx_i	-47.1	1.2	-2.0	**-0.7**	-46.1	-45.7	47.1	-1.2	2.0	**0.7**	46.1	45.7
My_i	-47.1	1.2	-2.0	-0.7	**-46.1**	-45.7	47.1	-1.2	2.0	0.7	**46.1**	45.7
Mz_i	-47.1	1.2	-2.0	-0.7	-46.1	**-45.7**	47.1	-1.2	2.0	0.7	46.1	**45.7**
Fx_f	**-47.1**	1.2	2.2	6.9	-45.6	-51.0	**47.1**	-1.2	-2.2	-6.9	45.6	51.0
Fy_f	47.1	**-1.2**	-2.2	-6.9	45.6	51.0	-47.1	**1.2**	2.2	6.9	-45.6	-51.0
Fz_f	47.1	-1.2	**-2.2**	-6.9	45.6	51.0	-47.1	1.2	**2.2**	6.9	-45.6	-51.0
Mx_f	47.1	-1.2	-2.2	**-6.9**	45.6	51.0	-47.1	1.2	2.2	**6.9**	-45.6	-51.0
My_f	-47.1	1.2	2.2	6.9	**-45.6**	-51.0	47.1	-1.2	-2.2	-6.9	**45.6**	51.0
Mz_f	-47.1	1.2	2.2	6.9	-45.6	**-51.0**	47.1	-1.2	-2.2	-6.9	45.6	**51.0**

Member 51

Fx_i	**-44.6**	-1.3	2.2	-0.6	-53.1	-51.0	**44.6**	1.3	-2.2	0.6	53.1	51.0
Fy_i	-44.6	**-1.3**	2.2	-0.6	-53.1	-51.0	44.6	**1.3**	-2.2	0.6	53.1	51.0
Fz_i	44.6	1.3	**-2.2**	0.6	53.1	51.0	-44.6	-1.3	**2.2**	-0.6	-53.1	-51.0
Mx_i	-44.6	-1.3	2.2	**-0.6**	-53.1	-51.0	44.6	1.3	-2.2	**0.6**	53.1	51.0
My_i	-44.6	-1.3	2.2	-0.6	**-53.1**	-51.0	44.6	1.3	-2.2	0.6	**53.1**	51.0
Mz_i	-44.6	-1.3	2.2	-0.6	-53.1	**-51.0**	44.6	1.3	-2.2	0.6	53.1	**51.0**
Fx_f	**-44.6**	-1.3	6.5	7.0	-33.6	-45.0	**44.6**	1.3	-6.5	-7.0	33.6	45.0
Fy_f	-44.6	**-1.3**	6.5	7.0	-33.6	-45.0	44.6	**1.3**	-6.5	-7.0	33.6	45.0
Fz_f	44.6	1.3	**-6.5**	-7.0	33.6	45.0	-44.6	-1.3	**6.5**	7.0	-33.6	-45.0
Mx_f	44.6	1.3	-6.5	**-7.0**	33.6	45.0	-44.6	-1.3	6.5	**7.0**	-33.6	-45.0
My_f	-44.6	-1.3	6.5	7.0	**-33.6**	-45.0	**44.6**	1.3	-6.5	-7.0	**33.6**	45.0
Mz_f	-44.6	-1.3	6.5	7.0	-33.6	**-45.0**	**44.6**	1.3	-6.5	-7.0	33.6	**45.0**

Member 52

Fx_i	**-37.3**	-3.9	6.5	-0.8	-55.3	-45.3	**37.3**	3.9	-6.5	0.8	55.3	45.3
Fy_i	-37.3	**-3.9**	6.5	-0.8	-55.3	-45.3	37.3	**3.9**	-6.5	0.8	55.3	45.3
Fz_i	37.3	3.9	**-6.5**	0.8	55.3	45.3	-37.3	-3.9	**6.5**	-0.8	-55.3	-45.3
Mx_i	-37.3	-3.9	6.5	**-0.8**	-55.3	-45.3	37.3	3.9	-6.5	**0.8**	55.3	45.3
My_i	-37.3	-3.9	6.5	-0.8	**-55.3**	-45.3	37.3	3.9	-6.5	0.8	**55.3**	45.3
Mz_i	-37.3	-3.9	6.5	-0.8	-55.3	**-45.3**	37.3	3.9	-6.5	0.8	55.3	**45.3**
Fx_f	**-37.3**	-3.9	10.7	6.8	-16.8	-27.6	**37.3**	3.9	-10.7	-6.8	16.8	27.6
Fy_f	-37.3	**-3.9**	10.7	6.8	-16.8	-27.6	37.3	**3.9**	-10.7	-6.8	16.8	27.6
Fz_f	37.3	3.9	**-10.7**	-6.8	16.8	27.6	-37.3	-3.9	**10.7**	6.8	-16.8	-27.6
Mx_f	37.3	3.9	-10.7	**-6.8**	16.8	27.6	-37.3	-3.9	10.7	**6.8**	-16.8	-27.6
My_f	-37.3	-3.9	10.7	6.8	**-16.8**	-27.6	37.3	3.9	-10.7	-6.8	**16.8**	27.6
Mz_f	-37.3	-3.9	10.7	6.8	-16.8	**-27.6**	37.3	3.9	-10.7	-6.8	16.8	**27.6**

Member 53

Fx_i	**-25.3**	-7.4	10.7	-3.5	-52.8	-28.0	**25.3**	7.4	-10.7	3.5	52.8	28.0
Fy_i	-25.3	**-7.4**	10.7	-3.5	-52.8	-28.0	25.3	**7.4**	-10.7	3.5	52.8	28.0
Fz_i	25.3	7.4	**-10.7**	3.5	52.8	28.0	-25.3	-7.4	**10.7**	-3.5	-52.8	-28.0
Mx_i	-25.3	-7.4	10.7	**-3.5**	-52.8	-28.0	25.3	7.4	-10.7	**3.5**	52.8	28.0
My_i	-25.3	-7.4	10.7	-3.5	**-52.8**	-28.0	25.3	7.4	-10.7	3.5	**52.8**	28.0
Mz_i	-25.3	-7.4	10.7	-3.5	-52.8	**-28.0**	25.3	7.4	-10.7	3.5	52.8	**28.0**
Fx_f	**-25.3**	-7.4	14.9	4.1	4.8	5.1	**25.3**	7.4	-14.9	-4.1	-4.8	-5.1
Fy_f	-25.3	**-7.4**	14.9	4.1	4.8	5.1	25.3	**7.4**	-14.9	-4.1	-4.8	-5.1
Fz_f	25.3	7.4	**-14.9**	-4.1	-4.8	-5.1	-25.3	-7.4	**14.9**	4.1	4.8	5.1
Mx_f	25.3	7.4	-14.9	**-4.1**	-4.8	-5.1	-25.3	-7.4	14.9	**4.1**	4.8	5.1
My_f	25.3	7.4	-14.9	-4.1	**-4.8**	-5.1	-25.3	-7.4	14.9	4.1	**4.8**	5.1
Mz_f	25.3	7.4	-14.9	-4.1	-4.8	**-5.1**	-25.3	-7.4	14.9	4.1	4.8	**5.1**

Member 54

Fx_i	**-7.6**	-12.4	14.9	-11.0	-48.3	4.6	**7.6**	12.4	-14.9	11.0	48.3	-4.6
Fy_i	-7.6	**-12.4**	14.9	-11.0	-48.3	4.6	7.6	**12.4**	-14.9	11.0	48.3	-4.6
Fz_i	7.6	12.4	**-14.9**	11.0	48.3	-4.6	-7.6	-12.4	**14.9**	-11.0	-48.3	4.6
Mx_i	-7.6	-12.4	14.9	**-11.0**	-48.3	4.6	7.6	12.4	-14.9	**11.0**	48.3	-4.6
My_i	-7.6	-12.4	14.9	-11.0	**-48.3**	4.6	7.6	12.4	-14.9	11.0	**48.3**	-4.6
Mz_i	7.6	12.4	-14.9	11.0	48.3	**-4.6**	-7.6	-12.4	14.9	-11.0	-48.3	**4.6**
Fx_f	**-7.6**	-12.4	19.1	-3.4	28.3	60.3	**7.6**	12.4	-19.1	3.4	-28.3	-60.3
Fy_f	-7.6	**-12.4**	19.1	-3.4	28.3	60.3	7.6	**12.4**	-19.1	3.4	-28.3	-60.3
Fz_f	7.6	12.4	**-19.1**	3.4	-28.3	-60.3	-7.6	-12.4	**19.1**	-3.4	28.3	60.3
Mx_f	-7.6	-12.4	19.1	**-3.4**	28.3	60.3	7.6	12.4	-19.1	**3.4**	-28.3	-60.3
My_f	7.6	12.4	-19.1	3.4	**-28.3**	-60.3	-7.6	-12.4	19.1	-3.4	**28.3**	60.3
Mz_f	7.6	12.4	-19.1	3.4	-28.3	**-60.3**	-7.6	-12.4	19.1	-3.4	28.3	**60.3**

Member 55

Fx_i	**-2.6**	12.7	-10.5	12.4	13.1	60.2	**2.6**	-12.7	10.5	-12.4	-13.1	-60.2
Fy_i	2.6	**-12.7**	10.5	-12.4	-13.1	-60.2	-2.6	**12.7**	-10.5	12.4	13.1	60.2
Fz_i	-2.6	12.7	**-10.5**	12.4	13.1	60.2	2.6	-12.7	**10.5**	-12.4	-13.1	-60.2
Mx_i	2.6	-12.7	10.5	**-12.4**	-13.1	-60.2	-2.6	12.7	-10.5	**12.4**	13.1	60.2
My_i	2.6	-12.7	10.5	-12.4	**-13.1**	-60.2	-2.6	12.7	-10.5	12.4	**13.1**	60.2
Mz_i	2.6	-12.7	10.5	-12.4	-13.1	**-60.2**	-2.6	12.7	-10.5	12.4	13.1	**60.2**
Fx_f	**-2.6**	12.7	-7.0	18.6	-19.1	13.7	**2.6**	-12.7	7.0	-18.6	19.1	-13.7
Fy_f	2.6	**-12.7**	7.0	-18.6	19.1	-13.7	-2.6	**12.7**	-7.0	18.6	-19.1	13.7
Fz_f	-2.6	12.7	**-7.0**	18.6	-19.1	13.7	2.6	-12.7	**7.0**	-18.6	19.1	-13.7
Mx_f	2.6	-12.7	7.0	**-18.6**	19.1	-13.7	-2.6	12.7	-7.0	**18.6**	-19.1	13.7
My_f	-2.6	12.7	-7.0	18.6	**-19.1**	13.7	2.6	-12.7	7.0	-18.6	**19.1**	-13.7
Mz_f	2.6	-12.7	7.0	-18.6	19.1	**-13.7**	-2.6	12.7	-7.0	18.6	-19.1	**13.7**

Member 56

Fx_i	**-9.4**	8.0	-7.0	4.7	1.3	13.8	**9.4**	-8.0	7.0	-4.7	-1.3	-13.8
Fy_i	9.4	**-8.0**	7.0	-4.7	-1.3	-13.8	-9.4	**8.0**	-7.0	4.7	1.3	13.8
Fz_i	-9.4	8.0	**-7.0**	4.7	1.3	13.8	9.4	-8.0	**7.0**	-4.7	-1.3	-13.8
Mx_i	9.4	-8.0	7.0	**-4.7**	-1.3	-13.8	-9.4	8.0	-7.0	**4.7**	1.3	13.8
My_i	9.4	-8.0	7.0	-4.7	**-1.3**	-13.8	-9.4	8.0	-7.0	4.7	**1.3**	13.8
Mz_i	9.4	-8.0	7.0	-4.7	-1.3	**-13.8**	-9.4	8.0	-7.0	4.7	1.3	**13.8**

Fx,	**-9.4**	8.0	-3.6	10.9	-18.2	-15.7	**9.4**	-8.0	3.6	-10.9	18.2	15.7
Fy,	9.4	**-8.0**	3.6	-10.9	18.2	15.7	-9.4	**8.0**	-3.6	10.9	-18.2	-15.7
Fz,	-9.4	8.0	**-3.6**	10.9	-18.2	-15.7	9.4	-8.0	**3.6**	-10.9	18.2	15.7
Mx,	9.4	-8.0	3.6	**-10.9**	18.2	15.7	-9.4	8.0	-3.6	**10.9**	-18.2	-15.7
My,	-9.4	8.0	-3.6	10.9	**-18.2**	-15.7	9.4	-8.0	3.6	-10.9	**18.2**	15.7
Mz,	-9.4	8.0	-3.6	10.9	-18.2	**-15.7**	9.4	-8.0	3.6	-10.9	18.2	**15.7**

Member 57

Fx,	**-12.7**	4.2	-3.6	-0.5	-8.3	-15.6	**12.7**	-4.2	3.6	0.5	8.3	15.6
Fy,	12.7	**-4.2**	3.6	0.5	8.3	15.6	-12.7	**4.2**	-3.6	-0.5	-8.3	-15.6
Fz,	-12.7	4.2	**-3.6**	-0.5	-8.3	-15.6	12.7	-4.2	**3.6**	0.5	8.3	15.6
Mx,	-12.7	4.2	-3.6	**-0.5**	-8.3	-15.6	12.7	-4.2	3.6	**0.5**	8.3	15.6
My,	-12.7	4.2	-3.6	-0.5	**-8.3**	-15.6	12.7	-4.2	3.6	0.5	**8.3**	15.6
Mz,	-12.7	4.2	-3.6	-0.5	-8.3	**-15.6**	12.7	-4.2	3.6	0.5	8.3	**15.6**
Fx,	**-12.7**	4.2	-0.2	5.7	-15.2	-31.1	**12.7**	-4.2	0.2	-5.7	15.2	31.1
Fy,	12.7	**-4.2**	0.2	-5.7	15.2	31.1	-12.7	**4.2**	-0.2	5.7	-15.2	-31.1
Fz,	-12.7	4.2	**-0.2**	5.7	-15.2	-31.1	12.7	-4.2	**0.2**	-5.7	15.2	31.1
Mx,	12.7	-4.2	0.2	**-5.7**	15.2	31.1	-12.7	4.2	-0.2	**5.7**	-15.2	-31.1
My,	-12.7	4.2	-0.2	5.7	**-15.2**	-31.1	12.7	-4.2	0.2	-5.7	**15.2**	31.1
Mz,	-12.7	4.2	-0.2	5.7	-15.2	**-31.1**	12.7	-4.2	0.2	-5.7	15.2	**31.1**

Member 58

Fx,	**-12.8**	0.8	-0.2	-4.5	-14.8	-31.1	**12.8**	-0.8	0.2	4.5	14.8	31.1
Fy,	12.8	**-0.8**	0.2	4.5	14.8	31.1	-12.8	**0.8**	-0.2	-4.5	-14.8	-31.1
Fz,	-12.8	0.8	**-0.2**	-4.5	-14.8	-31.1	12.8	-0.8	**0.2**	4.5	14.8	31.1
Mx,	-12.8	0.8	-0.2	**-4.5**	-14.8	-31.1	12.8	-0.8	0.2	**4.5**	14.8	31.1
My,	-12.8	0.8	-0.2	-4.5	**-14.8**	-31.1	12.8	-0.8	0.2	4.5	**14.8**	31.1
Mz,	-12.8	0.8	-0.2	-4.5	-14.8	**-31.1**	12.8	-0.8	0.2	4.5	14.8	**31.1**
Fx,	**-12.8**	0.8	3.3	1.7	-9.0	-34.1	**12.8**	-0.8	-3.3	-1.7	9.0	34.1
Fy,	12.8	**-0.8**	-3.3	-1.7	9.0	34.1	-12.8	**0.8**	3.3	1.7	-9.0	-34.1
Fz,	12.8	-0.8	**-3.3**	-1.7	9.0	34.1	-12.8	0.8	**3.3**	1.7	-9.0	-34.1
Mx,	12.8	-0.8	-3.3	**-1.7**	9.0	34.1	-12.8	0.8	3.3	**1.7**	-9.0	-34.1
My,	-12.8	0.8	3.3	1.7	**-9.0**	-34.1	12.8	-0.8	-3.3	-1.7	**9.0**	34.1
Mz,	-12.8	0.8	3.3	1.7	-9.0	**-34.1**	12.8	-0.8	-3.3	-1.7	9.0	**34.1**

Member 59

Fx,	**-9.8**	-2.7	3.3	-9.0	-18.0	-34.2	**9.8**	2.7	-3.3	9.0	18.0	34.2
Fy,	-9.8	**-2.7**	3.3	-9.0	-18.0	-34.2	9.8	**2.7**	-3.3	9.0	18.0	34.2
Fz,	9.8	2.7	**-3.3**	9.0	18.0	34.2	-9.8	-2.7	**3.3**	-9.0	-18.0	-34.2
Mx,	-9.8	-2.7	3.3	**-9.0**	-18.0	-34.2	9.8	2.7	-3.3	**9.0**	18.0	34.2
My,	-9.8	-2.7	3.3	-9.0	**-18.0**	-34.2	9.8	2.7	-3.3	9.0	**18.0**	34.2
Mz,	-9.8	-2.7	3.3	-9.0	-18.0	**-34.2**	9.8	2.7	-3.3	9.0	18.0	**34.2**
Fx,	**-9.8**	-2.7	6.7	-2.8	0.4	-24.2	**9.8**	2.7	-6.7	2.8	-0.4	24.2
Fy,	-9.8	**-2.7**	6.7	-2.8	0.4	-24.2	9.8	**2.7**	-6.7	2.8	-0.4	24.2
Fz,	9.8	2.7	**-6.7**	2.8	-0.4	24.2	-9.8	-2.7	**6.7**	-2.8	0.4	-24.2
Mx,	-9.8	-2.7	6.7	**-2.8**	0.4	-24.2	9.8	2.7	-6.7	**2.8**	-0.4	24.2
My,	9.8	2.7	-6.7	2.8	**-0.4**	24.2	-9.8	-2.7	6.7	-2.8	**0.4**	-24.2
Mz,	-9.8	-2.7	6.7	-2.8	0.4	**-24.2**	9.8	2.7	-6.7	2.8	-0.4	**24.2**

Member 60

Fx,	**-3.6**	-7.0	6.7	-15.6	-18.1	-24.4	**3.6**	7.0	-6.7	15.6	18.1	24.4
Fy,	-3.6	**-7.0**	6.7	-15.6	-18.1	-24.4	3.6	**7.0**	-6.7	15.6	18.1	24.4
Fz,	3.6	7.0	**-6.7**	15.6	18.1	24.4	-3.6	-7.0	**6.7**	-15.6	-18.1	-24.4
Mx,	-3.6	-7.0	6.7	**-15.6**	-18.1	-24.4	3.6	7.0	-6.7	**15.6**	18.1	24.4
My,	-3.6	-7.0	6.7	-15.6	**-18.1**	-24.4	3.6	7.0	-6.7	15.6	**18.1**	24.4
Mz,	-3.6	-7.0	6.7	-15.6	-18.1	**-24.4**	3.6	7.0	-6.7	15.6	18.1	**24.4**
Fx,	**-3.6**	-7.0	10.2	-9.4	12.9	1.3	**3.6**	7.0	-10.2	9.4	-12.9	-1.3
Fy,	-3.6	**-7.0**	10.2	-9.4	12.9	1.3	3.6	**7.0**	-10.2	9.4	-12.9	-1.3
Fz,	3.6	7.0	**-10.2**	9.4	-12.9	-1.3	-3.6	-7.0	**10.2**	-9.4	12.9	1.3
Mx,	-3.6	-7.0	10.2	**-9.4**	12.9	1.3	3.6	7.0	-10.2	**9.4**	-12.9	-1.3
My,	3.6	7.0	-10.2	9.4	**-12.9**	-1.3	-3.6	-7.0	10.2	-9.4	**12.9**	1.3
Mz,	3.6	7.0	-10.2	9.4	-12.9	**-1.3**	-3.6	-7.0	10.2	-9.4	12.9	**1.3**

Member 121

Fx,	**-0.0**	-0.0	-110.1	-0.0	330.3	-0.0	**0.0**	0.0	110.1	0.0	-330.3	0.0
Fy,	-0.0	**-0.0**	-110.1	-0.0	330.3	-0.0	0.0	**0.0**	110.1	0.0	-330.3	0.0
Fz,	-0.0	-0.0	**-110.1**	-0.0	330.3	-0.0	0.0	0.0	**110.1**	0.0	-330.3	0.0
Mx,	-0.0	-0.0	-110.1	**-0.0**	330.3	-0.0	0.0	0.0	110.1	**0.0**	-330.3	0.0
My,	0.0	0.0	110.1	0.0	**-330.3**	0.0	-0.0	-0.0	-110.1	-0.0	**330.3**	-0.0
Mz,	-0.0	-0.0	-110.1	-0.0	330.3	**-0.0**	0.0	0.0	110.1	0.0	-330.3	**0.0**
Fx,	**-0.0**	-0.0	-110.1	-0.0	225.7	-0.0	**0.0**	0.0	110.1	0.0	-225.7	0.0
Fy,	-0.0	**-0.0**	-110.1	-0.0	225.7	-0.0	0.0	**0.0**	110.1	0.0	-225.7	0.0
Fz,	-0.0	-0.0	**-110.1**	-0.0	225.7	-0.0	0.0	0.0	**110.1**	0.0	-225.7	0.0
Mx,	-0.0	-0.0	-110.1	**-0.0**	225.7	-0.0	0.0	0.0	110.1	**0.0**	-225.7	0.0
My,	0.0	0.0	110.1	0.0	**-225.7**	0.0	-0.0	-0.0	-110.1	-0.0	**225.7**	-0.0
Mz,	-0.0	-0.0	-110.1	-0.0	225.7	**-0.0**	0.0	0.0	110.1	0.0	-225.7	**0.0**

Member 122

Fx,	**-0.0**	-0.7	-31.1	-0.0	93.2	-2.0	**0.0**	0.7	31.1	0.0	-93.2	2.0
Fy,	-0.0	**-0.7**	-31.1	-0.0	93.2	-2.0	0.0	**0.7**	31.1	0.0	-93.2	2.0
Fz,	-0.0	-0.7	**-31.1**	-0.0	93.2	-2.0	0.0	0.7	**31.1**	0.0	-93.2	2.0
Mx,	-0.0	-0.7	-31.1	**-0.0**	93.2	-2.0	0.0	0.7	31.1	**0.0**	-93.2	2.0
My,	0.0	0.7	31.1	0.0	**-93.2**	2.0	-0.0	-0.7	-31.1	-0.0	**93.2**	-2.0
Mz,	-0.0	-0.7	-31.1	-0.0	93.2	**-2.0**	0.0	0.7	31.1	0.0	-93.2	**2.0**
Fx,	**-0.0**	-0.7	-31.1	-0.0	63.7	-1.4	**0.0**	0.7	31.1	0.0	-63.7	1.4
Fy,	-0.0	**-0.7**	-31.1	-0.0	63.7	-1.4	0.0	**0.7**	31.1	0.0	-63.7	1.4
Fz,	-0.0	-0.7	**-31.1**	-0.0	63.7	-1.4	0.0	0.7	**31.1**	0.0	-63.7	1.4
Mx,	-0.0	-0.7	-31.1	**-0.0**	63.7	-1.4	0.0	0.7	31.1	**0.0**	-63.7	1.4
My,	0.0	0.7	31.1	0.0	**-63.7**	1.4	-0.0	-0.7	-31.1	-0.0	**63.7**	-1.4
Mz,	-0.0	-0.7	-31.1	-0.0	63.7	**-1.4**	0.0	0.7	31.1	0.0	-63.7	**1.4**

Member 123

Fx,	**-0.0**	-1.1	-27.7	-0.0	83.0	-3.3	**0.0**	1.1	27.7	0.0	-83.0	3.3
Fy,	-0.0	**-1.1**	-27.7	-0.0	83.0	-3.3	0.0	**1.1**	27.7	0.0	-83.0	3.3
Fz,	-0.0	-1.1	**-27.7**	-0.0	83.0	-3.3	0.0	1.1	**27.7**	0.0	-83.0	3.3
Mx,	-0.0	-1.1	-27.7	**-0.0**	83.0	-3.3	0.0	1.1	27.7	**0.0**	-83.0	3.3
My,	0.0	1.1	27.7	0.0	**-83.0**	3.3	-0.0	-1.1	-27.7	-0.0	**83.0**	-3.3
Mz,	-0.0	-1.1	27.7	-0.0	83.0	**-3.3**	0.0	1.1	27.7	0.0	-83.0	**3.3**
Fx,	**-0.0**	-1.1	-27.7	-0.0	56.7	-2.3	**0.0**	1.1	27.7	0.0	-56.7	2.3
Fy,	-0.0	**-1.1**	-27.7	-0.0	56.7	-2.3	0.0	**1.1**	27.7	0.0	-56.7	2.3
Fz,	-0.0	-1.1	**-27.7**	-0.0	56.7	-2.3	0.0	1.1	**27.7**	0.0	-56.7	2.3
Mx,	-0.0	-1.1	-27.7	**-0.0**	56.7	-2.3	0.0	1.1	27.7	**0.0**	-56.7	2.3
My,	0.0	1.1	27.7	0.0	**-56.7**	2.3	-0.0	-1.1	-27.7	-0.0	**56.7**	-2.3
Mz,	-0.0	-1.1	-27.7	-0.0	56.7	**-2.3**	0.0	1.1	27.7	0.0	-56.7	**2.3**

Member 124

Fx,	**0.0**	-1.4	-24.5	0.0	73.5	-4.3	**0.0**	1.4	24.5	-0.0	-73.5	4.3
Fy,	0.0	**-1.4**	-24.5	0.0	73.5	-4.3	0.0	**1.4**	24.5	-0.0	-73.5	4.3
Fz,	0.0	-1.4	**-24.5**	0.0	73.5	-4.3	0.0	1.4	**24.5**	-0.0	-73.5	4.3
Mx,	0.0	1.4	24.5	**-0.0**	-73.5	4.3	0.0	-1.4	-24.5	**0.0**	73.5	-4.3
My,	0.0	1.4	24.5	-0.0	**-73.5**	4.3	0.0	-1.4	-24.5	0.0	**73.5**	-4.3
Mz,	0.0	-1.4	-24.5	0.0	73.5	**-4.3**	0.0	1.4	24.5	-0.0	-73.5	**4.3**
Fx,	**0.0**	-1.4	-24.5	0.0	50.2	-2.9	**0.0**	1.4	24.5	-0.0	-50.2	2.9
Fy,	0.0	**-1.4**	-24.5	0.0	50.2	-2.9	0.0	**1.4**	24.5	-0.0	-50.2	2.9
Fz,	0.0	-1.4	**-24.5**	0.0	50.2	-2.9	0.0	1.4	**24.5**	-0.0	-50.2	2.9
Mx,	0.0	1.4	24.5	**-0.0**	-50.2	2.9	0.0	-1.4	-24.5	**0.0**	50.2	-2.9
My,	0.0	1.4	24.5	-0.0	**-50.2**	2.9	0.0	-1.4	-24.5	0.0	**50.2**	-2.9
Mz,	0.0	-1.4	-24.5	0.0	50.2	**-2.9**	0.0	1.4	24.5	-0.0	-50.2	**2.9**

Member 125

Fx,	**-0.0**	1.7	21.4	-0.0	-64.1	5.0	**0.0**	-1.7	-21.4	0.0	64.1	-5.0
Fy,	0.0	**-1.7**	-21.4	0.0	64.1	-5.0	-0.0	**1.7**	21.4	-0.0	-64.1	5.0
Fz,	0.0	-1.7	**-21.4**	0.0	64.1	-5.0	-0.0	1.7	**21.4**	-0.0	-64.1	5.0
Mx,	-0.0	1.7	21.4	**-0.0**	-64.1	5.0	0.0	-1.7	-21.4	**0.0**	64.1	-5.0
My,	-0.0	1.7	21.4	-0.0	**-64.1**	5.0	0.0	-1.7	-21.4	0.0	**64.1**	-5.0
Mz,	0.0	-1.7	-21.4	0.0	64.1	**-5.0**	-0.0	1.7	21.4	-0.0	-64.1	**5.0**
Fx,	**-0.0**	1.7	21.4	-0.0	-43.8	3.4	**0.0**	-1.7	-21.4	0.0	43.8	-3.4
Fy,	0.0	**-1.7**	-21.4	0.0	43.8	-3.4	-0.0	**1.7**	21.4	-0.0	-43.8	3.4
Fz,	0.0	-1.7	**-21.4**	0.0	43.8	-3.4	-0.0	1.7	**21.4**	-0.0	-43.8	3.4
Mx,	-0.0	1.7	21.4	**-0.0**	-43.8	3.4	0.0	-1.7	-21.4	**0.0**	43.8	-3.4
My,	-0.0	1.7	21.4	-0.0	**-43.8**	3.4	0.0	-1.7	-21.4	0.0	**43.8**	-3.4

Mz_f	0.0	-1.7	-21.4	0.0	43.8	**-3.4**	-0.0	1.7	21.4	-0.0	-43.8	**3.4**

Member 126

Fx_i	**-0.0**	1.8	25.2	-0.0	-75.6	5.5	**0.0**	-1.8	-25.2	0.0	75.6	-5.5
Fy_i	0.0	**-1.8**	-25.2	0.0	75.6	-5.5	-0.0	**1.8**	25.2	-0.0	-75.6	5.5
Fz_i	0.0	-1.8	**-25.2**	0.0	75.6	-5.5	-0.0	1.8	**25.2**	-0.0	-75.6	5.5
Mx_i	-0.0	1.8	25.2	**-0.0**	-75.6	5.5	0.0	-1.8	-25.2	**0.0**	75.6	-5.5
My_i	-0.0	1.8	25.2	-0.0	**-75.6**	5.5	0.0	-1.8	-25.2	0.0	**75.6**	-5.5
Mz_i	0.0	-1.8	-25.2	0.0	75.6	**-5.5**	-0.0	1.8	25.2	-0.0	-75.6	**5.5**
Fx_f	**-0.0**	1.8	25.2	-0.0	-51.7	3.7	**0.0**	-1.8	-25.2	0.0	51.7	-3.7
Fy_f	0.0	**-1.8**	-25.2	0.0	51.7	-3.7	-0.0	**1.8**	25.2	-0.0	-51.7	3.7
Fz_f	0.0	-1.8	**-25.2**	0.0	51.7	-3.7	-0.0	1.8	**25.2**	-0.0	-51.7	3.7
Mx_f	-0.0	1.8	25.2	**-0.0**	-51.7	3.7	0.0	-1.8	-25.2	**0.0**	51.7	-3.7
My_f	-0.0	1.8	25.2	-0.0	**-51.7**	3.7	0.0	-1.8	-25.2	0.0	**51.7**	-3.7
Mz_f	0.0	-1.8	-25.2	0.0	51.7	**-3.7**	-0.0	1.8	25.2	-0.0	-51.7	**3.7**

Member 127

Fx.	**-0.0**	1.9	15.1	0.2	-45.4	5.7	**0.0**	-1.9	-15.1	-0.2	45.4	-5.7
Fy.	0.0	**-1.9**	-15.1	-0.2	45.4	-5.7	-0.0	**1.9**	15.1	0.2	-45.4	5.7
Fz.	0.0	-1.9	**-15.1**	-0.2	45.4	-5.7	-0.0	1.9	**15.1**	0.2	-45.4	5.7
Mx.	0.0	-1.9	-15.1	**-0.2**	45.4	-5.7	-0.0	1.9	15.1	**0.2**	-45.4	5.7
My.	-0.0	1.9	15.1	0.2	**-45.4**	5.7	0.0	-1.9	-15.1	-0.2	**45.4**	-5.7
Mz.	0.0	-1.9	-15.1	-0.2	45.4	**-5.7**	-0.0	1.9	15.1	0.2	-45.4	**5.7**
Fx.	**-0.0**	1.9	15.1	0.2	-31.0	3.9	**0.0**	-1.9	-15.1	-0.2	31.0	-3.9
Fy.	0.0	**-1.9**	-15.1	-0.2	31.0	-3.9	-0.0	**1.9**	15.1	0.2	-31.0	3.9
Fz.	0.0	-1.9	**-15.1**	-0.2	31.0	-3.9	-0.0	1.9	**15.1**	0.2	-31.0	3.9
Mx.	0.0	-1.9	-15.1	**-0.2**	31.0	-3.9	-0.0	1.9	15.1	**0.2**	-31.0	3.9
My.	-0.0	1.9	15.1	0.2	**-31.0**	3.9	0.0	-1.9	-15.1	-0.2	**31.0**	-3.9
Mz.	0.0	-1.9	-15.1	-0.2	31.0	**-3.9**	-0.0	1.9	15.1	0.2	-31.0	**3.9**

Member 128

Fx.	**0.0**	-2.1	-14.0	-0.4	42.1	-6.3	**0.0**	2.1	14.0	0.4	-42.1	6.3
Fy.	0.0	**-2.1**	-14.0	-0.4	42.1	-6.3	0.0	**2.1**	14.0	0.4	-42.1	6.3
Fz	0.0	-2.1	**-14.0**	-0.4	42.1	-6.3	0.0	2.1	**14.0**	0.4	-42.1	6.3
Mx.	0.0	-2.1	-14.0	**-0.4**	42.1	-6.3	0.0	2.1	14.0	**0.4**	-42.1	6.3
My	0.0	2.1	14.0	0.4	**-42.1**	6.3	0.0	-2.1	-14.0	-0.4	**42.1**	-6.3
Mz.	0.0	-2.1	-14.0	-0.4	42.1	**-6.3**	0.0	2.1	14.0	0.4	-42.1	**6.3**
Fx.	**0.0**	-2.1	-14.0	-0.4	28.8	-4.3	**0.0**	2.1	14.0	0.4	-28.8	4.3
Fy.	0.0	**-2.1**	-14.0	-0.4	28.8	-4.3	0.0	**2.1**	14.0	0.4	-28.8	4.3
Fz.	0.0	-2.1	**-14.0**	-0.4	28.8	-4.3	0.0	2.1	**14.0**	0.4	-28.8	4.3
Mx.	0.0	-2.1	-14.0	**-0.4**	28.8	-4.3	0.0	2.1	14.0	**0.4**	-28.8	4.3
My.	0.0	2.1	14.0	0.4	**-28.8**	4.3	0.0	-2.1	-14.0	-0.4	**28.8**	-4.3
Mz.	0.0	-2.1	-14.0	-0.4	28.8	**-4.3**	0.0	2.1	14.0	0.4	-28.8	**4.3**

Member 129

Fx.	**-0.0**	1.9	13.0	0.3	-38.9	5.6	**0.0**	-1.9	-13.0	-0.3	38.9	-5.6
Fy.	0.0	**-1.9**	-13.0	-0.3	38.9	-5.6	-0.0	**1.9**	13.0	0.3	-38.9	5.6
Fz.	0.0	-1.9	**-13.0**	-0.3	38.9	-5.6	-0.0	1.9	**13.0**	0.3	-38.9	5.6
Mx.	0.0	-1.9	-13.0	**-0.3**	38.9	-5.6	-0.0	1.9	13.0	**0.3**	-38.9	5.6
My	-0.0	1.9	13.0	0.3	**-38.9**	5.6	0.0	-1.9	-13.0	-0.3	**38.9**	-5.6
Mz.	0.0	-1.9	-13.0	-0.3	38.9	**-5.6**	-0.0	1.9	13.0	0.3	-38.9	**5.6**
Fx.	**-0.0**	1.9	13.0	0.3	-26.6	3.8	**0.0**	-1.9	-13.0	-0.3	26.6	-3.8
Fy.	0.0	**-1.9**	-13.0	-0.3	26.6	-3.8	-0.0	**1.9**	13.0	0.3	-26.6	3.8
Fz.	0.0	-1.9	**-13.0**	-0.3	26.6	-3.8	-0.0	1.9	**13.0**	0.3	-26.6	3.8
Mx.	0.0	-1.9	-13.0	**-0.3**	26.6	-3.8	-0.0	1.9	13.0	**0.3**	-26.6	3.8
My.	-0.0	1.9	13.0	0.3	**-26.6**	3.8	0.0	-1.9	-13.0	-0.3	**26.6**	-3.8
Mz.	0.0	-1.9	-13.0	-0.3	26.6	**-3.8**	-0.0	1.9	13.0	0.3	-26.6	**3.8**

Member 130

Fx	**0.0**	-1.8	-8.2	-0.2	24.6	-5.3	**0.0**	1.8	8.2	0.2	-24.6	5.3
Fy.	0.0	**-1.8**	-8.2	-0.2	24.6	-5.3	0.0	**1.8**	8.2	0.2	-24.6	5.3
Fz	0.0	-1.8	**-8.2**	-0.2	24.6	-5.3	0.0	1.8	**8.2**	0.2	-24.6	5.3
Mx.	0.0	-1.8	-8.2	**-0.2**	24.6	-5.3	0.0	1.8	8.2	**0.2**	-24.6	5.3
My.	0.0	1.8	8.2	0.2	**-24.6**	5.3	0.0	-1.8	-8.2	-0.2	**24.6**	-5.3
Mz.	0.0	-1.8	-8.2	-0.2	24.6	**-5.3**	0.0	1.8	8.2	0.2	-24.6	**5.3**

Fx_f	**0.0**	-1.8	-8.2	-0.2	16.8	-3.6	**0.0**	1.8	8.2	0.2	-16.8	3.6
Fy_f	0.0	**-1.8**	-8.2	-0.2	16.8	-3.6	0.0	**1.8**	8.2	0.2	-16.8	3.6
Fz_f	0.0	-1.8	**-8.2**	-0.2	16.8	-3.6	0.0	1.8	**8.2**	0.2	-16.8	3.6
Mx_f	0.0	-1.8	-8.2	**-0.2**	16.8	-3.6	0.0	1.8	8.2	**0.2**	-16.8	3.6
My_f	0.0	1.8	8.2	0.2	**-16.8**	3.6	0.0	-1.8	-8.2	-0.2	**16.8**	-3.6
Mz_f	0.0	-1.8	-8.2	-0.2	16.8	**-3.6**	0.0	1.8	8.2	0.2	-16.8	**3.6**

Member 131

Fx_i	**-0.0**	-2.0	-3.5	0.0	10.4	-6.0	**0.0**	2.0	3.5	-0.0	-10.4	6.0
Fy_i	-0.0	**-2.0**	-3.5	0.0	10.4	-6.0	0.0	**2.0**	3.5	-0.0	-10.4	6.0
Fz_i	-0.0	-2.0	**-3.5**	0.0	10.4	-6.0	0.0	2.0	**3.5**	-0.0	-10.4	6.0
Mx_i	0.0	2.0	3.5	**-0.0**	-10.4	6.0	-0.0	-2.0	-3.5	**0.0**	10.4	-6.0
My_i	0.0	2.0	3.5	-0.0	**-10.4**	6.0	-0.0	-2.0	-3.5	0.0	**10.4**	-6.0
Mz_i	-0.0	-2.0	-3.5	0.0	10.4	**-6.0**	0.0	2.0	3.5	-0.0	-10.4	**6.0**
Fx_f	**-0.0**	-2.0	-3.5	0.0	7.1	-4.1	**0.0**	2.0	3.5	-0.0	-7.1	4.1
Fy_f	-0.0	**-2.0**	-3.5	0.0	7.1	-4.1	0.0	**2.0**	3.5	-0.0	-7.1	4.1
Fz_f	-0.0	-2.0	**-3.5**	0.0	7.1	-4.1	0.0	2.0	**3.5**	-0.0	-7.1	4.1
Mx_f	0.0	2.0	3.5	**-0.0**	-7.1	**4.1**	-0.0	-2.0	-3.5	**0.0**	7.1	-4.1
My_f	0.0	2.0	3.5	-0.0	**-7.1**	**4.1**	-0.0	-2.0	-3.5	0.0	**7.1**	-4.1
Mz_f	-0.0	-2.0	-3.5	0.0	7.1	**-4.1**	0.0	2.0	3.5	-0.0	-7.1	**4.1**

Member 132

Fx.	**-0.0**	2.7	-1.3	-0.2	3.9	8.1	**0.0**	-2.7	1.3	0.2	-3.9	-8.1
Fy.	0.0	**-2.7**	1.3	0.2	-3.9	-8.1	-0.0	**2.7**	-1.3	-0.2	3.9	8.1
Fz.	-0.0	2.7	**-1.3**	-0.2	3.9	8.1	0.0	-2.7	**1.3**	0.2	-3.9	-8.1
Mx.	-0.0	2.7	-1.3	**-0.2**	3.9	8.1	0.0	-2.7	1.3	**0.2**	-3.9	-8.1
My.	0.0	-2.7	1.3	0.2	**-3.9**	-8.1	-0.0	2.7	-1.3	-0.2	**3.9**	8.1
Mz.	0.0	-2.7	1.3	0.2	-3.9	**-8.1**	-0.0	2.7	-1.3	-0.2	3.9	**8.1**
Fx.	**-0.0**	2.7	-1.3	-0.2	2.6	5.5	**0.0**	-2.7	1.3	0.2	-2.6	-5.5
Fy.	0.0	**-2.7**	1.3	0.2	-2.6	-5.5	-0.0	**2.7**	-1.3	-0.2	2.6	5.5
Fz.	-0.0	2.7	**-1.3**	-0.2	2.6	5.5	0.0	-2.7	**1.3**	0.2	-2.6	-5.5
Mx.	-0.0	2.7	-1.3	**-0.2**	2.6	5.5	0.0	-2.7	1.3	**0.2**	-2.6	-5.5
My.	0.0	-2.7	1.3	0.2	**-2.6**	-5.5	-0.0	2.7	-1.3	-0.2	**2.6**	5.5
Mz.	0.0	-2.7	1.3	0.2	-2.6	**-5.5**	-0.0	2.7	-1.3	-0.2	2.6	**5.5**

Member 133

Fx.	**-0.0**	-4.0	6.0	0.3	-18.1	-12.0	**0.0**	4.0	-6.0	-0.3	18.1	12.0
Fy.	-0.0	**-4.0**	6.0	0.3	-18.1	-12.0	0.0	**4.0**	-6.0	-0.3	18.1	12.0
Fz.	0.0	4.0	**-6.0**	-0.3	18.1	12.0	-0.0	-4.0	**6.0**	0.3	-18.1	-12.0
Mx.	0.0	4.0	-6.0	**-0.3**	18.1	12.0	-0.0	-4.0	6.0	**0.3**	-18.1	-12.0
My.	-0.0	-4.0	6.0	0.3	**-18.1**	-12.0	0.0	4.0	-6.0	-0.3	**18.1**	12.0
Mz.	-0.0	-4.0	6.0	0.3	-18.1	**-12.0**	0.0	4.0	-6.0	-0.3	18.1	**12.0**
Fx.	**-0.0**	-4.0	6.0	0.3	-12.4	-8.2	**0.0**	4.0	-6.0	-0.3	12.4	8.2
Fy.	-0.0	**-4.0**	6.0	0.3	-12.4	-8.2	0.0	**4.0**	-6.0	-0.3	12.4	8.2
Fz.	0.0	4.0	**-6.0**	-0.3	12.4	8.2	-0.0	-4.0	**6.0**	0.3	-12.4	-8.2
Mx.	0.0	4.0	-6.0	**-0.3**	12.4	8.2	-0.0	-4.0	6.0	**0.3**	-12.4	-8.2
My.	-0.0	-4.0	6.0	0.3	**-12.4**	-8.2	0.0	4.0	-6.0	-0.3	**12.4**	8.2
Mz.	-0.0	-4.0	6.0	0.3	-12.4	**-8.2**	0.0	4.0	-6.0	-0.3	12.4	**8.2**

Member 134

Fx.	**-0.0**	-6.0	9.9	0.4	-29.6	-18.1	**0.0**	6.0	-9.9	-0.4	29.6	18.1
Fy.	-0.0	**-6.0**	9.9	0.4	-29.6	-18.1	0.0	**6.0**	-9.9	-0.4	29.6	18.1
Fz.	0.0	6.0	**-9.9**	-0.4	29.6	18.1	-0.0	-6.0	**9.9**	0.4	-29.6	-18.1
Mx.	0.0	6.0	-9.9	**-0.4**	29.6	18.1	-0.0	-6.0	9.9	**0.4**	-29.6	-18.1
My.	-0.0	-6.0	9.9	0.4	**-29.6**	-18.1	0.0	6.0	-9.9	-0.4	**29.6**	18.1
Mz.	-0.0	-6.0	9.9	0.4	-29.6	**-18.1**	0.0	6.0	-9.9	-0.4	29.6	**18.1**
Fx.	**-0.0**	-6.0	9.9	0.4	-20.2	-12.4	**0.0**	6.0	-9.9	-0.4	20.2	12.4
Fy.	-0.0	**-6.0**	9.9	0.4	-20.2	-12.4	0.0	**6.0**	-9.9	-0.4	20.2	12.4
Fz.	0.0	6.0	**-9.9**	-0.4	20.2	12.4	-0.0	-6.0	**9.9**	0.4	-20.2	-12.4
Mx.	0.0	6.0	-9.9	**-0.4**	20.2	12.4	-0.0	-6.0	9.9	**0.4**	-20.2	-12.4
My.	-0.0	-6.0	9.9	0.4	**-20.2**	-12.4	0.0	6.0	-9.9	-0.4	**20.2**	12.4
Mz.	-0.0	-6.0	9.9	0.4	-20.2	**-12.4**	0.0	6.0	-9.9	-0.4	20.2	**12.4**

Member 135

Fx_i	**-0.0**	-8.5	-2.7	-0.1	8.2	-25.6	**0.0**	8.5	2.7	0.1	-8.2	25.6
Fy_i	-0.0	**-8.5**	-2.7	-0.1	8.2	-25.6	0.0	**8.5**	2.7	0.1	-8.2	25.6

Fz_i	-0.0	-8.5	**-2.7**	-0.1	8.2	-25.6	0.0	8.5	**2.7**	0.1	-8.2	25.6
Mx_i	-0.0	-8.5	-2.7	**-0.1**	8.2	-25.6	0.0	8.5	2.7	**0.1**	-8.2	25.6
My_i	0.0	8.5	2.7	0.1	**-8.2**	25.6	-0.0	-8.5	-2.7	-0.1	**8.2**	-25.6
Mz_i	**-0.0**	-8.5	-2.7	-0.1	8.2	**-25.6**	0.0	8.5	2.7	0.1	-8.2	**25.6**
Fx_f	**-0.0**	-8.5	-2.7	-0.1	5.6	-17.5	**0.0**	8.5	2.7	0.1	-5.6	17.5
Fy_f	-0.0	**-8.5**	-2.7	-0.1	5.6	-17.5	0.0	**8.5**	2.7	0.1	-5.6	17.5
Fz_f	-0.0	-8.5	**-2.7**	-0.1	5.6	-17.5	0.0	8.5	**2.7**	0.1	-5.6	17.5
Mx_f	-0.0	-8.5	-2.7	**-0.1**	5.6	-17.5	0.0	8.5	2.7	**0.1**	-5.6	17.5
My_f	0.0	8.5	2.7	0.1	**-5.6**	17.5	-0.0	-8.5	-2.7	-0.1	**5.6**	-17.5
Mz_f	-0.0	-8.5	-2.7	-0.1	5.6	**-17.5**	0.0	8.5	2.7	0.1	-5.6	**17.5**

Member 136

Fx_i	**-0.0**	-6.0	-16.4	-0.5	49.3	-18.1	**0.0**	6.0	16.4	0.5	-49.3	18.1
Fy_i	-0.0	**-6.0**	-16.4	-0.5	49.3	-18.1	0.0	**6.0**	16.4	0.5	-49.3	18.1
Fz_i	-0.0	-6.0	**-16.4**	-0.5	49.3	-18.1	0.0	6.0	**16.4**	0.5	-49.3	18.1
Mx_i	-0.0	-6.0	-16.4	**-0.5**	49.3	-18.1	0.0	6.0	16.4	**0.5**	-49.3	18.1
My_i	0.0	6.0	16.4	0.5	**-49.3**	18.1	-0.0	-6.0	-16.4	-0.5	**49.3**	-18.1
Mz_i	-0.0	-6.0	-16.4	-0.5	49.3	**-18.1**	0.0	6.0	16.4	0.5	-49.3	**18.1**
Fx_f	**-0.0**	-6.0	-16.4	-0.5	33.7	-12.3	**0.0**	6.0	16.4	0.5	-33.7	12.3
Fy_f	-0.0	**-6.0**	-16.4	-0.5	33.7	-12.3	0.0	**6.0**	16.4	0.5	-33.7	12.3
Fz_f	-0.0	-6.0	**-16.4**	-0.5	33.7	-12.3	0.0	6.0	**16.4**	0.5	-33.7	12.3
Mx_f	-0.0	-6.0	-16.4	**-0.5**	33.7	-12.3	0.0	6.0	16.4	**0.5**	-33.7	12.3
My_f	0.0	6.0	16.4	0.5	**-33.7**	12.3	-0.0	-6.0	-16.4	-0.5	**33.7**	-12.3
Mz_f	-0.0	-6.0	-16.4	-0.5	33.7	**-12.3**	0.0	6.0	16.4	0.5	-33.7	**12.3**

Member 137

Fx_i	**-0.0**	-4.0	-12.2	-0.5	36.7	-12.1	**0.0**	4.0	12.2	0.5	-36.7	12.1
Fy_i	-0.0	**-4.0**	-12.2	-0.5	36.7	-12.1	0.0	**4.0**	12.2	0.5	-36.7	12.1
Fz_i	-0.0	-4.0	**-12.2**	-0.5	36.7	-12.1	0.0	4.0	**12.2**	0.5	-36.7	12.1
Mx_i	-0.0	-4.0	-12.2	**-0.5**	36.7	-12.1	0.0	4.0	12.2	**0.5**	-36.7	12.1
My_i	0.0	4.0	12.2	0.5	**-36.7**	12.1	-0.0	-4.0	-12.2	-0.5	**36.7**	-12.1
Mz_i	-0.0	-4.0	-12.2	-0.5	36.7	**-12.1**	0.0	4.0	12.2	0.5	-36.7	**12.1**
Fx_f	**-0.0**	-4.0	-12.2	-0.5	25.1	-8.3	**0.0**	4.0	12.2	0.5	-25.1	8.3
Fy_f	-0.0	**-4.0**	-12.2	-0.5	25.1	-8.3	0.0	**4.0**	12.2	0.5	-25.1	8.3
Fz_f	-0.0	-4.0	**-12.2**	-0.5	25.1	-8.3	0.0	4.0	**12.2**	0.5	-25.1	8.3
Mx_f	-0.0	-4.0	-12.2	**-0.5**	25.1	-8.3	0.0	4.0	12.2	**0.5**	-25.1	8.3
My_f	0.0	4.0	12.2	0.5	**-25.1**	8.3	-0.0	-4.0	-12.2	-0.5	**25.1**	-8.3
Mz_f	-0.0	-4.0	-12.2	-0.5	25.1	**-8.3**	0.0	4.0	12.2	0.5	-25.1	**8.3**

Member 138

Fx_i	**0.0**	-2.9	-7.5	-0.2	22.5	-8.8	**0.0**	2.9	7.5	0.2	-22.5	8.8
Fy_i	0.0	**-2.9**	-7.5	-0.2	22.5	-8.8	0.0	**2.9**	7.5	0.2	-22.5	8.8
Fz_i	0.0	-2.9	**-7.5**	-0.2	22.5	-8.8	0.0	2.9	**7.5**	0.2	-22.5	8.8
Mx_i	0.0	-2.9	-7.5	**-0.2**	22.5	-8.8	0.0	2.9	7.5	**0.2**	-22.5	8.8
My_i	0.0	2.9	7.5	0.2	**-22.5**	8.8	0.0	-2.9	-7.5	-0.2	**22.5**	-8.8
Mz_i	0.0	-2.9	-7.5	-0.2	22.5	**-8.8**	0.0	2.9	7.5	0.2	-22.5	**8.8**
Fx_f	**0.0**	-2.9	-7.5	-0.2	15.4	-6.0	**0.0**	2.9	7.5	0.2	-15.4	6.0
Fy_f	0.0	**-2.9**	-7.5	-0.2	15.4	-6.0	0.0	**2.9**	7.5	0.2	-15.4	6.0
Fz_f	0.0	-2.9	**-7.5**	-0.2	15.4	-6.0	0.0	2.9	**7.5**	0.2	-15.4	6.0
Mx_f	0.0	-2.9	-7.5	**-0.2**	15.4	-6.0	0.0	2.9	7.5	**0.2**	-15.4	6.0
My_f	0.0	2.9	7.5	0.2	**-15.4**	6.0	0.0	-2.9	-7.5	-0.2	**15.4**	-6.0
Mz_f	0.0	-2.9	-7.5	-0.2	15.4	**-6.0**	0.0	2.9	7.5	0.2	-15.4	**6.0**

Member 139

Fx_i	**-0.0**	2.7	2.7	0.0	-8.2	8.0	**0.0**	-2.7	-2.7	-0.0	8.2	-8.0
Fy_i	0.0	**-2.7**	-2.7	-0.0	8.2	-8.0	-0.0	**2.7**	2.7	0.0	-8.2	8.0
Fz_i	0.0	-2.7	**-2.7**	-0.0	8.2	-8.0	-0.0	2.7	**2.7**	0.0	-8.2	8.0
Mx_i	0.0	-2.7	-2.7	**-0.0**	8.2	-8.0	-0.0	2.7	2.7	**0.0**	-8.2	8.0
My_i	-0.0	2.7	2.7	0.0	**-8.2**	8.0	0.0	-2.7	-2.7	-0.0	**8.2**	-8.0
Mz_i	0.0	-2.7	-2.7	-0.0	8.2	**-8.0**	-0.0	2.7	2.7	0.0	-8.2	**8.0**
Fx_f	**-0.0**	2.7	2.7	0.0	-5.6	5.5	**0.0**	-2.7	-2.7	-0.0	5.6	-5.5
Fy_f	0.0	**-2.7**	-2.7	-0.0	5.6	-5.5	-0.0	**2.7**	2.7	0.0	-5.6	5.5
Fz_f	0.0	-2.7	**-2.7**	-0.0	5.6	-5.5	-0.0	2.7	**2.7**	0.0	-5.6	5.5
Mx_f	0.0	-2.7	-2.7	**-0.0**	5.6	-5.5	-0.0	2.7	2.7	**0.0**	-5.6	5.5
My_f	-0.0	2.7	2.7	0.0	**-5.6**	5.5	0.0	-2.7	-2.7	-0.0	**5.6**	-5.5
Mz_f	0.0	-2.7	-2.7	-0.0	5.6	**-5.5**	-0.0	2.7	2.7	0.0	-5.6	**5.5**

Member 140

Fx_i	**0.0**	-3.3	2.0	0.2	-6.0	-9.9	**0.0**	3.3	-2.0	-0.2	6.0	9.9
Fy_i	0.0	**-3.3**	2.0	0.2	-6.0	-9.9	0.0	**3.3**	-2.0	-0.2	6.0	9.9
Fz_i	0.0	3.3	**-2.0**	-0.2	6.0	9.9	0.0	-3.3	**2.0**	0.2	-6.0	-9.9
Mx_i	0.0	3.3	-2.0	**-0.2**	6.0	9.9	0.0	-3.3	2.0	**0.2**	-6.0	-9.9
My_i	0.0	-3.3	2.0	0.2	**-6.0**	-9.9	0.0	3.3	-2.0	-0.2	**6.0**	9.9
Mz_i	0.0	-3.3	2.0	0.2	-6.0	**-9.9**	0.0	3.3	-2.0	-0.2	6.0	**9.9**
Fx_f	**0.0**	-3.3	2.0	0.2	-4.1	-6.8	**0.0**	3.3	-2.0	-0.2	4.1	6.8
Fy_f	0.0	**-3.3**	2.0	0.2	-4.1	-6.8	0.0	**3.3**	-2.0	-0.2	4.1	6.8
Fz_f	0.0	3.3	**-2.0**	-0.2	4.1	6.8	0.0	-3.3	**2.0**	0.2	-4.1	-6.8
Mx_f	0.0	3.3	-2.0	**-0.2**	4.1	6.8	0.0	-3.3	2.0	**0.2**	-4.1	-6.8
My_f	0.0	-3.3	2.0	0.2	**-4.1**	-6.8	0.0	3.3	-2.0	-0.2	**4.1**	6.8
Mz_f	0.0	-3.3	2.0	0.2	-4.1	**-6.8**	0.0	3.3	-2.0	-0.2	4.1	**6.8**

Member 141

Fx_i	**-0.0**	-4.9	6.8	0.5	-20.3	-14.8	**0.0**	4.9	-6.8	-0.5	20.3	14.8
Fy_i	-0.0	**-4.9**	6.8	0.5	-20.3	-14.8	0.0	**4.9**	-6.8	-0.5	20.3	14.8
Fz_i	0.0	4.9	**-6.8**	-0.5	20.3	14.8	-0.0	-4.9	**6.8**	0.5	-20.3	-14.8
Mx_i	0.0	4.9	-6.8	**-0.5**	20.3	14.8	-0.0	-4.9	6.8	**0.5**	-20.3	-14.8
My_i	-0.0	-4.9	6.8	0.5	**-20.3**	-14.8	0.0	4.9	-6.8	-0.5	**20.3**	14.8
Mz_i	-0.0	-4.9	6.8	0.5	-20.3	**-14.8**	0.0	4.9	-6.8	-0.5	20.3	**14.8**
Fx_f	**-0.0**	-4.9	6.8	0.5	-13.9	-10.1	**0.0**	4.9	-6.8	-0.5	13.9	10.1
Fy_f	-0.0	**-4.9**	6.8	0.5	-13.9	-10.1	0.0	**4.9**	-6.8	-0.5	13.9	10.1
Fz_f	0.0	4.9	**-6.8**	-0.5	13.9	10.1	-0.0	-4.9	**6.8**	0.5	-13.9	-10.1
Mx_f	0.0	4.9	-6.8	**-0.5**	13.9	10.1	-0.0	-4.9	6.8	**0.5**	-13.9	-10.1
My_f	-0.0	-4.9	6.8	0.5	**-13.9**	-10.1	0.0	4.9	-6.8	-0.5	**13.9**	10.1
Mz_f	-0.0	-4.9	6.8	0.5	-13.9	**-10.1**	0.0	4.9	-6.8	-0.5	13.9	**10.1**

Member 142

Fx_i	**-0.0**	-7.7	13.2	0.5	-39.5	-23.0	**0.0**	7.7	-13.2	-0.5	39.5	23.0
Fy_i	-0.0	**-7.7**	13.2	0.5	-39.5	-23.0	0.0	**7.7**	-13.2	-0.5	39.5	23.0
Fz_i	0.0	7.7	**-13.2**	-0.5	39.5	23.0	-0.0	-7.7	**13.2**	0.5	-39.5	-23.0
Mx_i	0.0	7.7	-13.2	**-0.5**	39.5	23.0	-0.0	-7.7	13.2	**0.5**	-39.5	-23.0
My_i	-0.0	-7.7	13.2	0.5	**-39.5**	-23.0	0.0	7.7	-13.2	-0.5	39.5	23.0
Mz_i	-0.0	-7.7	13.2	0.5	-39.5	**-23.0**	0.0	7.7	-13.2	-0.5	39.5	**23.0**
Fx_f	**-0.0**	-7.7	13.2	0.5	-27.0	-15.7	**0.0**	7.7	-13.2	-0.5	27.0	15.7
Fy_f	-0.0	**-7.7**	13.2	0.5	-27.0	-15.7	0.0	**7.7**	-13.2	-0.5	27.0	15.7
Fz_f	0.0	7.7	**-13.2**	-0.5	27.0	15.7	-0.0	-7.7	**13.2**	0.5	-27.0	-15.7
Mx_f	0.0	7.7	-13.2	**-0.5**	27.0	15.7	-0.0	-7.7	13.2	**0.5**	-27.0	-15.7
My_f	-0.0	-7.7	13.2	0.5	**-27.0**	-15.7	0.0	7.7	-13.2	-0.5	**27.0**	15.7
Mz_f	-0.0	-7.7	13.2	0.5	-27.0	**-15.7**	0.0	7.7	-13.2	-0.5	27.0	**15.7**

Member 143

Fx_i	**-0.0**	-11.2	-1.1	-0.0	3.4	-33.6	**0.0**	11.2	1.1	0.0	-3.4	33.6
Fy_i	-0.0	**-11.2**	-1.1	-0.0	3.4	-33.6	0.0	**11.2**	1.1	0.0	-3.4	33.6
Fz_i	-0.0	-11.2	**-1.1**	-0.0	3.4	-33.6	0.0	11.2	**1.1**	0.0	-3.4	33.6
Mx_i	-0.0	-11.2	-1.1	**-0.0**	3.4	-33.6	0.0	11.2	1.1	**0.0**	-3.4	33.6
My_i	0.0	11.2	1.1	0.0	**-3.4**	33.6	-0.0	-11.2	-1.1	-0.0	**3.4**	-33.6
Mz_i	-0.0	-11.2	-1.1	-0.0	3.4	**-33.6**	0.0	11.2	1.1	0.0	-3.4	**33.6**
Fx_f	**-0.0**	-11.2	-1.1	-0.0	2.3	-22.9	**0.0**	11.2	1.1	0.0	-2.3	22.9
Fy_f	-0.0	**-11.2**	-1.1	-0.0	2.3	-22.9	0.0	**11.2**	1.1	0.0	-2.3	22.9
Fz_f	-0.0	-11.2	**-1.1**	-0.0	2.3	-22.9	0.0	11.2	**1.1**	0.0	-2.3	22.9
Mx_f	-0.0	-11.2	-1.1	**-0.0**	2.3	-22.9	0.0	11.2	1.1	**0.0**	-2.3	22.9
My_f	0.0	11.2	1.1	0.0	**-2.3**	22.9	-0.0	-11.2	-1.1	-0.0	**2.3**	-22.9
Mz_f	-0.0	-11.2	-1.1	-0.0	2.3	**-22.9**	0.0	11.2	1.1	0.0	-2.3	22.9

Member 144

Fx_i	**-0.0**	-7.6	-15.9	-0.6	47.6	-22.9	**0.0**	7.6	15.9	0.6	-47.6	22.9
Fy_i	-0.0	**-7.6**	-15.9	-0.6	47.6	-22.9	0.0	**7.6**	15.9	0.6	-47.6	22.9
Fz_i	-0.0	-7.6	**-15.9**	-0.6	47.6	-22.9	0.0	7.6	**15.9**	0.6	-47.6	22.9
Mx_i	-0.0	-7.6	-15.9	**-0.6**	47.6	-22.9	0.0	7.6	15.9	**0.6**	-47.6	22.9
My_i	0.0	7.6	15.9	0.6	**-47.6**	22.9	-0.0	-7.6	-15.9	-0.6	**47.6**	-22.9
Mz_i	-0.0	-7.6	-15.9	-0.6	47.6	**-22.9**	0.0	7.6	15.9	0.6	-47.6	**22.9**
Fx_f	**-0.0**	-7.6	-15.9	-0.6	32.5	-15.7	**0.0**	7.6	15.9	0.6	-32.5	15.7

Fy_f	-0.0	-7.6	-15.9	-0.6	32.5	-15.7	0.0	7.6	15.9	0.6	-32.5	15.7
Fz_f	-0.0	-7.6	**-15.9**	-0.6	32.5	-15.7	0.0	7.6	**15.9**	0.6	-32.5	15.7
Mx_f	-0.0	-7.6	-15.9	**-0.6**	32.5	-15.7	0.0	7.6	15.9	**0.6**	-32.5	15.7
My_f	0.0	7.6	15.9	0.6	**-32.5**	15.7	-0.0	-7.6	-15.9	-0.6	**32.5**	-15.7
Mz_f	-0.0	-7.6	-15.9	-0.6	32.5	**-15.7**	0.0	7.6	15.9	0.6	-32.5	**15.7**

Member 145

Fx_i	**0.0**	-4.9	-9.3	-0.5	28.0	-14.8	**0.0**	4.9	9.3	0.5	-28.0	14.8
Fy_i	0.0	**-4.9**	-9.3	-0.5	28.0	-14.8	0.0	**4.9**	9.3	0.5	-28.0	14.8
Fz_i	0.0	-4.9	**-9.3**	-0.5	28.0	-14.8	0.0	4.9	**9.3**	0.5	-28.0	14.8
Mx_i	0.0	-4.9	-9.3	**-0.5**	28.0	-14.8	0.0	4.9	9.3	**0.5**	-28.0	14.8
My_i	0.0	4.9	9.3	0.5	**-28.0**	14.8	0.0	-4.9	-9.3	-0.5	**28.0**	-14.8
Mz_i	0.0	-4.9	-9.3	-0.5	28.0	**-14.8**	0.0	4.9	9.3	0.5	-28.0	**14.8**
Fx_f	**0.0**	-4.9	-9.3	-0.5	19.1	-10.1	**0.0**	4.9	9.3	0.5	-19.1	10.1
Fy_f	0.0	**-4.9**	-9.3	-0.5	19.1	-10.1	0.0	**4.9**	9.3	0.5	-19.1	10.1
Fz_f	0.0	-4.9	**-9.3**	-0.5	19.1	-10.1	0.0	4.9	**9.3**	0.5	-19.1	10.1
Mx_f	0.0	-4.9	-9.3	**-0.5**	19.1	-10.1	0.0	4.9	9.3	**0.5**	-19.1	10.1
My_f	0.0	4.9	9.3	0.5	**-19.1**	10.1	0.0	-4.9	-9.3	-0.5	**19.1**	-10.1
Mz_f	0.0	-4.9	-9.3	-0.5	19.1	**-10.1**	0.0	4.9	9.3	0.5	-19.1	**10.1**

Member 146

Fx_i	**-0.0**	3.4	4.6	0.3	-13.7	10.2	**0.0**	-3.4	-4.6	-0.3	13.7	-10.2
Fy_i	0.0	**-3.4**	-4.6	-0.3	13.7	-10.2	-0.0	**3.4**	4.6	0.3	-13.7	10.2
Fz_i	0.0	-3.4	**-4.6**	-0.3	13.7	-10.2	-0.0	3.4	**4.6**	0.3	-13.7	10.2
Mx_i	0.0	-3.4	-4.6	**-0.3**	13.7	-10.2	-0.0	3.4	4.6	**0.3**	-13.7	10.2
My_i	-0.0	3.4	4.6	0.3	**-13.7**	10.2	0.0	-3.4	-4.6	-0.3	**13.7**	-10.2
Mz_i	0.0	-3.4	-4.6	-0.3	13.7	**-10.2**	-0.0	3.4	4.6	0.3	-13.7	**10.2**
Fx_f	**-0.0**	3.4	**4.6**	0.3	-9.4	7.0	**0.0**	-3.4	-4.6	-0.3	9.4	-7.0
Fy_f	0.0	**-3.4**	-4.6	-0.3	9.4	-7.0	-0.0	**3.4**	4.6	0.3	-9.4	7.0
Fz_f	0.0	-3.4	**-4.6**	-0.3	9.4	-7.0	-0.0	3.4	**4.6**	0.3	-9.4	7.0
Mx_f	0.0	-3.4	-4.6	**-0.3**	9.4	-7.0	-0.0	3.4	4.6	**0.3**	-9.4	7.0
My_f	-0.0	3.4	4.6	0.3	**-9.4**	7.0	0.0	-3.4	-4.6	-0.3	**9.4**	-7.0
Mz_f	0.0	-3.4	-4.6	-0.3	9.4	**-7.0**	-0.0	3.4	4.6	0.3	-9.4	**7.0**

Member 147

Fx_i	**0.0**	-3.0	0.2	-0.0	-0.5	-9.0	**0.0**	3.0	-0.2	0.0	0.5	9.0
Fy_i	0.0	**-3.0**	0.2	-0.0	-0.5	-9.0	0.0	**3.0**	-0.2	0.0	0.5	9.0
Fz_i	0.0	3.0	**-0.2**	0.0	0.5	9.0	0.0	-3.0	**0.2**	-0.0	-0.5	-9.0
Mx_i	0.0	-3.0	0.2	**-0.0**	-0.5	-9.0	0.0	3.0	-0.2	**0.0**	0.5	9.0
My_i	0.0	-3.0	0.2	-0.0	**-0.5**	-9.0	0.0	3.0	-0.2	0.0	**0.5**	9.0
Mz_i	0.0	-3.0	0.2	-0.0	-0.5	**-9.0**	0.0	3.0	-0.2	0.0	0.5	**9.0**
Fx_f	**0.0**	-3.0	0.2	-0.0	-0.4	-6.1	**0.0**	3.0	-0.2	0.0	0.4	6.1
Fy_f	0.0	**-3.0**	0.2	-0.0	-0.4	-6.1	0.0	**3.0**	-0.2	0.0	0.4	6.1
Fz_f	0.0	3.0	**-0.2**	0.0	0.4	6.1	0.0	-3.0	**0.2**	-0.0	-0.4	-6.1
Mx_f	0.0	-3.0	0.2	**-0.0**	-0.4	-6.1	0.0	3.0	-0.2	**0.0**	0.4	6.1
My_f	0.0	-3.0	0.2	-0.0	**-0.4**	-6.1	0.0	3.0	-0.2	0.0	**0.4**	6.1
Mz_f	0.0	-3.0	0.2	-0.0	-0.4	**-6.1**	0.0	3.0	-0.2	0.0	0.4	**6.1**

Member 148

Fx_i	**-0.0**	-3.6	4.9	0.3	-14.8	-10.9	**0.0**	3.6	-4.9	-0.3	14.8	10.9
Fy_i	-0.0	**-3.6**	4.9	0.3	-14.8	-10.9	0.0	**3.6**	-4.9	-0.3	14.8	10.9
Fz_i	0.0	3.6	**-4.9**	-0.3	14.8	10.9	-0.0	-3.6	**4.9**	0.3	-14.8	-10.9
Mx_i	0.0	3.6	-4.9	**-0.3**	14.8	10.9	-0.0	-3.6	4.9	**0.3**	-14.8	-10.9
My_i	-0.0	-3.6	4.9	0.3	**-14.8**	-10.9	0.0	3.6	-4.9	-0.3	**14.8**	10.9
Mz_i	-0.0	-3.6	4.9	0.3	-14.8	**-10.9**	0.0	3.6	-4.9	-0.3	14.8	**10.9**
Fx_f	**-0.0**	-3.6	4.9	0.3	-10.1	-7.5	**0.0**	3.6	-4.9	-0.3	10.1	7.5
Fy_f	-0.0	**-3.6**	4.9	0.3	-10.1	-7.5	0.0	**3.6**	-4.9	-0.3	10.1	7.5
Fz_f	0.0	3.6	**-4.9**	-0.3	10.1	7.5	-0.0	-3.6	**4.9**	0.3	-10.1	-7.5
Mx_f	0.0	3.6	-4.9	**-0.3**	10.1	7.5	-0.0	-3.6	4.9	**0.3**	-10.1	-7.5
My_f	-0.0	-3.6	4.9	0.3	**-10.1**	-7.5	0.0	3.6	-4.9	-0.3	**10.1**	7.5
Mz_f	-0.0	-3.6	4.9	0.3	-10.1	**-7.5**	0.0	3.6	-4.9	-0.3	10.1	**7.5**

Member 149

Fx_i	**-0.0**	-5.5	9.7	0.5	-29.1	-16.5	**0.0**	5.5	-9.7	-0.5	29.1	16.5
Fy_i	-0.0	**-5.5**	9.7	0.5	-29.1	-16.5	0.0	**5.5**	-9.7	-0.5	29.1	16.5
Fz_i	0.0	5.5	**-9.7**	-0.5	29.1	16.5	-0.0	-5.5	**9.7**	0.5	-29.1	-16.5
Mx_i	0.0	5.5	-9.7	**-0.5**	29.1	16.5	-0.0	-5.5	9.7	**0.5**	-29.1	-16.5
My_i	-0.0	-5.5	9.7	0.5	**-29.1**	-16.5	0.0	5.5	-9.7	-0.5	**29.1**	16.5
Mz_i	-0.0	-5.5	9.7	0.5	-29.1	**-16.5**	0.0	5.5	-9.7	-0.5	29.1	**16.5**
Fx_f	**-0.0**	-5.5	9.7	0.5	-19.9	-11.3	**0.0**	5.5	-9.7	-0.5	19.9	11.3
Fy_f	-0.0	**-5.5**	9.7	0.5	-19.9	-11.3	0.0	**5.5**	-9.7	-0.5	19.9	11.3
Fz_f	0.0	5.5	**-9.7**	-0.5	19.9	11.3	-0.0	-5.5	**9.7**	0.5	-19.9	-11.3
Mx_f	0.0	5.5	-9.7	**-0.5**	19.9	11.3	-0.0	-5.5	9.7	**0.5**	-19.9	-11.3
My_f	-0.0	-5.5	9.7	0.5	**-19.9**	-11.3	0.0	5.5	-9.7	-0.5	**19.9**	11.3
Mz_f	-0.0	-5.5	9.7	0.5	-19.9	**-11.3**	0.0	5.5	-9.7	-0.5	19.9	**11.3**

Member 150

Fx_i	**-0.0**	-8.7	16.1	0.6	-48.2	-26.1	**0.0**	8.7	-16.1	-0.6	48.2	26.1
Fy_i	-0.0	**-8.7**	16.1	0.6	-48.2	-26.1	0.0	**8.7**	-16.1	-0.6	48.2	26.1
Fz_i	0.0	8.7	**-16.1**	-0.6	48.2	26.1	-0.0	-8.7	**16.1**	0.6	-48.2	-26.1
Mx_i	0.0	8.7	-16.1	**-0.6**	48.2	26.1	-0.0	-8.7	16.1	**0.6**	-48.2	-26.1
My_i	-0.0	-8.7	16.1	0.6	**-48.2**	-26.1	0.0	8.7	-16.1	-0.6	**48.2**	26.1
Mz_i	-0.0	-8.7	16.1	0.6	-48.2	**-26.1**	0.0	8.7	-16.1	-0.6	48.2	**26.1**
Fx_f	**-0.0**	-8.7	16.1	0.6	-33.0	-17.8	**0.0**	8.7	-16.1	-0.6	33.0	17.8
Fy_f	-0.0	**-8.7**	16.1	0.6	-33.0	-17.8	0.0	**8.7**	-16.1	-0.6	33.0	17.8
Fz_f	0.0	8.7	**-16.1**	-0.6	33.0	17.8	-0.0	-8.7	**16.1**	0.6	-33.0	-17.8
Mx_f	0.0	8.7	-16.1	**-0.6**	33.0	17.8	-0.0	-8.7	16.1	**0.6**	-33.0	-17.8
My_f	-0.0	-8.7	16.1	0.6	**-33.0**	-17.8	0.0	8.7	-16.1	-0.6	**33.0**	17.8
Mz_f	-0.0	-8.7	16.1	0.6	-33.0	**-17.8**	0.0	8.7	-16.1	-0.6	33.0	**17.8**

Member 365

Fx_i	**-1.4**	0.0	8.5	0.0	-14.9	0.0	**1.4**	-0.0	-8.5	0.0	14.9	-0.0
Fy_i	1.4	**-0.0**	-8.5	0.0	14.9	-0.0	-1.4	**0.0**	8.5	0.0	-14.9	0.0
Fz_i	1.4	-0.0	**-8.5**	0.0	14.9	-0.0	-1.4	0.0	**8.5**	0.0	-14.9	0.0
Mx_i	-1.4	0.0	8.5	**0.0**	-14.9	0.0	1.4	-0.0	-8.5	**0.0**	14.9	-0.0
My_i	-1.4	0.0	8.5	0.0	**-14.9**	0.0	1.4	-0.0	-8.5	0.0	**14.9**	-0.0
Mz_i	1.4	-0.0	-8.5	0.0	14.9	**-0.0**	-1.4	0.0	8.5	0.0	-14.9	**0.0**
Fx_f	**-1.4**	0.0	8.5	0.0	0.0	-0.0	**1.4**	-0.0	-8.5	0.0	-0.0	0.0
Fy_f	1.4	**-0.0**	-8.5	0.0	-0.0	0.0	-1.4	**0.0**	8.5	0.0	0.0	-0.0
Fz_f	1.4	-0.0	**-8.5**	0.0	-0.0	0.0	-1.4	0.0	**8.5**	0.0	-0.0	0.0
Mx_f	-1.4	0.0	8.5	**0.0**	-0.0	0.0	1.4	-0.0	-8.5	**0.0**	-0.0	0.0
My_f	1.4	-0.0	-8.5	0.0	**-0.0**	0.0	-1.4	0.0	8.5	0.0	**0.0**	-0.0
Mz_f	-1.4	0.0	8.5	0.0	0.0	**-0.0**	1.4	-0.0	-8.5	0.0	-0.0	**0.0**

Member 366

Fx_i	**-14.2**	0.0	-3.6	0.0	-11.5	0.0	**14.2**	-0.0	3.6	0.0	11.5	-0.0
Fy_i	14.2	**-0.0**	3.6	0.0	11.5	-0.0	-14.2	**0.0**	-3.6	0.0	-11.5	0.0
Fz_i	-14.2	0.0	**-3.6**	0.0	-11.5	0.0	14.2	-0.0	**3.6**	0.0	11.5	-0.0
Mx_i	-14.2	0.0	-3.6	**0.0**	-11.5	0.0	14.2	-0.0	3.6	**0.0**	11.5	-0.0
My_i	-14.2	0.0	-3.6	0.0	**-11.5**	0.0	14.2	-0.0	3.6	0.0	**11.5**	-0.0
Mz_i	14.2	-0.0	3.6	0.0	11.5	**-0.0**	-14.2	0.0	-3.6	0.0	-11.5	0.0
Fx_f	**-14.2**	0.0	-3.6	0.0	-17.7	0.0	**14.2**	-0.0	3.6	0.0	17.7	-0.0
Fy_f	14.2	**-0.0**	3.6	0.0	17.7	-0.0	-14.2	**0.0**	-3.6	0.0	-17.7	0.0
Fz_f	-14.2	0.0	**-3.6**	0.0	-17.7	0.0	14.2	-0.0	**3.6**	0.0	17.7	-0.0
Mx_f	-14.2	0.0	-3.6	**0.0**	-17.7	0.0	14.2	-0.0	3.6	**0.0**	17.7	-0.0
My_f	-14.2	0.0	-3.6	0.0	**-17.7**	0.0	14.2	-0.0	3.6	0.0	**17.7**	-0.0
Mz_f	14.2	-0.0	3.6	0.0	17.7	**-0.0**	-14.2	0.0	-3.6	0.0	-17.7	**0.0**

Member 367

Fx_i	**-36.5**	0.0	-33.2	0.0	51.7	0.0	**36.5**	-0.0	33.2	0.0	-51.7	-0.0
Fy_i	36.5	**-0.0**	33.2	0.0	-51.7	-0.0	-36.5	**0.0**	-33.2	0.0	51.7	0.0
Fz_i	-36.5	0.0	**-33.2**	0.0	51.7	0.0	36.5	-0.0	**33.2**	0.0	-51.7	-0.0
Mx_i	-36.5	0.0	-33.2	**0.0**	51.7	0.0	36.5	-0.0	33.2	**0.0**	-51.7	-0.0
My_i	36.5	-0.0	33.2	0.0	**-51.7**	-0.0	-36.5	0.0	-33.2	0.0	**51.7**	0.0
Mz_i	36.5	-0.0	33.2	0.0	-51.7	**-0.0**	-36.5	0.0	-33.2	0.0	51.7	**0.0**
Fx_f	**-36.5**	0.0	-33.2	0.0	-6.4	0.0	**36.5**	-0.0	33.2	0.0	6.4	-0.0
Fy_f	36.5	**-0.0**	33.2	0.0	6.4	-0.0	-36.5	**0.0**	-33.2	0.0	-6.4	0.0
Fz_f	-36.5	0.0	**-33.2**	0.0	-6.4	0.0	36.5	-0.0	**33.2**	0.0	6.4	-0.0
Mx_f	-36.5	0.0	-33.2	**0.0**	-6.4	0.0	36.5	-0.0	33.2	**0.0**	6.4	-0.0
My_f	36.5	0.0	-33.2	0.0	**-6.4**	0.0	36.5	-0.0	33.2	0.0	**6.4**	-0.0
Mz_f	36.5	-0.0	33.2	0.0	6.4	**-0.0**	-36.5	0.0	-33.2	0.0	-6.4	**0.0**

Member 368

Fx.	**-45.9**	-0.0	-31.2	0.0	77.5	-0.0	**45.9**	0.0	31.2	0.0	-77.5	0.0
Fy.	-45.9	**-0.0**	-31.2	0.0	77.5	-0.0	45.9	**0.0**	31.2	0.0	-77.5	0.0
Fz.	-45.9	-0.0	**-31.2**	0.0	77.5	-0.0	45.9	0.0	**31.2**	0.0	-77.5	0.0
Mx.	-45.9	-0.0	-31.2	**0.0**	77.5	-0.0	45.9	0.0	31.2	**0.0**	-77.5	0.0
My.	45.9	0.0	31.2	0.0	**-77.5**	0.0	-45.9	-0.0	-31.2	0.0	**77.5**	-0.0
Mz.	-45.9	-0.0	-31.2	0.0	77.5	**-0.0**	45.9	0.0	31.2	0.0	-77.5	**0.0**
Fx.	**-45.9**	-0.0	-31.2	0.0	22.9	0.0	**45.9**	0.0	31.2	0.0	-22.9	-0.0
Fy.	-45.9	**-0.0**	-31.2	0.0	22.9	0.0	45.9	**0.0**	31.2	0.0	-22.9	-0.0
Fz.	-45.9	-0.0	**-31.2**	0.0	22.9	0.0	45.9	0.0	**31.2**	0.0	-22.9	-0.0
Mx.	-45.9	-0.0	-31.2	**0.0**	22.9	0.0	45.9	0.0	31.2	**0.0**	-22.9	-0.0
My.	45.9	0.0	31.2	0.0	**-22.9**	-0.0	-45.9	-0.0	-31.2	0.0	**22.9**	0.0
Mz.	45.9	0.0	31.2	0.0	-22.9	**-0.0**	-45.9	-0.0	-31.2	0.0	22.9	**0.0**

Member 369

Fx.	**-51.6**	0.0	-34.8	0.0	95.9	0.0	**51.6**	-0.0	34.8	0.0	-95.9	-0.0
Fy.	51.6	**-0.0**	34.8	0.0	-95.9	-0.0	-51.6	**0.0**	-34.8	0.0	95.9	0.0
Fz.	-51.6	0.0	**-34.8**	0.0	95.9	0.0	51.6	-0.0	**34.8**	0.0	-95.9	-0.0
Mx.	-51.6	0.0	-34.8	**0.0**	95.9	0.0	51.6	-0.0	34.8	**0.0**	-95.9	-0.0
My.	51.6	-0.0	34.8	0.0	**-95.9**	-0.0	-51.6	0.0	-34.8	0.0	**95.9**	0.0
Mz.	51.6	-0.0	34.8	0.0	-95.9	**-0.0**	-51.6	0.0	-34.8	0.0	95.9	**0.0**
Fx.	**-51.6**	0.0	-34.8	0.0	35.1	-0.0	**51.6**	-0.0	34.8	0.0	-35.1	0.0
Fy.	51.6	**-0.0**	34.8	0.0	-35.1	0.0	-51.6	**0.0**	-34.8	0.0	35.1	-0.0
Fz.	-51.6	0.0	**-34.8**	0.0	35.1	-0.0	51.6	-0.0	**34.8**	0.0	-35.1	0.0
Mx.	-51.6	0.0	-34.8	**0.0**	35.1	-0.0	51.6	-0.0	34.8	**0.0**	-35.1	0.0
My.	51.6	-0.0	34.8	0.0	**-35.1**	0.0	-51.6	0.0	-34.8	0.0	**35.1**	-0.0
Mz.	-51.6	0.0	-34.8	0.0	35.1	**-0.0**	51.6	-0.0	34.8	0.0	-35.1	**0.0**

Member 370

Fx	**-51.1**	-0.0	-33.7	0.0	94.3	-0.0	**51.1**	0.0	33.7	0.0	-94.3	0.0
Fy	-51.1	**-0.0**	-33.7	0.0	94.3	-0.0	51.1	**0.0**	33.7	0.0	-94.3	0.0
Fz	-51.1	-0.0	**-33.7**	0.0	94.3	-0.0	51.1	0.0	**33.7**	0.0	-94.3	0.0
Mx	-51.1	-0.0	-33.7	**0.0**	94.3	-0.0	51.1	0.0	33.7	**0.0**	-94.3	0.0
My.	51.1	0.0	33.7	0.0	**-94.3**	0.0	-51.1	-0.0	-33.7	0.0	**94.3**	-0.0
Mz	-51.1	-0.0	-33.7	0.0	94.3	**-0.0**	51.1	0.0	33.7	0.0	-94.3	**0.0**
Fx.	**-51.1**	-0.0	-33.7	0.0	35.3	0.0	**51.1**	0.0	33.7	0.0	-35.3	-0.0
Fy.	-51.1	**-0.0**	-33.7	0.0	35.3	0.0	51.1	**0.0**	33.7	0.0	-35.3	-0.0
Fz.	-51.1	-0.0	**-33.7**	0.0	35.3	0.0	51.1	0.0	**33.7**	0.0	-35.3	-0.0
Mx.	-51.1	-0.0	-33.7	**0.0**	35.3	0.0	51.1	0.0	33.7	**0.0**	-35.3	-0.0
My.	51.1	0.0	33.7	0.0	**-35.3**	-0.0	-51.1	-0.0	-33.7	0.0	**35.3**	0.0
Mz.	51.1	0.0	33.7	0.0	-35.3	**-0.0**	-51.1	-0.0	-33.7	0.0	35.3	**0.0**

Member 371

Fx	**-44.8**	-0.0	-31.0	0.0	74.9	-0.0	**44.8**	0.0	31.0	0.0	-74.9	0.0
Fy.	-44.8	**-0.0**	-31.0	0.0	74.9	-0.0	44.8	**0.0**	31.0	0.0	-74.9	0.0
Fz	-44.8	-0.0	**-31.0**	0.0	74.9	-0.0	44.8	0.0	**31.0**	0.0	-74.9	0.0
Mx.	-44.8	-0.0	-31.0	**0.0**	74.9	-0.0	44.8	0.0	31.0	**0.0**	-74.9	0.0
My.	44.8	0.0	31.0	0.0	**-74.9**	0.0	-44.8	-0.0	-31.0	0.0	**74.9**	-0.0
Mz.	-44.8	-0.0	-31.0	0.0	74.9	**-0.0**	44.8	0.0	31.0	0.0	-74.9	**0.0**
Fx.	**-44.8**	-0.0	-31.0	0.0	20.7	0.0	**44.8**	0.0	31.0	0.0	-20.7	-0.0
Fy.	-44.8	**-0.0**	-31.0	0.0	20.7	0.0	44.8	**0.0**	31.0	0.0	-20.7	-0.0
Fz.	-44.8	-0.0	**-31.0**	0.0	20.7	0.0	44.8	0.0	**31.0**	0.0	-20.7	-0.0
Mx.	-44.8	-0.0	-31.0	**0.0**	20.7	0.0	44.8	0.0	31.0	**0.0**	-20.7	-0.0
My.	44.8	0.0	31.0	0.0	**-20.7**	-0.0	-44.8	-0.0	-31.0	0.0	**20.7**	0.0
Mz.	44.8	0.0	31.0	0.0	-20.7	**-0.0**	-44.8	-0.0	-31.0	0.0	20.7	**0.0**

Member 372

Fx	**-31.4**	-0.0	-29.6	0.0	34.8	-0.0	**31.4**	0.0	29.6	0.0	-34.8	0.0
Fy.	-31.4	**-0.0**	-29.6	0.0	34.8	-0.0	31.4	**0.0**	29.6	0.0	-34.8	0.0
Fz	-31.4	-0.0	**-29.6**	0.0	34.8	-0.0	31.4	0.0	**29.6**	0.0	-34.8	0.0
Mx	-31.4	-0.0	-29.6	**0.0**	34.8	-0.0	31.4	0.0	29.6	**0.0**	-34.8	0.0
My	31.4	0.0	29.6	0.0	**-34.8**	0.0	-31.4	-0.0	-29.6	0.0	**34.8**	-0.0
Mz.	-31.4	-0.0	-29.6	0.0	34.8	**-0.0**	31.4	0.0	29.6	0.0	-34.8	**0.0**
Fx.	**-31.4**	-0.0	-29.6	0.0	-17.0	0.0	**31.4**	0.0	29.6	0.0	17.0	-0.0
Fy.	-31.4	**-0.0**	-29.6	0.0	-17.0	0.0	31.4	**0.0**	29.6	0.0	17.0	-0.0
Fz,	-31.4	-0.0	**-29.6**	0.0	-17.0	0.0	31.4	0.0	**29.6**	0.0	17.0	-0.0
Mx,	-31.4	-0.0	-29.6	**0.0**	-17.0	0.0	31.4	0.0	29.6	**0.0**	17.0	-0.0
My,	-31.4	-0.0	-29.6	0.0	**-17.0**	0.0	31.4	0.0	29.6	0.0	**17.0**	-0.0
Mz,	31.4	0.0	29.6	0.0	17.0	**-0.0**	-31.4	-0.0	-29.6	0.0	-17.0	**0.0**

Member 373

Fx,	**-9.8**	-0.7	-10.2	-0.0	17.8	-1.2	**9.8**	0.7	10.2	0.0	-17.8	1.2
Fy,	-9.8	**-0.7**	-10.2	-0.0	17.8	-1.2	9.8	**0.7**	10.2	0.0	-17.8	1.2
Fz,	-9.8	-0.7	**-10.2**	-0.0	17.8	-1.2	9.8	0.7	**10.2**	0.0	-17.8	1.2
Mx,	-9.8	-0.7	-10.2	**-0.0**	17.8	-1.2	9.8	0.7	10.2	**0.0**	-17.8	1.2
My,	9.8	0.7	10.2	0.0	**-17.8**	1.2	-9.8	-0.7	-10.2	-0.0	**17.8**	-1.2
Mz,	-9.8	-0.7	-10.2	-0.0	17.8	**-1.2**	9.8	0.7	10.2	0.0	-17.8	**1.2**
Fx,	**-9.8**	-0.7	-10.2	-0.0	-0.0	-0.0	**9.8**	0.7	10.2	0.0	0.0	0.0
Fy,	-9.8	**-0.7**	-10.2	-0.0	-0.0	-0.0	9.8	**0.7**	10.2	0.0	0.0	0.0
Fz,	-9.8	-0.7	**-10.2**	-0.0	-0.0	-0.0	9.8	0.7	**10.2**	0.0	0.0	0.0
Mx,	-9.8	-0.7	-10.2	**-0.0**	-0.0	-0.0	9.8	0.7	10.2	**0.0**	0.0	0.0
My,	-9.8	-0.7	-10.2	-0.0	**-0.0**	-0.0	9.8	0.7	10.2	0.0	**0.0**	0.0
Mz,	-9.8	-0.7	-10.2	-0.0	-0.0	**-0.0**	9.8	0.7	10.2	0.0	0.0	**0.0**

Member 374

Fx,	**-1.4**	-0.0	-8.5	0.0	14.9	-0.0	**1.4**	0.0	8.5	0.0	-14.9	0.0
Fy,	-1.4	**-0.0**	-8.5	0.0	14.9	-0.0	1.4	**0.0**	8.5	0.0	-14.9	0.0
Fz.	-1.4	-0.0	**-8.5**	0.0	14.9	-0.0	1.4	0.0	**8.5**	0.0	-14.9	0.0
Mx.	1.4	0.0	8.5	**0.0**	-14.9	0.0	-1.4	-0.0	-8.5	**0.0**	14.9	-0.0
My.	1.4	0.0	8.5	0.0	**-14.9**	0.0	-1.4	-0.0	-8.5	0.0	**14.9**	-0.0
Mz.	-1.4	-0.0	-8.5	0.0	14.9	**-0.0**	1.4	0.0	8.5	0.0	-14.9	**0.0**
Fx.	**-1.4**	-0.0	-8.5	0.0	0.0	0.0	**1.4**	0.0	8.5	0.0	-0.0	-0.0
Fy.	-1.4	**-0.0**	-8.5	0.0	0.0	0.0	1.4	**0.0**	8.5	0.0	-0.0	-0.0
Fz.	-1.4	-0.0	**-8.5**	0.0	0.0	0.0	1.4	0.0	**8.5**	0.0	-0.0	-0.0
Mx.	1.4	0.0	8.5	**0.0**	-0.0	-0.0	-1.4	-0.0	-8.5	**0.0**	0.0	0.0
My.	1.4	0.0	8.5	0.0	**-0.0**	-0.0	-1.4	-0.0	-8.5	0.0	**0.0**	0.0
Mz.	1.4	0.0	8.5	0.0	-0.0	**-0.0**	-1.4	-0.0	-8.5	0.0	0.0	**0.0**

Member 375

Fx.	**-14.2**	-0.0	3.6	0.0	11.5	-0.0	**14.2**	0.0	-3.6	-0.0	-11.5	0.0
Fy.	-14.2	**-0.0**	3.6	0.0	11.5	-0.0	14.2	**0.0**	-3.6	-0.0	-11.5	0.0
Fz.	14.2	0.0	**-3.6**	-0.0	-11.5	0.0	-14.2	-0.0	**3.6**	0.0	11.5	-0.0
Mx.	14.2	0.0	-3.6	**-0.0**	-11.5	0.0	-14.2	-0.0	3.6	**0.0**	11.5	-0.0
My.	14.2	0.0	-3.6	-0.0	**-11.5**	0.0	-14.2	-0.0	3.6	0.0	**11.5**	-0.0
Mz.	-14.2	-0.0	3.6	0.0	11.5	**-0.0**	14.2	0.0	-3.6	-0.0	-11.5	**0.0**
Fx.	**-14.2**	-0.0	3.6	0.0	17.7	0.0	**14.2**	0.0	-3.6	-0.0	-17.7	-0.0
Fy.	-14.2	**-0.0**	3.6	0.0	17.7	0.0	14.2	**0.0**	-3.6	-0.0	-17.7	0.0
Fz.	14.2	0.0	**-3.6**	-0.0	-17.7	-0.0	-14.2	-0.0	**3.6**	0.0	17.7	0.0
Mx.	14.2	0.0	-3.6	**-0.0**	-17.7	-0.0	-14.2	-0.0	3.6	**0.0**	17.7	0.0
My.	14.2	0.0	-3.6	-0.0	**-17.7**	-0.0	-14.2	-0.0	3.6	0.0	**17.7**	0.0
Mz.	14.2	0.0	-3.6	-0.0	-17.7	**-0.0**	-14.2	-0.0	3.6	0.0	17.7	**0.0**

Member 376

Fx,	**-36.5**	0.0	33.2	0.0	-51.7	0.0	**36.5**	-0.0	-33.2	0.0	51.7	-0.0
Fy,	36.5	**-0.0**	-33.2	0.0	51.7	-0.0	-36.5	**0.0**	33.2	0.0	-51.7	0.0
Fz,	36.5	-0.0	**-33.2**	0.0	51.7	-0.0	-36.5	0.0	**33.2**	0.0	-51.7	0.0
Mx,	36.5	-0.0	-33.2	**0.0**	51.7	-0.0	-36.5	0.0	33.2	**0.0**	-51.7	0.0
My.	-36.5	0.0	33.2	0.0	**-51.7**	0.0	36.5	-0.0	-33.2	0.0	**51.7**	-0.0
Mz,	36.5	-0.0	-33.2	0.0	51.7	**-0.0**	-36.5	0.0	33.2	0.0	-51.7	**0.0**
Fx,	**-36.5**	0.0	33.2	0.0	6.4	-0.0	**36.5**	-0.0	-33.2	0.0	-6.4	0.0
Fy.	36.5	**-0.0**	-33.2	0.0	-6.4	0.0	-36.5	**0.0**	33.2	0.0	6.4	-0.0
Fz.	36.5	-0.0	**-33.2**	0.0	-6.4	0.0	-36.5	0.0	**33.2**	0.0	6.4	-0.0
Mx,	36.5	-0.0	-33.2	**0.0**	-6.4	0.0	-36.5	0.0	33.2	**0.0**	6.4	-0.0
My,	36.5	-0.0	-33.2	0.0	**-6.4**	0.0	-36.5	0.0	33.2	0.0	**6.4**	-0.0
Mz.	-36.5	0.0	33.2	0.0	6.4	**-0.0**	36.5	-0.0	-33.2	0.0	-6.4	**0.0**

Member 377

Fx,	**-45.9**	-0.0	31.2	0.0	-77.5	-0.0	**45.9**	0.0	-31.2	0.0	77.5	0.0
Fy.	-45.9	**-0.0**	31.2	0.0	-77.5	-0.0	45.9	**0.0**	-31.2	0.0	77.5	0.0
Fz.	45.9	0.0	**-31.2**	0.0	77.5	0.0	-45.9	-0.0	**31.2**	0.0	-77.5	-0.0
Mx.	45.9	0.0	-31.2	**0.0**	77.5	0.0	-45.9	-0.0	31.2	**0.0**	-77.5	-0.0

My,	-45.9	-0.0	31.2	0.0	**-77.5**	-0.0	45.9	0.0	-31.2	0.0	**77.5**	0.0
Mz,	-45.9	-0.0	31.2	0.0	-77.5	**-0.0**	45.9	0.0	-31.2	0.0	77.5	**0.0**
Fx,	**-45.9**	-0.0	31.2	0.0	-22.9	0.0	**45.9**	0.0	-31.2	0.0	22.9	-0.0
Fy,	-45.9	**-0.0**	31.2	0.0	-22.9	0.0	45.9	**0.0**	-31.2	0.0	22.9	-0.0
Fz,	45.9	0.0	**-31.2**	0.0	22.9	-0.0	-45.9	-0.0	**31.2**	0.0	-22.9	0.0
Mx,	45.9	0.0	-31.2	**0.0**	22.9	-0.0	-45.9	-0.0	31.2	**0.0**	-22.9	0.0
My,	-45.9	-0.0	31.2	0.0	**-22.9**	0.0	45.9	0.0	-31.2	0.0	**22.9**	-0.0
Mz,	45.9	0.0	-31.2	0.0	22.9	**-0.0**	-45.9	-0.0	31.2	0.0	-22.9	**0.0**

Member 378

Fx,	**-51.6**	0.0	34.8	0.0	-95.9	0.0	**51.6**	-0.0	-34.8	0.0	95.9	-0.0
Fy,	51.6	**-0.0**	-34.8	0.0	95.9	-0.0	-51.6	**0.0**	34.8	0.0	-95.9	0.0
Fz,	51.6	-0.0	**-34.8**	0.0	95.9	-0.0	-51.6	0.0	**34.8**	0.0	-95.9	0.0
Mx,	51.6	-0.0	-34.8	**0.0**	95.9	-0.0	-51.6	0.0	34.8	**0.0**	-95.9	0.0
My,	-51.6	0.0	34.8	0.0	**-95.9**	0.0	51.6	-0.0	-34.8	0.0	**95.9**	-0.0
Mz,	51.6	-0.0	-34.8	0.0	95.9	**-0.0**	-51.6	0.0	34.8	0.0	-95.9	**0.0**
Fx,	**-51.6**	0.0	34.8	0.0	-35.1	-0.0	**51.6**	-0.0	-34.8	0.0	35.1	0.0
Fy,	51.6	**-0.0**	-34.8	0.0	35.1	0.0	-51.6	**0.0**	34.8	0.0	-35.1	-0.0
Fz,	51.6	-0.0	**-34.8**	0.0	35.1	0.0	-51.6	0.0	**34.8**	0.0	-35.1	-0.0
Mx,	51.6	-0.0	-34.8	**0.0**	35.1	0.0	-51.6	0.0	34.8	**0.0**	-35.1	-0.0
My,	-51.6	0.0	34.8	0.0	**-35.1**	-0.0	51.6	-0.0	-34.8	0.0	**35.1**	0.0
Mz,	-51.6	0.0	34.8	0.0	-35.1	**-0.0**	51.6	-0.0	-34.8	0.0	35.1	**0.0**

Member 379

Fx,	**-51.1**	0.0	33.7	0.0	-94.3	0.0	**51.1**	-0.0	-33.7	0.0	94.3	-0.0
Fy,	51.1	**-0.0**	-33.7	0.0	94.3	-0.0	-51.1	**0.0**	33.7	0.0	-94.3	0.0
Fz,	51.1	-0.0	**-33.7**	0.0	94.3	-0.0	-51.1	0.0	**33.7**	0.0	-94.3	0.0
Mx,	51.1	-0.0	-33.7	**0.0**	94.3	-0.0	-51.1	0.0	33.7	**0.0**	-94.3	0.0
My,	-51.1	0.0	33.7	0.0	**-94.3**	0.0	51.1	-0.0	-33.7	0.0	**94.3**	-0.0
Mz,	51.1	-0.0	-33.7	0.0	94.3	**-0.0**	-51.1	0.0	33.7	0.0	-94.3	**0.0**
Fx,	**-51.1**	0.0	33.7	0.0	-35.3	-0.0	**51.1**	-0.0	-33.7	0.0	35.3	0.0
Fy,	51.1	**-0.0**	-33.7	0.0	35.3	0.0	-51.1	**0.0**	33.7	0.0	-35.3	-0.0
Fz,	51.1	-0.0	**-33.7**	0.0	35.3	0.0	-51.1	0.0	**33.7**	0.0	-35.3	-0.0
Mx,	51.1	-0.0	-33.7	**0.0**	35.3	0.0	-51.1	0.0	33.7	**0.0**	-35.3	-0.0
My,	-51.1	0.0	33.7	0.0	**-35.3**	-0.0	51.1	-0.0	-33.7	0.0	**35.3**	0.0
Mz,	-51.1	0.0	33.7	0.0	-35.3	**-0.0**	51.1	-0.0	-33.7	0.0	35.3	**0.0**

Member 380

Fx,	**-44.8**	-0.0	31.0	0.0	-74.9	-0.0	**44.8**	0.0	-31.0	0.0	74.9	0.0
Fy,	-44.8	**-0.0**	31.0	0.0	-74.9	-0.0	44.8	**0.0**	-31.0	0.0	74.9	0.0
Fz,	44.8	0.0	**-31.0**	0.0	74.9	0.0	-44.8	-0.0	**31.0**	0.0	-74.9	-0.0
Mx,	44.8	0.0	-31.0	**0.0**	74.9	0.0	-44.8	-0.0	31.0	**0.0**	-74.9	-0.0
My,	-44.8	-0.0	31.0	0.0	**-74.9**	-0.0	44.8	0.0	-31.0	0.0	**74.9**	0.0
Mz,	-44.8	-0.0	31.0	0.0	-74.9	**-0.0**	44.8	0.0	-31.0	0.0	74.9	**0.0**
Fx,	**-44.8**	-0.0	31.0	0.0	-20.7	0.0	**44.8**	0.0	-31.0	0.0	20.7	-0.0
Fy,	-44.8	**-0.0**	31.0	0.0	-20.7	0.0	44.8	**0.0**	-31.0	0.0	20.7	-0.0
Fz,	44.8	0.0	**-31.0**	0.0	20.7	-0.0	-44.8	-0.0	**31.0**	0.0	-20.7	0.0
Mx,	44.8	0.0	-31.0	**0.0**	20.7	-0.0	-44.8	-0.0	31.0	**0.0**	-20.7	0.0
My,	-44.8	-0.0	31.0	0.0	**-20.7**	0.0	44.8	0.0	-31.0	0.0	**20.7**	-0.0
Mz,	44.8	0.0	-31.0	0.0	20.7	**-0.0**	-44.8	-0.0	31.0	0.0	-20.7	**0.0**

Member 381

Fx,	**-31.4**	-0.0	29.6	0.0	-34.8	-0.0	**31.4**	0.0	-29.6	0.0	34.8	0.0
Fy,	-31.4	**-0.0**	29.6	0.0	-34.8	-0.0	31.4	**0.0**	-29.6	0.0	34.8	0.0
Fz,	31.4	0.0	**-29.6**	0.0	34.8	0.0	-31.4	-0.0	**29.6**	0.0	-34.8	-0.0
Mx,	31.4	0.0	-29.6	**0.0**	34.8	0.0	-31.4	-0.0	29.6	**0.0**	-34.8	-0.0
My,	-31.4	-0.0	29.6	0.0	**-34.8**	-0.0	31.4	0.0	-29.6	0.0	**34.8**	0.0
Mz,	-31.4	-0.0	29.6	0.0	-34.8	**-0.0**	31.4	0.0	-29.6	0.0	34.8	**0.0**
Fx,	**-31.4**	-0.0	29.6	0.0	17.0	0.0	**31.4**	0.0	-29.6	0.0	-17.0	-0.0
Fy,	-31.4	**-0.0**	29.6	0.0	17.0	0.0	31.4	**0.0**	-29.6	0.0	-17.0	-0.0
Fz,	31.4	0.0	**-29.6**	0.0	-17.0	-0.0	-31.4	-0.0	**29.6**	0.0	17.0	0.0
Mx,	31.4	0.0	-29.6	**0.0**	-17.0	-0.0	-31.4	-0.0	29.6	**0.0**	17.0	0.0
My,	31.4	0.0	-29.6	0.0	**-17.0**	-0.0	-31.4	-0.0	29.6	0.0	**17.0**	0.0
Mz,	31.4	0.0	-29.6	0.0	-17.0	**-0.0**	-31.4	-0.0	29.6	0.0	17.0	**0.0**

Member 382

Fx,	**-9.8**	-0.7	10.2	0.0	-17.8	-1.2	**9.8**	0.7	-10.2	0.0	17.8	1.2
Fy,	-9.8	**-0.7**	10.2	0.0	-17.8	-1.2	9.8	**0.7**	-10.2	0.0	17.8	1.2
Fz,	9.8	0.7	**-10.2**	0.0	17.8	1.2	-9.8	-0.7	**10.2**	0.0	-17.8	-1.2
Mx,	9.8	0.7	-10.2	**0.0**	17.8	1.2	-9.8	-0.7	10.2	**0.0**	-17.8	-1.2
My,	-9.8	-0.7	10.2	0.0	**-17.8**	-1.2	9.8	0.7	-10.2	0.0	**17.8**	1.2
Mz,	-9.8	-0.7	10.2	0.0	-17.8	**-1.2**	9.8	0.7	-10.2	0.0	17.8	**1.2**
Fx,	**-9.8**	-0.7	10.2	0.0	-0.0	-0.0	**9.8**	0.7	-10.2	0.0	0.0	0.0
Fy,	-9.8	**-0.7**	10.2	0.0	-0.0	-0.0	9.8	**0.7**	-10.2	0.0	0.0	0.0
Fz,	9.8	0.7	**-10.2**	0.0	0.0	0.0	-9.8	-0.7	**10.2**	0.0	-0.0	-0.0
Mx,	9.8	0.7	-10.2	**0.0**	0.0	0.0	-9.8	-0.7	10.2	**0.0**	-0.0	-0.0
My,	-9.8	-0.7	10.2	0.0	**-0.0**	-0.0	9.8	0.7	-10.2	0.0	**0.0**	0.0
Mz,	-9.8	-0.7	10.2	0.0	-0.0	**-0.0**	9.8	0.7	-10.2	0.0	0.0	**0.0**

Member 391

Fx,	**-14.2**	0.0	-3.6	0.0	-17.7	0.0	**14.2**	0.0	3.6	0.0	17.7	0.0
Fy,	-14.2	**0.0**	-3.6	0.0	-17.7	0.0	14.2	**0.0**	3.6	0.0	17.7	0.0
Fz,	-14.2	0.0	**-3.6**	0.0	-17.7	0.0	14.2	0.0	**3.6**	0.0	17.7	0.0
Mx,	-14.2	0.0	-3.6	**0.0**	-17.7	0.0	14.2	0.0	3.6	**0.0**	17.7	0.0
My,	-14.2	0.0	-3.6	0.0	**-17.7**	0.0	14.2	0.0	3.6	0.0	**17.7**	0.0
Mz,	-14.2	0.0	-3.6	0.0	-17.7	**0.0**	14.2	0.0	3.6	0.0	17.7	**0.0**
Fx,	**-14.2**	0.0	-7.9	0.0	-94.9	0.0	**14.2**	0.0	7.9	0.0	94.9	0.0
Fy,	-14.2	**0.0**	-7.9	0.0	-94.9	0.0	14.2	**0.0**	7.9	0.0	94.9	0.0
Fz,	-14.2	0.0	**-7.9**	0.0	-94.9	0.0	14.2	0.0	**7.9**	0.0	94.9	0.0
Mx,	-14.2	0.0	-7.9	**0.0**	-94.9	0.0	14.2	0.0	7.9	**0.0**	94.9	0.0
My,	-14.2	0.0	-7.9	0.0	**-94.9**	0.0	14.2	0.0	7.9	0.0	**94.9**	0.0
Mz,	-14.2	0.0	-7.9	0.0	-94.9	**0.0**	14.2	0.0	7.9	0.0	94.9	**0.0**

Member 392

Fx,	**-36.5**	0.0	-33.2	0.0	-6.4	0.0	**36.5**	0.0	33.2	0.0	6.4	0.0
Fy,	-36.5	**0.0**	-33.2	0.0	-6.4	0.0	36.5	**0.0**	33.2	0.0	6.4	0.0
Fz,	-36.5	0.0	**-33.2**	0.0	-6.4	0.0	36.5	0.0	**33.2**	0.0	6.4	0.0
Mx,	-36.5	0.0	-33.2	**0.0**	-6.4	0.0	36.5	0.0	33.2	**0.0**	6.4	0.0
My,	-36.5	0.0	-33.2	0.0	**-6.4**	0.0	36.5	0.0	33.2	0.0	**6.4**	0.0
Mz,	-36.5	0.0	-33.2	0.0	-6.4	**0.0**	36.5	0.0	33.2	0.0	6.4	**0.0**
Fx,	**-36.5**	0.0	-37.2	0.0	-442.5	0.0	**36.5**	0.0	37.2	0.0	442.5	0.0
Fy,	-36.5	**0.0**	-37.2	0.0	-442.5	0.0	36.5	**0.0**	37.2	0.0	442.5	0.0
Fz,	-36.5	0.0	**-37.2**	0.0	-442.5	0.0	36.5	0.0	**37.2**	0.0	442.5	0.0
Mx,	-36.5	0.0	-37.2	**0.0**	-442.5	0.0	36.5	0.0	37.2	**0.0**	442.5	0.0
My,	-36.5	0.0	-37.2	0.0	**-442.5**	0.0	36.5	0.0	37.2	0.0	**442.5**	0.0
Mz,	-36.5	0.0	-37.2	0.0	-442.5	**0.0**	36.5	0.0	37.2	0.0	442.5	**0.0**

Member 393

Fx,	**-45.9**	0.0	-31.2	0.0	22.9	0.0	**45.9**	0.0	31.2	0.0	-22.9	0.0
Fy,	-45.9	**0.0**	-31.2	0.0	22.9	0.0	45.9	**0.0**	31.2	0.0	-22.9	0.0
Fz,	-45.9	0.0	**-31.2**	0.0	22.9	0.0	45.9	0.0	**31.2**	0.0	-22.9	0.0
Mx,	-45.9	0.0	-31.2	**0.0**	22.9	0.0	45.9	0.0	31.2	**0.0**	-22.9	0.0
My,	45.9	0.0	31.2	0.0	**-22.9**	0.0	-45.9	0.0	-31.2	0.0	**22.9**	0.0
Mz,	-45.9	0.0	-31.2	0.0	22.9	**0.0**	45.9	0.0	31.2	0.0	-22.9	**0.0**
Fx,	**-45.9**	0.0	-36.2	0.0	-501.3	0.0	**45.9**	0.0	36.2	0.0	501.3	0.0
Fy,	-45.9	**0.0**	-36.2	0.0	-501.3	0.0	45.9	**0.0**	36.2	0.0	501.3	0.0
Fz,	-45.9	0.0	**-36.2**	0.0	-501.3	0.0	45.9	0.0	**36.2**	0.0	501.3	0.0
Mx,	-45.9	0.0	-36.2	**0.0**	-501.3	0.0	45.9	0.0	36.2	**0.0**	501.3	0.0
My,	-45.9	0.0	-36.2	0.0	**-501.3**	0.0	45.9	0.0	36.2	0.0	**501.3**	0.0
Mz,	-45.9	0.0	-36.2	0.0	-501.3	**0.0**	45.9	0.0	36.2	0.0	501.3	**0.0**

Member 394

Fx,	**-51.6**	0.0	-34.8	0.0	35.1	0.0	**51.6**	0.0	34.8	0.0	-35.1	0.0
Fy,	-51.6	**0.0**	-34.8	0.0	35.1	0.0	51.6	**0.0**	34.8	0.0	-35.1	0.0
Fz,	-51.6	0.0	**-34.8**	0.0	35.1	0.0	51.6	0.0	**34.8**	0.0	-35.1	0.0
Mx,	-51.6	0.0	-34.8	**0.0**	35.1	0.0	51.6	0.0	34.8	**0.0**	-35.1	0.0
My,	51.6	0.0	34.8	0.0	**-35.1**	0.0	-51.6	0.0	-34.8	0.0	**35.1**	0.0
Mz,	-51.6	0.0	-34.8	0.0	35.1	**0.0**	51.6	0.0	34.8	0.0	-35.1	**0.0**
Fx,	**-51.6**	0.0	-39.9	0.0	-568.5	0.0	**51.6**	0.0	39.9	0.0	568.5	0.0
Fy,	-51.6	**0.0**	-39.9	0.0	-568.5	0.0	51.6	**0.0**	39.9	0.0	568.5	0.0
Fz,	-51.6	0.0	**-39.9**	0.0	-568.5	0.0	51.6	0.0	**39.9**	0.0	568.5	0.0

Mx_f	-51.6	0.0	-39.9	**0.0**	-568.5	0.0	51.6	0.0	39.9	**0.0**	568.5	0.0
My_f	-51.6	0.0	-39.9	0.0	**-568.5**	0.0	51.6	0.0	39.9	0.0	**568.5**	0.0
Mz_f	-51.6	0.0	-39.9	0.0	-568.5	**0.0**	51.6	0.0	39.9	0.0	568.5	**0.0**

Member 395

Fx_i	**-51.1**	0.0	-33.7	0.0	35.3	0.0	**51.1**	0.0	33.7	0.0	-35.3	0.0
Fy_i	-51.1	**0.0**	-33.7	0.0	35.3	0.0	51.1	**0.0**	33.7	0.0	-35.3	0.0
Fz_i	-51.1	0.0	**-33.7**	0.0	35.3	0.0	51.1	0.0	**33.7**	0.0	-35.3	0.0
Mx_i	-51.1	0.0	-33.7	**0.0**	35.3	0.0	51.1	0.0	33.7	**0.0**	-35.3	0.0
My_i	51.1	0.0	33.7	0.0	**-35.3**	0.0	-51.1	0.0	-33.7	0.0	**35.3**	0.0
Mz_i	-51.1	0.0	-33.7	0.0	35.3	**0.0**	51.1	0.0	33.7	0.0	-35.3	**0.0**
Fx_f	**-51.1**	0.0	-38.9	0.0	-557.7	0.0	**51.1**	0.0	38.9	0.0	557.7	0.0
Fy_f	-51.1	**0.0**	-38.9	0.0	-557.7	0.0	51.1	**0.0**	38.9	0.0	557.7	0.0
Fz_f	-51.1	0.0	**-38.9**	0.0	-557.7	0.0	51.1	0.0	**38.9**	0.0	557.7	0.0
Mx_f	-51.1	0.0	-38.9	**0.0**	-557.7	0.0	51.1	0.0	38.9	**0.0**	557.7	0.0
My_f	-51.1	0.0	-38.9	0.0	**-557.7**	0.0	51.1	0.0	38.9	0.0	**557.7**	0.0
Mz_f	-51.1	0.0	-38.9	0.0	-557.7	**0.0**	51.1	0.0	38.9	0.0	557.7	**0.0**

Member 396

Fx_i	**-44.8**	0.0	-31.0	0.0	20.7	0.0	**44.8**	0.0	31.0	0.0	-20.7	0.0
Fy_i	-44.8	**0.0**	-31.0	0.0	20.7	0.0	44.8	**0.0**	31.0	0.0	-20.7	0.0
Fz_i	-44.8	0.0	**-31.0**	0.0	20.7	0.0	44.8	0.0	**31.0**	0.0	-20.7	0.0
Mx_i	-44.8	0.0	-31.0	**0.0**	20.7	0.0	44.8	0.0	31.0	**0.0**	-20.7	0.0
My_i	44.8	0.0	31.0	0.0	**-20.7**	0.0	-44.8	0.0	-31.0	0.0	**20.7**	0.0
Mz_i	-44.8	0.0	-31.0	0.0	20.7	**0.0**	44.8	0.0	31.0	0.0	-20.7	**0.0**
Fx_f	**-44.8**	0.0	-35.9	0.0	-492.4	0.0	**44.8**	0.0	35.9	0.0	492.4	0.0
Fy_f	-44.8	**0.0**	-35.9	0.0	-492.4	0.0	44.8	**0.0**	35.9	0.0	492.4	0.0
Fz_f	-44.8	0.0	**-35.9**	0.0	-492.4	0.0	44.8	0.0	**35.9**	0.0	492.4	0.0
Mx_f	-44.8	0.0	-35.9	**0.0**	-492.4	0.0	44.8	0.0	35.9	**0.0**	492.4	0.0
My_f	-44.8	0.0	-35.9	0.0	**-492.4**	0.0	44.8	0.0	35.9	0.0	**492.4**	0.0
Mz_f	-44.8	0.0	-35.9	0.0	-492.4	**0.0**	44.8	0.0	35.9	0.0	492.4	**0.0**

Member 397

Fx_i	**-31.4**	0.0	-29.6	0.0	-17.0	0.0	**31.4**	0.0	29.6	0.0	17.0	0.0
Fy_i	-31.4	**0.0**	-29.6	0.0	-17.0	0.0	31.4	**0.0**	29.6	0.0	17.0	0.0
Fz_i	-31.4	0.0	**-29.6**	0.0	-17.0	0.0	31.4	0.0	**29.6**	0.0	17.0	0.0
Mx_i	-31.4	0.0	-29.6	**0.0**	-17.0	0.0	31.4	0.0	29.6	**0.0**	17.0	0.0
My_i	-31.4	0.0	-29.6	0.0	**-17.0**	0.0	31.4	0.0	29.6	0.0	**17.0**	0.0
Mz_i	-31.4	0.0	-29.6	0.0	-17.0	**0.0**	31.4	0.0	29.6	0.0	17.0	**0.0**
Fx_f	**-31.4**	0.0	-33.3	0.0	-377.7	0.0	**31.4**	0.0	33.3	0.0	377.7	0.0
Fy_f	-31.4	**0.0**	-33.3	0.0	-377.7	0.0	31.4	**0.0**	33.3	0.0	377.7	0.0
Fz_f	-31.4	0.0	**-33.3**	0.0	-377.7	0.0	31.4	0.0	**33.3**	0.0	377.7	0.0
Mx_f	-31.4	0.0	-33.3	**0.0**	-377.7	0.0	31.4	0.0	33.3	**0.0**	377.7	0.0
My_f	-31.4	0.0	-33.3	0.0	**-377.7**	0.0	31.4	0.0	33.3	0.0	**377.7**	0.0
Mz_f	-31.4	0.0	-33.3	0.0	-377.7	**0.0**	31.4	0.0	33.3	0.0	377.7	**0.0**

Member 398

Fx_i	**-14.2**	0.0	3.6	0.0	17.7	0.0	**14.2**	0.0	-3.6	0.0	-17.7	0.0
Fy_i	14.2	**0.0**	-3.6	0.0	-17.7	0.0	-14.2	**0.0**	3.6	0.0	17.7	0.0
Fz_i	14.2	0.0	**-3.6**	0.0	-17.7	0.0	-14.2	0.0	**3.6**	0.0	17.7	0.0
Mx_i	14.2	0.0	-3.6	**0.0**	-17.7	0.0	-14.2	0.0	3.6	**0.0**	17.7	0.0
My_i	14.2	0.0	-3.6	0.0	**-17.7**	0.0	-14.2	0.0	3.6	0.0	**17.7**	0.0
Mz_i	14.2	0.0	-3.6	0.0	-17.7	**0.0**	-14.2	0.0	3.6	0.0	17.7	**0.0**
Fx_f	**-14.2**	0.0	7.9	0.0	94.9	0.0	**14.2**	0.0	-7.9	0.0	-94.9	0.0
Fy_f	14.2	**0.0**	-7.9	0.0	-94.9	0.0	-14.2	**0.0**	7.9	0.0	94.9	0.0
Fz_f	14.2	0.0	**-7.9**	0.0	-94.9	0.0	-14.2	0.0	**7.9**	0.0	94.9	0.0
Mx_f	14.2	0.0	-7.9	**0.0**	-94.9	0.0	-14.2	0.0	7.9	**0.0**	94.9	0.0
My_f	14.2	0.0	-7.9	0.0	**-94.9**	0.0	-14.2	0.0	7.9	0.0	**94.9**	0.0
Mz_f	14.2	0.0	-7.9	0.0	-94.9	**0.0**	-14.2	0.0	7.9	0.0	94.9	**0.0**

Member 399

Fx_i	**-36.5**	0.0	33.2	0.0	6.4	0.0	**36.5**	0.0	-33.2	0.0	-6.4	0.0
Fy_i	36.5	**0.0**	-33.2	0.0	-6.4	0.0	-36.5	**0.0**	33.2	0.0	6.4	0.0
Fz_i	36.5	0.0	**-33.2**	0.0	-6.4	0.0	-36.5	0.0	**33.2**	0.0	6.4	0.0
Mx_i	36.5	0.0	-33.2	**0.0**	-6.4	0.0	-36.5	0.0	33.2	**0.0**	6.4	0.0
My_i	36.5	0.0	-33.2	0.0	**-6.4**	0.0	-36.5	0.0	33.2	0.0	**6.4**	0.0
Mz_i	36.5	0.0	-33.2	0.0	-6.4	**0.0**	-36.5	0.0	33.2	0.0	6.4	**0.0**
Fx_f	**-36.5**	0.0	37.2	0.0	442.5	0.0	**36.5**	0.0	-37.2	0.0	-442.5	0.0
Fy_f	36.5	**0.0**	-37.2	0.0	-442.5	0.0	-36.5	**0.0**	37.2	0.0	442.5	0.0
Fz_f	36.5	0.0	**-37.2**	0.0	-442.5	0.0	-36.5	0.0	**37.2**	0.0	442.5	0.0
Mx_f	36.5	0.0	-37.2	**0.0**	-442.5	0.0	-36.5	0.0	37.2	**0.0**	442.5	0.0
My_f	36.5	0.0	-37.2	0.0	**-442.5**	0.0	-36.5	0.0	37.2	0.0	**442.5**	0.0
Mz_f	36.5	0.0	-37.2	0.0	-442.5	**0.0**	-36.5	0.0	37.2	0.0	442.5	**0.0**

Member 400

Fx_i	**-45.9**	0.0	31.2	0.0	-22.9	0.0	**45.9**	0.0	-31.2	0.0	22.9	0.0
Fy_i	45.9	**0.0**	-31.2	0.0	22.9	0.0	-45.9	**0.0**	31.2	0.0	-22.9	0.0
Fz_i	45.9	0.0	**-31.2**	0.0	22.9	0.0	-45.9	0.0	**31.2**	0.0	-22.9	0.0
Mx_i	45.9	0.0	-31.2	**0.0**	22.9	0.0	-45.9	0.0	31.2	**0.0**	-22.9	0.0
My_i	-45.9	0.0	31.2	0.0	**-22.9**	0.0	45.9	0.0	-31.2	0.0	**22.9**	0.0
Mz_i	45.9	0.0	-31.2	0.0	22.9	**0.0**	-45.9	0.0	31.2	0.0	-22.9	**0.0**
Fx_f	**-45.9**	0.0	36.2	0.0	501.3	0.0	**45.9**	0.0	-36.2	0.0	-501.3	0.0
Fy_f	45.9	**0.0**	-36.2	0.0	-501.3	0.0	-45.9	**0.0**	36.2	0.0	501.3	0.0
Fz_f	45.9	0.0	**-36.2**	0.0	-501.3	0.0	-45.9	0.0	**36.2**	0.0	501.3	0.0
Mx_f	45.9	0.0	-36.2	**0.0**	-501.3	0.0	-45.9	0.0	36.2	**0.0**	501.3	0.0
My_f	45.9	0.0	-36.2	0.0	**-501.3**	0.0	-45.9	0.0	36.2	0.0	**501.3**	0.0
Mz_f	45.9	0.0	-36.2	0.0	-501.3	**0.0**	-45.9	0.0	36.2	0.0	501.3	**0.0**

Member 401

Fx_i	**-51.6**	0.0	34.8	0.0	-35.1	0.0	**51.6**	0.0	-34.8	0.0	35.1	0.0
Fy_i	51.6	**0.0**	-34.8	0.0	35.1	0.0	-51.6	**0.0**	34.8	0.0	-35.1	0.0
Fz_i	51.6	0.0	**-34.8**	0.0	35.1	0.0	-51.6	0.0	**34.8**	0.0	-35.1	0.0
Mx_i	51.6	0.0	-34.8	**0.0**	35.1	0.0	-51.6	0.0	34.8	**0.0**	-35.1	0.0
My_i	-51.6	0.0	34.8	0.0	**-35.1**	0.0	51.6	0.0	-34.8	0.0	**35.1**	0.0
Mz_i	51.6	0.0	-34.8	0.0	35.1	**0.0**	-51.6	0.0	34.8	0.0	-35.1	**0.0**
Fx_f	**-51.6**	0.0	39.9	0.0	568.5	0.0	**51.6**	0.0	-39.9	0.0	-568.5	0.0
Fy_f	51.6	**0.0**	-39.9	0.0	-568.5	0.0	-51.6	**0.0**	39.9	0.0	568.5	0.0
Fz_f	51.6	0.0	**-39.9**	0.0	-568.5	0.0	-51.6	0.0	**39.9**	0.0	568.5	0.0
Mx_f	51.6	0.0	-39.9	**0.0**	-568.5	0.0	-51.6	0.0	39.9	**0.0**	568.5	0.0
My_f	51.6	0.0	-39.9	0.0	**-568.5**	0.0	-51.6	0.0	39.9	0.0	**568.5**	0.0
Mz_f	51.6	0.0	-39.9	0.0	-568.5	**0.0**	-51.6	0.0	39.9	0.0	568.5	**0.0**

Member 402

Fx_i	**-51.1**	0.0	33.7	0.0	-35.3	0.0	**51.1**	0.0	-33.7	0.0	35.3	0.0
Fy_i	51.1	**0.0**	-33.7	0.0	35.3	0.0	-51.1	**0.0**	33.7	0.0	-35.3	0.0
Fz_i	51.1	0.0	**-33.7**	0.0	35.3	0.0	-51.1	0.0	**33.7**	0.0	-35.3	0.0
Mx_i	51.1	0.0	-33.7	**0.0**	35.3	0.0	-51.1	0.0	33.7	**0.0**	-35.3	0.0
My_i	-51.1	0.0	33.7	0.0	**-35.3**	0.0	51.1	0.0	-33.7	0.0	**35.3**	0.0
Mz_i	51.1	0.0	-33.7	0.0	35.3	**0.0**	-51.1	0.0	33.7	0.0	-35.3	**0.0**
Fx_f	**-51.1**	0.0	38.9	0.0	557.7	0.0	**51.1**	0.0	-38.9	0.0	-557.7	0.0
Fy_f	51.1	**0.0**	-38.9	0.0	-557.7	0.0	-51.1	**0.0**	38.9	0.0	557.7	0.0
Fz_f	51.1	0.0	**-38.9**	0.0	-557.7	0.0	-51.1	0.0	**38.9**	0.0	557.7	0.0
Mx_f	51.1	0.0	-38.9	**0.0**	-557.7	0.0	-51.1	0.0	38.9	**0.0**	557.7	0.0
My_f	51.1	0.0	-38.9	0.0	**-557.7**	0.0	-51.1	0.0	38.9	0.0	**557.7**	0.0
Mz_f	51.1	0.0	-38.9	0.0	-557.7	**0.0**	-51.1	0.0	38.9	0.0	557.7	**0.0**

Member 403

Fx_i	**-44.8**	0.0	31.0	0.0	-20.7	0.0	**44.8**	0.0	-31.0	0.0	20.7	0.0
Fy_i	44.8	**0.0**	-31.0	0.0	20.7	0.0	-44.8	**0.0**	31.0	0.0	-20.7	0.0
Fz_i	44.8	0.0	**-31.0**	0.0	20.7	0.0	-44.8	0.0	**31.0**	0.0	-20.7	0.0
Mx_i	44.8	0.0	-31.0	**0.0**	20.7	0.0	-44.8	0.0	31.0	**0.0**	-20.7	0.0
My_i	-44.8	0.0	31.0	0.0	**-20.7**	0.0	44.8	0.0	-31.0	0.0	**20.7**	0.0
Mz_i	44.8	0.0	-31.0	0.0	20.7	**0.0**	-44.8	0.0	31.0	0.0	-20.7	**0.0**
Fx_f	**-44.8**	0.0	35.9	0.0	492.4	0.0	**44.8**	0.0	-35.9	0.0	-492.4	0.0
Fy_f	44.8	**0.0**	-35.9	0.0	-492.4	0.0	-44.8	**0.0**	35.9	0.0	492.4	0.0
Fz_f	44.8	0.0	**-35.9**	0.0	-492.4	0.0	-44.8	0.0	**35.9**	0.0	492.4	0.0
Mx_f	44.8	0.0	-35.9	**0.0**	-492.4	0.0	-44.8	0.0	35.9	**0.0**	492.4	0.0
My_f	44.8	0.0	-35.9	0.0	**-492.4**	0.0	-44.8	0.0	35.9	0.0	**492.4**	0.0
Mz_f	44.8	0.0	-35.9	0.0	-492.4	**0.0**	-44.8	0.0	35.9	0.0	492.4	**0.0**

Member 404

Fx_i	**-31.4**	0.0	29.6	0.0	17.0	0.0	**31.4**	0.0	-29.6	0.0	-17.0	0.0
Fy_i	31.4	**0.0**	-29.6	0.0	-17.0	0.0	-31.4	**0.0**	29.6	0.0	17.0	0.0
Fz_i	31.4	0.0	**-29.6**	0.0	-17.0	0.0	-31.4	0.0	**29.6**	0.0	17.0	0.0
Mx_i	31.4	0.0	-29.6	**0.0**	-17.0	0.0	-31.4	0.0	29.6	**0.0**	17.0	0.0
My_i	31.4	0.0	-29.6	0.0	**-17.0**	0.0	-31.4	0.0	29.6	0.0	**17.0**	0.0
Mz_i	31.4	0.0	-29.6	0.0	-17.0	**0.0**	-31.4	0.0	29.6	0.0	17.0	**0.0**
Fx_f	**-31.4**	0.0	33.3	0.0	377.7	0.0	**31.4**	0.0	-33.3	0.0	-377.7	0.0
Fy_f	31.4	**0.0**	-33.3	0.0	-377.7	0.0	-31.4	**0.0**	33.3	0.0	377.7	0.0
Fz_f	31.4	0.0	**-33.3**	0.0	-377.7	0.0	-31.4	0.0	**33.3**	0.0	377.7	0.0
Mx_f	31.4	0.0	-33.3	**0.0**	-377.7	0.0	-31.4	0.0	33.3	**0.0**	377.7	0.0
My_f	31.4	0.0	-33.3	0.0	**-377.7**	0.0	-31.4	0.0	33.3	0.0	**377.7**	0.0
Mz_f	31.4	0.0	-33.3	0.0	-377.7	**0.0**	-31.4	0.0	33.3	0.0	377.7	**0.0**

Member 405

Fx_i	**-283.2**	0.1	45.6	0.0	0.0	0.0	**283.2**	-0.1	-45.6	0.0	-0.0	-0.0
Fy_i	283.2	**-0.1**	-45.6	0.0	-0.0	-0.0	-283.2	**0.1**	45.6	0.0	0.0	0.0
Fz_i	283.2	-0.1	**-45.6**	0.0	-0.0	-0.0	-283.2	0.1	**45.6**	0.0	0.0	0.0
Mx_i	-283.2	0.1	45.6	**0.0**	0.0	0.0	283.2	-0.1	-45.6	**0.0**	-0.0	-0.0
My_i	283.2	-0.1	-45.6	0.0	**-0.0**	-0.0	-283.2	0.1	45.6	0.0	**0.0**	0.0
Mz_i	283.2	-0.1	-45.6	0.0	-0.0	**-0.0**	-283.2	0.1	45.6	0.0	0.0	**0.0**
Fx_f	**-283.2**	0.1	45.6	0.0	91.3	-0.1	**283.2**	-0.1	-45.6	0.0	-91.3	0.1
Fy_f	283.2	**-0.1**	-45.6	0.0	-91.3	0.1	-283.2	**0.1**	45.6	0.0	91.3	-0.1
Fz_f	283.2	-0.1	**-45.6**	0.0	-91.3	0.1	-283.2	0.1	**45.6**	0.0	91.3	-0.1
Mx_f	-283.2	0.1	45.6	**0.0**	91.3	-0.1	283.2	-0.1	-45.6	**0.0**	-91.3	0.1
My_f	283.2	-0.1	-45.6	0.0	**-91.3**	0.1	-283.2	0.1	45.6	0.0	**91.3**	-0.1
Mz_f	-283.2	0.1	45.6	0.0	91.3	**-0.1**	283.2	-0.1	-45.6	0.0	-91.3	**0.1**

Member 406

Fx_i	**-283.2**	0.1	-45.6	0.0	-0.0	0.0	**283.2**	-0.1	45.6	0.0	0.0	-0.0
Fy_i	283.2	**-0.1**	45.6	0.0	0.0	-0.0	-283.2	**0.1**	-45.6	0.0	-0.0	0.0
Fz_i	-283.2	0.1	**-45.6**	0.0	-0.0	0.0	283.2	-0.1	**45.6**	0.0	0.0	-0.0
Mx_i	283.2	-0.1	45.6	**0.0**	0.0	-0.0	-283.2	0.1	-45.6	**0.0**	-0.0	0.0
My_i	-283.2	0.1	-45.6	0.0	**-0.0**	0.0	283.2	-0.1	45.6	0.0	**0.0**	-0.0
Mz_i	283.2	-0.1	45.6	0.0	0.0	**-0.0**	-283.2	0.1	-45.6	0.0	-0.0	**0.0**
Fx_f	**-283.2**	0.1	-45.6	0.0	-91.3	-0.1	**283.2**	-0.1	45.6	0.0	91.3	0.1
Fy_f	283.2	**-0.1**	45.6	0.0	91.3	0.1	-283.2	**0.1**	-45.6	0.0	-91.3	-0.1
Fz_f	-283.2	0.1	**-45.6**	0.0	-91.3	-0.1	283.2	-0.1	**45.6**	0.0	91.3	0.1
Mx_f	283.2	-0.1	45.6	**0.0**	91.3	0.1	-283.2	0.1	-45.6	**0.0**	-91.3	-0.1
My_f	-283.2	0.1	-45.6	0.0	**-91.3**	0.1	283.2	-0.1	45.6	0.0	**91.3**	0.1
Mz_f	-283.2	0.1	-45.6	0.0	-91.3	**-0.1**	283.2	-0.1	45.6	0.0	91.3	**0.1**

Member 421

Fx_i	**-0.0**	0.0	-15.8	0.0	-275.2	0.0	**0.0**	0.0	15.8	0.0	275.2	0.0
Fy_i	-0.0	**0.0**	-15.8	0.0	-275.2	0.0	0.0	**0.0**	15.8	0.0	275.2	0.0
Fz_i	-0.0	0.0	**-15.8**	0.0	-275.2	0.0	0.0	0.0	**15.8**	0.0	275.2	0.0
Mx_i	-0.0	0.0	-15.8	**0.0**	-275.2	0.0	0.0	0.0	15.8	**0.0**	275.2	0.0
My_i	-0.0	0.0	-15.8	0.0	**-275.2**	0.0	0.0	0.0	15.8	0.0	**275.2**	0.0
Mz_i	-0.0	0.0	-15.8	0.0	-275.2	**0.0**	0.0	0.0	15.8	0.0	275.2	**0.0**
Fx_f	**-0.0**	0.0	-15.8	0.0	-290.9	0.0	**0.0**	0.0	15.8	0.0	290.9	0.0
Fy_f	-0.0	**0.0**	-15.8	0.0	-290.9	0.0	0.0	**0.0**	15.8	0.0	290.9	0.0
Fz_f	-0.0	0.0	**-15.8**	0.0	-290.9	0.0	0.0	0.0	**15.8**	0.0	290.9	0.0
Mx_f	-0.0	0.0	-15.8	**0.0**	-290.9	0.0	0.0	0.0	15.8	**0.0**	290.9	0.0
My_f	-0.0	0.0	-15.8	0.0	**-290.9**	0.0	0.0	0.0	15.8	0.0	**290.9**	0.0
Mz_f	-0.0	0.0	-15.8	0.0	-290.9	**0.0**	0.0	0.0	15.8	0.0	290.9	**0.0**

Member 422

Fx_i	**-0.0**	0.0	74.3	0.0	1103.8	0.0	**0.0**	0.0	-74.3	0.0	-1103.8	0.0
Fy_i	0.0	**0.0**	-74.3	0.0	-1103.8	0.0	-0.0	**0.0**	74.3	0.0	1103.8	0.0
Fz_i	0.0	0.0	**-74.3**	0.0	-1103.8	0.0	-0.0	0.0	**74.3**	0.0	1103.8	0.0
Mx_i	0.0	0.0	-74.3	**0.0**	-1103.8	0.0	-0.0	0.0	74.3	**0.0**	1103.8	0.0
My_i	0.0	0.0	-74.3	0.0	**-1103.8**	0.0	-0.0	0.0	74.3	0.0	**1103.8**	0.0
Mz_i	0.0	0.0	-74.3	0.0	-1103.8	**0.0**	-0.0	0.0	74.3	0.0	1103.8	**0.0**
Fx_f	**-0.0**	0.0	74.3	0.0	1178.1	0.0	**0.0**	0.0	-74.3	0.0	-1178.1	0.0
Fy_f	0.0	**0.0**	-74.3	0.0	-1178.1	0.0	-0.0	**0.0**	74.3	0.0	1178.1	0.0
Fz_f	0.0	0.0	**-74.3**	0.0	-1178.1	0.0	-0.0	0.0	**74.3**	0.0	1178.1	0.0
Mx_f	0.0	0.0	-74.3	**0.0**	-1178.1	0.0	-0.0	0.0	74.3	**0.0**	1178.1	0.0
My_f	0.0	0.0	-74.3	0.0	**-1178.1**	0.0	-0.0	0.0	74.3	0.0	**1178.1**	0.0
Mz_f	0.0	0.0	-74.3	0.0	-1178.1	**0.0**	-0.0	0.0	74.3	0.0	1178.1	**0.0**

Member 423

Fx_i	**-0.0**	0.0	-72.4	0.0	-1278.0	0.0	**0.0**	0.0	72.4	0.0	1278.0	0.0
Fy_i	-0.0	**0.0**	-72.4	0.0	-1278.0	0.0	0.0	**0.0**	72.4	0.0	1278.0	0.0
Fz_i	-0.0	0.0	**-72.4**	0.0	-1278.0	0.0	0.0	0.0	**72.4**	0.0	1278.0	0.0
Mx_i	-0.0	0.0	-72.4	**0.0**	-1278.0	0.0	0.0	0.0	72.4	**0.0**	1278.0	0.0
My_i	-0.0	0.0	-72.4	0.0	**-1278.0**	0.0	0.0	0.0	72.4	0.0	**1278.0**	0.0
Mz_i	-0.0	0.0	-72.4	0.0	-1278.0	**0.0**	0.0	0.0	72.4	0.0	1278.0	**0.0**
Fx_f	**-0.0**	0.0	-72.4	0.0	-1350.4	0.0	**0.0**	0.0	72.4	0.0	1350.4	0.0
Fy_f	-0.0	**0.0**	-72.4	0.0	-1350.4	0.0	0.0	**0.0**	72.4	0.0	1350.4	0.0
Fz_f	-0.0	0.0	**-72.4**	0.0	-1350.4	0.0	0.0	0.0	**72.4**	0.0	1350.4	0.0
Mx_f	-0.0	0.0	-72.4	**0.0**	-1350.4	0.0	0.0	0.0	72.4	**0.0**	1350.4	0.0
My_f	-0.0	0.0	-72.4	0.0	**-1350.4**	0.0	0.0	0.0	72.4	0.0	**1350.4**	0.0
Mz_f	-0.0	0.0	-72.4	0.0	-1350.4	**0.0**	0.0	0.0	72.4	0.0	1350.4	**0.0**

Member 424

Fx_i	**-0.0**	0.0	-79.9	0.0	-1446.7	0.0	**0.0**	0.0	79.9	0.0	1446.7	0.0
Fy_i	-0.0	**0.0**	-79.9	0.0	-1446.7	0.0	0.0	**0.0**	79.9	0.0	1446.7	0.0
Fz_i	-0.0	0.0	**-79.9**	0.0	-1446.7	0.0	0.0	0.0	**79.9**	0.0	1446.7	0.0
Mx_i	-0.0	0.0	-79.9	**0.0**	-1446.7	0.0	0.0	0.0	79.9	**0.0**	1446.7	0.0
My_i	-0.0	0.0	-79.9	0.0	**-1446.7**	0.0	0.0	0.0	79.9	0.0	**1446.7**	0.0
Mz_i	-0.0	0.0	-79.9	0.0	-1446.7	**0.0**	0.0	0.0	79.9	0.0	1446.7	**0.0**
Fx_f	**-0.0**	0.0	-79.9	0.0	-1526.6	0.0	**0.0**	0.0	79.9	0.0	1526.6	0.0
Fy_f	-0.0	**0.0**	-79.9	0.0	-1526.6	0.0	0.0	**0.0**	79.9	0.0	1526.6	0.0
Fz_f	-0.0	0.0	**-79.9**	0.0	-1526.6	0.0	0.0	0.0	**79.9**	0.0	1526.6	0.0
Mx_f	-0.0	0.0	-79.9	**0.0**	-1526.6	0.0	0.0	0.0	79.9	**0.0**	1526.6	0.0
My_f	-0.0	0.0	-79.9	0.0	**-1526.6**	0.0	0.0	0.0	79.9	0.0	**1526.6**	0.0
Mz_f	-0.0	0.0	-79.9	0.0	-1526.6	**0.0**	0.0	0.0	79.9	0.0	1526.6	**0.0**

Member 425

Fx_i	**-0.0**	0.0	77.8	0.0	1422.2	0.0	**0.0**	0.0	-77.8	0.0	-1422.2	0.0
Fy_i	0.0	**0.0**	-77.8	0.0	-1422.2	0.0	-0.0	**0.0**	77.8	0.0	1422.2	0.0
Fz_i	0.0	0.0	**-77.8**	0.0	-1422.2	0.0	-0.0	0.0	**77.8**	0.0	1422.2	0.0
Mx_i	0.0	0.0	-77.8	**0.0**	-1422.2	0.0	-0.0	0.0	77.8	**0.0**	1422.2	0.0
My_i	0.0	0.0	-77.8	0.0	**-1422.2**	0.0	-0.0	0.0	77.8	0.0	**1422.2**	0.0
Mz_i	0.0	0.0	-77.8	0.0	-1422.2	**0.0**	-0.0	0.0	77.8	0.0	1422.2	**0.0**
Fx_f	**-0.0**	0.0	77.8	0.0	1500.0	0.0	**0.0**	0.0	-77.8	0.0	-1500.0	0.0
Fy_f	0.0	**0.0**	-77.8	0.0	-1500.0	0.0	-0.0	**0.0**	77.8	0.0	1500.0	0.0
Fz_f	0.0	0.0	**-77.8**	0.0	-1500.0	0.0	-0.0	0.0	**77.8**	0.0	1500.0	0.0
Mx_f	0.0	0.0	-77.8	**0.0**	-1500.0	0.0	-0.0	0.0	77.8	**0.0**	1500.0	0.0
My_f	0.0	0.0	-77.8	0.0	**-1500.0**	0.0	-0.0	0.0	77.8	0.0	**1500.0**	0.0
Mz_f	0.0	0.0	-77.8	0.0	-1500.0	**0.0**	-0.0	0.0	77.8	0.0	1500.0	**0.0**

Member 426

Fx_i	**-0.0**	0.0	71.8	0.0	1253.4	0.0	**0.0**	0.0	-71.8	0.0	-1253.4	0.0
Fy_i	0.0	**0.0**	-71.8	0.0	-1253.4	0.0	-0.0	**0.0**	71.8	0.0	1253.4	0.0
Fz_i	0.0	0.0	**-71.8**	0.0	-1253.4	0.0	-0.0	0.0	**71.8**	0.0	1253.4	0.0
Mx_i	0.0	0.0	-71.8	**0.0**	-1253.4	0.0	-0.0	0.0	71.8	**0.0**	1253.4	0.0
My_i	0.0	0.0	-71.8	0.0	**-1253.4**	0.0	-0.0	0.0	71.8	0.0	**1253.4**	0.0
Mz_i	0.0	0.0	-71.8	0.0	-1253.4	**0.0**	-0.0	0.0	71.8	0.0	1253.4	**0.0**
Fx_f	**-0.0**	0.0	71.8	0.0	1325.2	0.0	**0.0**	0.0	-71.8	0.0	-1325.2	0.0
Fy_f	0.0	**0.0**	-71.8	0.0	-1325.2	0.0	-0.0	**0.0**	71.8	0.0	1325.2	0.0
Fz_f	0.0	0.0	**-71.8**	0.0	-1325.2	0.0	-0.0	0.0	**71.8**	0.0	1325.2	0.0
Mx_f	0.0	0.0	-71.8	**0.0**	-1325.2	0.0	-0.0	0.0	71.8	**0.0**	1325.2	0.0
My_f	0.0	0.0	-71.8	0.0	**-1325.2**	0.0	-0.0	0.0	71.8	0.0	**1325.2**	0.0
Mz_f	0.0	0.0	-71.8	0.0	-1325.2	**0.0**	-0.0	0.0	71.8	0.0	1325.2	**0.0**

Member 427

Fx_i	**-0.0**	0.0	-66.6	0.0	-943.7	0.0	**0.0**	0.0	66.6	0.0	943.7	0.0
Fy_i	-0.0	**0.0**	-66.6	0.0	-943.7	0.0	0.0	**0.0**	66.6	0.0	943.7	0.0
Fz_i	-0.0	0.0	**-66.6**	0.0	-943.7	0.0	0.0	0.0	**66.6**	0.0	943.7	0.0
Mx_i	-0.0	0.0	-66.6	**0.0**	-943.7	0.0	0.0	0.0	66.6	**0.0**	943.7	0.0
My_i	-0.0	0.0	-66.6	0.0	**-943.7**	0.0	0.0	0.0	66.6	0.0	**943.7**	0.0
Mz_i	-0.0	0.0	-66.6	0.0	-943.7	**0.0**	0.0	0.0	66.6	0.0	943.7	**0.0**

Fx_f	**-0.0**	0.0	-66.6	0.0	-1010.4	0.0	**0.0**	0.0	66.6	0.0	1010.4	0.0
Fy_f	-0.0	**0.0**	-66.6	0.0	-1010.4	0.0	0.0	**0.0**	66.6	0.0	1010.4	0.0
Fz_f	-0.0	0.0	**-66.6**	0.0	-1010.4	0.0	0.0	0.0	**66.6**	0.0	1010.4	0.0
Mx_f	-0.0	0.0	-66.6	**0.0**	-1010.4	0.0	0.0	0.0	66.6	**0.0**	1010.4	0.0
My_f	-0.0	0.0	-66.6	0.0	**-1010.4**	0.0	0.0	0.0	66.6	0.0	**1010.4**	0.0
Mz_f	-0.0	0.0	-66.6	0.0	-1010.4	**0.0**	0.0	0.0	66.6	0.0	1010.4	**0.0**

DISPLACEMENTS

x	y	z	x	y	z	x	y	z	x	y	z

*** Fin del listado ***

termico

Program Envolvator (release 1.3 - Jun 1998)
Calculation date: 20-abr-1999 21:02 h. Listing date: 20-abr-1999 21:02 h.
Members: 419
Joints: 353
Envelope generated from:

Name	min	max
termico roz. 0.01	1.00	1.00
termico roz 0.05	1.00	1.00

	Fx	Fy	Fz	Mx	My	Mz	Fx	Fy	Fz	Mx	My	Mz
Member 1												
Fx_i	**-331.9**	-7.4	-0.0	0.0	0.0	5.1	**-155.1**	-8.3	-0.0	0.0	0.0	4.8
Fy_i	-155.1	**-8.3**	-0.0	0.0	0.0	4.8	-331.9	**-7.4**	-0.0	0.0	0.0	5.1
Fz_i	-331.9	-7.4	**-0.0**	0.0	0.0	5.1	-155.1	-8.3	**-0.0**	0.0	0.0	4.8
Mx_i	-155.1	-8.3	-0.0	**0.0**	0.0	4.8	-331.9	-7.4	-0.0	**0.0**	0.0	5.1
My_i	-155.1	-8.3	-0.0	0.0	**0.0**	4.8	-331.9	-7.4	-0.0	0.0	**0.0**	5.1
Mz_i	-155.1	-8.3	-0.0	0.0	0.0	**4.8**	-331.9	-7.4	-0.0	0.0	0.0	**5.1**
Fx_f	**-331.9**	-7.4	-0.0	0.0	-0.0	32.1	**-155.1**	-8.3	-0.0	0.0	-0.0	35.3
Fy_f	-155.1	**-8.3**	-0.0	0.0	-0.0	35.3	-331.9	**-7.4**	-0.0	0.0	-0.0	32.1
Fz_f	-331.9	-7.4	**-0.0**	0.0	-0.0	32.1	-155.1	-8.3	**-0.0**	0.0	-0.0	35.3
Mx_f	-155.1	-8.3	-0.0	**0.0**	-0.0	35.3	-331.9	-7.4	-0.0	**0.0**	-0.0	32.1
My_f	-331.9	-7.4	-0.0	0.0	**-0.0**	32.1	-155.1	-8.3	-0.0	0.0	**-0.0**	35.3
Mz_f	-331.9	-7.4	-0.0	0.0	-0.0	**32.1**	-155.1	-8.3	-0.0	0.0	-0.0	**35.3**
Member 2												
Fx_i	**-331.9**	-7.4	-0.0	0.0	0.0	32.1	**-155.1**	-8.3	-0.0	0.0	0.0	35.3
Fy_i	-155.1	**-8.3**	-0.0	0.0	0.0	35.3	-331.9	**-7.4**	-0.0	0.0	0.0	32.1
Fz_i	-331.9	-7.4	**-0.0**	0.0	0.0	32.1	-155.1	-8.3	**-0.0**	0.0	0.0	35.3
Mx_i	-155.1	-8.3	-0.0	**0.0**	0.0	35.3	-331.9	-7.4	-0.0	**0.0**	0.0	32.1
My_i	-155.1	-8.3	-0.0	0.0	**0.0**	35.3	-331.9	-7.4	-0.0	0.0	**0.0**	32.1
Mz_i	-331.9	-7.4	-0.0	0.0	0.0	**32.1**	-155.1	-8.3	-0.0	0.0	0.0	**35.3**
Fx_f	**-331.9**	-7.4	-0.0	0.0	-0.0	59.0	**-155.1**	-8.3	-0.0	0.0	-0.0	65.8
Fy_f	-155.1	**-8.3**	-0.0	0.0	-0.0	65.8	-331.9	**-7.4**	-0.0	0.0	-0.0	59.0
Fz_f	-331.9	-7.4	**-0.0**	0.0	-0.0	59.0	-155.1	-8.3	**-0.0**	0.0	-0.0	65.8
Mx_f	-155.1	-8.3	-0.0	**0.0**	-0.0	65.8	-331.9	-7.4	-0.0	**0.0**	-0.0	59.0
My_f	-331.9	-7.4	-0.0	0.0	**-0.0**	59.0	-155.1	-8.3	-0.0	0.0	**-0.0**	65.8
Mz_f	-331.9	-7.4	-0.0	0.0	-0.0	**59.0**	-155.1	-8.3	-0.0	0.0	-0.0	**65.8**
Member 3												
Fx_i	**-331.9**	-7.4	-0.0	0.0	0.0	59.0	**-155.1**	-8.3	-0.0	0.0	0.0	65.8
Fy_i	-155.1	**-8.3**	-0.0	0.0	0.0	65.8	-331.9	**-7.4**	-0.0	0.0	0.0	59.0
Fz_i	-331.9	-7.4	**-0.0**	0.0	0.0	59.0	-155.1	-8.3	**-0.0**	0.0	0.0	65.8
Mx_i	-155.1	-8.3	-0.0	**0.0**	0.0	65.8	-331.9	-7.4	-0.0	**0.0**	0.0	59.0
My_i	-155.1	-8.3	-0.0	0.0	**0.0**	65.8	-331.9	-7.4	-0.0	0.0	**0.0**	59.0
Mz_i	-331.9	-7.4	-0.0	0.0	0.0	**59.0**	-155.1	-8.3	-0.0	0.0	0.0	**65.8**
Fx_f	**-331.9**	-7.4	-0.0	0.0	-0.0	86.0	**-155.1**	-8.3	-0.0	0.0	-0.0	96.2
Fy_f	-155.1	**-8.3**	-0.0	0.0	-0.0	96.2	-331.9	**-7.4**	-0.0	0.0	-0.0	86.0
Fz_f	-331.9	-7.4	**-0.0**	0.0	-0.0	86.0	-155.1	-8.3	**-0.0**	0.0	-0.0	96.2
Mx_f	-155.1	-8.3	-0.0	**0.0**	-0.0	96.2	-331.9	-7.4	-0.0	**0.0**	-0.0	86.0
My_f	-331.9	-7.4	-0.0	0.0	**-0.0**	86.0	-155.1	-8.3	-0.0	0.0	**-0.0**	96.2
Mz_f	-331.9	-7.4	-0.0	0.0	-0.0	**86.0**	-155.1	-8.3	-0.0	0.0	-0.0	**96.2**
Member 4												
Fx_i	**-331.9**	-7.4	-0.0	0.0	0.0	86.0	**-155.1**	-8.3	-0.0	0.0	0.0	96.2
Fy_i	-155.1	**-8.3**	-0.0	0.0	0.0	96.2	-331.9	**-7.4**	-0.0	0.0	0.0	86.0
Fz_i	-331.9	-7.4	**-0.0**	0.0	0.0	86.0	-155.1	-8.3	**-0.0**	0.0	0.0	96.2
Mx_i	-155.1	-8.3	-0.0	**0.0**	0.0	96.2	-331.9	-7.4	-0.0	**0.0**	0.0	86.0
My_i	-155.1	-8.3	-0.0	0.0	**0.0**	96.2	-331.9	-7.4	-0.0	0.0	**0.0**	86.0

Mz_i	-331.9	-7.4	-0.0	0.0	0.0	**86.0**	-155.1	-8.3	-0.0	0.0	0.0	**96.2**
Fx_f	**-331.9**	-7.4	-0.0	0.0	-0.0	113.0	**-155.1**	-8.3	-0.0	0.0	-0.0	126.7
Fy_f	-155.1	**-8.3**	-0.0	0.0	-0.0	126.7	-331.9	**-7.4**	-0.0	0.0	-0.0	113.0
Fz_f	-331.9	-7.4	**-0.0**	0.0	-0.0	113.0	-155.1	-8.3	**-0.0**	0.0	-0.0	126.7
Mx_f	-155.1	-8.3	-0.0	**0.0**	-0.0	126.7	-331.9	-7.4	-0.0	**0.0**	-0.0	113.0
My_f	-331.9	-7.4	-0.0	0.0	**-0.0**	113.0	-155.1	-8.3	-0.0	0.0	**-0.0**	126.7
Mz_f	-331.9	-7.4	-0.0	0.0	-0.0	**113.0**	-155.1	-8.3	-0.0	0.0	-0.0	**126.7**

Member 5

Fx_i	**-331.9**	-7.4	-0.0	0.0	0.0	113.0	**-155.1**	-8.3	-0.0	0.0	0.0	126.7
Fy_i	-155.1	**-8.3**	-0.0	0.0	0.0	126.7	-331.9	**-7.4**	-0.0	0.0	0.0	113.0
Fz_i	-331.9	-7.4	**-0.0**	0.0	0.0	113.0	-155.1	-8.3	**-0.0**	0.0	0.0	126.7
Mx_i	-155.1	-8.3	-0.0	**0.0**	0.0	126.7	-331.9	-7.4	-0.0	**0.0**	0.0	113.0
My_i	-155.1	-8.3	-0.0	0.0	**0.0**	126.7	-331.9	-7.4	-0.0	0.0	**0.0**	113.0
Mz_i	-331.9	-7.4	-0.0	0.0	0.0	**113.0**	-155.1	-8.3	-0.0	0.0	0.0	**126.7**
Fx_f	**-331.9**	-7.4	-0.0	0.0	-0.0	139.9	**-155.1**	-8.3	-0.0	0.0	-0.0	157.1
Fy_f	-155.1	**-8.3**	-0.0	0.0	-0.0	157.1	-331.9	**-7.4**	-0.0	0.0	-0.0	139.9
Fz_f	-331.9	-7.4	**-0.0**	0.0	-0.0	139.9	-155.1	-8.3	**-0.0**	0.0	-0.0	157.1
Mx_f	-155.1	-8.3	-0.0	**0.0**	-0.0	157.1	-331.9	-7.4	-0.0	**0.0**	-0.0	139.9
My_f	-331.9	-7.4	-0.0	0.0	**-0.0**	139.9	-155.1	-8.3	-0.0	0.0	**-0.0**	157.1
Mz_f	-331.9	-7.4	-0.0	0.0	-0.0	**139.9**	-155.1	-8.3	-0.0	0.0	-0.0	**157.1**

Member 6

Fx_i	**-331.9**	-7.4	-0.0	0.0	0.0	139.9	**-155.1**	-8.3	-0.0	0.0	0.0	157.1
Fy_i	-155.1	**-8.3**	-0.0	0.0	0.0	157.1	-331.9	**-7.4**	-0.0	0.0	0.0	139.9
Fz_i	-331.9	-7.4	**-0.0**	0.0	0.0	139.9	-155.1	-8.3	**-0.0**	0.0	0.0	157.1
Mx_i	-155.1	-8.3	-0.0	**0.0**	0.0	157.1	-331.9	-7.4	-0.0	**0.0**	0.0	139.9
My_i	-155.1	-8.3	-0.0	0.0	**0.0**	157.1	-331.9	-7.4	-0.0	0.0	**0.0**	139.9
Mz_i	-331.9	-7.4	-0.0	0.0	0.0	**139.9**	-155.1	-8.3	-0.0	0.0	0.0	**157.1**
Fx_f	**-331.9**	-7.4	-0.0	0.0	-0.0	166.9	**-155.1**	-8.3	-0.0	0.0	-0.0	187.6
Fy_f	-155.1	**-8.3**	-0.0	0.0	-0.0	187.6	-331.9	**-7.4**	-0.0	0.0	-0.0	166.9
Fz_f	-331.9	-7.4	**-0.0**	0.0	-0.0	166.9	-155.1	-8.3	**-0.0**	0.0	-0.0	187.6
Mx_f	-155.1	-8.3	-0.0	**0.0**	-0.0	187.6	-331.9	-7.4	-0.0	**0.0**	-0.0	166.9
My_f	-331.9	-7.4	-0.0	0.0	**-0.0**	166.9	-155.1	-8.3	-0.0	0.0	**-0.0**	187.6
Mz_f	-331.9	-7.4	-0.0	0.0	-0.0	**166.9**	-155.1	-8.3	-0.0	0.0	-0.0	**187.6**

Member 7

Fx_i	**-305.9**	2.0	0.0	-0.0	-0.0	212.4	**-153.1**	0.9	0.0	-0.0	-0.0	191.0
Fy_i	-153.1	**0.9**	0.0	-0.0	-0.0	191.0	-305.9	**2.0**	0.0	-0.0	-0.0	212.4
Fz_i	-153.1	0.9	**0.0**	-0.0	-0.0	191.0	-305.9	2.0	**0.0**	-0.0	-0.0	212.4
Mx_i	-305.9	2.0	0.0	**-0.0**	-0.0	212.4	-153.1	0.9	0.0	**-0.0**	-0.0	191.0
My_i	-305.9	2.0	0.0	-0.0	**-0.0**	212.4	-153.1	0.9	0.0	-0.0	**-0.0**	191.0
Mz_i	-153.1	0.9	0.0	-0.0	-0.0	**191.0**	-305.9	2.0	0.0	-0.0	-0.0	**212.4**
Fx_f	**-305.9**	2.0	0.0	-0.0	0.0	203.5	**-153.1**	0.9	0.0	-0.0	0.0	187.2
Fy_f	-153.1	**0.9**	0.0	-0.0	0.0	187.2	-305.9	**2.0**	0.0	-0.0	0.0	203.5
Fz_f	-153.1	0.9	**0.0**	-0.0	0.0	187.2	-305.9	2.0	**0.0**	-0.0	0.0	203.5
Mx_f	-305.9	2.0	0.0	**-0.0**	0.0	203.5	-153.1	0.9	0.0	**-0.0**	0.0	187.2
My_f	-153.1	0.9	0.0	-0.0	**0.0**	187.2	-305.9	2.0	0.0	-0.0	**0.0**	203.5
Mz_f	-153.1	0.9	0.0	-0.0	0.0	**187.2**	-305.9	2.0	0.0	-0.0	0.0	**203.5**

Member 8

Fx_i	**-305.9**	2.0	0.0	-0.0	-0.0	203.5	**-153.1**	0.9	0.0	-0.0	-0.0	187.2
Fy_i	-153.1	**0.9**	0.0	-0.0	-0.0	187.2	-305.9	**2.0**	0.0	-0.0	-0.0	203.5
Fz_i	-153.1	0.9	**0.0**	-0.0	-0.0	187.2	-305.9	2.0	**0.0**	-0.0	-0.0	203.5
Mx_i	-305.9	2.0	0.0	**-0.0**	-0.0	203.5	-153.1	0.9	0.0	**-0.0**	-0.0	187.2
My_i	-305.9	2.0	0.0	-0.0	**-0.0**	203.5	-153.1	0.9	0.0	-0.0	**-0.0**	187.2
Mz_i	-153.1	0.9	0.0	-0.0	-0.0	**187.2**	-305.9	2.0	0.0	-0.0	-0.0	**203.5**
Fx_f	**-305.9**	2.0	0.0	-0.0	0.0	194.7	**-153.1**	0.9	0.0	-0.0	0.0	183.3
Fy_f	-153.1	**0.9**	0.0	-0.0	0.0	183.3	-305.9	**2.0**	0.0	-0.0	0.0	194.7
Fz_f	-153.1	0.9	**0.0**	-0.0	0.0	183.3	-305.9	2.0	**0.0**	-0.0	0.0	194.7
Mx_f	-305.9	2.0	0.0	**-0.0**	0.0	194.7	-153.1	0.9	0.0	**-0.0**	0.0	183.3
My_f	-153.1	0.9	0.0	-0.0	**0.0**	183.3	-305.9	2.0	0.0	-0.0	**0.0**	194.7
Mz_f	-153.1	0.9	0.0	-0.0	0.0	**183.3**	-305.9	2.0	0.0	-0.0	0.0	**194.7**

Member 9

Fx_i	**-305.9**	2.0	0.0	-0.0	-0.0	194.7	**-153.1**	0.9	0.0	-0.0	-0.0	183.3
Fy_i	-153.1	**0.9**	0.0	-0.0	-0.0	183.3	-305.9	**2.0**	0.0	-0.0	-0.0	194.7
Fz_i	-153.1	0.9	**0.0**	-0.0	-0.0	183.3	-305.9	2.0	**0.0**	-0.0	-0.0	194.7
Mx_i	-305.9	2.0	0.0	**-0.0**	-0.0	194.7	-153.1	0.9	0.0	**-0.0**	-0.0	183.3
My_i	-305.9	2.0	0.0	-0.0	**-0.0**	194.7	-153.1	0.9	0.0	-0.0	**-0.0**	183.3
Mz_i	-153.1	0.9	0.0	-0.0	-0.0	**183.3**	-305.9	2.0	0.0	-0.0	-0.0	**194.7**
Fx_f	**-305.9**	2.0	0.0	-0.0	0.0	185.8	**-153.1**	0.9	0.0	-0.0	0.0	179.5
Fy_f	-153.1	**0.9**	0.0	-0.0	0.0	179.5	-305.9	**2.0**	0.0	-0.0	0.0	185.8
Fz_f	-153.1	0.9	**0.0**	-0.0	0.0	179.5	-305.9	2.0	**0.0**	-0.0	0.0	185.8
Mx_f	-305.9	2.0	0.0	**-0.0**	0.0	185.8	-153.1	0.9	0.0	**-0.0**	0.0	179.5
My_f	-153.1	0.9	0.0	-0.0	**0.0**	179.5	-305.9	2.0	0.0	-0.0	**0.0**	185.8
Mz_f	-153.1	0.9	0.0	-0.0	0.0	**179.5**	-305.9	2.0	0.0	-0.0	0.0	**185.8**

Member 10

Fx_i	**-305.9**	2.0	0.0	-0.0	-0.0	185.8	**-153.1**	0.9	0.0	-0.0	-0.0	179.5
Fy_i	-153.1	**0.9**	0.0	-0.0	-0.0	179.5	-305.9	**2.0**	0.0	-0.0	-0.0	185.8
Fz_i	-153.1	0.9	**0.0**	-0.0	-0.0	179.5	-305.9	2.0	**0.0**	-0.0	-0.0	185.8
Mx_i	-305.9	2.0	0.0	**-0.0**	-0.0	185.8	-153.1	0.9	0.0	**-0.0**	-0.0	179.5
My_i	-305.9	2.0	0.0	-0.0	**-0.0**	185.8	-153.1	0.9	0.0	-0.0	**-0.0**	179.5
Mz_i	-153.1	0.9	0.0	-0.0	-0.0	**179.5**	-305.9	2.0	0.0	-0.0	-0.0	**185.8**
Fx_f	**-305.9**	2.0	0.0	-0.0	0.0	176.9	**-153.1**	0.9	0.0	-0.0	0.0	175.7
Fy_f	-153.1	**0.9**	0.0	-0.0	0.0	175.7	-305.9	**2.0**	0.0	-0.0	0.0	176.9
Fz_f	-153.1	0.9	**0.0**	-0.0	0.0	175.7	-305.9	2.0	**0.0**	-0.0	0.0	176.9
Mx_f	-305.9	2.0	0.0	**-0.0**	0.0	176.9	-153.1	0.9	0.0	**-0.0**	0.0	175.7
My_f	-153.1	0.9	0.0	-0.0	**0.0**	175.7	-305.9	2.0	0.0	-0.0	**0.0**	176.9
Mz_f	-153.1	0.9	0.0	-0.0	0.0	**175.7**	-305.9	2.0	0.0	-0.0	0.0	**176.9**

Member 11

Fx_i	**-305.9**	2.0	0.0	-0.0	-0.0	176.9	**-153.1**	0.9	0.0	-0.0	-0.0	175.7
Fy_i	-153.1	**0.9**	0.0	-0.0	-0.0	175.7	-305.9	**2.0**	0.0	-0.0	-0.0	176.9
Fz_i	-305.9	2.0	**0.0**	-0.0	-0.0	176.9	-153.1	0.9	**0.0**	-0.0	-0.0	175.7
Mx_i	-305.9	2.0	0.0	**-0.0**	-0.0	176.9	-153.1	0.9	0.0	**-0.0**	-0.0	175.7
My_i	-153.1	0.9	0.0	-0.0	**-0.0**	175.7	-305.9	2.0	0.0	-0.0	**-0.0**	176.9
Mz_i	-153.1	0.9	0.0	-0.0	-0.0	**175.7**	-305.9	2.0	0.0	-0.0	-0.0	**176.9**
Fx_f	**-305.9**	2.0	0.0	-0.0	0.0	168.1	**-153.1**	0.9	0.0	-0.0	0.0	171.8
Fy_f	-153.1	**0.9**	0.0	-0.0	0.0	171.8	-305.9	**2.0**	0.0	-0.0	0.0	168.1
Fz_f	-305.9	2.0	**0.0**	-0.0	0.0	168.1	-153.1	0.9	**0.0**	-0.0	0.0	171.8
Mx_f	-305.9	2.0	0.0	**-0.0**	0.0	168.1	-153.1	0.9	0.0	**-0.0**	0.0	171.8
My_f	-153.1	0.9	0.0	-0.0	**0.0**	171.8	-305.9	2.0	0.0	-0.0	**0.0**	168.1
Mz_f	-305.9	2.0	0.0	-0.0	0.0	**168.1**	-153.1	0.9	0.0	-0.0	0.0	**171.8**

Member 12

Fx_i	**-305.9**	2.0	0.0	-0.0	-0.0	168.1	**-153.1**	0.9	0.0	-0.0	-0.0	171.8
Fy_i	-153.1	**0.9**	0.0	-0.0	-0.0	171.8	-305.9	**2.0**	0.0	-0.0	-0.0	168.1
Fz_i	-305.9	2.0	**0.0**	-0.0	-0.0	168.1	-153.1	0.9	**0.0**	-0.0	-0.0	171.8
Mx_i	-305.9	2.0	0.0	**-0.0**	-0.0	168.1	-153.1	0.9	0.0	**-0.0**	-0.0	171.8
My_i	-153.1	0.9	0.0	-0.0	**-0.0**	171.8	-305.9	2.0	0.0	-0.0	**-0.0**	168.1
Mz_i	-305.9	2.0	0.0	-0.0	-0.0	**168.1**	-153.1	0.9	0.0	-0.0	-0.0	**171.8**
Fx_f	**-305.9**	2.0	0.0	-0.0	0.0	159.2	**-153.1**	0.9	0.0	-0.0	0.0	168.0
Fy_f	-153.1	**0.9**	0.0	-0.0	0.0	168.0	-305.9	**2.0**	0.0	-0.0	0.0	159.2
Fz_f	-305.9	2.0	**0.0**	-0.0	0.0	159.2	-153.1	0.9	**0.0**	-0.0	0.0	168.0
Mx_f	-305.9	2.0	0.0	**-0.0**	0.0	159.2	-153.1	0.9	0.0	**-0.0**	0.0	168.0
My_f	-305.9	2.0	0.0	-0.0	**0.0**	159.2	-153.1	0.9	0.0	-0.0	**0.0**	168.0
Mz_f	-305.9	2.0	0.0	-0.0	0.0	**159.2**	-153.1	0.9	0.0	-0.0	0.0	**168.0**

Member 13

Fx_i	**-305.9**	2.0	0.0	-0.0	-0.0	159.2	**-153.1**	0.9	0.0	-0.0	-0.0	168.0

Fy,	-153.1	**0.9**	0.0	-0.0	-0.0	168.0	-305.9	**2.0**	0.0	-0.0	-0.0	159.2
Fz,	-305.9	2.0	**0.0**	-0.0	-0.0	159.2	-153.1	0.9	**0.0**	-0.0	-0.0	168.0
Mx,	-305.9	2.0	0.0	**-0.0**	-0.0	159.2	-153.1	0.9	0.0	**-0.0**	-0.0	168.0
My,	-153.1	0.9	0.0	-0.0	**-0.0**	168.0	-305.9	2.0	0.0	-0.0	**-0.0**	159.2
Mz,	-305.9	2.0	0.0	-0.0	-0.0	**159.2**	-153.1	0.9	0.0	-0.0	-0.0	**168.0**
Fx,	**-305.9**	2.0	0.0	-0.0	0.0	150.3	**-153.1**	0.9	0.0	-0.0	0.0	164.1
Fy,	-153.1	**0.9**	0.0	-0.0	0.0	164.1	-305.9	**2.0**	0.0	-0.0	0.0	150.3
Fz,	-305.9	2.0	**0.0**	-0.0	0.0	150.3	-153.1	0.9	**0.0**	-0.0	0.0	164.1
Mx,	-305.9	2.0	0.0	**-0.0**	0.0	150.3	-153.1	0.9	0.0	**-0.0**	0.0	164.1
My,	-305.9	2.0	0.0	-0.0	**0.0**	150.3	-153.1	0.9	0.0	-0.0	**0.0**	164.1
Mz,	-305.9	2.0	0.0	-0.0	0.0	**150.3**	-153.1	0.9	0.0	-0.0	0.0	**164.1**

Member 14

Fx,	**-305.9**	2.0	0.0	-0.0	-0.0	150.3	**-153.1**	0.9	0.0	-0.0	-0.0	164.1
Fy,	-153.1	**0.9**	0.0	-0.0	-0.0	164.1	-305.9	**2.0**	0.0	-0.0	-0.0	150.3
Fz,	-305.9	2.0	**0.0**	-0.0	-0.0	150.3	-153.1	0.9	**0.0**	-0.0	-0.0	164.1
Mx,	-305.9	2.0	0.0	**-0.0**	-0.0	150.3	-153.1	0.9	0.0	**-0.0**	-0.0	164.1
My,	-153.1	0.9	0.0	-0.0	**-0.0**	164.1	-305.9	2.0	0.0	-0.0	**-0.0**	150.3
Mz,	-305.9	2.0	0.0	-0.0	-0.0	**150.3**	-153.1	0.9	0.0	-0.0	-0.0	**164.1**
Fx,	**-305.9**	2.0	0.0	-0.0	0.0	141.5	**-153.1**	0.9	0.0	-0.0	0.0	160.3
Fy,	-153.1	**0.9**	0.0	-0.0	0.0	160.3	-305.9	**2.0**	0.0	-0.0	0.0	141.5
Fz,	-305.9	2.0	**0.0**	-0.0	0.0	141.5	-153.1	0.9	**0.0**	-0.0	0.0	160.3
Mx,	-305.9	2.0	0.0	**-0.0**	0.0	141.5	-153.1	0.9	0.0	**-0.0**	0.0	160.3
My,	-305.9	2.0	0.0	-0.0	**0.0**	141.5	-153.1	0.9	0.0	-0.0	**0.0**	160.3
Mz,	-305.9	2.0	0.0	-0.0	0.0	**141.5**	-153.1	0.9	0.0	-0.0	0.0	**160.3**

Member 15

Fx,	**-278.7**	1.3	-0.0	0.0	0.0	189.1	**-147.7**	0.2	-0.0	0.0	0.0	169.8
Fy,	-147.7	**0.2**	-0.0	0.0	0.0	169.8	-278.7	**1.3**	-0.0	0.0	0.0	189.1
Fz,	-147.7	0.2	**-0.0**	0.0	0.0	169.8	-278.7	1.3	**-0.0**	0.0	0.0	189.1
Mx,	-147.7	0.2	-0.0	**0.0**	0.0	169.8	-278.7	1.3	-0.0	**0.0**	0.0	189.1
My,	-278.7	1.3	-0.0	0.0	**0.0**	189.1	-147.7	0.2	-0.0	0.0	**0.0**	169.8
Mz,	-147.7	0.2	-0.0	0.0	0.0	**169.8**	-278.7	1.3	-0.0	0.0	0.0	**189.1**
Fx,	**-278.7**	1.3	-0.0	0.0	-0.0	183.1	**-147.7**	0.2	-0.0	0.0	-0.0	169.1
Fy,	-147.7	**0.2**	-0.0	0.0	-0.0	169.1	-278.7	**1.3**	-0.0	0.0	-0.0	183.1
Fz,	-147.7	0.2	**-0.0**	0.0	-0.0	169.1	-278.7	1.3	**-0.0**	0.0	-0.0	183.1
Mx,	-147.7	0.2	-0.0	**0.0**	-0.0	169.1	-278.7	1.3	-0.0	**0.0**	-0.0	183.1
My,	-147.7	0.2	-0.0	0.0	**-0.0**	169.1	-278.7	1.3	-0.0	0.0	**-0.0**	183.1
Mz,	-147.7	0.2	-0.0	0.0	-0.0	**169.1**	-278.7	1.3	-0.0	0.0	-0.0	**183.1**

Member 16

Fx,	**-278.7**	1.3	-0.0	0.0	0.0	183.1	**-147.7**	0.2	-0.0	0.0	0.0	169.1
Fy,	-147.7	**0.2**	-0.0	0.0	0.0	169.1	-278.7	**1.3**	-0.0	0.0	0.0	183.1
Fz,	-147.7	0.2	**-0.0**	0.0	0.0	169.1	-278.7	1.3	**-0.0**	0.0	0.0	183.1
Mx,	-147.7	0.2	-0.0	**0.0**	0.0	169.1	-278.7	1.3	-0.0	**0.0**	0.0	183.1
My,	-278.7	1.3	-0.0	0.0	**0.0**	183.1	-147.7	0.2	-0.0	0.0	**0.0**	169.1
Mz,	-147.7	0.2	-0.0	0.0	0.0	**169.1**	-278.7	1.3	-0.0	0.0	0.0	**183.1**
Fx,	**-278.7**	1.3	-0.0	0.0	-0.0	177.2	**-147.7**	0.2	-0.0	0.0	-0.0	168.3
Fy,	-147.7	**0.2**	-0.0	0.0	-0.0	168.3	-278.7	**1.3**	-0.0	0.0	-0.0	177.2
Fz,	-147.7	0.2	**-0.0**	0.0	-0.0	168.3	-278.7	1.3	**-0.0**	0.0	-0.0	177.2
Mx,	-147.7	0.2	-0.0	**0.0**	-0.0	168.3	-278.7	1.3	-0.0	**0.0**	-0.0	177.2
My,	-147.7	0.2	-0.0	0.0	**-0.0**	168.3	-278.7	1.3	-0.0	0.0	**-0.0**	177.2
Mz,	-147.7	0.2	-0.0	0.0	-0.0	**168.3**	-278.7	1.3	-0.0	0.0	-0.0	**177.2**

Member 17

Fx,	**-278.7**	1.3	-0.0	0.0	0.0	177.2	**-147.7**	0.2	-0.0	0.0	0.0	168.3
Fy,	-147.7	**0.2**	-0.0	0.0	0.0	168.3	-278.7	**1.3**	-0.0	0.0	0.0	177.2
Fz,	-147.7	0.2	**-0.0**	0.0	0.0	168.3	-278.7	1.3	**-0.0**	0.0	0.0	177.2
Mx,	-147.7	0.2	-0.0	**0.0**	0.0	168.3	-278.7	1.3	-0.0	**0.0**	0.0	177.2
My,	-278.7	1.3	-0.0	0.0	**0.0**	177.2	-147.7	0.2	-0.0	0.0	**0.0**	168.3
Mz,	-147.7	0.2	-0.0	0.0	0.0	**168.3**	-278.7	1.3	-0.0	0.0	0.0	**177.2**

Fx,	**-278.7**	1.3	-0.0	0.0	-0.0	171.2	**-147.7**	0.2	-0.0	0.0	-0.0	167.6
Fy,	-147.7	**0.2**	-0.0	0.0	-0.0	167.6	-278.7	**1.3**	-0.0	0.0	-0.0	171.2
Fz,	-147.7	0.2	**-0.0**	0.0	-0.0	167.6	-278.7	1.3	**-0.0**	0.0	-0.0	171.2
Mx,	-147.7	0.2	-0.0	**0.0**	-0.0	167.6	-278.7	1.3	-0.0	**0.0**	-0.0	171.2
My,	-147.7	0.2	-0.0	0.0	**-0.0**	167.6	-278.7	1.3	-0.0	0.0	**-0.0**	171.2
Mz,	-147.7	0.2	-0.0	0.0	-0.0	**167.6**	-278.7	1.3	-0.0	0.0	-0.0	**171.2**

Member 18

Fx,	**-278.7**	1.3	-0.0	0.0	0.0	171.2	**-147.7**	0.2	-0.0	0.0	0.0	167.6
Fy,	-147.7	**0.2**	-0.0	0.0	0.0	167.6	-278.7	**1.3**	-0.0	0.0	0.0	171.2
Fz,	-147.7	0.2	**-0.0**	0.0	0.0	167.6	-278.7	1.3	**-0.0**	0.0	0.0	171.2
Mx,	-147.7	0.2	-0.0	**0.0**	0.0	167.6	-278.7	1.3	-0.0	**0.0**	0.0	171.2
My,	-278.7	1.3	-0.0	0.0	**0.0**	171.2	-147.7	0.2	-0.0	0.0	**0.0**	167.6
Mz,	-147.7	0.2	-0.0	0.0	0.0	**167.6**	-278.7	1.3	-0.0	0.0	0.0	**171.2**
Fx,	**-278.7**	1.3	-0.0	0.0	-0.0	165.3	**-147.7**	0.2	-0.0	0.0	-0.0	166.8
Fy,	-147.7	**0.2**	-0.0	0.0	-0.0	166.8	-278.7	**1.3**	-0.0	0.0	-0.0	165.3
Fz,	-147.7	0.2	**-0.0**	0.0	-0.0	166.8	-278.7	1.3	**-0.0**	0.0	-0.0	165.3
Mx,	-147.7	0.2	-0.0	**0.0**	-0.0	166.8	-278.7	1.3	-0.0	**0.0**	-0.0	165.3
My,	-278.7	1.3	-0.0	0.0	**-0.0**	165.3	-147.7	0.2	-0.0	0.0	**-0.0**	166.8
Mz,	-278.7	1.3	-0.0	0.0	-0.0	**165.3**	-147.7	0.2	-0.0	0.0	-0.0	**166.8**

Member 19

Fx,	**-278.7**	1.3	-0.0	0.0	0.0	165.3	**-147.7**	0.2	-0.0	0.0	0.0	166.8
Fy,	-147.7	**0.2**	-0.0	0.0	0.0	166.8	-278.7	**1.3**	-0.0	0.0	0.0	165.3
Fz,	-278.7	1.3	**-0.0**	0.0	0.0	165.3	-147.7	0.2	**-0.0**	0.0	0.0	166.8
Mx,	-147.7	0.2	-0.0	**0.0**	0.0	166.8	-278.7	1.3	-0.0	**0.0**	0.0	165.3
My,	-147.7	0.2	-0.0	0.0	**0.0**	166.8	-278.7	1.3	-0.0	0.0	**0.0**	165.3
Mz,	-278.7	1.3	-0.0	0.0	0.0	**165.3**	-147.7	0.2	-0.0	0.0	0.0	**166.8**
Fx,	**-278.7**	1.3	-0.0	0.0	-0.0	159.3	**-147.7**	0.2	-0.0	0.0	-0.0	166.1
Fy,	-147.7	**0.2**	-0.0	0.0	-0.0	166.1	-278.7	**1.3**	-0.0	0.0	-0.0	159.3
Fz,	-278.7	1.3	**-0.0**	0.0	-0.0	159.3	-147.7	0.2	**-0.0**	0.0	-0.0	166.1
Mx,	-147.7	0.2	-0.0	**0.0**	-0.0	166.1	-278.7	1.3	-0.0	**0.0**	-0.0	159.3
My,	-278.7	1.3	-0.0	0.0	**-0.0**	159.3	-147.7	0.2	-0.0	0.0	**-0.0**	166.1
Mz,	-278.7	1.3	-0.0	0.0	-0.0	**159.3**	-147.7	0.2	-0.0	0.0	-0.0	**166.1**

Member 20

Fx,	**-278.7**	1.3	-0.0	0.0	0.0	159.3	**-147.7**	0.2	-0.0	0.0	0.0	166.1
Fy,	-147.7	**0.2**	-0.0	0.0	0.0	166.1	-278.7	**1.3**	-0.0	0.0	0.0	159.3
Fz,	-278.7	1.3	**-0.0**	0.0	0.0	159.3	-147.7	0.2	**-0.0**	0.0	0.0	166.1
Mx,	-147.7	0.2	-0.0	**0.0**	0.0	166.1	-278.7	1.3	-0.0	**0.0**	0.0	159.3
My,	-147.7	0.2	-0.0	0.0	**0.0**	166.1	-278.7	1.3	-0.0	0.0	**0.0**	159.3
Mz,	-278.7	1.3	-0.0	0.0	0.0	**159.3**	-147.7	0.2	-0.0	0.0	0.0	**166.1**
Fx,	**-278.7**	1.3	-0.0	0.0	-0.0	153.4	**-147.7**	0.2	-0.0	0.0	-0.0	165.3
Fy,	-147.7	**0.2**	-0.0	0.0	-0.0	165.3	-278.7	**1.3**	-0.0	0.0	-0.0	153.4
Fz,	-278.7	1.3	**-0.0**	0.0	-0.0	153.4	-147.7	0.2	**-0.0**	0.0	-0.0	165.3
Mx,	-147.7	0.2	-0.0	**0.0**	-0.0	165.3	-278.7	1.3	-0.0	**0.0**	-0.0	153.4
My,	-278.7	1.3	-0.0	0.0	**-0.0**	153.4	-147.7	0.2	-0.0	0.0	**-0.0**	165.3
Mz,	-278.7	1.3	-0.0	0.0	-0.0	**153.4**	-147.7	0.2	-0.0	0.0	-0.0	**165.3**

Member 21

Fx,	**-278.7**	1.3	-0.0	0.0	0.0	153.4	**-147.7**	0.2	-0.0	0.0	0.0	165.3
Fy,	-147.7	**0.2**	-0.0	0.0	0.0	165.3	-278.7	**1.3**	-0.0	0.0	0.0	153.4
Fz,	-278.7	1.3	**-0.0**	0.0	0.0	153.4	-147.7	0.2	**-0.0**	0.0	0.0	165.3
Mx,	-147.7	0.2	-0.0	**0.0**	0.0	165.3	-278.7	1.3	-0.0	**0.0**	0.0	153.4
My,	-147.7	0.2	-0.0	0.0	**0.0**	165.3	-278.7	1.3	-0.0	0.0	**0.0**	153.4
Mz,	-278.7	1.3	-0.0	0.0	0.0	**153.4**	-147.7	0.2	-0.0	0.0	0.0	**165.3**
Fx,	**-278.7**	1.3	-0.0	0.0	-0.0	147.4	**-147.7**	0.2	-0.0	0.0	-0.0	164.6
Fy,	-147.7	**0.2**	-0.0	0.0	-0.0	164.6	-278.7	**1.3**	-0.0	0.0	-0.0	147.4
Fz,	-278.7	1.3	**-0.0**	0.0	-0.0	147.4	-147.7	0.2	**-0.0**	0.0	-0.0	164.6
Mx,	-147.7	0.2	-0.0	**0.0**	-0.0	164.6	-278.7	1.3	-0.0	**0.0**	-0.0	147.4
My,	-278.7	1.3	-0.0	0.0	**-0.0**	147.4	-147.7	0.2	-0.0	0.0	**-0.0**	164.6
Mz,	-278.7	1.3	-0.0	0.0	-0.0	**147.4**	-147.7	0.2	-0.0	0.0	-0.0	**164.6**

Member 22

Fx,	**-278.7**	1.3	-0.0	0.0	0.0	147.4	**-147.7**	0.2	-0.0	0.0	0.0	164.6
Fy,	-147.7	**0.2**	-0.0	0.0	0.0	164.6	-278.7	**1.3**	-0.0	0.0	0.0	147.4
Fz,	-278.7	1.3	**-0.0**	0.0	0.0	147.4	-147.7	0.2	**-0.0**	0.0	0.0	164.6
Mx,	-147.7	0.2	-0.0	**0.0**	0.0	164.6	-278.7	1.3	-0.0	**0.0**	0.0	147.4
My,	-147.7	0.2	-0.0	0.0	**0.0**	164.6	-278.7	1.3	-0.0	0.0	**0.0**	147.4
Mz,	-278.7	1.3	-0.0	0.0	0.0	**147.4**	-147.7	0.2	-0.0	0.0	0.0	**164.6**
Fx,	**-278.7**	1.3	-0.0	0.0	-0.0	141.5	**-147.7**	0.2	-0.0	0.0	-0.0	163.8
Fy,	-147.7	**0.2**	-0.0	0.0	-0.0	163.8	-278.7	**1.3**	-0.0	0.0	-0.0	141.5
Fz,	-278.7	1.3	**-0.0**	0.0	-0.0	141.5	-147.7	0.2	**-0.0**	0.0	-0.0	163.8
Mx,	-147.7	0.2	-0.0	**0.0**	-0.0	163.8	-278.7	1.3	-0.0	**0.0**	-0.0	141.5
My,	-278.7	1.3	-0.0	0.0	**-0.0**	141.5	-147.7	0.2	-0.0	0.0	**-0.0**	163.8
Mz,	-278.7	1.3	-0.0	0.0	-0.0	**141.5**	-147.7	0.2	-0.0	0.0	-0.0	**163.8**

Member 23

Fx,	**-245.7**	1.7	0.0	-0.0	-0.0	199.3	**-141.1**	0.4	0.0	-0.0	-0.0	175.4
Fy,	-141.1	**0.4**	0.0	-0.0	-0.0	175.4	-245.7	**1.7**	0.0	-0.0	-0.0	199.3
Fz,	-141.1	0.4	**0.0**	-0.0	-0.0	175.4	-245.7	1.7	**0.0**	-0.0	-0.0	199.3
Mx,	-245.7	1.7	0.0	**-0.0**	-0.0	199.3	-141.1	0.4	0.0	**-0.0**	-0.0	175.4
My,	-245.7	1.7	0.0	-0.0	**-0.0**	199.3	-141.1	0.4	0.0	-0.0	**-0.0**	175.4
Mz,	-141.1	0.4	0.0	-0.0	-0.0	**175.4**	-245.7	1.7	0.0	-0.0	-0.0	**199.3**
Fx,	**-245.7**	1.7	0.0	-0.0	0.0	191.8	**-141.1**	0.4	0.0	-0.0	0.0	173.7
Fy,	-141.1	**0.4**	0.0	-0.0	0.0	173.7	-245.7	**1.7**	0.0	-0.0	0.0	191.8
Fz,	-141.1	0.4	**0.0**	-0.0	0.0	173.7	-245.7	1.7	**0.0**	-0.0	0.0	191.8
Mx,	-245.7	1.7	0.0	**-0.0**	0.0	191.8	-141.1	0.4	0.0	**-0.0**	0.0	173.7
My,	-141.1	0.4	0.0	-0.0	**0.0**	173.7	-245.7	1.7	0.0	-0.0	**0.0**	191.8
Mz,	-141.1	0.4	0.0	-0.0	0.0	**173.7**	-245.7	1.7	0.0	-0.0	0.0	**191.8**

Member 24

Fx,	**-245.7**	1.7	0.0	-0.0	-0.0	191.8	**-141.1**	0.4	0.0	-0.0	-0.0	173.7
Fy,	-141.1	**0.4**	0.0	-0.0	-0.0	173.7	-245.7	**1.7**	0.0	-0.0	-0.0	191.8
Fz,	-141.1	0.4	**0.0**	-0.0	-0.0	173.7	-245.7	1.7	**0.0**	-0.0	-0.0	191.8
Mx,	-245.7	1.7	0.0	**-0.0**	-0.0	191.8	-141.1	0.4	0.0	**-0.0**	-0.0	173.7
My,	-245.7	1.7	0.0	-0.0	**-0.0**	191.8	-141.1	0.4	0.0	-0.0	**-0.0**	173.7
Mz,	-141.1	0.4	0.0	-0.0	-0.0	**173.7**	-245.7	1.7	0.0	-0.0	-0.0	**191.8**
Fx,	**-245.7**	1.7	0.0	-0.0	0.0	184.2	**-141.1**	0.4	0.0	-0.0	0.0	172.1
Fy,	-141.1	**0.4**	0.0	-0.0	0.0	172.1	-245.7	**1.7**	0.0	-0.0	0.0	184.2
Fz,	-141.1	0.4	**0.0**	-0.0	0.0	172.1	-245.7	1.7	**0.0**	-0.0	0.0	184.2
Mx,	-245.7	1.7	0.0	**-0.0**	0.0	184.2	-141.1	0.4	0.0	**-0.0**	0.0	172.1
My,	-141.1	0.4	0.0	-0.0	**0.0**	172.1	-245.7	1.7	0.0	-0.0	**0.0**	184.2
Mz,	-141.1	0.4	0.0	-0.0	0.0	**172.1**	-245.7	1.7	0.0	-0.0	0.0	**184.2**

Member 25

Fx,	**-245.7**	1.7	0.0	-0.0	-0.0	184.2	**-141.1**	0.4	0.0	-0.0	-0.0	172.1
Fy,	-141.1	**0.4**	0.0	-0.0	-0.0	172.1	-245.7	**1.7**	0.0	-0.0	-0.0	184.2
Fz,	-141.1	0.4	**0.0**	-0.0	-0.0	172.1	-245.7	1.7	**0.0**	-0.0	-0.0	184.2
Mx,	-245.7	1.7	0.0	**-0.0**	-0.0	184.2	-141.1	0.4	0.0	**-0.0**	-0.0	172.1
My,	-245.7	1.7	0.0	-0.0	**-0.0**	184.2	-141.1	0.4	0.0	-0.0	**-0.0**	172.1
Mz,	-141.1	0.4	0.0	-0.0	-0.0	**172.1**	-245.7	1.7	0.0	-0.0	-0.0	**184.2**
Fx,	**-245.7**	1.7	0.0	-0.0	0.0	176.7	**-141.1**	0.4	0.0	-0.0	0.0	170.4
Fy,	-141.1	**0.4**	0.0	-0.0	0.0	170.4	-245.7	**1.7**	0.0	-0.0	0.0	176.7
Fz,	-141.1	0.4	**0.0**	-0.0	0.0	170.4	-245.7	1.7	**0.0**	-0.0	0.0	176.7
Mx,	-245.7	1.7	0.0	**-0.0**	0.0	176.7	-141.1	0.4	0.0	**-0.0**	0.0	170.4
My,	-141.1	0.4	0.0	-0.0	**0.0**	170.4	-245.7	1.7	0.0	-0.0	**0.0**	176.7
Mz,	-141.1	0.4	0.0	-0.0	0.0	**170.4**	-245.7	1.7	0.0	-0.0	0.0	**176.7**

Member 26

Fx,	**-245.7**	1.7	0.0	-0.0	-0.0	176.7	**-141.1**	0.4	0.0	-0.0	-0.0	170.4
Fy,	-141.1	**0.4**	0.0	-0.0	-0.0	170.4	-245.7	**1.7**	0.0	-0.0	-0.0	176.7
Fz,	-141.1	0.4	**0.0**	-0.0	-0.0	170.4	-245.7	1.7	**0.0**	-0.0	-0.0	176.7
Mx,	-245.7	1.7	0.0	**-0.0**	-0.0	176.7	-141.1	0.4	0.0	**-0.0**	-0.0	170.4
My,	-141.1	0.4	0.0	-0.0	**-0.0**	170.4	-245.7	1.7	0.0	-0.0	**-0.0**	176.7
Mz,	-141.1	0.4	0.0	-0.0	-0.0	**170.4**	-245.7	1.7	0.0	-0.0	-0.0	**176.7**
Fx,	**-245.7**	1.7	0.0	-0.0	0.0	169.1	**-141.1**	0.4	0.0	-0.0	0.0	168.8
Fy,	-141.1	**0.4**	0.0	-0.0	0.0	168.8	-245.7	**1.7**	0.0	-0.0	0.0	169.1
Fz,	-141.1	0.4	**0.0**	-0.0	0.0	168.8	-245.7	1.7	**0.0**	-0.0	0.0	169.1
Mx,	-245.7	1.7	0.0	**-0.0**	0.0	169.1	-141.1	0.4	0.0	**-0.0**	0.0	168.8
My,	-141.1	0.4	0.0	-0.0	**0.0**	168.8	-245.7	1.7	0.0	-0.0	**0.0**	169.1
Mz,	-141.1	0.4	0.0	-0.0	0.0	**168.8**	-245.7	1.7	0.0	-0.0	0.0	**169.1**

Member 27

Fx,	**-245.7**	1.7	0.0	-0.0	-0.0	169.1	**-141.1**	0.4	0.0	-0.0	-0.0	168.8
Fy,	-141.1	**0.4**	0.0	-0.0	-0.0	168.8	-245.7	**1.7**	0.0	-0.0	-0.0	169.1
Fz,	-141.1	0.4	**0.0**	-0.0	-0.0	168.8	-245.7	1.7	**0.0**	-0.0	-0.0	169.1
Mx,	-245.7	1.7	0.0	**-0.0**	-0.0	169.1	-141.1	0.4	0.0	**-0.0**	-0.0	168.8
My,	-245.7	1.7	0.0	-0.0	**-0.0**	169.1	-141.1	0.4	0.0	-0.0	**-0.0**	168.8
Mz,	-141.1	0.4	0.0	-0.0	-0.0	**168.8**	-245.7	1.7	0.0	-0.0	-0.0	**169.1**
Fx,	**-245.7**	1.7	0.0	-0.0	0.0	161.6	**-141.1**	0.4	0.0	-0.0	0.0	167.1
Fy,	-141.1	**0.4**	0.0	-0.0	0.0	167.1	-245.7	**1.7**	0.0	-0.0	0.0	161.6
Fz,	-141.1	0.4	**0.0**	-0.0	0.0	167.1	-245.7	1.7	**0.0**	-0.0	0.0	161.6
Mx,	-245.7	1.7	0.0	**-0.0**	0.0	161.6	-141.1	0.4	0.0	**-0.0**	0.0	167.1
My,	-141.1	0.4	0.0	-0.0	**0.0**	167.1	-245.7	1.7	0.0	-0.0	**0.0**	161.6
Mz,	-245.7	1.7	0.0	-0.0	0.0	**161.6**	-141.1	0.4	0.0	-0.0	0.0	**167.1**

Member 28

Fx,	**-245.7**	1.7	0.0	-0.0	-0.0	161.6	**-141.1**	0.4	0.0	-0.0	-0.0	167.1
Fy,	-141.1	**0.4**	0.0	-0.0	-0.0	167.1	-245.7	**1.7**	0.0	-0.0	-0.0	161.6
Fz,	-141.1	0.4	**0.0**	-0.0	-0.0	167.1	-245.7	1.7	**0.0**	-0.0	-0.0	161.6
Mx,	-245.7	1.7	0.0	**-0.0**	-0.0	161.6	-141.1	0.4	0.0	**-0.0**	-0.0	167.1
My,	-245.7	1.7	0.0	-0.0	**-0.0**	161.6	-141.1	0.4	0.0	-0.0	**-0.0**	167.1
Mz,	-245.7	1.7	0.0	-0.0	-0.0	**161.6**	-141.1	0.4	0.0	-0.0	-0.0	**167.1**
Fx,	**-245.7**	1.7	0.0	-0.0	0.0	154.0	**-141.1**	0.4	0.0	-0.0	0.0	165.4
Fy,	-141.1	**0.4**	0.0	-0.0	0.0	165.4	-245.7	**1.7**	0.0	-0.0	0.0	154.0
Fz,	-141.1	0.4	**0.0**	-0.0	0.0	165.4	-245.7	1.7	**0.0**	-0.0	0.0	154.0
Mx,	-245.7	1.7	0.0	**-0.0**	0.0	154.0	-141.1	0.4	0.0	**-0.0**	0.0	165.4
My,	-245.7	1.7	0.0	-0.0	**0.0**	165.4	-245.7	1.7	0.0	-0.0	**0.0**	154.0
Mz,	-245.7	1.7	0.0	-0.0	0.0	**154.0**	-141.1	0.4	0.0	-0.0	0.0	**165.4**

Member 29

Fx,	**-245.7**	1.7	0.0	-0.0	-0.0	154.0	**-141.1**	0.4	0.0	-0.0	-0.0	165.4
Fy,	-141.1	**0.4**	0.0	-0.0	-0.0	165.4	-245.7	**1.7**	0.0	-0.0	-0.0	154.0
Fz,	-141.1	0.4	**0.0**	-0.0	-0.0	165.4	-245.7	1.7	**0.0**	-0.0	-0.0	154.0
Mx,	-245.7	1.7	0.0	**-0.0**	-0.0	154.0	-141.1	0.4	0.0	**-0.0**	-0.0	165.4
My,	-245.7	1.7	0.0	-0.0	**-0.0**	154.0	-141.1	0.4	0.0	-0.0	**-0.0**	165.4
Mz,	-245.7	1.7	0.0	-0.0	-0.0	**154.0**	-141.1	0.4	0.0	-0.0	-0.0	**165.4**
Fx,	**-245.7**	1.7	0.0	-0.0	0.0	146.5	**-141.1**	0.4	0.0	-0.0	0.0	163.8
Fy,	-141.1	**0.4**	0.0	-0.0	0.0	163.8	-245.7	**1.7**	0.0	-0.0	0.0	146.5
Fz,	-141.1	0.4	**0.0**	-0.0	0.0	163.8	-245.7	1.7	**0.0**	-0.0	0.0	146.5
Mx,	-245.7	1.7	0.0	**-0.0**	0.0	146.5	-141.1	0.4	0.0	**-0.0**	0.0	163.8
My,	-141.1	0.4	0.0	-0.0	**0.0**	163.8	-245.7	1.7	0.0	-0.0	**0.0**	146.5
Mz,	-245.7	1.7	0.0	-0.0	0.0	**146.5**	-141.1	0.4	0.0	-0.0	0.0	**163.8**

Member 30

Fx,	**-245.7**	1.7	0.0	-0.0	-0.0	146.5	**-141.1**	0.4	0.0	-0.0	-0.0	163.8
Fy,	-141.1	**0.4**	0.0	-0.0	-0.0	163.8	-245.7	**1.7**	0.0	-0.0	-0.0	146.5
Fz,	-141.1	0.4	**0.0**	-0.0	-0.0	163.8	-245.7	1.7	**0.0**	-0.0	-0.0	146.5
Mx,	-245.7	1.7	0.0	**-0.0**	-0.0	146.5	-141.1	0.4	0.0	**-0.0**	-0.0	163.8
My,	-245.7	1.7	0.0	-0.0	**-0.0**	146.5	-141.1	0.4	0.0	-0.0	**-0.0**	163.8
Mz,	-245.7	1.7	0.0	-0.0	-0.0	**146.5**	-141.1	0.4	0.0	-0.0	-0.0	**163.8**
Fx,	**-245.7**	1.7	0.0	-0.0	0.0	138.9	**-141.1**	0.4	0.0	-0.0	0.0	162.1
Fy,	-141.1	**0.4**	0.0	-0.0	0.0	162.1	-245.7	**1.7**	0.0	-0.0	0.0	138.9

Fz,	-141.1	0.4	**0.0**	-0.0	0.0	162.1	-245.7	1.7	**0.0**	-0.0	0.0	138.9
Mx,	-245.7	1.7	0.0	**-0.0**	0.0	138.9	-141.1	0.4	0.0	**-0.0**	0.0	162.1
My,	-141.1	0.4	0.0	-0.0	**0.0**	162.1	-245.7	1.7	0.0	-0.0	**0.0**	138.9
Mz,	-245.7	1.7	0.0	-0.0	0.0	**138.9**	-141.1	0.4	0.0	-0.0	0.0	**162.1**

Member 31

Fx,	**-212.9**	1.5	-0.0	0.0	0.0	196.3	**-134.5**	0.2	-0.0	0.0	0.0	173.6
Fy,	-134.5	**0.2**	-0.0	0.0	0.0	173.6	-212.9	**1.5**	-0.0	0.0	0.0	196.3
Fz,	-212.9	1.5	**-0.0**	0.0	0.0	196.3	-134.5	0.2	**-0.0**	0.0	0.0	173.6
Mx,	-134.5	0.2	-0.0	**0.0**	0.0	173.6	-212.9	1.5	-0.0	**0.0**	0.0	196.3
My,	-134.5	0.2	-0.0	0.0	**0.0**	173.6	-212.9	1.5	-0.0	0.0	**0.0**	196.3
Mz,	-134.5	0.2	-0.0	0.0	0.0	**173.6**	-212.9	1.5	-0.0	0.0	0.0	**196.3**
Fx,	**-212.9**	1.5	-0.0	0.0	-0.0	189.6	**-134.5**	0.2	-0.0	0.0	-0.0	172.5
Fy,	-134.5	**0.2**	-0.0	0.0	-0.0	172.5	-212.9	**1.5**	-0.0	0.0	-0.0	189.6
Fz,	-212.9	1.5	**-0.0**	0.0	-0.0	189.6	-134.5	0.2	**-0.0**	0.0	-0.0	172.5
Mx,	-134.5	0.2	-0.0	**0.0**	-0.0	172.5	-212.9	1.5	-0.0	**0.0**	-0.0	189.6
My,	-212.9	1.5	-0.0	0.0	**-0.0**	189.6	-134.5	0.2	-0.0	0.0	**-0.0**	172.5
Mz,	-134.5	0.2	-0.0	0.0	-0.0	**172.5**	-212.9	1.5	-0.0	0.0	-0.0	**189.6**

Member 32

Fx,	**-212.9**	1.5	-0.0	0.0	0.0	189.6	**-134.5**	0.2	-0.0	0.0	0.0	172.5
Fy,	-134.5	**0.2**	-0.0	0.0	0.0	172.5	-212.9	**1.5**	-0.0	0.0	0.0	189.6
Fz.	-212.9	1.5	**-0.0**	0.0	0.0	189.6	-134.5	0.2	**-0.0**	0.0	0.0	172.5
Mx.	-134.5	0.2	-0.0	**0.0**	0.0	172.5	-212.9	1.5	-0.0	**0.0**	0.0	189.6
My.	-134.5	0.2	-0.0	0.0	**0.0**	172.5	-212.9	1.5	-0.0	0.0	**0.0**	189.6
Mz.	-134.5	0.2	-0.0	0.0	0.0	**172.5**	-212.9	1.5	-0.0	0.0	0.0	**189.6**
Fx.	**-212.9**	1.5	-0.0	0.0	-0.0	182.9	**-134.5**	0.2	-0.0	0.0	-0.0	171.5
Fy.	-134.5	**0.2**	-0.0	0.0	-0.0	171.5	-212.9	**1.5**	-0.0	0.0	-0.0	182.9
Fz.	-212.9	1.5	**-0.0**	0.0	-0.0	182.9	-134.5	0.2	**-0.0**	0.0	-0.0	171.5
Mx.	-134.5	0.2	-0.0	**0.0**	-0.0	171.5	-212.9	1.5	-0.0	**0.0**	-0.0	182.9
My.	-212.9	1.5	-0.0	0.0	**-0.0**	182.9	-134.5	0.2	-0.0	0.0	**-0.0**	171.5
Mz.	-134.5	0.2	-0.0	0.0	-0.0	**171.5**	-212.9	1.5	-0.0	0.0	-0.0	**182.9**

Member 33

Fx.	**-212.9**	1.5	-0.0	0.0	0.0	182.9	**-134.5**	0.2	-0.0	0.0	0.0	171.5
Fy,	-134.5	**0.2**	-0.0	0.0	0.0	171.5	-212.9	**1.5**	-0.0	0.0	0.0	182.9
Fz,	-212.9	1.5	**-0.0**	0.0	0.0	182.9	-134.5	0.2	**-0.0**	0.0	0.0	171.5
Mx,	-134.5	0.2	-0.0	**0.0**	0.0	171.5	-212.9	1.5	-0.0	**0.0**	0.0	182.9
My,	-134.5	0.2	-0.0	0.0	**0.0**	171.5	-212.9	1.5	-0.0	0.0	**0.0**	182.9
Mz,	-134.5	0.2	-0.0	0.0	0.0	**171.5**	-212.9	1.5	-0.0	0.0	0.0	**182.9**
Fx,	**-212.9**	1.5	-0.0	0.0	-0.0	176.1	**-134.5**	0.2	-0.0	0.0	-0.0	170.4
Fy,	-134.5	**0.2**	-0.0	0.0	-0.0	170.4	-212.9	**1.5**	-0.0	0.0	-0.0	176.1
Fz,	-212.9	1.5	**-0.0**	0.0	-0.0	176.1	-134.5	0.2	**-0.0**	0.0	-0.0	170.4
Mx,	-134.5	0.2	-0.0	**0.0**	-0.0	170.4	-212.9	1.5	-0.0	**0.0**	-0.0	176.1
My,	-212.9	1.5	-0.0	0.0	**-0.0**	176.1	-134.5	0.2	-0.0	0.0	**-0.0**	170.4
Mz,	-134.5	0.2	-0.0	0.0	-0.0	**170.4**	-212.9	1.5	-0.0	0.0	-0.0	**176.1**

Member 34

Fx,	**-212.9**	1.5	-0.0	0.0	-0.0	176.1	**-134.5**	0.2	-0.0	0.0	-0.0	170.4
Fy,	-134.5	**0.2**	-0.0	0.0	-0.0	170.4	-212.9	**1.5**	-0.0	0.0	-0.0	176.1
Fz.	-212.9	1.5	**-0.0**	0.0	-0.0	176.1	-134.5	0.2	**-0.0**	0.0	-0.0	170.4
Mx,	-134.5	0.2	-0.0	**0.0**	-0.0	170.4	-212.9	1.5	-0.0	**0.0**	-0.0	176.1
My,	-134.5	0.2	-0.0	0.0	**-0.0**	170.4	-212.9	1.5	-0.0	0.0	**-0.0**	176.1
Mz.	-134.5	0.2	-0.0	0.0	-0.0	**170.4**	-212.9	1.5	-0.0	0.0	-0.0	**176.1**
Fx.	**-212.9**	1.5	-0.0	0.0	-0.0	169.4	**-134.5**	0.2	-0.0	0.0	-0.0	169.4
Fy.	-134.5	**0.2**	-0.0	0.0	-0.0	169.4	-212.9	**1.5**	-0.0	0.0	-0.0	169.4
Fz.	-212.9	1.5	**-0.0**	0.0	-0.0	169.4	-134.5	0.2	**-0.0**	0.0	-0.0	169.4
Mx.	-134.5	0.2	-0.0	**0.0**	-0.0	169.4	-212.9	1.5	-0.0	**0.0**	-0.0	169.4
My.	-212.9	1.5	-0.0	0.0	**-0.0**	169.4	-134.5	0.2	-0.0	0.0	**-0.0**	169.4
Mz.	-212.9	1.5	-0.0	0.0	-0.0	**169.4**	-134.5	0.2	-0.0	0.0	-0.0	**169.4**

Member 35

Fx,	**-212.9**	1.5	-0.0	0.0	0.0	169.4	**-134.5**	0.2	-0.0	0.0	0.0	169.4
Fy,	-134.5	**0.2**	-0.0	0.0	0.0	169.4	-212.9	**1.5**	-0.0	0.0	0.0	169.4
Fz,	-212.9	1.5	**-0.0**	0.0	0.0	169.4	-134.5	0.2	**-0.0**	0.0	0.0	169.4
Mx,	-134.5	0.2	-0.0	**0.0**	0.0	169.4	-212.9	1.5	-0.0	**0.0**	0.0	169.4
My,	-134.5	0.2	-0.0	0.0	**0.0**	169.4	-212.9	1.5	-0.0	0.0	**0.0**	169.4
Mz,	-134.5	0.2	-0.0	0.0	0.0	**169.4**	-212.9	1.5	-0.0	0.0	0.0	**169.4**
Fx,	**-212.9**	1.5	-0.0	0.0	-0.0	162.7	**-134.5**	0.2	-0.0	0.0	-0.0	168.3
Fy,	-134.5	**0.2**	-0.0	0.0	-0.0	168.3	-212.9	**1.5**	-0.0	0.0	-0.0	162.7
Fz,	-212.9	1.5	**-0.0**	0.0	-0.0	162.7	-134.5	0.2	**-0.0**	0.0	-0.0	168.3
Mx,	-134.5	0.2	-0.0	**0.0**	-0.0	168.3	-212.9	1.5	-0.0	**0.0**	-0.0	162.7
My,	-212.9	1.5	-0.0	0.0	**-0.0**	162.7	-134.5	0.2	-0.0	0.0	**-0.0**	168.3
Mz,	-212.9	1.5	-0.0	0.0	-0.0	**162.7**	-134.5	0.2	-0.0	0.0	-0.0	**168.3**

Member 36

Fx,	**-212.9**	1.5	-0.0	0.0	0.0	162.7	**-134.5**	0.2	-0.0	0.0	0.0	168.3
Fy,	-134.5	**0.2**	-0.0	0.0	0.0	168.3	-212.9	**1.5**	-0.0	0.0	0.0	162.7
Fz,	-212.9	1.5	**-0.0**	0.0	0.0	162.7	-134.5	0.2	**-0.0**	0.0	0.0	168.3
Mx,	-134.5	0.2	-0.0	**0.0**	0.0	168.3	-212.9	1.5	-0.0	**0.0**	0.0	162.7
My.	-134.5	0.2	-0.0	0.0	**0.0**	168.3	-212.9	1.5	-0.0	0.0	**0.0**	162.7
Mz.	-212.9	1.5	-0.0	0.0	0.0	**162.7**	-134.5	0.2	-0.0	0.0	0.0	**168.3**
Fx,	**-212.9**	1.5	-0.0	0.0	-0.0	155.9	**-134.5**	0.2	-0.0	0.0	-0.0	167.3
Fy,	-134.5	**0.2**	-0.0	0.0	-0.0	167.3	-212.9	**1.5**	-0.0	0.0	-0.0	155.9
Fz,	-212.9	1.5	**-0.0**	0.0	-0.0	155.9	-134.5	0.2	**-0.0**	0.0	-0.0	167.3
Mx.	-134.5	0.2	-0.0	**0.0**	-0.0	167.3	-212.9	1.5	-0.0	**0.0**	-0.0	155.9
My,	-212.9	1.5	-0.0	0.0	**-0.0**	155.9	-134.5	0.2	-0.0	0.0	**-0.0**	167.3
Mz,	-212.9	1.5	-0.0	0.0	-0.0	**155.9**	-134.5	0.2	-0.0	0.0	-0.0	**167.3**

Member 37

Fx,	**-212.9**	1.5	-0.0	0.0	0.0	155.9	**-134.5**	0.2	-0.0	0.0	0.0	167.3
Fy.	-134.5	**0.2**	-0.0	0.0	0.0	167.3	-212.9	**1.5**	-0.0	0.0	0.0	155.9
Fz,	-212.9	1.5	**-0.0**	0.0	0.0	155.9	-134.5	0.2	**-0.0**	0.0	0.0	167.3
Mx.	-134.5	0.2	-0.0	**0.0**	0.0	167.3	-212.9	1.5	-0.0	**0.0**	0.0	155.9
My,	-134.5	0.2	-0.0	0.0	**0.0**	167.3	-212.9	1.5	-0.0	0.0	**0.0**	155.9
Mz,	-212.9	1.5	-0.0	0.0	0.0	**155.9**	-134.5	0.2	-0.0	0.0	0.0	**167.3**
Fx,	**-212.9**	1.5	-0.0	0.0	-0.0	149.2	**-134.5**	0.2	-0.0	0.0	-0.0	166.2
Fy,	-134.5	**0.2**	-0.0	0.0	-0.0	166.2	-212.9	**1.5**	-0.0	0.0	-0.0	149.2
Fz.	-212.9	1.5	**-0.0**	0.0	-0.0	149.2	-134.5	0.2	**-0.0**	0.0	-0.0	166.2
Mx,	-134.5	0.2	-0.0	**0.0**	-0.0	166.2	-212.9	1.5	-0.0	**0.0**	-0.0	149.2
My,	-212.9	1.5	-0.0	0.0	**-0.0**	149.2	-134.5	0.2	-0.0	0.0	**-0.0**	166.2
Mz.	-212.9	1.5	-0.0	0.0	-0.0	**149.2**	-134.5	0.2	-0.0	0.0	-0.0	**166.2**

Member 38

Fx,	**-212.9**	1.5	-0.0	0.0	0.0	149.2	**-134.5**	0.2	-0.0	0.0	0.0	166.2
Fy.	-134.5	**0.2**	-0.0	0.0	0.0	166.2	-212.9	**1.5**	-0.0	0.0	0.0	149.2
Fz,	-212.9	1.5	**-0.0**	0.0	0.0	149.2	-134.5	0.2	**-0.0**	0.0	0.0	166.2
Mx,	-134.5	0.2	-0.0	**0.0**	0.0	166.2	-212.9	1.5	-0.0	**0.0**	0.0	149.2
My,	-134.5	0.2	-0.0	0.0	**0.0**	166.2	-212.9	1.5	-0.0	0.0	**0.0**	149.2
Mz,	-212.9	1.5	-0.0	0.0	0.0	**149.2**	-134.5	0.2	-0.0	0.0	0.0	**166.2**
Fx,	**-212.9**	1.5	-0.0	0.0	-0.0	142.5	**-134.5**	0.2	-0.0	0.0	-0.0	165.2
Fy,	-134.5	**0.2**	-0.0	0.0	-0.0	165.2	-212.9	**1.5**	-0.0	0.0	-0.0	142.5
Fz,	-212.9	1.5	**-0.0**	0.0	-0.0	142.5	-134.5	0.2	**-0.0**	0.0	-0.0	165.2
Mx,	-134.5	0.2	-0.0	**0.0**	-0.0	165.2	-212.9	1.5	-0.0	**0.0**	-0.0	142.5
My,	-212.9	1.5	-0.0	0.0	**-0.0**	142.5	-134.5	0.2	-0.0	0.0	**-0.0**	165.2
Mz,	-212.9	1.5	-0.0	0.0	-0.0	**142.5**	-134.5	0.2	-0.0	0.0	-0.0	**165.2**

Member 39

Fx,	**-180.1**	2.0	0.0	-0.0	-0.0	199.9	**-128.0**	0.7	0.0	-0.0	-0.0	176.7
Fy,	-128.0	**0.7**	0.0	-0.0	-0.0	176.7	-180.1	**2.0**	0.0	-0.0	-0.0	199.9
Fz,	-128.0	0.7	**0.0**	-0.0	-0.0	176.7	-180.1	2.0	**0.0**	-0.0	-0.0	199.9
Mx,	-180.1	2.0	0.0	**-0.0**	-0.0	199.9	-128.0	0.7	0.0	**-0.0**	-0.0	176.7
My,	-180.1	2.0	0.0	-0.0	**-0.0**	199.9	-128.0	0.7	0.0	-0.0	**-0.0**	176.7

Mz_i	-128.0	0.7	0.0	-0.0	-0.0	**176.7**	-180.1	2.0	0.0	-0.0	-0.0	**199.9**
Fx_f	**-180.1**	2.0	0.0	-0.0	0.0	190.9	**-128.0**	0.7	0.0	-0.0	0.0	173.6
Fy_f	-128.0	**0.7**	0.0	-0.0	0.0	173.6	-180.1	**2.0**	0.0	-0.0	0.0	190.9
Fz_f	-128.0	0.7	**0.0**	-0.0	0.0	173.6	-180.1	2.0	**0.0**	-0.0	0.0	190.9
Mx_f	-180.1	2.0	0.0	**-0.0**	0.0	190.9	-128.0	0.7	0.0	**-0.0**	0.0	173.6
My_f	-128.0	0.7	0.0	-0.0	**0.0**	173.6	-180.1	2.0	0.0	-0.0	**0.0**	190.9
Mz_f	-128.0	0.7	0.0	-0.0	0.0	**173.6**	-180.1	2.0	0.0	-0.0	0.0	**190.9**

Member 40

Fx_i	**-180.1**	2.0	0.0	-0.0	-0.0	190.9	**-128.0**	0.7	0.0	-0.0	-0.0	173.6
Fy_i	-128.0	**0.7**	0.0	-0.0	-0.0	173.6	-180.1	**2.0**	0.0	-0.0	-0.0	190.9
Fz_i	-128.0	0.7	**0.0**	-0.0	-0.0	173.6	-180.1	2.0	**0.0**	-0.0	-0.0	190.9
Mx_i	-180.1	2.0	0.0	**-0.0**	-0.0	190.9	-128.0	0.7	0.0	**-0.0**	-0.0	173.6
My_i	-180.1	2.0	0.0	-0.0	**-0.0**	190.9	-128.0	0.7	0.0	-0.0	**-0.0**	173.6
Mz_i	-128.0	0.7	0.0	-0.0	-0.0	**173.6**	-180.1	2.0	0.0	-0.0	-0.0	**190.9**
Fx_f	**-180.1**	2.0	0.0	-0.0	0.0	181.9	**-128.0**	0.7	0.0	-0.0	0.0	170.4
Fy_f	-128.0	**0.7**	0.0	-0.0	0.0	170.4	-180.1	**2.0**	0.0	-0.0	0.0	181.9
Fz_f	-128.0	0.7	**0.0**	-0.0	0.0	170.4	-180.1	2.0	**0.0**	-0.0	0.0	181.9
Mx_f	-180.1	2.0	0.0	**-0.0**	0.0	181.9	-128.0	0.7	0.0	**-0.0**	0.0	170.4
My_f	-128.0	0.7	0.0	-0.0	**0.0**	170.4	-180.1	2.0	0.0	-0.0	**0.0**	181.9
Mz_f	-128.0	0.7	0.0	-0.0	0.0	**170.4**	-180.1	2.0	0.0	-0.0	0.0	**181.9**

Member 41

Fx_i	**-180.1**	2.0	0.0	-0.0	-0.0	181.9	**-128.0**	0.7	0.0	-0.0	-0.0	170.4
Fy_i	-128.0	**0.7**	0.0	-0.0	-0.0	170.4	-180.1	**2.0**	0.0	-0.0	-0.0	181.9
Fz_i	-128.0	0.7	**0.0**	-0.0	-0.0	170.4	-180.1	2.0	**0.0**	-0.0	-0.0	181.9
Mx_i	-180.1	2.0	0.0	**-0.0**	-0.0	181.9	-128.0	0.7	0.0	**-0.0**	-0.0	170.4
My_i	-180.1	2.0	0.0	-0.0	**-0.0**	181.9	-128.0	0.7	0.0	-0.0	**-0.0**	170.4
Mz_i	-128.0	0.7	0.0	-0.0	-0.0	**170.4**	-180.1	2.0	0.0	-0.0	-0.0	**181.9**
Fx_f	**-180.1**	2.0	0.0	-0.0	0.0	172.9	**-128.0**	0.7	0.0	-0.0	0.0	167.3
Fy_f	-128.0	**0.7**	0.0	-0.0	0.0	167.3	-180.1	**2.0**	0.0	-0.0	0.0	172.9
Fz_f	-128.0	0.7	**0.0**	-0.0	0.0	167.3	-180.1	2.0	**0.0**	-0.0	0.0	172.9
Mx_f	-180.1	2.0	0.0	**-0.0**	0.0	172.9	-128.0	0.7	0.0	**-0.0**	0.0	167.3
My_f	-128.0	0.7	0.0	-0.0	**0.0**	167.3	-180.1	2.0	0.0	-0.0	**0.0**	172.9
Mz_f	-128.0	0.7	0.0	-0.0	0.0	**167.3**	-180.1	2.0	0.0	-0.0	0.0	**172.9**

Member 42

Fx_i	**-180.1**	2.0	0.0	-0.0	-0.0	172.9	**-128.0**	0.7	0.0	-0.0	-0.0	167.3
Fy_i	-128.0	**0.7**	0.0	-0.0	-0.0	167.3	-180.1	**2.0**	0.0	-0.0	-0.0	172.9
Fz_i	-128.0	0.7	**0.0**	-0.0	-0.0	167.3	-180.1	2.0	**0.0**	-0.0	-0.0	172.9
Mx_i	-180.1	2.0	0.0	**-0.0**	-0.0	172.9	-128.0	0.7	0.0	**-0.0**	-0.0	167.3
My_i	-180.1	2.0	0.0	-0.0	**-0.0**	172.9	-128.0	0.7	0.0	-0.0	**-0.0**	167.3
Mz_i	-128.0	0.7	0.0	-0.0	-0.0	**167.3**	-180.1	2.0	0.0	-0.0	-0.0	**172.9**
Fx_f	**-180.1**	2.0	0.0	-0.0	0.0	163.8	**-128.0**	0.7	0.0	-0.0	0.0	164.2
Fy_f	-128.0	**0.7**	0.0	-0.0	0.0	164.2	-180.1	**2.0**	0.0	-0.0	0.0	163.8
Fz_f	-128.0	0.7	**0.0**	-0.0	0.0	164.2	-180.1	2.0	**0.0**	-0.0	0.0	163.8
Mx_f	-180.1	2.0	0.0	**-0.0**	0.0	163.8	-128.0	0.7	0.0	**-0.0**	0.0	164.2
My_f	-128.0	0.7	0.0	-0.0	**0.0**	164.2	-180.1	2.0	0.0	-0.0	**0.0**	163.8
Mz_f	-180.1	2.0	0.0	-0.0	0.0	**163.8**	-128.0	0.7	0.0	-0.0	0.0	**164.2**

Member 43

Fx_i	**-180.1**	2.0	0.0	-0.0	-0.0	163.8	**-128.0**	0.7	0.0	-0.0	-0.0	164.2
Fy_i	-128.0	**0.7**	0.0	-0.0	-0.0	164.2	-180.1	**2.0**	0.0	-0.0	-0.0	163.8
Fz_i	-128.0	0.7	**0.0**	-0.0	-0.0	164.2	-180.1	2.0	**0.0**	-0.0	-0.0	163.8
Mx_i	-180.1	2.0	0.0	**-0.0**	-0.0	163.8	-128.0	0.7	0.0	**-0.0**	-0.0	164.2
My_i	-180.1	2.0	0.0	-0.0	**-0.0**	163.8	-128.0	0.7	0.0	-0.0	**-0.0**	164.2
Mz_i	-180.1	2.0	0.0	-0.0	-0.0	**163.8**	-128.0	0.7	0.0	-0.0	-0.0	**164.2**
Fx_f	**-180.1**	2.0	0.0	-0.0	0.0	154.8	**-128.0**	0.7	0.0	-0.0	0.0	161.0
Fy_f	-128.0	**0.7**	0.0	-0.0	0.0	161.0	-180.1	**2.0**	0.0	-0.0	0.0	154.8
Fz_f	-128.0	0.7	**0.0**	-0.0	0.0	161.0	-180.1	2.0	**0.0**	-0.0	0.0	154.8
Mx_f	-180.1	2.0	0.0	**-0.0**	0.0	154.8	-128.0	0.7	0.0	**-0.0**	0.0	161.0
My_f	-128.0	0.7	0.0	-0.0	**0.0**	161.0	-180.1	2.0	0.0	-0.0	**0.0**	154.8
Mz_f	-180.1	2.0	0.0	-0.0	0.0	**154.8**	-128.0	0.7	0.0	-0.0	0.0	**161.0**

Member 44

Fx_i	**-180.1**	2.0	0.0	-0.0	-0.0	154.8	**-128.0**	0.7	0.0	-0.0	-0.0	161.0
Fy_i	-128.0	**0.7**	0.0	-0.0	-0.0	161.0	-180.1	**2.0**	0.0	-0.0	-0.0	154.8
Fz_i	-128.0	0.7	**0.0**	-0.0	-0.0	161.0	-180.1	2.0	**0.0**	-0.0	-0.0	154.8
Mx_i	-180.1	2.0	0.0	**-0.0**	-0.0	154.8	-128.0	0.7	0.0	**-0.0**	-0.0	161.0
My_i	-180.1	2.0	0.0	-0.0	**-0.0**	154.8	-128.0	0.7	0.0	-0.0	**-0.0**	161.0
Mz_i	-180.1	2.0	0.0	-0.0	-0.0	**154.8**	-128.0	0.7	0.0	-0.0	-0.0	**161.0**
Fx_f	**-180.1**	2.0	0.0	-0.0	0.0	145.8	**-128.0**	0.7	0.0	-0.0	0.0	157.9
Fy_f	-128.0	**0.7**	0.0	-0.0	0.0	157.9	-180.1	**2.0**	0.0	-0.0	0.0	145.8
Fz_f	-128.0	0.7	**0.0**	-0.0	0.0	157.9	-180.1	2.0	**0.0**	-0.0	0.0	145.8
Mx_f	-180.1	2.0	0.0	**-0.0**	0.0	145.8	-128.0	0.7	0.0	**-0.0**	0.0	157.9
My_f	-128.0	0.7	0.0	-0.0	**0.0**	157.9	-180.1	2.0	0.0	-0.0	**0.0**	145.8
Mz_f	-180.1	2.0	0.0	-0.0	0.0	**145.8**	-128.0	0.7	0.0	-0.0	0.0	**157.9**

Member 45

Fx_i	**-180.1**	2.0	0.0	-0.0	-0.0	145.8	**-128.0**	0.7	0.0	-0.0	-0.0	157.9
Fy_i	-128.0	**0.7**	0.0	-0.0	-0.0	157.9	-180.1	**2.0**	0.0	-0.0	-0.0	145.8
Fz_i	-128.0	0.7	**0.0**	-0.0	-0.0	157.9	-180.1	2.0	**0.0**	-0.0	-0.0	145.8
Mx_i	-180.1	2.0	0.0	**-0.0**	-0.0	145.8	-128.0	0.7	0.0	**-0.0**	-0.0	157.9
My_i	-180.1	2.0	0.0	-0.0	**-0.0**	145.8	-128.0	0.7	0.0	-0.0	**-0.0**	157.9
Mz_i	-180.1	2.0	0.0	-0.0	-0.0	**145.8**	-128.0	0.7	0.0	-0.0	-0.0	**157.9**
Fx_f	**-180.1**	2.0	0.0	-0.0	0.0	136.8	**-128.0**	0.7	0.0	-0.0	0.0	154.8
Fy_f	-128.0	**0.7**	0.0	-0.0	0.0	154.8	-180.1	**2.0**	0.0	-0.0	0.0	136.8
Fz_f	-128.0	0.7	**0.0**	-0.0	0.0	154.8	-180.1	2.0	**0.0**	-0.0	0.0	136.8
Mx_f	-180.1	2.0	0.0	**-0.0**	0.0	136.8	-128.0	0.7	0.0	**-0.0**	0.0	154.8
My_f	-128.0	0.7	0.0	-0.0	**0.0**	154.8	-180.1	2.0	0.0	-0.0	**0.0**	136.8
Mz_f	-180.1	2.0	0.0	-0.0	0.0	**136.8**	-128.0	0.7	0.0	-0.0	0.0	**154.8**

Member 46

Fx_i	**-180.1**	2.0	0.0	-0.0	-0.0	136.8	**-128.0**	0.7	0.0	-0.0	-0.0	154.8
Fy_i	-128.0	**0.7**	0.0	-0.0	-0.0	154.8	-180.1	**2.0**	0.0	-0.0	-0.0	136.8
Fz_i	-128.0	0.7	**0.0**	-0.0	-0.0	154.8	-180.1	2.0	**0.0**	-0.0	-0.0	136.8
Mx_i	-180.1	2.0	0.0	**-0.0**	-0.0	136.8	-128.0	0.7	0.0	**-0.0**	-0.0	154.8
My_i	-180.1	2.0	0.0	-0.0	**-0.0**	136.8	-128.0	0.7	0.0	-0.0	**-0.0**	154.8
Mz_i	-180.1	2.0	0.0	-0.0	-0.0	**136.8**	-128.0	0.7	0.0	-0.0	-0.0	**154.8**
Fx_f	**-180.1**	2.0	0.0	-0.0	0.0	127.8	**-128.0**	0.7	0.0	-0.0	0.0	151.6
Fy_f	-128.0	**0.7**	0.0	-0.0	0.0	151.6	-180.1	**2.0**	0.0	-0.0	0.0	127.8
Fz_f	-128.0	0.7	**0.0**	-0.0	0.0	151.6	-180.1	2.0	**0.0**	-0.0	0.0	127.8
Mx_f	-180.1	2.0	0.0	**-0.0**	0.0	127.8	-128.0	0.7	0.0	**-0.0**	0.0	151.6
My_f	-128.0	0.7	0.0	-0.0	**0.0**	151.6	-180.1	2.0	0.0	-0.0	**0.0**	127.8
Mz_f	-180.1	2.0	0.0	-0.0	0.0	**127.8**	-128.0	0.7	0.0	-0.0	0.0	**151.6**

Member 47

Fx_i	**-147.0**	-0.3	-0.0	0.0	0.0	185.7	**-121.3**	-1.5	-0.0	0.0	0.0	163.2
Fy_i	-121.3	**-1.5**	-0.0	0.0	0.0	163.2	-147.0	**-0.3**	-0.0	0.0	0.0	185.7
Fz_i	-147.0	-0.3	**-0.0**	0.0	0.0	185.7	-121.3	-1.5	**-0.0**	0.0	0.0	163.2
Mx_i	-121.3	-1.5	-0.0	**0.0**	0.0	163.2	-147.0	-0.3	-0.0	**0.0**	0.0	185.7
My_i	-121.3	-1.5	-0.0	0.0	**0.0**	163.2	-147.0	-0.3	-0.0	0.0	**0.0**	185.7
Mz_i	-121.3	-1.5	-0.0	0.0	0.0	**163.2**	-147.0	-0.3	-0.0	0.0	0.0	**185.7**
Fx_f	**-147.0**	-0.3	-0.0	0.0	-0.0	187.0	**-121.3**	-1.5	-0.0	0.0	-0.0	169.8
Fy_f	-121.3	**-1.5**	-0.0	0.0	-0.0	169.8	-147.0	**-0.3**	-0.0	0.0	-0.0	187.0
Fz_f	-147.0	-0.3	**-0.0**	0.0	-0.0	187.0	-121.3	-1.5	**-0.0**	0.0	-0.0	169.8
Mx_f	-121.3	-1.5	-0.0	**0.0**	-0.0	169.8	-147.0	-0.3	-0.0	**0.0**	-0.0	187.0
My_f	-147.0	-0.3	-0.0	0.0	**-0.0**	187.0	-121.3	-1.5	-0.0	0.0	**-0.0**	169.8
Mz_f	-121.3	-1.5	-0.0	0.0	-0.0	**169.8**	-147.0	-0.3	-0.0	0.0	-0.0	**187.0**

Member 48

Fx_i	**-147.0**	-0.3	-0.0	0.0	0.0	187.0	**-121.3**	-1.5	-0.0	0.0	0.0	169.8

Fy,	-121.3	**-1.5**	-0.0	0.0	0.0	169.8	-147.0	**-0.3**	-0.0	0.0	0.0	187.0
Fz,	-147.0	-0.3	**-0.0**	0.0	0.0	187.0	-121.3	-1.5	**-0.0**	0.0	0.0	169.8
Mx,	-121.3	-1.5	-0.0	**0.0**	0.0	169.8	-147.0	-0.3	-0.0	**0.0**	0.0	187.0
My,	-121.3	-1.5	-0.0	0.0	**0.0**	169.8	-147.0	-0.3	-0.0	0.0	**0.0**	187.0
Mz,	-121.3	-1.5	-0.0	0.0	0.0	**169.8**	-147.0	-0.3	-0.0	0.0	0.0	**187.0**
Fx,	**-147.0**	-0.3	-0.0	0.0	-0.0	188.3	**-121.3**	-1.5	-0.0	0.0	-0.0	176.5
Fy,	-121.3	**-1.5**	-0.0	0.0	-0.0	176.5	-147.0	**-0.3**	-0.0	0.0	-0.0	188.3
Fz,	-147.0	-0.3	**-0.0**	0.0	-0.0	188.3	-121.3	-1.5	**-0.0**	0.0	-0.0	176.5
Mx,	-121.3	-1.5	-0.0	**0.0**	-0.0	176.5	-147.0	-0.3	-0.0	**0.0**	-0.0	188.3
My,	-147.0	-0.3	-0.0	0.0	**-0.0**	188.3	-121.3	-1.5	-0.0	0.0	**-0.0**	176.5
Mz,	-121.3	-1.5	-0.0	0.0	-0.0	**176.5**	-147.0	-0.3	-0.0	0.0	-0.0	**188.3**

Member 49

Fx,	**-147.0**	-0.3	-0.0	0.0	0.0	188.3	**-121.3**	-1.5	-0.0	0.0	0.0	176.5
Fy,	-121.3	**-1.5**	-0.0	0.0	0.0	176.5	-147.0	**-0.3**	-0.0	0.0	0.0	188.3
Fz,	-147.0	-0.3	**-0.0**	0.0	0.0	188.3	-121.3	-1.5	**-0.0**	0.0	0.0	176.5
Mx,	-121.3	-1.5	-0.0	**0.0**	0.0	176.5	-147.0	-0.3	-0.0	**0.0**	0.0	188.3
My,	-121.3	-1.5	-0.0	0.0	**0.0**	176.5	-147.0	-0.3	-0.0	0.0	**0.0**	188.3
Mz,	-121.3	-1.5	-0.0	0.0	0.0	**176.5**	-147.0	-0.3	-0.0	0.0	0.0	**188.3**
Fx,	**-147.0**	-0.3	-0.0	0.0	-0.0	189.7	**-121.3**	-1.5	-0.0	0.0	-0.0	183.1
Fy,	-121.3	**-1.5**	-0.0	0.0	-0.0	183.1	-147.0	**-0.3**	-0.0	0.0	-0.0	189.7
Fz,	-147.0	-0.3	**-0.0**	0.0	-0.0	189.7	-121.3	-1.5	**-0.0**	0.0	-0.0	183.1
Mx,	-121.3	-1.5	-0.0	**0.0**	-0.0	183.1	-147.0	-0.3	-0.0	**0.0**	-0.0	189.7
My,	-147.0	-0.3	-0.0	0.0	**-0.0**	189.7	-121.3	-1.5	-0.0	0.0	**-0.0**	183.1
Mz,	-121.3	-1.5	-0.0	0.0	-0.0	**183.1**	-147.0	-0.3	-0.0	0.0	-0.0	**189.7**

Member 50

Fx,	**-147.0**	-0.3	-0.0	0.0	0.0	189.7	**-121.3**	-1.5	-0.0	0.0	0.0	183.1
Fy,	-121.3	**-1.5**	-0.0	0.0	0.0	183.1	-147.0	**-0.3**	-0.0	0.0	0.0	189.7
Fz,	-147.0	-0.3	**-0.0**	0.0	0.0	189.7	-121.3	-1.5	**-0.0**	0.0	0.0	183.1
Mx,	-121.3	-1.5	-0.0	**0.0**	0.0	183.1	-147.0	-0.3	-0.0	**0.0**	0.0	189.7
My,	-121.3	-1.5	-0.0	0.0	**0.0**	183.1	-147.0	-0.3	-0.0	0.0	**0.0**	189.7
Mz,	-121.3	-1.5	-0.0	0.0	0.0	**183.1**	-147.0	-0.3	-0.0	0.0	0.0	**189.7**
Fx,	**-147.0**	-0.3	-0.0	0.0	-0.0	191.0	**-121.3**	-1.5	-0.0	0.0	-0.0	189.7
Fy,	-121.3	**-1.5**	-0.0	0.0	-0.0	189.7	-147.0	**-0.3**	-0.0	0.0	-0.0	191.0
Fz,	-147.0	-0.3	**-0.0**	0.0	-0.0	191.0	-121.3	-1.5	**-0.0**	0.0	-0.0	189.7
Mx,	-121.3	-1.5	-0.0	**0.0**	-0.0	189.7	-147.0	-0.3	-0.0	**0.0**	-0.0	191.0
My,	-147.0	-0.3	-0.0	0.0	**-0.0**	191.0	-121.3	-1.5	-0.0	0.0	**-0.0**	189.7
Mz,	-121.3	-1.5	-0.0	0.0	-0.0	**189.7**	-147.0	-0.3	-0.0	0.0	-0.0	**191.0**

Member 51

Fx,	**-147.0**	-0.3	-0.0	0.0	0.0	191.0	**-121.3**	-1.5	-0.0	0.0	0.0	189.7
Fy,	-121.3	**-1.5**	-0.0	0.0	0.0	189.7	-147.0	**-0.3**	-0.0	0.0	0.0	191.0
Fz,	-121.3	-1.5	**-0.0**	0.0	0.0	189.7	-147.0	-0.3	**-0.0**	0.0	0.0	191.0
Mx,	-121.3	-1.5	-0.0	**0.0**	0.0	189.7	-147.0	-0.3	-0.0	**0.0**	0.0	191.0
My,	-147.0	-0.3	-0.0	0.0	**0.0**	191.0	-121.3	-1.5	-0.0	0.0	**0.0**	189.7
Mz,	-121.3	-1.5	-0.0	0.0	0.0	**189.7**	-147.0	-0.3	-0.0	0.0	0.0	**191.0**
Fx,	**-147.0**	-0.3	-0.0	0.0	-0.0	192.3	**-121.3**	-1.5	-0.0	0.0	-0.0	196.4
Fy,	-121.3	**-1.5**	-0.0	0.0	-0.0	196.4	-147.0	**-0.3**	-0.0	0.0	-0.0	192.3
Fz,	-121.3	-1.5	**-0.0**	0.0	-0.0	196.4	-147.0	-0.3	**-0.0**	0.0	-0.0	192.3
Mx,	-121.3	-1.5	-0.0	**0.0**	-0.0	196.4	-147.0	-0.3	-0.0	**0.0**	-0.0	192.3
My,	-121.3	-1.5	-0.0	0.0	**-0.0**	196.4	-147.0	-0.3	-0.0	0.0	**-0.0**	192.3
Mz,	-147.0	-0.3	-0.0	0.0	-0.0	**192.3**	-121.3	-1.5	-0.0	0.0	-0.0	**196.4**

Member 52

Fx,	**-147.0**	-0.3	-0.0	0.0	0.0	192.3	**-121.3**	-1.5	-0.0	0.0	0.0	196.4
Fy,	-121.3	**-1.5**	-0.0	0.0	0.0	196.4	-147.0	**-0.3**	-0.0	0.0	0.0	192.3
Fz,	-121.3	-1.5	**-0.0**	0.0	0.0	196.4	-147.0	-0.3	**-0.0**	0.0	0.0	192.3
Mx,	-121.3	-1.5	-0.0	**0.0**	0.0	196.4	-147.0	-0.3	-0.0	**0.0**	0.0	192.3
My,	-147.0	-0.3	-0.0	0.0	**0.0**	192.3	-121.3	-1.5	-0.0	0.0	**0.0**	196.4
Mz,	-147.0	-0.3	-0.0	0.0	0.0	**192.3**	-121.3	-1.5	-0.0	0.0	0.0	**196.4**

Fx,	**-147.0**	-0.3	-0.0	0.0	-0.0	193.7	**-121.3**	-1.5	-0.0	0.0	-0.0	203.0
Fy,	-121.3	**-1.5**	-0.0	0.0	-0.0	203.0	-147.0	**-0.3**	-0.0	0.0	-0.0	193.7
Fz,	-121.3	-1.5	**-0.0**	0.0	-0.0	203.0	-147.0	-0.3	**-0.0**	0.0	-0.0	193.7
Mx,	-121.3	-1.5	-0.0	**0.0**	-0.0	203.0	-147.0	-0.3	-0.0	**0.0**	-0.0	193.7
My,	-121.3	-1.5	-0.0	0.0	**-0.0**	203.0	-147.0	-0.3	-0.0	0.0	**-0.0**	193.7
Mz,	-147.0	-0.3	-0.0	0.0	-0.0	**193.7**	-121.3	-1.5	-0.0	0.0	-0.0	**203.0**

Member 53

Fx,	**-147.0**	-0.3	-0.0	0.0	0.0	193.7	**-121.3**	-1.5	-0.0	0.0	0.0	203.0
Fy,	-121.3	**-1.5**	-0.0	0.0	0.0	203.0	-147.0	**-0.3**	-0.0	0.0	0.0	193.7
Fz,	-121.3	-1.5	**-0.0**	0.0	0.0	203.0	-147.0	-0.3	**-0.0**	0.0	0.0	193.7
Mx,	-121.3	-1.5	-0.0	**0.0**	0.0	203.0	-147.0	-0.3	-0.0	**0.0**	0.0	193.7
My,	-147.0	-0.3	-0.0	0.0	**0.0**	193.7	-121.3	-1.5	-0.0	0.0	**0.0**	203.0
Mz,	-147.0	-0.3	-0.0	0.0	0.0	**193.7**	-121.3	-1.5	-0.0	0.0	0.0	**203.0**
Fx,	**-147.0**	-0.3	-0.0	0.0	-0.0	195.0	**-121.3**	-1.5	-0.0	0.0	-0.0	209.6
Fy,	-121.3	**-1.5**	-0.0	0.0	-0.0	209.6	-147.0	**-0.3**	-0.0	0.0	-0.0	195.0
Fz,	-121.3	-1.5	**-0.0**	0.0	-0.0	209.6	-147.0	-0.3	**-0.0**	0.0	-0.0	195.0
Mx,	-121.3	-1.5	-0.0	**0.0**	-0.0	209.6	-147.0	-0.3	-0.0	**0.0**	-0.0	195.0
My,	-121.3	-1.5	-0.0	0.0	**-0.0**	209.6	-147.0	-0.3	-0.0	0.0	**-0.0**	195.0
Mz,	-147.0	-0.3	-0.0	0.0	-0.0	**195.0**	-121.3	-1.5	-0.0	0.0	-0.0	**209.6**

Member 54

Fx,	**-147.0**	-0.3	-0.0	0.0	0.0	195.0	**-121.3**	-1.5	-0.0	0.0	0.0	209.6
Fy,	-121.3	**-1.5**	-0.0	0.0	0.0	209.6	-147.0	**-0.3**	-0.0	0.0	0.0	195.0
Fz,	-121.3	-1.5	**-0.0**	0.0	0.0	209.6	-147.0	-0.3	**-0.0**	0.0	0.0	195.0
Mx,	-121.3	-1.5	-0.0	**0.0**	0.0	209.6	-147.0	-0.3	-0.0	**0.0**	0.0	195.0
My,	-147.0	-0.3	-0.0	0.0	**0.0**	195.0	-121.3	-1.5	-0.0	0.0	**0.0**	209.6
Mz,	-147.0	-0.3	-0.0	0.0	0.0	**195.0**	-121.3	-1.5	-0.0	0.0	0.0	**209.6**
Fx,	**-147.0**	-0.3	-0.0	0.0	-0.0	196.3	**-121.3**	-1.5	-0.0	0.0	-0.0	216.2
Fy,	-121.3	**-1.5**	-0.0	0.0	-0.0	216.2	-147.0	**-0.3**	-0.0	0.0	-0.0	196.3
Fz,	-121.3	-1.5	**-0.0**	0.0	-0.0	216.2	-147.0	-0.3	**-0.0**	0.0	-0.0	196.3
Mx,	-121.3	-1.5	-0.0	**0.0**	-0.0	216.2	-147.0	-0.3	-0.0	**0.0**	-0.0	196.3
My,	-121.3	-1.5	-0.0	0.0	**-0.0**	216.2	-147.0	-0.3	-0.0	0.0	**-0.0**	196.3
Mz,	-147.0	-0.3	-0.0	0.0	-0.0	**196.3**	-121.3	-1.5	-0.0	0.0	-0.0	**216.2**

Member 55

Fx,	**-119.5**	20.6	0.0	-0.0	-0.0	244.5	**-115.8**	19.5	0.0	-0.0	-0.0	225.9
Fy,	-115.8	**19.5**	0.0	-0.0	-0.0	225.9	-119.5	**20.6**	0.0	-0.0	-0.0	244.5
Fz,	-119.5	20.6	**0.0**	-0.0	-0.0	244.5	-115.8	19.5	**0.0**	-0.0	-0.0	225.9
Mx,	-115.8	19.5	0.0	**-0.0**	-0.0	225.9	-119.5	20.6	0.0	**-0.0**	-0.0	244.5
My,	-115.8	19.5	0.0	-0.0	**-0.0**	225.9	-119.5	20.6	0.0	-0.0	**-0.0**	244.5
Mz,	-115.8	19.5	0.0	-0.0	-0.0	**225.9**	-119.5	20.6	0.0	-0.0	-0.0	**244.5**
Fx,	**-119.5**	20.6	0.0	-0.0	0.0	168.8	**-115.8**	19.5	0.0	-0.0	0.0	154.4
Fy,	-115.8	**19.5**	0.0	-0.0	0.0	154.4	-119.5	**20.6**	0.0	-0.0	0.0	168.8
Fz,	-119.5	20.6	**0.0**	-0.0	0.0	168.8	-115.8	19.5	**0.0**	-0.0	0.0	154.4
Mx,	-115.8	19.5	0.0	**-0.0**	0.0	154.4	-119.5	20.6	0.0	**-0.0**	0.0	168.8
My,	-119.5	20.6	0.0	-0.0	**0.0**	168.8	-115.8	19.5	0.0	-0.0	**0.0**	154.4
Mz,	-115.8	19.5	0.0	-0.0	0.0	**154.4**	-119.5	20.6	0.0	-0.0	0.0	**168.8**

Member 56

Fx,	**-119.5**	20.6	0.0	-0.0	-0.0	168.8	**-115.8**	19.5	0.0	-0.0	-0.0	154.4
Fy,	-115.8	**19.5**	0.0	-0.0	-0.0	154.4	-119.5	**20.6**	0.0	-0.0	-0.0	168.8
Fz,	-119.5	20.6	**0.0**	-0.0	-0.0	168.8	-115.8	19.5	**0.0**	-0.0	-0.0	154.4
Mx,	-115.8	19.5	0.0	**-0.0**	-0.0	154.4	-119.5	20.6	0.0	**-0.0**	-0.0	168.8
My,	-115.8	19.5	0.0	-0.0	**-0.0**	154.4	-119.5	20.6	0.0	-0.0	**-0.0**	168.8
Mz,	-115.8	19.5	0.0	-0.0	-0.0	**154.4**	-119.5	20.6	0.0	-0.0	-0.0	**168.8**
Fx,	**-119.5**	20.6	0.0	-0.0	0.0	93.2	**-115.8**	19.5	0.0	-0.0	0.0	83.0
Fy,	-115.8	**19.5**	0.0	-0.0	0.0	83.0	-119.5	**20.6**	0.0	-0.0	0.0	93.2
Fz,	-119.5	20.6	**0.0**	-0.0	0.0	93.2	-115.8	19.5	**0.0**	-0.0	0.0	83.0
Mx,	-115.8	19.5	0.0	**-0.0**	0.0	83.0	-119.5	20.6	0.0	**-0.0**	0.0	93.2
My,	-119.5	20.6	0.0	-0.0	**0.0**	93.2	-115.8	19.5	0.0	-0.0	**0.0**	83.0
Mz,	-115.8	19.5	0.0	-0.0	0.0	**83.0**	-119.5	20.6	0.0	-0.0	0.0	**93.2**

Member 57

Fx_i	**-119.5**	20.6	0.0	-0.0	-0.0	93.2	**-115.8**	19.5	0.0	-0.0	-0.0	83.0
Fy_i	-115.8	**19.5**	0.0	-0.0	-0.0	83.0	-119.5	**20.6**	0.0	-0.0	-0.0	93.2
Fz_i	-119.5	20.6	**0.0**	-0.0	-0.0	93.2	-115.8	19.5	**0.0**	-0.0	-0.0	83.0
Mx_i	-115.8	19.5	0.0	**-0.0**	-0.0	83.0	-119.5	20.6	0.0	**-0.0**	-0.0	93.2
My_i	-115.8	19.5	0.0	-0.0	**-0.0**	83.0	-119.5	20.6	0.0	-0.0	**-0.0**	93.2
Mz_i	-115.8	19.5	0.0	-0.0	-0.0	**83.0**	-119.5	20.6	0.0	-0.0	-0.0	**93.2**
Fx_f	**-119.5**	20.6	0.0	-0.0	0.0	17.6	**-115.8**	19.5	0.0	-0.0	0.0	11.6
Fy_f	-115.8	**19.5**	0.0	-0.0	0.0	11.6	-119.5	**20.6**	0.0	-0.0	0.0	17.6
Fz_f	-119.5	20.6	**0.0**	-0.0	0.0	17.6	-115.8	19.5	**0.0**	-0.0	0.0	11.6
Mx_f	-115.8	19.5	0.0	**-0.0**	0.0	11.6	-119.5	20.6	0.0	**-0.0**	0.0	17.6
My_f	-119.5	20.6	0.0	-0.0	**0.0**	17.6	-115.8	19.5	0.0	-0.0	**0.0**	11.6
Mz_f	-115.8	19.5	0.0	-0.0	0.0	**11.6**	-119.5	20.6	0.0	-0.0	0.0	**17.6**

Member 58

Fx_i	**-119.5**	20.6	0.0	-0.0	-0.0	17.6	**-115.8**	19.5	0.0	-0.0	-0.0	11.6
Fy_i	-115.8	**19.5**	0.0	-0.0	-0.0	11.6	-119.5	**20.6**	0.0	-0.0	-0.0	17.6
Fz_i	-119.5	20.6	**0.0**	-0.0	-0.0	17.6	-115.8	19.5	**0.0**	-0.0	-0.0	11.6
Mx_i	-115.8	19.5	0.0	**-0.0**	-0.0	11.6	-119.5	20.6	0.0	**-0.0**	-0.0	17.6
My_i	-115.8	19.5	0.0	-0.0	**-0.0**	11.6	-119.5	20.6	0.0	-0.0	**-0.0**	17.6
Mz_i	-115.8	19.5	0.0	-0.0	-0.0	**11.6**	-119.5	20.6	0.0	-0.0	-0.0	**17.6**
Fx_f	**-119.5**	20.6	0.0	-0.0	0.0	-58.0	**-115.8**	19.5	0.0	-0.0	0.0	-59.9
Fy_f	-115.8	**19.5**	0.0	-0.0	0.0	-59.9	-119.5	**20.6**	0.0	-0.0	0.0	-58.0
Fz_f	-119.5	20.6	**0.0**	-0.0	0.0	-58.0	-115.8	19.5	**0.0**	-0.0	0.0	-59.9
Mx_f	-115.8	19.5	0.0	**-0.0**	0.0	-59.9	-119.5	20.6	0.0	**-0.0**	0.0	-58.0
My_f	-119.5	20.6	0.0	-0.0	**0.0**	-58.0	-115.8	19.5	0.0	-0.0	**0.0**	-59.9
Mz_f	-115.8	19.5	0.0	-0.0	0.0	**-59.9**	-119.5	20.6	0.0	-0.0	0.0	**-58.0**

Member 59

Fx_i	**-119.5**	20.6	0.0	-0.0	-0.0	-58.0	**-115.8**	19.5	0.0	-0.0	-0.0	-59.9
Fy_i	-115.8	**19.5**	0.0	-0.0	-0.0	-59.9	-119.5	**20.6**	0.0	-0.0	-0.0	-58.0
Fz_i	-119.5	20.6	**0.0**	-0.0	-0.0	-58.0	-115.8	19.5	**0.0**	-0.0	-0.0	-59.9
Mx_i	-115.8	19.5	0.0	**-0.0**	-0.0	-59.9	-119.5	20.6	0.0	**-0.0**	-0.0	-58.0
My_i	-115.8	19.5	0.0	-0.0	**-0.0**	-59.9	-119.5	20.6	0.0	-0.0	**-0.0**	-58.0
Mz_i	-115.8	19.5	0.0	-0.0	-0.0	**-59.9**	-119.5	20.6	0.0	-0.0	-0.0	**-58.0**
Fx_f	**-119.5**	20.6	0.0	-0.0	0.0	-133.6	**-115.8**	19.5	0.0	-0.0	0.0	-131.3
Fy_f	-115.8	**19.5**	0.0	-0.0	0.0	-131.3	-119.5	**20.6**	0.0	-0.0	0.0	-133.6
Fz_f	-119.5	20.6	**0.0**	-0.0	0.0	-133.6	-115.8	19.5	**0.0**	-0.0	0.0	-131.3
Mx_f	-115.8	19.5	0.0	**-0.0**	0.0	-131.3	-119.5	20.6	0.0	**-0.0**	0.0	-133.6
My_f	-119.5	20.6	0.0	-0.0	**0.0**	-133.6	-115.8	19.5	0.0	-0.0	**0.0**	-131.3
Mz_f	-119.5	20.6	0.0	-0.0	0.0	**-133.6**	-115.8	19.5	0.0	-0.0	0.0	**-131.3**

Member 60

Fx_i	**-119.5**	20.6	0.0	-0.0	-0.0	-133.6	**-115.8**	19.5	0.0	-0.0	-0.0	-131.3
Fy_i	-115.8	**19.5**	0.0	-0.0	-0.0	-131.3	-119.5	**20.6**	0.0	-0.0	-0.0	-133.6
Fz_i	-119.5	20.6	**0.0**	-0.0	-0.0	-133.6	-115.8	19.5	**0.0**	-0.0	-0.0	-131.3
Mx_i	-115.8	19.5	0.0	**-0.0**	-0.0	-131.3	-119.5	20.6	0.0	**-0.0**	-0.0	-133.6
My_i	-115.8	19.5	0.0	-0.0	**-0.0**	-131.3	-119.5	20.6	0.0	-0.0	**-0.0**	-133.6
Mz_i	-119.5	20.6	0.0	-0.0	-0.0	**-133.6**	-115.8	19.5	0.0	-0.0	-0.0	**-131.3**
Fx_f	**-119.5**	20.6	0.0	-0.0	0.0	-209.2	**-115.8**	19.5	0.0	-0.0	0.0	-202.7
Fy_f	-115.8	**19.5**	0.0	-0.0	0.0	-202.7	-119.5	**20.6**	0.0	-0.0	0.0	-209.2
Fz_f	-119.5	20.6	**0.0**	-0.0	0.0	-209.2	-115.8	19.5	**0.0**	-0.0	0.0	-202.7
Mx_f	-115.8	19.5	0.0	**-0.0**	0.0	-202.7	-119.5	20.6	0.0	**-0.0**	0.0	-209.2
My_f	-119.5	20.6	0.0	-0.0	**0.0**	-209.2	-115.8	19.5	0.0	-0.0	**0.0**	-202.7
Mz_f	-115.8	19.5	0.0	-0.0	0.0	**-209.2**	-115.8	19.5	0.0	-0.0	0.0	**-202.7**

Member 121

Fx_i	**0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	0.0	-0.0
Fz_i	0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	0.0	-0.0
Mx_i	0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	0.0	-0.0
My_i	0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**0.0**	-0.0
Mz_i	0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	0.0	**-0.0**
Fx_f	**0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	0.0	-0.0
Fy_f	0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	0.0	-0.0
Fz_f	0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	0.0	-0.0
Mx_f	0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	0.0	-0.0
My_f	0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**0.0**	-0.0
Mz_f	0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	0.0	**-0.0**

Member 122

Fx_i	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0
Fy_i	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0
Fz_i	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0
Mx_i	-0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	-0.0
My_i	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0
Mz_i	-0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**-0.0**
Fx_f	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0
Fy_f	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0
Fz_f	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0
Mx_f	-0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	-0.0
My_f	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0
Mz_f	-0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**-0.0**

Member 123

Fx_i	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0
Fy_i	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0
Fz_i	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0
Mx_i	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	-0.0
My_i	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0
Mz_i	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**-0.0**
Fx_f	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0
Fy_f	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0
Fz_f	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0
Mx_f	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	-0.0
My_f	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0
Mz_f	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**-0.0**

Member 124

Fx_i	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	0.0	0.0	0.0	-0.0	-0.0
Fy_i	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**0.0**	0.0	0.0	-0.0	-0.0
Fz_i	-0.0	0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0
Mx_i	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	0.0	0.0	**0.0**	-0.0	-0.0
My_i	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	0.0	0.0	0.0	**-0.0**	-0.0
Mz_i	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**-0.0**
Fx_f	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	0.0	0.0	0.0	-0.0	-0.0
Fy_f	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**0.0**	0.0	0.0	-0.0	-0.0
Fz_f	-0.0	0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0
Mx_f	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	0.0	0.0	**0.0**	-0.0	-0.0
My_f	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	0.0	0.0	0.0	**-0.0**	-0.0
Mz_f	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**-0.0**

Member 125

Fx_i	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0
Fy_i	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0
Fz_i	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0
Mx_i	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0
My_i	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0
Mz_i	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**
Fx_f	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0
Fy_f	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0

Fz_f	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0
Mx_f	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0
My_f	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0
Mz_f	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**

Member 126

Fx_i	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0
Fy_i	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0
Fz_i	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0
Mx_i	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0
My_i	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0
Mz_i	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**
Fx_f	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0
Fy_f	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0
Fz_f	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0
Mx_f	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0
My_f	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0
Mz_f	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**

Member 127

Fx_i	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0
Fy_i	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0
Fz_i	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0
Mx_i	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	-0.0
My_i	-0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0
Mz_i	-0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**
Fx_f	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0
Fy_f	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0
Fz_f	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0
Mx_f	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	-0.0
My_f	-0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0
Mz_f	-0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**

Member 128

Fx_i	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0
Fy_i	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0
Fz_i	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0
Mx_i	-0.0	-0.0	0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	0.0	-0.0
My_i	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0
Mz_i	-0.0	-0.0	0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	0.0	**-0.0**
Fx_f	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0
Fy_f	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0
Fz_f	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0
Mx_f	-0.0	-0.0	0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	0.0	-0.0
My_f	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0
Mz_f	-0.0	-0.0	0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	0.0	**-0.0**

Member 129

Fx_i	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0
Fy_i	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0
Fz_i	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0
Mx_i	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	0.0	-0.0
My_i	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0
Mz_i	-0.0	-0.0	0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**
Fx_f	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0
Fy_f	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0
Fz_f	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0
Mx_f	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	0.0	-0.0
My_f	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0
Mz_f	-0.0	-0.0	0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**

Member 130

Fx_i	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0
Fy_i	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0
Fz_i	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0
Mx_i	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0
My_i	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0
Mz_i	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**
Fx_f	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0
Fy_f	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0
Fz_f	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0
Mx_f	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0
My_f	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0
Mz_f	-0.0	-0.0	0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**

Member 131

Fx_i	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0
Fy_i	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0
Fz_i	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0
Mx_i	-0.0	-0.0	0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0
My_i	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0
Mz_i	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	0.0	**-0.0**
Fx_f	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0
Fy_f	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0
Fz_f	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0
Mx_f	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0
My_f	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0
Mz_f	-0.0	-0.0	0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**

Member 132

Fx_i	**0.0**	-0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	-0.0	0.0	0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	-0.0
Fz_i	0.0	-0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	0.0	-0.0
Mx_i	0.0	-0.0	-0.0	**0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	-0.0
My_i	0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	-0.0
Mz_i	0.0	-0.0	-0.0	0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**-0.0**
Fx_f	**0.0**	-0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	-0.0	0.0	0.0	-0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	-0.0
Fz_f	0.0	-0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	0.0	-0.0
Mx_f	0.0	-0.0	-0.0	**0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	-0.0
My_f	0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	-0.0
Mz_f	0.0	-0.0	-0.0	0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**-0.0**

Member 133

Fx_i	**0.0**	-0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	-0.0	0.0	0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	-0.0
Fz_i	0.0	-0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	0.0	-0.0
Mx_i	0.0	-0.0	-0.0	**0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	-0.0
My_i	0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	-0.0
Mz_i	0.0	-0.0	-0.0	0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**-0.0**
Fx_f	**0.0**	-0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	-0.0	0.0	0.0	-0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	-0.0
Fz_f	0.0	-0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	0.0	-0.0
Mx_f	0.0	-0.0	-0.0	**0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	-0.0
My_f	0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	-0.0
Mz_f	0.0	-0.0	-0.0	0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**-0.0**

Member 134

Fx_i	**0.0**	-0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	-0.0	0.0	0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	-0.0
Fz_i	0.0	-0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	0.0	-0.0
Mx_i	0.0	-0.0	-0.0	**0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	-0.0
My_i	0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	-0.0

Mz_1	0.0	-0.0	-0.0	0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**-0.0**
Fx_f	**0.0**	-0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	-0.0	0.0	0.0	-0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	-0.0
Fz_f	0.0	-0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	0.0	-0.0
Mx_f	0.0	-0.0	-0.0	**0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	-0.0
My_f	0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	-0.0
Mz_f	0.0	-0.0	-0.0	0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**-0.0**

Member 135

Fx_1	**0.0**	-0.0	-0.0	-0.0	0.0	0.0	**0.0**	-0.0	-0.0	-0.0	0.0	0.0
Fy_1	0.0	**-0.0**	-0.0	-0.0	0.0	0.0	0.0	**-0.0**	-0.0	-0.0	0.0	0.0
Fz_1	0.0	-0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**-0.0**	-0.0	0.0	0.0
Mx_1	0.0	-0.0	-0.0	**-0.0**	0.0	0.0	0.0	-0.0	-0.0	**-0.0**	0.0	0.0
My_1	0.0	-0.0	-0.0	-0.0	**0.0**	0.0	0.0	-0.0	-0.0	-0.0	**0.0**	0.0
Mz_1	0.0	-0.0	-0.0	-0.0	0.0	**0.0**	0.0	-0.0	-0.0	-0.0	0.0	**0.0**
Fx_f	**0.0**	-0.0	-0.0	-0.0	0.0	0.0	**0.0**	-0.0	-0.0	-0.0	0.0	0.0
Fy_f	0.0	**-0.0**	-0.0	-0.0	0.0	0.0	0.0	**-0.0**	-0.0	-0.0	0.0	0.0
Fz_f	0.0	-0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**-0.0**	-0.0	0.0	0.0
Mx_f	0.0	-0.0	-0.0	**-0.0**	0.0	0.0	0.0	-0.0	-0.0	**-0.0**	0.0	0.0
My_f	0.0	-0.0	-0.0	-0.0	**0.0**	0.0	0.0	-0.0	-0.0	-0.0	**0.0**	0.0
Mz_f	0.0	-0.0	-0.0	-0.0	0.0	**0.0**	0.0	-0.0	-0.0	-0.0	0.0	**0.0**

Member 136

Fx_1	**0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0	-0.0	0.0
Fy_1	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0
Fz_1	0.0	-0.0	**0.0**	-0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	-0.0	0.0
Mx_1	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	-0.0	0.0	**-0.0**	-0.0	0.0
My_1	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**-0.0**	0.0
Mz_1	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**
Fx_f	**0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0	-0.0	0.0
Fy_f	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0
Fz_f	0.0	-0.0	**0.0**	-0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	-0.0	0.0
Mx_f	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	-0.0	0.0	**-0.0**	-0.0	0.0
My_f	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**-0.0**	0.0
Mz_f	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**

Member 137

Fx_1	**0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0	-0.0	0.0
Fy_1	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0
Fz_1	0.0	-0.0	**0.0**	-0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	-0.0	0.0
Mx_1	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	-0.0	0.0	**-0.0**	-0.0	0.0
My_1	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**-0.0**	0.0
Mz_1	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**
Fx_f	**0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0	-0.0	0.0
Fy_f	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0
Fz_f	0.0	-0.0	**0.0**	-0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	-0.0	0.0
Mx_f	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	-0.0	0.0	**-0.0**	-0.0	0.0
My_f	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**-0.0**	0.0
Mz_f	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**

Member 138

Fx_1	**0.0**	-0.0	-0.0	0.0	-0.0	0.0	**0.0**	-0.0	0.0	0.0	-0.0	0.0
Fy_1	0.0	**-0.0**	-0.0	0.0	-0.0	0.0	0.0	**-0.0**	0.0	0.0	-0.0	0.0
Fz_1	0.0	-0.0	**-0.0**	0.0	-0.0	0.0	0.0	-0.0	**0.0**	0.0	-0.0	0.0
Mx_1	0.0	-0.0	-0.0	**0.0**	-0.0	0.0	0.0	-0.0	0.0	**0.0**	-0.0	0.0
My_1	0.0	-0.0	0.0	0.0	**-0.0**	0.0	0.0	-0.0	-0.0	0.0	**-0.0**	0.0
Mz_1	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	0.0	-0.0	0.0	0.0	-0.0	**0.0**
Fx_f	**0.0**	-0.0	-0.0	0.0	-0.0	0.0	**0.0**	-0.0	0.0	0.0	-0.0	0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	-0.0	0.0	0.0	**-0.0**	0.0	0.0	-0.0	0.0
Fz_f	0.0	-0.0	**-0.0**	0.0	-0.0	0.0	0.0	-0.0	**0.0**	0.0	-0.0	0.0
Mx_f	0.0	-0.0	-0.0	**0.0**	-0.0	0.0	0.0	-0.0	0.0	**0.0**	-0.0	0.0
My_f	0.0	-0.0	0.0	0.0	**-0.0**	0.0	0.0	-0.0	-0.0	0.0	**-0.0**	0.0
Mz_f	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	0.0	-0.0	0.0	0.0	-0.0	**0.0**

My_f	0.0	-0.0	0.0	0.0	**-0.0**	0.0	0.0	-0.0	-0.0	0.0	**-0.0**	0.0
Mz_f	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	0.0	-0.0	0.0	0.0	-0.0	**0.0**

Member 139

Fx_1	**0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0	-0.0	0.0
Fy_1	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0
Fz_1	0.0	-0.0	**0.0**	-0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	-0.0	0.0
Mx_1	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	-0.0	0.0	**-0.0**	-0.0	0.0
My_1	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**-0.0**	0.0
Mz_1	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**
Fx_f	**0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0	-0.0	0.0
Fy_f	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0
Fz_f	0.0	-0.0	**0.0**	-0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	-0.0	0.0
Mx_f	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	-0.0	0.0	**-0.0**	-0.0	0.0
My_f	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**-0.0**	0.0
Mz_f	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**

Member 140

Fx_1	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	0.0
Fy_1	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	0.0
Fz_1	-0.0	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0
Mx_1	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	0.0
My_1	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	0.0
Mz_1	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	0.0
Fy_f	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	0.0
Fz_f	-0.0	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0
Mx_f	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	0.0
My_f	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	0.0
Mz_f	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**0.0**

Member 141

Fx_1	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0
Fy_1	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0
Fz_1	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0
Mx_1	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0
My_1	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0
Mz_1	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**
Fx_f	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0
Fy_f	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0
Fz_f	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0
Mx_f	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0
My_f	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0
Mz_f	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**

Member 142

Fx_1	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0
Fy_1	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0
Fz_1	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0
Mx_1	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0
My_1	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0
Mz_1	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**
Fx_f	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0
Fy_f	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0
Fz_f	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0
Mx_f	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0
My_f	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0
Mz_f	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**

Member 143

Fx_1	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0

Fy_i	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0
Fz_i	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0
Mx_i	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0
My_i	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0
Mz_i	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**
Fx_f	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0
Fy_f	-0.0	**-0.0**	0.0	0.0	0.0	-0.0	-0.0	**-0.0**	0.0	0.0	0.0	-0.0
Fz_f	-0.0	-0.0	**0.0**	0.0	0.0	-0.0	-0.0	-0.0	**0.0**	0.0	0.0	-0.0
Mx_f	-0.0	-0.0	0.0	**0.0**	0.0	-0.0	-0.0	-0.0	0.0	**0.0**	0.0	-0.0
My_f	-0.0	-0.0	0.0	0.0	**0.0**	-0.0	-0.0	-0.0	0.0	0.0	**0.0**	-0.0
Mz_f	-0.0	-0.0	0.0	0.0	0.0	**-0.0**	-0.0	-0.0	0.0	0.0	0.0	**-0.0**

Member 144

Fx_i	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	**0.0**	-0.0	0.0	-0.0
Fy_i	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0
Fz_i	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0
Mx_i	-0.0	-0.0	0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0
My_i	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0
Mz_i	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	0.0	**-0.0**
Fx_f	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0
Fy_f	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0
Fz_f	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0
Mx_f	-0.0	-0.0	0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0
My_f	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0
Mz_f	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	0.0	**-0.0**

Member 145

Fx_i	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0
Fy_i	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0
Fz_i	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0
Mx_i	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0
My_i	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0
Mz_i	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**
Fx_f	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0
Fy_f	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0
Fz_f	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0
Mx_f	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0
My_f	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0
Mz_f	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**

Member 146

Fx_i	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0
Fy_i	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0
Fz_i	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0
Mx_i	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	0.0	-0.0
My_i	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0
Mz_i	-0.0	-0.0	0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**
Fx_f	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0
Fy_f	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0
Fz_f	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0
Mx_f	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	0.0	-0.0
My_f	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0
Mz_f	-0.0	-0.0	0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**

Member 147

Fx_i	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0
Fy_i	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0
Fz_i	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0
Mx_i	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0
My_i	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0
Mz_i	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**
Fx_f	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0
Fy_f	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0
Fz_f	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0
Mx_f	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0
My_f	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0
Mz_f	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**

Fx_f	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0
Fy_f	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0
Fz_f	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0
Mx_f	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0
My_f	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0
Mz_f	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**-0.0**

Member 148

Fx_i	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	0.0	-0.0
Fy_i	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	0.0	-0.0
Fz_i	0.0	0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	-0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0
My_i	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	-0.0	0.0	**0.0**	-0.0
Mz_i	0.0	0.0	-0.0	0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	0.0	-0.0
Fy_f	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	0.0	-0.0
Fz_f	0.0	0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	-0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	-0.0	0.0	**0.0**	-0.0
Mz_f	0.0	0.0	-0.0	0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**

Member 149

Fx_i	**0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0	-0.0	0.0	0.0	0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0
Fz_i	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**-0.0**	0.0	0.0	0.0
Mx_i	0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0	-0.0	0.0	0.0	0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0
Fz_f	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**-0.0**	0.0	0.0	0.0
Mx_f	0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**

Member 150

Fx_i	**0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 365

Fx_i	**-5.9**	-0.0	0.0	0.0	-0.0	-0.0	**-4.8**	-0.0	0.0	0.0	-0.0	-0.0
Fy_i	-5.9	**-0.0**	0.0	0.0	-0.0	-0.0	-4.8	**-0.0**	0.0	0.0	-0.0	-0.0
Fz_i	-5.9	-0.0	**0.0**	0.0	-0.0	-0.0	-4.8	-0.0	**0.0**	0.0	-0.0	-0.0
Mx_i	-4.8	-0.0	0.0	**0.0**	-0.0	-0.0	-5.9	-0.0	0.0	**0.0**	-0.0	-0.0
My_i	-4.8	-0.0	0.0	0.0	**-0.0**	-0.0	-5.9	-0.0	0.0	0.0	**-0.0**	-0.0
Mz_i	-5.9	-0.0	0.0	0.0	-0.0	**-0.0**	-4.8	-0.0	0.0	0.0	-0.0	**-0.0**
Fx_f	**-5.9**	-0.0	0.0	0.0	-0.0	0.0	**-4.8**	-0.0	0.0	0.0	-0.0	0.0
Fy_f	-5.9	**-0.0**	0.0	0.0	-0.0	0.0	-4.8	**-0.0**	0.0	0.0	-0.0	0.0
Fz_f	-5.9	-0.0	**0.0**	0.0	-0.0	0.0	-4.8	-0.0	**0.0**	0.0	-0.0	0.0
Mx_f	-4.8	-0.0	0.0	**0.0**	-0.0	0.0	-5.9	-0.0	0.0	**0.0**	-0.0	0.0
My_f	-4.8	-0.0	0.0	0.0	**-0.0**	0.0	-5.9	-0.0	0.0	0.0	**-0.0**	0.0
Mz_f	-4.8	-0.0	0.0	0.0	-0.0	**0.0**	-5.9	-0.0	0.0	0.0	-0.0	**0.0**

Member 366

Fx_i	**9.2**	-2.0	-0.0	0.0	0.0	-3.4	**9.3**	-26.0	-0.0	-0.0	0.0	-45.5
Fy_i	9.3	**-26.0**	-0.0	-0.0	0.0	-45.5	9.2	**-2.0**	-0.0	0.0	0.0	-3.4
Fz_i	9.3	-26.0	**-0.0**	-0.0	0.0	-45.5	9.2	-2.0	**-0.0**	0.0	0.0	-3.4
Mx_i	9.3	-26.0	-0.0	**-0.0**	0.0	-45.5	9.2	-2.0	-0.0	**0.0**	0.0	-3.4
My_i	9.2	-2.0	-0.0	0.0	**0.0**	-3.4	9.3	-26.0	-0.0	-0.0	**0.0**	-45.5
Mz_i	9.3	-26.0	-0.0	-0.0	0.0	**-45.5**	9.2	-2.0	-0.0	0.0	0.0	**-3.4**
Fx_f	**9.2**	0.0	-0.0	0.0	-0.0	-0.0	**9.3**	0.0	-0.0	-0.0	-0.0	-0.0
Fy_f	9.3	**0.0**	-0.0	-0.0	-0.0	-0.0	9.2	**0.0**	-0.0	0.0	-0.0	-0.0
Fz_f	9.3	0.0	**-0.0**	-0.0	-0.0	-0.0	9.2	0.0	**-0.0**	0.0	-0.0	-0.0
Mx_f	9.3	0.0	-0.0	**-0.0**	-0.0	-0.0	9.2	0.0	-0.0	**0.0**	-0.0	-0.0
My_f	9.3	0.0	-0.0	-0.0	**-0.0**	-0.0	9.2	0.0	-0.0	0.0	**-0.0**	-0.0
Mz_f	9.3	0.0	-0.0	-0.0	-0.0	**-0.0**	9.2	0.0	-0.0	0.0	-0.0	**-0.0**

Member 367

Fx_i	**-0.7**	-5.4	0.0	0.0	-0.0	-9.5	**-0.6**	-27.2	0.0	0.0	-0.0	-47.6
Fy_i	-0.6	**-27.2**	0.0	0.0	-0.0	-47.6	-0.7	**-5.4**	0.0	0.0	-0.0	-9.5
Fz_i	-0.6	-27.2	**0.0**	0.0	-0.0	-47.6	-0.7	-5.4	**0.0**	0.0	-0.0	-9.5
Mx_i	-0.6	-27.2	0.0	**0.0**	-0.0	-47.6	-0.7	-5.4	0.0	**0.0**	-0.0	-9.5
My_i	-0.6	-27.2	0.0	0.0	**-0.0**	-47.6	-0.7	-5.4	0.0	0.0	**-0.0**	-9.5
Mz_i	-0.6	-27.2	0.0	0.0	-0.0	**-47.6**	-0.7	-5.4	0.0	0.0	-0.0	**-9.5**
Fx_f	**-0.7**	-0.0	0.0	0.0	0.0	0.0	**-0.6**	-0.0	0.0	0.0	0.0	0.0
Fy_f	-0.7	**-0.0**	0.0	0.0	0.0	0.0	-0.6	**-0.0**	0.0	0.0	0.0	0.0
Fz_f	-0.6	-0.0	**0.0**	0.0	0.0	0.0	-0.7	-0.0	**0.0**	0.0	0.0	0.0
Mx_f	-0.6	-0.0	0.0	**0.0**	0.0	0.0	-0.7	-0.0	0.0	**0.0**	0.0	0.0
My_f	-0.6	-0.0	0.0	0.0	**0.0**	0.0	-0.7	-0.0	0.0	0.0	**0.0**	0.0
Mz_f	-0.7	-0.0	0.0	0.0	0.0	**0.0**	-0.6	-0.0	0.0	0.0	0.0	**0.0**

Member 368

Fx_i	**0.2**	-6.6	-0.0	0.0	0.0	-11.6	**0.4**	-33.0	-0.0	0.0	0.0	-57.8
Fy_i	0.4	**-33.0**	-0.0	0.0	0.0	-57.8	0.2	**-6.6**	-0.0	0.0	0.0	-11.6
Fz_i	0.4	-33.0	**-0.0**	0.0	0.0	-57.8	0.2	-6.6	**-0.0**	0.0	0.0	-11.6
Mx_i	0.4	-33.0	-0.0	**0.0**	0.0	-57.8	0.2	-6.6	-0.0	**0.0**	0.0	-11.6
My_i	0.2	-6.6	-0.0	0.0	**0.0**	-11.6	0.4	-33.0	-0.0	0.0	**0.0**	-57.8
Mz_i	0.4	-33.0	-0.0	0.0	0.0	**-57.8**	0.2	-6.6	-0.0	0.0	0.0	**-11.6**
Fx_f	**0.2**	0.0	-0.0	0.0	-0.0	-0.0	**0.4**	-0.0	-0.0	0.0	-0.0	0.0
Fy_f	0.4	**-0.0**	-0.0	0.0	-0.0	0.0	0.2	**0.0**	-0.0	0.0	-0.0	-0.0
Fz_f	0.4	-0.0	**-0.0**	0.0	-0.0	0.0	0.2	0.0	**-0.0**	0.0	-0.0	-0.0
Mx_f	0.4	-0.0	-0.0	**0.0**	-0.0	0.0	0.2	0.0	-0.0	**0.0**	-0.0	-0.0
My_f	0.4	-0.0	-0.0	0.0	**-0.0**	0.0	0.2	0.0	-0.0	0.0	**-0.0**	-0.0
Mz_f	0.2	0.0	-0.0	0.0	-0.0	**-0.0**	0.4	-0.0	-0.0	0.0	-0.0	**0.0**

Member 369

Fx_i	**-0.2**	-32.8	0.0	0.0	-0.0	-57.4	**-0.1**	-6.6	0.0	0.0	-0.0	-11.5
Fy_i	-0.2	**-32.8**	0.0	0.0	-0.0	-57.4	-0.1	**-6.6**	0.0	0.0	-0.0	-11.5
Fz_i	-0.1	-6.6	**0.0**	0.0	-0.0	-11.5	-0.2	-32.8	**0.0**	0.0	-0.0	-57.4
Mx_i	-0.2	-32.8	0.0	**0.0**	-0.0	-57.4	-0.1	-6.6	0.0	**0.0**	-0.0	-11.5
My_i	-0.2	-32.8	0.0	0.0	**-0.0**	-57.4	-0.1	-6.6	0.0	0.0	**-0.0**	-11.5
Mz_i	-0.2	-32.8	0.0	0.0	-0.0	**-57.4**	-0.1	-6.6	0.0	0.0	-0.0	**-11.5**
Fx_f	**-0.2**	-0.0	0.0	0.0	0.0	0.0	**-0.1**	-0.0	0.0	0.0	0.0	0.0
Fy_f	-0.1	**-0.0**	0.0	0.0	0.0	0.0	-0.2	**-0.0**	0.0	0.0	0.0	0.0
Fz_f	-0.1	-0.0	**0.0**	0.0	0.0	0.0	-0.2	-0.0	**0.0**	0.0	0.0	0.0
Mx_f	-0.2	-0.0	0.0	**0.0**	0.0	0.0	-0.1	-0.0	0.0	**0.0**	0.0	0.0
My_f	-0.1	-0.0	0.0	0.0	**0.0**	0.0	-0.2	-0.0	0.0	0.0	**0.0**	0.0
Mz_f	-0.2	-0.0	0.0	0.0	0.0	**0.0**	-0.1	-0.0	0.0	0.0	0.0	**0.0**

Member 370

Fx_i	**0.5**	-6.6	-0.0	0.0	0.0	-11.5	**0.5**	-32.8	-0.0	0.0	0.0	-57.4
Fy_i	0.5	**-32.8**	-0.0	0.0	0.0	-57.4	0.5	**-6.6**	-0.0	0.0	0.0	-11.5
Fz_i	0.5	-32.8	**-0.0**	0.0	0.0	-57.4	0.5	-6.6	**-0.0**	0.0	0.0	-11.5
Mx_i	0.5	-32.8	-0.0	**0.0**	0.0	-57.4	0.5	-6.6	-0.0	**0.0**	0.0	-11.5
My_i	0.5	-6.6	-0.0	0.0	**0.0**	-11.5	0.5	-32.8	-0.0	0.0	**0.0**	-57.4
Mz_i	0.5	-32.8	-0.0	0.0	0.0	**-57.4**	0.5	-6.6	-0.0	0.0	0.0	**-11.5**
Fx_f	**0.5**	0.0	-0.0	0.0	-0.0	-0.0	**0.5**	-0.0	-0.0	0.0	-0.0	0.0
Fy_f	0.5	**-0.0**	-0.0	0.0	-0.0	0.0	0.5	**0.0**	-0.0	0.0	-0.0	-0.0
Fz_f	0.5	-0.0	**-0.0**	0.0	-0.0	0.0	0.5	0.0	**-0.0**	0.0	-0.0	-0.0
Mx_f	0.5	-0.0	-0.0	**0.0**	-0.0	0.0	0.5	0.0	-0.0	**0.0**	-0.0	-0.0
My_f	0.5	-0.0	-0.0	0.0	**-0.0**	0.0	0.5	0.0	-0.0	0.0	**-0.0**	-0.0
Mz_f	0.5	0.0	-0.0	0.0	-0.0	**-0.0**	0.5	-0.0	-0.0	0.0	-0.0	**0.0**

Member 371

Fx_i	**-2.3**	-33.0	0.0	0.0	-0.0	-57.8	**-2.2**	-6.6	0.0	0.0	-0.0	-11.6
Fy_i	-2.3	**-33.0**	0.0	0.0	-0.0	-57.8	-2.2	**-6.6**	0.0	0.0	-0.0	-11.6
Fz_i	-2.2	-6.6	**0.0**	0.0	-0.0	-11.6	-2.3	-33.0	**0.0**	0.0	-0.0	-57.8
Mx_i	-2.3	-33.0	0.0	**0.0**	-0.0	-57.8	-2.2	-6.6	0.0	**0.0**	-0.0	-11.6
My_i	-2.3	-33.0	0.0	0.0	**-0.0**	-57.8	-2.2	-6.6	0.0	0.0	**-0.0**	-11.6
Mz_i	-2.3	-33.0	0.0	0.0	-0.0	**-57.8**	-2.2	-6.6	0.0	0.0	-0.0	**-11.6**
Fx_f	**-2.3**	-0.0	0.0	0.0	0.0	0.0	**-2.2**	-0.0	0.0	0.0	0.0	0.0
Fy_f	-2.3	**-0.0**	0.0	0.0	0.0	0.0	-2.2	**-0.0**	0.0	0.0	0.0	0.0
Fz_f	-2.2	-0.0	**0.0**	0.0	0.0	0.0	-2.3	-0.0	**0.0**	0.0	0.0	0.0
Mx_f	-2.3	-0.0	0.0	**0.0**	0.0	0.0	-2.2	-0.0	0.0	**0.0**	0.0	0.0
My_f	-2.2	-0.0	0.0	0.0	**0.0**	0.0	-2.3	-0.0	0.0	0.0	**0.0**	0.0
Mz_f	-2.2	-0.0	0.0	0.0	0.0	**0.0**	-2.3	-0.0	0.0	0.0	0.0	**0.0**

Member 372

Fx_i	**20.9**	-27.5	-0.0	0.0	0.0	-48.1	**21.0**	-5.5	-0.0	0.0	0.0	-9.6
Fy_i	20.9	**-27.5**	-0.0	0.0	0.0	-48.1	21.0	**-5.5**	-0.0	0.0	0.0	-9.6
Fz_i	21.0	-5.5	**-0.0**	0.0	0.0	-9.6	20.9	-27.5	**-0.0**	0.0	0.0	-48.1
Mx_i	20.9	-27.5	-0.0	**0.0**	0.0	-48.1	21.0	-5.5	-0.0	**0.0**	0.0	-9.6
My_i	20.9	-27.5	-0.0	0.0	**0.0**	-48.1	21.0	-5.5	-0.0	0.0	**0.0**	-9.6
Mz_i	20.9	-27.5	-0.0	0.0	0.0	**-48.1**	21.0	-5.5	-0.0	0.0	0.0	**-9.6**
Fx_f	**20.9**	-0.0	-0.0	0.0	-0.0	0.0	**21.0**	-0.0	-0.0	0.0	-0.0	0.0
Fy_f	20.9	**-0.0**	-0.0	0.0	-0.0	0.0	21.0	**-0.0**	-0.0	0.0	-0.0	0.0
Fz_f	21.0	-0.0	**-0.0**	0.0	-0.0	0.0	20.9	-0.0	**-0.0**	0.0	-0.0	0.0
Mx_f	20.9	-0.0	-0.0	**0.0**	-0.0	0.0	21.0	-0.0	-0.0	**0.0**	-0.0	0.0
My_f	21.0	-0.0	-0.0	0.0	**-0.0**	0.0	20.9	-0.0	-0.0	0.0	**-0.0**	0.0
Mz_f	20.9	-0.0	-0.0	0.0	-0.0	**0.0**	21.0	-0.0	-0.0	0.0	-0.0	**0.0**

Member 373

Fx_i	**-20.6**	-119.5	0.0	-0.0	-0.0	-209.2	**-19.5**	-115.8	0.0	0.0	-0.0	-202.7
Fy_i	-20.6	**-119.5**	0.0	-0.0	-0.0	-209.2	-19.5	**-115.8**	0.0	0.0	-0.0	-202.7
Fz_i	-20.6	-119.5	**0.0**	-0.0	-0.0	-209.2	-19.5	-115.8	**0.0**	0.0	-0.0	-202.7
Mx_i	-20.6	-119.5	0.0	**-0.0**	-0.0	-209.2	-19.5	-115.8	0.0	**0.0**	-0.0	-202.7
My_i	-19.5	-115.8	0.0	0.0	**-0.0**	-202.7	-20.6	-119.5	0.0	-0.0	**-0.0**	-209.2
Mz_i	-20.6	-119.5	0.0	-0.0	-0.0	**-209.2**	-19.5	-115.8	0.0	0.0	-0.0	**-202.7**
Fx_f	**-20.6**	-109.7	0.0	-0.0	-0.0	0.0	**-19.5**	-114.0	0.0	0.0	-0.0	-0.0
Fy_f	-19.5	**-114.0**	0.0	0.0	-0.0	-0.0	-20.6	**-109.7**	0.0	-0.0	-0.0	0.0
Fz_f	-20.6	-109.7	**0.0**	-0.0	-0.0	0.0	-19.5	-114.0	**0.0**	0.0	-0.0	-0.0
Mx_f	-20.6	-109.7	0.0	**-0.0**	-0.0	0.0	-19.5	-114.0	0.0	**0.0**	-0.0	-0.0
My_f	-20.6	-109.7	0.0	-0.0	**-0.0**	0.0	-19.5	-114.0	0.0	0.0	**-0.0**	-0.0
Mz_f	-19.5	-114.0	0.0	0.0	-0.0	**-0.0**	-20.6	-109.7	0.0	-0.0	-0.0	**0.0**

Member 374

Fx_i	**-5.9**	-0.0	-0.0	0.0	0.0	-0.0	**-4.8**	-0.0	-0.0	0.0	0.0	-0.0
Fy_i	-4.8	**-0.0**	-0.0	0.0	0.0	-0.0	-5.9	**-0.0**	-0.0	0.0	0.0	-0.0
Fz_i	-4.8	-0.0	**-0.0**	0.0	0.0	-0.0	-5.9	-0.0	**-0.0**	0.0	0.0	-0.0
Mx_i	-4.8	-0.0	-0.0	**0.0**	0.0	-0.0	-5.9	-0.0	-0.0	**0.0**	0.0	-0.0
My_i	-5.9	-0.0	-0.0	0.0	**0.0**	-0.0	-4.8	-0.0	-0.0	0.0	**0.0**	-0.0
Mz_i	-4.8	-0.0	-0.0	0.0	0.0	**-0.0**	-5.9	-0.0	-0.0	0.0	0.0	**-0.0**
Fx_f	**-5.9**	-0.0	-0.0	0.0	0.0	0.0	**-4.8**	-0.0	-0.0	0.0	0.0	0.0
Fy_f	-4.8	**-0.0**	-0.0	0.0	0.0	0.0	-5.9	**-0.0**	-0.0	0.0	0.0	0.0

Fz_f	-4.8	-0.0	**-0.0**	0.0	0.0	0.0	-5.9	-0.0	**-0.0**	0.0	0.0	0.0
Mx_f	-4.8	-0.0	-0.0	**0.0**	0.0	0.0	-5.9	-0.0	-0.0	**0.0**	0.0	0.0
My_f	-4.8	-0.0	-0.0	0.0	**0.0**	0.0	-5.9	-0.0	-0.0	0.0	**0.0**	0.0
Mz_f	-5.9	-0.0	-0.0	0.0	0.0	**0.0**	-4.8	-0.0	-0.0	0.0	0.0	**0.0**

Member 375

Fx_i	**9.2**	-2.0	0.0	-0.0	-0.0	-3.4	**9.3**	-26.0	0.0	-0.0	-0.0	-45.5
Fy_i	9.3	**-26.0**	0.0	-0.0	-0.0	-45.5	9.2	**-2.0**	0.0	-0.0	-0.0	-3.4
Fz_i	9.2	-2.0	**0.0**	-0.0	-0.0	-3.4	9.3	-26.0	**0.0**	-0.0	-0.0	-45.5
Mx_i	9.3	-26.0	0.0	**-0.0**	-0.0	-45.5	9.2	-2.0	0.0	**-0.0**	-0.0	-3.4
My_i	9.3	-26.0	0.0	-0.0	**-0.0**	-45.5	9.2	-2.0	0.0	-0.0	**-0.0**	-3.4
Mz_i	9.3	-26.0	0.0	-0.0	-0.0	**-45.5**	9.2	-2.0	0.0	-0.0	-0.0	**-3.4**
Fx_f	**9.2**	0.0	0.0	-0.0	0.0	-0.0	**9.3**	0.0	0.0	-0.0	0.0	0.0
Fy_f	9.3	**0.0**	0.0	-0.0	0.0	0.0	9.2	**0.0**	0.0	-0.0	0.0	-0.0
Fz_f	9.2	0.0	**0.0**	-0.0	0.0	-0.0	9.3	0.0	**0.0**	-0.0	0.0	0.0
Mx_f	9.3	0.0	0.0	**-0.0**	0.0	0.0	9.2	0.0	0.0	**-0.0**	0.0	-0.0
My_f	9.2	0.0	0.0	-0.0	**0.0**	-0.0	9.3	0.0	0.0	-0.0	**0.0**	0.0
Mz_f	9.2	0.0	0.0	-0.0	0.0	**-0.0**	9.3	0.0	0.0	-0.0	0.0	**0.0**

Member 376

Fx_i	**-0.7**	-5.4	-0.0	0.0	0.0	-9.5	**-0.6**	-27.2	-0.0	0.0	0.0	-47.6
Fy_i	-0.6	**-27.2**	-0.0	0.0	0.0	-47.6	-0.7	**-5.4**	-0.0	0.0	0.0	-9.5
Fz_i	-0.7	-5.4	**-0.0**	0.0	0.0	-9.5	-0.6	-27.2	**-0.0**	0.0	0.0	-47.6
Mx_i	-0.6	-27.2	-0.0	**0.0**	0.0	-47.6	-0.7	-5.4	-0.0	**0.0**	0.0	-9.5
My_i	-0.7	-5.4	-0.0	0.0	**0.0**	-9.5	-0.6	-27.2	-0.0	0.0	**0.0**	-47.6
Mz_i	-0.6	-27.2	-0.0	0.0	0.0	**-47.6**	-0.7	-5.4	-0.0	0.0	0.0	**-9.5**
Fx_f	**-0.7**	-0.0	-0.0	0.0	-0.0	0.0	**-0.6**	0.0	-0.0	0.0	-0.0	0.0
Fy_f	-0.7	**-0.0**	-0.0	0.0	-0.0	0.0	-0.6	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	-0.7	-0.0	**-0.0**	0.0	-0.0	0.0	-0.6	0.0	**-0.0**	0.0	-0.0	0.0
Mx_f	-0.6	0.0	-0.0	**0.0**	-0.0	0.0	-0.7	-0.0	-0.0	**0.0**	-0.0	0.0
My_f	-0.7	-0.0	-0.0	0.0	**-0.0**	0.0	-0.6	0.0	-0.0	0.0	**-0.0**	0.0
Mz_f	-0.6	0.0	-0.0	0.0	-0.0	**0.0**	-0.7	-0.0	-0.0	0.0	-0.0	**0.0**

Member 377

Fx_i	**0.2**	-6.6	0.0	0.0	-0.0	-11.6	**0.4**	-33.0	0.0	0.0	-0.0	-57.8
Fy_i	0.4	**-33.0**	0.0	0.0	-0.0	-57.8	0.2	**-6.6**	0.0	0.0	-0.0	-11.6
Fz_i	0.2	-6.6	**0.0**	0.0	-0.0	-11.6	0.4	-33.0	**0.0**	0.0	-0.0	-57.8
Mx_i	0.4	-33.0	0.0	**0.0**	-0.0	-57.8	0.2	-6.6	0.0	**0.0**	-0.0	-11.6
My_i	0.4	-33.0	0.0	0.0	**-0.0**	-57.8	0.2	-6.6	0.0	0.0	**-0.0**	-11.6
Mz_i	0.4	-33.0	0.0	0.0	-0.0	**-57.8**	0.2	-6.6	0.0	0.0	-0.0	**-11.6**
Fx_f	**0.2**	0.0	0.0	0.0	0.0	0.0	**0.4**	0.0	0.0	0.0	0.0	-0.0
Fy_f	0.2	**0.0**	0.0	0.0	0.0	0.0	0.4	**0.0**	0.0	0.0	0.0	-0.0
Fz_f	0.2	0.0	**0.0**	0.0	0.0	0.0	0.4	0.0	**0.0**	0.0	0.0	-0.0
Mx_f	0.4	0.0	0.0	**0.0**	0.0	-0.0	0.2	0.0	0.0	**0.0**	0.0	0.0
My_f	0.2	0.0	0.0	0.0	**0.0**	0.0	0.4	0.0	0.0	0.0	**0.0**	-0.0
Mz_f	0.4	0.0	0.0	0.0	0.0	**-0.0**	0.2	0.0	0.0	0.0	0.0	**0.0**

Member 378

Fx_i	**-0.2**	-32.8	-0.0	0.0	0.0	-57.4	**-0.1**	-6.6	-0.0	0.0	0.0	-11.5
Fy_i	-0.2	**-32.8**	-0.0	0.0	0.0	-57.4	-0.1	**-6.6**	-0.0	0.0	0.0	-11.5
Fz_i	-0.2	-32.8	**-0.0**	0.0	0.0	-57.4	-0.1	-6.6	**-0.0**	0.0	0.0	-11.5
Mx_i	-0.1	-6.6	-0.0	**0.0**	0.0	-11.5	-0.2	-32.8	-0.0	**0.0**	0.0	-57.4
My_i	-0.1	-6.6	-0.0	0.0	**0.0**	-11.5	-0.2	-32.8	-0.0	0.0	**0.0**	-57.4
Mz_i	-0.2	-32.8	-0.0	0.0	0.0	**-57.4**	-0.1	-6.6	-0.0	0.0	0.0	**-11.5**
Fx_f	**-0.2**	-0.0	-0.0	0.0	-0.0	0.0	**-0.1**	-0.0	-0.0	0.0	-0.0	-0.0
Fy_f	-0.2	**-0.0**	-0.0	0.0	-0.0	0.0	-0.1	**-0.0**	-0.0	0.0	-0.0	-0.0
Fz_f	-0.2	-0.0	**-0.0**	0.0	-0.0	0.0	-0.1	-0.0	**-0.0**	0.0	-0.0	-0.0
Mx_f	-0.1	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.2	-0.0	-0.0	**0.0**	-0.0	0.0
My_f	-0.2	-0.0	-0.0	0.0	**-0.0**	0.0	-0.1	-0.0	-0.0	0.0	**-0.0**	-0.0
Mz_f	-0.1	-0.0	-0.0	0.0	-0.0	**-0.0**	-0.2	-0.0	-0.0	0.0	-0.0	**0.0**

Member 379

Fx_i	**0.5**	-6.6	0.0	0.0	-0.0	-11.5	**0.5**	-32.8	0.0	0.0	-0.0	-57.4
Fy_i	0.5	**-32.8**	0.0	0.0	-0.0	-57.4	0.5	**-6.6**	0.0	0.0	-0.0	-11.5
Fz_i	0.5	-6.6	**0.0**	0.0	-0.0	-11.5	0.5	-32.8	**0.0**	0.0	-0.0	-57.4
Mx_i	0.5	-32.8	0.0	**0.0**	-0.0	-57.4	0.5	-6.6	0.0	**0.0**	-0.0	-11.5
My_i	0.5	-32.8	0.0	0.0	**-0.0**	-57.4	0.5	-6.6	0.0	0.0	**-0.0**	-11.5
Mz_i	0.5	-32.8	0.0	0.0	-0.0	**-57.4**	0.5	-6.6	0.0	0.0	-0.0	**-11.5**
Fx_f	**0.5**	0.0	0.0	0.0	0.0	0.0	**0.5**	-0.0	0.0	0.0	0.0	0.0
Fy_f	0.5	**-0.0**	0.0	0.0	0.0	0.0	0.5	**0.0**	0.0	0.0	0.0	0.0
Fz_f	0.5	0.0	**0.0**	0.0	0.0	0.0	0.5	-0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.5	-0.0	0.0	**0.0**	0.0	0.0	0.5	0.0	0.0	**0.0**	0.0	0.0
My_f	0.5	0.0	0.0	0.0	**0.0**	0.0	0.5	-0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.5	0.0	0.0	0.0	0.0	**0.0**	0.5	-0.0	0.0	0.0	0.0	**0.0**

Member 380

Fx_i	**-2.3**	-33.0	-0.0	0.0	0.0	-57.8	**-2.2**	-6.6	-0.0	0.0	0.0	-11.6
Fy_i	-2.3	**-33.0**	-0.0	0.0	0.0	-57.8	-2.2	**-6.6**	-0.0	0.0	0.0	-11.6
Fz_i	-2.3	-33.0	**-0.0**	0.0	0.0	-57.8	-2.2	-6.6	**-0.0**	0.0	0.0	-11.6
Mx_i	-2.3	-33.0	-0.0	**0.0**	0.0	-57.8	-2.2	-6.6	-0.0	**0.0**	0.0	-11.6
My_i	-2.2	-6.6	-0.0	0.0	**0.0**	-11.6	-2.3	-33.0	-0.0	0.0	**0.0**	-57.8
Mz_i	-2.3	-33.0	-0.0	0.0	0.0	**-57.8**	-2.2	-6.6	-0.0	0.0	0.0	-11.6
Fx_f	**-2.3**	-0.0	-0.0	0.0	-0.0	0.0	**-2.2**	-0.0	-0.0	0.0	-0.0	0.0
Fy_f	-2.3	**-0.0**	-0.0	0.0	-0.0	0.0	-2.2	**-0.0**	-0.0	0.0	-0.0	0.0
Fz_f	-2.3	-0.0	**-0.0**	0.0	-0.0	0.0	-2.2	-0.0	**-0.0**	0.0	-0.0	0.0
Mx_f	-2.3	-0.0	-0.0	**0.0**	-0.0	0.0	-2.2	-0.0	-0.0	**0.0**	-0.0	0.0
My_f	-2.3	-0.0	-0.0	0.0	**-0.0**	0.0	-2.2	-0.0	-0.0	0.0	**-0.0**	0.0
Mz_f	-2.2	-0.0	-0.0	0.0	-0.0	**0.0**	-2.3	-0.0	-0.0	0.0	-0.0	**0.0**

Member 381

Fx_i	**20.9**	-27.5	0.0	0.0	-0.0	-48.1	**21.0**	-5.5	0.0	0.0	-0.0	-9.6
Fy_i	20.9	**-27.5**	0.0	0.0	-0.0	-48.1	21.0	**-5.5**	0.0	0.0	-0.0	-9.6
Fz_i	20.9	-27.5	**0.0**	0.0	-0.0	-48.1	21.0	-5.5	**0.0**	0.0	-0.0	-9.6
Mx_i	20.9	-27.5	0.0	**0.0**	-0.0	-48.1	21.0	-5.5	0.0	**0.0**	-0.0	-9.6
My_i	21.0	-5.5	0.0	0.0	**-0.0**	-9.6	20.9	-27.5	0.0	0.0	**-0.0**	-48.1
Mz_i	20.9	-27.5	0.0	0.0	-0.0	**-48.1**	21.0	-5.5	0.0	0.0	-0.0	**-9.6**
Fx_f	**20.9**	-0.0	0.0	0.0	0.0	0.0	**21.0**	0.0	0.0	0.0	0.0	-0.0
Fy_f	20.9	**-0.0**	0.0	0.0	0.0	0.0	21.0	**0.0**	0.0	0.0	0.0	-0.0
Fz_f	20.9	-0.0	**0.0**	0.0	0.0	0.0	21.0	0.0	**0.0**	0.0	0.0	-0.0
Mx_f	20.9	-0.0	0.0	**0.0**	0.0	0.0	21.0	0.0	0.0	**0.0**	0.0	-0.0
My_f	20.9	-0.0	0.0	0.0	**0.0**	0.0	21.0	0.0	0.0	0.0	**0.0**	-0.0
Mz_f	21.0	0.0	0.0	0.0	0.0	**-0.0**	20.9	-0.0	0.0	0.0	0.0	**0.0**

Member 382

Fx_i	**-20.6**	-119.5	-0.0	0.0	0.0	-209.2	**-19.5**	-115.8	-0.0	0.0	0.0	-202.7
Fy_i	-20.6	**-119.5**	-0.0	0.0	0.0	-209.2	-19.5	**-115.8**	-0.0	0.0	0.0	-202.7
Fz_i	-19.5	-115.8	**-0.0**	0.0	0.0	-202.7	-20.6	-119.5	**-0.0**	0.0	0.0	-209.2
Mx_i	-20.6	-119.5	-0.0	**0.0**	0.0	-209.2	-19.5	-115.8	-0.0	**0.0**	0.0	-202.7
My_i	-20.6	-119.5	-0.0	0.0	**0.0**	-209.2	-19.5	-115.8	-0.0	0.0	**0.0**	-202.7
Mz_i	-20.6	-119.5	-0.0	0.0	0.0	**-209.2**	-19.5	-115.8	-0.0	0.0	0.0	**-202.7**
Fx_f	**-20.6**	-109.7	-0.0	0.0	-0.0	0.0	**-19.5**	-114.0	-0.0	0.0	-0.0	0.0
Fy_f	-19.5	**-114.0**	-0.0	0.0	-0.0	0.0	-20.6	**-109.7**	-0.0	0.0	-0.0	0.0
Fz_f	-19.5	-114.0	**-0.0**	0.0	-0.0	0.0	-20.6	-109.7	**-0.0**	0.0	-0.0	0.0
Mx_f	-20.6	-109.7	-0.0	**0.0**	-0.0	0.0	-19.5	-114.0	-0.0	**0.0**	-0.0	0.0
My_f	-20.6	-109.7	-0.0	0.0	**-0.0**	0.0	-19.5	-114.0	-0.0	0.0	**-0.0**	0.0
Mz_f	-20.6	-109.7	-0.0	0.0	-0.0	**0.0**	-19.5	-114.0	-0.0	0.0	-0.0	**0.0**

Member 391

Fx_i	**9.2**	0.0	-0.0	0.0	-0.0	0.0	**9.3**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	9.3	**0.0**	-0.0	0.0	-0.0	0.0	9.2	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	9.3	0.0	**-0.0**	0.0	-0.0	0.0	9.2	0.0	**-0.0**	0.0	-0.0	0.0
Mx_i	9.3	0.0	-0.0	**0.0**	-0.0	0.0	9.2	0.0	-0.0	**0.0**	-0.0	0.0
My_i	9.3	0.0	-0.0	0.0	**-0.0**	0.0	9.2	0.0	-0.0	0.0	**-0.0**	0.0

Mz,	9.3	0.0	-0.0	0.0	-0.0	**0.0**	9.2	0.0	-0.0	0.0	-0.0	**0.0**
Fx,	**9.2**	-2.0	-0.0	0.0	-0.0	26.4	**9.3**	-26.0	-0.0	0.0	-0.0	350.4
Fy,	9.3	**-26.0**	-0.0	0.0	-0.0	350.4	9.2	**-2.0**	-0.0	0.0	-0.0	26.4
Fz,	9.3	-26.0	**-0.0**	0.0	-0.0	350.4	9.2	-2.0	**-0.0**	0.0	-0.0	26.4
Mx,	9.3	-26.0	-0.0	**0.0**	-0.0	350.4	9.2	-2.0	-0.0	**0.0**	-0.0	26.4
My,	9.3	-26.0	-0.0	0.0	**-0.0**	350.4	9.2	-2.0	-0.0	0.0	**-0.0**	26.4
Mz,	9.2	-2.0	-0.0	0.0	-0.0	**26.4**	9.3	-26.0	-0.0	0.0	-0.0	**350.4**

Member 392

Fx,	**-0.7**	0.0	0.0	0.0	0.0	0.0	**-0.6**	0.0	0.0	0.0	0.0	0.0
Fy,	-0.6	**0.0**	0.0	0.0	0.0	0.0	-0.7	**0.0**	0.0	0.0	0.0	0.0
Fz,	-0.6	0.0	**0.0**	0.0	0.0	0.0	-0.7	0.0	**0.0**	0.0	0.0	0.0
Mx,	-0.6	0.0	0.0	**0.0**	0.0	0.0	-0.7	0.0	0.0	**0.0**	0.0	0.0
My,	-0.6	0.0	0.0	0.0	**0.0**	0.0	-0.7	0.0	0.0	0.0	**0.0**	0.0
Mz,	-0.6	0.0	0.0	0.0	0.0	**0.0**	-0.7	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-0.7**	-5.4	0.0	0.0	0.0	67.4	**-0.6**	-27.2	0.0	0.0	0.0	337.2
Fy,	-0.6	**-27.2**	0.0	0.0	0.0	337.2	-0.7	**-5.4**	0.0	0.0	0.0	67.4
Fz,	-0.6	-27.2	**0.0**	0.0	0.0	337.2	-0.7	-5.4	**0.0**	0.0	0.0	67.4
Mx,	-0.6	-27.2	0.0	**0.0**	0.0	337.2	-0.7	-5.4	0.0	**0.0**	0.0	67.4
My,	-0.6	-27.2	0.0	0.0	**0.0**	337.2	-0.7	-5.4	0.0	0.0	**0.0**	67.4
Mz,	-0.7	-5.4	0.0	0.0	0.0	**67.4**	-0.6	-27.2	0.0	0.0	0.0	**337.2**

Member 393

Fx,	**0.2**	0.0	-0.0	0.0	-0.0	0.0	**0.4**	0.0	-0.0	0.0	-0.0	0.0
Fy,	0.4	**0.0**	-0.0	0.0	-0.0	0.0	0.2	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	0.4	0.0	**-0.0**	0.0	-0.0	0.0	0.2	0.0	**-0.0**	0.0	-0.0	0.0
Mx,	0.4	0.0	-0.0	**0.0**	-0.0	0.0	0.2	0.0	-0.0	**0.0**	-0.0	0.0
My,	0.4	0.0	-0.0	0.0	**-0.0**	0.0	0.2	0.0	-0.0	0.0	**-0.0**	0.0
Mz,	0.4	0.0	-0.0	0.0	-0.0	**0.0**	0.2	0.0	-0.0	0.0	-0.0	**0.0**
Fx,	**0.2**	-6.6	-0.0	0.0	-0.0	102.7	**0.4**	-33.0	-0.0	0.0	-0.0	513.7
Fy,	0.4	**-33.0**	-0.0	0.0	-0.0	513.7	0.2	**-6.6**	-0.0	0.0	-0.0	102.7
Fz,	0.4	-33.0	**-0.0**	0.0	-0.0	513.7	0.2	-6.6	**-0.0**	0.0	-0.0	102.7
Mx,	0.4	-33.0	-0.0	**0.0**	-0.0	513.7	0.2	-6.6	-0.0	**0.0**	-0.0	102.7
My,	0.4	-33.0	-0.0	0.0	**-0.0**	513.7	0.2	-6.6	-0.0	0.0	**-0.0**	102.7
Mz,	0.2	-6.6	-0.0	0.0	-0.0	**102.7**	0.4	-33.0	-0.0	0.0	-0.0	**513.7**

Member 394

Fx,	**-0.2**	0.0	0.0	0.0	0.0	0.0	**-0.1**	0.0	0.0	0.0	0.0	0.0
Fy,	-0.2	**0.0**	0.0	0.0	0.0	0.0	-0.1	**0.0**	0.0	0.0	0.0	0.0
Fz,	-0.1	0.0	**0.0**	0.0	0.0	0.0	-0.2	0.0	**0.0**	0.0	0.0	0.0
Mx,	-0.2	0.0	0.0	**0.0**	0.0	0.0	-0.1	0.0	0.0	**0.0**	0.0	0.0
My,	-0.1	0.0	0.0	0.0	**0.0**	0.0	-0.2	0.0	0.0	0.0	**0.0**	0.0
Mz,	-0.2	0.0	0.0	0.0	0.0	**0.0**	-0.1	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-0.2**	-32.8	0.0	0.0	0.0	529.9	**-0.1**	-6.6	0.0	0.0	0.0	105.8
Fy,	-0.2	**-32.8**	0.0	0.0	0.0	529.9	-0.1	**-6.6**	0.0	0.0	0.0	105.8
Fz,	-0.1	-6.6	**0.0**	0.0	0.0	105.8	-0.2	-32.8	**0.0**	0.0	0.0	529.9
Mx,	-0.2	-32.8	0.0	**0.0**	0.0	529.9	-0.1	-6.6	0.0	**0.0**	0.0	105.8
My,	-0.1	-6.6	0.0	0.0	**0.0**	105.8	-0.2	-32.8	0.0	0.0	**0.0**	529.9
Mz,	-0.1	-6.6	0.0	0.0	0.0	**105.8**	-0.2	-32.8	0.0	0.0	0.0	**529.9**

Member 395

Fx,	**0.5**	0.0	-0.0	0.0	-0.0	0.0	**0.5**	0.0	-0.0	0.0	-0.0	0.0
Fy,	0.5	**0.0**	-0.0	0.0	-0.0	0.0	0.5	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	0.5	0.0	**-0.0**	0.0	-0.0	0.0	0.5	0.0	**-0.0**	0.0	-0.0	0.0
Mx,	0.5	0.0	-0.0	**0.0**	-0.0	0.0	0.5	0.0	-0.0	**0.0**	-0.0	0.0
My,	0.5	0.0	-0.0	0.0	**-0.0**	0.0	0.5	0.0	-0.0	0.0	**-0.0**	0.0
Mz,	0.5	0.0	-0.0	0.0	-0.0	**0.0**	0.5	0.0	-0.0	0.0	-0.0	**0.0**
Fx,	**0.5**	-6.6	-0.0	0.0	-0.0	107.1	**0.5**	-32.8	-0.0	0.0	-0.0	535.7
Fy,	0.5	**-32.8**	-0.0	0.0	-0.0	535.7	0.5	**-6.6**	-0.0	0.0	-0.0	107.1
Fz,	0.5	-32.8	**-0.0**	0.0	-0.0	535.7	0.5	-6.6	**-0.0**	0.0	-0.0	107.1
Mx,	0.5	-32.8	-0.0	**0.0**	-0.0	535.7	0.5	-6.6	-0.0	**0.0**	-0.0	107.1
My,	0.5	-32.8	-0.0	0.0	**-0.0**	535.7	0.5	-6.6	-0.0	0.0	**-0.0**	107.1
Mz,	0.5	-6.6	-0.0	0.0	-0.0	**107.1**	0.5	-32.8	-0.0	0.0	-0.0	**535.7**

Member 396

Fx,	**-2.3**	0.0	0.0	0.0	0.0	0.0	**-2.2**	0.0	0.0	0.0	0.0	0.0
Fy,	-2.3	**0.0**	0.0	0.0	0.0	0.0	-2.2	**0.0**	0.0	0.0	0.0	0.0
Fz,	-2.2	0.0	**0.0**	0.0	0.0	0.0	-2.3	0.0	**0.0**	0.0	0.0	0.0
Mx,	-2.3	0.0	0.0	**0.0**	0.0	0.0	-2.2	0.0	0.0	**0.0**	0.0	0.0
My,	-2.2	0.0	0.0	0.0	**0.0**	0.0	-2.3	0.0	0.0	0.0	**0.0**	0.0
Mz,	-2.3	0.0	0.0	0.0	0.0	**0.0**	-2.2	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-2.3**	-33.0	0.0	0.0	0.0	507.1	**-2.2**	-6.6	0.0	0.0	0.0	101.4
Fy,	-2.3	**-33.0**	0.0	0.0	0.0	507.1	-2.2	**-6.6**	0.0	0.0	0.0	101.4
Fz,	-2.2	-6.6	**0.0**	0.0	0.0	101.4	-2.3	-33.0	**0.0**	0.0	0.0	507.1
Mx,	-2.3	-33.0	0.0	**0.0**	0.0	507.1	-2.2	-6.6	0.0	**0.0**	0.0	101.4
My,	-2.2	-6.6	0.0	0.0	**0.0**	101.4	-2.3	-33.0	0.0	0.0	**0.0**	507.1
Mz,	-2.2	-6.6	0.0	0.0	0.0	**101.4**	-2.3	-33.0	0.0	0.0	0.0	**507.1**

Member 397

Fx,	**20.9**	0.0	-0.0	0.0	-0.0	0.0	**21.0**	0.0	-0.0	0.0	-0.0	0.0
Fy,	20.9	**0.0**	-0.0	0.0	-0.0	0.0	21.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	21.0	0.0	**-0.0**	0.0	-0.0	0.0	20.9	0.0	**-0.0**	0.0	-0.0	0.0
Mx,	20.9	0.0	-0.0	**0.0**	-0.0	0.0	21.0	0.0	-0.0	**0.0**	-0.0	0.0
My,	21.0	0.0	-0.0	0.0	**-0.0**	0.0	20.9	0.0	-0.0	0.0	**-0.0**	0.0
Mz,	20.9	0.0	-0.0	0.0	-0.0	**0.0**	21.0	0.0	-0.0	0.0	-0.0	**0.0**
Fx,	**20.9**	-27.5	-0.0	0.0	-0.1	315.1	**21.0**	-5.5	-0.0	0.0	-0.1	63.0
Fy,	20.9	**-27.5**	-0.0	0.0	-0.1	315.1	21.0	**-5.5**	-0.0	0.0	-0.1	63.0
Fz,	21.0	-5.5	**-0.0**	0.0	-0.1	63.0	20.9	-27.5	**-0.0**	0.0	-0.1	315.1
Mx,	20.9	-27.5	-0.0	**0.0**	-0.1	315.1	21.0	-5.5	-0.0	**0.0**	-0.1	63.0
My,	21.0	-5.5	-0.0	0.0	**-0.1**	63.0	20.9	-27.5	-0.0	0.0	**-0.1**	315.1
Mz,	21.0	-5.5	-0.0	0.0	-0.1	**63.0**	20.9	-27.5	-0.0	0.0	-0.1	**315.1**

Member 398

Fx,	**9.2**	0.0	0.0	0.0	0.0	0.0	**9.3**	0.0	0.0	0.0	0.0	0.0
Fy,	9.3	**0.0**	0.0	0.0	0.0	0.0	9.2	**0.0**	0.0	0.0	0.0	0.0
Fz,	9.2	0.0	**0.0**	0.0	0.0	0.0	9.3	0.0	**0.0**	0.0	0.0	0.0
Mx,	9.3	0.0	0.0	**0.0**	0.0	0.0	9.2	0.0	0.0	**0.0**	0.0	0.0
My,	9.2	0.0	0.0	0.0	**0.0**	0.0	9.3	0.0	0.0	0.0	**0.0**	0.0
Mz,	9.3	0.0	0.0	0.0	0.0	**0.0**	9.2	0.0	0.0	0.0	0.0	**0.0**
Fx,	**9.2**	-2.0	0.0	0.0	0.0	26.4	**9.3**	-26.0	0.0	0.0	0.0	350.4
Fy,	9.3	**-26.0**	0.0	0.0	0.0	350.4	9.2	**-2.0**	0.0	0.0	0.0	26.4
Fz,	9.2	-2.0	**0.0**	0.0	0.0	26.4	9.3	-26.0	**0.0**	0.0	0.0	350.4
Mx,	9.3	-26.0	0.0	**0.0**	0.0	350.4	9.2	-2.0	0.0	**0.0**	0.0	26.4
My,	9.2	-2.0	0.0	0.0	**0.0**	26.4	9.3	-26.0	0.0	0.0	**0.0**	350.4
Mz,	9.2	-2.0	0.0	0.0	0.0	**26.4**	9.3	-26.0	0.0	0.0	0.0	**350.4**

Member 399

Fx,	**-0.7**	0.0	-0.0	0.0	-0.0	0.0	**-0.6**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-0.6	**0.0**	-0.0	0.0	-0.0	0.0	-0.7	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-0.7	0.0	**-0.0**	0.0	-0.0	0.0	-0.6	0.0	**-0.0**	0.0	-0.0	0.0
Mx,	-0.6	0.0	-0.0	**0.0**	-0.0	0.0	-0.7	0.0	-0.0	**0.0**	-0.0	0.0
My,	-0.7	0.0	-0.0	0.0	**-0.0**	0.0	-0.6	0.0	-0.0	0.0	**-0.0**	0.0
Mz,	-0.6	0.0	-0.0	0.0	-0.0	**0.0**	-0.7	0.0	-0.0	0.0	-0.0	**0.0**
Fx,	**-0.7**	-5.4	-0.0	0.0	-0.0	67.4	**-0.6**	-27.2	-0.0	0.0	-0.0	337.2
Fy,	-0.6	**-27.2**	-0.0	0.0	-0.0	337.2	-0.7	**-5.4**	-0.0	0.0	-0.0	67.4
Fz,	-0.7	-5.4	**-0.0**	0.0	-0.0	67.4	-0.6	-27.2	**-0.0**	0.0	-0.0	337.2
Mx,	-0.6	-27.2	-0.0	**0.0**	-0.0	337.2	-0.7	-5.4	-0.0	**0.0**	-0.0	67.4
My,	-0.7	-5.4	-0.0	0.0	**-0.0**	67.4	-0.6	-27.2	-0.0	0.0	**-0.0**	337.2
Mz,	-0.7	-5.4	-0.0	0.0	-0.0	**67.4**	-0.6	-27.2	-0.0	0.0	-0.0	**337.2**

Member 400

Fx,	**0.2**	0.0	0.0	0.0	0.0	0.0	**0.4**	0.0	0.0	0.0	0.0	0.0

Fy,	0.4	**0.0**	0.0	0.0	0.0	0.0	0.2	**0.0**	0.0	0.0	0.0	0.0
Fz,	0.2	0.0	**0.0**	0.0	0.0	0.0	0.4	0.0	**0.0**	0.0	0.0	0.0
Mx,	0.4	0.0	0.0	**0.0**	0.0	0.0	0.2	0.0	0.0	**0.0**	0.0	0.0
My,	0.2	0.0	0.0	0.0	**0.0**	0.0	0.4	0.0	0.0	0.0	**0.0**	0.0
Mz,	0.4	0.0	0.0	0.0	0.0	**0.0**	0.2	0.0	0.0	0.0	0.0	**0.0**
Fx,	**0.2**	-6.6	0.0	0.0	0.0	102.7	**0.4**	-33.0	0.0	0.0	0.0	513.7
Fy,	0.4	**-33.0**	0.0	0.0	0.0	513.7	0.2	**-6.6**	0.0	0.0	0.0	102.7
Fz,	0.2	-6.6	**0.0**	0.0	0.0	102.7	0.4	-33.0	**0.0**	0.0	0.0	513.7
Mx,	0.4	-33.0	0.0	**0.0**	0.0	513.7	0.2	-6.6	0.0	**0.0**	0.0	102.7
My,	0.2	-6.6	0.0	0.0	**0.0**	102.7	0.4	-33.0	0.0	0.0	**0.0**	513.7
Mz,	0.2	-6.6	0.0	0.0	0.0	**102.7**	0.4	-33.0	0.0	0.0	0.0	**513.7**

Member 401

Fx,	**-0.2**	0.0	-0.0	0.0	-0.0	0.0	**-0.1**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-0.2	**0.0**	-0.0	0.0	-0.0	0.0	-0.1	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-0.2	0.0	**-0.0**	0.0	-0.0	0.0	-0.1	0.0	**-0.0**	0.0	-0.0	0.0
Mx,	-0.2	0.0	-0.0	**0.0**	-0.0	0.0	-0.1	0.0	-0.0	**0.0**	-0.0	0.0
My,	-0.2	0.0	-0.0	0.0	**-0.0**	0.0	-0.1	0.0	-0.0	0.0	**-0.0**	0.0
Mz,	-0.2	0.0	-0.0	0.0	-0.0	**0.0**	-0.1	0.0	-0.0	0.0	-0.0	**0.0**
Fx,	**-0.2**	-32.8	-0.0	0.0	-0.0	529.9	**-0.1**	-6.6	-0.0	0.0	-0.0	105.8
Fy,	-0.2	**-32.8**	-0.0	0.0	-0.0	529.9	-0.1	**-6.6**	-0.0	0.0	-0.0	105.8
Fz,	-0.2	-32.8	**-0.0**	0.0	-0.0	529.9	-0.1	-6.6	**-0.0**	0.0	-0.0	105.8
Mx,	-0.2	-32.8	-0.0	**0.0**	-0.0	529.9	-0.1	-6.6	-0.0	**0.0**	-0.0	105.8
My,	-0.2	-32.8	-0.0	0.0	**-0.0**	529.9	-0.1	-6.6	-0.0	0.0	**-0.0**	105.8
Mz,	-0.1	-6.6	-0.0	0.0	-0.0	**105.8**	-0.2	-32.8	-0.0	0.0	-0.0	**529.9**

Member 402

Fx,	**0.5**	0.0	0.0	0.0	0.0	0.0	**0.5**	0.0	0.0	0.0	0.0	0.0
Fy,	0.5	**0.0**	0.0	0.0	0.0	0.0	0.5	**0.0**	0.0	0.0	0.0	0.0
Fz,	0.5	0.0	**0.0**	0.0	0.0	0.0	0.5	0.0	**0.0**	0.0	0.0	0.0
Mx,	0.5	0.0	0.0	**0.0**	0.0	0.0	0.5	0.0	0.0	**0.0**	0.0	0.0
My,	0.5	0.0	0.0	0.0	**0.0**	0.0	0.5	0.0	0.0	0.0	**0.0**	0.0
Mz,	0.5	0.0	0.0	0.0	0.0	**0.0**	0.5	0.0	0.0	0.0	0.0	**0.0**
Fx,	**0.5**	-6.6	0.0	0.0	0.0	107.1	**0.5**	-32.8	0.0	0.0	0.0	535.7
Fy,	0.5	**-32.8**	0.0	0.0	0.0	535.7	0.5	**-6.6**	0.0	0.0	0.0	107.1
Fz,	0.5	-6.6	**0.0**	0.0	0.0	107.1	0.5	-32.8	**0.0**	0.0	0.0	535.7
Mx,	0.5	-32.8	0.0	**0.0**	0.0	535.7	0.5	-6.6	0.0	**0.0**	0.0	107.1
My,	0.5	-6.6	0.0	0.0	**0.0**	107.1	0.5	-32.8	0.0	0.0	**0.0**	535.7
Mz,	0.5	-6.6	0.0	0.0	0.0	**107.1**	0.5	-32.8	0.0	0.0	0.0	**535.7**

Member 403

Fx,	**-2.3**	0.0	-0.0	0.0	-0.0	0.0	**-2.2**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-2.3	**0.0**	-0.0	0.0	-0.0	0.0	-2.2	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	-2.3	0.0	**-0.0**	0.0	-0.0	0.0	-2.2	0.0	**-0.0**	0.0	-0.0	0.0
Mx,	-2.3	0.0	-0.0	**0.0**	-0.0	0.0	-2.2	0.0	-0.0	**0.0**	-0.0	0.0
My,	-2.3	0.0	-0.0	0.0	**-0.0**	0.0	-2.2	0.0	-0.0	0.0	**-0.0**	0.0
Mz,	-2.3	0.0	-0.0	0.0	-0.0	**0.0**	-2.2	0.0	-0.0	0.0	-0.0	**0.0**
Fx,	**-2.3**	-33.0	-0.0	0.0	-0.0	507.1	**-2.2**	-6.6	-0.0	0.0	-0.0	101.4
Fy,	-2.3	**-33.0**	-0.0	0.0	-0.0	507.1	-2.2	**-6.6**	-0.0	0.0	-0.0	101.4
Fz,	-2.3	-33.0	**-0.0**	0.0	-0.0	507.1	-2.2	-6.6	**-0.0**	0.0	-0.0	101.4
Mx,	-2.3	-33.0	-0.0	**0.0**	-0.0	507.1	-2.2	-6.6	-0.0	**0.0**	-0.0	101.4
My,	-2.3	-33.0	-0.0	0.0	**-0.0**	507.1	-2.2	-6.6	-0.0	0.0	**-0.0**	101.4
Mz,	-2.2	-6.6	-0.0	0.0	-0.0	**101.4**	-2.3	-33.0	-0.0	0.0	-0.0	**507.1**

Member 404

Fx,	**20.9**	0.0	0.0	0.0	0.0	0.0	**21.0**	0.0	0.0	0.0	0.0	0.0
Fy,	20.9	**0.0**	0.0	0.0	0.0	0.0	21.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	20.9	0.0	**0.0**	0.0	0.0	0.0	21.0	0.0	**0.0**	0.0	0.0	0.0
Mx,	20.9	0.0	0.0	**0.0**	0.0	0.0	21.0	0.0	0.0	**0.0**	0.0	0.0
My,	20.9	0.0	0.0	0.0	**0.0**	0.0	21.0	0.0	0.0	0.0	**0.0**	0.0
Mz,	20.9	0.0	0.0	0.0	0.0	**0.0**	21.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**20.9**	-27.5	0.0	0.0	0.1	315.1	**21.0**	-5.5	0.0	0.0	0.1	63.0
Fy,	20.9	**-27.5**	0.0	0.0	0.1	315.1	21.0	**-5.5**	0.0	0.0	0.1	63.0
Fz,	20.9	-27.5	**0.0**	0.0	0.1	315.1	21.0	-5.5	**0.0**	0.0	0.1	63.0
Mx,	20.9	-27.5	0.0	**0.0**	0.1	315.1	21.0	-5.5	0.0	**0.0**	0.1	63.0
My,	20.9	-27.5	0.0	0.0	**0.1**	315.1	21.0	-5.5	0.0	0.0	**0.1**	63.0
Mz,	21.0	-5.5	0.0	0.0	0.1	**63.0**	20.9	-27.5	0.0	0.0	0.1	**315.1**

Member 421 (405) y (406) VC. al final de este estado de carga.

Fx,	**18.3**	-3.9	-0.0	-0.0	-0.0	52.8	**18.6**	-52.0	-0.0	-0.0	-0.0	700.7
Fy,	18.6	**-52.0**	-0.0	-0.0	-0.0	700.7	18.3	-3.9	-0.0	-0.0	-0.0	52.8
Fz,	18.3	-3.9	**-0.0**	-0.0	-0.0	52.8	18.6	-52.0	**-0.0**	-0.0	-0.0	700.7
Mx,	18.6	-52.0	-0.0	**-0.0**	-0.0	700.7	18.3	-3.9	-0.0	**-0.0**	-0.0	52.8
My,	18.3	-3.9	-0.0	-0.0	**-0.0**	52.8	18.6	-52.0	-0.0	-0.0	**-0.0**	700.7
Mz,	18.3	-3.9	-0.0	-0.0	-0.0	**52.8**	18.6	-52.0	-0.0	-0.0	-0.0	**700.7**
Fx,	**18.3**	-3.9	-0.0	-0.0	-0.0	56.7	**18.6**	-52.0	-0.0	-0.0	-0.0	752.7
Fy,	18.6	**-52.0**	-0.0	-0.0	-0.0	752.7	18.3	**-3.9**	-0.0	-0.0	-0.0	56.7
Fz,	18.3	-3.9	**-0.0**	-0.0	-0.0	56.7	18.6	-52.0	**-0.0**	-0.0	-0.0	752.7
Mx,	18.6	-52.0	-0.0	**-0.0**	-0.0	752.7	18.3	-3.9	-0.0	**-0.0**	-0.0	56.7
My,	18.3	-3.9	-0.0	-0.0	**-0.0**	56.7	18.6	-52.0	-0.0	-0.0	**-0.0**	752.7
Mz,	18.3	-3.9	-0.0	-0.0	-0.0	**56.7**	18.6	-52.0	-0.0	-0.0	-0.0	**752.7**

Member 422

Fx,	**-1.4**	-10.9	-0.0	-0.0	-0.0	134.9	**-1.3**	-54.4	-0.0	-0.0	-0.0	674.3
Fy,	-1.3	**-54.4**	-0.0	-0.0	-0.0	674.3	-1.4	**-10.9**	-0.0	-0.0	-0.0	134.9
Fz,	-1.4	-10.9	**-0.0**	-0.0	-0.0	134.9	-1.3	-54.4	**-0.0**	-0.0	-0.0	674.3
Mx,	-1.3	-54.4	-0.0	**-0.0**	-0.0	674.3	-1.4	-10.9	-0.0	**-0.0**	-0.0	134.9
My,	-1.4	-10.9	-0.0	-0.0	**-0.0**	134.9	-1.3	-54.4	-0.0	-0.0	**-0.0**	674.3
Mz,	-1.4	-10.9	-0.0	-0.0	-0.0	**134.9**	-1.3	-54.4	-0.0	-0.0	-0.0	**674.3**
Fx,	**-1.4**	-10.9	-0.0	-0.0	-0.0	145.7	**-1.3**	-54.4	-0.0	-0.0	-0.0	728.7
Fy,	-1.3	**-54.4**	-0.0	-0.0	-0.0	728.7	-1.4	**-10.9**	-0.0	-0.0	-0.0	145.7
Fz,	-1.4	-10.9	**-0.0**	-0.0	-0.0	145.7	-1.3	-54.4	**-0.0**	-0.0	-0.0	728.7
Mx,	-1.3	-54.4	-0.0	**-0.0**	-0.0	728.7	-1.4	-10.9	-0.0	**-0.0**	-0.0	145.7
My,	-1.4	-10.9	-0.0	-0.0	**-0.0**	145.7	-1.3	-54.4	-0.0	-0.0	-0.0	728.7
Mz,	-1.4	-10.9	-0.0	-0.0	-0.0	**145.7**	-1.3	-54.4	-0.0	-0.0	-0.0	**728.7**

Member 423

Fx,	**0.4**	-13.2	-0.0	-0.0	-0.0	205.5	**0.7**	-66.1	-0.0	-0.0	-0.0	1027.4
Fy,	0.7	**-66.1**	-0.0	-0.0	-0.0	1027.4	0.4	**-13.2**	-0.0	-0.0	-0.0	205.5
Fz,	0.4	-13.2	**-0.0**	-0.0	-0.0	205.5	0.7	-66.1	**-0.0**	-0.0	-0.0	1027.4
Mx,	0.7	-66.1	-0.0	**-0.0**	-0.0	1027.4	0.4	-13.2	-0.0	**-0.0**	-0.0	205.5
My,	0.4	-13.2	-0.0	-0.0	**-0.0**	205.5	0.7	-66.1	-0.0	-0.0	**-0.0**	1027.4
Mz,	0.4	-13.2	-0.0	-0.0	-0.0	**205.5**	0.7	-66.1	-0.0	-0.0	-0.0	**1027.4**
Fx,	**0.4**	-13.2	-0.0	-0.0	-0.0	218.7	**0.7**	-66.1	-0.0	-0.0	-0.0	1093.5
Fy,	0.7	**-66.1**	-0.0	-0.0	-0.0	1093.5	0.4	**-13.2**	-0.0	-0.0	-0.0	218.7
Fz,	0.4	-13.2	**-0.0**	-0.0	-0.0	218.7	0.7	-66.1	**-0.0**	-0.0	-0.0	1093.5
Mx,	0.7	-66.1	-0.0	**-0.0**	-0.0	1093.5	0.4	-13.2	-0.0	**-0.0**	-0.0	218.7
My,	0.4	-13.2	-0.0	-0.0	**-0.0**	218.7	0.7	-66.1	-0.0	-0.0	**-0.0**	1093.5
Mz,	0.4	-13.2	-0.0	-0.0	-0.0	**218.7**	0.7	-66.1	-0.0	-0.0	-0.0	**1093.5**

Member 424

Fx,	**-0.4**	-65.6	0.0	-0.0	0.0	1059.8	**-0.3**	-13.1	0.0	-0.0	0.0	211.6
Fy,	-0.4	**-65.6**	0.0	-0.0	0.0	1059.8	-0.3	**-13.1**	0.0	-0.0	0.0	211.6
Fz,	-0.4	-65.6	**0.0**	-0.0	0.0	1059.8	-0.3	-13.1	**0.0**	-0.0	0.0	211.6
Mx,	-0.4	-65.6	0.0	**-0.0**	0.0	1059.8	-0.3	-13.1	0.0	**-0.0**	0.0	211.6
My,	-0.4	-65.6	0.0	-0.0	**0.0**	1059.8	-0.3	-13.1	0.0	-0.0	**0.0**	211.6
Mz,	-0.3	-13.1	0.0	-0.0	0.0	**211.6**	-0.4	-65.6	0.0	-0.0	0.0	**1059.8**
Fx,	**-0.4**	-65.6	0.0	-0.0	0.0	1125.4	**-0.3**	-13.1	0.0	-0.0	0.0	224.7
Fy,	-0.4	**-65.6**	0.0	-0.0	0.0	1125.4	-0.3	**-13.1**	0.0	-0.0	0.0	224.7
Fz,	-0.4	-65.6	**0.0**	-0.0	0.0	1125.4	-0.3	-13.1	**0.0**	-0.0	0.0	224.7
Mx,	-0.4	-65.6	0.0	**-0.0**	0.0	1125.4	-0.3	-13.1	0.0	**-0.0**	0.0	224.7
My,	-0.4	-65.6	0.0	-0.0	**0.0**	1125.4	-0.3	-13.1	0.0	-0.0	**0.0**	224.7
Mz,	-0.3	-13.1	0.0	-0.0	0.0	**224.7**	-0.4	-65.6	0.0	-0.0	0.0	**1125.4**

Member 425

Fx,	**0.9**	-13.1	0.0	-0.0	0.0	214.3	**1.0**	-65.6	0.0	-0.0	0.0	1071.4
Fy,	1.0	**-65.6**	0.0	-0.0	0.0	1071.4	0.9	**-13.1**	0.0	-0.0	0.0	214.3
Fz,	1.0	-65.6	**0.0**	-0.0	0.0	1071.4	0.9	-13.1	**0.0**	-0.0	0.0	214.3
Mx,	1.0	-65.6	0.0	**-0.0**	0.0	1071.4	0.9	-13.1	0.0	**-0.0**	0.0	214.3
My,	1.0	-65.6	0.0	-0.0	**0.0**	1071.4	0.9	-13.1	0.0	-0.0	**0.0**	214.3
Mz,	0.9	-13.1	0.0	-0.0	0.0	**214.3**	1.0	-65.6	0.0	-0.0	0.0	**1071.4**
Fx,	**0.9**	-13.1	0.0	-0.0	0.0	227.4	**1.0**	-65.6	0.0	-0.0	0.0	1137.0
Fy,	1.0	**-65.6**	0.0	-0.0	0.0	1137.0	0.9	**-13.1**	0.0	-0.0	0.0	227.4
Fz,	1.0	-65.6	**0.0**	-0.0	0.0	1137.0	0.9	-13.1	**0.0**	-0.0	0.0	227.4
Mx,	1.0	-65.6	0.0	**-0.0**	0.0	1137.0	0.9	-13.1	0.0	**-0.0**	0.0	227.4
My,	1.0	-65.6	0.0	-0.0	**0.0**	1137.0	0.9	-13.1	0.0	-0.0	**0.0**	227.4
Mz,	0.9	-13.1	0.0	-0.0	0.0	**227.4**	1.0	-65.6	0.0	-0.0	0.0	**1137.0**

Member 426

Fx,	**-4.6**	-66.1	0.0	-0.0	0.0	1014.2	**-4.3**	-13.2	0.0	-0.0	0.0	202.8
Fy,	-4.6	**-66.1**	0.0	-0.0	0.0	1014.2	-4.3	**-13.2**	0.0	-0.0	0.0	202.8
Fz,	-4.6	-66.1	**0.0**	-0.0	0.0	1014.2	-4.3	-13.2	**0.0**	-0.0	0.0	202.8
Mx,	-4.6	-66.1	0.0	**-0.0**	0.0	1014.2	-4.3	-13.2	0.0	**-0.0**	0.0	202.8
My,	-4.6	-66.1	0.0	-0.0	**0.0**	1014.2	-4.3	-13.2	0.0	-0.0	**0.0**	202.8
Mz,	-4.3	-13.2	0.0	-0.0	0.0	**202.8**	-4.6	-66.1	0.0	-0.0	0.0	**1014.2**
Fx,	**-4.6**	-66.1	0.0	-0.0	0.0	1080.3	**-4.3**	-13.2	0.0	-0.0	0.0	216.1
Fy,	-4.6	**-66.1**	0.0	-0.0	0.0	1080.3	-4.3	**-13.2**	0.0	-0.0	0.0	216.1
Fz,	-4.6	-66.1	**0.0**	-0.0	0.0	1080.3	-4.3	-13.2	**0.0**	-0.0	0.0	216.1
Mx,	-4.6	-66.1	0.0	**-0.0**	0.0	1080.3	-4.3	-13.2	0.0	**-0.0**	0.0	216.1
My,	-4.6	-66.1	0.0	-0.0	**0.0**	1080.3	-4.3	-13.2	0.0	-0.0	**0.0**	216.1
Mz,	-4.3	-13.2	0.0	-0.0	0.0	**216.1**	-4.6	-66.1	0.0	-0.0	0.0	**1080.3**

Member 427

Fx,	**41.8**	-55.0	0.0	-0.0	0.0	630.3	**41.9**	-11.0	0.0	-0.0	0.0	126.1
Fy,	41.8	**-55.0**	0.0	-0.0	0.0	630.3	41.9	**-11.0**	0.0	-0.0	0.0	126.1
Fz,	41.8	-55.0	**0.0**	-0.0	0.0	630.3	41.9	-11.0	**0.0**	-0.0	0.0	126.1
Mx,	41.8	-55.0	0.0	**-0.0**	0.0	630.3	41.9	-11.0	0.0	**-0.0**	0.0	126.1
My,	41.8	-55.0	0.0	-0.0	**0.0**	630.3	41.9	-11.0	0.0	-0.0	**0.0**	126.1
Mz,	41.9	-11.0	0.0	-0.0	0.0	**126.1**	41.8	-55.0	0.0	-0.0	0.0	**630.3**
Fx,	**41.8**	-55.0	0.0	-0.0	0.0	685.3	**41.9**	-11.0	0.0	-0.0	0.0	137.1
Fy,	41.8	**-55.0**	0.0	-0.0	0.0	685.3	41.9	**-11.0**	0.0	-0.0	0.0	137.1
Fz,	41.8	-55.0	**0.0**	-0.0	0.0	685.3	41.9	-11.0	**0.0**	-0.0	0.0	137.1
Mx,	41.8	-55.0	0.0	**-0.0**	0.0	685.3	41.9	-11.0	0.0	**-0.0**	0.0	137.1
My,	41.8	-55.0	0.0	-0.0	**0.0**	685.3	41.9	-11.0	0.0	-0.0	**0.0**	137.1
Mz,	41.9	-11.0	0.0	-0.0	0.0	**137.1**	41.8	-55.0	0.0	-0.0	0.0	**685.3**

DISPLACEMENTS

	x	y	z	x	y	z	x	y	z	x	y	z

*** Fin del listado ***

Termico.

Fx,	**20.9**	0.0	0.0	0.0	0.0	0.0	**21.0**	0.0	0.0	0.0	0.0	0.0
Fy,	20.9	**0.0**	0.0	0.0	0.0	0.0	21.0	**0.0**	0.0	0.0	0.0	0.0
Fz,	20.9	0.0	**0.0**	0.0	0.0	0.0	21.0	0.0	**0.0**	0.0	0.0	0.0
Mx,	20.9	0.0	0.0	**0.0**	0.0	0.0	21.0	0.0	0.0	**0.0**	0.0	0.0
My,	20.9	0.0	0.0	0.0	**0.0**	0.0	21.0	0.0	0.0	0.0	**0.0**	0.0
Mz,	20.9	0.0	0.0	0.0	0.0	**0.0**	21.0	0.0	0.0	0.0	0.0	**0.0**
Fx,	**20.9**	-27.5	0.0	0.0	0.1	315.1	**21.0**	-5.5	0.0	0.0	0.1	63.0
Fy,	20.9	**-27.5**	0.0	0.0	0.1	315.1	21.0	**-5.5**	0.0	0.0	0.1	63.0
Fz,	20.9	-27.5	**0.0**	0.0	0.1	315.1	21.0	-5.5	**0.0**	0.0	0.1	63.0
Mx,	20.9	-27.5	0.0	**0.0**	0.1	315.1	21.0	-5.5	0.0	**0.0**	0.1	63.0
My,	20.9	-27.5	0.0	0.0	**0.1**	315.1	21.0	-5.5	0.0	0.0	**0.1**	63.0
Mz,	21.0	-5.5	0.0	0.0	0.1	**63.0**	20.9	-27.5	0.0	0.0	0.1	**315.1**

Member 405

Fx,	**-331.9**	-2.5	0.0	0.0	-0.0	-0.0	**-155.1**	-2.4	0.0	0.0	-0.0	-0.0
Fy,	-331.9	**-2.5**	0.0	0.0	-0.0	-0.0	-155.1	**-2.4**	0.0	0.0	-0.0	-0.0
Fz,	-155.1	-2.4	**0.0**	0.0	-0.0	-0.0	-331.9	-2.5	**0.0**	0.0	-0.0	-0.0
Mx,	-331.9	-2.5	0.0	**0.0**	-0.0	-0.0	-155.1	-2.4	0.0	**0.0**	-0.0	-0.0
My,	-331.9	-2.5	0.0	0.0	**-0.0**	-0.0	-155.1	-2.4	0.0	0.0	**-0.0**	-0.0
Mz,	-155.1	-2.4	0.0	0.0	-0.0	**-0.0**	-331.9	-2.5	0.0	0.0	-0.0	**-0.0**
Fx,	**-331.9**	-2.5	0.0	0.0	0.0	5.1	**-155.1**	-2.4	0.0	0.0	0.0	4.8
Fy,	-331.9	**-2.5**	0.0	0.0	0.0	5.1	-155.1	**-2.4**	0.0	0.0	0.0	4.8
Fz,	-155.1	-2.4	**0.0**	0.0	0.0	4.8	-331.9	-2.5	**0.0**	0.0	0.0	5.1
Mx,	-331.9	-2.5	0.0	**0.0**	0.0	5.1	-155.1	-2.4	0.0	**0.0**	0.0	4.8
My,	-155.1	-2.4	0.0	0.0	**0.0**	4.8	-331.9	-2.5	0.0	0.0	**0.0**	5.1
Mz,	-155.1	-2.4	0.0	0.0	0.0	**4.8**	-331.9	-2.5	0.0	0.0	0.0	**5.1**

Member 406

Fx,	**-331.9**	-2.5	-0.0	0.0	0.0	-0.0	**-155.1**	-2.4	-0.0	0.0	-0.0	-0.0
Fy,	-331.9	**-2.5**	-0.0	0.0	0.0	-0.0	-155.1	**-2.4**	-0.0	0.0	-0.0	-0.0
Fz,	-331.9	-2.5	**-0.0**	0.0	0.0	-0.0	-155.1	-2.4	**-0.0**	0.0	-0.0	-0.0
Mx,	-331.9	-2.5	-0.0	**0.0**	0.0	-0.0	-155.1	-2.4	-0.0	**0.0**	-0.0	-0.0
My,	-155.1	-2.4	-0.0	0.0	**-0.0**	-0.0	-331.9	-2.5	-0.0	0.0	**0.0**	-0.0
Mz,	-155.1	-2.4	-0.0	0.0	-0.0	**-0.0**	-331.9	-2.5	-0.0	0.0	0.0	**-0.0**
Fx,	**-331.9**	-2.5	-0.0	0.0	-0.0	5.1	**-155.1**	-2.4	-0.0	0.0	-0.0	4.8
Fy,	-331.9	**-2.5**	-0.0	0.0	-0.0	5.1	-155.1	**-2.4**	-0.0	0.0	-0.0	4.8
Fz,	-331.9	-2.5	**-0.0**	0.0	-0.0	5.1	-155.1	-2.4	**-0.0**	0.0	-0.0	4.8
Mx,	-331.9	-2.5	-0.0	**0.0**	-0.0	5.1	-155.1	-2.4	-0.0	**0.0**	-0.0	4.8
My,	-331.9	-2.5	-0.0	0.0	**-0.0**	5.1	-155.1	-2.4	-0.0	0.0	**-0.0**	4.8
Mz,	-155.1	-2.4	-0.0	0.0	-0.0	**4.8**	-331.9	-2.5	-0.0	0.0	-0.0	**5.1**

Member 421

Fx,	**18.3**	-3.9	-0.0	-0.0	-0.0	52.8	**18.6**	-52.0	-0.0	-0.0	-0.0	700.7
Fy,	18.6	**-52.0**	-0.0	-0.0	-0.0	700.7	18.3	**-3.9**	-0.0	-0.0	-0.0	52.8
Fz,	18.3	-3.9	**-0.0**	-0.0	-0.0	52.8	18.6	-52.0	**-0.0**	-0.0	-0.0	700.7
Mx,	18.6	-52.0	-0.0	**-0.0**	-0.0	700.7	18.3	-3.9	-0.0	**-0.0**	-0.0	52.8
My,	18.3	-3.9	-0.0	-0.0	**-0.0**	52.8	18.6	-52.0	-0.0	-0.0	**-0.0**	700.7
Mz,	18.3	-3.9	-0.0	-0.0	-0.0	**52.8**	18.6	-52.0	-0.0	-0.0	-0.0	**700.7**
Fx,	**18.3**	-3.9	-0.0	-0.0	-0.0	56.7	**18.6**	-52.0	-0.0	-0.0	-0.0	752.7
Fy,	18.6	**-52.0**	-0.0	-0.0	-0.0	752.7	18.3	**-3.9**	-0.0	-0.0	-0.0	56.7
Fz,	18.3	-3.9	**-0.0**	-0.0	-0.0	56.7	18.6	-52.0	**-0.0**	-0.0	-0.0	752.7
Mx,	18.6	-52.0	-0.0	**-0.0**	-0.0	752.7	18.3	-3.9	-0.0	**-0.0**	-0.0	56.7
My,	18.3	-3.9	-0.0	-0.0	**-0.0**	56.7	18.6	-52.0	-0.0	-0.0	**-0.0**	752.7
Mz,	18.3	-3.9	-0.0	-0.0	-0.0	**56.7**	18.6	-52.0	-0.0	-0.0	-0.0	**752.7**

Member 422

Fx,	**-1.4**	-10.9	-0.0	-0.0	-0.0	134.9	**-1.3**	-54.4	-0.0	-0.0	-0.0	674.3
Fy,	-1.3	**-54.4**	-0.0	-0.0	-0.0	674.3	-1.4	**-10.9**	-0.0	-0.0	-0.0	134.9
Fz,	-1.4	-10.9	**-0.0**	-0.0	-0.0	134.9	-1.3	-54.4	**-0.0**	-0.0	-0.0	674.3
Mx,	-1.3	-54.4	-0.0	**-0.0**	-0.0	674.3	-1.4	-10.9	-0.0	**-0.0**	-0.0	134.9
My,	-1.4	-10.9	-0.0	-0.0	**-0.0**	134.9	-1.3	-54.4	-0.0	-0.0	**-0.0**	674.3
Mz,	-1.4	-10.9	-0.0	-0.0	-0.0	**134.9**	-1.3	-54.4	-0.0	-0.0	-0.0	**674.3**
Fx,	**-1.4**	-10.9	-0.0	-0.0	-0.0	145.7	**-1.3**	-54.4	-0.0	-0.0	-0.0	728.7
Fy,	-1.3	**-54.4**	-0.0	-0.0	-0.0	728.7	-1.4	**-10.9**	-0.0	-0.0	-0.0	145.7
Fz,	-1.4	-10.9	**-0.0**	-0.0	-0.0	145.7	-1.3	-54.4	**-0.0**	-0.0	-0.0	728.7

asientos diferenciales

Program Envolvator (release 1.3 - Jun 1998)
Calculation date: 14-abr-1999 21:07 h. Listing date: 14-abr-1999 21:10 h.
Members: 419
Joints: 353
Envelope generated from:

Name	min.	max.
asientos e-1 fijo	1.00	1.00
asientos pila 1	1.00	1.00
asientos pila 2	1.00	1.00
asientos pila 3	1.00	1.00
asientos pila 4	1.00	1.00
asientos pila 5	1.00	1.00
asientos pila 6	1.00	1.00
asientos pila 7	1.00	1.00
asientos e-2 movil	1.00	1.00

	Fx	Fy	Fz	Mx	My	Mz	Fx	Fy	Fz	Mx	My	Mz
Member 1												
Fx_i	**-1.9**	-0.0	-0.0	0.0	0.0	-0.0	**3.4**	0.0	0.0	-0.0	-0.0	0.0
Fy_i	-0.0	**-7.7**	-0.0	0.0	0.0	-9.1	0.0	**34.8**	0.0	-0.0	-0.0	345.8
Fz_i	-0.0	-7.7	**-0.0**	0.0	0.0	-9.1	0.0	34.8	**0.0**	-0.0	-0.0	345.8
Mx_i	0.0	34.8	0.0	**-0.0**	-0.0	345.8	-0.0	-7.7	-0.0	**0.0**	0.0	-9.1
My_i	0.0	34.8	0.0	-0.0	**-0.0**	345.8	-0.0	-7.7	-0.0	0.0	**0.0**	-9.1
Mz_i	-0.0	-7.7	-0.0	0.0	0.0	**-9.1**	0.0	34.8	0.0	-0.0	-0.0	**345.8**
Fx_f	**-1.9**	-0.0	-0.0	0.0	-0.0	0.0	**3.4**	0.0	0.0	-0.0	0.0	-0.0
Fy_f	-0.0	**-7.7**	-0.0	0.0	-0.0	19.1	0.0	**34.8**	0.0	-0.0	0.0	218.4
Fz_f	-0.0	-7.7	**-0.0**	0.0	-0.0	19.1	0.0	34.8	**0.0**	-0.0	0.0	218.4
Mx_f	0.0	34.8	0.0	**-0.0**	0.0	218.4	-0.0	-7.7	-0.0	**0.0**	-0.0	19.1
My_f	-0.0	-7.7	-0.0	0.0	**-0.0**	19.1	0.0	34.8	0.0	-0.0	**0.0**	218.4
Mz_f	0.0	3.8	0.0	-0.0	0.0	**-12.8**	0.0	34.8	0.0	-0.0	0.0	**218.4**
Member 2												
Fx_i	**-1.9**	-0.0	-0.0	0.0	0.0	0.0	**3.4**	0.0	0.0	-0.0	-0.0	-0.0
Fy_i	-0.0	**-7.7**	-0.0	0.0	0.0	19.1	0.0	**34.8**	0.0	-0.0	-0.0	218.4
Fz_i	-0.0	-7.7	**-0.0**	0.0	0.0	19.1	0.0	34.8	**0.0**	-0.0	-0.0	218.4
Mx_i	0.0	34.8	0.0	**-0.0**	-0.0	218.4	-0.0	-7.7	-0.0	**0.0**	0.0	19.1
My_i	0.0	34.8	0.0	-0.0	**-0.0**	218.4	-0.0	-7.7	-0.0	0.0	**0.0**	19.1
Mz_i	0.0	3.8	0.0	-0.0	-0.0	**-12.8**	0.0	34.8	0.0	-0.0	-0.0	**218.4**
Fx_f	**-1.9**	-0.0	-0.0	0.0	-0.0	0.0	**3.4**	0.0	0.0	-0.0	0.0	-0.0
Fy_f	-0.0	**-7.7**	-0.0	0.0	-0.0	47.3	0.0	**34.8**	0.0	-0.0	0.0	90.9
Fz_f	-0.0	-7.7	**-0.0**	0.0	-0.0	47.3	0.0	34.8	**0.0**	-0.0	0.0	90.9
Mx_f	0.0	34.8	0.0	**-0.0**	0.0	90.9	-0.0	-7.7	-0.0	**0.0**	-0.0	47.3
My_f	-0.0	-7.7	-0.0	0.0	**-0.0**	47.3	0.0	34.8	0.0	-0.0	**0.0**	90.9
Mz_f	0.0	3.8	0.0	-0.0	0.0	**-26.6**	0.0	34.8	0.0	-0.0	0.0	**90.9**
Member 3												
Fx_i	**-1.9**	-0.0	-0.0	0.0	0.0	0.0	**3.4**	0.0	0.0	-0.0	-0.0	-0.0
Fy_i	-0.0	**-7.7**	-0.0	0.0	0.0	47.3	0.0	**34.8**	0.0	-0.0	-0.0	90.9
Fz_i	-0.0	-7.7	**-0.0**	0.0	0.0	47.3	0.0	34.8	**0.0**	-0.0	-0.0	90.9
Mx_i	0.0	34.8	0.0	**-0.0**	-0.0	90.9	-0.0	-7.7	-0.0	**0.0**	0.0	47.3
My_i	0.0	34.8	0.0	-0.0	**-0.0**	90.9	-0.0	-7.7	-0.0	0.0	**0.0**	47.3
Mz_i	0.0	3.8	0.0	-0.0	-0.0	**-26.6**	0.0	34.8	0.0	-0.0	-0.0	**90.9**
Fx_f	**-1.9**	-0.0	-0.0	0.0	-0.0	0.0	**3.4**	0.0	0.0	-0.0	0.0	-0.0
Fy_f	-0.0	**-7.7**	-0.0	0.0	-0.0	75.5	0.0	**34.8**	0.0	-0.0	0.0	-36.5
Fz_f	-0.0	-7.7	**-0.0**	0.0	-0.0	75.5	0.0	34.8	**0.0**	-0.0	0.0	-36.5
Mx_f	0.0	34.8	0.0	**-0.0**	0.0	-36.5	-0.0	-7.7	-0.0	**0.0**	-0.0	75.5
My_f	-0.0	-7.7	-0.0	0.0	**-0.0**	75.5	0.0	34.8	0.0	-0.0	**0.0**	-36.5
Mz_f	0.0	3.8	0.0	-0.0	0.0	**-40.5**	-0.0	-7.7	-0.0	0.0	-0.0	**75.5**
Member 4												
Fx_i	**-1.9**	-0.0	-0.0	0.0	0.0	0.0	**3.4**	0.0	0.0	-0.0	-0.0	-0.0
Fy_i	-0.0	**-7.7**	-0.0	0.0	0.0	75.5	0.0	**34.8**	0.0	-0.0	-0.0	-36.5
Fz_i	-0.0	-7.7	**-0.0**	0.0	0.0	75.5	0.0	34.8	**0.0**	-0.0	-0.0	-36.5
Mx_i	0.0	34.8	0.0	**-0.0**	-0.0	-36.5	-0.0	-7.7	-0.0	**0.0**	0.0	75.5
My_i	0.0	34.8	0.0	-0.0	**-0.0**	-36.5	-0.0	-7.7	-0.0	0.0	**0.0**	75.5
Mz_i	0.0	3.8	0.0	-0.0	-0.0	**-40.5**	-0.0	-7.7	-0.0	0.0	0.0	**75.5**
Fx_f	**-1.9**	-0.0	-0.0	0.0	-0.0	0.1	**3.4**	0.0	0.0	-0.0	0.0	-0.0
Fy_f	-0.0	**-7.7**	-0.0	0.0	-0.0	103.7	0.0	**34.8**	0.0	-0.0	0.0	-164.0
Fz_f	-0.0	-7.7	**-0.0**	0.0	-0.0	103.7	0.0	34.8	**0.0**	-0.0	0.0	-164.0
Mx_f	0.0	34.8	0.0	**-0.0**	0.0	-164.0	-0.0	-7.7	-0.0	**0.0**	-0.0	103.7
My_f	-0.0	-7.7	-0.0	0.0	**-0.0**	103.7	0.0	34.8	0.0	-0.0	**0.0**	-164.0
Mz_f	0.0	34.8	0.0	-0.0	0.0	**-164.0**	-0.0	-7.7	-0.0	0.0	-0.0	**103.7**
Member 5												
Fx_i	**-1.9**	-0.0	-0.0	0.0	0.0	0.1	**3.4**	0.0	0.0	-0.0	-0.0	-0.0
Fy_i	-0.0	**-7.7**	-0.0	0.0	0.0	103.7	0.0	**34.8**	0.0	-0.0	-0.0	-164.0
Fz_i	-0.0	-7.7	**-0.0**	0.0	0.0	103.7	0.0	34.8	**0.0**	-0.0	-0.0	-164.0
Mx_i	0.0	34.8	0.0	**-0.0**	-0.0	-164.0	-0.0	-7.7	-0.0	**0.0**	0.0	103.7
My_i	0.0	34.8	0.0	-0.0	**-0.0**	-164.0	-0.0	-7.7	-0.0	0.0	**0.0**	103.7
Mz_i	0.0	34.8	0.0	-0.0	-0.0	**-164.0**	-0.0	-7.7	-0.0	0.0	0.0	**103.7**
Fx_f	**-1.9**	-0.0	-0.0	0.0	-0.0	0.1	**3.4**	0.0	0.0	-0.0	0.0	-0.0
Fy_f	-0.0	**-7.7**	-0.0	0.0	-0.0	131.9	0.0	**34.8**	0.0	-0.0	0.0	-291.5
Fz_f	-0.0	-7.7	**-0.0**	0.0	-0.0	131.9	0.0	34.8	**0.0**	-0.0	0.0	-291.5
Mx_f	0.0	34.8	0.0	**-0.0**	0.0	-291.5	-0.0	-7.7	-0.0	**0.0**	-0.0	131.9
My_f	-0.0	-7.7	-0.0	0.0	**-0.0**	131.9	0.0	34.8	0.0	-0.0	**0.0**	-291.5
Mz_f	0.0	34.8	0.0	-0.0	0.0	**-291.5**	-0.0	-7.7	-0.0	0.0	-0.0	**131.9**
Member 6												
Fx_i	**-1.9**	-0.0	-0.0	0.0	0.0	0.1	**3.4**	0.0	0.0	-0.0	-0.0	-0.0
Fy_i	-0.0	**-7.7**	-0.0	0.0	0.0	131.9	0.0	**34.8**	0.0	-0.0	-0.0	-291.5
Fz_i	-0.0	-7.7	**-0.0**	0.0	0.0	131.9	0.0	34.8	**0.0**	-0.0	-0.0	-291.5
Mx_i	0.0	34.8	0.0	**-0.0**	-0.0	-291.5	-0.0	-7.7	-0.0	**0.0**	0.0	131.9
My_i	0.0	34.8	0.0	-0.0	**-0.0**	-291.5	-0.0	-7.7	-0.0	0.0	**0.0**	131.9
Mz_i	0.0	34.8	0.0	-0.0	-0.0	**-291.5**	-0.0	-7.7	-0.0	0.0	0.0	**131.9**
Fx_f	**-1.9**	-0.0	-0.0	0.0	-0.0	0.1	**3.4**	0.0	0.0	-0.0	0.0	-0.0
Fy_f	-0.0	**-7.7**	-0.0	0.0	-0.0	160.0	0.0	**34.8**	0.0	-0.0	0.0	-418.9
Fz_f	-0.0	-7.7	**-0.0**	0.0	-0.0	160.0	0.0	34.8	**0.0**	-0.0	0.0	-418.9
Mx_f	0.0	34.8	0.0	**-0.0**	0.0	-418.9	-0.0	-7.7	-0.0	**0.0**	-0.0	160.0
My_f	-0.0	-7.7	-0.0	0.0	**-0.0**	160.0	0.0	34.8	0.0	-0.0	**0.0**	-418.9
Mz_f	0.0	34.8	0.0	-0.0	0.0	**-418.9**	-0.0	-7.7	-0.0	0.0	-0.0	**160.0**
Member 7												
Fx_i	**-1.9**	0.0	0.0	-0.0	-0.0	0.1	**3.4**	-0.0	-0.0	0.0	0.0	-0.0
Fy_i	0.0	**-14.1**	-0.0	0.0	0.0	-418.9	-0.0	**6.7**	0.0	-0.0	-0.0	160.0
Fz_i	0.0	-14.1	**-0.0**	0.0	0.0	-418.9	-0.0	6.7	**0.0**	-0.0	-0.0	160.0
Mx_i	-0.0	6.7	0.0	**-0.0**	-0.0	160.0	0.0	-14.1	-0.0	**0.0**	0.0	-418.9
My_i	-0.0	6.7	0.0	-0.0	**-0.0**	160.0	0.0	-14.1	-0.0	0.0	**0.0**	-418.9
Mz_i	0.0	-14.1	-0.0	0.0	0.0	**-418.9**	-0.0	6.7	0.0	-0.0	-0.0	**160.0**
Fx_f	**-1.9**	0.0	0.0	-0.0	0.0	0.0	**3.4**	-0.0	-0.0	0.0	-0.0	-0.0
Fy_f	0.0	**-14.1**	-0.0	0.0	-0.0	-355.5	-0.0	**6.7**	0.0	-0.0	0.0	130.0
Fz_f	0.0	-14.1	**-0.0**	0.0	-0.0	-355.5	-0.0	6.7	**0.0**	-0.0	0.0	130.0
Mx_f	-0.0	6.7	0.0	**-0.0**	0.0	130.0	0.0	-14.1	-0.0	**0.0**	-0.0	-355.5
My_f	0.0	-14.1	-0.0	0.0	**-0.0**	-355.5	-0.0	6.7	0.0	-0.0	**0.0**	130.0
Mz_f	0.0	-14.1	-0.0	0.0	-0.0	**-355.5**	-0.0	6.7	0.0	-0.0	0.0	**130.0**
Member 8												
Fx_i	**-1.9**	0.0	0.0	-0.0	-0.0	0.0	**3.4**	-0.0	-0.0	0.0	0.0	-0.0
Fy_i	0.0	**-14.1**	-0.0	0.0	0.0	-355.5	-0.0	**6.7**	0.0	-0.0	-0.0	130.0
Fz_i	0.0	-14.1	**-0.0**	0.0	0.0	-355.5	-0.0	6.7	**0.0**	-0.0	-0.0	130.0
Mx_i	-0.0	6.7	0.0	**-0.0**	-0.0	130.0	0.0	-14.1	-0.0	**0.0**	0.0	-355.5
My_i	-0.0	6.7	0.0	-0.0	**-0.0**	130.0	0.0	-14.1	-0.0	0.0	**0.0**	-355.5
Mz_i	0.0	-14.1	-0.0	0.0	0.0	**-355.5**	-0.0	6.7	0.0	-0.0	-0.0	**130.0**
Fx_f	**-1.9**	0.0	0.0	-0.0	0.0	-0.0	**3.4**	-0.0	-0.0	0.0	-0.0	0.0
Fy_f	0.0	**-14.1**	-0.0	0.0	-0.0	-292.0	-0.0	**6.7**	0.0	-0.0	0.0	100.1
Fz_f	0.0	-14.1	**-0.0**	0.0	-0.0	-292.0	-0.0	6.7	**0.0**	-0.0	0.0	100.1
Mx_f	-0.0	6.7	0.0	**-0.0**	0.0	100.1	0.0	-14.1	-0.0	**0.0**	-0.0	-292.0
My_f	0.0	-14.1	-0.0	0.0	**-0.0**	-292.0	-0.0	6.7	0.0	-0.0	**0.0**	100.1
Mz_f	0.0	-14.1	-0.0	0.0	-0.0	**-292.0**	-0.0	6.7	0.0	-0.0	0.0	**100.1**
Member 9												
Fx_i	**-1.9**	0.0	0.0	-0.0	-0.0	-0.0	**3.4**	-0.0	-0.0	0.0	0.0	0.0
Fy_i	0.0	**-14.1**	-0.0	0.0	0.0	-292.0	-0.0	**6.7**	0.0	-0.0	-0.0	100.1

Fz,	0.0	-14.1	**-0.0**	0.0	0.0	-292.0	-0.0	6.7	**0.0**	-0.0	-0.0	100.1
Mx,	-0.0	6.7	0.0	**-0.0**	-0.0	100.1	0.0	-14.1	-0.0	**0.0**	0.0	-292.0
My,	-0.0	6.7	0.0	-0.0	**-0.0**	100.1	0.0	-14.1	-0.0	0.0	**0.0**	-292.0
Mz,	**0.0**	-14.1	-0.0	0.0	0.0	**-292.0**	-0.0	6.7	0.0	-0.0	-0.0	**100.1**
Fx$_f$	**-1.9**	0.0	0.0	-0.0	0.0	-0.1	**3.4**	-0.0	-0.0	0.0	-0.0	0.0
Fy$_f$	0.0	**-14.1**	-0.0	0.0	-0.0	-228.6	-0.0	**6.7**	0.0	-0.0	0.0	70.1
Fz$_f$	0.0	-14.1	**-0.0**	0.0	-0.0	-228.6	-0.0	6.7	**0.0**	-0.0	0.0	70.1
Mx$_f$	-0.0	6.7	0.0	**-0.0**	0.0	70.1	0.0	-14.1	-0.0	**0.0**	-0.0	-228.6
My$_f$	0.0	-14.1	-0.0	0.0	**-0.0**	-228.6	-0.0	6.7	0.0	-0.0	**0.0**	70.1
Mz$_f$	0.0	-14.1	-0.0	0.0	-0.0	**-228.6**	-0.0	6.7	0.0	-0.0	0.0	**70.1**

Member 10

Fx,	**-1.9**	0.0	0.0	-0.0	-0.0	-0.1	**3.4**	-0.0	-0.0	0.0	0.0	0.0
Fy,	0.0	**-14.1**	-0.0	0.0	0.0	-228.6	-0.0	**6.7**	0.0	-0.0	-0.0	70.1
Fz,	0.0	-14.1	**-0.0**	0.0	0.0	-228.6	-0.0	6.7	**0.0**	-0.0	-0.0	70.1
Mx,	-0.0	6.7	0.0	**-0.0**	-0.0	70.1	0.0	**-14.1**	-0.0	**0.0**	0.0	-228.6
My,	-0.0	6.7	0.0	-0.0	**-0.0**	70.1	0.0	-14.1	-0.0	0.0	**0.0**	-228.6
Mz,	0.0	-14.1	-0.0	0.0	0.0	**-228.6**	-0.0	6.7	0.0	-0.0	-0.0	**70.1**
Fx$_f$	**-1.9**	0.0	0.0	-0.0	0.0	-0.1	**3.4**	-0.0	-0.0	0.0	-0.0	0.1
Fy$_f$	0.0	**-14.1**	-0.0	0.0	-0.0	-165.2	-0.0	**6.7**	0.0	-0.0	0.0	40.1
Fz$_f$	0.0	-14.1	**-0.0**	0.0	-0.0	-165.2	-0.0	6.7	**0.0**	-0.0	0.0	40.1
Mx$_f$	-0.0	6.7	0.0	**-0.0**	0.0	40.1	0.0	-14.1	-0.0	**0.0**	-0.0	-165.2
My$_f$	0.0	-14.1	-0.0	0.0	**-0.0**	-165.2	-0.0	6.7	0.0	-0.0	**0.0**	40.1
Mz$_f$	0.0	-14.1	-0.0	0.0	-0.0	**-165.2**	-0.0	6.7	0.0	-0.0	0.0	**40.1**

Member 11

Fx,	-1.9	0.0	0.0	-0.0	-0.0	-0.1	**3.4**	-0.0	-0.0	0.0	0.0	0.1
Fy,	0.0	**-14.1**	-0.0	0.0	0.0	-165.2	-0.0	**6.7**	0.0	-0.0	-0.0	40.1
Fz,	0.0	-14.1	**-0.0**	0.0	0.0	-165.2	-0.0	6.7	**0.0**	-0.0	-0.0	40.1
Mx,	-0.0	6.7	0.0	**-0.0**	-0.0	40.1	0.0	-14.1	-0.0	**0.0**	0.0	-165.2
My,	-0.0	6.7	0.0	-0.0	**-0.0**	40.1	0.0	-14.1	-0.0	0.0	**0.0**	-165.2
Mz,	0.0	-14.1	-0.0	0.0	0.0	**-165.2**	-0.0	6.7	0.0	-0.0	-0.0	**40.1**
Fx$_f$	**-1.9**	0.0	0.0	-0.0	0.0	-0.2	**3.4**	-0.0	-0.0	0.0	-0.0	0.1
Fy$_f$	0.0	**-14.1**	-0.0	0.0	-0.0	-101.7	-0.0	**6.7**	0.0	-0.0	0.0	10.1
Fz$_f$	0.0	-14.1	**-0.0**	0.0	-0.0	-101.7	-0.0	6.7	**0.0**	-0.0	0.0	10.1
Mx$_f$	-0.0	6.7	0.0	**-0.0**	0.0	10.1	0.0	-14.1	-0.0	**0.0**	-0.0	-101.7
My$_f$	0.0	-14.1	-0.0	0.0	**-0.0**	-101.7	-0.0	6.7	0.0	-0.0	**0.0**	10.1
Mz$_f$	0.0	-14.1	-0.0	0.0	-0.0	**-101.7**	0.0	-5.6	-0.0	0.0	-0.0	**43.6**

Member 12

Fx,	**-1.9**	0.0	0.0	-0.0	-0.0	-0.2	**3.4**	-0.0	-0.0	0.0	0.0	0.1
Fy,	0.0	**-14.1**	-0.0	0.0	0.0	-101.7	-0.0	**6.7**	0.0	-0.0	-0.0	10.1
Fz,	0.0	-14.1	**-0.0**	0.0	0.0	-101.7	-0.0	6.7	**0.0**	-0.0	-0.0	10.1
Mx,	-0.0	6.7	0.0	**-0.0**	-0.0	10.1	0.0	-14.1	-0.0	**0.0**	0.0	-101.7
My,	-0.0	6.7	0.0	-0.0	**-0.0**	10.1	0.0	-14.1	-0.0	0.0	**0.0**	-101.7
Mz,	0.0	-14.1	-0.0	0.0	0.0	**-101.7**	0.0	-5.6	-0.0	0.0	0.0	**43.6**
Fx$_f$	**-1.9**	0.0	0.0	-0.0	0.0	-0.2	**3.4**	-0.0	-0.0	0.0	-0.0	0.1
Fy$_f$	0.0	**-14.1**	-0.0	0.0	-0.0	-38.3	-0.0	**6.7**	0.0	-0.0	0.0	-19.9
Fz$_f$	0.0	-14.1	**-0.0**	0.0	-0.0	-38.3	-0.0	6.7	**0.0**	-0.0	0.0	-19.9
Mx$_f$	-0.0	6.7	0.0	**-0.0**	0.0	-19.9	0.0	-14.1	-0.0	**0.0**	-0.0	-38.3
My$_f$	0.0	-14.1	-0.0	0.0	**-0.0**	-38.3	-0.0	6.7	0.0	-0.0	**0.0**	-19.9
Mz$_f$	-0.0	2.5	0.0	-0.0	0.0	**-49.0**	0.0	-5.6	-0.0	0.0	-0.0	**68.8**

Member 13

Fx,	-1.9	0.0	0.0	-0.0	-0.0	-0.2	**3.4**	-0.0	-0.0	0.0	0.0	0.1
Fy,	0.0	**-14.1**	-0.0	0.0	0.0	-38.3	-0.0	**6.7**	0.0	-0.0	-0.0	-19.9
Fz,	0.0	-14.1	**-0.0**	0.0	0.0	-38.3	-0.0	6.7	**0.0**	-0.0	-0.0	-19.9
Mx,	-0.0	6.7	0.0	**-0.0**	-0.0	-19.9	0.0	-14.1	-0.0	**0.0**	0.0	-38.3
My,	-0.0	6.7	0.0	-0.0	**-0.0**	-19.9	0.0	-14.1	-0.0	0.0	**0.0**	-38.3
Mz,	-0.0	2.5	0.0	-0.0	-0.0	**-49.0**	0.0	-5.6	-0.0	0.0	0.0	**68.8**
Fx$_f$	**-1.9**	0.0	0.0	-0.0	0.0	-0.3	**3.4**	-0.0	-0.0	0.0	-0.0	0.1
Fy$_f$	0.0	**-14.1**	-0.0	0.0	-0.0	25.2	-0.0	**6.7**	0.0	-0.0	0.0	-49.9
Fz$_f$	0.0	-14.1	**-0.0**	0.0	-0.0	25.2	-0.0	6.7	**0.0**	-0.0	0.0	-49.9
Mx$_f$	-0.0	6.7	0.0	**-0.0**	0.0	-49.9	0.0	-14.1	-0.0	**0.0**	-0.0	25.2
My$_f$	0.0	-14.1	-0.0	0.0	**-0.0**	25.2	-0.0	6.7	0.0	-0.0	**0.0**	-49.9
Mz$_f$	-0.0	2.5	0.0	-0.0	0.0	**-60.1**	0.0	-5.6	-0.0	0.0	-0.0	**93.9**

Member 14

Fx,	**-1.9**	0.0	0.0	-0.0	-0.0	-0.3	**3.4**	-0.0	-0.0	0.0	0.0	0.1
Fy,	0.0	**-14.1**	-0.0	0.0	0.0	25.2	-0.0	**6.7**	0.0	-0.0	-0.0	-49.9
Fz,	0.0	-14.1	**-0.0**	0.0	0.0	25.2	-0.0	6.7	**0.0**	-0.0	-0.0	-49.9
Mx,	-0.0	6.7	0.0	**-0.0**	-0.0	-49.9	0.0	-14.1	-0.0	**0.0**	0.0	25.2
My,	-0.0	6.7	0.0	-0.0	**-0.0**	-49.9	0.0	-14.1	-0.0	0.0	**0.0**	25.2
Mz,	-0.0	2.5	0.0	-0.0	-0.0	**-60.1**	0.0	-5.6	-0.0	0.0	0.0	**93.9**
Fx$_f$	-1.9	0.0	0.0	-0.0	0.0	-0.3	**3.4**	-0.0	-0.0	0.0	-0.0	0.2
Fy$_f$	0.0	**-14.1**	-0.0	0.0	-0.0	88.6	-0.0	**6.7**	0.0	-0.0	0.0	-79.9
Fz$_f$	0.0	-14.1	**-0.0**	0.0	-0.0	88.6	-0.0	6.7	**0.0**	-0.0	0.0	-79.9
Mx$_f$	-0.0	6.7	0.0	**-0.0**	0.0	-79.9	0.0	-14.1	-0.0	**0.0**	-0.0	88.6
My$_f$	0.0	-14.1	-0.0	0.0	**-0.0**	88.6	-0.0	6.7	0.0	-0.0	**0.0**	-79.9
Mz$_f$	-0.0	6.7	0.0	-0.0	0.0	**-79.9**	0.0	-5.6	-0.0	0.0	-0.0	**119.0**

Member 15

Fx,	**-1.9**	-0.0	-0.0	0.0	0.0	-0.3	**3.4**	0.0	0.0	-0.0	-0.0	0.2
Fy,	-0.0	**-5.2**	-0.0	0.0	0.0	-71.1	0.0	**5.3**	0.0	-0.0	-0.0	119.0
Fz,	-0.0	-2.7	**-0.0**	0.0	0.0	-79.9	0.0	3.0	**0.0**	-0.0	-0.0	88.6
Mx,	0.0	3.0	0.0	**-0.0**	-0.0	88.6	-0.0	-5.2	-0.0	**0.0**	0.0	-71.1
My,	0.0	3.0	0.0	-0.0	**-0.0**	88.6	-0.0	-2.7	-0.0	0.0	**0.0**	-79.9
Mz,	-0.0	-2.7	-0.0	0.0	0.0	**-79.9**	0.0	5.3	0.0	-0.0	-0.0	**119.0**
Fx$_f$	**-1.9**	-0.0	-0.0	0.0	-0.0	-0.1	**3.4**	0.0	0.0	-0.0	0.0	0.0
Fy$_f$	-0.0	**-5.2**	-0.0	0.0	-0.0	-47.7	0.0	**5.3**	0.0	-0.0	0.0	95.2
Fz$_f$	-0.0	-2.7	**-0.0**	0.0	-0.0	-67.8	0.0	3.0	**0.0**	-0.0	0.0	75.2
Mx$_f$	0.0	3.0	0.0	**-0.0**	0.0	75.2	-0.0	-5.2	-0.0	**0.0**	-0.0	-47.7
My$_f$	-0.0	-2.7	-0.0	0.0	**-0.0**	-67.8	0.0	3.0	0.0	-0.0	**0.0**	75.2
Mz$_f$	-0.0	-2.7	-0.0	0.0	-0.0	**-67.8**	0.0	5.3	0.0	-0.0	0.0	**95.2**

Member 16

Fx,	**-1.9**	-0.0	-0.0	0.0	0.0	-0.1	**3.4**	0.0	0.0	-0.0	-0.0	0.0
Fy,	-0.0	**-5.2**	-0.0	0.0	0.0	-47.7	0.0	**5.3**	0.0	-0.0	-0.0	95.2
Fz,	-0.0	-2.7	**-0.0**	0.0	0.0	-67.8	0.0	3.0	**0.0**	-0.0	-0.0	75.2
Mx,	0.0	3.0	0.0	**-0.0**	-0.0	75.2	-0.0	-5.2	-0.0	**0.0**	0.0	-47.7
My,	0.0	3.0	0.0	-0.0	**-0.0**	75.2	-0.0	-2.7	-0.0	0.0	**0.0**	-67.8
Mz,	-0.0	-2.7	-0.0	0.0	0.0	**-67.8**	0.0	5.3	0.0	-0.0	-0.0	**95.2**
Fx$_f$	**-1.9**	-0.0	-0.0	0.0	-0.0	0.1	**3.4**	0.0	0.0	-0.0	-0.0	-0.1
Fy$_f$	-0.0	**-5.2**	-0.0	0.0	-0.0	-24.2	0.0	**5.3**	0.0	-0.0	0.0	71.5
Fz$_f$	-0.0	-2.7	**-0.0**	0.0	-0.0	-55.7	0.0	3.0	**0.0**	-0.0	0.0	61.8
Mx$_f$	0.0	3.0	0.0	**-0.0**	0.0	61.8	-0.0	-5.2	-0.0	**0.0**	-0.0	-24.2
My$_f$	-0.0	-2.7	-0.0	0.0	**-0.0**	-55.7	0.0	3.0	0.0	-0.0	**0.0**	61.8
Mz$_f$	-0.0	-2.7	-0.0	0.0	-0.0	**-55.7**	0.0	5.3	0.0	-0.0	0.0	**71.5**

Member 17

Fx,	**-1.9**	-0.0	-0.0	0.0	0.0	0.1	**3.4**	0.0	0.0	-0.0	-0.0	-0.1
Fy,	-0.0	**-5.2**	-0.0	0.0	0.0	-24.2	0.0	**5.3**	0.0	-0.0	-0.0	71.5
Fz,	-0.0	-2.7	**-0.0**	0.0	0.0	-55.7	0.0	3.0	**0.0**	-0.0	-0.0	61.8
Mx,	0.0	3.0	0.0	**-0.0**	-0.0	61.8	-0.0	-5.2	-0.0	**0.0**	0.0	-24.2
My,	0.0	3.0	0.0	-0.0	**-0.0**	61.8	-0.0	-2.7	-0.0	0.0	**0.0**	-55.7
Mz,	-0.0	-2.7	-0.0	0.0	0.0	**-55.7**	0.0	5.3	0.0	-0.0	-0.0	**71.5**
Fx$_f$	**-1.9**	-0.0	-0.0	0.0	-0.0	0.4	**3.4**	0.0	0.0	-0.0	0.0	-0.2
Fy$_f$	-0.0	**-5.2**	-0.0	0.0	-0.0	-0.7	0.0	**5.3**	0.0	-0.0	0.0	47.7
Fz$_f$	-0.0	-2.7	**-0.0**	0.0	-0.0	-43.6	0.0	3.0	**0.0**	-0.0	0.0	48.4
Mx$_f$	0.0	3.0	0.0	**-0.0**	0.0	48.4	-0.0	-5.2	-0.0	**0.0**	-0.0	-0.7
My$_f$	-0.0	-2.7	-0.0	0.0	**-0.0**	-43.6	0.0	3.0	0.0	-0.0	**0.0**	48.4
Mz$_f$	-0.0	-2.7	-0.0	0.0	-0.0	**-43.6**	0.0	3.0	0.0	-0.0	0.0	**48.4**

Member 18

Fx,	**-1.9**	-0.0	-0.0	0.0	0.0	0.4	**3.4**	0.0	0.0	-0.0	-0.0	-0.2
Fy,	-0.0	**-5.2**	-0.0	0.0	0.0	-0.7	0.0	**5.3**	0.0	-0.0	-0.0	47.7
Fz,	-0.0	-2.7	**-0.0**	0.0	0.0	-43.6	0.0	3.0	**0.0**	-0.0	-0.0	48.4
Mx,	0.0	3.0	0.0	**-0.0**	-0.0	48.4	-0.0	-5.2	-0.0	**0.0**	0.0	-0.7
My,	0.0	3.0	0.0	-0.0	**-0.0**	48.4	-0.0	-2.7	-0.0	0.0	**0.0**	-43.6
Mz,	-0.0	-2.7	-0.0	0.0	0.0	**-43.6**	0.0	3.0	0.0	-0.0	-0.0	**48.4**
Fx$_f$	**-1.9**	-0.0	-0.0	0.0	-0.0	0.6	**3.4**	0.0	0.0	-0.0	0.0	-0.3
Fy$_f$	-0.0	**-5.2**	-0.0	0.0	-0.0	22.7	0.0	**5.3**	0.0	-0.0	0.0	23.9
Fz,	-0.0	-2.7	**-0.0**	0.0	-0.0	-31.5	0.0	3.0	**0.0**	-0.0	0.0	35.0

Mx_f	0.0	3.0	0.0	**-0.0**	0.0	35.0	-0.0	-5.2	-0.0	**0.0**	-0.0	22.7
My_f	-0.0	-2.7	-0.0	0.0	**-0.0**	-31.5	0.0	3.0	0.0	-0.0	**0.0**	35.0
Mz_f	-0.0	-2.7	-0.0	0.0	-0.0	**-31.5**	0.0	3.0	0.0	-0.0	0.0	**35.0**

Member 19

Fx_i	**-1.9**	-0.0	-0.0	0.0	0.0	0.6	**3.4**	0.0	0.0	-0.0	-0.0	-0.3
Fy_i	-0.0	**-5.2**	-0.0	0.0	0.0	22.7	0.0	**5.3**	0.0	-0.0	-0.0	23.9
Fz_i	-0.0	-5.2	**-0.0**	0.0	0.0	22.7	0.0	5.3	**0.0**	-0.0	-0.0	23.9
Mx_i	0.0	3.0	0.0	**-0.0**	-0.0	35.0	-0.0	-5.2	-0.0	**0.0**	0.0	22.7
My_i	0.0	5.3	0.0	-0.0	**-0.0**	23.9	-0.0	-5.2	-0.0	0.0	**0.0**	22.7
Mz_i	-0.0	-2.7	-0.0	0.0	0.0	**-31.5**	0.0	3.0	0.0	-0.0	-0.0	**35.0**
Fx_f	**-1.9**	-0.0	-0.0	0.0	-0.0	0.8	**3.4**	0.0	0.0	-0.0	0.0	-0.4
Fy_f	-0.0	**-5.2**	-0.0	0.0	-0.0	46.2	0.0	**5.3**	0.0	-0.0	0.0	0.2
Fz_f	-0.0	-5.2	**-0.0**	0.0	-0.0	46.2	0.0	5.3	**0.0**	-0.0	0.0	0.2
Mx_f	0.0	3.0	0.0	**-0.0**	0.0	21.6	-0.0	-5.2	-0.0	**0.0**	-0.0	46.2
My_f	-0.0	-5.2	-0.0	0.0	**-0.0**	46.2	0.0	5.3	0.0	-0.0	**0.0**	0.2
Mz_f	0.0	2.4	0.0	-0.0	0.0	**-38.5**	-0.0	-5.2	-0.0	0.0	-0.0	**46.2**

Member 20

Fx_i	**-1.9**	-0.0	-0.0	0.0	0.0	0.8	**3.4**	0.0	0.0	-0.0	-0.0	-0.4
Fy_i	-0.0	**-5.2**	-0.0	0.0	0.0	46.2	0.0	**5.3**	0.0	-0.0	-0.0	0.2
Fz_i	-0.0	-5.2	**-0.0**	0.0	0.0	46.2	0.0	5.3	**0.0**	-0.0	-0.0	0.2
Mx_i	0.0	5.3	0.0	**-0.0**	-0.0	0.2	-0.0	-5.2	-0.0	**0.0**	0.0	46.2
My_i	0.0	5.3	0.0	-0.0	**-0.0**	0.2	-0.0	-5.2	-0.0	0.0	**0.0**	46.2
Mz_i	0.0	2.4	0.0	-0.0	-0.0	**-38.5**	-0.0	-5.2	-0.0	0.0	0.0	**46.2**
Fx_f	**-1.9**	-0.0	-0.0	0.0	-0.0	1.0	**3.4**	0.0	0.0	-0.0	0.0	-0.5
Fy_f	-0.0	**-5.2**	-0.0	0.0	-0.0	69.7	0.0	**5.3**	0.0	-0.0	0.0	-23.6
Fz_f	-0.0	-5.2	**-0.0**	0.0	-0.0	69.7	0.0	5.3	**0.0**	-0.0	0.0	-23.6
Mx_f	0.0	5.3	0.0	**-0.0**	0.0	-23.6	-0.0	-5.2	-0.0	**0.0**	-0.0	69.7
My_f	-0.0	-5.2	-0.0	0.0	**-0.0**	69.7	0.0	5.3	0.0	-0.0	**0.0**	-23.6
Mz_f	0.0	2.4	0.0	-0.0	0.0	**-49.2**	-0.0	-5.2	-0.0	0.0	-0.0	**69.7**

Member 21

Fx_i	**-1.9**	-0.0	-0.0	0.0	0.0	1.0	**3.4**	0.0	0.0	-0.0	-0.0	-0.5
Fy_i	-0.0	**-5.2**	-0.0	0.0	0.0	69.7	0.0	**5.3**	0.0	-0.0	-0.0	-23.6
Fz_i	-0.0	-5.2	**-0.0**	0.0	0.0	69.7	0.0	5.3	**0.0**	-0.0	-0.0	-23.6
Mx_i	0.0	5.3	0.0	**-0.0**	-0.0	-23.6	-0.0	-5.2	-0.0	**0.0**	0.0	69.7
My_i	0.0	5.3	0.0	-0.0	**-0.0**	-23.6	-0.0	-5.2	-0.0	0.0	**0.0**	69.7
Mz_i	0.0	2.4	0.0	-0.0	-0.0	**-49.2**	-0.0	-5.2	-0.0	0.0	0.0	**69.7**
Fx_f	**-1.9**	-0.0	-0.0	0.0	-0.0	1.3	**3.4**	0.0	0.0	-0.0	0.0	-0.6
Fy_f	-0.0	**-5.2**	-0.0	0.0	-0.0	93.2	0.0	**5.3**	0.0	-0.0	0.0	-47.4
Fz_f	-0.0	-5.2	**-0.0**	0.0	-0.0	93.2	0.0	5.3	**0.0**	-0.0	0.0	-47.4
Mx_f	0.0	5.3	0.0	**-0.0**	0.0	-47.4	-0.0	-5.2	-0.0	**0.0**	0.0	93.2
My_f	-0.0	-5.2	-0.0	0.0	**-0.0**	93.2	0.0	5.3	0.0	-0.0	**0.0**	-47.4
Mz_f	0.0	2.4	0.0	-0.0	0.0	**-59.9**	-0.0	-5.2	-0.0	0.0	-0.0	**93.2**

Member 22

Fx_i	**-1.9**	-0.0	-0.0	0.0	0.0	1.3	**3.4**	0.0	0.0	-0.0	-0.0	-0.6
Fy_i	-0.0	**-5.2**	-0.0	0.0	0.0	93.2	0.0	**5.3**	0.0	-0.0	-0.0	-47.4
Fz_i	-0.0	-5.2	**-0.0**	0.0	0.0	93.2	0.0	5.3	**0.0**	-0.0	-0.0	-47.4
Mx_i	0.0	5.3	0.0	**-0.0**	-0.0	-47.4	-0.0	-5.2	-0.0	**0.0**	0.0	93.2
My_i	0.0	5.3	0.0	-0.0	**-0.0**	-47.4	-0.0	-5.2	-0.0	0.0	**0.0**	93.2
Mz_i	0.0	2.4	0.0	-0.0	-0.0	**-59.9**	-0.0	-5.2	-0.0	0.0	0.0	**93.2**
Fx_f	**-1.9**	-0.0	-0.0	0.0	-0.0	1.5	**3.4**	0.0	0.0	-0.0	0.0	-0.7
Fy_f	-0.0	**-5.2**	-0.0	0.0	-0.0	116.6	0.0	**5.3**	0.0	-0.0	0.0	-71.1
Fz_f	-0.0	-5.2	**-0.0**	0.0	-0.0	116.6	0.0	5.3	**0.0**	-0.0	0.0	-71.1
Mx_f	0.0	5.3	0.0	**-0.0**	0.0	-71.1	-0.0	-5.2	-0.0	**0.0**	-0.0	116.6
My_f	-0.0	-5.2	-0.0	0.0	**-0.0**	116.6	0.0	5.3	0.0	-0.0	**0.0**	-71.1
Mz_f	0.0	5.3	0.0	-0.0	0.0	**-71.1**	-0.0	-5.2	-0.0	0.0	-0.0	**116.6**

Member 23

Fx_i	**-1.9**	0.2	0.0	-0.0	-0.0	1.5	**3.4**	-0.1	-0.0	0.0	0.0	-0.7
Fy_i	0.0	**-5.2**	-0.0	0.0	0.0	-70.6	-0.0	**5.2**	0.0	-0.0	-0.0	116.6
Fz_i	0.0	-2.4	**-0.0**	0.0	0.0	-71.1	-0.0	5.2	**0.0**	-0.0	-0.0	116.6
Mx_i	-0.0	5.2	0.0	**-0.0**	-0.0	116.6	0.0	-5.2	-0.0	**0.0**	0.0	-70.6
My_i	-0.0	5.2	0.0	-0.0	**-0.0**	116.6	0.0	-2.4	-0.0	0.0	**0.0**	-71.1
Mz_i	0.0	-2.4	-0.0	0.0	0.0	**-71.1**	-0.0	5.2	0.0	-0.0	-0.0	**116.6**
Fx_f	**-1.9**	0.2	0.0	-0.0	0.0	0.4	**3.4**	-0.1	-0.0	0.0	-0.0	-0.2
Fy_f	0.0	**-5.2**	-0.0	0.0	-0.0	-47.2	-0.0	**5.2**	0.0	-0.0	0.0	93.2
Fz_f	0.0	-2.4	**-0.0**	0.0	-0.0	-60.3	-0.0	5.2	**0.0**	-0.0	0.0	93.2
Mx_f	-0.0	5.2	0.0	**-0.0**	0.0	93.2	0.0	-5.2	-0.0	**0.0**	-0.0	-47.2
My_f	0.0	-2.4	-0.0	0.0	**-0.0**	-60.3	-0.0	5.2	0.0	-0.0	**0.0**	93.2
Mz_f	0.0	-2.4	-0.0	0.0	-0.0	**-60.3**	-0.0	5.2	0.0	-0.0	0.0	**93.2**

Member 24

Fx_i	**-1.9**	0.2	0.0	-0.0	-0.0	0.4	**3.4**	-0.1	-0.0	0.0	0.0	-0.2
Fy_i	0.0	**-5.2**	-0.0	0.0	0.0	-47.2	-0.0	**5.2**	0.0	-0.0	-0.0	93.2
Fz_i	0.0	-2.4	**-0.0**	0.0	0.0	-60.3	-0.0	5.2	**0.0**	-0.0	-0.0	93.2
Mx_i	-0.0	5.2	0.0	**-0.0**	-0.0	93.2	0.0	-5.2	-0.0	**0.0**	0.0	-47.2
My_i	-0.0	5.2	0.0	-0.0	**-0.0**	93.2	0.0	-2.4	-0.0	0.0	**0.0**	-60.3
Mz_i	0.0	-2.4	-0.0	0.0	0.0	**-60.3**	-0.0	5.2	0.0	-0.0	-0.0	**93.2**
Fx_f	**-1.9**	0.2	0.0	-0.0	0.0	-0.7	**3.4**	-0.1	-0.0	0.0	-0.0	0.3
Fy_f	0.0	**-5.2**	-0.0	0.0	-0.0	-23.8	-0.0	**5.2**	0.0	-0.0	0.0	69.8
Fz_f	0.0	-2.4	**-0.0**	0.0	-0.0	-49.6	-0.0	5.2	**0.0**	-0.0	0.0	69.8
Mx_f	-0.0	5.2	0.0	**-0.0**	0.0	69.8	0.0	-5.2	-0.0	**0.0**	-0.0	-23.8
My_f	0.0	-2.4	-0.0	0.0	**-0.0**	-49.6	-0.0	5.2	0.0	-0.0	**0.0**	69.8
Mz_f	0.0	-2.4	-0.0	0.0	-0.0	**-49.6**	-0.0	5.2	0.0	-0.0	0.0	**69.8**

Member 25

Fx_i	**-1.9**	0.2	0.0	-0.0	-0.0	-0.7	**3.4**	-0.1	-0.0	0.0	0.0	0.3
Fy_i	0.0	**-5.2**	-0.0	0.0	0.0	-23.8	-0.0	**5.2**	0.0	-0.0	-0.0	69.8
Fz_i	0.0	-5.2	**-0.0**	0.0	0.0	-23.8	-0.0	5.2	**0.0**	-0.0	-0.0	69.8
Mx_i	-0.0	5.2	0.0	**-0.0**	-0.0	69.8	0.0	-5.2	-0.0	**0.0**	0.0	-23.8
My_i	-0.0	5.2	0.0	-0.0	**-0.0**	69.8	0.0	-5.2	-0.0	0.0	**0.0**	-23.8
Mz_i	0.0	-2.4	-0.0	0.0	0.0	**-49.6**	-0.0	5.2	0.0	-0.0	-0.0	**69.8**
Fx_f	**-1.9**	0.2	0.0	-0.0	0.0	-1.7	**3.4**	-0.1	-0.0	0.0	-0.0	0.8
Fy_f	0.0	**-5.2**	-0.0	0.0	-0.0	-0.4	-0.0	**5.2**	0.0	-0.0	0.0	46.4
Fz_f	0.0	-5.2	**-0.0**	0.0	-0.0	-0.4	-0.0	5.2	**0.0**	-0.0	0.0	46.4
Mx_f	-0.0	5.2	0.0	**-0.0**	0.0	46.4	0.0	-5.2	-0.0	**0.0**	-0.0	-0.4
My_f	0.0	-5.2	-0.0	0.0	**-0.0**	-0.4	-0.0	5.2	0.0	-0.0	**0.0**	46.4
Mz_f	0.0	-2.4	-0.0	0.0	-0.0	**-38.8**	-0.0	5.2	0.0	-0.0	0.0	**46.4**

Member 26

Fx_i	**-1.9**	0.2	0.0	-0.0	-0.0	-1.7	**3.4**	-0.1	-0.0	0.0	0.0	0.8
Fy_i	0.0	**-5.2**	-0.0	0.0	0.0	-0.4	-0.0	**5.2**	0.0	-0.0	-0.0	46.4
Fz_i	0.0	-5.2	**-0.0**	0.0	0.0	-0.4	-0.0	5.2	**0.0**	-0.0	-0.0	46.4
Mx_i	-0.0	5.2	0.0	**-0.0**	-0.0	46.4	0.0	-5.2	-0.0	**0.0**	0.0	-0.4
My_i	-0.0	5.2	0.0	-0.0	**-0.0**	46.4	0.0	-5.2	-0.0	0.0	**0.0**	-0.4
Mz_i	0.0	-2.4	-0.0	0.0	0.0	**-38.8**	-0.0	5.2	0.0	-0.0	-0.0	**46.4**
Fx_f	**-1.9**	0.2	0.0	-0.0	0.0	-2.8	**3.4**	-0.1	-0.0	0.0	-0.0	1.3
Fy_f	0.0	**-5.2**	-0.0	0.0	-0.0	22.9	-0.0	**5.2**	0.0	-0.0	0.0	23.0
Fz_f	0.0	-5.2	**-0.0**	0.0	-0.0	22.9	-0.0	5.2	**0.0**	-0.0	0.0	23.0
Mx_f	-0.0	5.2	0.0	**-0.0**	0.0	23.0	0.0	-5.2	-0.0	**0.0**	-0.0	22.9
My_f	0.0	-5.2	-0.0	0.0	**-0.0**	22.9	-0.0	5.2	0.0	-0.0	**0.0**	23.0
Mz_f	0.0	-2.4	-0.0	0.0	-0.0	**-28.1**	-0.0	5.2	0.0	-0.0	0.0	**23.0**

Member 27

Fx_i	**-1.9**	0.2	0.0	-0.0	-0.0	-2.8	**3.4**	-0.1	-0.0	0.0	0.0	1.3
Fy_i	0.0	**-5.2**	-0.0	0.0	0.0	22.9	-0.0	**5.2**	0.0	-0.0	-0.0	23.0
Fz_i	0.0	-5.2	**-0.0**	0.0	0.0	22.9	-0.0	5.2	**0.0**	-0.0	-0.0	23.0
Mx_i	-0.0	5.2	0.0	**-0.0**	-0.0	23.0	0.0	-5.2	-0.0	**0.0**	0.0	22.9
My_i	-0.0	5.2	0.0	-0.0	**-0.0**	23.0	0.0	-5.2	-0.0	0.0	**0.0**	22.9
Mz_i	0.0	-2.4	-0.0	0.0	0.0	**-28.1**	-0.0	5.2	0.0	-0.0	-0.0	**23.0**
Fx_f	**-1.9**	0.2	0.0	-0.0	0.0	-3.8	**3.4**	-0.1	-0.0	0.0	-0.0	1.9
Fy_f	0.0	**-5.2**	-0.0	0.0	-0.0	46.3	-0.0	**5.2**	0.0	-0.0	0.0	-0.4
Fz_f	0.0	-5.2	**-0.0**	0.0	-0.0	46.3	-0.0	5.2	**0.0**	-0.0	0.0	-0.4
Mx_f	-0.0	5.2	0.0	**-0.0**	0.0	-0.4	0.0	-5.2	-0.0	**0.0**	-0.0	46.3
My_f	0.0	-5.2	-0.0	0.0	**-0.0**	46.3	-0.0	5.2	0.0	-0.0	**0.0**	-0.4
Mz_f	-0.0	2.4	0.0	-0.0	0.0	**-38.5**	0.0	-5.2	-0.0	0.0	-0.0	**46.3**

Member 28

Fx_i	**-1.9**	0.2	0.0	-0.0	-0.0	-3.8	**3.4**	-0.1	-0.0	0.0	0.0	1.9
Fy_i	0.0	**-5.2**	-0.0	0.0	0.0	46.3	-0.0	**5.2**	0.0	-0.0	-0.0	-0.4

Fz_i	0.0	-5.2	**-0.0**	0.0	0.0	46.3	-0.0	5.2	**0.0**	-0.0	-0.0	-0.4
Mx_i	-0.0	5.2	0.0	**-0.0**	-0.0	-0.4	0.0	-5.2	-0.0	**0.0**	0.0	46.3
My_i	-0.0	5.2	0.0	-0.0	**-0.0**	-0.4	0.0	-5.2	-0.0	0.0	**0.0**	46.3
Mz_i	-0.0	2.4	0.0	-0.0	-0.0	**-38.5**	0.0	-5.2	-0.0	0.0	0.0	**46.3**
Fx_f	**-1.9**	0.2	0.0	-0.0	0.0	-4.9	**3.4**	-0.1	-0.0	0.0	-0.0	2.4
Fy_f	0.0	**-5.2**	-0.0	0.0	-0.0	69.7	-0.0	**5.2**	0.0	-0.0	**0.0**	-23.8
Fz_f	0.0	-5.2	**-0.0**	0.0	-0.0	69.7	-0.0	5.2	**0.0**	-0.0	0.0	-23.8
Mx_f	-0.0	5.2	0.0	**-0.0**	0.0	-23.8	0.0	-5.2	-0.0	**0.0**	-0.0	69.7
My_f	0.0	-5.2	-0.0	0.0	**-0.0**	69.7	-0.0	5.2	0.0	-0.0	**0.0**	-23.8
Mz_f	-0.0	2.4	0.0	-0.0	0.0	**-49.2**	0.0	-5.2	-0.0	0.0	-0.0	**69.7**

Member 29

Fx_i	**-1.9**	0.2	0.0	-0.0	-0.0	-4.9	**3.4**	-0.1	-0.0	0.0	0.0	2.4
Fy_i	0.0	**-5.2**	-0.0	0.0	0.0	69.7	-0.0	**5.2**	0.0	-0.0	-0.0	-23.8
Fz_i	0.0	-5.2	**-0.0**	0.0	0.0	69.7	-0.0	5.2	**0.0**	-0.0	-0.0	-23.8
Mx_i	-0.0	5.2	0.0	**-0.0**	-0.0	-23.8	0.0	-5.2	-0.0	**0.0**	0.0	69.7
My_i	-0.0	5.2	0.0	-0.0	**-0.0**	-23.8	0.0	-5.2	-0.0	0.0	**0.0**	69.7
Mz_i	-0.0	2.4	0.0	-0.0	-0.0	**-49.2**	0.0	-5.2	-0.0	0.0	0.0	**69.7**
Fx_f	**-1.9**	0.2	0.0	-0.0	0.0	-6.0	**3.4**	-0.1	-0.0	0.0	-0.0	2.9
Fy_f	0.0	**-5.2**	-0.0	0.0	-0.0	93.1	-0.0	**5.2**	0.0	-0.0	0.0	-47.2
Fz_f	0.0	-5.2	**-0.0**	0.0	-0.0	93.1	-0.0	5.2	**0.0**	-0.0	0.0	-47.2
Mx_f	-0.0	5.2	0.0	**-0.0**	0.0	-47.2	0.0	-5.2	-0.0	**0.0**	-0.0	93.1
My_f	0.0	-5.2	-0.0	0.0	**-0.0**	93.1	-0.0	5.2	0.0	-0.0	**0.0**	-47.2
Mz_f	-0.0	2.4	0.0	-0.0	0.0	**-59.9**	0.0	-5.2	-0.0	0.0	-0.0	**93.1**

Member 30

Fx_i	**-1.9**	0.2	0.0	-0.0	-0.0	-6.0	**3.4**	-0.1	-0.0	0.0	0.0	2.9
Fy_i	0.0	**-5.2**	-0.0	0.0	0.0	93.1	-0.0	**5.2**	0.0	-0.0	-0.0	-47.2
Fz_i	0.0	-5.2	**-0.0**	0.0	0.0	93.1	-0.0	5.2	**0.0**	-0.0	-0.0	-47.2
Mx_i	-0.0	5.2	0.0	**-0.0**	-0.0	-47.2	0.0	-5.2	-0.0	**0.0**	0.0	93.1
My_i	-0.0	5.2	0.0	-0.0	**-0.0**	-47.2	0.0	-5.2	-0.0	0.0	**0.0**	93.1
Mz_i	-0.0	2.4	0.0	-0.0	-0.0	**-59.9**	0.0	-5.2	-0.0	0.0	0.0	**93.1**
Fx_f	**-1.9**	0.2	0.0	-0.0	0.0	-7.0	**3.4**	-0.1	-0.0	0.0	-0.0	3.4
Fy_f	0.0	**-5.2**	-0.0	0.0	-0.0	116.5	-0.0	**5.2**	0.0	-0.0	0.0	-70.6
Fz_f	0.0	-5.2	**-0.0**	0.0	-0.0	116.5	-0.0	5.2	**0.0**	-0.0	0.0	-70.6
Mx_f	-0.0	5.2	0.0	**-0.0**	0.0	-70.6	0.0	-5.2	-0.0	**0.0**	-0.0	116.5
My_f	0.0	-5.2	-0.0	0.0	**-0.0**	116.5	-0.0	5.2	0.0	-0.0	**0.0**	-70.6
Mz_f	-0.0	5.2	0.0	-0.0	0.0	**-70.6**	0.0	-5.2	-0.0	0.0	-0.0	**116.5**

Member 31

Fx_i	**-1.9**	-1.1	-0.0	0.0	0.0	-7.0	**3.4**	0.5	0.0	-0.0	-0.0	3.4
Fy_i	-0.0	**-5.2**	-0.0	0.0	0.0	-70.6	0.0	**5.2**	0.0	-0.0	-0.0	116.5
Fz_i	-0.0	-2.4	**-0.0**	0.0	0.0	-70.6	0.0	5.2	**0.0**	-0.0	-0.0	116.5
Mx_i	0.0	5.2	0.0	**-0.0**	-0.0	116.5	-0.0	-5.2	-0.0	**0.0**	0.0	-70.6
My_i	0.0	5.2	0.0	-0.0	**-0.0**	116.5	-0.0	-2.4	-0.0	0.0	**0.0**	-70.6
Mz_i	-0.0	-2.4	-0.0	0.0	0.0	**-70.6**	0.0	5.2	0.0	-0.0	-0.0	**116.5**
Fx_f	**-1.9**	-1.1	-0.0	0.0	-0.0	-2.0	**3.4**	0.5	0.0	-0.0	0.0	0.9
Fy_f	-0.0	**-5.2**	-0.0	0.0	-0.0	-47.2	0.0	**5.2**	0.0	-0.0	0.0	93.1
Fz_f	-0.0	-2.4	**-0.0**	0.0	-0.0	-59.9	0.0	5.2	**0.0**	-0.0	0.0	93.1
Mx_f	0.0	5.2	0.0	**-0.0**	0.0	93.1	-0.0	-5.2	-0.0	**0.0**	-0.0	-47.2
My_f	-0.0	-2.4	-0.0	0.0	**-0.0**	-59.9	0.0	5.2	0.0	-0.0	**0.0**	93.1
Mz_i	-0.0	-2.4	-0.0	0.0	-0.0	**-59.9**	0.0	5.2	0.0	-0.0	0.0	**93.1**

Member 32

Fx_i	**-1.9**	-1.1	-0.0	0.0	0.0	-2.0	**3.4**	0.5	0.0	-0.0	-0.0	0.9
Fy_i	-0.0	**-5.2**	-0.0	0.0	0.0	-47.2	0.0	**5.2**	0.0	-0.0	-0.0	93.1
Fz_i	-0.0	-5.2	**-0.0**	0.0	0.0	-47.2	0.0	5.2	**0.0**	-0.0	-0.0	93.1
Mx_i	0.0	5.2	0.0	**-0.0**	-0.0	93.1	-0.0	-5.2	-0.0	**0.0**	0.0	-47.2
My_i	0.0	5.2	0.0	-0.0	**-0.0**	93.1	-0.0	-5.2	-0.0	0.0	**0.0**	-47.2
Mz_i	-0.0	-2.4	-0.0	0.0	0.0	**-59.9**	0.0	5.2	0.0	-0.0	-0.0	**93.1**
Fx_f	**-1.9**	-1.1	-0.0	0.0	-0.0	3.1	**3.4**	0.5	0.0	-0.0	0.0	-1.5
Fy_f	-0.0	**-5.2**	-0.0	0.0	-0.0	-23.8	0.0	**5.2**	0.0	-0.0	0.0	69.7
Fz_f	-0.0	-5.2	**-0.0**	0.0	-0.0	-23.8	0.0	5.2	**0.0**	-0.0	0.0	69.7
Mx_f	0.0	5.2	0.0	**-0.0**	0.0	69.7	-0.0	-5.2	-0.0	**0.0**	-0.0	-23.8
My_f	-0.0	-5.2	-0.0	0.0	**-0.0**	-23.8	0.0	5.2	0.0	-0.0	**0.0**	69.7
Mz_i	-0.0	-2.4	-0.0	0.0	-0.0	**-49.2**	0.0	5.2	0.0	-0.0	0.0	**69.7**

Member 33

Fx_i	**-1.9**	-1.1	-0.0	0.0	0.0	3.1	**3.4**	0.5	0.0	-0.0	-0.0	-1.5
Fy_i	-0.0	**-5.2**	-0.0	0.0	0.0	-23.8	0.0	**5.2**	0.0	-0.0	-0.0	69.7
Fz_i	-0.0	-5.2	**-0.0**	0.0	0.0	-23.8	0.0	5.2	**0.0**	-0.0	-0.0	69.7
Mx_i	0.0	5.2	0.0	**-0.0**	-0.0	69.7	-0.0	-5.2	-0.0	**0.0**	0.0	-23.8
My_i	0.0	5.2	0.0	-0.0	**-0.0**	69.7	-0.0	-5.2	-0.0	0.0	**0.0**	-23.8
Mz_i	-0.0	-2.4	-0.0	0.0	0.0	**-49.2**	0.0	5.2	0.0	-0.0	-0.0	**69.7**
Fx_f	**-1.9**	-1.1	-0.0	0.0	-0.0	8.2	**3.4**	0.5	0.0	-0.0	0.0	-4.0
Fy_f	-0.0	**-5.2**	-0.0	0.0	-0.0	-0.4	0.0	**5.2**	0.0	-0.0	**0.0**	46.3
Fz_f	-0.0	-5.2	**-0.0**	0.0	-0.0	-0.4	0.0	5.2	**0.0**	-0.0	0.0	46.3
Mx_f	0.0	5.2	0.0	**-0.0**	0.0	46.3	-0.0	-5.2	-0.0	**0.0**	-0.0	-0.4
My_f	-0.0	-5.2	-0.0	0.0	**-0.0**	-0.4	0.0	5.2	0.0	-0.0	**0.0**	46.3
Mz_i	-0.0	-2.4	-0.0	0.0	-0.0	**-38.5**	0.0	5.2	0.0	-0.0	0.0	**46.3**

Member 34

Fx_i	**-1.9**	-1.1	-0.0	0.0	0.0	8.2	**3.4**	0.5	0.0	-0.0	-0.0	-4.0
Fy_i	-0.0	**-5.2**	-0.0	0.0	0.0	-0.4	0.0	**5.2**	0.0	-0.0	-0.0	46.3
Fz_i	-0.0	-5.2	**-0.0**	0.0	0.0	-0.4	0.0	5.2	**0.0**	-0.0	-0.0	46.3
Mx_i	0.0	5.2	0.0	**-0.0**	-0.0	46.3	-0.0	-5.2	-0.0	**0.0**	0.0	-0.4
My_i	0.0	5.2	0.0	-0.0	**-0.0**	46.3	-0.0	-5.2	-0.0	0.0	**0.0**	-0.4
Mz_i	-0.0	-2.4	-0.0	0.0	0.0	**-38.5**	0.0	5.2	0.0	-0.0	-0.0	**46.3**
Fx_f	**-1.9**	-1.1	-0.0	0.0	-0.0	13.3	**3.4**	0.5	0.0	-0.0	0.0	-6.4
Fy_f	-0.0	**-5.2**	-0.0	0.0	-0.0	23.0	0.0	**5.2**	0.0	-0.0	0.0	23.0
Fz_f	-0.0	-5.2	**-0.0**	0.0	-0.0	23.0	0.0	5.2	**0.0**	-0.0	0.0	23.0
Mx_f	0.0	5.2	0.0	**-0.0**	0.0	23.0	-0.0	-5.2	-0.0	**0.0**	-0.0	23.0
My_f	-0.0	-5.2	-0.0	0.0	**-0.0**	23.0	0.0	5.2	0.0	-0.0	**0.0**	23.0
Mz_f	0.1	2.4	0.0	-0.0	0.0	**-28.0**	-0.0	-5.2	-0.0	0.0	-0.0	**23.0**

Member 35

Fx_i	**-1.9**	-1.1	-0.0	0.0	0.0	13.3	**3.4**	0.5	0.0	-0.0	-0.0	-6.4
Fy_i	-0.0	**-5.2**	-0.0	0.0	0.0	23.0	0.0	**5.2**	0.0	-0.0	-0.0	23.0
Fz_i	-0.0	-5.2	**-0.0**	0.0	0.0	23.0	0.0	5.2	**0.0**	-0.0	-0.0	23.0
Mx_i	0.0	5.2	0.0	**-0.0**	-0.0	23.0	-0.0	-5.2	-0.0	**0.0**	0.0	23.0
My_i	0.0	5.2	0.0	-0.0	**-0.0**	23.0	-0.0	-5.2	-0.0	0.0	**0.0**	23.0
Mz_i	0.1	2.4	0.0	-0.0	-0.0	**-28.0**	-0.0	-5.2	-0.0	0.0	0.0	**23.0**
Fx_f	**-1.9**	-1.1	-0.0	0.0	-0.0	18.3	**3.4**	0.5	0.0	-0.0	0.0	-8.9
Fy_f	-0.0	**-5.2**	-0.0	0.0	-0.0	46.4	0.0	**5.2**	0.0	-0.0	0.0	-0.4
Fz_f	-0.0	-5.2	**-0.0**	0.0	-0.0	46.4	0.0	5.2	**0.0**	-0.0	0.0	-0.4
Mx_f	0.0	5.2	0.0	**-0.0**	0.0	-0.4	-0.0	-5.2	-0.0	**0.0**	-0.0	46.4
My_f	-0.0	-5.2	-0.0	0.0	**-0.0**	46.4	0.0	5.2	0.0	-0.0	**0.0**	-0.4
Mz_f	0.1	2.4	0.0	-0.0	0.0	**-38.8**	-0.0	-5.2	-0.0	0.0	-0.0	**46.4**

Member 36

Fx_i	**-1.9**	-1.1	-0.0	0.0	0.0	18.3	**3.4**	0.5	0.0	-0.0	-0.0	-8.9
Fy_i	-0.0	**-5.2**	-0.0	0.0	0.0	46.4	0.0	**5.2**	0.0	-0.0	-0.0	-0.4
Fz_i	-0.0	-5.2	**-0.0**	0.0	0.0	46.4	0.0	5.2	**0.0**	-0.0	-0.0	-0.4
Mx_i	0.0	5.2	0.0	**-0.0**	-0.0	-0.4	-0.0	-5.2	-0.0	**0.0**	0.0	46.4
My_i	0.0	5.2	0.0	-0.0	**-0.0**	-0.4	-0.0	-5.2	-0.0	0.0	**0.0**	46.4
Mz_i	0.1	2.4	0.0	-0.0	-0.0	**-38.8**	-0.0	-5.2	-0.0	0.0	0.0	**46.4**
Fx_f	**-1.9**	-1.1	-0.0	0.0	-0.0	23.4	**3.4**	0.5	0.0	-0.0	0.0	-11.3
Fy_f	-0.0	**-5.2**	-0.0	0.0	-0.0	69.8	0.0	**5.2**	0.0	-0.0	0.0	-23.8
Fz_f	-0.0	-5.2	**-0.0**	0.0	-0.0	69.8	0.0	5.2	**0.0**	-0.0	0.0	-23.8
Mx_f	0.0	5.2	0.0	**-0.0**	0.0	-23.8	-0.0	-5.2	-0.0	**0.0**	-0.0	69.8
My_f	-0.0	-5.2	-0.0	0.0	**-0.0**	69.8	0.0	5.2	0.0	-0.0	**0.0**	-23.8
Mz_f	0.1	2.4	0.0	-0.0	0.0	**-49.5**	-0.0	-5.2	-0.0	0.0	-0.0	**69.8**

Member 37

Fx_i	**-1.9**	-1.1	-0.0	0.0	0.0	23.4	**3.4**	0.5	0.0	-0.0	-0.0	-11.3
Fy_i	-0.0	**-5.2**	-0.0	0.0	0.0	69.8	0.0	**5.2**	0.0	-0.0	-0.0	-23.8
Fz_i	-0.0	-5.2	**-0.0**	0.0	0.0	69.8	0.1	2.4	**0.0**	-0.0	-0.0	-49.5
Mx_i	0.0	5.2	0.0	**-0.0**	-0.0	-23.8	-0.0	-5.2	-0.0	**0.0**	0.0	69.8
My_i	0.1	2.4	0.0	-0.0	**-0.0**	-49.5	-0.0	-5.2	-0.0	0.0	**0.0**	69.8
Mz_i	0.1	2.4	0.0	-0.0	-0.0	**-49.5**	-0.0	-5.2	-0.0	0.0	0.0	**69.8**
Fx_f	**-1.9**	-1.1	-0.0	0.0	-0.0	28.5	**3.4**	0.5	0.0	-0.0	0.0	-13.8
Fy_f	-0.0	**-5.2**	-0.0	0.0	-0.0	93.2	0.0	**5.2**	0.0	-0.0	0.0	-47.2
Fz_f	-0.0	-5.2	**-0.0**	0.0	-0.0	93.2	0.1	2.4	**0.0**	-0.0	0.0	-60.3

Mx,	0.0	5.2	0.0	**-0.0**	0.0	-47.2	-0.0	-5.2	-0.0	**0.0**	-0.0	93.2
My,	-0.0	-5.2	-0.0	0.0	**-0.0**	93.2	0.1	2.4	0.0	-0.0	**0.0**	-60.3
Mz,	0.1	2.4	0.0	-0.0	0.0	**-60.3**	-0.0	-5.2	-0.0	0.0	-0.0	**93.2**

Member 38

Fx,	**-1.9**	-1.1	-0.0	0.0	0.0	28.5	**3.4**	0.5	0.0	-0.0	-0.0	-13.8
Fy,	-0.0	**-5.2**	-0.0	0.0	0.0	93.2	0.0	**5.2**	0.0	-0.0	-0.0	-47.2
Fz,	-0.0	-5.2	**-0.0**	0.0	0.0	93.2	0.1	2.4	**0.0**	-0.0	-0.0	-60.3
Mx,	0.0	5.2	0.0	**-0.0**	-0.0	-47.2	-0.0	-5.2	-0.0	**0.0**	0.0	93.2
My,	0.1	2.4	0.0	-0.0	**-0.0**	-60.3	-0.0	-5.2	-0.0	0.0	**0.0**	93.2
Mz,	0.1	2.4	0.0	-0.0	-0.0	**-60.3**	-0.0	-5.2	-0.0	0.0	0.0	**93.2**
Fx,	**-1.9**	-1.1	-0.0	0.0	-0.0	33.6	**3.4**	0.5	0.0	-0.0	0.0	-16.2
Fy,	-0.0	**-5.2**	-0.0	0.0	-0.0	116.6	0.0	**5.2**	0.0	-0.0	0.0	-70.6
Fz,	-0.0	-5.2	**-0.0**	0.0	-0.0	116.6	0.1	2.4	**0.0**	-0.0	0.0	-71.0
Mx,	0.0	5.2	0.0	**-0.0**	0.0	-70.6	-0.0	-5.2	-0.0	**0.0**	-0.0	116.6
My,	-0.0	-5.2	-0.0	0.0	**-0.0**	116.6	0.1	2.4	0.0	-0.0	**0.0**	-71.0
Mz,	0.1	2.4	0.0	-0.0	0.0	**-71.0**	-0.0	-5.2	-0.0	0.0	-0.0	**116.6**

Member 39

Fx,	**-1.9**	5.4	0.0	-0.0	-0.0	33.6	**3.4**	-2.6	-0.0	0.0	0.0	-16.2
Fy	0.1	**-5.3**	-0.0	0.0	0.0	-71.0	-1.9	**5.4**	0.0	-0.0	-0.0	33.6
Fz	0.1	-5.3	**-0.0**	0.0	0.0	-71.0	-0.0	5.2	**0.0**	-0.0	-0.0	116.6
Mx,	-1.9	5.4	0.0	**-0.0**	-0.0	33.6	0.1	-5.3	-0.0	**0.0**	0.0	-71.0
My	-0.0	5.2	0.0	-0.0	**-0.0**	116.6	0.1	-5.3	-0.0	0.0	**0.0**	-71.0
Mz,	0.1	-5.3	-0.0	0.0	0.0	**-71.0**	-0.0	5.2	0.0	-0.0	-0.0	**116.6**
Fx,	**-1.9**	5.4	0.0	-0.0	0.0	9.5	**3.4**	-2.6	-0.0	0.0	-0.0	-4.5
Fy,	0.1	**-5.3**	-0.0	0.0	-0.0	-47.3	-1.9	**5.4**	0.0	-0.0	0.0	9.5
Fz,	0.1	-5.3	**-0.0**	0.0	-0.0	-47.3	-0.0	5.2	**0.0**	-0.0	0.0	93.1
Mx,	-1.9	5.4	0.0	**-0.0**	0.0	9.5	0.1	-5.3	-0.0	**0.0**	-0.0	-47.3
My,	0.1	-5.3	-0.0	0.0	**-0.0**	-47.3	-0.0	5.2	0.0	-0.0	**0.0**	93.1
Mz,	0.0	-2.4	-0.0	0.0	-0.0	**-59.9**	-0.0	5.2	0.0	-0.0	0.0	**93.1**

Member 40

Fx	**-1.9**	5.4	0.0	-0.0	-0.0	9.5	**3.4**	-2.6	-0.0	0.0	0.0	-4.5
Fy,	0.1	**-5.3**	-0.0	0.0	0.0	-47.3	-1.9	**5.4**	0.0	-0.0	-0.0	9.5
Fz,	0.1	-5.3	**-0.0**	0.0	0.0	-47.3	-0.0	5.2	**0.0**	-0.0	-0.0	93.1
Mx	-1.9	5.4	0.0	**-0.0**	-0.0	9.5	0.1	-5.3	-0.0	**0.0**	0.0	-47.3
My,	-0.0	5.2	0.0	-0.0	**-0.0**	93.1	0.1	-5.3	-0.0	0.0	**0.0**	-47.3
Mz	0.0	-2.4	-0.0	0.0	0.0	**-59.9**	-0.0	5.2	0.0	-0.0	-0.0	**93.1**
Fx,	**-1.9**	5.4	0.0	-0.0	0.0	-14.6	**3.4**	-2.6	-0.0	0.0	-0.0	7.2
Fy,	0.1	**-5.3**	-0.0	0.0	-0.0	-23.6	-1.9	**5.4**	0.0	-0.0	0.0	-14.6
Fz,	0.1	-5.3	**-0.0**	0.0	-0.0	-23.6	-0.0	5.2	**0.0**	-0.0	0.0	69.7
Mx,	-1.9	5.4	0.0	**-0.0**	0.0	-14.6	0.1	-5.3	-0.0	**0.0**	-0.0	-23.6
My,	0.1	-5.3	-0.0	0.0	**-0.0**	-23.6	-0.0	5.2	0.0	-0.0	**0.0**	69.7
Mz,	0.0	-2.4	-0.0	0.0	-0.0	**-49.2**	-0.0	5.2	0.0	-0.0	0.0	**69.7**

Member 41

Fx,	**-1.9**	5.4	0.0	-0.0	-0.0	-14.6	**3.4**	-2.6	-0.0	0.0	0.0	7.2
Fy,	0.1	**-5.3**	-0.0	0.0	0.0	-23.6	-1.9	**5.4**	0.0	-0.0	-0.0	-14.6
Fz,	0.1	-5.3	**-0.0**	0.0	0.0	-23.6	-0.0	5.2	**0.0**	-0.0	-0.0	69.7
Mx,	-1.9	5.4	0.0	**-0.0**	-0.0	-14.6	0.1	-5.3	-0.0	**0.0**	0.0	-23.6
My,	-0.0	5.2	0.0	-0.0	**-0.0**	69.7	0.1	-5.3	-0.0	0.0	**0.0**	-23.6
Mz	0.0	-2.4	-0.0	0.0	0.0	**-49.2**	-0.0	5.2	0.0	-0.0	-0.0	**69.7**
Fx,	**-1.9**	5.4	0.0	-0.0	0.0	-38.7	**3.4**	-2.6	-0.0	0.0	-0.0	18.9
Fy,	0.1	**-5.3**	-0.0	0.0	-0.0	0.2	-1.9	**5.4**	0.0	-0.0	0.0	-38.7
Fz,	0.1	-5.3	**-0.0**	0.0	-0.0	0.2	-0.0	5.2	**0.0**	-0.0	0.0	46.2
Mx,	-1.9	5.4	0.0	**-0.0**	0.0	-38.7	0.1	-5.3	-0.0	**0.0**	-0.0	0.2
My,	0.1	-5.3	-0.0	0.0	**-0.0**	0.2	-0.0	5.2	0.0	-0.0	**0.0**	46.2
Mz,	-1.9	5.4	0.0	-0.0	0.0	**-38.7**	-0.0	5.2	0.0	-0.0	0.0	**46.2**

Member 42

Fx	**-1.9**	5.4	0.0	-0.0	-0.0	-38.7	**3.4**	-2.6	-0.0	0.0	0.0	18.9
Fy,	0.1	**-5.3**	-0.0	0.0	0.0	0.2	-1.9	**5.4**	0.0	-0.0	-0.0	-38.7
Fz,	0.1	-5.3	**-0.0**	0.0	0.0	0.2	-0.0	5.2	**0.0**	-0.0	-0.0	46.2
Mx,	-1.9	5.4	0.0	**-0.0**	-0.0	-38.7	0.1	-5.3	-0.0	**0.0**	0.0	0.2
My,	-0.0	5.2	0.0	-0.0	**-0.0**	46.2	0.1	-5.3	-0.0	0.0	**0.0**	0.2
Mz	-1.9	5.4	0.0	-0.0	-0.0	**-38.7**	-0.0	5.2	0.0	-0.0	-0.0	**46.2**

Fx,	**-1.9**	5.4	0.0	-0.0	0.0	-62.8	**3.4**	-2.6	-0.0	0.0	-0.0	30.6
Fy,	0.1	**-5.3**	-0.0	0.0	-0.0	23.9	-1.9	**5.4**	0.0	-0.0	0.0	-62.8
FZ,	0.1	-5.3	**-0.0**	0.0	-0.0	23.9	-0.0	5.2	**0.0**	-0.0	0.0	22.8
Mx,	-1.9	5.4	0.0	**-0.0**	0.0	-62.8	0.1	-5.3	-0.0	**0.0**	-0.0	23.9
My,	0.1	-5.3	-0.0	0.0	**-0.0**	23.9	-0.0	5.2	0.0	-0.0	**0.0**	22.8
Mz,	-1.9	5.4	0.0	-0.0	0.0	**-62.8**	3.4	-2.6	-0.0	0.0	-0.0	**30.6**

Member 43

Fx,	**-1.9**	5.4	0.0	-0.0	-0.0	-62.8	**3.4**	-2.6	-0.0	0.0	0.0	30.6
Fy,	0.1	**-5.3**	-0.0	0.0	0.0	23.9	-1.9	**5.4**	0.0	-0.0	-0.0	-62.8
Fz,	3.4	-2.6	**-0.0**	0.0	0.0	30.6	-1.9	5.4	**0.0**	-0.0	-0.0	-62.8
Mx,	-1.9	5.4	0.0	**-0.0**	-0.0	-62.8	3.4	-2.6	-0.0	**0.0**	0.0	30.6
My,	-1.9	5.4	0.0	-0.0	**-0.0**	-62.8	3.4	-2.6	-0.0	0.0	**0.0**	30.6
Mz,	-1.9	5.4	0.0	-0.0	-0.0	**-62.8**	3.4	-2.6	-0.0	0.0	0.0	**30.6**
Fx,	**-1.9**	5.4	0.0	-0.0	0.0	-86.9	**3.4**	-2.6	-0.0	0.0	-0.0	42.3
Fy,	0.1	**-5.3**	-0.0	0.0	-0.0	47.7	-1.9	**5.4**	0.0	-0.0	0.0	-86.9
Fz,	3.4	-2.6	**-0.0**	0.0	-0.0	42.3	-1.9	5.4	**0.0**	-0.0	0.0	-86.9
Mx,	-1.9	5.4	0.0	**-0.0**	0.0	-86.9	3.4	-2.6	-0.0	**0.0**	-0.0	42.3
My,	3.4	-2.6	-0.0	0.0	**-0.0**	42.3	-1.9	5.4	0.0	-0.0	**0.0**	-86.9
Mz,	-1.9	5.4	0.0	-0.0	0.0	**-86.9**	0.1	-5.3	-0.0	0.0	-0.0	**47.7**

Member 44

Fx,	**-1.9**	5.4	0.0	-0.0	-0.0	-86.9	**3.4**	-2.6	-0.0	0.0	0.0	42.3
Fy,	0.1	**-5.3**	-0.0	0.0	0.0	47.7	-1.9	**5.4**	0.0	-0.0	-0.0	-86.9
Fz,	3.4	-2.6	**-0.0**	0.0	0.0	42.3	-1.9	5.4	**0.0**	-0.0	-0.0	-86.9
Mx,	-1.9	5.4	0.0	**-0.0**	-0.0	-86.9	3.4	-2.6	-0.0	**0.0**	0.0	42.3
My,	-1.9	5.4	0.0	-0.0	**-0.0**	-86.9	3.4	-2.6	-0.0	0.0	**0.0**	42.3
Mz,	-1.9	5.4	0.0	-0.0	-0.0	**-86.9**	0.1	-5.3	-0.0	0.0	0.0	**47.7**
Fx,	**-1.9**	5.4	0.0	-0.0	0.0	-111.0	**3.4**	-2.6	-0.0	0.0	-0.0	54.0
Fy,	0.1	**-5.3**	-0.0	0.0	-0.0	71.4	-1.9	**5.4**	0.0	-0.0	0.0	-111.0
Fz,	3.4	-2.6	**-0.0**	0.0	-0.0	54.0	-1.9	5.4	**0.0**	-0.0	0.0	-111.0
Mx,	-1.9	5.4	0.0	**-0.0**	-0.0	-111.0	3.4	-2.6	-0.0	**0.0**	-0.0	54.0
My,	3.4	-2.6	-0.0	0.0	**-0.0**	54.0	-1.9	5.4	0.0	-0.0	**0.0**	-111.0
Mz,	-1.9	5.4	0.0	-0.0	0.0	**-111.0**	0.1	-5.3	-0.0	0.0	-0.0	**71.4**

Member 45

Fx,	**-1.9**	5.4	0.0	-0.0	-0.0	-111.0	**3.4**	-2.6	-0.0	0.0	0.0	54.0
Fy,	0.1	**-5.3**	-0.0	0.0	0.0	71.4	-1.9	**5.4**	0.0	-0.0	-0.0	-111.0
Fz,	3.4	-2.6	**-0.0**	0.0	0.0	54.0	-1.9	5.4	**0.0**	-0.0	-0.0	-111.0
Mx,	-1.9	5.4	0.0	**-0.0**	-0.0	-111.0	3.4	-2.6	-0.0	**0.0**	0.0	54.0
My,	-1.9	5.4	0.0	-0.0	**-0.0**	-111.0	3.4	-2.6	-0.0	0.0	**0.0**	54.0
Mz,	-1.9	5.4	0.0	-0.0	-0.0	**-111.0**	0.1	-5.3	-0.0	0.0	0.0	**71.4**
Fx,	**-1.9**	5.4	0.0	-0.0	0.0	-135.1	**3.4**	-2.6	-0.0	0.0	-0.0	65.7
Fy,	0.1	**-5.3**	-0.0	0.0	-0.0	95.1	-1.9	**5.4**	0.0	-0.0	0.0	-135.1
Fz,	3.4	-2.6	**-0.0**	0.0	-0.0	65.7	-1.9	5.4	**0.0**	-0.0	0.0	-135.1
Mx,	-1.9	5.4	0.0	**-0.0**	0.0	-135.1	3.4	-2.6	-0.0	**0.0**	-0.0	65.7
My,	3.4	-2.6	-0.0	0.0	**-0.0**	65.7	-1.9	5.4	0.0	-0.0	**0.0**	-135.1
Mz,	-1.9	5.4	0.0	-0.0	0.0	**-135.1**	0.1	-5.3	-0.0	0.0	-0.0	**95.1**

Member 46

Fx,	**-1.9**	5.4	0.0	-0.0	-0.0	-135.1	**3.4**	-2.6	-0.0	0.0	0.0	65.7
Fy,	0.1	**-5.3**	-0.0	0.0	0.0	95.1	-1.9	**5.4**	0.0	-0.0	-0.0	-135.1
Fz,	3.4	-2.6	**-0.0**	0.0	0.0	65.7	-1.9	5.4	**0.0**	-0.0	-0.0	-135.1
Mx,	-1.9	5.4	0.0	**-0.0**	-0.0	-135.1	3.4	-2.6	-0.0	**0.0**	0.0	65.7
My,	-1.9	5.4	0.0	-0.0	**-0.0**	-135.1	3.4	-2.6	-0.0	0.0	**0.0**	65.7
Mz,	-1.9	5.4	0.0	-0.0	-0.0	**-135.1**	0.1	-5.3	-0.0	0.0	0.0	**95.1**
Fx,	**-1.9**	5.4	0.0	-0.0	0.0	-159.2	**3.4**	-2.6	-0.0	0.0	-0.0	77.4
Fy,	0.1	**-5.3**	-0.0	0.0	-0.0	118.9	-1.9	**5.4**	0.0	-0.0	0.0	-159.2
Fz,	3.4	-2.6	**-0.0**	0.0	-0.0	77.4	-1.9	5.4	**0.0**	-0.0	0.0	-159.2
Mx,	-1.9	5.4	0.0	**-0.0**	0.0	-159.2	3.4	-2.6	-0.0	**0.0**	-0.0	77.4
My,	3.4	-2.6	-0.0	0.0	**-0.0**	77.4	-1.9	5.4	0.0	-0.0	**0.0**	-159.2
Mz,	-1.9	5.4	0.0	-0.0	0.0	**-159.2**	0.1	-5.3	-0.0	0.0	-0.0	**118.9**

Member 47

Fx	**-1.9**	-13.2	-0.0	0.0	0.0	-159.2	**3.4**	12.3	0.0	-0.0	-0.0	77.4
Fy	-1.9	**-13.2**	-0.0	0.0	0.0	-159.2	3.4	**12.3**	0.0	-0.0	-0.0	77.4

Fz_i	-1.9	-13.2	**-0.0**	0.0	0.0	-159.2	3.4	12.3	**0.0**	-0.0	-0.0	77.4
Mx_i	3.4	12.3	0.0	**-0.0**	-0.0	77.4	-1.9	-13.2	-0.0	**0.0**	0.0	-159.2
My_i	3.4	12.3	0.0	-0.0	**-0.0**	77.4	-1.9	-13.2	-0.0	0.0	**0.0**	-159.2
Mz_i	-1.9	-13.2	-0.0	0.0	0.0	**-159.2**	0.1	5.6	0.0	-0.0	-0.0	**118.9**
Fx_f	**-1.9**	-13.2	-0.0	0.0	-0.0	-99.5	**3.4**	12.3	**0.0**	-0.0	**0.0**	22.1
Fy_f	-1.9	**-13.2**	-0.0	0.0	-0.0	-99.5	3.4	**12.3**	0.0	-0.0	0.0	22.1
Fz_f	-1.9	-13.2	**-0.0**	0.0	-0.0	-99.5	3.4	12.3	**0.0**	-0.0	0.0	22.1
Mx_f	3.4	12.3	0.0	**-0.0**	0.0	22.1	-1.9	-13.2	-0.0	**0.0**	-0.0	-99.5
My_f	-1.9	-13.2	-0.0	0.0	**-0.0**	-99.5	3.4	12.3	0.0	-0.0	**0.0**	22.1
Mz_f	-1.9	-13.2	-0.0	0.0	-0.0	**-99.5**	0.1	5.6	0.0	-0.0	0.0	**93.8**

Member 48

Fx_i	**-1.9**	-13.2	-0.0	0.0	0.0	-99.5	**3.4**	12.3	0.0	-0.0	-0.0	22.1
Fy_i	-1.9	**-13.2**	-0.0	0.0	0.0	-99.5	3.4	**12.3**	0.0	-0.0	-0.0	22.1
Fz_i	-1.9	-13.2	**-0.0**	0.0	0.0	-99.5	3.4	12.3	**0.0**	-0.0	-0.0	22.1
Mx_i	3.4	12.3	0.0	**-0.0**	-0.0	22.1	-1.9	-13.2	-0.0	**0.0**	0.0	-99.5
My_i	3.4	12.3	0.0	-0.0	**-0.0**	22.1	-1.9	-13.2	-0.0	0.0	**0.0**	-99.5
Mz_i	-1.9	-13.2	-0.0	0.0	0.0	**-99.5**	0.1	5.6	0.0	-0.0	-0.0	**93.8**
Fx_f	**-1.9**	-13.2	-0.0	0.0	-0.0	-39.9	**3.4**	12.3	0.0	-0.0	0.0	-33.3
Fy_f	-1.9	**-13.2**	-0.0	0.0	-0.0	-39.9	3.4	**12.3**	0.0	-0.0	0.0	-33.3
Fz_f	-1.9	-13.2	**-0.0**	0.0	-0.0	-39.9	3.4	12.3	**0.0**	-0.0	0.0	-33.3
Mx_f	3.4	12.3	0.0	**-0.0**	0.0	-33.3	-1.9	-13.2	-0.0	**0.0**	-0.0	-39.9
My_f	-1.9	-13.2	-0.0	0.0	**-0.0**	-39.9	3.4	12.3	0.0	-0.0	**0.0**	-33.3
Mz_f	-0.0	-2.5	-0.0	0.0	-0.0	**-49.0**	0.1	5.6	0.0	-0.0	0.0	**68.7**

Member 49

Fx_i	**-1.9**	-13.2	-0.0	0.0	0.0	-39.9	**3.4**	12.3	0.0	-0.0	-0.0	-33.3
Fy_i	-1.9	**-13.2**	-0.0	0.0	0.0	-39.9	3.4	**12.3**	0.0	-0.0	-0.0	-33.3
Fz_i	-1.9	-13.2	**-0.0**	0.0	0.0	-39.9	3.4	12.3	**0.0**	-0.0	-0.0	-33.3
Mx_i	3.4	12.3	0.0	**-0.0**	-0.0	-33.3	-1.9	-13.2	-0.0	**0.0**	0.0	-39.9
My_i	3.4	12.3	0.0	-0.0	**-0.0**	-33.3	-1.9	-13.2	-0.0	0.0	**0.0**	-39.9
Mz_i	-0.0	-2.5	-0.0	0.0	0.0	**-49.0**	0.1	5.6	0.0	-0.0	-0.0	**68.7**
Fx_f	**-1.9**	-13.2	-0.0	0.0	-0.0	19.7	**3.4**	12.3	0.0	-0.0	0.0	-88.7
Fy_f	-1.9	**-13.2**	-0.0	0.0	-0.0	19.7	3.4	**12.3**	0.0	-0.0	0.0	-88.7
Fz_f	-1.9	-13.2	**-0.0**	0.0	-0.0	19.7	3.4	12.3	**0.0**	-0.0	0.0	-88.7
Mx_f	3.4	12.3	0.0	**-0.0**	-0.0	-88.7	-1.9	-13.2	-0.0	**0.0**	-0.0	19.7
My_f	-1.9	-13.2	-0.0	0.0	**-0.0**	-88.7	3.4	12.3	0.0	-0.0	**0.0**	19.7
Mz_f	3.4	12.3	0.0	-0.0	0.0	**-88.7**	0.1	5.6	0.0	-0.0	-0.0	**43.6**

Member 50

Fx_i	**-1.9**	-13.2	-0.0	0.0	0.0	19.7	**3.4**	12.3	0.0	-0.0	-0.0	-88.7
Fy_i	-1.9	**-13.2**	-0.0	0.0	0.0	19.7	3.4	**12.3**	0.0	-0.0	-0.0	-88.7
Fz_i	-1.9	-13.2	**-0.0**	0.0	0.0	19.7	3.4	12.3	**0.0**	-0.0	-0.0	-88.7
Mx_i	3.4	12.3	0.0	**-0.0**	-0.0	-88.7	-1.9	-13.2	-0.0	**0.0**	0.0	19.7
My_i	3.4	12.3	0.0	-0.0	**-0.0**	-88.7	-1.9	-13.2	-0.0	0.0	**0.0**	19.7
Mz_i	3.4	12.3	0.0	-0.0	-0.0	**-88.7**	0.1	5.6	0.0	-0.0	-0.0	**43.6**
Fx_f	**-1.9**	-13.2	-0.0	0.0	-0.0	79.3	**3.4**	12.3	0.0	-0.0	0.0	-144.0
Fy_f	-1.9	**-13.2**	-0.0	0.0	-0.0	79.3	3.4	**12.3**	0.0	-0.0	0.0	-144.0
Fz_f	-1.9	-13.2	**-0.0**	0.0	-0.0	79.3	3.4	12.3	**0.0**	-0.0	0.0	-144.0
Mx_f	3.4	12.3	0.0	**-0.0**	0.0	-144.0	-1.9	-13.2	-0.0	**0.0**	-0.0	79.3
My_f	-1.9	-13.2	-0.0	0.0	**-0.0**	79.3	3.4	12.3	0.0	-0.0	**0.0**	-144.0
Mz_f	3.4	12.3	0.0	-0.0	0.0	**-144.0**	-1.9	-13.2	-0.0	0.0	-0.0	**79.3**

Member 51

Fx_i	**-1.9**	-13.2	-0.0	0.0	0.0	79.3	**3.4**	12.3	0.0	-0.0	-0.0	-144.0
Fy_i	-1.9	**-13.2**	-0.0	0.0	0.0	79.3	3.4	**12.3**	0.0	-0.0	-0.0	-144.0
Fz_i	-1.9	-13.2	**-0.0**	0.0	0.0	79.3	3.4	12.3	**0.0**	-0.0	-0.0	-144.0
Mx_i	3.4	12.3	0.0	**-0.0**	-0.0	-144.0	-1.9	-13.2	-0.0	**0.0**	0.0	79.3
My_i	3.4	12.3	0.0	-0.0	**-0.0**	-144.0	-1.9	-13.2	-0.0	0.0	**0.0**	79.3
Mz_i	3.4	12.3	0.0	-0.0	-0.0	**-144.0**	-1.9	-13.2	-0.0	0.0	0.0	**79.3**
Fx_f	**-1.9**	-13.2	-0.0	0.0	-0.0	138.9	**3.4**	12.3	0.0	-0.0	0.0	-199.4
Fy_f	-1.9	**-13.2**	-0.0	0.0	-0.0	138.9	3.4	**12.3**	0.0	-0.0	0.0	-199.4
Fz_f	-1.9	-13.2	**-0.0**	0.0	-0.0	138.9	3.4	12.3	**0.0**	-0.0	0.0	-199.4
Mx_f	3.4	12.3	0.0	**-0.0**	0.0	-199.4	-1.9	-13.2	-0.0	**0.0**	-0.0	138.9
My_f	-1.9	-13.2	-0.0	0.0	**-0.0**	138.9	3.4	12.3	0.0	-0.0	**0.0**	-199.4
Mz_f	3.4	12.3	0.0	-0.0	0.0	**-199.4**	-1.9	-13.2	-0.0	0.0	-0.0	**138.9**

Member 52

Fx_i	**-1.9**	-13.2	-0.0	0.0	0.0	138.9	**3.4**	12.3	0.0	-0.0	-0.0	-199.4
Fy_i	-1.9	**-13.2**	-0.0	0.0	0.0	138.9	3.4	**12.3**	0.0	-0.0	-0.0	-199.4
Fz_i	-1.9	-13.2	**-0.0**	0.0	0.0	138.9	3.4	12.3	**0.0**	-0.0	-0.0	-199.4
Mx_i	3.4	12.3	0.0	**-0.0**	-0.0	-199.4	-1.9	-13.2	-0.0	**0.0**	0.0	138.9
My_i	3.4	12.3	0.0	-0.0	**-0.0**	-199.4	-1.9	-13.2	-0.0	0.0	**0.0**	138.9
Mz_i	3.4	12.3	0.0	-0.0	-0.0	**-199.4**	-1.9	-13.2	-0.0	0.0	0.0	**138.9**
Fx_f	**-1.9**	-13.2	-0.0	0.0	-0.0	198.6	**3.4**	12.3	0.0	-0.0	0.0	-254.8
Fy_f	-1.9	**-13.2**	-0.0	0.0	-0.0	198.6	3.4	**12.3**	0.0	-0.0	0.0	-254.8
Fz_f	-1.9	-13.2	**-0.0**	0.0	-0.0	198.6	3.4	12.3	**0.0**	-0.0	0.0	-254.8
Mx_f	3.4	12.3	0.0	**-0.0**	0.0	-254.8	-1.9	-13.2	-0.0	**0.0**	-0.0	198.6
My_f	-1.9	-13.2	-0.0	0.0	**-0.0**	198.6	3.4	12.3	0.0	-0.0	**0.0**	-254.8
Mz_f	3.4	12.3	0.0	-0.0	0.0	**-254.8**	-1.9	-13.2	-0.0	0.0	-0.0	**198.6**

Member 53

Fx_i	**-1.9**	-13.2	-0.0	0.0	0.0	198.6	**3.4**	12.3	0.0	-0.0	-0.0	-254.8
Fy_i	-1.9	**-13.2**	-0.0	0.0	0.0	198.6	3.4	**12.3**	0.0	-0.0	-0.0	-254.8
Fz_i	-1.9	-13.2	**-0.0**	0.0	0.0	198.6	3.4	12.3	**0.0**	-0.0	-0.0	-254.8
Mx_i	3.4	12.3	0.0	**-0.0**	-0.0	-254.8	-1.9	-13.2	-0.0	**0.0**	0.0	198.6
My_i	3.4	12.3	0.0	-0.0	**-0.0**	-254.8	-1.9	-13.2	-0.0	0.0	**0.0**	198.6
Mz_i	3.4	12.3	0.0	-0.0	-0.0	**-254.8**	-1.9	-13.2	-0.0	0.0	0.0	**198.6**
Fx_f	**-1.9**	-13.2	-0.0	0.0	-0.0	258.2	**3.4**	12.3	0.0	-0.0	0.0	-310.1
Fy_f	-1.9	**-13.2**	-0.0	0.0	-0.0	258.2	3.4	**12.3**	0.0	-0.0	0.0	-310.1
Fz_f	-1.9	-13.2	**-0.0**	0.0	-0.0	258.2	3.4	12.3	**0.0**	-0.0	0.0	-310.1
Mx_f	3.4	12.3	0.0	**-0.0**	0.0	-310.1	-1.9	-13.2	-0.0	**0.0**	-0.0	258.2
My_f	-1.9	-13.2	-0.0	0.0	**-0.0**	258.2	3.4	12.3	0.0	-0.0	**0.0**	-310.1
Mz_f	3.4	12.3	0.0	-0.0	0.0	**-310.1**	-1.9	-13.2	-0.0	0.0	0.0	**258.2**

Member 54

Fx_i	**-1.9**	-13.2	-0.0	0.0	0.0	258.2	**3.4**	12.3	0.0	-0.0	-0.0	-310.1
Fy_i	-1.9	**-13.2**	-0.0	0.0	0.0	258.2	3.4	**12.3**	0.0	-0.0	-0.0	-310.1
Fz_i	-1.9	-13.2	**-0.0**	0.0	0.0	258.2	3.4	12.3	**0.0**	-0.0	-0.0	-310.1
Mx_i	3.4	12.3	0.0	**-0.0**	-0.0	-310.1	-1.9	-13.2	-0.0	**0.0**	0.0	258.2
My_i	3.4	12.3	0.0	-0.0	**-0.0**	-310.1	-1.9	-13.2	-0.0	0.0	**0.0**	258.2
Mz_i	3.4	12.3	0.0	-0.0	-0.0	**-310.1**	-1.9	-13.2	-0.0	0.0	0.0	**258.2**
Fx_f	**-1.9**	-13.2	-0.0	0.0	-0.0	317.8	**3.4**	12.3	0.0	-0.0	0.0	-365.5
Fy_f	-1.9	**-13.2**	-0.0	0.0	-0.0	317.8	3.4	**12.3**	0.0	-0.0	0.0	-365.5
Fz_f	-1.9	-13.2	**-0.0**	0.0	-0.0	317.8	3.4	12.3	**0.0**	-0.0	0.0	-365.5
Mx_f	3.4	12.3	0.0	**-0.0**	0.0	-365.5	-1.9	-13.2	-0.0	**0.0**	0.0	317.8
My_f	-1.9	-13.2	-0.0	0.0	**-0.0**	317.8	3.4	12.3	0.0	-0.0	**0.0**	-365.5
Mz_f	3.4	12.3	0.0	-0.0	0.0	**-365.5**	-1.9	-13.2	-0.0	0.0	-0.0	**317.8**

Member 55

Fx_i	**-1.9**	14.6	0.0	-0.0	-0.0	317.8	**3.4**	-16.9	-0.0	0.0	0.0	-365.5
Fy_i	3.4	**-16.9**	-0.0	0.0	0.0	-365.5	-1.9	**14.6**	0.0	-0.0	-0.0	317.8
Fz_i	3.4	-16.9	**-0.0**	0.0	0.0	-365.5	-1.9	14.6	**0.0**	-0.0	-0.0	317.8
Mx_i	-1.9	14.6	0.0	**-0.0**	-0.0	317.8	3.4	-16.9	-0.0	**0.0**	0.0	-365.5
My_i	-1.9	14.6	0.0	-0.0	**-0.0**	317.8	3.4	-16.9	-0.0	0.0	**0.0**	-365.5
Mz_i	3.4	-16.9	-0.0	0.0	0.0	**-365.5**	-1.9	14.6	0.0	-0.0	-0.0	**317.8**
Fx_f	**-1.9**	14.6	0.0	-0.0	0.0	264.3	**3.4**	-16.9	-0.0	0.0	-0.0	-303.6
Fy_f	3.4	**-16.9**	-0.0	0.0	-0.0	-303.6	-1.9	**14.6**	0.0	-0.0	0.0	264.3
Fz_f	3.4	-16.9	**-0.0**	0.0	-0.0	-303.6	-1.9	14.6	**0.0**	-0.0	0.0	264.3
Mx_f	-1.9	14.6	0.0	**-0.0**	0.0	264.3	3.4	-16.9	-0.0	**0.0**	-0.0	-303.6
My_f	3.4	-16.9	-0.0	0.0	**-0.0**	-303.6	-1.9	14.6	0.0	-0.0	**0.0**	264.3
Mz_f	3.4	-16.9	-0.0	0.0	-0.0	**-303.6**	-1.9	14.6	0.0	-0.0	0.0	**264.3**

Member 56

Fx_i	**-1.9**	14.6	0.0	-0.0	-0.0	264.3	**3.4**	-16.9	-0.0	0.0	0.0	-303.6
Fy_i	3.4	**-16.9**	-0.0	0.0	0.0	-303.6	-1.9	**14.6**	0.0	-0.0	-0.0	264.3
Fz_i	3.4	-16.9	**-0.0**	0.0	0.0	-303.6	-1.9	14.6	**0.0**	-0.0	-0.0	264.3
Mx_i	-1.9	14.6	0.0	**-0.0**	-0.0	264.3	3.4	-16.9	-0.0	**0.0**	0.0	-303.6
My_i	-1.9	14.6	0.0	-0.0	**-0.0**	264.3	3.4	-16.9	-0.0	0.0	**0.0**	-303.6
Mz_i	3.4	-16.9	-0.0	0.0	0.0	**-303.6**	-1.9	14.6	0.0	-0.0	-0.0	**264.3**
Fx_f	**-1.9**	14.6	0.0	-0.0	0.0	210.8	**3.4**	-16.9	-0.0	0.0	-0.0	-241.7
Fy_f	3.4	**-16.9**	-0.0	0.0	-0.0	-241.7	-1.9	**14.6**	0.0	-0.0	0.0	210.8
Fz_f	3.4	-16.9	**-0.0**	0.0	-0.0	-241.7	-1.9	14.6	**0.0**	-0.0	0.0	210.8

Mx_f	-1.9	14.6	0.0	**-0.0**	0.0	210.8	3.4	-16.9	-0.0	**0.0**	-0.0	-241.7
My_f	3.4	-16.9	-0.0	0.0	**-0.0**	-241.7	-1.9	14.6	0.0	-0.0	**0.0**	210.8
Mz_f	3.4	-16.9	-0.0	0.0	-0.0	**-241.7**	-1.9	14.6	0.0	-0.0	0.0	**210.8**

Member 57

Fx_i	**-1.9**	14.6	0.0	-0.0	-0.0	210.8	**3.4**	-16.9	-0.0	0.0	0.0	-241.7
Fy_i	3.4	**-16.9**	-0.0	0.0	0.0	-241.7	-1.9	**14.6**	0.0	-0.0	-0.0	210.8
Fz_i	3.4	-16.9	**-0.0**	0.0	0.0	-241.7	-1.9	14.6	**0.0**	-0.0	-0.0	210.8
Mx_i	-1.9	14.6	0.0	**-0.0**	-0.0	210.8	3.4	-16.9	-0.0	**0.0**	0.0	-241.7
My_i	-1.9	14.6	0.0	-0.0	**-0.0**	210.8	3.4	-16.9	-0.0	0.0	**0.0**	-241.7
Mz_i	3.4	-16.9	-0.0	0.0	0.0	**-241.7**	-1.9	14.6	0.0	-0.0	-0.0	**210.8**
Fx_f	**-1.9**	14.6	0.0	-0.0	0.0	157.3	**3.4**	-16.9	-0.0	0.0	-0.0	-179.8
Fy_f	3.4	**-16.9**	-0.0	0.0	-0.0	-179.8	-1.9	**14.6**	0.0	-0.0	0.0	157.3
Fz_f	3.4	-16.9	**-0.0**	0.0	-0.0	-179.8	-1.9	14.6	**0.0**	-0.0	0.0	157.3
Mx_f	-1.9	14.6	0.0	**-0.0**	0.0	157.3	3.4	-16.9	-0.0	**0.0**	-0.0	-179.8
My_f	3.4	-16.9	-0.0	0.0	**-0.0**	-179.8	-1.9	14.6	0.0	-0.0	**0.0**	157.3
Mz_f	3.4	-16.9	-0.0	0.0	-0.0	**-179.8**	-1.9	14.6	0.0	-0.0	0.0	**157.3**

Member 58

Fx_i	**-1.9**	14.6	0.0	-0.0	-0.0	157.3	**3.4**	-16.9	-0.0	0.0	0.0	-179.8
Fy_i	3.4	**-16.9**	-0.0	0.0	0.0	-179.8	-1.9	**14.6**	0.0	-0.0	-0.0	157.3
Fz_i	3.4	-16.9	**-0.0**	0.0	0.0	-179.8	-1.9	14.6	**0.0**	-0.0	-0.0	157.3
Mx_i	-1.9	14.6	0.0	**-0.0**	-0.0	157.3	3.4	-16.9	-0.0	**0.0**	0.0	-179.8
My_i	-1.9	14.6	0.0	-0.0	**-0.0**	157.3	3.4	-16.9	-0.0	0.0	**0.0**	-179.8
Mz_i	3.4	-16.9	-0.0	0.0	0.0	**-179.8**	-1.9	14.6	0.0	-0.0	-0.0	**157.3**
Fx_f	**-1.9**	14.6	0.0	-0.0	0.0	103.8	**3.4**	-16.9	-0.0	0.0	-0.0	-117.9
Fy_f	3.4	**-16.9**	-0.0	0.0	-0.0	-117.9	-1.9	**14.6**	0.0	-0.0	0.0	103.8
Fz_f	3.4	-16.9	**-0.0**	0.0	-0.0	-117.9	-1.9	14.6	**0.0**	-0.0	0.0	103.8
Mx_f	-1.9	14.6	0.0	**-0.0**	0.0	103.8	3.4	-16.9	-0.0	**0.0**	-0.0	-117.9
My_f	3.4	-16.9	-0.0	0.0	**-0.0**	-117.9	-1.9	14.6	0.0	-0.0	**0.0**	103.8
Mz_f	3.4	-16.9	-0.0	0.0	-0.0	**-117.9**	-1.9	14.6	0.0	-0.0	0.0	**103.8**

Member 59

Fx_i	**-1.9**	14.6	0.0	-0.0	-0.0	103.8	**3.4**	-16.9	-0.0	0.0	0.0	-117.9
Fy_i	3.4	**-16.9**	-0.0	0.0	0.0	-117.9	-1.9	**14.6**	0.0	-0.0	-0.0	103.8
Fz_i	3.4	-16.9	**-0.0**	0.0	0.0	-117.9	-1.9	14.6	**0.0**	-0.0	-0.0	103.8
Mx_i	-1.9	14.6	0.0	**-0.0**	-0.0	103.8	3.4	-16.9	-0.0	**0.0**	0.0	-117.9
My_i	-1.9	14.6	0.0	-0.0	**-0.0**	103.8	3.4	-16.9	-0.0	0.0	**0.0**	-117.9
Mz_i	3.4	-16.9	-0.0	0.0	0.0	**-117.9**	-1.9	14.6	0.0	-0.0	-0.0	**103.8**
Fx_f	**-1.9**	14.6	0.0	-0.0	0.0	50.3	**3.4**	-16.9	-0.0	0.0	-0.0	-56.0
Fy_f	3.4	**-16.9**	-0.0	0.0	-0.0	-56.0	-1.9	**14.6**	0.0	-0.0	0.0	50.3
Fz_f	3.4	-16.9	**-0.0**	0.0	-0.0	-56.0	-1.9	14.6	**0.0**	-0.0	0.0	50.3
Mx_f	-1.9	14.6	0.0	**-0.0**	0.0	50.3	3.4	-16.9	-0.0	**0.0**	-0.0	-56.0
My_f	3.4	-16.9	-0.0	0.0	**-0.0**	-56.0	-1.9	14.6	0.0	-0.0	**0.0**	50.3
Mz_f	3.4	-16.9	-0.0	0.0	-0.0	**-56.0**	-1.9	14.6	0.0	-0.0	0.0	**50.3**

Member 60

Fx_i	**-1.9**	14.6	0.0	-0.0	-0.0	50.3	**3.4**	-16.9	-0.0	0.0	0.0	-56.0
Fy_i	3.4	**-16.9**	-0.0	0.0	0.0	-56.0	-1.9	**14.6**	0.0	-0.0	-0.0	50.3
Fz_i	3.4	-16.9	**-0.0**	0.0	0.0	-56.0	-1.9	14.6	**0.0**	-0.0	-0.0	50.3
Mx_i	-1.9	14.6	0.0	**-0.0**	-0.0	50.3	3.4	-16.9	-0.0	**0.0**	0.0	-56.0
My_i	-1.9	14.6	0.0	-0.0	**-0.0**	50.3	3.4	-16.9	-0.0	0.0	**0.0**	-56.0
Mz_i	3.4	-16.9	-0.0	0.0	0.0	**-56.0**	-1.9	14.6	0.0	-0.0	-0.0	**50.3**
Fx_f	**-1.9**	14.6	0.0	-0.0	0.0	-3.2	**3.4**	-16.9	-0.0	0.0	-0.0	5.9
Fy_f	3.4	**-16.9**	-0.0	0.0	-0.0	5.9	-1.9	**14.6**	0.0	-0.0	0.0	-3.2
Fz_f	3.4	-16.9	**-0.0**	0.0	-0.0	5.9	-1.9	14.6	**0.0**	-0.0	0.0	-3.2
Mx_f	-1.9	14.6	0.0	**-0.0**	0.0	-3.2	3.4	-16.9	-0.0	**0.0**	-0.0	5.9
My_f	3.4	-16.9	-0.0	0.0	**-0.0**	5.9	-1.9	14.6	0.0	-0.0	**0.0**	-3.2
Mz_f	-1.9	14.6	0.0	-0.0	0.0	**-3.2**	3.4	-16.9	-0.0	0.0	-0.0	**5.9**

Member 121

Fx_i	**-0.0**	0.0	0.0	0.0	-0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0	-0.0
Fy_i	0.0	**-0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0	-0.0	0.0
Fz_i	-0.0	0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	-0.0	0.0
Mx_i	-0.0	0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0
My_i	-0.0	0.0	0.0	0.0	**-0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**	-0.0
Mz_i	0.0	-0.0	0.0	0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**0.0**
Fx_f	**-0.0**	0.0	0.0	0.0	-0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0	-0.0
Fy_f	0.0	**-0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0	-0.0	0.0
Fz_f	-0.0	0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	-0.0	0.0
Mx_f	-0.0	0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0
My_f	-0.0	0.0	0.0	0.0	**-0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**	-0.0
Mz_f	0.0	-0.0	0.0	0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**0.0**

Member 122

Fx_i	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 123

Fx_i	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 124

Fx_i	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0
Fy_i	0.0	**-0.0**	0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	-0.0
Fz_i	-0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0
Mx_i	0.0	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	-0.0
My_i	-0.0	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0
Mz_i	-0.0	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**
Fx_f	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0
Fy_f	0.0	**-0.0**	0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	-0.0
Fz_f	-0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0
Mx_f	0.0	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	-0.0
My_f	-0.0	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0
Mz_f	-0.0	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**

Member 125

Fx_i	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	0.0	-0.0	0.0	0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	0.0
Fz_i	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**0.0**	-0.0	0.0	0.0
Mx_i	0.0	0.0	0.0	**-0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0
My_i	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0
Mz_i	-0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	0.0	-0.0	0.0	**0.0**
Fx_f	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	0.0	-0.0	0.0	0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	-0.0	0.0	0.0
Fz_f	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**0.0**	-0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0
Mz_f	-0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	0.0	-0.0	0.0	**0.0**

Member 126

Fx_i	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0
Fy_i	0.0	**-0.0**	0.0	-0.0	0.0	0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0

Fz_i	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0
Mx_i	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0
My_i	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0
Mz_i	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**
Fx_f	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	0.0	**-0.0**	0.0	0.0
Fy_f	0.0	**-0.0**	0.0	-0.0	0.0	0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0
Fz_f	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0
Mx_f	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0
My_f	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0
Mz_f	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**

Member 127

Fx_i	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	0.0	0.0
Fy_i	0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0
Fz_i	0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0
Mx_i	0.0	-0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**0.0**	0.0
Mz_i	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	0.0	**0.0**
Fx_f	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	0.0	0.0
Fy_f	0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0
Fz_f	0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0
Mx_f	0.0	-0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**0.0**	-0.0
Mz_f	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	0.0	**0.0**

Member 128

Fx_i	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	0.0
Fy_i	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	0.0
Fz_i	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0
Mx_i	0.0	0.0	-0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0
My_i	0.0	0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0
Mz_i	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**0.0**
Fx_f	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	0.0
Fy_f	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	0.0
Fz_f	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0
Mx_f	0.0	0.0	-0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0
My_f	0.0	0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0
Mz_f	-0.0	-0.0	-0.0	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**0.0**

Member 129

Fx_i	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	0.0
Fy_i	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	0.0
Fz_i	0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0
Mx_i	0.0	0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	0.0	0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0
Mz_i	-0.0	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**0.0**
Fx_f	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0	0.0
Fy_f	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0	0.0
Fz_f	0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0
Mx_f	0.0	0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	0.0	0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0
Mz_f	-0.0	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**0.0**

Member 130

Fx_i	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_i	-0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0
My_i	0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0
Mz_i	-0.0	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	-0.0	0.0	-0.0	0.0
Fy_f	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	0.0
Mx_f	-0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0
My_f	0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0
Mz_f	-0.0	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**

Member 131

Fx_i	**-0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	0.0	-0.0	0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	-0.0	-0.0
Fz_i	0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0
Mx_i	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**	-0.0	0.0
My_i	0.0	-0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0
Mz_i	-0.0	0.0	0.0	0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	0.0	-0.0	0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	-0.0	-0.0
Fz_f	0.0	0.0	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0
Mx_f	0.0	-0.0	0.0	**-0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**	-0.0	0.0
My_f	0.0	-0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0
Mz_f	-0.0	0.0	0.0	0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**

Member 132

Fx_i	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0
Fy_i	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	0.0
Mx_i	0.0	0.0	0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0
My_i	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0
Mz_i	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0
Fy_f	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	0.0
Mx_f	0.0	0.0	0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0
My_f	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0
Mz_f	-0.0	-0.0	0.0	0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**

Member 133

Fx_i	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	0.0	-0.0	-0.0
Fz_i	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0
Mx_i	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-0.0	0.0	0.0	0.0	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**
Fx_f	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	0.0	-0.0	-0.0
Fz_f	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0
Mx_f	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	-0.0	0.0	0.0	0.0	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**

Member 134

Fx_i	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0
Fy_i	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0
Fz_i	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0
Mx_i	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0
My_i	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0
Mz_i	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**
Fx_f	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0
Fy_f	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0
Fz_f	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0
Mx_f	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0
My_f	-0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0
Mz_f	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**

Member 135

Fx_i	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0
Fy_i	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0
Mx_i	0.0	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**	-0.0	-0.0
My_i	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0
Mz_i	-0.0	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**
Fx_f	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0
Fy_f	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0

Mx_f	0.0	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	-0.0
My_f	-0.0	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0
Mz_f	-0.0	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**

Member 136

Fx_i	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	-0.0	0.0
Fy_i	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	-0.0
Fz_i	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0	-0.0
Mx_i	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	-0.0
My_i	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**	-0.0
Mz_i	-0.0	-0.0	0.0	0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**
Fx_f	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	-0.0	0.0
Fy_f	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	-0.0
Fz_f	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0	-0.0
Mx_f	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	-0.0
My_f	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**	-0.0
Mz_f	-0.0	-0.0	0.0	0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**

Member 137

Fx_i	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0	-0.0	-0.0	0.0
Fy_i	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	0.0	0.0
Mx_i	0.0	0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0
My_i	0.0	0.0	0.0	-0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0
Mz_i	-0.0	0.0	0.0	0.0	0.0	**-0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**
Fx_f	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0	-0.0	-0.0	0.0
Fy_f	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	0.0
Fz_f	0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	0.0
Mx_f	0.0	0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0
My_f	0.0	0.0	0.0	-0.0	**-0.0**	0.0	-0.0	0.0	0.0	-0.0	**0.0**	0.0
Mz_f	-0.0	0.0	0.0	0.0	0.0	**-0.0**	0.0	0.0	0.0	-0.0	-0.0	**0.0**

Member 138

Fx_i	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	-0.0	0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	-0.0
Fz_i	-0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0	-0.0
Mx_i	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0
My_i	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0
Mz_i	-0.0	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**
Fx_f	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	-0.0	0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	-0.0
Fz_f	-0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	-0.0	0.0
Mx_f	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0
My_f	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0
Mz_f	-0.0	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**

Member 139

Fx_i	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	-0.0	0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0
Fz_i	0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0
Mx_i	-0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	-0.0	-0.0
My_i	0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0
Mz_i	-0.0	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**
Fx_f	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	-0.0	0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	0.0	-0.0
Fz_f	0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0
Mx_f	-0.0	-0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0	-0.0
My_f	0.0	-0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0
Mz_f	-0.0	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**

Member 140

Fx_i	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	0.0	0.0
Fy_i	0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	-0.0
Fz_i	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0
Mx_i	-0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0
My_i	-0.0	-0.0	-0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**	-0.0
Mz_i	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**
Fx_f	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	0.0	0.0
Fy_f	0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	-0.0
Fz_f	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0
Mx_f	-0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0
My_f	-0.0	-0.0	-0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**	-0.0
Mz_f	-0.0	-0.0	-0.0	0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	0.0	**0.0**

Fx_f	**-0.0**	-0.0	-0.0	0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	0.0	0.0
Fy_f	0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	-0.0
Fz_f	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0
Mx_f	-0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0
My_f	-0.0	-0.0	0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**	0.0
Mz_f	-0.0	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	0.0	**0.0**

Member 141

Fx_i	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_i	0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	-0.0
Fz_i	-0.0	0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0
Mx_i	-0.0	0.0	0.0	**-0.0**	-0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-0.0	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-0.0	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	0.0	**0.0**
Fx_f	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.0	**-0.0**	-0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	-0.0
Fz_f	-0.0	0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0
Mx_f	-0.0	0.0	0.0	**-0.0**	0.0	-0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-0.0	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	-0.0	0.0	-0.0	0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	0.0	**0.0**

Member 142

Fx_i	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	0.0	0.0	0.0
Fy_i	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0
Fz_i	0.0	-0.0	**-0.0**	0.0	0.0	0.0	-0.0	0.0	**0.0**	0.0	-0.0	-0.0
Mx_i	0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0
My_i	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	0.0	**0.0**	0.0
Mz_i	-0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**
Fx_f	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	0.0	0.0	0.0
Fy_f	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0
Fz_f	0.0	-0.0	**-0.0**	0.0	0.0	0.0	-0.0	0.0	**0.0**	0.0	-0.0	-0.0
Mx_f	0.0	0.0	-0.0	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0
My_f	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	0.0	**0.0**	0.0
Mz_f	-0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**

Member 143

Fx_i	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	0.0	0.0	0.0
Fy_i	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0
Fz_i	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0
Mx_i	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0
My_i	-0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**
Fx_f	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	0.0	0.0	0.0
Fy_f	-0.0	**-0.0**	-0.0	0.0	0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0
Fz_f	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0	-0.0
Mx_f	0.0	-0.0	0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0
My_f	-0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**	0.0
Mz_f	-0.0	0.0	0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**

Member 144

Fx_i	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0
Fy_i	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0	-0.0	0.0	-0.0
Fz_i	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	-0.0
Mx_i	-0.0	0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	0.0	-0.0
My_i	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	-0.0
Mz_i	-0.0	0.0	-0.0	-0.0	0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**
Fx_f	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0
Fy_f	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0	-0.0	0.0	-0.0
Fz_f	0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0	-0.0
Mx_f	-0.0	0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	0.0	-0.0
My_f	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	-0.0
Mz_f	-0.0	0.0	-0.0	-0.0	0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**

Member 145

Fx_i	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0
Fy_i	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	-0.0	0.0	0.0	-0.0

Fz,	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0
Mx,	-0.0	-0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	0.0	-0.0
My,	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0
Mz,	-0.0	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**
Fx,	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0	0.0
Fy,	-0.0	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	-0.0	0.0	0.0	-0.0
Fz,	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	-0.0	-0.0	**0.0**	0.0	0.0	0.0
Mx,	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**0.0**	0.0	-0.0
My,	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0
Mz,	-0.0	-0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**

Member 146

Fx,	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	-0.0	0.0	-0.0	0.0
Fy,	-0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	-0.0	0.0	-0.0
Fz,	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0
Mx,	0.0	0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**0.0**	0.0	0.0
My,	0.0	0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0
Mz,	-0.0	0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**
Fx,	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	-0.0	0.0	-0.0	0.0
Fy,	-0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	-0.0	0.0	-0.0
Fz,	0.0	**0.0**	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	-0.0	0.0	-0.0
Mx,	0.0	0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**0.0**	0.0	0.0
My,	0.0	0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	0.0	0.0	-0.0	**0.0**	-0.0
Mz,	-0.0	0.0	0.0	-0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**

Member 147

Fx,	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	-0.0	0.0	-0.0	0.0
Fy,	0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	-0.0
Fz,	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0	-0.0
Mx,	-0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**0.0**	0.0	-0.0
My,	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0
Mz,	-0.0	0.0	0.0	0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**
Fx,	**-0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	-0.0	0.0	-0.0	0.0
Fy,	0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	-0.0
Fz,	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0	-0.0
Mx,	-0.0	0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**0.0**	0.0	-0.0
My,	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	0.0	0.0	**0.0**	-0.0
Mz,	-0.0	0.0	0.0	0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**

Member 148

Fx,	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	0.0	0.0	0.0
Fy,	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0
Fz,	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0
Mx,	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0
My,	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0
Mz,	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**
Fx,	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	0.0	0.0	0.0
Fy,	-0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	-0.0
Fz,	-0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0
Mx,	-0.0	-0.0	-0.0	**-0.0**	-0.0	-0.0	0.0	-0.0	0.0	**0.0**	0.0	0.0
My,	-0.0	-0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0
Mz,	-0.0	-0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**

Member 149

Fx,	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	0.0	0.0	0.0
Fy,	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0
Fz,	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**0.0**	-0.0	0.0	0.0
Mx,	0.0	0.0	0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	-0.0
My,	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0
Mz,	-0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**
Fx,	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0	0.0	0.0	0.0
Fy,	0.0	**-0.0**	0.0	-0.0	0.0	-0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	-0.0
Fz,	-0.0	-0.0	**-0.0**	-0.0	-0.0	-0.0	0.0	0.0	**0.0**	-0.0	0.0	0.0
Mx,	0.0	0.0	0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	-0.0
My,	-0.0	0.0	-0.0	-0.0	**-0.0**	-0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0
Mz,	-0.0	0.0	-0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**

Member 150

Fx,	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0
Fy,	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0	-0.0
Fz,	-0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0
Mx,	0.0	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	-0.0
My,	-0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0
Mz,	-0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**
Fx,	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0
Fy,	-0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0	-0.0
Fz,	-0.0	0.0	**-0.0**	0.0	-0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0
Mx,	0.0	-0.0	0.0	**-0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	-0.0
My,	-0.0	-0.0	0.0	-0.0	**-0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0
Mz,	-0.0	-0.0	0.0	-0.0	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	0.0	**0.0**

Member 365

Fx,	**-12.2**	0.0	0.0	-0.0	-0.0	-0.0	**207.7**	0.0	-0.0	0.0	0.0	0.0
Fy,	4.3	**-0.0**	-0.0	0.0	0.0	-0.0	207.7	**0.0**	-0.0	0.0	0.0	0.0
Fz,	207.7	0.0	**-0.0**	0.0	0.0	0.0	-12.2	0.0	**0.0**	-0.0	-0.0	-0.0
Mx,	-12.2	0.0	0.0	**-0.0**	-0.0	-0.0	207.7	0.0	-0.0	**0.0**	0.0	0.0
My,	-12.2	0.0	0.0	-0.0	**-0.0**	-0.0	207.7	0.0	-0.0	0.0	**0.0**	0.0
Mz,	-12.2	0.0	0.0	-0.0	-0.0	**-0.0**	207.7	0.0	-0.0	0.0	0.0	**0.0**
Fx,	**-12.2**	0.0	0.0	-0.0	0.0	-0.0	**207.7**	0.0	-0.0	0.0	0.0	-0.0
Fy,	4.3	**-0.0**	-0.0	0.0	0.0	0.0	207.7	**0.0**	-0.0	0.0	0.0	-0.0
Fz,	207.7	0.0	**-0.0**	0.0	0.0	-0.0	-12.2	0.0	**0.0**	-0.0	0.0	-0.0
Mx,	-12.2	0.0	0.0	**-0.0**	0.0	-0.0	207.7	0.0	-0.0	**0.0**	0.0	-0.0
My,	0.2	-0.0	-0.0	0.0	**-0.0**	0.0	-12.2	0.0	0.0	-0.0	**0.0**	-0.0
Mz,	207.7	0.0	-0.0	0.0	0.0	**-0.0**	4.3	-0.0	-0.0	0.0	0.0	**0.0**

Member 366

Fx,	**-48.9**	0.0	0.0	-0.0	-0.0	-0.0	**14.3**	0.0	-0.0	0.0	0.0	0.0
Fy,	-0.0	**-0.0**	0.0	0.0	-0.0	-0.0	14.3	**0.0**	-0.0	0.0	0.0	0.0
Fz,	14.3	0.0	**-0.0**	0.0	0.0	0.0	-48.9	0.0	**0.0**	-0.0	-0.0	-0.0
Mx,	-48.9	0.0	0.0	**-0.0**	-0.0	-0.0	14.3	0.0	-0.0	**0.0**	0.0	0.0
My,	-48.9	0.0	0.0	-0.0	**-0.0**	-0.0	14.3	0.0	-0.0	0.0	**0.0**	0.0
Mz,	-48.9	0.0	0.0	-0.0	-0.0	**-0.0**	14.3	0.0	-0.0	0.0	0.0	**0.0**
Fx,	**-48.9**	0.0	0.0	-0.0	0.0	-0.0	**14.3**	0.0	-0.0	0.0	-0.0	-0.0
Fy,	-0.0	**-0.0**	0.0	0.0	0.0	0.0	14.3	**0.0**	-0.0	0.0	-0.0	-0.0
Fz,	14.3	0.0	**-0.0**	0.0	-0.0	-0.0	-48.9	0.0	**0.0**	-0.0	0.0	-0.0
Mx,	-48.9	0.0	0.0	**-0.0**	0.0	-0.0	14.3	0.0	-0.0	**0.0**	-0.0	-0.0
My,	14.3	0.0	-0.0	0.0	**-0.0**	-0.0	-48.9	0.0	0.0	-0.0	**0.0**	-0.0
Mz,	-48.9	0.0	0.0	-0.0	0.0	**-0.0**	-0.0	-0.0	0.0	0.0	0.0	**0.0**

Member 367

Fx,	**-9.4**	0.0	0.0	-0.0	-0.0	-0.0	**17.1**	0.0	-0.0	0.0	0.0	0.0
Fy,	-0.1	**-0.0**	0.0	0.0	-0.0	-0.0	-7.7	**0.0**	0.0	-0.0	-0.0	0.0
Fz,	17.1	0.0	**-0.0**	0.0	0.0	0.0	-9.4	0.0	**0.0**	-0.0	-0.0	-0.0
Mx,	-7.7	0.0	0.0	**-0.0**	-0.0	0.0	0.1	-0.0	-0.0	**0.0**	0.0	-0.0
My,	-9.4	0.0	0.0	-0.0	**-0.0**	-0.0	17.1	0.0	-0.0	0.0	**0.0**	0.0
Mz,	-9.4	0.0	0.0	-0.0	-0.0	**-0.0**	17.1	0.0	-0.0	0.0	0.0	**0.0**
Fx,	**-9.4**	0.0	0.0	-0.0	0.0	-0.0	**17.1**	0.0	-0.0	0.0	-0.0	-0.0
Fy,	-0.1	**-0.0**	0.0	0.0	0.0	0.0	-7.7	**0.0**	0.0	-0.0	0.0	-0.0
Fz,	17.1	0.0	**-0.0**	0.0	-0.0	-0.0	-9.4	0.0	**0.0**	-0.0	0.0	-0.0
Mx,	-7.7	0.0	0.0	**-0.0**	0.0	-0.0	0.1	-0.0	-0.0	**0.0**	-0.0	0.0
My,	17.1	0.0	-0.0	0.0	**-0.0**	-0.0	-9.4	0.0	0.0	-0.0	**0.0**	-0.0
Mz,	-7.7	0.0	0.0	-0.0	0.0	**-0.0**	-0.1	-0.0	0.0	0.0	0.0	**0.0**

Member 368

Fx,	**-7.7**	-0.0	0.0	0.0	-0.0	-0.0	**10.4**	0.0	-0.0	0.0	0.0	0.0
Fy,	-7.7	**-0.0**	0.0	0.0	-0.0	-0.0	-7.6	**0.0**	0.0	0.0	-0.0	0.0
Fz,	10.4	0.0	**-0.0**	0.0	0.0	0.0	-7.7	-0.0	**0.0**	0.0	-0.0	-0.0
Mx,	2.9	-0.0	-0.0	**-0.0**	0.0	-0.0	0.3	0.0	-0.0	**0.0**	0.0	0.0
My,	-7.7	-0.0	0.0	0.0	**-0.0**	-0.0	10.4	0.0	-0.0	0.0	**0.0**	0.0
Mz,	-7.7	-0.0	0.0	0.0	-0.0	**-0.0**	3.3	0.0	-0.0	0.0	0.0	**0.0**
Fx,	**-7.7**	-0.0	0.0	0.0	0.0	0.0	**10.4**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-7.7	**-0.0**	0.0	0.0	0.0	0.0	-7.6	**0.0**	0.0	0.0	0.0	-0.0
Fz,	10.4	0.0	**-0.0**	0.0	-0.0	0.0	-7.7	-0.0	**0.0**	0.0	0.0	0.0

Mx,	2.9	-0.0	-0.0	**-0.0**	-0.0	0.0	0.3	0.0	-0.0	**0.0**	-0.0	-0.0
My,	10.4	0.0	-0.0	0.0	**-0.0**	0.0	-7.7	-0.0	0.0	0.0	**0.0**	0.0
Mz,	-7.6	0.0	0.0	0.0	0.0	**-0.0**	-7.7	-0.0	0.0	0.0	0.0	**0.0**

Member 369

Fx,	**-7.6**	-0.0	0.0	0.0	-0.0	-0.0	**10.4**	0.0	-0.0	0.0	0.0	0.0
Fy,	-7.6	**-0.0**	0.0	0.0	-0.0	-0.0	2.9	**0.0**	-0.0	-0.0	0.0	0.0
Fz,	10.4	0.0	**-0.0**	0.0	0.0	0.0	-7.6	-0.0	**0.0**	0.0	-0.0	-0.0
Mx,	2.9	0.0	-0.0	**-0.0**	0.0	0.0	-7.6	-0.0	0.0	**0.0**	-0.0	-0.0
My,	-7.6	-0.0	0.0	0.0	**-0.0**	-0.0	10.4	0.0	-0.0	0.0	**0.0**	0.0
Mz,	-7.6	-0.0	0.0	0.0	-0.0	**-0.0**	2.9	0.0	-0.0	-0.0	0.0	**0.0**
Fx,	**-7.6**	-0.0	0.0	0.0	0.0	0.0	**10.4**	0.0	-0.0	0.0	-0.0	-0.0
Fy,	-7.6	**-0.0**	0.0	0.0	0.0	0.0	2.9	**0.0**	-0.0	-0.0	-0.0	-0.0
Fz,	10.4	0.0	**-0.0**	0.0	-0.0	-0.0	-7.6	-0.0	**0.0**	0.0	0.0	0.0
Mx,	2.9	0.0	-0.0	**-0.0**	-0.0	-0.0	-7.6	-0.0	0.0	**0.0**	0.0	0.0
My,	10.4	0.0	-0.0	0.0	**-0.0**	-0.0	-7.6	-0.0	0.0	0.0	**0.0**	0.0
Mz,	2.9	0.0	-0.0	-0.0	-0.0	**-0.0**	-7.6	-0.0	0.0	0.0	0.0	**0.0**

Member 370

Fx,	**-7.7**	0.0	0.0	-0.0	-0.0	-0.0	**10.4**	-0.0	-0.0	0.0	0.0	-0.0
Fy,	-7.6	**-0.0**	0.0	0.0	-0.0	-0.0	-7.7	**0.0**	0.0	-0.0	-0.0	-0.0
Fz,	10.4	-0.0	**-0.0**	0.0	0.0	-0.0	-7.7	0.0	**0.0**	-0.0	-0.0	-0.0
Mx,	-7.7	0.0	0.0	**-0.0**	-0.0	-0.0	0.1	0.0	-0.0	**0.0**	0.0	0.0
My,	-7.7	0.0	0.0	-0.0	**-0.0**	-0.0	10.4	-0.0	-0.0	0.0	**0.0**	-0.0
Mz,	-7.6	-0.0	0.0	0.0	-0.0	**-0.0**	2.9	-0.0	-0.0	0.0	0.0	**0.0**
Fx,	**-7.7**	0.0	0.0	-0.0	0.0	-0.0	**10.4**	-0.0	-0.0	0.0	-0.0	-0.0
Fy,	-7.6	**-0.0**	0.0	0.0	0.0	0.0	-7.7	**0.0**	0.0	-0.0	0.0	-0.0
Fz,	10.4	-0.0	**-0.0**	0.0	-0.0	-0.0	-7.7	0.0	**0.0**	-0.0	0.0	-0.0
Mx,	-7.7	0.0	0.0	**-0.0**	0.0	-0.0	0.1	0.0	-0.0	**0.0**	-0.0	-0.0
My,	10.4	-0.0	-0.0	0.0	**-0.0**	-0.0	-7.7	0.0	0.0	-0.0	**0.0**	-0.0
Mz,	-7.7	0.0	0.0	-0.0	0.0	**-0.0**	-7.6	-0.0	0.0	0.0	0.0	**0.0**

Member 371

Fx,	**-18.6**	0.0	0.0	0.0	-0.0	0.0	**14.9**	-0.0	-0.0	0.0	0.0	-0.0
Fy,	14.9	**-0.0**	-0.0	0.0	0.0	-0.0	-18.6	**0.0**	0.0	0.0	-0.0	0.0
Fz,	14.9	-0.0	**-0.0**	0.0	0.0	-0.0	-18.6	0.0	**0.0**	0.0	-0.0	0.0
Mx,	14.9	-0.0	-0.0	**0.0**	0.0	-0.0	-0.0	0.0	0.0	**0.0**	-0.0	0.0
My,	-18.6	0.0	0.0	0.0	**-0.0**	0.0	14.9	-0.0	-0.0	0.0	**0.0**	-0.0
Mz,	14.9	-0.0	-0.0	0.0	0.0	**-0.0**	-18.6	0.0	0.0	0.0	-0.0	**0.0**
Fx,	**-18.6**	0.0	0.0	0.0	0.0	-0.0	**14.9**	-0.0	-0.0	0.0	-0.0	0.0
Fy,	14.9	**-0.0**	-0.0	0.0	-0.0	0.0	-18.6	**0.0**	0.0	0.0	0.0	-0.0
Fz,	14.9	-0.0	**-0.0**	0.0	-0.0	0.0	-18.6	0.0	**0.0**	0.0	0.0	-0.0
Mx,	14.9	-0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	-0.0
My,	14.9	-0.0	-0.0	0.0	**-0.0**	0.0	-18.6	0.0	0.0	0.0	**0.0**	-0.0
Mz,	-18.6	0.0	0.0	0.0	0.0	**-0.0**	14.9	-0.0	-0.0	0.0	-0.0	**0.0**

Member 372

Fx,	**-29.2**	0.0	0.0	0.0	-0.0	0.0	**27.8**	-0.0	-0.0	0.0	0.0	-0.0
Fy,	27.8	**-0.0**	-0.0	0.0	0.0	-0.0	3.2	**0.0**	-0.0	0.0	0.0	0.0
Fz,	27.8	-0.0	**-0.0**	0.0	0.0	-0.0	-29.2	0.0	**0.0**	0.0	-0.0	0.0
Mx,	-0.7	0.0	0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	0.0	**0.0**	-0.0	-0.0
My,	-29.2	0.0	0.0	0.0	**-0.0**	0.0	27.8	-0.0	-0.0	0.0	**0.0**	-0.0
Mz,	27.8	-0.0	-0.0	0.0	0.0	**-0.0**	3.2	0.0	-0.0	0.0	0.0	**0.0**
Fx,	**-29.2**	0.0	0.0	0.0	0.0	0.0	**27.8**	-0.0	-0.0	0.0	-0.0	0.0
Fy,	27.8	**-0.0**	-0.0	0.0	-0.0	0.0	3.2	**0.0**	-0.0	0.0	-0.0	-0.0
Fz,	27.8	-0.0	**-0.0**	0.0	-0.0	0.0	-29.2	0.0	**0.0**	0.0	0.0	0.0
Mx,	-0.7	0.0	0.0	**-0.0**	0.0	-0.0	-0.0	-0.0	0.0	**0.0**	0.0	0.0
My,	27.8	-0.0	-0.0	0.0	**-0.0**	0.0	-29.2	0.0	0.0	0.0	**0.0**	0.0
Mz,	3.2	0.0	-0.0	0.0	-0.0	**-0.0**	27.8	-0.0	-0.0	0.0	-0.0	**0.0**

Member 373

Fx,	**-14.6**	-1.9	0.0	-0.0	-0.0	-3.2	**16.9**	3.4	-0.0	-0.0	0.0	5.9
Fy,	-14.6	**-1.9**	0.0	-0.0	-0.0	-3.2	16.9	**3.4**	-0.0	-0.0	0.0	5.9
Fz,	16.9	3.4	**-0.0**	-0.0	0.0	5.9	-14.6	-1.9	**0.0**	-0.0	-0.0	-3.2
Mx,	-14.6	-1.9	0.0	**-0.0**	-0.0	-3.2	3.7	0.1	-0.0	**0.0**	0.0	0.2
My,	-14.6	-1.9	0.0	-0.0	**-0.0**	-3.2	16.9	3.4	-0.0	-0.0	**0.0**	5.9
Mz,	-14.6	-1.9	0.0	-0.0	-0.0	**-3.2**	16.9	3.4	-0.0	-0.0	0.0	**5.9**
Fx,	**-14.6**	-1.9	0.0	-0.0	0.0	0.0	**16.9**	3.4	-0.0	-0.0	0.0	-0.0
Fy,	-14.6	**-1.9**	0.0	-0.0	0.0	0.0	16.9	**3.4**	-0.0	-0.0	0.0	-0.0
Fz,	16.9	3.4	**-0.0**	-0.0	0.0	-0.0	-14.6	-1.9	**0.0**	-0.0	0.0	0.0
Mx,	-14.6	-1.9	0.0	**-0.0**	0.0	0.0	3.7	0.1	-0.0	**0.0**	-0.0	-0.0
My,	3.7	0.1	-0.0	0.0	**-0.0**	-0.0	16.9	3.4	-0.0	-0.0	**0.0**	-0.0
Mz,	16.9	3.4	-0.0	-0.0	0.0	**-0.0**	-14.6	-1.9	0.0	-0.0	0.0	**0.0**

Member 374

Fx,	**-12.2**	0.0	-0.0	0.0	0.0	0.0	**207.7**	-0.0	0.0	0.0	-0.0	-0.0
Fy,	207.7	**-0.0**	0.0	0.0	-0.0	-0.0	-12.2	**0.0**	-0.0	0.0	0.0	0.0
Fz,	-12.2	0.0	**-0.0**	0.0	0.0	0.0	207.7	-0.0	**0.0**	0.0	-0.0	-0.0
Mx,	0.0	0.0	0.0	**-0.0**	-0.0	0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0
My,	207.7	-0.0	0.0	0.0	**-0.0**	-0.0	-12.2	0.0	-0.0	0.0	**0.0**	0.0
Mz,	207.7	-0.0	0.0	0.0	-0.0	**-0.0**	-12.2	0.0	-0.0	0.0	0.0	**0.0**
Fx,	**-12.2**	0.0	-0.0	0.0	0.0	-0.0	**207.7**	-0.0	0.0	0.0	-0.0	0.0
Fy,	207.7	**-0.0**	0.0	0.0	-0.0	0.0	-12.2	**0.0**	-0.0	0.0	0.0	-0.0
Fz,	-12.2	0.0	**-0.0**	0.0	0.0	-0.0	207.7	-0.0	**0.0**	0.0	-0.0	0.0
Mx,	0.0	0.0	0.0	**-0.0**	-0.0	-0.0	-0.0	-0.0	-0.0	**0.0**	0.0	-0.0
My,	207.7	-0.0	0.0	0.0	**-0.0**	0.0	-12.2	0.0	-0.0	0.0	**0.0**	-0.0
Mz,	-12.2	0.0	-0.0	0.0	0.0	**-0.0**	207.7	-0.0	0.0	0.0	-0.0	**0.0**

Member 375

Fx,	**-48.9**	0.0	-0.0	0.0	0.0	0.0	**14.3**	-0.0	0.0	0.0	-0.0	-0.0
Fy,	14.3	**-0.0**	0.0	0.0	-0.0	-0.0	-9.4	**0.0**	-0.0	-0.0	0.0	0.0
Fz,	-48.9	0.0	**-0.0**	0.0	0.0	0.0	14.3	-0.0	**0.0**	0.0	-0.0	-0.0
Mx,	-9.4	0.0	-0.0	**-0.0**	0.0	0.0	14.3	-0.0	0.0	**0.0**	-0.0	-0.0
My,	14.3	-0.0	0.0	0.0	**-0.0**	-0.0	-48.9	0.0	-0.0	0.0	**0.0**	0.0
Mz,	14.3	-0.0	0.0	0.0	-0.0	**-0.0**	-9.4	0.0	-0.0	-0.0	0.0	**0.0**
Fx,	**-48.9**	0.0	-0.0	0.0	-0.0	0.0	**14.3**	-0.0	0.0	0.0	0.0	0.0
Fy,	14.3	**-0.0**	0.0	0.0	0.0	0.0	-9.4	**0.0**	-0.0	-0.0	-0.0	-0.0
Fz,	-48.9	0.0	**-0.0**	0.0	-0.0	0.0	14.3	-0.0	**0.0**	0.0	0.0	0.0
Mx,	-9.4	0.0	-0.0	**-0.0**	-0.0	-0.0	14.3	-0.0	0.0	**0.0**	0.0	0.0
My,	-48.9	0.0	-0.0	0.0	**-0.0**	0.0	14.3	-0.0	0.0	0.0	**0.0**	0.0
Mz,	-9.4	0.0	-0.0	-0.0	-0.0	**-0.0**	14.3	-0.0	0.0	0.0	0.0	**0.0**

Member 376

Fx,	**-9.4**	-0.0	-0.0	0.0	0.0	-0.0	**17.1**	0.0	0.0	0.0	-0.0	0.0
Fy,	-9.4	**-0.0**	-0.0	0.0	0.0	-0.0	17.1	**0.0**	0.0	0.0	-0.0	0.0
Fz,	-9.4	-0.0	**-0.0**	0.0	0.0	-0.0	17.1	0.0	**0.0**	0.0	-0.0	0.0
Mx,	0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.1	0.0	-0.0	**0.0**	0.0	0.0
My,	17.1	0.0	0.0	0.0	**-0.0**	0.0	-9.4	-0.0	-0.0	0.0	**0.0**	-0.0
Mz,	-9.4	-0.0	-0.0	0.0	0.0	**-0.0**	17.1	0.0	0.0	0.0	-0.0	**0.0**
Fx,	**-9.4**	-0.0	-0.0	0.0	-0.0	0.0	**17.1**	0.0	0.0	0.0	0.0	-0.0
Fy,	-9.4	**-0.0**	-0.0	0.0	-0.0	0.0	17.1	**0.0**	0.0	0.0	0.0	-0.0
Fz,	-9.4	-0.0	**-0.0**	0.0	-0.0	0.0	17.1	0.0	**0.0**	0.0	0.0	-0.0
Mx,	0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.1	0.0	-0.0	**0.0**	-0.0	-0.0
My,	17.1	0.0	0.0	0.0	**-0.0**	0.0	-9.4	-0.0	0.0	0.0	**0.0**	-0.0
Mz,	-9.4	-0.0	-0.0	0.0	0.0	**-0.0**	17.1	0.0	0.0	0.0	-0.0	**0.0**

Member 377

Fx,	**-7.7**	-0.0	-0.0	0.0	0.0	-0.0	**10.4**	0.0	0.0	0.0	-0.0	0.0
Fy,	-7.7	**-0.0**	-0.0	0.0	0.0	-0.0	10.4	**0.0**	0.0	0.0	-0.0	0.0
Fz,	-7.7	-0.0	**-0.0**	0.0	0.0	-0.0	10.4	0.0	**0.0**	0.0	-0.0	0.0
Mx,	-0.1	0.0	-0.0	**0.0**	0.0	0.0	-3.6	-0.0	-0.0	**0.0**	0.0	-0.0
My,	10.4	0.0	0.0	0.0	**-0.0**	0.0	-7.7	-0.0	-0.0	0.0	**0.0**	-0.0
Mz,	-7.7	-0.0	-0.0	0.0	0.0	**-0.0**	10.4	0.0	0.0	0.0	-0.0	**0.0**
Fx,	**-7.7**	-0.0	-0.0	0.0	-0.0	0.0	**10.4**	0.0	0.0	0.0	0.0	-0.0
Fy,	-7.7	**-0.0**	-0.0	0.0	-0.0	0.0	10.4	**0.0**	0.0	0.0	0.0	-0.0
Fz,	-7.7	-0.0	**-0.0**	0.0	-0.0	0.0	10.4	0.0	**0.0**	0.0	0.0	-0.0
Mx,	-0.1	0.0	-0.0	**0.0**	-0.0	-0.0	-3.6	-0.0	-0.0	**0.0**	-0.0	0.0
My,	-7.7	-0.0	-0.0	0.0	**-0.0**	0.0	10.4	0.0	0.0	0.0	**0.0**	-0.0
Mz,	10.4	0.0	0.0	0.0	0.0	**-0.0**	-7.7	-0.0	-0.0	0.0	-0.0	**0.0**

Member 378

Fx,	**-7.6**	0.0	-0.0	0.0	0.0	-0.0	**10.4**	0.0	0.0	0.0	-0.0	0.0
Fy,	2.9	**-0.0**	0.0	0.0	-0.0	-0.0	-7.6	**0.0**	-0.0	0.0	0.0	0.0

Fz,	-7.6	0.0	**-0.0**	0.0	0.0	-0.0	10.4	0.0	**0.0**	0.0	-0.0	0.0
Mx,	-1.4	0.0	-0.0	**-0.0**	0.0	0.0	0.8	0.0	0.0	**0.0**	-0.0	0.0
My,	10.4	0.0	0.0	0.0	**-0.0**	0.0	-7.6	0.0	-0.0	0.0	**0.0**	-0.0
Mz,	2.9	-0.0	0.0	0.0	-0.0	**-0.0**	-7.6	0.0	-0.0	0.0	0.0	**0.0**
Fx,	**-7.6**	0.0	-0.0	0.0	-0.0	-0.0	**10.4**	0.0	0.0	0.0	0.0	-0.0
Fy,	2.9	**-0.0**	0.0	0.0	0.0	0.0	-7.6	**0.0**	-0.0	0.0	-0.0	-0.0
Fz,	-7.6	0.0	**-0.0**	0.0	-0.0	-0.0	10.4	0.0	**0.0**	0.0	0.0	-0.0
Mx,	-1.4	0.0	-0.0	**-0.0**	-0.0	-0.0	0.8	0.0	0.0	**0.0**	0.0	-0.0
My,	-7.6	0.0	-0.0	0.0	**-0.0**	-0.0	10.4	0.0	0.0	0.0	**0.0**	-0.0
Mz,	-7.6	0.0	-0.0	0.0	-0.0	**-0.0**	0.7	-0.0	0.0	0.0	0.0	**0.0**

Member 379

Fx,	**-7.7**	0.0	-0.0	0.0	0.0	0.0	**10.4**	0.0	0.0	0.0	-0.0	0.0
Fy,	2.9	**-0.0**	0.0	0.0	-0.0	-0.0	10.4	**0.0**	0.0	0.0	-0.0	0.0
Fz,	-7.7	0.0	**-0.0**	0.0	0.0	0.0	10.4	0.0	**0.0**	0.0	-0.0	0.0
Mx,	-3.1	0.0	-0.0	**0.0**	0.0	0.0	-0.2	-0.0	-0.0	**0.0**	0.0	-0.0
My,	10.4	0.0	0.0	0.0	**-0.0**	0.0	-7.7	0.0	-0.0	0.0	**0.0**	0.0
Mz,	2.9	-0.0	0.0	0.0	-0.0	**-0.0**	10.4	0.0	0.0	0.0	-0.0	**0.0**
Fx,	**-7.7**	0.0	-0.0	0.0	-0.0	-0.0	**10.4**	0.0	0.0	0.0	0.0	-0.0
Fy,	2.9	**-0.0**	0.0	0.0	0.0	0.0	10.4	**0.0**	0.0	0.0	0.0	-0.0
Fz,	-7.7	0.0	**-0.0**	0.0	-0.0	-0.0	10.4	0.0	**0.0**	0.0	0.0	-0.0
Mx,	-3.1	0.0	-0.0	**0.0**	-0.0	-0.0	-0.2	-0.0	-0.0	**0.0**	-0.0	0.0
My,	-7.7	0.0	-0.0	0.0	**-0.0**	-0.0	10.4	0.0	0.0	0.0	**0.0**	-0.0
Mz,	10.4	0.0	0.0	0.0	0.0	**-0.0**	2.9	-0.0	0.0	0.0	0.0	**0.0**

Member 380

Fx,	**-18.6**	-0.0	-0.0	0.0	0.0	0.0	**14.9**	-0.0	0.0	0.0	-0.0	-0.0
Fy,	14.9	**-0.0**	0.0	0.0	-0.0	-0.0	-7.7	**0.0**	-0.0	0.0	0.0	0.0
Fz,	-18.6	-0.0	**-0.0**	0.0	0.0	0.0	14.9	-0.0	**0.0**	0.0	-0.0	-0.0
Mx,	14.9	-0.0	0.0	**0.0**	-0.0	-0.0	0.1	0.0	0.0	**0.0**	-0.0	0.0
My,	14.9	-0.0	0.0	0.0	**-0.0**	-0.0	-18.6	-0.0	-0.0	0.0	**0.0**	0.0
Mz,	2.9	-0.0	0.0	0.0	-0.0	**-0.0**	-18.6	-0.0	-0.0	0.0	0.0	**0.0**
Fx,	**-18.6**	-0.0	-0.0	0.0	-0.0	0.0	**14.9**	-0.0	0.0	0.0	0.0	0.0
Fy,	14.9	**-0.0**	0.0	0.0	0.0	0.0	-7.7	**0.0**	-0.0	0.0	-0.0	-0.0
Fz,	-18.6	-0.0	**-0.0**	0.0	-0.0	0.0	14.9	-0.0	**0.0**	0.0	0.0	0.0
Mx,	14.9	-0.0	0.0	**0.0**	0.0	0.0	0.1	0.0	0.0	**0.0**	0.0	-0.0
My,	-18.6	-0.0	-0.0	0.0	**-0.0**	0.0	14.9	-0.0	0.0	0.0	**0.0**	0.0
Mz,	-7.7	0.0	-0.0	0.0	-0.0	**-0.0**	14.9	-0.0	0.0	0.0	0.0	**0.0**

Member 381

Fx,	**-29.2**	0.0	-0.0	0.0	0.0	0.0	**27.8**	-0.0	0.0	0.0	-0.0	-0.0
Fy,	27.8	**-0.0**	0.0	0.0	-0.0	-0.0	-29.2	**0.0**	-0.0	0.0	0.0	0.0
Fz,	-29.2	0.0	**-0.0**	0.0	0.0	0.0	27.8	-0.0	**0.0**	0.0	-0.0	-0.0
Mx,	-29.2	0.0	-0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0
My,	27.8	-0.0	0.0	0.0	**-0.0**	-0.0	-29.2	0.0	-0.0	0.0	**0.0**	0.0
Mz,	27.8	-0.0	0.0	0.0	-0.0	**-0.0**	-29.2	0.0	-0.0	0.0	0.0	**0.0**
Fx,	**-29.2**	0.0	-0.0	0.0	-0.0	-0.0	**27.8**	-0.0	0.0	0.0	0.0	0.0
Fy,	27.8	**-0.0**	0.0	0.0	0.0	0.0	-29.2	**0.0**	-0.0	0.0	-0.0	-0.0
Fz,	-29.2	0.0	**-0.0**	0.0	-0.0	-0.0	27.8	-0.0	**0.0**	0.0	0.0	0.0
Mx,	-29.2	0.0	-0.0	**0.0**	-0.0	-0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0
My,	-29.2	0.0	-0.0	0.0	**-0.0**	-0.0	27.8	-0.0	0.0	0.0	**0.0**	0.0
Mz,	-29.2	0.0	-0.0	0.0	-0.0	**-0.0**	27.8	-0.0	0.0	0.0	0.0	**0.0**

Member 382

Fx,	**-14.6**	-1.9	-0.0	-0.0	0.0	-3.2	**16.9**	3.4	0.0	-0.0	-0.0	5.9
Fy,	-14.6	**-1.9**	-0.0	-0.0	0.0	-3.2	16.9	**3.4**	0.0	-0.0	-0.0	5.9
Fz,	-14.6	-1.9	**-0.0**	-0.0	0.0	-3.2	16.9	3.4	**0.0**	-0.0	-0.0	5.9
Mx,	-14.6	-1.9	-0.0	**-0.0**	0.0	-3.2	3.7	0.1	0.0	**0.0**	-0.0	0.2
My,	16.9	3.4	0.0	-0.0	**-0.0**	5.9	-14.6	-1.9	-0.0	-0.0	**0.0**	-3.2
Mz,	-14.6	-1.9	-0.0	-0.0	0.0	**-3.2**	16.9	3.4	0.0	-0.0	-0.0	**5.9**
Fx,	**-14.6**	-1.9	-0.0	-0.0	0.0	0.0	**16.9**	3.4	0.0	-0.0	-0.0	0.0
Fy,	-14.6	**-1.9**	-0.0	-0.0	0.0	0.0	16.9	**3.4**	0.0	-0.0	-0.0	0.0
Fz,	-14.6	-1.9	**-0.0**	-0.0	0.0	0.0	16.9	3.4	**0.0**	-0.0	-0.0	0.0
Mx,	-14.6	-1.9	-0.0	**-0.0**	0.0	0.0	3.7	0.1	0.0	**0.0**	-0.0	0.0
My,	16.9	3.4	0.0	-0.0	**-0.0**	0.0	-14.6	-1.9	-0.0	-0.0	**0.0**	0.0
Mz,	-0.8	-0.0	-0.0	-0.0	-0.0	**-0.0**	-14.6	-1.9	-0.0	-0.0	0.0	**0.0**

Member 391

Fx,	**-48.9**	0.0	0.0	0.0	0.0	0.0	**14.3**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-0.0	**0.0**	0.0	0.0	0.0	0.0	-48.9	**0.0**	0.0	0.0	0.0	0.0
Fz,	14.3	0.0	**-0.0**	0.0	-0.0	0.0	-48.9	0.0	**0.0**	0.0	0.0	0.0
Mx,	-0.0	0.0	0.0	**0.0**	0.0	0.0	-48.9	0.0	0.0	**0.0**	0.0	0.0
My,	14.3	0.0	-0.0	0.0	**-0.0**	0.0	-48.9	0.0	0.0	0.0	**0.0**	0.0
Mz,	-0.0	0.0	0.0	0.0	0.0	**0.0**	-48.9	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-48.9**	0.0	0.0	0.0	0.2	0.0	**14.3**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-0.0	**0.0**	0.0	0.0	0.0	0.0	-48.9	**0.0**	0.0	0.0	0.2	0.0
Fz,	14.3	0.0	**-0.0**	0.0	-0.0	0.0	-48.9	0.0	**0.0**	0.0	0.2	0.0
Mx,	-0.0	0.0	0.0	**0.0**	0.0	0.0	-48.9	0.0	0.0	**0.0**	0.2	0.0
My,	14.3	0.0	-0.0	0.0	**-0.0**	0.0	-48.9	0.0	0.0	0.0	**0.2**	0.0
Mz,	-0.0	0.0	0.0	0.0	0.0	**0.0**	-48.9	0.0	0.0	0.0	0.2	**0.0**

Member 392

Fx,	**-9.4**	0.0	0.0	0.0	0.0	0.0	**17.1**	0.0	-0.0	0.0	-0.0	0.0
Fy,	0.0	**0.0**	-0.0	0.0	-0.0	0.0	17.1	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	17.1	0.0	**-0.0**	0.0	-0.0	0.0	-9.4	0.0	**0.0**	0.0	0.0	0.0
Mx,	0.0	0.0	-0.0	**0.0**	-0.0	0.0	17.1	0.0	-0.0	**0.0**	-0.0	0.0
My,	17.1	0.0	-0.0	0.0	**-0.0**	0.0	-9.4	0.0	0.0	0.0	**0.0**	0.0
Mz,	0.0	0.0	-0.0	0.0	-0.0	**0.0**	17.1	0.0	-0.0	0.0	-0.0	**0.0**
Fx,	**-9.4**	0.0	0.0	0.0	0.0	0.0	**17.1**	0.0	-0.0	0.0	-0.1	0.0
Fy,	0.0	**0.0**	-0.0	0.0	-0.0	0.0	17.1	**0.0**	-0.0	0.0	-0.1	0.0
Fz,	17.1	0.0	**-0.0**	0.0	-0.1	0.0	-9.4	0.0	**0.0**	0.0	0.0	0.0
Mx,	0.0	0.0	-0.0	**0.0**	-0.0	0.0	17.1	0.0	-0.0	**0.0**	-0.1	0.0
My,	17.1	0.0	-0.0	0.0	**-0.1**	0.0	-9.4	0.0	0.0	0.0	**0.0**	0.0
Mz,	0.0	0.0	-0.0	0.0	-0.0	**0.0**	17.1	0.0	-0.0	0.0	-0.1	**0.0**

Member 393

Fx,	-7.7	0.0	0.0	0.0	0.0	0.0	**10.4**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-0.1	**0.0**	0.0	0.0	0.0	0.0	-3.6	**0.0**	0.0	0.0	0.0	0.0
Fz,	10.4	0.0	**-0.0**	0.0	-0.0	0.0	-7.7	0.0	**0.0**	0.0	0.0	0.0
Mx,	-0.1	0.0	0.0	**0.0**	0.0	0.0	-3.6	0.0	0.0	**0.0**	0.0	0.0
My,	10.4	0.0	-0.0	0.0	**-0.0**	0.0	-7.7	0.0	0.0	0.0	**0.0**	0.0
Mz,	-0.1	0.0	0.0	0.0	0.0	**0.0**	-3.6	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-7.7**	0.0	0.0	0.0	0.0	0.0	**10.4**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-0.1	**0.0**	0.0	0.0	0.0	0.0	-3.6	**0.0**	0.0	0.0	0.0	0.0
Fz,	10.4	0.0	**-0.0**	0.0	-0.0	0.0	-7.7	0.0	**0.0**	0.0	0.0	0.0
Mx,	-0.1	0.0	0.0	**0.0**	0.0	0.0	-3.6	0.0	0.0	**0.0**	0.0	0.0
My,	10.4	0.0	-0.0	0.0	**-0.0**	0.0	-7.7	0.0	0.0	0.0	**0.0**	0.0
Mz,	-0.1	0.0	0.0	0.0	0.0	**0.0**	-3.6	0.0	0.0	0.0	0.0	**0.0**

Member 394

Fx,	**-7.6**	0.0	0.0	0.0	0.0	0.0	**10.4**	0.0	-0.0	0.0	-0.0	0.0
Fy,	0.7	**0.0**	-0.0	0.0	-0.0	0.0	0.8	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	10.4	0.0	**-0.0**	0.0	-0.0	0.0	-7.6	0.0	**0.0**	0.0	0.0	0.0
Mx,	0.7	0.0	-0.0	**0.0**	-0.0	0.0	0.8	0.0	-0.0	**0.0**	-0.0	0.0
My,	10.4	0.0	-0.0	0.0	**-0.0**	0.0	-7.6	0.0	0.0	0.0	**0.0**	0.0
Mz,	0.7	0.0	-0.0	0.0	-0.0	**0.0**	0.8	0.0	-0.0	0.0	-0.0	**0.0**
Fx,	**-7.6**	0.0	0.0	0.0	0.0	0.0	**10.4**	0.0	-0.0	0.0	-0.0	0.0
Fy,	0.7	**0.0**	-0.0	0.0	-0.0	0.0	0.8	**0.0**	-0.0	0.0	-0.0	0.0
Fz,	10.4	0.0	**-0.0**	0.0	-0.0	0.0	-7.6	0.0	**0.0**	0.0	0.0	0.0
Mx,	0.7	0.0	-0.0	**0.0**	-0.0	0.0	0.8	0.0	-0.0	**0.0**	-0.0	0.0
My,	10.4	0.0	-0.0	0.0	**-0.0**	0.0	-7.6	0.0	0.0	0.0	**0.0**	0.0
Mz,	0.7	0.0	-0.0	0.0	-0.0	**0.0**	0.8	0.0	-0.0	0.0	-0.0	**0.0**

Member 395

Fx,	**-7.7**	0.0	0.0	0.0	0.0	0.0	**10.4**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-3.1	**0.0**	0.0	0.0	0.0	0.0	-0.2	**0.0**	0.0	0.0	0.0	0.0
Fz,	10.4	0.0	**-0.0**	0.0	-0.0	0.0	-7.7	0.0	**0.0**	0.0	0.0	0.0
Mx,	-3.1	0.0	0.0	**0.0**	0.0	0.0	-0.2	0.0	0.0	**0.0**	0.0	0.0
My,	10.4	0.0	-0.0	0.0	**-0.0**	0.0	-7.7	0.0	0.0	0.0	**0.0**	0.0
Mz,	-3.1	0.0	0.0	0.0	0.0	**0.0**	-0.2	0.0	0.0	0.0	0.0	**0.0**
Fx,	**-7.7**	0.0	0.0	0.0	0.0	0.0	**10.4**	0.0	-0.0	0.0	-0.0	0.0
Fy,	-3.1	**0.0**	0.0	0.0	0.0	0.0	-0.2	**0.0**	0.0	0.0	0.0	0.0
Fz,	10.4	0.0	**-0.0**	0.0	-0.0	0.0	-7.7	0.0	**0.0**	0.0	0.0	0.0

Mx_i	-3.1	0.0	0.0	**0.0**	0.0	0.0	-0.2	0.0	0.0	**0.0**	0.0	0.0
My_i	10.4	0.0	-0.0	0.0	**-0.0**	0.0	-7.7	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-3.1	0.0	0.0	0.0	0.0	**0.0**	-0.2	0.0	0.0	0.0	0.0	**0.0**

Member 396

Fx_i	**-18.6**	0.0	0.0	0.0	0.0	0.0	**14.9**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	14.9	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	14.9	0.0	**-0.0**	0.0	-0.0	0.0	-18.6	0.0	**0.0**	0.0	0.0	0.0
Mx_i	14.9	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0
My_i	14.9	0.0	-0.0	0.0	**-0.0**	0.0	-18.6	0.0	0.0	0.0	**0.0**	0.0
Mz_i	14.9	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-18.6**	0.0	0.0	0.0	0.1	0.0	**14.9**	0.0	-0.0	0.0	-0.0	0.0
Fy_f	14.9	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	14.9	0.0	**-0.0**	0.0	-0.0	0.0	-18.6	0.0	**0.0**	0.0	0.1	0.0
Mx_f	14.9	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	-0.0	**0.0**	-0.0	0.0
My_f	14.9	0.0	-0.0	0.0	**-0.0**	0.0	-18.6	0.0	0.0	0.0	**0.1**	0.0
Mz_f	14.9	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	-0.0	0.0	-0.0	**0.0**

Member 397

Fx_i	**-29.2**	0.0	0.0	0.0	0.0	0.0	**27.8**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	-29.2	**0.0**	0.0	0.0	0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	27.8	0.0	**-0.0**	0.0	-0.0	0.0	-29.2	0.0	**0.0**	0.0	0.0	0.0
Mx_i	-29.2	0.0	0.0	**0.0**	0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	27.8	0.0	-0.0	0.0	**-0.0**	0.0	-29.2	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-29.2	0.0	0.0	0.0	0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-29.2**	0.0	0.0	0.0	0.1	0.0	**27.8**	0.0	-0.0	0.0	-0.1	0.0
Fy_f	-29.2	**0.0**	0.0	0.0	0.1	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	27.8	0.0	**-0.0**	0.0	-0.1	0.0	-29.2	0.0	**0.0**	0.0	0.1	0.0
Mx_f	-29.2	0.0	0.0	**0.0**	0.1	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	27.8	0.0	-0.0	0.0	**-0.1**	0.0	-29.2	0.0	0.0	0.0	**0.1**	0.0
Mz_f	-29.2	0.0	0.0	0.0	0.1	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**

Member 398

Fx_i	**-48.9**	0.0	-0.0	0.0	-0.0	0.0	**14.3**	0.0	0.0	0.0	-0.0	0.0
Fy_i	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	-48.9	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	-48.9	0.0	**-0.0**	0.0	-0.0	0.0	14.3	0.0	**0.0**	0.0	0.0	0.0
Mx_i	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	-48.9	0.0	-0.0	**0.0**	-0.0	0.0
My_i	-48.9	0.0	-0.0	0.0	**-0.0**	0.0	14.3	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	-48.9	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-48.9**	0.0	-0.0	0.0	-0.2	0.0	**14.3**	0.0	0.0	0.0	0.0	0.0
Fy_f	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	-48.9	**0.0**	-0.0	0.0	-0.2	0.0
Fz_f	-48.9	0.0	**-0.0**	0.0	-0.2	0.0	14.3	0.0	**0.0**	0.0	0.0	0.0
Mx_f	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	-48.9	0.0	-0.0	**0.0**	-0.2	0.0
My_f	-48.9	0.0	-0.0	0.0	**-0.2**	0.0	14.3	0.0	0.0	0.0	**0.0**	0.0
Mz_f	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	-48.9	0.0	-0.0	0.0	-0.2	**0.0**

Member 399

Fx_i	**-9.4**	0.0	-0.0	0.0	-0.0	0.0	**17.1**	0.0	0.0	0.0	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	0.0	0.0	17.1	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-9.4	0.0	**-0.0**	0.0	-0.0	0.0	17.1	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.0	0.0	0.0	**0.0**	0.0	0.0	17.1	0.0	0.0	**0.0**	0.0	0.0
My_i	-9.4	0.0	-0.0	0.0	**-0.0**	0.0	17.1	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	0.0	0.0	0.0	**0.0**	17.1	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-9.4**	0.0	-0.0	0.0	-0.0	0.0	**17.1**	0.0	0.0	0.0	0.1	0.0
Fy_f	0.0	**0.0**	0.0	0.0	0.0	0.0	17.1	**0.0**	0.0	0.0	0.1	0.0
Fz_f	-9.4	0.0	**-0.0**	0.0	-0.0	0.0	17.1	0.0	**0.0**	0.0	0.1	0.0
Mx_f	0.0	0.0	0.0	**0.0**	0.0	0.0	17.1	0.0	0.0	**0.0**	0.1	0.0
My_f	-9.4	0.0	-0.0	0.0	**-0.0**	0.0	17.1	0.0	0.0	0.0	**0.1**	0.0
Mz_f	0.0	0.0	0.0	0.0	0.0	**0.0**	17.1	0.0	0.0	0.0	0.1	**0.0**

Member 400

Fx_i	**-7.7**	0.0	-0.0	0.0	-0.0	0.0	**10.4**	0.0	0.0	0.0	0.0	0.0
Fy_i	-0.1	**0.0**	-0.0	0.0	-0.0	0.0	-3.6	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	-7.7	0.0	**-0.0**	0.0	-0.0	0.0	10.4	0.0	**0.0**	0.0	0.0	0.0
Mx_i	-0.1	0.0	-0.0	**0.0**	-0.0	0.0	-3.6	0.0	-0.0	**0.0**	-0.0	0.0
My_i	-7.7	0.0	-0.0	0.0	**-0.0**	0.0	10.4	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-0.1	0.0	-0.0	0.0	-0.0	**0.0**	-3.6	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-7.7**	0.0	-0.0	0.0	-0.0	0.0	**10.4**	0.0	0.0	0.0	0.0	0.0
Fy_f	-0.1	**0.0**	-0.0	0.0	-0.0	0.0	-3.6	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	-7.7	0.0	**-0.0**	0.0	-0.0	0.0	10.4	0.0	**0.0**	0.0	0.0	0.0
Mx_f	-0.1	0.0	-0.0	**0.0**	-0.0	0.0	-3.6	0.0	-0.0	**0.0**	-0.0	0.0
My_f	-7.7	0.0	-0.0	0.0	**-0.0**	0.0	10.4	0.0	0.0	0.0	**0.0**	0.0
Mz_f	-0.1	0.0	-0.0	0.0	-0.0	**0.0**	-3.6	0.0	-0.0	0.0	-0.0	**0.0**

Member 401

Fx_i	**-7.6**	0.0	-0.0	0.0	-0.0	0.0	**10.4**	0.0	0.0	0.0	0.0	0.0
Fy_i	0.7	**0.0**	0.0	0.0	0.0	0.0	0.8	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-7.6	0.0	**-0.0**	0.0	-0.0	0.0	10.4	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.7	0.0	0.0	**0.0**	0.0	0.0	0.8	0.0	0.0	**0.0**	0.0	0.0
My_i	-7.6	0.0	-0.0	0.0	**-0.0**	0.0	10.4	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.7	0.0	0.0	0.0	0.0	**0.0**	0.8	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-7.6**	0.0	-0.0	0.0	-0.0	0.0	**10.4**	0.0	0.0	0.0	0.0	0.0
Fy_f	0.7	**0.0**	0.0	0.0	0.0	0.0	0.8	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-7.6	0.0	**-0.0**	0.0	-0.0	0.0	10.4	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.7	0.0	0.0	**0.0**	0.0	0.0	0.8	0.0	0.0	**0.0**	0.0	0.0
My_f	-7.6	0.0	-0.0	0.0	**-0.0**	0.0	10.4	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.7	0.0	0.0	0.0	0.0	**0.0**	0.8	0.0	0.0	0.0	0.0	**0.0**

Member 402

Fx_i	**-7.7**	0.0	-0.0	0.0	-0.0	0.0	**10.4**	0.0	0.0	0.0	0.0	0.0
Fy_i	-3.1	**0.0**	-0.0	0.0	-0.0	0.0	-0.2	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	-7.7	0.0	**-0.0**	0.0	-0.0	0.0	10.4	0.0	**0.0**	0.0	0.0	0.0
Mx_i	-3.1	0.0	-0.0	**0.0**	-0.0	0.0	-0.2	0.0	-0.0	**0.0**	-0.0	0.0
My_i	-7.7	0.0	-0.0	0.0	**-0.0**	0.0	10.4	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-3.1	0.0	-0.0	0.0	-0.0	**0.0**	-0.2	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-7.7**	0.0	-0.0	0.0	-0.0	0.0	**10.4**	0.0	0.0	0.0	0.0	0.0
Fy_f	-3.1	**0.0**	-0.0	0.0	-0.0	0.0	-0.2	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	-7.7	0.0	**-0.0**	0.0	-0.0	0.0	10.4	0.0	**0.0**	0.0	0.0	0.0
Mx_f	-3.1	0.0	-0.0	**0.0**	-0.0	0.0	-0.2	0.0	-0.0	**0.0**	-0.0	0.0
My_f	-7.7	0.0	-0.0	0.0	**-0.0**	0.0	10.4	0.0	0.0	0.0	**0.0**	0.0
Mz_f	-3.1	0.0	-0.0	0.0	-0.0	**0.0**	-0.2	0.0	-0.0	0.0	-0.0	**0.0**

Member 403

Fx_i	**-18.6**	0.0	-0.0	0.0	-0.0	0.0	**14.9**	0.0	0.0	0.0	0.0	0.0
Fy_i	14.9	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-18.6	0.0	**-0.0**	0.0	-0.0	0.0	14.9	0.0	**0.0**	0.0	0.0	0.0
Mx_i	14.9	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	-18.6	0.0	-0.0	0.0	**-0.0**	0.0	14.9	0.0	0.0	0.0	**0.0**	0.0
Mz_i	14.9	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-18.6**	0.0	-0.0	0.0	-0.1	0.0	**14.9**	0.0	0.0	0.0	0.0	0.0
Fy_f	14.9	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-18.6	0.0	**-0.0**	0.0	-0.1	0.0	14.9	0.0	**0.0**	0.0	0.0	0.0
Mx_f	14.9	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	-18.6	0.0	-0.0	0.0	**-0.1**	0.0	14.9	0.0	0.0	0.0	**0.0**	0.0
Mz_f	14.9	0.0	0.0	0.0	0.0	**0.0**	0.0	0.0	0.0	0.0	0.0	**0.0**

Member 404

Fx_i	**-29.2**	0.0	-0.0	0.0	-0.0	0.0	**27.8**	0.0	0.0	0.0	0.0	0.0
Fy_i	-29.2	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_i	-29.2	0.0	**-0.0**	0.0	-0.0	0.0	27.8	0.0	**0.0**	0.0	0.0	0.0
Mx_i	-29.2	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0
My_i	-29.2	0.0	-0.0	0.0	**-0.0**	0.0	27.8	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-29.2	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**
Fx_f	**-29.2**	0.0	-0.0	0.0	-0.1	0.0	**27.8**	0.0	0.0	0.0	0.1	0.0
Fy_f	-29.2	**0.0**	-0.0	0.0	-0.1	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0
Fz_f	-29.2	0.0	**-0.0**	0.0	-0.1	0.0	27.8	0.0	**0.0**	0.0	0.1	0.0
Mx_f	-29.2	0.0	-0.0	**0.0**	-0.1	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0
My_f	-29.2	0.0	-0.0	0.0	**-0.1**	0.0	27.8	0.0	0.0	0.0	**0.1**	0.0
Mz_f	-29.2	0.0	-0.0	0.0	-0.1	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**

Member 421

Fx_i	**-97.7**	0.0	-0.0	0.0	0.0	0.0	**28.7**	0.0	-0.0	0.0	0.0	0.0
Fy_i	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	-97.7	**0.0**	-0.0	0.0	0.0	0.0

Fz_i	28.7	0.0	**-0.0**	0.0	0.0	0.0	-18.7	0.0	**0.0**	0.0	-0.0	0.0
Mx_i	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	-97.7	0.0	-0.0	**0.0**	0.0	0.0
My_i	-18.7	0.0	0.0	0.0	**-0.0**	0.0	28.7	0.0	-0.0	0.0	**0.0**	0.0
Mz_i	-0.0	**0.0**	-0.0	0.0	-0.0	**0.0**	-97.7	0.0	-0.0	0.0	0.0	**0.0**
Fx_f	**-97.7**	0.0	-0.0	0.0	0.0	0.0	**28.7**	0.0	-0.0	0.0	0.0	0.0
Fy_f	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	-97.7	**0.0**	-0.0	0.0	0.0	0.0
Fz_f	28.7	0.0	**-0.0**	0.0	0.0	0.0	-18.7	0.0	**0.0**	0.0	-0.0	0.0
Mx_f	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	-97.7	0.0	-0.0	**0.0**	0.0	0.0
My_f	-18.7	0.0	0.0	0.0	**-0.0**	0.0	28.7	0.0	-0.0	0.0	**0.0**	0.0
Mz_f	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	-97.7	0.0	-0.0	0.0	0.0	**0.0**

Member 422

Fx_i	**-18.7**	0.0	-0.0	0.0	-0.0	0.0	**34.2**	0.0	0.0	0.0	-0.0	0.0
Fy_i	0.1	**0.0**	-0.0	0.0	-0.0	0.0	34.2	**0.0**	0.0	0.0	-0.0	0.0
Fz_i	-15.3	0.0	**-0.0**	0.0	0.0	0.0	21.7	0.0	**0.0**	0.0	0.0	0.0
Mx_i	0.1	0.0	-0.0	**0.0**	-0.0	0.0	34.2	0.0	0.0	**0.0**	-0.0	0.0
My_i	-18.7	0.0	-0.0	0.0	**-0.0**	0.0	21.7	0.0	0.0	0.0	**0.0**	0.0
Mz_i	0.1	0.0	-0.0	0.0	-0.0	**0.0**	34.2	0.0	0.0	0.0	-0.0	**0.0**
Fx_f	**-18.7**	0.0	-0.0	0.0	-0.0	0.0	**34.2**	0.0	0.0	0.0	-0.0	0.0
Fy_f	0.1	**0.0**	-0.0	0.0	-0.0	0.0	34.2	**0.0**	0.0	0.0	-0.0	0.0
Fz_f	-15.3	0.0	**-0.0**	0.0	0.0	0.0	21.7	0.0	**0.0**	0.0	0.0	0.0
Mx_f	0.1	0.0	-0.0	**0.0**	-0.0	0.0	34.2	0.0	0.0	**0.0**	-0.0	0.0
My_f	-18.7	0.0	-0.0	0.0	**-0.0**	0.0	21.7	0.0	0.0	0.0	**0.0**	0.0
Mz_f	0.1	0.0	-0.0	0.0	-0.0	**0.0**	34.2	0.0	0.0	0.0	-0.0	**0.0**

Member 423

Fx_i	**-15.3**	0.0	-0.0	0.0	0.0	0.0	**20.8**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	-0.3	**0.0**	-0.0	0.0	-0.0	0.0	-7.2	**0.0**	-0.0	0.0	0.0	0.0
Fz_i	20.8	0.0	**-0.0**	0.0	-0.0	0.0	-1.2	0.0	**0.0**	0.0	0.0	0.0
Mx_i	-0.3	0.0	-0.0	**0.0**	-0.0	0.0	-7.2	0.0	-0.0	**0.0**	0.0	0.0
My_i	-15.1	0.0	-0.0	0.0	**-0.0**	0.0	-15.3	0.0	-0.0	0.0	**0.0**	0.0
Mz	-0.3	0.0	-0.0	0.0	-0.0	**0.0**	-7.2	0.0	-0.0	0.0	0.0	**0.0**
Fx_f	**-15.3**	0.0	-0.0	0.0	0.0	0.0	**20.8**	0.0	-0.0	0.0	-0.0	0.0
Fy_f	-0.3	**0.0**	-0.0	0.0	-0.0	0.0	-7.2	**0.0**	-0.0	0.0	0.0	0.0
Fz_f	20.8	0.0	**-0.0**	0.0	-0.0	0.0	-1.2	0.0	**0.0**	0.0	0.0	0.0
Mx_f	-0.3	0.0	-0.0	**0.0**	-0.0	0.0	-7.2	0.0	-0.0	**0.0**	0.0	0.0
My_f	-15.1	0.0	-0.0	0.0	**-0.0**	0.0	-15.3	0.0	-0.0	0.0	**0.0**	0.0
Mz_f	-0.3	0.0	-0.0	0.0	-0.0	**0.0**	-7.2	0.0	-0.0	0.0	0.0	**0.0**

Member 424

Fx_i	**-15.1**	0.0	0.0	0.0	-0.0	0.0	**20.8**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	1.3	**0.0**	0.0	0.0	0.0	0.0	1.5	**0.0**	-0.0	0.0	0.0	0.0
Fz_i	20.8	0.0	**-0.0**	0.0	-0.0	0.0	-15.1	0.0	**0.0**	0.0	-0.0	0.0
Mx_i	1.3	0.0	0.0	**0.0**	0.0	0.0	1.5	0.0	-0.0	**0.0**	0.0	0.0
My_i	20.8	0.0	-0.0	0.0	**-0.0**	0.0	5.8	0.0	0.0	0.0	**0.0**	0.0
Mz_i	1.3	0.0	0.0	0.0	0.0	**0.0**	1.5	0.0	-0.0	0.0	0.0	**0.0**
Fx_f	**-15.1**	0.0	0.0	0.0	-0.0	0.0	**20.8**	0.0	-0.0	0.0	-0.0	0.0
Fy_f	1.3	**0.0**	0.0	0.0	0.0	0.0	1.5	**0.0**	-0.0	0.0	0.0	0.0
Fz_f	20.8	0.0	**-0.0**	0.0	-0.0	0.0	-15.1	0.0	**0.0**	0.0	-0.0	0.0
Mx_f	1.3	0.0	0.0	**0.0**	0.0	0.0	1.5	0.0	-0.0	**0.0**	0.0	0.0
My_f	20.8	0.0	-0.0	0.0	**-0.0**	0.0	5.8	0.0	0.0	0.0	**0.0**	0.0
Mz_f	1.3	0.0	0.0	0.0	0.0	**0.0**	1.5	0.0	-0.0	0.0	0.0	**0.0**

Member 425

Fx_i	**-15.3**	0.0	-0.0	0.0	0.0	0.0	**20.8**	0.0	-0.0	0.0	-0.0	0.0
Fy_i	-6.3	**0.0**	0.0	0.0	0.0	0.0	-0.3	**0.0**	0.0	0.0	-0.0	0.0
Fz_i	20.8	0.0	**-0.0**	0.0	-0.0	0.0	-6.3	0.0	**0.0**	0.0	0.0	0.0
Mx_i	-6.3	0.0	0.0	**0.0**	0.0	0.0	-0.3	0.0	0.0	**0.0**	-0.0	0.0
My_i	20.8	0.0	-0.0	0.0	**-0.0**	0.0	-15.3	0.0	-0.0	0.0	**0.0**	0.0
Mz_i	-6.3	0.0	0.0	0.0	0.0	**0.0**	-0.3	0.0	0.0	0.0	-0.0	**0.0**
Fx_f	**-15.3**	0.0	-0.0	0.0	0.0	0.0	**20.8**	0.0	-0.0	0.0	-0.0	0.0
Fy_f	-6.3	**0.0**	0.0	0.0	0.0	0.0	-0.3	**0.0**	0.0	0.0	-0.0	0.0
Fz_f	20.8	0.0	**-0.0**	0.0	-0.0	0.0	-6.3	0.0	**0.0**	0.0	0.0	0.0
Mx_f	-6.3	0.0	0.0	**0.0**	0.0	0.0	-0.3	0.0	0.0	**0.0**	-0.0	0.0
My_f	20.8	0.0	-0.0	0.0	**-0.0**	0.0	-15.3	0.0	-0.0	0.0	**0.0**	0.0
Mz_f	-6.3	0.0	0.0	0.0	0.0	**0.0**	-0.3	0.0	0.0	0.0	-0.0	**0.0**

Member 426

Fx_i	**-37.2**	0.0	0.0	0.0	-0.0	0.0	**29.8**	0.0	-0.0	0.0	0.0	0.0
Fy_i	29.8	**0.0**	-0.0	0.0	0.0	0.0	0.1	**0.0**	0.0	0.0	-0.0	0.0
Fz_i	-15.3	0.0	**-0.0**	0.0	0.0	0.0	21.7	0.0	**0.0**	0.0	0.0	0.0
Mx_i	29.8	0.0	-0.0	**0.0**	0.0	0.0	0.1	0.0	0.0	**0.0**	-0.0	0.0
My_i	-37.2	0.0	0.0	0.0	**-0.0**	0.0	29.8	0.0	-0.0	0.0	**0.0**	0.0
Mz_i	29.8	0.0	-0.0	0.0	0.0	**0.0**	0.1	0.0	0.0	0.0	-0.0	**0.0**
Fx_f	**-37.2**	0.0	0.0	0.0	-0.0	0.0	**29.8**	0.0	-0.0	0.0	0.0	0.0
Fy_f	29.8	**0.0**	-0.0	0.0	0.0	0.0	0.1	**0.0**	0.0	0.0	-0.0	0.0
Fz_f	-15.3	0.0	**-0.0**	0.0	0.0	0.0	21.7	0.0	**0.0**	0.0	0.0	0.0
Mx_f	29.8	0.0	-0.0	**0.0**	0.0	0.0	0.1	0.0	0.0	**0.0**	-0.0	0.0
My_f	-37.2	0.0	0.0	0.0	**-0.0**	0.0	29.8	0.0	-0.0	0.0	**0.0**	0.0
Mz_f	29.8	0.0	-0.0	0.0	0.0	**0.0**	0.1	0.0	0.0	0.0	-0.0	**0.0**

Member 427

Fx_i	**-58.4**	0.0	-0.0	0.0	-0.0	0.0	**55.7**	0.0	0.0	0.0	-0.0	0.0
Fy_i	-58.4	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_i	-58.4	0.0	**-0.0**	0.0	-0.0	0.0	55.7	0.0	**0.0**	0.0	-0.0	0.0
Mx_i	-58.4	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0
My_i	55.7	0.0	0.0	0.0	**-0.0**	0.0	6.5	0.0	0.0	0.0	**0.0**	0.0
Mz_i	-58.4	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**
Fx_f	**-58.4**	0.0	-0.0	0.0	-0.0	0.0	**55.7**	0.0	0.0	0.0	-0.0	0.0
Fy_f	-58.4	**0.0**	-0.0	0.0	-0.0	0.0	-0.0	**0.0**	0.0	0.0	0.0	0.0
Fz_f	-58.4	0.0	**-0.0**	0.0	-0.0	0.0	55.7	0.0	**0.0**	0.0	-0.0	0.0
Mx_f	-58.4	0.0	-0.0	**0.0**	-0.0	0.0	-0.0	0.0	0.0	**0.0**	0.0	0.0
My_f	55.7	0.0	0.0	0.0	**-0.0**	0.0	6.5	0.0	0.0	0.0	**0.0**	0.0
Mz_f	-58.4	0.0	-0.0	0.0	-0.0	**0.0**	-0.0	0.0	0.0	0.0	0.0	**0.0**

*** Fin del listado ***

SUBANEJO Nº 16

ARMADURA TRANSVERSAL DE VIGA

DIMENSIONAMIENTO DE CORTANTE EN ALMA DE VIGA

LONG.VANO 22.0 m
POSICION en el eje de pila (esfuerzos tomados en el eje)

Nº CABLES 0 P_0 = 0 tn

ZONA :
$\sigma_{xd,sup}$ = 0.0 Kp/cm^2 x_g = cm
$\sigma_{xd,inf}$ = 0.0 Kp/cm^2
σ_{xd} = 0.0 Kp/cm^2 **cotgΘ** = $\sqrt{(1-\sigma_{xd}/f_{ct,k})}$ = 1.00

b = 0.24 m A_t = 7.32 m
d = 2.4 m

ESFUERZOS

Hipotesis	Vrd (tn/alma)	Td (mtn/cajón)
1	304.5	178.0
2	228.0	321.0
3	308.0	130.0
4	252.5	277.0

COMPRESIÓN OBLÍCUA DEL ALMA PARA CORTANTE

Vu1=0,6*fcd*(senΘ)^2*(cotgα+cotgΘ)*b*d = 741 tn/alma

ARMADURA DE CORTANTE

V_{cu} = fcv*b*d = 59.6 tn/alma

$V_{su} = V_{rd} - V_{cu}$

$V_{su} = A\alpha * f_{y\alpha,d} * 0.9 * d * \text{sen}\alpha * (\text{cotg}\alpha+\text{cotg}\Theta)$

Hipotesis	V_{su} (tn/alma)	A_α (cm^2/alma)
1	244.9	26.99
2	168.4	18.56
3	248.4	27.38
4	192.9	21.26

COMPRESIÓN OBLÍCUA DEL ALMA PARA TORSIÓN

$T_{u1} = 0{,}36 * f_{cd} * A_e * h_e$; $0{,}36 * f_{cd} < 9$ N/mm^2 T_{u1} = 1581.1 tn

T_d/t_{u1}	V_{rd}/V_{u1}	$T_d/t_{u1}+V_{rd}/V_{u1}$
0.11	0.41	0.52
0.20	0.31	0.51
0.08	0.42	0.50
0.18	0.34	0.52

ARMADURA DE TORSION

ν = 1/2

$Td \le T_{u2} = 2 * \nu * A_e * A_t * f_{td} / s$

Hipotesis	A_t (cm^2/alma)	$A_\alpha + A_t$
1	5.79	32.78
2	10.44	29.00
3	4.23	31.61
4	9.01	30.27

A_{total} = max $(A_\alpha + A_t)$ = **32.78** cm^2

DIMENSIONAMIENTO DE CORTANTE EN ALMA DE VIGA

LONG.VANO 22.0 m
POSICION a 8,5 m del eje de apoyo de pila (esfuerzos tomados a 7,334 m del apoyo)

Nº CABLES 32 P_0 = 638.4 tn

ZONA : AB
$\sigma_{xd,sup}$ = -78.0 Kp/cm^2 x_g = 98.8 cm
$\sigma_{xd,inf}$ = -19.8 Kp/cm^2
σ_{xd} = -54.0 Kp/cm^2 **cotgΘ** = $\sqrt{(1-\sigma_{xd}/f_{ct,k})}$ = 1.64

b = 0.16 m A_t = 7.32 m
d = 2.4 m

ESFUERZOS

Hipotesis	Vrd (tn/alma)	Td (mtn/cajón)
1	160.3	47.0
2	155.3	98.0

COMPRESIÓN OBLÍCUA DEL ALMA PARA CORTANTE

Vu1=0,6*fcd*(senΘ)^2*(cotgα+cotgΘ)*b*d = 435 tn/alma

ARMADURA DE CORTANTE

V_{cu} = fcv*b*d = 39.7 tn/alma

$V_{su} = V_{rd} - V_{cu}$

$V_{su} = A\alpha * f_{y\alpha,d} * 0.9 * d * \text{sen}\alpha * (\text{cotg}\alpha+\text{cotg}\Theta)$

Hipotesis	V_{su} (tn/alma)	A_α (cm^2/alma)
1	120.6	8.11
2	115.5	7.77

COMPRESIÓN OBLÍCUA DEL ALMA PARA TORSIÓN

$T_{u1} = 0{,}36 * f_{cd} * A_e * h_e$; $0{,}36 * f_{cd} < 9$ N/mm^2 T_{u1} = 1054.1 tn

T_d/t_{u1}	V_{rd}/V_{u1}	$T_d/t_{u1}+V_{rd}/V_{u1}$
0.04	0.37	0.41
0.09	0.36	0.45

ARMADURA DE TORSION

$Td \le T_{u2} = 2 * \nu * A_e * A_t * f_{td} / s$ ν = 1/2

Hipotesis	A_t (cm^2/alma)	$A_\alpha + A_t$
1	1.53	9.63
2	3.19	10.95

A_{total} = max $(A_\alpha + A_t)$ = **10.95** cm^2

DIMENSIONAMIENTO DE CORTANTE EN ALMA DE VIGA

LONG.VANO 22.0 m
POSICION a 4,9 m del eje de apoyo de pila (esfuerzos tomados a 3.667 m del apoyo)

Nº CABLES 32 P_0 = 638.4 tn

ZONA : AB
$\sigma_{xd,sup}$ = -81.0 Kp/cm^2 x_g = 101.0 cm
$\sigma_{xd,inf}$ = -19.5 Kp/cm^2
σ_{xd} = -55.1 Kp/cm^2 **cotgΘ** = $\sqrt{(1-\sigma_{xd}/f_{ct,k})}$ = 1.65

b = 0.24 m A_t = 7.32 m
d = 2.4 m

ESFUERZOS

Hipotesis	**Vrd** (tn/alma)	**Td** (mtn/cajón)
1	234.3	106.0
2	185.3	198.2
3	227.6	146.3
4	158.3	250.8

COMPRESIÓN OBLÍCUA DEL ALMA PARA CORTANTE

Vu1=0,6*fcd*(senΘ)^2*(cotgα+cotgΘ)*b*d = 656 tn/alma

ARMADURA DE CORTANTE

V_{cu} = fcv*b*d = 59.6 tn/alma

$V_{su} = V_{rd} - V_{cu}$

$V_{su} = A\alpha * f_{y\alpha,d} * 0.9 * d * sen\alpha * (cotg\alpha+cotg\Theta)$

Hipotesis	**V_{su}** (tn/alma)	**A_α** (cm^2/alma)
1	174.6	11.67
2	125.6	8.39
3	168.0	11.22
4	98.7	6.59

COMPRESIÓN OBLÍCUA DEL ALMA PARA TORSIÓN

$T_{u1} = 0,36 * f_{cd} * A_e * h_e$; $0,36 * f_{cd} < 9$ N/mm^2 T_{u1} = 1581.1 tn

T_d/t_{u1}	**V_{rd}/V_{u1}**	**$T_d/t_{u1}+V_{rd}/V_{u1}$**
0.07	0.36	0.42
0.13	0.28	0.41
0.09	0.35	0.44
0.16	0.24	0.40

ARMADURA DE TORSION

$Td \le T_{u2} = 2 * \nu * A_e * A_t * f_{td} / s$ ν = 1/2

Hipotesis	**A_t** (cm^2/alma)	**$A_\alpha + A_t$**
1	3.45	15.12
2	6.45	14.84
3	4.76	15.98
4	8.16	14.75

A_{total} = max ($A_\alpha + A_t$) = **15.98** cm^2

DIMENSIONAMIENTO DE CORTANTE EN ALMA DE VIGA

LONG.VANO 22.0 m
POSICION a 4,9 m del eje de estribo (esfuerzos tomados a 3.667 m del eje)

Nº CABLES 40 P_0 = 798 tn

ZONA : AB
$\sigma_{xd,sup}$ = -1.0 Kp/cm^2 x_g = 98.8 cm
$\sigma_{xd,inf}$ = -1.0 Kp/cm^2
σ_{xd} = -1.0 Kp/cm^2 **cotgΘ** = $\sqrt{(1-\sigma_{xd}/f_{ct,k})}$ = 1.02

b = 0.16 m A_t = 7.32 m
d = 2.4 m

ESFUERZOS

Hipotesis	**Vrd** (tn/alma)	**Td** (mtn/cajón)
1	168.5	125.0

COMPRESIÓN OBLÍCUA DEL ALMA PARA CORTANTE

Vu1=0,6*fcd*(senΘ)^2*(cotgα+cotgΘ)*b*d = 493 tn/alma

ARMADURA DE CORTANTE

V_{cu} = fcv*b*d = 39.7 tn/alma

$V_{su} = V_{rd} - V_{cu}$

$V_{su} = A\alpha * f_{y\alpha,d} * 0.9 * d * sen\alpha * (cotg\alpha+cotg\Theta)$

Hipotesis	**V_{su}** (tn/alma)	**A_α** (cm^2/alma)
1	128.8	13.98

COMPRESIÓN OBLÍCUA DEL ALMA PARA TORSIÓN

$T_{u1} = 0,36 * f_{cd} * A_e * h_e$; $0,36 * f_{cd} < 9$ N/mm^2 T_{u1} = 1054.1 tn

T_d/t_{u1}	**V_{rd}/V_{u1}**	**$T_d/t_{u1}+V_{rd}/V_{u1}$**
0.12	0.34	0.46

ARMADURA DE TORSION

$Td \le T_{u2} = 2 * \nu * A_e * A_t * f_{td} / s$ ν = 1/2

Hipotesis	**A_t** (cm^2/alma)	**$A_\alpha + A_t$**
1	4.07	18.04

A_{total} = max ($A_\alpha + A_t$) = **18.04** cm^2

DIMENSIONAMIENTO DE CORTANTE EN ALMA DE VIGA

LONG.VANO 22.0 m
POSICION a 8.5 m del eje de estribo (esfuerzos tomados a 3.667 m del eje)

Nº CABLES 40 **P_0 =** 798 tn

ZONA : C
$\sigma_{xd,sup}$ = -88.1 Kp/cm^2 x_g = 101.3 cm
$\sigma_{xd,inf}$ = -18.0 Kp/cm^2
σ_{xd} = -58.0 Kp/cm^2 **cotgΘ** = $\sqrt{(1-\sigma_{xd}/f_{ct,k})}$ = 1.68

b = 0.16 m A_t = 7.32 m
d = 2.4 m

ESFUERZOS

Hipotesis	Vrd (tn/alma)	Td (mtn/cajón)
1	83.0	67.0
2	92.0	19.0

COMPRESIÓN OBLÍCUA DEL ALMA PARA CORTANTE

Vu1=0,6*fcd*(senΘ)^2*(cotgα+cotgΘ)*b*d = 433 tn/alma

ARMADURA DE CORTANTE

V_{cu} = fcv*b*d = 39.7 tn/alma

$V_{su} = V_{rd} - V_{cu}$

$V_{su} = A\alpha * f_{y\alpha,d} * 0.9 * d * sen\alpha * (cotg\alpha+cotg\Theta)$

Hipotesis	V_{su} (tn/alma)	A_t (cm^2/alma)
1	43.3	2.84
2	52.3	3.43

COMPRESIÓN OBLÍCUA DEL ALMA PARA TORSIÓN

$T_{u1} = 0,36 * f_{cd} * A_e * h_e$; $0,36 * f_{cd} < 9$ N/mm^2 T_{u1} = 1054.1 tn

T_d/t_{u1}	V_{rd}/V_{u1}	$T_d/t_{u1}+V_{rd}/V_{u1}$
0.06	0.19	0.26
0.02	0.21	0.23

ARMADURA DE TORSION

$Td \le T_{u2} = 2 * \nu * A_e * A_t * f_{td} / s$ $\nu = 1/2$

Hipotesis	A_t (cm^2/alma)	$A_\alpha + A_t$
1	2.18	5.02
2	0.62	4.05

A_{total} = max $(A_\alpha + A_t)$ = **5.02** cm^2

DIMENSIONAMIENTO DE CORTANTE EN ALMA DE VIGA

LONG.VANO 22.0 m
POSICION en el eje de estribo (esfuerzos tomados en el eje)

Nº CABLES 0 **P_0 =** 0 tn

ZONA :
$\sigma_{xd,sup}$ = 0.0 Kp/cm^2 x_g = cm
$\sigma_{xd,inf}$ = 0.0 Kp/cm^2
σ_{xd} = 0.0 Kp/cm^2 **cotgΘ** = $\sqrt{(1-\sigma_{xd}/f_{ct,k})}$ = 1.00

b = 0.16 m A_t = 7.32 m
d = 2.4 m

ESFUERZOS

Hipotesis	Vrd (tn/alma)	Td (mtn/cajón)
1	241.0	157.0
2	153.5	306.0
3	175.0	252.0

COMPRESIÓN OBLÍCUA DEL ALMA PARA CORTANTE

Vu1=0,6*fcd*(senΘ)^2*(cotgα+cotgΘ)*b*d = 493 tn/alma

ARMADURA DE CORTANTE

V_{cu} = fcv*b*d = 39.7 tn/alma

$V_{su} = V_{rd} - V_{cu}$

$V_{su} = A\alpha * f_{y\alpha,d} * 0.9 * d * sen\alpha * (cotg\alpha+cotg\Theta)$

Hipotesis	V_{su} (tn/alma)	A_α (cm^2/alma)
1	201.3	22.18
2	113.8	12.54
3	135.3	14.91

COMPRESIÓN OBLÍCUA DEL ALMA PARA TORSIÓN

$T_{u1} = 0,36 * f_{cd} * A_e * h_e$; $0,36 * f_{cd} < 9$ N/mm^2 T_{u1} = 1054.1 tn

T_d/t_{u1}	V_{rd}/V_{u1}	$T_d/t_{u1}+V_{rd}/V_{u1}$
0.15	0.49	0.64
0.29	0.31	0.60
0.24	0.35	0.59

ARMADURA DE TORSION

$Td \le T_{u2} = 2 * \nu * A_e * A_t * f_{td} / s$ $\nu = 1/2$

Hipotesis	A_t (cm^2/alma)	$A_\alpha + A_t$
1	5.11	27.29
2	9.95	22.49
3	8.20	23.11

A_{total} = max $(A_\alpha + A_t)$ = **27.29** cm^2

A_{total} = max (A_α + A_t) = **5.69** cm

DIMENSIONAMIENTO DE CORTANTE EN ALMA DE VIGA

LONG.VANO 22.0 m
POSICION en centro de vano

Nº CABLES 56 P_0 = 1117.2 tn

ZONA : C

$\sigma_{xd,sup}$ = -63.0 Kp/cm^2 x_g = 88.3 cm

$\sigma_{xd,inf}$ = -4.0 Kp/cm^2

σ_{xd} = -25.7 Kp/cm^2 **cotg**Θ = $\sqrt{(1-\sigma_{xd}/f_{ct,k})}$ = 1.34

b = 0.16 m A_t = 7.32 m

d = 2.4 m

ESFUERZOS

Hipotesis	Vrd (tn/alma)	Td (mtn/cajón)
1	95.5	15.0
2	37.2	75.0
3	90.0	48.0
4	27.5	115.0

COMPRESIÓN OBLÍCUA DEL ALMA PARA CORTANTE

Vu1=0,6*fcd*(senΘ)^2*(cotgα+cotgΘ)*b*d = 473 tn/alma

ARMADURA DE CORTANTE

V_{cu} = fcv*b*d = 39.7 tn/alma

$V_{su} = V_{rd} - V_{cu}$

$V_{su} = A\alpha * f_{y\alpha,d} * 0.9 * d * sen\alpha * (cotg\alpha+cotg\Theta)$

Hipotesis	V_{su} (tn/alma)	A_α (cm^2/alma)
1	55.8	4.58
2	-2.6	0.00
3	50.3	4.13
4	-12.2	0.00

COMPRESIÓN OBLÍCUA DEL ALMA PARA TORSIÓN

$T_{u1} = 0,36 * f_{cd} * A_e * h_e$; $0,36 * f_{cd} < 9$ N/mm^2 T_{u1} = 1054.1 tn

T_d/t_{u1}	V_{rd}/V_{u1}	$T_d/t_{u1}+V_{rd}/V_{u1}$
0.01	0.20	0.22
0.07	0.08	0.15
0.05	0.19	0.24
0.11	0.06	0.17

ARMADURA DE TORSION

$Td \le T_{u2} = 2 * \nu * A_e * A_t * f_{td} / s$ ν = 1/2

Hipotesis	A_t (cm^2/alma)	$A_\alpha + A_t$
1	0.49	5.06
2	2.44	2.44
3	1.56	5.69
4	3.74	3.74

DIMENSIONAMIENTO DE CORTANTE EN ALMA DE VIGA

LONG.VANO 36.0 m
POSICION a 5,7 m del eje de pila (esfuerzos tomados a 4.5 m del eje)

Nº CABLES 36 P_0 = 718.2 tn

ZONA : AB
$\sigma_{xd,sup}$ = -78.0 Kp/cm^2 x_g = 98.8 cm
$\sigma_{xd,inf}$ = -19.5 Kp/cm^2
σ_{xd} = -53.9 Kp/cm^2 **cotg**$\Theta = \sqrt{(1-\sigma_{xd}/f_{ct,k})}$ = 1.64

b = 0.24 m A_t = 7.32 m
d = 2.4 m

ESFUERZOS

Hipotesis	**Vrd** (tn/alma)	**Td** (mtn/cajón)
1	320.0	222.0
2	236.5	381.0
3	242.5	361.0

COMPRESIÓN OBLÍCUA DEL ALMA PARA CORTANTE

Vu1=0,6*fcd*(senΘ)^2*(cotgα+cotgΘ)*b*d = 652 tn/alma

ARMADURA DE CORTANTE

V_{cu} = fcv*b*d = 59.6 tn/alma

$V_{su} = V_{rd} - V_{cu}$

$V_{su} = A\alpha * f_{y\alpha,d} * 0.9 * d * \text{sen}\alpha * (\text{cotg}\alpha+\text{cotg}\Theta)$

Hipotesis	V_{su} (tn/alma)	A_α (cm^2/alma)
1	260.4	17.52
2	176.9	11.90
3	182.9	12.30

COMPRESIÓN OBLÍCUA DEL ALMA PARA TORSIÓN

$T_{u1} = 0,36 * f_{cd} * A_e * h_e$; $0,36 * f_{cd} < 9$ N/mm^2 T_{u1} = 1581.1 tn

T_d/t_{u1}	V_{rd}/V_{u1}	$T_d/t_{u1}+V_{rd}/V_{u1}$
0.14	0.49	0.63
0.24	0.36	0.60
0.23	0.37	0.60

ARMADURA DE TORSION

$Td \le T_{u2} = 2 * \nu * A_e * A_t * f_{td} / s$ ν = 1/2

Hipotesis	A_t (cm^2/alma)	$A_\alpha + A_t$
1	7.22	24.74
2	12.39	24.29
3	11.74	24.05

A_{total} = max ($A_\alpha + A_t$) = **24.74** cm^2

DIMENSIONAMIENTO DE CORTANTE EN ALMA DE VIGA

LONG.VANO 36.0 m
POSICION a 10,2 m del eje de pila (esfuerzos tomados a 9,0 m del eje)

Nº CABLES 66 P_0 = 1316.7 tn

ZONA : C
$\sigma_{xd,sup}$ = -52.0 Kp/cm^2 x_g = 99.9 cm
$\sigma_{xd,inf}$ = -90.0 Kp/cm^2
σ_{xd} = -67.8 Kp/cm^2 **cotg**$\Theta = \sqrt{(1-\sigma_{xd}/f_{ct,k})}$ = 1.77 1.5

b = 0.16 m A_t = 7.32 m
d = 2.4 m

ESFUERZOS

Hipotesis	**Vrd** (tn/alma)	**Td** (mtn/cajón)
1	232.0	146.0
2	189.0	270.0
3	177.0	275.0

COMPRESIÓN OBLÍCUA DEL ALMA PARA CORTANTE

Vu1=0,6*fcd*(senΘ)^2*(cotgα+cotgΘ)*b*d = 495 tn/alma

ARMADURA DE CORTANTE

V_{cu} = fcv*b*d = 39.7 tn/alma

$V_{su} = V_{rd} - V_{cu}$

$V_{su} = A\alpha * f_{y\alpha,d} * 0.9 * d * \text{sen}\alpha * (\text{cotg}\alpha+\text{cotg}\Theta)$

Hipotesis	V_{su} (tn/alma)	A_α (cm^2/alma)
1	192.3	14.13
2	149.3	10.97
3	137.3	10.09

COMPRESIÓN OBLÍCUA DEL ALMA PARA TORSIÓN

$T_{u1} = 0,36 * f_{cd} * A_e * h_e$; $0,36 * f_{cd} < 9$ N/mm^2 T_{u1} = 1054.1 tn

T_d/t_{u1}	V_{rd}/V_{u1}	$T_d/t_{u1}+V_{rd}/V_{u1}$
0.14	0.47	0.61
0.26	0.38	0.64
0.26	0.36	0.62

ARMADURA DE TORSION

$Td \le T_{u2} = 2 * \nu * A_e * A_t * f_{td} / s$ ν = 1/2

Hipotesis	A_t (cm^2/alma)	$A_\alpha + A_t$
1	4.75	18.88
2	8.78	19.75
3	8.94	19.03

A_{total} = max ($A_\alpha + A_t$) = **19.75** cm^2

DIMENSIONAMIENTO DE CORTANTE EN ALMA DE VIGA

LONG.VANO 36.0 m
POSICION a 14,7 m del eje de pila (esfuerzos tomados a 13,5 m del eje)

Nº CABLES 104 P_0 = 2074.8 tn

ZONA : C

$\sigma_{xd,sup}$ = -100.0 Kp/cm^2 x_g = 89.9 cm

$\sigma_{xd,inf}$ = -19.0 Kp/cm^2

σ_{xd} = -49.3 Kp/cm^2 $\text{cotg}\Theta = \sqrt{(1-\sigma_{xd}/f_{ct,k})}$ = 1.59

b = 0.16 m A_t = 7.32 m

d = 2.4 m

ESFUERZOS

Hipotesis	Vrd (tn/alma)	Td (mtn/cajón)
1	149.5	92.0
2	118.5	186.0
3	111.5	189.0

COMPRESIÓN OBLÍCUA DEL ALMA PARA CORTANTE

$Vu1 = 0{,}6 * fcd * (sen\Theta)^2 * (cotg\alpha + cotg\Theta) * b * d$ = 445 tn/alma

ARMADURA DE CORTANTE

$V_{cu} = fcv * b * d$ = 39.7 tn/alma

$V_{su} = V_{rd} - V_{cu}$

$V_{su} = A\alpha * f_{y\alpha,d} * 0.9 * d * sen\alpha * (cotg\alpha + cotg\Theta)$

Hipotesis	V_{su} (tn/alma)	A_α (cm^2/alma)
1	109.8	7.59
2	78.8	5.45
3	71.8	4.96

COMPRESIÓN OBLÍCUA DEL ALMA PARA TORSIÓN

$T_{u1} = 0{,}36 * f_{cd} * A_e * h_e$; $0{,}36 * f_{cd} < 9$ N/mm^2 T_{u1} = 1054.1 tn

T_d/t_{u1}	V_{rd}/V_{u1}	$T_d/t_{u1}+V_{rd}/V_{u1}$
0.09	0.34	0.42
0.18	0.27	0.44
0.18	0.25	0.43

ARMADURA DE TORSION

$Td \le T_{u2} = 2 * \nu * A_e * A_t * f_{td} / s$ $\nu = 1/2$

Hipotesis	A_t (cm^2/alma)	$A_\alpha + A_t$
1	2.99	10.58
2	6.05	11.50
3	6.15	11.11

$A_{total} = \max (A_\alpha + A_t)$ = **11.50** cm^2

DIMENSIONAMIENTO DE CORTANTE EN ALMA DE VIGA

LONG.VANO 36.0 m
POSICION en el eje de pila (esfuerzos tomados en el eje)

Nº CABLES 0 P_0 = 0 tn

ZONA :

$\sigma_{xd,sup}$ = 0.0 Kp/cm^2 x_g = cm

$\sigma_{xd,inf}$ = 0.0 Kp/cm^2

σ_{xd} = 0.0 Kp/cm^2 $\text{cotg}\Theta = \sqrt{(1-\sigma_{xd}/f_{ct,k})}$ = 1.00

b = 0.24 m A_t = 7.32 m

d = 2.4 m

ESFUERZOS

Hipotesis	Vrd (tn/alma)	Td (mtn/cajón)
1	409.0	250.0
2	411.5	247.0
3	327.0	448.0
4	347.5	434.0

COMPRESIÓN OBLÍCUA DEL ALMA PARA CORTANTE

$Vu1 = 0{,}6 * fcd * (sen\Theta)^2 * (cotg\alpha + cotg\Theta) * b * d$ = 741 tn/alma

ARMADURA DE CORTANTE

$V_{cu} = fcv * b * d$ = 59.6 tn/alma

$V_{su} = V_{rd} - V_{cu}$

$V_{su} = A\alpha * f_{y\alpha,d} * 0.9 * d * sen\alpha * (cotg\alpha + cotg\Theta)$

Hipotesis	V_{su} (tn/alma)	A_α (cm^2/alma)
1	349.4	38.51
2	351.9	38.79
3	267.4	29.47
4	287.9	31.73

COMPRESIÓN OBLÍCUA DEL ALMA PARA TORSIÓN

$T_{u1} = 0{,}36 * f_{cd} * A_e * h_e$; $0{,}36 * f_{cd} < 9$ N/mm^2 T_{u1} = 1581.1 tn

T_d/t_{u1}	V_{rd}/V_{u1}	$T_d/t_{u1}+V_{rd}/V_{u1}$
0.16	0.55	0.71
0.16	0.56	0.71
0.28	0.44	0.72
0.27	0.47	0.74

ARMADURA DE TORSION

$Td \le T_{u2} = 2 * \nu * A_e * A_t * f_{td} / s$ $\nu = 1/2$

Hipotesis	A_t (cm^2/alma)	$A_\alpha + A_t$
1	8.13	46.64
2	8.03	46.82
3	14.57	44.05
4	14.12	45.85

$A_{total} = \max (A_\alpha + A_t)$ = **46.82** cm^2

DIMENSIONAMIENTO DE CORTANTE EN ALMA DE VIGA

LONG.VANO 36.0 m
POSICION en centro de vano

Nº CABLES 104 P_0 = 2074.8 tn

ZONA : C
$\sigma_{xd,sup}$ = -100.0 Kp/cm^2 x_g = 89.9 cm
$\sigma_{xd,inf}$ = -19.0 Kp/cm^2
σ_{xd} = -49.3 Kp/cm^2 **cotgΘ** = $\sqrt{(1-\sigma_{xd}/f_{ct,k})}$ = 1.59

b = 0.16 m A_t = 7.32 m
d = 2.4 m

ESFUERZOS

Hipotesis	**Vrd** (tn/alma)	**Td** (mtn/cajón)
1	66.0	40.0
2	71.5	37.0
3	9.5	144.0
4	30.5	122.0

COMPRESIÓN OBLÍCUA DEL ALMA PARA CORTANTE

Vu1=0,6*fcd*(senΘ)^2*(cotgα+cotgΘ)*b*d = 451 tn/alma

ARMADURA DE CORTANTE

V_{cu} = fcv*b*d = 39.7 tn/alma

$V_{su} = V_{rd} - V_{cu}$

$V_{su} = A\alpha * f_{y\alpha,d} * 0.9 * d * sen\alpha * (cotg\alpha+cotg\Theta)$

Hipotesis	**V_{su}** (tn/alma)	**A_α** (cm^2/alma)
1	26.3	1.82
2	31.8	2.20
3	-30.2	0.00
4	-9.2	0.00

COMPRESIÓN OBLÍCUA DEL ALMA PARA TORSIÓN

$T_{u1} = 0,36 * f_{cd} * A_e * h_e$; $0,36 * f_{cd} < 9$ N/mm^2 T_{u1} = 1054.1 tn

T_d/t_{u1}	**V_{rd}/V_{u1}**	**$T_d/t_{u1}+V_{rd}/V_{u1}$**
0.04	0.15	0.18
0.04	0.16	0.19
0.14	0.02	0.16
0.12	0.07	0.18

ARMADURA DE TORSION

$Td \le T_{u2} = 2 * \nu * A_e * A_t * f_{td} / s$ $\nu = 1/2$

Hipotesis	**A_t** (cm^2/alma)	**$A_\alpha + A_t$**
1	1.30	3.12
2	1.20	3.40
3	4.68	4.68
4	3.97	3.97

$A_{total} = max\ (A_\alpha + A_t)$ = **4.68** cm^2

SUBANEJO Nº 17

CONTROL LONGITUDINAL DE SECCIONES Y ELEMENTOS DE CONTINUIDAD

VIADUCTO DE LOS CHORROS

CUADRO DE MOMENTOS FLECTORES. **Valores característicos (mt/viga)**

estado de carga	VANO 1					VANO 2						
	A 6,5 m del apoyo de estribo	Centro de vano 3 (f)	A 7,334 m del apoyo de pila 4(f)	A 3,667 m del apoyo de pila 5 (f)	Eje de apoyo 6 (f)	Centro de vano 10 (f)	A 9,0 m del apoyo 12 (f)	A 7,5 m del apoyo	A 6,5 m del apoyo	A 4,5 m del apoyo 13 (f)	A 1,8 m del apoyo	Eje de apoyo 14 (f)
pp. Vigas	204	228	208	133	0	593	453	406	364	270	117	0
pp. losa centro vano	241	270	235	137	0	730	538			299		0
pp. losa apoyos	0	0	0	0	-25	8	6			5		-32
Total losa	241	270	235	137	-25	738	544	505	450	304	145	-32
balasto	139	113	21	-136	-358	367	141			-120		-478
resto carga muerta	38	31	6	-37	-98	101	39			-32		-131
Total carga muerta	177	144	27	-173	-456	468	180	58	-11	-152	-417	-609
sc. Uso UIC + Balasto		734/-259	526/-400	263/-693	105/-1220	1475/-200	879/-319			277/-645		121/-1560
sc.Uso RENFEϕ1.16	63/-282	708/-428	612/-575	347/-724	184/-1092	1352/-367	905/-539	-590	-621	357/-686	-1140	205/-1392
Térmico	66	96	127	157	188	176	168	167	166	164	161	160
Asientos	91	75/-40	104/-164	132/-292	160/-420	40/-165	69/-49	80/-54	83/-55	94/-60	111/-73	120/-80
Fluencia (t=∞)	175	175	175	175	175	175	175	175	175	175	175	175
Retracción (t=∞)	-360	-360	-360	-360	-360	-360	-360	-360	-360	-360	-360	-360
sc.Uso RENFE ϕ1.16 una vía		645										-1171

estado de carga	VANO 3			
	Centro de vano 18 (f)	A 9,0 m del apoyo 20 (f)	A 4,5 m del apoyo 21 (f)	Eje de apoyo 22 (f)
pp. Vigas	593	453	270	0
pp. losa centro vano	730	538	299	0
pp. losa apoyos	5	5	6	-30
Total losa	735	543	305	-30
balasto	320	131	-112	-452
resto carga muerta	88	36	-31	-124
Total carga muerta	408	167	-143	-576
sc.Uso UIC+Balasto	1463/-277	877/-334	290/-635	162/-1541
sc.Uso RENFEϕ1.16	1413/-523	920/-572		282/-1412
Térmico	167	165	165	164
Asientos	35/-32	70/-49	93/-60	117/-71
Fluencia (t=∞)	175	175	175	175
Retracción (t=∞)	-360	-360	-360	-360

Apoyo pila Nº1

M^t: -456 + 134 + 188 + 160 + 175 = + 251 mT

Apoyo Pila 2

M^t: -605 + 203 + 160 + 120 + 171 = 51 mT

Apoyo Pila 3

M^t: -576 + 232 + 164 + 117 + 135 = 162 mT

VIADUCTO DE LOS CHORROS

CUADRO DE MOMENTOS FLECTORES. **Valores característicos (mt/viga)**

	VANO 4				VANO 5				VANO 6			
estado de carga	Centro de vano 26 (f)	A 9,0 m del apoyo 28 (f)	A 4,5 m del apoyo 29 (f)	Apoyo 30 (f)	Centro de vano 34 (f)	A 9,0 m del apoyo 36 (f)	A 4,5 m del apoyo 37 (f)	Apoyo 38 (f)	Centro de vano 42 (f)	A 9,0 m del apoyo 44 (f)	A 4,5 m del apoyo 45 (f)	Apoyo 46(f)
pp. Vigas	593	453	270	0	593	453	270	0	593	453	270	0
vano	730	538	299	0	730	538	299	0	730	538	299	0
pp. losa apoyos	6	6	6	-31	6	6	6	-30	5	5	5	-31
Total losa	736	644	305	-31	736	544	305	-30	735	543	304	-31
balasto	330	132	-114	-459	330	135	-110	-452	321	118	-130	-477
resto carga muerta	90	36	-31	-126	90	37	-30	-124	89	32	-36	-131
Total carga muerta	420	168	-145	-585	420	172	-140	-576	410	150	166	-608
sc. Uso UIC	1497/-282	883/-335	289/-641	162/-1561	1497/-282	884/-330	287/-625	161/-1542	1464/-277	824/-319	253/-632	122/-1554
sc.Uso RENFEϕ1.16	-534/1446	926/-574	375/-692	283/-1429	1446/-534	922/-564	371/-677	281/-1413	1414/-523	864/-541	303/-651	205/-1389
Térmico	169	165	164	162	169	165	164	162	167	165	165	164
Asientos	23/-28	70/-49	93/-60	117/-70	23/-28	70/-49	93/-60	117/-71	31/-63	71/-111	95/-135	119/-159
Fluencia	175	175	175	175	175	175	175	175	175	175	175	175
Retracción	-360	-360	-360	-360	-360	-360	-360	-360	-360	-360	-360	-360
sc.Uso RENFE ϕ1.16 una vía	1134											

Apoyo pila 4

M: -581 + 283 + 162 + 117 + 171 = 152

Apoyo pila 5

M: -576 + 281 + 162 + 117 + 175 = 159

Apoyo pila 6

M: -608 + 205 + 194 + 119 + 171 = 55

VIADUCTO DE LOS CHORROS

CUADRO DE MOMENTOS FLECTORES. **Valores característicos (mt/viga)**

	VANO 7				VANO 8		
estado de carga	Centro de vano 50 (f)	A 9,0 m del apoyo 52 (f)	A 4,5 m de apoyo 53 (f)	Apoyo 54 (f)	Centro de vano 57 (f)	A 7,334 m del apoyo de pila 56 (f)	A 3,667 m del apoyo de pila 55 (f)
pp. Vigas	593	453	270	0	228	208	133
pp. losa centro vano	730	538	299	0	270	235	137
pp. losa apoyos	8	9	10	-25	0	0	0
Total losa	738	547	309	-25	270	235	137
balasto	367	199	-32	-360	113	20	-138
resto carga muerta	100	55	-9	-99	31	6	-38
Total carga muerta	467	254	-41	-459	144	26	-176
sc. Uso UIC	1476/-200	844/-150	217/-280	106/-1232	752/-268	544/-405	254/-696
sc.Uso RENFEϕ1.16	-368/1354	757/-221	232/-313	185/-1108	739/-436	631/-581	350/-729
Térmico	167	165	165	164	96	127	157
Asientos	79/-144	199/-255	258/-310	320/-366	157/-180	211/-242	264/-304
Fluencia	175	175	175	175	175	175	175
Retracción	-360	-360	-360	-360	-360	-360	-360

apoyo pila 7

M: -459 + 181 + 1644 + 320 + 171 = 385 mT

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ANALISIS DE LA FLUENCIA

H-600 ; $f_{ck\,28} = 600$ kp/cm²

VIGA PREFABRICADA

Espesor ficticio $e = \frac{2Ad}{U}$; $A = 1{,}624$ m² ; $U = 11{,}166$ m ; $d = 4$ Ambiente húmedo (cuando el vapor) } $e = 116$ cm = 1160 mm

Cargas a 2 días (Pretensado + p.propio viga)

Resistencia del hormigón $f_2 \geq 400$ kp/cm² por condiciones determinadas por la transferencia del pretensado ; $f_\infty = 1{,}15 f_{28} = 690$ kp/cm²

$$\beta_a(2) = 0{,}8\left(1 - \frac{f_2}{f_\infty}\right) = 0{,}34$$

$\varphi_{01} = 1{,}2$ Ambiente húmedo

$$\varphi_{02} = 1{,}12\,\frac{116+31}{116+17} = 1{,}238$$

$\beta_\infty = 1$; $\beta_2 = 0{,}082$ obtenido de la expresión

$$\beta_2 = \left[\frac{2^{0{,}501}}{2^{0{,}501}+21{,}5}\left(1+\frac{116^{1{,}7}}{26600}\right)+\frac{4\times 2^3}{2^5+2430}\right]^4 = 0{,}082$$

$$F_1 = 1 - 0{,}12\times 116^{0{,}3} = 0{,}501$$

$$F_2 = \frac{10^{11}}{8+10^{11}} = 1$$

$\beta'_{\infty-2} = 1$ $\varphi_2 = 0{,}34 + 1{,}2\times 1{,}238\,(1-0{,}082)\,0{,}75 + 0{,}4 = \underline{1{,}763}$

El 25% de reducción el término de la deformación plástica difícil corresponde a hormigón muy seco

Cargas a 17 días (P.propio de la losa del tablero). Del lado de la seguridad, se supone un descimbrado mínimo de ejecución de la losa.

Resistencia del hormigón $f_{17} = 540$ kp/cm²

$$\beta(17) = 0{,}8\left(1 - \frac{540}{690}\right) = 0{,}174$$

$$\beta_{17} = \frac{17^{0{,}501}}{17^{0{,}501}+21{,}5}\left(1+\frac{116^{1{,}7}}{26600}\right)+\frac{4\times 17^3}{17^5+2430} = 0{,}195$$

$$\varphi_{17} = 0{,}174 + 1{,}2\times 1{,}238\,(1-0{,}195)\,0{,}75 + 0{,}4 = \underline{1{,}471}$$

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Cargas a 228 días (carga muerta)

Resistencia del hormigón $f_{228} = 625$ kp/cm² $\beta(228) = 0{,}8\left(1 - \frac{625}{690}\right) = 0{,}075$

$$\beta_{228} = \frac{228^{0{,}501}}{228^{0{,}501}+21{,}5}\left(1+\frac{116^{1{,}7}}{26600}\right)+\frac{4\times 228^3}{228^5+2430} = 0{,}464$$

$$\varphi_{228} = 0{,}075 + 1{,}2\times 1{,}238\times(1-0{,}464)\,0{,}75 + 0{,}4 = \underline{1{,}072}$$

Las cargas aplicadas a los 2 días apenas modifican los estados tensionales durante la fase abierta, hasta el hormigonado de la losa, tal como puede apreciarse en el análisis del DIFEV realizado, pasando las tensiones máximas de -108,7 kp/cm² a t=2 días, en el momento de poner a -104,6 kp/cm² a los 17 días en el momento en que la losa del tablero se hormigona.

Consiguientemente, a efectos de fluencia las acciones de peso propio y peso de losa se pueden considerar actuando a 17 días y la carga muerta a 228 días, despreciando - del lado de la seguridad - las variaciones del intervalo 2 a 17 días.

Puesto que las cargas son todas hemisféricas, se puede adoptar como coeficiente de fluencia único de la viga un valor proporcional a tales cargas : p.propio + peso de losa = 8,525 t/ml viga ≡ 0,58 total ; C. muerta = 6,173 t/ml viga ≡ 0,42 total ; c. total 14,698 t/ml viga

$$\varphi_\infty \simeq 0{,}58\times 1{,}471 + 0{,}42\times 1{,}072 = \underline{1{,}31}$$

Con el que se comprobarán las secciones críticas.

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FECHA HOJA 3 DE

LOSA DEL TABLERO H-350 $f_{ck28} = 350\ kp/cm^2$

Espesor ficticio $A = 3{,}78\ m^2$, $U = 28{,}4\ m.$ $\Big\}$ $e = 40\ cm \equiv 400\ mm$

$\alpha = 1{,}5$ Condiciones medias

Carga a 228 días

La losa ésta recibe acciones propias a partir de esta edad de aplicación de la carga muerta.

$$\beta_a(228) = 0{,}8\left(1 - \frac{f_{228}}{f_\infty}\right) = 0{,}8(1 - 0{,}9) = 0{,}08$$

$\varphi_{01} = 2$ Condiciones medias

$\varphi_{02} = 1{,}40$

$\beta_v = 1$; $\beta_{228} = 0{,}54$; $\beta'_{\infty-2} = 1$

$$\varphi_{228} = 0{,}08 + 1{,}40 \times 2 \times (1 - 0{,}54) + 0{,}4 = \underline{\underline{1{,}77}}$$

Valor que se adopta para el cálculo de las acciones.

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FECHA HOJA 4 DE

ANALISIS DE LA RETRACCIÓN

VIGA PREFABRICADA $e = 116\ cm$

17 días en acción abierta, sin losa.

$\varepsilon_{01} = -18{,}5 \times 10^{-5}$

$\varepsilon_{02} = 0{,}7\ \frac{116+16}{116+8} = 0{,}745$

$\beta_t(17) = 0{,}07$

$\varepsilon_{17} = -18{,}5 \times 10^{-5} \times 0{,}745 \times 0{,}07 \times 0{,}75 = -0{,}724 \times 10^{-5}$

$$\frac{\varepsilon_{17}}{\varphi_\infty} = \frac{0{,}724}{1{,}31} 10^{-5} = \underline{\underline{0{,}55 \times 10^{-5}}}$$

y el resto

$$\varepsilon^*_{\infty-17} = -18{,}5 \times 10^{-5} \times 0{,}745 \times 0{,}93 \times 0{,}75 = -9{,}613 \times 10^{-5}$$

$$\frac{\varepsilon^*_\infty}{\varphi_\infty} = \underline{\underline{7{,}34 \times 10^{-5}}}$$

Sobre pieza completa en losa.

LOSA DEL TABLERO $e = 40\ cm.$

$\varepsilon_{02} = -32 \times 10^{-5}$ Condiciones medias

$\varepsilon_\infty = 0{,}7\ \frac{40+16}{40+8} = 0{,}817$

$\beta_t = 1$

$\varepsilon_\infty = -32{,}5 \times 10^{-5} \times 0{,}817 = -26{,}57 \times 10^{-5}$

$$\frac{\varepsilon_\infty}{\varphi_\infty} = \frac{26{,}57 \times 10^{-5}}{1{,}77} = \underline{\underline{15 \times 10^{-5}}}$$

Proyecto:
2

Seccion:APOYO 1

CONTROL EN AGOTAMIENTO

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	Jø1	Jø2
1(HO)	600.0	1.40	408160	2.00	1.20
2(HO)	350.0	1.50	350000	1.75	1.07
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.10	1950000		
5(AE)	8500.0	1.15	2100000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) ø(mm)	Yo(cm)	Mc	Nsr
1	2	700.0	25.0	0.0	C*	0
2	1	81.6	10.0	25.0	C*	0
3	1	56.0	12.0	35.0	C*	0
4	1	48.0	176.0	47.0	C*	0
5	1	280.0	22.0	223.0	C*	0
6	3	100.0	25.0	2.5	CT	0
7	3	4.0	25.0	30.0	CT	0
8	3	2.0	40.0	36.5	CT	0
9	3	4.0	25.0	43.0	CT	0
10	3	4.0	16.0	71.0	CT	0
11	3	4.0	16.0	93.0	CT	0
12	3	4.0	16.0	115.0	CT	0
13	3	4.0	16.0	137.0	CT	0
14	3	4.0	16.0	159.0	CT	0
15	3	4.0	16.0	181.0	CT	0
16	3	14.0	16.0	225.0	CT	0
17	3	14.0	16.0	241.8	CT	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	VN	2 3 4 5 7 8 9 10 11 12 13 14 15 16 17
3	HA	2 3 4 5
4	HL	1
5	HT	1 2 3 4 5
6	AA	7 8 9 10 11 12 13 14 15 16 17
7	AL	6

* CONSTANTES ESTATICAS *

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2437.3	15.24	3609688.1
	(1)	1561.0	21.25	3468804.2
	(2)	1759.1	19.51	3507940.9
F.pura -	(0)	2347.0	170.49	20499620.4
	(1)	1364.6	124.66	14181063.9
	(2)	1564.1	138.06	15996108.2
C.Simple	(0)	6704.9	85.31	55983934.7
	(1)	2762.8	75.09	22051642.1
	(2)	3490.4	78.46	28351088.7
T.Simple	(0)	659.8	35.76	3194247.4
	(1)	659.8	35.76	3194247.4
	(2)	659.8	35.76	3194247.4

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: APOYO 1

* PRESOLICITACIONES ELASTICAS * CONTROL AGOTAMIENTO

Analisis CON FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : -32.00m.T P.LOSA
Seccion Afectada: VN

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[ø*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 898.7 Xu(cm.): 10.8 $M_u > M_d = 0,9(-32-52,5) + 1,5 \times 282 - 1,25(188+220) =$ (P.Losa, C.M., SC, término Axial)

Nu(Tn.): .3 Qu(Tn.): 0.0 $= 481$ m.t

Deformaciones Ultimas: Ecmx= -.00046 Etmx= .01000
Rompe la fibra inferior de la S.parcial 5

FLEXION PURA NEGATIVA:

Mu(m.T): -5745.4 Xu(cm.): 196.5 $M_u > M_d = -3276 + 1,25(175-360) = -3507$ m.t. (Fluencia Retracc.)

Nu(Tn.): -.4 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00248 Etmx= .01000
Rompe la fibra superior de la S.parcial 1

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -12260.6 aplicado en Yo(cm)= 90.3

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 2926.2 aplicado en Yo(cm)= 35.8

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

Proyecto:
2

Seccion:APOYO2 CONTROL EN SERVICIO

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	Jø1	Jø2
1(HO)	600.0	1.40	408160	2.00	1.20
2(HO)	350.0	1.50	350000	1.75	1.07
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.10	1950000		
5(AE)	8500.0	1.15	2100000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) ø(mm)	Yo(cm)	Mc	Nsr
1	2	490.0	25.0	0.0	C*	0
2	1	81.6	10.0	25.0	C*	0
3	1	56.0	12.0	35.0	C*	0
4	1	48.0	176.0	47.0	C*	0
5	1	280.0	22.0	223.0	C*	0
6	3	78.0	25.0	2.5	CT	0
7	3	4.0	25.0	30.0	CT	0
8	3	2.0	40.0	36.5	CT	0
9	3	4.0	25.0	43.0	CT	0
10	3	4.0	16.0	71.0	CT	0
11	3	4.0	16.0	93.0	CT	0
12	3	4.0	16.0	115.0	CT	0
13	3	4.0	16.0	137.0	CT	0
14	3	4.0	16.0	159.0	CT	0
15	3	4.0	16.0	181.0	CT	0
16	3	14.0	16.0	225.0	CT	0
17	3	14.0	16.0	241.8	CT	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	VN	2 3 4 5 7 8 9 10 11 12 13 14 15 16 17
3	HA	2 3 4 5
4	HL	1
5	HT	1 2 3 4 5
6	AA	7 8 9 10 11 12 13 14 15 16 17
7	AL	6

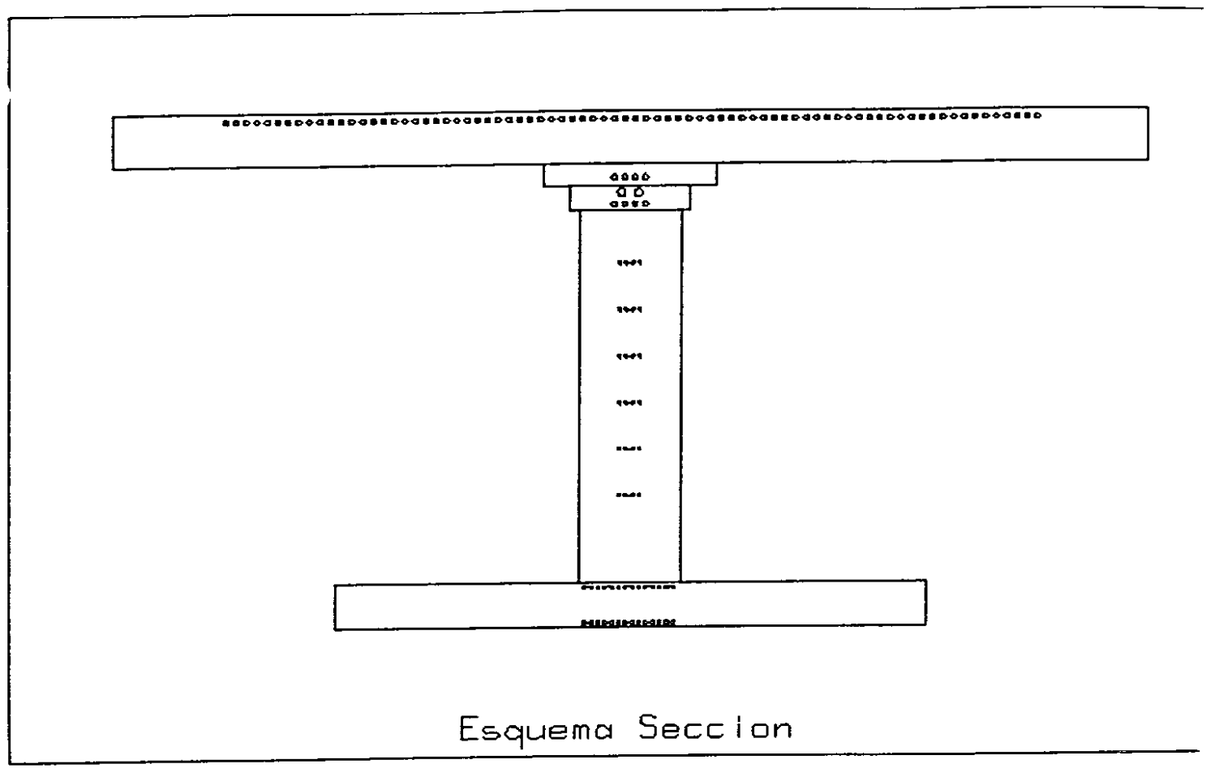
* CONSTANTES ESTATICAS *

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2022.8	18.01	3539104.4
	(1)	1294.6	25.09	3376424.5
	(2)	1460.8	23.04	3421553.0

F.pura -	(0)	2162.7	178.67	17350653.4
	(1)	1223.9	135.19	12465364.9
	(2)	1413.2	148.17	13902137.8
C.Simple	(0)	5722.0	97.98	49662428.1
	(1)	2336.7	86.91	19912840.8
	(2)	2959.7	90.61	25450774.9
T.Simple	(0)	551.8	42.02	3061897.3
	(1)	551.8	42.02	3061897.3
	(2)	551.8	42.02	3061897.3

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***



?

** CALCULO ELASTICO **

Título Sección: APOYO 2

Analisis CON FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : -32.00m.T P.LOSA
Tipo de Solicitacion: CP
Seccion Afectada: VN

Incremento de Carga 2 :
Flector : -609.00m.T C.M.
Tipo de Solicitacion: CP
Seccion Afectada: TOTAL

Incremento de Carga 3 :
Retraccion(Eso/øi;Tinf.): 2.60(*1.E-05)
Actua sobre la Sintermedia HA
Seccion Afectada: TOTAL

Incremento de Carga 4 :
Retraccion(Eso/øi;Tinf.): 9.20(*1.E-05)
Actua sobre la Sintermedia HL
Seccion Afectada: TOTAL

Incremento de Carga 5 :
Flector : -185.00m.T RETR-FLUEN
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	177.7	0.0	0.0	0.0	0.0	1	190.5	0.0	0.0	0.0	0.0
2	188.0	0.0	0.0	0.0	0.0	2	137.8	0.0	0.0	0.0	0.0
3	188.0	0.0	0.0	0.0	0.0	3	137.8	0.0	0.0	0.0	0.0
4	188.0	0.0	-31.4	0.0	0.0	4	137.8	0.0	-36.1	0.0	0.0
5	188.0	-31.4	-51.1	0.0	0.0	5	137.8	-36.1	-45.4	0.0	0.0
6	177.7	616.2	607.4	0.0	616.2	6	121.2	698.5	683.8	0.0	698.5
7	188.0	729.0	717.4	0.0	729.0	7	136.9	746.1	728.6	0.0	746.1
8	188.0	699.0	680.5	0.0	699.0	8	136.9	700.7	672.8	0.0	700.7
9	188.0	669.0	657.4	0.0	669.0	9	136.9	655.4	637.9	0.0	655.4
10	188.0	539.8	532.4	0.0	539.8	10	136.9	459.9	448.7	0.0	459.9
11	188.0	438.3	430.9	0.0	438.3	11	136.9	306.3	295.1	0.0	306.3
12	188.0	336.8	329.4	0.0	336.8	12	136.9	152.7	141.6	0.0	152.7
13	188.0	235.3	227.9	0.0	235.3	13	136.9	-.8	-12.0	0.0	12.0
14	188.0	133.8	126.4	0.0	133.8	14	136.9	-154.4	-165.6	0.0	165.6
15	188.0	32.3	24.9	0.0	32.3	15	136.9	-308.0	-319.2	0.0	319.2
16	188.0	-170.7	-178.1	0.0	178.1	16	136.9	-615.2	-626.3	0.0	626.3
17	188.0	-248.2	-255.6	0.0	255.6	17	136.9	-732.4	-743.6	0.0	743.6

Incrementos de Carga:
1 2 3 4 5

Incremento de Carga 6 :
Flector : -937.00m.T SC.FREC.
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

Incremento de Carga 7 :
Flector : -380.00m.T ASIENTOS
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	178.2	0.0	0.0	0.0	0.0	1	176.1	0.0	0.0	0.0	0.0
2	182.9	0.0	0.0	0.0	0.0	2	163.6	0.0	0.0	0.0	0.0
3	182.9	0.0	0.0	0.0	0.0	3	163.6	0.0	0.0	0.0	0.0
4	182.9	0.0	-78.0	0.0	0.0	4	163.6	0.0	-101.8	0.0	0.0
5	182.9	-78.0	-120.8	0.0	0.0	5	163.6	-101.8	-139.4	0.0	0.0
6	178.2	1567.2	1544.9	0.0	1567.2	6	148.1	2039.6	2004.6	0.0	2039.6
7	182.9	1531.4	1506.4	0.0	1531.4	7	153.4	1863.8	1826.1	0.0	1863.8
8	182.9	1466.3	1426.3	0.0	1466.3	8	153.4	1765.7	1705.2	0.0	1765.7
9	182.9	1401.2	1376.2	0.0	1401.2	9	153.4	1667.5	1629.7	0.0	1667.5
10	182.9	1120.8	1104.8	0.0	1120.8	10	153.4	1244.6	1220.4	0.0	1244.6
11	182.9	900.5	884.5	0.0	900.5	11	153.4	912.3	888.1	0.0	912.3
12	182.9	680.2	664.2	0.0	680.2	12	153.4	580.0	555.8	0.0	580.0
13	182.9	459.9	443.9	0.0	459.9	13	153.4	247.7	223.6	0.0	247.7
14	182.9	239.6	223.5	0.0	239.6	14	153.4	-84.6	-108.7	0.0	108.7
15	182.9	19.3	3.2	0.0	19.3	15	153.4	-416.9	-441.0	0.0	441.0
16	182.9	-421.4	-437.4	0.0	437.4	16	153.4	-1081.4	-1105.6	0.0	1105.6
17	182.9	-589.6	-605.6	0.0	605.6	17	153.4	-1335.2	-1359.3	0.0	1359.3

σ_s: 2022 kg/cm²

Incrementos de Carga:
1 2 3 4 5 6 7

Incremento de Carga 8 :
Flector : 226.00m.T SC.FREC.
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

Incremento de Carga 9 :
Flector : 56.00m.T TERMICO
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

Incremento de Carga 10 :
Flector : 320.00m.T ASIENTOS
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	177.2	0.0	0.0	0.0	0.0	1	5.3	-.4	0.0	0.0	0.0
2	193.2	0.0	0.0	0.0	0.0	2	310.7	-14.3	-13.8	0.0	0.0
3	193.2	0.0	0.0	0.0	0.0	3	310.7	-13.8	-13.2	0.0	0.0
4	193.2	0.0	-17.3	0.0	0.0	4	310.7	-13.2	-4.4	0.0	0.0
5	193.2	-17.3	-30.1	0.0	0.0	5	310.7	-4.4	-3.3	0.0	0.0
6	177.2	330.3	325.6	0.0	330.3	6	81.0	185.9	180.0	0.0	185.9
7	193.2	487.7	480.3	0.0	487.7	7	125.3	330.3	321.6	0.0	330.3
8	193.2	468.3	456.4	0.0	468.3	8	125.3	307.7	293.9	0.0	307.7
9	193.2	448.9	441.4	0.0	448.9	9	125.3	285.2	276.6	0.0	285.2
10	193.2	365.2	360.5	0.0	365.2	10	125.3	188.2	182.7	0.0	188.2
11	193.2	299.5	294.7	0.0	299.5	11	125.3	112.0	106.4	0.0	112.0

12	193.2	233.8	229.0	0.0	233.8	12	125.3	35.8	30.2	0.0	35.8
13	193.2	168.1	163.3	0.0	168.1	13	125.3	-40.4	-46.0	0.0	46.0
14	193.2	102.3	97.5	0.0	102.3	14	125.3	-116.7	-122.2	0.0	122.2
15	193.2	36.6	31.8	0.0	36.6	15	125.3	-192.9	-198.4	0.0	198.4
16	193.2	-94.9	-99.7	0.0	99.7	16	125.3	-345.3	-350.9	0.0	350.9
17	193.2	-145.1	-149.9	0.0	149.9	17	125.3	-403.5	409.1	0.0	409.1

Incrementos de Carga:

1 2 3 4 5 8 9 10

** CALCULO ELASTICO **

Título Sección: APOYO 2

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :

Flector : -1015.00m.T MOM.FISURA

Tipo de Solicitacion: SC

Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	92.8	33.8	24.7	0.0	0.0	1	92.8	33.8	24.7	0.0	0.0
2	92.8	28.8	24.6	0.0	0.0	2	92.8	28.8	24.6	0.0	0.0
3	92.8	24.6	19.5	0.0	0.0	3	92.8	24.6	19.5	0.0	0.0
4	92.8	19.5	-55.2	0.0	0.0	4	92.8	19.5	-55.2	0.0	0.0
5	92.8	-55.2	-64.6	0.0	0.0	5	92.8	-55.2	-64.6	0.0	0.0
6	92.8	197.3	191.8	0.0	197.3	6	92.8	197.3	191.8	0.0	197.3
7	92.8	137.2	131.8	0.0	137.2	7	92.8	137.2	131.8	0.0	137.2
8	92.8	123.0	114.3	0.0	123.0	8	92.8	123.0	114.3	0.0	123.0
9	92.8	108.8	103.4	0.0	108.8	9	92.8	108.8	103.4	0.0	108.8
10	92.8	47.7	44.2	0.0	47.7	10	92.8	47.7	44.2	0.0	47.7
11	92.8	-.3	-3.8	0.0	3.8	11	92.8	-.3	-3.8	0.0	3.8
12	92.8	-48.4	-51.9	0.0	51.9	12	92.8	-48.4	-51.9	0.0	51.9
13	92.8	-96.4	-99.9	0.0	99.9	13	92.8	-96.4	-99.9	0.0	99.9
14	92.8	-144.5	-148.0	0.0	148.0	14	92.8	-144.5	-148.0	0.0	148.0
15	92.8	-192.5	-196.0	0.0	196.0	15	92.8	-192.5	-196.0	0.0	196.0
16	92.8	-288.6	-291.2	0.0	291.2	16	92.8	-288.6	-291.2	0.0	291.2
17	92.8	-325.3	-327.9	0.0	327.9	17	92.8	-325.3	-327.9	0.0	327.9

$\Rightarrow f_{ct,m} = 0{,}68 \sqrt[3]{f_{ck}^2} = 23{,}5 \frac{kg}{cm^2}$ (f'c = 350)

Incrementos de Carga:

1

** CALCULO ELASTICO **

Título Sección: APOYO 2

Analisis CON FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : -1015.00m.T MOM.FISURA
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	175.7	0.0	0.0	0.0	0.0	1	175.7	0.0	0.0	0.0	0.0
2	175.7	0.0	0.0	0.0	0.0	2	175.7	0.0	0.0	0.0	0.0
3	175.7	0.0	0.0	0.0	0.0	3	175.7	0.0	0.0	0.0	0.0
4	175.7	0.0	-54.6	0.0	0.0	4	175.7	0.0	-54.6	0.0	0.0
5	175.7	-54.6	-80.0	0.0	0.0	5	175.7	-54.6	-80.0	0.0	0.0
6	175.7	1029.5	1014.6	0.0	1029.5	6	175.7	1029.5	1014.6	0.0	1029.5
7	175.7	866.0	851.2	0.0	866.0	7	175.7	866.0	851.2	0.0	866.0
8	175.7	827.4	803.6	0.0	827.4	8	175.7	827.4	803.6	0.0	827.4
9	175.7	788.8	773.9	0.0	788.8	9	175.7	788.8	773.9	0.0	788.8
10	175.7	622.4	612.8	0.0	622.4	10	175.7	622.4	612.8	0.0	622.4
11	175.7	491.6	482.1	0.0	491.6	11	175.7	491.6	482.1	0.0	491.6
12	175.7	360.8	351.3	0.0	360.8	12	175.7	360.8	351.3	0.0	360.8
13	175.7	230.1	220.6	0.0	230.1	13	175.7	230.1	220.6	0.0	230.1
14	175.7	99.3	89.8	0.0	99.3	14	175.7	99.3	89.8	0.0	99.3
15	175.7	-31.4	-40.9	0.0	40.9	15	175.7	-31.4	-40.9	0.0	40.9
16	175.7	-292.9	-300.1	0.0	300.1	16	175.7	-292.9	-300.1	0.0	300.1
17	175.7	-392.8	-399.9	0.0	399.9	17	175.7	-392.8	-399.9	0.0	399.9

$\sigma_{sr} = 1022 \ kg/cm^2$

Incrementos de Carga:
1

MC-2
ESTUDIO DE INGENIERIA
Víctor de la Serna, 21
28016 Madrid
Teléfs. 91 413 38 02 / 19
91 519 74 77
Fax 91 744 06 75

FECHA HOJA DE

CONTROL DE FISURACION EN EL EJE DE APOYO

Zona exclusivamente pasiva, pero recubierta exteriormente por chapa.

FISURACION LOSA

$f_{ct,m} = 0.68\sqrt[3]{350^2} = 33{,}8$ kp/cm²

$C = 2{,}5$ cm. ; $S = 12{,}5$ cm ; $k_1 = 0{,}4$; $k_2 = 0.125$

$\phi_{eq} = 2\phi 25 = 3{,}54$ cm ; $A_{cef} = 25 \times 12{,}5 = 312{,}5$ cm² ; $A_s = 2 \times 4{,}91 = 9{,}82$ cm²

σ_s (para sobrecarga frecuente + axiales) = 2022 kp/cm² ; $k_3 = 0.5$

$M_{fisuración} = -1015$ mt ; $\sigma_{sr} = 1022$ kp/cm²

$$S_m = 2 \times 2.5 + 0.2 \times 12.5 + 0.4 \times 0.125 \quad \frac{3.54 \times 312.5}{9.82} = 13{,}13 \text{ cm.}$$

$$\varepsilon_{sm} = \frac{2022}{2.1 \cdot 10^6}\left[1 - \frac{0.5}{2{,}5 \times 0.4}\left(\frac{1022}{2022}\right)^2\right] = 0.000840$$

$$W_{k\,bd2} = 1{,}7 \times 13.13 \times 0.00084 = 0.01875 \text{ cm} \equiv \underline{0{,}187 \text{ mm}}$$

FISURACION EN BORDE SUPERIOR DE VIGA

Profundidad de la fibra neutra en fase de fisuración rectangular 2 armadura y = 148 cm.

$$W_{k\,VIGA} = \frac{148-25}{148}\,0.187 = \underline{0.156 \text{ mm.}}$$ (ZONA PROTEGIDA POR CHAPA EXTERIOR)

Proyecto:
VIADUCTO DE LOS CHORROS

Seccion: APOYO INTERMEDIO X=1.8 (L=36 m) 10 CABLES — EN FONDO DE VIGA: 30 CORDONES EN CABEZA { 2 CABLES 12 CORDONES; 2×3 CORDONES AISLADOS

MATERIALES

Num.	Pck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	Jg1	Jg2	
1(HO)	600.0	1.40	408160	1.31	.81	} VALORES DEDUCIDOS TENIENDO EN CUENTA EL PROCESO DE EJECUCION (VER DESCRIPCION)
2(HO)	350.0	1.50	350000	1.77	1.08	
3(RD)	5100.0	1.15	2100000			
4(PR)	17100.0	1.10	1950000			
5(RD)	8500.0	1.15	2100000			

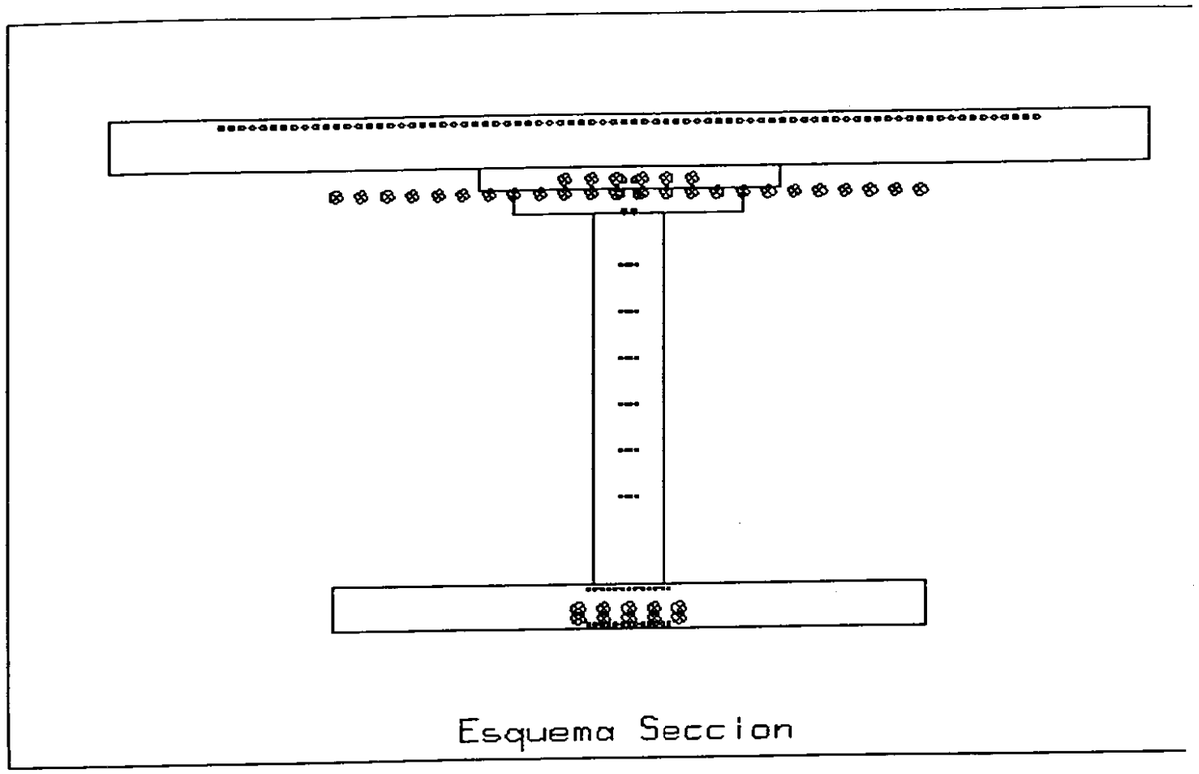
SECCIONES PARCIALES

ANALISIS
SIN FISURACION DE VIGA PREFABRICADA

Num	Mat.	B(cm) Num	H(cm) g(mm)	Yo(cm)	Mc	Nsr
1	2	490.0	25.0	0.0	C*	0
2	1	142.0	10.0	25.0	CT	0
3	1	108.0	12.0	35.0	CT	0
4	1	32.9	176.0	47.0	CT	0
5	1	280.0	22.0	223.0	CT	0
6	3	78.0	25.0	2.5	CT	0
7	5	2.0	40.0	36.0	CT	0
8	3	4.0	12.0	181.0	CT	0
9	3	4.0	12.0	71.0	CT	0
10	3	4.0	12.0	93.0	CT	0
11	3	4.0	12.0	115.0	CT	0
12	3	4.0	12.0	137.0	CT	0
13	3	4.0	12.0	159.0	CT	0
14	3	2.0	25.0	30.0	CT	0
15	3	2.0	25.0	45.0	CT	0
16	3	13.0	16.0	225.0	CT	0
17	3	13.0	16.0	241.8	CT	0
18	4	6.0	13.4	30.0	*T	0
19	4	5.0	13.4	234.6	*T	0
20	4	5.0	13.4	239.3	*T	0
21	4	24.0	13.4	36.5	*T	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	VN	2 3 4 5 7 8 9 10 11 12 13 14 15 16 17
2	VA	2 3 4 5 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
3	HA	2 3 4 5
4	HL	1
5	HT	1 2 3 4 5
6	AA	7 8 9 10 11 12 13 14 15 16 17
7	AL	6



?

```
 8    PS    18 21
 9    PI    19 20


  * CONSTANTES ESTATICAS *

S.COMPLETA

Tipo     Acciones Area(cm2) Xcg(cm) Inercia(cm4)
P:pura +   (0)     5451.3   91.64   48549564.9
           (1)     2530.3   89.90   22699410.3
           (2)     3114.7   91.31   27955951.8

P.pura -   (0)     3409.6  139.02   28000770.4
           (1)     1791.9  121.79   16414987.0
           (2)     2132.8  127.60   18997736.7

C.Simple   (0)     5451.3   91.64   48549564.9
           (1)     2530.3   89.90   22699410.3
           (2)     3114.7   91.31   27955951.8

T.Simple   (0)     3409.6  139.02   28000770.4
           (1)     1791.9  121.79   16414987.0
           (2)     2132.8  127.60   18997736.7


*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***


** CALCULO ELASTICO **

Titulo Seccion:  APOYO INTERMEDIO X=1.8 (L=36 m) 10 CABLES

Analisis CON FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga  1 :
Plector :                117.00m.T   PP.VIGA
Tipo de Solicitacion:      CP
Seccion Afectada:         VA

Incremento de Carga  2 :
Pretensado:              625.00Tn.                20.83 t/CORDON   VALIDO YA QUE TRAS EL DESTESADO DE TRANS
P.relajacion:              2.50(%)                                 FERENCIA SE QUEDAN CON 19.9t/CORDON
Alfa:                      0.00(gsex.)
Actua sobre la Sintermedia PS
Seccion Afectada:         VA

Incremento de Carga  3 :
Pretensado:              200.00Tn.                20 t/CORDON
P.relajacion:              2.50(%)
Alfa:                      0.00(gsex.)
Actua sobre la Sintermedia PI
Seccion Afectada:         VA


TENSIONES (Kg/cm2):

ESTADO INICIAL (To)                    ESTADO FINAL (Tinf)
```

Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	$$$$$$	0.0	0.0	0.0	0.0	1	578.0	-15.4	-14.7	0.0	0.0
2	233.8	-142.4	-135.6	0.0	0.0	2	281.7	-64.1	-61.6	0.0	0.0
3	233.8	-135.6	-127.4	0.0	0.0	3	281.7	-61.6	-58.6	0.0	0.0
4	233.8	-127.4	-7.4	0.0	0.0	4	281.7	-58.6	-14.7	0.0	0.0
5	233.8	-7.4	7.6	0.0	0.0	5	281.7	-14.7	-9.2	0.0	0.0
6	$$$$$$	0.0	0.0	0.0	0.0	6	578.0	-191.0	-190.2	0.0	191.0
7	233.8	-694.2	-680.2	0.0	694.2	7	263.5	-874.1	-858.7	0.0	874.1
8	233.8	-185.3	-181.1	0.0	185.3	8	263.5	-317.1	-312.4	0.0	317.1
9	233.8	-571.4	-567.1	0.0	571.4	9	263.5	-739.6	-735.0	0.0	739.6
10	233.8	-494.1	-489.9	0.0	494.1	10	263.5	-655.1	-650.5	0.0	655.1
11	233.8	-416.9	-412.7	0.0	416.9	11	263.5	-570.6	-566.0	0.0	570.6
12	233.8	-339.7	-335.5	0.0	339.7	12	263.5	-486.1	-481.5	0.0	486.1
13	233.8	-262.5	-258.3	0.0	262.5	13	263.5	-401.6	-397.0	0.0	401.6
14	233.8	-715.2	-706.5	0.0	715.2	14	263.5	-897.1	-887.5	0.0	897.1
15	233.8	-662.6	-653.8	0.0	662.6	15	263.5	-839.5	-829.9	0.0	839.5
16	233.8	-30.9	-25.3	0.0	30.9	16	263.5	-148.0	-141.9	0.0	148.0
17	233.8	28.1	33.7	0.0	33.7	17	263.5	-83.5	-77.3	0.0	83.5
18	$$$$$$14219.4	14223.7		0.014223.7		18	$$$$$$13678.4	13683.2		0.013683.2	
19	$$$$$$14290.8	14295.2		0.014295.2		19	$$$$$$13827.8	13832.5		0.013832.5	
20	$$$$$$14306.1	14310.5		0.014310.5		20	$$$$$$13844.6	13849.3		0.013849.3	
21	$$$$$$14240.6	14244.9		0.014244.9		21	$$$$$$13701.6	13706.4		0.013706.4	

Incrementos de Carga:
1 2 3

Incremento de Carga 4 :
Flector : 145.00m.T PP.LOSA
Tipo de Solicitacion: CP
Seccion Afectada: VA

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	$$$$$$	0.0	0.0	0.0	0.0	1	329.3	-17.8	-16.4	0.0	0.0
2	220.6	-160.8	-152.6	0.0	0.0	2	244.1	-72.1	-68.8	0.0	0.0
3	220.6	-152.6	-142.7	0.0	0.0	3	244.1	-68.8	-64.8	0.0	0.0
4	220.6	-142.7	2.0	0.0	0.0	4	244.1	-64.8	-6.9	0.0	0.0
5	220.6	2.0	20.1	0.0	0.0	5	244.1	-6.9	.3	0.0	0.0
6	$$$$$$	0.0	0.0	0.0	0.0	6	329.3	-220.0	-218.3	0.0	220.0
7	220.6	-780.8	-763.9	0.0	780.8	7	235.5	-978.3	-958.7	0.0	978.3
8	220.6	-167.4	-162.3	0.0	167.4	8	235.5	-267.2	-261.3	0.0	267.2
9	220.6	-632.7	-627.7	0.0	632.7	9	235.5	-806.7	-800.8	0.0	806.7
10	220.6	-539.7	-534.6	0.0	539.7	10	235.5	-698.8	-692.9	0.0	698.8
11	220.6	-446.6	-441.5	0.0	446.6	11	235.5	-590.9	-585.0	0.0	590.9
12	220.6	-353.5	-348.4	0.0	353.5	12	235.5	-483.0	-477.1	0.0	483.0
13	220.6	-260.4	-255.4	0.0	260.4	13	235.5	-375.1	-369.2	0.0	375.1
14	220.6	-806.2	-795.6	0.0	806.2	14	235.5	-1007.7	-995.5	0.0	1007.7
15	220.6	-742.7	-732.2	0.0	742.7	15	235.5	-934.2	-921.9	0.0	934.2
16	220.6	18.8	25.5	0.0	25.5	16	235.5	-51.5	-43.6	0.0	51.5
17	220.6	89.9	96.6	0.0	96.6	17	235.5	30.9	38.8	0.0	38.8
18	$$$$$$14134.9	14140.2		0.014140.2		18	$$$$$$13575.7	13581.8		0.013581.8	
19	$$$$$$14343.4	14348.6		0.014348.6		19	$$$$$$13926.9	13933.0		0.013933.0	
20	$$$$$$14361.8	14367.1		0.014367.1		20	$$$$$$13948.3	13954.4		0.013954.4	
21	$$$$$$14160.5	14165.7		0.014165.7		21	$$$$$$13605.3	13611.4		0.013611.4	

Incrementos de Carga:
1 2 3 4

* $< f_{ct,k} = 32\ kp/cm^2$

Incremento de Carga 5 :
Retraccion(Eso/γi;Tinf.): .55(*1.E-05)
Actua sobre la Sintermedia HA
Seccion Afectada: VA

Incremento de Carga 6 :
Retraccion(Eso/γi;Tinf.): 7.34(*1.E-05)
Actua sobre la Sintermedia HA
Seccion Afectada: TOTAL

Incremento de Carga 7 :
Retraccion(Eso/γi;Tinf.): 15.00(*1.E-05)
Actua sobre la Sintermedia HL
Seccion Afectada: TOTAL

Incremento de Carga 8 :
Flector : -417.00m.T C.MUERTA
Tipo de Solicitacion: CP
Seccion Afectada: TOTAL

Incremento de Carga 9 :
Flector : -185.00m.T RETR-F HIP
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	139.0	0.0	0.0	0.0	0.0	1	232.9	0.0	0.0	0.0	0.0
2	264.9	-127.8	-122.5	0.0	0.0	2	511.6	-59.4	-58.1	0.0	0.0
3	264.9	-122.5	-116.1	0.0	0.0	3	511.6	-58.1	-56.7	0.0	0.0
4	264.9	-116.1	-22.3	0.0	0.0	4	511.6	-56.7	-35.2	0.0	0.0
5	264.9	-22.3	-10.6	0.0	0.0	5	511.6	-35.2	-32.5	0.0	0.0
6	139.0	203.3	199.6	0.0	203.3	6	-42.1	-93.5	-98.8	0.0	98.8
7	264.9	-627.4	-616.4	0.0	627.4	7	484.3	-955.1	-946.6	0.0	955.1
8	264.9	-229.9	-226.6	0.0	229.9	8	484.3	-646.1	-643.6	0.0	646.1
9	264.9	-531.4	-528.2	0.0	531.4	9	484.3	-880.5	-878.0	0.0	880.5
10	264.9	-471.1	-467.8	0.0	471.1	10	484.3	-833.6	-831.1	0.0	833.6
11	264.9	-410.8	-407.5	0.0	410.8	11	484.3	-786.8	-784.2	0.0	786.8
12	264.9	-350.5	-347.2	0.0	350.5	12	484.3	-739.9	-737.3	0.0	739.9
13	264.9	-290.2	-286.9	0.0	290.2	13	484.3	-693.0	-690.5	0.0	693.0
14	264.9	-643.8	-637.0	0.0	643.8	14	484.3	-967.9	-962.5	0.0	967.9
15	264.9	-602.7	-595.9	0.0	602.7	15	484.3	-935.9	-930.6	0.0	935.9
16	264.9	-109.3	-104.9	0.0	109.3	16	484.3	-552.4	-549.0	0.0	552.4
17	264.9	-63.2	-58.8	0.0	63.2	17	484.3	-516.6	-513.2	0.0	516.6
18	$$$$$$14285.7	14289.1		0.014289.1		18	$$$$$$13612.7	13615.4		0.013615.4	
19	$$$$$$14211.2	14214.6		0.014214.6		19	$$$$$$13437.0	13439.7		0.013439.7	
20	$$$$$$14223.1	14226.5		0.014226.5		20	$$$$$$13446.3	13449.0		0.013449.0	
21	$$$$$$14302.2	14305.6		0.014305.6		21	$$$$$$13625.6	13628.2		0.013628.2	

Incrementos de Carga:
1 2 3 4 5 6 7 8 9

Incremento de Carga 10 :
Flector : -73.00m.T ASIENTOS
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL

Incremento de Carga 11 :
Flector : -780.00m.T SC.FRECUENTE VANO L=36 m.
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	139.0	0.0	0.0	0.0	0.0	1	152.2	0.0	0.0	0.0	0.0
2	$$$$$$	-66.1	-66.2	0.0	0.0	2	39.3	6.6	2.0	0.0	0.0
3	$$$$$$	-66.2	-66.3	0.0	0.0	3	39.3	2.0	-3.5	0.0	0.0
4	$$$$$$	-66.3	-67.8	0.0	0.0	4	39.3	-3.5	-84.6	0.0	0.0
5	$$$$$$	-67.8	-68.0	0.0	0.0	5	39.3	-84.6	-94.7	0.0	0.0
6	139.0	583.6	572.9	0.0	583.6	6	66.1	334.8	321.7	0.0	334.8
7	$$$$$$	-340.4	-340.6	0.0	340.6	7	-573.0	-632.9	-637.1	0.0	637.1
8	$$$$$$	-346.8	-346.9	0.0	346.9	8	-573.0	-783.6	-784.8	0.0	784.8
9	$$$$$$	-342.0	-342.0	0.0	342.0	9	-573.0	-669.3	-670.5	0.0	670.5
10	$$$$$$	-342.9	-343.0	0.0	343.0	10	-573.0	-692.1	-693.4	0.0	693.4
11	$$$$$$	-343.9	-344.0	0.0	344.0	11	-573.0	-715.0	-716.3	0.0	716.3
12	$$$$$$	-344.9	-344.9	0.0	344.9	12	-573.0	-737.9	-739.1	0.0	739.1
13	$$$$$$	-345.8	-345.9	0.0	345.9	13	-573.0	-760.7	-762.0	0.0	762.0
14	$$$$$$	-340.1	-340.3	0.0	340.3	14	-573.0	-626.7	-629.3	0.0	629.3
15	$$$$$$	-340.8	-340.9	0.0	340.9	15	-573.0	-642.3	-644.9	0.0	644.9
16	$$$$$$	-348.8	-348.8	0.0	348.8	16	-573.0	-829.3	-831.0	0.0	831.0
17	$$$$$$	-349.5	-349.6	0.0	349.6	17	-573.0	-846.8	-848.5	0.0	848.5
18	$$$$$$14567.714567.6			0.014567.7		18	$$$$$$13929.513928.3			0.013929.5	
19	$$$$$$13964.013963.9			0.013964.0		19	$$$$$$13151.613150.4			0.013151.6	
20	$$$$$$13963.813963.7			0.013963.8		20	$$$$$$13147.113145.8			0.013147.1	
21	$$$$$$14567.414567.4			0.014567.4		21	$$$$$$13923.313922.0			0.013923.3	

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 10 11

Incremento de Carga 12 :
Flector : -73.00m.T ASIENTOS
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL

Incremento de Carga 13 :
Flector : -1140.00m.T SC.POCO PROBABLE VANO L=36 M.
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	139.0	0.0	0.0	0.0	0.0	1	148.6	0.0	0.0	0.0	0.0
2	-120.4	-37.6	-40.2	0.0	0.0	2	74.4	35.1	28.0	0.0	0.0
3	-120.4	-40.2	-43.3	0.0	0.0	3	74.4	28.0	19.5	0.0	0.0
4	-120.4	-43.3	-88.8	0.0	0.0	4	74.4	19.5	-105.6	0.0	0.0
5	-120.4	-88.8	-94.4	0.0	0.0	5	74.4	-105.6	-121.2	0.0	0.0
6	139.0	759.1	745.2	0.0	759.1	6	80.4	510.4	494.0	0.0	510.4
7	-120.4	-208.0	-213.3	0.0	213.3	7	-179.3	-500.5	-509.8	0.0	509.8
8	-120.4	-400.8	-402.4	0.0	402.4	8	-179.3	-837.6	-840.4	0.0	840.4
9	-120.4	-254.5	-256.1	0.0	256.1	9	-179.3	-581.8	-584.6	0.0	584.6
10	-120.4	-283.8	-285.4	0.0	285.4	10	-179.3	-633.0	-635.8	0.0	635.8
11	-120.4	-313.0	-314.6	0.0	314.6	11	-179.3	-684.1	-686.9	0.0	686.9
12	-120.4	-342.3	-343.9	0.0	343.9	12	-179.3	-735.3	-738.1	0.0	738.1
13	-120.4	-371.5	-373.1	0.0	373.1	13	-179.3	-786.4	-789.2	0.0	789.2
14	-120.4	-200.0	-203.3	0.0	203.3	14	-179.3	-486.5	-492.3	0.0	492.3
15	-120.4	-219.9	-223.2	0.0	223.2	15	-179.3	-521.4	-527.2	0.0	527.2
16	-120.4	-459.3	-461.4	0.0	461.4	16	-179.3	-939.9	-943.6	0.0	943.6
17	-120.4	-481.6	-483.8	0.0	483.8	17	-179.3	-978.9	-982.6	0.0	982.6
18	$$$$$$14697.914696.2			0.014697.9		18	$$$$$$14059.714056.8			0.014059.7	
19	$$$$$$13849.913848.2			0.013849.9		19	$$$$$$13037.513034.7			0.013037.5	
20	$$$$$$13844.013842.4			0.013844.0		20	$$$$$$13027.413024.5			0.013027.4	
21	$$$$$$14689.814688.2			0.014689.8		21	$$$$$$14045.714042.8			0.014045.7	

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 12 13

Incremento de Carga 14 :
Flector : -420.00m.T ASIENTOS
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL

Incremento de Carga 15 :
Flector : -620.00m.T SC.FRECUENTE VANO L=22 m.
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	139.0	0.0	0.0	0.0	0.0	1	148.4	0.0	0.0	0.0	0.0
2	793.3	-78.7	-77.7	0.0	0.0	2	50.8	14.1	8.6	0.0	0.0
3	793.3	-77.7	-76.5	0.0	0.0	3	50.8	8.6	2.0	0.0	0.0
4	793.3	-76.5	-58.4	0.0	0.0	4	50.8	2.0	-94.0	0.0	0.0
5	793.3	-58.4	-56.2	0.0	0.0	5	50.8	-94.0	-106.0	0.0	0.0
6	139.0	505.6	496.4	0.0	505.6	6	76.9	485.3	469.0	0.0	485.3
7	793.3	-399.3	-397.2	0.0	399.3	7	-192.6	-524.5	-533.6	0.0	533.6
8	793.3	-322.8	-322.2	0.0	322.8	8	-192.6	-857.2	-859.9	0.0	859.9
9	793.3	-380.8	-380.2	0.0	380.8	9	-192.6	-604.8	-607.5	0.0	607.5
10	793.3	-369.2	-368.6	0.0	369.2	10	-192.6	-655.2	-658.0	0.0	658.0
11	793.3	-357.6	-357.0	0.0	357.6	11	-192.6	-705.7	-708.5	0.0	708.5
12	793.3	-346.0	-345.4	0.0	346.0	12	-192.6	-756.2	-759.0	0.0	759.0
13	793.3	-334.4	-333.8	0.0	334.4	13	-192.6	-806.7	-809.4	0.0	809.4
14	793.3	-402.4	-401.1	0.0	402.4	14	-192.6	-510.7	-516.4	0.0	516.4
15	793.3	-394.5	-393.2	0.0	394.5	15	-192.6	-545.1	-550.9	0.0	550.9
16	793.3	-299.6	-298.8	0.0	299.6	16	-192.6	-958.1	-961.8	0.0	961.8
17	793.3	-290.8	-289.9	0.0	290.8	17	-192.6	-996.7	-1000.3	0.0	1000.3
18	$$$$$$14509.814510.5			0.014510.5		18	$$$$$$14037.214034.4			0.014037.2	
19	$$$$$$14014.714015.3			0.014015.3		19	$$$$$$13020.913018.0			0.013020.9	
20	$$$$$$14017.014017.6			0.014017.6		20	$$$$$$13010.913008.0			0.013010.9	
21	$$$$$$14513.014513.7			0.014513.7		21	$$$$$$14023.414020.5			0.014023.4	

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 14 15

Incremento de Carga 16 :
Flector : -420.00m.T ASIENTOS
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL

Incremento de Carga 17 :
Flector : -1108.00m.T SC.POCO FRECUENTE VANO L=22 m.
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	139.0	0.0	0.0	0.0	0.0	1	145.5	0.0	0.0	0.0	0.0
2	-144.8	-40.1	-42.5	0.0	0.0	2	84.6	52.7	43.8	0.0	0.0
3	-144.8	-42.5	-45.3	0.0	0.0	3	84.6	43.8	33.2	0.0	0.0
4	-144.8	-45.3	-86.9	0.0	0.0	4	84.6	33.2	-122.4	0.0	0.0
5	-144.8	-86.9	-92.1	0.0	0.0	5	84.6	-122.4	-141.9	0.0	0.0
6	139.0	743.5	729.9	0.0	743.5	6	90.0	723.3	702.6	0.0	723.3
7	-144.8	-219.7	-224.6	0.0	224.6	7	-49.4	-344.9	-361.1	0.0	361.1
8	-144.8	-396.0	-397.4	0.0	397.4	8	-49.4	-930.3	-935.2	0.0	935.2
9	-144.8	-262.3	-263.7	0.0	263.7	9	-49.4	-486.2	-491.1	0.0	491.1
10	-144.8	-289.0	-290.5	0.0	290.5	10	-49.4	-575.0	-579.9	0.0	579.9
11	-144.8	-315.8	-317.2	0.0	317.2	11	-49.4	-663.9	-668.7	0.0	668.7
12	-144.8	-342.5	-344.0	0.0	344.0	12	-49.4	-752.7	-757.5	0.0	757.5
13	-144.8	-369.2	-370.7	0.0	370.7	13	-49.4	-841.5	-846.3	0.0	846.3
14	-144.8	-212.4	-215.5	0.0	215.5	14	-49.4	-320.7	-330.8	0.0	330.8
15	-144.8	-230.7	-233.7	0.0	233.7	15	-49.4	-381.3	-391.3	0.0	391.3
16	-144.8	-449.5	-451.4	0.0	451.4	16	-49.4	-1108.0	-1114.4	0.0	1114.4
17	-144.8	-469.9	-471.8	0.0	471.8	17	-49.4	-1175.8	-1182.2	0.0	1182.2
18	$$$$$$14686.314684.8			0.014686.3		18	$$$$$$14213.714208.7			0.014213.7	
19	$$$$$$13860.013858.5			0.013860.0		19	$$$$$$12866.212861.2			0.012866.2	
20	$$$$$$13854.713853.2			0.013854.7		20	$$$$$$12848.612843.6			0.012848.6	
21	$$$$$$14678.914677.4			0.014678.9		21	$$$$$$14189.314184.3			0.014189.3	

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 16 17

Proyecto:
VIADUCTO DE LOS CHORROS

Seccion:APOYO INTERMEDIO X=1.8 (L=36 m) 10 CABLES EN FONDO DE VIGA
30 CORDONES EN CABEZA { 2 CABLES 12 CORDONES / 2 a 3 CORDONES ANCLADOS

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	J_{g1}	J_{g2}
1(HO)	600.0	1.40	408160	1.31	.81
2(HO)	350.0	1.50	350000	1.77	1.08
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.10	1950000		
5(RD)	8500.0	1.15	2100000		

VALORES DEDUCIDOS TENIENDO EN CUENTA EL PROCESO DE EJECUCION

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) g(mm)	Yo(cm)	Mc	Nsr
1	2	490.0	25.0	0.0	C*	0
2	1	142.0	10.0	25.0	C*	0
3	1	108.0	12.0	35.0	C*	0
4	1	32.9	176.0	47.0	C*	0
5	1	280.0	22.0	223.0	C*	0
6	3	78.0	25.0	2.5	CT	0
7	5	2.0	40.0	36.0	CT	0
8	3	4.0	12.0	181.0	CT	0
9	3	4.0	12.0	71.0	CT	0
10	3	4.0	12.0	93.0	CT	0
11	3	4.0	12.0	115.0	CT	0
12	3	4.0	12.0	137.0	CT	0
13	3	4.0	12.0	159.0	CT	0
14	3	2.0	25.0	30.0	CT	0
15	3	2.0	25.0	45.0	CT	0
16	3	13.0	16.0	225.0	CT	0
17	3	13.0	16.0	241.8	CT	0
18	4	6.0	13.4	30.0	*T	0
19	4	5.0	13.4	234.6	*T	0
20	4	5.0	13.4	239.3	*T	0
21	4	24.0	13.4	36.5	*T	0

ANALISIS CON FISURACION DE VIGA PREFABRICADA

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	VN	2 3 4 5 7 8 9 10 11 12 13 14 15 16 17
2	VA	2 3 4 5 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
3	HA	2 3 4 5
4	HL	1
5	HT	1 2 3 4 5
6	AA	7 8 9 10 11 12 13 14 15 16 17
7	AL	6

8 PS 18 21
9 PI 19 20

* CONSTANTES ESTATICAS *

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2030.0	18.01	3701720.4
	(1)	1298.4	25.09	3538596.0
	(2)	1464.3	23.05	3583674.6
F.pura -	(0)	2052.4	176.70	17606919.8
	(1)	1299.5	142.49	13745020.7
	(2)	1467.2	152.98	14919935.9
C.Simple	(0)	5451.3	91.64	48549564.9
	(1)	2530.3	89.90	22699410.3
	(2)	3114.7	91.31	27955951.8
T.Simple	(0)	559.1	41.71	3228686.2
	(1)	559.1	41.71	3228686.2
	(2)	559.1	41.71	3228686.2

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

** CALCULO ELASTICO **

Titulo Seccion: APOYO INTERMEDIO X=1.8 (L=36 m) 10 CABLES
Analisis CON FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : 117.00m.T PP.VIGA
Tipo de Solicitacion: CP
Seccion Afectada: VA

Incremento de Carga 2 :
Pretensado: 625.00Tn.
P.relajacion: 2.50(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PS
Seccion Afectada: VA

Incremento de Carga 3 :
Pretensado: 200.00Tn.
P.relajacion: 2.50(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PI
Seccion Afectada: VA

TENSIONES (Kg/cm2):

ESTADO INICIAL (To) ESTADO FINAL (Tinf)

Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	$$$$$$	0.0	0.0	0.0	0.0	1	312.6	-17.0	-15.7	0.0	0.0
2	229.6	-143.4	-136.4	0.0	0.0	2	254.5	-64.4	-61.6	0.0	0.0
3	229.6	-136.4	-128.0	0.0	0.0	3	254.5	-61.6	-58.2	0.0	0.0
4	229.6	-128.0	-4.6	0.0	0.0	4	254.5	-58.2	-8.8	0.0	0.0
5	229.6	-4.6	0.0	0.0	0.0	5	254.5	-8.8	-2.7	0.0	0.0
6	$$$$$$	0.0	0.0	0.0	0.0	6	312.6	-210.8	-209.1	0.0	210.8
7	229.6	-698.2	-683.7	0.0	698.2	7	242.7	-886.2	-869.0	0.0	886.2
8	229.6	-175.1	-170.8	0.0	175.1	8	242.7	-264.6	-259.5	0.0	264.6
9	229.6	-571.9	-567.6	0.0	571.9	9	242.7	-736.2	-731.0	0.0	736.2
10	229.6	-492.6	-488.2	0.0	492.6	10	242.7	-641.8	-636.7	0.0	641.8
11	229.6	-413.2	-408.9	0.0	413.2	11	242.7	-547.5	-542.4	0.0	547.5
12	229.6	-333.9	-329.5	0.0	333.9	12	242.7	-453.2	-448.1	0.0	453.2
13	229.6	-254.5	-250.2	0.0	254.5	13	242.7	-358.9	-353.8	0.0	358.9
14	229.6	-719.8	-710.8	0.0	719.8	14	242.7	-911.9	-901.2	0.0	911.9
15	229.6	-665.7	-656.7	0.0	665.7	15	242.7	-847.6	-836.9	0.0	847.6
16	229.6	-16.4	-10.7	0.0	16.4	16	242.7	-76.0	-69.1	0.0	76.0
17	229.6	44.2	49.9	0.0	49.9	17	242.7	-4.0	2.9	0.0	4.0
18	$$$$$$	14215.2	14219.6	0.0	14219.6	18	$$$$$$	13664.7	13670.0	0.0	13670.0
19	$$$$$$	14305.1	14309.6	0.0	14309.6	19	$$$$$$	13898.6	13903.9	0.0	13903.9
20	$$$$$$	14320.8	14325.3	0.0	14325.3	20	$$$$$$	13917.3	13922.7	0.0	13922.7
21	$$$$$$	14236.9	14241.4	0.0	14241.4	21	$$$$$$	13690.6	13695.9	0.0	13695.9

Incrementos de Carga:
1 2 3

Incremento de Carga 4 :
Flector : 145.00m.T PP.LOSA
Tipo de Solicitacion: CP
Seccion Afectada: VA

TENSIONES (Kg/cm2):

ESTADO INICIAL (To) ESTADO FINAL (Tinf)

Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	$$$$$$	0.0	0.0	0.0	0.0	1	375.0	-18.5	-17.3	0.0	0.0
2	179.8	-174.2	-162.9	0.0	0.0	2	198.1	-78.1	-73.6	0.0	0.0
3	179.8	-162.9	-149.4	0.0	0.0	3	198.1	-73.6	-68.1	0.0	0.0
4	179.8	-149.4	0.0	0.0	0.0	4	198.1	-68.1	0.0	0.0	0.0
5	179.8	0.0	0.0	0.0	0.0	5	198.1	0.0	0.0	0.0	0.0
6	$$$$$$	0.0	0.0	0.0	0.0	6	375.0	-229.5	-228.0	0.0	229.5
7	179.8	-832.5	-809.4	0.0	832.5	7	198.6	-1041.4	-1015.8	0.0	1041.4
8	179.8	6.8	13.8	0.0	13.8	8	198.6	-112.7	-105.0	0.0	112.7
9	179.8	-629.9	-623.0	0.0	629.9	9	198.6	-817.2	-809.5	0.0	817.2
10	179.8	-502.6	-495.6	0.0	502.6	10	198.6	-676.3	-668.6	0.0	676.3
11	179.8	-375.2	-368.3	0.0	375.2	11	198.6	-535.4	-527.7	0.0	535.4
12	179.8	-247.9	-240.9	0.0	247.9	12	198.6	-394.5	-386.8	0.0	394.5
13	179.8	-120.5	-113.6	0.0	120.5	13	198.6	-253.6	-245.9	0.0	253.6
14	179.8	-867.3	-852.8	0.0	867.3	14	198.6	-1079.8	-1063.8	0.0	1079.8
15	179.8	-780.4	-766.0	0.0	780.4	15	198.6	-983.7	-967.7	0.0	983.7
16	179.8	261.5	270.8	0.0	270.8	16	198.6	169.1	179.3	0.0	179.3
17	179.8	358.8	368.0	0.0	368.0	17	198.6	276.7	286.9	0.0	286.9
18	$$$$$$	14078.2	14085.4	0.0	14085.4	18	$$$$$$	13508.8	13516.7	0.0	13516.7
19	$$$$$$	14582.7	14589.8	0.0	14589.8	19	$$$$$$	14145.1	14153.1	0.0	14153.1
20	$$$$$$	14607.9	14615.1	0.0	14615.1	20	$$$$$$	14173.1	14181.0	0.0	14181.0
21	$$$$$$	14113.2	14120.3	0.0	14120.3	21	$$$$$$	13547.4	13555.4	0.0	13555.4

Incrementos de Carga:
1 2 3 4

Incremento de Carga 5 :
Retraccion(Eso/φi;Tinf.): .55(*1.E-05)
Actua sobre la Sintermedia HA
Seccion Afectada: VA

Incremento de Carga 6 :
Retraccion(Eso/φi;Tinf.): 7.34(*1.E-05)
Actua sobre la Sintermedia HA
Seccion Afectada: TOTAL

Incremento de Carga 7 :
Retraccion(Eso/φi;Tinf.): 15.00(*1.E-05)
Actua sobre la Sintermedia HL
Seccion Afectada: TOTAL

Incremento de Carga 8 :
Flector : -417.00m.T C.MUERTA
Tipo de Solicitacion: CP
Seccion Afectada: TOTAL

Incremento de Carga 9 :
Flector : -185.00m.T RETR-F HIP
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	97.0	0.0	0.0	0.0	0.0	1	146.5	0.0	0.0	0.0	0.0
2	260.7	-134.2	-128.5	0.0	0.0	2	397.0	-65.2	-63.5	0.0	0.0
3	260.7	-128.5	-121.7	0.0	0.0	3	397.0	-63.5	-61.4	0.0	0.0
4	260.7	-121.7	-21.4	0.0	0.0	4	397.0	-61.4	-30.5	0.0	0.0
5	260.7	-21.4	-8.9	0.0	0.0	5	397.0	-30.5	-26.7	0.0	0.0
6	97.0	270.0	262.9	0.0	270.0	6	-25.4	-82.9	-90.3	0.0	90.3
7	260.7	-658.3	-646.6	0.0	658.3	7	400.8	-1025.6	-1014.3	0.0	1025.6
8	260.7	-233.4	-229.9	0.0	233.4	8	400.8	-617.9	-614.6	0.0	617.9
9	260.7	-555.7	-552.2	0.0	555.7	9	400.8	-927.2	-923.8	0.0	927.2
10	260.7	-491.3	-487.7	0.0	491.3	10	400.8	-865.3	-862.0	0.0	865.3
11	260.7	-426.8	-423.3	0.0	426.8	11	400.8	-803.5	-800.1	0.0	803.5
12	260.7	-362.3	-358.8	0.0	362.3	12	400.8	-741.6	-738.3	0.0	741.6
13	260.7	-297.9	-294.4	0.0	297.9	13	400.8	-679.8	-676.4	0.0	679.8
14	260.7	-675.9	-668.5	0.0	675.9	14	400.8	-1042.4	-1035.4	0.0	1042.4
15	260.7	-631.9	-624.6	0.0	631.9	15	400.8	-1000.3	-993.2	0.0	1000.3
16	260.7	-104.5	-99.8	0.0	104.5	16	400.8	-494.2	-489.7	0.0	494.2
17	260.7	-55.3	-50.6	0.0	55.3	17	400.8	-447.0	-442.5	0.0	447.0
18	$$$$$$	14256.0	14259.6	0.0	14259.6	18	$$$$$$	13543.5	13547.0	0.0	13547.0
19	$$$$$$	14217.3	14220.9	0.0	14220.9	19	$$$$$$	13497.1	13500.6	0.0	13500.6
20	$$$$$$	14230.1	14233.7	0.0	14233.7	20	$$$$$$	13509.4	13512.9	0.0	13512.9
21	$$$$$$	14273.6	14277.3	0.0	14277.3	21	$$$$$$	13560.4	13563.9	0.0	13563.9

Incrementos de Carga:
1 2 3 4 5 6 7 8 9

Incremento de Carga 10 :
Flector : -73.00m.T ASIENTOS
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL

Incremento de Carga 11 :
Flector : -780.00m.T SC.PREC
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	117.7	0.0	0.0	0.0	0.0	1	140.1	0.0	0.0	0.0	0.0
2	$$$$$$	-72.5	-72.2	0.0	0.0	2	26.8	0.0	-3.3	0.0	0.0
3	$$$$$$	-72.2	-71.9	0.0	0.0	3	26.8	-3.3	-8.2	0.0	0.0
4	$$$$$$	-71.9	-66.9	0.0	0.0	4	26.8	-8.2	-79.9	0.0	0.0
5	$$$$$$	-66.9	-66.3	0.0	0.0	5	26.8	-79.9	-88.9	0.0	0.0
6	117.7	650.3	636.2	0.0	650.3	6	58.7	345.5	330.2	0.0	345.5
7	$$$$$$	-371.3	-370.7	0.0	371.3	7	$$$$$$	-703.3	-704.8	0.0	704.8
8	$$$$$$	-350.4	-350.2	0.0	350.4	8	$$$$$$	-755.4	-755.8	0.0	755.8
9	$$$$$$	-366.2	-366.1	0.0	366.2	9	$$$$$$	-715.9	-716.3	0.0	716.3
10	$$$$$$	-363.1	-362.9	0.0	363.1	10	$$$$$$	-723.8	-724.2	0.0	724.2
11	$$$$$$	-359.9	-359.7	0.0	359.9	11	$$$$$$	-731.7	-732.1	0.0	732.1
12	$$$$$$	-356.7	-356.5	0.0	356.7	12	$$$$$$	-739.6	-740.0	0.0	740.0
13	$$$$$$	-353.5	-353.4	0.0	353.5	13	$$$$$$	-747.5	-747.9	0.0	747.9
14	$$$$$$	-372.2	-371.8	0.0	372.2	14	$$$$$$	-701.2	-702.1	0.0	702.1
15	$$$$$$	-370.0	-369.6	0.0	370.0	15	$$$$$$	-706.5	-707.4	0.0	707.4
16	$$$$$$	-344.0	-343.8	0.0	344.0	16	$$$$$$	-771.2	-771.7	0.0	771.7
17	$$$$$$	-341.6	-341.3	0.0	341.6	17	$$$$$$	-777.2	-777.8	0.0	777.8
18	$$$$$$	14538.0	14538.1	0.0	14538.1	18	$$$$$$	13860.4	13859.9	0.0	13860.4
19	$$$$$$	13970.1	13970.2	0.0	13970.2	19	$$$$$$	13211.7	13211.3	0.0	13211.7
20	$$$$$$	13970.7	13970.9	0.0	13970.9	20	$$$$$$	13210.1	13209.7	0.0	13210.1
21	$$$$$$	14538.8	14539.0	0.0	14539.0	21	$$$$$$	13858.2	13857.8	0.0	13858.2

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 10 11

Incremento de Carga 12 :
Flector : -73.00m.T ASIENTOS
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL

Incremento de Carga 13 :
Flector : -1140.00m.T SC.POCO PR
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	121.7	0.0	0.0	0.0	0.0	1	146.4	0.0	0.0	0.0	0.0
2	-173.3	-44.0	-46.2	0.0	0.0	2	87.1	0.0	0.0	0.0	0.0
3	-173.3	-46.2	-48.9	0.0	0.0	3	87.1	0.0	0.0	0.0	0.0
4	-173.3	-48.9	-87.9	0.0	0.0	4	87.1	0.0	-101.1	0.0	0.0
5	-173.3	-87.9	-92.8	0.0	0.0	5	87.1	-101.1	-117.5	0.0	0.0
6	121.7	825.9	808.5	0.0	825.9	6	81.0	618.5	598.8	0.0	618.5
7	-173.3	-238.8	-243.4	0.0	243.4	7	-197.5	-488.4	-496.7	0.0	496.7
8	-173.3	-404.3	-405.7	0.0	405.7	8	-197.5	-791.6	-794.1	0.0	794.1
9	-173.3	-278.8	-280.1	0.0	280.1	9	-197.5	-561.6	-564.1	0.0	564.1

0	-173.3	-303.9	-305.3	0.0	305.3	10	-197.5	-607.6	-610.1	0.0	610.1
1	-173.3	-329.0	-330.4	0.0	330.4	11	-197.5	-653.6	-656.1	0.0	656.1
2	-173.3	-354.1	-355.5	0.0	355.5	12	-197.5	-699.6	-702.1	0.0	702.1
3	-173.3	-379.2	-380.6	0.0	380.6	13	-197.5	-745.6	-748.1	0.0	748.1
14	-173.3	-232.0	-234.8	0.0	234.8	14	-197.5	-475.8	-481.1	0.0	481.1
15	-173.3	-249.1	-252.0	0.0	252.0	15	-197.5	-507.2	-512.4	0.0	512.4
16	-173.3	-454.5	-456.4	0.0	456.4	16	-197.5	-883.6	-886.9	0.0	886.9
17	-173.3	-473.7	-475.5	0.0	475.5	17	-197.5	-918.7	-922.1	0.0	922.1
18	$$$$$$14668.114666.7			0.014668.1		18	$$$$$$14069.614067.0			0.014069.6	
19	$$$$$$13856.013854.5			0.013856.0		19	$$$$$$13091.913089.3			0.013091.9	
20	$$$$$$13851.013849.6			0.013851.0		20	$$$$$$13082.813080.2			0.013082.8	
21	$$$$$$14661.214659.8			0.014661.2		21	$$$$$$14057.014054.4			0.014057.0	

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 12 13

Incremento de Carga 14 :
Flector : -420.00m.T ASIENTOS
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL

Incremento de Carga 15 :
Flector : -620.00m.T SC.FREC
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	115.3	0.0	0.0	0.0	0.0	1	138.6	0.0	0.0	0.0	0.0
2	636.9	-85.1	-83.7	0.0	0.0	2	45.1	0.0	0.0	0.0	0.0
3	636.9	-83.7	-82.1	0.0	0.0	3	45.1	0.0	-.9	0.0	0.0
4	636.9	-82.1	-57.6	0.0	0.0	4	45.1	-.9	-89.4	0.0	0.0
5	636.9	-57.6	-54.5	0.0	0.0	5	45.1	-89.4	-100.4	0.0	0.0
6	115.3	572.3	559.6	0.0	572.3	6	70.5	507.0	488.4	0.0	507.0
7	636.9	-430.2	-427.3	0.0	430.2	7	-315.5	-585.6	-592.3	0.0	592.3
8	636.9	-326.4	-325.5	0.0	326.4	8	-315.5	-827.2	-829.2	0.0	829.2
9	636.9	-405.1	-404.2	0.0	405.1	9	-315.5	-643.9	-645.9	0.0	645.9
10	636.9	-389.4	-388.5	0.0	389.4	10	-315.5	-680.6	-682.6	0.0	682.6
11	636.9	-373.6	-372.7	0.0	373.6	11	-315.5	-717.2	-719.2	0.0	719.2
12	636.9	-357.9	-357.0	0.0	357.9	12	-315.5	-753.9	-755.9	0.0	755.9
13	636.9	-342.1	-341.3	0.0	342.1	13	-315.5	-790.5	-792.5	0.0	792.5
14	636.9	-434.5	-432.7	0.0	434.5	14	-315.5	-575.6	-579.8	0.0	579.8
15	636.9	-423.7	-421.9	0.0	423.7	15	-315.5	-600.6	-604.8	0.0	604.8
16	636.9	-294.9	-293.7	0.0	294.9	16	-315.5	-900.5	-903.1	0.0	903.1
17	636.9	-282.8	-281.7	0.0	282.8	17	-315.5	-928.4	-931.1	0.0	931.1
18	$$$$$$14480.114481.0			0.014481.0		18	$$$$$$13977.013974.9			0.013977.0	
19	$$$$$$14020.814021.7			0.014021.7		19	$$$$$$13080.013077.9			0.013080.0	
20	$$$$$$14023.914024.8			0.014024.8		20	$$$$$$13072.713070.7			0.013072.7	
21	$$$$$$14484.414485.3			0.014485.3		21	$$$$$$13966.913964.8			0.013966.9	

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 14 15

Incremento de Carga 16 :
Flector : -420.00m.T ASIENTOS
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL

Incremento de Carga 17 :
Flector : -1108.00m.T SC.POCO PR
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	121.4	0.0	0.0	0.0	0.0	1	148.7	0.0	0.0	0.0	0.0
2	-208.0	-46.5	-48.5	0.0	0.0	2	104.7	0.0	0.0	0.0	0.0
3	-208.0	-48.5	-50.9	0.0	0.0	3	104.7	0.0	0.0	0.0	0.0
4	-208.0	-50.9	-86.0	0.0	0.0	4	104.7	0.0	-117.7	0.0	0.0
5	-208.0	-86.0	-90.4	0.0	0.0	5	104.7	-117.7	-139.5	0.0	0.0
6	121.4	810.2	793.2	0.0	810.2	6	94.6	919.4	894.5	0.0	919.4
7	-208.0	-250.6	-254.7	0.0	254.7	7	-25.5	-258.0	-274.8	0.0	274.8
8	-208.0	-399.5	-400.8	0.0	400.8	8	-25.5	-866.4	-871.5	0.0	871.5
9	-208.0	-286.6	-287.8	0.0	287.8	9	-25.5	-404.8	-409.9	0.0	409.9
10	-208.0	-309.1	-310.4	0.0	310.4	10	-25.5	-497.2	-502.2	0.0	502.2
11	-208.0	-331.7	-333.0	0.0	333.0	11	-25.5	-589.5	-594.5	0.0	594.5
12	-208.0	-354.3	-355.6	0.0	355.6	12	-25.5	-681.8	-686.8	0.0	686.8
13	-208.0	-376.9	-378.2	0.0	378.2	13	-25.5	-774.1	-779.2	0.0	779.2
14	-208.0	-244.4	-247.0	0.0	247.0	14	-25.5	-232.8	-243.3	0.0	243.3
15	-208.0	-259.9	-262.4	0.0	262.4	15	-25.5	-295.7	-306.2	0.0	306.2
16	-208.0	-444.7	-446.4	0.0	446.4	16	-25.5	-1051.1	-1057.8	0.0	1057.8
17	-208.0	-462.0	-463.6	0.0	463.6	17	-25.5	-1121.6	-1128.3	0.0	1128.3
18	$$$$$$14656.614655.3			0.014656.6		18	$$$$$$14295.314290.1			0.014295.3	
19	$$$$$$13866.113864.8			0.013866.1		19	$$$$$$12917.612912.4			0.012917.6	
20	$$$$$$13861.613860.3			0.013861.6		20	$$$$$$12899.312894.1			0.012899.3	
21	$$$$$$14650.414649.1			0.014650.4		21	$$$$$$14270.014264.8			0.014270.0	

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 16 17

Proyecto:

Seccion:INTERMEDIA X=4.5 m (L=36 m) 36 CABLES 37ϕ25 en losa.

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_{\pi}1$	$J_{\pi}2$
1 (HO)	600.0	1.40	408160	2.01	1.21
2 (HO)	350.0	1.50	350000	1.76	1.07
3 (RD)	5100.0	1.15	2100000		
4 (PR)	17100.0	1.10	1950000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) π(mm)	Yo(cm)	Mc	Nsr
1	2	490.0	25.0	0.0	C*	0
2	1	81.6	10.0	25.0	C*	0
3	1	56.0	12.0	35.0	C*	0
4	1	32.9	176.0	47.0	C*	0
5	1	280.0	22.0	223.0	C*	0
6	3	39.0	25.0	2.5	CT	0
7	3	8.0	12.0	27.5	CT	0
8	3	4.0	12.0	49.0	CT	0
9	3	4.0	12.0	71.0	CT	0
10	3	4.0	12.0	93.0	CT	0
11	3	4.0	12.0	115.0	CT	0
12	3	4.0	12.0	137.0	CT	0
13	3	4.0	12.0	159.0	CT	0
14	3	4.0	12.0	181.0	CT	0
15	3	4.0	12.0	203.0	CT	0
16	3	13.0	12.0	225.0	CT	0
17	3	13.0	12.0	241.8	CT	0
18	4	6.0	13.4	30.0	*T	0
19	4	18.0	13.4	234.6	*T	0
20	4	18.0	13.4	239.3	*T	0

SECCIONES INTERMEDIAS

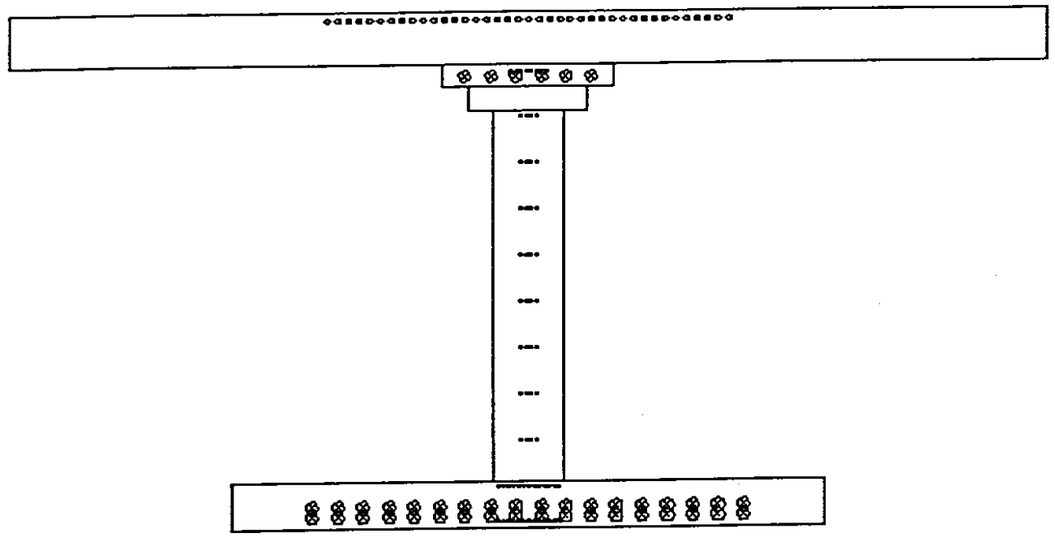
Num.	Codigo	Componentes
1	VN	2 3 4 5 7 8 9 10 11 12 13 14 15 16 17
2	VA	2 3 4 5 7 8 9 10 11 12 13 14 15 16 17 18 19 20
3	HA	2 3 4 5
4	HL	1
5	HT	1 2 3 4 5
6	AA	7 8 9 10 11 12 13 14 15 16 17
7	AL	6
8	PS	18
9	PI	19 20

* CONSTANTES ESTATICAS *

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	1997.2	20.53	4337512.5
	(1)	1093.0	31.05	4069088.8
	(2)	1323.8	27.64	4150334.2
F.pura -	(0)	1657.1	201.24	9709460.8
	(1)	837.0	167.28	7867102.5
	(2)	993.9	178.05	8446478.7
C.Simple	(0)	4974.3	98.81	46187726.2
	(1)	1929.2	93.32	18008625.3
	(2)	2489.2	95.06	23190333.1
T.Simple	(0)	320.7	74.19	3178435.4
	(1)	320.7	74.19	3178435.4
	(2)	320.7	74.19	3178435.4

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***



Esquema Seccion

?

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: INTERMEDIA X=4.5 m (L=36 m) 36 CABLES

* PRESOLICITACIONES ELASTICAS *

Analisis CON FISURACION

CONTROL EN AGOTAMIENTO

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : 270.00m.T PP.VIGAS
Seccion Afectada: VN

Incremento de Carga 2 :
Pretensado: 718.00Tn.
Actua sobre la Sintermedia PI
Seccion Afectada: VN

Incremento de Carga 3 :
Pretensado: 120.00Tn.
Actua sobre la Sintermedia PS
Seccion Afectada: VN

Incremento de Carga 4 :
Flector : 304.00m.T P.LOSA
Seccion Afectada: VA

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[n*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 2485.0 Xu(cm.): 22.2 $M_d = 1657$ mt.

Nu(Tn.): 0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00101 Etmx= .01000
Rompe la fibra inferior de la S.parcial 5

FLEXION PURA NEGATIVA:

Mu(m.T): -2483.1 Xu(cm.): 214.3

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00153 Etmx= .01000
Rompe la fibra superior de la S.parcial 1

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -8505.0 aplicado en Yo(cm)= 107.5

TRACCION SIMPLE(Rigido/Plastico):

Mu(Tn.): 2093.9 aplicado en Yo(cm)= 117.1

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

** CALCULO ELASTICO **

Título Sección: INTERMEDIA X=4.5 m (L=36 m) 66 CABLES

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : 270.00m.T PP.VIGAS
Tipo de Solicitacion: CP
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

** CALCULO ELASTICO **

Título Sección: INTERMEDIA X=4.5 m (L=36 m) 36 CABLES

CONTROL ELÁSTICO PARA MOMENTO POSITIVO

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : 270.00m.T PP.VIGAS
Tipo de Solicitacion: CP
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

Incremento de Carga 2 :
Pretensado: 682.00Tn.
P.relajacion: 3.00(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PI
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

Incremento de Carga 3 :
Pretensado: 126.00Tn.
P.relajacion: 3.00(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PS
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

Incremento de Carga 4 :
Flector : 304.00m.T P.LOSA
Tipo de Solicitacion: CP
Seccion Afectada: VA
Edad Aplicación Carga: 28 días

Incremento de Carga 5 :
Flector : -173.00m.T C.M.
Tipo de Solicitacion: CP
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 6 :

Retraccion(Eso/πi;Tinf.): 2.60(*1.E-05)
Actua sobre la Sintermedia HA
Seccion Afectada: VA
Edad Aplicación Carga: 28 días

Incremento de Carga 7 :
Retraccion(Eso/πi;Tinf.): 2.60(*1.E-05)
Actua sobre la Sintermedia HA
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 8 :
Retraccion(Eso/πi;Tinf.): 9.20(*1.E-05)
Actua sobre la Sintermedia HL
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 9 :
Flector : -185.00m.T RETR-FLUEN
Tipo de Solicitacion: CP:tf(2)
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	98.8	6.2	4.6	0.0	0.0	1	36.1	4.3	1.3	0.0	0.0
2	393.6	-102.9	-100.1	0.0	0.0	2	-441.5	-34.7	-35.4	0.0	0.0
3	393.6	-100.1	-96.8	0.0	0.0	3	-441.5	-35.4	-36.3	0.0	0.0
4	393.6	-96.8	-47.6	0.0	0.0	4	-441.5	-36.3	-49.4	0.0	0.0
5	393.6	-47.6	-41.5	0.0	0.0	5	-441.5	-49.4	-51.0	0.0	0.0
6	98.8	36.1	35.1	0.0	36.1	6	-49.1	-216.4	-226.9	0.0	226.9
7	575.2	-720.4	-718.9	0.0	720.4	7	-420.4	-1121.1	-1124.1	0.0	1124.1
8	575.2	-692.2	-690.6	0.0	692.2	8	-420.4	-1174.9	-1177.9	0.0	1177.9
9	575.2	-663.2	-661.6	0.0	663.2	9	-420.4	-1229.9	-1232.9	0.0	1232.9
10	575.2	-634.3	-632.7	0.0	634.3	10	-420.4	-1285.0	-1288.0	0.0	1288.0
11	575.2	-605.3	-603.8	0.0	605.3	11	-420.4	-1340.1	-1343.1	0.0	1343.1
12	575.2	-576.4	-574.8	0.0	576.4	12	-420.4	-1395.1	-1398.1	0.0	1398.1
13	575.2	-547.5	-545.9	0.0	547.5	13	-420.4	-1450.2	-1453.2	0.0	1453.2
14	575.2	-518.5	-516.9	0.0	518.5	14	-420.4	-1505.3	-1508.3	0.0	1508.3
15	575.2	-489.6	-488.0	0.0	489.6	15	-420.4	-1560.3	-1563.3	0.0	1563.3
16	575.2	-460.6	-459.1	0.0	460.6	16	-420.4	-1615.4	-1618.4	0.0	1618.4
17	575.2	-438.5	-437.0	0.0	438.5	17	-420.4	-1657.4	-1660.4	0.0	1660.4
18	$$$$$$14769.614771.6			0.014771.6		18	$$$$$$13938.713935.9			0.013938.7	
19	$$$$$$13606.113608.1			0.013608.1		19	$$$$$$12093.812091.1			0.012093.8	
20	$$$$$$13613.213615.1			0.013615.1		20	$$$$$$12084.112081.4			0.012084.1	

Incrementos de Carga:
1 2 3 4 5 6 7 8 9

Incremento de Carga 10 :
Flector : 164.00m.T TERMICO
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 11 :
Flector : 94.00m.T ASIENTOS
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 12 :
Flector : 357.00m.T SC.POCO PROBABLE DOS VÍAS (+)
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	98.8	-15.8	-11.8	0.0	0.0	1	170.9	-17.6	-15.1	0.0	0.0
2	251.8	-122.0	-116.7	0.0	0.0	2	316.5	-53.8	-51.9	0.0	0.0
3	251.8	-116.7	-110.2	0.0	0.0	3	316.5	-51.9	-49.7	0.0	0.0
4	251.8	-110.2	-15.5	0.0	0.0	4	316.5	-49.7	-17.3	0.0	0.0
5	251.8	-15.5	-3.7	0.0	0.0	5	316.5	-17.3	-13.2	0.0	0.0
6	98.8	-92.2	-89.8	0.0	92.2	6	-117.8	-344.6	-351.8	0.0	351.8
7	335.5	-815.4	-812.2	0.0	815.4	7	$$$$$$	-1216.0	-1217.4	0.0	1217.4
8	335.5	-758.5	-755.3	0.0	758.5	8	$$$$$$	-1241.2	-1242.6	0.0	1242.6
9	335.5	-700.3	-697.1	0.0	700.3	9	$$$$$$	-1267.0	-1268.4	0.0	1268.4
10	335.5	-642.0	-638.8	0.0	642.0	10	$$$$$$	-1292.7	-1294.1	0.0	1294.1
11	335.5	-583.8	-580.6	0.0	583.8	11	$$$$$$	-1318.5	-1319.9	0.0	1319.9
12	335.5	-525.6	-522.4	0.0	525.6	12	$$$$$$	-1344.3	-1345.7	0.0	1345.7
13	335.5	-467.3	-464.1	0.0	467.3	13	$$$$$$	-1370.1	-1371.5	0.0	1371.5
14	335.5	-409.1	-405.9	0.0	409.1	14	$$$$$$	-1395.8	-1397.2	0.0	1397.2
15	335.5	-350.8	-347.7	0.0	350.8	15	$$$$$$	-1421.6	-1423.0	0.0	1423.0
16	335.5	-292.6	-289.4	0.0	292.6	16	$$$$$$	-1447.4	-1448.8	0.0	1448.8
17	335.5	-248.1	-245.0	0.0	248.1	17	$$$$$$	-1467.1	-1468.5	0.0	1468.5
18	$$$$$$14684.514688.1			0.014688.1		18	$$$$$$13853.613852.5			0.013853.6	
19	$$$$$$13774.013777.7			0.013777.7		19	$$$$$$12261.712260.6			0.012261.7	
20	$$$$$$13786.913790.5			0.013790.5		20	$$$$$$12257.812256.8			0.012257.8	

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 10 11 12

Proyecto:
VIADUCTO DE LOS CHORROS

Seccion:INTERMEDIA X=4.5 m (L=36 m) 66 CABLES 39 ø 25 en losa

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_{\pi}1$	$J_{\pi}2$
1(HO)	600.0	1.40	408160	2.01	1.21
2(HO)	350.0	1.50	350000	1.76	1.08
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.10	1950000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) π(mm)	Yo(cm)	Mc	Msr
1	2	490.0	25.0	0.0	C*	0
2	1	81.6	10.0	25.0	C*	0
3	1	56.0	12.0	35.0	C*	0
4	1	32.9	176.0	47.0	C*	0
5	1	280.0	22.0	223.0	C*	0
6	3	39.0	25.0	2.5	CT	0
7	3	8.0	12.0	27.5	CT	0
8	3	4.0	12.0	49.0	CT	0
9	3	4.0	12.0	71.0	CT	0
10	3	4.0	12.0	93.0	CT	0
11	3	4.0	12.0	115.0	CT	0
12	3	4.0	12.0	137.0	CT	0
13	3	4.0	12.0	159.0	CT	0
14	3	4.0	12.0	181.0	CT	0
15	3	4.0	12.0	203.0	CT	0
16	3	13.0	12.0	225.0	CT	0
17	3	13.0	12.0	241.8	CT	0
18	4	6.0	13.4	30.0	*T	0
19	4	33.0	13.4	234.6	*T	0
20	4	33.0	13.4	239.3	*T	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	VN	2 3 4 5 7 8 9 10 11 12 13 14 15 16 17
2	VA	2 3 4 5 7 8 9 10 11 12 13 14 15 16 17 18 19 20
3	HA	2 3 4 5
4	HL	1
5	HT	1 2 3 4 5
6	AA	7 8 9 10 11 12 13 14 15 16 17
7	AL	6
8	PS	18
9	PI	19 20

* CONSTANTES ESTATICAS *

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2351.3	24.39	6141933.0
	(1)	1163.4	38.07	5676038.2
	(2)	1404.9	33.57	5820796.2
F.pura -	(0)	1690.7	202.08	9760101.3
	(1)	869.1	170.40	8050479.6
	(2)	1026.1	180.29	8578907.1
C.Simple	(0)	5013.2	99.89	46933374.4
	(1)	1967.1	96.17	18795092.1
	(2)	2527.1	97.26	23960175.6
T.Simple	(0)	359.7	91.91	4107143.8
	(1)	359.7	91.91	4107143.8
	(2)	359.7	91.91	4107143.8

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

ANALISIS EN ROTURA(ELASTOPLASTICO)

Titulo Seccion: INTERMEDIA X=4.5 m (L=36 m) 66 CABLES

* PRESOLICITACIONES ELASTICAS *

Analisis CON FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : 270.00m.T PP.VIGA
Seccion Afectada: VA

Incremento de Carga 2 :
Pretensado: 1317.00Tn.
Actua sobre la Sintermedia PI
Seccion Afectada: VA

Incremento de Carga 3 :
Pretensado: 125.00Tn.
Actua sobre la Sintermedia PS
Seccion Afectada: VA

Incremento de Carga 4 :
Flector : 304.00m.T PP.LOSA
Seccion Afectada: VA

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50

Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(‰): 1.00
Coeficiente Ideal Fluencia[φ^*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 4082.4 Xu(cm.): 28.6

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00136 Etmx= .01000
Rompe la fibra inferior de la S.parcial 5

FLEXION PURA NEGATIVA:

Mu(m.T): -2448.0 Xu(cm.): 209.8

Nu(Tn.): -.2 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00195 Etmx= .01000
Rompe la fibra superior de la S.parcial 1

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -8505.0 aplicado en Yo(cm)= 107.5

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 2746.7 aplicado en Yo(cm)= 145.8

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0
Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

** CALCULO ELASTICO **

Titulo Seccion: INTERMEDIA X=4.5 m (L=36 m) 66 CABLES

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : -1000.00m.T UNITARIO PARA OBTENCION DEL MOMENTO DE FISURACION DE LOSA
Tipo de Solicitacion: CP
Seccion Afectada: TOTAL

$f_{ct,m} = 0.68\sqrt[3]{350^2} = 33.8$ kg/cm²

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	99.9	35.5	26.6	0.0	0.0	1	96.2	30.9	22.9	0.0	0.0
2	99.9	31.0	26.9	0.0	0.0	2	96.2	24.4	21.0	0.0	0.0
3	99.9	26.9	21.9	0.0	0.0	3	96.2	21.0	16.9	0.0	0.0
4	99.9	21.9	-51.0	0.0	0.0	4	96.2	16.9	-43.6	0.0	0.0
5	99.9	-51.0	-60.1	0.0	0.0	5	96.2	-43.6	-51.1	0.0	0.0
6	99.9	207.5	202.2	0.0	207.5	6	96.2	498.4	485.1	0.0	498.4
7	99.9	154.2	151.7	0.0	154.2	7	96.2	365.4	359.0	0.0	365.4
8	99.9	108.4	105.9	0.0	108.4	8	96.2	251.0	244.6	0.0	251.0
9	99.9	61.6	59.0	0.0	61.6	9	96.2	133.9	127.6	0.0	133.9
10	99.9	14.7	12.1	0.0	14.7	10	96.2	16.9	10.5	0.0	16.9
11	99.9	-32.2	-34.7	0.0	34.7	11	96.2	-100.2	-106.5	0.0	106.5
12	99.9	-79.1	-81.6	0.0	81.6	12	96.2	-217.2	-223.6	0.0	223.6
13	99.9	-125.9	-128.5	0.0	128.5	13	96.2	-334.3	-340.7	0.0	340.7
14	99.9	-172.8	-175.4	0.0	175.4	14	96.2	-451.3	-457.7	0.0	457.7
15	99.9	-219.7	-222.2	0.0	222.2	15	96.2	-568.4	-574.8	0.0	574.8
16	99.9	-266.6	-269.1	0.0	269.1	16	96.2	-685.4	-691.8	0.0	691.8
17	99.9	-302.4	-304.9	0.0	304.9	17	96.2	-774.8	-781.2	0.0	781.2
18	99.9	138.3	135.6	0.0	138.3	18	96.2	326.9	320.3	0.0	326.9
19	99.9	-266.5	-269.2	0.0	269.2	19	96.2	-683.9	-690.5	0.0	690.5
20	99.9	-275.8	-278.5	0.0	278.5	20	96.2	-707.1	-713.7	0.0	713.7

Incrementos de Carga:
1

$M_{fis} = -\frac{33.8}{35.5} 1000 = -952{,}1$ mt

CONTROL EN AGOTAMIENTO

$M_d^{32(i)} = -821 - 1.25 \times 185 = -1052$ mt. ok

** *CALCULO ELASTICO* **

Titulo Seccion: INTERMEDIA X=4.5 m (L=36 m) 66 CABLES

Analisis CON FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : 270.00m.T PP.VIGA
Tipo de Solicitacion: CP
Seccion Afectada: VA

Incremento de Carga 2 :
Pretensado: 1383.00Tn.
P.relajacion: 2.50(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PI
Seccion Afectada: VA

Incremento de Carga 3 :
Pretensado: 125.00Tn.
P.relajacion: 2.50(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PS
Seccion Afectada: VA

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	$$$$$$	0.0	0.0	0.0	0.0	1	32.8	0.0	0.0	0.0	0.0
2	-4.6	-17.8	-23.8	0.0	0.0	2	-8.2	-15.9	-20.7	0.0	0.0
3	-4.6	-23.8	-31.0	0.0	0.0	3	-8.2	-20.7	-26.5	0.0	0.0
4	-4.6	-31.0	-136.9	0.0	0.0	4	-8.2	-26.5	-110.8	0.0	0.0
5	-4.6	-136.9	-150.1	0.0	0.0	5	-8.2	-110.8	-121.4	0.0	0.0
6	$$$$$$	0.0	0.0	0.0	0.0	6	32.8	164.3	150.8	0.0	164.3
7	-4.6	-99.3	-103.0	0.0	103.0	7	19.2	-70.4	-80.7	0.0	80.7
8	-4.6	-165.8	-169.5	0.0	169.5	8	19.2	-253.5	-263.7	0.0	263.7
9	-4.6	-233.9	-237.6	0.0	237.6	9	19.2	-440.8	-451.0	0.0	451.0
10	-4.6	-302.0	-305.7	0.0	305.7	10	19.2	-628.1	-638.3	0.0	638.3
11	-4.6	-370.1	-373.8	0.0	373.8	11	19.2	-815.4	-825.7	0.0	825.7
12	-4.6	-438.2	-441.9	0.0	441.9	12	19.2	-1002.8	-1013.0	0.0	1013.0
13	-4.6	-506.2	-510.0	0.0	510.0	13	19.2	-1190.1	-1200.3	0.0	1200.3
14	-4.6	-574.3	-578.0	0.0	578.0	14	19.2	-1377.4	-1387.6	0.0	1387.6
15	-4.6	-642.4	-646.1	0.0	646.1	15	19.2	-1564.7	-1574.9	0.0	1574.9
16	-4.6	-710.5	-714.2	0.0	714.2	16	19.2	-1752.0	-1762.2	0.0	1762.2
17	-4.6	-762.5	-766.2	0.0	766.2	17	19.2	-1895.1	-1905.3	0.0	1905.3
18	$$$$$$	14784.2	14780.3	0.0	14784.2	18	$$$$$$	14426.3	14415.7	0.0	14426.3
19	$$$$$$	14282.8	14279.0	0.0	14282.8	19	$$$$$$	12893.1	12882.6	0.0	12893.1
20	$$$$$$	14269.3	14265.5	0.0	14269.3	20	$$$$$$	12856.0	12845.4	0.0	12856.0

Incrementos de Carga:
1 2 3

Incremento de Carga 4 :
Flector : 304.00m.T PP.LOSA
Tipo de Solicitacion: CP
Seccion Afectada: VA

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	$$$$$$	0.0	0.0	0.0	0.0	1	17.3	0.0	-2.7	0.0	0.0
2	-306.4	-73.2	-75.4	0.0	0.0	2	-61.6	-29.6	-33.0	0.0	0.0
3	-306.4	-75.4	-78.1	0.0	0.0	3	-61.6	-33.0	-37.1	0.0	0.0
4	-306.4	-78.1	-117.0	0.0	0.0	4	-61.6	-37.1	-97.2	0.0	0.0
5	-306.4	-117.0	-121.8	0.0	0.0	5	-61.6	-97.2	-104.7	0.0	0.0
6	$$$$$$	0.0	0.0	0.0	0.0	6	17.3	65.5	54.4	0.0	65.5
7	-306.4	-379.6	-381.0	0.0	381.0	7	-48.9	-424.6	-431.3	0.0	431.3
8	-306.4	-404.1	-405.4	0.0	405.4	8	-48.9	-544.0	-550.7	0.0	550.7
9	-306.4	-429.1	-430.4	0.0	430.4	9	-48.9	-666.2	-672.9	0.0	672.9
10	-306.4	-454.1	-455.5	0.0	455.5	10	-48.9	-788.5	-795.1	0.0	795.1
11	-306.4	-479.1	-480.5	0.0	480.5	11	-48.9	-910.7	-917.3	0.0	917.3
12	-306.4	-504.1	-505.5	0.0	505.5	12	-48.9	-1032.9	-1039.5	0.0	1039.5
13	-306.4	-529.1	-530.5	0.0	530.5	13	-48.9	-1155.1	-1161.8	0.0	1161.8
14	-306.4	-554.1	-555.5	0.0	555.5	14	-48.9	-1277.3	-1284.0	0.0	1284.0
15	-306.4	-579.2	-580.5	0.0	580.5	15	-48.9	-1399.5	-1406.2	0.0	1406.2
16	-306.4	-604.2	-605.5	0.0	605.5	16	-48.9	-1521.7	-1528.4	0.0	1528.4
17	-306.4	-623.3	-624.6	0.0	624.6	17	-48.9	-1615.0	-1621.7	0.0	1621.7
18	$$$$$$	14528.4	14527.0	0.0	14528.4	18	$$$$$$	14104.3	14097.4	0.0	14104.3
19	$$$$$$	14399.0	14397.6	0.0	14399.0	19	$$$$$$	13133.3	13126.5	0.0	13133.3
20	$$$$$$	14394.0	14392.6	0.0	14394.0	20	$$$$$$	13109.1	13102.2	0.0	13109.1

Incrementos de Carga:
1 2 3 4

Incremento de Carga 5 :
Flector : -173.00m.T C.MUERTA
Tipo de Solicitacion: CP
Seccion Afectada: TOTAL

Incremento de Carga 6 :
Retraccion(Eso/πi;Tinf.): .55(*1.E-05)
Actua sobre la Sintermedia HA
Seccion Afectada: VA

Incremento de Carga 7 :
Retraccion(Eso/πi;Tinf.): 7.34(*1.E-05)
Actua sobre la Sintermedia HA
Seccion Afectada: TOTAL

Incremento de Carga 8 :
Retraccion(Eso/πi;Tinf.): 15.00(*1.E-05)
Actua sobre la Sintermedia HL
Seccion Afectada: TOTAL

Incremento de Carga 9 :
Flector : -185.00m.T RETR-F HIP
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	159.9	0.0	0.0	0.0	0.0	1	97.5	0.0	0.0	0.0	0.0
2	-107.8	-51.1	-55.0	0.0	0.0	2	-18.5	-20.0	-24.5	0.0	0.0
3	-107.8	-55.0	-59.6	0.0	0.0	3	-18.5	-24.5	-30.1	0.0	0.0
4	-107.8	-59.6	-127.3	0.0	0.0	4	-18.5	-30.1	-110.8	0.0	0.0
5	-107.8	-127.3	-135.8	0.0	0.0	5	-18.5	-110.8	-120.9	0.0	0.0
6	159.9	132.7	130.6	0.0	132.7	6	38.2	246.8	229.6	0.0	246.8
7	-107.8	-268.0	-270.3	0.0	270.3	7	-11.9	-316.7	-326.4	0.0	326.4
8	-107.8	-310.5	-312.9	0.0	312.9	8	-11.9	-489.7	-499.3	0.0	499.3
9	-107.8	-354.1	-356.5	0.0	356.5	9	-11.9	-666.6	-676.3	0.0	676.3
10	-107.8	-397.7	-400.0	0.0	400.0	10	-11.9	-843.6	-853.3	0.0	853.3
11	-107.8	-441.2	-443.6	0.0	443.6	11	-11.9	-1020.6	-1030.2	0.0	1030.2
12	-107.8	-484.8	-487.2	0.0	487.2	12	-11.9	-1197.5	-1207.2	0.0	1207.2
13	-107.8	-528.3	-530.7	0.0	530.7	13	-11.9	-1374.5	-1384.1	0.0	1384.1
14	-107.8	-571.9	-574.3	0.0	574.3	14	-11.9	-1551.4	-1561.1	0.0	1561.1
15	-107.8	-615.5	-617.8	0.0	617.8	15	-11.9	-1728.4	-1738.0	0.0	1738.0
16	-107.8	-659.0	-661.4	0.0	661.4	16	-11.9	-1905.3	-1915.0	0.0	1915.0
17	-107.8	-692.3	-694.7	0.0	694.7	17	-11.9	-2040.5	-2050.1	0.0	2050.1
18	$$$$$$	14630.1	14627.7	0.0	14630.1	18	$$$$$$	14198.7	14188.7	0.0	14198.7
19	$$$$$$	14340.5	14338.1	0.0	14340.5	19	$$$$$$	12754.9	12745.0	0.0	12754.9
20	$$$$$$	14331.9	14329.4	0.0	14331.9	20	$$$$$$	12719.8	12709.9	0.0	12719.8

Incrementos de Carga:
1 2 3 4 5 6 7 8 9

Incremento de Carga 10 :
Plector : -135.00m.T ASIENTOS
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	159.9	0.0	0.0	0.0	0.0	1	106.0	0.0	0.0	0.0	0.0
2	-107.8	-51.1	-55.0	0.0	0.0	2	11.0	-7.8	-13.3	0.0	0.0
3	-107.8	-55.0	-59.6	0.0	0.0	3	11.0	-13.3	-20.0	0.0	0.0
4	-107.8	-59.6	-127.3	0.0	0.0	4	11.0	-20.0	-117.7	0.0	0.0
5	-107.8	-127.3	-135.8	0.0	0.0	5	11.0	-117.7	-130.0	0.0	0.0
6	159.9	132.7	130.6	0.0	132.7	6	53.7	409.6	389.6	0.0	409.6
7	-107.8	-268.0	-270.3	0.0	270.3	7	7.7	-181.3	-192.3	0.0	192.3
8	-107.8	-310.5	-312.9	0.0	312.9	8	7.7	-377.8	-388.8	0.0	388.8
9	-107.8	-354.1	-356.5	0.0	356.5	9	7.7	-578.8	-589.8	0.0	589.8
10	-107.8	-397.7	-400.0	0.0	400.0	10	7.7	-779.9	-790.8	0.0	790.8
11	-107.8	-441.2	-443.6	0.0	443.6	11	7.7	-980.9	-991.8	0.0	991.8
12	-107.8	-484.8	-487.2	0.0	487.2	12	7.7	-1181.9	-1192.9	0.0	1192.9
13	-107.8	-528.3	-530.7	0.0	530.7	13	7.7	-1382.9	-1393.9	0.0	1393.9
14	-107.8	-571.9	-574.3	0.0	574.3	14	7.7	-1584.0	-1594.9	0.0	1594.9
15	-107.8	-615.5	-617.8	0.0	617.8	15	7.7	-1785.0	-1795.9	0.0	1795.9
16	-107.8	-659.0	-661.4	0.0	661.4	16	7.7	-1986.0	-1997.0	0.0	1997.0
17	-107.8	-692.3	-694.7	0.0	694.7	17	7.7	-2139.5	-2150.5	0.0	2150.5
18	$$$$$$	14630.1	14627.7	0.0	14630.1	18	$$$$$$	14321.9	14310.5	0.0	14321.9
19	$$$$$$	14340.5	14338.1	0.0	14340.5	19	$$$$$$	12670.3	12659.0	0.0	12670.3
20	$$$$$$	14331.9	14329.4	0.0	14331.9	20	$$$$$$	12630.4	12619.1	0.0	12630.4

$\sigma_s = -187$ kp/cm²

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 10

Incremento de Carga 11 :
Plector : -413.00m.T SC.FREC
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	160.0	0.0	0.0	0.0	0.0	1	137.3	0.0	0.0	0.0	0.0
2	27.2	0.0	-6.1	0.0	0.0	2	91.6	0.0	0.0	0.0	0.0
3	27.2	-6.1	-15.4	0.0	0.0	3	91.6	0.0	0.0	0.0	0.0
4	27.2	-15.4	-152.0	0.0	0.0	4	91.6	0.0	-143.1	0.0	0.0
5	27.2	-152.0	-169.1	0.0	0.0	5	91.6	-143.1	-167.0	0.0	0.0
6	160.0	449.8	442.7	0.0	449.8	6	84.8	884.7	857.8	0.0	884.7
7	27.2	-1.2	-6.0	0.0	6.0	7	46.4	225.1	210.9	0.0	225.1
8	27.2	-87.1	-91.9	0.0	91.9	8	46.4	-30.3	-44.6	0.0	44.6
9	27.2	-175.0	-179.8	0.0	179.8	9	46.4	-291.8	-306.0	0.0	306.0
10	27.2	-262.8	-267.6	0.0	267.6	10	46.4	-553.2	-567.5	0.0	567.5
11	27.2	-350.7	-355.5	0.0	355.5	11	46.4	-814.6	-828.9	0.0	828.9
12	27.2	-438.5	-443.3	0.0	443.3	12	46.4	-1076.0	-1090.3	0.0	1090.3
13	27.2	-526.4	-531.2	0.0	531.2	13	46.4	-1337.5	-1351.7	0.0	1351.7
14	27.2	-614.3	-619.1	0.0	619.1	14	46.4	-1598.9	-1613.1	0.0	1613.1
15	27.2	-702.1	-706.9	0.0	706.9	15	46.4	-1860.3	-1874.6	0.0	1874.6

$\sigma_s = 871$ kp/cm²

16	27.2	-790.0	-794.8	0.0	794.8	16	46.4	-2121.7	-2136.0	0.0	2136.0
17	27.2	-857.1	-861.9	0.0	861.9	17	46.4	-2321.4	-2335.6	0.0	2335.6
18	$$$$$$	14873.1	14868.2	0.014873.1		18	$$$$$$	14692.9	14678.2	0.014692.9	
19	$$$$$$	14201.0	14196.0	0.014201.0		19	$$$$$$	12519.8	12505.0	0.012519.8	
20	$$$$$$	14183.6	14178.6	0.014183.6		20	$$$$$$	12467.9	12453.2	0.012467.9	

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 10 11

Incremento de Carga 12 :
Flector : -273.00m.T SC.POCO FR
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	165.3	0.0	0.0	0.0	0.0	1	152.2	0.0	0.0	0.0	0.0
2	72.3	0.0	0.0	0.0	0.0	2	121.3	0.0	0.0	0.0	0.0
3	72.3	0.0	0.0	0.0	0.0	3	121.3	0.0	0.0	0.0	0.0
4	72.3	0.0	-168.9	0.0	0.0	4	121.3	0.0	-158.8	0.0	0.0
5	72.3	-168.9	-193.5	0.0	0.0	5	121.3	-158.8	-193.2	0.0	0.0
6	165.3	753.6	742.0	0.0	753.6	6	104.2	1340.5	1307.5	0.0	1340.5
7	72.3	258.3	251.4	0.0	258.3	7	70.8	620.0	602.8	0.0	620.0
8	72.3	134.3	127.4	0.0	134.3	8	70.8	312.2	295.0	0.0	312.2
9	72.3	7.5	.6	0.0	7.5	9	70.8	-2.8	-20.0	0.0	20.0
10	72.3	-119.4	-126.3	0.0	126.3	10	70.8	-317.8	-335.0	0.0	335.0
11	72.3	-246.2	-253.1	0.0	253.1	11	70.8	-632.8	-649.9	0.0	649.9
12	72.3	-373.0	-380.0	0.0	380.0	12	70.8	-947.8	-964.9	0.0	964.9
13	72.3	-499.9	-506.8	0.0	506.8	13	70.8	-1262.7	-1279.9	0.0	1279.9
14	72.3	-626.7	-633.6	0.0	633.6	14	70.8	-1577.7	-1594.9	0.0	1594.9
15	72.3	-753.6	-760.5	0.0	760.5	15	70.8	-1892.7	-1909.9	0.0	1909.9
16	72.3	-880.4	-887.3	0.0	887.3	16	70.8	-2207.7	-2224.9	0.0	2224.9
17	72.3	-977.2	-984.2	0.0	984.2	17	70.8	-2448.2	-2465.4	0.0	2465.4
18	$$$$$$	15110.0	15102.8	0.015110.0		18	$$$$$$	15054.0	15036.2	0.015054.0	
19	$$$$$$	14101.2	14094.1	0.014101.2		19	$$$$$$	12418.2	12400.5	0.012418.2	
20	$$$$$$	14076.1	14068.9	0.014076.1		20	$$$$$$	12355.8	12338.0	0.012355.8	

$\sigma_s = 1324$

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 10 11 12

** CALCULO ELASTICO **

Titulo Seccion: INTERMEDIA X=4.5 m (L=36 m) 66 CABLES

Analisis CON FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : 270.00m.T PP.VIGA
Tipo de Solicitacion: CP
Seccion Afectada: VA

Incremento de Carga 2 :
Pretensado: 1383.00Tn.
P.relajacion: 2.50(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PI
Seccion Afectada: VA

Incremento de Carga 3 :
Pretensado: 125.00Tn.
P.relajacion: 2.50(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PS
Seccion Afectada: VA

Incremento de Carga 4 :
Flector : -952.10m.T PISUR.LOSA
Tipo de Solicitacion: CP
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	182.1	0.0	0.0	0.0	0.0	1	105.4	0.0	0.0	0.0	0.0
2	125.6	0.0	0.0	0.0	0.0	2	87.3	0.0	0.0	0.0	0.0
3	125.6	0.0	0.0	0.0	0.0	3	87.3	0.0	0.0	0.0	0.0
4	125.6	0.0	-193.6	0.0	0.0	4	87.3	0.0	-155.4	0.0	0.0
5	125.6	-193.6	-237.3	0.0	0.0	5	87.3	-155.4	-180.6	0.0	0.0
6	182.1	1281.4	1263.6	0.0	1281.4	6	113.7	1749.7	1710.3	0.0	1749.7
7	125.6	1003.8	991.5	0.0	1003.8	7	94.2	1256.8	1234.2	0.0	1256.8
8	125.6	783.9	771.6	0.0	783.9	8	94.2	851.9	829.3	0.0	851.9
9	125.6	558.8	546.6	0.0	558.8	9	94.2	437.5	414.9	0.0	437.5
10	125.6	333.8	321.5	0.0	333.8	10	94.2	23.1	.5	0.0	23.1
11	125.6	108.8	96.5	0.0	108.8	11	94.2	-391.3	-413.9	0.0	413.9
12	125.6	-116.2	-128.5	0.0	128.5	12	94.2	-805.7	-828.3	0.0	828.3
13	125.6	-341.2	-353.5	0.0	353.5	13	94.2	-1220.1	-1242.7	0.0	1242.7
14	125.6	-566.3	-578.5	0.0	578.5	14	94.2	-1634.5	-1657.1	0.0	1657.1
15	125.6	-791.3	-803.6	0.0	803.6	15	94.2	-2048.9	-2071.5	0.0	2071.5
16	125.6	-1016.3	-1028.6	0.0	1028.6	16	94.2	-2463.3	-2485.9	0.0	2485.9
17	125.6	-1188.1	-1200.4	0.0	1200.4	17	94.2	-2779.7	-2802.3	0.0	2802.3
18	$$$$$$	15791.9	15779.2	0.015791.9		18	923.9	15634.8	15611.4	0.015634.8	
19	$$$$$$	13935.3	13922.6	0.013935.3		19	928.7	12140.7	12117.3	0.012140.7	
20	$$$$$$	13890.6	13877.9	0.013890.6		20	928.7	12058.5	12035.1	0.012058.5	

$\sigma_{sr} = 1272,5 \text{ kp/cm}^2$

Incrementos de Carga:
1 2 3 4

MC-2 ESTUDIO DE INGENIERÍA
Víctor de la Serna, 21
28016 Madrid
Teléfs. 91 413 38 02 / 19
91 519 74 77
Fax 91 744 06 75

VIADUCTO DE LOS CHORROS

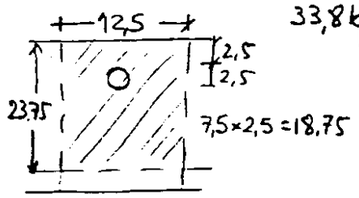
FECHA HOJA 1 DE

CONTROL DE FISURACIÓN

SECCION INTERMEDIA $x=45$ ($L=36$ m) 66 CABLES

1. FISURACION DE LA LOSA ($39\varnothing 25$; $S=12,5$ cm) $f_{ct,m}=0,68\sqrt[3]{350^2}=$ 33,8 kp/cm²

$c=2,5$ cm ; $\varnothing=2,5$ cm ; $S=12,5$ cm.



$A_{cefic}=12,5\times 23,75=296,87$ cm²

$k_1=0.4$; $k_2=0.125$ (flex. simple)

$A_s=4,91$ cm² ; $k_3=95$

$M_{fisuración}=-952,1$ mt.

$\sigma_{sr}=1272$ kp/cm² ; $\sigma_s=871$ kp/cm²

$$S_m=2\times 2.5+0.2\times 12.5+0.4\times 0.125\,\frac{2.5\times 296.87}{4.91}=15.06$$

$$\varepsilon_{sm}=\frac{871}{2,1\,10^6}\left[1-\frac{0,5}{2,5\times 0,4}\left(\frac{1272}{871}\right)^2\right]<0$$ lo cual indica que practicamente no hay fisuración de la losa para la SC FRECUENTE.

aunque a título práctico se indica $\varepsilon_{sm}=0.4\,\frac{871}{2.1\,10^6}=0.000166$

$$w_k=1.7\times 15.06\times 1.66.10^{-4}=0.004\text{ cm}\equiv \underline{\underline{0.04\text{ mm}}}<\tfrac{1}{2}\text{ décima mm}$$

Para la sobrecarga poco frecuente $\sigma_s=1324$ kp/cm²

$\varepsilon_{sm}=0.00034$; $w_k=0.0087\equiv 0.087$ mm <1 décima mm.

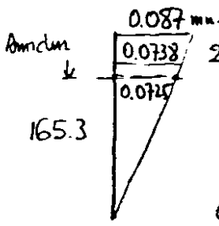
2. FISURACIÓN DE LA VIGA

Para la sobrecarga frecuente no hay fisuración, tal como se desprende de lo anterior y se comprueba en el análisis considerando la viga pretensada sin fisurar, se obtiene una tensión máxima en el borde superior $\sigma_c=43.7$ kp/cm² menor que $1,5\,f_{ctk}=0.68\sqrt[3]{600^2}=48.4$ kp/cm².

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FECHA HOJA 2 DE

En el caso de carga poco frecuente se tendría:



Profundidad fibra neutra $y=165.3$ cm.

la tensión en la armadura de capa superior cuando se incluyen el pretensado de sobrecarga, pero incluidos los asientos es, $-187\equiv\varepsilon_s=-8.895.10^{-5}$

y considerando la separación de fisuras 15.06 cm., determina un valor $\delta=-0.013$

Consiguientemente el espesor de fisura a la altura de la armadura se reduciría a $w'_{\phi k}=0.0725-0.013=0.0595$ mm.

y a la altura de la cara superior de viga $w_k=0.06$ mm

** CALCULO ELASTICO **

Titulo Seccion: INTERMEDIA X=4.5 m (L=36 m) 66 CABLES

Analisis CON FISURACION LOSA PERO SIN CONSIDERAR FISURACION DEL HORMIGON DE LA VIGA

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : 270.00m.T PP.VIGA
Tipo de Solicitacion: CP
Seccion Afectada: VA

Incremento de Carga 2 :
Pretensado: 1383.00Tn.
P.relajacion: 2.50(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PI
Seccion Afectada: VA

Incremento de Carga 3 :
Pretensado: 125.00Tn.
P.relajacion: 2.50(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PS
Seccion Afectada: VA

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	$$$$$$	0.0	0.0	0.0	0.0	1	4.7	0.0	-8.2	0.0	0.0
2	-4.6	-17.8	-23.8	0.0	0.0	2	8.0	-9.2	-14.6	0.0	0.0
3	-4.6	-23.8	-31.0	0.0	0.0	3	8.0	-14.6	-21.1	0.0	0.0
4	-4.6	-31.0	-136.9	0.0	0.0	4	8.0	-21.1	-116.3	0.0	0.0
5	-4.6	-136.9	-150.1	0.0	0.0	5	8.0	-116.3	-128.2	0.0	0.0
6	$$$$$$	0.0	0.0	0.0	0.0	6	4.7	10.8	-1.7	0.0	10.8
7	-4.6	-99.3	-103.0	0.0	103.0	7	1.1	-213.6	-223.3	0.0	223.3
8	-4.6	-165.8	-169.5	0.0	169.5	8	1.1	-387.7	-397.4	0.0	397.4
9	-4.6	-233.9	-237.6	0.0	237.6	9	1.1	-565.9	-575.6	0.0	575.6
10	-4.6	-302.0	-305.7	0.0	305.7	10	1.1	-744.1	-753.8	0.0	753.8
11	-4.6	-370.1	-373.8	0.0	373.8	11	1.1	-922.3	-932.0	0.0	932.0
12	-4.6	-438.2	-441.9	0.0	441.9	12	1.1	-1100.5	-1110.2	0.0	1110.2
13	-4.6	-506.2	-510.0	0.0	510.0	13	1.1	-1278.7	-1288.4	0.0	1288.4
14	-4.6	-574.3	-578.0	0.0	578.0	14	1.1	-1456.8	-1466.6	0.0	1466.6
15	-4.6	-642.4	-646.1	0.0	646.1	15	1.1	-1635.0	-1644.7	0.0	1644.7
16	-4.6	-710.5	-714.2	0.0	714.2	16	1.1	-1813.2	-1822.9	0.0	1822.9
17	-4.6	-762.5	-766.2	0.0	766.2	17	1.1	-1949.3	-1959.0	0.0	1959.0
18	$$$$$$	14784.2	14780.3	0.0	14784.2	18	$$$$$$	14294.3	14284.3	0.0	14294.3
19	$$$$$$	14282.8	14279.0	0.0	14282.8	19	$$$$$$	12840.0	12829.9	0.0	12840.0
20	$$$$$$	14269.3	14265.5	0.0	14269.3	20	$$$$$$	12804.6	12794.6	0.0	12804.6

Incrementos de Carga:
1 2 3

Incremento de Carga 4 :
Flector : 304.00m.T PP.LOSA
Tipo de Solicitacion: CP
Seccion Afectada: VA

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	$$$$$$	0.0	0.0	0.0	0.0	1	-19.5	-6.3	-14.3	0.0	0.0
2	-306.4	-73.2	-75.4	0.0	0.0	2	-31.7	-22.9	-26.9	0.0	0.0
3	-306.4	-75.4	-78.1	0.0	0.0	3	-31.7	-26.9	-31.7	0.0	0.0
4	-306.4	-78.1	-117.0	0.0	0.0	4	-31.7	-31.7	-102.6	0.0	0.0
5	-306.4	-117.0	-121.8	0.0	0.0	5	-31.7	-102.6	-111.5	0.0	0.0
6	$$$$$$	0.0	0.0	0.0	0.0	6	-19.5	-88.0	-98.1	0.0	98.1
7	-306.4	-379.6	-381.0	0.0	381.0	7	-83.0	-567.7	-573.9	0.0	573.9
8	-306.4	-404.1	-405.4	0.0	405.4	8	-83.0	-678.3	-684.4	0.0	684.4
9	-306.4	-429.1	-430.4	0.0	430.4	9	-83.0	-791.3	-797.5	0.0	797.5
10	-306.4	-454.1	-455.5	0.0	455.5	10	-83.0	-904.4	-910.6	0.0	910.6
11	-306.4	-479.1	-480.5	0.0	480.5	11	-83.0	-1017.5	-1023.7	0.0	1023.7
12	-306.4	-504.1	-505.5	0.0	505.5	12	-83.0	-1130.6	-1136.8	0.0	1136.8
13	-306.4	-529.1	-530.5	0.0	530.5	13	-83.0	-1243.7	-1249.8	0.0	1249.8
14	-306.4	-554.1	-555.5	0.0	555.5	14	-83.0	-1356.8	-1362.9	0.0	1362.9
15	-306.4	-579.2	-580.5	0.0	580.5	15	-83.0	-1469.8	-1476.0	0.0	1476.0
16	-306.4	-604.2	-605.5	0.0	605.5	16	-83.0	-1582.9	-1589.1	0.0	1589.1
17	-306.4	-623.3	-624.6	0.0	624.6	17	-83.0	-1669.3	-1675.4	0.0	1675.4
18	$$$$$$	14528.4	14527.0	0.0	14528.4	18	$$$$$$	13972.3	13966.0	0.0	13972.3
19	$$$$$$	14399.0	14397.6	0.0	14399.0	19	$$$$$$	13080.2	13073.8	0.0	13080.2
20	$$$$$$	14394.0	14392.6	0.0	14394.0	20	$$$$$$	13057.8	13051.4	0.0	13057.8

Incrementos de Carga:
1 2 3 4

Incremento de Carga 5 :
Flector : -173.00m.T C.MUERTA
Tipo de Solicitacion: CP
Seccion Afectada: TOTAL

Incremento de Carga 6 :
Retraccion(Eso/πi;Tinf.): .55(*1.E-05)
Actua sobre la Sintermedia HA
Seccion Afectada: VA

Incremento de Carga 7 :
Retraccion(Eso/πi;Tinf.): 7.34(*1.E-05)
Actua sobre la Sintermedia HA
Seccion Afectada: TOTAL

Incremento de Carga 8 :
Retraccion(Eso/πi;Tinf.): 15.00(*1.E-05)
Actua sobre la Sintermedia HL
Seccion Afectada: TOTAL

Incremento de Carga 9 :
Flector : -185.00m.T RETR-F HIP
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To) / ESTADO FINAL (Tinf)

Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	159.9	0.0	0.0	0.0	0.0	1	63.0	0.0	0.0	0.0	0.0
2	-107.8	-51.1	-55.0	0.0	0.0	2	-19.6	-21.2	-26.0	0.0	0.0
3	-107.8	-55.0	-59.6	0.0	0.0	3	-19.6	-26.0	-31.7	0.0	0.0
4	-107.8	-59.6	-127.3	0.0	0.0	4	-19.6	-31.7	-115.7	0.0	0.0
5	-107.8	-127.3	-135.8	0.0	0.0	5	-19.6	-115.7	-126.2	0.0	0.0
6	159.9	132.7	130.6	0.0	132.7	6	-5.4	-46.1	-60.6	0.0	60.6
7	-107.8	-268.0	-270.3	0.0	270.3	7	-56.2	-582.4	-590.8	0.0	590.8
8	-107.8	-310.5	-312.9	0.0	312.9	8	-56.2	-732.0	-740.3	0.0	740.3
9	-107.8	-354.1	-356.5	0.0	356.5	9	-56.2	-885.0	-893.3	0.0	893.3
10	-107.8	-397.7	-400.0	0.0	400.0	10	-56.2	-1038.0	-1046.3	0.0	1046.3
11	-107.8	-441.2	-443.6	0.0	443.6	11	-56.2	-1191.0	-1199.3	0.0	1199.3
12	-107.8	-484.8	-487.2	0.0	487.2	12	-56.2	-1344.0	-1352.3	0.0	1352.3
13	-107.8	-528.3	-530.7	0.0	530.7	13	-56.2	-1497.0	-1505.3	0.0	1505.3
14	-107.8	-571.9	-574.3	0.0	574.3	14	-56.2	-1650.0	-1658.3	0.0	1658.3
15	-107.8	-615.5	-617.8	0.0	617.8	15	-56.2	-1803.0	-1811.3	0.0	1811.3
16	-107.8	-659.0	-661.4	0.0	661.4	16	-56.2	-1956.0	-1964.3	0.0	1964.3
17	-107.8	-692.3	-694.7	0.0	694.7	17	-56.2	-2072.8	-2081.2	0.0	2081.2
18	$$$$$$14630.114627.7			0.014630.1		18	$$$$$$13954.513945.9			0.013954.5	
19	$$$$$$14340.514338.1			0.014340.5		19	$$$$$$12717.612709.0			0.012717.6	
20	$$$$$$14331.914329.4			0.014331.9		20	$$$$$$12687.212678.6			0.012687.2	

Incrementos de Carga:
1 2 3 4 5 6 7 8 9

Incremento de Carga 10 :
Flector : -135.00m.T ASIENTOS
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To) / ESTADO FINAL (Tinf)

Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	159.9	0.0	0.0	0.0	0.0	1	79.0	0.0	0.0	0.0	0.0
2	-107.8	-51.1	-55.0	0.0	0.0	2	9.2	-9.1	-14.8	0.0	0.0
3	-107.8	-55.0	-59.6	0.0	0.0	3	9.2	-14.8	-21.7	0.0	0.0
4	-107.8	-59.6	-127.3	0.0	0.0	4	9.2	-21.7	-122.6	0.0	0.0
5	-107.8	-127.3	-135.8	0.0	0.0	5	9.2	-122.6	-135.2	0.0	0.0
6	159.9	132.7	130.6	0.0	132.7	6	19.4	116.7	99.4	0.0	116.7
7	-107.8	-268.0	-270.3	0.0	270.3	7	-28.0	-447.0	-456.7	0.0	456.7
8	-107.8	-310.5	-312.9	0.0	312.9	8	-28.0	-620.1	-629.7	0.0	629.7
9	-107.8	-354.1	-356.5	0.0	356.5	9	-28.0	-797.1	-806.8	0.0	806.8
10	-107.8	-397.7	-400.0	0.0	400.0	10	-28.0	-974.2	-983.9	0.0	983.9
11	-107.8	-441.2	-443.6	0.0	443.6	11	-28.0	-1151.3	-1161.0	0.0	1161.0
12	-107.8	-484.8	-487.2	0.0	487.2	12	-28.0	-1328.4	-1338.0	0.0	1338.0
13	-107.8	-528.3	-530.7	0.0	530.7	13	-28.0	-1505.4	-1515.1	0.0	1515.1
14	-107.8	-571.9	-574.3	0.0	574.3	14	-28.0	-1682.5	-1692.2	0.0	1692.2
15	-107.8	-615.5	-617.8	0.0	617.8	15	-28.0	-1859.6	-1869.2	0.0	1869.2
16	-107.8	-659.0	-661.4	0.0	661.4	16	-28.0	-2036.7	-2046.3	0.0	2046.3
17	-107.8	-692.3	-694.7	0.0	694.7	17	-28.0	-2171.9	-2181.5	0.0	2181.5
18	$$$$$$14630.114627.7			0.014630.1		18	$$$$$$14077.714067.7			0.014077.7	
19	$$$$$$14340.514338.1			0.014340.5		19	$$$$$$12632.912623.0			0.012632.9	
20	$$$$$$14331.914329.4			0.014331.9		20	$$$$$$12597.812587.8			0.012597.8	

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 10

Incremento de Carga 11 :
Flector : -413.00m.T SC.FREC
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To) / ESTADO FINAL (Tinf)

Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	159.9	0.0	0.0	0.0	0.0	1	112.1	0.0	0.0	0.0	0.0
2	27.1	1.7	-6.1	0.0	0.0	2	70.3	43.7	34.1	0.0	0.0
3	27.1	-6.1	-15.4	0.0	0.0	3	70.3	34.1	22.5	0.0	0.0
4	27.1	-15.4	-152.0	0.0	0.0	4	70.3	22.5	-147.2	0.0	0.0
5	27.1	-152.0	-169.1	0.0	0.0	5	70.3	-147.2	-168.5	0.0	0.0
6	159.9	449.6	442.5	0.0	449.6	6	51.1	433.6	411.2	0.0	433.6
7	27.1	-1.4	-6.2	0.0	6.2	7	9.6	-180.5	-192.5	0.0	192.5
8	27.1	-87.3	-92.1	0.0	92.1	8	9.6	-396.8	-408.9	0.0	408.9
9	27.1	-175.1	-179.9	0.0	179.9	9	9.6	-618.1	-630.2	0.0	630.2
10	27.1	-262.9	-267.7	0.0	267.7	10	9.6	-839.5	-851.6	0.0	851.6
11	27.1	-350.8	-355.6	0.0	355.6	11	9.6	-1060.9	-1072.9	0.0	1072.9
12	27.1	-438.6	-443.4	0.0	443.4	12	9.6	-1282.2	-1294.3	0.0	1294.3
13	27.1	-526.5	-531.2	0.0	531.2	13	9.6	-1503.6	-1515.6	0.0	1515.6
14	27.1	-614.3	-619.1	0.0	619.1	14	9.6	-1724.9	-1737.0	0.0	1737.0
15	27.1	-702.1	-706.9	0.0	706.9	15	9.6	-1946.3	-1958.3	0.0	1958.3
16	27.1	-790.0	-794.8	0.0	794.8	16	9.6	-2167.6	-2179.7	0.0	2179.7
17	27.1	-857.0	-861.8	0.0	861.8	17	9.6	-2336.6	-2348.7	0.0	2348.7
18	$$$$$$14873.014868.0			0.014873.0		18	$$$$$$14320.514308.0			0.014320.5	
19	$$$$$$14201.014196.1			0.014201.0		19	$$$$$$12493.412480.9			0.012493.4	
20	$$$$$$14183.614178.6			0.014183.6		20	$$$$$$12449.512437.0			0.012449.5	

< 48.4 kg/cm² = $f_{ct,m}$.

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 10 11

Incremento de Carga 12 :
Flector : -273.00m.T SC.POCO FR
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To) / ESTADO FINAL (Tinf)

Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	159.9	0.0	0.0	0.0	0.0	1	122.3	0.0	0.0	0.0	0.0
2	60.3	36.6	26.2	0.0	0.0	2	89.3	78.6	66.4	0.0	0.0
3	60.3	26.2	13.8	0.0	0.0	3	89.3	66.4	51.7	0.0	0.0
4	60.3	13.8	-168.3	0.0	0.0	4	89.3	51.7	-163.5	0.0	0.0
5	60.3	-168.3	-191.1	0.0	0.0	5	89.3	-163.5	-190.5	0.0	0.0
6	159.9	659.0	648.6	0.0	659.0	6	65.2	643.0	617.4	0.0	643.0
7	60.3	174.8	168.4	0.0	174.8	7	27.1	-4.3	-18.0	0.0	18.0
8	60.3	60.3	53.9	0.0	60.3	8	27.1	-249.2	-262.9	0.0	262.9
9	60.3	-56.8	-63.2	0.0	63.2	9	27.1	-499.8	-513.5	0.0	513.5
10	60.3	-173.9	-180.3	0.0	180.3	10	27.1	-750.4	-764.1	0.0	764.1
11	60.3	-291.0	-297.4	0.0	297.4	11	27.1	-1001.1	-1014.7	0.0	1014.7
12	60.3	-408.1	-414.5	0.0	414.5	12	27.1	-1251.7	-1265.4	0.0	1265.4
13	60.3	-525.2	-531.6	0.0	531.6	13	27.1	-1502.3	-1516.0	0.0	1516.0
14	60.3	-642.3	-648.7	0.0	648.7	14	27.1	-1752.9	-1766.6	0.0	1766.6
15	60.3	-759.4	-765.8	0.0	765.8	15	27.1	-2003.6	-2017.2	0.0	2017.2
16	60.3	-876.5	-882.9	0.0	882.9	16	27.1	-2254.2	-2267.8	0.0	2267.8

17	60.3	-965.9	-972.3	0.0	972.3	17 27.1-2445.6-2459.2	0.0 2459.2
18	$$$$$$15033.515026.9			0.015033.5		18 $$$$$$14481.014466.9	0.014481.0
19	$$$$$$14108.814102.2			0.014108.8		19 $$$$$$12401.212387.1	0.012401.2
20	$$$$$$14085.514078.9			0.014085.5		20 $$$$$$12351.512337.3	0.012351.5

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 10 11 12

Proyecto:
2

Seccion:INTERMEDIA X=7.5 m (L=36 m) 66 CABLES 37 Ø3S en Losa

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_{\pi}1$	$J_{\pi}2$
1 (HO)	600.0	1.40	408160	2.01	1.21
2 (HO)	350.0	1.50	350000	1.76	1.08
3 (RD)	5100.0	1.15	2100000		
4 (PR)	17100.0	1.10	1950000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) π(mm)	Yo(cm)	Mc	Nsr
1	2	490.0	25.0	0.0	C*	0
2	1	81.6	10.0	25.0	C*	0
3	1	56.0	12.0	35.0	C*	0
4	1	32.9	176.0	47.0	C*	0
5	1	280.0	22.0	223.0	C*	0
6	3	39.0	25.0	2.5	CT	0
7	3	8.0	12.0	27.5	CT	0
8	3	4.0	12.0	49.0	CT	0
9	3	4.0	12.0	71.0	CT	0
10	3	4.0	12.0	93.0	CT	0
11	3	4.0	12.0	115.0	CT	0
12	3	4.0	12.0	137.0	CT	0
13	3	4.0	12.0	159.0	CT	0
14	3	4.0	12.0	181.0	CT	0
15	3	4.0	12.0	203.0	CT	0
16	3	13.0	12.0	225.0	CT	0
17	3	13.0	12.0	241.8	CT	0
18	4	6.0	13.4	30.0	*T	0
19	4	33.0	13.4	234.6	*T	0
20	4	33.0	13.4	239.3	*T	0

SECCIONES INTERMEDIAS

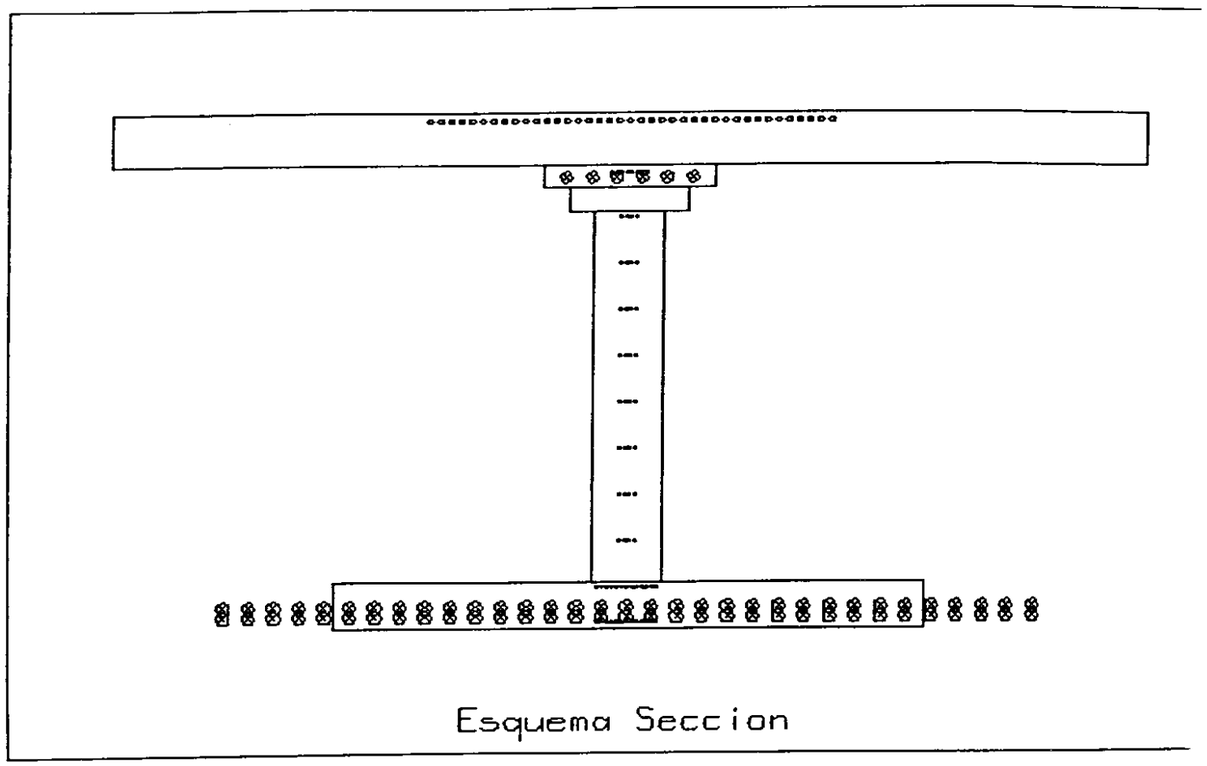
Num.	Codigo	Componentes
1	VN	2 3 4 5 7 8 9 10 11 12 13 14 15 16 17
2	VA	2 3 4 5 7 8 9 10 11 12 13 14 15 16 17 18 19 20
3	HA	2 3 4 5
4	HL	1
5	HT	1 2 3 4 5
6	AA	7 8 9 10 11 12 13 14 15 16 17
7	AL	6
8	PS	18
9	PI	19 20

* CONSTANTES ESTATICAS *

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2351.3	24.39	6141933.0
	(1)	1162.9	38.08	5675703.6
	(2)	1404.4	33.57	5820543.4
F.pura -	(0)	1690.7	202.08	9760101.3
	(1)	868.8	170.38	8049329.8
	(2)	1025.8	180.27	8578001.1
C.Simple	(0)	5013.2	99.89	46933374.4
	(1)	1966.1	96.17	18785480.9
	(2)	2525.9	97.26	23949567.6
T.Simple	(0)	359.7	91.91	4107143.8
	(1)	359.7	91.91	4107143.8
	(2)	359.7	91.91	4107143.8

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***



?

MC-2
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91 519 74 77
Fax 91 744 06 75

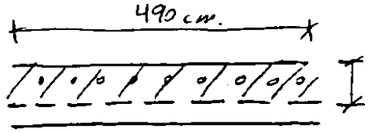
FECHA HOJA DE

SECCION INTERMEDIA $X = 7{,}5$ m. $(L = 36{,}0$ m).

CONTROL DE FISURACION EN LOSA (39 Ø25 a 12,5 cm).

$c = 2{,}5$ cm. $\quad \phi = 2{,}5$ cm.

$s = 12{,}5$ cm. $\quad A_{c,\phi} = 11025\,cm^2$ ($2{,}5 \times 7{,}5 \phi$)



$K_1 = 0{,}4 \quad \sigma_s = 564{,}0\ Kp/cm^2$

$K_2 = 0{,}125 \quad \sigma_{sr} = 1853\ Kp/cm^2$

$K_3 = 0{,}5 \quad A_s = 191{,}5\ cm^2$

$$S_m = 2 \times 2{,}5 + 0{,}2 \times 12{,}5 + 0{,}4 \times 0{,}125\ \frac{2{,}5 \times 11025}{191{,}5} = 14{,}7\ cm.$$

$$\varepsilon_{sm} = \frac{564}{2{,}1 \cdot 10^6}\left[1 - \frac{0{,}5}{2{,}5 \times 0{,}4}\left(\frac{1853}{564}\right)^2\right] \geq 0{,}4\,\frac{\sigma_s}{E_s} \rightarrow \varepsilon_{sm} = 0{,}000107$$

$$W_k^{losa} = 1{,}7 \times 14{,}7 \times 0{,}000107 - 0{,}00267\,cm = 0{,}027\ mm.\ Vale.$$

CONTROL DE FISURACION EN CABEZA SUPERIOR DE VIGA.

- Deformación de la cabeza superior de viga para peso propio de viga más peso de losa $\rightarrow \frac{-659\ Kp/cm^2}{2{,}1 \cdot 10^6} = -0{,}000314 \Rightarrow$

$\Rightarrow -0{,}000314 \times 14{,}7\,cm = -0{,}00462\,cm = -0{,}0462\,mm$ (compresión)

$\varphi_{estática} = 0{,}4$; $\varphi_{total} = 2{,}046$; $\cdot(-0{,}0462) = -0{,}00903\ mm$

- Incremento de deformación a partir del estado anterior.

$$\Delta W = \frac{0{,}027}{76{,}4}(76{,}4 - 25{,}0) = 0{,}0182\,mm.$$

- Fisuración en cabeza de viga C:

$W_k^{Viga\ C} = 0{,}0182 - 0{,}0903 < 0{,}0 \rightarrow$ no hay apertura de fisura.

** CALCULO ELASTICO **

Título Sección: INTERMEDIA X=7.5 m (L=36 m) 66 CABLES

Analisis CON FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : 406.00m.T PP.VIGAS
Tipo de Solicitacion: CP
Seccion Afectada: VN

Incremento de Carga 2 :
Pretensado: 1383.00Tn.
P.relajacion: 2.50(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PI
Seccion Afectada: VN

Incremento de Carga 3 :
Pretensado: 114.00Tn.
P.relajacion: 2.50(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PS
Seccion Afectada: VN

Incremento de Carga 4 :
Flector : 505.00m.T P.LOSA
Tipo de Solicitacion: CP
Seccion Afectada: VA

Incremento de Carga 5 :
Retraccion(Eso/Ri;Tinf.): 2.60(*1.E-05)
Actua sobre la Sintermedia HA
Seccion Afectada: VA

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1 $$$$$$	0.0	0.0	0.0	0.0	1 6.3	0.0	-5.6	0.0	0.0
2 $$$$$$	-128.3	-127.0	0.0	0.0	2 -240.7	-46.9	-48.6	0.0	0.0
3 $$$$$$	-127.0	-125.4	0.0	0.0	3 -240.7	-48.6	-50.8	0.0	0.0
4 $$$$$$	-125.4	-102.3	0.0	0.0	4 -240.7	-50.8	-81.8	0.0	0.0
5 $$$$$$	-102.3	-99.4	0.0	0.0	5 -240.7	-81.8	-85.7	0.0	0.0
6 $$$$$$	0.0	0.0	0.0	0.0	6 6.3	13.9	4.7	0.0	13.9
7 $$$$$$	-658.6	-657.8	0.0	658.6	7 -235.2	-790.2	-793.8	0.0	793.8
8 $$$$$$	-644.0	-643.2	0.0	644.0	8 -235.2	-854.9	-858.5	0.0	858.5
9 $$$$$$	-629.1	-628.3	0.0	629.1	9 -235.2	-921.1	-924.7	0.0	924.7
10 $$$$$$	-614.3	-613.4	0.0	614.3	10 -235.2	-987.2	-990.8	0.0	990.8
11 $$$$$$	-599.4	-598.6	0.0	599.4	11 -235.2	-1053.4	-1057.0	0.0	1057.0
12 $$$$$$	-584.5	-583.7	0.0	584.5	12 -235.2	-1119.6	-1123.2	0.0	1123.2
13 $$$$$$	-569.6	-568.8	0.0	569.6	13 -235.2	-1185.7	-1189.4	0.0	1189.4
14 $$$$$$	-554.7	-553.9	0.0	554.7	14 -235.2	-1251.9	-1255.5	0.0	1255.5
15 $$$$$$	-539.8	-539.0	0.0	539.8	15 -235.2	-1318.1	-1321.7	0.0	1321.7
16 $$$$$$	-524.9	-524.1	0.0	524.9	16 -235.2	-1384.3	-1387.9	0.0	1387.9

17	$$$$$$	-513.6	-512.7	0.0	513.6	17	-235.2	-1434.8	-1438.4	0.0	1438.4
18	$$$$$$	13148.9	13153.0	0.013153.0		18	$$$$$$	12678.8	12678.3	0.012678.8	
19	$$$$$$	15163.1	15167.2	0.015167.2		19	$$$$$$	13958.1	13957.5	0.013958.1	
20	$$$$$$	15177.3	15181.4	0.015181.4		20	$$$$$$	13956.2	13955.6	0.013956.2	

Incrementos de Carga:

1 2 3 4 5

Incremento de Carga 6 :

Retraccion(Eso/πi;Tinf.): 2.60(*1.E-05)
Actua sobre la Sintermedia HA
Seccion Afectada: TOTAL

Incremento de Carga 7 :

Retraccion(Eso/πi;Tinf.): 9.20(*1.E-05)
Actua sobre la Sintermedia HL
Seccion Afectada: TOTAL

Incremento de Carga 8 :

Flector : -185.00m.T RETR-FLUEN
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL

Incremento de Carga 9 :

Flector : 58.00m.T C.M.
Tipo de Solicitacion: CP
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	99.9	-2.1	-1.5	0.0	0.0	1	70.1	0.0	0.0	0.0	0.0
2	861.6	-130.1	-128.6	0.0	0.0	2	-281.6	-52.4	-54.1	0.0	0.0
3	861.6	-128.6	-126.7	0.0	0.0	3	-281.6	-54.1	-56.1	0.0	0.0
4	861.6	-126.7	-99.3	0.0	0.0	4	-281.6	-56.1	-86.2	0.0	0.0
5	861.6	-99.3	-95.9	0.0	0.0	5	-281.6	-86.2	-90.0	0.0	0.0
6	99.9	-12.0	-11.7	0.0	12.0	6	2.2	-1.1	-11.4	0.0	11.4
7	861.6	-667.5	-666.6	0.0	667.5	7	-210.4	-815.8	-819.9	0.0	819.9
8	861.6	-650.3	-649.4	0.0	650.3	8	-210.4	-889.5	-893.6	0.0	893.6
9	861.6	-632.7	-631.8	0.0	632.7	9	-210.4	-964.9	-969.0	0.0	969.0
10	861.6	-615.1	-614.1	0.0	615.1	10	-210.4	-1040.4	-1044.5	0.0	1044.5
11	861.6	-597.5	-596.5	0.0	597.5	11	-210.4	-1115.8	-1119.9	0.0	1119.9
12	861.6	-579.9	-578.9	0.0	579.9	12	-210.4	-1191.2	-1195.3	0.0	1195.3
13	861.6	-562.3	-561.3	0.0	562.3	13	-210.4	-1266.7	-1270.8	0.0	1270.8
14	861.6	-544.7	-543.7	0.0	544.7	14	-210.4	-1342.1	-1346.2	0.0	1346.2
15	861.6	-527.1	-526.1	0.0	527.1	15	-210.4	-1417.5	-1421.6	0.0	1421.6
16	861.6	-509.5	-508.5	0.0	509.5	16	-210.4	-1493.0	-1497.1	0.0	1497.1
17	861.6	-496.0	-495.1	0.0	496.0	17	-210.4	-1550.6	-1554.7	0.0	1554.7
18	$$$$$$	13140.9	13145.1	0.013145.1		18	$$$$$$	12654.1	12653.0	0.012654.1	
19	$$$$$$	15178.6	15182.8	0.015182.8		19	$$$$$$	13853.4	13852.3	0.013853.4	
20	$$$$$$	15193.3	15197.5	0.015197.5		20	$$$$$$	13849.7	13848.6	0.013849.7	

Incrementos de Carga:

1 2 3 4 5 6 7 8 9

Incremento de Carga 10 :

Flector : -54.00m.T ASIENTOS
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL

Incremento de Carga 11 :

Flector : -570.00m.T SC.FREC.
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	159.9	0.0	0.0	0.0	0.0	1	131.3	0.0	0.0	0.0	0.0
2	-153.0	-62.9	-66.4	0.0	0.0	2	69.9	0.0	0.0	0.0	0.0
3	-153.0	-66.4	-70.7	0.0	0.0	3	69.9	0.0	0.0	0.0	0.0
4	-153.0	-70.7	-132.9	0.0	0.0	4	69.9	0.0	-123.4	0.0	0.0
5	-153.0	-132.9	-140.6	0.0	0.0	5	69.9	-123.4	-141.2	0.0	0.0
6	159.9	392.8	386.6	0.0	392.8	6	76.4	564.0	545.0	0.0	564.0
7	-153.0	-328.1	-330.3	0.0	330.3	7	-21.3	-338.4	-346.7	0.0	346.7
8	-153.0	-367.2	-369.4	0.0	369.4	8	-21.3	-487.5	-495.9	0.0	495.9
9	-153.0	-407.2	-409.4	0.0	409.4	9	-21.3	-640.2	-648.5	0.0	648.5
10	-153.0	-447.2	-449.4	0.0	449.4	10	-21.3	-792.8	-801.1	0.0	801.1
11	-153.0	-487.2	-489.4	0.0	489.4	11	-21.3	-945.4	-953.8	0.0	953.8
12	-153.0	-527.2	-529.4	0.0	529.4	12	-21.3	-1098.1	-1106.4	0.0	1106.4
13	-153.0	-567.3	-569.4	0.0	569.4	13	-21.3	-1250.7	-1259.0	0.0	1259.0
14	-153.0	-607.3	-609.4	0.0	609.4	14	-21.3	-1403.3	-1411.7	0.0	1411.7
15	-153.0	-647.3	-649.4	0.0	649.4	15	-21.3	-1556.0	-1564.3	0.0	1564.3
16	-153.0	-687.3	-689.4	0.0	689.4	16	-21.3	-1708.6	-1716.9	0.0	1716.9
17	-153.0	-717.8	-720.0	0.0	720.0	17	-21.3	-1825.2	-1833.5	0.0	1833.5
18	$$$$$$	13450.0	13450.9	0.013450.9		18	$$$$$$	13089.3	13083.8	0.013089.3	
19	$$$$$$	14990.1	14991.1	0.014991.1		19	$$$$$$	13621.9	13616.5	0.013621.9	
20	$$$$$$	14993.4	14994.4	0.014994.4		20	$$$$$$	13602.8	13597.4	0.013602.8	

Incrementos de Carga:

1 2 3 4 5 6 7 8 9 10 11

Título Sección: INTERMEDIA X=7.5 m (L=36 m) 66 CABLES

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : -900.00m.T MOM.FISURA
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

Incremento de Carga 2 :
Pretensado: 1317.00Tn.
P.relajacion: 2.50(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PI
Seccion Afectada: VN

Incremento de Carga 3 :
Pretensado: 120.00Tn.
P.relajacion: 2.50(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PS
Seccion Afectada: VN

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	99.9	31.9	23.9	0.0	0.0	1	51.4	42.0	21.6	0.0	0.0
2	71.5	61.8	48.5	0.0	0.0	2	53.4	29.2	18.9	0.0	0.0
3	71.5	48.5	32.6	0.0	0.0	3	53.4	18.9	6.6	0.0	0.0
4	71.5	32.6	-201.6	0.0	0.0	4	53.4	6.6	-174.3	0.0	0.0
5	71.5	-201.6	-230.9	0.0	0.0	5	53.4	-174.3	-196.9	0.0	0.0
6	99.9	186.8	182.0	0.0	186.8	6	39.1	296.7	276.4	0.0	296.7
7	71.5	301.0	292.7	0.0	301.0	7	47.1	256.0	240.3	0.0	256.0
8	71.5	153.8	145.6	0.0	153.8	8	47.1	-24.4	-40.1	0.0	40.1
9	71.5	3.2	-5.0	0.0	5.0	9	47.1	-311.3	-327.0	0.0	327.0
10	71.5	-147.4	-155.6	0.0	155.6	10	47.1	-598.2	-613.9	0.0	613.9
11	71.5	-298.0	-306.2	0.0	306.2	11	47.1	-885.1	-900.8	0.0	900.8
12	71.5	-448.6	-456.8	0.0	456.8	12	47.1	-1172.0	-1187.7	0.0	1187.7
13	71.5	-599.1	-607.4	0.0	607.4	13	47.1	-1459.0	-1474.6	0.0	1474.6
14	71.5	-749.7	-757.9	0.0	757.9	14	47.1	-1745.9	-1761.5	0.0	1761.5
15	71.5	-900.3	-908.5	0.0	908.5	15	47.1	-2032.8	-2048.4	0.0	2048.4
16	71.5	-1050.9	-1059.1	0.0	1059.1	16	47.1	-2319.7	-2335.3	0.0	2335.3
17	71.5	-1165.9	-1174.1	0.0	1174.1	17	47.1	-2538.8	-2554.4	0.0	2554.4
18	$$$$$$	14412.7	14410.3	0.0	14412.7	18	$$$$$$	13999.3	13989.2	0.0	13999.3
19	$$$$$$	14015.9	14013.5	0.0	14015.9	19	$$$$$$	12426.1	12416.0	0.0	12426.1
20	$$$$$$	14007.5	14005.1	0.0	14007.5	20	$$$$$$	12390.7	12380.6	0.0	12390.7

Incrementos de Carga:
1 2 3

** CALCULO ELASTICO **

Título Sección: INTERMEDIA X=7.5 m (L=36 m) 66 CABLES

Analisis CON FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : -900.00m.T MOM.FISURA
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

Incremento de Carga 2 :
Pretensado: 1317.00Tn.
P.relajacion: 2.50(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PI
Seccion Afectada: VN

Incremento de Carga 3 :
Pretensado: 120.00Tn.
P.relajacion: 2.50(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PS
Seccion Afectada: VN

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	202.1	0.0	0.0	0.0	0.0	1	152.8	0.0	0.0	0.0	0.0
2	119.8	0.0	0.0	0.0	0.0	2	143.8	0.0	0.0	0.0	0.0
3	119.8	0.0	0.0	0.0	0.0	3	143.8	0.0	0.0	0.0	0.0
4	119.8	0.0	-204.7	0.0	0.0	4	143.8	0.0	-179.2	0.0	0.0
5	119.8	-204.7	-248.3	0.0	0.0	5	143.8	-179.2	-229.0	0.0	0.0
6	202.1	1840.3	1817.3	0.0	1840.3	6	121.4	1852.5	1813.5	0.0	1852.5
7	119.8	941.4	929.2	0.0	941.4	7	75.5	794.5	774.6	0.0	794.5
8	119.8	722.1	709.8	0.0	722.1	8	75.5	438.3	418.5	0.0	438.3
9	119.8	497.6	485.4	0.0	497.6	9	75.5	73.9	54.0	0.0	73.9
10	119.8	273.1	260.9	0.0	273.1	10	75.5	-290.6	-310.5	0.0	310.5
11	119.8	48.7	36.4	0.0	48.7	11	75.5	-655.0	-674.9	0.0	674.9
12	119.8	-175.8	-188.0	0.0	188.0	12	75.5	-1019.5	-1039.4	0.0	1039.4
13	119.8	-400.2	-412.5	0.0	412.5	13	75.5	-1383.9	-1403.8	0.0	1403.8
14	119.8	-624.7	-637.0	0.0	637.0	14	75.5	-1748.4	-1768.3	0.0	1768.3
15	119.8	-849.2	-861.4	0.0	861.4	15	75.5	-2112.8	-2132.7	0.0	2132.7
16	119.8	-1073.6	-1085.9	0.0	1085.9	16	75.5	-2477.3	-2497.2	0.0	2497.2
17	119.8	-1245.0	-1257.3	0.0	1257.3	17	75.5	-2755.6	-2775.5	0.0	2775.5
18	$$$$$$	15761.6	15750.2	0.0	15761.6	18	$$$$$$	15253.2	15233.9	0.0	15253.2
19	$$$$$$	13977.2	13965.8	0.0	13977.2	19	$$$$$$	12260.7	12241.4	0.0	12260.7
20	$$$$$$	13937.0	13925.6	0.0	13937.0	20	$$$$$$	12192.7	12173.4	0.0	12192.7

Incrementos de Carga:
1 2 3

Proyecto:
2

Seccion:INTERMEDIA X=9 m (L=36 m) 66 CABLES

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_{\pi}1$	$J_{\pi}2$
1(HO)	600.0	1.40	408160	2.00	1.20
2(HO)	350.0	1.50	350000	1.75	1.07
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.10	1950000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) π(mm)	Yo(cm)	Mc	Nsr
1	2	700.0	25.0	0.0	C*	0
2	1	81.6	10.0	25.0	C*	0
3	1	56.0	12.0	35.0	C*	0
4	1	32.9	176.0	47.0	C*	0
5	1	280.0	22.0	223.0	C*	0
6	3	56.0	12.0	2.5	CT	0
7	3	8.0	12.0	27.5	CT	0
8	3	4.0	12.0	49.0	CT	0
9	3	4.0	12.0	71.0	CT	0
10	3	4.0	12.0	93.0	CT	0
11	3	4.0	12.0	115.0	CT	0
12	3	4.0	12.0	137.0	CT	0
13	3	4.0	12.0	159.0	CT	0
14	3	4.0	12.0	181.0	CT	0
15	3	4.0	12.0	203.0	CT	0
16	3	13.0	12.0	225.0	CT	0
17	3	13.0	12.0	241.8	CT	0
18	4	6.0	13.4	30.0	*T	0
19	4	33.0	13.4	234.6	*T	0
20	4	33.0	13.4	239.3	*T	0

SECCIONES INTERMEDIAS

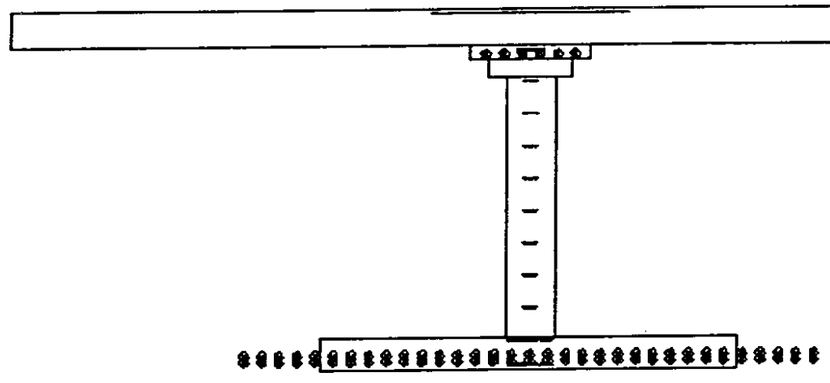
Num.	Codigo	Componentes
1	VN	2 3 4 5 7 8 9 10 11 12 13 14 15 16 17
2	VA	2 3 4 5 7 8 9 10 11 12 13 14 15 16 17 18 19 20
3	HA	2 3 4 5
4	HL	1
5	HT	1 2 3 4 5
6	AA	7 8 9 10 11 12 13 14 15 16 17
7	AL	6
8	PS	18
9	PI	19 20

*** CONSTANTES ESTATICAS ***

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F.pura +	(0)	2765.0	21.72	6237741.8
	(1)	1345.0	35.24	5742872.1
	(2)	1679.3	30.51	5904036.6
F.pura -	(0)	1455.1	218.89	4316212.6
	(1)	678.2	200.51	3876818.8
	(2)	823.1	206.58	4017747.6
C.Simple	(0)	5760.1	88.75	51770048.3
	(1)	2161.1	89.33	19887950.5
	(2)	2826.0	88.82	25745350.9
T.Simple	(0)	231.6	140.51	2571771.0
	(1)	231.6	140.51	2571771.0
	(2)	231.6	140.51	2571771.0

***** Nota: Homogeneizadas a E=2100000 Kp/cm2 *****



Esquema Seccion

?

** CALCULO ELASTICO **

Título Sección: INTERMEDIA X=9 m (L=36 m) 66 CABLES

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : 453.00m.T PP.VIGAS
Tipo de Solicitacion: CP
Seccion Afectada: VN

Incremento de Carga 2 :
Pretensado: 1251.00Tn.
P.relajacion: 2.50(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PI
Seccion Afectada: VN

Incremento de Carga 3 :
Pretensado: 126.00Tn.
P.relajacion: 2.50(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PS
Seccion Afectada: VN

Incremento de Carga 4 :
Flector : 544.00m.T P.LOSA
Tipo de Solicitacion: CP
Seccion Afectada: VA

Incremento de Carga 5 :
Flector : 180.00m.T C.M.
Tipo de Solicitacion: CP
Seccion Afectada: TOTAL

Incremento de Carga 6 :
Retraccion(Eso/πi;Tinf.): 2.60(*1.E-05)
Actua sobre la Sintermedia HA
Seccion Afectada: VA

Incremento de Carga 7 :
Retraccion(Eso/πi;Tinf.): 2.60(*1.E-05)
Actua sobre la Sintermedia HA
Seccion Afectada: TOTAL

Incremento de Carga 8 :
Retraccion(Eso/πi;Tinf.): 9.20(*1.E-05)
Actua sobre la Sintermedia HL
Seccion Afectada: TOTAL

Incremento de Carga 9 :
Flector : -185.00m.T RETR-FLUEN
Tipo de Solicitacion: CP;tf[2]
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	88.7	-5.1	-3.7	0.0	0.0	1	-100.9	-11.4	-14.2	0.0	0.0
2	381.9	-159.9	-155.4	0.0	0.0	2	-926.3	-60.7	-61.3	0.0	0.0
3	381.9	-155.4	-150.0	0.0	0.0	3	-926.3	-61.3	-62.1	0.0	0.0
4	381.9	-150.0	-71.2	0.0	0.0	4	-926.3	-62.1	-73.3	0.0	0.0
5	381.9	-71.2	-61.3	0.0	0.0	5	-926.3	-73.3	-74.7	0.0	0.0
6	88.7	-30.0	-29.6	0.0	30.0	6	-203.4	-377.4	-379.6	0.0	379.6
7	381.9	-816.8	-814.0	0.0	816.8	7	$$$$$$	-1271.8	-1271.7	0.0	1271.8
8	381.9	-767.2	-764.5	0.0	767.2	8	$$$$$$	-1268.9	-1268.7	0.0	1268.9
9	381.9	-716.5	-713.7	0.0	716.5	9	$$$$$$	-1265.9	-1265.7	0.0	1265.9
10	381.9	-665.8	-663.0	0.0	665.8	10	$$$$$$	-1262.9	-1262.7	0.0	1262.9
11	381.9	-615.1	-612.3	0.0	615.1	11	$$$$$$	-1259.9	-1259.7	0.0	1259.9
12	381.9	-564.4	-561.6	0.0	564.4	12	$$$$$$	-1256.9	-1256.7	0.0	1256.9
13	381.9	-513.7	-510.9	0.0	513.7	13	$$$$$$	-1253.8	-1253.7	0.0	1253.8
14	381.9	-463.0	-460.2	0.0	463.0	14	$$$$$$	-1250.8	-1250.7	0.0	1250.8
15	381.9	-412.3	-409.5	0.0	412.3	15	$$$$$$	-1247.8	-1247.7	0.0	1247.8
16	381.9	-361.6	-358.8	0.0	361.6	16	$$$$$$	-1244.8	-1244.7	0.0	1244.8
17	381.9	-322.8	-320.1	0.0	322.8	17	$$$$$$	-1242.5	-1242.4	0.0	1242.5
18	$$$$$$	14526.0	14530.8	0.0	14530.8	18	$$$$$$	13723.3	13725.4	0.0	13725.4
19	$$$$$$	13796.3	13801.1	0.0	13801.1	19	$$$$$$	12618.3	12620.4	0.0	12620.4
20	$$$$$$	13813.1	13817.9	0.0	13817.9	20	$$$$$$	12625.6	12627.7	0.0	12627.7

Incrementos de Carga:
1 2 3 4 5 6 7 8 9

Incremento de Carga 10 :
Flector : 50.00m.T TERMICO FR
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

Incremento de Carga 11 :
Flector : 70.00m.T ASIENTOS
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL

Incremento de Carga 12 :
Flector : 650.00m.T SC.FREC.
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	88.7	-25.1	-18.1	0.0	0.0	1	248.6	-33.4	-30.0	0.0	0.0
2	273.5	-176.6	-169.5	0.0	0.0	2	379.2	-79.0	-76.8	0.0	0.0
3	273.5	-169.5	-161.0	0.0	0.0	3	379.2	-76.8	-74.1	0.0	0.0
4	273.5	-161.0	-35.9	0.0	0.0	4	379.2	-74.1	-34.8	0.0	0.0
5	273.5	-35.9	-20.3	0.0	0.0	5	379.2	-34.8	-29.9	0.0	0.0
6	88.7	-146.6	-144.6	0.0	146.6	6	$$$$$$	-517.5	-517.8	0.0	517.8
7	273.5	-899.6	-895.2	0.0	899.6	7	806.3	-1371.3	-1369.2	0.0	1371.3
8	273.5	-821.0	-816.6	0.0	821.0	8	806.3	-1333.5	-1331.4	0.0	1333.5
9	273.5	-740.5	-736.1	0.0	740.5	9	806.3	-1294.7	-1292.6	0.0	1294.7
10	273.5	-660.1	-655.7	0.0	660.1	10	806.3	-1256.0	-1253.9	0.0	1256.0
11	273.5	-579.6	-575.2	0.0	579.6	11	806.3	-1217.3	-1215.1	0.0	1217.3
12	273.5	-499.1	-494.8	0.0	499.1	12	806.3	-1178.5	-1176.4	0.0	1178.5
13	273.5	-418.7	-414.3	0.0	418.7	13	806.3	-1139.8	-1137.7	0.0	1139.8
14	273.5	-338.2	-333.9	0.0	338.2	14	806.3	-1101.0	-1098.9	0.0	1101.0
15	273.5	-257.8	-253.4	0.0	257.8	15	806.3	-1062.3	-1060.2	0.0	1062.3
16	273.5	-177.3	-172.9	0.0	177.3	16	806.3	-1023.6	-1021.4	0.0	1023.6
17	273.5	-115.9	-111.5	0.0	115.9	17	806.3	-994.0	-991.9	0.0	994.0
18	$$$$$$	14452.2	14458.7	0.0	14458.7	18	$$$$$$	13634.7	13638.8	0.0	13638.8
19	$$$$$$	13979.4	13985.9	0.0	13985.9	19	$$$$$$	12838.2	12842.3	0.0	12842.3
20	$$$$$$	14002.1	14008.6	0.0	14008.6	20	$$$$$$	12852.6	12856.7	0.0	12856.7

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 10 11 12

Incremento de Carga 13 :
Flector : 168.00m.T TERMICO
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

Incremento de Carga 14 :
Flector : 70.00m.T ASIENTOS
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL

Incremento de Carga 15 :
Flector : 926.00m.T SC.POCO PR
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	88.7	-36.4	-26.1	0.0	0.0	1	170.9	-44.6	-38.1	0.0	0.0
2	241.7	-186.1	-177.5	0.0	0.0	2	263.4	-88.4	-84.7	0.0	0.0
3	241.7	-177.5	-167.2	0.0	0.0	3	263.4	-84.7	-80.3	0.0	0.0
4	241.7	-167.2	-16.0	0.0	0.0	4	263.4	-80.3	-15.0	0.0	0.0
5	241.7	-16.0	2.9	0.0	0.0	5	263.4	-15.0	-6.8	0.0	0.0
6	88.7	-212.2	-209.3	0.0	212.2	6	$$$$$$	-583.1	-582.5	0.0	583.1
7	241.7	-946.2	-940.9	0.0	946.2	7	589.7	-1417.9	-1414.9	0.0	1417.9
8	241.7	-851.2	-845.9	0.0	851.2	8	589.7	-1363.7	-1360.7	0.0	1363.7
9	241.7	-754.0	-748.7	0.0	754.0	9	589.7	-1308.2	-1305.2	0.0	1308.2
10	241.7	-656.8	-651.5	0.0	656.8	10	589.7	-1252.8	-1249.7	0.0	1252.8
11	241.7	-559.6	-554.3	0.0	559.6	11	589.7	-1197.3	-1194.2	0.0	1197.3
12	241.7	-462.4	-457.1	0.0	462.4	12	589.7	-1141.8	-1138.8	0.0	1141.8
13	241.7	-365.2	-359.9	0.0	365.2	13	589.7	-1086.3	-1083.3	0.0	1086.3
14	241.7	-268.0	-262.7	0.0	268.0	14	589.7	-1030.8	-1027.8	0.0	1030.8
15	241.7	-170.8	-165.5	0.0	170.8	15	589.7	-975.3	-972.3	0.0	975.3
16	241.7	-73.6	-68.3	0.0	73.6	16	589.7	-919.9	-916.8	0.0	919.9
17	241.7	.6	5.9	0.0	5.9	17	589.7	-877.5	-874.5	0.0	877.5
18	$$$$$$	14410.7	14418.1	0.0	14418.1	18	$$$$$$	13593.2	13598.2	0.0	13598.2
19	$$$$$$	14082.5	14089.9	0.0	14089.9	19	$$$$$$	12941.3	12946.3	0.0	12946.3
20	$$$$$$	14108.5	14115.9	0.0	14115.9	20	$$$$$$	12959.0	12964.1	0.0	12964.1

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 13 14 15

Incremento de Carga 16 :
Flector : 1.00m.T
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

Incremento de Carga 17 :
Flector : -242.00m.T ASIENTOS
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL

Incremento de Carga 18 :
Flector : -581.00m.T SC.POCO PR
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao Tcomp
1	88.7	11.5	8.2	0.0 0.0	1	31.7	11.9	2.5	0.0 0.0
2	660.0	-146.0	-143.7	0.0 0.0	2	-88.7	-41.5	-45.1	0.0 0.0
3	660.0	-143.7	-140.9	0.0 0.0	3	-88.7	-45.1	-49.5	0.0 0.0
4	660.0	-140.9	-100.5	0.0 0.0	4	-88.7	-49.5	-113.8	0.0 0.0
5	660.0	-100.5	-95.4	0.0 0.0	5	-88.7	-113.8	-121.8	0.0 0.0
6	88.7	66.8	65.9	0.0 66.8	6	-48.7	-199.5	-204.2	0.0 204.2
7	660.0	-748.0	-746.6	0.0 748.0	7	-567.4	-1145.5	-1147.8	0.0 1147.8
8	660.0	-722.6	-721.2	0.0 722.6	8	-567.4	-1186.9	-1189.2	0.0 1189.2
9	660.0	-696.6	-695.2	0.0 696.6	9	-567.4	-1229.2	-1231.5	0.0 1231.5
10	660.0	-670.6	-669.2	0.0 670.6	10	-567.4	-1271.6	-1273.9	0.0 1273.9
11	660.0	-644.6	-643.1	0.0 644.6	11	-567.4	-1313.9	-1316.3	0.0 1316.3
12	660.0	-618.5	-617.1	0.0 618.5	12	-567.4	-1356.3	-1358.6	0.0 1358.6
13	660.0	-592.5	-591.1	0.0 592.5	13	-567.4	-1398.7	-1401.0	0.0 1401.0
14	660.0	-566.5	-565.1	0.0 566.5	14	-567.4	-1441.0	-1443.3	0.0 1443.3
15	660.0	-540.5	-539.1	0.0 540.5	15	-567.4	-1483.4	-1485.7	0.0 1485.7
16	660.0	-514.5	-513.1	0.0 514.5	16	-567.4	-1525.7	-1528.0	0.0 1528.0
17	660.0	-494.6	-493.2	0.0 494.6	17	-567.4	-1558.1	-1560.4	0.0 1560.4
18	$$$$$$	14587.2	14590.6	0.0 14590.6	18	$$$$$$	13835.9	13835.4	0.0 13835.9
19	$$$$$$	13644.3	13647.7	0.0 13647.7	19	$$$$$$	12339.0	12338.6	0.0 12339.0
20	$$$$$$	13656.2	13659.6	0.0 13659.6	20	$$$$$$	12337.4	12336.9	0.0 12337.4

$\ll 0{,}0$ Kg/mm2

Con $\gamma_p = 1{,}05 \rightarrow$ PI $\rightarrow$
$\gamma_p = 0{,}95 \rightarrow$ PS

$\rightarrow \sigma < 0{,}0$ Kg/mm2

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 17 18

Proyecto:

Seccion:CV36 CENTRO DE VANO ($L = 36$ m).

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	Jø1	Jø2
1(HO)	600.0	1.40	408160	2.00	1.20
2(HO)	350.0	1.50	350000	1.75	1.07
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.10	1950000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) ø(mm)	Yo(cm)	Mc	Nsr
1	2	700.0	25.0	0.0	C*	0
2	1	81.6	10.0	25.0	C*	0
3	1	56.0	12.0	35.0	C*	0
4	1	32.9	176.0	47.0	C*	0
5	1	280.0	22.0	223.0	C*	0
6	3	35.0	16.0	2.5	CT	0
7	3	8.0	12.0	27.5	CT	0
8	3	4.0	12.0	49.0	CT	0
9	3	4.0	12.0	71.0	CT	0
10	3	4.0	12.0	93.0	CT	0
11	3	4.0	12.0	115.0	CT	0
12	3	4.0	12.0	137.0	CT	0
13	3	4.0	12.0	159.0	CT	0
14	3	4.0	12.0	181.0	CT	0
15	3	4.0	12.0	203.0	CT	0
16	3	13.0	12.0	225.0	CT	0
17	3	13.0	12.0	241.8	CT	0
18	4	6.0	13.4	30.0	*T	0
19	4	52.0	13.4	234.6	*T	0
20	4	52.0	13.4	239.3	*T	0

SECCIONES INTERMEDIAS

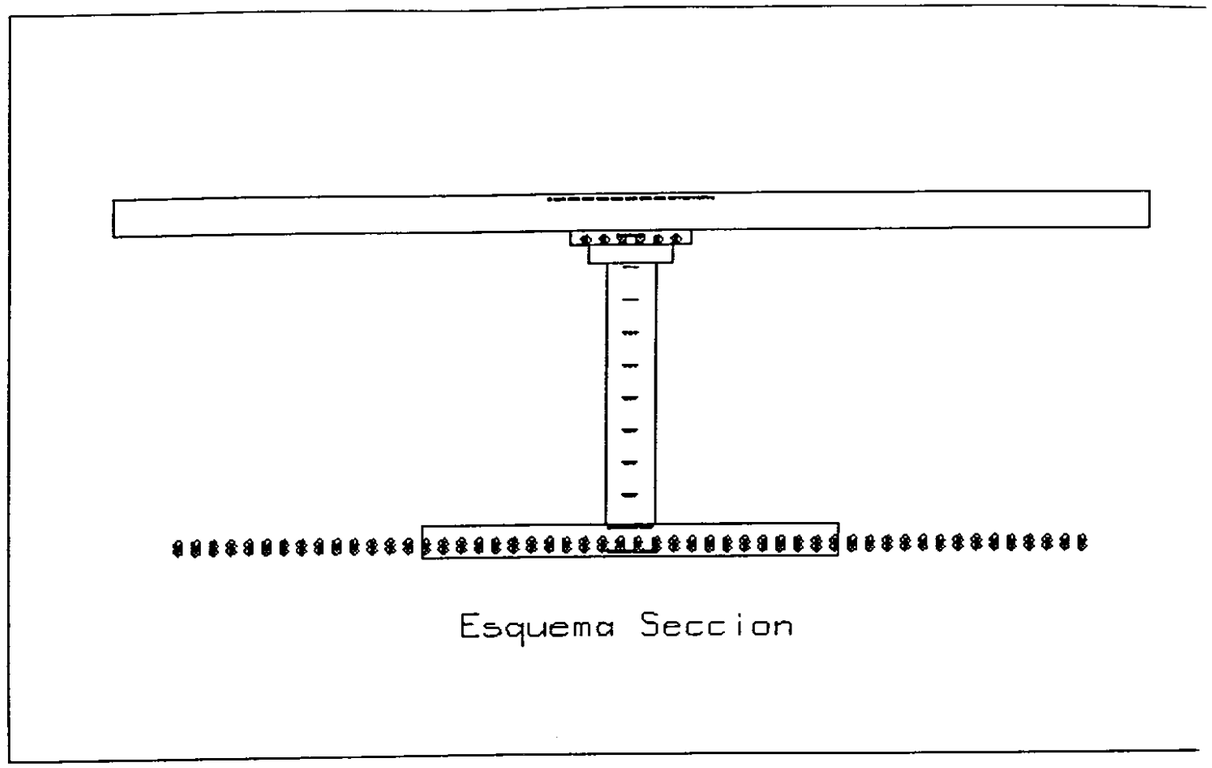
Num.	Codigo	Componentes
1	VN	2 3 4 5 7 8 9 10 11 12 13 14 15 16 17
2	VA	2 3 4 5 7 8 9 10 11 12 13 14 15 16 17 18 19 20
3	HA	2 3 4 5
4	HL	1
5	HT	1 2 3 4 5
6	AA	7 8 9 10 11 12 13 14 15 16 17
7	AL	6
8	PS	18
9	PI	19 20

* CONSTANTES ESTATICAS *

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	3207.9	25.20	8504662.7
	(1)	1427.1	42.15	7705147.6
	(2)	1774.9	36.23	7970086.5
F.pura -	(0)	1514.0	218.50	4655212.9
	(1)	733.6	201.14	4213825.0
	(2)	879.4	206.72	4351476.3
C.Simple	(0)	5816.6	89.91	52906298.9
	(1)	2218.8	92.36	21014741.8
	(2)	2883.8	91.16	26884740.3
T.Simple	(0)	288.0	153.85	3115539.8
	(1)	288.0	153.85	3115539.8
	(2)	288.0	153.85	3115539.8

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***



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ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: *CV36*

*** PRESOLICITACIONES ELASTICAS ***

CONTROL EN AGOTAMIENTO PARA MAXIMO MOMENTO FLECTOR

Analisis CON FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Pretensado: 2075.00Tn.
Actua sobre la Sintermedia PI
Seccion Afectada: VN

Incremento de Carga 2 :
Pretensado: 120.00Tn.
Actua sobre la Sintermedia PS
Seccion Afectada: VN

Incremento de Carga 3 :
Flector : 593.00m.T PP.VIGAS
Seccion Afectada: VN

Incremento de Carga 4 :
Flector : 738.00m.T P.LOSA
Seccion Afectada: VA

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[ø*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 6090.5 **Xu(cm.):** 32.9 $M_u > M_d = 5321$ mt.

Nu(Tn.): -.2 *Qu(Tn.):* 0.0

Deformaciones Ultimas: Ecmx= -.00158 Etmx= .00981
Rompe la fibra inferior de la S.parcial 20

FLEXION PURA NEGATIVA:

Mu(m.T): -1177.8 Xu(cm.): 209.6

Nu(Tn.): -.4 *Qu(Tn.):* 0.0

Deformaciones Ultimas: Ecmx= -.00208 Etmx= .01000
Rompe la fibra superior de la S.parcial 1

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -9009.4 aplicado en Yo(cm)= 102.7

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 3036.7 aplicado en Yo(cm)= 195.8

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

INTERACCION ROTURA(ELASTOPLASTICO)

Título Sección: CV36

** PRESOLICITACIONES ELASTICAS **

CONTROL EN AGOTAMIENTO PARA HIPÓTESIS DE MÁXIMO AXIL CON MOMENTO FLECTOR CONCOMITANTE.

Analisis CON FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Pretensado: *2075.00Tn.*
Actua sobre la Sintermedia *PI*
Seccion Afectada: *VN*

Incremento de Carga 2 :
Pretensado: *120.00Tn.*
Actua sobre la Sintermedia *PS*
Seccion Afectada: *VN*

Incremento de Carga 3 :
Flector : *593.00m.T* *PP.VIGAS*
Seccion Afectada: *VN*

Incremento de Carga 4 :
Flector : *738.00m.T* *P.LOSA*
Seccion Afectada: *VA*

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[ø(Cperm./Ctot.)]: 0.00*

INTERACCION M-N-V

Flexion POSITIVA Axil de TRACCION
Fibra referencia Momentos: Yo(cm)= 153.85

DIAGRAMA Mu-Nu:
Cortante Total(Tn)= 0.0(0.0 + 0.0)

MOMENTO(m.T.)	AXIL(Tn.)	Xn(cm)	Ecmx	Etmx	Fibra Rot.	Spar.
1772.50	3036.67	-17.9	.00069	.00977	Inferior	20
1976.56	2884.83	1.5	-.00006	.00979	Inferior	20
2206.85	2733.00	6.6	-.00028	.00979	Inferior	20
2433.61	2581.17	9.5	-.00041	.00979	Inferior	20
2663.90	2429.33	11.8	-.00052	.00979	Inferior	20
2879.60	2277.50	13.7	-.00060	.00980	Inferior	20
3106.40	2125.67	15.5	-.00069	.00980	Inferior	20
3330.45	1973.83	17.2	-.00077	.00980	Inferior	20
3551.45	1822.00	18.7	-.00084	.00980	Inferior	20
3764.51	1670.17	20.0	-.00090	.00980	Inferior	20
3984.09	1518.33	21.3	-.00097	.00980	Inferior	20
4199.49	1366.50	22.5	-.00103	.00980	Inferior	20
4412.10	1214.67	23.7	-.00109	.00980	Inferior	20
4623.75	1062.83	24.8	-.00115	.00981	Inferior	20
4834.62	911.00	25.9	-.00120	.00981	Inferior	20
5044.95	759.17	27.0	-.00126	.00981	Inferior	20
5254.95	607.33	28.1	-.00132	.00981	Inferior	20
5464.48	455.50	29.3	-.00138	.00981	Inferior	20
5673.94	303.67	30.4	-.00145	.00981	Inferior	20
5882.42	151.83	31.7	-.00151	.00981	Inferior	20
6090.48	0.00	32.9	-.00158	.00981	Inferior	20

UIC.

$N_d = 1{,}3 \times 451 = 586{,}3\ t/viga$

$M_d = 1{,}5 \times (593 + 738) + 1{,}8\ 468 + 1{,}25 \times (176 + 80) +$ (P.viga, P.losa, C.M, térmico Asiento)

$+ 1{,}3 < 1{,}02 \times 909 = 4364\ mt/viga$

PENFE

$N_d = 1{,}5 \times 285 = 428\ t/viga$

$M_d = 1{,}5 \times (592 + 738 + 451) + 1{,}25\,(176 + 80) +$

$+ 1{,}5 \times 860 = 4309\ mt/viga$

** CALCULO ELASTICO **

Título Sección: CV36

Analisis SIN FISURACION

CONTROL ESTADO EN VACÍO A 9,0 m DEL APOYO PARA 104 cables

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : 453.00m.T PP.VIGAS
Tipo de Solicitacion: CP
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

Incremento de Carga 2 :
Pretensado: 2179.00Tn.
P.relajacion: 3.00(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PI
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

Incremento de Carga 3 :
Pretensado: 114.00Tn.
P.relajacion: 3.00(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PS
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

TENSIONES (Kg/cm2):

	ESTADO INICIAL (To)					ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	$$$$$$	0.0	0.0	0.0	0.0	1	8.3	4.8	-9.7	0.0	0.0
2	24.8	-.2	-11.5	0.0	0.0	2	10.2	-10.4	-17.4	0.0	0.0
3	24.8	-11.5	-25.0	0.0	0.0	3	10.2	-17.4	-25.9	0.0	0.0
4	24.8	-25.0	-224.0	0.0	0.0	4	10.2	-25.9	-149.6	0.0	0.0
5	24.8	-224.0	-248.9	0.0	0.0	5	10.2	-149.6	-165.1	0.0	0.0
6	$$$$$$	0.0	0.0	0.0	0.0	6	8.3	80.1	58.0	0.0	80.1
7	24.8	-26.5	-38.5	0.0	38.5	7	15.2	-292.1	-320.7	0.0	320.7
8	24.8	-241.3	-253.3	0.0	253.3	8	15.2	-804.3	-832.8	0.0	832.8
9	24.8	-461.0	-473.0	0.0	473.0	9	15.2	-1328.3	-1356.9	0.0	1356.9
10	24.8	-680.8	-692.8	0.0	692.8	10	15.2	-1852.3	-1880.9	0.0	1880.9
11	24.8	-900.6	-912.6	0.0	912.6	11	15.2	-2376.4	-2404.9	0.0	2404.9
12	24.8	-1120.4	-1132.3	0.0	1132.3	12	15.2	-2900.4	-2929.0	0.0	2929.0
13	24.8	-1340.1	-1352.1	0.0	1352.1	13	15.2	-3424.4	-3453.0	0.0	3453.0
14	24.8	-1559.9	-1571.9	0.0	1571.9	14	15.2	-3948.5	-3977.0	0.0	3977.0
15	24.8	-1779.7	-1791.7	0.0	1791.7	15	15.2	-4472.5	-4501.1	0.0	4501.1
16	24.8	-1999.4	-2011.4	0.0	2011.4	16	15.2	-4996.5	-5025.1	0.0	5025.1
17	24.8	-2167.3	-2179.2	0.0	2179.2	17	15.2	-5396.7	-5425.3	0.0	5425.3
18	$$$$$$	13573.8	13573.8	0.0	13573.8	18	$$$$$$	12887.8	12870.7	0.0	12887.8
19	$$$$$$	14968.3	14968.3	0.0	14968.3	19	$$$$$$	11612.9	11595.8	0.0	11612.9
20	$$$$$$	14968.3	14968.3	0.0	14968.3	20	$$$$$$	11552.6	11535.4	0.0	11552.6

→ < 0,0 Kg/cm²

→ 248,9 × 1,6 = 398 Kg/cm²

mínima resistencia al transferir el pretensado.

Incrementos de Carga:
1 2 3

** CALCULO ELASTICO **

Título Sección: CV36

CONTROL ESTADO EN VACÍO EN CENTRO DE VANO

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : 593.00m.T PP.VIGAS
Tipo de Solicitacion: CP
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

Incremento de Carga 2 :
Pretensado: 2178.00Tn. $= 1,05 \times 2075$ t.
(γ_p " $P_{o,inf.}$ ")
P.relajacion: 3.00(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PI
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

Incremento de Carga 3 :
Pretensado: 114.00Tn. $= 0,95 \times 120$ t.
(γ_c " $P_{3,sup.}$ ")
P.relajacion: 3.00(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PS
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

TENSIONES (Kg/cm2):

	ESTADO INICIAL (To)					ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	$$$$$$	0.0	0.0	0.0	0.0	1	3.0	1.7	-12.1	0.0	0.0
2	-2.1	-25.8	-35.3	0.0	0.0	2	3.1	-14.4	-21.0	0.0	0.0
3	-2.1	-35.3	-46.7	0.0	0.0	3	3.1	-21.0	-28.9	0.0	0.0
4	-2.1	-46.7	-214.2	0.0	0.0	4	3.1	-28.9	-144.4	0.0	0.0
5	-2.1	-214.2	-235.2	0.0	0.0	5	3.1	-144.4	-158.9	0.0	0.0
6	$$$$$$	0.0	0.0	0.0	0.0	6	3.0	6.9	-13.9	0.0	13.9
7	-2.1	-248.7	-258.8	0.0	258.8	7	1.0	-567.3	-593.0	0.0	593.0
8	-2.1	-429.6	-439.7	0.0	439.7	8	1.0	-1028.0	-1053.7	0.0	1053.7
9	-2.1	-614.6	-624.7	0.0	624.7	9	1.0	-1499.4	-1525.2	0.0	1525.2
10	-2.1	-799.7	-809.8	0.0	809.8	10	1.0	-1970.9	-1996.6	0.0	1996.6
11	-2.1	-984.7	-994.8	0.0	994.8	11	1.0	-2442.3	-2468.1	0.0	2468.1
12	-2.1	-1169.8	-1179.9	0.0	1179.9	12	1.0	-2913.8	-2939.5	0.0	2939.5
13	-2.1	-1354.8	-1364.9	0.0	1364.9	13	1.0	-3385.2	-3411.0	0.0	3411.0
14	-2.1	-1539.9	-1550.0	0.0	1550.0	14	1.0	-3856.7	-3882.4	0.0	3882.4
15	-2.1	-1725.0	-1735.1	0.0	1735.1	15	1.0	-4328.1	-4353.8	0.0	4353.8
16	-2.1	-1910.0	-1920.1	0.0	1920.1	16	1.0	-4799.6	-4825.3	0.0	4825.3
17	-2.1	-2051.3	-2061.4	0.0	2061.4	17	1.0	-5159.6	-5185.3	0.0	5185.3
18	$$$$$$	13573.8	13573.8	0.0	13573.8	18	$$$$$$	12840.6	12824.4	0.0	12840.6
19	$$$$$$	14961.4	14961.4	0.0	14961.4	19	$$$$$$	11713.3	11697.2	0.0	11713.3
20	$$$$$$	14961.4	14961.4	0.0	14961.4	20	$$$$$$	11656.5	11640.4	0.0	11656.5

→ < 0,0 Kg/cm² Vale.

→ 235,2 × 1,6 = 376 Kg/cm²

Incrementos de Carga:
1 2 3

** CALCULO ELASTICO **

CONTROL MÁXIMA TRACCIÓN EN FIBRA INFERIOR.

Título Sección: CV36

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : 593.00m.T PP.VIGAS
Tipo de Solicitacion: CP
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

Incremento de Carga 2 :
Pretensado: 1971.00Tn.
P.relajacion: 3.00(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PI
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

Incremento de Carga 3 :
Pretensado: 126.00Tn.
P.relajacion: 3.00(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PS
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

Incremento de Carga 4 :
Flector : 738.00m.T P.LOSA
Tipo de Solicitacion: CP
Seccion Afectada: VA
Edad Aplicación Carga: 28 días

Incremento de Carga 5 :
Flector : 468.00m.T C.M.
Tipo de Solicitacion: CP
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 6 :
Retraccion(Eso/ni;Tinf.): 2.60(*1.E-05)
Actua sobre la Sintermedia HA
Seccion Afectada: VA
Edad Aplicación Carga: 28 días

Incremento de Carga 7 :
Retraccion(Eso/ni;Tinf.): 2.60(*1.E-05)
Actua sobre la Sintermedia HA
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 8 :
Retraccion(Eso/ni;Tinf.): 9.20(*1.E-05)
Actua sobre la Sintermedia HL
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 9 :
Flector : -185.00m.T RETR-FLUEN
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1 89.9	-13.3	-9.6	0.0	0.0	1 -161.9	-21.5	-24.8	0.0	0.0
2 583.3	-185.9	-182.6	0.0	0.0	2 $$$$$$	-72.8	-73.3	0.0	0.0
3 583.3	-182.6	-178.6	0.0	0.0	3 $$$$$$	-73.3	-74.0	0.0	0.0
4 583.3	-178.6	-120.0	0.0	0.0	4 $$$$$$	-74.0	-83.7	0.0	0.0
5 583.3	-120.0	-112.6	0.0	0.0	5 $$$$$$	-83.7	-84.9	0.0	0.0
6 89.9	-77.3	-75.9	0.0	77.3	6 -74.6	-554.0	-565.5	0.0	565.5
7 $$$$$$	-1110.4	-1111.6	0.0	1111.6	7 -175.0	-1842.5	-1853.4	0.0	1853.4
8 $$$$$$	-1133.1	-1134.3	0.0	1134.3	8 -175.0	-2038.1	-2049.0	0.0	2049.0
9 $$$$$$	-1156.3	-1157.5	0.0	1157.5	9 -175.0	-2238.2	-2249.2	0.0	2249.2
10 $$$$$$	-1179.5	-1180.8	0.0	1180.8	10 -175.0	-2438.4	-2449.3	0.0	2449.3
11 $$$$$$	-1202.7	-1204.0	0.0	1204.0	11 -175.0	-2638.6	-2649.5	0.0	2649.5
12 $$$$$$	-1225.9	-1227.2	0.0	1227.2	12 -175.0	-2838.7	-2849.7	0.0	2849.7
13 $$$$$$	-1249.1	-1250.4	0.0	1250.4	13 -175.0	-3038.9	-3049.8	0.0	3049.8
14 $$$$$$	-1272.4	-1273.6	0.0	1273.6	14 -175.0	-3239.1	-3250.0	0.0	3250.0
15 $$$$$$	-1295.6	-1296.8	0.0	1296.8	15 -175.0	-3439.2	-3450.2	0.0	3450.2
16 $$$$$$	-1318.8	-1320.0	0.0	1320.0	16 -175.0	-3639.4	-3650.3	0.0	3650.3
17 $$$$$$	-1336.5	-1337.8	0.0	1337.8	17 -175.0	-3792.3	-3803.2	0.0	3803.2
18 $$$$$$	14336.0	14342.9	0.014342.9		18 $$$$$$	13187.5	13184.4	0.013187.5	
19 $$$$$$	13931.3	13938.2	0.013938.2		19 $$$$$$	11298.6	11295.5	0.011298.6	
20 $$$$$$	13955.7	13962.6	0.013962.6		20 $$$$$$	11287.8	11284.7	0.011287.8	

Incrementos de Carga:
1 2 3 4 5 6 7 8 9

Incremento de Carga 10 :
Flector : 907.00m.T SC.FREC. → max (0,8 x SC. POCO FREC. UNA VÍA / 0,6 x SC. POCO FREC. DOS VÍAS) ←
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 11 :
Flector : 176.00m.T TERMICO
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 12 :
Flector : 80.00m.T ASIENTOS
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp Yn(cm)	Tsup.	Tinf.	Tao	Tcomp

1	89.9	-46.2	-33.4	0.0	0.0	1	232.9	-54.4	-48.6	0.0	0.0
2	306.0	-213.6	-206.0	0.0	0.0	2	295.1	-100.5	-96.8	0.0	0.0
3	306.0	-206.0	-196.9	0.0	0.0	3	295.1	-96.8	-92.3	0.0	0.0
4	306.0	-196.9	-63.1	0.0	0.0	4	295.1	-92.3	-26.8	0.0	0.0
5	306.0	-63.1	-46.4	0.0	0.0	5	295.1	-26.8	-18.6	0.0	0.0
6	89.9	-269.5	-264.5	0.0	269.5	6	-147.2	-746.1	-754.1	0.0	754.1
7	$$$$$$	-1247.6	-1246.2	0.0	1247.6	7	-259.4	-1979.6	-1987.9	0.0	1987.9
8	$$$$$$	-1223.0	-1221.6	0.0	1223.0	8	-259.4	-2128.0	-2136.3	0.0	2136.3
9	$$$$$$	-1197.9	-1196.5	0.0	1197.9	9	-259.4	-2279.8	-2288.1	0.0	2288.1
10	$$$$$$	-1172.7	-1171.3	0.0	1172.7	10	-259.4	-2431.6	-2439.9	0.0	2439.9
11	$$$$$$	-1147.6	-1146.2	0.0	1147.6	11	-259.4	-2583.4	-2591.7	0.0	2591.7
12	$$$$$$	-1122.4	-1121.0	0.0	1122.4	12	-259.4	-2735.2	-2743.5	0.0	2743.5
13	$$$$$$	-1097.3	-1095.9	0.0	1097.3	13	-259.4	-2887.0	-2895.3	0.0	2895.3
14	$$$$$$	-1072.1	-1070.7	0.0	1072.1	14	-259.4	-3038.8	-3047.1	0.0	3047.1
15	$$$$$$	-1047.0	-1045.6	0.0	1047.0	15	-259.4	-3190.6	-3198.9	0.0	3198.9
16	$$$$$$	-1021.8	-1020.5	0.0	1021.8	16	-259.4	-3342.4	-3350.7	0.0	3350.7
17	$$$$$$	-1002.6	-1001.3	0.0	1002.6	17	-259.4	-3458.4	-3466.6	0.0	3466.6
18	$$$$$$14213.714223.4			0.014223.4		18	$$$$$$13065.213064.9			0.013065.2	
19	$$$$$$14226.714236.3			0.014236.3		19	$$$$$$11593.911593.6			0.011593.9	
20	$$$$$$14260.614270.2			0.014270.2		20	$$$$$$11592.711592.4			0.011592.7	

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 10 11 12

Incremento de Carga 13 :
Flector : 1450.00m.T SC.POCO PROBABLE DOS VÍAS
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 14 :
Flector : 176.00m.T TERMICO
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 15 :
Flector : 80.00m.T ASIENTOS
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)

Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	89.9	-61.6	-44.5	0.0	0.0
2	261.1	-226.6	-217.0	0.0	0.0
3	261.1	-217.0	-205.5	0.0	0.0
4	261.1	-205.5	-36.6	0.0	0.0
5	261.1	-36.6	-15.5	0.0	0.0
6	89.9	-359.2	-352.6	0.0	359.2
7	632.1	-1311.6	-1309.0	0.0	1311.6
8	632.1	-1265.0	-1262.4	0.0	1265.0
9	632.1	-1217.3	-1214.7	0.0	1217.3
10	632.1	-1169.5	-1166.9	0.0	1169.5
11	632.1	-1121.8	-1119.2	0.0	1121.8
12	632.1	-1074.1	-1071.5	0.0	1074.1
13	632.1	-1026.4	-1023.8	0.0	1026.4

ESTADO FINAL (Tinf)

Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	172.5	-69.8	-59.7	0.0	0.0
2	223.5	-113.4	-107.7	0.0	0.0
3	223.5	-107.7	-100.9	0.0	0.0
4	223.5	-100.9	-.3	0.0	0.0
5	223.5	-.3	12.3	0.0	0.0
6	-208.7	-835.9	-842.2	0.0	842.2
7	-320.4	-2043.7	-2050.8	0.0	2050.8
8	-320.4	-2170.0	-2177.0	0.0	2177.0
9	-320.4	-2299.2	-2306.3	0.0	2306.3
10	-320.4	-2428.4	-2435.5	0.0	2435.5
11	-320.4	-2557.7	-2564.7	0.0	2564.7
12	-320.4	-2686.9	-2693.9	0.0	2693.9
13	-320.4	-2816.1	-2823.2	0.0	2823.2
14	632.1	-978.6	-976.0	0.0	978.6
15	632.1	-930.9	-928.3	0.0	930.9
16	632.1	-883.2	-880.6	0.0	883.2
17	632.1	-846.7	-844.1	0.0	846.7
18	$$$$$$	14156.614167.5		0.014167.5	
19	$$$$$$	14364.614375.5		0.014375.5	
20	$$$$$$	14403.014413.9		0.014413.9	

Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
14	-320.4	-2945.3	-2952.4	0.0	2952.4
15	-320.4	-3074.6	-3081.6	0.0	3081.6
16	-320.4	-3203.8	-3210.8	0.0	3210.8
17	-320.4	-3302.5	-3309.5	0.0	3309.5
18	$$$$$$	13008.113009.0		0.013009.0	
19	$$$$$$	11731.811732.8		0.011732.8	
20	$$$$$$	11735.1	11736.1	0.011736.1	

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 13 14 15

** CALCULO ELASTICO **

Título Sección: CV36

Analisis SIN FISURACION

CONTROL EN TENSIONES PARA HIPÓTESIS DE MÁXIMO AXIL CON MOMENTO CONCOMITANTE.

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : 593.00m.T PP.VIGAS
Tipo de Solicitacion: CP
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

Incremento de Carga 2 :
Pretensado: 1971.00Tn.
P.relajacion: 3.00(%)
Alfa: 0.00(geex.)
Actua sobre la Sintermedia PI
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

Incremento de Carga 3 :
Pretensado: 126.00Tn.
P.relajacion: 3.00(%)
Alfa: 0.00(geex.)
Actua sobre la Sintermedia PS
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

Incremento de Carga 4 :
Flector : 738.00m.T P.LOSA
Tipo de Solicitacion: CP
Seccion Afectada: VA
Edad Aplicación Carga: 28 días

Incremento de Carga 5 :
Flector : 468.00m.T C.M.
Tipo de Solicitacion: CP
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 6 :
Retraccion(Eso/πi;Tinf.): 2.60(*1.E-05)
Actua sobre la Sintermedia HA
Seccion Afectada: VA
Edad Aplicación Carga: 28 días

Incremento de Carga 7 :
Retraccion(Eso/πi;Tinf.): 2.60(*1.E-05)
Actua sobre la Sintermedia HA
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 8 :
Retraccion(Eso/πi;Tinf.): 9.20(*1.E-05)
Actua sobre la Sintermedia HL
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 9 :
Flector : -185.00m.T RETR-FLUEN
Tipo de Solicitacion: CP:tf(2)
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 10 :
Flector : 909.00m.T SC. MÁX. AXIL (MOMENTO CONCOMITANTE)
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 11 :
Axil : 451.00Tn. SC. MÁX. AXIL.
Excentricidad: 89.91cm.(respecto a la directriz)
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	60.1	-26.1	-15.2	0.0	0.0	1	223.3	-34.3	-30.5	0.0	0.0
2	313.7	-192.5	-185.8	0.0	0.0	2	309.6	-79.3	-76.5	0.0	0.0
3	313.7	-185.8	-177.8	0.0	0.0	3	309.6	-76.5	-73.2	0.0	0.0
4	313.7	-177.8	-60.5	0.0	0.0	4	309.6	-73.2	-24.1	0.0	0.0
5	313.7	-60.5	-45.8	0.0	0.0	5	309.6	-24.1	-18.0	0.0	0.0
6	60.1	-150.0	-145.8	0.0	150.0	6	-112.1	-626.9	-635.6	0.0	635.6
7	$$$$$$	-1140.1	-1139.3	0.0	1140.1	7	-226.1	-1872.5	-1881.3	0.0	1881.3
8	$$$$$$	-1125.8	-1125.0	0.0	1125.8	8	-226.1	-2031.2	-2040.1	0.0	2040.1
9	$$$$$$	-1111.2	-1110.4	0.0	1111.2	9	-226.1	-2193.7	-2202.6	0.0	2202.6
10	$$$$$$	-1096.7	-1095.9	0.0	1096.7	10	-226.1	-2356.2	-2365.0	0.0	2365.0
11	$$$$$$	-1082.1	-1081.3	0.0	1082.1	11	-226.1	-2518.6	-2527.5	0.0	2527.5
12	$$$$$$	-1067.5	-1066.7	0.0	1067.5	12	-226.1	-2681.1	-2689.9	0.0	2689.9
13	$$$$$$	-1052.9	-1052.1	0.0	1052.9	13	-226.1	-2843.5	-2852.4	0.0	2852.4
14	$$$$$$	-1038.3	-1037.5	0.0	1038.3	14	-226.1	-3006.0	-3014.8	0.0	3014.8
15	$$$$$$	-1023.7	-1022.9	0.0	1023.7	15	-226.1	-3168.4	-3177.3	0.0	3177.3
16	$$$$$$	-1009.1	-1008.4	0.0	1009.1	16	-226.1	-3330.9	-3339.8	0.0	3339.8
17	$$$$$$	-998.0	-997.2	0.0	998.0	17	-226.1	-3455.0	-3463.8	0.0	3463.8
18	$$$$$$	14312.4	14321.5	0.0	14321.5	18	$$$$$$	13163.6	13162.6	0.0	13163.6
19	$$$$$$	14234.2	14243.2	0.0	14243.2	19	$$$$$$	11600.3	11599.4	0.0	11600.3
20	$$$$$$	14266.0	14275.0	0.0	14275.0	20	$$$$$$	11597.0	11596.1	0.0	11597.0

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 10 11

Incremento de Carga 12 :
Flector : 176.00m.T TERMICO
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 13 :
Flector : 80.00m.T ASIENTOS
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

Edad Aplicación Carga: 28 días

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	64.8	-33.3	-20.5	0.0	0.0	1	177.4	-41.6	-35.7	0.0	0.0
2	286.0	-198.6	-191.0	0.0	0.0	2	254.2	-85.4	-81.7	0.0	0.0
3	286.0	-191.0	-181.9	0.0	0.0	3	254.2	-81.7	-77.2	0.0	0.0
4	286.0	-181.9	-47.9	0.0	0.0	4	254.2	-77.2	-11.6	0.0	0.0
5	286.0	-47.9	-31.2	0.0	0.0	5	254.2	-11.6	-3.4	0.0	0.0
6	64.8	-192.3	-187.3	0.0	192.3	6	-131.8	-669.2	-677.1	0.0	677.1
7	$$$$$$	-1170.3	-1168.9	0.0	1170.3	7	-248.2	-1902.7	-1911.0	0.0	1911.0
8	$$$$$$	-1145.6	-1144.2	0.0	1145.6	8	-248.2	-2051.0	-2059.3	0.0	2059.3
9	$$$$$$	-1120.4	-1119.0	0.0	1120.4	9	-248.2	-2202.8	-2211.1	0.0	2211.1
10	$$$$$$	-1095.2	-1093.8	0.0	1095.2	10	-248.2	-2354.7	-2362.9	0.0	2362.9
11	$$$$$$	-1069.9	-1068.6	0.0	1069.9	11	-248.2	-2506.5	-2514.8	0.0	2514.8
12	$$$$$$	-1044.7	-1043.3	0.0	1044.7	12	-248.2	-2658.3	-2666.6	0.0	2666.6
13	$$$$$$	-1019.5	-1018.1	0.0	1019.5	13	-248.2	-2810.1	-2818.4	0.0	2818.4
14	$$$$$$	-994.2	-992.9	0.0	994.2	14	-248.2	-2961.9	-2970.2	0.0	2970.2
15	$$$$$$	-969.0	-967.6	0.0	969.0	15	-248.2	-3113.7	-3122.0	0.0	3122.0
16	$$$$$$	-943.8	-942.4	0.0	943.8	16	-248.2	-3265.5	-3273.8	0.0	3273.8
17	$$$$$$	-924.5	-923.1	0.0	924.5	17	-248.2	-3381.5	-3389.7	0.0	3389.7
18	$$$$$$	14285.5	14295.2	0.014295.2		18	$$$$$$	13136.7	13136.3	0.013136.7	
19	$$$$$$	14299.2	14308.8	0.014308.8		19	$$$$$$	11665.3	11665.0	0.011665.3	
20	$$$$$$	14333.1	14342.7	0.014342.7		20	$$$$$$	11664.2	11663.8	0.011664.2	

$< f_{ct,m} = 32$ Kg/cm² válido

$= 0{,}61 \times f_{max,K}$ ~ válido

Incrementos de Carga:

1 2 3 4 5 6 7 8 9 10 11 12 13

Proyecto:
2

PILA

Seccion: INTERMEDIA X=7.334 m (L=22 m) 32 CABLES

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	Jø1	Jø2
1(HO)	600.0	1.40	408160	2.00	1.20
2(HO)	350.0	1.50	350000	1.75	1.07
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.10	1950000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) ø(mm)	Yo(cm)	Mc	Nsr
1	2	490.0	25.0	0.0	C*	0
2	1	81.6	10.0	25.0	C*	0
3	1	56.0	12.0	35.0	C*	0
4	1	32.9	176.0	47.0	C*	0
5	1	280.0	22.0	223.0	C*	0
6	3	35.0	16.0	2.5	CT	0
7	3	8.0	12.0	27.5	CT	0
8	3	4.0	12.0	49.0	CT	0
9	3	4.0	12.0	71.0	CT	0
10	3	4.0	12.0	93.0	CT	0
11	3	4.0	12.0	115.0	CT	0
12	3	4.0	12.0	137.0	CT	0
13	3	4.0	12.0	159.0	CT	0
14	3	4.0	12.0	181.0	CT	0
15	3	4.0	12.0	203.0	CT	0
16	3	13.0	12.0	225.0	CT	0
17	3	13.0	12.0	241.8	CT	0
18	4	6.0	13.4	30.0	*T	0
19	4	16.0	13.4	234.6	*T	0
20	4	16.0	13.4	239.3	*T	0

SECCIONES INTERMEDIAS

Num.	Codigo	Componentes
1	VN	2 3 4 5 7 8 9 10 11 12 13 14 15 16 17
2	VA	2 3 4 5 7 8 9 10 11 12 13 14 15 16 17 18 19 20
3	HA	2 3 4 5
4	HL	1
5	HT	1 2 3 4 5
6	AA	7 8 9 10 11 12 13 14 15 16 17
7	AL	6
8	PS	18
9	PI	19 20

* CONSTANTES ESTATICAS *

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: *INTERMEDIA X=7.334 m (L=22 m) 32 CABLES*

*** PRESOLICITACIONES ELASTICAS ***

Analisis *CON FISURACION*

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : *208.00m.T* *PP.VIGAS*
Seccion Afectada: *VN*

Incremento de Carga 2 :
Pretensado: *638.00Tn.*
Actua sobre la Sintermedia *PI*
Seccion Afectada: *VN*

Incremento de Carga 3 :
Pretensado: *120.00Tn.*
Actua sobre la Sintermedia *PS*
Seccion Afectada: *VN*

Incremento de Carga 4 :
Flector : *235.00m.T* *P.LOSA*
Seccion Afectada: *VA*

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[ø*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 2253.4 **Xu(cm.):** 23.5 $M_u > M_d = 1908$ mt.

Nu(Tn.): .1 *Qu(Tn.):* 0.0

Deformaciones Ultimas: Ecmx= -.00107 Etmx= .01000
Rompe la fibra inferior de la S.parcial 5

FLEXION PURA NEGATIVA:

Mu(m.T): -1264.5 **Xu(cm.):** 222.4

Nu(Tn.): -0.0 *Qu(Tn.):* 0.0

Deformaciones Ultimas: Ecmx= -.00111 Etmx= .01000
Rompe la fibra superior de la S.parcial 1

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -7968.1 aplicado en Yo(cm)= 114.5

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 1470.0 aplicado en Yo(cm)= 151.3

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 **Ru(Kg/cm):** 0.0

Xv1(cm): 0.0 *Xv2(cm):* 0.0
S.parciales resistentes: *Rcu(Kg/cm):*

** CALCULO ELASTICO **

Título Sección: INTERMEDIA X=7.334 m (L=22 m) 32 CABLES

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : 208.00m.T PP.VIGAS
Tipo de Solicitacion: CP
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

Incremento de Carga 2 :
Pretensado: 606.00Tn.
P.relajacion: 2.50(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PI
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

Incremento de Carga 3 :
Pretensado: 126.00Tn.
P.relajacion: 2.50(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PS
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

Incremento de Carga 4 :
Flector : 235.00m.T P.LOSA
Tipo de Solicitacion: CP
Seccion Afectada: VA
Edad Aplicación Carga: 28 días

TENSIONES (Kg/cm2):

	ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	$$$$$$	0.0	0.0	0.0	0.0	1	-134.3	-11.6	-13.8	0.0	0.0
2	375.1	-88.5	-86.0	0.0	0.0	2	-377.6	-23.3	-23.9	0.0	0.0
3	375.1	-86.0	-83.0	0.0	0.0	3	-377.6	-23.9	-24.6	0.0	0.0
4	375.1	-83.0	-38.5	0.0	0.0	4	-377.6	-24.6	-34.7	0.0	0.0
5	375.1	-38.5	-32.9	0.0	0.0	5	-377.6	-34.7	-36.0	0.0	0.0
6	$$$$$$	0.0	0.0	0.0	0.0	6	-68.5	-202.3	-206.9	0.0	206.9
7	574.2	-620.5	-619.1	0.0	620.5	7	-494.4	-894.0	-896.0	0.0	896.0
8	574.2	-596.1	-594.7	0.0	596.1	8	-494.4	-930.8	-932.8	0.0	932.8
9	574.2	-571.1	-569.7	0.0	571.1	9	-494.4	-968.5	-970.5	0.0	970.5
10	574.2	-546.1	-544.8	0.0	546.1	10	-494.4	-1006.2	-1008.2	0.0	1008.2
11	574.2	-521.2	-519.8	0.0	521.2	11	-494.4	-1043.8	-1045.9	0.0	1045.9
12	574.2	-496.2	-494.8	0.0	496.2	12	-494.4	-1081.5	-1083.6	0.0	1083.6
13	574.2	-471.2	-469.9	0.0	471.2	13	-494.4	-1119.2	-1121.3	0.0	1121.3
14	574.2	-446.3	-444.9	0.0	446.3	14	-494.4	-1156.9	-1158.9	0.0	1158.9
15	574.2	-421.3	-419.9	0.0	421.3	15	-494.4	-1194.6	-1196.6	0.0	1196.6
16	574.2	-396.3	-395.0	0.0	396.3	16	-494.4	-1232.2	-1234.3	0.0	1234.3
17	574.2	-377.3	-375.9	0.0	377.3	17	-494.4	-1261.0	-1263.1	0.0	1263.1
18	$$$$$$	14803.8	14805.7	0.014805.7		18	$$$$$$	14168.2	14166.6	0.014168.2	
19	$$$$$$	13621.7	13623.6	0.013623.6		19	$$$$$$	12481.8	12480.2	0.012481.8	
20	$$$$$$	13628.4	13630.3	0.013630.3		20	$$$$$$	12476.1	12474.5	0.012476.1	

Incrementos de Carga:
1 2 3 4

Incremento de Carga 5 :
Retraccion(Eso/øi;Tinf.): 2.60(*1.E-05)
Actua sobre la Sintermedia HA
Seccion Afectada: VA
Edad Aplicación Carga: 28 días

Incremento de Carga 6 :
Retraccion(Eso/øi;Tinf.): 2.60(*1.E-05)
Actua sobre la Sintermedia HA
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 7 :
Retraccion(Eso/øi;Tinf.): 9.20(*1.E-05)
Actua sobre la Sintermedia HL
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 8 :
Flector : -185.00m.T RETR-FLUEN
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 9 :
Flector : 27.00m.T C.M.
Tipo de Solicitacion: CP
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

TENSIONES (Kg/cm2):

	ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	101.0	-1.0	-.8	0.0	0.0	1	-30.3	-1.5	-2.8	0.0	0.0
2	363.0	-89.4	-86.8	0.0	0.0	2	$$$$$$	-37.3	-37.4	0.0	0.0
3	363.0	-86.8	-83.6	0.0	0.0	3	$$$$$$	-37.4	-37.6	0.0	0.0
4	363.0	-83.6	-37.0	0.0	0.0	4	$$$$$$	-37.6	-39.7	0.0	0.0
5	363.0	-37.0	-31.2	0.0	0.0	5	$$$$$$	-39.7	-40.0	0.0	0.0
6	101.0	-5.9	-5.8	0.0	5.9	6	-99.5	-302.4	-307.2	0.0	307.2
7	550.5	-624.9	-623.4	0.0	624.9	7	-546.5	-1049.6	-1051.8	0.0	1051.8
8	550.5	-599.2	-597.7	0.0	599.2	8	-546.5	-1088.9	-1091.1	0.0	1091.1
9	550.5	-572.9	-571.5	0.0	572.9	9	-546.5	-1129.1	-1131.3	0.0	1131.3
10	550.5	-546.6	-545.2	0.0	546.6	10	-546.5	-1169.3	-1171.5	0.0	1171.5
11	550.5	-520.3	-518.9	0.0	520.3	11	-546.5	-1209.6	-1211.8	0.0	1211.8
12	550.5	-494.0	-492.6	0.0	494.0	12	-546.5	-1249.8	-1252.0	0.0	1252.0
13	550.5	-467.7	-466.3	0.0	467.7	13	-546.5	-1290.0	-1292.2	0.0	1292.2
14	550.5	-441.5	-440.0	0.0	441.5	14	-546.5	-1330.2	-1332.4	0.0	1332.4
15	550.5	-415.2	-413.7	0.0	415.2	15	-546.5	-1370.5	-1372.7	0.0	1372.7
16	550.5	-388.9	-387.4	0.0	388.9	16	-546.5	-1410.7	-1412.9	0.0	1412.9
17	550.5	-368.8	-367.4	0.0	368.8	17	-546.5	-1441.4	-1443.6	0.0	1443.6
18	$$$$$$	14799.9	14801.9	0.014801.9		18	$$$$$$	14023.4	14021.7	0.014023.4	
19	$$$$$$	13629.1	13631.1	0.013631.1		19	$$$$$$	12315.1	12313.3	0.012315.1	
20	$$$$$$	13636.1	13638.0	0.013638.0		20	$$$$$$	12308.9	12307.1	0.012308.9	

Incrementos de Carga:
1 2 3 4 5 6 7 8 9

Incremento de Carga 10 :
Flector : 612.00m.T SC.POCO PROBABLE Dos vías

Tipo de Solicitacion: SC
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 11 :
Flector : 127.00m.T TERMICO
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 12 :
Flector : 104.00m.T ASIENTOS
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	101.0	-28.7	-21.6	0.0	0.0	1	126.4	-33.0	-26.5	0.0	0.0
2	219.7	-113.7	-107.9	0.0	0.0	2	210.5	-64.7	-61.2	0.0	0.0
3	219.7	-107.9	-100.9	0.0	0.0	3	210.5	-61.2	-57.0	0.0	0.0
4	219.7	-100.9	1.9	0.0	0.0	4	210.5	-57.0	4.4	0.0	0.0
5	219.7	1.9	14.8	0.0	0.0	5	210.5	4.4	12.0	0.0	0.0
6	101.0	-167.8	-165.1	0.0	167.8	6	-596.2	-510.0	-511.4	0.0	511.4
7	290.3	-745.7	-742.3	0.0	745.7	7	$$$$$$	-1204.3	-1203.9	0.0	1204.3
8	290.3	-684.7	-681.3	0.0	684.7	8	$$$$$$	-1198.1	-1197.8	0.0	1198.1
9	290.3	-622.2	-618.8	0.0	622.2	9	$$$$$$	-1191.8	-1191.5	0.0	1191.8
10	290.3	-559.8	-556.4	0.0	559.8	10	$$$$$$	-1185.6	-1185.2	0.0	1185.6
11	290.3	-497.4	-494.0	0.0	497.4	11	$$$$$$	-1179.3	-1178.9	0.0	1179.3
12	290.3	-434.9	-431.5	0.0	434.9	12	$$$$$$	-1173.0	-1172.6	0.0	1173.0
13	290.3	-372.5	-369.1	0.0	372.5	13	$$$$$$	-1166.7	-1166.4	0.0	1166.7
14	290.3	-310.1	-306.7	0.0	310.1	14	$$$$$$	-1160.4	-1160.1	0.0	1160.4
15	290.3	-247.6	-244.2	0.0	247.6	15	$$$$$$	-1154.1	-1153.8	0.0	1154.1
16	290.3	-185.2	-181.8	0.0	185.2	16	$$$$$$	-1147.8	-1147.5	0.0	1147.8
17	290.3	-137.5	-134.1	0.0	137.5	17	$$$$$$	-1143.0	-1142.7	0.0	1143.0
18	$$$$$$	14691.5	14695.5	0.0	14695.5	18	$$$$$$	13884.7	13885.5	0.0	13885.5
19	$$$$$$	13832.9	13836.9	0.0	13836.9	19	$$$$$$	12578.0	12578.9	0.0	12578.9
20	$$$$$$	13847.0	13851.0	0.0	13851.0	20	$$$$$$	12581.0	12581.9	0.0	12581.9

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 10 11 12

Incremento de Carga 13 :
Flector : 440.00m.T SC.FREC.
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 14 :
Flector : 38.00m.T TERMICO FRECUENTE = 0,3 x TERMICO
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 15 :
Flector : 104.00m.T ASIENTOS
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	101.0	-18.9	-14.2	0.0	0.0	1	141.3	-23.2	-19.1	0.0	0.0
2	248.1	-105.1	-100.4	0.0	0.0	2	262.8	-56.1	-53.8	0.0	0.0
3	248.1	-100.4	-94.8	0.0	0.0	3	262.8	-53.8	-50.9	0.0	0.0
4	248.1	-94.8	-11.8	0.0	0.0	4	262.8	-50.9	-9.4	0.0	0.0
5	248.1	-11.8	-1.5	0.0	0.0	5	262.8	-9.4	-4.2	0.0	0.0
6	101.0	-110.6	-108.8	0.0	110.6	6	-313.7	-452.8	-455.1	0.0	455.1
7	338.9	-703.0	-700.3	0.0	703.0	7	$$$$$$	-1161.6	-1162.0	0.0	1162.0
8	338.9	-654.5	-651.8	0.0	654.5	8	$$$$$$	-1167.9	-1168.3	0.0	1168.3
9	338.9	-604.8	-602.1	0.0	604.8	9	$$$$$$	-1174.4	-1174.8	0.0	1174.8
10	338.9	-555.1	-552.4	0.0	555.1	10	$$$$$$	-1180.9	-1181.3	0.0	1181.3
11	338.9	-505.5	-502.8	0.0	505.5	11	$$$$$$	-1187.4	-1187.7	0.0	1187.7
12	338.9	-455.8	-453.1	0.0	455.8	12	$$$$$$	-1193.9	-1194.2	0.0	1194.2
13	338.9	-406.1	-403.4	0.0	406.1	13	$$$$$$	-1200.3	-1200.7	0.0	1200.7
14	338.9	-356.5	-353.8	0.0	356.5	14	$$$$$$	-1206.8	-1207.2	0.0	1207.2
15	338.9	-306.8	-304.1	0.0	306.8	15	$$$$$$	-1213.3	-1213.6	0.0	1213.6
16	338.9	-257.1	-254.4	0.0	257.1	16	$$$$$$	-1219.8	-1220.1	0.0	1220.1
17	338.9	-219.2	-216.5	0.0	219.2	17	$$$$$$	-1224.7	-1225.1	0.0	1225.1
18	$$$$$$	14729.8	14733.1	0.0	14733.1	18	$$$$$$	13923.0	13923.1	0.0	13923.1
19	$$$$$$	13760.9	13764.2	0.0	13764.2	19	$$$$$$	12506.1	12506.2	0.0	12506.2
20	$$$$$$	13772.5	13775.8	0.0	13775.8	20	$$$$$$	12506.5	12506.7	0.0	12506.7

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 13 14 15

Proyecto:

Seccion:CV-22 CENTRO DE VANO (L=22 m.).

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	Jø1	Jø2
1(HO)	600.0	1.40	408160	2.01	1.21
2(HO)	350.0	1.50	350000	1.76	1.08
3(RD)	5100.0	1.15	2100000		
4(PR)	17100.0	1.10	1950000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) ø(mm)	Yo(cm)	Mc	Nsr
1	2	700.0	25.0	0.0	C*	0
2	1	81.6	10.0	25.0	C*	0
3	1	56.0	12.0	35.0	C*	0
4	1	32.9	176.0	47.0	C*	0
5	1	280.0	22.0	223.0	C*	0
6	3	35.0	16.0	2.5	CT	0
7	3	8.0	12.0	27.5	CT	0
8	3	4.0	12.0	49.0	CT	0
9	3	4.0	12.0	71.0	CT	0
10	3	4.0	12.0	93.0	CT	0
11	3	4.0	12.0	115.0	CT	0
12	3	4.0	12.0	137.0	CT	0
13	3	4.0	12.0	159.0	CT	0
14	3	4.0	12.0	181.0	CT	0
15	3	4.0	12.0	203.0	CT	0
16	3	13.0	12.0	225.0	CT	0
17	3	13.0	12.0	241.8	CT	0
18	4	6.0	13.4	30.0	*T	0
19	4	28.0	13.4	234.6	*T	0
20	4	28.0	13.4	239.3	*T	0

SECCIONES INTERMEDIAS

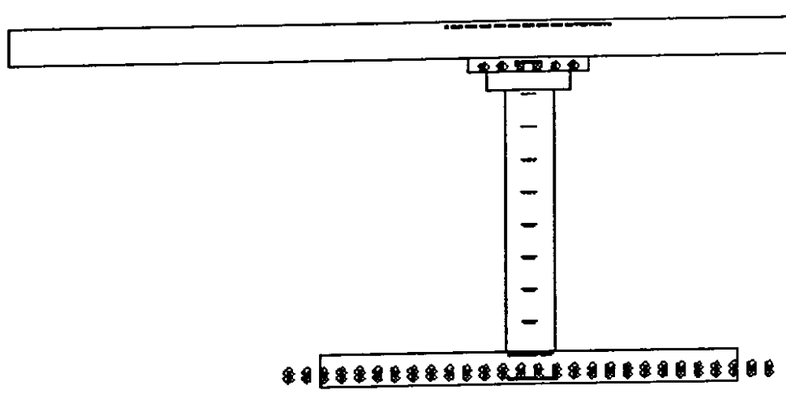
Num.	Codigo	Componentes
1	VN	2 3 4 5 7 8 9 10 11 12 13 14 15 16 17
2	VA	2 3 4 5 7 8 9 10 11 12 13 14 15 16 17 18 19 20
3	HA	2 3 4 5
4	HL	1
5	HT	1 2 3 4 5
6	AA	7 8 9 10 11 12 13 14 15 16 17
7	AL	6
8	PS	18
9	PI	19 20

* CONSTANTES ESTATICAS *

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2632.5	20.63	5630576.0
	(1)	1325.6	33.15	5209499.5
	(2)	1658.2	28.82	5345120.5
F.pura -	(0)	1456.9	217.68	4631086.5
	(1)	677.0	197.70	4120949.6
	(2)	822.4	204.32	4285667.2
C.Simple	(0)	5754.2	88.31	51530032.4
	(1)	2150.2	88.17	19605442.3
	(2)	2814.5	87.93	25456433.9
T.Simple	(0)	225.6	130.69	2556387.9
	(1)	225.6	130.69	2556387.9
	(2)	225.6	130.69	2556387.9

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***



Esquema Seccion

?

ANALISIS EN ROTURA(ELASTOPLASTICO)

Título Sección: CV-22

* PRESOLICITACIONES ELASTICAS *

CONTROL ASENTAMIENTO PARA MAYOR MOMENTO FLECTOR

Analisis CON FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Pretensado: 1117.00Tn.
Actua sobre la Sintermedia PI
Seccion Afectada: VN

Incremento de Carga 2 :
Pretensado: 120.00Tn.
Actua sobre la Sintermedia PS
Seccion Afectada: VN

Incremento de Carga 3 :
Flector : 228.00m.T PP.VIGAS
Seccion Afectada: VN

Incremento de Carga 4 :
Flector : 270.00m.T P.LOSA
Seccion Afectada: VA

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[ø*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 3561.4 Xu(cm.): 24.5 > M_d = 2321 + 0,0 (175-360) = 2321 mt.

Fluencia - Retracc.

Nu(Tn.): .3 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00114 Etmx= .01000
Rompe la fibra inferior de la S.parcial 5

FLEXION PURA NEGATIVA:

Mu(m.T): -1242.0 Xu(cm.): 220.0

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00139 Etmx= .01000
Rompe la fibra superior de la S.parcial 1

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -9009.4 aplicado en Yo(cm)= 102.7

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 1992.2 aplicado en Yo(cm)= 173.9

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 **Ru(Kg/cm):** 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

INTERACCION ROTURA(ELASTOPLASTICO)

Título Sección: CV-22

*** PRESOLICITACIONES ELASTICAS ***

CONTROL EN AGOTAMIENTO PARA HIPÓTESIS DE MÁXIMO AXIL CON MOMENTO FLECTOR CONCOMITANTE.

Analisis CON FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Pretensado: 1117.00Tn.
Actua sobre la Sintermedia PI
Seccion Afectada: VN

Incremento de Carga 2 :
Pretensado: 120.00Tn.
Actua sobre la Sintermedia PS
Seccion Afectada: VN

Incremento de Carga 3 :
Flector : 228.00m.T PP.VIGAS
Seccion Afectada: VN

Incremento de Carga 4 :
Flector : 270.00m.T P.LOSA
Seccion Afectada: VA

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[ø*(Cperm./Ctot.)]: 0.00

INTERACCION M-N-V

Flexion POSITIVA Axil de TRACCION
Fibra referencia Momentos: Yo(cm)= 130.69

DIAGRAMA Mu-Nu:
Cortante Total(Tn)= 0.0(0.0 + 0.0)

MOMENTO(m.T.)	AXIL(Tn.)	Xn(cm)	Ecmx	Etmx	Fibra Rot.	Spar.
1131.78	1992.20	-33.6	.00123	.01000	Inferior	5
1254.56	1892.59	-16.6	.00065	.01000	Inferior	5
1366.45	1792.98	-3.0	.00012	.01000	Inferior	5
1491.97	1693.37	4.1	-.00017	.01000	Inferior	5
1623.22	1593.76	6.8	-.00029	.01000	Inferior	5
1748.59	1494.15	8.7	-.00038	.01000	Inferior	5
1870.64	1394.54	10.3	-.00045	.01000	Inferior	5
1997.07	1294.93	11.8	-.00052	.01000	Inferior	5
2121.95	1195.32	13.1	-.00058	.01000	Inferior	5
2245.75	1095.71	14.4	-.00064	.01000	Inferior	5
2364.33	996.10	15.5	-.00069	.01000	Inferior	5
2487.72	896.49	16.6	-.00074	.01000	Inferior	5
2610.14	796.88	17.6	-.00079	.01000	Inferior	5
2731.66	697.27	18.6	-.00084	.01000	Inferior	5
2852.36	597.66	19.5	-.00089	.01000	Inferior	5

2972.31	498.05	20.4	-.00093	.01000	Inferior	5
3089.87	398.44	21.3	-.00097	.01000	Inferior	5
3209.57	298.83	22.1	-.00102	.01000	Inferior	5
3327.71	199.22	22.9	-.00106	.01000	Inferior	5
3444.74	99.61	23.7	-.00110	.01000	Inferior	5
3561.38	0.00	24.5	-.00114	.01000	Inferior	5

UIC

$N_d = 1{,}3 \times 540 = 702$ t/viga

$M_d^{concomitante} = 1{,}5 \times (228 + 270) + 1{,}8 \cdot 144 + 1{,}25 \times (-360 + 175 + 96 + 151) +$

(Pf vigas, P losa, C.M., Retrace. Fluenc., Térmia Asientos)

$+ 1{,}3 \times 1{,}02 \times 200^{sc.vic} = 1537$ mt/viga

RENFE

$N_d = 1{,}5 \times 325 = 488$ t.

$M_d^{conc.} = 1{,}5 \times (228 + 270 + 144) + 1{,}25 (-360 + 175 + 95 + 151) +$

$+ 1{,}5 \times 441 = 1916$ mt.

**** CALCULO ELASTICO ****

Titulo Seccion: CV-22

CONTROL ESTADO EN VACIO en centro de vano

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : 228.00m.T PP.VIGAS
Tipo de Solicitacion: CP
Seccion Afectada: VN
Edad Aplicacion Carga: 2 dias

Incremento de Carga 2 :
Pretensado: 1173.00Tn.
P.relajacion: 3.00(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PI
Seccion Afectada: VN
Edad Aplicacion Carga: 2 dias

Incremento de Carga 3 :
Pretensado: 114.00Tn.
P.relajacion: 3.00(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PS
Seccion Afectada: VN
Edad Aplicacion Carga: 2 dias

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	$$$$$$	0.0	0.0	0.0	0.0	1	6.5	2.3	-6.6	0.0	0.0
2	-1.4	-14.2	-19.6	0.0	0.0	2	5.8	-8.0	-12.2	0.0	0.0
3	-1.4	-19.6	-26.0	0.0	0.0	3	5.8	-12.2	-17.2	0.0	0.0
4	-1.4	-26.0	-120.4	0.0	0.0	4	5.8	-17.2	-90.8	0.0	0.0
5	-1.4	-120.4	-132.2	0.0	0.0	5	5.8	-90.8	-99.9	0.0	0.0
6	$$$$$$	0.0	0.0	0.0	0.0	6	6.5	33.8	20.2	0.0	33.8
7	-1.4	-137.2	-142.9	0.0	142.9	7	3.6	-314.8	-330.6	0.0	330.6
8	-1.4	-239.1	-244.8	0.0	244.8	8	3.6	-598.5	-614.3	0.0	614.3
9	-1.4	-343.4	-349.1	0.0	349.1	9	3.6	-888.7	-904.6	0.0	904.6
10	-1.4	-447.7	-453.4	0.0	453.4	10	3.6	-1179.0	-1194.8	0.0	1194.8
11	-1.4	-552.0	-557.7	0.0	557.7	11	3.6	-1469.3	-1485.1	0.0	1485.1
12	-1.4	-656.3	-662.0	0.0	662.0	12	3.6	-1759.5	-1775.4	0.0	1775.4
13	-1.4	-760.6	-766.3	0.0	766.3	13	3.6	-2049.8	-2065.6	0.0	2065.6
14	-1.4	-864.9	-870.6	0.0	870.6	14	3.6	-2340.1	-2355.9	0.0	2355.9
15	-1.4	-969.2	-974.9	0.0	974.9	15	3.6	-2630.3	-2646.2	0.0	2646.2
16	-1.4	-1073.5	-1079.2	0.0	1079.2	16	3.6	-2920.6	-2936.4	0.0	2936.4
17	-1.4	-1153.1	-1158.8	0.0	1158.8	17	3.6	-3142.2	-3158.1	0.0	3158.1
18	$$$$$$	13573.8	13573.8	0.0	13573.8	18	$$$$$$	12982.1	12971.6	0.0	12982.1
19	$$$$$$	14964.3	14964.3	0.0	14964.3	19	$$$$$$	12724.9	12714.4	0.0	12724.9
20	$$$$$$	14964.3	14964.3	0.0	14964.3	20	$$$$$$	12688.0	12677.5	0.0	12688.0

→ $< 9{,}0$ Kg/mm² Vale lo.

→ $1{,}6 \cdot 132{,}2 = 212$ Kg/cm² ↓ resist. máxima

Incrementos de Carga:
1 2 3

** CALCULO ELASTICO **

Título Sección: CV-22

ESTADO EN VACÍO X = 7,5 m.

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : 204.00m.T PP.VIGAS
Tipo de Solicitacion: CP
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

Incremento de Carga 2 :
Pretensado: 837.00Tn.
P.relajacion: 2.50(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PI
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

Incremento de Carga 3 :
Pretensado: 114.00Tn.
P.relajacion: 2.50(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PS
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

TENSIONES (Kg/cm2):

	ESTADO INICIAL (To)					ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	$$$$$$	0.0	0.0	0.0	0.0	1	-1.9	-.5	-6.5	0.0	0.0
2	-78.2	-28.2	-30.9	0.0	0.0	2	-6.9	-8.8	-11.6	0.0	0.0
3	-78.2	-30.9	-34.2	0.0	0.0	3	-6.9	-11.6	-14.9	0.0	0.0
4	-78.2	-34.2	-82.3	0.0	0.0	4	-6.9	-14.9	-63.5	0.0	0.0
5	-78.2	-82.3	-88.3	0.0	0.0	5	-6.9	-63.5	-69.5	0.0	0.0
6	$$$$$$	0.0	0.0	0.0	0.0	6	-1.9	-25.0	-34.2	0.0	34.2
7	-78.2	-255.2	-258.1	0.0	258.1	7	-24.6	-423.1	-432.8	0.0	432.8
8	-78.2	-307.1	-310.0	0.0	310.0	8	-24.6	-597.8	-607.5	0.0	607.5
9	-78.2	-360.2	-363.1	0.0	363.1	9	-24.6	-776.6	-786.3	0.0	786.3
10	-78.2	-413.3	-416.2	0.0	416.2	10	-24.6	-955.3	-965.1	0.0	965.1
11	-78.2	-466.4	-469.3	0.0	469.3	11	-24.6	-1134.1	-1143.9	0.0	1143.9
12	-78.2	-519.5	-522.4	0.0	522.4	12	-24.6	-1312.9	-1322.6	0.0	1322.6
13	-78.2	-572.6	-575.5	0.0	575.5	13	-24.6	-1491.6	-1501.4	0.0	1501.4
14	-78.2	-625.7	-628.6	0.0	628.6	14	-24.6	-1670.4	-1680.2	0.0	1680.2
15	-78.2	-678.8	-681.7	0.0	681.7	15	-24.6	-1849.2	-1858.9	0.0	1858.9
16	-78.2	-731.9	-734.8	0.0	734.8	16	-24.6	-2028.0	-2037.7	0.0	2037.7
17	-78.2	-772.5	-775.4	0.0	775.4	17	-24.6	-2164.5	-2174.2	0.0	2174.2
18	$$$$$$	13573.8	13573.8	0.0	13573.8	18	$$$$$$	13065.3	13058.2	0.0	13065.3
19	$$$$$$	10677.9	10677.9	0.0	10677.9	19	$$$$$$	9156.6	9149.5	0.0	9156.6
20	$$$$$$	10677.9	10677.9	0.0	10677.9	20	$$$$$$	9131.6	9124.5	0.0	9131.6

Incrementos de Carga:
1 2 3

> 1,6 < 35 = 140 Kg/cm2.

** CALCULO ELASTICO **

Título Sección: CV-22

CONTROL ELÁSTICO PARA MÁXIMO MOMENTO FLECTOR

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : 228.00m.T PP.VIGAS
Tipo de Solicitacion: CP
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

Incremento de Carga 2 :
Pretensado: 950.00Tn.
P.relajacion: 3.00(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PI
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

Incremento de Carga 3 :
Pretensado: 126.00Tn.
P.relajacion: 3.00(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PS
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

Incremento de Carga 4 :
Flector : 270.00m.T P.LOSA
Tipo de Solicitacion: CP
Seccion Afectada: VA
Edad Aplicación Carga: 28 días

Incremento de Carga 5 :
Flector : 144.00m.T C.M.
Tipo de Solicitacion: CP
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 6 :
Retraccion(Eso/Φi;Tinf.): 2.60(*1.E-05)
Actua sobre la Sintermedia HA
Seccion Afectada: VA
Edad Aplicación Carga: 28 días

Incremento de Carga 7 :
Retraccion(Eso/Φi;Tinf.): 2.60(*1.E-05)
Actua sobre la Sintermedia HA
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 8 :
Retraccion(Eso/Φi;Tinf.): 9.20(*1.E-05)
Actua sobre la Sintermedia HL

Seccion Afectada: TOTAL
Edad Aplicaci├n Carga: 28 d┌as

Incremento de Carga 9 :
Flector : -185.00m.T RETR-FLUEN
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL
Edad Aplicaci├n Carga: 28 d┌as

TENSIONES (Kg/cm2): (carga permanente)

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	88.3	-4.1	-2.9	0.0	0.0	1	-21.0	-2.4	-5.4	0.0	0.0
2	$$$$$$	-83.0	-82.3	0.0	0.0	2	-405.8	-40.0	-40.9	0.0	0.0
3	$$$$$$	-82.3	-81.4	0.0	0.0	3	-405.8	-40.9	-42.1	0.0	0.0
4	$$$$$$	-81.4	-68.5	0.0	0.0	4	-405.8	-42.1	-58.4	0.0	0.0
5	$$$$$$	-68.5	-66.9	0.0	0.0	5	-405.8	-58.4	-60.5	0.0	0.0
6	88.3	-24.0	-23.5	0.0	24.0	6	-52.4	-274.5	-282.5	0.0	282.5
7	-642.7	-540.9	-541.9	0.0	541.9	7	-133.2	-976.4	-983.7	0.0	983.7
8	-642.7	-558.2	-559.2	0.0	559.2	8	-133.2	-1107.0	-1114.3	0.0	1114.3
9	-642.7	-576.0	-577.0	0.0	577.0	9	-133.2	-1240.6	-1247.9	0.0	1247.9
10	-642.7	-593.7	-594.7	0.0	594.7	10	-133.2	-1374.3	-1381.6	0.0	1381.6
11	-642.7	-611.5	-612.5	0.0	612.5	11	-133.2	-1508.0	-1515.3	0.0	1515.3
12	-642.7	-629.3	-630.2	0.0	630.2	12	-133.2	-1641.6	-1648.9	0.0	1648.9
13	-642.7	-647.0	-648.0	0.0	648.0	13	-133.2	-1775.3	-1782.6	0.0	1782.6
14	-642.7	-664.8	-665.7	0.0	665.7	14	-133.2	-1908.9	-1916.2	0.0	1916.2
15	-642.7	-682.5	-683.5	0.0	683.5	15	-133.2	-2042.6	-2049.9	0.0	2049.9
16	-642.7	-700.3	-701.2	0.0	701.2	16	-133.2	-2176.3	-2183.6	0.0	2183.6
17	-642.7	-713.8	-714.8	0.0	714.8	17	-133.2	-2278.3	-2285.6	0.0	2285.6
18	$$$$$$	14760.0	14762.5	0.014762.5		18	$$$$$$	13893.3	13889.3	0.013893.3	
19	$$$$$$	12261.5	12264.0	0.012264.0		19	$$$$$$	10480.4	10476.4	0.010480.4	
20	$$$$$$	12270.3	12272.8	0.012272.8		20	$$$$$$	10466.2	10462.2	0.010466.2	

Incrementos de Carga:
1 2 3 4 5 6 7 8 9

Incremento de Carga 10 :
Flector : 96.00m.T TERMICO
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL
Edad Aplicaci├n Carga: 28 d┌as

Incremento de Carga 11 :
Flector : 151.00m.T ASIENTOS
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL
Edad Aplicaci├n Carga: 28 d┌as

Incremento de Carga 12 :
Flector : 516.00m.T SC.FREC.= MAX (0,8 × SC. POCO PROB UNA VÍA ← ; 0,6 × SC. POCO PROB DOS VÍAS)
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL
Edad Aplicaci├n Carga: 28 d┌as

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	88.3	-25.9	-18.6	0.0	0.0	1	186.2	-24.2	-21.0	0.0	0.0
2	305.5	-101.2	-97.6	0.0	0.0	2	323.8	-58.2	-56.3	0.0	0.0
3	305.5	-97.6	-93.3	0.0	0.0	3	323.8	-56.3	-54.0	0.0	0.0
4	305.5	-93.3	-29.8	0.0	0.0	4	323.8	-54.0	-19.6	0.0	0.0
5	305.5	-29.8	-21.8	0.0	0.0	5	323.8	-19.6	-15.4	0.0	0.0
6	88.3	-151.0	-148.2	0.0	151.0	6	-111.7	-401.6	-407.2	0.0	407.2
7	964.1	-630.9	-630.1	0.0	630.9	7	-204.6	-1066.4	-1071.9	0.0	1071.9
8	964.1	-616.4	-615.6	0.0	616.4	8	-204.6	-1165.2	-1170.7	0.0	1170.7
9	964.1	-601.6	-600.8	0.0	601.6	9	-204.6	-1266.3	-1271.8	0.0	1271.8
10	964.1	-586.8	-586.0	0.0	586.8	10	-204.6	-1367.4	-1372.9	0.0	1372.9
11	964.1	-572.0	-571.2	0.0	572.0	11	-204.6	-1468.4	-1474.0	0.0	1474.0
12	964.1	-557.2	-556.4	0.0	557.2	12	-204.6	-1569.5	-1575.0	0.0	1575.0
13	964.1	-542.3	-541.5	0.0	542.3	13	-204.6	-1670.6	-1676.1	0.0	1676.1
14	964.1	-527.5	-526.7	0.0	527.5	14	-204.6	-1771.7	-1777.2	0.0	1777.2
15	964.1	-512.7	-511.9	0.0	512.7	15	-204.6	-1872.8	-1878.3	0.0	1878.3
16	964.1	-497.9	-497.1	0.0	497.9	16	-204.6	-1973.9	-1979.4	0.0	1979.4
17	964.1	-486.6	-485.8	0.0	486.6	17	-204.6	-2051.1	-2056.6	0.0	2056.6
18	$$$$$$	14679.8	14684.2	0.014684.2		18	$$$$$$	13813.1	13810.9	0.013813.1	
19	$$$$$$	12462.6	12467.0	0.012467.0		19	$$$$$$	10681.5	10679.3	0.010681.5	
20	$$$$$$	12477.9	12482.3	0.012482.3		20	$$$$$$	10673.8	10671.7	0.010673.8	

→ < 0,0 Kp/cm² válido.

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 10 11 12

Incremento de Carga 13 :
Flector : 708.00m.T SC.POCO PROBABLE DOS VÍAS
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL
Edad Aplicaci├n Carga: 28 d┌as

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	88.3	-31.4	-22.5	0.0	0.0	1	154.6	-29.7	-24.9	0.0	0.0
2	269.2	-105.8	-101.5	0.0	0.0	2	260.0	-62.8	-60.2	0.0	0.0
3	269.2	-101.5	-96.3	0.0	0.0	3	260.0	-60.2	-56.9	0.0	0.0
4	269.2	-96.3	-20.0	0.0	0.0	4	260.0	-56.9	-9.9	0.0	0.0
5	269.2	-20.0	-10.5	0.0	0.0	5	260.0	-9.9	-4.0	0.0	0.0
6	88.3	-183.0	-179.6	0.0	183.0	6	-135.3	-433.6	-438.6	0.0	438.6
7	652.2	-653.6	-652.3	0.0	653.6	7	-230.4	-1089.1	-1094.1	0.0	1094.1
8	652.2	-631.1	-629.8	0.0	631.1	8	-230.4	-1179.8	-1184.9	0.0	1184.9
9	652.2	-608.1	-606.8	0.0	608.1	9	-230.4	-1272.7	-1277.8	0.0	1277.8
10	652.2	-585.1	-583.8	0.0	585.1	10	-230.4	-1365.6	-1370.7	0.0	1370.7
11	652.2	-562.0	-560.8	0.0	562.0	11	-230.4	-1458.5	-1463.6	0.0	1463.6
12	652.2	-539.0	-537.8	0.0	539.0	12	-230.4	-1551.4	-1556.5	0.0	1556.5
13	652.2	-516.0	-514.7	0.0	516.0	13	-230.4	-1644.3	-1649.3	0.0	1649.3
14	652.2	-493.0	-491.7	0.0	493.0	14	-230.4	-1737.2	-1742.2	0.0	1742.2
15	652.2	-470.0	-468.7	0.0	470.0	15	-230.4	-1830.1	-1835.1	0.0	1835.1
16	652.2	-447.0	-445.7	0.0	447.0	16	-230.4	-1922.9	-1928.0	0.0	1928.0
17	652.2	-429.4	-428.1	0.0	429.4	17	-230.4	-1993.9	-1998.9	0.0	1998.9
18	$$$$$$	14659.6	14664.4	0.014664.4		18	$$$$$$	13793.0	13791.2	0.013793.0	
19	$$$$$$	12513.3	12518.1	0.012518.1		19	$$$$$$	10732.1	10730.4	0.010732.1	
20	$$$$$$	12530.2	12535.0	0.012535.0		20	$$$$$$	10726.1	10724.4	0.010726.1	

→ < 0,6 $f_{cm,k}$ válido.

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 10 11 13

Proyecto:
2

Seccion:INTERM.ESTRIBO X=7.334 m (L=22 m) 40 CABLES

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	$J_{\pi}1$	$J_{\pi}2$
1 (HO)	600.0	1.40	408160	2.00	1.20
2 (HO)	350.0	1.50	350000	1.75	1.07
3 (RD)	5100.0	1.15	2100000		
4 (PR)	17100.0	1.10	1950000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) π(mm)	Yo(cm)	Mc	Nsr
1	2	490.0	25.0	0.0	C*	0
2	1	81.6	10.0	25.0	C*	0
3	1	56.0	12.0	35.0	C*	0
4	1	32.9	176.0	47.0	C*	0
5	1	280.0	22.0	223.0	C*	0
6	3	35.0	16.0	2.5	CT	0
7	3	8.0	12.0	27.5	CT	0
8	3	4.0	12.0	49.0	CT	0
9	3	4.0	12.0	71.0	CT	0
10	3	4.0	12.0	93.0	CT	0
11	3	4.0	12.0	115.0	CT	0
12	3	4.0	12.0	137.0	CT	0
13	3	4.0	12.0	159.0	CT	0
14	3	4.0	12.0	181.0	CT	0
15	3	4.0	12.0	203.0	CT	0
16	3	13.0	12.0	225.0	CT	0
17	3	13.0	12.0	241.8	CT	0
18	4	6.0	13.4	30.0	*T	0
19	4	20.0	13.4	234.6	*T	0
20	4	20.0	13.4	239.3	*T	0

SECCIONES INTERMEDIAS

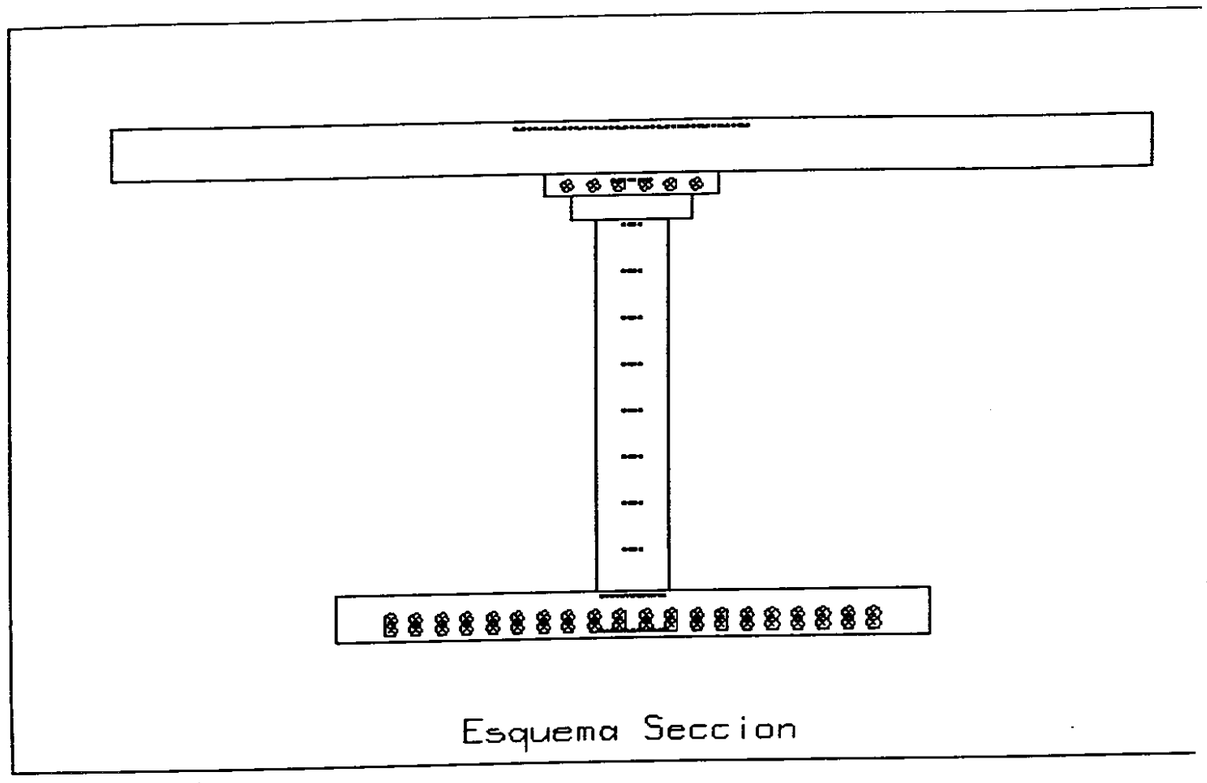
Num.	Codigo	Componentes
1	VN	2 3 4 5 7 8 9 10 11 12 13 14 15 16 17
2	VA	2 3 4 5 7 8 9 10 11 12 13 14 15 16 17 18 19 20
3	HA	2 3 4 5
4	HL	1
5	HT	1 2 3 4 5
6	AA	7 8 9 10 11 12 13 14 15 16 17
7	AL	6
8	PS	18
9	PI	19 20

* CONSTANTES ESTATICAS *

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	2012.5	22.14	4544383.8
	(1)	1001.1	35.42	4184067.0
	(2)	1232.8	30.86	4299720.6
F.pura -	(0)	1437.9	217.39	4622585.0
	(1)	660.1	196.50	4088341.2
	(2)	805.3	203.51	4263156.1
C.Simple	(0)	4858.4	101.32	45169146.2
	(1)	1816.8	99.69	17109598.1
	(2)	2377.2	100.02	22269355.7
T.Simple	(0)	204.8	119.83	2294348.6
	(1)	204.8	119.83	2294348.6
	(2)	204.8	119.83	2294348.6

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***



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** CALCULO ELASTICO **

Título Sección: INTERM.ESTRIBO X=7.334 m (L=22 m) 40 CABLES

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : 204.00m.T PP.VIGAS
Tipo de Solicitacion: CP
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

Incremento de Carga 2 :
Pretensado: 758.00Tn.
P.relajacion: 2.50(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PI
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

Incremento de Carga 3 :
Pretensado: 126.00Tn.
P.relajacion: 2.50(%)
Alfa: 0.00(gsex.)
Actua sobre la Sintermedia PS
Seccion Afectada: VN
Edad Aplicación Carga: 2 días

Incremento de Carga 4 :
Flector : 241.00m.T P.LOSA
Tipo de Solicitacion: CP
Seccion Afectada: VA
Edad Aplicación Carga: 28 días

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	$$$$$$	0.0	0.0	0.0	0.0	1	-69.3	-9.9	-13.5	0.0	0.0
2	687.2	-80.5	-79.3	0.0	0.0	2	-154.0	-22.5	-23.8	0.0	0.0
3	687.2	-79.3	-77.9	0.0	0.0	3	-154.0	-23.8	-25.3	0.0	0.0
4	687.2	-77.9	-56.5	0.0	0.0	4	-154.0	-25.3	-47.5	0.0	0.0
5	687.2	-56.5	-53.8	0.0	0.0	5	-154.0	-47.5	-50.2	0.0	0.0
6	$$$$$$	0.0	0.0	0.0	0.0	6	-36.5	-163.6	-170.3	0.0	170.3
7	$$$$$$	-548.8	-548.9	0.0	548.9	7	-165.2	-817.2	-822.3	0.0	822.3
8	$$$$$$	-549.9	-550.0	0.0	550.0	8	-165.2	-908.4	-913.5	0.0	913.5
9	$$$$$$	-551.0	-551.1	0.0	551.1	9	-165.2	-1001.7	-1006.8	0.0	1006.8
10	$$$$$$	-552.1	-552.2	0.0	552.2	10	-165.2	-1095.0	-1100.1	0.0	1100.1
11	$$$$$$	-553.2	-553.3	0.0	553.3	11	-165.2	-1188.4	-1193.4	0.0	1193.4
12	$$$$$$	-554.3	-554.4	0.0	554.4	12	-165.2	-1281.7	-1286.8	0.0	1286.8
13	$$$$$$	-555.4	-555.5	0.0	555.5	13	-165.2	-1375.0	-1380.1	0.0	1380.1
14	$$$$$$	-556.5	-556.6	0.0	556.6	14	-165.2	-1468.3	-1473.4	0.0	1473.4
15	$$$$$$	-557.6	-557.7	0.0	557.7	15	-165.2	-1561.6	-1566.7	0.0	1566.7
16	$$$$$$	-558.7	-558.8	0.0	558.8	16	-165.2	-1655.0	-1660.0	0.0	1660.0
17	$$$$$$	-559.6	-559.6	0.0	559.6	17	-165.2	-1726.2	-1731.3	0.0	1731.3

18	$$$$$$14799.014801.0	0.014801.0	18	$$$$$$14165.014161.8	0.014165.0
19	$$$$$$13632.313634.2	0.013634.2	19	$$$$$$12238.512235.3	0.012238.5
20	$$$$$$13639.113641.1	0.013641.1	20	$$$$$$12227.112223.8	0.012227.1

Incrementos de Carga:
1 2 3 4

Incremento de Carga 5 :
Flector : 177.00m.T C.M.
Tipo de Solicitacion: CP
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 6 :
Retraccion(Eso/πi;Tinf.): 2.60(*1.E-05)
Actua sobre la Sintermedia HA
Seccion Afectada: VA
Edad Aplicación Carga: 28 días

Incremento de Carga 7 :
Retraccion(Eso/πi;Tinf.): 2.60(*1.E-05)
Actua sobre la Sintermedia HA
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 8 :
Retraccion(Eso/πi;Tinf.): 9.20(*1.E-05)
Actua sobre la Sintermedia HL
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 9 :
Flector : -185.00m.T RETR-FLUEN
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	101.3	-6.6	-5.0	0.0	0.0	1	-96.3	-5.1	-6.5	0.0	0.0
2	461.6	-86.3	-84.4	0.0	0.0	2	$$$$$$	-40.9	-41.1	0.0	0.0
3	461.6	-84.4	-82.0	0.0	0.0	3	$$$$$$	-41.1	-41.4	0.0	0.0
4	461.6	-82.0	-47.2	0.0	0.0	4	$$$$$$	-41.4	-45.3	0.0	0.0
5	461.6	-47.2	-42.8	0.0	0.0	5	$$$$$$	-45.3	-45.8	0.0	0.0
6	101.3	-38.7	-38.1	0.0	38.7	6	-99.4	-349.1	-354.6	0.0	354.6
7	$$$$$$	-577.7	-577.3	0.0	577.7	7	-271.0	-1036.3	-1040.5	0.0	1040.5
8	$$$$$$	-570.4	-570.0	0.0	570.4	8	-271.0	-1110.9	-1115.1	0.0	1115.1
9	$$$$$$	-562.9	-562.5	0.0	562.9	9	-271.0	-1187.3	-1191.5	0.0	1191.5
10	$$$$$$	-555.4	-555.0	0.0	555.4	10	-271.0	-1263.7	-1267.8	0.0	1267.8
11	$$$$$$	-547.8	-547.4	0.0	547.8	11	-271.0	-1340.1	-1344.2	0.0	1344.2
12	$$$$$$	-540.3	-539.9	0.0	540.3	12	-271.0	-1416.4	-1420.6	0.0	1420.6
13	$$$$$$	-532.8	-532.4	0.0	532.8	13	-271.0	-1492.8	-1497.0	0.0	1497.0
14	$$$$$$	-525.3	-524.9	0.0	525.3	14	-271.0	-1569.2	-1573.3	0.0	1573.3
15	$$$$$$	-517.8	-517.4	0.0	517.8	15	-271.0	-1645.6	-1649.7	0.0	1649.7
16	$$$$$$	-510.3	-509.8	0.0	510.3	16	-271.0	-1721.9	-1726.1	0.0	1726.1
17	$$$$$$	-504.5	-504.1	0.0	504.5	17	-271.0	-1780.3	-1784.4	0.0	1784.4
18	$$$$$$	14773.1	14775.5	0.014775.5		18	$$$$$$	13963.4	13961.1	0.013963.4	

19	$$$$$$13680.813683.2	0.013683.2	19	$$$$$$12183.212180.9	0.012183.2
20	$$$$$$13689.313691.8	0.013691.8	20	$$$$$$12175.112172.8	0.012175.1

Incrementos de Carga:
1 2 3 4 5 6 7 8 9

Incremento de Carga 10 :
Flector : 632.00m.T SC.POCO PR
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 11 :
Flector : 66.00m.T TERMICO
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 12 :
Flector : 91.00m.T ASIENTOS
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	101.3	-32.7	-24.6	0.0	0.0	1	145.7	-34.5	-28.6	0.0	0.0
2	244.4	-109.3	-104.3	0.0	0.0	2	236.6	-66.5	-63.4	0.0	0.0
3	244.4	-104.3	-98.3	0.0	0.0	3	236.6	-63.4	-59.6	0.0	0.0
4	244.4	-98.3	-10.6	0.0	0.0	4	236.6	-59.6	-4.3	0.0	0.0
5	244.4	-10.6	.3	0.0	0.0	5	236.6	-4.3	12.6	0.0	0.0
6	101.3	-191.4	-188.3	0.0	191.4	6	-365.3	-541.7	-544.0	0.0	544.0
7	394.1	-691.8	-689.6	0.0	691.8	7	-750.0	-1180.0	-1181.8	0.0	1181.8
8	394.1	-651.3	-649.0	0.0	651.3	8	-750.0	-1212.6	-1214.5	0.0	1214.5
9	394.1	-609.7	-607.5	0.0	609.7	9	-750.0	-1246.0	-1247.8	0.0	1247.8
10	394.1	-568.2	-566.0	0.0	568.2	10	-750.0	-1279.4	-1281.2	0.0	1281.2
11	394.1	-526.7	-524.4	0.0	526.7	11	-750.0	-1312.8	-1314.6	0.0	1314.6
12	394.1	-485.2	-482.9	0.0	485.2	12	-750.0	-1346.2	-1348.0	0.0	1348.0
13	394.1	-443.7	-441.4	0.0	443.7	13	-750.0	-1379.6	-1381.4	0.0	1381.4
14	394.1	-402.2	-399.9	0.0	402.2	14	-750.0	-1413.0	-1414.8	0.0	1414.8
15	394.1	-360.7	-358.4	0.0	360.7	15	-750.0	-1446.3	-1448.2	0.0	1448.2
16	394.1	-319.1	-316.9	0.0	319.1	16	-750.0	-1479.7	-1481.6	0.0	1481.6
17	394.1	-287.4	-285.2	0.0	287.4	17	-750.0	-1505.2	-1507.1	0.0	1507.1
18	$$$$$$	14670.7	14675.1	0.014675.1		18	$$$$$$	13834.5	13834.6	0.013834.6	
19	$$$$$$	13872.0	13876.4	0.013876.4		19	$$$$$$	12425.5	12425.6	0.012425.6	
20	$$$$$$	13887.3	13891.7	0.013891.7		20	$$$$$$	12426.0	12426.1	0.012426.1	

$\Rightarrow < f_{ct,k}$

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 10 11 12

Incremento de Carga 13 :
Flector : 440.00m.T SC.FREC.
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL
Edad Aplicación Carga: 28 días

Incremento de Carga 14 :

Flector : 20.00m.T TERMICO FR
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL
Edad Aplicaci|n Carga: 28 d|as

Incremento de Carga 15 :
Flector : 91.00m.T ASIENTOS
Tipo de Solicitacion: CP:tf[2]
Seccion Afectada: TOTAL
Edad Aplicaci|n Carga: 28 d|as

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	101.3	-23.8	-17.9	0.0	0.0	1	171.8	-25.6	-21.9	0.0	0.0
2	281.4	-101.4	-97.5	0.0	0.0	2	302.1	-58.7	-56.6	0.0	0.0
3	281.4	-97.5	-92.7	0.0	0.0	3	302.1	-56.6	-54.0	0.0	0.0
4	281.4	-92.7	-23.1	0.0	0.0	4	302.1	-54.0	-16.7	0.0	0.0
5	281.4	-23.1	-14.4	0.0	0.0	5	302.1	-16.7	-12.1	0.0	0.0
6	101.3	-139.4	-137.1	0.0	139.4	6	-242.4	-489.6	-492.8	0.0	492.8
7	507.5	-652.9	-651.3	0.0	652.9	7	-530.6	-1141.1	-1143.6	0.0	1143.6
8	507.5	-623.7	-622.1	0.0	623.7	8	-530.6	-1185.1	-1187.5	0.0	1187.5
9	507.5	-593.8	-592.1	0.0	593.8	9	-530.6	-1230.0	-1232.5	0.0	1232.5
10	507.5	-563.8	-562.2	0.0	563.8	10	-530.6	-1275.0	-1277.5	0.0	1277.5
11	507.5	-533.9	-532.3	0.0	533.9	11	-530.6	-1320.0	-1322.5	0.0	1322.5
12	507.5	-504.0	-502.4	0.0	504.0	12	-530.6	-1365.0	-1367.4	0.0	1367.4
13	507.5	-474.1	-472.4	0.0	474.1	13	-530.6	-1410.0	-1412.4	0.0	1412.4
14	507.5	-444.1	-442.5	0.0	444.1	14	-530.6	-1454.9	-1457.4	0.0	1457.4
15	507.5	-414.2	-412.6	0.0	414.2	15	-530.6	-1499.9	-1502.4	0.0	1502.4
16	507.5	-384.3	-382.7	0.0	384.3	16	-530.6	-1544.9	-1547.4	0.0	1547.4
17	507.5	-361.5	-359.8	0.0	361.5	17	-530.6	-1579.3	-1581.7	0.0	1581.7
18	$$$$$$14705.614709.3			0.014709.3		18	$$$$$$13869.413868.8			0.013869.4	
19	$$$$$$13806.813810.5			0.013810.5		19	$$$$$$12360.312359.8			0.012360.3	
20	$$$$$$13819.813823.5			0.013823.5		20	$$$$$$12358.512357.9			0.012358.5	

→ < 0.0 kp/cm2

Incrementos de Carga:
1 2 3 4 5 6 7 8 9 13 14 15

ANALISIS EN ROTURA(ELASTOPLASTICO)

T|tulo Secci|n: INTERM.ESTRIBO X=7.334 m (L=22 m) 40 CABLES

AGOTAMIENTO

*** PRESOLICITACIONES ELASTICAS ***

Analisis CON FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : 204.00m.T PP.VIGAS
Seccion Afectada: VN

Incremento de Carga 2 :
Pretensado: 798.00Tn.
Actua sobre la Sintermedia PI
Seccion Afectada: VN

Incremento de Carga 3 :
Pretensado: 120.00Tn.
Actua sobre la Sintermedia PS
Seccion Afectada: VN

Incremento de Carga 4 :
Flector : 241.00m.T P.LOSA
Seccion Afectada: VA

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

FLEXION PURA POSITIVA:

Mu(m.T): 2680.6 Xu(cm.): 25.5

$M_u > M_d = 2410$ mt.

Nu(Tn.): -.1 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00118 Etmx= .01000
Rompe la fibra inferior de la S.parcial 5

FLEXION PURA NEGATIVA:

Mu(m.T): -1257.4 Xu(cm.): 221.7

Nu(Tn.): -0.0 Qu(Tn.): 0.0

Deformaciones Ultimas: Ecmx= -.00120 Etmx= .01000
Rompe la fibra superior de la S.parcial 1

COMPRESION SIMPLE(Rigido/Plastico):

Nu(Tn.): -7968.1 aplicado en Yo(cm)= 114.5

TRACCION SIMPLE(Rigido/Plastico):

Nu(Tn.): 1644.1 aplicado en Yo(cm)= 160.5

CORTANTE ULTIMO(Rigido/Plastico):

Vu(Tn.): 0.0 Ru(Kg/cm): 0.0

Xv1(cm): 0.0 Xv2(cm): 0.0
S.parciales resistentes: Rcu(Kg/cm):

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VIADUCTO DE LOS CHORROS

FECHA HOJA DE

ANALISIS DE LOS ELEMENTOS AUXILIARES DEL SISTEMA DE CONTINUIDAD DE LAS PIEZAS PREFABRICADAS

APOYOS ISOSTATICOS PARA PESO PROPIO EN FASE DE EJECUCIÓN (A52d)

Reacciones de viga tipo L=36 m.

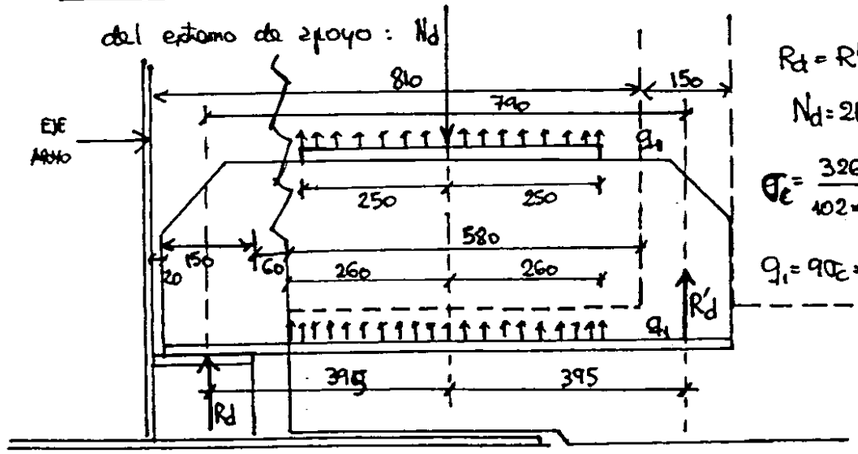
VIGA PREFABRICADA
Zona central $l_1 = 8.60 \times 3.45 = 29.67$ t.
Zona extrema $l_2 = 9.00 \times 4.28 = 38.52$ t.
Zona transición $l_3 = 0.40 \times 3.86 = 1.55$ t.
Diafragma $0.975 \times 2.90 \times 1.98 \times 0.15 = 2.50 = 2.10$ t.
TOTAL 71.84 t.

LOSA DEL TABLERO $l = 18 \times 9.45 = 170.10$ t.

Reacción total 241.94 t.; Reacción por apoyo metálico = 120.97 t.

Reacción mayorada por apoyo $R_d = 1.35 \times 120.97 = 163,1$ t.

Disposición La reacción dorsal se sitúa alineada con el eje del macizo del extremo de apoyo: N_d



$R_d = R'_d = 163.1$ t.

$N_d = 2R_d = 326,2$ t.

$\sigma_c = \frac{326200}{102 \times 9} = 355$ kg/cm²

$q_1 = 90c = 3195$ kg/cm = 319,5 t/ml

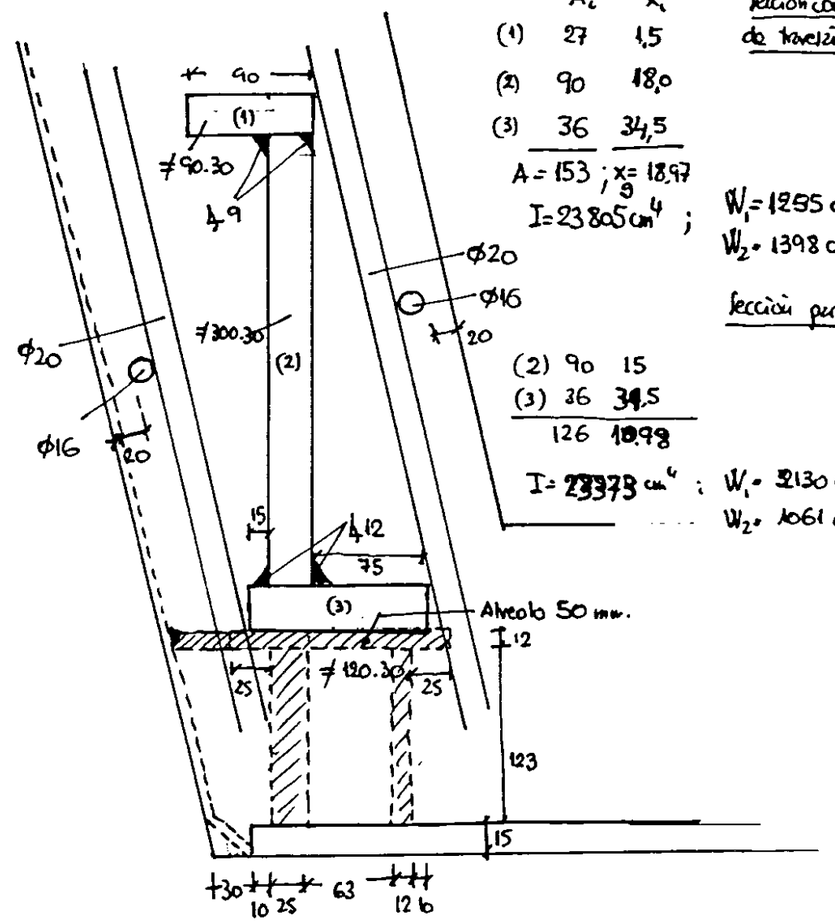
$M_d = 0.395 \times 163,1 - \frac{319.5}{2}(0.26^2 + 0.25^2) = 43.64$ mt. ; $\sigma_{max} = 3477$ kg/cm² ok

$M'_d = 0.145 \times 163.1 = 23,649$ mt ; $\sigma_{max} = 2293$ kg/cm² ok

$V_d = 163.1$ t. ; $\tau_d = 1812$ kg/cm² ok

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	A_i	x_i
(1)	27	1,5
(2)	90	18,0
(3)	36	34,5

$A = 153$; $x = 18,97$

$I = 23805$ cm⁴ ; $W_1 = 1255$ cm³ ; $W_2 = 1398$ cm³

Sección completa de tramo

Sección parcial

(2)	90	15
(3)	36	34,5
	126	19,98

$I = 23373$ cm⁴ ; $W_1 = 2130$ cm³ ; $W_2 = 1061$ cm³

TRANSFERENCIA DE REACCION $R'_d = 163.1$ t. A LA VIGA.

2 cercos Φ20 $N'_d = 4 \times 3,14 \times \frac{5.1}{1,15} = 55.7$ t.

Resto 107.4 t mediante ≠ transversal ≠20 mm.; 300 mm centro.

y cercos Φ12 a 0.125



Chapa de reparto ≠60 10 $\frac{107400}{6 \times 132} = 136$ kg/cm² ; $e \geq \sqrt{\frac{272 \times 6}{3600}} = 0.7$; ≠10

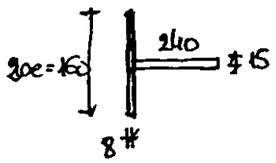
$M_{mampara_d} = \frac{2.62^2 \times 81.4}{8} = 69.8$ mt ; $A_\Phi \geq 8$ cm² ; $A_\Phi = 4\Phi 16$ ok

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ANALISIS DE LA TRANSFERENCIA DE ELEMENTOS DE CONEXIÓN

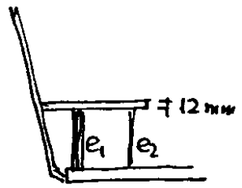
16 Conectores T1 ≠ 80.8 Capacidad H_{cd}=10.2t ; N_d = 163,8 t



A_s = 36+12,8 = 48.8 cm² ; N_u = 175.6 t OK

Elemento de recepción R_d = 163.1 t ; $A_s \geq 45.3 cm^2$; b=17 cm ;

e_1=25 mm ; e_2=12 mm.



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ANCLAJES DE LOS ELEMENTOS DE UNION Y DE POSTESADO

ANCLAJES DE BARRAS ϕ40 (A 85/105)

$N_d = \frac{12,566 \times 8,5}{1.15} = 92.9$ t ; $\sigma_{cd} \leq \frac{600}{1.4} = 428$ kp/cm²

$A_s \geq \frac{92900}{428} = 217$ cm²

Alveolos de paso de barra ϕ52

Una sola placa $a_1^2 - \pi \frac{5,2^2}{4} \geq 217$; $a_1 = 15,44$ cm

Dos placas $2a_2^2 - \pi \frac{5,2^2}{2} \geq 217$; $a_2 = 11,39$ cm

Se disponen 2 placas de 12×12 cm. ; A_s = 2.45 cm² ; σ_{cd} = 379 kp/cm²

Flector en placa $m \leq \frac{6^2}{2} 379 = 6822$ kp/cm ; $e \geq 3.37$ cm (A52d)

Se sitúan 2 placas ≠120.120.35 con alveolo ϕ52 mm. central.

Espirales de zunchado : 8 espiras ϕ12 ; separación 40 mm.

Distancia entre placas 450 mm. Diámetro exterior 200 mm.

ANCLAJES DE LAS UNIDADES DE POSTESADO 12ϕ0.6" (A 170/190)

Dimensiones de las placas 27×27 cm. Alveolo de paso ϕ120 mm.

A_s = 6.16 cm² ; $P_d = 0.85 \times 12 \times 19 \times 1,4 = 271,3$ t.

Area del hormigón de prisma $A_c = 43 \times 34 - 113 = 1349$ cm²

Coeficientes de anclaje para $\frac{A_s}{A_c} = 0.456$; B = 0,589 ; C = 0,267 ; K = 1,339

Resistencia a tracción del hormigón $r = 0.9 \times 60 = 54$ kp/cm² ; f_s = 2800 kp/cm² Tensión admisible en la zona de cercos

$A_s = \frac{0.267 \times 271300}{2000} \left\{ 1 - \left(\frac{0.8 \times 1,339 \times 54 \times 1349}{0.589 \times 271300} \right)^2 \right\} = 27.58$ cm² 7 cercos ϕ16 240×240 s=60 mm. + 4ϕ25

SUBANEJO Nº 18

LOSA DEL TABLERO: ANÁLISIS DE FLEXIÓN LOCAL (SIN DESCARRILAMIENTO)

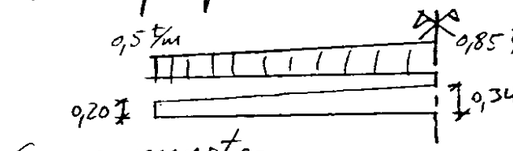
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FLEXIÓN TRANSVERSAL DE LOSA.

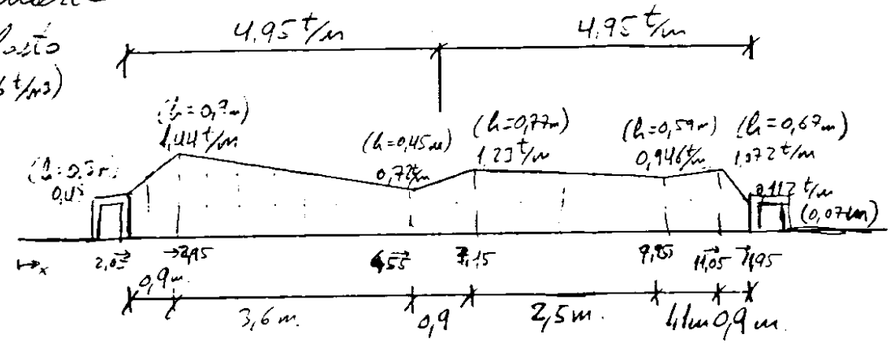
ACCIONES

1) Peso propio de losa ($\gamma = 2{,}5\ t/m^3$)

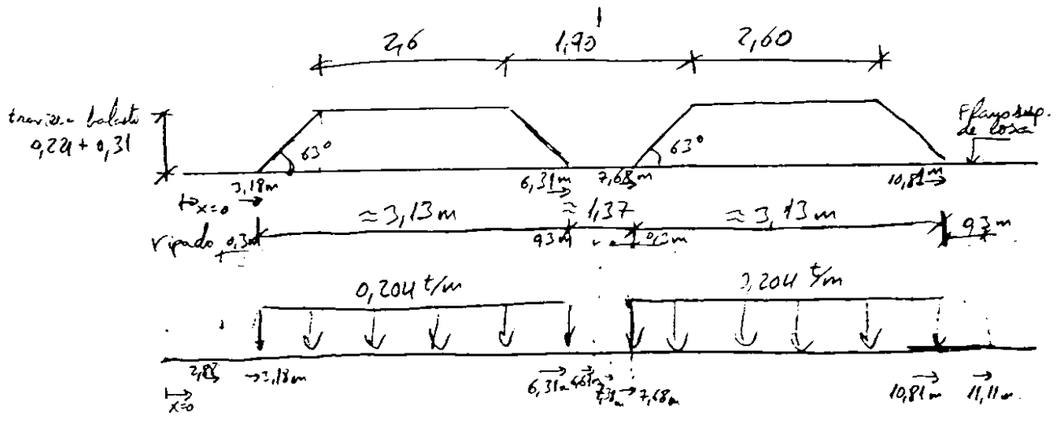


Carga muerta

2) Balasto ($\gamma = 1{,}6\ t/m^3$)



3) Vías y traviesas. (0,52 + 0,12 = 0,64 t/m. longitudinal → por vía)
traviesa carriles

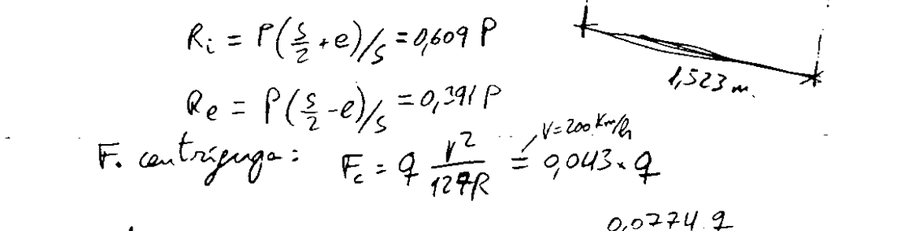


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4) Conductos de cableado, paseos, imposta y barandilla.

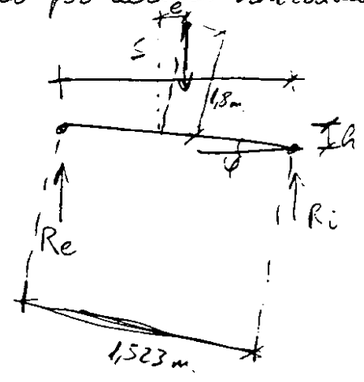
$q_{conducto} = 0{,}3\ t/m$ $\quad q_{paseos} = 0{,}5\ t/m^2$ $\quad q_{impost+baranda} = 0{,}05 + 0{,}3125 = 0{,}3625\ t/m$



Sobrecargas

- IPF: para el trabajo local de losa condiciona el tren tipo A. → 3 ejes de 30 t. separados 1,5 m.
  Se toma equivalente a una carga por carril igual a $15\ t/carril \pm \Delta P$
  ↳ excentricidad por acciones horizontales

Peralte:



$\operatorname{sen}\varphi = \frac{h}{1{,}523} = \frac{0{,}140}{1{,}523} = 0{,}09192$

$S = 1{,}523 \cdot \cos\varphi = 1{,}517\ m.$

$e = 1{,}8 \cdot \operatorname{sen}\varphi = 0{,}1655$

$R_i = P\left(\frac{S}{2} + e\right)/S = 0{,}609\,P$

$R_e = P\left(\frac{S}{2} - e\right)/S = 0{,}391\,P$

F. centrífuga: $F_c = q\frac{V^2}{127R} \overset{V=200\ Km/h}{=} 0{,}043 \cdot q$

$M = F_c \times 1{,}8 = 0{,}0774\,q \quad \rightarrow \quad \Delta R = \frac{0{,}0774\,q}{1{,}517} = 0{,}051\,q$

$R_e = (0{,}5 + 0{,}051)\,q = 0{,}551\,q$

$R_i = (0{,}5 - 0{,}051)\,q = 0{,}449\,q$

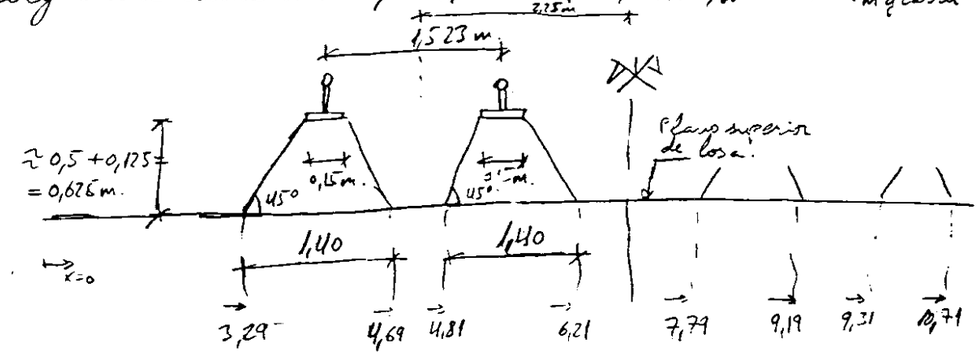
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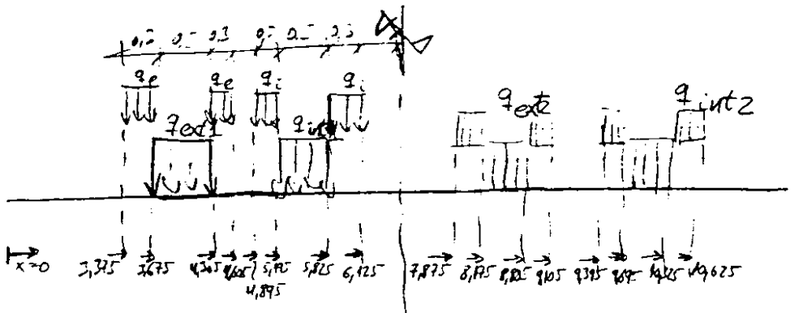
Hipótesis consideradas:

a) Tren parado (sólo peralte) → $R_i = 0,609\ P$; $R_e = 0,391\ P$

b) Tren a 200 Km/h (Peralte + F_c) → $R_i = (0,609 - 0,051)P = 0,558\ P$; $R_e = (0,391 + 0,051)P = 0,442\ P$

Coeficiente dinámico: $\phi = 1,16 \rightarrow P = 1,16 \times 15\ t/m = 17,4\ t/m$ q carril (2,25 m)





a) $q_i = \frac{17,4}{1,4} \times 0,609 = 7,57\ t/m$; $q_e = \frac{17,4}{1,4} \times 0,391 = 4,86\ t/m$

b) $q_i = \frac{17,4}{1,4} \times 0,558 = 6,94\ t/m$; $q_e = \frac{17,4}{1,4} \times 0,442 = 5,493\ t/m$

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- UIC:

Load Model 71: 8,15 t/m + 4 ejes de 25,48 t. separados 1,6 m.

Tipo SW0 → no condiciona según proyecto base.

Mismo efecto de peralte que en IPF

Fuerza centrífuga: $F_c = q \frac{350^2}{127 \times 2250m} = 0,133\ q$

$M = F_c \times 1,8 = 0,2394\ q \rightarrow \Delta R = \frac{0,2394}{1,523}\ q = 0,1571\ q.$

$R_e = 0,5571\ P$

$R_i = 0,3429\ P$

Hipótesis:

a) Tren parado (sólo peralte): $R_i = 0,609\ P$; $R_e = 0,391\ P$

b) Tren a 350 Km/h (peralte + F_c): $R_i = (0,609 - 0,1571)P = 0,4519P$; $R_e = (0,391 + 0,1571)P = 0,5481P$

$P = \begin{cases} \frac{8,15}{2} = 4,075\ t/m \\ \frac{25,48}{2 \times 1,6} = 7,9625\ t/m \leftarrow \end{cases}$

para hip a) → $q_i = 4,85\ t/m$; $q_e = 3,113\ t/m$

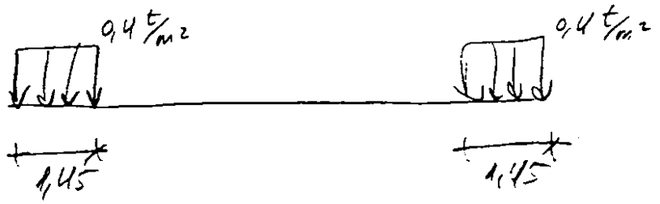
para hip. b) → $q_i = 3,598\ t/m$; $q_e = 4,3642\ t/m$

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FECHA

HOJA 5 DE

Sobrecargas en pasos: $q_s = 0{,}4\ t/m^2$

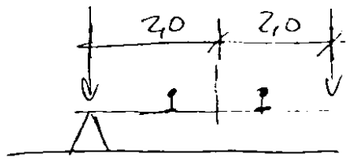


Es concomitante 1 vez mitad.

Descarrilamiento:

Carga simple de 200 KN actuando a 2,00 m a ambos lados del eje de la vía, concomitante con las cargas permanentes únicamente. $\gamma = 1{,}0 \rightarrow$ acciones

$\gamma = 1{,}1 \rightarrow$ minoración materiales.



□

```
$ ----------------------------------------
$ VIADUCTO DE LOS CHORROS. PROYECTO DEFINITIVO.
$ ----------------------------------------

$ ----------------------------------------
$ MODELO TRANSVERSAL DE LOSA. STRUDL.
$ ----------------------------------------

$ ---------
$ MARZO 99
$ ---------

STRUDL 'VIADUCTO DE LOS CHORROS' 'PROYECTO DEFINITIVO' 'MARZO 99'
UNITS M MTON CENTIGRADES
TYPE PLANE FRAME XY
OUTPUT ORDERED

PRINT GENERATE OFF

$ -------------------
$ DEFINICION DE NODOS
$ -------------------


GENERATE 21 JOINTS CARTESIAN ID 1 INCR 1 X 0.0 INCR 0.0952 Y 0.0 INCR
0.0

JOINT COORDINATES
22 X 2.236 Y 0.0

GENERATE 36 JOINTS CARTESIAN ID 23 INCR 1 X 2.334 INCR 0.098 Y 0.0
INCR 0.0

JOINT COORDINATES
59 X 6.096 Y 0.0

GENERATE 20 JOINTS CARTESIAN ID 60 INCR 1 X 6.1864 INCR 0.0904 Y 0.0
INCR 0.0

JOINT COORDINATES
80 X 8.236 Y 0.0

GENERATE 36 JOINTS CARTESIAN ID 81 INCR 1 X 8.334 INCR 0.098 Y 0.0
INCR 0.0

JOINT COORDINATES
117 X 12.096 Y 0.0

GENERATE 20 JOINTS CARTESIAN ID 118 INCR 1 X 12.1912 INCR 0.0952 Y
0.0 INCR 0.0


GENERATE 136 MEMBERS ID 1 INCR 1 FROM 1 INCR 1 TO 2 INCR 1

$ PRINT STRUCTURAL DATA

STATUS SUPPORT JOINTS 21 22 58 59 79 80 116 117

JOINT RELEASES

21 22 58 59 79 80 116 117 MOMENT Z

$ --------------------------------
$ CARACTERÍSTICAS DE LAS SECCIONES
$ --------------------------------
```

Modelo local

```
CONSTANTS

E      3500000     ALL
G      150000   ALL
DENS   2.5          ALL
CTE    1.0E-5       ALL

MEMBER PROPERTIES


MEMBER PROPERTIES
1 TO 136 AX 0.25  IZ 0.001302

LOADING 1 'PESO PROPIO'

MEMBER LOADS

1       FORCE Y GLOBAL UNIF W              -0.50476
2       FORCE Y GLOBAL UNIF W              -0.50952
3       FORCE Y GLOBAL UNIF W              -0.51428
4       FORCE Y GLOBAL UNIF W              -0.51904
5       FORCE Y GLOBAL UNIF W              -0.52380
6       FORCE Y GLOBAL UNIF W              -0.52856
7       FORCE Y GLOBAL UNIF W              -0.53332
8       FORCE Y GLOBAL UNIF W              -0.53808
9       FORCE Y GLOBAL UNIF W              -0.54284
10      FORCE Y GLOBAL UNIF W              -0.54760
11      FORCE Y GLOBAL UNIF W              -0.55236
12      FORCE Y GLOBAL UNIF W              -0.55712
13      FORCE Y GLOBAL UNIF W              -0.56188
14      FORCE Y GLOBAL UNIF W              -0.56664
15      FORCE Y GLOBAL UNIF W              -0.57140
16      FORCE Y GLOBAL UNIF W              -0.57616
17      FORCE Y GLOBAL UNIF W              -0.58092
18      FORCE Y GLOBAL UNIF W              -0.58568
19      FORCE Y GLOBAL UNIF W              -0.59044
20      FORCE Y GLOBAL UNIF W              -0.59520
21      FORCE Y GLOBAL UNIF W              -0.61180
22      FORCE Y GLOBAL UNIF W              -0.61670
23      FORCE Y GLOBAL UNIF W              -0.62160
24      FORCE Y GLOBAL UNIF W              -0.62650
25      FORCE Y GLOBAL UNIF W              -0.63140
26      FORCE Y GLOBAL UNIF W              -0.63630
27      FORCE Y GLOBAL UNIF W              -0.64120
28      FORCE Y GLOBAL UNIF W              -0.64610
29      FORCE Y GLOBAL UNIF W              -0.65100
30      FORCE Y GLOBAL UNIF W              -0.65590
31      FORCE Y GLOBAL UNIF W              -0.66080
32      FORCE Y GLOBAL UNIF W              -0.66570
33      FORCE Y GLOBAL UNIF W              -0.67060
34      FORCE Y GLOBAL UNIF W              -0.67550
35      FORCE Y GLOBAL UNIF W              -0.68040
36      FORCE Y GLOBAL UNIF W              -0.68530
37      FORCE Y GLOBAL UNIF W              -0.69020
38      FORCE Y GLOBAL UNIF W              -0.69510
39      FORCE Y GLOBAL UNIF W              -0.70000
40      FORCE Y GLOBAL UNIF W              -0.70490
41      FORCE Y GLOBAL UNIF W              -0.70980
42      FORCE Y GLOBAL UNIF W              -0.71470
43      FORCE Y GLOBAL UNIF W              -0.71960
44      FORCE Y GLOBAL UNIF W              -0.72450
45      FORCE Y GLOBAL UNIF W              -0.72940
46      FORCE Y GLOBAL UNIF W              -0.73430
47      FORCE Y GLOBAL UNIF W              -0.73920
48      FORCE Y GLOBAL UNIF W              -0.74410
```

49	FORCE Y GLOBAL UNIF W	-0.74900
50	FORCE Y GLOBAL UNIF W	-0.75390
51	FORCE Y GLOBAL UNIF W	-0.75880
52	FORCE Y GLOBAL UNIF W	-0.76370
53	FORCE Y GLOBAL UNIF W	-0.76860
54	FORCE Y GLOBAL UNIF W	-0.77350
55	FORCE Y GLOBAL UNIF W	-0.77840
56	FORCE Y GLOBAL UNIF W	-0.78330
57	FORCE Y GLOBAL UNIF W	-0.78820
58	FORCE Y GLOBAL UNIF W	-0.80480
59	FORCE Y GLOBAL UNIF W	-0.80932
60	FORCE Y GLOBAL UNIF W	-0.81384
61	FORCE Y GLOBAL UNIF W	-0.81836
62	FORCE Y GLOBAL UNIF W	-0.82288
63	FORCE Y GLOBAL UNIF W	-0.82740
64	FORCE Y GLOBAL UNIF W	-0.83192
65	FORCE Y GLOBAL UNIF W	-0.83644
66	FORCE Y GLOBAL UNIF W	-0.84096
67	FORCE Y GLOBAL UNIF W	-0.84548
68	FORCE Y GLOBAL UNIF W	-0.85000
136	FORCE Y GLOBAL UNIF W	-0.50476
135	FORCE Y GLOBAL UNIF W	-0.50952
134	FORCE Y GLOBAL UNIF W	-0.51428
133	FORCE Y GLOBAL UNIF W	-0.51904
132	FORCE Y GLOBAL UNIF W	-0.52380
131	FORCE Y GLOBAL UNIF W	-0.52856
130	FORCE Y GLOBAL UNIF W	-0.53332
129	FORCE Y GLOBAL UNIF W	-0.53808
128	FORCE Y GLOBAL UNIF W	-0.54284
127	FORCE Y GLOBAL UNIF W	-0.54760
126	FORCE Y GLOBAL UNIF W	-0.55236
125	FORCE Y GLOBAL UNIF W	-0.55712
124	FORCE Y GLOBAL UNIF W	-0.56188
123	FORCE Y GLOBAL UNIF W	-0.56664
122	FORCE Y GLOBAL UNIF W	-0.57140
121	FORCE Y GLOBAL UNIF W	-0.57616
120	FORCE Y GLOBAL UNIF W	-0.58092
119	FORCE Y GLOBAL UNIF W	-0.58568
118	FORCE Y GLOBAL UNIF W	-0.59044
117	FORCE Y GLOBAL UNIF W	-0.59520
116	FORCE Y GLOBAL UNIF W	-0.61180
115	FORCE Y GLOBAL UNIF W	-0.61670
114	FORCE Y GLOBAL UNIF W	-0.62160
113	FORCE Y GLOBAL UNIF W	-0.62650
112	FORCE Y GLOBAL UNIF W	-0.63140
111	FORCE Y GLOBAL UNIF W	-0.63630
110	FORCE Y GLOBAL UNIF W	-0.64120
109	FORCE Y GLOBAL UNIF W	-0.64610
108	FORCE Y GLOBAL UNIF W	-0.65100
107	FORCE Y GLOBAL UNIF W	-0.65590
106	FORCE Y GLOBAL UNIF W	-0.66080
105	FORCE Y GLOBAL UNIF W	-0.66570
104	FORCE Y GLOBAL UNIF W	-0.67060
103	FORCE Y GLOBAL UNIF W	-0.67550
102	FORCE Y GLOBAL UNIF W	-0.68040
101	FORCE Y GLOBAL UNIF W	-0.68530
100	FORCE Y GLOBAL UNIF W	-0.69020
99	FORCE Y GLOBAL UNIF W	-0.69510
98	FORCE Y GLOBAL UNIF W	-0.70000
97	FORCE Y GLOBAL UNIF W	-0.70490
96	FORCE Y GLOBAL UNIF W	-0.70980
95	FORCE Y GLOBAL UNIF W	-0.71470
94	FORCE Y GLOBAL UNIF W	-0.71960
93	FORCE Y GLOBAL UNIF W	-0.72450
92	FORCE Y GLOBAL UNIF W	-0.72940
91	FORCE Y GLOBAL UNIF W	-0.73430
90	FORCE Y GLOBAL UNIF W	-0.73920
89	FORCE Y GLOBAL UNIF W	-0.74410
88	FORCE Y GLOBAL UNIF W	-0.74900
87	FORCE Y GLOBAL UNIF W	-0.75390
86	FORCE Y GLOBAL UNIF W	-0.75880
85	FORCE Y GLOBAL UNIF W	-0.76370
84	FORCE Y GLOBAL UNIF W	-0.76860
83	FORCE Y GLOBAL UNIF W	-0.77350
82	FORCE Y GLOBAL UNIF W	-0.77840
81	FORCE Y GLOBAL UNIF W	-0.78330
80	FORCE Y GLOBAL UNIF W	-0.78820
79	FORCE Y GLOBAL UNIF W	-0.80480
78	FORCE Y GLOBAL UNIF W	-0.80932
77	FORCE Y GLOBAL UNIF W	-0.81384
76	FORCE Y GLOBAL UNIF W	-0.81836
75	FORCE Y GLOBAL UNIF W	-0.82288
74	FORCE Y GLOBAL UNIF W	-0.82740
73	FORCE Y GLOBAL UNIF W	-0.83192
72	FORCE Y GLOBAL UNIF W	-0.83644
71	FORCE Y GLOBAL UNIF W	-0.84096
70	FORCE Y GLOBAL UNIF W	-0.84548
69	FORCE Y GLOBAL UNIF W	-0.85000

LOADING 2 'MEDIO BALASTO VIA IZQUIERDA'

MEMBER LOADS

22	FORCE Y GLOBAL UNIF W	-0.48000
23	FORCE Y GLOBAL UNIF W	-0.608
24	FORCE Y GLOBAL UNIF W	-0.736
25	FORCE Y GLOBAL UNIF W	-0.864
26	FORCE Y GLOBAL UNIF W	-0.992
27	FORCE Y GLOBAL UNIF W	-1.12
28	FORCE Y GLOBAL UNIF W	-1.248
29	FORCE Y GLOBAL UNIF W	-1.376
30	FORCE Y GLOBAL UNIF W	-1.504
31	FORCE Y GLOBAL UNIF W	-1.4204
32	FORCE Y GLOBAL UNIF W	-1.4008
33	FORCE Y GLOBAL UNIF W	-1.3812
34	FORCE Y GLOBAL UNIF W	-1.3616
35	FORCE Y GLOBAL UNIF W	-1.342
36	FORCE Y GLOBAL UNIF W	-1.3224
37	FORCE Y GLOBAL UNIF W	-1.3028
38	FORCE Y GLOBAL UNIF W	-1.2832
39	FORCE Y GLOBAL UNIF W	-1.2636
40	FORCE Y GLOBAL UNIF W	-1.244
41	FORCE Y GLOBAL UNIF W	-1.2244
42	FORCE Y GLOBAL UNIF W	-1.2048
43	FORCE Y GLOBAL UNIF W	-1.1852
44	FORCE Y GLOBAL UNIF W	-1.1656
45	FORCE Y GLOBAL UNIF W	-1.146
46	FORCE Y GLOBAL UNIF W	-1.1264
47	FORCE Y GLOBAL UNIF W	-1.1068
48	FORCE Y GLOBAL UNIF W	-1.0872
49	FORCE Y GLOBAL UNIF W	-1.0676
50	FORCE Y GLOBAL UNIF W	-1.048
51	FORCE Y GLOBAL UNIF W	-1.0284
52	FORCE Y GLOBAL UNIF W	-1.0088
53	FORCE Y GLOBAL UNIF W	-0.9892
54	FORCE Y GLOBAL UNIF W	-0.9696
55	FORCE Y GLOBAL UNIF W	-0.95
56	FORCE Y GLOBAL UNIF W	-0.9304
57	FORCE Y GLOBAL UNIF W	-0.9108

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59      FORCE Y GLOBAL UNIF W              -0.8324
60      FORCE Y GLOBAL UNIF W              -0.8128
61      FORCE Y GLOBAL UNIF W              -0.7932
62      FORCE Y GLOBAL UNIF W              -0.7736
63      FORCE Y GLOBAL UNIF W              -0.754
64      FORCE Y GLOBAL UNIF W              -0.7344
65      FORCE Y GLOBAL UNIF W              -0.7148

66      FORCE Y GLOBAL UNIF W              -0.77123
67      FORCE Y GLOBAL UNIF W              -0.82245
68      FORCE Y GLOBAL UNIF W              -0.87368

LOADING 3 'MEDIO BALASTO VIA DERECHA'

MEMBER LOADS

69      FORCE Y GLOBAL UNIF W              -0.92491
70      FORCE Y GLOBAL UNIF W              -0.97613
71      FORCE Y GLOBAL UNIF W              -1.02736
72      FORCE Y GLOBAL UNIF W              -1.07859
73      FORCE Y GLOBAL UNIF W              -1.12981
74      FORCE Y GLOBAL UNIF W              -1.18104
75      FORCE Y GLOBAL UNIF W              -1.23227

76      FORCE Y GLOBAL UNIF W              -1.21973
77      FORCE Y GLOBAL UNIF W              -1.20946
78      FORCE Y GLOBAL UNIF W              -1.19919

79      FORCE Y GLOBAL UNIF W              -1.15469
80      FORCE Y GLOBAL UNIF W              -1.14617
81      FORCE Y GLOBAL UNIF W              -1.13766
82      FORCE Y GLOBAL UNIF W              -1.12914
83      FORCE Y GLOBAL UNIF W              -1.12063
84      FORCE Y GLOBAL UNIF W              -1.11211
85      FORCE Y GLOBAL UNIF W              -1.1036
86      FORCE Y GLOBAL UNIF W              -1.09509
87      FORCE Y GLOBAL UNIF W              -1.08657
88      FORCE Y GLOBAL UNIF W              -1.07806
89      FORCE Y GLOBAL UNIF W              -1.06954
90      FORCE Y GLOBAL UNIF W              -1.06103
91      FORCE Y GLOBAL UNIF W              -1.05251
92      FORCE Y GLOBAL UNIF W              -1.044
93      FORCE Y GLOBAL UNIF W              -1.03549
94      FORCE Y GLOBAL UNIF W              -1.02697
95      FORCE Y GLOBAL UNIF W              -1.01846
96      FORCE Y GLOBAL UNIF W              -1.00994
97      FORCE Y GLOBAL UNIF W              -1.00143
98      FORCE Y GLOBAL UNIF W              -0.99292

99      FORCE Y GLOBAL UNIF W              -0.95723
100     FORCE Y GLOBAL UNIF W              -0.96845
101     FORCE Y GLOBAL UNIF W              -0.97968
102     FORCE Y GLOBAL UNIF W              -0.9909
103     FORCE Y GLOBAL UNIF W              -1.00213
104     FORCE Y GLOBAL UNIF W              -1.01335
105     FORCE Y GLOBAL UNIF W              -1.02458
106     FORCE Y GLOBAL UNIF W              -1.0358
107     FORCE Y GLOBAL UNIF W              -1.04703
108     FORCE Y GLOBAL UNIF W              -1.05825
109     FORCE Y GLOBAL UNIF W              -1.06948
110     FORCE Y GLOBAL UNIF W              -1.08071
111     FORCE Y GLOBAL UNIF W              -0.912
112     FORCE Y GLOBAL UNIF W              -0.752
113     FORCE Y GLOBAL UNIF W              -0.592
114     FORCE Y GLOBAL UNIF W              -0.432
115     FORCE Y GLOBAL UNIF W              -0.272

STIFFNESS ANALYSIS

DBX FILE SPECS UNFORMATTED DIRECT 'losa_E' 'CHORROS DEFINIT _ ESF'
WRITE MEMBER RESULTS FROM GTSTRUDL INTO FILE 'losa_E' ALL MEMBER

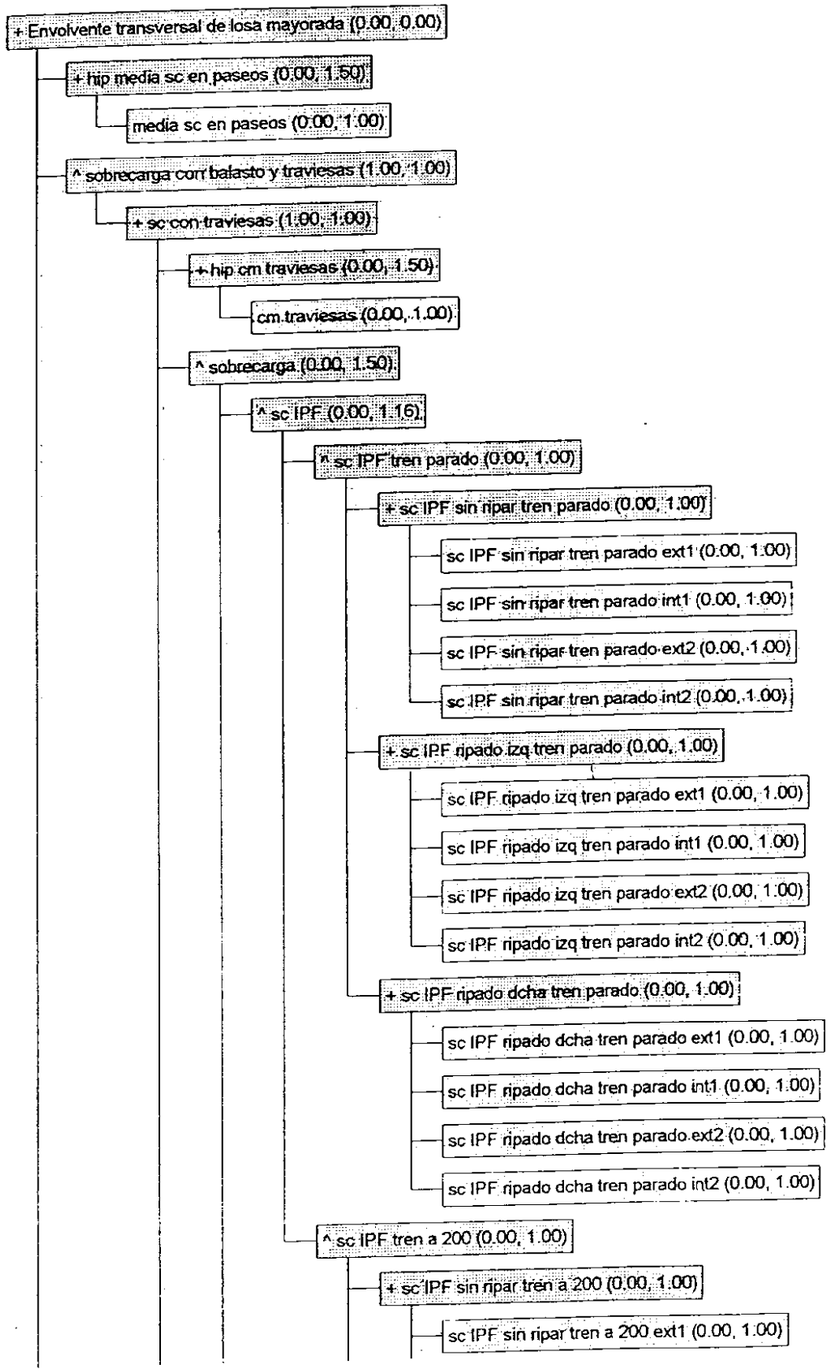
DBX FILE SPECS UNFORMATTED DIRECT 'losa_M' 'CHORROS DEFINIT _ MOV'
WRITE JOINT RESULTS FROM GTSTRUDL INTO FILE 'losa_M' ALL JOINTS

$ SECTION FR NS 3 0.0 0.5 1.0
$ LIST SECTION FORCES

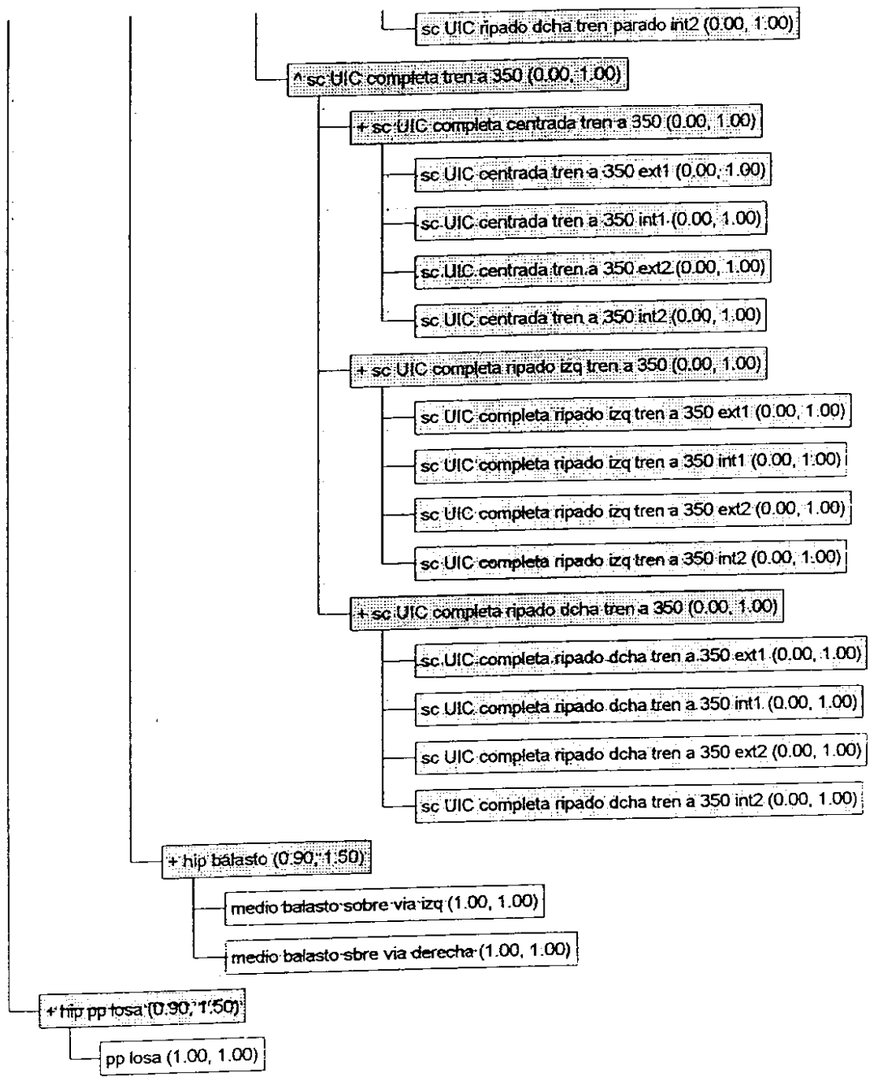
$ list sum of reactions
FINISH
```

Análisis transversal de losa. Envolvente mayorada

Envolvator 1.5
Fichero: mayorada.evt
Fecha: 28/04/99 13:26:23



Análisis transversal de losa. Envolvente mayorada 28/04/99 13:26:23


sc UIC ripado dcha tren parado int2 (0.00, 1.00)
^ sc UIC completa tren a 350 (0.00, 1.00)
+ sc UIC completa centrada tren a 350 (0.00, 1.00)
sc UIC centrada tren a 350 ext1 (0.00, 1.00)
sc UIC centrada tren a 350 int1 (0.00, 1.00)
sc UIC centrada tren a 350 ext2 (0.00, 1.00)
sc UIC centrada tren a 350 int2 (0.00, 1.00)
+ sc UIC completa ripado izq tren a 350 (0.00, 1.00)
sc UIC completa ripado izq tren a 350 ext1 (0.00, 1.00)
sc UIC completa ripado izq tren a 350 int1 (0.00, 1.00)
sc UIC completa ripado izq tren a 350 ext2 (0.00, 1.00)
sc UIC completa ripado izq tren a 350 int2 (0.00, 1.00)
+ sc UIC completa ripado dcha tren a 350 (0.00, 1.00)
sc UIC completa ripado dcha tren a 350 ext1 (0.00, 1.00)
sc UIC completa ripado dcha tren a 350 int1 (0.00, 1.00)
sc UIC completa ripado dcha tren a 350 ext2 (0.00, 1.00)
sc UIC completa ripado dcha tren a 350 int2 (0.00, 1.00)
+ hip balasto (0.90, 1.50)
medio balasto sobre via izq (1.00, 1.00)
medio balasto sbre via derecha (1.00, 1.00)
+ hip pp losa (0.90, 1.50)
pp losa (1.00, 1.00)

Envolvente transversal de losa mayorada

Modelo local.

Program Envolvator (release 1.3 - Jun 1998)
Calculation date: 28-abr-1999 11:33 h. Listing date: 28-abr-1999 11:33 h.
Members: 136
Joints: 137
Envelope generated from:

Name		
hip media sc en paseos	0.00	1.50
sobrecarga con balasto y traviesas	1.00	1.00
hip pp losa	0.90	1.50

	Fx	Fy	Mz	Fx	Fy	Mz
Member 1						
Fx,	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy,	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz,	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**
Fx,	**0.0**	0.1	-0.0	**0.0**	0.0	-0.0
Fy,	0.0	**0.0**	-0.0	0.0	**0.1**	-0.0
Mz,	0.0	0.1	**-0.0**	0.0	0.0	**-0.0**
Member 2						
Fx,	**0.0**	0.1	-0.0	**0.0**	0.0	-0.0
Fy,	0.0	**0.0**	-0.0	0.0	**0.1**	-0.0
Mz,	0.0	0.1	**-0.0**	0.0	0.0	**-0.0**
Fx,	**0.0**	0.2	-0.0	**0.0**	0.1	-0.0
Fy,	0.0	**0.1**	-0.0	0.0	**0.2**	-0.0
Mz,	0.0	0.2	**-0.0**	0.0	0.1	**-0.0**
Member 3						
Fx,	**0.0**	0.2	-0.0	**0.0**	0.1	-0.0
Fy,	0.0	**0.1**	-0.0	0.0	**0.2**	-0.0
Mz,	0.0	0.2	**-0.0**	0.0	0.1	**-0.0**
Fx,	**0.0**	0.3	-0.0	**0.0**	0.1	-0.0
Fy,	0.0	**0.1**	-0.0	0.0	**0.3**	-0.0
Mz,	0.0	0.3	**-0.0**	0.0	0.1	**-0.0**
Member 4						
Fx,	**0.0**	0.3	-0.0	**0.0**	0.1	-0.0
Fy,	0.0	**0.1**	-0.0	0.0	**0.3**	-0.0
Mz,	0.0	0.3	**-0.0**	0.0	0.1	**-0.0**
Fx,	**0.0**	0.4	-0.1	**0.0**	0.2	-0.0
Fy,	0.0	**0.2**	-0.0	0.0	**0.4**	-0.1
Mz,	0.0	0.4	**-0.1**	0.0	0.2	**-0.0**
Member 5						
Fx,	**0.0**	0.4	-0.1	**0.0**	0.2	-0.0
Fy,	0.0	**0.2**	-0.0	0.0	**0.4**	-0.1
Mz,	0.0	0.4	**-0.1**	0.0	0.2	**-0.0**
Fx,	**0.0**	0.5	-0.1	**0.0**	0.2	-0.1
Fy,	0.0	**0.2**	-0.1	0.0	**0.5**	-0.1
Mz,	0.0	0.5	**-0.1**	0.0	0.2	**-0.1**
Member 6						
Fx,	**0.0**	0.5	-0.1	**0.0**	0.2	-0.1
Fy,	0.0	**0.2**	-0.1	0.0	**0.5**	-0.1
Mz,	0.0	0.5	**-0.1**	0.0	0.2	**-0.1**
Fx,	**0.0**	0.6	-0.2	**0.0**	0.3	-0.1
Fy,	0.0	**0.3**	-0.1	0.0	**0.6**	-0.2
Mz,	0.0	0.6	**-0.2**	0.0	0.3	**-0.1**
Member 7						
Fx,	**0.0**	0.6	-0.2	**0.0**	0.3	-0.1
Fy,	0.0	**0.3**	-0.1	0.0	**0.6**	-0.2
Mz,	0.0	0.6	**-0.2**	0.0	0.3	**-0.1**
Fx,	**0.0**	0.7	-0.2	**0.0**	0.3	-0.1
Fy,	0.0	**0.3**	-0.1	0.0	**0.7**	-0.2
Mz,	0.0	0.7	**-0.2**	0.0	0.3	**-0.1**
Member 8						
Fx,	**0.0**	0.7	-0.2	**0.0**	0.3	-0.1
Fy,	0.0	**0.3**	-0.1	0.0	**0.7**	-0.2
Mz,	0.0	0.7	**-0.2**	0.0	0.3	**-0.1**
Fx,	**0.0**	0.8	-0.3	**0.0**	0.4	-0.1
Fy,	0.0	**0.4**	-0.1	0.0	**0.8**	-0.3
Mz,	0.0	0.8	**-0.3**	0.0	0.4	**-0.1**
Member 9						
Fx,	**0.0**	0.8	-0.3	**0.0**	0.4	-0.1
Fy,	0.0	**0.4**	-0.1	0.0	**0.8**	-0.3
Mz,	0.0	0.8	**-0.3**	0.0	0.4	**-0.1**
Fx,	**0.0**	0.9	-0.4	**0.0**	0.4	-0.2
Fy,	0.0	**0.4**	-0.2	0.0	**0.9**	-0.4
Mz,	0.0	0.9	**-0.4**	0.0	0.4	**-0.2**
Member 10						
Fx,	**0.0**	0.9	-0.4	**0.0**	0.4	-0.2
Fy,	0.0	**0.4**	-0.2	0.0	**0.9**	-0.4
Mz,	0.0	0.9	**-0.4**	0.0	0.4	**-0.2**
Fx,	**0.0**	1.0	-0.5	**0.0**	0.5	-0.2
Fy,	0.0	**0.5**	-0.2	0.0	**1.0**	-0.5
Mz,	0.0	1.0	**-0.5**	0.0	0.5	**-0.2**
Member 11						
Fx,	**0.0**	1.0	-0.5	**0.0**	0.5	-0.2
Fy,	0.0	**0.5**	-0.2	0.0	**1.0**	-0.5
Mz,	0.0	1.0	**-0.5**	0.0	0.5	**-0.2**
Fx,	**0.0**	1.1	-0.6	**0.0**	0.5	-0.3
Fy,	0.0	**0.5**	-0.3	0.0	**1.1**	-0.6
Mz,	0.0	1.1	**-0.6**	0.0	0.5	**-0.3**
Member 12						
Fx,	**0.0**	1.1	-0.6	**0.0**	0.5	-0.3
Fy,	0.0	**0.5**	-0.3	0.0	**1.1**	-0.6
Mz,	0.0	1.1	**-0.6**	0.0	0.5	**-0.3**
Fx,	**0.0**	1.3	-0.7	**0.0**	0.5	-0.3
Fy,	0.0	**0.5**	-0.3	0.0	**1.3**	-0.7
Mz,	0.0	1.3	**-0.7**	0.0	0.5	**-0.3**
Member 13						
Fx,	**0.0**	1.3	-0.7	**0.0**	0.5	-0.3
Fy,	0.0	**0.5**	-0.3	0.0	1.3	-0.7
Mz,	0.0	1.3	**-0.7**	0.0	0.5	**-0.3**
Fx,	**0.0**	1.4	-0.8	**0.0**	0.6	-0.4
Fy,	0.0	**0.6**	-0.4	0.0	1.4	-0.8
Mz,	0.0	1.4	**-0.8**	0.0	0.6	**-0.4**
Member 14						
Fx,	**0.0**	1.4	-0.8	**0.0**	0.6	-0.4
Fy,	0.0	**0.6**	-0.4	0.0	**1.4**	-0.8
Mz,	0.0	1.4	**-0.8**	0.0	0.6	**-0.4**

Fx,	**0.0**	1.5	-1.0	**0.0**	0.6	-0.4
Fy,	0.0	**0.6**	-0.4	0.0	**1.5**	-1.0
Mz,	0.0	1.5	**-1.0**	0.0	0.6	**-0.4**

Member 15

Fx,	**0.0**	1.5	-1.0	**0.0**	0.6	-0.4
Fy,	0.0	**0.6**	-0.4	0.0	**1.5**	-1.0
Mz,	0.0	1.5	**-1.0**	0.0	0.6	**-0.4**
Fx,	**0.0**	1.6	-1.1	**0.0**	0.7	-0.5
Fy,	0.0	**0.7**	-0.5	0.0	**1.6**	-1.1
Mz,	0.0	1.6	**-1.1**	0.0	0.7	**-0.5**

Member 16

Fx,	**0.0**	1.6	-1.1	**0.0**	0.7	-0.5
Fy,	0.0	**0.7**	-0.5	0.0	**1.6**	-1.1
Mz,	0.0	1.6	**-1.1**	0.0	0.7	**-0.5**
Fx,	**0.0**	1.7	-1.3	**0.0**	0.7	-0.6
Fy,	0.0	**0.7**	-0.6	0.0	**1.7**	-1.3
Mz,	0.0	1.7	**-1.3**	0.0	0.7	**-0.6**

Member 17

Fx,	**0.0**	1.7	-1.3	**0.0**	0.7	-0.6
Fy,	0.0	**0.7**	-0.6	0.0	**1.7**	-1.3
Mz,	0.0	1.7	**-1.3**	0.0	0.7	**-0.6**
Fx,	**0.0**	1.7	-1.4	**0.0**	0.8	-0.6
Fy,	0.0	**0.8**	-0.6	0.0	**1.7**	-1.4
Mz,	0.0	1.7	**-1.4**	0.0	0.8	**-0.6**

Member 18

Fx,	**0.0**	1.7	-1.4	**0.0**	0.8	-0.6
Fy,	0.0	**0.8**	-0.6	0.0	**1.7**	-1.4
Mz,	0.0	1.7	**-1.4**	0.0	0.8	**-0.6**
Fx,	**0.0**	1.8	-1.6	**0.0**	0.8	-0.7
Fy,	0.0	**0.8**	-0.7	0.0	**1.8**	-1.6
Mz,	0.0	1.8	**-1.6**	0.0	0.8	**-0.7**

Member 19

Fx,	**0.0**	1.8	-1.6	**0.0**	0.8	-0.7
Fy,	0.0	**0.8**	-0.7	0.0	**1.8**	-1.6
Mz	0.0	1.8	**-1.6**	0.0	0.8	**-0.7**
Fx,	**0.0**	1.9	-1.8	**0.0**	0.9	-0.8
Fy,	0.0	**0.9**	-0.8	0.0	**1.9**	-1.8
Mz,	0.0	1.9	**-1.8**	0.0	0.9	**-0.8**

Member 20

Fx,	**0.0**	1.9	-1.8	**0.0**	0.9	-0.8
Fy,	0.0	**0.9**	-0.8	0.0	**1.9**	-1.8
Mz,	0.0	1.9	**-1.8**	0.0	0.9	**-0.8**
Fx,	**0.0**	2.0	-2.0	**0.0**	0.9	-0.9
Fy,	0.0	**0.9**	-0.9	0.0	**2.0**	-2.0
Mz,	0.0	2.0	**-2.0**	0.0	0.9	**-0.9**

Member 21

Fx,	**0.0**	14.5	-2.0	**0.0**	2.2	-0.9
Fy,	0.0	**-0.1**	-2.0	0.0	**29.6**	-0.9
Mz,	0.0	-0.1	**-2.0**	0.0	29.6	**-0.9**
Fx,	**0.0**	14.8	-6.8	**0.0**	2.4	-1.6
Fy,	0.0	**0.2**	-2.0	0.0	**29.8**	**-10.7**
Mz,	0.0	29.3	**-11.1**	0.0	0.8	**-1.6**

Member 22

Fx,	**0.0**	-9.7	-6.8	**0.0**	-2.9	-1.6
Fy,	0.0	**-16.0**	-11.1	0.0	**-2.8**	-1.6
Mz,	0.0	-16.0	**-11.1**	0.0	-2.8	**-1.6**
Fx,	**0.0**	-9.6	-5.9	**0.0**	-2.8	-1.4
Fy,	0.0	**-15.8**	-9.6	0.0	**-2.7**	-1.3
Mz,	0.0	-15.8	**-9.6**	0.0	-2.7	**-1.3**

Member 23

Fx,	**0.0**	-9.6	-5.9	**0.0**	-2.8	-1.4
Fy,	0.0	**-15.8**	-9.6	0.0	**-2.7**	-1.3
Mz,	0.0	-15.8	**-9.6**	0.0	-2.7	**-1.3**
Fx,	**0.0**	-9.4	-5.0	**0.0**	-2.6	-1.1
Fy,	0.0	**-15.7**	-8.0	0.0	**-2.6**	-1.1
Mz,	0.0	-15.7	**-8.0**	0.0	-2.6	**-1.1**

Member 24

Fx,	**0.0**	-9.4	-5.0	**0.0**	-2.6	-1.1
Fy,	0.0	**-15.7**	-8.0	0.0	**-2.6**	-1.1
Mz,	0.0	-15.7	**-8.0**	0.0	-2.6	**-1.1**
Fx,	**0.0**	-9.2	-4.1	**0.0**	-2.5	-0.9
Fy,	0.0	**-15.4**	-6.5	0.0	**-2.5**	-0.8
Mz,	0.0	-15.4	**-6.5**	0.0	-2.5	**-0.8**

Member 25

Fx,	**0.0**	-9.2	-4.1	**0.0**	-2.5	-0.9
Fy,	0.0	**-15.4**	-6.5	0.0	**-2.5**	-0.8
Mz,	0.0	-15.4	**-6.5**	0.0	-2.5	**-0.8**
Fx,	**0.0**	-8.9	-3.2	**0.0**	-2.4	-0.6
Fy,	0.0	**-15.2**	-5.0	0.0	**-2.4**	-0.6
Mz,	0.0	-15.2	**-5.0**	0.0	-2.4	**-0.6**

Member 26

Fx,	**0.0**	-8.9	-3.2	**0.0**	-2.4	-0.6
Fy,	0.0	**-15.2**	-5.0	0.0	**-2.4**	-0.6
Mz,	0.0	-15.2	**-5.0**	0.0	-2.4	**-0.6**
Fx,	**0.0**	-8.7	-2.3	**0.0**	-2.2	-0.4
Fy,	0.0	**-15.0**	-3.5	0.0	**-2.2**	-0.4
Mz,	0.0	-14.2	**-3.5**	0.0	-3.0	**-0.3**

Member 27

Fx,	**0.0**	-8.7	-2.3	**0.0**	-2.2	-0.4
Fy,	0.0	**-15.0**	-3.5	0.0	**-2.2**	-0.4
Mz,	0.0	-14.2	**-3.5**	0.0	-3.0	**-0.3**
Fx,	**0.0**	-8.5	-1.5	**0.0**	-2.1	-0.2
Fy,	0.0	**-14.7**	-2.1	0.0	**-2.1**	-0.1
Mz,	0.0	-12.3	**-2.2**	0.0	-4.5	**0.0**

Member 28

Fx,	**0.0**	-8.5	-1.5	**0.0**	-2.1	-0.2
Fy,	0.0	**-14.7**	-2.1	0.0	**-2.1**	-0.1
Mz,	0.0	-12.3	**-2.2**	0.0	-4.5	**0.0**
Fx,	**0.0**	-8.2	-0.6	**0.0**	-1.9	0.0
Fy,	0.0	**-14.5**	-0.6	0.0	**-1.9**	0.1
Mz,	0.0	-8.6	**-1.1**	0.0	-7.7	**0.6**

Member 29

Fx,	**0.0**	-8.2	-0.6	**0.0**	-1.9	0.0
Fy,	0.0	**-14.5**	-0.6	0.0	**-1.9**	0.1
Mz,	0.0	-8.6	**-1.1**	0.0	-7.7	**0.6**

Fx,	**0.0**	-7.9	0.1	**0.0**	-1.7	0.2
Fy,	0.0	**-13.3**	0.5	0.0	**-1.6**	0.4
Mz,	0.0	-6.6	**-0.4**	0.0	-8.4	**1.4**

Member 30

Fx,	**0.0**	-7.9	0.1	**0.0**	-1.7	0.2
Fy,	0.0	**-13.3**	0.5	0.0	**-1.6**	0.4
Mz,	0.0	-6.6	**-0.4**	0.0	-8.4	**1.4**
Fx,	**0.0**	-7.6	0.9	**0.0**	-1.6	0.4
Fy,	0.0	**-12.2**	1.5	0.0	**-1.3**	0.8
Mz,	0.0	-4.3	**0.1**	0.0	-9.0	**2.2**

Member 31

Fx,	**0.0**	-7.6	0.9	**0.0**	-1.6	0.4
Fy,	0.0	**-12.2**	1.5	0.0	**-1.3**	0.8
Mz,	0.0	-4.3	**0.1**	0.0	-9.0	**2.2**
Fx,	**0.0**	-7.2	1.6	**0.0**	-1.4	0.5
Fy,	0.0	**-11.1**	2.4	0.0	**-0.9**	1.2
Mz,	0.0	-2.4	**0.5**	0.0	-9.5	**3.1**

Member 32

Fx,	**0.0**	-7.2	1.6	**0.0**	-1.4	0.5
Fy,	0.0	**-11.1**	2.4	0.0	**-0.9**	1.2
Mz,	0.0	-2.4	**0.5**	0.0	-9.5	**3.1**
Fx,	**0.0**	-6.9	2.3	**0.0**	-1.2	0.6
Fy,	0.0	**-10.1**	3.1	0.0	**-0.5**	1.6
Mz,	0.0	-1.3	**0.6**	0.0	-9.3	**4.1**

Member 33

Fx,	**0.0**	-6.9	2.3	**0.0**	-1.2	0.6
Fy,	0.0	**-10.1**	3.1	0.0	**-0.5**	1.6
Mz,	0.0	-1.3	**0.6**	0.0	-9.3	**4.1**
Fx,	**0.0**	-6.6	3.0	**0.0**	-1.0	0.7
Fy,	0.0	**-9.1**	3.7	0.0	**-0.1**	2.0
Mz,	0.0	-1.0	**0.7**	0.0	-8.1	**4.9**

Member 34

Fx,	**0.0**	-6.6	3.0	**0.0**	-1.0	0.7
Fy,	0.0	**-9.1**	3.7	0.0	**-0.1**	2.0
Mz,	0.0	-1.0	**0.7**	0.0	-8.1	**4.9**
Fx,	**0.0**	-5.6	3.6	**0.0**	-0.8	0.8
Fy,	0.0	**-8.1**	4.2	0.0	**0.4**	2.4
Mz,	0.0	-0.8	**0.8**	0.0	-6.9	**5.7**

Member 35

Fx,	**0.0**	-5.6	3.6	**0.0**	-0.8	0.8
Fy,	0.0	**-8.1**	4.2	0.0	**0.4**	2.4
Mz,	0.0	-0.8	**0.8**	0.0	-6.9	**5.7**
Fx,	**0.0**	-4.6	4.1	**0.0**	-0.7	0.9
Fy,	0.0	**-7.1**	4.5	0.0	**0.9**	2.7
Mz,	0.0	-0.6	**0.9**	0.0	-5.6	**6.3**

Member 36

Fx,	**0.0**	-4.6	4.1	**0.0**	-0.7	0.9
Fy,	0.0	**-7.1**	4.5	0.0	**0.9**	2.7
Mz,	0.0	-0.6	**0.9**	0.0	-5.6	**6.3**
Fx,	**0.0**	-3.6	4.5	**0.0**	-0.5	1.0
Fy,	0.0	**-6.2**	4.7	0.0	**1.4**	3.0
Mz,	0.0	-0.5	**1.0**	0.0	-4.4	**6.8**

Member 37

Fx,	**0.0**	-3.6	4.5	**0.0**	-0.5	1.0
Fy,	0.0	**-6.2**	4.7	0.0	**1.4**	3.0
Mz,	0.0	-0.5	**1.0**	0.0	-4.4	**6.8**
Fx,	**0.0**	-2.6	4.8	**0.0**	-0.3	1.0
Fy,	0.0	**-5.3**	4.9	0.0	**2.0**	3.3
Mz,	0.0	-0.3	**1.0**	0.0	-3.1	**7.1**

Member 38

Fx,	**0.0**	-2.6	4.8	**0.0**	-0.3	1.0
Fy,	0.0	**-5.3**	4.9	0.0	**2.0**	3.3
Mz,	0.0	-0.3	**1.0**	0.0	-3.1	**7.1**
Fx,	**0.0**	-1.7	5.0	**0.0**	-0.1	1.0
Fy,	0.0	**-4.5**	4.9	0.0	**2.6**	3.5
Mz,	0.0	-0.1	**1.0**	0.0	-1.8	**7.4**

Member 39

Fx,	**0.0**	-1.7	5.0	**0.0**	-0.1	1.0
Fy,	0.0	**-4.5**	4.9	0.0	**2.6**	3.5
Mz,	0.0	-0.1	**1.0**	0.0	-1.8	**7.4**
Fx,	**0.0**	-0.7	5.1	**0.0**	0.0	1.0
Fy,	0.0	**-3.8**	4.2	0.0	**3.2**	4.4
Mz,	0.0	0.1	**1.0**	0.0	-0.6	**7.5**

Member 40

Fx,	**0.0**	-0.7	5.1	**0.0**	0.0	1.0
Fy,	0.0	**-3.8**	4.2	0.0	**3.2**	4.4
Mz,	0.0	0.1	**1.0**	0.0	-0.6	**7.5**
Fx,	**0.0**	0.3	5.1	**0.0**	0.2	1.0
Fy,	0.0	**-3.1**	4.1	0.0	**4.0**	4.4
Mz,	0.0	0.2	**1.0**	0.0	0.7	**7.5**

Member 41

Fx,	**0.0**	0.3	5.1	**0.0**	0.2	1.0
Fy,	0.0	**-3.1**	4.1	0.0	**4.0**	4.4
Mz,	0.0	0.2	**1.0**	0.0	0.7	**7.5**
Fx,	**0.0**	1.2	5.0	**0.0**	0.4	1.0
Fy,	0.0	**-2.5**	3.9	0.0	**4.8**	4.5
Mz,	0.0	0.4	**1.0**	0.0	1.9	**7.4**

Member 42

Fx,	**0.0**	1.2	5.0	**0.0**	0.4	1.0
Fy,	0.0	**-2.5**	3.9	0.0	**4.8**	4.5
Mz,	0.0	0.4	**1.0**	0.0	1.9	**7.4**
Fx,	**0.0**	2.2	4.9	**0.0**	0.6	0.9
Fy,	0.0	**-2.0**	3.7	0.0	**5.7**	4.4
Mz,	0.0	0.6	**0.9**	0.0	3.2	**7.1**

Member 43

Fx,	**0.0**	2.2	4.9	**0.0**	0.6	0.9
Fy,	0.0	**-2.0**	3.7	0.0	**5.7**	4.4
Mz,	0.0	0.6	**0.9**	0.0	3.2	**7.1**
Fx,	**0.0**	3.2	4.6	**0.0**	0.7	0.9
Fy,	0.0	**-1.5**	3.4	0.0	**6.6**	4.2
Mz,	0.0	0.7	**0.9**	0.0	4.4	**6.8**

Member 44

Fx,	**0.0**	3.2	4.6	**0.0**	0.7	0.9
Fy,	0.0	**-1.5**	3.4	0.0	**6.6**	4.2
Mz,	0.0	0.7	**0.9**	0.0	4.4	**6.8**

Fx_f	**0.0**	4.1	4.3	**0.0**	0.9	0.8
Fy_f	0.0	**-1.1**	3.4	0.0	**7.5**	3.9
Mz_f	0.0	0.9	**0.8**	0.0	5.7	**6.3**

Member 45

Fx_i	**0.0**	4.1	4.3	**0.0**	0.9	0.8
Fy_i	0.0	**-1.1**	3.4	0.0	**7.5**	3.9
Mz_i	0.0	0.9	**0.8**	0.0	5.7	**6.3**
Fx_f	**0.0**	5.1	3.8	**0.0**	1.1	0.7
Fy_f	0.0	**-0.6**	2.9	0.0	**8.7**	3.6
Mz_f	0.0	1.1	**0.7**	0.0	7.1	**5.6**

Member 46

Fx_i	**0.0**	5.1	3.8	**0.0**	1.1	0.7
Fy_i	0.0	**-0.6**	2.9	0.0	**8.7**	3.6
Mz_i	0.0	1.1	**0.7**	0.0	7.1	**5.6**
Fx_f	**0.0**	6.0	3.3	**0.0**	1.2	0.6
Fy_f	0.0	**-0.1**	2.5	0.0	**9.8**	3.1
Mz_f	0.0	1.2	**0.6**	0.0	8.6	**4.9**

Member 47

Fx_i	**0.0**	6.0	3.3	**0.0**	1.2	0.6
Fy_i	0.0	**-0.1**	2.5	0.0	**9.8**	3.1
Mz_i	0.0	1.2	**0.6**	0.0	8.6	**4.9**
Fx_f	**0.0**	7.0	2.6	**0.0**	1.4	0.5
Fy_f	0.0	**0.3**	2.0	0.0	**11.1**	2.5
Mz_f	0.0	2.1	**0.4**	0.0	9.4	**4.0**

Member 48

Fx_i	**0.0**	7.0	2.6	**0.0**	1.4	0.5
Fy_i	0.0	**0.3**	2.0	0.0	**11.1**	2.5
Mz_i	0.0	2.1	**0.4**	0.0	9.4	**4.0**
Fx_f	**0.0**	8.0	1.9	**0.0**	1.5	0.3
Fy_f	0.0	**0.8**	1.6	0.0	**12.3**	1.7
Mz_f	0.0	3.8	**0.2**	0.0	8.6	**3.1**

Member 49

Fx_i	**0.0**	8.0	1.9	**0.0**	1.5	0.3
Fy_i	0.0	**0.8**	1.6	0.0	**12.3**	1.7
Mz_i	0.0	3.8	**0.2**	0.0	8.6	**3.1**
Fx_f	**0.0**	8.9	1.1	**0.0**	1.7	0.2
Fy_f	0.0	**1.1**	1.2	0.0	**13.6**	0.8
Mz_f	0.0	5.9	**-0.3**	0.0	8.5	**2.2**

Member 50

Fx_i	**0.0**	8.9	1.1	**0.0**	1.7	0.2
Fy_i	0.0	**1.1**	1.2	0.0	**13.6**	0.8
Mz_i	0.0	5.9	**-0.3**	0.0	8.5	**2.2**
Fx_f	**0.0**	9.7	0.1	**0.0**	1.9	-0.0
Fy_f	0.0	**1.4**	0.8	0.0	**14.9**	-0.4
Mz_f	0.0	8.7	**-1.0**	0.0	8.2	**1.4**

Member 51

Fx_i	**0.0**	9.7	0.1	**0.0**	1.9	-0.0
Fy_i	0.0	**1.4**	0.8	0.0	**14.9**	-0.4
Mz_i	0.0	8.7	**-1.0**	0.0	8.2	**1.4**
Fx_f	**0.0**	10.6	-0.9	**0.0**	2.0	-0.2
Fy_f	0.0	**1.7**	0.4	0.0	**16.3**	-1.7
Mz_f	0.0	12.1	**-2.1**	0.0	6.3	**0.7**

Member 52

Fx_i	**0.0**	10.6	-0.9	**0.0**	2.0	-0.2
Fy_i	0.0	**1.7**	0.4	0.0	**16.3**	-1.7
Mz_i	0.0	12.1	**-2.1**	0.0	6.3	**0.7**
Fx_f	**0.0**	11.4	-1.9	**0.0**	2.2	-0.4
Fy_f	0.0	**2.0**	-0.0	0.0	**17.7**	-3.2
Mz_f	0.0	14.4	**-3.4**	0.0	5.5	**0.2**

Member 53

Fx_i	**0.0**	11.4	-1.9	**0.0**	2.2	-0.4
Fy_i	0.0	**2.0**	-0.0	0.0	**17.7**	-3.2
Mz_i	0.0	14.4	**-3.4**	0.0	5.5	**0.2**
Fx_f	**0.0**	12.2	-3.1	**0.0**	2.3	-0.6
Fy_f	0.0	2.2	-0.4	0.0	**19.1**	-4.8
Mz_f	0.0	16.8	**-4.9**	0.0	4.7	**-0.3**

Member 54

Fx_i	**0.0**	12.2	-3.1	**0.0**	2.3	-0.6
Fy_i	0.0	2.2	-0.4	0.0	**19.1**	-4.8
Mz_i	0.0	16.8	**-4.9**	0.0	4.7	**-0.3**
Fx_f	**0.0**	13.1	-4.3	**0.0**	2.5	-0.9
Fy_f	0.0	2.4	-0.7	0.0	**20.5**	-6.7
Mz_f	0.0	19.3	**-6.7**	0.0	3.7	**-0.7**

Member 55

Fx_i	**0.0**	13.1	-4.3	**0.0**	2.5	-0.9
Fy_i	0.0	2.4	-0.7	0.0	**20.5**	-6.7
Mz_i	0.0	19.3	**-6.7**	0.0	3.7	**-0.7**
Fx_f	**0.0**	13.9	-5.6	**0.0**	2.6	-1.1
Fy_f	0.0	**2.6**	-1.0	0.0	**21.9**	-8.7
Mz_f	0.0	20.8	**-8.7**	0.0	3.9	**-1.0**

Member 56

Fx_i	**0.0**	13.9	-5.6	**0.0**	2.6	-1.1
Fy_i	0.0	**2.6**	-1.0	0.0	**21.9**	-8.7
Mz_i	0.0	20.8	**-8.7**	0.0	3.9	**-1.0**
Fx_f	**0.0**	14.7	-7.0	**0.0**	2.8	-1.4
Fy_f	0.0	**2.8**	-1.3	0.0	**23.4**	-10.9
Mz_f	0.0	23.4	**-10.9**	0.0	2.8	**-1.3**

Member 57

Fx_i	**0.0**	14.7	-7.0	**0.0**	2.8	-1.4
Fy_i	0.0	**2.8**	-1.3	0.0	**23.4**	-10.9
Mz_i	0.0	23.4	**-10.9**	0.0	2.8	**-1.3**
Fx_f	**0.0**	15.5	-8.5	**0.0**	2.9	-1.7
Fy_f	0.0	**2.9**	-1.6	0.0	**24.9**	-12.8
Mz_f	0.0	24.9	**-13.2**	0.0	2.9	**-1.6**

Member 58

Fx_i	**0.0**	-25.0	-8.5	**0.0**	-4.3	-1.7
Fy_i	0.0	**-43.7**	-13.2	0.0	**0.4**	-1.6
Mz_i	0.0	-43.7	**-13.2**	0.0	0.4	**-1.6**
Fx_f	**0.0**	-22.7	-0.6	**0.0**	-4.1	-0.3
Fy_f	0.0	**-41.2**	0.5	0.0	**2.9**	-1.8
Mz_f	0.0	0.2	**-2.0**	0.0	-38.5	**0.7**

Member 59

Fx_i	**0.0**	-5.0	-0.6	**0.0**	-1.3	-0.3
Fy_i	0.0	**-9.6**	-2.0	0.0	**-0.6**	0.7
Mz_i	0.0	-9.6	**-2.0**	0.0	-0.6	**0.7**

Fx_r	**0.0**	-4.3	-0.2	**0.0**	-1.2	-0.2
Fy_r	0.0	**-8.2**	-1.2	0.0	**-0.4**	0.8
Mz_r	0.0	-8.2	**-1.2**	0.0	-0.4	**0.8**

Member 60

Fx_i	**0.0**	-4.3	-0.2	**0.0**	-1.2	-0.2
Fy_i	0.0	**-8.2**	-1.2	0.0	**-0.4**	0.8
Mz_i	0.0	-8.2	**-1.2**	0.0	-0.4	**0.8**
Fx_r	**0.0**	-3.5	0.2	**0.0**	-1.1	-0.1
Fy_r	0.0	**-6.8**	-0.6	0.0	**-0.3**	0.8
Mz_r	0.0	-5.6	**-0.6**	0.0	-0.3	**0.8**

Member 61

Fx_i	**0.0**	-3.5	0.2	**0.0**	-1.1	-0.1
Fy_i	0.0	**-6.8**	-0.6	0.0	**-0.3**	0.8
Mz_i	0.0	-5.6	**-0.6**	0.0	-0.3	**0.8**
Fx_r	**0.0**	-2.8	0.5	**0.0**	-0.9	0.0
Fy_r	0.0	**-5.4**	-0.1	0.0	**-0.1**	0.8
Mz_r	0.0	-2.0	**-0.3**	0.0	-2.7	**0.9**

Member 62

Fx_i	**0.0**	-2.8	0.5	**0.0**	-0.9	0.0
Fy_i	0.0	**-5.4**	-0.1	0.0	**-0.1**	0.8
Mz_i	0.0	-2.0	**-0.3**	0.0	-2.7	**0.9**
Fx_r	**0.0**	-2.1	0.7	**0.0**	-0.8	0.1
Fy_r	0.0	**-4.1**	0.2	0.0	**0.1**	0.9
Mz_r	0.0	-1.9	**-0.1**	0.0	-2.4	**1.2**

Member 63

Fx_i	**0.0**	-2.1	0.7	**0.0**	-0.8	0.1
Fy_i	0.0	**-4.1**	0.2	0.0	**0.1**	0.9
Mz_i	0.0	-1.9	**-0.1**	0.0	-2.4	**1.2**
Fx_r	**0.0**	-1.4	0.8	**0.0**	-0.7	0.2
Fy_r	0.0	**-2.9**	0.4	0.0	**0.4**	1.1
Mz_r	0.0	-1.8	**0.1**	0.0	-1.0	**1.4**

Member 64

Fx_i	**0.0**	-1.4	0.8	**0.0**	-0.7	0.2
Fy_i	0.0	**-2.9**	0.4	0.0	**0.4**	1.1
Mz_i	0.0	-1.8	**0.1**	0.0	-1.0	**1.4**
Fx_r	**0.0**	-0.7	0.9	**0.0**	-0.6	0.2
Fy_r	0.0	**-2.0**	0.4	0.0	**0.8**	1.2
Mz_r	0.0	-0.6	**0.2**	0.0	-0.4	**1.4**

Member 65

Fx_i	**0.0**	-0.7	0.9	**0.0**	-0.6	0.2
Fy_i	0.0	**-2.0**	0.4	0.0	**0.8**	1.2
Mz_i	0.0	-0.6	**0.2**	0.0	-0.4	**1.4**
Fx_r	**0.0**	-0.5	1.0	**0.0**	-0.4	0.3
Fy_r	0.0	**-1.8**	0.6	0.0	**0.9**	1.1
Mz_r	0.0	-0.4	**0.3**	0.0	-0.2	**1.4**

Member 66

Fx_i	**0.0**	-0.5	1.0	**0.0**	-0.4	0.3
Fy_i	0.0	**-1.8**	0.6	0.0	**0.9**	1.1
Mz_i	0.0	-0.4	**0.3**	0.0	-0.2	**1.4**
Fx_r	**0.0**	-0.2	1.0	**0.0**	-0.3	0.3
Fy_r	0.0	**-1.6**	0.7	0.0	**1.0**	1.1
Mz_r	0.0	-0.3	**0.3**	0.0	0.0	**1.4**

Member 67

Fx_i	**0.0**	-0.2	1.0	**0.0**	-0.3	0.3
Fy_i	0.0	**-1.6**	0.7	0.0	**1.0**	1.1
Mz_i	0.0	-0.3	**0.3**	0.0	0.0	**1.4**
Fx_r	**0.0**	-0.0	1.0	**0.0**	-0.2	0.3
Fy_r	0.0	**-1.4**	0.9	0.0	**1.2**	1.0
Mz_r	0.0	-0.2	**0.3**	0.0	0.2	**1.4**

Member 68

Fx_i	**0.0**	-0.0	1.0	**0.0**	-0.2	0.3
Fy_i	0.0	**-1.4**	0.9	0.0	**1.2**	1.0
Mz_i	0.0	-0.2	**0.3**	0.0	0.2	**1.4**
Fx_r	**0.0**	0.2	1.0	**0.0**	-0.0	0.3
Fy_r	0.0	**-1.1**	0.9	0.0	**1.3**	1.0
Mz_r	0.0	-0.0	**0.3**	0.0	0.5	**1.4**

Member 69

Fx_i	**0.0**	0.2	1.0	**0.0**	-0.0	0.3
Fy_i	0.0	**-1.1**	0.9	0.0	**1.3**	1.0
Mz_i	0.0	-0.0	**0.3**	0.0	0.5	**1.4**
Fx_r	**0.0**	0.5	1.0	**0.0**	0.1	0.3
Fy_r	0.0	**-1.0**	0.8	0.0	**1.5**	1.0
Mz_r	0.0	0.1	**0.3**	0.0	0.7	**1.3**

Member 70

Fx_i	**0.0**	0.5	1.0	**0.0**	0.1	0.3
Fy_i	0.0	**-1.0**	0.8	0.0	**1.5**	1.0
Mz_i	0.0	0.1	**0.3**	0.0	0.7	**1.3**
Fx_r	**0.0**	0.7	0.9	**0.0**	0.3	0.3
Fy_r	0.0	**-0.8**	0.9	0.0	**1.8**	0.8
Mz_r	0.0	0.3	**0.3**	0.0	0.2	**1.3**

Member 71

Fx_i	**0.0**	0.7	0.9	**0.0**	0.3	0.3
Fy_i	0.0	**-0.8**	0.9	0.0	**1.8**	0.8
Mz_i	0.0	0.3	**0.3**	0.0	0.2	**1.3**
Fx_r	**0.0**	1.0	0.9	**0.0**	0.4	0.3
Fy_r	0.0	**-0.7**	1.0	0.0	**2.0**	0.6
Mz_r	0.0	0.4	**0.3**	0.0	0.4	**1.3**

Member 72

Fx_i	**0.0**	1.0	0.9	**0.0**	0.4	0.3
Fy_i	0.0	**-0.7**	1.0	0.0	**2.0**	0.6
Mz_i	0.0	0.4	**0.3**	0.0	0.4	**1.3**
Fx_r	**0.0**	1.2	0.8	**0.0**	0.6	0.3
Fy_r	0.0	**-0.5**	1.0	0.0	**2.3**	0.4
Mz_r	0.0	0.6	**0.2**	0.0	0.7	**1.2**

Member 73

Fx_i	**0.0**	1.2	0.8	**0.0**	0.6	0.3
Fy_i	0.0	**-0.5**	1.0	0.0	**2.3**	0.4
Mz_i	0.0	0.6	**0.2**	0.0	0.7	**1.2**
Fx_r	**0.0**	1.5	0.6	**0.0**	0.7	0.2
Fy_r	0.0	**-0.4**	1.1	0.0	**2.6**	0.2
Mz_r	0.0	2.0	**0.1**	0.0	0.1	**1.2**

Member 74

Fx_i	**0.0**	1.5	0.6	**0.0**	0.7	0.2
Fy_i	0.0	**-0.4**	1.1	0.0	**2.6**	0.2
Mz_i	0.0	2.0	**0.1**	0.0	0.1	**1.2**

Fx_i	**0.0**	1.8	0.5	**0.0**	0.9	0.1
Fy_i	0.0	**-0.1**	1.0	0.0	**3.0**	0.1
Mz_i	0.0	2.2	**-0.1**	0.0	1.2	**1.2**
Fx_f	**0.0**	1.8	0.5	**0.0**	0.9	0.1
Fy_f	0.0	**-0.1**	1.0	0.0	**3.0**	0.1
Mz_f	0.0	2.2	**-0.1**	0.0	1.2	**1.2**

Member 75

Fx_i	**0.0**	1.8	0.5	**0.0**	0.9	0.1
Fy_i	0.0	**-0.1**	1.0	0.0	**3.0**	0.1
Mz_i	0.0	2.2	**-0.1**	0.0	1.2	**1.2**
Fx_f	**0.0**	2.0	0.3	**0.0**	1.1	0.0
Fy_f	0.0	**0.2**	0.9	0.0	**4.1**	-0.1
Mz_f	0.0	2.4	**-0.3**	0.0	2.2	**1.0**

Member 76

Fx_i	**0.0**	2.0	0.3	**0.0**	1.1	0.0
Fy_i	0.0	**0.2**	0.9	0.0	**4.1**	-0.1
Mz_i	0.0	2.4	**-0.3**	0.0	2.2	**1.0**
Fx_f	**0.0**	2.3	0.1	**0.0**	1.2	-0.1
Fy_f	0.0	**0.4**	0.8	0.0	**5.2**	-0.5
Mz_f	0.0	3.4	**-0.6**	0.0	1.1	**0.9**

Member 77

Fx_i	**0.0**	2.3	0.1	**0.0**	1.2	-0.1
Fy_i	0.0	**0.4**	0.8	0.0	**5.2**	-0.5
Mz_i	0.0	3.4	**-0.6**	0.0	1.1	**0.9**
Fx_f	**0.0**	2.6	-0.1	**0.0**	1.4	-0.2
Fy_f	0.0	**0.6**	0.8	0.0	**6.3**	-0.9
Mz_f	0.0	6.3	**-0.9**	0.0	0.6	**0.8**

Member 78

Fx_i	**0.0**	2.6	-0.1	**0.0**	1.4	-0.2
Fy_i	0.0	**0.6**	0.8	0.0	**6.3**	-0.9
Mz_i	0.0	6.3	**-0.9**	0.0	0.6	**0.8**
Fx_f	**0.0**	2.9	-0.4	**0.0**	1.6	-0.3
Fy_f	0.0	**0.7**	0.7	0.0	**7.5**	-1.6
Mz_f	0.0	7.5	**-1.6**	0.0	0.7	**0.7**

Member 79

Fx_i	**0.0**	23.1	-0.4	**0.0**	3.4	-0.3
Fy_i	0.0	**-1.4**	-1.3	0.0	**41.2**	0.5
Mz_i	0.0	0.8	**-1.6**	0.0	38.9	**0.7**
Fx_f	**0.0**	26.4	-8.6	**0.0**	4.0	-1.5
Fy_f	0.0	**0.8**	-1.5	0.0	**43.6**	-13.3
Mz_f	0.0	43.6	**-13.3**	0.0	0.8	**-1.5**

Member 80

Fx_i	**0.0**	-16.2	-8.6	**0.0**	-2.9	-1.5
Fy_i	0.0	**-23.5**	-13.2	0.0	**-2.8**	-1.5
Mz_i	0.0	-22.9	**-13.3**	0.0	-2.8	**-1.5**
Fx_f	**0.0**	-15.2	-7.0	**0.0**	-2.7	-1.3
Fy_f	0.0	**-22.3**	-11.0	0.0	**-2.7**	-1.2
Mz_f	0.0	-21.7	**-11.2**	0.0	-2.7	**-1.2**

Member 81

Fx_i	**0.0**	-15.2	-7.0	**0.0**	-2.7	-1.3
Fy_i	0.0	**-22.3**	-11.0	0.0	**-2.7**	-1.2
Mz_i	0.0	-21.7	**-11.2**	0.0	-2.7	**-1.2**
Fx_f	**0.0**	-14.2	-5.6	**0.0**	-2.5	-1.0
Fy_f	0.0	**-21.2**	-8.9	0.0	**-2.5**	-0.9
Mz_f	0.0	-19.8	**-9.1**	0.0	-3.4	**-0.9**

Member 82

Fx_i	**0.0**	-14.2	-5.6	**0.0**	-2.5	-1.0
Fy_i	0.0	**-21.2**	-8.9	0.0	**-2.5**	-0.9
Mz_i	0.0	-19.8	**-9.1**	0.0	-3.4	**-0.9**
Fx_f	**0.0**	-13.3	-4.3	**0.0**	-2.4	-0.8
Fy_f	0.0	**-20.1**	-6.9	0.0	**-2.3**	-0.7
Mz_f	0.0	-18.7	**-7.2**	0.0	-3.2	**-0.6**

Member 83

Fx_i	**0.0**	-13.3	-4.3	**0.0**	-2.4	-0.8
Fy_i	0.0	**-20.1**	-6.9	0.0	**-2.3**	-0.7
Mz_i	0.0	-18.7	**-7.2**	0.0	-3.2	**-0.6**
Fx_f	**0.0**	-12.3	-3.0	**0.0**	-2.2	-0.6
Fy_f	0.0	**-19.0**	-5.0	0.0	**-2.1**	-0.4
Mz_f	0.0	-16.8	**-5.5**	0.0	-3.9	**-0.3**

Member 84

Fx_i	**0.0**	-12.3	-3.0	**0.0**	-2.2	-0.6
Fy_i	0.0	**-19.0**	-5.0	0.0	**-2.1**	-0.4
Mz_i	0.0	-16.8	**-5.5**	0.0	-3.9	**-0.3**
Fx_f	**0.0**	-11.4	-1.8	**0.0**	-2.0	-0.3
Fy_f	0.0	**-17.9**	-3.3	0.0	**-1.9**	-0.1
Mz_f	0.0	-15.0	**-3.9**	0.0	-4.5	**0.1**

Member 85

Fx_i	**0.0**	-11.4	-1.8	**0.0**	-2.0	-0.3
Fy_i	0.0	**-17.9**	-3.3	0.0	**-1.9**	-0.1
Mz_i	0.0	-15.0	**-3.9**	0.0	-4.5	**0.1**
Fx_f	**0.0**	-10.4	-0.8	**0.0**	-1.9	-0.2
Fy_f	0.0	**-16.8**	-1.8	0.0	**-1.6**	0.3
Mz_f	0.0	-13.3	**-2.5**	0.0	-5.4	**0.6**

Member 86

Fx_i	**0.0**	-10.4	-0.8	**0.0**	-1.9	-0.2
Fy_i	0.0	**-16.8**	-1.8	0.0	**-1.6**	0.3
Mz_i	0.0	-13.3	**-2.5**	0.0	-5.4	**0.6**
Fx_f	**0.0**	-9.4	0.2	**0.0**	-1.7	0.0
Fy_f	0.0	**-15.8**	-0.3	0.0	**-1.4**	0.6
Mz_f	0.0	-10.0	**-1.3**	0.0	-8.1	**1.2**

Member 87

Fx_i	**0.0**	-9.4	0.2	**0.0**	-1.7	0.0
Fy_i	0.0	**-15.8**	-0.3	0.0	**-1.4**	0.6
Mz_i	0.0	-10.0	**-1.3**	0.0	-8.1	**1.2**
Fx_f	**0.0**	-8.5	1.1	**0.0**	-1.5	0.2
Fy_f	0.0	**-14.7**	1.0	0.0	**-1.1**	0.9
Mz_f	0.0	-7.3	**-0.5**	0.0	-9.8	**2.0**

Member 88

Fx_i	**0.0**	-8.5	1.1	**0.0**	-1.5	0.2
Fy_i	0.0	**-14.7**	1.0	0.0	**-1.1**	0.9
Mz_i	0.0	-7.3	**-0.5**	0.0	-9.8	**2.0**
Fx_f	**0.0**	-7.5	1.9	**0.0**	-1.4	0.3
Fy_f	0.0	**-13.4**	2.0	0.0	**-0.8**	1.3
Mz_f	0.0	-4.5	**0.1**	0.0	-10.9	**3.1**

Member 89

Fx_i	**0.0**	-7.5	1.9	**0.0**	-1.4	0.3
Fy_i	0.0	**-13.4**	2.0	0.0	**-0.8**	1.3
Mz_i	0.0	-4.5	**0.1**	0.0	-10.9	**3.1**

Fx,	**0.0**	-6.6	2.6	**0.0**	-1.2	0.4
Fy,	0.0	**-12.2**	2.5	0.0	**-0.4**	1.7
Mz,	0.0	-2.1	**0.4**	0.0	-11.2	**4.2**

Member 90

Fx,	**0.0**	-6.6	2.6	**0.0**	-1.2	0.4
Fy,	0.0	**-12.2**	2.5	0.0	**-0.4**	1.7
Mz,	0.0	-2.1	**0.4**	0.0	-11.2	**4.2**
Fx,	**0.0**	-5.6	3.1	**0.0**	-1.1	0.6
Fy,	0.0	**-11.3**	3.6	0.0	**0.1**	2.2
Mz,	0.0	-1.1	**0.5**	0.0	-9.6	**5.2**

Member 91

Fx,	**0.0**	-5.6	3.1	**0.0**	-1.1	0.6
Fy,	0.0	**-11.3**	3.6	0.0	**0.1**	2.2
Mz,	0.0	-1.1	**0.5**	0.0	-9.6	**5.2**
Fx,	**0.0**	-4.7	3.7	**0.0**	-0.9	0.7
Fy,	0.0	**-10.4**	4.1	0.0	**0.6**	2.6
Mz,	0.0	-0.9	**0.6**	0.0	-8.0	**6.0**

Member 92

Fx,	**0.0**	-4.7	3.7	**0.0**	-0.9	0.7
Fy,	0.0	**-10.4**	4.1	0.0	**0.6**	2.6
Mz,	0.0	-0.9	**0.6**	0.0	-8.0	**6.0**
Fx,	**0.0**	-3.7	4.1	**0.0**	-0.7	0.7
Fy,	0.0	**-9.5**	4.8	0.0	**1.1**	3.1
Mz,	0.0	-0.8	**0.7**	0.0	-6.4	**6.7**

Member 93

Fx,	**0.0**	-3.7	4.1	**0.0**	-0.7	0.7
Fy	0.0	**-9.5**	4.8	0.0	**1.1**	3.1
Mz,	0.0	-0.8	**0.7**	0.0	-6.4	**6.7**
Fx,	**0.0**	-2.9	4.4	**0.0**	-0.6	0.8
Fy,	0.0	**-8.3**	5.1	0.0	**1.7**	3.5
Mz,	0.0	-0.6	**0.8**	0.0	-4.8	**7.3**

Member 94

Fx,	**0.0**	-2.9	4.4	**0.0**	-0.6	0.8
Fy,	0.0	**-8.3**	5.1	0.0	**1.7**	3.5
Mz,	0.0	-0.6	**0.8**	0.0	-4.8	**7.3**
Fx,	**0.0**	-2.1	4.6	**0.0**	-0.4	0.9
Fy,	0.0	**-7.2**	5.3	0.0	**2.3**	3.9
Mz,	0.0	-0.4	**0.8**	0.0	-5.0	**7.7**

Member 95

Fx,	**0.0**	-2.1	4.6	**0.0**	-0.4	0.9
Fy,	0.0	**-7.2**	5.3	0.0	**2.3**	3.9
Mz,	0.0	-0.4	**0.8**	0.0	-5.0	**7.7**
Fx,	**0.0**	-1.3	4.8	**0.0**	-0.3	0.9
Fy,	0.0	**-6.2**	5.3	0.0	**3.0**	4.2
Mz,	0.0	-0.3	**0.9**	0.0	-3.4	**8.1**

Member 96

Fx,	**0.0**	-1.3	4.8	**0.0**	-0.3	0.9
Fy,	0.0	**-6.2**	5.3	0.0	**3.0**	4.2
Mz,	0.0	-0.3	**0.9**	0.0	-3.4	**8.1**
Fx,	**0.0**	-0.5	4.9	**0.0**	-0.1	0.9
Fy,	0.0	**-5.2**	5.3	0.0	**3.7**	4.5
Mz,	0.0	-0.1	**0.9**	0.0	-1.9	**8.4**

Member 97

Fx	**0.0**	-0.5	4.9	**0.0**	-0.1	0.9
Fy,	0.0	**-5.2**	5.3	0.0	**3.7**	4.5
Mz,	0.0	-0.1	**0.9**	0.0	-1.9	**8.4**
Fx,	**0.0**	0.4	4.9	**0.0**	0.0	0.9
Fy,	0.0	**-4.3**	4.8	0.0	**4.5**	5.0
Mz,	0.0	0.0	**0.9**	0.0	-0.3	**8.5**

Member 98

Fx,	**0.0**	0.4	4.9	**0.0**	0.0	0.9
Fy,	0.0	**-4.3**	4.8	0.0	**4.5**	5.0
Mz,	0.0	0.0	**0.9**	0.0	-0.3	**8.5**
Fx,	**0.0**	1.2	4.8	**0.0**	0.2	0.9
Fy,	0.0	**-3.5**	4.3	0.0	**5.5**	5.4
Mz,	0.0	0.2	**0.9**	0.0	1.3	**8.4**

Member 99

Fx	**0.0**	1.2	4.8	**0.0**	0.2	0.9
Fy,	0.0	**-3.5**	4.3	0.0	**5.5**	5.4
Mz,	0.0	0.2	**0.9**	0.0	1.3	**8.4**
Fx,	**0.0**	2.0	4.7	**0.0**	0.3	0.9
Fy,	0.0	**-2.8**	4.0	0.0	**6.4**	5.4
Mz,	0.0	0.3	**0.9**	0.0	2.8	**8.2**

Member 100

Fx,	**0.0**	2.0	4.7	**0.0**	0.3	0.9
Fy	0.0	**-2.8**	4.0	0.0	**6.4**	5.4
Mz,	0.0	0.3	**0.9**	0.0	2.8	**8.2**
Fx,	**0.0**	2.8	4.4	**0.0**	0.5	0.8
Fy,	0.0	**-2.1**	3.6	0.0	**7.5**	5.4
Mz,	0.0	0.5	**0.8**	0.0	4.4	**7.9**

Member 101

Fx	**0.0**	2.8	4.4	**0.0**	0.5	0.8
Fy	0.0	**-2.1**	3.6	0.0	**7.5**	5.4
Mz	0.0	0.5	**0.8**	0.0	4.4	**7.9**
Fx,	**0.0**	3.6	4.1	**0.0**	0.6	0.8
Fy,	0.0	**-1.5**	3.2	0.0	**8.6**	5.1
Mz,	0.0	0.6	**0.8**	0.0	6.0	**7.4**

Member 102

Fx	**0.0**	3.6	4.1	**0.0**	0.6	0.8
Fy,	0.0	**-1.5**	3.2	0.0	**8.6**	5.1
Mz,	0.0	0.6	**0.8**	0.0	6.0	**7.4**
Fx,	**0.0**	4.4	3.7	**0.0**	0.8	0.7
Fy,	0.0	**-0.9**	2.8	0.0	**9.7**	4.8
Mz,	0.0	0.7	**0.7**	0.0	7.5	**6.7**

Member 103

Fx,	**0.0**	4.4	3.7	**0.0**	0.8	0.7
Fy	0.0	**-0.9**	2.8	0.0	**9.7**	4.8
Mz,	0.0	0.7	**0.7**	0.0	7.5	**6.7**
Fx,	**0.0**	5.3	3.2	**0.0**	0.9	0.6
Fy,	0.0	**-0.4**	2.3	0.0	**10.9**	4.3
Mz,	0.0	0.9	**0.6**	0.0	9.1	**5.9**

Member 104

Fx	**0.0**	5.3	3.2	**0.0**	0.9	0.6
Fy,	0.0	**-0.4**	2.3	0.0	**10.9**	4.3
Mz	0.0	0.9	**0.6**	0.0	9.1	**5.9**

Fx,	**0.0**	6.1	2.7	**0.0**	1.1	0.5
Fy,	0.0	**0.1**	1.9	0.0	**11.7**	3.6
Mz,	0.0	1.1	**0.5**	0.0	10.6	**4.9**

Member 105

Fx,	**0.0**	6.1	2.7	**0.0**	1.1	0.5
Fy,	0.0	**0.1**	1.9	0.0	**11.7**	3.6
Mz,	0.0	1.1	**0.5**	0.0	10.6	**4.9**
Fx,	**0.0**	6.9	2.1	**0.0**	1.2	0.4
Fy,	0.0	**0.6**	1.4	0.0	**12.9**	2.9
Mz,	0.0	2.3	**0.4**	0.0	11.4	**3.8**

Member 106

Fx,	**0.0**	6.9	2.1	**0.0**	1.2	0.4
Fy,	0.0	**0.6**	1.4	0.0	**12.9**	2.9
Mz,	0.0	2.3	**0.4**	0.0	11.4	**3.8**
Fx,	**0.0**	7.7	1.3	**0.0**	1.3	0.3
Fy,	0.0	**1.0**	0.9	0.0	**14.2**	1.9
Mz,	0.0	4.6	**0.1**	0.0	11.0	**2.7**

Member 107

Fx	**0.0**	7.7	1.3	**0.0**	1.3	0.3
Fy,	0.0	**1.0**	0.9	0.0	**14.2**	1.9
Mz,	0.0	4.6	**0.1**	0.0	11.0	**2.7**
Fx,	**0.0**	8.5	0.5	**0.0**	1.5	0.2
Fy,	0.0	**1.3**	0.5	0.0	**15.5**	0.8
Mz,	0.0	7.4	**-0.5**	0.0	9.9	**1.7**

Member 108

Fx,	**0.0**	8.5	0.5	**0.0**	1.5	0.2
Fy,	0.0	**1.3**	0.5	0.0	**15.5**	0.8
Mz,	0.0	7.4	**-0.5**	0.0	9.9	**1.7**
Fx,	**0.0**	9.3	-0.3	**0.0**	1.6	0.0
Fy,	0.0	**1.6**	0.0	0.0	**16.9**	-0.5
Mz,	0.0	10.7	**-1.4**	0.0	8.3	**0.7**

Member 109

Fx,	**0.0**	9.3	-0.3	**0.0**	1.6	0.0
Fy,	0.0	**1.6**	0.0	0.0	**16.9**	-0.5
Mz,	0.0	10.7	**-1.4**	0.0	8.3	**0.7**
Fx,	**0.0**	9.5	-1.3	**0.0**	1.8	-0.2
Fy,	0.0	**1.8**	-0.1	0.0	**17.2**	-2.2
Mz,	0.0	12.4	**-2.5**	0.0	5.1	**0.1**

Member 110

Fx,	**0.0**	9.5	-1.3	**0.0**	1.8	-0.2
Fy,	0.0	**1.8**	-0.1	0.0	**17.2**	-2.2
Mz,	0.0	12.4	**-2.5**	0.0	5.1	**0.1**
Fx,	**0.0**	9.8	-2.2	**0.0**	2.0	-0.3
Fy,	0.0	**1.9**	-0.3	0.0	**17.4**	-3.9
Mz,	0.0	16.3	**-3.9**	0.0	3.1	**-0.3**

Member 111

Fx	**0.0**	9.8	-2.2	**0.0**	2.0	-0.3
Fy	0.0	**1.9**	-0.3	0.0	**17.4**	-3.9
Mz	0.0	16.3	**-3.9**	0.0	3.1	**-0.3**
Fx,	**0.0**	10.0	-3.2	**0.0**	2.1	-0.5
Fy,	0.0	**2.1**	-0.5	0.0	**17.6**	-5.6
Mz,	0.0	17.6	**-5.6**	0.0	2.1	**-0.5**

Member 112

Fx,	**0.0**	10.0	-3.2	**0.0**	2.1	-0.5
Fy,	0.0	**2.1**	-0.5	0.0	**17.6**	-5.6
Mz,	0.0	17.6	**-5.6**	0.0	2.1	**-0.5**
Fx,	**0.0**	10.2	-4.2	**0.0**	2.2	-0.7
Fy,	0.0	**2.2**	-0.7	0.0	**17.8**	-7.3
Mz,	0.0	17.8	**-7.3**	0.0	2.2	**-0.7**

Member 113

Fx,	**0.0**	10.2	-4.2	**0.0**	2.2	-0.7
Fy,	0.0	**2.2**	-0.7	0.0	**17.8**	-7.3
Mz,	0.0	17.8	**-7.3**	0.0	2.2	**-0.7**
Fx,	**0.0**	10.4	-5.2	**0.0**	2.3	-1.0
Fy,	0.0	**2.3**	-0.9	0.0	**18.0**	-9.1
Mz,	0.0	18.0	**-9.1**	0.0	2.3	**-0.9**

Member 114

Fx,	**0.0**	10.4	-5.2	**0.0**	2.3	-1.0
Fy,	0.0	**2.3**	-0.9	0.0	**18.0**	-9.1
Mz,	0.0	18.0	**-9.1**	0.0	2.3	**-0.9**
Fx,	**0.0**	10.6	-6.2	**0.0**	2.4	-1.2
Fy,	0.0	**2.4**	-1.2	0.0	**18.2**	-10.9
Mz,	0.0	18.2	**-10.9**	0.0	2.4	**-1.2**

Member 115

Fx,	**0.0**	10.6	-6.2	**0.0**	2.4	-1.2
Fy,	0.0	**2.4**	-1.2	0.0	**18.2**	-10.9
Mz,	0.0	18.2	**-10.9**	0.0	2.4	**-1.2**
Fx,	**0.0**	10.7	-7.2	**0.0**	2.5	-1.4
Fy,	0.0	**2.5**	-1.4	0.0	**18.3**	-12.6
Mz,	0.0	18.3	**-12.6**	0.0	2.5	**-1.4**

Member 116

Fx	**0.0**	-16.1	-7.2	**0.0**	-1.8	-1.4
Fy,	0.0	**-34.4**	-12.3	0.0	**0.4**	-1.8
Mz,	0.0	-33.8	**-12.6**	0.0	-0.2	**-1.4**
Fx,	**0.0**	-15.8	-2.0	**0.0**	-1.6	-0.9
Fy,	0.0	**-34.2**	-0.9	0.0	**0.7**	-2.0
Mz,	0.0	-31.9	**-2.0**	0.0	-1.6	**-0.9**

Member 117

Fx,	**0.0**	-2.0	-2.0	**0.0**	-0.9	-0.9
Fy,	0.0	**-2.0**	-2.0	0.0	**-0.9**	-0.9
Mz,	0.0	-2.0	**-2.0**	0.0	-0.9	**-0.9**
Fx,	**0.0**	-1.9	-1.8	**0.0**	-0.9	-0.8
Fy,	0.0	**-1.9**	-1.8	0.0	**-0.9**	-0.8
Mz,	0.0	-1.9	**-1.8**	0.0	-0.9	**-0.8**

Member 118

Fx,	**0.0**	-1.9	-1.8	**0.0**	-0.9	-0.8
Fy,	0.0	**-1.9**	-1.8	0.0	**-0.9**	-0.8
Mz,	0.0	-1.9	**-1.8**	0.0	-0.9	**-0.8**
Fx,	**0.0**	-1.8	-1.6	**0.0**	-0.8	-0.7
Fy,	0.0	**-1.8**	-1.6	0.0	**-0.8**	-0.7
Mz,	0.0	-1.8	**-1.6**	0.0	-0.8	**-0.7**

Member 119

Fx,	**0.0**	-1.8	-1.6	**0.0**	-0.8	-0.7
Fy	0.0	**-1.8**	-1.6	0.0	**-0.8**	-0.7
Mz	0.0	-1.8	**-1.6**	0.0	-0.8	**-0.7**

Fx,	**0.0**	-1.7	-1.4	**0.0**	-0.8	-0.6
Fy,	0.0	**-1.7**	-1.4	0.0	**-0.8**	-0.6
Mz,	0.0	-1.7	**-1.4**	0.0	-0.8	**-0.6**

Member 120

Fx,	**0.0**	-1.7	-1.4	**0.0**	-0.8	-0.6
Fy,	0.0	**-1.7**	-1.4	0.0	**-0.8**	-0.6
Mz,	0.0	-1.7	**-1.4**	0.0	-0.8	**-0.6**
Fx,	**0.0**	-1.7	-1.3	**0.0**	-0.7	-0.6
Fy,	0.0	**-1.7**	-1.3	0.0	**-0.7**	-0.6
Mz,	0.0	-1.7	**-1.3**	0.0	-0.7	**-0.6**

Member 121

Fx,	**0.0**	-1.7	-1.3	**0.0**	-0.7	-0.6
Fy,	0.0	**-1.7**	-1.3	0.0	**-0.7**	-0.6
Mz,	0.0	-1.7	**-1.3**	0.0	-0.7	**-0.6**
Fx,	**0.0**	-1.6	-1.1	**0.0**	-0.7	-0.5
Fy,	0.0	**-1.6**	-1.1	0.0	**-0.7**	-0.5
Mz,	0.0	-1.6	**-1.1**	0.0	-0.7	**-0.5**

Member 122

Fx,	**0.0**	-1.6	-1.1	**0.0**	-0.7	-0.5
Fy,	0.0	**-1.6**	-1.1	0.0	**-0.7**	-0.5
Mz,	0.0	-1.6	**-1.1**	0.0	-0.7	**-0.5**
Fx,	**0.0**	-1.5	-1.0	**0.0**	-0.6	-0.4
Fy,	0.0	**-1.5**	-1.0	0.0	**-0.6**	-0.4
Mz,	0.0	-1.5	**-1.0**	0.0	-0.6	**-0.4**

Member 123

Fx,	**0.0**	-1.5	-1.0	**0.0**	-0.6	-0.4
Fy,	0.0	**-1.5**	-1.0	0.0	**-0.6**	-0.4
Mz,	0.0	-1.5	**-1.0**	0.0	-0.6	**-0.4**
Fx,	**0.0**	-1.4	-0.8	**0.0**	-0.6	-0.4
Fy,	0.0	**-1.4**	-0.8	0.0	**-0.6**	-0.4
Mz,	0.0	-1.4	**-0.8**	0.0	-0.6	**-0.4**

Member 124

Fx,	**0.0**	-1.4	-0.8	**0.0**	-0.6	-0.4
Fy,	0.0	**-1.4**	-0.8	0.0	**-0.6**	-0.4
Mz,	0.0	-1.4	**-0.8**	0.0	-0.6	**-0.4**
Fx,	**0.0**	-1.3	-0.7	**0.0**	-0.5	-0.3
Fy,	0.0	**-1.3**	-0.7	0.0	**-0.5**	-0.3
Mz,	0.0	-1.3	**-0.7**	0.0	-0.5	**-0.3**

Member 125

Fx,	**0.0**	-1.3	-0.7	**0.0**	-0.5	-0.3
Fy,	0.0	**-1.3**	-0.7	0.0	**-0.5**	-0.3
Mz,	0.0	-1.3	**-0.7**	0.0	-0.5	**-0.3**
Fx,	**0.0**	-1.1	-0.6	**0.0**	-0.5	-0.3
Fy,	0.0	**-1.1**	-0.6	0.0	**-0.5**	-0.3
Mz,	0.0	-1.1	**-0.6**	0.0	-0.5	**-0.3**

Member 126

Fx,	**0.0**	-1.1	-0.6	**0.0**	-0.5	-0.3
Fy,	0.0	**-1.1**	-0.6	0.0	**-0.5**	-0.3
Mz,	0.0	-1.1	**-0.6**	0.0	-0.5	**-0.3**
Fx,	**0.0**	-1.0	-0.5	**0.0**	-0.5	-0.2
Fy,	0.0	**-1.0**	-0.5	0.0	**-0.5**	-0.2
Mz,	0.0	-1.0	**-0.5**	0.0	-0.5	**-0.2**

Member 127

Fx,	**0.0**	-1.0	-0.5	**0.0**	-0.5	-0.2
Fy,	0.0	**-1.0**	-0.5	0.0	**-0.5**	-0.2
Mz,	0.0	-1.0	**-0.5**	0.0	-0.5	**-0.2**
Fx,	**0.0**	-0.9	-0.4	**0.0**	-0.4	-0.2
Fy,	0.0	**-0.9**	-0.4	0.0	**-0.4**	-0.2
Mz,	0.0	-0.9	**-0.4**	0.0	-0.4	**-0.2**

Member 128

Fx,	**0.0**	-0.9	-0.4	**0.0**	-0.4	-0.2
Fy,	0.0	**-0.9**	-0.4	0.0	**-0.4**	-0.2
Mz,	0.0	-0.9	**-0.4**	0.0	-0.4	**-0.2**
Fx,	**0.0**	-0.8	-0.3	**0.0**	-0.4	-0.1
Fy,	0.0	**-0.8**	-0.3	0.0	**-0.4**	-0.1
Mz,	0.0	-0.8	**-0.3**	0.0	-0.4	**-0.1**

Member 129

Fx,	**0.0**	-0.8	-0.3	**0.0**	-0.4	-0.1
Fy,	0.0	**-0.8**	-0.3	0.0	**-0.4**	-0.1
Mz,	0.0	-0.8	**-0.3**	0.0	-0.4	**-0.1**
Fx,	**0.0**	-0.7	-0.2	**0.0**	-0.3	-0.1
Fy,	0.0	**-0.7**	-0.2	0.0	**-0.3**	-0.1
Mz,	0.0	-0.7	**-0.2**	0.0	-0.3	**-0.1**

Member 130

Fx,	**0.0**	-0.7	-0.2	**0.0**	-0.3	-0.1
Fy,	0.0	**-0.7**	-0.2	0.0	**-0.3**	-0.1
Mz,	0.0	-0.7	**-0.2**	0.0	-0.3	**-0.1**
Fx,	**0.0**	-0.6	-0.2	**0.0**	-0.3	-0.1
Fy,	0.0	**-0.6**	-0.2	0.0	**-0.3**	-0.1
Mz,	0.0	-0.6	**-0.2**	0.0	-0.3	**-0.1**

Member 131

Fx,	**0.0**	-0.6	-0.2	**0.0**	-0.3	-0.1
Fy,	0.0	**-0.6**	-0.2	0.0	**-0.3**	-0.1
Mz,	0.0	-0.6	**-0.2**	0.0	-0.3	**-0.1**
Fx,	**0.0**	-0.5	-0.1	**0.0**	-0.2	-0.1
Fy,	0.0	**-0.5**	-0.1	0.0	**-0.2**	-0.1
Mz,	0.0	-0.5	**-0.1**	0.0	-0.2	**-0.1**

Member 132

Fx,	**0.0**	-0.5	-0.1	**0.0**	-0.2	-0.1
Fy,	0.0	**-0.5**	-0.1	0.0	**-0.2**	-0.1
Mz,	0.0	-0.5	**-0.1**	0.0	-0.2	**-0.1**
Fx,	**0.0**	-0.4	-0.1	**0.0**	-0.2	-0.0
Fy,	0.0	**-0.4**	-0.1	0.0	**-0.2**	-0.0
Mz,	0.0	-0.4	**-0.1**	0.0	-0.2	**-0.0**

Member 133

Fx,	**0.0**	-0.4	-0.1	**0.0**	-0.2	-0.0
Fy,	0.0	**-0.4**	-0.1	0.0	**-0.2**	-0.0
Mz,	0.0	-0.4	**-0.1**	0.0	-0.2	**-0.0**
Fx,	**0.0**	-0.3	-0.0	**0.0**	-0.1	-0.0
Fy,	0.0	**-0.3**	-0.0	0.0	**-0.1**	-0.0
Mz,	0.0	-0.3	**-0.0**	0.0	-0.1	**-0.0**

Member 134

Fx,	**0.0**	-0.3	-0.0	**0.0**	-0.1	-0.0
Fy,	0.0	**-0.3**	-0.0	0.0	**-0.1**	-0.0
Mz,	0.0	-0.3	**-0.0**	0.0	-0.1	**-0.0**

Fx_i	**0.0**	-0.2	-0.0	**0.0**	-0.1	-0.0
Fy_i	0.0	**-0.2**	-0.0	0.0	**-0.1**	-0.0
Mz_i	0.0	-0.2	**-0.0**	0.0	-0.1	**-0.0**

Member 135

Fx_i	**0.0**	-0.2	-0.0	**0.0**	-0.1	-0.0
Fy_i	0.0	**-0.2**	-0.0	0.0	**-0.1**	-0.0
Mz_i	0.0	-0.2	**-0.0**	0.0	-0.1	**-0.0**
Fx_f	**0.0**	-0.1	-0.0	**0.0**	-0.0	-0.0
Fy_f	0.0	**-0.1**	-0.0	0.0	**-0.0**	-0.0
Mz_f	0.0	-0.1	**-0.0**	0.0	-0.0	**-0.0**

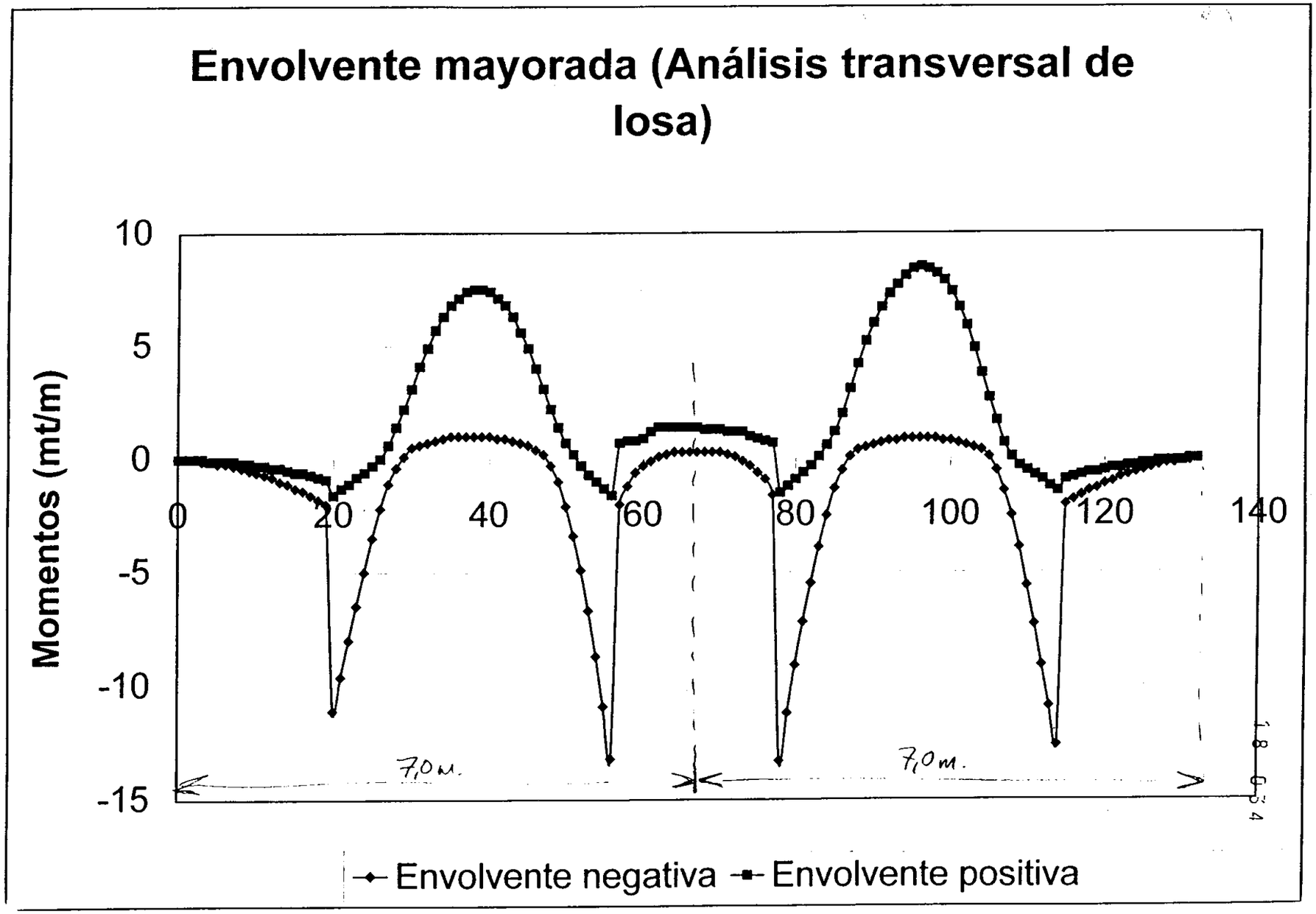
Member 136

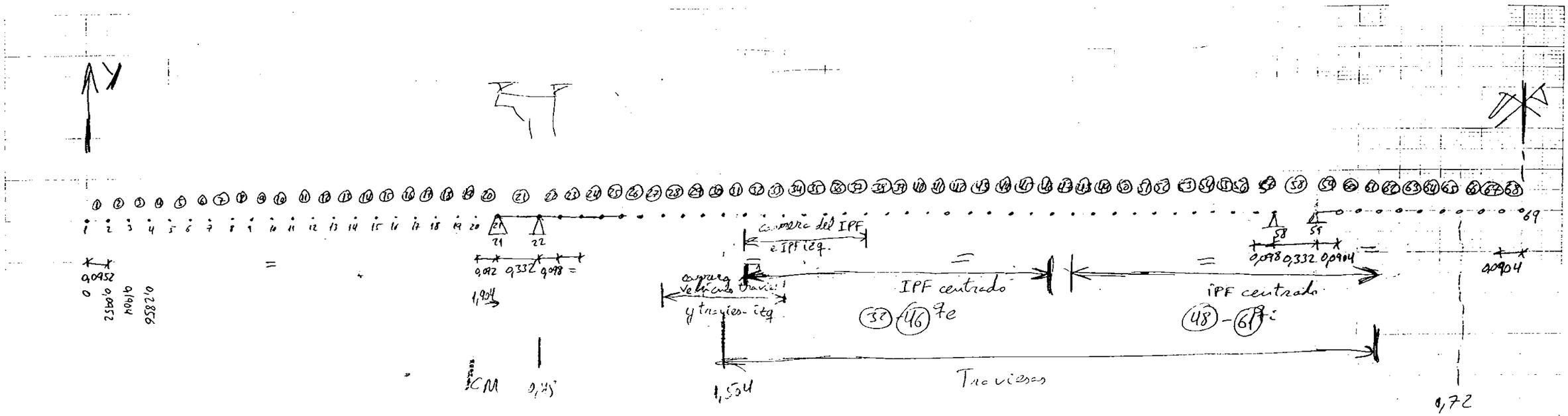
Fx_i	**0.0**	-0.1	-0.0	**0.0**	-0.0	-0.0
Fy_i	0.0	**-0.1**	-0.0	0.0	**-0.0**	-0.0
Mz_i	0.0	-0.1	**-0.0**	0.0	-0.0	**-0.0**
Fx_f	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_f	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**

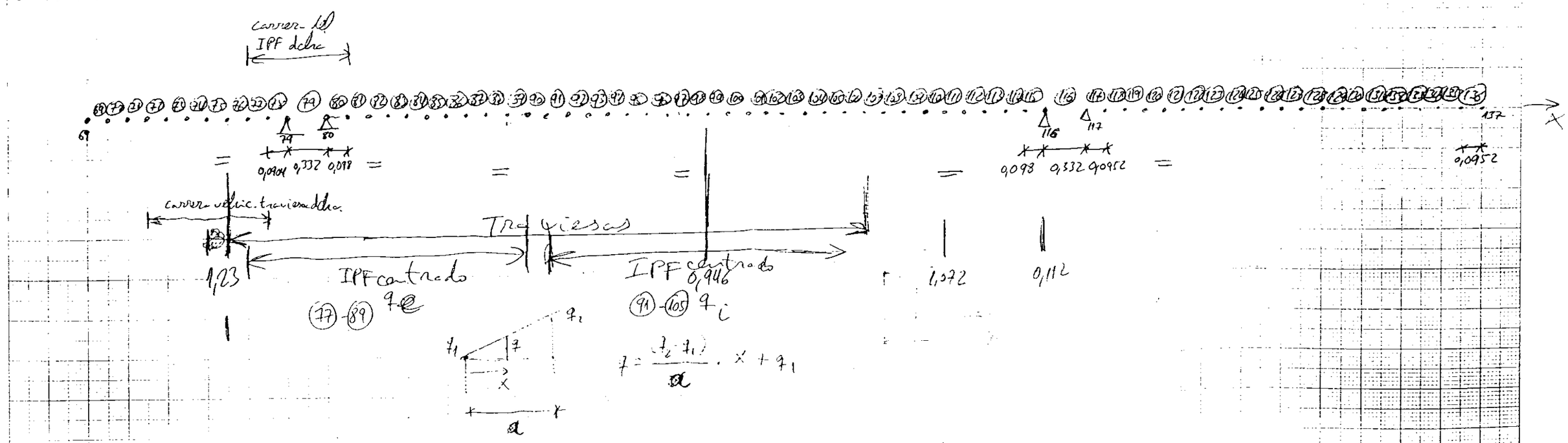
DISPLACEMENTS

	x	y	z	x	y	z

*** Fin del listado ***


Envolvente mayorada (Análisis transversal de losa)
Momentos (mt/m)
10
5
0
-5
-10
-15
0
20
40
60
80
100
120
140
7,0m.
7,0m.
Envolvente negativa
Envolvente positiva


Y
0,0952
0,0904
0,2856
0,092
0,332
0,098
1,904
cargas del IPF
2 IPF izq.
carga vertical trapecial y triangular izq
IPF centrado
IPF centrado
Trapecios
1,504
0,72
0,0904
0,098
0,332
0,0904


carga IPF dcha
carga vertic. trapecial dcha
Trapecios
IPF centrado
IPF centrado
1,123
0,946
1,072
0,112
0,0904
0,332
0,098
0,098
0,332
0,09052
q1
q2
x
a

SUBANEJO N° 19

LOSA DEL TABLERO: ANÁLISIS DE FLEXIÓN LOCAL EN HIPÓTESIS DE DESCARRILAMIENTO

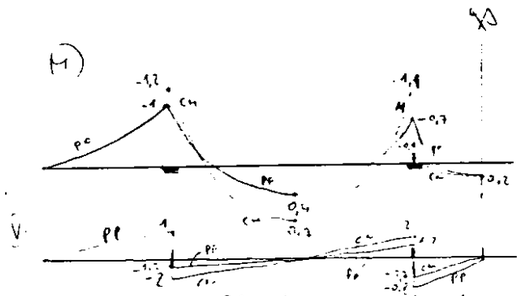
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28016 Madrid
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91 519 74 77
Fax 91 744 06 75

FECHA

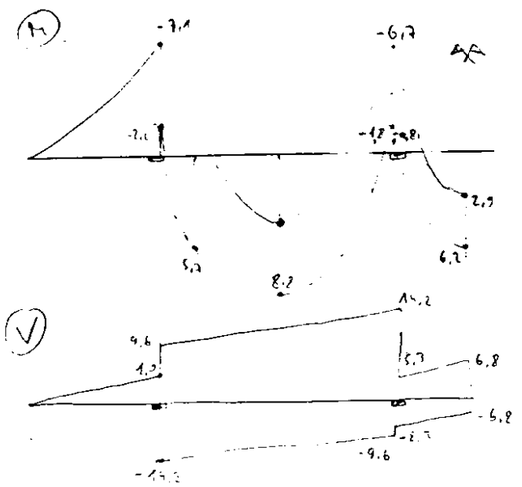
Hipótesis con descentramiento

Incluye el descentramiento y la carga permanente, todo con $\gamma=1$.

Esfuerzos de peso propio y carga permanente:



Superposición de PP, CM y envolvente de descentramientos:



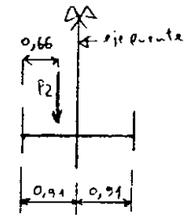
(9,6 = M − 2 · 1,2)
(14,2 = 11,7 + 2,5)
(−5,3 = −6,8 − 0,7 + 2,2)
(5,3 = 6,8 − 0,7 + 0,2)

(Valores de la segunda hipótesis)
$V_{izq\ descentramiento} = \mp 11,7$ en el vano entre ejes
$= \mp 6,7$ en los apoyos

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(P2)



$l_x = \infty$; $l_y = 1,82$; $b = 0,8$; $v = \infty$; $\chi = 213$

$b_1 = \frac{1}{2}b + \frac{2}{4}K l_y = 1,50$
$b_2 (y_{cc} = 0,55) = 1,45$
} $b_2 \simeq$ ... de tabla $b_1 = 1,5$

- Caso simplificado:

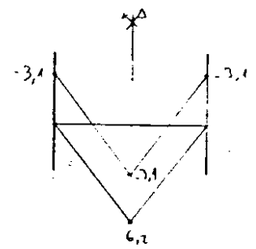
$M_{centro} = PL/8 = 23,4 \times 1,82/8 = 4,5$ mT ; en 1,5 m: $M = 3,1$ mT/m

$M_{extremo} = -PL/8 = -3,1$ mT/m

- Caso biapoyado:

$M_{centro} = PL/4$; $M = 6,2$ mT/m

$M_{apoyo} = 0$



- Cortante:

$V = P/2/1,5\,m = 6,8$ T/m

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HOJA 2 DE

- Si la carga está en a=0,52 m del borde (b2):

Suponiendo biempotrado

$M_{punto\ aplic.} = 2P(l_y-a)^2 a^2/l_y^3 = 2\cdot 20,4\,(3,53-0,52)^2\,0,52^2/3,53^3 = 2,3$ mT

en 1,58 m: $M = 2,3/1,58 = 1,4$ mT/m

$M_{centro} = -P\,a\,(l_y-a)^2/l_y^2 = -20,4\cdot 0,52\,(3,53-0,52)^2/3,53^2 = -7,2$ mT

en 1,58 m: $M = -7,2/1,58 = -4,9$ mT/m

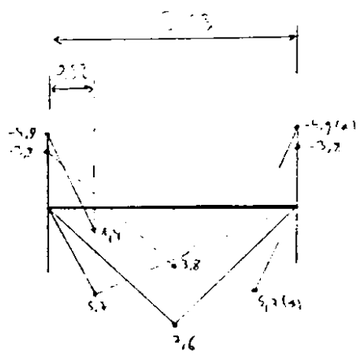
Suponiendo biapoyado:

$M_{punto\ aplic.} = P(l_y-a)a/l_y = 20,4\,(3,53-0,52)0,52/3,53 = 5,1$ mT

en 1,58 m: $M = 8,1/1,58 = 5,2$ mT/m

$M_{apoyo} = 0$

• Envolvente:



la segunda situación

- Cortante:

Comprobamos P cercana al borde, $b_2 = 1,58$ m. Considerar biapoyado

$V = 20,4\text{ T} \cdot (3,53-0,52)\text{m}/3,53\text{ m} = 17,4$ T; en 1,58 m:

$V = 17,4\text{ T}/1,58\text{ m} = 11$ T/m

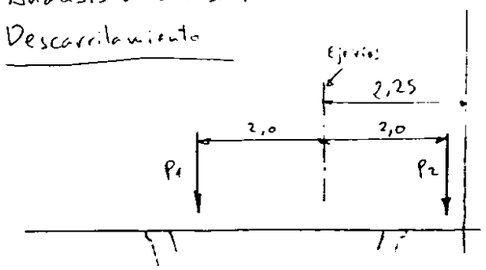
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FECHA 29-4-99

HOJA 1 DE

Análisis de la losa.

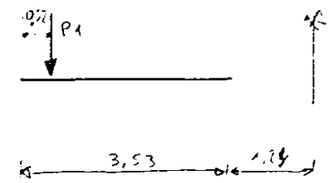
Descarrilamiento



Se efectúa con el caso B de la UIC, más desfavorable que el A y que los casos del Eurocódigo.

$P_1 = P_2 = 200$ kN = 20,4 T, no compatibles.

(P1)



Se supone un reparto de P a 45° en un ancho de e = 0,4 m. Ancho huella = 20+20 cm.

Análisis según la dirección 53.

$l_x = \infty$, $l_c = 3,53$; $b = 0,8$; $\nu = \infty$, $K = 2/3$ (empotramiento elástico)

$b_1 = \frac{2}{4}b + \frac{2}{4}K l_y = \frac{2}{4}0,8 + \frac{2}{4}\frac{2}{3}3,53 = 2,36$ m

$b_2\ (l_c = 0,52) = b_1 - (b_1-b)\left(1-2\frac{l_c}{l_y}\right)^2 = 2,36-(2,36-0,8)\left(1-2\frac{0,52}{3,53}\right)^2 = 1,58$ m

- Si la carga está en el centro de la luz (b_1):

Suponiendo biempotrado:

$M_{centro} = PL/8 = 20,4\times 3,53/8 = 9$ mT; en 2,36 m: $M = 9/2,36 = 3,8$ mT/m

$M_{extremo} = PL/8 = -9$ mT $\quad M = -3,8$ mT/m

Suponiendo biapoyado:

$M_{centro} = PL/4 = 18$ mT $\quad M = 7,6$ mT/m

$M_{extremo} = 0$ $\quad M = 0$

Program Envolvator (release 1.3 - Jun 1998)
Calculation date: 28-abr-1999 11:33 h. Listing date: 29-abr-1999 11:20 h.
Members: 136
Joints: 137
Envelope generated from:

Name	γ_{min}	γ_{max}
medio balasto sobre via izq	1.00	1.00
medio balasto sbre via derecha	1.00	1.00

	Fx	Fy	Mz	Fx	Fy	Mz
Member 1						
Fx_i	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_i	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**
Fx_f	**0.0**	-0.0	0.0	**0.0**	-0.0	0.0
Fy_f	0.0	**-0.0**	0.0	0.0	**-0.0**	0.0
Mz_f	0.0	-0.0	**0.0**	0.0	-0.0	**0.0**
Member 2						
Fx_i	**0.0**	0.0	0.0	**0.0**	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	**0.0**	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	-0.0	**0.0**	0.0	-0.0
Fy_f	0.0	**0.0**	-0.0	0.0	**0.0**	-0.0
Mz_f	0.0	0.0	**-0.0**	0.0	0.0	**-0.0**
Member 3						
Fx_i	**0.0**	0.0	0.0	**0.0**	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	**0.0**	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	-0.0	**0.0**	0.0	-0.0
Fy_f	0.0	**0.0**	-0.0	0.0	**0.0**	-0.0
Mz_f	0.0	0.0	**-0.0**	0.0	0.0	**-0.0**
Member 4						
Fx_i	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_i	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**
Fx_f	**0.0**	-0.0	0.0	**0.0**	-0.0	0.0
Fy_f	0.0	**-0.0**	0.0	0.0	**-0.0**	0.0
Mz_f	0.0	-0.0	**0.0**	0.0	-0.0	**0.0**
Member 5						
Fx_i	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_i	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**
Fx_f	**0.0**	-0.0	0.0	**0.0**	-0.0	0.0
Fy_f	0.0	**-0.0**	0.0	0.0	**-0.0**	0.0
Mz_f	0.0	-0.0	**0.0**	0.0	-0.0	**0.0**
Member 6						
Fx_i	**0.0**	0.0	0.0	**0.0**	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	**0.0**	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	-0.0	**0.0**	0.0	-0.0
Fy_f	0.0	**0.0**	-0.0	0.0	**0.0**	-0.0
Mz_f	0.0	0.0	**-0.0**	0.0	0.0	**-0.0**
Member 7						
Fx_i	**0.0**	0.0	0.0	**0.0**	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	**0.0**	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	-0.0	**0.0**	0.0	-0.0
Fy_f	0.0	**0.0**	-0.0	0.0	**0.0**	-0.0
Mz_f	0.0	0.0	**-0.0**	0.0	0.0	**-0.0**
Member 8						
Fx_i	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_i	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**
Fx_f	**0.0**	-0.0	0.0	**0.0**	-0.0	0.0
Fy_f	0.0	**-0.0**	0.0	0.0	**-0.0**	0.0
Mz_f	0.0	-0.0	**0.0**	0.0	-0.0	**0.0**
Member 9						
Fx_i	**0.0**	0.0	0.0	**0.0**	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	**0.0**	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	-0.0	**0.0**	0.0	-0.0
Fy_f	0.0	**0.0**	-0.0	0.0	**0.0**	-0.0
Mz_f	0.0	0.0	**-0.0**	0.0	0.0	**-0.0**
Member 10						
Fx_i	**0.0**	-0.0	0.0	**0.0**	-0.0	0.0
Fy_i	0.0	**-0.0**	0.0	0.0	**-0.0**	0.0
Mz_i	0.0	-0.0	**0.0**	0.0	-0.0	**0.0**
Fx_f	**0.0**	-0.0	0.0	**0.0**	-0.0	0.0
Fy_f	0.0	**-0.0**	0.0	0.0	**-0.0**	0.0
Mz_f	0.0	-0.0	**0.0**	0.0	-0.0	**0.0**
Member 11						
Fx_i	**0.0**	-0.0	0.0	**0.0**	-0.0	0.0
Fy_i	0.0	**-0.0**	0.0	0.0	**-0.0**	0.0
Mz_i	0.0	-0.0	**0.0**	0.0	-0.0	**0.0**
Fx_f	**0.0**	-0.0	0.0	**0.0**	-0.0	0.0
Fy_f	0.0	**-0.0**	0.0	0.0	**-0.0**	0.0
Mz_f	0.0	-0.0	**0.0**	0.0	-0.0	**0.0**
Member 12						
Fx_i	**0.0**	-0.0	0.0	**0.0**	-0.0	0.0
Fy_i	0.0	**-0.0**	0.0	0.0	**-0.0**	0.0
Mz_i	0.0	-0.0	**0.0**	0.0	-0.0	**0.0**
Fx_f	**0.0**	-0.0	0.0	**0.0**	-0.0	0.0
Fy_f	0.0	**-0.0**	0.0	0.0	**-0.0**	0.0
Mz_f	0.0	-0.0	**0.0**	0.0	-0.0	**0.0**
Member 13						
Fx_i	**0.0**	-0.0	0.0	**0.0**	-0.0	0.0
Fy_i	0.0	**-0.0**	0.0	0.0	**-0.0**	0.0
Mz_i	0.0	-0.0	**0.0**	0.0	-0.0	**0.0**
Fx_f	**0.0**	-0.0	0.0	**0.0**	-0.0	0.0
Fy_f	0.0	**-0.0**	0.0	0.0	**-0.0**	0.0
Mz_f	0.0	-0.0	**0.0**	0.0	-0.0	**0.0**
Member 14						
Fx_i	**0.0**	0.0	0.0	**0.0**	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	**0.0**	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	0.0	**0.0**	0.0	0.0
Fy_f	0.0	**0.0**	0.0	0.0	**0.0**	0.0
Mz_f	0.0	0.0	**0.0**	0.0	0.0	**0.0**
Member 15						
Fx_i	**0.0**	-0.0	0.0	**0.0**	-0.0	0.0
Fy_i	0.0	**-0.0**	0.0	0.0	**-0.0**	0.0
Mz_i	0.0	-0.0	**0.0**	0.0	-0.0	**0.0**

Fx_f	**0.0**	-0.0	0.0	**0.0**	-0.0	0.0
Fy_f	0.0	**-0.0**	0.0	0.0	**-0.0**	0.0
Mz_f	0.0	-0.0	**0.0**	0.0	-0.0	**0.0**

Member 16

Fx_i	**0.0**	-0.0	0.0	**0.0**	-0.0	0.0
Fy_i	0.0	**-0.0**	0.0	0.0	**-0.0**	0.0
Mz_i	0.0	-0.0	**0.0**	0.0	-0.0	**0.0**
Fx_f	**0.0**	-0.0	0.0	**0.0**	-0.0	0.0
Fy_f	0.0	**-0.0**	0.0	0.0	**-0.0**	0.0
Mz_f	0.0	-0.0	**0.0**	0.0	-0.0	**0.0**

Member 17

Fx_i	**0.0**	-0.0	0.0	**0.0**	-0.0	0.0
Fy_i	0.0	**-0.0**	0.0	0.0	**-0.0**	0.0
Mz_i	0.0	-0.0	**0.0**	0.0	-0.0	**0.0**
Fx_f	**0.0**	-0.0	0.0	**0.0**	-0.0	0.0
Fy_f	0.0	**-0.0**	0.0	0.0	**-0.0**	0.0
Mz_f	0.0	-0.0	**0.0**	0.0	-0.0	**0.0**

Member 18

Fx_i	**0.0**	-0.0	0.0	**0.0**	-0.0	0.0
Fy_i	0.0	**-0.0**	0.0	0.0	**-0.0**	0.0
Mz_i	0.0	-0.0	**0.0**	0.0	-0.0	**0.0**
Fx_f	**0.0**	-0.0	0.0	**0.0**	-0.0	0.0
Fy_f	0.0	**-0.0**	0.0	0.0	**-0.0**	0.0
Mz_f	0.0	-0.0	**0.0**	0.0	-0.0	**0.0**

Member 19

Fx_i	**0.0**	-0.0	0.0	**0.0**	-0.0	0.0
Fy_i	0.0	**-0.0**	0.0	0.0	**-0.0**	0.0
Mz_i	0.0	-0.0	**0.0**	0.0	-0.0	**0.0**
Fx_f	**0.0**	-0.0	0.0	**0.0**	-0.0	0.0
Fy_f	0.0	**-0.0**	0.0	0.0	**-0.0**	0.0
Mz_f	0.0	-0.0	**0.0**	0.0	-0.0	**0.0**

Member 20

Fx_i	**0.0**	-0.0	0.0	**0.0**	-0.0	0.0
Fy_i	0.0	**-0.0**	0.0	0.0	**-0.0**	0.0
Mz_i	0.0	-0.0	**0.0**	0.0	-0.0	**0.0**
Fx_f	**0.0**	-0.0	0.0	**0.0**	-0.0	0.0
Fy_f	0.0	**-0.0**	0.0	0.0	**-0.0**	0.0
Mz_f	0.0	-0.0	**0.0**	0.0	-0.0	**0.0**

Member 21

Fx_i	**0.0**	3.6	0.0	**0.0**	3.6	0.0
Fy_i	0.0	**3.6**	0.0	0.0	**3.6**	0.0
Mz_i	0.0	3.6	**0.0**	0.0	3.6	**0.0**
Fx_f	**0.0**	3.6	-1.2	**0.0**	3.6	-1.2
Fy_f	0.0	**3.6**	-1.2	0.0	**3.6**	-1.2
Mz_f	0.0	3.6	**-1.2**	0.0	3.6	**-1.2**

Member 22

Fx_i	**0.0**	-2.0	-1.2	**0.0**	-2.0	-1.2
Fy_i	0.0	**-2.0**	-1.2	0.0	**-2.0**	-1.2
Mz_i	0.0	-2.0	**-1.2**	0.0	-2.0	**-1.2**
Fx_f	**0.0**	-2.0	-1.0	**0.0**	-2.0	-1.0
Fy_f	0.0	**-2.0**	-1.0	0.0	**-2.0**	-1.0
Mz_f	0.0	-2.0	**-1.0**	0.0	-2.0	**-1.0**

Member 23

Fx_i	**0.0**	-2.0	-1.0	**0.0**	-2.0	-1.0
Fy_i	0.0	**-2.0**	-1.0	0.0	**-2.0**	-1.0
Mz_i	0.0	-2.0	**-1.0**	0.0	-2.0	**-1.0**
Fx_f	**0.0**	-1.9	-0.8	**0.0**	-1.9	-0.8
Fy_f	0.0	**-1.9**	-0.8	0.0	**-1.9**	-0.8
Mz_f	0.0	-1.9	**-0.8**	0.0	-1.9	**-0.8**

Member 24

Fx_i	**0.0**	-1.9	-0.8	**0.0**	-1.9	-0.8
Fy_i	0.0	**-1.9**	-0.8	0.0	**-1.9**	-0.8
Mz_i	0.0	-1.9	**-0.8**	0.0	-1.9	**-0.8**
Fx_f	**0.0**	-1.8	-0.6	**0.0**	-1.8	-0.6
Fy_f	0.0	**-1.8**	-0.6	0.0	**-1.8**	-0.6
Mz_f	0.0	-1.8	**-0.6**	0.0	-1.8	**-0.6**

Member 25

Fx_i	**0.0**	-1.8	-0.6	**0.0**	-1.8	-0.6
Fy_i	0.0	**-1.8**	-0.6	0.0	**-1.8**	-0.6
Mz_i	0.0	-1.8	**-0.6**	0.0	-1.8	**-0.6**
Fx_f	**0.0**	-1.7	-0.5	**0.0**	-1.7	-0.5
Fy_f	0.0	**-1.7**	-0.5	0.0	**-1.7**	-0.5
Mz_f	0.0	-1.7	**-0.5**	0.0	-1.7	**-0.5**

Member 26

Fx_i	**0.0**	-1.7	-0.5	**0.0**	-1.7	-0.5
Fy_i	0.0	**-1.7**	-0.5	0.0	**-1.7**	-0.5
Mz_i	0.0	-1.7	**-0.5**	0.0	-1.7	**-0.5**
Fx_f	**0.0**	-1.6	-0.3	**0.0**	-1.6	-0.3
Fy_f	0.0	**-1.6**	-0.3	0.0	**-1.6**	-0.3
Mz_f	0.0	-1.6	**-0.3**	0.0	-1.6	**-0.3**

Member 27

Fx_i	**0.0**	-1.6	-0.3	**0.0**	-1.6	-0.3
Fy_i	0.0	**-1.6**	-0.3	0.0	**-1.6**	-0.3
Mz_i	0.0	-1.6	**-0.3**	0.0	-1.6	**-0.3**
Fx_f	**0.0**	-1.5	-0.1	**0.0**	-1.5	-0.1
Fy_f	0.0	**-1.5**	-0.1	0.0	**-1.5**	-0.1
Mz_f	0.0	-1.5	**-0.1**	0.0	-1.5	**-0.1**

Member 28

Fx_i	**0.0**	-1.5	-0.1	**0.0**	-1.5	-0.1
Fy_i	0.0	**-1.5**	-0.1	0.0	**-1.5**	-0.1
Mz_i	0.0	-1.5	**-0.1**	0.0	-1.5	**-0.1**
Fx_f	**0.0**	-1.4	0.0	**0.0**	-1.4	0.0
Fy_f	0.0	**-1.4**	0.0	0.0	**-1.4**	0.0
Mz_f	0.0	-1.4	**0.0**	0.0	-1.4	**0.0**

Member 29

Fx_i	**0.0**	-1.4	0.0	**0.0**	-1.4	0.0
Fy_i	0.0	**-1.4**	0.0	0.0	**-1.4**	0.0
Mz_i	0.0	-1.4	**0.0**	0.0	-1.4	**0.0**
Fx_f	**0.0**	-1.3	0.1	**0.0**	-1.3	0.1
Fy_f	0.0	**-1.3**	0.1	0.0	**-1.3**	0.1
Mz_f	0.0	-1.3	**0.1**	0.0	-1.3	**0.1**

Member 30

Fx_i	**0.0**	-1.3	0.1	**0.0**	-1.3	0.1
Fy_i	0.0	**-1.3**	0.1	0.0	**-1.3**	0.1
Mz_i	0.0	-1.3	**0.1**	0.0	-1.3	**0.1**
Fx_f	**0.0**	-1.1	0.3	**0.0**	-1.1	0.3
Fy_f	0.0	**-1.1**	0.3	0.0	**-1.1**	0.3
Mz_f	0.0	-1.1	**0.3**	0.0	-1.1	**0.3**

Member 31

Fx_i	**0.0**	-1.1	0.3	**0.0**	-1.1	0.3

Fy_i	0.0	**-1.1**	0.3	0.0	**-1.1**	0.3
Mz_i	0.0	-1.1	**0.3**	0.0	-1.1	**0.3**
Fx_f	**0.0**	-1.0	0.4	**0.0**	-1.0	0.4
Fy_f	0.0	**-1.0**	0.4	0.0	**-1.0**	0.4
Mz_f	0.0	-1.0	**0.4**	0.0	-1.0	**0.4**

Member 32

Fx_i	**0.0**	-1.0	0.4	**0.0**	-1.0	0.4
Fy_i	0.0	**-1.0**	0.4	0.0	**-1.0**	0.4
Mz_i	0.0	-1.0	**0.4**	0.0	-1.0	**0.4**
Fx_f	**0.0**	-0.9	0.4	**0.0**	-0.9	0.4
Fy_f	0.0	**-0.9**	0.4	0.0	**-0.9**	0.4
Mz_f	0.0	-0.9	**0.4**	0.0	-0.9	**0.4**

Member 33

Fx_i	**0.0**	-0.9	0.4	**0.0**	-0.9	0.4
Fy_i	0.0	**-0.9**	0.4	0.0	**-0.9**	0.4
Mz_i	0.0	-0.9	**0.4**	0.0	-0.9	**0.4**
Fx_f	**0.0**	-0.7	0.5	**0.0**	-0.7	0.5
Fy_f	0.0	**-0.7**	0.5	0.0	**-0.7**	0.5
Mz_f	0.0	-0.7	**0.5**	0.0	-0.7	**0.5**

Member 34

Fx_i	**0.0**	-0.7	0.5	**0.0**	-0.7	0.5
Fy_i	0.0	**-0.7**	0.5	0.0	**-0.7**	0.5
Mz_i	0.0	-0.7	**0.5**	0.0	-0.7	**0.5**
Fx_f	**0.0**	-0.6	0.6	**0.0**	-0.6	0.6
Fy_f	0.0	**-0.6**	0.6	0.0	**-0.6**	0.6
Mz_f	0.0	-0.6	**0.6**	0.0	-0.6	**0.6**

Member 35

Fx_i	**0.0**	-0.6	0.6	**0.0**	-0.6	0.6
Fy_i	0.0	**-0.6**	0.6	0.0	**-0.6**	0.6
Mz_i	0.0	-0.6	**0.6**	0.0	-0.6	**0.6**
Fx_f	**0.0**	-0.5	0.6	**0.0**	-0.5	0.6
Fy_f	0.0	**-0.5**	0.6	0.0	**-0.5**	0.6
Mz_f	0.0	-0.5	**0.6**	0.0	-0.5	**0.6**

Member 36

Fx_i	**0.0**	-0.5	0.6	**0.0**	-0.5	0.6
Fy_i	0.0	**-0.5**	0.6	0.0	**-0.5**	0.6
Mz_i	0.0	-0.5	**0.6**	0.0	-0.5	**0.6**
Fx_f	**0.0**	-0.3	0.7	**0.0**	-0.3	0.7
Fy_f	0.0	**-0.3**	0.7	0.0	**-0.3**	0.7
Mz_f	0.0	-0.3	**0.7**	0.0	-0.3	**0.7**

Member 37

Fx_i	**0.0**	-0.3	0.7	**0.0**	-0.3	0.7
Fy_i	0.0	**-0.3**	0.7	0.0	**-0.3**	0.7
Mz_i	0.0	-0.3	**0.7**	0.0	-0.3	**0.7**
Fx_f	**0.0**	-0.2	0.7	**0.0**	-0.2	0.7
Fy_f	0.0	**-0.2**	0.7	0.0	**-0.2**	0.7
Mz_f	0.0	-0.2	**0.7**	0.0	-0.2	**0.7**

Member 38

Fx_i	**0.0**	-0.2	0.7	**0.0**	-0.2	0.7
Fy_i	0.0	**-0.2**	0.7	0.0	**-0.2**	0.7
Mz_i	0.0	-0.2	**0.7**	0.0	-0.2	**0.7**
Fx_f	**0.0**	-0.1	0.7	**0.0**	-0.1	0.7
Fy_f	0.0	**-0.1**	0.7	0.0	**-0.1**	0.7
Mz_f	0.0	-0.1	**0.7**	0.0	-0.1	**0.7**

Member 39

Fx_i	**0.0**	-0.1	0.7	**0.0**	-0.1	0.7
Fy_i	0.0	**-0.1**	0.7	0.0	**-0.1**	0.7
Mz_i	0.0	-0.1	**0.7**	0.0	-0.1	**0.7**
Fx_f	**0.0**	0.1	0.7	**0.0**	0.1	0.7
Fy_f	0.0	**0.1**	0.7	0.0	**0.1**	0.7
Mz_f	0.0	0.1	**0.7**	0.0	0.1	**0.7**

Member 40

Fx_i	**0.0**	0.1	0.7	**0.0**	0.1	0.7
Fy_i	0.0	**0.1**	0.7	0.0	**0.1**	0.7
Mz_i	0.0	0.1	**0.7**	0.0	0.1	**0.7**
Fx_f	**0.0**	0.2	0.7	**0.0**	0.2	0.7
Fy_f	0.0	**0.2**	0.7	0.0	**0.2**	0.7
Mz_f	0.0	0.2	**0.7**	0.0	0.2	**0.7**

Member 41

Fx_i	**0.0**	0.2	0.7	**0.0**	0.2	0.7
Fy_i	0.0	**0.2**	0.7	0.0	**0.2**	0.7
Mz_i	0.0	0.2	**0.7**	0.0	0.2	**0.7**
Fx_f	**0.0**	0.3	0.7	**0.0**	0.3	0.7
Fy_f	0.0	**0.3**	0.7	0.0	**0.3**	0.7
Mz_f	0.0	0.3	**0.7**	0.0	0.3	**0.7**

Member 42

Fx_i	**0.0**	0.3	0.7	**0.0**	0.3	0.7
Fy_i	0.0	**0.3**	0.7	0.0	**0.3**	0.7
Mz_i	0.0	0.3	**0.7**	0.0	0.3	**0.7**
Fx_f	**0.0**	0.4	0.7	**0.0**	0.4	0.7
Fy_f	0.0	**0.4**	0.7	0.0	**0.4**	0.7
Mz_f	0.0	0.4	**0.7**	0.0	0.4	**0.7**

Member 43

Fx_i	**0.0**	0.4	0.7	**0.0**	0.4	0.7
Fy_i	0.0	**0.4**	0.7	0.0	**0.4**	0.7
Mz_i	0.0	0.4	**0.7**	0.0	0.4	**0.7**
Fx_f	**0.0**	0.5	0.6	**0.0**	0.5	0.6
Fy_f	0.0	**0.5**	0.6	0.0	**0.5**	0.6
Mz_f	0.0	0.5	**0.6**	0.0	0.5	**0.6**

Member 44

Fx_i	**0.0**	0.5	0.6	**0.0**	0.5	0.6
Fy_i	0.0	**0.5**	0.6	0.0	**0.5**	0.6
Mz_i	0.0	0.5	**0.6**	0.0	0.5	**0.6**
Fx_f	**0.0**	0.6	0.5	**0.0**	0.6	0.5
Fy_f	0.0	**0.6**	0.5	0.0	**0.6**	0.5
Mz_f	0.0	0.6	**0.5**	0.0	0.6	**0.5**

Member 45

Fx_i	**0.0**	0.6	0.5	**0.0**	0.6	0.5
Fy_i	0.0	**0.6**	0.5	0.0	**0.6**	0.5
Mz_i	0.0	0.6	**0.5**	0.0	0.6	**0.5**
Fx_f	**0.0**	0.8	0.5	**0.0**	0.8	0.5
Fy_f	0.0	**0.8**	0.5	0.0	**0.8**	0.5
Mz_f	0.0	0.8	**0.5**	0.0	0.8	**0.5**

Member 46

Fx_i	**0.0**	0.8	0.5	**0.0**	0.8	0.5
Fy_i	0.0	**0.8**	0.5	0.0	**0.8**	0.5
Mz_i	0.0	0.8	**0.5**	0.0	0.8	**0.5**
Fx_f	**0.0**	0.9	0.4	**0.0**	0.9	0.4
Fy_f	0.0	**0.9**	0.4	0.0	**0.9**	0.4
Mz_f	0.0	0.9	**0.4**	0.0	0.9	**0.4**

Member 47

Fx_i	**0.0**	0.9	0.4	**0.0**	0.9	0.4
Fy_i	0.0	**0.9**	0.4	0.0	**0.9**	0.4
Mz_i	0.0	0.9	**0.4**	0.0	0.9	**0.4**
Fx_f	**0.0**	1.0	0.3	**0.0**	1.0	0.3
Fy_f	0.0	**1.0**	0.3	0.0	**1.0**	0.3
Mz_f	0.0	1.0	**0.3**	0.0	1.0	**0.3**

Member 48

Fx_i	**0.0**	1.0	0.3	**0.0**	1.0	0.3
Fy_i	0.0	**1.0**	0.3	0.0	**1.0**	0.3
Mz_i	0.0	1.0	**0.3**	0.0	1.0	**0.3**
Fx_f	**0.0**	1.1	0.2	**0.0**	1.1	0.2
Fy_f	0.0	**1.1**	0.2	0.0	**1.1**	0.2
Mz_f	0.0	1.1	**0.2**	0.0	1.1	**0.2**

Member 49

Fx_i	**0.0**	1.1	0.2	**0.0**	1.1	0.2
Fy_i	0.0	**1.1**	0.2	0.0	**1.1**	0.2
Mz_i	0.0	1.1	**0.2**	0.0	1.1	**0.2**
Fx_f	**0.0**	1.2	0.1	**0.0**	1.2	0.1
Fy_f	0.0	**1.2**	0.1	0.0	**1.2**	0.1
Mz_f	0.0	1.2	**0.1**	0.0	1.2	**0.1**

Member 50

Fx_i	**0.0**	1.2	0.1	**0.0**	1.2	0.1
Fy_i	0.0	**1.2**	0.1	0.0	**1.2**	0.1
Mz_i	0.0	1.2	**0.1**	0.0	1.2	**0.1**
Fx_f	**0.0**	1.3	-0.0	**0.0**	1.3	-0.0
Fy_f	0.0	**1.3**	-0.0	0.0	**1.3**	-0.0
Mz_f	0.0	1.3	**-0.0**	0.0	1.3	**-0.0**

Member 51

Fx_i	**0.0**	1.3	-0.0	**0.0**	1.3	-0.0
Fy_i	0.0	**1.3**	-0.0	0.0	**1.3**	-0.0
Mz_i	0.0	1.3	**-0.0**	0.0	1.3	**-0.0**
Fx_f	**0.0**	1.4	-0.2	**0.0**	1.4	-0.2
Fy_f	0.0	**1.4**	-0.2	0.0	**1.4**	-0.2
Mz_f	0.0	1.4	**-0.2**	0.0	1.4	**-0.2**

Member 52

Fx_i	**0.0**	1.4	-0.2	**0.0**	1.4	-0.2
Fy_i	0.0	**1.4**	-0.2	0.0	**1.4**	-0.2
Mz_i	0.0	1.4	**-0.2**	0.0	1.4	**-0.2**
Fx_f	**0.0**	1.5	-0.3	**0.0**	1.5	-0.3
Fy_f	0.0	**1.5**	-0.3	0.0	**1.5**	-0.3
Mz_f	0.0	1.5	**-0.3**	0.0	1.5	**-0.3**

Member 53

Fx_i	**0.0**	1.5	-0.3	**0.0**	1.5	-0.3
Fy_i	0.0	**1.5**	-0.3	0.0	**1.5**	-0.3
Mz_i	0.0	1.5	**-0.3**	0.0	1.5	**-0.3**
Fx_f	**0.0**	1.6	-0.4	**0.0**	1.6	-0.4
Fy_f	0.0	**1.6**	-0.4	0.0	**1.6**	-0.4
Mz_f	0.0	1.6	**-0.4**	0.0	1.6	**-0.4**

Member 54

Fx_i	**0.0**	1.6	-0.4	**0.0**	1.6	-0.4
Fy_i	0.0	**1.6**	-0.4	0.0	**1.6**	-0.4
Mz_i	0.0	1.6	**-0.4**	0.0	1.6	**-0.4**
Fx_f	**0.0**	1.7	-0.6	**0.0**	1.7	-0.6
Fy_f	0.0	**1.7**	-0.6	0.0	**1.7**	-0.6
Mz_f	0.0	1.7	**-0.6**	0.0	1.7	**-0.6**

Member 55

Fx_i	**0.0**	1.7	-0.6	**0.0**	1.7	-0.6
Fy_i	0.0	**1.7**	-0.6	0.0	**1.7**	-0.6
Mz_i	0.0	1.7	**-0.6**	0.0	1.7	**-0.6**
Fx_f	**0.0**	1.8	-0.8	**0.0**	1.8	-0.8
Fy_f	0.0	**1.8**	-0.8	0.0	**1.8**	-0.8
Mz_f	0.0	1.8	**-0.8**	0.0	1.8	**-0.8**

Member 56

Fx_i	**0.0**	1.8	-0.8	**0.0**	1.8	-0.8
Fy_i	0.0	**1.8**	-0.8	0.0	**1.8**	-0.8
Mz_i	0.0	1.8	**-0.8**	0.0	1.8	**-0.8**
Fx_f	**0.0**	1.9	-1.0	**0.0**	1.9	-1.0
Fy_f	0.0	**1.9**	-1.0	0.0	**1.9**	-1.0
Mz_f	0.0	1.9	**-1.0**	0.0	1.9	**-1.0**

Member 57

Fx_i	**0.0**	1.9	-1.0	**0.0**	1.9	-1.0
Fy_i	0.0	**1.9**	-1.0	0.0	**1.9**	-1.0
Mz_i	0.0	1.9	**-1.0**	0.0	1.9	**-1.0**
Fx_f	**0.0**	2.0	-1.1	**0.0**	2.0	-1.1
Fy_f	0.0	**2.0**	-1.1	0.0	**2.0**	-1.1
Mz_f	0.0	2.0	**-1.1**	0.0	2.0	**-1.1**

Member 58

Fx_i	**0.0**	-3.0	-1.1	**0.0**	-3.0	-1.1
Fy_i	0.0	**-3.0**	-1.1	0.0	**-3.0**	-1.1
Mz_i	0.0	-3.0	**-1.1**	0.0	-3.0	**-1.1**
Fx_f	**0.0**	-3.0	-0.1	**0.0**	-3.0	-0.1
Fy_f	0.0	**-3.0**	-0.1	0.0	**-3.0**	-0.1
Mz_f	0.0	-3.0	**-0.1**	0.0	-3.0	**-0.1**

Member 59

Fx_i	**0.0**	-0.7	-0.1	**0.0**	-0.7	-0.1
Fy_i	0.0	**-0.7**	-0.1	0.0	**-0.7**	-0.1
Mz_i	0.0	-0.7	**-0.1**	0.0	-0.7	**-0.1**
Fx_f	**0.0**	-0.7	-0.1	**0.0**	-0.7	-0.1
Fy_f	0.0	**-0.7**	-0.1	0.0	**-0.7**	-0.1
Mz_f	0.0	-0.7	**-0.1**	0.0	-0.7	**-0.1**

Member 60

Fx_i	**0.0**	-0.7	-0.1	**0.0**	-0.7	-0.1
Fy_i	0.0	**-0.7**	-0.1	0.0	**-0.7**	-0.1
Mz_i	0.0	-0.7	**-0.1**	0.0	-0.7	**-0.1**
Fx_f	**0.0**	-0.6	-0.0	**0.0**	-0.6	-0.0
Fy_f	0.0	**-0.6**	-0.0	0.0	**-0.6**	-0.0
Mz_f	0.0	-0.6	**-0.0**	0.0	-0.6	**-0.0**

Member 61

Fx_i	**0.0**	-0.6	-0.0	**0.0**	-0.6	-0.0
Fy_i	0.0	**-0.6**	-0.0	0.0	**-0.6**	-0.0
Mz_i	0.0	-0.6	**-0.0**	0.0	-0.6	**-0.0**
Fx_f	**0.0**	-0.5	0.0	**0.0**	-0.5	0.0
Fy_f	0.0	**-0.5**	0.0	0.0	**-0.5**	0.0
Mz_f	0.0	-0.5	**0.0**	0.0	-0.5	**0.0**

Member 62

Fx_i	**0.0**	-0.5	0.0	**0.0**	-0.5	0.0
Fy_i	0.0	**-0.5**	0.0	0.0	**-0.5**	0.0
Mz_i	0.0	-0.5	**0.0**	0.0	-0.5	**0.0**
Fx_f	**0.0**	-0.5	0.1	**0.0**	-0.5	0.1
Fy_f	0.0	**-0.5**	0.1	0.0	**-0.5**	0.1
Mz_f	0.0	-0.5	**0.1**	0.0	-0.5	**0.1**

Member 63

Fx_i	**0.0**	-0.5	0.1	**0.0**	-0.5	0.1
Fy_i	0.0	**-0.5**	0.1	0.0	**-0.5**	0.1
Mz_i	0.0	-0.5	**0.1**	0.0	-0.5	**0.1**
Fx_f	**0.0**	-0.4	0.1	**0.0**	-0.4	0.1
Fy_f	0.0	**-0.4**	0.1	0.0	**-0.4**	0.1
Mz_f	0.0	-0.4	**0.1**	0.0	-0.4	**0.1**

Member 64

Fx_i	**0.0**	-0.4	0.1	**0.0**	-0.4	0.1
Fy_i	0.0	**-0.4**	0.1	0.0	**-0.4**	0.1
Mz_i	0.0	-0.4	**0.1**	0.0	-0.4	**0.1**
Fx_f	**0.0**	-0.3	0.1	**0.0**	-0.3	0.1
Fy_f	0.0	**-0.3**	0.1	0.0	**-0.3**	0.1
Mz_f	0.0	-0.3	**0.1**	0.0	-0.3	**0.1**

Member 65

Fx_i	**0.0**	-0.3	0.1	**0.0**	-0.3	0.1
Fy_i	0.0	**-0.3**	0.1	0.0	**-0.3**	0.1
Mz_i	0.0	-0.3	**0.1**	0.0	-0.3	**0.1**
Fx_f	**0.0**	-0.3	0.2	**0.0**	-0.3	0.2
Fy_f	0.0	**-0.3**	0.2	0.0	**-0.3**	0.2
Mz_f	0.0	-0.3	**0.2**	0.0	-0.3	**0.2**

Member 66

Fx_i	**0.0**	-0.3	0.2	**0.0**	-0.3	0.2
Fy_i	0.0	**-0.3**	0.2	0.0	**-0.3**	0.2
Mz_i	0.0	-0.3	**0.2**	0.0	-0.3	**0.2**
Fx_f	**0.0**	-0.2	0.2	**0.0**	-0.2	0.2
Fy_f	0.0	**-0.2**	0.2	0.0	**-0.2**	0.2
Mz_f	0.0	-0.2	**0.2**	0.0	-0.2	**0.2**

Member 67

Fx_i	**0.0**	-0.2	0.2	**0.0**	-0.2	0.2
Fy_i	0.0	**-0.2**	0.2	0.0	**-0.2**	0.2
Mz_i	0.0	-0.2	**0.2**	0.0	-0.2	**0.2**
Fx_f	**0.0**	-0.1	0.2	**0.0**	-0.1	0.2
Fy_f	0.0	**-0.1**	0.2	0.0	**-0.1**	0.2
Mz_f	0.0	-0.1	**0.2**	0.0	-0.1	**0.2**

Member 68

Fx_i	**0.0**	-0.1	0.2	**0.0**	-0.1	0.2
Fy_i	0.0	**-0.1**	0.2	0.0	**-0.1**	0.2
Mz_i	0.0	-0.1	**0.2**	0.0	-0.1	**0.2**
Fx_f	**0.0**	-0.0	0.2	**0.0**	-0.0	0.2
Fy_f	0.0	**-0.0**	0.2	0.0	**-0.0**	0.2
Mz_f	0.0	-0.0	**0.2**	0.0	-0.0	**0.2**

Member 69

Fx_i	**0.0**	-0.0	0.2	**0.0**	-0.0	0.2
Fy_i	0.0	**-0.0**	0.2	0.0	**-0.0**	0.2
Mz_i	0.0	-0.0	**0.2**	0.0	-0.0	**0.2**
Fx_f	**0.0**	0.0	0.2	**0.0**	0.0	0.2
Fy_f	0.0	**0.0**	0.2	0.0	**0.0**	0.2
Mz_f	0.0	0.0	**0.2**	0.0	0.0	**0.2**

Member 70

Fx_i	**0.0**	0.0	0.2	**0.0**	0.0	0.2
Fy_i	0.0	**0.0**	0.2	0.0	**0.0**	0.2
Mz_i	0.0	0.0	**0.2**	0.0	0.0	**0.2**
Fx_f	**0.0**	0.1	0.2	**0.0**	0.1	0.2
Fy_f	0.0	**0.1**	0.2	0.0	**0.1**	0.2
Mz_f	0.0	0.1	**0.2**	0.0	0.1	**0.2**

Member 71

Fx_i	**0.0**	0.1	0.2	**0.0**	0.1	0.2
Fy_i	0.0	**0.1**	0.2	0.0	**0.1**	0.2
Mz_i	0.0	0.1	**0.2**	0.0	0.1	**0.2**
Fx_f	**0.0**	0.2	0.2	**0.0**	0.2	0.2
Fy_f	0.0	**0.2**	0.2	0.0	**0.2**	0.2
Mz_f	0.0	0.2	**0.2**	0.0	0.2	**0.2**

Member 72

Fx_i	**0.0**	0.2	0.2	**0.0**	0.2	0.2
Fy_i	0.0	**0.2**	0.2	0.0	**0.2**	0.2
Mz_i	0.0	0.2	**0.2**	0.0	0.2	**0.2**
Fx_f	**0.0**	0.3	0.2	**0.0**	0.3	0.2
Fy_f	0.0	**0.3**	0.2	0.0	**0.3**	0.2
Mz_f	0.0	0.3	**0.2**	0.0	0.3	**0.2**

Member 73

Fx_i	**0.0**	0.3	0.2	**0.0**	0.3	0.2
Fy_i	0.0	**0.3**	0.2	0.0	**0.3**	0.2
Mz_i	0.0	0.3	**0.2**	0.0	0.3	**0.2**
Fx_f	**0.0**	0.4	0.1	**0.0**	0.4	0.1
Fy_f	0.0	**0.4**	0.1	0.0	**0.4**	0.1
Mz_f	0.0	0.4	**0.1**	0.0	0.4	**0.1**

Member 74

Fx_i	**0.0**	0.4	0.1	**0.0**	0.4	0.1
Fy_i	0.0	**0.4**	0.1	0.0	**0.4**	0.1
Mz_i	0.0	0.4	**0.1**	0.0	0.4	**0.1**
Fx_f	**0.0**	0.5	0.1	**0.0**	0.5	0.1
Fy_f	0.0	**0.5**	0.1	0.0	**0.5**	0.1
Mz_f	0.0	0.5	**0.1**	0.0	0.5	**0.1**

Member 75

Fx_i	**0.0**	0.5	0.1	**0.0**	0.5	0.1
Fy_i	0.0	**0.5**	0.1	0.0	**0.5**	0.1
Mz_i	0.0	0.5	**0.1**	0.0	0.5	**0.1**
Fx_f	**0.0**	0.6	0.0	**0.0**	0.6	0.0
Fy_f	0.0	**0.6**	0.0	0.0	**0.6**	0.0
Mz_f	0.0	0.6	**0.0**	0.0	0.6	**0.0**

Member 76

Fx_i	**0.0**	0.6	0.0	**0.0**	0.6	0.0
Fy_i	0.0	**0.6**	0.0	0.0	**0.6**	0.0
Mz_i	0.0	0.6	**0.0**	0.0	0.6	**0.0**
Fx_f	**0.0**	0.8	-0.0	**0.0**	0.8	-0.0
Fy_f	0.0	**0.8**	-0.0	0.0	**0.8**	-0.0
Mz_f	0.0	0.8	**-0.0**	0.0	0.8	**-0.0**

Member 77

Fx_i	**0.0**	0.8	-0.0	**0.0**	0.8	-0.0
Fy_i	0.0	**0.8**	-0.0	0.0	**0.8**	-0.0
Mz_i	0.0	0.8	**-0.0**	0.0	0.8	**-0.0**
Fx_f	**0.0**	0.9	-0.1	**0.0**	0.9	-0.1
Fy_f	0.0	**0.9**	-0.1	0.0	**0.9**	-0.1
Mz_f	0.0	0.9	**-0.1**	0.0	0.9	**-0.1**

Member 78

Fx_i	**0.0**	0.9	-0.1	**0.0**	0.9	-0.1
Fy_i	0.0	**0.9**	-0.1	0.0	**0.9**	-0.1
Mz_i	0.0	0.9	**-0.1**	0.0	0.9	**-0.1**
Fx_f	**0.0**	1.0	-0.2	**0.0**	1.0	-0.2

Fy_f	0.0	**1.0**	-0.2	0.0	**1.0**	-0.2
Mz_f	0.0	1.0	**-0.2**	0.0	1.0	**-0.2**

Member 79

Fx_i	**0.0**	2.2	-0.2	**0.0**	2.2	**-0.2**
Fy_i	0.0	**2.2**	-0.2	0.0	**2.2**	-0.2
Mz_i	0.0	2.2	**-0.2**	0.0	2.2	**-0.2**
Fx_f	**0.0**	2.6	-1.0	**0.0**	2.6	-1.0
Fy_f	0.0	**2.6**	-1.0	0.0	**2.6**	-1.0
Mz_f	0.0	2.6	**-1.0**	0.0	2.6	**-1.0**

Member 80

Fx_i	**0.0**	-1.9	-1.0	**0.0**	-1.9	-1.0
Fy_i	0.0	**-1.9**	-1.0	0.0	**-1.9**	-1.0
Mz_i	0.0	-1.9	**-1.0**	0.0	-1.9	**-1.0**
Fx_f	**0.0**	-1.8	-0.8	**0.0**	-1.8	-0.8
Fy_f	0.0	**-1.8**	-0.8	0.0	**-1.8**	-0.8
Mz_f	0.0	-1.8	**-0.8**	0.0	-1.8	**-0.8**

Member 81

Fx_i	**0.0**	-1.8	-0.8	**0.0**	-1.8	-0.8
Fy_i	0.0	**-1.8**	-0.8	0.0	**-1.8**	-0.8
Mz_i	0.0	-1.8	**-0.8**	0.0	-1.8	**-0.8**
Fx_f	**0.0**	-1.6	-0.7	**0.0**	-1.6	-0.7
Fy_f	0.0	**-1.6**	-0.7	0.0	**-1.6**	-0.7
Mz_f	0.0	-1.6	**-0.7**	0.0	-1.6	**-0.7**

Member 82

Fx_i	**0.0**	-1.6	-0.7	**0.0**	-1.6	-0.7
Fy_i	0.0	**-1.6**	-0.7	0.0	**-1.6**	-0.7
Mz_i	0.0	-1.6	**-0.7**	0.0	-1.6	**-0.7**
Fx_f	**0.0**	-1.5	-0.5	**0.0**	-1.5	-0.5
Fy_f	0.0	**-1.5**	-0.5	0.0	**-1.5**	-0.5
Mz_f	0.0	-1.5	**-0.5**	0.0	-1.5	**-0.5**

Member 83

Fx_i	**0.0**	-1.5	-0.5	**0.0**	-1.5	-0.5
Fy_i	0.0	**-1.5**	-0.5	0.0	**-1.5**	-0.5
Mz_i	0.0	-1.5	**-0.5**	0.0	-1.5	**-0.5**
Fx_f	**0.0**	-1.4	-0.4	**0.0**	-1.4	-0.4
Fy_f	0.0	**-1.4**	-0.4	0.0	**-1.4**	-0.4
Mz_f	0.0	-1.4	**-0.4**	0.0	-1.4	**-0.4**

Member 84

Fx_i	**0.0**	-1.4	-0.4	**0.0**	-1.4	-0.4
Fy_i	0.0	**-1.4**	-0.4	0.0	**-1.4**	-0.4
Mz_i	0.0	-1.4	**-0.4**	0.0	-1.4	**-0.4**
Fx_f	**0.0**	-1.3	-0.2	**0.0**	-1.3	-0.2
Fy_f	0.0	**-1.3**	-0.2	0.0	**-1.3**	-0.2
Mz_f	0.0	-1.3	**-0.2**	0.0	-1.3	**-0.2**

Member 85

Fx_i	**0.0**	-1.3	-0.2	**0.0**	-1.3	-0.2
Fy_i	0.0	**-1.3**	-0.2	0.0	**-1.3**	-0.2
Mz_i	0.0	-1.3	**-0.2**	0.0	-1.3	**-0.2**
Fx_f	**0.0**	-1.2	-0.1	**0.0**	-1.2	-0.1
Fy_f	0.0	**-1.2**	-0.1	0.0	**-1.2**	-0.1
Mz_f	0.0	-1.2	**-0.1**	0.0	-1.2	**-0.1**

Member 86

Fx_i	**0.0**	-1.2	-0.1	**0.0**	-1.2	-0.1
Fy_i	0.0	**-1.2**	-0.1	0.0	**-1.2**	-0.1
Mz_i	0.0	-1.2	**-0.1**	0.0	-1.2	**-0.1**

Fx_f	**0.0**	-1.1	0.0	**0.0**	-1.1	0.0
Fy_f	0.0	**-1.1**	0.0	0.0	**-1.1**	0.0
Mz_f	0.0	-1.1	**0.0**	0.0	-1.1	**0.0**

Member 87

Fx_i	**0.0**	-1.1	0.0	**0.0**	-1.1	0.0
Fy_i	0.0	**-1.1**	0.0	0.0	**-1.1**	0.0
Mz_i	0.0	-1.1	**0.0**	0.0	-1.1	**0.0**
Fx_f	**0.0**	-1.0	0.1	**0.0**	-1.0	0.1
Fy_f	0.0	**-1.0**	0.1	0.0	**-1.0**	0.1
Mz_f	0.0	-1.0	**0.1**	0.0	-1.0	**0.1**

Member 88

Fx_i	**0.0**	-1.0	0.1	**0.0**	-1.0	0.1
Fy_i	0.0	**-1.0**	0.1	0.0	**-1.0**	0.1
Mz_i	0.0	-1.0	**0.1**	0.0	-1.0	**0.1**
Fx_f	**0.0**	-0.9	0.2	**0.0**	-0.9	0.2
Fy_f	0.0	**-0.9**	0.2	0.0	**-0.9**	0.2
Mz_f	0.0	-0.9	**0.2**	0.0	-0.9	**0.2**

Member 89

Fx_i	**0.0**	-0.9	0.2	**0.0**	-0.9	0.2
Fy_i	0.0	**-0.9**	0.2	0.0	**-0.9**	0.2
Mz_i	0.0	-0.9	**0.2**	0.0	-0.9	**0.2**
Fx_f	**0.0**	-0.8	0.3	**0.0**	-0.8	0.3
Fy_f	0.0	**-0.8**	0.3	0.0	**-0.8**	0.3
Mz_f	0.0	-0.8	**0.3**	0.0	-0.8	**0.3**

Member 90

Fx_i	**0.0**	-0.8	0.3	**0.0**	-0.8	0.3
Fy_i	0.0	**-0.8**	0.3	0.0	**-0.8**	0.3
Mz_i	0.0	-0.8	**0.3**	0.0	-0.8	**0.3**
Fx_f	**0.0**	-0.7	0.4	**0.0**	-0.7	0.4
Fy_f	0.0	**-0.7**	0.4	0.0	**-0.7**	0.4
Mz_f	0.0	-0.7	**0.4**	0.0	-0.7	**0.4**

Member 91

Fx_i	**0.0**	-0.7	0.4	**0.0**	-0.7	0.4
Fy_i	0.0	**-0.7**	0.4	0.0	**-0.7**	0.4
Mz_i	0.0	-0.7	**0.4**	0.0	-0.7	**0.4**
Fx_f	**0.0**	-0.6	0.4	**0.0**	-0.6	0.4
Fy_f	0.0	**-0.6**	0.4	0.0	**-0.6**	0.4
Mz_f	0.0	-0.6	**0.4**	0.0	-0.6	**0.4**

Member 92

Fx_i	**0.0**	-0.6	0.4	**0.0**	-0.6	0.4
Fy_i	0.0	**-0.6**	0.4	0.0	**-0.6**	0.4
Mz_i	0.0	-0.6	**0.4**	0.0	-0.6	**0.4**
Fx_f	**0.0**	-0.5	0.5	**0.0**	-0.5	0.5
Fy_f	0.0	**-0.5**	0.5	0.0	**-0.5**	0.5
Mz_f	0.0	-0.5	**0.5**	0.0	-0.5	**0.5**

Member 93

Fx_i	**0.0**	-0.5	0.5	**0.0**	-0.5	0.5
Fy_i	0.0	**-0.5**	0.5	0.0	**-0.5**	0.5
Mz_i	0.0	-0.5	**0.5**	0.0	-0.5	**0.5**
Fx_f	**0.0**	-0.4	0.5	**0.0**	-0.4	0.5
Fy_f	0.0	**-0.4**	0.5	0.0	**-0.4**	0.5
Mz_f	0.0	-0.4	**0.5**	0.0	-0.4	**0.5**

Member 94

Fx_i	**0.0**	-0.4	0.5	**0.0**	-0.4	0.5
Fy_i	0.0	**-0.4**	0.5	0.0	**-0.4**	0.5
Mz_i	0.0	-0.4	**0.5**	0.0	-0.4	**0.5**

Fx_i	**0.0**	-0.3	0.6	**0.0**	-0.3	0.6
Fy_i	0.0	**-0.3**	0.6	0.0	**-0.3**	0.6
Mz_i	0.0	-0.3	**0.6**	0.0	-0.3	**0.6**
Fx_f	**0.0**	-0.3	0.6	**0.0**	-0.3	0.6
Fy_f	0.0	**-0.3**	0.6	0.0	**-0.3**	0.6
Mz_f	0.0	-0.3	**0.6**	0.0	-0.3	**0.6**

Member 95

Fx_i	**0.0**	-0.3	0.6	**0.0**	-0.3	0.6
Fy_i	0.0	**-0.3**	0.6	0.0	**-0.3**	0.6
Mz_i	0.0	-0.3	**0.6**	0.0	-0.3	**0.6**
Fx_f	**0.0**	-0.2	0.6	**0.0**	-0.2	0.6
Fy_f	0.0	**-0.2**	0.6	0.0	**-0.2**	0.6
Mz_f	0.0	-0.2	**0.6**	0.0	-0.2	**0.6**

Member 96

Fx_i	**0.0**	-0.2	0.6	**0.0**	-0.2	0.6
Fy_i	0.0	**-0.2**	0.6	0.0	**-0.2**	0.6
Mz_i	0.0	-0.2	**0.6**	0.0	-0.2	**0.6**
Fx_f	**0.0**	-0.1	0.6	**0.0**	-0.1	0.6
Fy_f	0.0	**-0.1**	0.6	0.0	**-0.1**	0.6
Mz_f	0.0	-0.1	**0.6**	0.0	-0.1	**0.6**

Member 97

Fx_i	**0.0**	-0.1	0.6	**0.0**	-0.1	0.6
Fy_i	0.0	**-0.1**	0.6	0.0	**-0.1**	0.6
Mz_i	0.0	-0.1	**0.6**	0.0	-0.1	**0.6**
Fx_f	**0.0**	0.0	0.6	**0.0**	0.0	0.6
Fy_f	0.0	**0.0**	0.6	0.0	**0.0**	0.6
Mz_f	0.0	0.0	**0.6**	0.0	0.0	**0.6**

Member 98

Fx_i	**0.0**	0.0	0.6	**0.0**	0.0	0.6
Fy_i	0.0	**0.0**	0.6	0.0	**0.0**	0.6
Mz_i	0.0	0.0	**0.6**	0.0	0.0	**0.6**
Fx_f	**0.0**	0.1	0.6	**0.0**	0.1	0.6
Fy_f	0.0	**0.1**	0.6	0.0	**0.1**	0.6
Mz_f	0.0	0.1	**0.6**	0.0	0.1	**0.6**

Member 99

Fx_i	**0.0**	0.1	0.6	**0.0**	0.1	0.6
Fy_i	0.0	**0.1**	0.6	0.0	**0.1**	0.6
Mz_i	0.0	0.1	**0.6**	0.0	0.1	**0.6**
Fx_f	**0.0**	0.2	0.6	**0.0**	0.2	0.6
Fy_f	0.0	**0.2**	0.6	0.0	**0.2**	0.6
Mz_f	0.0	0.2	**0.6**	0.0	0.2	**0.6**

Member 100

Fx_i	**0.0**	0.2	0.6	**0.0**	0.2	0.6
Fy_i	0.0	**0.2**	0.6	0.0	**0.2**	0.6
Mz_i	0.0	0.2	**0.6**	0.0	0.2	**0.6**
Fx_f	**0.0**	0.3	0.5	**0.0**	0.3	0.5
Fy_f	0.0	**0.3**	0.5	0.0	**0.3**	0.5
Mz_f	0.0	0.3	**0.5**	0.0	0.3	**0.5**

Member 101

Fx_i	**0.0**	0.3	0.5	**0.0**	0.3	0.5
Fy_i	0.0	**0.3**	0.5	0.0	**0.3**	0.5
Mz_i	0.0	0.3	**0.5**	0.0	0.3	**0.5**
Fx_f	**0.0**	0.4	0.5	**0.0**	0.4	0.5
Fy_f	0.0	**0.4**	0.5	0.0	**0.4**	0.5
Mz_f	0.0	0.4	**0.5**	0.0	0.4	**0.5**

Member 102

Fx_i	**0.0**	0.4	0.5	**0.0**	0.4	0.5
Fy_i	0.0	**0.4**	0.5	0.0	**0.4**	0.5
Mz_i	0.0	0.4	**0.5**	0.0	0.4	**0.5**
Fx_f	**0.0**	0.5	0.5	**0.0**	0.5	0.5
Fy_f	0.0	**0.5**	0.5	0.0	**0.5**	0.5
Mz_f	0.0	0.5	**0.5**	0.0	0.5	**0.5**

Member 103

Fx_i	**0.0**	0.5	0.5	**0.0**	0.5	0.5
Fy_i	0.0	**0.5**	0.5	0.0	**0.5**	0.5
Mz_i	0.0	0.5	**0.5**	0.0	0.5	**0.5**
Fx_f	**0.0**	0.6	0.4	**0.0**	0.6	0.4
Fy_f	0.0	**0.6**	0.4	0.0	**0.6**	0.4
Mz_f	0.0	0.6	**0.4**	0.0	0.6	**0.4**

Member 104

Fx_i	**0.0**	0.6	0.4	**0.0**	0.6	0.4
Fy_i	0.0	**0.6**	0.4	0.0	**0.6**	0.4
Mz_i	0.0	0.6	**0.4**	0.0	0.6	**0.4**
Fx_f	**0.0**	0.7	0.3	**0.0**	0.7	0.3
Fy_f	0.0	**0.7**	0.3	0.0	**0.7**	0.3
Mz_f	0.0	0.7	**0.3**	0.0	0.7	**0.3**

Member 105

Fx_i	**0.0**	0.7	0.3	**0.0**	0.7	0.3
Fy_i	0.0	**0.7**	0.3	0.0	**0.7**	0.3
Mz_i	0.0	0.7	**0.3**	0.0	0.7	**0.3**
Fx_f	**0.0**	0.8	0.3	**0.0**	0.8	0.3
Fy_f	0.0	**0.8**	0.3	0.0	**0.8**	0.3
Mz_f	0.0	0.8	**0.3**	0.0	0.8	**0.3**

Member 106

Fx_i	**0.0**	0.8	0.3	**0.0**	0.8	0.3
Fy_i	0.0	**0.8**	0.3	0.0	**0.8**	0.3
Mz_i	0.0	0.8	**0.3**	0.0	0.8	**0.3**
Fx_f	**0.0**	0.9	0.2	**0.0**	0.9	0.2
Fy_f	0.0	**0.9**	0.2	0.0	**0.9**	0.2
Mz_f	0.0	0.9	**0.2**	0.0	0.9	**0.2**

Member 107

Fx_i	**0.0**	0.9	0.2	**0.0**	0.9	0.2
Fy_i	0.0	**0.9**	0.2	0.0	**0.9**	0.2
Mz_i	0.0	0.9	**0.2**	0.0	0.9	**0.2**
Fx_f	**0.0**	1.0	0.1	**0.0**	1.0	0.1
Fy_f	0.0	**1.0**	0.1	0.0	**1.0**	0.1
Mz_f	0.0	1.0	**0.1**	0.0	1.0	**0.1**

Member 108

Fx_i	**0.0**	1.0	0.1	**0.0**	1.0	0.1
Fy_i	0.0	**1.0**	0.1	0.0	**1.0**	0.1
Mz_i	0.0	1.0	**0.1**	0.0	1.0	**0.1**
Fx_f	**0.0**	1.1	-0.0	**0.0**	1.1	-0.0
Fy_f	0.0	**1.1**	-0.0	0.0	**1.1**	-0.0
Mz_f	0.0	1.1	**-0.0**	0.0	1.1	**-0.0**

Member 109

Fx_i	**0.0**	1.1	-0.0	**0.0**	1.1	-0.0
Fy_i	0.0	**1.1**	-0.0	0.0	**1.1**	-0.0
Mz_i	0.0	1.1	**-0.0**	0.0	1.1	**-0.0**
Fx_f	**0.0**	1.2	-0.1	**0.0**	1.2	-0.1
Fy_f	0.0	**1.2**	-0.1	0.0	**1.2**	-0.1
Mz_f	0.0	1.2	**-0.1**	0.0	1.2	**-0.1**

Member 110

Fx_i	**0.0**	1.2	-0.1	**0.0**	1.2	-0.1

Fy_i	0.0	**1.2**	-0.1	0.0	**1.2**	-0.1
Mz_i	0.0	1.2	**-0.1**	0.0	1.2	**-0.1**
Fx_f	**0.0**	1.3	-0.2	**0.0**	1.3	-0.2
Fy_f	0.0	**1.3**	-0.2	0.0	**1.3**	-0.2
Mz_f	0.0	1.3	**-0.2**	0.0	1.3	**-0.2**

Member 111

Fx_i	**0.0**	1.3	-0.2	**0.0**	1.3	-0.2
Fy_i	0.0	**1.3**	-0.2	0.0	**1.3**	-0.2
Mz_i	0.0	1.3	**-0.2**	0.0	1.3	**-0.2**
Fx_f	**0.0**	1.4	-0.4	**0.0**	1.4	-0.4
Fy_f	0.0	**1.4**	-0.4	0.0	**1.4**	-0.4
Mz_f	0.0	1.4	**-0.4**	0.0	1.4	**-0.4**

Member 112

Fx_i	**0.0**	1.4	-0.4	**0.0**	1.4	-0.4
Fy_i	0.0	**1.4**	-0.4	0.0	**1.4**	-0.4
Mz_i	0.0	1.4	**-0.4**	0.0	1.4	**-0.4**
Fx_f	**0.0**	1.5	-0.5	**0.0**	1.5	-0.5
Fy_f	0.0	**1.5**	-0.5	0.0	**1.5**	-0.5
Mz_f	0.0	1.5	**-0.5**	0.0	1.5	**-0.5**

Member 113

Fx_i	**0.0**	1.5	-0.5	**0.0**	1.5	-0.5
Fy_i	0.0	**1.5**	-0.5	0.0	**1.5**	-0.5
Mz_i	0.0	1.5	**-0.5**	0.0	1.5	**-0.5**
Fx_f	**0.0**	1.5	-0.7	**0.0**	1.5	-0.7
Fy_f	0.0	**1.5**	-0.7	0.0	**1.5**	-0.7
Mz_f	0.0	1.5	**-0.7**	0.0	1.5	**-0.7**

Member 114

Fx_i	**0.0**	1.5	-0.7	**0.0**	1.5	-0.7
Fy_i	0.0	**1.5**	-0.7	0.0	**1.5**	-0.7
Mz_i	0.0	1.5	**-0.7**	0.0	1.5	**-0.7**
Fx_f	**0.0**	1.6	-0.8	**0.0**	1.6	-0.8
Fy_f	0.0	**1.6**	-0.8	0.0	**1.6**	-0.8
Mz_f	0.0	1.6	**-0.8**	0.0	1.6	**-0.8**

Member 115

Fx_i	**0.0**	1.6	-0.8	**0.0**	1.6	-0.8
Fy_i	0.0	**1.6**	-0.8	0.0	**1.6**	-0.8
Mz_i	0.0	1.6	**-0.8**	0.0	1.6	**-0.8**
Fx_f	**0.0**	1.6	-1.0	**0.0**	1.6	-1.0
Fy_f	0.0	**1.6**	-1.0	0.0	**1.6**	-1.0
Mz_f	0.0	1.6	**-1.0**	0.0	1.6	**-1.0**

Member 116

Fx_i	**0.0**	-2.9	-1.0	**0.0**	-2.9	-1.0
Fy_i	0.0	**-2.9**	-1.0	0.0	**-2.9**	-1.0
Mz_i	0.0	-2.9	**-1.0**	0.0	-2.9	**-1.0**
Fx_f	**0.0**	-2.9	-0.0	**0.0**	-2.9	-0.0
Fy_f	0.0	**-2.9**	-0.0	0.0	**-2.9**	-0.0
Mz_f	0.0	-2.9	**-0.0**	0.0	-2.9	**-0.0**

Member 117

Fx_i	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_i	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**
Fx_f	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_f	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**

Member 118

Fx_i	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_i	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**
Fx_f	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_f	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**

Member 119

Fx_i	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_i	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**
Fx_f	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_f	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**

Member 120

Fx_i	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_i	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**
Fx_f	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_f	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**

Member 121

Fx_i	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_i	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**
Fx_f	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_f	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**

Member 122

Fx_i	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_i	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**
Fx_f	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_f	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**

Member 123

Fx_i	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_i	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**
Fx_f	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_f	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**

Member 124

Fx_i	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_i	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**
Fx_f	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_f	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**

Member 125

Fx_i	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_i	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**
Fx_f	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_f	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**

Member 126

Fx_i	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_i	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**
Fx_f	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_f	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**

Member 127

Fx_i	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_i	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**
Fx_f	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_f	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**

Member 128

Fx_i	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_i	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**
Fx_f	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_f	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**

Member 129

Fx_i	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_i	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**
Fx_f	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_f	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**

Member 130

Fx_i	**0.0**	0.0	-0.0	**0.0**	0.0	-0.0
Fy_i	0.0	**0.0**	-0.0	0.0	**0.0**	-0.0
Mz_i	0.0	0.0	**-0.0**	0.0	0.0	**-0.0**
Fx_f	**0.0**	0.0	-0.0	**0.0**	0.0	-0.0
Fy_f	0.0	**0.0**	-0.0	0.0	**0.0**	-0.0
Mz_f	0.0	0.0	**-0.0**	0.0	0.0	**-0.0**

Member 131

Fx_i	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_i	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**
Fx_f	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_f	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**

Member 132

Fx_i	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_i	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**
Fx_f	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_f	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**

Member 133

Fx_i	**0.0**	0.0	0.0	**0.0**	0.0	0.0
Fy_i	0.0	**0.0**	0.0	0.0	**0.0**	0.0
Mz_i	0.0	0.0	**0.0**	0.0	0.0	**0.0**
Fx_f	**0.0**	0.0	-0.0	**0.0**	0.0	-0.0
Fy_f	0.0	**0.0**	-0.0	0.0	**0.0**	-0.0
Mz_f	0.0	0.0	**-0.0**	0.0	0.0	**-0.0**

Member 134

Fx_i	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_i	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**
Fx_f	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_f	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**

Member 135

Fx_i	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_i	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**
Fx_f	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_f	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**

Member 136

Fx_i	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_i	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**
Fx_f	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_f	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**

*** Fin del listado ***

hip pp losa

Program Envolvator (release 1.3 - Jun 1998)
Calculation date: 28-abr-1999 11:33 h. Listing date: 29-abr-1999 11:19 h.
Members: 136
Joints: 137
Envelope generated from:

Name	γ_{min}	γ_{max}
pp losa	1.00	1.00

	Fx	Fy	Mz	Fx	Fy	Mz
Member 1						
Fx_i	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_i	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**
Fx_f	**0.0**	0.0	-0.0	**0.0**	0.0	-0.0
Fy_f	0.0	**0.0**	-0.0	0.0	**0.0**	-0.0
Mz_f	0.0	0.0	**-0.0**	0.0	0.0	**-0.0**
Member 2						
Fx_i	**0.0**	0.0	-0.0	**0.0**	0.0	-0.0
Fy_i	0.0	**0.0**	-0.0	0.0	**0.0**	-0.0
Mz_i	0.0	0.0	**-0.0**	0.0	0.0	**-0.0**
Fx_f	**0.0**	0.1	-0.0	**0.0**	0.1	-0.0
Fy_f	0.0	**0.1**	-0.0	0.0	**0.1**	-0.0
Mz_f	0.0	0.1	**-0.0**	0.0	0.1	**-0.0**
Member 3						
Fx_i	**0.0**	0.1	-0.0	**0.0**	0.1	-0.0
Fy_i	0.0	**0.1**	-0.0	0.0	**0.1**	-0.0
Mz_i	0,0	0.1	**-0.0**	0.0	0.1	**-0.0**
Fx_f	**0.0**	0.1	-0.0	**0.0**	0.1	-0.0
Fy_f	0.0	**0.1**	-0.0	0.0	**0.1**	-0.0
Mz_f	0.0	0.1	**-0.0**	0.0	0.1	**-0.0**
Member 4						
Fx_i	**0.0**	0.1	-0.0	**0.0**	0.1	-0.0
Fy_i	0.0	**0.1**	-0.0	0.0	**0.1**	-0.0
Mz_i	0.0	0.1	**-0.0**	0.0	0.1	**-0.0**
Fx_f	**0.0**	0.2	-0.0	**0.0**	0.2	-0.0
Fy_f	0.0	**0.2**	-0.0	0.0	**0.2**	-0.0
Mz_f	0.0	0.2	**-0.0**	0.0	0.2	**-0.0**
Member 5						
Fx_i	**0.0**	0.2	-0.0	**0.0**	0.2	-0.0
Fy_i	0.0	**0.2**	-0.0	0.0	**0.2**	-0.0
Mz_i	0.0	0.2	**-0.0**	0.0	0.2	**-0.0**
Fx_f	**0.0**	0.2	-0.1	**0.0**	0.2	-0.1
Fy_f	0.0	**0.2**	-0.1	0.0	**0.2**	-0.1
Mz_f	0.0	0.2	**-0.1**	0.0	0.2	**-0.1**
Member 6						
Fx_i	**0.0**	0.2	-0.1	**0.0**	0.2	-0.1
Fy_i	0.0	**0.2**	-0.1	0.0	**0.2**	-0.1
Mz_i	0.0	0.2	**-0.1**	0.0	0.2	**-0.1**
Fx_f	**0.0**	0.3	-0.1	**0.0**	0.3	-0.1
Fy_f	0.0	**0.3**	-0.1	0.0	**0.3**	-0.1
Mz_f	0.0	0.3	**-0.1**	0.0	0.3	**-0.1**
Member 7						
Fx_i	**0.0**	0.3	-0.1	**0.0**	0.3	-0.1
Fy_i	0.0	**0.3**	-0.1	0.0	**0.3**	-0.1
Mz_i	0.0	0.3	**-0.1**	0.0	0.3	**-0.1**
Fx_f	**0.0**	0.3	-0.1	**0.0**	0.3	-0.1
Fy_f	0.0	**0.3**	-0.1	0.0	**0.3**	-0.1
Mz_f	0.0	0.3	**-0.1**	0.0	0.3	**-0.1**
Member 8						
Fx_i	**0.0**	0.3	-0.1	**0.0**	0.3	-0.1
Fy_i	0.0	**0.3**	-0.1	0.0	**0.3**	-0.1
Mz_i	0.0	0.3	**-0.1**	0.0	0.3	**-0.1**
Fx_f	**0.0**	0.4	-0.1	**0.0**	0.4	-0.1
Fy_f	0.0	**0.4**	-0.1	0.0	**0.4**	-0.1
Mz_f	0.0	0.4	**-0.1**	0.0	0.4	**-0.1**
Member 9						
Fx_i	**0.0**	0.4	-0.1	**0.0**	0.4	-0.1
Fy_i	0.0	**0.4**	-0.1	0.0	**0.4**	-0.1
Mz_i	0.0	0.4	**-0.1**	0.0	0.4	**-0.1**
Fx_f	**0.0**	0.4	-0.2	**0.0**	0.4	-0.2
Fy_f	0.0	**0.4**	-0.2	0.0	**0.4**	-0.2
Mz_f	0.0	0.4	**-0.2**	0.0	0.4	**-0.2**
Member 10						
Fx_i	**0.0**	0.4	-0.2	**0.0**	0.4	-0.2
Fy_i	0.0	**0.4**	-0.2	0.0	**0.4**	-0.2
Mz_i	0.0	0.4	**-0.2**	0.0	0.4	**-0.2**
Fx_f	**0.0**	0.5	-0.2	**0.0**	0.5	-0.2
Fy_f	0.0	**0.5**	-0.2	0.0	**0.5**	-0.2
Mz_f	0.0	0.5	**-0.2**	0.0	0.5	**-0.2**
Member 11						
Fx_i	**0.0**	0.5	-0.2	**0.0**	0.5	-0.2
Fy_i	0.0	**0.5**	-0.2	0.0	**0.5**	-0.2
Mz_i	0.0	0.5	**-0.2**	0.0	0.5	**-0.2**
Fx_f	**0.0**	0.6	-0.3	**0.0**	0.6	-0.3
Fy_f	0.0	**0.6**	-0.3	0.0	**0.6**	-0.3
Mz_f	0.0	0.6	**-0.3**	0.0	0.6	**-0.3**
Member 12						
Fx_i	**0.0**	0.6	-0.3	**0.0**	0.6	-0.3
Fy_i	0.0	**0.6**	-0.3	0.0	**0.6**	-0.3
Mz_i	0.0	0.6	**-0.3**	0.0	0.6	**-0.3**
Fx_f	**0.0**	0.6	-0.3	**0.0**	0.6	-0.3
Fy_f	0.0	**0.6**	-0.3	0.0	**0.6**	-0.3
Mz_f	0.0	0.6	**-0.3**	0.0	0.6	**-0.3**
Member 13						
Fx_i	**0.0**	0.6	-0.3	**0.0**	0.6	-0.3
Fy_i	0.0	**0.6**	-0.3	0.0	**0.6**	-0.3
Mz_i	0.0	0.6	**-0.3**	0.0	0.6	**-0.3**
Fx_f	**0.0**	0.7	-0.4	**0.0**	0.7	-0.4
Fy_f	0.0	**0.7**	-0.4	0.0	**0.7**	-0.4
Mz_f	0.0	0.7	**-0.4**	0.0	0.7	**-0.4**
Member 14						
Fx_i	**0.0**	0.7	-0.4	**0.0**	0.7	-0.4
Fy_i	0.0	**0.7**	-0.4	0.0	**0.7**	-0.4
Mz_i	0.0	0.7	**-0.4**	0.0	0.7	**-0.4**
Fx_f	**0.0**	0.7	-0.5	**0.0**	0.7	-0.5
Fy_f	0.0	**0.7**	-0.5	0.0	**0.7**	-0.5
Mz_f	0.0	0.7	**-0.5**	0.0	0.7	**-0.5**
Member 15						
Fx_i	**0.0**	0.7	-0.5	**0.0**	0.7	-0.5
Fy_i	0.0	**0.7**	-0.5	0.0	**0.7**	-0.5
Mz_i	0.0	0.7	**-0.5**	0.0	0.7	**-0.5**
Fx_f	**0.0**	0.8	-0.5	**0.0**	0.8	-0.5

Fy_f	0.0	**0.8**	-0.5	0.0	**0.8**	-0.5
Mz_f	0.0	0.8	**-0.5**	0.0	0.8	**-0.5**

Member 16

Fx_i	**0.0**	0.8	-0.5	**0.0**	0.8	-0.5
Fy_i	0.0	**0.8**	-0.5	0.0	**0.8**	-0.5
Mz_i	0.0	0.8	**-0.5**	0.0	0.8	**-0.5**
Fx_f	**0.0**	0.8	-0.6	**0.0**	0.8	-0.6
Fy_f	0.0	**0.8**	-0.6	0.0	**0.8**	-0.6
Mz_f	0.0	0.8	**-0.6**	0.0	0.8	**-0.6**

Member 17

Fx_i	**0.0**	0.8	-0.6	**0.0**	0.8	-0.6
Fy_i	0.0	**0.8**	-0.6	0.0	**0.8**	-0.6
Mz_i	0.0	0.8	**-0.6**	0.0	0.8	**-0.6**
Fx_f	**0.0**	0.9	-0.7	**0.0**	0.9	-0.7
Fy_f	0.0	**0.9**	-0.7	0.0	**0.9**	-0.7
Mz_f	0.0	0.9	**-0.7**	0.0	0.9	**-0.7**

Member 18

Fx_i	**0.0**	0.9	-0.7	**0.0**	0.9	-0.7
Fy_i	0.0	**0.9**	-0.7	0.0	**0.9**	-0.7
Mz_i	0.0	0.9	**-0.7**	0.0	0.9	**-0.7**
Fx_f	**0.0**	0.9	-0.8	**0.0**	0.9	-0.8
Fy_f	0.0	**0.9**	-0.8	0.0	**0.9**	-0.8
Mz_f	0.0	0.9	**-0.8**	0.0	0.9	**-0.8**

Member 19

Fx_i	**0.0**	0.9	-0.8	**0.0**	0.9	-0.8
Fy_i	0.0	**0.9**	-0.8	0.0	**0.9**	-0.8
Mz_i	0.0	0.9	**-0.8**	0.0	0.9	**-0.8**
Fx_f	**0.0**	1.0	-0.9	**0.0**	1.0	-0.9
Fy_f	0.0	**1.0**	-0.9	0.0	**1.0**	-0.9
Mz_f	0.0	1.0	**-0.9**	0.0	1.0	**-0.9**

Member 20

Fx_i	**0.0**	1.0	-0.9	**0.0**	1.0	-0.9
Fy_i	0.0	**1.0**	-0.9	0.0	**1.0**	-0.9
Mz_i	0.0	1.0	**-0.9**	0.0	1.0	**-0.9**
Fx_f	**0.0**	1.0	-1.0	**0.0**	1.0	-1.0
Fy_f	0.0	**1.0**	-1.0	0.0	**1.0**	-1.0
Mz_f	0.0	1.0	**-1.0**	0.0	1.0	**-1.0**

Member 21

Fx_i	**0.0**	-1.1	-1.0	**0.0**	-1.1	-1.0
Fy_i	0.0	**-1.1**	-1.0	0.0	**-1.1**	-1.0
Mz_i	0.0	-1.1	**-1.0**	0.0	-1.1	**-1.0**
Fx_f	**0.0**	-0.9	-0.6	**0.0**	-0.9	-0.6
Fy_f	0.0	**-0.9**	-0.6	0.0	**-0.9**	-0.6
Mz_f	0.0	-0.9	**-0.6**	0.0	-0.9	**-0.6**

Member 22

Fx_i	**0.0**	-1.2	-0.6	**0.0**	-1.2	-0.6
Fy_i	0.0	**-1.2**	-0.6	0.0	**-1.2**	-0.6
Mz_i	0.0	-1.2	**-0.6**	0.0	-1.2	**-0.6**
Fx_f	**0.0**	-1.1	-0.5	**0.0**	-1.1	-0.5
Fy_f	0.0	**-1.1**	-0.5	0.0	**-1.1**	-0.5
Mz_f	0.0	-1.1	**-0.5**	0.0	-1.1	**-0.5**

Member 23

Fx_i	**0.0**	-1.1	-0.5	**0.0**	-1.1	-0.5
Fy_i	0.0	**-1.1**	-0.5	0.0	**-1.1**	-0.5
Mz_i	0.0	-1.1	**-0.5**	0.0	-1.1	**-0.5**
Fx_f	**0.0**	-1.0	-0.4	**0.0**	-1.0	-0.4
Fy_f	0.0	**-1.0**	-0.4	0.0	**-1.0**	-0.4
Mz_f	0.0	-1.0	**-0.4**	0.0	-1.0	**-0.4**

Member 24

Fx_i	**0.0**	-1.0	-0.4	**0.0**	-1.0	-0.4
Fy_i	0.0	**-1.0**	-0.4	0.0	**-1.0**	-0.4
Mz_i	0.0	-1.0	**-0.4**	0.0	-1.0	**-0.4**
Fx_f	**0.0**	-1.0	-0.3	**0.0**	-1.0	-0.3
Fy_f	0.0	**-1.0**	-0.3	0.0	**-1.0**	-0.3
Mz_f	0.0	-1.0	**-0.3**	0.0	-1.0	**-0.3**

Member 25

Fx_i	**0.0**	-1.0	-0.3	**0.0**	-1.0	-0.3
Fy_i	0.0	**-1.0**	-0.3	0.0	**-1.0**	-0.3
Mz_i	0.0	-1.0	**-0.3**	0.0	-1.0	**-0.3**
Fx_f	**0.0**	-0.9	-0.2	**0.0**	-0.9	-0.2
Fy_f	0.0	**-0.9**	-0.2	0.0	**-0.9**	-0.2
Mz_f	0.0	-0.9	**-0.2**	0.0	-0.9	**-0.2**

Member 26

Fx_i	**0.0**	-0.9	-0.2	**0.0**	-0.9	-0.2
Fy_i	0.0	**-0.9**	-0.2	0.0	**-0.9**	-0.2
Mz_i	0.0	-0.9	**-0.2**	0.0	-0.9	**-0.2**
Fx_f	**0.0**	-0.9	-0.1	**0.0**	-0.9	-0.1
Fy_f	0.0	**-0.9**	-0.1	0.0	**-0.9**	-0.1
Mz_f	0.0	-0.9	**-0.1**	0.0	-0.9	**-0.1**

Member 27

Fx_i	**0.0**	-0.9	-0.1	**0.0**	-0.9	-0.1
Fy_i	0.0	**-0.9**	-0.1	0.0	**-0.9**	-0.1
Mz_i	0.0	-0.9	**-0.1**	0.0	-0.9	**-0.1**
Fx_f	**0.0**	-0.8	-0.0	**0.0**	-0.8	-0.0
Fy_f	0.0	**-0.8**	-0.0	0.0	**-0.8**	-0.0
Mz_f	0.0	-0.8	**-0.0**	0.0	-0.8	**-0.0**

Member 28

Fx_i	**0.0**	-0.8	-0.0	**0.0**	-0.8	-0.0
Fy_i	0.0	**-0.8**	-0.0	0.0	**-0.8**	-0.0
Mz_i	0.0	-0.8	**-0.0**	0.0	-0.8	**-0.0**
Fx_f	**0.0**	-0.7	0.0	**0.0**	-0.7	0.0
Fy_f	0.0	**-0.7**	0.0	0.0	**-0.7**	0.0
Mz_f	0.0	-0.7	**0.0**	0.0	-0.7	**0.0**

Member 29

Fx_i	**0.0**	-0.7	0.0	**0.0**	-0.7	0.0
Fy_i	0.0	**-0.7**	0.0	0.0	**-0.7**	0.0
Mz_i	0.0	-0.7	**0.0**	0.0	-0.7	**0.0**
Fx_f	**0.0**	-0.7	0.1	**0.0**	-0.7	0.1
Fy_f	0.0	**-0.7**	0.1	0.0	**-0.7**	0.1
Mz_f	0.0	-0.7	**0.1**	0.0	-0.7	**0.1**

Member 30

Fx_i	**0.0**	-0.7	0.1	**0.0**	-0.7	0.1
Fy_i	0.0	**-0.7**	0.1	0.0	**-0.7**	0.1
Mz_i	0.0	-0.7	**0.1**	0.0	-0.7	**0.1**
Fx_f	**0.0**	-0.6	0.2	**0.0**	-0.6	0.2
Fy_f	0.0	**-0.6**	0.2	0.0	**-0.6**	0.2
Mz_f	0.0	-0.6	**0.2**	0.0	-0.6	**0.2**

Member 31

Fx_i	**0.0**	-0.6	0.2	**0.0**	-0.6	0.2
Fy_i	0.0	**-0.6**	0.2	0.0	**-0.6**	0.2
Mz_i	0.0	-0.6	**0.2**	0.0	-0.6	**0.2**
Fx_f	**0.0**	-0.5	0.2	**0.0**	-0.5	0.2

Fy_f	0.0	-0.5	0.2	0.0	-0.5	0.2
Mz_f	0.0	-0.5	0.2	0.0	-0.5	0.2

Member 32

Fx_i	0.0	-0.5	0.2	0.0	-0.5	0.2
Fy_i	0.0	-0.5	0.2	0.0	-0.5	0.2
Mz_i	0.0	-0.5	0.2	0.0	-0.5	0.2
Fx_f	0.0	-0.5	0.3	0.0	-0.5	0.3
Fy_f	0.0	-0.5	0.3	0.0	-0.5	0.3
Mz_f	0.0	-0.5	0.3	0.0	-0.5	0.3

Member 33

Fx_i	0.0	-0.5	0.3	0.0	-0.5	0.3
Fy_i	0.0	-0.5	0.3	0.0	-0.5	0.3
Mz_i	0.0	-0.5	0.3	0.0	-0.5	0.3
Fx_f	0.0	-0.4	0.3	0.0	-0.4	0.3
Fy_f	0.0	-0.4	0.3	0.0	-0.4	0.3
Mz_f	0.0	-0.4	0.3	0.0	-0.4	0.3

Member 34

Fx_i	0.0	-0.4	0.3	0.0	-0.4	0.3
Fy_i	0.0	-0.4	0.3	0.0	-0.4	0.3
Mz_i	0.0	-0.4	0.3	0.0	-0.4	0.3
Fx_f	0.0	-0.3	0.3	0.0	-0.3	0.3
Fy_f	0.0	-0.3	0.3	0.0	-0.3	0.3
Mz_f	0.0	-0.3	0.3	0.0	-0.3	0.3

Member 35

Fx_i	0.0	-0.3	0.3	0.0	-0.3	0.3
Fy_i	0.0	-0.3	0.3	0.0	-0.3	0.3
Mz_i	0.0	-0.3	0.3	0.0	-0.3	0.3
Fx_f	0.0	-0.3	0.4	0.0	-0.3	0.4
Fy_f	0.0	-0.3	0.4	0.0	-0.3	0.4
Mz_f	0.0	-0.3	0.4	0.0	-0.3	0.4

Member 36

Fx_i	0.0	-0.3	0.4	0.0	-0.3	0.4
Fy_i	0.0	-0.3	0.4	0.0	-0.3	0.4
Mz_i	0.0	-0.3	0.4	0.0	-0.3	0.4
Fx_f	0.0	-0.2	0.4	0.0	-0.2	0.4
Fy_f	0.0	-0.2	0.4	0.0	-0.2	0.4
Mz_f	0.0	-0.2	0.4	0.0	-0.2	0.4

Member 37

Fx_i	0.0	-0.2	0.4	0.0	-0.2	0.4
Fy_i	0.0	-0.2	0.4	0.0	-0.2	0.4
Mz_i	0.0	-0.2	0.4	0.0	-0.2	0.4
Fx_f	0.0	-0.1	0.4	0.0	-0.1	0.4
Fy_f	0.0	-0.1	0.4	0.0	-0.1	0.4
Mz_f	0.0	-0.1	0.4	0.0	-0.1	0.4

Member 38

Fx_i	0.0	-0.1	0.4	0.0	-0.1	0.4
Fy_i	0.0	-0.1	0.4	0.0	-0.1	0.4
Mz_i	0.0	-0.1	0.4	0.0	-0.1	0.4
Fx_f	0.0	-0.1	0.4	0.0	-0.1	0.4
Fy_f	0.0	-0.1	0.4	0.0	-0.1	0.4
Mz_f	0.0	-0.1	0.4	0.0	-0.1	0.4

Member 39

Fx_i	0.0	-0.1	0.4	0.0	-0.1	0.4
Fy_i	0.0	-0.1	0.4	0.0	-0.1	0.4
Mz_i	0.0	-0.1	0.4	0.0	-0.1	0.4
Fx_f	0.0	0.0	0.4	0.0	0.0	0.4
Fy_f	0.0	0.0	0.4	0.0	0.0	0.4
Mz_f	0.0	0.0	0.4	0.0	0.0	0.4

Member 40

Fx_i	0.0	0.0	0.4	0.0	0.0	0.4
Fy_i	0.0	0.0	0.4	0.0	0.0	0.4
Mz_i	0.0	0.0	0.4	0.0	0.0	0.4
Fx_f	0.0	0.1	0.4	0.0	0.1	0.4
Fy_f	0.0	0.1	0.4	0.0	0.1	0.4
Mz_f	0.0	0.1	0.4	0.0	0.1	0.4

Member 41

Fx_i	0.0	0.1	0.4	0.0	0.1	0.4
Fy_i	0.0	0.1	0.4	0.0	0.1	0.4
Mz_i	0.0	0.1	0.4	0.0	0.1	0.4
Fx_f	0.0	0.1	0.4	0.0	0.1	0.4
Fy_f	0.0	0.1	0.4	0.0	0.1	0.4
Mz_f	0.0	0.1	0.4	0.0	0.1	0.4

Member 42

Fx_i	0.0	0.1	0.4	0.0	0.1	0.4
Fy_i	0.0	0.1	0.4	0.0	0.1	0.4
Mz_i	0.0	0.1	0.4	0.0	0.1	0.4
Fx_f	0.0	0.2	0.4	0.0	0.2	0.4
Fy_f	0.0	0.2	0.4	0.0	0.2	0.4
Mz_f	0.0	0.2	0.4	0.0	0.2	0.4

Member 43

Fx_i	0.0	0.2	0.4	0.0	0.2	0.4
Fy_i	0.0	0.2	0.4	0.0	0.2	0.4
Mz_i	0.0	0.2	0.4	0.0	0.2	0.4
Fx_f	0.0	0.3	0.4	0.0	0.3	0.4
Fy_f	0.0	0.3	0.4	0.0	0.3	0.4
Mz_f	0.0	0.3	0.4	0.0	0.3	0.4

Member 44

Fx_i	0.0	0.3	0.4	0.0	0.3	0.4
Fy_i	0.0	0.3	0.4	0.0	0.3	0.4
Mz_i	0.0	0.3	0.4	0.0	0.3	0.4
Fx_f	0.0	0.4	0.3	0.0	0.4	0.3
Fy_f	0.0	0.4	0.3	0.0	0.4	0.3
Mz_f	0.0	0.4	0.3	0.0	0.4	0.3

Member 45

Fx_i	0.0	0.4	0.3	0.0	0.4	0.3
Fy_i	0.0	0.4	0.3	0.0	0.4	0.3
Mz_i	0.0	0.4	0.3	0.0	0.4	0.3
Fx_f	0.0	0.4	0.3	0.0	0.4	0.3
Fy_f	0.0	0.4	0.3	0.0	0.4	0.3
Mz_f	0.0	0.4	0.3	0.0	0.4	0.3

Member 46

Fx_i	0.0	0.4	0.3	0.0	0.4	0.3
Fy_i	0.0	0.4	0.3	0.0	0.4	0.3
Mz_i	0.0	0.4	0.3	0.0	0.4	0.3
Fx_f	0.0	0.5	0.3	0.0	0.5	0.3
Fy_f	0.0	0.5	0.3	0.0	0.5	0.3
Mz_f	0.0	0.5	0.3	0.0	0.5	0.3

Member 47

Fx_i	0.0	0.5	0.3	0.0	0.5	0.3
Fy_i	0.0	0.5	0.3	0.0	0.5	0.3
Mz_i	0.0	0.5	0.3	0.0	0.5	0.3
Fx_f	0.0	0.6	0.2	0.0	0.6	0.2

Fy_i	0.0	**0.6**	0.2	0.0	**0.6**	0.2
Mz_i	0.0	0.6	**0.2**	0.0	0.6	**0.2**

Member 48

Fx_j	**0.0**	0.6	0.2	**0.0**	0.6	0.2
Fy_j	0.0	**0.6**	0.2	0.0	**0.6**	0.2
Mz_j	0.0	0.6	**0.2**	0.0	0.6	**0.2**
Fx_f	**0.0**	0.6	0.1	**0.0**	0.6	0.1
Fy_f	0.0	**0.6**	0.1	0.0	**0.6**	0.1
Mz_f	0.0	0.6	**0.1**	0.0	0.6	**0.1**

Member 49

Fx_j	**0.0**	0.6	0.1	**0.0**	0.6	0.1
Fy_j	0.0	**0.6**	0.1	0.0	**0.6**	0.1
Mz_j	0.0	0.6	**0.1**	0.0	0.6	**0.1**
Fx_f	**0.0**	0.7	0.1	**0.0**	0.7	0.1
Fy_f	0.0	**0.7**	0.1	0.0	**0.7**	0.1
Mz_f	0.0	0.7	**0.1**	0.0	0.7	**0.1**

Member 50

Fx_j	**0.0**	0.7	0.1	**0.0**	0.7	0.1
Fy_j	0.0	**0.7**	0.1	0.0	**0.7**	0.1
Mz_j	0.0	0.7	**0.1**	0.0	0.7	**0.1**
Fx_f	**0.0**	0.8	0.0	**0.0**	0.8	0.0
Fy_f	0.0	**0.8**	0.0	0.0	**0.8**	0.0
Mz_f	0.0	0.8	**0.0**	0.0	0.8	**0.0**

Member 51

Fx_j	**0.0**	0.8	0.0	**0.0**	0.8	0.0
Fy_j	0.0	**0.8**	0.0	0.0	**0.8**	0.0
Mz_j	0.0	0.8	**0.0**	0.0	0.8	**0.0**
Fx_f	**0.0**	0.9	-0.1	**0.0**	0.9	-0.1
Fy_f	0.0	**0.9**	-0.1	0.0	**0.9**	-0.1
Mz_f	0.0	0.9	**-0.1**	0.0	0.9	**-0.1**

Member 52

Fx_j	**0.0**	0.9	-0.1	**0.0**	0.9	-0.1
Fy_j	0.0	**0.9**	-0.1	0.0	**0.9**	-0.1
Mz_j	0.0	0.9	**-0.1**	0.0	0.9	**-0.1**
Fx_f	**0.0**	0.9	-0.2	**0.0**	0.9	-0.2
Fy_f	0.0	**0.9**	-0.2	0.0	**0.9**	-0.2
Mz_f	0.0	0.9	**-0.2**	0.0	0.9	**-0.2**

Member 53

Fx_j	**0.0**	0.9	-0.2	**0.0**	0.9	-0.2
Fy_j	0.0	**0.9**	-0.2	0.0	**0.9**	-0.2
Mz_j	0.0	0.9	**-0.2**	0.0	0.9	**-0.2**
Fx_f	**0.0**	1.0	-0.3	**0.0**	1.0	-0.3
Fy_f	0.0	**1.0**	-0.3	0.0	**1.0**	-0.3
Mz_f	0.0	1.0	**-0.3**	0.0	1.0	**-0.3**

Member 54

Fx_j	**0.0**	1.0	-0.3	**0.0**	1.0	-0.3
Fy_j	0.0	**1.0**	-0.3	0.0	**1.0**	-0.3
Mz_j	0.0	1.0	**-0.3**	0.0	1.0	**-0.3**
Fx_f	**0.0**	1.1	-0.4	**0.0**	1.1	-0.4
Fy_f	0.0	**1.1**	-0.4	0.0	**1.1**	-0.4
Mz_f	0.0	1.1	**-0.4**	0.0	1.1	**-0.4**

Member 55

Fx_j	**0.0**	1.1	-0.4	**0.0**	1.1	-0.4
Fy_j	0.0	**1.1**	-0.4	0.0	**1.1**	-0.4
Mz_j	0.0	1.1	**-0.4**	0.0	1.1	**-0.4**
Fx_f	**0.0**	1.2	-0.5	**0.0**	1.2	-0.5
Fy_f	0.0	**1.2**	-0.5	0.0	**1.2**	-0.5
Mz_f	0.0	1.2	**-0.5**	0.0	1.2	**-0.5**

Member 56

Fx_j	**0.0**	1.2	-0.5	**0.0**	1.2	-0.5
Fy_j	0.0	**1.2**	-0.5	0.0	**1.2**	-0.5
Mz_j	0.0	1.2	**-0.5**	0.0	1.2	**-0.5**
Fx_f	**0.0**	1.2	-0.6	**0.0**	1.2	-0.6
Fy_f	0.0	**1.2**	-0.6	0.0	**1.2**	-0.6
Mz_f	0.0	1.2	**-0.6**	0.0	1.2	**-0.6**

Member 57

Fx_j	**0.0**	1.2	-0.6	**0.0**	1.2	-0.6
Fy_j	0.0	**1.2**	-0.6	0.0	**1.2**	-0.6
Mz_j	0.0	1.2	**-0.6**	0.0	1.2	**-0.6**
Fx_f	**0.0**	1.3	-0.7	**0.0**	1.3	-0.7
Fy_f	0.0	**1.3**	-0.7	0.0	**1.3**	-0.7
Mz_f	0.0	1.3	**-0.7**	0.0	1.3	**-0.7**

Member 58

Fx_j	**0.0**	-1.8	-0.7	**0.0**	-1.8	-0.7
Fy_j	0.0	**-1.8**	-0.7	0.0	**-1.8**	-0.7
Mz_j	0.0	-1.8	**-0.7**	0.0	-1.8	**-0.7**
Fx_f	**0.0**	-1.5	-0.2	**0.0**	-1.5	-0.2
Fy_f	0.0	**-1.5**	-0.2	0.0	**-1.5**	-0.2
Mz_f	0.0	-1.5	**-0.2**	0.0	-1.5	**-0.2**

Member 59

Fx_j	**0.0**	-0.8	-0.2	**0.0**	-0.8	-0.2
Fy_j	0.0	**-0.8**	-0.2	0.0	**-0.8**	-0.2
Mz_j	0.0	-0.8	**-0.2**	0.0	-0.8	**-0.2**
Fx_f	**0.0**	-0.7	-0.1	**0.0**	-0.7	-0.1
Fy_f	0.0	**-0.7**	-0.1	0.0	**-0.7**	-0.1
Mz_f	0.0	-0.7	**-0.1**	0.0	-0.7	**-0.1**

Member 60

Fx_j	**0.0**	-0.7	-0.1	**0.0**	-0.7	-0.1
Fy_j	0.0	**-0.7**	-0.1	0.0	**-0.7**	-0.1
Mz_j	0.0	-0.7	**-0.1**	0.0	-0.7	**-0.1**
Fx_f	**0.0**	-0.6	-0.0	**0.0**	-0.6	-0.0
Fy_f	0.0	**-0.6**	-0.0	0.0	**-0.6**	-0.0
Mz_f	0.0	-0.6	**-0.0**	0.0	-0.6	**-0.0**

Member 61

Fx_j	**0.0**	-0.6	-0.0	**0.0**	-0.6	-0.0
Fy_j	0.0	**-0.6**	-0.0	0.0	**-0.6**	-0.0
Mz_j	0.0	-0.6	**-0.0**	0.0	-0.6	**-0.0**
Fx_f	**0.0**	-0.5	0.0	**0.0**	-0.5	0.0
Fy_f	0.0	**-0.5**	0.0	0.0	**-0.5**	0.0
Mz_f	0.0	-0.5	**0.0**	0.0	-0.5	**0.0**

Member 62

Fx_j	**0.0**	-0.5	0.0	**0.0**	-0.5	0.0
Fy_j	0.0	**-0.5**	0.0	0.0	**-0.5**	0.0
Mz_j	0.0	-0.5	**0.0**	0.0	-0.5	**0.0**
Fx_f	**0.0**	-0.5	0.1	**0.0**	-0.5	0.1
Fy_f	0.0	**-0.5**	0.1	0.0	**-0.5**	0.1
Mz_f	0.0	-0.5	**0.1**	0.0	-0.5	**0.1**

Member 63

Fx_j	**0.0**	-0.5	0.1	**0.0**	-0.5	0.1
Fy_j	0.0	**-0.5**	0.1	0.0	**-0.5**	0.1
Mz_j	0.0	-0.5	**0.1**	0.0	-0.5	**0.1**
Fx_f	**0.0**	-0.4	0.1	**0.0**	-0.4	0.1

Fy_f	0.0	**-0.4**	0.1	0.0	**-0.4**	0.1
Mz_f	0.0	-0.4	**0.1**	0.0	-0.4	**0.1**

Member 64

Fx_i	**0.0**	-0.4	0.1	**0.0**	-0.4	0.1
Fy_i	0.0	**-0.4**	0.1	0.0	**-0.4**	0.1
Mz_i	0.0	-0.4	**0.1**	0.0	-0.4	**0.1**
Fx_f	**0.0**	-0.3	0.1	**0.0**	-0.3	0.1
Fy_f	0.0	**-0.3**	0.1	0.0	**-0.3**	0.1
Mz_f	0.0	-0.3	**0.1**	0.0	-0.3	**0.1**

Member 65

Fx_i	**0.0**	-0.3	0.1	**0.0**	-0.3	0.1
Fy_i	0.0	**-0.3**	0.1	0.0	**-0.3**	0.1
Mz_i	0.0	-0.3	**0.1**	0.0	-0.3	**0.1**
Fx_f	**0.0**	-0.2	0.1	**0.0**	-0.2	0.1
Fy_f	0.0	**-0.2**	0.1	0.0	**-0.2**	0.1
Mz_f	0.0	-0.2	**0.1**	0.0	-0.2	**0.1**

Member 66

Fx_i	**0.0**	-0.2	0.1	**0.0**	-0.2	0.1
Fy_i	0.0	**-0.2**	0.1	0.0	**-0.2**	0.1
Mz_i	0.0	-0.2	**0.1**	0.0	-0.2	**0.1**
Fx_f	**0.0**	-0.2	0.2	**0.0**	-0.2	0.2
Fy_f	0.0	**-0.2**	0.2	0.0	**-0.2**	0.2
Mz_f	0.0	-0.2	**0.2**	0.0	-0.2	**0.2**

Member 67

Fx_i	**0.0**	-0.2	0.2	**0.0**	-0.2	0.2
Fy_i	0.0	**-0.2**	0.2	0.0	**-0.2**	0.2
Mz_i	0.0	-0.2	**0.2**	0.0	-0.2	**0.2**
Fx_f	**0.0**	-0.1	0.2	**0.0**	-0.1	0.2
Fy_f	0.0	**-0.1**	0.2	0.0	**-0.1**	0.2
Mz_f	0.0	-0.1	**0.2**	0.0	-0.1	**0.2**

Member 68

Fx_i	**0.0**	-0.1	0.2	**0.0**	-0.1	0.2
Fy_i	0.0	**-0.1**	0.2	0.0	**-0.1**	0.2
Mz_i	0.0	-0.1	**0.2**	0.0	-0.1	**0.2**
Fx_f	**0.0**	0.0	0.2	**0.0**	0.0	0.2
Fy_f	0.0	**0.0**	0.2	0.0	**0.0**	0.2
Mz_f	0.0	0.0	**0.2**	0.0	0.0	**0.2**

Member 69

Fx_i	**0.0**	0.0	0.2	**0.0**	0.0	0.2
Fy_i	0.0	**0.0**	0.2	0.0	**0.0**	0.2
Mz_i	0.0	0.0	**0.2**	0.0	0.0	**0.2**
Fx_f	**0.0**	0.1	0.2	**0.0**	0.1	0.2
Fy_f	0.0	**0.1**	0.2	0.0	**0.1**	0.2
Mz_f	0.0	0.1	**0.2**	0.0	0.1	**0.2**

Member 70

Fx_i	**0.0**	0.1	0.2	**0.0**	0.1	0.2
Fy_i	0.0	**0.1**	0.2	0.0	**0.1**	0.2
Mz_i	0.0	0.1	**0.2**	0.0	0.1	**0.2**
Fx_f	**0.0**	0.2	0.2	**0.0**	0.2	0.2
Fy_f	0.0	**0.2**	0.2	0.0	**0.2**	0.2
Mz_f	0.0	0.2	**0.2**	0.0	0.2	**0.2**

Member 71

Fx_i	**0.0**	0.2	0.2	**0.0**	0.2	0.2
Fy_i	0.0	**0.2**	0.2	0.0	**0.2**	0.2
Mz_i	0.0	0.2	**0.2**	0.0	0.2	**0.2**
Fx_f	**0.0**	0.2	0.1	**0.0**	0.2	0.1
Fy_f	0.0	0.2	**0.1**	0.0	0.2	**0.1**

Member 72

Fx_i	**0.0**	0.2	0.1	**0.0**	0.2	0.1
Fy_i	0.0	**0.2**	0.1	0.0	**0.2**	0.1
Mz_i	0.0	0.2	**0.1**	0.0	0.2	**0.1**
Fx_f	**0.0**	0.3	0.1	**0.0**	0.3	0.1
Fy_f	0.0	**0.3**	0.1	0.0	**0.3**	0.1
Mz_f	0.0	0.3	**0.1**	0.0	0.3	**0.1**

Member 73

Fx_i	**0.0**	0.3	0.1	**0.0**	0.3	0.1
Fy_i	0.0	**0.3**	0.1	0.0	**0.3**	0.1
Mz_i	0.0	0.3	**0.1**	0.0	0.3	**0.1**
Fx_f	**0.0**	0.4	0.1	**0.0**	0.4	0.1
Fy_f	0.0	**0.4**	0.1	0.0	**0.4**	0.1
Mz_f	0.0	0.4	**0.1**	0.0	0.4	**0.1**

Member 74

Fx_i	**0.0**	0.4	0.1	**0.0**	0.4	0.1
Fy_i	0.0	**0.4**	0.1	0.0	**0.4**	0.1
Mz_i	0.0	0.4	**0.1**	0.0	0.4	**0.1**
Fx_f	**0.0**	0.5	0.1	**0.0**	0.5	0.1
Fy_f	0.0	**0.5**	0.1	0.0	**0.5**	0.1
Mz_f	0.0	0.5	**0.1**	0.0	0.5	**0.1**

Member 75

Fx_i	**0.0**	0.5	0.1	**0.0**	0.5	0.1
Fy_i	0.0	**0.5**	0.1	0.0	**0.5**	0.1
Mz_i	0.0	0.5	**0.1**	0.0	0.5	**0.1**
Fx_f	**0.0**	0.5	0.0	**0.0**	0.5	0.0
Fy_f	0.0	**0.5**	0.0	0.0	**0.5**	0.0
Mz_f	0.0	0.5	**0.0**	0.0	0.5	**0.0**

Member 76

Fx_i	**0.0**	0.5	0.0	**0.0**	0.5	0.0
Fy_i	0.0	**0.5**	0.0	0.0	**0.5**	0.0
Mz_i	0.0	0.5	**0.0**	0.0	0.5	**0.0**
Fx_f	**0.0**	0.6	-0.0	**0.0**	0.6	-0.0
Fy_f	0.0	**0.6**	-0.0	0.0	**0.6**	-0.0
Mz_f	0.0	0.6	**-0.0**	0.0	0.6	**-0.0**

Member 77

Fx_i	**0.0**	0.6	-0.0	**0.0**	0.6	-0.0
Fy_i	0.0	**0.6**	-0.0	0.0	**0.6**	-0.0
Mz_i	0.0	0.6	**-0.0**	0.0	0.6	**-0.0**
Fx_f	**0.0**	0.7	-0.1	**0.0**	0.7	-0.1
Fy_f	0.0	**0.7**	-0.1	0.0	**0.7**	-0.1
Mz_f	0.0	0.7	**-0.1**	0.0	0.7	**-0.1**

Member 78

Fx_i	**0.0**	0.7	-0.1	**0.0**	0.7	-0.1
Fy_i	0.0	**0.7**	-0.1	0.0	**0.7**	-0.1
Mz_i	0.0	0.7	**-0.1**	0.0	0.7	**-0.1**
Fx_f	**0.0**	0.8	-0.2	**0.0**	0.8	-0.2
Fy_f	0.0	**0.8**	-0.2	0.0	**0.8**	-0.2
Mz_f	0.0	0.8	**-0.2**	0.0	0.8	**-0.2**

Member 79

Fx_i	**0.0**	1.5	-0.2	**0.0**	1.5	-0.2
Fy_i	0.0	**1.5**	-0.2	0.0	**1.5**	-0.2
Mz_i	0.0	1.5	**-0.2**	0.0	1.5	**-0.2**
Fx_f	**0.0**	1.8	-0.7	**0.0**	1.8	-0.7

Fy_f	0.0	**1.8**	-0.7	0.0	**1.8**	-0.7
Mz_f	0.0	1.8	**-0.7**	0.0	1.8	**-0.7**

Member 80

Fx_i	**0.0**	-1.3	-0.7	**0.0**	-1.3	-0.7
Fy_i	0.0	**-1.3**	-0.7	0.0	**-1.3**	-0.7
Mz_i	0.0	-1.3	**-0.7**	0.0	-1.3	**-0.7**
Fx_f	**0.0**	-1.2	-0.6	**0.0**	-1.2	-0.6
Fy_f	0.0	**-1.2**	-0.6	0.0	**-1.2**	-0.6
Mz_f	0.0	-1.2	**-0.6**	0.0	-1.2	**-0.6**

Member 81

Fx_i	**0.0**	-1.2	-0.6	**0.0**	-1.2	-0.6
Fy_i	0.0	**-1.2**	-0.6	0.0	**-1.2**	-0.6
Mz_i	0.0	-1.2	**-0.6**	0.0	-1.2	**-0.6**
Fx_f	**0.0**	-1.2	-0.5	**0.0**	-1.2	-0.5
Fy_f	0.0	**-1.2**	-0.5	0.0	**-1.2**	-0.5
Mz_f	0.0	-1.2	**-0.5**	0.0	-1.2	**-0.5**

Member 82

Fx_i	**0.0**	-1.2	-0.5	**0.0**	-1.2	-0.5
Fy_i	0.0	**-1.2**	-0.5	0.0	**-1.2**	-0.5
Mz_i	0.0	-1.2	**-0.5**	0.0	-1.2	**-0.5**
Fx_f	**0.0**	-1.1	-0.4	**0.0**	-1.1	-0.4
Fy_f	0.0	**-1.1**	-0.4	0.0	**-1.1**	-0.4
Mz_f	0.0	-1.1	**-0.4**	0.0	-1.1	**-0.4**

Member 83

Fx_i	**0.0**	-1.1	-0.4	**0.0**	-1.1	-0.4
Fy_i	0.0	**-1.1**	-0.4	0.0	**-1.1**	-0.4
Mz_i	0.0	-1.1	**-0.4**	0.0	-1.1	**-0.4**
Fx_f	**0.0**	-1.0	-0.3	**0.0**	-1.0	-0.3
Fy_f	0.0	**-1.0**	-0.3	0.0	**-1.0**	-0.3
Mz_f	0.0	-1.0	**-0.3**	0.0	-1.0	**-0.3**

Member 84

Fx_i	**0.0**	-1.0	-0.3	**0.0**	-1.0	-0.3
Fy_i	0.0	**-1.0**	-0.3	0.0	**-1.0**	-0.3
Mz_i	0.0	-1.0	**-0.3**	0.0	-1.0	**-0.3**
Fx_f	**0.0**	-0.9	-0.2	**0.0**	-0.9	-0.2
Fy_f	0.0	**-0.9**	-0.2	0.0	**-0.9**	-0.2
Mz_f	0.0	-0.9	**-0.2**	0.0	-0.9	**-0.2**

Member 85

Fx_i	**0.0**	-0.9	-0.2	**0.0**	-0.9	-0.2
Fy_i	0.0	**-0.9**	-0.2	0.0	**-0.9**	-0.2
Mz_i	0.0	-0.9	**-0.2**	0.0	-0.9	**-0.2**
Fx_f	**0.0**	-0.9	-0.1	**0.0**	-0.9	-0.1
Fy_f	0.0	**-0.9**	-0.1	0.0	**-0.9**	-0.1
Mz_f	0.0	-0.9	**-0.1**	0.0	-0.9	**-0.1**

Member 86

Fx_i	**0.0**	-0.9	-0.1	**0.0**	-0.9	-0.1
Fy_i	0.0	**-0.9**	-0.1	0.0	**-0.9**	-0.1
Mz_i	0.0	-0.9	**-0.1**	0.0	-0.9	**-0.1**
Fx_f	**0.0**	-0.8	0.0	**0.0**	-0.8	0.0
Fy_f	0.0	**-0.8**	0.0	0.0	**-0.8**	0.0
Mz_f	0.0	-0.8	**0.0**	0.0	-0.8	**0.0**

Member 87

Fx_i	**0.0**	-0.8	0.0	**0.0**	-0.8	0.0
Fy_i	0.0	**-0.8**	0.0	0.0	**-0.8**	0.0
Mz_i	0.0	-0.8	**0.0**	0.0	-0.8	**0.0**
Fx_f	**0.0**	-0.7	0.1	**0.0**	-0.7	0.1
Fy_f	0.0	-0.7	**0.1**	0.0	-0.7	**0.1**
Mz_f	0.0	-0.7	**0.1**	0.0	-0.7	**0.1**

Member 88

Fx_i	**0.0**	-0.7	0.1	**0.0**	-0.7	0.1
Fy_i	0.0	**-0.7**	0.1	0.0	**-0.7**	0.1
Mz_i	0.0	-0.7	**0.1**	0.0	-0.7	**0.1**
Fx_f	**0.0**	-0.6	0.1	**0.0**	-0.6	0.1
Fy_f	0.0	**-0.6**	0.1	0.0	**-0.6**	0.1
Mz_f	0.0	-0.6	**0.1**	0.0	-0.6	**0.1**

Member 89

Fx_i	**0.0**	-0.6	0.1	**0.0**	-0.6	0.1
Fy_i	0.0	**-0.6**	0.1	0.0	**-0.6**	0.1
Mz_i	0.0	-0.6	**0.1**	0.0	-0.6	**0.1**
Fx_f	**0.0**	-0.6	0.2	**0.0**	-0.6	0.2
Fy_f	0.0	**-0.6**	0.2	0.0	**-0.6**	0.2
Mz_f	0.0	-0.6	**0.2**	0.0	-0.6	**0.2**

Member 90

Fx_i	**0.0**	-0.6	0.2	**0.0**	-0.6	0.2
Fy_i	0.0	**-0.6**	0.2	0.0	**-0.6**	0.2
Mz_i	0.0	-0.6	**0.2**	0.0	-0.6	**0.2**
Fx_f	**0.0**	-0.5	0.3	**0.0**	-0.5	0.3
Fy_f	0.0	**-0.5**	0.3	0.0	**-0.5**	0.3
Mz_f	0.0	-0.5	**0.3**	0.0	-0.5	**0.3**

Member 91

Fx_i	**0.0**	-0.5	0.3	**0.0**	-0.5	0.3
Fy_i	0.0	**-0.5**	0.3	0.0	**-0.5**	0.3
Mz_i	0.0	-0.5	**0.3**	0.0	-0.5	**0.3**
Fx_f	**0.0**	-0.4	0.3	**0.0**	-0.4	0.3
Fy_f	0.0	**-0.4**	0.3	0.0	**-0.4**	0.3
Mz_f	0.0	-0.4	**0.3**	0.0	-0.4	**0.3**

Member 92

Fx_i	**0.0**	-0.4	0.3	**0.0**	-0.4	0.3
Fy_i	0.0	**-0.4**	0.3	0.0	**-0.4**	0.3
Mz_i	0.0	-0.4	**0.3**	0.0	-0.4	**0.3**
Fx_f	**0.0**	-0.4	0.3	**0.0**	-0.4	0.3
Fy_f	0.0	**-0.4**	0.3	0.0	**-0.4**	0.3
Mz_f	0.0	-0.4	**0.3**	0.0	-0.4	**0.3**

Member 93

Fx_i	**0.0**	-0.4	0.3	**0.0**	-0.4	0.3
Fy_i	0.0	**-0.4**	0.3	0.0	**-0.4**	0.3
Mz_i	0.0	-0.4	**0.3**	0.0	-0.4	**0.3**
Fx_f	**0.0**	-0.3	0.4	**0.0**	-0.3	0.4
Fy_f	0.0	**-0.3**	0.4	0.0	**-0.3**	0.4
Mz_f	0.0	-0.3	**0.4**	0.0	-0.3	**0.4**

Member 94

Fx_i	**0.0**	-0.3	0.4	**0.0**	-0.3	0.4
Fy_i	0.0	**-0.3**	0.4	0.0	**-0.3**	0.4
Mz_i	0.0	-0.3	**0.4**	0.0	-0.3	**0.4**
Fx_f	**0.0**	-0.2	0.4	**0.0**	-0.2	0.4
Fy_f	0.0	**-0.2**	0.4	0.0	**-0.2**	0.4
Mz_f	0.0	-0.2	**0.4**	0.0	-0.2	**0.4**

Member 95

Fx_i	**0.0**	-0.2	0.4	**0.0**	-0.2	0.4
Fy_i	0.0	**-0.2**	0.4	0.0	**-0.2**	0.4
Mz_i	0.0	-0.2	**0.4**	0.0	-0.2	**0.4**
Fx_f	**0.0**	-0.1	0.4	**0.0**	-0.1	0.4

Fy_f	0.0	-0.1	0.4	0.0	-0.1	0.4
Mz_f	0.0	-0.1	0.4	0.0	-0.1	0.4

Member 96

Fx_i	0.0	-0.1	0.4	0.0	-0.1	0.4
Fy_i	0.0	-0.1	0.4	0.0	-0.1	0.4
Mz_i	0.0	-0.1	0.4	0.0	-0.1	0.4
Fx_f	0.0	-0.1	0.4	0.0	-0.1	0.4
Fy_f	0.0	-0.1	0.4	0.0	-0.1	0.4
Mz_f	0.0	-0.1	0.4	0.0	-0.1	0.4

Member 97

Fx_i	0.0	-0.1	0.4	0.0	-0.1	0.4
Fy_i	0.0	-0.1	0.4	0.0	-0.1	0.4
Mz_i	0.0	-0.1	0.4	0.0	-0.1	0.4
Fx_f	0.0	-0.0	0.4	0.0	-0.0	0.4
Fy_f	0.0	-0.0	0.4	0.0	-0.0	0.4
Mz_f	0.0	-0.0	0.4	0.0	-0.0	0.4

Member 98

Fx_i	0.0	-0.0	0.4	0.0	-0.0	0.4
Fy_i	0.0	-0.0	0.4	0.0	-0.0	0.4
Mz_i	0.0	-0.0	0.4	0.0	-0.0	0.4
Fx_f	0.0	0.1	0.4	0.0	0.1	0.4
Fy_f	0.0	0.1	0.4	0.0	0.1	0.4
Mz_f	0.0	0.1	0.4	0.0	0.1	0.4

Member 99

Fx_i	0.0	0.1	0.4	0.0	0.1	0.4
Fy_i	0.0	0.1	0.4	0.0	0.1	0.4
Mz_i	0.0	0.1	0.4	0.0	0.1	0.4
Fx_f	0.0	0.1	0.4	0.0	0.1	0.4
Fy_f	0.0	0.1	0.4	0.0	0.1	0.4
Mz_f	0.0	0.1	0.4	0.0	0.1	0.4

Member 100

Fx_i	0.0	0.1	0.4	0.0	0.1	0.4
Fy_i	0.0	0.1	0.4	0.0	0.1	0.4
Mz_i	0.0	0.1	0.4	0.0	0.1	0.4
Fx_f	0.0	0.2	0.4	0.0	0.2	0.4
Fy_f	0.0	0.2	0.4	0.0	0.2	0.4
Mz_f	0.0	0.2	0.4	0.0	0.2	0.4

Member 101

Fx_i	0.0	0.2	0.4	0.0	0.2	0.4
Fy_i	0.0	0.2	0.4	0.0	0.2	0.4
Mz_i	0.0	0.2	0.4	0.0	0.2	0.4
Fx_f	0.0	0.3	0.4	0.0	0.3	0.4
Fy_f	0.0	0.3	0.4	0.0	0.3	0.4
Mz_f	0.0	0.3	0.4	0.0	0.3	0.4

Member 102

Fx_i	0.0	0.3	0.4	0.0	0.3	0.4
Fy_i	0.0	0.3	0.4	0.0	0.3	0.4
Mz_i	0.0	0.3	0.4	0.0	0.3	0.4
Fx_f	0.0	0.3	0.3	0.0	0.3	0.3
Fy_f	0.0	0.3	0.3	0.0	0.3	0.3
Mz_f	0.0	0.3	0.3	0.0	0.3	0.3

Member 103

Fx_i	0.0	0.3	0.3	0.0	0.3	0.3
Fy_i	0.0	0.3	0.3	0.0	0.3	0.3
Mz_i	0.0	0.3	0.3	0.0	0.3	0.3
Fx_f	0.0	0.4	0.3	0.0	0.4	0.3
Fy_f	0.0	0.4	0.3	0.0	0.4	0.3
Mz_f	0.0	0.4	0.3	0.0	0.4	0.3

Member 104

Fx_i	0.0	0.4	0.3	0.0	0.4	0.3
Fy_i	0.0	0.4	0.3	0.0	0.4	0.3
Mz_i	0.0	0.4	0.3	0.0	0.4	0.3
Fx_f	0.0	0.5	0.3	0.0	0.5	0.3
Fy_f	0.0	0.5	0.3	0.0	0.5	0.3
Mz_f	0.0	0.5	0.3	0.0	0.5	0.3

Member 105

Fx_i	0.0	0.5	0.3	0.0	0.5	0.3
Fy_i	0.0	0.5	0.3	0.0	0.5	0.3
Mz_i	0.0	0.5	0.3	0.0	0.5	0.3
Fx_f	0.0	0.5	0.2	0.0	0.5	0.2
Fy_f	0.0	0.5	0.2	0.0	0.5	0.2
Mz_f	0.0	0.5	0.2	0.0	0.5	0.2

Member 106

Fx_i	0.0	0.5	0.2	0.0	0.5	0.2
Fy_i	0.0	0.5	0.2	0.0	0.5	0.2
Mz_i	0.0	0.5	0.2	0.0	0.5	0.2
Fx_f	0.0	0.6	0.2	0.0	0.6	0.2
Fy_f	0.0	0.6	0.2	0.0	0.6	0.2
Mz_f	0.0	0.6	0.2	0.0	0.6	0.2

Member 107

Fx_i	0.0	0.6	0.2	0.0	0.6	0.2
Fy_i	0.0	0.6	0.2	0.0	0.6	0.2
Mz_i	0.0	0.6	0.2	0.0	0.6	0.2
Fx_f	0.0	0.7	0.1	0.0	0.7	0.1
Fy_f	0.0	0.7	0.1	0.0	0.7	0.1
Mz_f	0.0	0.7	0.1	0.0	0.7	0.1

Member 108

Fx_i	0.0	0.7	0.1	0.0	0.7	0.1
Fy_i	0.0	0.7	0.1	0.0	0.7	0.1
Mz_i	0.0	0.7	0.1	0.0	0.7	0.1
Fx_f	0.0	0.7	0.0	0.0	0.7	0.0
Fy_f	0.0	0.7	0.0	0.0	0.7	0.0
Mz_f	0.0	0.7	0.0	0.0	0.7	0.0

Member 109

Fx_i	0.0	0.7	0.0	0.0	0.7	0.0
Fy_i	0.0	0.7	0.0	0.0	0.7	0.0
Mz_i	0.0	0.7	0.0	0.0	0.7	0.0
Fx_f	0.0	0.8	-0.0	0.0	0.8	-0.0
Fy_f	0.0	0.8	-0.0	0.0	0.8	-0.0
Mz_f	0.0	0.8	-0.0	0.0	0.8	-0.0

Member 110

Fx_i	0.0	0.8	-0.0	0.0	0.8	-0.0
Fy_i	0.0	0.8	-0.0	0.0	0.8	-0.0
Mz_i	0.0	0.8	-0.0	0.0	0.8	-0.0
Fx_f	0.0	0.9	-0.1	0.0	0.9	-0.1
Fy_f	0.0	0.9	-0.1	0.0	0.9	-0.1
Mz_f	0.0	0.9	-0.1	0.0	0.9	-0.1

Member 111

Fx_i	0.0	0.9	-0.1	0.0	0.9	-0.1
Fy_i	0.0	0.9	-0.1	0.0	0.9	-0.1
Mz_i	0.0	0.9	-0.1	0.0	0.9	-0.1
Fx_f	0.0	0.9	-0.2	0.0	0.9	-0.2

Fy_f	0.0	**0.9**	-0.2	0.0	**0.9**	-0.2
Mz_f	0.0	0.9	**-0.2**	0.0	0.9	**-0.2**

Member 112

Fx_i	**0.0**	0.9	-0.2	**0.0**	0.9	-0.2
Fy_i	0.0	**0.9**	-0.2	0.0	**0.9**	-0.2
Mz_i	0.0	0.9	**-0.2**	0.0	0.9	**-0.2**
Fx_f	**0.0**	1.0	-0.3	**0.0**	1.0	-0.3
Fy_f	0.0	**1.0**	-0.3	0.0	**1.0**	-0.3
Mz_f	0.0	1.0	**-0.3**	0.0	1.0	**-0.3**

Member 113

Fx_i	**0.0**	1.0	-0.3	**0.0**	1.0	-0.3
Fy_i	0.0	**1.0**	-0.3	0.0	**1.0**	-0.3
Mz_i	0.0	1.0	**-0.3**	0.0	1.0	**-0.3**
Fx_f	**0.0**	1.0	-0.4	**0.0**	1.0	-0.4
Fy_f	0.0	**1.0**	-0.4	0.0	**1.0**	-0.4
Mz_f	0.0	1.0	**-0.4**	0.0	1.0	**-0.4**

Member 114

Fx_i	**0.0**	1.0	-0.4	**0.0**	1.0	-0.4
Fy_i	0.0	**1.0**	-0.4	0.0	**1.0**	-0.4
Mz_i	0.0	1.0	**-0.4**	0.0	1.0	**-0.4**
Fx_f	**0.0**	1.1	-0.5	**0.0**	1.1	-0.5
Fy_f	0.0	**1.1**	-0.5	0.0	**1.1**	-0.5
Mz_f	0.0	1.1	**-0.5**	0.0	1.1	**-0.5**

Member 115

Fx_i	**0.0**	1.1	-0.5	**0.0**	1.1	-0.5
Fy_i	0.0	**1.1**	-0.5	0.0	**1.1**	-0.5
Mz_i	0.0	1.1	**-0.5**	0.0	1.1	**-0.5**
Fx_f	**0.0**	1.2	-0.6	**0.0**	1.2	-0.6
Fy_f	0.0	**1.2**	-0.6	0.0	**1.2**	-0.6
Mz_f	0.0	1.2	**-0.6**	0.0	1.2	**-0.6**

Member 116

Fx_i	**0.0**	0.9	-0.6	**0.0**	0.9	-0.6
Fy_i	0.0	**0.9**	-0.6	0.0	**0.9**	-0.6
Mz_i	0.0	0.9	**-0.6**	0.0	0.9	**-0.6**
Fx_f	**0.0**	1.1	-1.0	**0.0**	1.1	-1.0
Fy_f	0.0	**1.1**	-1.0	0.0	**1.1**	-1.0
Mz_f	0.0	1.1	**-1.0**	0.0	1.1	**-1.0**

Member 117

Fx_i	**0.0**	-1.0	-1.0	**0.0**	-1.0	-1.0
Fy_i	0.0	**-1.0**	-1.0	0.0	**-1.0**	-1.0
Mz_i	0.0	-1.0	**-1.0**	0.0	-1.0	**-1.0**
Fx_f	**0.0**	-1.0	-0.9	**0.0**	-1.0	-0.9
Fy_f	0.0	**-1.0**	-0.9	0.0	**-1.0**	-0.9
Mz_f	0.0	-1.0	**-0.9**	0.0	-1.0	**-0.9**

Member 118

Fx_i	**0.0**	-1.0	-0.9	**0.0**	-1.0	-0.9
Fy_i	0.0	**-1.0**	-0.9	0.0	**-1.0**	-0.9
Mz_i	0.0	-1.0	**-0.9**	0.0	-1.0	**-0.9**
Fx_f	**0.0**	-0.9	-0.8	**0.0**	-0.9	-0.8
Fy_f	0.0	**-0.9**	-0.8	0.0	**-0.9**	-0.8
Mz_f	0.0	-0.9	**-0.8**	0.0	-0.9	**-0.8**

Member 119

Fx_i	**0.0**	-0.9	-0.8	**0.0**	-0.9	-0.8
Fy_i	0.0	**-0.9**	-0.8	0.0	**-0.9**	-0.8
Mz_i	0.0	-0.9	**-0.8**	0.0	-0.9	**-0.8**
Fx_f	**0.0**	-0.9	-0.7	**0.0**	-0.9	-0.7
Fy_f	0.0	**-0.9**	-0.7	0.0	**-0.9**	-0.7
Mz_f	0.0	-0.9	**-0.7**	0.0	-0.9	**-0.7**

Member 120

Fx_i	**0.0**	-0.9	-0.7	**0.0**	-0.9	-0.7
Fy_i	0.0	**-0.9**	-0.7	0.0	**-0.9**	-0.7
Mz_i	0.0	-0.9	**-0.7**	0.0	-0.9	**-0.7**
Fx_f	**0.0**	-0.8	-0.6	**0.0**	-0.8	-0.6
Fy_f	0.0	**-0.8**	-0.6	0.0	**-0.8**	-0.6
Mz_f	0.0	-0.8	**-0.6**	0.0	-0.8	**-0.6**

Member 121

Fx_i	**0.0**	-0.8	-0.6	**0.0**	-0.8	-0.6
Fy_i	0.0	**-0.8**	-0.6	0.0	**-0.8**	-0.6
Mz_i	0.0	-0.8	**-0.6**	0.0	-0.8	**-0.6**
Fx_f	**0.0**	-0.8	-0.5	**0.0**	-0.8	-0.5
Fy_f	0.0	**-0.8**	-0.5	0.0	**-0.8**	-0.5
Mz_f	0.0	-0.8	**-0.5**	0.0	-0.8	**-0.5**

Member 122

Fx_i	**0.0**	-0.8	-0.5	**0.0**	-0.8	-0.5
Fy_i	0.0	**-0.8**	-0.5	0.0	**-0.8**	-0.5
Mz_i	0.0	-0.8	**-0.5**	0.0	-0.8	**-0.5**
Fx_f	**0.0**	-0.7	-0.5	**0.0**	-0.7	-0.5
Fy_f	0.0	**-0.7**	-0.5	0.0	**-0.7**	-0.5
Mz_f	0.0	-0.7	**-0.5**	0.0	-0.7	**-0.5**

Member 123

Fx_i	**0.0**	-0.7	-0.5	**0.0**	-0.7	-0.5
Fy_i	0.0	**-0.7**	-0.5	0.0	**-0.7**	-0.5
Mz_i	0.0	-0.7	**-0.5**	0.0	-0.7	**-0.5**
Fx_f	**0.0**	-0.7	-0.4	**0.0**	-0.7	-0.4
Fy_f	0.0	**-0.7**	-0.4	0.0	**-0.7**	-0.4
Mz_f	0.0	-0.7	**-0.4**	0.0	-0.7	**-0.4**

Member 124

Fx_i	**0.0**	-0.7	-0.4	**0.0**	-0.7	-0.4
Fy_i	0.0	**-0.7**	-0.4	0.0	**-0.7**	-0.4
Mz_i	0.0	-0.7	**-0.4**	0.0	-0.7	**-0.4**
Fx_f	**0.0**	-0.6	-0.3	**0.0**	-0.6	-0.3
Fy_f	0.0	**-0.6**	-0.3	0.0	**-0.6**	-0.3
Mz_f	0.0	-0.6	**-0.3**	0.0	-0.6	**-0.3**

Member 125

Fx_i	**0.0**	-0.6	-0.3	**0.0**	-0.6	-0.3
Fy_i	0.0	**-0.6**	-0.3	0.0	**-0.6**	-0.3
Mz_i	0.0	-0.6	**-0.3**	0.0	-0.6	**-0.3**
Fx_f	**0.0**	-0.6	-0.3	**0.0**	-0.6	-0.3
Fy_f	0.0	**-0.6**	-0.3	0.0	**-0.6**	-0.3
Mz_f	0.0	-0.6	**-0.3**	0.0	-0.6	**-0.3**

Member 126

Fx_i	**0.0**	-0.6	-0.3	**0.0**	-0.6	-0.3
Fy_i	0.0	**-0.6**	-0.3	0.0	**-0.6**	-0.3
Mz_i	0.0	-0.6	**-0.3**	0.0	-0.6	**-0.3**
Fx_f	**0.0**	-0.5	-0.2	**0.0**	-0.5	-0.2
Fy_f	0.0	**-0.5**	-0.2	0.0	**-0.5**	-0.2
Mz_f	0.0	-0.5	**-0.2**	0.0	-0.5	**-0.2**

Member 127

Fx_i	**0.0**	-0.5	-0.2	**0.0**	-0.5	-0.2
Fy_i	0.0	**-0.5**	-0.2	0.0	**-0.5**	-0.2
Mz_i	0.0	-0.5	**-0.2**	0.0	-0.5	**-0.2**
Fx_f	**0.0**	-0.4	-0.2	**0.0**	-0.4	-0.2

Fy_f	0.0	**-0.4**	-0.2	0.0	**-0.4**	-0.2
Mz_f	0.0	-0.4	**-0.2**	0.0	-0.4	**-0.2**

Member 128

Fx_i	**0.0**	-0.4	-0.2	**0.0**	-0.4	-0.2
Fy_i	0.0	**-0.4**	-0.2	0.0	**-0.4**	-0.2
Mz_i	0.0	-0.4	**-0.2**	0.0	-0.4	**-0.2**
Fx_f	**0.0**	-0.4	-0.1	**0.0**	-0.4	-0.1
Fy_f	0.0	**-0.4**	-0.1	0.0	**-0.4**	-0.1
Mz_f	0.0	-0.4	**-0.1**	0.0	-0.4	**-0.1**

Member 129

Fx_i	**0.0**	-0.4	-0.1	**0.0**	-0.4	-0.1
Fy_i	0.0	**-0.4**	-0.1	0.0	**-0.4**	-0.1
Mz_i	0.0	-0.4	**-0.1**	0.0	-0.4	**-0.1**
Fx_f	**0.0**	-0.3	-0.1	**0.0**	-0.3	-0.1
Fy_f	0.0	**-0.3**	-0.1	0.0	**-0.3**	-0.1
Mz_f	0.0	-0.3	**-0.1**	0.0	-0.3	**-0.1**

Member 130

Fx_i	**0.0**	-0.3	-0.1	**0.0**	-0.3	-0.1
Fy_i	0.0	**-0.3**	-0.1	0.0	**-0.3**	-0.1
Mz_i	0.0	-0.3	**-0.1**	0.0	-0.3	**-0.1**
Fx_f	**0.0**	-0.3	-0.1	**0.0**	-0.3	-0.1
Fy_f	0.0	**-0.3**	-0.1	0.0	**-0.3**	-0.1
Mz_f	0.0	-0.3	**-0.1**	0.0	-0.3	**-0.1**

Member 131

Fx_i	**0.0**	-0.3	-0.1	**0.0**	-0.3	-0.1
Fy_i	0.0	**-0.3**	-0.1	0.0	**-0.3**	-0.1
Mz_i	0.0	-0.3	**-0.1**	0.0	-0.3	**-0.1**
Fx_f	**0.0**	-0.2	-0.1	**0.0**	-0.2	-0.1
Fy_f	0.0	**-0.2**	-0.1	0.0	**-0.2**	-0.1
Mz_f	0.0	-0.2	**-0.1**	0.0	-0.2	**-0.1**

Member 132

Fx_i	**0.0**	-0.2	-0.1	**0.0**	-0.2	-0.1
Fy_i	0.0	**-0.2**	-0.1	0.0	**-0.2**	-0.1
Mz_i	0.0	-0.2	**-0.1**	0.0	-0.2	**-0.1**
Fx_f	**0.0**	-0.2	-0.0	**0.0**	-0.2	-0.0
Fy_f	0.0	**-0.2**	-0.0	0.0	**-0.2**	-0.0
Mz_f	0.0	-0.2	**-0.0**	0.0	-0.2	**-0.0**

Member 133

Fx_i	**0.0**	-0.2	-0.0	**0.0**	-0.2	-0.0
Fy_i	0.0	**-0.2**	-0.0	0.0	**-0.2**	-0.0
Mz_i	0.0	-0.2	**-0.0**	0.0	-0.2	**-0.0**
Fx_f	**0.0**	-0.1	-0.0	**0.0**	-0.1	-0.0
Fy_f	0.0	**-0.1**	-0.0	0.0	**-0.1**	-0.0
Mz_f	0.0	-0.1	**-0.0**	0.0	-0.1	**-0.0**

Member 134

Fx_i	**0.0**	-0.1	-0.0	**0.0**	-0.1	-0.0
Fy_i	0.0	**-0.1**	-0.0	0.0	**-0.1**	-0.0
Mz_i	0.0	-0.1	**-0.0**	0.0	-0.1	**-0.0**
Fx_f	**0.0**	-0.1	-0.0	**0.0**	-0.1	-0.0
Fy_f	0.0	**-0.1**	-0.0	0.0	**-0.1**	-0.0
Mz_f	0.0	-0.1	**-0.0**	0.0	-0.1	**-0.0**

Member 135

Fx_i	**0.0**	-0.1	-0.0	**0.0**	-0.1	-0.0
Fy_i	0.0	**-0.1**	-0.0	0.0	**-0.1**	-0.0
Mz_i	0.0	-0.1	**-0.0**	0.0	-0.1	**-0.0**
Fx_f	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_f	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_f	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**

Member 136

Fx_i	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_i	0.0	**-0.0**	-0.0	0.0	**-0.0**	-0.0
Mz_i	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**
Fx_f	**0.0**	-0.0	-0.0	**0.0**	-0.0	-0.0
Fy_f	0.0	-0.0	-0.0	0.0	**-0.0**	-0.0
Mz_f	0.0	-0.0	**-0.0**	0.0	-0.0	**-0.0**

*** Fin del listado ***

SUBANEJO Nº 20

LOSA DEL TABLERO: ANÁLISIS DE TORSIÓN; ESFUERZOS GLOBALES; ANÁLISIS EN CONSTRUCCIÓN

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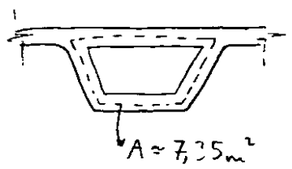
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HOJA 1 DE

ARMADURA DE TORSIÓN

* Torsión:

Rasante debida a torsión: $R_T = T_d / 2A$



$T_{d\,máx} = 448\,mT$ (elemento 31)

$R_T = 30,5\ T/m$; $A_T = 30,5\ T/m / 4,2\ T/cm^2 = 7,3\ cm^2/m$ para $T_{d\,máx}$.

Armadura longitudinal

Esta cuantía A_T es necesaria sólo en apoyos, donde T_d es máximo. Pero en esa sección se puede contar con parte de la armadura principal #75, pues la torsión máxima no es concomitante con la máxima flexión. Por otra parte, dicha armadura principal está condicionada por el estado límite último de servicio, por lo que para el estado límite último (en el que está incluida la cuantía A_T), habrá armadura sobrante (y por tanto, disponible para torsión), incluso en las secciones de máxima flexión longitudinal.

En los centros de vano, T_d es mucho menor y la cuantía necesaria es mínima, siendo más que suficiente la armadura base de $8\phi 12/m$ ($= 9\ cm^2 > A_T$).

Armadura transversal

Ver control de armadura de flexión

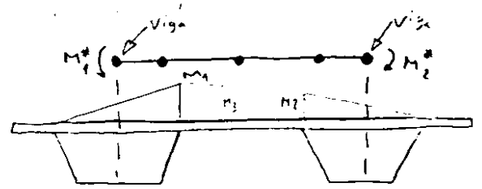
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HOJA 1 DE 2

LOSA - ESFUERZOS "GLOBALES"

- Obtención de los momentos reales en elementos transversales de losa, a partir de los momentos ficticios obtenidos en el análisis global.



$a = 2,5$
$b = 3,5$
$\Big\} \alpha = \frac{a}{2a+b} = 0,29$

$M_1 = (1-\alpha) M_1^* + \alpha M_2^*$

$M_2 = \alpha M_1^* + (1-\alpha) M_2^*$

$M_3 = (M_1 + M_2)/2$

Con $\alpha = 0,29$:

$M_1 = 0,71\, M_1^* + 0,29\, M_2^*$

$M_2 = 0,29\, M_1^* + 0,71\, M_2^*$

$M_3 = (M_1^* + M_2^*)/2$

-Momentos máximos:

Elemento 141: $M_{Zd}^-(i) = -96,7\,mT$; $M_{Zd}^+(i) = 119,7\,mT$.

Se considera que el momento del máximo $M_{Zd}^-(i)$ en el eje de simetría respecto al eje del puente (elemento 1=1) es igual a $M_{Zd}^-(i)$; es decir: $M_1^* = -96,7\,mT$; $M_2^* = 119,7\,mT$

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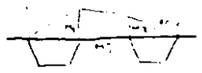
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Resulta:

$M_{1_d} = -33,9\ m\cdot T$; $M_{2_d} = 56,9\ m\cdot T$.

Los momentos por metro son ($L = 4,5\ m$)

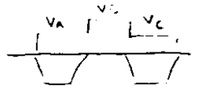
$M_{1_d} = -7,5\ m\cdot T/m$; $M_{2_d} = 12,6\ m\cdot T/m$



$M_{2d} = (M_{1d} + M_{1d})/2 = 2,6\ m\cdot T/m$

$M_{Cd} = M_{21}/2 = 6,3\ m\cdot T/m$

Cortantes:



$V_{A_d} = M_1/2a = 1,5\ T/m$

$V_{B_d} = (M_1 - M_2)/b = 5,7\ T/m$

$V_{C_d} = M_2/2a = 2,5\ T/m$

*** PROGRAMA BARRA[MARCOS] ***
Version Noviembre 88

Proyecto:
VIADUCTO DE LOS CHORROS

Comentario:
LOSA EN CONSTRUCCION

Material Base Homogeneizacion:
El (Tn/m2) : 3300000.00

DATOS DE LOS NUDOS

			Movimientos Impuestos		
Nudo	Xi(m.)	Yi(m.)	Peso(Tn)	Ux	Vy	øz
1	0.00	0.00				
2	2.00	0.00				
3	6.00	0.00				

VINCULACIONES NUDOS

Nudo	Coaccion-Ux	Coaccion-Vy	Coaccion-øz
2	******	******	
3		******	

DATOS DE SECCIONES TIPO

No	Area(m2)	M.Iner.(m4)	S.Cort.(m2)	Peso(T/ml)
1	.300000	.002200		

DATOS DE LOS ELEMENTOS

Num	Nd-i	Nd-d	Sti	Std	Vin	Var	Vp	Long(m)	Alf(sx)
1	1	2	1	1	0.0	0.0	0.0	2.000	0.00
2	2	3	1	1	0.0	0.0	0.0	4.000	0.00

Nota: En Elementos Curvos [Long] y [Alf] corresponden a la Cuerda

DATOS DE LOS ESTADOS DE CARGA

ESTADO DE CARGA 1 :

Titulo:
PESO LOSA
Tipo: [1]Cargas Exteriores/Movimientos Apoyo

ACCIONES EN ELEMENTOS (m.;Tn;qsex.) :

Nel	aj	Parametros de Carga:		
1	1	.500	.620	(Carga Repartida)
2	1	.620	.850	(Carga Repartida)

*** BARRA (RESULTADOS) ***

Proyecto:
VIADUCTO DE LOS CHORROS

Comentario:
LOSA EN CONSTRUCCION

Estado de Carga 1:
PESO LOSA

** MOVIMIENTOS NUDOS (Ejes Generales) **

Nudo	Ux (m.)	Vy (m.)	øz (rad.)
1	0.000000	-.000009	.000029
2	0.000000	0.000000	-.000069
3	0.000000	0.000000	.000174

** ESFUERZOS ELEMENTOS (Ejes Locales) **

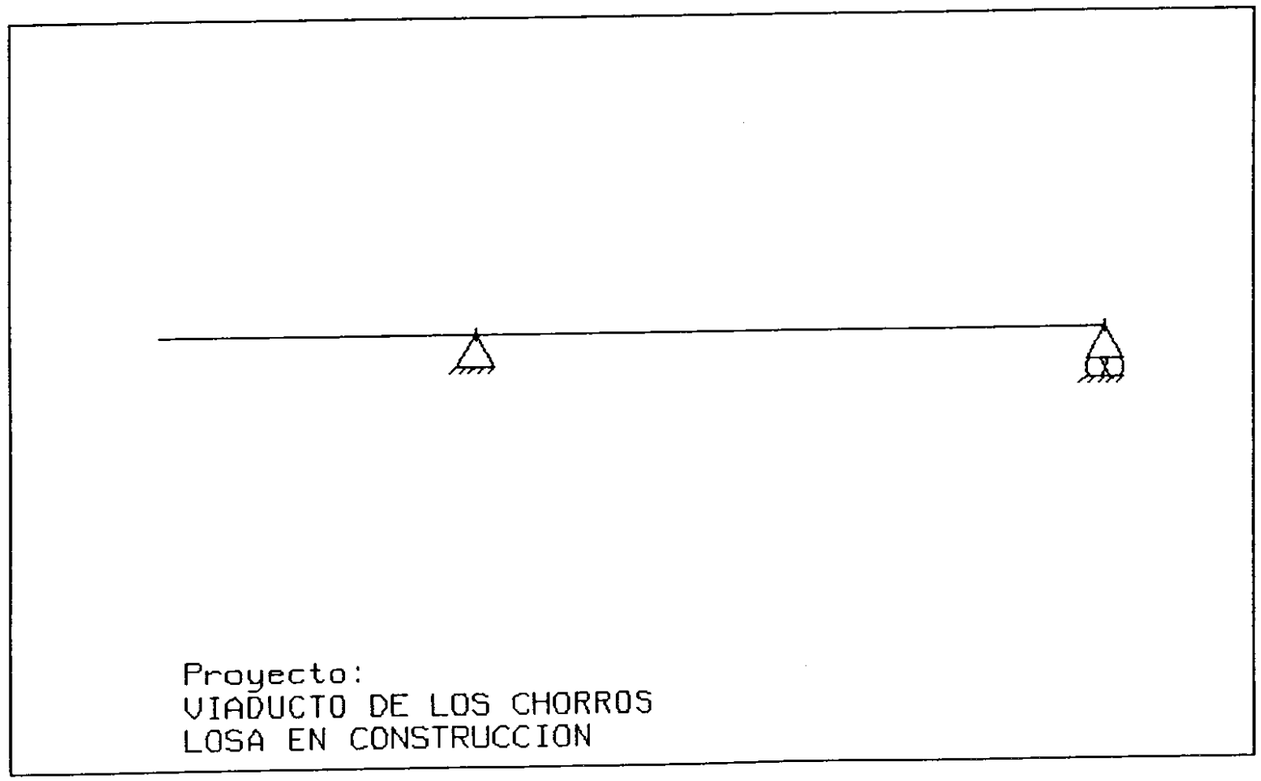
Nel	N-i	N-d	Axil(T)	Cortante(T)	Flector(mT)
1	1	2			
S-izquierda			0.000	0.000	0.000
S- centro			0.000	.530	-.260
S- derecha			0.000	1.120	-1.080
2	2	3			
S-izquierda			0.000	-1.663	-1.080
S- centro			0.000	-.308	.930
S- derecha			0.000	1.277	0.000

Nota: Los esfuerzos se refieren a los extremos del elemento, excluyendo zonas rigidas en nudos de tamaño finito

** REACCIONES EXTERIORES (Ejes Generales) **

Nudo	Fx (Tn)	Fy (Tn)	Mz (mT)
2	0.000	2.783	0.000
3	0.000	1.277	0.000

Nota: Se han controlado Errores de Cierre en Nudos y Reacciones(respecto a [0,0])...(<1%)



R

SUBANEJO Nº 21

LOSA DEL TABLERO: DIMENSIONAMIENTO DE ARMADURAS TRANSVERSALES

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HOJA 1 DE

Dimensionamiento de armaduras transversales

Esfuerzos en losa: Los debidos a la superposición de los siguientes efectos:

- Esfuerzos locales. Envolvente de la situación de servicio y la de descimbramiento.
- Esfuerzos globales. Reacción del cortante y flector del puente y debidos a los efectos flector y torsores de cargas excéntricas.
- Torsión. Armadura necesaria para contrarrestar la torsión a través de la losa y cerrar el circuito de la viga: $3{,}5\ cm^2/m$

Dentro de los esfuerzos locales, y comparando la envolvente mayorada sin descimbramiento y la hipótesis con éste, se observa que la primera casi siempre da esfuerzos iguales o mayores

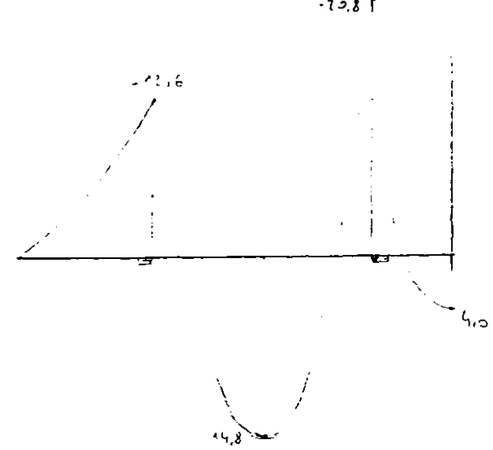
Punto	M_d	
	Hipótesis de servicio	Hipótesis de descimbramiento
Apoyo en viga exterior	−12,6	−7,1
Entre almas	7,5	8,8
Apoyo en viga interior	−13,3	−6,7
Entre vigas	1,4	6,2

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HOJA 2 DE

Superposición de efectos locales y globales



4.1)

Apoyo exterior	−12,6	0	−12,6
Entre almas	8,5	6,3	14,8
Apoyo interior	−13,3	−7,5	−20,8
Entre vigas	1,4	2,6	4,0

- Armadura inferior

- Entre almas:

$M_{d\,máx} = 14{,}8\ mT/m$; $h = 28\ cm$; $d = 24$; $\mu = 0{,}110$; $\omega = 0{,}119$, $A = 15{,}0\ cm^2/m$

Con 16Ø20/placa $25{,}1\ cm^2/m$ → Sobra $10{,}0\ cm^2/m$ para torsión.

Lateralmente, se está despreciando una armadura excesiva, por exigencias de fatiga (ver anejo fatiga)

- Entre vigas:

$M_{d\,máx} = 4{,}2\ mT/m$; $h = 34$; $d = 30$, $\mu = 0{,}019$; $\omega = 0{,}022$; $A = 3{,}5\ cm^2/m$

Con 11Ø16/placa, $11\ cm^2/m$, correcto.

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FECHA HOJA 3 DE

• Dintel superior

- Sobre apoyo exterior

$M_d = -12,6\ mT/m$; $h = 24,6\ cm$; $d = 21\ cm$; $\mu = 0,123$;

$\omega = 0,135$; $A = 14,9\ cm^2/m$

Armadura inf.: 5Φ16/m ; refuerzo : 5Φ16/m.

A 1 m del apoyo (borde interior cuerpo de viga), $M_d = 5,5\ mT$, $h = 22,6$, $d = 19$

$\mu = 0,065$; $\omega = 0,071$, $A = 7,4\ cm^2/m$. Definición de armadura sobre.

[illegible] (zona de fuerza positiva), se mantiene como

[illegible]

- Sobre apoyo interior

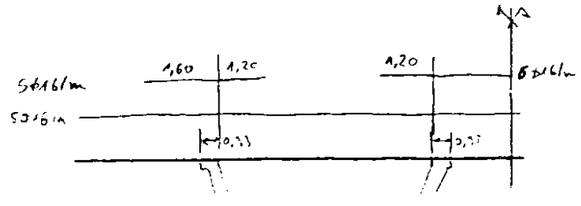
$M_d = -27,3\ mT/m$; $h = 31,5$; $d = 28\ cm$; $\mu = 0,114$

$\omega = 0,124$; $A = 18,3\ cm^2/m$: 5Φ16/m + 6Φ12/m refuerzo (bordes de refuerzo menor para evitar solapes por [illegible] con armadura cortante).

A 0,5 m del apoyo (borde interior cuerpo de h = 60), $M_d = 0$. Se alarga

[illegible] para cortante

suficiente capacidad a torsión.



($l_b = 58$)

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FECHA HOJA 4 DE

• Cortante - Cercos

Punto	V_d			
	Hipótesis de servicio	Hipótesis de descentramiento	Global	Total (1)
Apoyo exterior (lado volado/viga)	2,0 / -16,0	1,0 / -14,2	0 / -2,5	2,0 / -18,5
Apoyo interior (lado izq/centro)	24,9 / -9,6	14,2 / -2,3	2,5 / -5,7	27,4 / -15,3

(1) = Hipótesis de servicio + Global. El descentramiento está ya incluido en la hipótesis de servicio.

- Dimensionamiento de cercos :

- Apoyo exterior - lado volado. $V_d = 2,0\ T/m$ Cercos mínimos

- [illegible] viga

$V_d = -18,5\ T/m$. Reducción de V_d a 1 canto útil: $V_d = -17\ T/m$

$h = 25\ cm$; $d = 21\ cm$; $V_{cu} = bd f_{vu} = 2100\ cm^2 \times 7,64\ kg/cm^2 = 13,7\ T$

$V_{su} = 17 - 13,7 = 3,3\ T$; con $d = 12\ cm$, $A = 7,3\ cm^2/m = C\phi 10 a 15$

A 0,5 m, $V_d = 12\ T/m$; $h = 26\ cm$; $d = 22\ cm$; $V_{cu} = 14,7\ T/m$ Mínimo

- Apoyo interior - lado viga

$V_d = 27,4\ T/m$. Reducción de V_d a 1 canto útil: $V_d = 26\ T/m$

$h = 32\ cm$, $d = 28\ cm$, $V_{cu} = 18,3\ T$; $V_{su} = 7,7\ T$; con $l = 17\ cm$,

$\frac{A}{s} = 10,7\ cm^2/m = C\phi 12 a 15$. A 1 m, $V_d = 15\ T$, $h = 30$, $d = 26$, $V_{cu} = 17$ Mínimo

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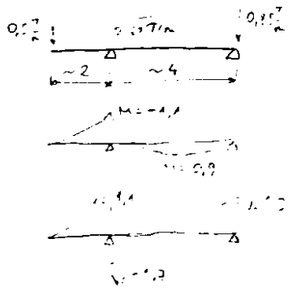
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HOJA 5 DE

- Control en construcción

Cargas: Peso de hormigón

Sección resistente: Placa prefabricada



c = 20 cm → P = 0,5 T/m

c = 35 cm → P = 0,87 T/m

M_d = 1,6 x 1,55 = 1,7 mT ; h = 10 cm ; d = 9 cm ;

μ = 0,020 ; ω = 0,025 ; A = 2,1 cm² 3 Ø 16 / metro

V_d = 1,7 x 1,55 = 2,7 T ; d = 9 cm ; b = 100 cm

1 = 1,7 Tn/m

SUBANEJO Nº 22

ARMADURA DE RASANTE

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ARMADURA DE RASANTE EN VIGA

Viga de L=36 m

Con los valores de los flectores mayorados máximos, se determinan los axiles parciales de las secciones que están a un lado de la fibra considerada en la comprobación del rasante.

- Sección de apoyo

· Elemento 141(F) - apoyo pila 2

M_{zd} = -3207 mT - Escalón 10/11 del diagrama M-X.

· Axiles parciales:

- Zona superior (secciones parciales 1, 6): N_d = 3[illegible] + 1207 = 1225 T
- Zona inferior (" " 5,16,17): N_d = -1224 - 25 - 33 = -1282 T

· Td concomitante: Td = 195 mT (Td máx = 429 mT)

- Sección centro de vano

Elemento 111(1) - Centro de vano 2

M_{zd} = 5029 mT - Escalón 10/11 del diagrama M-X

· Axiles parciales:

- Zona superior (secc. parciales 1, 6): N_d = -1861 - 57 = -1918 T
- Zona inferior (" " 5,16,17,19,20): N_d = 44 + 36 + 40 + 1063 + 1067 = 2250 T

· Td concomitante: Td ≈ 0. (Td máx = 121,4 mT)

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* Rasante entre apoyo y centro de vano:

- Zona interior:

· ΔN_d = 2250 - (-1282) = 3532 T; Se reduce en un 10% por tener en cuenta que el máximo M⁺ en vano no es simultáneo al máximo M⁻ en apoyos.
ΔN_d = 3179 T

· Torsor: T_d medio = (195 + 0)/2 = 97,5 mT;

$T_{d\,medio}$ (no concomitante con la flexión máxima) = (429 + 121,4)/2 = 275 mT

El valor de 97,5 mT se aumenta del lado de la seguridad:

$T_{d\,medio}$ = 97,5 mT × 1,5 = 146 mT

- Armadura existente (por alma): [Armadura de fondo. La del alma es superior siempre y por tanto, válida]

L = 0,75 m: No va, cortos

L = 2,75 m: Φ20 a 125 ≡ 2 ramas × 2,75 m × 2 Φ10 = 44 Φ20

L = 4 m: Φ16 a 125 ≡ " × 4 m × 8 Φ16 = 64 Φ16

L = 6 m: Φ12 a 125 ≡ " × 6 m × 8 Φ12 = 96 Φ12

L = 5 m: Φ10 a 125 ≡ " × 5 m × 8 Φ10 = 80 Φ10

438,2 cm²/alma

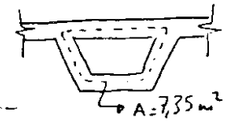
- Armadura necesaria por flexión:

ΔN_d = 3179 T ≡ 1589,5 T/alma; 1589,5 T / 4,2 T/cm² = 378,4 cm²/alma

- Armadura necesaria por torsión:

$R_T = T_d/2A$ = 146 mT / 2 · 7,35 m² = 9,9 t/m

A_ϕ = 9,9 t/m × 12 m / 4,2 T/cm² = 42,4 cm²/alma



· Total: 378,4 + 42,4 = 420,8 cm²/alma < 438,2 cm²/alma, válido

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– Zona superior:

• $\Delta N_d = 1235 - (-1918) = 3153$ T ;

Se reduce en un 10% por no concomitancia entre los máximos M^+ y M^-:

$\Delta N_d = 2838$ T

• Torsor. Ver rasante en zona inferior:

T_d medio = 146 m T

– Armadura existente (por alma):

L = 1,8 m - No hay cercos pasantes

L = 3,2 m - φ 20 a 125 ≡ 2 ramas × 3,2 m × 8 φ 20/m × 2,7 (*) = 36 φ 20
L = 5 m - φ 16 a 125 ≡ " × 5 m × 8 φ 16/m " = 56 φ 16
L = 6 m - φ 12 a 125 ≡ " × 6 m × 8 φ 12/m " = 67 φ 12
L = 2 m - φ 10 a 125 ≡ " × 2 m × 8 φ 10/m " = 21 φ 10
L = 7 m (refuerzo) - 4 φ 12/m ≡ " × 7 m × 4 φ 12 — = 56 φ 12

} 381,9 cm²

– Armadura necesaria por flexión:

$\Delta N_d = 2838$ T ≡ 1419 T/alma ; 1419 T / 4,27 t/cm² = 337,9 cm²/alma

– Armadura necesaria por torsión:

$A_\phi = 42{,}4$ cm²/alma (ver rasante en zona inferior)

• Total: 337,9 + 42,4 = 380,3 cm²/alma < 381,9 , válido

(*): 70%: Porcentaje de los cercos que cosen alma y losa; el resto no cose el alma porque cosen en planos con los cercos de placa.

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Viga de L = 22 m

– Sección de apoyo

Elemento 6 (F) - apoyo pila 1

$M_{zd} = -2911$ m T - Escalón 10/11 del diagrama M-X.

• Axiles parciales:

- Zona superior (secciones parciales 1 y 6): $N_d = 45 + 1075 = 1120$ T
- Zona inferior (" " 5, 16, 17): $N_d = -1110 - 22 - 30 = -1162$ T

• Td concomitante:

$T_d = 120{,}0$ m t (Td máx = 276,7 m T)

– Sección centro de vano (d = 11 m al apoyo)

Elemento 2 (F) - C. vano 1.

$M_{zd} = 2746$ m t - Escalón 3/4 del diagrama M-X

• Axiles parciales:

- Zona superior: $N_d = -763 - 21 = -784$ T
- Zona inferior: $N_d = 77 + 1 + 7 + 512 + 513 = 1105$ T

• Td concomitante:

$T_d = -6$ m t ≃ 0 (Td máx = 74,5 m T ; Td mín = -73,7 m T)

– Sección de apoyo en estribo

Elemento 1 / i - Estribo 1.

• $M_{zd} = -61{,}9$ m T ; se toma, por simplicidad, M = 0 (y después sólo se reduce el 5% por no concomitancia entre M^+ y M^-)

• Td concomitante: $T_d = -176$ m T (Td máx = -216 m T).

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* Rasante entre apoyo y centro de vano (l = 11 m)

– Zona inferior :

• ΔN_d = 1105 – (–1162) = 2267 T. Reducción 10% : ΔN_d = 2040 T

• Torsor : T_d medio = (120 + 0)/2 = 60 mT

T_d máximo = (276,7 + 74,5)/2 = 175 mT

El valor T_d = 60 mT se anula, dividido de la segunda :

T_d medio = 1,5 × 60 = 90 mT

– Armadura existente (por alma) :

L = 2,75 m : No hay cercos

L = 2,75 m : φ20 a 15 ≡ 2 ramas × 2,75 m × 6,66 φ20 = 36 φ20

L = 4,5 m : φ16 a 15 ≡ " × 4,5 m × 6,66 φ16 : 60 φ16

L = 3,5 m : φ12 a 12,5 ≡ " × 3,5 × 8 φ12 = 56 φ12

} 232,1 cm²/alma

– Armadura necesaria por flexión :

ΔN_d = 2040 T ≡ 1020 T/alma ; 1020 T/m / 4,2 T/cm² = 242,8 cm²/alma

– Armadura necesaria por torsión :

$R_T = T_d / 2A$ = 90 mT / 2 × 7,35 m² = 6,1 t/m

A_δ = 6,1 t/m × 11 m / 4,2 T/cm² = 16,0 cm²/alma.

• Total : 242,8 + 16,0 = 258,8 cm²/alma < 277,1 cm²/alma, válido

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FECHA

– Zona superior :

• ΔN_d = 1120 – (–784) = 1904 T ; Reducción 10% : ΔN_d = 1714 T

• Torsor. Ver resante en tabla inferior : T_d medio = 90 mT

– Armadura existente (por alma) :

L = 1,8 m : Sin cercos pasante)

L = 2,2 m : φ20 a 15 ≡ 2 ramas × 2,2 m × 6,66 φ20 × 0,7 (*) = 20 φ20

L = 3,5 : φ10 a 15 : " × 3,5 × 6,66 φ16 × " = 32 φ16

L = 3 : φ12 a 12,5 : " × 3 × 8 φ12 × " = 34 φ12

L = 0,5 : φ10 a 12,5 : " × 0,5 × 8 φ10 × " = 6 φ10

L = 5,5 m (retorno) : 4 φ12/m ≡ " × 5,5 m × 4 φ12 — = 44 φ12

} 220,1 cm²/alma

– Armadura necesaria por flexión :

ΔN_d = 1714 T ≡ 857 T/alma ; 857/4,2 = 204,0 cm²/alma

– Armadura de torsión :

A_δ = 16,0 cm²/alma

• Total : 204,0 + 16,0 = 220,0 cm²/alma < 220,1 cm²/alma, válido.

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* Rasante entre centro de vano y apoyo en estribo (d = 11 m)

- Zona inferior:
  - ΔN_d = 1105 T. Reducción 5%: ΔN_d = 1050 T
  - Torsor: T_d medio = (0 + 126)/2 = 63 mT
    T_d máx medio = (73,7 + 216)/2 = 145 mT
    Se sobredora el T_d medio: T_d medio = 1,5 x 63 = 95 mT
  - Armadura existente (por alma):
    L = 5 m: φ12 a 12,5 = 2 ramas x 5 m x 8φ12 = 80φ12
    L = 6 m: φ10 a 12,5 = " x 6 x 27,0 = 95 φ10
    } 165,8 cm²/alma
  - Armadura necesaria por flexión:
    ΔN_d = 1050 T = 525 T/alma ; 525/4,2 = 125,0 cm²/alma
  - Armadura necesaria por torsión:
    $R_T = T_d / 2A$ = 95 mT / 2 x 7,35 m² = 6,5 t/m
    A_ϕ = 6,5 T/m x 11 m / 4,2 T/cm² = 17,0 cm²/alma
  - Total: 125,0 + 17,0 = 142,0 cm²/alma < 165,8 cm²/alma

Vale.

- Zona superior:
  - ΔN_d = 784 T.
  - T_d = 95 mT
  - Armadura existente (por alma):
    Idéntica a la inferior x 0,7 = 255,5 cm² x 0,7 = 178,8 cm²/alma
    (No hay requisitos)
  - Armadura necesaria por flexión:
    ΔN_d = 784 T = 392 T/alma ; 392/4,2 = 93,3 cm²/alma
  - Armadura de Torsión:
    A_ϕ = 17,0 cm²/alma
  - Total: 93,3 + 17,0 = 110,3 cm²/alma < 178,8 cm²/alma, vale

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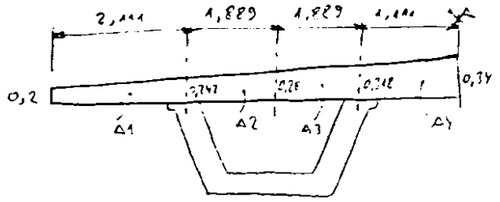
HOJA 9 DE

ARMADURA DE RASANTE EN LOSA

Vano de L=36m

$\Delta N_d = 3179$ T

Reparto del rasante en la losa:



$\Delta 1 = 0,467 m^2$ (25%)
$A2 = 0,493 m^2$ (26%)
$A3 = 0,565 m^2$ (30%)
$A4 = 0,356 m^2$ (19%)

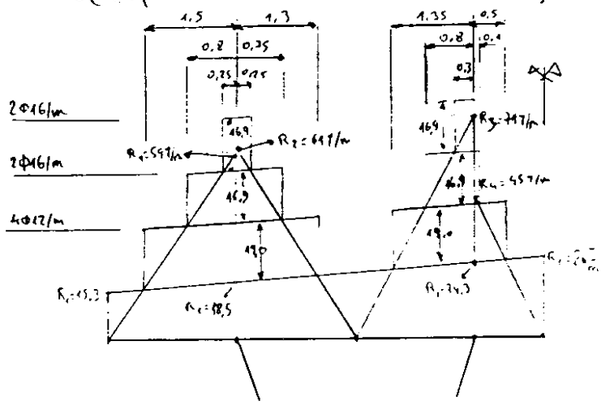
El rasante que se transmite en cada área es proporcional a los porcentajes.

Se consideran que el 1/3 de ΔN_d se transmite en el tramo de 16 m más cercano a la pila, y 1/3 en el 1/4 más cercano del centro de vano:

1) Tramo cercano a la pila:

$\frac{2}{3}\Delta N_d = 2120$ T; $R = 2120$ T / 9m = 236 T/m.

Se reparte entre las áreas A; según la indicación anterior:



- Capacidad del rasante:

$R_c = b \times h \times f_{cv}$

$b = 100$cm; $f_{cv} = 7,64$ kp/cm^2

$h = 20$ cm $\rightarrow R_c = 15,3$ t/m
$h = 34$ cm $\rightarrow R_c = 26,0$ T/m

- Capacidad de armaduras:

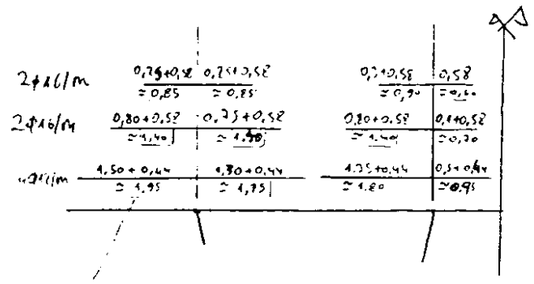
4Φ12/m = 19,0 T/m
2Φ16/m = 16,9 T/m

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HOJA 10 DE

Cuadro de armadura de rasante:

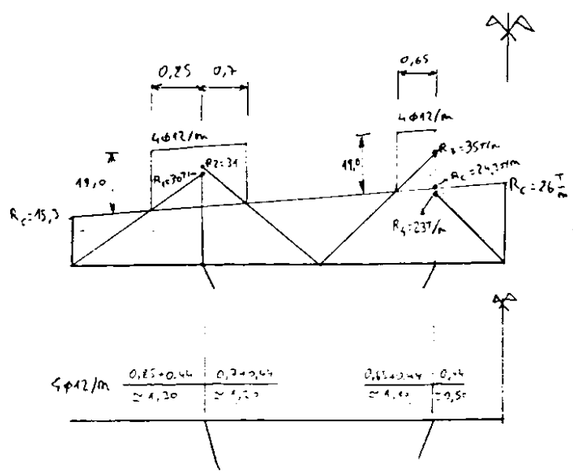


l_b (Φ12) = 0,44
l_b (Φ16) = 0,58

Se parte entre las escuadras de la barra en la zona de mínimos y zona de losa. La cuadra superior resiste en la armadura inferior, suponiendo parte, la armadura de mínimos; y la inferior la armadura superior, que a la zona exterior es losa.

(2) - Tramo cercano al estribo de la pila:

$\frac{1}{3}\Delta N_d = 1060$ T ; R = 1060 T / 9 m = 118 T/m



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Vano de L=22 m

(A) Entre pila y centro de vano

$\Delta N_d = 1714\ T$

① Tramo más cercano a la pila:

$\frac{2}{3}\Delta N_d = 1142\ T$

$R = 1142\ T / 5,5\ m = 208\ T/m$

Al ser similar al del vano de 36 m, se mantiene la cuantía de éste (con rasante R = 23 T/m), y se puede acortar la longitud con esta armadura en la proporción de 208 : 236:

$L = 5,5\ m \times 208/236 = 4,85\ m \rightarrow L = 5\ m$

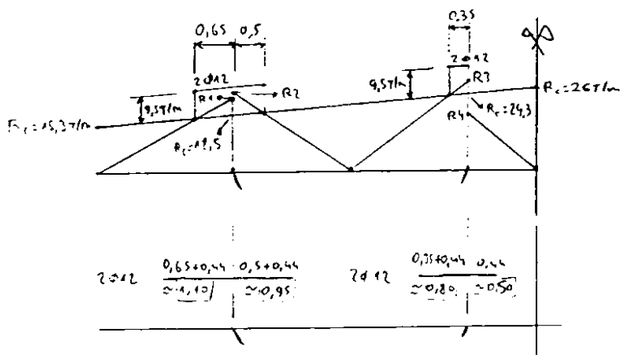
② Tramo más cercano al centro de vano

$L = 22/2 - 5 = 6\ m$

$\frac{1}{3}\Delta N_d = 571\ T$; $R = 571\ T / 6\ m = 95,2\ T/m$

Los rasantes, en cada área, son:

$R_1 = 23,8\ T/m$; $R_2 = 24,8\ T/m$; $R_3 = 28,57\ T/m$; $R_4 = 18,1\ T/m$



• R(zona) = 9,5 T/m

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B) Entre centro de vano y estribo

$\Delta N_d = 784\ T$

$R = 784\ T / 11\ m = 71,3\ T/m$

$R_1 = 17,8\ T/m$ $R_2 = 18,5\ T/m$ $R_3 = 21,4\ T/m$ $R_4 = 13,5\ T/m$

$R_c = 18,5\ T/m$ en la zona donde las rasantes son R_1 y R_2.

$R_c = 24,3\ T/m$ " " " " R_3 y R_4

Por tanto, R_c es siempre igual o mayor que la R_i, por lo que no es necesario aumentar la rasante.

MOMENTOS-CURVATURA(ELASTOPLASTICO)

Título Sección: CV36

*** PRESOLICITACIONES ELASTICAS ***

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Pretensado: 2075.00Tn.
Actua sobre la Sintermedia PI
Seccion Afectada: VN

Incremento de Carga 2 :
Flector : 593.00m.T
Seccion Afectada: VN

Incremento de Carga 3 :
Pretensado: 120.00Tn.
Actua sobre la Sintermedia PS
Seccion Afectada: VN

Incremento de Carga 4 :
Flector : 738.00m.T
Seccion Afectada: VA

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tac	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tac	Tcomp
1	$$$$$$	0.0	0.0	0.0	0.0	1	$$$$$$	0.0	0.0	0.0	0.0
2	$$$$$$	-168.3	-167.8	0.0	0.0	2	$$$$$$	0.0	0.0	0.0	0.0
3	$$$$$$	-167.8	-167.2	0.0	0.0	3	$$$$$$	0.0	0.0	0.0	0.0
4	$$$$$$	-167.2	-158.9	0.0	0.0	4	$$$$$$	0.0	0.0	0.0	0.0
5	$$$$$$	-158.9	-157.8	0.0	0.0	5	$$$$$$	0.0	0.0	0.0	0.0
6	$$$$$$	0.0	0.0	0.0	0.0	6	$$$$$$	0.0	0.0	0.0	0.0
7	$$$$$$	-865.1	-864.8	0.0	865.1	7	$$$$$$	0.0	0.0	0.0	0.0
8	$$$$$$	-859.9	-859.6	0.0	859.9	8	$$$$$$	0.0	0.0	0.0	0.0
9	$$$$$$	-854.5	-854.2	0.0	854.5	9	$$$$$$	0.0	0.0	0.0	0.0
10	$$$$$$	-849.2	-848.9	0.0	849.2	10	$$$$$$	0.0	0.0	0.0	0.0
11	$$$$$$	-843.8	-843.5	0.0	843.8	11	$$$$$$	0.0	0.0	0.0	0.0
12	$$$$$$	-838.4	-838.1	0.0	838.4	12	$$$$$$	0.0	0.0	0.0	0.0
13	$$$$$$	-833.0	-832.8	0.0	833.0	13	$$$$$$	0.0	0.0	0.0	0.0
14	$$$$$$	-827.7	-827.4	0.0	827.7	14	$$$$$$	0.0	0.0	0.0	0.0
15	$$$$$$	-822.3	-822.0	0.0	822.3	15	$$$$$$	0.0	0.0	0.0	0.0
16	$$$$$$	-816.9	-816.6	0.0	816.9	16	$$$$$$	0.0	0.0	0.0	0.0
17	$$$$$$	-812.8	-812.5	0.0	812.8	17	$$$$$$	0.0	0.0	0.0	0.0
18	$$$$$$	13670.8	13676.6	0.0	13676.6	18	$$$$$$	0.0	0.0	0.0	0.0
19	$$$$$$	14526.9	14532.7	0.0	14532.7	19	$$$$$$	0.0	0.0	0.0	0.0
20	$$$$$$	14547.4	14553.2	0.0	14553.2	20	$$$$$$	0.0	0.0	0.0	0.0

Incrementos de Carga:
1 2 3 4

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

LEYES MOMENTOS-CURVATURAS

CON consideracion de TENSION STIFFENING

Flexion POSITIVA
[M] es el Momento Flector Total
[Xc] y [Xn] corresponden a Incrementos frente
a la posible Presolicitacion Elastica
[Ax(i)] muestra la evolucion del Axil(Tn) en la
S.parcial i durante el Incremento de Curvatura
[ecmx] y [etmx] son las Deformaciones Totales
maximas de Compresion y Traccion,respectivamente
[Itan] e [Isec] son las Inercias correspondientes
a los sucesivos Incrementos de Curvatura

[N]	Momento(mT)	Xc(m-1)	Xn(cm)	ecmx	etmx	Itan(cm4)	Isec(cm4)
1	751.4	0.000000	$$$$$	0.00000	-.00039		
2	1842.7	.000080	62.2	-.00005	-.00024	64828436	64828436
3	2710.3	.000160	75.3	-.00012	-.00011	51536638	58182537
4	3577.8	.000240	79.6	-.00019	.00001	51536638	55967237
5	4349.3	.000321	80.1	-.00026	.00014	45830323	53433008
6	4580.3	.000401	72.6	-.00029	.00030	13722386	45490884
7	4703.4	.000481	65.9	-.00032	.00047	7309950	39127395
8	4783.7	.000561	60.5	-.00034	.00065	4771289	34219380
9	4845.8	.000641	56.1	-.00036	.00082	3689627	30403161
10	4902.0	.000721	52.5	-.00038	.00100	3338142	27395936
11	5222.3	.001093	42.6	-.00047	.00183	4103787	19476606
12	5498.2	.001465	38.4	-.00056	.00264	3535474	15431841
13	5592.1	.001836	35.5	-.00065	.00346	1203318	12552259
14	5667.5	.002208	33.7	-.00074	.00428	965562	10602023
15	5734.0	.002580	32.5	-.00084	.00510	852390	9197415
16	5796.0	.002951	31.6	-.00093	.00591	794546	8139276
17	5854.0	.003323	31.0	-.00103	.00673	742191	7311970
18	5910.5	.003695	30.5	-.00113	.00754	725062	6649382
19	5966.0	.004066	30.2	-.00123	.00835	710807	6106609
20	6019.8	.004438	29.9	-.00133	.00916	689217	5652936
21	6090.5	.004810	32.9	-.00158	.00981	905397	5286080

Evolucion de Axiles en Secciones Parciales:

N	Ax(1)	Ax(6)
1	-0.0	0.0
2	-244.1	-7.0
3	-616.6	-17.1
4	-989.1	-27.1
5	-1328.2	-36.4
6	-1474.8	-41.0
7	-1574.4	-44.5
8	-1650.3	-47.4

, Mzl = 502 mT

9	-1712.7	-50.0
10	-1767.5	-52.5
11	-2000.8	-63.5
12	-2173.4	-75.9
13	-2254.2	-87.3
14	-2314.0	-99.1
15	-2361.3	-111.1
16	-2400.2	-123.5
17	-2432.0	-136.0
18	-2459.6	-148.7
19	-2483.8	-161.5
20	-2504.3	-174.5
21	-2466.6	-210.5

} -1851 ; -57

MOMENTOS-CURVATURA(ELASTOPLASTICO)

Título Sección: CV36

*** PRESOLICITACIONES ELASTICAS ***

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Pretensado: 2075.00Tn.
Actua sobre la Sintermedia PI
Seccion Afectada: VN

Incremento de Carga 2 :
Flector : 593.00m.T
Seccion Afectada: VN

Incremento de Carga 3 :
Pretensado: 120.00Tn.
Actua sobre la Sintermedia PS
Seccion Afectada: VN

Incremento de Carga 4 :
Flector : 738.00m.T
Seccion Afectada: VA

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

LEYES MOMENTOS-CURVATURAS

CON consideracion de TENSION STIFFENING

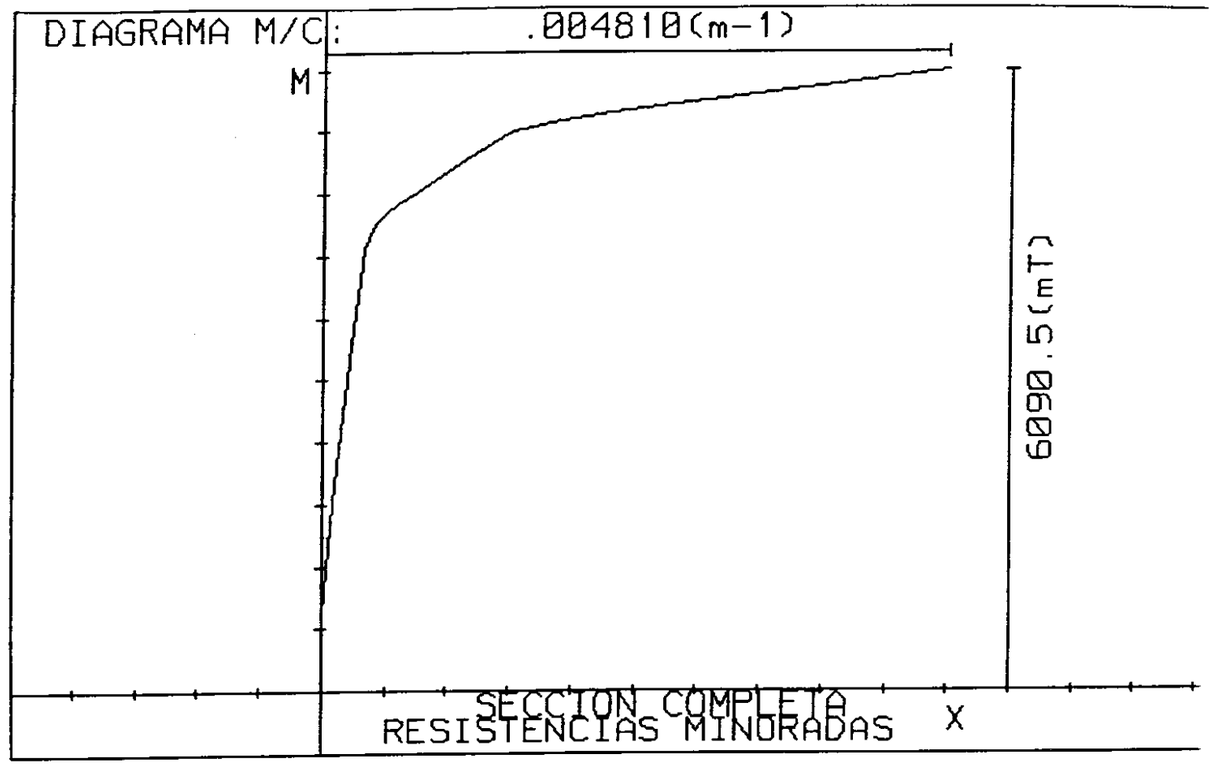
Flexion POSITIVA
[M] es el Momento Flector Total
[Xc] y [Xn] corresponden a Incrementos frente
a la posible Presolicitacion Elastica
[Ax(i)] muestra la evolucion del Axil(Tn) en la
S.parcial i durante el Incremento de Curvatura
[ecmx] y [etmx] son las Deformaciones Totales
maximas de Compresion y Traccion,respectivamente
[Itan] e [Isec] son las Inercias correspondientes
a los sucesivos Incrementos de Curvatura

[N]	Momento(mT)	Xc(m-1)	Xn(cm)	ecmx	etmx	Itan(cm4)	Isec(cm4)
1	751.4	0.000000$$$$$		0.00000	-.00039		
2	1842.7	.000080	62.2	-.00005	-.00024	64828436	64828436

3	2710.3	.000160	75.3	-.00012	-.00011	51536638	58182537
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18	5910.5	.003695	30.5	-.00113	.00754	725062	6649382
19	5966.0	.004066	30.2	-.00123	.00835	710807	6106609
20	6019.8	.004438	29.9	-.00133	.00916	689217	5652936
21	6090.5	.004810	32.9	-.00158	.00981	905397	5286080

Evolucion de Axiles en Secciones Parciales:

N	Ax(5)	Ax(16)	Ax(17)	Ax(19)	Ax(20)
1	-975.5	-12.0	-11.9	936.7	937.5
2	-629.2	-8.0	-7.5	947.4	948.5
3	-335.7	-4.6	-3.7	956.5	957.9
4	-42.2	-1.2	.1	965.6	967.3
5	201.6	2.4	4.1	975.1	977.1
6	192.4	6.9	9.1	987.1	989.3
7	162.1	11.7	14.3	999.6	1002.2
8	129.7	16.6	19.6	1012.5	1015.3
9	99.2	21.6	24.9	1025.5	1028.6
10	72.0	26.5	30.4	1038.6	1042.0
11	2.2	49.7	55.5	1099.4	1104.2
12	0.0	65.2	65.2	1136.8	1138.0
13	0.0	65.2	65.2	1148.3	1149.7
14	0.0	65.2	65.2	1159.7	1161.4
15	0.0	65.2	65.2	1171.1	1173.0
16	0.0	65.2	65.2	1182.4	1184.6
17	0.0	65.2	65.2	1193.8	1196.2
18	0.0	65.2	65.2	1205.1	1207.8
19	0.0	65.2	65.2	1216.4	1219.4
20	0.0	65.2	65.2	1227.7	1230.9
21	0.0	65.2	65.2	1236.8	1240.2



? } 44 ; 36 ; 40 ; 1063 ; 1067

MOMENTOS-CURVATURA(ELASTOPLASTICO)

Título Sección: APOYO

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

LEYES MOMENTOS-CURVATURAS

CON consideracion de TENSION STIFFENING

Flexion NEGATIVA
[M] es el Momento Flector Total
[Xc] y [Xn] corresponden a Incrementos frente
a la posible Presolicitacion Elastica
[Ax(i)] muestra la evolucion del Axil(Tn) en la
S.parcial i durante el Incremento de Curvatura
[ecmx] y [etmx] son las Deformaciones Totales
maximas de Compresion y Traccion,respectivamente
[Itan] e [Isec] son las Inercias correspondientes
a los sucesivos Incrementos de Curvatura

[N]	Momento(mT)	Xc(m-1)	Xn(cm)	ecmx	etmx	Itan(cm4)	Isec(cm4)
1	-0.0	0.000000	$$$$$	0.00000	0.00000		
2	-840.6	-.000081	98.0	-.00012	.00008	49662152	49662152
3	-1214.4	-.000161	128.7	-.00019	.00021	22082309	35872231
4	-1430.2	-.000242	147.9	-.00023	.00036	12752112	28165525
5	-1634.5	-.000322	158.8	-.00028	.00051	12066881	24140864
6	-1841.2	-.000403	165.5	-.00032	.00067	12215500	21755791
7	-2055.2	-.000484	169.9	-.00036	.00082	12641208	20236694
8	-2278.2	-.000564	172.9	-.00041	.00098	13174127	19227756
9	-2510.9	-.000645	175.0	-.00045	.00113	13748380	18542834
10	-2753.5	-.000725	176.4	-.00050	.00128	14335000	18075297
11	-4004.9	-.001099	178.7	-.00073	.00196	15946751	17351591
12	-4546.1	-.001473	185.2	-.00088	.00273	6895533	14698562
13	-4599.7	-.001846	192.1	-.00098	.00355	682681	11862014
14	-4629.3	-.002220	196.8	-.00107	.00437	378328	9929117
15	-4648.1	-.002594	200.1	-.00116	.00519	238567	8533020
16	-4659.7	-.002968	202.7	-.00126	.00601	148854	7477237
17	-4668.7	-.003341	204.7	-.00135	.00684	113801	6653694
18	-4674.5	-.003715	206.3	-.00144	.00766	74411	5991873
19	-4679.9	-.004089	207.7	-.00153	.00849	68601	5450499
20	-4684.3	-.004462	208.8	-.00161	.00932	56423	4998778
21	-4694.0	-.004836	206.8	-.00185	.01000	123305	4622037

Evolucion de Axiles en Secciones Parciales:

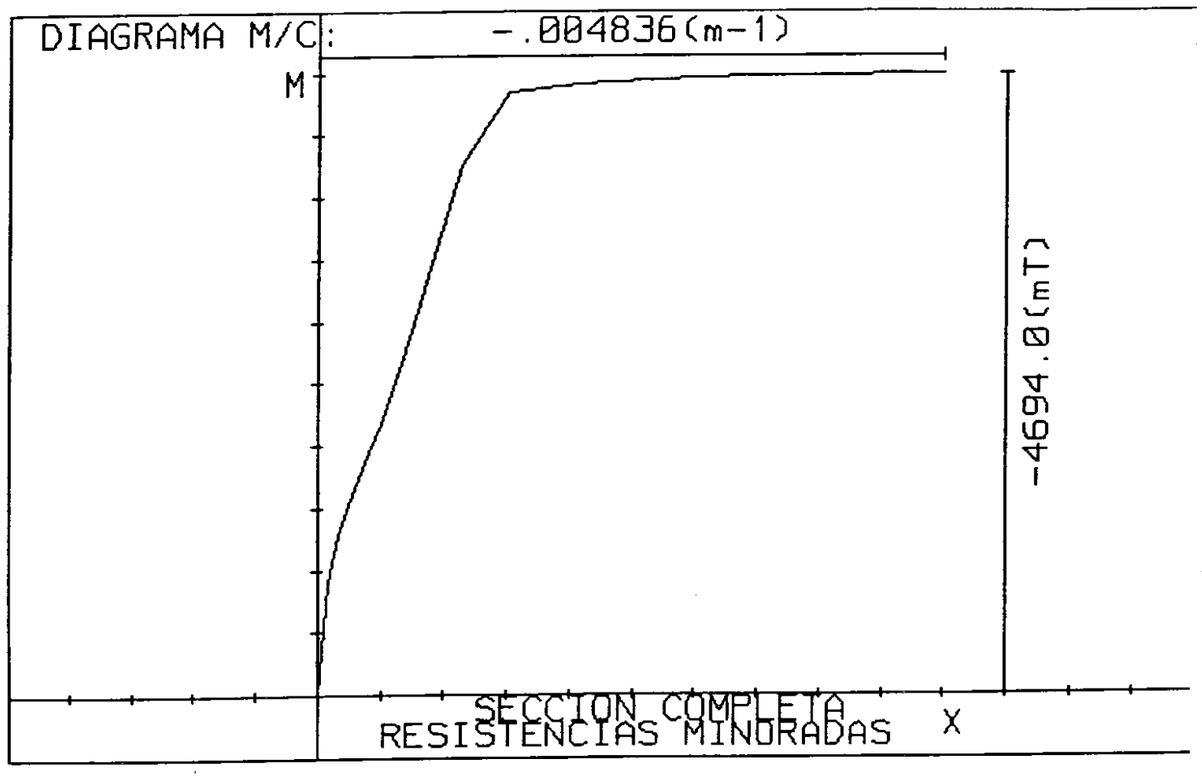
N	Ax(1)	Ax(6)	Ax(5)	Ax(16)	Ax(17)
1	-0.0	0.0	-0.0	0.0	0.0
2	295.4	61.1	-275.6	-6.1	-6.9
3	309.9	162.0	-426.7	-9.2	-10.9
4	263.8	280.3	-523.2	-11.1	-13.5
5	217.9	401.8	-609.9	-12.8	-16.0
6	175.5	524.1	-694.2	-14.4	-18.4
7	137.4	646.1	-779.2	-16.0	-20.8
8	104.0	767.4	-866.4	-17.6	-23.2
9	75.4	887.8	-956.6	-19.4	-25.8
10	51.5	1007.2	-1050.0	-21.2	-28.4
11	.1	1545.8	-1529.0	-30.6	-41.5
12	0.0	1698.0	-1777.9	-35.4	-50.0
13	0.0	1698.0	-1840.1	-36.7	-55.1
14	0.0	1698.0	-1879.9	-38.1	-60.1
15	0.0	1698.0	-1906.6	-39.4	-65.1
16	0.0	1698.0	-1925.1	-40.6	-70.1
17	0.0	1698.0	-1938.5	-41.7	-74.9
18	0.0	1698.0	-1948.0	-42.8	-79.7
19	0.0	1698.0	-1955.5	-43.8	-84.4
20	0.0	1698.0	-1961.3	-44.8	-89.1
21	0.0	1698.0	-1928.9	-54.4	-102.4

Md = -2207 mT → 33 ; 1202 ; -1224 ; -25 ; -33

Md = -2911 mT : 45 ; 1075 ; -1110 ; -22 ; -30

Mzd = -2911 mT

Mzd = -2207 mT



?

MOMENTOS-CURVATURA(ELASTOPLASTICO)

Título Sección: CV-22

** PRESOLICITACIONES ELASTICAS **

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Pretensado: 1117.00Tn.
Actua sobre la Sintermedia PI
Seccion Afectada: VN

Incremento de Carga 2 :
Flector : 228.00m.T
Seccion Afectada: VN

Incremento de Carga 3 :
Pretensado: 120.00Tn.
Actua sobre la Sintermedia PS
Seccion Afectada: VN

Incremento de Carga 4 :
Flector : 270.00m.T
Seccion Afectada: VA

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)					ESTADO FINAL (Tinf)				
Nsp	Yn(cm)	Tsup.	Tinf.	Tac	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tac	Tcomp
1	$$$$$$	0.0	0.0	0.0	0.0	1	$$$$$$	0.0	0.0	0.0	0.0
2	-453.4	-69.2	-70.6	0.0	0.0	2	$$$$$$	0.0	0.0	0.0	0.0
3	-453.4	-70.6	-72.3	0.0	0.0	3	$$$$$$	0.0	0.0	0.0	0.0
4	-453.4	-72.3	-97.8	0.0	0.0	4	$$$$$$	0.0	0.0	0.0	0.0
5	-453.4	-97.8	-101.0	0.0	0.0	5	$$$$$$	0.0	0.0	0.0	0.0
6	$$$$$$	0.0	0.0	0.0	0.0	6	$$$$$$	0.0	0.0	0.0	0.0
7	-453.4	-357.7	-358.6	0.0	358.6	7	$$$$$$	0.0	0.0	0.0	0.0
8	-453.4	-373.7	-374.6	0.0	374.6	8	$$$$$$	0.0	0.0	0.0	0.0
9	-453.4	-390.1	-390.9	0.0	390.9	9	$$$$$$	0.0	0.0	0.0	0.0
10	-453.4	-406.4	-407.3	0.0	407.3	10	$$$$$$	0.0	0.0	0.0	0.0
11	-453.4	-422.8	-423.7	0.0	423.7	11	$$$$$$	0.0	0.0	0.0	0.0
12	-453.4	-439.1	-440.0	0.0	440.0	12	$$$$$$	0.0	0.0	0.0	0.0
13	-453.4	-455.5	-456.4	0.0	456.4	13	$$$$$$	0.0	0.0	0.0	0.0
14	-453.4	-471.9	-472.8	0.0	472.8	14	$$$$$$	0.0	0.0	0.0	0.0
15	-453.4	-488.2	-489.1	0.0	489.1	15	$$$$$$	0.0	0.0	0.0	0.0
16	-453.4	-504.6	-505.5	0.0	505.5	16	$$$$$$	0.0	0.0	0.0	0.0
17	-453.4	-517.1	-518.0	0.0	518.0	17	$$$$$$	0.0	0.0	0.0	0.0
18	$$$$$$	14060.7	14062.9	0.0	14062.9	18	$$$$$$	0.0	0.0	0.0	0.0
19	$$$$$$	14354.0	14356.2	0.0	14356.2	19	$$$$$$	0.0	0.0	0.0	0.0
20	$$$$$$	14361.6	14363.8	0.0	14363.8	20	$$$$$$	0.0	0.0	0.0	0.0

Incrementos de Carga:
1 2 3 4

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π(Cperm./Ctot.)]: 0.00*

LEYES MOMENTOS-CURVATURAS

CON consideracion de TENSION STIFFENING

Flexion POSITIVA
[M] es el Momento Flector Total
[Xc] y [Xn] corresponden a Incrementos frente
a la posible Presolicitacion Elastica
[Ax(i)] muestra la evolucion del Axil(Tn) en la
S.parcial i durante el Incremento de Curvatura
[ecmx] y [etmx] son las Deformaciones Totales
maximas de Compresion y Traccion,respectivamente
[Itan] e [Isec] son las Inercias correspondientes
a los sucesivos Incrementos de Curvatura

[N]	Momento(mT)	Xc(m-1)	Xn(cm)	ecmx	etmx	Itan(cm4)	Isec(cm4)
1	199.3	0.000000$$$$$		0.00000	-.00024		
2	1144.4	.000077	72.8	-.00006	-.00011	58105152	58105152
3	1970.3	.000155	80.2	-.00012	.00001	50775104	54440128
4	2707.7	.000232	80.4	-.00019	.00014	45335012	51405090
5	2823.5	.000310	68.5	-.00021	.00030	7123406	40334669
6	2852.1	.000387	59.4	-.00023	.00047	1754629	32618661
7	2854.8	.000465	52.6	-.00024	.00065	164768	27209678
8	2852.0	.000542	47.5	-.00026	.00082	-167114	23298708
9	2852.7	.000620	43.6	-.00027	.00100	41307	20391533
10	2861.1	.000697	40.6	-.00028	.00118	512980	18182805
11	3043.1	.001056	32.9	-.00035	.00199	2414226	12821488
12	3226.7	.001415	29.2	-.00041	.00281	2434027	10185864
13	3286.9	.001774	26.8	-.00048	.00362	798626	8286066
14	3332.6	.002133	25.3	-.00054	.00444	606278	6993428
15	3371.9	.002493	24.3	-.00061	.00525	520370	6060869
16	3406.7	.002852	23.6	-.00067	.00607	461466	5355759
17	3440.2	.003211	23.0	-.00074	.00688	444628	4806488
18	3471.5	.003570	22.6	-.00081	.00769	415258	4364766
19	3502.2	.003929	22.2	-.00087	.00851	406616	4003000
20	3532.6	.004288	21.9	-.00094	.00932	403205	3701539
21	3561.4	.004647	24.5	-.00114	.01000	382067	3445035

Evolucion de Axiles en Secciones Parciales:

N	Ax(1)	Ax(6)
1	-0.0	0.0
2	-286.2	-8.0
3	-641.9	-17.6
4	-966.4	-26.5
5	-1062.3	-29.8
6	-1112.3	-32.1
7	-1142.3	-33.9
8	-1163.4	-35.4
9	-1181.1	-36.9
10	-1198.7	-38.4
11	-1320.1	-46.2
12	-1430.8	-54.1
13	-1477.6	-61.6
14	-1509.3	-69.4
15	-1532.4	-77.4
16	-1549.5	-85.5
17	-1564.3	-93.5
18	-1575.5	-101.6
19	-1585.4	-109.7
20	-1594.4	-117.9
21	-1568.3	-145.6

MOMENTOS-CURVATURA(ELASTOPLASTICO)

Título Sección: CV-22

* PRESOLICITACIONES ELASTICAS *

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Pretensado: 1117.00Tn.
Actua sobre la Sintermedia PI
Seccion Afectada: VN

Incremento de Carga 2 :
Flector : 228.00m.T
Seccion Afectada: VN

Incremento de Carga 3 :
Pretensado: 120.00Tn.
Actua sobre la Sintermedia PS
Seccion Afectada: VN

Incremento de Carga 4 :
Flector : 270.00m.T
Seccion Afectada: VA

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

LEYES MOMENTOS-CURVATURAS

CON consideracion de TENSION STIFFENING

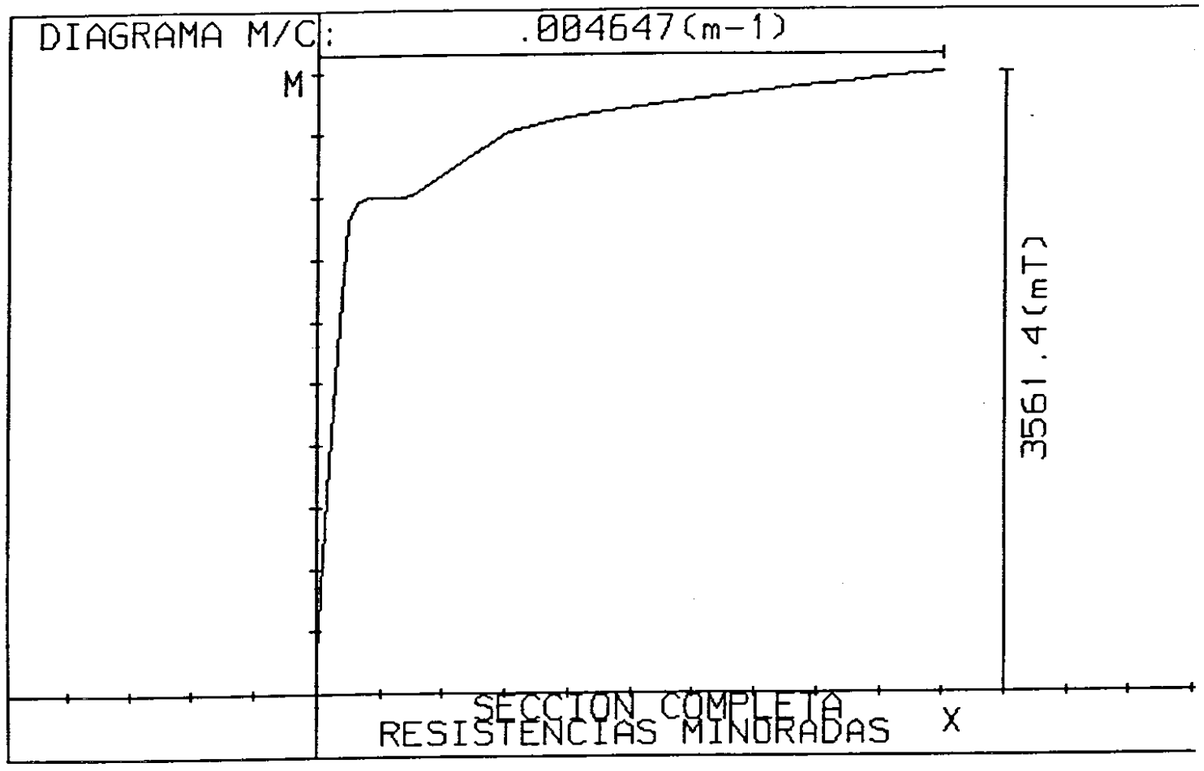
Flexion POSITIVA
[M] es el Momento Flector Total
[Xc] y [Xn] corresponden a Incrementos frente
a la posible Presolicitacion Elastica
[Ax(i)] muestra la evolucion del Axil(Tn) en la
S.parcial i durante el Incremento de Curvatura
[ecmx] y [etmx] son las Deformaciones Totales
maximas de Compresion y Traccion,respectivamente
[Itan] e [Isec] son las Inercias correspondientes
a los sucesivos Incrementos de Curvatura

[N]	Momento(mT)	Xc(m-1)	Xn(cm)	ecmx	etmx	Itan(cm4)	Isec(cm4)
1	199.3	0.000000$$$$$$		0.00000	-.00024		
2	1144.4	.000077	72.8	-.00006	-.00011	58105152	58105152
3	1970.3	.000155	80.2	-.00012	.00001	50775104	54440128
4	2707.7	.000232	80.4	-.00019	.00014	45335012	51405090
5	2823.5	.000310	68.5	-.00021	.00030	7123406	40334669
6	2852.1	.000387	59.4	-.00023	.00047	1754629	32618661
7	2854.8	.000465	52.6	-.00024	.00065	164768	27209678
8	2852.0	.000542	47.5	-.00026	.00082	-167114	23298708
9	2852.7	.000620	43.6	-.00027	.00100	41307	20391533
10	2861.1	.000697	40.6	-.00028	.00118	512980	18182805
11	3043.1	.001056	32.9	-.00035	.00199	2414226	12821488
12	3226.7	.001415	29.2	-.00041	.00281	2434027	10185864
13	3286.9	.001774	26.8	-.00048	.00362	798626	8286066
14	3332.6	.002133	25.3	-.00054	.00444	606278	6993428
15	3371.9	.002493	24.3	-.00061	.00525	520370	6060869
16	3406.7	.002852	23.6	-.00067	.00607	461466	5355759
17	3440.2	.003211	23.0	-.00074	.00688	444628	4806488
18	3471.5	.003570	22.6	-.00081	.00769	415258	4364766
19	3502.2	.003929	22.2	-.00087	.00851	406616	4003000
20	3532.6	.004288	21.9	-.00094	.00932	403205	3701539
21	3561.4	.004647	24.5	-.00114	.01000	382067	3445035

Evolucion de Axiles en Secciones Parciales:

N	Ax(5)	Ax(16)	Ax(17)	Ax(19)	Ax(20)
1	-612.1	-7.4	-7.6	500.6	500.8
2	-298.3	-3.8	-3.6	505.9	506.2
3	-12.9	-.5	.2	510.6	511.1
4	229.6	3.0	4.0	515.6	516.2
5	204.5	7.6	9.0	522.1	522.9
6	168.7	12.4	14.3	529.0	529.9
7	133.5	17.4	19.6	536.0	537.0
8	101.5	22.4	25.0	543.0	544.2
9	73.5	27.4	30.4	550.1	551.4
10	49.9	32.4	35.8	557.1	558.6
11	0.0	55.4	60.7	589.6	591.8
12	0.0	65.2	65.2	611.7	612.2
13	0.0	65.2	65.2	617.8	618.5
14	0.0	65.2	65.2	624.0	624.8
15	0.0	65.2	65.2	630.1	631.0
16	0.0	65.2	65.2	636.2	637.3
17	0.0	65.2	65.2	642.3	643.5
18	0.0	65.2	65.2	648.4	649.8
19	0.0	65.2	65.2	654.5	656.0
20	0.0	65.2	65.2	660.7	662.3
21	0.0	65.2	65.2	665.7	667.5

Md = 2246 mT
Ax: 77; 1; 2; 512; 513



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MOMENTOS-CURVATURA(ELASTOPLASTICO)

Título Sección: INTERMEDIA X=7.5 m (L=36 m) 66 CABLES

*** PRESOLICITACIONES ELASTICAS ***

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Pretensado: 1317.00Tn.
Actua sobre la Sintermedia PI
Seccion Afectada: VN

Incremento de Carga 2 :
Flector : 406.00m.T
Seccion Afectada: VN

Incremento de Carga 3 :
Pretensado: 120.00Tn.
Actua sobre la Sintermedia PS
Seccion Afectada: VN

Incremento de Carga 4 :
Flector : 505.00m.T
Seccion Afectada: VA

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tac	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tac	Tcomp
1	$$$$$$	0.0	0.0	0.0	0.0	1	$$$$$$	0.0	0.0	0.0	0.0
2	691.4	-134.0	-132.0	0.0	0.0	2	$$$$$$	0.0	0.0	0.0	0.0
3	691.4	-132.0	-129.6	0.0	0.0	3	$$$$$$	0.0	0.0	0.0	0.0
4	691.4	-129.6	-94.2	0.0	0.0	4	$$$$$$	0.0	0.0	0.0	0.0
5	691.4	-94.2	-89.8	0.0	0.0	5	$$$$$$	0.0	0.0	0.0	0.0
6	$$$$$$	0.0	0.0	0.0	0.0	6	$$$$$$	0.0	0.0	0.0	0.0
7	691.4	-686.9	-685.6	0.0	686.9	7	$$$$$$	0.0	0.0	0.0	0.0
8	691.4	-664.6	-663.4	0.0	664.6	8	$$$$$$	0.0	0.0	0.0	0.0
9	691.4	-641.9	-640.6	0.0	641.9	9	$$$$$$	0.0	0.0	0.0	0.0
10	691.4	-619.1	-617.9	0.0	619.1	10	$$$$$$	0.0	0.0	0.0	0.0
11	691.4	-596.3	-595.1	0.0	596.3	11	$$$$$$	0.0	0.0	0.0	0.0
12	691.4	-573.6	-572.3	0.0	573.6	12	$$$$$$	0.0	0.0	0.0	0.0
13	691.4	-550.8	-549.6	0.0	550.8	13	$$$$$$	0.0	0.0	0.0	0.0
14	691.4	-528.1	-526.8	0.0	528.1	14	$$$$$$	0.0	0.0	0.0	0.0
15	691.4	-505.3	-504.1	0.0	505.3	15	$$$$$$	0.0	0.0	0.0	0.0
16	691.4	-482.5	-481.3	0.0	482.5	16	$$$$$$	0.0	0.0	0.0	0.0
17	691.4	-465.2	-463.9	0.0	465.2	17	$$$$$$	0.0	0.0	0.0	0.0
18	$$$$$$	13863.3	13867.4	0.0	13867.4	18	$$$$$$	0.0	0.0	0.0	0.0
19	$$$$$$	14448.7	14452.7	0.0	14452.7	19	$$$$$$	0.0	0.0	0.0	0.0
20	$$$$$$	14462.9	14466.9	0.0	14466.9	20	$$$$$$	0.0	0.0	0.0	0.0

Incrementos de Carga:
1 2 3 4

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(COMPRESION)(%): 2.50
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

LEYES MOMENTOS-CURVATURAS

CON consideracion de TENSION STIFFENING

Flexion POSITIVA
[N] es el Momento Flector Total
[Xc] y [Xn] corresponden a Incrementos frente
a la posible Presolicitacion Elastica
[Ax(i)] muestra la evolucion del Axil(Tn) en la
S.parcial i durante el Incremento de Curvatura
[ecmx] y [etmx] son las Deformaciones Totales
maximas de Compresion y Traccion,respectivamente
[Itan] e [Isec] son las Inercias correspondientes
a los sucesivos Incrementos de Curvatura

[N]	Momento(mT)	Xc(m-1)	Xn(cm)	ecmx	etmx	Itan(cm4)	Isec(cm4)
1	550.0	0.000000$$$$$	0.00000	-.00022			
2	1472.4	.000079	79.1	-.00006	-.00009	55860045	55860045
3	2234.8	.000157	89.0	-.00014	.00003	46169670	51014857
4	2879.7	.000236	88.7	-.00021	.00015	39052594	47027436
5	3043.8	.000315	77.4	-.00024	.00031	9939034	37755336
6	3118.3	.000393	68.4	-.00027	.00047	4511134	31106495
7	3157.7	.000472	61.4	-.00029	.00065	2387388	26319978
8	3183.6	.000550	56.1	-.00031	.00082	1565567	22783633
9	3206.6	.000629	51.8	-.00033	.00100	1392759	20109774
10	3232.7	.000708	48.4	-.00034	.00117	1578719	18050768
11	3462.8	.001072	39.6	-.00042	.00198	3005249	12935292
12	3665.3	.001437	35.7	-.00051	.00279	2645595	10324473
13	3734.2	.001801	32.9	-.00059	.00360	900102	8417160
14	3789.5	.002166	31.1	-.00067	.00441	721638	7121874
15	3837.3	.002531	29.8	-.00075	.00523	624309	6185784
16	3881.6	.002895	28.8	-.00083	.00604	578722	5479710
17	3923.0	.003260	28.0	-.00091	.00685	541233	4927380
18	3963.9	.003624	27.4	-.00099	.00767	534240	4485467
19	4002.7	.003989	26.8	-.00107	.00848	506786	4121824
20	4041.2	.004353	26.4	-.00115	.00930	502574	3818734
21	4088.4	.004718	28.4	-.00134	.01000	616981	3571326

Evolucion de Axiles en Secciones Parciales:

N	Ax(1)	Ax(6)
1	-0.0	0.0
2	-224.7	-23.8
3	-515.8	-53.9
4	-771.2	-80.6
5	-874.8	-93.1
6	-941.9	-102.1
7	-990.2	-109.4
8	-1027.9	-115.7
9	-1060.1	-121.5
10	-1089.8	-127.1
11	-1239.2	-154.4
12	-1349.4	-184.4
13	-1395.4	-211.1
14	-1426.4	-238.1
15	-1447.3	-265.0
16	-1461.1	-291.6
17	-1470.0	-317.9
18	-1476.4	-344.2
19	-1479.6	-370.1
20	-1481.3	-395.9
21	-1409.4	-467.3

MOMENTOS-CURVATURA(ELASTOPLASTICO)

Titulo Seccion: INTERMEDIA X=7.5 m (L=36 m) 66 CABLES

* PRESOLICITACIONES ELASTICAS *

Analisis SIN FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Pretensado: 1317.00Tn.
Actua sobre la Sintermedia PI
Seccion Afectada: VN

Incremento de Carga 2 :
Flector : 406.00m.T
Seccion Afectada: VN

Incremento de Carga 3 :
Pretensado: 120.00Tn.
Actua sobre la Sintermedia PS
Seccion Afectada: VN

Incremento de Carga 4 :
Flector : 505.00m.T
Seccion Afectada: VA

ESTUDIO SECCION COMPLETA

Analisis con Resistencia de materiales MINORADAS
Def. Ultima Acero Estructural(TRACCION)(%): 2.50
Deformacion Ultima Hormigon(COMPRESION) : Pivote en Bloque de Hormigon
Deformacion Ultima Hormigon(TRACCION)(%): 1.00
Coeficiente Ideal Fluencia[π*(Cperm./Ctot.)]: 0.00

LEYES MOMENTOS-CURVATURAS

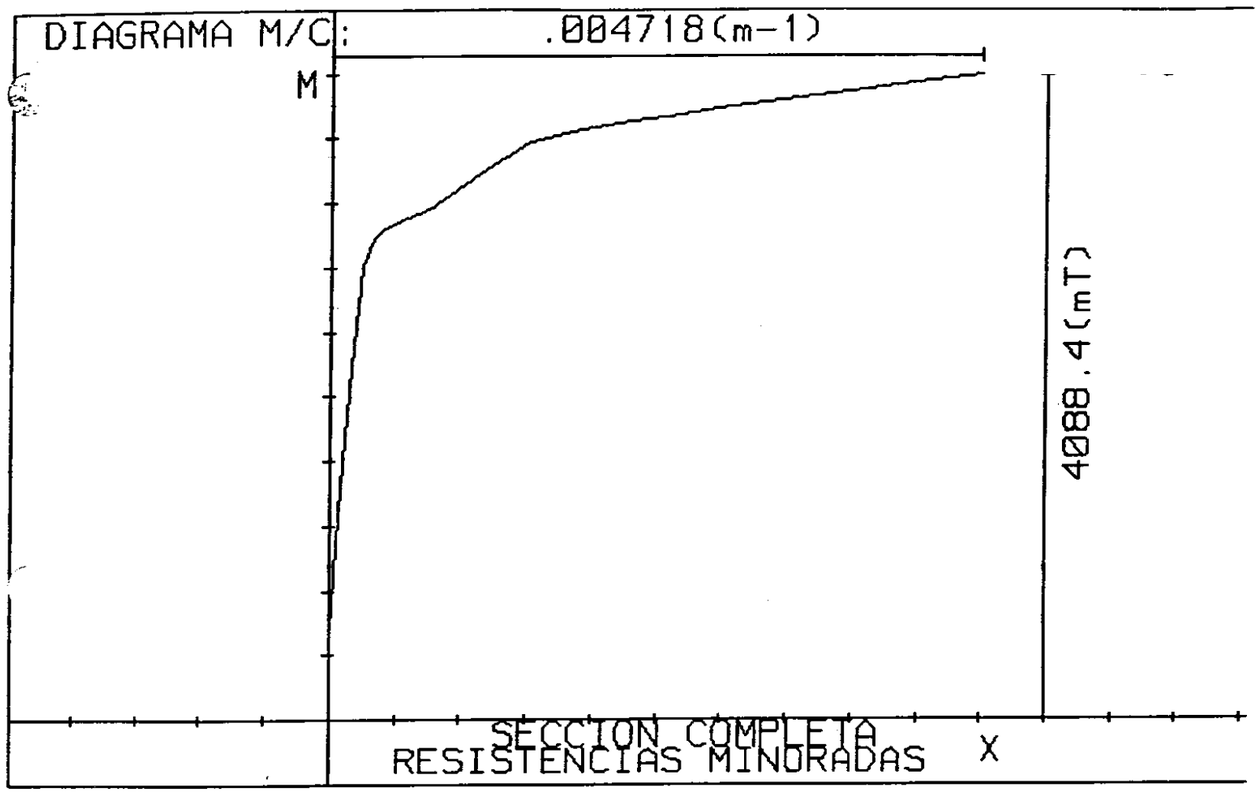
CON consideracion de TENSION STIFFENING

Flexion POSITIVA
[M] es el Momento Flector Total
[Xc] y [Xn] corresponden a Incrementos frente
a la posible Presolicitacion Elastica
[Ax(i)] muestra la evolucion del Axil(Tn) en la
S.parcial i durante el Incremento de Curvatura
[ecmx] y [etmx] son las Deformaciones Totales
maximas de Compresion y Traccion,respectivamente
[Itan] e [Isec] son las Inercias correspondientes
a los sucesivos Incrementos de Curvatura

[N]	Momento(mT)	Xc(m-1)	Xn(cm)	ecmx	etmx	Itan(cm4)	Isec(cm4)
1	550.0	0.000000$$$$$		0.00000	-.00022		
2	1472.4	.000079	79.1	-.00006	-.00009	55860045	55860045
3	2234.8	.000157	89.0	-.00014	.00003	46169670	51014857
4	2879.7	.000236	88.7	-.00021	.00015	39052594	47027436
5	3043.8	.000315	77.4	-.00024	.00031	9939034	37755336
6	3118.3	.000393	68.4	-.00027	.00047	4511134	31106495
7	3157.7	.000472	61.4	-.00029	.00065	2387388	26319978
8	3183.6	.000550	56.1	-.00031	.00082	1565567	22783633
9	3206.6	.000629	51.8	-.00033	.00100	1392759	20109774
10	3232.7	.000708	48.4	-.00034	.00117	1578719	18050768
11	3462.8	.001072	39.6	-.00042	.00198	3005249	12935292
12	3665.3	.001437	35.7	-.00051	.00279	2645595	10324473
13	3734.2	.001801	32.9	-.00059	.00360	900102	8417160
14	3789.5	.002166	31.1	-.00067	.00441	721638	7121874
15	3837.3	.002531	29.8	-.00075	.00523	624309	6185784
16	3881.6	.002895	28.8	-.00083	.00604	578722	5479710
17	3923.0	.003260	28.0	-.00091	.00685	541233	4927380
18	3963.9	.003624	27.4	-.00099	.00767	534240	4485467
19	4002.7	.003989	26.8	-.00107	.00848	506786	4121824
20	4041.2	.004353	26.4	-.00115	.00930	502574	3818734
21	4088.4	.004718	28.4	-.00134	.01000	616981	3571326

Evolucion de Axiles en Secciones Parciales:

N	Ax(5)	Ax(16)	Ax(17)	Ax(19)	Ax(20)
1	-566.6	-7.1	-6.8	592.4	592.8
2	-260.4	-3.5	-2.9	598.5	599.0
3	6.8	-.5	.6	603.7	604.4
4	212.7	2.9	4.4	609.4	610.3
5	196.0	7.3	9.2	616.8	617.9
6	164.2	12.0	14.3	624.6	625.9
7	131.4	16.8	19.5	632.7	634.1
8	100.7	21.7	24.8	640.8	642.4
9	73.4	26.7	30.2	649.0	650.9
10	50.2	31.6	35.6	657.3	659.3
11	0.0	54.5	60.3	695.4	698.2
12	0.0	65.2	65.2	720.9	721.6
13	0.0	65.2	65.2	728.1	729.0
14	0.0	65.2	65.2	735.3	736.3
15	0.0	65.2	65.2	742.5	743.7
16	0.0	65.2	65.2	749.7	751.0
17	0.0	65.2	65.2	756.9	758.4
18	0.0	65.2	65.2	764.1	765.8
19	0.0	65.2	65.2	771.4	773.2
20	0.0	65.2	65.2	778.6	780.5
21	0.0	65.2	65.2	784.7	786.9



?

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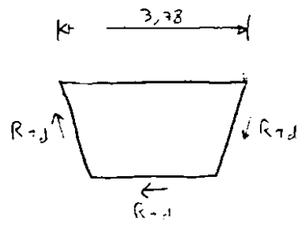
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ARMADURA LOCALIZADA DE TORSIÓN EN APOYOS

T_d máx en pila : T_d = 448 mT (elem. 1 a 31)

Rasante de torsión: $R_{Td} = T_d / 2A = 448 mT / 2 \times 7{,}35 m^2 = 30{,}5 T/m$

Cuantía total: $H_d = 3{,}78 m \times 30{,}5 T/m = 115{,}3 T \equiv 27{,}5 cm^2 =$



$A_p = 57{,}6 T / 4{,}43 T/cm^2 = 13 cm^2 = 4\phi 20 = 12{,}56 cm^2$

En estribos, T_d máx = 336 mT (elem. 1) ; no es necesario [illegible]

[illegible]

SUBANEJO N° 23

LOSA DEL TABLERO: CONTROL DE FATIGA

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ANÁLISIS DE FATIGA DE LA LOSA

Eurocódigo 2, apartado 4.3.7.

- Condición de resistencia a fatiga:

$$\gamma_F \cdot \gamma_{Sd} \cdot \Delta\sigma_{s,eq} \leq \frac{\Delta\sigma_{Rsk}(N^*)}{\gamma_{s,fat}}$$

Siendo:

$\gamma_F = 1$ (Apdo. 4.3.7.2)

$\gamma_{Sd} = 1$ (" ")

$\gamma_{s,fat} = 1,15$ (" ")

$\Delta\sigma_{Rsk}(N^*) = 180\ N/mm^2$ (Apdo. 4.3.7.5, tabla 4.113)

$\Delta\sigma_{s,eq}$: Según el apdo 4.3.7.5, se calcula según el anejo 10G, cuyo apartado A 10G.3.1 indica que la $\Delta\sigma$ vendrá dada por el modelo de carga 71 de la ENV 1991-3, apdo 6.3, con el coeficiente de la ENV 1991-3 apdo 6.4.

Queda la condición de resistencia a fatiga:

$$\Delta\sigma_{s,eq} \leq 1595\ kp/cm^2$$

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- Obtención de $\Delta\sigma_{s,eq}$:

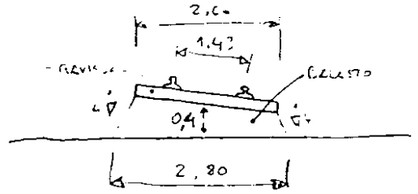
- Cargas:

ENV 1991-3, apdo 6.3:

Tren de cargas de 250kN/vía con s = 1,6 m. A efectos de fatiga, se toma una carga de 250 kN por vía, y se aplica en una franja de losa de b = 1,6 m.

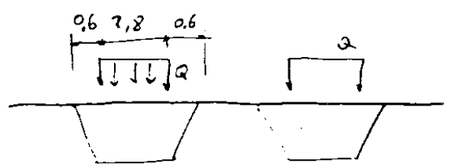
Transversalmente, podrían ser necesidad de rail [illegible] de vía; se sitúa de forma que actúe centrada en el espacio entre almas de la viga (para provocar el momento M+).

Distribución de presiones sobre la losa: Según el apdo 6.3.5.:



⇨ Ancho de reparto transversal = 2,8 m

Pueden actuar 1 ó 2 ejes (1 o 2 vías):



$$Q = \frac{250\ kN}{2,8\ m} = 89,3\ kN/m = 9,1\ T/m$$

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- Factor dinámico:

ENV 1991-3, apdo. 6.4.3:

$$\phi_2 = \frac{1,44}{\sqrt{L_\phi} - 0,2} + 0,82$$

L_ϕ: Tabla 6.2, caso 4.1 : $L_\phi = 3L$, siendo L el vano entre ejes: $L_\phi = 12$ m

Queda:

$$\phi_2 = \frac{1,44}{\sqrt{12} - 0,2} + 0,82 = 1,26$$

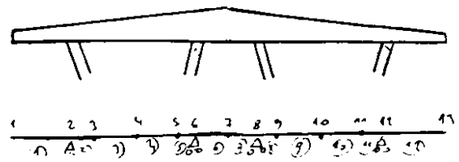
Queda la carga sin factor dinámico:

$$\phi_2 Q = 1,26 \times 9,1 \text{ T/m} = 11,5 \text{ T/m}$$

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Modelo de cálculo:



Material: $E = 3350000 \text{ T/m}^2$

Sección	A	I
1	0,320	0,0011
2	0,384	0,0018
3	0,403	0,0021
4	0,448	0,0029
5	0,509	0,0043
6	0,512	0,0044
7	0,544	0,0052

Cargas:

1) Carga en 1 vía:

0
-3, 1, 11.5,
4
0

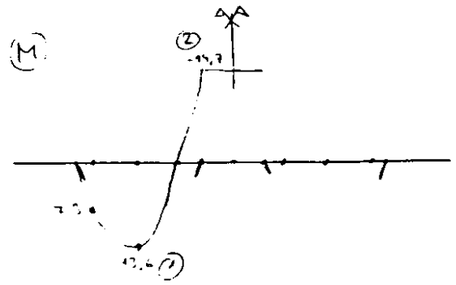
2) Carga en 2 vías

0
-3, 1, 11.5,
4, 9, 10
0

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Resultados:



(1) Centro de los centrales

$M = 13{,}6\ mT$; $b = 1{,}6\ m$; $A_{s,sup} = 5\phi16/m \equiv 10\phi16$
$A_{s,inf} = 3\phi16/\text{plinto} \equiv 13{,}2\phi20$

$\Delta\sigma = 1569\ kp/cm^2$, válido.

(2) Apoyo interior de viga

$M = -14{,}7\ mT$; $b = 1{,}6\ m$; $A_{s,sup} = 11\phi16/m \equiv 18\phi16$.

$\Delta\sigma = 1613\ kp/cm^2$, válido

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Control de fatiga según la U.I.C.

Aunque en las bases de cálculo del Proyecto se indica que el control de resistencia a fatiga debe efectuarse con arreglo a lo estipulado en el Eurocódigo 2, tal como se ha hecho, se adjunta, como comprobación, el control según la U.I.C.

Según la ficha UIC774-1, Ap. 8.7.4:

$$\Delta\sigma_{adm} = \frac{\Delta f_{sk}\ k_A\ k_N}{\gamma_{m,fat}\ \gamma_{f,fat}} \frac{1}{K_t\ \lambda_T\ \beta_T}$$

Siendo:

$\Delta f_{sk} = 200\ N/mm^2$ ($\phi16$), $160\ N/mm^2$ ($\phi20$)	Ap. 1 UIC774-1 8.7.5
$K_A = 1$ (barras rectas)	8.5.4
$K_N = 1$ (2 millones de ciclos)	8.5.4
$\gamma_{m,fat} = 1{,}26$	8.4.1
$\gamma_{f,fat} = 1{,}12$	8.4.2
$K_T = 1{,}12$ (tomando tráfico previsto, del lado de la seguridad)	8.5.3
$\beta_T \simeq 1{,}12$ ($P_1/(P_1+P_2) > 1$)	8.5.4
$\lambda_T = 0{,}63$ ($L > 10$ m)	8.5.2

Resulta: $\Delta\sigma_{adm} = \begin{cases} 1222\ kp/cm^2 \text{ en } \phi16 \\ 1645\ kp/cm^2 \text{ en } \phi20 \end{cases}$

Por lo que el código más restrictivo es el EC2 ($\Delta\sigma_{adm} = 1595\ kp/cm^2$)

En cuanto a las cargas de fatiga, son iguales en ambas normas, por lo que resulta globalmente algo más exigente el Eurocódigo

*** PROGRAMA BARRA[MARCOS] ***
Version Noviembre 88

Proyecto:
VIADUCTO DE LOS CHORROS

Comentario:
FATIGA EN LOSA - SEGUN EC2

Material Base Homogeneizacion:
El (Tn/m2) : 3350000.00

DATOS DE LOS NUDOS

Nudo	Xi(m.)	Yi(m.)	Peso(Tn)	Movimientos Impuestos Ux	Vy	gz
1	0.00	0.00				
2	2.00	0.00				
3	2.60	0.00				
4	4.00	0.00				
5	5.40	0.00				
6	6.00	0.00				
7	7.00	0.00				
8	8.00	0.00				
9	8.60	0.00				
10	10.00	0.00				
11	11.40	0.00				
12	12.00	0.00				
13	14.00	0.00				

VINCULACIONES NUDOS

Nudo	Coaccion-Ux	Coaccion-Vy	Coaccion-gz
2	******	******	
6		******	
8		******	
12		******	

DATOS DE SECCIONES TIPO

No	Area(m2)	M.Iner.(m4)	S.Cort.(m2)	Peso(T/ml)
1	.320000	.001100		
2	.384000	.001800		
3	.403000	.002100		
4	.448000	.002900		
5	.509000	.004300		
6	.512000	.004400		
7	.544000	.005200		

DATOS DE LOS ELEMENTOS

Num	Nd-i	Nd-d	Sti	Std	Vin	Var	Vp	Long(m)	Alf(sx)
1	1	2	1	2	0.0	0.0	0.0	2.000	0.00
2	2	3	2	3	0.0	0.0	0.0	.600	0.00
3	3	4	3	4	0.0	0.0	0.0	1.400	0.00
4	4	5	4	5	0.0	0.0	0.0	1.400	0.00
5	5	6	5	6	0.0	0.0	0.0	.600	0.00
6	6	7	6	7	0.0	0.0	0.0	1.000	0.00
7	7	8	7	6	0.0	0.0	0.0	1.000	0.00
8	8	9	6	5	0.0	0.0	0.0	.600	0.00
9	9	10	5	4	0.0	0.0	0.0	1.400	0.00
10	10	11	4	3	0.0	0.0	0.0	1.400	0.00
11	11	12	3	2	0.0	0.0	0.0	.600	0.00
12	12	13	2	1	0.0	0.0	0.0	2.000	0.00

Nota: En Elementos Curvos [Long] y [Alf] corresponden a la Cuerda

DATOS DE LOS ESTADOS DE CARGA

ESTADO DE CARGA 1 :

Titulo:
CARGA EN 1 VIA
Tipo: [1]Cargas Exteriores/Movimientos Apoyo

ACCIONES EN ELEMENTOS (m.;Tn;gsex.) :

Nel	aj	Parametros de Carga:	
3	1	11.500	(Carga Repartida)

Misma Accion en Elementos : **4**

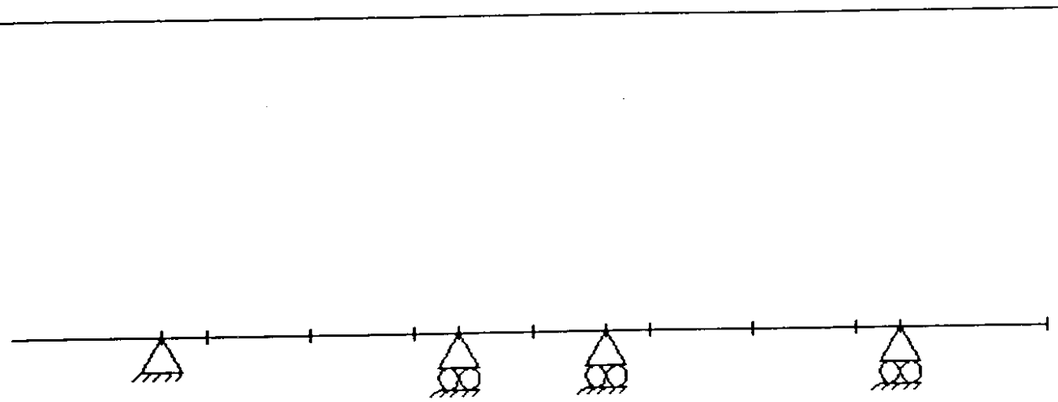
ESTADO DE CARGA 2 :

Titulo:
CARGA EN 2 VIAS
Tipo: [1]Cargas Exteriores/Movimientos Apoyo

ACCIONES EN ELEMENTOS (m.;Tn;gsex.) :

Nel	aj	Parametros de Carga:	
3	1	11.500	(Carga Repartida)

Misma Accion en Elementos : **4 9 10**



Proyecto:
VIADUCTO DE LOS CHORROS
FATIGA EN LOSA - SEGUN EC2

R

*** BARRA (RESULTADOS) ***

Proyecto:
VIADUCTO DE LOS CHORROS

Comentario:
FATIGA EN LOSA - SEGUN EC2

Estado de Carga 1:
CARGA EN 1 VIA

** MOVIMIENTOS NUDOS (Ejes Generales) **

Nudo	Ux (m.)	Vy (m.)	øz (rad.)
1	0.000000	.003655	-.001827
2	0.000000	0.000000	-.001827
3	0.000000	-.001031	-.001501
4	0.000000	-.001873	.000446
5	0.000000	-.000554	.001106
6	0.000000	0.000000	.000657
7	0.000000	.000228	-.000100
8	0.000000	0.000000	-.000256
9	0.000000	-.000126	-.000167
10	0.000000	-.000220	.000016
11	0.000000	-.000092	.000143
12	0.000000	0.000000	.000159
13	0.000000	.000319	.000159

** ESFUERZOS ELEMENTOS (Ejes Locales) **

Nel N-i N-d		Axil(T)	Cortante(T)	Flector(mT)
1	1 2			
S-izquierda		0.000	0.000	0.000
S- centro		0.000	0.000	0.000
S- derecha		0.000	0.000	0.000
2	2 3			
S-izquierda		0.000	-11.847	0.000
S- centro		0.000	-11.847	3.554
S- derecha		0.000	-11.847	7.108
3	3 4			
S-izquierda		0.000	-11.847	7.108
S- centro		0.000	-3.797	12.583
S- derecha		0.000	4.253	12.423
4	4 5			
S-izquierda		0.000	4.253	12.423
S- centro		0.000	12.303	6.628
S- derecha		0.000	20.353	-4.802
5	5 6			
S-izquierda		0.000	20.353	-4.802
S- centro		0.000	20.353	-10.908
S- derecha		0.000	20.353	-17.014
6	6 7			
S-izquierda		0.000	-9.675	-17.014
S- centro		0.000	-9.675	-12.176
S- derecha		0.000	-9.675	-7.338
7	7 8			
S-izquierda		0.000	-9.675	-7.338
S- centro		0.000	-9.675	-2.500
S- derecha		0.000	-9.675	2.337
8	8 9			
S-izquierda		0.000	.584	2.337
S- centro		0.000	.584	2.162
S- derecha		0.000	.584	1.987
9	9 10			
S-izquierda		0.000	.584	1.987
S- centro		0.000	.584	1.578
S- derecha		0.000	.584	1.169
10	10 11			
S-izquierda		0.000	.584	1.169
S- centro		0.000	.584	.760
S- derecha		0.000	.584	.351
11	11 12			
S-izquierda		0.000	.584	.351
S- centro		0.000	.584	.175
S- derecha		0.000	.584	0.000
12	12 13			
S-izquierda		0.000	0.000	0.000
S- centro		0.000	0.000	0.000
S- derecha		0.000	0.000	0.000

Nota: Los esfuerzos se refieren a los extremos del elemento, excluyendo zonas rigidas en nudos de tamaño finito

** REACCIONES EXTERIORES (Ejes Generales) **

Nudo	Fx (Tn)	Fy (Tn)	Mz (mT)
2	0.000	11.847	0.000
6	0.000	30.029	0.000
8	0.000	-10.260	0.000
12	0.000	.584	0.000

Nota: Se han controlado Errores de Cierre en Nudos y Reacciones (respecto a [0,0])...(<1%)

*** BARRA (RESULTADOS) ***

Proyecto:
VIADUCTO DE LOS CHORROS

Comentario:
FATIGA EN LOSA - SEGUN EC2

Estado de Carga 2:
CARGA EN 2 VIAS

** MOVIMIENTOS NUDOS (Ejes Generales) **

Nudo	Ux (m.)	Vy (m.)	øz (rad.)
1	0.000000	.003973	-.001987
2	0.000000	0.000000	-.001987
3	0.000000	-.001124	-.001644
4	0.000000	-.002094	.000429
5	0.000000	-.000680	.001273
6	0.000000	0.000000	.000913
7	0.000000	.000456	0.000000
8	0.000000	0.000000	-.000913
9	0.000000	-.000680	-.001273
10	0.000000	-.002094	-.000429
11	0.000000	-.001124	.001644
12	0.000000	0.000000	.001987
13	0.000000	.003973	.001987

** ESFUERZOS ELEMENTOS (Ejes Locales) **

Nel N-i N-d	Axil(T)	Cortante(T)	Flector(mT)
1 1 2			
S-izquierda	0.000	0.000	0.000
S- centro	0.000	0.000	0.000
S- derecha	0.000	0.000	0.000
2 2 3			
S-izquierda	0.000	-12.431	-0.000
S- centro	0.000	-12.431	3.729
S- derecha	0.000	-12.431	7.459
3 3 4			
S-izquierda	0.000	-12.431	7.459
S- centro	0.000	-4.381	13.343
S- derecha	0.000	3.669	13.592
4 4 5			
S-izquierda	0.000	3.669	13.592
S- centro	0.000	11.719	8.206
S- derecha	0.000	19.769	-2.815
5 5 6			
S-izquierda	0.000	19.769	-2.815
S- centro	0.000	19.769	-8.746
S- derecha	0.000	19.769	-14.676
6 6 7			
S-izquierda	0.000	0.000	-14.676
S- centro	0.000	0.000	-14.676
S- derecha	0.000	0.000	-14.676
7 7 8			
S-izquierda	0.000	0.000	-14.676
S- centro	0.000	0.000	-14.676
S- derecha	0.000	0.000	-14.676
8 8 9			
S-izquierda	0.000	-19.769	-14.676
S- centro	0.000	-19.769	-8.746
S- derecha	0.000	-19.769	-2.815
9 9 10			
S-izquierda	0.000	-19.769	-2.815
S- centro	0.000	-11.719	8.206
S- derecha	0.000	-3.669	13.592
10 10 11			
S-izquierda	0.000	-3.669	13.592
S- centro	0.000	4.381	13.343
S- derecha	0.000	12.431	7.459
11 11 12			
S-izquierda	0.000	12.431	7.459
S- centro	0.000	12.431	3.729
S- derecha	0.000	12.431	0.000
12 12 13			
S-izquierda	0.000	0.000	0.000
S- centro	0.000	0.000	0.000
S- derecha	0.000	0.000	-0.000

Nota: Los esfuerzos se refieren a los extremos del elemento, excluyendo zonas rigidas en nudos de tamaño finito

** REACCIONES EXTERIORES (Ejes Generales) **

Nudo	Fx (Tn)	Fy (Tn)	Mz (mT)
2	0.000	12.431	0.000
6	0.000	19.769	0.000
8	0.000	19.769	0.000
12	0.000	12.431	0.000

Nota: Se han controlado Errores de Cierre en Nudos y Reacciones(respecto a [0,0])...(<1%)

Proyecto:
VIADUCTO DE LOS CHORROS

Seccion:ENTRE ALMAS DE VIGA

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	Jø1	Jø2
1(HO)	350.0	1.50	350000	1.75	1.07
2(RD)	5100.0	1.15	2100000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) ø(mm)	Yo(cm)	Mc	Nsr
1	1	160.0	28.0	0.0	C*	0
2	2	8.0	16.0	2.5	CT	0
3	2	12.8	20.0	23.5	CT	0
4	2	3.0	16.0	13.5	CT	0

* CONSTANTES ESTATICAS *

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	252.4	7.14	15918.8
	(1)	160.3	10.10	12537.0
	(2)	181.2	9.23	13491.9
F.pura -	(0)	192.3	23.13	7915.6
	(1)	126.2	21.42	6907.5
	(2)	141.0	21.89	7177.8
C.Simple	(0)	809.0	14.31	54997.4
	(1)	333.8	14.75	23842.5
	(2)	423.0	14.60	29709.9
T.Simple	(0)	62.3	18.04	5275.4
	(1)	62.3	18.04	5275.4
	(2)	62.3	18.04	5275.4

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

** CALCULO ELASTICO **

Título Sección: ENTRE ALMAS DE VIGA

Analisis CON FISURACION

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : 13.60m.T
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	7.1	-101.7	0.0	0.0	0.0	1	7.1	-101.7	0.0	0.0	0.0
2	7.1	-396.3	-259.6	0.0	396.3	2	7.1	-396.3	-259.6	0.0	396.3
3	7.1	1397.8	1568.6	0.0	1568.6	3	7.1	1397.8	1568.6	0.0	1568.6
4	7.1	543.4	680.1	0.0	680.1	4	7.1	543.4	680.1	0.0	680.1

Incrementos de Carga:
1

Proyecto:
VIADUCTO DE LOS CHORROS

Seccion:APOYO INTERIOR SOBRE VIGA

** CALCULO ELASTICO **

Título Sección: APOYO INTERIOR SOBRE VIGA

Analisis CON FISURACION

MATERIALES

Num.	Fck (Kg/cm2)	Gamma	M.El. (Kg/cm2)	Jø1	Jø2
1(HO)	350.0	1.50	350000	1.75	1.07
2(RD)	5100.0	1.15	2100000		

SECCIONES PARCIALES

Num	Mat.	B(cm) Num	H(cm) ø(mm)	Yo(cm)	Mc	Nsr
1	1	160.0	32.0	0.0	C*	0
2	2	18.0	16.0	2.5	CT	0

* CONSTANTES ESTATICAS *

S.COMPLETA

Tipo	Acciones	Area(cm2)	Xcg(cm)	Inercia(cm4)
F:pura +	(0)	86.7	1.93	139.6
	(1)	59.9	2.48	81.4
	(2)	65.6	2.33	96.1
F.pura -	(0)	238.1	24.43	20022.2
	(1)	146.4	20.63	15628.1
	(2)	167.5	21.80	16951.1
C.Simple	(0)	889.5	15.48	78425.3
	(1)	346.5	14.67	31714.5
	(2)	448.4	14.98	40551.6
T.Simple	(0)	36.2	3.30	7.7
	(1)	36.2	3.30	7.7
	(2)	36.2	3.30	7.7

*** Nota: Homogeneizadas a E=2100000 Kp/cm2 ***

Secuencia Incrementos de Carga:

Incremento de Carga 1 :
Flector : -14.70m.T
Tipo de Solicitacion: SC
Seccion Afectada: TOTAL

TENSIONES (Kg/cm2):

ESTADO INICIAL (To)						ESTADO FINAL (Tinf)					
Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp	Nsp	Yn(cm)	Tsup.	Tinf.	Tao	Tcomp
1	24.4	0.0	-92.7	0.0	0.0	1	24.4	0.0	-92.7	0.0	0.0
2	24.4	1609.9	1492.4	0.0	1609.9	2	24.4	1609.9	1492.4	0.0	1609.9

Incrementos de Carga:
1

SUBANEJO Nº 24

MOVIMIENTOS, GIROS Y REACCIONES EN APOYOS

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Movimientos:

Fluencia: $t = 15$ días (antes de la unión entre vigas.) $\rightarrow u = -0{,}0203$ m por vano de 36 m.

$t = \infty \rightarrow u = -0{,}0274$ m. " "

$\Delta u = -0{,}0274 - (-0{,}0203) = -0{,}0071$ m. "

$\varepsilon = \frac{0{,}0071}{36} = 19{,}7 \cdot 10^{-5}$ → se toma un 30% mayor para evitar incertidumbres en el momento de continuidad → $25{,}6 \cdot 10^{-5}$

Retracción: del lado de la seguridad se adopta $\varepsilon = 24 \cdot 10^{-5}$ sin tener en cuenta la fase anterior a la unión entre vigas.

Térmico:

$\Delta T = \pm 20°C$

$\alpha = 10^{-5}\ °C^{-1}$

$\varepsilon = \alpha \Delta T$

Movimientos en apoyos: (mm.)

	E1	P1	P2	P3	P4	P5	P6	P7	E2
Fluencia	0,0	5,6	14,8	24	33	42	52	61	66,5
Retracción	0,0	5,3	13,9	22,6	31	40	48	57,1	62,4
térmica	0,0	4,4	11,6	18,8	26	33,2	40,4	47,6	52
Total hacia E1	0,0	15	40	65	90	116	141	166	181
Total hacia E2	0,0	4	12	19	26	33	40	48	52

Valores característicos

Recorrido necesario de los aparatos de apoyo: (mm.)

Sentido del recorrido	E1	P1	P2	P3	P4	P5	P6	P7	E2
hacia E1	50	50	80	110	140	160	180	200	230
hacia E2	50	50	50	50	60	70	80	80	90

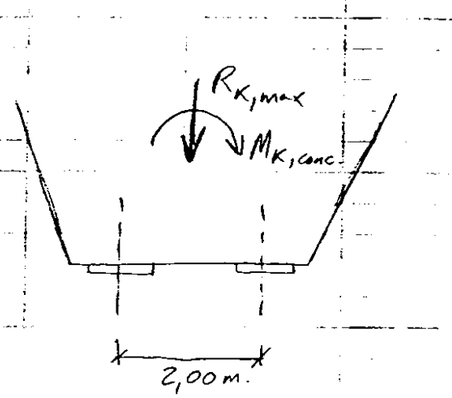
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APOYOS

REACCIONES VERTICALES

	$R_{K,max}$ (t/viga)	$M_{K,conc.}$ (mt/viga)
Estribos	336	124
Pila extrema	876	170
Pila interior	1018	229



- Reacciones verticales por apoyo:

Estribos $R_K = \frac{336}{2} + \frac{124}{2{,}0} = 230$ t/apoyo

Pilas extremas $R_K = \frac{876}{2} + \frac{170}{2{,}0} = 523$ t/apoyo

Pilas interiores $R_K = \frac{1018}{2} + \frac{229}{2{,}0} = 624$ t/apoyo

REACCIONES HORIZONTALES

Estribo 1: $R_{K,t} = 118$ t/apoyo (accionado.

Pilas extremas: $R_{K,t} = 81$ t/apoyo "

Pilas interiores: $R_{K,t} = 88$ t/apoyo "

Estribo 2: $R_{K,t} = 101$ t/apoyo "

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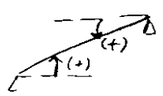
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Giros en apoyos: (valores en rad x 10^6)

	E1	P1	P2	P3	P4	P5	P6	P7	E2
	i	f | i	f | i	f | i	f | i	f | i	f | i	f | i	f
Peso propio	-183	183 | -780	780 | -780	= | =	= | =	= | =	= | =	780 | -183	183
Peso propio + pretensado	1388	-3718 | 3718	= | =	= | =	= | =	= | =	= | =	-3718 | 3718	-1388
P. losa	-210	210 | -921	921 | -921	= | =	= | =	= | =	= | =	921 | -210	210
Balasto	-89	-142	29	≈0	0	0	-29	142	89
resto C.M.	-25	-39	≈0	0	0	0	≈0	39	24
S.C. uso RENFE	-536/318	-926/523	-1150/1209	≈	≈	≈	-1207/1152	-536/933	-331/569
térmico									
Asientos									
Retracción									
Fluencia									
Trazado	-2818	(1) (2) 2818 | -2194	(1) (2) 2194 | -1389	(1) (2) 1389 | -583	(1) (2) 583 | 194	(1) (2) +194 | 028	(1) (2) +1188 | 1806	(1) (2) +1806 | 2455	2455
GIRO MÁXIMO (1) →	-2290	-7433 | 321 -1128	-6112 | 1844	-5328 | 2617	-4530 | 3424	-3753 | 4200	-2979 | 5034	-2141 | 5812	1959
GIRO MÁXIMO (2) →	-2290	-6809 | 945	-3007	-4530 | 3423	-3753 | 4200	-2979 | 5034	-2141 | 5812	-1794 | 6161	1959

Valores incluyendo el efecto de la precarga

(1) Sentido de colocación de vigas desde E1 hacia E2.
(2) " " " " " E2 " E1.



Giro máximo en apoyo standard → 0,01 rad. Válido.

SUBANEJO Nº 25

DIMENSIONAMIENTO DE LA UNIÓN ESTRIBO-TABLERO

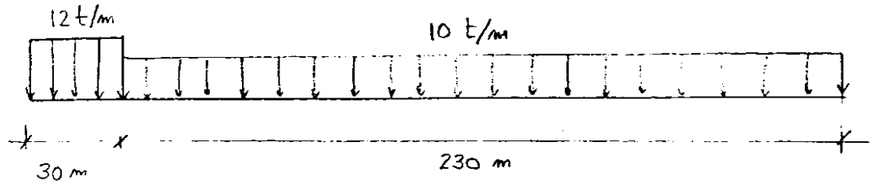
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HOJA / DE

FUERZA DE FRENADO - RENFE

Se calcula la fuerza total de frenado sobre el tablero considerando el siguiente tren de cargas:



La fuerza vertical total resultante de este tren de carga es:

$$F_V = 12 \cdot 30 + 10 \cdot 230 = 2660 \text{ t}$$

Aplicando un coeficiente de rozamiento de 1/8 se obtiene la fuerza total horizontal que actúa sobre una vía:

$$F_{h1} = \frac{1}{8} F_V = \frac{1}{8} \cdot 2660 = 332.5 \text{ t}$$

La fuerza total sobre las dos vías es

$$F_{h2} = 1.9 \cdot F_{h1} = 1.9 \cdot 332.5 = 631.7 \text{ t}$$

(315.9 t/vía)

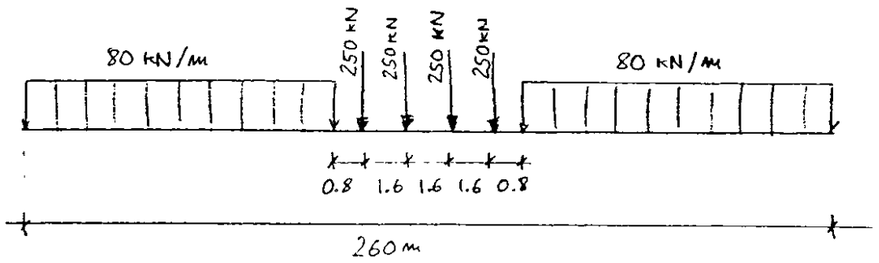
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HOJA 2 DE

FUERZA DE FRENADO - UIC

El tren de cargas considerado es el siguiente



Fuerza vertical total

$$F_V = (260 - 0.8 \cdot 3 - 1.6 \cdot 3) \cdot 80 + 250 \cdot 4 = 21.288 \text{ kN}$$

$$F_{h1} = \frac{1}{4} \cdot F_V = \frac{1}{4} \cdot 21288 = 5072 \text{ kN} \quad (1 \text{ vía})$$

$$F_{h2} = 2.0 \cdot F_{h1} = 2.0 \cdot 5072 = 10.144 \text{ kN} = 1034 \text{ t}$$

(517.0 t/vía)

DIMENSIONAMIENTO DE LAS BARRAS DE UNIÓN TABLERO-ESTRIBO

		HIP I (UIC)		HIP II (UIC)		HIP III (RENFE)	
	Axil (t/viga)	Coef.	Axil	Coef.	Axil	Coef.	Axil
Frenado (UIC)	517	1.10	568.7	1.00	517		0
Frenado (RENFE)	315.9		0		0	1.50	473.85
Fuerza cetrífuga	150	1.30	195	1.20	180	1.50	225
Viento	283.2	1.40	396.48	1.20	339.84	1.50	424.8
Térmico	332	0.00	0	1.00	332	1.00	332
		F_d =	**1160.18**	F_d =	**1368.84**	0.9	1455.65
						F_d =	**1310.085**

Esfuerzos obtenidos a partir de las envolventes características (elementos 405 y 406)

Se adopta como solicitación **F_d = 1368.8 t**

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UNIÓN ENTRE ESTRIBO Y TABLERO

- Cables de unión longitudinal:

F_d = 1368 t.

• Estado límite último: $A = \frac{F_d}{f_{pk}/\gamma_s} = \frac{1368.10^3}{17100/1,10} = 88\ cm^2$

$\frac{88\ cm^2}{4\ cables \cdot 1,4\ cm^2/cordón\ \phi 0,6''} = 15,7 \rightarrow$ 4 cables de 16 $\phi 0,6''$

• Fuerza de tesado:

$\sigma_{t=\infty} \leq 0,6 \times f_{pk}$

Se toma un 15% de pérdidas totales $\Rightarrow \frac{0,6}{0,85} \simeq 0,70 \Rightarrow$

$\Rightarrow$ se tesa al $0,70 \times f_{pk} \Rightarrow P_0 = 16 \times 0,70 \times 190000 \times 1,4.10^{-4} \simeq$

$\simeq 300$ t/cable

• Comprobación en servicio:

$F_K = 517 + 150 + 283 + 332 \times \underbrace{\frac{0,03}{0,05}}_{\text{para } \mu=0,05} = 1149$ t/viga

tiene en cuenta un coef. de roz. en apoyos intermedios a los valores extremos adoptados (0,01 favorable y 0,05 desfavorable).

$P_\infty^{tot} = 4\ cables \times 16\ cordones \times 0,70 \times f_{pk} \times \underbrace{0,85}_{\text{pérdidas}} \times 1,4.10^{-4} m^2 = 1013$ t/viga

Se admite un ligero despegue para carga máxima debido a que la fuerza de tesado es un 12% menor que la F_K.

Se adoptan finalmente 4 cables de 16 cordones $\phi 0,6''$ por viga tesados a 300 t/cable.

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FECHA HOJA DE

— Apoyo para reacción longitudinal entre estribo y tablero.

Reacción máxima de la envolvente característica sin coef. de impacto: $R_K = -1199\ t/viga$

Fuerza de tesado en cables: ($t=\infty$ al ser un estado en servicio y cumplirse esta condición en casi todo el período de funcionamiento).

$P_\infty = -1013\ t/viga$

$F_K = -1199 - 1013 = -2212\ t. = 21700\ KN \approx$ apoyo PL-2200

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FECHA HOJA 1 DE

ARMADURA LOCAL EN ESTRIBO 1

Se dispone armadura pasiva suficiente para resistir la tracción máxima de la viga en los metros más cercanos al estribo fijo, en la zona en la que el pretensado es aún reducido.

$F_d = 1369\ t$; $A_p = 1369\ t / 5{,}11\ t/cm^2 / 1{,}15 = 309\ cm^2$

Armadura existente:

- Tabla inferior = $\phi 25$ a 20, 2 caras = $2 \times 14\ \phi 12$ = $32\ cm^2$
- Almas = $\phi 12$ /1cm, 4 caras = $4 \times 8\ \phi 12$ = $36\ cm^2$
- Losa = $\phi 12$: 175, bef = 5m = $40\ \phi 12$ = $45\ cm^2$

$113\ cm^2$

Refuerzos:

- Tabla inferior = $\phi 25$ a 20, 2 caras = $2 \times 14\ \phi 25 = 138\ cm^2$
- Losa = $\phi 25$ a 250, bef = 5m = $20\ \phi 25$ = $98\ cm^2$

$236\ cm^2$

Total = 113 + 236 = $349\ cm^2 > 309\ cm^2$ válido.

SUBANEJO Nº 26

DIMENSIONAMIENTO DE MAMPAROS

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FECHA HOJA DE

MAMPARO DE ESTRIBO FIJO (E-1)

Se ha realizado un modelo de elementos finitos para tener en cuenta el trabajo en placa del mampara para la actuación de la fuerza horizontal entre estribo y tablero.

— se han introducido los valores de acciones mayorados obteniéndose los siguientes resultados de esfuerzos:

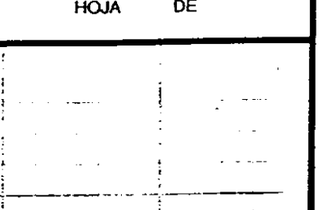
• Flexión de eje vertical

$M_1 = 300$ mt/m → en sección central

$M_2 = 261$ mt/m → a 0,36 m. de la sección central.

Suponiendo que existe redistribución:

$$M_d \simeq \frac{(4\times 0{,}36\,m - 1)\cdot 300\,mt + 261\,mt}{4\times 0{,}36\,m.} = 273\ mt/m$$



↓ sobrevalorado pues la curva de variación de momentos es convexa.

$V_1 = 513$ t/m → en sección central

$V_2 = 500$ t/m → a 0,36 m. de la sección central.

Luego $V_d = \frac{(4\times 0{,}36\,m - 1)\times 513\,t + 500\,t}{4\times 0{,}36\,m.} = 504$ t/m.

• Flexión de eje horizontal:

$M_1 = 311$ mt/m. → en sección central

$M_2 = 273$ mt/m → a 0,36 m. de la sección central

$M_d = \frac{(4\times 0{,}36\,m - 1)\times 311 + 273}{4\times 0{,}36} = 285$ mt/m

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$V_1 = 461$ t/m → en sección central

$V_2 = 392$ t/m → a 0,36 m. de la sección central.

$V_d = \frac{(4\times 0{,}36 - 1)\times 461 + 392}{4\times 0{,}36} = 413$ t/m.

— Armadura: ($d = 106$ cm)

Flexión de eje vertical: (armadura horizontal).

Flexión:

$M_d = 273$ mt/m → $U_c = \frac{6000}{1{,}4}\times 106\times 1{,}0 = 4543$ t/m.

$U_{s2} = 10\times 4{,}91\times 4{,}43 = 217{,}5$ t/m ; $d - d' = 1{,}02$

$U_{s1} = U_c\left(1 - \sqrt{1 - \frac{2\times(M_d - U_{s2}(d-d'))}{U_c d}}\right) + U_{s2} = 266$ t/m

$\Rightarrow 60{,}00$ cm²/m.

se adopta $\phi 25$ a 0,10 m. ya que la zona de máximo momento se encuentra en una anchura muy localizada.

cortante: $f_{cv} = 0{,}5\sqrt{f_{cd}} = 0{,}5\sqrt{\frac{600}{1{,}4}} = 10{,}35$ Kg/cm²

$V_{cu} = 103{,}5\times 1{,}06\times 1{,}0 = 110$ t/m.

$V_{su} = V_d - V_{cu} = 504 - 110 = 394$ t/m.

$A_\alpha = \frac{394\cdot 10^3}{4200\times 0{,}9\times 106} = 98$ cm²/m → 6 ramas $\phi 20$ a 0,20m

Flexión de eje horizontal: (armadura vertical).

Flexión:

$M_d = 285$ mt/m → $U_c = 4543$ t/m.

$U_{s2} = 10\times 4{,}91\times 4{,}43 = 217{,}5$ t/m $d - d' = 1{,}02$ m.

$U_{s1} = 277{,}47$ t/m → $A_s = 62{,}6$ cm²/m →

→ $\phi 25/0{,}10$ m. por la misma razón que la armadura horizontal

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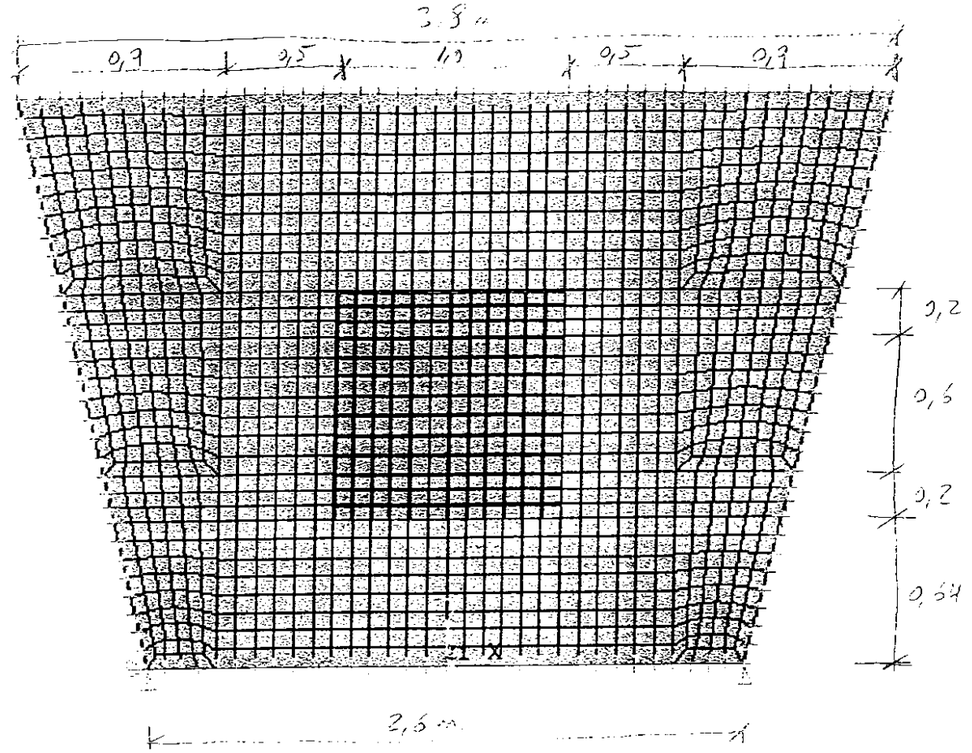
FECHA HOJA DE

Cortante:

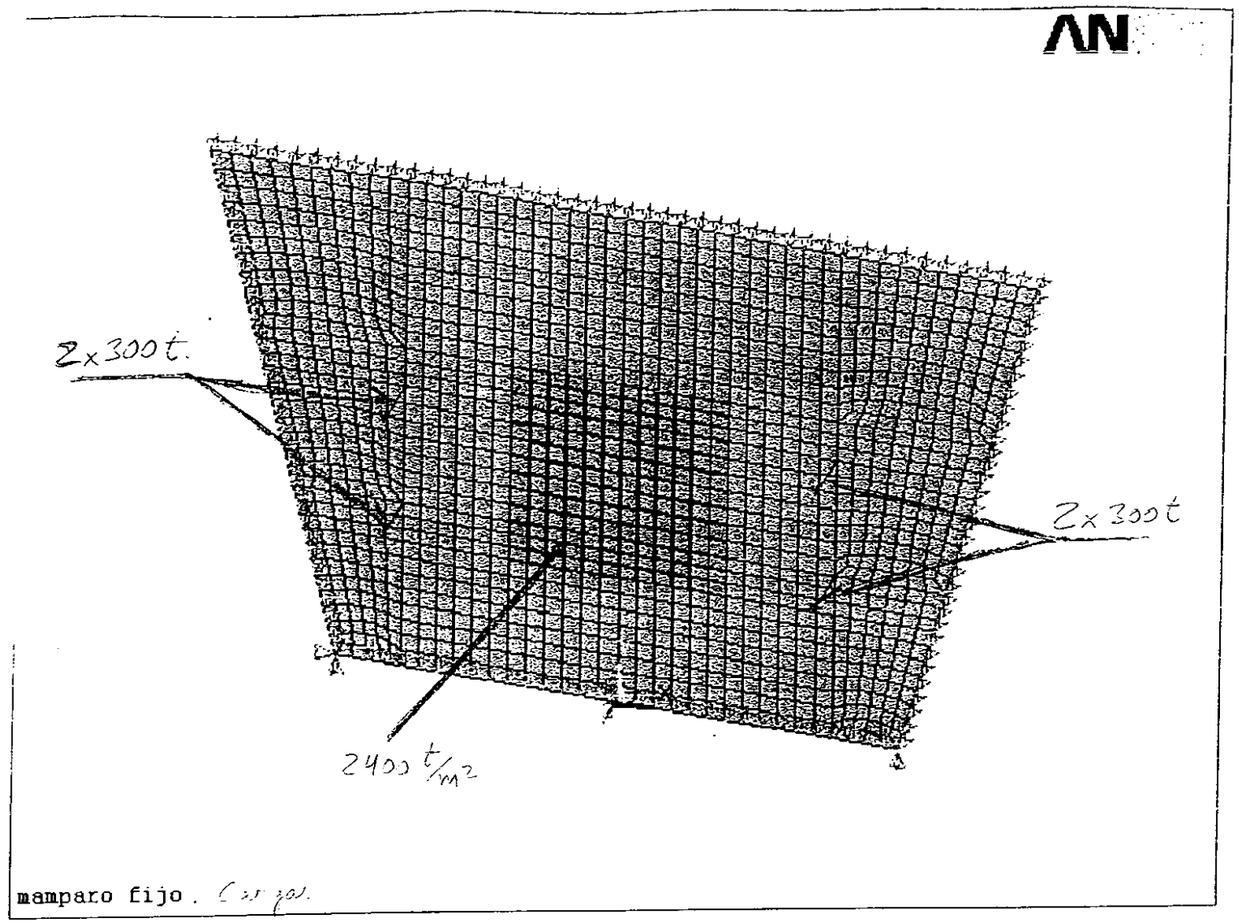
$V_{su} = V_d - V_{cu} = 413 - 110 = 303\ t/m.$

$A_\alpha = \dfrac{303 \cdot 10^3}{4200 \times 0{,}9 \times 1{,}06} = 75{,}6\ cm^2/m \longrightarrow$ 6 ramas $\phi 20$ a 0,25 m.

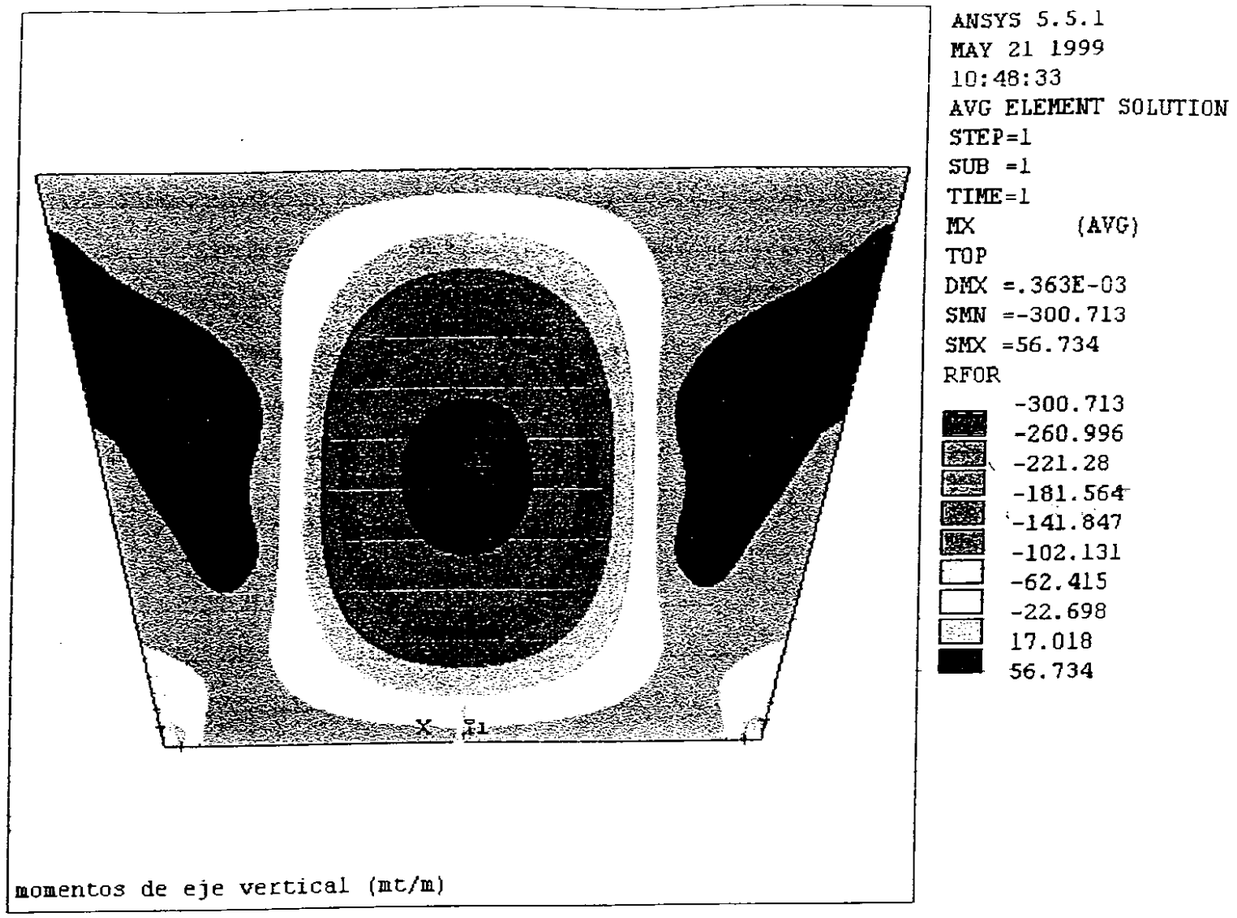
AN



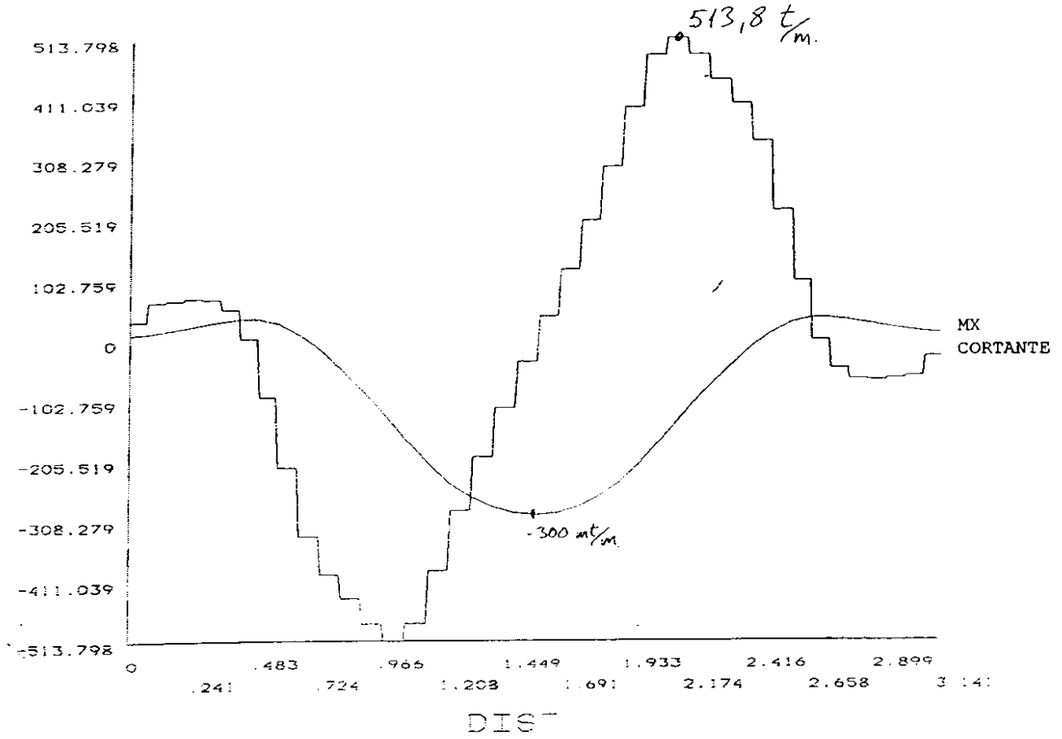
mamparo fijo.



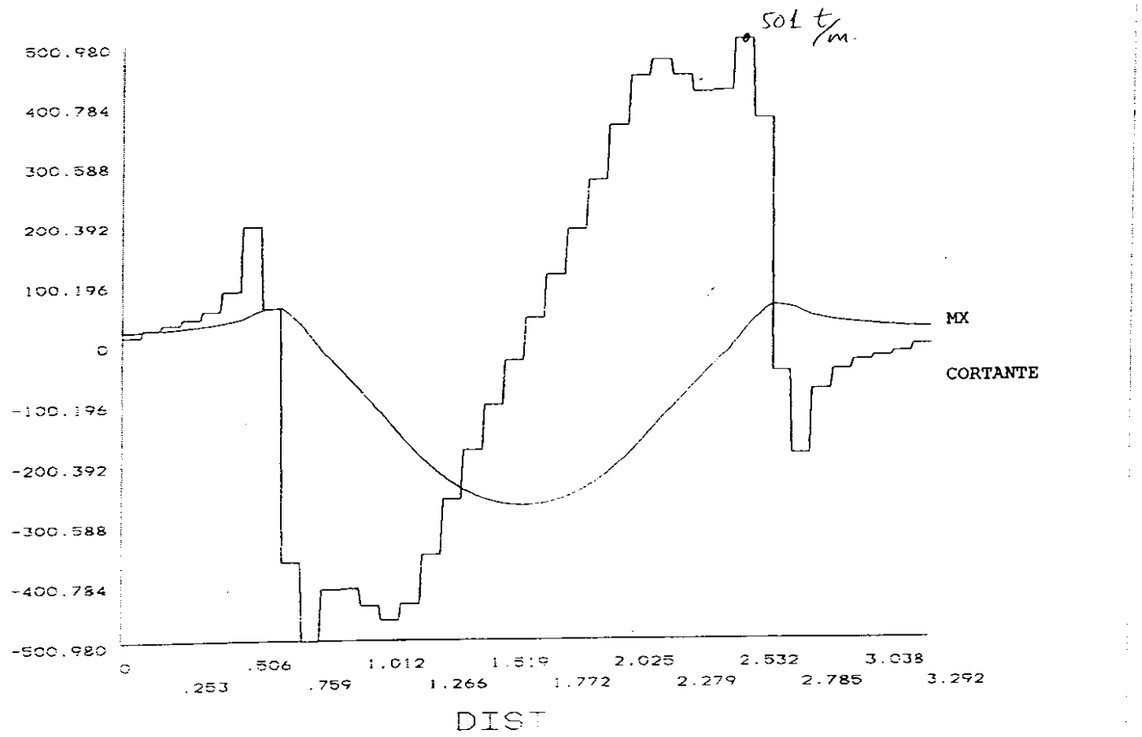
mamparo fijo. Corte.



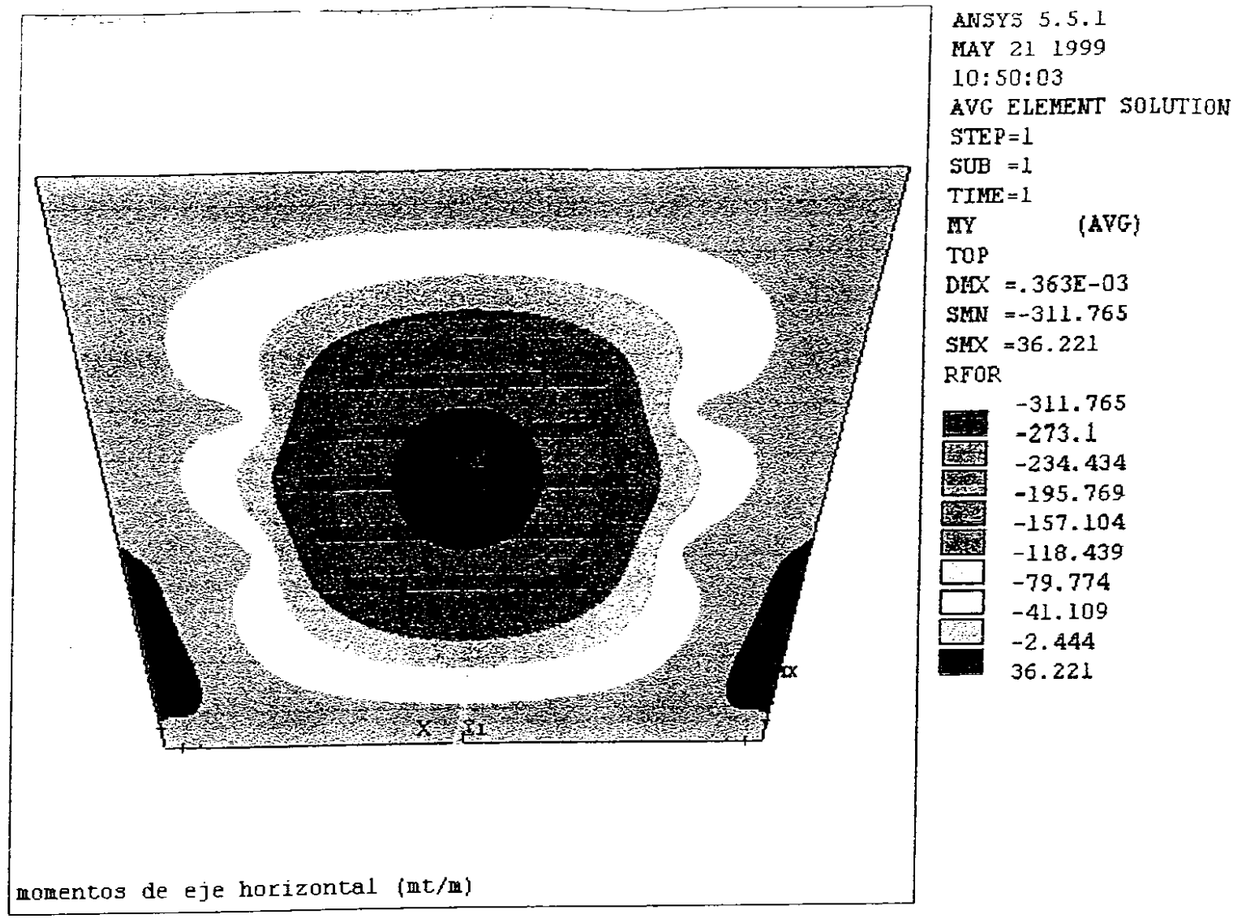
momentos de eje vertical (mt/m)

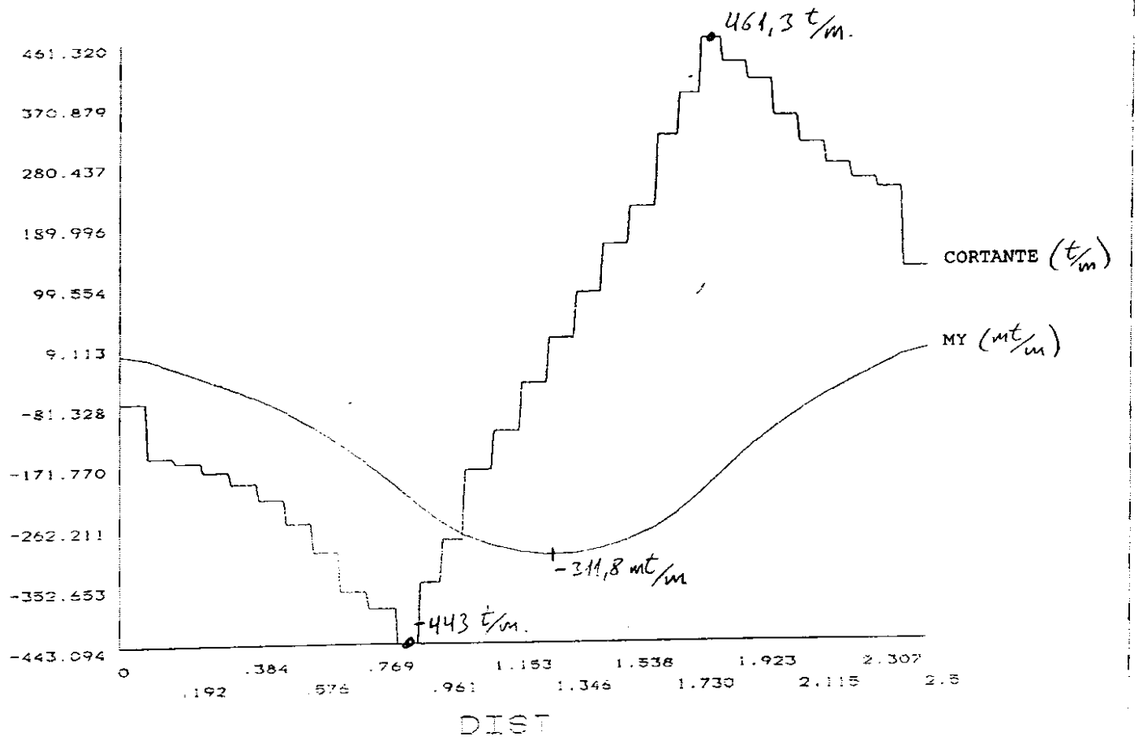


momentos eje vertical y cortantes. Secc.central (t y m)

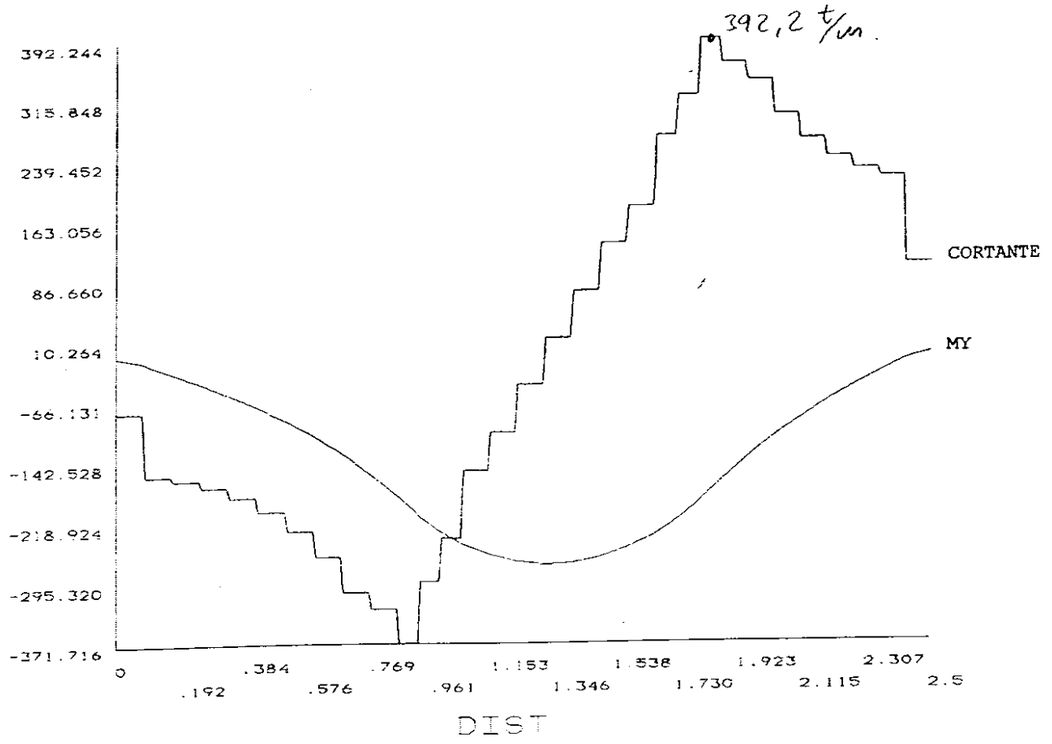


momentos eje vertical y cortantes. Secc. a 0,36m de la central (t y m)


ANSYS 5.5.1
MAY 21 1999
10:50:03
AVG ELEMENT SOLUTION
STEP=1
SUB =1
TIME=1
MY (AVG)
TOP
DMX =.363E-03
SMN =-311.765
SMX =36.221
RFOR
-311.765
-273.1
-234.434
-195.769
-157.104
-118.439
-79.774
-41.109
-2.444
36.221
momentos de eje horizontal (mt/m)



momentos eje horizontal y cortantes. Secc.central (t y m)



momentos eje horizontal y cortantes. Secc. a 0,36m de la central (t y m)

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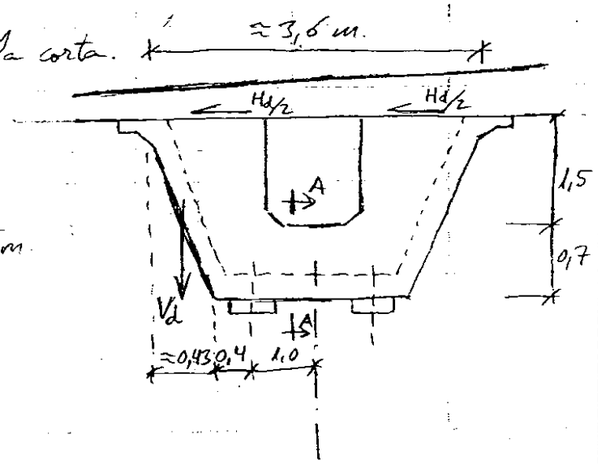
FECHA

26 012

HOJA DE

Mampara de estribo 2 (móvil).

Se dimensiona como ménsula corta.



A-A { $d = 0{,}65$ m.
$b = 1{,}1$ m.

— Armadura principal:

$M_d = V_d \times (0{,}4 + 0{,}43/2) + \frac{H_d}{2} \times 1{,}5\,m$

	V_d (t/alma)	T_d (mt/cajón)
Hip 1	241	157
Hip 2	175	252

$R_d = \frac{T_d}{2A} \rightarrow \frac{H_d}{2} = \frac{1}{2} \times R_d \times 3{,}6\,m. = \begin{cases} 19{,}3\ t \rightarrow Hip\ 1 \\ 30{,}98\ t \rightarrow Hip\ 2 \end{cases}$

$A = 7{,}32\,m^2$

$M_d = \max(177; 154) = 177\ mt. \rightarrow A_{s,f} = 64{,}2\ cm^2$

$A_{sv} = \frac{V_d}{f_{yd} \cdot \frac{\cot g\,\theta}{1}} = \frac{241}{4{,}2} = 57{,}4\ cm^2 \rightarrow \frac{2}{3} A_{sv} = 38{,}3\ cm^2$

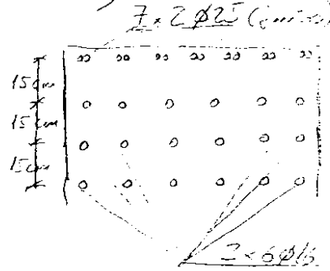
$0{,}04 \cdot \frac{f_{cd}}{f_{yd}} \cdot b \cdot d = 27{,}6\ cm^2$

$A_s = 64{,}2\ cm^2$

— Armadura secundaria

Como $A_{s0} > \frac{2}{3} A_{sv} \Rightarrow A_{se} = 0{,}5\, A_{sf} = 32{,}1\ cm^2$

repartidos en los $\frac{2}{3} d$ superiores $\rightarrow 3 \times 6\,\phi 16$



— Armadura de cortante

En la zona entre apoyos se dispone la armadura mínima a cortante $\rightarrow \frac{0{,}02\, f_{cd} \cdot b}{f_{yk,d}} = 0{,}02 \times \frac{600/1{,}4 \times 110}{4200} \times 100\,cm/m = 22{,}4\ cm^2/m \rightarrow$

$\rightarrow$ cercos dobles $\phi 12$ a 0,20 m.

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Rasante entre losa y viga:

$H_d = 62\ t. \rightarrow \frac{62\ t}{4{,}2\ t/cm^2} = 14{,}8\ cm^2$

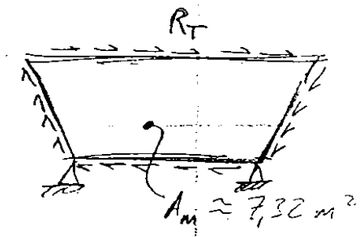
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MAMPAROS EN APOYOS DE PILA

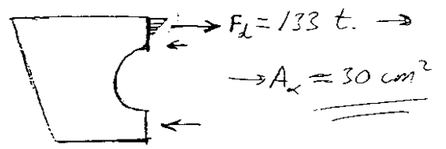
Hipótesis	V_d (t/alma)	T_d (mt/cajón)	Rasante R_d (t/m)
① Máximo cortante	412	247	
② Máximo torsor	327	448	30,6

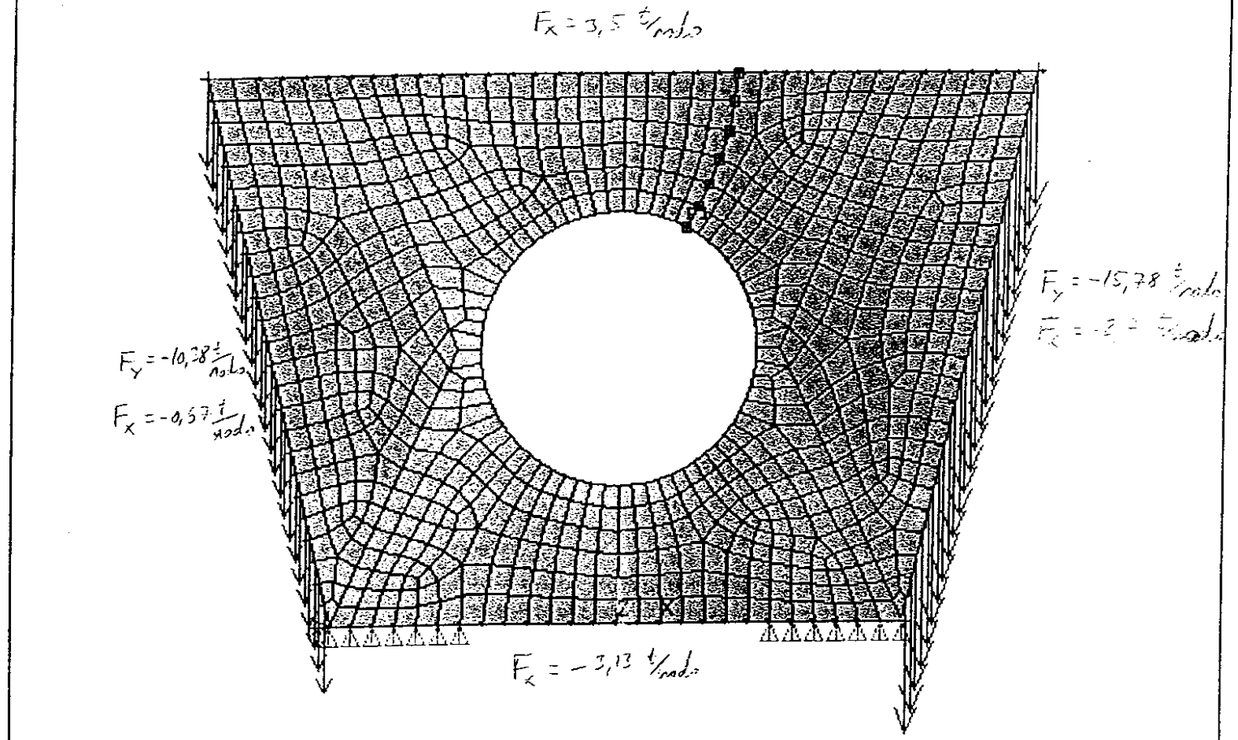
Armadura de conexión entre mampara y viga (ó losa):



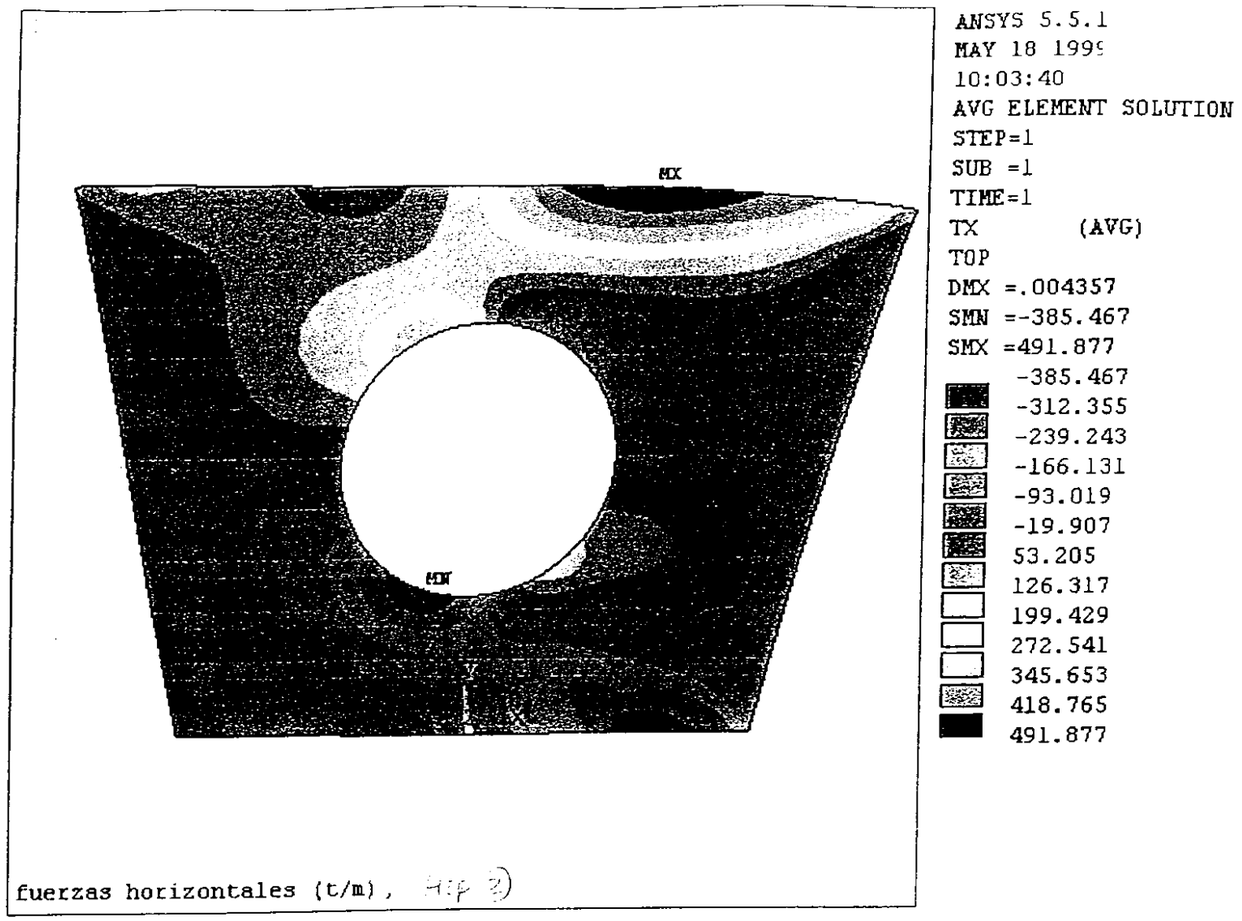
$$\frac{30{,}6\ t/m}{4{,}2\ t/cm^2} = 7{,}3\ cm^2/m \longrightarrow \text{dos ramas } \frac{7{,}3}{2} = 3{,}65\ cm^2/m$$

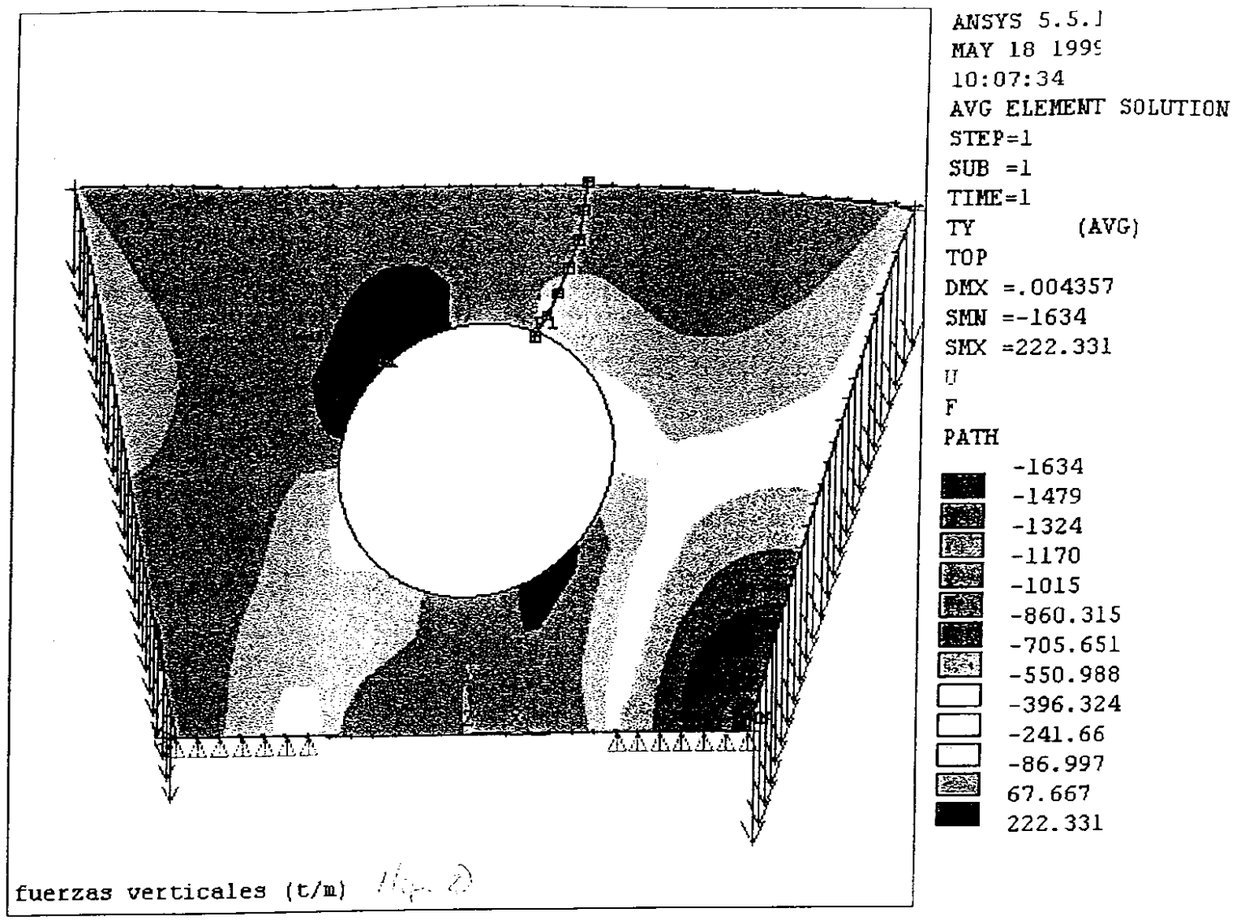
Del análisis por elementos finitos adjunto se obtiene una tracción mayorada igual a 133 t.



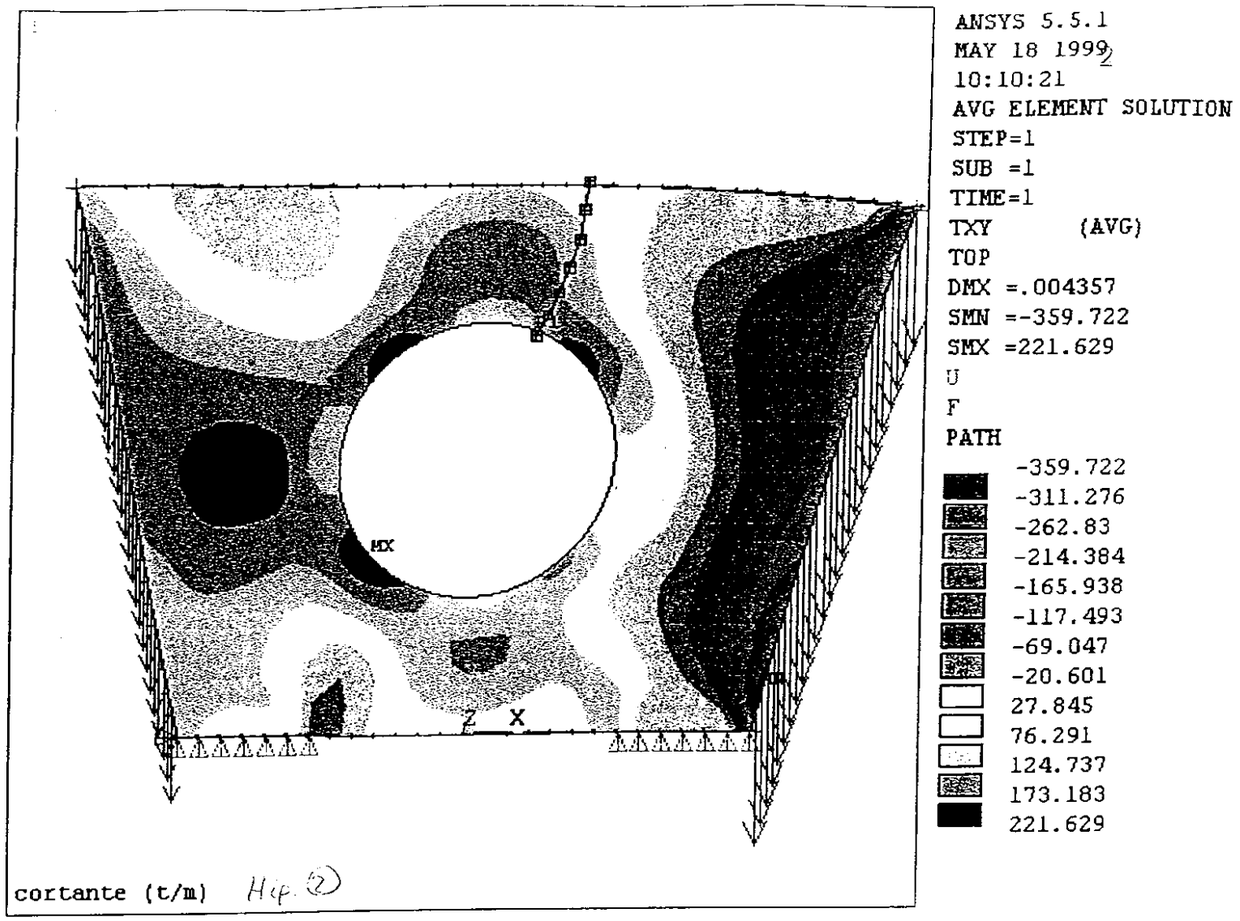

$F_x = 3,5$ t/nodo
$F_y = -15,78$ t/nodo
$F_y = -10,38$ t/nodo
$F_x = -0,57$ t/nodo
$F_x = -3,13$ t/nodo

Hip. 2


ANSYS 5.5.1
MAY 18 199
10:03:40
AVG ELEMENT SOLUTION
STEP=1
SUB =1
TIME=1
TX (AVG)
TOP
DMX =.004357
SMN =-385.467
SMX =491.877
-385.467
-312.355
-239.243
-166.131
-93.019
-19.907
53.205
126.317
199.429
272.541
345.653
418.765
491.877
MX
MN
Y
X
fuerzas horizontales (t/m), Hip 3)



fuerzas verticales (t/m)


ANSYS 5.5.1
MAY 18 1999
10:10:21
AVG ELEMENT SOLUTION
STEP=1
SUB =1
TIME=1
TXY (AVG)
TOP
DMX =.004357
SMN =-359.722
SMX =221.629
U
F
PATH
-359.722
-311.276
-262.83
-214.384
-165.938
-117.493
-69.047
-20.601
27.845
76.291
124.737
173.183
221.629
MX
Z
X
cortante (t/m) Hip 2

PRINT ALONG PATH DEFINED BY LPATH COMMAND. DSYS= 0

26 019

***** PATH VARIABLE SUMMARY *****

S	TX	SUMTX
0.0000	478.71	0.0000
0.62809E-02	474.85	2.9946
0.12562E-01	470.99	5.9650
0.18843E-01	467.12	8.9111
0.25124E-01	463.26	11.833
0.31405E-01	459.40	14.730
0.37685E-01	455.54	17.604
0.43966E-01	451.68	20.453
0.50247E-01	447.82	23.278
0.56528E-01	443.96	26.078
0.62809E-01	440.09	28.855
0.69090E-01	436.23	31.607
0.75371E-01	432.37	34.334
0.81652E-01	428.51	37.038
0.87933E-01	424.65	39.717
0.94214E-01	420.79	42.372
0.10049	416.92	45.003
0.10678	413.06	47.610
0.11306	409.20	50.192
0.11934	405.34	52.750
0.12562	401.48	55.284
0.13207	394.48	57.851
0.13852	387.49	60.372
0.14497	380.49	62.849
0.15142	373.50	65.280
0.15787	366.50	67.666
0.16431	359.51	70.007
0.17076	352.51	72.303
0.17721	345.51	74.554
0.18366	338.52	76.760
0.19011	331.52	78.921
0.19656	324.53	81.036
0.20301	317.53	83.107
20946	310.54	85.132
0.21591	303.54	87.112
0.22236	296.55	89.048
0.22881	289.55	90.938
0.23526	282.56	92.782
0.24171	275.56	94.582
0.24816	268.57	96.337
0.25461	261.57	98.046
0.26106	255.38	99.715

***** PATH VARIABLE SUMMARY *****

S	TX	SUMTX
0.26751	249.19	101.34
0.27397	243.00	102.93
0.28042	236.80	104.48
0.28688	230.61	105.99
29333	224.42	107.46
.29978	218.23	108.88
0.30624	212.04	110.27
0.31269	205.85	111.62
0.31915	199.65	112.93
0.32560	193.46	114.20
0.33206	187.27	115.43
0.33851	181.08	116.62
0.34496	174.89	117.76
0.35142	168.70	118.87
5787	162.50	119.94
0.36433	156.31	120.97
0.37078	150.12	121.96
0.37723	143.93	122.91
0.38369	137.74	123.82
0.38964	131.38	124.62
0.39560	125.02	125.38
0.40155	118.66	126.11
0.40751	112.30	126.80
0.41347	105.94	127.45
0.41942	99.579	128.06
0.42538	93.219	128.63
0.43133	86.859	129.17
0.43729	80.499	129.67
0.44324	74.139	130.13
0.44920	67.779	130.55
0.45516	61.419	130.93
46111	55.059	131.28
0.46707	48.699	131.59
0.47302	42.339	131.86
0.47898	35.980	132.09
0.48493	29.620	132.29
0.49089	23.260	132.45
0.49685	16.900	132.57
0.50280	10.540	132.65
0.50818	2.4329	132.68
0.51355	-5.6741	132.68
0.51893	-13.781	132.62

***** PATH VARIABLE SUMMARY *****

S	TX	SUMTX
0.52431	-21.888	132.53
0.52968	-29.995	132.39
0.53506	-38.102	132.20
54044	-46.209	131.98
0.54581	-54.316	131.71
0.55119	-62.423	131.39
0.55657	-70.530	131.04
0.56194	-78.637	130.64
0.56732	-86.744	130.19
0.57269	-94.851	129.70
0.57807	-102.96	129.17
0.58345	-111.07	128.60
0.58882	-119.17	127.98
0.59420	-127.28	127.31
0.59958	-135.39	126.61
0.60495	-143.49	125.86
0.61033	-151.60	125.07
0.61543	-156.41	124.28
0.62053	-161.21	123.47
0.62564	-166.01	122.63
.63074	-170.82	121.77
.63584	-175.62	120.89
0.64094	-180.43	119.98
0.64605	-185.23	119.05
0.65115	-190.04	118.09
0.65625	-194.84	117.11

0.66135	-199.65	116.10
0.66646	-204.45	115.07
0.67156	-209.26	114.02
0.67666	-214.06	112.94
0.68176	-218.87	111.83
0.68687	-223.67	110.70
0.69197	-228.48	109.55
0.69707	-233.28	108.37
0.70217	-238.09	107.17
0.70728	-242.89	105.94
0.71238	-247.70	104.69

APÉNDICE II: INFORME VERIFICACIÓN ESTRUCTURA

VERIFICACIÓN DEL ANEJO DE CÁLCULO Y PLANOS DE ADAPTACIÓN DE LA CIMENTACIÓN, PILAS, ESTRIBOS Y SUPERESTRUCTURA PARA LA SOLUCIÓN ARMADA – PRETENSADA DEL TABLERO CON VIGAS PREFABRICADAS

Los controles realizados a la documentación entregada por la empresa Constructora, han sido en términos generales los siguientes:

Cimentación, pilas y estribos

- Recopilación de las cargas de proyecto y del proyecto de adaptación, realizando un contraste entre ambas.
- Descripción de las reacciones de proyecto.
- Descripción de las reacciones del proyecto de adaptación.
- Comparación geométrica de las pilas del proyecto-pilas de adaptación.
- Control de los esfuerzos en base de pila del proyecto.
- Control de los esfuerzos en base de pila con acciones adaptadas correctas.
- Comparación con armadura del proyecto.
- Control del documento anexo a los cálculos.
- Control de pilotes, encepados y zapatas.

Vigas y tablero

- Recopilación de las cargas de proyecto y del proyecto de adaptación realizando un contraste entre ambas.
- Control de fisuración.
- Control de los esfuerzos en centro de vano y de apoyos.
- Comparación con armadura del proyecto.

Como resumen del control efectuado puede concluirse que la documentación aportada, Planos y Anejo de cálculo, puede considerarse completa y adecuada para la construcción.

Informe de verificación viaducto

VERIFICACIÓN DEL ANEJO DE CÁLCULO Y PLANOS DE ADAPTACIÓN DE LA CIMENTACIÓN, PILAS Y ESTRIBOS PARA LA SOLUCIÓN ARMADA-PRETENSADA DEL TABLERO CON PIEZAS PREFABRICADAS.

LÍNEA DE ALTA VELOCIDAD MADRID-BARCELONA. FRONTERA FRANCESA. TRAMO MADRID-ZARAGOZA. SUBTRAMO XI

VERIFICACIÓN DEL ANEJO DE CÁLCULO Y PLANOS DE ADAPTACIÓN DE LA CIMENTACIÓN, PILAS Y ESTRIBOS PARA LA SOLUCIÓN ARMADA-PRETENSADA DEL TABLERO CON PIEZAS PREFABRICADAS.

INFORME Nº 5. 30 de Abril de 1999

El Informe que se acompaña seguidamente permite aprobar, una vez efectuado el oportuno y contraste con el proyecto inicial, la adaptación de las cimentaciones, pilas y estribos del Viaducto de los Chorros a la solución constructiva armada-pretensada prefabricada, propuesta por el Contratista Dragados y Construcciones, para el tablero de dicho proyecto.

Únicamente señalar que la altura de las nuevas pilas indicada en los planos establece un resguardo de 30 cm. entre cota superior de pila y cota inferior de tablero, inferior a los 40 cm. establecidos en proyecto. El Contratista debería confirmar que con dicha disposición se puede fácilmente maniobrar para asegurar la correcta colocación de los futuros apoyos y vigas prefabricadas del tablero, así como una posible operación de levantamiento con gatos y sustitución, si fuera necesario, de dichos aparatos de apoyo.

El Documento que sigue incluye los cálculos y tareas de control realizados sobre la documentación aportada por el Contratista, que se incluye completa como Anejo 2 a dicho Documento.

No obstante, los planos que se han chequeado y aprobado están, lógicamente, sin firma ni sello y faltos de numeración, cuadros de materiales, etc. Asimismo, convendría adaptar los planos de las armaduras de pilas y estribos que no se modifican para obtener una colección completa que sirva para que la Ejecución y Control de la obra se puedan hacer con planos formalmente terminados, completos y definitivos.

Asimismo, tal y como se señala en el Informe Completo. con la nueva disposición de pilas, más separada, podría suprimirse el plinto del proyecto pues la nueva separación de pilas permite recoger los esfuerzos con la zapata sin ayuda del plinto. En caso de que el contratista decida realizar este cambio, que ahorre volúmenes de hormigón innecesarios, debería corregir y adaptar los planos actualmente enviados para incorporar esta adaptación.

Con objeto de obtener unos planos completos que faciliten la ejecución y control de la estructura se sugiere la realización de planos completos tanto de pilas como de estribos que incluyan todo aquello incluido en planos de proyecto y que no se modifica. Esta sugerencia se realiza para evitar la duplicidad de planos con partes válidas y partes modificadas incluidas en otros planos y evitar errores de ejecución y de control.

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(U.T.E. AVEZAR)

LÍNEA DE ALTA VELOCIDAD MADRID-BARCELONA. FRONTERA FRANCESA. TRAMO MADRID-ZARAGOZA. SUBTRAMO XI

VERIFICACIÓN DEL ANEJO DE CÁLCULO Y PLANOS DE ADAPTACIÓN DE LA CIMENTACIÓN, PILAS Y ESTRIBOS PARA LA SOLUCIÓN ARMADA-PRETENSADA DEL TABLERO CON PIEZAS PREFABRICADAS.

INDICE

1.- INTRODUCCIÓN
2.- CONTROLES REALIZADOS
3.- CONCLUSIONES
ANEJO 1.- CONTROLES REALIZADOS POR AVEZAR U.T.E.
ANEJO 2.- ANEJO DE CÁLCULO REALIZADO POR DRAGADOS

1. INTRODUCCIÓN

El presente informe tiene por objeto la verificación del anejo de cálculo y planos de la adaptación de la cimentación, fustes de pilas y estribos para la solución armada-pretensada del tablero con piezas prefabricadas presentado por DRAGADOS a AVEZAR U.T.E. para su aprobación.

En el siguiente apartado se describen los controles realizados sobre los cálculos del citado anejo y en el tercer apartado se indican las conclusiones a dichos controles.

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2. CONTROLES REALIZADOS

El Anejo de Cálculo presentado por Dragados consiste en lo siguiente (ANEJO 2.-).

- Tablas de reacciones en cabezas de pilas.
- Cálculo de obtención de axiles en pilotes y tensiones en zapatas de pila 7.
- Dimensionamiento de la armadura de los fustes de pilas 1 a 7.
- Planos de la nueva armadura y geometría de pilas.
- Conclusiones a los cálculos.

Como documentación complementaria a la entregada por DRAGADOS se le solicitó la siguiente, que se adjunta al anejo de cálculo citado:

- Una nueva tabla de reacciones adaptadas y ajustadas a los criterios de proyecto.
- Comprobación adicional de los fustes de pilas con las nuevas reacciones.

En el Anejo nº 1 se encuentran los controles realizados por IDEAM (AVEZAR U.T.E) a la documentación anterior y que consisten en:

1. Recopilación de las cargas de proyecto y del proyecto de adaptación haciendo un contraste entre ambas.
2. Descripción de las reacciones de proyecto.
3. Descripción de las reacciones del proyecto de adaptación.
4. Comparación geométrica de las pilas de proyecto-pilas de la adaptación.
5. Control de los esfuerzos en base de pila del proyecto.

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6. Control de los esfuerzos en base de pila con aciones adaptadas correctas.
7. Comparación con armadura del proyecto.
8. Control del documento anexo a los cálculos.
9. Control de pilotes, encepados y zapatas.

Procedemos a resumir brevemente los contenidos de cada uno de los apartados.

1. **Recopilación de las cargas de proyecto y de proyecto de adaptación:**

   Se enumeran las cargas de proyecto y las del proyecto de adaptación encontrándose algunas diferencias por haberse tenido en cuenta un peso de losa inferior al de la geometría real de la losa. Asimismo no se ha tenido en cuenta la carga muerta en paseos.

   Estas diferencias son poco relevantes, suponiendo el total de cargas permanentes del proyecto de adaptación un 94,10 % de la carga permanente del proyecto, no suponiendo estas diferencias ningún cambio en el control realizado sobre las cimentaciones de proyecto.

   Se realiza un chequeo de las acciones de viento tenidas en cuenta en el proyecto de adaptación y se encuentran diferencias en cuanto a la presión de viento utilizada. Se ha tenido en cuenta 0,2 t/m^2 de empuje de viento, sin tener en cuenta las nuevas acciones contenidas en IAP-98 que suponen 0,31 t/m^2 en el cálculo de proyecto. Sin embargo esta diferencia no tiene incidencia en el cálculo realizado puesto que se ha utilizado un coeficiente de simultaneidad del viento con las sobrecargas del 75% una vez del 50% del proyecto.

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2. **Descripción de las reacciones del proyecto**

   En este apartado se chequean las reacciones tenidas en cuenta en el proyecto a partir de las cargas de proyecto.

3. **Descripción de las reacciones del proyecto de adaptación**

   A partir de las acciones del proyecto de adaptación se chequean las reacciones del anejo, encontrándose algunas discrepancias entre ambas.

   Es por ello que se solicita al proyectista de Dragados la aclaración de algunas cuestiones relacionadas con las cargas y reacciones, las cuales se entregan a IDEAM en un documento anejo.

4. **Comparación geométrica pilas proyecto-pilas proyecto de adaptación**

   En este apartado se controlan las cotas de pilas y geometría de las mismas definidas en los planos del proyecto de adaptación.

   Se ha modificado el espacio para los aparatos de apoyo (distancia entre la cara inferior de tablero y cota superior de pila) pasando de 0,40 m. de proyecto a 0,30 m. el Contratista deberá confirmar que hay espacio suficiente para los aparatos de apoyo y los gatos de elevación para la sustitución de los aparatos de apoyo durante las posibles operaciones de conservación del viaducto en fase de servicio.

   La dimensión transversal de las pilas se ha modificado de 2,30 m a 2,80 m para adaptarse al nuevo ancho de los cajones.
   El espesor de tabla de la sección transversal ha pasado de 0,35 m a 0,30 m para mantener el peso de la sección de proyecto.
   La separación de pilas ha pasado de 5 m a 6 m entre ejes, para adaptarse a la disposición del tablero del proyecto de adaptación.

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Por lo tanto la adaptación de unas pilas a otras es mínima en cuanto a geometría, siendo correcta la representada en los planos.

5. **Control de los esfuerzos en base de pila de proyecto**

   En este apartado se hace un chequeo manual de las pilas de proyecto comprobándose la armadura longitudinal de los planos de proyecto, la cual era correcta y suficiente. Se hace notar que dicha armadura se calculó para un coeficiente de simultaneidad del viento del 75% en vez del 50% indicado en las "Instrucciones para la redacción del anejo de Estructuras" editado por el GIF. Según esto la armadura de proyecto era conservadora.

6. **Control de los esfuerzos en base de pila con las acciones adaptadas correctas**

   En este apartado se hace un chequeo manual de las pilas del proyecto de adaptación comprobándose la armadura longitudinal de los planos adaptados. Se realiza este cálculo a partir de las cargas modificando las reacciones de Dragados de acuerdo con los criterios de proyecto.

   Se obtiene que la armadura calculada es suficiente para dichas acciones.

7. **Comprobación con armadura de proyecto**

   Se comparan las armaduras de las pilas del proyecto de adaptación con las armaduras del proyecto original.

   La armadura longitudinal del proyecto adaptación en pilas 2 a 6 es un 15% menor y las de pilas 1 y 7 en un 9% superior.

   Globalmente la armadura del proyecto adaptación es menor, al tener una mayor inercia las pilas modificadas.

8. **Control del documento anexo a los cálculos**

   Como respuesta a las preguntas planteadas al proyectista de Dragados, se nos entregó un documento complementario en el que se definen de nuevo las reacciones, las cuales se controlan resultando éstas correctas. Se comprueba que el chequeo manual realizado en el punto 6 se hizo con acciones en cabeza muy parecidas a éstas y que el control manual realizado en dicho apartado es correcto.

   Se controlan las acciones introducidas en el programa PYRUS de la comprobación de las pilas calculada por el proyectista, resultando las hipótesis y cargas correctas.

   Se controla el proceso de cálculo y manejo de PYRUS, así como los resultados obtenidos resultando totalmente correctos y validando la armadura de las pilas

9. **Control de pilotes, encepados y zapatas**

   Se calculan manualmente los axiles en pilotes para la nueva situación con las pilas del proyecto adaptación obteniéndose axiles en pilotes levemente inferiores a los de proyecto. Asimismo se realiza un chequeo manual para controlar que los axiles de proyecto eran correctos. Por lo tanto la cimentación pilotada, encepado y pilotes, prevista en proyecto es válida con las modificaciones de geometría impuestas por el cambio en las pilas.

   Se hace un control de la armadura para la nueva posición de las pilas proponiéndose un armado ligeramente modificado frente al de proyecto y cuyos croquis se adjuntan.

Se calculan manualmente las tensiones en cimentación mediante zapata y plinto en pila 7 obteniéndose valores inferiores a los admisibles por el terreno de cimentación. Se hace notar que la modificación en la posición y geometría de las pilas nuevas modifican el plinto, el cual se hace mayor que el de proyecto, resultando ser casi tan grande como la zapata inferior. Se recalcula la armadura tanto de zapata como de plinto y se plantea la posibilidad de eliminar el plinto, aumentando la longitud de los fustes en 2 m. Esto no modifica la armadura de fustes, los cuales fueron calculados para la altura de la P1, de 2 m más de altura que la P7 con plinto. Se adjuntan croquis de esta nueva disposición sin plinto.

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3. CONCLUSIONES

La adaptación de las pilas incluida en los planos y anejo presentada por Dragados es totalmente válida.

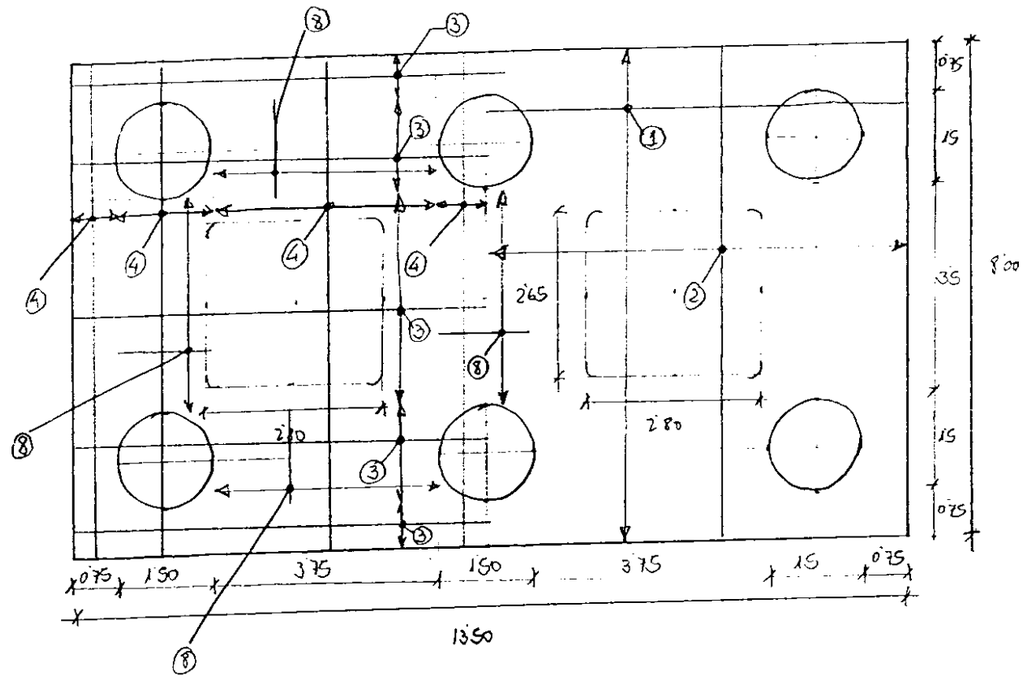
La cimentación pilotada (encepados + pilotes) de proyecto es válida con las modificaciones de geometría indicadas en los planos y con las leves modificaciones de armadura que se adjuntan en croquis.

La cimentación de la Pila 7 es válida, pudiéndose eliminar el plinto y cuya disposición y armadura se adjuntan en croquis.

Madrid, 28 de Abril de 1999

Fdo.: Francisco Millanes Mato
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ARMADURA INFERIOR ——— ARMADURA SUPERIOR

③ 2 capas 12 ϕ25 ó 7 ϕ20 pml

④ 2 capas 12 ϕ25 ó 7 ϕ20 pml

⑧ c ϕ12 a 0'20

① 7 ϕ20 pml

② 7 ϕ20 pml

La armadura perimetral no representada es la de proyecto.

ARMADURAS ENCEPADO

ANEJO 1.

CONTROLES REALIZADOS POR AVEZAR U.T.E.

1.- RECOPILACION CARGAS PROYECTO. CARGAS PROYECTO MODIFICADO

PROYECTO ORIGINAL

Peso propio cajón : P = 4'208 t/m cajón

Peso losa : P = 9'7175 t/m $\xrightarrow{/2}$ 4'859 t/m

Carga muerta : P = 9'691 + 1'28 + 1'03 + 1'30 + 0'775 = 14'622 t/m^2 $\xrightarrow{/2}$ 7'311 t/m^2

P = 16'378

JPF: TIPO A : 90 t

TIPO B : 12 t/m + 10 t/m (30 m)

F = 1'16

UIC: TIPO A : 8'15 t/m + 4 ejes 12'44 t

SW/0 : 15 × 15'96 t en 15 + 6'80 + 15 m

F = 1'03 para flectores
F = 1'02 para cortantes

SCU PASEOS : 0'612 t/m e = 3'75 m

PROYECTO MODIFICADO

Según indicaciones del proyectista, se toman las acciones de peso propio y carga muerta del informe "ADAPTACION ARMADA - PRETENSADA CON PIEZAS PREFABRICADAS DE DRAGADOS" (Feb 1999):

Peso propio cajón : $e_{alma} = 0'24$ m $p = 4'28$ t/m
$e_{alma} = 0'16$ m $p = 3'45$ t/m
$p_{med} = 3'865$ t/m (91'84% del cajón de proyecto)

Peso losa : $p_{placas} = 2'94$ t/m

$p_{losa\ in\ situ} = 6'62$ t/m

9'56 t/m ⟶ $p_{real} = 9'45$ t/m (ver hoja adjunta)

Carga muerta $p = 9'691 + 1'28 + 0'60 + 0'775 = 12'346$ t/m^2
balasto vías conductos impostas

Falta la carga muerta en paseos : 0'50 t/m^2
$q = 2 \times 0'5 \times 1'30 = 1'3$ t/m

Supone un 9'52% de la carga muerta

Total $cp = 3'865 + 9'45/2 + (12'346 + 1'3)/2 = 15'413$ t/m (por cajón) (94'11% del total de cp del proyecto)

↓

Se han reducido los pesos en un 5'89% con respecto a los de proyecto

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VIADUCTO DE LOS CHORROS

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ACCIONES

PESO PROPIO

- Viga: Zona de espesor de almas 0,24 m. ($P_{Horm} = 2,6\ t/m^3$) 4,28 t/m
  Zona de espesor de almas 0,16 m. ($P_{Horm} = 2,6\ t/m^3$) 3,45 t/m.
- Losa: placas prefabricadas ..... 2,94 t/m.
  Losa "in situ" ..... 5,62 t/m.

CARGA MUERTA (según proyecto original).

- Balasto ($P = 1,6\ t/m^3$) ..... 9,691 t/m
- Vías y traviesas ..... 1,28 t/m
- Conductos ..... 0,6 t/m
- Imposta + barandilla ..... 0,775 t/m

La pendiente transversal se consigue con la losa de hormigón, con lo que no hace falta material adicional para materializar dicha pendiente.

SOBRECARGAS

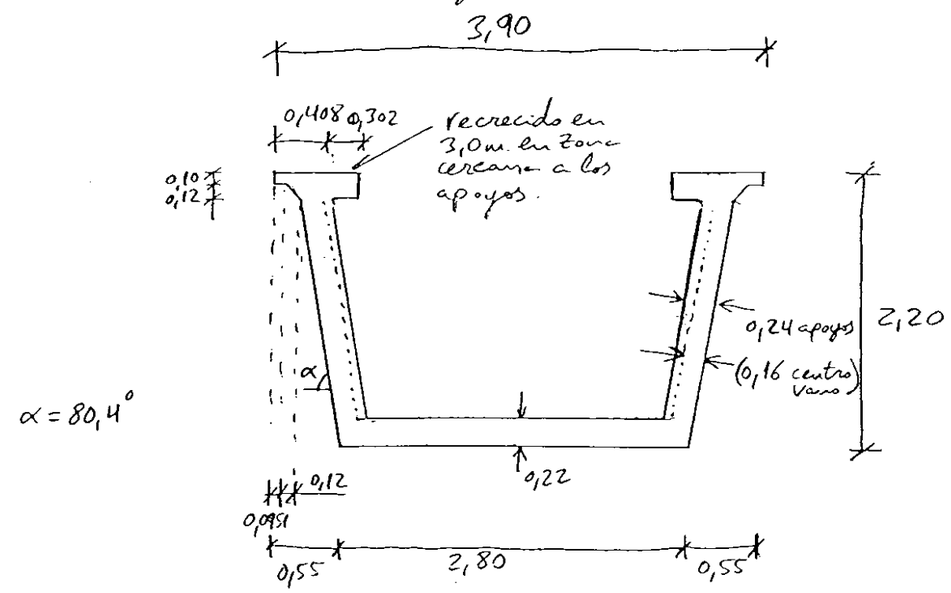
Se toma la envolvente de sobrecargas del proyecto original

ES FOTOCOPIA DE PAG 2 DEL ANEJO DE CALCULO DEL INFORME "ADAPTACION ARMADA-PRETENSADA CON PIEZAS PREFABRICADAS DE DRAGADOS" (FEB-1999)

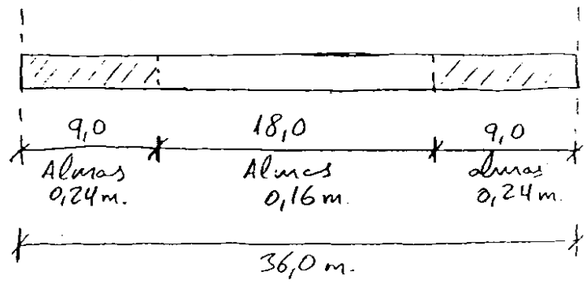
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SECCION VIGA: (Hormigón H-600).



	Area (m^2)	Peso (t/m)	$P = 2,6\ t/m^3$
Apoyos	1,647	4,28	
Centro de vano	1,326	3,45	



ES FOTOCOPIA DE PAG 3 DEL ANEJO DE CALCULO DEL INFORME "ADAPTACION ARMADA-PRETENSADA CON PIEZAS PREFABRICADAS DE DRAGADOS" (FEB-1999)

CONTROL DE PESOS

Pesos de cajón:

Sección de apoyos: $A = 16{,}47\ m^2$ / $\rho = 2{,}6\ t/m^3$ / $p = 4{,}28\ t/m$

Control $A = 16{,}24\ m^2$ OK!

Sección de cv: $A = 13{,}26\ m^2$ / $\rho = 2{,}60\ t/m^3$ / $p = 3{,}45\ t/m$

Control $A = 13{,}07\ m^2$ OK!

Los pesos de cajón son correctos

Nota: La sección es un poco distinta a la de los planos de propuesta de pilas

Peso losa:

$e_{max} = 0{,}34\ m$

$e_{min} = 0{,}20\ m$

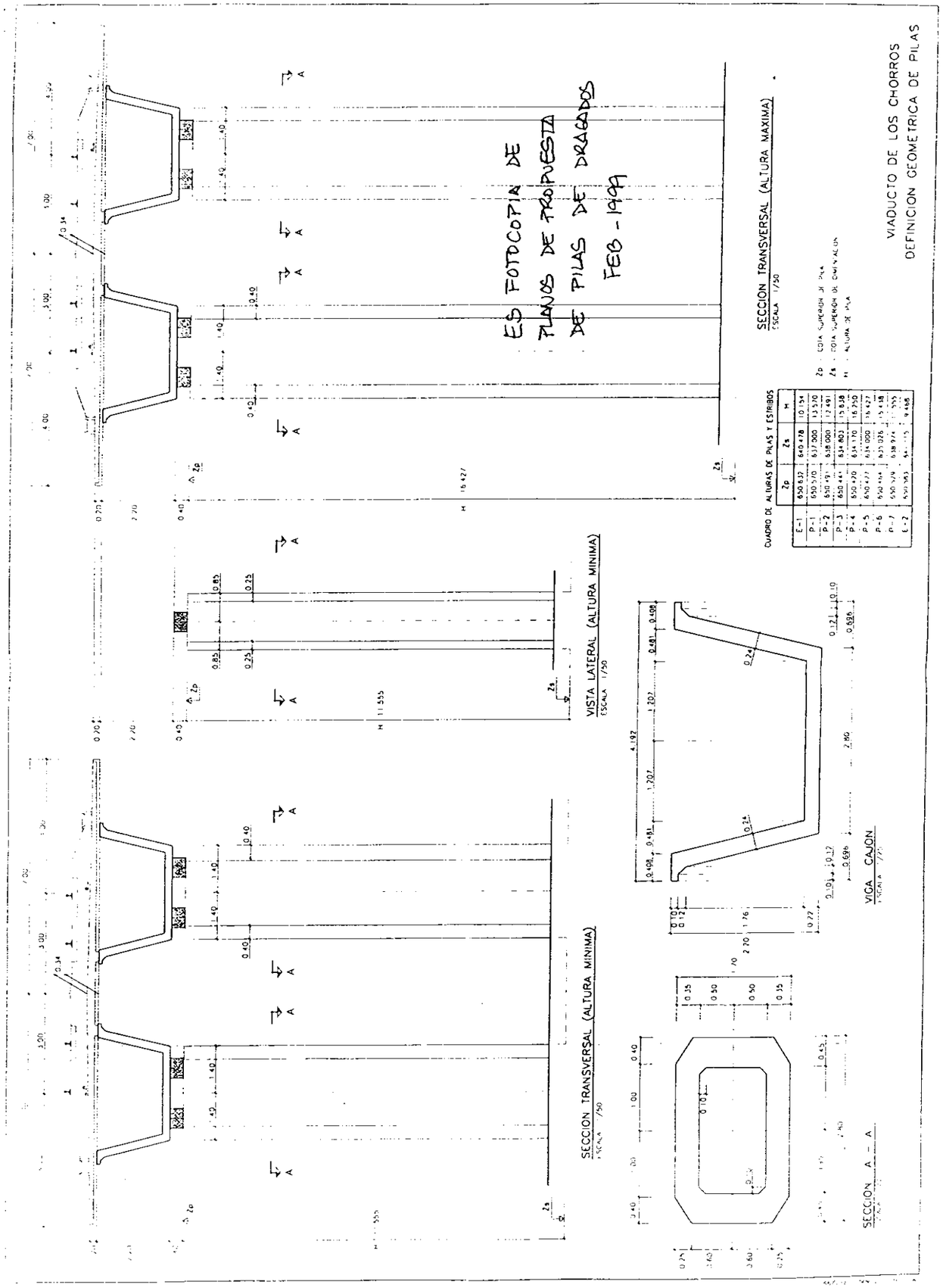
$e_{med} = 0{,}27\ m$ (Control) → $p = 2{,}5 \times 0{,}27 \times 14 = 9{,}45\ t/m$

Peso dado por DRAGADOS $p = 8{,}56\ t/m$ No coincide

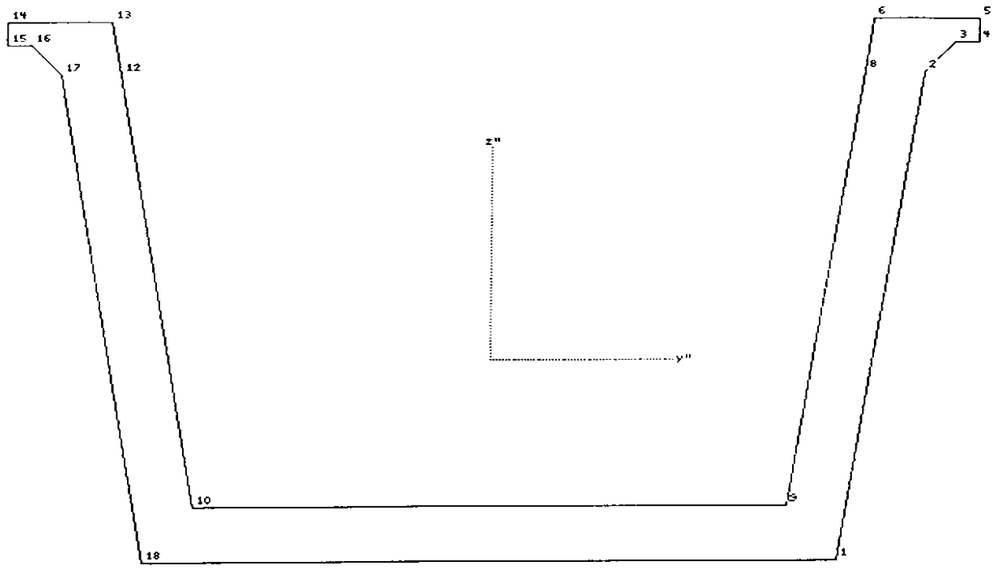
equivale a un espesor medio de $0{,}244\ m$

y a $\begin{cases} e_{min} = 0{,}20\ m \\ e_{max} = 0{,}288\ m \end{cases}$

Supone un error del 9'41% sobre el peso de la losa



Escala 1 : 25.0



Sección :"APOYOS" Armadura :""
Tipo : tipo viga/ Genérico Unidades :[cm]

Sección parcial 1: Hormigón = H350

Pto	Coord-Y	Coord-Z	Pto	Coord-Y	Coord-Z
1	140.00	0.00	2	173.49	198.00
3	185.49	210.00	4	195.00	210.00
5	195.00	220.00	6	153.21	220.00
7	149.49	198.00	8	149.49	198.00
9	119.72	22.00	10	-119.72	22.00
11	-149.49	198.00	12	-149.49	198.00
13	-153.21	220.00	14	-195.00	220.00
15	-195.00	210.00	16	-185.49	210.00
17	-173.49	198.00	18	-140.00	0.00

Características mecánicas de la sección:
Area : Ax= 1.624 [m2]
Momentos de inercia : Iy= 0.856052 [m4] Iz= 2.694 [m4]
Inercia a torsión : Ix= 0.419669 [m4] (de un círculo del mismo área)

Posición del centro de gravedad: ys= 0.000 [m] zs= 0.815173 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-1.950	-1.381	0.851
dch.	Iz	1.950	1.381	-0.851
abajo	Iy	-0.815	-1.050	0.381
arriba	Iy	1.385	0.618165	-0.647

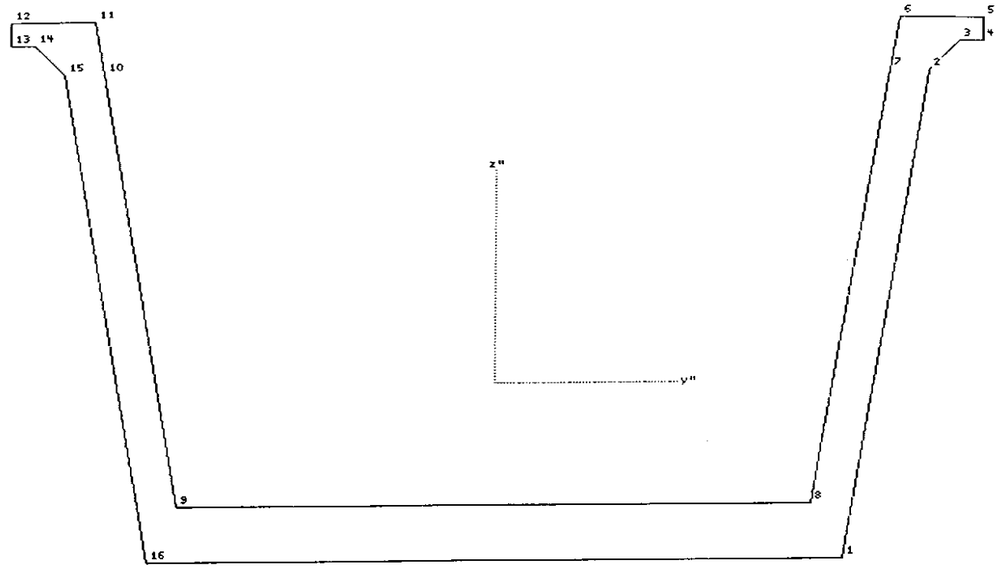
Armadura: ninguna
Características del material:

Nom.Mat.	Módulo E	0.85*fcd,fyd	eps-fc	fct	fcv	fcw,min
	[N/mm2]	[N/mm2]	[o/oo]	[N/mm2]	[N/mm2]	[N/mm2]
"H350"	35000.0	-19.830	-2.000	0.0	0.764000	35.000

Leyenda:
fcd,fyd resistencia de cálculo del hormigón,acero
eps-fc deformación al final de la parábola (fig.2.3, cap.2.2)
fct resistencia de cálculo a tracción del hormigón
fcv resistencia virtual de cálculo del hormigón a esfuerzo cortante

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Escala 1 : 25.0



Sección :"CVANO" Armadura :""
Tipo ; tipo viga/ Genérico Unidades :[cm]

Sección parcial 1: Hormigón = H350

Pto	Coord-Y	Coord-Z	Pto	Coord-Y	Coord-Z
1	140.00	0.00	2	173.49	198.00
3	185.49	210.00	4	195.00	210.00
5	195.00	220.00	6	161.21	220.00
7	157.49	198.00	8	127.72	22.00
9	-127.72	22.00	10	-157.49	198.00
11	-161.21	220.00	12	-195.00	220.00
13	-195.00	210.00	14	-185.49	210.00
15	-173.49	198.00	16	-140.00	0.00

Características mecánicas de la sección:
Area : Ax= 1.307 [m2]
Momentos de inercia : Iy= 0.691198 [m4] Iz= 2.066 [m4]
Inercia a torsión : Ix= 0.271893 [m4] (de un círculo del mismo área)

Posición del centro de gravedad: ys= 0.000 [m] zs= 0.719476 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-1.950	-1.059	0.810
dch.	Iz	1.950	1.059	-0.810
abajo	Iy	-0.719	-0.960697	0.357
arriba	Iy	1.481	0.466860	-0.735

Armadura: ningúna

Características del material:

Nom.Mat.	Módulo E [N/mm2]	0.85*fcd,fyd [N/mm2]	eps-fc [o/oo]	fct [N/mm2]	fcv [N/mm2]	fcw,mín [N/mm2]
"H350"	35000.0	-19.830	-2.000	0.0	0.764000	35.000

Leyenda:
fcd,fyd resistencia de cálculo del hormigón,acero
eps-fc deformación al final de la parábola (fig.2.3, cap.2.2)
fct resistencia de cálculo a tracción del hormigón
fcv resistencia virtual de cálculo del hormigón a esfuerzo cortante

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FECHA HOJA DE

Térmico: (pág. 35): ΔT + gradiente positivo = $1 \times 1 \cdot 0,5 \cdot \gamma_{Q_1} = 1,15\,°C$

Vientos:

— Tableros: (viga en celosía)

$$\text{cte} \rightarrow A = \underbrace{2,5}_{\text{canto}} + \underbrace{2 \times 0,5}_{\text{2 aceras}} + \underbrace{0,605}_{\text{balasto + traviesa}} + \underbrace{4 \times 0,20}_{\text{carril}} + \underbrace{\left[1 - \frac{2}{3}\left(1,5 - 0,3 \times \frac{3,2}{2,2}\right)\right]}_{0,29} \cdot \underbrace{\Psi \cdot A_1}_{\text{viga en celosía}} =$$

$$= 5,195\ m^2/m$$

$$\text{tren} \rightarrow A = 3,5 + \underbrace{3,5 \times \left(1 - 1,2 \times \frac{2}{3}\right)}_{\text{tren en sombra}} = 4,2\ m^2/m$$

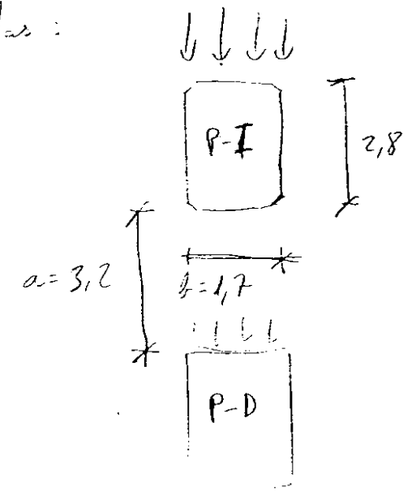
$$A_{max} = 5,195 + 4,2 = 9,4\ m^2/m$$

$$p_{max} = 0,2\ t/m^2 \times 9,4\ m^2/m = 1,88\ t/m \rightarrow \text{dos trenes parados}$$

$$P_{interm.} = 0,2 \times (0,75 \cdot 9,4) = 1,41\ t/m \rightarrow \text{dos trenes circulando.}$$

$$P_{cp} = 0,2 \times 5,195 = 1,04\ t/m \rightarrow \text{sólo tablero sin sobrecarga}$$

— Pilas:



$$P_I = 0,2 \times 1,7 = 0,34\ t/m \quad \text{pila expuesta}$$

$$\frac{a}{b} = \frac{3,2}{1,7} = 1,88 \rightarrow$$

$$\Psi = 1 - \frac{2}{3}(1,5 - 0,3 \times 1,88) = 0,376$$

$$P_D = 0,2 \times 1,7 \times 0,376 = 0,13\ t/m \quad \text{pila en sombra}$$

IDEAM

Control de presiones de viento

Cálculo proyecto (Conservador)

Tablero vacío: $C_D = 1,00$; $1/2\,\rho V_c^2 = 0,167\ t/m^2$; $p = 0,217\ t/m^2$; $A = 5\ m^2/m$; $F = 1,08\ t/m$

Tablero 1 tren: $C_D = 1,87$; $\frac{1}{2}\rho V_c^2 = 0,167\ t/m^2$; $p = 0,312\ t/m^2$; $A = 8,5\ m^2/m$; $F = 2,65\ t/m$

Tablero 2 trenes: $C_D = 1,87$; $\frac{1}{2}\rho V_c^2 = 0,167\ t/m^2$; $p = 0,312\ t/m^2$; $A = 9,20\ m^2/m$; $F = 2,87\ t/m$

Cálculo simplificado:

$V_c = 28 \times 1 \times 1,04 \times 1,07 \times 1,49 = 46,42\ m/s$

$C_t = 1$

$C_r = 1,04$

$C_D = 1,80$

$H \approx 14\ m$

$V_{ref} = 28\ m/s^2$ entorno II tablas 3 y 4

$C_z = 0,19 \times \ln(14/10,5) = 1,07$

$C_g = 1,49$

$p = 1,80 \times \underbrace{\frac{1}{2}\rho V_c^2}_{0,135\ t/m^2} = 0,242\ t/m^2$

Coincide

$p = 2,42\ KN/m^2 = 0,242\ t/m^2$

Por lo tanto el cálculo de proyecto es conservador en cuanto a las presiones de viento

Tablero 1 tren $F = 0,242 \times 8,5 = 2,057\ t/m$

Tablero 2 trenes $F = 0,242 \times 9,20 = 2,22\ t/m$

Cálculo proyecto modificado:

Tablero 2 trenes $F = 0,20 \times 9,40 = 1,88\ t/m$ es un 15% mayor

Sin embargo se utiliza el 75% del viento concomitante con las sobrecargas en vez del 50% indicado en las Instrucciones para la Redacción del Anejo de Estructuras.

2: REACCIONES PROYECTO

Reparto isostático manual: (Control 14-4-99)

T_{cp} (P1 y P7) = (11+18) × (4208 + 4859 + 7311) = 474'96 t

T_{cp} (P2 a P6) = 36 × (4'208 + 4'859 + 7'311) = 589'61 t

P_{IPF} (P1 y P7) = (11+18) × 12 = 348 t

P_{IPF} (P2 a P6) = 30 × 12 + 6 × 10 = 420 t

P_{UIC} (P1 y P7) = (11+18) × 8'15 + 4 × 12'44 = 286'11 t

P_{UIC} (P2 a P6) = 36 × 8'15 + 4 × 12'44 = 343'16 t

$T_{escapes}$ (P1 y P7) = (11+18) × 0'612 = 17'75 t M = 66'66 tm

$T_{escapes}$ (P2 a P6) = 36 × 0'612 = 22'03 t M = 82'61 tm

] 50%

PROYECTO :

	P1 V	P1 T	P2 V	P2 T	P3 V	P3 T	P4 V	P4 T	
cp	32'171 / 23'633		30'874 / 28'961		32'247 / 26'132		30'785 / 26'408		
	55'804		57'835		58'379		57'193		OK! con reparto isostático manual
IPF	41'430	84	46'708	102	47'334	102'33	46'708	102	ok! con reparto isostático manual
	-4'473	0	-5'065	0	-6'807	0	-5'065	0	
UIC	38'39	7'10	39'10	8'30	38'20	8'49	38'10	8'49	OK! con reparto isostático manual.
	-3'849	0	-4'227	0	-5'730	0	-5'730	0	
SCU	22'1	-6'7	25'3	-8'26	25'7	-8'28	25'3	-8'26	OK! con reparto isostático manual.
	-2'30	0	-2'70	0	-3'80	0	-2'70	0	
TER	-1'1	0	1'6	0	-0'5	0	0	0	

	H_L		H_L		H_L		H_L	
Teflón	27'90		28'91		29'69		28'60	por fuste

	H_r	T	H_r	T
Uto	83'23	29'47	103'32	36'89
	P1		Resto	

	H_r	T	H_r	T	
Fc IPF	12'47	6'84	15'48	8'60	por fuste
Fc UIC	10'15	5'78	12'60	6'52	
Largo IPF	5	17	6	17	
Largo UIC	10'30	34'68	10'30	34'68	

Fuerza uto

← 100 %

- tablero vacío: 109 t/m, d = 2'10 m
- 1 tren: 265 t/m, d = 3'36 m
- 2 trenes: 287 t/m, d = 3'49 m

por fuste

- $F_{c\,IPF}$ = 0'043 Q, d = 5'20 m
- $F_{c\,UIC}$ = 0'0435 Q, d = 5'20 m

3.- REACCIONES DRAGADOS:

HIP HTMAX

	P1 V	P1 T	P2 V	P2 T	P3 V	P3 T	P4 V	P4 T	
Cp	400	87	423	110	474	110	476	110	(Tiene Htrans = 8t) ← efecto lazo
asiento	−29		−22		−21		−21		
ENV TREN JPF-UIC	309	221	370	256	361	267	361	269	(Tiene Htrans = 26t en P1 y P2) ?
TER	−3		−2		0		0		
	HL		HL		HL		HL		
Teflón	10		27		33		33		
	HT	T	HT	T	HT	T	HT	T	
Vbo	2	−	25	−	23	−	25	−	(Tiene axil (+14, +37, +46, +51 t) ¿No tiene torsor?
	HT	T	HT	T	HT	T	HT	T	
Fc	1	9	7	8	6	2	9	4	

HIP NMAX

	P1 V	P1 T	P2 V	P2 T	P3 V	P3 T	P4 V	P4 T	
Cp	445	97	537	122	527	122	529	122	(Tiene Htrans = 5t) ← efecto lazo
asiento	49	−	19	−	15	−	15	−	
ENV TREN JPF-UIC	369 OK!	84	428 OK!	100	432 OK!	106	435 OK!	107	(Tiene Htrans = 10, 18, 14, 14 t) ?
TER	20		2						
	HL		HL		HL		HL		
Teflón	10		27		33		33		
	HT	T	HT	T	HT	T	HT	T	
Vbo	24	−	25	−	23	−	25	−	(Tiene axil (+10, 28, 35, 39 t)
	HT	T	HT	T	HT	T	HT	T	
Fc	0	9	9	63	9	0	9	43	(Tiene axil 5, 11, 14, 15)

Control de axiles:

Axil de pp de cajones: P1 y P7 N = 2×9×4'28 + (9+2)×3'45 = 114'99 t

resto N = 2×9×4'28 + (9+9)×3'45 = 139'14 t

Axil de pp losa: P1 y P7 N = (11+18)×8'56/2 = 124'12 t] con p = 8'56 t/m

resto N = 36×8'56/2 = 154'08 t]

Axil de cm: P1 y P7 N = (11+18)×12'44/2 = 180'38 t] con p = 12'44 t/m

resto N = 36×12'44/2 = 223'92 t]

Total cm: P1 y P7 N = 114'99 + 124'12 + 180'38 = 419'49 t (137'03) (99'37) (45'39)]

resto N = 139'14 + 154'08 + 223'92 = 517'14 t (170'1) (247'9) (556'73)]

	Proyecto	Proyecto
P1	474'96 t	400 / 445
P2	589'61 t	483 / 53
P3		474 / 5
P4		476 / 52

NOTA: Se han reducido los pesos en un 5% con respecto al proyecto

(entre paréntesis valores con CM real y con peso de losa real)

* No coinciden los axiles controlados con las reacciones de anejo 1
* No se explica cómo la carga permanente cambia de valor de las hipótesis de Nmax, Nmin con respecto a las de Htmax

4- COMPARACION GEOMETRICA PILAS PROYECTO - PILAS MODIFICADO

Control cotas y dimensions

VIADUCTO DE LOS CHORROS. CONTROL DE COTAS EN PILAS

proyecto

PILA	Zr	Z inf cajón	Z p	Z t	Z s	H	Espacio para apoyos
P 1	654.18	650.875	650.475	638.000	637.000	13.475	0.4
P 2	654.101	650.796	650.396	639.000	638.000	12.396	0.4
P 3	654.051	650.746	650.346	635.803	634.803	15.543	0.4
P 4	654.03	650.725	650.325	635.170	634.170	16.155	0.4
P 5	654.038	650.733	650.333	635.000	634.000	16.333	0.4
P 6	654.074	650.769	650.369	636.026	635.026	15.343	0.4
P 7	654.139	650.834	650.434	639.974	638.974	11.460	0.4

proyecto modificado

PILA	Zr	Z inf cajón	Z p	Z t	Z s	H	Espacio para apoyos
P 1	654.18	650.875	650.57	638.000	637.000	13.570	0.305
P 2	654.101	650.796	650.491	639.000	638.000	12.491	0.305
P 3	654.051	650.746	650.441	635.803	634.803	15.638	0.305
P 4	654.03	650.725	650.42	635.170	634.170	16.250	0.305
P 5	654.038	650.733	650.427	635.000	634.000	16.427	0.306
P 6	654.074	650.769	650.464	636.026	635.026	15.438	0.305
P 7	654.139	650.834	650.529	639.974	638.974	11.555	0.305

Se ha modificado el espacio para los aparatos de apoyo, pasando de 0'40 a 0'30 m
El contratista deberá confirmar que le caben los aparatos de apoyo y los gatos de elevación para sustitución de los aparatos de apoyo.

La dimensión transversal se ha modificado de 2'30 a 2'80 m para adaptarse al nuevo ancho de los cajones

VIADUCTO DE LOS CHORROS. CONTROL DE DIMENSIONES EN PILAS

	PROYECTO		PROYECTO MODIFICADO	
PILA	H	B	H	B
P 1	13.475	2.470	13.570	2.475
P 2	12.396	2.408	12.491	2.414
P 3	15.543	2.588	15.638	2.594
P 4	16.155	2.623	16.250	2.629
P 5	16.333	2.633	16.427	2.639
P 6	15.343	2.577	15.438	2.582
P 7	11.460	2.355	11.555	2.360

Las dimensiones longitudinales han aumentado ligeramente al aumentar ligeramente la altura, manteniendo la expresión de proyecto:

$B = 1'70 + 0'0571428 \cdot H$

El espesor de tabla de la sección transversal ha pasado de 0'35 m a 0'30 m para mantener el peso de la sección no debiendose producir incrementos en el peso de las pilas aunque aumente su dimensión transversal:

Proyecto: Sección: $2'50 \times 2'30 \times 0'35$; $A = 2'5 \times 2'30 - (2'5 - 0'70) \cdot (2'30 - 0'70) = 2'87 m^2$

Proyecto mod: Sección: $2'50 \times 2'80 \times 0'30$; $A = 2'50 \times 2'80 - (2'80 - 0'60) \cdot (2'50 - 0'60) = 2'82 m^2$

Por lo tanto la adaptación de unas pilas a otras es mínima en cuanto a geometría.

La separación de los mismos ha aumentado, de 5m en eje a 6m entre ejes, para adaptarse a la nueva separación de cajones.

5: Control esfuerzos en base de pila de proyecto

PILAS 2 a 6

	N	F_L	F_T	M_L	M_T	γ_t	γ_d
cp	58379	0	0	0	0	0'9	1'50
sctren	47334	0	0	0	10'33	0	1'50
	-6807	0	0	0	0	0	1'50
Teflón	0	26'9	0	0	0	0	1'20
"	0	0	18'70	0	0	0	1'50
Vto	0	0	25'83	0	90'14	0	1'50
			38'74		135'22		

← 50% Vto
← 75% Vto

H = 16'60 m

θ_{sup} 1'70 × 2'30
θ_{inf} = 2'65 × 2'30

HIPOTESIS: a) cp + sctren + vtocons
- a1) N_{max}
- a2) $M_{T max}$
- a3) N_{min}

Peso pila $A_{sup} = 1'70 \times 2'30 - 1 \times 1'60 = 2'31 m^2$

$A_{inf} = 2'65 \times 2'30 - 1'95 \times 1'60 = 2'975 m^2$

$$P = 2'5 \times \frac{2'31 + 2'975}{2} \times 16'60 = 109'66 t$$

$$I_{inf\,L} = \frac{1}{12} 2'65^3 \times 2'30 - \frac{1}{12} 1'95^3 \times 1'60 = 2'578 m^4 \quad i_L = 0'930 m \quad \lambda_L = 35'66$$

$$I_{inf\,T} = \frac{1}{12} 2'65 \times 2'30^3 - \frac{1}{12} 1'95 \times 1'60^3 = 2'02 m^4 \quad i_T = 0'824 m \quad \lambda_T = 40'27$$

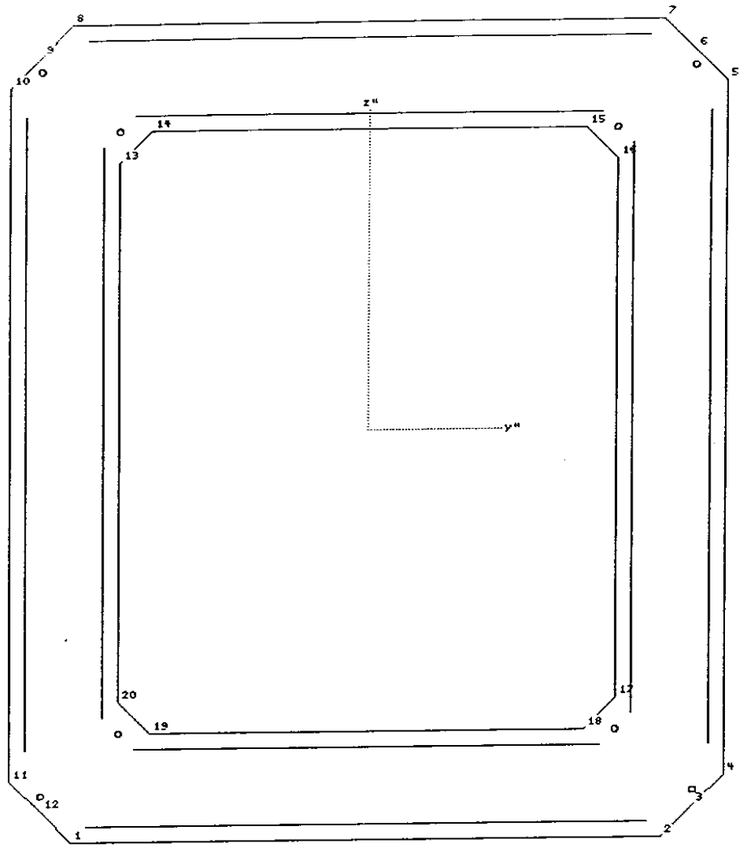
Esfuerzos en base de pila

	N_d	M_{Ld}	M_{Td}	e_{oL}	e_{aL}	$M_{Ld(2)}$	e_{oT}	e_{aT}	$M_{Td(2)}$	γ_f (pand long)	γ_f (pand trans)
N_{max}	175'19	53'66	93'87 mfc	0'303	0'231	93'587	0'532	0'289	143'800	1'89	1'70
M_{Tmax}	175'19	53'66	139'75 cmfc (178'658)	0'303	0'231	93'587	0'798 1'021	0'302 0'305	192'87 232'43	1'57	1'39 1'19
N_{min}	5'22	53'66	77'38 mfc	1'018	0'271	67'286	1'491	0'318	94'46	2'51	2'33
N_{min}	5'22	53'66	124'00 mfc (163'39)	1'018	0'271	67'286	2'383 3'128	0'326 0'327	141'414 180'342	1'65	1'50 1'13

entre paréntesis con 0'75 Vto

HIPOTESIS DIMENSIONANTE DEL PROYECTO

Escala 1 : 20.0



Sección :"BASEPROY" Armadura :"B1"
Tipo : tipo viga/ Genérico Unidades :[cm]

Sección parcial 1: Hormigón = H300

Pto	Coord-Y	Coord-Z	Pto	Coord-Y	Coord-Z
1	-95.00	0.00	2	95.00	0.00
3	105.00	10.00	4	115.00	20.00
5	115.00	245.00	6	105.00	255.00
7	95.00	265.00	8	-95.00	265.00
9	-105.00	255.00	10	-115.00	245.00
11	-115.00	20.00	12	-105.00	10.00
Puntos aligeramiento:					
13	-80.00	220.00	14	-70.00	230.00
15	70.00	230.00	16	80.00	220.00
17	80.00	45.00	18	70.00	35.00
19	-70.00	35.00	20	-80.00	45.00

Características mecánicas de la sección:
Area : Ax= 2.915 [m2]
Momentos de inercia : Iy= 2.469 [m4] Iz= 1.939 [m4]
Inercia a torsión : Ix= 1.352 [m4] (de un círculo del mismo área)

Posición del centro de gravedad: ys= 0.000 [m] zs= 1.325 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-1.150	-1.686	0.578
dch.	Iz	1.150	1.686	-0.578
abajo	Iy	-1.325	-1.863	0.639
arriba	Iy	1.325	1.863	-0.639

Armadura: "B1"

Nº	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	3.14	105.00	15.00		
2	AEH500	(1)	3.14	105.00	250.00		
3	AEH500	(1)	3.14	-105.00	250.00		
4	AEH500	(1)	3.14	-105.00	15.00		
5	AEH500	(1)	3.14	80.00	35.00		
6	AEH500	(1)	3.14	80.00	230.00		
7	AEH500	(1)	3.14	-80.00	230.00		
8	AEH500	(1)	3.14	-80.00	35.00		
9	AEH500	(1)	40.84	-90.00	5.00	90.00	5.00
10	AEH500	(1)	47.12	110.00	30.00	110.00	235.00
11	AEH500	(1)	40.84	90.00	260.00	-90.00	260.00
12	AEH500	(1)	47.12	-110.00	235.00	-110.00	30.00
13	AEH500	(1)	34.56	-75.00	30.00	75.00	30.00
14	AEH500	(1)	40.84	85.00	40.00	85.00	225.00
15	AEH500	(1)	40.84	-85.00	40.00	-85.00	225.00
16	AEH500	(1)	34.56	-75.00	235.00	75.00	235.00
	Total:		351.85	Cuantía de armadura: 1.207 [o/o]			

Cód. dimensionamiento: (0) = As constante
Cód. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccionada
Cód. dimensionamiento: (2) = Aumentar As solo en zona traccionada

¡No se han definido valores para el cálculo a cortante!

Características del material:

Nom.Mat.	Módulo E [kp/cm2]	0.85*fcd,fyd [kp/cm2]	eps-fc [o/oo]	fct [kp/cm2]	fcv [kp/cm2]	fcw,min [kp/cm2]
"H300"	330000.0	-170.000	-2.000	0.0	7.070	300.000
"AEH500"	2.10E+06	4434.700				

Leyenda:
fcd,fyd resistencia de cálculo del hormigón,acero
eps-fc deformación al final de la parábola (fig.2.3, cap.2.2)
fct resistencia de cálculo a tracción del hormigón
fcv resistencia virtual de cálculo del hormigón a esfuerzo cortante

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Dimensionamiento : Viga "BASEPROY"/"B1"

Esfuerzos (Rotura) Unidades : [tm]

N	Vy	Vz	Mx	My	Mz	Alpha
-1750.190				935.870	931.870	45.0

La armadura mínima entrada es suficiente !
Armadura mínima definida con las áreas entradas ..
Factor actual de minoración de la resistencia de la sección 1.89
Factor necesario de minoración de la resistencia de la sección .. 1.00

Armadura Longitudinal:	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]	dado (As-min)	dimens. [cm2]	As-nuevo [cm2]
1 "AEH500"	105.0	15.0			3.14	-	3.14
2 "AEH500"	105.0	250.0			3.14	-	3.14
3 "AEH500"	-105.0	250.0			3.14	-	3.14
4 "AEH500"	-105.0	15.0			3.14	-	3.14
5 "AEH500"	80.0	35.0			3.14	-	3.14
6 "AEH500"	80.0	230.0			3.14	-	3.14
7 "AEH500"	-80.0	230.0			3.14	-	3.14
8 "AEH500"	-80.0	35.0			3.14	-	3.14
9 "AEH500"	-90.0	5.0	90.0	5.0	40.84	-	40.84
10 "AEH500"	110.0	30.0	110.0	235.0	47.12	-	47.12
11 "AEH500"	90.0	260.0	-90.0	260.0	40.84	-	40.84
12 "AEH500"	-110.0	235.0	-110.0	30.0	47.12	-	47.12
13 "AEH500"	-75.0	30.0	75.0	30.0	34.56	-	34.56
14 "AEH500"	85.0	40.0	85.0	225.0	40.84	-	40.84
15 "AEH500"	-85.0	40.0	-85.0	225.0	40.84	-	40.84
16 "AEH500"	-75.0	235.0	75.0	235.0	34.56	-	34.56

Cuantía arm. 1.21 [o/o] Suma 351.85

Deformaciones y tensiones extremas (Rotura):

1	Coordenadas y [cm]	z [cm]	Eps [o/oo]	Estado-II [kp/cm2]	
Hormigón-Min	115.00	245.00	-3.500	-170.000	"H300"
Armadura-Min	105.00	250.00	-3.426	-4434.700	"AEH500"
Hormigón-Max	-115.00	20.00	1.657	0.000	"H300"
Armadura-Max	-105.00	15.00	1.583	3325.112	"AEH500"

Fibra neutra zn 96.26 cm yn -44.34 cm Angulo -50.74

Dimensionamiento : Viga "BASEPROY"/"B1"

Esfuerzos (Rotura) Unidades : [tm]

N	Vy	Vz	Mx	My	Mz	Alpha
-1750.190				531.660	1438.000	45.0

La armadura mínima entrada es suficiente !
Armadura mínima definida con las áreas entradas ..
Factor actual de minoración de la resistencia de la sección 1.70
Factor necesario de minoración de la resistencia de la sección .. 1.00

Armadura Longitudinal:	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]	dado (As-min)	dimens. [cm2]	As-nuevo [cm2]
1 "AEH500"	105.0	15.0			3.14	-	3.14
2 "AEH500"	105.0	250.0			3.14	-	3.14
3 "AEH500"	-105.0	250.0			3.14	-	3.14
4 "AEH500"	-105.0	15.0			3.14	-	3.14
5 "AEH500"	80.0	35.0			3.14	-	3.14
6 "AEH500"	80.0	230.0			3.14	-	3.14
7 "AEH500"	-80.0	230.0			3.14	-	3.14
8 "AEH500"	-80.0	35.0			3.14	-	3.14
9 "AEH500"	-90.0	5.0	90.0	5.0	40.84	-	40.84
10 "AEH500"	110.0	30.0	110.0	235.0	47.12	-	47.12
11 "AEH500"	90.0	260.0	-90.0	260.0	40.84	-	40.84
12 "AEH500"	-110.0	235.0	-110.0	30.0	47.12	-	47.12
13 "AEH500"	-75.0	30.0	75.0	30.0	34.56	-	34.56
14 "AEH500"	85.0	40.0	85.0	225.0	40.84	-	40.84
15 "AEH500"	-85.0	40.0	-85.0	225.0	40.84	-	40.84
16 "AEH500"	-75.0	235.0	75.0	235.0	34.56	-	34.56

Cuantía arm. 1.21 [o/o] Suma 351.85

Deformaciones y tensiones extremas (Rotura):

1	Coordenadas y [cm]	z [cm]	Eps [o/oo]	Estado-II [kp/cm2]	
Hormigón-Min	115.00	245.00	-3.500	-170.000	"H300"
Armadura-Min	105.00	250.00	-3.356	-4434.700	"AEH500"
Hormigón-Max	-115.00	20.00	1.995	0.000	"H300"
Armadura-Max	-105.00	15.00	1.851	3887.077	"AEH500"

Fibra neutra zn 118.67 cm yn -37.73 cm Angulo -69.88

Dimensionamiento : Viga "BASEPROY"/"B1"

Esfuerzos (Rotura) Unidades : [tm]

N	Vy	Vz	Mx	My	Mz	Alpha
-1750.190				935.870	1397.500	45.0

La armadura mínima entrada es suficiente !
Armadura mínima definida con las áreas entradas ..
Factor actual de minoración de la resistencia de la sección 1.57
Factor necesario de minoración de la resistencia de la sección .. 1.00

Armadura Longitudinal:	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]	dado (As-min)	dimens. [cm2]	As-nuevo [cm2]
1 "AEH500"	105.0	15.0			3.14	-	3.14
2 "AEH500"	105.0	250.0			3.14	-	3.14
3 "AEH500"	-105.0	250.0			3.14	-	3.14
4 "AEH500"	-105.0	15.0			3.14	-	3.14
5 "AEH500"	80.0	35.0			3.14	-	3.14
6 "AEH500"	80.0	230.0			3.14	-	3.14
7 "AEH500"	-80.0	230.0			3.14	-	3.14
8 "AEH500"	-80.0	35.0			3.14	-	3.14
9 "AEH500"	-90.0	5.0	90.0	5.0	40.84	-	40.84
10 "AEH500"	110.0	30.0	110.0	235.0	47.12	-	47.12
11 "AEH500"	90.0	260.0	-90.0	260.0	40.84	-	40.84
12 "AEH500"	-110.0	235.0	-110.0	30.0	47.12	-	47.12
13 "AEH500"	-75.0	30.0	75.0	30.0	34.56	-	34.56
14 "AEH500"	85.0	40.0	85.0	225.0	40.84	-	40.84
15 "AEH500"	-85.0	40.0	-85.0	225.0	40.84	-	40.84
16 "AEH500"	-75.0	235.0	75.0	235.0	34.56	-	34.56

Cuantía arm. 1.21 [o/o] Suma 351.85

Deformaciones y tensiones extremas (Rotura):

1	Coordenadas y [cm]	z [cm]	Eps [o/oo]	Estado-II [kp/cm2]	
Hormigón-Min	115.00	245.00	-3.500	-170.000	"H300"
Armadura-Min	105.00	250.00	-3.389	-4434.700	"AEH500"
Hormigón-Max	-115.00	20.00	2.330	0.000	"H300"
Armadura-Max	-105.00	15.00	2.218	4434.700	"AEH500"

Fibra neutra zn 116.27 cm yn -26.92 cm Angulo -58.91

Dimensionamiento : Viga "BASEPROY"/"B1"

Esfuerzos (Rotura) Unidades : [tm]

N	Vy	Vz	Mx	My	Mz	Alpha
-1750.190				531.660	1926.870	45.0

La armadura mínima entrada es suficiente !
Armadura mínima definida con las áreas entradas ..
Factor actual de minoración de la resistencia de la sección 1.39
Factor necesario de minoración de la resistencia de la sección .. 1.00

Armadura Longitudinal:	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]	dado (As-min)	dimens. [cm2]	As-nuevo [cm2]
1 "AEH500"	105.0	15.0			3.14	-	3.14
2 "AEH500"	105.0	250.0			3.14	-	3.14
3 "AEH500"	-105.0	250.0			3.14	-	3.14
4 "AEH500"	-105.0	15.0			3.14	-	3.14
5 "AEH500"	80.0	35.0			3.14	-	3.14
6 "AEH500"	80.0	230.0			3.14	-	3.14
7 "AEH500"	-80.0	230.0			3.14	-	3.14
8 "AEH500"	-80.0	35.0			3.14	-	3.14
9 "AEH500"	-90.0	5.0	90.0	5.0	40.84	-	40.84
10 "AEH500"	110.0	30.0	110.0	235.0	47.12	-	47.12
11 "AEH500"	90.0	260.0	-90.0	260.0	40.84	-	40.84
12 "AEH500"	-110.0	235.0	-110.0	30.0	47.12	-	47.12
13 "AEH500"	-75.0	30.0	75.0	30.0	34.56	-	34.56
14 "AEH500"	85.0	40.0	85.0	225.0	40.84	-	40.84
15 "AEH500"	-85.0	40.0	-85.0	225.0	40.84	-	40.84
16 "AEH500"	-75.0	235.0	75.0	235.0	34.56	-	34.56

Cuantía arm. 1.21 [o/o] Suma 351.85

Deformaciones y tensiones extremas (Rotura):

1	Coordenadas y [cm]	z [cm]	Eps [o/oo]	Estado-II [kp/cm2]	
Hormigón-Min	115.00	245.00	-3.500	-170.000	"H300"
Armadura-Min	110.00	235.00	-3.331	-4434.700	"AEH500"
Hormigón-Max	-115.00	20.00	2.866	0.000	"H300"
Armadura-Max	-110.00	30.00	2.697	4434.700	"AEH500"

Fibra neutra zn 128.74 cm yn -13.51 cm Angulo -74.47

Dimensionamiento : Viga "BASEPROY"/"B1"

Esfuerzos (Rotura) Unidades : [tm]

N	Vy	Vz	Mx	My	Mz	Alpha
-522.000				672.860	778.380	45.0

La armadura mínima entrada es suficiente !
Armadura mínima definida con las áreas entradas ..
Factor actual de minoración de la resistencia de la sección 2.51
Factor necesario de minoración de la resistencia de la sección .. 1.00

Armadura Longitudinal:	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]	dado (As-min)	dimens. [cm2]	As-nuevo [cm2]
1 "AEH500"	105.0	15.0			3.14	-	3.14
2 "AEH500"	105.0	250.0			3.14	-	3.14
3 "AEH500"	-105.0	250.0			3.14	-	3.14
4 "AEH500"	-105.0	15.0			3.14	-	3.14
5 "AEH500"	80.0	35.0			3.14	-	3.14
6 "AEH500"	80.0	230.0			3.14	-	3.14
7 "AEH500"	-80.0	230.0			3.14	-	3.14
8 "AEH500"	-80.0	35.0			3.14	-	3.14
9 "AEH500"	-90.0	5.0	90.0	5.0	40.84	-	40.84
10 "AEH500"	110.0	30.0	110.0	235.0	47.12	-	47.12
11 "AEH500"	90.0	260.0	-90.0	260.0	40.84	-	40.84
12 "AEH500"	-110.0	235.0	-110.0	30.0	47.12	-	47.12
13 "AEH500"	-75.0	30.0	75.0	30.0	34.56	-	34.56
14 "AEH500"	85.0	40.0	85.0	225.0	40.84	-	40.84
15 "AEH500"	-85.0	40.0	-85.0	225.0	40.84	-	40.84
16 "AEH500"	-75.0	235.0	75.0	235.0	34.56	-	34.56

Cuantía arm. 1.21 [o/o] Suma 351.85

Deformaciones y tensiones extremas (Rotura):

1	Coordenadas y [cm]	z [cm]	Eps [o/oo]	Estado-II [kp/cm2]	
Hormigón-Min	115.00	245.00	-3.500	-170.000	"H300"
Armadura-Min	105.00	250.00	-3.356	-4434.700	"AEH500"
Hormigón-Max	-115.00	20.00	5.017	0.000	"H300"
Armadura-Max	-105.00	15.00	4.874	4434.700	"AEH500"

Fibra neutra zn 148.64 cm yn 23.20 cm Angulo -55.17

Dimensionamiento : Viga "BASEPROY"/"B1"

Esfuerzos (Rotura) Unidades : [tm]

N	Vy	Vz	Mx	My	Mz	Alpha
-522.000				531.660	944.460	45.0

La armadura minima entrada es suficiente !
Armadura mínima definida con las áreas entradas ..
Factor actual de minoración de la resistencia de la sección 2.33
Factor necesario de minoración de la resistencia de la sección .. 1.00

Armadura Longitudinal:	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]	dado (As-min)	dimens. [cm2]	As-nuevo [cm2]
1 "AEH500"	105.0	15.0			3.14	-	3.14
2 "AEH500"	105.0	250.0			3.14	-	3.14
3 "AEH500"	-105.0	250.0			3.14	-	3.14
4 "AEH500"	-105.0	15.0			3.14	-	3.14
5 "AEH500"	80.0	35.0			3.14	-	3.14
6 "AEH500"	80.0	230.0			3.14	-	3.14
7 "AEH500"	-80.0	230.0			3.14	-	3.14
8 "AEH500"	-80.0	35.0			3.14	-	3.14
9 "AEH500"	-90.0	5.0	90.0	5.0	40.84	-	40.84
10 "AEH500"	110.0	30.0	110.0	235.0	47.12	-	47.12
11 "AEH500"	90.0	260.0	-90.0	260.0	40.84	-	40.84
12 "AEH500"	-110.0	235.0	-110.0	30.0	47.12	-	47.12
13 "AEH500"	-75.0	30.0	75.0	30.0	34.56	-	34.56
14 "AEH500"	85.0	40.0	85.0	225.0	40.84	-	40.84
15 "AEH500"	-85.0	40.0	-85.0	225.0	40.84	-	40.84
16 "AEH500"	-75.0	235.0	75.0	235.0	34.56	-	34.56

Cuantía arm. 1.21 [o/o] Suma 351.85

Deformaciones y tensiones extremas (Rotura):

1	Coordenadas y [cm]	z [cm]	Eps [o/oo]	Estado-II [kp/cm2]	
Hormigón-Min	115.00	245.00	-3.500	-170.000	"H300"
Armadura-Min	105.00	250.00	-3.287	-4434.700	"AEH500"
Hormigón-Max	-115.00	20.00	5.726	0.000	"H300"
Armadura-Max	-105.00	15.00	5.513	4434.700	"AEH500"

Fibra neutra zn 147.81 cm yn 33.20 cm Angulo -65.25

Dimensionamiento : Viga "BASEPROY"/"B1"

Esfuerzos (Rotura) Unidades : [tm]

N	Vy	Vz	Mx	My	Mz	Alpha
-522.000				672.860	1244.000	45.0

La armadura mínima entrada es suficiente !
Armadura mínima definida con las áreas entradas ..
Factor actual de minoración de la resistencia de la sección 1.65
Factor necesario de minoración de la resistencia de la sección .. 1.00

Armadura Longitudinal:	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]	dado (As-min)	dimens. [cm2]	As-nuevo [cm2]
1 "AEH500"	105.0	15.0			3.14	-	3.14
2 "AEH500"	105.0	250.0			3.14	-	3.14
3 "AEH500"	-105.0	250.0			3.14	-	3.14
4 "AEH500"	-105.0	15.0			3.14	-	3.14
5 "AEH500"	80.0	35.0			3.14	-	3.14
6 "AEH500"	80.0	230.0			3.14	-	3.14
7 "AEH500"	-80.0	230.0			3.14	-	3.14
8 "AEH500"	-80.0	35.0			3.14	-	3.14
9 "AEH500"	-90.0	5.0	90.0	5.0	40.84	-	40.84
10 "AEH500"	110.0	30.0	110.0	235.0	47.12	-	47.12
11 "AEH500"	90.0	260.0	-90.0	260.0	40.84	-	40.84
12 "AEH500"	-110.0	235.0	-110.0	30.0	47.12	-	47.12
13 "AEH500"	-75.0	30.0	75.0	30.0	34.56	-	34.56
14 "AEH500"	85.0	40.0	85.0	225.0	40.84	-	40.84
15 "AEH500"	-85.0	40.0	-85.0	225.0	40.84	-	40.84
16 "AEH500"	-75.0	235.0	75.0	235.0	34.56	-	34.56

Cuantía arm. 1.21 [o/o] Suma 351.85

Deformaciones y tensiones extremas (Rotura):

1	Coordenadas y [cm]	z [cm]	Eps [o/oo]	Estado-II [kp/cm2]	
Hormigón-Min	115.00	245.00	-3.500	-170.000	"H300"
Armadura-Min	105.00	250.00	-3.234	-4434.700	"AEH500"
Hormigón-Max	-115.00	20.00	7.218	0.000	"H300"
Armadura-Max	-105.00	15.00	6.952	4434.700	"AEH500"

Fibra neutra zn 151.88 cm yn 47.85 cm Angulo -67.95

Dimensionamiento : Viga "BASEPROY"/"B1"

Esfuerzos (Rotura) Unidades : [tm]

N	Vy	Vz	Mx	My	Mz	Alpha
-522.000				531.660	1414.140	45.0

La armadura mínima entrada es suficiente !
Armadura mínima definida con las áreas entradas ..
Factor actual de minoración de la resistencia de la sección 1.50
Factor necesario de minoración de la resistencia de la sección .. 1.00

Armadura Longitudinal:	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]	dado (As-min)	dimens. [cm2]	As-nuevo [cm2]
1 "AEH500"	105.0	15.0			3.14	-	3.14
2 "AEH500"	105.0	250.0			3.14	-	3.14
3 "AEH500"	-105.0	250.0			3.14	-	3.14
4 "AEH500"	-105.0	15.0			3.14	-	3.14
5 "AEH500"	80.0	35.0			3.14	-	3.14
6 "AEH500"	80.0	230.0			3.14	-	3.14
7 "AEH500"	-80.0	230.0			3.14	-	3.14
8 "AEH500"	-80.0	35.0			3.14	-	3.14
9 "AEH500"	-90.0	5.0	90.0	5.0	40.84	-	40.84
10 "AEH500"	110.0	30.0	110.0	235.0	47.12	-	47.12
11 "AEH500"	90.0	260.0	-90.0	260.0	40.84	-	40.84
12 "AEH500"	-110.0	235.0	-110.0	30.0	47.12	-	47.12
13 "AEH500"	-75.0	30.0	75.0	30.0	34.56	-	34.56
14 "AEH500"	85.0	40.0	85.0	225.0	40.84	-	40.84
15 "AEH500"	-85.0	40.0	-85.0	225.0	40.84	-	40.84
16 "AEH500"	-75.0	235.0	75.0	235.0	34.56	-	34.56

Cuantía arm. 1.21 [o/o] Suma 351.85

Deformaciones y tensiones extremas (Rotura):

1	Coordenadas y [cm]	z [cm]	Eps [o/oo]	Estado-II [kp/cm2]	
Hormigón-Min	115.00	245.00	-3.500	-170.000	"H300"
Armadura-Min	110.00	235.00	-3.179	-4434.700	"AEH500"
Hormigón-Max	-115.00	20.00	8.629	0.000	"H300"
Armadura-Max	-110.00	30.00	8.308	4434.700	"AEH500"

Fibra neutra zn 147.97 cm yn 57.30 cm Angulo -74.89

Dimensionamiento : Viga "BASEPROY"/"B1"

Esfuerzos (Rotura) Unidades : [tm]

N	Vy	Vz	Mx	My	Mz	Alpha
-1750.190				531.660	2322.430	45.0

La armadura mínima entrada es suficiente !
Armadura mínima definida con las áreas entradas ..
Factor actual de minoración de la resistencia de la sección 1.19
Factor necesario de minoración de la resistencia de la sección .. 1.00

Armadura Longitudinal:	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]	dado (As-min)	dimens. [cm2]	As-nuevo [cm2]
1 "AEH500"	105.0	15.0			3.14	-	3.14
2 "AEH500"	105.0	250.0			3.14	-	3.14
3 "AEH500"	-105.0	250.0			3.14	-	3.14
4 "AEH500"	-105.0	15.0			3.14	-	3.14
5 "AEH500"	80.0	35.0			3.14	-	3.14
6 "AEH500"	80.0	230.0			3.14	-	3.14
7 "AEH500"	-80.0	230.0			3.14	-	3.14
8 "AEH500"	-80.0	35.0			3.14	-	3.14
9 "AEH500"	-90.0	5.0	90.0	5.0	40.84	-	40.84
10 "AEH500"	110.0	30.0	110.0	235.0	47.12	-	47.12
11 "AEH500"	90.0	260.0	-90.0	260.0	40.84	-	40.84
12 "AEH500"	-110.0	235.0	-110.0	30.0	47.12	-	47.12
13 "AEH500"	-75.0	30.0	75.0	30.0	34.56	-	34.56
14 "AEH500"	85.0	40.0	85.0	225.0	40.84	-	40.84
15 "AEH500"	-85.0	40.0	-85.0	225.0	40.84	-	40.84
16 "AEH500"	-75.0	235.0	75.0	235.0	34.56	-	34.56

Cuantía arm. 1.21 [o/o] Suma 351.85

Deformaciones y tensiones extremas (Rotura):

1	Coordenadas y [cm]	z [cm]	Eps [o/oo]	Estado-II [kp/cm2]	
Hormigón-Min	115.00	245.00	-3.500	-170.000	"H300"
Armadura-Min	110.00	235.00	-3.313	-4434.700	"AEH500"
Hormigón-Max	-115.00	20.00	3.708	0.000	"H300"
Armadura-Max	-110.00	30.00	3.521	4434.700	"AEH500"

Fibra neutra zn 133.40 cm yn 3.86 cm Angulo -76.83

Dimensionamiento : Viga "BASEPROY"/"B1"

Esfuerzos (Rotura) Unidades : [tm]

N	Vy	Vz	Mx	My	Mz	Alpha
-522.000				531.550	1803.920	45.0

La armadura mínima entrada es suficiente !
Armadura mínima definida con las áreas entradas ..
Factor actual de minoración de la resistencia de la sección 1.13
Factor necesario de minoración de la resistencia de la sección .. 1.00

Armadura Longitudinal:	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]	dado (As-min)	dimens. [cm2]	As-nuevo [cm2]
1 "AEH500"	105.0	15.0			3.14	-	3.14
2 "AEH500"	105.0	250.0			3.14	-	3.14
3 "AEH500"	-105.0	250.0			3.14	-	3.14
4 "AEH500"	-105.0	15.0			3.14	-	3.14
5 "AEH500"	80.0	35.0			3.14	-	3.14
6 "AEH500"	80.0	230.0			3.14	-	3.14
7 "AEH500"	-80.0	230.0			3.14	-	3.14
8 "AEH500"	-80.0	35.0			3.14	-	3.14
9 "AEH500"	-90.0	5.0	90.0	5.0	40.84	-	40.84
10 "AEH500"	110.0	30.0	110.0	235.0	47.12	-	47.12
11 "AEH500"	90.0	260.0	-90.0	260.0	40.84	-	40.84
12 "AEH500"	-110.0	235.0	-110.0	30.0	47.12	-	47.12
13 "AEH500"	-75.0	30.0	75.0	30.0	34.56	-	34.56
14 "AEH500"	85.0	40.0	85.0	225.0	40.84	-	40.84
15 "AEH500"	-85.0	40.0	-85.0	225.0	40.84	-	40.84
16 "AEH500"	-75.0	235.0	75.0	235.0	34.56	-	34.56

Cuantía arm. 1.21 [o/o] Suma 351.85

Deformaciones y tensiones extremas (Rotura):

1	Coordenadas y [cm]	z [cm]	Eps [o/oo]	Estado-II [kp/cm2]	
Hormigón-Min	115.00	245.00	-3.351	-170.000	"H300"
Armadura-Min	110.00	235.00	-3.004	-4434.700	"AEH500"
Hormigón-Max	-115.00	20.00	10.346	0.000	"H300"
Armadura-Max	-110.00	30.00	10.000	4434.700	"AEH500"

Fibra neutra zn 145.23 cm yn 67.20 cm Angulo -79.28

PILAS 1 y 7

	N	F_L	F_T	M_L	M_T	γ_f	γ_d	
cp	55804	0	0	0	0	0'9	1'50	
sobrec	41430	0	0	0	84	0	1'50	
	-3849	0	0	0	0	0	1'50	
Tc Hor	0	2790	0	0	0	0	1'20	
Fc	0	0	1781	0	0	0	1'50	
V.	0	0	2080	0	7261	0	1'50	← 50% vto
	0	0	3121	0	10893	0	1'50	← 75% vto

$H = 1360 m$

$S_{sup} = 1'70 \times 2'30$

$S_{inf} = 2'48 \times 2'30$

Peso pila $A_{sup} = 1'70 \times 2'30 - 1 \times 1'60 = 2'31 m^2$

$A_{inf} = 2'48 \times 2'30 - 1'78 \times 1'60 = 2'856 m^2$

$$P = 2'5 \times \frac{2'31 + 2'856}{2} \times 1360 = 8782 t$$

$I_{inf\,L} = \frac{1}{12} 2'48^3 \times 2'30 - \frac{1}{12} 1'78^3 \times 1'60 = 2'171 m^4$ $\quad i_L = 0'872 m$ $\quad \lambda_L = 31'9$ No pandea en long

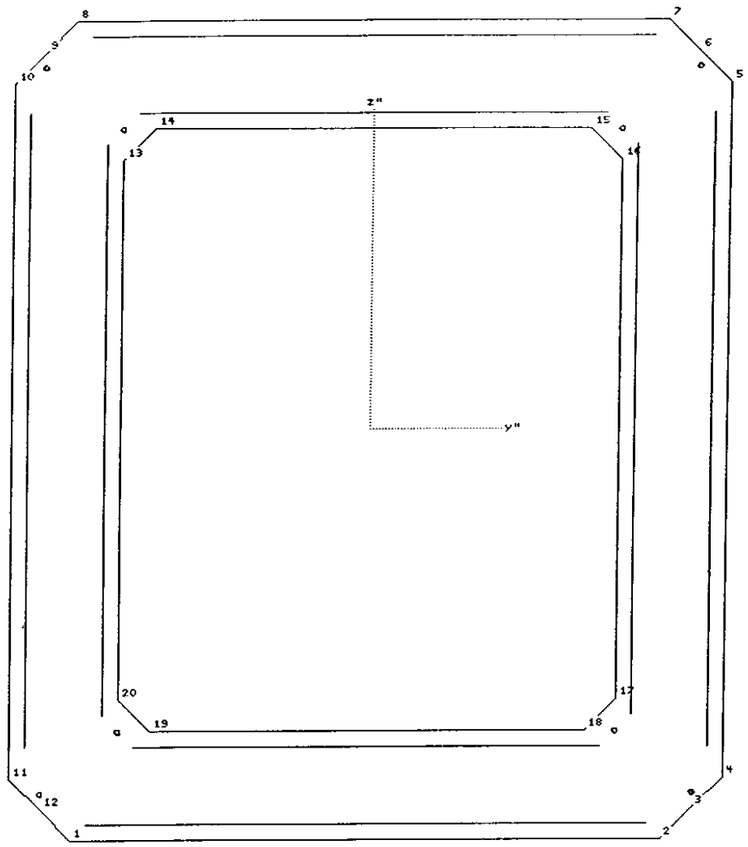
$I_{inf\,T} = \frac{1}{12} 2'48 \times 2'30^3 - \frac{1}{12} 1'78 \times 1'60^3 = 1'906 m^4$ $\quad i_T = 0'817 m$ $\quad \lambda_T = 33'28$ No pandea en transv

Esfuerzos en base de pila (Sin pandeo)

	N_d	M_{Ld}	M_{Td}	γ	
N_{max}	159024	45533	65124	2'31	
N_{max}	159024	45533	102256 (178941)	1'91 1'65	
N_{min}	52354	45533	53324	3'09	
N_{min}	52354	45533	89656 (116345)	1'75 1'20	← HIPOTESIS DIMENSIONANTE DEL PROYECTO

entre paréntesis con 75% vto

Escala 1 : 20.0



Sección :"BASELPRO" Armadura :"B1"
Tipo : tipo viga/ Genérico Unidades :[cm]

Sección parcial 1: Hormigón = H300

Pto	Coord-Y	Coord-Z	Pto	Coord-Y	Coord-Z
1	-95.00	0.00	2	95.00	0.00
3	105.00	10.00	4	115.00	20.00
5	115.00	245.00	6	105.00	255.00
7	95.00	265.00	8	-95.00	265.00
9	-105.00	255.00	10	-115.00	245.00
11	-115.00	20.00	12	-105.00	10.00
Puntos aligeramiento:					
13	-80.00	220.00	14	-70.00	230.00
15	70.00	230.00	16	80.00	220.00
17	80.00	45.00	18	70.00	35.00
19	-70.00	35.00	20	-80.00	45.00

Características mecánicas de la sección:
Area : Ax= 2.915 [m2]
Momentos de inercia : Iy= 2.469 [m4] Iz= 1.939 [m4]
Inercia a torsión : Ix= 1.352 [m4] (de un círculo del mismo área)

Posición del centro de gravedad: ys= 0.000 [m] zs= 1.325 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-1.150	-1.686	0.578
dch.	Iz	1.150	1.686	-0.578
abajo	Iy	-1.325	-1.863	0.639
arriba	Iy	1.325	1.863	-0.639

Armadura: "B1"

Nº	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	2.01	105.00	15.00		
2	AEH500	(1)	2.01	105.00	250.00		
3	AEH500	(1)	2.01	-105.00	250.00		
4	AEH500	(1)	2.01	-105.00	15.00		
5	AEH500	(1)	2.01	80.00	35.00		
6	AEH500	(1)	2.01	80.00	230.00		
7	AEH500	(1)	2.01	-80.00	230.00		
8	AEH500	(1)	2.01	-80.00	35.00		
9	AEH500	(1)	22.12	-90.00	5.00	90.00	5.00
10	AEH500	(1)	24.13	110.00	30.00	110.00	235.00
11	AEH500	(1)	22.12	90.00	260.00	-90.00	260.00
12	AEH500	(1)	24.13	-110.00	235.00	-110.00	30.00
13	AEH500	(1)	18.10	-75.00	30.00	75.00	30.00
14	AEH500	(1)	20.11	85.00	40.00	85.00	225.00
15	AEH500	(1)	20.11	-85.00	40.00	-85.00	225.00
16	AEH500	(1)	18.10	-75.00	235.00	75.00	235.00

Total: 185.01 Cuantía de armadura: 0.635 [o/o]

Cód. dimensionamiento: (0) = As constante
Cód. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccionada
Cód. dimensionamiento: (2) = Aumentar As solo en zona traccionada

¡No se han definido valores para el cálculo a cortante!

Características del material:

Nom.Mat.	Módulo E [kp/cm2]	0.85*fcd,fyd [kp/cm2]	eps-fc [o/oo]	fct [kp/cm2]	fcv [kp/cm2]	fcw,mín [kp/cm2]
"H300"	330000.0	-170.000	-2.000	0.0	7.070	300.000
"AEH500"	2.10E+06	4434.700				

Leyenda:
fcd,fyd resistencia de cálculo del hormigón,acero
eps-fc deformación al final de la parábola (fig.2.3, cap.2.2)
fct resistencia de cálculo a tracción del hormigón
fcv resistencia virtual de cálculo del hormigón a esfuerzo cortante

Dimensionamiento : Viga "BASELPRO"/"B1"

Esfuerzos (Rotura) Unidades : [tm]

N	Vy	Vz	Mx	My	Mz	Alpha
-1590.240				455.330	659.240	45.0

La armadura mínima entrada es suficiente !
Armadura mínima definida con las áreas entradas ..
Factor actual de minoración de la resistencia de la sección 2.31
Factor necesario de minoración de la resistencia de la sección .. 1.00

Armadura Longitudinal:	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]	dado (As-min)	dimens. [cm2]	As-nuevo [cm2]
1 "AEH500"	105.0	15.0			2.01	-	2.01
2 "AEH500"	105.0	250.0			2.01	-	2.01
3 "AEH500"	-105.0	250.0			2.01	-	2.01
4 "AEH500"	-105.0	15.0			2.01	-	2.01
5 "AEH500"	80.0	35.0			2.01	-	2.01
6 "AEH500"	80.0	230.0			2.01	-	2.01
7 "AEH500"	-80.0	230.0			2.01	-	2.01
8 "AEH500"	-80.0	35.0			2.01	-	2.01
9 "AEH500"	-90.0	5.0	90.0	5.0	22.12	-	22.12
10 "AEH500"	110.0	30.0	110.0	235.0	24.13	-	24.13
11 "AEH500"	90.0	260.0	-90.0	260.0	22.12	-	22.12
12 "AEH500"	-110.0	235.0	-110.0	30.0	24.13	-	24.13
13 "AEH500"	-75.0	30.0	75.0	30.0	18.10	-	18.10
14 "AEH500"	85.0	40.0	85.0	225.0	20.11	-	20.11
15 "AEH500"	-85.0	40.0	-85.0	225.0	20.11	-	20.11
16 "AEH500"	-75.0	235.0	75.0	235.0	18.10	-	18.10

Cuantía arm. 0.63 [o/o] Suma 185.01

Deformaciones y tensiones extremas (Rotura):

1	Coordenadas y [cm]	z [cm]	Eps [o/oo]	Estado-II [kp/cm2]	
Hormigón-Min	115.00	245.00	-3.500	-170.000	"H300"
Armadura-Min	105.00	250.00	-3.412	-4434.700	"AEH500"
Hormigón-Max	-115.00	20.00	0.856	0.000	"H300"
Armadura-Max	-105.00	15.00	0.768	1613.133	"AEH500"

Fibra neutra zn 86.13 cm yn -82.18 cm Angulo -60.57

Dimensionamiento : Viga "BASELPRO"/"B1"

Esfuerzos (Rotura) Unidades : [tm]

N	Vy	Vz	Mx	My	Mz	Alpha
-1590.240				455.330	1022.560	45.0

La armadura mínima entrada es suficiente !
Armadura mínima definida con las áreas entradas ..
Factor actual de minoración de la resistencia de la sección 1.91
Factor necesario de minoración de la resistencia de la sección .. 1.00

Armadura Longitudinal:	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]	dado (As-min)	dimens. [cm2]	As-nuevo [cm2]
1 "AEH500"	105.0	15.0			2.01	-	2.01
2 "AEH500"	105.0	250.0			2.01	-	2.01
3 "AEH500"	-105.0	250.0			2.01	-	2.01
4 "AEH500"	-105.0	15.0			2.01	-	2.01
5 "AEH500"	80.0	35.0			2.01	-	2.01
6 "AEH500"	80.0	230.0			2.01	-	2.01
7 "AEH500"	-80.0	230.0			2.01	-	2.01
8 "AEH500"	-80.0	35.0			2.01	-	2.01
9 "AEH500"	-90.0	5.0	90.0	5.0	22.12	-	22.12
10 "AEH500"	110.0	30.0	110.0	235.0	24.13	-	24.13
11 "AEH500"	90.0	260.0	-90.0	260.0	22.12	-	22.12
12 "AEH500"	-110.0	235.0	-110.0	30.0	24.13	-	24.13
13 "AEH500"	-75.0	30.0	75.0	30.0	18.10	-	18.10
14 "AEH500"	85.0	40.0	85.0	225.0	20.11	-	20.11
15 "AEH500"	-85.0	40.0	-85.0	225.0	20.11	-	20.11
16 "AEH500"	-75.0	235.0	75.0	235.0	18.10	-	18.10

Cuantía arm. 0.63 [o/o] Suma 185.01

Deformaciones y tensiones extremas (Rotura):

1	Coordenadas y [cm]	z [cm]	Eps [o/oo]	Estado-II [kp/cm2]	
Hormigón-Min	115.00	245.00	-3.500	-170.000	"H300"
Armadura-Min	105.00	250.00	-3.379	-4434.700	"AEH500"
Hormigón-Max	-115.00	20.00	1.559	0.000	"H300"
Armadura-Max	-105.00	15.00	1.438	3019.039	"AEH500"

Fibra neutra zn 109.71 cm yn -52.90 cm Angulo -66.70

Dimensionamiento : Viga "BASELPRO"/"81"

Esfuerzos (Rotura) Unidades : [tm]

N	Vy	Vz	Mx	My	Mz	Alpha
-1590.240				455.330	1289.410	45.0

La armadura mínima entrada es suficiente !
Armadura mínima definida con las áreas entradas ..
Factor actual de minoración de la resistencia de la sección 1.65
Factor necesario de minoración de la resistencia de la sección .. 1.00

Armadura Longitudinal:	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]	dado (As-min)	dimens. As [cm2]	As-nuevo [cm2]
1 "AEH500"	105.0	15.0			2.01	-	2.01
2 "AEH500"	105.0	250.0			2.01	-	2.01
3 "AEH500"	-105.0	250.0			2.01	-	2.01
4 "AEH500"	-105.0	15.0			2.01	-	2.01
5 "AEH500"	80.0	35.0			2.01	-	2.01
6 "AEH500"	80.0	230.0			2.01	-	2.01
7 "AEH500"	-80.0	230.0			2.01	-	2.01
8 "AEH500"	-80.0	35.0			2.01	-	2.01
9 "AEH500"	-90.0	5.0	90.0	5.0	22.12	-	22.12
10 "AEH500"	110.0	30.0	110.0	235.0	24.13	-	24.13
11 "AEH500"	90.0	260.0	-90.0	260.0	22.12	-	22.12
12 "AEH500"	-110.0	235.0	-110.0	30.0	24.13	-	24.13
13 "AEH500"	-75.0	30.0	75.0	30.0	18.10	-	18.10
14 "AEH500"	85.0	40.0	85.0	225.0	20.11	-	20.11
15 "AEH500"	-85.0	40.0	-85.0	225.0	20.11	-	20.11
16 "AEH500"	-75.0	235.0	75.0	235.0	18.10	-	18.10

Cuantía arm. 0.63 [o/o] Suma 185.01

Deformaciones y tensiones extremas (Rotura):

1	Coordenadas y [cm]	z [cm]	Eps [o/oo]	Estado-II [kp/cm2]	
Hormigón-Min	115.00	245.00	-3.500	-170.000	"H300"
Armadura-Min	105.00	250.00	-3.348	-4434.700	"AEH500"
Hormigón-Max	-115.00	20.00	2.265	0.000	"H300"
Armadura-Max	-105.00	15.00	2.113	4434.700	"AEH500"

Fibra neutra zn 121.95 cm yn -29.48 cm Angulo -70.30

Dimensionamiento : Viga "BASELPRO"/"81"

Esfuerzos (Rotura) Unidades : [tm]

N	Vy	Vz	Mx	My	Mz	Alpha
-523.540				455.330	533.240	45.0

La armadura mínima entrada es suficiente !
Armadura mínima definida con las áreas entradas ..
Factor actual de minoración de la resistencia de la sección 3.09
Factor necesario de minoración de la resistencia de la sección .. 1.00

Armadura Longitudinal:	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]	dado (As-min)	dimens. As [cm2]	As-nuevo [cm2]
1 "AEH500"	105.0	15.0			2.01	-	2.01
2 "AEH500"	105.0	250.0			2.01	-	2.01
3 "AEH500"	-105.0	250.0			2.01	-	2.01
4 "AEH500"	-105.0	15.0			2.01	-	2.01
5 "AEH500"	80.0	35.0			2.01	-	2.01
6 "AEH500"	80.0	230.0			2.01	-	2.01
7 "AEH500"	-80.0	230.0			2.01	-	2.01
8 "AEH500"	-80.0	35.0			2.01	-	2.01
9 "AEH500"	-90.0	5.0	90.0	5.0	22.12	-	22.12
10 "AEH500"	110.0	30.0	110.0	235.0	24.13	-	24.13
11 "AEH500"	90.0	260.0	-90.0	260.0	22.12	-	22.12
12 "AEH500"	-110.0	235.0	-110.0	30.0	24.13	-	24.13
13 "AEH500"	-75.0	30.0	75.0	30.0	18.10	-	18.10
14 "AEH500"	85.0	40.0	85.0	225.0	20.11	-	20.11
15 "AEH500"	-85.0	40.0	-85.0	225.0	20.11	-	20.11
16 "AEH500"	-75.0	235.0	75.0	235.0	18.10	-	18.10

Cuantía arm. 0.63 [o/o] Suma 185.01

Deformaciones y tensiones extremas (Rotura):

1	Coordenadas y [cm]	z [cm]	Eps [o/oo]	Estado-II [kp/cm2]	
Hormigón-Min	115.00	245.00	-3.500	-170.000	"H300"
Armadura-Min	105.00	250.00	-3.365	-4434.700	"AEH500"
Hormigón-Max	-115.00	20.00	4.503	0.000	"H300"
Armadura-Max	-105.00	15.00	4.367	4434.700	"AEH500"

Fibra neutra zn 143.83 cm yn 16.33 cm Angulo -55.26

Dimensionamiento : Viga "BASELPRO"/"B1"

Esfuerzos (Rotura) Unidades : [tm]

N	Vy	Vz	Mx	My	Mz	Alpha
-523.540				455.330	896.560	45.0

La armadura mínima entrada es suficiente !
Armadura mínima definida con las áreas entradas ..
Factor actual de minoración de la resistencia de la sección 1.75
Factor necesario de minoración de la resistencia de la sección .. 1.00

Armadura Longitudinal:	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]	dado (As-min)	dimens. [cm2]	As-nuevo [cm2]
1 "AEH500"	105.0	15.0			2.01	-	2.01
2 "AEH500"	105.0	250.0			2.01	-	2.01
3 "AEH500"	-105.0	250.0			2.01	-	2.01
4 "AEH500"	-105.0	15.0			2.01	-	2.01
5 "AEH500"	80.0	35.0			2.01	-	2.01
6 "AEH500"	80.0	230.0			2.01	-	2.01
7 "AEH500"	-80.0	230.0			2.01	-	2.01
8 "AEH500"	-80.0	35.0			2.01	-	2.01
9 "AEH500"	-90.0	5.0	90.0	5.0	22.12	-	22.12
10 "AEH500"	110.0	30.0	110.0	235.0	24.13	-	24.13
11 "AEH500"	90.0	260.0	-90.0	260.0	22.12	-	22.12
12 "AEH500"	-110.0	235.0	-110.0	30.0	24.13	-	24.13
13 "AEH500"	-75.0	30.0	75.0	30.0	18.10	-	18.10
14 "AEH500"	85.0	40.0	85.0	225.0	20.11	-	20.11
15 "AEH500"	-85.0	40.0	-85.0	225.0	20.11	-	20.11
16 "AEH500"	-75.0	235.0	75.0	235.0	18.10	-	18.10

Cuantía arm. 0.63 [o/o] Suma 185.01

Deformaciones y tensiones extremas (Rotura):

1	Coordenadas y [cm]	z [cm]	Eps [o/oo]	Estado-II [kp/cm2]	
Hormigón-Min	115.00	245.00	-3.500	-170.000	"H300"
Armadura-Min	110.00	235.00	-3.164	-4434.700	"AEH500"
Hormigón-Max	-115.00	20.00	8.797	0.000	"H300"
Armadura-Max	-110.00	30.00	8.461	4434.700	"AEH500"

Fibra neutra zn 152.16 cm yn 59.11 cm Angulo -71.61

Dimensionamiento : Viga "BASELPRO"/"B1"

Esfuerzos (Rotura) Unidades : [tm]

N	Vy	Vz	Mx	My	Mz	Alpha
-523.540				455.330	1163.450	45.0

La armadura mínima entrada es suficiente !
Armadura mínima definida con las áreas entradas ..
Factor actual de minoración de la resistencia de la sección 1.20
Factor necesario de minoración de la resistencia de la sección .. 1.00

Armadura Longitudinal:	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]	dado (As-min)	dimens. [cm2]	As-nuevo [cm2]
1 "AEH500"	105.0	15.0			2.01	-	2.01
2 "AEH500"	105.0	250.0			2.01	-	2.01
3 "AEH500"	-105.0	250.0			2.01	-	2.01
4 "AEH500"	-105.0	15.0			2.01	-	2.01
5 "AEH500"	80.0	35.0			2.01	-	2.01
6 "AEH500"	80.0	230.0			2.01	-	2.01
7 "AEH500"	-80.0	230.0			2.01	-	2.01
8 "AEH500"	-80.0	35.0			2.01	-	2.01
9 "AEH500"	-90.0	5.0	90.0	5.0	22.12	-	22.12
10 "AEH500"	110.0	30.0	110.0	235.0	24.13	-	24.13
11 "AEH500"	90.0	260.0	-90.0	260.0	22.12	-	22.12
12 "AEH500"	-110.0	235.0	-110.0	30.0	24.13	-	24.13
13 "AEH500"	-75.0	30.0	75.0	30.0	18.10	-	18.10
14 "AEH500"	85.0	40.0	85.0	225.0	20.11	-	20.11
15 "AEH500"	-85.0	40.0	-85.0	225.0	20.11	-	20.11
16 "AEH500"	-75.0	235.0	75.0	235.0	18.10	-	18.10

Cuantía arm. 0.63 [o/o] Suma 185.01

Deformaciones y tensiones extremas (Rotura):

1	Coordenadas y [cm]	z [cm]	Eps [o/oo]	Estado-II [kp/cm2]	
Hormigón-Min	115.00	245.00	-2.963	-170.000	"H300"
Armadura-Min	110.00	235.00	-2.623	-4434.700	"AEH500"
Hormigón-Max	-115.00	20.00	10.340	0.000	"H300"
Armadura-Max	-110.00	30.00	10.000	4434.700	"AEH500"

Fibra neutra zn 147.56 cm yn 73.47 cm Angulo -78.41

PILAS 1 y 7

	N	FL	FT	ML	MT	γf	γd	
cp	445 (55604)	0	5	0	97	0'9	1'5	$S_{ap} = 1'70 \times 2'80$
estren	369 (41430)	0	0	0	84	0	1'50	$S_{inf} = 2'48 \times 2'80$
	309	0	0	0	221	0	1'50	
	-31 (-3849	0	0	0	0	0	1'50	
Teflón	0	10 (2790)	0	0	0	0	1'20	
Fc	0	0	0 (1781)	0	0	0	1'5	
vto	0	0	24 (3121) ↑ 0'75	0	0	0	1'5	← 75% vto

H = 1360 m

Peso pila $A_{ap} = 1'70 \times 2'80 - \pi \times 1'60 = 2'34\ m^2$

$A_{inf} = 2'48 \times 2'80 - 1'88 \times 2'20 = 2'808\ m^2$

$P = 2'5 \frac{2'34 + 2'808}{2} \times 13'60 = 87'516\ t$

$I_{inf_L} = \frac{1}{12} 2'80 \times 2'48^3 - \frac{1}{12} \times 1'88^3 \times 2'20 = 2'340\ m^4$ $i_L = 0'913\ m$ $\lambda_L = 29'79$ No hay 2° orden

$I_{inf_T} = \frac{1}{12} 2'80^3 \times 2'48 - \frac{1}{12} \times 1'88 \times 2'20^3 = 2'868\ m^4$ $i_T = 1'010$ $\lambda_T = 26'91$ No hay 2° orden

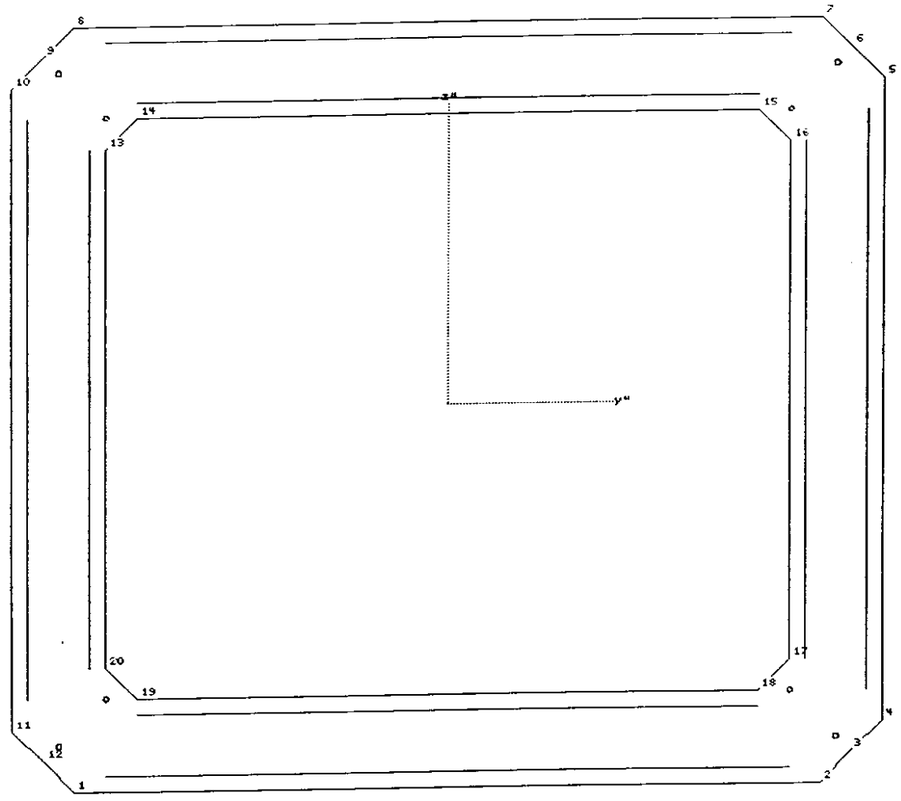
Esfuerzos en base de pila: (No hay 2° orden)

	Nd	Mld	MTd	γ	
Nmax	135'27	455'33*	908'18*	2'32	sin fc
Nmax	135'27	455'33	1271'51*	1'94	conf c
MTmax	126'27	455'33	1113'68*	2'13	sin fc
MTmax	126'27	455'33	1147'00*	1'77	conf c
Nmin	43'76	455'33	723'98*	2'72	sin fc
Nmin	43'76	455'33	1081'31*	1'75	conf c

La sección está muy holgada

* Corregido el valor de teflones, vtotrans y Fc

Escala 1 : 20.0



Sección :"BASELAT" Armadura :"B1"
Tipo : tipo viga/ Genérico Unidades :[cm]

Sección parcial 1: Hormigón = H300

Pto	Coord-Y	Coord-Z	Pto	Coord-Y	Coord-Z
1	-120.00	0.00	2	120.00	0.00
3	130.00	10.00	4	140.00	20.00
5	140.00	228.00	6	130.00	238.00
7	120.00	248.00	8	-120.00	248.00
9	-130.00	238.00	10	-140.00	228.00
11	-140.00	20.00	12	-130.00	10.00
Puntos aligeramiento:					
13	-110.00	208.00	14	-100.00	218.00
15	100.00	218.00	16	110.00	208.00
17	110.00	40.00	18	100.00	30.00
19	-100.00	30.00	20	-110.00	40.00

Características mecánicas de la sección:
Area : Ax= 2.748 [m2]
Momentos de inercia : Iy= 2.247 [m4] Iz= 2.749 [m4]
Inercia a torsión : Ix= 1.202 [m4] (de un círculo del mismo área)

Posición del centro de gravedad: ys= 0.000 [m] zs= 1.240 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-1.400	-1.964	0.715
dch.	Iz	1.400	1.964	-0.715
abajo	Iy	-1.240	-1.812	0.659
arriba	Iy	1.240	1.812	-0.659

Armadura: "B1"

Nº	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	3.14	125.00	15.00		
2	AEH500	(1)	3.14	125.00	233.00		
3	AEH500	(1)	3.14	-125.00	233.00		
4	AEH500	(1)	3.14	-125.00	15.00		
5	AEH500	(1)	2.01	110.00	30.00		
6	AEH500	(1)	2.01	110.00	218.00		
7	AEH500	(1)	2.01	-110.00	218.00		
8	AEH500	(1)	2.01	-110.00	30.00		
9	AEH500	(1)	31.42	-110.00	5.00	110.00	5.00
10	AEH500	(1)	31.42	135.00	30.00	135.00	218.00
11	AEH500	(1)	31.42	110.00	243.00	-110.00	243.00
12	AEH500	(1)	31.42	-135.00	218.00	-135.00	30.00
13	AEH500	(1)	16.09	-100.00	25.00	100.00	25.00
14	AEH500	(1)	16.09	115.00	40.00	115.00	208.00
15	AEH500	(1)	16.09	100.00	223.00	-100.00	223.00
16	AEH500	(1)	16.09	-115.00	208.00	-115.00	40.00

Total: 210.62 Cuantía de armadura: 0.766 [o/o]

Cód. dimensionamiento: (0) = As constante
Cód. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccionada
Cód. dimensionamiento: (2) = Aumentar As solo en zona traccionada

¡No se han definido valores para el cálculo a cortante!

Características del material:

Nom.Mat.	Módulo E [kp/cm2]	0.85*fcd,fyd [kp/cm2]	eps-fc [o/oo]	fct [kp/cm2]	fcv [kp/cm2]	fcw,mín [kp/cm2]
"H300"	330000.0	-170.000	-2.000	0.0	7.070	300.000
"AEH500"	2.10E+06	4434.700				

Leyenda:
fcd,fyd resistencia de cálculo del hormigón,acero
eps-fc deformación al final de la parábola (fig.2.3, cap.2.2)
fct resistencia de cálculo a tracción del hormigón
fcv resistencia virtual de cálculo del hormigón a esfuerzo cortante

Dimensionamiento : Viga "BASELAT"/"B1"

Esfuerzos (Rotura) Unidades : [tm]

N	Vy	Vz	Mx	My	Mz	Alpha
-1352.270				455.330	908.180	45.0

La armadura mínima entrada es suficiente !
Armadura mínima definida con las áreas entradas ..
Factor actual de minoración de la resistencia de la sección 2.32
Factor necesario de minoración de la resistencia de la sección .. 1.00

Armadura Longitudinal:	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]	dado (As-min)	dimens. [cm2]	As-nuevo [cm2]
1 "AEH500"	125.0	15.0			3.14	-	3.14
2 "AEH500"	125.0	233.0			3.14	-	3.14
3 "AEH500"	-125.0	233.0			3.14	-	3.14
4 "AEH500"	-125.0	15.0			3.14	-	3.14
5 "AEH500"	110.0	30.0			2.01	-	2.01
6 "AEH500"	110.0	218.0			2.01	-	2.01
7 "AEH500"	-110.0	218.0			2.01	-	2.01
8 "AEH500"	-110.0	30.0			2.01	-	2.01
9 "AEH500"	-110.0	5.0	110.0	5.0	31.42	-	31.42
10 "AEH500"	135.0	30.0	135.0	218.0	31.42	-	31.42
11 "AEH500"	110.0	243.0	-110.0	243.0	31.42	-	31.42
12 "AEH500"	-135.0	218.0	-135.0	30.0	31.42	-	31.42
13 "AEH500"	-100.0	25.0	100.0	25.0	16.09	-	16.09
14 "AEH500"	115.0	40.0	115.0	208.0	16.09	-	16.09
15 "AEH500"	100.0	223.0	-100.0	223.0	16.09	-	16.09
16 "AEH500"	-115.0	208.0	-115.0	40.0	16.09	-	16.09

Cuantía arm. 0.77 [o/o] Suma 210.62

Deformaciones y tensiones extremas (Rotura):

1	Coordenadas y [cm]	z [cm]	Eps [o/oo]	Estado-II (kp/cm2)	
Hormigón-Min	140.00	228.00	-3.500	-170.000	"H300"
Armadura-Min	125.00	233.00	-3.369	-4434.700	"AEH500"
Hormigón-Max	-140.00	20.00	1.313	0.000	"H300"
Armadura-Max	-125.00	15.00	1.182	2481.993	"AEH500"

Fibra neutra zn 79.00 cm yn -65.17 cm Angulo -55.37

Dimensionamiento : Viga "BASELAT"/"B1"

Esfuerzos (Rotura) Unidades : [tm]

N	Vy	Vz	Mx	My	Mz	Alpha
-1352.270				455.330	1271.510	45.0

La armadura mínima entrada es suficiente !
Armadura mínima definida con las áreas entradas ..
Factor actual de minoración de la resistencia de la sección 1.94
Factor necesario de minoración de la resistencia de la sección .. 1.00

Armadura Longitudinal:	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]	dado (As-min)	dimens. [cm2]	As-nuevo [cm2]
1 "AEH500"	125.0	15.0			3.14	-	3.14
2 "AEH500"	125.0	233.0			3.14	-	3.14
3 "AEH500"	-125.0	233.0			3.14	-	3.14
4 "AEH500"	-125.0	15.0			3.14	-	3.14
5 "AEH500"	110.0	30.0			2.01	-	2.01
6 "AEH500"	110.0	218.0			2.01	-	2.01
7 "AEH500"	-110.0	218.0			2.01	-	2.01
8 "AEH500"	-110.0	30.0			2.01	-	2.01
9 "AEH500"	-110.0	5.0	110.0	5.0	31.42	-	31.42
10 "AEH500"	135.0	30.0	135.0	218.0	31.42	-	31.42
11 "AEH500"	110.0	243.0	-110.0	243.0	31.42	-	31.42
12 "AEH500"	-135.0	218.0	-135.0	30.0	31.42	-	31.42
13 "AEH500"	-100.0	25.0	100.0	25.0	16.09	-	16.09
14 "AEH500"	115.0	40.0	115.0	208.0	16.09	-	16.09
15 "AEH500"	100.0	223.0	-100.0	223.0	16.09	-	16.09
16 "AEH500"	-115.0	208.0	-115.0	40.0	16.09	-	16.09

Cuantía arm. 0.77 [o/o] Suma 210.62

Deformaciones y tensiones extremas (Rotura):

1	Coordenadas y [cm]	z [cm]	Eps [o/oo]	Estado-II (kp/cm2)	
Hormigón-Min	140.00	228.00	-3.500	-170.000	"H300"
Armadura-Min	135.00	218.00	-3.353	-4434.700	"AEH500"
Hormigón-Max	-140.00	20.00	2.057	0.000	"H300"
Armadura-Max	-135.00	30.00	1.910	4010.184	"AEH500"

Fibra neutra zn 102.67 cm yn -39.42 cm Angulo -61.58

Dimensionamiento : Viga "BASELAT"/"B1"

Esfuerzos (Rotura) Unidades : [tm]

N	Vy	Vz	Mx	My	Mz	Alpha
-1262.270				455.330	1113.680	45.0

La armadura mínima entrada es suficiente !
Armadura mínima definida con las áreas entradas ..
Factor actual de minoración de la resistencia de la sección 2.13
Factor necesario de minoración de la resistencia de la sección .. 1.00

Armadura Longitudinal:	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]	dado (As-min)	dimens. [cm2]	As-nuevo [cm2]
1 "AEH500"	125.0	15.0			3.14	-	3.14
2 "AEH500"	125.0	233.0			3.14	-	3.14
3 "AEH500"	-125.0	233.0			3.14	-	3.14
4 "AEH500"	-125.0	15.0			3.14	-	3.14
5 "AEH500"	110.0	30.0			2.01	-	2.01
6 "AEH500"	110.0	218.0			2.01	-	2.01
7 "AEH500"	-110.0	218.0			2.01	-	2.01
8 "AEH500"	-110.0	30.0			2.01	-	2.01
9 "AEH500"	-110.0	5.0	110.0	5.0	31.42	-	31.42
10 "AEH500"	135.0	30.0	135.0	218.0	31.42	-	31.42
11 "AEH500"	110.0	243.0	-110.0	243.0	31.42	-	31.42
12 "AEH500"	-135.0	218.0	-135.0	30.0	31.42	-	31.42
13 "AEH500"	-100.0	25.0	100.0	25.0	16.09	-	16.09
14 "AEH500"	115.0	40.0	115.0	208.0	16.09	-	16.09
15 "AEH500"	100.0	223.0	-100.0	223.0	16.09	-	16.09
16 "AEH500"	-115.0	208.0	-115.0	40.0	16.09	-	16.09

Cuantía arm. 0.77 [o/o] Suma 210.62

Deformaciones y tensiones extremas (Rotura):

1	Coordenadas y [cm]	z [cm]	Eps [o/oo]	Estado-II [kp/cm2]	
Hormigón-Min	140.00	228.00	-3.500	-170.000	"H300"
Armadura-Min	135.00	218.00	-3.352	-4434.700	"AEH500"
Hormigón-Max	-140.00	20.00	1.939	0.000	"H300"
Armadura-Max	-135.00	30.00	1.791	3760.308	"AEH500"

Fibra neutra zn 98.23 cm yn -42.66 cm Angulo -58.87

Dimensionamiento : Viga "BASELAT"/"B1"

Esfuerzos (Rotura) Unidades : [tm]

N	Vy	Vz	Mx	My	Mz	Alpha
-1262.270				455.330	1477.000	45.0

La armadura mínima entrada es suficiente !
Armadura mínima definida con las áreas entradas ..
Factor actual de minoración de la resistencia de la sección 1.77
Factor necesario de minoración de la resistencia de la sección .. 1.00

Armadura Longitudinal:	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]	dado (As-min)	dimens. [cm2]	As-nuevo [cm2]
1 "AEH500"	125.0	15.0			3.14	-	3.14
2 "AEH500"	125.0	233.0			3.14	-	3.14
3 "AEH500"	-125.0	233.0			3.14	-	3.14
4 "AEH500"	-125.0	15.0			3.14	-	3.14
5 "AEH500"	110.0	30.0			2.01	-	2.01
6 "AEH500"	110.0	218.0			2.01	-	2.01
7 "AEH500"	-110.0	218.0			2.01	-	2.01
8 "AEH500"	-110.0	30.0			2.01	-	2.01
9 "AEH500"	-110.0	5.0	110.0	5.0	31.42	-	31.42
10 "AEH500"	135.0	30.0	135.0	218.0	31.42	-	31.42
11 "AEH500"	110.0	243.0	-110.0	243.0	31.42	-	31.42
12 "AEH500"	-135.0	218.0	-135.0	30.0	31.42	-	31.42
13 "AEH500"	-100.0	25.0	100.0	25.0	16.09	-	16.09
14 "AEH500"	115.0	40.0	115.0	208.0	16.09	-	16.09
15 "AEH500"	100.0	223.0	-100.0	223.0	16.09	-	16.09
16 "AEH500"	-115.0	208.0	-115.0	40.0	16.09	-	16.09

Cuantía arm. 0.77 [o/o] Suma 210.62

Deformaciones y tensiones extremas (Rotura):

1	Coordenadas y [cm]	z [cm]	Eps [o/oo]	Estado-II [kp/cm2]	
Hormigón-Min	140.00	228.00	-3.500	-170.000	"H300"
Armadura-Min	135.00	218.00	-3.338	-4434.700	"AEH500"
Hormigón-Max	-140.00	20.00	2.816	0.000	"H300"
Armadura-Max	-135.00	30.00	2.653	4434.700	"AEH500"

Fibra neutra zn 116.07 cm yn -16.75 cm Angulo -64.66

Dimensionamiento : Viga "BASELAT"/"B1"

Esfuerzos (Rotura) Unidades : [tm]

N	Vy	Vz	Mx	My	Mz	Alpha
-432.760				455.330	723.980	45.0

La armadura mínima entrada es suficiente !
Armadura mínima definida con las áreas entradas ..
Factor actual de minoración de la resistencia de la sección 2.72
Factor necesario de minoración de la resistencia de la sección .. 1.00

Armadura Longitudinal:	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]	dado (As-min)	dimens. [cm2]	As-nuevo [cm2]
1 "AEH500"	125.0	15.0			3.14	-	3.14
2 "AEH500"	125.0	233.0			3.14	-	3.14
3 "AEH500"	-125.0	233.0			3.14	-	3.14
4 "AEH500"	-125.0	15.0			3.14	-	3.14
5 "AEH500"	110.0	30.0			2.01	-	2.01
6 "AEH500"	110.0	218.0			2.01	-	2.01
7 "AEH500"	-110.0	218.0			2.01	-	2.01
8 "AEH500"	-110.0	30.0			2.01	-	2.01
9 "AEH500"	-110.0	5.0	110.0	5.0	31.42	-	31.42
10 "AEH500"	135.0	30.0	135.0	218.0	31.42	-	31.42
11 "AEH500"	110.0	243.0	-110.0	243.0	31.42	-	31.42
12 "AEH500"	-135.0	218.0	-135.0	30.0	31.42	-	31.42
13 "AEH500"	-100.0	25.0	100.0	25.0	16.09	-	16.09
14 "AEH500"	115.0	40.0	115.0	208.0	16.09	-	16.09
15 "AEH500"	100.0	223.0	-100.0	223.0	16.09	-	16.09
16 "AEH500"	-115.0	208.0	-115.0	40.0	16.09	-	16.09

Cuantía arm. 0.77 [o/o] Suma 210.62

Deformaciones y tensiones extremas (Rotura):

1	Coordenadas y [cm]	z [cm]	Eps [o/oo]	Estado-II [kp/cm2]	
Hormigón-Min	140.00	228.00	-3.500	-170.000	"H300"
Armadura-Min	125.00	233.00	-3.268	-4434.700	"AEH500"
Hormigón-Max	-140.00	20.00	5.839	0.000	"H300"
Armadura-Max	-125.00	15.00	5.607	4434.700	"AEH500"

Fibra neutra zn 151.11 cm yn 34.23 cm Angulo -51.62

Dimensionamiento : Viga "BASELAT"/"B1"

Esfuerzos (Rotura) Unidades : [tm]

N	Vy	Vz	Mx	My	Mz	Alpha
-432.760				455.330	1087.310	45.0

La armadura mínima entrada es suficiente !
Armadura mínima definida con las áreas entradas ..
Factor actual de minoración de la resistencia de la sección 1.75
Factor necesario de minoración de la resistencia de la sección .. 1.00

Armadura Longitudinal:	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]	dado (As-min)	dimens. [cm2]	As-nuevo [cm2]
1 "AEH500"	125.0	15.0			3.14	-	3.14
2 "AEH500"	125.0	233.0			3.14	-	3.14
3 "AEH500"	-125.0	233.0			3.14	-	3.14
4 "AEH500"	-125.0	15.0			3.14	-	3.14
5 "AEH500"	110.0	30.0			2.01	-	2.01
6 "AEH500"	110.0	218.0			2.01	-	2.01
7 "AEH500"	-110.0	218.0			2.01	-	2.01
8 "AEH500"	-110.0	30.0			2.01	-	2.01
9 "AEH500"	-110.0	5.0	110.0	5.0	31.42	-	31.42
10 "AEH500"	135.0	30.0	135.0	218.0	31.42	-	31.42
11 "AEH500"	110.0	243.0	-110.0	243.0	31.42	-	31.42
12 "AEH500"	-135.0	218.0	-135.0	30.0	31.42	-	31.42
13 "AEH500"	-100.0	25.0	100.0	25.0	16.09	-	16.09
14 "AEH500"	115.0	40.0	115.0	208.0	16.09	-	16.09
15 "AEH500"	100.0	223.0	-100.0	223.0	16.09	-	16.09
16 "AEH500"	-115.0	208.0	-115.0	40.0	16.09	-	16.09

Cuantía arm. 0.77 [o/o] Suma 210.62

Deformaciones y tensiones extremas (Rotura):

1	Coordenadas y [cm]	z [cm]	Eps [o/oo]	Estado-II [kp/cm2]	
Hormigón-Min	140.00	228.00	-3.500	-170.000	"H300"
Armadura-Min	135.00	218.00	-3.176	-4434.700	"AEH500"
Hormigón-Max	-140.00	20.00	9.205	0.000	"H300"
Armadura-Max	-135.00	30.00	8.881	4434.700	"AEH500"

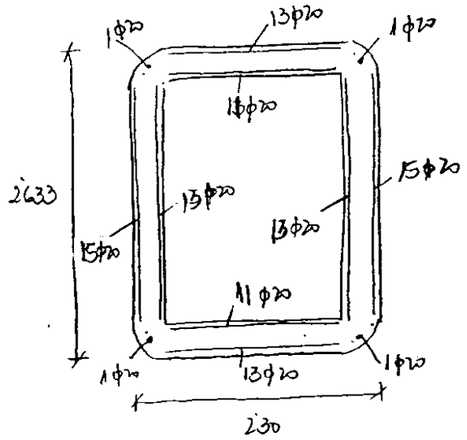
Fibra neutra zn 155.71 cm yn 69.69 cm Angulo -65.53

8- COMPARACION CON ARMADURA DE PROYECTO

Se comparan la pila P1 y P5 tanto del proyecto como del proyecto modificado:

PILA P5 proyecto

Sección base: 2'3 × 2'633 × 0'35

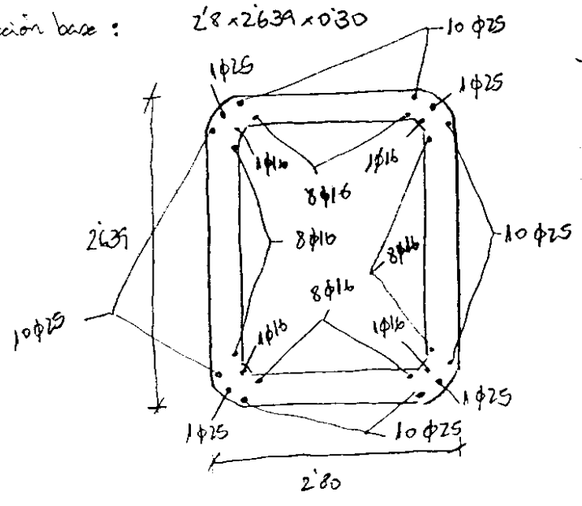


Armadura longitudinal: φ20 a 0'125

Total armadura = 13φ20×4 + 15φ20×2 + 11φ20×2 + 4φ20
= 339'28 cm²

PILA P5 proyecto modificado

Sección base: 2'8 × 2639 × 0'30

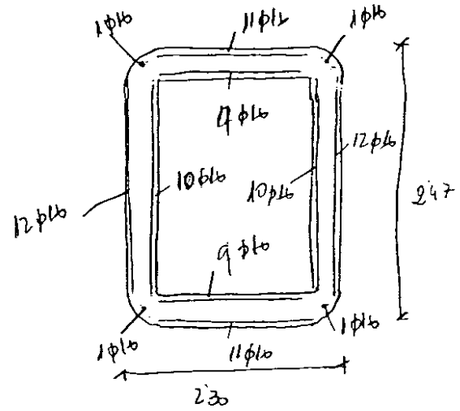


Total armadura = 44φ25 + 36φ16 = 288'39 cm²

es un 15 % menor

PILA P1 Proyecto

Sección base: 2'3 × 2'47 × 0'35

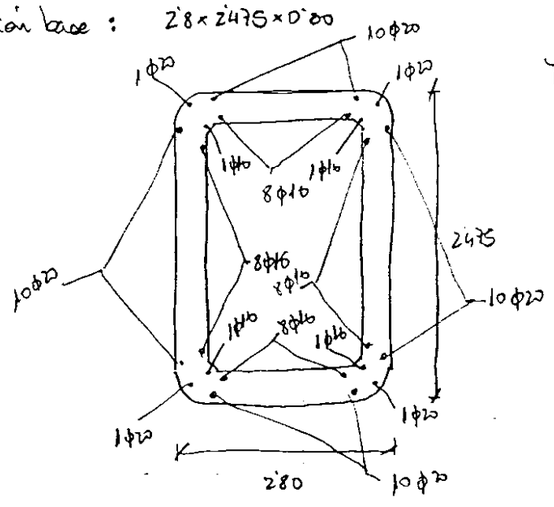


Armadura longitudinal: φ16 a 0'15

Total armadura = 4×12φ16 + 4×11φ16 = 4φ16
= 193'05 cm²

PILA P1 proyecto modificado

Sección base: 2'8 × 2'475 × 0'80



Total armadura = 44φ20 + 36φ16 = 210'62 cm²

es un 9% superior

9.- CONTROL DE DOCUMENTO ANEXO A LOS CALCULOS

Se recibe un nuevo documento en el que se definen de nuevo las reacciones en las diferentes pilas que se controlan a continuación:

PILAS P1 y P7

	N	F_L	F_T	M_L	M_T
cp	445	0	5	0	97
sctren	375	0	17	0	84
	323	0	17	0	219
	-31	0	3	0	84
Anantos	-28	0	0	0	0
	49	0	0	0	0
Term	-20	0	0	0	0
Teflón	0	22	0	0	0
Fc	-19	0	15	0	18
	10	0	15	0	18
Vbo	31	0	30	0	18

Control de acciones en cabeza

CP axil: 445 t Control: 419ta 451t ← CORRECTO

F_T: 5t Lazo ok!

M_T: 97t hacia el interior de los cajones e = 0'21 m ← valor razonable

Sctren **Nmax**: axil: 375 t Control: 12 × 29 × 1'10 = 382'8t ← CORRECTO

F_T = 17t

M_T = 84 tm hacia el interior de los cajones: e = 0'224m

excentricidad máxima interior 3 − 2'25 − 0'30 = 0'45 m; es razonable

M_{Tmax}: axil: 323 t ~ 86% de Nmax → Corresponde a 1 tren actuando por una sola vía Correcto

F_T = 17t

M_T = 219 tm hacia el interior de los cajones: e = 0'58m con respecto a Nmax
e = 0'67 m con respecto a Nconc

Nmin; axil: -31t Valor parecido al del proyecto

F_T = 3t

M_T = 84tm Torsor igual al de Nmax

Anantos Nmin = -28t, Nmax = 49t] Valores razonables para estos pesos y estas luces.

Térmico Nmin = -20t Razonable

Teflón H_L = 22t ~ 0'05 Ncp CORRECTO

F centrífuga Nmin = -19t M_T = 18t

Nmax = 10t

F_T = 15t con 0'434 t/m Correcto.

Viento N = 31t

F_T = 30t 188t/m en 3'191m ← CORRECTO

M_T = 18 mt ↳ 0'75 con ρ = 0'2t/m²

Por lo tanto las acciones en cabeza de pila son correctas.

Con valores muy similares a éstos se ha controlado manualmente la pila y la armadura es suficiente para los esfuerzos de 1er orden en base de pila (no hay pandeo con $\lambda < 35$)

PILAS P2 a P6

	N	F_L	F_T	M_L	M_T
cp	529	0	6	0	122
extren	436	0	14	0	107
	362	0	14	0	267
	-50	0	3	0	107
Anentos	-10	0	0	0	0
	8	0	0	0	0
Term	0	0	0	0	0
Teflón	0	26	0	0	0
Fc	29	0	17	0	7
	-29	0	17	0	7
Vto	51	0	35	0	35
	-51	0	35	0	35

Control de acciones en cabeza

[cp] axil: 529t Control: 517 t a 557t ← CORRECTO

F_T: 6t Lazo ok!

M_T: 122mt hacia el interior de los cajones $e = 0'23m$ ← valor razonable

[extren] Nmax: axil = 436t Control: $(12\times30 + 6\times10)\times1'1 = 462t$ ← CORRECTO

$F_T = 14t$

$M_T = 107tm$ hacia el interior de los cajones : $e = 0'24m$

excentricidad máxima interior 0'45m, es razonable

Mrmax: axil = 323t ~ 14% de Nmax → Corresponde a 1 tren circulando por una sola vía Correcto

$F_T = 14t$

$M_T = 267tm$ hacia el interior de los cajones: $e = 0'82m$ con respecto a Nmax
$e = 0'82m$ con respecto a Ncmc

Nmin: axil: -50t Valor parecido al del proyecto

$F_T = 3t$

$M_T = 107tm$ Tornar igual al de Nmax

[Anentos] Nmin = 10t, Nmax = 8t] Valores razonables

[Térmico] Nmin = 0

[F. Centrífuga] Nmin = -29t $M_T = 7mt$
Nmax = 29t

$F_T = 17t$ 10m 0'434 × 39'17m CORRECTO

[Viento] N > 51t

$F_T = 35t$ 188t/m en 37'23m CORRECTO

$M_T = 35mt$ ↳ 0'75 con p=0'2t/m

Por lo tanto las acciones en cabeza de pila son correctas

Con valores muy similares a éstos se ha controlado manualmente la pila y la armadura es suficiente para los esfuerzos de 1er orden en base de pila (no hay pandeo con $\lambda < 35$)

Se controlan a continuación las acciones introducidas en el PYRUS:

PILAS P1 Y P7

Hipótesis II.1 Htransmax con axil concomitante ($\gamma_{cp}=1.5$; $\gamma_{sc}=1.5$)

Axil cp = -445t Correcto

Axil sc = -364t Correcto. Se utiliza el valor 0'9 de concomitancia con viento

Htrans cp = 97mt Correcto

Htrans SC = 227t Correcto Se utiliza el valor 0'9 de concomitancia con viento.

Htransv cp = 5t Correcto

Htransv SC = 54t Correcto. Se utiliza el valor 0'9 de concomitancia con viento

Hlong sc = 20t Correcto. Se utiliza el valor 0'9 de concomitancia con viento.

Hipótesis II.2 Nmax con Htransv. concomitante ($\gamma_{cp}=1.5$; $\gamma_{sc}=1.5$)

Axil cp = -445t Correcto

Axil sc = -411t Correcto. Se utiliza el valor 0'9 de concomitancia con viento.

Htrans cp = 97mt. Correcto

Htrans sc = 105tm Se utiliza el valor 0'9 de concomitancia con viento.

Htransv cp = 5t Correcto

Htransv sc = 54t Correcto. Se utiliza el valor 0'9 de concomitancia con viento.

Hlongy sc = 20t Correcto. Se utiliza el valor 0'9 de concomitancia con viento

Hipótesis II 3 Nmax con Htransv conc ($\gamma_{cp}=1.0$, $\gamma_{sc}=1.5$) ← Correctos

Axil cp = -400t Correcto. Se ha multiplicado por 0'9

Axil sc = 910t Correcto. Se utiliza el valor 0'9 de concomitancia con viento.

Htransv cp = 87 mt Correcto. Se ha multiplicado por $\gamma=0'9$

Htrans SC = 105tm Correcto. Se utiliza el valor 0'9 de concomitancia con viento

Htransv cp = 45t Correcto Se ha multiplicado por $\gamma=0'9$

Htransv sc = 41t Correcto Se utiliza el valor 0'9 de concomitancia con viento

Hlongy sc = 20t Correcto. Se utiliza el valor 0'9 de concomitancia con viento

PILAS P2 a P6

Los valores son correctos, con los comentarios equivalentes de P1 y P7

Se controla a continuación el proceso de cálculo y manejo del PYRUS, así como los resultados obtenidos:

PILAS P1 y P7

- La altura de la pila introducida es correcta
- Las vinculaciones en apoyos son correctas
- Se introduce una deformación inicial estándar del programa, con un valor de H/200 máximo en cabeza
- Las cargas introducidas en cada hipótesis son correctas. Se ha introducido el peso del fuste y el viento en fuste. Se ha introducido una excentricidad accidental en cabeza para los axiles tanto de cp como de sc.

Tanto la deformación inicial de la pila como las excentricidades accidentales son elementos conservadores de seguridad totalmente razonables.

- Se introducen diferentes secciones con armadura constante: $A_s = 210'2\ cm^2$ que corresponde a la de los pozos. No se hace ningún corte de armadura.

HIPOTESIS.	β	Rotura
II 1	1381	rotura sección base
II 2	1514	rotura sección base
II.3	1399	rotura sección base

Los coeficientes β están holgados.

PILAS T2 a P6

- La altura de pila introducida es correcta
- Las unvelaciones en apoyos son correctas
- Se introduce una deformación inicial en función de la carga, de H/300 máxima en cabeza.
- Las cargas introducidas en cada hipótesis son correctas. Se ha introducido el peso del fuste y el viento en fuste. Se ha introducido una excentricidad accidental en cabeza para los ejes tanto de cp como de sc
- Se introducen diferentes secciones con armadura constante: $A_s = 288 cm^2$ que corresponde a la de los planos. No se hace ningún corte de armadura

HIPOTESIS	β	Rotura
II.1	1'03	rotura sección base
II.2	1'29	rotura sección base
II 3	1'78	rotura sección base

Los coeficientes β son suficiente.

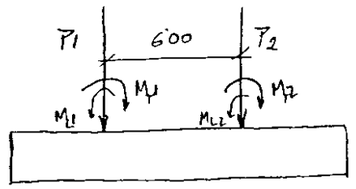
10.- CONTROL PILOTES, ENCEPADOS Y ZAPATAS

PILAS T2 A P6

Esfuerzos en base de pila (característicos, no hay 2° orden):

ppk = 10893 t

	N	F_L	F_T	M_L	M_T
cp	529	0	0	0	122
sc	435	0	0	0	107
	361	0	0	0	269
	-50	0	0	0	6
Anuntos	15	0	0	0	0
	-21	0	0	0	0
Fc	0	0	17	0	2822
Teflón	0	26	0	4316	0
Vto	0	0	35	0	581



Hip 1 : Nmax en ambos fustes

Hip 2 : Mrmax (Nmax en 1 fuste + Nmin en 1 fuste)

Hip 3 : Nmin en ambos fustes (conservador en el viento) (Fc 1 tren)

Hip 4 : 1 tren mob

	N	M_L	M_T	Peso encep	Nmax	Nmin
	2160'86	1019'2	20384	810t	660'16 (37'36 kg/cm²)	330'13
Hip 2	1660'86	1019'2	4508'0	810	694'42 (39'2 kg/cm²)	129'19
Hip 3	1338'6	1019'2	1705'2	810	473'12 (26'77 kg/cm²)	174'83
Hip 4	1651'86	1019'2	3871'2	810	662'59 (37'49 kg/cm²)	158'07

El dimensionamiento del encepado es válido al de proyecto.

El axil en pilotes es parecido al de proyecto

$L_T = 12\ L_c = 1038\ m$

$L_T/2 = 519\ m$

$\Delta H_L = 2 \times 26 \times 5'19 = 269'88\ mt$, $\Delta N = 1791\ t \rightarrow \sigma = 102\ kp/m^2$

$\Delta M_T = (17+35) \times 2 \times 5'19 = 539'76\ mt$, $\Delta N = 2570\ t \rightarrow \sigma = 145\ kp/m^2$

PROYECTO:

PILAS P2 A P6

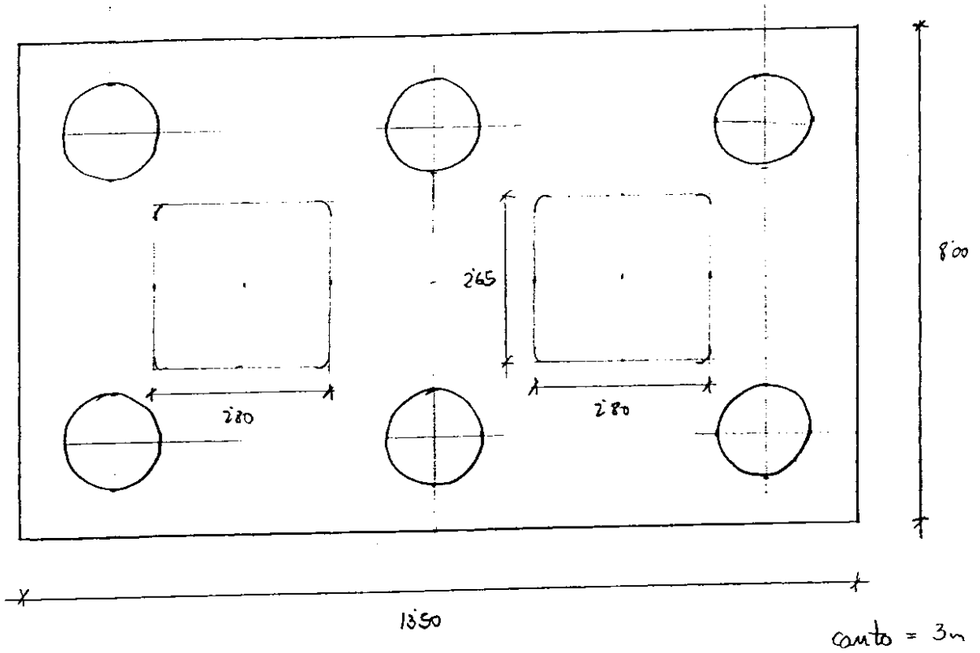
Esfuerzos en base de pila

pp pila = 10966 t

	N	F_L	F_T	M_L	M_T	
cp	58379	0	0	0	0	
Sc	47334	0	0	0	10233	
	-6807	0	0	0	0	
Teflón	0	2669	0	44305	0	
Fc	0	0	1870	0	31042	
Vto	0	0	2583	0	51892	← 50% vto.

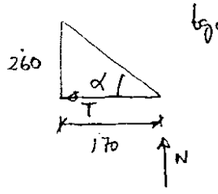
	N	M_L	M_T	Peso aucep	Nmax	Nmin
Hip 1 : Nmax en ambos fustes	233358	104624	192586	810	68539 (3878 kp/m²)	36247
Hip 2 : $M_T$max (Nmax en 1 fuste + Nmin en 1 fuste)	179217	104624	426639	810	70660 (3998 kp/m²)	16078
Hip 3 : Nmin en ambos fustes	125076	104624	192586	810	50492 (2857 kp/m²)	18200

Nueva disposición del encepado:



canto = 3m

Pilote de esquina: V = 1'70 m



$tg\alpha = 1'529$

$\alpha = 56'82°$

N_d pilote $= 15 \times 400 \times 1'767 = 1060'2$ t

$N/T = tg\alpha$

$T = \frac{N}{tg\alpha} = 693'44$ t

Armadura existente: $2 \times 15\phi 25$ long $F_1 = 653'11$ t; $2 \times 19\phi 25$ trans $F_2 = 827'27$ t

$T = \sqrt{F_1^2 + F_2^2} = 1054'00$ t es suficiente.

Agotamiento de bielas de compresión: $\sigma = \frac{40}{\text{sen}29} = 57'10 \text{ kg/cm}^2 \leq 0'7 f_{cd} = 116'67 \text{ kg/cm}^2$

cumple sobradamente

Armadura estricta: $F = \frac{693'44}{\sqrt{2}} = 490'33$ t $\rightarrow A_s = 110'56 \text{ cm}^2$ $23\phi 25 \rightarrow 2 \times 12\phi 25$

Se colocan en faja de 1'5 m centrada en el pilote y abrazada por los cercos de suspensión.

Armadura secundaria: $\frac{1}{4} A_{sfajas} = \frac{3 \times 2 \times 12\phi 25}{4} = 88'362 \text{ cm}^2$ en 8'5 m $10'39 \text{ cm}^2/\text{m}$ $\phi 16$

$= \frac{2 \times 2 \times 12\phi 25}{4} = 58'908 \text{ cm}^2$ en 5 m $11'78 \text{ cm}^2/\text{m}$ $\phi 16$

La existente es $7\phi 20$ pml

Mínimos $= 0'0018 \times \frac{4100}{5100} \times 3 \times 1 = 43'41 \text{ cm}^2/\text{m}$ $1/2 A_{s\,min} = 21'70 \text{ cm}^2/\text{m}$: $7\phi 20$ ok!

Cercos de suspensión: $T = \frac{N}{16 \cdot n} = \frac{N_p \cdot n}{16\, n} = \frac{N_p}{15} = 70'68$ t

en $(5-1'5) \times 7 = 24'5$ m $\rightarrow A_s = \frac{70'68}{24'5 \times 4'2} = 6'87 \text{ cm}^2/\text{m}$

$c\phi 12$ a $0'20$

existen $25'14 \text{ cm}^2/\text{m}$ → exceso

ZAPATA PILA 7

Esfuerzos en base de pila:

	N	F_L	F_T	M_L	M_T
cp	445	0	0	0	97
sc	375	0	0	0	84
	323	0	0	0	219
	-31	0	0	0	84
Arranques	-28	0	0	0	0
	49	0	0	0	0
Fc	0	0	15	0	174 (204)
Tellán	0	22	0	2552 (2992)	0
Ubo	0	0	90	0	348 (408)

$B_{inf} = 2'36$ m $A_{inf} = 2'36 \times 2'80 - 1'76 \times 2'20 = 2'73$

$P = 2'5 \times \frac{2'34 + 2'736}{2} \times 11'6 = 73'60$ t

$H = 11'60$ m

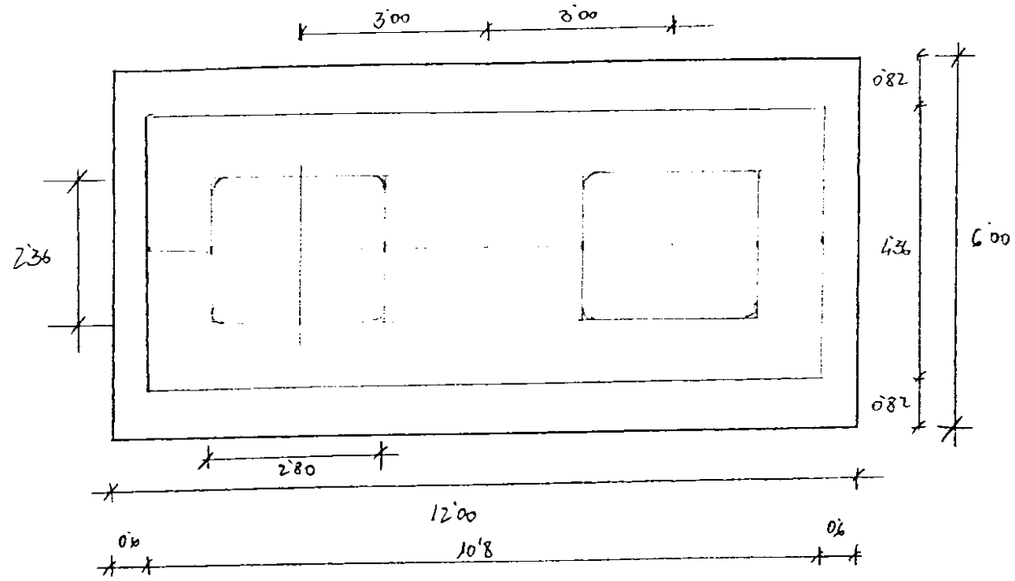
(Si se elimina el plinto $H = 13'60$ m)
$P = 87'51$ t

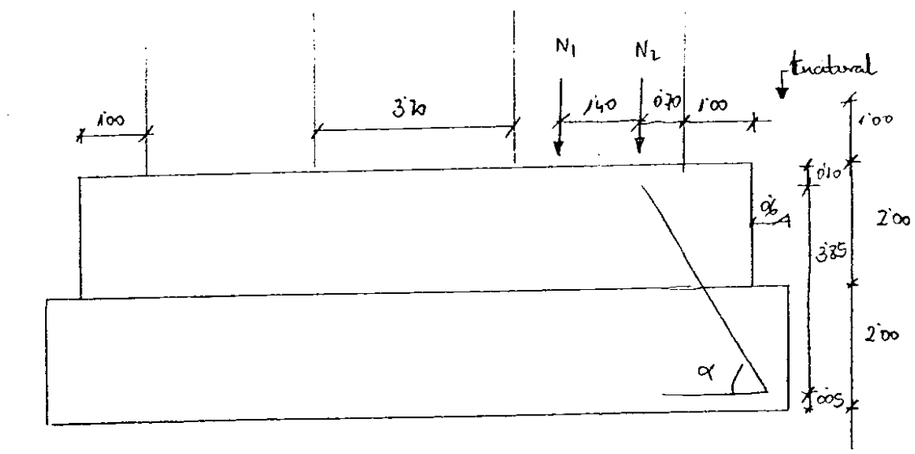
(entre paréntesis, valores para base de pila a 13'60 m)

Zapata 12x6x2 p = 360 t $A = 72$ m^2 ; $I_L = 216$ m^4 ; $I_T = 864$ m^4

Plinto 10'8 x 4'36 x 2 p = 235'44 t

	N	M_L	M_T	Peso zap+P	σ_{max}	σ_{min} (t/m^2)
Hip 1: N_{max} en ambos fustes	17872	6864	1404	59544 (360)	5244 (4917)	1374 (1407)
Hip 2: M_{Tmax} (N_{max} 1fuste + N_{min} 1fust)	14302	6864	3624	59544 (360)	6281 (5954)	-654 (-981)
Hip 3: N_{min} en ambos fustes (Conservador sto Fc 1tren)	9192	6864	1170	59544 (360)	3864 (3542)	337 (01)





$tg\alpha = 1'673 \rightarrow \alpha = 59'14$ $tg\alpha = \frac{N_2}{T}$

en transversal:

$N_2 = \frac{N}{2} + \frac{M_T}{1'40}$

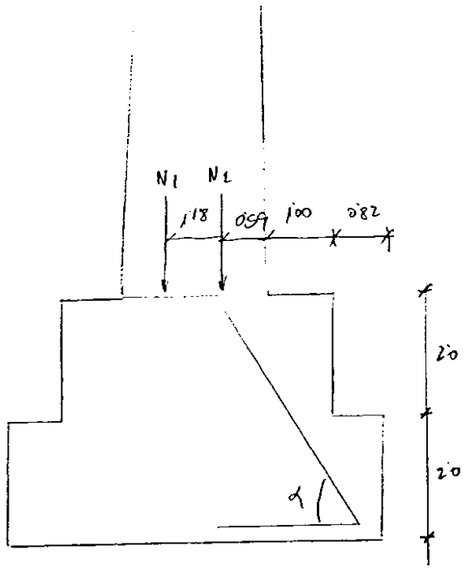
$\begin{cases} N_{max} = 942'6 \text{ t} \\ M_{T\,conc} = 703 \text{ mt} \end{cases}$ $N_2 = 973'44$ t

$\begin{cases} N_{conc} = 891'6 \text{ t} \\ M_{Tmax} = 838 \text{ mt} \end{cases}$ $N_2 = 1043'87$ t $\rightarrow T = \frac{N_2}{tg\alpha} = 623$

$A_s = 140'69$ cm^2

Existen 7 ϕ25 por m

$140'69/6 = 23'44$ cm^2/m $\rightarrow$ 5 ϕ25 por m



$tg\alpha = 1697 \rightarrow \alpha = 57'75°$

$N_2 = \frac{N}{2} + \frac{M_L}{1'18}$ $\quad N_{max} = 94'26\,t$ $\quad M_{Lconc} = 25'52\,tm$ $\quad N_2 = 68'75\,t$ $\quad T = \frac{N_2}{tg\alpha} = 43'04\,t$

$A_s = 9'706\,cm^2$

Existen 6Φ25 pal

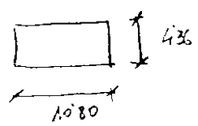
$9'706\,cm^2/6 = 1'617\,cm^2/m \rightarrow 6Φ20$ pal

Sección de plinto: Está sometida a una flexión y axil a nivel de cara inferior:

$$\begin{cases} N_{dmax} = 1'5 \times \left[4'45 \times 2 + 7'360 \times 2 + 3'75 \times 2 \right] + 1'2 \times 4'9 \times 2 + 1'5 \times 235'44 = 315'56\,t \\ M_{tdmax} = 1'2 \times (2'2 \times 2 + 25'52) \times 2 = 71'808\,mt \\ M_{Rdconc} = 1'5 \times \left[1'74 + 1'5 \times 2 + 3'48 + 3'0 \times 2 \right] \times 2 = 18'36\,mt \end{cases}$$

$$\begin{cases} N_{dconc} = 1'5 \times \left[4'45 \times 2 + 7'360 \times 2 + 3'75 - 3'1 \right] + 1'2 \times 4'9 \times 2 + 1'5 \times 235'44 = 254'56\,t \\ M_{tdmax} = 71'808\,mt \\ M_{Rdmax} = 1'5 \times \left[(3'75 + 3'1) \times 6 + \left[1'74 + 1'5 \times 2 (3'48 + 3'0 \times 2) \right] \times 2 \right] = 51'84\,mt \end{cases}$$

La sección resistente es:



Se necesitan mínimos Φ20 c/0'20 ($4'76\,cm^2$)

Sin plinto: armadura de zapata:

$V_L = 1'82m$ tipo I, rígido

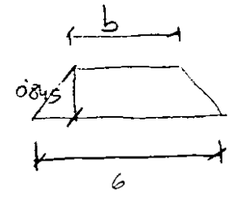
$V_r = 1'60m$ tipo I, rígido

$d = 1'95m$

$\sigma_d = 6'281 \times 1'5 = 9'421\,t/m^2$

Comprobación a cortante: Sección a $d/2 = 0'975m$

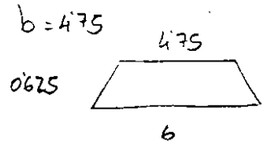
en long: $b = 2'80 + 1'95 = 4'75m$



$V_d = 94'21 \times \frac{1}{2}(4'75 + 6) \times 0'845 = 127'89\,t$

$V_{Rd} = 2 f_{cv}\, b\, d = 597'89\,t$ Cumple

en transv: $b = 4'75$



$V_d = 94'21 \times \frac{1}{2}(4'75 + 6) \times 0'625 = 316'48\,t$

$V_{Rd} = 597'89\,t$ Cumple

Cálculo a flexión: Sección a 0'15a

en long $\quad v + 0'15a = 1'82 + 0'15 \times 0'30 = 1'865m$

$M_d = 94'21 \times 1'865^2/2 = 163'84\,mt$

$U_c = 3250\,t \rightarrow U_s = 85'34\,t \rightarrow A_s = 19'24\,cm^2/m$ $\quad 7Φ20$ pal

en transv $\quad v + 0'15a = 1'60 + 0'15 \times 0'3 = 1'645m$

$M_d = 94'21 \times 1'645^2/2 = 127'46\,mt$

$U_c = 3250\,t \rightarrow U_s = 66'15\,t \rightarrow A_s = 14'91\,cm^2/m$ $\quad 5Φ20$ pal

mínimos $28'94\,cm^2$

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ANEJO 2

ANEJO DE CÁLCULO REALIZADO POR DRAGADOS

Registro Mercantil de Madrid, tomo 6521, libro 0, folio 67, sección 8, hoja M-106172, inscripción 2ª - C.I.F. B-78633047

MC-2
ESTUDIO DE INGENIERIA

LÍNEA DE ALTA VELOCIDAD MADRID – BARCELONA.
TRAMO: MADRID – ZARAGOZA. SUBTRAMO XI

VIADUCTO DE LOS CHORROS

ANEJO DE CÁLCULO DE ADAPTACIÓN DE LA CIMENTACIÓN, PILAS Y ESTRIBOS PARA LA SOLUCIÓN ARMADA – PRETENSADA DEL TABLERO CON PIEZAS PREFABRICADAS

Marzo 1999

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E-mail: mc2@arrakis.es

1. CONDICIONES GENERALES

La solución de tablero que se propone modifica de manera mínima las acciones sobre cimentación respecto de las del proyecto base.

Por un lado los valores de la carga permanente de tablero son muy parecidos entre ambas soluciones, igual que con el peso propio de pilas en que se ha mantenido una sección transversal de casi idéntica área.

Por otro lado, la acción del viento transversal sobre el tablero y pilas, a efectos prácticos, es la misma ya que la variación de las dimensiones exteriores son prácticamente nulas.

El resto de acciones sobre pilas y cimentación son prácticamente idénticas al conservarse casi iguales las condiciones que influyen en su variación (trazado, reacciones verticales de carga permanente para el térmico, condiciones de sustentación, etc.).

2. COMPROBACIÓN DE LA CIMENTACIÓN

2.1 Pilas

Para la comprobación de la cimentación de las pilas 1 a 6, cimentadas sobre pilotes, se han obtenido los esfuerzos en base de pila correspondientes a la envolvente mayorada del nuevo tablero con los que se han obtenido los axiles mayorados sobre pilotes (en hipótesis de encepado rígido). Para la pila 7, con cimentación directa, se han obtenido las tensiones media y máxima sobre el terreno para los esfuerzos correspondientes a la envolvente característica.

Los valores de axiles máximos y mínimos sobre pilotes han sido de órdenes parecidos a los obtenidos en el proyecto base, en que el axil máximo característico es de 627,8 t, que se corresponde con un valor mayorado de 941.7 t, frente a un axil mayorado de 873.8 t en la nueva solución.

En la zapata de la pila 7 las tensiones media y máxima se mantienen por debajo de la tensión admisible (5,0 Kp/m^2) y de pico (1,3 x σ_{adm}), respectivamente, contempladas en el proyecto base.

2.2 Estribos

La reacción máxima vertical sobre los estribos debida al tablero se incrementa debido a que no existe el efecto de descarga correspondiente al pretensado de losa en los apoyos de las pilas, contemplado en el proyecto base, y a que la gran mayoría del peso de losa va aplicado sobre la estructura isostática puesto que todavía no se ha producido la continuidad de vigas. Existe, por tanto, un incremento de reacción máxima debida al tablero de un 28% (433 t en proyecto base frente a 555 t).

Debido a que este incremento de reacción vertical debida al tablero representa un valor bastante pequeño respecto de la carga vertical total sobre las zapatas de los estribos (del orden del 2%), sobretodo en el estribo fijo en que la diferencia es todavía menor por la acción de la fuerza horizontal de coacción del tablero, se considera aceptable mantener los estribos inalterados. Si se indican, sin embargo, las modificaciones de cotas superiores de muretes y de pastillas, posiciones de ventanas de acceso y perforaciones para alojamiento de cables de cosido entre tablero y estribo, correspondientes a los alzados de estribos.

3. ADAPTACIÓN DE LAS PILAS

La distancia entre ejes de pilas se ha visto modificada pasando de 5,0 m a 6,0 m, junto con un aumento de la dimensión transversal de la pila, que cambia de 2,3 m a 2,8 m, para recibir la anchura del fondo de viga. El área de la sección transversal se ha mantenido prácticamente inalterada.

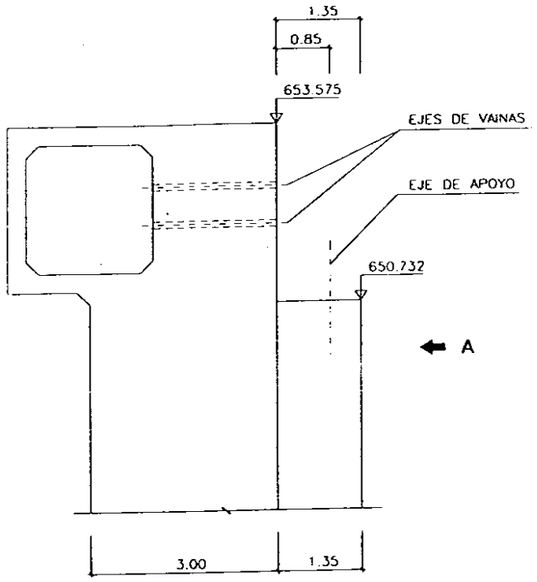
El análisis se ha efectuado a partir de los esfuerzos característicos de los diferentes estados de carga (ver anejo nº 1) en donde se ha procedido al dimensionamiento de la armadura longitudinal de las pilas realizando, para ello, un análisis no lineal incluyendo deformaciones accidentales de la directriz de la pila y excentricidades de las cargas verticales respecto de dicha directriz.

El análisis se ha realizado mediante el programa de ordenador "PYRUS" de análisis de pilas en segundo orden. La introducción de las cargas se realiza en dos bloques diferenciados, cargas permanentes y sobrecargas. Los valores introducidos son los característicos, empleándose un coeficiente de mayoración igual a 1,5. El coeficiente que obtiene el programa representa el incremento respecto de las sobrecargas,(una vez aplicado el coeficiente de mayoración anterior), que debe ser mayor que 1,0.

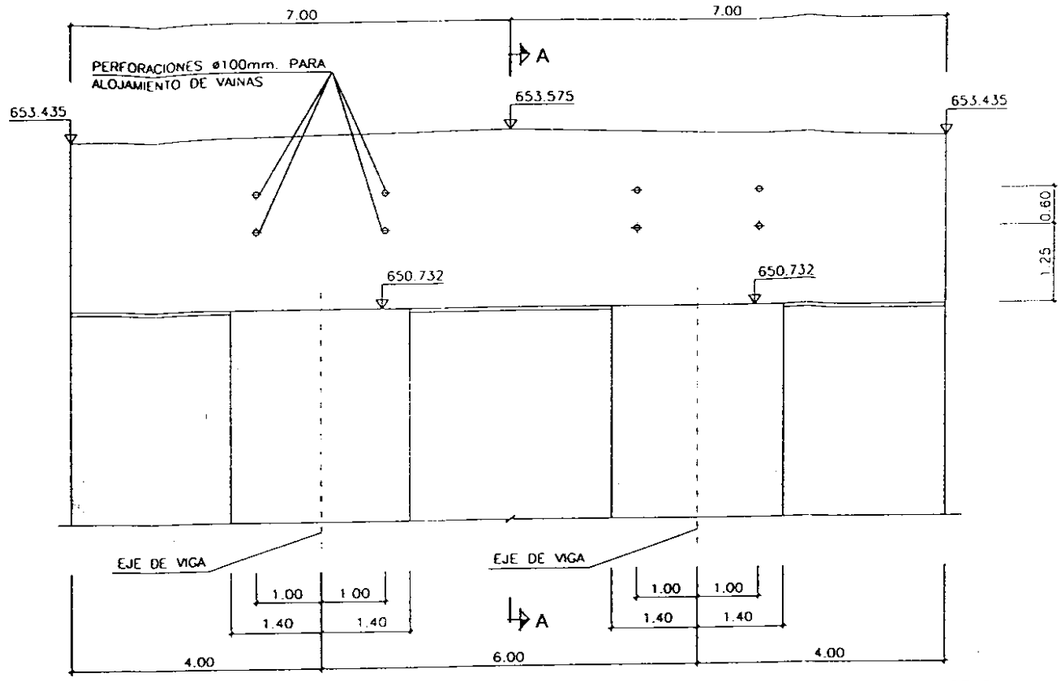
En los anejos se incluyen los análisis efectuados junto con los esfuerzos característicos y los de la envolvente mayorada.

PLANOS

ESTRIBO – 1 FIJO



SECCION A–A POR
EL EJE DE REPLANTEO
ESCALA 1/50

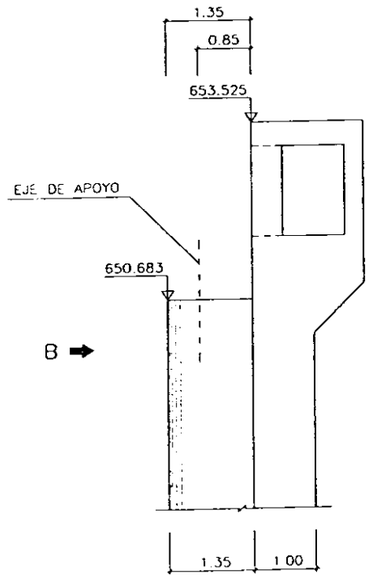


ALZADO POR A
ESCALA 1/50

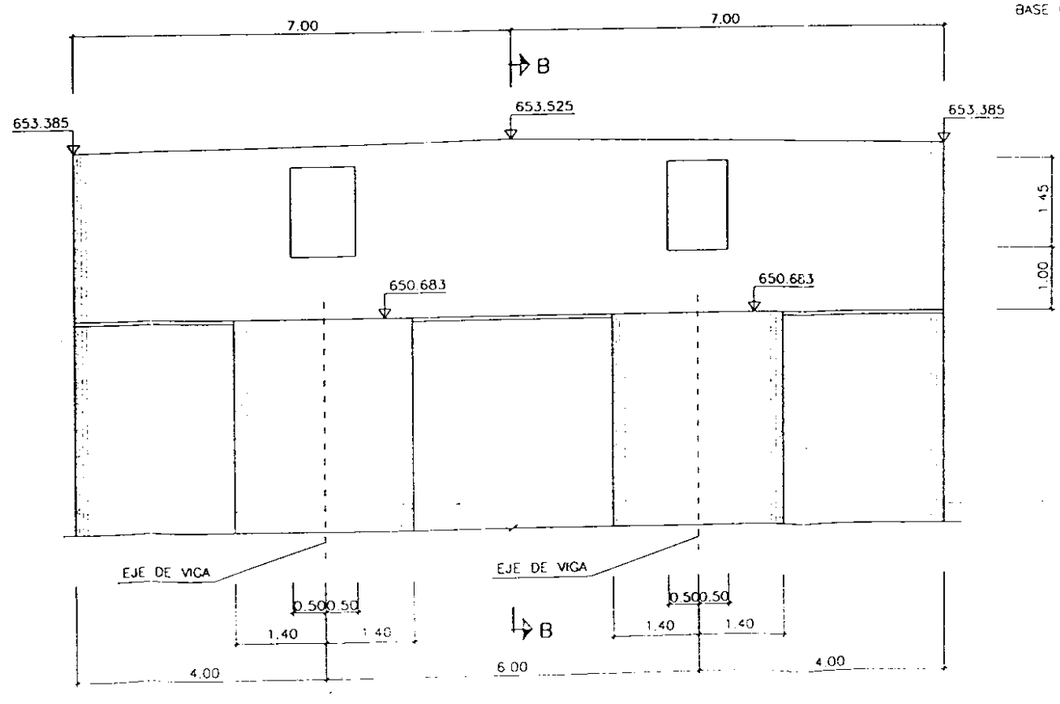
NOTAS:

- LAS DIMENSIONES NO INDICADAS SE MANTIENEN RESPECTO AL PROYECTO BASE.
- LA DISPOSICION DE ARMADO DE LOS ESTRIBOS ES LA MISMA QUE LA INDICADA EN EL PROYECTO BASE CON IDENTICAS CUANTIAS DE ARMADURA

ESTRIBO – 2 MOVIL

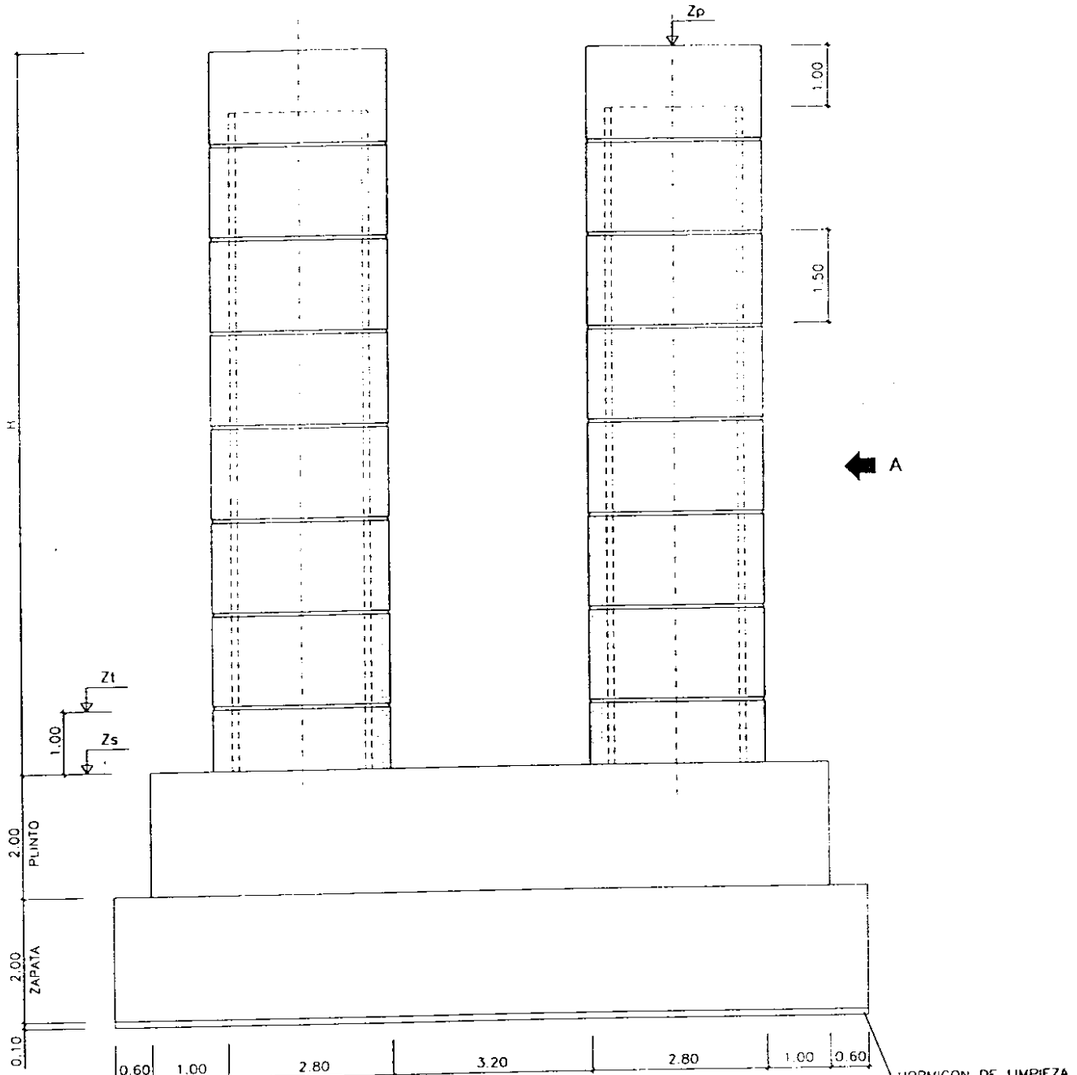


SECCION B–B POR
EL EJE DE REPLANTEO
ESCALA 1/50

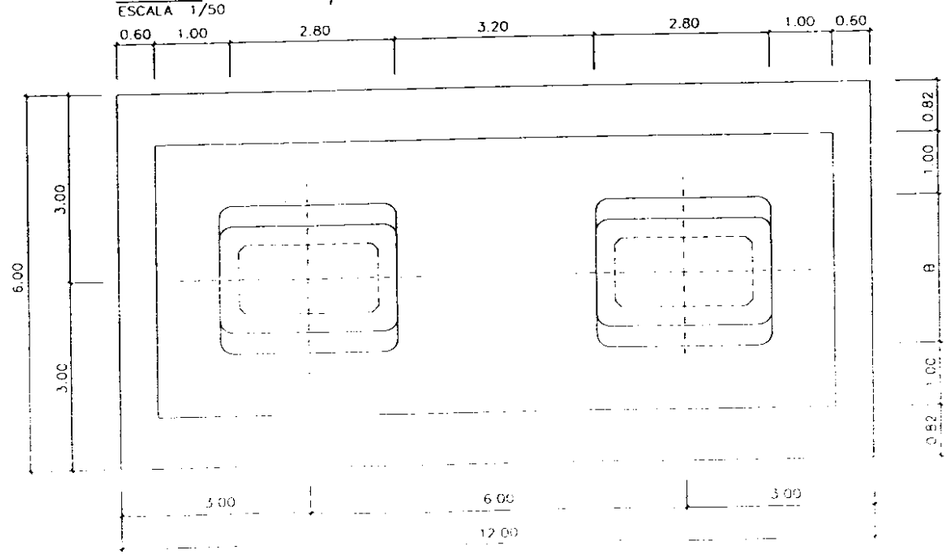


ALZADO POR B
ESCALA 1/50

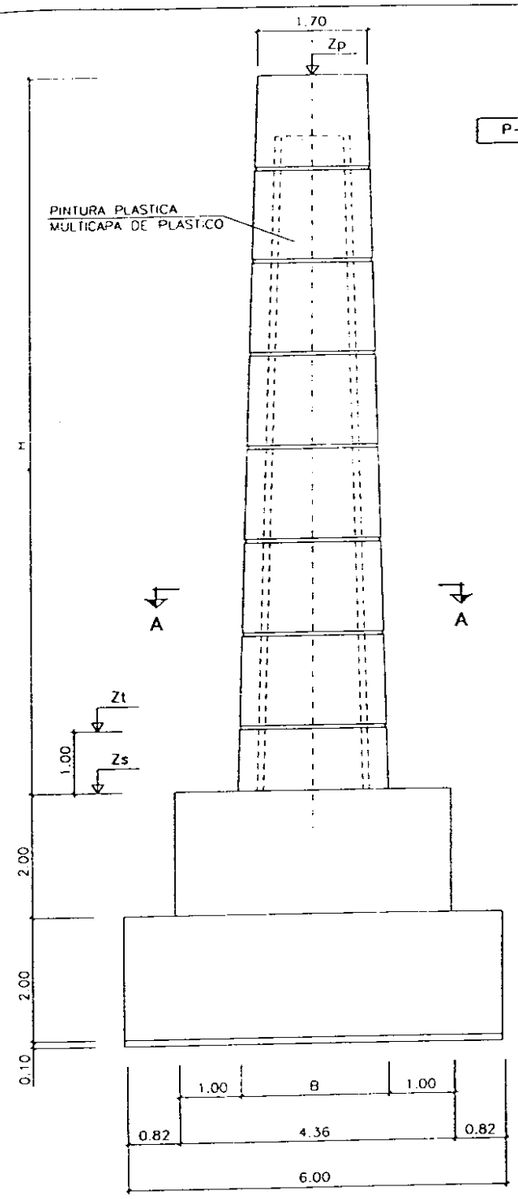
VIADUCTO DE LOS CHORROS
DEFINICION GEOMETRICA DE ESTRIBOS



ALZADO
ESCALA 1/50



PLANTA
ESCALA 1/50

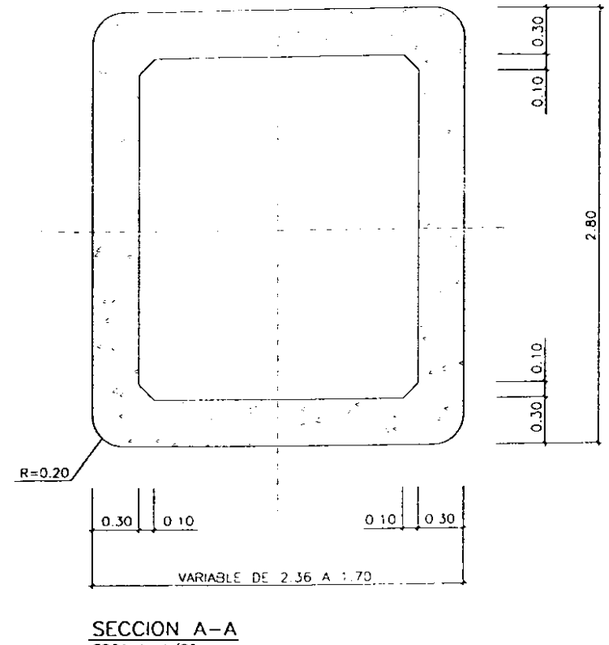


VISTA POR A
ESCALA 1/50

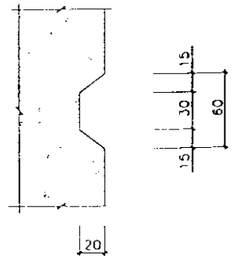
CUADRO DE COORDENADAS EN EJE

						FUSTE IZQUIERDO		FUSTE DERECHO	
	H	Zp	Zt	Zs	B	X	Y	X	Y
P-7	11.555	650.529	639.974	638.974	2.360	597185.249	4573904.905	597187.501	4573899.343

B=1.70+(0.0571428xH)

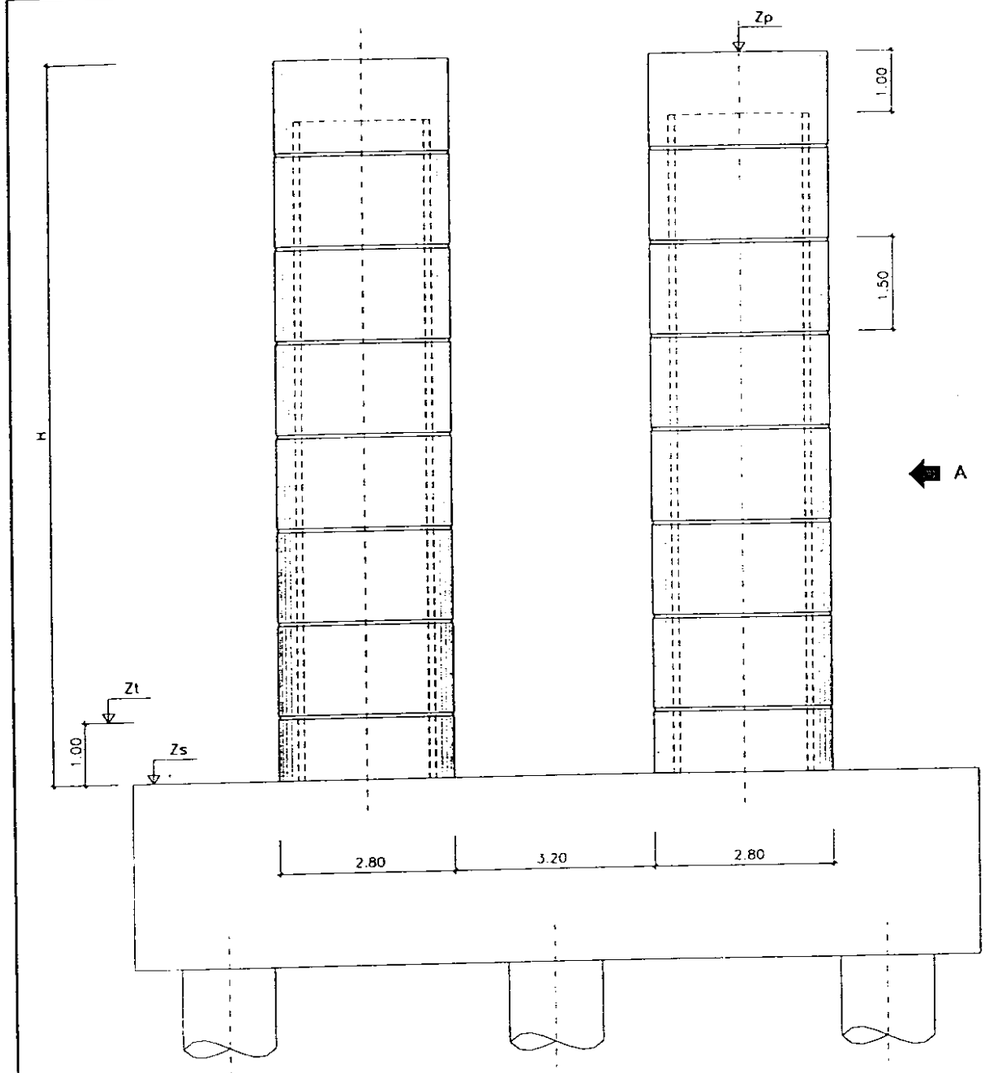


SECCION A-A
ESCALA 1/20

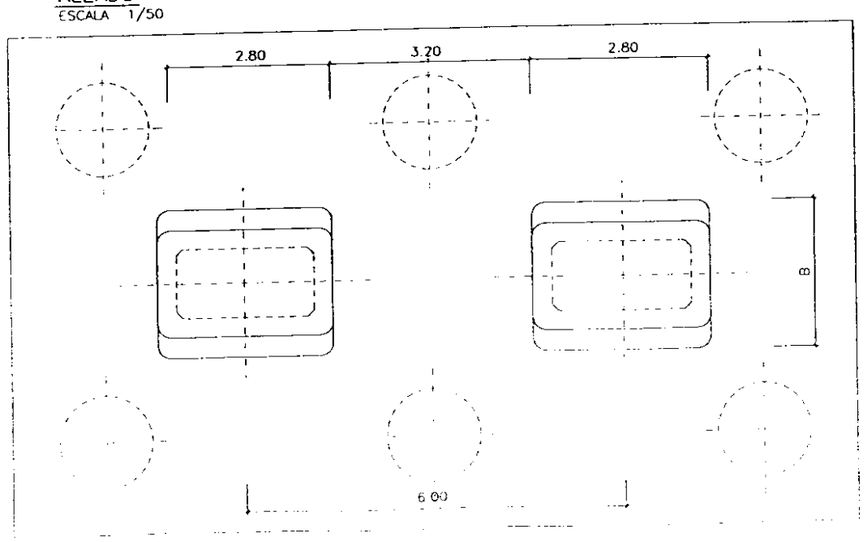


DETALLE DE
BERENJENO
ESCALA 1/2.5
COTAS EN MM

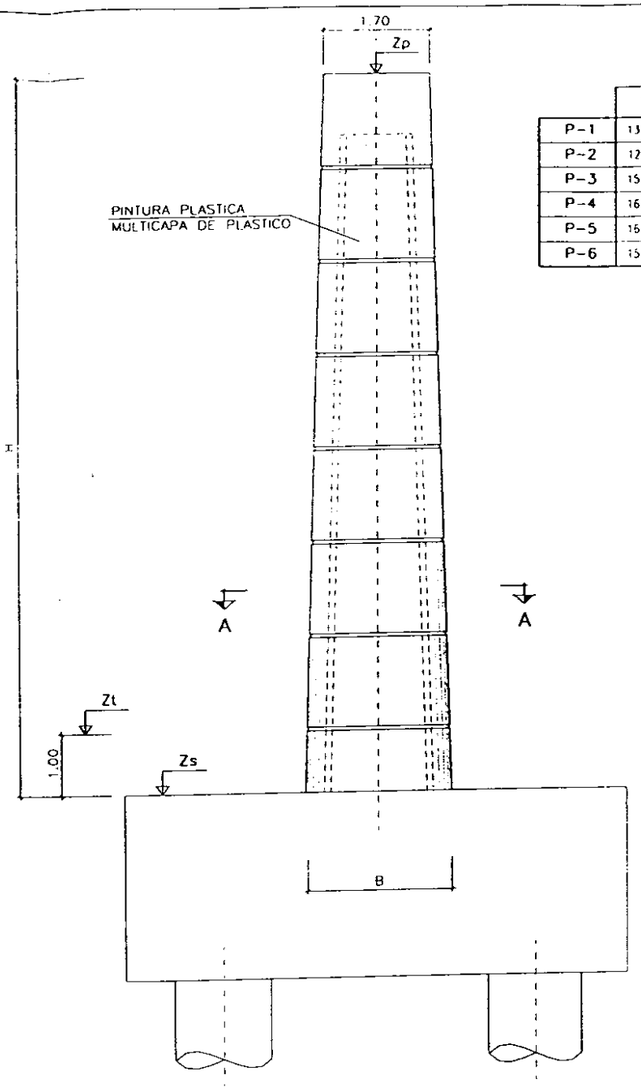
VIADUCTO DE LOS CHORROS
DEFINICION GEOMETRICA DE PILA 7



ALZADO
ESCALA 1/50



PLANTA
ESCALA 1/50

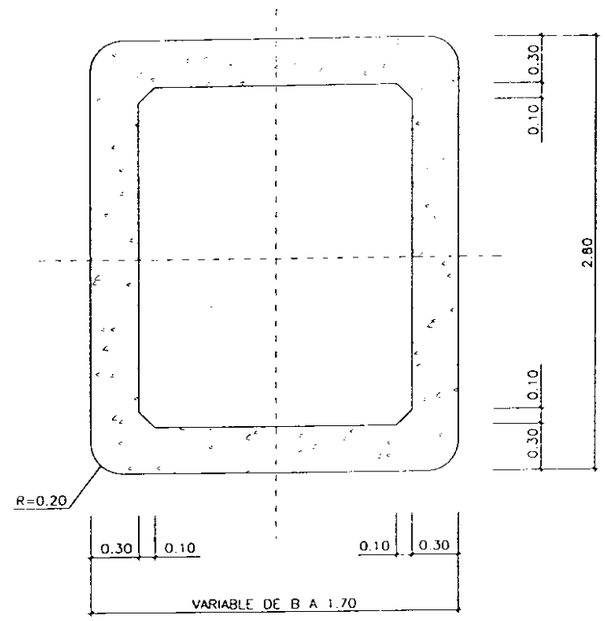


VISTA POR A
ESCALA 1/50

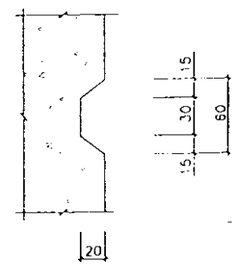
CUADRO DE COORDENADAS EN EJE

						FUSTE IZQUIERDO		FUSTE DERECHO	
	H	Zp	Zt	Zs	B	X	Y	X	Y
P-1	13.570	650.570	638.000	637.000	2.475	596986.187	4573820.803	596988.604	4573815.311
P-2	12.491	650.491	639.000	638.000	2.414	597019.188	4573835.231	597021.578	4573829.728
P-3	15.638	650.441	635.803	634.803	2.594	597052.261	4573849.495	597054.624	4573843.980
P-4	16.250	650.420	635.170	634.170	2.629	597085.405	4573863.595	597087.740	4573858.068
P-5	16.427	650.427	635.000	634.000	2.639	597118.617	4573877.530	597120.925	4573871.992
P-6	15.438	650.464	636.026	635.026	2.582	597151.899	4573891.300	597154.179	4573885.750

$B=1.70+(0.0571428\times H)$



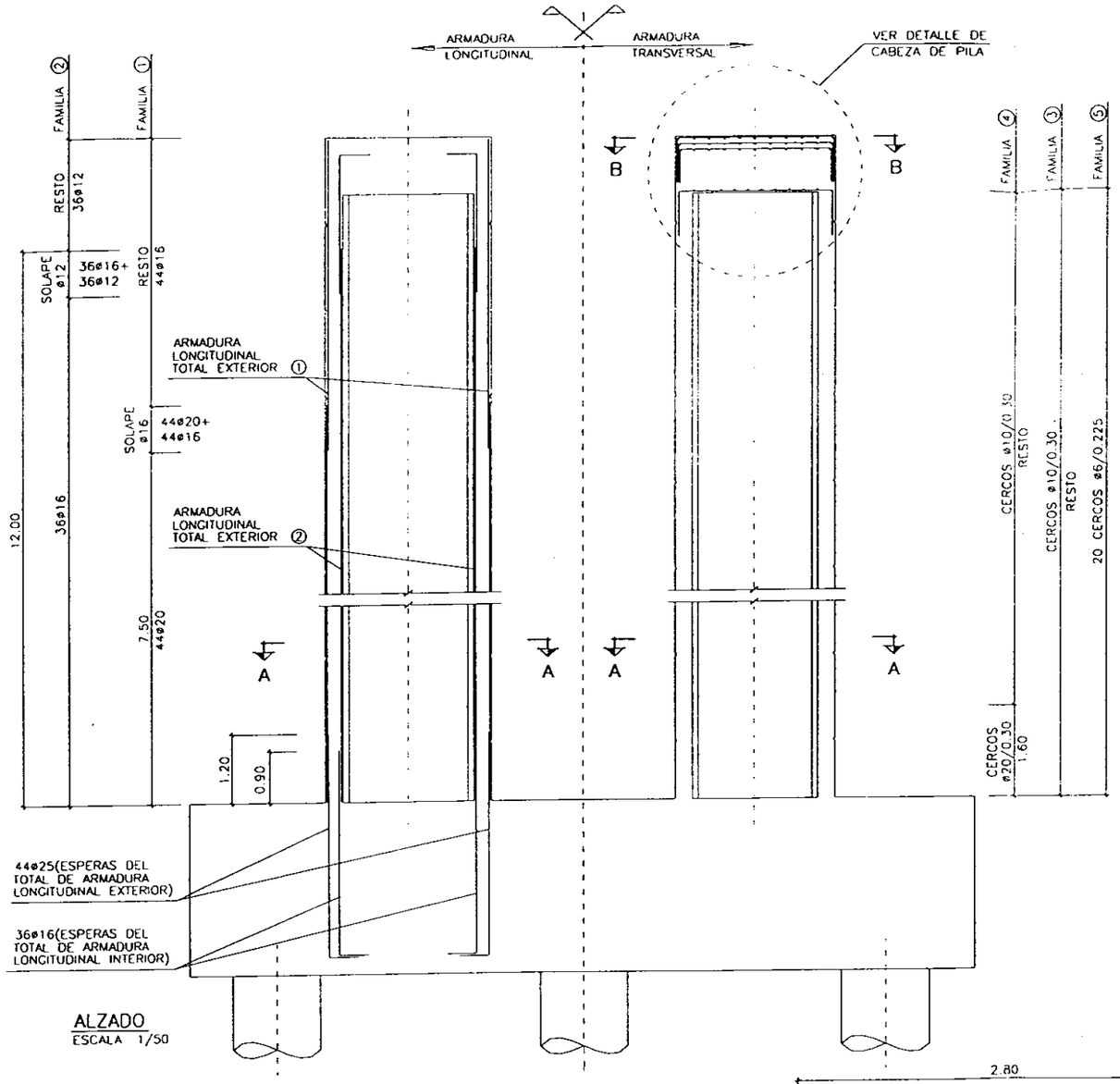
SECCION A-A
ESCALA 1/20



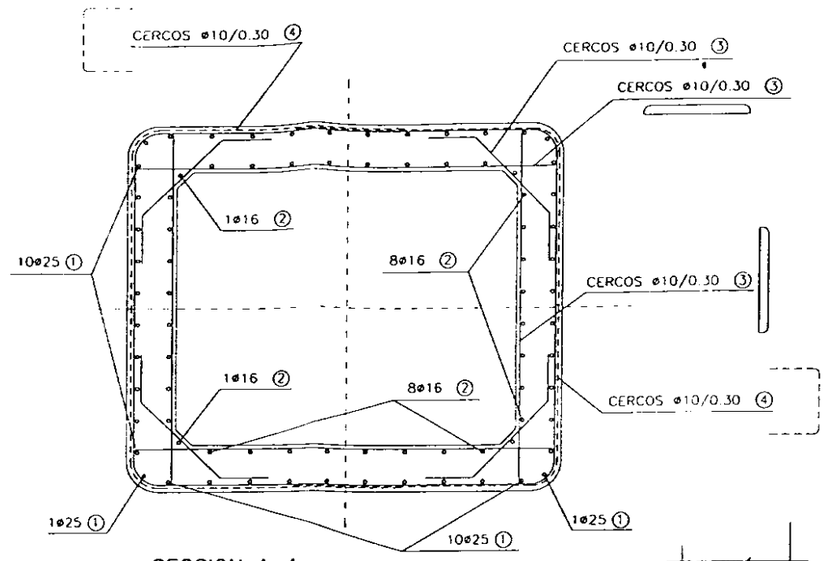
DETALLE DE BERENJENO
ESCALA 1/2.5
COTAS EN MM

VIADUCTO DE LOS CHORROS
DEFINICION GEOMETRICA DE PILAS 1 A 6

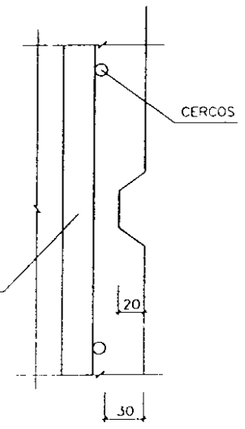
MC-1.32/1-P1-6FO (26/3/99)



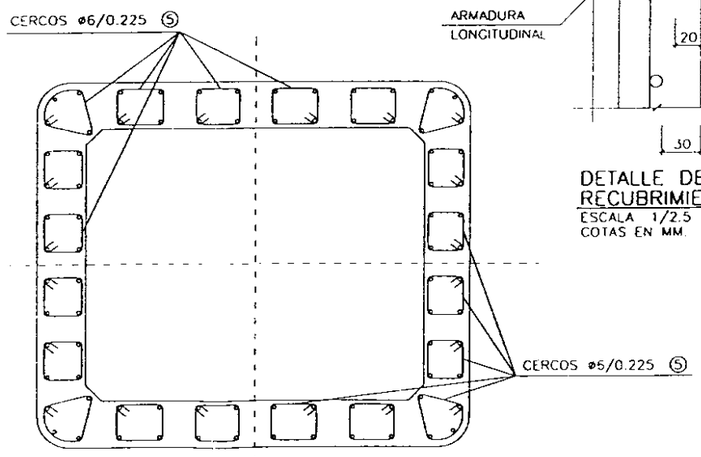
ALZADO
ESCALA 1/50



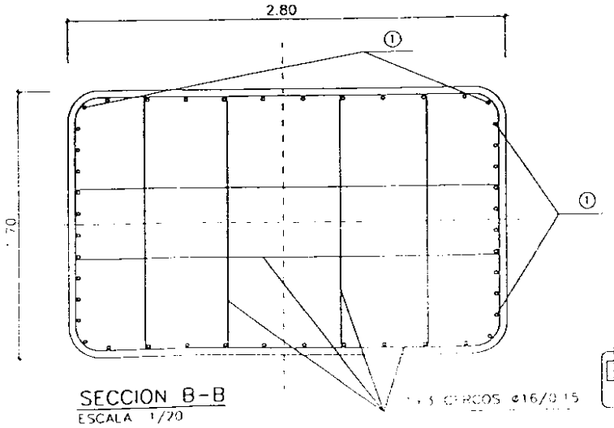
SECCION A–A
ARMADURA LONGITUDINAL
Y CERCOS PRINCIPALES
ESCALA 1/20



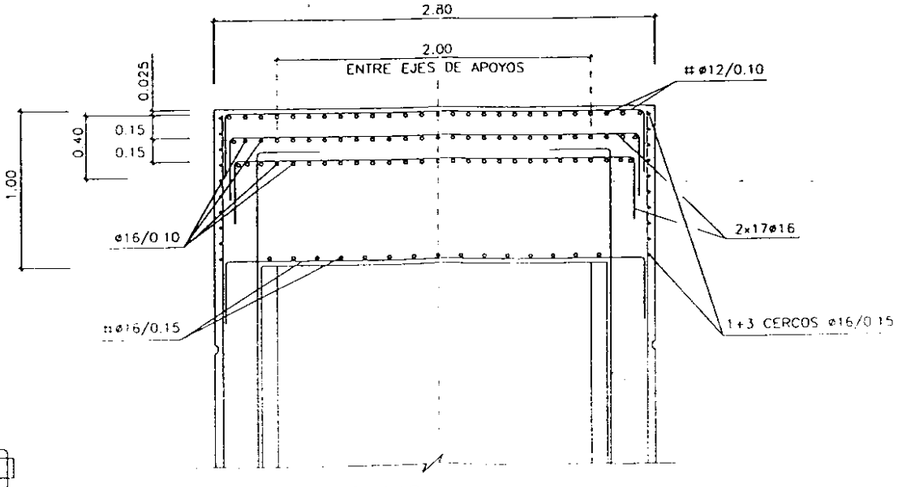
DETALLE DE RECUBRIMIENTO
ESCALA 1/2.5
COTAS EN MM.



SECCION A–A
CERCOS SECUNDARIOS
ESCALA 1/20



SECCION B–B
ESCALA 1/20

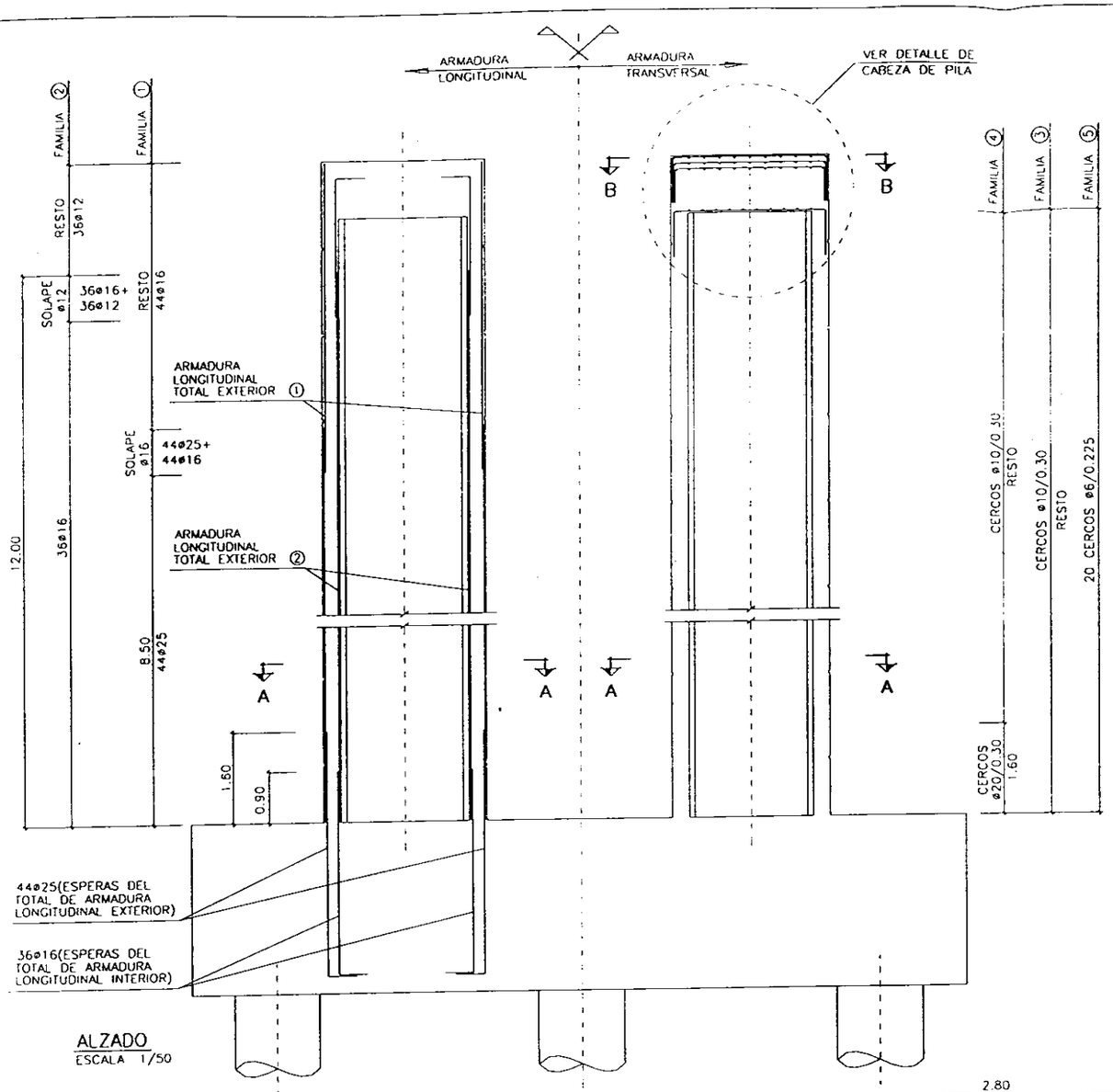


DETALLE DE ARMADO
DE CABEZA DE PILA
ESCALA 1/20

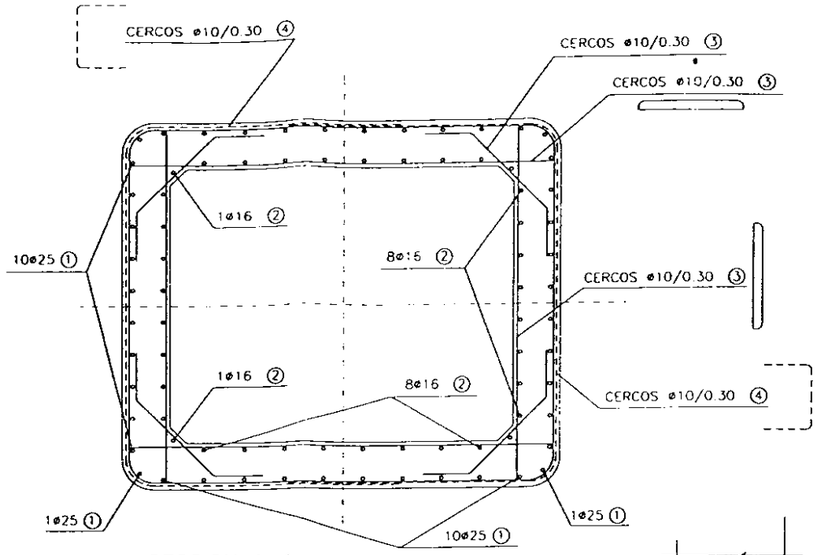
NOTAS:

- LAS CUANTIAS DE ARMADURA DE LA CIMENTACION SERAN IGUALES A LAS INDICADAS EN EL PROYECTO BASE
- LAS LONGITUDES DE ANCLAJE Y SOLAPE DE BARRAS SE REALIZARAN DE ACUERDO CON LO ESPECIFICADO EN LA [illegible]

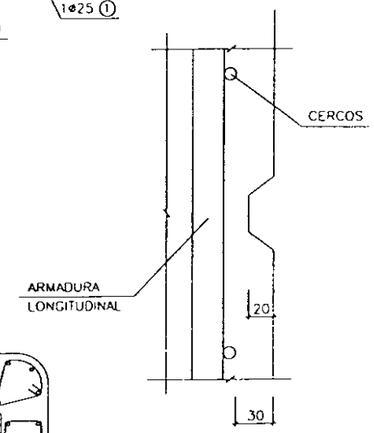
VIADUCTO DE LOS CHORROS
DEFINICION ARMADURAS DE PILA 1



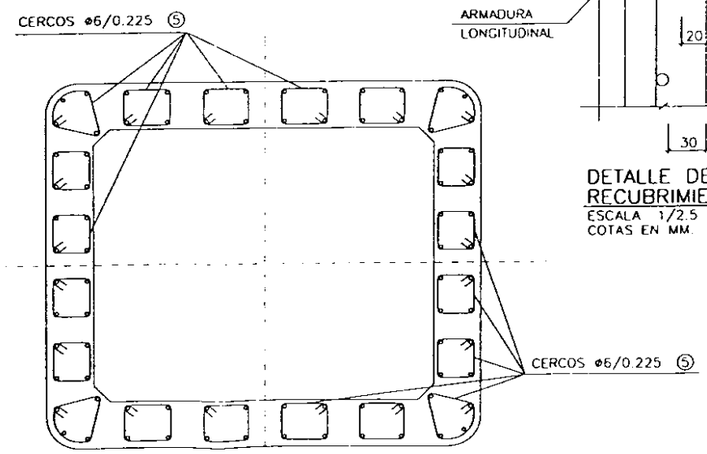
ALZADO
ESCALA 1/50



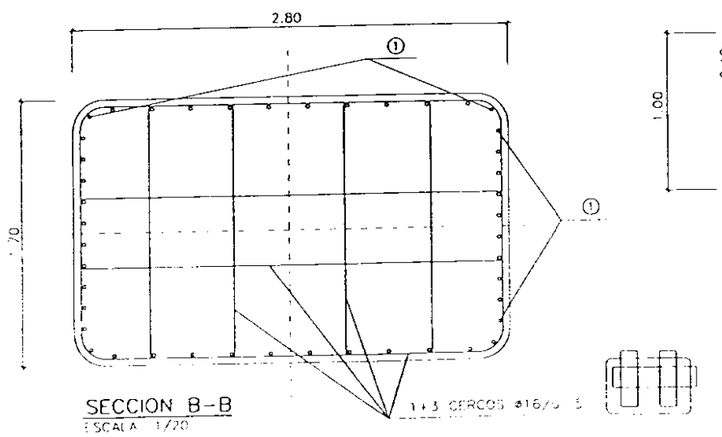
SECCION A-A
ARMADURA LONGITUDINAL
Y CERCOS PRINCIPALES
ESCALA 1/20



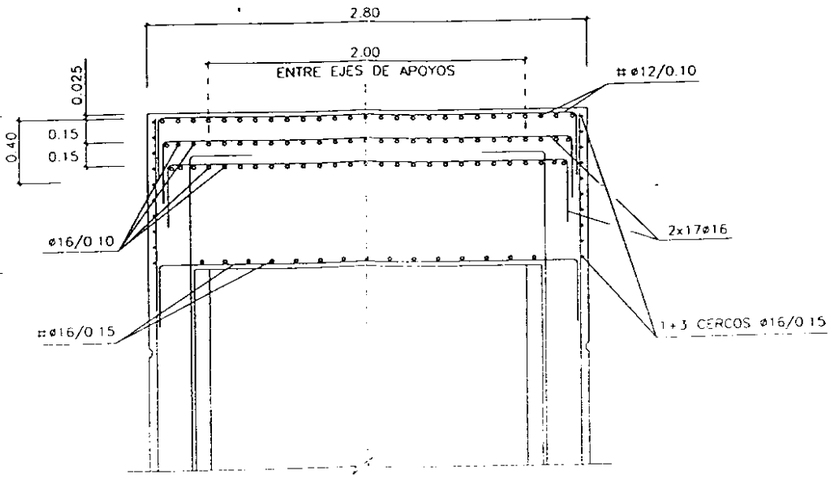
DETALLE DE RECUBRIMIENTO
ESCALA 1/2.5
COTAS EN MM.



SECCION A-A
CERCOS SECUNDARIOS
ESCALA 1/20



SECCION B-B
ESCALA 1/20



DETALLE DE ARMADO
DE CABEZA DE PILA
ESCALA 1/20

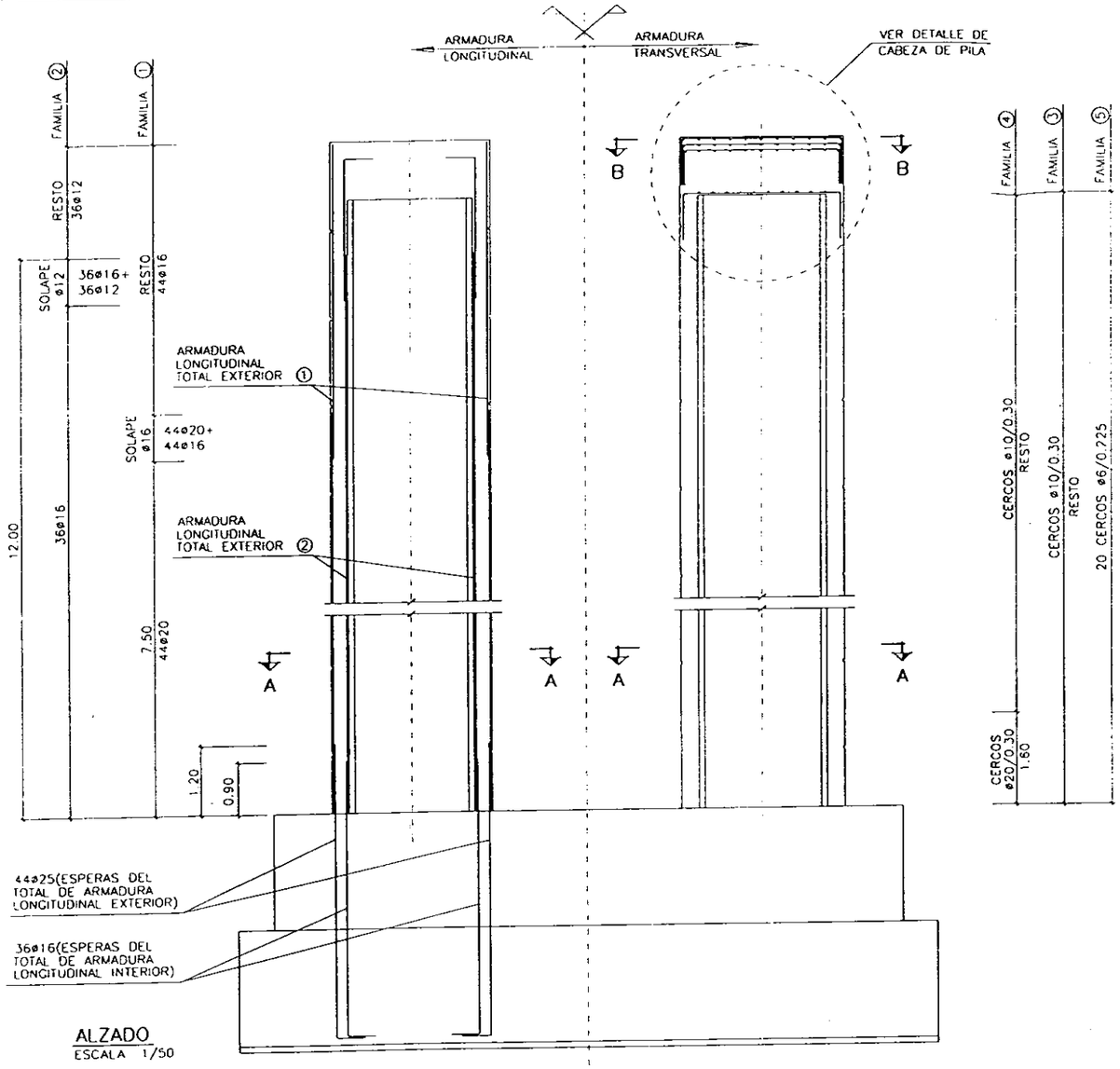
NOTAS:

LAS CUANTIAS DE ARMADURA DE LA CIMENTACION SERAN IGUALES A LAS INDICADAS EN EL PROYECTO BASE

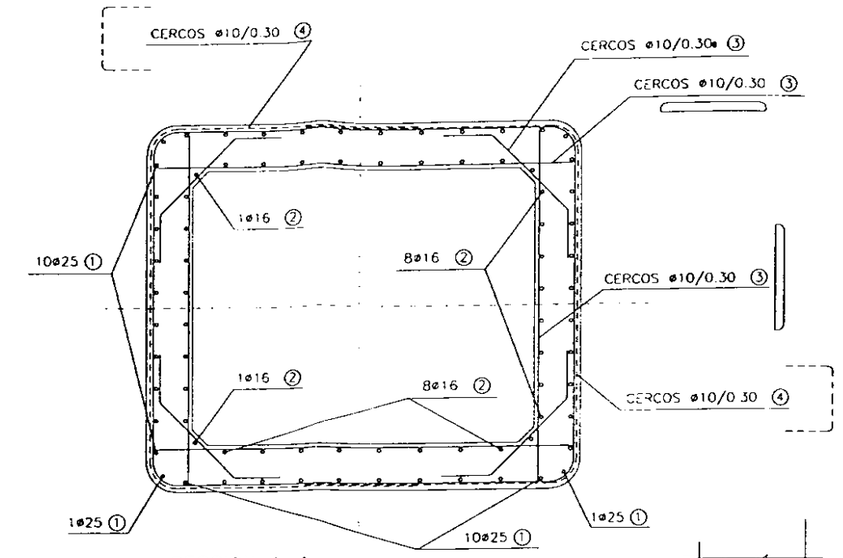
LAS LONGITUDES DE ANCLAJE Y SOLAPE DE BARRAS SE REALIZARAN DE ACUERDO CON LO ESPECIFICADO EN LA EHE-98

VIADUCTO DE LOS CHORROS
DEFINICION ARMADURAS DE PILAS 2 A 6

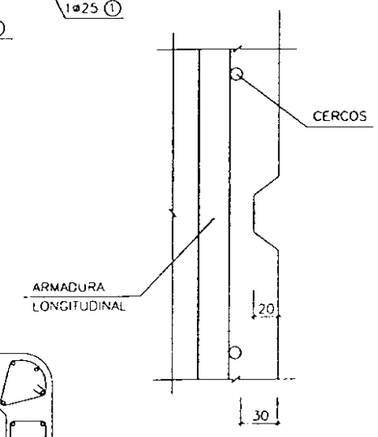
VC-132/3-P2-BAR (26/3/99)



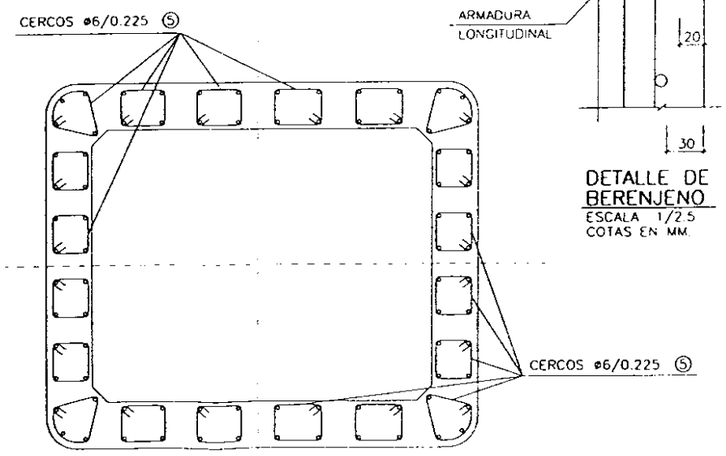
ALZADO
ESCALA 1/50



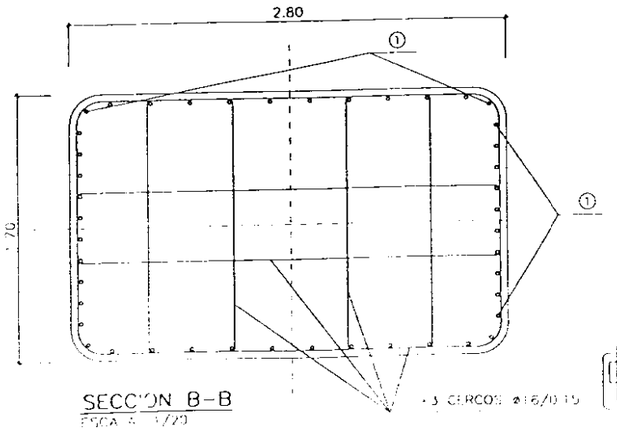
SECCION A-A
ARMADURA LONGITUDINAL
Y CERCOS PRINCIPALES
ESCALA 1/20



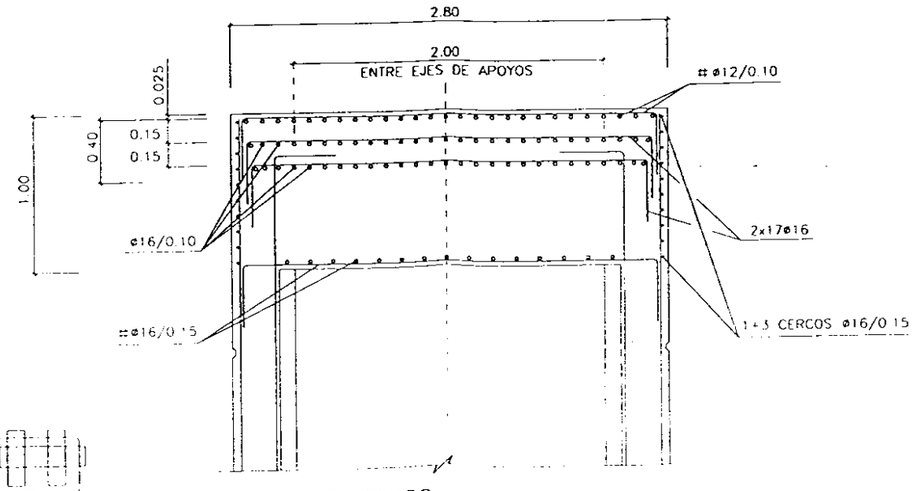
DETALLE DE BERENJENO
ESCALA 1/2.5
COTAS EN MM.



SECCION A-A
CERCOS SECUNDARIOS
ESCALA 1/20



SECCION B-B
ESCALA 1/20



DETALLE DE ARMADO
DE CABEZA DE PILA
ESCALA 1/20

NOTAS:

- LAS CUANTIAS DE ARMADURA DE LA CIMENTACION SERAN IGUALES A LAS INDICADAS EN EL PROYECTO BASE
- LAS LONGITUDES DE ANCLAJE Y SOLAPE DE BARRAS SE REALIZARAN DE ACUERDO CON LO ESPECIFICADO EN LA EH 91

VIADUCTO DE LOS CHORROS
DEFINICION ARMADURAS DE PILA 7

ANEJO Nº 1

ESFUERZOS CARACTERÍSTICOS
ENVOLVENTE MAYORADA
(Sin coeficiente de impacto)

Hipótesis $M_{transv. máx.}$

Pila	Axil						M transversal						M longitudinal						H transversal						H longitudinal					
Cabeza	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
1	-400	29	-309	-14		20	87		221		9							0	5		26	2	1,0								10
2	-483	22	-370	-37		2	110		256		8							0	5		26	25	7								27
3	-474	21	-361	-46		0	110		267		2							0	5			23	6								33
4	-476	21	-361	-51		0	110		269		4							0	5			25	9								33
Base																														
1	-482	29	-321	-14		20	12		134	74	22							132	5			6	1,0								10
2	-557	22	-381	-37		2	42		177	338	116							337	5			29	9								27
3	-568	21	-367	-46		0	25		187	384	128							514	5			28	8								33
4	-573	21	-378	-51		0	29		191	436	144							530	5			31	9								33

1 Carga permanente
2 Asientos
3 Sobrecarga de uso
4 Viento
5 Fuerza centrífuga
6 Térmico

Hipótesis $N_{min.}$

Pila	Axil						M transversal						M longitudinal						H transversal						H longitudinal					
Cabeza	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
1	-400	29	31	10	5	20	87		0		9							0	5		3	2	0								10
2	-483	22	37	28	11	2	110		5		6							0	5		3	25	9								27
3	-474	21	50	35	14	0	110		6		0							0	5		3	23	9								33
4	-476	21	50	39	15	0	110		7		4							0	5		3	25	9								33
Base																														
1	-482	29	31	10	5	20	12		0	74	22							132	5		3	6	0								10
2	-557	22	37	28	11	2	42		32	338	116							337	5		3	29	9								27
3	-568	21	50	35	14	0	25		36	384	128							514	5		3	28	9								33
4	-573	21	50	39	15	0	29		39	436	144							530	5		3	31	9								33

1 Carga permanente
2 Asientos
3 Sobrecarga de uso
4 Viento
5 Fuerza centrífuga
6 Térmico

Hipótesis $N_{máx.}$

Pila	Axil						M transversal						M longitudinal						H transversal						H longitudinal					
Cabeza	1	2	3	4	5	6	1	2	3	4	5	6	3	4	5	6	2	3	1	2	3	4	5	6	1	2	3	4	5	6
1	-445	-49	-369	-10	-5	-20	97		84		9								10		10	2,4	0		5					6
2	-537	-19	-428	-28	-11	-2	122		100		6,3								5		18	25	9		5					10
3	-527	-15	-432	-35	-14	0	122		106		0								6		14	23	9		6					27
4	-529	-15	-435	-39	-15	0	122		107		4,3								6		14	25	9		6					33
Base																														
1	-535	-49	-369	-10	-5	-20	13		60	74	22								5		10	6	0		5					10
2	-619	-19	-428	-28	-11	-2	47		121	338	116								5		18	29	9		5					27
3	-631	-15	-432	-35	-14	0	28		118	384	128								5		14	28	9		5					33
4	-637	-15	-435	-39	-15	0	32		122	436	144								5		14	31	9		5					33

1 Carga permanente
2 Asientos
3 Sobrecarga de uso
4 Viento
5 Fuerza centrífuga
6 Térmico

envolvente MAYORADA tren parado (sin coef. de impacto)

Program Envolvator (release 1.3 - Jun 1998)
Calculation date: 27-mar-1999 19:00 h. Listing date: 27-mar-1999 19:08 h.
Members: 419
Joints: 353
Envelope generated from:

Name	γ_{min}	γ_{max}
envolvente mayorada RENFE	1.00	1.00
envolvente mayorada UIC	1.00	1.00

	Fx	Fy	Fz	Mx	My	Mz	Fx	Fy	Fz	Mx	My	Mz
Member 391 PILA1.i2Q												
Fx:	**-1308.8**	0.0	-25.4	0.0	271.2	0.0	**-153.8**	0.0	4.8	0.0	86.9	0.0
Fy:	-675.9	**0.0**	-16.4	0.0	175.1	0.0	-426.4	**0.0**	-5.6	0.0	87.0	0.0
Fz:	-984.9	0.0	**-48.7**	0.0	473.7	0.0	-342.6	0.0	**9.8**	0.0	48.5	0.0
Mx:	-675.9	0.0	-16.4	**0.0**	175.1	0.0	-426.4	0.0	-5.6	**0.0**	87.0	0.0
My:	-454.4	0.0	-1.5	0.0	**-19.0**	0.0	-1219.3	**0.0**	-48.3	0.0	**476.2**	0.0
Mz:	-675.9	0.0	-16.4	0.0	175.1	**0.0**	-426.4	0.0	-5.6	0.0	87.0	**0.0**
Fx:	**-1443.2**	2.4	-25.4	0.0	-70.8	-33.0	**-234.4**	-9.8	10.0	0.0	186.5	132.1
Fy:	-1191.2	**-12.3**	-37.2	0.0	-117.9	165.1	-507.0	**2.4**	-5.6	0.0	11.3	-33.0
Fz:	-978.2	-11.0	**-54.5**	0.0	-292.5	148.6	-423.2	2.0	**14.9**	0.0	214.8	-26.4
Mx:	-783.5	0.0	-16.4	**0.0**	-45.6	0.0	-507.0	2.4	-5.6	**0.0**	11.3	-33.0
My:	-919.7	-11.0	-54.0	0.0	**-314.3**	148.6	-537.4	2.0	14.5	0.0	**225.8**	-26.4
Mz:	-1241.3	2.4	-37.2	0.0	-117.7	**-33.0**	-456.9	-12.3	-5.6	0.0	11.1	**165.1**
Member 392 PILA2.i2Q												
Fx:	**-1475.9**	0.0	-35.8	0.0	332.7	0.0	**-209.6**	0.0	56.0	0.0	85.9	0.0
Fy:	-839.3	**0.0**	-27.7	0.0	236.0	0.0	-481.2	**0.0**	-5.4	0.0	109.8	0.0
Fz:	-1063.7	0.0	**-101.7**	0.0	406.8	0.0	-386.5	0.0	**62.9**	0.0	102.7	0.0
Mx:	-839.3	**0.0**	-27.7	**0.0**	236.0	0.0	-481.2	0.0	-5.4	**0.0**	109.8	0.0
My:	-698.6	0.0	-41.7	0.0	**-3.9**	0.0	-1385.7	0.0	-58.5	0.0	**567.5**	0.0
Mz:	-839.3	0.0	-27.7	0.0	236.0	**0.0**	-481.2	0.0	-5.4	0.0	109.8	**0.0**
Fx:	**-1599.5**	-6.8	-35.9	0.0	-111.7	84.3	**-283.8**	27.2	60.8	0.0	810.2	-337.2
Fy:	-1430.8	**-34.0**	-44.9	0.0	-92.2	421.5	-555.3	**6.8**	-5.4	0.0	42.4	-84.3
Fz:	-1137.9	27.2	**-106.5**	0.0	-883.4	-337.2	-485.4	0.0	**68.4**	0.0	916.3	0.0
Mx:	-938.2	0.0	-27.7	**0.0**	-107.0	0.0	-555.3	6.8	-5.4	**0.0**	42.4	-84.3
My:	-1139.3	27.2	-105.7	0.0	**-889.2**	-337.2	-485.4	0.0	68.4	0.0	**916.3**	0.0
Mz:	-1427.4	6.8	-44.9	0.0	-92.2	**-84.3**	-558.8	-34.0	-5.4	0.0	42.5	**421.5**
Member 393 PILA 3.i2Q												
Fx:	**-1463.5**	0.0	-30.7	0.0	342.2	0.0	**-186.9**	0.0	50.6	0.0	39.6	0.0
Fy:	-823.7	**0.0**	-24.8	0.0	246.3	0.0	-477.7	**0.0**	-5.5	0.0	110.0	0.0
Fz:	-1160.7	0.0	**-91.6**	0.0	490.9	0.0	-253.6	0.0	**57.5**	0.0	25.8	0.0
Mx:	-823.7	0.0	-24.8	**0.0**	246.3	0.0	-477.7	0.0	-5.5	**0.0**	110.0	0.0
My:	-649.5	0.0	45.8	0.0	**-33.7**	0.0	-1270.2	0.0	-51.1	0.0	**584.6**	0.0
Mz:	-823.7	0.0	-24.8	0.0	246.3	**0.0**	-477.7	0.0	-5.5	0.0	110.0	**0.0**
Fx:	**-1618.5**	8.3	-30.7	0.0	-134.7	-128.4	**-279.9**	-33.0	56.6	0.0	872.3	513.7
Fy:	-1432.6	**-41.3**	-38.3	0.0	-121.9	642.1	-570.7	**8.3**	-5.5	0.0	25.3	-128.4
Fz:	-1284.8	-33.0	**-97.6**	0.0	-979.9	513.7	-346.6	0.0	**64.5**	0.0	974.4	0.0
Mx:	-947.7	0.0	-24.8	**0.0**	-139.6	0.0	-570.7	8.3	-5.5	**0.0**	25.3	-128.4
My:	-1148.9	-33.0	-96.9	0.0	**-1002.2**	513.7	-484.6	0.0	64.2	0.0	**991.2**	0.0
Mz:	-1433.6	8.3	-38.3	0.0	-121.9	**-128.4**	-569.6	-41.3	-5.5	0.0	25.3	**642.1**
Member 394 PILA4.i2Q												
Fx:	**-1470.7**	0.0	-29.7	0.0	345.1	0.0	**-179.0**	0.0	56.3	0.0	20.4	0.0
Fy:	-829.1	**0.0**	-24.7	0.0	250.7	0.0	-478.5	**0.0**	-5.0	0.0	110.4	0.0
Fz:	-1173.2	0.0	**-95.6**	0.0	513.3	0.0	-243.7	0.0	**64.0**	0.0	4.0	0.0
Mx:	-829.1	0.0	-24.7	**0.0**	250.7	0.0	-478.5	0.0	-5.0	**0.0**	110.4	0.0
My:	-646.4	0.0	50.6	0.0	**-50.4**	0.0	-1274.4	0.0	-49.6	0.0	**587.9**	0.0
Mz:	-829.1	0.0	-24.7	0.0	250.7	**0.0**	-478.5	0.0	-5.0	0.0	110.4	**0.0**
Fx:	**-1631.8**	-41.0	-29.7	0.0	-134.9	662.4	**-275.7**	6.6	62.5	0.0	979.6	-105.8
Fy:	-1445.8	**-41.0**	-36.6	0.0	-115.9	662.4	-575.2	**8.2**	-5.0	0.0	29.1	-132.3
Fz:	-1302.1	6.6	**-101.8**	0.0	-1081.1	-105.8	-340.4	0.0	**71.2**	0.0	1096.2	0.0
Mx:	-958.0	0.0	-24.7	**0.0**	-147.8	0.0	-575.2	8.2	-5.0	**0.0**	29.1	-132.3
My:	-1177.0	6.6	-101.2	0.0	**-1105.6**	-105.8	-479.6	0.0	71.0	0.0	**1114.3**	0.0
Mz:	-1445.2	8.2	-36.6	0.0	-115.9	**-132.3**	-575.7	**-41.0**	-5.0	0.0	29.1	**662.4**

Member 395 PILAR. 122

Fx1	-1464.6	0.0	-29.4	0.0	344.9	0.0	-178.9	0.0	54.5	0.0	19.5	0.0
Fy1	-829.3	0.0	-24.4	0.0	250.4	0.0	-478.1	0.0	-5.1	0.0	110.2	0.0
Fz1	-1167.8	0.0	-93.8	0.0	514.4	0.0	-244.2	0.0	61.9	0.0	3.2	0.0
Mx1	-829.3	0.0	-24.4	0.0	250.4	0.0	-478.1	0.0	-5.1	0.0	110.2	0.0
My1	-642.5	0.0	49.4	0.0	-51.3	0.0	-1271.6	0.0	-49.6	0.0	588.2	0.0
Mz1	-829.3	0.0	-24.4	0.0	250.4	0.0	-478.1	0.0	-5.1	0.0	110.2	0.0
Fx2	-1627.5	8.2	-29.4	0.0	-135.1	-133.9	-276.7	-32.8	60.8	0.0	961.0	535.7
Fy2	-1444.9	-41.0	-36.5	0.0	-120.0	669.7	-575.9	8.2	-5.1	0.0	26.6	-133.9
Fz2	-1298.2	-32.8	-100.1	0.0	-1069.2	535.7	-342.0	0.0	69.3	0.0	1074.6	0.0
Mx2	-959.7	0.0	-24.4	0.0	-147.6	0.0	-575.9	8.2	-5.1	0.0	26.6	-133.9
My2	-1162.8	-32.8	-99.5	0.0	-1092.7	535.7	-481.6	0.0	69.0	0.0	1091.9	0.0
Mz2	-1446.6	8.2	-36.5	0.0	-120.0	-133.9	-574.1	-41.0	-5.1	0.0	26.6	669.7

Member 396 PILAR.122

Fx1	-1499.2	0.0	-31.8	0.0	342.3	0.0	-193.7	0.0	51.0	0.0	40.1	0.0
Fy1	-821.7	0.0	-25.6	0.0	247.3	0.0	-479.0	0.0	-5.6	0.0	110.0	0.0
Fz1	-1176.3	0.0	-91.5	0.0	483.2	0.0	-283.6	0.0	57.2	0.0	29.7	0.0
Mx1	-821.7	0.0	-25.6	0.0	247.3	0.0	-479.0	0.0	-5.6	0.0	110.0	0.0
My1	-583.2	0.0	43.6	0.0	-24.1	0.0	-1408.2	0.0	-51.0	0.0	578.6	0.0
Mz1	-821.7	0.0	-25.6	0.0	247.3	0.0	-479.0	0.0	-5.6	0.0	110.0	0.0
Fx2	-1652.2	-41.3	-31.8	0.0	-145.8	633.9	-285.5	6.6	56.9	0.0	867.9	-101.4
Fy2	-1440.9	-41.3	-38.9	0.0	-124.6	633.9	-570.8	8.3	-5.6	0.0	23.5	-126.8
Fz2	-1298.7	6.6	-97.4	0.0	-965.3	-101.4	-375.4	0.0	64.1	0.0	960.5	0.0
Mx2	-944.1	0.0	-25.6	0.0	-146.0	0.0	-570.8	8.3	-5.6	0.0	23.5	-126.8
My2	-1163.3	6.6	-96.6	0.0	-987.7	-101.4	-513.6	0.0	63.7	0.0	976.7	0.0
Mz2	-1432.8	8.3	-38.9	0.0	-124.6	-126.8	-578.9	-41.3	-5.6	0.0	23.5	633.9

Member 397 PILA 7.122

Fx1	-1315.6	0.0	-33.5	0.0	305.0	0.0	-89.7	0.0	50.2	0.0	112.0	0.0
Fy1	-740.3	0.0	-26.9	0.0	200.4	0.0	-442.5	0.0	-4.8	0.0	111.6	0.0
Fz1	-828.6	0.0	-93.5	0.0	347.8	0.0	-396.8	0.0	57.0	0.0	104.0	0.0
Mx1	-740.3	0.0	-26.9	0.0	200.4	0.0	-442.5	0.0	-4.8	0.0	111.6	0.0
My1	-504.1	0.0	-36.1	0.0	6.9	0.0	-1146.8	0.0	-51.6	0.0	511.2	0.0
Mz1	-740.3	0.0	-26.9	0.0	200.4	0.0	-442.5	0.0	-4.8	0.0	111.6	0.0
Fx2	-1429.9	34.4	-33.5	0.0	-78.6	-393.9	-158.3	-5.5	54.6	0.0	712.5	63.0
Fy2	-1215.2	-34.4	-40.4	0.0	-42.3	393.9	-511.1	6.9	-4.8	0.0	56.7	-78.8
Fz2	-897.2	-5.5	-97.9	0.0	-748.9	63.0	-425.0	0.0	61.8	0.0	814.1	0.0
Mx2	-831.7	0.0	-26.9	0.0	-108.4	0.0	-511.1	6.9	-4.8	0.0	56.7	-78.8
My2	-891.8	-5.5	-97.1	0.0	-760.1	63.0	-424.9	0.0	61.8	0.0	814.2	0.0
Mz2	-1295.2	6.9	-40.3	0.0	-42.0	-78.8	-431.1	-34.4	-4.8	0.0	56.4	393.9

Member 398 PILAL. DCH.

Fx1	-1308.8	0.0	25.4	0.0	-271.2	0.0	-160.3	0.0	-6.3	0.0	-74.1	0.0
Fy1	-858.9	0.0	18.2	0.0	-225.1	0.0	-426.4	0.0	5.6	0.0	-87.0	0.0
Fz1	-325.0	0.0	-10.1	0.0	-43.1	0.0	-984.9	0.0	48.7	0.0	-473.7	0.0
Mx1	-858.9	0.0	18.2	0.0	-225.1	0.0	-426.4	0.0	5.6	0.0	-87.0	0.0
My1	-1219.3	0.0	48.3	0.0	-476.2	0.0	-226.2	0.0	0.4	0.0	22.5	0.0
Mz1	-858.9	0.0	18.2	0.0	-225.1	0.0	-426.4	0.0	5.6	0.0	-87.0	0.0
Fx2	-1443.2	2.4	25.4	0.0	70.8	-33.0	-240.9	-9.8	-11.5	0.0	-194.4	132.1
Fy2	-1191.2	-12.3	37.2	0.0	117.9	165.1	-507.0	2.4	5.6	0.0	-11.3	-33.0
Fz2	-405.7	2.0	-15.3	0.0	-214.2	-26.4	-978.2	-11.0	54.5	0.0	292.5	148.6
Mx2	-966.5	0.0	18.2	0.0	20.3	0.0	-507.0	2.4	5.6	0.0	-11.3	-33.0
My2	-521.7	2.0	-14.8	0.0	-225.1	-26.4	-919.7	-11.0	54.0	0.0	314.3	148.6
Mz2	-1241.3	2.4	37.2	0.0	117.7	-33.0	-456.9	-12.3	5.6	0.0	-11.1	165.1

Member 399 PILAC. DCH

Fx1	-1475.9	0.0	35.9	0.0	-332.7	0.0	-218.9	0.0	-57.4	0.0	-69.9	0.0
Fy1	-1027.5	0.0	12.1	0.0	-255.9	0.0	-481.2	0.0	5.4	0.0	-109.8	0.0
Fz1	-386.5	0.0	-62.9	0.0	-102.7	0.0	-1063.7	0.0	101.7	0.0	-406.8	0.0
Mx1	-1027.5	0.0	12.1	0.0	-255.9	0.0	-481.2	0.0	5.4	0.0	-109.8	0.0
My1	-1388.8	0.0	58.5	0.0	-567.5	0.0	-320.8	0.0	-3.5	0.0	4.8	0.0
Mz1	-1027.5	0.0	12.1	0.0	-255.9	0.0	-481.2	0.0	5.4	0.0	-109.8	0.0
Fx2	-1599.5	-6.8	35.9	0.0	111.7	84.3	-293.1	27.2	-62.1	0.0	-810.3	-337.2
Fy2	-1430.8	-34.0	44.9	0.0	92.2	421.5	-555.3	6.8	5.4	0.0	-42.4	-84.3
Fz2	-485.4	0.0	-68.4	0.0	-916.3	0.0	-1137.9	27.2	106.5	0.0	883.4	-337.2
Mx2	-1126.4	0.0	12.1	0.0	-105.8	0.0	-555.3	6.8	5.4	0.0	-42.4	-84.3
My2	-485.4	0.0	-68.4	0.0	-916.3	0.0	-1139.3	27.2	105.7	0.0	889.2	-337.2
Mz2	-1427.4	6.8	44.9	0.0	92.2	-84.3	-558.8	-34.0	5.4	0.0	-42.5	421.5

Member 400 PILA3. DCH

Fx1	-1463.5	0.0	30.7	0.0	-342.2	0.0	-198.0	0.0	-52.5	0.0	-18.5	0.0
Fy1	-1003.9	0.0	10.3	0.0	-252.0	0.0	-477.7	0.0	5.5	0.0	-110.0	0.0
Fz1	-253.6	0.0	-57.5	0.0	-25.9	0.0	-1160.7	0.0	91.6	0.0	-490.9	0.0
Mx1	-1003.9	0.0	10.3	0.0	-252.0	0.0	-477.7	0.0	5.5	0.0	-110.0	0.0
My1	-1269.4	0.0	51.1	0.0	-584.6	0.0	-650.2	0.0	-45.8	0.0	33.7	0.0
Mz1	-1003.9	0.0	10.3	0.0	-252.0	0.0	-477.7	0.0	5.5	0.0	-110.0	0.0
Fx2	-1618.5	8.3	30.7	0.0	134.7	-128.4	-291.1	-33.0	-58.5	0.0	-881.3	513.7
Fy2	-1432.5	-41.3	38.3	0.0	121.9	642.1	-570.7	8.3	5.5	0.0	-25.3	-128.4
Fz2	-346.6	0.0	-64.5	0.0	-974.3	0.0	-1284.8	-33.0	97.6	0.0	979.9	513.7
Mx2	-1128.0	0.0	10.3	0.0	-91.8	0.0	-570.7	8.3	5.5	0.0	-25.3	-128.4
My2	-484.6	0.0	-64.2	0.0	-991.1	0.0	-1148.9	-33.0	96.9	0.0	1002.1	513.7
Mz2	-1433.6	8.3	38.3	0.0	121.9	-128.4	-569.6	-41.3	5.5	0.0	-25.3	642.1

Member 401 PILA4. DCH

Fx1	-1470.7	0.0	29.7	0.0	-345.1	0.0	-190.1	0.0	-58.2	0.0	0.8	0.0
Fy1	-1006.9	0.0	8.7	0.0	-249.8	0.0	-478.5	0.0	5.0	0.0	-110.4	0.0
Fz1	-243.7	0.0	-64.0	0.0	-4.0	0.0	-1173.2	0.0	95.6	0.0	-513.3	0.0
Mx1	-1006.9	0.0	8.7	0.0	-249.8	0.0	-478.5	0.0	5.0	0.0	-110.4	0.0
My1	-1274.6	0.0	49.6	0.0	-587.9	0.0	-646.2	0.0	-50.6	0.0	50.4	0.0
Mz1	-1006.9	0.0	8.7	0.0	-249.8	0.0	-478.5	0.0	5.0	0.0	-110.4	0.0
Fx2	-1631.8	-41.0	29.7	0.0	134.9	662.4	-286.8	6.6	-64.4	0.0	-989.6	-105.8
Fy2	-1445.8	-41.0	36.6	0.0	115.9	662.4	-575.2	8.2	5.0	0.0	-29.1	-132.3
Fz2	-340.4	0.0	-71.2	0.0	-1096.2	0.0	-1302.1	6.6	101.8	0.0	1081.1	-105.8
Mx2	-1135.8	0.0	8.7	0.0	-109.8	0.0	-575.2	8.2	5.0	0.0	-29.1	-132.3
My2	-479.8	0.0	-71.0	0.0	-1114.3	0.0	-1176.9	6.6	101.2	0.0	1105.5	-105.8
Mz2	-1445.2	8.2	36.6	0.0	115.9	-132.3	-575.7	-41.0	5.0	0.0	-29.1	662.4

Member 402 PILA5. DCH

Fx1	-1464.6	0.0	29.4	0.0	-344.9	0.0	-189.9	0.0	-56.4	0.0	1.7	0.0
Fy1	-1007.1	0.0	9.0	0.0	-249.8	0.0	-478.1	0.0	5.1	0.0	-110.2	0.0
Fz1	-244.2	0.0	-61.9	0.0	-3.3	0.0	-1167.8	0.0	93.8	0.0	-514.4	0.0
Mx1	-1007.1	0.0	9.0	0.0	-249.8	0.0	-478.1	0.0	5.1	0.0	-110.2	0.0
My1	-1271.4	0.0	49.6	0.0	-588.2	0.0	-642.7	0.0	-49.4	0.0	51.3	0.0
Mz1	-1007.1	0.0	9.0	0.0	-249.8	0.0	-478.1	0.0	5.1	0.0	-110.2	0.0
Fx2	-1627.5	8.2	29.4	0.0	135.1	-133.9	-287.6	-32.8	-62.7	0.0	-971.4	535.7
Fy2	-1444.9	-41.0	36.5	0.0	120.0	669.7	-575.9	8.2	5.1	0.0	-26.6	-133.9
Fz2	-342.0	0.0	-69.3	0.0	-1074.6	0.0	-1298.2	-32.8	100.1	0.0	1069.2	535.7
Mx2	-1137.5	0.0	9.0	0.0	-103.0	0.0	-575.9	8.2	5.1	0.0	-26.6	-133.9
My2	-481.4	0.0	-69.0	0.0	-1091.9	0.0	-1162.9	-32.8	99.5	0.0	1092.7	535.7
Mz2	-1446.6	8.2	36.5	0.0	120.0	-133.9	-574.1	-41.0	5.1	0.0	-26.6	669.7

Member 403 PILA 6. DCH

Fx1	-1499.2	0.0	31.8	0.0	-342.3	0.0	-203.3	0.0	-52.0	0.0	-24.3	0.0
Fy1	-1003.2	0.0	10.2	0.0	-250.5	0.0	-479.0	0.0	5.6	0.0	-110.0	0.0
Fz1	-283.6	0.0	-57.2	0.0	-29.7	0.0	-1176.3	0.0	91.5	0.0	-483.2	0.0
Mx1	-1003.2	0.0	10.2	0.0	-250.5	0.0	-479.0	0.0	5.6	0.0	-110.0	0.0
My1	-1408.8	0.0	51.0	0.0	-578.6	0.0	-582.6	0.0	-43.6	0.0	24.1	0.0
Mz1	-1003.2	0.0	10.2	0.0	-250.5	0.0	-479.0	0.0	5.6	0.0	-110.0	0.0
Fx2	-1652.2	-41.3	31.8	0.0	145.8	633.9	-295.1	6.6	-57.9	0.0	-866.8	-101.4
Fy2	-1440.9	-41.3	38.9	0.0	124.6	633.9	-570.8	8.3	5.6	0.0	-23.5	-126.8
Fz2	-375.4	0.0	-64.1	0.0	-960.5	0.0	-1298.7	6.6	97.4	0.0	965.3	-101.4
Mx2	-1125.7	0.0	10.2	0.0	-93.5	0.0	-570.8	8.3	5.6	0.0	-23.5	-126.8
My2	-513.6	0.0	-63.7	0.0	-976.7	0.0	-1163.3	6.6	96.6	0.0	987.7	-101.4
Mz2	-1432.8	8.3	38.9	0.0	124.6	-126.8	-578.9	-41.3	5.6	0.0	-23.5	633.9

Member 404 PILA 4. DCH.

Fx1	-1315.6	0.0	33.5	0.0	-305.0	0.0	-96.1	0.0	-51.9	0.0	-99.6	0.0
Fy1	-905.9	0.0	8.9	0.0	-263.6	0.0	-442.5	0.0	4.8	0.0	-111.6	0.0
Fz1	-333.5	0.0	-56.7	0.0	-134.8	0.0	-828.6	0.0	93.5	0.0	-347.8	0.0
Mx1	-905.9	0.0	8.8	0.0	-263.6	0.0	-442.5	0.0	4.8	0.0	-111.6	0.0
My1	-1146.8	0.0	51.6	0.0	-511.2	0.0	-224.3	0.0	40.9	0.0	-3.4	0.0

Mz$_i$	-905.9	0.0	8.8	0.0	-263.6	**0.0**	-442.5	0.0	4.8	0.0	-111.6	**0.0**
Fx$_f$	**-1429.9**	34.4	33.5	0.0	78.6	-393.9	**-164.7**	-5.5	-56.3	0.0	-719.8	63.0
Fy$_f$	-1215.2	**-34.4**	40.4	0.0	42.3	393.9	-511.1	**6.9**	4.8	0.0	-56.7	-78.8
Fz$_f$	-425.0	0.0	**-61.8**	0.0	-814.1	0.0	-897.2	-5.5	**97.9**	0.0	748.9	63.0
Mx$_f$	-997.4	0.0	8.8	0.0	-163.2	0.0	-511.1	6.9	4.8	**0.0**	-56.7	-78.8
My$_f$	-424.9	0.0	-61.8	0.0	**-814.2**	0.0	-891.8	-5.5	97.1	0.0	**760.1**	63.0
Mz$_f$	-1295.2	6.9	40.3	0.0	42.0	**-78.8**	-431.1	-34.4	4.8	0.0	-56.4	**393.9**

Member 421 P-1

Fx$_i$	**-2837.0**	4.9	0.0	0.0	0.0	-66.0	**-527.2**	-19.6	18.9	-0.0	417.5	264.1
Fy$_i$	-2382.3	**-24.5**	0.0	-0.0	0.0	330.1	-1014.0	**4.9**	0.0	0.0	0.0	-66.0
Fz$_i$	-1431.1	-4.4	**-47.9**	-0.0	-476.4	59.4	-1587.2	22.0	**47.9**	0.0	476.4	-297.1
Mx$_i$	-2382.3	-24.5	0.0	**-0.0**	0.0	330.1	-1014.0	4.9	0.0	**0.0**	0.0	-66.0
My$_i$	-1461.1	-3.9	-11.2	-0.0	**-1664.6**	52.8	-1629.3	19.6	16.0	0.0	**1627.1**	-264.1
Mz$_i$	-2482.5	4.9	0.0	0.0	0.0	**-66.0**	-913.8	-24.5	0.0	-0.0	0.0	**330.1**
Fx$_f$	**-2837.0**	4.9	0.0	0.0	0.0	-70.9	**-527.2**	-19.6	18.9	-0.0	436.3	283.7
Fy$_f$	-2382.3	**-24.5**	0.0	-0.0	0.0	354.6	-1014.0	**4.9**	0.0	0.0	0.0	-70.9
Fz$_f$	-1431.1	-4.4	**-47.9**	-0.0	-524.2	63.8	-1587.2	22.0	**47.9**	0.0	524.2	-319.2
Mx$_f$	-2382.3	-24.5	0.0	-0.0	0.0	354.6	-1014.0	4.9	0.0	0.0	0.0	-70.9
My$_f$	-1456.7	-3.9	-11.6	-0.0	**-1675.8**	56.7	-1624.3	19.6	16.4	0.0	**1643.1**	-283.7
Mz$_f$	-2482.5	4.9	0.0	0.0	0.0	**-70.9**	-913.8	-24.5	0.0	-0.0	0.0	**354.6**

Member 422 P-2

Fx$_i$	**-3130.6**	-13.6	0.0	-0.0	-0.0	168.6	**-704.2**	54.4	-109.0	0.0	-1617.7	-674.3
Fy$_i$	-2861.6	**-68.0**	0.0	-0.0	-0.0	842.9	-1110.7	**13.6**	0.0	0.0	-0.0	-168.6
Fz$_i$	-1586.4	-10.9	**-137.9**	-0.0	-2092.9	134.9	-2047.3	54.4	**137.9**	0.0	2092.8	-674.3
Mx$_i$	-2861.6	-68.0	0.0	**-0.0**	-0.0	842.9	-1110.7	13.6	0.0	**0.0**	-0.0	-168.6
My$_i$	-1997.6	-10.9	-116.1	-0.0	**-3386.4**	134.9	-1624.7	54.4	117.0	0.0	**3266.0**	-674.3
Mz$_i$	-2854.7	13.6	0.0	0.0	-0.0	**-168.6**	-1117.6	-68.0	0.0	-0.0	-0.0	**842.9**
Fx$_f$	**-3130.6**	-13.6	0.0	-0.0	-0.0	182.2	**-704.2**	54.4	-109.0	0.0	-1726.6	-728.7
Fy$_f$	-2861.6	**-68.0**	0.0	-0.0	-0.0	910.9	-1110.7	**13.6**	0.0	0.0	-0.0	-182.2
Fz$_f$	-1586.4	-10.9	**-137.9**	-0.0	-2230.7	145.7	-2047.3	54.4	**137.9**	0.0	2230.7	-728.7
Mx$_f$	-2861.6	-68.0	0.0	**-0.0**	-0.0	910.9	-1110.7	13.6	0.0	0.0	-0.0	-182.2
My$_f$	-1995.3	-10.9	-116.4	-0.0	**-3502.6**	145.7	-1622.4	54.4	117.3	0.0	**3383.0**	-728.7
Mz$_f$	-2854.7	13.6	0.0	0.0	-0.0	**-182.2**	-1117.6	-68.0	0.0	-0.0	-0.0	**910.9**

Member 423 P-3

Fx$_i$	**-3166.2**	16.5	0.0	0.0	-0.0	-256.8	**-727.5**	0.0	-20.6	0.0	-364.7	0.0
Fy$_i$	-2865.1	**-82.6**	0.0	-0.0	-0.0	1284.2	-1141.4	**16.5**	0.0	0.0	-0.0	-256.8
Fz$_i$	-1510.4	-13.2	**-132.4**	-0.0	-2263.6	205.5	-2117.3	66.1	**132.4**	0.0	2263.6	-1027.4
Mx$_i$	-2865.1	-82.6	0.0	**-0.0**	-0.0	1284.2	-1141.4	16.5	0.0	0.0	-0.0	-256.8
My$_i$	-1996.9	-13.2	-114.0	-0.0	**-3654.2**	205.5	-1724.5	66.1	114.2	0.0	**3526.8**	-1027.4
Mz$_i$	-2867.3	16.5	0.0	0.0	-0.0	**-256.8**	-1139.2	-82.6	0.0	-0.0	-0.0	**1284.2**
Fx$_f$	**-3166.2**	16.5	0.0	0.0	-0.0	-273.4	**-727.5**	0.0	-20.6	0.0	-385.3	0.0
Fy$_f$	-2865.1	**-82.6**	0.0	-0.0	-0.0	1366.9	-1141.4	**16.5**	0.0	0.0	-0.0	-273.4
Fz$_f$	-1510.4	-13.2	**-132.4**	-0.0	-2396.0	218.7	-2117.3	66.1	**132.4**	0.0	2396.0	-1093.5
Mx$_f$	-2865.1	-82.6	0.0	**-0.0**	-0.0	1366.9	-1141.4	16.5	0.0	**0.0**	-0.0	-273.4
My$_f$	-1994.7	-13.2	-114.3	-0.0	**-3768.3**	218.7	-1722.3	66.1	114.5	0.0	**3641.2**	-1093.5
Mz$_f$	-2867.3	16.5	0.0	0.0	-0.0	**-273.4**	-1139.2	-82.6	0.0	-0.0	-0.0	**1366.9**

Member 424 P-4

Fx$_i$	**-3191.2**	-82.0	-0.0	-0.0	-0.0	1324.7	**-736.5**	0.0	19.2	0.0	466.3	0.0
Fy$_i$	-2891.6	**-82.0**	-0.0	-0.0	-0.0	1324.7	-1150.3	**16.4**	-0.0	0.0	-0.0	-264.5
Fz$_i$	-1065.4	0.0	**-143.8**	0.0	-2660.3	0.0	-872.6	0.0	**143.8**	0.0	2660.3	0.0
Mx$_i$	-2891.6	-82.0	-0.0	**-0.0**	-0.0	1324.7	-1150.3	16.4	-0.0	**0.0**	-0.0	-264.5
My$_i$	-1931.1	65.6	-126.8	0.0	**-3945.7**	-1059.8	-1688.9	-13.1	126.6	-0.0	**3810.0**	211.6
Mz$_i$	-2890.4	16.4	-0.0	0.0	-0.0	**-264.5**	-1151.5	-82.0	-0.0	-0.0	-0.0	**1324.7**
Fx$_f$	**-3191.2**	-82.0	-0.0	-0.0	-0.0	1406.7	**-736.5**	0.0	19.2	0.0	485.5	0.0
Fy$_f$	-2891.6	**-82.0**	-0.0	-0.0	-0.0	1406.7	-1150.3	**16.4**	-0.0	0.0	-0.0	-280.9
Fz$_f$	-1065.4	0.0	**-143.8**	0.0	-2804.1	0.0	-872.6	0.0	**143.8**	0.0	2804.1	0.0
Mx$_f$	-2891.6	-82.0	-0.0	**-0.0**	-0.0	1406.7	-1150.3	16.4	-0.0	0.0	-0.0	-280.9
My$_f$	-1930.5	65.6	-126.8	0.0	**-4072.4**	-1125.4	-1688.3	-13.1	126.6	-0.0	**3936.6**	224.7
Mz$_f$	-2890.4	16.4	-0.0	0.0	-0.0	**-280.9**	-1151.5	-82.0	-0.0	-0.0	-0.0	**1406.7**

Member 425 P-5

Fx$_i$	-3183.1	16.4	-0.0	0.0	-0.0	-267.9	**-737.9**	-65.6	-114.4	-0.0	-2089.4	1071.4
Fy$_i$	-2889.7	**-82.0**	-0.0	-0.0	-0.0	1339.3	-1151.8	**16.4**	-0.0	0.0	-0.0	-267.9
Fz$_i$	-2079.2	65.6	**-140.2**	0.0	-2496.0	-1071.4	-1577.2	-13.1	**140.2**	-0.0	2496.0	214.3
Mx$_i$	-2889.7	-82.0	-0.0	**-0.0**	-0.0	1339.3	-1151.8	16.4	-0.0	**0.0**	-0.0	-267.9
My$_i$	-1927.5	65.6	-123.2	0.0	**-3897.6**	-1071.4	-1732.5	-13.1	123.1	-0.0	3765.2	214.3
Mz$_i$	-2893.2	16.4	-0.0	0.0	-0.0	**-267.9**	-1148.3	-82.0	-0.0	-0.0	-0.0	**1339.3**
Fx$_f$	**-3183.1**	16.4	-0.0	0.0	-0.0	-284.3	**-737.9**	-65.6	-114.4	-0.0	-2203.8	1137.0
Fy$_f$	-2889.7	**-82.0**	-0.0	-0.0	-0.0	1421.3	-1151.8	**16.4**	-0.0	0.0	-0.0	-284.3
Fz$_f$	-2079.2	65.6	**-140.2**	0.0	-2636.2	-1137.0	-1577.2	-13.1	**140.2**	-0.0	2636.2	227.4
Mx$_f$	-2889.7	-82.0	-0.0	**-0.0**	-0.0	1421.3	-1151.8	16.4	-0.0	**0.0**	-0.0	-284.3
My$_f$	-1925.3	65.6	-123.4	0.0	**-4020.8**	-1137.0	-1730.3	-13.1	123.4	-0.0	**3888.4**	227.4
Mz$_f$	-2893.2	16.4	-0.0	0.0	-0.0	**-284.3**	-1148.3	-82.0	-0.0	-0.0	-0.0	**1421.3**

Member 426 P-6

Fx$_i$	**-3233.0**	-82.6	0.0	-0.0	-0.0	1267.7	**-734.9**	13.2	-104.7	0.0	-1836.2	-202.8
Fy$_i$	-2881.8	**-82.6**	0.0	-0.0	-0.0	1267.7	-1141.6	**16.5**	0.0	0.0	-0.0	-253.5
Fz$_i$	-865.1	0.0	**-130.4**	0.0	-2328.4	0.0	-1054.1	0.0	**130.4**	0.0	2328.4	0.0
Mx$_i$	-2881.8	-82.6	0.0	**-0.0**	-0.0	1267.7	-1141.6	16.5	0.0	**0.0**	-0.0	-253.5
My$_i$	-2072.8	66.1	-111.4	0.0	**-3616.0**	-1014.2	-1756.5	-13.2	111.9	-0.0	**3490.6**	202.8
Mz$_i$	-2865.5	16.5	0.0	0.0	-0.0	**-253.5**	-1157.8	-82.6	0.0	-0.0	-0.0	**1267.7**
Fx$_f$	**-3233.0**	-82.6	0.0	-0.0	-0.0	1350.3	**-734.9**	13.2	-104.7	0.0	-1940.9	-216.1
Fy$_f$	-2881.8	**-82.6**	0.0	-0.0	-0.0	1350.3	-1141.6	**16.5**	0.0	0.0	-0.0	-270.1
Fz$_f$	-865.1	0.0	**-130.4**	0.0	-2458.8	0.0	-1054.1	0.0	**130.4**	0.0	2458.8	0.0
Mx$_f$	-2881.8	-82.6	0.0	**-0.0**	-0.0	1350.3	-1141.6	16.5	0.0	0.0	-0.0	-270.1
My$_f$	-2070.6	66.1	-111.7	0.0	**-3727.4**	-1080.3	-1754.2	-13.2	112.1	-0.0	3602.5	216.1
Mz$_f$	-2865.5	16.5	0.0	0.0	-0.0	**-270.1**	-1157.8	-82.6	0.0	-0.0	-0.0	**1350.3**

Member 427 P-7

Fx$_i$	**-2794.6**	68.8	0.0	0.0	-0.0	-787.9	**-434.5**	-11.0	95.0	-0.0	1423.5	126.1
Fy$_i$	-2430.4	**-68.8**	0.0	-0.0	-0.0	787.9	-1022.3	**13.8**	0.0	0.0	-0.0	-157.6
Fz$_i$	-1460.4	55.0	**-129.3**	0.0	-1938.2	-630.3	-1500.5	-11.0	**129.3**	-0.0	1938.2	126.1
Mx$_i$	-2430.4	-68.8	0.0	**-0.0**	-0.0	787.9	-1022.3	13.8	0.0	**0.0**	-0.0	-157.6
My$_i$	-1589.9	55.0	-110.3	0.0	**-2994.4**	-630.3	-1344.0	-11.0	110.2	-0.0	**2871.9**	126.1
Mz$_i$	-2590.4	13.8	0.0	0.0	-0.0	**-157.6**	-862.3	-68.8	0.0	-0.0	-0.0	**787.9**
Fx$_f$	**-2794.6**	68.8	0.0	0.0	-0.0	-856.6	**-434.5**	-11.0	95.0	-0.0	1518.5	137.1
Fy$_f$	-2430.4	**-68.8**	0.0	-0.0	-0.0	856.6	-1022.3	**13.8**	0.0	0.0	-0.0	-171.3
Fz$_f$	-1460.4	55.0	**-129.3**	0.0	-2067.5	-685.3	-1500.5	-11.0	**129.3**	-0.0	2067.4	137.1
Mx$_f$	-2430.4	-68.8	0.0	**-0.0**	-0.0	856.6	-1022.3	13.8	0.0	**0.0**	-0.0	-171.3
My$_f$	-1589.1	55.0	-110.4	0.0	-3104.7	-685.3	-1343.3	-11.0	110.2	-0.0	**2982.2**	137.1
Mz$_f$	-2590.4	13.8	0.0	0.0	-0.0	-171.3	-862.3	-68.8	0.0	-0.0	-0.0	**856.6**

*** Fin del listado ***

envolvente MAYORADA tren en servicio (sin coef. de impacto)

Program Envolvator (release 1.3 - Jun 1998)
Calculation date: 27-mar-1999 13:13 h. Listing date: 27-mar-1999 13:13 h.
Members: 419
Joints: 353
Envelope generated from:

Name	γ_{min}	γ_{max}
envolvente mayorada RENFE	1.00	1.00
envolvente mayorada UIC	1.00	1.00

	Fx	Fy	Fz	Mx	My	Mz	Fx	Fy	Fz	Mx	My	Mz
Member 391												
Fx_i	**-1313.0**	0.0	-26.6	0.0	260.2	0.0	**-193.8**	0.0	2.4	0.0	82.4	0.0
Fy_i	-517.0	**0.0**	-11.2	0.0	122.5	0.0	-425.2	**0.0**	-5.6	0.0	87.0	0.0
Fz_i	-989.1	0.0	**-50.0**	0.0	462.7	0.0	-368.2	0.0	**7.3**	0.0	44.0	0.0
Mx_i	-517.0	0.0	-11.2	**0.0**	122.5	0.0	-425.2	0.0	-5.6	**0.0**	87.0	0.0
My_i	-496.2	0.0	-0.9	0.0	**-14.2**	0.0	-1211.6	0.0	-47.8	0.0	**487.9**	0.0
Mz_i	-517.0	0.0	-11.2	0.0	122.5	**0.0**	-425.2	0.0	-5.6	0.0	87.0	**0.0**
Fx_f	**-1447.4**	2.4	-26.6	0.0	-98.6	-33.0	**-283.4**	-9.8	6.7	0.0	143.7	132.1
Fy_f	-1195.0	**-12.3**	-38.0	0.0	-140.8	165.1	-505.8	**2.4**	-5.6	0.0	11.3	-33.0
Fz_f	-871.6	-11.0	**-51.2**	0.0	-295.1	148.6	-675.7	2.2	**13.1**	0.0	178.5	-29.7
Mx_f	-606.6	0.0	-11.2	**0.0**	-28.3	0.0	-505.8	2.4	-5.6	**0.0**	11.3	-33.0
My_f	-869.9	-11.0	-51.1	0.0	**-295.6**	148.6	-545.4	2.2	11.1	0.0	**180.6**	-29.7
Mz_f	-1245.1	2.4	-38.0	0.0	-140.6	**-33.0**	-455.7	-12.3	-5.6	0.0	11.1	**165.1**
Member 392												
Fx_i	**-1485.7**	0.0	-46.9	0.0	324.8	0.0	**-265.9**	0.0	38.7	0.0	89.0	0.0
Fy_i	-644.6	**0.0**	-20.9	0.0	168.6	0.0	-478.6	**0.0**	-5.4	0.0	109.8	0.0
Fz_i	-1015.7	0.0	**-95.5**	0.0	436.5	0.0	-451.2	0.0	**48.9**	0.0	71.7	0.0
Mx_i	-644.6	0.0	-20.9	**0.0**	168.6	0.0	-478.6	0.0	-5.4	**0.0**	109.8	0.0
My_i	-731.0	0.0	-4.6	0.0	**-4.4**	0.0	-1369.5	0.0	-50.5	0.0	**577.1**	0.0
Mz_i	-644.6	0.0	-20.9	0.0	168.6	**0.0**	-478.6	0.0	-5.4	0.0	109.8	**0.0**
Fx_f	**-1609.4**	-6.8	-46.9	0.0	-256.9	84.3	**-348.3**	27.2	42.6	0.0	592.8	-337.2
Fy_f	-1439.6	**-34.0**	-54.5	0.0	-219.5	421.5	-552.8	**6.8**	-5.4	0.0	42.4	-84.3
Fz_f	-1089.9	30.6	**-100.9**	0.0	-780.7	-379.3	-524.4	-6.1	**54.3**	0.0	711.1	75.9
Mx_f	-727.0	0.0	-20.9	**0.0**	-90.2	0.0	-552.8	6.8	-5.4	**0.0**	42.4	-84.3
My_f	-1093.9	30.6	-100.5	0.0	**-783.1**	-379.3	-555.7	-6.1	48.8	0.0	**721.3**	75.9
Mz_f	-1436.1	6.8	-54.5	0.0	-219.5	**-84.3**	-556.2	-34.0	-5.4	0.0	42.5	**421.5**
Member 393												
Fx_i	**-1476.3**	0.0	-41.1	0.0	343.8	0.0	**-247.5**	0.0	34.1	0.0	57.3	0.0
Fy_i	-633.5	**0.0**	-19.1	0.0	177.5	0.0	-475.1	**0.0**	-5.5	0.0	110.0	0.0
Fz_i	-1002.2	0.0	**-85.5**	0.0	492.4	0.0	-431.5	0.0	**45.9**	0.0	22.5	0.0
Mx_i	-633.5	0.0	-19.1	**0.0**	177.5	0.0	-475.1	0.0	-5.5	**0.0**	110.0	0.0
My_i	-647.9	0.0	27.5	0.0	**-18.1**	0.0	-1251.4	0.0	-43.2	0.0	**586.6**	0.0
Mz_i	-633.5	0.0	-19.1	0.0	177.5	**0.0**	-475.1	0.0	-5.5	0.0	110.0	**0.0**
Fx_f	**-1631.4**	8.3	-41.1	0.0	-295.0	-128.4	**-350.8**	-33.0	39.1	0.0	626.2	513.7
Fy_f	-1444.1	**-41.3**	-47.5	0.0	-264.4	642.1	-568.2	**8.3**	-5.5	0.0	25.3	-128.4
Fz_f	-1095.2	-37.2	**-92.2**	0.0	-888.0	577.9	-524.5	7.4	**52.6**	0.0	788.2	-115.6
Mx_f	-736.9	0.0	-19.1	**0.0**	-119.5	0.0	-568.2	8.3	-5.5	**0.0**	25.3	-128.4
My_f	-1100.4	-37.2	-92.0	0.0	**-890.1**	577.9	-544.7	7.4	49.3	0.0	**793.3**	-115.6
Mz_f	-1445.2	8.3	-47.5	0.0	-264.3	**-128.4**	-567.1	-41.3	-5.5	0.0	25.3	**642.1**
Member 394												
Fx_i	**-1485.3**	0.0	-41.2	0.0	350.5	0.0	**-242.5**	0.0	38.1	0.0	44.2	0.0
Fy_i	-637.8	**0.0**	-19.2	0.0	181.4	0.0	-475.6	**0.0**	-5.0	0.0	110.4	0.0
Fz_i	-1011.6	0.0	**-88.6**	0.0	512.3	0.0	-429.8	0.0	**51.1**	0.0	4.5	0.0
Mx_i	-637.8	0.0	-19.2	**0.0**	181.4	0.0	-475.6	0.0	-5.0	**0.0**	110.4	0.0
My_i	-616.5	0.0	48.7	0.0	**-33.9**	0.0	-1299.0	0.0	-61.1	0.0	**593.3**	0.0
Mz_i	-637.8	0.0	-19.2	0.0	181.4	**0.0**	-475.6	0.0	-5.0	0.0	110.4	**0.0**
Fx_f	**-1646.4**	-41.0	-41.2	0.0	-315.2	662.4	**-350.0**	6.6	43.3	0.0	701.2	-105.8
Fy_f	-1459.0	**-41.0**	-46.8	0.0	-277.1	662.4	-572.6	**8.2**	-5.0	0.0	29.1	-132.3
Fz_f	-1108.3	7.4	**-95.6**	0.0	-976.1	-119.0	-526.5	-36.9	**58.0**	0.0	885.8	596.1
Mx_f	-745.2	0.0	-19.2	0.0	-128.8	0.0	-572.6	8.2	-5.0	0.0	29.1	-132.3
My_f	-1130.1	7.4	-95.4	0.0	**-979.3**	-119.0	-533.7	-36.9	54.1	0.0	**893.1**	596.1
Mz_f	-1458.5	8.2	-46.8	0.0	-277.1	**-132.3**	-573.2	-41.0	-5.0	0.0	29.1	**662.4**

Member 395

Fx_i	**-1479.0**	0.0	-40.5	0.0	350.4	0.0	**-242.2**	0.0	36.8	0.0	43.4	0.0
Fy_i	-638.4	**0.0**	-18.9	0.0	181.2	0.0	-475.6	**0.0**	-5.1	0.0	110.2	0.0
Fz_i	-1007.2	0.0	**-87.1**	0.0	513.5	0.0	-427.6	0.0	**49.5**	0.0	3.1	0.0
Mx_i	-638.4	0.0	-18.9	**0.0**	181.2	0.0	-475.6	0.0	-5.1	**0.0**	110.2	0.0
My_i	-612.5	0.0	47.5	0.0	**-34.8**	0.0	-1286.1	0.0	-60.8	0.0	**593.7**	0.0
Mz_i	-638.4	0.0	-18.9	0.0	181.2	**0.0**	-475.6	0.0	-5.1	0.0	110.2	**0.0**
Fx_f	**-1642.0**	8.2	-40.5	0.0	-311.9	-133.9	**-350.8**	-32.8	42.1	0.0	687.8	535.7
Fy_f	-1458.0	**-41.0**	-46.3	0.0	-278.0	669.7	-573.3	**8.2**	-5.1	0.0	26.6	-133.9
Fz_f	-1105.0	-36.9	**-94.1**	0.0	-966.4	602.7	-525.3	7.4	**56.6**	0.0	869.8	-120.5
Mx_f	-747.1	0.0	-18.9	**0.0**	-128.2	0.0	-573.3	8.2	-5.1	**0.0**	26.6	-133.9
My_f	-1113.0	-36.9	-93.9	0.0	**-969.5**	602.7	-548.2	7.4	52.7	0.0	**876.6**	-120.5
Mz_f	-1459.7	8.2	-46.3	0.0	-278.0	**-133.9**	-571.6	-41.0	-5.1	0.0	26.6	**669.7**

Member 396

Fx_i	**-1511.7**	0.0	-42.2	0.0	343.2	0.0	**-254.2**	0.0	34.6	0.0	56.7	0.0
Fy_i	-630.2	**0.0**	-19.7	0.0	178.3	0.0	-476.4	**0.0**	-5.6	0.0	110.0	0.0
Fz_i	-1015.7	0.0	**-85.0**	0.0	483.8	0.0	-465.5	0.0	**44.4**	0.0	31.3	0.0
Mx_i	-630.2	0.0	-19.7	**0.0**	178.3	0.0	-476.4	0.0	-5.6	**0.0**	110.0	0.0
My_i	-656.3	0.0	25.6	0.0	**-9.9**	0.0	-1389.7	0.0	-43.3	0.0	**581.4**	0.0
Mz_i	-630.2	0.0	-19.7	0.0	178.3	**0.0**	-476.4	0.0	-5.6	0.0	110.0	**0.0**
Fx_f	**-1664.7**	-41.3	-42.2	0.0	-304.2	633.9	**-356.2**	6.6	39.5	0.0	625.4	-101.4
Fy_f	-1452.2	**-41.3**	-48.1	0.0	-265.6	633.9	-568.3	**8.3**	-5.6	0.0	23.5	-126.8
Fz_f	-1107.5	7.4	**-91.6**	0.0	-871.0	-114.1	-557.3	-37.2	**51.0**	0.0	762.7	570.5
Mx_f	-732.3	0.0	-19.7	**0.0**	-124.6	0.0	-568.3	8.3	-5.6	**0.0**	23.5	-126.8
My_f	-1113.4	7.4	-91.4	0.0	**-873.6**	-114.1	-587.2	-37.2	46.4	0.0	**771.9**	570.5
Mz_f	-1444.1	8.3	-48.1	0.0	-265.6	**-126.8**	-576.4	-41.3	-5.6	0.0	23.5	**633.9**

Member 397

Fx_i	**-1325.9**	0.0	-43.5	0.0	294.0	0.0	**-145.4**	0.0	34.7	0.0	110.6	0.0
Fy_i	-571.6	**0.0**	-20.6	0.0	144.0	0.0	-441.3	**0.0**	-4.8	0.0	111.6	0.0
Fz_i	-779.8	0.0	**-87.6**	0.0	369.2	0.0	-437.8	0.0	**45.7**	0.0	98.9	0.0
Mx_i	-571.6	0.0	-20.6	**0.0**	144.0	0.0	-441.3	0.0	-4.8	**0.0**	111.6	0.0
My_i	-482.4	0.0	-34.8	0.0	**13.7**	0.0	-1132.7	0.0	-42.5	0.0	**523.0**	0.0
Mz_i	-571.6	0.0	-20.6	0.0	144.0	**0.0**	-441.3	0.0	-4.8	0.0	111.6	**0.0**
Fx_f	**-1440.2**	34.4	-43.5	0.0	-204.8	-393.9	**-221.6**	-5.5	38.3	0.0	528.7	63.0
Fy_f	-1225.2	**-34.4**	-49.5	0.0	-158.6	393.9	-509.9	**6.9**	-4.8	0.0	56.7	-78.8
Fz_f	-848.4	-6.2	**-92.5**	0.0	-662.6	70.9	-506.4	30.9	**50.6**	0.0	650.4	-354.5
Mx_f	-647.8	0.0	-20.6	**0.0**	-92.5	0.0	-509.9	6.9	-4.8	**0.0**	56.7	-78.8
My_f	-840.0	-6.2	-91.8	0.0	**-672.5**	70.9	-534.4	30.9	46.7	0.0	**659.4**	-354.5
Mz_f	-1305.2	6.9	-49.5	0.0	-158.3	**-78.8**	-429.9	-34.4	-4.8	0.0	56.4	**393.9**

Member 398

Fx_i	**-1313.0**	0.0	26.6	0.0	-260.2	0.0	**-200.3**	0.0	-3.9	0.0	-69.6	0.0
Fy_i	-656.8	**0.0**	12.3	0.0	-165.3	0.0	-425.2	**0.0**	5.6	0.0	-87.0	0.0
Fz_i	-350.7	0.0	**-7.7**	0.0	-38.7	0.0	-989.1	0.0	**50.0**	0.0	-462.7	0.0
Mx_i	-656.8	0.0	12.3	**0.0**	-165.3	0.0	-425.2	0.0	5.6	**0.0**	-87.0	0.0
My_i	-1211.6	0.0	47.8	0.0	**-487.9**	0.0	-496.2	0.0	0.9	0.0	**14.2**	0.0
Mz_i	-656.8	0.0	12.3	0.0	-165.3	**0.0**	-425.2	0.0	5.6	0.0	-87.0	**0.0**
Fx_f	**-1447.4**	2.4	26.6	0.0	98.6	-33.0	**-289.9**	-9.8	-8.2	0.0	-151.6	132.1
Fy_f	-1183.3	**-12.3**	36.3	0.0	95.0	165.1	-505.8	**2.4**	5.6	0.0	-11.3	-33.0
Fz_f	-675.7	2.2	**-13.1**	0.0	-178.5	-29.7	-871.6	-11.0	**51.2**	0.0	295.1	148.6
Mx_f	-746.4	0.0	12.3	**0.0**	0.5	0.0	-505.8	2.4	5.6	**0.0**	-11.3	-33.0
My_f	-548.7	2.2	-11.2	0.0	**-180.8**	-29.7	-869.9	-11.0	51.1	0.0	**295.6**	148.6
Mz_f	-1233.4	2.4	36.3	0.0	94.8	**-33.0**	-455.7	-12.3	5.6	0.0	-11.1	**165.1**
Member 399												
Fx_i	**-1485.7**	0.0	46.9	0.0	-324.8	0.0	**-275.1**	0.0	-40.0	0.0	-72.9	0.0
Fy_i	-785.9	**0.0**	5.4	0.0	-187.2	0.0	-478.6	**0.0**	5.4	0.0	-109.8	0.0
Fz_i	-450.4	0.0	**-48.9**	0.0	-71.1	0.0	-1015.7	0.0	**95.5**	0.0	-436.5	0.0
Mx_i	-785.9	0.0	5.4	**0.0**	-187.2	0.0	-478.6	0.0	5.4	**0.0**	-109.8	0.0
My_i	-1372.5	0.0	50.5	0.0	**-577.1**	0.0	-727.9	0.0	4.6	0.0	**4.4**	0.0
Mz_i	-785.9	0.0	5.4	0.0	-187.2	**0.0**	-478.6	0.0	5.4	0.0	-109.8	0.0
Fx_f	**-1609.4**	-6.8	46.9	0.0	256.9	84.3	**-357.6**	27.2	-43.9	0.0	-593.0	-337.2
Fy_f	-1413.5	**-34.0**	35.4	0.0	-35.1	421.5	-552.8	**6.8**	5.4	0.0	-42.4	-84.3

Fz:	-524.6	-6.1	-54.3	0.0	-710.7	75.9	-1089.9	30.6	100.9	0.0	780.7	-379.3
Mx:	-868.3	0.0	5.4	0.0	-120.5	0.0	-552.8	6.8	5.4	0.0	-42.4	-84.3
My:	-555.9	-6.1	-48.8	0.0	-720.9	75.9	-1093.9	30.6	100.5	0.0	783.1	-379.3
Mz:	-1410.0	6.8	35.4	0.0	-35.1	-84.3	-556.2	-34.0	5.4	0.0	-42.5	421.5

Member 400

Fx:	-1476.3	0.0	41.1	0.0	-343.8	0.0	-258.6	0.0	-36.1	0.0	-36.2	0.0
Fy:	-767.7	0.0	4.6	0.0	-182.0	0.0	-475.1	0.0	5.5	0.0	-110.0	0.0
Fz:	-432.6	0.0	-45.9	0.0	-21.8	0.0	-1002.2	0.0	85.5	0.0	-492.4	0.0
Mx:	-767.7	0.0	4.6	0.0	-182.0	0.0	-475.1	0.0	5.5	0.0	-110.0	0.0
My:	-1250.6	0.0	43.2	0.0	-586.6	0.0	-648.4	0.0	-27.5	0.0	18.1	0.0
Mz:	-767.7	0.0	4.6	0.0	-182.0	0.0	-475.1	0.0	5.5	0.0	-110.0	0.0
Fx:	-1631.4	8.3	41.1	0.0	295.0	-128.4	-362.0	-33.0	-41.0	0.0	-635.2	513.7
Fy:	-1412.5	-41.3	29.1	0.0	-20.6	642.1	-568.2	8.3	5.5	0.0	-25.3	-128.4
Fz:	-525.6	7.4	-52.6	0.0	-787.7	-115.6	-1095.2	-37.2	92.2	0.0	888.0	577.9
Mx:	-871.1	0.0	4.6	0.0	-111.1	0.0	-568.2	8.3	5.5	0.0	-25.3	-128.4
My:	-545.8	7.4	-49.3	0.0	-792.9	-115.6	-1100.4	-37.2	92.0	0.0	890.1	577.9
Mz:	-1413.6	8.3	29.1	0.0	-20.6	-128.4	-567.1	-41.3	5.5	0.0	-25.3	642.1

Member 401

Fx:	-1485.3	0.0	41.2	0.0	-350.5	0.0	-253.7	0.0	-40.0	0.0	-23.0	0.0
y:	-769.5	0.0	3.2	0.0	-179.6	0.0	-475.9	0.0	5.0	0.0	-110.4	0.0
z:	-430.0	0.0	-51.1	0.0	-3.9	0.0	-1011.6	0.0	88.6	0.0	-512.3	0.0
Mx:	-769.5	0.0	3.2	0.0	-179.6	0.0	-475.9	0.0	5.0	0.0	-110.4	0.0
My:	-1289.2	0.0	61.1	0.0	-593.3	0.0	-616.3	0.0	-48.7	0.0	33.9	0.0
Mz:	-769.5	0.0	3.2	0.0	-179.6	0.0	-475.9	0.0	5.0	0.0	-110.4	0.0
Fx:	-1646.4	-41.0	41.2	0.0	315.2	662.4	-361.1	6.6	-45.2	0.0	-711.3	-105.8
Fy:	-1424.1	-41.0	26.4	0.0	-45.4	662.4	-572.6	8.2	5.0	0.0	-29.1	-132.3
Fz:	-526.7	-36.9	-58.1	0.0	-885.5	596.1	-1108.3	7.4	95.6	0.0	976.1	-119.0
Mx:	-876.9	0.0	3.2	0.0	-128.7	0.0	-572.6	8.2	5.0	0.0	-29.1	-132.3
My:	-537.0	-36.9	-54.2	0.0	-892.7	596.1	-1129.9	7.4	95.4	0.0	979.3	-119.0
Mz:	-1423.5	8.2	26.4	0.0	-45.4	-132.3	-573.2	-41.0	5.0	0.0	-29.1	662.4

Member 402

Fx:	-1479.0	0.0	40.5	0.0	-350.4	0.0	-253.1	0.0	-38.8	0.0	-22.2	0.0
Fy:	-770.2	0.0	3.5	0.0	-179.6	0.0	-475.6	0.0	5.1	0.0	-110.2	0.0
Fz:	-427.8	0.0	-49.6	0.0	-2.5	0.0	-1007.2	0.0	87.1	0.0	-513.5	0.0
Mx:	-770.2	0.0	3.5	0.0	-179.6	0.0	-475.6	0.0	5.1	0.0	-110.2	0.0
My:	-1285.9	0.0	60.8	0.0	-593.7	0.0	-612.7	0.0	-47.5	0.0	34.8	0.0
Mz:	-770.2	0.0	3.5	0.0	-179.6	0.0	-475.6	0.0	5.1	0.0	-110.2	0.0
Fx:	-1642.0	8.2	40.5	0.0	311.9	-133.9	-361.7	-32.8	-44.0	0.0	-698.2	535.7
Fy:	-1423.3	-41.0	26.6	0.0	-38.0	669.7	-573.3	8.2	5.1	0.0	-26.6	-133.9
Fz:	-525.5	7.4	-56.6	0.0	-869.5	-120.5	-1105.0	-36.9	94.1	0.0	966.4	602.7
Mx:	-878.8	0.0	3.5	0.0	-122.6	0.0	-573.3	8.2	5.1	0.0	-26.6	-133.9
My:	-549.2	7.4	-52.7	0.0	-876.3	-120.5	-1113.2	-36.9	93.9	0.0	969.5	602.7
::	-1425.0	8.2	26.6	0.0	-38.0	-133.9	-571.6	-41.0	5.1	0.0	-26.6	669.7

Member 403

Fx:	-1511.7	0.0	42.2	0.0	-343.2	0.0	-263.8	0.0	-35.6	0.0	-41.0	0.0
Fy:	-765.5	0.0	4.5	0.0	-181.0	0.0	-476.4	0.0	5.6	0.0	-110.0	0.0
Fz:	-467.3	0.0	-44.4	0.0	-30.5	0.0	-1015.7	0.0	85.0	0.0	-483.8	0.0
Mx:	-765.5	0.0	4.5	0.0	-181.0	0.0	-476.4	0.0	5.6	0.0	-110.0	0.0
My:	-1390.3	0.0	43.3	0.0	-581.4	0.0	-655.8	0.0	-25.6	0.0	9.9	0.0
Mz:	-765.5	0.0	4.5	0.0	-181.0	0.0	-476.4	0.0	5.6	0.0	-110.0	0.0
Fx:	-1664.7	-41.3	42.2	0.0	304.2	633.9	-365.8	6.6	-40.5	0.0	-624.3	-101.4
Fy:	-1421.0	-41.3	29.8	0.0	-16.4	633.9	-568.3	8.3	5.6	0.0	-23.5	-126.8
Fz:	-559.1	-37.2	-51.0	0.0	-762.1	570.5	-1107.5	7.4	91.6	0.0	871.0	-114.1
Mx:	-867.5	0.0	4.5	0.0	-112.3	0.0	-568.3	8.3	5.6	0.0	-23.5	-126.8
My:	-587.2	-37.2	-46.4	0.0	-771.9	570.5	-1113.4	7.4	91.4	0.0	873.6	-114.1
Mz:	-1412.9	8.3	29.8	0.0	-16.4	-126.8	-576.4	-41.3	5.6	0.0	-23.5	633.9

Member 404

Fx:	-1325.9	0.0	43.5	0.0	-294.0	0.0	-151.7	0.0	-36.4	0.0	-98.2	0.0
Fy:	-694.9	0.0	2.9	0.0	-197.8	0.0	-441.3	0.0	4.8	0.0	-111.6	0.0
Fz:	-437.8	0.0	-45.7	0.0	-98.9	0.0	-779.8	0.0	87.6	0.0	-369.2	0.0
Mx:	-694.9	0.0	2.9	0.0	-197.8	0.0	-441.3	0.0	4.8	0.0	-111.6	0.0
My:	-1132.7	0.0	42.5	0.0	-523.0	0.0	-482.4	0.0	34.8	0.0	-13.7	0.0

Mz:	-694.9	0.0	2.9	0.0	-197.8	0.0	-441.3	0.0	4.8	0.0	-111.6	0.0
Fx:	-1440.2	34.4	43.5	0.0	204.8	-393.9	-227.9	-5.5	-40.0	0.0	-536.0	63.0
Fy:	-1201.1	-34.4	31.3	0.0	-73.9	393.9	-509.9	6.9	4.8	0.0	-56.7	-78.8
Fz:	-506.4	30.9	-50.6	0.0	-650.4	-354.5	-848.4	-6.2	92.5	0.0	662.6	70.9
Mx:	-771.1	0.0	2.9	0.0	-164.3	0.0	-509.9	6.9	4.8	0.0	-56.7	-78.8
My:	-534.4	30.9	-46.7	0.0	-659.4	-354.5	-840.0	-6.2	91.8	0.0	672.5	70.9
Mz:	-1281.1	6.9	31.2	0.0	-74.2	-78.8	-429.9	-34.4	4.8	0.0	-56.4	393.9

Member 421

Fx:	-2832.9	4.9	-2.3	0.0	-90.4	-66.0	-610.2	-19.6	13.1	-0.0	287.5	264.1
Fy:	-2378.3	-24.5	-1.7	-0.0	-81.1	330.1	-1011.6	4.9	0.0	0.0	0.0	-66.0
Fz:	-1428.4	-4.4	-46.9	-0.0	-475.6	59.4	-1604.4	22.0	46.9	0.0	475.6	-297.1
Mx:	-2378.3	-24.5	-1.7	-0.0	-81.1	330.1	-1011.6	4.9	0.0	0.0	0.0	-66.0
My:	-1394.6	-4.4	-11.4	-0.0	-1459.4	59.4	-1360.2	22.0	11.6	0.0	1459.5	-297.1
Mz:	-2478.5	4.9	-1.7	0.0	-81.1	-66.0	-911.4	-24.5	0.0	-0.0	0.0	330.1
Fx:	-2832.9	4.9	-2.3	0.0	-92.8	-70.9	-610.2	-19.6	13.1	-0.0	300.6	283.7
Fy:	-2378.3	-24.5	-1.7	-0.0	-82.9	354.6	-1011.6	4.9	0.0	0.0	0.0	-70.9
Fz:	-1428.4	-4.4	-46.9	-0.0	-522.6	63.8	-1604.4	22.0	46.9	0.0	522.6	-319.2
Mx:	-2378.3	-24.5	-1.7	-0.0	-82.9	354.6	-1011.6	4.9	0.0	0.0	0.0	-70.9
My:	-1397.0	-4.4	-12.5	-0.0	-1470.9	63.8	-1362.6	22.0	12.8	0.0	1471.3	-319.2
Mz:	-2478.5	4.9	-1.7	0.0	-82.9	-70.9	-911.4	-24.5	0.0	-0.0	0.0	354.6

Member 422

Fx:	-3122.1	-13.6	16.1	-0.0	291.4	168.6	-795.3	54.4	-74.5	0.0	-1080.9	-674.3
Fy:	-2853.1	-68.0	-19.1	-0.0	-332.9	842.9	-1105.6	13.6	0.0	0.0	-0.0	-168.6
Fz:	-1646.9	-12.2	-119.6	-0.0	-1779.8	151.7	-1538.3	61.2	119.6	0.0	1829.8	-758.6
Mx:	-2853.1	-68.0	-19.1	-0.0	-332.9	842.9	-1105.6	13.6	0.0	0.0	-0.0	-168.6
My:	-1666.0	-12.2	-98.3	-0.0	-2893.8	151.7	-1567.1	61.2	98.6	0.0	2895.5	-758.6
Mz:	-2846.2	13.6	-19.1	0.0	-332.9	-168.6	-1112.5	-68.0	0.0	-0.0	-0.0	842.9
Fx:	-3122.1	-13.6	16.1	-0.0	307.6	182.2	-795.3	54.4	-74.5	0.0	-1155.4	-728.7
Fy:	-2853.1	-68.0	-19.1	-0.0	-352.0	910.9	-1105.6	13.6	0.0	0.0	-0.0	-182.2
Fz:	-1646.9	-12.2	-119.6	-0.0	-1899.4	164.0	-1538.3	61.2	119.6	0.0	1949.4	-819.8
Mx:	-2853.1	-68.0	-19.1	-0.0	-352.0	910.9	-1105.6	13.6	0.0	0.0	-0.0	-182.2
My:	-1662.9	-12.2	-98.8	-0.0	-2992.1	164.0	-1584.0	61.2	99.1	0.0	2994.1	-819.8
Mz:	-2846.2	13.6	-19.1	0.0	-352.0	-182.2	-1112.5	-68.0	0.0	-0.0	-0.0	910.9

Member 423

Fx:	-3157.7	16.5	19.5	0.0	400.7	-256.8	-822.6	-66.1	40.4	-0.0	702.1	1027.4
Fy:	-2856.7	-82.6	-18.3	-0.0	-379.9	1284.2	-1136.3	16.5	0.0	0.0	-0.0	-256.8
Fz:	-1581.4	-14.9	-116.8	-0.0	-1855.7	231.2	-1558.6	74.4	116.7	0.0	1905.0	-1155.8
Mx:	-2856.7	-82.6	-18.3	-0.0	-379.9	1284.2	-1136.3	16.5	0.0	0.0	-0.0	-256.8
My:	-1655.4	-14.9	-97.8	-0.0	-3126.9	231.2	-1681.6	74.4	98.1	0.0	3127.5	-1155.8
Mz:	-2858.8	16.5	-18.3	0.0	-379.9	-256.8	-1134.2	-82.6	0.0	-0.0	-0.0	1284.2
Fx:	-3157.7	16.5	19.5	0.0	420.2	-273.4	-822.6	-66.1	40.4	-0.0	742.5	1093.5
y:	-2856.7	-82.6	-18.3	-0.0	-398.2	1366.9	-1136.3	16.5	0.0	0.0	-0.0	-273.4
Fz:	-1581.4	-14.9	-116.8	-0.0	-1972.6	246.0	-1658.6	74.4	116.7	0.0	2021.8	-1230.2
Mx:	-2856.7	-82.6	-18.3	-0.0	-398.2	1366.9	-1136.3	16.5	0.0	0.0	-0.0	-273.4
My:	-1652.4	-14.9	-98.2	-0.0	-3224.9	246.0	-1658.6	74.4	98.4	0.0	3225.7	-1230.2
Mz:	-2858.8	16.5	-18.3	0.0	-398.2	-273.4	-1134.2	-82.6	0.0	-0.0	-0.0	1366.9

Member 424

Fx:	-3182.8	-82.0	-23.0	-0.0	-473.7	1324.7	-833.1	13.1	76.8	0.0	1469.8	-211.6
Fy:	-2883.1	-82.0	-20.4	-0.0	-427.4	1324.7	-1145.2	16.4	-0.0	0.0	-0.0	-264.5
Fz:	-1596.0	73.8	-126.2	0.0	-2098.7	-1192.2	-1704.3	-14.7	126.1	-0.0	2148.1	238.1
Mx:	-2883.1	-82.0	-20.4	-0.0	-427.4	1324.7	-1145.2	16.4	-0.0	0.0	-0.0	-264.5
My:	-1593.4	73.8	-108.6	0.0	-3371.6	-1192.2	-1628.8	-14.7	108.8	-0.0	3372.9	238.1
Mz:	-2881.9	16.4	-20.4	0.0	-427.4	-264.5	-1146.4	-82.0	-0.0	-0.0	-0.0	1324.7
Fx:	-3182.8	-82.0	-23.0	-0.0	-496.7	1406.7	-833.1	13.1	76.8	0.0	1546.6	-224.7
Fy:	-2883.1	-82.0	-20.4	-0.0	-447.8	1406.7	-1145.2	16.4	-0.0	0.0	-0.0	-280.9
Fz:	-1596.0	73.8	-126.2	0.0	-2224.9	-1266.0	-1704.3	-14.7	126.1	-0.0	2274.2	252.8
Mx:	-2883.1	-82.0	-20.4	-0.0	-447.8	1406.7	-1145.2	16.4	-0.0	0.0	-0.0	-280.9
My:	-1593.6	73.8	-108.7	0.0	-3480.3	-1266.0	-1629.0	-14.7	108.9	-0.0	3481.7	252.8
Mz:	-2881.9	16.4	-20.4	0.0	-447.8	-280.9	-1146.4	-82.0	-0.0	-0.0	-0.0	1406.7

Member 425

Fx:	-3174.6	16.4	17.2	0.0	374.7	-267.9	-833.6	-65.6	-78.8	-0.0	-1403.0	1071.4

Fy:	-2881.3	-82.0	-19.8	-0.0	-420.1	1339.3	-1146.7	16.4	-0.0	0.0	-0.0	-267.9
Fz:	-1594.7	73.8	-123.7	0.0	-2056.1	-1205.4	-1672.3	-14.8	123.6	-0.0	2105.4	241.1
Mx:	-2881.3	-82.0	-19.8	-0.0	-420.1	1339.3	-1146.7	16.4	-0.0	0.0	-0.0	-267.9
My:	-1589.9	73.8	-106.0	0.0	-3335.6	-1205.4	-1669.2	-14.8	106.1	-0.0	3336.9	241.1
Mz:	-2884.8	16.4	-19.8	0.0	-420.1	-267.9	-1143.2	-82.0	-0.0	-0.0	-0.0	1339.3
Fx:	-3174.6	16.4	17.2	0.0	391.9	-284.3	-833.6	-65.6	-78.8	-0.0	-1481.8	1137.0
Fy:	-2881.3	-82.0	-19.8	-0.0	-439.9	1421.3	-1146.7	16.4	-0.0	0.0	-0.0	-284.3
Fz:	-1594.7	73.8	-123.7	0.0	-2179.8	-1279.2	-1672.3	-14.8	123.6	-0.0	2229.0	255.8
Mx:	-2881.3	-82.0	-19.8	-0.0	-439.9	1421.3	-1146.7	16.4	-0.0	0.0	-0.0	-284.3
My:	-1586.9	73.8	-106.3	0.0	-3441.7	-1279.2	-1666.1	-14.8	106.5	-0.0	3443.1	255.8
Mz:	-2884.8	16.4	-19.8	0.0	-439.9	-284.3	-1143.2	-82.0	-0.0	-0.0	-0.0	1421.3

Member 426

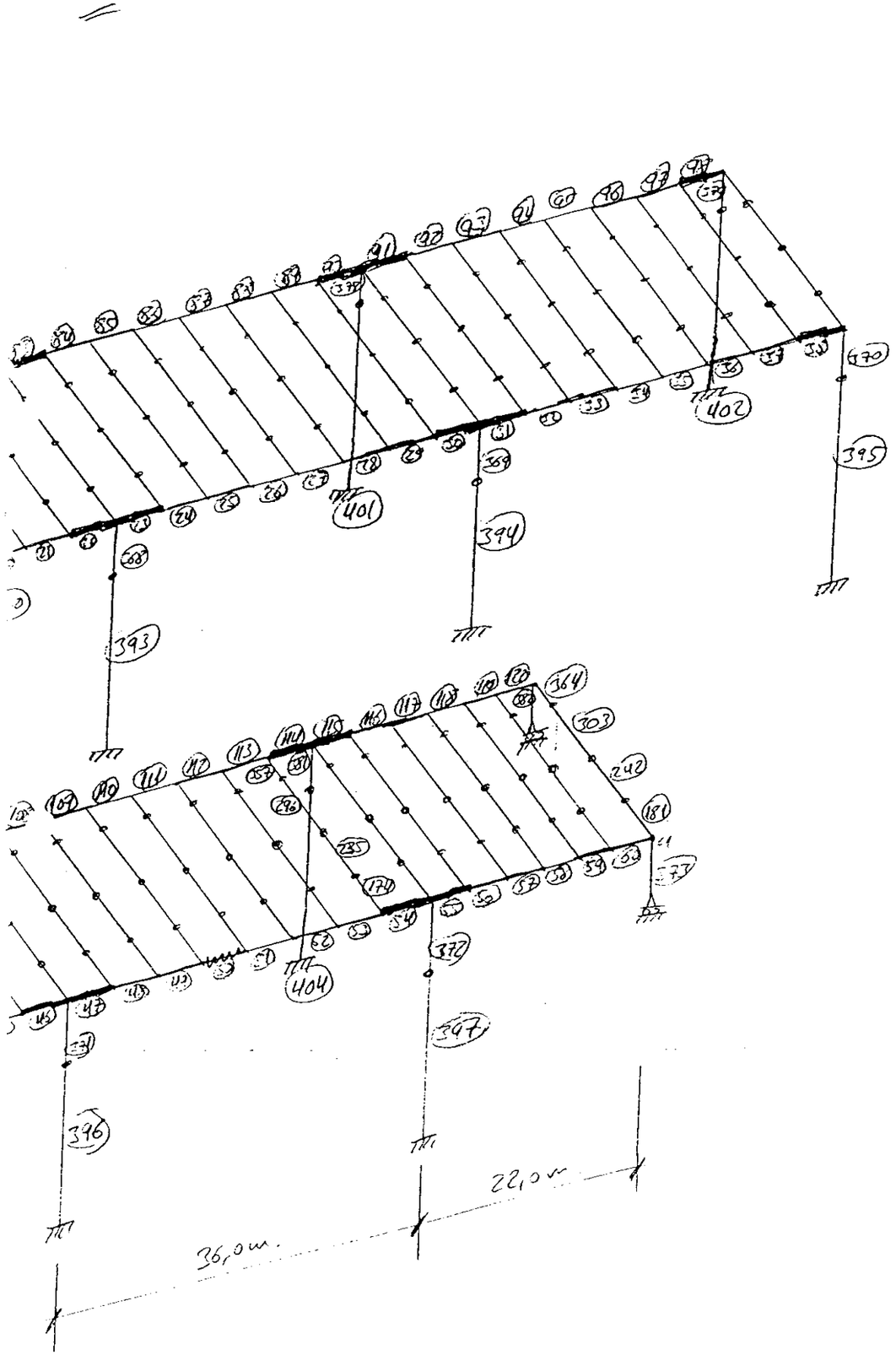
Fx:	-3224.4	-82.6	17.1	-0.0	354.8	1267.7	-830.0	13.2	-71.8	0.0	-1229.4	-202.8
Fy:	-2873.2	-82.6	-18.3	-0.0	-375.6	1267.7	-1136.5	16.5	0.0	0.0	-0.0	-253.5
Fz:	-1677.5	74.4	-114.0	0.0	-1824.6	-1140.9	-1636.5	-14.9	113.9	-0.0	1874.1	228.2
Mx:	-2873.2	-82.6	-18.3	-0.0	-375.6	1267.7	-1136.5	16.5	0.0	0.0	-0.0	-253.5
My:	-1729.6	74.4	-95.8	0.0	-3100.2	-1140.9	-1694.6	-14.9	95.8	-0.0	3100.1	228.2
Mz:	-2857.0	16.5	-18.3	0.0	-375.6	-253.5	-1152.7	-82.6	0.0	-0.0	-0.0	1267.7
Fx:	-3224.4	-82.6	17.1	-0.0	371.9	1350.3	-830.0	13.2	-71.8	0.0	-1301.2	-216.1
Fy:	-2873.2	-82.6	-18.3	-0.0	-393.9	1350.3	-1136.5	16.5	0.0	0.0	-0.0	-270.1
z:	-1677.5	74.4	-114.0	0.0	-1938.6	-1215.3	-1636.5	-14.9	113.9	-0.0	1988.1	243.1
Mx:	-2873.2	-82.6	-18.3	-0.0	-393.9	1350.3	-1136.5	16.5	0.0	0.0	-0.0	-270.1
My:	-1726.5	74.4	-96.2	0.0	-3196.0	-1215.3	-1691.5	-14.9	96.2	-0.0	3196.0	243.1
Mz:	-2857.0	16.5	-18.3	0.0	-393.9	-270.1	-1152.7	-82.6	0.0	-0.0	-0.0	1350.3

Member 427

Fx:	-2790.5	68.8	-14.7	0.0	-253.9	-787.9	-528.3	-11.0	64.1	-0.0	963.5	126.1
Fy:	-2426.3	-68.8	-18.2	-0.0	-304.9	787.9	-1019.8	13.8	0.0	0.0	-0.0	-157.6
Fz:	-1525.5	61.9	-113.2	0.0	-1636.9	-709.1	-1218.7	-12.4	113.0	-0.0	1682.6	141.8
Mx:	-2426.3	-68.8	-18.2	-0.0	-304.9	787.9	-1019.8	13.8	0.0	0.0	-0.0	-157.6
My:	-1337.1	61.9	-95.3	0.0	-2554.6	-709.1	-1253.0	-12.4	95.3	-0.0	2554.5	141.8
Mz:	-2586.3	13.8	-18.2	0.0	-304.9	-157.6	-859.3	-68.8	0.0	-0.0	-0.0	787.9
Fx:	-2790.5	68.8	-14.7	0.0	-268.6	-856.6	-528.3	-11.0	64.1	-0.0	1027.6	137.1
Fy:	-2426.3	-68.8	-18.2	-0.0	-323.2	856.6	-1019.8	13.8	0.0	0.0	-0.0	-171.3
Fz:	-1525.5	61.9	-113.2	0.0	-1750.0	-771.0	-1218.7	-12.4	113.0	-0.0	1795.6	154.2
Mx:	-2426.3	-68.8	-18.2	-0.0	-323.2	856.6	-1019.8	13.8	0.0	0.0	-0.0	-171.3
My:	-1336.1	61.9	-95.4	0.0	-2649.9	-771.0	-1252.1	-12.4	95.4	-0.0	2649.9	154.2
Mz:	-2586.3	13.8	-18.2	0.0	-323.2	-171.3	-859.3	-68.8	0.0	-0.0	-0.0	856.6

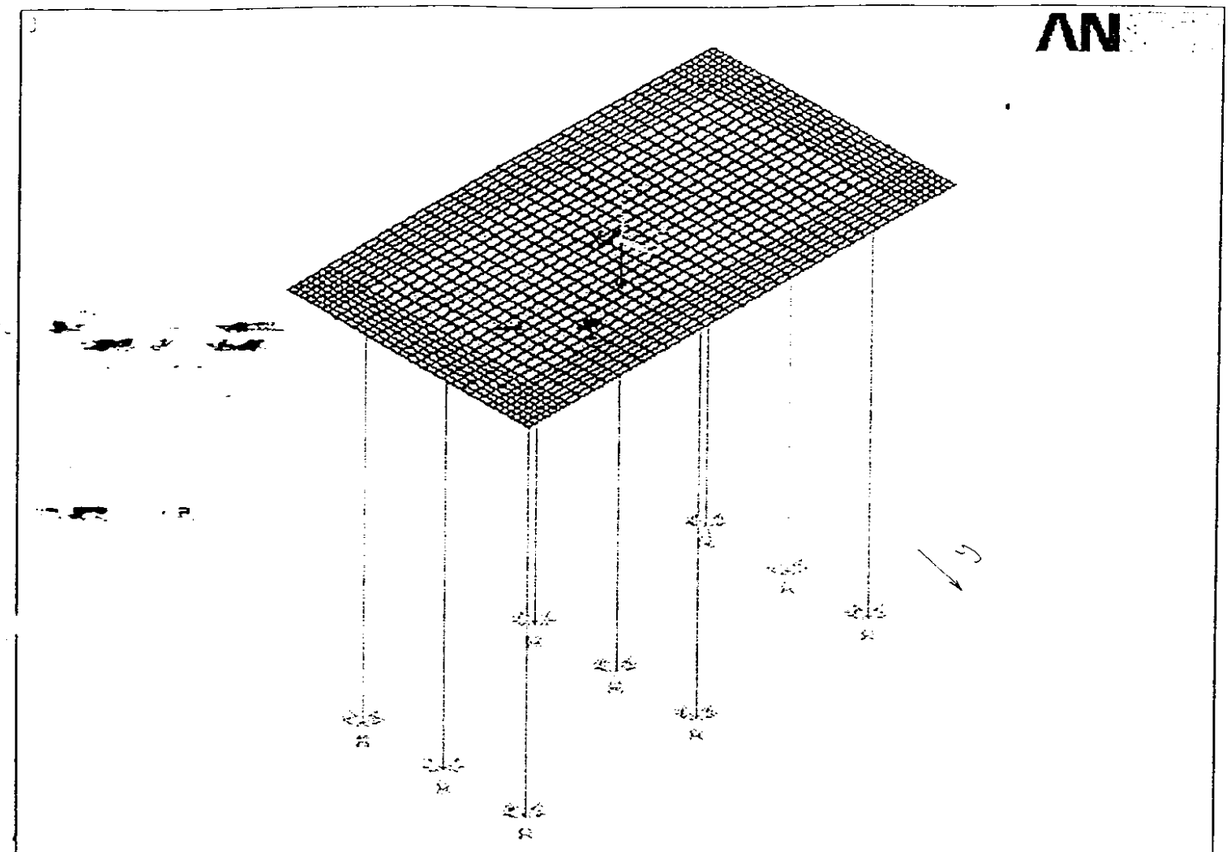
*** Fin del listado ***

Axil máx.



ANEJO Nº 2

OBTENCIÓN DE ESFUERZOS EN PILOTES



MODELO DE ELEMENTOS FINITOS CON ENCEPADO RÍGIDO

ESFUERZOS MAYORADOS EN BASE DE PILAS

Hip: Máximo axil

LIST NODAL FORCES FOR SELECTED NODES 1 TO 1509 BY 1
CURRENTLY SELECTED NODAL LOAD SET= FX FY FZ MX MY MZ

NODE	LABEL	REAL	IMAG
417	FX	17.1000000	0.00000000
417	FY	82.6000000	0.00000000
417	FZ	-4439.00000	0.00000000
417	MX	-1267.00000	0.00000000
417	MY	355.000000	0.00000000

$= 3224 + 1.5 \cdot 810$

$N_{d,sin\ mayorar}$ $N_{K,encepado}$

AXILES MAYORADOS EN PILOTES

Hip: Máximo axil

PRINT ELEMENT TABLE ITEMS PER ELEMENT

***** POST1 ELEMENT TABLE LISTING *****

STAT ELEM	CURRENT N
1345	-602.83
1360	-628.67
1375	-645.82
1390	-830.84
1405	-857.00
1420	-873.83

MINIMUM VALUES
ELEM 1420
VALUE -873.83

MAXIMUM VALUES
ELEM 1345
VALUE -602.83

MOMENTOS TRANSVERSALES MAYORADOS EN PILOTES

Hip: Máximo axil

PRINT ELEMENT TABLE ITEMS PER ELEMENT

***** POST1 ELEMENT TABLE LISTING *****

STAT ELEM	CURRENT MY
1345	15.370
1360	16.062
1375	16.772
1390	15.292
1405	16.062
1420	16.850

MINIMUM VALUES
ELEM 1390
VALUE 15.292

MAXIMUM VALUES
ELEM 1420
VALUE 16.850

MOMENTOS LONGITUDINALES MAYORADOS EN PILOTES

Hip: Máximo axil

PRINT ELEMENT TABLE ITEMS PER ELEMENT

***** POST1 ELEMENT TABLE LISTING *****

STAT ELEM	CURRENT MZ
1345	-73.921
1360	-73.909
1375	-73.915
1390	-74.007
1405	-74.115
1420	-74.013

MINIMUM VALUES
ELEM 1405
VALUE -74.115

MAXIMUM VALUES
ELEM 1360
VALUE -73.909

ESFUERZOS MAYORADOS EN BASE DE PILAS

Hip: Momento transversal junto con axil mínimo intermedios

```
 LIST NODAL FORCES FOR SELECTED NODES        1 TO     1509 BY        1
 CURRENTLY SELECTED NODAL LOAD SET= FX    FY    FZ    MX    MY    MZ
```

NODE	LABEL	REAL	IMAG
417	FX	108.600000	0.00000000
417	FY	73.8000000	0.00000000
417	FZ	-2843.00000	0.00000000
417	MX	-1192.00000	0.00000000
417	MY	3372.00000	0.00000000

AXILES MAYORADOS EN PILOTES

Hip: Momento transversal junto con axil mínimo intermedios

```
 PRINT ELEMENT TABLE ITEMS PER ELEMENT

  ***** POST1 ELEMENT TABLE LISTING *****
```

STAT ELEM	CURRENT N
1345	-177.78
1360	-369.84
1375	-556.43
1390	-389.32
1405	-581.68
1420	-767.96

```
 MINIMUM VALUES
 ELEM        1420
 VALUE    -767.96

 MAXIMUM VALUES
 ELEM        1345
 VALUE    -177.78
```

MOMENTOS TRANSVERSALES MAYORADOS EN PILOTES

Hip: Momento transversal junto con axil mínimo intermedios

```
 PRINT ELEMENT TABLE ITEMS PER ELEMENT

  ***** POST1 ELEMENT TABLE LISTING *****
```

STAT ELEM	CURRENT MY
1345	100.23
1360	100.57
1375	101.10
1390	100.15
1405	100.57
1420	101.17

```
 MINIMUM VALUES
 ELEM        1390
 VALUE     100.15

 MAXIMUM VALUES
 ELEM        1420
 VALUE     101.17
```

MOMENTOS LONGITUDINALES MAYORADOS EN PILOTES

Hip: Momento transversal junto con axil mínimo intermedios

```
 PRINT ELEMENT TABLE ITEMS PER ELEMENT

  ***** POST1 ELEMENT TABLE LISTING *****
```

STAT ELEM	CURRENT MZ
1345	-65.858
1360	-65.840
1375	-65.812
1390	-65.871
1405	-65.972
1420	-65.917

```
 MINIMUM VALUES
 ELEM        1405
 VALUE    -65.972

 MAXIMUM VALUES
 ELEM        1375
 VALUE    -65.812
```

ESFUERZOS MAYORADOS EN BASE DE PILAS

Hip: Momento transversal junto con axil mínimo intermedios 2

LIST NODAL FORCES FOR SELECTED NODES 1 TO 1509 BY 1
CURRENTLY SELECTED NODAL LOAD SET= FX FY FZ MX MY MZ

NODE	LABEL	REAL	IMAG
417	FX	143.800000	0.00000000
417	FY	0.00000000	0.00000000
417	FZ	-2087.00000	0.00000000
417	MX	0.00000000	0.00000000
417	MY	2660.00000	0.00000000

AXILES MAYORADOS EN PILOTES

Hip: Momento transversal junto con axil mínimo intermedios 2

PRINT ELEMENT TABLE ITEMS PER ELEMENT

***** POST1 ELEMENT TABLE LISTING *****

STAT	CURRENT
ELEM	N
1345	-181.74
1360	-349.25
1375	-512.52
1390	-181.74
1405	-349.25
1420	-512.52

MINIMUM VALUES
ELEM 1420
VALUE -512.52

MAXIMUM VALUES
ELEM 1345
VALUE -181.74

MOMENTOS TRANSVERSALES MAYORADOS EN PILOTES

Hip: Momento transversal junto con axil mínimo intermedios 2

PRINT ELEMENT TABLE ITEMS PER ELEMENT

***** POST1 ELEMENT TABLE LISTING *****

STAT	CURRENT
ELEM	MY
1345	135.21
1360	135.49
1375	135.90
1390	135.21
1405	135.49
1420	135.90

MINIMUM VALUES
ELEM 1390
VALUE 135.21

MAXIMUM VALUES
ELEM 1375
VALUE 135.90

MOMENTOS LONGITUDINALES MAYORADOS EN PILOTES

Hip: Momento transversal junto con axil mínimo intermedios 2

PRINT ELEMENT TABLE ITEMS PER ELEMENT

***** POST1 ELEMENT TABLE LISTING *****

STAT	CURRENT
ELEM	MZ
1345	0.17280E-03
1360	0.48401E-01
1375	0.43152E-01
1390	-0.17273E-03
1405	-0.48401E-01
1420	-0.43152E-01

MINIMUM VALUES
ELEM 1405
VALUE -0.48401E-01

MAXIMUM VALUES
ELEM 1360
VALUE 0.48401E-01

ESFUERZOS MAYORADOS EN BASE DE PILAS

Hip: Mínimo axil

LIST NODAL FORCES FOR SELECTED NODES 1 TO 1509 BY 1
CURRENTLY SELECTED NODAL LOAD SET= FX FY FZ MX MY MZ

NODE	LABEL	REAL	IMAG
417	FX	76.8000000	0.00000000
417	FY	13.1000000	0.00000000
417	FZ	-2048.00000	0.00000000
417	MX	-211.000000	0.00000000
417	MY	1470.00000	0.00000000

AXILES MAYORADOS EN PILOTES

Hip: Mínimo axil

PRINT ELEMENT TABLE ITEMS PER ELEMENT

***** POST1 ELEMENT TABLE LISTING *****

STAT	CURRENT
ELEM	N
1345	-231.24
1360	-323.96
1375	-412.57
1390	-268.71
1405	-361.48
1420	-450.04

MINIMUM VALUES
ELEM 1420
VALUE -450.04

MAXIMUM VALUES
ELEM 1345
VALUE -231.24

MOMENTOS TRANSVERSALES MAYORADOS EN PILOTES

Hip: Mínimo axil

PRINT ELEMENT TABLE ITEMS PER ELEMENT

***** POST1 ELEMENT TABLE LISTING *****

STAT	CURRENT
ELEM	MY
1345	71.999
1360	72.297
1375	72.669
1390	71.986
1405	72.297
1420	72.682

MINIMUM VALUES
ELEM 1390
VALUE 71.986

MAXIMUM VALUES
ELEM 1420
VALUE 72.682

MOMENTOS LONGITUDINALES MAYORADOS EN PILOTES

Hip: Mínimo axil

PRINT ELEMENT TABLE ITEMS PER ELEMENT

***** POST1 ELEMENT TABLE LISTING *****

STAT	CURRENT
ELEM	MZ
1345	-11.684
1360	-11.653
1375	-11.661
1390	-11.703
1405	-11.748
1420	-11.727

MINIMUM VALUES
ELEM 1405
VALUE -11.748

MAXIMUM VALUES
ELEM 1360
VALUE -11.653

ZAPATA PILA 7

FUERZAS APLICADAS

Hip: Maximo axil

```
 LIST NODAL FORCES FOR SELECTED NODES          1 TO     1038 BY        1
 CURRENTLY SELECTED NODAL LOAD SET= FX    FY    FZ    MX    MY    MZ

    NODE   LABEL      REAL              IMAG
     844   FZ      -2428.00000       0.00000000
     844   MX        751.00000       0.00000000
```

$F_z = 2794{,}6/1{,}5 + 360 + 205 = 2428\ t$

$M_x = 787{,}9/1{,}5 + \frac{680\ t}{1{,}5} \times 5{,}0\ m = 751\ mt$

MODULO DE BALASTO

$K = 50000\ t/m^3$

DESPLAZAMIENTOS MAXIMOS

Hip: Maximo axil

```
 PRINT DOF  NODAL SOLUTION PER NODE

  ***** POST1 NODAL DEGREE OF FREEDOM LISTING *****

 LOAD STEP=      1  SUBSTEP=      1
  TIME=     1.0000       LOAD CASE=    0

 THE FOLLOWING DEGREE OF FREEDOM RESULTS ARE IN GLOBAL COORDINATES

                 UX          UY          UZ          ROTX        ROTY        ROTZ

MAXIMUM ABSOLUTE VALUES
 NODE            0           0         132          13          769          0
 VALUE      0.0000      0.0000  -0.10400E-02 0.72923E-04 0.12746E-03  0.0000
```

TENSION MAXIMA

$\sigma_{max} = 0.001040\ m \times 50000\ t/m^3 = 52.0\ t/m^2$

TENSION MEDIA

$\sigma_{max} = 2428 / (6*12) = 33.7\ t/m^2$

ZAPATA PILA 7

FUERZAS APLICADAS

Hip: Maximo momento transversal

```
 LIST NODAL FORCES FOR SELECTED NODES          1 TO     1038 BY        1
 CURRENTLY SELECTED NODAL LOAD SET= FX    FY    FZ    MX    MY    MZ

    NODE   LABEL      REAL              IMAG
     844   FZ      -1625.00000       0.00000000
     844   MX        603.000000      0.00000000
     844   MY       2363.00000       0.00000000
```

$F_z = 1589{,}9/1{,}5 + 360 + 205 = 1625\ t$

$M_x = 630{,}7/1{,}5 + \frac{550\ t}{1{,}5} \times 5{,}0\ m = 603\ mt$

$M_y = 2021{,}1/1{,}5 + \frac{110{,}2\ t}{1{,}5} \times 5{,}0\ m = 2363\ mt$

MODULO DE BALASTO

$K = 50000\ t/m^3$

DESPLAZAMIENTOS MAXIMOS

Hip: Maximo momento transversal

```
 PRINT DOF  NODAL SOLUTION PER NODE

  ***** POST1 NODAL DEGREE OF FREEDOM LISTING *****

 LOAD STEP=      1  SUBSTEP=      1
  TIME=     1.0000       LOAD CASE=    0

 THE FOLLOWING DEGREE OF FREEDOM RESULTS ARE IN GLOBAL COORDINATES

    NODE        UX          UY          UZ          ROTX        ROTY        ROTZ

MAXIMUM ABSOLUTE VALUES
 NODE            0           0         136          437         227          0
 VALUE      0.0000      0.0000  -0.97835E-03 0.64111E-04-0.46301E-04  0.0000
```

TENSION MAXIMA

$\sigma_{max} = 0.0009783\ m \times 50000\ t/m^3 = 48.9\ t/m^2$

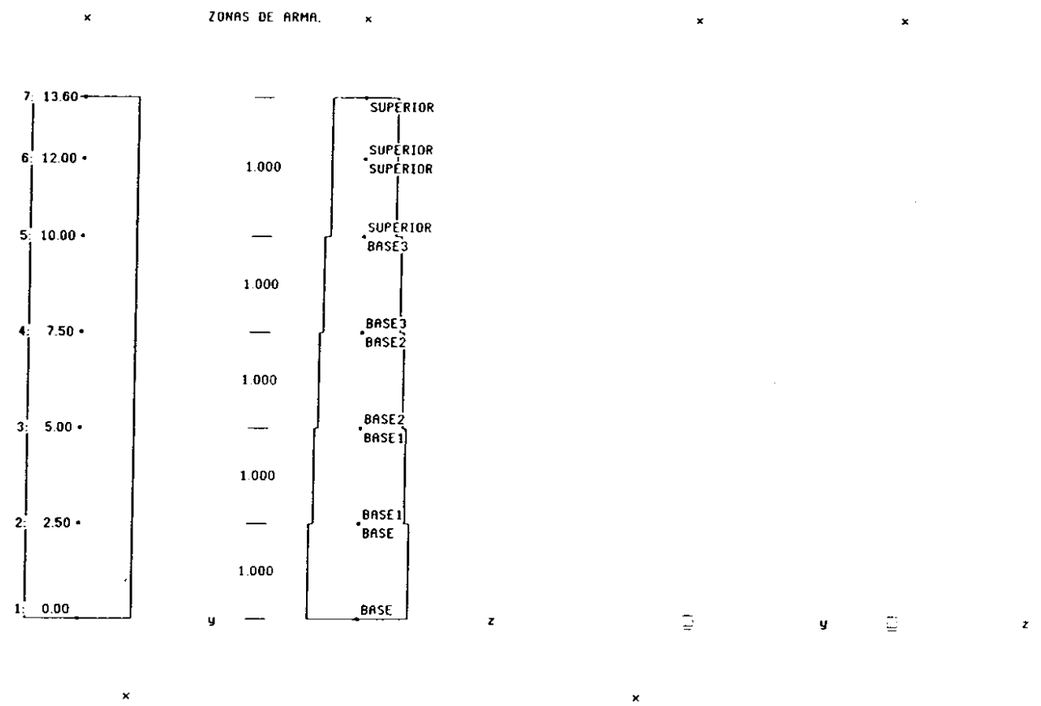
TENSION MEDIA

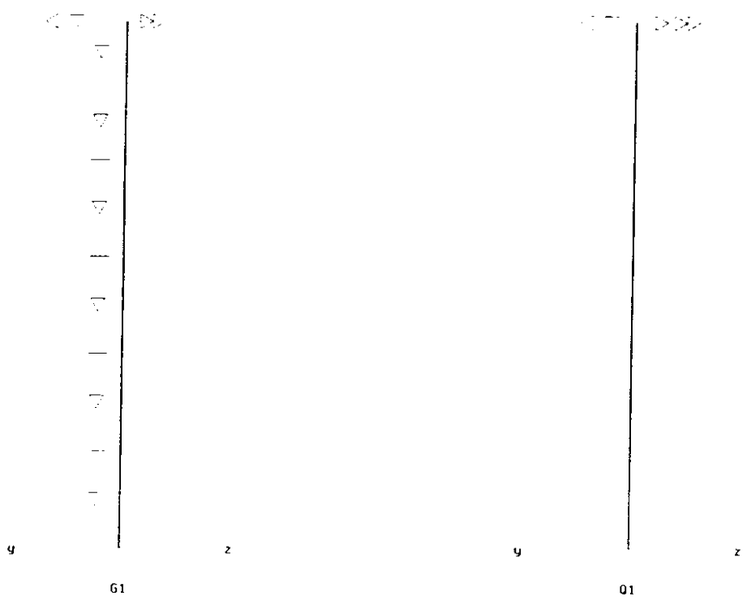
$\sigma_{max} = 1625 / (6*12) = 22.5\ t/m^2$

ANEJO N° 3

DIMENSIONAMIENTO DE PILAS 1 Y 7

Escala 1 : 159.5
Modelo, DeformaciÂn accidental y cargas de la pila MTMAX





Pila ''MTMAX'
****

TÀtulo : 'Hip: momento transversal max.'
Altura de la pila : 13.600 [m]
Long. max. de barra: Altura pila / 6

NUDOS x Apoyo

Nu	[m]	d-xyz	r-xyz
7	13.600		
6	12.000		
5	10.000		
4	7.500		
3	5.000		
2	2.500		
1	0.000	BBB	BBB

Apoyo: B=bloqueado, E=el stico

BARRAS (1.lÀnea: barra arriba, 2.lÀnea: barra abajo)

Ba	Nu	SecciÂn	Tipo	Exc: ey [m]	ez [m]	Arm: Zona	fac
6	7-6	'SUPERIOR'	SecFAGUS			1	1.000
5	6-5	'SUPERIOR'	SecFAGUS			1	1.000
4	5-4	'BASE3'	SecFAGUS			2	1.000
3	4-3	'BASE2'	SecFAGUS			3	1.000
2	3-2	'BASE1'	SecFAGUS			4	1.000
1	2-1	'BASE'	SecFAGUS			5	1.000

CARGAS :

Nu/Ba		Tipo Car.		Dim.	Valor Val.arriba	ey[m] Val.abajo	ez[m]
Comp. Carga G1 :							
Nudo	7	Fuerza	x	[kN]	-4000.000	0.14000	0.08500
		Fuerza	y	[kN]	50.000		
		Momento	z	[kNm]	870.000		
Barra	6	Peso propio	x	[kN/m3]	-25.000		
Barra	5	Peso propio	x	[kN/m3]	-25.000		
Barra	4	Peso propio	x	[kN/m3]	-25.000		
Barra	3	Peso propio	x	[kN/m3]	-25.000		
Barra	2	Peso propio	x	[kN/m3]	-25.000		
Barra	1	Peso propio	x	[kN/m3]	-25.000		

Nu/Ba	Tipo Car.	Dim.	Valor	ey[m]	ez[m
			Val.arriba	Val.abajo	
Comp. Carga Q1 :					
Nudo 7	Fuerza x	[kN]	-2800.000	0.05000	0.0500
	Fuerza y	[kN]	290.000		
	Fuerza z	[kN]	100.000		
	Momento z	[kNm]	2300.000		

C A P A C I D A D R E S I S T E N T E U L T I M A <G.MTMAX.1>

PARAMETROS DE CALCULO:

Norma	EH
Criterio de rotura	Agotamiento de secciones o del sistema
Rotura de secciones	LimitaciÂn de deformaciones segÈn FAGUS-2
- HormigÂn (def. centrada)	-2.000 [o/oo]
- HormigÂn (flexiÂn)	-3.500 [o/oo]
- Acero	10.00 [o/oo]
Coef. min. resist. (gamma_r)	1.000
Coeficiente de fluencia	0.000
Factor armadura (global)	1.000
No de elementos	6
Tolerancia desequi. fuerzas	0.114 [kN]
Tolerancia desequi. momentos	0.127 [kNm]
MayoraciÂn de cargas	1.500 * Carga permanente G1
	+ 1.500 * Carga variable Q1 * Ã

RESULTADOS DEL CALCULO NO LINEAL:
Las cargas variables se han aumentado por un factor Ã (Ã=2.3969).

Rotura: Rotura de la secciÂn
SecciÂn 'BASE' en x= 0.000

DATOS DE LA SECCION

Nombre	Ancho dy [m]	Canto dz [m]	Materiales Horm. / Acero		Distrib. de la armadura	Armadura fija[cm»]	Armadura var [cm»]
BASE	2.800	2.600	H300	AEH500	B1	0.000	210.2
BASE1	2.800	2.380	H300	AEH500	B1	0.000	210.2
BASE2	2.800	2.200	H300	AEH500	B1	0.000	210.2
BASE3	2.800	2.000	H300	AEH500	B1	0.000	210.2
SUPERIOR	2.800	1.700	H300	AEH500	B1	0.000	210.2

DATOS DE BARRAS (incl. factores de armadura)

Barra	SecciÂn arriba / abajo		factor S de la armadura	Armadura variable arriba[cm»]/abajo[cm»]	
6	SUPERIOR	SUPERIOR	1.000	210.2	210.2
5	SUPERIOR	SUPERIOR	1.000	210.2	210.2
4	BASE3	BASE3	1.000	210.2	210.2
3	BASE2	BASE2	1.000	210.2	210.2
2	BASE1	BASE1	1.000	210.2	210.2
1	BASE	BASE	1.000	210.2	210.2

DEFORMACIONES sin deformaciones accidentales

	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
MÀnima	-2.25	0.00	0.00	0.000	-4.651	0.000
M xima	0.90	117.10	39.29	0.063	0.000	13.544

ESFUERZOS (global)

	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
MÀnima	-17250.02	-1117.65	-359.54	-1.81	1013.35	10917.68
M xima	-16136.61	-1117.65	-359.54	-0.00	6552.50	28054.16

TENSIONES, DEFORMACIONES & RIGIDECES-SECANTE/gamma_r

	sigHorm. [N/mm»]	sigAcero [N/mm»]	epsHorm. [o/oo]	epsAcero [o/oo]	EIy [kNm»]	EIz [kNm»]
MÀnima	-17.0	-443.5	-3.475	-3.345	8.255E+6	1.208E+7
M xima	0.0	443.5	4.765	4.636	1.529E+7	3.237E+7

DEFORMACIONES sin deformaciones accidentales
<G.MTMAX.1> Carga: 1.50*G1 1.50*Q1*Ã Ã=2.3969

Coord-x [m]	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
13.600	-2.25	117.10	39.29	0.063	-4.651	13.544
12.000	-1.42	95.92	31.99	0.055	-4.457	12.914
10.000	-0.46	71.15	23.50	0.040	-3.988	11.801
7.500	0.43	43.71	14.28	0.025	-3.322	10.023
5.000	0.90	21.48	6.96	0.012	-2.470	7.614
2.500	0.89	6.14	1.99	0.003	-1.419	4.464
0.000	0.00	0.00	0.00	0.000	0.000	0.000

ESFUERZOS (global)
<G.MTMAX.1> Carga: 1.50*G1 1.50*Q1*Ã Ã=2.3969

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
13.600	-16136.61	-1117.65	-359.54	-0.00	1013.35	10917.68
12.000	-16136.61	-1117.65	-359.54	-0.55	1706.43	13047.67
12.000	-16293.21	-1117.65	-359.54	-0.55	1706.43	13047.67
10.000	-16293.21	-1117.65	-359.54	-1.13	2563.84	15686.62
10.000	-16497.40	-1117.65	-359.54	-1.13	2563.84	15686.62

ESFUERZOS (global)
<G.MTMAX.1> Carga: 1.50*G1 1.50*Q1*Ã Ã=2.3969

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
7.500	-16497.40	-1117.65	-359.54	-1.57	3614.74	18933.31
7.500	-16737.40	-1117.65	-359.54	-1.57	3614.74	18933.31
5.000	-16737.40	-1117.65	-359.54	-1.76	4636.14	22099.53
5.000	-16988.09	-1117.65	-359.54	-1.76	4636.14	22099.53
2.500	-16988.09	-1117.65	-359.54	-1.79	5619.30	25154.14
2.500	-17250.02	-1117.65	-359.54	-1.79	5619.30	25154.14
0.000	-17250.02	-1117.65	-359.54	-1.81	6552.50	28054.16

TENSIONES & RIGIDECES-SECANTE/gamma_r
<G.MTMAX.1> Carga: 1.50*G1 1.50*Q1*Ã Ã=2.3969

Coord-x [m]	Horm.- [N/mm»]	Horm.+ [N/mm»]	Acero- [N/mm»]	Acero+ [N/mm»]	EIy [kNm»]	EIz [kNm»]
13.600	-12.4	0.0	-197.0	15.7	1.248E+7	3.237E+7
12.000	-14.0	0.0	-238.0	62.7	1.036E+7	2.897E+7
12.000	-14.0	0.0	-238.6	60.9	1.040E+7	2.904E+7
10.000	-16.0	0.0	-308.3	155.7	8.279E+6	2.365E+7
10.000	-14.8	0.0	-262.8	115.0	1.347E+7	2.829E+7
7.500	-16.7	0.0	-353.4	258.1	1.035E+7	2.180E+7
7.500	-16.2	0.0	-318.1	221.8	1.381E+7	2.430E+7
5.000	-17.0	0.0	-419.4	393.2	1.088E+7	1.925E+7
5.000	-16.9	0.0	-375.6	342.5	1.404E+7	2.142E+7
2.500	-17.0	0.0	-443.5	443.5	1.062E+7	1.689E+7
2.500	-17.0	0.0	-420.4	443.5	1.529E+7	2.011E+7
0.000	-17.0	0.0	-443.5	443.5	8.255E+6	1.208E+7

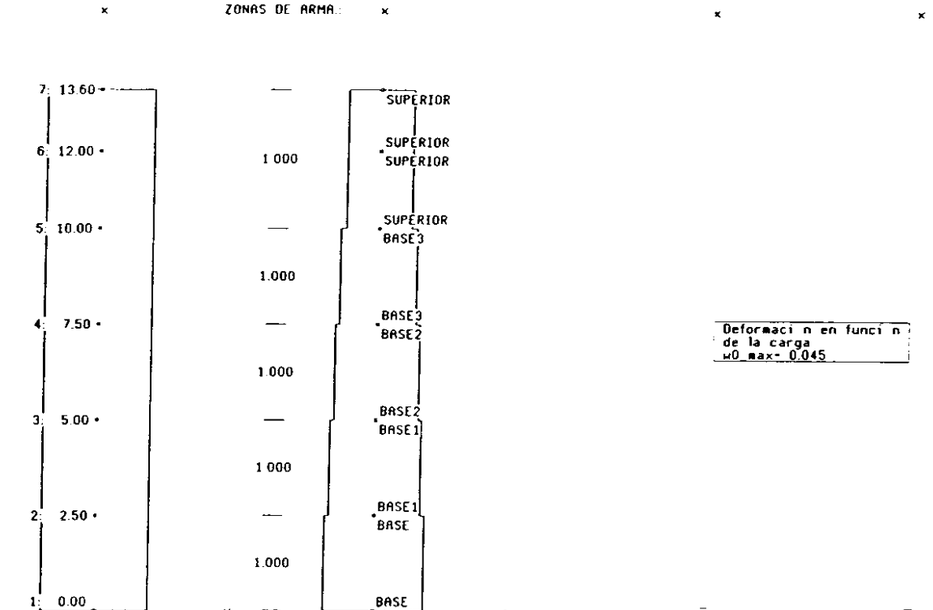
DEFORMACIONES
<G.MTMAX.1> Carga: 1.50*G1 1.50*Q1*Ã Ã=2.3969

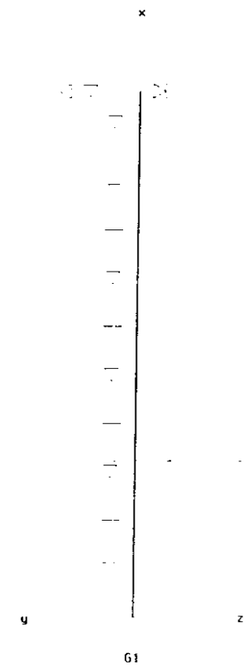
Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
13.600	-0.956	0.093	-0.938	0.075	0.14	103.4
12.000	-1.158	0.324	-1.133	0.299	0.14	109.9
12.000	-1.161	0.315	-1.136	0.290	0.14	109.8
10.000	-1.504	0.777	-1.468	0.741	0.16	114.8
10.000	-1.282	0.578	-1.251	0.547	0.14	108.7
7.500	-1.730	1.277	-1.683	1.229	0.15	111.7
7.500	-1.558	1.099	-1.515	1.056	0.14	108.4
5.000	-2.061	1.936	-1.997	1.872	0.16	110.2
5.000	-1.846	1.689	-1.789	1.631	0.14	107.4

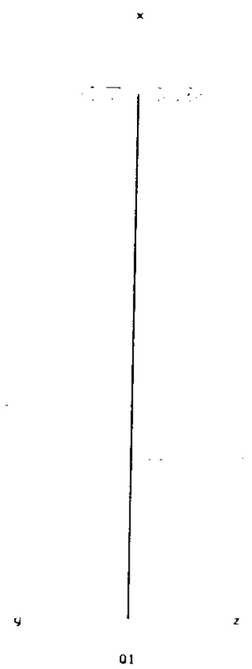
DEFORMACIONES
<G.MTMAX.1> Carga: 1.50*G1 1.50*Q1*Ã Ã=2.3969

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
2.500	-2.478	2.740	-2.396	2.658	0.16	109.2
2.500	-2.072	2.221	-2.002	2.151	0.14	106.0
0.000	-3.475	4.765	-3.345	4.636	0.16	108.5

Escala 1 : 159.5
Modelo, DeformaciÂn accidental y cargas de la pila NMIN







Pila ''NMIN'
****

TÀtulo : 'Hip: axil minimo'
Altura de la pila : 13.600 [m]
Long. max. de barra: Altura pila / 6

NUDOS Nu	x [m]	Apoyo d-xyz	r-xyz
7	13.600		
6	12.000		
5	10.000		
4	7.500		
3	5.000		
2	2.500		
1	0.000	BBB	BBB

Apoyo: B=bloqueado, E=el stico

BARRAS (1.lÀnea: barra arriba, 2.lÀnea: barra abajo)

Ba	Nu	SecciÂn	Tipo	Exc: ey [m]	ez [m]	Arm: Zona	fac
6	7-6	'SUPERIOR'	SecFAGUS			1	1.000
5	6-5	'SUPERIOR'	SecFAGUS			1	1.000
4	5-4	'BASE3'	SecFAGUS			2	1.000
3	4-3	'BASE2'	SecFAGUS			3	1.000
2	3-2	'BASE1'	SecFAGUS			4	1.000
1	2-1	'BASE'	SecFAGUS			5	1.000

DEF. ACCIDENTAL :

Func. carga : w0_max= 0.045 m

CARGAS :

Nu/Ba		Tipo Car.		Dim.	Valor Val.arriba	ey[m] Val.abajo	ez[m]
Comp. Carga G1 :							
Nudo	7	Fuerza	x	[kN]	-4450.000	0.14000	0.08500
		Fuerza	y	[kN]	50.000		
		Momento	z	[kNm]	970.000		
Barra	6	Peso propio	x	[kN/m3]	-25.000		
Barra	5	Peso propio	x	[kN/m3]	-25.000		
Barra	4	Peso propio	x	[kN/m3]	-25.000		
Barra	3	Peso propio	x	[kN/m3]	-25.000		
Barra	2	Peso propio	x	[kN/m3]	-25.000		
Barra	1	Peso propio	x	[kN/m3]	-25.000		
Comp. Carga Q1 :							
Nudo	7	Fuerza	x	[kN]	-4530.000	0.05000	0.05000
		Fuerza	y	[kN]	150.000		
		Fuerza	z	[kN]	100.000		
		Momento	z	[kNm]	930.000		

C A P A C I D A D R E S I S T E N T E U L T I M A <G.NMIN.1>

PARAMETROS DE CALCULO:

Norma	EH
Criterio de rotura	Agotamiento de secciones o del sistema
Rotura de secciones	LimitaciÂn de deformaciones segÈn FAGUS-:
- HormigÂn (def. centrada)	-2.000 [o/oo]
- HormigÂn (flexiÂn)	-3.500 [o/oo]
- Acero	10.00 [o/oo]
Coef. min. resist. (gamma_r)	1.000
Coeficiente de fluencia	0.000
Factor armadura (global)	1.000
No de elementos	6
Tolerancia desequi. fuerzas	0.147 [kN]
Tolerancia desequi. momentos	0.087 [kNm]
MayoraciÂn de cargas	1.500 * Carga permanente G1
	+ 1.500 * Carga variable Q1 * Ã

RESULTADOS DEL CALCULO NO LINEAL:
Las cargas variables se han aumentado por un factor Ã (Ã=3.4444). >1)

Rotura: Rotura de la secciÂn
SecciÂn 'BASE' en x= 0.000

DATOS DE LA SECCION

Nombre	Ancho dy [m]	Canto dz [m]	Materiales Horm. / Acero		Distrib. de la armadura	Armadura fija[cm»]	Armadura var [cm»]
BASE	2.800	2.600	H300	AEH500	B1	0.000	210.2
BASE1	2.800	2.380	H300	AEH500	B1	0.000	210.2
BASE2	2.800	2.200	H300	AEH500	B1	0.000	210.2
BASE3	2.800	2.000	H300	AEH500	B1	0.000	210.2
SUPERIOR	2.800	1.700	H300	AEH500	B1	0.000	210.2

DATOS DE BARRAS (incl. factores de armadura)

Barra	SecciÂn arriba / abajo		factor S de la armadura	Armadura variable arriba[cm»]/abajo[cm»]	
6	SUPERIOR	SUPERIOR	1.000	210.2	210.2
5	SUPERIOR	SUPERIOR	1.000	210.2	210.2
4	BASE3	BASE3	1.000	210.2	210.2
3	BASE2	BASE2	1.000	210.2	210.2
2	BASE1	BASE1	1.000	210.2	210.2
1	BASE	BASE	1.000	210.2	210.2

DEFORMACIONES sin deformaciones accidentales

	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
MÀnima	-13.44	0.00	0.00	0.000E+0	-6.073	0.000
M xima	0.00	72.09	46.72	6.598E-2	0.000	9.084

DEFORMACION ACCIDENTAL	DY [mm]	DZ [mm]
M xima	38.11	24.49

ESFUERZOS (global)

	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
MÀnima	-31262.63	-850.00	-516.66	-3.82	1737.60	8364.64
M xima	-30149.22	-849.99	-516.66	-0.00	10938.51	23291.33

TENSIONES, DEFORMACIONES & RIGIDECES-SECANTE/gamma_r

	sigHorm. [N/mm»]	sigAcero [N/mm»]	epsHorm. [o/oo]	epsAcero [o/oo]	EIy [kNm»]	EIz [kNm»]
MÀnima	-17.0	-443.5	-3.485	-3.424	8.796E+6	1.996E+7
M xima	0.0	293.5	1.458	1.398	2.258E+7	2.895E+7

DEFORMACIONES sin deformaciones accidentales
<G.NMIN.1> Carga: 1.50*G1 1.50*Q1*Ã Ã=3.4444

Coord-x [m]	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
13.600	-13.44	72.09	46.72	6.598E-2	-6.073	9.084
12.000	-11.80	58.06	37.30	5.129E-2	-5.678	8.462
10.000	-9.67	42.12	26.72	3.221E-2	-4.853	7.456
7.500	-7.19	25.13	15.72	1.720E-2	-3.877	6.082
5.000	-4.77	11.89	7.33	6.663E-3	-2.762	4.433
2.500	-2.36	3.20	1.94	6.738E-4	-1.430	2.384
0.000	0.00	0.00	0.00	0.000E+0	0.000	0.000

ESFUERZOS (global)
<G.NMIN.1> Carga: 1.50*G1 1.50*Q1*Ã Ã=3.4444

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
13.600	-30149.22	-850.00	-516.66	-0.00	1737.60	8364.64
12.000	-30149.22	-850.00	-516.66	-1.43	3007.06	10369.65
12.000	-30305.82	-850.00	-516.66	-1.43	3007.06	10369.63
10.000	-30305.82	-850.00	-516.66	-2.78	4542.20	12815.87
10.000	-30510.00	-849.99	-516.66	-2.79	4542.19	12815.85
7.500	-30510.00	-849.99	-516.66	-3.61	6351.57	15743.98
7.500	-30750.00	-849.99	-516.66	-3.61	6351.56	15743.97
5.000	-30750.00	-849.99	-516.66	-3.82	8030.09	18492.75
5.000	-31000.69	-849.99	-516.66	-3.82	8030.09	18492.75
2.500	-31000.69	-849.99	-516.66	-3.70	9562.53	21021.21
2.500	-31262.63	-849.99	-516.66	-3.70	9562.53	21021.20
0.000	-31262.63	-849.99	-516.66	-3.59	10938.51	23291.33

TENSIONES & RIGIDECES-SECANTE/gamma_r
<G.NMIN.1> Carga: 1.50*G1 1.50*Q1*Ã Ã=3.4444

Coord-x [m]	Horm.- [N/mm»]	Horm.+ [N/mm»]	Acero- [N/mm»]	Acero+ [N/mm»]	EIy [kNm»]	EIz [kNm»]
13.600	-15.9	-4.6	-309.9	-64.5	9.758E+6	2.447E+7
12.000	-16.8	-1.5	-364.9	-24.0	9.501E+6	2.385E+7
12.000	-16.8	-1.7	-365.6	-25.7	9.458E+6	2.389E+7
10.000	-17.0	0.0	-443.5	29.4	8.796E+6	2.238E+7
10.000	-16.8	0.0	-371.2	-0.3	1.483E+7	2.760E+7
7.500	-17.0	0.0	-443.5	65.5	1.299E+7	2.479E+7
7.500	-17.0	0.0	-407.8	36.7	1.830E+7	2.895E+7
5.000	-17.0	0.0	-443.5	127.1	1.429E+7	2.384E+7
5.000	-17.0	0.0	-443.5	81.9	2.026E+7	2.872E+7
2.500	-17.0	0.0	-443.5	218.2	1.397E+7	2.111E+7
2.500	-17.0	0.0	-443.5	128.2	2.258E+7	2.840E+7
0.000	-17.0	0.0	-443.5	293.5	1.497E+7	1.996E+7

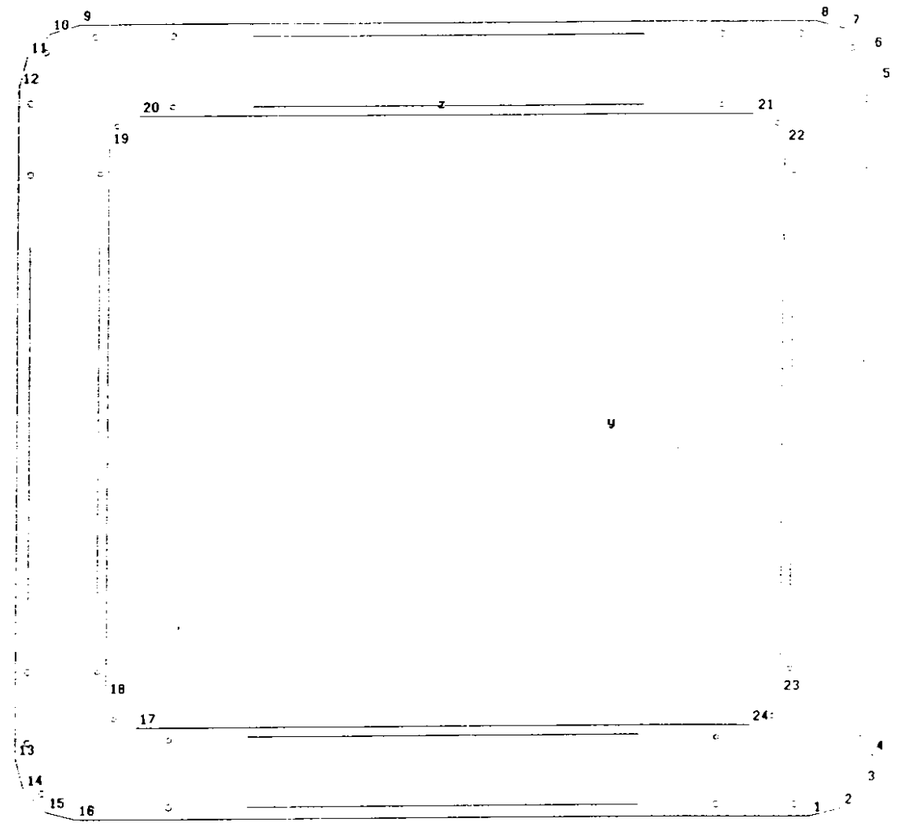
DEFORMACIONES
<G.NMIN.1> Carga: 1.50*G1 1.50*Q1*Ã Ã=3.4444

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
13.600	-1.494	-0.289	-1.476	-0.307	0.15	117.4
12.000	-1.760	-0.092	-1.738	-0.114	0.16	126.0
12.000	-1.763	-0.100	-1.741	-0.122	0.16	125.9
10.000	-2.172	0.168	-2.144	0.140	0.17	131.8

DEFORMACIONES
<G.NMIN.1> Carga: 1.50*G1 1.50*Q1*Ã Ã=3.4444

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
10.000	-1.791	0.022	-1.767	-0.001	0.15	122.8
7.500	-2.266	0.344	-2.234	0.312	0.16	127.2
7.500	-1.970	0.203	-1.942	0.175	0.15	122.0
5.000	-2.590	0.645	-2.551	0.605	0.17	125.5
5.000	-2.196	0.424	-2.162	0.390	0.15	121.2
2.500	-3.116	1.090	-3.065	1.039	0.17	124.2
2.500	-2.389	0.650	-2.351	0.611	0.15	119.5
0.000	-3.485	1.458	-3.424	1.398	0.16	121.8

Mstb. 1 : 20.0



SecciÂn :"BASE" Armadura :"B1"
Tipo : tipo pila/ Genrico Unidades :[cm]

SecciÂn parcial 1: HormigÂn = H300

Pto	Coord-Y	Coord-Z	Pto	Coord-Y	Coord-Z
1	120.00	0.00	2	130.00	2.68
3	137.32	10.00	4	140.00	20.00
5	140.00	240.00	6	137.32	250.00
7	130.00	257.32	8	120.00	260.00
9	-120.00	260.00	10	-130.00	257.32
11	-137.32	250.00	12	-140.00	240.00
13	-140.00	20.00	14	-137.32	10.00
15	-130.00	2.68	16	-120.00	0.00
Puntos aligeramiento:					
17	-100.00	30.00	18	-110.00	40.00
19	-110.00	220.00	20	-100.00	230.00
21	100.00	230.00	22	110.00	220.00

23	110.00	40.00	24	100.00	30.00

CaracterÀsticas mec nicas de la secciÂn:
Area : Ax= 2.860 [m2]
Momentos de inercia : Iy= 2.590 [m4] Iz= 2.931 [m4]
Inercia a torsiÂn : Ix= 1.302 [m4] (de un cÀrculo del mismo rea)

PosiciÂn del centro de gravedad: ys= 0.000 [m] zs= 1.300 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-1.400	-2.094	0.732
dch.	Iz	1.400	2.094	-0.732
abajo	Iy	-1.300	-1.993	0.697
arriba	Iy	1.300	1.993	-0.697

Armadura: "B1"

NÏ	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	3.14	-131.31	251.31		
2	AEH500	(1)	3.14	131.31	251.31		
3	AEH500	(1)	3.14	-114.75	256.00		
4	AEH500	(1)	3.14	114.75	256.00		
5	AEH500	(1)	3.14	-89.25	256.00		
6	AEH500	(1)	3.14	89.25	256.00		
7	AEH500	(1)	3.14	136.00	234.75		
8	AEH500	(1)	3.14	-136.00	234.75		
9	AEH500	(1)	3.14	136.00	211.47		
10	AEH500	(1)	3.14	-136.00	211.47		
11	AEH500	(1)	3.14	136.00	48.53		
12	AEH500	(1)	3.14	-136.00	48.53		
13	AEH500	(1)	3.14	136.00	25.25		
14	AEH500	(1)	3.14	131.31	8.69		
15	AEH500	(1)	3.14	114.75	4.00		
16	AEH500	(1)	3.14	-114.75	4.00		
17	AEH500	(1)	3.14	89.25	4.00		
18	AEH500	(1)	3.14	-89.25	4.00		
19	AEH500	(1)	3.14	-131.31	8.69		
20	AEH500	(1)	3.14	-136.00	25.25		
21	AEH500	(1)	2.00	-107.50	33.00		
22	AEH500	(1)	2.00	107.50	33.00		
23	AEH500	(1)	2.00	-113.00	48.53		
24	AEH500	(1)	2.00	113.00	48.53		
25	AEH500	(1)	2.00	113.00	211.47		
26	AEH500	(1)	2.00	-113.00	211.47		
27	AEH500	(1)	2.00	89.25	26.00		
28	AEH500	(1)	2.00	89.25	233.00		
29	AEH500	(1)	2.00	-89.25	233.00		

30	AEH500	(1)	2.00	-89.25	26.00		
31	AEH500	(1)	2.00	107.50	227.00		
32	AEH500	(1)	2.00	-107.50	227.00		
33	AEH500	(1)	18.84	-63.75	4.00	63.75	4.00
34	AEH500	(1)	18.84	136.00	188.19	136.00	71.80
35	AEH500	(1)	18.84	-136.00	188.19	-136.00	71.80
36	AEH500	(1)	18.84	-63.75	256.00	63.75	256.00
37	AEH500	(1)	12.00	-63.75	27.00	63.75	27.00
38	AEH500	(1)	12.00	-63.75	233.00	63.75	233.00
39	AEH500	(1)	12.00	-113.00	188.19	-113.00	71.80
40	AEH500	(1)	12.00	113.00	188.19	113.00	71.80

Total: 210.16 CuantÀa de armadura: 0.735 [o/o]

CÂd. dimensionamiento: (0) = As constante
CÂd. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccionad a
CÂd. dimensionamiento: (2) = Aumentar As solo en zona traccionada

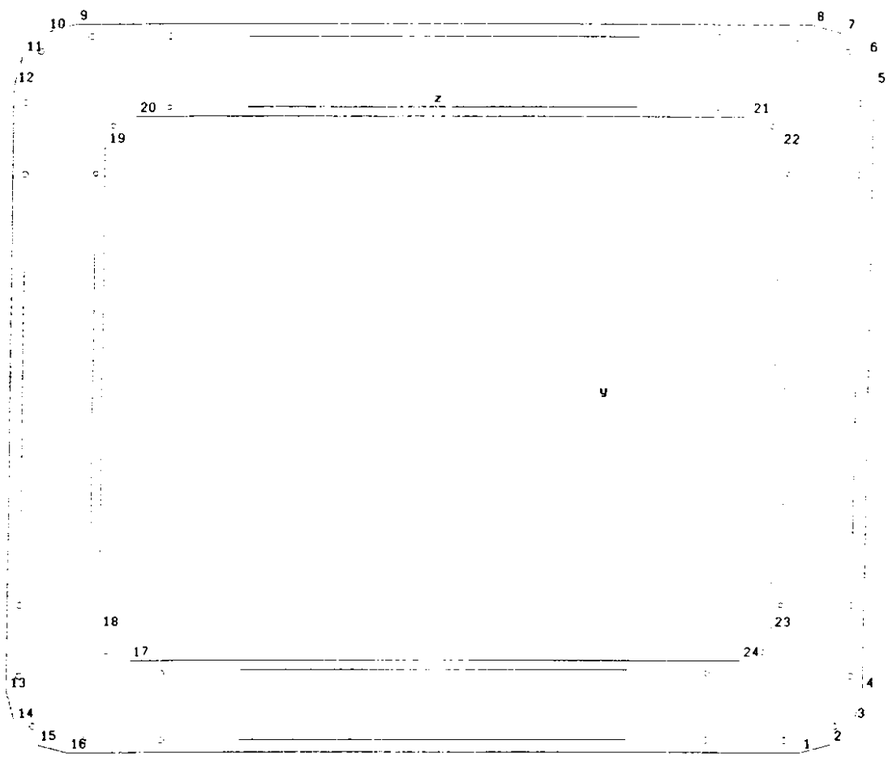
ÙNo se han definido valores para el c lculo a cortante!

CaracterÀsticas del material:

Nom.Mat.	MÂdulo E [N/mm2]	0.85*fcd,fyd [N/mm2]	eps-fc [o/oo]	fct [N/mm2]	fcv [N/mm2]	fcw,mÀn [N/mm2]
"H300"	33000.0	-17.000	-2.000	0.0	0.707000	30.000
"AEH500"	210000.0	443.470				

Leyenda:
fcd,fyd resistencia de c lculo del hormigÂn,acero
eps-fc deformaciÂn al final de la par bola (fig.2.3, cap.2.2)
fct resistencia de c lculo a tracciÂn del hormigÂn
fcv resistencia virtual de c lculo del hormigÂn a esfuerzo cortante

Mstb. 1 : 20.0



SecciÂn :"BASE1" Armadura :"B1"
Tipo : tipo pila/ Genrico Unidades :[cm]

SecciÂn parcial 1: HormigÂn = H300

Pto	Coord-Y	Coord-Z	Pto	Coord-Y	Coord-Z
1	120.00	0.00	2	130.00	2.68
3	137.32	10.00	4	140.00	20.00
5	140.00	218.00	6	137.32	228.00
7	130.00	235.32	8	120.00	238.00
9	-120.00	238.00	10	-130.00	235.32
11	-137.32	228.00	12	-140.00	218.00
13	-140.00	20.00	14	-137.32	10.00
15	-130.00	2.68	16	-120.00	0.00
Puntos aligeramiento:					
17	-100.00	30.00	18	-110.00	40.00
19	-110.00	198.00	20	-100.00	208.00
21	100.00	208.00	22	110.00	198.00
23	110.00	40.00	24	100.00	30.00

CaracterÀsticas mec nicas de la secciÂn:

Area : Ax= 2.728 [m2]
Momentos de inercia : Iy= 2.074 [m4] Iz= 2.724 [m4]
Inercia a torsiÂn : Ix= 1.184 [m4] (de un cÀrculo del mismo rea)

PosiciÂn del centro de gravedad: ys= 0.000 [m] zs= 1.190 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-1.400	-1.946	0.713
dch.	Iz	1.400	1.946	-0.713
abajo	Iy	-1.190	-1.743	0.639
arriba	Iy	1.190	1.743	-0.639

Armadura: "B1"

NÏ	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	3.14	-131.31	229.31		
2	AEH500	(1)	3.14	131.31	229.31		
3	AEH500	(1)	3.14	-114.75	234.00		
4	AEH500	(1)	3.14	114.75	234.00		
5	AEH500	(1)	3.14	-89.25	234.00		
6	AEH500	(1)	3.14	89.25	234.00		
7	AEH500	(1)	3.14	136.00	212.75		
8	AEH500	(1)	3.14	-136.00	212.75		
9	AEH500	(1)	3.14	136.00	189.47		
10	AEH500	(1)	3.14	-136.00	189.47		
11	AEH500	(1)	3.14	136.00	48.53		
12	AEH500	(1)	3.14	-136.00	48.53		
13	AEH500	(1)	3.14	136.00	25.25		
14	AEH500	(1)	3.14	131.31	8.69		
15	AEH500	(1)	3.14	114.75	4.00		
16	AEH500	(1)	3.14	-114.75	4.00		
17	AEH500	(1)	3.14	89.25	4.00		
18	AEH500	(1)	3.14	-89.25	4.00		
19	AEH500	(1)	3.14	-131.31	8.69		
20	AEH500	(1)	3.14	-136.00	25.25		
21	AEH500	(1)	2.00	-107.50	33.00		
22	AEH500	(1)	2.00	107.50	33.00		
23	AEH500	(1)	2.00	-113.00	48.53		
24	AEH500	(1)	2.00	113.00	48.53		
25	AEH500	(1)	2.00	113.00	189.47		
26	AEH500	(1)	2.00	-113.00	189.47		
27	AEH500	(1)	2.00	89.25	26.00		
28	AEH500	(1)	2.00	89.25	211.00		
29	AEH500	(1)	2.00	-89.25	211.00		
30	AEH500	(1)	2.00	-89.25	26.00		
31	AEH500	(1)	2.00	107.50	205.00		
32	AEH500	(1)	2.00	-107.50	205.00		

33	AEH500	(1)	18.84	-63.75	4.00	63.75	4.00
34	AEH500	(1)	18.84	136.00	166.19	136.00	71.80
35	AEH500	(1)	18.84	-136.00	166.19	-136.00	71.80
36	AEH500	(1)	18.84	-63.75	234.00	63.75	234.00
37	AEH500	(1)	12.00	-63.75	27.00	63.75	27.00
38	AEH500	(1)	12.00	-63.75	211.00	63.75	211.00
39	AEH500	(1)	12.00	-113.00	166.19	-113.00	71.80
40	AEH500	(1)	12.00	113.00	166.19	113.00	71.80

Total: 210.16 CuantÀa de armadura: 0.770 [o/o]

CÂd. dimensionamiento: (0) = As constante
CÂd. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccionada
CÂd. dimensionamiento: (2) = Aumentar As solo en zona traccionada

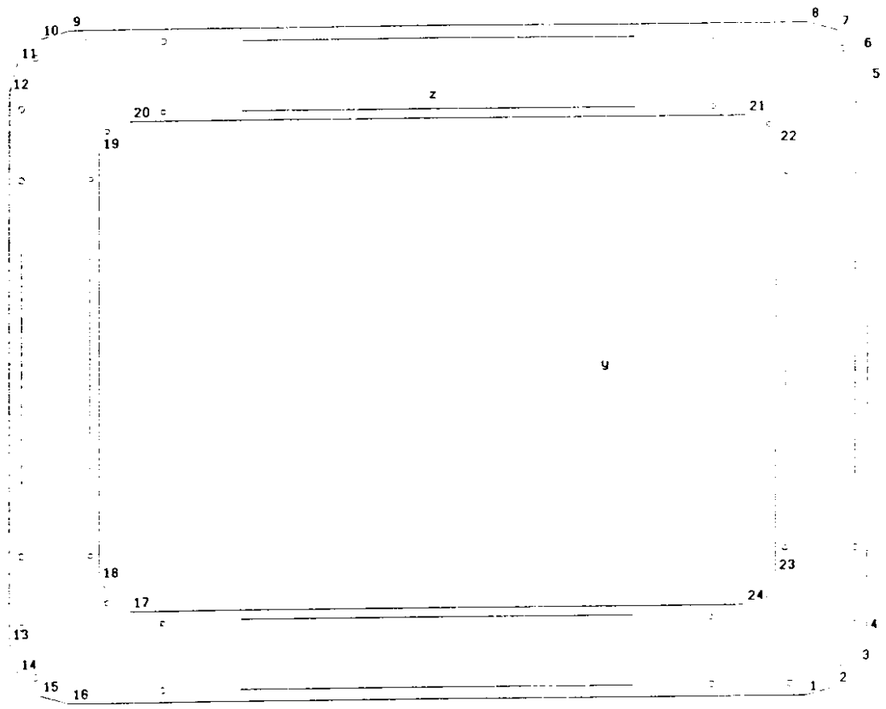
ÙNo se han definido valores para el c lculo a cortante!

CaracterÀsticas del material:

Nom.Mat.	MÂdulo E [N/mm2]	0.85*fcd,fyd [N/mm2]	eps-fc [o/oo]	fct [N/mm2]	fcv [N/mm2]	fcw,mÀn [N/mm2]
"H300"	33000.0	-17.000	-2.000	0.0	0.707000	30.000
"AEH500"	210000.0	443.470				

Leyenda:
fcd,fyd resistencia de c lculo del hormigÂn,acero
eps-fc deformaciÂn al final de la par bola (fig.2.3, cap.2.2)
fct resistencia de c lculo a tracciÂn del hormigÂn
fcv resistencia virtual de c lculo del hormigÂn a esfuerzo cortante

Mstb. 1 : 20.0



SecciÂn :"BASE2" Armadura :"B1"
Tipo : tipo pila/ Genrico Unidades :[cm]

SecciÂn parcial 1: HormigÂn = H300

Pto	Coord-Y	Coord-Z	Pto	Coord-Y	Coord-Z
1	120.00	0.00	2	130.00	2.68
3	137.32	10.00	4	140.00	20.00
5	140.00	200.00	6	137.32	210.00
7	130.00	217.32	8	120.00	220.00
9	-120.00	220.00	10	-130.00	217.32
11	-137.32	210.00	12	-140.00	200.00
13	-140.00	20.00	14	-137.32	10.00
15	-130.00	2.68	16	-120.00	0.00
Puntos aligeramiento:					
17	-100.00	30.00	18	-110.00	40.00
19	-110.00	180.00	20	-100.00	190.00
21	100.00	190.00	22	110.00	180.00
23	110.00	40.00	24	100.00	30.00

CaracterÀsticas mec nicas de la secciÂn:
Area : Ax= 2.620 [m2]

Momentos de inercia : Iy= 1.701 [m4] Iz= 2.554 [m4]
Inercia a torsiÂn : Ix= 1.092 [m4] (de un cÀrculo del mismo rea)

PosiciÂn del centro de gravedad: ys= 0.000 [m] zs= 1.100 [m]

I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq. Iz	-1.400	-1.825	0.696
dch. Iz	1.400	1.825	-0.696
abajo Iy	-1.100	-1.546	0.590
arriba Iy	1.100	1.546	-0.590

Armadura: "B1"

NÏ	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	3.14	-131.31	211.31		
2	AEH500	(1)	3.14	131.31	211.31		
3	AEH500	(1)	3.14	-114.75	216.00		
4	AEH500	(1)	3.14	114.75	216.00		
5	AEH500	(1)	3.14	-89.25	216.00		
6	AEH500	(1)	3.14	89.25	216.00		
7	AEH500	(1)	3.14	136.00	194.75		
8	AEH500	(1)	3.14	-136.00	194.75		
9	AEH500	(1)	3.14	136.00	171.47		
10	AEH500	(1)	3.14	-136.00	171.47		
11	AEH500	(1)	3.14	136.00	48.53		
12	AEH500	(1)	3.14	-136.00	48.53		
13	AEH500	(1)	3.14	136.00	25.25		
14	AEH500	(1)	3.14	131.31	8.69		
15	AEH500	(1)	3.14	114.75	4.00		
16	AEH500	(1)	3.14	-114.75	4.00		
17	AEH500	(1)	3.14	89.25	4.00		
18	AEH500	(1)	3.14	-89.25	4.00		
19	AEH500	(1)	3.14	-131.31	8.69		
20	AEH500	(1)	3.14	-136.00	25.25		
21	AEH500	(1)	2.00	-107.50	33.00		
22	AEH500	(1)	2.00	107.50	33.00		
23	AEH500	(1)	2.00	-113.00	48.53		
24	AEH500	(1)	2.00	113.00	48.53		
25	AEH500	(1)	2.00	113.00	171.47		
26	AEH500	(1)	2.00	-113.00	171.47		
27	AEH500	(1)	2.00	89.25	26.00		
28	AEH500	(1)	2.00	89.25	193.00		
29	AEH500	(1)	2.00	-89.25	193.00		
30	AEH500	(1)	2.00	-89.25	26.00		
31	AEH500	(1)	2.00	107.50	187.00		
32	AEH500	(1)	2.00	-107.50	187.00		
33	AEH500	(1)	18.84	-63.75	4.00	63.75	4.00

34	AEH500	(1)	18.84	136.00	148.19	136.00	71.80
35	AEH500	(1)	18.84	-136.00	148.19	-136.00	71.80
36	AEH500	(1)	18.84	-63.75	216.00	63.75	216.00
37	AEH500	(1)	12.00	-63.75	27.00	63.75	27.00
38	AEH500	(1)	12.00	-63.75	193.00	63.75	193.00
39	AEH500	(1)	12.00	-113.00	148.19	-113.00	71.80
40	AEH500	(1)	12.00	113.00	148.19	113.00	71.80

Total: 210.16 CuantÀa de armadura: 0.802 [o/o]

CÂd. dimensionamiento: (0) = As constante
CÂd. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccionad
CÂd. dimensionamiento: (2) = Aumentar As solo en zona traccionada

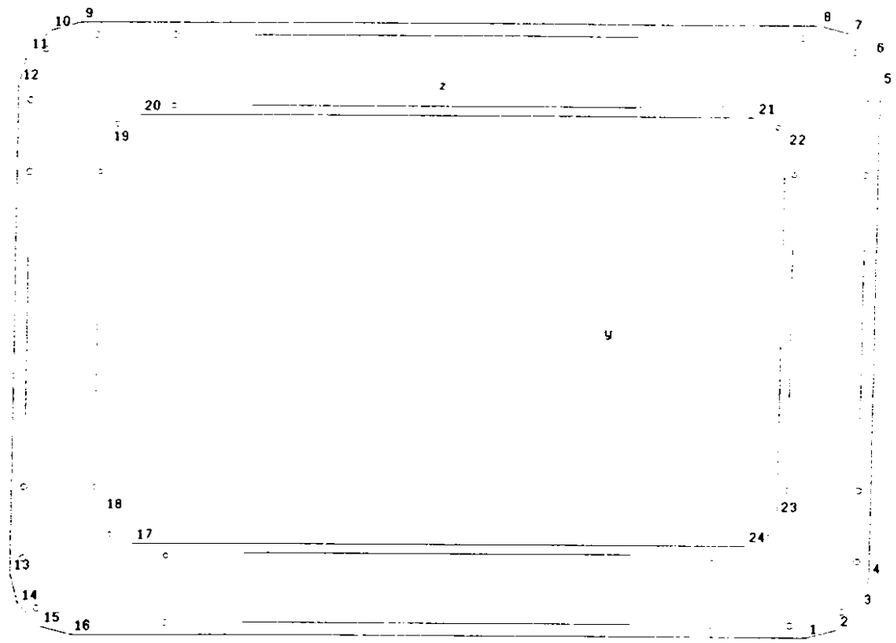
ÙNo se han definido valores para el c lculo a cortante!

CaracterÀsticas del material:

Nom.Mat.	MÂdulo E [N/mm2]	0.85*fcd,fyd [N/mm2]	eps-fc [o/oo]	fct [N/mm2]	fcv [N/mm2]	fcw,mÀn [N/mm2]
"H300"	33000.0	-17.000	-2.000	0.0	0.707000	30.000
"AEH500"	210000.0	443.470				

Leyenda:
fcd,fyd resistencia de c lculo del hormigÂn,acero
eps-fc deformaciÂn al final de la par bola (fig.2.3, cap.2.2)
fct resistencia de c lculo a tracciÂn del hormigÂn
fcv resistencia virtual de c lculo del hormigÂn a esfuerzo cortante

Mstb. 1 : 20.0



SecciÂn :"BASE3" Armadura :"B1"
Tipo : tipo pila/ Genrico Unidades :[cm]

SecciÂn parcial 1: HormigÂn = H300

Pto	Coord-Y	Coord-Z	Pto	Coord-Y	Coord-Z
1	120.00	0.00	2	130.00	2.68
3	137.32	10.00	4	140.00	20.00
5	140.00	180.00	6	137.32	190.00
7	130.00	197.32	8	120.00	200.00
9	-120.00	200.00	10	-130.00	197.32
11	-137.32	190.00	12	-140.00	180.00
13	-140.00	20.00	14	-137.32	10.00
15	-130.00	2.68	16	-120.00	0.00
Puntos aligeramiento:					
17	-100.00	30.00	18	-110.00	40.00
19	-110.00	160.00	20	-100.00	170.00
21	100.00	170.00	22	110.00	160.00
23	110.00	40.00	24	100.00	30.00

CaracterÀsticas mec nicas de la secciÂn:
Area : Ax= 2.500 [m2]
Momentos de inercia : Iy= 1.336 [m4] Iz= 2.366 [m4]
Inercia a torsiÂn : Ix= 0.994713 [m4] (de un cÀrculo del mismo rea)

PosiciÂn del centro de gravedad: ys= 0.000 [m] zs= 1.000 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-1.400	-1.690	0.676
dch.	Iz	1.400	1.690	-0.676
abajo	Iy	-1.000	-1.336	0.534
arriba	Iy	1.000	1.336	-0.534

Armadura: "B1"

NÏ	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	3.14	-131.31	191.31		
2	AEH500	(1)	3.14	131.31	191.31		
3	AEH500	(1)	3.14	-114.75	196.00		
4	AEH500	(1)	3.14	114.75	196.00		
5	AEH500	(1)	3.14	-89.25	196.00		
6	AEH500	(1)	3.14	89.25	196.00		
7	AEH500	(1)	3.14	136.00	174.75		
8	AEH500	(1)	3.14	-136.00	174.75		
9	AEH500	(1)	3.14	136.00	151.47		
10	AEH500	(1)	3.14	-136.00	151.47		
11	AEH500	(1)	3.14	136.00	48.53		
12	AEH500	(1)	3.14	-136.00	48.53		
13	AEH500	(1)	3.14	136.00	25.25		
14	AEH500	(1)	3.14	131.31	8.69		
15	AEH500	(1)	3.14	114.75	4.00		
16	AEH500	(1)	3.14	-114.75	4.00		
17	AEH500	(1)	3.14	89.25	4.00		
18	AEH500	(1)	3.14	-89.25	4.00		
19	AEH500	(1)	3.14	-131.31	8.69		
20	AEH500	(1)	3.14	-136.00	25.25		
21	AEH500	(1)	2.00	-107.50	33.00		
22	AEH500	(1)	2.00	107.50	33.00		
23	AEH500	(1)	2.00	-113.00	48.53		
24	AEH500	(1)	2.00	113.00	48.53		
25	AEH500	(1)	2.00	113.00	151.47		
26	AEH500	(1)	2.00	-113.00	151.47		
27	AEH500	(1)	2.00	89.25	26.00		
28	AEH500	(1)	2.00	89.25	173.00		
29	AEH500	(1)	2.00	-89.25	173.00		
30	AEH500	(1)	2.00	-89.25	26.00		
31	AEH500	(1)	2.00	107.50	167.00		
32	AEH500	(1)	2.00	-107.50	167.00		
33	AEH500	(1)	18.84	-63.75	4.00	63.75	4.00
34	AEH500	(1)	18.84	136.00	128.19	136.00	71.80
35	AEH500	(1)	18.84	-136.00	128.14	-136.00	71.80

36	AEH500	(1)	18.84	-63.75	196.00	63.75	196.00
37	AEH500	(1)	12.00	-63.75	27.00	63.75	27.00
38	AEH500	(1)	12.00	-63.75	173.00	63.75	173.00
39	AEH500	(1)	12.00	-113.00	128.19	-113.00	71.80
40	AEH500	(1)	12.00	113.00	128.19	113.00	71.80

Total: 210.16 CuantÀa de armadura: 0.841 [o/o]

CÂd. dimensionamiento: (0) = As constante
CÂd. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccionada
CÂd. dimensionamiento: (2) = Aumentar As solo en zona traccionada

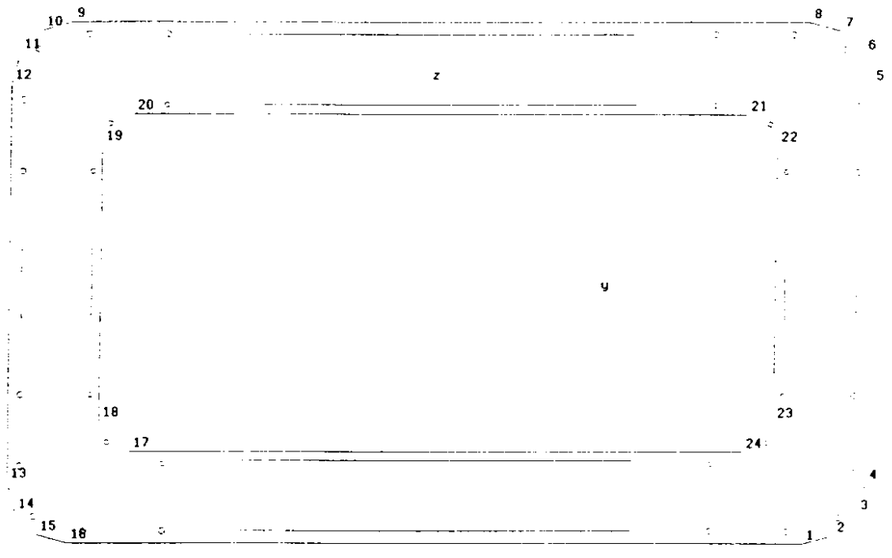
ÙNo se han definido valores para el c lculo a cortante!

CaracterÀsticas del material:

Nom.Mat.	MÂdulo E [N/mm2]	0.85*fcd,fyd [N/mm2]	eps-fc [o/oo]	fct [N/mm2]	fcv [N/mm2]	fcw,mÀn [N/mm2]
"H300"	33000.0	-17.000	-2.000	0.0	0.707000	30.000
"AEH500"	210000.0	443.470				

Leyenda:
fcd,fyd resistencia de c lculo del hormigÂn,acero
eps-fc deformaciÂn al final de la par bola (fig.2.3, cap.2.2)
fct resistencia de c lculo a traccciÂn del hormigÂn
fcv resistencia virtual de c lculo del hormigÂn a esfuerzo cortante

Mstb. 1 : 20.0



SecciÂn :"SUPERIOR" Armadura :"B1"
Tipo : tipo pila/ Genrico Unidades :[cm]

SecciÂn parcial 1: HormigÂn = H300

Pto	Coord-Y	Coord-Z	Pto	Coord-Y	Coord-Z
1	120.00	0.00	2	130.00	2.68
3	137.32	10.00	4	140.00	20.00
5	140.00	150.00	6	137.32	160.00
7	130.00	167.32	8	120.00	170.00
9	-120.00	170.00	10	-130.00	167.32
11	-137.32	160.00	12	-140.00	150.00
13	-140.00	20.00	14	-137.32	10.00
15	-130.00	2.68	16	-120.00	0.00
Puntos aligeramiento:					
17	-100.00	30.00	18	-110.00	40.00
19	-110.00	130.00	20	-100.00	140.00
21	100.00	140.00	22	110.00	130.00
23	110.00	40.00	24	100.00	30.00

CaracterÀsticas mec nicas de la secciÂn:
Area : Ax= 2.320 [m2]
Momentos de inercia : Iy= 0.881948 [m4] Iz= 2.083 [m4]
Inercia a torsiÂn : Ix= 0.856631 [m4] (de un cÀrculo del mismo rea)

PosiciÂn del centro de gravedad: ys= 0.000 [m] zs= 0.850000 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-1.400	-1.488	0.641
dch.	Iz	1.400	1.488	-0.641
abajo	Iy	-0.850	-1.038	0.447
arriba	Iy	0.850	1.038	-0.447

Armadura: "B1"

NÏ	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	3.14	-131.31	161.31		
2	AEH500	(1)	3.14	131.31	161.31		
3	AEH500	(1)	3.14	-114.75	166.00		
4	AEH500	(1)	3.14	114.75	166.00		
5	AEH500	(1)	3.14	-89.25	166.00		
6	AEH500	(1)	3.14	89.25	166.00		
7	AEH500	(1)	3.14	136.00	144.75		
8	AEH500	(1)	3.14	-136.00	144.75		
9	AEH500	(1)	3.14	136.00	121.47		
10	AEH500	(1)	3.14	-136.00	121.47		
11	AEH500	(1)	3.14	136.00	48.53		
12	AEH500	(1)	3.14	-136.00	48.53		
13	AEH500	(1)	3.14	136.00	25.25		
14	AEH500	(1)	3.14	131.31	8.69		
15	AEH500	(1)	3.14	114.75	4.00		
16	AEH500	(1)	3.14	-114.75	4.00		
17	AEH500	(1)	3.14	89.25	4.00		
18	AEH500	(1)	3.14	-89.25	4.00		
19	AEH500	(1)	3.14	-131.31	8.69		
20	AEH500	(1)	3.14	-136.00	25.25		
21	AEH500	(1)	2.00	-107.50	33.00		
22	AEH500	(1)	2.00	107.50	33.00		
23	AEH500	(1)	2.00	-113.00	48.53		
24	AEH500	(1)	2.00	113.00	48.53		
25	AEH500	(1)	2.00	113.00	121.47		
26	AEH500	(1)	2.00	-113.00	121.47		
27	AEH500	(1)	2.00	89.25	26.00		
28	AEH500	(1)	2.00	89.25	143.00		
29	AEH500	(1)	2.00	-89.25	143.00		
30	AEH500	(1)	2.00	-89.25	26.00		
31	AEH500	(1)	2.00	107.50	137.00		
32	AEH500	(1)	2.00	-107.50	137.00		
33	AEH500	(1)	18.84	-63.75	4.00	63.75	4.00
34	AEH500	(1)	18.84	136.00	98.19	136.00	71.80
35	AEH500	(1)	18.84	-136.00	98.19	-136.00	71.80
36	AEH500	(1)	18.84	-63.75	166.00	63.75	166.00
37	AEH500	(1)	12.00	-63.75	27.00	63.75	27.00
38	AEH500	(1)	12.00	-63.75	143.00	63.75	143.00

39	AEH500	(1)	12.00	-113.00	98.19	-113.00	71.80
40	AEH500	(1)	12.00	113.00	98.19	113.00	71.80

Total: 210.16 CuantÀa de armadura: 0.906 [o/o]

CÂd. dimensionamiento: (0) = As constante
CÂd. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccionada
CÂd. dimensionamiento: (2) = Aumentar As solo en zona traccionada

ÙNo se han definido valores para el c lculo a cortante!

CaracterÀsticas del material:

Nom.Mat.	MÂdulo E [N/mm2]	0.85*fcd,fyd [N/mm2]	eps-fc [o/oo]	fct [N/mm2]	fcv [N/mm2]	fcw,mÀn [N/mm2]
"H300"	33000.0	-17.000	-2.000	0.0	0.707000	30.000
"AEH500"	210000.0	443.470				

Leyenda:
fcd,fyd resistencia de c lculo del hormigÂn,acero
eps-fc deformaciÂn al final de la par bola (fig.2.3, cap.2.2)
fct resistencia de c lculo a tracciÂn del hormigÂn
fcv resistencia virtual de c lculo del hormigÂn a esfuerzo cortante

ANEJO Nº 4

DIMENSIONAMIENTO DE PILAS 2 Y 6

MC-2
ESTUDIO DE INGENIERIA
Víctor de la Serna, 21
28016 Madrid
Teléfs. 91 413 38 02 / 19
91 519 74 77
Fax 91 744 06 75

FECHA

HOJA DE

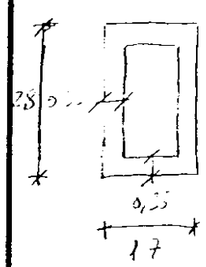
ARMADURA DE CORTANTE EN PILAR

	CP	Sobrec. uso	Empuje	Viento	Térmico	
Hip I	$V_{k,max}$ = 15,5	-11,25	+15,9	—	0,0	= 57,5 t
	$V_{k,min}$ =	—	—	—	1,15×22	= 11,3 t
Hip II	$V_{d,max}$ = (1,5×0,9 + 1,5×0,7	-1,5×0,7	- 1,25	- 9,0)	×0,9 = 53,2 t	
	$V_{d,min}$ =				1,25×22×0,9 = 27,1 t	

Se adopta $V_{d,max}$ = 85 t $\quad l_{cv}$ = 0,7 [illegible] =

$V_{d,min}$ = 27,1 t = 0,32 $V_{d,max}$

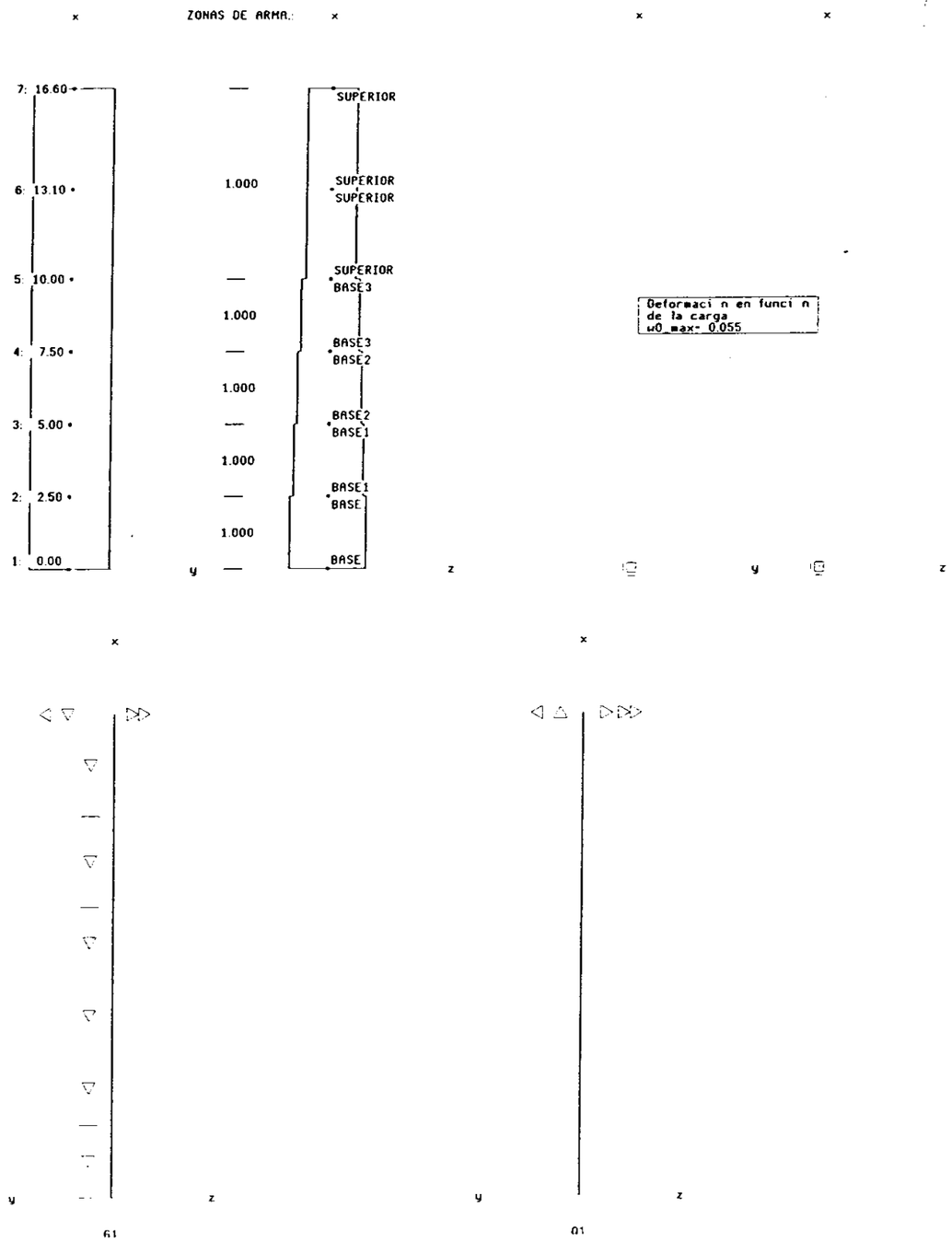
$V_{cu} = l_{cv} \cdot b_w \cdot d$ = 73,7 t/m² × 0,7 × 2,7 = 139 t > V_d =



$\Sigma \frac{A_a \cdot f_{yd} \cdot l}{12 \cdot \alpha} \geq$ 0,9 [illegible] t/m → $A_a = \frac{0,9 \cdot \frac{139}{1,15}}{4200}$ =

= [illegible] cm²/m

Escala 1 : 194.7
Modelo, Deformación accidental y cargas de la pila PILA4



Pila ''PILA4'
****

Título : 'VIADUCTO DE LOS CHORROS'
Altura de la pila : 16.600 [m]
Long. max. de barra: Altura pila / 6

NUDOS x Apoyo
Nu [m] d-xyz r-xyz

Nu	x [m]	d-xyz	r-xyz
7	16.600		
6	13.100		
5	10.000		
4	7.500		
3	5.000		
2	2.500		
1	0.000	BBB	BBB

Apoyo: B=bloqueado, E=elástico

BARRAS (1.línea: barra arriba, 2.línea: barra abajo)

Ba	Nu	Sección	Tipo	Exc: ey [m]	ez [m]	Arm: Zona	fac
6	7-6	'SUPERIOR'	SecFAGUS			1	1.000
5	6-5	'SUPERIOR'	SecFAGUS			1	1.000
4	5-4	'BASE3'	SecFAGUS			2	1.000
3	4-3	'BASE2'	SecFAGUS			3	1.000
2	3-2	'BASE1'	SecFAGUS			4	1.000
1	2-1	'BASE'	SecFAGUS			5	1.000

DEF. ACCIDENTAL :

Func. carga : w0_max= 0.055 m

CARGAS :

Nu/Ba		Tipo Car.		Dim.	Valor Val.arriba	ey[m] Val.abajo	ez[m]
Comp. Carga G1 :							
Nudo	7	Fuerza	x	[kN]	-4750.000	0.14000	0.08500
		Fuerza	y	[kN]	50.000		
		Momento	z	[kNm]	1100.000		
Barra	6	Peso propio	x	[kN/m3]	-25.000		
Barra	5	Peso propio	x	[kN/m3]	-25.000		
Barra	4	Peso propio	x	[kN/m3]	-25.000		
Barra	3	Peso propio	x	[kN/m3]	-25.000		
Barra	2	Peso propio	x	[kN/m3]	-25.000		
Barra	1	Peso propio	x	[kN/m3]	-25.000		
Comp. Carga Q1 :							
Nudo	7	Fuerza	x	[kN]	1040.000	0.05000	0.05000
		Fuerza	y	[kN]	370.000		
		Fuerza	z	[kN]	330.000		
		Momento	z	[kNm]	110.000		

C A P A C I D A D R E S I S T E N T E U L T I M A <G.PILA4.1>

PARAMETROS DE CALCULO:

Norma	EH
Criterio de rotura	Agotamiento de secciones o del sistema
Rotura de secciones	Limitación de deformaciones según FAGUS-
- Hormigón (def. centrada)	-2.000 [o/oo]
- Hormigón (flexión)	-3.500 [o/oo]
- Acero	10.00 [o/oo]
Coef. min. resist. (gamma_r)	1.000
Coeficiente de fluencia	0.000
Factor armadura (global)	1.000
No de elementos	6
Tolerancia desequi. fuerzas	0.070 [kN]
Tolerancia desequi. momentos	0.134 [kNm]
Mayoración de cargas	1.500 * Carga permanente G1 + 1.500 * Carga variable Q1 * ß

RESULTADOS DEL CALCULO NO LINEAL:
Las cargas variables se han aumentado por un factor ß (ß=1.5652). > 1,5

Rotura: Rotura de la sección
Sección 'BASE' en x= 0.000

DATOS DE LA SECCION

Nombre	Ancho dy [m]	Canto dz [m]	Materiales Horm. / Acero		Distrib. de la armadura	Armadura fija[cm²]	Armadura var [cm²]
BASE	2.800	2.600	H300	AEH500	B1	0.000	288.0
BASE1	2.800	2.380	H300	AEH500	B1	0.000	288.0
BASE2	2.800	2.200	H300	AEH500	B1	0.000	288.0
BASE3	2.800	2.000	H300	AEH500	B1	0.000	288.0
SUPERIOR	2.800	1.700	H300	AEH500	B1	0.000	288.0

DATOS DE BARRAS (incl. factores de armadura)

Barra	Sección arriba	/ abajo	factor S de la armadura	Armadura variable arriba[cm²]/abajo[cm²]	
6	SUPERIOR	SUPERIOR	1.000	288.0	288.0
5	SUPERIOR	SUPERIOR	1.000	288.0	288.0
4	BASE3	BASE3	1.000	288.0	288.0
3	BASE2	BASE2	1.000	288.0	288.0
2	BASE1	BASE1	1.000	288.0	288.0
1	BASE	BASE	1.000	288.0	288.0

DEFORMACIONES sin deformaciones accidentales

	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
Mínima	0.00	0.00	0.00	-0.033	-13.351	0.000
Máxima	7.06	145.09	141.96	0.029	0.000	12.632

DEFORMACION ACCIDENTAL DY [mm] DZ [mm]

Máxima	33.06	44.33

ESFUERZOS (global)

	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Mínima	-6127.23	-943.71	-774.79	-37.76	483.54	2783.68
Máxima	-4835.47	-943.71	-774.79	0.00	14315.86	19383.49

TENSIONES, DEFORMACIONES & RIGIDECES-SECANTE/gamma_r

	sigHorm. [N/mm²]	sigAcero [N/mm²]	epsHorm. [o/oo]	epsAcero [o/oo]	EIy [kNm²]	EIz [kNm²]
Mínima	-17.0	-443.5	-3.496	-3.375	6.043E+6	7.920E+6
Máxima	0.0	443.5	7.989	7.868	1.621E+7	4.259E+7

DEFORMACIONES sin deformaciones accidentales
<G.PILA4.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.5652

Coord-x [m]	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
16.600	5.81	145.09	141.96	0.029	-13.351	12.632
13.100	6.93	101.73	96.10	0.014	-12.648	12.027
10.000	7.06	66.31	59.83	-0.018	-10.439	10.685
7.500	6.58	41.40	36.04	-0.031	-8.444	9.144
5.000	5.55	20.90	17.53	-0.033	-6.208	7.130
2.500	3.71	6.22	5.04	-0.022	-3.562	4.396
0.000	0.00	0.00	0.00	0.000	0.000	0.000

ESFUERZOS (global)
<G.PILA4.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.5652

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
16.600	-4835.47	-943.71	-774.79	0.00	483.54	2783.68
13.100	-4835.47	-943.71	-774.79	-16.85	3497.43	6349.45
13.100	-5122.57	-943.71	-774.79	-16.85	3497.43	6349.45
10.000	-5122.57	-943.71	-774.79	-28.34	6146.74	9500.38
10.000	-5374.61	-943.71	-774.79	-28.34	6146.74	9500.38
7.500	-5374.61	-943.71	-774.79	-33.78	8249.24	12023.52
7.500	-5614.61	-943.71	-774.79	-33.78	8249.24	12023.52
5.000	-5614.61	-943.71	-774.79	-36.67	10316.89	14520.99
5.000	-5865.30	-943.71	-774.79	-36.67	10316.89	14520.99
2.500	-5865.30	-943.71	-774.79	-37.68	12342.83	16981.01
2.500	-6127.23	-943.71	-774.79	-37.68	12342.83	16981.01
0.000	-6127.23	-943.71	-774.79	-37.76	14315.86	19383.49

TENSIONES & RIGIDECES-SECANTE/gamma_r
<G.PILA4.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.5652

Coord-x [m]	Horm.- [N/mm²]	Horm.+ [N/mm²]	Acero- [N/mm²]	Acero+ [N/mm²]	EIy [kNm²]	EIz [kNm²]
16.600	-3.5	-0.2	-45.5	-3.8	1.621E+7	4.259E+7
13.100	-9.5	0.0	-136.7	141.1	8.565E+6	2.265E+7
13.100	-9.8	0.0	-142.7	154.6	8.278E+6	2.137E+7
10.000	-14.7	0.0	-253.4	383.4	6.043E+6	1.671E+7
10.000	-13.1	0.0	-211.8	307.1	9.792E+6	1.874E+7
7.500	-15.7	0.0	-293.8	443.5	8.452E+6	1.656E+7
7.500	-14.8	0.0	-260.5	414.2	1.134E+7	1.798E+7
5.000	-16.7	0.0	-353.8	443.5	9.565E+6	1.540E+7
5.000	-16.0	0.0	-311.1	443.5	1.265E+7	1.713E+7
2.500	-17.0	0.0	-443.5	443.5	9.291E+6	1.267E+7
2.500	-16.8	0.0	-361.3	443.5	1.395E+7	1.587E+7
0.000	-17.0	0.0	-443.5	443.5	7.071E+6	7.920E+6

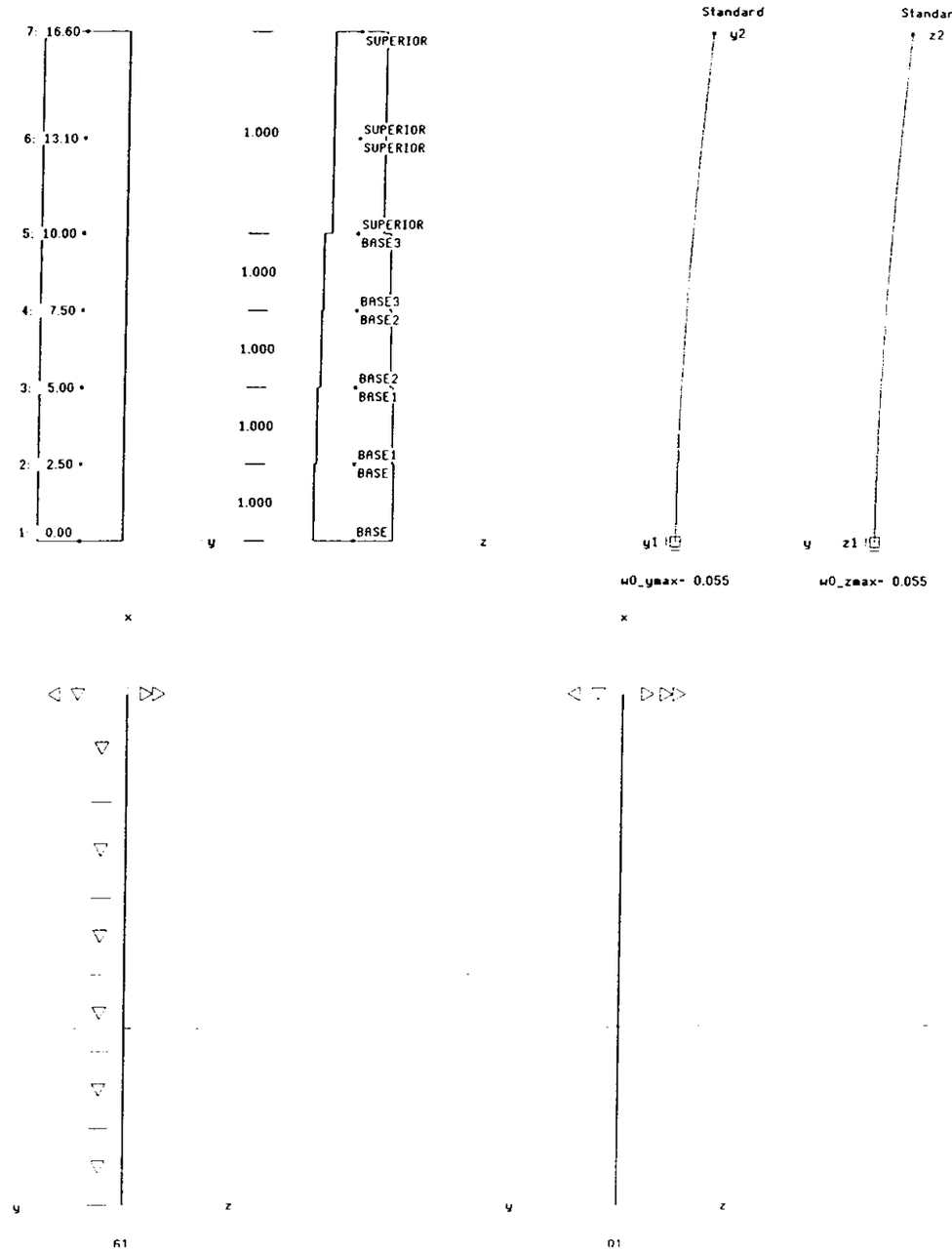
DEFORMACIONES
<G.PILA4.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.5652

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
16.600	-0.220	-0.015	-0.216	-0.018	0.16	104.8
13.100	-0.670	0.691	-0.651	0.672	0.19	143.9
13.100	-0.701	0.757	-0.679	0.736	0.19	144.5
10.000	-1.260	1.879	-1.207	1.826	0.20	150.6

DEFORMACIONES
<G.PILA4.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.5652

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
10.000	-1.040	1.493	-1.009	1.463	0.18	140.9
7.500	-1.448	2.331	-1.399	2.282	0.20	143.2
7.500	-1.275	2.007	-1.241	1.972	0.18	137.1
5.000	-1.737	3.009	-1.685	2.957	0.20	138.6
5.000	-1.522	2.559	-1.481	2.518	0.18	133.5
2.500	-2.230	4.311	-2.167	4.248	0.21	134.4
2.500	-1.773	3.239	-1.720	3.186	0.18	128.9
0.000	-3.496	7.989	-3.375	7.868	0.21	129.0

Escala 1 : 194.7
Modelo, Deformación accidental y cargas de la pila NMIN



Pila ''NMIN'
****

Título : 'Hip: axil minimo'
Altura de la pila : 16.600 [m]
Long. max. de barra: Altura pila / 6

NUDOS Nu	x [m]	Apoyo d-xyz	r-xyz
7	16.600		
6	13.100		
5	10.000		
4	7.500		
3	5.000		
2	2.500		
1	0.000	BBB	BBB

Apoyo: B=bloqueado, E=elástico

BARRAS (1.línea: barra arriba, 2.línea: barra abajo)

Ba	Nu	Sección	Tipo	Exc: ey [m]	ez [m]	Arm:	Zona	fac
6	7-6	'SUPERIOR'	SecFAGUS				1	1.000
5	6-5	'SUPERIOR'	SecFAGUS				1	1.000
4	5-4	'BASE3'	SecFAGUS				2	1.000
3	4-3	'BASE2'	SecFAGUS				3	1.000
2	3-2	'BASE1'	SecFAGUS				4	1.000
1	2-1	'BASE'	SecFAGUS				5	1.000

DEF. ACCIDENTAL :
Curva estándar y z, Valores max. [m]: w0_ymax= 0.055 w0_zmax= 0.055

Pto.	Bar.	x[m]	w0_y [m]	w0_z [m]
1	6	16.600	0.055	0.055
2	6	14.850	0.046	0.046
3	5	13.100	0.037	0.037
4	5	11.550	0.030	0.030
5	4	10.000	0.023	0.023
6	3	7.500	0.013	0.013
7	2	5.000	0.006	0.006
8	1	2.500	0.002	0.002
9	1	0.000	0.000	0.000

CARGAS :

Nu/Ba		Tipo Car.		Dim.	Valor Val.arriba	ey[m] Val.abajo	ez[m]
Comp. Carga G1 :							
Nudo	7	Fuerza	x	[kN]	-5340.000	0.14000	0.08500
		Fuerza	y	[kN]	50.000		
		Momento	z	[kNm]	1220.000		
Barra	6	Peso propio	x	[kN/m3]	-25.000		
Barra	5	Peso propio	x	[kN/m3]	-25.000		
Barra	4	Peso propio	x	[kN/m3]	-25.000		
Barra	3	Peso propio	x	[kN/m3]	-25.000		
Barra	2	Peso propio	x	[kN/m3]	-25.000		
Barra	1	Peso propio	x	[kN/m3]	-25.000		
Comp. Carga Q1 :							
Nudo	7	Fuerza	x	[kN]	-4880.000	0.05000	0.05000
		Fuerza	y	[kN]	520.000		
		Fuerza	z	[kN]	330.000		
		Momento	z	[kNm]	1100.000		

C A P A C I D A D R E S I S T E N T E U L T I M A <G.NMIN.1>

PARAMETROS DE CALCULO:

Norma	EH
Criterio de rotura	Agotamiento de secciones o del sistema
Rotura de secciones	Limitación de deformaciones según FAGUS-2
- Hormigón (def. centrada)	-2.000 [o/oo]
- Hormigón (flexión)	-3.500 [o/oo]
- Acero	10.00 [o/oo]
Coef. min. resist. (gamma_r)	1.000
Coeficiente de fluencia	0.000
Factor armadura (global)	1.000
No de elementos	6
Tolerancia desequi. fuerzas	0.168 [kN]
Tolerancia desequi. momentos	0.200 [kNm]
Mayoración de cargas	1.500 * Carga permanente G1
	+ 1.500 * Carga variable Q1 * ß

RESULTADOS DEL CALCULO NO LINEAL:
Las cargas variables se han aumentado por un factor ß (ß=1.2886).

Rotura: Rotura de la sección
Sección 'BASE' en x= 0.000

DATOS DE LA SECCION

Nombre	Ancho dy [m]	Canto dz [m]	Materiales Horm. / Acero		Distrib. de la armadura	Armadura fija[cm²]	Armadura var [cm²]
BASE	2.800	2.600	H300	AEH500	B1	0.000	288.0
BASE1	2.800	2.380	H300	AEH500	B1	0.000	288.0
BASE2	2.800	2.200	H300	AEH500	B1	0.000	288.0
BASE3	2.800	2.000	H300	AEH500	B1	0.000	288.0
SUPERIOR	2.800	1.700	H300	AEH500	B1	0.000	288.0

DATOS DE BARRAS (incl. factores de armadura)

Barra	Sección arriba / abajo		factor S de la armadura	Armadura variable arriba[cm²]/abajo[cm²]	
6	SUPERIOR	SUPERIOR	1.000	288.0	288.0
5	SUPERIOR	SUPERIOR	1.000	288.0	288.0
4	BASE3	BASE3	1.000	288.0	288.0
3	BASE2	BASE2	1.000	288.0	288.0
2	BASE1	BASE1	1.000	288.0	288.0
1	BASE	BASE	1.000	288.0	288.0

DEFORMACIONES sin deformaciones accidentales

	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
Mínima	-6.63	0.00	0.00	-0.029	-9.953	0.000
Máxima	0.00	128.09	102.19	0.052	0.000	11.792

ESFUERZOS (global)

	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Mínima	-18886.84	-1080.23	-637.90	-53.15	1152.45	5549.12
Máxima	-17595.09	-1080.13	-637.87	-0.02	14574.07	26780.43

TENSIONES, DEFORMACIONES & RIGIDECES-SECANTE/gamma_r

	sigHorm. [N/mm²]	sigAcero [N/mm²]	epsHorm. [o/oo]	epsAcero [o/oo]	EIy [kNm²]	EIz [kNm²]
Mínima	-17.0	-443.5	-3.499	-3.416	9.321E+6	1.643E+7
Máxima	0.0	443.5	3.700	3.617	1.843E+7	3.584E+7

DEFORMACIONES sin deformaciones accidentales
<G.NMIN.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.2886

Coord-x [m]	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
16.600	-6.63	128.09	102.19	0.052	-9.953	11.792
13.100	-4.31	88.12	68.36	0.025	-9.247	10.973
10.000	-2.43	56.07	41.93	-0.006	-7.600	9.574
7.500	-1.26	33.95	24.67	-0.022	-6.090	8.019
5.000	-0.45	16.31	11.51	-0.029	-4.323	5.969
2.500	-0.02	4.48	3.08	-0.022	-2.280	3.333
0.000	0.00	0.00	0.00	0.000	0.000	0.000

ESFUERZOS (global)
<G.NMIN.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.2886

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
16.600	-17595.09	-1080.23	-637.90	-0.02	1152.45	5549.12
13.100	-17595.09	-1080.23	-637.90	-19.04	4296.87	10349.37
13.100	-17882.19	-1080.21	-637.89	-19.05	4296.81	10349.10
10.000	-17882.19	-1080.21	-637.89	-33.51	7003.53	14527.39
10.000	-18134.22	-1080.20	-637.90	-33.50	7003.48	14527.21

ESFUERZOS (global)
<G.NMIN.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.2886

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
7.500	-18134.22	-1080.20	-637.90	-42.29	9085.62	17803.14
7.500	-18374.22	-1080.17	-637.90	-42.28	9085.56	17803.03
5.000	-18374.22	-1080.17	-637.90	-48.47	11055.97	20961.32
5.000	-18624.90	-1080.14	-637.89	-48.45	11055.93	20961.27
2.500	-18624.90	-1080.14	-637.89	-52.01	12892.08	23966.48
2.500	-18886.84	-1080.13	-637.87	-51.99	12892.08	23966.48
0.000	-18886.84	-1080.13	-637.87	-53.15	14574.07	26780.43

TENSIONES & RIGIDECES-SECANTE/gamma_r
<G.NMIN.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.2886

Coord-x [m]	Horm.- [N/mm²]	Horm.+ [N/mm²]	Acero- [N/mm²]	Acero+ [N/mm²]	EIy [kNm²]	EIz [kNm²]
16.600	-9.9	-2.7	-145.9	-36.4	1.383E+7	3.584E+7
13.100	-13.8	0.0	-233.2	44.8	1.275E+7	3.304E+7
13.100	-13.8	0.0	-234.7	41.7	1.280E+7	3.316E+7
10.000	-16.8	0.0	-365.1	196.8	9.321E+6	2.460E+7
10.000	-15.8	0.0	-302.6	138.5	1.535E+7	2.992E+7
7.500	-17.0	0.0	-416.6	291.5	1.193E+7	2.347E+7
7.500	-16.8	0.0	-365.0	237.2	1.616E+7	2.688E+7
5.000	-17.0	0.0	-443.5	411.4	1.281E+7	2.143E+7
5.000	-17.0	0.0	-429.9	342.9	1.680E+7	2.448E+7
2.500	-17.0	0.0	-443.5	443.5	1.292E+7	1.913E+7
2.500	-17.0	0.0	-443.5	439.2	1.843E+7	2.310E+7
0.000	-17.0	0.0	-443.5	443.5	1.267E+7	1.643E+7

DEFORMACIONES
<G.NMIN.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.2886

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
16.600	-0.703	-0.165	-0.695	-0.173	0.17	116.0
13.100	-1.126	0.229	-1.110	0.213	0.19	136.4
13.100	-1.133	0.214	-1.118	0.199	0.19	136.2
10.000	-1.775	0.974	-1.739	0.937	0.22	141.3
10.000	-1.464	0.683	-1.441	0.659	0.19	133.0
7.500	-2.020	1.424	-1.984	1.388	0.22	134.9
7.500	-1.771	1.162	-1.738	1.129	0.19	130.1
5.000	-2.391	2.007	-2.344	1.959	0.23	131.2
5.000	-2.090	1.676	-2.047	1.633	0.20	127.2

DEFORMACIONES
<G.NMIN.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.2886

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
2.500	-2.873	2.715	-2.811	2.653	0.23	128.2
2.500	-2.357	2.145	-2.304	2.092	0.20	123.6
0.000	-3.499	3.700	-3.416	3.617	0.23	124.9

C A R G A F I J A <F.NMIN.1>

PARAMETROS DE CALCULO:

Norma	EH
Criterio de rotura	Agotamiento de secciones o del sistema
Rotura de secciones	Limitación de deformaciones según FAGUS-2
- Hormigón (def. centrada)	-2.000 [o/oo]
- Hormigón (flexión)	-3.500 [o/oo]
- Acero	10.00 [o/oo]
Coef. min. resist. (gamma_r)	1.000
Coeficiente de fluencia	0.000
Factor armadura (global)	1.000
No de elementos	6
Tolerancia desequi. fuerzas	0.112 [kN]
Tolerancia desequi. momentos	0.134 [kNm]
Mayoración de cargas	1.000 * Carga permanente G1
	+ 1.000 * Carga variable Q1 * ß

RESULTADOS DEL CALCULO NO LINEAL:
Las cargas se han podido aplicar. (ß=1.00).

DATOS DE LA SECCION

Nombre	Ancho dy [m]	Canto dz [m]	Materiales Horm. / Acero		Distrib. de la armadura	Armadura fija[cm²]	Armadura var [cm²]
BASE	2.800	2.600	H300	AEH500	B1	0.000	288.0
BASE1	2.800	2.380	H300	AEH500	B1	0.000	288.0
BASE2	2.800	2.200	H300	AEH500	B1	0.000	288.0
BASE3	2.800	2.000	H300	AEH500	B1	0.000	288.0
SUPERIOR	2.800	1.700	H300	AEH500	B1	0.000	288.0

DATOS DE BARRAS (incl. factores de armadura)

Barra	Sección arriba / abajo		factor S de la armadura	Armadura variable arriba[cm²]/abajo[cm²]	
6	SUPERIOR	SUPERIOR	1.000	288.0	288.0
5	SUPERIOR	SUPERIOR	1.000	288.0	288.0
4	BASE3	BASE3	1.000	288.0	288.0
3	BASE2	BASE2	1.000	288.0	288.0
2	BASE1	BASE1	1.000	288.0	288.0
1	BASE	BASE	1.000	288.0	288.0

DEFORMACIONES sin deformaciones accidentales

	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
Mínima	-3.50	0.00	0.00	-5.970E-3	-3.420	0.000
Máxima	0.00	45.18	33.10	1.489E-2	0.000	4.389

ESFUERZOS (global)

	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Mínima	-11182.67	-570.00	-330.00	-17.24	697.90	3311.60
Máxima	-10321.50	-570.00	-330.00	0.00	7111.33	13837.37

TENSIONES, DEFORMACIONES & RIGIDECES-SECANTE/gamma_r

	sigHorm. [N/mm²]	sigAcero [N/mm²]	epsHorm. [o/oo]	epsAcero [o/oo]	EIy [kNm²]	EIz [kNm²]
Mínima	-13.2	-217.0	-1.058	-1.033	1.249E+7	2.871E+7
Máxima	0.0	198.6	0.971	0.946	2.694E+7	3.835E+7

DEFORMACIONES sin deformaciones accidentales
<F.NMIN.1> Carga: 1.00*G1 1.00*Q1*ß ß=1.0000

Coord-x [m]	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
16.600	-3.50	45.18	33.10	1.489E-2	-3.420	4.389
13.100	-2.46	30.48	21.61	6.981E-3	-3.090	3.975
10.000	-1.59	19.03	12.93	-6.475E-4	-2.453	3.376
7.500	-1.00	11.31	7.43	-4.528E-3	-1.912	2.764
5.000	-0.53	5.30	3.35	-5.970E-3	-1.312	2.004
2.500	-0.19	1.40	0.85	-4.502E-3	-0.658	1.078
0.000	0.00	0.00	0.00	0.000E+0	0.000	0.000

ESFUERZOS (global)
<F.NMIN.1> Carga: 1.00*G1 1.00*Q1*ß ß=1.0000

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
16.600	-10321.50	-570.00	-330.00	0.00	697.90	3311.60
13.100	-10321.50	-570.00	-330.00	-6.02	2157.17	5643.94
13.100	-10512.90	-570.00	-330.00	-6.02	2157.17	5643.94
10.000	-10512.90	-570.00	-330.00	-10.64	3422.51	7682.36
10.000	-10680.92	-570.00	-330.00	-10.64	3422.51	7682.36

ESFUERZOS (global)
<F.NMIN.1> Carga: 1.00*G1 1.00*Q1*ß ß=1.0000

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
7.500	-10680.92	-570.00	-330.00	-13.54	4409.00	9292.51
7.500	-10840.92	-570.00	-330.00	-13.54	4409.00	9292.51
5.000	-10840.92	-570.00	-330.00	-15.62	5357.07	10861.57
5.000	-11008.05	-570.00	-330.00	-15.62	5357.07	10861.57
2.500	-11008.05	-570.00	-330.00	-16.85	6259.54	12379.49
2.500	-11182.67	-570.00	-330.00	-16.85	6259.54	12379.49
0.000	-11182.67	-570.00	-330.00	-17.24	7111.33	13837.37

TENSIONES & RIGIDECES-SECANTE/gamma_r
<F.NMIN.1> Carga: 1.00*G1 1.00*Q1*ß ß=1.0000

Coord-x [m]	Horm.- [N/mm²]	Horm.+ [N/mm²]	Acero- [N/mm²]	Acero+ [N/mm²]	EIy [kNm²]	EIz [kNm²]
16.600	-6.0	-1.5	-81.6	-19.7	1.528E+7	3.835E+7
13.100	-8.2	0.0	-115.9	13.2	1.488E+7	3.748E+7
13.100	-8.2	0.0	-116.4	10.9	1.495E+7	3.793E+7
10.000	-10.5	0.0	-157.4	60.2	1.249E+7	3.235E+7
10.000	-9.3	0.0	-136.1	41.0	1.993E+7	3.796E+7
7.500	-11.1	0.0	-169.6	88.9	1.678E+7	3.239E+7
7.500	-10.3	0.0	-154.3	71.7	2.219E+7	3.618E+7
5.000	-12.0	0.0	-187.9	126.0	1.897E+7	3.089E+7
5.000	-11.3	0.0	-173.1	107.3	2.386E+7	3.394E+7
2.500	-12.8	0.0	-205.6	165.1	2.092E+7	2.940E+7
2.500	-12.0	0.0	-187.0	141.1	2.694E+7	3.255E+7
0.000	-13.2	0.0	-217.0	198.6	2.416E+7	2.871E+7

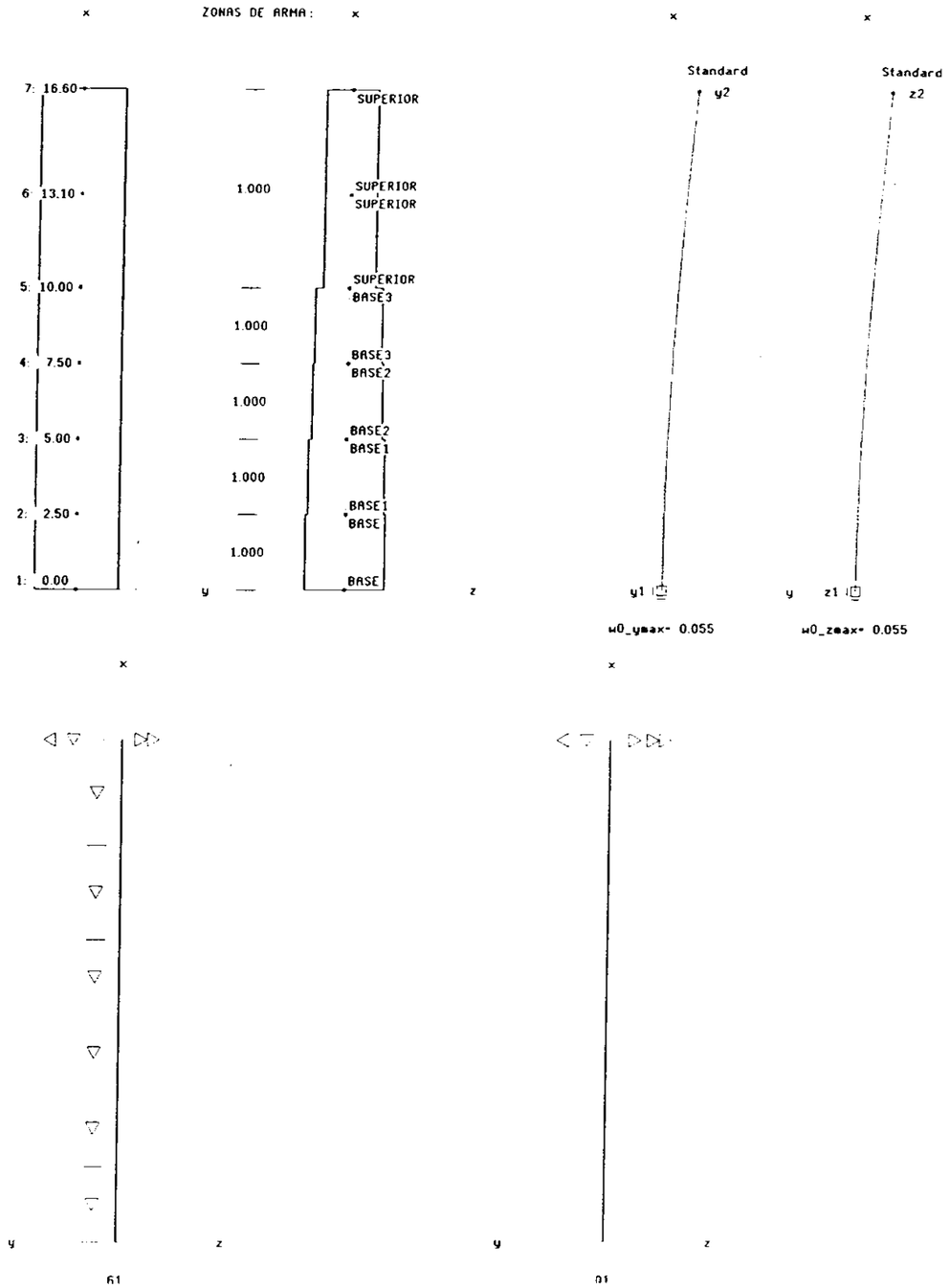
DEFORMACIONES
<F.NMIN.1> Carga: 1.00*G1 1.00*Q1*ß ß=1.0000

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
16.600	-0.393	-0.089	-0.389	-0.094	0.16	117.3
13.100	-0.559	0.070	-0.552	0.063	0.17	133.7
13.100	-0.561	0.059	-0.554	0.052	0.17	133.5
10.000	-0.762	0.300	-0.749	0.287	0.17	138.7
10.000	-0.658	0.205	-0.648	0.195	0.16	130.2
7.500	-0.822	0.437	-0.808	0.423	0.17	132.4
7.500	-0.748	0.354	-0.735	0.341	0.16	127.7
5.000	-0.912	0.617	-0.895	0.600	0.16	128.7
5.000	-0.840	0.527	-0.824	0.511	0.15	125.0

DEFORMACIONES
<F.NMIN.1> Carga: 1.00*G1 1.00*Q1*ß ß=1.0000

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
2.500	-1.000	0.807	-0.979	0.786	0.16	125.4
2.500	-0.910	0.692	-0.890	0.672	0.15	121.4
0.000	-1.058	0.971	-1.033	0.946	0.16	121.4

Escala 1 : 194.7
Modelo, Deformación accidental y cargas de la pila MTMAX



Pila ''MTMAX'
****

Título : 'Hip: momento transversal max.'
Altura de la pila : 16.600 [m]
Long. max. de barra: Altura pila / 6

NUDOS x Apoyo
Nu [m] d-xyz r-xyz

Nu	x [m]	d-xyz	r-xyz
7	16.600		
6	13.100		
5	10.000		
4	7.500		
3	5.000		
2	2.500		
1	0.000	BBB	BBB

Apoyo: B=bloqueado, E=elástico

BARRAS (1.línea: barra arriba, 2.línea: barra abajo)

Ba	Nu	Sección	Tipo	Exc: ey [m]	ez [m]	Arm: Zona	fac
6	7-6	'SUPERIOR'	SecFAGUS			1	1.000
5	6-5	'SUPERIOR'	SecFAGUS			1	1.000
4	5-4	'BASE3'	SecFAGUS			2	1.000
3	4-3	'BASE2'	SecFAGUS			3	1.000
2	3-2	'BASE1'	SecFAGUS			4	1.000
1	2-1	'BASE'	SecFAGUS			5	1.000

DEF. ACCIDENTAL :
Curva estándar y z, Valores max. [m]: w0_ymax= 0.055 w0_zmax= 0.055

Pto.	Bar.	x[m]	w0_y [m]	w0_z [m]
1	6	16.600	0.055	0.055
2	6	14.850	0.046	0.046
3	5	13.100	0.037	0.037
4	5	11.550	0.030	0.030
5	4	10.000	0.023	0.023
6	3	7.500	0.013	0.013
7	2	5.000	0.006	0.006
8	1	2.500	0.002	0.002
9	1	0.000	0.000	0.000

CARGAS :

Nu/Ba		Tipo Car.		Dim.	Valor Val.arriba	ey[m] Val.abajo	ez[m]
Comp. Carga G1 :							
Nudo	7	Fuerza	x	[kN]	-4750.000	0.14000	0.08500
		Fuerza	y	[kN]	50.000		
		Momento	z	[kNm]	1100.000		
Barra	6	Peso propio	x	[kN/m3]	-25.000		
Barra	5	Peso propio	x	[kN/m3]	-25.000		
Barra	4	Peso propio	x	[kN/m3]	-25.000		
Barra	3	Peso propio	x	[kN/m3]	-25.000		
Barra	2	Peso propio	x	[kN/m3]	-25.000		
Barra	1	Peso propio	x	[kN/m3]	-25.000		
Comp. Carga Q1 :							
Nudo	7	Fuerza	x	[kN]	-3400.000	0.05500	0.05500
		Fuerza	y	[kN]	580.000		
		Fuerza	z	[kN]	330.000		
		Momento	z	[kNm]	2730.000		

C A P A C I D A D R E S I S T E N T E U L T I M A <G.MTMAX.2>

PARAMETROS DE CALCULO:

Norma	EH
Criterio de rotura	Agotamiento de secciones o del sistema
Rotura de secciones	Limitación de deformaciones según FAGUS-1
- Hormigón (def. centrada)	-2.000 [o/oo]
- Hormigón (flexión)	-3.500 [o/oo]
- Acero	10.00 [o/oo]
Coef. min. resist. (gamma_r)	1.000
Coeficiente de fluencia	0.000
Factor armadura (global)	1.000
No de elementos	6
Tolerancia desequi. fuerzas	0.137 [kN]
Tolerancia desequi. momentos	0.234 [kNm]
Mayoración de cargas	1.500 * Carga permanente G1
	+ 1.500 * Carga variable Q1 * ß

RESULTADOS DEL CALCULO NO LINEAL:
Las cargas variables se han aumentado por un factor ß (ß=1.0887).

Rotura: Rotura de la sección
Sección 'BASE' en x= 0.000

DATOS DE LA SECCION

Nombre	Ancho dy [m]	Canto dz [m]	Materiales Horm. / Acero		Distrib. de la armadura	Armadura fija[cm²]	Armadura var [cm²]
BASE	2.800	2.600	H300	AEH500	B1	0.000	288.0
BASE1	2.800	2.380	H300	AEH500	B1	0.000	288.0
BASE2	2.800	2.200	H300	AEH500	B1	0.000	288.0
BASE3	2.800	2.000	H300	AEH500	B1	0.000	288.0
SUPERIOR	2.800	1.700	H300	AEH500	B1	0.000	288.0

DATOS DE BARRAS (incl. factores de armadura)

Barra	Sección arriba / abajo		factor S de la armadura	Armadura variable arriba[cm²]/abajo[cm²]	
6	SUPERIOR	SUPERIOR	1.000	288.0	288.0
5	SUPERIOR	SUPERIOR	1.000	288.0	288.0
4	BASE3	BASE3	1.000	288.0	288.0
3	BASE2	BASE2	1.000	288.0	288.0
2	BASE1	BASE1	1.000	288.0	288.0
1	BASE	BASE	1.000	288.0	288.0

DEFORMACIONES sin deformaciones accidentales

	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
Mínima	-1.93	0.00	0.00	-0.017	-9.407	0.000
Máxima	1.86	156.79	97.02	0.109	0.000	14.482

ESFUERZOS (global)

	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Mínima	-14121.63	-1022.22	-538.93	-41.42	911.02	7411.31
Máxima	-12829.87	-1022.21	-538.93	-0.00	11870.54	27185.84

TENSIONES, DEFORMACIONES & RIGIDECES-SECANTE/gamma_r

	sigHorm. [N/mm²]	sigAcero [N/mm²]	epsHorm. [o/oo]	epsAcero [o/oo]	EIy [kNm²]	EIz [kNm²]
Mínima	-17.0	-443.5	-3.485	-3.373	7.797E+6	1.277E+7
Máxima	0.0	443.5	5.178	5.066	1.641E+7	3.835E+7

DEFORMACIONES sin deformaciones accidentales
<G.MTMAX.2> Carga: 1.50*G1 1.50*Q1*ß ß=1.0887

Coord-x [m]	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
16.600	-1.93	156.79	97.02	0.109	-9.407	14.482
13.100	0.02	107.73	64.95	0.075	-8.776	13.450
10.000	1.28	68.55	39.92	0.028	-7.177	11.666
7.500	1.81	41.67	23.64	-0.000	-5.735	9.726
5.000	1.86	20.26	11.21	-0.016	-4.110	7.273
2.500	1.37	5.71	3.10	-0.017	-2.250	4.184
0.000	0.00	0.00	0.00	0.000	0.000	0.000

ESFUERZOS (global)
<G.MTMAX.2> Carga: 1.50*G1 1.50*Q1*ß ß=1.0887

Coord-x [m]	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
16.600	-12829.87	-1022.22	-538.93	-0.00	911.02	7411.31
13.100	-12829.87	-1022.22	-538.93	-15.04	3439.24	11848.65
13.100	-13116.97	-1022.21	-538.93	-15.04	3439.24	11848.64
10.000	-13116.97	-1022.21	-538.93	-26.46	5626.44	15719.25
10.000	-13369.00	-1022.21	-538.93	-26.46	5626.44	15719.24

ESFUERZOS (global)
<G.MTMAX.2> Carga: 1.50*G1 1.50*Q1*ß ß=1.0887

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
7.500	-13369.00	-1022.21	-538.93	-33.26	7319.70	18762.42
7.500	-13609.00	-1022.21	-538.93	-33.25	7319.70	18762.42
5.000	-13609.00	-1022.21	-538.93	-37.94	8935.13	21708.11
5.000	-13859.69	-1022.21	-538.93	-37.94	8935.13	21708.11
2.500	-13859.69	-1022.21	-538.93	-40.58	10457.69	24528.02
2.500	-14121.63	-1022.21	-538.93	-40.58	10457.69	24528.03
0.000	-14121.63	-1022.21	-538.93	-41.42	11870.54	27185.84

TENSIONES & RIGIDECES-SECANTE/gamma_r
<G.MTMAX.2> Carga: 1.50*G1 1.50*Q1*ß ß=1.0887

Coord-x [m]	Horm.- [N/mm²]	Horm.+ [N/mm²]	Acero- [N/mm²]	Acero+ [N/mm²]	EIy [kNm²]	EIz [kNm²]
16.600	-8.9	-0.2	-128.3	-4.6	1.471E+7	3.835E+7
13.100	-13.2	0.0	-216.8	100.4	1.073E+7	2.991E+7
13.100	-13.4	0.0	-222.1	106.6	1.055E+7	2.886E+7
10.000	-16.6	0.0	-344.8	291.8	7.797E+6	2.123E+7
10.000	-15.5	0.0	-290.4	232.5	1.242E+7	2.475E+7
7.500	-16.9	0.0	-386.3	389.4	1.033E+7	2.047E+7
7.500	-16.6	0.0	-344.6	339.4	1.365E+7	2.260E+7
5.000	-17.0	0.0	-443.5	443.5	1.155E+7	1.917E+7
5.000	-17.0	0.0	-394.7	441.5	1.487E+7	2.128E+7
2.500	-17.0	0.0	-443.5	443.5	1.149E+7	1.690E+7
2.500	-17.0	0.0	-440.5	443.5	1.641E+7	2.011E+7
0.000	-17.0	0.0	-443.5	443.5	9.936E+6	1.277E+7

DEFORMACIONES
<G.MTMAX.2> Carga: 1.50*G1 1.50*Q1*ß ß=1.0887

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
16.600	-0.621	-0.011	-0.611	-0.022	0.17	105.3
13.100	-1.052	0.498	-1.032	0.478	0.19	127.9
13.100	-1.078	0.528	-1.057	0.508	0.19	127.8
10.000	-1.677	1.425	-1.642	1.390	0.23	133.9
10.000	-1.415	1.139	-1.383	1.107	0.20	125.3
7.500	-1.885	1.900	-1.839	1.854	0.22	127.6
7.500	-1.684	1.659	-1.641	1.616	0.20	122.6
5.000	-2.175	2.471	-2.117	2.413	0.22	124.2
5.000	-1.933	2.156	-1.880	2.102	0.20	120.1

DEFORMACIONES
<G.MTMAX.2> Carga: 1.50*G1 1.50*Q1*ß ß=1.0887

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
2.500	-2.613	3.328	-2.537	3.253	0.23	121.7
2.500	-2.163	2.687	-2.098	2.622	0.20	117.1
0.000	-3.485	5.178	-3.373	5.066	0.22	118.9

C A R G A F I J A <F.MTMAX.3>

PARAMETROS DE CALCULO:

Norma	EH
Criterio de rotura	Agotamiento de secciones o del sistema
Rotura de secciones	Limitación de deformaciones según FAGUS-2
- Hormigón (def. centrada)	-2.000 [o/oo]
- Hormigón (flexión)	-3.500 [o/oo]
- Acero	10.00 [o/oo]
Coef. min. resist. (gamma_r)	1.000
Coeficiente de fluencia	0.000
Factor armadura (global)	1.000
No de elementos	6
Tolerancia desequi. fuerzas	0.091 [kN]
Tolerancia desequi. momentos	0.156 [kNm]
Mayoración de cargas	1.000 * Carga permanente G1
	+ 1.000 * Carga variable Q1 * ß

RESULTADOS DEL CALCULO NO LINEAL:
Las cargas se han podido aplicar. (ß=1.00).

DATOS DE LA SECCION

Nombre	Ancho dy [m]	Canto dz [m]	Materiales Horm.	/ Acero	Distrib. de la armadura	Armadura fija[cm²]	Armadura var [cm²]
BASE	2.800	2.600	H300	AEH500	B1	0.000	288.0
BASE1	2.800	2.380	H300	AEH500	B1	0.000	288.0
BASE2	2.800	2.200	H300	AEH500	B1	0.000	288.0
BASE3	2.800	2.000	H300	AEH500	B1	0.000	288.0
SUPERIOR	2.800	1.700	H300	AEH500	B1	0.000	288.0

DATOS DE BARRAS (incl. factores de armadura)

Barra	Sección arriba	/ abajo	factor S de la armadura	Armadura variable arriba[cm²]/abajo[cm²]	
6	SUPERIOR	SUPERIOR	1.000	288.0	288.0
5	SUPERIOR	SUPERIOR	1.000	288.0	288.0
4	BASE3	BASE3	1.000	288.0	288.0
3	BASE2	BASE2	1.000	288.0	288.0
2	BASE1	BASE1	1.000	288.0	288.0
1	BASE	BASE	1.000	288.0	288.0

DEFORMACIONES sin deformaciones accidentales

	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
Mínima	-1.28	0.00	0.00	-0.007	-4.174	0.000
Máxima	0.61	71.33	40.93	0.034	0.000	6.868

ESFUERZOS (global)

	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Mínima	-9112.67	-630.00	-330.00	-18.85	590.75	4682.00
Máxima	-8251.50	-630.00	-330.00	0.00	6887.45	16218.09

TENSIONES, DEFORMACIONES & RIGIDECES-SECANTE/gamma_r

	sigHorm. [N/mm²]	sigAcero [N/mm²]	epsHorm. [o/oo]	epsAcero [o/oo]	EIy [kNm²]	EIz [kNm²]
Mínima	-14.4	-248.9	-1.225	-1.185	9.423E+6	2.193E+7
Máxima	0.0	338.9	1.654	1.614	2.098E+7	4.025E+7

Tensión máx. del hormigón en servicio: $147 \frac{kg}{cm^2} < \frac{f_{ck}}{1.5} = \frac{300}{1.5} = 187 \frac{kg}{cm^2}$ Vale

DEFORMACIONES sin deformaciones accidentales
<F.MTMAX.3> Carga: 1.00*G1 1.00*Q1*ß ß=1.0000

Coord-x [m]	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
16.600	-1.28	71.33	40.93	0.034	-4.174	6.868
13.100	-0.34	48.21	26.79	0.022	-3.839	6.288
10.000	0.30	30.04	15.96	0.006	-3.057	5.362
7.500	0.57	17.79	9.12	-0.002	-2.369	4.380
5.000	0.61	8.30	4.09	-0.007	-1.611	3.156
2.500	0.42	2.18	1.04	-0.006	-0.801	1.687
0.000	0.00	0.00	0.00	0.000	0.000	0.000

ESFUERZOS (global)
<F.MTMAX.3> Carga: 1.00*G1 1.00*Q1*ß ß=1.0000

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
16.600	-8251.50	-630.00	-330.00	0.00	590.75	4682.00
13.100	-8251.50	-630.00	-330.00	-6.68	2010.87	7226.06
13.100	-8442.90	-630.00	-330.00	-6.68	2010.87	7226.05
10.000	-8442.90	-630.00	-330.00	-11.81	3246.50	9453.68
10.000	-8610.92	-630.00	-330.00	-11.81	3246.50	9453.67

ESFUERZOS (global)
<F.MTMAX.3> Carga: 1.00*G1 1.00*Q1*ß ß=1.0000

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
7.500	-8610.92	-630.00	-330.00	-14.97	4213.19	11216.89
7.500	-8770.92	-630.00	-330.00	-14.97	4213.19	11216.89
5.000	-8770.92	-630.00	-330.00	-17.19	5146.10	12938.95
5.000	-8938.05	-630.00	-330.00	-17.19	5146.09	12938.95
2.500	-8938.05	-630.00	-330.00	-18.45	6038.97	14609.22
2.500	-9112.67	-630.00	-330.00	-18.45	6038.97	14609.22
0.000	-9112.67	-630.00	-330.00	-18.85	6887.45	16218.09

TENSIONES & RIGIDECES-SECANTE/gamma_r
<F.MTMAX.3> Carga: 1.00*G1 1.00*Q1*ß ß=1.0000

Coord-x [m]	Horm.- [N/mm²]	Horm.+ [N/mm²]	Acero- [N/mm²]	Acero+ [N/mm²]	EIy [kNm²]	EIz [kNm²]
16.600	-5.9	-0.2	-78.5	-3.6	1.562E+7	4.025E+7
13.100	-8.5	0.0	-121.5	47.7	1.229E+7	3.361E+7
13.100	-8.7	0.0	-124.1	49.7	1.219E+7	3.273E+7
10.000	-11.6	0.0	-179.1	138.0	9.423E+6	2.511E+7
10.000	-10.4	0.0	-154.1	109.4	1.479E+7	2.902E+7
7.500	-12.3	0.0	-195.4	185.6	1.266E+7	2.438E+7
7.500	-11.6	0.0	-178.0	163.0	1.648E+7	2.660E+7
5.000	-13.3	0.0	-216.8	240.2	1.463E+7	2.320E+7
5.000	-12.6	0.0	-200.4	217.8	1.815E+7	2.486E+7
2.500	-14.0	0.0	-236.5	293.5	1.654E+7	2.231E+7
2.500	-13.3	0.0	-216.2	266.8	2.098E+7	2.394E+7
0.000	-14.4	0.0	-248.9	338.9	1.948E+7	2.193E+7

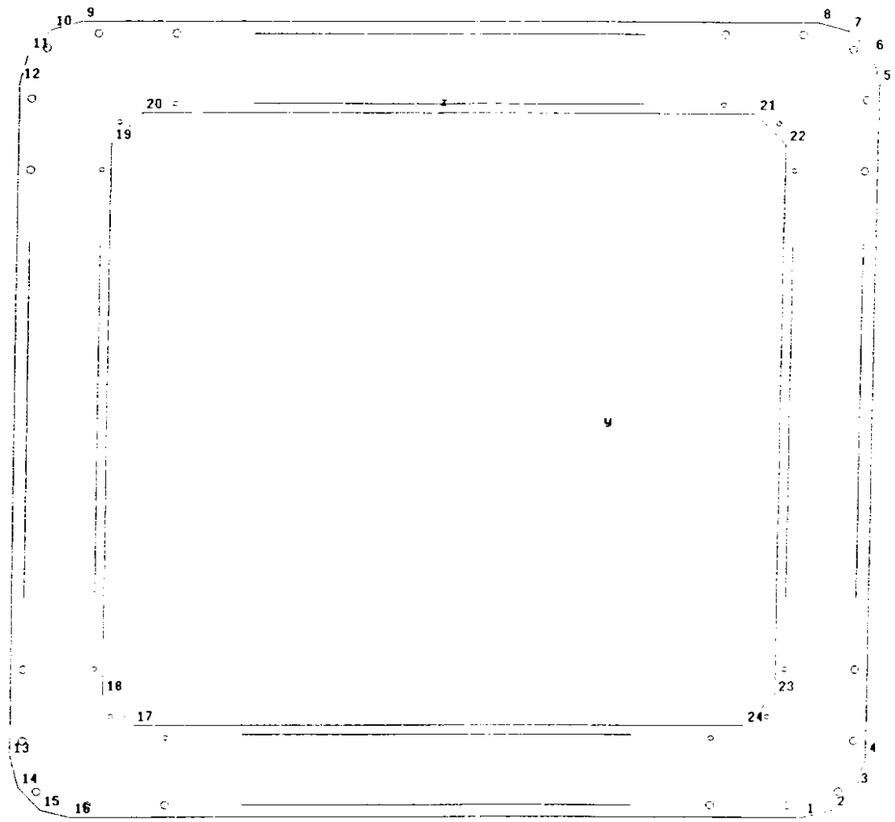
DEFORMACIONES
<F.MTMAX.3> Carga: 1.00*G1 1.00*Q1*ß ß=1.0000

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
16.600	-0.380	-0.010	-0.374	-0.017	0.16	106.1
13.100	-0.590	0.238	-0.579	0.227	0.17	126.4
13.100	-0.602	0.248	-0.591	0.237	0.17	126.4
10.000	-0.871	0.675	-0.853	0.657	0.19	132.2
10.000	-0.751	0.538	-0.734	0.521	0.17	123.9
7.500	-0.954	0.907	-0.930	0.884	0.18	125.8
7.500	-0.870	0.798	-0.848	0.776	0.17	121.2
5.000	-1.061	1.173	-1.032	1.144	0.18	122.2
5.000	-0.982	1.065	-0.954	1.037	0.16	118.5

DEFORMACIONES
<F.MTMAX.3> Carga: 1.00*G1 1.00*Q1*ß ß=1.0000

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
2.500	-1.161	1.432	-1.126	1.398	0.17	119.1
2.500	-1.062	1.303	-1.029	1.270	0.16	115.2
0.000	-1.225	1.654	-1.185	1.614	0.16	115.5

Mstb. 1 : 20.0



Sección :"BASE" Armadura :"B1"
Tipo : tipo pila/ Genérico Unidades :[cm]

Sección parcial 1: Hormigón = H300

Pto	Coord-Y	Coord-Z	Pto	Coord-Y	Coord-Z
1	120.00	0.00	2	130.00	2.68
3	137.32	10.00	4	140.00	20.00
5	140.00	240.00	6	137.32	250.00
7	130.00	257.32	8	120.00	260.00
9	-120.00	260.00	10	-130.00	257.32
11	-137.32	250.00	12	-140.00	240.00
13	-140.00	20.00	14	-137.32	10.00
15	-130.00	2.68	16	-120.00	0.00
Puntos aligeramiento:					
17	-100.00	30.00	18	-110.00	40.00
19	-110.00	220.00	20	-100.00	230.00
21	100.00	230.00	22	110.00	220.00

23	110.00	40.00	24	100.00	30.00

Características mecánicas de la sección:
Area : Ax= 2.860 [m2]
Momentos de inercia : Iy= 2.590 [m4] Iz= 2.931 [m4]
Inercia a torsión : Ix= 1.302 [m4] (de un círculo del mismo área)

Posición del centro de gravedad: ys= 0.000 [m] zs= 1.300 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-1.400	-2.094	0.732
dch.	Iz	1.400	2.094	-0.732
abajo	Iy	-1.300	-1.993	0.697
arriba	Iy	1.300	1.993	-0.697

Armadura: "B1"

N°	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	4.91	-131.31	251.31		
2	AEH500	(1)	4.91	131.31	251.31		
3	AEH500	(1)	4.91	-114.75	256.00		
4	AEH500	(1)	4.91	114.75	256.00		
5	AEH500	(1)	4.91	-89.25	256.00		
6	AEH500	(1)	4.91	89.25	256.00		
7	AEH500	(1)	4.91	136.00	234.75		
8	AEH500	(1)	4.91	-136.00	234.75		
9	AEH500	(1)	4.91	136.00	211.47		
10	AEH500	(1)	4.91	-136.00	211.47		
11	AEH500	(1)	4.91	136.00	48.53		
12	AEH500	(1)	4.91	-136.00	48.53		
13	AEH500	(1)	4.91	136.00	25.25		
14	AEH500	(1)	4.91	131.31	8.69		
15	AEH500	(1)	4.91	114.75	4.00		
16	AEH500	(1)	4.91	-114.75	4.00		
17	AEH500	(1)	4.91	89.25	4.00		
18	AEH500	(1)	4.91	-89.25	4.00		
19	AEH500	(1)	4.91	-131.31	8.69		
20	AEH500	(1)	4.91	-136.00	25.25		
21	AEH500	(1)	2.00	-107.50	33.00		
22	AEH500	(1)	2.00	107.50	33.00		
23	AEH500	(1)	2.00	-113.00	48.53		
24	AEH500	(1)	2.00	113.00	48.53		
25	AEH500	(1)	2.00	113.00	211.47		
26	AEH500	(1)	2.00	-113.00	211.47		
27	AEH500	(1)	2.00	89.25	26.00		
28	AEH500	(1)	2.00	89.25	233.00		
29	AEH500	(1)	2.00	-89.25	233.00		
30	AEH500	(1)	2.00	-89.25	26.00		
31	AEH500	(1)	2.00	107.50	227.00		
32	AEH500	(1)	2.00	-107.50	227.00		
33	AEH500	(1)	29.46	-63.75	4.00	63.75	4.00
34	AEH500	(1)	29.46	136.00	188.19	136.00	71.80
35	AEH500	(1)	29.46	-136.00	188.19	-136.00	71.80
36	AEH500	(1)	29.46	-63.75	256.00	63.75	256.00
37	AEH500	(1)	12.00	-63.75	27.00	63.75	27.00
38	AEH500	(1)	12.00	-63.75	233.00	63.75	233.00
39	AEH500	(1)	12.00	-113.00	188.19	-113.00	71.80
40	AEH500	(1)	12.00	113.00	188.19	113.00	71.80

Total: 288.04 Cuantía de armadura: 1.007 [o/o]

Cód. dimensionamiento: (0) = As constante
Cód. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccionada
Cód. dimensionamiento: (2) = Aumentar As solo en zona traccionada

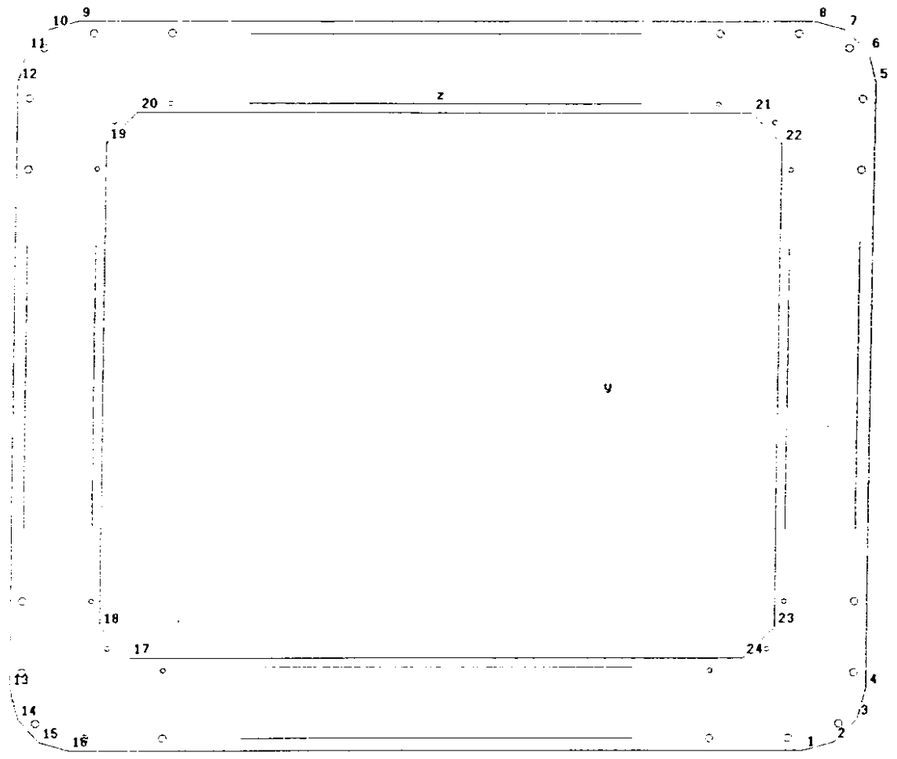
¡No se han definido valores para el cálculo a cortante!

Características del material:

Nom.Mat.	Módulo E [N/mm2]	0.85*fcd,fyd [N/mm2]	eps-fc [o/oo]	fct [N/mm2]	fcv [N/mm2]	fcw,mín [N/mm2]
"H300"	33000.0	-17.000	-2.000	0.0	0.707000	30.000
"AEH500"	210000.0	443.470				

Leyenda:
fcd,fyd resistencia de cálculo del hormigón,acero
eps-fc deformación al final de la parábola (fig.2.3, cap.2.2)
fct resistencia de cálculo a tracción del hormigón
fcv resistencia virtual de cálculo del hormigón a esfuerzo cortante

Mstb. 1 : 20.0



Sección :"BASE1" Armadura :"B1"
Tipo : tipo pila/ Genérico Unidades :[cm]

Sección parcial 1: Hormigón = H300

Pto	Coord-Y	Coord-Z	Pto	Coord-Y	Coord-Z
1	120.00	0.00	2	130.00	2.68
3	137.32	10.00	4	140.00	20.00
5	140.00	218.00	6	137.32	228.00
7	130.00	235.32	8	120.00	238.00
9	-120.00	238.00	10	-130.00	235.32
11	-137.32	228.00	12	-140.00	218.00
13	-140.00	20.00	14	-137.32	10.00
15	-130.00	2.68	16	-120.00	0.00
Puntos aligeramiento:					
17	-100.00	30.00	18	-110.00	40.00
19	-110.00	198.00	20	-100.00	208.00
21	100.00	208.00	22	110.00	198.00
23	110.00	40.00	24	100.00	30.00

Características mecánicas de la sección:

Area : Ax= 2.728 [m2]
Momentos de inercia : Iy= 2.074 [m4] Iz= 2.724 [m4]
Inercia a torsión : Ix= 1.184 [m4] (de un círculo del mismo área)

Posición del centro de gravedad: ys= 0.000 [m] zs= 1.190 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-1.400	-1.946	0.713
dch.	Iz	1.400	1.946	-0.713
abajo	Iy	-1.190	-1.743	0.639
arriba	Iy	1.190	1.743	-0.639

Armadura: "B1"

N°	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	4.91	-131.31	229.31		
2	AEH500	(1)	4.91	131.31	229.31		
3	AEH500	(1)	4.91	-114.75	234.00		
4	AEH500	(1)	4.91	114.75	234.00		
5	AEH500	(1)	4.91	-89.25	234.00		
6	AEH500	(1)	4.91	89.25	234.00		
7	AEH500	(1)	4.91	136.00	212.75		
8	AEH500	(1)	4.91	-136.00	212.75		
9	AEH500	(1)	4.91	136.00	189.47		
10	AEH500	(1)	4.91	-136.00	189.47		
11	AEH500	(1)	4.91	136.00	48.53		
12	AEH500	(1)	4.91	-136.00	48.53		
13	AEH500	(1)	4.91	136.00	25.25		
14	AEH500	(1)	4.91	131.31	8.69		
15	AEH500	(1)	4.91	114.75	4.00		
16	AEH500	(1)	4.91	-114.75	4.00		
17	AEH500	(1)	4.91	89.25	4.00		
18	AEH500	(1)	4.91	-89.25	4.00		
19	AEH500	(1)	4.91	-131.31	8.69		
20	AEH500	(1)	4.91	-136.00	25.25		
21	AEH500	(1)	2.00	-107.50	33.00		
22	AEH500	(1)	2.00	107.50	33.00		
23	AEH500	(1)	2.00	-113.00	48.53		
24	AEH500	(1)	2.00	113.00	48.53		
25	AEH500	(1)	2.00	113.00	189.47		
26	AEH500	(1)	2.00	-113.00	189.47		
27	AEH500	(1)	2.00	89.25	26.00		
28	AEH500	(1)	2.00	89.25	211.00		
29	AEH500	(1)	2.00	-89.25	211.00		
30	AEH500	(1)	2.00	-89.25	26.00		
31	AEH500	(1)	2.00	107.50	205.00		
32	AEH500	(1)	2.00	-107.50	205.00		

33	AEH500	(1)	29.46	-63.75	4.00	63.75	4.00
34	AEH500	(1)	29.46	136.00	166.19	136.00	71.80
35	AEH500	(1)	29.46	-136.00	166.19	-136.00	71.80
36	AEH500	(1)	29.46	-63.75	234.00	63.75	234.00
37	AEH500	(1)	12.00	-63.75	27.00	63.75	27.00
38	AEH500	(1)	12.00	-63.75	211.00	63.75	211.00
39	AEH500	(1)	12.00	-113.00	166.19	-113.00	71.80
40	AEH500	(1)	12.00	113.00	166.19	113.00	71.80

Total: 288.04 Cuantía de armadura: 1.056 [o/o]

Cód. dimensionamiento: (0) = As constante
Cód. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccionada
Cód. dimensionamiento: (2) = Aumentar As solo en zona traccionada

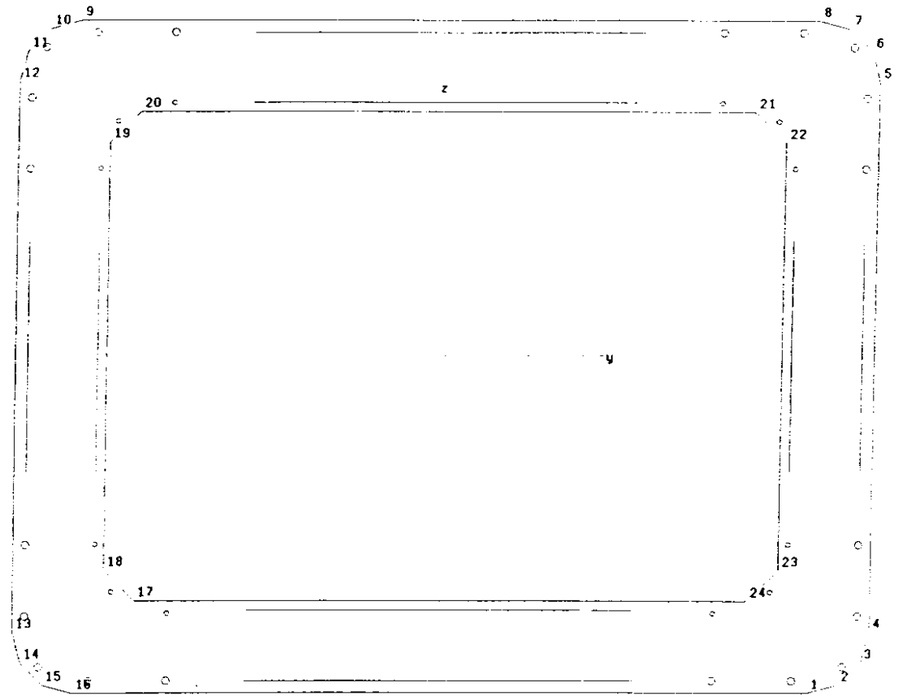
¡No se han definido valores para el cálculo a cortante!

Características del material:

Nom.Mat.	Módulo E [N/mm2]	0.85*fcd,fyd [N/mm2]	eps-fc [o/oo]	fct [N/mm2]	fcv [N/mm2]	fcw,mín [N/mm2]
"H300"	33000.0	-17.000	-2.000	0.0	0.707000	30.000
"AEH500"	210000.0	443.470				

Leyenda:
fcd,fyd resistencia de cálculo del hormigón,acero
eps-fc deformación al final de la parábola (fig.2.3, cap.2.2)
fct resistencia de cálculo a tracción del hormigón
fcv resistencia virtual de cálculo del hormigón a esfuerzo cortante

Mstb. 1 : 20.0



Sección :"BASE2" Armadura :"B1"
Tipo : tipo pila/ Genérico Unidades :[cm]

Sección parcial 1: Hormigón = H300

Pto	Coord-Y	Coord-Z	Pto	Coord-Y	Coord-Z
1	120.00	0.00	2	130.00	2.68
3	137.32	10.00	4	140.00	20.00
5	140.00	200.00	6	137.32	210.00
7	130.00	217.32	8	120.00	220.00
9	-120.00	220.00	10	-130.00	217.32
11	-137.32	210.00	12	-140.00	200.00
13	-140.00	20.00	14	-137.32	10.00
15	-130.00	2.68	16	-120.00	0.00
Puntos aligeramiento:					
17	-100.00	30.00	18	-110.00	40.00
19	-110.00	180.00	20	-100.00	190.00
21	100.00	190.00	22	110.00	180.00
23	110.00	40.00	24	100.00	30.00

Características mecánicas de la sección:
Area : Ax= 2.620 [m2]

Momentos de inercia : Iy= 1.701 [m4] Iz= 2.554 [m4]
Inercia a torsión : Ix= 1.092 [m4] (de un círculo del mismo área)

Posición del centro de gravedad: ys= 0.000 [m] zs= 1.100 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-1.400	-1.825	0.696
dch.	Iz	1.400	1.825	-0.696
abajo	Iy	-1.100	-1.546	0.590
arriba	Iy	1.100	1.546	-0.590

Armadura: "B1"

N°	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	4.91	-131.31	211.31		
2	AEH500	(1)	4.91	131.31	211.31		
3	AEH500	(1)	4.91	-114.75	216.00		
4	AEH500	(1)	4.91	114.75	216.00		
5	AEH500	(1)	4.91	-89.25	216.00		
6	AEH500	(1)	4.91	89.25	216.00		
7	AEH500	(1)	4.91	136.00	194.75		
8	AEH500	(1)	4.91	-136.00	194.75		
9	AEH500	(1)	4.91	136.00	171.47		
10	AEH500	(1)	4.91	-136.00	171.47		
11	AEH500	(1)	4.91	136.00	48.53		
12	AEH500	(1)	4.91	-136.00	48.53		
13	AEH500	(1)	4.91	136.00	25.25		
14	AEH500	(1)	4.91	131.31	8.69		
15	AEH500	(1)	4.91	114.75	4.00		
16	AEH500	(1)	4.91	-114.75	4.00		
17	AEH500	(1)	4.91	89.25	4.00		
18	AEH500	(1)	4.91	-89.25	4.00		
19	AEH500	(1)	4.91	-131.31	8.69		
20	AEH500	(1)	4.91	-136.00	25.25		
21	AEH500	(1)	2.00	-107.50	33.00		
22	AEH500	(1)	2.00	107.50	33.00		
23	AEH500	(1)	2.00	-113.00	48.53		
24	AEH500	(1)	2.00	113.00	48.53		
25	AEH500	(1)	2.00	113.00	171.47		
26	AEH500	(1)	2.00	-113.00	171.47		
27	AEH500	(1)	2.00	89.25	26.00		
28	AEH500	(1)	2.00	89.25	193.00		
29	AEH500	(1)	2.00	-89.25	193.00		
30	AEH500	(1)	2.00	-89.25	26.00		
31	AEH500	(1)	2.00	107.50	187.00		
32	AEH500	(1)	2.00	-107.50	187.00		
33	AEH500	(1)	29.46	-63.75	4.00	63.75	4.00
34	AEH500	(1)	29.46	136.00	148.19	136.00	71.80
35	AEH500	(1)	29.46	-136.00	148.19	-136.00	71.80
36	AEH500	(1)	29.46	-63.75	216.00	63.75	216.00
37	AEH500	(1)	12.00	-63.75	27.00	63.75	27.00
38	AEH500	(1)	12.00	-63.75	193.00	63.75	193.00
39	AEH500	(1)	12.00	-113.00	148.19	-113.00	71.80
40	AEH500	(1)	12.00	113.00	148.19	113.00	71.80

Total: 288.04 Cuantía de armadura: 1.099 [o/o]

Cód. dimensionamiento: (0) = As constante
Cód. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccionada
Cód. dimensionamiento: (2) = Aumentar As solo en zona traccionada

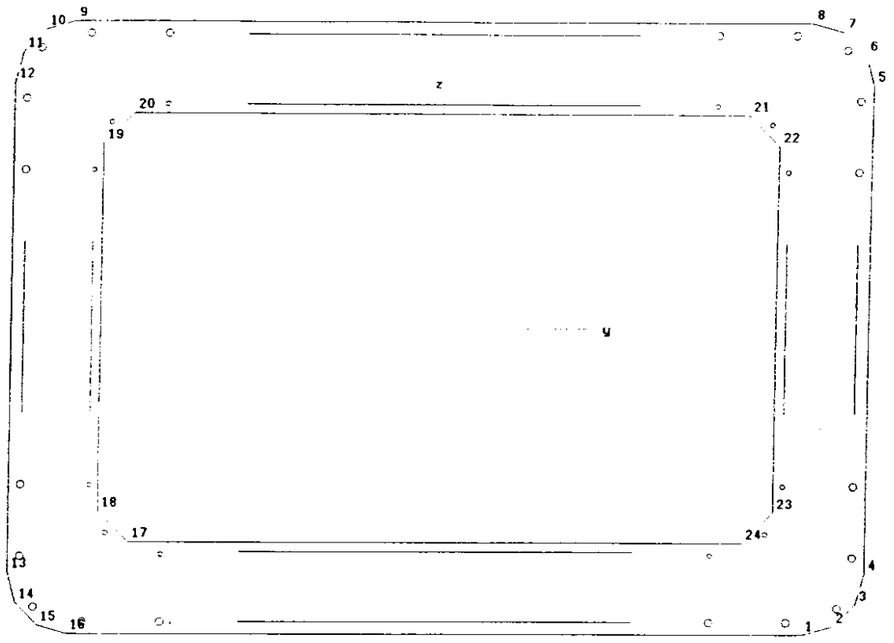
¡No se han definido valores para el cálculo a cortante!

Características del material:

Nom.Mat.	Módulo E [N/mm2]	0.85*fcd,fyd [N/mm2]	eps-fc [o/oo]	fct [N/mm2]	fcv [N/mm2]	fcw,mín [N/mm2]
"H300"	33000.0	-17.000	-2.000	0.0	0.707000	30.000
"AEH500"	210000.0	443.470				

Leyenda:
fcd,fyd resistencia de cálculo del hormigón,acero
eps-fc deformación al final de la parábola (fig.2.3, cap.2.2)
fct resistencia de cálculo a tracción del hormigón
fcv resistencia virtual de cálculo del hormigón a esfuerzo cortante

Mstb. 1 : 20.0



Sección :"BASE3" Armadura :"B1"
Tipo : tipo pila/ Genérico Unidades :[cm]

Sección parcial 1: Hormigón = H300

Pto	Coord-Y	Coord-Z	Pto	Coord-Y	Coord-Z
1	120.00	0.00	2	130.00	2.68
3	137.32	10.00	4	140.00	20.00
5	140.00	180.00	6	137.32	190.00
7	130.00	197.32	8	120.00	200.00
9	-120.00	200.00	10	-130.00	197.32
11	-137.32	190.00	12	-140.00	180.00
13	-140.00	20.00	14	-137.32	10.00
15	-130.00	2.68	16	-120.00	0.00
Puntos aligeramiento:					
17	-100.00	30.00	18	-110.00	40.00
19	-110.00	160.00	20	-100.00	170.00
21	100.00	170.00	22	110.00	160.00
23	110.00	40.00	24	100.00	30.00

Características mecánicas de la sección:
Area : Ax= 2.500 [m2]
Momentos de inercia : Iy= 1.336 [m4] Iz= 2.366 [m4]
Inercia a torsión : Ix= 0.994713 [m4] (de un círculo del mismo área)

Posición del centro de gravedad: ys= 0.000 [m] zs= 1.000 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-1.400	-1.690	0.676
dch.	Iz	1.400	1.690	-0.676
abajo	Iy	-1.000	-1.336	0.534
arriba	Iy	1.000	1.336	-0.534

Armadura: "B1"

N°	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	4.91	-131.31	191.31		
2	AEH500	(1)	4.91	131.31	191.31		
3	AEH500	(1)	4.91	-114.75	196.00		
4	AEH500	(1)	4.91	114.75	196.00		
5	AEH500	(1)	4.91	-89.25	196.00		
6	AEH500	(1)	4.91	89.25	196.00		
7	AEH500	(1)	4.91	136.00	174.75		
8	AEH500	(1)	4.91	-136.00	174.75		
9	AEH500	(1)	4.91	136.00	151.47		
10	AEH500	(1)	4.91	-136.00	151.47		
11	AEH500	(1)	4.91	136.00	48.53		
12	AEH500	(1)	4.91	-136.00	48.53		
13	AEH500	(1)	4.91	136.00	25.25		
14	AEH500	(1)	4.91	131.31	8.69		
15	AEH500	(1)	4.91	114.75	4.00		
16	AEH500	(1)	4.91	-114.75	4.00		
17	AEH500	(1)	4.91	89.25	4.00		
18	AEH500	(1)	4.91	-89.25	4.00		
19	AEH500	(1)	4.91	-131.31	8.69		
20	AEH500	(1)	4.91	-136.00	25.25		
21	AEH500	(1)	2.00	-107.50	33.00		
22	AEH500	(1)	2.00	107.50	33.00		
23	AEH500	(1)	2.00	-113.00	48.53		
24	AEH500	(1)	2.00	113.00	48.53		
25	AEH500	(1)	2.00	113.00	151.47		
26	AEH500	(1)	2.00	-113.00	151.47		
27	AEH500	(1)	2.00	89.25	26.00		
28	AEH500	(1)	2.00	89.25	173.00		
29	AEH500	(1)	2.00	-89.25	173.00		
30	AEH500	(1)	2.00	-89.25	26.00		
31	AEH500	(1)	2.00	107.50	167.00		
32	AEH500	(1)	2.00	-107.50	167.00		
33	AEH500	(1)	29.46	-63.75	4.00	63.75	4.00
34	AEH500	(1)	29.46	136.00	128.19	-136.00	71.80
35	AEH500	(1)	29.46	-136.00	128.14	-136.00	71.80

36	AEH500	(1)	29.46	-63.75	196.00	63.75	196.00
37	AEH500	(1)	12.00	-63.75	27.00	63.75	27.00
38	AEH500	(1)	12.00	-63.75	173.00	63.75	173.00
39	AEH500	(1)	12.00	-113.00	128.19	-113.00	71.80
40	AEH500	(1)	12.00	113.00	128.19	113.00	71.80

Total: 288.04 Cuantía de armadura: 1.152 [o/o]

Cód. dimensionamiento: (0) = As constante
Cód. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccionada
Cód. dimensionamiento: (2) = Aumentar As solo en zona traccionada

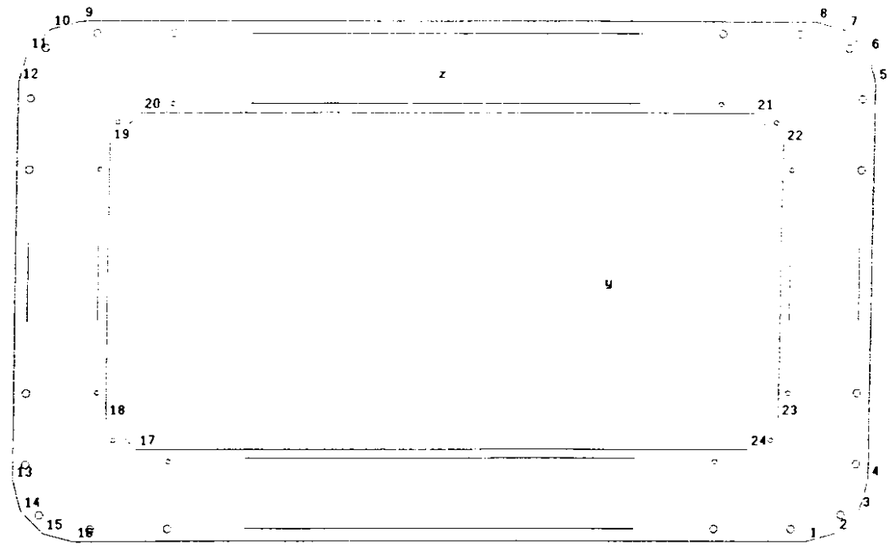
¡No se han definido valores para el cálculo a cortante!

Características del material:

Nom.Mat.	Módulo E [N/mm2]	0.85*fcd,fyd [N/mm2]	eps-fc [o/oo]	fct [N/mm2]	fcv [N/mm2]	fcw,mín [N/mm2]
"H300"	33000.0	-17.000	-2.000	0.0	0.707000	30.000
"AEH500"	210000.0	443.470				

Leyenda:
fcd,fyd resistencia de cálculo del hormigón,acero
eps-fc deformación al final de la parábola (fig.2.3, cap.2.2)
fct resistencia de cálculo a tracción del hormigón
fcv resistencia virtual de cálculo del hormigón a esfuerzo cortante

Mstb. 1 : 20.0



Sección :"SUPERIOR" Armadura :"B1"
Tipo : tipo pila/ Genérico Unidades :[cm]

Sección parcial 1: Hormigón = H300

Pto	Coord-Y	Coord-Z	Pto	Coord-Y	Coord-Z
1	120.00	0.00	2	130.00	2.68
3	137.32	10.00	4	140.00	20.00
5	140.00	150.00	6	137.32	160.00
7	130.00	167.32	8	120.00	170.00
9	-120.00	170.00	10	-130.00	167.32
11	-137.32	160.00	12	-140.00	150.00
13	-140.00	20.00	14	-137.32	10.00
15	-130.00	2.68	16	-120.00	0.00
Puntos aligeramiento:					
17	-100.00	30.00	18	-110.00	40.00
19	-110.00	130.00	20	-100.00	140.00
21	100.00	140.00	22	110.00	130.00
23	110.00	40.00	24	100.00	30.00

Características mecánicas de la sección:
Area : Ax= 2.320 [m2]
Momentos de inercia : Iy= 0.881948 [m4] Iz= 2.083 [m4]
Inercia a torsión : Ix= 0.856631 [m4] (de un círculo del mismo área)

Posición del centro de gravedad: ys= 0.000 [m] zs= 0.850000 [m]

	I:	R=dist.borde [m]	W=I/R [m3]	W/Ax [m]
izq.	Iz	-1.400	-1.488	0.641
dch.	Iz	1.400	1.488	-0.641
abajo	Iy	-0.850	-1.038	0.447
arriba	Iy	0.850	1.038	-0.447

Armadura: "B1"

N°	Nom.mat	Cod.dim.	Area [cm2]	y1 [cm]	z1 [cm]	y2 [cm]	z2 [cm]
1	AEH500	(1)	4.91	-131.31	161.31		
2	AEH500	(1)	4.91	131.31	161.31		
3	AEH500	(1)	4.91	-114.75	166.00		
4	AEH500	(1)	4.91	114.75	166.00		
5	AEH500	(1)	4.91	-89.25	166.00		
6	AEH500	(1)	4.91	89.25	166.00		
7	AEH500	(1)	4.91	136.00	144.75		
8	AEH500	(1)	4.91	-136.00	144.75		
9	AEH500	(1)	4.91	136.00	121.47		
10	AEH500	(1)	4.91	-136.00	121.47		
11	AEH500	(1)	4.91	136.00	48.53		
12	AEH500	(1)	4.91	-136.00	48.53		
13	AEH500	(1)	4.91	136.00	25.25		
14	AEH500	(1)	4.91	131.31	8.69		
15	AEH500	(1)	4.91	114.75	4.00		
16	AEH500	(1)	4.91	-114.75	4.00		
17	AEH500	(1)	4.91	89.25	4.00		
18	AEH500	(1)	4.91	-89.25	4.00		
19	AEH500	(1)	4.91	-131.31	8.69		
20	AEH500	(1)	4.91	-136.00	25.25		
21	AEH500	(1)	2.00	-107.50	33.00		
22	AEH500	(1)	2.00	107.50	33.00		
23	AEH500	(1)	2.00	-113.00	48.53		
24	AEH500	(1)	2.00	113.00	48.53		
25	AEH500	(1)	2.00	113.00	121.47		
26	AEH500	(1)	2.00	-113.00	121.47		
27	AEH500	(1)	2.00	89.25	26.00		
28	AEH500	(1)	2.00	89.25	143.00		
29	AEH500	(1)	2.00	-89.25	143.00		
30	AEH500	(1)	2.00	-89.25	26.00		
31	AEH500	(1)	2.00	107.50	137.00		
32	AEH500	(1)	2.00	-107.50	137.00		
33	AEH500	(1)	29.46	-63.75	4.00	63.75	4.00
34	AEH500	(1)	29.46	136.00	98.19	136.00	71.80
35	AEH500	(1)	29.46	-136.00	98.19	-136.00	71.80
36	AEH500	(1)	29.46	-63.75	166.00	63.75	166.00
37	AEH500	(1)	12.00	-63.75	27.00	63.75	27.00
38	AEH500	(1)	12.00	-63.75	143.00	63.75	143.00

39	AEH500	(1)	12.00	-113.00	98.19	-113.00	71.80
40	AEH500	(1)	12.00	113.00	98.19	113.00	71.80

Total: 288.04 Cuantía de armadura: 1.242 [o/o]

Cód. dimensionamiento: (0) = As constante
Cód. dimensionamiento: (1) = Aumentar As en zonas comprimida y traccionada
Cód. dimensionamiento: (2) = Aumentar As solo en zona traccionada

¡No se han definido valores para el cálculo a cortante!

Características del material:

Nom.Mat.	Módulo E [N/mm2]	0.85*fcd,fyd [N/mm2]	eps-fc [o/oo]	fct [N/mm2]	fcv [N/mm2]	fcw,mín [N/mm2]
"H300"	33000.0	-17.000	-2.000	0.0	0.707000	30.000
"AEH500"	210000.0	443.470				

Leyenda:
fcd,fyd resistencia de cálculo del hormigón,acero
eps-fc deformación al final de la parábola (fig.2.3, cap.2.2)
fct resistencia de cálculo a tracción del hormigón
fcv resistencia virtual de cálculo del hormigón a esfuerzo cortante

MC-2
ESTUDIO DE INGENIERIA

IDEAM, S.A.
Hermosilla, 59
28006 - MADRID

Madrid, 22 de Abril 1999

A/A de Mónica Alonso

VIADUCTO DE LOS CHORROS

CONTROLES ADICIONALES CORRESPONDIENTES AL DIMENSIONAMIENTO DE PILAS

Estimada Mónica:

Una vez realizadas las modificaciones solicitadas en los estados de carga a tener en cuenta para el dimensionamiento de las pilas, te adjunto los controles pertinentes llevados a cabo. Las modificaciones realizadas afectan a los estados de fuerza centrífuga (0,434 t/m para cada vía), rozamiento en apoyos en pila 1 (0,05 de la carga permanente) y viento (1,88 t/m para circulación en ambas vías).

Sin otro particular, recibe un cordial saludo.

Fdo: Carlos Pozo

Registro Mercantil de Ma tomo 6521, libro 0, folio 67. sección 8, hoja M-106172, inscripció · C.I.F. B-78633047

Víctor de la Serna, 21 - 28016 Madrid - ☎ 91 413 38 02 / 19 - 91 519 74 77 Fax: 91 744 06 75
E-mail: mc2@arrakis.es

CUADRO DE ESFUERZOS CARACTERÍSTICOS EN CABEZA DE PILAS

Mínimo axil con $M_{transv.}$ concomitante

Pila	Axil						M transversal				H transversal				H longitudinal
	1	2	3	4	5	6	1	3	4	5	1	3	4	5	6
1	-445	28	31	31	19	20	97	84	18	18	5	3	30	15	22
2	-537	17	37	37	22	0	122	100	6	14	5	3	33	17	27
3	-527	10	50	45	26	0	122	106	23	2	5	3	31	16	26
4	-529	10	50	51	29	0	122	107	35	7	6	3	35	17	26

Máximo axil con $M_{transv.}$ concomitante

Pila	Axil						M transversal				H transversal				H longitudinal
	1	2	3	4	5	6	1	3	4	5	1	3	4	5	6
1	-445	-49	-375	-31	-10	0	97	84	18	18	5	17	30	15	22
2	-537	-9	-428	-37	-22	0	122	100	6	14	5	18	33	17	27
3	-527	-8	-432	-45	-26	0	122	106	23	2	5	14	31	16	26
4	-529	-8	-436	-51	-29	0	122	107	35	7	6	14	35	17	26

Máximo $M_{transv.}$ con axil concomitante

Pila	Axil						M transversal				H transversal				H longitudinal
	1	2	3	4	5	6	1	3	4	5	1	3	4	5	6
1	-445	-49	-323	-31	-10	0	97	219	18	18	5	17	30	15	22
2	-537	-9	-378	-37	-22	0	122	252	6	14	5	18	33	17	27
3	-527	-8	-363	-45	-26	0	122	264	23	2	5	14	31	16	26
4	-529	-8	-362	-51	-29	0	122	267	35	7	6	14	35	17	26

1 Carga permanente
2 Asientos
3 Sobrecarga de uso
4 Viento
5 Fuerza centrifuga
6 Térmico

PILAS 2 A 6

Hipótesis II.1

Máximo $M_{transv.}$ con axil concomitante: ($\gamma_{cp} = 1,5$; $\gamma_{sc} = 1,5$)

Axil CP = -529 t

Axil SC = $-0,9\left[\frac{1,25}{1,5}\ 9 + 362 + 51 + \frac{1,25}{1,5}\ 29\right] = -400$ t

$M_{transv.\ CP}$ = 122 mt

$M_{transv.\ SC} = 0,9\left[267 + 35 + \frac{1,25}{1,5}\ 14\right] = 282$ t

$H_{transv.\ CP}$ = 6 t

$H_{transv.\ SC} = 0,9\left[18 + 35 + \frac{1,25}{1,5}\ 17\right] = 60$ t

$H_{long.}$ = 0,9 x 26 = 23,4 t

Hipótesis II.2

Máximo axil con $M_{transv.}$ concomitante: ($\gamma_{cp} = 1,5$; $\gamma_{sc} = 1,5$)

Axil CP = -529 t

Axil SC = $-0,9\left[\frac{1,25}{1,5}\ 9 + 436 + 51 + \frac{1,25}{1,5}\ 29\right] = -467$ t

$M_{transv.\ CP}$ = 122 mt

$M_{transv.\ SC} = 0,9\left[107 + 35 + \frac{1,25}{1,5}\ 14\right] = 138$ t

$H_{transv.\ CP}$ = 6 t

$H_{transv.\ SC} = 0,9\left[18 + 35 + \frac{1,25}{1,5}\ 17\right] = 60$ t

$H_{long.}$ = 0,9 x 26 = 23,4 t

Hipótesis II.3

Mínimo axil con $M_{transv.}$ concomitante: ($\gamma_{cp} = 1,0$; $\gamma_{sc} = 1,5$)

Axil CP = -0,9 x 527 = -474 t

Axil SC (sin mayorar) = $0,9\left[\frac{1,25}{1,5}\ 10 + 50 + 45 + \frac{1,25}{1,5}\ 26\right] = 114$ t

$M_{transv.\ CP}$ = 0,9 x 122 = 110 mt

$M_{transv.\ SC} = 0,9\left[107 + 35 + \frac{1,25}{1,5}\ 14\right] = 138$ t

$H_{transv.\ CP}$ = 0,9 x 6 = 5,4 t

$H_{transv.\ SC} = 0,9\left[3 + 35 + \frac{1,25}{1,5}\ 17\right] = 47$ t

$H_{long.\ SC}$ = 0,9 x 26 = 23,4 t

PILAS 1 Y 7

Hipótesis II.1

Máximo $M_{transv.}$ con axil concomitante: (γ_{cp} = 1,5 ; γ_{sc} = 1,5)

Axil CP = -445 t

Axil SC = $-0,9\left[\frac{1,25}{1,5}\ 49 + 323 + 31 + 10\right] = -364$ t

$M_{transv.\ CP}$ = 97 mt

$M_{transv.\ SC} = 0,9\left[219 + 18 + \frac{1,25}{1,5}\ 18\right] = 227$ t

$H_{transv.\ CP}$ = 5 t

$H_{transv.\ SC} = 0,9\left[17 + 30 + \frac{1,25}{1,5}\ 15\right] = 54$ t

$H_{long.\ SC}$ = 0,9 x 22 = 20 t

Hipótesis II.2

Máximo axil con $M_{transv.}$ concomitante: (γ_{cp} = 1,5 ; γ_{sc} = 1,5)

Axil CP = -445 t

Axil SC = $-0,9\left[\frac{1,25}{1,5}\ 49 + 375 + 31 + 10\right] = -411$ t

$M_{transv.\ CP}$ = 97 mt

$M_{transv.\ SC} = 0,9\left[84 + 18 + \frac{1,25}{1,5}\ 18\right] = 105$ t

$H_{transv.\ CP}$ = 5 t

$H_{transv.\ SC} = 0,9\left[17 + 30 + \frac{1,25}{1,5}\ 15\right] = 54$ t

$H_{long.\ SC}$ = 0,9 x 22 = 20 t

Hipótesis II.3

Mínimo axil con $M_{transv.}$ concomitante: (γ_{cp} = 1,0 ; γ_{sc} = 1,5)

Axil CP = -0,9 x 445 = 400 t

Axil SC = $0,9\left[\frac{1,25}{1,5}\ 28 + 31 + 31 + \frac{1,25}{1,5}\ 19\right] = 91,0$ t

$M_{transv.\ CP}$ = 0,9 x 97 = 87 mt

$M_{transv.\ SC} = 0,9\left[84 + 18 + \frac{1,25}{1,5}\ 18\right] = 105$ t

$H_{transv.\ CP}$ = 0,9 x 5 = 4,5 t

$H_{transv.\ SC} = 0,9\left[3 + 30 + \frac{1,25}{1,5}\ 15\right] = 41$ t

$H_{long.\ SC}$ = 0,9 x 22 = 20 t

Pila ''P1-7'
****

Título : 'Hip.II.1'
Altura de la pila : 13.600 [m]
Long. max. de barra: Altura pila / 6

NUDOS Nu	x [m]	Apoyo d-xyz	r-xyz
7	13.600		
6	12.000		
5	10.000		
4	7.500		
3	5.000		
2	2.500		
1	0.000	BBB	BBB

Apoyo: B=bloqueado, E=elástico

BARRAS (1.línea: barra arriba, 2.línea: barra abajo)

Ba	Nu	Sección	Tipo	Exc: ey [m]	ez [m]	Arm: Zona	fac
6	7-6	'SUPERIOR'	SecFAGUS			1	1.000
5	6-5	'SUPERIOR'	SecFAGUS			1	1.000
4	5-4	'BASE3'	SecFAGUS			2	1.000
3	4-3	'BASE2'	SecFAGUS			3	1.000
2	3-2	'BASE1'	SecFAGUS			4	1.000
1	2-1	'BASE'	SecFAGUS			5	1.000

DEF. ACCIDENTAL :
Curva estándar y z, Valores max. [m] : w0_ymax= 0.045 w0_zmax= 0.045

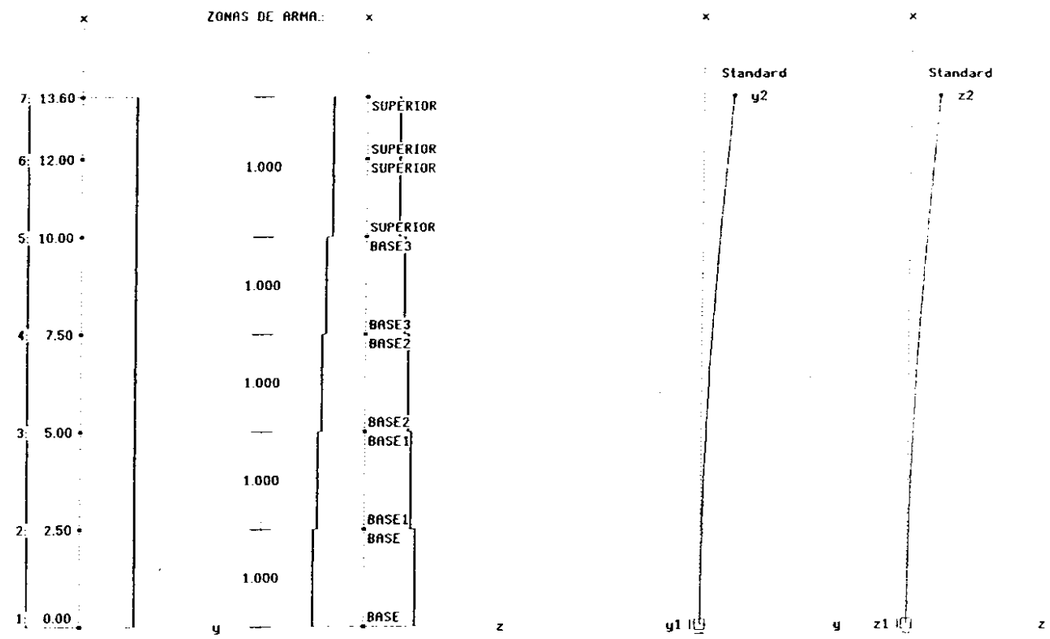
Pto.	Bar.	x[m]	w0_y [m]	w0_z [m]
1	6	13.600	0.045	0.045
2	5	12.000	0.037	0.037
3	4	10.000	0.027	0.027
4	4	8.750	0.021	0.021
5	3	7.500	0.016	0.016
6	3	6.250	0.011	0.011
7	2	5.000	0.007	0.007
8	2	3.750	0.004	0.004
9	1	2.500	0.002	0.002
10	1	1.250	0.000	0.000

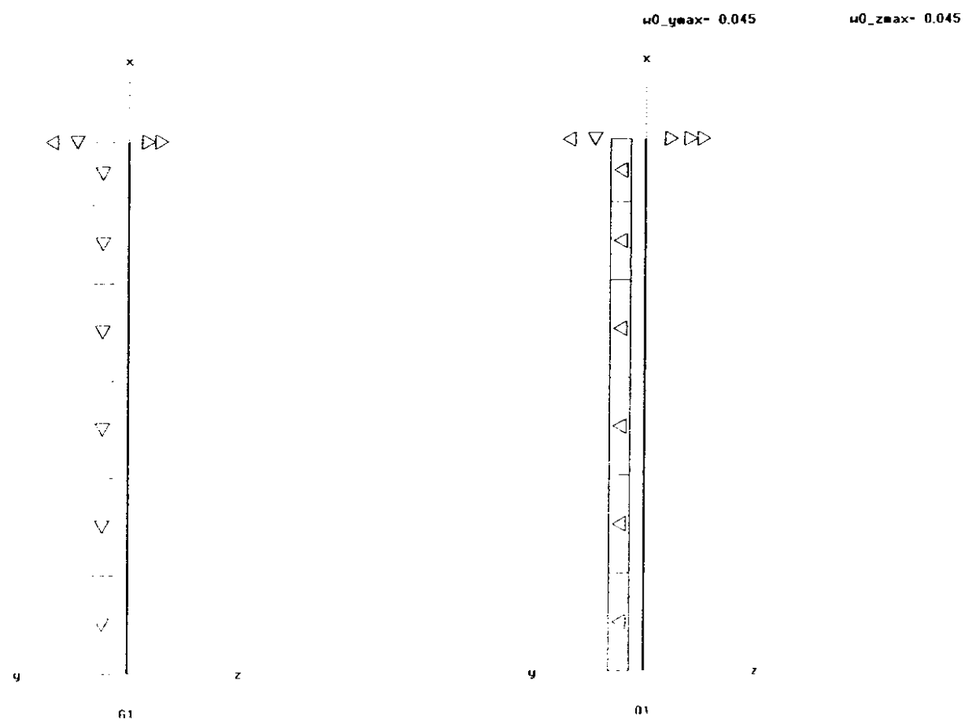
Pto.	Bar.	x[m]	w0_y [m]	w0_z [m]
11	1	0.000	0.000	0.000

CARGAS :

Nu/Ba		Tipo Car.		Dim.	Valor Val.arriba	ey[m] Val.abajo	ez[m]
Comp. Carga G1 :							
Nudo	7	Fuerza	x	[kN]	-4450.000	0.14000	0.08500
		Fuerza	y	[kN]	50.000		
		Momento	z	[kNm]	970.000		
Barra	6	Peso propio	x	[kN/m3]	-25.000		
Barra	5	Peso propio	x	[kN/m3]	-25.000		
Barra	4	Peso propio	x	[kN/m3]	-25.000		
Barra	3	Peso propio	x	[kN/m3]	-25.000		
Barra	2	Peso propio	x	[kN/m3]	-25.000		
Barra	1	Peso propio	x	[kN/m3]	-25.000		
Comp. Carga Q1 :							
Nudo	7	Fuerza	x	[kN]	-3640.000	0.05000	0.05000
		Fuerza	y	[kN]	540.000		
		Fuerza	z	[kN]	200.000		
		Momento	z	[kNm]	2270.000		
Barra	6	Fuerza	y	[kN/m]	3.400		
Barra	5	Fuerza	y	[kN/m]	3.400		
Barra	4	Fuerza	y	[kN/m]	3.400		
Barra	3	Fuerza	y	[kN/m]	3.400		
Barra	2	Fuerza	y	[kN/m]	3.400		
Barra	1	Fuerza	y	[kN/m]	3.400		

Escala 1 : 159.5
Modelo, Deformación accidental y cargas de la pila P1-7





C A P A C I D A D R E S I S T E N T E U L T I M A <G.P1-7.1>

HIP. II. PIL. P1-7

PARAMETROS DE CALCULO:

Norma	EH
Criterio de rotura	Agotamiento de secciones o del sistema
Rotura de secciones	Limitación de deformaciones según FAGUS-2
- Hormigón (def. centrada)	-2.000 [o/oo]
- Hormigón (flexión)	-3.500 [o/oo]
- Acero	10.00 [o/oo]
Coef. min. resist. (gamma_r)	1.000
Coeficiente de fluencia	0.000
Factor armadura (global)	1.000
No de elementos	6
Tolerancia desequi. fuerzas	0.133 [kN]
Tolerancia desequi. momentos	0.191 [kNm]
Mayoración de cargas	1.500 * Carga permanente G1
	+ 1.500 * Carga variable Q1 * ß

RESULTADOS DEL CALCULO NO LINEAL:
Las cargas variables se han aumentado por un factor ß (ß=1.3818).

Rotura: Rotura de la sección
Sección 'BASE' en x= 0.000

DATOS DE LA SECCION

Nombre	Ancho dy [m]	Canto dz [m]	Materiales Horm. / Acero		Distrib. de la armadura	Armadura fija[cm²]	Armadura var [cm²]
BASE	2.800	2.600	H300	AEH500	B1	0.000	210.2
BASE1	2.800	2.380	H300	AEH500	B1	0.000	210.2
BASE2	2.800	2.200	H300	AEH500	B1	0.000	210.2
BASE3	2.800	2.000	H300	AEH500	B1	0.000	210.2
SUPERIOR	2.800	1.700	H300	AEH500	B1	0.000	210.2

DATOS DE BARRAS (incl. factores de armadura)

Barra	Sección arriba / abajo		factor S de la armadura	Armadura variable arriba[cm²]/abajo[cm²]	
6	SUPERIOR	SUPERIOR	1.000	210.2	210.2
5	SUPERIOR	SUPERIOR	1.000	210.2	210.2
4	BASE3	BASE3	1.000	210.2	210.2
3	BASE2	BASE2	1.000	210.2	210.2
2	BASE1	BASE1	1.000	210.2	210.2
1	BASE	BASE	1.000	210.2	210.2

DEFORMACIONES sin deformaciones accidentales

	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
Mínima	-1.80	0.00	0.00	-0.020	-5.201	0.000
Máxima	1.51	108.57	45.50	0.040	0.000	11.925

ESFUERZOS (global)

	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Mínima	-15402.73	-1281.31	-414.54	-47.93	944.61	7470.32
Máxima	-14289.32	-1199.91	-414.54	0.00	7915.76	26622.44

TENSIONES, DEFORMACIONES & RIGIDECES-SECANTE/gamma_r

	sigHorm. [N/mm²]	sigAcero [N/mm²]	epsHorm. [o/oo]	epsAcero [o/oo]	EIy [kNm²]	EIz [kNm²]
Mínima	-17.0	-443.5	-3.489	-3.357	8.107E+6	1.110E+7
Máxima	0.0	443.5	5.379	5.247	1.580E+7	3.413E+7

DEFORMACIONES sin deformaciones accidentales
<G.P1-7.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.3818

Coord-x [m]	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
13.600	-1.80	108.57	45.50	0.040	-5.201	11.925
12.000	-0.94	89.82	37.30	0.029	-5.033	11.510
10.000	0.08	67.52	27.63	0.012	-4.586	10.740
7.500	1.04	42.24	16.95	-0.007	-3.884	9.372
5.000	1.51	21.18	8.34	-0.020	-2.927	7.322
2.500	1.35	6.21	2.42	-0.020	-1.712	4.450
0.000	0.00	0.00	0.00	0.000	0.000	0.000

ESFUERZOS (global)
<G.P1-7.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.3818

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
13.600	-14289.32	-1199.91	-414.54	0.00	944.61	7470.32
12.000	-14289.32	-1199.91	-414.54	-8.61	1844.02	9776.97
12.000	-14445.92	-1212.59	-414.54	-8.61	1844.02	9776.13
10.000	-14445.92	-1212.59	-414.54	-19.06	2956.89	12667.36
10.000	-14650.11	-1228.45	-414.54	-19.05	2956.89	12666.04

ESFUERZOS (global)
<G.P1-7.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.3818

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
7.500	-14650.11	-1228.45	-414.54	-30.69	4311.56	16269.25
7.500	-14890.10	-1246.07	-414.54	-30.69	4311.56	16269.25
5.000	-14890.10	-1246.07	-414.54	-39.86	5604.47	19826.18
5.000	-15140.79	-1263.69	-414.54	-39.86	5604.47	19826.18
2.500	-15140.79	-1263.69	-414.54	-45.78	6813.26	23294.71
2.500	-15402.73	-1281.31	-414.54	-45.78	6813.26	23294.71
0.000	-15402.73	-1281.31	-414.54	-47.93	7915.76	26622.44

TENSIONES & RIGIDECES-SECANTE/gamma_r
<G.P1-7.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.3818

Coord-x [m]	Horm.- [N/mm²]	Horm.+ [N/mm²]	Acero- [N/mm²]	Acero+ [N/mm²]	EIy [kNm²]	EIz [kNm²]
13.600	-10.0	-0.3	-148.0	-6.0	1.369E+7	3.413E+7
12.000	-11.8	0.0	-183.4	28.0	1.252E+7	3.266E+7
12.000	-11.8	0.0	-184.0	25.8	1.262E+7	3.290E+7
10.000	-14.4	0.0	-249.4	108.5	9.659E+6	2.678E+7
10.000	-13.1	0.0	-213.7	76.1	1.562E+7	3.201E+7
7.500	-15.9	0.0	-306.3	223.2	1.136E+7	2.328E+7
7.500	-15.2	0.0	-276.4	190.7	1.506E+7	2.589E+7
5.000	-16.9	0.0	-382.3	380.7	1.153E+7	1.960E+7
5.000	-16.6	0.0	-343.4	331.0	1.476E+7	2.177E+7
2.500	-17.0	0.0	-443.5	443.5	1.117E+7	1.678E+7
2.500	-17.0	0.0	-395.6	443.5	1.580E+7	2.004E+7
0.000	-17.0	0.0	-443.5	443.5	8.107E+6	1.110E+7

DEFORMACIONES
<G.P1-7.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.3818

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
13.600	-0.717	-0.016	-0.705	-0.029	0.13	106.9
12.000	-0.889	0.149	-0.873	0.133	0.13	115.8
12.000	-0.892	0.139	-0.876	0.123	0.13	115.8
10.000	-1.212	0.541	-1.188	0.517	0.14	122.6
10.000	-1.039	0.384	-1.017	0.362	0.13	115.3
7.500	-1.495	1.100	-1.458	1.063	0.14	118.3
7.500	-1.350	0.942	-1.316	0.908	0.13	114.3
5.000	-1.875	1.867	-1.820	1.813	0.15	115.5
5.000	-1.685	1.626	-1.635	1.576	0.14	112.2

DEFORMACIONES
<G.P1-7.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.3818

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
2.500	-2.325	2.793	-2.250	2.717	0.16	113.4
2.500	-1.948	2.248	-1.884	2.183	0.14	109.8
0.000	-3.489	5.379	-3.357	5.247	0.16	111.6

Pila ''P1-7B'
****

Título : 'Hip.II.2'
Altura de la pila : 13.600 [m]
Long. max. de barra: Altura pila / 6

NUDOS x Apoyo

Nu	[m]	d-xyz	r-xyz
7	13.600		
6	12.000		
5	10.000		
4	7.500		
3	5.000		
2	2.500		
1	0.000	BBB	BBB

Apoyo: B=bloqueado, E=elástico

BARRAS (1.línea: barra arriba, 2.línea: barra abajo)

Ba	Nu	Sección	Tipo	Exc: ey [m]	ez [m]	Arm: Zona	fac
6	7-6	'SUPERIOR'	SecFAGUS			1	1.000
5	6-5	'SUPERIOR'	SecFAGUS			1	1.000
4	5-4	'BASE3'	SecFAGUS			2	1.000
3	4-3	'BASE2'	SecFAGUS			3	1.000
2	3-2	'BASE1'	SecFAGUS			4	1.000
1	2-1	'BASE'	SecFAGUS			5	1.000

DEF. ACCIDENTAL :
Curva estándar y z, Valores max. [m]: w0_ymax= 0.045 w0_zmax= 0.045

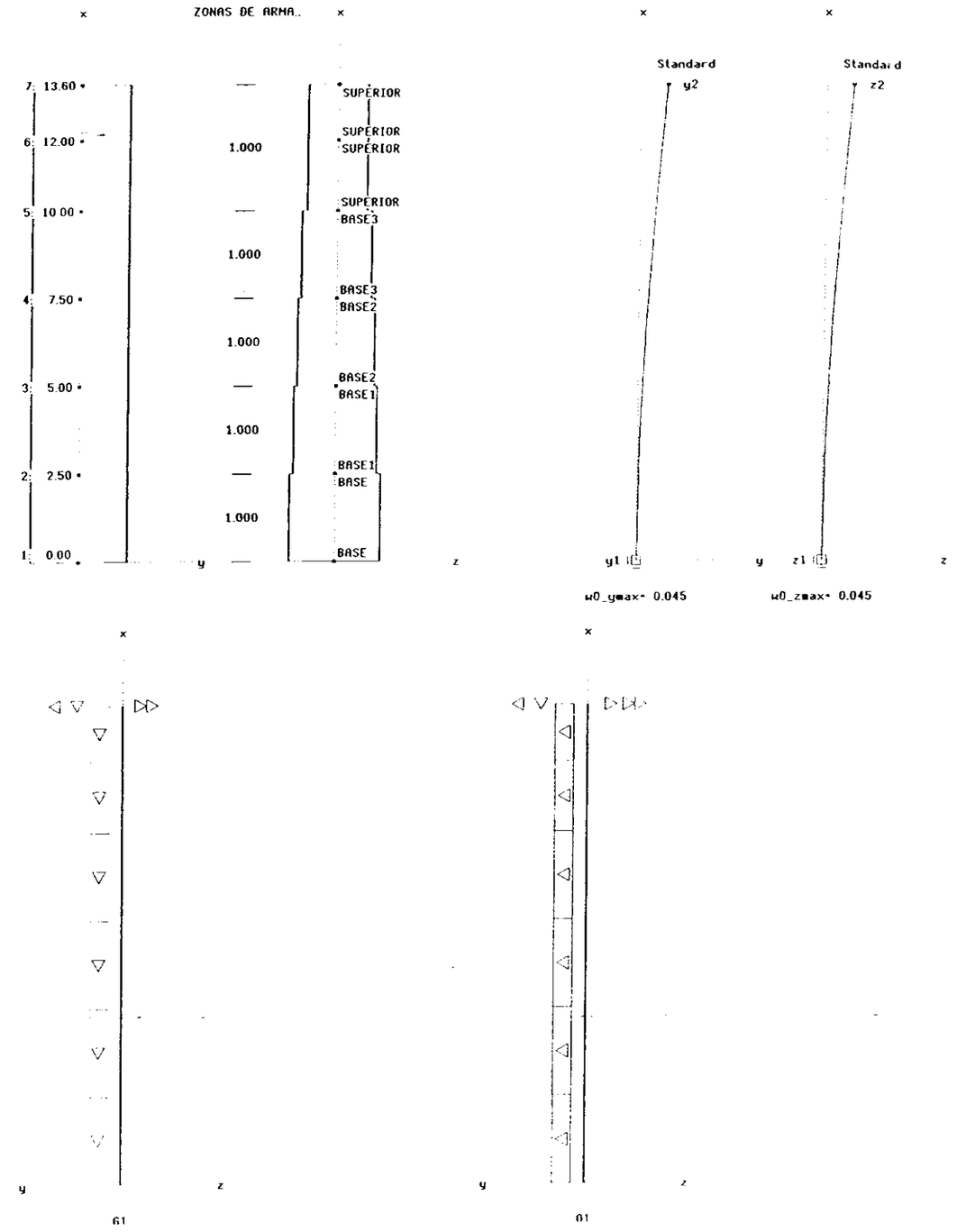
Pto.	Bar.	x[m]	w0_y [m]	w0_z [m]
1	6	13.600	0.045	0.045
2	5	12.000	0.037	0.037
3	4	10.000	0.027	0.027
4	4	8.750	0.021	0.021
5	3	7.500	0.016	0.016
6	3	6.250	0.011	0.011
7	2	5.000	0.007	0.007
8	2	3.750	0.004	0.004
9	1	2.500	0.002	0.002
10	1	1.250	0.000	0.000

Pto.	Bar.	x[m]	w0_y [m]	w0_z [m]
11	1	0.000	0.000	0.000

CARGAS :

Nu/Ba		Tipo Car.		Dim.	Valor Val.arriba	ey[m] Val.abajo	ez[m]
Comp. Carga G1 :							
Nudo	7	Fuerza	x	[kN]	-4450.000	0.14000	0.08500
		Fuerza	y	[kN]	50.000		
		Momento	z	[kNm]	970.000		
Barra	6	Peso propio	x	[kN/m3]	-25.000		
Barra	5	Peso propio	x	[kN/m3]	-25.000		
Barra	4	Peso propio	x	[kN/m3]	-25.000		
Barra	3	Peso propio	x	[kN/m3]	-25.000		
Barra	2	Peso propio	x	[kN/m3]	-25.000		
Barra	1	Peso propio	x	[kN/m3]	-25.000		
Comp. Carga Q1 :							
Nudo	7	Fuerza	x	[kN]	-4110.000	0.14000	0.08500
		Fuerza	y	[kN]	540.000		
		Fuerza	z	[kN]	200.000		
		Momento	z	[kNm]	1050.000		
Barra	6	Fuerza	y	[kN/m]	3.400		
Barra	5	Fuerza	y	[kN/m]	3.400		
Barra	4	Fuerza	y	[kN/m]	3.400		
Barra	3	Fuerza	y	[kN/m]	3.400		
Barra	2	Fuerza	y	[kN/m]	3.400		
Barra	1	Fuerza	y	[kN/m]	3.400		

Escala 1 : 159.5
Modelo, Deformación accidental y cargas de la pila P1-7B



C A P A C I D A D R E S I S T E N T E U L T I M A <G.P1-7B.1>

HIP. II 2 PILAS 1,2

PARAMETROS DE CALCULO:

Norma	EH
Criterio de rotura	Agotamiento de secciones o del sistema
Rotura de secciones	Limitación de deformaciones según FAGUS-2
- Hormigón (def. centrada)	-2.000 [o/oo]
- Hormigón (flexión)	-3.500 [o/oo]
- Acero	10.00 [o/oo]
Coef. min. resist. (gamma_r)	1.000
Coeficiente de fluencia	0.000
Factor armadura (global)	1.000
No de elementos	6
Tolerancia desequi. fuerzas	0.140 [kN]
Tolerancia desequi. momentos	0.179 [kNm]
Mayoración de cargas	1.500 * Carga permanente G1
	+ 1.500 * Carga variable Q1 * ß

RESULTADOS DEL CALCULO NO LINEAL:
Las cargas variables se han aumentado por un factor ß (ß=1.5147).

Rotura: Rotura de la sección
Sección 'BASE' en x= 0.000

DATOS DE LA SECCION

Nombre	Ancho dy [m]	Canto dz [m]	Materiales Horm.	/ Acero	Distrib. de la armadura	Armadura fija[cm²]	Armadura var [cm²]
BASE	2.800	2.600	H300	AEH500	B1	0.000	210.2
BASE1	2.800	2.380	H300	AEH500	B1	0.000	210.2
BASE2	2.800	2.200	H300	AEH500	B1	0.000	210.2
BASE3	2.800	2.000	H300	AEH500	B1	0.000	210.2
SUPERIOR	2.800	1.700	H300	AEH500	B1	0.000	210.2

DATOS DE BARRAS (incl. factores de armadura)

Barra	Sección arriba	/ abajo	factor S de la armadura	Armadura variable arriba[cm²]/abajo[cm²]	
6	SUPERIOR	SUPERIOR	1.000	210.2	210.2
5	SUPERIOR	SUPERIOR	1.000	210.2	210.2
4	BASE3	BASE3	1.000	210.2	210.2
3	BASE2	BASE2	1.000	210.2	210.2
2	BASE1	BASE1	1.000	210.2	210.2
1	BASE	BASE	1.000	210.2	210.2

DEFORMACIONES sin deformaciones accidentales

	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
Mínima	-3.63	0.00	0.00	-0.034	-5.581	0.000
Máxima	0.61	96.58	48.13	0.004	0.000	10.550

ESFUERZOS (global)

	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Mínima	-17196.11	-1397.30	-454.45	-60.87	1361.08	6080.68
Máxima	-16082.70	-1308.26	-454.41	-0.01	9080.87	26837.81

TENSIONES, DEFORMACIONES & RIGIDECES-SECANTE/gamma_r

	sigHorm. [N/mm²]	sigAcero [N/mm²]	epsHorm. [o/oo]	epsAcero [o/oo]	EIy [kNm²]	EIz [kNm²]
Mínima	-17.0	-443.5	-3.498	-3.386	9.206E+6	1.290E+7
Máxima	0.0	443.5	4.513	4.400	1.785E+7	3.483E+7

DEFORMACIONES sin deformaciones accidentales
<G.P1-7B.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.5147

Coord-x [m]	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
13.600	-3.63	96.58	48.13	0.004	-5.581	10.550
12.000	-2.72	79.98	39.37	-0.005	-5.357	10.193
10.000	-1.60	60.22	29.12	-0.017	-4.857	9.531
7.500	-0.41	37.73	17.81	-0.028	-4.115	8.369
5.000	0.38	18.86	8.69	-0.034	-3.095	6.576
2.500	0.61	5.46	2.47	-0.027	-1.770	3.945
0.000	0.00	0.00	0.00	0.000	0.000	0.000

ESFUERZOS (global)
<G.P1-7B.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.5147

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
13.600	-16082.70	-1308.26	-454.45	-0.01	1361.08	6080.68
12.000	-16082.70	-1308.26	-454.45	-11.04	2363.03	8574.68
12.000	-16239.31	-1322.08	-454.42	-11.05	2362.98	8573.51
10.000	-16239.31	-1322.08	-454.42	-24.29	3600.44	11700.44
10.000	-16443.49	-1339.41	-454.42	-24.28	3600.42	11698.86

ESFUERZOS (global)
<G.P1-7B.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.5147

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
7.500	-16443.49	-1339.41	-454.42	-38.99	5104.12	15598.81
7.500	-16683.49	-1358.70	-454.42	-38.99	5104.09	15598.75
5.000	-16683.49	-1358.70	-454.42	-50.60	6536.13	19453.96
5.000	-16934.17	-1378.00	-454.41	-50.60	6536.12	19453.94
2.500	-16934.17	-1378.00	-454.41	-58.13	7870.06	23218.52
2.500	-17196.11	-1397.30	-454.41	-58.12	7870.06	23218.53
0.000	-17196.11	-1397.30	-454.41	-60.87	9080.87	26837.81

TENSIONES & RIGIDECES-SECANTE/gamma_r
<G.P1-7B.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.5147

Coord-x [m]	Horm.- [N/mm²]	Horm.+ [N/mm²]	Acero- [N/mm²]	Acero+ [N/mm²]	EIy [kNm²]	EIz [kNm²]
13.600	-10.3	-1.4	-153.5	-19.6	1.335E+7	3.305E+7
12.000	-12.0	0.0	-189.8	12.7	1.310E+7	3.262E+7
12.000	-12.0	0.0	-189.6	9.4	1.312E+7	3.310E+7
10.000	-14.4	0.0	-251.4	74.7	1.091E+7	2.904E+7
10.000	-13.1	0.0	-215.3	46.3	1.785E+7	3.483E+7
7.500	-15.9	0.0	-308.0	170.8	1.280E+7	2.627E+7
7.500	-15.2	0.0	-277.3	140.6	1.708E+7	2.946E+7
5.000	-17.0	0.0	-393.7	326.7	1.247E+7	2.149E+7
5.000	-16.7	0.0	-352.2	279.2	1.605E+7	2.406E+7
2.500	-17.0	0.0	-443.5	443.5	1.176E+7	1.791E+7
2.500	-17.0	0.0	-414.4	412.3	1.665E+7	2.156E+7
0.000	-17.0	0.0	-443.5	443.5	9.206E+6	1.290E+7

DEFORMACIONES
<G.P1-7B.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.5147

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
13.600	-0.740	-0.084	-0.731	-0.093	0.13	118.8
12.000	-0.917	0.074	-0.904	0.060	0.13	124.3
12.000	-0.916	0.058	-0.903	0.045	0.13	124.1
10.000	-1.217	0.375	-1.197	0.355	0.14	128.8
10.000	-1.043	0.238	-1.025	0.220	0.13	120.7
7.500	-1.497	0.844	-1.467	0.813	0.14	123.6
7.500	-1.348	0.697	-1.320	0.669	0.13	119.2
5.000	-1.922	1.603	-1.875	1.556	0.15	119.9
5.000	-1.721	1.373	-1.677	1.329	0.14	116.3

DEFORMACIONES
<G.P1-7B.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.5147

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
2.500	-2.445	2.553	-2.376	2.484	0.16	117.0
2.500	-2.032	2.022	-1.973	1.963	0.14	113.0
0.000	-3.498	4.513	-3.386	4.400	0.17	114.7

Pila ''MTMAX' HIP II.3 PILA 1 y 2
****

Título : 'Hip: momento transversal max.'
Altura de la pila : 13.600 [m]
Long. max. de barra: Altura pila / 6

NUDOS Nu	x [m]	Apoyo d-xyz	r-xyz
7	13.600		
6	12.000		
5	10.000		
4	7.500		
3	5.000		
2	2.500		
1	0.000	BBB	BBB

Apoyo: B=bloqueado, E=elástico

BARRAS (1.línea: barra arriba, 2.línea: barra abajo)

Ba	Nu	Sección	Tipo	Exc: ey [m]	ez [m]	Arm: Zona	fac
6	7-6	'SUPERIOR'	SecFAGUS	1	1.000		
5	6-5	'SUPERIOR'	SecFAGUS	1	1.000		
4	5-4	'BASE3'	SecFAGUS	2	1.000		
3	4-3	'BASE2'	SecFAGUS	3	1.000		
2	3-2	'BASE1'	SecFAGUS	4	1.000		
1	2-1	'BASE'	SecFAGUS	5	1.000		

DEF. ACCIDENTAL :
Curva estándar y z, Valores max. [m]: w0_ymax= 0.045 w0_zmax= 0.045

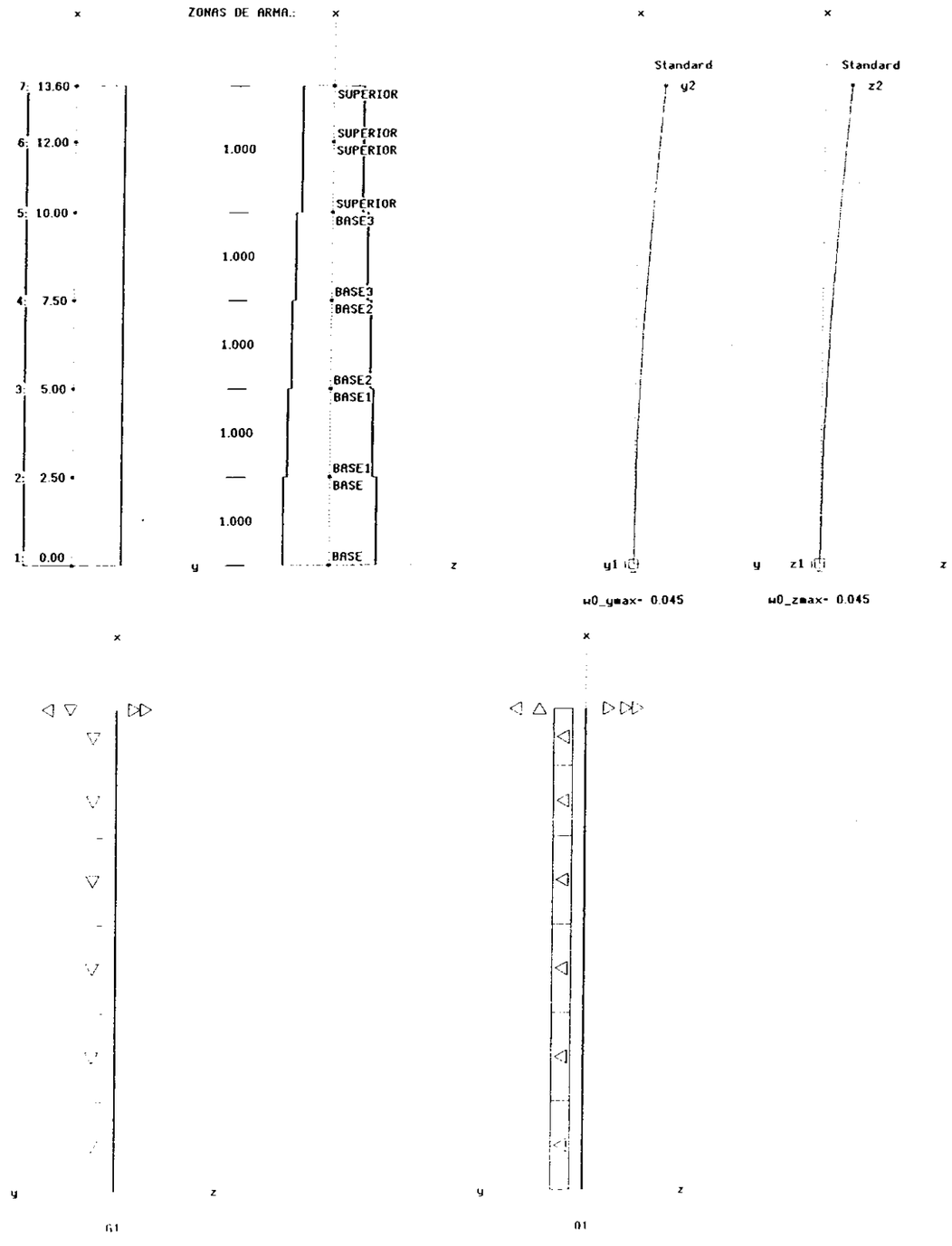
Pto.	Bar.	x[m]	w0_y [m]	w0_z [m]
1	6	13.600	0.045	0.045
2	5	12.000	0.037	0.037
3	4	10.000	0.027	0.027
4	4	8.750	0.021	0.021
5	3	7.500	0.016	0.016
6	3	6.250	0.011	0.011
7	2	5.000	0.007	0.007
8	2	3.750	0.004	0.004
9	1	2.500	0.002	0.002
10	1	1.250	0.000	0.000

Pto.	Bar.	x[m]	w0_y [m]	w0_z [m]
11	1	0.000	0.000	0.000

CARGAS :

Nu/Ba		Tipo Car.		Dim.	Valor Val.arriba	ey[m] Val.abajo	ez[m]
Comp. Carga G1 :							
Nudo	7	Fuerza	x	[kN]	-4000.000	0.14000	0.08500
		Fuerza	y	[kN]	50.000		
		Momento	z	[kNm]	870.000		
Barra	6	Peso propio	x	[kN/m3]	-25.000		
Barra	5	Peso propio	x	[kN/m3]	-25.000		
Barra	4	Peso propio	x	[kN/m3]	-25.000		
Barra	3	Peso propio	x	[kN/m3]	-25.000		
Barra	2	Peso propio	x	[kN/m3]	-25.000		
Barra	1	Peso propio	x	[kN/m3]	-25.000		
Comp. Carga Q1 :							
Nudo	7	Fuerza	x	[kN]	91.000		
		Fuerza	y	[kN]	410.000		
		Fuerza	z	[kN]	200.000		
		Momento	z	[kNm]	1050.000		
Barra	6	Fuerza	y	[kN/m]	3.400		
Barra	5	Fuerza	y	[kN/m]	3.400		
Barra	4	Fuerza	y	[kN/m]	3.400		
Barra	3	Fuerza	y	[kN/m]	3.400		
Barra	2	Fuerza	y	[kN/m]	3.400		
Barra	1	Fuerza	y	[kN/m]	3.400		

Escala 1 : 159.5
Modelo, Deformación accidental y cargas de la pila MTMAX



C A P A C I D A D R E S I S T E N T E U L T I M A <G.MTMAX.2>

Hip II.2. PILAS 1, 2

PARAMETROS DE CALCULO:

Norma	EH
Criterio de rotura	Agotamiento de secciones o del sistema
Rotura de secciones	Limitación de deformaciones según FAGUS-2
- Hormigón (def. centrada)	-2.000 [o/oo]
- Hormigón (flexión)	-3.500 [o/oo]
- Acero	10.00 [o/oo]
Coef. min. resist. (gamma_r)	1.000
Coeficiente de fluencia	0.000
Factor armadura (global)	1.000
No de elementos	6
Tolerancia desequi. fuerzas	0.047 [kN]
Tolerancia desequi. momentos	0.127 [kNm]
Mayoración de cargas	1.000 * Carga permanente G1
	+ 1.500 * Carga variable Q1 * ß

RESULTADOS DEL CALCULO NO LINEAL:
Las cargas variables se han aumentado por un factor ß (ß=1.3998).

Rotura: Rotura de la sección
Sección 'BASE' en x= 0.000

DATOS DE LA SECCION

Nombre	Ancho dy [m]	Canto dz [m]	Materiales Horm.	/ Acero	Distrib. de la armadura	Armadura fija[cm²]	Armadura var [cm²]
BASE	2.800	2.600	H300	AEH500	B1	0.000	210.2
BASE1	2.800	2.380	H300	AEH500	B1	0.000	210.2
BASE2	2.800	2.200	H300	AEH500	B1	0.000	210.2
BASE3	2.800	2.000	H300	AEH500	B1	0.000	210.2
SUPERIOR	2.800	1.700	H300	AEH500	B1	0.000	210.2

DATOS DE BARRAS (incl. factores de armadura)

Barra	Sección arriba	/ abajo	factor S de la armadura	Armadura variable arriba[cm²]	/abajo[cm²]
6	SUPERIOR	SUPERIOR	1.000	210.2	210.2
5	SUPERIOR	SUPERIOR	1.000	210.2	210.2
4	BASE3	BASE3	1.000	210.2	210.2
3	BASE2	BASE2	1.000	210.2	210.2
2	BASE1	BASE1	1.000	210.2	210.2
1	BASE	BASE	1.000	210.2	210.2

DEFORMACIONES sin deformaciones accidentales

	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
Mínima	0.00	0.00	0.00	-0.010	-5.230	0.000
Máxima	8.64	128.23	46.63	0.032	0.000	13.253

ESFUERZOS (global)

	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Mínima	-4597.60	-999.06	-419.95	-14.27	340.00	3633.21
Máxima	-3855.32	-916.61	-419.95	-0.00	6429.42	17395.62

TENSIONES, DEFORMACIONES & RIGIDECES-SECANTE/gamma_r

	sigHorm. [N/mm²]	sigAcero [N/mm²]	epsHorm. [o/oo]	epsAcero [o/oo]	EIy [kNm²]	EIz [kNm²]
Mínima	-17.0	-443.5	-2.742	-2.530	5.859E+6	4.629E+6
Máxima	0.0	443.5	10.167	9.956	1.291E+7	3.199E+7

DEFORMACIONES sin deformaciones accidentales
<G.MTMAX.2> Carga: 1.00*G1 1.50*Q1*ß ß=1.3998

Coord-x [m]	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
13.600	8.08	128.23	46.63	0.032	-5.230	13.253
12.000	8.45	107.23	38.34	0.024	-5.106	12.962
10.000	8.64	81.95	28.51	0.011	-4.666	12.251
7.500	8.34	52.91	17.65	-0.002	-3.939	10.862
5.000	7.40	28.07	8.88	-0.010	-3.008	8.877
2.500	5.62	9.05	2.68	-0.009	-1.857	6.128
0.000	0.00	0.00	0.00	0.000	0.000	0.000

ESFUERZOS (global)
<G.MTMAX.2> Carga: 1.00*G1 1.50*Q1*ß ß=1.3998

Coord-x [m]	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
13.600	-3855.32	-916.61	-419.95	-0.00	340.00	3633.21
12.000	-3855.32	-916.61	-419.95	-2.92	1075.86	5212.57
12.000	-3959.72	-929.46	-419.95	-2.92	1075.86	5211.71
10.000	-3959.72	-929.46	-419.95	-6.53	1994.07	7209.92
10.000	-4095.85	-945.52	-419.95	-6.53	1994.07	7208.59

ESFUERZOS (global)
<G.MTMAX.2> Carga: 1.00*G1 1.50*Q1*ß ß=1.3998

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
7.500	-4095.85	-945.52	-419.95	-10.40	3133.48	9736.21
7.500	-4255.85	-963.37	-419.95	-10.40	3133.48	9736.21
5.000	-4255.85	-963.37	-419.95	-13.10	4257.23	12286.71
5.000	-4422.97	-981.21	-419.95	-13.10	4257.23	12286.71
2.500	-4422.97	-981.21	-419.95	-14.27	5358.64	14847.88
2.500	-4597.60	-999.06	-419.95	-14.27	5358.65	14847.89
0.000	-4597.60	-999.06	-419.95	-14.24	6429.42	17395.62

TENSIONES & RIGIDECES-SECANTE/gamma_r
<G.MTMAX.2> Carga: 1.00*G1 1.50*Q1*ß ß=1.3998

Coord-x [m]	Horm.- [N/mm²]	Horm.+ [N/mm²]	Acero- [N/mm²]	Acero+ [N/mm²]	EIy [kNm²]	EIz [kNm²]
13.600	-4.0	0.0	-52.1	19.4	1.175E+7	3.199E+7
12.000	-6.6	0.0	-88.1	90.8	8.148E+6	2.087E+7
12.000	-6.6	0.0	-88.5	89.3	8.225E+6	2.104E+7
10.000	-9.8	0.0	-142.3	213.0	6.351E+6	1.555E+7
10.000	-8.7	0.0	-122.4	185.4	9.799E+6	1.726E+7
7.500	-12.0	0.0	-184.2	343.9	8.195E+6	1.404E+7
7.500	-11.2	0.0	-167.4	316.9	1.060E+7	1.494E+7
5.000	-13.8	0.0	-228.3	443.5	9.393E+6	1.312E+7
5.000	-13.0	0.0	-206.7	433.6	1.186E+7	1.423E+7
2.500	-15.8	0.0	-291.5	443.5	9.365E+6	1.111E+7
2.500	-14.6	0.0	-249.6	443.5	1.291E+7	1.296E+7
0.000	-17.0	0.0	-443.5	443.5	5.859E+6	4.629E+6

DEFORMACIONES
<G.MTMAX.2> Carga: 1.00*G1 1.50*Q1*ß ß=1.3998

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
13.600	-0.254	0.098	-0.248	0.092	0.12	103.2
12.000	-0.433	0.446	-0.420	0.432	0.13	117.3
12.000	-0.434	0.439	-0.421	0.425	0.13	117.4
10.000	-0.701	1.038	-0.678	1.014	0.14	123.9
10.000	-0.605	0.905	-0.583	0.883	0.12	115.8
7.500	-0.914	1.674	-0.877	1.638	0.13	118.8
7.500	-0.832	1.544	-0.797	1.509	0.12	114.3
5.000	-1.138	2.336	-1.087	2.286	0.12	115.7
5.000	-1.032	2.112	-0.984	2.065	0.12	112.3

DEFORMACIONES
<G.MTMAX.2> Carga: 1.00*G1 1.50*Q1*ß ß=1.3998

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
2.500	-1.461	3.443	-1.388	3.370	0.13	113.0
2.500	-1.252	2.868	-1.188	2.805	0.11	109.5
0.000	-2.742	10.167	-2.530	9.956	0.16	106.0

Pila ''PILA4'
****

HIP. II. 1 PILAS 2 a 6

Título : 'VIADUCTO DE LOS CHORROS'
Altura de la pila : 16.600 [m]
Long. max. de barra: Altura pila / 6

NUDOS x Apoyo

Nu	[m]	d-xyz	r-xyz
7	16.600		
6	13.100		
5	10.000		
4	7.500		
3	5.000		
2	2.500		
1	0.000	BBB	BBB

Apoyo: B=bloqueado, E=elástico

BARRAS (1.línea: barra arriba, 2.línea: barra abajo)

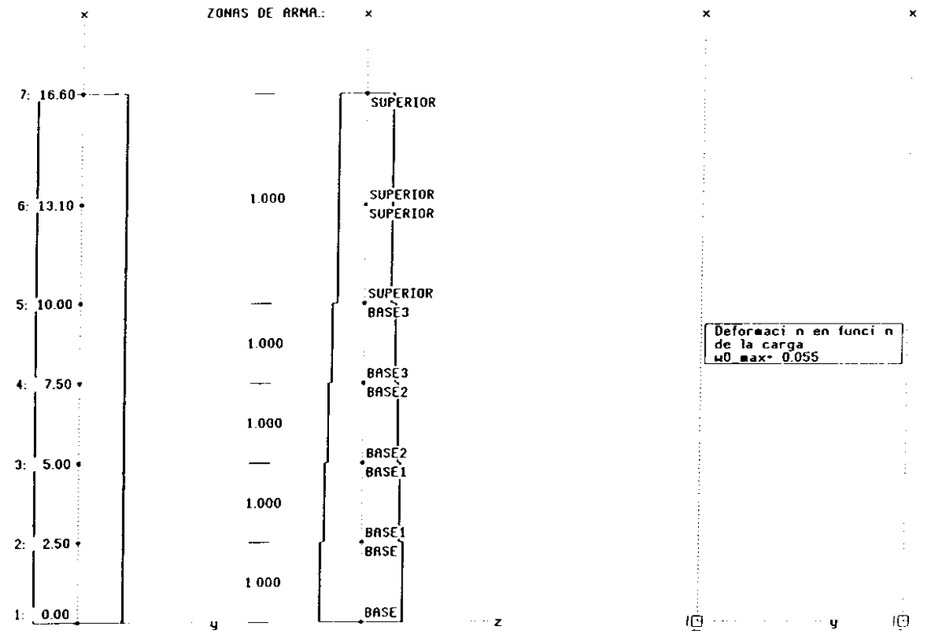
Ba	Nu	Sección	Tipo	Exc: ey [m]	ez [m]	Arm: Zona	fac
6	7-6	'SUPERIOR'	SecFAGUS			1	1.000
5	6-5	'SUPERIOR'	SecFAGUS			1	1.000
4	5-4	'BASE3'	SecFAGUS			2	1.000
3	4-3	'BASE2'	SecFAGUS			3	1.000
2	3-2	'BASE1'	SecFAGUS			4	1.000
1	2-1	'BASE'	SecFAGUS			5	1.000

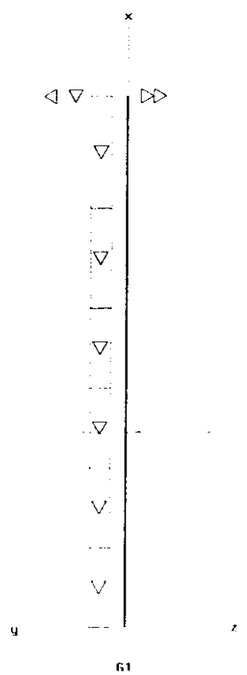
DEF. ACCIDENTAL :
Func. carga : w0_max= 0.055 m

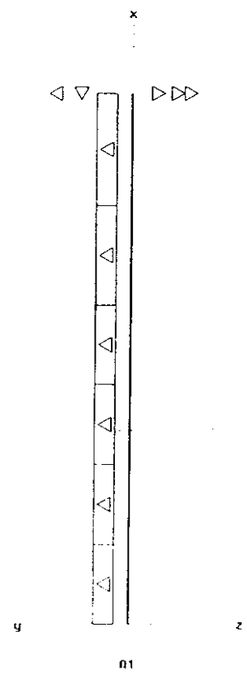
CARGAS :

Nu/Ba		Tipo Car.		Dim.	Valor Val.arriba	ey[m] Val.abajo	ez[m]
Comp. Carga G1 :							
Nudo	7	Fuerza	x	[kN]	-5290.000	0.14000	0.08500
		Fuerza	y	[kN]	60.000		
		Momento	z	[kNm]	1220.000		
Barra	6	Peso propio	x	[kN/m3]	-25.000		
Barra	5	Peso propio	x	[kN/m3]	-25.000		
Barra	4	Peso propio	x	[kN/m3]	-25.000		
Barra	3	Peso propio	x	[kN/m3]	-25.000		
Barra	2	Peso propio	x	[kN/m3]	-25.000		
Barra	1	Peso propio	x	[kN/m3]	-25.000		
Comp. Carga Q1 :							
Nudo	7	Fuerza	x	[kN]	-4000.000	0.05500	0.05500
		Fuerza	y	[kN]	600.000		
		Fuerza	z	[kN]	234.000		
		Momento	z	[kNm]	2820.000		
Barra	6	Fuerza	y	[kN/m]	3.400		
Barra	5	Fuerza	y	[kN/m]	3.400		
Barra	4	Fuerza	y	[kN/m]	3.400		
Barra	3	Fuerza	y	[kN/m]	3.400		
Barra	2	Fuerza	y	[kN/m]	3.400		
Barra	1	Fuerza	y	[kN/m]	3.400		

Escala 1 : 194.7
Modelo, Deformación accidental y cargas de la pila PILA4







C A P A C I D A D R E S I S T E N T E U L T I M A <G.PILA4.1>

Hip. II, 1. Pilas 2 a 5.

PARAMETROS DE CALCULO:

Norma	EH
Criterio de rotura	Agotamiento de secciones o del sistema
Rotura de secciones	Limitación de deformaciones según FAGUS-2
- Hormigón (def. centrada)	-2.000 [o/oo]
- Hormigón (flexión)	-3.500 [o/oo]
- Acero	10.00 [o/oo]
Coef. min. resist. (gamma_r)	1.000
Coeficiente de fluencia	0.000
Factor armadura (global)	1.000
No de elementos	6
Tolerancia desequi. fuerzas	0.154 [kN]
Tolerancia desequi. momentos	0.253 [kNm]
Mayoración de cargas	1.500 * Carga permanente G1
	+ 1.500 * Carga variable Q1 * ß

RESULTADOS DEL CALCULO NO LINEAL:
Las cargas variables se han aumentado por un factor ß (ß=1.1035)

Rotura: Rotura de la sección
Sección 'BASE' en x= 0.000

DATOS DE LA SECCION

Nombre	Ancho dy [m]	Canto dz [m]	Materiales Horm.	/ Acero	Distrib. de la armadura	Armadura fija[cm²]	Armadura var [cm²]
BASE	2.800	2.600	H300	AEH500	B1	0.000	288.0
BASE1	2.800	2.380	H300	AEH500	B1	0.000	288.0
BASE2	2.800	2.200	H300	AEH500	B1	0.000	288.0
BASE3	2.800	2.000	H300	AEH500	B1	0.000	288.0
SUPERIOR	2.800	1.700	H300	AEH500	B1	0.000	288.0

DATOS DE BARRAS (incl. factores de armadura)

Barra	Sección arriba	/ abajo	factor S de la armadura	Armadura variable arriba[cm²]	/abajo[cm²]
6	SUPERIOR	SUPERIOR	1.000	288.0	288.0
5	SUPERIOR	SUPERIOR	1.000	288.0	288.0
4	BASE3	BASE3	1.000	288.0	288.0
3	BASE2	BASE2	1.000	288.0	288.0
2	BASE1	BASE1	1.000	288.0	288.0
1	BASE	BASE	1.000	288.0	288.0

DEFORMACIONES sin deformaciones accidentales

	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
Mínima	-3.16	0.00	0.00	-0.018	-7.352	0.000
Máxima	1.28	162.97	75.11	0.062	0.000	15.027

DEFORMACION ACCIDENTAL	DY [mm]	DZ [mm]
Máxima	47.86	27.70

ESFUERZOS (global)

	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Mínima	-16000.08	-1169.52	-387.34	-33.12	1038.61	7967.02
Máxima	-14708.33	-1093.08	-387.32	-0.02	9018.71	29910.73

TENSIONES, DEFORMACIONES & RIGIDECES-SECANTE/gamma_r

	sigHorm. [N/mm²]	sigAcero [N/mm²]	epsHorm. [o/oo]	epsAcero [o/oo]	EIy [kNm²]	EIz [kNm²]
Mínima	-17.0	-443.5	-3.490	-3.368	8.083E+6	1.336E+7
Máxima	0.0	443.5	4.886	4.763	1.649E+7	3.733E+7

DEFORMACIONES sin deformaciones accidentales
<G.PILA4.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.1035

Coord-x [m]	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
16.600	-3.16	162.97	75.11	0.062	-7.352	15.027
13.100	-1.14	112.11	50.17	0.037	-6.796	13.936
10.000	0.30	71.48	30.83	0.005	-5.533	12.121
7.500	1.01	43.51	18.29	-0.012	-4.419	10.135
5.000	1.28	21.19	8.71	-0.018	-3.172	7.592
2.500	1.06	5.99	2.43	-0.015	-1.758	4.389
0.000	0.00	0.00	0.00	0.000	0.000	0.000

ESFUERZOS (global)
<G.PILA4.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.1035

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
16.600	-14708.33	-1093.08	-387.34	-0.02	1038.61	7967.02
13.100	-14708.33	-1093.08	-387.34	-12.85	2916.52	12779.59
13.100	-14995.42	-1111.62	-387.34	-12.85	2916.50	12780.65
10.000	-14995.42	-1111.62	-387.34	-22.17	4521.12	17025.11
10.000	-15247.46	-1127.37	-387.34	-22.16	4521.10	17026.58
7.500	-15247.46	-1127.37	-387.34	-27.25	5747.37	20395.50
7.500	-15487.46	-1141.41	-387.34	-27.24	5747.36	20395.46
5.000	-15487.46	-1141.41	-387.34	-30.59	6909.91	23687.18
5.000	-15738.14	-1155.46	-387.33	-30.59	6909.91	23687.20
2.500	-15738.14	-1155.46	-387.33	-32.47	8003.14	26871.85
2.500	-16000.08	-1169.52	-387.32	-32.45	8003.16	26871.91
0.000	-16000.08	-1169.52	-387.32	-33.12	9018.71	29910.73

TENSIONES & RIGIDECES-SECANTE/gamma_r
<G.PILA4.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.1035

Coord-x [m]	Horm.- [N/mm²]	Horm.+ [N/mm²]	Acero- [N/mm²]	Acero+ [N/mm²]	EIy [kNm²]	EIz [kNm²]
16.600	-9.9	-0.4	-146.2	-7.7	1.434E+7	3.733E+7
13.100	-13.6	0.0	-226.6	80.5	1.108E+7	3.120E+7
13.100	-13.7	0.0	-231.5	84.9	1.094E+7	3.032E+7
10.000	-16.6	0.0	-344.2	246.3	8.083E+6	2.272E+7
10.000	-15.6	0.0	-293.5	197.2	1.284E+7	2.634E+7
7.500	-16.9	0.0	-384.7	342.7	1.055E+7	2.164E+7
7.500	-16.6	0.0	-346.6	302.3	1.389E+7	2.373E+7
5.000	-17.0	0.0	-441.2	443.5	1.172E+7	2.015E+7
5.000	-17.0	0.0	-396.2	404.4	1.492E+7	2.213E+7
2.500	-17.0	0.0	-443.5	443.5	1.162E+7	1.801E+7
2.500	-17.0	0.0	-438.9	443.5	1.649E+7	2.108E+7
0.000	-17.0	0.0	-443.5	443.5	9.543E+6	1.336E+7

DEFORMACIONES
<G.PILA4.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.1035

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
16.600	-0.708	-0.025	-0.696	-0.036	0.17	106.9
13.100	-1.100	0.404	-1.079	0.383	0.19	121.7
13.100	-1.124	0.426	-1.102	0.404	0.19	121.8
10.000	-1.677	1.210	-1.639	1.173	0.22	126.4

DEFORMACIONES
<G.PILA4.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.1035

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
10.000	-1.432	0.973	-1.397	0.939	0.19	118.4
7.500	-1.882	1.681	-1.832	1.632	0.22	119.9
7.500	-1.697	1.486	-1.650	1.440	0.20	115.6
5.000	-2.164	2.238	-2.101	2.175	0.22	116.5
5.000	-1.945	1.984	-1.887	1.926	0.20	113.0
2.500	-2.567	3.006	-2.487	2.925	0.23	114.4
2.500	-2.161	2.483	-2.090	2.412	0.20	110.5
0.000	-3.490	4.886	-3.368	4.763	0.23	112.6

Pila ''P4-II'
****

Título : 'VIADUCTO DE LOS CHORROS' HIP II.2, PILAS 2-6
Altura de la pila : 16.600 [m]
Long. max. de barra: Altura pila / 6

NUDOS Nu	x [m]	Apoyo d-xyz	r-xyz
7	16.600		
6	13.100		
5	10.000		
4	7.500		
3	5.000		
2	2.500		
1	0.000	BBB	BBB

Apoyo: B=bloqueado, E=elástico

BARRAS (1.línea: barra arriba, 2.línea: barra abajo)

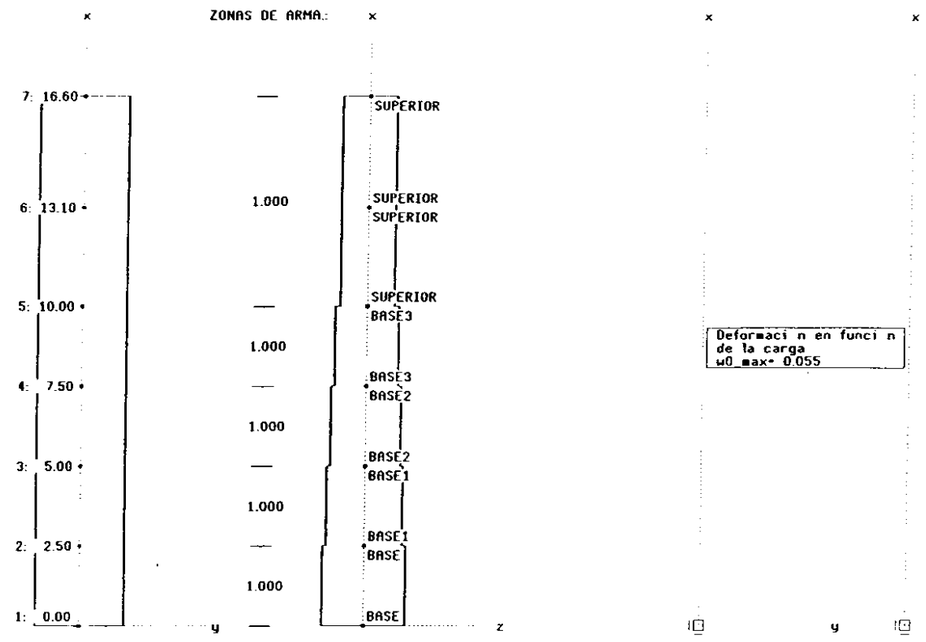
Ba	Nu	Sección	Tipo	Exc: ey [m]	ez [m]	Arm: Zona	fac
6	7-6	'SUPERIOR'	SecFAGUS			1	1.000
5	6-5	'SUPERIOR'	SecFAGUS			1	1.000
4	5-4	'BASE3'	SecFAGUS			2	1.000
3	4-3	'BASE2'	SecFAGUS			3	1.000
2	3-2	'BASE1'	SecFAGUS			4	1.000
1	2-1	'BASE'	SecFAGUS			5	1.000

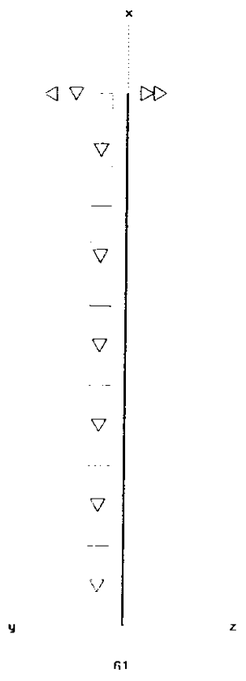
DEF. ACCIDENTAL :
Func. carga : w0_max= 0.055 m

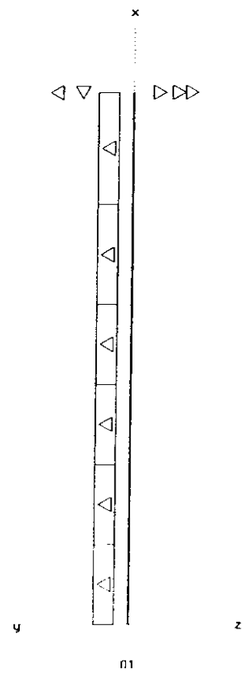
CARGAS : HIP II.2

Nu/Ba		Tipo Car.		Dim.	Valor Val.arriba	ey [m] Val.abajo	ez [m]
Comp. Carga G1 :							
Nudo	7	Fuerza	x	[kN]	-5290.000	0.14000	0.08500
		Fuerza	y	[kN]	60.000		
		Momento	z	[kNm]	1220.000		
Barra	6	Peso propio	x	[kN/m3]	-25.000		
Barra	5	Peso propio	x	[kN/m3]	-25.000		
Barra	4	Peso propio	x	[kN/m3]	-25.000		
Barra	3	Peso propio	x	[kN/m3]	-25.000		
Barra	2	Peso propio	x	[kN/m3]	-25.000		
Barra	1	Peso propio	x	[kN/m3]	-25.000		
Comp. Carga Q1 :							
Nudo	7	Fuerza	x	[kN]	-4670.000	0.05500	0.05500
		Fuerza	y	[kN]	600.000		
		Fuerza	z	[kN]	234.000		
		Momento	z	[kNm]	1380.000		
Barra	6	Fuerza	y	[kN/m]	3.400		
Barra	5	Fuerza	y	[kN/m]	3.400		
Barra	4	Fuerza	y	[kN/m]	3.400		
Barra	3	Fuerza	y	[kN/m]	3.400		
Barra	2	Fuerza	y	[kN/m]	3.400		
Barra	1	Fuerza	y	[kN/m]	3.400		

Escala 1 : 194.7
Modelo, Deformación accidental y cargas de la pila P4-II







C A P A C I D A D R E S I S T E N T E U L T I M A <G.P4-II.1>

HIP. II.2. FILAS 2 y 3

PARAMETROS DE CALCULO:

Norma	EH
Criterio de rotura	Agotamiento de secciones o del sistema
Rotura de secciones	Limitación de deformaciones según FAGUS-2
- Hormigón (def. centrada)	-2.000 [o/oo]
- Hormigón (flexión)	-3.500 [o/oo]
- Acero	10.00 [o/oo]
Coef. min. resist. (gamma_r)	1.000
Coeficiente de fluencia	0.000
Factor armadura (global)	1.000
No de elementos	6
Tolerancia desequi. fuerzas	0.164 [kN]
Tolerancia desequi. momentos	0.232 [kNm]
Mayoración de cargas	1.500 * Carga permanente G1
	+ 1.500 * Carga variable Q1 * ß

RESULTADOS DEL CALCULO NO LINEAL:
Las cargas variables se han aumentado por un factor ß (ß=1.2296).

Rotura: Rotura de la sección
Sección 'BASE' en x= 0.000

DATOS DE LA SECCION

Nombre	Ancho dy [m]	Canto dz [m]	Materiales Horm. / Acero		Distrib. de la armadura	Armadura fija[cm²]	Armadura var [cm²]
BASE	2.800	2.600	H300	AEH500	B1	0.000	288.0
BASE1	2.800	2.380	H300	AEH500	B1	0.000	288.0
BASE2	2.800	2.200	H300	AEH500	B1	0.000	288.0
BASE3	2.800	2.000	H300	AEH500	B1	0.000	288.0
SUPERIOR	2.800	1.700	H300	AEH500	B1	0.000	288.0

DATOS DE BARRAS (incl. factores de armadura)

Barra	Sección arriba / abajo		factor S de la armadura	Armadura variable arriba[cm²]/abajo[cm²]	
6	SUPERIOR	SUPERIOR	1.000	288.0	288.0
5	SUPERIOR	SUPERIOR	1.000	288.0	288.0
4	BASE3	BASE3	1.000	288.0	288.0
3	BASE2	BASE2	1.000	288.0	288.0
2	BASE1	BASE1	1.000	288.0	288.0
1	BASE	BASE	1.000	288.0	288.0

DEFORMACIONES sin deformaciones accidentales

	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
Mínima	-5.31	0.00	0.00	-0.038	-7.549	0.000
Máxima	0.39	145.23	77.46	0.011	0.000	13.188

DEFORMACION ACCIDENTAL DY [mm] DZ [mm]

Máxima	46.04	30.63

ESFUERZOS (global)

	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Mínima	-17992.64	-1292.94	-431.60	-50.83	1148.22	5953.60
Máxima	-16700.88	-1207.65	-431.60	0.00	10158.62	29956.91

TENSIONES, DEFORMACIONES & RIGIDECES-SECANTE/gamma_r

	sigHorm. [N/mm²]	sigAcero [N/mm²]	epsHorm. [o/oo]	epsAcero [o/oo]	EIy [kNm²]	EIz [kNm²]
Mínima	-17.0	-443.5	-3.498	-3.391	9.139E+6	1.519E+7
Máxima	0.0	443.5	4.144	4.038	1.741E+7	3.625E+7

DEFORMACIONES sin deformaciones accidentales
<G.P4-II.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.2296

Coord-x [m]	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
16.600	-5.31	145.23	77.46	0.011	-7.549	13.188
13.100	-3.18	100.46	51.88	-0.008	-6.978	12.314
10.000	-1.47	64.37	31.95	-0.029	-5.733	10.829
7.500	-0.45	39.27	18.92	-0.038	-4.603	9.142
5.000	0.18	19.07	8.95	-0.037	-3.295	6.877
2.500	0.39	5.34	2.46	-0.025	-1.795	3.939
0.000	0.00	0.00	0.00	0.000	0.000	0.000

ESFUERZOS (global)
<G.P4-II.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.2296

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
16.600	-16700.88	-1207.65	-431.60	0.00	1148.22	5953.60
13.100	-16700.88	-1207.65	-431.60	-18.96	3281.44	11188.67
13.100	-16987.98	-1228.35	-431.60	-18.96	3281.44	11190.05
10.000	-16987.98	-1228.35	-431.60	-32.96	5100.78	15817.04
10.000	-17240.01	-1245.90	-431.60	-32.96	5100.78	15818.80
7.500	-17240.01	-1245.90	-431.60	-41.00	6487.85	19501.57
7.500	-17480.01	-1261.58	-431.60	-41.00	6487.85	19501.57
5.000	-17480.01	-1261.58	-431.60	-46.52	7798.48	23109.22
5.000	-17730.70	-1277.26	-431.60	-46.52	7798.48	23109.22
2.500	-17730.70	-1277.26	-431.60	-49.71	9024.97	26607.73
2.500	-17992.64	-1292.94	-431.60	-49.71	9024.97	26607.73
0.000	-17992.64	-1292.94	-431.60	-50.83	10158.62	29956.91

TENSIONES & RIGIDECES-SECANTE/gamma_r
<G.P4-II.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.2296

Coord-x [m]	Horm.- [N/mm²]	Horm.+ [N/mm²]	Acero- [N/mm²]	Acero+ [N/mm²]	EIy [kNm²]	EIz [kNm²]
16.600	-9.7	-2.1	-143.6	-29.1	1.400E+7	3.625E+7
13.100	-13.3	0.0	-221.4	43.9	1.264E+7	3.340E+7
13.100	-13.4	0.0	-223.7	42.1	1.268E+7	3.340E+7
10.000	-16.4	0.0	-337.3	182.5	9.139E+6	2.539E+7
10.000	-15.4	0.0	-286.6	137.2	1.468E+7	2.993E+7
7.500	-16.9	0.0	-386.5	281.2	1.153E+7	2.373E+7
7.500	-16.6	0.0	-346.0	240.1	1.532E+7	2.641E+7
5.000	-17.0	0.0	-443.5	403.3	1.240E+7	2.153E+7
5.000	-17.0	0.0	-406.2	350.9	1.589E+7	2.388E+7
2.500	-17.0	0.0	-443.5	443.5	1.238E+7	1.923E+7
2.500	-17.0	0.0	-443.5	443.5	1.741E+7	2.254E+7
0.000	-17.0	0.0	-443.5	443.5	1.073E+7	1.519E+7

DEFORMACIONES
<G.P4-II.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.2296

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
16.600	-0.693	-0.130	-0.684	-0.139	0.17	114.5
13.100	-1.071	0.226	-1.054	0.209	0.19	126.9
13.100	-1.082	0.217	-1.065	0.200	0.19	127.1
10.000	-1.636	0.899	-1.606	0.869	0.21	131.5

DEFORMACIONES
<G.P4-II.1> Carga: 1.50*G1 1.50*Q1*ß ß=1.2296

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
10.000	-1.392	0.680	-1.365	0.653	0.19	123.1
7.500	-1.882	1.381	-1.840	1.339	0.21	124.2
7.500	-1.687	1.182	-1.648	1.143	0.19	119.7
5.000	-2.221	1.977	-2.165	1.921	0.22	120.2
5.000	-1.986	1.723	-1.934	1.671	0.20	116.5
2.500	-2.660	2.704	-2.586	2.630	0.23	117.4
2.500	-2.235	2.224	-2.171	2.160	0.20	113.3
0.000	-3.498	4.144	-3.391	4.038	0.23	115.2

Pila ''MTMAX' (HIP. II.3 PILAS 2 a 5)
****

Título : 'Hip: momento transversal max.'
Altura de la pila : 16.600 [m]
Long. max. de barra: Altura pila / 6

NUDOS x Apoyo

Nu	[m]	d-xyz	r-xyz
7	16.600		
6	13.100		
5	10.000		
4	7.500		
3	5.000		
2	2.500		
1	0.000	BBB	BBB

Apoyo: B=bloqueado, E=elástico

BARRAS (1.línea: barra arriba, 2.línea: barra abajo)

Ba	Nu	Sección	Tipo	Exc: ey [m]	ez [m]	Arm: Zona	fac
6	7-6	'SUPERIOR'	SecFAGUS			1	1.000
5	6-5	'SUPERIOR'	SecFAGUS			1	1.000
4	5-4	'BASE3'	SecFAGUS			2	1.000
3	4-3	'BASE2'	SecFAGUS			3	1.000
2	3-2	'BASE1'	SecFAGUS			4	1.000
1	2-1	'BASE'	SecFAGUS			5	1.000

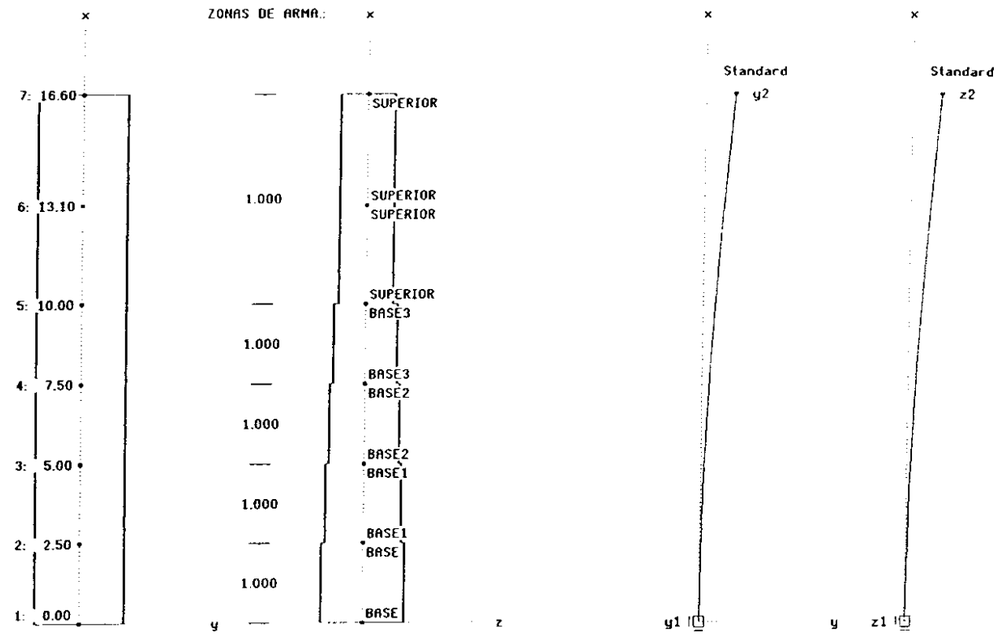
DEF. ACCIDENTAL :
Curva estándar y z, Valores max. [m]: w0_ymax= 0.055 w0_zmax= 0.055

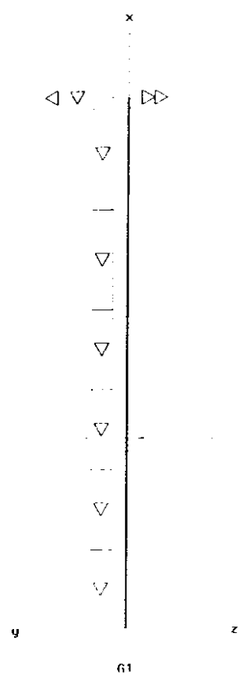
Pto.	Bar.	x[m]	w0_y [m]	w0_z [m]
1	6	16.600	0.055	0.055
2	6	14.850	0.046	0.046
3	5	13.100	0.037	0.037
4	5	11.550	0.030	0.030
5	4	10.000	0.023	0.023
6	3	7.500	0.013	0.013
7	2	5.000	0.006	0.006
8	1	2.500	0.002	0.002
9	1	0.000	0.000	0.000

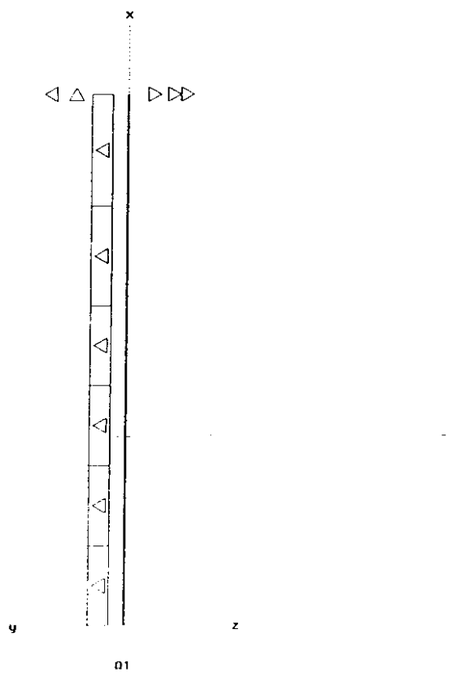
CARGAS :

Nu/Ba		Tipo Car.		Dim.	Valor Val.arriba	ey[m] Val.abajo	ez[m]
Comp. Carga G1 :							
Nudo	7	Fuerza	x	[kN]	-4740.000	0.14000	0.08500
		Fuerza	y	[kN]	54.000		
		Momento	z	[kNm]	1100.000		
Barra	6	Peso propio	x	[kN/m3]	-25.000		
Barra	5	Peso propio	x	[kN/m3]	-25.000		
Barra	4	Peso propio	x	[kN/m3]	-25.000		
Barra	3	Peso propio	x	[kN/m3]	-25.000		
Barra	2	Peso propio	x	[kN/m3]	-25.000		
Barra	1	Peso propio	x	[kN/m3]	-25.000		
Comp. Carga Q1 :							
Nudo	7	Fuerza	x	[kN]	1140.000	0.05500	0.05500
		Fuerza	y	[kN]	470.000		
		Fuerza	z	[kN]	230.000		
		Momento	z	[kNm]	1380.000		
Barra	6	Fuerza	y	[kN/m]	3.400		
Barra	5	Fuerza	y	[kN/m]	3.400		
Barra	4	Fuerza	y	[kN/m]	3.400		
Barra	3	Fuerza	y	[kN/m]	3.400		
Barra	2	Fuerza	y	[kN/m]	3.400		
Barra	1	Fuerza	y	[kN/m]	3.400		

Escala 1 : 194.7
Modelo, Deformación accidental y cargas de la pila MTMAX







C A P A C I D A D R E S I S T E N T E U L T I M A <G.MTMAX.1>

HIP. II.2 Fase 6

PARAMETROS DE CALCULO:

Norma	EH
Criterio de rotura	Agotamiento de secciones o del sistema
Rotura de secciones	Limitación de deformaciones según FAGUS-2
- Hormigón (def. centrada)	-2.000 [o/oo]
- Hormigón (flexión)	-3.500 [o/oo]
- Acero	10.00 [o/oo]
Coef. min. resist. (gamma_r)	1.000
Coeficiente de fluencia	0.000
Factor armadura (global)	1.000
No de elementos	6
Tolerancia desequi. fuerzas	0.040 [kN]
Tolerancia desequi. momentos	0.172 [kNm]
Mayoración de cargas	1.000 * Carga permanente G1
	+ 1.500 * Carga variable Q1 * ß

RESULTADOS DEL CALCULO NO LINEAL:
Las cargas variables se han aumentado por un factor ß (ß=1.1781).

Rotura: Rotura de la sección
Sección 'BASE' en x= 0.000

DATOS DE LA SECCION

Nombre	Ancho dy [m]	Canto dz [m]	Materiales Horm.	/ Acero	Distrib. de la armadura	Armadura fija[cm²]	Armadura var [cm²]
BASE	2.800	2.600	H300	AEH500	B1	0.000	288.0
BASE1	2.800	2.380	H300	AEH500	B1	0.000	288.0
BASE2	2.800	2.200	H300	AEH500	B1	0.000	288.0
BASE3	2.800	2.000	H300	AEH500	B1	0.000	288.0
SUPERIOR	2.800	1.700	H300	AEH500	B1	0.000	288.0

DATOS DE BARRAS (incl. factores de armadura)

Barra	Sección arriba	/ abajo	factor S de la armadura	Armadura variable arriba[cm²]	/abajo[cm²]
6	SUPERIOR	SUPERIOR	1.000	288.0	288.0
5	SUPERIOR	SUPERIOR	1.000	288.0	288.0
4	BASE3	BASE3	1.000	288.0	288.0
3	BASE2	BASE2	1.000	288.0	288.0
2	BASE1	BASE1	1.000	288.0	288.0
1	BASE	BASE	1.000	288.0	288.0

DEFORMACIONES sin deformaciones accidentales

	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
Mínima	0.00	0.00	0.00	-0.016	-7.343	0.000
Máxima	10.01	190.53	77.11	0.061	0.000	16.602

ESFUERZOS (global)

	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
Mínima	-3688.16	-976.77	-406.44	-22.17	292.10	4085.29
Máxima	-2826.98	-895.06	-406.44	0.00	7447.34	20362.41

TENSIONES, DEFORMACIONES & RIGIDECES-SECANTE/gamma_r

	sigHorm. [N/mm²]	sigAcero [N/mm²]	epsHorm. [o/oo]	epsAcero [o/oo]	EIy [kNm²]	EIz [kNm²]
Mínima	-17.0	-443.5	-2.882	-2.671	5.995E+6	5.412E+6
Máxima	0.0	443.5	10.192	9.981	1.323E+7	2.404E+7

DEFORMACIONES sin deformaciones accidentales
<G.MTMAX.1> Carga: 1.00*G1 1.50*Q1*ß ß=1.1781

Coord-x [m]	DX [mm]	DY [mm]	DZ [mm]	RX [o/oo]	RY [o/oo]	RZ [o/oo]
16.600	9.38	190.53	77.11	0.061	-7.343	16.602
13.100	10.01	134.04	52.05	0.035	-6.835	15.523
10.000	9.83	88.42	32.55	0.004	-5.602	13.762
7.500	9.13	56.26	19.79	-0.010	-4.542	11.872
5.000	7.90	29.37	9.78	-0.016	-3.389	9.518
2.500	5.75	9.23	2.88	-0.013	-2.021	6.346
0.000	0.00	0.00	0.00	0.000	0.000	0.000

ESFUERZOS (global)
<G.MTMAX.1> Carga: 1.00*G1 1.50*Q1*ß ß=1.1781

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
16.600	-2826.98	-895.06	-406.44	0.00	292.10	4085.29
13.100	-2826.98	-895.06	-406.44	-8.26	1835.94	7427.70
13.100	-3018.38	-914.89	-406.44	-8.26	1835.94	7429.03
10.000	-3018.38	-914.89	-406.44	-14.86	3197.78	10445.51
10.000	-3186.41	-931.71	-406.44	-14.86	3197.78	10447.19

ESFUERZOS (global)
<G.MTMAX.1> Carga: 1.00*G1 1.50*Q1*ß ß=1.1781

Coord-x	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
7.500	-3186.41	-931.71	-406.44	-18.73	4285.01	12909.17
7.500	-3346.41	-946.73	-406.44	-18.73	4285.01	12909.17
5.000	-3346.41	-946.73	-406.44	-21.21	5358.80	15390.01
5.000	-3513.53	-961.75	-406.44	-21.21	5358.80	15390.01
2.500	-3513.53	-961.75	-406.44	-22.17	6414.97	17880.87
2.500	-3688.16	-976.77	-406.44	-22.17	6414.97	17880.87
0.000	-3688.16	-976.77	-406.44	-22.12	7447.34	20362.41

TENSIONES & RIGIDECES-SECANTE/gamma_r
<G.MTMAX.1> Carga: 1.00*G1 1.50*Q1*ß ß=1.1781

Coord-x [m]	Horm.- [N/mm²]	Horm.+ [N/mm²]	Acero- [N/mm²]	Acero+ [N/mm²]	EIy [kNm²]	EIz [kNm²]
16.600	-4.1	0.0	-52.9	50.7	9.269E+6	2.404E+7
13.100	-8.9	0.0	-124.5	206.6	6.752E+6	1.663E+7
13.100	-8.9	0.0	-125.0	201.7	6.844E+6	1.696E+7
10.000	-12.5	0.0	-197.0	357.9	5.995E+6	1.496E+7
10.000	-11.3	0.0	-170.1	323.1	9.167E+6	1.601E+7
7.500	-13.6	0.0	-222.8	443.2	8.550E+6	1.501E+7
7.500	-12.8	0.0	-202.1	411.9	1.101E+7	1.581E+7
5.000	-14.9	0.0	-260.3	443.5	9.872E+6	1.442E+7
5.000	-14.1	0.0	-236.6	443.5	1.252E+7	1.547E+7
2.500	-16.5	0.0	-331.8	443.5	9.588E+6	1.158E+7
2.500	-15.5	0.0	-280.9	443.5	1.323E+7	1.360E+7
0.000	-17.0	0.0	-443.5	443.5	6.395E+6	5.412E+6

DEFORMACIONES
<G.MTMAX.1> Carga: 1.00*G1 1.50*Q1*ß ß=1.1781

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
16.600	-0.260	0.250	-0.252	0.242	0.17	98.7
13.100	-0.616	1.007	-0.593	0.984	0.19	120.6
13.100	-0.618	0.983	-0.595	0.960	0.19	121.2
10.000	-0.973	1.739	-0.938	1.704	0.20	127.2
10.000	-0.845	1.573	-0.810	1.538	0.18	118.1
7.500	-1.106	2.156	-1.061	2.111	0.18	120.2
7.500	-1.006	2.005	-0.962	1.961	0.17	115.2
5.000	-1.297	2.710	-1.240	2.653	0.18	116.8
5.000	-1.181	2.480	-1.127	2.426	0.17	113.2

DEFORMACIONES
<G.MTMAX.1> Carga: 1.00*G1 1.50*Q1*ß ß=1.1781

Coord-x [m]	Horm.- [o/oo]	Horm.+ [o/oo]	Acero- [o/oo]	Acero+ [o/oo]	Nas/Nc [1]	Angulo [Grad]
2.500	-1.664	4.029	-1.580	3.945	0.19	113.4
2.500	-1.410	3.337	-1.338	3.265	0.17	109.8
0.000	-2.882	10.192	-2.671	9.981	0.23	106.9

Verificación del tablero debido a modificaciones en la carga permanente

APÉNDICE III: INFORME VERIFICACIÓN DEL TABLERO DEBIDO A MODIFICACIONES EN LA CARGA PERMANENTE

LÍNEA DE ALTA VELOCIDAD MADRID-BARCELONA. FRONTERA FRANCESA.

TRAMO MADRID-ZARAGOZA. SUBTRAMO XI

ANÁLISIS DE VERIFICACIÓN DEL TABLERO DEL VIADUCTO DE LOS CHORROS

INFORME Nº 21

AVXI-021 Madrid, 04 de diciembre de 2000

ANÁLISIS DE VERIFICACIÓN DEL TABLERO DEL VIADUCTO DE LOS CHORROS

INFORME Nº 21. 4/12/2000

1. OBJETO Y ANTECEDENTES

El presente informe tiene como objeto validar la verificación del tablero del viaducto de Los Chorros debido a las modificaciones en las acciones de diseño correspondientes a la carga permanente actuante sobre el tablero.

Estas modificaciones son:

- Incremento en 5,0 cm del espesor de balasto ($\gamma = 1{,}6$ t/m³)
- Incremento de 3,0 cm del aglomerado ($\gamma = 2{,}4$ t/m³)
- Modificación de la distancia entre ejes de vías de 4,5 a 4,7 m.

Para comprobar la validez del tablero bajo las nuevas cargas, Dragados presentó el análisis pertinente , en documento de 16 de septiembre de 1999, firmado por Julio Martínez Calzón y Carlos Pozo Moya, de MC-2 Estudio de Ingeniería, autores del proyecto.

AVEZAR XI
U.T.E.
IBERINSA IBERICA DE ESTUDIOS E INGENIERIA,S.A.
IDEAM
Geoconsult

2. ANÁLISIS DE LA DOCUMENTACIÓN PRESENTADA Y CONCLUSIONES

Se ha procedido a analizar la documentación presentada por Dragados, con objeto de comprobar que se han introducido los incrementos de carga adecuados y la repercusión de dichos cambios.

En la documentación presentada se analiza la repercusión de la nueva carga de las secciones críticas.

- Centro de Vano
- Apoyo

Se comprueba lo siguiente:

Sección de centro de vano: cumple el Estado Límite Último. Cumple descompresión en sobrecargas frecuentes y no supera $f_{ct,m}$ en infrecuentes.

Sección de apoyos: se cumple el control de apertura de fisura.

Por tanto, una vez verificados los cálculos efectuados, se comprueba que el tablero del Viaducto de Los Chorros tiene capacidad resistente para absorber el incremento de cargas permanentes planteado.

Madrid, 21 de noviembre de 2000

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Fdo.: Luis Mateos
IDEAM, S.A.
(U.T.E. AVEZAR)

4.2. Paso superior 1

4.2. PASO SUPERIOR 1

En el momento de la elaboración del proyecto construido, no se disponía de la información relativa a los cálculos del paso superior