ANEJO Nº 6. ESTRUCTURAS

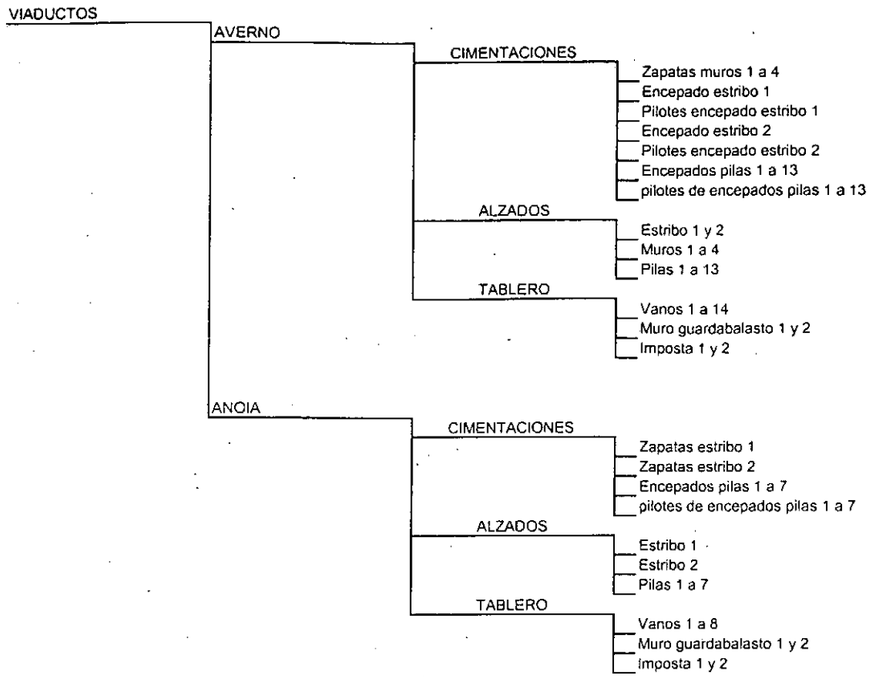
ANEJO Nº 6. ESTRUCTURAS

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3. Definición geométrica

3. Definición geométrica

La información referente a este apartado se encuentra recogida en Documento n º 2 .Planos.

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1 GEOMETRÍA

1.1 GEOMETRÍA Y ESQUEMA ESTRUCTURAL

El viaducto sobre el río Avernó se halla ubicado en la línea de alta velocidad Madrid-Zaragoza-Barcelona-Frontera Francesa, tramo Lleida-Martorell, subtramo XI-A. El puente permite el paso de la línea de alta velocidad sobre el río Avernó junto a la población de Sant Sadurní d'Anoia.

El tablero del puente presenta un total de 14 vanos divididos en 12 vanos centrales con luces de 60 m y dos vanos laterales de 45 m. La longitud total del tablero es de 810 m entre ejes de apoyo en estribos. La sección transversal tipo del tablero es un cajón unicelular de 3,85 m de canto en sus bordes y 3,99 m en el eje del tablero (efecto del bombeo). Se construirá con hormigón postesado HP-50. Dicho postesado estará compuesto por 4 familias de 4 tendones de formados por cables de 28 a 31 torones de ϕ 0,6".

La plataforma tiene 14 m de ancho que soporta la capa de balasto del ferrocarril, dos canaletas para el paso de cables y las barandillas con sus impostas. El desarrollo en planta de la estructura es curvo, con un radio variable que a efectos de cálculo de acciones se ha tomado igual a 10000 metros.

Las pilas del tablero están formadas por 2 partes bien diferenciadas: El cabecero o parte superior de la pila formado por una sección rectangular maciza de hormigón de ancho (dimensión medida en el sentido transversal al puente) variable según un acuerdo curvo. La longitud de este tramo de fuste es de 9 m. El tronco o parte inferior de la pila está constituido por una sección rectangular hueca cuyo ancho varía linealmente con pendiente constante del 2,5 %. Los espesores de esta sección hueca son constantes de 0,4 m. En sentido longitudinal al puente el ancho de las pilas es constante con un valor de 3 m. en toda su altura.

Hay que destacar que las alturas de los fustes de las pilas van de 10 m (pilas 1 y 13) a 40 m. en la pila 4. Debido a la escasa altura de las pilas 1 y 13, estas se conformarán mediante sección maciza en toda su altura, puesto que no es razonable la construcción de tramos aligerados de tan corta longitud. Todas las pilas se construirán con hormigón HA-30.

Los estribos se han proyectado cerrados con aletas en vuelta. Se construirán con hormigón HA-25.

Todas las cimentaciones son profundas mediante pilotes, dimensionadas de acuerdo con las indicaciones del estudio geotécnico. Tanto en las pilas como en los estribos se han empleado pilotes de 2.0 m. de diámetro. Es de destacar el esviaje en los encepados de las pilas 1 y 2, para permitir la construcción de dichas cimentaciones sin afectar a la linea de ferrocarril que cruza el Viaducto de Avernó bajo el vano 2.

Así mismo, cabe señalar que el tablero se ancla a uno de los estribos (estribo 2) para transmitir los eventuales empujes de frenado y arranque sobre el mismo. El resto de apoyos no toman fuerzas horizontales longitudinales, salvo las inducidas por el rozamiento entre el apoyo y el tablero a través de los apoyos de neopreno confinado tipo POT (unidireccionales o bidireccionales, dependiendo de su posición). Las pilas están constituidas por dos fustes de sección rectangular de hormigón armado. La sección longitudinal del viaducto se puede ver en la figura adjunta.

El tablero se construirá vano a vano mediante cimbra autoportante y autolanzable.

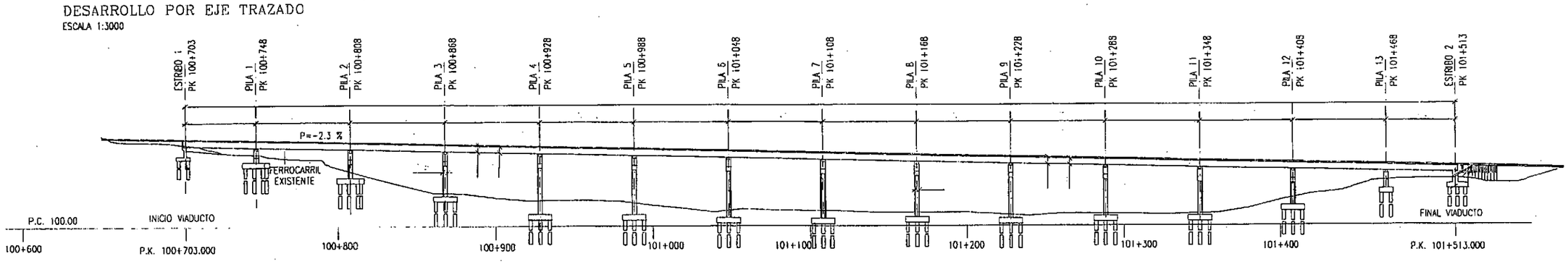


Figura 1. Alzado longitudinal del Viaducto de Avernó.

1.2 SECCIÓN TIPO

La sección transversal del tablero tiene un ancho de plataforma de 14 m y como ya se ha explicado anteriormente está constituida por un cajón de hormigón postesado de canto constante (3,99 m. en el eje del tablero). Su cara superior presenta un bombeo del 2 % para favorecer el drenaje de la plataforma ferroviaria.

La sección proyectada se observa en la figura adjunta.

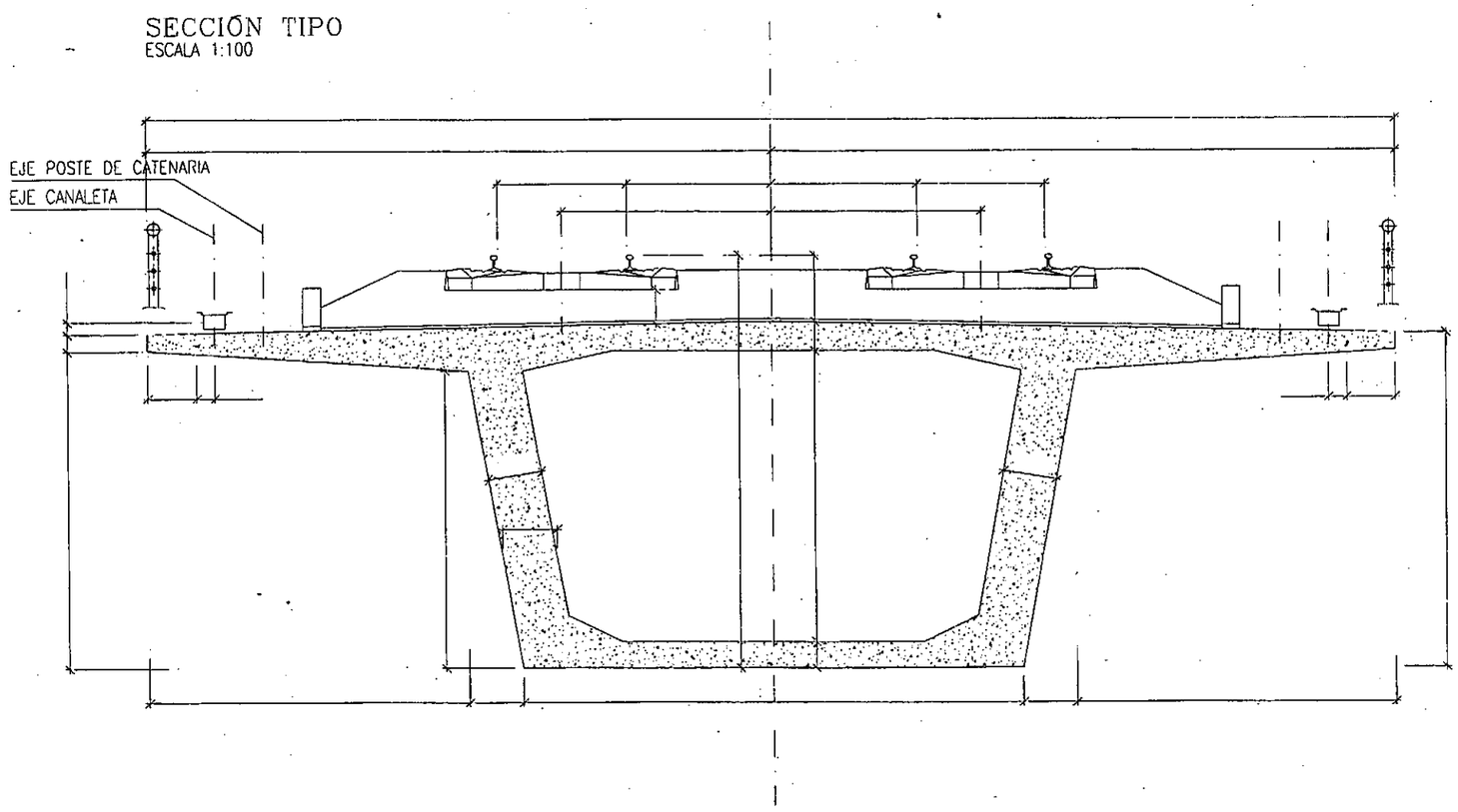


Figura 2. Sección tipo del Viaducto de Avernó.

2 ACCIONES, MATERIALES, COEFICIENTES DE SEGURIDAD Y NORMATIVAS

2.1 ACCIONES

En el cálculo de los elementos estructurales se han considerado las siguientes acciones:

Acciones permanentes (G):

g1, PESO PROPIO.

El peso propio de los distintos elementos se ha calculado a partir de su geometría (secciones transversales) adoptando una densidad de valor $\gamma = 2{,}5$ T/m^3 para el hormigón.

g2, PESO DEL BALASTO Y CARGAS MUERTAS

Las cargas permanentes distintas del propio peso del tablero son las siguientes:

- Impermeabilización
- Balasto
- Vías y traviesas
- Conductos de cableado y paseos
- Soportes de catenarias
- Impostas y barandillas

El peso de balasto sobre el tablero se calcula a partir de la plataforma en la estructura de vía tomando como densidad $\gamma = 1{,}6$ t/m^3.

Para la plataforma sobre el puente se obtiene $g_{2,\,balasto} = 9{,}44$ T/m.

De acuerdo a las Bases de Cálculo se adoptarán para esta carga los siguientes valores característicos superior e inferior:

valor inferior (0.70 x peso medio) $g_{2,\,bal\,inf} = 6{,}61$ T/m de tablero
valor superior (1.3 x peso medio) $g_{2,\,bal,\,sup} = 12{,}27$ T/m de tablero

Se consideran dos hipótesis de desbalastado.

- 50% de una vía en toda su longitud.
- 100% de una vía sobre 15 metros.

El peso de vías y traviesas para la plataforma con doble vía es:

$g_{\,2,vias+traviesas} = 2 \times (0{,}52 + 0{,}12) = 2 \times 0{,}64 = 1{,}28$ T/m de tablero
(trav) + (carril)

El peso de los conductos para cableados y zona de paseos es:

$g_{2,conductos} = 0{,}3$ t/ml (peso de hormigón $\gamma = 2{,}5$ t/m^3) (peso de 1 canaleta)

$q_{\,paseos} = 0{,}50$ t/m^2 (esta carga en paseos se ha tratado como sobrecarga y no como carga permanente pudiendo actuar en las dos zonas extremas de paseo de 1,45 m de ancho).

$q_{conductos} = 2 \times 0{,}3 = 0{,}60$ t/m

El peso de la imposta y barandilla es:

Se toma $g_{2,imposta+barandilla} = 1{,}77$ T/m de acuerdo a la sección tipo de plataforma.

El peso de los soportes de catenarias se tienen en cuenta sólo para efectos locales de anclaje de la catenaria y armado local de losa, pero no para el cálculo general del tablero.

	g2, medio (T/m)	**g2, inf (T/m)**	**G2, sup (T/m)**
Impermeabilización	0,79	0,79	0,79
Balasto	9,44	6,61	12,27
Vías y traviesas	1,28	1,28	1,28
Conductos cableado	0,60	0,60	0,60
Imposta y barandillas	1,77	1,77	1,77
TOTAL	**13,88 T/m**	**11,05 T/m**	**16,72 T/m**

Tabla 1. Carga permanente, g2

Acciones permanentes de valor no constante (G*):

PRETENSADO

Las fuerzas del pretensado se calculan para cada fase de construcción de acuerdo con las especificaciones de la normativa vigente para el proyecto con hormigón estructural (EHE).

Para la determinación de las pérdidas de pretensado se han utilizado los siguientes valores de los parámetros de cálculo:

El efecto de la relajación del acero de pretensado a 1000 horas es: $\rho_{1000horas}$= 2 % y la relajación a tiempo infinito ($\rho f=\rho_{1000000horas}$).

Tensión inicial	0.60 fmax	0.70 fmax	0.80 fmax
ρ1000horas (%)	1.0	2.0	5.5
ρf (1000000horas) (%)	2.9	5.8	16

Coeficiente de envejecimiento para el hormigón a tiempo infinito χ = 0.80

Las acciones indirectas derivadas de las deformaciones impuestas se estiman de acuerdo con la rigidez de los elementos de apoyo. En los aparatos de apoyo tipo POT se considera el efecto de rozamiento de acuerdo con los criterios indicados en el apartado 8 de este anejo.

ACCIONES REOLÓGICAS

Las acciones reolológicas se han determinado de acuerdo con las especificaciones de la normativa vigente para hormigón (EHE) diferenciando la retracción y la fluencia del hormigón.

RETRACCIÓN

$$\varepsilon cs(t,ts) = \varepsilon cso\ \beta s\ (t-ts)$$

$$\varepsilon cso = \beta_{HR}\ (570\text{-}5\ fck)\ 10^{-6} \qquad (fck \text{ en MPa})$$

$$\beta_{HR} = -1.55\ (1-(HR/100)^3)$$

$$\beta s = \sqrt{\frac{t-ts}{0.035\,e^2 + (t-ts)}} \qquad e = \frac{2\,Ac}{u}$$

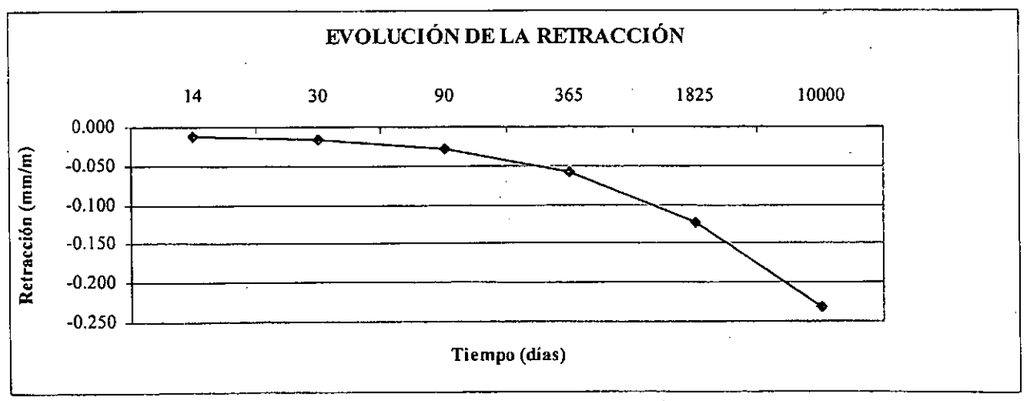
t = edad del hormigón en el instante de evaluación (en días)
ts = edad del hormigón al comienzo de la retracción (en días)
εcso = coeficiente básico de retracción
HR = humedad relativa
βs = coeficiente que define la evolución de la retracción en el tiempo
e = espesor medio en mm
Ac = área de la sección transversal
u = perímetro en contacto con la atmósfera

Los valores de la sección transversal tipo del tablero son los siguientes:

En la zona de construcción de las estructuras HR= 65 %

Sección transversal tipo : Ac= 10,768 m^2 u= 34,166 m e=630mm

Cálculo del valor de la retracción en el tablero: $\varepsilon cs(t,ts) = 2.3\ 10^{-4}$



FLUENCIA

$$\varepsilon c(t, to) = \sigma(to)\left[\frac{1}{Eo\ ;to} + \frac{\varphi(t, to)}{Eo\ ,28}\right]$$

σc = tensión media en el hormigón aplicada en el tiempo to
Eo,to = módulo de deformación en el tiempo to
φ(t,to) = coeficiente de fluencia
φo = coeficiente básico de fluencia

$$\varphi(t,to) = \varphi o \beta c(t-to)$$

$$\varphi o = \varphi_{HR}\,\beta(fcm)\,\beta(to)$$

$$\varphi_{HR} = 1 + \frac{100-HR}{9.9e^{1/3}}$$

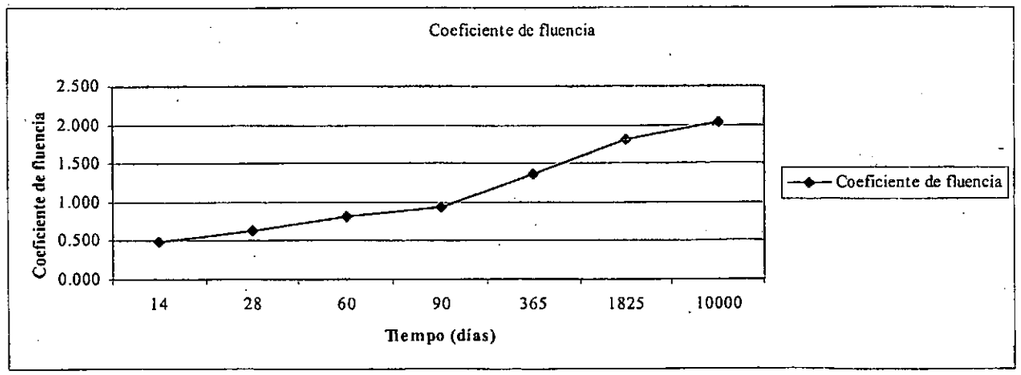
$$\beta(fcm) = \frac{16.8}{\sqrt{fck+8}}$$

$$\beta to = \frac{1}{0.1+to^{0.2}}$$

$$\beta c(t-to) = \left[\frac{t-to}{\beta_H + (t-to)}\right]^{0.3}$$

$$\beta_H = 1.5e\left[1+(0.012HR)^{18}\right] + 250 > /1500$$

En el caso del tablero, adoptando un valor de aplicación de la fuerza de postesado to= 5 días tenemos un coeficiente de fluencia a tiempo infinito (10000 días) φf=2,035



ACCIONES DEBIDAS AL TERRENO

Carga sobre zapatas y empuje de las tierras en alzados de estribos y aletas, con una densidad 2,0 T/m^3 y un ángulo de rozamiento interno de 30 ° (con presiones horizontales correspondientes a un empuje con coeficiente Ka= 0,33).

ASIENTOS DIFERENCIALES

Al estar cimentada la estructura mediante cimentación profunda no se prevée la existencia de asientos diferenciales significativos, por lo cual no se han tenido en cuenta en los cálculos.

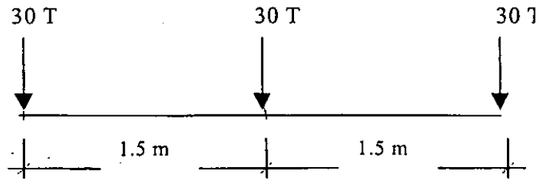
SOBRECARGAS DE USO. COMPONENTES VERTICALES.

En el cálculo de esfuerzos se ha empleado la envolvente de esfuerzos debidos a los trenes de carga de IPF-75 y del Eurocódigo 1 (parte 3, acciones en puentes) EC1-3 tomando como coeficiente de impacto correspondiente en cada caso.

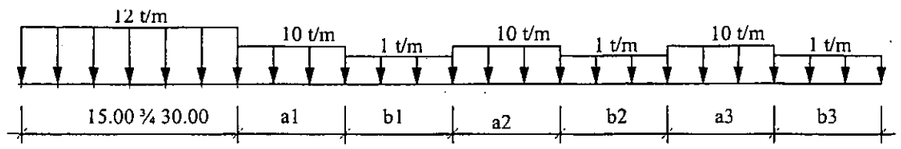
Los coeficientes de impacto no afectan al cálculo de apoyos, pilas y estribos, salvo aquellos casos en que la unión tablero-estructura fuera rígido. Esto conduciría a que el coeficiente de impacto afectaría a la subestructura para las fuerzas de frenado, transmitida al estribo a través del tope rígido longitudinal, y fuerza centrífuga, transmitida a través de apoyos tipo POT guiados. No obstante, la presencia del balasto supone una liberación en la rigidez de la transmisión de las fuerzas horizontales a los apoyos y topes, por lo que no se considera el coeficiente de impacto para estas acciones.

De acuerdo con la normativa IPF-75 Existen dos trenes de carga

Tipo A Por cada vía: Q_A = 3 ejes de 30 T separados 1.50 m



Tipo B Por cada vía: Sobrecarga uniforme de 12 T/m sobre 15 ó 30 metros, más un conjunto de cuchillos de carga de 10 T/m y 1 T/m de longitud arbitraria.

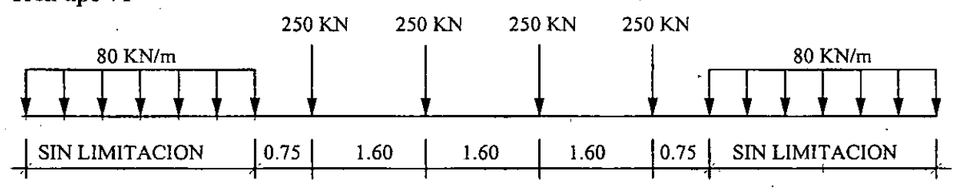


El tren tipo A suele condicionar el trabajo local de reparto de la losa y el tren tipo B condiciona el dimensionamiento general de la mayor parte de los Estados Límites Últimos o de Servicio.

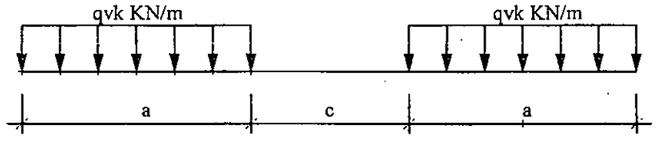
De acuerdo con las especificaciones de la IPF, no se admite reducción de cargas por simultaneidad entre ambas vías. En cualquier caso se debe contemplar la posibilidad de un ripado de la vía respecto al eje teórico de 0.30 m.

El tren de cargas de Eurocódigo 1 (parte 3, acciones en puentes) EC1-3 se define de acuerdo con las configuraciones indicadas en las 2 figuras siguientes. En ambos casos, a efectos de cálculo se contemplará un eventual ripado de la vía de 0.30 m.

Tren tipo 71



Modelo de carga SW



Se considera adicionalmente un tren pesado equivalente al siguiente esquema de cargas (SW/0) ó (SW2) en una de las vías y el tren tipo 71 en la otra vía.

	SW0	SW2
Q_{vk} (kN)	133	150
a (m)	15	25
c (m)	5,3	7

De acuerdo con la IPF-75, para algunas comprobaciones específicas asociadas a combinaciones de carga con viento transversal se considerará un tren sin carga de 12.5 KN/m.

Coeficientes de mayoración por impacto

De acuerdo con la normativa IPF75, se aplica la formulación siguiente:

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

El valor del coeficiente μ depende de la velocidad, la luz y el periodo de vibración de la estructura. En este viaducto se ha obtenido una primera frecuencia de flexión de valor T= 0.455 s. Para una velocidad máxima de 200 Km/h se obtiene: I = 16,3 %

De acuerdo con el Eurocódigo EC-1, para vías de mantenimiento cuidadoso.

$$\phi_2 = \frac{1{,}44}{\sqrt{L\phi} - 0{,}20} + 0{,}82 = 1{,}0$$

$L\phi = K * L_m = 86{,}8$ m

Este valor se debe emplear en el cálculo longitudinal del tablero. Los coeficientes a aplicar en el cálculo local se estudiarán en el apartado correspondiente.

En las zonas del tablero destinadas a mantenimiento (zonas de paseo) se considera una sobrecarga de 0.5 T/m^2, considerándose concomitante con las sobrecargas ferroviario un 50 % de dicha carga.

SOBRECARGAS DE USO. COMPONENTES HORIZONTALES.

EFECTO LAZO

En la estructura se considerará una única fuerza transversal concomitante con la sobrecarga vertical para contemplar el efecto lazo. El valor de dicha carga (que no debe ser mayorada con el coeficiente de impacto) es el siguiente:

Según IPF-75 $H_T = 5$ T para el conjunto de ambas vías, aplicada a cota superior del carril.

Según EC1 $H_T = 10{,}2$ T para el conjunto de ambas vías, aplicada a cota superior del carril.

FUERZA CENTRÍFUGA

En puentes de trazado curvo en planta se debe considerar la fuerza centrífuga, cuyo valor se puede obtener mediante la expresión siguiente:

IPF 75 : $Fc = Q \times \frac{V^2}{127R}$

El Eurocódigo 1 permite una reducción de la fuerza centrífuga en función de la longitud cargada. Se constata que la IPF-75 da un valor mayor de fuerza centrifuga que el EC1 y por tanto, si el puente es curvo se tomará dicho valor, combinado con el efecto del peralte. Se supondrá la carga actuando 1,80 m por encima del carril.

El puente está ubicado en un acorde circular, con un radio de curvatura en planta de valor R=10000 m.

EFECTOS DE FRENADO Y ARRANQUE

En el presente proyecto se adoptan las acciones más desfavorables de las especificadas en el Eurocódigo EC-1 considerando el carril discontínuo en ambos estribos, las propuestas por la IPF-75 y las calculadas según la ficha 774-3 de la UIC teniendo en cuenta el efecto de la interacción entre vía y estructura, que incluye el efecto del frenado y arranque, la diferencia de temperatura entre el carril y la estructura y el giro de la estructura en estribos.

En la siguiente tabla se expone el cálculo de las fuerzas horizontales según la IPF-75, que resulta ser 1/8 de la carga vertical en el tablero:

Cálculos intermedios

Carga vertical tren tipo A en primera vía	360 T
Carga vertical tren tipo A en segunda vía	324 T
Carga vertical tren tipo B en primera vía	2700 T
Carga vertical tren tipo B en segunda vía	2430 T
Valor total de la carga vertical	5814 T

Resultado

Valor de la fuerza de frenado total	**727 T**

Según el EC-1, considerando el carril discontinuo en ambos extremos del tablero:

Cálculos intermedios

Longitud cargada LM 71	300 m
Longitud sin carga LMT1	7 m
Longitud cargada SW0	30 m
Longitud sin carga SWO	277 m
Longitud cargada SW2	50 m
Longitud sin carga SW2	257 m
Fuerza horizontal por arranque vía 1	100 T
Fuerza horizontal por frenado vía 1	600 T
Fuerza horizontal por arranque vía 2	100 T
Fuerza horizontal por frenado vía 2	600 T

Resultado

Fuerza de frenado sin reducción por continuidad del carril	**700 T**

Para el cálculo de los anteriores valores se han aplicado las siguientes fórmulas:

Fuerzas de arranque (por vía) LM71 y SW

$F_a = 33\ (KN/m) \times L(m) \leq 1.000\ KN.$

Fuerzas de frenado (por vía)

$F_f = 20\ (KN/m) \times L(m) =\leq 6.000\ (KN)$ LM71 y SW0
$F_f = 35\ (KN/m) \times L(m) =\leq 6.000\ (KN)$ SW2

El cálculo de las fuerzas en el punto fijo en sentido longitudinal de la estructura según la ficha 774-3 de la UIC se expone en el apartado 13 del presente anejo. A continuación se resumen los valores de esta reacción debido al efecto de la interacción vía-estructura y a la acción en simultáneo de frenado, diferencia de temperatura entre carril y estructura y giro del tablero en los apoyos verticales.

Fuerzas en el apoyo fijo

F = 14789.75 KN hacia trasdós
F = -18164.87 KN hacia intradós

EMPUJE SOBRE BARANDILLAS.

En el elemento superior de la barandilla se considera una fuerza horizontal de valor 1.5 kN/m actuando de modo simultáneo con la sobrecarga uniforme.

DESCARRILAMIENTO

El efecto de descarrilamiento se estudiará como una situación accidental, mayorándose las acciones por un coeficiente de seguridad $\gamma f = 1{,}0$ y minorándose los parámetros mecánicos de los materiales por los coeficientes indicados en el apartado 2.2.

Para el estudio del Estado Límite Último de estabilidad se empleará, según el Eurocódigo, una carga vertical de 80 KN/m en una longitud total de 20;00. m a una distancia máxima del eje de la vía de 1,5 veces el ancho.

Para el análisis local de elementos estructurales se tomarán 2 cargas verticales a cada lado del eje de vía de 5 T/m en 6.4 m y separadas entre sí 1.4 m

Acciones climáticas

VIENTO

La velocidad de cálculo se puede determinar a partir de una velocidad de referencia de vref=24 m/s corregida con los siguientes parámetros multiplicadores:

Ct = factor de topografía

Cr = factor de riesgo (se toma un periodo de retorno de 100 años)

Cz = factor de altura (se adopta un entorno Tipo II, zona plana con algunos obstáculos)

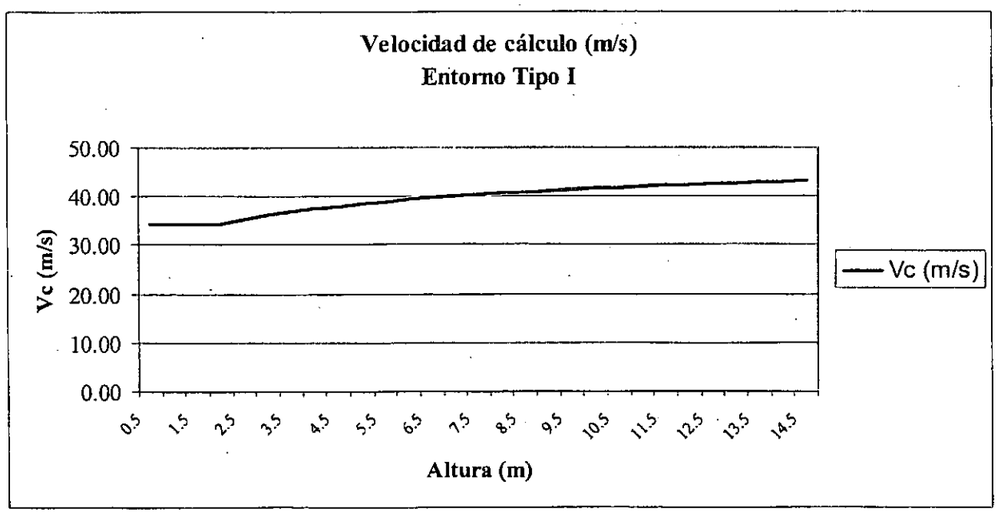
Cg = factor de ráfaga

$$Cz = Kz \ln(\frac{z}{zo}) \quad si \quad z \geq z_{min}$$

$$Cz = Kz \ln(\frac{z_{min}}{zo}) \quad si \quad z \leq z_{min}$$

$$Cg = \sqrt{\left(1 + \frac{7Kz}{CzCt}\right)}$$

Vref=24 m/s, Ct=1.0 y Cr=1.04



Para un entorno Tipo I

Kz= 0.17 zo = 0.01m zmin = 2 m

Para determinar el empuje de viento sobre el tablero, la velocidad de cálculo es:

Vc = Ct . Cr . Cz . Cg . Vref = 46,51 m/s

Esta velocidad de viento da lugar a una presión de 0.224 T/m^2.

Las situaciones consideradas han sido:

Puente sin sobrecarga
Puente con tren en una vía
Puente con trenes en ambas vías

Se tiene en cuenta en el cálculo del empuje total del viento sobre el tablero los coeficientes de ocultamiento entre zonas expuestas.

Cuando se combina con la sobrecarga se reduce en un 50% esta acción.

NIEVE

Según al IAP se debe aplicar una carga de nieve sobre la superficie de tablero en la que no se considere sobrecarga de uso. Para el cálculo del tablero se considera la posibilidad de tener sobrecarga en toda su superficie, por lo tanto no es necesario aplicar la sobrecarga de nieve.

Acciones Térmicas

VARIACIÓN UNIFORME DE TEMPERATURA

El puente está emplazado en la región climática III (Figura 7 de la IAP)

Por ser una tablero con sección cajón de hormigón, la variación uniforme de temperatura viene dada por:

$$\Delta T = K \cdot z^a \cdot h^b \cdot s^c = 33{,}1\ ^\circ C$$

Este incremento nos define un incremento de temperatura de cálculo de:

$$\Delta T_d = \Delta T/2 + 5 = 21{,}6\ ^\circ C$$

GRADIENTE TÉRMICO

$\nabla Tsi,ref = 9.0\ ^\circ C$

$K_1 = 0.75$

$K_2 = 1.06$

$K_3 = 0.70$

Vertical positivo $\nabla T_{SI} = (K_1\ K_2\ K_3).\ \nabla T_{SI,ref} = 5.0\ ^\circ C$

Vertical negativo $\nabla T_{SI} = 0^\circ C$ (tablero de hormigón con pavimento bituminoso)

Transversal $\nabla T_T = 2.5\ ^\circ C$ si la estructura tiene dirección Este-Oeste (+/- 25 g)

ACCIÓN SÍSMICA

La aceleración sísmica básica de la zona, según la normativa vigente, es $a_b = 0{,}04$ g.

La categoría de la estructura puede considerarse de especial importancia, lo que es equivalente a un factor de nivel de daño $\gamma_I = 1.3$.

La aceleración de cálculo es: $a_c = \gamma_I\ a_b = 0.052$ g

Las acciones sísmicas en puentes sólo se consideran, de acuerdo con la IAP, para aceleraciones de cálculo superiores a 0.06g, por lo tanto no es necesario realizar el análisis sísmico del puente.

2.2 COEFICIENTES DE SEGURIDAD, MATERIALES, NIVELES DE CONTROL Y NORMATIVAS

NORMATIVAS

HORMIGONES

-	Hormigón de Limpieza	HM-15
-	Cimentaciones y estribos	HA-25 / B / 20 / IIa
-	Alzados de pilas	HA-30 / B / 20 / IIa
-	Tablero	HP-50 / P / 20 / IIa

Control del hormigón ESTADÍSTICO

γc= 1.50 (Situación persistente o transitoria)
γc= 1.30 (Situación accidental)

El módulo de elasticidad se ha evaluado en todos los casos de acuerdo a la expresión de la EHE:

$$E_c = 8500 \sqrt[3]{f_{ck} + 8} \ (N/mm^2)$$

La resistencia a tracción se ha calculado como:

Valor medio $f_{ctm} = 0{,}30 \sqrt[3]{f_{ck}^{\ 2}} \ (N/mm^2)$

Valor característico inferior $f_{ctk} = 0{,}21 \sqrt[3]{f_{ck}^{\ 2}} \ (N/mm^2)$

Los límites establecidos para la consistencia en la puesta en obra podrán superarse con el empleo de aditivos superfluidificantes, siempre que el valor de la relación agua-cemento cumpla los requisitos prefijados en EHE.

ACEROS

- Acero corrugado para la armadura pasiva B500S, con $f_{yk} > 500$ MPa (5100 Kp/cm^2)

- Acero de pretensado tipo 170/190 con tendones de 0,6 " (Y 1860 S7 15.2).

Control de los aceros NORMAL

γs= 1.15 (Situación persistente o transitoria)
γs= 1.0 (Situación accidental)

CONTROL DE EJECUCIÓN

El control de ejecución será INTENSO (γ_g= 1.35 y γ_{fq}= 1.5) en tablero y estribos de acuerdo con las especificaciones de la normativa EHE.

NORMAS UTILIZADAS

Para el establecimiento de acciones y las combinaciones necesarias para la obtención de las solicitaciones de cálculo que se emplearán en la comprobación de los diferentes Estados Límite se realizarán los cálculos empleando la normativa IPF-75 y los criterios especificados en los Eurocódigos, adoptándose el más desfavorable de ambos.

Cálculo según IPF-75

Para el cálculo de las acciones se utilizarán las siguientes instrucciones.

- Instrucción relativa a las acciones a considerar en el Proyecto de Puentes de Ferrocarril", correspondiente a la O.M. 25 de Junio de 1.975 (IPF-75).

Para el cálculo de las acciones ambientales se utilizará la siguiente instrucción.

- Instrucción relativa a las acciones a considerar en el proyecto de Puentes de Carreteras I.A.P. 12 de Febrero de 1998.

Para establecer las hipótesis y combinaciones de cálculo y sus correspondientes coeficientes de ponderación se utilizarán las siguientes Instrucciones:

- Instrucción de Hormigón Estructural (EHE) R.D. 2661/1998 de 11 de Diciembre.

Cálculo según Eurocódigos y EHE

- Eurocódigo 1*: Bases de proyecto y acciones. Parte 3. Cargas de tráfico en puentes*. UNE-ENV 1991-3. Octubre 1997. (EC1.1.3.)

Para establecer las hipótesis y combinaciones de cálculo y sus correspondientes coeficientes de ponderación se utilizarán las siguientes Instrucciones:

- Eurocódigo 1: *Bases de proyecto y acciones en estructuras. Parte 1; Bases de proyecto*. UNE-ENV 1991-1, Octubre 1997 (EC1.1)

Para dimensionamiento y comprobación de secciones se actuará, en todo momento, de acuerdo con la normativa española;

- Instrucción de Hormigón Estructural EHE. R.D. 2661/1998 de 11 de Diciembre

El estudio de la fatiga de los materiales se hará de acuerdo con la siguiente norma:

- Eurocódigo 2: *Proyecto de estructuras de hormigón. Parte 2: Puentes de hormigón*. ENV 1992.2: Septiembre 1996. (EC2.2).

La comprobación de flechas, deformaciones y vibraciones se hará de acuerdo con la norma:

- Eurocódigo 1: *Bases de proyecto y acciones en estructuras. Parte 3: Cargas de tráfico en puentes* UNE-ENV 1991-3. Octubre 1997. (EC1.1.3).

Para el análisis de la interacción vía-estructura se empleará la siguiente norma:

- Norma U.I.C. Ficha 774.3 R. 1ª edición. Febrero 1999 (U.I.C. 774.3).

Subsidiariamente, y en lo no contemplado en las normas anterioriores se emplearán las siguientes:

- Norma UIC. Ficha 776.1. 3ª edición. 1 de Julio de 1.979. (U.I.C. 776.1)
- Norma UIC. Ficha 774-2. 1ª Edición. 1 de Julio de 1.974. (U.I.C. 774.2)
- Norma UIC. Ficha 702.0. 2ª Edición. 1 de Enero de 1.974. (U.I.C. 702.0)

2.3 AMBIENTES, RECUBRIMIENTOS, FISURACIÓN Y CUANTÍAS MÍNIMAS

De acuerdo con la normativa EHE se consideran los ambientes indicados en la tabla siguiente.

Elemento	Ambiente	Recubrimiento de Armadura pasiva (mm)	Límite de abertura de fisura Wmax (mm)	
			Hormigón armado	Hormigón postesado
Tablero	IIa	35	-	Descompresion bajo comb. cuasipermanente
Alzados de pilas	IIa	30	0.2	-
Cimentaciones	IIa	30	0.1	-
Pilotes/Pantallas	IIa	75	0.1	-

Para las armaduras postesas el recubrimiento es el máximo de los siguientes valores: 4 cm o el diámetro de la vaina.

Las cuantías mínimas de armadura pasiva B500S serán las expuestas en la siguiente tabla (EHE, art. 4.3.5)

Elemento	Posición	Tipo	Cuantía geométrica o/oo
Zapatas	cara superior o inferior	transversal o longitudinal	0.90
Pilotes	vertical	-	4.0
Pilas	vertical	-	4.0
Alzados de estribos y aletas (1)	horizontal	lado tierras	1.07
		lado visto	2.13
	vertical	lado tierras	0.90
		lado visto	0.30
Tablero	cara superior o inferior	transversal o longitudinal	0.90

(1) las cuantías geométricas horizontales se pueden reducir un 50 % si se colocan juntas de contracción distanciadas menos de 7,5 m.

2.4 HIPÓTESIS DE COMBINACIÓN DE ESFUERZOS

Se han considerado las combinaciones de hipótesis de las acciones recogidas en la Normativas IAP y EHE, basados en la teoría de Estados Límites, para las distintas situaciones de cálculo de la estructura.

2.4.1 ESTADOS LÍMITES ÚLTIMOS

Las hipótesis de cálculo consideradas son:

- Situaciones persistentes o transitorias

$$\sum_{j \geq 1} \gamma_{Gj}\, G_{kj} + \sum \gamma_{Gj}\, G^*_{kj} + \gamma_{Q1}\, Q_{k1} + \sum_{i > 1} \gamma_{Qi}\, \Psi_{0i}\, Q_{ki}$$

- Situaciones accidentales

$$\sum_{j \geq 1} \gamma_{Gaj}\, G_{kj} + \sum \gamma_{Gj}\, G^*_{kj} + \gamma_A\, A_k + \Psi_{11}\, Q_{k1} + \sum_{i > 1} \gamma_{Qi}\, \Psi_{2i}\, Q_{ki}$$

- Situaciones accidentales de sismo

$$\sum_{j \geq 1} G_{kj} + \sum \gamma_{Gj}\, G^*_{kj} + \gamma_i\, A_{Ed} + \sum_{i > 1} \gamma_{Qi}\, \Psi_{2i}\, Q_{ki}$$

donde:

G = Valor característico de las cargas permanentes.
G* = Valor característico de las cargas permanentes de valor no constante.
Q_{k1} = Valor característico de la carga variable dominante.
A_k = Valor característico de la acción accidental
A_{eq} = Valor característico de la acción sísmica, calculado según la Norma Sismorresistente.

Los coeficientes de seguridad y de combinación de acciones empleados se definen en la EHE para control de ejecución intenso.

2.4.2 ESTADOS LÍMITES DE SERVICIO

Las hipótesis de cálculo consideradas son:

- Combinación característica

$$\sum_{j \geq 1} \gamma_{Gj}\, G_{kj} + \sum \gamma_{Gj}\, G^*_{kj} + \gamma_{Q1}\, Q_{k1} + \sum_{i > 1} \gamma_{Qi}\, \Psi_{0i}\, Q_{ki}$$

- Combinación frecuente

$$\sum_{j \geq 1} \gamma_{Gaj}\, G_{kj} + \sum \gamma_{Gj}\, G^*_{kj} + \Psi_{11}\, Q_{k1} + \sum_{i > 1} \gamma_{Qi}\, \Psi_{2i}\, Q_{ki}$$

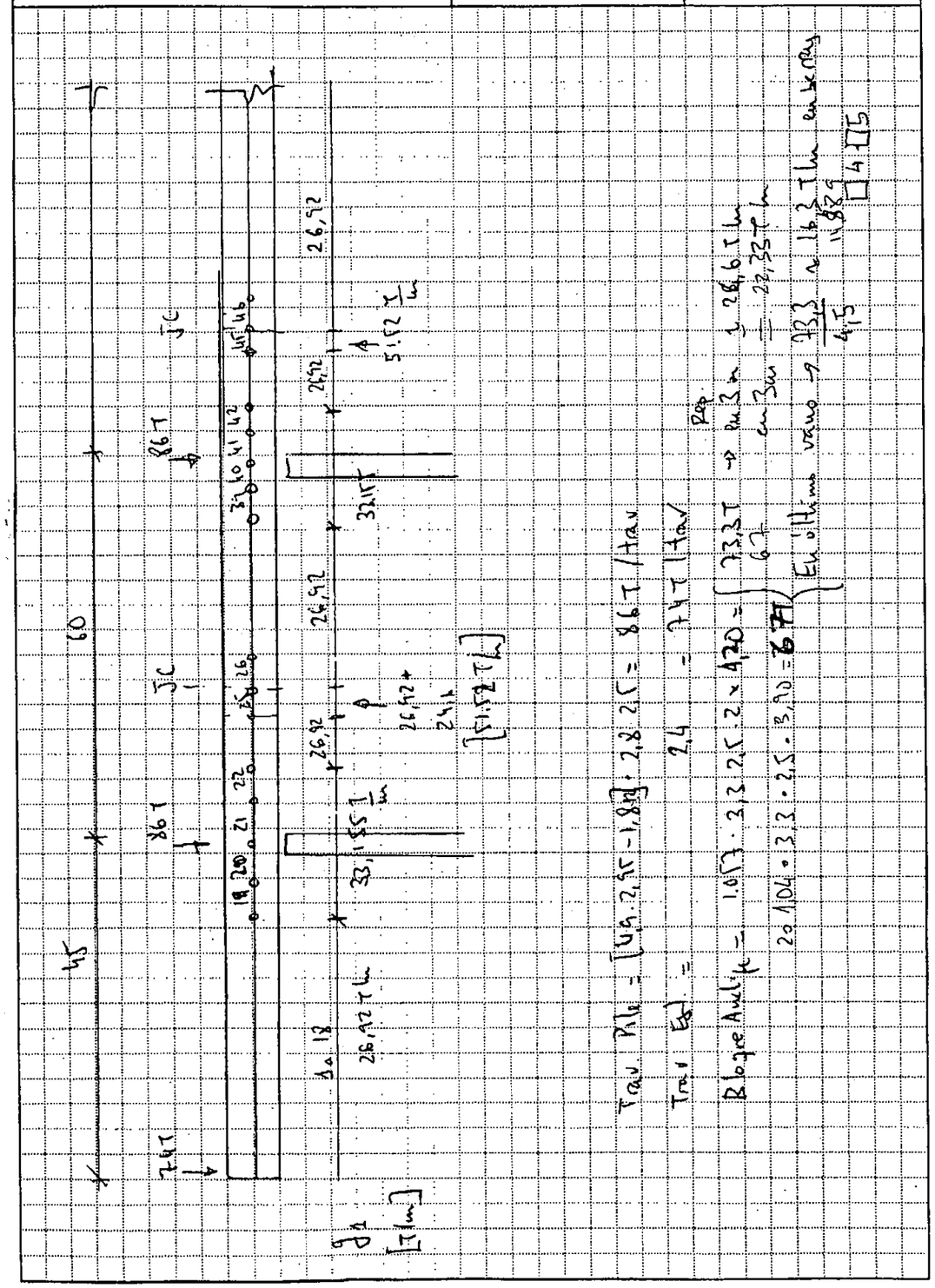
- Combinación casi permanente

$$\sum_{j \geq 1} G_{kj} + \sum \gamma_{Gj}\, G^*_{kj} + \sum_{i > 1} \gamma_{Qi}\, \Psi_{2i}\, Q_{ki}$$

Los valores representativos de las acciones se han obtenido de acuerdo con las especificaciones de las normativas vigentes, tomándose los siguientes valores de los coeficientes ψ:

Acción	ψ_0	ψ_1	ψ_2
Sobrecargas de uso	0.8	0.8 (a) 0.6 (b) 0.4 (c)	0
Viento	0.6	0.5	0.2
Temperatura	0.6	0.5	0.2

Nota: (a) Una vía cargada (b) dos vías cargadas (c) 0.4 tres o más vías cargadas

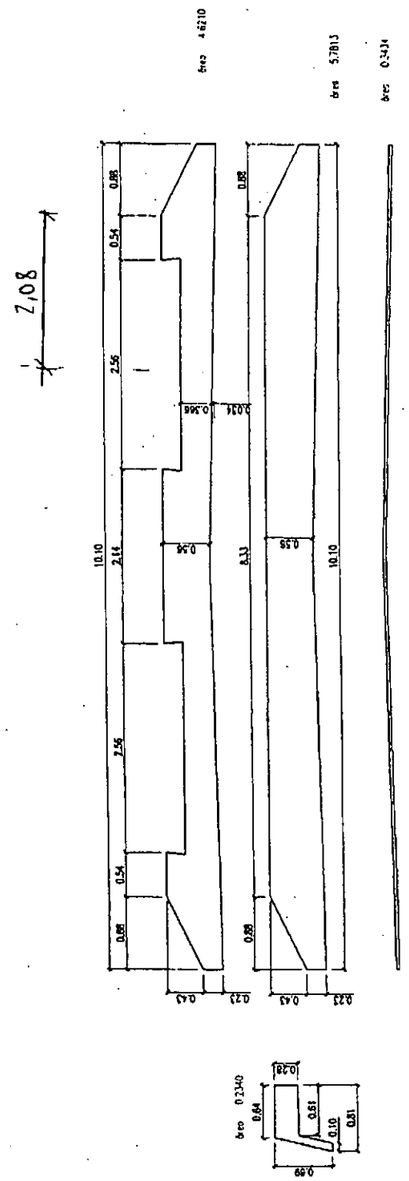


Torsión debida al peralte

Peralte (cm)	$M_{t,k}$	$M_{t,kmp}$	$M_{t,cm}$
5	0,184	0,246	0,133
10	0,379	0,492	0,265
15	0,568	0,738	0,398
20			
25			
30			
35			
40			
45			
50			
55			
60			
65			
70			
75			
80			
85	3,218	4,184	2,253

Línea 1

$\tau_{T,k}$ = 0,0378 mT/m | $\tau_{T,kmp}$ = 0,0492 | $\tau_{T,cm}$ = 0,0266 mT/m



PEDELTA, S.L.
INGENIERÍA CIVIL

Fecha:

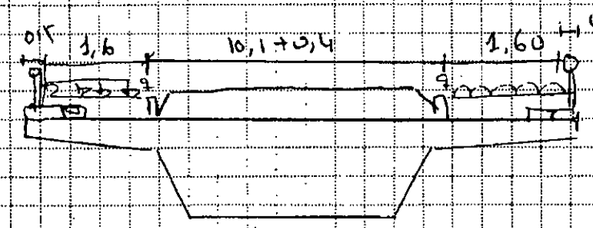
Hoja:

Sobrecarg. de uso en pilas

$q_{100} = [1,6 \times 0,5] \times 2 = 1,6$ T/m

$q_{50} = 0,8$ T/m

$m_{q50} = 0,80 \cdot [5,5 + 0,8] = 4,84$ mT/m.



$q = 0,5$ T/m² en zonas sin tráfico rodado

En concomitante con la sobrecarga de frenado el 50% de esta carga

$\psi_0 = 0,80$ ELU / ELS

$\psi_1 = 0,50$ ELS

Proyecto: L.A.V. Madrid - Zaragoza - Barcelona - Frontera Francesa. Tramo: St. Sadurni d'Anoia - Subirats
Estructura: Viaducto 1 sobre el río Avernó

CÁLCULO DE LAS CARGAS MUERTAS EN LOS PUENTES DE L.A.V. DE VÍA DOBLE

Impermeabilización del tablero

Ancho con impermeabilización bituminosa	10.10	Para ancho de puente de 14,00 m, distancia entre muretes guardabalasto = 10,10 m
Espesor	0.034 m	0,03 m para impermeabilización tipo 1.
Densidad	2.30 T/m3	
Valor de la carga	**0.79 T/m**	

Cableado y paseos

Valor de la carga	**0.6 T/m**	Según especificaciones de las bases de cálculo del GIF.

Traviesas y carriles

Número de vías	2	
Carga por vía	0.64 T/m	
Valor de la carga	**1.28 T/m**	

Impostas y barandillas

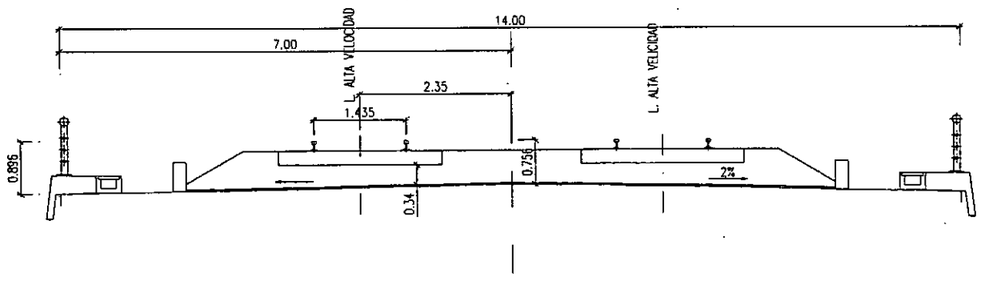
Número de impostas	2	
Carga por imposta	0.89 T/m	Por defecto 1 T/m imposta y barandilla.
Valor de la carga	**1.77 T/m**	

Soportes de catenarias

Valor de la carga	5.00 T	Dos cargas de este valor a 5,70 m a cada lado del eje del tablero sobre cada pila.

VALOR TOTAL DE LAS CARGAS MUERTAS (VALORES MÁXIMOS)

CARGA VERTICAL	**16.715 T**	
MONENTO TORSOR	**4.529 T*m**	**Positivo hacia el exterior de la curva**



Carga de balasto

Peralte	92 mm	
Espesor de balasto bajo traviesa	0.366 m	Mínimo 0,30 m.
Espesor de traviesa	0.242 m	0,242 m para monobloque .
Altura de carril	0.172 m	0,172 m para UIC-60.
Separación entre carriles	1.435 m	1,435 m para vía UIC.
Distancia entre eje de vía y centro de tablero	2.35 m	2,35 m para vía UIC.
Distancia entre eje de vía exterior y borde superior de balasto (hombro)	2.08 m	
Distancia entre eje de tablero e interior de guardabalasto	5.05 m	

Resultados para la vía exterior

Distancia de eje de tablero a hombro	4.43 m	
Altura de balasto en centro de tablero	0.471 m	
Altura de balasto en extremo de hombro	0.843 m	
Area 1-1	2.085 m2	
Area 1-2	0.825 m2	
Area 2	0.2614 m2	
Excentricidad 1-1	2.2150 m	
Excentricidad 1-2	2.9533 m	
Excentricidad 2	4.637 m	
Area total	3.172 m2	
Excentricidad total	2.607 m	
Peso total	**5.075 T**	
Momento torsor	**13.229 T*m**	

Resultados para la vía interior

Distancia de eje de tablero a hombro	4.43 m	
Altura de balasto en centro de tablero	0.680 m	
Altura de balasto en extremo de hombro	0.485 m2	
Area 1-1	3.012 m2	
Area 1-2	-0.433 m2	
Area 2	0.150 m2	
Excentricidad 1-1	2.215 m	
Excentricidad 1-2	2.953 m	
Excentricidad 2	4.637 m	
Area total	2.730 m2	
Excentricidad total	2.231 m	
Peso total	**4.368 T**	3.484
Momento torsor	**9.745 T*m**	

Valores totales para el conjunto de ambas vías. Valores máximos (=1,30*valores nominales)

Peso total	**12.276 T**	
Momento torsor	**4.529 T*m**	Positivo hacia el exterior de la curva

Valores totales para el conjunto de ambas vías. Valores mínimos (=0,70*valores nominales)

Peso total	**6.610 T**	
Momento torsor	**2.439 T*m**	Positivo hacia el exterior de la curva

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CÁLCULO DE RETRACCIÓN DEL HORMIGÓN

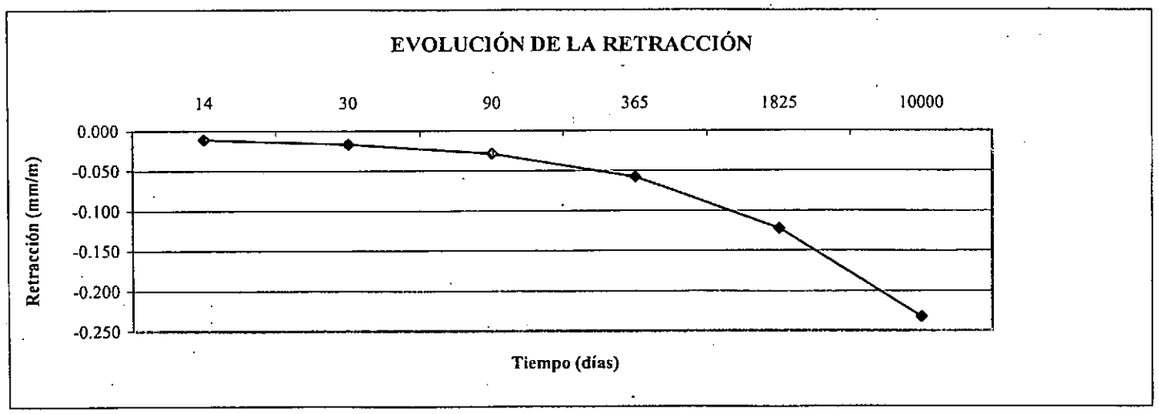
Area de la sección	10.768	m2
Perímetro de la sección	34.166	m
fck	50	MPa
Humedad Relativa	65	%
Módulo de deformación (Ec,28)	32902	MPa
Módulo de deformación (Ec,7)	26322	MPa
Módulo de deformación cargas rápidas (Ec,28)	38709	MPa
fctk	2.85	MPa
fctm	4.07	MPa

Espesor equivalente	630	mm
Comienzo retracción	0	días
Final de retracción	10,000	días

BetaHR	-1.124
Coef. básico de retracción	-0.00035979
Retracción final	**-0.000233**

Evolución de la retracción del hormigón

Tiempo (días)	beta, s	eps, cs	eps,cs(mm/m)
14	0.03171	-1.141E-05	-0.011
30	0.04640	-1.66929E-05	-0.017
90	0.08019	-2.88509E-05	-0.029
365	0.15992	-5.75387E-05	-0.058
1825	0.34060	-0.000122545	-0.123
10000	0.64676	-0.000232696	-0.233

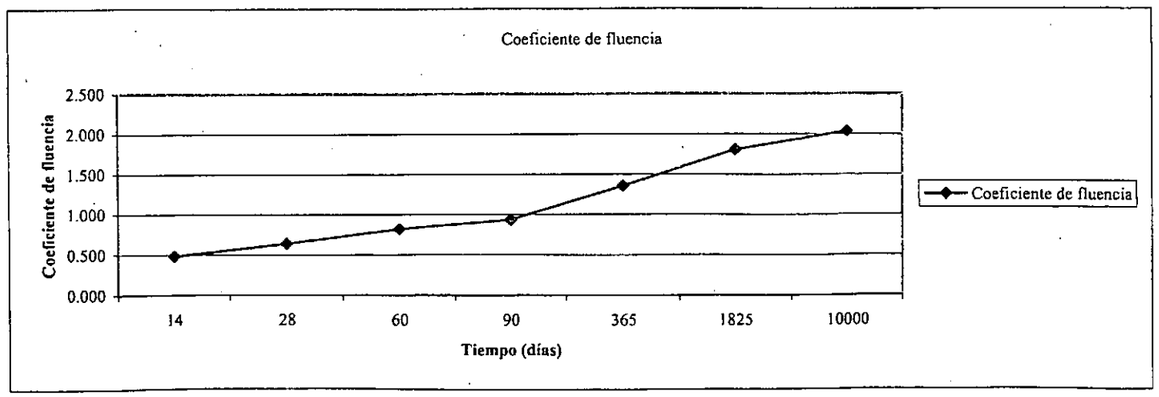


CÁLCULO DE LA FLUENCIA DEL HORMIGÓN

Phi,HR	1.412
beta(fcm)	2.206
Puesta en carga, to, en días	5
beta(to)	0.676
betaH	1206
betac (10000)	0.966
Phi (t=10000)	**2.035**
Coeficiente de relajación	0.691

Evolución de la fluencia del hormigón

Tiempo (días)	beta,c	Phio	Phi (t=10000)
14	0.230	2.105	0.483
28	0.303	2.105	0.638
60	0.391	2.105	0.823
90	0.442	2.105	0.931
365	0.643	2.105	1.354
1825	0.859	2.105	1.808
10000	0.966	2.105	2.035

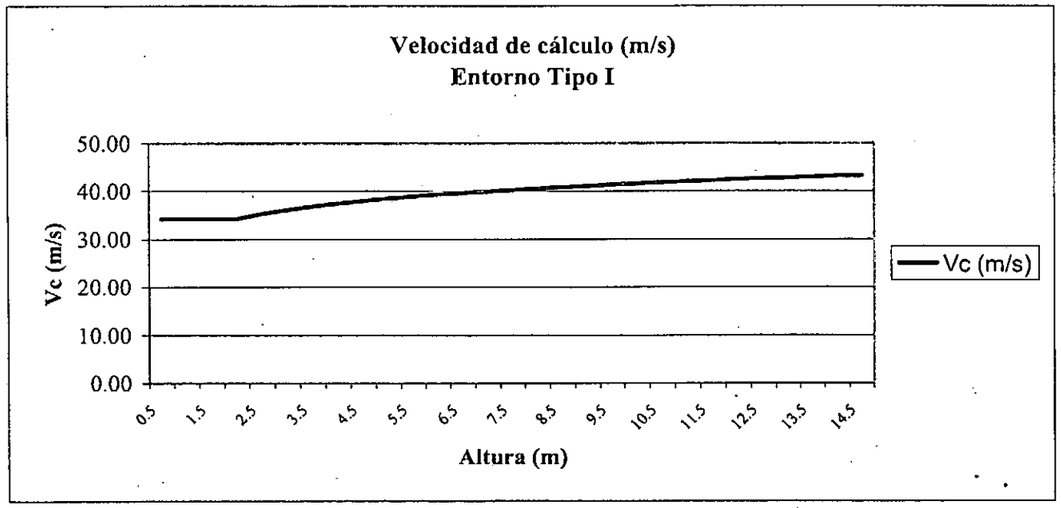


VIADUCTO SOBRE EL RÍO AVERNÓ

CÁLCULO DE EMPUJES DE VIENTO

Vref	24 m/s
Ct	1
Periodo de retorno	100
Cr	1.04
Entorno Tipo	1
Kz	0.17
zo	0.01 m
Zmin	2 m

Altura (m)	Cz	Cg	Vc (m/s)
0.5	0.901	1.524	34.25
1.0	0.901	1.524	34.25
1.5	0.901	1.524	34.25
2.0	0.901	1.524	34.25
2.5	0.939	1.506	35.28
3.0	0.970	1.492	36.12
3.5	0.996	1.482	36.83
4.0	1.019	1.473	37.44
4.5	1.039	1.465	37.97
5.0	1.056	1.458	38.45
5.5	1.073	1.452	38.89
6.0	1.087	1.447	39.28
6.5	1.101	1.442	39.64
7.0	1.114	1.438	39.98
7.5	1.125	1.434	40.29
8.0	1.136	1.431	40.58
8.5	1.147	1.428	40.86
9.0	1.156	1.424	41.12
9.5	1.166	1.422	41.36
10.0	1.174	1.419	41.59
10.5	1.183	1.416	41.81
11.0	1.191	1.414	42.02
11.5	1.198	1.412	42.22
12.0	1.205	1.410	42.41
12.5	1.212	1.408	42.59
13.0	1.219	1.406	42.77
13.5	1.225	1.404	42.94
14.0	1.232	1.402	43.10
14.5	1.237	1.401	43.26
15.0	1.243	1.399	43.41
15.5	1.249	1.397	43.56
16.0	1.254	1.396	43.70
16.5	1.259	1.395	43.84
17.0	1.265	1.393	43.97
17.5	1.269	1.392	44.10
18.0	1.274	1.391	44.23
18.5	1.279	1.389	44.35
19.0	1.283	1.388	44.47
19.5	1.288	1.387	44.59
20.0	1.292	1.386	44.70



Proyecto: L.A.V. Madrid - Zaragoza - Barcelona - Frontera Francesa. Tramo: St. Sadurní d'Anoia - Subirats

Estructura: Viaducto 1 sobre el río Avernó

Características de la sección transversal del tablero

Canto tablero	4 m
Distancia de fibra neutra a base inferior	2.45 m
Número de vigas o cajones	1 ud
Canto viga o cajón	1 m
Distancia libre entre vigas	0 m
Ancho tablero	14 m
Altura de barrera	1 m
Relación de solidez barrera	1
Altura de balasto	0.8 m
Distancia entre barrera y balasto	1.8 m
Número de vías	2 ud

Valores sin tráfico

Espaciamiento relativo entre barreras	13
Espaciamiento relativo balasto	1.8
Espaciamiento relativo entre vigas	0.00
Coeficiente de ocultamiento barreras	1
Coeficiente de ocultamiento balasto	0.1
Coeficiente de ocultamiento vigas	0
Altura equivalente sin trafico	5 m
Area transversal sin tráfico	6.8 m
CD sin trafico	1.66

Valores con tráfico en 1 vía

Separación entre ejes de vías	4.7 m
Distancia de eje de vía a barrera	4.65 m
Espaciamiento relativo entre barrera y tren	1.84
Espaciamiento relativo balasto	1.8
Espaciamiento relativo entre vigas	0.00
Coeficiente de ocultamiento barreras	0.1
Coeficiente de ocultamiento balasto	0.1
Coeficiente de ocultamiento vigas	0
Altura equivalente con trafico	8 m
CD con trafico	1.975
Area transversal con tráfico en 1 vía	9.9 m2

Inclinación media del tablero+barrera	0 °
Coeficiente reductor de CD	1
Altura de tablero	30 m
Altura equivalente con trafico	8 m
CD con trafico	1.98
Longitud del tablero	810 m

Tabla de valores del coeficiente de ocultamiento

Espaciamiento relativo	Relación de solidez					
	0.1	0.2	0.3	0.4	0.5	0.6
0	0.75	0.4	0.31	0.22	0.13	0.06
1	1	0.82	0.64	0.46	0.28	0.1
2	1	0.84	0.68	0.52	0.36	0.2
3	1	0.86	0.72	0.59	0.45	0.31
4	1	0.89	0.78	0.68	0.57	0.46
5	1	1	0.92	0.85	0.77	0.69
6	1	1	1	1	1	1
	1	2	3	4	5	6

Valores con tráfico en ambas vías

Espaciamiento relativo entre barrera y tren	0.66 m
Espaciamiento relativo balasto	1.8 m
Espaciamiento relativo entre vigas	0.00
Espaciamiento relativo entre trenes	0.6
Coeficiente de ocultamiento barreras	0.06
Coeficiente de ocultamiento balasto	0.1
Coeficiente de ocultamiento vigas	0
Coeficiente de ocultamiento de trenes	0.06
Altura equivalente con trafico	8 m
CD con trafico	1.98
Area transversal con tráfico en ambas vías	10.10 m2

Notación :

Fh= Componente horizontal del empuje de viento
Fv= Componente vertical del empuje de viento
Mv= Momento de vuelco debido al empuje de viento

El viento longitudinal equivale a un 25 % del viento transversal

Empuje de viento máximo sobre el tablero

								Esfuerzos totales en tablero		
Altura media del tablero+barrera	Cz	Cg	Vc (m/s)	Pw (T/m2)	Fh (T/m)	Fv (T/m)	Mv(mT/m)	Fh (T)	Fv (T)	Mv(mT)
30	1.361	1.369	46.51	0.224	1.526	0.946	4.152	1236.18	766.59	3362.95

Empuje de viento concomitante con sobrecarga sobre el tablero en una vía

								Esfuerzos totales en tablerc		
Altura media del tablero+barrera	Cz	Cg	Vc (m/s)	Pw (T/m2)	Fh (T/m)	Fv (T/m)	Mv(mT/m)	Fh (T)	Fv (T)	Mv(mT)
31.5	1.369	1.367	46.73	0.135	1.334	0.478	4.807	1080.65	386.88	3893.61

Empuje de viento concomitante con sobrecarga sobre el tablero en las dos vías

								Esfuerzos totales en tablerc		
Altura media del tablero+barrera	Cz	Cg	Vc (m/s)	Pw (T/m2)	Fh (T/m)	Fv (T/m)	Mv(mT/m)	Fh (T)	Fv (T)	Mv(mT)
31.5	1.369	1.367	46.73	0.135	1.361	0.478	4.870	1102.48	386.88	3944.91

PROYECTO: L.A.V. Madrid - Zaragoza - Barcelona - Frontera Francesa. Tramo Lleida-Martorell. Subtram
OBRA DE FÁBRICA: Viaducto sobre el río Avernó

CÁLCULO DE LA VARIACIÓN UNIFORME DE TEMPERATURA EN EL TABLERO

Datos	
Zona	3
Tipo de tablero (ver tabla adjunta)	3
Canto, m	3.90
Separación entre ejes de vigas (sólo puentes de vigas), m	0.00
Cálculos intermedios	
k	29.13
a	0.301
b	-0.148
c	0.000
Canto de cálculo, m	3.900
Separación de cálculo entre vigas, m	1.000
Resultados	
Valor total de la variación uniforme de temperatura, °C	**33.1**
Valor de cálculo de la variación de temperatura, Δtd= Δt/2+5	**21.6**

Valores de k, a, b, c y h

Tipología de tablero	Tipo de tablero	k	a	b	c	Canto mínimo	Canto máximo
Losa maciza de hormigón	1	23.89	0.292	-0.139	0	0.3	1.2
Losa aligerada de hormigón	2	24.91	0.292	-0.172	0	0.6	1.5
Cajón de hormigón	3	29.13	0.301	-0.148	0	1.7	4
Vigas de hormigón	4	26.9	0.3	-0.088	0.057	0.6	2.5
Cajón metálico	5	39.77	0.234	-0.069	0	1.5	4.5
Vigas metálicas	6	40.11	0.228	-0.072	0	2	6

CÁLCULO DEL GRADIENTE TÉRMICO EN EL TABLERO

Datos		
Gradiente de referencia	9.0	
Factor de corrección relativo al canto del tablero, K1	0.750	
Factor de corrección K2 (relación ancho inf/sup)	1.060	
Factor de corrección relativo a existencia de balasto, K3	0.700	(se podría reducir a 0.6, según IAPF)
Resultados		
Valor del gradiente térmico positivo, °C	**5.0**	

CÁLCULO DE LA FUERZA CENTRÍFUGA SEGÚN LAS ESPECIFICACIONES DE LA IPF-75

Proyecto: L.A.V. Madrid - Zaragoza - Barcelona - Frontera Francesa. Tramo: St. Sadurní d'Anoia - Subirats
Estructura: Viaducto 1 sobre el río Avernó

DATOS BÁSICOS

RADIO MEDIO DEL PUENTE (m) =	R =	16,500
VELOCIDAD DE DISEÑO (km/h) =	V =	200
COEFICIENTE DE IMPACTO =	ϕ =	1.00
LONGITUD CARGADA (m) =	L =	60.00

VALORES DE LAS CARGAS

TREN TIPO A	Qk =	300	kN
	c =	1.5	m
TREN TIPO B	qk1 =	120	kN/m
	a =	30	m
	qk2 =	100	kN/m

CÁLCULOS INTERMEDIOS

COCIENTE V2/127R	0.01909
Longitud aplicación qk1	30.00
Longitud aplicación qk2	30.00
Número de cargas Qk	3

RESULTADOS

FUERZA CENTRÍFUGA SEGÚN EL TREN DE CARGA

TREN A	TREN B	
Qk	qk1	qk2
kN	kN/m	kN/m
5.73	2.29	1.91

FUERZA CENTRÍFUGA. VALOR TOTAL RESULTANTE

TREN TIPO A	TREN TIPO B
17.18	125.98

Hipótesis de cálculo:
De acuerdo con la instrucción IPF-75 la expresión utilizada para el cálculo de la fuerza centrífuga es la siguiente:

$$Q_{centrifuga} = \frac{V^2}{127 \cdot R} \cdot Q_{trafico}$$

Los valores obtenidos son válidos para el caso de tráfico en una sola vía.

CÁLCULO DE LA FUERZA CENTRÍFUGA SEGÚN LAS ESPECIFICACIONES DEL EUROCÓDIGO 1.

Proyecto: L.A.V. Madrid - Zaragoza - Barcelona - Frontera Francesa. Tramo: St. Sadurní d'Anoia - Subirats
Estructura: Viaducto 1 sobre el río Avernó

DATOS BÁSICOS

RADIO MEDIO DEL PUENTE (m) =	R =	16,500
VELOCIDAD DE DISEÑO (km/h) =	V =	350
PUENTE CONTÍNUO (SÍ = 1) =		1

DATOS COMPLEMENTARIOS

COEFICIENTE DE CLASIFICACIÓN	α =	1.00
COEFICIENTE DE IMPACTO =	ϕ =	1.00
LONGITUD CARGADA EN PILAS (en m) =	L_{fp} =	60.00
LONGITUD CARGADA EN ESTRIBO (en m) =	L_{fe} =	25.00

VALORES DE LAS CARGAS

TREN LM71	qk =	80	kN/m
	Qk =	250	kN
	c =	6.4	m
TREN SW/0	qk =	133	kN/m
	a =	15	m
	c =	5.3	m
TREN SW/2	qk =	150	kN/m
	a =	25	m
	c =	7.0	m

RESULTADOS

FUERZA CENTRÍFUGA SEGÚN EL TREN DE CARGA TIPO

	TREN LM71				TREN SW/0		TREN SW/2
	Caso a		Caso b		Caso a	Caso b	
	qk	Qk	qk	Qk	qk	qk	qk
	kN/m	kN	kN/m	kN	kN/m	kN/m	kN/m
PILA	0.55	1.72	1.74	5.45	0.91	2.90	0.46
ESTRIBO	0.55	1.72	2.19	6.86	0.91	3.65	0.46

Caso a v=120 km/h
Caso b v=350 km/h

FUERZA CENTRÍFUGA. VALOR DE LA RESULTANTE MÁXIMA EN KN.

	LM71	SW/0	SW/2
PILA	115.19	86.91	22.91
ESTRIBO	68.25	71.88	11.45

Hipótesis de cálculo:
De acuerdo con el EC1 la expresión utilizada para el cálculo de la fuerza centrífuga es la siguiente.

$$Q_{centrifuga} = \frac{V^2}{127 \cdot R} \cdot (f \cdot Q_{trafico})$$

Para los trenes LM71 y SW/0 se han considerado dos casos de carga:

Caso a: V = 120 km/h y f (factor de reducción) = 1
Caso b: V igual a la de diseño y f según la expresión del EC.

$$f = \left[1 - \frac{V - 120}{1000} \cdot \left(\frac{814}{V} + 1{,}75\right) \cdot \left(1 - \sqrt{\frac{2{,}88}{Lf}}\right)\right]$$

Si V<= 120 km/h ==> f = 1.
Si Lf <= 2,88 m ==> f = 1.
f >= 0,35

En el cálculo del factor de reducción f se ha tomado como velocidad máxima 300 km/h.

Los valores obtenidos son válidos para el caso de tráfico en una sola vía.
La.velocidad de diseño de la vía se ha supuesto mayor o igual a 80 km/h.
La longitud de aplicación de las cargas se ha supuesto mayor que 2,88 m.

CÁLCULO DE EXCENTRICIDADES - LÍNEA DE ALTA VELOCIDAD

Proyecto: L.A.V. Madrid - Zaragoza - Barcelona - Frontera Francesa. Tramo: St. Sadurní d'Anoia - Subirats
Estructura: Viaducto 1 sobre el río Avernó

REFERENCIA
V= 350 km/h
R= 10000 m

EC-1 LM71	Carga vertical	8	T/m
	Fuerza centrífuga	0.288	T/m
EC-1 SW/0	Carga vertical	13.3	T/m
	Fuerza centrífuga	0.478	T/m
EC-1 SW/2	Carga vertical	15	T/m
	Fuerza centrífuga	0.076	T/m
IPF-75 TIPO A	Carga vertical	30	T
	Fuerza centrífuga	0.945	T
IPF-75 TIPO B	Carga vertical	12	T/m
	Fuerza centrífuga	0.378	T/m
Distancia fib. sup. al c.d.g. del tablero		1.55	m
Peralte		92	mm
Altura del c.d.g. del tren sobre carril		1.8	m
Distancia entre carriles		1.435	m
Distancia eje vía-eje tablero		2.35	m
Dif de cotas carril director-centro tablero		0.788	m

Excentricidades respecto eje de vía

Ripado	0.3	m
Peralte	0.115	m
L.M. 71 y SW/0 (EC1)	0.080	m

Fuerza centrífuga respecto eje de vía

b= 4.180 m

Momento debido a la Fuerza Centrífuga

LM-71	1.204	[mT/m]
SW/0	1.998	
SW/2	0.318	
TIPO A	3.950	
TIPO B	1.580	

Excentricidad debida a la Fuerza Centrífuga (m)

LM-71	0.150	[m]
SW/0	0.150	
SW/2	0.021	
TIPO A	0.132	
TIPO B	0.132	

Excentricidad total respecto eje de vía

	LM-71	SW/0	SW/2	TIPO A	TIPO B	
Peralte-f.centr+ripado	0.344	0.345	0.394	0.283	0.283	
Peralte-f.centr-ripado	-0.415	-0.415	-0.206	-0.317	-0.317	[m]
Peralte+ripado	0.495	0.495	0.415	0.415	0.415	

Excentricidad total respecto eje de tablero

VÍA INTERIOR

	LM-71	SW/0	SW/2	TIPO A	TIPO B	
Peralte-f.centr+ripado	2.694	2.695	2.744	2.633	2.633	
Peralte-f.centr-ripado	1.935	1.935	2.144	2.033	2.033	[m]
Peralte+ripado	2.845	2.845	2.765	2.765	2.765	

VÍA EXTERIOR

	LM-71	SW/0	SW/2	TIPO A	TIPO B	
Peralte-f.centr+ripado	-2.006	-2.005	-1.956	-2.067	-2.067	
Peralte-f.centr-ripado	-2.765	-2.765	-2.556	-2.667	-2.667	[m]
Peralte+ripado	-1.855	-1.855	-1.935	-1.935	-1.935	

Aplicación de sobrecargas de tráfico

Acciones verticales

LM-71 $\times \frac{\phi_1}{2} \cdot \frac{\phi_2}{2} = 1{,}0$

SW-2

Tren descargado 1.25 Tm

Pasos $2 \times 1{,}75 \times 0{,}15 = 1{,}75$ Tm

Acciones horizontales

1) Farranque + frenado + Flazo
2) Fcentrífuga + Flazo
3) Farranque + frenado + 0.150 Fcentrífuga + Flazo
4) Fcentrífuga + 0.15 [Farranque + frenado] + Flazo

Acciones horizontales

- Frenado / Arranque

Frenado $Q_{frenado,k} = \alpha \cdot 20 \cdot L \leq 600$ T → ✓

Arranque $Q_{arranque,k} = \alpha \cdot 33 \cdot L' \leq 180$ T

Extendido en L = 300 m para frenado

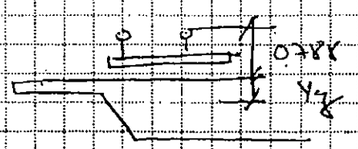
L = 30 m para arranque

Se contemplan su acción simultánea

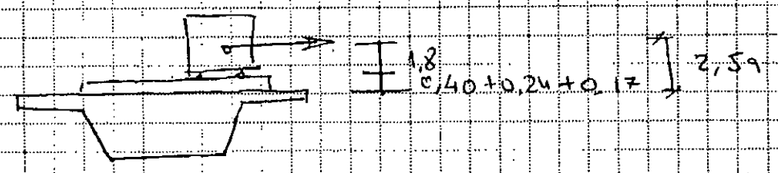
$F_{total} = 700$ T

- Efecto lazo

$Q_{lazo} = 10$ T



- Fuerza Centrífuga



$$Q_{cent} = \alpha \; Q_v \; \frac{v^2}{g\,R} \cdot f = Q_v \; \frac{v^2}{127\,R} \; f$$

(kN) (T)

Para Tren LH-71

V = 350 Km/h

Para v > 300 Km/h

$$f = 0{,}192 + 0{,}803 \sqrt{\frac{2{,}88}{L_f}}$$

$L_f = 60$ m → $f = 0{,}373$ → $Q_{cent} = 0{,}0359\, Q_v$

$L_f \geq 150$ m → $f = 0{,}308 < 0{,}35$

V = 120 → $f = 1$ → $Q_c =$ (2 tiros) $Q_{cat} = 0{,}0130\, Q_v$

R = 10.000 $Q_{cent} = 0{,}036\, Q_v$

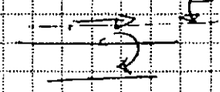
R = 40.000 $Q_{cent} = 0{,}009\, Q_v$

R = 16.000 $Q_{cent} = 0{,}022\, Q_v$

PEDELTA, S.L.
INGENIERÍA CIVIL
Fecha:
Hoja:

Frenado / Arranque IPF

$$F_f = \frac{1}{8} \; Q \quad \text{(Vía 1)}$$



$$F_f = 0{,}5\, F_f\, n_2 \quad \text{(Vía 2)}$$

$L < 300$ m

$$F_{TOTAL} = [1230 + 270 \cdot 6]\,\frac{1{,}5}{8} = 727\,T$$

PEDELTA, S.L.
INGENIERÍA CIVIL

Fecha:

Hoja:

Cálculo de la carga máxima admisible por pilote.

Hipótesis: la contribución de los niveles 1, 2 y 3 a la resistencia del pilote es despreciable.

$$r_p^{2,3} = 0'12 \text{ kp/cm}^2 << 1 \text{ kp/cm}^2 = r_f^4$$

$r_p^{2,3}$ = Resistencia por fuste de estratos 2 y 3.

r_f^4 = Resistencia por fuste del nivel 4.

Se toma un empotramiento de 6 diámetros en el nivel resistente 4.

Según el estudio geotécnico:

$$r_f^4 = 1'0 \text{ kp/cm}^2$$
$$r_p^4 = 18 \text{ kp/cm}^2$$

$$\boxed{Q_{adm} = \pi \cdot \phi_{pilote} \cdot L_{emp} \cdot r_f^4 + \frac{\pi \phi_{pilote}^2}{4} \cdot r_p^4 = 1320 \text{ T}}$$

$\phi_{pilote} = 2'0$ m.

$L_{emp} = 6 \cdot \phi_{pilote} = 6 \cdot 2 = 12$ m.

3 CÁLCULO ESTRUCTURAL DEL TABLERO

3.1 CÁLCULO ESTRUCTURAL CON MODELO DE VIGA CONTINUA

3.1.1 DISCRETIZACIÓN Y CARACTERÍSTICAS MECÁNICAS

Se modela el tablero mediante un emparrillado plano constituido por un nervio longitudinal, coincidente con el eje de viga en planta, considerándose 3 grados de libertad por nudo (desplazamiento vertical, giro de flexión longitudinal de la barra y giro a torsión). El nervio longitudinal se ha dividido para cada uno de los vanos del tablero en 20 barras de igual longitud asignando las características mecánicas en cada uno de los extremos de la barra. Las propiedades mecánicas de la barra se obtienen como media de las características de sus secciones extremas. En la zona de estribos se ha simulado la riostra de apoyo mediante 2 barras transversales, una a cada lado del nervio longitudinal, con su extremo final coincidente con la posición real de los apoyos tipo POT. En las barras transversales de las riostras de apoyo se ha despreciado su rigidez a torsión. En los apoyos se han prescrito únicamente los movimientos verticales del nudo.

La numeración de nudos y barras es correlativa, tomando como origen el extremo izquierdo del nervio longitudinal, en último lugar se numeran las barras y nudos que permiten simular las riostras de apoyo en los dos estribos. La discretización adoptada aparece en las hojas y esquemas adjuntos.

3.1.2 CÁLCULO DE ESFUERZOS LONGITUDINALES

El cálculo de esfuerzos longitudinales con el modelo de análisis estructural expuesto se detalla a continuación.

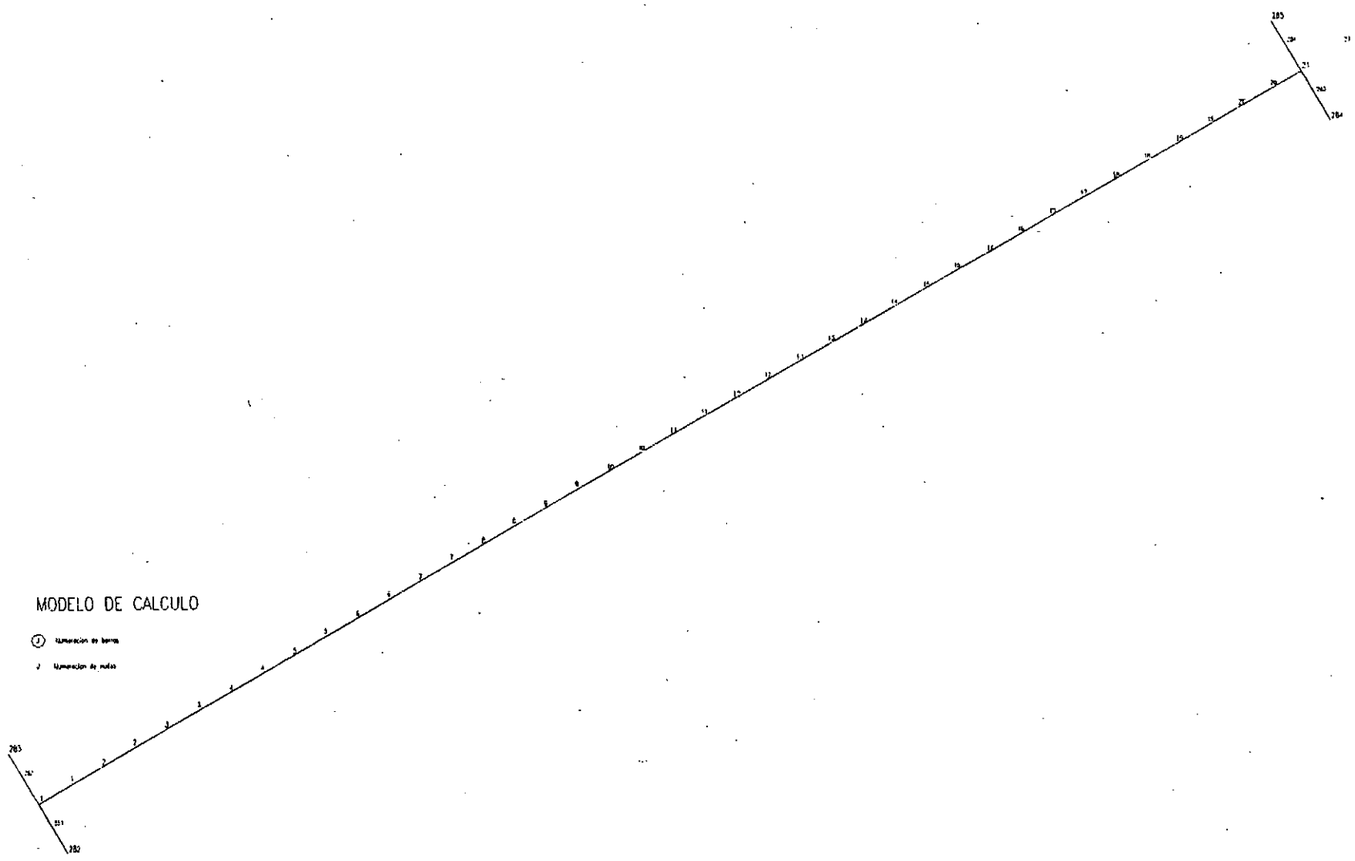
La notación adoptada para cada una de las hipótesis de carga es la siguiente:

- $\mathbf{g_1}$ Peso propio de la estructura.
- $\mathbf{g_2}$ Carga permanente.
- **q** Sobrecarga uniforme de ferrocarril.
- **ΔT** Gradiente de temperatura.
- **Pii** Pretensado inicial de descimbrado (pretensado parcial con pérdidas iniciales).
- **Pi** Pretensado inicial (con pérdidas iniciales).
- $\mathbf{P_\infty}$ Pretensado final (con pérdidas iniciales y diferidas).

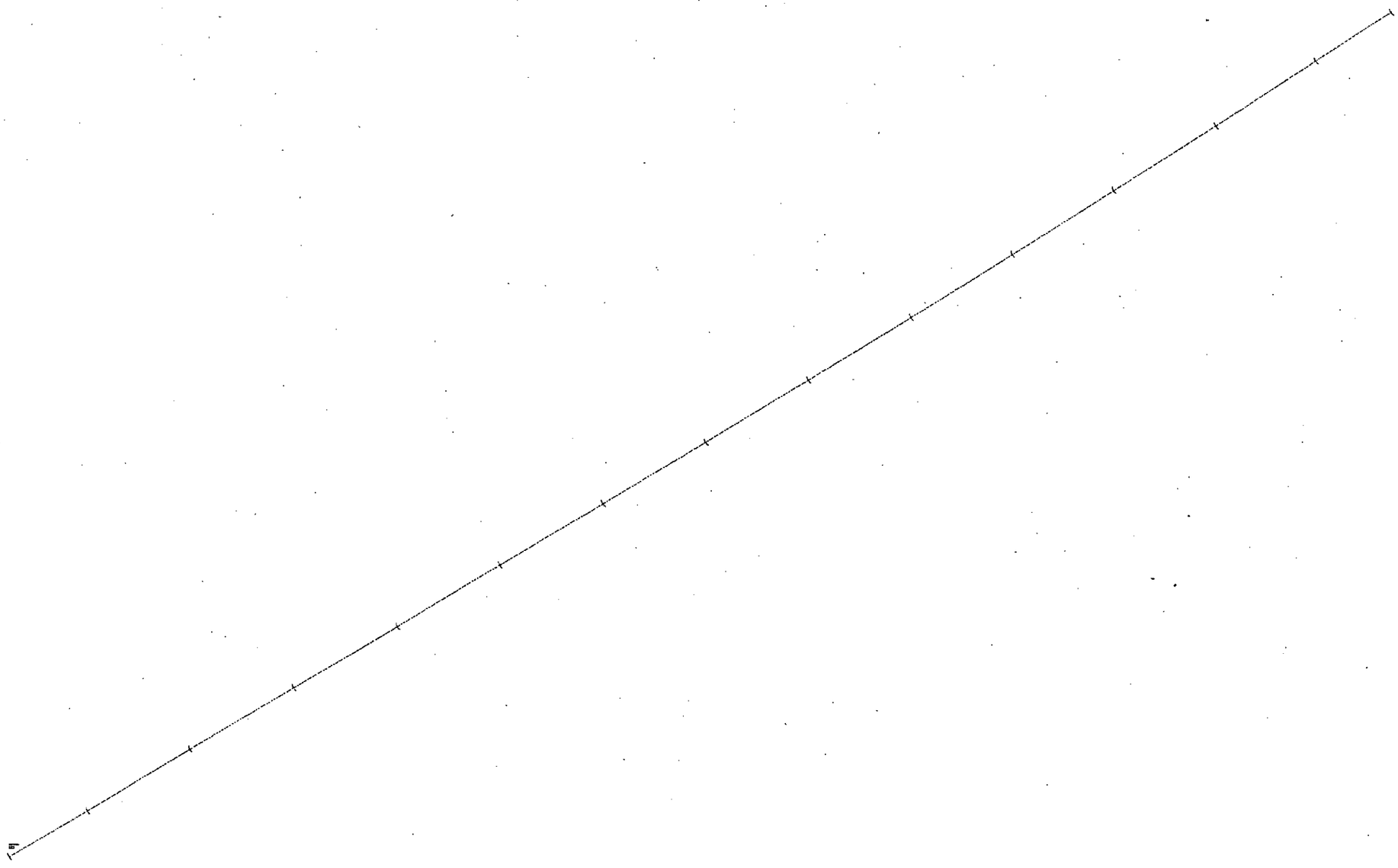
En los listados aparece la siguiente información:

1. Datos generales.
2. Discretización: numeración de barras y nudos, coordenadas de los nudos condiciones de vinculación.
3. Cargas en los nudos para cada hipótesis de carga.
4. Reacciones para cada hipótesis de carga.
5. Esfuerzos en extremo de barra para cada hipótesis de carga.

CRITERIO DE NUMERACIÓN
DETALLE VANO 1

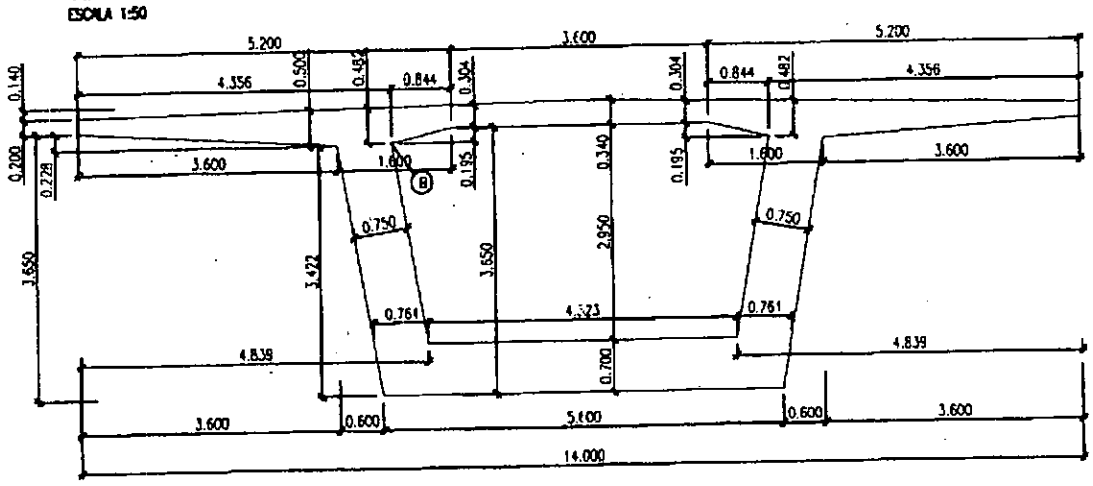


MODELO DE CÁLCULO



SECCIÓN SOBRE PILAS

SECCION B–B' OPCIÓN 2
ESCALA 1:50



A = 13,262 m²

I_x = 28,524 m⁴

I_y = 119.057 m⁴

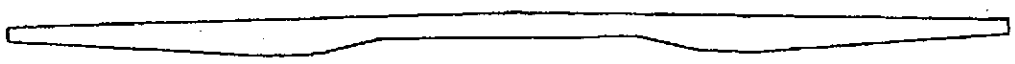
y_i = 2,189 m

y_s = 1.802 m

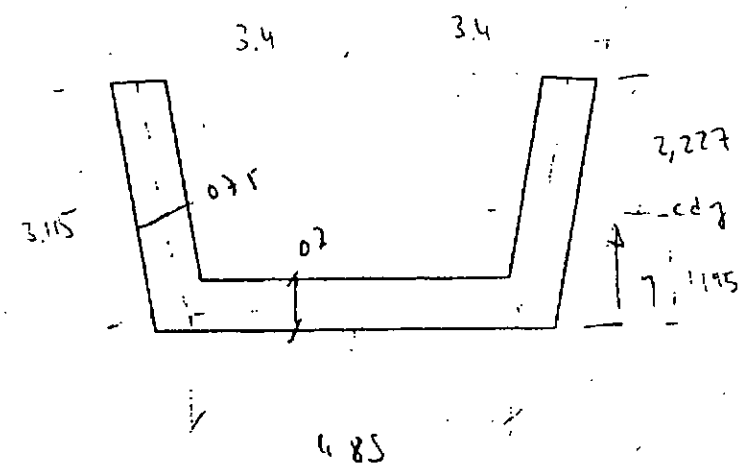
J_1 = 33.155

J_T = 43,853 m⁴

SECCIÓN SOBRE PILAS



Area 5,084 m²



Area = 8,177 m²

I_x = 8.796 m⁴

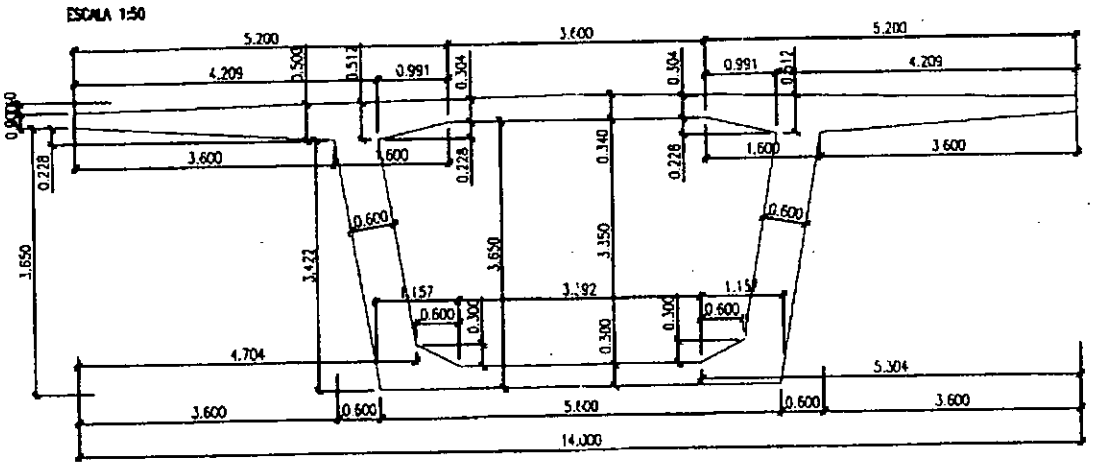
I_y = 43.486 m⁴

y_{cdg} = 1.228

$$J_T = \frac{1}{3}\left[3.115 \cdot 0.75^3 \cdot 2 + 4.85 \cdot 0.73\right] = 1,431 \text{ m}^4$$

SECCIÓN TIPO

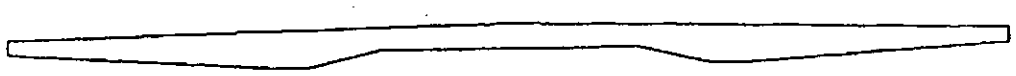
SECCION A-A'
ESCALA 1:50



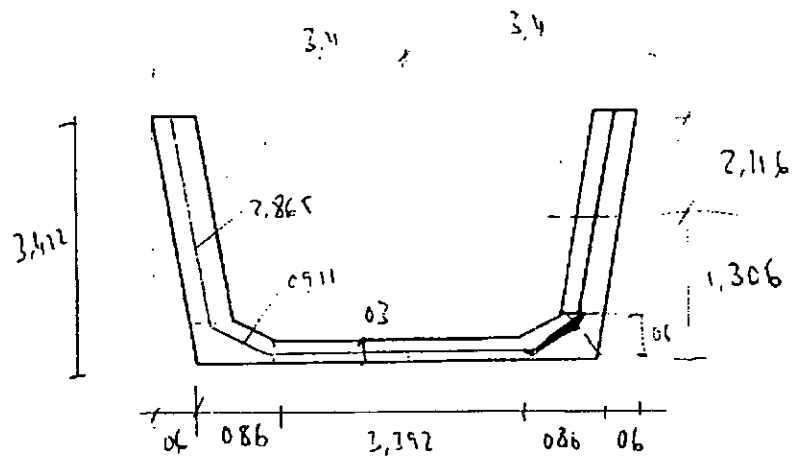
Y_e = 34.166 m
A = 10.768 m²
I_x = 22,532 m⁴
I_y = 111,474 m⁴
V_i = 2.456 m
V_s = 1.534 m
g_1 = 26,92 T/m
J_T = 37,97 tm⁴

SECCIÓN TIPO

Sección Tipo



Area = 5,104 m²



Area = 5,664 m² → 14,16 T/m
I_x = 6,676
I_y = 35 728

$J_T = \frac{1}{3}\left(2\left[2{,}865 \cdot 0{,}6^3 + 0{,}911\ 0{,}45^3\right] + 3{,}392\ 0{,}23^3\right) = 0{,}303$ m⁴

3.1.2 ESFUERZOS EN ESQUEMA ESTRUCTURAL DEFINITIVO

Referencia del Proyecto:

Viaducto sobre rio Averno

DATOS GENERALES DEL EMPARRILLADO
==========

No. de Barras = 310
No. de Nudos = 311
No. de Nudos con condiciones impuestas = 30
No. de Materiales = 3
No. de Hipotesis de carga = 1

Propiedades de barras =1, de secciones =0

TIPO DE PROPIEDADES = 0

PROPIEDADES DE LOS MATERIALES
==========

MATERIAL/SECCION 1

Inercia a Flexion	(m4)	=	22.5319996
Modulo de Torsion	(m4)	=	37.9700012
Area a Cortante	(m2)	=	0.0000000
Modulo de elasticidad	(T/m2)	=	3300000.00
Coeficiente de Poisson		=	0.16
Canto	(m)	=	3.99000
Vsup	(m)	=	1.53400
Vinf	(m)	=	2.45600

MATERIAL/SECCION 2

Inercia a Flexion	(m4)	=	28.5240002
Modulo de Torsion	(m4)	=	43.8531990
Area a Cortante	(m2)	=	0.0000000
Modulo de elasticidad	(T/m2)	=	3300000.00
Coeficiente de Poisson		=	0.16
Canto	(m)	=	3.99000
Vsup	(m)	=	1.80100
Vinf	(m)	=	2.18900

PROPIEDADES DE LOS MATERIALES
==========

MATERIAL/SECCION 3

Inercia a Flexion	(m4)	=	2.0000000
Modulo de Torsion	(m4)	=	0.0000100
Area a Cortante	(m2)	=	0.0000000
Modulo de elasticidad	(T/m2)	=	3300000.00
Coeficiente de Poisson		=	0.16
Canto	(m)	=	1.70000
Vsup	(m)	=	1.15000
Vinf	(m)	=	0.55000

DISCRETIZACION. DATOS DE LAS BARRAS

Barra	Nudo 1	Nudo 2	No.de Secc Nud.1	Nud.2	No. MAT
1	1	2	1	1	1
2	2	3	1	1	1
3	3	4	1	1	1
4	4	5	1	1	1
5	5	6	1	1	1
6	6	7	1	1	1
7	7	8	1	1	1
8	8	9	1	1	1
9	9	10	1	1	1
10	10	11	1	1	1
11	11	12	1	1	1
12	12	13	1	1	1
13	13	14	1	1	1
14	14	15	1	1	1
15	15	16	1	1	1
16	16	17	1	1	1
17	17	18	1	1	1
18	18	19	1	1	1
19	19	20	2	2	2
20	20	21	2	2	2
21	21	22	2	2	2
22	22	23	2	2	2
23	23	24	1	1	1
24	24	25	1	1	1
25	25	26	1	1	1
26	26	27	1	1	1
27	27	28	1	1	1
28	28	29	1	1	1
29	29	30	1	1	1
30	30	31	1	1	1
31	31	32	1	1	1
32	32	33	1	1	1
33	33	34	1	1	1
34	34	35	1	1	1
35	35	36	1	1	1
36	36	37	1	1	1
37	37	38	1	1	1
38	38	39	1	1	1
39	39	40	2	2	2
40	40	41	2	2	2
41	41	42	2	2	2
42	42	43	2	2	2
43	43	44	1	1	1
44	44	45	1	1	1
45	45	46	1	1	1
46	46	47	1	1	1
47	47	48	1	1	1

DISCRETIZACION. DATOS DE LAS BARRAS

Barra	Nudo 1	Nudo 2	No.de Secc Nud.1	Nud.2	No. MAT
48	48	49	1	1	1
49	49	50	1	1	1
50	50	51	1	1	1
51	51	52	1	1	1
52	52	53	1	1	1
53	53	54	1	1	1
54	54	55	1	1	1
55	55	56	1	1	1
56	56	57	1	1	1
57	57	58	1	1	1
58	58	59	1	1	1
59	59	60	2	2	2
60	60	61	2	2	2
61	61	62	2	2	2
62	62	63	2	2	2
63	63	64	1	1	1
64	64	65	1	1	1
65	65	66	1	1	1
66	66	67	1	1	1
67	67	68	1	1	1
68	68	69	1	1	1
69	69	70	1	1	1
70	70	71	1	1	1
71	71	72	1	1	1
72	72	73	1	1	1
73	73	74	1	1	1
74	74	75	1	1	1
75	75	76	1	1	1
76	76	77	1	1	1
77	77	78	1	1	1
78	78	79	1	1	1
79	79	80	2	2	2
80	80	81	2	2	2
81	81	82	2	2	2
82	82	83	2	2	2
83	83	84	1	1	1
84	84	85	1	1	1
85	85	86	1	1	1
86	86	87	1	1	1
87	87	88	1	1	1
88	88	89	1	1	1
89	89	90	1	1	1
90	90	91	1	1	1
91	91	92	1	1	1
92	92	93	1	1	1
93	93	94	1	1	1
94	94	95	1	1	1

DISCRETIZACION. DATOS DE LAS BARRAS

Barra	Nudo 1	Nudo 2	No.de Secc Nud.1	No.de Secc Nud.2	No. MAT
95	95	96	1	1	1
96	96	97	1	1	1
97	97	98	1	1	1
98	98	99	1	1	1
99	99	100	2	2	2
100	100	101	2	2	2
101	101	102	2	2	2
102	102	103	2	2	2
103	103	104	1	1	1
104	104	105	1	1	1
105	105	106	1	1	1
106	106	107	1	1	1
107	107	108	1	1	1
108	108	109	1	1	1
109	109	110	1	1	1
110	110	111	1	1	1
111	111	112	1	1	1
112	112	113	1	1	1
113	113	114	1	1	1
114	114	115	1	1	1
115	115	116	1	1	1
116	116	117	1	1	1
117	117	118	1	1	1
118	118	119	1	1	1
119	119	120	2	2	2
120	120	121	2	2	2
121	121	122	2	2	2
122	122	123	2	2	2
123	123	124	1	1	1
124	124	125	1	1	1
125	125	126	1	1	1
126	126	127	1	1	1
127	127	128	1	1	1
128	128	129	1	1	1
129	129	130	1	1	1
130	130	131	1	1	1
131	131	132	1	1	1
132	132	133	1	1	1
133	133	134	1	1	1
134	134	135	1	1	1
135	135	136	1	1	1
136	136	137	1	1	1
137	137	138	1	1	1
138	138	139	1	1	1
139	139	140	2	2	2
140	140	141	2	2	2
141	141	142	2	2	2

DISCRETIZACION. DATOS DE LAS BARRAS

Barra	Nudo 1	Nudo 2	No.de Secc Nud.1	No.de Secc Nud.2	No. MAT
142	142	143	2	2	2
143	143	144	1	1	1
144	144	145	1	1	1
145	145	146	1	1	1
146	146	147	1	1	1
147	147	148	1	1	1
148	148	149	1	1	1
149	149	150	1	1	1
150	150	151	1	1	1
151	151	152	1	1	1
152	152	153	1	1	1
153	153	154	1	1	1
154	154	155	1	1	1
155	155	156	1	1	1
156	156	157	1	1	1
157	157	158	1	1	1
158	158	159	1	1	1
159	159	160	2	2	2
160	160	161	2	2	2
161	161	162	2	2	2
162	162	163	2	2	2
163	163	164	1	1	1
164	164	165	1	1	1
165	165	166	1	1	1
166	166	167	1	1	1
167	167	168	1	1	1
168	168	169	1	1	1
169	169	170	1	1	1
170	170	171	1	1	1
171	171	172	1	1	1
172	172	173	1	1	1
173	173	174	1	1	1
174	174	175	1	1	1
175	175	176	1	1	1
176	176	177	1	1	1
177	177	178	1	1	1
178	178	179	1	1	1
179	179	180	2	2	2
180	180	181	2	2	2
181	181	182	2	2	2
182	182	183	2	2	2
183	183	184	1	1	1
184	184	185	1	1	1
185	185	186	1	1	1
186	186	187	1	1	1
187	187	188	1	1	1
188	188	189	1	1	1

DISCRETIZACION. DATOS DE LAS BARRAS

Barra	Nudo 1	Nudo 2	No.de Secc Nud.1	No.de Secc Nud.2	No. MAT
189	189	190	1	1	1
190	190	191	1	1	1
191	191	192	1	1	1
192	192	193	1	1	1
193	193	194	1	1	1
194	194	195	1	1	1
195	195	196	1	1	1
196	196	197	1	1	1
197	197	198	1	1	1
198	198	199	1	1	1
199	199	200	2	2	2
200	200	201	2	2	2
201	201	202	2	2	2
202	202	203	2	2	2
203	203	204	1	1	1
204	204	205	1	1	1
205	205	206	1	1	1
206	206	207	1	1	1
207	207	208	1	1	1
208	208	209	1	1	1
209	209	210	1	1	1
210	210	211	1	1	1
211	211	212	1	1	1
212	212	213	1	1	1
213	213	214	1	1	1
214	214	215	1	1	1
215	215	216	1	1	1
216	216	217	1	1	1
217	217	218	1	1	1
218	218	219	1	1	1
219	219	220	2	2	2
220	220	221	2	2	2
221	221	222	2	2	2
222	222	223	2	2	2
223	223	224	1	1	1
224	224	225	1	1	1
225	225	226	1	1	1
226	226	227	1	1	1
227	227	228	1	1	1
228	228	229	1	1	1
229	229	230	1	1	1
230	230	231	1	1	1
231	231	232	1	1	1
232	232	233	1	1	1
233	233	234	1	1	1
234	234	235	1	1	1
235	235	236	1	1	1

DISCRETIZACION. DATOS DE LAS BARRAS

Barra	Nudo 1	Nudo 2	No.de Secc Nud.1	No.de Secc Nud.2	No. MAT
236	236	237	1	1	1
237	237	238	1	1	1
238	238	239	1	1	1
239	239	240	2	2	2
240	240	241	2	2	2
241	241	242	2	2	2
242	242	243	2	2	2
243	243	244	1	1	1
244	244	245	1	1	1
245	245	246	1	1	1
246	246	247	1	1	1
247	247	248	1	1	1
248	248	249	1	1	1
249	249	250	1	1	1
250	250	251	1	1	1
251	251	252	1	1	1
252	252	253	1	1	1
253	253	254	1	1	1
254	254	255	1	1	1
255	255	256	1	1	1
256	256	257	1	1	1
257	257	258	1	1	1
258	258	259	1	1	1
259	259	260	2	2	2
260	260	261	2	2	2
261	261	262	2	2	2
262	262	263	2	2	2
263	263	264	1	1	1
264	264	265	1	1	1
265	265	266	1	1	1
266	266	267	1	1	1
267	267	268	1	1	1
268	268	269	1	1	1
269	269	270	1	1	1
270	270	271	1	1	1
271	271	272	1	1	1
272	272	273	1	1	1
273	273	274	1	1	1
274	274	275	1	1	1
275	275	276	1	1	1
276	276	277	1	1	1
277	277	278	1	1	1
278	278	279	1	1	1
279	279	280	1	1	1
280	280	281	1	1	1
281	1	282	3	3	3
282	1	283	3	3	3

DISCRETIZACION. DATOS DE LAS BARRAS

Barra	Nudo 1	Nudo 2	No.de Secc Nud.1	No.de Secc Nud.2	No. MAT
283	21	284	3	3	3
284	21	285	3	3	3
285	41	286	3	3	3
286	41	287	3	3	3
287	61	288	3	3	3
288	61	289	3	3	3
289	81	290	3	3	3
290	81	291	3	3	3
291	101	292	3	3	3
292	101	293	3	3	3
293	121	294	3	3	3
294	121	295	3	3	3
295	141	296	3	3	3
296	141	297	3	3	3
297	161	298	3	3	3
298	161	299	3	3	3
299	181	300	3	3	3
300	181	301	3	3	3
301	201	302	3	3	3
302	201	303	3	3	3
303	221	304	3	3	3
304	221	305	3	3	3
305	241	306	3	3	3
306	241	307	3	3	3
307	261	308	3	3	3
308	261	309	3	3	3
309	281	310	3	3	3
310	281	311	3	3	3

PROPIEDADES DE LAS BARRAS

MATERIAL 1

Inercia a Flexion	(m4)	=	22.5319996
Modulo de Torsion	(m4)	=	37.9700012
Area a Cortante	(m2)	=	0.0000000
Modulo de elasticidad	(T/m2)	=	3300000.00
Modulo de deformacion G	(T/m2)	=	1914000.00
Canto (m)	=	3.99000	
Vsup (m)	=	1.53400	
Vinf (m)	=	2.45600	

MATERIAL 2

Inercia a Flexion	(m4)	=	28.5240002
Modulo de Torsion	(m4)	=	43.8531990
Area a Cortante	(m2)	=	0.0000000
Modulo de elasticidad	(T/m2)	=	3300000.00
Modulo de deformacion G	(T/m2)	=	1914000.00
Canto (m)	=	3.99000	
Vsup (m)	=	1.80100	
Vinf (m)	=	2.18900	

MATERIAL 3

Inercia a Flexion	(m4)	=	2.0000000
Modulo de Torsion	(m4)	=	0.0000100
Area a Cortante	(m2)	=	0.0000000
Modulo de elasticidad	(T/m2)	=	3300000.00
Modulo de deformacion G	(T/m2)	=	1914000.00
Canto (m)	=	1.70000	
Vsup (m)	=	1.15000	
Vinf (m)	=	0.55000	

COORDENADAS DE LOS NUDOS

Nudo	X	Y
1	0.000	0.000
2	1.949	1.124
3	3.898	2.248
4	5.847	3.373
5	7.797	4.497
6	9.746	5.620
7	11.695	6.744
8	13.644	7.868
9	15.594	8.992
10	17.543	10.115
11	19.492	11.239
12	21.442	12.362
13	23.391	13.486
14	25.341	14.609
15	27.290	15.732
16	29.240	16.855
17	31.190	17.979
18	33.139	19.102
19	35.089	20.225
20	37.039	21.347
21	38.989	22.470
22	41.588	23.967
23	44.188	25.464
24	46.788	26.961
25	49.388	28.458
26	51.988	29.955
27	54.588	31.452
28	57.188	32.948
29	59.788	34.445
30	62.388	35.941
31	64.988	37.438
32	67.588	38.935
33	70.188	40.431
34	72.788	41.927
35	75.388	43.424
36	77.989	44.920
37	80.589	46.417
38	83.189	47.913
39	85.789	49.410
40	88.389	50.906
41	90.989	52.403
42	93.589	53.900
43	96.189	55.396
44	98.789	56.893
45	101.389	58.390
46	103.989	59.886
47	106.589	61.383
48	109.189	62.880

COORDENADAS DE LOS NUDOS

Nudo	X	Y
49	111.788	64.377
50	114.388	65.874
51	116.988	67.371
52	119.588	68.869
53	122.187	70.366
54	124.787	71.864
55	127.386	73.361
56	129.985	74.859
57	132.585	76.357
58	135.184	77.855
59	137.783	79.353
60	140.382	80.851
61	142.981	82.350
62	145.580	83.848
63	148.179	85.347
64	150.777	86.846
65	153.376	88.345
66	155.974	89.845
67	158.573	91.344
68	161.171	92.844
69	163.769	94.344
70	166.367	95.844
71	168.965	97.344
72	171.563	98.845
73	174.160	100.346
74	176.758	101.847
75	179.355	103.348
76	181.952	104.850
77	184.549	106.352
78	187.146	107.854
79	189.743	109.356
80	192.339	110.859
81	194.936	112.362
82	197.532	113.865
83	200.128	115.368
84	202.724	116.872
85	205.320	118.376
86	207.915	119.880
87	210.511	121.385
88	213.106	122.890
89	215.701	124.396
90	218.296	125.901
91	220.890	127.407
92	223.484	128.914
93	226.079	130.421
94	228.673	131.928
95	231.266	133.435
96	233.860	134.943

COORDENADAS DE LOS NUDOS

Nudo	X	Y
97	236.453	136.451
98	239.046	137.960
99	241.639	139.469
100	244.232	140.979
101	246.824	142.488
102	249.416	143.999
103	252.008	145.509
104	254.600	147.020
105	257.191	148.532
106	259.782	150.044
107	262.373	151.556
108	264.963	153.069
109	267.554	154.583
110	270.144	156.097
111	272.734	157.611
112	275.323	159.126
113	277.912	160.641
114	280.501	162.156
115	283.090	163.673
116	285.678	165.189
117	288.266	166.707
118	290.854	168.224
119	293.442	169.743
120	296.029	171.261
121	298.615	172.781
122	301.202	174.301
123	303.788	175.821
124	306.374	177.342
125	308.960	178.864
126	311.545	180.386
127	314.130	181.908
128	316.714	183.431
129	319.298	184.955
130	321.882	186.480
131	324.466	188.005
132	327.049	189.530
133	329.632	191.056
134	332.214	192.583
135	334.796	194.111
136	337.378	195.639
137	339.959	197.167
138	342.540	198.697
139	345.121	200.227
140	347.701	201.757
141	350.280	203.289
142	352.860	204.820
143	355.439	206.353
144	358.017	207.886

COORDENADAS DE LOS NUDOS

Nudo	X	Y
145	360.596	209.420
146	363.173	210.955
147	365.751	212.490
148	368.328	214.026
149	370.904	215.563
150	373.480	217.101
151	376.056	218.639
152	378.631	220.178
153	381.206	221.717
154	383.780	223.258
155	386.354	224.799
156	388.928	226.341
157	391.501	227.883
158	394.073	229.427
159	396.645	230.971
160	399.217	232.516
161	401.788	234.061
162	404.359	235.608
163	406.929	237.155
164	409.499	238.703
165	412.068	240.252
166	414.637	241.801
167	417.205	243.352
168	419.773	244.903
169	422.341	246.454
170	424.908	248.007
171	427.474	249.560
172	430.040	251.115
173	432.606	252.670
174	435.171	254.225
175	437.735	255.782
176	440.300	257.339
177	442.863	258.897
178	445.427	260.456
179	447.989	262.015
180	450.552	263.576
181	453.114	265.137
182	455.675	266.699
183	458.236	268.261
184	460.796	269.825
185	463.356	271.389
186	465.916	272.954
187	468.475	274.519
188	471.033	276.086
189	473.591	277.653
190	476.149	279.221
191	478.706	280.790
192	481.263	282.359

COORDENADAS DE LOS NUDOS

Nudo	X	Y
193	483.819	283.930
194	486.375	285.501
195	488.930	287.072
196	491.485	288.645
197	494.039	290.218
198	496.593	291.792
199	499.146	293.367
200	501.699	294.943
201	504.252	296.519
202	506.804	298.097
203	509.355	299.675
204	511.906	301.253
205	514.457	302.833
206	517.007	304.413
207	519.556	305.994
208	522.105	307.576
209	524.654	309.158
210	527.202	310.742
211	529.750	312.326
212	532.297	313.911
213	534.844	315.496
214	537.390	317.083
215	539.936	318.670
216	542.481	320.258
217	545.026	321.846
218	547.570	323.436
219	550.114	325.026
220	552.658	326.617
221	555.201	328.209
222	557.743	329.801
223	560.285	331.394
224	562.827	332.988
225	565.368	334.583
226	567.908	336.178
227	570.448	337.775
228	572.988	339.372
229	575.527	340.970
230	578.065	342.568
231	580.604	344.168
232	583.141	345.768
233	585.678	347.368
234	588.215	348.970
235	590.751	350.572
236	593.287	352.176
237	595.822	353.779
238	598.357	355.384
239	600.891	356.990
240	603.425	358.596

COORDENADAS DE LOS NUDOS

Nudo	X	Y
241	605.959	360.203
242	608.491	361.810
243	611.024	363.419
244	613.556	365.028
245	616.087	366.638
246	618.618	368.249
247	621.148	369.860
248	623.678	371.473
249	626.208	373.086
250	628.737	374.699
251	631.265	376.314
252	633.793	377.929
253	636.321	379.545
254	638.848	381.162
255	641.374	382.780
256	643.900	384.398
257	646.426	386.017
258	648.951	387.637
259	651.476	389.257
260	654.000	390.879
261	656.524	392.501
262	658.416	393.718
263	660.308	394.935
264	662.200	396.153
265	664.092	397.372
266	665.983	398.590
267	667.874	399.810
268	669.765	401.029
269	671.655	402.249
270	673.545	403.470
271	675.435	404.691
272	677.325	405.912
273	679.214	407.134
274	681.103	408.356
275	682.992	409.579
276	684.881	410.802
277	686.769	412.025
278	688.657	413.249
279	690.545	414.473
280	692.432	415.698
281	694.320	416.923
282	0.900	-1.559
283	-0.899	1.559
284	39.887	20.910
285	38.090	24.030
286	91.887	50.843
287	90.091	53.963
288	143.880	80.790

COORDENADAS DE LOS NUDOS

Nudo	X	Y
289	142.082	83.909
290	195.838	110.804
291	194.034	113.919
292	247.730	140.933
293	245.918	144.044
294	299.527	171.229
295	297.704	174.333
296	351.199	201.741
297	349.362	204.836
298	402.716	232.519
299	400.860	235.604
300	454.050	263.600
301	452.177	266.674
302	505.198	294.988
303	503.306	298.051
304	556.156	326.683
305	554.245	329.734
306	606.923	358.683
307	604.994	361.723
308	657.497	390.987
309	655.550	394.015
310	695.300	415.414
311	693.339	418.433

CONDICIONES DE VINCULACION

Nudo	Codigo	RX	RZ	RY
282	0 1 0	0.000	0.000	0.000
283	0 1 0	0.000	0.000	0.000
284	0 1 0	0.000	0.000	0.000
285	0 1 0	0.000	0.000	0.000
286	0 1 0	0.000	0.000	0.000
287	0 1 0	0.000	0.000	0.000
288	0 1 0	0.000	0.000	0.000
289	0 1 0	0.000	0.000	0.000
290	0 1 0	0.000	0.000	0.000
291	0 1 0	0.000	0.000	0.000
292	0 1 0	0.000	0.000	0.000
293	0 1 0	0.000	0.000	0.000
294	0 1 0	0.000	0.000	0.000
295	0 1 0	0.000	0.000	0.000
296	0 1 0	0.000	0.000	0.000
297	0 1 0	0.000	0.000	0.000
298	0 1 0	0.000	0.000	0.000
299	0 1 0	0.000	0.000	0.000
300	0 1 0	0.000	0.000	0.000
301	0 1 0	0.000	0.000	0.000
302	0 1 0	0.000	0.000	0.000
303	0 1 0	0.000	0.000	0.000
304	0 1 0	0.000	0.000	0.000
305	0 1 0	0.000	0.000	0.000
306	0 1 0	0.000	0.000	0.000
307	0 1 0	0.000	0.000	0.000
308	0 1 0	0.000	0.000	0.000
309	0 1 0	0.000	0.000	0.000
310	0 1 0	0.000	0.000	0.000
311	0 1 0	0.000	0.000	0.000

Ancho de banda = 849

HIPOTESIS 1 PESO PROPIO

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	249.94522	0.00000
283	0.00000	250.38951	0.00000
284	0.00000	893.14368	0.00000
285	0.00000	893.00024	0.00000
286	0.00000	934.58850	0.00000
287	0.00000	934.58020	0.00000
288	0.00000	921.94305	0.00000
289	0.00000	922.34949	0.00000
290	0.00000	925.36224	0.00000
291	0.00000	925.99207	0.00000
292	0.00000	924.62158	0.00000
293	0.00000	924.72876	0.00000
294	0.00000	924.68451	0.00000
295	0.00000	925.28455	0.00000
296	0.00000	924.34363	0.00000
297	0.00000	925.39490	0.00000
298	0.00000	924.57440	0.00000
299	0.00000	925.38953	0.00000
300	0.00000	924.30804	0.00000
301	0.00000	925.16980	0.00000
302	0.00000	925.15643	0.00000
303	0.00000	926.07098	0.00000
304	0.00000	922.02020	0.00000
305	0.00000	923.11340	0.00000
306	0.00000	932.90356	0.00000
307	0.00000	933.58490	0.00000
308	0.00000	904.12933	0.00000
309	0.00000	904.44836	0.00000
310	0.00000	257.72379	0.00000
311	0.00000	255.41217	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	24984.355
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PESO PROPIO

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.22	426.34	0.66	-890.88	-365.77	-0.66
2	890.88	365.77	0.66	-1645.71	-305.20	-0.67
3	1645.69	305.18	1.28	-2264.35	-244.60	-1.30
4	2264.34	244.62	-0.08	-2746.75	-184.03	0.08
5	2746.76	184.09	-0.52	-3092.69	-123.53	0.54
6	3092.72	123.58	0.64	-3302.58	-63.02	-0.64
7	3302.56	63.04	0.67	-3376.28	-2.47	-0.65
8	3376.29	2.51	-0.11	-3313.81	58.08	0.14
9	3313.81	-58.06	-0.63	-3115.09	118.62	0.63
10	3115.16	-118.65	0.59	-2780.01	179.22	-0.60
11	2780.06	-179.13	-1.14	-2308.86	239.71	1.14
12	2308.81	-239.77	0.29	-1701.20	300.33	-0.28
13	1701.19	-300.32	-0.78	-957.28	360.90	0.76
14	957.22	-360.94	-0.55	-77.22	421.49	0.57
15	77.19	-421.50	-0.58	939.44	482.08	0.57
16	-939.44	-482.07	-0.93	2092.66	542.66	0.94
17	-2092.66	-542.66	-0.60	3381.40	603.22	0.60
18	-3381.40	-603.22	0.16	4806.96	663.80	-0.16
19	-4806.96	-663.79	2.01	6384.23	738.38	-2.01
20	-6384.23	-738.38	-0.45	8129.72	812.99	0.45
21	-8128.95	887.16	-0.82	5617.23	-787.71	0.82
22	-5617.23	787.71	0.11	3403.18	-688.24	-0.11
23	-3403.20	688.26	0.11	1459.49	-607.49	-0.10
24	-1459.52	607.49	0.08	-241.89	-526.72	-0.09
25	241.81	526.73	0.09	-1590.23	-372.16	-0.12
26	1590.23	372.12	0.10	-2585.53	-291.36	-0.12
27	2585.57	291.40	-0.65	-3338.56	-210.65	0.65
28	3338.60	210.65	0.35	-3849.36	-129.88	-0.32
29	3849.35	129.84	-0.82	-4117.72	-49.09	0.79
30	4117.71	49.09	0.41	-4143.85	31.67	-0.43
31	4143.79	-31.68	0.38	-3927.58	112.44	-0.41
32	3927.46	-112.47	-0.75	-3468.96	193.23	0.75
33	3468.91	-193.19	-0.76	-2768.25	273.94	0.77
34	2768.29	-274.00	0.06	-1825.12	354.77	-0.03
35	1825.12	-354.76	-0.74	-639.46	435.53	0.73
36	639.50	-435.55	-0.43	788.37	516.32	0.43
37	-788.32	-516.27	-0.23	2458.12	597.02	0.22
38	-2458.12	-597.03	-0.95	4370.50	677.79	0.95
39	-4370.51	-677.81	0.32	6552.86	777.26	-0.32
40	-6552.86	-777.26	-1.58	9033.99	876.73	1.58
41	-9033.99	906.44	-1.60	6463.73	-806.97	1.60
42	-6463.73	806.97	0.28	4192.25	-707.52	-0.28
43	-4192.25	707.51	-0.94	2190.74	-626.75	0.94
44	-2190.74	626.75	-0.93	431.51	-545.99	0.94
45	-431.54	545.98	-0.83	-974.45	-391.44	0.82
46	974.44	391.42	-0.54	-2027.65	-310.66	0.56
47	2027.66	310.69	-0.53	-2838.50	-229.92	0.56

HIPOTESIS 1 PESO PROPIO

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
48	2838.50	229.90	-0.10	-3406.98	-149.15	0.11
49	3406.91	149.23	-0.67	-3733.39	-68.47	0.68
50	3733.41	68.45	-0.63	-3817.60	12.31	0.65
51	3817.62	-12.30	0.49	-3659.46	93.08	-0.48
52	3659.42	-93.08	0.01	-3259.16	173.82	0.00
53	3259.15	-173.91	0.40	-2616.20	254.68	-0.39
54	2616.19	-254.64	0.07	-1731.41	335.38	-0.08
55	1731.40	-335.38	0.58	-604.18	416.13	-0.55
56	604.23	-416.12	0.48	765.61	496.90	-0.47
57	-765.58	-496.88	0.33	2377.25	577.63	-0.34
58	-2377.26	-577.63	0.36	4231.16	658.39	-0.35
59	-4231.14	-658.39	0.35	6355.36	757.85	-0.34
60	-6355.33	-757.84	-1.50	8778.32	857.32	1.50
61	-8777.85	900.97	0.98	6224.29	-801.52	-0.98
62	-6224.29	801.52	-0.82	3968.71	-702.04	0.82
63	-3968.71	702.04	-1.49	1984.10	-621.30	1.48
64	-1984.09	621.31	-1.15	241.15	-540.54	1.15
65	-241.15	540.53	-1.25	-1148.57	-385.97	1.27
66	1148.56	386.04	-1.80	-2185.59	-305.28	1.81
67	2185.52	305.25	-0.82	-2980.09	-224.49	0.82
68	2980.10	224.51	-0.79	-3532.46	-143.75	0.82
69	3532.43	143.70	-0.81	-3842.44	-62.94	0.76
70	3842.43	62.94	-0.78	-3910.07	17.82	0.79
71	3910.03	-17.81	0.36	-3735.51	98.58	-0.35
72	3735.41	-98.60	0.99	-3318.57	179.34	-0.98
73	3318.54	-179.31	0.43	-2659.34	260.08	-0.44
74	2659.29	-260.14	0.89	-1757.82	340.89	-0.88
75	1757.94	-340.83	1.38	-614.23	421.59	-1.36
76	614.22	-421.61	1.37	771.81	502.37	-1.36
77	-771.80	-502.36	1.37	2400.06	583.12	-1.37
78	-2400.05	-583.13	1.38	4270.62	663.89	-1.37
79	-4270.62	-663.90	-0.55	6411.28	763.35	0.55
80	-6411.27	-763.35	0.51	8850.99	862.83	-0.51
81	-8850.52	902.53	-0.63	6292.38	-803.07	0.63
82	-6292.39	803.08	-0.62	4032.56	-703.62	0.62
83	-4032.56	703.63	-1.80	2042.66	-622.87	1.80
84	-2042.69	622.88	-1.80	295.10	-542.11	1.81
85	-295.10	542.07	-1.85	-1098.98	-387.55	1.85
86	1098.95	387.61	-1.76	-2140.85	-306.83	1.76
87	2140.80	306.80	-1.37	-2939.98	-226.05	1.38
88	2939.95	226.03	-0.49	-3496.99	-145.27	0.49
89	3496.91	145.31	-1.53	-3811.63	-64.56	1.51
90	3811.51	64.57	0.20	-3884.05	16.17	-0.21
91	3884.05	-16.21	1.34	-3714.24	96.97	-1.34
92	3714.24	-97.00	0.75	-3301.96	177.79	-0.74

HIPOTESIS 1 PESO PROPIO

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
93	3301.96	-177.78	1.30	-2647.46	258.54	-1.30
94	2647.48	-258.55	1.78	-1750.95	339.29	-1.76
95	1751.02	-339.34	1.99	-611.68	420.12	-2.01
96	611.76	-420.09	2.10	769.42	500.84	-2.10
97	-769.38	-500.83	1.88	2393.05	581.59	-1.87
98	-2393.03	-581.58	1.88	4258.98	662.34	-1.88
99	-4258.96	-662.33	0.61	6395.62	761.82	-0.61
100	-6395.61	-761.82	1.42	8829.64	861.26	-1.42
101	-8830.09	902.09	-2.66	6272.80	-802.62	2.66
102	-6272.81	802.62	-0.90	4014.30	-703.17	0.89
103	-4014.29	703.15	-2.02	2025.82	-622.38	2.03
104	-2025.80	622.38	-2.94	279.87	-541.62	2.94
105	-279.87	541.62	-2.95	-1113.10	-387.07	2.93
106	1113.09	387.10	-2.93	-2153.17	-306.34	2.94
107	2153.15	306.34	-1.95	-2950.91	-225.59	1.95
108	2950.95	225.55	-1.56	-3506.57	-144.76	1.56
109	3506.65	144.75	-0.97	-3819.81	-63.99	0.96
110	3819.85	64.03	-0.99	-3890.81	16.74	0.99
111	3890.78	-16.71	0.84	-3719.54	97.46	-0.83
112	3719.52	-97.46	0.76	-3305.96	178.21	-0.76
113	3305.95	-178.27	0.77	-2650.10	259.02	-0.76
114	2650.06	-258.99	2.32	-1751.69	339.77	-2.31
115	1751.73	-339.75	2.10	-611.58	420.49	-2.09
116	611.65	-420.47	2.49	771.02	501.24	-2.49
117	-770.98	-501.24	2.70	2395.72	582.00	-2.71
118	-2395.71	-581.96	1.32	4263.29	662.74	-1.33
119	-4263.31	-662.76	1.84	6400.39	762.20	-1.84
120	-6400.40	-762.21	-2.92	8835.89	861.66	2.92
121	-8836.71	902.31	-0.81	6278.57	-802.83	0.81
122	-6278.56	802.83	-1.90	4019.53	-703.38	1.91
123	-4019.54	703.40	-3.05	2030.38	-622.64	3.05
124	-2030.38	622.61	-3.65	283.33	-541.83	3.64
125	-283.31	541.81	-3.68	-1110.25	-387.26	3.68
126	1110.27	387.27	-3.67	-2150.80	-306.52	3.68
127	2150.80	306.47	-2.72	-2949.02	-225.73	2.71
128	2948.96	225.80	-1.89	-3505.09	-145.04	1.88
129	3505.06	144.92	-0.79	-3818.74	-64.15	0.85
130	3818.76	64.13	-0.82	-3889.97	16.64	0.78
131	3889.97	-16.61	-0.26	-3719.06	97.36	0.26
132	3719.16	-97.41	0.85	-3305.69	178.17	-0.87
133	3305.86	-178.19	2.38	-2650.20	258.94	-2.38
134	2650.34	-258.92	3.16	-1752.31	339.69	-3.16
135	1752.43	-339.68	3.18	-612.10	420.45	-3.19
136	612.19	-420.40	3.28	769.87	501.14	-3.28
137	-769.87	-501.14	2.82	2394.66	581.92	-2.83

HIPOTESIS 1 PESO PROPIO

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
138	-2394.65	-581.92	2.82	4261.79	662.69	-2.81
139	-4261.79	-662.68	2.08	6398.67	762.13	-2.08
140	-6398.66	-762.13	-2.65	8834.00	861.58	2.65
141	-8834.31	902.15	1.96	6277.01	-802.69	-1.97
142	-6277.00	802.69	-2.65	4017.98	-703.21	2.64
143	-4017.98	703.21	-3.35	2029.88	-622.47	3.35
144	-2029.90	622.48	-3.59	283.18	-541.70	3.59
145	-283.20	541.69	-3.77	-1109.86	-387.15	3.76
146	1109.88	387.20	-3.97	-2150.45	-306.43	3.99
147	2150.41	306.42	-2.99	-2948.62	-225.66	2.97
148	2948.47	225.71	-1.62	-3504.37	-144.96	1.65
149	3504.32	144.90	-0.59	-3817.82	-64.13	0.60
150	3817.73	64.20	-0.59	-3889.10	16.57	0.63
151	3889.00	-16.66	1.16	-3717.93	97.42	-1.17
152	3717.88	-97.40	1.16	-3304.55	178.15	-1.15
153	3304.53	-178.14	3.58	-2648.94	258.90	-3.60
154	2648.95	-258.90	3.61	-1751.09	339.66	-3.55
155	1751.13	-339.66	4.12	-610.74	420.44	-4.13
156	610.73	-420.42	4.22	771.51	501.17	-4.25
157	-771.51	-501.17	3.66	2396.10	581.93	-3.67
158	-2396.09	-581.92	3.67	4262.90	662.68	-3.67
159	-4262.92	-662.69	2.45	6400.47	762.16	-2.45
160	-6400.50	-762.17	1.34	8835.78	861.62	-1.34
161	-8836.26	902.35	-1.41	6277.98	-802.86	1.41
162	-6277.98	802.86	-2.53	4018.82	-703.41	2.53
163	-4018.81	703.40	-3.66	2029.62	-622.63	3.67
164	-2029.60	622.59	-4.58	283.01	-541.84	4.57
165	-282.99	541.86	-4.59	-1110.71	-387.30	4.58
166	1110.69	387.31	-3.76	-2151.54	-306.55	3.77
167	2151.47	306.55	-3.77	-2950.00	-225.79	3.77
168	2949.99	225.76	-3.77	-3506.06	-145.00	3.77
169	3506.07	144.98	-1.13	-3819.91	-64.21	1.12
170	3819.90	64.24	-0.52	-3891.54	16.50	0.53
171	3891.46	-16.47	1.68	-3720.76	97.24	-1.71
172	3720.73	-97.32	1.70	-3307.64	178.09	-1.70
173	3307.65	-178.09	2.29	-2652.34	258.83	-2.31
174	2652.31	-258.79	4.23	-1754.85	339.54	-4.22
175	1754.86	-339.64	3.94	-614.55	420.42	-3.93
176	614.70	-420.38	4.33	767.32	501.12	-4.32
177	-767.28	-501.11	4.24	2392.17	581.89	-4.24
178	-2392.16	-581.87	3.39	4258.33	662.61	-3.39
179	-4258.34	-662.61	1.73	6396.07	762.11	-1.74
180	-6396.07	-762.11	0.60	8831.69	861.58	-0.60
181	-8830.88	901.91	-1.45	6274.56	-802.45	1.45
182	-6274.56	802.46	-1.37	4016.56	-703.00	1.36

HIPOTESIS 1 PESO PROPIO

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
183	-4016.55	702.97	-4.39	2028.79	-622.21	4.40
184	-2028.80	622.24	-4.39	283.25	-541.48	4.39
185	-283.26	541.49	-4.48	-1109.51	-386.90	4.46
186	1109.49	386.92	-4.31	-2149.05	-306.17	4.31
187	2148.97	306.19	-2.68	-2946.26	-225.43	2.69
188	2946.30	225.36	-2.67	-3501.27	-144.60	2.70
189	3501.39	144.67	-1.66	-3814.27	-63.90	1.65
190	3814.32	63.92	0.03	-3884.86	16.84	-0.01
191	3884.80	-16.86	0.03	-3713.11	97.62	-0.03
192	3713.15	-97.57	2.76	-3299.19	178.33	-2.75
193	3299.23	-178.45	2.81	-2642.67	259.21	-2.80
194	2642.77	-259.30	3.30	-1743.97	340.04	-3.31
195	1744.06	-339.97	4.26	-602.82	420.75	-4.28
196	602.89	-420.73	4.40	780.27	501.48	-4.39
197	-780.26	-501.47	4.16	2405.83	582.23	-4.16
198	-2405.84	-582.24	3.07	4273.55	663.00	-3.08
199	-4273.57	-663.00	1.90	6411.97	762.47	-1.89
200	-6411.98	-762.48	1.84	8848.85	861.95	-1.84
201	-8849.30	903.28	-2.24	6288.31	-803.80	2.24
202	-6288.31	803.81	-3.34	4026.34	-704.35	3.34
203	-4026.33	704.35	-3.35	2034.66	-623.60	3.35
204	-2034.66	623.60	-4.52	284.64	-542.82	4.53
205	-284.62	542.82	-4.57	-1111.96	-388.27	4.56
206	1111.98	388.28	-4.04	-2155.57	-307.53	4.03
207	2155.56	307.56	-3.40	-2957.10	-226.80	3.41
208	2957.11	226.80	-3.42	-3516.39	-146.04	3.41
209	3516.36	146.01	-0.85	-3833.26	-65.24	0.86
210	3833.25	65.17	-0.86	-3907.62	15.60	0.88
211	3907.68	-15.56	0.91	-3739.71	96.32	-0.89
212	3739.69	-96.30	0.82	-3329.64	177.05	-0.85
213	3329.64	-177.12	3.39	-2677.09	257.88	-3.38
214	2677.16	-257.88	3.39	-1782.38	338.65	-3.36
215	1782.40	-338.64	4.15	-645.40	419.40	-4.15
216	645.43	-419.39	4.16	733.78	500.14	-4.18
217	-733.80	-500.17	3.65	2355.42	580.93	-3.65
218	-2355.42	-580.92	3.64	4219.32	661.68	-3.64
219	-4219.34	-661.68	2.44	6354.01	761.17	-2.44
220	-6354.03	-761.18	-0.53	8786.92	860.65	0.53
221	-8785.66	898.48	-0.31	6239.92	-799.04	0.31
222	-6239.92	799.04	-2.14	3992.07	-699.58	2.14
223	-3992.07	699.58	-3.20	2014.17	-618.80	3.19
224	-2014.17	618.79	-4.15	278.89	-538.03	4.15
225	-278.90	538.06	-4.20	-1103.19	-383.54	4.19
226	1103.16	383.53	-3.58	-2132.73	-302.76	3.59
227	2132.64	302.80	-3.56	-2919.88	-222.04	3.56

HIPOTESIS 1 PESO PROPIO

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
228	2919.84	221.96	-2.27	-3464.62	-141.20	2.25
229	3464.62	141.20	-1.64	-3767.08	-60.47	1.67
230	3767.11	60.42	-0.14	-3827.24	20.37	0.15
231	3827.32	-20.32	1.23	-3645.27	101.06	-1.26
232	3645.34	-101.04	1.28	-3221.18	181.78	-1.28
233	3221.24	-181.74	3.05	-2554.82	262.51	-3.05
234	2554.83	-262.50	3.54	-1646.31	343.25	-3.55
235	1646.34	-343.29	4.47	-495.08	424.07	-4.47
236	495.10	-424.02	4.38	897.79	504.76	-4.38
237	-897.82	-504.79	3.89	2533.56	585.56	-3.88
238	-2533.58	-585.56	2.74	4411.44	666.33	-2.74
239	-4411.46	-666.34	2.70	6559.73	765.80	-2.70
240	-6559.71	-765.80	0.90	9006.83	865.29	-0.90
241	-9006.05	915.21	-0.53	6410.49	-815.78	0.53
242	-6410.49	815.77	-3.12	4111.81	-716.28	3.11
243	-4111.81	716.29	-3.80	2084.07	-635.53	3.79
244	-2084.10	635.53	-4.78	298.86	-554.78	4.79
245	-298.92	554.77	-4.85	-1133.63	-400.20	4.85
246	1133.61	400.20	-4.65	-2212.82	-319.46	4.64
247	2212.87	319.45	-3.32	-3050.19	-238.68	3.34
248	3050.28	238.70	-3.37	-3645.33	-157.92	3.34
249	3645.36	157.96	-2.71	-3998.04	-77.21	2.71
250	3998.07	77.20	0.28	-4108.54	3.55	-0.26
251	4108.56	-3.62	0.26	-3976.55	84.38	-0.28
252	3976.68	-84.32	1.44	-3602.42	165.09	-1.42
253	3602.45	-165.10	3.01	-2985.99	245.87	-3.01
254	2986.17	-245.88	4.42	-2127.46	326.63	-4.42
255	2127.53	-326.68	4.42	-1026.45	407.43	-4.39
256	1026.63	-407.40	4.68	316.92	488.17	-4.66
257	-316.86	-488.16	4.51	1902.51	568.92	-4.50
258	-1902.48	-568.92	4.52	3730.40	649.68	-4.52
259	-3730.41	-649.67	1.71	5828.76	749.14	-1.71
260	-5828.78	-749.14	1.71	8225.60	848.61	-1.71
261	-8224.86	873.97	-0.58	6342.66	-799.38	0.58
262	-6342.66	799.38	-0.75	4628.28	-724.79	0.75
263	-4628.28	724.80	-2.42	3065.49	-664.23	2.43
264	-3065.49	664.22	-3.59	1680.04	-566.94	3.59
265	-1680.02	566.97	-3.35	514.09	-469.76	3.36
266	-514.09	469.73	-3.74	-474.89	-409.15	3.72
267	474.86	409.19	-3.90	-1327.31	-348.62	3.89
268	1327.24	348.54	-3.10	-2043.28	-287.99	3.07
269	2043.18	287.92	-2.27	-2622.91	-227.35	2.25
270	2622.90	227.26	-2.30	-3066.08	-166.68	2.29
271	3066.12	166.69	-2.28	-3373.04	-106.12	2.28
272	3373.01	106.03	-0.17	-3543.46	-45.47	0.12

HIPOTESIS 1 PESO PROPIO

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
273	3543.45	45.55	-0.27	-3577.64	15.02	0.25
274	3577.62	-15.14	1.13	-3475.42	75.72	-1.13
275	3475.35	-75.72	1.12	-3236.82	136.30	-1.12
276	3236.85	-136.28	1.88	-2862.10	196.84	-1.90
277	2862.14	-196.87	2.95	-2350.93	257.44	-2.95
278	2350.93	-257.38	2.93	-1703.66	317.95	-2.92
279	1703.55	-317.97	4.00	-920.06	378.54	-4.00
280	920.07	-378.57	3.80	0.11	439.15	-3.80
281	449.94	-249.95	0.00	0.00	249.95	0.00
282	450.61	-250.39	0.00	0.00	250.39	0.00
283	1607.66	-893.14	0.00	0.00	893.14	0.00
284	1607.85	-893.00	0.00	0.00	893.00	0.00
285	1682.27	-934.59	0.00	0.00	934.59	0.00
286	1682.24	-934.58	0.00	0.00	934.58	0.00
287	1659.95	-921.94	0.00	0.00	921.94	0.00
288	1659.90	-922.35	0.00	0.00	922.35	0.00
289	1665.89	-925.36	0.00	0.00	925.36	0.00
290	1666.24	-926.00	0.00	0.00	926.00	0.00
291	1664.03	-924.62	0.00	0.00	924.62	0.00
292	1665.02	-924.73	0.00	0.00	924.73	0.00
293	1664.56	-924.69	0.00	0.00	924.69	0.00
294	1665.13	-925.28	0.00	0.00	925.28	0.00
295	1664.04	-924.34	0.00	0.00	924.34	0.00
296	1664.67	-925.40	0.00	0.00	925.40	0.00
297	1663.98	-924.58	0.00	0.01	924.58	0.00
298	1666.22	-925.39	0.00	0.00	925.39	0.00
299	1663.34	-924.31	0.00	0.00	924.31	0.00
300	1665.41	-925.17	0.00	0.00	925.17	0.00
301	1664.99	-925.16	0.00	0.00	925.16	0.00
302	1667.42	-926.07	0.00	0.00	926.07	0.00
303	1659.82	-922.02	0.00	0.00	922.02	0.00
304	1661.49	-923.12	0.00	0.00	923.12	0.00
305	1679.14	-932.91	0.00	0.00	932.91	0.00
306	1680.85	-933.58	0.00	0.00	933.58	0.00
307	1627.17	-904.12	0.00	0.00	904.12	0.00
308	1628.24	-904.45	0.00	0.00	904.45	0.00
309	463.72	-257.72	0.00	0.00	257.72	0.00
310	459.92	-255.41	0.00	0.00	255.41	0.00

HIPOTESIS 1 CARGA PERMANENTE

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	162.44928	0.00000
283	0.00000	106.38866	0.00000
284	0.00000	548.18567	0.00000
285	0.00000	429.04971	0.00000
286	0.00000	575.47162	0.00000
287	0.00000	437.03308	0.00000
288	0.00000	569.66992	0.00000
289	0.00000	430.48096	0.00000
290	0.00000	571.39868	0.00000
291	0.00000	432.27481	0.00000
292	0.00000	571.01849	0.00000
293	0.00000	431.64822	0.00000
294	0.00000	571.05701	0.00000
295	0.00000	431.92139	0.00000
296	0.00000	570.88965	0.00000
297	0.00000	431.97482	0.00000
298	0.00000	570.96448	0.00000
299	0.00000	432.02216	0.00000
300	0.00000	570.83398	0.00000
301	0.00000	431.86243	0.00000
302	0.00000	571.30579	0.00000
303	0.00000	432.40329	0.00000
304	0.00000	569.49774	0.00000
305	0.00000	430.72995	0.00000
306	0.00000	575.22284	0.00000
307	0.00000	437.22232	0.00000
308	0.00000	548.13586	0.00000
309	0.00000	429.24234	0.00000
310	0.00000	163.33231	0.00000
311	0.00000	105.63850	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	13539.325
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 CARGA PERMANENTE

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.14	268.84	-100.97	-562.43	-231.23	91.56
2	562.43	231.23	-91.56	-1040.38	-193.62	82.14
3	1040.40	193.62	-81.75	-1433.81	-156.00	72.33
4	1433.75	156.01	-73.21	-1742.57	-118.39	63.78
5	1742.57	118.43	-64.07	-1966.64	-80.83	54.69
6	1966.64	80.84	-53.92	-2106.27	-43.23	44.49
7	2106.24	43.28	-44.49	-2161.32	-5.68	35.08
8	2161.30	5.66	-35.57	-2131.74	31.96	26.15
9	2131.75	-31.95	-26.50	-2017.68	69.55	17.07
10	2017.70	-69.53	-16.31	-1818.94	107.14	6.90
11	1818.98	-107.10	-7.99	-1535.58	144.72	-1.39
12	1535.58	-144.71	2.34	-1167.69	182.31	-11.75
13	1167.65	-182.36	11.05	-714.98	219.97	-20.46
14	714.98	-219.99	20.63	-177.84	257.59	-30.04
15	177.83	-257.59	29.99	444.13	295.20	-39.41
16	-444.14	-295.21	39.24	1150.91	332.83	-48.67
17	-1150.90	-332.81	48.84	1941.82	370.41	-58.25
18	-1941.81	-370.42	58.68	2817.68	408.04	-68.10
19	-2817.65	-408.04	69.19	3777.93	445.64	-78.60
20	-3777.95	-445.64	77.14	4823.07	483.25	-86.56
21	-4822.65	493.98	-128.00	3416.23	-443.85	115.46
22	-3416.24	443.85	-114.89	2159.84	-393.71	102.34
23	-2159.84	393.70	-102.34	1053.90	-343.56	89.79
24	-1053.90	343.55	-89.79	98.42	-293.40	77.24
25	-98.41	293.41	-77.23	-706.62	-243.26	64.69
26	706.61	243.27	-64.70	-1361.24	-193.12	52.15
27	1361.21	193.16	-52.52	-1865.39	-143.02	39.99
28	1865.35	142.97	-39.45	-2219.08	-92.82	26.87
29	2219.05	92.83	-27.51	-2422.29	-42.69	14.95
30	2422.31	42.66	-14.24	-2475.06	7.49	1.69
31	2475.02	-7.47	-1.73	-2377.39	57.62	-10.82
32	2377.32	-57.66	10.14	-2129.14	107.80	-22.72
33	2129.20	-107.80	22.69	-1730.65	157.94	-35.24
34	1730.70	-157.93	35.76	-1181.62	208.08	-48.30
35	1181.67	-208.08	47.76	-482.09	258.23	-60.32
36	482.06	-258.23	60.56	367.91	308.38	-73.11
37	-367.87	-308.38	73.21	1368.11	358.52	-85.77
38	-1368.14	-358.52	85.36	2518.99	408.67	-97.92
39	-2518.96	-408.66	98.65	3820.01	458.80	-111.20
40	-3820.05	-458.81	110.09	5271.76	508.95	-122.64
41	-5271.74	503.55	-126.55	3836.23	-453.41	114.00
42	-3836.26	453.41	-112.88	2551.39	-403.27	100.33
43	-2551.37	403.27	-101.08	1416.73	-353.12	88.52
44	-1416.73	353.12	-88.53	432.52	-302.98	75.97
45	-432.57	302.97	-75.85	-401.05	-252.83	63.30
46	401.07	252.80	-63.17	-1084.30	-202.65	50.61
47	1084.30	202.69	-50.65	-1617.20	-152.55	38.09

HIPOTESIS 1 CARGA PERMANENTE

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
48	1617.16	152.53	-37.81	-1999.41	-102.39	25.28
49	1999.41	102.41	-25.62	-2231.46	-52.26	13.05
50	2231.45	52.30	-13.06	-2313.11	-2.15	0.50
51	2313.12	2.09	0.19	-2244.15	48.07	-12.76
52	2244.20	-48.02	12.43	-2025.00	98.15	-24.98
53	2024.99	-98.17	25.21	-1655.16	148.33	-37.78
54	1655.12	-148.32	37.58	-1135.08	198.46	-50.13
55	1135.05	-198.46	50.47	-464.50	248.60	-63.01
56	464.53	-248.60	62.95	356.69	298.76	-75.50
57	-356.69	-298.75	75.43	1328.07	348.89	-87.99
58	-1328.07	-348.88	87.99	2449.84	399.02	-100.54
59	-2449.84	-399.02	100.54	3722.04	449.17	-113.09
60	-3722.06	-449.16	112.02	5144.92	499.31	-124.57
61	-5144.65	500.84	-124.93	3717.45	-450.69	112.38
62	-3717.42	450.70	-113.45	2440.42	-400.55	100.90
63	-2440.41	400.55	-101.31	1314.17	-350.42	88.76
64	-1314.20	350.41	-88.53	338.09	-300.26	75.99
65	-338.05	300.27	-76.14	-487.51	-250.13	63.59
66	487.49	250.13	-63.81	-1162.73	-199.98	51.26
67	1162.75	199.99	-50.73	-1687.49	-149.85	38.18
68	1687.49	149.86	-38.17	-2061.80	-99.72	25.62
69	2061.83	99.68	-25.62	-2285.60	-49.53	13.06
70	2285.63	49.54	-13.05	-2359.02	0.60	0.51
71	2359.06	-0.61	0.19	-2281.98	50.76	-12.74
72	2281.95	-50.73	13.12	-2054.51	100.87	-25.64
73	2054.49	-100.90	25.33	-1676.50	151.05	-37.89
74	1676.50	-151.05	38.16	-1148.19	201.19	-50.70
75	1148.24	-201.18	51.03	-469.42	251.33	-63.58
76	469.45	-251.33	63.59	359.80	301.48	-76.14
77	-359.78	-301.45	76.14	1339.39	351.60	-88.69
78	-1339.40	-351.61	88.69	2469.47	401.76	-101.25
79	-2469.53	-401.76	100.13	3749.89	451.90	-112.68
80	-3749.87	-451.90	113.30	5181.08	502.05	-125.85
81	-5180.87	501.62	-125.84	3751.37	-451.48	113.29
82	-3751.37	451.48	-113.29	2472.26	-401.34	100.74
83	-2472.22	401.33	-101.46	1343.35	-351.18	88.90
84	-1343.35	351.20	-88.90	364.91	-301.05	76.35
85	-364.89	301.03	-76.41	-462.81	-250.90	63.87
86	462.82	250.90	-63.81	-1140.49	-200.75	51.25
87	1140.52	200.74	-51.05	-1667.50	-150.60	38.50
88	1667.53	150.62	-38.03	-2044.15	-100.47	25.47
89	2044.14	100.47	-26.07	-2270.35	-50.33	13.52
90	2270.31	50.31	-12.46	-2345.99	-0.17	-0.08
91	2346.06	0.20	0.75	-2271.43	49.95	-13.32
92	2271.43	-49.95	12.93	-2046.29	100.10	-25.49

HIPOTESIS 1 CARGA PERMANENTE

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
93	2046.24	-100.12	25.83	-1670.65	150.27	-38.37
94	1670.68	-150.29	38.69	-1144.77	200.42	-51.24
95	1144.78	-200.39	51.36	-468.26	250.54	-63.91
96	468.21	-250.55	63.99	358.51	300.68	-76.53
97	-358.57	-300.69	76.46	1335.92	350.84	-89.00
98	-1335.92	-350.84	89.01	2463.72	400.99	-101.56
99	-2463.74	-400.98	100.83	3742.19	451.14	-113.39
100	-3742.16	-451.15	113.86	5170.45	501.28	-126.41
101	-5170.67	501.39	-127.01	3741.59	-451.24	114.46
102	-3741.62	451.24	-113.40	2463.21	-401.10	100.85
103	-2463.18	401.10	-101.55	1335.01	-350.95	89.00
104	-1334.96	350.95	-89.60	357.36	-300.81	77.05
105	-357.39	300.81	-77.07	-469.80	-250.66	64.51
106	469.79	250.63	-64.48	-1146.47	-200.49	51.93
107	1146.58	200.50	-51.41	-1672.80	-150.37	38.86
108	1672.88	150.36	-38.64	-2048.82	-100.20	26.10
109	2048.86	100.25	-25.74	-2274.36	-50.10	13.21
110	2274.34	50.08	-13.20	-2349.33	0.06	0.65
111	2349.36	-0.04	0.45	-2273.97	50.18	-12.99
112	2273.99	-50.25	12.99	-2048.08	100.39	-25.52
113	2048.13	-100.37	25.53	-1671.83	150.51	-38.09
114	1671.82	-150.48	39.04	-1145.01	200.64	-51.59
115	1145.01	-200.63	51.45	-468.06	250.76	-63.99
116	468.04	-250.75	64.29	359.53	300.91	-76.85
117	-359.47	-300.88	76.95	1337.29	351.03	-89.49
118	-1337.36	-351.04	88.73	2466.01	401.20	-101.29
119	-2466.00	-401.20	101.58	3744.57	451.33	-114.13
120	-3744.66	-451.33	111.35	5173.69	501.47	-123.90
121	-5174.07	501.51	-125.90	3744.52	-451.36	113.34
122	-3744.50	451.36	-113.99	2465.80	-401.22	101.45
123	-2465.78	401.23	-102.14	1337.25	-351.08	89.59
124	-1337.23	351.07	-89.98	359.04	-300.91	77.43
125	-359.03	300.93	-77.49	-468.49	-250.79	64.95
126	468.46	250.75	-64.92	-1145.42	-200.61	52.37
127	1145.49	200.59	-51.86	-1671.97	-150.45	39.30
128	1671.95	150.46	-38.86	-2048.14	-100.32	26.31
129	2048.18	100.30	-25.68	-2273.83	-50.14	13.13
130	2273.87	50.14	-13.14	-2349.05	0.01	0.60
131	2349.03	-0.01	-0.20	-2273.81	50.15	-12.33
132	2273.81	-50.17	13.01	-2048.10	100.32	-25.56
133	2048.12	-100.33	26.49	-1671.99	150.47	-39.04
134	1671.97	-150.43	39.52	-1145.39	200.58	-52.08
135	1145.39	-200.59	52.09	-468.33	250.74	-64.65
136	468.31	-250.72	64.72	358.87	300.86	-77.27
137	-358.94	-300.86	77.07	1336.87	351.01	-89.61

HIPOTESIS 1 CARGA PERMANENTE

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
138	-1336.87	-351.01	89.61	2465.27	401.16	-102.16
139	-2465.30	-401.15	101.74	3743.77	451.29	-114.29
140	-3743.87	-451.30	111.52	5172.83	501.44	-124.07
141	-5172.97	501.43	-124.27	3743.89	-451.28	111.71
142	-3743.80	451.28	-114.46	2465.09	-401.13	101.91
143	-2465.07	401.13	-102.34	1337.12	-350.99	89.79
144	-1337.12	351.00	-89.95	359.12	-300.85	77.39
145	-359.06	300.84	-77.62	-468.13	-250.70	65.07
146	468.11	250.71	-65.16	-1145.14	-200.56	52.59
147	1145.14	200.58	-52.07	-1671.68	-150.43	39.52
148	1671.66	150.41	-38.76	-2047.66	-100.27	26.20
149	2047.70	100.30	-25.63	-2273.36	-50.15	13.07
150	2273.26	50.14	-13.02	-2348.43	0.01	0.50
151	2348.44	-0.03	0.57	-2273.09	50.17	-13.10
152	2273.10	-50.18	13.12	-2047.41	100.32	-25.67
153	2047.36	-100.32	27.18	-1671.19	150.47	-39.72
154	1671.22	-150.44	39.73	-1144.66	200.59	-52.29
155	1144.66	-200.60	52.62	-467.51	250.75	-65.17
156	467.54	-250.75	65.27	359.85	300.89	-77.81
157	-359.88	-300.88	77.55	1337.67	351.02	-90.11
158	-1337.68	-351.01	90.10	2465.86	401.15	-102.66
159	-2465.91	-401.16	101.96	3744.80	451.32	-114.51
160	-3744.83	-451.32	113.86	5173.74	501.45	-126.41
161	-5174.06	501.53	-126.21	3744.44	-451.38	113.65
162	-3744.42	451.38	-114.32	2465.64	-401.24	101.77
163	-2465.61	401.24	-102.47	1337.04	-351.09	89.92
164	-1337.00	351.08	-90.52	359.02	-300.94	77.98
165	-359.03	300.93	-77.97	-468.50	-250.79	65.42
166	468.55	250.78	-65.07	-1145.72	-200.64	52.51
167	1145.69	200.65	-52.52	-1672.46	-150.51	39.99
168	1672.41	150.47	-39.97	-2048.64	-100.33	27.42
169	2048.64	100.34	-25.91	-2274.46	-50.19	13.34
170	2274.42	50.21	-12.99	-2349.86	-0.08	0.44
171	2349.79	0.07	0.94	-2274.77	50.09	-13.47
172	2274.63	-50.08	13.44	-2049.19	100.23	-26.01
173	2049.13	-100.26	26.38	-1673.20	150.40	-38.95
174	1673.17	-150.42	40.19	-1146.75	200.56	-52.75
175	1146.76	-200.53	52.52	-469.78	250.69	-65.07
176	469.77	-250.72	65.39	357.42	300.85	-77.93
177	-357.41	-300.84	77.88	1335.41	350.99	-90.44
178	-1335.42	-350.99	89.97	2463.25	401.12	-102.52
179	-2463.28	-401.12	101.56	3742.27	451.28	-114.12
180	-3742.29	-451.28	113.45	5171.39	501.42	-126.00
181	-5170.90	501.28	-126.25	3742.40	-451.13	113.70
182	-3742.41	451.14	-113.65	2464.31	-401.00	101.10

HIPOTESIS 1 CARGA PERMANENTE

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
183	-2464.23	400.99	-102.97	1336.50	-350.84	90.41
184	-1336.51	350.84	-90.40	359.20	-300.70	77.85
185	-359.17	300.71	-77.95	-467.84	-250.55	65.39
186	467.82	250.57	-65.32	-1144.26	-200.43	52.77
187	1144.27	200.40	-51.92	-1670.24	-150.25	39.37
188	1670.26	150.29	-39.39	-2045.91	-100.15	26.83
189	2045.91	100.18	-26.25	-2271.24	-50.03	13.66
190	2271.21	50.02	-12.64	-2346.01	0.12	0.09
191	2345.98	-0.16	-0.10	-2270.28	50.31	-12.46
192	2270.39	-50.29	14.13	-2044.24	100.44	-26.66
193	2044.27	-100.45	26.70	-1667.65	150.59	-39.24
194	1667.61	-150.62	39.53	-1140.67	200.75	-52.07
195	1140.59	-200.75	52.74	-463.01	250.90	-65.30
196	462.96	-250.91	65.38	364.84	301.04	-77.94
197	-364.89	-301.04	77.83	1343.24	351.18	-90.38
198	-1343.28	-351.21	89.78	2472.02	401.35	-102.33
199	-2472.05	-401.34	101.64	3751.40	451.49	-114.20
200	-3751.42	-451.49	114.17	5181.25	501.64	-126.72
201	-5181.48	502.07	-126.70	3750.30	-451.92	114.15
202	-3750.28	451.92	-114.80	2469.88	-401.78	102.25
203	-2469.87	401.78	-102.26	1339.90	-351.64	89.71
204	-1339.84	351.64	-90.47	359.96	-301.49	77.91
205	-359.93	301.48	-77.97	-469.25	-251.33	65.42
206	469.30	251.35	-65.21	-1148.06	-201.22	52.65
207	1148.04	201.25	-52.32	-1676.55	-151.10	39.79
208	1676.53	151.08	-39.78	-2054.59	-100.94	27.23
209	2054.56	100.91	-25.74	-2282.14	-50.76	13.18
210	2282.12	50.74	-13.18	-2359.08	-0.59	0.65
211	2359.08	0.58	0.45	-2285.61	49.56	-13.00
212	2285.59	-49.55	12.95	-2061.75	99.69	-25.48
213	2061.70	-99.68	27.05	-1687.43	149.82	-39.61
214	1687.39	-149.86	39.64	-1162.57	200.01	-52.16
215	1162.57	-200.01	52.69	-487.38	250.15	-65.24
216	487.40	-250.16	65.26	338.22	300.30	-77.80
217	-338.28	-300.29	77.56	1314.37	350.43	-90.12
218	-1314.38	-350.45	90.12	2440.93	400.59	-102.67
219	-2440.97	-400.59	101.97	3718.21	450.74	-114.53
220	-3718.26	-450.75	112.78	5145.82	500.90	-125.34
221	-5145.18	499.33	-125.46	3722.69	-449.20	112.91
222	-3722.66	449.20	-114.00	2450.33	-399.05	101.45
223	-2450.30	399.05	-102.10	1328.20	-348.90	89.54
224	-1328.15	348.90	-90.17	356.65	-298.76	77.63
225	-356.67	298.76	-77.69	-464.24	-248.62	65.13
226	464.29	248.60	-64.86	-1134.97	-198.45	52.31
227	1134.96	198.45	-52.30	-1655.17	-148.30	39.74

HIPOTESIS 1 CARGA PERMANENTE

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
228	1655.19	148.32	-39.01	-2024.94	-98.18	26.48
229	2024.91	98.19	-26.13	-2244.21	-48.05	13.57
230	2244.23	48.01	-12.67	-2313.03	2.15	0.12
231	2313.03	-2.10	0.69	-2231.52	52.23	-13.24
232	2231.54	-52.24	13.28	-1999.66	102.38	-25.83
233	1999.67	-102.37	26.94	-1617.29	152.53	-39.51
234	1617.31	-152.53	39.81	-1084.63	202.66	-52.36
235	1084.63	-202.64	52.95	-401.32	252.79	-65.51
236	401.32	-252.83	65.48	432.16	302.96	-78.03
237	-432.17	-302.95	77.78	1416.38	353.10	-90.33
238	-1416.41	-353.10	89.69	2550.97	403.25	-102.24
239	-2550.98	-403.25	102.22	3835.97	453.39	-114.77
240	-3836.01	-453.39	113.72	5271.70	503.55	-126.27
241	-5271.31	508.90	-123.72	3820.32	-458.77	111.17
242	-3820.27	458.76	-112.71	2518.87	-408.60	100.16
243	-2518.86	408.61	-100.57	1368.23	-358.47	88.02
244	-1368.19	358.46	-88.66	368.15	-308.32	76.11
245	-368.12	308.31	-76.20	-481.63	-258.16	63.64
246	481.65	258.17	-63.56	-1180.77	-208.03	51.01
247	1180.86	208.04	-50.29	-1729.80	-157.89	37.76
248	1729.80	157.92	-37.80	-2128.45	-107.76	25.22
249	2128.36	107.81	-24.86	-2376.53	-57.67	12.30
250	2376.46	57.62	-10.54	-2474.11	-7.48	-2.00
251	2474.08	7.48	1.99	-2421.30	42.66	-14.55
252	2421.27	-42.66	15.27	-2218.05	92.82	-27.84
253	2217.98	-92.79	28.77	-1864.35	142.94	-41.34
254	1864.35	-142.96	42.22	-1360.29	193.10	-54.79
255	1360.25	-193.12	54.77	-705.76	243.26	-67.32
256	705.74	-243.29	67.51	99.38	293.44	-80.08
257	-99.40	-293.44	80.02	1054.90	343.58	-92.56
258	-1054.89	-343.56	92.56	2160.79	393.71	-105.13
259	-2160.88	-393.71	103.50	3417.30	443.85	-116.04
260	-3417.31	-443.85	116.05	4824.20	494.00	-128.60
261	-4823.82	483.38	-87.12	3778.69	-445.78	77.71
262	-3778.69	445.78	-77.81	2818.17	-408.18	68.40
263	-2818.14	408.17	-69.41	1941.99	-370.56	60.00
264	-1941.95	370.56	-60.73	1150.28	-332.94	51.32
265	-1150.27	332.94	-51.16	443.69	-295.34	41.75
266	-443.63	295.33	-42.06	-178.73	-257.72	32.64
267	178.72	257.71	-32.71	-716.21	-220.10	23.30
268	716.26	220.09	-22.86	-1169.06	-182.49	13.43
269	1169.10	182.45	-12.97	-1537.30	-144.84	3.55
270	1537.32	144.78	-3.59	-1820.79	-107.17	-5.82
271	1820.82	107.20	5.84	-2019.71	-69.59	-15.26
272	2019.70	69.52	16.51	-2133.79	-31.91	-25.92

HIPOTESIS 1 CARGA PERMANENTE

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
273	2133.82	31.90	25.89	-2163.33	5.70	-35.29
274	2163.33	-5.74	36.14	-2108.09	43.35	-45.55
275	2108.16	-43.36	45.56	-1968.33	80.97	-54.98
276	1968.32	-80.91	55.44	-1743.99	118.51	-64.85
277	1743.95	-118.52	65.47	-1434.92	156.13	-74.86
278	1434.91	-156.15	74.90	-1041.23	193.76	-84.31
279	1041.16	-193.74	84.94	-563.02	231.34	-94.36
280	563.03	-231.37	94.25	0.01	268.98	-103.66
281	292.43	-162.45	0.00	0.00	162.45	0.00
282	191.46	-106.39	0.00	0.00	106.39	0.00
283	986.73	-548.18	0.00	0.00	548.18	0.00
284	772.50	-429.05	0.00	0.00	429.05	0.00
285	1035.85	-575.47	0.00	0.00	575.47	0.00
286	786.66	-437.03	0.00	0.00	437.03	0.00
287	1025.69	-569.67	0.00	0.00	569.67	0.00
288	774.71	-430.48	0.00	0.00	430.48	0.00
289	1028.67	-571.40	0.00	0.00	571.40	0.00
290	777.84	-432.28	0.00	0.00	432.28	0.00
291	1027.65	-571.02	0.00	0.00	571.02	0.00
292	777.20	-431.65	0.00	0.00	431.65	0.00
293	1027.98	-571.06	0.00	0.00	571.06	0.00
294	777.29	-431.92	0.00	0.00	431.92	0.00
295	1027.74	-570.89	0.00	0.00	570.89	0.00
296	777.07	-431.98	0.00	0.00	431.98	0.00
297	1027.57	-570.96	0.00	0.00	570.96	0.00
298	777.89	-432.02	0.00	0.00	432.02	0.00
299	1027.24	-570.84	0.00	0.00	570.84	0.00
300	777.40	-431.86	0.00	0.00	431.86	0.00
301	1028.17	-571.30	0.00	0.00	571.30	0.00
302	778.56	-432.40	0.00	0.00	432.40	0.00
303	1025.21	-569.50	0.00	0.00	569.50	0.00
304	775.26	-430.73	0.00	0.00	430.73	0.00
305	1035.35	-575.22	0.00	0.00	575.22	0.00
306	787.19	-437.22	0.00	0.00	437.22	0.00
307	986.49	-548.14	0.00	0.00	548.14	0.00
308	772.74	-429.24	0.00	0.00	429.24	0.00
309	293.88	-163.33	0.00	0.00	163.33	0.00
310	190.22	-105.64	0.00	0.00	105.64	0.00

HIPOTESIS 1 GRADIENTE TERMICO, AT= 5.0

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	13.40915	0.00000
283	0.00000	13.51258	0.00000
284	0.00000	-16.09179	0.00000
285	0.00000	-15.87319	0.00000
286	0.00000	3.32452	0.00000
287	0.00000	3.18801	0.00000
288	0.00000	-0.57574	0.00000
289	0.00000	-1.26114	0.00000
290	0.00000	0.86249	0.00000
291	0.00000	-0.34325	0.00000
292	0.00000	0.78174	0.00000
293	0.00000	-0.92922	0.00000
294	0.00000	1.14786	0.00000
295	0.00000	-1.10190	0.00000
296	0.00000	1.38201	0.00000
297	0.00000	-1.40550	0.00000
298	0.00000	1.59745	0.00000
299	0.00000	-1.55194	0.00000
300	0.00000	1.54452	0.00000
301	0.00000	-1.69100	0.00000
302	0.00000	1.88036	0.00000
303	0.00000	-1.35950	0.00000
304	0.00000	0.70663	0.00000
305	0.00000	-2.54411	0.00000
306	0.00000	4.86119	0.00000
307	0.00000	1.65614	0.00000
308	0.00000	-14.64616	0.00000
309	0.00000	-17.36638	0.00000
310	0.00000	13.77072	0.00000
311	0.00000	13.10772	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	-0.008
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 GRADIENTE TERMICO, AT= 5.0

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.01	26.92	0.18	-60.55	-26.92	-0.18
2	60.55	26.92	0.18	-121.12	-26.92	-0.18
3	121.12	26.92	0.23	-181.70	-26.92	-0.23
4	181.71	26.92	0.12	-242.29	-26.92	-0.12
5	242.29	26.91	0.08	-302.83	-26.91	-0.08
6	302.83	26.91	0.20	-363.36	-26.91	-0.20
7	363.36	26.89	0.20	-423.87	-26.89	-0.20
8	423.88	26.87	0.12	-484.36	-26.87	-0.11
9	484.37	26.88	0.02	-544.83	-26.88	-0.02
10	544.83	26.89	0.23	-605.33	-26.89	-0.23
11	605.31	26.88	-0.13	-665.80	-26.88	0.13
12	665.79	26.88	0.26	-726.28	-26.88	-0.27
13	726.28	26.88	-0.16	-786.77	-26.88	0.16
14	786.78	26.89	0.01	-847.27	-26.89	0.00
15	847.27	26.89	-0.18	-907.79	-26.89	0.18
16	907.79	26.89	0.17	-968.32	-26.89	-0.17
17	968.32	26.89	0.01	-1028.80	-26.89	-0.01
18	1028.80	26.89	-0.22	-1089.32	-26.89	0.22
19	1089.31	26.89	-0.64	-1149.81	-26.89	0.64
20	1149.81	26.89	-0.19	-1210.32	-26.89	0.19
21	1210.30	-5.08	0.27	-1195.08	5.08	-0.27
22	1195.08	-5.08	0.08	-1179.85	5.08	-0.08
23	1179.85	-5.08	0.08	-1164.62	5.08	-0.08
24	1164.62	-5.08	0.08	-1149.39	5.08	-0.08
25	1149.38	-5.08	0.08	-1134.16	5.08	-0.08
26	1134.15	-5.08	0.07	-1118.92	5.08	-0.07
27	1118.92	-5.07	-0.25	-1103.70	5.07	0.25
28	1103.70	-5.08	0.07	-1088.47	5.08	-0.07
29	1088.47	-5.08	-0.24	-1073.24	5.08	0.24
30	1073.24	-5.08	0.07	-1058.01	5.08	-0.07
31	1058.01	-5.08	0.07	-1042.77	5.08	-0.07
32	1042.77	-5.08	-0.24	-1027.53	5.08	0.24
33	1027.53	-5.08	-0.24	-1012.29	5.08	0.24
34	1012.29	-5.08	0.06	-997.05	5.08	-0.06
35	997.05	-5.08	-0.40	-981.81	5.08	0.40
36	981.81	-5.08	0.05	-966.57	5.08	-0.05
37	966.57	-5.08	-0.23	-951.33	5.08	0.23
38	951.33	-5.08	0.05	-936.09	5.08	-0.05
39	936.09	-5.08	-0.22	-920.85	5.08	0.22
40	920.85	-5.08	0.04	-905.61	5.08	-0.04
41	905.61	1.43	-0.20	-909.91	-1.43	0.20
42	909.91	1.43	-0.47	-914.21	-1.43	0.47
43	914.21	1.43	-0.20	-918.50	-1.43	0.20
44	918.50	1.43	-0.20	-922.80	-1.43	0.20
45	922.80	1.43	-0.47	-927.10	-1.43	0.47
46	927.10	1.43	-0.20	-931.39	-1.43	0.20
47	931.39	1.43	-0.20	-935.69	-1.43	0.20

HIPOTESIS 1 GRADIENTE TERMICO, AT= 5.0

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
48	935.69	1.43	-0.04	-939.99	-1.43	0.04
49	939.99	1.43	-0.20	-944.28	-1.43	0.20
50	944.28	1.43	-0.20	-948.58	-1.43	0.20
51	948.58	1.43	0.07	-952.88	-1.43	-0.07
52	952.88	1.43	-0.04	-957.18	-1.43	0.04
53	957.18	1.43	0.07	-961.47	-1.43	-0.07
54	961.47	1.43	-0.04	-965.77	-1.43	0.04
55	965.77	1.43	0.24	-970.07	-1.43	-0.24
56	970.07	1.43	0.07	-974.36	-1.43	-0.07
57	974.36	1.43	0.24	-978.66	-1.43	-0.24
58	978.66	1.43	0.23	-982.96	-1.43	-0.23
59	982.96	1.43	0.24	-987.25	-1.43	-0.24
60	987.25	1.43	0.52	-991.55	-1.43	-0.52
61	991.55	-0.40	-1.00	-990.34	0.40	1.00
62	990.34	-0.40	-0.71	-989.12	0.40	0.71
63	989.12	-0.40	-0.55	-987.91	0.40	0.55
64	987.91	-0.40	-0.71	-986.70	0.40	0.71
65	986.70	-0.40	-0.26	-985.48	0.40	0.26
66	985.48	-0.40	-0.71	-984.27	0.40	0.71
67	984.27	-0.40	-0.26	-983.06	0.40	0.26
68	983.06	-0.40	-0.26	-981.85	0.40	0.26
69	981.85	-0.40	-0.26	-980.64	0.40	0.26
70	980.64	-0.40	-0.26	-979.42	0.40	0.26
71	979.43	-0.41	0.02	-978.21	0.41	-0.02
72	978.21	-0.40	0.18	-977.00	0.40	-0.18
73	977.00	-0.40	0.02	-975.78	0.40	-0.02
74	975.78	-0.40	0.18	-974.57	0.40	-0.18
75	974.57	-0.40	0.46	-973.36	0.40	-0.46
76	973.36	-0.40	0.46	-972.15	0.40	-0.46
77	972.15	-0.40	0.46	-970.93	0.40	-0.46
78	970.93	-0.40	0.47	-969.72	0.40	-0.47
79	969.72	-0.40	0.90	-968.51	0.40	-0.90
80	968.51	-0.40	0.74	-967.30	0.40	-0.74
81	967.30	0.11	-1.26	-967.64	-0.11	1.26
82	967.64	0.11	-1.27	-967.99	-0.11	1.27
83	967.99	0.11	-0.98	-968.33	-0.11	0.98
84	968.33	0.11	-0.99	-968.67	-0.11	0.99
85	968.67	0.11	-0.82	-969.02	-0.11	0.82
86	969.01	0.11	-0.71	-969.36	-0.11	0.71
87	969.36	0.11	-0.55	-969.70	-0.11	0.55
88	969.70	0.11	-0.26	-970.04	-0.11	0.26
89	970.04	0.11	-0.55	-970.38	-0.11	0.55
90	970.38	0.11	-0.10	-970.73	-0.11	0.10
91	970.73	0.11	0.18	-971.07	-0.11	-0.18
92	971.07	0.11	0.02	-971.42	-0.11	-0.02

HIPOTESIS 1 GRADIENTE TERMICO, AT= 5.0

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
93	971.42	0.11	0.17	-971.76	-0.11	-0.17
94	971.76	0.11	0.34	-972.10	-0.11	-0.34
95	972.10	0.11	0.46	-972.44	-0.11	-0.46
96	972.44	0.11	0.62	-972.78	-0.11	-0.62
97	972.78	0.11	0.90	-973.13	-0.11	-0.90
98	973.13	0.11	0.90	-973.47	-0.11	-0.90
99	973.47	0.11	1.19	-973.81	-0.11	-1.19
100	973.81	0.11	1.06	-974.15	-0.11	-1.06
101	974.15	-0.03	-1.46	-974.05	0.03	1.46
102	974.05	-0.03	-1.73	-973.95	0.03	1.73
103	973.96	-0.03	-1.46	-973.85	0.03	1.46
104	973.86	-0.03	-1.01	-973.76	0.03	1.01
105	973.76	-0.03	-1.01	-973.65	0.03	1.01
106	973.65	-0.03	-1.01	-973.55	0.03	1.01
107	973.55	-0.03	-0.57	-973.46	0.03	0.57
108	973.46	-0.03	-0.45	-973.36	0.03	0.45
109	973.36	-0.03	-0.29	-973.26	0.03	0.29
110	973.26	-0.03	-0.29	-973.15	0.03	0.29
111	973.16	-0.03	0.16	-973.06	0.03	-0.16
112	973.06	-0.03	0.16	-972.96	0.03	-0.16
113	972.96	-0.03	0.15	-972.86	0.03	-0.15
114	972.85	-0.03	0.72	-972.76	0.03	-0.72
115	972.76	-0.03	0.60	-972.66	0.03	-0.60
116	972.66	-0.03	1.17	-972.56	0.03	-1.17
117	972.56	-0.03	0.88	-972.46	0.03	-0.88
118	972.46	-0.03	1.44	-972.36	0.03	-1.44
119	972.36	-0.03	1.33	-972.27	0.03	-1.33
120	972.27	-0.03	2.05	-972.17	0.03	-2.05
121	972.17	0.01	-2.17	-972.21	-0.01	2.17
122	972.21	0.01	-2.00	-972.25	-0.01	2.00
123	972.25	0.01	-1.72	-972.28	-0.01	1.72
124	972.29	0.01	-1.44	-972.32	-0.01	1.44
125	972.32	0.01	-1.28	-972.36	-0.01	1.28
126	972.36	0.01	-1.28	-972.40	-0.01	1.28
127	972.40	0.01	-0.83	-972.43	-0.01	0.83
128	972.43	0.01	-0.56	-972.47	-0.01	0.56
129	972.47	0.01	-0.27	-972.50	-0.01	0.27
130	972.50	0.01	-0.28	-972.54	-0.01	0.28
131	972.54	0.01	-0.11	-972.57	-0.01	0.11
132	972.57	0.01	0.17	-972.60	-0.01	-0.17
133	972.60	0.01	0.61	-972.64	-0.01	-0.61
134	972.63	0.01	0.89	-972.67	-0.01	-0.89
135	972.67	0.01	0.90	-972.70	-0.01	-0.90
136	972.70	0.01	1.05	-972.74	-0.01	-1.05
137	972.73	0.01	1.62	-972.77	-0.01	-1.62

HIPOTESIS 1 GRADIENTE TERMICO, AT= 5.0

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
138	972.77	0.01	1.62	-972.80	-0.01	-1.62
139	972.80	0.01	1.78	-972.84	-0.01	-1.78
140	972.84	0.01	2.50	-972.87	-0.01	-2.50
141	972.87	-0.01	-2.95	-972.83	0.01	2.95
142	972.84	-0.01	-2.24	-972.80	0.01	2.24
143	972.80	-0.01	-2.07	-972.77	0.01	2.07
144	972.77	-0.01	-1.96	-972.73	0.01	1.96
145	972.73	-0.01	-1.34	-972.70	0.01	1.34
146	972.69	-0.01	-1.51	-972.66	0.01	1.51
147	972.66	-0.01	-1.07	-972.63	0.01	1.07
148	972.63	-0.01	-0.62	-972.59	0.01	0.62
149	972.59	-0.01	-0.35	-972.56	0.01	0.35
150	972.56	-0.01	-0.34	-972.52	0.01	0.34
151	972.52	-0.01	0.10	-972.48	0.01	-0.10
152	972.48	-0.01	0.10	-972.45	0.01	-0.10
153	972.45	-0.01	0.82	-972.41	0.01	-0.82
154	972.41	-0.01	0.82	-972.38	0.01	-0.82
155	972.38	-0.01	1.10	-972.34	0.01	-1.10
156	972.34	-0.01	1.27	-972.31	0.01	-1.27
157	972.31	-0.01	1.99	-972.27	0.01	-1.99
158	972.27	-0.01	1.99	-972.24	0.01	-1.99
159	972.24	-0.01	2.27	-972.20	0.01	-2.27
160	972.20	-0.01	2.44	-972.17	0.01	-2.44
161	972.17	0.03	-2.68	-972.27	-0.03	2.68
162	972.27	0.03	-2.51	-972.37	-0.03	2.51
163	972.37	0.03	-2.23	-972.47	-0.03	2.23
164	972.47	0.03	-1.79	-972.57	-0.03	1.79
165	972.57	0.03	-1.79	-972.67	-0.03	1.79
166	972.68	0.03	-1.06	-972.77	-0.03	1.06
167	972.78	0.03	-1.07	-972.87	-0.03	1.07
168	972.88	0.03	-1.07	-972.97	-0.03	1.07
169	972.97	0.03	-0.34	-973.07	-0.03	0.34
170	973.07	0.03	-0.18	-973.17	-0.03	0.18
171	973.17	0.03	0.38	-973.27	-0.03	-0.38
172	973.27	0.03	0.38	-973.37	-0.03	-0.38
173	973.37	0.03	0.55	-973.47	-0.03	-0.55
174	973.47	0.03	1.27	-973.56	-0.03	-1.27
175	973.56	0.03	1.10	-973.66	-0.03	-1.10
176	973.66	0.03	1.72	-973.76	-0.03	-1.72
177	973.76	0.03	1.82	-973.86	-0.03	-1.82
178	973.86	0.03	2.17	-973.95	-0.03	-2.17
179	973.95	0.03	2.54	-974.05	-0.03	-2.54
180	974.05	0.03	2.72	-974.15	-0.03	-2.72
181	974.15	-0.11	-2.65	-973.80	0.11	2.65
182	973.80	-0.11	-2.67	-973.46	0.11	2.67

HIPOTESIS 1 GRADIENTE TERMICO, AT= 5.0

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
183	973.46	-0.11	-1.93	-973.12	0.11	1.93
184	973.12	-0.11	-1.94	-972.78	0.11	1.94
185	972.78	-0.11	-1.66	-972.43	0.11	1.66
186	972.43	-0.11	-1.49	-972.09	0.11	1.49
187	972.09	-0.11	-0.77	-971.75	0.11	0.77
188	971.75	-0.11	-0.77	-971.41	0.11	0.77
189	971.41	-0.11	-0.49	-971.06	0.11	0.49
190	971.06	-0.11	-0.05	-970.72	0.11	0.05
191	970.72	-0.11	-0.05	-970.38	0.11	0.05
192	970.38	-0.11	0.67	-970.04	0.11	-0.67
193	970.04	-0.11	0.68	-969.70	0.11	-0.68
194	969.70	-0.11	0.84	-969.35	0.11	-0.84
195	969.35	-0.11	1.39	-969.01	0.11	-1.39
196	969.01	-0.11	1.56	-968.66	0.11	-1.56
197	968.66	-0.11	1.84	-968.32	0.11	-1.84
198	968.32	-0.11	2.28	-967.97	0.11	-2.28
199	967.97	-0.11	2.55	-967.63	0.11	-2.55
200	967.63	-0.11	2.56	-967.28	0.11	-2.56
201	967.28	0.41	-2.56	-968.50	-0.41	2.56
202	968.50	0.41	-2.39	-969.71	-0.41	2.39
203	969.71	0.40	-2.39	-970.93	-0.40	2.39
204	970.93	0.41	-1.83	-972.15	-0.41	1.83
205	972.15	0.41	-1.68	-973.36	-0.41	1.68
206	973.36	0.41	-1.22	-974.58	-0.41	1.22
207	974.58	0.41	-0.94	-975.80	-0.41	0.94
208	975.80	0.41	-0.95	-977.01	-0.41	0.95
209	977.01	0.40	-0.22	-978.23	-0.40	0.22
210	978.23	0.40	-0.22	-979.44	-0.40	0.22
211	979.44	0.40	0.24	-980.65	-0.40	-0.23
212	980.65	0.40	0.23	-981.87	-0.40	-0.23
213	981.87	0.40	0.96	-983.08	-0.40	-0.96
214	983.08	0.40	0.97	-984.29	-0.40	-0.97
215	984.29	0.40	1.40	-985.50	-0.40	-1.40
216	985.50	0.40	1.42	-986.71	-0.40	-1.42
217	986.71	0.40	2.14	-987.92	-0.40	-2.14
218	987.92	0.40	2.14	-989.13	-0.40	-2.14
219	989.13	0.40	2.42	-990.34	-0.40	-2.42
220	990.34	0.40	2.88	-991.55	-0.40	-2.88
221	991.55	-1.43	-2.80	-987.25	1.43	2.80
222	987.25	-1.43	-2.51	-982.95	1.43	2.51
223	982.95	-1.43	-2.25	-978.65	1.43	2.25
224	978.65	-1.43	-1.79	-974.35	1.43	1.79
225	974.35	-1.43	-1.63	-970.05	1.43	1.63
226	970.05	-1.43	-1.07	-965.75	1.43	1.07
227	965.75	-1.43	-1.07	-961.45	1.43	1.07

HIPOTESIS 1 GRADIENTE TERMICO, AT= 5.0

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
228	961.45	-1.43	-0.63	-957.15	1.43	0.63
229	957.15	-1.43	-0.47	-952.85	1.43	0.47
230	952.85	-1.43	-0.09	-948.55	1.43	0.09
231	948.55	-1.43	0.25	-944.25	1.43	-0.25
232	944.25	-1.43	0.25	-939.95	1.43	-0.25
233	939.95	-1.43	0.76	-935.65	1.43	-0.76
234	935.65	-1.43	0.95	-931.35	1.43	-0.95
235	931.35	-1.43	1.46	-927.05	1.43	-1.46
236	927.05	-1.43	1.36	-922.75	1.43	-1.36
237	922.75	-1.43	1.90	-918.45	1.43	-1.90
238	918.44	-1.43	2.31	-914.15	1.43	-2.31
239	914.15	-1.43	2.32	-909.85	1.43	-2.32
240	909.84	-1.43	2.57	-905.54	1.43	-2.57
241	905.55	5.08	-2.88	-920.79	-5.08	2.88
242	920.79	5.08	-2.51	-936.05	-5.08	2.51
243	936.05	5.08	-2.36	-951.30	-5.08	2.36
244	951.30	5.08	-1.91	-966.56	-5.08	1.91
245	966.55	5.08	-1.65	-981.80	-5.08	1.65
246	981.80	5.08	-1.48	-997.05	-5.08	1.48
247	997.05	5.09	-0.90	-1012.32	-5.09	0.90
248	1012.31	5.09	-0.91	-1027.58	-5.09	0.91
249	1027.57	5.09	-0.72	-1042.83	-5.09	0.72
250	1042.83	5.09	0.04	-1058.09	-5.09	-0.04
251	1058.09	5.09	0.04	-1073.34	-5.09	-0.04
252	1073.34	5.08	0.37	-1088.59	-5.08	-0.37
253	1088.60	5.08	0.84	-1103.85	-5.08	-0.84
254	1103.86	5.08	1.36	-1119.12	-5.08	-1.37
255	1119.12	5.08	1.36	-1134.36	-5.08	-1.36
256	1134.36	5.08	1.67	-1149.61	-5.08	-1.67
257	1149.62	5.08	2.21	-1164.86	-5.08	-2.21
258	1164.86	5.08	2.20	-1180.11	-5.08	-2.20
259	1180.11	5.08	3.09	-1195.37	-5.08	-3.08
260	1195.36	5.08	3.08	-1210.62	-5.08	-3.08
261	1210.61	-26.93	-1.33	-1150.03	26.93	1.33
262	1150.03	-26.93	-1.30	-1089.45	26.93	1.30
263	1089.44	-26.93	-0.90	-1028.84	26.93	0.90
264	1028.84	-26.93	-0.51	-968.23	26.93	0.51
265	968.22	-26.94	-0.65	-907.64	26.94	0.65
266	907.64	-26.94	0.02	-847.01	26.94	-0.02
267	847.02	-26.94	-0.29	-786.42	26.94	0.29
268	786.43	-26.93	0.19	-725.87	26.93	-0.19
269	725.86	-26.91	0.47	-665.31	26.91	-0.47
270	665.31	-26.89	0.47	-604.79	26.89	-0.47
271	604.79	-26.91	0.44	-544.24	26.91	-0.45
272	544.26	-26.87	0.80	-483.80	26.87	-0.80

HIPOTESIS 1 GRADIENTE TERMICO, AT= 5.0

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
273	483.78	-26.89	0.79	-423.29	26.89	-0.79
274	423.29	-26.87	0.96	-362.83	26.87	-0.96
275	362.83	-26.88	0.95	-302.34	26.88	-0.95
276	302.35	-26.88	1.03	-241.87	26.88	-1.03
277	241.89	-26.87	1.12	-181.43	26.87	-1.12
278	181.43	-26.88	1.12	-120.96	26.88	-1.12
279	120.96	-26.87	1.19	-60.49	26.87	-1.19
280	60.49	-26.88	1.18	0.00	26.88	-1.17
281	24.14	-13.41	0.00	0.00	13.41	0.00
282	24.32	-13.51	0.00	0.00	13.51	0.00
283	-28.97	16.09	0.00	0.00	-16.09	0.00
284	-28.58	15.87	0.00	0.00	-15.87	0.00
285	5.98	-3.32	0.00	0.00	3.32	0.00
286	5.74	-3.19	0.00	0.00	3.19	0.00
287	-1.04	0.58	0.00	0.00	-0.58	0.00
288	-2.27	1.26	0.00	0.00	-1.26	0.00
289	1.55	-0.86	0.00	0.00	0.86	0.00
290	-0.62	0.34	0.00	0.00	-0.34	0.00
291	1.41	-0.78	0.00	0.00	0.78	0.00
292	-1.67	0.93	0.00	0.00	-0.93	0.00
293	2.07	-1.15	0.00	0.00	1.15	0.00
294	-1.98	1.10	0.00	0.00	-1.10	0.00
295	2.49	-1.38	0.00	0.00	1.38	0.00
296	-2.53	1.41	0.00	0.00	-1.41	0.00
297	2.88	-1.60	0.00	0.00	1.60	0.00
298	-2.79	1.55	0.00	0.00	-1.55	0.00
299	2.78	-1.54	0.00	0.00	1.54	0.00
300	-3.04	1.69	0.00	0.00	-1.69	0.00
301	3.38	-1.88	0.00	0.00	1.88	0.00
302	-2.45	1.36	0.00	0.00	-1.36	0.00
303	1.27	-0.71	0.00	0.00	0.71	0.00
304	-4.58	2.54	0.00	0.00	-2.54	0.00
305	8.75	-4.86	0.00	0.00	4.86	0.00
306	2.98	-1.66	0.00	0.00	1.66	0.00
307	-26.36	14.65	0.00	0.00	-14.65	0.00
308	-31.26	17.37	0.00	0.00	-17.37	0.00
309	24.78	-13.77	0.00	0.00	13.77	0.00
310	23.60	-13.11	0.00	0.00	13.11	0.00

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ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0097	36.7032	124.3370	177.2772	78.7891	213.6055
2	177.2772	78.7891	213.6055	332.2695	73.8446	203.7870
3	332.2695	73.8446	203.7870	465.3555	68.9407	193.7881
4	465.3555	68.9407	193.7881	576.9394	49.0959	141.6236
5	576.9394	49.0959	141.6236	659.7574	29.3135	89.7474
6	659.7574	29.3135	89.7474	722.0283	24.6141	79.9689
7	722.0283	24.6141	79.9689	764.4915	19.9942	69.9637
8	764.4915	19.9942	69.9637	787.9725	15.4664	59.8875
9	787.9725	15.4664	59.8875	793.2664	11.0485	50.0799
10	793.2664	11.0485	50.0799	781.2596	-8.2709	-1.9669
11	781.2596	-8.2709	-1.9669	745.8456	-27.4085	-53.9410
12	745.8456	-27.4085	-53.9410	695.3682	-31.4584	-63.8295
13	695.3682	-31.4584	-63.8295	631.4178	-35.3341	-73.8982
14	631.4178	-35.3341	-73.8982	555.2852	-39.0437	-83.7899
15	555.2852	-39.0437	-83.7899	468.5381	-42.5630	-93.6672
16	468.5381	-42.5630	-93.6672	372.7791	-60.8926	-145.5505
17	372.7791	-60.8926	-145.5505	270.8333	-21.9388	-39.3120
18	270.8333	-21.9388	-39.3120	172.3390	-39.6331	-90.9906
19	172.3390	-39.6331	-90.9906	136.5987	3.1958	0.4413
20	136.5987	3.1958	0.4413	143.7870	-3.6183	4.1097
21	143.7870	-3.6183	4.1097	112.4956	-10.4321	7.7417
22	112.4956	-10.4321	7.7417	204.5743	24.2621	53.2691
23	204.5743	24.2621	53.2691	334.1923	49.2767	122.1884
24	334.1923	49.2767	122.1884	448.1171	58.5978	148.6301
25	448.1171	58.5978	148.6301	563.0782	40.5370	98.7889
26	563.0782	40.5370	98.7889	651.5321	49.0578	125.1137
27	651.5321	49.0578	125.1137	734.9847	30.6703	75.2834
28	734.9847	30.6703	75.2834	787.6579	-2.7989	-16.6214
29	787.6579	-2.7989	-16.6214	827.7971	20.1077	51.8637
30	827.7971	20.1077	51.8637	840.3925	-13.4999	-39.9137
31	840.3925	-13.4999	-39.9137	830.2202	9.2977	28.4361
32	830.2202	9.2977	28.4361	801.2980	-24.2719	-63.5861
33	801.2980	-24.2719	-63.5861	741.8801	-1.2845	5.0236
34	741.8801	-1.2845	5.0236	673.9703	-34.6819	-86.9181
35	673.9703	-34.6819	-86.9181	576.1214	-52.9954	-136.7968
36	576.1214	-52.9954	-136.7968	472.7252	-44.2827	-110.2770
37	472.7252	-44.2827	-110.2770	346.0575	-62.2225	-160.1586
38	346.0575	-62.2225	-160.1586	222.5235	-52.6246	-133.5255
39	222.5235	-52.6246	-133.5255	127.0154	2.9391	0.3934
40	127.0154	2.9391	0.3934	135.8322	-3.6596	4.0885
41	135.8322	-3.6596	4.0885	105.0583	-10.2579	7.7498
42	105.0583	-10.2579	7.7498	215.4279	23.9922	53.0666
43	215.4279	23.9922	53.0666	349.6875	48.8641	122.0059
44	349.6875	48.8641	122.0059	465.9055	58.0822	148.3300
45	465.9055	58.0822	148.3300	580.4115	39.9774	98.4901
46	580.4115	39.9774	98.4901	668.3936	48.4515	124.9872
47	668.3936	48.4515	124.9872	750.2408	30.0465	75.1929
48	750.2408	30.0465	75.1929	801.0872	-3.4173	-16.7150
49	801.0872	-3.4173	-16.7150	839.0519	19.5203	51.6802
50	839.0519	19.5203	51.6802	849.6440	-14.0615	-40.0990
51	849.6440	-14.0615	-40.0990	837.1206	8.7966	28.4349
52	837.1206	8.7966	28.4349	806.3585	-24.7549	-63.4724

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
53	806.3585	-24.7549	-63.4724	744.8929	-1.6904	4.9936
54	744.8929	-1.6904	4.9936	675.6792	-35.0434	-86.8544
55	675.6792	-35.0434	-86.8544	576.6288	-53.3108	-136.6596
56	576.6288	-53.3108	-136.6596	472.3954	-44.5177	-110.2638
57	472.3954	-44.5177	-110.2638	345.1758	-62.4154	-160.0851
58	345.1758	-62.4154	-160.0851	221.7112	-52.7350	-133.5085
59	221.7112	-52.7350	-133.5085	126.5558	2.8946	0.4339
60	126.5558	2.8946	0.4339	135.2375	-3.6753	4.1192
61	135.2375	-3.6753	4.1192	124.8920	-2.8524	-0.4629
62	124.8920	-2.8524	-0.4629	216.2435	23.9715	53.0387
63	216.2435	23.9715	53.0387	350.8422	48.8303	121.8819
64	350.8422	48.8303	121.8819	467.2169	58.0422	148.3515
65	467.2169	58.0422	148.3515	581.6674	39.9469	98.4393
66	581.6674	39.9469	98.4393	669.7101	48.4144	124.8388
67	669.7101	48.4144	124.8388	751.4374	30.0231	75.1187
68	751.4374	30.0231	75.1187	802.2499	-3.4524	-16.8000
69	802.2499	-3.4524	-16.8000	840.0484	19.4752	51.6305
70	840.0484	19.4752	51.6305	850.4686	-14.0985	-40.1537
71	850.4686	-14.0985	-40.1537	837.7429	8.7535	28.4807
72	837.7429	8.7535	28.4807	806.7727	-24.7890	-63.4306
73	806.7727	-24.7890	-63.4306	745.1937	-1.7182	5.0037
74	745.1937	-1.7182	5.0037	675.8374	-35.0719	-86.7586
75	675.8374	-35.0719	-86.7586	576.7047	-53.3376	-136.5361
76	576.7047	-53.3376	-136.5361	472.4046	-44.5377	-110.1671
77	472.4046	-44.5377	-110.1671	345.1241	-62.4321	-160.0500
78	345.1241	-62.4321	-160.0500	221.6796	-52.7499	-133.4455
79	221.6796	-52.7499	-133.4455	126.4987	2.8883	0.4604
80	126.4987	2.8883	0.4604	135.1655	-3.6772	4.1467
81	135.1655	-3.6772	4.1467	126.4201	-2.8870	-0.4973
82	126.4201	-2.8870	-0.4973	216.3438	23.9711	52.9559
83	216.3438	23.9711	52.9559	351.0046	48.8285	121.7954
84	351.0046	48.8285	121.7954	467.4213	58.0396	148.1623
85	467.4213	58.0396	148.1623	581.8567	39.9406	98.3362
86	581.8567	39.9406	98.3362	669.8754	48.4066	124.7777
87	669.8754	48.4066	124.7777	751.5670	30.0118	75.0670
88	751.5670	30.0118	75.0670	802.3064	-3.4557	-16.8675
89	802.3064	-3.4557	-16.8675	840.1282	19.4575	51.6235
90	840.1282	19.4575	51.6235	850.5220	-14.0994	-39.9870
91	850.5220	-14.0994	-39.9870	837.7781	8.7558	28.4822
92	837.7781	8.7558	28.4822	806.8426	-24.7934	-63.4466
93	806.8426	-24.7934	-63.4466	745.2611	-1.7144	5.1065
94	745.2611	-1.7144	5.1065	675.9031	-35.0784	-86.7145
95	675.9031	-35.0784	-86.7145	576.7334	-53.3455	-136.5126
96	576.7334	-53.3455	-136.5126	472.4750	-44.5426	-110.0434
97	472.4750	-44.5426	-110.0434	345.1614	-62.4374	-159.8748
98	345.1614	-62.4374	-159.8748	221.6840	-52.7494	-133.3560
99	221.6840	-52.7494	-133.3560	126.4998	2.8882	0.4818
100	126.4998	2.8882	0.4818	135.2168	3.6797	-4.2523
101	135.2168	3.6797	-4.2523	126.5519	-2.8890	-0.5099
102	126.5519	-2.8890	-0.5099	216.3694	23.9694	52.8680
103	216.3694	23.9694	52.8680	351.0482	48.8256	121.7523
104	351.0482	48.8256	121.7523	467.3846	58.0332	148.1453
105	467.3846	58.0332	148.1453	581.8668	39.9342	98.2296
106	581.8668	39.9342	98.2296	669.8464	48.4113	124.7137
107	669.8464	48.4113	124.7137	751.5253	30.0079	75.0175

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
108	751.5253	30.0079	75.0175	802.3003	-3.4564	-16.8100
109	802.3003	-3.4564	-16.8100	840.0591	19.4628	51.6517
110	840.0591	19.4628	51.6517	850.4691	-14.1144	-40.0837
111	850.4691	-14.1144	-40.0837	837.7361	8.7517	28.5098
112	837.7361	8.7517	28.5098	806.7709	-24.7982	-63.4403
113	806.7709	-24.7982	-63.4403	745.1666	-1.7129	5.1811
114	745.1666	-1.7129	5.1811	675.7556	-35.0723	-86.5903
115	675.7556	-35.0723	-86.5903	576.7391	-53.3297	-136.3783
116	576.7391	-53.3297	-136.3783	472.4202	-44.5343	-109.9570
117	472.4202	-44.5343	-109.9570	345.2281	-62.4285	-159.8568
118	345.2281	-62.4285	-159.8568	221.6800	-52.7421	-133.2999
119	221.6800	-52.7421	-133.2999	126.5108	2.8903	0.5337
120	126.5108	2.8903	0.5337	135.1838	-3.6776	4.2305
121	135.1838	-3.6776	4.2305	126.5242	-2.8870	-0.5500
122	126.5242	-2.8870	-0.5500	216.3243	23.9757	52.8575
123	216.3243	23.9757	52.8575	351.0139	48.8385	121.6765
124	351.0139	48.8385	121.6765	467.4547	58.0457	148.0370
125	467.4547	58.0457	148.0370	581.9715	39.9478	98.1409
126	581.9715	39.9478	98.1409	670.0112	48.4203	124.5876
127	670.0112	48.4203	124.5876	751.7020	30.0114	74.9354
128	751.7020	30.0114	74.9354	802.4756	-3.4543	-16.7882
129	802.4756	-3.4543	-16.7882	840.2239	19.4620	51.6973
130	840.2239	19.4620	51.6973	850.6028	-14.1156	-40.1914
131	850.6028	-14.1156	-40.1914	837.8493	8.7382	28.3702
132	837.8493	8.7382	28.3702	806.8909	-24.7985	-63.2628
133	806.8909	-24.7985	-63.2628	745.2462	-1.7241	5.3858
134	745.2462	-1.7241	5.3858	675.8276	-35.0770	-86.4664
135	675.8276	-35.0770	-86.4664	576.6781	-53.3471	-136.3438
136	576.6781	-53.3471	-136.3438	472.4669	-44.5363	-109.8799
137	472.4669	-44.5363	-109.8799	345.1375	-62.4321	-159.6796
138	345.1375	-62.4321	-159.6796	221.6476	-52.7482	-133.2687
139	221.6476	-52.7482	-133.2687	126.4884	2.8879	0.5717
140	126.4884	2.8879	0.5717	135.2290	3.6784	-4.3481
141	135.2290	3.6784	-4.3481	126.5596	-2.8900	-0.5947
142	126.5596	-2.8900	-0.5947	216.3534	23.9677	52.8297
143	216.3534	23.9677	52.8297	350.9958	48.8230	121.5484
144	350.9958	48.8230	121.5484	467.4075	58.0362	147.9543
145	467.4075	58.0362	147.9543	581.8160	39.9408	98.0972
146	581.8160	39.9408	98.0972	669.8498	48.4097	124.4508
147	669.8498	48.4097	124.4508	751.5710	30.0126	74.8555
148	751.5710	30.0126	74.8555	802.3260	-3.4667	-16.8207
149	802.3260	-3.4667	-16.8207	840.0582	19.4646	51.6411
150	840.0582	19.4646	51.6411	850.4723	-14.1166	-40.1263
151	850.4723	-14.1166	-40.1263	837.7028	8.7505	28.4169
152	837.7028	8.7505	28.4169	806.8085	-24.7896	-63.2485
153	806.8085	-24.7896	-63.2485	745.1660	-1.7202	5.3849
154	745.1660	-1.7202	5.3849	675.8308	-35.0722	-86.4969
155	675.8308	-35.0722	-86.4969	576.6807	-53.3413	-136.2791
156	576.6807	-53.3413	-136.2791	472.4836	-44.5351	-109.7954
157	472.4836	-44.5351	-109.7954	345.1971	-62.4297	-159.5667
158	345.1971	-62.4297	-159.5667	221.7230	-52.7455	-133.1837
159	221.7230	-52.7455	-133.1837	126.5094	2.8883	0.5610
160	126.5094	2.8883	0.5610	135.1866	3.6798	-4.3742
161	135.1866	3.6798	-4.3742	126.5278	-2.8867	-0.5939
162	126.5278	-2.8867	-0.5939	216.3976	23.9738	52.7525

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
163	216.3976	23.9738	52.7525	351.0945	48.8334	121.5350
164	351.0945	48.8334	121.5350	467.4846	58.0440	147.8141
165	467.4846	58.0440	147.8141	581.9731	39.9439	98.0928
166	581.9731	39.9439	98.0928	669.9153	48.4122	124.5724
167	669.9153	48.4122	124.5724	751.6799	30.0126	74.6264
168	751.6799	30.0126	74.6264	802.4623	-3.4689	-17.0511
169	802.4623	-3.4689	-17.0511	840.1948	19.4685	51.6714
170	840.1948	19.4685	51.6714	850.6058	-14.1138	-39.9794
171	850.6058	-14.1138	-39.9794	837.8271	8.7511	28.6078
172	837.8271	8.7511	28.6078	806.8861	-24.7905	-63.3006
173	806.8861	-24.7905	-63.3006	745.3271	-1.7248	5.4008
174	745.3271	-1.7248	5.4008	675.8884	-35.0828	-86.3702
175	675.8884	-35.0828	-86.3702	576.7641	-53.3492	-136.1988
176	576.7641	-53.3492	-136.1988	472.4761	-44.5410	-109.7414
177	472.4761	-44.5410	-109.7414	345.1660	-62.4361	-159.6212
178	345.1660	-62.4361	-159.6212	221.7558	-52.7471	-133.1450
179	221.7558	-52.7471	-133.1450	126.4983	2.8882	0.5900
180	126.4983	2.8882	0.5900	135.2050	3.6784	-4.3682
181	135.2050	3.6784	-4.3682	126.5361	-2.8887	-0.5925
182	126.5361	-2.8887	-0.5925	216.3912	23.9685	52.7972
183	216.3912	23.9685	52.7972	351.0004	48.8237	121.5788
184	351.0004	48.8237	121.5788	467.3831	58.0367	147.8542
185	467.3831	58.0367	147.8542	581.8591	39.9366	98.0098
186	581.8591	39.9366	98.0098	669.8386	48.4063	124.5870
187	669.8386	48.4063	124.5870	751.4989	30.0087	74.8979
188	751.4989	30.0087	74.8979	802.3127	-3.4462	-16.9657
189	802.3127	-3.4462	-16.9657	840.1404	19.4746	51.6830
190	840.1404	19.4746	51.6830	850.5377	-14.0968	-40.0925
191	850.5377	-14.0968	-40.0925	837.8967	8.7575	28.5686
192	837.8967	8.7575	28.5686	806.9597	-24.7805	-63.0961
193	806.9597	-24.7805	-63.0961	745.3629	-1.7233	5.2952
194	745.3629	-1.7233	5.2952	675.9971	-35.0856	-86.4266
195	675.9971	-35.0856	-86.4266	576.8108	-53.3471	-136.1119
196	576.8108	-53.3471	-136.1119	472.5250	-44.5430	-109.7683
197	472.5250	-44.5430	-109.7683	345.2535	-62.4384	-159.5797
198	345.2535	-62.4384	-159.5797	221.7683	-52.7490	-133.1110
199	221.7683	-52.7490	-133.1110	126.3608	2.8833	0.5831
200	126.3608	2.8833	0.5831	135.2194	3.6796	-4.3942
201	135.2194	3.6796	-4.3942	126.5528	-2.8901	-0.5748
202	126.5528	-2.8901	-0.5748	216.3699	23.9683	52.7505
203	216.3699	23.9683	52.7505	351.0514	48.8253	121.5114
204	351.0514	48.8253	121.5114	467.4366	58.0402	147.8510
205	467.4366	58.0402	147.8510	581.9163	39.9409	98.0797
206	581.9163	39.9409	98.0797	669.8796	48.4252	124.5748
207	669.8796	48.4252	124.5748	751.6315	30.0224	74.7290
208	751.6315	30.0224	74.7290	802.4723	-3.4488	-16.9555
209	802.4723	-3.4488	-16.9555	840.1947	19.4626	51.6818
210	840.1947	19.4626	51.6818	850.5908	-14.1184	-40.0910
211	850.5908	-14.1184	-40.0910	837.7964	8.7435	28.4325
212	837.7964	8.7435	28.4325	806.8817	-24.8011	-63.2320
213	806.8817	-24.8011	-63.2320	745.2021	-1.7257	5.4034
214	745.2021	-1.7257	5.4034	675.8275	-35.0905	-86.4272
215	675.8275	-35.0905	-86.4272	576.6485	-53.3555	-136.2119
216	576.6485	-53.3555	-136.2119	472.3878	-44.5488	-109.7932
217	472.3878	-44.5488	-109.7932	345.0620	-62.4448	-159.5701

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
218	345.0620	-62.4448	-159.5701	221.5903	-52.7564	-133.1891
219	221.5903	-52.7564	-133.1891	124.7012	2.8451	0.5785
220	124.7012	2.8451	0.5785	135.3107	3.6793	-4.3866
221	135.3107	3.6793	-4.3866	126.6259	-2.8946	-0.6109
222	126.6259	-2.8946	-0.6109	216.4846	23.9580	52.7478
223	216.4846	23.9580	52.7478	351.1905	48.8058	121.5157
224	351.1905	48.8058	121.5157	467.5240	58.0137	147.8456
225	467.5240	58.0137	147.8456	581.8800	39.9088	98.1100
226	581.8800	39.9088	98.1100	669.7003	48.3607	124.5295
227	669.7003	48.3607	124.5295	751.2915	29.9581	74.7672
228	751.2915	29.9581	74.7672	801.8645	-3.5077	-16.9637
229	801.8645	-3.5077	-16.9637	839.4023	19.4118	51.6048
230	839.4023	19.4118	51.6048	849.5706	-14.1656	-40.0332
231	849.5706	-14.1656	-40.0332	836.6401	8.6938	28.4580
232	836.6401	8.6938	28.4580	805.5686	-24.8306	-63.2815
233	805.5686	-24.8306	-63.2815	743.8527	-1.7574	5.3524
234	743.8527	-1.7574	5.3524	674.4427	-35.1110	-86.3696
235	674.4427	-35.1110	-86.3696	575.1776	-53.3874	-136.1496
236	575.1776	-53.3874	-136.1496	471.0496	-44.5793	-109.8187
237	471.0496	-44.5793	-109.8187	343.8021	-62.4720	-159.5549
238	343.8021	-62.4720	-159.5549	220.6468	-52.7729	-133.1279
239	220.6468	-52.7729	-133.1279	105.0965	10.2603	-8.1611
240	105.0965	10.2603	-8.1611	135.8802	3.6596	-4.3840
241	135.8802	3.6596	-4.3840	127.0620	-2.9402	-0.5960
242	127.0620	-2.9402	-0.5960	217.1450	23.8616	52.7442
243	217.1450	23.8616	52.7442	351.8882	48.6308	121.4980
244	351.8882	48.6308	121.4980	467.7310	57.7464	147.8581
245	467.7310	57.7464	147.8581	581.2446	39.5980	98.0144
246	581.2446	39.5980	98.0144	667.7528	47.9858	124.5271
247	667.7528	47.9858	124.5271	747.8744	29.5530	74.7739
248	747.8744	29.5530	74.7739	796.8542	-3.9585	-17.1341
249	796.8542	-3.9585	-17.1341	832.2566	18.9156	51.5731
250	832.2566	18.9156	51.5731	840.4594	-14.6945	-40.0856
251	840.4594	-14.6945	-40.0856	825.2075	8.1188	28.3570
252	825.2075	8.1188	28.3570	792.1577	-25.4356	-63.3129
253	792.1577	-25.4356	-63.3129	728.7496	-2.3496	5.3532
254	728.7496	-2.3496	5.3532	657.8588	-35.6995	-86.4715
255	657.8588	-35.6995	-86.4715	557.6056	-53.9489	-136.3521
256	557.6056	-53.9489	-136.3521	454.1282	-45.0648	-109.9390
257	454.1282	-45.0648	-109.9390	328.3688	-20.5857	-41.5908
258	328.3688	-20.5857	-41.5908	208.3054	-53.0793	-133.3489
259	208.3054	-53.0793	-133.3489	112.4160	10.4264	-8.1536
260	112.4160	10.4264	-8.1536	143.6947	3.6191	-4.4346
261	143.6947	3.6191	-4.4346	136.5211	-3.1878	-0.7147
262	136.5211	-3.1878	-0.7147	165.8822	53.3207	127.8543
263	165.8822	53.3207	127.8543	273.0488	50.5254	118.0051
264	273.0488	50.5254	118.0051	375.6049	47.5077	107.9822
265	375.6049	47.5077	107.9822	471.6102	44.2840	98.1013
266	471.6102	44.2840	98.1013	559.2379	25.8504	46.1166
267	559.2379	25.8504	46.1166	629.4711	7.2328	-5.8610
268	629.4711	7.2328	-5.8610	689.6416	44.4995	100.6280
269	689.6416	44.4995	100.6280	737.4402	25.3794	48.7233
270	737.4402	25.3794	48.7233	769.8777	21.1332	38.7242
271	769.8777	21.1332	38.7242	785.8011	16.7621	29.0103
272	785.8011	16.7621	29.0103	784.0293	12.2695	19.2587

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
273	784.0293	12.2695	19.2587	763.8083	7.6725	9.4249
274	763.8083	7.6725	9.4249	724.0939	-11.9888	-42.4638
275	724.0939	-11.9888	-42.4638	656.8101	-31.7356	-94.4317
276	656.8101	-31.7356	-94.4317	568.8228	-36.5480	-104.2509
277	568.8228	-36.5480	-104.2509	459.4435	-41.4248	-114.1631
278	459.4435	-41.4248	-114.1631	328.4315	-46.3377	-124.1012
279	328.4315	-46.3377	-124.1012	175.3276	-51.2828	-134.0941
280	175.3276	-51.2828	-134.0941	0.0003	0.8430	-0.0558

ENVOL. MIN. FLECTORES TREN TREN IPF-75 TIPO A en via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.0015	3.1921	0.5141	-25.4784	-11.3259	9.7764
2	-25.4784	-11.3259	9.7764	-50.9631	-11.3254	9.7682
3	-50.9631	-11.3254	9.7682	-76.4496	-11.3276	9.7811
4	-76.4496	-11.3276	9.7811	-101.9420	-11.3281	9.8122
5	-101.9420	-11.3281	9.8122	-127.4272	-11.3326	9.7973
6	-127.4272	-11.3326	9.7973	-152.9305	-11.3377	9.7741
7	-152.9305	-11.3377	9.7741	-178.4428	-11.3386	9.7942
8	-178.4428	-11.3386	9.7942	-203.9779	-11.3406	9.8281
9	-203.9779	-11.3406	9.8281	-229.4996	-11.3407	9.8006
10	-229.4996	-11.3407	9.8006	-255.0213	-11.3464	9.8352
11	-255.0213	-11.3464	9.8352	-280.5649	-11.3484	9.8233
12	-280.5649	-11.3484	9.8233	-306.0844	-11.3461	9.8316
13	-306.0844	-11.3461	9.8316	-331.6091	-11.3391	9.8946
14	-331.6091	-11.3391	9.8946	-357.0999	-11.3335	9.8934
15	-357.0999	-11.3335	9.8934	-382.6104	-11.3386	9.8614
16	-382.6104	-11.3386	9.8614	-408.1275	-11.3385	9.8194
17	-408.1275	-11.3385	9.8194	-433.6308	-11.3386	9.9026
18	-433.6308	-11.3386	9.9026	-459.1374	-11.3414	10.0389
19	-459.1374	-11.3414	10.0389	-484.6500	-11.3410	10.0345
20	-484.6500	-11.3410	10.0345	-510.1528	22.9296	80.7528
21	-510.1528	22.9296	80.7528	-356.5856	8.1366	-7.5854
22	-356.5856	8.1366	-7.5854	-332.1733	8.1358	-7.5557
23	-332.1733	8.1358	-7.5557	-307.7631	8.1363	-7.5548
24	-307.7631	8.1363	-7.5548	-283.3471	8.1365	-7.5537
25	-283.3471	8.1365	-7.5537	-258.9325	8.1341	-7.5528
26	-258.9325	8.1341	-7.5528	-234.5242	8.1321	-7.5188
27	-234.5242	8.1321	-7.5188	-210.1292	8.1335	-7.5155
28	-210.1292	8.1335	-7.5155	-185.7159	8.1364	-7.5207
29	-185.7159	8.1364	-7.5207	-161.3055	8.1404	-7.5194
30	-161.3055	8.1404	-7.5194	-169.1582	-10.4291	7.7144
31	-169.1582	-10.4291	7.7144	-200.4484	-10.4286	7.7447
32	-200.4484	-10.4286	7.7447	-231.7166	-10.4272	7.7758
33	-231.7166	-10.4272	7.7758	-263.0062	-10.4277	7.7379
34	-263.0062	-10.4277	7.7379	-294.2946	-10.4266	7.7636
35	-294.2946	-10.4266	7.7636	-325.5767	-10.4241	7.7532
36	-325.5767	-10.4241	7.7532	-356.8594	-10.4241	7.7277
37	-356.8594	-10.4241	7.7277	-388.1334	-10.4253	7.7253
38	-388.1334	-10.4253	7.7253	-419.4144	-10.4263	7.7314
39	-419.4144	-10.4263	7.7314	-450.6929	-10.4258	7.7269
40	-450.6929	-10.4258	7.7269	-481.9782	23.0833	79.4923
41	-481.9782	23.0833	79.4923	-443.1732	10.1177	-7.8448
42	-443.1732	10.1177	-7.8448	-412.8242	10.1192	-7.8407
43	-412.8242	10.1192	-7.8407	-382.4702	10.1182	-7.9018
44	-382.4702	10.1182	-7.9018	-352.1235	10.1198	-7.8498
45	-352.1235	10.1198	-7.8498	-321.7682	10.1229	-7.8476
46	-321.7682	10.1229	-7.8476	-291.4011	10.1224	-7.8925
47	-291.4011	10.1224	-7.8925	-261.0372	10.1222	-7.9122
48	-261.0372	10.1222	-7.9122	-230.6839	10.1212	-7.9117
49	-230.6839	10.1212	-7.9117	-200.3297	10.1166	-7.8940
50	-200.3297	10.1166	-7.8940	-171.8978	-10.2612	7.7291
51	-171.8978	-10.2612	7.7291	-202.7001	-10.2633	7.7183
52	-202.7001	-10.2633	7.7183	-233.4704	-10.2590	7.7178
53	-233.4704	-10.2590	7.7178	-264.2486	-10.2579	7.7191
54	-264.2486	-10.2579	7.7191	-295.0204	-10.2591	7.6923

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	-295.0204	-10.2591	7.6923	-325.7982	-10.2614	7.6780
56	-325.7982	-10.2614	7.6780	-356.5959	-10.2642	7.6748
57	-356.5959	-10.2642	7.6748	-387.3817	-10.2657	7.6441
58	-387.3817	-10.2657	7.6441	-418.1774	-10.2665	7.6436
59	-418.1774	-10.2665	7.6436	-448.9780	-10.2650	7.5780
60	-448.9780	-10.2650	7.5780	-479.7633	23.1388	79.4225
61	-479.7633	23.1388	79.4225	-448.5210	10.2411	-7.7010
62	-448.5210	10.2411	-7.7010	-417.7921	10.2411	-7.8004
63	-417.7921	10.2411	-7.8004	-387.0740	10.2400	-7.8021
64	-387.0740	10.2400	-7.8021	-356.3491	10.2409	-7.8512
65	-356.3491	10.2409	-7.8512	-325.6224	10.2385	-7.8572
66	-325.6224	10.2385	-7.8572	-294.9183	10.2349	-7.8496
67	-294.9183	10.2349	-7.8496	-264.2062	10.2346	-7.9178
68	-264.2062	10.2346	-7.9178	-233.5046	10.2358	-7.9172
69	-233.5046	10.2358	-7.9172	-202.7905	10.2394	-7.9199
70	-202.7905	10.2394	-7.9199	-172.1468	-10.2446	7.7874
71	-172.1468	-10.2446	7.7874	-202.8890	-10.2473	7.7456
72	-202.8890	-10.2473	7.7456	-233.6222	-10.2470	7.7493
73	-233.6222	-10.2470	7.7493	-264.3547	-10.2465	7.7456
74	-264.3547	-10.2465	7.7456	-295.0934	-10.2477	7.6832
75	-295.0934	-10.2477	7.6832	-325.8343	-10.2486	7.6403
76	-325.8343	-10.2486	7.6403	-356.5785	-10.2486	7.6356
77	-356.5785	-10.2486	7.6356	-387.3308	-10.2470	7.6343
78	-387.3308	-10.2470	7.6343	-418.0769	-10.2484	7.5390
79	-418.0769	-10.2484	7.5390	-448.8199	-10.2480	7.4817
80	-448.8199	-10.2480	7.4817	-479.7043	-24.0146	-81.3611
81	-479.7043	-24.0146	-81.3611	-448.9224	10.2489	-7.5817
82	-448.9224	10.2489	-7.5817	-418.1814	10.2482	-7.6414
83	-418.1814	10.2482	-7.6414	-387.4374	10.2479	-7.7027
84	-387.4374	10.2479	-7.7027	-356.6970	10.2473	-7.7313
85	-356.6970	10.2473	-7.7313	-325.9586	10.2466	-7.7816
86	-325.9586	10.2466	-7.7816	-295.2023	10.2477	-7.8249
87	-295.2023	10.2477	-7.8249	-264.4597	10.2490	-7.8889
88	-264.4597	10.2490	-7.8889	-233.7081	10.2472	-7.8937
89	-233.7081	10.2472	-7.8937	-202.9704	10.2470	-7.9063
90	-202.9704	10.2470	-7.9063	-172.2311	10.2476	-7.9797
91	-172.2311	10.2476	-7.9797	-202.8705	-10.2453	7.7678
92	-202.8705	-10.2453	7.7678	-233.6149	-10.2450	7.7653
93	-233.6149	-10.2450	7.7653	-264.3475	-10.2435	7.7233
94	-264.3475	-10.2435	7.7233	-295.0655	-10.2386	7.6797
95	-295.0655	-10.2386	7.6797	-325.7901	-10.2393	7.6352
96	-325.7901	-10.2393	7.6352	-356.5239	-10.2422	7.5541
97	-356.5239	-10.2422	7.5541	-387.2472	-10.2419	7.5028
98	-387.2472	-10.2419	7.5028	-417.9766	-10.2443	7.4425
99	-417.9766	-10.2443	7.4425	-448.7217	-10.2434	7.4093
100	-448.7217	-10.2434	7.4093	-479.7169	-24.0191	-81.2861
101	-479.7169	-24.0191	-81.2861	-448.9658	10.2477	-7.5381
102	-448.9658	10.2477	-7.5381	-418.2261	10.2484	-7.5340
103	-418.2261	10.2484	-7.5340	-387.4769	10.2495	-7.6835
104	-387.4769	10.2495	-7.6835	-356.7238	10.2508	-7.7729
105	-356.7238	10.2508	-7.7729	-325.9669	10.2503	-7.7737
106	-325.9669	10.2503	-7.7737	-295.2214	10.2517	-7.8406
107	-295.2214	10.2517	-7.8406	-264.4710	10.2509	-7.9255
108	-264.4710	10.2509	-7.9255	-233.7187	10.2481	-7.9605
109	-233.7187	10.2481	-7.9605	-202.9732	10.2510	-7.9817

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	-202.9732	10.2510	-7.9817	-172.2177	10.2478	-8.0202
111	-172.2177	10.2478	-8.0202	-202.8749	-10.2458	7.7674
112	-202.8749	-10.2458	7.7674	-233.5919	-10.2416	7.7678
113	-233.5919	-10.2416	7.7678	-264.3115	-10.2415	7.6910
114	-264.3115	-10.2415	7.6910	-295.0481	-10.2465	7.6341
115	-295.0481	-10.2465	7.6341	-325.7899	-10.2498	7.5529
116	-325.7899	-10.2498	7.5529	-356.5510	-10.2516	7.5094
117	-356.5510	-10.2516	7.5094	-387.3118	-10.2518	7.4472
118	-387.3118	-10.2518	7.4472	-418.0722	-10.2499	7.3606
119	-418.0722	-10.2499	7.3606	-448.8191	-10.2509	7.2190
120	-448.8191	-10.2509	7.2190	-479.6055	23.1539	78.9653
121	-479.6055	23.1539	78.9653	-448.7953	10.2369	-7.3984
122	-448.7953	10.2369	-7.3984	-418.0846	10.2358	-7.4986
123	-418.0846	10.2358	-7.4986	-387.3782	10.2367	-7.6150
124	-387.3782	10.2367	-7.6150	-356.6570	10.2355	-7.6995
125	-356.6570	10.2355	-7.6995	-325.9451	10.2344	-7.7275
126	-325.9451	10.2344	-7.7275	-295.2258	10.2359	-7.7936
127	-295.2258	10.2359	-7.7936	-264.4979	10.2407	-7.8998
128	-264.4979	10.2407	-7.8998	-233.7582	10.2454	-7.9710
129	-233.7582	10.2454	-7.9710	-203.0062	10.2453	-8.0051
130	-203.0062	10.2453	-8.0051	-172.2555	10.2467	-8.0171
131	-172.2555	10.2467	-8.0171	-202.8436	-10.2366	7.8017
132	-202.8436	-10.2366	7.8017	-233.5594	-10.2353	7.7182
133	-233.5594	-10.2353	7.7182	-264.2678	-10.2376	7.6270
134	-264.2678	-10.2376	7.6270	-294.9880	-10.2372	7.5858
135	-294.9880	-10.2372	7.5858	-325.7001	-10.2367	7.5570
136	-325.7001	-10.2367	7.5570	-356.4196	-10.2435	7.4256
137	-356.4196	-10.2435	7.4256	-387.1545	-10.2443	7.3271
138	-387.1545	-10.2443	7.3271	-417.8812	-10.2427	7.2912
139	-417.8812	-10.2427	7.2912	-448.6086	-10.2423	7.0898
140	-448.6086	-10.2423	7.0898	-479.6144	-24.0170	-80.9672
141	-479.6144	-24.0170	-80.9672	-448.9033	10.2488	-7.2356
142	-448.9033	10.2488	-7.2356	-418.1482	10.2487	-7.4367
143	-418.1482	10.2487	-7.4367	-387.4094	10.2496	-7.4952
144	-387.4094	10.2496	-7.4952	-356.6425	10.2493	-7.6290
145	-356.6425	10.2493	-7.6290	-325.9075	10.2459	-7.7131
146	-325.9075	10.2459	-7.7131	-295.1678	10.2442	-7.7519
147	-295.1678	10.2442	-7.7519	-264.4329	10.2439	-7.8815
148	-264.4329	10.2439	-7.8815	-233.6935	10.2453	-7.9787
149	-233.6935	10.2453	-7.9787	-202.9511	10.2448	-8.0096
150	-202.9511	10.2448	-8.0096	-172.2068	10.2492	-8.0527
151	-172.2068	10.2492	-8.0527	-202.8484	-10.2432	7.8658
152	-202.8484	-10.2432	7.8658	-233.5779	-10.2433	7.7804
153	-233.5779	-10.2433	7.7804	-264.3051	-10.2421	7.6932
154	-264.3051	-10.2421	7.6932	-295.0432	-10.2423	7.6508
155	-295.0432	-10.2423	7.6508	-325.7855	-10.2434	7.5780
156	-325.7855	-10.2434	7.5780	-356.5209	-10.2464	7.4139
157	-356.5209	-10.2464	7.4139	-387.2628	-10.2477	7.2824
158	-387.2628	-10.2477	7.2824	-417.9976	-10.2453	7.2230
159	-417.9976	-10.2453	7.2230	-448.7325	-10.2426	7.1249
160	-448.7325	-10.2426	7.1249	-479.4783	-24.0212	-80.8968
161	-479.4783	-24.0212	-80.8968	-448.7330	10.2350	-7.2448
162	-448.7330	10.2350	-7.2448	-418.0345	10.2367	-7.3441
163	-418.0345	10.2367	-7.3441	-387.3172	10.2383	-7.4929
164	-387.3172	10.2383	-7.4929	-356.5993	10.2389	-7.5807

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	-356.5993	10.2389	-7.5807	-325.8737	10.2407	-7.7020
166	-325.8737	10.2407	-7.7020	-295.1479	10.2407	-7.8225
167	-295.1479	10.2407	-7.8225	-264.4289	10.2424	-7.8240
168	-264.4289	10.2424	-7.8240	-233.6830	10.2472	-7.9116
169	-233.6830	10.2472	-7.9116	-202.9418	10.2479	-8.0147
170	-202.9418	10.2479	-8.0147	-172.2151	10.2460	-8.0816
171	-172.2151	10.2460	-8.0816	-202.8572	-10.2392	7.7877
172	-202.8572	-10.2392	7.7877	-233.5833	-10.2411	7.7688
173	-233.5833	-10.2411	7.7688	-264.3004	-10.2386	7.6508
174	-264.3004	-10.2386	7.6508	-295.0090	-10.2355	7.5799
175	-295.0090	-10.2355	7.5799	-325.7297	-10.2347	7.5024
176	-325.7297	-10.2347	7.5024	-356.4343	-10.2388	7.3807
177	-356.4343	-10.2388	7.3807	-387.1685	-10.2420	7.2933
178	-387.1685	-10.2420	7.2933	-417.8774	-10.2416	7.1425
179	-417.8774	-10.2416	7.1425	-448.6090	-10.2405	7.0233
180	-448.6090	-10.2405	7.0233	-479.6122	-24.0192	-80.9065
181	-479.6122	-24.0192	-80.9065	-448.8595	10.2463	-7.2463
182	-448.8595	10.2463	-7.2463	-418.1220	10.2476	-7.4017
183	-418.1220	10.2476	-7.4017	-387.3721	10.2472	-7.5580
184	-387.3721	10.2472	-7.5580	-356.6295	10.2455	-7.6079
185	-356.6295	10.2455	-7.6079	-325.8839	10.2465	-7.6876
186	-325.8839	10.2465	-7.6876	-295.1412	10.2472	-7.8225
187	-295.1412	10.2472	-7.8225	-264.4027	10.2451	-7.9322
188	-264.4027	10.2451	-7.9322	-233.6790	10.2429	-7.9688
189	-233.6790	10.2429	-7.9688	-202.9520	10.2423	-8.0490
190	-202.9520	10.2423	-8.0490	-172.2177	10.2419	-8.0913
191	-172.2177	10.2419	-8.0913	-202.8905	-10.2415	7.8019
192	-202.8905	-10.2415	7.8019	-233.6357	-10.2404	7.7277
193	-233.6357	-10.2404	7.7277	-264.3591	-10.2360	7.7038
194	-264.3591	-10.2360	7.7038	-295.0627	-10.2351	7.5933
195	-295.0627	-10.2351	7.5933	-325.7752	-10.2366	7.4795
196	-325.7752	-10.2366	7.4795	-356.4869	-10.2364	7.3990
197	-356.4869	-10.2364	7.3990	-387.2028	-10.2360	7.2588
198	-387.2028	-10.2360	7.2588	-417.9122	-10.2362	7.1114
199	-417.9122	-10.2362	7.1114	-448.6174	-10.2364	7.0510
200	-448.6174	-10.2364	7.0510	-479.6224	-24.0227	-80.8815
201	-479.6224	-24.0227	-80.8815	-448.8643	10.2479	-7.3159
202	-448.8643	10.2479	-7.3159	-418.1265	10.2473	-7.3582
203	-418.1265	10.2473	-7.3582	-387.3911	10.2445	-7.4722
204	-387.3911	10.2445	-7.4722	-356.6506	10.2430	-7.6128
205	-356.6506	10.2430	-7.6128	-325.9169	10.2439	-7.7158
206	-325.9169	10.2439	-7.7158	-295.1894	10.2442	-7.8335
207	-295.1894	10.2442	-7.8335	-264.4634	10.2432	-7.8753
208	-264.4634	10.2432	-7.8753	-233.7439	10.2452	-7.9587
209	-233.7439	10.2452	-7.9587	-202.9972	10.2473	-8.0420
210	-202.9972	10.2473	-8.0420	-172.2498	10.2493	-8.0808
211	-172.2498	10.2493	-8.0808	-202.6566	-10.2303	7.8524
212	-202.6566	-10.2303	7.8524	-233.3400	-10.2304	7.7639
213	-233.3400	-10.2304	7.7639	-264.0301	-10.2261	7.6767
214	-264.0301	-10.2261	7.6767	-294.7133	-10.2213	7.6069
215	-294.7133	-10.2213	7.6069	-325.3830	-10.2216	7.5402
216	-325.3830	-10.2216	7.5402	-356.0641	-10.2240	7.4066
217	-356.0641	-10.2240	7.4066	-386.7396	-10.2212	7.2748
218	-386.7396	-10.2212	7.2748	-417.3994	-10.2197	7.2171
219	-417.3994	-10.2197	7.2171	-448.0666	-10.2212	7.0542

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	-448.0666	-10.2212	7.0542	-479.8802	-24.0196	-80.8800
221	-479.8802	-24.0196	-80.8800	-449.0587	10.2626	-7.1868
222	-449.0587	10.2626	-7.1868	-418.2679	10.2632	-7.3071
223	-418.2679	10.2632	-7.3071	-387.4725	10.2621	-7.4560
224	-387.4725	10.2621	-7.4560	-356.6839	10.2621	-7.5800
225	-356.6839	10.2621	-7.5800	-325.8995	10.2622	-7.7022
226	-325.8995	10.2622	-7.7022	-295.1060	10.2611	-7.7956
227	-295.1060	10.2611	-7.7956	-264.3076	10.2626	-7.8545
228	-264.3076	10.2626	-7.8545	-233.5161	10.2631	-7.9339
229	-233.5161	10.2631	-7.9339	-202.7325	10.2619	-7.9961
230	-202.7325	10.2619	-7.9961	-171.9276	10.2613	-8.0676
231	-171.9276	10.2613	-8.0676	-199.9771	-10.0982	7.8350
232	-199.9771	-10.0982	7.8350	-230.2754	-10.1012	7.7703
233	-230.2754	-10.1012	7.7703	-260.5919	-10.1058	7.6805
234	-260.5919	-10.1058	7.6805	-290.9064	-10.1061	7.5768
235	-290.9064	-10.1061	7.5768	-321.2239	-10.1012	7.5106
236	-321.2239	-10.1012	7.5106	-351.5172	-10.0967	7.4255
237	-351.5172	-10.0967	7.4255	-381.8168	-10.0956	7.2389
238	-381.8168	-10.0956	7.2389	-412.1111	-10.0974	7.1519
239	-412.1111	-10.0974	7.1519	-442.4053	-10.0989	7.0894
240	-442.4053	-10.0989	7.0894	-481.9539	-23.9527	-80.8431
241	-481.9539	-23.9527	-80.8431	-450.6525	10.4251	-7.2420
242	-450.6525	10.4251	-7.2420	-419.3649	10.4261	-7.3677
243	-419.3649	10.4261	-7.3677	-388.0799	10.4267	-7.4909
244	-388.0799	10.4267	-7.4909	-356.7975	10.4302	-7.6333
245	-356.7975	10.4302	-7.6333	-325.4910	10.4297	-7.7097
246	-325.4910	10.4297	-7.7097	-294.2173	10.4236	-7.8245
247	-294.2173	10.4236	-7.8245	-262.9332	10.4257	-7.9135
248	-262.9332	10.4257	-7.9135	-231.6438	10.4261	-7.9312
249	-231.6438	10.4261	-7.9312	-200.3797	10.4256	-8.0259
250	-200.3797	10.4256	-8.0259	-169.1042	10.4254	-8.1000
251	-169.1042	10.4254	-8.1000	-161.3844	-8.1457	7.3728
252	-161.3844	-8.1457	7.3728	-185.8351	-8.1488	7.3093
253	-185.8351	-8.1488	7.3093	-210.2856	-8.1474	7.2167
254	-210.2856	-8.1474	7.2167	-234.7269	-8.1456	7.1666
255	-234.7269	-8.1456	7.1666	-259.1569	-8.1425	7.1350
256	-259.1569	-8.1425	7.1350	-283.5920	-8.1418	7.0332
257	-283.5920	-8.1418	7.0332	-308.0231	-8.1427	6.9694
258	-308.0231	-8.1427	6.9694	-332.4584	-8.1428	6.8472
259	-332.4584	-8.1428	6.8472	-356.8958	-8.1446	6.7215
260	-356.8958	-8.1446	6.7215	-509.7805	-23.8113	-82.0278
261	-509.7805	-23.8113	-82.0278	-484.3069	11.3042	-9.3573
262	-484.3069	11.3042	-9.3573	-458.8765	11.3051	-9.4462
263	-458.8765	11.3051	-9.4462	-433.4319	11.3049	-9.6131
264	-433.4319	11.3049	-9.6131	-407.9901	11.2974	-9.6658
265	-407.9901	11.2974	-9.6658	-382.5817	11.2990	-9.7806
266	-382.5817	11.2990	-9.7806	-357.1418	11.3062	-9.8586
267	-357.1418	11.3062	-9.8586	-331.7137	11.3064	-9.8976
268	-331.7137	11.3064	-9.8976	-306.2545	11.3081	-10.0554
269	-306.2545	11.3081	-10.0554	-280.7859	11.3198	-10.1154
270	-280.7859	11.3198	-10.1154	-255.2831	11.3286	-10.1172
271	-255.2831	11.3286	-10.1172	-229.7859	11.3350	-10.1869
272	-229.7859	11.3350	-10.1869	-204.2629	11.3434	-10.2558
273	-204.2629	11.3434	-10.2558	-178.7400	11.3489	-10.2891
274	-178.7400	11.3489	-10.2891	-153.2041	11.3495	-10.3249

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	-153.2041	11.3495	-10.3249	-127.6729	11.3487	-10.3409
276	-127.6729	11.3487	-10.3409	-102.1383	11.3496	-10.3747
277	-102.1383	11.3496	-10.3747	-76.6048	11.3478	-10.3923
278	-76.6048	11.3478	-10.3923	-51.0650	11.3475	-10.4089
279	-51.0650	11.3475	-10.4089	-25.5367	11.3465	-10.4222
280	-25.5367	11.3465	-10.4222	-0.1227	-81.2829	-218.2043

ENVOL. MAX. CORTANTES TREN TREN IPF-75 TIPO A en via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0080	83.7554	223.4977	177.2772	78.7891	213.6055
2	177.2772	78.7891	213.6055	332.2695	73.8446	203.7870
3	332.2695	73.8446	203.7870	465.3555	68.9407	193.7881
4	465.3555	68.9407	193.7881	533.8405	59.3072	173.7586
5	533.8405	59.3072	173.7586	614.2056	54.6016	163.9424
6	614.2056	54.6016	163.9424	674.5203	49.9807	154.1415
7	674.5203	49.9807	154.1415	715.6283	45.4704	144.1213
8	715.6283	45.4704	144.1213	738.3976	41.0445	134.0756
9	738.3976	41.0445	134.0756	743.6162	36.7341	124.2594
10	743.6162	36.7341	124.2594	732.4597	32.5901	114.2287
11	732.4597	32.5901	114.2287	706.1905	28.5542	104.3437
12	706.1905	28.5542	104.3437	565.9199	20.9632	84.4917
13	565.9199	20.9632	84.4917	510.0903	17.4394	74.4855
14	510.0903	17.4394	74.4855	444.3226	14.1061	64.5757
15	444.3226	14.1061	64.5757	370.4533	10.9805	54.7124
16	370.4533	10.9805	54.7124	290.1896	8.0625	44.8316
17	290.1896	8.0625	44.8316	205.2773	5.3671	35.2001
18	205.2773	5.3671	35.2001	129.4091	3.1964	0.4401
19	129.4091	3.1964	0.4401	136.5987	3.1958	0.4413
20	136.5987	3.1958	0.4413	-150.4097	41.5684	121.6126
21	-150.4097	41.5684	121.6126	26.7640	84.2612	221.4521
22	26.7640	84.2612	221.4521	126.3475	79.2785	206.2797
23	126.3475	79.2785	206.2797	291.9819	76.5168	198.4776
24	291.9819	76.5168	198.4776	381.4554	70.5376	182.8757
25	381.4554	70.5376	182.8757	523.2957	67.3475	175.0704
26	523.2957	67.3475	175.0704	582.9877	60.6686	159.3518
27	582.9877	60.6686	159.3518	691.0773	57.1989	151.5747
28	691.0773	57.1989	151.5747	707.4881	50.1096	135.9345
29	707.4881	50.1096	135.9345	775.9012	46.5177	128.1524
30	775.9012	46.5177	128.1524	742.2977	39.3046	112.6505
31	742.2977	39.3046	112.6505	769.1115	35.7324	104.7075
32	769.1115	35.7324	104.7075	685.7267	28.7242	89.0056
33	685.7267	28.7242	89.0056	673.0520	25.3182	81.3124
34	673.0520	25.3182	81.3124	546.5079	18.8004	65.6361
35	546.5079	18.8004	65.6361	500.5952	15.7167	57.8553
36	500.5952	15.7167	57.8553	344.4870	9.9907	42.2738
37	344.4870	9.9907	42.2738	34.0741	8.1408	-7.5143
38	34.0741	8.1408	-7.5143	58.4973	8.1404	-7.5178
39	58.4973	8.1404	-7.5178	82.9186	8.1411	-7.5148
40	82.9186	8.1411	-7.5148	-142.1625	41.6166	119.9052
41	-142.1625	41.6166	119.9052	38.4450	83.9928	221.2206
42	38.4450	83.9928	221.2206	143.1151	78.8631	206.0749
43	143.1151	78.8631	206.0749	309.5780	76.0468	198.2799
44	309.5780	76.0468	198.2799	400.4902	69.9790	182.5540
45	400.4902	69.9790	182.5540	541.4639	66.7629	174.7724
46	541.4639	66.7629	174.7724	600.0851	60.0524	159.2221
47	600.0851	60.0524	159.2221	706.3837	56.5854	151.4767
48	706.3837	56.5854	151.4767	720.4719	49.5173	135.8203
49	720.4719	49.5173	135.8203	786.7969	45.9391	127.9599
50	786.7969	45.9391	127.9599	750.7327	38.8023	112.4747
51	750.7327	38.8023	112.4747	775.6058	35.2529	104.7164
52	775.6058	35.2529	104.7164	689.9543	28.3131	89.0872
53	689.9543	28.3131	89.0872	675.8057	24.9538	81.2714

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	675.8057	24.9538	81.2714	547.7965	18.5226	65.7093
55	547.7965	18.5226	65.7093	500.9435	15.4789	57.9169
56	500.9435	15.4789	57.9169	12.0991	10.1143	-7.9392
57	12.0991	10.1143	-7.9392	42.4390	10.1136	-7.9380
58	42.4390	10.1136	-7.9380	72.7760	10.1124	-7.9385
59	72.7760	10.1124	-7.9385	103.1113	10.1124	-7.9230
60	103.1113	10.1124	-7.9230	-141.4622	41.6331	119.8517
61	-141.4622	41.6331	119.8517	39.3484	83.9716	221.1956
62	39.3484	83.9716	221.1956	144.4057	78.8297	205.9911
63	144.4057	78.8297	205.9911	310.9053	76.0085	198.1321
64	310.9053	76.0085	198.1321	401.8649	69.9422	182.5674
65	401.8649	69.9422	182.5674	542.7972	66.7277	174.6779
66	542.7972	66.7277	174.6779	601.4233	60.0190	159.0721
67	601.4233	60.0190	159.0721	707.5841	56.5511	151.3790
68	707.5841	56.5511	151.3790	721.6155	49.4792	135.7223
69	721.6155	49.4792	135.7223	787.7599	45.9036	127.8975
70	787.7599	45.9036	127.8975	751.4937	38.7559	112.3975
71	751.4937	38.7559	112.3975	776.1688	35.2128	104.7497
72	776.1688	35.2128	104.7497	690.3262	28.2811	89.0878
73	690.3262	28.2811	89.0878	676.0781	24.9314	81.2704
74	676.0781	24.9314	81.2704	547.9304	18.4988	65.7743
75	547.9304	18.4988	65.7743	501.0206	15.4592	58.0112
76	501.0206	15.4592	58.0112	12.2302	10.2365	-8.0021
77	12.2302	10.2365	-8.0021	42.9399	10.2362	-8.0038
78	42.9399	10.2362	-8.0038	73.6529	10.2372	-7.9883
79	73.6529	10.2372	-7.9883	104.3659	10.2379	-7.9797
80	104.3659	10.2379	-7.9797	-141.4011	41.6351	119.8337
81	-141.4011	41.6351	119.8337	39.4585	83.9694	221.1047
82	39.4585	83.9694	221.1047	144.5312	78.8283	205.8651
83	144.5312	78.8283	205.8651	311.0888	76.0101	198.0223
84	311.0888	76.0101	198.0223	402.0972	69.9389	182.3604
85	402.0972	69.9389	182.3604	542.9685	66.7240	174.5783
86	542.9685	66.7240	174.5783	601.5881	60.0125	158.9918
87	601.5881	60.0125	158.9918	707.6932	56.5365	151.3239
88	707.6932	56.5365	151.3239	721.7305	49.4636	135.6209
89	721.7305	49.4636	135.6209	787.8513	45.8974	127.8878
90	787.8513	45.8974	127.8878	751.5322	38.7582	112.5341
91	751.5322	38.7582	112.5341	776.1918	35.2150	104.7292
92	776.1918	35.2150	104.7292	690.4225	28.2861	89.0746
93	690.4225	28.2861	89.0746	676.1179	24.9174	81.3657
94	676.1179	24.9174	81.3657	547.9951	18.4986	65.7865
95	547.9951	18.4986	65.7865	501.0750	15.4576	58.0263
96	501.0750	15.4576	58.0263	12.2354	10.2476	-8.0228
97	12.2354	10.2476	-8.0228	42.9809	10.2474	-8.0211
98	42.9809	10.2474	-8.0211	73.7297	10.2478	-8.0110
99	73.7297	10.2478	-8.0110	104.4783	10.2481	-8.0062
100	104.4783	10.2481	-8.0062	-141.4116	41.6363	119.8088
101	-141.4116	41.6363	119.8088	39.4508	83.9697	221.0234
102	39.4508	83.9697	221.0234	144.6078	78.8260	205.7410
103	144.6078	78.8260	205.7410	311.1304	76.0056	197.9870
104	311.1304	76.0056	197.9870	402.0630	69.9351	182.3172
105	402.0630	69.9351	182.3172	542.9939	66.7220	174.4541
106	542.9939	66.7220	174.4541	601.5573	60.0102	158.9260
107	601.5573	60.0102	158.9260	707.6593	56.5492	151.2582
108	707.6593	56.5492	151.2582	721.6794	49.4658	135.6810

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
109	721.6794	49.4658	135.6810	787.8004	45.8814	127.8967
110	787.8004	45.8814	127.8967	751.5145	38.7587	112.4301
111	751.5145	38.7587	112.4301	776.1487	35.2057	104.7483
112	776.1487	35.2057	104.7483	690.3625	28.2787	89.0594
113	690.3625	28.2787	89.0594	676.0101	24.9133	81.4375
114	676.0101	24.9133	81.4375	547.9515	18.5056	65.8646
115	547.9515	18.5056	65.8646	501.0359	15.4632	58.1434
116	501.0359	15.4632	58.1434	12.2473	10.2430	-8.1132
117	12.2473	10.2430	-8.1132	42.9779	10.2432	-8.1034
118	42.9779	10.2432	-8.1034	73.7193	10.2438	-8.0963
119	73.7193	10.2438	-8.0963	104.4514	10.2444	-8.0626
120	104.4514	10.2444	-8.0626	-141.4087	41.6367	119.7267
121	-141.4087	41.6367	119.7267	39.4520	83.9744	221.0027
122	39.4520	83.9744	221.0027	144.5301	78.8382	205.6939
123	144.5301	78.8382	205.6939	311.0947	76.0185	197.8820
124	311.0947	76.0185	197.8820	402.1481	69.9500	182.1969
125	402.1481	69.9500	182.1969	543.1285	66.7284	174.3468
126	543.1285	66.7284	174.3468	601.7568	60.0198	158.7883
127	601.7568	60.0198	158.7883	707.8615	56.5470	151.1722
128	707.8615	56.5470	151.1722	721.8279	49.4715	135.6803
129	721.8279	49.4715	135.6803	787.9279	45.8883	127.9256
130	787.9279	45.8883	127.9256	751.6401	38.7397	112.2854
131	751.6401	38.7397	112.2854	776.2697	35.2071	104.6160
132	776.2697	35.2071	104.6160	690.4505	28.2728	89.2155
133	690.4505	28.2728	89.2155	676.0885	24.9163	81.6097
134	676.0885	24.9163	81.6097	547.9365	18.4963	65.9474
135	547.9365	18.4963	65.9474	501.0390	15.4619	58.1234
136	501.0390	15.4619	58.1234	12.2527	10.2486	-8.1500
137	12.2527	10.2486	-8.1500	42.9979	10.2479	-8.1457
138	42.9979	10.2479	-8.1457	73.7481	10.2483	-8.1392
139	73.7481	10.2483	-8.1392	104.4885	10.2472	-8.0941
140	104.4885	10.2472	-8.0941	-141.2982	41.6361	119.6794
141	-141.2982	41.6361	119.6794	39.5229	83.9682	220.9750
142	39.5229	83.9682	220.9750	144.5986	78.8224	205.6075
143	144.5986	78.8224	205.6075	311.0878	76.0022	197.7245
144	311.0878	76.0022	197.7245	402.0756	69.9384	182.1095
145	402.0756	69.9384	182.1095	542.9497	66.7160	174.2842
146	542.9497	66.7160	174.2842	601.5767	60.0112	158.6333
147	601.5767	60.0112	158.6333	707.7264	56.5480	151.0810
148	707.7264	56.5480	151.0810	721.6688	49.4688	135.6259
149	721.6688	49.4688	135.6259	787.7893	45.8862	127.8624
150	787.7893	45.8862	127.8624	751.5048	38.7541	112.3284
151	751.5048	38.7541	112.3284	776.1503	35.2106	104.6391
152	776.1503	35.2106	104.6391	690.3541	28.2822	89.2231
153	690.3541	28.2822	89.2231	676.0231	24.9239	81.5848
154	676.0231	24.9239	81.5848	547.9154	18.4993	65.9166
155	547.9154	18.4993	65.9166	501.0503	15.4658	58.1630
156	501.0503	15.4658	58.1630	12.2410	10.2451	-8.1868
157	12.2410	10.2451	-8.1868	42.9772	10.2444	-8.1823
158	42.9772	10.2444	-8.1823	73.7076	10.2443	-8.1714
159	73.7076	10.2443	-8.1714	104.4502	10.2454	-8.1523
160	104.4502	10.2454	-8.1523	-141.3595	41.6371	119.7017
161	-141.3595	41.6371	119.7017	39.5238	83.9726	220.8978
162	39.5238	83.9726	220.8978	144.6358	78.8358	205.5241
163	144.6358	78.8358	205.5241	311.1832	76.0112	197.7130

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
164	311.1832	76.0112	197.7130	402.1844	69.9408	181.9669
165	402.1844	69.9408	181.9669	543.0946	66.7263	174.3081
166	543.0946	66.7263	174.3081	601.6252	60.0144	158.7141
167	601.6252	60.0144	158.7141	707.8453	56.5418	150.8265
168	707.8453	56.5418	150.8265	721.8257	49.4605	135.4225
169	721.8257	49.4605	135.4225	787.9272	45.8885	127.8942
170	787.9272	45.8885	127.8942	751.6113	38.7546	112.4816
171	751.6113	38.7546	112.4816	776.2480	35.2143	104.8081
172	776.2480	35.2143	104.8081	690.5020	28.2793	89.1564
173	690.5020	28.2793	89.1564	676.1744	24.9258	81.6153
174	676.1744	24.9258	81.6153	547.9993	18.4990	66.0102
175	547.9993	18.4990	66.0102	501.1035	15.4574	58.2535
176	501.1035	15.4574	58.2535	12.2366	10.2462	-8.2090
177	12.2366	10.2462	-8.2090	42.9855	10.2468	-8.2003
178	42.9855	10.2468	-8.2003	73.7193	10.2472	-8.1791
179	73.7193	10.2472	-8.1791	104.4694	10.2463	-8.1552
180	104.4694	10.2463	-8.1552	-141.3201	41.6363	119.6887
181	-141.3201	41.6363	119.6887	39.5190	83.9687	220.8958
182	39.5190	83.9687	220.8958	144.6105	78.8241	205.6151
183	144.6105	78.8241	205.6151	311.0964	76.0027	197.7466
184	311.0964	76.0027	197.7466	402.0623	69.9346	181.9934
185	402.0623	69.9346	181.9934	543.0168	66.7199	174.2000
186	543.0168	66.7199	174.2000	601.5488	60.0051	158.7621
187	601.5488	60.0051	158.7621	707.6610	56.5487	151.1035
188	707.6610	56.5487	151.1035	721.7167	49.4796	135.4790
189	721.7167	49.4796	135.4790	787.8563	45.9077	127.9135
190	787.8563	45.9077	127.9135	751.6153	38.7520	112.3484
191	751.6153	38.7520	112.3484	776.3196	35.2270	104.7944
192	776.3196	35.2270	104.7944	690.5063	28.2885	89.3160
193	690.5063	28.2885	89.3160	676.2354	24.9179	81.5036
194	676.2354	24.9179	81.5036	548.0734	18.4931	65.9987
195	548.0734	18.4931	65.9987	501.1400	15.4572	58.2999
196	501.1400	15.4572	58.2999	12.2185	10.2494	-8.2444
197	12.2185	10.2494	-8.2444	42.9660	10.2495	-8.2328
198	42.9660	10.2495	-8.2328	73.7121	10.2487	-8.2136
199	73.7121	10.2487	-8.2136	104.4648	10.2490	-8.2029
200	104.4648	10.2490	-8.2029	-141.3235	41.6376	119.7084
201	-141.3235	41.6376	119.7084	39.5046	83.9681	220.9256
202	39.5046	83.9681	220.9256	144.6375	78.8260	205.4978
203	144.6375	78.8260	205.4978	311.1291	76.0074	197.6932
204	311.1291	76.0074	197.6932	402.1449	69.9395	182.0013
205	402.1449	69.9395	182.0013	543.0610	66.7257	174.2829
206	543.0610	66.7257	174.2829	601.5961	60.0205	158.7325
207	601.5961	60.0205	158.7325	707.8137	56.5624	150.9354
208	707.8137	56.5624	150.9354	721.8346	49.4726	135.5130
209	721.8346	49.4726	135.5130	787.9238	45.8834	127.8929
210	787.9238	45.8834	127.8929	751.6056	38.7356	112.3616
211	751.6056	38.7356	112.3616	776.2388	35.2085	104.6492
212	776.2388	35.2085	104.6492	690.4006	28.2723	89.2290
213	690.4006	28.2723	89.2290	676.0643	24.9133	81.6008
214	676.0643	24.9133	81.6008	547.9255	18.4897	65.9825
215	547.9255	18.4897	65.9825	500.9952	15.4503	58.2111
216	500.9952	15.4503	58.2111	12.2648	10.2507	-8.2194
217	12.2648	10.2507	-8.2194	43.0223	10.2517	-8.2148
218	43.0223	10.2517	-8.2148	73.7827	10.2531	-8.2041

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
219	73.7827	10.2531	-8.2041	104.5506	10.2530	-8.1691
220	104.5506	10.2530	-8.1691	-141.1971	41.6351	119.6744
221	-141.1971	41.6351	119.6744	39.6587	83.9584	220.8929
222	39.6587	83.9584	220.8929	144.7907	78.8060	205.5016
223	144.7907	78.8060	205.5016	311.3062	75.9805	197.6944
224	311.3062	75.9805	197.6944	402.2289	69.9101	181.9977
225	402.2289	69.9101	181.9977	542.9850	66.6923	174.3132
226	542.9850	66.6923	174.3132	601.4121	59.9620	158.6902
227	601.4121	59.9620	158.6902	707.4132	56.4948	150.9873
228	707.4132	56.4948	150.9873	721.2013	49.4193	135.4626
229	721.2013	49.4193	135.4626	787.0665	45.8356	127.8245
230	787.0665	45.8356	127.8245	750.5837	38.6885	112.4113
231	750.5837	38.6885	112.4113	775.0675	35.1609	104.6755
232	775.0675	35.1609	104.6755	689.1368	28.2382	89.1791
233	689.1368	28.2382	89.1791	674.7644	24.8879	81.5594
234	674.7644	24.8879	81.5594	546.6333	18.4596	66.0395
235	546.6333	18.4596	66.0395	499.7426	15.4254	58.2500
236	499.7426	15.4254	58.2500	12.7414	10.2611	-8.1994
237	12.7414	10.2611	-8.1994	43.5279	10.2604	-8.1860
238	43.5279	10.2604	-8.1860	74.3128	10.2605	-8.1761
239	74.3128	10.2605	-8.1761	105.0965	10.2603	-8.1611
240	105.0965	10.2603	-8.1611	-140.3995	41.6132	119.6843
241	-140.3995	41.6132	119.6843	40.5594	83.8622	220.8987
242	40.5594	83.8622	220.8987	146.0397	78.6312	205.4926
243	146.0397	78.6312	205.4926	312.1761	75.7649	197.6779
244	312.1761	75.7649	197.6779	402.4742	69.5963	181.9962
245	402.4742	69.5963	181.9962	542.3170	66.3354	174.2077
246	542.3170	66.3354	174.2077	599.2561	59.5453	158.6910
247	599.2561	59.5453	158.6910	703.7124	56.0310	150.9727
248	703.7124	56.0310	150.9727	715.5624	48.9114	135.2915
249	715.5624	48.9114	135.2915	779.5807	45.3126	127.8058
250	779.5807	45.3126	127.8058	740.8616	38.1259	112.3291
251	740.8616	38.1259	112.3291	763.4553	34.5680	104.5858
252	763.4553	34.5680	104.5858	675.8190	27.6521	89.1174
253	675.8190	27.6521	89.1174	659.9730	24.3046	81.5544
254	659.9730	24.3046	81.5544	531.5742	17.9278	65.8994
255	531.5742	17.9278	65.8994	484.3232	14.9334	58.0735
256	484.3232	14.9334	58.0735	18.5678	10.4282	-8.2190
257	18.5678	10.4282	-8.2190	49.8478	10.4269	-8.2137
258	49.8478	10.4269	-8.2137	81.1315	10.4266	-8.1842
259	81.1315	10.4266	-8.1842	112.4160	10.4264	-8.1536
260	112.4160	10.4264	-8.1536	-130.3289	41.5620	116.2018
261	-130.3289	41.5620	116.2018	-6.5322	83.3214	211.9146
262	-6.5322	83.3214	211.9146	114.4141	80.5237	202.0240
263	114.4141	80.5237	202.0240	231.1986	77.5051	192.0526
264	231.1986	77.5051	192.0526	342.0317	74.2896	182.0410
265	342.0317	74.2896	182.0410	444.8414	70.8629	172.1835
266	444.8414	70.8629	172.1835	538.1459	67.2433	162.2206
267	538.1459	67.2433	162.2206	620.2965	63.4539	152.3336
268	620.2965	63.4539	152.3336	620.3258	55.4003	132.6941
269	620.3258	55.4003	132.6941	669.8212	51.1367	122.8171
270	669.8212	51.1367	122.8171	703.0708	46.7677	112.8466
271	703.0708	46.7677	112.8466	718.9664	42.2797	103.1339
272	718.9664	42.2797	103.1339	716.5065	37.6838	93.3673
273	716.5065	37.6838	93.3673	694.8393	33.0160	83.5377

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
274	694.8393	33.0160	83.5377	653.2109	28.2596	73.6682
275	653.2109	28.2596	73.6682	591.0389	23.4595	63.7542
276	591.0389	23.4595	63.7542	371.9355	13.6660	43.9058
277	371.9355	13.6660	43.9058	-76.6048	11.3478	-10.3923
278	-76.6048	11.3478	-10.3923	-51.0650	11.3475	-10.4089
279	-51.0650	11.3475	-10.4089	-25.5367	11.3465	-10.4222
280	-25.5367	11.3465	-10.4222	-0.0030	11.3460	-10.4199

ENVOL. MIN. CORTANTES TREN TREN IPF-75 TIPO A en via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0070	-11.3268	9.7767	-25.4784	-11.3259	9.7764
2	-25.4784	-11.3259	9.7764	-50.9631	-11.3254	9.7682
3	-50.9631	-11.3254	9.7682	-76.4496	-11.3276	9.7811
4	-76.4496	-11.3276	9.7811	439.5821	-16.1504	-48.7221
5	439.5821	-16.1504	-48.7221	528.2206	-21.0413	-58.6121
6	528.2206	-21.0413	-58.6121	595.3911	-25.8916	-68.4086
7	595.3911	-25.8916	-68.4086	641.6984	-30.6634	-78.3764
8	641.6984	-30.6634	-78.3764	667.7894	-35.3727	-88.4272
9	667.7894	-35.3727	-88.4272	762.8116	-44.5400	-108.1999
10	762.8116	-44.5400	-108.1999	743.0769	-48.9511	-118.1741
11	743.0769	-48.9511	-118.1741	706.4960	-53.2612	-128.1275
12	706.4960	-53.2612	-128.1275	654.1082	-57.4324	-138.0005
13	654.1082	-57.4324	-138.0005	587.0646	-61.4682	-148.0685
14	587.0646	-61.4682	-148.0685	506.9271	-65.3374	-157.9747
15	506.9271	-65.3374	-157.9747	414.9474	-69.0395	-167.8633
16	414.9474	-69.0395	-167.8633	312.7288	-72.5648	-177.6916
17	312.7288	-72.5648	-177.6916	262.3307	-79.0249	-197.5751
18	262.3307	-79.0249	-197.5751	146.4094	-81.9393	-207.5498
19	146.4094	-81.9393	-207.5498	26.9645	-84.6322	-217.1543
20	26.9645	-84.6322	-217.1543	-95.0537	-42.5452	-118.7765
21	-95.0537	-42.5452	-118.7765	112.4956	-10.4321	7.7417
22	112.4956	-10.4321	7.7417	81.1994	-10.4324	7.7326
23	81.1994	-10.4324	7.7326	49.9016	-10.4321	7.7329
24	49.9016	-10.4321	7.7329	377.0176	-10.7248	-45.9886
25	377.0176	-10.7248	-45.9886	436.0798	-13.4825	-53.7936
26	436.0798	-13.4825	-53.7936	579.6757	-19.4645	-69.4765
27	579.6757	-19.4645	-69.4765	612.4436	-22.6445	-77.2976
28	612.4436	-22.6445	-77.2976	721.9559	-29.3311	-92.8957
29	721.9559	-29.3311	-92.8957	719.2716	-32.8103	-100.7171
30	719.2716	-32.8103	-100.7171	783.0884	-39.9043	-116.1978
31	783.0884	-39.9043	-116.1978	739.8615	-43.5066	-124.1087
32	739.8615	-43.5066	-124.1087	753.1124	-50.7021	-139.8663
33	753.1124	-50.7021	-139.8663	668.5287	-54.2726	-147.5750
34	668.5287	-54.2726	-147.5750	633.0012	-61.2902	-163.1864
35	633.0012	-61.2902	-163.1864	509.9075	-64.6830	-171.0435
36	509.9075	-64.6830	-171.0435	434.3055	-71.1967	-186.5576
37	434.3055	-71.1967	-186.5576	279.9066	-74.2847	-194.3977
38	279.9066	-74.2847	-194.3977	179.4032	-80.0100	-209.9706
39	179.4032	-80.0100	-209.9706	4.6871	-82.6245	-217.6468
40	4.6871	-82.6245	-217.6468	-102.2113	-42.5798	-121.6852
41	-102.2113	-42.5798	-121.6852	105.0583	-10.2579	7.7498
42	105.0583	-10.2579	7.7498	74.2889	-10.2579	7.7459
43	74.2889	-10.2579	7.7459	43.5107	-10.2580	7.7564
44	43.5107	-10.2580	7.7564	391.2726	-11.1377	-46.2292
45	391.2726	-11.1377	-46.2292	450.8788	-13.9585	-54.0608
46	450.8788	-13.9585	-54.0608	595.3387	-20.0172	-69.6115
47	595.3387	-20.0172	-69.6115	627.0399	-23.2332	-77.3764
48	627.0399	-23.2332	-77.3764	735.3872	-29.9499	-92.9861
49	735.3872	-29.9499	-92.9861	730.8655	-33.4050	-100.8697
50	730.8655	-33.4050	-100.8697	792.6405	-40.4777	-116.3864
51	792.6405	-40.4777	-116.3864	747.4651	-44.0554	-124.1194
52	747.4651	-44.0554	-124.1194	758.5459	-51.2089	-139.7513
53	758.5459	-51.2089	-139.7513	672.0772	-54.7584	-147.5513
54	672.0772	-54.7584	-147.5513	634.8854	-61.6821	-163.1425

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	634.8854	-61.6821	-163.1425	510.5444	-65.0423	-170.8899
56	510.5444	-65.0423	-170.8899	433.8985	-71.4808	-186.5394
57	433.8985	-71.4808	-186.5394	278.8707	-74.5143	-194.3147
58	278.8707	-74.5143	-194.3147	178.3006	-80.1592	-209.9516
59	178.3006	-80.1592	-209.9516	3.5533	-82.7350	-217.5986
60	3.5533	-82.7350	-217.5986	-102.7576	-42.5939	-121.6457
61	-102.7576	-42.5939	-121.6457	104.5032	-10.2449	7.8013
62	104.5032	-10.2449	7.8013	73.7631	-10.2446	7.8224
63	73.7631	-10.2446	7.8224	43.0340	-10.2449	7.8250
64	43.0340	-10.2449	7.8250	392.3630	-11.1726	-46.2358
65	392.3630	-11.1726	-46.2358	451.9749	-13.9875	-54.0540
66	451.9749	-13.9875	-54.0540	596.5385	-20.0456	-69.7459
67	596.5385	-20.0456	-69.7459	628.2372	-23.2656	-77.4174
68	628.2372	-23.2656	-77.4174	736.5100	-29.9774	-93.0613
69	736.5100	-29.9774	-93.0613	731.8948	-33.4516	-100.8867
70	731.8948	-33.4516	-100.8867	793.4752	-40.5312	-116.4275
71	793.4752	-40.5312	-116.4275	748.1472	-44.1041	-124.0582
72	748.1472	-44.1041	-124.0582	758.9758	-51.2435	-139.6866
73	758.9758	-51.2435	-139.6866	672.4041	-54.7840	-147.5356
74	672.4041	-54.7840	-147.5356	635.0614	-61.7206	-163.0273
75	635.0614	-61.7206	-163.0273	510.6295	-65.0734	-170.7535
76	510.6295	-65.0734	-170.7535	433.9242	-71.4975	-186.4203
77	433.9242	-71.4975	-186.4203	278.8070	-74.5360	-194.2561
78	278.8070	-74.5360	-194.2561	178.2449	-80.1752	-209.8884
79	178.2449	-80.1752	-209.8884	3.4673	-82.7493	-217.4861
80	3.4673	-82.7493	-217.4861	-102.8125	-42.5965	-121.6331
81	-102.8125	-42.5965	-121.6331	104.4395	-10.2428	7.8438
82	104.4395	-10.2428	7.8438	73.7121	-10.2427	7.8548
83	73.7121	-10.2427	7.8548	42.9771	-10.2436	7.8658
84	42.9771	-10.2436	7.8658	392.4968	-11.1722	-46.3526
85	392.4968	-11.1722	-46.3526	452.1409	-13.9920	-54.1465
86	452.1409	-13.9920	-54.1465	596.6796	-20.0625	-69.7554
87	596.6796	-20.0625	-69.7554	628.3375	-23.2736	-77.4527
88	628.3375	-23.2736	-77.4527	736.5740	-29.9884	-93.1131
89	736.5740	-29.9884	-93.1131	731.9559	-33.4587	-100.9124
90	731.9559	-33.4587	-100.9124	793.5640	-40.5359	-116.2504
91	793.5640	-40.5359	-116.2504	748.2240	-44.1043	-124.0126
92	748.2240	-44.1043	-124.0126	759.0291	-51.2490	-139.7079
93	759.0291	-51.2490	-139.7079	672.5000	-54.7977	-147.4093
94	672.5000	-54.7977	-147.4093	635.1557	-61.7238	-162.9679
95	635.1557	-61.7238	-162.9679	510.6466	-65.0793	-170.7198
96	510.6466	-65.0793	-170.7198	433.9980	-71.5029	-186.2877
97	433.9980	-71.5029	-186.2877	278.8582	-74.5437	-194.0631
98	278.8582	-74.5437	-194.0631	178.2491	-80.1784	-209.7633
99	178.2491	-80.1784	-209.7633	3.4053	-82.7486	-217.4139
100	3.4053	-82.7486	-217.4139	-102.7628	-42.5970	-121.6242
101	-102.7628	-42.5970	-121.6242	104.4311	-10.2435	7.8743
102	104.4311	-10.2435	7.8743	73.7023	-10.2437	7.8699
103	73.7023	-10.2437	7.8699	42.9682	-10.2431	7.8896
104	42.9682	-10.2431	7.8896	392.4970	-11.1735	-46.3474
105	392.4970	-11.1735	-46.3474	452.1104	-13.9930	-54.2095
106	452.1104	-13.9930	-54.2095	596.6812	-20.0676	-69.8120
107	596.6812	-20.0676	-69.8120	628.3379	-23.2800	-77.4718
108	628.3379	-23.2800	-77.4718	736.5507	-29.9941	-93.0542
109	736.5507	-29.9941	-93.0542	731.9230	-33.4659	-100.8257

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	731.9230	-33.4659	-100.8257	793.4822	-40.5337	-116.3434
111	793.4822	-40.5337	-116.3434	748.1854	-44.1084	-123.9839
112	748.1854	-44.1084	-123.9839	758.9707	-51.2565	-139.6783
113	758.9707	-51.2565	-139.6783	672.4333	-54.7934	-147.3322
114	672.4333	-54.7934	-147.3322	634.9988	-61.7112	-162.8183
115	634.9988	-61.7112	-162.8183	510.6364	-65.0619	-170.5686
116	510.6364	-65.0619	-170.5686	433.9543	-71.4903	-186.1642
117	433.9543	-71.4903	-186.1642	278.8849	-74.5309	-194.0359
118	278.8849	-74.5309	-194.0359	178.2622	-80.1691	-209.6718
119	178.2622	-80.1691	-209.6718	3.5575	-82.7426	-217.4015
120	3.5575	-82.7426	-217.4015	-102.6956	-42.5957	-121.5644
121	-102.6956	-42.5957	-121.5644	104.4423	-10.2460	7.8893
122	104.4423	-10.2460	7.8893	73.7077	-10.2469	7.9089
123	73.7077	-10.2469	7.9089	42.9617	-10.2476	7.9257
124	42.9617	-10.2476	7.9257	392.5195	-11.1642	-46.4192
125	392.5195	-11.1642	-46.4192	452.1953	-13.9897	-54.2636
126	452.1953	-13.9897	-54.2636	596.8142	-20.0542	-69.9052
127	596.8142	-20.0542	-69.9052	628.4931	-23.2811	-77.5314
128	628.4931	-23.2811	-77.5314	736.7574	-29.9952	-93.0295
129	736.7574	-29.9952	-93.0295	732.0876	-33.4557	-100.7624
130	732.0876	-33.4557	-100.7624	793.5937	-40.5407	-116.4203
131	793.5937	-40.5407	-116.4203	748.2799	-44.1206	-124.0990
132	748.2799	-44.1206	-124.0990	759.0954	-51.2659	-139.5136
133	759.0954	-51.2659	-139.5136	672.5278	-54.7999	-147.0751
134	672.5278	-54.7999	-147.0751	635.0668	-61.7296	-162.6758
135	635.0668	-61.7296	-162.6758	510.5895	-65.0740	-170.5126
136	510.5895	-65.0740	-170.5126	433.9819	-71.5030	-186.1010
137	433.9819	-71.5030	-186.1010	278.8480	-74.5384	-193.8351
138	278.8480	-74.5384	-193.8351	178.2049	-80.1743	-209.6281
139	178.2049	-80.1743	-209.6281	3.5335	-82.7473	-217.3385
140	3.5335	-82.7473	-217.3385	-102.7131	-42.5957	-121.5181
141	-102.7131	-42.5957	-121.5181	104.4286	-10.2407	7.9698
142	104.4286	-10.2407	7.9698	73.7004	-10.2409	8.0141
143	73.7004	-10.2409	8.0141	42.9813	-10.2411	8.0226
144	42.9813	-10.2411	8.0226	392.4882	-11.1758	-46.4889
145	392.4882	-11.1758	-46.4889	452.1196	-13.9964	-54.2738
146	452.1196	-13.9964	-54.2738	596.6515	-20.0570	-69.9993
147	596.6515	-20.0570	-69.9993	628.3358	-23.2651	-77.5919
148	628.3358	-23.2651	-77.5919	736.5999	-29.9904	-93.0473
149	736.5999	-29.9904	-93.0473	731.9309	-33.4746	-100.7840
150	731.9309	-33.4746	-100.7840	793.4800	-40.5471	-116.3558
151	793.4800	-40.5471	-116.3558	748.1523	-44.1129	-124.0229
152	748.1523	-44.1129	-124.0229	758.9932	-51.2485	-139.4832
153	758.9932	-51.2485	-139.4832	672.4599	-54.7894	-147.0389
154	672.4599	-54.7894	-147.0389	635.0518	-61.7137	-162.7059
155	635.0518	-61.7137	-162.7059	510.6043	-65.0719	-170.4422
156	510.6043	-65.0719	-170.4422	434.0099	-71.4985	-186.0075
157	434.0099	-71.4985	-186.0075	278.9322	-74.5327	-193.7093
158	278.9322	-74.5327	-193.7093	178.3073	-80.1728	-209.5262
159	178.3073	-80.1728	-209.5262	3.4887	-82.7471	-217.2417
160	3.4887	-82.7471	-217.2417	-102.6935	-42.5982	-121.5396
161	-102.6935	-42.5982	-121.5396	104.4337	-10.2455	7.9563
162	104.4337	-10.2455	7.9563	73.6980	-10.2452	7.9759
163	73.6980	-10.2452	7.9759	42.9585	-10.2444	7.9961
164	42.9585	-10.2444	7.9961	392.5552	-11.1716	-46.5658

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	392.5552	-11.1716	-46.5658	452.2029	-13.9935	-54.3124
166	452.2029	-13.9935	-54.3124	596.7625	-20.0576	-69.8720
167	596.7625	-20.0576	-69.8720	628.3942	-23.2827	-77.7593
168	628.3942	-23.2827	-77.7593	736.7201	-29.9983	-93.2724
169	736.7201	-29.9983	-93.2724	732.0790	-33.4636	-100.7807
170	732.0790	-33.4636	-100.7807	793.6364	-40.5333	-116.2081
171	793.6364	-40.5333	-116.2081	748.2744	-44.1083	-123.8288
172	748.2744	-44.1083	-123.8288	759.0834	-51.2540	-139.5132
173	759.0834	-51.2540	-139.5132	672.5881	-54.7929	-147.0680
174	672.5881	-54.7929	-147.0680	635.1399	-61.7229	-162.5616
175	635.1399	-61.7229	-162.5616	510.6595	-65.0826	-170.3571
176	510.6595	-65.0826	-170.3571	434.0226	-71.5057	-185.9209
177	434.0226	-71.5057	-185.9209	278.8424	-74.5390	-193.7563
178	278.8424	-74.5390	-193.7563	178.3493	-80.1749	-209.4902
179	178.3493	-80.1749	-209.4902	3.4922	-82.7471	-217.1924
180	3.4922	-82.7471	-217.1924	-102.7309	-42.5964	-121.5326
181	-102.7309	-42.5964	-121.5326	104.4319	-10.2424	7.9539
182	104.4319	-10.2424	7.9539	73.7029	-10.2421	7.9818
183	73.7029	-10.2421	7.9818	42.9759	-10.2418	8.0087
184	42.9759	-10.2418	8.0087	392.4825	-11.1734	-46.5449
185	392.4825	-11.1734	-46.5449	452.1068	-13.9967	-54.3520
186	452.1068	-13.9967	-54.3520	596.6849	-20.0630	-69.9021
187	596.6849	-20.0630	-69.9021	628.3164	-23.2720	-77.5247
188	628.3164	-23.2720	-77.5247	736.5717	-29.9785	-93.1813
189	736.5717	-29.9785	-93.1813	732.0054	-33.4444	-100.7791
190	732.0054	-33.4444	-100.7791	793.5603	-40.5235	-116.3075
191	793.5603	-40.5235	-116.3075	748.2874	-44.0908	-123.9062
192	748.2874	-44.0908	-123.9062	759.1735	-51.2427	-139.3065
193	759.1735	-51.2427	-139.3065	672.5942	-54.7938	-147.1158
194	672.5942	-54.7938	-147.1158	635.2381	-61.7302	-162.6393
195	635.2381	-61.7302	-162.6393	510.7604	-65.0840	-170.2719
196	510.7604	-65.0840	-170.2719	434.0583	-71.5085	-185.9495
197	434.0583	-71.5085	-185.9495	278.9540	-74.5440	-193.7253
198	278.9540	-74.5440	-193.7253	178.3658	-80.1776	-209.4426
199	178.3658	-80.1776	-209.4426	3.5201	-82.7495	-217.1699
200	3.5201	-82.7495	-217.1699	-102.7388	-42.5969	-121.5396
201	-102.7388	-42.5969	-121.5396	104.3106	-10.2315	7.9926
202	104.3106	-10.2315	7.9926	73.6167	-10.2315	8.0010
203	73.6167	-10.2315	8.0010	42.9251	-10.2321	8.0131
204	42.9251	-10.2321	8.0131	392.5115	-11.1727	-46.5378
205	392.5115	-11.1727	-46.5378	452.1483	-13.9888	-54.3133
206	452.1483	-13.9888	-54.3133	596.7318	-20.0567	-69.8736
207	596.7318	-20.0567	-69.8736	628.3979	-23.2665	-77.6638
208	628.3979	-23.2665	-77.6638	736.7300	-29.9860	-93.1828
209	736.7300	-29.9860	-93.1828	732.0989	-33.4656	-100.7552
210	732.0989	-33.4656	-100.7552	793.5999	-40.5428	-116.3219
211	793.5999	-40.5428	-116.3219	748.2444	-44.1135	-123.9897
212	748.2444	-44.1135	-123.9897	759.0690	-51.2523	-139.4677
213	759.0690	-51.2523	-139.4677	672.4960	-54.8013	-147.0172
214	672.4960	-54.8013	-147.0172	635.0458	-61.7301	-162.6396
215	635.0458	-61.7301	-162.6396	510.5934	-65.0918	-170.3630
216	510.5934	-65.0918	-170.3630	433.9095	-71.5144	-185.9955
217	433.9095	-71.5144	-185.9955	278.7861	-74.5482	-193.7090
218	278.7861	-74.5482	-193.7090	178.1443	-80.1847	-209.5313
219	178.1443	-80.1847	-209.5313	3.3512	-82.7559	-217.2477

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	3.3512	-82.7559	-217.2477	-102.7778	-42.5973	-121.5188
221	-102.7778	-42.5973	-121.5188	102.9420	-10.0970	7.9627
222	102.9420	-10.0970	7.9627	72.6510	-10.0967	7.9874
223	72.6510	-10.0967	7.9874	42.3520	-10.0967	8.0064
224	42.3520	-10.0967	8.0064	392.5867	-11.1920	-46.5460
225	392.5867	-11.1920	-46.5460	452.1757	-14.0135	-54.2958
226	452.1757	-14.0135	-54.2958	596.5682	-20.0942	-69.9039
227	596.5682	-20.0942	-69.9039	628.0702	-23.3137	-77.6542
228	628.0702	-23.3137	-77.6542	736.1746	-30.0389	-93.1836
229	736.1746	-30.0389	-93.1836	731.3789	-33.5051	-100.8475
230	731.3789	-33.5051	-100.8475	792.6227	-40.5858	-116.2634
231	792.6227	-40.5858	-116.2634	747.1355	-44.1646	-123.9674
232	747.1355	-44.1646	-123.9674	757.7971	-51.2929	-139.5110
233	757.7971	-51.2929	-139.5110	671.1140	-54.8256	-147.0809
234	671.1140	-54.8256	-147.0809	633.6373	-61.7533	-162.5842
235	633.6373	-61.7533	-162.5842	509.0701	-65.1148	-170.2963
236	509.0701	-65.1148	-170.2963	432.4525	-71.5461	-186.0164
237	432.4525	-71.5461	-186.0164	277.3566	-74.5804	-193.7094
238	277.3566	-74.5804	-193.7094	176.9796	-80.2079	-209.4484
239	176.9796	-80.2079	-209.4484	2.3525	-82.7728	-217.2159
240	2.3525	-82.7728	-217.2159	-103.2429	-42.5832	-121.5309
241	-103.2429	-42.5832	-121.5309	83.0026	-8.1453	7.4761
242	83.0026	-8.1453	7.4761	58.5591	-8.1454	7.4981
243	58.5591	-8.1454	7.4981	34.1190	-8.1449	7.5110
244	34.1190	-8.1449	7.5110	392.7521	-11.3720	-46.5438
245	392.7521	-11.3720	-46.5438	451.6689	-14.2404	-54.3495
246	451.6689	-14.2404	-54.3495	595.0621	-20.3921	-69.9423
247	595.0621	-20.3921	-69.9423	625.3424	-23.6563	-77.6301
248	625.3424	-23.6563	-77.6301	731.5355	-30.4466	-93.3395
249	731.5355	-30.4466	-93.3395	725.0496	-33.9555	-100.8917
250	725.0496	-33.9555	-100.8917	783.9496	-41.0922	-116.2975
251	783.9496	-41.0922	-116.2975	736.3652	-44.7021	-124.0672
252	736.3652	-44.7021	-124.0672	744.5689	-51.8783	-139.5302
253	744.5689	-51.8783	-139.5302	655.9239	-55.4272	-147.0791
254	655.9239	-55.4272	-147.0791	616.7159	-62.3561	-162.6540
255	616.7159	-62.3561	-162.6540	490.7864	-65.7023	-170.4996
256	490.7864	-65.7023	-170.4996	414.1514	-72.0766	-186.1275
257	414.1514	-72.0766	-186.1275	258.9572	-75.0663	-193.9254
258	258.9572	-75.0663	-193.9254	161.6908	-80.5847	-209.7111
259	161.6908	-80.5847	-209.7111	-10.8933	-83.0778	-217.3613
260	-10.8933	-83.0778	-217.3613	-109.1866	-42.5494	-123.2204
261	-109.1866	-42.5494	-123.2204	136.5211	-3.1878	-0.7147
262	136.5211	-3.1878	-0.7147	129.3507	-3.1873	-0.6895
263	129.3507	-3.1873	-0.6895	156.9456	-4.0957	-30.8802
264	156.9456	-4.0957	-30.8802	240.8001	-6.6740	-40.2178
265	240.8001	-6.6740	-40.2178	422.5183	-12.4920	-60.0678
266	422.5183	-12.4920	-60.0678	496.2049	-15.7192	-69.9913
267	496.2049	-15.7192	-69.9913	561.2035	-19.1499	-79.9464
268	561.2035	-19.1499	-79.9464	615.7610	-22.7745	-89.6356
269	615.7610	-22.7745	-89.6356	658.2263	-26.5643	-99.4812
270	658.2263	-26.5643	-99.4812	687.2551	-30.5318	-109.4658
271	687.2551	-30.5318	-109.4658	701.6318	-34.6378	-119.2393
272	701.6318	-34.6378	-119.2393	699.9462	-38.8933	-128.9762
273	699.9462	-38.8933	-128.9762	751.6926	-47.7366	-148.7809
274	751.6926	-47.7366	-148.7809	706.0681	-52.3273	-158.6007

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	706.0681	-52.3273	-158.6007	640.8780	-56.9830	-168.5284
276	640.8780	-56.9830	-168.5284	555.4816	-61.7344	-178.3431
277	555.4816	-61.7344	-178.3431	449.0794	-66.5544	-188.2327
278	449.0794	-66.5544	-188.2327	321.2920	-71.4211	-198.1544
279	321.2920	-71.4211	-198.1544	171.7097	-76.3358	-208.1113
280	171.7097	-76.3358	-208.1113	-0.1227	-81.2829	-218.2043

ENVOL. MAX. TORSORES TREN TREN IPF-75 TIPO A en via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0080	83.7554	223.4977	177.2772	78.7891	213.6055
2	177.2772	78.7891	213.6055	332.2695	73.8446	203.7870
3	332.2695	73.8446	203.7870	465.3555	68.9407	193.7881
4	465.3555	68.9407	193.7881	533.8405	59.3072	173.7586
5	533.8405	59.3072	173.7586	614.2056	54.6016	163.9424
6	614.2056	54.6016	163.9424	674.5203	49.9807	154.1415
7	674.5203	49.9807	154.1415	715.6283	45.4704	144.1213
8	715.6283	45.4704	144.1213	738.3976	41.0445	134.0756
9	738.3976	41.0445	134.0756	743.6162	36.7341	124.2594
10	743.6162	36.7341	124.2594	732.4597	32.5901	114.2287
11	732.4597	32.5901	114.2287	706.1905	28.5542	104.3437
12	706.1905	28.5542	104.3437	565.9199	20.9632	84.4917
13	565.9199	20.9632	84.4917	510.0903	17.4394	74.4855
14	510.0903	17.4394	74.4855	444.3226	14.1061	64.5757
15	444.3226	14.1061	64.5757	370.4533	10.9805	54.7124
16	370.4533	10.9805	54.7124	290.1896	8.0625	44.8316
17	290.1896	8.0625	44.8316	205.2773	5.3671	35.2001
18	205.2773	5.3671	35.2001	116.8860	2.8853	26.2519
19	116.8860	2.8853	26.2519	25.9915	0.6077	19.0590
20	25.9915	0.6077	19.0590	-150.4097	41.5684	121.6126
21	-150.4097	41.5684	121.6126	26.7640	84.2612	221.4521
22	26.7640	84.2612	221.4521	126.3475	79.2785	206.2797
23	126.3475	79.2785	206.2797	291.9819	76.5168	198.4776
24	291.9819	76.5168	198.4776	381.4554	70.5376	182.8757
25	381.4554	70.5376	182.8757	523.2957	67.3475	175.0704
26	523.2957	67.3475	175.0704	582.9877	60.6686	159.3518
27	582.9877	60.6686	159.3518	691.0773	57.1989	151.5747
28	691.0773	57.1989	151.5747	707.4881	50.1096	135.9345
29	707.4881	50.1096	135.9345	775.9012	46.5177	128.1524
30	775.9012	46.5177	128.1524	742.2977	39.3046	112.6505
31	742.2977	39.3046	112.6505	769.1115	35.7324	104.7075
32	769.1115	35.7324	104.7075	685.7267	28.7242	89.0056
33	685.7267	28.7242	89.0056	673.0520	25.3182	81.3124
34	673.0520	25.3182	81.3124	546.5079	18.8004	65.6361
35	546.5079	18.8004	65.6361	500.5952	15.7167	57.8553
36	500.5952	15.7167	57.8553	344.4870	9.9907	42.2738
37	344.4870	9.9907	42.2738	275.4276	7.3749	34.6474
38	275.4276	7.3749	34.6474	106.8071	2.6634	20.6882
39	106.8071	2.6634	20.6882	24.1712	0.5680	14.9990
40	24.1712	0.5680	14.9990	-142.1625	41.6166	119.9052
41	-142.1625	41.6166	119.9052	38.4450	83.9928	221.2206
42	38.4450	83.9928	221.2206	143.1151	78.8631	206.0749
43	143.1151	78.8631	206.0749	309.5780	76.0468	198.2799
44	309.5780	76.0468	198.2799	400.4902	69.9790	182.5540
45	400.4902	69.9790	182.5540	541.4639	66.7629	174.7724
46	541.4639	66.7629	174.7724	600.0851	60.0524	159.2221
47	600.0851	60.0524	159.2221	706.3837	56.5854	151.4767
48	706.3837	56.5854	151.4767	720.4719	49.5173	135.8203
49	720.4719	49.5173	135.8203	786.7969	45.9391	127.9599
50	786.7969	45.9391	127.9599	750.7327	38.8023	112.4747
51	750.7327	38.8023	112.4747	775.6058	35.2529	104.7164
52	775.6058	35.2529	104.7164	689.9543	28.3131	89.0872
53	689.9543	28.3131	89.0872	675.8057	24.9538	81.2714

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	675.8057	24.9538	81.2714	547.7965	18.5226	65.7093
55	547.7965	18.5226	65.7093	500.9435	15.4789	57.9169
56	500.9435	15.4789	57.9169	344.2601	9.8375	42.2892
57	344.2601	9.8375	42.2892	274.9164	7.2628	34.6718
58	274.9164	7.2628	34.6718	106.5179	2.6223	20.6905
59	106.5179	2.6223	20.6905	24.0832	0.5594	14.9923
60	24.0832	0.5594	14.9923	-141.4622	41.6331	119.8517
61	-141.4622	41.6331	119.8517	39.3484	83.9716	221.1956
62	39.3484	83.9716	221.1956	144.4057	78.8297	205.9911
63	144.4057	78.8297	205.9911	310.9053	76.0085	198.1321
64	310.9053	76.0085	198.1321	401.8649	69.9422	182.5674
65	401.8649	69.9422	182.5674	542.7972	66.7277	174.6779
66	542.7972	66.7277	174.6779	601.4233	60.0190	159.0721
67	601.4233	60.0190	159.0721	707.5841	56.5511	151.3790
68	707.5841	56.5511	151.3790	721.6155	49.4792	135.7223
69	721.6155	49.4792	135.7223	787.7599	45.9036	127.8975
70	787.7599	45.9036	127.8975	751.4937	38.7559	112.3975
71	751.4937	38.7559	112.3975	776.1688	35.2128	104.7497
72	776.1688	35.2128	104.7497	690.3262	28.2811	89.0878
73	690.3262	28.2811	89.0878	676.0781	24.9314	81.2704
74	676.0781	24.9314	81.2704	547.9304	18.4988	65.7743
75	547.9304	18.4988	65.7743	501.0206	15.4592	58.0112
76	501.0206	15.4592	58.0112	344.2480	9.8232	42.3359
77	344.2480	9.8232	42.3359	274.8935	7.2510	34.6834
78	274.8935	7.2510	34.6834	106.4827	2.6182	20.7194
79	106.4827	2.6182	20.7194	24.0517	0.5580	14.9982
80	24.0517	0.5580	14.9982	-141.4011	41.6351	119.8337
81	-141.4011	41.6351	119.8337	39.4585	83.9694	221.1047
82	39.4585	83.9694	221.1047	144.5312	78.8283	205.8651
83	144.5312	78.8283	205.8651	311.0888	76.0101	198.0223
84	311.0888	76.0101	198.0223	402.0972	69.9389	182.3604
85	402.0972	69.9389	182.3604	542.9685	66.7240	174.5783
86	542.9685	66.7240	174.5783	601.5881	60.0125	158.9918
87	601.5881	60.0125	158.9918	707.6932	56.5365	151.3239
88	707.6932	56.5365	151.3239	721.7305	49.4636	135.6209
89	721.7305	49.4636	135.6209	787.8513	45.8974	127.8878
90	787.8513	45.8974	127.8878	751.5322	38.7582	112.5341
91	751.5322	38.7582	112.5341	776.1918	35.2150	104.7292
92	776.1918	35.2150	104.7292	690.4225	28.2861	89.0746
93	690.4225	28.2861	89.0746	676.1179	24.9174	81.3657
94	676.1179	24.9174	81.3657	547.9951	18.4986	65.7865
95	547.9951	18.4986	65.7865	501.0750	15.4576	58.0263
96	501.0750	15.4576	58.0263	344.3041	9.8230	42.4311
97	344.3041	9.8230	42.4311	274.9169	7.2497	34.7923
98	274.9169	7.2497	34.7923	106.4834	2.6178	20.7546
99	106.4834	2.6178	20.7546	24.0947	0.5589	15.0117
100	24.0947	0.5589	15.0117	-141.4116	41.6363	119.8088
101	-141.4116	41.6363	119.8088	39.4508	83.9697	221.0234
102	39.4508	83.9697	221.0234	144.6078	78.8260	205.7410
103	144.6078	78.8260	205.7410	311.1304	76.0056	197.9870
104	311.1304	76.0056	197.9870	402.0630	69.9351	182.3172
105	402.0630	69.9351	182.3172	542.9939	66.7220	174.4541
106	542.9939	66.7220	174.4541	601.5573	60.0102	158.9260
107	601.5573	60.0102	158.9260	707.6593	56.5492	151.2582
108	707.6593	56.5492	151.2582	721.6794	49.4658	135.6810

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
109	721.6794	49.4658	135.6810	787.8004	45.8814	127.8967
110	787.8004	45.8814	127.8967	751.5145	38.7587	112.4301
111	751.5145	38.7587	112.4301	776.1487	35.2057	104.7483
112	776.1487	35.2057	104.7483	690.3625	28.2787	89.0594
113	690.3625	28.2787	89.0594	676.0101	24.9133	81.4375
114	676.0101	24.9133	81.4375	547.9515	18.5056	65.8646
115	547.9515	18.5056	65.8646	501.0359	15.4632	58.1434
116	501.0359	15.4632	58.1434	344.3027	9.8314	42.4576
117	344.3027	9.8314	42.4576	274.9412	7.2583	34.8144
118	274.9412	7.2583	34.8144	106.5590	2.6219	20.7602
119	106.5590	2.6219	20.7602	24.1585	0.5610	15.0114
120	24.1585	0.5610	15.0114	-141.4087	41.6367	119.7267
121	-141.4087	41.6367	119.7267	39.4520	83.9744	221.0027
122	39.4520	83.9744	221.0027	144.5301	78.8382	205.6939
123	144.5301	78.8382	205.6939	311.0947	76.0185	197.8820
124	311.0947	76.0185	197.8820	402.1481	69.9500	182.1969
125	402.1481	69.9500	182.1969	543.1285	66.7284	174.3468
126	543.1285	66.7284	174.3468	601.7568	60.0198	158.7883
127	601.7568	60.0198	158.7883	707.8615	56.5470	151.1722
128	707.8615	56.5470	151.1722	721.8279	49.4715	135.6803
129	721.8279	49.4715	135.6803	787.9279	45.8883	127.9256
130	787.9279	45.8883	127.9256	751.6401	38.7397	112.2854
131	751.6401	38.7397	112.2854	776.2697	35.2071	104.6160
132	776.2697	35.2071	104.6160	690.4505	28.2728	89.2155
133	690.4505	28.2728	89.2155	676.0885	24.9163	81.6097
134	676.0885	24.9163	81.6097	547.9365	18.4963	65.9474
135	547.9365	18.4963	65.9474	501.0390	15.4619	58.1234
136	501.0390	15.4619	58.1234	344.2810	9.8256	42.5313
137	344.2810	9.8256	42.5313	274.8905	7.2509	34.8935
138	274.8905	7.2509	34.8935	106.5480	2.6203	20.7716
139	106.5480	2.6203	20.7716	24.1496	0.5606	15.0124
140	24.1496	0.5606	15.0124	-141.2982	41.6361	119.6794
141	-141.2982	41.6361	119.6794	39.5229	83.9682	220.9750
142	39.5229	83.9682	220.9750	144.5986	78.8224	205.6075
143	144.5986	78.8224	205.6075	311.0878	76.0022	197.7245
144	311.0878	76.0022	197.7245	402.0756	69.9384	182.1095
145	402.0756	69.9384	182.1095	542.9497	66.7160	174.2842
146	542.9497	66.7160	174.2842	601.5767	60.0112	158.6333
147	601.5767	60.0112	158.6333	707.7264	56.5480	151.0810
148	707.7264	56.5480	151.0810	721.6688	49.4688	135.6259
149	721.6688	49.4688	135.6259	787.7893	45.8862	127.8624
150	787.7893	45.8862	127.8624	751.5048	38.7541	112.3284
151	751.5048	38.7541	112.3284	776.1503	35.2106	104.6391
152	776.1503	35.2106	104.6391	690.3541	28.2822	89.2231
153	690.3541	28.2822	89.2231	676.0231	24.9239	81.5848
154	676.0231	24.9239	81.5848	547.9154	18.4993	65.9166
155	547.9154	18.4993	65.9166	501.0503	15.4658	58.1630
156	501.0503	15.4658	58.1630	344.3246	9.8277	42.5890
157	344.3246	9.8277	42.5890	274.9338	7.2547	34.9660
158	274.9338	7.2547	34.9660	106.5085	2.6195	20.8144
159	106.5085	2.6195	20.8144	24.1080	0.5598	15.0281
160	24.1080	0.5598	15.0281	-141.3595	41.6371	119.7017
161	-141.3595	41.6371	119.7017	39.5238	83.9726	220.8978
162	39.5238	83.9726	220.8978	144.6358	78.8358	205.5241
163	144.6358	78.8358	205.5241	311.1832	76.0112	197.7130

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
164	311.1832	76.0112	197.7130	402.1844	69.9408	181.9669
165	402.1844	69.9408	181.9669	543.0946	66.7263	174.3081
166	543.0946	66.7263	174.3081	601.6252	60.0144	158.7141
167	601.6252	60.0144	158.7141	707.8453	56.5418	150.8265
168	707.8453	56.5418	150.8265	721.8257	49.4605	135.4225
169	721.8257	49.4605	135.4225	787.9272	45.8885	127.8942
170	787.9272	45.8885	127.8942	751.6113	38.7546	112.4816
171	751.6113	38.7546	112.4816	776.2480	35.2143	104.8081
172	776.2480	35.2143	104.8081	690.5020	28.2793	89.1564
173	690.5020	28.2793	89.1564	676.1744	24.9258	81.6153
174	676.1744	24.9258	81.6153	547.9993	18.4990	66.0102
175	547.9993	18.4990	66.0102	501.1035	15.4574	58.2535
176	501.1035	15.4574	58.2535	344.3142	9.8223	42.6060
177	344.3142	9.8223	42.6060	274.9632	7.2524	34.9428
178	274.9632	7.2524	34.9428	106.5336	2.6195	20.8288
179	106.5336	2.6195	20.8288	24.1352	0.5603	15.0297
180	24.1352	0.5603	15.0297	-141.3201	41.6363	119.6887
181	-141.3201	41.6363	119.6887	39.5190	83.9687	220.8958
182	39.5190	83.9687	220.8958	144.6105	78.8241	205.6151
183	144.6105	78.8241	205.6151	311.0964	76.0027	197.7466
184	311.0964	76.0027	197.7466	402.0623	69.9346	181.9934
185	402.0623	69.9346	181.9934	543.0168	66.7199	174.2000
186	543.0168	66.7199	174.2000	601.5488	60.0051	158.7621
187	601.5488	60.0051	158.7621	707.6610	56.5487	151.1035
188	707.6610	56.5487	151.1035	721.7167	49.4796	135.4790
189	721.7167	49.4796	135.4790	787.8563	45.9077	127.9135
190	787.8563	45.9077	127.9135	751.6153	38.7520	112.3484
191	751.6153	38.7520	112.3484	776.3196	35.2270	104.7944
192	776.3196	35.2270	104.7944	690.5063	28.2885	89.3160
193	690.5063	28.2885	89.3160	676.2354	24.9179	81.5036
194	676.2354	24.9179	81.5036	548.0734	18.4931	65.9987
195	548.0734	18.4931	65.9987	501.1400	15.4572	58.2999
196	501.1400	15.4572	58.2999	344.3778	9.8217	42.5953
197	344.3778	9.8217	42.5953	275.0032	7.2506	34.9754
198	275.0032	7.2506	34.9754	106.5502	2.6188	20.8439
199	106.5502	2.6188	20.8439	24.1464	0.5602	15.0329
200	24.1464	0.5602	15.0329	-141.3235	41.6376	119.7084
201	-141.3235	41.6376	119.7084	39.5046	83.9681	220.9256
202	39.5046	83.9681	220.9256	144.6375	78.8260	205.4978
203	144.6375	78.8260	205.4978	311.1291	76.0074	197.6932
204	311.1291	76.0074	197.6932	402.1449	69.9395	182.0013
205	402.1449	69.9395	182.0013	543.0610	66.7257	174.2829
206	543.0610	66.7257	174.2829	601.5961	60.0205	158.7325
207	601.5961	60.0205	158.7325	707.8137	56.5624	150.9354
208	707.8137	56.5624	150.9354	721.8346	49.4726	135.5130
209	721.8346	49.4726	135.5130	787.9238	45.8834	127.8929
210	787.9238	45.8834	127.8929	751.6056	38.7356	112.3616
211	751.6056	38.7356	112.3616	776.2388	35.2085	104.6492
212	776.2388	35.2085	104.6492	690.4006	28.2723	89.2290
213	690.4006	28.2723	89.2290	676.0643	24.9133	81.6008
214	676.0643	24.9133	81.6008	547.9255	18.4897	65.9825
215	547.9255	18.4897	65.9825	500.9952	15.4503	58.2111
216	500.9952	15.4503	58.2111	344.2444	9.8160	42.5891
217	344.2444	9.8160	42.5891	274.8391	7.2446	34.9605
218	274.8391	7.2446	34.9605	106.4621	2.6156	20.8071

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
219	106.4621	2.6156	20.8071	24.0877	0.5588	15.0247
220	24.0877	0.5588	15.0247	-141.1971	41.6351	119.6744
221	-141.1971	41.6351	119.6744	39.6587	83.9584	220.8929
222	39.6587	83.9584	220.8929	144.7907	78.8060	205.5016
223	144.7907	78.8060	205.5016	311.3062	75.9805	197.6944
224	311.3062	75.9805	197.6944	402.2289	69.9101	181.9977
225	402.2289	69.9101	181.9977	542.9850	66.6923	174.3132
226	542.9850	66.6923	174.3132	601.4121	59.9620	158.6902
227	601.4121	59.9620	158.6902	707.4132	56.4948	150.9873
228	707.4132	56.4948	150.9873	721.2013	49.4193	135.4626
229	721.2013	49.4193	135.4626	787.0665	45.8356	127.8245
230	787.0665	45.8356	127.8245	750.5837	38.6885	112.4113
231	750.5837	38.6885	112.4113	775.0675	35.1609	104.6755
232	775.0675	35.1609	104.6755	689.1368	28.2382	89.1791
233	689.1368	28.2382	89.1791	674.7644	24.8879	81.5594
234	674.7644	24.8879	81.5594	546.6333	18.4596	66.0395
235	546.6333	18.4596	66.0395	499.7426	15.4254	58.2500
236	499.7426	15.4254	58.2500	343.2292	9.7911	42.5672
237	343.2292	9.7911	42.5672	273.9742	7.2256	34.9911
238	273.9742	7.2256	34.9911	106.0782	2.6085	20.8317
239	106.0782	2.6085	20.8317	24.0352	0.5580	15.0287
240	24.0352	0.5580	15.0287	-140.3995	41.6132	119.6843
241	-140.3995	41.6132	119.6843	40.5594	83.8622	220.8987
242	40.5594	83.8622	220.8987	146.0397	78.6312	205.4926
243	146.0397	78.6312	205.4926	312.1761	75.7649	197.6779
244	312.1761	75.7649	197.6779	402.4742	69.5963	181.9962
245	402.4742	69.5963	181.9962	542.3170	66.3354	174.2077
246	542.3170	66.3354	174.2077	599.2561	59.5453	158.6910
247	599.2561	59.5453	158.6910	703.7124	56.0310	150.9727
248	703.7124	56.0310	150.9727	715.5624	48.9114	135.2915
249	715.5624	48.9114	135.2915	779.5807	45.3126	127.8058
250	779.5807	45.3126	127.8058	740.8616	38.1259	112.3291
251	740.8616	38.1259	112.3291	763.4553	34.5680	104.5858
252	763.4553	34.5680	104.5858	675.8190	27.6521	89.1174
253	675.8190	27.6521	89.1174	659.9730	24.3046	81.5544
254	659.9730	24.3046	81.5544	531.5742	17.9278	65.8994
255	531.5742	17.9278	65.8994	484.3232	14.9334	58.0735
256	484.3232	14.9334	58.0735	330.1400	9.4143	42.4268
257	330.1400	9.4143	42.4268	262.4930	6.9207	34.7542
258	262.4930	6.9207	34.7542	100.8995	2.4810	20.6516
259	100.8995	2.4810	20.6516	23.0000	0.5342	14.8463
260	23.0000	0.5342	14.8463	-130.3289	41.5620	116.2018
261	-130.3289	41.5620	116.2018	-6.5322	83.3214	211.9146
262	-6.5322	83.3214	211.9146	114.4141	80.5237	202.0240
263	114.4141	80.5237	202.0240	231.1986	77.5051	192.0526
264	231.1986	77.5051	192.0526	342.0317	74.2896	182.0410
265	342.0317	74.2896	182.0410	444.8414	70.8629	172.1835
266	444.8414	70.8629	172.1835	538.1459	67.2433	162.2206
267	538.1459	67.2433	162.2206	620.2965	63.4539	152.3336
268	620.2965	63.4539	152.3336	620.3258	55.4003	132.6941
269	620.3258	55.4003	132.6941	669.8212	51.1367	122.8171
270	669.8212	51.1367	122.8171	703.0708	46.7677	112.8466
271	703.0708	46.7677	112.8466	718.9664	42.2797	103.1339
272	718.9664	42.2797	103.1339	716.5065	37.6838	93.3673
273	716.5065	37.6838	93.3673	694.8393	33.0160	83.5377

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
274	694.8393	33.0160	83.5377	653.2109	28.2596	73.6682
275	653.2109	28.2596	73.6682	591.0389	23.4595	63.7542
276	591.0389	23.4595	63.7542	371.9355	13.6660	43.9058
277	371.9355	13.6660	43.9058	256.0842	8.7146	33.9459
278	256.0842	8.7146	33.9459	1.1419	-0.2538	0.0063
279	1.1419	-0.2538	0.0063	0.5711	-0.2537	0.0066
280	0.5711	-0.2537	0.0066	0.0000	-0.2538	0.0065

ENVOL. MIN. TORSORES TREN TREN IPF-75 TIPO A en via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0027	-0.0054	-5.4629	70.3027	-2.0886	-15.0539
2	70.3027	-2.0886	-15.0539	196.9027	-6.2447	-28.7343
3	196.9027	-6.2447	-28.7343	329.2606	-11.2108	-38.6463
4	329.2606	-11.2108	-38.6463	439.5821	-16.1504	-48.7221
5	439.5821	-16.1504	-48.7221	528.2206	-21.0413	-58.6121
6	528.2206	-21.0413	-58.6121	595.3911	-25.8916	-68.4086
7	595.3911	-25.8916	-68.4086	641.6984	-30.6634	-78.3764
8	641.6984	-30.6634	-78.3764	667.7894	-35.3727	-88.4272
9	667.7894	-35.3727	-88.4272	762.8116	-44.5400	-108.1999
10	762.8116	-44.5400	-108.1999	743.0769	-48.9511	-118.1741
11	743.0769	-48.9511	-118.1741	706.4960	-53.2612	-128.1275
12	706.4960	-53.2612	-128.1275	654.1082	-57.4324	-138.0005
13	654.1082	-57.4324	-138.0005	587.0646	-61.4682	-148.0685
14	587.0646	-61.4682	-148.0685	506.9271	-65.3374	-157.9747
15	506.9271	-65.3374	-157.9747	414.9474	-69.0395	-167.8633
16	414.9474	-69.0395	-167.8633	312.7288	-72.5648	-177.6916
17	312.7288	-72.5648	-177.6916	262.3307	-79.0249	-197.5751
18	262.3307	-79.0249	-197.5751	146.4094	-81.9393	-207.5498
19	146.4094	-81.9393	-207.5498	26.9645	-84.6322	-217.1543
20	26.9645	-84.6322	-217.1543	-95.0537	-42.5452	-118.7765
21	-95.0537	-42.5452	-118.7765	-16.5103	0.3687	-13.0117
22	-16.5103	0.3687	-13.0117	143.4625	-3.5199	-23.8903
23	143.4625	-3.5199	-23.8903	217.3580	-5.7374	-30.8228
24	217.3580	-5.7374	-30.8228	377.0176	-10.7248	-45.9886
25	377.0176	-10.7248	-45.9886	436.0798	-13.4825	-53.7936
26	436.0798	-13.4825	-53.7936	579.6757	-19.4645	-69.4765
27	579.6757	-19.4645	-69.4765	612.4436	-22.6445	-77.2976
28	612.4436	-22.6445	-77.2976	721.9559	-29.3311	-92.8957
29	721.9559	-29.3311	-92.8957	719.2716	-32.8103	-100.7171
30	719.2716	-32.8103	-100.7171	783.0884	-39.9043	-116.1978
31	783.0884	-39.9043	-116.1978	739.8615	-43.5066	-124.1087
32	739.8615	-43.5066	-124.1087	753.1124	-50.7021	-139.8663
33	753.1124	-50.7021	-139.8663	668.5287	-54.2726	-147.5750
34	668.5287	-54.2726	-147.5750	633.0012	-61.2902	-163.1864
35	633.0012	-61.2902	-163.1864	509.9075	-64.6830	-171.0435
36	509.9075	-64.6830	-171.0435	434.3055	-71.1967	-186.5576
37	434.3055	-71.1967	-186.5576	279.9066	-74.2847	-194.3977
38	279.9066	-74.2847	-194.3977	179.4032	-80.0100	-209.9706
39	179.4032	-80.0100	-209.9706	4.6871	-82.6245	-217.6468
40	4.6871	-82.6245	-217.6468	-102.2113	-42.5798	-121.6852
41	-102.2113	-42.5798	-121.6852	-17.9486	0.4016	-13.2102
42	-17.9486	0.4016	-13.2102	150.6886	-3.6985	-24.0825
43	150.6886	-3.6985	-24.0825	227.4001	-6.0071	-30.9921
44	227.4001	-6.0071	-30.9921	391.2726	-11.1377	-46.2292
45	391.2726	-11.1377	-46.2292	450.8788	-13.9585	-54.0608
46	450.8788	-13.9585	-54.0608	595.3387	-20.0172	-69.6115
47	595.3387	-20.0172	-69.6115	627.0399	-23.2332	-77.3764
48	627.0399	-23.2332	-77.3764	735.3872	-29.9499	-92.9861
49	735.3872	-29.9499	-92.9861	730.8655	-33.4050	-100.8697
50	730.8655	-33.4050	-100.8697	792.6405	-40.4777	-116.3864
51	792.6405	-40.4777	-116.3864	747.4651	-44.0554	-124.1194
52	747.4651	-44.0554	-124.1194	758.5459	-51.2089	-139.7513
53	758.5459	-51.2089	-139.7513	672.0772	-54.7584	-147.5513
54	672.0772	-54.7584	-147.5513	634.8854	-61.6821	-163.1425

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	634.8854	-61.6821	-163.1425	510.5444	-65.0423	-170.8899
56	510.5444	-65.0423	-170.8899	433.8985	-71.4808	-186.5394
57	433.8985	-71.4808	-186.5394	278.8707	-74.5143	-194.3147
58	278.8707	-74.5143	-194.3147	178.3006	-80.1592	-209.9516
59	178.3006	-80.1592	-209.9516	3.5533	-82.7350	-217.5986
60	3.5533	-82.7350	-217.5986	-102.7576	-42.5939	-121.6457
61	-102.7576	-42.5939	-121.6457	-18.0438	0.4035	-13.2014
62	-18.0438	0.4035	-13.2014	151.2328	-3.7127	-24.0929
63	151.2328	-3.7127	-24.0929	228.1514	-6.0288	-31.0517
64	228.1514	-6.0288	-31.0517	392.3630	-11.1726	-46.2358
65	392.3630	-11.1726	-46.2358	451.9749	-13.9875	-54.0540
66	451.9749	-13.9875	-54.0540	596.5385	-20.0456	-69.7459
67	596.5385	-20.0456	-69.7459	628.2372	-23.2656	-77.4174
68	628.2372	-23.2656	-77.4174	736.5100	-29.9774	-93.0613
69	736.5100	-29.9774	-93.0613	731.8948	-33.4516	-100.8867
70	731.8948	-33.4516	-100.8867	793.4752	-40.5312	-116.4275
71	793.4752	-40.5312	-116.4275	748.1472	-44.1041	-124.0582
72	748.1472	-44.1041	-124.0582	758.9758	-51.2435	-139.6866
73	758.9758	-51.2435	-139.6866	672.4041	-54.7840	-147.5356
74	672.4041	-54.7840	-147.5356	635.0614	-61.7206	-163.0273
75	635.0614	-61.7206	-163.0273	510.6295	-65.0734	-170.7535
76	510.6295	-65.0734	-170.7535	433.9242	-71.4975	-186.4203
77	433.9242	-71.4975	-186.4203	278.8070	-74.5360	-194.2561
78	278.8070	-74.5360	-194.2561	178.2449	-80.1752	-209.8884
79	178.2449	-80.1752	-209.8884	3.4673	-82.7493	-217.4861
80	3.4673	-82.7493	-217.4861	-102.8125	-42.5965	-121.6331
81	-102.8125	-42.5965	-121.6331	-18.0061	0.4026	-13.1963
82	-18.0061	0.4026	-13.1963	151.3116	-3.7140	-24.1474
83	151.3116	-3.7140	-24.1474	228.2520	-6.0278	-31.1026
84	228.2520	-6.0278	-31.1026	392.4968	-11.1722	-46.3526
85	392.4968	-11.1722	-46.3526	452.1409	-13.9920	-54.1465
86	452.1409	-13.9920	-54.1465	596.6796	-20.0625	-69.7554
87	596.6796	-20.0625	-69.7554	628.3375	-23.2736	-77.4527
88	628.3375	-23.2736	-77.4527	736.5740	-29.9884	-93.1131
89	736.5740	-29.9884	-93.1131	731.9559	-33.4587	-100.9124
90	731.9559	-33.4587	-100.9124	793.5640	-40.5359	-116.2504
91	793.5640	-40.5359	-116.2504	748.2240	-44.1043	-124.0126
92	748.2240	-44.1043	-124.0126	759.0291	-51.2490	-139.7079
93	759.0291	-51.2490	-139.7079	672.5000	-54.7977	-147.4093
94	672.5000	-54.7977	-147.4093	635.1557	-61.7238	-162.9679
95	635.1557	-61.7238	-162.9679	510.6466	-65.0793	-170.7198
96	510.6466	-65.0793	-170.7198	433.9980	-71.5029	-186.2877
97	433.9980	-71.5029	-186.2877	278.8582	-74.5437	-194.0631
98	278.8582	-74.5437	-194.0631	178.2491	-80.1784	-209.7633
99	178.2491	-80.1784	-209.7633	3.4053	-82.7486	-217.4139
100	3.4053	-82.7486	-217.4139	-102.7628	-42.5970	-121.6242
101	-102.7628	-42.5970	-121.6242	-18.0182	0.4028	-13.2047
102	-18.0182	0.4028	-13.2047	151.3118	-3.7134	-24.2067
103	151.3118	-3.7134	-24.2067	228.2816	-6.0325	-31.1394
104	228.2816	-6.0325	-31.1394	392.4970	-11.1735	-46.3474
105	392.4970	-11.1735	-46.3474	452.1104	-13.9930	-54.2095
106	452.1104	-13.9930	-54.2095	596.6812	-20.0676	-69.8120
107	596.6812	-20.0676	-69.8120	628.3379	-23.2800	-77.4718
108	628.3379	-23.2800	-77.4718	736.5507	-29.9941	-93.0542
109	736.5507	-29.9941	-93.0542	731.9230	-33.4659	-100.8257

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	731.9230	-33.4659	-100.8257	793.4822	-40.5337	-116.3434
111	793.4822	-40.5337	-116.3434	748.1854	-44.1084	-123.9839
112	748.1854	-44.1084	-123.9839	758.9707	-51.2565	-139.6783
113	758.9707	-51.2565	-139.6783	672.4333	-54.7934	-147.3322
114	672.4333	-54.7934	-147.3322	634.9988	-61.7112	-162.8183
115	634.9988	-61.7112	-162.8183	510.6364	-65.0619	-170.5686
116	510.6364	-65.0619	-170.5686	433.9543	-71.4903	-186.1642
117	433.9543	-71.4903	-186.1642	278.8849	-74.5309	-194.0359
118	278.8849	-74.5309	-194.0359	178.2622	-80.1691	-209.6718
119	178.2622	-80.1691	-209.6718	3.5575	-82.7426	-217.4015
120	3.5575	-82.7426	-217.4015	-102.6956	-42.5957	-121.5644
121	-102.6956	-42.5957	-121.5644	-18.0460	0.4029	-13.1898
122	-18.0460	0.4029	-13.1898	151.2949	-3.7100	-24.2081
123	151.2949	-3.7100	-24.2081	228.2569	-6.0243	-31.1685
124	228.2569	-6.0243	-31.1685	392.5195	-11.1642	-46.4192
125	392.5195	-11.1642	-46.4192	452.1953	-13.9897	-54.2636
126	452.1953	-13.9897	-54.2636	596.8142	-20.0542	-69.9052
127	596.8142	-20.0542	-69.9052	628.4931	-23.2811	-77.5314
128	628.4931	-23.2811	-77.5314	736.7574	-29.9952	-93.0295
129	736.7574	-29.9952	-93.0295	732.0876	-33.4557	-100.7624
130	732.0876	-33.4557	-100.7624	793.5937	-40.5407	-116.4203
131	793.5937	-40.5407	-116.4203	748.2799	-44.1206	-124.0990
132	748.2799	-44.1206	-124.0990	759.0954	-51.2659	-139.5136
133	759.0954	-51.2659	-139.5136	672.5278	-54.7999	-147.0751
134	672.5278	-54.7999	-147.0751	635.0668	-61.7296	-162.6758
135	635.0668	-61.7296	-162.6758	510.5895	-65.0740	-170.5126
136	510.5895	-65.0740	-170.5126	433.9819	-71.5030	-186.1010
137	433.9819	-71.5030	-186.1010	278.8480	-74.5384	-193.8351
138	278.8480	-74.5384	-193.8351	178.2049	-80.1743	-209.6281
139	178.2049	-80.1743	-209.6281	3.5335	-82.7473	-217.3385
140	3.5335	-82.7473	-217.3385	-102.7131	-42.5957	-121.5181
141	-102.7131	-42.5957	-121.5181	-18.0187	0.4025	-13.1773
142	-18.0187	0.4025	-13.1773	151.3207	-3.7159	-24.2181
143	151.3207	-3.7159	-24.2181	228.2528	-6.0338	-31.2287
144	228.2528	-6.0338	-31.2287	392.4882	-11.1758	-46.4889
145	392.4882	-11.1758	-46.4889	452.1196	-13.9964	-54.2738
146	452.1196	-13.9964	-54.2738	596.6515	-20.0570	-69.9993
147	596.6515	-20.0570	-69.9993	628.3358	-23.2651	-77.5919
148	628.3358	-23.2651	-77.5919	736.5999	-29.9904	-93.0473
149	736.5999	-29.9904	-93.0473	731.9309	-33.4746	-100.7840
150	731.9309	-33.4746	-100.7840	793.4800	-40.5471	-116.3558
151	793.4800	-40.5471	-116.3558	748.1523	-44.1129	-124.0229
152	748.1523	-44.1129	-124.0229	758.9932	-51.2485	-139.4832
153	758.9932	-51.2485	-139.4832	672.4599	-54.7894	-147.0389
154	672.4599	-54.7894	-147.0389	635.0518	-61.7137	-162.7059
155	635.0518	-61.7137	-162.7059	510.6043	-65.0719	-170.4422
156	510.6043	-65.0719	-170.4422	434.0099	-71.4985	-186.0075
157	434.0099	-71.4985	-186.0075	278.9322	-74.5327	-193.7093
158	278.9322	-74.5327	-193.7093	178.3073	-80.1728	-209.5262
159	178.3073	-80.1728	-209.5262	3.4887	-82.7471	-217.2417
160	3.4887	-82.7471	-217.2417	-102.6935	-42.5982	-121.5396
161	-102.6935	-42.5982	-121.5396	-17.9435	0.4005	-13.1931
162	-17.9435	0.4005	-13.1931	151.3571	-3.7125	-24.2755
163	151.3571	-3.7125	-24.2755	228.3174	-6.0282	-31.2546
164	228.3174	-6.0282	-31.2546	392.5552	-11.1716	-46.5658

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	392.5552	-11.1716	-46.5658	452.2029	-13.9935	-54.3124
166	452.2029	-13.9935	-54.3124	596.7625	-20.0576	-69.8720
167	596.7625	-20.0576	-69.8720	628.3942	-23.2827	-77.7593
168	628.3942	-23.2827	-77.7593	736.7201	-29.9983	-93.2724
169	736.7201	-29.9983	-93.2724	732.0790	-33.4636	-100.7807
170	732.0790	-33.4636	-100.7807	793.6364	-40.5333	-116.2081
171	793.6364	-40.5333	-116.2081	748.2744	-44.1083	-123.8288
172	748.2744	-44.1083	-123.8288	759.0834	-51.2540	-139.5132
173	759.0834	-51.2540	-139.5132	672.5881	-54.7929	-147.0680
174	672.5881	-54.7929	-147.0680	635.1399	-61.7229	-162.5616
175	635.1399	-61.7229	-162.5616	510.6595	-65.0826	-170.3571
176	510.6595	-65.0826	-170.3571	434.0226	-71.5057	-185.9209
177	434.0226	-71.5057	-185.9209	278.8424	-74.5390	-193.7563
178	278.8424	-74.5390	-193.7563	178.3493	-80.1749	-209.4902
179	178.3493	-80.1749	-209.4902	3.4922	-82.7471	-217.1924
180	3.4922	-82.7471	-217.1924	-102.7309	-42.5964	-121.5326
181	-102.7309	-42.5964	-121.5326	-17.9785	0.4015	-13.1899
182	-17.9785	0.4015	-13.1899	151.3427	-3.7162	-24.2498
183	151.3427	-3.7162	-24.2498	228.2747	-6.0315	-31.2123
184	228.2747	-6.0315	-31.2123	392.4825	-11.1734	-46.5449
185	392.4825	-11.1734	-46.5449	452.1068	-13.9967	-54.3520
186	452.1068	-13.9967	-54.3520	596.6849	-20.0630	-69.9021
187	596.6849	-20.0630	-69.9021	628.3164	-23.2720	-77.5247
188	628.3164	-23.2720	-77.5247	736.5717	-29.9785	-93.1813
189	736.5717	-29.9785	-93.1813	732.0054	-33.4444	-100.7791
190	732.0054	-33.4444	-100.7791	793.5603	-40.5235	-116.3075
191	793.5603	-40.5235	-116.3075	748.2874	-44.0908	-123.9062
192	748.2874	-44.0908	-123.9062	759.1735	-51.2427	-139.3065
193	759.1735	-51.2427	-139.3065	672.5942	-54.7938	-147.1158
194	672.5942	-54.7938	-147.1158	635.2381	-61.7302	-162.6393
195	635.2381	-61.7302	-162.6393	510.7604	-65.0840	-170.2719
196	510.7604	-65.0840	-170.2719	434.0583	-71.5085	-185.9495
197	434.0583	-71.5085	-185.9495	278.9540	-74.5440	-193.7253
198	278.9540	-74.5440	-193.7253	178.3658	-80.1776	-209.4426
199	178.3658	-80.1776	-209.4426	3.5201	-82.7495	-217.1699
200	3.5201	-82.7495	-217.1699	-102.7388	-42.5969	-121.5396
201	-102.7388	-42.5969	-121.5396	-17.9823	0.4017	-13.1962
202	-17.9823	0.4017	-13.1962	151.3212	-3.7145	-24.2738
203	151.3212	-3.7145	-24.2738	228.2859	-6.0320	-31.2713
204	228.2859	-6.0320	-31.2713	392.5115	-11.1727	-46.5378
205	392.5115	-11.1727	-46.5378	452.1483	-13.9888	-54.3133
206	452.1483	-13.9888	-54.3133	596.7318	-20.0567	-69.8736
207	596.7318	-20.0567	-69.8736	628.3979	-23.2665	-77.6638
208	628.3979	-23.2665	-77.6638	736.7300	-29.9860	-93.1828
209	736.7300	-29.9860	-93.1828	732.0989	-33.4656	-100.7552
210	732.0989	-33.4656	-100.7552	793.5999	-40.5428	-116.3219
211	793.5999	-40.5428	-116.3219	748.2444	-44.1135	-123.9897
212	748.2444	-44.1135	-123.9897	759.0690	-51.2523	-139.4677
213	759.0690	-51.2523	-139.4677	672.4960	-54.8013	-147.0172
214	672.4960	-54.8013	-147.0172	635.0458	-61.7301	-162.6396
215	635.0458	-61.7301	-162.6396	510.5934	-65.0918	-170.3630
216	510.5934	-65.0918	-170.3630	433.9095	-71.5144	-185.9955
217	433.9095	-71.5144	-185.9955	278.7861	-74.5482	-193.7090
218	278.7861	-74.5482	-193.7090	178.1443	-80.1847	-209.5313
219	178.1443	-80.1847	-209.5313	3.3512	-82.7559	-217.2477

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	3.3512	-82.7559	-217.2477	-102.7778	-42.5973	-121.5188
221	-102.7778	-42.5973	-121.5188	-17.9459	0.4011	-13.1838
222	-17.9459	0.4011	-13.1838	151.4176	-3.7215	-24.2755
223	151.4176	-3.7215	-24.2755	228.3652	-6.0422	-31.2579
224	228.3652	-6.0422	-31.2579	392.5867	-11.1920	-46.5460
225	392.5867	-11.1920	-46.5460	452.1757	-14.0135	-54.2958
226	452.1757	-14.0135	-54.2958	596.5682	-20.0942	-69.9039
227	596.5682	-20.0942	-69.9039	628.0702	-23.3137	-77.6542
228	628.0702	-23.3137	-77.6542	736.1746	-30.0389	-93.1836
229	736.1746	-30.0389	-93.1836	731.3789	-33.5051	-100.8475
230	731.3789	-33.5051	-100.8475	792.6227	-40.5858	-116.2634
231	792.6227	-40.5858	-116.2634	747.1355	-44.1646	-123.9674
232	747.1355	-44.1646	-123.9674	757.7971	-51.2929	-139.5110
233	757.7971	-51.2929	-139.5110	671.1140	-54.8256	-147.0809
234	671.1140	-54.8256	-147.0809	633.6373	-61.7533	-162.5842
235	633.6373	-61.7533	-162.5842	509.0701	-65.1148	-170.2963
236	509.0701	-65.1148	-170.2963	432.4525	-71.5461	-186.0164
237	432.4525	-71.5461	-186.0164	277.3566	-74.5804	-193.7094
238	277.3566	-74.5804	-193.7094	176.9796	-80.2079	-209.4484
239	176.9796	-80.2079	-209.4484	2.3525	-82.7728	-217.2159
240	2.3525	-82.7728	-217.2159	-103.2429	-42.5832	-121.5309
241	-103.2429	-42.5832	-121.5309	-18.0237	0.4076	-13.1999
242	-18.0237	0.4076	-13.1999	151.8009	-3.7808	-24.2797
243	151.8009	-3.7808	-24.2797	228.7305	-6.1392	-31.2751
244	228.7305	-6.1392	-31.2751	392.7521	-11.3720	-46.5438
245	392.7521	-11.3720	-46.5438	451.6689	-14.2404	-54.3495
246	451.6689	-14.2404	-54.3495	595.0621	-20.3921	-69.9423
247	595.0621	-20.3921	-69.9423	625.3424	-23.6563	-77.6301
248	625.3424	-23.6563	-77.6301	731.5355	-30.4466	-93.3395
249	731.5355	-30.4466	-93.3395	725.0496	-33.9555	-100.8917
250	725.0496	-33.9555	-100.8917	783.9496	-41.0922	-116.2975
251	783.9496	-41.0922	-116.2975	736.3652	-44.7021	-124.0672
252	736.3652	-44.7021	-124.0672	744.5689	-51.8783	-139.5302
253	744.5689	-51.8783	-139.5302	655.9239	-55.4272	-147.0791
254	655.9239	-55.4272	-147.0791	616.7159	-62.3561	-162.6540
255	616.7159	-62.3561	-162.6540	490.7864	-65.7023	-170.4996
256	490.7864	-65.7023	-170.4996	414.1514	-72.0766	-186.1275
257	414.1514	-72.0766	-186.1275	258.9572	-75.0663	-193.9254
258	258.9572	-75.0663	-193.9254	161.6908	-80.5847	-209.7111
259	161.6908	-80.5847	-209.7111	-10.8933	-83.0778	-217.3613
260	-10.8933	-83.0778	-217.3613	-109.1866	-42.5494	-123.2204
261	-109.1866	-42.5494	-123.2204	-19.3296	0.4496	-16.7842
262	-19.3296	0.4496	-16.7842	69.8308	-1.7233	-22.1042
263	69.8308	-1.7233	-22.1042	156.9456	-4.0957	-30.8802
264	156.9456	-4.0957	-30.8802	240.8001	-6.6740	-40.2178
265	240.8001	-6.6740	-40.2178	422.5183	-12.4920	-60.0678
266	422.5183	-12.4920	-60.0678	496.2049	-15.7192	-69.9913
267	496.2049	-15.7192	-69.9913	561.2035	-19.1499	-79.9464
268	561.2035	-19.1499	-79.9464	615.7610	-22.7745	-89.6356
269	615.7610	-22.7745	-89.6356	658.2263	-26.5643	-99.4812
270	658.2263	-26.5643	-99.4812	687.2551	-30.5318	-109.4658
271	687.2551	-30.5318	-109.4658	701.6318	-34.6378	-119.2393
272	701.6318	-34.6378	-119.2393	699.9462	-38.8933	-128.9762
273	699.9462	-38.8933	-128.9762	751.6926	-47.7366	-148.7809
274	751.6926	-47.7366	-148.7809	706.0681	-52.3273	-158.6007

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	706.0681	-52.3273	-158.6007	640.8780	-56.9830	-168.5284
276	640.8780	-56.9830	-168.5284	555.4816	-61.7344	-178.3431
277	555.4816	-61.7344	-178.3431	449.0794	-66.5544	-188.2327
278	449.0794	-66.5544	-188.2327	321.2920	-71.4211	-198.1544
279	321.2920	-71.4211	-198.1544	171.7097	-76.3358	-208.1113
280	171.7097	-76.3358	-208.1113	-0.1227	-81.2829	-218.2043

ENVOL. MAX. FLECTORES TREN TREN SW/0, EC-1 en via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0379	209.3582	643.9135	450.7767	190.2790	597.1848
2	450.7767	190.2790	597.1848	844.2205	163.6794	521.9075
3	844.2205	163.6794	521.9075	1170.6758	123.7915	408.5448
4	1170.6758	123.7915	408.5448	1440.8503	105.1059	363.5576
5	1440.8503	105.1059	363.5576	1649.3667	78.5327	288.3091
6	1649.3667	78.5327	288.3091	1793.9402	60.4350	244.0968
7	1793.9402	60.4350	244.0968	1888.0948	20.5660	130.7463
8	1888.0948	20.5660	130.7463	1913.1112	-6.0135	54.9447
9	1913.1112	-6.0135	54.9447	1890.2397	-23.5665	10.8454
10	1890.2397	-23.5665	10.8454	1892.8196	-9.0714	30.8229
11	1892.8196	-9.0714	30.8229	1839.2271	-35.6644	-44.6124
12	1839.2271	-35.6644	-44.6124	1733.1017	-61.0292	-107.9561
13	1733.1017	-61.0292	-107.9561	1560.8164	-94.2693	-202.6189
14	1560.8164	-94.2693	-202.6189	1335.7693	-112.4465	-247.1177
15	1335.7693	-112.4465	-247.1177	1049.4709	-139.0422	-322.4979
16	1049.4709	-139.0422	-322.4979	716.7301	-163.2434	-385.5068
17	716.7301	-163.2434	-385.5068	449.4479	11.7550	2.0181
18	449.4479	11.7550	2.0181	475.8865	11.7512	1.8778
19	475.8865	11.7512	1.8778	502.3276	11.7518	1.8825
20	502.3276	11.7518	1.8825	528.7610	-13.3080	17.2365
21	528.7610	-13.3080	17.2365	413.6736	-38.3685	32.4602
22	413.6736	-38.3685	32.4602	298.5663	-38.3691	32.4263
23	298.5663	-38.3691	32.4263	383.2013	168.0713	435.1396
24	383.2013	168.0713	435.1396	877.7007	153.6580	404.0266
25	877.7007	153.6580	404.0266	1300.8745	126.0341	331.3904
26	1300.8745	126.0341	331.3904	1645.9707	98.1743	258.4025
27	1645.9707	98.1743	258.4025	1910.1305	70.1196	185.7122
28	1910.1305	70.1196	185.7122	2091.2407	41.9585	112.9451
29	2091.2407	41.9585	112.9451	2188.3005	13.7428	40.2181
30	2188.3005	13.7428	40.2181	2262.4441	11.6642	13.5953
31	2262.4441	11.6642	13.5953	2260.2969	-16.3922	-59.4928
32	2260.2969	-16.3922	-59.4928	2174.0056	-44.5643	-132.5872
33	2174.0056	-44.5643	-132.5872	2003.4592	-72.6740	-205.0032
34	2003.4592	-72.6740	-205.0032	1748.9778	-100.8286	-277.8253
35	1748.9778	-100.8286	-277.8253	1412.2673	-128.8382	-350.6425
36	1412.2673	-128.8382	-350.6425	995.7404	-156.6158	-423.1198
37	995.7404	-156.6158	-423.1198	509.6995	-171.4891	-454.3942
38	509.6995	-171.4891	-454.3942	434.6671	10.8088	1.6442
39	434.6671	10.8088	1.6442	467.0833	10.8076	1.6494
40	467.0833	10.8076	1.6494	499.5056	-13.4606	17.1269
41	499.5056	-13.4606	17.1269	386.3206	-37.7274	32.4803
42	386.3206	-37.7274	32.4803	309.2824	-7.5820	-1.5752
43	309.2824	-7.5820	-1.5752	458.9012	178.8741	475.3547
44	458.9012	178.8741	475.3547	952.9587	151.4694	402.9106
45	952.9587	151.4694	402.9106	1370.5740	123.7816	330.3383
46	1370.5740	123.7816	330.3383	1709.0638	95.8891	257.8082
47	1709.0638	95.8891	257.8082	1965.9006	67.8477	185.2475
48	1965.9006	67.8477	185.2475	2139.1875	39.7532	112.5016
49	2139.1875	39.7532	112.5016	2228.4316	11.7032	39.6061
50	2228.4316	11.7032	39.6061	2298.6860	9.4833	12.9433
51	2298.6860	9.4833	12.9433	2289.7607	-18.5373	-59.5879
52	2289.7607	-18.5373	-59.5879	2196.5811	-46.6535	-132.3640
53	2196.5811	-46.6535	-132.3640	2018.9490	-74.7570	-205.0596

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	2018.9490	-74.7570	-205.0596	1758.0925	-102.7650	-277.6888
55	1758.0925	-102.7650	-277.6888	1415.4440	-130.6579	-350.2606
56	1415.4440	-130.6579	-350.2606	993.4401	-158.3562	-422.9366
57	993.4401	-158.3562	-422.9366	503.4002	-172.9099	-454.0886
58	503.4002	-172.9099	-454.0886	433.4668	10.6445	1.7315
59	433.4668	10.6445	1.7315	465.4023	10.6439	1.7987
60	465.4023	10.6439	1.7987	497.3290	-13.5195	17.2429
61	497.3290	-13.5195	17.2429	459.3463	-10.4916	-1.8714
62	459.3463	-10.4916	-1.8714	427.8757	-10.4925	-1.7675
63	427.8757	-10.4925	-1.7675	464.9384	178.7066	474.7906
64	464.9384	178.7066	474.7906	958.5179	151.3215	402.6250
65	958.5179	151.3215	402.6250	1375.8304	123.6314	329.8886
66	1375.8304	123.6314	329.8886	1714.0170	95.7876	257.2058
67	1714.0170	95.7876	257.2058	1970.3828	67.7710	184.8400
68	1970.3828	67.7710	184.8400	2143.3740	39.6331	112.1375
69	2143.3740	39.6331	112.1375	2232.0073	11.4958	39.4224
70	2232.0073	11.4958	39.4224	2301.8281	9.2927	12.7734
71	2301.8281	9.2927	12.7734	2292.3164	-18.7526	-59.4197
72	2292.3164	-18.7526	-59.4197	2198.4956	-46.8153	-132.1765
73	2198.4956	-46.8153	-132.1765	2020.4482	-74.9002	-204.9404
74	2020.4482	-74.9002	-204.9404	1759.0284	-102.9473	-277.2566
75	1759.0284	-102.9473	-277.2566	1415.8335	-130.8286	-349.7401
76	1415.8335	-130.8286	-349.7401	993.5144	-158.4921	-422.4128
77	993.5144	-158.4921	-422.4128	503.0336	-173.0529	-453.6987
78	503.0336	-173.0529	-453.6987	433.3189	10.6241	1.8358
79	433.3189	10.6241	1.8358	465.1855	10.6233	1.8956
80	465.1855	10.6233	1.8956	498.0830	13.5536	-17.3359
81	498.0830	13.5536	-17.3359	466.1420	-10.6444	-1.9985
82	466.1420	-10.6444	-1.9985	434.2190	-10.6425	-1.9365
83	434.2190	-10.6425	-1.9365	465.7502	178.7162	474.2668
84	465.7502	178.7162	474.2668	959.3953	151.2939	401.9756
85	959.3953	151.2939	401.9756	1376.5347	123.6192	329.4855
86	1376.5347	123.6192	329.4855	1714.6508	95.7283	256.9772
87	1714.6508	95.7283	256.9772	1970.8904	67.7008	184.6480
88	1970.8904	67.7008	184.6480	2143.7576	39.5857	111.8969
89	2143.7576	39.5857	111.8969	2232.2849	11.5169	39.3226
90	2232.2849	11.5169	39.3226	2302.1343	9.3103	13.2316
91	2302.1343	9.3103	13.2316	2292.6135	-18.7150	-59.3530
92	2292.6135	-18.7150	-59.3530	2198.7942	-46.8278	-132.1541
93	2198.7942	-46.8278	-132.1541	2020.7314	-74.9363	-204.5160
94	2020.7314	-74.9363	-204.5160	1759.3326	-102.9613	-276.9651
95	1759.3326	-102.9613	-276.9651	1416.0408	-130.8510	-349.4695
96	1416.0408	-130.8510	-349.4695	993.7650	-158.5302	-421.9205
97	993.7650	-158.5302	-421.9205	503.2117	-173.0880	-453.0989
98	503.2117	-173.0880	-453.0989	433.3107	10.6226	1.9384
99	433.3107	10.6226	1.9384	465.1898	10.6219	1.9720
100	465.1898	10.6219	1.9720	498.6796	13.5727	-17.3728
101	498.6796	13.5727	-17.3728	466.7208	-10.6555	-2.0435
102	466.7208	-10.6555	-2.0435	434.7625	-10.6564	-2.0462
103	434.7625	-10.6564	-2.0462	465.9430	178.6960	473.9871
104	465.9430	178.6960	473.9871	959.3658	151.2622	401.7143
105	959.3658	151.2622	401.7143	1376.6381	123.6154	329.0515
106	1376.6381	123.6154	329.0515	1714.5898	95.7502	256.6429
107	1714.5898	95.7502	256.6429	1970.8213	67.7045	184.4113
108	1970.8213	67.7045	184.4113	2143.6343	39.5908	111.9791

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
109	2143.6343	39.5908	111.9791	2232.1777	11.5051	39.3772
110	2232.1777	11.5051	39.3772	2302.0215	9.2759	13.0232
111	2302.0215	9.2759	13.0232	2292.4932	-18.7467	-59.2552
112	2292.4932	-18.7467	-59.2552	2198.6169	-46.8536	-132.0161
113	2198.6169	-46.8536	-132.0161	2020.5024	-74.9457	-204.1776
114	2020.5024	-74.9457	-204.1776	1758.9058	-102.9499	-276.4658
115	1758.9058	-102.9499	-276.4658	1415.9646	-130.7884	-348.9349
116	1415.9646	-130.7884	-348.9349	993.6897	-158.4610	-421.3844
117	993.6897	-158.4610	-421.3844	503.4283	-173.0400	-452.7666
118	503.4283	-173.0400	-452.7666	433.3533	10.6283	2.0191
119	433.3533	10.6283	2.0191	465.2289	10.6287	2.1641
120	465.2289	10.6287	2.1641	498.5660	13.5682	-17.5214
121	498.5660	13.5682	-17.5214	466.6260	-10.6471	-2.1925
122	466.6260	-10.6471	-2.1925	434.6923	-10.6459	-2.0889
123	434.6923	-10.6459	-2.0889	465.9254	178.7761	473.4440
124	465.9254	178.7761	473.4440	959.7361	151.3558	401.1945
125	959.7361	151.3558	401.1945	1377.1876	123.6716	328.5839
126	1377.1876	123.6716	328.5839	1715.2505	95.7335	256.1786
127	1715.2505	95.7335	256.1786	1971.5007	67.7466	184.0566
128	1971.5007	67.7466	184.0566	2144.3184	39.6190	111.8923
129	2144.3184	39.6190	111.8923	2232.8203	11.4459	39.4659
130	2232.8203	11.4459	39.4659	2302.5176	9.2432	12.7322
131	2302.5176	9.2432	12.7322	2292.9702	-18.7667	-59.5195
132	2292.9702	-18.7667	-59.5195	2199.0107	-46.8725	-131.4706
133	2199.0107	-46.8725	-131.4706	2020.8379	-74.9496	-203.4330
134	2020.8379	-74.9496	-203.4330	1759.2271	-102.9898	-275.9040
135	1759.2271	-102.9898	-275.9040	1415.9492	-130.8423	-348.5967
136	1415.9492	-130.8423	-348.5967	993.7538	-158.5177	-420.9389
137	993.7538	-158.5177	-420.9389	503.2320	-173.0652	-452.0937
138	503.2320	-173.0652	-452.0937	433.2923	10.6224	2.0958
139	433.2923	10.6224	2.0958	465.1537	10.6221	2.3056
140	465.1537	10.6221	2.3056	498.7393	13.5700	-17.7290
141	498.7393	13.5700	-17.7290	466.7617	-10.6586	-2.3582
142	466.7617	-10.6586	-2.3582	434.7859	-10.6600	-2.1461
143	434.7859	-10.6600	-2.1461	465.9458	178.6782	472.8430
144	465.9458	178.6782	472.8430	959.4567	151.2769	400.7450
145	959.4567	151.2769	400.7450	1376.5848	123.6310	328.2106
146	1376.5848	123.6310	328.2106	1714.7224	95.7440	255.6707
147	1714.7224	95.7440	255.6707	1970.9834	67.7194	183.7307
148	1970.9834	67.7194	183.7307	2143.7305	39.5806	111.7317
149	2143.7305	39.5806	111.7317	2232.2532	11.5066	39.2395
150	2232.2532	11.5066	39.2395	2302.0762	9.2724	12.9412
151	2302.0762	9.2724	12.9412	2292.4951	-18.7585	-59.3433
152	2292.4951	-18.7585	-59.3433	2198.6670	-46.8330	-131.3295
153	2198.6670	-46.8330	-131.3295	2020.5825	-74.9316	-203.3022
154	2020.5825	-74.9316	-203.3022	1759.1768	-102.9566	-275.8486
155	1759.1768	-102.9566	-275.8486	1415.9895	-130.8235	-348.2939
156	1415.9895	-130.8235	-348.2939	993.9146	-158.4743	-420.5620
157	993.9146	-158.4743	-420.5620	503.5443	-173.0496	-451.6447
158	503.5443	-173.0496	-451.6447	433.3668	10.6222	2.1639
159	433.3668	10.6222	2.1639	465.2346	10.6215	2.2659
160	465.2346	10.6215	2.2659	498.5832	13.5714	-17.8231
161	498.5832	13.5714	-17.8231	466.6494	-10.6481	-2.3540
162	466.6494	-10.6481	-2.3540	434.7146	-10.6494	-2.2492
163	434.7146	-10.6494	-2.2492	466.2864	178.7525	472.6460

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
164	466.2864	178.7525	472.6460	959.8539	151.3140	400.3594
165	959.8539	151.3140	400.3594	1377.1226	123.6571	328.1652
166	1377.1226	123.6571	328.1652	1715.1423	95.7577	255.8922
167	1715.1423	95.7577	255.8922	1971.4375	67.7230	183.0984
168	1971.4375	67.7230	183.0984	2144.2585	39.6218	111.1165
169	2144.2585	39.6218	111.1165	2232.7537	11.5198	39.3443
170	2232.7537	11.5198	39.3443	2302.6069	9.2823	13.3152
171	2302.6069	9.2823	13.3152	2293.0095	-18.7566	-58.8203
172	2293.0095	-18.7566	-58.8203	2199.1890	-46.8307	-131.4028
173	2199.1890	-46.8307	-131.4028	2021.1211	-74.9578	-203.2314
174	2021.1211	-74.9578	-203.2314	1759.5381	-102.9833	-275.4390
175	1759.5381	-102.9833	-275.4390	1416.2867	-130.8625	-347.9746
176	1416.2867	-130.8625	-347.9746	994.0054	-158.5244	-420.2257
177	994.0054	-158.5244	-420.2257	503.3752	-173.0753	-451.5963
178	503.3752	-173.0753	-451.5963	433.3082	10.6231	2.2474
179	433.3082	10.6231	2.2474	465.1799	10.6234	2.3727
180	465.1799	10.6234	2.3727	498.6407	13.5677	-17.8023
181	498.6407	13.5677	-17.8023	466.6692	-10.6555	-2.3498
182	466.6692	-10.6555	-2.3498	434.7072	-10.6566	-2.1884
183	434.7072	-10.6566	-2.1884	465.9435	178.6924	472.7779
184	465.9435	178.6924	472.7779	959.4595	151.2835	400.5046
185	959.4595	151.2835	400.5046	1376.7639	123.6354	328.0242
186	1376.7639	123.6354	328.0242	1714.7056	95.7307	255.9690
187	1714.7056	95.7307	255.9690	1970.9492	67.7451	183.8195
188	1970.9492	67.7451	183.8195	2143.8633	39.6426	111.3478
189	2143.8633	39.6426	111.3478	2232.5776	11.5257	39.4275
190	2232.5776	11.5257	39.4275	2302.3848	9.2991	13.0403
191	2302.3848	9.2991	13.0403	2293.0469	-18.7057	-58.9086
192	2293.0469	-18.7057	-58.9086	2199.3350	-46.8308	-130.8382
193	2199.3350	-46.8308	-130.8382	2021.2874	-74.9382	-203.4446
194	2021.2874	-74.9382	-203.4446	1759.7977	-103.0092	-275.5723
195	1759.7977	-103.0092	-275.5723	1416.5815	-130.8533	-347.7443
196	1416.5815	-130.8533	-347.7443	994.2219	-158.5336	-420.2336
197	994.2219	-158.5336	-420.2336	503.7249	-173.0943	-451.4922
198	503.7249	-173.0943	-451.4922	432.7940	10.6012	2.2856
199	432.7940	10.6012	2.2856	464.5995	10.6012	2.3479
200	464.5995	10.6012	2.3479	498.7015	13.5723	-17.8991
201	498.7015	13.5723	-17.8991	466.7396	-10.6590	-2.2857
202	466.7396	-10.6590	-2.2857	434.7733	-10.6604	-2.2413
203	434.7733	-10.6604	-2.2413	466.1236	178.7036	472.6703
204	466.1236	178.7036	472.6703	959.7108	151.3002	400.4570
205	959.7108	151.3002	400.4570	1376.9500	123.6554	328.1364
206	1376.9500	123.6554	328.1364	1714.9384	95.7858	255.8983
207	1714.9384	95.7858	255.8983	1971.3118	67.7368	183.3483
208	1971.3118	67.7368	183.3483	2144.2654	39.6074	111.3616
209	2144.2654	39.6074	111.3616	2232.7598	11.4929	39.3306
210	2232.7598	11.4929	39.3306	2302.5513	9.2271	12.9986
211	2302.5513	9.2271	12.9986	2292.8459	-18.7747	-59.2621
212	2292.8459	-18.7747	-59.2621	2198.9146	-46.8634	-131.2558
213	2198.9146	-46.8634	-131.2558	2020.8160	-74.9633	-203.2111
214	2020.8160	-74.9633	-203.2111	1759.2589	-103.0013	-275.6089
215	1759.2589	-103.0013	-275.6089	1415.9409	-130.8783	-348.0347
216	1415.9409	-130.8783	-348.0347	993.5609	-158.5598	-420.4224
217	993.5609	-158.5598	-420.4224	502.9860	-173.1214	-451.5529
218	502.9860	-173.1214	-451.5529	426.1990	10.4372	2.1648

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
219	426.1990	10.4372	2.1648	457.5163	10.4378	2.3302
220	457.5163	10.4378	2.3302	499.0284	13.5717	-17.8681
221	499.0284	13.5717	-17.8681	466.9993	-10.6742	-2.4170
222	466.9993	-10.6742	-2.4170	434.9725	-10.6749	-2.2910
223	434.9725	-10.6749	-2.2910	467.0460	178.5314	472.6623
224	467.0460	178.5314	472.6623	960.0475	151.1281	400.4411
225	960.0475	151.1281	400.4411	1376.6548	123.4389	328.2072
226	1376.6548	123.4389	328.2072	1713.9939	95.5374	255.7748
227	1713.9939	95.5374	255.7748	1969.6243	67.4783	183.4471
228	1969.6243	67.4783	183.4471	2141.7144	39.3948	111.2713
229	2141.7144	39.3948	111.2713	2229.6338	11.2765	39.1567
230	2229.6338	11.2765	39.1567	2299.0217	9.0668	13.1445
231	2299.0217	9.0668	13.1445	2288.8003	-18.9183	-59.2152
232	2288.8003	-18.9183	-59.2152	2194.3083	-46.9886	-131.3918
233	2194.3083	-46.9886	-131.3918	2015.7502	-75.0662	-203.3653
234	2015.7502	-75.0662	-203.3653	1753.8647	-103.1058	-275.4821
235	1753.8647	-103.1058	-275.4821	1410.1780	-131.0014	-347.8895
236	1410.1780	-131.0014	-347.8895	987.5873	-158.6740	-420.4506
237	987.5873	-158.6740	-420.4506	497.1598	-173.2359	-451.5486
238	497.1598	-173.2359	-451.5486	307.7578	7.5429	1.9414
239	307.7578	7.5429	1.9414	387.5807	37.8396	-33.3154
240	387.5807	37.8396	-33.3154	501.1378	13.4984	-17.8596
241	501.1378	13.4984	-17.8596	468.6112	-10.8436	-2.3616
242	468.6112	-10.8436	-2.3616	436.0706	-10.8441	-2.2302
243	436.0706	-10.8441	-2.2302	473.6256	176.9158	472.4774
244	473.6256	176.9158	472.4774	961.8215	149.3507	400.2659
245	961.8215	149.3507	400.2659	1373.0122	121.5579	327.7946
246	1373.0122	121.5579	327.7946	1704.2179	93.5902	255.5962
247	1704.2179	93.5902	255.5962	1953.3374	65.4969	183.2641
248	1953.3374	65.4969	183.2641	2118.6855	37.3207	110.6552
249	2118.6855	37.3207	110.6552	2200.1636	35.1749	84.9147
250	2200.1636	35.1749	84.9147	2266.0393	7.1473	12.8905
251	2266.0393	7.1473	12.8905	2248.2922	-20.9781	-59.5827
252	2248.2922	-20.9781	-59.5827	2146.1025	-49.1468	-131.5869
253	2146.1025	-49.1468	-131.5869	1960.0090	-77.3028	-203.4495
254	1960.0090	-77.3028	-203.4495	1690.8979	-105.3221	-275.8273
255	1690.8979	-105.3221	-275.8273	1340.9170	-133.2263	-348.5042
256	1340.9170	-133.2263	-348.5042	914.8242	-148.2632	-380.2570
257	914.8242	-148.2632	-380.2570	422.4486	-175.2185	-452.2395
258	422.4486	-175.2185	-452.2395	299.1943	38.4573	-33.4052
259	299.1943	38.4573	-33.4052	414.5905	38.4574	-33.2924
260	414.5905	38.4574	-33.2924	529.9596	13.3495	-18.0715
261	529.9596	13.3495	-18.0715	503.5045	-11.7576	-2.8464
262	503.5045	-11.7576	-2.8464	477.0565	-11.7575	-2.7541
263	477.0565	-11.7575	-2.7541	450.6104	-11.7541	-2.5801
264	450.6104	-11.7541	-2.5801	689.6840	156.1559	362.6729
265	689.6840	156.1559	362.6729	1021.7927	138.6102	318.6940
266	1021.7927	138.6102	318.6940	1299.0266	111.9902	243.3932
267	1299.0266	111.9902	243.3932	1522.8252	80.5295	161.3878
268	1522.8252	80.5295	161.3878	1682.5188	53.8748	86.7582
269	1682.5188	53.8748	86.7582	1787.6837	35.1040	42.5618
270	1787.6837	35.1040	42.5618	1877.7417	49.5507	62.6809
271	1877.7417	49.5507	62.6809	1956.0779	22.9366	-12.1339
272	1956.0779	22.9366	-12.1339	1978.0034	-1.2743	-74.6708
273	1978.0034	-1.2743	-74.6708	1940.2212	-34.5592	-168.6017

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
274	1940.2212	-34.5592	-168.6017	1841.5139	-52.7123	-212.7876
275	1841.5139	-52.7123	-212.7876	1689.7096	-79.3027	-288.0234
276	1689.7096	-79.3027	-288.0234	1471.5029	-112.5853	-381.8549
277	1471.5029	-112.5853	-381.8549	1196.5083	-137.9198	-445.0186
278	1196.5083	-137.9198	-445.0186	859.7045	-164.5143	-520.1769
279	859.7045	-164.5143	-520.1769	456.4466	-191.1079	-595.4013
280	456.4466	-191.1079	-595.4013	0.0012	3.0021	-0.1753

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ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.0050	11.7394	2.1490	-93.7135	-41.6614	41.0191
2	-93.7135	-41.6614	41.0191	-187.4560	-41.6518	40.9863
3	-187.4560	-41.6518	40.9863	-281.1927	-41.6527	41.0366
4	-281.1927	-41.6527	41.0366	-374.9565	-41.6700	41.1478
5	-374.9565	-41.6700	41.1478	-468.7062	-41.6870	41.0966
6	-468.7062	-41.6870	41.0966	-562.5112	-41.6966	41.0099
7	-562.5112	-41.6966	41.0099	-656.3419	-41.7225	41.0954
8	-656.3419	-41.7225	41.0954	-750.2545	-41.7575	41.2268
9	-750.2545	-41.7575	41.2268	-844.1967	-41.7323	41.1125
10	-844.1967	-41.7323	41.1125	-938.0347	-41.7185	41.2344
11	-938.0347	-41.7185	41.2344	-1031.9941	-41.7232	41.1965
12	-1031.9941	-41.7232	41.1965	-1125.8447	-41.7191	41.2449
13	-1125.8447	-41.7191	41.2449	-1219.7233	-41.7199	41.4512
14	-1219.7233	-41.7199	41.4512	-1313.5107	-41.7014	41.4622
15	-1313.5107	-41.7014	41.4622	-1407.3323	-41.6936	41.3264
16	-1407.3323	-41.6936	41.3264	-1501.1782	-41.7003	41.1889
17	-1501.1782	-41.7003	41.1889	-1594.9869	-41.7095	41.4901
18	-1594.9869	-41.7095	41.4901	-1688.8184	-41.7050	41.9917
19	-1688.8184	-41.7050	41.9917	-1782.6350	-41.7113	41.9675
20	-1782.6350	-41.7113	41.9675	-1876.4639	94.7146	338.6409
21	-1876.4639	94.7146	338.6409	-1215.8597	201.5520	565.6881
22	-1215.8597	201.5520	565.6881	-1098.3193	26.9009	-29.9314
23	-1098.3193	26.9009	-29.9314	-1017.6172	26.9040	-29.9296
24	-1017.6172	26.9040	-29.9296	-936.8909	26.9045	-29.9263
25	-936.8909	26.9045	-29.9263	-856.1866	26.8960	-29.9263
26	-856.1866	26.8960	-29.9263	-775.4880	26.8881	-29.8168
27	-775.4880	26.8881	-29.8168	-694.8240	26.8928	-29.8088
28	-694.8240	26.8928	-29.8088	-614.1111	26.9021	-29.8184
29	-614.1111	26.9021	-29.8184	-533.4082	26.9030	-29.8036
30	-533.4082	26.9030	-29.8036	-622.2837	-38.3541	32.3492
31	-622.2837	-38.3541	32.3492	-737.3198	-38.3485	32.4708
32	-737.3198	-38.3485	32.4708	-852.3505	-38.3576	32.5863
33	-852.3505	-38.3576	32.5863	-967.4395	-38.3647	32.4369
34	-967.4395	-38.3647	32.4369	-1082.4884	-38.3560	32.5396
35	-1082.4884	-38.3560	32.5396	-1197.5645	-38.3499	32.5013
36	-1197.5645	-38.3499	32.5013	-1312.6210	-38.3498	32.4158
37	-1312.6210	-38.3498	32.4158	-1427.6577	-38.3489	32.3949
38	-1427.6577	-38.3489	32.3949	-1542.7014	-38.3495	32.4167
39	-1542.7014	-38.3495	32.4167	-1657.7339	-38.3483	32.3998
40	-1657.7339	-38.3483	32.3998	-1772.8120	95.2834	333.4161
41	-1772.8120	95.2834	333.4161	-1630.2145	37.2103	-32.1402
42	-1630.2145	37.2103	-32.1402	-1518.5851	37.2134	-32.1272
43	-1518.5851	37.2134	-32.1272	-1406.9246	37.2181	-32.3479
44	-1406.9246	37.2181	-32.3479	-1295.2864	37.2148	-32.1646
45	-1295.2864	37.2148	-32.1646	-1183.6438	37.2206	-32.1449
46	-1183.6438	37.2206	-32.1449	-1071.9434	37.2262	-32.3202
47	-1071.9434	37.2262	-32.3202	-960.2568	37.2270	-32.3944
48	-960.2568	37.2270	-32.3944	-848.5960	37.2214	-32.3975
49	-848.5960	37.2214	-32.3975	-736.9646	37.2088	-32.3308
50	-736.9646	37.2088	-32.3308	-632.3422	-37.7452	32.3984
51	-632.3422	-37.7452	32.3984	-745.6095	-37.7476	32.3608
52	-745.6095	-37.7476	32.3608	-858.7757	-37.7336	32.3634
53	-858.7757	-37.7336	32.3634	-972.0108	-37.7261	32.3653
54	-972.0108	-37.7261	32.3653	-1085.1501	-37.7288	32.2753

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	-1085.1501	-37.7288	32.2753	-1198.3727	-37.7385	32.2172
56	-1198.3727	-37.7385	32.2172	-1311.6396	-37.7382	32.2113
57	-1311.6396	-37.7382	32.2113	-1424.8624	-37.7472	32.0917
58	-1424.8624	-37.7472	32.0917	-1538.1371	-37.7655	32.0952
59	-1538.1371	-37.7655	32.0952	-1651.4324	-37.7627	31.8524
60	-1651.4324	-37.7627	31.8524	-1767.3269	-95.6711	-333.7493
61	-1767.3269	-95.6711	-333.7493	-1654.0565	37.7650	-31.6153
62	-1654.0565	37.7650	-31.6153	-1540.7399	37.7643	-31.9854
63	-1540.7399	37.7643	-31.9854	-1427.4619	37.7626	-31.9883
64	-1427.4619	37.7626	-31.9883	-1314.1575	37.7623	-32.1705
65	-1314.1575	37.7623	-32.1705	-1200.8805	37.7599	-32.1967
66	-1200.8805	37.7599	-32.1967	-1087.5950	37.7402	-32.1645
67	-1087.5950	37.7402	-32.1645	-974.3973	37.7481	-32.4123
68	-974.3973	37.7481	-32.4123	-861.1124	37.7486	-32.4297
69	-861.1124	37.7486	-32.4297	-747.8939	37.7420	-32.4216
70	-747.8939	37.7420	-32.4216	-634.6057	37.7600	-32.5184
71	-634.6057	37.7600	-32.5184	-746.3170	-37.6844	32.4726
72	-746.3170	-37.6844	32.4726	-859.3401	-37.6880	32.4724
73	-859.3401	-37.6880	32.4724	-972.4036	-37.6787	32.4655
74	-972.4036	-37.6787	32.4655	-1085.4463	-37.6747	32.2260
75	-1085.4463	-37.6747	32.2260	-1198.5063	-37.6858	32.0701
76	-1198.5063	-37.6858	32.0701	-1311.5999	-37.6950	32.0664
77	-1311.5999	-37.6950	32.0664	-1424.6892	-37.7020	32.0611
78	-1424.6892	-37.7020	32.0611	-1537.7998	-37.6981	31.7057
79	-1537.7998	-37.6981	31.7057	-1650.8553	-37.6864	31.4944
80	-1650.8553	-37.6864	31.4944	-1769.4082	-95.7432	-333.2453
81	-1769.4082	-95.7432	-333.2453	-1655.8616	37.8025	-31.1823
82	-1655.8616	37.8025	-31.1823	-1542.4633	37.7917	-31.4034
83	-1542.4633	37.7917	-31.4034	-1429.0883	37.7852	-31.6224
84	-1429.0883	37.7852	-31.6224	-1315.7107	37.8001	-31.7315
85	-1315.7107	37.8001	-31.7315	-1202.2922	37.8026	-31.9120
86	-1202.2922	37.8026	-31.9120	-1088.8821	37.7853	-32.0725
87	-1088.8821	37.7853	-32.0725	-975.5057	37.7900	-32.3132
88	-975.5057	37.7900	-32.3132	-862.0716	37.7997	-32.3412
89	-862.0716	37.7997	-32.3412	-748.6670	37.7924	-32.3765
90	-748.6670	37.7924	-32.3765	-635.3163	37.7953	-32.6399
91	-635.3163	37.7953	-32.6399	-746.2542	-37.6792	32.5420
92	-746.2542	-37.6792	32.5420	-859.3105	-37.6777	32.5378
93	-859.3105	-37.6777	32.5378	-972.3391	-37.6826	32.3853
94	-972.3391	-37.6826	32.3853	-1085.3384	-37.6749	32.2290
95	-1085.3384	-37.6749	32.2290	-1198.3416	-37.6679	32.0546
96	-1198.3416	-37.6679	32.0546	-1311.3455	-37.6722	31.7668
97	-1311.3455	-37.6722	31.7668	-1424.3699	-37.6713	31.5766
98	-1424.3699	-37.6713	31.5766	-1537.3894	-37.6811	31.3545
99	-1537.3894	-37.6811	31.3545	-1650.4752	-37.6772	31.2326
100	-1650.4752	-37.6772	31.2326	-1769.4845	-95.7579	-332.9551
101	-1769.4845	-95.7579	-332.9551	-1656.0450	37.7961	-31.0187
102	-1656.0450	37.7961	-31.0187	-1542.6797	37.7960	-31.0056
103	-1542.6797	37.7960	-31.0056	-1429.2534	37.8046	-31.5522
104	-1429.2534	37.8046	-31.5522	-1315.8198	37.8143	-31.8770
105	-1315.8198	37.8143	-31.8770	-1202.3828	37.8089	-31.8941
106	-1202.3828	37.8089	-31.8941	-1088.9618	37.7944	-32.1407
107	-1088.9618	37.7944	-32.1407	-975.5555	37.7962	-32.4396
108	-975.5555	37.7962	-32.4396	-862.1356	37.7988	-32.5799
109	-862.1356	37.7988	-32.5799	-748.7130	37.7975	-32.6473

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	-748.7130	37.7975	-32.6473	-635.3035	37.7924	-32.7989
111	-635.3035	37.7924	-32.7989	-746.2268	-37.6680	32.5425
112	-746.2268	-37.6680	32.5425	-859.2121	-37.6612	32.5439
113	-859.2121	-37.6612	32.5439	-972.2039	-37.6686	32.2720
114	-972.2039	-37.6686	32.2720	-1085.2649	-37.6873	32.0537
115	-1085.2649	-37.6873	32.0537	-1198.3276	-37.7009	31.7607
116	-1198.3276	-37.7009	31.7607	-1311.4568	-37.7103	31.6040
117	-1311.4568	-37.7103	31.6040	-1424.6047	-37.7122	31.3736
118	-1424.6047	-37.7122	31.3736	-1537.7402	-37.7020	31.0540
119	-1537.7402	-37.7020	31.0540	-1650.8354	-37.7013	30.5277
120	-1650.8354	-37.7013	30.5277	-1768.5463	-95.7448	-332.6266
121	-1768.5463	-95.7448	-332.6266	-1655.4292	37.7629	-30.5029
122	-1655.4292	37.7629	-30.5029	-1542.1433	37.7575	-30.8677
123	-1542.1433	37.7575	-30.8677	-1428.8901	37.7523	-31.2909
124	-1428.8901	37.7523	-31.2909	-1315.6074	37.7626	-31.6158
125	-1315.6074	37.7626	-31.6158	-1202.2822	37.7642	-31.7153
126	-1202.2822	37.7642	-31.7153	-1088.9927	37.7765	-31.9696
127	-1088.9927	37.7765	-31.9696	-975.6333	37.7941	-32.3504
128	-975.6333	37.7941	-32.3504	-862.2662	37.7930	-32.6274
129	-862.2662	37.7930	-32.6274	-748.8514	37.8021	-32.7447
130	-748.8514	37.8021	-32.7447	-635.4001	37.8058	-32.7894
131	-635.4001	37.8058	-32.7894	-746.1515	-37.6577	32.6703
132	-746.1515	-37.6577	32.6703	-859.0977	-37.6546	32.3661
133	-859.0977	-37.6546	32.3661	-972.0511	-37.6576	32.0365
134	-972.0511	-37.6576	32.0365	-1085.0281	-37.6590	31.8834
135	-1085.0281	-37.6590	31.8834	-1197.9961	-37.6668	31.7717
136	-1197.9961	-37.6668	31.7717	-1311.0005	-37.6681	31.2906
137	-1311.0005	-37.6681	31.2906	-1424.0056	-37.6680	30.9223
138	-1424.0056	-37.6680	30.9223	-1537.0408	-37.6730	30.7949
139	-1537.0408	-37.6730	30.7949	-1650.0505	-37.6689	30.0538
140	-1650.0505	-37.6689	30.0538	-1769.1067	-95.7537	-331.8289
141	-1769.1067	-95.7537	-331.8289	-1655.8354	37.8032	-29.9007
142	-1655.8354	37.8032	-29.9007	-1542.4109	37.7999	-30.6483
143	-1542.4109	37.7999	-30.6483	-1429.0190	37.8031	-30.8613
144	-1429.0190	37.8031	-30.8613	-1315.5491	37.8130	-31.3562
145	-1315.5491	37.8130	-31.3562	-1202.1456	37.7977	-31.6747
146	-1202.1456	37.7977	-31.6747	-1088.7849	37.7846	-31.8219
147	-1088.7849	37.7846	-31.8219	-975.4110	37.7843	-32.2939
148	-975.4110	37.7843	-32.2939	-862.0457	37.7892	-32.6436
149	-862.0457	37.7892	-32.6436	-748.6357	37.7960	-32.7661
150	-748.6357	37.7960	-32.7661	-635.2238	37.7937	-32.9137
151	-635.2238	37.7937	-32.9137	-746.1571	-37.6646	32.9100
152	-746.1571	-37.6646	32.9100	-859.1823	-37.6759	32.5942
153	-859.1823	-37.6759	32.5942	-972.1941	-37.6758	32.2815
154	-972.1941	-37.6758	32.2815	-1085.2434	-37.6737	32.1318
155	-1085.2434	-37.6737	32.1318	-1198.3071	-37.6842	31.8635
156	-1198.3071	-37.6842	31.8635	-1311.3723	-37.6875	31.2636
157	-1311.3723	-37.6875	31.2636	-1424.4304	-37.6861	30.7696
158	-1424.4304	-37.6861	30.7696	-1537.4790	-37.6839	30.5562
159	-1537.4790	-37.6839	30.5562	-1650.5251	-37.6730	30.1875
160	-1650.5251	-37.6730	30.1875	-1768.5986	-95.7742	-331.5353
161	-1768.5986	-95.7742	-331.5353	-1655.1809	37.7542	-29.9399
162	-1655.1809	37.7542	-29.9399	-1541.9358	37.7536	-30.3022
163	-1541.9358	37.7536	-30.3022	-1428.6534	37.7586	-30.8434
164	-1428.6534	37.7586	-30.8434	-1315.3584	37.7690	-31.1794

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	-1315.3584	37.7690	-31.1794	-1202.0099	37.7732	-31.6320
166	-1202.0099	37.7732	-31.6320	-1088.6841	37.7724	-32.0730
167	-1088.6841	37.7724	-32.0730	-975.3504	37.7729	-32.0690
168	-975.3504	37.7729	-32.0690	-861.9916	37.7848	-32.3986
169	-861.9916	37.7848	-32.3986	-748.5890	37.7914	-32.7836
170	-748.5890	37.7914	-32.7836	-635.2522	37.7770	-33.0225
171	-635.2522	37.7770	-33.0225	-746.1986	-37.6742	32.6347
172	-746.1986	-37.6742	32.6347	-859.2241	-37.6572	32.5567
173	-859.2241	-37.6572	32.5567	-972.1647	-37.6566	32.1132
174	-972.1647	-37.6566	32.1132	-1085.1449	-37.6642	31.8600
175	-1085.1449	-37.6642	31.8600	-1198.1169	-37.6522	31.5783
176	-1198.1169	-37.6522	31.5783	-1311.0796	-37.6534	31.1257
177	-1311.0796	-37.6534	31.1257	-1424.0918	-37.6562	30.8023
178	-1424.0918	-37.6562	30.8023	-1537.0485	-37.6625	30.2528
179	-1537.0485	-37.6625	30.2528	-1650.0826	-37.6667	29.8163
180	-1650.0826	-37.6667	29.8163	-1769.1011	-95.7633	-331.5791
181	-1769.1011	-95.7633	-331.5791	-1655.6648	37.7935	-29.9429
182	-1655.6648	37.7935	-29.9429	-1542.2949	37.7987	-30.5146
183	-1542.2949	37.7987	-30.5146	-1428.8759	37.8049	-31.0891
184	-1428.8759	37.8049	-31.0891	-1315.4712	37.7919	-31.2789
185	-1315.4712	37.7919	-31.2789	-1202.0702	37.7786	-31.5551
186	-1202.0702	37.7786	-31.5551	-1088.6908	37.7913	-32.0643
187	-1088.6908	37.7913	-32.0643	-975.3086	37.7966	-32.4780
188	-975.3086	37.7966	-32.4780	-861.9767	37.7808	-32.6026
189	-861.9767	37.7808	-32.6026	-748.6449	37.7786	-32.9044
190	-748.6449	37.7786	-32.9044	-635.2808	37.7803	-33.0644
191	-635.2808	37.7803	-33.0644	-746.3160	-37.6768	32.6903
192	-746.3160	-37.6768	32.6903	-859.3510	-37.6646	32.4054
193	-859.3510	-37.6646	32.4054	-972.3762	-37.6615	32.3200
194	-972.3762	-37.6615	32.3200	-1085.2897	-37.6535	31.9178
195	-1085.2897	-37.6535	31.9178	-1198.2720	-37.6646	31.4987
196	-1198.2720	-37.6646	31.4987	-1311.2310	-37.6641	31.1979
197	-1311.2310	-37.6641	31.1979	-1424.1844	-37.6468	30.6812
198	-1424.1844	-37.6468	30.6812	-1537.1218	-37.6413	30.1357
199	-1537.1218	-37.6413	30.1357	-1650.0515	-37.6453	29.9130
200	-1650.0515	-37.6453	29.9130	-1769.1047	-95.7759	-331.4394
201	-1769.1047	-95.7759	-331.4394	-1655.6541	37.7985	-30.2003
202	-1655.6541	37.7985	-30.2003	-1542.2766	37.7977	-30.3503
203	-1542.2766	37.7977	-30.3503	-1428.9238	37.7850	-30.7784
204	-1428.9238	37.7850	-30.7784	-1315.5339	37.7914	-31.2913
205	-1315.5339	37.7914	-31.2913	-1202.1444	37.7887	-31.6724
206	-1202.1444	37.7887	-31.6724	-1088.8108	37.7617	-32.1028
207	-1088.8108	37.7617	-32.1028	-975.5171	37.7619	-32.2562
208	-975.5171	37.7619	-32.2562	-862.1820	37.7723	-32.5644
209	-862.1820	37.7723	-32.5644	-748.8145	37.7848	-32.8728
210	-748.8145	37.7848	-32.8728	-635.3861	37.8057	-33.0138
211	-635.3861	37.8057	-33.0138	-745.3256	-37.6067	32.8578
212	-745.3256	-37.6067	32.8578	-858.1541	-37.6040	32.5400
213	-858.1541	-37.6040	32.5400	-970.9912	-37.6077	32.2059
214	-970.9912	-37.6077	32.2059	-1083.8409	-37.6110	31.9717
215	-1083.8409	-37.6110	31.9717	-1196.6609	-37.5973	31.7168
216	-1196.6609	-37.5973	31.7168	-1309.4407	-37.5889	31.2178
217	-1309.4407	-37.5889	31.2178	-1422.2488	-37.5898	30.7338
218	-1422.2488	-37.5898	30.7338	-1535.0044	-37.5897	30.5173
219	-1535.0044	-37.5897	30.5173	-1647.7882	-37.5871	29.9224

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	-1647.7882	-37.5871	29.9224	-1770.0806	-95.7683	-331.4807
221	-1770.0806	-95.7683	-331.4807	-1656.3972	37.8526	-29.7229
222	-1656.3972	37.8526	-29.7229	-1542.8215	37.8581	-30.1706
223	-1542.8215	37.8581	-30.1706	-1429.2446	37.8654	-30.7232
224	-1429.2446	37.8654	-30.7232	-1315.6401	37.8601	-31.1787
225	-1315.6401	37.8601	-31.1787	-1202.1345	37.8500	-31.6166
226	-1202.1345	37.8500	-31.6166	-1088.5436	37.8485	-31.9733
227	-1088.5436	37.8485	-31.9733	-974.9525	37.8567	-32.1922
228	-974.9525	37.8567	-32.1922	-861.3560	37.8574	-32.4865
229	-861.3560	37.8574	-32.4865	-747.8108	37.8482	-32.7008
230	-747.8108	37.8482	-32.7008	-634.1791	37.8501	-32.9620
231	-634.1791	37.8501	-32.9620	-733.8774	-37.0452	32.7944
232	-733.8774	-37.0452	32.7944	-845.0646	-37.0773	32.5556
233	-845.0646	-37.0773	32.5556	-956.3420	-37.0803	32.2198
234	-956.3420	-37.0803	32.2198	-1067.5273	-37.0730	31.8341
235	-1067.5273	-37.0730	31.8341	-1178.8020	-37.0748	31.6068
236	-1178.8020	-37.0748	31.6068	-1289.9742	-37.0603	31.2869
237	-1289.9742	-37.0603	31.2869	-1401.1593	-37.0504	30.5990
238	-1401.1593	-37.0504	30.5990	-1512.3165	-37.0532	30.2910
239	-1512.3165	-37.0532	30.2910	-1623.4932	-37.0596	30.0575
240	-1623.4932	-37.0596	30.0575	-1777.7499	-95.5199	-331.3590
241	-1777.7499	-95.5199	-331.3590	-1662.2820	38.4564	-29.9302
242	-1662.2820	38.4564	-29.9302	-1546.8719	38.4553	-30.3901
243	-1546.8719	38.4553	-30.3901	-1431.4956	38.4604	-30.8527
244	-1431.4956	38.4604	-30.8527	-1316.0857	38.4731	-31.3750
245	-1316.0857	38.4731	-31.3750	-1200.6389	38.4692	-31.6674
246	-1200.6389	38.4692	-31.6674	-1085.2512	38.4526	-32.0884
247	-1085.2512	38.4526	-32.0884	-969.8678	38.4438	-32.3952
248	-969.8678	38.4438	-32.3952	-854.4869	38.4282	-32.4724
249	-854.4869	38.4282	-32.4724	-739.1699	38.4387	-32.8218
250	-739.1699	38.4387	-32.8218	-623.8054	38.4631	-33.1017
251	-623.8054	38.4631	-33.1017	-530.6340	-26.7747	30.0919
252	-530.6340	-26.7747	30.0919	-610.9889	-26.7817	29.8861
253	-610.9889	-26.7817	29.8861	-691.3531	-26.7890	29.5911
254	-691.3531	-26.7890	29.5911	-771.7108	-26.7825	29.4307
255	-771.7108	-26.7825	29.4307	-852.0181	-26.7666	29.3175
256	-852.0181	-26.7666	29.3175	-932.3312	-26.7668	28.9802
257	-932.3312	-26.7668	28.9802	-1012.6466	-26.7680	28.7731
258	-1012.6466	-26.7680	28.7731	-1092.9553	-26.7686	28.3696
259	-1092.9553	-26.7686	28.3696	-1219.3101	-202.1079	-563.8629
260	-1219.3101	-202.1079	-563.8629	-1880.3494	-94.9996	-336.1996
261	-1880.3494	-94.9996	-336.1996	-1786.3737	41.6961	-38.6088
262	-1786.3737	41.6961	-38.6088	-1692.5626	41.6992	-38.9330
263	-1692.5626	41.6992	-38.9330	-1598.7202	41.7008	-39.5433
264	-1598.7202	41.7008	-39.5433	-1504.8994	41.6823	-39.7432
265	-1504.8994	41.6823	-39.7432	-1411.1503	41.6871	-40.1713
266	-1411.1503	41.6871	-40.1713	-1317.3295	41.7077	-40.4627
267	-1317.3295	41.7077	-40.4627	-1223.5210	41.7290	-40.6031
268	-1223.5210	41.7290	-40.6031	-1129.6249	41.7506	-41.1955
269	-1129.6249	41.7506	-41.1955	-1035.6633	41.7593	-41.3974
270	-1035.6633	41.7593	-41.3974	-941.6274	41.7776	-41.4045
271	-941.6274	41.7776	-41.4045	-847.5746	41.8274	-41.6729
272	-847.5746	41.8274	-41.6729	-753.4143	41.8615	-41.9320
273	-753.4143	41.8615	-41.9320	-659.2896	41.8707	-42.0581
274	-659.2896	41.8707	-42.0581	-565.0731	41.8545	-42.1813

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	-565.0731	41.8545	-42.1813	-470.9232	41.8372	-42.2338
276	-470.9232	41.8372	-42.2338	-376.7756	41.8624	-42.3565
277	-376.7756	41.8624	-42.3565	-282.5384	41.8649	-42.4250
278	-282.5384	41.8649	-42.4250	-188.3620	41.8552	-42.4868
279	-188.3620	41.8552	-42.4868	-94.1923	41.8564	-42.5392
280	-94.1923	41.8564	-42.5392	-0.3492	-204.4135	-633.1680

ENVOL. MAX. CORTANTES TREN TREN SW/0, EC-1 en via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0379	209.3582	643.9135	450.7767	190.2790	597.1848
2	450.7767	190.2790	597.1848	821.2847	171.5872	552.8243
3	821.2847	171.5872	552.8243	1007.1881	149.2042	501.4808
4	1007.1881	149.2042	501.4808	1191.0889	132.3344	457.1629
5	1191.0889	132.3344	457.1629	1306.1152	116.1167	414.4371
6	1306.1152	116.1167	414.4371	1357.7622	100.6402	374.5735
7	1357.7622	100.6402	374.5735	1350.6328	72.5594	299.4233
8	1350.6328	72.5594	299.4233	1053.6111	58.5653	270.9426
9	1053.6111	58.5653	270.9426	933.3944	46.1207	242.2999
10	933.3944	46.1207	242.2999	775.8025	34.5050	216.0250
11	775.8025	34.5050	216.0250	586.8593	23.7278	192.3268
12	586.8593	23.7278	192.3268	372.7369	13.8034	170.4168
13	372.7369	13.8034	170.4168	343.6982	11.7565	2.0312
14	343.6982	11.7565	2.0312	370.1295	11.7580	2.0262
15	370.1295	11.7580	2.0262	396.5638	11.7575	2.0586
16	396.5638	11.7575	2.0586	423.0145	11.7584	2.1023
17	423.0145	11.7584	2.1023	449.4479	11.7550	2.0181
18	449.4479	11.7550	2.0181	475.8865	11.7512	1.8778
19	475.8865	11.7512	1.8778	502.3276	11.7518	1.8825
20	502.3276	11.7518	1.8825	-1691.9973	125.0760	412.5237
21	-1691.9973	125.0760	412.5237	-961.6405	260.8004	702.5559
22	-961.6405	260.8004	702.5559	-396.0501	245.7392	670.8722
23	-396.0501	245.7392	670.8722	199.9538	217.8478	598.1267
24	199.9538	217.8478	598.1267	598.2120	201.5472	565.7877
25	598.2120	201.5472	565.7877	1033.3279	173.3944	493.0133
26	1033.3279	173.3944	493.0133	1228.8169	157.1758	460.4694
27	1228.8169	157.1758	460.4694	1492.5189	129.3655	387.9084
28	1492.5189	129.3655	387.9084	1477.9966	114.5186	356.6143
29	1477.9966	114.5186	356.6143	1354.8672	87.8475	291.8918
30	1354.8672	87.8475	291.8918	1370.2426	75.2462	262.9908
31	1370.2426	75.2462	262.9908	1077.3230	51.6485	211.3304
32	1077.3230	51.6485	211.3304	966.7083	40.7587	188.7289
33	966.7083	40.7587	188.7289	-210.4626	26.9169	-29.8042
34	-210.4626	26.9169	-29.8042	-129.7163	26.9163	-29.8076
35	-129.7163	26.9163	-29.8076	-48.9551	26.9170	-29.7913
36	-48.9551	26.9170	-29.7913	31.7984	26.9151	-29.8069
37	31.7984	26.9151	-29.8069	112.5288	26.9120	-29.7947
38	112.5288	26.9120	-29.7947	193.2840	26.9123	-29.8067
39	193.2840	26.9123	-29.8067	274.0182	26.9143	-29.7964
40	274.0182	26.9143	-29.7964	-1598.6135	125.5891	406.3562
41	-1598.6135	125.5891	406.3562	-869.5752	258.6761	701.5800
42	-869.5752	258.6761	701.5800	-306.1630	243.4977	669.9354
43	-306.1630	243.4977	669.9354	283.3453	215.6064	597.1558
44	283.3453	215.6064	597.1558	672.7283	199.3851	564.7512
45	672.7283	199.3851	564.7512	1099.0552	171.2675	492.1260
46	1099.0552	171.2675	492.1260	1282.5428	155.2357	459.9941
47	1282.5428	155.2357	459.9941	1537.4406	127.5432	387.4879
48	1537.4406	127.5432	387.4879	1511.3412	112.9936	356.2585
49	1511.3412	112.9936	356.2585	1377.9987	86.6700	291.4130
50	1377.9987	86.6700	291.4130	1387.3423	74.2194	262.6196
51	1387.3423	74.2194	262.6196	1087.2729	50.9223	211.2673
52	1087.2729	50.9223	211.2673	972.9211	40.1908	188.7934
53	972.9211	40.1908	188.7934	-290.4409	37.2145	-32.4757

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	-290.4409	37.2145	-32.4757	-178.8169	37.2144	-32.4834
55	-178.8169	37.2144	-32.4834	-67.1866	37.2098	-32.5037
56	-67.1866	37.2098	-32.5037	44.4420	37.2043	-32.4928
57	44.4420	37.2043	-32.4928	156.0504	37.2022	-32.4912
58	156.0504	37.2022	-32.4912	267.6399	37.1973	-32.4929
59	267.6399	37.1973	-32.4929	379.2216	37.1972	-32.4351
60	379.2216	37.1972	-32.4351	-1591.2064	125.7737	406.0767
61	-1591.2064	125.7737	406.0767	-862.4939	258.5121	701.2900
62	-862.4939	258.5121	701.2900	-299.2443	243.3290	669.3462
63	-299.2443	243.3290	669.3462	289.6680	215.4345	596.5455
64	289.6680	215.4345	596.5455	678.2617	199.2190	564.4064
65	678.2617	199.2190	564.4064	1104.0214	171.1382	491.5603
66	1104.0214	171.1382	491.5603	1286.8467	155.1168	459.4106
67	1286.8467	155.1168	459.4106	1541.0913	127.4688	387.0668
68	1541.0913	127.4688	387.0668	1514.3247	112.9072	355.8987
69	1514.3247	112.9072	355.8987	1380.1193	86.5836	291.2090
70	1380.1193	86.5836	291.2090	1388.9038	74.1228	262.4167
71	1388.9038	74.1228	262.4167	1088.1448	50.8549	211.2889
72	1088.1448	50.8549	211.2889	973.4592	40.1353	188.7902
73	973.4592	40.1353	188.7902	-294.7612	37.7500	-32.6500
74	-294.7612	37.7500	-32.6500	-181.4791	37.7544	-32.6974
75	-181.4791	37.7544	-32.6974	-68.2149	37.7497	-32.7271
76	-68.2149	37.7497	-32.7271	45.0397	37.7467	-32.7332
77	45.0397	37.7467	-32.7332	158.2950	37.7471	-32.7328
78	158.2950	37.7471	-32.7328	271.5482	37.7517	-32.6749
79	271.5482	37.7517	-32.6749	384.8102	37.7543	-32.6456
80	384.8102	37.7543	-32.6456	-1590.4950	125.8034	405.7184
81	-1590.4950	125.8034	405.7184	-861.6895	258.5038	700.6198
82	-861.6895	258.5038	700.6198	-298.4879	243.3219	668.7788
83	-298.4879	243.3219	668.7788	290.5688	215.4507	595.9930
84	290.5688	215.4507	595.9930	679.1267	199.2134	563.7701
85	679.1267	199.2134	563.7701	1104.6270	171.1380	491.1718
86	1104.6270	171.1380	491.1718	1287.3962	155.1006	459.1161
87	1287.3962	155.1006	459.1161	1541.4375	127.4728	386.8317
88	1541.4375	127.4728	386.8317	1514.6177	112.8810	355.6570
89	1514.6177	112.8810	355.6570	1380.3256	86.5737	291.1694
90	1380.3256	86.5737	291.1694	1389.0210	74.1496	262.6639
91	1389.0210	74.1496	262.6639	1088.2927	50.8788	211.2636
92	1088.2927	50.8788	211.2636	973.6735	40.1415	188.7914
93	973.6735	40.1415	188.7914	-295.1162	37.8058	-32.7445
94	-295.1162	37.8058	-32.7445	-181.7585	37.8083	-32.7910
95	-181.7585	37.8083	-32.7910	-68.3161	37.8084	-32.8048
96	-68.3161	37.8084	-32.8048	45.0731	37.8007	-32.8044
97	45.0731	37.8007	-32.8044	158.4785	37.8008	-32.8018
98	158.4785	37.8008	-32.8018	271.9005	37.7966	-32.7585
99	271.9005	37.7966	-32.7585	385.2975	37.7961	-32.7435
100	385.2975	37.7961	-32.7435	-1590.2980	125.8141	405.2752
101	-1590.2980	125.8141	405.2752	-861.4490	258.5023	700.0979
102	-861.4490	258.5023	700.0979	-298.0936	243.3185	668.3696
103	-298.0936	243.3185	668.3696	290.7966	215.4110	595.6647
104	290.7966	215.4110	595.6647	679.1317	199.2000	563.3894
105	679.1317	199.2000	563.3894	1104.7866	171.0880	490.7029
106	1104.7866	171.0880	490.7029	1287.3497	155.0851	458.8436
107	1287.3497	155.0851	458.8436	1541.3790	127.4419	386.5956
108	1541.3790	127.4419	386.5956	1514.4846	112.8912	355.6696

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
109	1514.4846	112.8912	355.6696	1380.2957	86.5591	291.0837
110	1380.2957	86.5591	291.0837	1389.0371	74.1254	262.4249
111	1389.0371	74.1254	262.4249	1088.2788	50.8674	211.2336
112	1088.2788	50.8674	211.2336	973.6135	40.1220	188.7460
113	973.6135	40.1220	188.7460	-295.0602	37.8055	-33.0248
114	-295.0602	37.8055	-33.0248	-181.6094	37.7923	-33.0999
115	-181.6094	37.7923	-33.0999	-68.2490	37.7837	-33.1105
116	-68.2490	37.7837	-33.1105	45.1160	37.7840	-33.1416
117	45.1160	37.7840	-33.1416	158.4672	37.7865	-33.1064
118	158.4672	37.7865	-33.1064	271.8622	37.7859	-33.0788
119	271.8622	37.7859	-33.0788	385.2072	37.7841	-32.9500
120	385.2072	37.7841	-32.9500	-1590.6562	125.8186	404.5831
121	-1590.6562	125.8186	404.5831	-861.7004	258.5595	699.7996
122	-861.7004	258.5595	699.7996	-298.4135	243.3839	667.8229
123	-298.4135	243.3839	667.8229	290.7611	215.4888	595.0620
124	290.7611	215.4888	595.0620	679.5325	199.2651	562.8414
125	679.5325	199.2651	562.8414	1105.3987	171.1741	490.2017
126	1105.3987	171.1741	490.2017	1288.0157	155.1389	458.3549
127	1288.0157	155.1389	458.3549	1541.9678	127.4454	386.2867
128	1541.9678	127.4454	386.2867	1514.9246	112.8732	355.5583
129	1514.9246	112.8732	355.5583	1380.6160	86.5668	291.0137
130	1380.6160	86.5668	291.0137	1389.3407	74.1224	262.1274
131	1389.3407	74.1224	262.1274	1088.4988	50.8644	211.0282
132	1088.4988	50.8644	211.0282	973.7753	40.1347	188.9390
133	973.7753	40.1347	188.9390	-295.1261	37.8037	-33.2263
134	-295.1261	37.8037	-33.2263	-181.6837	37.8076	-33.2773
135	-181.6837	37.8076	-33.2773	-68.2541	37.8037	-33.2878
136	-68.2541	37.8037	-33.2878	45.1344	37.8009	-33.2804
137	45.1344	37.8009	-33.2804	158.5562	37.7962	-33.2591
138	158.5562	37.7962	-33.2591	271.9570	37.7948	-33.2328
139	271.9570	37.7948	-33.2328	385.3459	37.7973	-33.0701
140	385.3459	37.7973	-33.0701	-1589.7247	125.8074	404.3097
141	-1589.7247	125.8074	404.3097	-861.1172	258.4920	699.4655
142	-861.1172	258.4920	699.4655	-298.0080	243.2931	667.2087
143	-298.0080	243.2931	667.2087	290.7748	215.4065	594.4088
144	290.7748	215.4065	594.4088	679.2095	199.1927	562.3553
145	679.2095	199.1927	562.3553	1104.7598	171.1065	489.7419
146	1104.7598	171.1065	489.7419	1287.5016	155.1057	457.8167
147	1287.5016	155.1057	457.8167	1541.5973	127.4640	385.9106
148	1541.5973	127.4640	385.9106	1514.5588	112.8922	355.3367
149	1514.5588	112.8922	355.3367	1380.3325	86.5620	290.8387
150	1380.3325	86.5620	290.8387	1389.0858	74.1306	262.1921
151	1389.0858	74.1306	262.1921	1088.2744	50.8570	211.0683
152	1088.2744	50.8570	211.0683	973.5802	40.1352	188.9913
153	973.5802	40.1352	188.9913	-295.0168	37.7858	-33.3540
154	-295.0168	37.7858	-33.3540	-181.6609	37.7804	-33.3769
155	-181.6609	37.7804	-33.3769	-68.2589	37.7881	-33.4167
156	-68.2589	37.7881	-33.4167	45.1038	37.7878	-33.4084
157	45.1038	37.7878	-33.4084	158.4647	37.7839	-33.3975
158	158.4647	37.7839	-33.3975	271.8175	37.7868	-33.3575
159	271.8175	37.7868	-33.3575	385.2147	37.7905	-33.2841
160	385.2147	37.7905	-33.2841	-1590.2097	125.8335	404.2610
161	-1590.2097	125.8335	404.2610	-861.2356	258.5504	698.9708
162	-861.2356	258.5504	698.9708	-297.9100	243.3701	666.9973
163	-297.9100	243.3701	666.9973	291.1304	215.4628	594.2921

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
164	291.1304	215.4628	594.2921	679.6227	199.2393	562.0497
165	679.6227	199.2393	562.0497	1105.2476	171.1497	489.7803
166	1105.2476	171.1497	489.7803	1287.7993	155.1444	457.9116
167	1287.7993	155.1444	457.9116	1542.0642	127.4614	385.3482
168	1542.0642	127.4614	385.3482	1515.0225	112.8567	355.0013
169	1515.0225	112.8567	355.0013	1380.6086	86.5697	290.9662
170	1380.6086	86.5697	290.9662	1389.3037	74.1251	262.4727
171	1389.3037	74.1251	262.4727	1088.5072	50.8706	211.3087
172	1088.5072	50.8706	211.3087	973.8967	40.1446	188.8897
173	973.8967	40.1446	188.8897	-295.0974	37.7879	-33.3783
174	-295.0974	37.7879	-33.3783	-181.7184	37.7995	-33.4715
175	-181.7184	37.7995	-33.4715	-68.2872	37.8012	-33.4759
176	-68.2872	37.8012	-33.4759	45.0840	37.7975	-33.4951
177	45.0840	37.7975	-33.4951	158.5061	37.7935	-33.4627
178	158.5061	37.7935	-33.4627	271.8514	37.7895	-33.3816
179	271.8514	37.7895	-33.3816	385.2710	37.7894	-33.2938
180	385.2710	37.7894	-33.2938	-1589.8137	125.8165	404.1470
181	-1589.8137	125.8165	404.1470	-861.1328	258.5132	699.1915
182	-861.1328	258.5132	699.1915	-298.0121	243.3167	667.2284
183	-298.0121	243.3167	667.2284	290.7902	215.4249	594.3336
184	290.7902	215.4249	594.3336	679.2345	199.2088	562.1359
185	679.2345	199.2088	562.1359	1104.9893	171.1426	489.6371
186	1104.9893	171.1426	489.6371	1287.4495	155.1145	458.0932
187	1287.4495	155.1145	458.0932	1541.4968	127.4572	385.9448
188	1541.4968	127.4572	385.9448	1514.6957	112.9207	355.0953
189	1514.6957	112.9207	355.0953	1380.5243	86.6219	290.9734
190	1380.5243	86.6219	290.9734	1389.3235	74.1511	262.2438
191	1389.3235	74.1511	262.2438	1088.6191	50.8963	211.2964
192	1088.6191	50.8963	211.2964	973.9354	40.1487	189.1262
193	973.9354	40.1487	189.1262	-295.2087	37.8068	-33.4736
194	-295.2087	37.8068	-33.4736	-181.8160	37.8112	-33.5569
195	-181.8160	37.8112	-33.5569	-68.3753	37.8102	-33.6217
196	-68.3753	37.8102	-33.6217	45.0238	37.8058	-33.6278
197	45.0238	37.8058	-33.6278	158.4279	37.8018	-33.5865
198	158.4279	37.8018	-33.5865	271.8329	37.8021	-33.5131
199	271.8329	37.8021	-33.5131	385.2681	37.8039	-33.4720
200	385.2681	37.8039	-33.4720	-1589.8423	125.8255	404.1640
201	-1589.8423	125.8255	404.1640	-861.1433	258.5115	698.9031
202	-861.1433	258.5115	698.9031	-297.8565	243.3286	666.9279
203	-297.8565	243.3286	666.9279	290.9843	215.4277	594.2839
204	290.9843	215.4277	594.2839	679.5365	199.2221	562.1058
205	679.5365	199.2221	562.1058	1105.1460	171.1335	489.7239
206	1105.1460	171.1335	489.7239	1287.6404	155.1473	457.9711
207	1287.6404	155.1473	457.9711	1541.9169	127.4906	385.5560
208	1541.9169	127.4906	385.5560	1514.9604	112.9001	355.1156
209	1514.9604	112.9001	355.1156	1380.6011	86.5551	290.8965
210	1380.6011	86.5551	290.8965	1389.2791	74.1109	262.2244
211	1389.2791	74.1109	262.2244	1088.4441	50.8591	211.0795
212	1088.4441	50.8591	211.0795	973.7449	40.1374	188.9909
213	973.7449	40.1374	188.9909	-295.1046	37.8019	-33.4567
214	-295.1046	37.8019	-33.4567	-181.6845	37.8083	-33.5092
215	-181.6845	37.8083	-33.5092	-68.2498	37.8184	-33.5466
216	-68.2498	37.8184	-33.5466	45.1879	37.8176	-33.5354
217	45.1879	37.8176	-33.5354	158.6314	37.8157	-33.5137
218	158.6314	37.8157	-33.5137	272.0834	37.8169	-33.4736

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
219	272.0834	37.8169	-33.4736	385.5734	37.8177	-33.3422
220	385.5734	37.8177	-33.3422	-1587.6863	125.7757	404.0715
221	-1587.6863	125.7757	404.0715	-859.2789	258.3436	699.0155
222	-859.2789	258.3436	699.0155	-296.4158	243.1369	666.9653
223	-296.4158	243.1369	666.9653	292.0239	215.2305	594.2455
224	292.0239	215.2305	594.2455	679.8370	198.9925	562.0936
225	679.8370	198.9925	562.0936	1104.7072	170.9039	489.7711
226	1104.7072	170.9039	489.7711	1286.6118	154.8951	457.8632
227	1286.6118	154.8951	457.8632	1540.2124	127.2061	385.6631
228	1540.2124	127.2061	385.6631	1512.7266	112.6882	355.0324
229	1512.7266	112.6882	355.0324	1378.2115	86.4220	290.8088
230	1378.2115	86.4220	290.8088	1386.8529	73.9901	262.3336
231	1386.8529	73.9901	262.3336	1086.7024	50.7944	211.1172
232	1086.7024	50.7944	211.1172	972.4982	40.1004	188.9286
233	972.4982	40.1004	188.9286	-293.5928	37.8335	-33.3534
234	-293.5928	37.8335	-33.3534	-180.0963	37.8328	-33.4281
235	-180.0963	37.8328	-33.4281	-66.5660	37.8384	-33.4721
236	-66.5660	37.8384	-33.4721	46.9389	37.8423	-33.4601
237	46.9389	37.8423	-33.4601	160.5010	37.8438	-33.4084
238	160.5010	37.8438	-33.4084	274.0513	37.8415	-33.3704
239	274.0513	37.8415	-33.3704	387.5807	37.8396	-33.3154
240	387.5807	37.8396	-33.3154	-1568.2893	125.2321	404.1542
241	-1568.2893	125.2321	404.1542	-843.1710	256.7280	698.8655
242	-843.1710	256.7280	698.8655	-283.1581	241.2748	666.7151
243	-283.1581	241.2748	666.7151	300.0661	213.2676	594.0171
244	300.0661	213.2676	594.0171	682.0081	196.8665	561.8367
245	682.0081	196.8665	561.8367	1100.5972	168.7407	489.2983
246	1100.5972	168.7407	489.2983	1275.8274	152.7519	457.5673
247	1275.8274	152.7519	457.5673	1523.2676	125.1182	385.3256
248	1523.2676	125.1182	385.3256	1491.5007	110.7466	354.3350
249	1491.5007	110.7466	354.3350	1355.5262	84.7988	290.3216
250	1355.5262	84.7988	290.3216	1362.7791	72.5766	261.6646
251	1362.7791	72.5766	261.6646	1069.6849	49.9328	210.1355
252	1069.6849	49.9328	210.1355	961.1370	39.6030	187.8215
253	961.1370	39.6030	187.8215	-277.6946	38.4533	-33.4810
254	-277.6946	38.4533	-33.4810	-162.3417	38.4520	-33.5484
255	-162.3417	38.4520	-33.5484	-46.9873	38.4581	-33.5458
256	-46.9873	38.4581	-33.5458	68.4290	38.4620	-33.5330
257	68.4290	38.4620	-33.5330	183.8041	38.4564	-33.5156
258	183.8041	38.4564	-33.5156	299.1943	38.4573	-33.4052
259	299.1943	38.4573	-33.4052	414.5905	38.4574	-33.2924
260	414.5905	38.4574	-33.2924	-1209.6040	120.1666	351.5837
261	-1209.6040	120.1666	351.5837	-685.1843	249.2361	626.7020
262	-685.1843	249.2361	626.7020	-211.3647	231.6903	582.3647
263	-211.3647	231.6903	582.3647	205.5921	200.2401	500.1482
264	205.5921	200.2401	500.1482	558.1054	181.5286	455.6853
265	558.1054	181.5286	455.6853	938.4325	154.9382	380.5576
266	938.4325	154.9382	380.5576	1252.4332	128.3557	305.2339
267	1252.4332	128.3557	305.2339	1310.5105	111.7636	225.5952
268	1310.5105	111.7636	225.5952	1556.2871	89.5063	167.7003
269	1556.2871	89.5063	167.7003	1746.1396	66.5197	106.5956
270	1746.1396	66.5197	106.5956	1877.7417	49.5507	62.6809
271	1877.7417	49.5507	62.6809	-847.5746	41.8274	-41.6729
272	-847.5746	41.8274	-41.6729	-753.4143	41.8615	-41.9320
273	-753.4143	41.8615	-41.9320	-659.2896	41.8707	-42.0581

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
274	-659.2896	41.8707	-42.0581	-565.0731	41.8545	-42.1813
275	-565.0731	41.8545	-42.1813	-470.9232	41.8372	-42.2338
276	-470.9232	41.8372	-42.2338	-376.7756	41.8624	-42.3565
277	-376.7756	41.8624	-42.3565	-282.5384	41.8649	-42.4250
278	-282.5384	41.8649	-42.4250	-188.3620	41.8552	-42.4868
279	-188.3620	41.8552	-42.4868	-94.1923	41.8564	-42.5392
280	-94.1923	41.8564	-42.5392	-0.0082	41.8531	-42.5276

ENVOL. MIN. CORTANTES TREN TREN SW/0, EC-1 en via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0261	-41.6631	41.0210	-93.7135	-41.6614	41.0191
2	-93.7135	-41.6614	41.0191	-187.4560	-41.6518	40.9863
3	-187.4560	-41.6518	40.9863	-281.1927	-41.6527	41.0366
4	-281.1927	-41.6527	41.0366	-374.9565	-41.6700	41.1478
5	-374.9565	-41.6700	41.1478	-468.7062	-41.6870	41.0966
6	-468.7062	-41.6870	41.0966	-562.5112	-41.6966	41.0099
7	-562.5112	-41.6966	41.0099	-656.3419	-41.7225	41.0954
8	-656.3419	-41.7225	41.0954	1138.7617	-54.1624	-145.1572
9	1138.7617	-54.1624	-145.1572	1199.7493	-72.0699	-187.6534
10	1199.7493	-72.0699	-187.6534	1217.4348	-83.4083	-214.4577
11	1217.4348	-83.4083	-214.4577	1204.5481	-95.9165	-246.4290
12	1204.5481	-95.9165	-246.4290	1155.1708	-109.6505	-281.2408
13	1155.1708	-109.6505	-281.2408	1224.4771	-127.3773	-322.5201
14	1224.4771	-127.3773	-322.5201	1065.4412	-144.6460	-366.2972
15	1065.4412	-144.6460	-366.2972	845.5973	-162.9523	-413.0339
16	845.5973	-162.9523	-413.0339	559.5144	-188.6562	-478.5045
17	559.5144	-188.6562	-478.5045	203.2011	-214.0095	-541.9515
18	203.2011	-214.0095	-541.9515	-215.2863	-232.1545	-586.4554
19	-215.2863	-232.1545	-586.4554	-689.5499	-249.6930	-630.8801
20	-689.5499	-249.6930	-630.8801	-1214.0284	-120.3399	-354.7617
21	-1214.0284	-120.3399	-354.7617	413.6736	-38.3685	32.4602
22	413.6736	-38.3685	32.4602	298.5663	-38.3691	32.4263
23	298.5663	-38.3691	32.4263	183.4495	-38.3696	32.4282
24	183.4495	-38.3696	32.4282	68.3477	-38.3717	32.4267
25	68.3477	-38.3717	32.4267	-46.7750	-38.3698	32.4268
26	-46.7750	-38.3698	32.4268	-161.8781	-38.3701	32.4530
27	-161.8781	-38.3701	32.4530	-276.9852	-38.3745	32.4313
28	-276.9852	-38.3745	32.4313	966.6050	-39.9000	-190.2386
29	966.6050	-39.9000	-190.2386	1321.8276	-54.6976	-218.6562
30	1321.8276	-54.6976	-218.6562	1368.5288	-73.0139	-263.9076
31	1368.5288	-73.0139	-263.9076	1587.0004	-91.3835	-305.0482
32	1587.0004	-91.3835	-305.0482	1495.8594	-111.2730	-357.3629
33	1495.8594	-111.2730	-357.3629	1531.0869	-132.3257	-407.2379
34	1531.0869	-132.3257	-407.2379	1278.3398	-153.3145	-461.0255
35	1278.3398	-153.3145	-461.0255	1105.8745	-175.9962	-512.3299
36	1105.8745	-175.9962	-512.3299	681.8481	-197.4852	-566.0225
37	681.8481	-197.4852	-566.0225	302.8131	-220.5464	-617.2626
38	302.8131	-220.5464	-617.2626	-285.8585	-241.8856	-671.0400
39	-285.8585	-241.8856	-671.0400	-842.0220	-263.9641	-721.8632
40	-842.0220	-263.9641	-721.8632	-1572.2454	-125.4749	-407.2967
41	-1572.2454	-125.4749	-407.2967	386.3206	-37.7274	32.4803
42	386.3206	-37.7274	32.4803	273.1495	-37.7289	32.4644
43	273.1495	-37.7289	32.4644	159.9474	-37.7288	32.5051
44	159.9474	-37.7288	32.5051	46.7604	-37.7276	32.4989
45	46.7604	-37.7276	32.4989	-66.4036	-37.7297	32.4851
46	-66.4036	-37.7297	32.4851	-179.5913	-37.7290	32.4746
47	-179.5913	-37.7290	32.4746	-292.7570	-37.7276	32.4597
48	-292.7570	-37.7276	32.4597	978.0626	-40.4340	-191.3911
49	978.0626	-40.4340	-191.3911	1345.0017	-55.8768	-219.5589
50	1345.0017	-55.8768	-219.5589	1392.4612	-74.4426	-264.7388
51	1392.4612	-74.4426	-264.7388	1611.9924	-93.2049	-305.3766
52	1611.9924	-93.2049	-305.3766	1516.9875	-113.2505	-357.3978
53	1516.9875	-113.2505	-357.3978	1547.4031	-134.4583	-407.3403
54	1547.4031	-134.4583	-407.3403	1288.5500	-155.4783	-461.0048

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	1288.5500	-155.4783	-461.0048	1109.5516	-178.1478	-511.9920
56	1109.5516	-178.1478	-511.9920	679.0665	-199.5840	-565.8858
57	679.0665	-199.5840	-565.8858	294.4448	-222.4748	-616.9360
58	294.4448	-222.4748	-616.9360	-299.1393	-243.6935	-670.8127
59	-299.1393	-243.6935	-670.8127	-858.1915	-265.5393	-721.6350
60	-858.1915	-265.5393	-721.6350	-1591.3513	-125.9841	-406.7352
61	-1591.3513	-125.9841	-406.7352	384.2864	-37.6810	32.6732
62	384.2864	-37.6810	32.6732	271.2234	-37.6814	32.7519
63	271.2234	-37.6814	32.7519	158.1984	-37.6837	32.7607
64	158.1984	-37.6837	32.7607	45.1329	-37.6860	32.7612
65	45.1329	-37.6860	32.7612	-67.9211	-37.6873	32.7833
66	-67.9211	-37.6873	32.7833	-180.9939	-37.6839	32.7608
67	-180.9939	-37.6839	32.7608	-294.0641	-37.6863	32.7226
68	-294.0641	-37.6863	32.7226	979.1844	-40.4739	-191.4608
69	979.1844	-40.4739	-191.4608	1347.0188	-55.9914	-219.5569
70	1347.0188	-55.9914	-219.5569	1394.5458	-74.5885	-264.7537
71	1394.5458	-74.5885	-264.7537	1614.2148	-93.3577	-305.1639
72	1614.2148	-93.3577	-305.1639	1518.7288	-113.3996	-357.1652
73	1518.7288	-113.3996	-357.1652	1548.8784	-134.6231	-407.1409
74	1548.8784	-134.6231	-407.1409	1289.4779	-155.6609	-460.5657
75	1289.4779	-155.6609	-460.5657	1110.0702	-178.3137	-511.4627
76	1110.0702	-178.3137	-511.4627	679.1277	-199.7756	-565.3101
77	679.1277	-199.7756	-565.3101	293.9341	-222.6430	-616.4463
78	293.9341	-222.6430	-616.4463	-300.0064	-243.8724	-670.3820
79	-300.0064	-243.8724	-670.3820	-859.4204	-265.6921	-721.0719
80	-859.4204	-265.6921	-721.0719	-1592.9272	-126.0427	-406.2908
81	-1592.9272	-126.0427	-406.2908	384.0511	-37.6729	32.8294
82	384.0511	-37.6729	32.8294	271.0334	-37.6763	32.8705
83	271.0334	-37.6763	32.8705	157.9926	-37.6788	32.9104
84	157.9926	-37.6788	32.9104	44.9428	-37.6749	32.9157
85	44.9428	-37.6749	32.9157	-68.0435	-37.6794	32.9167
86	-68.0435	-37.6794	32.9167	-181.1120	-37.6797	32.8980
87	-181.1120	-37.6797	32.8980	-294.1138	-37.6740	32.8400
88	-294.1138	-37.6740	32.8400	979.3068	-40.4836	-191.5052
89	979.3068	-40.4836	-191.5052	1347.1921	-55.9966	-219.5864
90	1347.1921	-55.9966	-219.5864	1394.8083	-74.5773	-264.4254
91	1394.8083	-74.5773	-264.4254	1614.5129	-93.3619	-305.0297
92	1614.5129	-93.3619	-305.0297	1518.9604	-113.4403	-357.0843
93	1518.9604	-113.4403	-357.0843	1549.1221	-134.6470	-406.7444
94	1549.1221	-134.6470	-406.7444	1289.8567	-155.6871	-460.2354
95	1289.8567	-155.6871	-460.2354	1110.2275	-178.3512	-511.1762
96	1110.2275	-178.3512	-511.1762	679.3951	-199.8010	-564.8234
97	679.3951	-199.8010	-564.8234	294.1808	-222.6624	-615.8179
98	294.1808	-222.6624	-615.8179	-299.9727	-243.8857	-669.7513
99	-299.9727	-243.8857	-669.7513	-859.6440	-265.7096	-720.4639
100	-859.6440	-265.7096	-720.4639	-1592.9304	-126.0530	-406.0436
101	-1592.9304	-126.0530	-406.0436	384.0112	-37.6746	32.9389
102	384.0112	-37.6746	32.9389	270.9900	-37.6713	32.9207
103	270.9900	-37.6713	32.9207	157.9579	-37.6702	32.9967
104	157.9579	-37.6702	32.9967	44.9351	-37.6702	33.0305
105	44.9351	-37.6702	33.0305	-68.0585	-37.6706	33.0280
106	-68.0585	-37.6706	33.0280	-181.0688	-37.6763	32.9807
107	-181.0688	-37.6763	32.9807	-294.0939	-37.6786	32.9264
108	-294.0939	-37.6786	32.9264	979.2770	-40.4867	-191.4657
109	979.2770	-40.4867	-191.4657	1347.1509	-56.0050	-219.4586

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	1347.1509	-56.0050	-219.4586	1394.6506	-74.5773	-264.5280
111	1394.6506	-74.5773	-264.5280	1614.3784	-93.3732	-304.8765
112	1614.3784	-93.3732	-304.8765	1518.8237	-113.4510	-356.9172
113	1518.8237	-113.4510	-356.9172	1549.0345	-134.6559	-406.4485
114	1549.0345	-134.6559	-406.4485	1289.4114	-155.6750	-459.7202
115	1289.4114	-155.6750	-459.7202	1110.1525	-178.3042	-510.5913
116	1110.1525	-178.3042	-510.5913	679.3308	-199.7297	-564.1744
117	679.3308	-199.7297	-564.1744	294.3571	-222.6089	-615.3781
118	294.3571	-222.6089	-615.3781	-299.7316	-243.8398	-669.1452
119	-299.7316	-243.8398	-669.1452	-858.8826	-265.6663	-720.2749
120	-858.8826	-265.6663	-720.2749	-1592.0637	-126.0439	-405.7116
121	-1592.0637	-126.0439	-405.7116	384.0532	-37.6826	32.9928
122	384.0532	-37.6826	32.9928	271.0185	-37.6882	33.0658
123	271.0185	-37.6882	33.0658	157.9236	-37.6887	33.1278
124	157.9236	-37.6887	33.1278	44.8371	-37.6823	33.1518
125	44.8371	-37.6823	33.1518	-68.1933	-37.6811	33.1569
126	-68.1933	-37.6811	33.1569	-181.2237	-37.6797	33.1162
127	-181.2237	-37.6797	33.1162	-294.2247	-37.6777	33.0328
128	-294.2247	-37.6777	33.0328	979.6533	-40.4946	-191.3958
129	979.6533	-40.4946	-191.3958	1347.5485	-55.9963	-219.2901
130	1347.5485	-55.9963	-219.2901	1394.9702	-74.5973	-264.5656
131	1394.9702	-74.5973	-264.5656	1614.6685	-93.4026	-305.0662
132	1614.6685	-93.4026	-305.0662	1519.2068	-113.4663	-356.4949
133	1519.2068	-113.4663	-356.4949	1549.4504	-134.6561	-405.7762
134	1549.4504	-134.6561	-405.7762	1289.8270	-155.6876	-459.1644
135	1289.8270	-155.6876	-459.1644	1110.1646	-178.3681	-510.1172
136	1110.1646	-178.3681	-510.1172	679.4186	-199.7838	-563.6824
137	679.4186	-199.7838	-563.6824	294.1656	-222.6476	-614.6396
138	294.1656	-222.6476	-614.6396	-300.0671	-243.8801	-668.5908
139	-300.0671	-243.8801	-668.5908	-859.2197	-265.7096	-719.7675
140	-859.2197	-265.7096	-719.7675	-1592.5219	-126.0466	-404.9852
141	-1592.5219	-126.0466	-404.9852	384.0114	-37.6660	33.2970
142	384.0114	-37.6660	33.2970	270.9865	-37.6648	33.4610
143	270.9865	-37.6648	33.4610	158.0155	-37.6691	33.4953
144	158.0155	-37.6691	33.4953	44.9688	-37.6692	33.5208
145	44.9688	-37.6692	33.5208	-68.0247	-37.6671	33.5400
146	-68.0247	-37.6671	33.5400	-181.0630	-37.6727	33.5023
147	-181.0630	-37.6727	33.5023	-294.1191	-37.6713	33.3999
148	-294.1191	-37.6713	33.3999	979.4401	-40.4855	-191.3896
149	979.4401	-40.4855	-191.3896	1347.2549	-56.0066	-219.2996
150	1347.2549	-56.0066	-219.2996	1394.7278	-74.6116	-264.3870
151	1394.7278	-74.6116	-264.3870	1614.3345	-93.3698	-304.8135
152	1614.3345	-93.3698	-304.8135	1518.9480	-113.4133	-356.2951
153	1518.9480	-113.4133	-356.2951	1549.1437	-134.6570	-405.5208
154	1549.1437	-134.6570	-405.5208	1289.7007	-155.6680	-459.0364
155	1289.7007	-155.6680	-459.0364	1110.2323	-178.3281	-509.8130
156	1110.2323	-178.3281	-509.8130	679.5545	-199.7658	-563.3015
157	679.5545	-199.7658	-563.3015	294.5831	-222.6289	-614.1317
158	294.5831	-222.6289	-614.1317	-299.3915	-243.8753	-668.0908
159	-299.3915	-243.8753	-668.0908	-858.9856	-265.7000	-719.0499
160	-858.9856	-265.7000	-719.0499	-1592.1135	-126.0694	-404.7712
161	-1592.1135	-126.0694	-404.7712	384.0347	-37.6832	33.2458
162	384.0347	-37.6832	33.2458	270.9864	-37.6822	33.3177
163	270.9864	-37.6822	33.3177	157.9196	-37.6748	33.3882
164	157.9196	-37.6748	33.3882	44.8909	-37.6689	33.4256

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	44.8909	-37.6689	33.4256	-68.1334	-37.6730	33.3983
166	-68.1334	-37.6730	33.3983	-181.1676	-37.6817	33.3723
167	-181.1676	-37.6817	33.3723	-294.1953	-37.6697	33.3706
168	-294.1953	-37.6697	33.3706	979.6562	-40.4929	-191.7475
169	979.6562	-40.4929	-191.7475	1347.5338	-56.0055	-219.3546
170	1347.5338	-56.0055	-219.3546	1395.1863	-74.5874	-264.2111
171	1395.1863	-74.5874	-264.2111	1614.8176	-93.3789	-304.4585
172	1614.8176	-93.3789	-304.4585	1519.2737	-113.4291	-356.3052
173	1519.2737	-113.4291	-356.3052	1549.5626	-134.6697	-405.4908
174	1549.5626	-134.6697	-405.4908	1290.0858	-155.6786	-458.6899
175	1290.0858	-155.6786	-458.6899	1110.4755	-178.3879	-509.5548
176	1110.4755	-178.3879	-509.5548	679.6906	-199.8030	-562.9813
177	679.6906	-199.8030	-562.9813	294.2968	-222.6698	-614.0321
178	294.2968	-222.6698	-614.0321	-299.4865	-243.8969	-667.9496
179	-299.4865	-243.8969	-667.9496	-859.1756	-265.7195	-718.9173
180	-859.1756	-265.7195	-718.9173	-1592.5579	-126.0538	-404.7861
181	-1592.5579	-126.0538	-404.7861	384.0083	-37.6693	33.2356
182	384.0083	-37.6693	33.2356	270.9995	-37.6696	33.3356
183	270.9995	-37.6696	33.3356	157.9792	-37.6660	33.4354
184	157.9792	-37.6660	33.4354	44.9850	-37.6607	33.4377
185	44.9850	-37.6607	33.4377	-68.0359	-37.6666	33.4406
186	-68.0359	-37.6666	33.4406	-181.0514	-37.6752	33.3745
187	-181.0514	-37.6752	33.3745	-294.0845	-37.6797	33.3075
188	-294.0845	-37.6797	33.3075	979.4260	-40.4792	-191.5878
189	979.4260	-40.4792	-191.5878	1347.3687	-55.9706	-219.3001
190	1347.3687	-55.9706	-219.3001	1394.9028	-74.5779	-264.3190
191	1394.9028	-74.5779	-264.3190	1614.7234	-93.3331	-304.5706
192	1614.7234	-93.3331	-304.5706	1519.4585	-113.3946	-355.8872
193	1519.4585	-113.3946	-355.8872	1549.6407	-134.6570	-405.5936
194	1549.6407	-134.6570	-405.5936	1290.3013	-155.6980	-458.7867
195	1290.3013	-155.6980	-458.7867	1110.7343	-178.3714	-509.2990
196	1110.7343	-178.3714	-509.2990	679.8630	-199.8252	-562.9282
197	679.8630	-199.8252	-562.9282	294.7303	-222.6891	-613.9260
198	294.7303	-222.6891	-613.9260	-299.2614	-243.9174	-667.7820
199	-299.2614	-243.9174	-667.7820	-859.0122	-265.7381	-718.6691
200	-859.0122	-265.7381	-718.6691	-1592.5999	-126.0641	-404.6855
201	-1592.5999	-126.0641	-404.6855	383.5085	-37.6252	33.3751
202	383.5085	-37.6252	33.3751	270.6375	-37.6254	33.4080
203	270.6375	-37.6254	33.4080	157.7695	-37.6241	33.4490
204	157.7695	-37.6241	33.4490	44.8507	-37.6265	33.4992
205	44.8507	-37.6265	33.4992	-68.0351	-37.6334	33.4870
206	-68.0351	-37.6334	33.4870	-180.9262	-37.6387	33.4492
207	-180.9262	-37.6387	33.4492	-293.8538	-37.6382	33.4203
208	-293.8538	-37.6382	33.4203	979.6254	-40.4846	-191.6196
209	979.6254	-40.4846	-191.6196	1347.5388	-56.0071	-219.2829
210	1347.5388	-56.0071	-219.2829	1395.0300	-74.6095	-264.3633
211	1395.0300	-74.6095	-264.3633	1614.6450	-93.4031	-304.7719
212	1614.6450	-93.4031	-304.7719	1519.2230	-113.4233	-356.2797
213	1519.2230	-113.4233	-356.2797	1549.3331	-134.6841	-405.4280
214	1549.3331	-134.6841	-405.4280	1289.7892	-155.7426	-458.8326
215	1289.7892	-155.7426	-458.8326	1110.1582	-178.4265	-509.5414
216	1110.1582	-178.4265	-509.5414	679.2142	-199.8477	-563.1495
217	679.2142	-199.8477	-563.1495	293.9371	-222.7371	-613.9947
218	293.9371	-222.7371	-613.9947	-300.3860	-243.9688	-667.9589
219	-300.3860	-243.9688	-667.9589	-860.0842	-265.7773	-719.0737

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	-860.0842	-265.7773	-719.0737	-1593.4335	-126.0616	-404.7018
221	-1593.4335	-126.0616	-404.7018	377.6633	-37.0509	33.2598
222	377.6633	-37.0509	33.2598	266.5132	-37.0496	33.3512
223	266.5132	-37.0496	33.3512	155.3259	-37.0476	33.4196
224	155.3259	-37.0476	33.4196	44.1838	-37.0492	33.4591
225	44.1838	-37.0492	33.4591	-66.9738	-37.0537	33.4423
226	-66.9738	-37.0537	33.4423	-178.1369	-37.0519	33.4277
227	-178.1369	-37.0519	33.4277	-289.3022	-37.0444	33.3578
228	-289.3022	-37.0444	33.3578	978.9095	-40.5585	-191.5883
229	978.9095	-40.5585	-191.5883	1346.2166	-56.0862	-219.4227
230	1346.2166	-56.0862	-219.4227	1393.1073	-74.7096	-264.2595
231	1393.1073	-74.7096	-264.2595	1611.9341	-93.5086	-304.7213
232	1611.9341	-93.5086	-304.7213	1515.9236	-113.5219	-356.3358
233	1515.9236	-113.5219	-356.3358	1545.1559	-134.7585	-405.5742
234	1545.1559	-134.7585	-405.5742	1285.2212	-155.7905	-458.7640
235	1285.2212	-155.7905	-458.7640	1104.7202	-178.4806	-509.4216
236	1104.7202	-178.4806	-509.4216	673.2694	-199.9648	-563.1516
237	673.2694	-199.9648	-563.1516	287.4287	-222.8565	-614.0261
238	287.4287	-222.8565	-614.0261	-307.1628	-244.0707	-667.8494
239	-307.1628	-244.0707	-667.8494	-866.8693	-265.8813	-718.8457
240	-866.8693	-265.8813	-718.8457	-1600.3706	-125.8373	-404.6132
241	-1600.3706	-125.8373	-404.6132	272.7013	-26.7748	30.4404
242	272.7013	-26.7748	30.4404	192.3484	-26.7729	30.5117
243	192.3484	-26.7729	30.5117	112.0173	-26.7708	30.5523
244	112.0173	-26.7708	30.5523	31.7060	-26.7712	30.5821
245	31.7060	-26.7712	30.5821	-48.6086	-26.7742	30.5835
246	-48.6086	-26.7742	30.5835	-128.9319	-26.7738	30.5360
247	-128.9319	-26.7738	30.5360	-209.2753	-26.7736	30.4925
248	-209.2753	-26.7736	30.4925	972.3812	-41.1332	-191.8566
249	972.3812	-41.1332	-191.8566	1333.8743	-56.9414	-219.5421
250	1333.8743	-56.9414	-219.5421	1375.7478	-75.7234	-264.3760
251	1375.7478	-75.7234	-264.3760	1585.5220	-94.8289	-304.9705
252	1585.5220	-94.8289	-304.9705	1482.1265	-115.0303	-356.4344
253	1482.1265	-115.0303	-356.4344	1500.1562	-136.5618	-405.6198
254	1500.1562	-136.5618	-405.6198	1231.4636	-157.6841	-458.9314
255	1231.4636	-157.6841	-458.9314	1039.3540	-180.5911	-509.9282
256	1039.3540	-180.5911	-509.9282	599.2050	-202.1258	-563.5293
257	599.2050	-202.1258	-563.5293	204.4133	-225.0490	-614.5887
258	204.4133	-225.0490	-614.5887	-396.3585	-246.2715	-668.6952
259	-396.3585	-246.2715	-668.6952	-957.8264	-267.9652	-719.6726
260	-957.8264	-267.9652	-719.6726	-1692.7195	-125.3654	-410.4122
261	-1692.7195	-125.3654	-410.4122	503.5045	-11.7576	-2.8464
262	503.5045	-11.7576	-2.8464	477.0565	-11.7575	-2.7541
263	477.0565	-11.7575	-2.7541	450.6104	-11.7541	-2.5801
264	450.6104	-11.7541	-2.5801	424.1605	-11.7456	-2.5287
265	424.1605	-11.7456	-2.5287	397.7440	-11.7439	-2.4149
266	397.7440	-11.7439	-2.4149	371.3076	-11.7523	-2.3256
267	371.3076	-11.7523	-2.3256	344.8560	-11.7598	-2.2818
268	344.8560	-11.7598	-2.2818	380.0025	-14.0681	-170.6961
269	380.0025	-14.0681	-170.6961	594.3316	-24.0048	-195.0164
270	594.3316	-24.0048	-195.0164	783.4833	-34.8280	-219.7670
271	783.4833	-34.8280	-219.7670	941.4738	-46.4880	-245.7282
272	941.4738	-46.4880	-245.7282	1301.3342	-65.6661	-286.2355
273	1301.3342	-65.6661	-286.2355	1360.4922	-86.3902	-338.7894
274	1360.4922	-86.3902	-338.7894	1366.2589	-101.2516	-375.2568

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	1366.2589	-101.2516	-375.2568	1313.5293	-116.7867	-414.6985
276	1313.5293	-116.7867	-414.6985	1197.2645	-133.0764	-456.7468
277	1197.2645	-133.0764	-456.7468	1120.6398	-154.2818	-506.7983
278	1120.6398	-154.2818	-506.7983	828.7573	-172.4229	-551.0616
279	828.7573	-172.4229	-551.0616	456.4466	-191.1079	-595.4013
280	456.4466	-191.1079	-595.4013	-0.3492	-204.4135	-633.1680

ENVOL. MAX. TORSORES TREN TREN SW/0, EC-1 en via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0379	209.3582	643.9135	450.7767	190.2790	597.1848
2	450.7767	190.2790	597.1848	821.2847	171.5872	552.8243
3	821.2847	171.5872	552.8243	1007.1881	149.2042	501.4808
4	1007.1881	149.2042	501.4808	1191.0889	132.3344	457.1629
5	1191.0889	132.3344	457.1629	1306.1152	116.1167	414.4371
6	1306.1152	116.1167	414.4371	1357.7622	100.6402	374.5735
7	1357.7622	100.6402	374.5735	1130.3358	71.8244	302.7311
8	1130.3358	71.8244	302.7311	1053.6111	58.5653	270.9426
9	1053.6111	58.5653	270.9426	933.3944	46.1207	242.2999
10	933.3944	46.1207	242.2999	775.8025	34.5050	216.0250
11	775.8025	34.5050	216.0250	586.8593	23.7278	192.3268
12	586.8593	23.7278	192.3268	372.7369	13.8034	170.4168
13	372.7369	13.8034	170.4168	139.6457	4.7720	148.7928
14	139.6457	4.7720	148.7928	-106.6352	-3.3866	127.6134
15	-106.6352	-3.3866	127.6134	-577.7065	-17.1176	91.7135
16	-577.7065	-17.1176	91.7135	-818.5603	-22.7456	77.9362
17	-818.5603	-22.7456	77.9362	-1054.4614	-27.5769	67.2462
18	-1054.4614	-27.5769	67.2462	-1281.2610	-31.6385	59.5614
19	-1281.2610	-31.6385	59.5614	-1495.0438	-34.9732	54.0087
20	-1495.0438	-34.9732	54.0087	-1691.9973	125.0760	412.5237
21	-1691.9973	125.0760	412.5237	-1058.7000	260.0689	705.6882
22	-1058.7000	260.0689	705.6882	-396.0501	245.7392	670.8722
23	-396.0501	245.7392	670.8722	88.6099	216.3949	600.8181
24	88.6099	216.3949	600.8181	598.2120	201.5472	565.7877
25	598.2120	201.5472	565.7877	889.1472	171.8499	495.6927
26	889.1472	171.8499	495.6927	1228.8169	157.1758	460.4694
27	1228.8169	157.1758	460.4694	1308.1594	128.4061	391.0223
28	1308.1594	128.4061	391.0223	1477.9966	114.5186	356.6143
29	1477.9966	114.5186	356.6143	1354.8672	87.8475	291.8918
30	1354.8672	87.8475	291.8918	1370.2426	75.2462	262.9908
31	1370.2426	75.2462	262.9908	1077.3230	51.6485	211.3304
32	1077.3230	51.6485	211.3304	966.7083	40.7587	188.7289
33	966.7083	40.7587	188.7289	557.2235	20.9739	149.6461
34	557.2235	20.9739	149.6461	360.4315	12.1406	132.5524
35	360.4315	12.1406	132.5524	-98.0204	-3.3109	99.3650
36	-98.0204	-3.3109	99.3650	-337.1320	-9.9160	84.3454
37	-337.1320	-9.9160	84.3454	-778.7628	-20.9130	61.0007
38	-778.7628	-20.9130	61.0007	-1019.9529	-25.3419	52.6856
39	-1019.9529	-25.3419	52.6856	-1390.3474	-32.1496	41.9698
40	-1390.3474	-32.1496	41.9698	-1598.6135	125.5891	406.3562
41	-1598.6135	125.5891	406.3562	-963.5815	257.8707	704.7131
42	-963.5815	257.8707	704.7131	-306.1630	243.4977	669.9354
43	-306.1630	243.4977	669.9354	171.2506	214.1823	599.8538
44	171.2506	214.1823	599.8538	672.7283	199.3851	564.7512
45	672.7283	199.3851	564.7512	952.1290	169.8283	494.8737
46	952.1290	169.8283	494.8737	1282.5428	155.2357	459.9941
47	1282.5428	155.2357	459.9941	1349.7344	126.7489	390.6033
48	1349.7344	126.7489	390.6033	1511.3412	112.9936	356.2585
49	1511.3412	112.9936	356.2585	1377.9987	86.6700	291.4130
50	1377.9987	86.6700	291.4130	1387.3423	74.2194	262.6196
51	1387.3423	74.2194	262.6196	1087.2729	50.9223	211.2673
52	1087.2729	50.9223	211.2673	972.9211	40.1908	188.7934
53	972.9211	40.1908	188.7934	559.5976	20.6721	149.5374

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	559.5976	20.6721	149.5374	361.3290	11.9718	132.5215
55	361.3290	11.9718	132.5215	-98.0205	-3.2486	99.2607
56	-98.0205	-3.2486	99.2607	-336.7791	-9.7549	84.2266
57	-336.7791	-9.7549	84.2266	-777.1825	-20.5820	60.7963
58	-777.1825	-20.5820	60.7963	-1016.8890	-24.9538	52.4395
59	-1016.8890	-24.9538	52.4395	-1385.0386	-31.6573	41.4934
60	-1385.0386	-31.6573	41.4934	-1591.2064	125.7737	406.0767
61	-1591.2064	125.7737	406.0767	-956.2510	257.7000	704.4182
62	-956.2510	257.7000	704.4182	-299.2443	243.3290	669.3462
63	-299.2443	243.3290	669.3462	177.5204	214.0076	599.2450
64	177.5204	214.0076	599.2450	678.2617	199.2190	564.4064
65	678.2617	199.2190	564.4064	956.8878	169.7023	494.2913
66	956.8878	169.7023	494.2913	1286.8467	155.1168	459.4106
67	1286.8467	155.1168	459.4106	1353.1478	126.6823	390.1904
68	1353.1478	126.6823	390.1904	1514.3247	112.9072	355.8987
69	1514.3247	112.9072	355.8987	1380.1193	86.5836	291.2090
70	1380.1193	86.5836	291.2090	1388.9038	74.1228	262.4167
71	1388.9038	74.1228	262.4167	1088.1448	50.8549	211.2889
72	1088.1448	50.8549	211.2889	973.4592	40.1353	188.7902
73	973.4592	40.1353	188.7902	559.8365	20.6539	149.5591
74	559.8365	20.6539	149.5591	361.4241	11.9595	132.5862
75	361.4241	11.9595	132.5862	-98.0240	-3.2411	99.2718
76	-98.0240	-3.2411	99.2718	-336.7676	-9.7392	84.2026
77	-336.7676	-9.7392	84.2026	-777.0840	-20.5573	60.7802
78	-777.0840	-20.5573	60.7802	-1016.6473	-24.9051	52.1849
79	-1016.6473	-24.9051	52.1849	-1384.5657	-31.5958	41.1945
80	-1384.5657	-31.5958	41.1945	-1590.4950	125.8034	405.7184
81	-1590.4950	125.8034	405.7184	-955.4331	257.6934	703.7243
82	-955.4331	257.6934	703.7243	-298.4879	243.3219	668.7788
83	-298.4879	243.3219	668.7788	178.3650	214.0103	598.7055
84	178.3650	214.0103	598.7055	679.1267	199.2134	563.7701
85	679.1267	199.2134	563.7701	957.4525	169.6946	493.9106
86	957.4525	169.6946	493.9106	1287.3962	155.1006	459.1161
87	1287.3962	155.1006	459.1161	1353.4656	126.6434	389.9789
88	1353.4656	126.6434	389.9789	1514.6177	112.8810	355.6570
89	1514.6177	112.8810	355.6570	1380.3256	86.5737	291.1694
90	1380.3256	86.5737	291.1694	1389.0210	74.1496	262.6639
91	1389.0210	74.1496	262.6639	1088.2927	50.8788	211.2636
92	1088.2927	50.8788	211.2636	973.6735	40.1415	188.7914
93	973.6735	40.1415	188.7914	560.0072	20.6572	149.6549
94	560.0072	20.6572	149.6549	361.5923	11.9637	132.6278
95	361.5923	11.9637	132.6278	-97.8400	-3.2322	99.3000
96	-97.8400	-3.2322	99.3000	-336.5582	-9.7316	84.1557
97	-336.5582	-9.7316	84.1557	-776.8406	-20.5413	60.5429
98	-776.8406	-20.5413	60.5429	-1016.3404	-24.8913	51.9713
99	-1016.3404	-24.8913	51.9713	-1384.1993	-31.5915	40.9892
100	-1384.1993	-31.5915	40.9892	-1590.2980	125.8141	405.2752
101	-1590.2980	125.8141	405.2752	-955.1769	257.6934	703.1782
102	-955.1769	257.6934	703.1782	-298.0936	243.3185	668.3696
103	-298.0936	243.3185	668.3696	178.6203	213.9937	598.3632
104	178.6203	213.9937	598.3632	679.1317	199.2000	563.3894
105	679.1317	199.2000	563.3894	957.6307	169.6734	493.4468
106	957.6307	169.6734	493.4468	1287.3497	155.0851	458.8436

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
107	1287.3497	155.0851	458.8436	1353.4330	126.6457	389.7333
108	1353.4330	126.6457	389.7333	1514.4846	112.8912	355.6696
109	1514.4846	112.8912	355.6696	1380.2957	86.5591	291.0837
110	1380.2957	86.5591	291.0837	1389.0371	74.1254	262.4249
111	1389.0371	74.1254	262.4249	1088.2788	50.8674	211.2336
112	1088.2788	50.8674	211.2336	973.6135	40.1220	188.7460
113	973.6135	40.1220	188.7460	559.9290	20.6511	149.6881
114	559.9290	20.6511	149.6881	361.5483	11.9701	132.6496
115	361.5483	11.9701	132.6496	-97.8313	-3.2370	99.2445
116	-97.8313	-3.2370	99.2445	-336.5786	-9.7404	84.0815
117	-336.5786	-9.7404	84.0815	-776.9052	-20.5562	60.4024
118	-776.9052	-20.5562	60.4024	-1016.5200	-24.9099	51.7515
119	-1016.5200	-24.9099	51.7515	-1384.4341	-31.6070	40.3844
120	-1384.4341	-31.6070	40.3844	-1590.6562	125.8186	404.5831
121	-1590.6562	125.8186	404.5831	-955.4640	257.7581	702.8748
122	-955.4640	257.7581	702.8748	-298.4135	243.3839	667.8229
123	-298.4135	243.3839	667.8229	178.5775	214.0739	597.7595
124	178.5775	214.0739	597.7595	679.5325	199.2651	562.8414
125	679.5325	199.2651	562.8414	958.2174	169.7399	492.9738
126	958.2174	169.7399	492.9738	1288.0157	155.1389	458.3549
127	1288.0157	155.1389	458.3549	1354.0073	126.6518	389.3943
128	1354.0073	126.6518	389.3943	1514.9246	112.8732	355.5583
129	1514.9246	112.8732	355.5583	1380.6160	86.5668	291.0137
130	1380.6160	86.5668	291.0137	1389.3407	74.1224	262.1274
131	1389.3407	74.1224	262.1274	1088.4988	50.8644	211.0282
132	1088.4988	50.8644	211.0282	973.7753	40.1347	188.9390
133	973.7753	40.1347	188.9390	560.0544	20.6531	149.8023
134	560.0544	20.6531	149.8023	361.6821	11.9675	132.6830
135	361.6821	11.9675	132.6830	-97.6373	-3.2278	99.2216
136	-97.6373	-3.2278	99.2216	-336.3271	-9.7231	83.9824
137	-336.3271	-9.7231	83.9824	-776.5504	-20.5364	60.1457
138	-776.5504	-20.5364	60.1457	-1016.0298	-24.8924	51.5746
139	-1016.0298	-24.8924	51.5746	-1383.7999	-31.5844	39.9803
140	-1383.7999	-31.5844	39.9803	-1589.7247	125.8074	404.3097
141	-1589.7247	125.8074	404.3097	-954.8497	257.6832	702.5352
142	-954.8497	257.6832	702.5352	-298.0080	243.2931	667.2087
143	-298.0080	243.2931	667.2087	178.5916	213.9756	597.1077
144	178.5916	213.9756	597.1077	679.2095	199.1927	562.3553
145	679.2095	199.1927	562.3553	957.6323	169.6932	492.4944
146	957.6323	169.6932	492.4944	1287.5016	155.1057	457.8167
147	1287.5016	155.1057	457.8167	1353.6182	126.6458	389.0576
148	1353.6182	126.6458	389.0576	1514.5588	112.8922	355.3367
149	1514.5588	112.8922	355.3367	1380.3325	86.5620	290.8387
150	1380.3325	86.5620	290.8387	1389.0858	74.1306	262.1921
151	1389.0858	74.1306	262.1921	1088.2744	50.8570	211.0683
152	1088.2744	50.8570	211.0683	973.5802	40.1352	188.9913
153	973.5802	40.1352	188.9913	559.9636	20.6626	149.8582
154	559.9636	20.6626	149.8582	361.6223	11.9741	132.7613
155	361.6223	11.9741	132.7613	-97.7733	-3.2312	99.3299
156	-97.7733	-3.2312	99.3299	-336.5004	-9.7294	84.0540
157	-336.5004	-9.7294	84.0540	-776.8135	-20.5412	60.1085
158	-776.8135	-20.5412	60.1085	-1016.3428	-24.8915	51.4412
159	-1016.3428	-24.8915	51.4412	-1384.1937	-31.5785	40.1087
160	-1384.1937	-31.5785	40.1087	-1590.2097	125.8335	404.2610
161	-1590.2097	125.8335	404.2610	-954.9497	257.7516	702.0438

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
162	-954.9497	257.7516	702.0438	-297.9100	243.3701	666.9973
163	-297.9100	243.3701	666.9973	178.9637	214.0443	596.9912
164	178.9637	214.0443	596.9912	679.6227	199.2393	562.0497
165	679.6227	199.2393	562.0497	958.0452	169.7085	492.5420
166	958.0452	169.7085	492.5420	1287.7993	155.1444	457.9116
167	1287.7993	155.1444	457.9116	1354.1121	126.6337	388.5739
168	1354.1121	126.6337	388.5739	1515.0225	112.8567	355.0013
169	1515.0225	112.8567	355.0013	1380.6086	86.5697	290.9662
170	1380.6086	86.5697	290.9662	1389.3037	74.1251	262.4727
171	1389.3037	74.1251	262.4727	1088.5072	50.8706	211.3087
172	1088.5072	50.8706	211.3087	973.8967	40.1446	188.8897
173	973.8967	40.1446	188.8897	560.1974	20.6639	149.8672
174	560.1974	20.6639	149.8672	361.7819	11.9699	132.7874
175	361.7819	11.9699	132.7874	-97.5905	-3.2242	99.2710
176	-97.5905	-3.2242	99.2710	-336.2919	-9.7189	83.9911
177	-336.2919	-9.7189	83.9911	-776.5114	-20.5308	60.1092
178	-776.5114	-20.5308	60.1092	-1015.9706	-24.8812	51.2394
179	-1015.9706	-24.8812	51.2394	-1383.7878	-31.5792	39.7903
180	-1383.7878	-31.5792	39.7903	-1589.8137	125.8165	404.1470
181	-1589.8137	125.8165	404.1470	-954.8568	257.7045	702.2527
182	-954.8568	257.7045	702.2527	-298.0121	243.3167	667.2284
183	-298.0121	243.3167	667.2284	178.6330	214.0023	597.0283
184	178.6330	214.0023	597.0283	679.2345	199.2088	562.1359
185	679.2345	199.2088	562.1359	957.8479	169.7055	492.4459
186	957.8479	169.7055	492.4459	1287.4495	155.1145	458.0932
187	1287.4495	155.1145	458.0932	1353.5815	126.6752	389.0835
188	1353.5815	126.6752	389.0835	1514.6957	112.9207	355.0953
189	1514.6957	112.9207	355.0953	1380.5243	86.6219	290.9734
190	1380.5243	86.6219	290.9734	1389.3235	74.1511	262.2438
191	1389.3235	74.1511	262.2438	1088.6191	50.8963	211.2964
192	1088.6191	50.8963	211.2964	973.9354	40.1487	189.1262
193	973.9354	40.1487	189.1262	560.2868	20.6614	149.7866
194	560.2868	20.6614	149.7866	361.8442	11.9727	132.7961
195	361.8442	11.9727	132.7961	-97.6208	-3.2230	99.2874
196	-97.6208	-3.2230	99.2874	-336.3121	-9.7161	84.0286
197	-336.3121	-9.7161	84.0286	-776.5651	-20.5188	60.0601
198	-776.5651	-20.5188	60.0601	-1016.0342	-24.8707	51.1725
199	-1016.0342	-24.8707	51.1725	-1383.7875	-31.5568	39.8808
200	-1383.7875	-31.5568	39.8808	-1589.8423	125.8255	404.1640
201	-1589.8423	125.8255	404.1640	-954.8498	257.6973	701.9443
202	-954.8498	257.6973	701.9443	-297.8565	243.3286	666.9279
203	-297.8565	243.3286	666.9279	178.8174	214.0022	596.9982
204	178.8174	214.0022	596.9982	679.5365	199.2221	562.1058
205	679.5365	199.2221	562.1058	957.9743	169.7235	492.4852
206	957.9743	169.7235	492.4852	1287.6404	155.1473	457.9711
207	1287.6404	155.1473	457.9711	1353.9561	126.6828	388.7353
208	1353.9561	126.6828	388.7353	1514.9604	112.9001	355.1156
209	1514.9604	112.9001	355.1156	1380.6011	86.5551	290.8965
210	1380.6011	86.5551	290.8965	1389.2791	74.1109	262.2244
211	1389.2791	74.1109	262.2244	1088.4441	50.8591	211.0795
212	1088.4441	50.8591	211.0795	973.7449	40.1374	188.9909
213	973.7449	40.1374	188.9909	560.1592	20.6596	149.8553
214	560.1592	20.6596	149.8553	361.8608	11.9763	132.7736
215	361.8608	11.9763	132.7736	-97.3499	-3.2150	99.2884
216	-97.3499	-3.2150	99.2884	-335.8941	-9.7035	84.0186

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
217	-335.8941	-9.7035	84.0186	-775.7980	-20.4911	60.0728
218	-775.7980	-20.4911	60.0728	-1014.9861	-24.8419	51.4134
219	-1014.9861	-24.8419	51.4134	-1382.2747	-31.5157	39.8794
220	-1382.2747	-31.5157	39.8794	-1587.6863	125.7757	404.0715
221	-1587.6863	125.7757	404.0715	-952.8821	257.5279	702.0776
222	-952.8821	257.5279	702.0776	-296.4158	243.1369	666.9653
223	-296.4158	243.1369	666.9653	179.8871	213.8048	596.9554
224	179.8871	213.8048	596.9554	679.8370	198.9925	562.0936
225	679.8370	198.9925	562.0936	957.5131	169.4812	492.5369
226	957.5131	169.4812	492.5369	1286.6118	154.8951	457.8632
227	1286.6118	154.8951	457.8632	1352.2657	126.4482	388.8499
228	1352.2657	126.4482	388.8499	1512.7266	112.6882	355.0324
229	1512.7266	112.6882	355.0324	1378.2115	86.4220	290.8088
230	1378.2115	86.4220	290.8088	1386.8529	73.9901	262.3336
231	1386.8529	73.9901	262.3336	1086.7024	50.7944	211.1172
232	1086.7024	50.7944	211.1172	972.4982	40.1004	188.9286
233	972.4982	40.1004	188.9286	560.5610	20.6901	149.8254
234	560.5610	20.6901	149.8254	363.3463	12.0344	132.8151
235	363.3463	12.0344	132.8151	-93.2422	-3.0887	99.2877
236	-93.2422	-3.0887	99.2877	-329.9742	-9.5377	84.0459
237	-329.9742	-9.5377	84.0459	-766.1980	-20.2500	60.0117
238	-766.1980	-20.2500	60.0117	-1002.9487	-24.5601	51.2656
239	-1002.9487	-24.5601	51.2656	-1365.7319	-31.1623	39.9946
240	-1365.7319	-31.1623	39.9946	-1568.2893	125.2321	404.1542
241	-1568.2893	125.2321	404.1542	-935.4667	255.7823	701.8957
242	-935.4667	255.7823	701.8957	-283.1581	241.2748	666.7151
243	-283.1581	241.2748	666.7151	188.2910	211.7556	596.7015
244	188.2910	211.7556	596.7015	682.0081	196.8665	561.8367
245	682.0081	196.8665	561.8367	953.3920	167.2844	492.0490
246	953.3920	167.2844	492.0490	1275.8274	152.7519	457.5673
247	1275.8274	152.7519	457.5673	1335.9675	124.3783	388.4650
248	1335.9675	124.3783	388.4650	1491.5007	110.7466	354.3350
249	1491.5007	110.7466	354.3350	1355.5262	84.7988	290.3216
250	1355.5262	84.7988	290.3216	1362.7791	72.5766	261.6646
251	1362.7791	72.5766	261.6646	1069.6849	49.9328	210.1355
252	1069.6849	49.9328	210.1355	961.1370	39.6030	187.8215
253	961.1370	39.6030	187.8215	570.4517	21.0716	148.2708
254	570.4517	21.0716	148.2708	389.4536	12.9334	130.9012
255	389.4536	12.9334	130.9012	-26.1047	-0.9761	96.8448
256	-26.1047	-0.9761	96.8448	-233.0883	-6.7517	81.3403
257	-233.0883	-6.7517	81.3403	-605.6341	-16.0002	56.9224
258	-605.6341	-16.0002	56.9224	-797.2568	-19.5173	47.7786
259	-797.2568	-19.5173	47.7786	-1070.0011	-24.4103	35.5836
260	-1070.0011	-24.4103	35.5836	-1209.6040	120.1666	351.5837
261	-1209.6040	120.1666	351.5837	-685.1843	249.2361	626.7020
262	-685.1843	249.2361	626.7020	-211.3647	231.6903	582.3647
263	-211.3647	231.6903	582.3647	205.5921	200.2401	500.1482
264	205.5921	200.2401	500.1482	558.1054	181.5286	455.6853
265	558.1054	181.5286	455.6853	938.4325	154.9382	380.5576
266	938.4325	154.9382	380.5576	1252.4332	128.3557	305.2339
267	1252.4332	128.3557	305.2339	1310.5105	111.7636	225.5952
268	1310.5105	111.7636	225.5952	1556.2871	89.5063	167.7003
269	1556.2871	89.5063	167.7003	1746.1396	66.5197	106.5956
270	1746.1396	66.5197	106.5956	1877.7417	49.5507	62.6809
271	1877.7417	49.5507	62.6809	1945.9641	31.9967	19.0350

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
272	1945.9641	31.9967	19.0350	16.9074	-0.9387	0.0099
273	16.9074	-0.9387	0.0099	14.6652	-0.9312	0.0129
274	14.6652	-0.9312	0.0129	12.5691	-0.9316	0.0160
275	12.5691	-0.9316	0.0160	10.4744	-0.9312	0.0168
276	10.4744	-0.9312	0.0168	8.3801	-0.9312	0.0195
277	8.3801	-0.9312	0.0195	6.3408	-0.9396	0.0210
278	6.3408	-0.9396	0.0210	4.1896	-0.9311	0.0224
279	4.1896	-0.9311	0.0224	2.0951	-0.9311	0.0235
280	2.0951	-0.9311	0.0235	-0.0001	-0.9310	0.0232

ENVOL. MIN. TORSORES TREN TREN SW/0, EC-1 en via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0013	-0.0024	-2.4504	37.3988	-1.1126	-9.5732
2	37.3988	-1.1126	-9.5732	116.3814	-3.6941	-19.6362
3	116.3814	-3.6941	-19.6362	227.0276	-7.7407	-32.6832
4	227.0276	-7.7407	-32.6832	359.5923	-13.2387	-48.8259
5	359.5923	-13.2387	-48.8259	504.4246	-20.1823	-67.8084
6	504.4246	-20.1823	-67.8084	651.9869	-28.5359	-89.6432
7	651.9869	-28.5359	-89.6432	792.9576	-38.2928	-114.6339
8	792.9576	-38.2928	-114.6339	1138.7617	-54.1624	-145.1572
9	1138.7617	-54.1624	-145.1572	1199.7493	-72.0699	-187.6534
10	1199.7493	-72.0699	-187.6534	1217.4348	-83.4083	-214.4577
11	1217.4348	-83.4083	-214.4577	1204.5481	-95.9165	-246.4290
12	1204.5481	-95.9165	-246.4290	1155.1708	-109.6505	-281.2408
13	1155.1708	-109.6505	-281.2408	1224.4771	-127.3773	-322.5201
14	1224.4771	-127.3773	-322.5201	1065.4412	-144.6460	-366.2972
15	1065.4412	-144.6460	-366.2972	845.5973	-162.9523	-413.0339
16	845.5973	-162.9523	-413.0339	559.5144	-188.6562	-478.5045
17	559.5144	-188.6562	-478.5045	203.2011	-214.0095	-541.9515
18	203.2011	-214.0095	-541.9515	-215.2863	-232.1545	-586.4554
19	-215.2863	-232.1545	-586.4554	-689.5499	-249.6930	-630.8801
20	-689.5499	-249.6930	-630.8801	-1214.0284	-120.3399	-354.7617
21	-1214.0284	-120.3399	-354.7617	-1073.0386	24.4750	-37.2060
22	-1073.0386	24.4750	-37.2060	-797.6445	19.5242	-48.0972
23	-797.6445	19.5242	-48.0972	-604.5542	15.9722	-56.4693
24	-604.5542	15.9722	-56.4693	-229.0549	6.6311	-79.7618
25	-229.0549	6.6311	-79.7618	-21.3283	0.8113	-94.6916
26	-21.3283	0.8113	-94.6916	395.0056	-13.1663	-130.7395
27	395.0056	-13.1663	-130.7395	819.3566	-23.5925	-150.5585
28	819.3566	-23.5925	-150.5585	966.6050	-39.9000	-190.2386
29	966.6050	-39.9000	-190.2386	1321.8276	-54.6976	-218.6562
30	1321.8276	-54.6976	-218.6562	1368.5288	-73.0139	-263.9076
31	1368.5288	-73.0139	-263.9076	1587.0004	-91.3835	-305.0482
32	1587.0004	-91.3835	-305.0482	1495.8594	-111.2730	-357.3629
33	1495.8594	-111.2730	-357.3629	1531.0869	-132.3257	-407.2379
34	1531.0869	-132.3257	-407.2379	1278.3398	-153.3145	-461.0255
35	1278.3398	-153.3145	-461.0255	1105.8745	-175.9962	-512.3299
36	1105.8745	-175.9962	-512.3299	681.8481	-197.4852	-566.0225
37	681.8481	-197.4852	-566.0225	302.8131	-220.5464	-617.2626
38	302.8131	-220.5464	-617.2626	-285.8585	-241.8856	-671.0400
39	-285.8585	-241.8856	-671.0400	-842.0220	-263.9641	-721.8632
40	-842.0220	-263.9641	-721.8632	-1572.2454	-125.4749	-407.2967
41	-1572.2454	-125.4749	-407.2967	-1368.2725	31.2234	-41.4745
42	-1368.2725	31.2234	-41.4745	-1002.6400	24.5569	-51.6419
43	-1002.6400	24.5569	-51.6419	-764.3966	20.2093	-59.7850
44	-764.3966	20.2093	-59.7850	-325.5505	9.4021	-82.3923
45	-325.5505	9.4021	-82.3923	-88.3591	2.9212	-97.0940
46	-88.3591	2.9212	-97.0940	368.9357	-12.2658	-132.6588
47	368.9357	-12.2658	-132.6588	821.6176	-23.7003	-151.9269
48	821.6176	-23.7003	-151.9269	978.0626	-40.4340	-191.3911
49	978.0626	-40.4340	-191.3911	1345.0017	-55.8768	-219.5589
50	1345.0017	-55.8768	-219.5589	1392.4612	-74.4426	-264.7388
51	1392.4612	-74.4426	-264.7388	1611.9924	-93.2049	-305.3766
52	1611.9924	-93.2049	-305.3766	1516.9875	-113.2505	-357.3978
53	1516.9875	-113.2505	-357.3978	1547.4031	-134.4583	-407.3403
54	1547.4031	-134.4583	-407.3403	1288.5500	-155.4783	-461.0048

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	1288.5500	-155.4783	-461.0048	1109.5516	-178.1478	-511.9920
56	1109.5516	-178.1478	-511.9920	679.0665	-199.5840	-565.8858
57	679.0665	-199.5840	-565.8858	294.4448	-222.4748	-616.9360
58	294.4448	-222.4748	-616.9360	-299.1393	-243.6935	-670.8127
59	-299.1393	-243.6935	-670.8127	-858.1915	-265.5393	-721.6350
60	-858.1915	-265.5393	-721.6350	-1591.3513	-125.9841	-406.7352
61	-1591.3513	-125.9841	-406.7352	-1384.3799	31.5954	-41.0238
62	-1384.3799	31.5954	-41.0238	-1014.2115	24.8477	-51.5331
63	-1014.2115	24.8477	-51.5331	-773.5324	20.4542	-59.5834
64	-773.5324	20.4542	-59.5834	-331.0754	9.5639	-82.3910
65	-331.0754	9.5639	-82.3910	-92.1864	3.0408	-97.0996
66	-92.1864	3.0408	-97.0996	367.5510	-12.2144	-132.7393
67	367.5510	-12.2144	-132.7393	822.1077	-23.7039	-151.9917
68	822.1077	-23.7039	-151.9917	979.1844	-40.4739	-191.4608
69	979.1844	-40.4739	-191.4608	1347.0188	-55.9914	-219.5569
70	1347.0188	-55.9914	-219.5569	1394.5458	-74.5885	-264.7537
71	1394.5458	-74.5885	-264.7537	1614.2148	-93.3577	-305.1639
72	1614.2148	-93.3577	-305.1639	1518.7288	-113.3996	-357.1652
73	1518.7288	-113.3996	-357.1652	1548.8784	-134.6231	-407.1409
74	1548.8784	-134.6231	-407.1409	1289.4779	-155.6609	-460.5657
75	1289.4779	-155.6609	-460.5657	1110.0702	-178.3137	-511.4627
76	1110.0702	-178.3137	-511.4627	679.1277	-199.7756	-565.3101
77	679.1277	-199.7756	-565.3101	293.9341	-222.6430	-616.4463
78	293.9341	-222.6430	-616.4463	-300.0064	-243.8724	-670.3820
79	-300.0064	-243.8724	-670.3820	-859.4204	-265.6921	-721.0719
80	-859.4204	-265.6921	-721.0719	-1592.9272	-126.0427	-406.2908
81	-1592.9272	-126.0427	-406.2908	-1385.5515	31.6224	-40.6658
82	-1385.5515	31.6224	-40.6658	-1015.0275	24.8518	-51.1471
83	-1015.0275	24.8518	-51.1471	-774.1749	20.4606	-59.3779
84	-774.1749	20.4606	-59.3779	-331.4370	9.5730	-82.2703
85	-331.4370	9.5730	-82.2703	-92.3848	3.0457	-97.0596
86	-92.3848	3.0457	-97.0596	367.5625	-12.2189	-132.7322
87	367.5625	-12.2189	-132.7322	822.2597	-23.7164	-152.0193
88	822.2597	-23.7164	-152.0193	979.3068	-40.4836	-191.5052
89	979.3068	-40.4836	-191.5052	1347.1921	-55.9966	-219.5864
90	1347.1921	-55.9966	-219.5864	1394.8083	-74.5773	-264.4254
91	1394.8083	-74.5773	-264.4254	1614.5129	-93.3619	-305.0297
92	1614.5129	-93.3619	-305.0297	1518.9604	-113.4403	-357.0843
93	1518.9604	-113.4403	-357.0843	1549.1221	-134.6470	-406.7444
94	1549.1221	-134.6470	-406.7444	1289.8567	-155.6871	-460.2354
95	1289.8567	-155.6871	-460.2354	1110.2275	-178.3512	-511.1762
96	1110.2275	-178.3512	-511.1762	679.3951	-199.8010	-564.8234
97	679.3951	-199.8010	-564.8234	294.1808	-222.6624	-615.8179
98	294.1808	-222.6624	-615.8179	-299.9727	-243.8857	-669.7513
99	-299.9727	-243.8857	-669.7513	-859.6440	-265.7096	-720.4639
100	-859.6440	-265.7096	-720.4639	-1592.9304	-126.0530	-406.0436
101	-1592.9304	-126.0530	-406.0436	-1385.6689	31.6137	-40.5357
102	-1385.6689	31.6137	-40.5357	-1015.1542	24.8596	-50.9148
103	-1015.1542	24.8596	-50.9148	-774.2363	20.4684	-59.3732
104	-774.2363	20.4684	-59.3732	-331.4716	9.5722	-82.3573
105	-331.4716	9.5722	-82.3573	-92.4258	3.0463	-97.1279
106	-92.4258	3.0463	-97.1279	367.5549	-12.2157	-132.8340
107	367.5549	-12.2157	-132.8340	822.2430	-23.7168	-152.0979
108	822.2430	-23.7168	-152.0979	979.2770	-40.4867	-191.4657
109	979.2770	-40.4867	-191.4657	1347.1509	-56.0050	-219.4586

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	1347.1509	-56.0050	-219.4586	1394.6506	-74.5773	-264.5280
111	1394.6506	-74.5773	-264.5280	1614.3784	-93.3732	-304.8765
112	1614.3784	-93.3732	-304.8765	1518.8237	-113.4510	-356.9172
113	1518.8237	-113.4510	-356.9172	1549.0345	-134.6559	-406.4485
114	1549.0345	-134.6559	-406.4485	1289.4114	-155.6750	-459.7202
115	1289.4114	-155.6750	-459.7202	1110.1525	-178.3042	-510.5913
116	1110.1525	-178.3042	-510.5913	679.3308	-199.7297	-564.1744
117	679.3308	-199.7297	-564.1744	294.3571	-222.6089	-615.3781
118	294.3571	-222.6089	-615.3781	-299.7316	-243.8398	-669.1452
119	-299.7316	-243.8398	-669.1452	-858.8826	-265.6663	-720.2749
120	-858.8826	-265.6663	-720.2749	-1592.0637	-126.0439	-405.7116
121	-1592.0637	-126.0439	-405.7116	-1385.1727	31.5871	-40.0960
122	-1385.1727	31.5871	-40.0960	-1014.8074	24.8288	-50.8021
123	-1014.8074	24.8288	-50.8021	-774.0325	20.4432	-59.2133
124	-774.0325	20.4432	-59.2133	-331.3553	9.5592	-82.2652
125	-331.3553	9.5592	-82.2652	-92.3220	3.0385	-97.0891
126	-92.3220	3.0385	-97.0891	367.7343	-12.2204	-132.8629
127	367.7343	-12.2204	-132.8629	822.4946	-23.7200	-152.1501
128	822.4946	-23.7200	-152.1501	979.6533	-40.4946	-191.3958
129	979.6533	-40.4946	-191.3958	1347.5485	-55.9963	-219.2901
130	1347.5485	-55.9963	-219.2901	1394.9702	-74.5973	-264.5656
131	1394.9702	-74.5973	-264.5656	1614.6685	-93.4026	-305.0662
132	1614.6685	-93.4026	-305.0662	1519.2068	-113.4663	-356.4949
133	1519.2068	-113.4663	-356.4949	1549.4504	-134.6561	-405.7762
134	1549.4504	-134.6561	-405.7762	1289.8270	-155.6876	-459.1644
135	1289.8270	-155.6876	-459.1644	1110.1646	-178.3681	-510.1172
136	1110.1646	-178.3681	-510.1172	679.4186	-199.7838	-563.6824
137	679.4186	-199.7838	-563.6824	294.1656	-222.6476	-614.6396
138	294.1656	-222.6476	-614.6396	-300.0671	-243.8801	-668.5908
139	-300.0671	-243.8801	-668.5908	-859.2197	-265.7096	-719.7675
140	-859.2197	-265.7096	-719.7675	-1592.5219	-126.0466	-404.9852
141	-1592.5219	-126.0466	-404.9852	-1385.4572	31.6203	-39.5848
142	-1385.4572	31.6203	-39.5848	-1014.9266	24.8628	-50.6458
143	-1014.9266	24.8628	-50.6458	-774.0441	20.4665	-58.9617
144	-774.0441	20.4665	-58.9617	-331.3033	9.5688	-82.1804
145	-331.3033	9.5688	-82.1804	-92.2901	3.0380	-97.0627
146	-92.2901	3.0380	-97.0627	367.6448	-12.2234	-132.9012
147	367.6448	-12.2234	-132.9012	822.3266	-23.7184	-152.2090
148	822.3266	-23.7184	-152.2090	979.4401	-40.4855	-191.3896
149	979.4401	-40.4855	-191.3896	1347.2549	-56.0066	-219.2996
150	1347.2549	-56.0066	-219.2996	1394.7278	-74.6116	-264.3870
151	1394.7278	-74.6116	-264.3870	1614.3345	-93.3698	-304.8135
152	1614.3345	-93.3698	-304.8135	1518.9480	-113.4133	-356.2951
153	1518.9480	-113.4133	-356.2951	1549.1437	-134.6570	-405.5208
154	1549.1437	-134.6570	-405.5208	1289.7007	-155.6680	-459.0364
155	1289.7007	-155.6680	-459.0364	1110.2323	-178.3281	-509.8130
156	1110.2323	-178.3281	-509.8130	679.5545	-199.7658	-563.3015
157	679.5545	-199.7658	-563.3015	294.5831	-222.6289	-614.1317
158	294.5831	-222.6289	-614.1317	-299.3915	-243.8753	-668.0908
159	-299.3915	-243.8753	-668.0908	-858.9856	-265.7000	-719.0499
160	-858.9856	-265.7000	-719.0499	-1592.1135	-126.0694	-404.7712
161	-1592.1135	-126.0694	-404.7712	-1384.8837	31.5761	-39.6371
162	-1384.8837	31.5761	-39.6371	-1014.5430	24.8218	-50.4563
163	-1014.5430	24.8218	-50.4563	-773.7549	20.4397	-58.9958
164	-773.7549	20.4397	-58.9958	-331.0842	9.5531	-82.1878

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	-331.0842	9.5531	-82.1878	-92.0636	3.0304	-97.1181
166	-92.0636	3.0304	-97.1181	367.8936	-12.2241	-132.8781
167	367.8936	-12.2241	-132.8781	822.5441	-23.7299	-152.4747
168	822.5441	-23.7299	-152.4747	979.6562	-40.4929	-191.7475
169	979.6562	-40.4929	-191.7475	1347.5338	-56.0055	-219.3546
170	1347.5338	-56.0055	-219.3546	1395.1863	-74.5874	-264.2111
171	1395.1863	-74.5874	-264.2111	1614.8176	-93.3789	-304.4585
172	1614.8176	-93.3789	-304.4585	1519.2737	-113.4291	-356.3052
173	1519.2737	-113.4291	-356.3052	1549.5626	-134.6697	-405.4908
174	1549.5626	-134.6697	-405.4908	1290.0858	-155.6786	-458.6899
175	1290.0858	-155.6786	-458.6899	1110.4755	-178.3879	-509.5548
176	1110.4755	-178.3879	-509.5548	679.6906	-199.8030	-562.9813
177	679.6906	-199.8030	-562.9813	294.2968	-222.6698	-614.0321
178	294.2968	-222.6698	-614.0321	-299.4865	-243.8969	-667.9496
179	-299.4865	-243.8969	-667.9496	-859.1756	-265.7195	-718.9173
180	-859.1756	-265.7195	-718.9173	-1592.5579	-126.0538	-404.7861
181	-1592.5579	-126.0538	-404.7861	-1385.3096	31.6096	-39.6378
182	-1385.3096	31.6096	-39.6378	-1014.8059	24.8532	-50.5867
183	-1014.8059	24.8532	-50.5867	-773.9415	20.4624	-59.1191
184	-773.9415	20.4624	-59.1191	-331.2546	9.5684	-82.2128
185	-331.2546	9.5684	-82.2128	-92.2278	3.0378	-97.1183
186	-92.2278	3.0378	-97.1183	367.7211	-12.2240	-132.9010
187	367.7211	-12.2240	-132.9010	822.3282	-23.7283	-152.1795
188	822.3282	-23.7283	-152.1795	979.4260	-40.4792	-191.5878
189	979.4260	-40.4792	-191.5878	1347.3687	-55.9706	-219.3001
190	1347.3687	-55.9706	-219.3001	1394.9028	-74.5779	-264.3190
191	1394.9028	-74.5779	-264.3190	1614.7234	-93.3331	-304.5706
192	1614.7234	-93.3331	-304.5706	1519.4585	-113.3946	-355.8872
193	1519.4585	-113.3946	-355.8872	1549.6407	-134.6570	-405.5936
194	1549.6407	-134.6570	-405.5936	1290.3013	-155.6980	-458.7867
195	1290.3013	-155.6980	-458.7867	1110.7343	-178.3714	-509.2990
196	1110.7343	-178.3714	-509.2990	679.8630	-199.8252	-562.9282
197	679.8630	-199.8252	-562.9282	294.7303	-222.6891	-613.9260
198	294.7303	-222.6891	-613.9260	-299.2614	-243.9174	-667.7820
199	-299.2614	-243.9174	-667.7820	-859.0122	-265.7381	-718.6691
200	-859.0122	-265.7381	-718.6691	-1592.5999	-126.0641	-404.6855
201	-1592.5999	-126.0641	-404.6855	-1385.3225	31.6110	-39.8564
202	-1385.3225	31.6110	-39.8564	-1014.8689	24.8542	-50.4875
203	-1014.8689	24.8542	-50.4875	-773.9980	20.4622	-58.9612
204	-773.9980	20.4622	-58.9612	-331.2683	9.5639	-82.2251
205	-331.2683	9.5639	-82.2251	-92.2289	3.0371	-97.1329
206	-92.2289	3.0371	-97.1329	367.7459	-12.2201	-132.8942
207	367.7459	-12.2201	-132.8942	822.4381	-23.7066	-152.3646
208	822.4381	-23.7066	-152.3646	979.6254	-40.4846	-191.6196
209	979.6254	-40.4846	-191.6196	1347.5388	-56.0071	-219.2829
210	1347.5388	-56.0071	-219.2829	1395.0300	-74.6095	-264.3633
211	1395.0300	-74.6095	-264.3633	1614.6450	-93.4031	-304.7719
212	1614.6450	-93.4031	-304.7719	1519.2230	-113.4233	-356.2797
213	1519.2230	-113.4233	-356.2797	1549.3331	-134.6841	-405.4280
214	1549.3331	-134.6841	-405.4280	1289.7892	-155.7426	-458.8326
215	1289.7892	-155.7426	-458.8326	1110.1582	-178.4265	-509.5414
216	1110.1582	-178.4265	-509.5414	679.2142	-199.8477	-563.1495
217	679.2142	-199.8477	-563.1495	293.9371	-222.7371	-613.9947
218	293.9371	-222.7371	-613.9947	-300.3860	-243.9688	-667.9589
219	-300.3860	-243.9688	-667.9589	-860.0842	-265.7773	-719.0737

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	-860.0842	-265.7773	-719.0737	-1593.4335	-126.0616	-404.7018
221	-1593.4335	-126.0616	-404.7018	-1385.8540	31.6549	-39.4447
222	-1385.8540	31.6549	-39.4447	-1015.1064	24.8903	-50.3456
223	-1015.1064	24.8903	-50.3456	-774.0614	20.4913	-58.9035
224	-774.0614	20.4913	-58.9035	-331.1945	9.5760	-82.1544
225	-331.1945	9.5760	-82.1544	-92.1246	3.0408	-97.0802
226	-92.1246	3.0408	-97.0802	367.7267	-12.2474	-132.8620
227	367.7267	-12.2474	-132.8620	822.1110	-23.7757	-152.3046
228	822.1110	-23.7757	-152.3046	978.9095	-40.5585	-191.5883
229	978.9095	-40.5585	-191.5883	1346.2166	-56.0862	-219.4227
230	1346.2166	-56.0862	-219.4227	1393.1073	-74.7096	-264.2595
231	1393.1073	-74.7096	-264.2595	1611.9341	-93.5086	-304.7213
232	1611.9341	-93.5086	-304.7213	1515.9236	-113.5219	-356.3358
233	1515.9236	-113.5219	-356.3358	1545.1559	-134.7585	-405.5742
234	1545.1559	-134.7585	-405.5742	1285.2212	-155.7905	-458.7640
235	1285.2212	-155.7905	-458.7640	1104.7202	-178.4806	-509.4216
236	1104.7202	-178.4806	-509.4216	673.2694	-199.9648	-563.1516
237	673.2694	-199.9648	-563.1516	287.4287	-222.8565	-614.0261
238	287.4287	-222.8565	-614.0261	-307.1628	-244.0707	-667.8494
239	-307.1628	-244.0707	-667.8494	-866.8693	-265.8813	-718.8457
240	-866.8693	-265.8813	-718.8457	-1600.3706	-125.8373	-404.6132
241	-1600.3706	-125.8373	-404.6132	-1390.8357	32.1656	-39.6344
242	-1390.8357	32.1656	-39.6344	-1017.8310	25.2867	-50.5246
243	-1017.8310	25.2867	-50.5246	-775.3365	20.8194	-59.0181
244	-775.3365	20.8194	-59.0181	-331.3312	9.7341	-82.2820
245	-331.3312	9.7341	-82.2820	-92.0177	3.0965	-97.1807
246	-92.0177	3.0965	-97.1807	366.8170	-12.4184	-132.9807
247	366.8170	-12.4184	-132.9807	818.5222	-24.2114	-152.3537
248	818.5222	-24.2114	-152.3537	972.3812	-41.1332	-191.8566
249	972.3812	-41.1332	-191.8566	1333.8743	-56.9414	-219.5421
250	1333.8743	-56.9414	-219.5421	1375.7478	-75.7234	-264.3760
251	1375.7478	-75.7234	-264.3760	1585.5220	-94.8289	-304.9705
252	1585.5220	-94.8289	-304.9705	1482.1265	-115.0303	-356.4344
253	1482.1265	-115.0303	-356.4344	1500.1562	-136.5618	-405.6198
254	1500.1562	-136.5618	-405.6198	1231.4636	-157.6841	-458.9314
255	1231.4636	-157.6841	-458.9314	1039.3540	-180.5911	-509.9282
256	1039.3540	-180.5911	-509.9282	599.2050	-202.1258	-563.5293
257	599.2050	-202.1258	-563.5293	204.4133	-225.0490	-614.5887
258	204.4133	-225.0490	-614.5887	-396.3585	-246.2715	-668.6952
259	-396.3585	-246.2715	-668.6952	-957.8264	-267.9652	-719.6726
260	-957.8264	-267.9652	-719.6726	-1692.7195	-125.3654	-410.4122
261	-1692.7195	-125.3654	-410.4122	-1494.6196	34.8926	-50.8509
262	-1494.6196	34.8926	-50.8509	-1279.7891	31.5317	-56.5476
263	-1279.7891	31.5317	-56.5476	-1051.8140	27.4166	-64.8680
264	-1051.8140	27.4166	-64.8680	-814.7764	22.5574	-75.6439
265	-814.7764	22.5574	-75.6439	-354.1105	10.4443	-105.5983
266	-354.1105	10.4443	-105.5983	-99.9794	3.1479	-124.7745
267	-99.9794	3.1479	-124.7745	146.5442	-5.0194	-146.7225
268	146.5442	-5.0194	-146.7225	380.0025	-14.0681	-170.6961
269	380.0025	-14.0681	-170.6961	594.3316	-24.0048	-195.0164
270	594.3316	-24.0048	-195.0164	783.4833	-34.8280	-219.7670
271	783.4833	-34.8280	-219.7670	941.4738	-46.4880	-245.7282
272	941.4738	-46.4880	-245.7282	1301.3342	-65.6661	-286.2355
273	1301.3342	-65.6661	-286.2355	1360.4922	-86.3902	-338.7894
274	1360.4922	-86.3902	-338.7894	1366.2589	-101.2516	-375.2568

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	1366.2589	-101.2516	-375.2568	1313.5293	-116.7867	-414.6985
276	1313.5293	-116.7867	-414.6985	1197.2645	-133.0764	-456.7468
277	1197.2645	-133.0764	-456.7468	1120.6398	-154.2818	-506.7983
278	1120.6398	-154.2818	-506.7983	828.7573	-172.4229	-551.0616
279	828.7573	-172.4229	-551.0616	456.4466	-191.1079	-595.4013
280	456.4466	-191.1079	-595.4013	-0.3492	-204.4135	-633.1680

ENVOL. MAX. FLECTORES TREN TREN SW/2, EC-1 en via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0607	111.4827	526.9785	537.9750	219.0893	637.3042
2	537.9750	219.0893	637.3042	1001.2313	199.2011	595.2278
3	1001.2313	199.2011	595.2278	1411.9954	169.1976	512.2969
4	1411.9954	169.1976	512.2969	1747.9773	131.7059	408.3835
5	1747.9773	131.7059	408.3835	2017.9603	104.7515	345.6901
6	2017.9603	104.7515	345.6901	2223.5342	74.7719	263.3882
7	2223.5342	74.7719	263.3882	2361.6787	55.7353	220.8326
8	2361.6787	55.7353	220.8326	2442.2781	18.2985	117.0434
9	2442.2781	18.2985	117.0434	2457.1978	-8.1867	48.1949
10	2457.1978	-8.1867	48.1949	2421.5620	-28.2897	-3.7796
11	2421.5620	-28.2897	-3.7796	2329.5264	-49.4583	-58.7948
12	2329.5264	-49.4583	-58.7948	2175.2681	-79.0815	-137.6313
13	2175.2681	-79.0815	-137.6313	1957.8635	-116.6518	-241.4226
14	1957.8635	-116.6518	-241.4226	1673.2976	-139.7285	-302.6660
15	1673.2976	-139.7285	-302.6660	1321.4124	-169.7228	-385.2578
16	1321.4124	-169.7228	-385.2578	901.6433	-201.1814	-469.8167
17	901.6433	-201.1814	-469.8167	619.4946	16.1939	3.1793
18	619.4946	16.1939	3.1793	655.9404	16.1936	2.9908
19	655.9404	16.1936	2.9908	692.3822	16.1970	2.9973
20	692.3822	16.1970	2.9973	728.8209	-18.3508	27.0751
21	728.8209	-18.3508	27.0751	570.1460	-52.9004	50.9692
22	570.1460	-52.9004	50.9692	411.4487	-52.9016	50.9237
23	411.4487	-52.9016	50.9237	374.2267	261.1371	709.6505
24	374.2267	261.1371	709.6505	1103.8547	221.3269	605.8821
25	1103.8547	221.3269	605.8821	1702.3704	181.5627	502.6411
26	1702.3704	181.5627	502.6411	2179.5576	136.5930	378.2883
27	2179.5576	136.5930	378.2883	2526.8105	96.8925	277.2004
28	2526.8105	96.8925	277.2004	2749.9116	51.8706	153.1458
29	2749.9116	51.8706	153.1458	2846.9583	12.4248	54.3916
30	2846.9583	12.4248	54.3916	2906.7441	34.5975	62.3041
31	2906.7441	34.5975	62.3041	2942.9597	-10.4263	-62.1492
32	2942.9597	-10.4263	-62.1492	2857.0122	-49.6815	-161.4716
33	2857.0122	-49.6815	-161.4716	2641.1353	-89.1685	-262.2740
34	2641.1353	-89.1685	-262.2740	2305.9749	-134.1880	-386.4271
35	2305.9749	-134.1880	-386.4271	1839.3396	-173.9327	-489.7665
36	1839.3396	-173.9327	-489.7665	1250.0916	-218.9196	-613.5406
37	1250.0916	-218.9196	-613.5406	554.4305	14.8979	2.5887
38	554.4305	14.8979	2.5887	599.1180	14.8980	2.5832
39	599.1180	14.8980	2.5832	643.8074	14.8970	2.5908
40	643.8074	14.8970	2.5908	688.4914	-18.5613	26.8755
41	688.4914	-18.5613	26.8755	532.4413	-52.0167	50.9916
42	532.4413	-52.0167	50.9916	376.4104	-52.0174	50.9696
43	376.4104	-52.0174	50.9696	489.0325	258.0671	708.2594
44	489.0325	258.0671	708.2594	1209.7561	218.2345	604.3447
45	1209.7561	218.2345	604.3447	1797.7668	178.4680	501.2227
46	1797.7668	178.4680	501.2227	2265.6016	133.4802	377.4565
47	2265.6016	133.4802	377.4565	2601.7773	93.8669	276.5438
48	2601.7773	93.8669	276.5438	2815.7988	48.8658	152.5216
49	2815.7988	48.8658	152.5216	2902.0181	9.5911	53.5240
50	2902.0181	9.5911	53.5240	2952.1394	31.8562	61.0548
51	2952.1394	31.8562	61.0548	2980.1230	-13.1359	-62.7690
52	2980.1230	-13.1359	-62.7690	2887.6753	-52.5604	-161.5436
53	2887.6753	-52.5604	-161.5436	2663.6431	-92.1649	-262.6295

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	2663.6431	-92.1649	-262.6295	2319.7554	-137.1472	-386.4952
55	2319.7554	-137.1472	-386.4952	1844.4882	-176.9220	-489.5193
56	1844.4882	-176.9220	-489.5193	1246.1469	-221.8945	-613.5979
57	1246.1469	-221.8945	-613.5979	553.4728	14.6709	2.7009
58	553.4728	14.6709	2.7009	597.4736	14.6723	2.7035
59	597.4736	14.6723	2.7035	641.4962	14.6723	2.7976
60	641.4962	14.6723	2.7976	685.5005	-18.6417	27.0357
61	685.5005	-18.6417	27.0357	635.8208	-14.5218	-2.9176
62	635.8208	-14.5218	-2.9176	592.2517	-14.5222	-2.7741
63	592.2517	-14.5222	-2.7741	548.6962	-14.5217	-2.7723
64	548.6962	-14.5217	-2.7723	1217.6143	218.0289	603.8853
65	1217.6143	218.0289	603.8853	1804.9132	178.2805	500.5665
66	1804.9132	178.2805	500.5665	2272.4121	133.3007	376.6284
67	2272.4121	133.3007	376.6284	2607.8550	93.7219	276.0717
68	2607.8550	93.7219	276.0717	2821.4900	48.7117	152.0488
69	2821.4900	48.7117	152.0488	2906.8970	9.3524	53.3442
70	2906.8970	9.3524	53.3442	2956.1128	31.6275	60.7737
71	2956.1128	31.6275	60.7737	2983.3853	-13.4047	-62.5526
72	2983.3853	-13.4047	-62.5526	2890.2188	-52.7609	-161.3325
73	2890.2188	-52.7609	-161.3325	2665.7246	-92.4003	-262.4555
74	2665.7246	-92.4003	-262.4555	2321.1624	-137.4086	-385.9041
75	2321.1624	-137.4086	-385.9041	1845.1621	-177.1454	-488.7990
76	1845.1621	-177.1454	-488.7990	1246.1827	-222.1184	-612.8109
77	1246.1827	-222.1184	-612.8109	553.3425	14.6462	2.7102
78	553.3425	14.6462	2.7102	597.2756	14.6422	2.8508
79	597.2756	14.6422	2.8508	641.1942	14.6402	2.9334
80	641.1942	14.6402	2.9334	690.5197	18.7987	-27.3730
81	690.5197	18.7987	-27.3730	646.2396	-14.7579	-3.0935
82	646.2396	-14.7579	-3.0935	601.9752	-14.7541	-3.0064
83	601.9752	-14.7541	-3.0064	557.7180	-14.7525	-2.9188
84	557.7180	-14.7525	-2.9188	1218.8479	218.0215	603.0446
85	1218.8479	218.0215	603.0446	1805.9407	178.2665	500.0506
86	1805.9407	178.2665	500.0506	2273.1985	133.2614	376.3138
87	2273.1985	133.2614	376.3138	2608.4370	93.7034	275.8067
88	2608.4370	93.7034	275.8067	2822.0076	48.7168	151.7300
89	2822.0076	48.7168	151.7300	2907.3677	9.3876	53.2377
90	2907.3677	9.3876	53.2377	2956.5083	31.6089	61.3312
91	2956.5083	31.6089	61.3312	2983.8608	-13.3925	-62.4835
92	2983.8608	-13.3925	-62.4835	2890.7344	-52.7859	-161.2686
93	2890.7344	-52.7859	-161.2686	2666.2031	-92.3941	-261.8792
94	2666.2031	-92.3941	-261.8792	2321.6724	-137.4091	-385.5507
95	2321.6724	-137.4091	-385.5507	1845.4438	-177.2025	-488.4371
96	1845.4438	-177.2025	-488.4371	1246.6222	-222.2045	-612.1073
97	1246.6222	-222.2045	-612.1073	553.3375	14.6385	2.9035
98	553.3375	14.6385	2.9035	597.2539	14.6423	2.9871
99	597.2539	14.6423	2.9871	641.1967	14.6416	3.0356
100	641.1967	14.6416	3.0356	691.4175	18.8249	-27.4229
101	691.4175	18.8249	-27.4229	647.1047	-14.7727	-3.1582
102	647.1047	-14.7727	-3.1582	602.7949	-14.7726	-3.1621
103	602.7949	-14.7726	-3.1621	558.4623	-14.7754	-2.9521
104	558.4623	-14.7754	-2.9521	1218.8300	217.9944	602.5930
105	1218.8300	217.9944	602.5930	1806.0651	178.2363	499.3897
106	1806.0651	178.2363	499.3897	2273.2029	133.2643	375.8970
107	2273.2029	133.2643	375.8970	2608.4204	93.6965	275.4803
108	2608.4204	93.6965	275.4803	2821.9229	48.6714	151.8808

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
109	2821.9229	48.6714	151.8808	2907.2085	9.3415	53.3629
110	2907.2085	9.3415	53.3629	2956.3799	31.6387	60.9479
111	2956.3799	31.6387	60.9479	2983.6475	-13.3715	-62.4255
112	2983.6475	-13.3715	-62.4255	2890.4929	-52.8202	-161.1568
113	2890.4929	-52.8202	-161.1568	2665.8110	-92.4717	-261.4464
114	2665.8110	-92.4717	-261.4464	2321.0471	-137.4242	-384.8644
115	2321.0471	-137.4242	-384.8644	1845.2883	-177.1176	-487.6783
116	1845.2883	-177.1176	-487.6783	1246.5122	-222.0813	-611.3190
117	1246.5122	-222.0813	-611.3190	553.3496	14.6479	2.9741
118	553.3496	14.6479	2.9741	597.3151	14.6494	3.0983
119	597.3151	14.6494	3.0983	641.2522	14.6514	3.3021
120	641.2522	14.6514	3.3021	691.2763	18.8204	-27.6336
121	691.2763	18.8204	-27.6336	646.9942	-14.7643	-3.3623
122	646.9942	-14.7643	-3.3623	602.7029	-14.7586	-3.2204
123	602.7029	-14.7586	-3.2204	558.4398	-14.7569	-3.0542
124	558.4398	-14.7569	-3.0542	1219.3823	218.0876	601.8225
125	1219.3823	218.0876	601.8225	1806.8348	178.3388	498.7639
126	1806.8348	178.3388	498.7639	2274.1682	133.3145	375.2820
127	2274.1682	133.3145	375.2820	2609.3467	93.6732	275.0640
128	2609.3467	93.6732	275.0640	2822.8413	48.6535	151.8291
129	2822.8413	48.6535	151.8291	2908.0562	9.3411	53.4871
130	2908.0562	9.3411	53.4871	2957.0181	31.5730	60.5314
131	2957.0181	31.5730	60.5314	2984.2173	-13.4012	-62.8336
132	2984.2173	-13.4012	-62.8336	2891.0225	-52.8462	-160.4291
133	2891.0225	-52.8462	-160.4291	2666.4155	-92.4481	-260.4934
134	2666.4155	-92.4481	-260.4934	2321.5408	-137.4399	-384.1205
135	2321.5408	-137.4399	-384.1205	1845.3385	-177.1933	-487.1211
136	1845.3385	-177.1933	-487.1211	1246.5802	-222.1740	-610.6376
137	1246.5802	-222.1740	-610.6376	553.3153	14.6432	3.1576
138	553.3153	14.6432	3.1576	597.2440	14.6433	3.2074
139	597.2440	14.6433	3.2074	641.1605	14.6443	3.4928
140	641.1605	14.6443	3.4928	691.5182	18.8195	-27.9146
141	691.5182	18.8195	-27.9146	647.1790	-14.7787	-3.5916
142	647.1790	-14.7787	-3.5916	602.8500	-14.7822	-3.2983
143	602.8500	-14.7822	-3.2983	558.5016	-14.7812	-3.2150
144	558.5016	-14.7812	-3.2150	1218.9413	217.9879	601.1766
145	1218.9413	217.9879	601.1766	1805.9995	178.2838	498.2149
146	1805.9995	178.2838	498.2149	2273.3833	133.3150	374.5753
147	2273.3833	133.3150	374.5753	2608.6460	93.6956	274.6365
148	2608.6460	93.6956	274.6365	2822.0791	48.6677	151.6039
149	2822.0791	48.6677	151.6039	2907.3462	9.3672	53.2918
150	2907.3462	9.3672	53.2918	2956.4607	31.5779	60.7593
151	2956.4607	31.5779	60.7593	2983.6902	-13.4206	-62.5720
152	2983.6902	-13.4206	-62.5720	2890.5752	-52.7906	-160.2697
153	2890.5752	-52.7906	-160.2697	2666.0371	-92.3903	-260.2932
154	2666.0371	-92.3903	-260.2932	2321.4912	-137.3944	-383.9844
155	2321.4912	-137.3944	-383.9844	1845.4094	-177.1568	-486.7081
156	1845.4094	-177.1568	-486.7081	1246.8408	-222.1423	-610.0457
157	1246.8408	-222.1423	-610.0457	553.4111	14.6425	3.2172
158	553.4111	14.6425	3.2172	597.3465	14.6427	3.3008
159	597.3465	14.6427	3.3008	641.2719	14.6406	3.4412
160	641.2719	14.6406	3.4412	691.3049	18.8262	-28.0453
161	691.3049	18.8262	-28.0453	647.0336	-14.7635	-3.5869
162	647.0336	-14.7635	-3.5869	602.7519	-14.7675	-3.4432
163	602.7519	-14.7675	-3.4432	558.4507	-14.7682	-3.2304

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
164	558.4507	-14.7682	-3.2304	1219.5588	218.0615	600.7473
165	1219.5588	218.0615	600.7473	1806.6987	178.2924	498.2220
166	1806.6987	178.2924	498.2220	2273.9104	133.3015	374.8825
167	2273.9104	133.3015	374.8825	2609.3616	93.7280	273.7633
168	2609.3616	93.7280	273.7633	2822.8228	48.7056	150.8033
169	2822.8228	48.7056	150.8033	2908.0405	9.3660	53.3805
170	2908.0405	9.3660	53.3805	2957.1243	31.5877	61.2379
171	2957.1243	31.5877	61.2379	2984.3408	-13.3803	-61.9344
172	2984.3408	-13.3803	-61.9344	2891.2139	-52.8321	-160.4470
173	2891.2139	-52.8321	-160.4470	2666.7349	-92.4346	-260.2543
174	2666.7349	-92.4346	-260.2543	2321.9653	-137.4367	-383.5266
175	2321.9653	-137.4367	-383.5266	1845.8806	-177.2113	-486.3481
176	1845.8806	-177.2113	-486.3481	1246.9465	-222.2159	-609.7042
177	1246.9465	-222.2159	-609.7042	553.3505	14.6388	3.2043
178	553.3505	14.6388	3.2043	597.2463	14.6391	3.4174
179	597.2463	14.6391	3.4174	641.1800	14.6400	3.5893
180	641.1800	14.6400	3.5893	691.3737	18.8167	-28.0212
181	691.3737	18.8167	-28.0212	647.0444	-14.7726	-3.5814
182	647.0444	-14.7726	-3.5814	602.7361	-14.7761	-3.3580
183	602.7361	-14.7761	-3.3580	558.4012	-14.7818	-3.1305
184	558.4012	-14.7818	-3.1305	1219.0439	218.0179	600.9220
185	1219.0439	218.0179	600.9220	1806.3173	178.2980	498.0358
186	1806.3173	178.2980	498.0358	2273.3560	133.2737	375.0045
187	2273.3560	133.2737	375.0045	2608.5950	93.7435	274.7653
188	2608.5950	93.7435	274.7653	2822.2322	48.7484	151.1578
189	2822.2322	48.7484	151.1578	2907.7720	9.4036	53.4911
190	2907.7720	9.4036	53.4911	2956.9810	31.6642	60.8845
191	2956.9810	31.6642	60.8845	2984.4761	-13.3331	-62.0404
192	2984.4761	-13.3331	-62.0404	2891.5488	-52.7704	-159.6640
193	2891.5488	-52.7704	-159.6640	2667.0415	-92.4635	-260.4951
194	2667.0415	-92.4635	-260.4951	2322.3115	-137.4466	-383.6199
195	2322.3115	-137.4466	-383.6199	1846.1980	-177.2225	-485.9603
196	1846.1980	-177.2225	-485.9603	1247.2686	-222.2283	-609.6210
197	1247.2686	-222.2283	-609.6210	552.6379	14.6127	3.2554
198	552.6379	14.6127	3.2554	596.4711	14.6121	3.4654
199	596.4711	14.6121	3.4654	640.3041	14.6112	3.5535
200	640.3041	14.6112	3.5535	691.4774	18.8242	-28.1544
201	691.4774	18.8242	-28.1544	647.1623	-14.7793	-3.4906
202	647.1623	-14.7793	-3.4906	602.8364	-14.7796	-3.4316
203	602.8364	-14.7796	-3.4316	558.5121	-14.7785	-3.2664
204	558.5121	-14.7785	-3.2664	1219.3596	218.0241	600.8462
205	1219.3596	218.0241	600.8462	1806.5383	178.3064	498.1387
206	1806.5383	178.3064	498.1387	2273.6797	133.3070	374.8730
207	2273.6797	133.3070	374.8730	2609.1091	93.7670	274.1211
208	2609.1091	93.7670	274.1211	2822.7861	48.7364	151.1333
209	2822.7861	48.7364	151.1333	2908.0498	9.3506	53.4055
210	2908.0498	9.3506	53.4055	2957.0930	31.5644	60.8440
211	2957.0930	31.5644	60.8440	2984.0825	-13.4597	-62.5392
212	2984.0825	-13.4597	-62.5392	2890.9727	-52.8511	-160.2178
213	2890.9727	-52.8511	-160.2178	2666.2690	-92.4846	-260.2035
214	2666.2690	-92.4846	-260.2035	2321.4612	-137.4675	-383.7195
215	2321.4612	-137.4675	-383.7195	1845.2937	-177.2266	-486.3915
216	1845.2937	-177.2266	-486.3915	1246.3735	-222.2410	-609.9169
217	1246.3735	-222.2410	-609.9169	543.2935	14.3630	3.2164
218	543.2935	14.3630	3.2164	586.3762	14.3617	3.2982

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
219	586.3762	14.3617	3.2982	629.4651	14.3618	3.5256
220	629.4651	14.3618	3.5256	691.9250	18.8232	-28.1122
221	691.9250	18.8232	-28.1122	647.5128	-14.7990	-3.6767
222	647.5128	-14.7990	-3.6767	603.1169	-14.8012	-3.5008
223	603.1169	-14.8012	-3.5008	558.7033	-14.8047	-3.2830
224	558.7033	-14.8047	-3.2830	1219.8320	217.7416	600.8144
225	1219.8320	217.7416	600.8144	1806.0059	177.9893	498.2368
226	1806.0059	177.9893	498.2368	2272.3496	132.9792	374.7585
227	2272.3496	132.9792	374.7585	2606.7734	93.3692	274.2491
228	2606.7734	93.3692	274.2491	2819.3767	48.4033	151.0446
229	2819.3767	48.4033	151.0446	2904.0273	9.0730	53.1640
230	2904.0273	9.0730	53.1640	2952.0708	31.2827	61.0449
231	2952.0708	31.2827	61.0449	2978.5957	-13.6504	-62.4323
232	2978.5957	-13.6504	-62.4323	2884.6272	-52.9981	-160.3860
233	2884.6272	-52.9981	-160.3860	2659.3518	-92.6239	-260.3814
234	2659.3518	-92.6239	-260.3814	2314.1704	-137.6151	-383.5074
235	2314.1704	-137.6151	-383.5074	1837.3671	-177.3788	-486.1953
236	1837.3671	-177.3788	-486.1953	1237.8625	-222.4146	-609.9370
237	1237.8625	-222.4146	-609.9370	509.6969	-262.2367	-713.2217
238	509.6969	-262.2367	-713.2217	379.8920	52.4846	-52.6222
239	379.8920	52.4846	-52.6222	537.3568	52.4830	-52.5430
240	537.3568	52.4830	-52.5430	694.8437	18.7235	-28.1007
241	694.8437	18.7235	-28.1007	649.7452	-15.0359	-3.5977
242	649.7452	-15.0359	-3.5977	604.6293	-15.0377	-3.4204
243	604.6293	-15.0377	-3.4204	559.5125	-15.0394	-3.2400
244	559.5125	-15.0394	-3.2400	1222.9749	214.6888	600.2977
245	1222.9749	214.6888	600.2977	1800.3198	174.9688	497.3806
246	1800.3198	174.9688	497.3806	2257.5615	130.0148	374.1929
247	2257.5615	130.0148	374.1929	2584.0146	90.5855	273.6621
248	2584.0146	90.5855	273.6621	2788.2974	45.5936	149.8748
249	2788.2974	45.5936	149.8748	2866.4514	6.4012	52.3948
250	2866.4514	6.4012	52.3948	2904.4463	28.5441	60.5980
251	2904.4463	28.5441	60.5980	2922.4875	-16.4790	-63.0005
252	2922.4875	-16.4790	-63.0005	2817.7539	-55.9390	-160.7644
253	2817.7539	-55.9390	-160.7644	2582.4646	-100.9334	-283.5367
254	2582.4646	-100.9334	-283.5367	2227.7280	-140.6494	-384.0393
255	2227.7280	-140.6494	-384.0393	1740.9043	-180.4879	-487.1032
256	1740.9043	-180.4879	-487.1032	1132.0388	-225.5110	-610.6302
257	1132.0388	-225.5110	-610.6302	394.9872	-265.2915	-714.1738
258	394.9872	-265.2915	-714.1738	414.7726	53.3372	-52.6740
259	414.7726	53.3372	-52.6740	574.8076	53.3363	-52.5163
260	574.8076	53.3363	-52.5163	734.8207	18.5162	-28.4410
261	734.8207	18.5162	-28.4410	698.1415	-16.3018	-4.3568
262	698.1415	-16.3018	-4.3568	661.4677	-16.3013	-4.2287
263	661.4677	-16.3013	-4.2287	624.8000	-16.2955	-3.9908
264	624.8000	-16.2955	-3.9908	588.1338	-16.2906	-3.9117
265	588.1338	-16.2906	-3.9117	551.4944	-16.2921	-3.7485
266	551.4944	-16.2921	-3.7485	869.3068	152.0859	275.7245
267	869.3068	152.0859	275.7245	1211.4437	152.0449	275.9489
268	1211.4437	152.0449	275.9489	1553.4507	141.7230	231.1714
269	1553.4507	141.7230	231.1714	1839.1052	106.9868	152.9200
270	1839.1052	106.9868	152.9200	2049.7354	76.9523	70.2043
271	2049.7354	76.9523	70.2043	2185.3525	46.9304	-11.7744
272	2185.3525	46.9304	-11.7744	2245.8325	9.3847	-114.4693

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
273	2245.8325	9.3847	-114.4693	2227.6025	-28.1519	-217.3886
274	2227.6025	-28.1519	-217.3886	2134.2568	-58.1501	-299.6405
275	2134.2568	-58.1501	-299.6405	1965.9160	-88.1378	-382.1061
276	1965.9160	-88.1378	-382.1061	1722.7943	-125.6535	-484.9169
277	1722.7943	-125.6535	-484.9169	1400.7195	-163.1657	-587.9296
278	1400.7195	-163.1657	-587.9296	1003.7620	-193.1475	-670.3075
279	1003.7620	-193.1475	-670.3075	531.8796	-223.1440	-752.7393
280	531.8796	-223.1440	-752.7393	0.0012	3.6892	-0.2252

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ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.0068	15.6438	2.9604	-129.2091	-57.4400	64.4619
2	-129.2091	-57.4400	64.4619	-258.4610	-57.4385	64.4142
3	-258.4610	-57.4385	64.4142	-387.7186	-57.4436	64.4828
4	-387.7186	-57.4436	64.4828	-517.0071	-57.4643	64.6423
5	-517.0071	-57.4643	64.6423	-646.2687	-57.4753	64.5659
6	-646.2687	-57.4753	64.5659	-775.5793	-57.4939	64.4508
7	-775.5793	-57.4939	64.4508	-904.9695	-57.5359	64.5595
8	-904.9695	-57.5359	64.5595	-1034.4761	-57.5422	64.7417
9	-1034.4761	-57.5422	64.7417	-1163.9463	-57.5373	64.5903
10	-1163.9463	-57.5373	64.5903	-1293.3921	-57.5573	64.7577
11	-1293.3921	-57.5573	64.7577	-1422.9133	-57.5513	64.7186
12	-1422.9133	-57.5513	64.7186	-1552.3462	-57.5255	64.7627
13	-1552.3462	-57.5255	64.7627	-1681.7556	-57.5096	65.0335
14	-1681.7556	-57.5096	65.0335	-1811.0688	-57.5034	65.0637
15	-1811.0688	-57.5034	65.0637	-1940.4521	-57.4978	64.8875
16	-1940.4521	-57.4978	64.8875	-2069.8408	-57.4970	64.6819
17	-2069.8408	-57.4970	64.6819	-2199.1904	-57.5005	65.0957
18	-2199.1904	-57.5005	65.0957	-2328.5498	-57.4995	65.7919
19	-2328.5498	-57.4995	65.7919	-2457.9333	-57.5013	65.7623
20	-2457.9333	-57.5013	65.7623	-3147.3755	-7.1142	31.2557
21	-3147.3755	-7.1142	31.2557	-2224.2466	307.7135	694.3600
22	-2224.2466	307.7135	694.3600	-1348.7426	291.2873	659.3433
23	-1348.7426	291.2873	659.3433	-1238.4187	32.7246	-38.6385
24	-1238.4187	32.7246	-38.6385	-1140.1917	32.7362	-38.6418
25	-1140.1917	32.7362	-38.6418	-1041.9678	32.7394	-38.6479
26	-1041.9678	32.7394	-38.6479	-943.7441	32.7206	-38.5013
27	-943.7441	32.7206	-38.5013	-845.6083	32.7214	-38.4896
28	-845.6083	32.7214	-38.4896	-747.3815	32.7381	-38.5005
29	-747.3815	32.7381	-38.5005	-699.4590	-52.8892	50.9292
30	-699.4590	-52.8892	50.9292	-858.1292	-52.8785	50.8279
31	-858.1292	-52.8785	50.8279	-1016.7460	-52.8758	50.9862
32	-1016.7460	-52.8758	50.9862	-1175.3511	-52.8820	51.1307
33	-1175.3511	-52.8820	51.1307	-1334.0020	-52.8789	50.9294
34	-1334.0020	-52.8789	50.9294	-1492.6460	-52.8769	51.0648
35	-1492.6460	-52.8769	51.0648	-1651.2725	-52.8849	51.0267
36	-1651.2725	-52.8849	51.0267	-1809.9423	-52.8761	50.9099
37	-1809.9423	-52.8761	50.9099	-1968.5251	-52.8694	50.8881
38	-1968.5251	-52.8694	50.8881	-2127.1560	-52.8739	50.9146
39	-2127.1560	-52.8739	50.9146	-2372.9814	-298.1108	-647.3586
40	-2372.9814	-298.1108	-647.3586	-3295.1282	6.5393	22.3078
41	-3295.1282	6.5393	22.3078	-2332.6187	310.1774	690.1808
42	-2332.6187	310.1774	690.1808	-2102.7427	51.5266	-50.8954
43	-2102.7427	51.5266	-50.8954	-1948.1632	51.5185	-51.1951
44	-1948.1632	51.5185	-51.1951	-1793.6113	51.5247	-50.9368
45	-1793.6113	51.5247	-50.9368	-1638.9980	51.5307	-50.9033
46	-1638.9980	51.5307	-50.9033	-1484.3805	51.5308	-51.1348
47	-1484.3805	51.5308	-51.1348	-1329.7461	51.5406	-51.2420
48	-1329.7461	51.5406	-51.2420	-1175.1130	51.5205	-51.2509
49	-1175.1130	51.5205	-51.2509	-1020.5757	51.5082	-51.1713
50	-1020.5757	51.5082	-51.1713	-872.0001	-52.0370	50.8750
51	-872.0001	-52.0370	50.8750	-1028.1547	-52.0488	50.8339
52	-1028.1547	-52.0488	50.8339	-1184.2332	-52.0302	50.8244
53	-1184.2332	-52.0302	50.8244	-1340.3025	-52.0137	50.8377
54	-1340.3025	-52.0137	50.8377	-1496.3076	-52.0280	50.6972

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	-1496.3076	-52.0280	50.6972	-1652.3938	-52.0379	50.6231
56	-1652.3938	-52.0379	50.6231	-1808.5515	-52.0474	50.6172
57	-1808.5515	-52.0474	50.6172	-1964.6917	-52.0542	50.4609
58	-1964.6917	-52.0542	50.4609	-2120.8350	-52.0556	50.4580
59	-2120.8350	-52.0556	50.4580	-2380.6501	-298.8809	-647.6028
60	-2380.6501	-298.8809	-647.6028	-3302.5254	6.3302	22.6094
61	-3302.5254	6.3302	22.6094	-2337.5034	310.2865	690.3408
62	-2337.5034	310.2865	690.3408	-2136.7773	52.3787	-50.6918
63	-2136.7773	52.3787	-50.6918	-1979.6836	52.3759	-50.7003
64	-1979.6836	52.3759	-50.7003	-1822.5492	52.3663	-50.9440
65	-1822.5492	52.3663	-50.9440	-1665.4692	52.3552	-50.9846
66	-1665.4692	52.3552	-50.9846	-1508.4290	52.3610	-50.9493
67	-1508.4290	52.3610	-50.9493	-1351.3501	52.3681	-51.3028
68	-1351.3501	52.3681	-51.3028	-1194.3438	52.3603	-51.3066
69	-1194.3438	52.3603	-51.3066	-1037.2952	52.3558	-51.2846
70	-1037.2952	52.3558	-51.2846	-880.2301	52.3609	-51.4341
71	-880.2301	52.3609	-51.4341	-1029.1312	-51.9605	50.9710
72	-1029.1312	-51.9605	50.9710	-1184.9905	-51.9677	50.9873
73	-1184.9905	-51.9677	50.9873	-1340.8618	-51.9551	50.9524
74	-1340.8618	-51.9551	50.9524	-1496.6848	-51.9506	50.6452
75	-1496.6848	-51.9506	50.6452	-1652.6050	-51.9562	50.4356
76	-1652.6050	-51.9562	50.4356	-1808.5123	-51.9756	50.4262
77	-1808.5123	-51.9756	50.4262	-1964.4639	-51.9842	50.4156
78	-1964.4639	-51.9842	50.4156	-2120.3872	-51.9668	49.9250
79	-2120.3872	-51.9668	49.9250	-2381.1265	-298.9473	-647.3601
80	-2381.1265	-298.9473	-647.3601	-3303.0430	6.3110	22.6245
81	-3303.0430	6.3110	22.6245	-2337.5217	310.2952	689.9167
82	-2337.5217	310.2952	689.9167	-2139.3950	52.4160	-49.8893
83	-2139.3950	52.4160	-49.8893	-1982.1495	52.4120	-50.1971
84	-1982.1495	52.4120	-50.1971	-1824.9065	52.4277	-50.3374
85	-1824.9065	52.4277	-50.3374	-1667.6384	52.4344	-50.5978
86	-1667.6384	52.4344	-50.5978	-1510.3269	52.4157	-50.8214
87	-1510.3269	52.4157	-50.8214	-1353.0571	52.4018	-51.1460
88	-1353.0571	52.4018	-51.1460	-1195.7661	52.4106	-51.1815
89	-1195.7661	52.4106	-51.1815	-1038.5076	52.4153	-51.2498
90	-1038.5076	52.4153	-51.2498	-881.2859	52.4224	-51.6041
91	-881.2859	52.4224	-51.6041	-1029.0591	-51.9534	51.0870
92	-1029.0591	-51.9534	51.0870	-1184.9409	-51.9638	51.0754
93	-1184.9409	-51.9638	51.0754	-1340.7915	-51.9508	50.8675
94	-1340.7915	-51.9508	50.8675	-1496.5671	-51.9234	50.6447
95	-1496.5671	-51.9234	50.6447	-1652.3656	-51.9205	50.4132
96	-1652.3656	-51.9205	50.4132	-1808.1804	-51.9248	50.0037
97	-1808.1804	-51.9248	50.0037	-1964.0046	-51.9342	49.7550
98	-1964.0046	-51.9342	49.7550	-2119.8340	-51.9492	49.4439
99	-2119.8340	-51.9492	49.4439	-2380.9976	-298.9504	-646.9753
100	-2380.9976	-298.9504	-646.9753	-3302.8418	6.3111	22.3961
101	-3302.8418	6.3111	22.3961	-2337.3494	310.2950	689.4693
102	-2337.3494	310.2950	689.4693	-2139.7200	52.4255	-49.3485
103	-2139.7200	52.4255	-49.3485	-1982.3928	52.4336	-50.1036
104	-1982.3928	52.4336	-50.1036	-1825.0764	52.4347	-50.5608
105	-1825.0764	52.4347	-50.5608	-1667.7415	52.4199	-50.5643
106	-1667.7415	52.4199	-50.5643	-1510.4642	52.4083	-50.8996
107	-1510.4642	52.4083	-50.8996	-1353.2150	52.4138	-51.3379
108	-1353.2150	52.4138	-51.3379	-1195.8647	52.4357	-51.5388
109	-1195.8647	52.4357	-51.5388	-1038.5502	52.4407	-51.6222

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	-1038.5502	52.4407	-51.6222	-881.2853	52.4225	-51.8149
111	-881.2853	52.4225	-51.8149	-1029.0300	-51.9344	51.0923
112	-1029.0300	-51.9344	51.0923	-1184.8027	-51.9192	51.0807
113	-1184.8027	-51.9192	51.0807	-1340.5648	-51.9259	50.7032
114	-1340.5648	-51.9259	50.7032	-1496.4375	-51.9546	50.3959
115	-1496.4375	-51.9546	50.3959	-1652.3304	-51.9868	50.0035
116	-1652.3304	-51.9868	50.0035	-1808.3263	-52.0027	49.7783
117	-1808.3263	-52.0027	49.7783	-1964.2849	-51.9866	49.4665
118	-1964.2849	-51.9866	49.4665	-2120.2800	-51.9708	49.0167
119	-2120.2800	-51.9708	49.0167	-2380.5176	-298.9254	-647.4318
120	-2380.5176	-298.9254	-647.4318	-3302.3545	6.3319	21.9849
121	-3302.3545	6.3319	21.9849	-2337.1582	310.3234	689.6154
122	-2337.1582	310.3234	689.6154	-2138.9827	52.3518	-49.1424
123	-2138.9827	52.3518	-49.1424	-1981.9214	52.3708	-49.7329
124	-1981.9214	52.3708	-49.7329	-1824.7706	52.3917	-50.1796
125	-1824.7706	52.3917	-50.1796	-1667.6687	52.3841	-50.3401
126	-1667.6687	52.3841	-50.3401	-1510.5040	52.3875	-50.6718
127	-1510.5040	52.3875	-50.6718	-1353.2881	52.3894	-51.2071
128	-1353.2881	52.3894	-51.2071	-1196.0688	52.4083	-51.5780
129	-1196.0688	52.4083	-51.5780	-1038.7673	52.4394	-51.7576
130	-1038.7673	52.4394	-51.7576	-881.4037	52.4321	-51.8176
131	-881.4037	52.4321	-51.8176	-1028.9011	-51.9061	51.2487
132	-1028.9011	-51.9061	51.2487	-1184.6243	-51.8943	50.8283
133	-1184.6243	-51.8943	50.8283	-1340.3477	-51.9067	50.3654
134	-1340.3477	-51.9067	50.3654	-1496.1161	-51.9155	50.1460
135	-1496.1161	-51.9155	50.1460	-1651.8640	-51.9254	49.9977
136	-1651.8640	-51.9254	49.9977	-1807.6475	-51.9330	49.3367
137	-1807.6475	-51.9330	49.3367	-1963.4541	-51.9388	48.8431
138	-1963.4541	-51.9388	48.8431	-2119.3154	-51.9424	48.6794
139	-2119.3154	-51.9424	48.6794	-2380.1550	-298.9396	-647.3652
140	-2380.1550	-298.9396	-647.3652	-3301.7717	6.3126	22.4138
141	-3301.7717	6.3126	22.4138	-2336.7842	310.2819	689.7416
142	-2336.7842	310.2819	689.7416	-2139.3491	52.4314	-48.8377
143	-2139.3491	52.4314	-48.8377	-1982.0334	52.4229	-49.1295
144	-1982.0334	52.4229	-49.1295	-1824.7344	52.4191	-49.8089
145	-1824.7344	52.4191	-49.8089	-1667.4583	52.4177	-50.2500
146	-1667.4583	52.4177	-50.2500	-1510.2338	52.4144	-50.4521
147	-1510.2338	52.4144	-50.4521	-1352.9685	52.4180	-51.1157
148	-1352.9685	52.4180	-51.1157	-1195.7534	52.4110	-51.5877
149	-1195.7534	52.4110	-51.5877	-1038.4602	52.4087	-51.7684
150	-1038.4602	52.4087	-51.7684	-881.2232	52.4320	-51.9756
151	-881.2232	52.4320	-51.9756	-1028.9427	-51.9313	51.5986
152	-1028.9427	-51.9313	51.5986	-1184.7549	-51.9304	51.1665
153	-1184.7549	-51.9304	51.1665	-1340.5605	-51.9342	50.7171
154	-1340.5605	-51.9342	50.7171	-1496.4153	-51.9502	50.5064
155	-1496.4153	-51.9502	50.5064	-1652.3344	-51.9483	50.1413
156	-1652.3344	-51.9483	50.1413	-1808.1981	-51.9466	49.3158
157	-1808.1981	-51.9466	49.3158	-1964.0928	-51.9517	48.6339
158	-1964.0928	-51.9517	48.6339	-2119.9543	-51.9431	48.3372
159	-2119.9543	-51.9431	48.3372	-2380.3350	-298.9365	-646.5175
160	-2380.3350	-298.9365	-646.5175	-3301.9443	6.3208	22.5442
161	-3301.9443	6.3208	22.5442	-2336.3555	310.3076	689.1450
162	-2336.3555	310.3076	689.1450	-2138.6636	52.3544	-48.3737
163	-2138.6636	52.3544	-48.3737	-1981.5679	52.3727	-49.1256
164	-1981.5679	52.3727	-49.1256	-1824.3975	52.3862	-49.5817

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	-1824.3975	52.3862	-49.5817	-1667.2404	52.3873	-50.2094
166	-1667.2404	52.3873	-50.2094	-1510.0653	52.3943	-50.8231
167	-1510.0653	52.3943	-50.8231	-1352.8801	52.4065	-50.8298
168	-1352.8801	52.4065	-50.8298	-1195.6387	52.4145	-51.2704
169	-1195.6387	52.4145	-51.2704	-1038.3979	52.3989	-51.8118
170	-1038.3979	52.3989	-51.8118	-881.2070	52.4070	-52.1442
171	-881.2070	52.4070	-52.1442	-1029.0007	-51.9295	51.1991
172	-1029.0007	-51.9295	51.1991	-1184.7871	-51.9272	51.0952
173	-1184.7871	-51.9272	51.0952	-1340.5413	-51.9227	50.4973
174	-1340.5413	-51.9227	50.4973	-1496.2980	-51.9130	50.1397
175	-1496.2980	-51.9130	50.1397	-1652.0823	-51.9094	49.7436
176	-1652.0823	-51.9094	49.7436	-1807.8068	-51.9127	49.1261
177	-1807.8068	-51.9127	49.1261	-1963.6187	-51.9250	48.6831
178	-1963.6187	-51.9250	48.6831	-2119.3584	-51.9282	47.9212
179	-2119.3584	-51.9282	47.9212	-2380.0625	-298.9380	-646.7578
180	-2380.0625	-298.9380	-646.7578	-3301.9165	6.3141	22.3962
181	-3301.9165	6.3141	22.3962	-2336.6101	310.2867	689.3750
182	-2336.6101	310.2867	689.3750	-2139.2051	52.4082	-48.6602
183	-2139.2051	52.4082	-48.6602	-1981.9413	52.4160	-49.4658
184	-1981.9413	52.4160	-49.4658	-1824.6360	52.4143	-49.7163
185	-1824.6360	52.4143	-49.7163	-1667.3567	52.3959	-50.1250
186	-1667.3567	52.3959	-50.1250	-1510.1180	52.4015	-50.8128
187	-1510.1180	52.4015	-50.8128	-1352.8564	52.4100	-51.3786
188	-1352.8564	52.4100	-51.3786	-1195.6367	52.3951	-51.5588
189	-1195.6367	52.3951	-51.5588	-1038.4818	52.3910	-51.9714
190	-1038.4818	52.3910	-51.9714	-881.2538	52.4022	-52.1931
191	-881.2538	52.4022	-52.1931	-1029.1127	-51.9554	51.2850
192	-1029.1127	-51.9554	51.2850	-1184.9707	-51.9417	50.8970
193	-1184.9707	-51.9417	50.8970	-1340.7800	-51.9135	50.7739
194	-1340.7800	-51.9135	50.7739	-1496.4554	-51.8990	50.2220
195	-1496.4554	-51.8990	50.2220	-1652.2030	-51.8895	49.6472
196	-1652.2030	-51.8895	49.6472	-1807.9263	-51.8886	49.2235
197	-1807.9263	-51.8886	49.2235	-1963.6793	-51.8995	48.5152
198	-1963.6793	-51.8995	48.5152	-2119.4104	-51.9012	47.7668
199	-2119.4104	-51.9012	47.7668	-2379.9150	-298.9468	-646.4077
200	-2379.9150	-298.9468	-646.4077	-3302.0288	6.3142	22.5272
201	-3302.0288	6.3142	22.5272	-2336.6904	310.2908	688.8575
202	-2336.6904	310.2908	688.8575	-2139.1816	52.4184	-48.4384
203	-2139.1816	52.4184	-48.4384	-1981.9596	52.4149	-49.0171
204	-1981.9596	52.4149	-49.0171	-1824.6823	52.4096	-49.7288
205	-1824.6823	52.4096	-49.7288	-1667.4727	52.4042	-50.2645
206	-1667.4727	52.4042	-50.2645	-1510.2825	52.3993	-50.8730
207	-1510.2825	52.3993	-50.8730	-1353.1140	52.3820	-51.0879
208	-1353.1140	52.3820	-51.0879	-1195.9592	52.3856	-51.4981
209	-1195.9592	52.3856	-51.4981	-1038.7207	52.4119	-51.9301
210	-1038.7207	52.4119	-51.9301	-881.3815	52.4350	-52.1341
211	-881.3815	52.4350	-52.1341	-1027.6118	-51.8381	51.4905
212	-1027.6118	-51.8381	51.4905	-1183.1770	-51.8358	51.0700
213	-1183.1770	-51.8358	51.0700	-1338.7251	-51.8358	50.6180
214	-1338.7251	-51.8358	50.6180	-1494.3093	-51.8338	50.2869
215	-1494.3093	-51.8338	50.2869	-1649.7759	-51.8323	49.9268
216	-1649.7759	-51.8323	49.9268	-1805.2957	-51.8384	49.2587
217	-1805.2957	-51.8384	49.2587	-1960.7969	-51.8265	48.5966
218	-1960.7969	-51.8265	48.5966	-2116.2546	-51.8162	48.2921
219	-2116.2546	-51.8162	48.2921	-2379.6064	-298.9418	-646.8164

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	-2379.6064	-298.9418	-646.8164	-3300.7791	6.2744	22.3969
221	-3300.7791	6.2744	22.3969	-2335.4019	310.1812	689.3785
222	-2335.4019	310.1812	689.3785	-2139.8862	52.4880	-48.1692
223	-2139.8862	52.4880	-48.1692	-1982.3984	52.4867	-48.9363
224	-1982.3984	52.4867	-48.9363	-1824.8567	52.4902	-49.5639
225	-1824.8567	52.4902	-49.5639	-1667.4200	52.4986	-50.1984
226	-1667.4200	52.4986	-50.1984	-1509.8757	52.5009	-50.6872
227	-1509.8757	52.5009	-50.6872	-1352.3403	52.5019	-50.9877
228	-1352.3403	52.5019	-50.9877	-1194.7856	52.4952	-51.3799
229	-1194.7856	52.4952	-51.3799	-1037.3352	52.4949	-51.6868
230	-1037.3352	52.4949	-51.6868	-879.7295	52.5096	-52.0636
231	-879.7295	52.5096	-52.0636	-1010.1655	-51.0114	51.4202
232	-1010.1655	-51.0114	51.4202	-1163.1664	-51.0154	51.0872
233	-1163.1664	-51.0154	51.0872	-1316.2573	-51.0350	50.6359
234	-1316.2573	-51.0350	50.6359	-1469.3317	-51.0388	50.1024
235	-1469.3317	-51.0388	50.1024	-1622.4303	-51.0182	49.7775
236	-1622.4303	-51.0182	49.7775	-1775.4209	-50.9985	49.3485
237	-1775.4209	-50.9985	49.3485	-1928.4446	-50.9850	48.3921
238	-1928.4446	-50.9850	48.3921	-2081.4014	-50.9860	47.9543
239	-2081.4014	-50.9860	47.9543	-2371.4062	-298.7341	-646.4279
240	-2371.4062	-298.7341	-646.4279	-3289.7373	5.9901	22.6239
241	-3289.7373	5.9901	22.6239	-2325.1362	309.1549	689.0884
242	-2325.1362	309.1549	689.0884	-2145.5645	53.3379	-48.4835
243	-2145.5645	53.3379	-48.4835	-1985.5463	53.3400	-49.1318
244	-1985.5463	53.3400	-49.1318	-1825.4989	53.3527	-49.8534
245	-1825.4989	53.3527	-49.8534	-1665.3807	53.3597	-50.2565
246	-1665.3807	53.3597	-50.2565	-1505.3119	53.3343	-50.8248
247	-1505.3119	53.3343	-50.8248	-1345.3286	53.3246	-51.2863
248	-1345.3286	53.3246	-51.2863	-1185.2766	53.3153	-51.3907
249	-1185.2766	53.3153	-51.3907	-1025.3333	53.3039	-51.8731
250	-1025.3333	53.3039	-51.8731	-865.3595	53.3280	-52.2471
251	-865.3595	53.3280	-52.2471	-705.3380	53.3361	-52.3595
252	-705.3380	53.3361	-52.3595	-545.3120	53.3316	-52.5741
253	-545.3120	53.3316	-52.5741	-385.3071	53.3290	-52.7844
254	-385.3071	53.3290	-52.7844	-394.3304	-13.8534	117.2263
255	-394.3304	-13.8534	117.2263	-435.8982	-13.8517	117.1734
256	-435.8982	-13.8517	117.1734	-492.4963	-36.3539	54.9908
257	-492.4963	-36.3539	54.9908	-669.0667	-81.3525	-69.1407
258	-669.0667	-81.3525	-69.1407	-1383.9341	-280.1048	-617.5748
259	-1383.9341	-280.1048	-617.5748	-2224.0911	-280.1071	-618.0963
260	-2224.0911	-280.1071	-618.0963	-3101.7322	19.0521	9.1924
261	-3101.7322	19.0521	9.1924	-2477.6865	57.8438	-61.6083
262	-2477.6865	57.8438	-61.6083	-2347.5698	57.8354	-62.0655
263	-2347.5698	57.8354	-62.0655	-2217.3994	57.8177	-62.9114
264	-2217.3994	57.8177	-62.9114	-2087.2661	57.7959	-63.1830
265	-2087.2661	57.7959	-63.1830	-1957.2502	57.7970	-63.7735
266	-1957.2502	57.7970	-63.7735	-1827.1510	57.8193	-64.1766
267	-1827.1510	57.8193	-64.1766	-1697.0137	57.8576	-64.3439
268	-1697.0137	57.8576	-64.3439	-1566.8000	57.8937	-65.1834
269	-1566.8000	57.8937	-65.1834	-1436.4785	57.9489	-65.4809
270	-1436.4785	57.9489	-65.4809	-1305.9995	57.9756	-65.4947
271	-1305.9995	57.9756	-65.4947	-1175.5469	57.9915	-65.8544
272	-1175.5469	57.9915	-65.8544	-1045.0039	58.0319	-66.2012
273	-1045.0039	58.0319	-66.2012	-914.4545	58.0505	-66.3867
274	-914.4545	58.0505	-66.3867	-783.7477	58.0325	-66.5659

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	-783.7477	58.0325	-66.5659	-653.1671	58.0202	-66.6457
276	-653.1671	58.0202	-66.6457	-522.5630	58.0407	-66.8141
277	-522.5630	58.0407	-66.8141	-391.9070	58.0564	-66.8994
278	-391.9070	58.0564	-66.8994	-261.2393	58.0542	-66.9898
279	-261.2393	58.0542	-66.9898	-130.6470	58.0434	-67.0575
280	-130.6470	58.0434	-67.0575	-0.4463	-238.1548	-794.1290

ENVOL. MAX. CORTANTES TREN TREN SW/2, EC-1 en via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0357	249.0879	719.9769	515.6858	229.1880	677.7177
2	515.6858	229.1880	677.7177	943.4470	209.6695	635.6345
3	943.4470	209.6695	635.6345	1286.6992	190.6140	593.0927
4	1286.6992	190.6140	593.0927	1560.1218	164.1684	523.4490
5	1560.1218	164.1684	523.4490	1791.4285	136.6057	451.2885
6	1791.4285	136.6057	451.2885	1978.1523	115.4715	396.6667
7	1978.1523	115.4715	396.6667	2114.2805	93.3776	338.1664
8	2114.2805	93.3776	338.1664	2194.0566	62.8343	255.8195
9	2194.0566	62.8343	255.8195	2103.6895	36.5514	187.7841
10	2103.6895	36.5514	187.7841	364.3316	16.2071	3.2831
11	364.3316	16.2071	3.2831	400.8254	16.2129	3.2905
12	400.8254	16.2129	3.2905	437.2794	16.2041	3.2811
13	437.2794	16.2041	3.2811	473.7458	16.2026	3.2025
14	473.7458	16.2026	3.2025	510.1661	16.2014	3.1925
15	510.1661	16.2014	3.1925	546.6023	16.1976	3.2457
16	546.6023	16.1976	3.2457	583.0602	16.1934	3.3001
17	583.0602	16.1934	3.3001	619.4946	16.1939	3.1793
18	619.4946	16.1939	3.1793	655.9404	16.1936	2.9908
19	655.9404	16.1936	2.9908	692.3822	16.1970	2.9973
20	692.3822	16.1970	2.9973	-2583.6274	165.6082	565.0732
21	-2583.6274	165.6082	565.0732	-1495.8359	356.3401	977.8202
22	-1495.8359	356.3401	977.8202	-539.2074	316.5523	874.6873
23	-539.2074	316.5523	874.6873	192.7617	282.4379	798.7755
24	192.7617	282.4379	798.7755	254.2371	247.7498	563.1296
25	254.2371	247.7498	563.1296	947.9682	215.3221	499.8073
26	947.9682	215.3221	499.8073	1560.6486	186.5778	433.3488
27	1560.6486	186.5778	433.3488	2069.5361	149.5449	344.1386
28	2069.5361	149.5449	344.1386	2460.5737	118.4492	282.3571
29	2460.5737	118.4492	282.3571	1552.7888	88.0868	390.5815
30	1552.7888	88.0868	390.5815	1175.8777	61.8939	345.1267
31	1175.8777	61.8939	345.1267	1025.2886	39.1504	292.1489
32	1025.2886	39.1504	292.1489	-354.4263	32.7500	-38.4528
33	-354.4263	32.7500	-38.4528	-256.2005	32.7483	-38.4911
34	-256.2005	32.7483	-38.4911	-157.9394	32.7513	-38.4983
35	-157.9394	32.7513	-38.4983	-59.6678	32.7511	-38.4717
36	-59.6678	32.7511	-38.4717	38.6049	32.7507	-38.4973
37	38.6049	32.7507	-38.4973	136.8473	32.7519	-38.4832
38	136.8473	32.7519	-38.4832	235.1122	32.7525	-38.4955
39	235.1122	32.7525	-38.4955	333.3602	32.7524	-38.4824
40	333.3602	32.7524	-38.4824	-2440.9707	166.3828	556.5508
41	-2440.9707	166.3828	556.5508	-1362.0017	353.2490	976.4901
42	-1362.0017	353.2490	976.4901	-416.2113	313.4891	873.4386
43	-416.2113	313.4891	873.4386	300.1772	279.5630	797.5548
44	300.1772	279.5630	797.5548	250.0681	247.8391	559.7861
45	250.0681	247.8391	559.7861	981.7464	214.2106	497.1797
46	981.7464	214.2106	497.1797	1604.7891	184.9355	431.3599
47	1604.7891	184.9355	431.3599	2119.3198	147.5446	342.4578
48	2119.3198	147.5446	342.4578	2517.7568	115.8474	281.1066
49	2517.7568	115.8474	281.1066	1576.2678	86.8788	389.9973
50	1576.2678	86.8788	389.9973	1189.1301	61.0981	344.7086
51	1189.1301	61.0981	344.7086	-711.4366	51.5005	-51.3667
52	-711.4366	51.5005	-51.3667	-556.9326	51.5194	-51.3503
53	-556.9326	51.5194	-51.3503	-402.2949	51.5235	-51.3575

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	-402.2949	51.5235	-51.3575	-247.7831	51.5137	-51.3699
55	-247.7831	51.5137	-51.3699	-93.2295	51.5181	-51.4007
56	-93.2295	51.5181	-51.4007	61.3481	51.5142	-51.3892
57	61.3481	51.5142	-51.3892	215.8774	51.5058	-51.3878
58	215.8774	51.5058	-51.3878	370.3771	51.5047	-51.3880
59	370.3771	51.5047	-51.3880	524.8766	51.5056	-51.3078
60	524.8766	51.5056	-51.3078	-2429.7114	166.6667	556.1221
61	-2429.7114	166.6667	556.1221	-1351.7146	353.0093	976.0316
62	-1351.7146	353.0093	976.0316	-406.7601	313.2632	872.6103
63	-406.7601	313.2632	872.6103	308.3123	279.3389	796.7344
64	308.3123	279.3389	796.7344	250.7463	247.8124	559.4841
65	250.7463	247.8124	559.4841	984.7755	214.1540	496.5146
66	984.7755	214.1540	496.5146	1608.6464	184.8951	430.6740
67	1608.6464	184.8951	430.6740	2123.5850	147.4324	342.0000
68	2123.5850	147.4324	342.0000	2522.8926	115.7126	280.6467
69	2522.8926	115.7126	280.6467	1578.4087	86.7935	389.8761
70	1578.4087	86.7935	389.8761	1190.3491	61.0520	344.6207
71	1190.3491	61.0520	344.6207	-723.0917	52.3583	-51.6234
72	-723.0917	52.3583	-51.6234	-566.0476	52.3587	-51.6445
73	-566.0476	52.3587	-51.6445	-408.9253	52.3597	-51.6237
74	-408.9253	52.3597	-51.6237	-251.8549	52.3505	-51.6861
75	-251.8549	52.3505	-51.6861	-94.7951	52.3522	-51.7221
76	-94.7951	52.3522	-51.7221	62.2767	52.3565	-51.7357
77	62.2767	52.3565	-51.7357	219.3282	52.3532	-51.7341
78	219.3282	52.3532	-51.7341	376.3812	52.3542	-51.6541
79	376.3812	52.3542	-51.6541	533.4375	52.3565	-51.6133
80	533.4375	52.3565	-51.6133	-2428.6484	166.7163	555.5949
81	-2428.6484	166.7163	555.5949	-1350.5782	353.0073	975.1037
82	-1350.5782	353.0073	975.1037	-405.7531	313.2704	871.8516
83	-405.7531	313.2704	871.8516	309.4634	279.3408	796.0403
84	309.4634	279.3408	796.0403	251.3316	247.8188	558.9425
85	251.3316	247.8188	558.9425	985.3357	214.1269	496.1673
86	985.3357	214.1269	496.1673	1609.2451	184.8475	430.3665
87	1609.2451	184.8475	430.3665	2124.1028	147.3598	341.7461
88	2124.1028	147.3598	341.7461	2523.3223	115.6911	280.3051
89	2523.3223	115.6911	280.3051	1578.7173	86.8084	389.8837
90	1578.7173	86.8084	389.8837	1190.5588	61.0546	344.8820
91	1190.5588	61.0546	344.8820	-724.0223	52.4268	-51.6703
92	-724.0223	52.4268	-51.6703	-566.7576	52.4220	-51.6623
93	-566.7576	52.4220	-51.6623	-409.4648	52.4201	-51.7500
94	-409.4648	52.4201	-51.7500	-252.2580	52.4195	-51.7977
95	-252.2580	52.4195	-51.7977	-94.9437	52.4196	-51.8263
96	-94.9437	52.4196	-51.8263	62.3103	52.4204	-51.8312
97	62.3103	52.4204	-51.8312	219.6116	52.4235	-51.8259
98	219.6116	52.4235	-51.8259	376.8915	52.4220	-51.7673
99	376.8915	52.4220	-51.7673	534.1807	52.4235	-51.7473
100	534.1807	52.4235	-51.7473	-2428.3247	166.7319	554.8923
101	-2428.3247	166.7319	554.8923	-1350.2163	353.0126	974.3201
102	-1350.2163	353.0126	974.3201	-405.2423	313.2715	871.2715
103	-405.2423	313.2715	871.2715	309.7487	279.3279	795.6025
104	309.7487	279.3279	795.6025	251.2592	247.7907	558.4908
105	251.2592	247.7907	558.4908	985.5044	214.1037	495.6063
106	985.5044	214.1037	495.6063	1609.1559	184.8172	429.9617
107	1609.1559	184.8172	429.9617	2123.9570	147.3755	341.3877
108	2123.9570	147.3755	341.3877	2523.2622	115.6346	280.3792

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
109	2523.2622	115.6346	280.3792	1578.6718	86.8089	389.8024
110	1578.6718	86.8089	389.8024	1190.5820	61.0583	344.6553
111	1190.5820	61.0583	344.6553	-724.0210	52.4287	-52.0278
112	-724.0210	52.4287	-52.0278	-566.6936	52.4347	-52.0139
113	-566.6936	52.4347	-52.0139	-409.3954	52.4219	-52.1471
114	-409.3954	52.4219	-52.1471	-252.0600	52.4171	-52.2473
115	-252.0600	52.4171	-52.2473	-94.8239	52.4114	-52.2674
116	-94.8239	52.4114	-52.2674	62.3908	52.4053	-52.3083
117	62.3908	52.4053	-52.3083	219.5952	52.4051	-52.2642
118	219.5952	52.4051	-52.2642	376.8596	52.4038	-52.2183
119	376.8596	52.4038	-52.2183	534.0609	52.4041	-52.0417
120	534.0609	52.4041	-52.0417	-2428.9097	166.7460	553.8336
121	-2428.9097	166.7460	553.8336	-1350.5990	353.1032	973.8663
122	-1350.5990	353.1032	973.8663	-405.6248	313.3718	870.5323
123	-405.6248	313.3718	870.5323	309.7448	279.4540	794.8386
124	309.7448	279.4540	794.8386	251.8334	247.8589	558.0455
125	251.8334	247.8589	558.0455	986.1666	214.1792	495.1061
126	986.1666	214.1792	495.1061	1609.9766	184.8877	429.4271
127	1609.9766	184.8877	429.4271	2124.8062	147.4005	340.9868
128	2124.8062	147.4005	340.9868	2524.0430	115.6501	280.2784
129	2524.0430	115.6501	280.2784	1579.1149	86.8077	389.7534
130	1579.1149	86.8077	389.7534	1191.0045	61.0524	344.4070
131	1191.0045	61.0524	344.4070	-724.1422	52.4340	-51.9890
132	-724.1422	52.4340	-51.9890	-566.7971	52.4382	-52.2285
133	-566.7971	52.4382	-52.2285	-409.4937	52.4276	-52.4188
134	-409.4937	52.4276	-52.4188	-252.1775	52.4405	-52.4809
135	-252.1775	52.4405	-52.4809	-94.8268	52.4366	-52.4992
136	-94.8268	52.4366	-52.4992	62.4064	52.4212	-52.4864
137	62.4064	52.4212	-52.4864	219.7139	52.4193	-52.4640
138	219.7139	52.4193	-52.4640	377.0009	52.4223	-52.4277
139	377.0009	52.4223	-52.4277	534.2628	52.4207	-52.1985
140	534.2628	52.4207	-52.1985	-2427.4810	166.7235	553.4474
141	-2427.4810	166.7235	553.4474	-1349.7373	353.0028	973.3762
142	-1349.7373	353.0028	973.3762	-405.0988	313.2430	869.6761
143	-405.0988	313.2430	869.6761	309.7457	279.3116	794.0219
144	309.7457	279.3116	794.0219	251.5783	247.7725	557.6616
145	251.5783	247.7725	557.6616	985.5753	214.1022	494.6292
146	985.5753	214.1022	494.6292	1609.4523	184.8434	428.8544
147	1609.4523	184.8434	428.8544	2124.3022	147.3566	340.6024
148	2124.3022	147.3566	340.6024	2523.4019	115.6422	280.0450
149	2523.4019	115.6422	280.0450	1578.7224	86.8031	389.7529
150	1578.7224	86.8031	389.7529	1190.6646	61.0592	344.6510
151	1190.6646	61.0592	344.6510	-723.8814	52.4430	-52.1795
152	-723.8814	52.4430	-52.1795	-566.6313	52.4254	-52.3966
153	-566.6313	52.4254	-52.3966	-409.3454	52.4115	-52.5882
154	-409.3454	52.4115	-52.5882	-252.1410	52.4081	-52.6169
155	-252.1410	52.4081	-52.6169	-94.8548	52.4150	-52.6756
156	-94.8548	52.4150	-52.6756	62.3744	52.4117	-52.6659
157	62.3744	52.4117	-52.6659	219.5962	52.4116	-52.6531
158	219.5962	52.4116	-52.6531	376.8031	52.4146	-52.5990
159	376.8031	52.4146	-52.5990	534.0804	52.4163	-52.4948
160	534.0804	52.4163	-52.4948	-2428.2690	166.7652	553.4098
161	-2428.2690	166.7652	553.4098	-1349.9203	353.0918	972.7835
162	-1349.9203	353.0918	972.7835	-404.9774	313.3409	869.4545
163	-404.9774	313.3409	869.4545	310.2257	279.3970	793.8256

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
164	310.2257	279.3970	793.8256	252.1452	247.8183	557.2783
165	252.1452	247.8183	557.2783	986.2510	214.1335	494.5954
166	986.2510	214.1335	494.5954	1609.9399	184.8799	428.8989
167	1609.9399	184.8799	428.8989	2125.0039	147.3488	339.7748
168	2125.0039	147.3488	339.7748	2524.1531	115.6523	279.3445
169	2524.1531	115.6523	279.3445	1579.1086	86.8101	389.7938
170	1579.1086	86.8101	389.7938	1190.9437	61.0645	344.8017
171	1190.9437	61.0645	344.8017	-723.9222	52.4095	-52.3778
172	-723.9222	52.4095	-52.3778	-566.7011	52.4039	-52.4231
173	-566.7011	52.4039	-52.4231	-409.4576	52.4244	-52.6423
174	-409.4576	52.4244	-52.6423	-252.1605	52.4245	-52.7628
175	-252.1605	52.4245	-52.7628	-94.9034	52.4169	-52.7736
176	-94.9034	52.4169	-52.7736	62.3487	52.4121	-52.7885
177	62.3487	52.4121	-52.7885	219.6449	52.4064	-52.7492
178	219.6449	52.4064	-52.7492	376.8470	52.4096	-52.6394
179	376.8470	52.4096	-52.6394	534.1505	52.4098	-52.5171
180	534.1505	52.4098	-52.5171	-2427.7144	166.7358	553.2112
181	-2427.7144	166.7358	553.2112	-1349.8035	353.0284	973.0482
182	-1349.8035	353.0284	973.0482	-405.1180	313.2791	869.7650
183	-405.1180	313.2791	869.7650	309.7359	279.3494	793.9072
184	309.7359	279.3494	793.9072	251.6709	247.7941	557.3905
185	251.6709	247.7941	557.3905	985.8795	214.0919	494.4888
186	985.8795	214.0919	494.4888	1609.4070	184.8107	429.1205
187	1609.4070	184.8107	429.1205	2124.2554	147.3834	340.5996
188	2124.2554	147.3834	340.5996	2523.5781	115.7170	279.5642
189	2523.5781	115.7170	279.5642	1578.9736	86.8367	389.8366
190	1578.9736	86.8367	389.8366	1190.9585	61.0697	344.6361
191	1190.9585	61.0697	344.6361	-724.0721	52.4022	-52.4614
192	-724.0721	52.4022	-52.4614	-566.8417	52.3953	-52.7230
193	-566.8417	52.3953	-52.7230	-409.6251	52.4109	-52.7653
194	-409.6251	52.4109	-52.7653	-252.3241	52.4280	-52.8818
195	-252.3241	52.4280	-52.8818	-95.0014	52.4212	-52.9657
196	-95.0014	52.4212	-52.9657	62.2553	52.4178	-52.9712
197	62.2553	52.4178	-52.9712	219.5368	52.4219	-52.9123
198	219.5368	52.4219	-52.9123	376.8354	52.4267	-52.8151
199	376.8354	52.4267	-52.8151	534.1511	52.4264	-52.7631
200	534.1511	52.4264	-52.7631	-2427.6477	166.7447	553.2114
201	-2427.6477	166.7447	553.2114	-1349.7378	353.0220	972.6027
202	-1349.7378	353.0220	972.6027	-404.8485	313.2769	869.3311
203	-404.8485	313.2769	869.3311	310.0447	279.3544	793.8301
204	310.0447	279.3544	793.8301	251.8499	247.8153	557.3389
205	251.8499	247.8153	557.3389	986.0017	214.1345	494.5414
206	986.0017	214.1345	494.5414	1609.6191	184.8708	428.9399
207	1609.6191	184.8708	428.9399	2124.7900	147.3784	340.0714
208	2124.7900	147.3784	340.0714	2524.0396	115.6980	279.5858
209	2524.0396	115.6980	279.5858	1579.2891	86.8186	389.7817
210	1579.2891	86.8186	389.7817	1191.3035	61.0729	344.6461
211	1191.3035	61.0729	344.6461	-724.0587	52.4391	-52.3296
212	-724.0587	52.4391	-52.3296	-566.7703	52.4216	-52.5323
213	-566.7703	52.4216	-52.5323	-409.4632	52.4257	-52.7551
214	-409.4632	52.4257	-52.7551	-252.1439	52.4378	-52.8076
215	-252.1439	52.4378	-52.8076	-94.8393	52.4389	-52.8584
216	-94.8393	52.4389	-52.8584	62.4865	52.4396	-52.8352
217	62.4865	52.4396	-52.8352	219.8256	52.4444	-52.8164
218	219.8256	52.4444	-52.8164	377.1747	52.4485	-52.7629

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
219	377.1747	52.4485	-52.7629	534.5748	52.4474	-52.5838
220	534.5748	52.4474	-52.5838	-2423.5278	166.6575	553.0996
221	-2423.5278	166.6575	553.0996	-1346.4966	352.7317	972.8054
222	-1346.4966	352.7317	972.8054	-402.6635	312.9879	869.3925
223	-402.6635	312.9879	869.3925	311.4509	279.0666	793.8217
224	311.4509	279.0666	793.8217	252.2274	247.6267	557.4011
225	252.2274	247.6267	557.4011	985.6808	213.9025	494.6498
226	985.6808	213.9025	494.6498	1608.7266	184.5742	428.8937
227	1608.7266	184.5742	428.8937	2122.8203	147.1069	340.2043
228	2122.8203	147.1069	340.2043	2520.8784	115.3733	279.5002
229	2520.8784	115.3733	279.5002	1579.7993	86.8768	389.6514
230	1579.7993	86.8768	389.6514	1193.9819	61.2572	344.7045
231	1193.9819	61.2572	344.7045	-722.2358	52.4920	-52.2225
232	-722.2358	52.4920	-52.2225	-564.8242	52.4751	-52.3913
233	-564.8242	52.4751	-52.3913	-407.3563	52.4715	-52.5885
234	-407.3563	52.4715	-52.5885	-249.9646	52.4736	-52.6968
235	-249.9646	52.4736	-52.6968	-92.5054	52.4789	-52.7708
236	-92.5054	52.4789	-52.7708	64.9112	52.4874	-52.7443
237	64.9112	52.4874	-52.7443	222.4265	52.4903	-52.6751
238	222.4265	52.4903	-52.6751	379.8920	52.4846	-52.6222
239	379.8920	52.4846	-52.6222	537.3568	52.4830	-52.5430
240	537.3568	52.4830	-52.5430	-2383.8296	165.5497	553.0773
241	-2383.8296	165.5497	553.0773	-1316.2947	349.7175	972.2647
242	-1316.2947	349.7175	972.2647	-381.5324	310.0203	868.7312
243	-381.5324	310.0203	868.7312	322.5909	276.3666	792.9684
244	322.5909	276.3666	792.9684	253.8616	245.9729	557.1000
245	253.8616	245.9729	557.1000	981.7413	211.8510	494.1241
246	981.7413	211.8510	494.1241	1597.5339	182.3567	428.6154
247	1597.5339	182.3567	428.6154	2103.6143	144.7195	339.9318
248	2103.6143	144.7195	339.9318	1575.2109	113.4397	442.3141
249	1575.2109	113.4397	442.3141	1603.6436	88.6230	386.1210
250	1603.6436	88.6230	386.1210	1253.5544	64.7952	340.1324
251	1253.5544	64.7952	340.1324	-705.3380	53.3361	-52.3595
252	-705.3380	53.3361	-52.3595	-545.3120	53.3316	-52.5741
253	-545.3120	53.3316	-52.5741	-385.3071	53.3290	-52.7844
254	-385.3071	53.3290	-52.7844	-225.3466	53.3413	-52.8729
255	-225.3466	53.3413	-52.8729	-65.3384	53.3523	-52.8743
256	-65.3384	53.3523	-52.8743	94.7161	53.3482	-52.8536
257	94.7161	53.3482	-52.8536	254.7426	53.3405	-52.8289
258	254.7426	53.3405	-52.8289	414.7726	53.3372	-52.6740
259	414.7726	53.3372	-52.6740	574.8076	53.3363	-52.5163
260	574.8076	53.3363	-52.5163	-2008.5977	46.6161	134.0313
261	-2008.5977	46.6161	134.0313	-2355.5244	318.3013	628.1785
262	-2355.5244	318.3013	628.1785	-1664.1752	300.4072	583.7378
263	-1664.1752	300.4072	583.7378	-999.5633	281.1064	538.8037
264	-999.5633	281.1064	538.8037	-342.0092	253.3820	489.1596
265	-342.0092	253.3820	489.1596	237.7762	229.9825	440.2812
266	237.7762	229.9825	440.2812	753.5769	205.2679	388.4437
267	753.5769	205.2679	388.4437	1195.3313	179.2789	333.8445
268	1195.3313	179.2789	333.8445	1553.3757	144.5249	255.9593
269	1553.3757	144.5249	255.9593	1839.1052	106.9868	152.9200
270	1839.1052	106.9868	152.9200	2049.7354	76.9523	70.2043
271	2049.7354	76.9523	70.2043	-1175.5469	57.9915	-65.8544
272	-1175.5469	57.9915	-65.8544	-1045.0039	58.0319	-66.2012
273	-1045.0039	58.0319	-66.2012	-914.4545	58.0505	-66.3867

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
274	-914.4545	58.0505	-66.3867	-783.7477	58.0325	-66.5659
275	-783.7477	58.0325	-66.5659	-653.1671	58.0202	-66.6457
276	-653.1671	58.0202	-66.6457	-522.5630	58.0407	-66.8141
277	-522.5630	58.0407	-66.8141	-391.9070	58.0564	-66.8994
278	-391.9070	58.0564	-66.8994	-261.2393	58.0542	-66.9898
279	-261.2393	58.0542	-66.9898	-130.6470	58.0434	-67.0575
280	-130.6470	58.0434	-67.0575	-0.0257	58.0428	-67.0420

ENVOL. MIN. CORTANTES TREN TREN SW/2, EC-1 en via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0373	-57.4392	64.4621	-129.2091	-57.4400	64.4619
2	-129.2091	-57.4400	64.4619	-258.4610	-57.4385	64.4142
3	-258.4610	-57.4385	64.4142	-387.7186	-57.4436	64.4828
4	-387.7186	-57.4436	64.4828	-517.0071	-57.4643	64.6423
5	-517.0071	-57.4643	64.6423	-646.2687	-57.4753	64.5659
6	-646.2687	-57.4753	64.5659	-775.5793	-57.4939	64.4508
7	-775.5793	-57.4939	64.4508	-904.9695	-57.5359	64.5595
8	-904.9695	-57.5359	64.5595	1306.7258	-62.3428	-169.6097
9	1306.7258	-62.3428	-169.6097	1418.7970	-85.4482	-227.2376
10	1418.7970	-85.4482	-227.2376	1487.8059	-102.4633	-267.6802
11	1487.8059	-102.4633	-267.6802	1505.2109	-120.9321	-311.3795
12	1505.2109	-120.9321	-311.3795	1442.1344	-145.7112	-244.0295
13	1442.1344	-145.7112	-244.0295	1063.9816	-178.9806	-319.8334
14	1063.9816	-178.9806	-319.8334	610.5925	-203.4740	-371.4921
15	610.5925	-203.4740	-371.4921	91.2572	-226.6191	-420.1378
16	91.2572	-226.6191	-420.1378	-484.3236	-248.4478	-465.8159
17	-484.3236	-248.4478	-465.8159	-1126.8604	-272.9867	-508.4689
18	-1126.8604	-272.9867	-508.4689	-1767.3420	-290.6688	-549.0459
19	-1767.3420	-290.6688	-549.0459	-2426.9302	-306.9427	-589.8561
20	-2426.9302	-306.9427	-589.8561	-1516.5474	-148.1541	-431.8841
21	-1516.5474	-148.1541	-431.8841	570.1460	-52.9004	50.9692
22	570.1460	-52.9004	50.9692	411.4487	-52.9016	50.9237
23	411.4487	-52.9016	50.9237	252.7343	-52.9035	50.9255
24	252.7343	-52.9035	50.9255	94.0286	-52.9028	50.9240
25	94.0286	-52.9028	50.9240	-64.6667	-52.8998	50.9258
26	-64.6667	-52.8998	50.9258	-223.3950	-52.8924	50.9504
27	-223.3950	-52.8924	50.9504	-382.0651	-52.8898	50.9309
28	-382.0651	-52.8898	50.9309	-540.7966	-52.8929	50.9515
29	-540.7966	-52.8929	50.9515	-699.4590	-52.8892	50.9292
30	-699.4590	-52.8892	50.9292	1290.7551	-67.0000	-345.2570
31	1290.7551	-67.0000	-345.2570	1640.8800	-91.2426	-394.9738
32	1640.8800	-91.2426	-394.9738	1607.5598	-116.2627	-452.6566
33	1607.5598	-116.2627	-452.6566	1743.9673	-146.8009	-511.4891
34	1743.9673	-146.8009	-511.4891	1465.0208	-177.9519	-403.0537
35	1465.0208	-177.9519	-403.0537	1337.1091	-210.5404	-648.3265
36	1337.1091	-210.5404	-648.3265	982.3922	-241.5761	-709.8539
37	982.3922	-241.5761	-709.8539	325.1286	-280.4457	-806.4324
38	325.1286	-280.4457	-806.4324	-384.5648	-314.1953	-882.3302
39	-384.5648	-314.1953	-882.3302	-1327.6062	-353.9335	-985.7223
40	-1327.6062	-353.9335	-985.7223	-2403.7161	-167.4453	-561.7101
41	-2403.7161	-167.4453	-561.7101	532.4413	-52.0167	50.9916
42	532.4413	-52.0167	50.9916	376.4104	-52.0174	50.9696
43	376.4104	-52.0174	50.9696	220.3463	-52.0213	51.0249
44	220.3463	-52.0213	51.0249	64.2657	-52.0170	51.0171
45	64.2657	-52.0170	51.0171	-91.7411	-52.0090	50.9946
46	-91.7411	-52.0090	50.9946	-247.7878	-52.0060	50.9781
47	-247.7878	-52.0060	50.9781	-403.8104	-52.0022	50.9501
48	-403.8104	-52.0022	50.9501	-559.7858	-52.0000	50.9693
49	-559.7858	-52.0000	50.9693	-715.8756	-52.0132	51.0061
50	-715.8756	-52.0132	51.0061	1232.7858	-63.5462	-349.8621
51	1232.7858	-63.5462	-349.8621	1618.1171	-89.5992	-398.3226
52	1618.1171	-89.5992	-398.3226	1598.2626	-115.4037	-455.3215
53	1598.2626	-115.4037	-455.3215	1747.3149	-147.2841	-513.5066
54	1747.3149	-147.2841	-513.5066	1474.4161	-179.9145	-403.0143

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	1474.4161	-179.9145	-403.0143	1340.4912	-212.4384	-648.9933
56	1340.4912	-212.4384	-648.9933	979.0713	-244.0875	-710.3224
57	979.0713	-244.0875	-710.3224	313.4974	-283.1447	-806.5018
58	313.4974	-283.1447	-806.5018	-405.7231	-317.1004	-882.3300
59	-405.7231	-317.1004	-882.3300	-1357.8438	-356.8776	-985.7322
60	-1357.8438	-356.8776	-985.7322	-2442.8682	-168.4921	-561.0071
61	-2442.8682	-168.4921	-561.0071	529.6442	-51.9517	51.2574
62	529.6442	-51.9517	51.2574	373.7545	-51.9509	51.3651
63	373.7545	-51.9509	51.3651	217.9394	-51.9571	51.3807
64	217.9394	-51.9571	51.3807	62.0379	-51.9545	51.3763
65	62.0379	-51.9545	51.3763	-93.7945	-51.9559	51.4138
66	-93.7945	-51.9559	51.4138	-249.7137	-51.9694	51.3758
67	-249.7137	-51.9694	51.3758	-405.6293	-51.9787	51.3166
68	-405.6293	-51.9787	51.3166	-561.5350	-51.9725	51.3150
69	-561.5350	-51.9725	51.3150	-717.3986	-51.9603	51.3177
70	-717.3986	-51.9603	51.3177	1230.1658	-63.4030	-349.9318
71	1230.1658	-63.4030	-349.9318	1617.4674	-89.5688	-398.1844
72	1617.4674	-89.5688	-398.1844	1598.2234	-115.3806	-455.1356
73	1598.2234	-115.3806	-455.1356	1748.0444	-147.3569	-513.3230
74	1748.0444	-147.3569	-513.3230	1475.4192	-180.0984	-402.5258
75	1475.4192	-180.0984	-402.5258	1340.9723	-212.6189	-648.3345
76	1340.9723	-212.6189	-648.3345	979.1605	-244.2917	-709.5793
77	979.1605	-244.2917	-709.5793	312.7808	-283.3518	-805.8297
78	312.7808	-283.3518	-805.8297	-407.1329	-317.3571	-881.7191
79	-407.1329	-317.3571	-881.7191	-1360.1252	-357.1495	-984.8880
80	-1360.1252	-357.1495	-984.8880	-2446.0491	-168.6021	-560.3123
81	-2446.0491	-168.6021	-560.3123	529.3257	-51.9420	51.4823
82	529.3257	-51.9420	51.4823	373.5018	-51.9467	51.5373
83	373.5018	-51.9467	51.5373	217.6378	-51.9445	51.5924
84	217.6378	-51.9445	51.5924	61.8007	-51.9400	51.6007
85	61.8007	-51.9400	51.6007	-94.0096	-51.9410	51.6036
86	-94.0096	-51.9410	51.6036	-249.8831	-51.9383	51.5705
87	-249.8831	-51.9383	51.5705	-405.7050	-51.9389	51.4834
88	-405.7050	-51.9389	51.4834	-561.5298	-51.9432	51.5051
89	-561.5298	-51.9432	51.5051	-717.3543	-51.9456	51.4349
90	-717.3543	-51.9456	51.4349	1230.1060	-63.3918	-349.6170
91	1230.1060	-63.3918	-349.6170	1617.5620	-89.5579	-398.0175
92	1617.5620	-89.5579	-398.0175	1598.2844	-115.3760	-455.0248
93	1598.2844	-115.3760	-455.0248	1748.2444	-147.3557	-512.8969
94	1748.2444	-147.3557	-512.8969	1475.8442	-180.1164	-402.1458
95	1475.8442	-180.1164	-402.1458	1341.1678	-212.6387	-648.0080
96	1341.1678	-212.6387	-648.0080	979.5242	-244.3424	-708.9319
97	979.5242	-244.3424	-708.9319	313.0604	-283.4194	-805.0138
98	313.0604	-283.4194	-805.0138	-407.0909	-317.4070	-880.8517
99	-407.0909	-317.4070	-880.8517	-1360.5132	-357.1761	-984.0275
100	-1360.5132	-357.1761	-984.0275	-2446.1655	-168.6200	-559.9361
101	-2446.1655	-168.6200	-559.9361	529.2656	-51.9403	51.6222
102	529.2656	-51.9403	51.6222	373.4512	-51.9417	51.5993
103	373.4512	-51.9417	51.5993	217.5962	-51.9426	51.7021
104	217.5962	-51.9426	51.7021	61.7865	-51.9378	51.7531
105	61.7865	-51.9378	51.7531	-94.0089	-51.9333	51.7447
106	-94.0089	-51.9333	51.7447	-249.8163	-51.9433	51.6871
107	-249.8163	-51.9433	51.6871	-405.6605	-51.9472	51.6038
108	-405.6605	-51.9472	51.6038	-561.5216	-51.9328	51.5252
109	-561.5216	-51.9328	51.5252	-717.3451	-51.9380	51.4892

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	-717.3451	-51.9380	51.4892	1229.9388	-63.4074	-349.8497
111	1229.9388	-63.4074	-349.8497	1617.4231	-89.5583	-398.0237
112	1617.4231	-89.5583	-398.0237	1598.1536	-115.4043	-454.9961
113	1598.1536	-115.4043	-454.9961	1748.1174	-147.4033	-512.6560
114	1748.1174	-147.4033	-512.6560	1475.4285	-180.0774	-401.6370
115	1475.4285	-180.0774	-401.6370	1341.0929	-212.5694	-647.4001
116	1341.0929	-212.5694	-647.4001	979.4434	-244.2708	-708.1755
117	979.4434	-244.2708	-708.1755	313.3091	-283.3333	-804.4641
118	313.3091	-283.3333	-804.4641	-406.7772	-317.3568	-880.0197
119	-406.7772	-317.3568	-880.0197	-1359.3934	-357.1121	-983.7081
120	-1359.3934	-357.1121	-983.7081	-2444.8467	-168.6102	-559.4339
121	-2444.8467	-168.6102	-559.4339	529.3240	-51.9550	51.6964
122	529.3240	-51.9550	51.6964	373.4705	-51.9585	51.7947
123	373.4705	-51.9585	51.7947	217.5601	-51.9554	51.8785
124	217.5601	-51.9554	51.8785	61.6505	-51.9471	51.9172
125	61.6505	-51.9471	51.9172	-94.2003	-51.9496	51.9154
126	-94.2003	-51.9496	51.9154	-250.0390	-51.9435	51.8592
127	-250.0390	-51.9435	51.8592	-405.8231	-51.9364	51.7534
128	-405.8231	-51.9364	51.7534	-561.6293	-51.9236	51.6091
129	-561.6293	-51.9236	51.6091	-717.4048	-51.9091	51.5233
130	-717.4048	-51.9091	51.5233	1230.2666	-63.4252	-349.8916
131	1230.2666	-63.4252	-349.8916	1617.7622	-89.5813	-398.1832
132	1617.7622	-89.5813	-398.1832	1598.5928	-115.4361	-454.5543
133	1598.5928	-115.4361	-454.5543	1748.5647	-147.4312	-511.8588
134	1748.5647	-147.4312	-511.8588	1475.9231	-180.1198	-401.0501
135	1475.9231	-180.1198	-401.0501	1341.0730	-212.6505	-646.8292
136	1341.0730	-212.6505	-646.8292	979.5143	-244.3587	-707.5577
137	979.5143	-244.3587	-707.5577	313.0904	-283.4043	-803.4651
138	313.0904	-283.4043	-803.4651	-407.2325	-317.4115	-879.2068
139	-407.2325	-317.4115	-879.2068	-1359.9324	-357.1835	-982.9364
140	-1359.9324	-357.1835	-982.9364	-2445.6138	-168.6198	-558.3195
141	-2445.6138	-168.6198	-558.3195	529.2798	-51.9337	52.1244
142	529.2798	-51.9337	52.1244	373.4461	-51.9330	52.3499
143	373.4461	-51.9330	52.3499	217.6806	-51.9307	52.3998
144	217.6806	-51.9307	52.3998	61.8330	-51.9329	52.4343
145	61.8330	-51.9329	52.4343	-93.9552	-51.9416	52.4594
146	-93.9552	-51.9416	52.4594	-249.8185	-51.9490	52.4097
147	-249.8185	-51.9490	52.4097	-405.6733	-51.9380	52.2634
148	-405.6733	-51.9380	52.2634	-561.5006	-51.9417	52.0845
149	-561.5006	-51.9417	52.0845	-717.3419	-51.9460	51.9986
150	-717.3419	-51.9460	51.9986	1230.1021	-63.4123	-349.7599
151	1230.1021	-63.4123	-349.7599	1617.4518	-89.5758	-397.9908
152	1617.4518	-89.5758	-397.9908	1598.3258	-115.4187	-454.3819
153	1598.3258	-115.4187	-454.3819	1748.3098	-147.3752	-511.6589
154	1748.3098	-147.3752	-511.6589	1475.7692	-180.0978	-400.8137
155	1475.7692	-180.0978	-400.8137	1341.1162	-212.6252	-646.4395
156	1341.1162	-212.6252	-646.4395	979.7592	-244.3011	-707.0260
157	979.7592	-244.3011	-707.0260	313.6409	-283.3657	-802.8010
158	313.6409	-283.3657	-802.8010	-406.3223	-317.3943	-878.5021
159	-406.3223	-317.3943	-878.5021	-1359.5219	-357.1611	-981.8700
160	-1359.5219	-357.1611	-981.8700	-2444.9187	-168.6447	-557.9562
161	-2444.9187	-168.6447	-557.9562	529.3074	-51.9526	52.0475
162	529.3074	-51.9526	52.0475	373.4486	-51.9524	52.1485
163	373.4486	-51.9524	52.1485	217.5625	-51.9496	52.2498
164	217.5625	-51.9496	52.2498	61.7249	-51.9456	52.2980

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	61.7249	-51.9456	52.2980	-94.1212	-51.9468	52.2664
166	-94.1212	-51.9468	52.2664	-249.9617	-51.9438	52.2310
167	-249.9617	-51.9438	52.2310	-405.7776	-51.9347	52.2261
168	-405.7776	-51.9347	52.2261	-561.5834	-51.9290	52.0219
169	-561.5834	-51.9290	52.0219	-717.4190	-51.9280	51.7596
170	-717.4190	-51.9280	51.7596	1230.6027	-63.4283	-349.6267
171	1230.6027	-63.4283	-349.6267	1617.9946	-89.5654	-397.6675
172	1617.9946	-89.5654	-397.6675	1598.7324	-115.4113	-454.4290
173	1598.7324	-115.4113	-454.4290	1748.7983	-147.4090	-511.6738
174	1748.7983	-147.4090	-511.6738	1476.3218	-180.1283	-400.4450
175	1476.3218	-180.1283	-400.4450	1341.4897	-212.6941	-646.1575
176	1341.4897	-212.6941	-646.1575	979.8522	-244.3934	-706.6328
177	979.8522	-244.3934	-706.6328	313.3154	-283.4098	-802.7276
178	313.3154	-283.4098	-802.7276	-406.4468	-317.4113	-878.4213
179	-406.4468	-317.4113	-878.4213	-1359.8481	-357.1844	-981.7990
180	-1359.8481	-357.1844	-981.7990	-2445.6775	-168.6366	-558.0318
181	-2445.6775	-168.6366	-558.0318	529.2585	-51.9328	52.0415
182	529.2585	-51.9328	52.0415	373.4490	-51.9301	52.1767
183	373.4490	-51.9301	52.1767	217.6386	-51.9312	52.3152
184	217.6386	-51.9312	52.3152	61.8421	-51.9333	52.3271
185	61.8421	-51.9333	52.3271	-93.9984	-51.9307	52.3256
186	-93.9984	-51.9307	52.3256	-249.7910	-51.9330	52.2213
187	-249.7910	-51.9330	52.2213	-405.6046	-51.9447	52.1476
188	-405.6046	-51.9447	52.1476	-561.4624	-51.9621	52.0619
189	-561.4624	-51.9621	52.0619	-717.3840	-51.9536	51.8188
190	-717.3840	-51.9536	51.8188	1230.2878	-63.4020	-349.7744
191	1230.2878	-63.4020	-349.7744	1617.9048	-89.5388	-397.8158
192	1617.9048	-89.5388	-397.8158	1598.9119	-115.3959	-454.0169
193	1598.9119	-115.3959	-454.0169	1748.8613	-147.4205	-511.8021
194	1748.8613	-147.4205	-511.8021	1476.5032	-180.1502	-400.5786
195	1476.5032	-180.1502	-400.5786	1341.8152	-212.6660	-645.8846
196	1341.8152	-212.6660	-645.8846	980.1289	-244.3726	-706.6096
197	980.1289	-244.3726	-706.6096	313.8246	-283.4335	-802.5327
198	313.8246	-283.4335	-802.5327	-406.1425	-317.4547	-878.1375
199	-406.1425	-317.4547	-878.1375	-1359.5586	-357.2222	-981.3658
200	-1359.5586	-357.2222	-981.3658	-2445.6570	-168.6403	-557.8315
201	-2445.6570	-168.6403	-557.8315	528.5038	-51.8651	52.2274
202	528.5038	-51.8651	52.2274	372.9138	-51.8651	52.2705
203	372.9138	-51.8651	52.2705	217.3153	-51.8655	52.3282
204	217.3153	-51.8655	52.3282	61.6588	-51.8735	52.3957
205	61.6588	-51.8735	52.3957	-93.9707	-51.8749	52.3762
206	-93.9707	-51.8749	52.3762	-249.5693	-51.8825	52.3258
207	-249.5693	-51.8825	52.3258	-405.2578	-51.8917	52.2880
208	-405.2578	-51.8917	52.2880	-560.9217	-51.8801	52.0825
209	-560.9217	-51.8801	52.0825	-716.5366	-51.8504	51.8845
210	-716.5366	-51.8504	51.8845	1230.3654	-63.4249	-349.7998
211	1230.3654	-63.4249	-349.7998	1617.7594	-89.5793	-398.0040
212	1617.7594	-89.5793	-398.0040	1598.6134	-115.4239	-454.3908
213	1598.6134	-115.4239	-454.3908	1748.5164	-147.3965	-511.6234
214	1748.5164	-147.3965	-511.6234	1476.0237	-180.1534	-400.6349
215	1476.0237	-180.1534	-400.6349	1341.1047	-212.7074	-646.1720
216	1341.1047	-212.7074	-646.1720	979.3153	-244.4211	-706.8824
217	979.3153	-244.4211	-706.8824	312.8137	-283.4758	-802.6796
218	312.8137	-283.4758	-802.6796	-407.6571	-317.5020	-878.3954
219	-407.6571	-317.5020	-878.3954	-1361.1528	-357.2795	-981.9604

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	-1361.1528	-357.2795	-981.9604	-2447.0022	-168.6407	-557.8703
221	-2447.0022	-168.6407	-557.8703	519.5665	-50.9904	52.0526
222	519.5665	-50.9904	52.0526	366.5997	-50.9901	52.1772
223	366.5997	-50.9901	52.1772	213.5865	-50.9863	52.2694
224	213.5865	-50.9863	52.2694	60.6260	-50.9873	52.3235
225	60.6260	-50.9873	52.3235	-92.3418	-50.9878	52.3014
226	-92.3418	-50.9878	52.3014	-245.3214	-50.9776	52.2710
227	-245.3214	-50.9776	52.2710	-398.2847	-50.9879	52.1872
228	-398.2847	-50.9879	52.1872	-551.2678	-50.9893	52.0493
229	-551.2678	-50.9893	52.0493	-704.2106	-50.9692	51.8544
230	-704.2106	-50.9692	51.8544	1228.8762	-63.5099	-349.6448
231	1228.8762	-63.5099	-349.6448	1615.2864	-89.6824	-397.8882
232	1615.2864	-89.6824	-397.8882	1595.4283	-115.5168	-454.4209
233	1595.4283	-115.5168	-454.4209	1744.1633	-147.5034	-511.7426
234	1744.1633	-147.5034	-511.7426	1473.0601	-180.1349	-400.5626
235	1473.0601	-180.1349	-400.5626	1334.7251	-212.8360	-646.0040
236	1334.7251	-212.8360	-646.0040	971.6666	-244.5505	-706.8696
237	971.6666	-244.5505	-706.8696	304.3594	-283.6435	-802.6797
238	304.3594	-283.6435	-802.6797	-417.0365	-317.6586	-878.2444
239	-417.0365	-317.6586	-878.2444	-1371.0977	-357.4289	-981.6035
240	-1371.0977	-357.4289	-981.6035	-2457.6411	-168.2991	-557.7203
241	-2457.6411	-168.2991	-557.7203	649.7452	-15.0359	-3.5977
242	649.7452	-15.0359	-3.5977	604.6293	-15.0377	-3.4204
243	604.6293	-15.0377	-3.4204	559.5125	-15.0394	-3.2400
244	559.5125	-15.0394	-3.2400	514.4015	-15.0409	-3.0351
245	514.4015	-15.0409	-3.0351	469.2631	-15.0404	-2.9202
246	469.2631	-15.0404	-2.9202	424.1529	-15.0352	-2.7571
247	424.1529	-15.0352	-2.7571	379.0441	-15.0331	-2.6358
248	379.0441	-15.0331	-2.6358	539.2277	-21.2872	-250.4556
249	539.2277	-21.2872	-250.4556	1067.5161	-41.3527	-295.4503
250	1067.5161	-41.3527	-295.4503	1215.1145	-64.3143	-349.8822
251	1215.1145	-64.3143	-349.8822	1590.9698	-90.9151	-398.2534
252	1590.9698	-90.9151	-398.2534	1562.5417	-116.9842	-454.6295
253	1562.5417	-116.9842	-454.6295	1696.4275	-149.3691	-511.8699
254	1696.4275	-149.3691	-511.8699	1444.2827	-181.1971	-402.4805
255	1444.2827	-181.1971	-402.4805	1257.6912	-215.2968	-646.6265
256	1257.6912	-215.2968	-646.6265	876.4712	-247.3409	-707.3711
257	876.4712	-247.3409	-707.3711	196.2243	-286.5323	-803.3928
258	196.2243	-286.5323	-803.3928	-540.0001	-320.6964	-879.3973
259	-540.0001	-320.6964	-879.3973	-1504.2327	-360.4901	-982.8036
260	-1504.2327	-360.4901	-982.8036	-2599.4229	-167.5650	-565.7772
261	-2599.4229	-167.5650	-565.7772	698.1415	-16.3018	-4.3568
262	698.1415	-16.3018	-4.3568	661.4677	-16.3013	-4.2287
263	661.4677	-16.3013	-4.2287	624.8000	-16.2955	-3.9908
264	624.8000	-16.2955	-3.9908	588.1338	-16.2906	-3.9117
265	588.1338	-16.2906	-3.9117	551.4944	-16.2921	-3.7485
266	551.4944	-16.2921	-3.7485	514.8260	-16.2920	-3.6407
267	514.8260	-16.2920	-3.6407	478.1716	-16.3011	-3.5809
268	478.1716	-16.3011	-3.5809	441.4731	-16.3153	-3.3454
269	441.4731	-16.3153	-3.3454	404.7562	-16.3257	-3.2613
270	404.7562	-16.3257	-3.2613	367.9945	-16.3321	-3.2636
271	367.9945	-16.3321	-3.2636	811.0675	-25.2645	-320.6266
272	811.0675	-25.2645	-320.6266	1021.5310	-49.2665	-384.3856
273	1021.5310	-49.2665	-384.3856	1176.0979	-74.7186	-448.6173
274	1176.0979	-74.7186	-448.6173	1268.8855	-94.0356	-492.4262

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	1268.8855	-94.0356	-492.4262	1290.2671	-114.7544	-536.3877
276	1290.2671	-114.7544	-536.3877	1426.6244	-137.7492	-568.7812
277	1426.6244	-137.7492	-568.7812	1236.6343	-169.9794	-640.7577
278	1236.6343	-169.9794	-640.7577	941.3080	-195.9294	-695.1711
279	941.3080	-195.9294	-695.1711	531.8796	-223.1440	-752.7393
280	531.8796	-223.1440	-752.7393	-0.4463	-238.1548	-794.1290

ENVOL. MAX. TORSORES TREN TREN SW/2, EC-1 en via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0551	246.8748	805.5739	522.0458	218.6595	744.5975
2	522.0458	218.6595	744.5975	922.3756	191.6566	686.8695
3	922.3756	191.6566	686.8695	1209.9059	165.9286	631.8074
4	1209.9059	165.9286	631.8074	1200.0707	133.3077	572.3628
5	1200.0707	133.3077	572.3628	1254.4878	111.5354	526.7767
6	1254.4878	111.5354	526.7767	1229.1814	91.0905	483.8698
7	1229.1814	91.0905	483.8698	1133.7837	72.0118	442.5638
8	1133.7837	72.0118	442.5638	977.8142	46.8354	380.6047
9	977.8142	46.8354	380.6047	469.4838	23.1902	320.3392
10	469.4838	23.1902	320.3392	218.3596	9.6998	282.4170
11	218.3596	9.6998	282.4170	-59.8177	-2.4279	247.6707
12	-59.8177	-2.4279	247.6707	-356.7004	-13.2266	216.0353
13	-356.7004	-13.2266	216.0353	-664.2792	-22.7172	187.5910
14	-664.2792	-22.7172	187.5910	-974.8149	-30.9510	162.1728
15	-974.8149	-30.9510	162.1728	-1281.1687	-37.9683	139.7206
16	-1281.1687	-37.9683	139.7206	-1746.3181	-48.5070	104.0579
17	-1746.3181	-48.5070	104.0579	-1995.0170	-52.1637	91.3149
18	-1995.0170	-52.1637	91.3149	-2219.9106	-54.8079	81.8792
19	-2219.9106	-54.8079	81.8792	-2417.2378	-56.5542	74.5091
20	-2417.2378	-56.5542	74.5091	-2583.6274	165.6082	565.0732
21	-2583.6274	165.6082	565.0732	-1495.8359	356.3401	977.8202
22	-1495.8359	356.3401	977.8202	-614.3279	314.3893	876.8808
23	-614.3279	314.3893	876.8808	192.7617	282.4379	798.7755
24	192.7617	282.4379	798.7755	720.4269	242.1387	711.8651
25	720.4269	242.1387	711.8651	1240.3521	211.4911	641.0545
26	1240.3521	211.4911	641.0545	1415.1594	174.6048	568.4964
27	1415.1594	174.6048	568.4964	1666.7900	146.0532	505.0623
28	1666.7900	146.0532	505.0623	1529.8624	113.9786	447.1834
29	1529.8624	113.9786	447.1834	1552.7888	88.0868	390.5815
30	1552.7888	88.0868	390.5815	1175.8777	61.8939	345.1267
31	1175.8777	61.8939	345.1267	1025.2886	39.1504	292.1489
32	1025.2886	39.1504	292.1489	500.0114	19.5082	249.5305
33	500.0114	19.5082	249.5305	237.9904	0.1304	199.4086
34	237.9904	0.1304	199.4086	-340.9167	-12.7300	168.3735
35	-340.9167	-12.7300	168.3735	-889.6598	-28.6672	126.4104
36	-889.6598	-28.6672	126.4104	-1196.0024	-35.0043	108.9938
37	-1196.0024	-35.0043	108.9938	-1661.0095	-44.5975	81.5566
38	-1661.0095	-44.5975	81.5566	-1929.6235	-47.9583	71.5030
39	-1929.6235	-47.9583	71.5030	-2247.8953	-51.9935	57.7783
40	-2247.8953	-51.9935	57.7783	-2440.9707	166.3828	556.5508
41	-2440.9707	166.3828	556.5508	-1362.0017	353.2490	976.4901
42	-1362.0017	353.2490	976.4901	-494.1075	311.4080	875.6860
43	-494.1075	311.4080	875.6860	300.1772	279.5630	797.5548
44	300.1772	279.5630	797.5548	809.8837	239.5505	710.5864
45	809.8837	239.5505	710.5864	1316.6189	209.0299	639.9399
46	1316.6189	209.0299	639.9399	1473.2073	172.5472	567.8896
47	1473.2073	172.5472	567.8896	1713.4581	144.1787	504.5554
48	1713.4581	144.1787	504.5554	1561.5269	112.5540	446.7391
49	1561.5269	112.5540	446.7391	1576.2678	86.8788	389.9973
50	1576.2678	86.8788	389.9973	1189.1301	61.0981	344.7086
51	1189.1301	61.0981	344.7086	1033.5332	38.5644	292.0017
52	1033.5332	38.5644	292.0017	502.5823	19.2785	249.4373
53	502.5823	19.2785	249.4373	238.6452	0.0662	199.2363

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	238.6452	0.0662	199.2363	-341.8025	-12.5057	168.1689
55	-341.8025	-12.5057	168.1689	-890.2310	-28.1974	126.1104
56	-890.2310	-28.1974	126.1104	-1195.0455	-34.4527	108.7301
57	-1195.0455	-34.4527	108.7301	-1657.7469	-43.9171	81.1534
58	-1657.7469	-43.9171	81.1534	-1923.9048	-47.2164	71.0605
59	-1923.9048	-47.2164	71.0605	-2239.3528	-51.1939	57.0146
60	-2239.3528	-51.1939	57.0146	-2429.7114	166.6667	556.1221
61	-2429.7114	166.6667	556.1221	-1351.7146	353.0093	976.0316
62	-1351.7146	353.0093	976.0316	-484.8599	311.1771	874.8663
63	-484.8599	311.1771	874.8663	308.3123	279.3389	796.7344
64	308.3123	279.3389	796.7344	816.4996	239.3535	710.1953
65	816.4996	239.3535	710.1953	1322.3800	208.8808	639.3198
66	1322.3800	208.8808	639.3198	1477.8674	172.4246	567.2975
67	1477.8674	172.4246	567.2975	1717.3066	144.0792	504.1477
68	1717.3066	144.0792	504.1477	1564.3933	112.4658	446.4562
69	1564.3933	112.4658	446.4562	1578.4087	86.7935	389.8761
70	1578.4087	86.7935	389.8761	1190.3491	61.0520	344.6207
71	1190.3491	61.0520	344.6207	1034.2872	38.5076	292.1139
72	1034.2872	38.5076	292.1139	502.8297	19.2617	249.5196
73	502.8297	19.2617	249.5196	238.7517	0.0640	199.3219
74	238.7517	0.0640	199.3219	-341.8710	-12.4825	168.2106
75	-341.8710	-12.4825	168.2106	-890.3188	-28.1561	126.0294
76	-890.3188	-28.1561	126.0294	-1195.0057	-34.3999	108.6227
77	-1195.0057	-34.3999	108.6227	-1657.5416	-43.8562	81.1217
78	-1657.5416	-43.8562	81.1217	-1923.5073	-47.1361	70.5894
79	-1923.5073	-47.1361	70.5894	-2238.6055	-51.0950	56.5369
80	-2238.6055	-51.0950	56.5369	-2428.6484	166.7163	555.5949
81	-2428.6484	166.7163	555.5949	-1350.5782	353.0073	975.1037
82	-1350.5782	353.0073	975.1037	-483.8734	311.1853	874.1322
83	-483.8734	311.1853	874.1322	309.4634	279.3408	796.0403
84	309.4634	279.3408	796.0403	817.6155	239.3483	709.4329
85	817.6155	239.3483	709.4329	1323.1655	208.8703	638.9061
86	1323.1655	208.8703	638.9061	1478.5076	172.3711	567.0200
87	1478.5076	172.3711	567.0200	1717.6771	144.0381	503.9996
88	1717.6771	144.0381	503.9996	1564.7650	112.4532	446.2571
89	1564.7650	112.4532	446.2571	1578.7173	86.8084	389.8837
90	1578.7173	86.8084	389.8837	1190.5588	61.0546	344.8820
91	1190.5588	61.0546	344.8820	1034.5215	38.5164	292.1431
92	1034.5215	38.5164	292.1431	503.1281	19.2675	249.5663
93	503.1281	19.2675	249.5663	239.0209	0.0755	199.4117
94	239.0209	0.0755	199.4117	-341.5831	-12.4644	168.2524
95	-341.5831	-12.4644	168.2524	-889.9738	-28.1325	126.0556
96	-889.9738	-28.1325	126.0556	-1194.6238	-34.3811	108.3789
97	-1194.6238	-34.3811	108.3789	-1657.0737	-43.8167	80.5798
98	-1657.0737	-43.8167	80.5798	-1922.9214	-47.1094	70.1678
99	-1922.9214	-47.1094	70.1678	-2238.0281	-51.0705	56.1838
100	-2238.0281	-51.0705	56.1838	-2428.3247	166.7319	554.8923
101	-2428.3247	166.7319	554.8923	-1350.2163	353.0126	974.3201
102	-1350.2163	353.0126	974.3201	-483.3270	311.1643	873.5865
103	-483.3270	311.1643	873.5865	309.7487	279.3279	795.6025
104	309.7487	279.3279	795.6025	817.6071	239.3380	708.9744
105	817.6071	239.3380	708.9744	1323.2988	208.8387	638.3242
106	1323.2988	208.8387	638.3242	1478.4272	172.3746	566.6882
107	1478.4272	172.3746	566.6882	1717.5930	144.0399	503.6931
108	1717.5930	144.0399	503.6931	1564.6938	112.4198	446.2849

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
109	1564.6938	112.4198	446.2849	1578.6718	86.8089	389.8024
110	1578.6718	86.8089	389.8024	1190.5820	61.0583	344.6553
111	1190.5820	61.0583	344.6553	1034.4531	38.5053	292.1090
112	1034.4531	38.5053	292.1090	503.0754	19.2678	249.5135
113	503.0754	19.2678	249.5135	238.9678	0.0755	199.3916
114	238.9678	0.0755	199.3916	-341.6039	-12.4760	168.1533
115	-341.6039	-12.4760	168.1533	-889.9963	-28.1578	125.7944
116	-889.9963	-28.1578	125.7944	-1194.7411	-34.4141	108.1899
117	-1194.7411	-34.4141	108.1899	-1657.3024	-43.8513	80.3242
118	-1657.3024	-43.8513	80.3242	-1923.3124	-47.1446	69.7670
119	-1923.3124	-47.1446	69.7670	-2238.4600	-51.1138	55.2215
120	-2238.4600	-51.1138	55.2215	-2428.9097	166.7460	553.8336
121	-2428.9097	166.7460	553.8336	-1350.5990	353.1032	973.8663
122	-1350.5990	353.1032	973.8663	-483.7183	311.2684	872.8451
123	-483.7183	311.2684	872.8451	309.7448	279.4540	794.8386
124	309.7448	279.4540	794.8386	818.0997	239.4031	708.3184
125	818.0997	239.4031	708.3184	1323.9753	208.9277	637.7323
126	1323.9753	208.9277	637.7323	1479.1914	172.4344	566.1345
127	1479.1914	172.4344	566.1345	1718.3022	144.0153	503.3387
128	1718.3022	144.0153	503.3387	1565.1613	112.4467	446.1503
129	1565.1613	112.4467	446.1503	1579.1149	86.8077	389.7534
130	1579.1149	86.8077	389.7534	1191.0045	61.0524	344.4070
131	1191.0045	61.0524	344.4070	1034.8831	38.5194	291.9236
132	1034.8831	38.5194	291.9236	503.3709	19.2808	249.6028
133	503.3709	19.2808	249.6028	239.2442	0.0880	199.4310
134	239.2442	0.0880	199.4310	-341.2682	-12.4507	168.0751
135	-341.2682	-12.4507	168.0751	-889.5605	-28.1351	125.7799
136	-889.5605	-28.1351	125.7799	-1194.1658	-34.3795	107.8965
137	-1194.1658	-34.3795	107.8965	-1656.5779	-43.8130	79.7820
138	-1656.5779	-43.8130	79.7820	-1922.4053	-47.0987	69.4366
139	-1922.4053	-47.0987	69.4366	-2237.4297	-51.0756	54.5770
140	-2237.4297	-51.0756	54.5770	-2427.4810	166.7235	553.4474
141	-2427.4810	166.7235	553.4474	-1349.7373	353.0028	973.3762
142	-1349.7373	353.0028	973.3762	-483.1928	311.1581	871.9952
143	-483.1928	311.1581	871.9952	309.7457	279.3116	794.0219
144	309.7457	279.3116	794.0219	817.7594	239.3309	707.7689
145	817.7594	239.3309	707.7689	1323.3010	208.8531	637.2746
146	1323.3010	208.8531	637.2746	1478.6699	172.3906	565.6973
147	1478.6699	172.3906	565.6973	1717.8475	144.0655	503.1210
148	1717.8475	144.0655	503.1210	1564.7284	112.4599	446.1215
149	1564.7284	112.4599	446.1215	1578.7224	86.8031	389.7529
150	1578.7224	86.8031	389.7529	1190.6646	61.0592	344.6510
151	1190.6646	61.0592	344.6510	1034.5801	38.5164	292.1469
152	1034.5801	38.5164	292.1469	503.1306	19.2729	249.8364
153	503.1306	19.2729	249.8364	239.0131	0.0810	199.6635
154	239.0131	0.0810	199.6635	-341.5252	-12.4639	168.3348
155	-341.5252	-12.4639	168.3348	-889.9338	-28.1522	125.9546
156	-889.9338	-28.1522	125.9546	-1194.6262	-34.3876	107.9474
157	-1194.6262	-34.3876	107.9474	-1657.1602	-43.8318	79.6480
158	-1657.1602	-43.8318	79.6480	-1923.0403	-47.1009	69.1625
159	-1923.0403	-47.1009	69.1625	-2238.0889	-51.0677	54.7726
160	-2238.0889	-51.0677	54.7726	-2428.2690	166.7652	553.4098
161	-2428.2690	166.7652	553.4098	-1349.9203	353.0918	972.7835
162	-1349.9203	353.0918	972.7835	-483.0819	311.2590	871.7792
163	-483.0819	311.2590	871.7792	310.2257	279.3970	793.8256

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
164	310.2257	279.3970	793.8256	818.2419	239.3678	707.3514
165	818.2419	239.3678	707.3514	1323.8053	208.8879	637.2781
166	1323.8053	208.8879	637.2781	1478.9866	172.4348	565.7450
167	1478.9866	172.4348	565.7450	1718.4954	144.0600	502.4197
168	1718.4954	144.0600	502.4197	1565.3069	112.4713	445.6577
169	1565.3069	112.4713	445.6577	1579.1086	86.8101	389.7938
170	1579.1086	86.8101	389.7938	1190.9437	61.0645	344.8017
171	1190.9437	61.0645	344.8017	1034.8767	38.5382	292.2664
172	1034.8767	38.5382	292.2664	503.4766	19.2849	249.6900
173	503.4766	19.2849	249.6900	239.3324	0.0927	199.5673
174	239.3324	0.0927	199.5673	-341.2584	-12.4487	168.1768
175	-341.2584	-12.4487	168.1768	-889.6377	-28.1190	125.7052
176	-889.6377	-28.1190	125.7052	-1194.2181	-34.3542	107.7892
177	-1194.2181	-34.3542	107.7892	-1656.6514	-43.8017	79.6785
178	-1656.6514	-43.8017	79.6785	-1922.4319	-47.0914	68.7907
179	-1922.4319	-47.0914	68.7907	-2237.4961	-51.0667	54.2582
180	-2237.4961	-51.0667	54.2582	-2427.7144	166.7358	553.2112
181	-2427.7144	166.7358	553.2112	-1349.8035	353.0284	973.0482
182	-1349.8035	353.0284	973.0482	-483.2324	311.1848	872.0948
183	-483.2324	311.1848	872.0948	309.7359	279.3494	793.9072
184	309.7359	279.3494	793.9072	817.8032	239.3238	707.5304
185	817.8032	239.3238	707.5304	1323.5872	208.8811	637.1497
186	1323.5872	208.8811	637.1497	1478.5759	172.4293	565.9533
187	1478.5759	172.4293	565.9533	1717.8409	144.0868	503.1176
188	1717.8409	144.0868	503.1176	1564.9216	112.4805	445.8116
189	1564.9216	112.4805	445.8116	1578.9736	86.8367	389.8366
190	1578.9736	86.8367	389.8366	1190.9585	61.0697	344.6361
191	1190.9585	61.0697	344.6361	1034.9213	38.5489	292.2980
192	1034.9213	38.5489	292.2980	503.4044	19.2922	249.8495
193	503.4044	19.2922	249.8495	239.3354	0.0928	199.5757
194	239.3354	0.0928	199.5757	-341.2928	-12.4446	168.2358
195	-341.2928	-12.4446	168.2358	-889.7047	-28.1152	125.6709
196	-889.7047	-28.1152	125.6709	-1194.3000	-34.3516	107.8839
197	-1194.3000	-34.3516	107.8839	-1656.7156	-43.7915	79.5535
198	-1656.7156	-43.7915	79.5535	-1922.4690	-47.0622	68.6427
199	-1922.4690	-47.0622	68.6427	-2237.3867	-51.0287	54.4065
200	-2237.3867	-51.0287	54.4065	-2427.6477	166.7447	553.2114
201	-2427.6477	166.7447	553.2114	-1349.7378	353.0220	972.6027
202	-1349.7378	353.0220	972.6027	-482.9664	311.1863	871.6653
203	-482.9664	311.1863	871.6653	310.0447	279.3544	793.8301
204	310.0447	279.3544	793.8301	818.0800	239.3520	707.4645
205	818.0800	239.3520	707.4645	1323.6995	208.8829	637.2467
206	1323.6995	208.8829	637.2467	1478.8110	172.4230	565.8074
207	1478.8110	172.4230	565.8074	1718.3369	144.0678	502.6754
208	1718.3369	144.0678	502.6754	1565.3254	112.4900	445.8295
209	1565.3254	112.4900	445.8295	1579.2891	86.8186	389.7817
210	1579.2891	86.8186	389.7817	1191.3035	61.0729	344.6461
211	1191.3035	61.0729	344.6461	1035.3102	38.5553	292.1081
212	1035.3102	38.5553	292.1081	504.0737	19.3132	249.7863
213	504.0737	19.3132	249.7863	240.1531	0.1249	199.6109
214	240.1531	0.1249	199.6109	-340.0372	-12.4045	168.2402
215	-340.0372	-12.4045	168.2402	-887.9680	-28.0482	125.8097
216	-887.9680	-28.0482	125.8097	-1192.2623	-34.2864	107.8874
217	-1192.2623	-34.2864	107.8874	-1654.1599	-43.7099	79.5930
218	-1654.1599	-43.7099	79.5930	-1919.5435	-46.9915	69.1239

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
219	-1919.5435	-46.9915	69.1239	-2234.0522	-50.9462	54.4106
220	-2234.0522	-50.9462	54.4106	-2423.5278	166.6575	553.0996
221	-2423.5278	166.6575	553.0996	-1346.4966	352.7317	972.8054
222	-1346.4966	352.7317	972.8054	-480.8422	310.9075	871.7296
223	-480.8422	310.9075	871.7296	311.4509	279.0666	793.8217
224	311.4509	279.0666	793.8217	818.4625	239.1241	707.4332
225	818.4625	239.1241	707.4332	1323.2986	208.6797	637.2970
226	1323.2986	208.6797	637.2970	1478.2114	172.2701	565.6914
227	1478.2114	172.2701	565.6914	1717.5508	143.9863	502.7684
228	1717.5508	143.9863	502.7684	1565.1743	112.4673	445.7418
229	1565.1743	112.4673	445.7418	1579.7993	86.8768	389.6514
230	1579.7993	86.8768	389.6514	1193.9819	61.2572	344.7045
231	1193.9819	61.2572	344.7045	1039.7566	38.7891	292.1192
232	1039.7566	38.7891	292.1192	512.0713	19.6718	249.7328
233	512.0713	19.6718	249.7328	250.8218	0.5393	199.5798
234	250.8218	0.5393	199.5798	-324.7321	-11.8839	168.1999
235	-324.7321	-11.8839	168.1999	-867.6223	-27.4421	125.7362
236	-867.6223	-27.4421	125.7362	-1168.2664	-33.6202	107.9597
237	-1168.2664	-33.6202	107.9597	-1624.9482	-42.9588	79.4482
238	-1624.9482	-42.9588	79.4482	-1886.7068	-46.2052	68.8251
239	-1886.7068	-46.2052	68.8251	-2196.9712	-50.1355	54.5924
240	-2196.9712	-50.1355	54.5924	-2383.8296	165.5497	553.0773
241	-2383.8296	165.5497	553.0773	-1316.2947	349.7175	972.2647
242	-1316.2947	349.7175	972.2647	-460.4348	308.0482	870.9819
243	-460.4348	308.0482	870.9819	322.5909	276.3666	792.9684
244	322.5909	276.3666	792.9684	820.7062	236.8788	706.2552
245	820.7062	236.8788	706.2552	1319.6384	206.7458	635.6364
246	1319.6384	206.7458	635.6364	1473.0024	171.3019	563.7368
247	1473.0024	171.3019	563.7368	1713.8411	143.5562	500.4526
248	1713.8411	143.5562	500.4526	1575.2109	113.4397	442.3141
249	1575.2109	113.4397	442.3141	1603.6436	88.6230	386.1210
250	1603.6436	88.6230	386.1210	1253.5544	64.7952	340.1324
251	1253.5544	64.7952	340.1324	1130.3624	43.3712	287.0263
252	1130.3624	43.3712	287.0263	668.1338	26.5154	243.7321
253	668.1338	26.5154	243.7321	459.1357	8.6168	193.1658
254	459.1357	8.6168	193.1658	-16.4258	-1.1714	160.7226
255	-16.4258	-1.1714	160.7226	-435.8982	-13.8517	117.1734
256	-435.8982	-13.8517	117.1734	-492.4963	-36.3539	54.9908
257	-492.4963	-36.3539	54.9908	-5.6799	-1.1863	0.0267
258	-5.6799	-1.1863	0.0267	-9.2386	-1.1862	0.0233
259	-9.2386	-1.1862	0.0233	-12.7977	-1.1862	0.0199
260	-12.7977	-1.1862	0.0199	-2008.5977	46.6161	134.0313
261	-2008.5977	46.6161	134.0313	-2355.5244	318.3013	628.1785
262	-2355.5244	318.3013	628.1785	-1664.1752	300.4072	583.7378
263	-1664.1752	300.4072	583.7378	-999.5633	281.1064	538.8037
264	-999.5633	281.1064	538.8037	-342.0092	253.3820	489.1596
265	-342.0092	253.3820	489.1596	237.7762	229.9825	440.2812
266	237.7762	229.9825	440.2812	753.5769	205.2679	388.4437
267	753.5769	205.2679	388.4437	1195.3313	179.2789	333.8445
268	1195.3313	179.2789	333.8445	1553.3757	144.5249	255.9593
269	1553.3757	144.5249	255.9593	1839.1052	106.9868	152.9200
270	1839.1052	106.9868	152.9200	2049.7354	76.9523	70.2043
271	2049.7354	76.9523	70.2043	24.7756	-1.2227	0.0050
272	24.7756	-1.2227	0.0050	22.7459	-1.2629	0.0127
273	22.7459	-1.2629	0.0127	20.3271	-1.2903	0.0167

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
274	20.3271	-1.2903	0.0167	17.0593	-1.2641	0.0208
275	17.0593	-1.2641	0.0208	14.5182	-1.2901	0.0222
276	14.5182	-1.2901	0.0222	11.6157	-1.2903	0.0259
277	11.6157	-1.2903	0.0259	8.7917	-1.3027	0.0280
278	8.7917	-1.3027	0.0280	5.8069	-1.2907	0.0301
279	5.8069	-1.2907	0.0301	2.9037	-1.2904	0.0316
280	2.9037	-1.2904	0.0316	-0.0001	-1.2903	0.0313

ENVOL. MIN. TORSORES TREN TREN SW/2, EC-1 en via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0013	-0.0027	-2.6856	42.1784	-1.2548	-10.4921
2	42.1784	-1.2548	-10.4921	131.2567	-4.1670	-21.5200
3	131.2567	-4.1670	-21.5200	256.0451	-8.7304	-35.8201
4	256.0451	-8.7304	-35.8201	405.5522	-14.9336	-53.5164
5	405.5522	-14.9336	-53.5164	568.9017	-22.7591	-74.3165
6	568.9017	-22.7591	-74.3165	735.3239	-32.1779	-98.2417
7	735.3239	-32.1779	-98.2417	894.3051	-43.1945	-125.6297
8	894.3051	-43.1945	-125.6297	1306.7258	-62.3428	-169.6097
9	1306.7258	-62.3428	-169.6097	1418.7970	-85.4482	-227.2376
10	1418.7970	-85.4482	-227.2376	1487.8059	-102.4633	-267.6802
11	1487.8059	-102.4633	-267.6802	1505.2109	-120.9321	-311.3795
12	1505.2109	-120.9321	-311.3795	1462.7130	-140.7790	-355.4603
13	1462.7130	-140.7790	-355.4603	1542.1165	-165.1957	-399.1396
14	1542.1165	-165.1957	-399.1396	1320.1707	-184.2715	-441.3887
15	1320.1707	-184.2715	-441.3887	1029.9211	-203.2566	-489.8091
16	1029.9211	-203.2566	-489.8091	674.0780	-230.8493	-562.0565
17	674.0780	-230.8493	-562.0565	243.8636	-259.4966	-637.7747
18	243.8636	-259.4966	-637.7747	-262.2498	-281.6483	-695.9841
19	-262.2498	-281.6483	-695.9841	-847.6515	-304.7213	-757.3959
20	-847.6515	-304.7213	-757.3959	-1516.5474	-148.1541	-431.8841
21	-1516.5474	-148.1541	-431.8841	-1382.5844	31.5341	-45.9507
22	-1382.5844	31.5341	-45.9507	-1151.6763	28.1953	-60.3377
23	-1151.6763	28.1953	-60.3377	-968.7388	25.6031	-70.9880
24	-968.7388	25.6031	-70.9880	-636.2115	18.3288	-99.9725
25	-636.2115	18.3288	-99.9725	-423.7035	13.4734	-117.9849
26	-423.7035	13.4734	-117.9849	6.7038	0.3750	-161.1841
27	6.7038	0.3750	-161.1841	492.0001	-9.8757	-193.3499
28	492.0001	-9.8757	-193.3499	702.6119	-28.0196	-244.0237
29	702.6119	-28.0196	-244.0237	1169.5574	-45.3167	-290.1343
30	1169.5574	-45.3167	-290.1343	1290.7551	-67.0000	-345.2570
31	1290.7551	-67.0000	-345.2570	1640.8800	-91.2426	-394.9738
32	1640.8800	-91.2426	-394.9738	1607.5598	-116.2627	-452.6566
33	1607.5598	-116.2627	-452.6566	1743.9673	-146.8009	-511.4891
34	1743.9673	-146.8009	-511.4891	1496.0054	-174.7352	-575.3466
35	1496.0054	-174.7352	-575.3466	1337.1091	-210.5404	-648.3265
36	1337.1091	-210.5404	-648.3265	829.4687	-240.7524	-719.1219
37	829.4687	-240.7524	-719.1219	325.1286	-280.4457	-806.4324
38	325.1286	-280.4457	-806.4324	-467.1536	-312.1718	-884.4905
39	-467.1536	-312.1718	-884.4905	-1327.6062	-353.9335	-985.7223
40	-1327.6062	-353.9335	-985.7223	-2403.7161	-167.4453	-561.7101
41	-2403.7161	-167.4453	-561.7101	-2210.7571	50.4567	-57.8024
42	-2210.7571	50.4567	-57.8024	-1889.0369	46.2854	-71.5227
43	-1889.0369	46.2854	-71.5227	-1621.4956	42.8925	-81.8715
44	-1621.4956	42.8925	-81.8715	-1153.6458	33.1990	-109.1288
45	-1153.6458	33.1990	-109.1288	-848.4139	26.8381	-126.5035
46	-848.4139	26.8381	-126.5035	-295.6826	10.8844	-168.6415
47	-295.6826	10.8844	-168.6415	288.2148	-1.9825	-199.6829
48	288.2148	-1.9825	-199.6829	550.0515	-21.3335	-249.8616
49	550.0515	-21.3335	-249.8616	1081.1550	-40.8769	-295.1332
50	1081.1550	-40.8769	-295.1332	1232.7858	-63.5462	-349.8621
51	1232.7858	-63.5462	-349.8621	1618.1171	-89.5992	-398.3226
52	1618.1171	-89.5992	-398.3226	1598.2626	-115.4037	-455.3215
53	1598.2626	-115.4037	-455.3215	1747.3149	-147.2841	-513.5066
54	1747.3149	-147.2841	-513.5066	1500.7400	-175.7300	-576.9290

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	1500.7400	-175.7300	-576.9290	1340.4912	-212.4384	-648.9933
56	1340.4912	-212.4384	-648.9933	826.4507	-242.9845	-719.7988
57	826.4507	-242.9845	-719.7988	313.4974	-283.1447	-806.5018
58	313.4974	-283.1447	-806.5018	-487.6754	-314.9921	-884.5654
59	-487.6754	-314.9921	-884.5654	-1357.8438	-356.8776	-985.7322
60	-1357.8438	-356.8776	-985.7322	-2442.8682	-168.4921	-561.0071
61	-2442.8682	-168.4921	-561.0071	-2246.9678	51.2947	-57.0881
62	-2246.9678	51.2947	-57.0881	-1920.8342	47.0702	-71.3326
63	-1920.8342	47.0702	-71.3326	-1649.6733	43.6357	-81.4451
64	-1649.6733	43.6357	-81.4451	-1176.5342	33.8825	-109.1257
65	-1176.5342	33.8825	-109.1257	-867.7523	27.4513	-126.5494
66	-867.7523	27.4513	-126.5494	-310.1532	11.3754	-168.6304
67	-310.1532	11.3754	-168.6304	278.2001	-1.5950	-199.7599
68	278.2001	-1.5950	-199.7599	542.5377	-20.9998	-249.9666
69	542.5377	-20.9998	-249.9666	1076.9684	-40.6670	-295.1926
70	1076.9684	-40.6670	-295.1926	1230.1658	-63.4030	-349.9318
71	1230.1658	-63.4030	-349.9318	1617.4674	-89.5688	-398.1844
72	1617.4674	-89.5688	-398.1844	1598.2234	-115.3806	-455.1356
73	1598.2234	-115.3806	-455.1356	1748.0444	-147.3569	-513.3230
74	1748.0444	-147.3569	-513.3230	1501.4519	-175.9099	-576.4492
75	1501.4519	-175.9099	-576.4492	1340.9723	-212.6189	-648.3345
76	1340.9723	-212.6189	-648.3345	826.6078	-243.1681	-719.0632
77	826.6078	-243.1681	-719.0632	312.7808	-283.3518	-805.8297
78	312.7808	-283.3518	-805.8297	-489.0575	-315.2445	-883.9833
79	-489.0575	-315.2445	-883.9833	-1360.1252	-357.1495	-984.8880
80	-1360.1252	-357.1495	-984.8880	-2446.0491	-168.6021	-560.3123
81	-2446.0491	-168.6021	-560.3123	-2249.6738	51.3493	-56.4949
82	-2249.6738	51.3493	-56.4949	-1923.2501	47.1122	-70.6095
83	-1923.2501	47.1122	-70.6095	-1651.8237	43.6731	-81.0195
84	-1651.8237	43.6731	-81.0195	-1178.3132	33.9100	-108.7258
85	-1178.3132	33.9100	-108.7258	-869.2422	27.4789	-126.3114
86	-869.2422	27.4789	-126.3114	-311.2050	11.4128	-168.5607
87	-311.2050	11.4128	-168.5607	277.5365	-1.5698	-199.7285
88	277.5365	-1.5698	-199.7285	542.0291	-20.9795	-249.9512
89	542.0291	-20.9795	-249.9512	1076.7085	-40.6604	-295.1772
90	1076.7085	-40.6604	-295.1772	1230.1060	-63.3918	-349.6170
91	1230.1060	-63.3918	-349.6170	1617.5620	-89.5579	-398.0175
92	1617.5620	-89.5579	-398.0175	1598.2844	-115.3760	-455.0248
93	1598.2844	-115.3760	-455.0248	1748.2444	-147.3557	-512.8969
94	1748.2444	-147.3557	-512.8969	1501.8020	-175.8938	-576.0728
95	1501.8020	-175.8938	-576.0728	1341.1678	-212.6387	-648.0080
96	1341.1678	-212.6387	-648.0080	826.9703	-243.2061	-718.4870
97	826.9703	-243.2061	-718.4870	313.0604	-283.4194	-805.0138
98	313.0604	-283.4194	-805.0138	-489.0151	-315.2756	-883.1382
99	-489.0151	-315.2756	-883.1382	-1360.5132	-357.1761	-984.0275
100	-1360.5132	-357.1761	-984.0275	-2446.1655	-168.6200	-559.9361
101	-2446.1655	-168.6200	-559.9361	-2249.9790	51.3432	-56.2820
102	-2249.9790	51.3432	-56.2820	-1923.5560	47.1143	-70.1329
103	-1923.5560	47.1143	-70.1329	-1652.0472	43.6841	-80.9603
104	-1652.0472	43.6841	-80.9603	-1178.4475	33.9076	-108.9156
105	-1178.4475	33.9076	-108.9156	-869.3607	27.4929	-126.3784
106	-869.3607	27.4929	-126.3784	-311.2778	11.4148	-168.7155
107	-311.2778	11.4148	-168.7155	277.4515	-1.5690	-199.9097
108	277.4515	-1.5690	-199.9097	541.9830	-20.9810	-250.0732
109	541.9830	-20.9810	-250.0732	1076.6479	-40.6567	-295.2115

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	1076.6479	-40.6567	-295.2115	1229.9388	-63.4074	-349.8497
111	1229.9388	-63.4074	-349.8497	1617.4231	-89.5583	-398.0237
112	1617.4231	-89.5583	-398.0237	1598.1536	-115.4043	-454.9961
113	1598.1536	-115.4043	-454.9961	1748.1174	-147.4033	-512.6560
114	1748.1174	-147.4033	-512.6560	1501.3489	-175.8583	-575.5979
115	1501.3489	-175.8583	-575.5979	1341.0929	-212.5694	-647.4001
116	1341.0929	-212.5694	-647.4001	826.8584	-243.1586	-717.7413
117	826.8584	-243.1586	-717.7413	313.3091	-283.3333	-804.4641
118	313.3091	-283.3333	-804.4641	-488.6556	-315.2060	-882.3198
119	-488.6556	-315.2060	-882.3198	-1359.3934	-357.1121	-983.7081
120	-1359.3934	-357.1121	-983.7081	-2444.8467	-168.6102	-559.4339
121	-2444.8467	-168.6102	-559.4339	-2249.1689	51.2994	-55.5672
122	-2249.1689	51.2994	-55.5672	-1922.8608	47.0659	-69.9462
123	-1922.8608	47.0659	-69.9462	-1651.6099	43.6171	-80.6505
124	-1651.6099	43.6171	-80.6505	-1178.1835	33.8719	-108.6429
125	-1178.1835	33.8719	-108.6429	-869.1860	27.4569	-126.2313
126	-869.1860	27.4569	-126.2313	-311.1093	11.3974	-168.6428
127	-311.1093	11.3974	-168.6428	277.7059	-1.5785	-199.9125
128	277.7059	-1.5785	-199.9125	542.3146	-20.9872	-250.0327
129	542.3146	-20.9872	-250.0327	1077.0430	-40.6701	-295.0866
130	1077.0430	-40.6701	-295.0866	1230.2666	-63.4252	-349.8916
131	1230.2666	-63.4252	-349.8916	1617.7622	-89.5813	-398.1832
132	1617.7622	-89.5813	-398.1832	1598.5928	-115.4361	-454.5543
133	1598.5928	-115.4361	-454.5543	1748.5647	-147.4312	-511.8588
134	1748.5647	-147.4312	-511.8588	1501.7881	-175.9211	-574.9269
135	1501.7881	-175.9211	-574.9269	1341.0730	-212.6505	-646.8292
136	1341.0730	-212.6505	-646.8292	826.9817	-243.2098	-717.1530
137	826.9817	-243.2098	-717.1530	313.0904	-283.4043	-803.4651
138	313.0904	-283.4043	-803.4651	-489.1273	-315.2814	-881.5188
139	-489.1273	-315.2814	-881.5188	-1359.9324	-357.1835	-982.9364
140	-1359.9324	-357.1835	-982.9364	-2445.6138	-168.6198	-558.3195
141	-2445.6138	-168.6198	-558.3195	-2249.6855	51.3456	-54.7500
142	-2249.6855	51.3456	-54.7500	-1923.2058	47.1236	-69.6567
143	-1923.2058	47.1236	-69.6567	-1651.7473	43.6906	-80.1383
144	-1651.7473	43.6906	-80.1383	-1178.1489	33.9025	-108.3979
145	-1178.1489	33.9025	-108.3979	-869.1006	27.4828	-126.1656
146	-869.1006	27.4828	-126.1656	-311.0999	11.3979	-168.5758
147	-311.0999	11.3979	-168.5758	277.6328	-1.5784	-199.9248
148	277.6328	-1.5784	-199.9248	542.1932	-20.9917	-250.0244
149	542.1932	-20.9917	-250.0244	1076.8103	-40.6633	-295.1250
150	1076.8103	-40.6633	-295.1250	1230.1021	-63.4123	-349.7599
151	1230.1021	-63.4123	-349.7599	1617.4518	-89.5758	-397.9908
152	1617.4518	-89.5758	-397.9908	1598.3258	-115.4187	-454.3819
153	1598.3258	-115.4187	-454.3819	1748.3098	-147.3752	-511.6589
154	1748.3098	-147.3752	-511.6589	1501.6855	-175.8710	-574.8146
155	1501.6855	-175.8710	-574.8146	1341.1162	-212.6252	-646.4395
156	1341.1162	-212.6252	-646.4395	827.1906	-243.1909	-716.6646
157	827.1906	-243.1909	-716.6646	313.6409	-283.3657	-802.8010
158	313.6409	-283.3657	-802.8010	-488.2454	-315.2641	-880.8263
159	-488.2454	-315.2641	-880.8263	-1359.5219	-357.1611	-981.8700
160	-1359.5219	-357.1611	-981.8700	-2444.9187	-168.6447	-557.9562
161	-2444.9187	-168.6447	-557.9562	-2248.7334	51.2813	-54.8218
162	-2248.7334	51.2813	-54.8218	-1922.5046	47.0636	-69.2663
163	-1922.5046	47.0636	-69.2663	-1651.1738	43.6272	-80.1539
164	-1651.1738	43.6272	-80.1539	-1177.7545	33.8752	-108.2893

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	-1177.7545	33.8752	-108.2893	-868.7422	27.4474	-126.2051
166	-868.7422	27.4474	-126.2051	-310.7169	11.3905	-168.7239
167	-310.7169	11.3905	-168.7239	277.9494	-1.5930	-200.0861
168	277.9494	-1.5930	-200.0861	542.5078	-21.0050	-250.2769
169	542.5078	-21.0050	-250.2769	1077.2345	-40.6811	-295.1892
170	1077.2345	-40.6811	-295.1892	1230.6027	-63.4283	-349.6267
171	1230.6027	-63.4283	-349.6267	1617.9946	-89.5654	-397.6675
172	1617.9946	-89.5654	-397.6675	1598.7324	-115.4113	-454.4290
173	1598.7324	-115.4113	-454.4290	1748.7983	-147.4090	-511.6738
174	1748.7983	-147.4090	-511.6738	1502.1494	-175.9139	-574.4519
175	1502.1494	-175.9139	-574.4519	1341.4897	-212.6941	-646.1575
176	1341.4897	-212.6941	-646.1575	827.2950	-243.2483	-716.2601
177	827.2950	-243.2483	-716.2601	313.3154	-283.4098	-802.7276
178	313.3154	-283.4098	-802.7276	-488.3638	-315.3110	-880.7358
179	-488.3638	-315.3110	-880.7358	-1359.8481	-357.1844	-981.7990
180	-1359.8481	-357.1844	-981.7990	-2445.6775	-168.6366	-558.0318
181	-2445.6775	-168.6366	-558.0318	-2249.4912	51.3378	-54.8223
182	-2249.4912	51.3378	-54.8223	-1923.0330	47.1161	-69.5139
183	-1923.0330	47.1161	-69.5139	-1651.5916	43.6884	-80.4287
184	-1651.5916	43.6884	-80.4287	-1178.0364	33.8977	-108.3840
185	-1178.0364	33.8977	-108.3840	-868.9813	27.4758	-126.1682
186	-868.9813	27.4758	-126.1682	-310.9448	11.3968	-168.7448
187	-310.9448	11.3968	-168.7448	277.7328	-1.5812	-200.0226
188	277.7328	-1.5812	-200.0226	542.2496	-20.9884	-250.2354
189	542.2496	-20.9884	-250.2354	1076.9773	-40.6499	-295.1895
190	1076.9773	-40.6499	-295.1895	1230.2878	-63.4020	-349.7744
191	1230.2878	-63.4020	-349.7744	1617.9048	-89.5388	-397.8158
192	1617.9048	-89.5388	-397.8158	1598.9119	-115.3959	-454.0169
193	1598.9119	-115.3959	-454.0169	1748.8613	-147.4205	-511.8021
194	1748.8613	-147.4205	-511.8021	1502.3201	-175.9380	-574.5997
195	1502.3201	-175.9380	-574.5997	1341.8152	-212.6660	-645.8846
196	1341.8152	-212.6660	-645.8846	827.5384	-243.2565	-716.2300
197	827.5384	-243.2565	-716.2300	313.8246	-283.4335	-802.5327
198	313.8246	-283.4335	-802.5327	-488.0644	-315.3299	-880.4774
199	-488.0644	-315.3299	-880.4774	-1359.5586	-357.2222	-981.3658
200	-1359.5586	-357.2222	-981.3658	-2445.6570	-168.6403	-557.8315
201	-2445.6570	-168.6403	-557.8315	-2249.4370	51.3418	-55.1724
202	-2249.4370	51.3418	-55.1724	-1923.0558	47.1147	-69.3253
203	-1923.0558	47.1147	-69.3253	-1651.6221	43.6625	-80.0723
204	-1651.6221	43.6625	-80.0723	-1178.0726	33.8971	-108.3987
205	-1178.0726	33.8971	-108.3987	-869.0214	27.4678	-126.2363
206	-869.0214	27.4678	-126.2363	-311.0059	11.3948	-168.7616
207	-311.0059	11.3948	-168.7616	277.7007	-1.5809	-200.0871
208	277.7007	-1.5809	-200.0871	542.3190	-20.9877	-250.2423
209	542.3190	-20.9877	-250.2423	1077.0771	-40.6695	-295.1775
210	1077.0771	-40.6695	-295.1775	1230.3654	-63.4249	-349.7998
211	1230.3654	-63.4249	-349.7998	1617.7594	-89.5793	-398.0040
212	1617.7594	-89.5793	-398.0040	1598.6134	-115.4239	-454.3908
213	1598.6134	-115.4239	-454.3908	1748.5164	-147.3965	-511.6234
214	1748.5164	-147.3965	-511.6234	1501.7698	-175.9462	-574.6262
215	1501.7698	-175.9462	-574.6262	1341.1047	-212.7074	-646.1720
216	1341.1047	-212.7074	-646.1720	826.7743	-243.2971	-716.5205
217	826.7743	-243.2971	-716.5205	312.8137	-283.4758	-802.6796
218	312.8137	-283.4758	-802.6796	-489.5604	-315.3846	-880.7158
219	-489.5604	-315.3846	-880.7158	-1361.1528	-357.2795	-981.9604

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	-1361.1528	-357.2795	-981.9604	-2447.0022	-168.6407	-557.8703
221	-2447.0022	-168.6407	-557.8703	-2250.3835	51.4133	-54.5115
222	-2250.3835	51.4133	-54.5115	-1923.6150	47.1800	-69.0710
223	-1923.6150	47.1800	-69.0710	-1651.9194	43.7403	-79.9839
224	-1651.9194	43.7403	-79.9839	-1178.0940	33.9568	-108.2545
225	-1178.0940	33.9568	-108.2545	-868.9257	27.5046	-126.1559
226	-868.9257	27.5046	-126.1559	-310.8425	11.4228	-168.6391
227	-310.8425	11.4228	-168.6391	277.7198	-1.5951	-199.9735
228	277.7198	-1.5951	-199.9735	542.0392	-21.0234	-250.1397
229	542.0392	-21.0234	-250.1397	1076.1667	-40.7435	-295.2036
230	1076.1667	-40.7435	-295.2036	1228.8762	-63.5099	-349.6448
231	1228.8762	-63.5099	-349.6448	1615.2864	-89.6824	-397.8882
232	1615.2864	-89.6824	-397.8882	1595.4283	-115.5168	-454.4209
233	1595.4283	-115.5168	-454.4209	1744.1633	-147.5034	-511.7426
234	1744.1633	-147.5034	-511.7426	1496.7520	-176.0228	-574.5160
235	1496.7520	-176.0228	-574.5160	1334.7251	-212.8360	-646.0040
236	1334.7251	-212.8360	-646.0040	819.4957	-243.4448	-716.4607
237	819.4957	-243.4448	-716.4607	304.3594	-283.6435	-802.6797
238	304.3594	-283.6435	-802.6797	-498.7276	-315.5441	-880.5493
239	-498.7276	-315.5441	-880.5493	-1371.0977	-357.4289	-981.6035
240	-1371.0977	-357.4289	-981.6035	-2457.6411	-168.2991	-557.7203
241	-2457.6411	-168.2991	-557.7203	-2258.4404	52.2304	-54.8121
242	-2258.4404	52.2304	-54.8121	-1928.7277	47.9356	-69.3873
243	-1928.7277	47.9356	-69.3873	-1654.5380	44.4439	-80.1862
244	-1654.5380	44.4439	-80.1862	-1178.4517	34.5060	-108.5172
245	-1178.4517	34.5060	-108.5172	-867.7908	27.9778	-126.2966
246	-867.7908	27.9778	-126.2966	-309.6224	11.6191	-168.8409
247	-309.6224	11.6191	-168.8409	277.0903	-1.6911	-200.1719
248	277.0903	-1.6911	-200.1719	539.2277	-21.2872	-250.4556
249	539.2277	-21.2872	-250.4556	1067.5161	-41.3527	-295.4503
250	1067.5161	-41.3527	-295.4503	1215.1145	-64.3143	-349.8822
251	1215.1145	-64.3143	-349.8822	1590.9698	-90.9151	-398.2534
252	1590.9698	-90.9151	-398.2534	1562.5417	-116.9842	-454.6295
253	1562.5417	-116.9842	-454.6295	1696.4275	-149.3691	-511.8699
254	1696.4275	-149.3691	-511.8699	1437.5597	-178.1249	-574.7812
255	1437.5597	-178.1249	-574.7812	1257.6912	-215.2968	-646.6265
256	1257.6912	-215.2968	-646.6265	729.2447	-246.0819	-716.9465
257	729.2447	-246.0819	-716.9465	196.2243	-286.5323	-803.3928
258	196.2243	-286.5323	-803.3928	-619.1523	-318.5140	-881.6665
259	-619.1523	-318.5140	-881.6665	-1504.2327	-360.4901	-982.8036
260	-1504.2327	-360.4901	-982.8036	-2599.4229	-167.5650	-565.7772
261	-2599.4229	-167.5650	-565.7772	-2426.9690	56.6626	-70.4425
262	-2426.9690	56.6626	-70.4425	-2223.8616	54.7843	-78.3793
263	-2223.8616	54.7843	-78.3793	-1993.2222	51.9661	-89.3741
264	-1993.2222	51.9661	-89.3741	-1739.0195	48.1628	-102.9135
265	-1739.0195	48.1628	-102.9135	-1262.2916	37.2670	-139.2119
266	-1262.2916	37.2670	-139.2119	-951.0210	30.0722	-162.0238
267	-951.0210	30.0722	-162.0238	-635.9779	21.6514	-187.7729
268	-635.9779	21.6514	-187.7729	-324.3331	11.9552	-216.7137
269	-324.3331	11.9552	-216.7137	-24.1303	0.9396	-248.4466
270	-24.1303	0.9396	-248.4466	256.3617	-11.4235	-283.2432
271	256.3617	-11.4235	-283.2432	508.7944	-25.1516	-321.0106
272	508.7944	-25.1516	-321.0106	1021.5310	-49.2665	-384.3856
273	1021.5310	-49.2665	-384.3856	1176.0979	-74.7186	-448.6173
274	1176.0979	-74.7186	-448.6173	1268.8855	-94.0356	-492.4262

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	1268.8855	-94.0356	-492.4262	1290.2671	-114.7544	-536.3877
276	1290.2671	-114.7544	-536.3877	1230.9661	-136.8320	-582.0855
277	1230.9661	-136.8320	-582.0855	1236.6343	-169.9794	-640.7577
278	1236.6343	-169.9794	-640.7577	941.3080	-195.9294	-695.1711
279	941.3080	-195.9294	-695.1711	531.8796	-223.1440	-752.7393
280	531.8796	-223.1440	-752.7393	-0.4463	-238.1548	-794.1290

ENVOL. MAX. FLECTORES TREN TREN SIN CARGA, EC-1 en via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0088	18.1983	81.3372	52.2350	21.5464	67.6467
2	52.2350	21.5464	67.6467	98.2021	19.0459	60.7756
3	98.2021	19.0459	60.7756	137.9426	16.5455	53.8624
4	137.9426	16.5455	53.8624	171.4528	13.4239	45.1937
5	171.4528	13.4239	45.1937	198.3716	10.3041	36.6055
6	198.3716	10.3041	36.6055	219.0463	7.8080	29.7519
7	219.0463	7.8080	29.7519	233.4931	5.3105	22.8362
8	233.4931	5.3105	22.8362	241.7056	2.1880	14.1792
9	241.7056	2.1880	14.1792	243.3492	-0.9371	5.5945
10	243.3492	-0.9371	5.5945	238.7436	-3.4374	-1.3205
11	238.7436	-3.4374	-1.3205	227.8914	-5.9352	-8.2148
12	227.8914	-5.9352	-8.2148	210.7817	-9.0622	-16.8221
13	210.7817	-9.0622	-16.8221	187.0977	-12.1901	-25.4795
14	187.0977	-12.1901	-25.4795	157.1756	-14.6920	-32.3652
15	157.1756	-14.6920	-32.3652	120.9849	-17.1932	-39.2496
16	120.9849	-17.1932	-39.2496	78.5468	-20.3170	-47.8461
17	78.5468	-20.3170	-47.8461	49.2176	1.2868	0.3559
18	49.2176	1.2868	0.3559	52.1133	1.2867	0.3410
19	52.1133	1.2867	0.3410	55.0084	1.2869	0.3415
20	55.0084	1.2869	0.3415	57.9033	-1.4588	2.9996
21	57.9033	-1.4588	2.9996	45.2918	-4.2045	5.6433
22	45.2918	-4.2045	5.6433	32.6786	-4.2043	5.6397
23	32.6786	-4.2043	5.6397	46.4317	22.3834	77.8988
24	46.4317	22.3834	77.8988	107.9593	18.6332	67.5650
25	107.9593	18.6332	67.5650	158.2357	14.8837	57.2288
26	158.2357	14.8837	57.2288	197.2734	11.1332	46.8660
27	197.2734	11.1332	46.8660	225.0493	7.3832	36.5350
28	225.0493	7.3832	36.5350	241.5800	3.6330	26.1991
29	241.5800	3.6330	26.1991	246.8451	-0.1158	15.8632
30	246.8451	-0.1158	15.8632	253.4209	3.6449	-4.0005
31	253.4209	3.6449	-4.0005	258.7240	-0.1056	-14.3724
32	258.7240	-0.1056	-14.3724	252.7665	-3.8578	-24.7466
33	252.7665	-3.8578	-24.7466	235.5805	-7.6091	-35.0457
34	235.5805	-7.6091	-35.0457	207.1210	-11.3608	-45.3908
35	207.1210	-11.3608	-45.3908	167.4159	-15.1105	-55.7355
36	167.4159	-15.1105	-55.7355	116.4668	-18.8587	-66.0493
37	116.4668	-18.8587	-66.0493	54.2749	-22.6080	-76.3923
38	54.2749	-22.6080	-76.3923	47.5957	1.1836	0.2865
39	47.5957	1.1836	0.2865	51.1459	1.1834	0.2870
40	51.1459	1.1834	0.2870	54.6959	-1.4753	2.9723
41	54.6959	-1.4753	2.9723	42.2942	-4.1339	5.6441
42	42.2942	-4.1339	5.6441	38.0236	-0.9321	-0.2068
43	38.0236	-0.9321	-0.2068	55.5719	22.1395	77.7649
44	55.5719	22.1395	77.7649	116.3784	18.3904	67.4121
45	116.3784	18.3904	67.4121	165.9145	14.6406	57.0831
46	165.9145	14.6406	57.0831	204.1983	10.8892	46.7724
47	204.1983	10.8892	46.7724	231.2303	7.1381	36.4537
48	231.2303	7.1381	36.4537	247.0102	3.3903	26.1169
49	247.0102	3.3903	26.1169	251.5629	-0.3584	15.7621
50	251.5629	-0.3584	15.7621	244.8598	-4.1088	5.4643
51	244.8598	-4.1088	5.4643	249.6986	0.5470	-15.8729
52	249.6986	0.5470	-15.8729	245.7112	-3.2065	-26.2095
53	245.7112	-3.2065	-26.2095	230.4549	-6.9584	-36.5438

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	230.4549	-6.9584	-36.5438	203.9711	-10.7061	-46.8643
55	203.9711	-10.7061	-46.8643	166.2359	-14.4541	-57.1821
56	166.2359	-14.4541	-57.1821	117.2377	-18.2029	-67.5222
57	117.2377	-18.2029	-67.5222	57.0132	-21.9524	-77.8475
58	57.0132	-21.9524	-77.8475	47.4693	1.1657	0.2961
59	47.4693	1.1657	0.2961	50.9659	1.1655	0.3034
60	50.9659	1.1655	0.3034	56.2717	1.5321	-2.8440
61	56.2717	1.5321	-2.8440	52.6624	-1.2028	-0.2995
62	52.6624	-1.2028	-0.2995	49.0537	-1.2028	-0.2876
63	49.0537	-1.2028	-0.2876	56.2732	22.1207	77.7035
64	56.2732	22.1207	77.7035	117.0107	18.3708	67.3902
65	117.0107	18.3708	67.3902	166.4901	14.6213	57.0443
66	166.4901	14.6213	57.0443	204.7411	10.8731	46.7184
67	204.7411	10.8731	46.7184	231.7273	7.1241	36.4305
68	231.7273	7.1241	36.4305	247.4768	3.3712	26.0970
69	247.4768	3.3712	26.0970	251.9626	-0.3802	15.7630
70	251.9626	-0.3802	15.7630	245.9807	4.0865	-5.6690
71	245.9807	4.0865	-5.6690	252.6100	0.3335	-15.9468
72	252.6100	0.3335	-15.9468	247.9815	-3.4155	-26.2798
73	247.9815	-3.4155	-26.2798	232.1127	-7.1664	-36.6154
74	232.1127	-7.1664	-36.6154	204.9970	-10.9183	-46.9011
75	204.9970	-10.9183	-46.9011	166.6322	-14.6667	-57.2086
76	166.6322	-14.6667	-57.2086	117.0164	-18.4158	-67.5422
77	117.0164	-18.4158	-67.5422	56.1502	-22.1639	-77.8773
78	56.1502	-22.1639	-77.8773	47.4480	1.1634	0.3076
79	47.4480	1.1634	0.3076	50.9375	1.1632	0.3142
80	50.9375	1.1632	0.3142	54.4271	-1.4823	2.9966
81	54.4271	-1.4823	2.9966	50.3832	-1.1506	-0.3156
82	50.3832	-1.1506	-0.3156	46.9324	-1.1504	-0.3090
83	46.9324	-1.1504	-0.3090	56.3700	22.1227	77.6471
84	56.3700	22.1227	77.6471	117.1134	18.3717	67.3206
85	117.1134	18.3717	67.3206	166.5784	14.6213	57.0052
86	166.5784	14.6213	57.0052	204.8192	10.8706	46.6970
87	204.8192	10.8706	46.6970	231.7905	7.1204	36.4139
88	231.7905	7.1204	36.4139	247.5341	3.3714	26.0778
89	247.5341	3.3714	26.0778	252.0193	-0.3770	15.7643
90	252.0193	-0.3770	15.7643	245.2625	-4.1251	5.5207
91	245.2625	-4.1251	5.5207	251.8458	0.3946	-15.9429
92	251.8458	0.3946	-15.9429	247.3970	-3.3556	-26.2809
93	247.3970	-3.3556	-26.2809	231.7007	-7.1088	-36.5721
94	231.7007	-7.1088	-36.5721	204.7629	-10.8619	-46.8727
95	204.7629	-10.8619	-46.8727	166.5502	-14.6122	-57.1800
96	166.5502	-14.6122	-57.1800	117.1235	-18.3601	-67.4839
97	117.1235	-18.3601	-67.4839	56.4249	-22.1104	-77.8029
98	56.4249	-22.1104	-77.8029	29.7628	4.1418	-5.5018
99	29.7628	4.1418	-5.5018	42.1897	4.1418	-5.5001
100	42.1897	4.1418	-5.5001	54.6126	1.4875	-2.9086
101	54.6126	1.4875	-2.9086	51.1125	-1.1667	-0.3213
102	51.1125	-1.1667	-0.3213	47.6127	-1.1668	-0.3217
103	47.6127	-1.1668	-0.3217	56.3988	22.1208	77.6066
104	56.3988	22.1208	77.6066	117.1133	18.3687	67.2847
105	117.1133	18.3687	67.2847	166.5905	14.6184	56.9507
106	166.5905	14.6184	56.9507	204.8125	10.8689	46.6636

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
107	204.8125	10.8689	46.6636	231.7848	7.1191	36.3900
108	231.7848	7.1191	36.3900	247.5177	3.3720	26.0887
109	247.5177	3.3720	26.0887	252.0107	-0.3772	15.7739
110	252.0107	-0.3772	15.7739	245.3006	4.1259	-5.6769
111	245.3006	4.1259	-5.6769	252.0542	0.3729	-15.9567
112	252.0542	0.3729	-15.9567	247.5493	-3.3786	-26.2922
113	247.5493	-3.3786	-26.2922	231.8011	-7.1273	-36.5593
114	231.8011	-7.1273	-36.5593	204.7967	-10.8734	-46.8412
115	204.7967	-10.8734	-46.8412	166.5808	-14.6193	-57.1392
116	166.5808	-14.6193	-57.1392	117.1012	-18.3685	-67.4411
117	117.1012	-18.3685	-67.4411	56.3859	-22.1194	-77.7766
118	56.3859	-22.1194	-77.7766	29.6413	4.1239	-5.5377
119	29.6413	4.1239	-5.5377	42.0126	4.1239	-5.5238
120	42.0126	4.1239	-5.5238	54.3839	1.4811	-2.9251
121	54.3839	1.4811	-2.9251	50.8997	-1.1614	-0.3374
122	50.8997	-1.1614	-0.3374	47.4161	-1.1609	-0.3262
123	47.4161	-1.1609	-0.3262	43.9334	-1.1610	-0.3131
124	43.9334	-1.1610	-0.3131	40.4490	-1.1614	-0.3034
125	40.4490	-1.1614	-0.3034	45.7277	18.4215	51.5176
126	45.7277	18.4215	51.5176	105.7803	19.1311	35.4809
127	105.7803	19.1311	35.4809	157.5226	15.3788	25.1905
128	157.5226	15.3788	25.1905	198.0258	11.6281	14.9084
129	198.0258	11.6281	14.9084	227.2884	7.8777	4.6003
130	227.2884	7.8777	4.6003	245.2860	4.1290	-5.7157
131	245.2860	4.1290	-5.7157	252.0444	0.3790	-15.9963
132	252.0444	0.3790	-15.9963	247.5515	-3.3721	-26.2382
133	247.5515	-3.3721	-26.2382	231.8178	-7.1228	-36.4812
134	231.8178	-7.1228	-36.4812	204.8206	-10.8750	-46.7791
135	204.8206	-10.8750	-46.7791	166.5732	-14.6231	-57.0982
136	166.5732	-14.6231	-57.0982	117.1175	-18.3703	-67.3865
137	117.1175	-18.3703	-67.3865	56.3906	-22.1213	-77.6892
138	56.3906	-22.1213	-77.6892	29.6848	4.1291	-5.5540
139	29.6848	4.1291	-5.5540	42.0738	4.1293	-5.5362
140	42.0738	4.1293	-5.5362	54.4626	1.4829	-2.9476
141	54.4626	1.4829	-2.9476	50.9704	-1.1639	-0.3556
142	50.9704	-1.1639	-0.3556	47.4790	-1.1641	-0.3325
143	47.4790	-1.1641	-0.3325	43.9866	-1.1642	-0.3259
144	43.9866	-1.1642	-0.3259	40.4944	-1.1641	-0.3107
145	40.4944	-1.1641	-0.3107	45.6817	18.4180	51.5094
146	45.6817	18.4180	51.5094	105.7615	19.1278	35.4257
147	105.7615	19.1278	35.4257	157.5108	15.3773	25.1521
148	157.5108	15.3773	25.1521	198.0023	11.6256	14.8834
149	198.0023	11.6256	14.8834	227.2589	7.8749	4.5770
150	227.2589	7.8749	4.5770	245.2617	4.1260	-5.7025
151	245.2617	4.1260	-5.7025	252.0184	0.3785	-15.9835
152	252.0184	0.3785	-15.9835	247.5354	-3.3710	-26.2277
153	247.5354	-3.3710	-26.2277	231.8014	-7.1205	-36.4707
154	231.8014	-7.1205	-36.4707	204.8188	-10.8701	-46.7759
155	204.8188	-10.8701	-46.7759	166.5832	-14.6197	-57.0656
156	166.5832	-14.6197	-57.0656	117.1361	-18.3682	-67.3406
157	117.1361	-18.3682	-67.3406	56.4328	-22.1199	-77.6312
158	56.4328	-22.1199	-77.6312	29.6609	4.1273	-5.5670
159	29.6609	4.1273	-5.5670	42.0462	4.1275	-5.5588
160	42.0462	4.1275	-5.5588	54.4286	1.4827	-2.9575
161	54.4286	1.4827	-2.9575	50.9434	-1.1623	-0.3550

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
162	50.9434	-1.1623	-0.3550	47.4570	-1.1625	-0.3438
163	47.4570	-1.1625	-0.3438	43.9696	-1.1628	-0.3270
164	43.9696	-1.1628	-0.3270	40.4813	-1.1628	-0.3170
165	40.4813	-1.1628	-0.3170	42.8287	22.8811	45.7405
166	42.8287	22.8811	45.7405	105.8248	19.1306	35.4219
167	105.8248	19.1306	35.4219	157.5866	15.3755	25.0882
168	157.5866	15.3755	25.0882	198.0813	11.6244	14.8245
169	198.0813	11.6244	14.8245	227.3365	7.8757	4.5845
170	227.3365	7.8757	4.5845	245.3346	4.1248	-5.6616
171	245.3346	4.1248	-5.6616	252.0880	0.3738	-15.9261
172	252.0880	0.3738	-15.9261	247.5922	-3.3752	-26.2423
173	247.5922	-3.3752	-26.2423	231.8644	-7.1252	-36.4688
174	231.8644	-7.1252	-36.4688	204.8661	-10.8768	-46.7355
175	204.8661	-10.8768	-46.7355	166.6211	-14.6260	-57.0362
176	166.6211	-14.6260	-57.0362	117.1497	-18.3741	-67.3138
177	117.1497	-18.3741	-67.3138	56.4026	-22.1235	-77.6328
178	56.4026	-22.1235	-77.6328	29.6651	4.1275	-5.5711
179	29.6651	4.1275	-5.5711	42.0535	4.1275	-5.5617
180	42.0535	4.1275	-5.5617	54.4358	1.4822	-2.9559
181	54.4358	1.4822	-2.9559	50.9454	-1.1632	-0.3545
182	50.9454	-1.1632	-0.3545	47.4560	-1.1634	-0.3368
183	47.4560	-1.1634	-0.3368	43.9656	-1.1633	-0.3191
184	43.9656	-1.1633	-0.3191	40.4755	-1.1632	-0.3135
185	40.4755	-1.1632	-0.3135	42.7613	22.8771	45.7329
186	42.7613	22.8771	45.7329	105.7473	19.1284	35.4391
187	105.7473	19.1284	35.4391	157.4929	15.3811	25.1441
188	157.4929	15.3811	25.1441	198.0103	11.6327	14.8363
189	198.0103	11.6327	14.8363	227.2838	7.8829	4.5814
190	227.2838	7.8829	4.5814	245.3033	4.1336	-5.7032
191	245.3033	4.1336	-5.7032	252.0779	0.3848	-15.9474
192	252.0779	0.3848	-15.9474	247.6107	-3.3668	-26.1898
193	247.6107	-3.3668	-26.1898	231.8726	-7.1209	-36.5046
194	231.8726	-7.1209	-36.5046	204.8895	-10.8754	-46.7585
195	204.8895	-10.8754	-46.7585	166.6469	-14.6251	-57.0170
196	166.6469	-14.6251	-57.0170	117.1758	-18.3740	-67.3185
197	117.1758	-18.3740	-67.3185	56.4520	-22.1259	-77.6237
198	56.4520	-22.1259	-77.6237	29.6665	4.1294	-5.5850
199	29.6665	4.1294	-5.5850	42.0558	4.1293	-5.5806
200	42.0558	4.1293	-5.5806	54.4473	1.4829	-2.9663
201	54.4473	1.4829	-2.9663	50.9576	-1.1637	-0.3476
202	50.9576	-1.1637	-0.3476	47.4675	-1.1637	-0.3428
203	47.4675	-1.1637	-0.3428	43.9779	-1.1635	-0.3300
204	43.9779	-1.1635	-0.3300	40.4866	-1.1635	-0.3141
205	40.4866	-1.1635	-0.3141	42.7881	22.8787	45.7300
206	42.7881	22.8787	45.7300	105.7736	19.1306	35.4198
207	105.7736	19.1306	35.4198	157.5421	15.3808	25.0969
208	157.5421	15.3808	25.0969	198.0522	11.6283	14.8350
209	198.0522	11.6283	14.8350	227.3084	7.8743	4.5733
210	227.3084	7.8743	4.5733	245.3049	4.1205	-5.7064
211	245.3049	4.1205	-5.7064	252.0493	0.3708	-15.9870
212	252.0493	0.3708	-15.9870	247.5533	-3.3761	-26.2320
213	247.5533	-3.3761	-26.2320	231.8149	-7.1254	-36.4726
214	231.8149	-7.1254	-36.4726	204.8192	-10.8775	-46.7618
215	204.8192	-10.8775	-46.7618	166.5779	-14.6301	-57.0496
216	166.5779	-14.6301	-57.0496	117.0919	-18.3791	-67.3396

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
217	117.0919	-18.3791	-67.3396	56.3612	-22.1284	-77.6311
218	56.3612	-22.1284	-77.6311	29.6899	4.1302	-5.5816
219	29.6899	4.1302	-5.5816	42.0854	4.1302	-5.5673
220	42.0854	4.1302	-5.5673	54.4779	1.4825	-2.9634
221	54.4779	1.4825	-2.9634	50.9816	-1.1653	-0.3620
222	50.9816	-1.1653	-0.3620	47.4852	-1.1655	-0.3483
223	47.4852	-1.1655	-0.3483	43.9888	-1.1656	-0.3313
224	43.9888	-1.1656	-0.3313	40.4919	-1.1652	-0.3172
225	40.4919	-1.1652	-0.3172	42.7381	22.8537	45.7448
226	42.7381	22.8537	45.7448	105.6704	19.1049	35.4224
227	105.6704	19.1049	35.4224	157.3561	15.3544	25.1216
228	157.3561	15.3544	25.1216	197.7855	11.6050	14.8377
229	197.7855	11.6050	14.8377	226.9655	7.8526	4.5653
230	226.9655	7.8526	4.5653	244.9007	4.1017	-5.6799
231	244.9007	4.1017	-5.6799	251.5985	0.3553	-15.9688
232	251.5985	0.3553	-15.9688	247.0480	-3.3902	-26.2372
233	247.0480	-3.3902	-26.2372	231.2718	-7.1387	-36.4808
234	231.2718	-7.1387	-36.4808	204.2469	-10.8914	-46.7348
235	204.2469	-10.8914	-46.7348	165.9519	-14.6413	-57.0226
236	165.9519	-14.6413	-57.0226	116.4335	-18.3924	-67.3306
237	116.4335	-18.3924	-67.3306	55.6555	-22.1444	-77.6201
238	55.6555	-22.1444	-77.6201	29.9033	4.1327	-5.5696
239	29.9033	4.1327	-5.5696	42.3048	4.1332	-5.5639
240	42.3048	4.1332	-5.5639	54.7074	1.4748	-2.9622
241	54.7074	1.4748	-2.9622	51.1568	-1.1838	-0.3561
242	51.1568	-1.1838	-0.3561	47.6042	-1.1838	-0.3418
243	47.6042	-1.1838	-0.3418	44.0528	-1.1840	-0.3276
244	44.0528	-1.1840	-0.3276	40.5001	-1.1846	-0.3116
245	40.5001	-1.1846	-0.3116	42.3113	22.6162	45.6605
246	42.3113	22.6162	45.6605	104.5038	18.8673	35.3591
247	104.5038	18.8673	35.3591	155.4813	15.1182	25.0537
248	155.4813	15.1182	25.0537	195.2141	11.3695	14.7376
249	195.2141	11.3695	14.7376	223.6917	.7.6192	4.5025
250	223.6917	7.6192	4.5025	240.9178	3.8664	-5.7497
251	240.9178	3.8664	-5.7497	246.8964	0.1166	-16.0464
252	246.8964	0.1166	-16.0464	241.6296	-3.6322	-26.2935
253	241.6296	-3.6322	-26.2935	225.1295	-7.3820	-36.5238
254	225.1295	-7.3820	-36.5238	197.3723	-11.1323	-46.8044
255	197.3723	-11.1323	-46.8044	158.3531	-14.8829	-57.1212
256	158.3531	-14.8829	-57.1212	108.0946	-18.6328	-67.4114
257	108.0946	-18.6328	-67.4114	46.5825	-22.3846	-77.7200
258	46.5825	-22.3846	-77.7200	32.6500	4.2005	-5.5750
259	32.6500	4.2005	-5.5750	45.2553	4.2004	-5.5624
260	45.2553	4.2004	-5.5624	57.8560	1.4583	-2.9994
261	57.8560	1.4583	-2.9994	54.9683	-1.2833	-0.4355
262	54.9683	-1.2833	-0.4355	52.0812	-1.2833	-0.4257
263	52.0812	-1.2833	-0.4257	49.1937	-1.2829	-0.4072
264	49.1937	-1.2829	-0.4072	46.3066	-1.2824	-0.4009
265	46.3066	-1.2824	-0.4009	43.4226	-1.2828	-0.3880
266	43.4226	-1.2828	-0.3880	40.5351	-1.2827	-0.3793
267	40.5351	-1.2827	-0.3793	53.4073	16.7265	17.5830
268	53.4073	16.7265	17.5830	87.2784	13.6005	9.0029
269	87.2784	13.6005	9.0029	114.5950	10.4731	0.4058
270	114.5950	10.4731	0.4058	135.6570	7.9708	-6.4830
271	135.6570	7.9708	-6.4830	150.4691	5.4695	-13.3263

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
272	150.4691	5.4695	-13.3263	159.0237	2.3431	-21.8932
273	159.0237	2.3431	-21.8932	161.0207	-0.7847	-30.4743
274	161.0207	-0.7847	-30.4743	156.7560	-3.2854	-37.3333
275	156.7560	-3.2854	-37.3333	146.2449	-5.7839	-44.2067
276	146.2449	-5.7839	-44.2067	129.4989	-8.9104	-52.7785
277	129.4989	-8.9104	-52.7785	106.1756	-12.0359	-61.3665
278	106.1756	-12.0359	-61.3665	76.6152	-14.5348	-68.2325
279	76.6152	-14.5348	-68.2325	40.8045	-17.0346	-75.1039
280	40.8045	-17.0346	-75.1039	0.0001	0.1976	-0.0148

ENVOL. MIN. FLECTORES TREN TREN SIN CARGA, EC-1 en via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.0005	1.2719	0.4011	-10.2703	-4.5659	7.1481
2	-10.2703	-4.5659	7.1481	-20.5449	-4.5656	7.1445
3	-20.5449	-4.5656	7.1445	-30.8185	-4.5655	7.1497
4	-30.8185	-4.5655	7.1497	-41.0932	-4.5668	7.1630
5	-41.0932	-4.5668	7.1630	-51.3674	-4.5698	7.1569
6	-51.3674	-4.5698	7.1569	-61.6497	-4.5729	7.1471
7	-61.6497	-4.5729	7.1471	-71.9332	-4.5737	7.1566
8	-71.9332	-4.5737	7.1566	-82.2262	-4.5737	7.1703
9	-82.2262	-4.5737	7.1703	-92.5195	-4.5725	7.1582
10	-92.5195	-4.5725	7.1582	-102.8038	-4.5726	7.1723
11	-102.8038	-4.5726	7.1723	-113.1020	-4.5721	7.1686
12	-113.1020	-4.5721	7.1686	-123.3885	-4.5703	7.1706
13	-123.3885	-4.5703	7.1706	-133.6769	-4.5711	7.1953
14	-133.6769	-4.5711	7.1953	-143.9557	-4.5715	7.1960
15	-143.9557	-4.5715	7.1960	-154.2384	-4.5710	7.1827
16	-154.2384	-4.5710	7.1827	-164.5261	-4.5710	7.1668
17	-164.5261	-4.5710	7.1668	-194.4719	-29.2992	-49.6252
18	-194.4719	-29.2992	-49.6252	-262.9193	-31.7990	-56.4429
19	-262.9193	-31.7990	-56.4429	-337.5829	-34.2992	-63.3475
20	-337.5829	-34.2992	-63.3475	-418.4860	1.8610	13.6266
21	-418.4860	1.8610	13.6266	-300.6741	37.3967	88.9682
22	-300.6741	37.3967	88.9682	-194.0963	33.6464	78.6582
23	-194.0963	33.6464	78.6582	-125.1441	3.3080	-3.9356
24	-125.1441	3.3080	-3.9356	-115.2185	3.3080	-3.9362
25	-115.2185	3.3080	-3.9362	-105.2935	3.3073	-3.9363
26	-105.2935	3.3073	-3.9363	-95.3702	3.3070	-3.9225
27	-95.3702	3.3070	-3.9225	-85.4506	3.3080	-3.9212
28	-85.4506	3.3080	-3.9212	-75.5253	3.3087	-3.9222
29	-75.5253	3.3087	-3.9222	-65.6022	3.3084	-3.9209
30	-65.6022	3.3084	-3.9209	-68.2281	-4.2024	5.6314
31	-68.2281	-4.2024	5.6314	-80.8325	-4.2022	5.6439
32	-80.8325	-4.2022	5.6439	-93.4395	-4.2036	5.6560
33	-93.4395	-4.2036	5.6560	-106.0484	-4.2034	5.6412
34	-106.0484	-4.2034	5.6412	-118.6568	-4.2030	5.6522
35	-118.6568	-4.2030	5.6522	-131.2662	-4.2031	5.6492
36	-131.2662	-4.2031	5.6492	-143.8762	-4.2025	5.6391
37	-143.8762	-4.2025	5.6391	-156.4808	-4.2027	5.6370
38	-156.4808	-4.2027	5.6370	-235.8720	-31.7444	-81.3652
39	-235.8720	-31.7444	-81.3652	-336.7184	-35.4946	-91.7146
40	-336.7184	-35.4946	-91.7146	-448.8304	1.2740	-2.1928
41	-448.8304	1.2740	-2.1928	-329.0685	38.0425	87.4256
42	-329.0685	38.0425	87.4256	-228.7148	31.0917	82.9557
43	-228.7148	31.0917	82.9557	-161.4094	4.2685	-5.3771
44	-161.4094	4.2685	-5.3771	-148.6037	4.2679	-5.3558
45	-148.6037	4.2679	-5.3558	-135.7968	4.2678	-5.3527
46	-135.7968	4.2678	-5.3527	-122.9878	4.2693	-5.3738
47	-122.9878	4.2693	-5.3738	-110.1737	4.2701	-5.3822
48	-110.1737	4.2701	-5.3822	-97.3676	4.2684	-5.3829
49	-97.3676	4.2684	-5.3829	-84.5627	4.2675	-5.3751
50	-84.5627	4.2675	-5.3751	-71.7591	4.2682	-5.3867
51	-71.7591	4.2682	-5.3867	-81.7330	-4.1361	5.6321
52	-81.7330	-4.1361	5.6321	-94.1363	-4.1350	5.6307
53	-94.1363	-4.1350	5.6307	-106.5402	-4.1350	5.6315
54	-106.5402	-4.1350	5.6315	-118.9413	-4.1351	5.6216

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	-118.9413	-4.1351	5.6216	-131.3448	-4.1350	5.6153
56	-131.3448	-4.1350	5.6153	-143.7550	-4.1357	5.6140
57	-143.7550	-4.1357	5.6140	-156.1644	-4.1358	5.6008
58	-156.1644	-4.1358	5.6008	-230.5118	-31.0048	-82.8764
59	-230.5118	-31.0048	-82.8764	-329.1314	-34.7547	-93.2592
60	-329.1314	-34.7547	-93.2592	-440.8401	-1.4739	2.8774
61	-440.8401	-1.4739	2.8774	-330.5074	34.9086	93.3223
62	-330.5074	34.9086	93.3223	-231.4174	31.1586	82.9203
63	-231.4174	31.1586	82.9203	-154.4038	4.0837	-5.4147
64	-154.4038	4.0837	-5.4147	-142.1516	4.0827	-5.4334
65	-142.1516	4.0827	-5.4334	-129.9009	4.0829	-5.4362
66	-129.9009	4.0829	-5.4362	-117.6495	4.0820	-5.4332
67	-117.6495	4.0820	-5.4332	-105.4045	4.0816	-5.4597
68	-105.4045	4.0816	-5.4597	-93.1606	4.0821	-5.4600
69	-93.1606	4.0821	-5.4600	-80.9133	4.0828	-5.4620
70	-80.9133	4.0828	-5.4620	-69.4275	-4.1297	5.6593
71	-69.4275	-4.1297	5.6593	-81.8172	-4.1297	5.6430
72	-81.8172	-4.1297	5.6430	-94.2054	-4.1277	5.6424
73	-94.2054	-4.1277	5.6424	-106.5889	-4.1284	5.6424
74	-106.5889	-4.1284	5.6424	-118.9804	-4.1294	5.6171
75	-118.9804	-4.1294	5.6171	-131.3683	-4.1293	5.5991
76	-131.3683	-4.1293	5.5991	-143.7607	-4.1311	5.5988
77	-143.7607	-4.1311	5.5988	-156.1548	-4.1314	5.5976
78	-156.1548	-4.1314	5.5976	-231.9460	-31.2073	-82.9632
79	-231.9460	-31.2073	-82.9632	-331.1727	-34.9574	-93.3230
80	-331.1727	-34.9574	-93.3230	-441.6672	1.4665	-2.9923
81	-441.6672	1.4665	-2.9923	-330.6996	34.9150	93.3085
82	-330.6996	34.9150	93.3085	-231.6014	31.1649	82.9400
83	-231.6014	31.1649	82.9400	-156.6224	4.1417	-5.3772
84	-156.6224	4.1417	-5.3772	-144.1970	4.1426	-5.3896
85	-144.1970	4.1426	-5.3896	-131.7714	4.1425	-5.4091
86	-131.7714	4.1425	-5.4091	-119.3437	4.1417	-5.4268
87	-119.3437	4.1417	-5.4268	-106.9182	4.1419	-5.4529
88	-106.9182	4.1419	-5.4529	-94.4909	4.1425	-5.4556
89	-94.4909	4.1425	-5.4556	-82.0651	4.1419	-5.4600
90	-82.0651	4.1419	-5.4600	-69.6418	4.1403	-5.4886
91	-69.6418	4.1403	-5.4886	-81.8007	-4.1285	5.6525
92	-81.8007	-4.1285	5.6525	-94.1902	-4.1279	5.6520
93	-94.1902	-4.1279	5.6520	-106.5730	-4.1278	5.6348
94	-106.5730	-4.1278	5.6348	-118.9548	-4.1274	5.6177
95	-118.9548	-4.1274	5.6177	-131.3364	-4.1273	5.5996
96	-131.3364	-4.1273	5.5996	-143.7208	-4.1280	5.5665
97	-143.7208	-4.1280	5.5665	-156.1037	-4.1276	5.5468
98	-156.1037	-4.1276	5.5468	-231.4599	-31.1498	-82.9380
99	-231.4599	-31.1498	-82.9380	-330.5480	-34.8998	-93.2865
100	-330.5480	-34.8998	-93.2865	-441.0670	-1.4823	2.8862
101	-441.0670	-1.4823	2.8862	-330.6952	34.9146	93.2624
102	-330.6952	34.9146	93.2624	-231.5833	31.1646	82.9410
103	-231.5833	31.1646	82.9410	-156.0184	4.1245	-5.3696
104	-156.0184	4.1245	-5.3696	-143.6387	4.1264	-5.4069
105	-143.6387	4.1264	-5.4069	-131.2580	4.1271	-5.4076
106	-131.2580	4.1271	-5.4076	-118.8785	4.1258	-5.4352
107	-118.8785	4.1258	-5.4352	-106.5026	4.1251	-5.4691
108	-106.5026	4.1251	-5.4691	-94.1212	4.1259	-5.4822
109	-94.1212	4.1259	-5.4822	-81.7451	4.1265	-5.4910

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	-81.7451	4.1265	-5.4910	-69.3655	4.1267	-5.5070
111	-69.3655	4.1267	-5.5070	-56.9874	4.1267	-5.5237
112	-56.9874	4.1267	-5.5237	-44.6111	4.1263	-5.5221
113	-44.6111	4.1263	-5.5221	-32.2315	4.1248	-5.5317
114	-32.2315	4.1248	-5.5317	-19.8511	4.1244	-5.5399
115	-19.8511	4.1244	-5.5399	-7.4774	4.1242	-5.5409
116	-7.4774	4.1242	-5.5409	-67.1089	-23.6644	-62.2042
117	-67.1089	-23.6644	-62.2042	-143.7120	-27.4145	-72.5708
118	-143.7120	-27.4145	-72.5708	-231.5887	-31.1643	-82.9335
119	-231.5887	-31.1643	-82.9335	-330.6612	-34.9144	-93.3776
120	-330.6612	-34.9144	-93.3776	-441.0264	1.4848	-3.1071
121	-441.0264	1.4848	-3.1071	-330.6481	34.9178	93.2966
122	-330.6481	34.9178	93.2966	-231.5520	31.1678	82.8997
123	-231.5520	31.1678	82.8997	-156.1463	4.1243	-5.3421
124	-156.1463	4.1243	-5.3421	-143.7685	4.1252	-5.3763
125	-143.7685	4.1252	-5.3763	-131.3917	4.1269	-5.3903
126	-131.3917	4.1269	-5.3903	-119.0081	4.1283	-5.4162
127	-119.0081	4.1283	-5.4162	-106.6230	4.1273	-5.4570
128	-106.6230	4.1273	-5.4570	-94.2402	4.1286	-5.4872
129	-94.2402	4.1286	-5.4872	-81.8456	4.1301	-5.5007
130	-81.8456	4.1301	-5.5007	-69.4518	4.1301	-5.5052
131	-69.4518	4.1301	-5.5052	-57.0614	4.1316	-5.5205
132	-57.0614	4.1316	-5.5205	-44.6642	4.1311	-5.5380
133	-44.6642	4.1311	-5.5380	-32.2731	4.1302	-5.5527
134	-32.2731	4.1302	-5.5527	-19.8800	4.1307	-5.5586
135	-19.8800	4.1307	-5.5586	-7.4857	4.1298	-5.5594
136	-7.4857	4.1298	-5.5594	-67.0267	-23.6621	-62.1930
137	-67.0267	-23.6621	-62.1930	-143.6295	-27.4117	-72.5484
138	-143.6295	-27.4117	-72.5484	-231.4932	-31.1614	-82.9037
139	-231.4932	-31.1614	-82.9037	-330.5462	-34.9114	-93.3807
140	-330.5462	-34.9114	-93.3807	-440.8819	1.4825	-3.0555
141	-440.8819	1.4825	-3.0555	-321.6795	37.8763	87.2741
142	-321.6795	37.8763	87.2741	-213.7076	34.1268	76.8022
143	-213.7076	34.1268	76.8022	-156.1107	4.1295	-5.2955
144	-156.1107	4.1295	-5.2955	-143.7160	4.1288	-5.3486
145	-143.7160	4.1288	-5.3486	-131.3333	4.1270	-5.3826
146	-131.3333	4.1270	-5.3826	-118.9512	4.1269	-5.3975
147	-118.9512	4.1269	-5.3975	-106.5676	4.1278	-5.4506
148	-106.5676	4.1278	-5.4506	-94.1837	4.1286	-5.4892
149	-94.1837	4.1286	-5.4892	-81.7981	4.1287	-5.5034
150	-81.7981	4.1287	-5.5034	-69.4109	4.1293	-5.5189
151	-69.4109	4.1293	-5.5189	-57.0238	4.1286	-5.5334
152	-57.0238	4.1286	-5.5334	-44.6390	4.1271	-5.5495
153	-44.6390	4.1271	-5.5495	-32.2525	4.1267	-5.5663
154	-32.2525	4.1267	-5.5663	-19.8712	4.1270	-5.5687
155	-19.8712	4.1270	-5.5687	-7.4843	4.1272	-5.5733
156	-7.4843	4.1272	-5.5733	-67.0651	-23.6637	-62.1505
157	-67.0651	-23.6637	-62.1505	-143.6536	-27.4135	-72.5103
158	-143.6536	-27.4135	-72.5103	-231.5014	-31.1632	-82.8784
159	-231.5014	-31.1632	-82.8784	-330.6093	-34.9132	-93.2755
160	-330.6093	-34.9132	-93.2755	-440.9352	1.4839	-3.0343
161	-440.9352	1.4839	-3.0343	-321.6405	37.8812	87.2070
162	-321.6405	37.8812	87.2070	-213.6513	34.1308	76.8132
163	-213.6513	34.1308	76.8132	-156.0714	4.1242	-5.2941
164	-156.0714	4.1242	-5.2941	-143.6965	4.1240	-5.3293

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	-143.6965	4.1240	-5.3293	-131.3203	4.1243	-5.3790
166	-131.3203	4.1243	-5.3790	-118.9419	4.1253	-5.4281
167	-118.9419	4.1253	-5.4281	-106.5611	4.1263	-5.4282
168	-106.5611	4.1263	-5.4282	-94.1806	4.1281	-5.4637
169	-94.1806	4.1281	-5.4637	-81.7927	4.1289	-5.5066
170	-81.7927	4.1289	-5.5066	-69.4133	4.1279	-5.5321
171	-69.4133	4.1279	-5.5321	-57.0270	4.1272	-5.5512
172	-57.0270	4.1272	-5.5512	-44.6437	4.1275	-5.5545
173	-44.6437	4.1275	-5.5545	-32.2593	4.1283	-5.5710
174	-32.2593	4.1283	-5.5710	-19.8745	4.1283	-5.5805
175	-19.8745	4.1283	-5.5805	-7.4882	4.1277	-5.5812
176	-7.4882	4.1277	-5.5812	-67.0098	-23.6664	-62.1428
177	-67.0098	-23.6664	-62.1428	-143.6357	-27.4157	-72.5066
178	-143.6357	-27.4157	-72.5066	-231.4510	-31.1653	-82.9118
179	-231.4510	-31.1653	-82.9118	-330.5795	-34.9155	-93.3209
180	-330.5795	-34.9155	-93.3209	-440.9518	1.4818	-3.0584
181	-440.9518	1.4818	-3.0584	-321.7042	37.8791	87.2355
182	-321.7042	37.8791	87.2355	-213.7286	34.1283	76.8222
183	-213.7286	34.1283	76.8222	-156.1113	4.1292	-5.3211
184	-156.1113	4.1292	-5.3211	-143.7238	4.1291	-5.3407
185	-143.7238	4.1291	-5.3407	-131.3376	4.1295	-5.3731
186	-131.3376	4.1295	-5.3731	-118.9467	4.1288	-5.4278
187	-118.9467	4.1288	-5.4278	-106.5674	4.1279	-5.4721
188	-106.5674	4.1279	-5.4721	-94.1841	4.1267	-5.4851
189	-94.1841	4.1267	-5.4851	-81.8072	4.1260	-5.5171
190	-81.8072	4.1260	-5.5171	-69.4228	4.1267	-5.5357
191	-69.4228	4.1267	-5.5357	-57.0437	4.1267	-5.5569
192	-57.0437	4.1267	-5.5569	-44.6607	4.1280	-5.5780
193	-44.6607	4.1280	-5.5780	-32.2752	4.1294	-5.5817
194	-32.2752	4.1294	-5.5817	-19.8875	4.1291	-5.5903
195	-19.8875	4.1291	-5.5903	-7.4969	4.1280	-5.5970
196	-7.4969	4.1280	-5.5970	-67.0004	-23.6638	-62.1377
197	-67.0004	-23.6638	-62.1377	-143.5917	-27.4136	-72.5155
198	-143.5917	-27.4136	-72.5155	-231.4227	-31.1636	-82.9149
199	-231.4227	-31.1636	-82.9149	-330.5358	-34.9137	-93.2836
200	-330.5358	-34.9137	-93.2836	-440.9307	1.4823	-3.0486
201	-440.9307	1.4823	-3.0486	-321.6798	37.8783	87.1599
202	-321.6798	37.8783	87.1599	-213.6897	34.1282	76.7967
203	-213.6897	34.1282	76.7967	-156.1011	4.1281	-5.2873
204	-156.1011	4.1281	-5.2873	-143.7157	4.1272	-5.3440
205	-143.7157	4.1272	-5.3440	-131.3322	4.1263	-5.3846
206	-131.3322	4.1263	-5.3846	-118.9546	4.1256	-5.4313
207	-118.9546	4.1256	-5.4313	-106.5804	4.1263	-5.4492
208	-106.5804	4.1263	-5.4492	-94.2010	4.1270	-5.4842
209	-94.2010	4.1270	-5.4842	-81.8172	4.1287	-5.5177
210	-81.8172	4.1287	-5.5177	-69.4241	4.1295	-5.5324
211	-69.4241	4.1295	-5.5324	-57.0372	4.1288	-5.5463
212	-57.0372	4.1288	-5.5463	-44.6496	4.1284	-5.5631
213	-44.6496	4.1284	-5.5631	-32.2608	4.1286	-5.5801
214	-32.2608	4.1286	-5.5801	-19.8701	4.1294	-5.5841
215	-19.8701	4.1294	-5.5841	-7.4826	4.1284	-5.5884
216	-7.4826	4.1284	-5.5884	-66.8110	-23.6600	-62.1553
217	-66.8110	-23.6600	-62.1553	-143.3916	-27.4096	-72.5148
218	-143.3916	-27.4096	-72.5148	-231.2327	-31.1595	-82.8830
219	-231.2327	-31.1595	-82.8830	-330.3214	-34.9095	-93.3281

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	-330.3214	-34.9095	-93.3281	-440.6190	1.4727	-3.0613
221	-440.6190	1.4727	-3.0613	-321.4259	37.8545	87.2355
222	-321.4259	37.8545	87.2355	-213.5149	34.1045	76.8248
223	-213.5149	34.1045	76.8248	-156.1338	4.1336	-5.2804
224	-156.1338	4.1336	-5.2804	-143.7281	4.1338	-5.3293
225	-143.7281	4.1338	-5.3293	-131.3286	4.1351	-5.3796
226	-131.3286	4.1351	-5.3796	-118.9214	4.1358	-5.4177
227	-118.9214	4.1358	-5.4177	-106.5134	4.1341	-5.4408
228	-106.5134	4.1341	-5.4408	-94.1100	4.1337	-5.4722
229	-94.1100	4.1337	-5.4722	-81.7081	4.1340	-5.4974
230	-81.7081	4.1340	-5.4974	-69.2972	4.1348	-5.5258
231	-69.2972	4.1348	-5.5258	-56.8930	4.1336	-5.5381
232	-56.8930	4.1336	-5.5381	-44.4963	4.1325	-5.5521
233	-44.4963	4.1325	-5.5521	-32.0965	4.1335	-5.5677
234	-32.0965	4.1335	-5.5677	-19.6982	4.1331	-5.5766
235	-19.6982	4.1331	-5.5766	-7.2981	4.1328	-5.5809
236	-7.2981	4.1328	-5.5809	-64.4491	-23.5896	-62.1378
237	-64.4491	-23.5896	-62.1378	-140.8189	-27.3398	-72.5233
238	-140.8189	-27.3398	-72.5233	-228.4476	-31.0896	-82.8907
239	-228.4476	-31.0896	-82.8907	-327.3303	-34.8395	-93.2718
240	-327.3303	-34.8395	-93.2718	-437.4583	1.3885	-3.0471
241	-437.4583	1.3885	-3.0471	-319.0190	37.6163	87.1580
242	-319.0190	37.6163	87.1580	-211.7912	33.8664	76.7411
243	-211.7912	33.8664	76.7411	-156.3880	4.2006	-5.2965
244	-156.3880	4.2006	-5.2965	-143.7807	4.2021	-5.3531
245	-143.7807	4.2021	-5.3531	-131.1732	4.2025	-5.3840
246	-131.1732	4.2025	-5.3840	-118.5675	4.2021	-5.4317
247	-118.5675	4.2021	-5.4317	-105.9622	4.2004	-5.4649
248	-105.9622	4.2004	-5.4649	-93.3653	4.1993	-5.4725
249	-93.3653	4.1993	-5.4725	-80.7648	4.1990	-5.5116
250	-80.7648	4.1990	-5.5116	-68.1663	4.1994	-5.5412
251	-68.1663	4.1994	-5.5412	-55.5641	4.2000	-5.5496
252	-55.5641	4.2000	-5.5496	-42.9611	4.2000	-5.5665
253	-42.9611	4.2000	-5.5665	-30.3611	4.2000	-5.5828
254	-30.3611	4.2000	-5.5828	-17.7616	4.2003	-5.5901
255	-17.7616	4.2003	-5.5901	-5.1609	4.2007	-5.5905
256	-5.1609	4.2007	-5.5905	-6.8849	-21.9366	-63.4443
257	-6.8849	-21.9366	-63.4443	-78.3026	-25.6864	-73.7808
258	-78.3026	-25.6864	-73.7808	-160.9547	-29.4356	-84.1759
259	-160.9547	-29.4356	-84.1759	-254.8615	-33.1853	-94.5715
260	-254.8615	-33.1853	-94.5715	-360.0284	-0.4159	-16.8936
261	-360.0284	-0.4159	-16.8936	-282.0672	32.9786	62.5033
262	-282.0672	32.9786	62.5033	-210.3891	30.4785	55.5716
263	-210.3891	30.4785	55.5716	-174.6520	4.5526	-6.7673
264	-174.6520	4.5526	-6.7673	-164.4037	4.5517	-6.7890
265	-164.4037	4.5517	-6.7890	-154.1640	4.5540	-6.8349
266	-154.1640	4.5540	-6.8349	-143.9149	4.5564	-6.8672
267	-143.9149	4.5564	-6.8672	-133.6664	4.5584	-6.8840
268	-133.6664	4.5584	-6.8840	-123.4068	4.5599	-6.9476
269	-123.4068	4.5599	-6.9476	-113.1434	4.5626	-6.9713
270	-113.1434	4.5626	-6.9713	-102.8695	4.5661	-6.9711
271	-102.8695	4.5661	-6.9711	-92.5941	4.5693	-7.0011
272	-92.5941	4.5693	-7.0011	-82.3058	4.5710	-7.0282
273	-82.3058	4.5710	-7.0282	-72.0257	4.5714	-7.0404
274	-72.0257	4.5714	-7.0404	-61.7343	4.5724	-7.0555

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	-61.7343	4.5724	-7.0555	-51.4447	4.5722	-7.0618
276	-51.4447	4.5722	-7.0618	-41.1591	4.5718	-7.0749
277	-41.1591	4.5718	-7.0749	-30.8683	4.5711	-7.0827
278	-30.8683	4.5711	-7.0827	-20.5780	4.5711	-7.0888
279	-20.5780	4.5711	-7.0888	-10.2908	4.5718	-7.0942
280	-10.2908	4.5718	-7.0942	-0.0431	-18.2847	-78.5536

ENVOL. MAX. CORTANTES TREN TREN SIN CARGA, EC-1 en via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0054	24.0465	74.5368	52.2350	21.5464	67.6467
2	52.2350	21.5464	67.6467	98.2021	19.0459	60.7756
3	98.2021	19.0459	60.7756	137.9426	16.5455	53.8624
4	137.9426	16.5455	53.8624	171.4528	13.4239	45.1937
5	171.4528	13.4239	45.1937	198.3716	10.3041	36.6055
6	198.3716	10.3041	36.6055	219.0463	7.8080	29.7519
7	219.0463	7.8080	29.7519	233.4931	5.3105	22.8362
8	233.4931	5.3105	22.8362	50.5854	2.8108	35.4819
9	50.5854	2.8108	35.4819	32.6027	1.6098	31.6889
10	32.6027	1.6098	31.6889	28.9457	1.2873	0.3641
11	28.9457	1.2873	0.3641	31.8438	1.2878	0.3650
12	31.8438	1.2878	0.3650	34.7419	1.2873	0.3640
13	34.7419	1.2873	0.3640	37.6375	1.2869	0.3575
14	37.6375	1.2869	0.3575	40.5316	1.2870	0.3569
15	40.5316	1.2870	0.3569	43.4264	1.2868	0.3608
16	43.4264	1.2868	0.3608	46.3228	1.2869	0.3654
17	46.3228	1.2869	0.3654	49.2176	1.2868	0.3559
18	49.2176	1.2868	0.3559	52.1133	1.2867	0.3410
19	52.1133	1.2867	0.3410	55.0084	1.2869	0.3415
20	55.0084	1.2869	0.3415	-205.6522	14.2185	57.1892
21	-205.6522	14.2185	57.1892	-300.6741	37.3967	88.9682
22	-300.6741	37.3967	88.9682	-194.0963	33.6464	78.6582
23	-194.0963	33.6464	78.6582	-98.7767	29.8955	68.3234
24	-98.7767	29.8955	68.3234	-14.7107	26.1450	57.9882
25	-14.7107	26.1450	57.9882	58.1059	22.3952	47.6526
26	58.1059	22.3952	47.6526	119.6808	18.6462	37.3005
27	119.6808	18.6462	37.3005	169.9962	14.8967	26.9728
28	169.9962	14.8967	26.9728	209.0667	11.1432	16.6341
29	209.0667	11.1432	16.6341	236.8667	7.3916	6.3039
30	236.8667	7.3916	6.3039	93.1180	4.1034	32.5514
31	93.1180	4.1034	32.5514	-45.7444	3.3093	-3.9233
32	-45.7444	3.3093	-3.9233	-35.8168	3.3096	-3.9169
33	-35.8168	3.3096	-3.9169	-25.8883	3.3099	-3.9207
34	-25.8883	3.3099	-3.9207	-15.9605	3.3094	-3.9214
35	-15.9605	3.3094	-3.9214	-6.0300	3.3092	-3.9190
36	-6.0300	3.3092	-3.9190	3.9001	3.3092	-3.9214
37	3.9001	3.3092	-3.9214	13.8277	3.3095	-3.9197
38	13.8277	3.3095	-3.9197	23.7579	3.3097	-3.9214
39	23.7579	3.3097	-3.9214	33.6861	3.3098	-3.9198
40	33.6861	3.3098	-3.9198	-194.3050	14.2812	56.3162
41	-194.3050	14.2812	56.3162	-329.0685	38.0425	87.4256
42	-329.0685	38.0425	87.4256	-220.5766	34.2924	77.1062
43	-220.5766	34.2924	77.1062	-123.3299	30.5422	66.7397
44	-123.3299	30.5422	66.7397	-37.3130	26.7919	56.4099
45	-37.3130	26.7919	56.4099	37.4298	23.0408	46.0859
46	37.4298	23.0408	46.0859	100.9227	19.2918	35.7542
47	100.9227	19.2918	35.7542	153.1726	15.5435	25.4304
48	153.1726	15.5435	25.4304	194.1596	11.7951	15.0904
49	194.1596	11.7951	15.0904	223.9242	8.0461	4.7407
50	223.9242	8.0461	4.7407	242.4333	4.2964	-5.5567
51	242.4333	4.2964	-5.5567	-58.9510	4.2681	-5.3920
52	-58.9510	4.2681	-5.3920	-46.1508	4.2678	-5.3911
53	-46.1508	4.2678	-5.3911	-33.3428	4.2680	-5.3914

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	-33.3428	4.2680	-5.3914	-20.5398	4.2674	-5.3920
55	-20.5398	4.2674	-5.3920	-7.7362	4.2669	-5.3940
56	-7.7362	4.2669	-5.3940	5.0691	4.2669	-5.3932
57	5.0691	4.2669	-5.3932	17.8708	4.2671	-5.3935
58	17.8708	4.2671	-5.3935	30.6707	4.2668	-5.3937
59	30.6707	4.2668	-5.3937	43.4704	4.2667	-5.3871
60	43.4704	4.2667	-5.3871	-193.3916	14.3037	56.2862
61	-193.3916	14.3037	56.2862	-319.9092	37.8340	87.3581
62	-319.9092	37.8340	87.3581	-212.0411	34.0842	76.9593
63	-212.0411	34.0842	76.9593	-115.4337	30.3341	66.6159
64	-115.4337	30.3341	66.6159	-30.0568	26.5844	56.2831
65	-30.0568	26.5844	56.2831	44.0673	22.8354	45.9321
66	44.0673	22.8354	45.9321	106.9588	19.0862	35.6111
67	106.9588	19.0862	35.6111	158.5857	15.3363	25.2999
68	158.5857	15.3363	25.2999	198.9721	11.5853	14.9651
69	198.9721	11.5853	14.9651	228.0957	7.8363	4.6290
70	228.0957	7.8363	4.6290	245.9807	4.0865	-5.6690
71	245.9807	4.0865	-5.6690	-56.4096	4.0827	-5.4843
72	-56.4096	4.0827	-5.4843	-44.1595	4.0829	-5.4868
73	-44.1595	4.0829	-5.4868	-31.9088	4.0834	-5.4862
74	-31.9088	4.0834	-5.4862	-19.6579	4.0842	-5.4920
75	-19.6579	4.0842	-5.4920	-7.4082	4.0842	-5.4950
76	-7.4082	4.0842	-5.4950	4.8417	4.0831	-5.4946
77	4.8417	4.0831	-5.4946	17.0877	4.0824	-5.4944
78	17.0877	4.0824	-5.4944	29.3370	4.0827	-5.4885
79	29.3370	4.0827	-5.4885	41.5849	4.0828	-5.4851
80	41.5849	4.0828	-5.4851	-193.3181	14.3078	56.2430
81	-193.3181	14.3078	56.2430	-322.3515	37.8906	87.3105
82	-322.3515	37.8906	87.3105	-214.3246	34.1417	76.9448
83	-214.3246	34.1417	76.9448	-117.5290	30.3927	66.5783
84	-117.5290	30.3927	66.5783	-31.9756	26.6426	56.2401
85	-31.9756	26.6426	56.2401	42.2965	22.8923	45.9042
86	42.2965	22.8923	45.9042	105.3535	19.1422	35.5797
87	105.3535	19.1422	35.5797	157.1432	15.3916	25.2793
88	157.1432	15.3916	25.2793	197.6934	11.6420	14.9366
89	197.6934	11.6420	14.9366	226.9897	7.8975	4.6227
90	226.9897	7.8975	4.6227	245.0486	4.1470	-5.6245
91	245.0486	4.1470	-5.6245	-57.2217	4.1398	-5.4945
92	-57.2217	4.1398	-5.4945	-44.7934	4.1416	-5.4936
93	-44.7934	4.1416	-5.4936	-32.3670	4.1425	-5.5011
94	-32.3670	4.1425	-5.5011	-19.9441	4.1416	-5.5045
95	-19.9441	4.1416	-5.5045	-7.5166	4.1414	-5.5066
96	-7.5166	4.1414	-5.5066	4.9095	4.1418	-5.5068
97	4.9095	4.1418	-5.5068	17.3359	4.1420	-5.5065
98	17.3359	4.1420	-5.5065	29.7628	4.1418	-5.5018
99	29.7628	4.1418	-5.5018	42.1897	4.1418	-5.5001
100	42.1897	4.1418	-5.5001	-193.2820	14.3091	56.1857
101	-193.2820	14.3091	56.1857	-321.6156	37.8747	87.2464
102	-321.6156	37.8747	87.2464	-213.6232	34.1246	76.9267
103	-213.6232	34.1246	76.9267	-116.8943	30.3745	66.5347
104	-116.8943	30.3745	66.5347	-31.4116	26.6224	56.1742
105	-31.4116	26.6224	56.1742	42.8235	22.8721	45.8396
106	42.8235	22.8721	45.8396	105.8134	19.1236	35.5295

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
107	105.8134	19.1236	35.5295	157.5466	15.3729	25.2282
108	157.5466	15.3729	25.2282	198.0487	11.6245	14.9199
109	198.0487	11.6245	14.9199	227.3044	7.8768	4.6022
110	227.3044	7.8768	4.6022	-69.3655	4.1267	-5.5070
111	-69.3655	4.1267	-5.5070	-56.9874	4.1267	-5.5237
112	-56.9874	4.1267	-5.5237	-44.6111	4.1263	-5.5221
113	-44.6111	4.1263	-5.5221	-32.2315	4.1248	-5.5317
114	-32.2315	4.1248	-5.5317	-19.8511	4.1244	-5.5399
115	-19.8511	4.1244	-5.5399	-7.4774	4.1242	-5.5409
116	-7.4774	4.1242	-5.5409	4.8948	4.1235	-5.5443
117	4.8948	4.1235	-5.5443	17.2652	4.1237	-5.5406
118	17.2652	4.1237	-5.5406	29.6413	4.1239	-5.5377
119	29.6413	4.1239	-5.5377	42.0126	4.1239	-5.5238
120	42.0126	4.1239	-5.5238	-441.0264	1.4848	-3.1071
121	-441.0264	1.4848	-3.1071	-321.7810	37.8839	87.2590
122	-321.7810	37.8839	87.2590	-213.7875	34.1339	76.8656
123	-213.7875	34.1339	76.8656	-117.0240	30.3842	66.4827
124	-117.0240	30.3842	66.4827	-31.4906	26.6332	56.1294
125	-31.4906	26.6332	56.1294	42.7713	22.8821	45.7913
126	42.7713	22.8821	45.7913	105.7803	19.1311	35.4809
127	105.7803	19.1311	35.4809	157.5226	15.3788	25.1905
128	157.5226	15.3788	25.1905	198.0258	11.6281	14.9084
129	198.0258	11.6281	14.9084	227.2884	7.8777	4.6003
130	227.2884	7.8777	4.6003	-69.4518	4.1301	-5.5052
131	-69.4518	4.1301	-5.5052	-57.0614	4.1316	-5.5205
132	-57.0614	4.1316	-5.5205	-44.6642	4.1311	-5.5380
133	-44.6642	4.1311	-5.5380	-32.2731	4.1302	-5.5527
134	-32.2731	4.1302	-5.5527	-19.8800	4.1307	-5.5586
135	-19.8800	4.1307	-5.5586	-7.4857	4.1298	-5.5594
136	-7.4857	4.1298	-5.5594	4.9019	4.1290	-5.5587
137	4.9019	4.1290	-5.5587	17.2944	4.1290	-5.5573
138	17.2944	4.1290	-5.5573	29.6848	4.1291	-5.5540
139	29.6848	4.1291	-5.5540	42.0738	4.1293	-5.5362
140	42.0738	4.1293	-5.5362	54.4626	1.4829	-2.9476
141	54.4626	1.4829	-2.9476	-321.6795	37.8763	87.2741
142	-321.6795	37.8763	87.2741	-213.7076	34.1268	76.8022
143	-213.7076	34.1268	76.8022	-116.9837	30.3763	66.4415
144	-116.9837	30.3763	66.4415	-31.4823	26.6267	56.0901
145	-31.4823	26.6267	56.0901	42.7477	22.8776	45.7410
146	42.7477	22.8776	45.7410	105.7615	19.1278	35.4257
147	105.7615	19.1278	35.4257	157.5108	15.3773	25.1521
148	157.5108	15.3773	25.1521	198.0023	11.6256	14.8834
149	198.0023	11.6256	14.8834	227.2589	7.8749	4.5770
150	227.2589	7.8749	4.5770	-69.4109	4.1293	-5.5189
151	-69.4109	4.1293	-5.5189	-57.0238	4.1286	-5.5334
152	-57.0238	4.1286	-5.5334	-44.6390	4.1271	-5.5495
153	-44.6390	4.1271	-5.5495	-32.2525	4.1267	-5.5663
154	-32.2525	4.1267	-5.5663	-19.8712	4.1270	-5.5687
155	-19.8712	4.1270	-5.5687	-7.4843	4.1272	-5.5733
156	-7.4843	4.1272	-5.5733	4.8973	4.1270	-5.5722
157	4.8973	4.1270	-5.5722	17.2798	4.1272	-5.5711
158	17.2798	4.1272	-5.5711	29.6609	4.1273	-5.5670
159	29.6609	4.1273	-5.5670	42.0462	4.1275	-5.5588
160	42.0462	4.1275	-5.5588	-440.9352	1.4839	-3.0343
161	-440.9352	1.4839	-3.0343	-321.6405	37.8812	87.2070

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
162	-321.6405	37.8812	87.2070	-213.6513	34.1308	76.8132
163	-213.6513	34.1308	76.8132	-116.9046	30.3791	66.4218
164	-116.9046	30.3791	66.4218	-31.4125	26.6287	56.0607
165	-31.4125	26.6287	56.0607	42.8287	22.8811	45.7405
166	42.8287	22.8811	45.7405	105.8248	19.1306	35.4219
167	105.8248	19.1306	35.4219	157.5866	15.3755	25.0882
168	157.5866	15.3755	25.0882	198.0813	11.6244	14.8245
169	198.0813	11.6244	14.8245	227.3365	7.8757	4.5845
170	227.3365	7.8757	4.5845	-69.4133	4.1279	-5.5321
171	-69.4133	4.1279	-5.5321	-57.0270	4.1272	-5.5512
172	-57.0270	4.1272	-5.5512	-44.6437	4.1275	-5.5545
173	-44.6437	4.1275	-5.5545	-32.2593	4.1283	-5.5710
174	-32.2593	4.1283	-5.5710	-19.8745	4.1283	-5.5805
175	-19.8745	4.1283	-5.5805	-7.4882	4.1277	-5.5812
176	-7.4882	4.1277	-5.5812	4.8953	4.1273	-5.5831
177	4.8953	4.1273	-5.5831	17.2840	4.1276	-5.5799
178	17.2840	4.1276	-5.5799	29.6651	4.1275	-5.5711
179	29.6651	4.1275	-5.5711	42.0535	4.1275	-5.5617
180	42.0535	4.1275	-5.5617	54.4358	1.4822	-2.9559
181	54.4358	1.4822	-2.9559	-321.7042	37.8791	87.2355
182	-321.7042	37.8791	87.2355	-213.7286	34.1283	76.8222
183	-213.7286	34.1283	76.8222	-117.0016	30.3785	66.4066
184	-117.0016	30.3785	66.4066	-31.4999	26.6286	56.0670
185	-31.4999	26.6286	56.0670	42.7613	22.8771	45.7329
186	42.7613	22.8771	45.7329	105.7473	19.1284	35.4391
187	105.7473	19.1284	35.4391	157.4929	15.3811	25.1441
188	157.4929	15.3811	25.1441	198.0103	11.6327	14.8363
189	198.0103	11.6327	14.8363	227.2838	7.8829	4.5814
190	227.2838	7.8829	4.5814	245.3033	4.1336	-5.7032
191	245.3033	4.1336	-5.7032	-57.0437	4.1267	-5.5569
192	-57.0437	4.1267	-5.5569	-44.6607	4.1280	-5.5780
193	-44.6607	4.1280	-5.5780	-32.2752	4.1294	-5.5817
194	-32.2752	4.1294	-5.5817	-19.8875	4.1291	-5.5903
195	-19.8875	4.1291	-5.5903	-7.4969	4.1280	-5.5970
196	-7.4969	4.1280	-5.5970	4.8873	4.1288	-5.5972
197	4.8873	4.1288	-5.5972	17.2778	4.1299	-5.5928
198	17.2778	4.1299	-5.5928	29.6665	4.1294	-5.5850
199	29.6665	4.1294	-5.5850	42.0558	4.1293	-5.5806
200	42.0558	4.1293	-5.5806	54.4473	1.4829	-2.9663
201	54.4473	1.4829	-2.9663	-321.6798	37.8783	87.1599
202	-321.6798	37.8783	87.1599	-213.6897	34.1282	76.7967
203	-213.6897	34.1282	76.7967	-116.9615	30.3786	66.4278
204	-116.9615	30.3786	66.4278	-31.4552	26.6287	56.0566
205	-31.4552	26.6287	56.0566	42.7881	22.8787	45.7300
206	42.7881	22.8787	45.7300	105.7736	19.1306	35.4198
207	105.7736	19.1306	35.4198	157.5421	15.3808	25.0969
208	157.5421	15.3808	25.0969	198.0522	11.6283	14.8350
209	198.0522	11.6283	14.8350	227.3084	7.8743	4.5733
210	227.3084	7.8743	4.5733	-69.4241	4.1295	-5.5324
211	-69.4241	4.1295	-5.5324	-57.0372	4.1288	-5.5463
212	-57.0372	4.1288	-5.5463	-44.6496	4.1284	-5.5631
213	-44.6496	4.1284	-5.5631	-32.2608	4.1286	-5.5801
214	-32.2608	4.1286	-5.5801	-19.8701	4.1294	-5.5841
215	-19.8701	4.1294	-5.5841	-7.4826	4.1284	-5.5884
216	-7.4826	4.1284	-5.5884	4.9047	4.1294	-5.5875

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
217	4.9047	4.1294	-5.5875	17.2984	4.1307	-5.5860
218	17.2984	4.1307	-5.5860	29.6899	4.1302	-5.5816
219	29.6899	4.1302	-5.5816	42.0854	4.1302	-5.5673
220	42.0854	4.1302	-5.5673	54.4779	1.4825	-2.9634
221	54.4779	1.4825	-2.9634	-321.4259	37.8545	87.2355
222	-321.4259	37.8545	87.2355	-213.5149	34.1045	76.8248
223	-213.5149	34.1045	76.8248	-116.8348	30.3545	66.4343
224	-116.8348	30.3545	66.4343	-31.4160	26.6034	56.0698
225	-31.4160	26.6034	56.0698	42.7381	22.8537	45.7448
226	42.7381	22.8537	45.7448	105.6704	19.1049	35.4224
227	105.6704	19.1049	35.4224	157.3561	15.3544	25.1216
228	157.3561	15.3544	25.1216	197.7855	11.6050	14.8377
229	197.7855	11.6050	14.8377	226.9655	7.8526	4.5653
230	226.9655	7.8526	4.5653	-69.2972	4.1348	-5.5258
231	-69.2972	4.1348	-5.5258	-56.8930	4.1336	-5.5381
232	-56.8930	4.1336	-5.5381	-44.4963	4.1325	-5.5521
233	-44.4963	4.1325	-5.5521	-32.0965	4.1335	-5.5677
234	-32.0965	4.1335	-5.5677	-19.6982	4.1331	-5.5766
235	-19.6982	4.1331	-5.5766	-7.2981	4.1328	-5.5809
236	-7.2981	4.1328	-5.5809	5.0975	4.1335	-5.5791
237	5.0975	4.1335	-5.5791	17.5031	4.1332	-5.5740
238	17.5031	4.1332	-5.5740	29.9033	4.1327	-5.5696
239	29.9033	4.1327	-5.5696	42.3048	4.1332	-5.5639
240	42.3048	4.1332	-5.5639	54.7074	1.4748	-2.9622
241	54.7074	1.4748	-2.9622	-319.0190	37.6163	87.1580
242	-319.0190	37.6163	87.1580	-211.7912	33.8664	76.7411
243	-211.7912	33.8664	76.7411	-115.8400	30.1164	66.3617
244	-115.8400	30.1164	66.3617	-31.1518	26.3661	55.9951
245	-31.1518	26.3661	55.9951	42.3113	22.6162	45.6605
246	42.3113	22.6162	45.6605	104.5038	18.8673	35.3591
247	104.5038	18.8673	35.3591	155.4813	15.1182	25.0537
248	155.4813	15.1182	25.0537	195.2141	11.3695	14.7376
249	195.2141	11.3695	14.7376	223.6917	7.6192	4.5025
250	223.6917	7.6192	4.5025	-68.1663	4.1994	-5.5412
251	-68.1663	4.1994	-5.5412	-55.5641	4.2000	-5.5496
252	-55.5641	4.2000	-5.5496	-42.9611	4.2000	-5.5665
253	-42.9611	4.2000	-5.5665	-30.3611	4.2000	-5.5828
254	-30.3611	4.2000	-5.5828	-17.7616	4.2003	-5.5901
255	-17.7616	4.2003	-5.5901	-5.1609	4.2007	-5.5905
256	-5.1609	4.2007	-5.5905	7.4437	4.2010	-5.5889
257	7.4437	4.2010	-5.5889	20.0479	4.2009	-5.5872
258	20.0479	4.2009	-5.5872	32.6500	4.2005	-5.5750
259	32.6500	4.2005	-5.5750	45.2553	4.2004	-5.5624
260	45.2553	4.2004	-5.5624	57.8560	1.4583	-2.9994
261	57.8560	1.4583	-2.9994	-282.0672	32.9786	62.5033
262	-282.0672	32.9786	62.5033	-210.3891	30.4785	55.5716
263	-210.3891	30.4785	55.5716	-144.9508	27.9791	48.6158
264	-144.9508	27.9791	48.6158	-85.7365	24.8549	39.9816
265	-85.7365	24.8549	39.9816	-33.1198	21.7294	31.3637
266	-33.1198	21.7294	31.3637	13.2729	19.2278	24.4591
267	13.2729	19.2278	24.4591	53.4073	16.7265	17.5830
268	53.4073	16.7265	17.5830	87.2784	13.6005	9.0029
269	87.2784	13.6005	9.0029	114.5950	10.4731	0.4058
270	114.5950	10.4731	0.4058	135.6570	7.9708	-6.4830
271	135.6570	7.9708	-6.4830	150.4691	5.4695	-13.3263

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
272	150.4691	5.4695	-13.3263	-82.3058	4.5710	-7.0282
273	-82.3058	4.5710	-7.0282	-72.0257	4.5714	-7.0404
274	-72.0257	4.5714	-7.0404	-61.7343	4.5724	-7.0555
275	-61.7343	4.5724	-7.0555	-51.4447	4.5722	-7.0618
276	-51.4447	4.5722	-7.0618	-41.1591	4.5718	-7.0749
277	-41.1591	4.5718	-7.0749	-30.8683	4.5711	-7.0827
278	-30.8683	4.5711	-7.0827	-20.5780	4.5711	-7.0888
279	-20.5780	4.5711	-7.0888	-10.2908	4.5718	-7.0942
280	-10.2908	4.5718	-7.0942	-0.0028	4.5719	-7.0932

ENVOL. MIN. CORTANTES TREN TREN SIN CARGA, EC-1 en via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0033	-4.5657	7.1482	-10.2703	-4.5659	7.1481
2	-10.2703	-4.5659	7.1481	-20.5449	-4.5656	7.1445
3	-20.5449	-4.5656	7.1445	-30.8185	-4.5655	7.1497
4	-30.8185	-4.5655	7.1497	-41.0932	-4.5668	7.1630
5	-41.0932	-4.5668	7.1630	-51.3674	-4.5698	7.1569
6	-51.3674	-4.5698	7.1569	-61.6497	-4.5729	7.1471
7	-61.6497	-4.5729	7.1471	-71.9332	-4.5737	7.1566
8	-71.9332	-4.5737	7.1566	108.8950	-5.1937	-14.1334
9	108.8950	-5.1937	-14.1334	118.2328	-7.1197	-18.9365
10	118.2328	-7.1197	-18.9365	106.9854	-9.2987	5.4872
11	106.9854	-9.2987	5.4872	82.9424	-11.7972	-1.4111
12	82.9424	-11.7972	-1.4111	52.6455	-14.9227	-10.0145
13	52.6455	-14.9227	-10.0145	15.7821	-18.0484	-18.6415
14	15.7821	-18.0484	-18.6415	-27.3174	-20.5489	-25.5268
15	-27.3174	-20.5489	-25.5268	-76.6814	-23.0492	-32.4286
16	-76.6814	-23.0492	-32.4286	-132.3073	-26.1742	-41.0452
17	-132.3073	-26.1742	-41.0452	-194.4719	-29.2992	-49.6252
18	-194.4719	-29.2992	-49.6252	-262.9193	-31.7990	-56.4429
19	-262.9193	-31.7990	-56.4429	-337.5829	-34.2992	-63.3475
20	-337.5829	-34.2992	-63.3475	-154.9236	-13.8164	-40.5625
21	-154.9236	-13.8164	-40.5625	45.2918	-4.2045	5.6433
22	45.2918	-4.2045	5.6433	32.6786	-4.2043	5.6397
23	32.6786	-4.2043	5.6397	20.0648	-4.2045	5.6399
24	20.0648	-4.2045	5.6399	7.4508	-4.2048	5.6395
25	7.4508	-4.2048	5.6395	-5.1631	-4.2048	5.6398
26	-5.1631	-4.2048	5.6398	-17.7763	-4.2052	5.6423
27	-17.7763	-4.2052	5.6423	-30.3910	-4.2051	5.6406
28	-30.3910	-4.2051	5.6406	-43.0045	-4.2041	5.6426
29	-43.0045	-4.2041	5.6426	-55.6149	-4.2035	5.6397
30	-55.6149	-4.2035	5.6397	92.0805	-4.6635	-30.9183
31	92.0805	-4.6635	-30.9183	223.6217	-7.6211	-4.8047
32	223.6217	-7.6211	-4.8047	195.1314	-11.3706	-15.1730
33	195.1314	-11.3706	-15.1730	155.4087	-15.1188	-25.4864
34	155.4087	-15.1188	-25.4864	104.4169	-18.8696	-35.8199
35	104.4169	-18.8696	-35.8199	42.1669	-22.6208	-46.1693
36	42.1669	-22.6208	-46.1693	-31.3233	-26.3708	-56.4893
37	-31.3233	-26.3708	-56.4893	-116.0519	-30.1211	-66.8363
38	-116.0519	-30.1211	-66.8363	-212.0475	-33.8709	-77.1571
39	-212.0475	-33.8709	-77.1571	-319.2720	-37.6211	-87.5076
40	-319.2720	-37.6211	-87.5076	-199.8237	-14.4827	-55.5368
41	-199.8237	-14.4827	-55.5368	42.2942	-4.1339	5.6441
42	42.2942	-4.1339	5.6441	29.8939	-4.1339	5.6422
43	29.8939	-4.1339	5.6422	17.4900	-4.1344	5.6466
44	17.4900	-4.1344	5.6466	5.0872	-4.1346	5.6461
45	5.0872	-4.1346	5.6461	-7.3120	-4.1336	5.6442
46	-7.3120	-4.1336	5.6442	-19.7123	-4.1336	5.6438
47	-19.7123	-4.1336	5.6438	-32.1147	-4.1337	5.6418
48	-32.1147	-4.1337	5.6418	-44.5108	-4.1341	5.6428
49	-44.5108	-4.1341	5.6428	-56.9155	-4.1346	5.6463
50	-56.9155	-4.1346	5.6463	-69.3234	-4.1353	5.6359
51	-69.3234	-4.1353	5.6359	226.9084	-7.8586	-4.8495
52	226.9084	-7.8586	-4.8495	197.7130	-11.6103	-15.1882
53	197.7130	-11.6103	-15.1882	157.2489	-15.3604	-25.5219

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	157.2489	-15.3604	-25.5219	105.5602	-19.1083	-35.8523
55	105.5602	-19.1083	-35.8523	42.6150	-22.8580	-46.1736
56	42.6150	-22.8580	-46.1736	-31.6023	-26.6070	-56.5154
57	-31.6023	-26.6070	-56.5154	-117.0365	-30.3560	-66.8520
58	-117.0365	-30.3560	-66.8520	-213.7268	-34.1065	-77.1866
59	-213.7268	-34.1065	-77.1866	-321.6490	-37.8564	-87.5688
60	-321.6490	-37.8564	-87.5688	-191.1568	-14.2466	-56.2527
61	-191.1568	-14.2466	-56.2527	42.0750	-4.1290	5.6651
62	42.0750	-4.1290	5.6651	29.6848	-4.1291	5.6735
63	29.6848	-4.1291	5.6735	17.3001	-4.1291	5.6746
64	17.3001	-4.1291	5.6746	4.9106	-4.1290	5.6746
65	4.9106	-4.1290	5.6746	-7.4770	-4.1291	5.6771
66	-7.4770	-4.1291	5.6771	-19.8673	-4.1302	5.6743
67	-19.8673	-4.1302	5.6743	-32.2597	-4.1313	5.6704
68	-32.2597	-4.1313	5.6704	-44.6524	-4.1302	5.6694
69	-44.6524	-4.1302	5.6694	-57.0395	-4.1292	5.6695
70	-57.0395	-4.1292	5.6695	245.2041	-4.1306	5.4625
71	245.2041	-4.1306	5.4625	227.1884	-7.8800	-4.8168
72	227.1884	-7.8800	-4.8168	197.9298	-11.6264	-15.1481
73	197.9298	-11.6264	-15.1481	157.4128	-15.3776	-25.4874
74	157.4128	-15.3776	-25.4874	105.6626	-19.1304	-35.7951
75	105.6626	-19.1304	-35.7951	42.6563	-22.8795	-46.1140
76	42.6563	-22.8795	-46.1140	-31.6020	-26.6260	-56.4504
77	-31.6020	-26.6260	-56.4504	-117.1066	-30.3756	-66.7854
78	-117.1066	-30.3756	-66.7854	-213.8481	-34.1271	-77.1674
79	-213.8481	-34.1271	-77.1674	-321.8342	-37.8773	-87.5240
80	-321.8342	-37.8773	-87.5240	-193.9173	-14.3237	-56.2394
81	-193.9173	-14.3237	-56.2394	42.0459	-4.1278	5.6834
82	42.0459	-4.1278	5.6834	29.6623	-4.1281	5.6881
83	29.6623	-4.1281	5.6881	17.2756	-4.1281	5.6923
84	17.2756	-4.1281	5.6923	4.8907	-4.1283	5.6929
85	4.8907	-4.1283	5.6929	-7.4915	-4.1280	5.6932
86	-7.4915	-4.1280	5.6932	-19.8780	-4.1276	5.6907
87	-19.8780	-4.1276	5.6907	-32.2630	-4.1273	5.6836
88	-32.2630	-4.1273	5.6836	-44.6459	-4.1272	5.6854
89	-44.6459	-4.1272	5.6854	-57.0293	-4.1282	5.6790
90	-57.0293	-4.1282	5.6790	-69.4165	-4.1286	5.6556
91	-69.4165	-4.1286	5.6556	227.2582	-7.8764	-4.7944
92	227.2582	-7.8764	-4.7944	197.9864	-11.6264	-15.1337
93	197.9864	-11.6264	-15.1337	157.4818	-15.3771	-25.4380
94	157.4818	-15.3771	-25.4380	105.7371	-19.1298	-35.7515
95	105.7371	-19.1298	-35.7515	42.7187	-22.8802	-46.0760
96	42.7187	-22.8802	-46.0760	-31.5212	-26.6295	-56.4117
97	-31.5212	-26.6295	-56.4117	-117.0289	-30.3794	-66.7511
98	-117.0289	-30.3794	-66.7511	-213.7856	-34.1287	-77.1174
99	-213.7856	-34.1287	-77.1174	-321.8096	-37.8785	-87.4639
100	-321.8096	-37.8785	-87.4639	-193.1526	-14.3049	-56.2080
101	-193.1526	-14.3049	-56.2080	51.1125	-1.1667	-0.3213
102	51.1125	-1.1667	-0.3213	47.6127	-1.1668	-0.3217
103	47.6127	-1.1668	-0.3217	44.1111	-1.1671	-0.3050
104	44.1111	-1.1671	-0.3050	40.6097	-1.1671	-0.2948
105	40.6097	-1.1671	-0.2948	37.1076	-1.1671	-0.2946
106	37.1076	-1.1671	-0.2946	33.6060	-1.1665	-0.2869

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
107	33.6060	-1.1665	-0.2869	30.1069	-1.1671	-0.2774
108	30.1069	-1.1671	-0.2774	26.6026	-1.1674	-0.2731
109	26.6026	-1.1674	-0.2731	67.0912	-2.2469	-27.5336
110	67.0912	-2.2469	-27.5336	245.2393	-4.1277	5.4966
111	245.2393	-4.1277	5.4966	227.2330	-7.8780	-4.7845
112	227.2330	-7.8780	-4.7845	197.9669	-11.6306	-15.1189
113	197.9669	-11.6306	-15.1189	157.4532	-15.3796	-25.4079
114	157.4532	-15.3796	-25.4079	105.6851	-19.1264	-35.7049
115	105.6851	-19.1264	-35.7049	42.7001	-22.8753	-46.0321
116	42.7001	-22.8753	-46.0321	-31.5476	-26.6249	-56.3489
117	-31.5476	-26.6249	-56.3489	-117.0302	-30.3744	-66.7130
118	-117.0302	-30.3744	-66.7130	-213.7915	-34.1239	-77.0688
119	-213.7915	-34.1239	-77.0688	-321.7454	-37.8744	-87.5107
120	-321.7454	-37.8744	-87.5107	-193.2487	-14.3092	-56.1763
121	-193.2487	-14.3092	-56.1763	50.8997	-1.1614	-0.3374
122	50.8997	-1.1614	-0.3374	47.4161	-1.1609	-0.3262
123	47.4161	-1.1609	-0.3262	43.9334	-1.1610	-0.3131
124	43.9334	-1.1610	-0.3131	40.4490	-1.1614	-0.3034
125	40.4490	-1.1614	-0.3034	36.9650	-1.1616	-0.2999
126	36.9650	-1.1616	-0.2999	33.4798	-1.1619	-0.2922
127	33.4798	-1.1619	-0.2922	29.9939	-1.1621	-0.2803
128	29.9939	-1.1621	-0.2803	26.5071	-1.1623	-0.2722
129	26.5071	-1.1623	-0.2722	67.0355	-2.2434	-27.5259
130	67.0355	-2.2434	-27.5259	81.6506	-4.0431	-32.5312
131	81.6506	-4.0431	-32.5312	115.5500	-6.0691	-37.9996
132	115.5500	-6.0691	-37.9996	126.8736	-8.6616	-20.8925
133	126.8736	-8.6616	-20.8925	95.2729	-12.4121	-31.1841
134	95.2729	-12.4121	-31.1841	52.4098	-16.1626	-41.5047
135	52.4098	-16.1626	-41.5047	-1.7008	-19.9123	-51.8391
136	-1.7008	-19.9123	-51.8391	-67.0267	-23.6621	-62.1930
137	-67.0267	-23.6621	-62.1930	-143.6295	-27.4117	-72.5484
138	-143.6295	-27.4117	-72.5484	-231.4932	-31.1614	-82.9037
139	-231.4932	-31.1614	-82.9037	-330.5462	-34.9114	-93.3807
140	-330.5462	-34.9114	-93.3807	-193.2498	-14.3095	-56.0851
141	-193.2498	-14.3095	-56.0851	50.9704	-1.1639	-0.3556
142	50.9704	-1.1639	-0.3556	47.4790	-1.1641	-0.3325
143	47.4790	-1.1641	-0.3325	43.9866	-1.1642	-0.3259
144	43.9866	-1.1642	-0.3259	40.4944	-1.1641	-0.3107
145	40.4944	-1.1641	-0.3107	37.0027	-1.1642	-0.3011
146	37.0027	-1.1642	-0.3011	33.5116	-1.1639	-0.2965
147	33.5116	-1.1639	-0.2965	30.0214	-1.1637	-0.2817
148	30.0214	-1.1637	-0.2817	26.5309	-1.1638	-0.2710
149	26.5309	-1.1638	-0.2710	67.0472	-2.2446	-27.5282
150	67.0472	-2.2446	-27.5282	81.6632	-4.0451	-32.5222
151	81.6632	-4.0451	-32.5222	115.5480	-6.0701	-37.9855
152	115.5480	-6.0701	-37.9855	126.8510	-8.6652	-20.8478
153	126.8510	-8.6652	-20.8478	95.2417	-12.4137	-31.1364
154	95.2417	-12.4137	-31.1364	52.3818	-16.1629	-41.4646
155	52.3818	-16.1629	-41.4646	-1.7334	-19.9131	-51.7911
156	-1.7334	-19.9131	-51.7911	-67.0651	-23.6637	-62.1505
157	-67.0651	-23.6637	-62.1505	-143.6536	-27.4135	-72.5103
158	-143.6536	-27.4135	-72.5103	-231.5014	-31.1632	-82.8784
159	-231.5014	-31.1632	-82.8784	-330.6093	-34.9132	-93.2755
160	-330.6093	-34.9132	-93.2755	-193.2113	-14.3115	-56.0571
161	-193.2113	-14.3115	-56.0571	50.9434	-1.1623	-0.3550

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
162	50.9434	-1.1623	-0.3550	47.4570	-1.1625	-0.3438
163	47.4570	-1.1625	-0.3438	43.9696	-1.1628	-0.3270
164	43.9696	-1.1628	-0.3270	40.4813	-1.1628	-0.3170
165	40.4813	-1.1628	-0.3170	36.9936	-1.1628	-0.3031
166	36.9936	-1.1628	-0.3031	33.5041	-1.1629	-0.2894
167	33.5041	-1.1629	-0.2894	30.0149	-1.1625	-0.2898
168	30.0149	-1.1625	-0.2898	26.5258	-1.1628	-0.2797
169	26.5258	-1.1628	-0.2797	67.0844	-2.2463	-27.5351
170	67.0844	-2.2463	-27.5351	81.7050	-4.0460	-32.5173
171	81.7050	-4.0460	-32.5173	115.5948	-6.0705	-37.9639
172	115.5948	-6.0705	-37.9639	126.9151	-8.6646	-20.8705
173	126.9151	-8.6646	-20.8705	95.3114	-12.4158	-31.1581
174	95.3114	-12.4158	-31.1581	52.4495	-16.1668	-41.4632
175	52.4495	-16.1668	-41.4632	-1.6703	-19.9165	-51.8034
176	-1.6703	-19.9165	-51.8034	-67.0098	-23.6664	-62.1428
177	-67.0098	-23.6664	-62.1428	-143.6357	-27.4157	-72.5066
178	-143.6357	-27.4157	-72.5066	-231.4510	-31.1653	-82.9118
179	-231.4510	-31.1653	-82.9118	-330.5795	-34.9155	-93.3209
180	-330.5795	-34.9155	-93.3209	-193.2781	-14.3111	-56.0622
181	-193.2781	-14.3111	-56.0622	50.9454	-1.1632	-0.3545
182	50.9454	-1.1632	-0.3545	47.4560	-1.1634	-0.3368
183	47.4560	-1.1634	-0.3368	43.9656	-1.1633	-0.3191
184	43.9656	-1.1633	-0.3191	40.4755	-1.1632	-0.3135
185	40.4755	-1.1632	-0.3135	36.9847	-1.1631	-0.3045
186	36.9847	-1.1631	-0.3045	33.4957	-1.1629	-0.2893
187	33.4957	-1.1629	-0.2893	30.0063	-1.1624	-0.2769
188	30.0063	-1.1624	-0.2769	26.5183	-1.1622	-0.2731
189	26.5183	-1.1622	-0.2731	67.0525	-2.2432	-27.5389
190	67.0525	-2.2432	-27.5389	81.6707	-4.0443	-32.5301
191	81.6707	-4.0443	-32.5301	115.5757	-6.0676	-37.9791
192	115.5757	-6.0676	-37.9791	126.9088	-8.6619	-20.8364
193	126.9088	-8.6619	-20.8364	95.2961	-12.4130	-31.1624
194	95.2961	-12.4130	-31.1624	52.4518	-16.1632	-41.4746
195	52.4518	-16.1632	-41.4746	-1.6553	-19.9136	-51.7940
196	-1.6553	-19.9136	-51.7940	-67.0004	-23.6638	-62.1377
197	-67.0004	-23.6638	-62.1377	-143.5917	-27.4136	-72.5155
198	-143.5917	-27.4136	-72.5155	-231.4227	-31.1636	-82.9149
199	-231.4227	-31.1636	-82.9149	-330.5358	-34.9137	-93.2836
200	-330.5358	-34.9137	-93.2836	-193.2628	-14.3116	-56.0527
201	-193.2628	-14.3116	-56.0527	50.9576	-1.1637	-0.3476
202	50.9576	-1.1637	-0.3476	47.4675	-1.1637	-0.3428
203	47.4675	-1.1637	-0.3428	43.9779	-1.1635	-0.3300
204	43.9779	-1.1635	-0.3300	40.4866	-1.1635	-0.3141
205	40.4866	-1.1635	-0.3141	36.9969	-1.1632	-0.3024
206	36.9969	-1.1632	-0.3024	33.5088	-1.1630	-0.2889
207	33.5088	-1.1630	-0.2889	30.0202	-1.1631	-0.2842
208	30.0202	-1.1631	-0.2842	26.5312	-1.1632	-0.2746
209	26.5312	-1.1632	-0.2746	67.0659	-2.2455	-27.5379
210	67.0659	-2.2455	-27.5379	81.6807	-4.0470	-32.5301
211	81.6807	-4.0470	-32.5301	115.5695	-6.0715	-37.9923
212	115.5695	-6.0715	-37.9923	127.0430	-8.6577	-20.8621
213	127.0430	-8.6577	-20.8621	95.4480	-12.4088	-31.1493
214	95.4480	-12.4088	-31.1493	52.6026	-16.1596	-41.4726
215	52.6026	-16.1596	-41.4726	-1.4850	-19.9099	-51.7952
216	-1.4850	-19.9099	-51.7952	-66.8110	-23.6600	-62.1553

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
217	-66.8110	-23.6600	-62.1553	-143.3916	-27.4096	-72.5148
218	-143.3916	-27.4096	-72.5148	-231.2327	-31.1595	-82.8830
219	-231.2327	-31.1595	-82.8830	-330.3214	-34.9095	-93.3281
220	-330.3214	-34.9095	-93.3281	-193.3678	-14.3108	-56.0548
221	-193.3678	-14.3108	-56.0548	50.9816	-1.1653	-0.3620
222	50.9816	-1.1653	-0.3620	47.4852	-1.1655	-0.3483
223	47.4852	-1.1655	-0.3483	43.9888	-1.1656	-0.3313
224	43.9888	-1.1656	-0.3313	40.4919	-1.1652	-0.3172
225	40.4919	-1.1652	-0.3172	36.9982	-1.1651	-0.3036
226	36.9982	-1.1651	-0.3036	33.5008	-1.1655	-0.2929
227	33.5008	-1.1655	-0.2929	30.0042	-1.1657	-0.2860
228	30.0042	-1.1657	-0.2860	26.5065	-1.1658	-0.2768
229	26.5065	-1.1658	-0.2768	67.0185	-2.2488	-27.5343
230	67.0185	-2.2488	-27.5343	81.5968	-4.0517	-32.5159
231	81.5968	-4.0517	-32.5159	115.4115	-6.0777	-37.9790
232	115.4115	-6.0777	-37.9790	128.5652	-8.5885	-20.8658
233	128.5652	-8.5885	-20.8658	97.1796	-12.3384	-31.1544
234	97.1796	-12.3384	-31.1544	54.5563	-16.0886	-41.4650
235	54.5563	-16.0886	-41.4650	0.6637	-19.8387	-51.7850
236	0.6637	-19.8387	-51.7850	-64.4491	-23.5896	-62.1378
237	-64.4491	-23.5896	-62.1378	-140.8189	-27.3398	-72.5233
238	-140.8189	-27.3398	-72.5233	-228.4476	-31.0896	-82.8907
239	-228.4476	-31.0896	-82.8907	-327.3303	-34.8395	-93.2718
240	-327.3303	-34.8395	-93.2718	-194.2128	-14.2835	-56.0383
241	-194.2128	-14.2835	-56.0383	51.1568	-1.1838	-0.3561
242	51.1568	-1.1838	-0.3561	47.6042	-1.1838	-0.3418
243	47.6042	-1.1838	-0.3418	44.0528	-1.1840	-0.3276
244	44.0528	-1.1840	-0.3276	40.5001	-1.1846	-0.3116
245	40.5001	-1.1846	-0.3116	36.9459	-1.1842	-0.3028
246	36.9459	-1.1842	-0.3028	33.3958	-1.1836	-0.2900
247	33.3958	-1.1836	-0.2900	29.8434	-1.1839	-0.2797
248	29.8434	-1.1839	-0.2797	26.2910	-1.1838	-0.2775
249	26.2910	-1.1838	-0.2775	66.5574	-2.2822	-27.5599
250	66.5574	-2.2822	-27.5599	80.7886	-4.1005	-32.5413
251	80.7886	-4.1005	-32.5413	113.8347	-6.1571	-38.0163
252	113.8347	-6.1571	-38.0163	115.2255	-8.2720	-43.6207
253	115.2255	-8.2720	-43.6207	130.8340	-10.9195	-50.3151
254	130.8340	-10.9195	-50.3151	102.2026	-14.4341	-42.7859
255	102.2026	-14.4341	-42.7859	53.2824	-18.1856	-53.1145
256	53.2824	-18.1856	-53.1145	-6.8849	-21.9366	-63.4443
257	-6.8849	-21.9366	-63.4443	-78.3026	-25.6864	-73.7808
258	-78.3026	-25.6864	-73.7808	-160.9547	-29.4356	-84.1759
259	-160.9547	-29.4356	-84.1759	-254.8615	-33.1853	-94.5715
260	-254.8615	-33.1853	-94.5715	-205.4265	-14.2258	-56.8441
261	-205.4265	-14.2258	-56.8441	54.9683	-1.2833	-0.4355
262	54.9683	-1.2833	-0.4355	52.0812	-1.2833	-0.4257
263	52.0812	-1.2833	-0.4257	49.1937	-1.2829	-0.4072
264	49.1937	-1.2829	-0.4072	46.3066	-1.2824	-0.4009
265	46.3066	-1.2824	-0.4009	43.4226	-1.2828	-0.3880
266	43.4226	-1.2828	-0.3880	40.5351	-1.2827	-0.3793
267	40.5351	-1.2827	-0.3793	37.6496	-1.2832	-0.3747
268	37.6496	-1.2832	-0.3747	34.7601	-1.2846	-0.3555
269	34.7601	-1.2846	-0.3555	31.8687	-1.2859	-0.3494
270	31.8687	-1.2859	-0.3494	28.9739	-1.2871	-0.3493
271	28.9739	-1.2871	-0.3493	26.0789	-1.2869	-0.3411

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
272	26.0789	-1.2869	-0.3411	62.3057	-2.8395	-35.7745
273	62.3057	-2.8395	-35.7745	76.3876	-4.8551	-41.6858
274	76.3876	-4.8551	-41.6858	85.9495	-6.3716	-46.1389
275	85.9495	-6.3716	-46.1389	90.1572	-8.0184	-50.8703
276	90.1572	-8.0184	-50.8703	104.1488	-9.8413	-55.9664
277	104.1488	-9.8413	-55.9664	91.9472	-12.5211	-63.2198
278	91.9472	-12.5211	-63.2198	71.1462	-14.7085	-69.0246
279	71.1462	-14.7085	-69.0246	40.8045	-17.0346	-75.1039
280	40.8045	-17.0346	-75.1039	-0.0431	-18.2847	-78.5536

ENVOL. MAX. TORSORES TREN TREN SIN CARGA, EC-1 en via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0080	19.4807	81.9094	38.4483	17.0853	75.6703
2	38.4483	17.0853	75.6703	66.7178	14.8274	69.7145
3	66.7178	14.8274	69.7145	85.7847	12.7081	63.9983
4	85.7847	12.7081	63.9983	96.5654	10.1012	56.8168
5	96.5654	10.1012	56.8168	99.5944	7.6304	49.9550
6	99.5944	7.6304	49.9550	96.1212	5.9180	45.0872
7	96.1212	5.9180	45.0872	87.0345	4.3376	40.4612
8	87.0345	4.3376	40.4612	50.5854	2.8108	35.4819
9	50.5854	2.8108	35.4819	32.6027	1.6098	31.6889
10	32.6027	1.6098	31.6889	11.9522	0.5304	28.1582
11	11.9522	0.5304	28.1582	-10.6439	-0.4309	24.9023
12	-10.6439	-0.4309	24.9023	-34.4929	-1.9044	20.1954
13	-34.4929	-1.9044	20.1954	-77.4348	-2.6477	16.7747
14	-77.4348	-2.6477	16.7747	-100.1439	-3.1788	14.6060
15	-100.1439	-3.1788	14.6060	-122.0341	-3.6154	12.6955
16	-122.0341	-3.6154	12.6955	-142.6579	-3.9627	11.0519
17	-142.6579	-3.9627	11.0519	-161.6179	-4.2260	9.7229
18	-161.6179	-4.2260	9.7229	-178.6066	-4.4108	8.6875
19	-178.6066	-4.4108	8.6875	-193.3640	-4.5240	7.8519
20	-193.3640	-4.5240	7.8519	-205.6522	14.2185	57.1892
21	-205.6522	14.2185	57.1892	-110.9838	29.8974	98.9357
22	-110.9838	29.8974	98.9357	-34.8620	26.3435	89.9146
23	-34.8620	26.3435	89.9146	31.2909	22.7840	80.5154
24	31.2909	22.7840	80.5154	73.0882	19.6288	72.6941
25	73.0882	19.6288	72.6941	96.7025	16.1660	64.0014
26	96.7025	16.1660	64.0014	124.0034	13.6257	57.3716
27	124.0034	13.6257	57.3716	119.8920	10.6929	49.9678
28	119.8920	10.6929	49.9678	126.8701	8.4284	43.9967
29	126.8701	8.4284	43.9967	101.5954	6.0706	37.8694
30	101.5954	6.0706	37.8694	93.1180	4.1034	32.5514
31	93.1180	4.1034	32.5514	54.2319	2.3452	27.6855
32	54.2319	2.3452	27.6855	35.5484	0.6784	22.9919
33	35.5484	0.6784	22.9919	-9.1693	-0.4855	19.4258
34	-9.1693	-0.4855	19.4258	-32.9048	-1.8605	15.3788
35	-32.9048	-1.8605	15.3788	-76.1053	-2.4576	13.0878
36	-76.1053	-2.4576	13.0878	-113.9006	-3.3303	9.9195
37	-113.9006	-3.3303	9.9195	-135.7133	-3.6453	8.6577
38	-135.7133	-3.6453	8.6577	-163.1648	-4.0551	6.7689
39	-163.1648	-4.0551	6.7689	-179.8251	-4.1585	6.1092
40	-179.8251	-4.1585	6.1092	-194.3050	14.2812	56.3162
41	-194.3050	14.2812	56.3162	-100.3785	29.6539	98.8034
42	-100.3785	29.6539	98.8034	-25.4086	26.1102	89.7971
43	-25.4086	26.1102	89.7971	39.7085	22.5598	80.3985
44	39.7085	22.5598	80.3985	80.0501	19.4277	72.5746
45	80.0501	19.4277	72.5746	102.1490	15.9933	63.9041
46	102.1490	15.9933	63.9041	128.4629	13.4655	57.3159
47	128.4629	13.4655	57.3159	123.0312	10.5671	49.9213
48	123.0312	10.5671	49.9213	129.2504	8.3216	43.9529
49	129.2504	8.3216	43.9529	103.0283	5.9990	37.8222
50	103.0283	5.9990	37.8222	94.0745	4.0469	32.5131
51	94.0745	4.0469	32.5131	54.6142	2.3198	27.6684
52	54.6142	2.3198	27.6684	35.7036	0.6661	22.9795
53	35.7036	0.6661	22.9795	-9.2327	-0.4729	19.4093

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	-9.2327	-0.4729	19.4093	-32.9813	-1.8377	15.3579
55	-32.9813	-1.8377	15.3579	-76.1448	-2.4167	13.0597
56	-76.1448	-2.4167	13.0597	-113.7983	-3.2769	9.8959
57	-113.7983	-3.2769	9.8959	-135.4329	-3.5878	8.6236
58	-135.4329	-3.5878	8.6236	-162.6676	-3.9915	6.7315
59	-162.6676	-3.9915	6.7315	-179.1255	-4.0945	6.0478
60	-179.1255	-4.0945	6.0478	-193.3916	14.3037	56.2862
61	-193.3916	14.3037	56.2862	-99.5531	29.6355	98.7768
62	-99.5531	29.6355	98.7768	-24.6748	26.0906	89.7419
63	-24.6748	26.0906	89.7419	40.3559	22.5424	80.3439
64	40.3559	22.5424	80.3439	80.5688	19.4124	72.5544
65	80.5688	19.4124	72.5544	102.5602	15.9797	63.8659
66	102.5602	15.9797	63.8659	128.8195	13.4570	57.2746
67	128.8195	13.4570	57.2746	123.2876	10.5588	49.9025
68	123.2876	10.5588	49.9025	129.4641	8.3139	43.9393
69	129.4641	8.3139	43.9393	103.1550	5.9933	37.8205
70	103.1550	5.9933	37.8205	94.1604	4.0437	32.5120
71	94.1604	4.0437	32.5120	54.6432	2.3176	27.6800
72	54.6432	2.3176	27.6800	35.7121	0.6651	22.9895
73	35.7121	0.6651	22.9895	-9.2437	-0.4722	19.4181
74	-9.2437	-0.4722	19.4181	-32.9963	-1.8354	15.3619
75	-32.9963	-1.8354	15.3619	-76.1617	-2.4135	13.0538
76	-76.1617	-2.4135	13.0538	-113.8046	-3.2727	9.8845
77	-113.8046	-3.2727	9.8845	-135.4264	-3.5830	8.6205
78	-135.4264	-3.5830	8.6205	-162.6436	-3.9840	6.6905
79	-162.6436	-3.9840	6.6905	-179.0775	-4.0875	6.0097
80	-179.0775	-4.0875	6.0097	-193.3181	14.3078	56.2430
81	-193.3181	14.3078	56.2430	-99.4655	29.6356	98.7028
82	-99.4655	29.6356	98.7028	-24.5992	26.0919	89.6844
83	-24.5992	26.0919	89.6844	40.4458	22.5438	80.2907
84	40.4458	22.5438	80.2907	80.6577	19.4141	72.4950
85	80.6577	19.4141	72.4950	102.6211	15.9814	63.8380
86	102.6211	15.9814	63.8380	128.8736	13.4571	57.2566
87	128.8736	13.4571	57.2566	123.3284	10.5604	49.8938
88	123.3284	10.5604	49.8938	129.4998	8.3151	43.9270
89	129.4998	8.3151	43.9270	103.1857	5.9938	37.8246
90	103.1857	5.9938	37.8246	94.1852	4.0447	32.5347
91	94.1852	4.0447	32.5347	54.6726	2.3183	27.6846
92	54.6726	2.3183	27.6846	35.7478	0.6664	22.9949
93	35.7478	0.6664	22.9949	-9.2115	-0.4703	19.4226
94	-9.2115	-0.4703	19.4226	-32.9603	-1.8337	15.3664
95	-32.9603	-1.8337	15.3664	-76.1190	-2.4106	13.0555
96	-76.1190	-2.4106	13.0555	-113.7587	-3.2692	9.8606
97	-113.7587	-3.2692	9.8606	-135.3739	-3.5790	8.5768
98	-135.3739	-3.5790	8.5768	-162.5831	-3.9829	6.6552
99	-162.5831	-3.9829	6.6552	-179.0168	-4.0849	5.9820
100	-179.0168	-4.0849	5.9820	-193.2820	14.3091	56.1857
101	-193.2820	14.3091	56.1857	-99.4297	29.6354	98.6345
102	-99.4297	29.6354	98.6345	-24.5455	26.0915	89.6343
103	-24.5455	26.0915	89.6343	40.4753	22.5406	80.2527
104	40.4753	22.5406	80.2527	80.6564	19.4118	72.4582
105	80.6564	19.4118	72.4582	102.6331	15.9799	63.7936
106	102.6331	15.9799	63.7936	128.8672	13.4570	57.2289

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
107	128.8672	13.4570	57.2289	123.3176	10.5589	49.8703
108	123.3176	10.5589	49.8703	129.4864	8.3134	43.9268
109	129.4864	8.3134	43.9268	148.8042	4.5638	33.6031
110	148.8042	4.5638	33.6031	156.8619	0.8139	23.3045
111	156.8619	0.8139	23.3045	153.6763	-2.9361	13.0054
112	153.6763	-2.9361	13.0054	139.2423	-6.6883	2.6698
113	139.2423	-6.6883	2.6698	0.7030	-0.0902	0.0009
114	0.7030	-0.0902	0.0009	0.4150	-0.0865	0.0011
115	0.4150	-0.0865	0.0011	0.1670	-0.0930	0.0011
116	0.1670	-0.0930	0.0011	-0.1119	-0.0930	0.0012
117	-0.1119	-0.0930	0.0012	-0.3789	-0.0902	0.0011
118	-0.3789	-0.0902	0.0011	-0.6697	-0.0930	0.0011
119	-0.6697	-0.0930	0.0011	-0.8383	-0.0822	0.0007
120	-0.8383	-0.0822	0.0007	-381.1396	0.3528	12.1648
121	-381.1396	0.3528	12.1648	-274.6281	33.6390	94.1406
122	-274.6281	33.6390	94.1406	-179.3690	29.8895	83.7559
123	-179.3690	29.8895	83.7559	-95.3432	26.1397	73.3816
124	-95.3432	26.1397	73.3816	-22.5512	22.3888	63.0310
125	-22.5512	22.3888	63.0310	38.9808	18.6377	52.6948
126	38.9808	18.6377	52.6948	89.2542	14.8868	42.3803
127	89.2542	14.8868	42.3803	128.2668	11.1364	32.0834
128	128.2668	11.1364	32.0834	156.0418	7.3851	21.7892
129	156.0418	7.3851	21.7892	172.5708	3.6329	11.4781
130	172.5708	3.6329	11.4781	177.8468	-0.1178	1.1564
131	177.8468	-0.1178	1.1564	1.1365	-0.0824	0.0005
132	1.1365	-0.0824	0.0005	0.8893	-0.0824	0.0009
133	0.8893	-0.0824	0.0009	0.6929	-0.0889	0.0012
134	0.6929	-0.0889	0.0012	0.4263	-0.0889	0.0014
135	0.4263	-0.0889	0.0014	0.1545	-0.0860	0.0014
136	0.1545	-0.0860	0.0014	-0.1091	-0.0907	0.0014
137	-0.1091	-0.0907	0.0014	-0.3462	-0.0824	0.0013
138	-0.3462	-0.0824	0.0013	-0.5933	-0.0824	0.0012
139	-0.5933	-0.0824	0.0012	-0.8777	-0.0860	0.0009
140	-0.8777	-0.0860	0.0009	-387.9821	-0.0416	0.6190
141	-387.9821	-0.0416	0.6190	-281.0663	33.7812	93.0708
142	-281.0663	33.7812	93.0708	-185.3829	30.0310	82.6165
143	-185.3829	30.0310	82.6165	-100.9447	26.2805	72.2595
144	-100.9447	26.2805	72.2595	-27.7324	22.5310	61.9100
145	-27.7324	22.5310	61.9100	34.2122	18.7821	51.5625
146	34.2122	18.7821	51.5625	84.9361	15.0328	41.2444
147	84.9361	15.0328	41.2444	124.3896	11.2830	30.9570
148	124.3896	11.2830	30.9570	152.5983	7.5327	20.6713
149	152.5983	7.5327	20.6713	169.5670	3.7825	10.3602
150	169.5670	3.7825	10.3602	175.2869	0.0311	0.0652
151	175.2869	0.0311	0.0652	1.1544	-0.0837	0.0009
152	1.1544	-0.0837	0.0009	0.9033	-0.0837	0.0012
153	0.9033	-0.0837	0.0012	0.6809	-0.0874	0.0016
154	0.6809	-0.0874	0.0016	0.4326	-0.0902	0.0017
155	0.4326	-0.0902	0.0017	0.1620	-0.0901	0.0018
156	0.1620	-0.0901	0.0018	-0.1050	-0.0873	0.0018
157	-0.1050	-0.0873	0.0018	-0.3669	-0.0873	0.0017
158	-0.3669	-0.0873	0.0017	-0.6493	-0.0902	0.0016
159	-0.6493	-0.0902	0.0016	-0.9198	-0.0902	0.0015
160	-0.9198	-0.0902	0.0015	-386.1031	0.0145	0.0387
161	-386.1031	0.0145	0.0387	-283.6731	33.8547	92.9427

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
162	-283.6731	33.8547	92.9427	-187.8659	30.1095	82.5560
163	-187.8659	30.1095	82.5560	-102.8049	26.3439	72.1706
164	-102.8049	26.3439	72.1706	-29.4195	22.5932	61.8128
165	-29.4195	22.5932	61.8128	33.7743	18.8060	51.4900
166	33.7743	18.8060	51.4900	85.3026	15.0280	41.1683
167	85.3026	15.0280	41.1683	125.1572	11.2616	30.8326
168	125.1572	11.2616	30.8326	153.3094	7.5097	20.5560
169	153.3094	7.5097	20.5560	169.4093	3.6385	10.2915
170	169.4093	3.6385	10.2915	175.8643	0.0114	0.0203
171	175.8643	0.0114	0.0203	1.2004	-0.0870	0.0012
172	1.2004	-0.0870	0.0012	0.9904	-0.0917	0.0013
173	0.9904	-0.0917	0.0013	0.7006	-0.0898	0.0016
174	0.7006	-0.0898	0.0016	0.4311	-0.0898	0.0019
175	0.4311	-0.0898	0.0019	0.1564	-0.0870	0.0019
176	0.1564	-0.0870	0.0019	-0.1045	-0.0870	0.0019
177	-0.1045	-0.0870	0.0019	-0.3854	-0.0917	0.0019
178	-0.3854	-0.0917	0.0019	-0.6469	-0.0898	0.0016
179	-0.6469	-0.0898	0.0016	-0.8876	-0.0870	0.0014
180	-0.8876	-0.0870	0.0014	-1.2108	-0.0329	0.0015
181	-1.2108	-0.0329	0.0015	-278.3284	33.6571	92.9640
182	-278.3284	33.6571	92.9640	-182.8517	29.9002	82.5617
183	-182.8517	29.9002	82.5617	-98.8097	26.1497	72.1581
184	-98.8097	26.1497	72.1581	-25.9325	22.3989	61.8203
185	-25.9325	22.3989	61.8203	35.5767	18.6512	51.4844
186	35.5767	18.6512	51.4844	86.1037	14.9001	41.1844
187	86.1037	14.9001	41.1844	125.1614	11.1499	30.8814
188	125.1614	11.1499	30.8814	152.8069	7.3995	20.5684
189	152.8069	7.3995	20.5684	170.2583	3.6939	10.2939
190	170.2583	3.6939	10.2939	1.4630	-0.0870	0.0009
191	1.4630	-0.0870	0.0009	1.2019	-0.0870	0.0014
192	1.2019	-0.0870	0.0014	0.9407	-0.0871	0.0018
193	0.9407	-0.0871	0.0018	0.7162	-0.0918	0.0019
194	0.7162	-0.0918	0.0019	0.4318	-0.0900	0.0021
195	0.4318	-0.0900	0.0021	0.1619	-0.0900	0.0022
196	0.1619	-0.0900	0.0022	-0.1045	-0.0871	0.0022
197	-0.1045	-0.0871	0.0022	-0.3777	-0.0900	0.0022
198	-0.3777	-0.0900	0.0022	-0.6475	-0.0900	0.0020
199	-0.6475	-0.0900	0.0020	-0.9174	-0.0900	0.0019
200	-0.9174	-0.0900	0.0019	-1.1873	-0.0323	0.0018
201	-1.1873	-0.0323	0.0018	-280.1519	33.8000	92.8979
202	-280.1519	33.8000	92.8979	-184.3960	30.0500	82.5381
203	-184.3960	30.0500	82.5381	-99.9030	26.3002	72.1741
204	-99.9030	26.3002	72.1741	-26.6861	22.5563	61.8081
205	-26.6861	22.5563	61.8081	35.4064	18.7967	51.4796
206	35.4064	18.7967	51.4796	86.1189	15.0517	41.1654
207	86.1189	15.0517	41.1654	125.6439	11.3017	30.8420
208	125.6439	11.3017	30.8420	153.9395	7.5560	20.5630
209	153.9395	7.5560	20.5630	170.9337	3.7980	10.2840
210	170.9337	3.7980	10.2840	1.4629	-0.0871	0.0008
211	1.4629	-0.0871	0.0008	1.2016	-0.0870	0.0011
212	1.2016	-0.0870	0.0011	0.9912	-0.0918	0.0014
213	0.9912	-0.0918	0.0014	0.7011	-0.0899	0.0018
214	0.7011	-0.0899	0.0018	0.4313	-0.0900	0.0019
215	0.4313	-0.0900	0.0019	0.1615	-0.0900	0.0020
216	0.1615	-0.0900	0.0020	-0.1083	-0.0900	0.0020

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
217	-0.1083	-0.0900	0.0020	-0.3662	-0.0871	0.0019
218	-0.3662	-0.0871	0.0019	-0.6276	-0.0871	0.0018
219	-0.6276	-0.0871	0.0018	-0.8890	-0.0871	0.0015
220	-0.8890	-0.0871	0.0015	-1.2127	-0.0329	0.0016
221	-1.2127	-0.0329	0.0016	-277.9790	33.5900	92.8887
222	-277.9790	33.5900	92.8887	-182.8625	29.8400	82.4888
223	-182.8625	29.8400	82.4888	-98.9821	26.0901	72.1062
224	-98.9821	26.0901	72.1062	-26.3582	22.3404	61.7453
225	-26.3582	22.3404	61.7453	35.0039	18.5899	51.4184
226	35.0039	18.5899	51.4184	85.1372	14.8396	41.0941
227	85.1372	14.8396	41.0941	124.0280	11.0898	30.7874
228	124.0280	11.0898	30.7874	151.5703	7.3277	20.4923
229	151.5703	7.3277	20.4923	168.0501	3.5908	10.2045
230	168.0501	3.5908	10.2045	1.4602	-0.0873	0.0007
231	1.4602	-0.0873	0.0007	1.0878	-0.0791	0.0009
232	1.0878	-0.0791	0.0009	0.9676	-0.0900	0.0012
233	0.9676	-0.0900	0.0012	0.6756	-0.0872	0.0015
234	0.6756	-0.0872	0.0015	0.4276	-0.0900	0.0018
235	0.4276	-0.0900	0.0018	0.1575	-0.0900	0.0019
236	0.1575	-0.0900	0.0019	-0.1125	-0.0900	0.0019
237	-0.1125	-0.0900	0.0019	-0.3705	-0.0872	0.0017
238	-0.3705	-0.0872	0.0017	-0.6321	-0.0872	0.0016
239	-0.6321	-0.0872	0.0016	-0.9227	-0.0900	0.0015
240	-0.9227	-0.0900	0.0015	-1.1928	-0.0321	0.0016
241	-1.1928	-0.0321	0.0016	-285.3898	34.3146	91.3029
242	-285.3898	34.3146	91.3029	-188.0710	30.5647	80.8950
243	-188.0710	30.5647	80.8950	-102.0253	26.8146	70.5210
244	-102.0253	26.8146	70.5210	-27.2426	23.0633	60.1589
245	-27.2426	23.0633	60.1589	36.3116	19.3134	49.8231
246	36.3116	19.3134	49.8231	88.6049	15.5651	39.5181
247	88.6049	15.5651	39.5181	129.6689	11.8168	29.2071
248	129.6689	11.8168	29.2071	159.4960	8.0678	18.8861
249	159.4960	8.0678	18.8861	178.0656	4.3169	8.6315
250	178.0656	4.3169	8.6315	1.3760	-0.0849	0.0009
251	1.3760	-0.0849	0.0009	1.2088	-0.0914	0.0011
252	1.2088	-0.0914	0.0011	0.9625	-0.0943	0.0015
253	0.9625	-0.0943	0.0015	0.6737	-0.0934	0.0019
254	0.6737	-0.0934	0.0019	0.3855	-0.0915	0.0020
255	0.3855	-0.0915	0.0020	0.1110	-0.0915	0.0020
256	0.1110	-0.0915	0.0020	-0.1585	-0.0886	0.0020
257	-0.1585	-0.0886	0.0020	-0.4243	-0.0886	0.0019
258	-0.4243	-0.0886	0.0019	-0.6902	-0.0886	0.0016
259	-0.6902	-0.0886	0.0016	-0.9561	-0.0886	0.0014
260	-0.9561	-0.0886	0.0014	-1.2882	-0.0324	0.0016
261	-1.2882	-0.0324	0.0016	-282.0672	32.9786	62.5033
262	-282.0672	32.9786	62.5033	-210.3891	30.4785	55.5716
263	-210.3891	30.4785	55.5716	-144.9508	27.9791	48.6158
264	-144.9508	27.9791	48.6158	-85.7365	24.8549	39.9816
265	-85.7365	24.8549	39.9816	-33.1198	21.7294	31.3637
266	-33.1198	21.7294	31.3637	13.2729	19.2278	24.4591
267	13.2729	19.2278	24.4591	53.4073	16.7265	17.5830
268	53.4073	16.7265	17.5830	87.2784	13.6005	9.0029
269	87.2784	13.6005	9.0029	114.5950	10.4731	0.4058
270	114.5950	10.4731	0.4058	0.0000	0.0000	0.0000
271	0.0000	0.0000	0.0000	1.5376	-0.0759	0.0002

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
272	1.5376	-0.0759	0.0002	1.6621	-0.0923	0.0008
273	1.6621	-0.0923	0.0008	1.5679	-0.0996	0.0011
274	1.5679	-0.0996	0.0011	1.2467	-0.0923	0.0014
275	1.2467	-0.0923	0.0014	1.1199	-0.0996	0.0015
276	1.1199	-0.0996	0.0015	0.8960	-0.0996	0.0019
277	0.8960	-0.0996	0.0019	0.6719	-0.0996	0.0020
278	0.6719	-0.0996	0.0020	0.4480	-0.0995	0.0022
279	0.4480	-0.0995	0.0022	0.2240	-0.0995	0.0022
280	0.2240	-0.0995	0.0022	0.0000	-0.0964	0.0022

ENVOL. MIN. TORSORES TREN TREN SIN CARGA, EC-1 en via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0001	-0.0002	-0.2238	3.5149	-0.1046	-0.8743
2	3.5149	-0.1046	-0.8743	10.9380	-0.3472	-1.7933
3	10.9380	-0.3472	-1.7933	21.3373	-0.7274	-2.9850
4	21.3373	-0.7274	-2.9850	33.7960	-1.2447	-4.4597
5	33.7960	-1.2447	-4.4597	47.4081	-1.8964	-6.1932
6	47.4081	-1.8964	-6.1932	61.2760	-2.6826	-8.1873
7	61.2760	-2.6826	-8.1873	74.5255	-3.5981	-10.4690
8	74.5255	-3.5981	-10.4690	108.8950	-5.1937	-14.1334
9	108.8950	-5.1937	-14.1334	118.2328	-7.1197	-18.9365
10	118.2328	-7.1197	-18.9365	123.9854	-8.5385	-22.3085
11	123.9854	-8.5385	-22.3085	125.4337	-10.0784	-25.9473
12	125.4337	-10.0784	-25.9473	121.8860	-11.7309	-29.8464
13	121.8860	-11.7309	-29.8464	130.8614	-14.1137	-35.0584
14	130.8614	-14.1137	-35.0584	113.3648	-16.0848	-39.7758
15	113.3648	-16.0848	-39.7758	88.7847	-18.1441	-44.7626
16	88.7847	-18.1441	-44.7626	56.6785	-20.9234	-51.7316
17	56.6785	-20.9234	-51.7316	16.3710	-23.7872	-58.9921
18	16.3710	-23.7872	-58.9921	-32.1920	-26.1007	-64.7900
19	-32.1920	-26.1007	-64.7900	-89.2042	-28.4878	-70.8584
20	-89.2042	-28.4878	-70.8584	-154.9236	-13.8164	-40.5625
21	-154.9236	-13.8164	-40.5625	-144.3943	3.2940	-4.3239
22	-144.3943	3.2940	-4.3239	-126.5537	3.0988	-5.6174
23	-126.5537	3.0988	-5.6174	-110.0053	2.9079	-6.5532
24	-110.0053	2.9079	-6.5532	-80.3463	2.3120	-9.0654
25	-80.3463	2.3120	-9.0654	-43.7593	2.0264	-10.7073
26	-43.7593	2.0264	-10.7073	-22.1012	0.8171	-14.4281
27	-22.1012	0.8171	-14.4281	19.7141	0.0007	-17.3542
28	19.7141	0.0007	-17.3542	39.1882	-1.4868	-21.7205
29	39.1882	-1.4868	-21.7205	79.6601	-2.8809	-25.9264
30	79.6601	-2.8809	-25.9264	92.0805	-4.6635	-30.9183
31	92.0805	-4.6635	-30.9183	123.6548	-6.6552	-36.4128
32	123.6548	-6.6552	-36.4128	123.7827	-8.7400	-42.0806
33	123.7827	-8.7400	-42.0806	138.7006	-11.3254	-48.8321
34	138.7006	-11.3254	-48.8321	121.3734	-13.7001	-55.1197
35	121.3734	-13.7001	-55.1197	112.2596	-16.8548	-63.1734
36	112.2596	-16.8548	-63.1734	86.4922	-19.7294	-70.3304
37	86.4922	-19.7294	-70.3304	33.5066	-23.1674	-79.4131
38	33.5066	-23.1674	-79.4131	-25.1067	-26.5063	-87.8484
39	-25.1067	-26.5063	-87.8484	-105.7417	-30.1525	-97.5378
40	-105.7417	-30.1525	-97.5378	-199.8237	-14.4827	-55.5368
41	-199.8237	-14.4827	-55.5368	-186.3914	4.2541	-5.7340
42	-186.3914	4.2541	-5.7340	-165.2719	4.0493	-7.0475
43	-165.2719	4.0493	-7.0475	-145.5477	3.8489	-8.0134
44	-145.5477	3.8489	-8.0134	-112.2762	3.2304	-10.5192
45	-112.2762	3.2304	-10.5192	-72.0302	2.9163	-12.1754
46	-72.0302	2.9163	-12.1754	-47.2515	1.6916	-15.9160
47	-47.2515	1.6916	-15.9160	-1.9743	0.8417	-18.8500
48	-1.9743	0.8417	-18.8500	20.3983	-0.6629	-23.2188
49	20.3983	-0.6629	-23.2188	63.9778	-2.0891	-27.4346
50	63.9778	-2.0891	-27.4346	79.0341	-3.8879	-32.4350
51	79.0341	-3.8879	-32.4350	113.3517	-5.9095	-37.9101
52	113.3517	-5.9095	-37.9101	115.8699	-8.0073	-43.5587
53	115.8699	-8.0073	-43.5587	133.1499	-10.6169	-50.3221
54	133.1499	-10.6169	-50.3221	118.0166	-13.0030	-56.6005

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	118.0166	-13.0030	-56.6005	111.0343	-16.1718	-64.6301
56	111.0343	-16.1718	-64.6301	87.2846	-19.0616	-71.8041
57	87.2846	-19.0616	-71.8041	36.2831	-22.5019	-80.8689
58	36.2831	-22.5019	-80.8689	-20.3689	-25.8469	-89.3122
59	-20.3689	-25.8469	-89.3122	-99.0334	-29.4951	-99.0036
60	-99.0334	-29.4951	-99.0036	-191.1568	-14.2466	-56.2527
61	-191.1568	-14.2466	-56.2527	-178.2773	4.0696	-5.7546
62	-178.2773	4.0696	-5.7546	-157.6789	3.8640	-7.1104
63	-157.6789	3.8640	-7.1104	-138.4892	3.6623	-8.0532
64	-138.4892	3.6623	-8.0532	-105.7126	3.0419	-10.5965
65	-105.7126	3.0419	-10.5965	-65.9690	2.7260	-12.2577
66	-65.9690	2.7260	-12.2577	-41.7288	1.4981	-15.9900
67	-41.7288	1.4981	-15.9900	3.0365	0.6468	-18.9328
68	3.0365	0.6468	-18.9328	24.8556	-0.8586	-23.3040
69	24.8556	-0.8586	-23.3040	67.9058	-2.2875	-27.5198
70	67.9058	-2.2875	-27.5198	82.3902	-4.0880	-32.5205
71	82.3902	-4.0880	-32.5205	116.1467	-6.1128	-37.9827
72	116.1467	-6.1128	-37.9827	118.0706	-8.2108	-43.6256
73	118.0706	-8.2108	-43.6256	134.7610	-10.8237	-50.3923
74	134.7610	-10.8237	-50.3923	119.0181	-13.2095	-56.6484
75	119.0181	-13.2095	-56.6484	111.4252	-16.3802	-64.6634
76	111.4252	-16.3802	-64.6634	87.0627	-19.2710	-71.8293
77	87.0627	-19.2710	-71.8293	35.4263	-22.7109	-80.8998
78	35.4263	-22.7109	-80.8998	-21.8489	-26.0602	-89.3461
79	-21.8489	-26.0602	-89.3461	-101.1535	-29.7075	-99.0182
80	-101.1535	-29.7075	-99.0182	-193.9173	-14.3237	-56.2394
81	-193.9173	-14.3237	-56.2394	-180.8358	4.1277	-5.7097
82	-180.8358	4.1277	-5.7097	-160.0615	3.9210	-7.0532
83	-160.0615	3.9210	-7.0532	-140.6960	3.7199	-8.0208
84	-140.6960	3.7199	-8.0208	-107.7413	3.0986	-10.5631
85	-107.7413	3.0986	-10.5631	-67.8133	2.7810	-12.2414
86	-67.8133	2.7810	-12.2414	-43.3953	1.5563	-15.9864
87	-43.3953	1.5563	-15.9864	1.5521	0.7046	-18.9319
88	1.5521	0.7046	-18.9319	23.5458	-0.8012	-23.3048
89	23.5458	-0.8012	-23.3048	66.7763	-2.2301	-27.5210
90	66.7763	-2.2301	-27.5210	81.4415	-4.0310	-32.5016
91	81.4415	-4.0310	-32.5016	115.3717	-6.0545	-37.9750
92	115.3717	-6.0545	-37.9750	117.4561	-8.1523	-43.6211
93	117.4561	-8.1523	-43.6211	134.3355	-10.7644	-50.3606
94	134.3355	-10.7644	-50.3606	118.7675	-13.1532	-56.6237
95	118.7675	-13.1532	-56.6237	111.3387	-16.3261	-64.6392
96	111.3387	-16.3261	-64.6392	87.1643	-19.2165	-71.7802
97	87.1643	-19.2165	-71.7802	35.6993	-22.6557	-80.8342
98	35.6993	-22.6557	-80.8342	-21.4202	-26.0028	-89.2749
99	-21.4202	-26.0028	-89.2749	-100.5835	-29.6509	-98.9461
100	-100.5835	-29.6509	-98.9461	-193.1526	-14.3049	-56.2080
101	-193.1526	-14.3049	-56.2080	-180.1369	4.1102	-5.6934
102	-180.1369	4.1102	-5.6934	-159.4160	3.9044	-7.0145
103	-159.4160	3.9044	-7.0145	-140.0923	3.7047	-8.0166
104	-140.0923	3.7047	-8.0166	-107.1844	3.0840	-10.5806
105	-107.1844	3.0840	-10.5806	-67.3002	2.7670	-12.2498
106	-67.3002	2.7670	-12.2498	-42.9306	1.5408	-16.0010
107	-42.9306	1.5408	-16.0010	1.9661	0.6885	-18.9504
108	1.9661	0.6885	-18.9504	23.9135	-0.8174	-23.3214

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
109	23.9135	-0.8174	-23.3214	67.0912	-2.2469	-27.5336
110	67.0912	-2.2469	-27.5336	81.6996	-4.0472	-32.5271
111	81.6996	-4.0472	-32.5271	115.5846	-6.0726	-37.9854
112	115.5846	-6.0726	-37.9854	117.6259	-8.1691	-43.6325
113	117.6259	-8.1691	-43.6325	134.4530	-10.7838	-50.3571
114	134.4530	-10.7838	-50.3571	118.8133	-13.1663	-56.6013
115	118.8133	-13.1663	-56.6013	111.3649	-16.3379	-64.6067
116	111.3649	-16.3379	-64.6067	87.1382	-19.2274	-71.7359
117	87.1382	-19.2274	-71.7359	35.6507	-22.6683	-80.8081
118	35.6507	-22.6683	-80.8081	-21.5069	-26.0144	-89.2271
119	-21.5069	-26.0144	-89.2271	-100.6522	-29.6625	-98.9379
120	-100.6522	-29.6625	-98.9379	-193.2487	-14.3092	-56.1763
121	-193.2487	-14.3092	-56.1763	-180.2650	4.1105	-5.6363
122	-180.2650	4.1105	-5.6363	-159.5393	3.9046	-6.9981
123	-159.5393	3.9046	-6.9981	-140.2220	3.7035	-7.9900
124	-140.2220	3.7035	-7.9900	-107.3129	3.0838	-10.5567
125	-107.3129	3.0838	-10.5567	-67.4240	2.7684	-12.2386
126	-67.4240	2.7684	-12.2386	-43.0443	1.5431	-15.9921
127	-43.0443	1.5431	-15.9921	1.8725	0.6915	-18.9489
128	1.8725	0.6915	-18.9489	23.8381	-0.8141	-23.3188
129	23.8381	-0.8141	-23.3188	67.0355	-2.2434	-27.5259
130	67.0355	-2.2434	-27.5259	81.6506	-4.0431	-32.5312
131	81.6506	-4.0431	-32.5312	115.5500	-6.0691	-37.9996
132	115.5500	-6.0691	-37.9996	117.6151	-8.1686	-43.5987
133	117.6151	-8.1686	-43.5987	134.4587	-10.7801	-50.3003
134	134.4587	-10.7801	-50.3003	118.8354	-13.1662	-56.5512
135	118.8354	-13.1662	-56.5512	111.3579	-16.3396	-64.5659
136	111.3579	-16.3396	-64.5659	87.1569	-19.2300	-71.6879
137	87.1569	-19.2300	-71.6879	35.6573	-22.6684	-80.7277
138	35.6573	-22.6684	-80.7277	-21.5085	-26.0164	-89.1624
139	-21.5085	-26.0164	-89.1624	-100.6459	-29.6628	-98.8754
140	-100.6459	-29.6628	-98.8754	-193.2498	-14.3095	-56.0851
141	-193.2498	-14.3095	-56.0851	-180.2502	4.1137	-5.5700
142	-180.2502	4.1137	-5.5700	-159.5125	3.9086	-6.9748
143	-159.5125	3.9086	-6.9748	-140.1842	3.7083	-7.9460
144	-140.1842	3.7083	-7.9460	-107.2634	3.0855	-10.5338
145	-107.2634	3.0855	-10.5338	-67.3778	2.7678	-12.2327
146	-67.3778	2.7678	-12.2327	-43.0040	1.5427	-15.9832
147	-43.0040	1.5427	-15.9832	1.9034	0.6903	-18.9475
148	1.9034	0.6903	-18.9475	23.8622	-0.8153	-23.3181
149	23.8622	-0.8153	-23.3181	67.0472	-2.2446	-27.5282
150	67.0472	-2.2446	-27.5282	81.6632	-4.0451	-32.5222
151	81.6632	-4.0451	-32.5222	115.5480	-6.0701	-37.9855
152	115.5480	-6.0701	-37.9855	117.6113	-8.1672	-43.5900
153	117.6113	-8.1672	-43.5900	134.4508	-10.7782	-50.2860
154	134.4508	-10.7782	-50.2860	118.8309	-13.1654	-56.5431
155	118.8309	-13.1654	-56.5431	111.3673	-16.3356	-64.5377
156	111.3673	-16.3356	-64.5377	87.1741	-19.2291	-71.6478
157	87.1741	-19.2291	-71.6478	35.6968	-22.6686	-80.6745
158	35.6968	-22.6686	-80.6745	-21.4426	-26.0153	-89.1049
159	-21.4426	-26.0153	-89.1049	-100.6300	-29.6644	-98.7894
160	-100.6300	-29.6644	-98.7894	-193.2113	-14.3115	-56.0571
161	-193.2113	-14.3115	-56.0571	-180.1810	4.1088	-5.5767
162	-180.1810	4.1088	-5.5767	-159.4599	3.9025	-6.9423
163	-159.4599	3.9025	-6.9423	-140.1422	3.7034	-7.9486

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
164	-140.1422	3.7034	-7.9486	-107.2343	3.0830	-10.5247
165	-107.2343	3.0830	-10.5247	-67.3458	2.7663	-12.2369
166	-67.3458	2.7663	-12.2369	-42.9729	1.5408	-16.0009
167	-42.9729	1.5408	-16.0009	1.9290	0.6892	-18.9575
168	1.9290	0.6892	-18.9575	23.8892	-0.8166	-23.3343
169	23.8892	-0.8166	-23.3343	67.0844	-2.2463	-27.5351
170	67.0844	-2.2463	-27.5351	81.7050	-4.0460	-32.5173
171	81.7050	-4.0460	-32.5173	115.5948	-6.0705	-37.9639
172	115.5948	-6.0705	-37.9639	117.6424	-8.1685	-43.5963
173	117.6424	-8.1685	-43.5963	134.4926	-10.7840	-50.2895
174	134.4926	-10.7840	-50.2895	118.8714	-13.1706	-56.5187
175	118.8714	-13.1706	-56.5187	111.4014	-16.3435	-64.5182
176	111.4014	-16.3435	-64.5182	87.1887	-19.2325	-71.6233
177	87.1887	-19.2325	-71.6233	35.6690	-22.6724	-80.6735
178	35.6690	-22.6724	-80.6735	-21.4525	-26.0196	-89.0983
179	-21.4525	-26.0196	-89.0983	-100.6568	-29.6670	-98.7829
180	-100.6568	-29.6670	-98.7829	-193.2781	-14.3111	-56.0622
181	-193.2781	-14.3111	-56.0622	-180.2507	4.1128	-5.5765
182	-180.2507	4.1128	-5.5765	-159.5145	3.9072	-6.9630
183	-159.5145	3.9072	-6.9630	-140.1819	3.7067	-7.9720
184	-140.1819	3.7067	-7.9720	-107.2693	3.0869	-10.5331
185	-107.2693	3.0869	-10.5331	-67.3776	2.7687	-12.2346
186	-67.3776	2.7687	-12.2346	-42.9980	1.5426	-16.0024
187	-42.9980	1.5426	-16.0024	1.9044	0.6904	-18.9609
188	1.9044	0.6904	-18.9609	23.8590	-0.8152	-23.3356
189	23.8590	-0.8152	-23.3356	67.0525	-2.2432	-27.5389
190	67.0525	-2.2432	-27.5389	81.6707	-4.0443	-32.5301
191	81.6707	-4.0443	-32.5301	115.5757	-6.0676	-37.9791
192	115.5757	-6.0676	-37.9791	117.6470	-8.1665	-43.5709
193	117.6470	-8.1665	-43.5709	134.4853	-10.7812	-50.3065
194	134.4853	-10.7812	-50.3065	118.8761	-13.1691	-56.5357
195	118.8761	-13.1691	-56.5357	111.4184	-16.3410	-64.5037
196	111.4184	-16.3410	-64.5037	87.2011	-19.2323	-71.6273
197	87.2011	-19.2323	-71.6273	35.7127	-22.6737	-80.6677
198	35.7127	-22.6737	-80.6677	-21.4184	-26.0207	-89.0853
199	-21.4184	-26.0207	-89.0853	-100.6215	-29.6685	-98.7589
200	-100.6215	-29.6685	-98.7589	-193.2628	-14.3116	-56.0527
201	-193.2628	-14.3116	-56.0527	-180.2323	4.1133	-5.6051
202	-180.2323	4.1133	-5.6051	-159.4987	3.9067	-6.9477
203	-159.4987	3.9067	-6.9477	-140.1728	3.7054	-7.9422
204	-140.1728	3.7054	-7.9422	-107.2570	3.0856	-10.5357
205	-107.2570	3.0856	-10.5357	-67.3685	2.7668	-12.2415
206	-67.3685	2.7668	-12.2415	-42.9930	1.5417	-16.0052
207	-42.9930	1.5417	-16.0052	1.9085	0.6898	-18.9622
208	1.9085	0.6898	-18.9622	23.8701	-0.8158	-23.3362
209	23.8701	-0.8158	-23.3362	67.0659	-2.2455	-27.5379
210	67.0659	-2.2455	-27.5379	81.6807	-4.0470	-32.5301
211	81.6807	-4.0470	-32.5301	115.5695	-6.0715	-37.9923
212	115.5695	-6.0715	-37.9923	117.6310	-8.1691	-43.5955
213	117.6310	-8.1691	-43.5955	134.4650	-10.7819	-50.2903
214	134.4650	-10.7819	-50.2903	118.8407	-13.1700	-56.5396
215	118.8407	-13.1700	-56.5396	111.3690	-16.3442	-64.5256
216	111.3690	-16.3442	-64.5256	87.1416	-19.2351	-71.6461
217	87.1416	-19.2351	-71.6461	35.6359	-22.6772	-80.6747
218	35.6359	-22.6772	-80.6747	-21.5455	-26.0257	-89.1048

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
219	-21.5455	-26.0257	-89.1048	-100.7513	-29.6726	-98.8051
220	-100.7513	-29.6726	-98.8051	-193.3678	-14.3108	-56.0548
221	-193.3678	-14.3108	-56.0548	-180.3087	4.1196	-5.5517
222	-180.3087	4.1196	-5.5517	-159.5471	3.9128	-6.9264
223	-159.5471	3.9128	-6.9264	-140.1966	3.7113	-7.9338
224	-140.1966	3.7113	-7.9338	-107.2605	3.0900	-10.5213
225	-107.2605	3.0900	-10.5213	-67.3587	2.7714	-12.2330
226	-67.3587	2.7714	-12.2330	-42.9753	1.5448	-15.9920
227	-42.9753	1.5448	-15.9920	1.9228	0.6905	-18.9508
228	1.9228	0.6905	-18.9508	23.8679	-0.8166	-23.3252
229	23.8679	-0.8166	-23.3252	67.0185	-2.2488	-27.5343
230	67.0185	-2.2488	-27.5343	81.5968	-4.0517	-32.5159
231	81.5968	-4.0517	-32.5159	115.4115	-6.0777	-37.9790
232	115.4115	-6.0777	-37.9790	117.4176	-8.1748	-43.5929
233	117.4176	-8.1748	-43.5929	134.1605	-10.7861	-50.2930
234	134.1605	-10.7861	-50.2930	118.4834	-13.1769	-56.5222
235	118.4834	-13.1769	-56.5222	110.9066	-16.3519	-64.5038
236	110.9066	-16.3519	-64.5038	86.5728	-19.2461	-71.6382
237	86.5728	-19.2461	-71.6382	34.9985	-22.6893	-80.6668
238	34.9985	-22.6893	-80.6668	-22.2657	-26.0380	-89.0798
239	-22.2657	-26.0380	-89.0798	-101.5291	-29.6846	-98.7671
240	-101.5291	-29.6846	-98.7671	-194.2128	-14.2835	-56.0383
241	-194.2128	-14.2835	-56.0383	-180.9585	4.1855	-5.5768
242	-180.9585	4.1855	-5.5768	-159.9757	3.9762	-6.9535
243	-159.9757	3.9762	-6.9535	-140.4260	3.7715	-7.9525
244	-140.4260	3.7715	-7.9525	-107.2993	3.1409	-10.5459
245	-107.2993	3.1409	-10.5459	-67.2727	2.8074	-12.2476
246	-67.2727	2.8074	-12.2476	-42.8271	1.5717	-16.0117
247	-42.8271	1.5717	-16.0117	1.9753	0.6956	-18.9728
248	1.9753	0.6956	-18.9728	23.7990	-0.8237	-23.3524
249	23.7990	-0.8237	-23.3524	66.5574	-2.2822	-27.5599
250	66.5574	-2.2822	-27.5599	80.7886	-4.1005	-32.5413
251	80.7886	-4.1005	-32.5413	113.8347	-6.1571	-38.0163
252	113.8347	-6.1571	-38.0163	115.2255	-8.2720	-43.6207
253	115.2255	-8.2720	-43.6207	130.8340	-10.9195	-50.3151
254	130.8340	-10.9195	-50.3151	114.2877	-13.3251	-56.5550
255	114.2877	-13.3251	-56.5550	105.2843	-16.5325	-64.5693
256	105.2843	-16.5325	-64.5693	79.4613	-19.4571	-71.6942
257	79.4613	-19.4571	-71.6942	26.8311	-22.9060	-80.7436
258	26.8311	-22.9060	-80.7436	-31.7575	-26.2715	-89.1945
259	-31.7575	-26.2715	-89.1945	-111.9237	-29.9239	-98.8819
260	-111.9237	-29.9239	-98.8819	-205.4265	-14.2258	-56.8441
261	-205.4265	-14.2258	-56.8441	-194.4684	4.5402	-7.1509
262	-194.4684	4.5402	-7.1509	-181.0381	4.4590	-7.9092
263	-181.0381	4.4590	-7.9092	-165.3304	4.3113	-8.9378
264	-165.3304	4.3113	-8.9378	-147.5994	4.0873	-10.1913
265	-147.5994	4.0873	-10.1913	-114.9446	3.3946	-13.5128
266	-114.9446	3.3946	-13.5128	-92.0687	2.9121	-15.5844
267	-92.0687	2.9121	-15.5844	-68.4955	2.3344	-17.9156
268	-68.4955	2.3344	-17.9156	-44.7476	1.6514	-20.5340
269	-44.7476	1.6514	-20.5340	-21.4176	0.8605	-23.3950
270	-21.4176	0.8605	-23.3950	0.8681	-0.0425	-26.5219
271	0.8681	-0.0425	-26.5219	44.2107	-0.9518	-30.1342
272	44.2107	-0.9518	-30.1342	62.3057	-2.8395	-35.7745
273	62.3057	-2.8395	-35.7745	76.3876	-4.8551	-41.6858

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
274	76.3876	-4.8551	-41.6858	85.9495	-6.3716	-46.1389
275	85.9495	-6.3716	-46.1389	90.1572	-8.0184	-50.8703
276	90.1572	-8.0184	-50.8703	104.1488	-9.8413	-55.9664
277	104.1488	-9.8413	-55.9664	91.9472	-12.5211	-63.2198
278	91.9472	-12.5211	-63.2198	71.1462	-14.7085	-69.0246
279	71.1462	-14.7085	-69.0246	40.8045	-17.0346	-75.1039
280	40.8045	-17.0346	-75.1039	-0.0431	-18.2847	-78.5536

ENVOL. MAX. FLECTORES TREN TREN IPF-75 TIPO A en via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0034	-11.3242	-9.8644	177.1875	78.7869	-213.4894
2	177.1875	78.7869	-213.4894	332.2619	73.8454	-203.4559
3	332.2619	73.8454	-203.4559	465.3472	68.9492	-193.6001
4	465.3472	68.9492	-193.6001	576.7890	49.0965	-141.8268
5	576.7890	49.0965	-141.8268	659.6088	29.3190	-89.7641
6	659.6088	29.3190	-89.7641	721.9707	24.6162	-79.6937
7	721.9707	24.6162	-79.6937	764.4686	20.0016	-69.8506
8	764.4686	20.0016	-69.8506	787.9062	15.4699	-60.0627
9	787.9062	15.4699	-60.0627	793.1488	11.0522	-50.0339
10	793.1488	11.0522	-50.0339	781.2704	-8.2597	1.8595
11	781.2704	-8.2597	1.8595	745.7185	-27.4223	53.8318
12	745.7185	-27.4223	53.8318	695.3929	-31.4578	63.7912
13	695.3929	-31.4578	63.7912	631.3751	-35.3283	73.5704
14	631.3751	-35.3283	73.5704	555.2926	-39.0397	83.5262
15	555.2926	-39.0397	83.5262	468.4994	-42.5634	93.4986
16	468.4994	-42.5634	93.4986	372.7409	-60.8913	145.5558
17	372.7409	-60.8913	145.5558	270.8679	-21.9384	39.2285
18	270.8679	-21.9384	39.2285	172.4639	-39.6300	90.8222
19	172.4639	-39.6300	90.8222	136.6144	3.1960	-0.5593
20	136.6144	3.1960	-0.5593	143.8047	-3.6183	-4.1158
21	143.8047	-3.6183	-4.1158	112.5092	-10.4332	-7.7081
22	112.5092	-10.4332	-7.7081	204.5677	24.2613	-53.2533
23	204.5677	24.2613	-53.2533	334.1839	49.2761	-122.1518
24	334.1839	49.2761	-122.1518	448.1172	58.5974	-148.5642
25	448.1172	58.5974	-148.5642	563.0718	40.5348	-98.7046
26	563.0718	40.5348	-98.7046	651.5254	49.0520	-125.2290
27	651.5254	49.0520	-125.2290	734.9415	30.6731	-75.3613
28	734.9415	30.6731	-75.3613	787.6821	-2.8018	16.5360
29	787.6821	-2.8018	16.5360	827.7618	20.1000	-51.9305
30	827.7618	20.1000	-51.9305	840.3754	-13.4918	40.0956
31	840.3754	-13.4918	40.0956	830.2503	9.3040	-28.5083
32	830.2503	9.3040	-28.5083	801.3013	-24.2766	63.2752
33	801.3013	-24.2766	63.2752	741.8384	-1.2726	-5.0675
34	741.8384	-1.2726	-5.0675	674.0276	-34.6849	86.7856
35	674.0276	-34.6849	86.7856	576.0913	-52.9980	136.6225
36	576.0913	-52.9980	136.6225	472.7598	-44.2826	110.2822
37	472.7598	-44.2826	110.2822	346.0321	-62.2225	160.1130
38	346.0321	-62.2225	160.1130	222.5608	-52.6235	133.5366
39	222.5608	-52.6235	133.5366	127.0613	2.9399	-0.3941
40	127.0613	2.9399	-0.3941	135.8817	-3.6611	-4.0251
41	135.8817	-3.6611	-4.0251	105.0935	-10.2615	-7.6894
42	105.0935	-10.2615	-7.6894	215.3703	23.9936	-53.1447
43	215.3703	23.9936	-53.1447	349.6917	48.8626	-122.0439
44	349.6917	48.8626	-122.0439	465.8891	58.0800	-148.5975
45	465.8891	58.0800	-148.5975	580.3587	39.9826	-98.7473
46	580.3587	39.9826	-98.7473	668.3732	48.4541	-125.1217
47	668.3732	48.4541	-125.1217	750.2197	30.0536	-75.2262
48	750.2197	30.0536	-75.2262	801.1284	-3.4064	16.6501
49	801.1284	-3.4064	16.6501	839.0466	19.5271	-51.9213
50	839.0466	19.5271	-51.9213	849.6145	-14.0494	40.0938
51	849.6145	-14.0494	40.0938	837.1544	8.7970	-28.3393
52	837.1544	8.7970	-28.3393	806.3596	-24.7516	63.5397
53	806.3596	-24.7516	63.5397	744.9242	-1.6853	-4.9630

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	744.9242	-1.6853	-4.9630	675.6478	-35.0505	86.9706
55	675.6478	-35.0505	86.9706	576.6333	-53.3204	136.8616
56	576.6333	-53.3204	136.8616	472.3668	-44.5212	110.3787
57	472.3668	-44.5212	110.3787	345.1487	-62.4177	160.2552
58	345.1487	-62.4177	160.2552	221.6863	-52.7371	133.6009
59	221.6863	-52.7371	133.6009	126.6107	2.8954	-0.3526
60	126.6107	2.8954	-0.3526	135.2951	-3.6776	-3.9926
61	135.2951	-3.6776	-3.9926	124.8902	-2.8523	0.3434
62	124.8902	-2.8523	0.3434	216.2372	23.9720	-53.1693
63	216.2372	23.9720	-53.1693	350.8619	48.8299	-122.1685
64	350.8619	48.8299	-122.1685	467.2256	58.0426	-148.5761
65	467.2256	58.0426	-148.5761	581.7370	39.9476	-98.7946
66	581.7370	39.9476	-98.7946	669.6855	48.4109	-125.2691
67	669.6855	48.4109	-125.2691	751.4929	30.0155	-75.2944
68	751.4929	30.0155	-75.2944	802.3007	-3.4478	16.5737
69	802.3007	-3.4478	16.5737	840.1001	19.4724	-51.9649
70	840.1001	19.4724	-51.9649	850.4969	-14.1023	40.0388
71	850.4969	-14.1023	40.0388	837.7777	8.7503	-28.2962
72	837.7777	8.7503	-28.2962	806.8537	-24.7854	63.5666
73	806.8537	-24.7854	63.5666	745.2273	-1.7234	-4.9600
74	745.2273	-1.7234	-4.9600	675.8434	-35.0718	87.0623
75	675.8434	-35.0718	87.0623	576.7158	-53.3405	136.9819
76	576.7158	-53.3405	136.9819	472.4330	-44.5388	110.4721
77	472.4330	-44.5388	110.4721	345.1445	-62.4374	160.2885
78	345.1445	-62.4374	160.2885	221.6184	-52.7493	133.6646
79	221.6184	-52.7493	133.6646	126.5887	2.8906	-0.3259
80	126.5887	2.8906	-0.3259	135.2598	-3.6806	-3.9657
81	135.2598	-3.6806	-3.9657	126.4319	-2.8872	0.3095
82	126.4319	-2.8872	0.3095	216.2337	23.9749	-53.2586
83	216.2337	23.9749	-53.2586	350.9506	48.8330	-122.2605
84	350.9506	48.8330	-122.2605	467.3571	58.0457	-148.7726
85	467.3571	58.0457	-148.7726	581.8273	39.9417	-98.9016
86	581.8273	39.9417	-98.9016	669.8422	48.4137	-125.3378
87	669.8422	48.4137	-125.3378	751.5823	30.0070	-75.3522
88	751.5823	30.0070	-75.3522	802.3923	-3.4547	16.4986
89	802.3923	-3.4547	16.4986	840.1326	19.4747	-51.9830
90	840.1326	19.4747	-51.9830	850.5624	-14.1002	40.2000
91	850.5624	-14.1002	40.2000	837.8691	8.7560	-28.2957
92	837.8691	8.7560	-28.2957	806.8964	-24.7924	63.5606
93	806.8964	-24.7924	63.5606	745.2958	-1.7271	-4.8507
94	745.2958	-1.7271	-4.8507	675.9270	-35.0786	87.1070
95	675.9270	-35.0786	87.1070	576.7210	-53.3488	137.0049
96	576.7210	-53.3488	137.0049	472.4182	-44.5430	110.5968
97	472.4182	-44.5430	110.5968	345.1088	-62.4411	160.4581
98	345.1088	-62.4411	160.4581	221.5780	-52.7533	133.7519
99	221.5780	-52.7533	133.7519	126.6084	2.8902	-0.3051
100	126.6084	2.8902	-0.3051	135.2816	-3.6821	-3.9314
101	135.2816	-3.6821	-3.9314	126.5987	-2.8905	0.2972
102	126.5987	-2.8905	0.2972	216.2601	23.9740	-53.3397
103	216.2601	23.9740	-53.3397	350.9816	48.8293	-122.2961
104	350.9816	48.8293	-122.2961	467.4034	58.0379	-148.7800
105	467.4034	58.0379	-148.7800	581.8802	39.9387	-99.0014
106	581.8802	39.9387	-99.0014	669.8376	48.4094	-125.3952

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
107	669.8376	48.4094	-125.3952	751.5972	30.0096	-75.3982
108	751.5972	30.0096	-75.3982	802.3732	-3.4552	16.5623
109	802.3732	-3.4552	16.5623	840.1649	19.4612	-51.9337
110	840.1649	19.4612	-51.9337	850.5140	-14.1125	40.1038
111	850.5140	-14.1125	40.1038	837.8239	8.7481	-28.2672
112	837.8239	8.7481	-28.2672	806.8766	-24.7971	63.5718
113	806.8766	-24.7971	63.5718	745.1841	-1.7178	-4.7787
114	745.1841	-1.7178	-4.7787	675.8165	-35.0723	87.2348
115	675.8165	-35.0723	87.2348	576.6743	-53.3392	137.1508
116	576.6743	-53.3392	137.1508	472.4370	-44.5300	110.6836
117	472.4370	-44.5300	110.6836	345.1157	-62.4297	160.4814
118	345.1157	-62.4297	160.4814	221.6072	-52.7490	133.8173
119	221.6072	-52.7490	133.8173	126.6456	2.8931	-0.2527
120	126.6456	2.8931	-0.2527	135.3292	-3.6829	-3.8800
121	135.3292	-3.6829	-3.8800	126.5842	-2.8885	0.2569
122	126.5842	-2.8885	0.2569	216.2335	23.9813	-53.3513
123	216.2335	23.9813	-53.3513	350.9590	48.8406	-122.3706
124	350.9590	48.8406	-122.3706	467.4420	58.0543	-148.8886
125	467.4420	58.0543	-148.8886	581.9844	39.9547	-99.0866
126	581.9844	39.9547	-99.0866	670.0109	48.4138	-125.5156
127	670.0109	48.4138	-125.5156	751.7725	30.0230	-75.4820
128	751.7725	30.0230	-75.4820	802.5688	-3.4516	16.5805
129	802.5688	-3.4516	16.5805	840.3410	19.4660	-51.8968
130	840.3410	19.4660	-51.8968	850.7075	-14.1108	40.0005
131	850.7075	-14.1108	40.0005	837.9420	8.7397	-28.3979
132	837.9420	8.7397	-28.3979	806.9409	-24.7975	63.7434
133	806.9409	-24.7975	63.7434	745.2883	-1.7302	-4.5686
134	745.2883	-1.7302	-4.5686	675.8705	-35.0846	87.3609
135	675.8705	-35.0846	87.3609	576.6893	-53.3508	137.1756
136	576.6893	-53.3508	137.1756	472.3654	-44.5388	110.7668
137	472.3654	-44.5388	110.7668	345.0403	-62.4410	160.6626
138	345.0403	-62.4410	160.6626	221.5381	-52.7524	133.8499
139	221.5381	-52.7524	133.8499	126.6200	2.8913	-0.2152
140	126.6200	2.8913	-0.2152	135.3133	3.6825	3.9727
141	135.3133	3.6825	3.9727	126.6412	-2.8920	0.2121
142	126.6412	-2.8920	0.2121	216.2906	23.9730	-53.3846
143	216.2906	23.9730	-53.3846	350.9412	48.8278	-122.5071
144	350.9412	48.8278	-122.5071	467.3603	58.0384	-148.9775
145	467.3603	58.0384	-148.9775	581.8829	39.9428	-99.1400
146	581.8829	39.9428	-99.1400	669.8422	48.4171	-125.6609
147	669.8422	48.4171	-125.6609	751.6500	30.0158	-75.5598
148	751.6500	30.0158	-75.5598	802.4496	-3.4482	16.5453
149	802.4496	-3.4482	16.5453	840.2375	19.4628	-51.9580
150	840.2375	19.4628	-51.9580	850.5901	-14.1120	40.0639
151	850.5901	-14.1120	40.0639	837.8806	8.7551	-28.3690
152	837.8806	8.7551	-28.3690	806.8719	-24.7939	63.7622
153	806.8719	-24.7939	63.7622	745.3004	-1.7155	-4.5810
154	745.3004	-1.7155	-4.5810	675.9026	-35.0704	87.3208
155	675.9026	-35.0704	87.3208	576.7405	-53.3424	137.2427
156	576.7405	-53.3424	137.2427	472.4095	-44.5437	110.8492
157	472.4095	-44.5437	110.8492	345.1328	-62.4388	160.7717
158	345.1328	-62.4388	160.7717	221.6266	-52.7525	133.9261
159	221.6266	-52.7525	133.9261	126.6543	2.8914	-0.2253
160	126.6543	2.8914	-0.2253	135.3311	-3.6844	-3.8522
161	135.3311	-3.6844	-3.8522	126.6264	-2.8894	0.2132

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
162	126.6264	-2.8894	0.2132	216.2292	23.9799	-53.4524
163	216.2292	23.9799	-53.4524	350.9567	48.8386	-122.5120
164	350.9567	48.8386	-122.5120	467.3867	58.0506	-149.1132
165	467.3867	58.0506	-149.1132	581.9066	39.9474	-99.1385
166	581.9066	39.9474	-99.1385	669.9889	48.4218	-125.5428
167	669.9889	48.4218	-125.5428	751.7490	30.0059	-75.7878
168	751.7490	30.0059	-75.7878	802.4912	-3.4578	16.3223
169	802.4912	-3.4578	16.3223	840.3270	19.4668	-51.9259
170	840.3270	19.4668	-51.9259	850.6891	-14.0982	40.2086
171	850.6891	-14.0982	40.2086	837.9716	8.7485	-28.1778
172	837.9716	8.7485	-28.1778	807.0042	-24.7947	63.7114
173	807.0042	-24.7947	63.7114	745.3234	-1.7263	-4.5612
174	745.3234	-1.7263	-4.5612	675.9715	-35.0799	87.4538
175	675.9715	-35.0799	87.4538	576.7065	-53.3536	137.3182
176	576.7065	-53.3536	137.3182	472.4157	-44.5438	110.8977
177	472.4157	-44.5438	110.8977	345.0295	-62.4413	160.7148
178	345.0295	-62.4413	160.7148	221.5629	-52.7543	133.9628
179	221.5629	-52.7543	133.9628	126.6382	2.8915	-0.1964
180	126.6382	2.8915	-0.1964	135.3582	3.6843	3.9534
181	135.3582	3.6843	3.9534	126.6794	-2.8923	0.2140
182	126.6794	-2.8923	0.2140	216.2482	23.9739	-53.4174
183	216.2482	23.9739	-53.4174	350.9907	48.8312	-122.4790
184	350.9907	48.8312	-122.4790	467.3406	58.0399	-149.0782
185	467.3406	58.0399	-149.0782	581.8837	39.9427	-99.2242
186	581.8837	39.9427	-99.2242	669.8538	48.4051	-125.5338
187	669.8538	48.4051	-125.5338	751.6497	30.0111	-75.5212
188	751.6497	30.0111	-75.5212	802.4254	-3.4383	16.3984
189	802.4254	-3.4383	16.3984	840.2675	19.4857	-51.9173
190	840.2675	19.4857	-51.9173	850.7045	-14.0989	40.0942
191	850.7045	-14.0989	40.0942	837.9780	8.7587	-28.2151
192	837.9780	8.7587	-28.2151	807.0995	-24.7831	63.9097
193	807.0995	-24.7831	63.9097	745.4636	-1.7297	-4.6698
194	745.4636	-1.7297	-4.6698	676.0077	-35.0862	87.3960
195	676.0077	-35.0862	87.3960	576.8067	-53.3543	137.4081
196	576.8067	-53.3543	137.4081	472.4727	-44.5485	110.8720
197	472.4727	-44.5485	110.8720	345.1052	-62.4464	160.7536
198	345.1052	-62.4464	160.7536	221.5918	-52.7569	133.9947
199	221.5918	-52.7569	133.9947	126.4917	2.8865	-0.2033
200	126.4917	2.8865	-0.2033	135.3590	3.6850	3.9265
201	135.3590	3.6850	3.9265	126.6800	-2.8928	0.2319
202	126.6800	-2.8928	0.2319	216.2796	23.9752	-53.4572
203	216.2796	23.9752	-53.4572	350.9194	48.8327	-122.5396
204	350.9194	48.8327	-122.5396	467.3805	58.0429	-149.0727
205	467.3805	58.0429	-149.0727	581.9033	39.9495	-99.1520
206	581.9033	39.9495	-99.1520	669.9298	48.4251	-125.5401
207	669.9298	48.4251	-125.5401	751.7484	30.0274	-75.6886
208	751.7484	30.0274	-75.6886	802.5319	-3.4525	16.4104
209	802.5319	-3.4525	16.4104	840.3722	19.4741	-51.9193
210	840.3722	19.4741	-51.9193	850.7053	-14.1183	40.0975
211	850.7053	-14.1183	40.0975	837.9767	8.7431	-28.3426
212	837.9767	8.7431	-28.3426	806.9467	-24.8003	63.7733
213	806.9467	-24.8003	63.7733	745.3256	-1.7233	-4.5627
214	745.3256	-1.7233	-4.5627	675.8773	-35.0865	87.3900
215	675.8773	-35.0865	87.3900	576.7060	-53.3645	137.3078
216	576.7060	-53.3645	137.3078	472.3131	-44.5556	110.8464

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
217	472.3131	-44.5556	110.8464	344.9984	-62.4517	160.7638
218	344.9984	-62.4517	160.7638	221.4955	-52.7606	133.9160
219	221.4955	-52.7606	133.9160	124.8382	2.8484	-0.2073
220	124.8382	2.8484	-0.2073	135.4591	3.6856	3.9349
221	135.4591	3.6856	3.9349	126.7635	-2.8977	0.1960
222	126.7635	-2.8977	0.1960	216.3151	23.9651	-53.4668
223	216.3151	23.9651	-53.4668	351.0480	48.8132	-122.5349
224	351.0480	48.8132	-122.5349	467.4311	58.0165	-149.0865
225	467.4311	58.0165	-149.0865	581.8455	39.9126	-99.1275
226	581.8455	39.9126	-99.1275	669.7439	48.3698	-125.5856
227	669.7439	48.3698	-125.5856	751.3412	29.9691	-75.6460
228	751.3412	29.9691	-75.6460	801.9718	-3.5025	16.4016
229	801.9718	-3.5025	16.4016	839.5148	19.4219	-51.9981
230	839.5148	19.4219	-51.9981	849.7086	-14.1558	40.1508
231	849.7086	-14.1558	40.1508	836.7957	8.6929	-28.3184
232	836.7957	8.6929	-28.3184	805.6622	-24.8354	63.7197
233	805.6622	-24.8354	63.7197	743.9565	-1.7610	-4.6172
234	743.9565	-1.7610	-4.6172	674.4531	-35.1189	87.4528
235	674.4531	-35.1189	87.4528	575.2207	-53.3938	137.3640
236	575.2207	-53.3938	137.3640	470.9825	-44.5847	110.8161
237	470.9825	-44.5847	110.8161	343.6463	-62.4790	160.7737
238	343.6463	-62.4790	160.7737	220.5210	-52.7795	133.9763
239	220.5210	-52.7795	133.9763	105.2102	10.2757	7.6750
240	105.2102	10.2757	7.6750	136.0370	3.6661	3.9381
241	136.0370	3.6661	3.9381	127.2050	-2.9435	0.2118
242	127.2050	-2.9435	0.2118	217.0231	23.8687	-53.4240
243	217.0231	23.8687	-53.4240	351.7733	48.6349	-122.4867
244	351.7733	48.6349	-122.4867	467.6870	57.7469	-148.9851
245	467.6870	57.7469	-148.9851	581.2610	39.6045	-99.1226
246	581.2610	39.6045	-99.1226	667.7880	47.9909	-125.4704
247	667.7880	47.9909	-125.4704	747.9982	29.5527	-75.5093
248	747.9982	29.5527	-75.5093	796.9716	-3.9469	16.3685
249	796.9716	-3.9469	16.3685	832.3278	18.9055	-51.8586
250	832.3278	18.9055	-51.8586	840.6111	-14.6969	40.2735
251	840.6111	-14.6969	40.2735	825.3198	8.1199	-28.2244
252	825.3198	8.1199	-28.2244	792.2258	-25.4351	63.8977
253	792.2258	-25.4351	63.8977	728.7809	-2.3558	-4.3832
254	728.7809	-2.3558	-4.3832	657.9117	-35.7056	87.5915
255	657.9117	-35.7056	87.5915	557.5902	-53.9556	137.4153
256	557.5902	-53.9556	137.4153	454.0461	-45.0738	110.9771
257	454.0461	-45.0738	110.9771	328.3230	-20.5918	42.3774
258	328.3230	-20.5918	42.3774	208.1003	-53.0844	134.0652
259	208.1003	-53.0844	134.0652	112.5312	10.4416	7.6950
260	112.5312	10.4416	7.6950	143.8532	3.6252	4.0026
261	143.8532	3.6252	4.0026	136.6694	-3.1909	0.3111
262	136.6694	-3.1909	0.3111	165.6845	53.3315	-128.5759
263	165.6845	53.3315	-128.5759	272.9658	50.5381	-118.7947
264	272.9658	50.5381	-118.7947	375.6061	47.5191	-108.9649
265	375.6061	47.5191	-108.9649	471.5886	44.2984	-98.9966
266	471.5886	44.2984	-98.9966	559.3849	25.8688	-47.0416
267	559.3849	25.8688	-47.0416	629.5550	7.2556	4.9195
268	629.5550	7.2556	4.9195	689.8478	44.5116	-101.1647
269	689.8478	44.5116	-101.1647	737.7194	25.3970	-49.1305
270	737.7194	25.3970	-49.1305	770.1474	21.1539	-39.2773
271	770.1474	21.1539	-39.2773	786.0723	16.7690	-29.1405

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
272	786.0723	16.7690	-29.1405	784.4088	12.2774	-19.0385
273	784.4088	12.2774	-19.0385	764.1308	7.6938	-9.0293
274	764.1308	7.6938	-9.0293	724.4839	-11.9797	43.0238
275	724.4839	-11.9797	43.0238	657.1882	-31.7229	94.9997
276	657.1882	-31.7229	94.9997	569.1310	-36.5401	105.0313
277	569.1310	-36.5401	105.0313	459.7599	-41.4218	114.9658
278	459.7599	-41.4218	114.9658	328.6091	-46.3326	124.8785
279	328.6091	-46.3326	124.8785	175.5075	-51.2810	134.7376
280	175.5075	-51.2810	134.7376	0.0961	-81.2803	218.8061

ENVOL. MIN. FLECTORES TREN TREN IPF-75 TIPO A en via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.0813	83.7566	-223.4471	-25.4781	-11.3244	-9.8645
2	-25.4781	-11.3244	-9.8645	-50.9565	-11.3234	-9.8743
3	-50.9565	-11.3234	-9.8743	-76.4417	-11.3226	-9.8614
4	-76.4417	-11.3226	-9.8614	-101.9332	-11.3264	-9.8286
5	-101.9332	-11.3264	-9.8286	-127.4163	-11.3314	-9.8428
6	-127.4163	-11.3314	-9.8428	-152.9146	-11.3361	-9.8659
7	-152.9146	-11.3361	-9.8659	-178.4231	-11.3418	-9.8460
8	-178.4231	-11.3418	-9.8460	-203.9550	-11.3441	-9.8115
9	-203.9550	-11.3441	-9.8115	-229.4734	-11.3466	-9.8396
10	-229.4734	-11.3466	-9.8396	-254.9965	-11.3483	-9.8038
11	-254.9965	-11.3483	-9.8038	-280.5357	-11.3451	-9.8104
12	-280.5357	-11.3451	-9.8104	-306.0568	-11.3451	-9.8045
13	-306.0568	-11.3451	-9.8045	-331.5757	-11.3407	-9.7470
14	-331.5757	-11.3407	-9.7470	-357.0652	-11.3333	-9.7456
15	-357.0652	-11.3333	-9.7456	-382.5648	-11.3344	-9.7799
16	-382.5648	-11.3344	-9.7799	-408.0819	-11.3344	-9.8188
17	-408.0819	-11.3344	-9.8188	-433.5847	-11.3321	-9.7396
18	-433.5847	-11.3321	-9.7396	-459.0923	-11.3354	-9.6005
19	-459.0923	-11.3354	-9.6005	-484.6016	-11.3386	-9.6077
20	-484.6016	-11.3386	-9.6077	-510.0940	22.9305	-80.6673
21	-510.0940	22.9305	-80.6673	-356.5176	8.1350	7.4892
22	-356.5176	8.1350	7.4892	-332.1069	8.1343	7.5194
23	-332.1069	8.1343	7.5194	-307.7032	8.1351	7.5197
24	-307.7032	8.1351	7.5197	-283.2926	8.1353	7.5202
25	-283.2926	8.1353	7.5202	-258.8851	8.1341	7.5199
26	-258.8851	8.1341	7.5199	-234.4743	8.1326	7.5555
27	-234.4743	8.1326	7.5555	-210.0856	8.1334	7.5558
28	-210.0856	8.1334	7.5558	-185.6772	8.1367	7.5515
29	-185.6772	8.1367	7.5515	-161.2686	8.1367	7.5559
30	-161.2686	8.1367	7.5559	-169.1711	-10.4307	-7.7345
31	-169.1711	-10.4307	-7.7345	-200.4705	-10.4305	-7.7052
32	-200.4705	-10.4305	-7.7052	-231.7409	-10.4298	-7.6748
33	-231.7409	-10.4298	-7.6748	-263.0322	-10.4298	-7.7133
34	-263.0322	-10.4298	-7.7133	-294.3213	-10.4276	-7.6883
35	-294.3213	-10.4276	-7.6883	-325.6096	-10.4283	-7.6957
36	-325.6096	-10.4283	-7.6957	-356.8989	-10.4262	-7.7191
37	-356.8989	-10.4262	-7.7191	-388.1738	-10.4255	-7.7244
38	-388.1738	-10.4255	-7.7244	-419.4564	-10.4274	-7.7203
39	-419.4564	-10.4274	-7.7203	-450.7358	-10.4277	-7.7241
40	-450.7358	-10.4277	-7.7241	-482.0104	23.0821	-79.7295
41	-482.0104	23.0821	-79.7295	-443.1769	10.1168	7.9851
42	-443.1769	10.1168	7.9851	-412.8279	10.1171	7.9905
43	-412.8279	10.1171	7.9905	-382.4780	10.1179	7.9292
44	-382.4780	10.1179	7.9292	-352.1249	10.1196	7.9782
45	-352.1249	10.1196	7.9782	-321.7706	10.1228	7.9825
46	-321.7706	10.1228	7.9825	-291.4019	10.1222	7.9387
47	-291.4019	10.1222	7.9387	-261.0426	10.1189	7.9172
48	-261.0426	10.1189	7.9172	-230.6893	10.1147	7.9192
49	-230.6893	10.1147	7.9192	-200.3372	10.1131	7.9344
50	-200.3372	10.1131	7.9344	-171.9672	-10.2624	-7.7105
51	-171.9672	-10.2624	-7.7105	-202.7748	-10.2656	-7.7231
52	-202.7748	-10.2656	-7.7231	-233.5642	-10.2654	-7.7247
53	-233.5642	-10.2654	-7.7247	-264.3533	-10.2654	-7.7191
54	-264.3533	-10.2654	-7.7191	-295.1339	-10.2680	-7.7449

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	-295.1339	-10.2680	-7.7449	-325.9283	-10.2668	-7.7621
56	-325.9283	-10.2668	-7.7621	-356.7299	-10.2671	-7.7650
57	-356.7299	-10.2671	-7.7650	-387.5316	-10.2705	-7.7957
58	-387.5316	-10.2705	-7.7957	-418.3399	-10.2710	-7.7953
59	-418.3399	-10.2710	-7.7953	-449.1479	-10.2695	-7.8615
60	-449.1479	-10.2695	-7.8615	-479.9565	23.1375	-79.7915
61	-479.9565	23.1375	-79.7915	-448.6016	10.2443	8.1361
62	-448.6016	10.2443	8.1361	-417.8708	10.2423	8.0367
63	-417.8708	10.2423	8.0367	-387.1451	10.2396	8.0357
64	-387.1451	10.2396	8.0357	-356.4196	10.2422	7.9868
65	-356.4196	10.2422	7.9868	-325.6863	10.2432	7.9762
66	-325.6863	10.2432	7.9762	-294.9755	10.2396	7.9861
67	-294.9755	10.2396	7.9861	-264.2573	10.2386	7.9206
68	-264.2573	10.2386	7.9206	-233.5449	10.2395	7.9196
69	-233.5449	10.2395	7.9196	-202.8261	10.2404	7.9173
70	-202.8261	10.2404	7.9173	-172.2413	-10.2486	-7.6503
71	-172.2413	-10.2486	-7.6503	-202.9946	-10.2493	-7.6944
72	-202.9946	-10.2493	-7.6944	-233.7375	-10.2516	-7.6902
73	-233.7375	-10.2516	-7.6902	-264.4996	-10.2505	-7.6924
74	-264.4996	-10.2505	-7.6924	-295.2390	-10.2507	-7.7578
75	-295.2390	-10.2507	-7.7578	-325.9987	-10.2514	-7.7983
76	-325.9987	-10.2514	-7.7983	-356.7572	-10.2515	-7.8024
77	-356.7572	-10.2515	-7.8024	-387.5239	-10.2549	-7.8041
78	-387.5239	-10.2549	-7.8041	-418.2878	-10.2543	-7.8991
79	-418.2878	-10.2543	-7.8991	-449.0399	-10.2522	-7.9571
80	-449.0399	-10.2522	-7.9571	-479.8951	-24.0121	81.9525
81	-479.8951	-24.0121	81.9525	-449.1425	10.2545	8.2529
82	-449.1425	10.2545	8.2529	-418.3862	10.2528	8.1930
83	-418.3862	10.2528	8.1930	-387.6339	10.2533	8.1309
84	-387.6339	10.2533	8.1309	-356.8680	10.2537	8.1045
85	-356.8680	10.2537	8.1045	-326.1194	10.2510	8.0552
86	-326.1194	10.2510	8.0552	-295.3544	10.2513	8.0097
87	-295.3544	10.2513	8.0097	-264.5887	10.2507	7.9471
88	-264.5887	10.2507	7.9471	-233.8314	10.2493	7.9420
89	-233.8314	10.2493	7.9420	-203.0741	10.2533	7.9291
90	-203.0741	10.2533	7.9291	-172.3217	10.2531	7.8566
91	-172.3217	10.2531	7.8566	-203.0406	-10.2486	-7.6741
92	-203.0406	-10.2486	-7.6741	-233.8035	-10.2522	-7.6749
93	-233.8035	-10.2522	-7.6749	-264.5610	-10.2516	-7.7169
94	-264.5610	-10.2516	-7.7169	-295.3026	-10.2478	-7.7599
95	-295.3026	-10.2478	-7.7599	-326.0527	-10.2494	-7.8051
96	-326.0527	-10.2494	-7.8051	-356.8027	-10.2498	-7.8859
97	-356.8027	-10.2498	-7.8859	-387.5530	-10.2507	-7.9373
98	-387.5530	-10.2507	-7.9373	-418.3081	-10.2540	-7.9965
99	-418.3081	-10.2540	-7.9965	-449.0747	-10.2531	-8.0307
100	-449.0747	-10.2531	-8.0307	-479.9912	-24.0162	82.0302
101	-479.9912	-24.0162	82.0302	-449.2503	10.2545	8.3000
102	-449.2503	10.2545	8.3000	-418.4936	10.2552	8.3030
103	-418.4936	10.2552	8.3030	-387.7241	10.2588	8.1556
104	-387.7241	10.2588	8.1556	-356.9543	10.2601	8.0653
105	-356.9543	10.2601	8.0653	-326.1743	10.2570	8.0646
106	-326.1743	10.2570	8.0646	-295.4119	10.2550	7.9966
107	-295.4119	10.2550	7.9966	-264.6539	10.2552	7.9106
108	-264.6539	10.2552	7.9106	-233.8761	10.2554	7.8779

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
109	-233.8761	10.2554	7.8779	-203.1096	10.2568	7.8589
110	-203.1096	10.2568	7.8589	-172.3377	10.2546	7.8167
111	-172.3377	10.2546	7.8167	-203.0874	-10.2566	-7.6693
112	-203.0874	-10.2566	-7.6693	-233.8377	-10.2538	-7.6689
113	-233.8377	-10.2538	-7.6689	-264.5869	-10.2539	-7.7468
114	-264.5869	-10.2539	-7.7468	-295.3481	-10.2575	-7.8062
115	-295.3481	-10.2575	-7.8062	-326.1241	-10.2610	-7.8830
116	-326.1241	-10.2610	-7.8830	-356.9129	-10.2631	-7.9285
117	-356.9129	-10.2631	-7.9285	-387.7048	-10.2633	-7.9891
118	-387.7048	-10.2633	-7.9891	-418.4974	-10.2608	-8.0776
119	-418.4974	-10.2608	-8.0776	-449.2712	-10.2619	-8.2205
120	-449.2712	-10.2619	-8.2205	-480.0609	23.1490	-80.2491
121	-480.0609	23.1490	-80.2491	-449.1696	10.2463	8.4387
122	-449.1696	10.2463	8.4387	-418.4370	10.2439	8.3382
123	-418.4370	10.2439	8.3382	-387.7094	10.2463	8.2219
124	-387.7094	10.2463	8.2219	-356.9592	10.2476	8.1363
125	-356.9592	10.2476	8.1363	-326.2259	10.2454	8.1063
126	-326.2259	10.2454	8.1063	-295.4780	10.2489	8.0401
127	-295.4780	10.2489	8.0401	-264.7255	10.2518	7.9358
128	-264.7255	10.2518	7.9358	-233.9676	10.2533	7.8644
129	-233.9676	10.2533	7.8644	-203.1898	10.2582	7.8307
130	-203.1898	10.2582	7.8307	-172.4016	10.2589	7.8173
131	-172.4016	10.2589	7.8173	-203.1138	-10.2516	-7.6342
132	-203.1138	-10.2516	-7.6342	-233.8620	-10.2519	-7.7171
133	-233.8620	-10.2519	-7.7171	-264.6077	-10.2501	-7.8097
134	-264.6077	-10.2501	-7.8097	-295.3588	-10.2501	-7.8486
135	-295.3588	-10.2501	-7.8486	-326.1183	-10.2556	-7.8774
136	-326.1183	-10.2556	-7.8774	-356.8766	-10.2579	-8.0093
137	-356.8766	-10.2579	-8.0093	-387.6440	-10.2557	-8.1104
138	-387.6440	-10.2557	-8.1104	-418.4098	-10.2542	-8.1437
139	-418.4098	-10.2542	-8.1437	-449.1693	-10.2555	-8.3464
140	-449.1693	-10.2555	-8.3464	-480.1683	-24.0144	82.3478
141	-480.1683	-24.0144	82.3478	-449.3709	10.2601	8.5986
142	-449.3709	10.2601	8.5986	-418.5899	10.2610	8.3960
143	-418.5899	10.2610	8.3960	-387.8156	10.2638	8.3365
144	-387.8156	10.2638	8.3365	-357.0170	10.2632	8.2034
145	-357.0170	10.2632	8.2034	-326.2506	10.2564	8.1215
146	-326.2506	10.2564	8.1215	-295.4868	10.2577	8.0781
147	-295.4868	10.2577	8.0781	-264.7147	10.2590	7.9478
148	-264.7147	10.2590	7.9478	-233.9478	10.2542	7.8558
149	-233.9478	10.2542	7.8558	-203.1750	10.2522	7.8225
150	-203.1750	10.2522	7.8225	-172.3996	10.2549	7.7844
151	-172.3996	10.2549	7.7844	-203.1197	-10.2532	-7.5759
152	-203.1197	-10.2532	-7.5759	-233.8799	-10.2537	-7.6609
153	-233.8799	-10.2537	-7.6609	-264.6449	-10.2568	-7.7454
154	-264.6449	-10.2568	-7.7454	-295.4226	-10.2589	-7.7891
155	-295.4226	-10.2589	-7.7891	-326.1984	-10.2612	-7.8593
156	-326.1984	-10.2612	-7.8593	-356.9783	-10.2614	-8.0236
157	-356.9783	-10.2614	-8.0236	-387.7507	-10.2587	-8.1593
158	-387.7507	-10.2587	-8.1593	-418.5261	-10.2586	-8.2178
159	-418.5261	-10.2586	-8.2178	-449.3007	-10.2577	-8.3160
160	-449.3007	-10.2577	-8.3160	-480.0660	23.1519	-80.3552
161	-480.0660	23.1519	-80.3552	-449.3502	10.2505	8.5941
162	-449.3502	10.2505	8.5941	-418.6058	10.2515	8.4946
163	-418.6058	10.2515	8.4946	-387.8513	10.2548	8.3449

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
164	-387.8513	10.2548	8.3449	-357.0882	10.2551	8.2585
165	-357.0882	10.2551	8.2585	-326.3282	10.2542	8.1386
166	-326.3282	10.2542	8.1386	-295.5615	10.2552	8.0152
167	-295.5615	10.2552	8.0152	-264.7942	10.2587	8.0132
168	-264.7942	10.2587	8.0132	-234.0152	10.2625	7.9290
169	-234.0152	10.2625	7.9290	-203.2348	10.2619	7.8242
170	-203.2348	10.2619	7.8242	-172.4643	10.2587	7.7583
171	-172.4643	10.2587	7.7583	-203.1481	-10.2555	-7.6486
172	-203.1481	-10.2555	-7.6486	-233.9222	-10.2540	-7.6670
173	-233.9222	-10.2540	-7.6670	-264.6721	-10.2518	-7.7880
174	-264.6721	-10.2518	-7.7880	-295.4261	-10.2524	-7.8580
175	-295.4261	-10.2524	-7.8580	-326.1854	-10.2523	-7.9359
176	-326.1854	-10.2523	-7.9359	-356.9361	-10.2535	-8.0585
177	-356.9361	-10.2535	-8.0585	-387.7043	-10.2538	-8.1467
178	-387.7043	-10.2538	-8.1467	-418.4561	-10.2550	-8.2950
179	-418.4561	-10.2550	-8.2950	-449.2288	-10.2554	-8.4162
180	-449.2288	-10.2554	-8.4162	-480.2145	-24.0146	82.4093
181	-480.2145	-24.0146	82.4093	-449.4250	10.2601	8.5904
182	-449.4250	10.2601	8.5904	-418.6511	10.2615	8.4336
183	-418.6511	10.2615	8.4336	-387.8683	10.2630	8.2785
184	-387.8683	10.2630	8.2785	-357.0806	10.2606	8.2274
185	-357.0806	10.2606	8.2274	-326.2995	10.2593	8.1485
186	-326.2995	10.2593	8.1485	-295.5280	10.2608	8.0120
187	-295.5280	10.2608	8.0120	-264.7513	10.2596	7.8997
188	-264.7513	10.2596	7.8997	-233.9839	10.2566	7.8675
189	-233.9839	10.2566	7.8675	-203.2186	10.2549	7.7917
190	-203.2186	10.2549	7.7917	-172.4492	10.2568	7.7445
191	-172.4492	10.2568	7.7445	-203.1787	-10.2592	-7.6347
192	-203.1787	-10.2592	-7.6347	-233.9666	-10.2567	-7.7113
193	-233.9666	-10.2567	-7.7113	-264.7299	-10.2503	-7.7362
194	-264.7299	-10.2503	-7.7362	-295.4691	-10.2508	-7.8427
195	-295.4691	-10.2508	-7.8427	-326.2267	-10.2521	-7.9583
196	-326.2267	-10.2521	-7.9583	-356.9781	-10.2523	-8.0422
197	-356.9781	-10.2523	-8.0422	-387.7332	-10.2521	-8.1831
198	-387.7332	-10.2521	-8.1831	-418.4816	-10.2506	-8.3314
199	-418.4816	-10.2506	-8.3314	-449.2276	-10.2503	-8.3913
200	-449.2276	-10.2503	-8.3913	-480.2203	-24.0182	82.4333
201	-480.2203	-24.0182	82.4333	-449.4673	10.2624	8.5218
202	-449.4673	10.2624	8.5218	-418.6881	10.2631	8.4792
203	-418.6881	10.2631	8.4792	-387.9137	10.2642	8.3636
204	-387.9137	10.2642	8.3636	-357.1260	10.2622	8.2255
205	-357.1260	10.2622	8.2255	-326.3546	10.2571	8.1222
206	-326.3546	10.2571	8.1222	-295.5893	10.2551	8.0053
207	-295.5893	10.2551	8.0053	-264.8278	10.2549	7.9618
208	-264.8278	10.2549	7.9618	-234.0674	10.2549	7.8783
209	-234.0674	10.2549	7.8783	-203.2888	10.2607	7.7947
210	-203.2888	10.2607	7.7947	-172.4949	10.2681	7.7555
211	-172.4949	10.2681	7.7555	-202.9328	-10.2454	-7.5859
212	-202.9328	-10.2454	-7.5859	-233.6544	-10.2451	-7.6733
213	-233.6544	-10.2451	-7.6733	-264.3812	-10.2417	-7.7639
214	-264.3812	-10.2417	-7.7639	-295.1027	-10.2377	-7.8306
215	-295.1027	-10.2377	-7.8306	-325.8136	-10.2385	-7.8990
216	-325.8136	-10.2385	-7.8990	-356.5278	-10.2399	-8.0325
217	-356.5278	-10.2399	-8.0325	-387.2418	-10.2371	-8.1656
218	-387.2418	-10.2371	-8.1656	-417.9407	-10.2350	-8.2232

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
219	-417.9407	-10.2350	-8.2232	-448.6469	-10.2353	-8.3864
220	-448.6469	-10.2353	-8.3864	-480.5083	-24.0159	82.4344
221	-480.5083	-24.0159	82.4344	-449.6802	10.2766	8.6521
222	-449.6802	10.2766	8.6521	-418.8487	10.2781	8.5310
223	-418.8487	10.2781	8.5310	-388.0160	10.2799	8.3802
224	-388.0160	10.2799	8.3802	-357.1744	10.2801	8.2563
225	-357.1744	10.2801	8.2563	-326.3570	10.2788	8.1353
226	-326.3570	10.2788	8.1353	-295.5256	10.2793	8.0403
227	-295.5256	10.2793	8.0403	-264.6831	10.2791	7.9811
228	-264.6831	10.2791	7.9811	-233.8537	10.2761	7.9030
229	-233.8537	10.2761	7.9030	-203.0298	10.2783	7.8411
230	-203.0298	10.2783	7.8411	-172.1765	10.2815	7.7703
231	-172.1765	10.2815	7.7703	-200.2570	-10.1136	-7.5976
232	-200.2570	-10.1136	-7.5976	-230.5968	-10.1177	-7.6621
233	-230.5968	-10.1177	-7.6621	-260.9557	-10.1193	-7.7510
234	-260.9557	-10.1193	-7.7510	-291.3000	-10.1199	-7.8561
235	-291.3000	-10.1199	-7.8561	-321.6595	-10.1161	-7.9223
236	-321.6595	-10.1161	-7.9223	-351.9960	-10.1126	-8.0084
237	-351.9960	-10.1126	-8.0084	-382.3318	-10.1109	-8.1957
238	-382.3318	-10.1109	-8.1957	-412.6621	-10.1119	-8.2830
239	-412.6621	-10.1119	-8.2830	-443.0026	-10.1129	-8.3435
240	-443.0026	-10.1129	-8.3435	-482.5572	-23.9472	82.4726
241	-482.5572	-23.9472	82.4726	-451.2554	10.4413	8.6071
242	-451.2554	10.4413	8.6071	-419.9227	10.4408	8.4822
243	-419.9227	10.4408	8.4822	-388.6063	10.4416	8.3579
244	-388.6063	10.4416	8.3579	-357.2786	10.4459	8.2149
245	-357.2786	10.4459	8.2149	-325.9320	10.4463	8.1367
246	-325.9320	10.4463	8.1367	-294.6147	10.4422	8.0223
247	-294.6147	10.4422	8.0223	-263.2895	10.4382	7.9362
248	-263.2895	10.4382	7.9362	-231.9666	10.4356	7.9200
249	-231.9666	10.4356	7.9200	-200.6591	10.4359	7.8242
250	-200.6591	10.4359	7.8242	-169.3488	10.4380	7.7481
251	-169.3488	10.4380	7.7481	-161.6399	-8.1579	-7.1948
252	-161.6399	-8.1579	-7.1948	-186.1160	-8.1591	-7.2599
253	-186.1160	-8.1591	-7.2599	-210.5970	-8.1605	-7.3502
254	-210.5970	-8.1605	-7.3502	-235.0710	-8.1597	-7.3979
255	-235.0710	-8.1597	-7.3979	-259.5442	-8.1576	-7.4327
256	-259.5442	-8.1576	-7.4327	-284.0098	-8.1550	-7.5347
257	-284.0098	-8.1550	-7.5347	-308.4774	-8.1547	-7.5978
258	-308.4774	-8.1547	-7.5978	-332.9440	-8.1555	-7.7204
259	-332.9440	-8.1555	-7.7204	-357.4153	-8.1572	-7.8454
260	-357.4153	-8.1572	-7.8454	-510.4169	-23.8048	83.5492
261	-510.4169	-23.8048	83.5492	-484.9462	11.3234	10.7861
262	-484.9462	11.3234	10.7861	-459.4759	11.3226	10.6961
263	-459.4759	11.3226	10.6961	-434.0038	11.3197	10.5330
264	-434.0038	11.3197	10.5330	-408.5302	11.3161	10.4760
265	-408.5302	11.3161	10.4760	-383.0841	11.3167	10.3620
266	-383.0841	11.3167	10.3620	-357.6133	11.3145	10.2860
267	-357.6133	11.3145	10.2860	-332.1487	11.3211	10.2493
268	-332.1487	11.3211	10.2493	-306.6678	11.3322	10.0877
269	-306.6678	11.3322	10.0877	-281.1577	11.3457	10.0266
270	-281.1577	11.3457	10.0266	-255.6190	11.3573	10.0261
271	-255.6190	11.3573	10.0261	-230.0848	11.3621	9.9519
272	-230.0848	11.3621	9.9519	-204.5283	11.3615	9.8850
273	-204.5283	11.3615	9.8850	-178.9792	11.3617	9.8526

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
274	-178.9792	11.3617	9.8526	-153.4010	11.3661	9.8162
275	-153.4010	11.3661	9.8162	-127.8315	11.3612	9.8005
276	-127.8315	11.3612	9.8005	-102.2787	11.3626	9.7682
277	-102.2787	11.3626	9.7682	-76.7001	11.3657	9.7499
278	-76.7001	11.3657	9.7499	-51.1306	11.3642	9.7342
279	-51.1306	11.3642	9.7342	-25.5672	11.3640	9.7207
280	-25.5672	11.3640	9.7207	-0.0005	-2.9549	0.5004

ENVOL. MAX. CORTANTES TREN TREN IPF-75 TIPO A en via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.0813	83.7566	-223.4471	177.1875	78.7869	-213.4894
2	177.1875	78.7869	-213.4894	332.2619	73.8454	-203.4559
3	332.2619	73.8454	-203.4559	465.3472	68.9492	-193.6001
4	465.3472	68.9492	-193.6001	533.6895	59.3106	-173.9311
5	533.6895	59.3106	-173.9311	614.0875	54.6055	-163.8992
6	614.0875	54.6055	-163.8992	674.4861	49.9925	-153.8503
7	674.4861	49.9925	-153.8503	715.5917	45.4638	-144.0112
8	715.5917	45.4638	-144.0112	738.2971	41.0470	-134.2178
9	738.2971	41.0470	-134.2178	743.6008	36.7430	-124.1830
10	743.6008	36.7430	-124.1830	732.4435	32.5807	-114.3526
11	732.4435	32.5807	-114.3526	706.1100	28.5485	-104.3920
12	706.1100	28.5485	-104.3920	565.9438	20.9771	-84.5531
13	565.9438	20.9771	-84.5531	510.0571	17.4365	-74.7059
14	510.0571	17.4365	-74.7059	444.3009	14.1096	-64.7629
15	444.3009	14.1096	-64.7629	370.4073	10.9766	-54.7764
16	370.4073	10.9766	-54.7764	290.2211	8.0597	-44.8074
17	290.2211	8.0597	-44.8074	205.3795	5.3695	-35.2563
18	205.3795	5.3695	-35.2563	129.4248	3.1962	-0.5605
19	129.4248	3.1962	-0.5605	136.6144	3.1960	-0.5593
20	136.6144	3.1960	-0.5593	-150.3622	41.5692	-121.5579
21	-150.3622	41.5692	-121.5579	26.7933	84.2612	-221.4305
22	26.7933	84.2612	-221.4305	126.3443	79.2751	-206.2396
23	126.3443	79.2751	-206.2396	291.9747	76.5181	-198.4269
24	291.9747	76.5181	-198.4269	381.4580	70.5327	-182.7935
25	381.4580	70.5327	-182.7935	523.3156	67.3511	-174.9799
26	523.3156	67.3511	-174.9799	582.9529	60.6736	-159.4738
27	582.9529	60.6736	-159.4738	691.0605	57.2033	-151.6322
28	691.0605	57.2033	-151.6322	707.4784	50.1037	-136.0366
29	707.4784	50.1037	-136.0366	775.8510	46.5075	-128.1926
30	775.8510	46.5075	-128.1926	742.3418	39.3055	-112.4658
31	742.3418	39.3055	-112.4658	769.1453	35.7245	-104.7921
32	769.1453	35.7245	-104.7921	685.6687	28.7148	-89.2670
33	685.6687	28.7148	-89.2670	673.0400	25.3170	-81.3379
34	673.0400	25.3170	-81.3379	546.5056	18.7977	-65.7754
35	546.5056	18.7977	-65.7754	500.5701	15.7182	-57.9451
36	500.5701	15.7182	-57.9451	344.4816	9.9916	-42.2901
37	344.4816	9.9916	-42.2901	34.0667	8.1394	7.5596
38	34.0667	8.1394	7.5596	58.4879	8.1392	7.5563
39	58.4879	8.1392	7.5563	82.9025	8.1392	7.5598
40	82.9025	8.1392	7.5598	-142.1327	41.6173	-119.9480
41	-142.1327	41.6173	-119.9480	38.4310	83.9939	-221.3514
42	38.4310	83.9939	-221.3514	143.0595	78.8629	-206.1560
43	143.0595	78.8629	-206.1560	309.5956	76.0466	-198.3466
44	309.5956	76.0466	-198.3466	400.4483	69.9817	-182.8608
45	400.4483	69.9817	-182.8608	541.4135	66.7676	-175.0377
46	541.4135	66.7676	-175.0377	600.0611	60.0494	-159.3725
47	600.0611	60.0494	-159.3725	706.3767	56.5887	-151.5159
48	706.3767	56.5887	-151.5159	720.5005	49.5200	-135.9568
49	720.5005	49.5200	-135.9568	786.7820	45.9490	-128.2177
50	786.7820	45.9490	-128.2177	750.7210	38.7931	-112.4816
51	750.7210	38.7931	-112.4816	775.6172	35.2491	-104.6418
52	775.6172	35.2491	-104.6418	689.9623	28.3147	-89.0545
53	689.9623	28.3147	-89.0545	675.8096	24.9511	-81.2633

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	675.8096	24.9511	-81.2633	547.7946	18.5202	-65.6201
55	547.7946	18.5202	-65.6201	500.9459	15.4813	-57.8048
56	500.9459	15.4813	-57.8048	12.0985	10.1161	7.8904
57	12.0985	10.1161	7.8904	42.4346	10.1133	7.8914
58	42.4346	10.1133	7.8914	72.7731	10.1127	7.8911
59	72.7731	10.1127	7.8911	103.1059	10.1123	7.9066
60	103.1059	10.1123	7.9066	-141.5569	41.6329	-119.9930
61	-141.5569	41.6329	-119.9930	39.2631	83.9726	-221.3732
62	39.2631	83.9726	-221.3732	144.4040	78.8293	-206.2400
63	144.4040	78.8293	-206.2400	310.8909	76.0104	-198.4919
64	310.8909	76.0104	-198.4919	401.8903	69.9474	-182.8452
65	401.8903	69.9474	-182.8452	542.8310	66.7310	-175.1322
66	542.8310	66.7310	-175.1322	601.3972	60.0080	-159.5175
67	601.3972	60.0080	-159.5175	707.6339	56.5575	-151.6092
68	707.6339	56.5575	-151.6092	721.6687	49.4799	-136.0547
69	721.6687	49.4799	-136.0547	787.7914	45.8997	-128.2685
70	787.7914	45.8997	-128.2685	751.5127	38.7509	-112.5572
71	751.5127	38.7509	-112.5572	776.2195	35.2152	-104.6046
72	776.2195	35.2152	-104.6046	690.3840	28.2807	-89.0546
73	690.3840	28.2807	-89.0546	676.0781	24.9258	-81.2657
74	676.0781	24.9258	-81.2657	547.9435	18.4973	-65.5564
75	547.9435	18.4973	-65.5564	501.0435	15.4598	-57.7117
76	501.0435	15.4598	-57.7117	12.2261	10.2389	7.8349
77	12.2261	10.2389	7.8349	42.9413	10.2390	7.8340
78	42.9413	10.2390	7.8340	73.6584	10.2400	7.8492
79	73.6584	10.2400	7.8492	104.3741	10.2403	7.8574
80	104.3741	10.2403	7.8574	-141.4917	41.6360	-120.0116
81	-141.4917	41.6360	-120.0116	39.3205	83.9738	-221.4698
82	39.3205	83.9738	-221.4698	144.4043	78.8319	-206.3716
83	144.4043	78.8319	-206.3716	311.0147	76.0121	-198.6050
84	311.0147	76.0121	-198.6050	402.0227	69.9434	-183.0591
85	402.0227	69.9434	-183.0591	542.9350	66.7267	-175.2331
86	542.9350	66.7267	-175.2331	601.5473	60.0091	-159.6005
87	601.5473	60.0091	-159.6005	707.7347	56.5443	-151.6662
88	707.7347	56.5443	-151.6662	721.7418	49.4771	-136.1633
89	721.7418	49.4771	-136.1633	787.8530	45.9014	-128.2895
90	787.8530	45.9014	-128.2895	751.5814	38.7587	-112.4288
91	751.5814	38.7587	-112.4288	776.2789	35.2141	-104.6187
92	776.2789	35.2141	-104.6187	690.4550	28.2774	-89.0663
93	690.4550	28.2774	-89.0663	676.1501	24.9209	-81.1739
94	676.1501	24.9209	-81.1739	547.9935	18.4917	-65.5368
95	547.9935	18.4917	-65.5368	501.0501	15.4538	-57.6943
96	501.0501	15.4538	-57.6943	12.2285	10.2532	7.8127
97	12.2285	10.2532	7.8127	42.9871	10.2533	7.8142
98	42.9871	10.2533	7.8142	73.7505	10.2535	7.8246
99	73.7505	10.2535	7.8246	104.5132	10.2534	7.8295
100	104.5132	10.2534	7.8295	-141.5052	41.6361	-120.0351
101	-141.5052	41.6361	-120.0351	39.3723	83.9744	-221.5446
102	39.3723	83.9744	-221.5446	144.4124	78.8311	-206.4861
103	144.4124	78.8311	-206.4861	311.0584	76.0078	-198.6325
104	311.0584	76.0078	-198.6325	402.0647	69.9391	-183.0951
105	402.0647	69.9391	-183.0951	542.9758	66.7256	-175.3553
106	542.9758	66.7256	-175.3553	601.5372	60.0084	-159.6707

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
107	601.5372	60.0084	-159.6707	707.7177	56.5496	-151.7260
108	707.7177	56.5496	-151.7260	721.7418	49.4634	-136.0865
109	721.7418	49.4634	-136.0865	787.8635	45.8825	-128.2702
110	787.8635	45.8825	-128.2702	751.5702	38.7528	-112.5285
111	751.5702	38.7528	-112.5285	776.2651	35.2115	-104.6053
112	776.2651	35.2115	-104.6053	690.3661	28.2733	-89.0852
113	690.3661	28.2733	-89.0852	676.0400	24.9217	-81.0999
114	676.0400	24.9217	-81.0999	547.9175	18.4987	-65.4599
115	547.9175	18.4987	-65.4599	500.9993	15.4669	-57.5756
116	500.9993	15.4669	-57.5756	12.2405	10.2496	7.7242
117	12.2405	10.2496	7.7242	42.9852	10.2500	7.7344
118	42.9852	10.2500	7.7344	73.7473	10.2518	7.7413
119	73.7473	10.2518	7.7413	104.4958	10.2517	7.7750
120	104.4958	10.2517	7.7750	-141.5981	41.6359	-120.1160
121	-141.5981	41.6359	-120.1160	39.2934	83.9790	-221.5656
122	39.2934	83.9790	-221.5656	144.3704	78.8409	-206.5321
123	144.3704	78.8409	-206.5321	311.0181	76.0237	-198.7361
124	311.0181	76.0237	-198.7361	402.1206	69.9532	-183.2133
125	402.1206	69.9532	-183.2133	543.1030	66.7448	-175.4582
126	543.1030	66.7448	-175.4582	601.7190	60.0252	-159.8073
127	601.7190	60.0252	-159.8073	707.8998	56.5521	-151.8165
128	707.8998	56.5521	-151.8165	721.9211	49.4649	-136.0923
129	721.9211	49.4649	-136.0923	788.0487	45.8945	-128.2471
130	788.0487	45.8945	-128.2471	751.7148	38.7383	-112.6710
131	751.7148	38.7383	-112.6710	776.3442	35.2078	-104.7358
132	776.3442	35.2078	-104.7358	690.4573	28.2694	-88.9243
133	690.4573	28.2694	-88.9243	676.1270	24.9113	-80.9239
134	676.1270	24.9113	-80.9239	547.9679	18.4897	-65.3708
135	547.9679	18.4897	-65.3708	501.0139	15.4578	-57.5893
136	501.0139	15.4578	-57.5893	12.2376	10.2555	7.6858
137	12.2376	10.2555	7.6858	43.0107	10.2565	7.6901
138	43.0107	10.2565	7.6901	73.7854	10.2570	7.6971
139	73.7854	10.2570	7.6971	104.5468	10.2567	7.7414
140	104.5468	10.2567	7.7414	-141.6079	41.6351	-120.1651
141	-141.6079	41.6351	-120.1651	39.2730	83.9734	-221.5988
142	39.2730	83.9734	-221.5988	144.4713	78.8292	-206.6302
143	144.4713	78.8292	-206.6302	310.9717	76.0094	-198.9046
144	310.9717	76.0094	-198.9046	402.0327	69.9372	-183.3076
145	402.0327	69.9372	-183.3076	542.9670	66.7258	-175.5345
146	542.9670	66.7258	-175.5345	601.5474	60.0147	-159.9636
147	601.5474	60.0147	-159.9636	707.7848	56.5524	-151.9102
148	707.7848	56.5524	-151.9102	721.7993	49.4724	-136.1615
149	721.7993	49.4724	-136.1615	787.9188	45.8873	-128.3100
150	787.9188	45.8873	-128.3100	751.6250	38.7500	-112.6281
151	751.6250	38.7500	-112.6281	776.2711	35.2028	-104.7204
152	776.2711	35.2028	-104.7204	690.4139	28.2766	-88.9230
153	690.4139	28.2766	-88.9230	676.1257	24.9226	-80.9548
154	676.1257	24.9226	-80.9548	547.9874	18.4993	-65.4025
155	547.9874	18.4993	-65.4025	501.0573	15.4570	-57.5551
156	501.0573	15.4570	-57.5551	12.2320	10.2572	7.6463
157	12.2320	10.2572	7.6463	42.9930	10.2548	7.6512
158	42.9930	10.2548	7.6512	73.7550	10.2552	7.6614
159	73.7550	10.2552	7.6614	104.5307	10.2572	7.6807
160	104.5307	10.2572	7.6807	-141.6219	41.6370	-120.1417
161	-141.6219	41.6370	-120.1417	39.2795	83.9803	-221.6668

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
162	39.2795	83.9803	-221.6668	144.3663	78.8401	-206.7028
163	144.3663	78.8401	-206.7028	311.0369	76.0185	-198.9066
164	311.0369	76.0185	-198.9066	402.0295	69.9481	-183.4454
165	402.0295	69.9481	-183.4454	543.0326	66.7306	-175.4950
166	543.0326	66.7306	-175.4950	601.6896	60.0145	-159.8755
167	601.6896	60.0145	-159.8755	707.8718	56.5493	-152.1621
168	707.8718	56.5493	-152.1621	721.8570	49.4674	-136.3586
169	721.8570	49.4674	-136.3586	788.0146	45.8927	-128.2757
170	788.0146	45.8927	-128.2757	751.6999	38.7500	-112.4767
171	751.6999	38.7500	-112.4767	776.3778	35.2079	-104.5359
172	776.3778	35.2079	-104.5359	690.5047	28.2772	-88.9886
173	690.5047	28.2772	-88.9886	676.1933	24.9293	-80.9200
174	676.1933	24.9293	-80.9200	547.9888	18.4876	-65.3146
175	547.9888	18.4876	-65.3146	501.0418	15.4522	-57.4637
176	501.0418	15.4522	-57.4637	12.2256	10.2619	7.6291
177	12.2256	10.2619	7.6291	43.0158	10.2613	7.6363
178	43.0158	10.2613	7.6363	73.7876	10.2622	7.6580
179	73.7876	10.2622	7.6580	104.5802	10.2621	7.6818
180	104.5802	10.2621	7.6818	-141.5547	41.6351	-120.1563
181	-141.5547	41.6351	-120.1563	39.3200	83.9749	-221.6780
182	39.3200	83.9749	-221.6780	144.4286	78.8324	-206.6202
183	144.4286	78.8324	-206.6202	311.0400	76.0105	-198.8824
184	311.0400	76.0105	-198.8824	401.9883	69.9416	-183.4221
185	401.9883	69.9416	-183.4221	542.9791	66.7271	-175.6089
186	542.9791	66.7271	-175.6089	601.5629	60.0080	-159.8398
187	601.5629	60.0080	-159.8398	707.7738	56.5519	-151.8961
188	707.7738	56.5519	-151.8961	721.7674	49.4945	-136.3040
189	721.7674	49.4945	-136.3040	787.9745	45.9025	-128.2625
190	787.9745	45.9025	-128.2625	751.6631	38.7547	-112.6138
191	751.6631	38.7547	-112.6138	776.3926	35.2254	-104.5594
192	776.3926	35.2254	-104.5594	690.6237	28.2783	-88.8272
193	690.6237	28.2783	-88.8272	676.2902	24.9094	-81.0276
194	676.2902	24.9094	-81.0276	548.0671	18.4848	-65.3329
195	548.0671	18.4848	-65.3329	501.1315	15.4522	-57.4234
196	501.1315	15.4522	-57.4234	12.2060	10.2609	7.5915
197	12.2060	10.2609	7.5915	42.9914	10.2616	7.6013
198	42.9914	10.2616	7.6013	73.7725	10.2622	7.6216
199	73.7725	10.2622	7.6216	104.5652	10.2630	7.6322
200	104.5652	10.2630	7.6322	-141.5894	41.6354	-120.1357
201	-141.5894	41.6354	-120.1357	39.3557	83.9747	-221.6421
202	39.3557	83.9747	-221.6421	144.4178	78.8311	-206.7321
203	144.4178	78.8311	-206.7321	310.9749	76.0117	-198.9288
204	310.9749	76.0117	-198.9288	402.0457	69.9436	-183.4091
205	402.0457	69.9436	-183.4091	543.0231	66.7361	-175.5265
206	543.0231	66.7361	-175.5265	601.6487	60.0252	-159.8593
207	601.6487	60.0252	-159.8593	707.8684	56.5564	-152.0586
208	707.8684	56.5564	-152.0586	721.8846	49.4756	-136.2664
209	721.8846	49.4756	-136.2664	788.0552	45.8820	-128.2764
210	788.0552	45.8820	-128.2764	751.7245	38.7390	-112.6022
211	751.7245	38.7390	-112.6022	776.3599	35.2048	-104.7042
212	776.3599	35.2048	-104.7042	690.4664	28.2775	-88.9185
213	690.4664	28.2775	-88.9185	676.1482	24.9138	-80.9389
214	676.1482	24.9138	-80.9389	547.9697	18.4845	-65.3514
215	547.9697	18.4845	-65.3514	501.0128	15.4443	-57.5117
216	501.0128	15.4443	-57.5117	12.2566	10.2682	7.6163

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
217	12.2566	10.2682	7.6163	43.0525	10.2675	7.6217
218	43.0525	10.2675	7.6217	73.8525	10.2674	7.6326
219	73.8525	10.2674	7.6326	104.6591	10.2679	7.6683
220	104.6591	10.2679	7.6683	-141.4756	41.6350	-120.1717
221	-141.4756	41.6350	-120.1717	39.3845	83.9660	-221.6810
222	39.3845	83.9660	-221.6810	144.5138	78.8150	-206.7298
223	144.5138	78.8150	-206.7298	311.1396	75.9895	-198.9315
224	311.1396	75.9895	-198.9315	402.0927	69.9149	-183.4192
225	402.0927	69.9149	-183.4192	542.9509	66.6915	-175.4913
226	542.9509	66.6915	-175.4913	601.4207	59.9711	-159.9102
227	601.4207	59.9711	-159.9102	707.4606	56.4936	-152.0044
228	707.4606	56.4936	-152.0044	721.2620	49.4289	-136.3131
229	721.2620	49.4289	-136.3131	787.1486	45.8393	-128.3418
230	787.1486	45.8393	-128.3418	750.7236	38.6861	-112.5468
231	750.7236	38.6861	-112.5468	775.2017	35.1571	-104.6841
232	775.2017	35.1571	-104.6841	689.1981	28.2429	-88.9736
233	689.1981	28.2429	-88.9736	674.8179	24.8766	-80.9846
234	674.8179	24.8766	-80.9846	546.6720	18.4561	-65.2909
235	546.6720	18.4561	-65.2909	499.7626	15.4211	-57.4750
236	499.7626	15.4211	-57.4750	12.7308	10.2745	7.6376
237	12.7308	10.2745	7.6376	43.5560	10.2757	7.6497
238	43.5560	10.2757	7.6497	74.3833	10.2761	7.6602
239	74.3833	10.2761	7.6602	105.2102	10.2757	7.6750
240	105.2102	10.2757	7.6750	-140.6953	41.6121	-120.1452
241	-140.6953	41.6121	-120.1452	40.3246	83.8681	-221.6289
242	40.3246	83.8681	-221.6289	145.8109	78.6371	-206.6729
243	145.8109	78.6371	-206.6729	312.0334	75.7691	-198.8728
244	312.0334	75.7691	-198.8728	402.4014	69.6015	-183.3195
245	402.4014	69.6015	-183.3195	542.2793	66.3402	-175.4948
246	542.2793	66.3402	-175.4948	599.2837	59.5488	-159.7718
247	599.2837	59.5488	-159.7718	703.8188	56.0409	-151.8733
248	703.8188	56.0409	-151.8733	715.5756	48.9057	-136.3230
249	715.5756	48.9057	-136.3230	779.6570	45.3051	-128.1902
250	779.6570	45.3051	-128.1902	740.9745	38.1162	-112.4378
251	740.9745	38.1162	-112.4378	763.5424	34.5629	-104.5609
252	763.5424	34.5629	-104.5609	675.8300	27.6431	-88.7950
253	675.8300	27.6431	-88.7950	659.9987	24.2981	-80.7450
254	659.9987	24.2981	-80.7450	531.5891	17.9247	-65.1701
255	531.5891	17.9247	-65.1701	484.2895	14.9267	-57.3750
256	484.2895	14.9267	-57.3750	18.5620	10.4414	7.6289
257	18.5620	10.4414	7.6289	49.8850	10.4412	7.6344
258	49.8850	10.4412	7.6344	81.2078	10.4417	7.6643
259	81.2078	10.4417	7.6643	112.5312	10.4416	7.6950
260	112.5312	10.4416	7.6950	-130.5898	41.5633	-116.6528
261	-130.5898	41.5633	-116.6528	-6.8056	83.3315	-212.6956
262	-6.8056	83.3315	-212.6956	114.1848	80.5347	-202.9578
263	114.1848	80.5347	-202.9578	231.1098	77.5191	-193.0767
264	231.1098	77.5191	-193.0767	341.9371	74.2953	-183.2382
265	341.9371	74.2953	-183.2382	444.8593	70.8703	-173.2413
266	444.8593	70.8703	-173.2413	538.2571	67.2579	-163.3543
267	538.2571	67.2579	-163.3543	620.3800	63.4697	-153.3944
268	620.3800	63.4697	-153.3944	620.5359	55.4053	-133.3327
269	620.5359	55.4053	-133.3327	670.0876	51.1656	-123.3618
270	670.0876	51.1656	-123.3618	703.3201	46.7805	-113.4764
271	703.3201	46.7805	-113.4764	719.2710	42.2974	-103.3535

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
272	719.2710	42.2974	-103.3535	716.8192	37.7026	-93.2667
273	716.8192	37.7026	-93.2667	695.1794	33.0168	-83.2460
274	695.1794	33.0168	-83.2460	653.5934	28.2740	-73.2522
275	653.5934	28.2740	-73.2522	591.3593	23.4634	-63.3237
276	591.3593	23.4634	-63.3237	372.1577	13.6692	-43.4721
277	372.1577	13.6692	-43.4721	-76.7001	11.3657	9.7499
278	-76.7001	11.3657	9.7499	-51.1306	11.3642	9.7342
279	-51.1306	11.3642	9.7342	-25.5672	11.3640	9.7207
280	-25.5672	11.3640	9.7207	0.0065	11.3633	9.7236

ENVOL. MIN. CORTANTES TREN TREN IPF-75 TIPO A en via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0034	-11.3242	-9.8644	-25.4781	-11.3244	-9.8645
2	-25.4781	-11.3244	-9.8645	-50.9565	-11.3234	-9.8743
3	-50.9565	-11.3234	-9.8743	-76.4417	-11.3226	-9.8614
4	-76.4417	-11.3226	-9.8614	439.6108	-16.1483	48.5742
5	439.6108	-16.1483	48.5742	528.0851	-21.0455	58.5415
6	528.0851	-21.0455	58.5415	595.2499	-25.8820	68.5945
7	595.2499	-25.8820	68.5945	641.6149	-30.6633	78.4710
8	641.6149	-30.6633	78.4710	667.7731	-35.3652	88.2695
9	667.7731	-35.3652	88.2695	762.7194	-44.5319	108.1982
10	762.7194	-44.5319	108.1982	743.0614	-48.9440	118.0734
11	743.0614	-48.9440	118.0734	706.4111	-53.2472	127.9734
12	706.4111	-53.2472	127.9734	654.0417	-57.4384	137.9477
13	654.0417	-57.4384	137.9477	587.0961	-61.4594	147.7296
14	587.0961	-61.4594	147.7296	506.9198	-65.3297	157.6709
15	506.9198	-65.3297	157.6709	414.9150	-69.0381	167.6342
16	414.9150	-69.0381	167.6342	312.6813	-72.5587	177.6526
17	312.6813	-72.5587	177.6526	262.3728	-79.0230	197.4753
18	262.3728	-79.0230	197.4753	146.5394	-81.9375	207.3491
19	146.5394	-81.9375	207.3491	27.0329	-84.6285	216.9286
20	27.0329	-84.6285	216.9286	-95.0791	-42.5427	118.7068
21	-95.0791	-42.5427	118.7068	112.5092	-10.4332	-7.7081
22	112.5092	-10.4332	-7.7081	81.2086	-10.4333	-7.7173
23	81.2086	-10.4333	-7.7173	49.9071	-10.4328	-7.7173
24	49.9071	-10.4328	-7.7173	377.0148	-10.7232	46.0288
25	377.0148	-10.7232	46.0288	436.0822	-13.4836	53.8439
26	436.0822	-13.4836	53.8439	579.6937	-19.4615	69.3960
27	579.6937	-19.4615	69.3960	612.4402	-22.6459	77.1889
28	612.4402	-22.6459	77.1889	721.9548	-29.3331	92.8235
29	721.9548	-29.3331	92.8235	719.2554	-32.8058	100.6165
30	719.2554	-32.8058	100.6165	783.0614	-39.8991	116.3715
31	783.0614	-39.8991	116.3715	739.8978	-43.4918	124.0726
32	739.8978	-43.4918	124.0726	753.1492	-50.7027	139.5504
33	753.1492	-50.7027	139.5504	668.4987	-54.2690	147.4642
34	668.4987	-54.2690	147.4642	633.0531	-61.2765	163.0833
35	633.0531	-61.2765	163.0833	509.9458	-64.6814	170.8474
36	509.9458	-64.6814	170.8474	434.3073	-71.1976	186.5674
37	434.3073	-71.1976	186.5674	279.9172	-74.2837	194.3452
38	279.9172	-74.2837	194.3452	179.4194	-80.0089	210.0033
39	179.4194	-80.0089	210.0033	4.6996	-82.6236	217.5950
40	4.6996	-82.6236	217.5950	-102.2406	-42.5798	121.6938
41	-102.2406	-42.5798	121.6938	105.0935	-10.2615	-7.6894
42	105.0935	-10.2615	-7.6894	74.3130	-10.2617	-7.6941
43	74.3130	-10.2617	-7.6941	43.5239	-10.2627	-7.6833
44	43.5239	-10.2627	-7.6833	391.2924	-11.1379	46.0793
45	391.2924	-11.1379	46.0793	450.8681	-13.9566	53.8533
46	450.8681	-13.9566	53.8533	595.3235	-20.0149	69.5175
47	595.3235	-20.0149	69.5175	627.0279	-23.2374	77.3587
48	627.0279	-23.2374	77.3587	735.4031	-29.9447	92.9552
49	735.4031	-29.9447	92.9552	730.9078	-33.4074	100.6812
50	730.9078	-33.4074	100.6812	792.6190	-40.4694	116.3743
51	792.6190	-40.4694	116.3743	747.4515	-44.0487	124.2516
52	747.4515	-44.0487	124.2516	758.5520	-51.2118	139.8318
53	758.5520	-51.2118	139.8318	672.0788	-54.7523	147.6382
54	672.0788	-54.7523	147.6382	634.8611	-61.6869	163.2577

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	634.8611	-61.6869	163.2577	510.5145	-65.0428	171.1151
56	510.5145	-65.0428	171.1151	433.8749	-71.4774	186.6716
57	433.8749	-71.4774	186.6716	278.8182	-74.5170	194.5074
58	278.8182	-74.5170	194.5074	178.2743	-80.1600	210.0811
59	178.2743	-80.1600	210.0811	3.4628	-82.7373	217.6911
60	3.4628	-82.7373	217.6911	-102.8172	-42.5943	121.7480
61	-102.8172	-42.5943	121.7480	104.5463	-10.2506	-7.6359
62	104.5463	-10.2506	-7.6359	73.7923	-10.2502	-7.6146
63	73.7923	-10.2502	-7.6146	43.0496	-10.2509	-7.6114
64	43.0496	-10.2509	-7.6114	392.3432	-11.1697	46.0713
65	392.3432	-11.1697	46.0713	451.9827	-13.9876	53.8598
66	451.9827	-13.9876	53.8598	596.5442	-20.0506	69.3894
67	596.5442	-20.0506	69.3894	628.2038	-23.2713	77.3214
68	628.2038	-23.2713	77.3214	736.5654	-29.9808	92.8855
69	736.5654	-29.9808	92.8855	731.9515	-33.4541	100.6686
70	731.9515	-33.4541	100.6686	793.4977	-40.5276	116.3325
71	793.4977	-40.5276	116.3325	748.1415	-44.1029	124.3092
72	748.1415	-44.1029	124.3092	759.0455	-51.2434	139.8902
73	759.0455	-51.2434	139.8902	672.4727	-54.7865	147.6500
74	672.4727	-54.7865	147.6500	635.0627	-61.7232	163.3706
75	635.0627	-61.7232	163.3706	510.6163	-65.0748	171.2487
76	510.6163	-65.0748	171.2487	433.9420	-71.4992	186.7943
77	433.9420	-71.4992	186.7943	278.8198	-74.5375	194.5654
78	278.8198	-74.5375	194.5654	178.1789	-80.1751	210.1453
79	178.1789	-80.1751	210.1453	3.3775	-82.7500	217.8040
80	3.3775	-82.7500	217.8040	-102.8763	-42.5956	121.7600
81	-102.8763	-42.5956	121.7600	104.5088	-10.2515	-7.5946
82	104.5088	-10.2515	-7.5946	73.7572	-10.2523	-7.5834
83	73.7572	-10.2523	-7.5834	42.9979	-10.2527	-7.5732
84	42.9979	-10.2527	-7.5732	392.4474	-11.1688	45.9509
85	392.4474	-11.1688	45.9509	452.0934	-13.9900	53.7653
86	452.0934	-13.9900	53.7653	596.6597	-20.0588	69.3624
87	596.6597	-20.0588	69.3624	628.3213	-23.2673	77.2743
88	628.3213	-23.2673	77.2743	736.6403	-29.9885	92.8372
89	736.6403	-29.9885	92.8372	732.0114	-33.4492	100.6396
90	732.0114	-33.4492	100.6396	793.5513	-40.5187	116.5003
91	793.5513	-40.5187	116.5003	748.2664	-44.0993	124.3526
92	748.2664	-44.0993	124.3526	759.0867	-51.2522	139.8808
93	759.0867	-51.2522	139.8808	672.5052	-54.7941	147.7799
94	672.5052	-54.7941	147.7799	635.1627	-61.7262	163.4343
95	635.1627	-61.7262	163.4343	510.6297	-65.0799	171.2815
96	510.6297	-65.0799	171.2815	433.9291	-71.5030	186.9266
97	433.9291	-71.5030	186.9266	278.7626	-74.5452	194.7552
98	278.7626	-74.5452	194.7552	178.1364	-80.1803	210.2682
99	178.1364	-80.1803	210.2682	3.2767	-82.7521	217.8749
100	3.2767	-82.7521	217.8749	-102.8708	-42.5964	121.7718
101	-102.8708	-42.5964	121.7718	104.5173	-10.2544	-7.5644
102	104.5173	-10.2544	-7.5644	73.7553	-10.2535	-7.5687
103	73.7553	-10.2535	-7.5687	42.9953	-10.2526	-7.5493
104	42.9953	-10.2526	-7.5493	392.4904	-11.1711	45.9653
105	392.4904	-11.1711	45.9653	452.1342	-13.9928	53.7087
106	452.1342	-13.9928	53.7087	596.6777	-20.0620	69.3130
107	596.6777	-20.0620	69.3130	628.3348	-23.2792	77.2607
108	628.3348	-23.2792	77.2607	736.6179	-29.9956	92.8932

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
109	736.6179	-29.9956	92.8932	732.0036	-33.4563	100.7256
110	732.0036	-33.4563	100.7256	793.5251	-40.5313	116.4267
111	793.5251	-40.5313	116.4267	748.2256	-44.1106	124.3895
112	748.2256	-44.1106	124.3895	759.0718	-51.2546	139.9096
113	759.0718	-51.2546	139.9096	672.4392	-54.7932	147.8555
114	672.4392	-54.7932	147.8555	635.0049	-61.7147	163.5796
115	635.0049	-61.7147	163.5796	510.5982	-65.0683	171.4310
116	510.5982	-65.0683	171.4310	433.9177	-71.4951	187.0511
117	433.9177	-71.4951	187.0511	278.8081	-74.5331	194.7858
118	278.8081	-74.5331	194.7858	178.1364	-80.1744	210.3642
119	178.1364	-80.1744	210.3642	3.3280	-82.7477	217.8943
120	3.3280	-82.7477	217.8943	-102.8981	-42.5965	121.8316
121	-102.8981	-42.5965	121.8316	104.5490	-10.2596	-7.5455
122	104.5490	-10.2596	-7.5455	73.7765	-10.2605	-7.5260
123	73.7765	-10.2605	-7.5260	42.9935	-10.2600	-7.5092
124	42.9935	-10.2600	-7.5092	392.5015	-11.1616	45.8921
125	392.5015	-11.1616	45.8921	452.2075	-13.9820	53.6567
126	452.2075	-13.9820	53.6567	596.8214	-20.0443	69.2249
127	596.8214	-20.0443	69.2249	628.4991	-23.2729	77.2069
128	628.4991	-23.2729	77.2069	736.8129	-29.9771	92.9136
129	736.8129	-29.9771	92.9136	732.1780	-33.4571	100.7822
130	732.1780	-33.4571	100.7822	793.7052	-40.5289	116.3403
131	793.7052	-40.5289	116.3403	748.3568	-44.1144	124.2659
132	748.3568	-44.1144	124.2659	759.1322	-51.2607	140.0762
133	759.1322	-51.2607	140.0762	672.5187	-54.8016	148.1172
134	672.5187	-54.8016	148.1172	635.0880	-61.7375	163.7274
135	635.0880	-61.7375	163.7274	510.5918	-65.0806	171.4925
136	510.5918	-65.0806	171.4925	433.8733	-71.5049	187.1202
137	433.8733	-71.5049	187.1202	278.6692	-74.5403	194.9907
138	278.6692	-74.5403	194.9907	178.0746	-80.1799	210.4106
139	178.0746	-80.1799	210.4106	3.2236	-82.7518	217.9601
140	3.2236	-82.7518	217.9601	-102.9458	-42.5966	121.8775
141	-102.9458	-42.5966	121.8775	104.5315	-10.2552	-7.4704
142	104.5315	-10.2552	-7.4704	73.7673	-10.2549	-7.4260
143	73.7673	-10.2549	-7.4260	43.0103	-10.2545	-7.4171
144	43.0103	-10.2545	-7.4171	392.4319	-11.1699	45.8151
145	392.4319	-11.1699	45.8151	452.1010	-13.9888	53.6371
146	452.1010	-13.9888	53.6371	596.6967	-20.0583	69.1264
147	596.6967	-20.0583	69.1264	628.3501	-23.2712	77.1411
148	628.3501	-23.2712	77.1411	736.6924	-29.9811	92.8954
149	736.6924	-29.9811	92.8954	732.0622	-33.4509	100.7524
150	732.0622	-33.4509	100.7524	793.5981	-40.5433	116.4080
151	793.5981	-40.5433	116.4080	748.2538	-44.1057	124.3405
152	748.2538	-44.1057	124.3405	759.0724	-51.2408	140.0930
153	759.0724	-51.2408	140.0930	672.4834	-54.7892	148.1471
154	672.4834	-54.7892	148.1471	635.1255	-61.7180	163.6895
155	635.1255	-61.7180	163.6895	510.6216	-65.0711	171.5591
156	510.6216	-65.0711	171.5591	433.9203	-71.5002	187.2119
157	433.9203	-71.5002	187.2119	278.7567	-74.5417	195.1174
158	278.7567	-74.5417	195.1174	178.1848	-80.1816	210.5067
159	178.1848	-80.1816	210.5067	3.3008	-82.7534	218.0483
160	3.3008	-82.7534	218.0483	-102.9222	-42.5961	121.8562
161	-102.9222	-42.5961	121.8562	104.5466	-10.2601	-7.4807
162	104.5466	-10.2601	-7.4807	73.7695	-10.2600	-7.4610
163	73.7695	-10.2600	-7.4610	42.9894	-10.2597	-7.4409

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
164	42.9894	-10.2597	-7.4409	392.4948	-11.1636	45.7477
165	392.4948	-11.1636	45.7477	452.1508	-13.9864	53.6017
166	452.1508	-13.9864	53.6017	596.7850	-20.0592	69.2621
167	596.7850	-20.0592	69.2621	628.4883	-23.2766	76.9772
168	628.4883	-23.2766	76.9772	736.7463	-29.9977	92.6692
169	736.7463	-29.9977	92.6692	732.0975	-33.4642	100.7716
170	732.0975	-33.4642	100.7716	793.7051	-40.5299	116.5457
171	793.7051	-40.5299	116.5457	748.3336	-44.0928	124.5359
172	748.3336	-44.0928	124.5359	759.1974	-51.2516	140.0732
173	759.1974	-51.2516	140.0732	672.5828	-54.7961	148.1270
174	672.5828	-54.7961	148.1270	635.1680	-61.7248	163.8342
175	635.1680	-61.7248	163.8342	510.6170	-65.0883	171.6478
176	510.6170	-65.0883	171.6478	433.9110	-71.5136	187.2946
177	433.9110	-71.5136	187.2946	278.6841	-74.5440	195.0638
178	278.6841	-74.5440	195.0638	178.1130	-80.1818	210.5417
179	178.1130	-80.1818	210.5417	3.1874	-82.7549	218.0959
180	3.1874	-82.7549	218.0959	-102.9622	-42.5965	121.8613
181	-102.9622	-42.5965	121.8613	104.5441	-10.2572	-7.4863
182	104.5441	-10.2572	-7.4863	73.7757	-10.2567	-7.4593
183	73.7757	-10.2567	-7.4593	43.0107	-10.2561	-7.4318
184	43.0107	-10.2561	-7.4318	392.4743	-11.1674	45.7593
185	392.4743	-11.1674	45.7593	452.0982	-13.9860	53.5552
186	452.0982	-13.9860	53.5552	596.6860	-20.0567	69.2217
187	596.6860	-20.0567	69.2217	628.3517	-23.2679	77.2006
188	628.3517	-23.2679	77.2006	736.6927	-29.9741	92.7597
189	736.6927	-29.9741	92.7597	732.0788	-33.4385	100.7691
190	732.0788	-33.4385	100.7691	793.7007	-40.5285	116.4574
191	793.7007	-40.5285	116.4574	748.3827	-44.0995	124.4579
192	748.3827	-44.0995	124.4579	759.2566	-51.2456	140.2776
193	759.2566	-51.2456	140.2776	672.6876	-54.7974	148.0627
194	672.6876	-54.7974	148.0627	635.2469	-61.7338	163.7577
195	635.2469	-61.7338	163.7577	510.6909	-65.0877	171.7315
196	510.6909	-65.0877	171.7315	433.9902	-71.5150	187.2627
197	433.9902	-71.5150	187.2627	278.7643	-74.5487	195.0921
198	278.7643	-74.5487	195.0921	178.1307	-80.1871	210.5854
199	178.1307	-80.1871	210.5854	3.2784	-82.7572	218.1154
200	3.2784	-82.7572	218.1154	-102.9641	-42.5960	121.8538
201	-102.9641	-42.5960	121.8538	104.4173	-10.2458	-7.4462
202	104.4173	-10.2458	-7.4462	73.6824	-10.2460	-7.4380
203	73.6824	-10.2460	-7.4380	42.9510	-10.2460	-7.4255
204	42.9510	-10.2460	-7.4255	392.4638	-11.1651	45.7732
205	392.4638	-11.1651	45.7732	452.1389	-13.9851	53.6067
206	452.1389	-13.9851	53.6067	596.7629	-20.0497	69.2469
207	596.7629	-20.0497	69.2469	628.4667	-23.2691	77.0684
208	628.4667	-23.2691	77.0684	736.7867	-29.9806	92.7543
209	736.7867	-29.9806	92.7543	732.1549	-33.4608	100.7933
210	732.1549	-33.4608	100.7933	793.7292	-40.5391	116.4407
211	793.7292	-40.5391	116.4407	748.3494	-44.1122	124.3759
212	748.3494	-44.1122	124.3759	759.1450	-51.2598	140.1110
213	759.1450	-51.2598	140.1110	672.5181	-54.8027	148.1633
214	672.5181	-54.8027	148.1633	635.0957	-61.7345	163.7603
215	635.0957	-61.7345	163.7603	510.5914	-65.0947	171.6382
216	510.5914	-65.0947	171.6382	433.8250	-71.5218	187.2159
217	433.8250	-71.5218	187.2159	278.6107	-74.5567	195.1111
218	278.6107	-74.5567	195.1111	178.0244	-80.1926	210.4991

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
219	178.0244	-80.1926	210.4991	3.1013	-82.7607	218.0380
220	3.1013	-82.7607	218.0380	-103.0285	-42.5957	121.8755
221	-103.0285	-42.5957	121.8755	103.0463	-10.1115	-7.4704
222	103.0463	-10.1115	-7.4704	72.7177	-10.1118	-7.4451
223	72.7177	-10.1118	-7.4451	42.3783	-10.1110	-7.4261
224	42.3783	-10.1110	-7.4261	392.5073	-11.1859	45.7638
225	392.5073	-11.1859	45.7638	452.1217	-14.0133	53.6218
226	452.1217	-14.0133	53.6218	596.6030	-20.0933	69.2227
227	596.6030	-20.0933	69.2227	628.1283	-23.3088	77.0743
228	628.1283	-23.3088	77.0743	736.2500	-30.0268	92.7582
229	736.2500	-30.0268	92.7582	731.4689	-33.5018	100.6982
230	731.4689	-33.5018	100.6982	792.7271	-40.5810	116.4882
231	792.7271	-40.5810	116.4882	747.2463	-44.1561	124.4002
232	747.2463	-44.1561	124.4002	757.8777	-51.2884	140.0678
233	757.8777	-51.2884	140.0678	671.1227	-54.8270	148.1016
234	671.1227	-54.8270	148.1016	633.6300	-61.7650	163.8091
235	633.6300	-61.7650	163.8091	509.0306	-65.1245	171.7000
236	509.0306	-65.1245	171.7000	432.3879	-71.5454	187.1895
237	432.3879	-71.5454	187.1895	277.1207	-74.5862	195.1015
238	277.1207	-74.5862	195.1015	176.7977	-80.2169	210.5781
239	176.7977	-80.2169	210.5781	2.1455	-82.7791	218.0672
240	2.1455	-82.7791	218.0672	-103.4803	-42.5818	121.8706
241	-103.4803	-42.5818	121.8706	83.0948	-8.1581	-7.0905
242	83.0948	-8.1581	-7.0905	58.6163	-8.1581	-7.0682
243	58.6163	-8.1581	-7.0682	34.1432	-8.1579	-7.0552
244	34.1432	-8.1579	-7.0552	392.6984	-11.3673	45.8318
245	392.6984	-11.3673	45.8318	451.6658	-14.2323	53.6385
246	451.6658	-14.2323	53.6385	595.0713	-20.3895	69.2826
247	595.0713	-20.3895	69.2826	625.3759	-23.6480	77.2112
248	625.3759	-23.6480	77.2112	731.6438	-30.4374	92.7318
249	731.6438	-30.4374	92.7318	725.1003	-33.9492	100.7991
250	725.1003	-33.9492	100.7991	784.0469	-41.0954	116.6319
251	784.0469	-41.0954	116.6319	736.4957	-44.6973	124.4716
252	736.4957	-44.6973	124.4716	744.6320	-51.8767	140.2361
253	744.6320	-51.8767	140.2361	655.9067	-55.4265	148.3134
254	655.9067	-55.4265	148.3134	616.7184	-62.3643	163.9698
255	616.7184	-62.3643	163.9698	490.7676	-65.7122	171.7428
256	490.7676	-65.7122	171.7428	414.0446	-72.0825	187.3460
257	414.0446	-72.0825	187.3460	258.7960	-75.0738	195.1679
258	258.7960	-75.0738	195.1679	161.4636	-80.5923	210.6177
259	161.4636	-80.5923	210.6177	-11.2171	-83.0833	218.2337
260	-11.2171	-83.0833	218.2337	-109.4148	-42.5478	123.5469
261	-109.4148	-42.5478	123.5469	136.6694	-3.1909	0.3111
262	136.6694	-3.1909	0.3111	129.4924	-3.1906	0.3361
263	129.4924	-3.1906	0.3361	156.8238	-4.0866	30.5284
264	156.8238	-4.0866	30.5284	240.7367	-6.6623	39.7108
265	240.7367	-6.6623	39.7108	422.4877	-12.4791	59.3400
266	422.4877	-12.4791	59.3400	496.3067	-15.7017	69.2666
267	496.3067	-15.7017	69.2666	561.3122	-19.1362	79.1650
268	561.3122	-19.1362	79.1650	615.8422	-22.7603	89.3271
269	615.8422	-22.7603	89.3271	658.4462	-26.5608	99.3278
270	658.4462	-26.5608	99.3278	687.5706	-30.5267	109.1939
271	687.5706	-30.5267	109.1939	701.8899	-34.6244	119.2704
272	701.8899	-34.6244	119.2704	700.2130	-38.8820	129.3889
273	700.2130	-38.8820	129.3889	752.0155	-47.7299	149.2781

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
274	752.0155	-47.7299	149.2781	706.4224	-52.3069	159.3004
275	706.4224	-52.3069	159.3004	641.2566	-56.9746	169.2381
276	641.2566	-56.9746	169.2381	555.7753	-61.7269	179.2701
277	555.7753	-61.7269	179.2701	449.3686	-66.5492	189.2321
278	449.3686	-66.5492	189.2321	321.5011	-71.4202	199.1573
279	321.5011	-71.4202	199.1573	171.8621	-76.3335	209.0503
280	171.8621	-76.3335	209.0503	0.0961	-81.2803	218.8061

ENVOL. MAX. TORSORES TREN TREN IPF-75 TIPO A en via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.0287	-0.0047	5.4650	70.2448	-2.0873	15.0725
2	70.2448	-2.0873	15.0725	196.8109	-6.2433	28.8605
3	196.8109	-6.2433	28.8605	329.2873	-11.2113	38.7990
4	329.2873	-11.2113	38.7990	439.6108	-16.1483	48.5742
5	439.6108	-16.1483	48.5742	528.0851	-21.0455	58.5415
6	528.0851	-21.0455	58.5415	595.2499	-25.8820	68.5945
7	595.2499	-25.8820	68.5945	641.6149	-30.6633	78.4710
8	641.6149	-30.6633	78.4710	667.7731	-35.3652	88.2695
9	667.7731	-35.3652	88.2695	762.7194	-44.5319	108.1982
10	762.7194	-44.5319	108.1982	743.0614	-48.9440	118.0734
11	743.0614	-48.9440	118.0734	706.4111	-53.2472	127.9734
12	706.4111	-53.2472	127.9734	654.0417	-57.4384	137.9477
13	654.0417	-57.4384	137.9477	587.0961	-61.4594	147.7296
14	587.0961	-61.4594	147.7296	506.9198	-65.3297	157.6709
15	506.9198	-65.3297	157.6709	414.9150	-69.0381	167.6342
16	414.9150	-69.0381	167.6342	312.6813	-72.5587	177.6526
17	312.6813	-72.5587	177.6526	262.3728	-79.0230	197.4753
18	262.3728	-79.0230	197.4753	146.5394	-81.9375	207.3491
19	146.5394	-81.9375	207.3491	27.0329	-84.6285	216.9286
20	27.0329	-84.6285	216.9286	-95.0791	-42.5427	118.7068
21	-95.0791	-42.5427	118.7068	-16.4956	0.3683	13.0032
22	-16.4956	0.3683	13.0032	143.4651	-3.5200	23.8958
23	143.4651	-3.5200	23.8958	217.3517	-5.7386	30.8359
24	217.3517	-5.7386	30.8359	377.0148	-10.7232	46.0288
25	377.0148	-10.7232	46.0288	436.0822	-13.4836	53.8439
26	436.0822	-13.4836	53.8439	579.6937	-19.4615	69.3960
27	579.6937	-19.4615	69.3960	612.4402	-22.6459	77.1889
28	612.4402	-22.6459	77.1889	721.9548	-29.3331	92.8235
29	721.9548	-29.3331	92.8235	719.2554	-32.8058	100.6165
30	719.2554	-32.8058	100.6165	783.0614	-39.8991	116.3715
31	783.0614	-39.8991	116.3715	739.8978	-43.4918	124.0726
32	739.8978	-43.4918	124.0726	753.1492	-50.7027	139.5504
33	753.1492	-50.7027	139.5504	668.4987	-54.2690	147.4642
34	668.4987	-54.2690	147.4642	633.0531	-61.2765	163.0833
35	633.0531	-61.2765	163.0833	509.9458	-64.6814	170.8474
36	509.9458	-64.6814	170.8474	434.3073	-71.1976	186.5674
37	434.3073	-71.1976	186.5674	279.9172	-74.2837	194.3452
38	279.9172	-74.2837	194.3452	179.4194	-80.0089	210.0033
39	179.4194	-80.0089	210.0033	4.6996	-82.6236	217.5950
40	4.6996	-82.6236	217.5950	-102.2406	-42.5798	121.6938
41	-102.2406	-42.5798	121.6938	-17.9319	0.4014	13.2164
42	-17.9319	0.4014	13.2164	150.6536	-3.6967	24.0256
43	150.6536	-3.6967	24.0256	227.3611	-6.0059	30.9768
44	227.3611	-6.0059	30.9768	391.2924	-11.1379	46.0793
45	391.2924	-11.1379	46.0793	450.8681	-13.9566	53.8533
46	450.8681	-13.9566	53.8533	595.3235	-20.0149	69.5175
47	595.3235	-20.0149	69.5175	627.0279	-23.2374	77.3587
48	627.0279	-23.2374	77.3587	735.4031	-29.9447	92.9552
49	735.4031	-29.9447	92.9552	730.9078	-33.4074	100.6812
50	730.9078	-33.4074	100.6812	792.6190	-40.4694	116.3743
51	792.6190	-40.4694	116.3743	747.4515	-44.0487	124.2516
52	747.4515	-44.0487	124.2516	758.5520	-51.2118	139.8318
53	758.5520	-51.2118	139.8318	672.0788	-54.7523	147.6382

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	672.0788	-54.7523	147.6382	634.8611	-61.6869	163.2577
55	634.8611	-61.6869	163.2577	510.5145	-65.0428	171.1151
56	510.5145	-65.0428	171.1151	433.8749	-71.4774	186.6716
57	433.8749	-71.4774	186.6716	278.8182	-74.5170	194.5074
58	278.8182	-74.5170	194.5074	178.2743	-80.1600	210.0811
59	178.2743	-80.1600	210.0811	3.4628	-82.7373	217.6911
60	3.4628	-82.7373	217.6911	-102.8172	-42.5943	121.7480
61	-102.8172	-42.5943	121.7480	-18.0522	0.4044	13.2274
62	-18.0522	0.4044	13.2274	151.2076	-3.7111	24.0168
63	151.2076	-3.7111	24.0168	228.1554	-6.0282	30.9198
64	228.1554	-6.0282	30.9198	392.3432	-11.1697	46.0713
65	392.3432	-11.1697	46.0713	451.9827	-13.9876	53.8598
66	451.9827	-13.9876	53.8598	596.5442	-20.0506	69.3894
67	596.5442	-20.0506	69.3894	628.2038	-23.2713	77.3214
68	628.2038	-23.2713	77.3214	736.5654	-29.9808	92.8855
69	736.5654	-29.9808	92.8855	731.9515	-33.4541	100.6686
70	731.9515	-33.4541	100.6686	793.4977	-40.5276	116.3325
71	793.4977	-40.5276	116.3325	748.1415	-44.1029	124.3092
72	748.1415	-44.1029	124.3092	759.0455	-51.2434	139.8902
73	759.0455	-51.2434	139.8902	672.4727	-54.7865	147.6500
74	672.4727	-54.7865	147.6500	635.0627	-61.7232	163.3706
75	635.0627	-61.7232	163.3706	510.6163	-65.0748	171.2487
76	510.6163	-65.0748	171.2487	433.9420	-71.4992	186.7943
77	433.9420	-71.4992	186.7943	278.8198	-74.5375	194.5654
78	278.8198	-74.5375	194.5654	178.1789	-80.1751	210.1453
79	178.1789	-80.1751	210.1453	3.3775	-82.7500	217.8040
80	3.3775	-82.7500	217.8040	-102.8763	-42.5956	121.7600
81	-102.8763	-42.5956	121.7600	-18.1187	0.4060	13.2295
82	-18.1187	0.4060	13.2295	151.2102	-3.7102	23.9575
83	151.2102	-3.7102	23.9575	228.1666	-6.0253	30.8622
84	228.1666	-6.0253	30.8622	392.4474	-11.1688	45.9509
85	392.4474	-11.1688	45.9509	452.0934	-13.9900	53.7653
86	452.0934	-13.9900	53.7653	596.6597	-20.0588	69.3624
87	596.6597	-20.0588	69.3624	628.3213	-23.2673	77.2743
88	628.3213	-23.2673	77.2743	736.6403	-29.9885	92.8372
89	736.6403	-29.9885	92.8372	732.0114	-33.4492	100.6396
90	732.0114	-33.4492	100.6396	793.5513	-40.5187	116.5003
91	793.5513	-40.5187	116.5003	748.2664	-44.0993	124.3526
92	748.2664	-44.0993	124.3526	759.0867	-51.2522	139.8808
93	759.0867	-51.2522	139.8808	672.5052	-54.7941	147.7799
94	672.5052	-54.7941	147.7799	635.1627	-61.7262	163.4343
95	635.1627	-61.7262	163.4343	510.6297	-65.0799	171.2815
96	510.6297	-65.0799	171.2815	433.9291	-71.5030	186.9266
97	433.9291	-71.5030	186.9266	278.7626	-74.5452	194.7552
98	278.7626	-74.5452	194.7552	178.1364	-80.1803	210.2682
99	178.1364	-80.1803	210.2682	3.2767	-82.7521	217.8749
100	3.2767	-82.7521	217.8749	-102.8708	-42.5964	121.7718
101	-102.8708	-42.5964	121.7718	-18.1168	0.4059	13.2249
102	-18.1168	0.4059	13.2249	151.2407	-3.7103	23.9045
103	151.2407	-3.7103	23.9045	228.1841	-6.0277	30.8340
104	228.1841	-6.0277	30.8340	392.4904	-11.1711	45.9653
105	392.4904	-11.1711	45.9653	452.1342	-13.9928	53.7087
106	452.1342	-13.9928	53.7087	596.6777	-20.0620	69.3130

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
107	596.6777	-20.0620	69.3130	628.3348	-23.2792	77.2607
108	628.3348	-23.2792	77.2607	736.6179	-29.9956	92.8932
109	736.6179	-29.9956	92.8932	732.0036	-33.4563	100.7256
110	732.0036	-33.4563	100.7256	793.5251	-40.5313	116.4267
111	793.5251	-40.5313	116.4267	748.2256	-44.1106	124.3895
112	748.2256	-44.1106	124.3895	759.0718	-51.2546	139.9096
113	759.0718	-51.2546	139.9096	672.4392	-54.7932	147.8555
114	672.4392	-54.7932	147.8555	635.0049	-61.7147	163.5796
115	635.0049	-61.7147	163.5796	510.5982	-65.0683	171.4310
116	510.5982	-65.0683	171.4310	433.9177	-71.4951	187.0511
117	433.9177	-71.4951	187.0511	278.8081	-74.5331	194.7858
118	278.8081	-74.5331	194.7858	178.1364	-80.1744	210.3642
119	178.1364	-80.1744	210.3642	3.3280	-82.7477	217.8943
120	3.3280	-82.7477	217.8943	-102.8981	-42.5965	121.8316
121	-102.8981	-42.5965	121.8316	-18.1037	0.4056	13.2373
122	-18.1037	0.4056	13.2373	151.2121	-3.7063	23.9025
123	151.2121	-3.7063	23.9025	228.1856	-6.0187	30.8018
124	228.1856	-6.0187	30.8018	392.5015	-11.1616	45.8921
125	392.5015	-11.1616	45.8921	452.2075	-13.9820	53.6567
126	452.2075	-13.9820	53.6567	596.8214	-20.0443	69.2249
127	596.8214	-20.0443	69.2249	628.4991	-23.2729	77.2069
128	628.4991	-23.2729	77.2069	736.8129	-29.9771	92.9136
129	736.8129	-29.9771	92.9136	732.1780	-33.4571	100.7822
130	732.1780	-33.4571	100.7822	793.7052	-40.5289	116.3403
131	793.7052	-40.5289	116.3403	748.3568	-44.1144	124.2659
132	748.3568	-44.1144	124.2659	759.1322	-51.2607	140.0762
133	759.1322	-51.2607	140.0762	672.5187	-54.8016	148.1172
134	672.5187	-54.8016	148.1172	635.0880	-61.7375	163.7274
135	635.0880	-61.7375	163.7274	510.5918	-65.0806	171.4925
136	510.5918	-65.0806	171.4925	433.8733	-71.5049	187.1202
137	433.8733	-71.5049	187.1202	278.6692	-74.5403	194.9907
138	278.6692	-74.5403	194.9907	178.0746	-80.1799	210.4106
139	178.0746	-80.1799	210.4106	3.2236	-82.7518	217.9601
140	3.2236	-82.7518	217.9601	-102.9458	-42.5966	121.8775
141	-102.9458	-42.5966	121.8775	-18.1246	0.4065	13.2454
142	-18.1246	0.4065	13.2454	151.2257	-3.7107	23.8867
143	151.2257	-3.7107	23.8867	228.2092	-6.0281	30.7368
144	228.2092	-6.0281	30.7368	392.4319	-11.1699	45.8151
145	392.4319	-11.1699	45.8151	452.1010	-13.9888	53.6371
146	452.1010	-13.9888	53.6371	596.6967	-20.0583	69.1264
147	596.6967	-20.0583	69.1264	628.3501	-23.2712	77.1411
148	628.3501	-23.2712	77.1411	736.6924	-29.9811	92.8954
149	736.6924	-29.9811	92.8954	732.0622	-33.4509	100.7524
150	732.0622	-33.4509	100.7524	793.5981	-40.5433	116.4080
151	793.5981	-40.5433	116.4080	748.2538	-44.1057	124.3405
152	748.2538	-44.1057	124.3405	759.0724	-51.2408	140.0930
153	759.0724	-51.2408	140.0930	672.4834	-54.7892	148.1471
154	672.4834	-54.7892	148.1471	635.1255	-61.7180	163.6895
155	635.1255	-61.7180	163.6895	510.6216	-65.0711	171.5591
156	510.6216	-65.0711	171.5591	433.9203	-71.5002	187.2119
157	433.9203	-71.5002	187.2119	278.7567	-74.5417	195.1174
158	278.7567	-74.5417	195.1174	178.1848	-80.1816	210.5067
159	178.1848	-80.1816	210.5067	3.3008	-82.7534	218.0483
160	3.3008	-82.7534	218.0483	-102.9222	-42.5961	121.8562
161	-102.9222	-42.5961	121.8562	-18.1908	0.4078	13.2373

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
162	-18.1908	0.4078	13.2373	151.2007	-3.7060	23.8374
163	151.2007	-3.7060	23.8374	228.1702	-6.0219	30.7199
164	228.1702	-6.0219	30.7199	392.4948	-11.1636	45.7477
165	392.4948	-11.1636	45.7477	452.1508	-13.9864	53.6017
166	452.1508	-13.9864	53.6017	596.7850	-20.0592	69.2621
167	596.7850	-20.0592	69.2621	628.4883	-23.2766	76.9772
168	628.4883	-23.2766	76.9772	736.7463	-29.9977	92.6692
169	736.7463	-29.9977	92.6692	732.0975	-33.4642	100.7716
170	732.0975	-33.4642	100.7716	793.7051	-40.5299	116.5457
171	793.7051	-40.5299	116.5457	748.3336	-44.0928	124.5359
172	748.3336	-44.0928	124.5359	759.1974	-51.2516	140.0732
173	759.1974	-51.2516	140.0732	672.5828	-54.7961	148.1270
174	672.5828	-54.7961	148.1270	635.1680	-61.7248	163.8342
175	635.1680	-61.7248	163.8342	510.6170	-65.0883	171.6478
176	510.6170	-65.0883	171.6478	433.9110	-71.5136	187.2946
177	433.9110	-71.5136	187.2946	278.6841	-74.5440	195.0638
178	278.6841	-74.5440	195.0638	178.1130	-80.1818	210.5417
179	178.1130	-80.1818	210.5417	3.1874	-82.7549	218.0959
180	3.1874	-82.7549	218.0959	-102.9622	-42.5965	121.8613
181	-102.9622	-42.5965	121.8613	-18.1251	0.4065	13.2362
182	-18.1251	0.4065	13.2362	151.2262	-3.7102	23.8558
183	151.2262	-3.7102	23.8558	228.1884	-6.0273	30.7530
184	228.1884	-6.0273	30.7530	392.4743	-11.1674	45.7593
185	392.4743	-11.1674	45.7593	452.0982	-13.9860	53.5552
186	452.0982	-13.9860	53.5552	596.6860	-20.0567	69.2217
187	596.6860	-20.0567	69.2217	628.3517	-23.2679	77.2006
188	628.3517	-23.2679	77.2006	736.6927	-29.9741	92.7597
189	736.6927	-29.9741	92.7597	732.0788	-33.4385	100.7691
190	732.0788	-33.4385	100.7691	793.7007	-40.5285	116.4574
191	793.7007	-40.5285	116.4574	748.3827	-44.0995	124.4579
192	748.3827	-44.0995	124.4579	759.2566	-51.2456	140.2776
193	759.2566	-51.2456	140.2776	672.6876	-54.7974	148.0627
194	672.6876	-54.7974	148.0627	635.2469	-61.7338	163.7577
195	635.2469	-61.7338	163.7577	510.6909	-65.0877	171.7315
196	510.6909	-65.0877	171.7315	433.9902	-71.5150	187.2627
197	433.9902	-71.5150	187.2627	278.7643	-74.5487	195.0921
198	278.7643	-74.5487	195.0921	178.1307	-80.1871	210.5854
199	178.1307	-80.1871	210.5854	3.2784	-82.7572	218.1154
200	3.2784	-82.7572	218.1154	-102.9641	-42.5960	121.8538
201	-102.9641	-42.5960	121.8538	-18.1759	0.4076	13.2332
202	-18.1759	0.4076	13.2332	151.2445	-3.7111	23.8385
203	151.2445	-3.7111	23.8385	228.1944	-6.0261	30.7005
204	228.1944	-6.0261	30.7005	392.4638	-11.1651	45.7732
205	392.4638	-11.1651	45.7732	452.1389	-13.9851	53.6067
206	452.1389	-13.9851	53.6067	596.7629	-20.0497	69.2469
207	596.7629	-20.0497	69.2469	628.4667	-23.2691	77.0684
208	628.4667	-23.2691	77.0684	736.7867	-29.9806	92.7543
209	736.7867	-29.9806	92.7543	732.1549	-33.4608	100.7933
210	732.1549	-33.4608	100.7933	793.7292	-40.5391	116.4407
211	793.7292	-40.5391	116.4407	748.3494	-44.1122	124.3759
212	748.3494	-44.1122	124.3759	759.1450	-51.2598	140.1110
213	759.1450	-51.2598	140.1110	672.5181	-54.8027	148.1633
214	672.5181	-54.8027	148.1633	635.0957	-61.7345	163.7603
215	635.0957	-61.7345	163.7603	510.5914	-65.0947	171.6382
216	510.5914	-65.0947	171.6382	433.8250	-71.5218	187.2159

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
217	433.8250	-71.5218	187.2159	278.6107	-74.5567	195.1111
218	278.6107	-74.5567	195.1111	178.0244	-80.1926	210.4991
219	178.0244	-80.1926	210.4991	3.1013	-82.7607	218.0380
220	3.1013	-82.7607	218.0380	-103.0285	-42.5957	121.8755
221	-103.0285	-42.5957	121.8755	-18.1597	0.4078	13.2444
222	-18.1597	0.4078	13.2444	151.2498	-3.7142	23.8305
223	151.2498	-3.7142	23.8305	228.2152	-6.0354	30.7085
224	228.2152	-6.0354	30.7085	392.5073	-11.1859	45.7638
225	392.5073	-11.1859	45.7638	452.1217	-14.0133	53.6218
226	452.1217	-14.0133	53.6218	596.6030	-20.0933	69.2227
227	596.6030	-20.0933	69.2227	628.1283	-23.3088	77.0743
228	628.1283	-23.3088	77.0743	736.2500	-30.0268	92.7582
229	736.2500	-30.0268	92.7582	731.4689	-33.5018	100.6982
230	731.4689	-33.5018	100.6982	792.7271	-40.5810	116.4882
231	792.7271	-40.5810	116.4882	747.2463	-44.1561	124.4002
232	747.2463	-44.1561	124.4002	757.8777	-51.2884	140.0678
233	757.8777	-51.2884	140.0678	671.1227	-54.8270	148.1016
234	671.1227	-54.8270	148.1016	633.6300	-61.7650	163.8091
235	633.6300	-61.7650	163.8091	509.0306	-65.1245	171.7000
236	509.0306	-65.1245	171.7000	432.3879	-71.5454	187.1895
237	432.3879	-71.5454	187.1895	277.1207	-74.5862	195.1015
238	277.1207	-74.5862	195.1015	176.7977	-80.2169	210.5781
239	176.7977	-80.2169	210.5781	2.1455	-82.7791	218.0672
240	2.1455	-82.7791	218.0672	-103.4803	-42.5818	121.8706
241	-103.4803	-42.5818	121.8706	-18.2354	0.4143	13.2479
242	-18.2354	0.4143	13.2479	151.6775	-3.7757	23.8606
243	151.6775	-3.7757	23.8606	228.6277	-6.1320	30.7383
244	228.6277	-6.1320	30.7383	392.6984	-11.3673	45.8318
245	392.6984	-11.3673	45.8318	451.6658	-14.2323	53.6385
246	451.6658	-14.2323	53.6385	595.0713	-20.3895	69.2826
247	595.0713	-20.3895	69.2826	625.3759	-23.6480	77.2112
248	625.3759	-23.6480	77.2112	731.6438	-30.4374	92.7318
249	731.6438	-30.4374	92.7318	725.1003	-33.9492	100.7991
250	725.1003	-33.9492	100.7991	784.0469	-41.0954	116.6319
251	784.0469	-41.0954	116.6319	736.4957	-44.6973	124.4716
252	736.4957	-44.6973	124.4716	744.6320	-51.8767	140.2361
253	744.6320	-51.8767	140.2361	655.9067	-55.4265	148.3134
254	655.9067	-55.4265	148.3134	616.7184	-62.3643	163.9698
255	616.7184	-62.3643	163.9698	490.7676	-65.7122	171.7428
256	490.7676	-65.7122	171.7428	414.0446	-72.0825	187.3460
257	414.0446	-72.0825	187.3460	258.7960	-75.0738	195.1679
258	258.7960	-75.0738	195.1679	161.4636	-80.5923	210.6177
259	161.4636	-80.5923	210.6177	-11.2171	-83.0833	218.2337
260	-11.2171	-83.0833	218.2337	-109.4148	-42.5478	123.5469
261	-109.4148	-42.5478	123.5469	-19.5389	0.4581	16.8311
262	-19.5389	0.4581	16.8311	69.6994	-1.7153	21.9004
263	69.6994	-1.7153	21.9004	156.8238	-4.0866	30.5284
264	156.8238	-4.0866	30.5284	240.7367	-6.6623	39.7108
265	240.7367	-6.6623	39.7108	422.4877	-12.4791	59.3400
266	422.4877	-12.4791	59.3400	496.3067	-15.7017	69.2666
267	496.3067	-15.7017	69.2666	561.3122	-19.1362	79.1650
268	561.3122	-19.1362	79.1650	615.8422	-22.7603	89.3271
269	615.8422	-22.7603	89.3271	658.4462	-26.5608	99.3278
270	658.4462	-26.5608	99.3278	687.5706	-30.5267	109.1939
271	687.5706	-30.5267	109.1939	701.8899	-34.6244	119.2704

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
272	701.8899	-34.6244	119.2704	700.2130	-38.8820	129.3889
273	700.2130	-38.8820	129.3889	752.0155	-47.7299	149.2781
274	752.0155	-47.7299	149.2781	706.4224	-52.3069	159.3004
275	706.4224	-52.3069	159.3004	641.2566	-56.9746	169.2381
276	641.2566	-56.9746	169.2381	555.7753	-61.7269	179.2701
277	555.7753	-61.7269	179.2701	449.3686	-66.5492	189.2321
278	449.3686	-66.5492	189.2321	321.5011	-71.4202	199.1573
279	321.5011	-71.4202	199.1573	171.8621	-76.3335	209.0503
280	171.8621	-76.3335	209.0503	0.0961	-81.2803	218.8061

ENVOL. MIN. TORSORES TREN TREN IPF-75 TIPO A en via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.0813	83.7566	-223.4471	177.1875	78.7869	-213.4894
2	177.1875	78.7869	-213.4894	332.2619	73.8454	-203.4559
3	332.2619	73.8454	-203.4559	465.3472	68.9492	-193.6001
4	465.3472	68.9492	-193.6001	533.6895	59.3106	-173.9311
5	533.6895	59.3106	-173.9311	614.0875	54.6055	-163.8992
6	614.0875	54.6055	-163.8992	674.4861	49.9925	-153.8503
7	674.4861	49.9925	-153.8503	715.5917	45.4638	-144.0112
8	715.5917	45.4638	-144.0112	738.2971	41.0470	-134.2178
9	738.2971	41.0470	-134.2178	743.6008	36.7430	-124.1830
10	743.6008	36.7430	-124.1830	732.4435	32.5807	-114.3526
11	732.4435	32.5807	-114.3526	706.1100	28.5485	-104.3920
12	706.1100	28.5485	-104.3920	565.9438	20.9771	-84.5531
13	565.9438	20.9771	-84.5531	510.0571	17.4365	-74.7059
14	510.0571	17.4365	-74.7059	444.3009	14.1096	-64.7629
15	444.3009	14.1096	-64.7629	370.4073	10.9766	-54.7764
16	370.4073	10.9766	-54.7764	290.2211	8.0597	-44.8074
17	290.2211	8.0597	-44.8074	205.3795	5.3695	-35.2563
18	205.3795	5.3695	-35.2563	116.9757	2.8893	-26.3521
19	116.9757	2.8893	-26.3521	26.0066	0.6090	-19.0767
20	26.0066	0.6090	-19.0767	-150.3622	41.5692	-121.5579
21	-150.3622	41.5692	-121.5579	26.7933	84.2612	-221.4305
22	26.7933	84.2612	-221.4305	126.3443	79.2751	-206.2396
23	126.3443	79.2751	-206.2396	291.9747	76.5181	-198.4269
24	291.9747	76.5181	-198.4269	381.4580	70.5327	-182.7935
25	381.4580	70.5327	-182.7935	523.3156	67.3511	-174.9799
26	523.3156	67.3511	-174.9799	582.9529	60.6736	-159.4738
27	582.9529	60.6736	-159.4738	691.0605	57.2033	-151.6322
28	691.0605	57.2033	-151.6322	707.4784	50.1037	-136.0366
29	707.4784	50.1037	-136.0366	775.8510	46.5075	-128.1926
30	775.8510	46.5075	-128.1926	742.3418	39.3055	-112.4658
31	742.3418	39.3055	-112.4658	769.1453	35.7245	-104.7921
32	769.1453	35.7245	-104.7921	685.6687	28.7148	-89.2670
33	685.6687	28.7148	-89.2670	673.0400	25.3170	-81.3379
34	673.0400	25.3170	-81.3379	546.5056	18.7977	-65.7754
35	546.5056	18.7977	-65.7754	500.5701	15.7182	-57.9451
36	500.5701	15.7182	-57.9451	344.4816	9.9916	-42.2901
37	344.4816	9.9916	-42.2901	275.4153	7.3759	-34.6505
38	275.4153	7.3759	-34.6505	106.7995	2.6634	-20.6941
39	106.7995	2.6634	-20.6941	24.1387	0.5674	-15.0002
40	24.1387	0.5674	-15.0002	-142.1327	41.6173	-119.9480
41	-142.1327	41.6173	-119.9480	38.4310	83.9939	-221.3514
42	38.4310	83.9939	-221.3514	143.0595	78.8629	-206.1560
43	143.0595	78.8629	-206.1560	309.5956	76.0466	-198.3466
44	309.5956	76.0466	-198.3466	400.4483	69.9817	-182.8608
45	400.4483	69.9817	-182.8608	541.4135	66.7676	-175.0377
46	541.4135	66.7676	-175.0377	600.0611	60.0494	-159.3725
47	600.0611	60.0494	-159.3725	706.3767	56.5887	-151.5159
48	706.3767	56.5887	-151.5159	720.5005	49.5200	-135.9568
49	720.5005	49.5200	-135.9568	786.7820	45.9490	-128.2177
50	786.7820	45.9490	-128.2177	750.7210	38.7931	-112.4816
51	750.7210	38.7931	-112.4816	775.6172	35.2491	-104.6418
52	775.6172	35.2491	-104.6418	689.9623	28.3147	-89.0545
53	689.9623	28.3147	-89.0545	675.8096	24.9511	-81.2633
54	675.8096	24.9511	-81.2633	547.7946	18.5202	-65.6201

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	547.7946	18.5202	-65.6201	500.9459	15.4813	-57.8048
56	500.9459	15.4813	-57.8048	344.2350	9.8356	-42.2175
57	344.2350	9.8356	-42.2175	274.8961	7.2618	-34.5796
58	274.8961	7.2618	-34.5796	106.4541	2.6209	-20.6648
59	106.4541	2.6209	-20.6648	24.0199	0.5574	-14.9871
60	24.0199	0.5574	-14.9871	-141.5569	41.6329	-119.9930
61	-141.5569	41.6329	-119.9930	39.2631	83.9726	-221.3732
62	39.2631	83.9726	-221.3732	144.4040	78.8293	-206.2400
63	144.4040	78.8293	-206.2400	310.8909	76.0104	-198.4919
64	310.8909	76.0104	-198.4919	401.8903	69.9474	-182.8452
65	401.8903	69.9474	-182.8452	542.8310	66.7310	-175.1322
66	542.8310	66.7310	-175.1322	601.3972	60.0080	-159.5175
67	601.3972	60.0080	-159.5175	707.6339	56.5575	-151.6092
68	707.6339	56.5575	-151.6092	721.6687	49.4799	-136.0547
69	721.6687	49.4799	-136.0547	787.7914	45.8997	-128.2685
70	787.7914	45.8997	-128.2685	751.5127	38.7509	-112.5572
71	751.5127	38.7509	-112.5572	776.2195	35.2152	-104.6046
72	776.2195	35.2152	-104.6046	690.3840	28.2807	-89.0546
73	690.3840	28.2807	-89.0546	676.0781	24.9258	-81.2657
74	676.0781	24.9258	-81.2657	547.9435	18.4973	-65.5564
75	547.9435	18.4973	-65.5564	501.0435	15.4598	-57.7117
76	501.0435	15.4598	-57.7117	344.2838	9.8238	-42.1671
77	344.2838	9.8238	-42.1671	274.8944	7.2508	-34.5671
78	274.8944	7.2508	-34.5671	106.4633	2.6172	-20.6334
79	106.4633	2.6172	-20.6334	24.0415	0.5569	-14.9788
80	24.0415	0.5569	-14.9788	-141.4917	41.6360	-120.0116
81	-141.4917	41.6360	-120.0116	39.3205	83.9738	-221.4698
82	39.3205	83.9738	-221.4698	144.4043	78.8319	-206.3716
83	144.4043	78.8319	-206.3716	311.0147	76.0121	-198.6050
84	311.0147	76.0121	-198.6050	402.0227	69.9434	-183.0591
85	402.0227	69.9434	-183.0591	542.9350	66.7267	-175.2331
86	542.9350	66.7267	-175.2331	601.5473	60.0091	-159.6005
87	601.5473	60.0091	-159.6005	707.7347	56.5443	-151.6662
88	707.7347	56.5443	-151.6662	721.7418	49.4771	-136.1633
89	721.7418	49.4771	-136.1633	787.8530	45.9014	-128.2895
90	787.8530	45.9014	-128.2895	751.5814	38.7587	-112.4288
91	751.5814	38.7587	-112.4288	776.2789	35.2141	-104.6187
92	776.2789	35.2141	-104.6187	690.4550	28.2774	-89.0663
93	690.4550	28.2774	-89.0663	676.1501	24.9209	-81.1739
94	676.1501	24.9209	-81.1739	547.9935	18.4917	-65.5368
95	547.9935	18.4917	-65.5368	501.0501	15.4538	-57.6943
96	501.0501	15.4538	-57.6943	344.2588	9.8198	-42.0765
97	344.2588	9.8198	-42.0765	274.8592	7.2453	-34.4587
98	274.8592	7.2453	-34.4587	106.4211	2.6151	-20.5975
99	106.4211	2.6151	-20.5975	24.0033	0.5560	-14.9669
100	24.0033	0.5560	-14.9669	-141.5052	41.6361	-120.0351
101	-141.5052	41.6361	-120.0351	39.3723	83.9744	-221.5446
102	39.3723	83.9744	-221.5446	144.4124	78.8311	-206.4861
103	144.4124	78.8311	-206.4861	311.0584	76.0078	-198.6325
104	311.0584	76.0078	-198.6325	402.0647	69.9391	-183.0951
105	402.0647	69.9391	-183.0951	542.9758	66.7256	-175.3553
106	542.9758	66.7256	-175.3553	601.5372	60.0084	-159.6707
107	601.5372	60.0084	-159.6707	707.7177	56.5496	-151.7260
108	707.7177	56.5496	-151.7260	721.7418	49.4634	-136.0865
109	721.7418	49.4634	-136.0865	787.8635	45.8825	-128.2702

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	787.8635	45.8825	-128.2702	751.5702	38.7528	-112.5285
111	751.5702	38.7528	-112.5285	776.2651	35.2115	-104.6053
112	776.2651	35.2115	-104.6053	690.3661	28.2733	-89.0852
113	690.3661	28.2733	-89.0852	676.0400	24.9217	-81.0999
114	676.0400	24.9217	-81.0999	547.9175	18.4987	-65.4599
115	547.9175	18.4987	-65.4599	500.9993	15.4669	-57.5756
116	500.9993	15.4669	-57.5756	344.2454	9.8254	-42.0443
117	344.2454	9.8254	-42.0443	274.8519	7.2507	-34.4298
118	274.8519	7.2507	-34.4298	106.4068	2.6160	-20.5884
119	106.4068	2.6160	-20.5884	23.9683	0.5553	-14.9643
120	23.9683	0.5553	-14.9643	-141.5981	41.6359	-120.1160
121	-141.5981	41.6359	-120.1160	39.2934	83.9790	-221.5656
122	39.2934	83.9790	-221.5656	144.3704	78.8409	-206.5321
123	144.3704	78.8409	-206.5321	311.0181	76.0237	-198.7361
124	311.0181	76.0237	-198.7361	402.1206	69.9532	-183.2133
125	402.1206	69.9532	-183.2133	543.1030	66.7448	-175.4582
126	543.1030	66.7448	-175.4582	601.7190	60.0252	-159.8073
127	601.7190	60.0252	-159.8073	707.8998	56.5521	-151.8165
128	707.8998	56.5521	-151.8165	721.9211	49.4649	-136.0923
129	721.9211	49.4649	-136.0923	788.0487	45.8945	-128.2471
130	788.0487	45.8945	-128.2471	751.7148	38.7383	-112.6710
131	751.7148	38.7383	-112.6710	776.3442	35.2078	-104.7358
132	776.3442	35.2078	-104.7358	690.4573	28.2694	-88.9243
133	690.4573	28.2694	-88.9243	676.1270	24.9113	-80.9239
134	676.1270	24.9113	-80.9239	547.9679	18.4897	-65.3708
135	547.9679	18.4897	-65.3708	501.0139	15.4578	-57.5893
136	501.0139	15.4578	-57.5893	344.1964	9.8197	-41.9696
137	344.1964	9.8197	-41.9696	274.8181	7.2463	-34.3480
138	274.8181	7.2463	-34.3480	106.3612	2.6133	-20.5744
139	106.3612	2.6133	-20.5744	23.9510	0.5545	-14.9600
140	23.9510	0.5545	-14.9600	-141.6079	41.6351	-120.1651
141	-141.6079	41.6351	-120.1651	39.2730	83.9734	-221.5988
142	39.2730	83.9734	-221.5988	144.4713	78.8292	-206.6302
143	144.4713	78.8292	-206.6302	310.9717	76.0094	-198.9046
144	310.9717	76.0094	-198.9046	402.0327	69.9372	-183.3076
145	402.0327	69.9372	-183.3076	542.9670	66.7258	-175.5345
146	542.9670	66.7258	-175.5345	601.5474	60.0147	-159.9636
147	601.5474	60.0147	-159.9636	707.7848	56.5524	-151.9102
148	707.7848	56.5524	-151.9102	721.7993	49.4724	-136.1615
149	721.7993	49.4724	-136.1615	787.9188	45.8873	-128.3100
150	787.9188	45.8873	-128.3100	751.6250	38.7500	-112.6281
151	751.6250	38.7500	-112.6281	776.2711	35.2028	-104.7204
152	776.2711	35.2028	-104.7204	690.4139	28.2766	-88.9230
153	690.4139	28.2766	-88.9230	676.1257	24.9226	-80.9548
154	676.1257	24.9226	-80.9548	547.9874	18.4993	-65.4025
155	547.9874	18.4993	-65.4025	501.0573	15.4570	-57.5551
156	501.0573	15.4570	-57.5551	344.2644	9.8216	-41.9165
157	344.2644	9.8216	-41.9165	274.8942	7.2488	-34.2840
158	274.8942	7.2488	-34.2840	106.4386	2.6154	-20.5387
159	106.4386	2.6154	-20.5387	23.9981	0.5552	-14.9510
160	23.9981	0.5552	-14.9510	-141.6219	41.6370	-120.1417
161	-141.6219	41.6370	-120.1417	39.2795	83.9803	-221.6668
162	39.2795	83.9803	-221.6668	144.3663	78.8401	-206.7028
163	144.3663	78.8401	-206.7028	311.0369	76.0185	-198.9066
164	311.0369	76.0185	-198.9066	402.0295	69.9481	-183.4454

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	402.0295	69.9481	-183.4454	543.0326	66.7306	-175.4950
166	543.0326	66.7306	-175.4950	601.6896	60.0145	-159.8755
167	601.6896	60.0145	-159.8755	707.8718	56.5493	-152.1621
168	707.8718	56.5493	-152.1621	721.8570	49.4674	-136.3586
169	721.8570	49.4674	-136.3586	788.0146	45.8927	-128.2757
170	788.0146	45.8927	-128.2757	751.6999	38.7500	-112.4767
171	751.6999	38.7500	-112.4767	776.3778	35.2079	-104.5359
172	776.3778	35.2079	-104.5359	690.5047	28.2772	-88.9886
173	690.5047	28.2772	-88.9886	676.1933	24.9293	-80.9200
174	676.1933	24.9293	-80.9200	547.9888	18.4876	-65.3146
175	547.9888	18.4876	-65.3146	501.0418	15.4522	-57.4637
176	501.0418	15.4522	-57.4637	344.2242	9.8174	-41.9015
177	344.2242	9.8174	-41.9015	274.8295	7.2459	-34.3083
178	274.8295	7.2459	-34.3083	106.3633	2.6128	-20.5226
179	106.3633	2.6128	-20.5226	23.9272	0.5537	-14.9466
180	23.9272	0.5537	-14.9466	-141.5547	41.6351	-120.1563
181	-141.5547	41.6351	-120.1563	39.3200	83.9749	-221.6780
182	39.3200	83.9749	-221.6780	144.4286	78.8324	-206.6202
183	144.4286	78.8324	-206.6202	311.0400	76.0105	-198.8824
184	311.0400	76.0105	-198.8824	401.9883	69.9416	-183.4221
185	401.9883	69.9416	-183.4221	542.9791	66.7271	-175.6089
186	542.9791	66.7271	-175.6089	601.5629	60.0080	-159.8398
187	601.5629	60.0080	-159.8398	707.7738	56.5519	-151.8961
188	707.7738	56.5519	-151.8961	721.7674	49.4945	-136.3040
189	721.7674	49.4945	-136.3040	787.9745	45.9025	-128.2625
190	787.9745	45.9025	-128.2625	751.6631	38.7547	-112.6138
191	751.6631	38.7547	-112.6138	776.3926	35.2254	-104.5594
192	776.3926	35.2254	-104.5594	690.6237	28.2783	-88.8272
193	690.6237	28.2783	-88.8272	676.2902	24.9094	-81.0276
194	676.2902	24.9094	-81.0276	548.0671	18.4848	-65.3329
195	548.0671	18.4848	-65.3329	501.1315	15.4522	-57.4234
196	501.1315	15.4522	-57.4234	344.2818	9.8162	-41.9162
197	344.2818	9.8162	-41.9162	274.8681	7.2438	-34.2799
198	274.8681	7.2438	-34.2799	106.4244	2.6127	-20.5126
199	106.4244	2.6127	-20.5126	23.9732	0.5543	-14.9476
200	23.9732	0.5543	-14.9476	-141.5894	41.6354	-120.1357
201	-141.5894	41.6354	-120.1357	39.3557	83.9747	-221.6421
202	39.3557	83.9747	-221.6421	144.4178	78.8311	-206.7321
203	144.4178	78.8311	-206.7321	310.9749	76.0117	-198.9288
204	310.9749	76.0117	-198.9288	402.0457	69.9436	-183.4091
205	402.0457	69.9436	-183.4091	543.0231	66.7361	-175.5265
206	543.0231	66.7361	-175.5265	601.6487	60.0252	-159.8593
207	601.6487	60.0252	-159.8593	707.8684	56.5564	-152.0586
208	707.8684	56.5564	-152.0586	721.8846	49.4756	-136.2664
209	721.8846	49.4756	-136.2664	788.0552	45.8820	-128.2764
210	788.0552	45.8820	-128.2764	751.7245	38.7390	-112.6022
211	751.7245	38.7390	-112.6022	776.3599	35.2048	-104.7042
212	776.3599	35.2048	-104.7042	690.4664	28.2775	-88.9185
213	690.4664	28.2775	-88.9185	676.1482	24.9138	-80.9389
214	676.1482	24.9138	-80.9389	547.9697	18.4845	-65.3514
215	547.9697	18.4845	-65.3514	501.0128	15.4443	-57.5117
216	501.0128	15.4443	-57.5117	344.1843	9.8109	-41.9222
217	344.1843	9.8109	-41.9222	274.7976	7.2401	-34.2938
218	274.7976	7.2401	-34.2938	106.3472	2.6107	-20.5473
219	106.3472	2.6107	-20.5473	23.9436	0.5536	-14.9541

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	23.9436	0.5536	-14.9541	-141.4756	41.6350	-120.1717
221	-141.4756	41.6350	-120.1717	39.3845	83.9660	-221.6810
222	39.3845	83.9660	-221.6810	144.5138	78.8150	-206.7298
223	144.5138	78.8150	-206.7298	311.1396	75.9895	-198.9315
224	311.1396	75.9895	-198.9315	402.0927	69.9149	-183.4192
225	402.0927	69.9149	-183.4192	542.9509	66.6915	-175.4913
226	542.9509	66.6915	-175.4913	601.4207	59.9711	-159.9102
227	601.4207	59.9711	-159.9102	707.4606	56.4936	-152.0044
228	707.4606	56.4936	-152.0044	721.2620	49.4289	-136.3131
229	721.2620	49.4289	-136.3131	787.1486	45.8393	-128.3418
230	787.1486	45.8393	-128.3418	750.7236	38.6861	-112.5468
231	750.7236	38.6861	-112.5468	775.2017	35.1571	-104.6841
232	775.2017	35.1571	-104.6841	689.1981	28.2429	-88.9736
233	689.1981	28.2429	-88.9736	674.8179	24.8766	-80.9846
234	674.8179	24.8766	-80.9846	546.6720	18.4561	-65.2909
235	546.6720	18.4561	-65.2909	499.7626	15.4211	-57.4750
236	499.7626	15.4211	-57.4750	343.1107	9.7833	-41.9446
237	343.1107	9.7833	-41.9446	273.8596	7.2185	-34.2671
238	273.8596	7.2185	-34.2671	105.9662	2.6030	-20.5254
239	105.9662	2.6030	-20.5254	23.8849	0.5527	-14.9522
240	23.8849	0.5527	-14.9522	-140.6953	41.6121	-120.1452
241	-140.6953	41.6121	-120.1452	40.3246	83.8681	-221.6289
242	40.3246	83.8681	-221.6289	145.8109	78.6371	-206.6729
243	145.8109	78.6371	-206.6729	312.0334	75.7691	-198.8728
244	312.0334	75.7691	-198.8728	402.4014	69.6015	-183.3195
245	402.4014	69.6015	-183.3195	542.2793	66.3402	-175.4948
246	542.2793	66.3402	-175.4948	599.2837	59.5488	-159.7718
247	599.2837	59.5488	-159.7718	703.8188	56.0409	-151.8733
248	703.8188	56.0409	-151.8733	715.5756	48.9057	-136.3230
249	715.5756	48.9057	-136.3230	779.6570	45.3051	-128.1902
250	779.6570	45.3051	-128.1902	740.9745	38.1162	-112.4378
251	740.9745	38.1162	-112.4378	763.5424	34.5629	-104.5609
252	763.5424	34.5629	-104.5609	675.8300	27.6431	-88.7950
253	675.8300	27.6431	-88.7950	659.9987	24.2981	-80.7450
254	659.9987	24.2981	-80.7450	531.5891	17.9247	-65.1701
255	531.5891	17.9247	-65.1701	484.2895	14.9267	-57.3750
256	484.2895	14.9267	-57.3750	330.0803	9.4085	-41.7888
257	330.0803	9.4085	-41.7888	262.4061	6.9158	-34.1916
258	262.4061	6.9158	-34.1916	100.7535	2.4752	-20.3752
259	100.7535	2.4752	-20.3752	22.8469	0.5289	-14.7660
260	22.8469	0.5289	-14.7660	-130.5898	41.5633	-116.6528
261	-130.5898	41.5633	-116.6528	-6.8056	83.3315	-212.6956
262	-6.8056	83.3315	-212.6956	114.1848	80.5347	-202.9578
263	114.1848	80.5347	-202.9578	231.1098	77.5191	-193.0767
264	231.1098	77.5191	-193.0767	341.9371	74.2953	-183.2382
265	341.9371	74.2953	-183.2382	444.8593	70.8703	-173.2413
266	444.8593	70.8703	-173.2413	538.2571	67.2579	-163.3543
267	538.2571	67.2579	-163.3543	620.3800	63.4697	-153.3944
268	620.3800	63.4697	-153.3944	620.5359	55.4053	-133.3327
269	620.5359	55.4053	-133.3327	670.0876	51.1656	-123.3618
270	670.0876	51.1656	-123.3618	703.3201	46.7805	-113.4764
271	703.3201	46.7805	-113.4764	719.2710	42.2974	-103.3535
272	719.2710	42.2974	-103.3535	716.8192	37.7026	-93.2667
273	716.8192	37.7026	-93.2667	695.1794	33.0168	-83.2460
274	695.1794	33.0168	-83.2460	653.5934	28.2740	-73.2522

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	653.5934	28.2740	-73.2522	591.3593	23.4634	-63.3237
276	591.3593	23.4634	-63.3237	372.1577	13.6692	-43.4721
277	372.1577	13.6692	-43.4721	256.2823	8.7155	-33.5821
278	256.2823	8.7155	-33.5821	-3.5807	0.7958	-0.0040
279	-3.5807	0.7958	-0.0040	-1.7907	0.7958	-0.0049
280	-1.7907	0.7958	-0.0049	0.0003	0.7958	-0.0047

ENVOL. MAX. FLECTORES TREN TREN SW/0, EC-1 en via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0103	-40.4115	-36.8029	450.5503	190.2870	-596.4032
2	450.5503	190.2870	-596.4032	844.2020	163.6815	-520.8049
3	844.2020	163.6815	-520.8049	1170.6543	123.7855	-407.8420
4	1170.6543	123.7855	-407.8420	1440.5410	105.1061	-363.7891
5	1440.5410	105.1061	-363.7891	1649.1018	78.5488	-288.1660
6	1649.1018	78.5488	-288.1660	1793.8135	60.4334	-243.3351
7	1793.8135	60.4334	-243.3351	1887.9773	20.5621	-130.3833
8	1887.9773	20.5621	-130.3833	1912.9883	-6.0148	-55.2994
9	1912.9883	-6.0148	-55.2994	1890.0797	-23.5456	-10.7569
10	1890.0797	-23.5456	-10.7569	1892.7592	-9.0548	-31.1837
11	1892.7592	-9.0548	-31.1837	1839.1125	-35.6734	44.2463
12	1839.1125	-35.6734	44.2463	1733.0466	-61.0110	107.6495
13	1733.0466	-61.0110	107.6495	1560.7981	-94.2910	201.5789
14	1560.7981	-94.2910	201.5789	1335.8119	-112.4806	246.1473
15	1335.8119	-112.4806	246.1473	1049.4628	-139.0715	321.6300
16	1049.4628	-139.0715	321.6300	716.7091	-163.2455	384.9747
17	716.7091	-163.2455	384.9747	449.4975	11.7495	-2.1801
18	449.4975	11.7495	-2.1801	475.9403	11.7502	-2.3208
19	475.9403	11.7502	-2.3208	502.3867	11.7533	-2.3150
20	502.3867	11.7533	-2.3150	528.8239	-13.3097	-17.2590
21	528.8239	-13.3097	-17.2590	413.7202	-38.3725	-32.3352
22	413.7202	-38.3725	-32.3352	298.5975	-38.3724	-32.3689
23	298.5975	-38.3724	-32.3689	383.2466	168.0729	-435.0084
24	383.2466	168.0729	-435.0084	877.7623	153.6741	-403.8558
25	877.7623	153.6741	-403.8558	1300.9044	126.0419	-331.2269
26	1300.9044	126.0419	-331.2269	1645.9554	98.1678	-258.7267
27	1645.9554	98.1678	-258.7267	1910.0947	70.1093	-185.9535
28	1910.0947	70.1093	-185.9535	2091.3286	41.9476	-113.2307
29	2091.3286	41.9476	-113.2307	2188.2549	13.7645	-40.4696
30	2188.2549	13.7645	-40.4696	2262.4678	11.6621	-13.2094
31	2262.4678	11.6621	-13.2094	2260.3379	-16.4040	59.2010
32	2260.3379	-16.4040	59.2010	2174.0479	-44.5368	131.5871
33	2174.0479	-44.5368	131.5871	2003.3727	-72.6738	204.6396
34	2003.3727	-72.6738	204.6396	1749.0803	-100.8448	277.3168
35	1749.0803	-100.8448	277.3168	1412.3147	-128.8264	350.0039
36	1412.3147	-128.8264	350.0039	995.7804	-156.6168	422.8539
37	995.7804	-156.6168	422.8539	509.6866	-171.4843	454.0456
38	509.6866	-171.4843	454.0456	434.8246	10.8102	-1.6572
39	434.8246	10.8102	-1.6572	467.2563	10.8110	-1.6526
40	467.2563	10.8110	-1.6526	499.6929	-13.4669	-16.8970
41	499.6929	-13.4669	-16.8970	386.4556	-37.7449	-32.2654
42	386.4556	-37.7449	-32.2654	309.2143	-7.5802	1.4678
43	309.2143	-7.5802	1.4678	458.8716	178.8700	-476.0897
44	458.8716	178.8700	-476.0897	952.7803	151.4763	-403.9742
45	952.7803	151.4763	-403.9742	1370.4106	123.7803	-331.3459
46	1370.4106	123.7803	-331.3459	1708.9595	95.8839	-258.4490
47	1708.9595	95.8839	-258.4490	1965.7903	67.8769	-185.5707
48	1965.7903	67.8769	-185.5707	2139.1138	39.7649	-112.8848
49	2139.1138	39.7649	-112.8848	2228.3813	11.6643	-40.3298
50	2228.3813	11.6643	-40.3298	2298.6218	9.4725	-12.9732
51	2298.6218	9.4725	-12.9732	2289.7363	-18.5463	59.9344
52	2289.7363	-18.5463	59.9344	2196.5078	-46.6635	132.5909
53	2196.5078	-46.6635	132.5909	2018.9415	-74.7486	205.3298

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	2018.9415	-74.7486	205.3298	1757.9487	-102.7908	278.1696
55	1757.9487	-102.7908	278.1696	1415.3359	-130.6587	351.0178
56	1415.3359	-130.6587	351.0178	993.3124	-158.3512	423.6112
57	993.3124	-158.3512	423.6112	503.1590	-172.9251	454.8398
58	503.1590	-172.9251	454.8398	433.6508	10.6474	-1.5658
59	433.6508	10.6474	-1.5658	465.5942	10.6470	-1.5000
60	465.5942	10.6470	-1.5000	497.5341	-13.5270	-16.7786
61	497.5341	-13.5270	-16.7786	459.3354	-10.4900	1.4308
62	459.3354	-10.4900	1.4308	427.8651	-10.4912	1.5335
63	427.8651	-10.4912	1.5335	464.7039	178.7123	-476.6508
64	464.7039	178.7123	-476.6508	958.3987	151.3098	-404.2433
65	958.3987	151.3098	-404.2433	1375.7797	123.6201	-331.7838
66	1375.7797	123.6201	-331.7838	1713.9188	95.7942	-259.0289
67	1713.9188	95.7942	-259.0289	1970.3641	67.7563	-185.9716
68	1970.3641	67.7563	-185.9716	2143.3867	39.6656	-113.2471
69	2143.3867	39.6656	-113.2471	2231.9905	11.5406	-40.5499
70	2231.9905	11.5406	-40.5499	2301.8984	9.3147	-13.1309
71	2301.8984	9.3147	-13.1309	2292.3784	-18.7081	60.0770
72	2292.3784	-18.7081	60.0770	2198.5854	-46.8517	132.7852
73	2198.5854	-46.8517	132.7852	2020.4165	-74.9113	205.4499
74	2020.4165	-74.9113	205.4499	1758.9205	-102.9370	278.5868
75	1758.9205	-102.9370	278.5868	1415.7310	-130.8351	351.5355
76	1415.7310	-130.8351	351.5355	993.3871	-158.4970	424.1470
77	993.3871	-158.4970	424.1470	502.8940	-173.0436	455.2352
78	502.8940	-173.0436	455.2352	433.6286	10.6330	-1.4618
79	433.6286	10.6330	-1.4618	465.5192	10.6310	-1.4026
80	465.5192	10.6310	-1.4026	498.1295	13.5570	16.7368
81	498.1295	13.5570	16.7368	466.1774	-10.6447	1.3054
82	466.1774	-10.6447	1.3054	434.2520	-10.6424	1.3679
83	434.2520	-10.6424	1.3679	465.1525	178.7278	-477.1922
84	465.1525	178.7278	-477.1922	958.9131	151.3210	-404.9185
85	958.9131	151.3210	-404.9185	1376.2223	123.6147	-332.2123
86	1376.2223	123.6147	-332.2123	1714.3875	95.7495	-259.3112
87	1714.3875	95.7495	-259.3112	1970.7581	67.7200	-186.1815
88	1970.7581	67.7200	-186.1815	2143.6458	39.6006	-113.4787
89	2143.6458	39.6006	-113.4787	2232.1460	11.5482	-40.6265
90	2232.1460	11.5482	-40.6265	2302.0991	9.2827	-12.6776
91	2302.0991	9.2827	-12.6776	2292.6064	-18.7394	60.1729
92	2292.6064	-18.7394	60.1729	2198.7939	-46.8092	132.8293
93	2198.7939	-46.8092	132.8293	2020.6742	-74.9151	205.8876
94	2020.6742	-74.9151	205.8876	1759.1464	-102.9646	278.8606
95	1759.1464	-102.9646	278.8606	1415.7922	-130.8569	351.7856
96	1415.7922	-130.8569	351.7856	993.3273	-158.5229	424.6409
97	993.3273	-158.5229	424.6409	502.6641	-173.0892	455.8311
98	502.6641	-173.0892	455.8311	433.6843	10.6320	-1.3612
99	433.6843	10.6320	-1.3612	465.5900	10.6310	-1.3244
100	465.5900	10.6310	-1.3244	498.8654	13.5809	16.6964
101	498.8654	13.5809	16.6964	466.8942	-10.6596	1.2603
102	466.8942	-10.6596	1.2603	434.9175	-10.6609	1.2558
103	434.9175	-10.6609	1.2558	465.3459	178.7014	-477.4469
104	465.3459	178.7014	-477.4469	958.9859	151.2930	-405.1569
105	958.9859	151.2930	-405.1569	1376.2534	123.6187	-332.6400
106	1376.2534	123.6187	-332.6400	1714.3583	95.7599	-259.5861
107	1714.3583	95.7599	-259.5861	1970.7249	67.7114	-186.3988
108	1970.7249	67.7114	-186.3988	2143.5955	39.5961	-113.3992

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
109	2143.5955	39.5961	-113.3992	2232.1670	11.5107	-40.5384
110	2232.1670	11.5107	-40.5384	2302.0063	9.2907	-12.8787
111	2302.0063	9.2907	-12.8787	2292.4949	-18.7597	60.3097
112	2292.4949	-18.7597	60.3097	2198.5806	-46.8570	132.9687
113	2198.5806	-46.8570	132.9687	2020.3047	-74.9584	206.2281
114	2020.3047	-74.9584	206.2281	1758.6699	-102.9521	279.3830
115	1758.6699	-102.9521	279.3830	1415.5442	-130.7859	352.3404
116	1415.5442	-130.7859	352.3404	993.2293	-158.4572	425.1979
117	993.2293	-158.4572	425.1979	502.7186	-173.0338	456.1799
118	502.7186	-173.0338	456.1799	433.8177	10.6395	-1.2790
119	433.8177	10.6395	-1.2790	465.7266	10.6395	-1.1317
120	465.7266	10.6395	-1.1317	498.7886	13.5791	16.5524
121	498.7886	13.5791	16.5524	466.8472	-10.6521	1.1116
122	466.8472	-10.6521	1.1116	434.8948	-10.6496	1.2151
123	434.8948	-10.6496	1.2151	465.1612	178.7738	-477.9753
124	465.1612	178.7738	-477.9753	959.1981	151.3533	-405.6603
125	959.1981	151.3533	-405.6603	1376.7212	123.6813	-333.0798
126	1376.7212	123.6813	-333.0798	1714.9109	95.7662	-260.0567
127	1714.9109	95.7662	-260.0567	1971.3396	67.7276	-186.7488
128	1971.3396	67.7276	-186.7488	2144.2366	39.6163	-113.4703
129	2144.2366	39.6163	-113.4703	2232.7383	11.4525	-40.4518
130	2232.7383	11.4525	-40.4518	2302.5327	9.2132	-13.1399
131	2302.5327	9.2132	-13.1399	2292.8625	-18.7993	60.0402
132	2292.8625	-18.7993	60.0402	2198.8682	-46.8513	133.5253
133	2198.8682	-46.8513	133.5253	2020.6262	-74.9921	206.9821
134	2020.6262	-74.9921	206.9821	1758.9207	-102.9999	279.9526
135	1758.9207	-102.9999	279.9526	1415.5388	-130.8589	352.7036
136	1415.5388	-130.8589	352.7036	992.9976	-158.5266	425.6450
137	992.9976	-158.5266	425.6450	502.2180	-173.0786	456.8535
138	502.2180	-173.0786	456.8535	433.7372	10.6346	-1.2028
139	433.7372	10.6346	-1.2028	465.6329	10.6341	-0.9927
140	465.6329	10.6341	-0.9927	499.0469	13.5838	16.3409
141	499.0469	13.5838	16.3409	467.0591	-10.6655	0.9454
142	467.0591	-10.6655	0.9454	435.0631	-10.6665	1.1561
143	435.0631	-10.6665	1.1561	464.9291	178.6856	-478.6082
144	464.9291	178.6856	-478.6082	958.7675	151.3006	-406.1396
145	958.7675	151.3006	-406.1396	1376.1406	123.6329	-333.4926
146	1376.1406	123.6329	-333.4926	1714.3391	95.7659	-260.6076
147	1714.3391	95.7659	-260.6076	1970.7871	67.7134	-187.1087
148	1970.7871	67.7134	-187.1087	2143.6941	39.5751	-113.6638
149	2143.6941	39.5751	-113.6638	2232.2490	11.5007	-40.7001
150	2232.2490	11.5007	-40.7001	2302.1406	9.2888	-12.9970
151	2302.1406	9.2888	-12.9970	2292.5737	-18.7325	60.1874
152	2292.5737	-18.7325	60.1874	2198.6091	-46.8385	133.6382
153	2198.6091	-46.8385	133.6382	2020.4537	-74.9127	207.0881
154	2020.4537	-74.9127	207.0881	1758.9863	-102.9322	279.9718
155	1758.9863	-102.9322	279.9718	1415.6707	-130.8067	352.9749
156	1415.6707	-130.8067	352.9749	993.1926	-158.5079	426.0163
157	993.1926	-158.5079	426.0163	502.5793	-173.0659	457.2889
158	502.5793	-173.0659	457.2889	433.8685	10.6320	-1.1336
159	433.8685	10.6320	-1.1336	465.7706	10.6325	-1.0314
160	465.7706	10.6325	-1.0314	498.9822	13.5896	16.2408
161	498.9822	13.5896	16.2408	467.0095	-10.6552	0.9498
162	467.0095	-10.6552	0.9498	435.0505	-10.6548	1.0543
163	435.0505	-10.6548	1.0543	465.1108	178.7522	-478.7698

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
164	465.1108	178.7522	-478.7698	958.9339	151.3480	-406.5272
165	958.9339	151.3480	-406.5272	1376.4172	123.6538	-333.5106
166	1376.4172	123.6538	-333.5106	1714.7501	95.7465	-260.3542
167	1714.7501	95.7465	-260.3542	1971.0829	67.7022	-187.7192
168	1971.0829	67.7022	-187.7192	2143.9512	39.5742	-114.2452
169	2143.9512	39.5742	-114.2452	2232.5845	11.5401	-40.6006
170	2232.5845	11.5401	-40.6006	2302.4341	9.2769	-12.5961
171	2302.4341	9.2769	-12.5961	2292.8225	-18.7875	60.7152
172	2292.8225	-18.7875	60.7152	2199.0166	-46.8418	133.5549
173	2199.0166	-46.8418	133.5549	2020.7738	-74.9823	207.1656
174	2020.7738	-74.9823	207.1656	1759.0649	-103.0054	280.4123
175	1759.0649	-103.0054	280.4123	1415.6392	-130.8779	353.3181
176	1415.6392	-130.8779	353.3181	993.0947	-158.5437	426.3299
177	993.0947	-158.5437	426.3299	502.2264	-173.1090	457.3395
178	502.2264	-173.1090	457.3395	433.7924	10.6345	-1.0508
179	433.7924	10.6345	-1.0508	465.6997	10.6328	-0.9254
180	465.6997	10.6328	-0.9254	499.2095	13.5901	16.2712
181	499.2095	13.5901	16.2712	467.2001	-10.6670	0.9536
182	467.2001	-10.6670	0.9536	435.2042	-10.6690	1.1163
183	435.2042	-10.6690	1.1163	465.0744	178.7104	-478.6815
184	465.0744	178.7104	-478.6815	958.7285	151.3022	-406.4056
185	958.7285	151.3022	-406.4056	1376.1836	123.6181	-333.6661
186	1376.1836	123.6181	-333.6661	1714.3079	95.7367	-260.3057
187	1714.3079	95.7367	-260.3057	1970.7009	67.7094	-187.0085
188	1970.7009	67.7094	-187.0085	2143.7842	39.6395	-114.0367
189	2143.7842	39.6395	-114.0367	2232.4692	11.5154	-40.5499
190	2232.4692	11.5154	-40.5499	2302.4263	9.3243	-12.8937
191	2302.4263	9.3243	-12.8937	2292.9575	-18.6935	60.6102
192	2292.9575	-18.6935	60.6102	2199.2732	-46.8148	134.1238
193	2199.2732	-46.8148	134.1238	2021.1516	-74.9851	206.9720
194	2021.1516	-74.9851	206.9720	1759.4077	-103.0097	280.2659
195	1759.4077	-103.0097	280.2659	1415.9349	-130.8708	353.5023
196	1415.9349	-130.8708	353.5023	993.3936	-158.5408	426.3156
197	993.3936	-158.5408	426.3156	502.5941	-173.1165	457.4339
198	502.5941	-173.1165	457.4339	433.2414	10.6140	-1.0145
199	433.2414	10.6140	-1.0145	465.0765	10.6123	-0.9511
200	465.0765	10.6123	-0.9511	499.2142	13.5936	16.1700
201	499.2142	13.5936	16.1700	467.2050	-10.6682	1.0186
202	467.2050	-10.6682	1.0186	435.2138	-10.6673	1.0630
203	435.2138	-10.6673	1.0630	464.9826	178.7021	-478.7676
204	464.9826	178.7021	-478.7676	958.9092	151.3112	-406.4306
205	958.9092	151.3112	-406.4306	1376.3474	123.6544	-333.5611
206	1376.3474	123.6544	-333.5611	1714.5983	95.7704	-260.3334
207	1714.5983	95.7704	-260.3334	1971.1179	67.7350	-187.4644
208	1971.1179	67.7350	-187.4644	2144.0996	39.6130	-114.0535
209	2144.0996	39.6130	-114.0535	2232.7446	11.4765	-40.6049
210	2232.7446	11.4765	-40.6049	2302.5293	9.2367	-12.9262
211	2302.5293	9.2367	-12.9262	2292.8638	-18.8098	60.2598
212	2292.8638	-18.8098	60.2598	2198.8730	-46.9079	133.7152
213	2198.8730	-46.9079	133.7152	2020.6211	-74.9489	207.1682
214	2020.6211	-74.9489	207.1682	1758.9297	-103.0219	280.2144
215	1758.9297	-103.0219	280.2144	1415.4893	-130.9008	353.2258
216	1415.4893	-130.9008	353.2258	992.7951	-158.5685	426.1256
217	992.7951	-158.5685	426.1256	501.9653	-173.1355	457.3705
218	501.9653	-173.1355	457.3705	426.6648	10.4506	-1.1349

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
219	426.6648	10.4506	-1.1349	458.0169	10.4504	-0.9678
220	458.0169	10.4504	-0.9678	499.5746	13.5936	16.2043
221	499.5746	13.5936	16.2043	467.5041	-10.6858	0.8873
222	467.5041	-10.6858	0.8873	435.4424	-10.6860	1.0140
223	435.4424	-10.6860	1.0140	465.7949	178.5531	-478.7932
224	465.7949	178.5531	-478.7932	959.1242	151.1199	-406.4358
225	959.1242	151.1199	-406.4358	1376.0438	123.4330	-333.4963
226	1376.0438	123.4330	-333.4963	1713.6346	95.5649	-260.4791
227	1713.6346	95.5649	-260.4791	1969.3379	67.5094	-187.3760
228	1969.3379	67.5094	-187.3760	2141.5769	39.4231	-114.1302
229	2141.5769	39.4231	-114.1302	2229.5254	11.3265	-40.8540
230	2229.5254	11.3265	-40.8540	2298.9766	9.1089	-12.7930
231	2298.9766	9.1089	-12.7930	2288.7446	-18.9478	60.3036
232	2288.7446	-18.9478	60.3036	2194.2170	-46.9931	133.5689
233	2194.2170	-46.9931	133.5689	2015.5198	-75.0851	207.0232
234	2015.5198	-75.0851	207.0232	1753.4427	-103.1032	280.3516
235	1753.4427	-103.1032	280.3516	1409.6188	-131.0161	353.3524
236	1409.6188	-131.0161	353.3524	986.8038	-158.7056	426.0894
237	986.8038	-158.7056	426.0894	495.9618	-173.2663	457.3589
238	495.9618	-173.2663	457.3589	308.1245	7.5521	-1.0958
239	308.1245	7.5521	-1.0958	388.0044	37.8984	31.5241
240	388.0044	37.8984	31.5241	501.7144	13.5226	16.2120
241	501.7144	13.5226	16.2120	469.1432	-10.8561	0.9446
242	469.1432	-10.8561	0.9446	436.5648	-10.8566	1.0749
243	436.5648	-10.8566	1.0749	472.5039	176.9323	-478.4262
244	472.5039	176.9323	-478.4262	961.0443	149.3721	-406.0248
245	961.0443	149.3721	-406.0248	1372.4374	121.5684	-333.2491
246	1372.4374	121.5684	-333.2491	1703.8134	93.5966	-259.9670
247	1703.8134	93.5966	-259.9670	1953.0874	65.4505	-186.7851
248	1953.0874	65.4505	-186.7851	2118.5435	37.3143	-113.9225
249	2118.5435	37.3143	-113.9225	2200.0703	35.1523	-85.7903
250	2200.0703	35.1523	-85.7903	2266.0322	7.1583	-12.3080
251	2266.0322	7.1583	-12.3080	2248.1604	-20.9808	60.6906
252	2248.1604	-20.9808	60.6906	2145.9329	-49.1216	134.1725
253	2145.9329	-49.1216	134.1725	1959.6819	-77.2670	207.7862
254	1959.6819	-77.2670	207.7862	1690.4746	-105.3411	280.9027
255	1690.4746	-105.3411	280.9027	1340.3214	-133.2323	353.7097
256	1340.3214	-133.2323	353.7097	913.9312	-148.2825	385.6941
257	913.9312	-148.2825	385.6941	421.3845	-175.2355	457.7670
258	421.3845	-175.2355	457.7670	299.4734	38.5147	31.4846
259	299.4734	38.5147	31.4846	415.0119	38.5127	31.5975
260	415.0119	38.5127	31.5975	530.5416	13.3706	16.4745
261	530.5416	13.3706	16.4745	504.0482	-11.7677	1.3576
262	504.0482	-11.7677	1.3576	477.5768	-11.7658	1.4485
263	477.5768	-11.7658	1.4485	451.1028	-11.7652	1.6201
264	451.1028	-11.7652	1.6201	689.1062	156.1995	-367.6390
265	689.1062	156.1995	-367.6390	1021.4742	138.6624	-323.0922
266	1021.4742	138.6624	-323.0922	1298.9937	112.0675	-247.4997
267	1298.9937	112.0675	-247.4997	1522.9082	80.5657	-165.0414
268	1522.9082	80.5657	-165.0414	1682.8082	53.9004	-88.8024
269	1682.8082	53.9004	-88.8024	1788.1680	35.1015	-43.9471
270	1788.1680	35.1015	-43.9471	1878.2156	49.6328	-64.1169
271	1878.2156	49.6328	-64.1169	1956.6545	22.9942	11.9401
272	1956.6545	22.9942	11.9401	1978.7351	-1.2380	75.6573
273	1978.7351	-1.2380	75.6573	1940.9600	-34.5245	170.3035

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
274	1940.9600	-34.5245	170.3035	1842.3198	-52.6727	215.1728
275	1842.3198	-52.6727	215.1728	1690.5797	-79.2473	290.7983
276	1690.5797	-79.2473	290.7983	1472.2562	-112.5249	385.5557
277	1472.2562	-112.5249	385.5557	1197.2454	-137.8871	449.1752
278	1197.2454	-137.8871	449.1752	860.1971	-164.4881	524.8777
279	860.1971	-164.4881	524.8777	456.8394	-191.0798	600.5317
280	456.8394	-191.0798	600.5317	0.2755	-204.3763	638.2006

ENVOL. MIN. FLECTORES TREN TREN SW/0, EC-1 en via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.2226	209.3730	-643.1696	-93.7158	-41.6542	-41.3422
2	-93.7158	-41.6542	-41.3422	-187.4348	-41.6564	-41.3783
3	-187.4348	-41.6564	-41.3783	-281.1716	-41.6504	-41.3290
4	-281.1716	-41.6504	-41.3290	-374.9374	-41.6495	-41.2093
5	-374.9374	-41.6495	-41.2093	-468.6620	-41.6710	-41.2603
6	-468.6620	-41.6710	-41.2603	-562.4480	-41.6897	-41.3538
7	-562.4480	-41.6897	-41.3538	-656.2742	-41.7078	-41.2747
8	-656.2742	-41.7078	-41.2747	-750.1981	-41.7268	-41.1469
9	-750.1981	-41.7268	-41.1469	-844.0582	-41.7208	-41.2485
10	-844.0582	-41.7208	-41.2485	-937.9381	-41.7202	-41.1203
11	-937.9381	-41.7202	-41.1203	-1031.8643	-41.7203	-41.1541
12	-1031.8643	-41.7203	-41.1541	-1125.7328	-41.7177	-41.1303
13	-1125.7328	-41.7177	-41.1303	-1219.5975	-41.7151	-40.9155
14	-1219.5975	-41.7151	-40.9155	-1313.3643	-41.7098	-40.9112
15	-1313.3643	-41.7098	-40.9112	-1407.1721	-41.7078	-41.0344
16	-1407.1721	-41.7078	-41.0344	-1501.0078	-41.7031	-41.1785
17	-1501.0078	-41.7031	-41.1785	-1594.8130	-41.7019	-40.8805
18	-1594.8130	-41.7019	-40.8805	-1688.6426	-41.7008	-40.3792
19	-1688.6426	-41.7008	-40.3792	-1782.4634	-41.7043	-40.3941
20	-1782.4634	-41.7043	-40.3941	-1876.2343	94.7240	-338.3064
21	-1876.2343	94.7240	-338.3064	-1215.7307	201.5522	-565.7406
22	-1215.7307	201.5522	-565.7406	-1098.0768	26.8905	29.8062
23	-1098.0768	26.8905	29.8062	-1017.3906	26.8916	29.8131
24	-1017.3906	26.8916	29.8131	-936.6964	26.9016	29.8078
25	-936.6964	26.9016	29.8078	-855.9913	26.8965	29.8091
26	-855.9913	26.8965	29.8091	-775.2948	26.8815	29.9224
27	-775.2948	26.8815	29.9224	-694.6610	26.8841	29.9336
28	-694.6610	26.8841	29.9336	-613.9769	26.8976	29.9154
29	-613.9769	26.8976	29.9154	-533.2736	26.8964	29.9262
30	-533.2736	26.8964	29.9262	-622.3176	-38.3678	-32.4296
31	-622.3176	-38.3678	-32.4296	-737.3938	-38.3610	-32.3150
32	-737.3938	-38.3610	-32.3150	-852.4365	-38.3611	-32.2043
33	-852.4365	-38.3611	-32.2043	-967.5300	-38.3585	-32.3526
34	-967.5300	-38.3585	-32.3526	-1082.5925	-38.3544	-32.2547
35	-1082.5925	-38.3544	-32.2547	-1197.6798	-38.3574	-32.2847
36	-1197.6798	-38.3574	-32.2847	-1312.7393	-38.3605	-32.3741
37	-1312.7393	-38.3605	-32.3741	-1427.8037	-38.3589	-32.3912
38	-1427.8037	-38.3589	-32.3912	-1542.8445	-38.3547	-32.3742
39	-1542.8445	-38.3547	-32.3742	-1657.8989	-38.3498	-32.3938
40	-1657.8989	-38.3498	-32.3938	-1772.9094	95.2819	-334.2977
41	-1772.9094	95.2819	-334.2977	-1630.2382	37.2177	32.6571
42	-1630.2382	37.2177	32.6571	-1518.5986	37.2169	32.6734
43	-1518.5986	37.2169	32.6734	-1406.9561	37.2140	32.4487
44	-1406.9561	37.2140	32.4487	-1295.2896	37.2103	32.6394
45	-1295.2896	37.2103	32.6394	-1183.6655	37.2153	32.6635
46	-1183.6655	37.2153	32.6635	-1071.9592	37.2251	32.4894
47	-1071.9592	37.2251	32.4894	-960.2899	37.2330	32.4109
48	-960.2899	37.2330	32.4109	-848.6130	37.2182	32.4193
49	-848.6130	37.2182	32.4193	-736.9905	37.2042	32.4839
50	-736.9905	37.2042	32.4839	-632.5945	-37.7458	-32.3465
51	-632.5945	-37.7458	-32.3465	-745.8973	-37.7411	-32.3868
52	-745.8973	-37.7411	-32.3868	-859.1313	-37.7399	-32.3910
53	-859.1313	-37.7399	-32.3910	-972.3945	-37.7367	-32.3821
54	-972.3945	-37.7367	-32.3821	-1085.5969	-37.7394	-32.4803

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	-1085.5969	-37.7394	-32.4803	-1198.8335	-37.7519	-32.5355
56	-1198.8335	-37.7519	-32.5355	-1312.1643	-37.7547	-32.5429
57	-1312.1643	-37.7547	-32.5429	-1425.4213	-37.7688	-32.6553
58	-1425.4213	-37.7688	-32.6553	-1538.7500	-37.7826	-32.6571
59	-1538.7500	-37.7826	-32.6571	-1652.0696	-37.7760	-32.8979
60	-1652.0696	-37.7760	-32.8979	-1767.7789	-95.6676	334.9212
61	-1767.7789	-95.6676	334.9212	-1654.3646	37.7744	33.2276
62	-1654.3646	37.7744	33.2276	-1541.0328	37.7778	32.8624
63	-1541.0328	37.7778	32.8624	-1427.7249	37.7720	32.8603
64	-1427.7249	37.7720	32.8603	-1314.4136	37.7711	32.6796
65	-1314.4136	37.7711	32.6796	-1201.1013	37.7773	32.6432
66	-1201.1013	37.7773	32.6432	-1087.8029	37.7617	32.6720
67	-1087.8029	37.7617	32.6720	-974.5644	37.7598	32.4261
68	-974.5644	37.7598	32.4261	-861.2964	37.7571	32.4226
69	-861.2964	37.7571	32.4226	-748.0392	37.7558	32.4126
70	-748.0392	37.7558	32.4126	-634.7336	37.7757	32.3185
71	-634.7336	37.7757	32.3185	-746.6995	-37.6957	-32.2784
72	-746.6995	-37.6957	-32.2784	-859.7733	-37.7152	-32.2678
73	-859.7733	-37.7152	-32.2678	-972.9292	-37.7186	-32.2639
74	-972.9292	-37.7186	-32.2639	-1085.9993	-37.7024	-32.5116
75	-1085.9993	-37.7024	-32.5116	-1199.1221	-37.7096	-32.6677
76	-1199.1221	-37.7096	-32.6677	-1312.2595	-37.7171	-32.6758
77	-1312.2595	-37.7171	-32.6758	-1425.4244	-37.7193	-32.6844
78	-1425.4244	-37.7193	-32.6844	-1538.5632	-37.7104	-33.0339
79	-1538.5632	-37.7104	-33.0339	-1651.6726	-37.7047	-33.2460
80	-1651.6726	-37.7047	-33.2460	-1770.1194	-95.7326	335.4189
81	-1770.1194	-95.7326	335.4189	-1656.7009	37.8250	33.6512
82	-1656.7009	37.8250	33.6512	-1543.2434	37.8180	33.4306
83	-1543.2434	37.8180	33.4306	-1429.8203	37.8164	33.2034
84	-1429.8203	37.8164	33.2034	-1316.3708	37.8212	33.1042
85	-1316.3708	37.8212	33.1042	-1202.9268	37.8186	32.9225
86	-1202.9268	37.8186	32.9225	-1089.4438	37.8191	32.7540
87	-1089.4438	37.8191	32.7540	-975.9863	37.8144	32.5267
88	-975.9863	37.8144	32.5267	-862.5237	37.8089	32.5080
89	-862.5237	37.8089	32.5080	-749.0848	37.8107	32.4646
90	-749.0848	37.8107	32.4646	-635.6501	37.8063	32.1918
91	-635.6501	37.8063	32.1918	-746.9089	-37.7099	-32.2059
92	-746.9089	-37.7099	-32.2059	-860.0142	-37.7019	-32.2195
93	-860.0142	-37.7019	-32.2195	-973.1500	-37.7087	-32.3641
94	-973.1500	-37.7087	-32.3641	-1086.2419	-37.7052	-32.5162
95	-1086.2419	-37.7052	-32.5162	-1199.3420	-37.7007	-32.6990
96	-1199.3420	-37.7007	-32.6990	-1312.4282	-37.7009	-32.9854
97	-1312.4282	-37.7009	-32.9854	-1425.5365	-37.7015	-33.1670
98	-1425.5365	-37.7015	-33.1670	-1538.6417	-37.7124	-33.3971
99	-1538.6417	-37.7124	-33.3971	-1651.8170	-37.7108	-33.5163
100	-1651.8170	-37.7108	-33.5163	-1770.4998	-95.7480	335.7148
101	-1770.4998	-95.7480	335.7148	-1657.1227	37.8267	33.8271
102	-1657.1227	37.8267	33.8271	-1543.6561	37.8301	33.8431
103	-1543.6561	37.8301	33.8431	-1430.1707	37.8298	33.2951
104	-1430.1707	37.8298	33.2951	-1316.6844	37.8359	32.9650
105	-1316.6844	37.8359	32.9650	-1203.1504	37.8263	32.9589
106	-1203.1504	37.8263	32.9589	-1089.6946	37.8202	32.7043
107	-1089.6946	37.8202	32.7043	-976.2208	37.8333	32.3998
108	-976.2208	37.8333	32.3998	-862.6986	37.8274	32.2646
109	-862.6986	37.8274	32.2646	-749.2430	37.8316	32.1936

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	-749.2430	37.8316	32.1936	-635.7380	37.8355	32.0439
111	-635.7380	37.8355	32.0439	-747.0370	-37.7168	-32.1938
112	-747.0370	-37.7168	-32.1938	-860.1515	-37.7085	-32.1872
113	-860.1515	-37.7085	-32.1872	-973.2430	-37.7149	-32.4695
114	-973.2430	-37.7149	-32.4695	-1086.4004	-37.7311	-32.6913
115	-1086.4004	-37.7311	-32.6913	-1199.5762	-37.7407	-32.9779
116	-1199.5762	-37.7407	-32.9779	-1312.8430	-37.7494	-33.1434
117	-1312.8430	-37.7494	-33.1434	-1426.0757	-37.7533	-33.3624
118	-1426.0757	-37.7533	-33.3624	-1539.3418	-37.7449	-33.6877
119	-1539.3418	-37.7449	-33.6877	-1652.5283	-37.7430	-34.2144
120	-1652.5283	-37.7430	-34.2144	-1770.2842	-95.7312	336.0465
121	-1770.2842	-95.7312	336.0465	-1656.8502	37.8028	34.3371
122	-1656.8502	37.8028	34.3371	-1543.4531	37.7903	33.9776
123	-1543.4531	37.7903	33.9776	-1430.1383	37.7774	33.5508
124	-1430.1383	37.7774	33.5508	-1316.7500	37.7952	33.2336
125	-1316.7500	37.7952	33.2336	-1203.3452	37.8123	33.1142
126	-1203.3452	37.8123	33.1142	-1089.9448	37.8226	32.8583
127	-1089.9448	37.8226	32.8583	-976.5069	37.8298	32.4896
128	-976.5069	37.8298	32.4896	-863.0571	37.8408	32.2192
129	-863.0571	37.8408	32.2192	-749.5291	37.8435	32.0887
130	-749.5291	37.8435	32.0887	-635.9940	37.8400	32.0461
131	-635.9940	37.8400	32.0461	-747.1679	-37.7073	-32.0585
132	-747.1679	-37.7073	-32.0585	-860.2504	-37.7010	-32.3662
133	-860.2504	-37.7010	-32.3662	-973.3353	-37.7044	-32.7000
134	-973.3353	-37.7044	-32.7000	-1086.4580	-37.6968	-32.8494
135	-1086.4580	-37.6968	-32.8494	-1199.5657	-37.7069	-32.9633
136	-1199.5657	-37.7069	-32.9633	-1312.7000	-37.7212	-33.4336
137	-1312.7000	-37.7212	-33.4336	-1425.8622	-37.7174	-33.8106
138	-1425.8622	-37.7174	-33.8106	-1539.0344	-37.7193	-33.9319
139	-1539.0344	-37.7193	-33.9319	-1652.1714	-37.7229	-34.6792
140	-1652.1714	-37.7229	-34.6792	-1771.2006	-95.7412	336.8460
141	-1771.2006	-95.7412	336.8460	-1657.5820	37.8380	34.9310
142	-1657.5820	37.8380	34.9310	-1544.0775	37.8408	34.1817
143	-1544.0775	37.8408	34.1817	-1430.5398	37.8504	33.9624
144	-1430.5398	37.8504	33.9624	-1316.9691	37.8576	33.4734
145	-1316.9691	37.8576	33.4734	-1203.4526	37.8489	33.1542
146	-1203.4526	37.8489	33.1542	-1089.9841	37.8367	33.0069
147	-1089.9841	37.8367	33.0069	-976.4543	37.8299	32.5354
148	-976.4543	37.8299	32.5354	-863.0236	37.8318	32.1945
149	-863.0236	37.8318	32.1945	-749.5022	37.8498	32.0521
150	-749.5022	37.8498	32.0521	-635.9556	37.8550	31.8957
151	-635.9556	37.8550	31.8957	-747.1806	-37.7237	-31.8372
152	-747.1806	-37.7237	-31.8372	-860.3248	-37.7197	-32.1597
153	-860.3248	-37.7197	-32.1597	-973.4777	-37.7217	-32.4717
154	-973.4777	-37.7217	-32.4717	-1086.6753	-37.7262	-32.6286
155	-1086.6753	-37.7262	-32.6286	-1199.8712	-37.7344	-32.8896
156	-1199.8712	-37.7344	-32.8896	-1313.0807	-37.7428	-33.4918
157	-1313.0807	-37.7428	-33.4918	-1426.2699	-37.7385	-33.9857
158	-1426.2699	-37.7385	-33.9857	-1539.4634	-37.7327	-34.2010
159	-1539.4634	-37.7327	-34.2010	-1652.6455	-37.7241	-34.5639
160	-1652.6455	-37.7241	-34.5639	-1770.7609	-95.7496	337.1317
161	-1770.7609	-95.7496	337.1317	-1657.5010	37.8139	34.9088
162	-1657.5010	37.8139	34.9088	-1544.0925	37.8120	34.5419
163	-1544.0925	37.8120	34.5419	-1430.6748	37.8173	33.9949
164	-1430.6748	37.8173	33.9949	-1317.2078	37.8250	33.6700

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	-1317.2078	37.8250	33.6700	-1203.7430	37.8223	33.2213
166	-1203.7430	37.8223	33.2213	-1090.2571	37.8299	32.7773
167	-1090.2571	37.8299	32.7773	-976.7622	37.8436	32.7706
168	-976.7622	37.8436	32.7706	-863.2173	37.8372	32.4507
169	-863.2173	37.8372	32.4507	-749.7200	37.8356	32.0786
170	-749.7200	37.8356	32.0786	-636.2250	37.8488	31.8199
171	-636.2250	37.8488	31.8199	-747.3250	-37.7238	-32.1085
172	-747.3250	-37.7238	-32.1085	-860.5139	-37.7057	-32.1861
173	-860.5139	-37.7057	-32.1861	-973.5737	-37.7021	-32.6286
174	-973.5737	-37.7021	-32.6286	-1086.7107	-37.7162	-32.8800
175	-1086.7107	-37.7162	-32.8800	-1199.8618	-37.7196	-33.1595
176	-1199.8618	-37.7196	-33.1595	-1312.9724	-37.7273	-33.6143
177	-1312.9724	-37.7273	-33.6143	-1426.1359	-37.7290	-33.9363
178	-1426.1359	-37.7290	-33.9363	-1539.2415	-37.7291	-34.4901
179	-1539.2415	-37.7291	-34.4901	-1652.4326	-37.7274	-34.9301
180	-1652.4326	-37.7274	-34.9301	-1771.3511	-95.7400	337.0898
181	-1771.3511	-95.7400	337.0898	-1657.7806	37.8416	34.8972
182	-1657.7806	37.8416	34.8972	-1544.2886	37.8535	34.3232
183	-1544.2886	37.8535	34.3232	-1430.7137	37.8562	33.7438
184	-1430.7137	37.8562	33.7438	-1317.1919	37.8505	33.5575
185	-1317.1919	37.8505	33.5575	-1203.6228	37.8523	33.2654
186	-1203.6228	37.8523	33.2654	-1090.1111	37.8472	32.7654
187	-1090.1111	37.8472	32.7654	-976.6277	37.8419	32.3533
188	-976.6277	37.8419	32.3533	-863.1035	37.8095	32.2344
189	-863.1035	37.8095	32.2344	-749.6820	37.8066	31.9476
190	-749.6820	37.8066	31.9476	-636.1572	37.8272	31.7780
191	-636.1572	37.8272	31.7780	-747.4099	-37.7453	-32.0563
192	-747.4099	-37.7453	-32.0563	-860.6144	-37.7360	-32.3348
193	-860.6144	-37.7360	-32.3348	-973.7892	-37.7132	-32.4309
194	-973.7892	-37.7132	-32.4309	-1086.8374	-37.7061	-32.8409
195	-1086.8374	-37.7061	-32.8409	-1199.9641	-37.7183	-33.2510
196	-1199.9641	-37.7183	-33.2510	-1313.0939	-37.7150	-33.5577
197	-1313.0939	-37.7150	-33.5577	-1426.1907	-37.7089	-34.0751
198	-1426.1907	-37.7089	-34.0751	-1539.2756	-37.7113	-34.6161
199	-1539.2756	-37.7113	-34.6161	-1652.3821	-37.7078	-34.8354
200	-1652.3821	-37.7078	-34.8354	-1771.3430	-95.7560	337.2260
201	-1771.3430	-95.7560	337.2260	-1657.9147	37.8480	34.6525
202	-1657.9147	37.8480	34.6525	-1544.4058	37.8505	34.4943
203	-1544.4058	37.8505	34.4943	-1430.8835	37.8544	34.0720
204	-1430.8835	37.8544	34.0720	-1317.3340	37.8531	33.5535
205	-1317.3340	37.8531	33.5535	-1203.8203	37.8456	33.1673
206	-1203.8203	37.8456	33.1673	-1090.3396	37.8211	32.7296
207	-1090.3396	37.8211	32.7296	-976.9066	37.8242	32.5797
208	-976.9066	37.8242	32.5797	-863.3831	37.8420	32.2730
209	-863.3831	37.8420	32.2730	-749.8920	37.8560	31.9636
210	-749.8920	37.8560	31.9636	-636.2948	37.8708	31.8207
211	-636.2948	37.8708	31.8207	-746.3628	-37.6751	-31.8916
212	-746.3628	-37.6751	-31.8916	-859.3448	-37.6692	-32.2074
213	-859.3448	-37.6692	-32.2074	-972.3124	-37.6586	-32.5319
214	-972.3124	-37.6586	-32.5319	-1085.2961	-37.6642	-32.7768
215	-1085.2961	-37.6642	-32.7768	-1198.2573	-37.6543	-33.0304
216	-1198.2573	-37.6543	-33.0304	-1311.2043	-37.6449	-33.5394
217	-1311.2043	-37.6449	-33.5394	-1424.1243	-37.6414	-34.0155
218	-1424.1243	-37.6414	-34.0155	-1537.0396	-37.6457	-34.2229
219	-1537.0396	-37.6457	-34.2229	-1649.9611	-37.6433	-34.8220

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	-1649.9611	-37.6433	-34.8220	-1772.4402	-95.7453	337.1828
221	-1772.4402	-95.7453	337.1828	-1658.7350	37.9088	35.1262
222	-1658.7350	37.9088	35.1262	-1545.0010	37.9135	34.6791
223	-1545.0010	37.9135	34.6791	-1431.2722	37.9061	34.1250
224	-1431.2722	37.9061	34.1250	-1317.5486	37.9109	33.6700
225	-1317.5486	37.9109	33.6700	-1203.8540	37.9137	33.2216
226	-1203.8540	37.9137	33.2216	-1090.1235	37.9016	32.8797
227	-1090.1235	37.9016	32.8797	-976.3810	37.9079	32.6535
228	-976.3810	37.9079	32.6535	-862.6409	37.9165	32.3588
229	-862.6409	37.9165	32.3588	-748.9396	37.9228	32.1339
230	-748.9396	37.9228	32.1339	-635.1370	37.9195	31.8658
231	-635.1370	37.9195	31.8658	-734.9701	-37.0994	-31.9253
232	-734.9701	-37.0994	-31.9253	-846.2547	-37.1190	-32.1589
233	-846.2547	-37.1190	-32.1589	-957.6954	-37.1377	-32.4977
234	-957.6954	-37.1377	-32.4977	-1069.0205	-37.1306	-32.8772
235	-1069.0205	-37.1306	-32.8772	-1180.4467	-37.1219	-33.1023
236	-1180.4467	-37.1219	-33.1023	-1291.7720	-37.1097	-33.4238
237	-1291.7720	-37.1097	-33.4238	-1403.0962	-37.1041	-34.1136
238	-1403.0962	-37.1041	-34.1136	-1514.3910	-37.1072	-34.4348
239	-1514.3910	-37.1072	-34.4348	-1625.7195	-37.1093	-34.6664
240	-1625.7195	-37.1093	-34.6664	-1779.9901	-95.4959	337.3256
241	-1779.9901	-95.4959	337.3256	-1664.5410	38.5096	34.9676
242	-1664.5410	38.5096	34.9676	-1548.9817	38.5134	34.5055
243	-1548.9817	38.5134	34.5055	-1433.4458	38.5195	34.0420
244	-1433.4458	38.5195	34.0420	-1317.9020	38.5323	33.5207
245	-1317.9020	38.5323	33.5207	-1202.3008	38.5406	33.2280
246	-1202.3008	38.5406	33.2280	-1086.7467	38.5220	32.8035
247	-1086.7467	38.5220	32.8035	-971.2219	38.5024	32.4883
248	-971.2219	38.5024	32.4883	-855.6934	38.5012	32.4165
249	-855.6934	38.5012	32.4165	-740.2164	38.5098	32.0653
250	-740.2164	38.5098	32.0653	-624.7074	38.5104	31.7959
251	-624.7074	38.5104	31.7959	-531.5254	-26.8225	-29.5168
252	-531.5254	-26.8225	-29.5168	-611.9917	-26.8287	-29.7222
253	-611.9917	-26.8287	-29.7222	-692.4617	-26.8393	-30.0141
254	-692.4617	-26.8393	-30.0141	-772.9456	-26.8293	-30.1889
255	-772.9456	-26.8293	-30.1889	-853.3701	-26.8102	-30.2955
256	-853.3701	-26.8102	-30.2955	-933.8112	-26.8125	-30.6259
257	-933.8112	-26.8125	-30.6259	-1014.2449	-26.8127	-30.8364
258	-1014.2449	-26.8127	-30.8364	-1094.6729	-26.8109	-31.2463
259	-1094.6729	-26.8109	-31.2463	-1221.4470	-202.1091	569.4307
260	-1221.4470	-202.1091	569.4307	-1882.7390	-94.9690	341.7276
261	-1882.7390	-94.9690	341.7276	-1788.7979	41.7680	43.8660
262	-1788.7979	41.7680	43.8660	-1694.8383	41.7728	43.5385
263	-1694.8383	41.7728	43.5385	-1600.8787	41.7655	42.9249
264	-1600.8787	41.7655	42.9249	-1506.9199	41.7508	42.7215
265	-1506.9199	41.7508	42.7215	-1413.0276	41.7411	42.3233
266	-1413.0276	41.7411	42.3233	-1319.1140	41.7485	42.0242
267	-1319.1140	41.7485	42.0242	-1225.1718	41.7660	41.8939
268	-1225.1718	41.7660	41.8939	-1131.1693	41.7777	41.2823
269	-1131.1693	41.7777	41.2823	-1037.0867	41.8172	41.0773
270	-1037.0867	41.8172	41.0773	-942.8915	41.8736	41.0681
271	-942.8915	41.8736	41.0681	-848.6708	41.8815	40.8008
272	-848.6708	41.8815	40.8008	-754.4572	41.8739	40.5506
273	-754.4572	41.8739	40.5506	-660.1819	41.9126	40.4118
274	-660.1819	41.9126	40.4118	-565.8441	41.9347	40.2873

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	-565.8441	41.9347	40.2873	-471.5214	41.9205	40.2338
276	-471.5214	41.9205	40.2338	-377.2521	41.9179	40.1171
277	-377.2521	41.9179	40.1171	-282.9274	41.9238	40.0410
278	-282.9274	41.9238	40.0410	-188.5870	41.9165	39.9859
279	-188.5870	41.9165	39.9859	-94.3168	41.9128	39.9393
280	-94.3168	41.9128	39.9393	-0.0023	-11.7070	2.3431

ENVOL. MAX. CORTANTES TREN TREN SW/0, EC-1 en via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.2226	209.3730	-643.1696	450.5503	190.2870	-596.4032
2	450.5503	190.2870	-596.4032	821.3076	171.6031	-551.7233
3	821.3076	171.6031	-551.7233	1007.1514	149.2220	-500.8244
4	1007.1514	149.2220	-500.8244	1190.7097	132.3347	-457.3025
5	1190.7097	132.3347	-457.3025	1305.8926	116.1396	-414.2043
6	1305.8926	116.1396	-414.2043	1357.7140	100.6240	-373.9102
7	1357.7140	100.6240	-373.9102	1350.5796	72.5723	-299.1210
8	1350.5796	72.5723	-299.1210	1053.5239	58.5964	-271.0681
9	1053.5239	58.5964	-271.0681	933.4265	46.1370	-242.1591
10	933.4265	46.1370	-242.1591	775.7772	34.5115	-216.1151
11	775.7772	34.5115	-216.1151	586.8723	23.7260	-192.3283
12	586.8723	23.7260	-192.3283	372.8365	13.8206	-170.4267
13	372.8365	13.8206	-170.4267	343.7398	11.7538	-2.1711
14	343.7398	11.7538	-2.1711	370.1707	11.7444	-2.1706
15	370.1707	11.7444	-2.1706	396.6062	11.7477	-2.1350
16	396.6062	11.7477	-2.1350	423.0593	11.7522	-2.0956
17	423.0593	11.7522	-2.0956	449.4975	11.7495	-2.1801
18	449.4975	11.7495	-2.1801	475.9403	11.7502	-2.3208
19	475.9403	11.7502	-2.3208	502.3867	11.7533	-2.3150
20	502.3867	11.7533	-2.3150	-1691.7572	125.0795	-412.1956
21	-1691.7572	125.0795	-412.1956	-961.4890	260.7969	-702.5555
22	-961.4890	260.7969	-702.5555	-395.9976	245.7325	-670.7069
23	-395.9976	245.7325	-670.7069	200.0037	217.8538	-597.9603
24	200.0037	217.8538	-597.9603	598.2819	201.5543	-565.6475
25	598.2819	201.5543	-565.6475	1033.4114	173.3938	-492.9244
26	1033.4114	173.3938	-492.9244	1228.7732	157.1712	-460.8065
27	1228.7732	157.1712	-460.8065	1492.4597	129.3763	-388.0563
28	1492.4597	129.3763	-388.0563	1477.9441	114.4868	-356.8510
29	1477.9441	114.4868	-356.8510	1354.8412	87.8699	-291.9393
30	1354.8412	87.8699	-291.9393	1370.3054	75.2399	-262.7145
31	1370.3054	75.2399	-262.7145	1077.3433	51.6636	-211.4724
32	1077.3433	51.6636	-211.4724	966.6709	40.7569	-189.1114
33	966.6709	40.7569	-189.1114	-210.4043	26.9046	29.9387
34	-210.4043	26.9046	29.9387	-129.6777	26.9095	29.9337
35	-129.6777	26.9095	29.9337	-48.9375	26.9105	29.9447
36	-48.9375	26.9105	29.9447	31.7898	26.9090	29.9269
37	31.7898	26.9090	29.9269	112.5134	26.9088	29.9407
38	112.5134	26.9088	29.9407	193.2439	26.9085	29.9301
39	193.2439	26.9085	29.9301	273.9625	26.9100	29.9407
40	273.9625	26.9100	29.9407	-1598.6807	125.5862	-407.1144
41	-1598.6807	125.5862	-407.1144	-869.7710	258.6710	-702.4883
42	-869.7710	258.6710	-702.4883	-306.3755	243.4902	-670.6837
43	-306.3755	243.4902	-670.6837	283.3011	215.6115	-598.0468
44	283.3011	215.6115	-598.0468	672.5183	199.3816	-565.8903
45	672.5183	199.3816	-565.8903	1098.8335	171.2639	-493.0760
46	1098.8335	171.2639	-493.0760	1282.4517	155.2266	-460.6434
47	1282.4517	155.2266	-460.6434	1537.4279	127.5648	-387.8657
48	1537.4279	127.5648	-387.8657	1511.2434	113.0056	-356.7336
49	1511.2434	113.0056	-356.7336	1377.8357	86.6818	-292.0127
50	1377.8357	86.6818	-292.0127	1387.2458	74.2068	-262.7162
51	1387.2458	74.2068	-262.7162	1087.1782	50.9218	-211.2386
52	1087.1782	50.9218	-211.2386	972.7701	40.1761	-188.7838
53	972.7701	40.1761	-188.7838	-290.4492	37.2227	32.3326

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	-290.4492	37.2227	32.3326	-178.8231	37.2196	32.3213
55	-178.8231	37.2196	32.3213	-67.1997	37.2034	32.3116
56	-67.1997	37.2034	32.3116	44.4210	37.2013	32.3167
57	44.4210	37.2013	32.3167	156.0320	37.2034	32.3151
58	156.0320	37.2034	32.3151	267.6265	37.1993	32.3151
59	267.6265	37.1993	32.3151	379.2073	37.1997	32.3710
60	379.2073	37.1997	32.3710	-1591.9119	125.7697	-407.3655
61	-1591.9119	125.7697	-407.3655	-863.0698	258.5090	-702.7754
62	-863.0698	258.5090	-702.7754	-299.5059	243.3266	-671.2842
63	-299.5059	243.3266	-671.2842	289.4017	215.4521	-598.6471
64	289.4017	215.4521	-598.6471	678.1118	199.2101	-566.2196
65	678.1118	199.2101	-566.2196	1103.8699	171.1377	-493.6425
66	1103.8699	171.1377	-493.6425	1286.6735	155.1329	-461.2093
67	1286.6735	155.1329	-461.2093	1541.1227	127.4712	-388.2947
68	1541.1227	127.4712	-388.2947	1514.2893	112.8929	-357.0535
69	1514.2893	112.8929	-357.0535	1380.0653	86.5651	-292.2046
70	1380.0653	86.5651	-292.2046	1388.8745	74.1167	-262.9136
71	1388.8745	74.1167	-262.9136	1088.1278	50.8350	-211.2011
72	1088.1278	50.8350	-211.2011	973.3914	40.1286	-188.7701
73	973.3914	40.1286	-188.7701	-294.8361	37.7725	32.1835
74	-294.8361	37.7725	32.1835	-181.5307	37.7657	32.1409
75	-181.5307	37.7657	32.1409	-68.2662	37.7559	32.1159
76	-68.2662	37.7559	32.1159	45.0273	37.7597	32.1089
77	45.0273	37.7597	32.1089	158.2996	37.7544	32.1116
78	158.2996	37.7544	32.1116	271.5644	37.7551	32.1685
79	271.5644	37.7551	32.1685	384.8315	37.7593	32.1973
80	384.8315	37.7593	32.1973	-1591.3757	125.7975	-407.7253
81	-1591.3757	125.7975	-407.7253	-862.6664	258.5067	-703.4641
82	-862.6664	258.5067	-703.4641	-299.2772	243.3362	-671.8766
83	-299.2772	243.3362	-671.8766	289.9423	215.4438	-599.2236
84	289.9423	215.4438	-599.2236	678.5967	199.2068	-566.8845
85	678.5967	199.2068	-566.8845	1104.2667	171.1161	-494.0424
86	1104.2667	171.1161	-494.0424	1287.1208	155.0954	-461.5107
87	1287.1208	155.0954	-461.5107	1541.3090	127.4333	-388.5077
88	1541.3090	127.4333	-388.5077	1514.4214	112.8913	-357.3242
89	1514.4214	112.8913	-357.3242	1380.1223	86.5778	-292.2414
90	1380.1223	86.5778	-292.2414	1388.9482	74.1291	-262.6728
91	1388.9482	74.1291	-262.6728	1088.1304	50.8424	-211.2350
92	1088.1304	50.8424	-211.2350	973.4114	40.1236	-188.7818
93	973.4114	40.1236	-188.7818	-295.2947	37.8155	32.0918
94	-295.2947	37.8155	32.0918	-181.8929	37.8163	32.0536
95	-181.8929	37.8163	32.0536	-68.4036	37.8189	32.0339
96	-68.4036	37.8189	32.0339	45.0385	37.8198	32.0309
97	45.0385	37.8198	32.0309	158.5031	37.8204	32.0373
98	158.5031	37.8204	32.0373	271.9615	37.8192	32.0757
99	271.9615	37.8192	32.0757	385.4342	37.8199	32.0925
100	385.4342	37.8199	32.0925	-1591.3928	125.7998	-408.1630
101	-1591.3928	125.7998	-408.1630	-862.4841	258.5154	-703.9637
102	-862.4841	258.5154	-703.9637	-299.2050	243.3244	-672.2563
103	-299.2050	243.3244	-672.2563	290.1196	215.4199	-599.5139
104	290.1196	215.4199	-599.5139	678.7050	199.1779	-567.2144
105	678.7050	199.1779	-567.2144	1104.3271	171.0909	-494.4772
106	1104.3271	171.0909	-494.4772	1286.9868	155.0901	-461.7899

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
107	1286.9868	155.0901	-461.7899	1541.2402	127.4165	-388.7355
108	1541.2402	127.4165	-388.7355	1514.3989	112.8559	-357.2782
109	1514.3989	112.8559	-357.2782	1380.1085	86.5479	-292.3159
110	1380.1085	86.5479	-292.3159	1388.8804	74.1203	-262.9117
111	1388.8804	74.1203	-262.9117	1088.0425	50.8429	-211.2523
112	1088.0425	50.8429	-211.2523	973.2347	40.1078	-188.8168
113	973.2347	40.1078	-188.8168	-295.2768	37.8331	31.8202
114	-295.2768	37.8331	31.8202	-181.7888	37.8225	31.7462
115	-181.7888	37.8225	31.7462	-68.3486	37.8126	31.7318
116	-68.3486	37.8126	31.7318	45.0748	37.8050	31.7040
117	45.0748	37.8050	31.7040	158.4982	37.8088	31.7401
118	158.4982	37.8088	31.7401	271.9579	37.8117	31.7668
119	271.9579	37.8117	31.7668	385.3672	37.8125	31.8925
120	385.3672	37.8125	31.8925	-1592.2720	125.8076	-408.8506
121	-1592.2720	125.8076	-408.8506	-863.1046	258.5689	-704.2463
122	-863.1046	258.5689	-704.2463	-299.5632	243.4003	-672.7921
123	-299.5632	243.4003	-672.7921	289.9385	215.5057	-600.1119
124	289.9385	215.5057	-600.1119	678.9064	199.2670	-567.7709
125	678.9064	199.2670	-567.7709	1104.8080	171.1593	-494.9799
126	1104.8080	171.1593	-494.9799	1287.5439	155.1133	-462.2296
127	1287.5439	155.1133	-462.2296	1541.7434	127.4296	-389.0657
128	1541.7434	127.4296	-389.0657	1514.8250	112.8514	-357.3765
129	1514.8250	112.8514	-357.3765	1380.4655	86.5452	-292.3740
130	1380.4655	86.5452	-292.3740	1389.0835	74.0965	-263.1907
131	1389.0835	74.0965	-263.1907	1088.1072	50.8375	-211.4489
132	1088.1072	50.8375	-211.4489	973.3215	40.1071	-188.6104
133	973.3215	40.1071	-188.6104	-295.4524	37.8427	31.6155
134	-295.4524	37.8427	31.6155	-181.9256	37.8495	31.5550
135	-181.9256	37.8495	31.5550	-68.3967	37.8508	31.5445
136	-68.3967	37.8508	31.5445	45.0914	37.8387	31.5549
137	45.0914	37.8387	31.5549	158.5854	37.8296	31.5741
138	158.5854	37.8296	31.5741	272.0980	37.8274	31.6020
139	272.0980	37.8274	31.6020	385.5558	37.8299	31.7660
140	385.5558	37.8299	31.7660	-1591.9570	125.7871	-409.1278
141	-1591.9570	125.7871	-409.1278	-862.9380	258.5034	-704.6116
142	-862.9380	258.5034	-704.6116	-299.2507	243.3006	-673.4386
143	-299.2507	243.3006	-673.4386	289.6446	215.4135	-600.8021
144	289.6446	215.4135	-600.8021	678.4713	199.2036	-568.2912
145	678.4713	199.2036	-568.2912	1104.1971	171.1154	-495.4719
146	1104.1971	171.1154	-495.4719	1286.9675	155.1003	-462.8127
147	1286.9675	155.1003	-462.8127	1541.3564	127.4488	-389.4618
148	1541.3564	127.4488	-389.4618	1514.4987	112.8649	-357.6382
149	1514.4987	112.8649	-357.6382	1380.1794	86.5614	-292.5773
150	1380.1794	86.5614	-292.5773	1388.9502	74.0986	-263.1514
151	1388.9502	74.0986	-263.1514	1088.0110	50.8254	-211.4309
152	1088.0110	50.8254	-211.4309	973.2648	40.1286	-188.5816
153	973.2648	40.1286	-188.5816	-295.4206	37.8345	31.4719
154	-295.4206	37.8345	31.4719	-181.9363	37.8338	31.4435
155	-181.9363	37.8338	31.4435	-68.4202	37.8270	31.4092
156	-68.4202	37.8270	31.4092	45.0338	37.8252	31.4177
157	45.0338	37.8252	31.4177	158.5190	37.8293	31.4296
158	158.5190	37.8293	31.4296	271.9915	37.8307	31.4664
159	271.9915	37.8307	31.4664	385.5062	37.8335	31.5412
160	385.5062	37.8335	31.5412	-1592.3184	125.8154	-409.1815
161	-1592.3184	125.8154	-409.1815	-863.1619	258.5642	-705.0833

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
162	-863.1619	258.5642	-705.0833	-299.5994	243.3788	-673.6177
163	-299.5994	243.3788	-673.6177	289.8763	215.4734	-600.8912
164	289.8763	215.4734	-600.8912	678.5703	199.2496	-568.5828
165	678.5703	199.2496	-568.5828	1104.5547	171.1299	-495.4154
166	1104.5547	171.1299	-495.4154	1287.3484	155.1234	-462.7021
167	1287.3484	155.1234	-462.7021	1541.5508	127.4323	-389.9750
168	1541.5508	127.4323	-389.9750	1514.6587	112.8453	-357.9702
169	1514.6587	112.8453	-357.9702	1380.3331	86.5320	-292.4492
170	1380.3331	86.5320	-292.4492	1389.0612	74.1218	-262.8679
171	1389.0612	74.1218	-262.8679	1088.1260	50.8581	-211.1906
172	1088.1260	50.8581	-211.1906	973.3469	40.1146	-188.6735
173	973.3469	40.1146	-188.6735	-295.6089	37.8547	31.4567
174	-295.6089	37.8547	31.4567	-182.0592	37.8639	31.3714
175	-182.0592	37.8639	31.3714	-68.4808	37.8557	31.3663
176	-68.4808	37.8557	31.3663	45.0328	37.8507	31.3472
177	45.0328	37.8507	31.3472	158.6060	37.8507	31.3820
178	158.6060	37.8507	31.3820	272.1048	37.8497	31.4614
179	272.1048	37.8497	31.4614	385.6785	37.8487	31.5485
180	385.6785	37.8487	31.5485	-1591.9163	125.7944	-409.3030
181	-1591.9163	125.7944	-409.3030	-862.9332	258.5183	-704.8977
182	-862.9332	258.5183	-704.8977	-299.4330	243.3307	-673.4178
183	-299.4330	243.3307	-673.4178	289.8062	215.4189	-600.8751
184	289.8062	215.4189	-600.8751	678.3271	199.2155	-568.5057
185	678.3271	199.2155	-568.5057	1104.2043	171.1437	-495.5711
186	1104.2043	171.1437	-495.5711	1287.0615	155.1001	-462.5426
187	1287.0615	155.1001	-462.5426	1541.3304	127.4319	-389.4172
188	1541.3304	127.4319	-389.4172	1514.4456	112.9017	-357.8942
189	1514.4456	112.9017	-357.8942	1380.3512	86.5801	-292.4691
190	1380.3512	86.5801	-292.4691	1389.1008	74.1299	-263.1083
191	1389.1008	74.1299	-263.1083	1088.2712	50.8618	-211.2153
192	1088.2712	50.8618	-211.2153	973.5597	40.1216	-188.4469
193	973.5597	40.1216	-188.4469	-295.6668	37.8599	31.3558
194	-295.6668	37.8599	31.3558	-182.1230	37.8585	31.2745
195	-182.1230	37.8585	31.2745	-68.5701	37.8533	31.2161
196	-68.5701	37.8533	31.2161	44.9705	37.8526	31.2102
197	44.9705	37.8526	31.2102	158.5037	37.8557	31.2505
198	158.5037	37.8557	31.2505	272.0515	37.8594	31.3200
199	272.0515	37.8594	31.3200	385.6332	37.8581	31.3608
200	385.6332	37.8581	31.3608	-1591.9100	125.8045	-409.2801
201	-1591.9100	125.8045	-409.2801	-862.7557	258.5187	-705.1633
202	-862.7557	258.5187	-705.1633	-299.4442	243.3315	-673.7063
203	-299.4442	243.3315	-673.7063	289.6956	215.4294	-600.9191
204	289.6956	215.4294	-600.9191	678.5782	199.2152	-568.5280
205	678.5782	199.2152	-568.5280	1104.4609	171.1416	-495.4884
206	1104.4609	171.1416	-495.4884	1287.2136	155.1347	-462.6812
207	1287.2136	155.1347	-462.6812	1541.5669	127.4617	-389.7999
208	1541.5669	127.4617	-389.7999	1514.7817	112.8580	-357.8557
209	1514.7817	112.8580	-357.8557	1380.4678	86.5500	-292.5366
210	1380.4678	86.5500	-292.5366	1389.1196	74.0704	-263.1158
211	1389.1196	74.0704	-263.1158	1088.1604	50.8391	-211.4279
212	1088.1604	50.8391	-211.4279	973.3768	40.0941	-188.5849
213	973.3768	40.0941	-188.5849	-295.5923	37.8513	31.3857
214	-295.5923	37.8513	31.3857	-182.0215	37.8607	31.3465
215	-182.0215	37.8607	31.3465	-68.4250	37.8671	31.3015
216	-68.4250	37.8671	31.3015	45.1378	37.8655	31.3146

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
217	45.1378	37.8655	31.3146	158.7326	37.8682	31.3309
218	158.7326	37.8682	31.3309	272.3411	37.8660	31.3712
219	272.3411	37.8660	31.3712	385.9698	37.8693	31.5008
220	385.9698	37.8693	31.5008	-1589.9214	125.7563	-409.3769
221	-1589.9214	125.7563	-409.3769	-861.3641	258.3625	-705.0625
222	-861.3641	258.3625	-705.0625	-298.1766	243.1544	-673.6844
223	-298.1766	243.1544	-673.6844	290.7140	215.2319	-600.9548
224	290.7140	215.2319	-600.9548	678.8202	198.9995	-568.5631
225	678.8202	198.9995	-568.5631	1104.0566	170.9014	-495.4258
226	1104.0566	170.9014	-495.4258	1286.1615	154.8743	-462.7859
227	1286.1615	154.8743	-462.7859	1539.8502	127.1970	-389.7053
228	1539.8502	127.1970	-389.7053	1512.4956	112.6823	-357.9608
229	1512.4956	112.6823	-357.9608	1377.9960	86.4034	-292.6444
230	1377.9960	86.4034	-292.6444	1386.7046	73.9438	-263.0168
231	1386.7046	73.9438	-263.0168	1086.3872	50.7862	-211.4069
232	1086.3872	50.7862	-211.4069	972.0493	40.0721	-188.6657
233	972.0493	40.0721	-188.6657	-294.1063	37.8909	31.4885
234	-294.1063	37.8909	31.4885	-180.4482	37.8978	31.4081
235	-180.4482	37.8978	31.4081	-66.7687	37.9008	31.3616
236	-66.7687	37.9008	31.3616	46.9086	37.9045	31.3787
237	46.9086	37.9045	31.3787	160.5986	37.9014	31.4306
238	160.5986	37.9014	31.4306	274.3068	37.8987	31.4693
239	274.3068	37.8987	31.4693	388.0044	37.8984	31.5241
240	388.0044	37.8984	31.5241	-1570.5161	125.2155	-409.0330
241	-1570.5161	125.2155	-409.0330	-845.0545	256.7386	-704.6606
242	-845.0545	256.7386	-704.6606	-284.7252	241.2859	-673.2740
243	-284.7252	241.2859	-673.2740	298.8317	213.2746	-600.4982
244	298.8317	213.2746	-600.4982	681.1553	196.8564	-568.0035
245	681.1553	196.8564	-568.0035	1099.9270	168.7228	-495.0535
246	1099.9270	168.7228	-495.0535	1275.4021	152.7389	-462.1174
247	1275.4021	152.7389	-462.1174	1522.9966	125.1175	-389.0510
248	1522.9966	125.1175	-389.0510	1491.1619	110.7482	-357.5466
249	1491.1619	110.7482	-357.5466	1355.2583	84.7662	-291.8353
250	1355.2583	84.7662	-291.8353	1362.5913	72.5345	-262.2516
251	1362.5913	72.5345	-262.2516	1069.2952	49.8957	-210.3528
252	1069.2952	49.8957	-210.3528	960.6854	39.5694	-187.3680
253	960.6854	39.5694	-187.3680	-278.1705	38.5081	31.4043
254	-278.1705	38.5081	31.4043	-162.6754	38.5108	31.3410
255	-162.6754	38.5108	31.3410	-47.1451	38.5140	31.3426
256	-47.1451	38.5140	31.3426	68.3979	38.5186	31.3573
257	68.3979	38.5186	31.3573	183.9436	38.5180	31.3729
258	183.9436	38.5180	31.3729	299.4734	38.5147	31.4846
259	299.4734	38.5147	31.4846	415.0119	38.5127	31.5975
260	415.0119	38.5127	31.5975	-1211.4443	120.1659	-355.7513
261	-1211.4443	120.1659	-355.7513	-686.8188	249.2920	-631.6539
262	-686.8188	249.2920	-631.6539	-212.6904	231.7239	-587.4671
263	-212.6904	231.7239	-587.4671	204.7570	200.2885	-505.2109
264	204.7570	200.2885	-505.2109	557.4984	181.5739	-460.6367
265	557.4984	181.5739	-460.6367	938.1491	154.9783	-384.8955
266	938.1491	154.9783	-384.8955	1252.4070	128.3921	-309.3375
267	1252.4070	128.3921	-309.3375	1310.4202	111.7842	-228.6399
268	1310.4202	111.7842	-228.6399	1556.4773	89.5492	-169.5129
269	1556.4773	89.5492	-169.5129	1746.5264	66.5827	-107.9436
270	1746.5264	66.5827	-107.9436	1878.2156	49.6328	-64.1169
271	1878.2156	49.6328	-64.1169	-848.6708	41.8815	40.8008

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
272	-848.6708	41.8815	40.8008	-754.4572	41.8739	40.5506
273	-754.4572	41.8739	40.5506	-660.1819	41.9126	40.4118
274	-660.1819	41.9126	40.4118	-565.8441	41.9347	40.2873
275	-565.8441	41.9347	40.2873	-471.5214	41.9205	40.2338
276	-471.5214	41.9205	40.2338	-377.2521	41.9179	40.1171
277	-377.2521	41.9179	40.1171	-282.9274	41.9238	40.0410
278	-282.9274	41.9238	40.0410	-188.5870	41.9165	39.9859
279	-188.5870	41.9165	39.9859	-94.3168	41.9128	39.9393
280	-94.3168	41.9128	39.9393	0.0303	41.9175	39.9441

ENVOL. MIN. CORTANTES TREN TREN SW/0, EC-1 en via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0092	-41.6532	-41.3417	-93.7158	-41.6542	-41.3422
2	-93.7158	-41.6542	-41.3422	-187.4348	-41.6564	-41.3783
3	-187.4348	-41.6564	-41.3783	-281.1716	-41.6504	-41.3290
4	-281.1716	-41.6504	-41.3290	-374.9374	-41.6495	-41.2093
5	-374.9374	-41.6495	-41.2093	-468.6620	-41.6710	-41.2603
6	-468.6620	-41.6710	-41.2603	-562.4480	-41.6897	-41.3538
7	-562.4480	-41.6897	-41.3538	-656.2742	-41.7078	-41.2747
8	-656.2742	-41.7078	-41.2747	1138.6467	-54.1539	144.8603
9	1138.6467	-54.1539	144.8603	1199.6021	-72.0844	187.5736
10	1199.6021	-72.0844	187.5736	1217.2925	-83.4115	214.1956
11	1217.2925	-83.4115	214.1956	1204.4211	-95.8672	246.0501
12	1204.4211	-95.8672	246.0501	1155.1012	-109.6550	280.9822
13	1155.1012	-109.6550	280.9822	1224.5239	-127.4019	321.6046
14	1224.5239	-127.4019	321.6046	1065.5060	-144.6503	365.4006
15	1065.5060	-144.6503	365.4006	845.5919	-162.9303	412.1448
16	845.5919	-162.9303	412.1448	559.4457	-188.6486	477.8709
17	559.4457	-188.6486	477.8709	203.3493	-214.0093	541.1953
18	203.3493	-214.0093	541.1953	-214.7971	-232.1478	585.7330
19	-214.7971	-232.1478	585.7330	-689.0281	-249.6831	629.9419
20	-689.0281	-249.6831	629.9419	-1213.7572	-120.3362	353.9362
21	-1213.7572	-120.3362	353.9362	413.7202	-38.3725	-32.3352
22	413.7202	-38.3725	-32.3352	298.5975	-38.3724	-32.3689
23	298.5975	-38.3724	-32.3689	183.4763	-38.3741	-32.3670
24	183.4763	-38.3741	-32.3670	68.3590	-38.3738	-32.3680
25	68.3590	-38.3738	-32.3680	-46.7672	-38.3749	-32.3667
26	-46.7672	-38.3749	-32.3667	-161.8945	-38.3784	-32.3428
27	-161.8945	-38.3784	-32.3428	-277.0185	-38.3790	-32.3620
28	-277.0185	-38.3790	-32.3620	966.6324	-39.9024	190.0792
29	966.6324	-39.9024	190.0792	1321.8293	-54.6865	218.4173
30	1321.8293	-54.6865	218.4173	1368.4429	-73.0168	264.1186
31	1368.4429	-73.0168	264.1186	1587.0250	-91.3770	304.8481
32	1587.0250	-91.3770	304.8481	1495.9121	-111.2896	356.6654
33	1495.9121	-111.2896	356.6654	1531.1079	-132.3118	406.8105
34	1531.1079	-132.3118	406.8105	1278.4758	-153.3089	460.5396
35	1278.4758	-153.3089	460.5396	1105.9187	-175.9991	511.6158
36	1105.9187	-175.9991	511.6158	681.8428	-197.4939	565.6862
37	681.8428	-197.4939	565.6862	302.8332	-220.5179	616.8201
38	302.8332	-220.5179	616.8201	-285.8318	-241.8821	670.8118
39	-285.8318	-241.8821	670.8118	-842.0209	-263.9667	721.4366
40	-842.0209	-263.9667	721.4366	-1572.3579	-125.4740	407.0106
41	-1572.3579	-125.4740	407.0106	386.4556	-37.7449	-32.2654
42	386.4556	-37.7449	-32.2654	273.2345	-37.7439	-32.2812
43	273.2345	-37.7439	-32.2812	160.0006	-37.7405	-32.2449
44	160.0006	-37.7405	-32.2449	46.7510	-37.7420	-32.2506
45	46.7510	-37.7420	-32.2506	-66.4577	-37.7430	-32.2639
46	-66.4577	-37.7430	-32.2639	-179.6662	-37.7434	-32.2737
47	-179.6662	-37.7434	-32.2737	-292.8963	-37.7411	-32.2914
48	-292.8963	-37.7411	-32.2914	977.9847	-40.4351	191.3528
49	977.9847	-40.4351	191.3528	1344.9868	-55.8927	219.2411
50	1344.9868	-55.8927	219.2411	1392.4111	-74.4500	264.7553
51	1392.4111	-74.4500	264.7553	1611.9329	-93.1763	305.6822
52	1611.9329	-93.1763	305.6822	1516.8955	-113.2456	357.7183
53	1516.8955	-113.2456	357.7183	1547.3145	-134.4823	407.6895
54	1547.3145	-134.4823	407.6895	1288.4529	-155.4848	461.4936

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	1288.4529	-155.4848	461.4936	1109.4601	-178.1479	512.7799
56	1109.4601	-178.1479	512.7799	678.9232	-199.5784	566.5964
57	678.9232	-199.5784	566.5964	294.2086	-222.4705	617.8280
58	294.2086	-222.4705	617.8280	-299.3669	-243.6935	671.6814
59	-299.3669	-243.6935	671.6814	-858.6182	-265.5396	722.1949
60	-858.6182	-265.5396	722.1949	-1591.8030	-125.9807	407.8374
61	-1591.8030	-125.9807	407.8374	384.4391	-37.7005	-32.0687
62	384.4391	-37.7005	-32.0687	271.3321	-37.7010	-31.9911
63	271.3321	-37.7010	-31.9911	158.2514	-37.7052	-31.9812
64	158.2514	-37.7052	-31.9812	45.1294	-37.7054	-31.9800
65	45.1294	-37.7054	-31.9800	-67.9774	-37.7085	-31.9588
66	-67.9774	-37.7085	-31.9588	-181.1154	-37.7160	-31.9808
67	-181.1154	-37.7160	-31.9808	-294.2349	-37.7151	-32.0162
68	-294.2349	-37.7151	-32.0162	979.1828	-40.4568	191.2861
69	979.1828	-40.4568	191.2861	1347.0776	-55.9599	219.2411
70	1347.0776	-55.9599	219.2411	1394.5543	-74.5829	264.7417
71	1394.5543	-74.5829	264.7417	1614.1682	-93.3665	305.8972
72	1614.1682	-93.3665	305.8972	1518.7546	-113.3696	357.9481
73	1518.7546	-113.3696	357.9481	1548.8713	-134.6362	407.8824
74	1548.8713	-134.6362	407.8824	1289.3569	-155.6528	461.9271
75	1289.3569	-155.6528	461.9271	1109.8754	-178.3147	513.3190
76	1109.8754	-178.3147	513.3190	678.9532	-199.7705	567.1989
77	678.9532	-199.7705	567.1989	293.7974	-222.6292	618.3202
78	293.7974	-222.6292	618.3202	-300.4797	-243.8748	672.1101
79	-300.4797	-243.8748	672.1101	-860.0062	-265.6988	722.7628
80	-860.0062	-265.6988	722.7628	-1593.6008	-126.0333	408.2716
81	-1593.6008	-126.0333	408.2716	384.2997	-37.7062	-31.9186
82	384.2997	-37.7062	-31.9186	271.1937	-37.7087	-31.8791
83	271.1937	-37.7087	-31.8791	158.0683	-37.7121	-31.8395
84	158.0683	-37.7121	-31.8395	44.9243	-37.7123	-31.8323
85	44.9243	-37.7123	-31.8323	-68.1581	-37.7136	-31.8273
86	-68.1581	-37.7136	-31.8273	-181.3092	-37.7088	-31.8513
87	-181.3092	-37.7088	-31.8513	-294.3934	-37.7050	-31.9122
88	-294.3934	-37.7050	-31.9122	979.1262	-40.4514	191.2195
89	979.1262	-40.4514	191.2195	1347.0742	-55.9752	219.2136
90	1347.0742	-55.9752	219.2136	1394.6082	-74.5607	265.0508
91	1394.6082	-74.5607	265.0508	1614.4048	-93.3462	306.0200
92	1614.4048	-93.3462	306.0200	1518.8878	-113.4013	358.0287
93	1518.8878	-113.4013	358.0287	1549.0435	-134.6261	408.2628
94	1549.0435	-134.6261	408.2628	1289.6592	-155.6850	462.2727
95	1289.6592	-155.6850	462.2727	1109.9392	-178.3745	513.6152
96	1109.9392	-178.3745	513.6152	678.8902	-199.7935	567.6700
97	678.8902	-199.7935	567.6700	293.5240	-222.6608	618.9521
98	293.5240	-222.6608	618.9521	-300.7911	-243.8893	672.7493
99	-300.7911	-243.8893	672.7493	-860.5217	-265.7137	723.3723
100	-860.5217	-265.7137	723.3723	-1593.8796	-126.0440	408.5287
101	-1593.8796	-126.0440	408.5287	384.3303	-37.7169	-31.8025
102	384.3303	-37.7169	-31.8025	271.1876	-37.7145	-31.8186
103	271.1876	-37.7145	-31.8186	158.0500	-37.7115	-31.7451
104	158.0500	-37.7115	-31.7451	44.9212	-37.7075	-31.7121
105	44.9212	-37.7075	-31.7121	-68.1958	-37.7060	-31.7136
106	-68.1958	-37.7060	-31.7136	-181.3120	-37.7192	-31.7529
107	-181.3120	-37.7192	-31.7529	-294.4557	-37.7222	-31.8141
108	-294.4557	-37.7222	-31.8141	979.0803	-40.4705	191.2909
109	979.0803	-40.4705	191.2909	1347.0905	-55.9917	219.3716

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	1347.0905	-55.9917	219.3716	1394.5399	-74.5742	264.9850
111	1394.5399	-74.5742	264.9850	1614.2734	-93.3652	306.1846
112	1614.2734	-93.3652	306.1846	1518.8020	-113.4296	358.2185
113	1518.8020	-113.4296	358.2185	1548.8523	-134.6320	408.5945
114	1548.8523	-134.6320	408.5945	1289.1290	-155.6550	462.7682
115	1289.1290	-155.6550	462.7682	1109.6837	-178.3054	514.1771
116	1109.6837	-178.3054	514.1771	678.7346	-199.7329	568.3336
117	678.7346	-199.7329	568.3336	293.6024	-222.6180	619.4133
118	293.6024	-222.6180	619.4133	-300.7354	-243.8546	673.3749
119	-300.7354	-243.8546	673.3749	-860.3081	-265.6765	723.5782
120	-860.3081	-265.6765	723.5782	-1593.7471	-126.0324	408.8649
121	-1593.7471	-126.0324	408.8649	384.4504	-37.7356	-31.7375
122	384.4504	-37.7356	-31.7375	271.2673	-37.7395	-31.6666
123	271.2673	-37.7395	-31.6666	158.0444	-37.7381	-31.6056
124	158.0444	-37.7381	-31.6056	44.8119	-37.7309	-31.5771
125	44.8119	-37.7309	-31.5771	-68.3717	-37.7257	-31.5760
126	-68.3717	-37.7257	-31.5760	-181.5402	-37.7243	-31.6151
127	-181.5402	-37.7243	-31.6151	-294.6766	-37.7234	-31.6935
128	-294.6766	-37.7234	-31.6935	979.3922	-40.4784	191.3573
129	979.3922	-40.4784	191.3573	1347.4418	-55.9854	219.5155
130	1347.4418	-55.9854	219.5155	1394.9019	-74.5959	264.9288
131	1394.9019	-74.5959	264.9288	1614.6572	-93.3490	305.9918
132	1614.6572	-93.3490	305.9918	1518.9963	-113.4512	358.6247
133	1518.9963	-113.4512	358.6247	1549.0319	-134.6638	409.2775
134	1549.0319	-134.6638	409.2775	1289.3997	-155.6833	463.3462
135	1289.3997	-155.6833	463.3462	1109.6973	-178.3538	514.6523
136	1109.6973	-178.3538	514.6523	678.5643	-199.7962	568.8085
137	678.5643	-199.7962	568.8085	293.0627	-222.6548	620.1600
138	293.0627	-222.6548	620.1600	-301.2719	-243.8978	673.9259
139	-301.2719	-243.8978	673.9259	-861.0222	-265.7224	724.1021
140	-861.0222	-265.7224	724.1021	-1594.5386	-126.0369	409.5934
141	-1594.5386	-126.0369	409.5934	384.3862	-37.7195	-31.4519
142	384.3862	-37.7195	-31.4519	271.2335	-37.7191	-31.2866
143	271.2335	-37.7191	-31.2866	158.1119	-37.7191	-31.2533
144	158.1119	-37.7191	-31.2533	44.9451	-37.7235	-31.2229
145	44.9451	-37.7235	-31.2229	-68.2088	-37.7302	-31.2061
146	-68.2088	-37.7302	-31.2061	-181.3886	-37.7337	-31.2435
147	-181.3886	-37.7337	-31.2435	-294.5710	-37.7341	-31.3549
148	-294.5710	-37.7341	-31.3549	979.1130	-40.4726	191.3449
149	979.1130	-40.4726	191.3449	1347.1718	-55.9819	219.4851
150	1347.1718	-55.9819	219.4851	1394.6758	-74.5715	265.0889
151	1394.6758	-74.5715	265.0889	1614.3435	-93.3490	306.2293
152	1614.3435	-93.3490	306.2293	1518.7910	-113.4059	358.8176
153	1518.7910	-113.4059	358.8176	1548.8838	-134.6125	409.4739
154	1548.8838	-134.6125	409.4739	1289.4314	-155.6604	463.4611
155	1289.4314	-155.6604	463.4611	1109.8054	-178.3185	514.9579
156	1109.8054	-178.3185	514.9579	678.6920	-199.7673	569.1876
157	678.6920	-199.7673	569.1876	293.3970	-222.6322	620.6526
158	293.3970	-222.6322	620.6526	-300.7767	-243.8898	674.4076
159	-300.7767	-243.8898	674.4076	-860.5626	-265.7105	724.7878
160	-860.5626	-265.7105	724.7878	-1594.1580	-126.0499	409.7990
161	-1594.1580	-126.0499	409.7990	384.4494	-37.7402	-31.4945
162	384.4494	-37.7402	-31.4945	271.2429	-37.7397	-31.4218
163	271.2429	-37.7397	-31.4218	158.0330	-37.7365	-31.3465
164	158.0330	-37.7365	-31.3465	44.8334	-37.7308	-31.3124

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	44.8334	-37.7308	-31.3124	-68.3358	-37.7333	-31.3409
166	-68.3358	-37.7333	-31.3409	-181.5273	-37.7344	-31.3617
167	-181.5273	-37.7344	-31.3617	-294.7055	-37.7208	-31.3619
168	-294.7055	-37.7208	-31.3619	979.1844	-40.4576	191.0123
169	979.1844	-40.4576	191.0123	1347.2170	-55.9713	219.4565
170	1347.2170	-55.9713	219.4565	1394.8260	-74.5768	265.2837
171	1394.8260	-74.5768	265.2837	1614.5670	-93.3491	306.6185
172	1614.5670	-93.3491	306.6185	1519.0486	-113.4144	358.8282
173	1519.0486	-113.4144	358.8282	1549.1208	-134.6567	409.5347
174	1549.1208	-134.6567	409.5347	1289.5652	-155.6808	463.8077
175	1289.5652	-155.6808	463.8077	1109.7710	-178.3675	515.2316
176	1109.7710	-178.3675	515.2316	678.6402	-199.8061	569.5082
177	678.6402	-199.8061	569.5082	293.0655	-222.6734	620.7375
178	293.0655	-222.6734	620.7375	-301.1765	-243.9068	674.5582
179	-301.1765	-243.9068	674.5582	-861.1863	-265.7305	724.9223
180	-861.1863	-265.7305	724.9223	-1594.7002	-126.0383	409.7854
181	-1594.7002	-126.0383	409.7854	384.4213	-37.7260	-31.5126
182	384.4213	-37.7260	-31.5126	271.2625	-37.7245	-31.4150
183	271.2625	-37.7245	-31.4150	158.1010	-37.7215	-31.3124
184	158.1010	-37.7215	-31.3124	44.9494	-37.7254	-31.3039
185	44.9494	-37.7254	-31.3039	-68.2489	-37.7281	-31.3025
186	-68.2489	-37.7281	-31.3025	-181.3951	-37.7246	-31.3713
187	-181.3951	-37.7246	-31.3713	-294.5638	-37.7317	-31.4440
188	-294.5638	-37.7317	-31.4440	979.1063	-40.4519	191.1488
189	979.1063	-40.4519	191.1488	1347.1868	-55.9473	219.5085
190	1347.1868	-55.9473	219.5085	1394.7910	-74.5605	265.1716
191	1394.7910	-74.5605	265.1716	1614.5779	-93.3357	306.5003
192	1614.5779	-93.3357	306.5003	1519.2269	-113.3913	359.2302
193	1519.2269	-113.3913	359.2302	1549.4209	-134.6711	409.4331
194	1549.4209	-134.6711	409.4331	1289.8323	-155.7003	463.6812
195	1289.8323	-155.7003	463.6812	1110.0623	-178.3615	515.4500
196	1110.0623	-178.3615	515.4500	678.9647	-199.8297	569.5632
197	678.9647	-199.8297	569.5632	293.3893	-222.7010	620.8320
198	293.3893	-222.7010	620.8320	-301.0455	-243.9438	674.6962
199	-301.0455	-243.9438	674.6962	-860.8633	-265.7603	725.1626
200	-860.8633	-265.7603	725.1626	-1594.6802	-126.0512	409.8804
201	-1594.6802	-126.0512	409.8804	383.8929	-37.6772	-31.3742
202	383.8929	-37.6772	-31.3742	270.8683	-37.6768	-31.3434
203	270.8683	-37.6768	-31.3434	157.8586	-37.6765	-31.2963
204	157.8586	-37.6765	-31.2963	44.8004	-37.6782	-31.2509
205	44.8004	-37.6782	-31.2509	-68.2194	-37.6831	-31.2650
206	-68.2194	-37.6831	-31.2650	-181.2457	-37.6901	-31.3050
207	-181.2457	-37.6901	-31.3050	-294.3203	-37.6964	-31.3256
208	-294.3203	-37.6964	-31.3256	979.2323	-40.4525	191.1341
209	979.2323	-40.4525	191.1341	1347.3563	-55.9748	219.5262
210	1347.3563	-55.9748	219.5262	1394.8958	-74.5793	265.1313
211	1394.8958	-74.5793	265.1313	1614.5999	-93.3802	306.2969
212	1614.5999	-93.3802	306.2969	1518.9905	-113.4118	358.8419
213	1518.9905	-113.4118	358.8419	1549.0376	-134.6702	409.5937
214	1549.0376	-134.6702	409.5937	1289.3781	-155.7027	463.6617
215	1289.3781	-155.7027	463.6617	1109.6554	-178.3927	515.2142
216	1109.6554	-178.3927	515.2142	678.3478	-199.8484	569.3484
217	678.3478	-199.8484	569.3484	292.7200	-222.7255	620.7664
218	292.7200	-222.7255	620.7664	-301.7368	-243.9702	674.5231
219	-301.7368	-243.9702	674.5231	-861.8795	-265.7878	724.7494

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	-861.8795	-265.7878	724.7494	-1595.6804	-126.0438	409.8707
221	-1595.6804	-126.0438	409.8707	378.0453	-37.1055	-31.4545
222	378.0453	-37.1055	-31.4545	266.7482	-37.1062	-31.3619
223	266.7482	-37.1062	-31.3619	155.4184	-37.1047	-31.2931
224	155.4184	-37.1047	-31.2931	44.1308	-37.1049	-31.2555
225	44.1308	-37.1049	-31.2555	-67.1562	-37.1104	-31.2679
226	-67.1562	-37.1104	-31.2679	-178.4874	-37.0994	-31.2897
227	-178.4874	-37.0994	-31.2897	-289.7748	-37.0920	-31.3508
228	-289.7748	-37.0920	-31.3508	978.4606	-40.5298	191.1647
229	978.4606	-40.5298	191.1647	1345.9578	-56.0578	219.3785
230	1345.9578	-56.0578	219.3785	1392.8351	-74.6878	265.2224
231	1392.8351	-74.6878	265.2224	1611.8040	-93.4908	306.3500
232	1611.8040	-93.4908	306.3500	1515.7405	-113.5179	358.7817
233	1515.7405	-113.5179	358.7817	1544.8772	-134.7358	409.4347
234	1544.8772	-134.7358	409.4347	1284.6731	-155.7816	463.7215
235	1284.6731	-155.7816	463.7215	1104.0530	-178.5002	515.3118
236	1104.0530	-178.5002	515.3118	672.4117	-199.9769	569.3248
237	672.4117	-199.9769	569.3248	286.0349	-222.8640	620.7229
238	286.0349	-222.8640	620.7229	-308.7881	-244.0732	674.6165
239	-308.7881	-244.0732	674.6165	-868.6175	-265.8915	724.9694
240	-868.6175	-265.8915	724.9694	-1602.4863	-125.8187	409.9766
241	-1602.4863	-125.8187	409.9766	273.0074	-26.8196	-29.1698
242	273.0074	-26.8196	-29.1698	192.5371	-26.8179	-29.0990
243	192.5371	-26.8179	-29.0990	112.0919	-26.8195	-29.0559
244	112.0919	-26.8195	-29.0559	31.6579	-26.8200	-29.0262
245	31.6579	-26.8200	-29.0262	-48.7810	-26.8160	-29.0283
246	-48.7810	-26.8160	-29.0283	-129.2030	-26.8186	-29.0725
247	-129.2030	-26.8186	-29.0725	-209.6751	-26.8220	-29.1112
248	-209.6751	-26.8220	-29.1112	972.0582	-41.1040	191.1682
249	972.0582	-41.1040	191.1682	1333.6558	-56.9305	219.5860
250	1333.6558	-56.9305	219.5860	1375.4995	-75.7095	265.4969
251	1375.4995	-75.7095	265.4969	1585.4275	-94.8220	306.5609
252	1585.4275	-94.8220	306.5609	1481.8320	-115.0081	359.1797
253	1481.8320	-115.0081	359.1797	1499.6768	-136.5134	410.0110
254	1499.6768	-136.5134	410.0110	1230.8284	-157.6866	464.1929
255	1230.8284	-157.6866	464.1929	1038.6970	-180.5973	515.5890
256	1038.6970	-180.5973	515.5890	598.1874	-202.1214	569.7515
257	598.1874	-202.1214	569.7515	203.2504	-225.0695	621.0908
258	203.2504	-225.0695	621.0908	-398.0208	-246.2841	674.7400
259	-398.0208	-246.2841	674.7400	-959.8964	-267.9893	725.2040
260	-959.8964	-267.9893	725.2040	-1694.9624	-125.3391	415.4423
261	-1694.9624	-125.3391	415.4423	504.0482	-11.7677	1.3576
262	504.0482	-11.7677	1.3576	477.5768	-11.7658	1.4485
263	477.5768	-11.7658	1.4485	451.1028	-11.7652	1.6201
264	451.1028	-11.7652	1.6201	424.6255	-11.7647	1.6772
265	424.6255	-11.7647	1.6772	398.1709	-11.7663	1.7957
266	398.1709	-11.7663	1.7957	371.7004	-11.7689	1.8747
267	371.7004	-11.7689	1.8747	345.2336	-11.7711	1.9175
268	345.2336	-11.7711	1.9175	379.3192	-14.0121	170.3876
269	379.3192	-14.0121	170.3876	593.8914	-23.9566	194.8089
270	593.8914	-23.9566	194.8089	783.3534	-34.7609	219.4673
271	783.3534	-34.7609	219.4673	941.4734	-46.4347	245.8806
272	941.4734	-46.4347	245.8806	1301.6218	-65.5905	287.2010
273	1301.6218	-65.5905	287.2010	1360.8813	-86.3467	340.3337
274	1360.8813	-86.3467	340.3337	1366.7671	-101.2386	377.5142

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	1366.7671	-101.2386	377.5142	1314.1250	-116.7379	417.3633
276	1314.1250	-116.7379	417.3633	1197.7935	-133.0079	460.2848
277	1197.7935	-133.0079	460.2848	1121.3063	-154.2316	511.0600
278	1121.3063	-154.2316	511.0600	829.2180	-172.3737	555.8324
279	829.2180	-172.3737	555.8324	456.8394	-191.0798	600.5317
280	456.8394	-191.0798	600.5317	0.2755	-204.3763	638.2006

ENVOL. MAX. TORSORES TREN TREN SW/0, EC-1 en via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.0128	-0.0021	2.4514	37.3594	-1.1116	9.5837
2	37.3594	-1.1116	9.5837	116.3129	-3.6933	19.7117
3	116.3129	-3.6933	19.7117	226.9919	-7.7397	32.7909
4	226.9919	-7.7397	32.7909	359.5455	-13.2393	48.7140
5	359.5455	-13.2393	48.7140	504.3159	-20.1747	67.7377
6	504.3159	-20.1747	67.7377	651.8232	-28.5311	89.8330
7	651.8232	-28.5311	89.8330	792.8020	-38.2916	114.7163
8	792.8020	-38.2916	114.7163	1138.6467	-54.1539	144.8603
9	1138.6467	-54.1539	144.8603	1199.6021	-72.0844	187.5736
10	1199.6021	-72.0844	187.5736	1217.2925	-83.4115	214.1956
11	1217.2925	-83.4115	214.1956	1204.4211	-95.8672	246.0501
12	1204.4211	-95.8672	246.0501	1155.1012	-109.6550	280.9822
13	1155.1012	-109.6550	280.9822	1224.5239	-127.4019	321.6046
14	1224.5239	-127.4019	321.6046	1065.5060	-144.6503	365.4006
15	1065.5060	-144.6503	365.4006	845.5919	-162.9303	412.1448
16	845.5919	-162.9303	412.1448	559.4457	-188.6486	477.8709
17	559.4457	-188.6486	477.8709	203.3493	-214.0093	541.1953
18	203.3493	-214.0093	541.1953	-214.7971	-232.1478	585.7330
19	-214.7971	-232.1478	585.7330	-689.0281	-249.6831	629.9419
20	-689.0281	-249.6831	629.9419	-1213.7572	-120.3362	353.9362
21	-1213.7572	-120.3362	353.9362	-1072.8284	24.4701	36.9096
22	-1072.8284	24.4701	36.9096	-797.4623	19.5196	47.9938
23	-797.4623	19.5196	47.9938	-604.4082	15.9685	56.3869
24	-604.4082	15.9685	56.3869	-228.9490	6.6266	79.7167
25	-228.9490	6.6266	79.7167	-21.2214	0.8080	94.6704
26	-21.2214	0.8080	94.6704	395.1140	-13.1644	130.6680
27	395.1140	-13.1644	130.6680	819.3888	-23.5913	150.4034
28	819.3888	-23.5913	150.4034	966.6324	-39.9024	190.0792
29	966.6324	-39.9024	190.0792	1321.8293	-54.6865	218.4173
30	1321.8293	-54.6865	218.4173	1368.4429	-73.0168	264.1186
31	1368.4429	-73.0168	264.1186	1587.0250	-91.3770	304.8481
32	1587.0250	-91.3770	304.8481	1495.9121	-111.2896	356.6654
33	1495.9121	-111.2896	356.6654	1531.1079	-132.3118	406.8105
34	1531.1079	-132.3118	406.8105	1278.4758	-153.3089	460.5396
35	1278.4758	-153.3089	460.5396	1105.9187	-175.9991	511.6158
36	1105.9187	-175.9991	511.6158	681.8428	-197.4939	565.6862
37	681.8428	-197.4939	565.6862	302.8332	-220.5179	616.8201
38	302.8332	-220.5179	616.8201	-285.8318	-241.8821	670.8118
39	-285.8318	-241.8821	670.8118	-842.0209	-263.9667	721.4366
40	-842.0209	-263.9667	721.4366	-1572.3579	-125.4740	407.0106
41	-1572.3579	-125.4740	407.0106	-1368.3018	31.2267	41.9104
42	-1368.3018	31.2267	41.9104	-1002.6805	24.5610	52.0009
43	-1002.6805	24.5610	52.0009	-764.4382	20.2103	59.8458
44	-764.4382	20.2103	59.8458	-325.5648	9.4086	82.5118
45	-325.5648	9.4086	82.5118	-88.3885	2.9226	97.1278
46	-88.3885	2.9226	97.1278	368.8675	-12.2625	132.5977
47	368.8675	-12.2625	132.5977	821.5668	-23.7070	151.9063
48	821.5668	-23.7070	151.9063	977.9847	-40.4351	191.3528
49	977.9847	-40.4351	191.3528	1344.9868	-55.8927	219.2411
50	1344.9868	-55.8927	219.2411	1392.4111	-74.4500	264.7553
51	1392.4111	-74.4500	264.7553	1611.9329	-93.1763	305.6822
52	1611.9329	-93.1763	305.6822	1516.8955	-113.2456	357.7183
53	1516.8955	-113.2456	357.7183	1547.3145	-134.4823	407.6895

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	1547.3145	-134.4823	407.6895	1288.4529	-155.4848	461.4936
55	1288.4529	-155.4848	461.4936	1109.4601	-178.1479	512.7799
56	1109.4601	-178.1479	512.7799	678.9232	-199.5784	566.5964
57	678.9232	-199.5784	566.5964	294.2086	-222.4705	617.8280
58	294.2086	-222.4705	617.8280	-299.3669	-243.6935	671.6814
59	-299.3669	-243.6935	671.6814	-858.6182	-265.5396	722.1949
60	-858.6182	-265.5396	722.1949	-1591.8030	-125.9807	407.8374
61	-1591.8030	-125.9807	407.8374	-1384.6494	31.6072	42.3869
62	-1384.6494	31.6072	42.3869	-1014.4464	24.8550	52.1331
63	-1014.4464	24.8550	52.1331	-773.7201	20.4612	60.0697
64	-773.7201	20.4612	60.0697	-331.2440	9.5721	82.5303
65	-331.2440	9.5721	82.5303	-92.3002	3.0484	97.1342
66	-92.3002	3.0484	97.1342	367.4775	-12.2087	132.5231
67	367.4775	-12.2087	132.5231	822.0570	-23.6966	151.8539
68	822.0570	-23.6966	151.8539	979.1828	-40.4568	191.2861
69	979.1828	-40.4568	191.2861	1347.0776	-55.9599	219.2411
70	1347.0776	-55.9599	219.2411	1394.5543	-74.5829	264.7417
71	1394.5543	-74.5829	264.7417	1614.1682	-93.3665	305.8972
72	1614.1682	-93.3665	305.8972	1518.7546	-113.3696	357.9481
73	1518.7546	-113.3696	357.9481	1548.8713	-134.6362	407.8824
74	1548.8713	-134.6362	407.8824	1289.3569	-155.6528	461.9271
75	1289.3569	-155.6528	461.9271	1109.8754	-178.3147	513.3190
76	1109.8754	-178.3147	513.3190	678.9532	-199.7705	567.1989
77	678.9532	-199.7705	567.1989	293.7974	-222.6292	618.3202
78	293.7974	-222.6292	618.3202	-300.4797	-243.8748	672.1101
79	-300.4797	-243.8748	672.1101	-860.0062	-265.6988	722.7628
80	-860.0062	-265.6988	722.7628	-1593.6008	-126.0333	408.2716
81	-1593.6008	-126.0333	408.2716	-1386.3512	31.6459	42.7379
82	-1386.3512	31.6459	42.7379	-1015.7498	24.8734	52.5012
83	-1015.7498	24.8734	52.5012	-774.8083	20.4818	60.2573
84	-774.8083	20.4818	60.2573	-331.9832	9.5893	82.6378
85	-331.9832	9.5893	82.6378	-92.8675	3.0637	97.1604
86	-92.8675	3.0637	97.1604	367.1785	-12.1968	132.5140
87	367.1785	-12.1968	132.5140	821.9533	-23.7078	151.8069
88	821.9533	-23.7078	151.8069	979.1262	-40.4514	191.2195
89	979.1262	-40.4514	191.2195	1347.0742	-55.9752	219.2136
90	1347.0742	-55.9752	219.2136	1394.6082	-74.5607	265.0508
91	1394.6082	-74.5607	265.0508	1614.4048	-93.3462	306.0200
92	1614.4048	-93.3462	306.0200	1518.8878	-113.4013	358.0287
93	1518.8878	-113.4013	358.0287	1549.0435	-134.6261	408.2628
94	1549.0435	-134.6261	408.2628	1289.6592	-155.6850	462.2727
95	1289.6592	-155.6850	462.2727	1109.9392	-178.3745	513.6152
96	1109.9392	-178.3745	513.6152	678.8902	-199.7935	567.6700
97	678.8902	-199.7935	567.6700	293.5240	-222.6608	618.9521
98	293.5240	-222.6608	618.9521	-300.7911	-243.8893	672.7493
99	-300.7911	-243.8893	672.7493	-860.5217	-265.7137	723.3723
100	-860.5217	-265.7137	723.3723	-1593.8796	-126.0440	408.5287
101	-1593.8796	-126.0440	408.5287	-1386.6521	31.6392	42.8774
102	-1386.6521	31.6392	42.8774	-1015.9814	24.8759	52.7577
103	-1015.9814	24.8759	52.7577	-774.9899	20.4945	60.2833
104	-774.9899	20.4945	60.2833	-332.0833	9.5974	82.5690
105	-332.0833	9.5974	82.5690	-92.9126	3.0687	97.1140
106	-92.9126	3.0687	97.1140	367.1633	-12.1976	132.4408
107	367.1633	-12.1976	132.4408	821.9781	-23.7089	151.7540
108	821.9781	-23.7089	151.7540	979.0803	-40.4705	191.2909
109	979.0803	-40.4705	191.2909	1347.0905	-55.9917	219.3716
110	1347.0905	-55.9917	219.3716	1394.5399	-74.5742	264.9850

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
111	1394.5399	-74.5742	264.9850	1614.2734	-93.3652	306.1846
112	1614.2734	-93.3652	306.1846	1518.8020	-113.4296	358.2185
113	1518.8020	-113.4296	358.2185	1548.8523	-134.6320	408.5945
114	1548.8523	-134.6320	408.5945	1289.1290	-155.6550	462.7682
115	1289.1290	-155.6550	462.7682	1109.6837	-178.3054	514.1771
116	1109.6837	-178.3054	514.1771	678.7346	-199.7329	568.3336
117	678.7346	-199.7329	568.3336	293.6024	-222.6180	619.4133
118	293.6024	-222.6180	619.4133	-300.7354	-243.8546	673.3749
119	-300.7354	-243.8546	673.3749	-860.3081	-265.6765	723.5782
120	-860.3081	-265.6765	723.5782	-1593.7471	-126.0324	408.8649
121	-1593.7471	-126.0324	408.8649	-1386.4329	31.6175	43.3164
122	-1386.4329	31.6175	43.3164	-1015.8863	24.8618	52.8583
123	-1015.8863	24.8618	52.8583	-774.9772	20.4748	60.4375
124	-774.9772	20.4748	60.4375	-332.1031	9.5863	82.6552
125	-332.1031	9.5863	82.6552	-92.9348	3.0675	97.1441
126	-92.9348	3.0675	97.1441	367.2361	-12.1927	132.4043
127	367.2361	-12.1927	132.4043	822.1691	-23.6926	151.6945
128	822.1691	-23.6926	151.6945	979.3922	-40.4784	191.3573
129	979.3922	-40.4784	191.3573	1347.4418	-55.9854	219.5155
130	1347.4418	-55.9854	219.5155	1394.9019	-74.5959	264.9288
131	1394.9019	-74.5959	264.9288	1614.6572	-93.3490	305.9918
132	1614.6572	-93.3490	305.9918	1518.9963	-113.4512	358.6247
133	1518.9963	-113.4512	358.6247	1549.0319	-134.6638	409.2775
134	1549.0319	-134.6638	409.2775	1289.3997	-155.6833	463.3462
135	1289.3997	-155.6833	463.3462	1109.6973	-178.3538	514.6523
136	1109.6973	-178.3538	514.6523	678.5643	-199.7962	568.8085
137	678.5643	-199.7962	568.8085	293.0627	-222.6548	620.1600
138	293.0627	-222.6548	620.1600	-301.2719	-243.8978	673.9259
139	-301.2719	-243.8978	673.9259	-861.0222	-265.7224	724.1021
140	-861.0222	-265.7224	724.1021	-1594.5386	-126.0369	409.5934
141	-1594.5386	-126.0369	409.5934	-1387.0312	31.6563	43.8082
142	-1387.0312	31.6563	43.8082	-1016.2630	24.8971	52.9969
143	-1016.2630	24.8971	52.9969	-775.2064	20.5093	60.6711
144	-775.2064	20.5093	60.6711	-332.2589	9.6005	82.7197
145	-332.2589	9.6005	82.7197	-93.0742	3.0748	97.1490
146	-93.0742	3.0748	97.1490	367.0696	-12.1854	132.3404
147	367.0696	-12.1854	132.3404	821.9276	-23.6927	151.6122
148	821.9276	-23.6927	151.6122	979.1130	-40.4726	191.3449
149	979.1130	-40.4726	191.3449	1347.1718	-55.9819	219.4851
150	1347.1718	-55.9819	219.4851	1394.6758	-74.5715	265.0889
151	1394.6758	-74.5715	265.0889	1614.3435	-93.3490	306.2293
152	1614.3435	-93.3490	306.2293	1518.7910	-113.4059	358.8176
153	1518.7910	-113.4059	358.8176	1548.8838	-134.6125	409.4739
154	1548.8838	-134.6125	409.4739	1289.4314	-155.6604	463.4611
155	1289.4314	-155.6604	463.4611	1109.8054	-178.3185	514.9579
156	1109.8054	-178.3185	514.9579	678.6920	-199.7673	569.1876
157	678.6920	-199.7673	569.1876	293.3970	-222.6322	620.6526
158	293.3970	-222.6322	620.6526	-300.7767	-243.8898	674.4076
159	-300.7767	-243.8898	674.4076	-860.5626	-265.7105	724.7878
160	-860.5626	-265.7105	724.7878	-1594.1580	-126.0499	409.7990
161	-1594.1580	-126.0499	409.7990	-1387.0508	31.6308	43.7827
162	-1387.0508	31.6308	43.7827	-1016.3996	24.8733	53.2220
163	-1016.3996	24.8733	53.2220	-775.4052	20.4926	60.6634
164	-775.4052	20.4926	60.6634	-332.4257	9.5998	82.7418
165	-332.4257	9.5998	82.7418	-93.2337	3.0766	97.1263
166	-93.2337	3.0766	97.1263	366.9875	-12.1835	132.3984
167	366.9875	-12.1835	132.3984	821.9851	-23.6887	151.3744

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
168	821.9851	-23.6887	151.3744	979.1844	-40.4576	191.0123
169	979.1844	-40.4576	191.0123	1347.2170	-55.9713	219.4565
170	1347.2170	-55.9713	219.4565	1394.8260	-74.5768	265.2837
171	1394.8260	-74.5768	265.2837	1614.5670	-93.3491	306.6185
172	1614.5670	-93.3491	306.6185	1519.0486	-113.4144	358.8282
173	1519.0486	-113.4144	358.8282	1549.1208	-134.6567	409.5347
174	1549.1208	-134.6567	409.5347	1289.5652	-155.6808	463.8077
175	1289.5652	-155.6808	463.8077	1109.7710	-178.3675	515.2316
176	1109.7710	-178.3675	515.2316	678.6402	-199.8061	569.5082
177	678.6402	-199.8061	569.5082	293.0655	-222.6734	620.7375
178	293.0655	-222.6734	620.7375	-301.1765	-243.9068	674.5582
179	-301.1765	-243.9068	674.5582	-861.1863	-265.7305	724.9223
180	-861.1863	-265.7305	724.9223	-1594.7002	-126.0383	409.7854
181	-1594.7002	-126.0383	409.7854	-1387.2039	31.6547	43.7750
182	-1387.2039	31.6547	43.7750	-1016.4330	24.9012	53.0724
183	-1016.4330	24.9012	53.0724	-775.3423	20.5066	60.5237
184	-775.3423	20.5066	60.5237	-332.3387	9.6090	82.6924
185	-332.3387	9.6090	82.6924	-93.1405	3.0749	97.1028
186	-93.1405	3.0749	97.1028	366.9831	-12.1926	132.3529
187	366.9831	-12.1926	132.3529	821.8807	-23.6873	151.6473
188	821.8807	-23.6873	151.6473	979.1063	-40.4519	191.1488
189	979.1063	-40.4519	191.1488	1347.1868	-55.9473	219.5085
190	1347.1868	-55.9473	219.5085	1394.7910	-74.5605	265.1716
191	1394.7910	-74.5605	265.1716	1614.5779	-93.3357	306.5003
192	1614.5779	-93.3357	306.5003	1519.2269	-113.3913	359.2302
193	1519.2269	-113.3913	359.2302	1549.4209	-134.6711	409.4331
194	1549.4209	-134.6711	409.4331	1289.8323	-155.7003	463.6812
195	1289.8323	-155.7003	463.6812	1110.0623	-178.3615	515.4500
196	1110.0623	-178.3615	515.4500	678.9647	-199.8297	569.5632
197	678.9647	-199.8297	569.5632	293.3893	-222.7010	620.8320
198	293.3893	-222.7010	620.8320	-301.0455	-243.9438	674.6962
199	-301.0455	-243.9438	674.6962	-860.8633	-265.7603	725.1626
200	-860.8633	-265.7603	725.1626	-1594.6802	-126.0512	409.8804
201	-1594.6802	-126.0512	409.8804	-1387.3685	31.6657	43.5629
202	-1387.3685	31.6657	43.5629	-1016.5503	24.9005	53.1804
203	-1016.5503	24.9005	53.1804	-775.4915	20.5070	60.6962
204	-775.4915	20.5070	60.6962	-332.4780	9.6056	82.6992
205	-332.4780	9.6056	82.6992	-93.2633	3.0772	97.1051
206	-93.2633	3.0772	97.1051	366.9617	-12.1805	132.3751
207	366.9617	-12.1805	132.3751	821.9435	-23.6775	151.4806
208	821.9435	-23.6775	151.4806	979.2323	-40.4525	191.1341
209	979.2323	-40.4525	191.1341	1347.3563	-55.9748	219.5262
210	1347.3563	-55.9748	219.5262	1394.8958	-74.5793	265.1313
211	1394.8958	-74.5793	265.1313	1614.5999	-93.3802	306.2969
212	1614.5999	-93.3802	306.2969	1518.9905	-113.4118	358.8419
213	1518.9905	-113.4118	358.8419	1549.0376	-134.6702	409.5937
214	1549.0376	-134.6702	409.5937	1289.3781	-155.7027	463.6617
215	1289.3781	-155.7027	463.6617	1109.6554	-178.3927	515.2142
216	1109.6554	-178.3927	515.2142	678.3478	-199.8484	569.3484
217	678.3478	-199.8484	569.3484	292.7200	-222.7255	620.7664
218	292.7200	-222.7255	620.7664	-301.7368	-243.9702	674.5231
219	-301.7368	-243.9702	674.5231	-861.8795	-265.7878	724.7494
220	-861.8795	-265.7878	724.7494	-1595.6804	-126.0438	409.8707
221	-1595.6804	-126.0438	409.8707	-1388.0210	31.7130	43.9723
222	-1388.0210	31.7130	43.9723	-1016.9546	24.9413	53.3230
223	-1016.9546	24.9413	53.3230	-775.7131	20.5463	60.7461

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
224	-775.7131	20.5463	60.7461	-332.5429	9.6240	82.7618
225	-332.5429	9.6240	82.7618	-93.2936	3.0858	97.1527
226	-93.2936	3.0858	97.1527	366.8418	-12.2033	132.3987
227	366.8418	-12.2033	132.3987	821.5212	-23.7496	151.5347
228	821.5212	-23.7496	151.5347	978.4606	-40.5298	191.1647
229	978.4606	-40.5298	191.1647	1345.9578	-56.0578	219.3785
230	1345.9578	-56.0578	219.3785	1392.8351	-74.6878	265.2224
231	1392.8351	-74.6878	265.2224	1611.8040	-93.4908	306.3500
232	1611.8040	-93.4908	306.3500	1515.7405	-113.5179	358.7817
233	1515.7405	-113.5179	358.7817	1544.8772	-134.7358	409.4347
234	1544.8772	-134.7358	409.4347	1284.6731	-155.7816	463.7215
235	1284.6731	-155.7816	463.7215	1104.0530	-178.5002	515.3118
236	1104.0530	-178.5002	515.3118	672.4117	-199.9769	569.3248
237	672.4117	-199.9769	569.3248	286.0349	-222.8640	620.7229
238	286.0349	-222.8640	620.7229	-308.7881	-244.0732	674.6165
239	-308.7881	-244.0732	674.6165	-868.6175	-265.8915	724.9694
240	-868.6175	-265.8915	724.9694	-1602.4863	-125.8187	409.9766
241	-1602.4863	-125.8187	409.9766	-1392.9113	32.2170	43.8417
242	-1392.9113	32.2170	43.8417	-1019.5842	25.3389	53.2125
243	-1019.5842	25.3389	53.2125	-776.8813	20.8658	60.7222
244	-776.8813	20.8658	60.7222	-332.5949	9.7829	82.7560
245	-332.5949	9.7829	82.7560	-93.0658	3.1390	97.1920
246	-93.0658	3.1390	97.1920	366.0023	-12.3829	132.4714
247	366.0023	-12.3829	132.4714	818.0016	-24.1832	151.7272
248	818.0016	-24.1832	151.7272	972.0582	-41.1040	191.1682
249	972.0582	-41.1040	191.1682	1333.6558	-56.9305	219.5860
250	1333.6558	-56.9305	219.5860	1375.4995	-75.7095	265.4969
251	1375.4995	-75.7095	265.4969	1585.4275	-94.8220	306.5609
252	1585.4275	-94.8220	306.5609	1481.8320	-115.0081	359.1797
253	1481.8320	-115.0081	359.1797	1499.6768	-136.5134	410.0110
254	1499.6768	-136.5134	410.0110	1230.8284	-157.6866	464.1929
255	1230.8284	-157.6866	464.1929	1038.6970	-180.5973	515.5890
256	1038.6970	-180.5973	515.5890	598.1874	-202.1214	569.7515
257	598.1874	-202.1214	569.7515	203.2504	-225.0695	621.0908
258	203.2504	-225.0695	621.0908	-398.0208	-246.2841	674.7400
259	-398.0208	-246.2841	674.7400	-959.8964	-267.9893	725.2040
260	-959.8964	-267.9893	725.2040	-1694.9624	-125.3391	415.4423
261	-1694.9624	-125.3391	415.4423	-1496.8241	34.9546	55.2514
262	-1496.8241	34.9546	55.2514	-1281.7656	31.5876	60.0175
263	-1281.7656	31.5876	60.0175	-1053.6250	27.4910	67.0766
264	-1053.6250	27.4910	67.0766	-816.3322	22.6157	77.2375
265	-816.3322	22.6157	77.2375	-355.3754	10.5072	106.0580
266	-355.3754	10.5072	106.0580	-100.9995	3.2045	124.7681
267	-100.9995	3.2045	124.7681	145.7260	-4.9584	146.3758
268	145.7260	-4.9584	146.3758	379.3192	-14.0121	170.3876
269	379.3192	-14.0121	170.3876	593.8914	-23.9566	194.8089
270	593.8914	-23.9566	194.8089	783.3534	-34.7609	219.4673
271	783.3534	-34.7609	219.4673	941.4734	-46.4347	245.8806
272	941.4734	-46.4347	245.8806	1301.6218	-65.5905	287.2010
273	1301.6218	-65.5905	287.2010	1360.8813	-86.3467	340.3337
274	1360.8813	-86.3467	340.3337	1366.7671	-101.2386	377.5142
275	1366.7671	-101.2386	377.5142	1314.1250	-116.7379	417.3633
276	1314.1250	-116.7379	417.3633	1197.7935	-133.0079	460.2848
277	1197.7935	-133.0079	460.2848	1121.3063	-154.2316	511.0600
278	1121.3063	-154.2316	511.0600	829.2180	-172.3737	555.8324
279	829.2180	-172.3737	555.8324	456.8394	-191.0798	600.5317
280	456.8394	-191.0798	600.5317	0.2755	-204.3763	638.2006

ENVOL. MIN. TORSORES TREN TREN SW/0, EC-1 en via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.2226	209.3730	-643.1696	450.5503	190.2870	-596.4032
2	450.5503	190.2870	-596.4032	821.3076	171.6031	-551.7233
3	821.3076	171.6031	-551.7233	1007.1514	149.2220	-500.8244
4	1007.1514	149.2220	-500.8244	1190.7097	132.3347	-457.3025
5	1190.7097	132.3347	-457.3025	1305.8926	116.1396	-414.2043
6	1305.8926	116.1396	-414.2043	1357.7140	100.6240	-373.9102
7	1357.7140	100.6240	-373.9102	1130.3098	71.8351	-302.4485
8	1130.3098	71.8351	-302.4485	1053.5239	58.5964	-271.0681
9	1053.5239	58.5964	-271.0681	933.4265	46.1370	-242.1591
10	933.4265	46.1370	-242.1591	775.7772	34.5115	-216.1151
11	775.7772	34.5115	-216.1151	586.8723	23.7260	-192.3283
12	586.8723	23.7260	-192.3283	372.8365	13.8206	-170.4267
13	372.8365	13.8206	-170.4267	139.7312	4.7814	-148.8241
14	139.7312	4.7814	-148.8241	-106.5065	-3.3781	-127.5364
15	-106.5065	-3.3781	-127.5364	-577.5424	-17.1167	-91.5523
16	-577.5424	-17.1167	-91.5523	-818.3244	-22.7262	-77.9064
17	-818.3244	-22.7262	-77.9064	-1054.2192	-27.5585	-66.8228
18	-1054.2192	-27.5585	-66.8228	-1281.0508	-31.6328	-58.3239
19	-1281.0508	-31.6328	-58.3239	-1494.8556	-34.9680	-52.6851
20	-1494.8556	-34.9680	-52.6851	-1691.7572	125.0795	-412.1956
21	-1691.7572	125.0795	-412.1956	-1058.5488	260.0637	-705.6875
22	-1058.5488	260.0637	-705.6875	-395.9976	245.7325	-670.7069
23	-395.9976	245.7325	-670.7069	88.6389	216.4102	-600.6672
24	88.6389	216.4102	-600.6672	598.2819	201.5543	-565.6475
25	598.2819	201.5543	-565.6475	889.2343	171.8510	-495.6326
26	889.2343	171.8510	-495.6326	1228.7732	157.1712	-460.8065
27	1228.7732	157.1712	-460.8065	1308.1113	128.4358	-391.1382
28	1308.1113	128.4358	-391.1382	1477.9441	114.4868	-356.8510
29	1477.9441	114.4868	-356.8510	1354.8412	87.8699	-291.9393
30	1354.8412	87.8699	-291.9393	1370.3054	75.2399	-262.7145
31	1370.3054	75.2399	-262.7145	1077.3433	51.6636	-211.4724
32	1077.3433	51.6636	-211.4724	966.6709	40.7569	-189.1114
33	966.6709	40.7569	-189.1114	557.2029	20.9725	-149.6761
34	557.2029	20.9725	-149.6761	360.4194	12.1411	-132.6369
35	360.4194	12.1411	-132.6369	-98.0988	-3.3129	-99.3500
36	-98.0988	-3.3129	-99.3500	-337.1918	-9.9179	-84.3377
37	-337.1918	-9.9179	-84.3377	-778.8464	-20.9124	-60.9988
38	-778.8464	-20.9124	-60.9988	-1020.0522	-25.3476	-52.6533
39	-1020.0522	-25.3476	-52.6533	-1390.5005	-32.1555	-41.9631
40	-1390.5005	-32.1555	-41.9631	-1598.6807	125.5862	-407.1144
41	-1598.6807	125.5862	-407.1144	-963.7979	257.8755	-705.6732
42	-963.7979	257.8755	-705.6732	-306.3755	243.4902	-670.6837
43	-306.3755	243.4902	-670.6837	171.1921	214.1971	-600.7778
44	171.1921	214.1971	-600.7778	672.5183	199.3816	-565.8903
45	672.5183	199.3816	-565.8903	951.9026	169.8309	-495.7668
46	951.9026	169.8309	-495.7668	1282.4517	155.2266	-460.6434
47	1282.4517	155.2266	-460.6434	1349.7131	126.7372	-390.9728
48	1349.7131	126.7372	-390.9728	1511.2434	113.0056	-356.7336
49	1511.2434	113.0056	-356.7336	1377.8357	86.6818	-292.0127
50	1377.8357	86.6818	-292.0127	1387.2458	74.2068	-262.7162
51	1387.2458	74.2068	-262.7162	1087.1782	50.9218	-211.2386
52	1087.1782	50.9218	-211.2386	972.7701	40.1761	-188.7838
53	972.7701	40.1761	-188.7838	559.4075	20.6696	-149.5765
54	559.4075	20.6696	-149.5765	361.0790	11.9649	-132.4924

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	361.0790	11.9649	-132.4924	-98.3427	-3.2595	-99.3215
56	-98.3427	-3.2595	-99.3215	-337.1605	-9.7655	-84.3430
57	-337.1605	-9.7655	-84.3430	-777.6323	-20.5971	-61.1238
58	-777.6323	-20.5971	-61.1238	-1017.4048	-24.9629	-52.8358
59	-1017.4048	-24.9629	-52.8358	-1385.6375	-31.6734	-42.3811
60	-1385.6375	-31.6734	-42.3811	-1591.9119	125.7697	-407.3655
61	-1591.9119	125.7697	-407.3655	-956.8398	257.7079	-705.9636
62	-956.8398	257.7079	-705.9636	-299.5059	243.3266	-671.2842
63	-299.5059	243.3266	-671.2842	177.1967	214.0085	-601.3849
64	177.1967	214.0085	-601.3849	678.1118	199.2101	-566.2196
65	678.1118	199.2101	-566.2196	956.7410	169.7017	-496.3433
66	956.7410	169.7017	-496.3433	1286.6735	155.1329	-461.2093
67	1286.6735	155.1329	-461.2093	1353.1246	126.6612	-391.3906
68	1353.1246	126.6612	-391.3906	1514.2893	112.8929	-357.0535
69	1514.2893	112.8929	-357.0535	1380.0653	86.5651	-292.2046
70	1380.0653	86.5651	-292.2046	1388.8745	74.1167	-262.9136
71	1388.8745	74.1167	-262.9136	1088.1278	50.8350	-211.2011
72	1088.1278	50.8350	-211.2011	973.3914	40.1286	-188.7701
73	973.3914	40.1286	-188.7701	559.6580	20.6419	-149.5529
74	559.6580	20.6419	-149.5529	361.1993	11.9516	-132.4208
75	361.1993	11.9516	-132.4208	-98.3284	-3.2555	-99.3031
76	-98.3284	-3.2555	-99.3031	-337.1503	-9.7519	-84.3590
77	-337.1503	-9.7519	-84.3590	-777.5901	-20.5638	-61.1364
78	-777.5901	-20.5638	-61.1364	-1017.2449	-24.9199	-53.0771
79	-1017.2449	-24.9199	-53.0771	-1385.2563	-31.6177	-42.6714
80	-1385.2563	-31.6177	-42.6714	-1591.3757	125.7975	-407.7253
81	-1591.3757	125.7975	-407.7253	-956.4258	257.7066	-706.6736
82	-956.4258	257.7066	-706.6736	-299.2772	243.3362	-671.8766
83	-299.2772	243.3362	-671.8766	177.7380	214.0206	-601.9493
84	177.7380	214.0206	-601.9493	678.5967	199.2068	-566.8845
85	678.5967	199.2068	-566.8845	957.0582	169.6963	-496.7291
86	957.0582	169.6963	-496.7291	1287.1208	155.0954	-461.5107
87	1287.1208	155.0954	-461.5107	1353.3550	126.6320	-391.5981
88	1353.3550	126.6320	-391.5981	1514.4214	112.8913	-357.3242
89	1514.4214	112.8913	-357.3242	1380.1223	86.5778	-292.2414
90	1380.1223	86.5778	-292.2414	1388.9482	74.1291	-262.6728
91	1388.9482	74.1291	-262.6728	1088.1304	50.8424	-211.2350
92	1088.1304	50.8424	-211.2350	973.4114	40.1236	-188.7818
93	973.4114	40.1236	-188.7818	559.5975	20.6378	-149.4655
94	559.5975	20.6378	-149.4655	361.0924	11.9449	-132.3875
95	361.0924	11.9449	-132.3875	-98.5077	-3.2595	-99.2823
96	-98.5077	-3.2595	-99.2823	-337.3384	-9.7549	-84.4151
97	-337.3384	-9.7549	-84.4151	-777.7534	-20.5681	-61.3745
98	-777.7534	-20.5681	-61.3745	-1017.3917	-24.9238	-53.2971
99	-1017.3917	-24.9238	-53.2971	-1385.4346	-31.6159	-42.8913
100	-1385.4346	-31.6159	-42.8913	-1591.3928	125.7998	-408.1630
101	-1591.3928	125.7998	-408.1630	-956.2557	257.7003	-707.1926
102	-956.2557	257.7003	-707.1926	-299.2050	243.3244	-672.2563
103	-299.2050	243.3244	-672.2563	177.9414	213.9869	-602.2597
104	177.9414	213.9869	-602.2597	678.7050	199.1779	-567.2144
105	678.7050	199.1779	-567.2144	957.1387	169.6626	-497.1619
106	957.1387	169.6626	-497.1619	1286.9868	155.0901	-461.7899
107	1286.9868	155.0901	-461.7899	1353.2479	126.6295	-391.8064
108	1353.2479	126.6295	-391.8064	1514.3989	112.8559	-357.2782
109	1514.3989	112.8559	-357.2782	1380.1085	86.5479	-292.3159
110	1380.1085	86.5479	-292.3159	1388.8804	74.1203	-262.9117

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
111	1388.8804	74.1203	-262.9117	1088.0425	50.8429	-211.2523
112	1088.0425	50.8429	-211.2523	973.2347	40.1078	-188.8168
113	973.2347	40.1078	-188.8168	559.4154	20.6240	-149.4105
114	559.4154	20.6240	-149.4105	360.9305	11.9393	-132.3479
115	360.9305	11.9393	-132.3479	-98.6814	-3.2694	-99.3240
116	-98.6814	-3.2694	-99.3240	-337.5554	-9.7708	-84.4754
117	-337.5554	-9.7708	-84.4754	-778.1249	-20.5928	-61.5004
118	-778.1249	-20.5928	-61.5004	-1017.8777	-24.9456	-53.5106
119	-1017.8777	-24.9456	-53.5106	-1386.0414	-31.6501	-43.4815
120	-1386.0414	-31.6501	-43.4815	-1592.2720	125.8076	-408.8506
121	-1592.2720	125.8076	-408.8506	-956.8861	257.7621	-707.4883
122	-956.8861	257.7621	-707.4883	-299.5632	243.4003	-672.7921
123	-299.5632	243.4003	-672.7921	177.7463	214.0877	-602.8581
124	177.7463	214.0877	-602.8581	678.9064	199.2670	-567.7709
125	678.9064	199.2670	-567.7709	957.6086	169.7453	-497.6315
126	957.6086	169.7453	-497.6315	1287.5439	155.1133	-462.2296
127	1287.5439	155.1133	-462.2296	1353.7629	126.6355	-392.1367
128	1353.7629	126.6355	-392.1367	1514.8250	112.8514	-357.3765
129	1514.8250	112.8514	-357.3765	1380.4655	86.5452	-292.3740
130	1380.4655	86.5452	-292.3740	1389.0835	74.0965	-263.1907
131	1389.0835	74.0965	-263.1907	1088.1072	50.8375	-211.4489
132	1088.1072	50.8375	-211.4489	973.3215	40.1071	-188.6104
133	973.3215	40.1071	-188.6104	559.4525	20.6207	-149.2877
134	559.4525	20.6207	-149.2877	360.9112	11.9307	-132.2986
135	360.9112	11.9307	-132.2986	-98.7401	-3.2696	-99.3343
136	-98.7401	-3.2696	-99.3343	-337.5726	-9.7661	-84.5606
137	-337.5726	-9.7661	-84.5606	-778.0438	-20.5817	-61.7533
138	-778.0438	-20.5817	-61.7533	-1017.7190	-24.9306	-53.6754
139	-1017.7190	-24.9306	-53.6754	-1385.7676	-31.6346	-43.8751
140	-1385.7676	-31.6346	-43.8751	-1591.9570	125.7871	-409.1278
141	-1591.9570	125.7871	-409.1278	-956.7155	257.6945	-707.8510
142	-956.7155	257.6945	-707.8510	-299.2507	243.3006	-673.4386
143	-299.2507	243.3006	-673.4386	177.4445	214.0015	-603.5410
144	177.4445	214.0015	-603.5410	678.4713	199.2036	-568.2912
145	678.4713	199.2036	-568.2912	957.0225	169.6737	-498.1408
146	957.0225	169.6737	-498.1408	1286.9675	155.1003	-462.8127
147	1286.9675	155.1003	-462.8127	1353.3594	126.6241	-392.4955
148	1353.3594	126.6241	-392.4955	1514.4987	112.8649	-357.6382
149	1514.4987	112.8649	-357.6382	1380.1794	86.5614	-292.5773
150	1380.1794	86.5614	-292.5773	1388.9502	74.0986	-263.1514
151	1388.9502	74.0986	-263.1514	1088.0110	50.8254	-211.4309
152	1088.0110	50.8254	-211.4309	973.2648	40.1286	-188.5816
153	973.2648	40.1286	-188.5816	559.4358	20.6236	-149.2573
154	559.4358	20.6236	-149.2573	360.8925	11.9370	-132.2477
155	360.8925	11.9370	-132.2477	-98.7717	-3.2719	-99.2527
156	-98.7717	-3.2719	-99.2527	-337.6598	-9.7706	-84.5146
157	-337.6598	-9.7706	-84.5146	-778.2078	-20.5840	-61.8186
158	-778.2078	-20.5840	-61.8186	-1017.9712	-24.9380	-53.8309
159	-1017.9712	-24.9380	-53.8309	-1386.1217	-31.6279	-43.7743
160	-1386.1217	-31.6279	-43.7743	-1592.3184	125.8154	-409.1815
161	-1592.3184	125.8154	-409.1815	-956.9539	257.7638	-708.3344
162	-956.9539	257.7638	-708.3344	-299.5994	243.3788	-673.6177
163	-299.5994	243.3788	-673.6177	177.6715	214.0432	-603.6298
164	177.6715	214.0432	-603.6298	678.5703	199.2496	-568.5828
165	678.5703	199.2496	-568.5828	957.3306	169.7270	-498.0734
166	957.3306	169.7270	-498.0734	1287.3484	155.1234	-462.7021
167	1287.3484	155.1234	-462.7021	1353.5618	126.6244	-392.9893

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
168	1353.5618	126.6244	-392.9893	1514.6587	112.8453	-357.9702
169	1514.6587	112.8453	-357.9702	1380.3331	86.5320	-292.4492
170	1380.3331	86.5320	-292.4492	1389.0612	74.1218	-262.8679
171	1389.0612	74.1218	-262.8679	1088.1260	50.8581	-211.1906
172	1088.1260	50.8581	-211.1906	973.3469	40.1146	-188.6735
173	973.3469	40.1146	-188.6735	559.4329	20.6244	-149.2491
174	559.4329	20.6244	-149.2491	360.8734	11.9301	-132.2166
175	360.8734	11.9301	-132.2166	-98.8323	-3.2703	-99.3036
176	-98.8323	-3.2703	-99.3036	-337.6942	-9.7668	-84.5679
177	-337.6942	-9.7668	-84.5679	-778.2081	-20.5770	-61.8024
178	-778.2081	-20.5770	-61.8024	-1017.8849	-24.9359	-54.0257
179	-1017.8849	-24.9359	-54.0257	-1386.0071	-31.6347	-44.0767
180	-1386.0071	-31.6347	-44.0767	-1591.9163	125.7944	-409.3030
181	-1591.9163	125.7944	-409.3030	-956.7150	257.7065	-708.1451
182	-956.7150	257.7065	-708.1451	-299.4330	243.3307	-673.4178
183	-299.4330	243.3307	-673.4178	177.6049	213.9901	-603.6093
184	177.6049	213.9901	-603.6093	678.3271	199.2155	-568.5057
185	678.3271	199.2155	-568.5057	957.0690	169.6826	-498.1948
186	957.0690	169.6826	-498.1948	1287.0615	155.1001	-462.5426
187	1287.0615	155.1001	-462.5426	1353.3247	126.6467	-392.4982
188	1353.3247	126.6467	-392.4982	1514.4456	112.9017	-357.8942
189	1514.4456	112.9017	-357.8942	1380.3512	86.5801	-292.4691
190	1380.3512	86.5801	-292.4691	1389.1008	74.1299	-263.1083
191	1389.1008	74.1299	-263.1083	1088.2712	50.8618	-211.2153
192	1088.2712	50.8618	-211.2153	973.5597	40.1216	-188.4469
193	973.5597	40.1216	-188.4469	559.5490	20.6203	-149.3414
194	559.5490	20.6203	-149.3414	360.9371	11.9294	-132.2239
195	360.9371	11.9294	-132.2239	-98.7569	-3.2681	-99.3039
196	-98.7569	-3.2681	-99.3039	-337.6729	-9.7641	-84.5485
197	-337.6729	-9.7641	-84.5485	-778.2211	-20.5728	-61.8665
198	-778.2211	-20.5728	-61.8665	-1017.8867	-24.9212	-54.1075
199	-1017.8867	-24.9212	-54.1075	-1385.9531	-31.6113	-44.0002
200	-1385.9531	-31.6113	-44.0002	-1591.9100	125.8045	-409.2801
201	-1591.9100	125.8045	-409.2801	-956.5392	257.7055	-708.4438
202	-956.5392	257.7055	-708.4438	-299.4442	243.3315	-673.7063
203	-299.4442	243.3315	-673.7063	177.4975	214.0033	-603.6548
204	177.4975	214.0033	-603.6548	678.5782	199.2152	-568.5280
205	678.5782	199.2152	-568.5280	957.2813	169.7121	-498.1495
206	957.2813	169.7121	-498.1495	1287.2136	155.1347	-462.6812
207	1287.2136	155.1347	-462.6812	1353.5499	126.6720	-392.8503
208	1353.5499	126.6720	-392.8503	1514.7817	112.8580	-357.8557
209	1514.7817	112.8580	-357.8557	1380.4678	86.5500	-292.5366
210	1380.4678	86.5500	-292.5366	1389.1196	74.0704	-263.1158
211	1389.1196	74.0704	-263.1158	1088.1604	50.8391	-211.4279
212	1088.1604	50.8391	-211.4279	973.3768	40.0941	-188.5849
213	973.3768	40.0941	-188.5849	559.6039	20.6241	-149.2695
214	559.6039	20.6241	-149.2695	361.1174	11.9377	-132.2422
215	361.1174	11.9377	-132.2422	-98.3784	-3.2560	-99.2983
216	-98.3784	-3.2560	-99.2983	-337.1024	-9.7444	-84.5544
217	-337.1024	-9.7444	-84.5544	-777.2405	-20.5378	-61.8491
218	-777.2405	-20.5378	-61.8491	-1016.6568	-24.8894	-53.8536
219	-1016.6568	-24.8894	-53.8536	-1384.2383	-31.5656	-43.9968
220	-1384.2383	-31.5656	-43.9968	-1589.9214	125.7563	-409.3769
221	-1589.9214	125.7563	-409.3769	-955.0151	257.5416	-708.3130
222	-955.0151	257.5416	-708.3130	-298.1766	243.1544	-673.6844
223	-298.1766	243.1544	-673.6844	178.5429	213.8087	-603.6757
224	178.5429	213.8087	-603.6757	678.8202	198.9995	-568.5631

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
225	678.8202	198.9995	-568.5631	956.8376	169.4836	-498.0999
226	956.8376	169.4836	-498.0999	1286.1615	154.8743	-462.7859
227	1286.1615	154.8743	-462.7859	1351.8772	126.4150	-392.7307
228	1351.8772	126.4150	-392.7307	1512.4956	112.6823	-357.9608
229	1512.4956	112.6823	-357.9608	1377.9960	86.4034	-292.6444
230	1377.9960	86.4034	-292.6444	1386.7046	73.9438	-263.0168
231	1386.7046	73.9438	-263.0168	1086.3872	50.7862	-211.4069
232	1086.3872	50.7862	-211.4069	972.0493	40.0721	-188.6657
233	972.0493	40.0721	-188.6657	559.8780	20.6523	-149.3015
234	559.8780	20.6523	-149.3015	362.5128	11.9942	-132.2003
235	362.5128	11.9942	-132.2003	-94.3472	-3.1341	-99.2958
236	-94.3472	-3.1341	-99.2958	-331.2892	-9.5837	-84.5219
237	-331.2892	-9.5837	-84.5219	-767.7504	-20.3005	-61.8993
238	-767.7504	-20.3005	-61.8993	-1004.6912	-24.6075	-53.9958
239	-1004.6912	-24.6075	-53.9958	-1367.7792	-31.2117	-43.8684
240	-1367.7792	-31.2117	-43.8684	-1570.5161	125.2155	-409.0330
241	-1570.5161	125.2155	-409.0330	-937.3970	255.7918	-707.8898
242	-937.3970	255.7918	-707.8898	-284.7252	241.2859	-673.2740
243	-284.7252	241.2859	-673.2740	187.0444	211.7512	-603.1863
244	187.0444	211.7512	-603.1863	681.1553	196.8564	-568.0035
245	681.1553	196.8564	-568.0035	952.6573	167.2860	-497.6837
246	952.6573	167.2860	-497.6837	1275.4021	152.7389	-462.1174
247	1275.4021	152.7389	-462.1174	1335.5989	124.3777	-392.0898
248	1335.5989	124.3777	-392.0898	1491.1619	110.7482	-357.5466
249	1491.1619	110.7482	-357.5466	1355.2583	84.7662	-291.8353
250	1355.2583	84.7662	-291.8353	1362.5913	72.5345	-262.2516
251	1362.5913	72.5345	-262.2516	1069.2952	49.8957	-210.3528
252	1069.2952	49.8957	-210.3528	960.6854	39.5694	-187.3680
253	960.6854	39.5694	-187.3680	569.8464	21.0389	-147.5356
254	569.8464	21.0389	-147.5356	388.6865	12.8986	-130.2528
255	388.6865	12.8986	-130.2528	-27.1464	-1.0169	-96.7627
256	-27.1464	-1.0169	-96.7627	-234.2733	-6.7929	-81.6796
257	-234.2733	-6.7929	-81.6796	-607.0432	-16.0450	-58.1345
258	-607.0432	-16.0450	-58.1345	-798.8359	-19.5601	-49.8587
259	-798.8359	-19.5601	-49.8587	-1071.7671	-24.4557	-38.9491
260	-1071.7671	-24.4557	-38.9491	-1211.4443	120.1659	-355.7513
261	-1211.4443	120.1659	-355.7513	-686.8188	249.2920	-631.6539
262	-686.8188	249.2920	-631.6539	-212.6904	231.7239	-587.4671
263	-212.6904	231.7239	-587.4671	204.7570	200.2885	-505.2109
264	204.7570	200.2885	-505.2109	557.4984	181.5739	-460.6367
265	557.4984	181.5739	-460.6367	938.1491	154.9783	-384.8955
266	938.1491	154.9783	-384.8955	1252.4070	128.3921	-309.3375
267	1252.4070	128.3921	-309.3375	1310.4202	111.7842	-228.6399
268	1310.4202	111.7842	-228.6399	1556.4773	89.5492	-169.5129
269	1556.4773	89.5492	-169.5129	1746.5264	66.5827	-107.9436
270	1746.5264	66.5827	-107.9436	1878.2156	49.6328	-64.1169
271	1878.2156	49.6328	-64.1169	1946.5312	32.0401	-19.2464
272	1946.5312	32.0401	-19.2464	-4.6376	0.2577	-0.0040
273	-4.6376	0.2577	-0.0040	-4.1790	0.2652	-0.0048
274	-4.1790	0.2652	-0.0048	-3.5817	0.2654	-0.0056
275	-3.5817	0.2654	-0.0056	-2.9847	0.2653	-0.0060
276	-2.9847	0.2653	-0.0060	-2.3670	0.2631	-0.0067
277	-2.3670	0.2631	-0.0067	-1.7843	0.2644	-0.0072
278	-1.7843	0.2644	-0.0072	-1.1833	0.2630	-0.0075
279	-1.1833	0.2630	-0.0075	-6.0122	2.6716	-0.0104
280	-6.0122	2.6716	-0.0104	0.0008	2.6718	-0.0098

ENVOL. MAX. FLECTORES TREN TREN SW/2, EC-1 en via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0153	-53.6494	-53.2826	537.7115	219.1012	-636.4518
2	537.7115	219.1012	-636.4518	1001.2217	199.1788	-593.9392
3	1001.2217	199.1788	-593.9392	1411.9353	169.1902	-511.4933
4	1411.9353	169.1902	-511.4933	1747.5918	131.7180	-408.7170
5	1747.5918	131.7180	-408.7170	2017.6011	104.7677	-345.5235
6	2017.6011	104.7677	-345.5235	2223.3765	74.7969	-262.4589
7	2223.3765	74.7969	-262.4589	2361.5193	55.7492	-220.4240
8	2361.5193	55.7492	-220.4240	2441.9985	18.2756	-117.5257
9	2441.9985	18.2756	-117.5257	2456.9639	-8.1987	-48.0652
10	2456.9639	-8.1987	-48.0652	2421.4180	-28.3019	3.3728
11	2421.4180	-28.3019	3.3728	2329.3491	-49.4292	58.3563
12	2329.3491	-49.4292	58.3563	2175.2036	-79.1058	137.3022
13	2175.2036	-79.1058	137.3022	1957.8262	-116.6387	240.2243
14	1957.8262	-116.6387	240.2243	1673.3633	-139.7160	301.5137
15	1673.3633	-139.7160	301.5137	1321.4021	-169.7263	384.2567
16	1321.4021	-169.7263	384.2567	901.6246	-201.1881	469.2046
17	901.6246	-201.1881	469.2046	619.5613	16.1964	-3.4065
18	619.5613	16.1964	-3.4065	656.0089	16.1958	-3.5993
19	656.0089	16.1958	-3.5993	692.4563	16.2016	-3.5938
20	692.4563	16.2016	-3.5938	728.8985	-18.3517	-27.1009
21	728.8985	-18.3517	-27.1009	570.2006	-52.9047	-50.7901
22	570.2006	-52.9047	-50.7901	411.4744	-52.9040	-50.8396
23	411.4744	-52.9040	-50.8396	374.2831	261.1481	-709.4919
24	374.2831	261.1481	-709.4919	1103.9220	221.3449	-605.7362
25	1103.9220	221.3449	-605.7362	1702.4274	181.5574	-502.4678
26	1702.4274	181.5574	-502.4678	2179.5413	136.5887	-378.7894
27	2179.5413	136.5887	-378.7894	2526.6704	96.8724	-277.5776
28	2526.6704	96.8724	-277.5776	2749.9463	51.8678	-153.5864
29	2749.9463	51.8678	-153.5864	2846.8604	12.4253	-54.7723
30	2846.8604	12.4253	-54.7723	2906.7917	34.6008	-61.8018
31	2906.7917	34.6008	-61.8018	2943.0103	-10.4450	61.7614
32	2943.0103	-10.4450	61.7614	2857.0566	-49.6771	160.1573
33	2857.0566	-49.6771	160.1573	2641.1506	-89.1844	261.7324
34	2641.1506	-89.1844	261.7324	2306.1199	-134.2165	385.6510
35	2306.1199	-134.2165	385.6510	1839.4150	-173.9179	488.8053
36	1839.4150	-173.9179	488.8053	1250.1064	-218.9081	613.0671
37	1250.1064	-218.9081	613.0671	554.6425	14.9030	-2.5936
38	554.6425	14.9030	-2.5936	599.3433	14.9019	-2.6013
39	599.3433	14.9019	-2.6013	644.0494	14.9009	-2.5961
40	644.0494	14.9009	-2.5961	688.7549	-18.5713	-26.5627
41	688.7549	-18.5713	-26.5627	532.6279	-52.0392	-50.6987
42	532.6279	-52.0392	-50.6987	376.5302	-52.0357	-50.7244
43	376.5302	-52.0357	-50.7244	488.9554	258.0585	-709.4126
44	488.9554	258.0585	-709.4126	1209.4893	218.2349	-605.8566
45	1209.4893	218.2349	-605.8566	1797.4402	178.4832	-502.5822
46	1797.4402	178.4832	-502.5822	2265.4858	133.4931	-378.3010
47	2265.4858	133.4931	-378.3010	2601.6401	93.8683	-276.9910
48	2601.6401	93.8683	-276.9910	2815.7231	48.9021	-153.0176
49	2815.7231	48.9021	-153.0176	2901.8794	9.5852	-54.5072
50	2901.8794	9.5852	-54.5072	2951.9609	31.8970	-61.1211
51	2951.9609	31.8970	-61.1211	2980.0752	-13.1298	63.1171
52	2980.0752	-13.1298	63.1171	2887.5874	-52.5250	161.8488
53	2887.5874	-52.5250	161.8488	2663.5615	-92.1906	262.9661

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	2663.5615	-92.1906	262.9661	2319.6240	-137.1678	387.1508
55	2319.6240	-137.1678	387.1508	1844.2456	-176.8906	490.5186
56	1844.2456	-176.8906	490.5186	1245.9884	-221.8776	614.5052
57	1245.9884	-221.8776	614.5052	553.6857	14.6747	-2.4790
58	553.6857	14.6747	-2.4790	597.7108	14.6767	-2.4757
59	597.7108	14.6767	-2.4757	641.7406	14.6773	-2.3845
60	641.7406	14.6773	-2.3845	685.7634	-18.6512	-26.3962
61	685.7634	-18.6512	-26.3962	635.8024	-14.5216	2.3074
62	635.8024	-14.5216	2.3074	592.2352	-14.5197	2.4496
63	592.2352	-14.5197	2.4496	548.6857	-14.5174	2.4509
64	548.6857	-14.5174	2.4509	1217.4178	218.0491	-606.3180
65	1217.4178	218.0491	-606.3180	1804.8085	178.3098	-503.2245
66	1804.8085	178.3098	-503.2245	2272.2109	133.3130	-379.1125
67	2272.2109	133.3130	-379.1125	2607.8174	93.7242	-277.4981
68	2607.8174	93.7242	-277.4981	2821.5222	48.7034	-153.4517
69	2821.5222	48.7034	-153.4517	2906.8672	9.3807	-54.6746
70	2906.8672	9.3807	-54.6746	2956.0203	31.6075	-61.3752
71	2956.0203	31.6075	-61.3752	2983.3948	-13.3687	63.3383
72	2983.3948	-13.3687	63.3383	2890.2744	-52.7952	162.0914
73	2890.2744	-52.7952	162.0914	2665.7046	-92.3831	263.1826
74	2665.7046	-92.3831	263.1826	2321.0171	-137.3986	387.7342
75	2321.0171	-137.3986	387.7342	1844.8989	-177.1696	491.2673
76	1844.8989	-177.1696	491.2673	1245.9481	-222.1320	615.2937
77	1245.9481	-222.1320	615.2937	553.7213	14.6539	-2.4692
78	553.7213	14.6539	-2.4692	597.6773	14.6523	-2.3303
79	597.6773	14.6523	-2.3303	641.6333	14.6515	-2.2493
80	641.6333	14.6515	-2.2493	690.5726	18.8021	26.5450
81	690.5726	18.8021	26.5450	646.2812	-14.7585	2.1354
82	646.2812	-14.7585	2.1354	602.0133	-14.7558	2.2204
83	602.0133	-14.7558	2.2204	557.7479	-14.7531	2.3082
84	557.7479	-14.7531	2.3082	1218.0884	218.0229	-607.1851
85	1218.0884	218.0229	-607.1851	1805.3379	178.2599	-503.7779
86	1805.3379	178.2599	-503.7779	2272.8174	133.2702	-379.4698
87	2272.8174	133.2702	-379.4698	2608.1655	93.6827	-277.7614
88	2608.1655	93.6827	-277.7614	2821.7993	48.7139	-153.7831
89	2821.7993	48.7139	-153.7831	2907.0352	9.3706	-54.7658
90	2907.0352	9.3706	-54.7658	2956.3340	31.6277	-60.8408
91	2956.3340	31.6277	-60.8408	2983.6643	-13.4101	63.3734
92	2983.6643	-13.4101	63.3734	2890.5825	-52.7729	162.1057
93	2890.5825	-52.7729	162.1057	2665.9739	-92.3992	263.6850
94	2665.9739	-92.3992	263.6850	2321.3464	-137.4310	388.1054
95	2321.3464	-137.4310	388.1054	1844.9500	-177.1996	491.6045
96	1844.9500	-177.1996	491.6045	1245.9009	-222.1837	615.9772
97	1245.9009	-222.1837	615.9772	553.7919	14.6502	-2.2797
98	553.7919	14.6502	-2.2797	597.7481	14.6523	-2.1909
99	597.7481	14.6523	-2.1909	641.7228	14.6518	-2.1436
100	641.7228	14.6518	-2.1436	691.6808	18.8366	26.4871
101	691.6808	18.8366	26.4871	647.3429	-14.7780	2.0705
102	647.3429	-14.7780	2.0705	603.0148	-14.7787	2.0648
103	603.0148	-14.7787	2.0648	558.6652	-14.7815	2.2774
104	558.6652	-14.7815	2.2774	1218.2576	217.9839	-607.6080
105	1218.2576	217.9839	-607.6080	1805.4363	178.2204	-504.3747
106	1805.4363	178.2204	-504.3747	2272.7075	133.2639	-379.8333
107	2272.7075	133.2639	-379.8333	2608.1748	93.6370	-278.0273
108	2608.1748	93.6370	-278.0273	2821.6987	48.6531	-153.6146
109	2821.6987	48.6531	-153.6146	2907.0405	9.3054	-54.5951
110	2907.0405	9.3054	-54.5951	2956.1372	31.5938	-61.1629

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
111	2956.1372	31.5938	-61.1629	2983.5178	-13.4068	63.5193
112	2983.5178	-13.4068	63.5193	2890.2676	-52.8181	162.2624
113	2890.2676	-52.8181	162.2624	2665.5298	-92.4352	264.1539
114	2665.5298	-92.4352	264.1539	2320.6182	-137.3946	388.8137
115	2320.6182	-137.3946	388.8137	1844.5668	-177.1292	492.4210
116	1844.5668	-177.1292	492.4210	1245.6992	-222.1145	616.8096
117	1245.6992	-222.1145	616.8096	553.9402	14.6649	-2.2060
118	553.9402	14.6649	-2.2060	597.9495	14.6663	-2.0813
119	597.9495	14.6663	-2.0813	641.9331	14.6669	-1.8775
120	641.9331	14.6669	-1.8775	691.5630	18.8361	26.2839
121	691.5630	18.8361	26.2839	647.2815	-14.7693	1.8656
122	647.2815	-14.7693	1.8656	602.9689	-14.7654	2.0073
123	602.9689	-14.7654	2.0073	558.6825	-14.7619	2.1742
124	558.6825	-14.7619	2.1742	1218.5283	218.0882	-608.3229
125	1218.5283	218.0882	-608.3229	1806.0535	178.3036	-504.9934
126	1806.0535	178.3036	-504.9934	2273.5205	133.2699	-380.4457
127	2273.5205	133.2699	-380.4457	2608.9355	93.6957	-278.4542
128	2608.9355	93.6957	-278.4542	2822.5698	48.6723	-153.6479
129	2822.5698	48.6723	-153.6479	2907.7734	9.2684	-54.4678
130	2907.7734	9.2684	-54.4678	2956.7852	31.5988	-61.5400
131	2956.7852	31.5988	-61.5400	2983.9712	-13.3867	63.1122
132	2983.9712	-13.3867	63.1122	2890.6772	-52.8343	162.9635
133	2890.6772	-52.8343	162.9635	2665.8535	-92.4641	265.1680
134	2665.8535	-92.4641	265.1680	2320.9038	-137.4636	389.5983
135	2320.9038	-137.4636	389.5983	1844.5930	-177.2051	492.9503
136	1844.5930	-177.2051	492.9503	1245.3940	-222.2014	617.4939
137	1245.3940	-222.2014	617.4939	553.8539	14.6538	-2.0227
138	553.8539	14.6538	-2.0227	597.8246	14.6542	-1.9733
139	597.8246	14.6542	-1.9733	641.7866	14.6541	-1.6854
140	641.7866	14.6541	-1.6854	691.9219	18.8405	25.9955
141	691.9219	18.8405	25.9955	647.5748	-14.7868	1.6349
142	647.5748	-14.7868	1.6349	603.2112	-14.7887	1.9264
143	603.2112	-14.7887	1.9264	558.8434	-14.7886	2.0094
144	558.8434	-14.7886	2.0094	1217.9199	217.9901	-609.0424
145	1217.9199	217.9901	-609.0424	1805.2700	178.2641	-505.5705
146	1805.2700	178.2641	-505.5705	2272.6631	133.2861	-381.2078
147	2272.6631	133.2861	-381.2078	2608.3008	93.6735	-278.9406
148	2608.3008	93.6735	-278.9406	2821.8477	48.6593	-153.9073
149	2821.8477	48.6593	-153.9073	2907.2358	9.3360	-54.7184
150	2907.2358	9.3360	-54.7184	2956.3013	31.5918	-61.3791
151	2956.3013	31.5918	-61.3791	2983.5090	-13.4045	63.2615
152	2983.5090	-13.4045	63.2615	2890.3643	-52.7959	163.1144
153	2890.3643	-52.7959	163.1144	2665.7385	-92.4171	265.2891
154	2665.7385	-92.4171	265.2891	2321.0010	-137.3848	389.6459
155	2321.0010	-137.3848	389.6459	1844.7202	-177.1319	493.3547
156	1844.7202	-177.1319	493.3547	1245.6597	-222.1314	618.0192
157	1245.6597	-222.1314	618.0192	554.0359	14.6597	-1.9644
158	554.0359	14.6597	-1.9644	598.0170	14.6581	-1.8809
159	598.0170	14.6581	-1.8809	641.9973	14.6562	-1.7392
160	641.9973	14.6562	-1.7392	691.8373	18.8508	25.8563
161	691.8373	18.8508	25.8563	647.5061	-14.7744	1.6392
162	647.5061	-14.7744	1.6392	603.1904	-14.7749	1.7819
163	603.1904	-14.7749	1.7819	558.8647	-14.7731	1.9943
164	558.8647	-14.7731	1.9943	1218.1111	218.0457	-609.4279
165	1218.1111	218.0457	-609.4279	1805.6802	178.3245	-505.5555
166	1805.6802	178.3245	-505.5555	2273.2600	133.2892	-380.8716
167	2273.2600	133.2892	-380.8716	2608.6245	93.6722	-279.7576

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
168	2608.6245	93.6722	-279.7576	2822.1631	48.6612	-154.6705
169	2822.1631	48.6612	-154.6705	2907.5366	9.3302	-54.6306
170	2907.5366	9.3302	-54.6306	2956.6411	31.5971	-60.8647
171	2956.6411	31.5971	-60.8647	2983.9219	-13.3820	63.9753
172	2983.9219	-13.3820	63.9753	2890.8154	-52.7985	162.9678
173	2890.8154	-52.7985	162.9678	2666.0303	-92.4656	265.3539
174	2666.0303	-92.4656	265.3539	2321.1575	-137.4414	390.1370
175	2321.1575	-137.4414	390.1370	1844.7400	-177.2399	493.7258
176	1844.7400	-177.2399	493.7258	1245.4680	-222.2318	618.3969
177	1245.4680	-222.2318	618.3969	553.9487	14.6553	-1.9771
178	553.9487	14.6553	-1.9771	597.9015	14.6556	-1.7653
179	597.9015	14.6556	-1.7653	641.8779	14.6540	-1.5920
180	641.8779	14.6540	-1.5920	692.1564	18.8500	25.8951
181	692.1564	18.8500	25.8951	647.7716	-14.7885	1.6420
182	647.7716	-14.7885	1.6420	603.4172	-14.7903	1.8670
183	603.4172	-14.7903	1.8670	559.0286	-14.7915	2.0949
184	559.0286	-14.7915	2.0949	1217.7916	217.9948	-609.3175
185	1217.7916	217.9948	-609.3175	1805.3062	178.2466	-505.7699
186	1805.3062	178.2466	-505.7699	2272.7456	133.2523	-380.7672
187	2272.7456	133.2523	-380.7672	2608.2302	93.6781	-278.7899
188	2608.2302	93.6781	-278.7899	2821.9124	48.7020	-154.3698
189	2821.9124	48.7020	-154.3698	2907.4707	9.3652	-54.5476
190	2907.4707	9.3652	-54.5476	2956.7056	31.6932	-61.2708
191	2956.7056	31.6932	-61.2708	2984.1880	-13.3072	63.8485
192	2984.1880	-13.3072	63.8485	2891.1887	-52.7295	163.6948
193	2891.1887	-52.7295	163.6948	2666.5806	-92.4339	265.0715
194	2666.5806	-92.4339	265.0715	2321.6079	-137.4577	389.9839
195	2321.6079	-137.4577	389.9839	1845.1523	-177.2181	494.0509
196	1845.1523	-177.2181	494.0509	1245.9413	-222.2346	618.4305
197	1245.9413	-222.2346	618.4305	553.1790	14.6280	-1.9264
198	553.1790	14.6280	-1.9264	597.0631	14.6256	-1.7142
199	597.0631	14.6256	-1.7142	640.9335	14.6256	-1.6278
200	640.9335	14.6256	-1.6278	692.1542	18.8547	25.7530
201	692.1542	18.8547	25.7530	647.7764	-14.7922	1.7332
202	647.7764	-14.7922	1.7332	603.4146	-14.7917	1.7940
203	603.4146	-14.7917	1.7940	559.0510	-14.7947	1.9629
204	559.0510	-14.7947	1.9629	1218.0663	218.0236	-609.3993
205	1218.0663	218.0236	-609.3993	1805.5624	178.2790	-505.6542
206	1805.5624	178.2790	-505.6542	2273.0659	133.3064	-380.8699
207	2273.0659	133.3064	-380.8699	2608.6147	93.7168	-279.4182
208	2608.6147	93.7168	-279.4182	2822.3467	48.7280	-154.3866
209	2822.3467	48.7280	-154.3866	2907.7749	9.3352	-54.6335
210	2907.7749	9.3352	-54.6335	2956.7344	31.5723	-61.3088
211	2956.7344	31.5723	-61.3088	2983.9414	-13.4408	63.3697
212	2983.9414	-13.4408	63.3697	2890.6033	-52.8305	163.1702
213	2890.6033	-52.8305	163.1702	2665.9038	-92.4490	265.3615
214	2665.9038	-92.4490	265.3615	2320.8813	-137.4632	389.9124
215	2320.8813	-137.4632	389.9124	1844.5310	-177.2518	493.6365
216	1844.5310	-177.2518	493.6365	1245.0607	-222.2728	618.1671
217	1245.0607	-222.2728	618.1671	543.8694	14.3786	-1.9631
218	543.8694	14.3786	-1.9631	586.9997	14.3785	-1.8816
219	586.9997	14.3785	-1.8816	630.1366	14.3778	-1.6514
220	630.1366	14.3778	-1.6514	692.6585	18.8553	25.8036
221	692.6585	18.8553	25.8036	648.1949	-14.8167	1.5533
222	648.1949	-14.8167	1.5533	603.7424	-14.8172	1.7294
223	603.7424	-14.8172	1.7294	559.2855	-14.8166	1.9446
224	559.2855	-14.8166	1.9446	1218.4316	217.7283	-609.4083

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
225	1218.4316	217.7283	-609.4083	1805.0094	177.9978	-505.5730
226	1805.0094	177.9978	-505.5730	2271.6196	132.9838	-381.0423
227	2271.6196	132.9838	-381.0423	2606.1919	93.3762	-279.2780
228	2606.1919	93.3762	-279.2780	2818.9756	48.3882	-154.4866
229	2818.9756	48.3882	-154.4866	2903.6240	9.0515	-54.8611
230	2903.6240	9.0515	-54.8611	2951.7312	31.2962	-61.1152
231	2951.7312	31.2962	-61.1152	2978.2476	-13.6397	63.4356
232	2978.2476	-13.6397	63.4356	2884.2490	-52.9745	162.9886
233	2884.2490	-52.9745	162.9886	2658.8472	-92.6243	265.1726
234	2658.8472	-92.6243	265.1726	2313.3850	-137.6165	390.0912
235	2313.3850	-137.6165	390.0912	1836.3481	-177.3869	493.8066
236	1836.3481	-177.3869	493.8066	1236.6350	-222.4250	618.1061
237	1236.6350	-222.4250	618.1061	507.7520	-262.2377	722.2975
238	507.7520	-262.2377	722.2975	380.2282	52.5637	49.9823
239	380.2282	52.5637	49.9823	537.9205	52.5639	50.0570
240	537.9205	52.5639	50.0570	695.6239	18.7573	25.8144
241	695.6239	18.7573	25.8144	650.4667	-15.0517	1.6317
242	650.4667	-15.0517	1.6317	605.2948	-15.0529	1.8113
243	605.2948	-15.0529	1.8113	560.1338	-15.0560	1.9921
244	560.1338	-15.0560	1.9921	1221.7798	214.6623	-608.4232
245	1221.7798	214.6623	-608.4232	1799.3452	174.9965	-504.8359
246	1799.3452	174.9965	-504.8359	2256.8950	130.0220	-379.9843
247	2256.8950	130.0220	-379.9843	2583.5591	90.5448	-278.1245
248	2583.5591	90.5448	-278.1245	2787.8220	45.5396	-153.8457
249	2787.8220	45.5396	-153.8457	2866.0476	6.3852	-53.6362
250	2866.0476	6.3852	-53.6362	2904.0508	28.5327	-60.3565
251	2904.0508	28.5327	-60.3565	2922.1289	-16.4718	64.0801
252	2922.1289	-16.4718	64.0801	2817.2725	-55.9458	163.9052
253	2817.2725	-55.9458	163.9052	2581.8716	-100.9315	289.1418
254	2581.8716	-100.9315	289.1418	2226.8896	-140.6447	390.9122
255	2226.8896	-140.6447	390.9122	1739.8787	-180.4791	494.3649
256	1739.8787	-180.4791	494.3649	1130.6249	-225.4754	618.8778
257	1130.6249	-225.4754	618.8778	393.2377	-265.2795	722.8615
258	393.2377	-265.2795	722.8615	415.1288	53.4136	50.0080
259	415.1288	53.4136	50.0080	575.3644	53.4120	50.1614
260	575.3644	53.4120	50.1614	735.5945	18.5484	26.2226
261	735.5945	18.5484	26.2226	698.8665	-16.3159	2.2923
262	698.8665	-16.3159	2.2923	662.1659	-16.3223	2.4216
263	662.1659	-16.3223	2.4216	625.4391	-16.3182	2.6573
264	625.4391	-16.3182	2.6573	588.7435	-16.3075	2.7362
265	588.7435	-16.3075	2.7362	552.0593	-16.3049	2.8979
266	552.0593	-16.3049	2.8979	868.3238	152.1848	-280.2374
267	868.3238	152.1848	-280.2374	1210.7815	152.1645	-280.0258
268	1210.7815	152.1645	-280.0258	1553.1526	141.8087	-233.8788
269	1553.1526	141.8087	-233.8788	1839.1277	107.0533	-155.0246
270	1839.1277	107.0533	-155.0246	2049.9604	77.0116	-72.3624
271	2049.9604	77.0116	-72.3624	2185.7134	46.9871	11.0140
272	2185.7134	46.9871	11.0140	2246.3711	9.4768	115.0065
273	2246.3711	9.4768	115.0065	2228.2471	-28.0586	218.7715
274	2228.2471	-28.0586	218.7715	2134.9722	-58.0664	301.9137
275	2134.9722	-58.0664	301.9137	1966.7797	-88.0508	384.8111
276	1966.7797	-88.0508	384.8111	1723.5300	-125.5673	488.6938
277	1723.5300	-125.5673	488.6938	1401.4474	-163.0813	592.3787
278	1401.4474	-163.0813	592.3787	1004.2812	-193.0694	675.3534
279	1004.2812	-193.0694	675.3534	532.3204	-223.0686	758.2939
280	532.3204	-223.0686	758.2939	0.3560	-238.0753	799.5798

ENVOL. MIN. FLECTORES TREN TREN SW/2, EC-1 en via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.2828	246.8975	-804.6923	-129.2144	-57.4300	-64.9000
2	-129.2144	-57.4300	-64.9000	-258.4313	-57.4258	-64.9487
3	-258.4313	-57.4258	-64.9487	-387.6634	-57.4351	-64.8758
4	-387.6634	-57.4351	-64.8758	-516.9824	-57.4608	-64.7193
5	-516.9824	-57.4608	-64.7193	-646.2044	-57.4673	-64.7859
6	-646.2044	-57.4673	-64.7859	-775.4809	-57.4907	-64.9140
7	-775.4809	-57.4907	-64.9140	-904.9071	-57.5030	-64.8148
8	-904.9071	-57.5030	-64.8148	-1034.3555	-57.5162	-64.6223
9	-1034.3555	-57.5162	-64.6223	-1163.8214	-57.5180	-64.7590
10	-1163.8214	-57.5180	-64.7590	-1293.2126	-57.5090	-64.5999
11	-1293.2126	-57.5090	-64.5999	-1422.7488	-57.5208	-64.6515
12	-1422.7488	-57.5208	-64.6515	-1552.1648	-57.5144	-64.6086
13	-1552.1648	-57.5144	-64.6086	-1681.5732	-57.5109	-64.3206
14	-1681.5732	-57.5109	-64.3206	-1810.8840	-57.4964	-64.3161
15	-1810.8840	-57.4964	-64.3161	-1940.1794	-57.4788	-64.4829
16	-1940.1794	-57.4788	-64.4829	-2069.5850	-57.4738	-64.6642
17	-2069.5850	-57.4738	-64.6642	-2198.9238	-57.4759	-64.2536
18	-2198.9238	-57.4759	-64.2536	-2328.2886	-57.4787	-63.5756
19	-2328.2886	-57.4787	-63.5756	-2457.6685	-57.4904	-63.6069
20	-2457.6685	-57.4904	-63.6069	-3146.8682	-7.1083	-31.7022
21	-3146.8682	-7.1083	-31.7022	-2223.8872	307.7098	-694.6405
22	-2223.8872	307.7098	-694.6405	-1348.5139	291.2836	-659.2396
23	-1348.5139	291.2836	-659.2396	-1238.1548	32.7277	38.4971
24	-1238.1548	32.7277	38.4971	-1139.9395	32.7316	38.4975
25	-1139.9395	32.7316	38.4975	-1041.7385	32.7290	38.4995
26	-1041.7385	32.7290	38.4995	-943.5557	32.7114	38.6423
27	-943.5557	32.7114	38.6423	-845.4358	32.7162	38.6468
28	-845.4358	32.7162	38.6468	-747.2153	32.7294	38.6299
29	-747.2153	32.7294	38.6299	-699.5025	-52.8838	-50.8399
30	-699.5025	-52.8838	-50.8399	-858.1904	-52.8825	-50.9361
31	-858.1904	-52.8825	-50.9361	-1016.8294	-52.8912	-50.7822
32	-1016.8294	-52.8912	-50.7822	-1175.4529	-52.8967	-50.6288
33	-1175.4529	-52.8967	-50.6288	-1334.1018	-52.8941	-50.8181
34	-1334.1018	-52.8941	-50.8181	-1492.7834	-52.8790	-50.6967
35	-1492.7834	-52.8790	-50.6967	-1651.4253	-52.8736	-50.7434
36	-1651.4253	-52.8736	-50.7434	-1810.0599	-52.8834	-50.8554
37	-1810.0599	-52.8834	-50.8554	-1968.6843	-52.8782	-50.8723
38	-1968.6843	-52.8782	-50.8723	-2127.3081	-52.8716	-50.8473
39	-2127.3081	-52.8716	-50.8473	-2373.0908	-298.1108	646.9860
40	-2373.0908	-298.1108	646.9860	-3295.3262	6.5416	-23.3884
41	-3295.3262	6.5416	-23.3884	-2332.8918	310.1824	-690.7448
42	-2332.8918	310.1824	-690.7448	-2102.8005	51.5243	51.6284
43	-2102.8005	51.5243	51.6284	-1948.2083	51.5179	51.3324
44	-1948.2083	51.5179	51.3324	-1793.6405	51.5295	51.5869
45	-1793.6405	51.5295	51.5869	-1639.0322	51.5480	51.6068
46	-1639.0322	51.5480	51.6068	-1484.4116	51.5443	51.3783
47	-1484.4116	51.5443	51.3783	-1329.7622	51.5410	51.2725
48	-1329.7622	51.5410	51.2725	-1175.1606	51.5179	51.2751
49	-1175.1606	51.5179	51.2751	-1020.5984	51.5059	51.3560
50	-1020.5984	51.5059	51.3560	-872.3635	-52.0431	-50.8129
51	-872.3635	-52.0431	-50.8129	-1028.5627	-52.0671	-50.8725
52	-1028.5627	-52.0671	-50.8725	-1184.7139	-52.0650	-50.8658
53	-1184.7139	-52.0650	-50.8658	-1340.8689	-52.0431	-50.8525
54	-1340.8689	-52.0431	-50.8525	-1496.9346	-52.0391	-50.9972

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	-1496.9346	-52.0391	-50.9972	-1653.0754	-52.0537	-51.0702
56	-1653.0754	-52.0537	-51.0702	-1809.2900	-52.0677	-51.0897
57	-1809.2900	-52.0677	-51.0897	-1965.4634	-52.0785	-51.2332
58	-1965.4634	-52.0785	-51.2332	-2121.7017	-52.0777	-51.2447
59	-2121.7017	-52.0777	-51.2447	-2381.6685	-298.8982	647.2179
60	-2381.6685	-298.8982	647.2179	-3303.7295	6.3285	-22.8530
61	-3303.7295	6.3285	-22.8530	-2338.3499	310.3015	-690.5486
62	-2338.3499	310.3015	-690.5486	-2137.1865	52.3898	51.9128
63	-2137.1865	52.3898	51.9128	-1980.0378	52.3811	51.9042
64	-1980.0378	52.3811	51.9042	-1822.9111	52.3768	51.6595
65	-1822.9111	52.3768	51.6595	-1665.7722	52.3715	51.6265
66	-1665.7722	52.3715	51.6265	-1508.6836	52.3507	51.6688
67	-1508.6836	52.3507	51.6688	-1351.6401	52.3533	51.3184
68	-1351.6401	52.3533	51.3184	-1194.6006	52.3780	51.3040
69	-1194.6006	52.3780	51.3040	-1037.4813	52.3740	51.3050
70	-1037.4813	52.3740	51.3050	-880.4180	52.3567	51.1691
71	-880.4180	52.3567	51.1691	-1029.6725	-51.9793	-50.7157
72	-1029.6725	-51.9793	-50.7157	-1185.5880	-51.9766	-50.7084
73	-1185.5880	-51.9766	-50.7084	-1341.5447	-51.9806	-50.7214
74	-1341.5447	-51.9806	-50.7214	-1497.4447	-51.9659	-51.0523
75	-1497.4447	-51.9659	-51.0523	-1653.3778	-51.9758	-51.2606
76	-1653.3778	-51.9758	-51.2606	-1809.3973	-52.0025	-51.2556
77	-1809.3973	-52.0025	-51.2556	-1965.4182	-52.0031	-51.2743
78	-1965.4182	-52.0031	-51.2743	-2121.4106	-51.9937	-51.7529
79	-2121.4106	-51.9937	-51.7529	-2382.4419	-298.9738	647.4708
80	-2382.4419	-298.9738	647.4708	-3304.6187	6.3153	-22.8461
81	-3304.6187	6.3153	-22.8461	-2339.3135	310.3264	-690.9989
82	-2339.3135	310.3264	-690.9989	-2140.5161	52.4508	52.7055
83	-2140.5161	52.4508	52.7055	-1983.1934	52.4423	52.3862
84	-1983.1934	52.4423	52.3862	-1825.8445	52.4372	52.2511
85	-1825.8445	52.4372	52.2511	-1668.5222	52.4277	51.9927
86	-1668.5222	52.4277	51.9927	-1511.1646	52.4405	51.7646
87	-1511.1646	52.4405	51.7646	-1353.7969	52.4486	51.4463
88	-1353.7969	52.4486	51.4463	-1196.4110	52.4436	51.4223
89	-1196.4110	52.4436	51.4223	-1039.0920	52.4482	51.3638
90	-1039.0920	52.4482	51.3638	-881.7951	52.4484	50.9850
91	-881.7951	52.4484	50.9850	-1029.9266	-51.9966	-50.6075
92	-1029.9266	-51.9966	-50.6075	-1185.9326	-51.9994	-50.6247
93	-1185.9326	-51.9994	-50.6247	-1341.9011	-51.9922	-50.8330
94	-1341.9011	-51.9922	-50.8330	-1497.7744	-51.9733	-51.0538
95	-1497.7744	-51.9733	-51.0538	-1653.7036	-51.9703	-51.2849
96	-1653.7036	-51.9703	-51.2849	-1809.6226	-51.9847	-51.6830
97	-1809.6226	-51.9847	-51.6830	-1965.5803	-51.9879	-51.9342
98	-1965.5803	-51.9879	-51.9342	-2121.5247	-51.9904	-52.2553
99	-2121.5247	-51.9904	-52.2553	-2383.1392	-298.9897	647.8361
100	-2383.1392	-298.9897	647.8361	-3304.8992	6.3079	-23.0637
101	-3304.8992	6.3079	-23.0637	-2339.4048	310.3288	-691.4114
102	-2339.4048	310.3288	-691.4114	-2141.0889	52.4632	53.2709
103	-2141.0889	52.4632	53.2709	-1983.6826	52.4825	52.5074
104	-1983.6826	52.4825	52.5074	-1826.2627	52.4788	52.0546
105	-1826.2627	52.4788	52.0546	-1668.8564	52.4696	52.0452
106	-1668.8564	52.4696	52.0452	-1511.4575	52.4604	51.7080
107	-1511.4575	52.4604	51.7080	-1354.1299	52.4727	51.2578
108	-1354.1299	52.4727	51.2578	-1196.6711	52.4888	51.0727
109	-1196.6711	52.4888	51.0727	-1039.2811	52.4765	50.9748
110	-1039.2811	52.4765	50.9748	-881.8749	52.4583	50.7669
111	-881.8749	52.4583	50.7669	-1030.1302	-51.9978	-50.5968

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	-1030.1302	-51.9978	-50.5968	-1186.0793	-51.9753	-50.5935
113	-1186.0793	-51.9753	-50.5935	-1341.9719	-51.9835	-50.9723
114	-1341.9719	-51.9835	-50.9723	-1497.9973	-52.0201	-51.2695
115	-1497.9973	-52.0201	-51.2695	-1654.0381	-52.0549	-51.6639
116	-1654.0381	-52.0549	-51.6639	-1810.2148	-52.0489	-51.9046
117	-1810.2148	-52.0489	-51.9046	-1966.2937	-52.0368	-52.2214
118	-1966.2937	-52.0368	-52.2214	-2122.4521	-52.0385	-52.6602
119	-2122.4521	-52.0385	-52.6602	-2383.5054	-298.9816	647.4072
120	-2383.5054	-298.9816	647.4072	-3305.6858	6.3267	-23.4638
121	-3305.6858	6.3267	-23.4638	-2339.8403	310.3663	-691.2721
122	-2339.8403	310.3663	-691.2721	-2140.8049	52.4035	53.4617
123	-2140.8049	52.4035	53.4617	-1983.6536	52.3997	52.8672
124	-1983.6536	52.3997	52.8672	-1826.3643	52.4197	52.4292
125	-1826.3643	52.4197	52.4292	-1669.1304	52.4293	52.2771
126	-1669.1304	52.4293	52.2771	-1511.8257	52.4396	51.9289
127	-1511.8257	52.4396	51.9289	-1354.5332	52.4529	51.3914
128	-1354.5332	52.4529	51.3914	-1197.1602	52.4754	51.0117
129	-1197.1602	52.4754	51.0117	-1039.7200	52.4853	50.8288
130	-1039.7200	52.4853	50.8288	-882.2323	52.4783	50.7734
131	-882.2323	52.4783	50.7734	-1030.3395	-51.9769	-50.4208
132	-1030.3395	-51.9769	-50.4208	-1186.2424	-51.9523	-50.8443
133	-1186.2424	-51.9523	-50.8443	-1342.1375	-51.9730	-51.3079
134	-1342.1375	-51.9730	-51.3079	-1498.1125	-51.9933	-51.5057
135	-1498.1125	-51.9933	-51.5057	-1654.0898	-51.9972	-51.6579
136	-1654.0898	-51.9972	-51.6579	-1810.0527	-52.0028	-52.3220
137	-1810.0527	-52.0028	-52.3220	-1966.0483	-52.0154	-52.8318
138	-1966.0483	-52.0154	-52.8318	-2122.1313	-52.0201	-53.0013
139	-2122.1313	-52.0201	-53.0013	-2383.8926	-299.0044	647.4958
140	-2383.8926	-299.0044	647.4958	-3306.0916	6.3051	-23.0442
141	-3306.0916	6.3051	-23.0442	-2340.1792	310.3358	-691.1803
142	-2340.1792	310.3358	-691.1803	-2141.6606	52.4952	53.7478
143	-2141.6606	52.4952	53.7478	-1984.1954	52.5062	53.4416
144	-1984.1954	52.5062	53.4416	-1826.6807	52.4949	52.7592
145	-1826.6807	52.4949	52.7592	-1669.2963	52.4708	52.3277
146	-1669.2963	52.4708	52.3277	-1511.8730	52.4683	52.1353
147	-1511.8730	52.4683	52.1353	-1354.4969	52.4793	51.4671
148	-1354.4969	52.4793	51.4671	-1197.0853	52.4646	50.9781
149	-1197.0853	52.4646	50.9781	-1039.6831	52.4613	50.8106
150	-1039.6831	52.4613	50.8106	-882.2318	52.4905	50.6026
151	-882.2318	52.4905	50.6026	-1030.3416	-52.0127	-50.0943
152	-1030.3416	-52.0127	-50.0943	-1186.3292	-52.0060	-50.5452
153	-1186.3292	-52.0060	-50.5452	-1342.3318	-52.0011	-50.9684
154	-1342.3318	-52.0011	-50.9684	-1498.3849	-51.9987	-51.1903
155	-1498.3849	-51.9987	-51.1903	-1654.4611	-52.0098	-51.5596
156	-1654.4611	-52.0098	-51.5596	-1810.5220	-52.0310	-52.3840
157	-1810.5220	-52.0310	-52.3840	-1966.5989	-52.0281	-53.0600
158	-1966.5989	-52.0281	-53.0600	-2122.6514	-52.0114	-53.3645
159	-2122.6514	-52.0114	-53.3645	-2383.8667	-299.0055	648.2972
160	-2383.8667	-299.0055	648.2972	-3306.1011	6.3230	-22.9128
161	-3306.1011	6.3230	-22.9128	-2340.4719	310.3743	-691.7263
162	-2340.4719	310.3743	-691.7263	-2141.7161	52.4431	54.2477
163	-2141.7161	52.4431	54.2477	-1984.4023	52.4492	53.4963
164	-1984.4023	52.4492	53.4963	-1827.0425	52.4655	53.0374
165	-1827.0425	52.4655	53.0374	-1669.6628	52.4631	52.4132
166	-1669.6628	52.4631	52.4132	-1512.3030	52.4576	51.7942
167	-1512.3030	52.4576	51.7942	-1354.8713	52.4752	51.7988
168	-1354.8713	52.4752	51.7988	-1197.4359	52.4957	51.3442

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	-1197.4359	52.4957	51.3442	-1039.9764	52.4946	50.8015
170	-1039.9764	52.4946	50.8015	-882.5752	52.4861	50.4702
171	-882.5752	52.4861	50.4702	-1030.5415	-51.9949	-50.4689
172	-1030.5415	-51.9949	-50.4689	-1186.5815	-51.9911	-50.5797
173	-1186.5815	-51.9911	-50.5797	-1342.5227	-51.9859	-51.1788
174	-1342.5227	-51.9859	-51.1788	-1498.4956	-51.9849	-51.5463
175	-1498.4956	-51.9849	-51.5463	-1654.4790	-51.9931	-51.9433
176	-1654.4790	-51.9931	-51.9433	-1810.4279	-52.0040	-52.5662
177	-1810.4279	-52.0040	-52.5662	-1966.4438	-52.0112	-53.0090
178	-1966.4438	-52.0112	-53.0090	-2122.4038	-52.0117	-53.7632
179	-2122.4038	-52.0117	-53.7632	-2384.2886	-299.0175	648.0684
180	-2384.2886	-299.0175	648.0684	-3306.1655	6.3043	-23.0782
181	-3306.1655	6.3043	-23.0782	-2340.3574	310.3469	-691.5402
182	-2340.3574	310.3469	-691.5402	-2141.9331	52.4957	53.9343
183	-2141.9331	52.4957	53.9343	-1984.4520	52.4902	53.1418
184	-1984.4520	52.4902	53.1418	-1826.9878	52.4910	52.8748
185	-1826.9878	52.4910	52.8748	-1669.4895	52.4837	52.4754
186	-1669.4895	52.4837	52.4754	-1512.0806	52.4952	51.7693
187	-1512.0806	52.4952	51.7693	-1354.6465	52.5024	51.2106
188	-1354.6465	52.5024	51.2106	-1197.2473	52.4747	51.0340
189	-1197.2473	52.4747	51.0340	-1039.8733	52.4600	50.6280
190	-1039.8733	52.4600	50.6280	-882.4663	52.4580	50.4006
191	-882.4663	52.4580	50.4006	-1030.6704	-52.0293	-50.4119
192	-1030.6704	-52.0293	-50.4119	-1186.7173	-52.0131	-50.8033
193	-1186.7173	-52.0131	-50.8033	-1342.7549	-51.9895	-50.9264
194	-1342.7549	-51.9895	-50.9264	-1498.6324	-51.9757	-51.4743
195	-1498.6324	-51.9757	-51.4743	-1654.6069	-51.9834	-52.0571
196	-1654.6069	-51.9834	-52.0571	-1810.5204	-51.9791	-52.4756
197	-1810.5204	-51.9791	-52.4756	-1966.4850	-51.9839	-53.1813
198	-1966.4850	-51.9839	-53.1813	-2122.4116	-51.9911	-53.9324
199	-2122.4116	-51.9911	-53.9324	-2383.9668	-299.0297	648.3962
200	-2383.9668	-299.0297	648.3962	-3306.1626	6.3051	-22.9460
201	-3306.1626	6.3051	-22.9460	-2340.3428	310.3541	-692.0388
202	-2340.3428	310.3541	-692.0388	-2142.1055	52.5004	54.1775
203	-2142.1055	52.5004	54.1775	-1984.6775	52.4897	53.5864
204	-1984.6775	52.4897	53.5864	-1827.2258	52.4799	52.8765
205	-1827.2258	52.4799	52.8765	-1669.7961	52.4792	52.3487
206	-1669.7961	52.4792	52.3487	-1512.4126	52.4767	51.7313
207	-1512.4126	52.4767	51.7313	-1355.0393	52.4795	51.5201
208	-1355.0393	52.4795	51.5201	-1197.6821	52.4954	51.0975
209	-1197.6821	52.4954	51.0975	-1040.2153	52.5198	50.6607
210	-1040.2153	52.5198	50.6607	-882.6733	52.5285	50.4668
211	-882.6733	52.5285	50.4668	-1029.0468	-51.9080	-50.1856
212	-1029.0468	-51.9080	-50.1856	-1184.8229	-51.9175	-50.6217
213	-1184.8229	-51.9175	-50.6217	-1340.5363	-51.9131	-51.0668
214	-1340.5363	-51.9131	-51.0668	-1496.3098	-51.9116	-51.4034
215	-1496.3098	-51.9116	-51.4034	-1652.0156	-51.8962	-51.7641
216	-1652.0156	-51.8962	-51.7641	-1807.6904	-51.8915	-52.4444
217	-1807.6904	-51.8915	-52.4444	-1963.3715	-51.8937	-53.1049
218	-1963.3715	-51.8937	-53.1049	-2119.0413	-51.8876	-53.4044
219	-2119.0413	-51.8876	-53.4044	-2383.3716	-299.0147	647.9940
220	-2383.3716	-299.0147	647.9940	-3305.2825	6.2760	-23.0776
221	-3305.2825	6.2760	-23.0776	-2339.6489	310.2520	-691.5174
222	-2339.6489	310.2520	-691.5174	-2142.9575	52.5813	54.4315
223	-2142.9575	52.5813	54.4315	-1985.2313	52.5824	53.6711
224	-1985.2313	52.5824	53.6711	-1827.4873	52.5734	53.0329
225	-1827.4873	52.5734	53.0329	-1669.8237	52.5714	52.4172

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-1669.8237	52.5714	52.4172	-1512.0845	52.5757	51.9319
227	-1512.0845	52.5757	51.9319	-1354.3300	52.5665	51.6175
228	-1354.3300	52.5665	51.6175	-1196.5972	52.5644	51.2187
229	-1196.5972	52.5644	51.2187	-1038.9158	52.5880	50.8941
230	-1038.9158	52.5880	50.8941	-881.0539	52.5880	50.5380
231	-881.0539	52.5880	50.5380	-1011.6387	-51.0738	-50.2210
232	-1011.6387	-51.0738	-50.2210	-1164.8513	-51.1013	-50.5262
233	-1164.8513	-51.1013	-50.5262	-1318.1481	-51.1110	-50.9789
234	-1318.1481	-51.1110	-50.9789	-1471.4115	-51.0942	-51.5321
235	-1471.4115	-51.0942	-51.5321	-1624.6936	-51.0976	-51.8428
236	-1624.6936	-51.0976	-51.8428	-1777.9330	-51.0916	-52.2750
237	-1777.9330	-51.0916	-52.2750	-1931.1089	-51.0680	-53.2307
238	-1931.1089	-51.0680	-53.2307	-2084.2764	-51.0746	-53.6638
239	-2084.2764	-51.0746	-53.6638	-2375.2534	-298.8084	648.3760
240	-2375.2534	-298.8084	648.3760	-3294.0867	5.9848	-22.6005
241	-3294.0867	5.9848	-22.6005	-2329.0786	309.2169	-691.2659
242	-2329.0786	309.2169	-691.2659	-2148.4692	53.4186	54.1944
243	-2148.4692	53.4186	54.1944	-1988.2296	53.4210	53.5540
244	-1988.2296	53.4210	53.5540	-1827.9951	53.4387	52.8292
245	-1827.9951	53.4387	52.8292	-1667.6663	53.4415	52.4263
246	-1667.6663	53.4415	52.4263	-1507.4336	53.4149	51.8447
247	-1507.4336	53.4149	51.8447	-1347.2114	53.4049	51.4111
248	-1347.2114	53.4049	51.4111	-1186.9441	53.4018	51.2916
249	-1186.9441	53.4018	51.2916	-1026.8091	53.3937	50.8063
250	-1026.8091	53.3937	50.8063	-866.6176	53.3997	50.4365
251	-866.6176	53.3997	50.4365	-706.4229	53.4038	50.3363
252	-706.4229	53.4038	50.3363	-546.1788	53.4115	50.1085
253	-546.1788	53.4115	50.1085	-385.9897	53.4056	49.8967
254	-385.9897	53.4056	49.8967	-395.9954	-13.9275	-117.5005
255	-395.9954	-13.9275	-117.5005	-437.7319	-13.9188	-117.5569
256	-437.7319	-13.9188	-117.5569	-494.4618	-36.4197	-55.7193
257	-494.4618	-36.4197	-55.7193	-671.2074	-81.4198	68.1919
258	-671.2074	-81.4198	68.1919	-1387.1792	-280.1688	620.7167
259	-1387.1792	-280.1688	620.7167	-2227.9854	-280.1713	620.1940
260	-2227.9854	-280.1713	620.1940	-3105.9023	19.0740	-8.5031
261	-3105.9023	19.0740	-8.5031	-2481.0386	57.9384	68.9005
262	-2481.0386	57.9384	68.9005	-2350.7341	57.9255	68.4442
263	-2350.7341	57.9255	68.4442	-2220.3970	57.9012	67.6014
264	-2220.3970	57.9012	67.6014	-2090.0854	57.9031	67.3316
265	-2090.0854	57.9031	67.3316	-1959.8887	57.9045	66.7548
266	-1959.8887	57.9045	66.7548	-1829.6292	57.9272	66.3210
267	-1829.6292	57.9272	66.3210	-1699.2812	57.9976	66.1351
268	-1699.2812	57.9976	66.1351	-1568.9080	58.0236	65.2914
269	-1568.9080	58.0236	65.2914	-1438.4127	58.0463	65.0266
270	-1438.4127	58.0463	65.0266	-1307.7524	58.0706	65.0110
271	-1307.7524	58.0706	65.0110	-1177.1118	58.0746	64.6564
272	-1177.1118	58.0746	64.6564	-1046.4343	58.1047	64.2805
273	-1046.4343	58.1047	64.2805	-915.6587	58.1339	64.1118
274	-915.6587	58.1339	64.1118	-784.8201	58.1318	63.9394
275	-784.8201	58.1318	63.9394	-653.9951	58.1160	63.8573
276	-653.9951	58.1160	63.8573	-523.2673	58.1324	63.6930
277	-523.2673	58.1324	63.6930	-392.3913	58.1529	63.6005
278	-392.3913	58.1529	63.6005	-261.5835	58.1399	63.5137
279	-261.5835	58.1399	63.5137	-130.8084	58.1370	63.4452
280	-130.8084	58.1370	63.4452	-0.0030	-15.3839	3.2038

ENVOL. MAX. CORTANTES TREN TREN SW/2, EC-1 en via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.2502	249.0966	-719.1319	515.4513	229.1878	-676.8047
2	515.4513	229.1878	-676.8047	943.4606	209.6906	-634.3344
3	943.4606	209.6906	-634.3344	1286.6387	190.6490	-592.3002
4	1286.6387	190.6490	-592.3002	1559.6766	164.1914	-523.6599
5	1559.6766	164.1914	-523.6599	1791.0924	136.6195	-451.0017
6	1791.0924	136.6195	-451.0017	1978.0710	115.4931	-395.7109
7	1978.0710	115.4931	-395.7109	2114.1631	93.3939	-337.7441
8	2114.1631	93.3939	-337.7441	2193.8682	62.8386	-256.2046
9	2193.8682	62.8386	-256.2046	2103.5596	36.5701	-187.6340
10	2103.5596	36.5701	-187.6340	364.3666	16.2102	-3.3113
11	364.3666	16.2102	-3.3113	400.8634	16.2124	-3.3002
12	400.8634	16.2124	-3.3002	437.3305	16.2066	-3.3110
13	437.3305	16.2066	-3.3110	473.7914	16.2023	-3.3907
14	473.7914	16.2023	-3.3907	510.2185	16.1978	-3.3958
15	510.2185	16.1978	-3.3958	546.6652	16.1918	-3.3456
16	546.6652	16.1918	-3.3456	583.1189	16.1945	-3.2879
17	583.1189	16.1945	-3.2879	619.5613	16.1964	-3.4065
18	619.5613	16.1964	-3.4065	656.0089	16.1958	-3.5993
19	656.0089	16.1958	-3.5993	692.4563	16.2016	-3.5938
20	692.4563	16.2016	-3.5938	-2583.2883	165.6171	-564.6150
21	-2583.2883	165.6171	-564.6150	-1495.6421	356.3445	-977.9001
22	-1495.6421	356.3445	-977.9001	-539.1514	316.5588	-874.5319
23	-539.1514	316.5588	-874.5319	192.8213	282.4484	-798.6283
24	192.8213	282.4484	-798.6283	254.4392	247.7299	-563.0219
25	254.4392	247.7299	-563.0219	948.1385	215.3268	-499.7165
26	948.1385	215.3268	-499.7165	1560.7251	186.5689	-433.7331
27	1560.7251	186.5689	-433.7331	2069.5989	149.5178	-344.3762
28	2069.5989	149.5178	-344.3762	2460.6050	118.4829	-282.7186
29	2460.6050	118.4829	-282.7186	1552.7412	88.1001	-390.6284
30	1552.7412	88.1001	-390.6284	1175.9575	61.8909	-344.8509
31	1175.9575	61.8909	-344.8509	1025.2711	39.1500	-292.2555
32	1025.2711	39.1500	-292.2555	-354.3342	32.7403	38.6878
33	-354.3342	32.7403	38.6878	-256.1409	32.7395	38.6520
34	-256.1409	32.7395	38.6520	-157.8911	32.7444	38.6420
35	-157.8911	32.7444	38.6420	-59.6388	32.7454	38.6625
36	-59.6388	32.7454	38.6625	38.5944	32.7456	38.6451
37	38.5944	32.7456	38.6451	136.8232	32.7463	38.6566
38	136.8232	32.7463	38.6566	235.0726	32.7439	38.6432
39	235.0726	32.7439	38.6432	333.2906	32.7448	38.6575
40	333.2906	32.7448	38.6575	-2441.0642	166.3817	-557.7433
41	-2441.0642	166.3817	-557.7433	-1362.2865	353.2502	-977.8360
42	-1362.2865	353.2502	-977.8360	-416.5294	313.4913	-874.4825
43	-416.5294	313.4913	-874.4825	300.1070	279.5648	-798.7301
44	300.1070	279.5648	-798.7301	249.8330	247.8351	-560.8097
45	249.8330	247.8351	-560.8097	981.4854	214.2034	-498.1432
46	981.4854	214.2034	-498.1432	1604.6787	184.9634	-432.0957
47	1604.6787	184.9634	-432.0957	2119.2161	147.4796	-342.9254
48	2119.2161	147.4796	-342.9254	2517.6714	115.8586	-281.6833
49	2517.6714	115.8586	-281.6833	1575.9456	86.8748	-390.6039
50	1575.9456	86.8748	-390.6039	1188.8148	61.0901	-344.7896
51	1188.8148	61.0901	-344.7896	-711.4791	51.4895	51.1680
52	-711.4791	51.4895	51.1680	-556.9633	51.5093	51.1810
53	-556.9633	51.5093	51.1810	-402.3389	51.5187	51.1699

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	-402.3389	51.5187	51.1699	-247.8018	51.5164	51.1590
55	-247.8018	51.5164	51.1590	-93.2468	51.5145	51.1295
56	-93.2468	51.5145	51.1295	61.3179	51.5110	51.1391
57	61.3179	51.5110	51.1391	215.8450	51.5067	51.1406
58	215.8450	51.5067	51.1406	370.3547	51.5034	51.1401
59	370.3547	51.5034	51.1401	524.8418	51.5051	51.2186
60	524.8418	51.5051	51.2186	-2430.7502	166.6610	-558.1182
61	-2430.7502	166.6610	-558.1182	-1352.5452	353.0037	-978.2842
62	-1352.5452	353.0037	-978.2842	-407.1682	313.2693	-875.3038
63	-407.1682	313.2693	-875.3038	307.9424	279.3471	-799.5150
64	307.9424	279.3471	-799.5150	250.4492	247.8235	-561.0934
65	250.4492	247.8235	-561.0934	984.5305	214.1431	-498.7444
66	984.5305	214.1431	-498.7444	1608.3818	184.8857	-432.7546
67	1608.3818	184.8857	-432.7546	2123.5376	147.4060	-343.3979
68	2123.5376	147.4060	-343.3979	2522.8247	115.6652	-282.0927
69	2522.8247	115.6652	-282.0927	1578.1230	86.7861	-390.7360
70	1578.1230	86.7861	-390.7360	1190.0171	61.0239	-344.8655
71	1190.0171	61.0239	-344.8655	-723.2772	52.3675	50.9781
72	-723.2772	52.3675	50.9781	-566.1655	52.3760	50.9559
73	-566.1655	52.3760	50.9559	-409.0247	52.3669	50.9784
74	-409.0247	52.3669	50.9784	-251.9563	52.3587	50.9176
75	-251.9563	52.3587	50.9176	-94.8501	52.3645	50.8839
76	-94.8501	52.3645	50.8839	62.2374	52.3679	50.8726
77	62.2374	52.3679	50.8726	219.3239	52.3651	50.8688
78	219.3239	52.3651	50.8688	376.3945	52.3663	50.9515
79	376.3945	52.3663	50.9515	533.4668	52.3662	50.9936
80	533.4668	52.3662	50.9936	-2429.9404	166.7040	-558.6579
81	-2429.9404	166.7040	-558.6579	-1351.9539	353.0101	-979.2224
82	-1351.9539	353.0101	-979.2224	-406.8551	313.2653	-876.0717
83	-406.8551	313.2653	-876.0717	308.6356	279.3466	-800.2360
84	308.6356	279.3466	-800.2360	250.2661	247.8440	-561.6566
85	250.2661	247.8440	-561.6566	984.5024	214.1389	-499.1494
86	984.5024	214.1389	-499.1494	1608.6464	184.8306	-433.0784
87	1608.6464	184.8306	-433.0784	2123.6729	147.3733	-343.6723
88	2123.6729	147.3733	-343.6723	2523.0220	115.6359	-282.4791
89	2523.0220	115.6359	-282.4791	1578.1226	86.7831	-390.7413
90	1578.1226	86.7831	-390.7413	1190.0350	61.0202	-344.6210
91	1190.0350	61.0202	-344.6210	-724.4835	52.4409	50.9193
92	-724.4835	52.4409	50.9193	-567.1013	52.4471	50.9296
93	-567.1013	52.4471	50.9296	-409.7283	52.4514	50.8464
94	-409.7283	52.4514	50.8464	-252.4583	52.4537	50.7866
95	-252.4583	52.4537	50.7866	-95.0470	52.4571	50.7596
96	-95.0470	52.4571	50.7596	62.2597	52.4544	50.7611
97	62.2597	52.4544	50.7611	219.6311	52.4549	50.7711
98	219.6311	52.4549	50.7711	376.9872	52.4492	50.8249
99	376.9872	52.4492	50.8249	534.3577	52.4507	50.8464
100	534.3577	52.4507	50.8464	-2429.9365	166.6992	-559.3406
101	-2429.9365	166.6992	-559.3406	-1351.7118	353.0087	-979.9951
102	-1351.7118	353.0087	-979.9951	-406.7115	313.2628	-876.6124
103	-406.7115	313.2628	-876.6124	308.8503	279.3246	-800.6378
104	308.8503	279.3246	-800.6378	250.2860	247.8360	-562.0785
105	250.2860	247.8360	-562.0785	984.5662	214.1465	-499.6700
106	984.5662	214.1465	-499.6700	1608.4918	184.8550	-433.4606
107	1608.4918	184.8550	-433.4606	2123.5913	147.3318	-343.9720
108	2123.5913	147.3318	-343.9720	2523.0142	115.6485	-282.3892
109	2523.0142	115.6485	-282.3892	1578.0581	86.7565	-390.7848
110	1578.0581	86.7565	-390.7848	1189.8086	61.0068	-344.8217

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
111	1189.8086	61.0068	-344.8217	-724.5458	52.4628	50.5695
112	-724.5458	52.4628	50.5695	-567.1262	52.4765	50.5794
113	-567.1262	52.4765	50.5794	-409.7491	52.4658	50.4658
114	-409.7491	52.4658	50.4658	-252.3188	52.4598	50.3545
115	-252.3188	52.4598	50.3545	-94.9872	52.4539	50.3394
116	-94.9872	52.4539	50.3394	62.3271	52.4442	50.3025
117	62.3271	52.4442	50.3025	219.6192	52.4445	50.3537
118	219.6192	52.4445	50.3537	376.9797	52.4450	50.3899
119	376.9797	52.4450	50.3899	534.2578	52.4423	50.5653
120	534.2578	52.4423	50.5653	-2431.2324	166.7171	-560.3867
121	-2431.2324	166.7171	-560.3867	-1352.5778	353.0898	-980.4146
122	-1352.5778	353.0898	-980.4146	-407.2415	313.3488	-877.3348
123	-407.2415	313.3488	-877.3348	308.6093	279.4352	-801.3757
124	308.6093	279.4352	-801.3757	250.4529	247.8878	-562.5377
125	250.4529	247.8878	-562.5377	985.0311	214.1810	-500.1702
126	985.0311	214.1810	-500.1702	1609.1235	184.8623	-433.9747
127	1609.1235	184.8623	-433.9747	2124.2654	147.4209	-344.3823
128	2124.2654	147.4209	-344.3823	2523.7095	115.6691	-282.4709
129	2523.7095	115.6691	-282.4709	1578.3945	86.7365	-390.8067
130	1578.3945	86.7365	-390.8067	1189.9417	60.9831	-345.0402
131	1189.9417	60.9831	-345.0402	-724.8206	52.4737	50.6013
132	-724.8206	52.4737	50.6013	-567.3789	52.4772	50.3752
133	-567.3789	52.4772	50.3752	-409.9609	52.4843	50.1875
134	-409.9609	52.4843	50.1875	-252.5123	52.4869	50.1127
135	-252.5123	52.4869	50.1127	-95.0482	52.4727	50.0919
136	-95.0482	52.4727	50.0919	62.3211	52.4610	50.1087
137	62.3211	52.4610	50.1087	219.7390	52.4657	50.1320
138	219.7390	52.4657	50.1320	377.1724	52.4683	50.1656
139	377.1724	52.4683	50.1656	534.5321	52.4677	50.3968
140	534.5321	52.4677	50.3968	-2430.7549	166.6863	-560.7963
141	-2430.7549	166.6863	-560.7963	-1352.3696	352.9944	-980.9709
142	-1352.3696	352.9944	-980.9709	-406.8523	313.2426	-878.2539
143	-406.8523	313.2426	-878.2539	308.2259	279.3138	-802.2623
144	308.2259	279.3138	-802.2623	249.8923	247.8413	-562.9669
145	249.8923	247.8413	-562.9669	984.3553	214.1342	-500.6835
146	984.3553	214.1342	-500.6835	1608.4141	184.8504	-434.6095
147	1608.4141	184.8504	-434.6095	2123.6936	147.3794	-344.7957
148	2123.6936	147.3794	-344.7957	2523.0620	115.6942	-282.7593
149	2523.0620	115.6942	-282.7593	1578.0342	86.7461	-390.8470
150	1578.0342	86.7461	-390.8470	1189.7314	60.9869	-344.8552
151	1189.7314	60.9869	-344.8552	-724.7558	52.5079	50.3928
152	-724.7558	52.5079	50.3928	-567.3394	52.5059	50.1819
153	-567.3394	52.5059	50.1819	-409.8895	52.4797	49.9929
154	-409.8895	52.4797	49.9929	-252.5549	52.4677	49.9567
155	-252.5549	52.4677	49.9567	-95.0879	52.4735	49.8969
156	-95.0879	52.4735	49.8969	62.2640	52.4708	49.9117
157	62.2640	52.4708	49.9117	219.6484	52.4705	49.9320
158	219.6484	52.4705	49.9320	377.0284	52.4697	49.9849
159	377.0284	52.4697	49.9849	534.4540	52.4732	50.0861
160	534.4540	52.4732	50.0861	-2431.3240	166.7304	-560.8344
161	-2431.3240	166.7304	-560.8344	-1352.6943	353.0865	-981.5058
162	-1352.6943	353.0865	-981.5058	-407.3132	313.3367	-878.4460
163	-407.3132	313.3367	-878.4460	308.5087	279.3943	-802.4105
164	308.5087	279.3943	-802.4105	249.7772	247.8730	-563.2897
165	249.7772	247.8730	-563.2897	984.4985	214.1630	-500.6689
166	984.4985	214.1630	-500.6689	1608.7773	184.8933	-434.5214
167	1608.7773	184.8933	-434.5214	2123.8452	147.3633	-345.5883

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
168	2123.8452	147.3633	-345.5883	2523.2979	115.6445	-283.4323
169	2523.2979	115.6445	-283.4323	1578.2108	86.7406	-390.8059
170	1578.2108	86.7406	-390.8059	1189.8682	60.9804	-344.6867
171	1189.8682	60.9804	-344.6867	-725.0992	52.4960	50.2202
172	-725.0992	52.4960	50.2202	-567.6046	52.5048	50.1706
173	-567.6046	52.5048	50.1706	-410.1544	52.4948	49.9755
174	-410.1544	52.4948	49.9755	-252.7090	52.4858	49.8542
175	-252.7090	52.4858	49.8542	-95.2032	52.4976	49.8353
176	-95.2032	52.4976	49.8353	62.2614	52.5026	49.8061
177	62.2614	52.5026	49.8061	219.7712	52.4936	49.8546
178	219.7712	52.4936	49.8546	377.1841	52.4917	49.9674
179	377.1841	52.4917	49.9674	534.6977	52.4916	50.0909
180	534.6977	52.4916	50.0909	-2430.7693	166.6949	-561.0483
181	-2430.7693	166.6949	-561.0483	-1352.4161	353.0215	-981.2916
182	-1352.4161	353.0215	-981.2916	-407.0764	313.2710	-878.1892
183	-407.0764	313.2710	-878.1892	308.3944	279.3205	-802.3701
184	308.3944	279.3205	-802.3701	249.6228	247.8461	-563.2296
185	249.6228	247.8461	-563.2296	984.3298	214.1389	-500.8275
186	984.3298	214.1389	-500.8275	1608.3840	184.8552	-434.3554
187	1608.3840	184.8552	-434.3554	2123.6167	147.4050	-344.8356
188	2123.6167	147.4050	-344.8356	2523.0278	115.7023	-283.2007
189	2523.0278	115.7023	-283.2007	1578.1921	86.7844	-390.7799
190	1578.1921	86.7844	-390.7799	1189.8590	60.9959	-344.8593
191	1189.8590	60.9959	-344.8593	-725.1021	52.4641	50.1352
192	-725.1021	52.4641	50.1352	-567.7122	52.4799	49.8650
193	-567.7122	52.4799	49.8650	-410.2441	52.4911	49.8300
194	-410.2441	52.4911	49.8300	-252.8144	52.4952	49.7158
195	-252.8144	52.4952	49.7158	-95.2921	52.5060	49.6284
196	-95.2921	52.5060	49.6284	62.1702	52.5005	49.6176
197	62.1702	52.5005	49.6176	219.6303	52.4904	49.6805
198	219.6303	52.4904	49.6805	377.0988	52.4967	49.7754
199	377.0988	52.4967	49.7754	534.6198	52.5014	49.8262
200	534.6198	52.5014	49.8262	-2430.6797	166.7052	-561.0427
201	-2430.6797	166.7052	-561.0427	-1352.0974	353.0096	-981.7288
202	-1352.0974	353.0096	-981.7288	-407.0742	313.2728	-878.5974
203	-407.0742	313.2728	-878.5974	308.2761	279.3506	-802.4272
204	308.2761	279.3506	-802.4272	249.7881	247.8651	-563.2412
205	249.7881	247.8651	-563.2412	984.4564	214.1599	-500.7457
206	984.4564	214.1599	-500.7457	1608.5973	184.9057	-434.4946
207	1608.5973	184.9057	-434.4946	2123.8887	147.4330	-345.3415
208	2123.8887	147.4330	-345.3415	2523.4851	115.6897	-283.1942
209	2523.4851	115.6897	-283.1942	1578.6021	86.7677	-390.8353
210	1578.6021	86.7677	-390.8353	1190.3009	60.9947	-344.8615
211	1190.3009	60.9947	-344.8615	-725.1416	52.5190	50.2799
212	-725.1416	52.5190	50.2799	-567.6637	52.5062	50.0724
213	-567.6637	52.5062	50.0724	-410.1456	52.4947	49.8667
214	-410.1456	52.4947	49.8667	-252.6473	52.5036	49.8085
215	-252.6473	52.5036	49.8085	-95.1098	52.5162	49.7470
216	-95.1098	52.5162	49.7470	62.4151	52.5177	49.7607
217	62.4151	52.5177	49.7607	219.9439	52.5201	49.7856
218	219.9439	52.5201	49.7856	377.5142	52.5263	49.8377
219	377.5142	52.5263	49.8377	535.1100	52.5267	50.0222
220	535.1100	52.5267	50.0222	-2426.7827	166.6133	-561.1594
221	-2426.7827	166.6133	-561.1594	-1349.4749	352.7213	-981.5309
222	-1349.4749	352.7213	-981.5309	-405.1199	312.9716	-878.5525
223	-405.1199	312.9716	-878.5525	309.6497	279.0681	-802.4611
224	309.6497	279.0681	-802.4611	249.9363	247.6864	-563.1975

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
225	249.9363	247.6864	-563.1975	983.9604	213.9420	-500.6592
226	983.9604	213.9420	-500.6592	1607.4675	184.6073	-434.5858
227	1607.4675	184.6073	-434.5858	2121.8479	147.1687	-345.2043
228	2121.8479	147.1687	-345.2043	2520.2017	115.4182	-283.3033
229	2520.2017	115.4182	-283.3033	1578.9839	86.8048	-390.9772
230	1578.9839	86.8048	-390.9772	1192.9746	61.1750	-344.8053
231	1192.9746	61.1750	-344.8053	-723.3821	52.5623	50.3848
232	-723.3821	52.5623	50.3848	-565.7466	52.5440	50.2164
233	-565.7466	52.5440	50.2164	-408.0994	52.5416	50.0215
234	-408.0994	52.5416	50.0215	-250.4870	52.5568	49.8965
235	-250.4870	52.5568	49.8965	-92.7831	52.5597	49.8405
236	-92.7831	52.5597	49.8405	64.8389	52.5646	49.8576
237	64.8389	52.5646	49.8576	222.5331	52.5677	49.9242
238	222.5331	52.5677	49.9242	380.2282	52.5637	49.9823
239	380.2282	52.5637	49.9823	537.9205	52.5639	50.0570
240	537.9205	52.5639	50.0570	-2387.0537	165.5093	-560.4304
241	-2387.0537	165.5093	-560.4304	-1318.9893	349.7115	-980.5608
242	-1318.9893	349.7115	-980.5608	-383.7112	310.0106	-877.5726
243	-383.7112	310.0106	-877.5726	320.9050	276.3434	-801.3004
244	320.9050	276.3434	-801.3004	251.8135	246.0343	-562.8022
245	251.8135	246.0343	-562.8022	980.1226	211.8794	-500.3533
246	980.1226	211.8794	-500.3533	1596.3582	182.4022	-433.9706
247	1596.3582	182.4022	-433.9706	2102.7974	144.7650	-344.5103
248	2102.7974	144.7650	-344.5103	1574.3096	113.3784	-445.2055
249	1574.3096	113.3784	-445.2055	1602.8344	88.5701	-387.2706
250	1602.8344	88.5701	-387.2706	1252.6191	64.7285	-340.2563
251	1252.6191	64.7285	-340.2563	-706.4229	53.4038	50.3363
252	-706.4229	53.4038	50.3363	-546.1788	53.4115	50.1085
253	-546.1788	53.4115	50.1085	-385.9897	53.4056	49.8967
254	-385.9897	53.4056	49.8967	-225.8283	53.4083	49.8084
255	-225.8283	53.4083	49.8084	-65.5952	53.4256	49.8090
256	-65.5952	53.4256	49.8090	94.6636	53.4236	49.8251
257	94.6636	53.4236	49.8251	254.8975	53.4173	49.8482
258	254.8975	53.4173	49.8482	415.1288	53.4136	50.0080
259	415.1288	53.4136	50.0080	575.3644	53.4120	50.1614
260	575.3644	53.4120	50.1614	-2011.5964	46.6228	-137.2957
261	-2011.5964	46.6228	-137.2957	-2359.4883	318.4150	-628.4636
262	-2359.4883	318.4150	-628.4636	-1667.6411	300.5191	-585.2615
263	-1667.6411	300.5191	-585.2615	-1002.3136	281.2245	-541.8329
264	-1002.3136	281.2245	-541.8329	-344.1733	253.4796	-493.3327
265	-344.1733	253.4796	-493.3327	236.1604	230.0699	-444.5050
266	236.1604	230.0699	-444.5050	752.4413	205.3709	-392.8994
267	752.4413	205.3709	-392.8994	1194.5461	179.3463	-337.9195
268	1194.5461	179.3463	-337.9195	1553.1433	144.5979	-258.6843
269	1553.1433	144.5979	-258.6843	1839.1277	107.0533	-155.0246
270	1839.1277	107.0533	-155.0246	2049.9604	77.0116	-72.3624
271	2049.9604	77.0116	-72.3624	-1177.1118	58.0746	64.6564
272	-1177.1118	58.0746	64.6564	-1046.4343	58.1047	64.2805
273	-1046.4343	58.1047	64.2805	-915.6587	58.1339	64.1118
274	-915.6587	58.1339	64.1118	-784.8201	58.1318	63.9394
275	-784.8201	58.1318	63.9394	-653.9951	58.1160	63.8573
276	-653.9951	58.1160	63.8573	-523.2673	58.1324	63.6930
277	-523.2673	58.1324	63.6930	-392.3913	58.1529	63.6005
278	-392.3913	58.1529	63.6005	-261.5835	58.1399	63.5137
279	-261.5835	58.1399	63.5137	-130.8084	58.1370	63.4452
280	-130.8084	58.1370	63.4452	0.0449	58.1411	63.4580

ENVOL. MIN. CORTANTES TREN TREN SW/2, EC-1 en via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0126	-57.4312	-64.8993	-129.2144	-57.4300	-64.9000
2	-129.2144	-57.4300	-64.9000	-258.4313	-57.4258	-64.9487
3	-258.4313	-57.4258	-64.9487	-387.6634	-57.4351	-64.8758
4	-387.6634	-57.4351	-64.8758	-516.9824	-57.4608	-64.7193
5	-516.9824	-57.4608	-64.7193	-646.2044	-57.4673	-64.7859
6	-646.2044	-57.4673	-64.7859	-775.4809	-57.4907	-64.9140
7	-775.4809	-57.4907	-64.9140	-904.9071	-57.5030	-64.8148
8	-904.9071	-57.5030	-64.8148	1306.5789	-62.3401	169.2552
9	1306.5789	-62.3401	169.2552	1418.5797	-85.4209	227.1340
10	1418.5797	-85.4209	227.1340	1487.6904	-102.4546	267.3665
11	1487.6904	-102.4546	267.3665	1505.0884	-120.9258	310.8596
12	1505.0884	-120.9258	310.8596	1442.1409	-145.6783	243.7287
13	1442.1409	-145.6783	243.7287	1064.1304	-178.9522	318.9044
14	1064.1304	-178.9522	318.9044	610.8057	-203.4583	370.6759
15	610.8057	-203.4583	370.6759	91.4402	-226.6088	419.2875
16	91.4402	-226.6088	419.2875	-484.2263	-248.4274	465.1286
17	-484.2263	-248.4274	465.1286	-1126.5277	-272.9708	508.2747
18	-1126.5277	-272.9708	508.2747	-1766.6273	-290.6505	549.8903
19	-1766.6273	-290.6505	549.8903	-2426.2188	-306.9258	590.5502
20	-2426.2188	-306.9258	590.5502	-1516.1890	-148.1494	430.8535
21	-1516.1890	-148.1494	430.8535	570.2006	-52.9047	-50.7901
22	570.2006	-52.9047	-50.7901	411.4744	-52.9040	-50.8396
23	411.4744	-52.9040	-50.8396	252.7572	-52.9029	-50.8364
24	252.7572	-52.9029	-50.8364	94.0487	-52.9047	-50.8412
25	94.0487	-52.9047	-50.8412	-64.6737	-52.9077	-50.8358
26	-64.6737	-52.9077	-50.8358	-223.4057	-52.9024	-50.8064
27	-223.4057	-52.9024	-50.8064	-382.1174	-52.8991	-50.8274
28	-382.1174	-52.8991	-50.8274	-540.8544	-52.8928	-50.8088
29	-540.8544	-52.8928	-50.8088	-699.5025	-52.8838	-50.8399
30	-699.5025	-52.8838	-50.8399	1290.7631	-67.0015	345.4551
31	1290.7631	-67.0015	345.4551	1640.9656	-91.2692	394.8127
32	1640.9656	-91.2692	394.8127	1607.7324	-116.2798	451.9182
33	1607.7324	-116.2798	451.9182	1744.0256	-146.7838	511.0630
34	1744.0256	-146.7838	511.0630	1465.0637	-177.9328	402.6021
35	1465.0637	-177.9328	402.6021	1337.2363	-210.5141	647.4944
36	1337.2363	-210.5141	647.4944	982.3880	-241.6052	709.4336
37	982.3880	-241.6052	709.4336	325.1459	-280.4328	805.7616
38	325.1459	-280.4328	805.7616	-384.5206	-314.2019	881.8992
39	-384.5206	-314.2019	881.8992	-1327.5868	-353.9171	985.0094
40	-1327.5868	-353.9171	985.0094	-2403.8643	-167.4408	561.2073
41	-2403.8643	-167.4408	561.2073	532.6279	-52.0392	-50.6987
42	532.6279	-52.0392	-50.6987	376.5302	-52.0357	-50.7244
43	376.5302	-52.0357	-50.7244	220.4147	-52.0385	-50.6707
44	220.4147	-52.0385	-50.6707	64.2639	-52.0406	-50.6822
45	64.2639	-52.0406	-50.6822	-91.8116	-52.0359	-50.6978
46	-91.8116	-52.0359	-50.6978	-247.9030	-52.0369	-50.7146
47	-247.9030	-52.0369	-50.7146	-404.0075	-52.0289	-50.7415
48	-404.0075	-52.0289	-50.7415	-560.0320	-52.0351	-50.7180
49	-560.0320	-52.0351	-50.7180	-716.2319	-52.0401	-50.6779
50	-716.2319	-52.0401	-50.6779	1232.6816	-63.5395	349.8704
51	1232.6816	-63.5395	349.8704	1618.0278	-89.5827	398.6335
52	1618.0278	-89.5827	398.6335	1598.2034	-115.4240	455.6205
53	1598.2034	-115.4240	455.6205	1747.2533	-147.2952	513.8989
54	1747.2533	-147.2952	513.8989	1474.0966	-179.9407	403.4684

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	1474.0966	-179.9407	403.4684	1340.2390	-212.4352	649.9185
56	1340.2390	-212.4352	649.9185	978.8556	-244.0928	711.2078
57	978.8556	-244.0928	711.2078	313.1854	-283.1207	807.6422
58	313.1854	-283.1207	807.6422	-406.0294	-317.1074	883.4878
59	-406.0294	-317.1074	883.4878	-1358.4418	-356.8744	986.4804
60	-1358.4418	-356.8744	986.4804	-2443.5222	-168.4823	562.6353
61	-2443.5222	-168.4823	562.6353	529.8354	-51.9785	-50.4220
62	529.8354	-51.9785	-50.4220	373.8913	-51.9793	-50.3160
63	373.8913	-51.9793	-50.3160	217.9857	-51.9804	-50.3063
64	217.9857	-51.9804	-50.3063	62.0420	-51.9796	-50.3074
65	62.0420	-51.9796	-50.3074	-93.8963	-51.9816	-50.2711
66	-93.8963	-51.9816	-50.2711	-249.8809	-51.9921	-50.2994
67	-249.8809	-51.9921	-50.2994	-405.8644	-51.9955	-50.3562
68	-405.8644	-51.9955	-50.3562	-561.8459	-51.9810	-50.3661
69	-561.8459	-51.9810	-50.3661	-717.7652	-51.9813	-50.3650
70	-717.7652	-51.9813	-50.3650	1230.0842	-63.3969	349.8042
71	1230.0842	-63.3969	349.8042	1617.3188	-89.5469	398.7670
72	1617.3188	-89.5469	398.7670	1598.1265	-115.3928	455.8267
73	1598.1265	-115.3928	455.8267	1747.9917	-147.3228	514.0291
74	1747.9917	-147.3228	514.0291	1475.0178	-180.1288	403.9624
75	1475.0178	-180.1288	403.9624	1340.6775	-212.5941	650.5703
76	1340.6775	-212.5941	650.5703	978.8903	-244.2826	711.9773
77	978.8903	-244.2826	711.9773	312.5685	-283.3461	808.3290
78	312.5685	-283.3461	808.3290	-407.8051	-317.3842	884.0876
79	-407.8051	-317.3842	884.0876	-1360.9829	-357.1512	987.3231
80	-1360.9829	-357.1512	987.3231	-2447.0527	-168.5816	563.3242
81	-2447.0527	-168.5816	563.3242	529.6492	-51.9839	-50.2207
82	529.6492	-51.9839	-50.2207	373.7101	-51.9875	-50.1648
83	373.7101	-51.9875	-50.1648	217.7438	-51.9905	-50.1123
84	217.7438	-51.9905	-50.1123	61.7655	-51.9926	-50.1007
85	61.7655	-51.9926	-50.1007	-94.1485	-52.0003	-50.0952
86	-94.1485	-52.0003	-50.0952	-250.1548	-51.9977	-50.1239
87	-250.1548	-51.9977	-50.1239	-406.0807	-51.9880	-50.2121
88	-406.0807	-51.9880	-50.2121	-562.0433	-51.9778	-50.1845
89	-562.0433	-51.9778	-50.1845	-717.9863	-51.9911	-50.2626
90	-717.9863	-51.9911	-50.2626	1229.5911	-63.3372	350.0997
91	1229.5911	-63.3372	350.0997	1617.1835	-89.5233	398.9084
92	1617.1835	-89.5233	398.9084	1598.0320	-115.3848	455.9185
93	1598.0320	-115.3848	455.9185	1748.0096	-147.3510	514.4768
94	1748.0096	-147.3510	514.4768	1475.1729	-180.1360	404.3470
95	1475.1729	-180.1360	404.3470	1340.7683	-212.6500	650.9111
96	1340.7683	-212.6500	650.9111	978.8255	-244.3553	712.5885
97	978.8255	-244.3553	712.5885	312.2189	-283.4089	809.1161
98	312.2189	-283.4089	809.1161	-408.2301	-317.4118	884.9385
99	-408.2301	-317.4118	884.9385	-1361.7642	-357.1826	988.1820
100	-1361.7642	-357.1826	988.1820	-2447.5430	-168.6042	563.7086
101	-2447.5430	-168.6042	563.7086	529.6819	-51.9969	-50.0584
102	529.6819	-51.9969	-50.0584	373.6982	-51.9958	-50.0809
103	373.6982	-51.9958	-50.0809	217.7086	-51.9950	-49.9835
104	217.7086	-51.9950	-49.9835	61.7560	-51.9933	-49.9319
105	61.7560	-51.9933	-49.9319	-94.2027	-51.9987	-49.9338
106	-94.2027	-51.9987	-49.9338	-250.1797	-52.0081	-49.9899
107	-250.1797	-52.0081	-49.9899	-406.1657	-51.9968	-50.0839
108	-406.1657	-51.9968	-50.0839	-562.1407	-51.9910	-50.1540
109	-562.1407	-51.9910	-50.1540	-718.1692	-51.9914	-50.1986
110	-718.1692	-51.9914	-50.1986	1229.4719	-63.3449	349.9005
111	1229.4719	-63.3449	349.9005	1617.0404	-89.5282	398.9546

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	1617.0404	-89.5282	398.9546	1597.9370	-115.3689	455.9595
113	1597.9370	-115.3689	455.9595	1747.7399	-147.3642	514.7517
114	1747.7399	-147.3642	514.7517	1474.4916	-180.1055	404.8701
115	1474.4916	-180.1055	404.8701	1340.4399	-212.5636	651.5317
116	1340.4399	-212.5636	651.5317	978.6569	-244.2711	713.3871
117	978.6569	-244.2711	713.3871	312.3008	-283.3334	809.7135
118	312.3008	-283.3334	809.7135	-408.1686	-317.3409	885.8009
119	-408.1686	-317.3409	885.8009	-1361.4397	-357.1189	988.5417
120	-1361.4397	-357.1189	988.5417	-2447.3206	-168.5932	564.2208
121	-2447.3206	-168.5932	564.2208	529.8544	-52.0251	-49.9689
122	529.8544	-52.0251	-49.9689	373.8127	-52.0308	-49.8717
123	373.8127	-52.0308	-49.8717	217.7070	-52.0310	-49.7860
124	217.7070	-52.0310	-49.7860	61.5969	-52.0214	-49.7472
125	61.5969	-52.0214	-49.7472	-94.4621	-52.0181	-49.7504
126	-94.4621	-52.0181	-49.7504	-250.5019	-52.0051	-49.8093
127	-250.5019	-52.0051	-49.8093	-406.4525	-51.9951	-49.9106
128	-406.4525	-51.9951	-49.9106	-562.4387	-51.9974	-50.0557
129	-562.4387	-51.9974	-50.0557	-718.4410	-51.9988	-50.1395
130	-718.4410	-51.9988	-50.1395	1229.7244	-63.3784	349.8461
131	1229.7244	-63.3784	349.8461	1617.3682	-89.5416	398.7669
132	1617.3682	-89.5416	398.7669	1598.0625	-115.3920	456.4005
133	1598.0625	-115.3920	456.4005	1747.9639	-147.3821	515.5125
134	1747.9639	-147.3821	515.5125	1474.6896	-180.1364	405.4669
135	1474.6896	-180.1364	405.4669	1340.3899	-212.6160	652.1031
136	1340.3899	-212.6160	652.1031	978.4288	-244.3251	714.0027
137	978.4288	-244.3251	714.0027	311.5661	-283.4010	810.7110
138	311.5661	-283.4010	810.7110	-408.9055	-317.4178	886.6295
139	-408.9055	-317.4178	886.6295	-1362.5222	-357.1746	989.3140
140	-1362.5222	-357.1746	989.3140	-2448.5928	-168.5894	565.3285
141	-2448.5928	-168.5894	565.3285	529.7621	-52.0061	-49.5718
142	529.7621	-52.0061	-49.5718	373.7546	-52.0043	-49.3455
143	373.7546	-52.0043	-49.3455	217.7963	-52.0023	-49.3006
144	217.7963	-52.0023	-49.3006	61.7669	-52.0047	-49.2621
145	61.7669	-52.0047	-49.2621	-94.2122	-52.0140	-49.2345
146	-94.2122	-52.0140	-49.2345	-250.2801	-52.0255	-49.2777
147	-250.2801	-52.0255	-49.2777	-406.3154	-52.0257	-49.4380
148	-406.3154	-52.0257	-49.4380	-562.3074	-52.0236	-49.6048
149	-562.3074	-52.0236	-49.6048	-718.3561	-52.0177	-49.7006
150	-718.3561	-52.0177	-49.7006	1229.4211	-63.3525	349.9601
151	1229.4211	-63.3525	349.9601	1617.0315	-89.5222	398.9470
152	1617.0315	-89.5222	398.9470	1597.8367	-115.3540	456.5386
153	1597.8367	-115.3540	456.5386	1747.7773	-147.3344	515.7049
154	1747.7773	-147.3344	515.7049	1474.7598	-180.1297	405.6504
155	1474.7598	-180.1297	405.6504	1340.4854	-212.5746	652.4604
156	1340.4854	-212.5746	652.4604	978.5873	-244.2908	714.4911
157	978.5873	-244.2908	714.4911	312.0149	-283.3499	811.3475
158	312.0149	-283.3499	811.3475	-408.2200	-317.3961	887.2902
159	-408.2200	-317.3961	887.2902	-1361.8352	-357.1695	990.3359
160	-1361.8352	-357.1695	990.3359	-2447.9648	-168.6105	565.6946
161	-2447.9648	-168.6105	565.6946	529.8580	-52.0328	-49.6313
162	529.8580	-52.0328	-49.6313	373.7843	-52.0330	-49.5329
163	373.7843	-52.0330	-49.5329	217.6900	-52.0304	-49.4299
164	217.6900	-52.0304	-49.4299	61.6367	-52.0227	-49.3780
165	61.6367	-52.0227	-49.3780	-94.4055	-52.0193	-49.4153
166	-94.4055	-52.0193	-49.4153	-250.4480	-52.0227	-49.4480
167	-250.4480	-52.0227	-49.4480	-406.5190	-52.0252	-49.4479
168	-406.5190	-52.0252	-49.4479	-562.5269	-52.0196	-49.6480

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	-562.5269	-52.0196	-49.6480	-718.5435	-52.0299	-49.9213
170	-718.5435	-52.0299	-49.9213	1229.4402	-63.3534	350.1351
171	1229.4402	-63.3534	350.1351	1617.0750	-89.5025	399.3195
172	1617.0750	-89.5025	399.3195	1598.0229	-115.3550	456.5245
173	1598.0229	-115.3550	456.5245	1748.0164	-147.3517	515.7203
174	1748.0164	-147.3517	515.7203	1474.8198	-180.1815	406.0420
175	1474.8198	-180.1815	406.0420	1340.5129	-212.6405	652.7709
176	1340.5129	-212.6405	652.7709	978.5344	-244.3584	714.9138
177	978.5344	-244.3584	714.9138	311.5742	-283.4048	811.4290
178	311.5742	-283.4048	811.4290	-408.8040	-317.4106	887.3856
179	-408.8040	-317.4106	887.3856	-1362.7334	-357.1849	990.4230
180	-1362.7334	-357.1849	990.4230	-2448.7856	-168.5927	565.6230
181	-2448.7856	-168.5927	565.6230	529.8102	-52.0148	-49.6538
182	529.8102	-52.0148	-49.6538	373.7957	-52.0120	-49.5162
183	373.7957	-52.0120	-49.5162	217.7855	-52.0101	-49.3770
184	217.7855	-52.0101	-49.3770	61.7602	-52.0117	-49.3712
185	61.7602	-52.0117	-49.3712	-94.2861	-52.0189	-49.3720
186	-94.2861	-52.0189	-49.3720	-250.2910	-52.0182	-49.4679
187	-250.2910	-52.0182	-49.4679	-406.3057	-52.0171	-49.5637
188	-406.3057	-52.0171	-49.5637	-562.3700	-52.0245	-49.6427
189	-562.3700	-52.0245	-49.6427	-718.4791	-52.0366	-49.8797
190	-718.4791	-52.0366	-49.8797	1229.4476	-63.3520	349.9365
191	1229.4476	-63.3520	349.9365	1617.1873	-89.4745	399.1323
192	1617.1873	-89.4745	399.1323	1598.1626	-115.3522	456.9089
193	1598.1626	-115.3522	456.9089	1748.3867	-147.3651	515.5637
194	1748.3867	-147.3651	515.5637	1475.1996	-180.1952	405.8925
195	1475.1996	-180.1952	405.8925	1340.8242	-212.6554	653.0126
196	1340.8242	-212.6554	653.0126	978.8890	-244.3646	714.9233
197	978.8890	-244.3646	714.9233	312.0477	-283.4359	811.5825
198	312.0477	-283.4359	811.5825	-408.5842	-317.4554	887.6417
199	-408.5842	-317.4554	887.6417	-1362.2876	-357.2299	990.8309
200	-1362.2876	-357.2299	990.8309	-2448.7642	-168.6151	565.8117
201	-2448.7642	-168.6151	565.8117	529.0139	-51.9393	-49.4619
202	529.0139	-51.9393	-49.4619	373.2045	-51.9384	-49.4197
203	373.2045	-51.9384	-49.4197	217.4131	-51.9403	-49.3638
204	217.4131	-51.9403	-49.3638	61.5765	-51.9462	-49.2927
205	61.5765	-51.9462	-49.2927	-94.2477	-51.9511	-49.3083
206	-94.2477	-51.9511	-49.3083	-250.0487	-51.9607	-49.3526
207	-250.0487	-51.9607	-49.3526	-405.9271	-51.9660	-49.3946
208	-405.9271	-51.9660	-49.3946	-561.7937	-51.9552	-49.6018
209	-561.7937	-51.9552	-49.6018	-717.5668	-51.9380	-49.7913
210	-717.5668	-51.9380	-49.7913	1229.4121	-63.3606	349.9361
211	1229.4121	-63.3606	349.9361	1617.1119	-89.5095	398.9598
212	1617.1119	-89.5095	398.9598	1597.9119	-115.3828	456.5591
213	1597.9119	-115.3828	456.5591	1747.8770	-147.3861	515.7878
214	1747.8770	-147.3861	515.7878	1474.8942	-180.1821	405.8460
215	1474.8942	-180.1821	405.8460	1340.3240	-212.7012	652.7492
216	1340.3240	-212.7012	652.7492	978.1282	-244.4072	714.6612
217	978.1282	-244.4072	714.6612	311.1539	-283.4747	811.4734
218	311.1539	-283.4747	811.4734	-409.5648	-317.4973	887.4069
219	-409.5648	-317.4973	887.4069	-1363.7501	-357.2722	990.2484
220	-1363.7501	-357.2722	990.2484	-2450.3125	-168.6024	565.7665
221	-2450.3125	-168.6024	565.7665	520.0638	-51.0654	-49.5672
222	520.0638	-51.0654	-49.5672	366.8945	-51.0632	-49.4429
223	366.8945	-51.0632	-49.4429	213.7007	-51.0649	-49.3473
224	213.7007	-51.0649	-49.3473	60.5224	-51.0629	-49.2948
225	60.5224	-51.0629	-49.2948	-92.6189	-51.0601	-49.3174

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-92.6189	-51.0601	-49.3174	-245.8171	-51.0554	-49.3535
227	-245.8171	-51.0554	-49.3535	-398.9655	-51.0517	-49.4368
228	-398.9655	-51.0517	-49.4368	-552.1357	-51.0547	-49.5688
229	-552.1357	-51.0547	-49.5688	-705.2789	-51.0521	-49.7542
230	-705.2789	-51.0521	-49.7542	1227.8037	-63.4342	350.0912
231	1227.8037	-63.4342	350.0912	1614.5724	-89.6288	399.0665
232	1614.5724	-89.6288	399.0665	1594.7443	-115.4599	456.5291
233	1594.7443	-115.4599	456.5291	1743.4921	-147.4484	515.6285
234	1743.4921	-147.4484	515.6285	1471.6556	-180.1786	405.9075
235	1471.6556	-180.1786	405.9075	1333.8093	-212.7829	652.9038
236	1333.8093	-212.7829	652.9038	970.4908	-244.5471	714.6569
237	970.4908	-244.5471	714.6569	302.4637	-283.6072	811.4346
238	302.4637	-283.6072	811.4346	-419.3228	-317.6565	887.5243
239	-419.3228	-317.6565	887.5243	-1373.6660	-357.4388	990.5675
240	-1373.6660	-357.4388	990.5675	-2460.7393	-168.2595	565.9518
241	-2460.7393	-168.2595	565.9518	650.4667	-15.0517	1.6317
242	650.4667	-15.0517	1.6317	605.2948	-15.0529	1.8113
243	605.2948	-15.0529	1.8113	560.1338	-15.0560	1.9921
244	560.1338	-15.0560	1.9921	514.9659	-15.0589	2.1953
245	514.9659	-15.0589	2.1953	469.7813	-15.0604	2.3072
246	469.7813	-15.0604	2.3072	424.6172	-15.0562	2.4736
247	424.6172	-15.0562	2.4736	379.4623	-15.0500	2.5983
248	379.4623	-15.0500	2.5983	537.9503	-21.2089	249.6219
249	537.9503	-21.2089	249.6219	1066.3821	-41.2909	295.0078
250	1066.3821	-41.2909	295.0078	1214.0950	-64.2544	350.3420
251	1214.0950	-64.2544	350.3420	1590.2527	-90.8568	399.2853
252	1590.2527	-90.8568	399.2853	1561.8623	-116.9111	456.9415
253	1561.8623	-116.9111	456.9415	1695.5168	-149.3427	516.2579
254	1695.5168	-149.3427	516.2579	1442.9364	-181.2602	408.2375
255	1442.9364	-181.2602	408.2375	1256.7568	-215.2842	653.2249
256	1256.7568	-215.2842	653.2249	875.1223	-247.3224	715.2321
257	875.1223	-247.3224	715.2321	194.5966	-286.5027	811.9191
258	194.5966	-286.5027	811.9191	-542.3295	-320.6920	887.7318
259	-542.3295	-320.6920	887.7318	-1507.2247	-360.4874	990.8143
260	-1507.2247	-360.4874	990.8143	-2602.7295	-167.5163	573.4368
261	-2602.7295	-167.5163	573.4368	698.8665	-16.3159	2.2923
262	698.8665	-16.3159	2.2923	662.1659	-16.3223	2.4216
263	662.1659	-16.3223	2.4216	625.4391	-16.3182	2.6573
264	625.4391	-16.3182	2.6573	588.7435	-16.3075	2.7362
265	588.7435	-16.3075	2.7362	552.0593	-16.3049	2.8979
266	552.0593	-16.3049	2.8979	515.3713	-16.3078	3.0142
267	515.3713	-16.3078	3.0142	478.6628	-16.3214	3.0695
268	478.6628	-16.3214	3.0695	441.9330	-16.3307	3.3026
269	441.9330	-16.3307	3.3026	405.1748	-16.3401	3.3873
270	405.1748	-16.3401	3.3873	368.3772	-16.3468	3.3794
271	368.3772	-16.3468	3.3794	810.3668	-25.1482	320.2302
272	810.3668	-25.1482	320.2302	1021.0537	-49.1687	384.6165
273	1021.0537	-49.1687	384.6165	1175.8690	-74.6045	449.3788
274	1175.8690	-74.6045	449.3788	1268.8845	-93.9209	493.9338
275	1268.8845	-93.9209	493.9338	1290.5720	-114.6550	538.4043
276	1290.5720	-114.6550	538.4043	1427.0957	-137.6422	572.0906
277	1427.0957	-137.6422	572.0906	1237.2207	-169.8764	644.8764
278	1237.2207	-169.8764	644.8764	941.7562	-195.8652	700.0781
279	941.7562	-195.8652	700.0781	532.3204	-223.0686	758.2939
280	532.3204	-223.0686	758.2939	0.3560	-238.0753	799.5798

ENVOL. MAX. TORSORES TREN TREN SW/2, EC-1 en via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.0142	-0.0023	2.6867	42.1355	-1.2539	10.5040
2	42.1355	-1.2539	10.5040	131.1821	-4.1657	21.6049
3	131.1821	-4.1657	21.6049	256.0059	-8.7284	35.9411
4	256.0059	-8.7284	35.9411	405.5020	-14.9317	53.3880
5	405.5020	-14.9317	53.3880	568.7814	-22.7556	74.2400
6	568.7814	-22.7556	74.2400	735.1422	-32.1787	98.4582
7	735.1422	-32.1787	98.4582	894.1421	-43.1843	125.7303
8	894.1421	-43.1843	125.7303	1306.5789	-62.3401	169.2552
9	1306.5789	-62.3401	169.2552	1418.5797	-85.4209	227.1340
10	1418.5797	-85.4209	227.1340	1487.6904	-102.4546	267.3665
11	1487.6904	-102.4546	267.3665	1505.0884	-120.9258	310.8596
12	1505.0884	-120.9258	310.8596	1462.5791	-140.7770	355.0904
13	1462.5791	-140.7770	355.0904	1542.1492	-165.1564	397.9184
14	1542.1492	-165.1564	397.9184	1320.1953	-184.2607	440.2270
15	1320.1953	-184.2607	440.2270	1029.8823	-203.2379	488.7242
16	1029.8823	-203.2379	488.7242	673.9727	-230.8453	561.3014
17	673.9727	-230.8453	561.3014	244.0320	-259.4697	636.8756
18	244.0320	-259.4697	636.8756	-261.6276	-281.6359	695.1255
19	-261.6276	-281.6359	695.1255	-847.0090	-304.7137	756.2515
20	-847.0090	-304.7137	756.2515	-1516.1890	-148.1494	430.8535
21	-1516.1890	-148.1494	430.8535	-1382.2891	31.5288	45.5729
22	-1382.2891	31.5288	45.5729	-1151.4081	28.1864	60.1946
23	-1151.4081	28.1864	60.1946	-968.4903	25.5918	70.8643
24	-968.4903	25.5918	70.8643	-635.9756	18.3167	99.8719
25	-635.9756	18.3167	99.8719	-423.4951	13.4607	117.9047
26	-423.4951	13.4607	117.9047	6.9279	0.3666	161.1567
27	6.9279	0.3666	161.1567	492.1573	-9.8788	193.2541
28	492.1573	-9.8788	193.2541	702.7734	-28.0180	243.9171
29	702.7734	-28.0180	243.9171	1169.6849	-45.3401	289.9399
30	1169.6849	-45.3401	289.9399	1290.7631	-67.0015	345.4551
31	1290.7631	-67.0015	345.4551	1640.9656	-91.2692	394.8127
32	1640.9656	-91.2692	394.8127	1607.7324	-116.2798	451.9182
33	1607.7324	-116.2798	451.9182	1744.0256	-146.7838	511.0630
34	1744.0256	-146.7838	511.0630	1496.1565	-174.7361	574.8389
35	1496.1565	-174.7361	574.8389	1337.2363	-210.5141	647.4944
36	1337.2363	-210.5141	647.4944	829.4691	-240.7592	718.7020
37	829.4691	-240.7592	718.7020	325.1459	-280.4328	805.7616
38	325.1459	-280.4328	805.7616	-467.1213	-312.1844	884.0615
39	-467.1213	-312.1844	884.0615	-1327.5868	-353.9171	985.0094
40	-1327.5868	-353.9171	985.0094	-2403.8643	-167.4408	561.2073
41	-2403.8643	-167.4408	561.2073	-2210.7788	50.4600	58.4985
42	-2210.7788	50.4600	58.4985	-1889.0796	46.2804	72.1955
43	-1889.0796	46.2804	72.1955	-1621.5515	42.8812	81.9809
44	-1621.5515	42.8812	81.9809	-1153.6558	33.2035	109.5429
45	-1153.6558	33.2035	109.5429	-848.4431	26.8437	126.8553
46	-848.4431	26.8437	126.8553	-295.7534	10.8876	168.6734
47	-295.7534	10.8876	168.6734	288.1256	-1.9793	199.6664
48	288.1256	-1.9793	199.6664	549.9825	-21.3293	249.8338
49	549.9825	-21.3293	249.8338	1081.1417	-40.8596	294.8588
50	1081.1417	-40.8596	294.8588	1232.6816	-63.5395	349.8704
51	1232.6816	-63.5395	349.8704	1618.0278	-89.5827	398.6335
52	1618.0278	-89.5827	398.6335	1598.2034	-115.4240	455.6205
53	1598.2034	-115.4240	455.6205	1747.2533	-147.2952	513.8989

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	1747.2533	-147.2952	513.8989	1500.6038	-175.7617	577.4772
55	1500.6038	-175.7617	577.4772	1340.2390	-212.4352	649.9185
56	1340.2390	-212.4352	649.9185	826.2827	-242.9913	720.6782
57	826.2827	-242.9913	720.6782	313.1854	-283.1207	807.6422
58	313.1854	-283.1207	807.6422	-487.9736	-314.9768	885.7240
59	-487.9736	-314.9768	885.7240	-1358.4418	-356.8744	986.4804
60	-1358.4418	-356.8744	986.4804	-2443.5222	-168.4823	562.6353
61	-2443.5222	-168.4823	562.6353	-2247.3818	51.3098	59.2827
62	-2247.3818	51.3098	59.2827	-1921.2455	47.0939	72.4438
63	-1921.2455	47.0939	72.4438	-1650.0117	43.6343	82.4608
64	-1650.0117	43.6343	82.4608	-1176.8528	33.8893	109.5883
65	-1176.8528	33.8893	109.5883	-868.0155	27.4524	126.8694
66	-868.0155	27.4524	126.8694	-310.3605	11.3872	168.7242
67	-310.3605	11.3872	168.7242	278.0074	-1.5815	199.6232
68	278.0074	-1.5815	199.6232	542.4089	-20.9893	249.7623
69	542.4089	-20.9893	249.7623	1076.9169	-40.6640	294.8187
70	1076.9169	-40.6640	294.8187	1230.0842	-63.3969	349.8042
71	1230.0842	-63.3969	349.8042	1617.3188	-89.5469	398.7670
72	1617.3188	-89.5469	398.7670	1598.1265	-115.3928	455.8267
73	1598.1265	-115.3928	455.8267	1747.9917	-147.3228	514.0291
74	1747.9917	-147.3228	514.0291	1501.2617	-175.8613	577.9189
75	1501.2617	-175.8613	577.9189	1340.6775	-212.5941	650.5703
76	1340.6775	-212.5941	650.5703	826.3212	-243.1821	721.4155
77	826.3212	-243.1821	721.4155	312.5685	-283.3461	808.3290
78	312.5685	-283.3461	808.3290	-489.6682	-315.2489	886.3191
79	-489.6682	-315.2489	886.3191	-1360.9829	-357.1512	987.3231
80	-1360.9829	-357.1512	987.3231	-2447.0527	-168.5816	563.3242
81	-2447.0527	-168.5816	563.3242	-2250.8926	51.3839	59.8703
82	-2250.8926	51.3839	59.8703	-1924.4056	47.1434	73.1563
83	-1924.4056	47.1434	73.1563	-1652.9087	43.7103	82.8583
84	-1652.9087	43.7103	82.8583	-1179.2937	33.9482	109.9740
85	-1179.2937	33.9482	109.9740	-870.1510	27.5164	127.0782
86	-870.1510	27.5164	127.0782	-311.9775	11.4477	168.7701
87	-311.9775	11.4477	168.7701	276.8233	-1.5354	199.6295
88	276.8233	-1.5354	199.6295	541.4791	-20.9528	249.7514
89	541.4791	-20.9528	249.7514	1076.2346	-40.6138	294.8082
90	1076.2346	-40.6138	294.8082	1229.5911	-63.3372	350.0997
91	1229.5911	-63.3372	350.0997	1617.1835	-89.5233	398.9084
92	1617.1835	-89.5233	398.9084	1598.0320	-115.3848	455.9185
93	1598.0320	-115.3848	455.9185	1748.0096	-147.3510	514.4768
94	1748.0096	-147.3510	514.4768	1501.4753	-175.8777	578.3000
95	1501.4753	-175.8777	578.3000	1340.7683	-212.6500	650.9111
96	1340.7683	-212.6500	650.9111	826.2513	-243.2074	721.9779
97	826.2513	-243.2074	721.9779	312.2189	-283.4089	809.1161
98	312.2189	-283.4089	809.1161	-490.1090	-315.2779	887.1465
99	-490.1090	-315.2779	887.1465	-1361.7642	-357.1826	988.1820
100	-1361.7642	-357.1826	988.1820	-2447.5430	-168.6042	563.7086
101	-2447.5430	-168.6042	563.7086	-2251.4482	51.3749	60.0917
102	-2251.4482	51.3749	60.0917	-1924.9314	47.1509	73.6474
103	-1924.9314	47.1509	73.6474	-1653.3462	43.7208	82.9436
104	-1653.3462	43.7208	82.9436	-1179.6050	33.9509	109.8094
105	-1179.6050	33.9509	109.8094	-870.3640	27.5420	127.0330
106	-870.3640	27.5420	127.0330	-312.1694	11.4552	168.6454
107	-312.1694	11.4552	168.6454	276.6833	-1.5294	199.4798
108	276.6833	-1.5294	199.4798	541.3186	-20.9440	249.6637
109	541.3186	-20.9440	249.6637	1076.1427	-40.6134	294.8071
110	1076.1427	-40.6134	294.8071	1229.4719	-63.3449	349.9005

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
111	1229.4719	-63.3449	349.9005	1617.0404	-89.5282	398.9546
112	1617.0404	-89.5282	398.9546	1597.9370	-115.3689	455.9595
113	1597.9370	-115.3689	455.9595	1747.7399	-147.3642	514.7517
114	1747.7399	-147.3642	514.7517	1500.8533	-175.8636	578.7947
115	1500.8533	-175.8636	578.7947	1340.4399	-212.5636	651.5317
116	1340.4399	-212.5636	651.5317	826.0648	-243.1517	722.7561
117	826.0648	-243.1517	722.7561	312.3008	-283.3334	809.7135
118	312.3008	-283.3334	809.7135	-490.0801	-315.2083	888.0000
119	-490.0801	-315.2083	888.0000	-1361.4397	-357.1189	988.5417
120	-1361.4397	-357.1189	988.5417	-2447.3206	-168.5932	564.2208
121	-2447.3206	-168.5932	564.2208	-2251.1235	51.3441	60.7965
122	-2251.1235	51.3441	60.7965	-1924.6937	47.1131	73.8239
123	-1924.6937	47.1131	73.8239	-1653.3121	43.6772	83.2493
124	-1653.3121	43.6772	83.2493	-1179.6704	33.9231	110.0668
125	-1179.6704	33.9231	110.0668	-870.5048	27.5100	127.1758
126	-870.5048	27.5100	127.1758	-312.2420	11.4502	168.7117
127	-312.2420	11.4502	168.7117	276.7203	-1.5280	199.4724
128	276.7203	-1.5280	199.4724	541.4110	-20.9390	249.6991
129	541.4110	-20.9390	249.6991	1076.3662	-40.6259	294.9214
130	1076.3662	-40.6259	294.9214	1229.7244	-63.3784	349.8461
131	1229.7244	-63.3784	349.8461	1617.3682	-89.5416	398.7669
132	1617.3682	-89.5416	398.7669	1598.0625	-115.3920	456.4005
133	1598.0625	-115.3920	456.4005	1747.9639	-147.3821	515.5125
134	1747.9639	-147.3821	515.5125	1501.1158	-175.9103	579.4897
135	1501.1158	-175.9103	579.4897	1340.3899	-212.6160	652.1031
136	1340.3899	-212.6160	652.1031	825.8665	-243.2183	723.3570
137	825.8665	-243.2183	723.3570	311.5661	-283.4010	810.7110
138	311.5661	-283.4010	810.7110	-490.7866	-315.2772	888.8145
139	-490.7866	-315.2772	888.8145	-1362.5222	-357.1746	989.3140
140	-1362.5222	-357.1746	989.3140	-2448.5928	-168.5894	565.3285
141	-2448.5928	-168.5894	565.3285	-2252.1589	51.4104	61.5983
142	-2252.1589	51.4104	61.5983	-1925.4990	47.1899	74.0891
143	-1925.4990	47.1899	74.0891	-1653.8474	43.7447	83.7466
144	-1653.8474	43.7447	83.7466	-1180.0442	33.9785	110.2932
145	-1180.0442	33.9785	110.2932	-870.7605	27.5441	127.2093
146	-870.7605	27.5441	127.2093	-312.4997	11.4678	168.7408
147	-312.4997	11.4678	168.7408	276.4197	-1.5153	199.4214
148	276.4197	-1.5153	199.4214	541.1152	-20.9291	249.6653
149	541.1152	-20.9291	249.6653	1076.0721	-40.6148	294.8680
150	1076.0721	-40.6148	294.8680	1229.4211	-63.3525	349.9601
151	1229.4211	-63.3525	349.9601	1617.0315	-89.5222	398.9470
152	1617.0315	-89.5222	398.9470	1597.8367	-115.3540	456.5386
153	1597.8367	-115.3540	456.5386	1747.7773	-147.3344	515.7049
154	1747.7773	-147.3344	515.7049	1501.1658	-175.8378	579.5393
155	1501.1658	-175.8378	579.5393	1340.4854	-212.5746	652.4604
156	1340.4854	-212.5746	652.4604	825.9990	-243.1801	723.8073
157	825.9990	-243.1801	723.8073	312.0149	-283.3499	811.3475
158	312.0149	-283.3499	811.3475	-490.1194	-315.2560	889.4443
159	-490.1194	-315.2560	889.4443	-1361.8352	-357.1695	990.3359
160	-1361.8352	-357.1695	990.3359	-2447.9648	-168.6105	565.6946
161	-2447.9648	-168.6105	565.6946	-2252.0845	51.3675	61.5703
162	-2252.0845	51.3675	61.5703	-1925.5935	47.1403	74.5182
163	-1925.5935	47.1403	74.5182	-1654.0671	43.7131	83.7606
164	-1654.0671	43.7131	83.7606	-1180.3082	33.9590	110.4395
165	-1180.3082	33.9590	110.4395	-871.0745	27.5406	127.2216
166	-871.0745	27.5406	127.2216	-312.7672	11.4750	168.6385
167	-312.7672	11.4750	168.6385	276.3314	-1.5100	199.3082

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
168	276.3314	-1.5100	199.3082	541.0424	-20.9271	249.4659
169	541.0424	-20.9271	249.4659	1075.9741	-40.6016	294.8327
170	1075.9741	-40.6016	294.8327	1229.4402	-63.3534	350.1351
171	1229.4402	-63.3534	350.1351	1617.0750	-89.5025	399.3195
172	1617.0750	-89.5025	399.3195	1598.0229	-115.3550	456.5245
173	1598.0229	-115.3550	456.5245	1748.0164	-147.3517	515.7203
174	1748.0164	-147.3517	515.7203	1501.2607	-175.9048	579.9490
175	1501.2607	-175.9048	579.9490	1340.5129	-212.6405	652.7709
176	1340.5129	-212.6405	652.7709	825.9260	-243.2067	724.2220
177	825.9260	-243.2067	724.2220	311.5742	-283.4048	811.4290
178	311.5742	-283.4048	811.4290	-490.6770	-315.2931	889.5709
179	-490.6770	-315.2931	889.5709	-1362.7334	-357.1849	990.4230
180	-1362.7334	-357.1849	990.4230	-2448.7856	-168.5927	565.6230
181	-2448.7856	-168.5927	565.6230	-2252.3784	51.4089	61.5406
182	-2252.3784	51.4089	61.5406	-1925.7733	47.1902	74.2442
183	-1925.7733	47.1902	74.2442	-1654.0660	43.7495	83.4570
184	-1654.0660	43.7495	83.4570	-1180.2373	33.9767	110.3194
185	-1180.2373	33.9767	110.3194	-870.9438	27.5518	127.2214
186	-870.9438	27.5518	127.2214	-312.6864	11.4759	168.5822
187	-312.6864	11.4759	168.5822	276.2935	-1.5091	199.3350
188	276.2935	-1.5091	199.3350	541.0383	-20.9172	249.4682
189	541.0383	-20.9172	249.4682	1075.9756	-40.5816	294.7964
190	1075.9756	-40.5816	294.7964	1229.4476	-63.3520	349.9365
191	1229.4476	-63.3520	349.9365	1617.1873	-89.4745	399.1323
192	1617.1873	-89.4745	399.1323	1598.1626	-115.3522	456.9089
193	1598.1626	-115.3522	456.9089	1748.3867	-147.3651	515.5637
194	1748.3867	-147.3651	515.5637	1501.5815	-175.8803	579.7649
195	1501.5815	-175.8803	579.7649	1340.8242	-212.6554	653.0126
196	1340.8242	-212.6554	653.0126	826.2905	-243.2464	724.2255
197	826.2905	-243.2464	724.2255	312.0477	-283.4359	811.5825
198	312.0477	-283.4359	811.5825	-490.4928	-315.3425	889.8143
199	-490.4928	-315.3425	889.8143	-1362.2876	-357.2299	990.8309
200	-1362.2876	-357.2299	990.8309	-2448.7642	-168.6151	565.8117
201	-2448.7642	-168.6151	565.8117	-2252.6086	51.4243	61.2014
202	-2252.6086	51.4243	61.2014	-1925.9313	47.1951	74.4572
203	-1925.9313	47.1951	74.4572	-1654.2822	43.7567	83.8282
204	-1654.2822	43.7567	83.8282	-1180.4727	33.9740	110.3215
205	-1180.4727	33.9740	110.3215	-871.1748	27.5461	127.1783
206	-871.1748	27.5461	127.1783	-312.8769	11.4716	168.5951
207	-312.8769	11.4716	168.5951	276.2065	-1.5040	199.2967
208	276.2065	-1.5040	199.2967	540.9578	-20.9123	249.4854
209	540.9578	-20.9123	249.4854	1075.9861	-40.6017	294.8340
210	1075.9861	-40.6017	294.8340	1229.4121	-63.3606	349.9361
211	1229.4121	-63.3606	349.9361	1617.1119	-89.5095	398.9598
212	1617.1119	-89.5095	398.9598	1597.9119	-115.3828	456.5591
213	1597.9119	-115.3828	456.5591	1747.8770	-147.3861	515.7878
214	1747.8770	-147.3861	515.7878	1501.0762	-175.8836	579.7427
215	1501.0762	-175.8836	579.7427	1340.3240	-212.7012	652.7492
216	1340.3240	-212.7012	652.7492	825.5872	-243.2861	723.9915
217	825.5872	-243.2861	723.9915	311.1539	-283.4747	811.4734
218	311.1539	-283.4747	811.4734	-491.4258	-315.3856	889.5874
219	-491.4258	-315.3856	889.5874	-1363.7501	-357.2722	990.2484
220	-1363.7501	-357.2722	990.2484	-2450.3125	-168.6024	565.7665
221	-2450.3125	-168.6024	565.7665	-2253.7026	51.4982	61.8607
222	-2253.7026	51.4982	61.8607	-1926.7407	47.2648	74.7031
223	-1926.7407	47.2648	74.7031	-1654.7893	43.8333	83.9135
224	-1654.7893	43.8333	83.9135	-1180.6968	34.0378	110.4650

ESPUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
225	-1180.6968	34.0378	110.4650	-871.2712	27.5981	127.2496
226	-871.2712	27.5981	127.2496	-312.8541	11.5062	168.7111
227	-312.8541	11.5062	168.7111	276.0304	-1.5117	199.3984
228	276.0304	-1.5117	199.3984	540.5853	-20.9460	249.5742
229	540.5853	-20.9460	249.5742	1074.9888	-40.6606	294.7857
230	1074.9888	-40.6606	294.7857	1227.8037	-63.4342	350.0912
231	1227.8037	-63.4342	350.0912	1614.5724	-89.6288	399.0665
232	1614.5724	-89.6288	399.0665	1594.7443	-115.4599	456.5291
233	1594.7443	-115.4599	456.5291	1743.4921	-147.4484	515.6285
234	1743.4921	-147.4484	515.6285	1495.8973	-175.9648	579.8379
235	1495.8973	-175.9648	579.8379	1333.8093	-212.7829	652.9038
236	1333.8093	-212.7829	652.9038	818.3529	-243.4099	723.9810
237	818.3529	-243.4099	723.9810	302.4637	-283.6072	811.4346
238	302.4637	-283.6072	811.4346	-500.9707	-315.5363	889.7006
239	-500.9707	-315.5363	889.7006	-1373.6660	-357.4388	990.5675
240	-1373.6660	-357.4388	990.5675	-2460.7393	-168.2595	565.9518
241	-2460.7393	-168.2595	565.9518	-2261.5928	52.3108	61.6502
242	-2261.5928	52.3108	61.6502	-1931.6655	48.0174	74.4989
243	-1931.6655	48.0174	74.4989	-1657.2505	44.5344	83.8326
244	-1657.2505	44.5344	83.8326	-1180.9122	34.5869	110.3645
245	-1180.9122	34.5869	110.3645	-869.9514	28.0569	127.2999
246	-869.9514	28.0569	127.2999	-311.5220	11.7042	168.7484
247	-311.5220	11.7042	168.7484	275.5240	-1.6137	199.5163
248	275.5240	-1.6137	199.5163	537.9503	-21.2089	249.6219
249	537.9503	-21.2089	249.6219	1066.3821	-41.2909	295.0078
250	1066.3821	-41.2909	295.0078	1214.0950	-64.2544	350.3420
251	1214.0950	-64.2544	350.3420	1590.2527	-90.8568	399.2853
252	1590.2527	-90.8568	399.2853	1561.8623	-116.9111	456.9415
253	1561.8623	-116.9111	456.9415	1695.5168	-149.3427	516.2579
254	1695.5168	-149.3427	516.2579	1436.6588	-178.0983	580.4167
255	1436.6588	-178.0983	580.4167	1256.7568	-215.2842	653.2249
256	1256.7568	-215.2842	653.2249	727.9614	-246.0262	724.5244
257	727.9614	-246.0262	724.5244	194.5966	-286.5027	811.9191
258	194.5966	-286.5027	811.9191	-621.4231	-318.5044	889.8726
259	-621.4231	-318.5044	889.8726	-1507.2247	-360.4874	990.8143
260	-1507.2247	-360.4874	990.8143	-2602.7295	-167.5163	573.4368
261	-2602.7295	-167.5163	573.4368	-2430.3491	56.7509	77.5779
262	-2430.3491	56.7509	77.5779	-2227.0444	54.8797	84.4200
263	-2227.0444	54.8797	84.4200	-1996.2472	52.0543	93.5872
264	-1996.2472	52.0543	93.5872	-1741.8018	48.2660	106.3208
265	-1741.8018	48.2660	106.3208	-1264.7925	37.3883	141.0547
266	-1264.7925	37.3883	141.0547	-953.2450	30.1714	163.0281
267	-953.2450	30.1714	163.0281	-637.8969	21.7717	188.2282
268	-637.8969	21.7717	188.2282	-326.1024	12.0557	216.4117
269	-326.1024	12.0557	216.4117	-25.5626	1.0441	247.9801
270	-25.5626	1.0441	247.9801	255.3174	-11.3147	282.6685
271	255.3174	-11.3147	282.6685	507.9438	-25.0418	320.6048
272	507.9438	-25.0418	320.6048	1021.0537	-49.1687	384.6165
273	1021.0537	-49.1687	384.6165	1175.8690	-74.6045	449.3788
274	1175.8690	-74.6045	449.3788	1268.8845	-93.9209	493.9338
275	1268.8845	-93.9209	493.9338	1290.5720	-114.6550	538.4043
276	1290.5720	-114.6550	538.4043	1231.2900	-136.7462	585.1106
277	1231.2900	-136.7462	585.1106	1237.2207	-169.8764	644.8764
278	1237.2207	-169.8764	644.8764	941.7562	-195.8652	700.0781
279	941.7562	-195.8652	700.0781	532.3204	-223.0686	758.2939
280	532.3204	-223.0686	758.2939	0.3560	-238.0753	799.5798

ENVOL. MIN. TORSORES TREN TREN SW/2, EC-1 en via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.2828	246.8975	-804.6923	521.7602	218.6826	-743.7138
2	521.7602	218.6826	-743.7138	922.4404	191.6813	-685.6471
3	922.4404	191.6813	-685.6471	1209.9094	165.9315	-631.1016
4	1209.9094	165.9315	-631.1016	1199.6626	133.3474	-572.5447
5	1199.6626	133.3474	-572.5447	1254.2671	111.5272	-526.5940
6	1254.2671	111.5272	-526.5940	1229.2115	91.1159	-483.2896
7	1229.2115	91.1159	-483.2896	1133.7823	72.0350	-442.3336
8	1133.7823	72.0350	-442.3336	977.7228	46.8640	-380.7576
9	977.7228	46.8640	-380.7576	469.5786	23.2073	-320.2635
10	469.5786	23.2073	-320.2635	218.4332	9.7155	-282.4308
11	218.4332	9.7155	-282.4308	-59.6916	-2.4152	-247.6425
12	-59.6916	-2.4152	-247.6425	-356.5255	-13.2078	-215.9731
13	-356.5255	-13.2078	-215.9731	-664.1415	-22.6939	-187.2805
14	-664.1415	-22.6939	-187.2805	-974.6248	-30.9506	-161.7364
15	-974.6248	-30.9506	-161.7364	-1280.9380	-37.9486	-139.4174
16	-1280.9380	-37.9486	-139.4174	-1746.0059	-48.4949	-104.0408
17	-1746.0059	-48.4949	-104.0408	-1994.7019	-52.1395	-90.5307
18	-1994.7019	-52.1395	-90.5307	-2219.6304	-54.8094	-79.7649
19	-2219.6304	-54.8094	-79.7649	-2416.9707	-56.5425	-72.3710
20	-2416.9707	-56.5425	-72.3710	-2583.2883	165.6171	-564.6150
21	-2583.2883	165.6171	-564.6150	-1495.6421	356.3445	-977.9001
22	-1495.6421	356.3445	-977.9001	-614.2365	314.3965	-876.7424
23	-614.2365	314.3965	-876.7424	192.8213	282.4484	-798.6283
24	192.8213	282.4484	-798.6283	720.5129	242.1367	-711.7221
25	720.5129	242.1367	-711.7221	1240.5110	211.4770	-640.9239
26	1240.5110	211.4770	-640.9239	1415.1187	174.6211	-568.8102
27	1415.1187	174.6211	-568.8102	1666.7231	146.0633	-505.1784
28	1666.7231	146.0633	-505.1784	1529.8069	113.9725	-447.3502
29	1529.8069	113.9725	-447.3502	1552.7412	88.1001	-390.6284
30	1552.7412	88.1001	-390.6284	1175.9575	61.8909	-344.8509
31	1175.9575	61.8909	-344.8509	1025.2711	39.1500	-292.2555
32	1025.2711	39.1500	-292.2555	499.8664	19.5038	-249.7112
33	499.8664	19.5038	-249.7112	237.8998	0.1277	-199.4093
34	237.8998	0.1277	-199.4093	-341.0403	-12.7392	-168.2914
35	-341.0403	-12.7392	-168.2914	-889.8141	-28.6689	-126.2572
36	-889.8141	-28.6689	-126.2572	-1196.1597	-35.0090	-108.9650
37	-1196.1597	-35.0090	-108.9650	-1661.1726	-44.6014	-81.5504
38	-1661.1726	-44.6014	-81.5504	-1929.8118	-47.9552	-71.4510
39	-1929.8118	-47.9552	-71.4510	-2248.0999	-51.9951	-57.7617
40	-2248.0999	-51.9951	-57.7617	-2441.0642	166.3817	-557.7433
41	-2441.0642	166.3817	-557.7433	-1362.2865	353.2502	-977.8360
42	-1362.2865	353.2502	-977.8360	-494.4078	311.4033	-876.7234
43	-494.4078	311.4033	-876.7234	300.1070	279.5648	-798.7301
44	300.1070	279.5648	-798.7301	809.6068	239.5385	-712.0115
45	809.6068	239.5385	-712.0115	1316.2932	209.0200	-641.1009
46	1316.2932	209.0200	-641.1009	1473.1228	172.5219	-568.5900
47	1473.1228	172.5219	-568.5900	1713.3669	144.1533	-504.9461
48	1713.3669	144.1533	-504.9461	1561.3660	112.5139	-447.1648
49	1561.3660	112.5139	-447.1648	1575.9456	86.8748	-390.6039
50	1575.9456	86.8748	-390.6039	1188.8148	61.0901	-344.7896
51	1188.8148	61.0901	-344.7896	1033.2129	38.5376	-291.9626
52	1033.2129	38.5376	-291.9626	502.1401	19.2541	-249.4548
53	502.1401	19.2541	-249.4548	238.1477	0.0464	-199.2780
54	238.1477	0.0464	-199.2780	-342.3780	-12.5261	-168.2766

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	-342.3780	-12.5261	-168.2766	-890.8871	-28.2203	-126.3932
56	-890.8871	-28.2203	-126.3932	-1195.7882	-34.4745	-109.0824
57	-1195.7882	-34.4745	-109.0824	-1658.5582	-43.9378	-81.8393
58	-1658.5582	-43.9378	-81.8393	-1924.7793	-47.2388	-71.8020
59	-1924.7793	-47.2388	-71.8020	-2240.2571	-51.2133	-58.4465
60	-2240.2571	-51.2133	-58.4465	-2430.7502	166.6610	-558.1182
61	-2430.7502	166.6610	-558.1182	-1352.5452	353.0037	-978.2842
62	-1352.5452	353.0037	-978.2842	-485.2393	311.1788	-877.5382
63	-485.2393	311.1788	-877.5382	307.9424	279.3471	-799.5150
64	307.9424	279.3471	-799.5150	816.3026	239.3374	-712.3884
65	816.3026	239.3374	-712.3884	1322.1760	208.8676	-641.6864
66	1322.1760	208.8676	-641.6864	1477.6121	172.4217	-569.1793
67	1477.6121	172.4217	-569.1793	1717.1736	144.0507	-505.3184
68	1717.1736	144.0507	-505.3184	1564.2205	112.4479	-447.4362
69	1564.2205	112.4479	-447.4362	1578.1230	86.7861	-390.7360
70	1578.1230	86.7861	-390.7360	1190.0171	61.0239	-344.8655
71	1190.0171	61.0239	-344.8655	1033.9525	38.4792	-291.8463
72	1033.9525	38.4792	-291.8463	502.3688	19.2364	-249.3702
73	502.3688	19.2364	-249.3702	238.1642	0.0378	-199.1862
74	238.1642	0.0378	-199.1862	-342.4991	-12.5098	-168.2207
75	-342.4991	-12.5098	-168.2207	-891.0349	-28.1888	-126.4588
76	-891.0349	-28.1888	-126.4588	-1195.8340	-34.4310	-109.1771
77	-1195.8340	-34.4310	-109.1771	-1658.4934	-43.8818	-81.8547
78	-1658.4934	-43.8818	-81.8547	-1924.5063	-47.1619	-72.2604
79	-1924.5063	-47.1619	-72.2604	-2239.6814	-51.1205	-58.9161
80	-2239.6814	-51.1205	-58.9161	-2429.9404	166.7040	-558.6579
81	-2429.9404	166.7040	-558.6579	-1351.9539	353.0101	-979.2224
82	-1351.9539	353.0101	-979.2224	-484.9598	311.1901	-878.2851
83	-484.9598	311.1901	-878.2851	308.6356	279.3466	-800.2360
84	308.6356	279.3466	-800.2360	816.9099	239.3338	-713.1658
85	816.9099	239.3338	-713.1658	1322.5657	208.8546	-642.1552
86	1322.5657	208.8546	-642.1552	1478.0137	172.3765	-569.4717
87	1478.0137	172.3765	-569.4717	1717.4336	144.0359	-505.5165
88	1717.4336	144.0359	-505.5165	1564.2908	112.4354	-447.6486
89	1564.2908	112.4354	-447.6486	1578.1226	86.7831	-390.7413
90	1578.1226	86.7831	-390.7413	1190.0350	61.0202	-344.6210
91	1190.0350	61.0202	-344.6210	1033.8513	38.4737	-291.8354
92	1033.8513	38.4737	-291.8354	502.2119	19.2249	-249.3298
93	502.2119	19.2249	-249.3298	237.9883	0.0290	-199.1053
94	237.9883	0.0290	-199.1053	-342.7701	-12.5105	-168.1905
95	-342.7701	-12.5105	-168.1905	-891.3461	-28.1851	-126.4512
96	-891.3461	-28.1851	-126.4512	-1196.1194	-34.4380	-109.4266
97	-1196.1194	-34.4380	-109.4266	-1658.6965	-43.8675	-82.4063
98	-1658.6965	-43.8675	-82.4063	-1924.6726	-47.1513	-72.7012
99	-1924.6726	-47.1513	-72.7012	-2239.9067	-51.1179	-59.2785
100	-2239.9067	-51.1179	-59.2785	-2429.9365	166.6992	-559.3406
101	-2429.9365	166.6992	-559.3406	-1351.7118	353.0087	-979.9951
102	-1351.7118	353.0087	-979.9951	-484.8107	311.1578	-878.7961
103	-484.8107	311.1578	-878.7961	308.8503	279.3246	-800.6378
104	308.8503	279.3246	-800.6378	816.9568	239.3103	-713.5854
105	816.9568	239.3103	-713.5854	1322.6052	208.8036	-642.6828
106	1322.6052	208.8036	-642.6828	1477.8430	172.3562	-569.8007
107	1477.8430	172.3562	-569.8007	1717.2388	143.9839	-505.7494
108	1717.2388	143.9839	-505.7494	1564.1998	112.4010	-447.5968
109	1564.1998	112.4010	-447.5968	1578.0581	86.7565	-390.7848
110	1578.0581	86.7565	-390.7848	1189.8086	61.0068	-344.8217
111	1189.8086	61.0068	-344.8217	1033.6108	38.4646	-291.8369

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	1033.6108	38.4646	-291.8369	501.8718	19.2040	-249.3590
113	501.8718	19.2040	-249.3590	237.6337	0.0132	-199.1017
114	237.6337	0.0132	-199.1017	-343.1028	-12.5372	-168.2673
115	-343.1028	-12.5372	-168.2673	-891.7131	-28.2181	-126.6860
116	-891.7131	-28.2181	-126.6860	-1196.6475	-34.4643	-109.6054
117	-1196.6475	-34.4643	-109.6054	-1659.4082	-43.9090	-82.6513
118	-1659.4082	-43.9090	-82.6513	-1925.5837	-47.1987	-73.0767
119	-1925.5837	-47.1987	-73.0767	-2240.8618	-51.1718	-60.2272
120	-2240.8618	-51.1718	-60.2272	-2431.2324	166.7171	-560.3867
121	-2431.2324	166.7171	-560.3867	-1352.5778	353.0898	-980.4146
122	-1352.5778	353.0898	-980.4146	-485.3283	311.2646	-879.5273
123	-485.3283	311.2646	-879.5273	308.6093	279.4352	-801.3757
124	308.6093	279.4352	-801.3757	817.2609	239.3846	-714.2460
125	817.2609	239.3846	-714.2460	1323.1300	208.9007	-643.2759
126	1323.1300	208.9007	-643.2759	1478.4673	172.4007	-570.3254
127	1478.4673	172.4007	-570.3254	1717.7863	143.9900	-506.1127
128	1717.7863	143.9900	-506.1127	1564.5938	112.4032	-447.7065
129	1564.5938	112.4032	-447.7065	1578.3945	86.7365	-390.8067
130	1578.3945	86.7365	-390.8067	1189.9417	60.9831	-345.0402
131	1189.9417	60.9831	-345.0402	1033.6348	38.4513	-292.0084
132	1033.6348	38.4513	-292.0084	501.9313	19.2034	-249.2513
133	501.9313	19.2034	-249.2513	237.6833	0.0107	-199.0402
134	237.6833	0.0107	-199.0402	-343.1415	-12.5320	-168.3288
135	-343.1415	-12.5320	-168.3288	-891.7703	-28.1978	-126.6840
136	-891.7703	-28.1978	-126.6840	-1196.5571	-34.4489	-109.8716
137	-1196.5571	-34.4489	-109.8716	-1659.2002	-43.8876	-83.1714
138	-1659.2002	-43.8876	-83.1714	-1925.2473	-47.1807	-73.3941
139	-1925.2473	-47.1807	-73.3941	-2240.4275	-51.1487	-60.8617
140	-2240.4275	-51.1487	-60.8617	-2430.7549	166.6863	-560.7963
141	-2430.7549	166.6863	-560.7963	-1352.3696	352.9944	-980.9709
142	-1352.3696	352.9944	-980.9709	-484.9639	311.1510	-880.4272
143	-484.9639	311.1510	-880.4272	308.2259	279.3138	-802.2623
144	308.2259	279.3138	-802.2623	816.6907	239.3116	-714.8281
145	816.6907	239.3116	-714.8281	1322.4464	208.8615	-643.7635
146	1322.4464	208.8615	-643.7635	1477.8081	172.3663	-570.8151
147	1477.8081	172.3663	-570.8151	1717.3464	144.0170	-506.3953
148	1717.3464	144.0170	-506.3953	1564.2087	112.4007	-447.7902
149	1564.2087	112.4007	-447.7902	1578.0342	86.7461	-390.8470
150	1578.0342	86.7461	-390.8470	1189.7314	60.9869	-344.8552
151	1189.7314	60.9869	-344.8552	1033.4695	38.4473	-291.8338
152	1033.4695	38.4473	-291.8338	501.8039	19.2024	-249.0638
153	501.8039	19.2024	-249.0638	237.5581	0.0064	-198.8551
154	237.5581	0.0064	-198.8551	-343.3223	-12.5403	-168.1126
155	-343.3223	-12.5403	-168.1126	-892.0372	-28.2154	-126.5504
156	-892.0372	-28.2154	-126.5504	-1196.9128	-34.4677	-109.8662
157	-1196.9128	-34.4677	-109.8662	-1659.6372	-43.9028	-83.3472
158	-1659.6372	-43.9028	-83.3472	-1925.7485	-47.1752	-73.7095
159	-1925.7485	-47.1752	-73.7095	-2241.0234	-51.1454	-60.6980
160	-2241.0234	-51.1454	-60.6980	-2431.3240	166.7304	-560.8344
161	-2431.3240	166.7304	-560.8344	-1352.6943	353.0865	-981.5058
162	-1352.6943	353.0865	-981.5058	-485.3669	311.2427	-880.6187
163	-485.3669	311.2427	-880.6187	308.5087	279.3943	-802.4105
164	308.5087	279.3943	-802.4105	816.8276	239.3575	-715.2148
165	816.8276	239.3575	-715.2148	1322.8193	208.8754	-643.7251
166	1322.8193	208.8754	-643.7251	1478.2769	172.3409	-570.7158
167	1478.2769	172.3409	-570.7158	1717.5232	144.0033	-507.0504
168	1717.5232	144.0033	-507.0504	1564.2783	112.3916	-448.2361

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	1564.2783	112.3916	-448.2361	1578.2108	86.7406	-390.8059
170	1578.2108	86.7406	-390.8059	1189.8682	60.9804	-344.6867
171	1189.8682	60.9804	-344.6867	1033.6058	38.4586	-291.6759
172	1033.6058	38.4586	-291.6759	501.7823	19.1981	-249.1966
173	501.7823	19.1981	-249.1966	237.4863	0.0036	-198.9374
174	237.4863	0.0036	-198.9374	-343.3875	-12.5385	-168.2538
175	-343.3875	-12.5385	-168.2538	-892.0930	-28.2145	-126.7856
176	-892.0930	-28.2145	-126.7856	-1196.9104	-34.4350	-110.0100
177	-1196.9104	-34.4350	-110.0100	-1659.6001	-43.8799	-83.3114
178	-1659.6001	-43.8799	-83.3114	-1925.5833	-47.1748	-74.0652
179	-1925.5833	-47.1748	-74.0652	-2240.8401	-51.1457	-61.1921
180	-2240.8401	-51.1457	-61.1921	-2430.7693	166.6949	-561.0483
181	-2430.7693	166.6949	-561.0483	-1352.4161	353.0215	-981.2916
182	-1352.4161	353.0215	-981.2916	-485.1667	311.1779	-880.3535
183	-485.1667	311.1779	-880.3535	308.3944	279.3205	-802.3701
184	308.3944	279.3205	-802.3701	816.5078	239.2980	-715.1170
185	816.5078	239.2980	-715.1170	1322.5205	208.8495	-643.9219
186	1322.5205	208.8495	-643.9219	1477.8604	172.3727	-570.5602
187	1477.8604	172.3727	-570.5602	1717.3188	144.0022	-506.3886
188	1717.3188	144.0022	-506.3886	1564.1722	112.4393	-448.1171
189	1564.1722	112.4393	-448.1171	1578.1921	86.7844	-390.7799
190	1578.1921	86.7844	-390.7799	1189.8590	60.9959	-344.8593
191	1189.8590	60.9959	-344.8593	1033.6733	38.4637	-291.6833
192	1033.6733	38.4637	-291.6833	501.9390	19.2083	-249.0580
193	501.9390	19.2083	-249.0580	237.5381	0.0062	-198.9521
194	237.5381	0.0062	-198.9521	-343.3926	-12.5352	-168.2228
195	-343.3926	-12.5352	-168.2228	-892.0724	-28.1969	-126.8391
196	-892.0724	-28.1969	-126.8391	-1196.9202	-34.4380	-109.9443
197	-1196.9202	-34.4380	-109.9443	-1659.5684	-43.8726	-83.4499
198	-1659.5684	-43.8726	-83.4499	-1925.5461	-47.1515	-74.2236
199	-1925.5461	-47.1515	-74.2236	-2240.7095	-51.1160	-61.0624
200	-2240.7095	-51.1160	-61.0624	-2430.6797	166.7052	-561.0427
201	-2430.6797	166.7052	-561.0427	-1352.0974	353.0096	-981.7288
202	-1352.0974	353.0096	-981.7288	-485.1562	311.1503	-880.7519
203	-485.1562	311.1503	-880.7519	308.2761	279.3506	-802.4272
204	308.2761	279.3506	-802.4272	816.8544	239.3385	-715.1526
205	816.8544	239.3385	-715.1526	1322.7319	208.8634	-643.8115
206	1322.7319	208.8634	-643.8115	1478.1307	172.4009	-570.6981
207	1478.1307	172.4009	-570.6981	1717.6202	144.0500	-506.8381
208	1717.6202	144.0500	-506.8381	1564.6307	112.4389	-448.0690
209	1564.6307	112.4389	-448.0690	1578.6021	86.7677	-390.8353
210	1578.6021	86.7677	-390.8353	1190.3009	60.9947	-344.8615
211	1190.3009	60.9947	-344.8615	1034.1721	38.4823	-291.8672
212	1034.1721	38.4823	-291.8672	502.6768	19.2318	-249.1129
213	502.6768	19.2318	-249.1129	238.6206	0.0463	-198.9105
214	238.6206	0.0463	-198.9105	-341.8763	-12.4829	-168.2054
215	-341.8763	-12.4829	-168.2054	-890.1219	-28.1313	-126.6932
216	-890.1219	-28.1313	-126.6932	-1194.6018	-34.3726	-109.9305
217	-1194.6018	-34.3726	-109.9305	-1656.7611	-43.7869	-83.3911
218	-1656.7611	-43.7869	-83.3911	-1922.3638	-47.0663	-73.7497
219	-1922.3638	-47.0663	-73.7497	-2237.0496	-51.0165	-61.0567
220	-2237.0496	-51.0165	-61.0567	-2426.7827	166.6133	-561.1594
221	-2426.7827	166.6133	-561.1594	-1349.4749	352.7213	-981.5309
222	-1349.4749	352.7213	-981.5309	-483.2514	310.9065	-880.6952
223	-483.2514	310.9065	-880.6952	309.6497	279.0681	-802.4611
224	309.6497	279.0681	-802.4611	817.1324	239.0868	-715.1705
225	817.1324	239.0868	-715.1705	1322.3789	208.6447	-643.7525

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	1322.3789	208.6447	-643.7525	1477.4375	172.2265	-570.8117
227	1477.4375	172.2265	-570.8117	1716.7992	143.9057	-506.7198
228	1716.7992	143.9057	-506.7198	1564.4220	112.4182	-448.1734
229	1564.4220	112.4182	-448.1734	1578.9839	86.8048	-390.9772
230	1578.9839	86.8048	-390.9772	1192.9746	61.1750	-344.8053
231	1192.9746	61.1750	-344.8053	1038.5214	38.7108	-291.8530
232	1038.5214	38.7108	-291.8530	510.5334	19.5893	-249.1626
233	510.5334	19.5893	-249.1626	249.1292	0.4566	-198.9285
234	249.1292	0.4566	-198.9285	-326.6812	-11.9705	-168.2299
235	-326.6812	-11.9705	-168.2299	-869.8813	-27.5381	-126.7347
236	-869.8813	-27.5381	-126.7347	-1170.7714	-33.7064	-109.8185
237	-1170.7714	-33.7064	-109.8185	-1627.6406	-43.0404	-83.4951
238	-1627.6406	-43.0404	-83.4951	-1889.6206	-46.2873	-73.9896
239	-1889.6206	-46.2873	-73.9896	-2200.1104	-50.2148	-60.8134
240	-2200.1104	-50.2148	-60.8134	-2387.0537	165.5093	-560.4304
241	-2387.0537	165.5093	-560.4304	-1318.9893	349.7115	-980.5608
242	-1318.9893	349.7115	-980.5608	-462.5712	308.0419	-879.6619
243	-462.5712	308.0419	-879.6619	320.9050	276.3434	-801.3004
244	320.9050	276.3434	-801.3004	819.5480	236.8346	-713.6580
245	819.5480	236.8346	-713.6580	1318.6675	206.7327	-642.2754
246	1318.6675	206.7327	-642.2754	1472.3044	171.2313	-568.5326
247	1472.3044	171.2313	-568.5326	1713.2445	143.5135	-504.1826
248	1713.2445	143.5135	-504.1826	1574.3096	113.3784	-445.2055
249	1574.3096	113.3784	-445.2055	1602.8344	88.5701	-387.2706
250	1602.8344	88.5701	-387.2706	1252.6191	64.7285	-340.2563
251	1252.6191	64.7285	-340.2563	1129.1704	43.2971	-286.8397
252	1129.1704	43.2971	-286.8397	666.7954	26.4435	-243.1164
253	666.7954	26.4435	-243.1164	457.7003	8.5446	-192.2996
254	457.7003	8.5446	-192.2996	-18.0415	-1.2425	-160.4582
255	-18.0415	-1.2425	-160.4582	-437.7319	-13.9188	-117.5569
256	-437.7319	-13.9188	-117.5569	-494.4618	-36.4197	-55.7193
257	-494.4618	-36.4197	-55.7193	1.6189	0.3381	-0.0091
258	1.6189	0.3381	-0.0091	2.6093	0.3350	-0.0081
259	2.6093	0.3350	-0.0081	3.6479	0.3381	-0.0071
260	3.6479	0.3381	-0.0071	-2011.5964	46.6228	-137.2957
261	-2011.5964	46.6228	-137.2957	-2359.4883	318.4150	-628.4636
262	-2359.4883	318.4150	-628.4636	-1667.6411	300.5191	-585.2615
263	-1667.6411	300.5191	-585.2615	-1002.3136	281.2245	-541.8329
264	-1002.3136	281.2245	-541.8329	-344.1733	253.4796	-493.3327
265	-344.1733	253.4796	-493.3327	236.1604	230.0699	-444.5050
266	236.1604	230.0699	-444.5050	752.4413	205.3709	-392.8994
267	752.4413	205.3709	-392.8994	1194.5461	179.3463	-337.9195
268	1194.5461	179.3463	-337.9195	1553.1433	144.5979	-258.6843
269	1553.1433	144.5979	-258.6843	1839.1277	107.0533	-155.0246
270	1839.1277	107.0533	-155.0246	2049.9604	77.0116	-72.3624
271	2049.9604	77.0116	-72.3624	-7.2267	0.3566	-0.0033
272	-7.2267	0.3566	-0.0033	-6.5606	0.3641	-0.0055
273	-6.5606	0.3641	-0.0055	-5.7412	0.3644	-0.0066
274	-5.7412	0.3644	-0.0066	-4.9658	0.3679	-0.0078
275	-4.9658	0.3679	-0.0078	-4.1384	0.3679	-0.0083
276	-4.1384	0.3679	-0.0083	-3.3109	0.3679	-0.0093
277	-3.3109	0.3679	-0.0093	-2.4830	0.3679	-0.0099
278	-2.4830	0.3679	-0.0099	-1.6552	0.3679	-0.0104
279	-1.6552	0.3679	-0.0104	-0.8277	0.3679	-0.0109
280	-0.8277	0.3679	-0.0109	0.0001	0.3678	-0.0108

ENVOL. MAX. FLECTORES TREN TREN SIN CARGA, EC-1 en via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0009	-4.3658	-5.9516	52.2067	21.5480	-67.5495
2	52.2067	21.5480	-67.5495	98.1995	19.0475	-60.6415
3	98.1995	19.0475	-60.6415	137.9345	16.5467	-53.7740
4	137.9345	16.5467	-53.7740	171.4083	13.4241	-45.2188
5	171.4083	13.4241	-45.2188	198.3376	10.3036	-36.5817
6	198.3376	10.3036	-36.5817	219.0299	7.8071	-29.6539
7	219.0299	7.8071	-29.6539	233.4708	5.3108	-22.7910
8	233.4708	5.3108	-22.7910	241.6796	2.1913	-14.2244
9	241.6796	2.1913	-14.2244	243.3321	-0.9332	-5.5855
10	243.3321	-0.9332	-5.5855	238.7302	-3.4357	1.2803
11	238.7302	-3.4357	1.2803	227.8819	-5.9369	8.1691
12	227.8819	-5.9369	8.1691	210.7726	-9.0652	16.7841
13	210.7726	-9.0652	16.7841	187.1010	-12.1891	25.3551
14	187.1010	-12.1891	25.3551	157.1803	-14.6875	32.2448
15	157.1803	-14.6875	32.2448	120.9919	-17.1884	39.1429
16	120.9919	-17.1884	39.1429	78.5453	-20.3139	47.7728
17	78.5453	-20.3139	47.7728	49.2193	1.2864	-0.3738
18	49.2193	1.2864	-0.3738	52.1150	1.2865	-0.3892
19	52.1150	1.2865	-0.3892	55.0101	1.2869	-0.3889
20	55.0101	1.2869	-0.3889	57.9057	-1.4585	-3.0023
21	57.9057	-1.4585	-3.0023	45.2940	-4.2043	-5.6301
22	45.2940	-4.2043	-5.6301	32.6800	-4.2049	-5.6337
23	32.6800	-4.2049	-5.6337	46.4405	22.3829	-77.8783
24	46.4405	22.3829	-77.8783	107.9678	18.6329	-67.5430
25	107.9678	18.6329	-67.5430	158.2468	14.8834	-57.2084
26	158.2468	14.8834	-57.2084	197.2691	11.1343	-46.9012
27	197.2691	11.1343	-46.9012	225.0461	7.3841	-36.5637
28	225.0461	7.3841	-36.5637	241.5764	3.6332	-26.2296
29	241.5764	3.6332	-26.2296	246.8480	-0.1190	-15.8946
30	246.8480	-0.1190	-15.8946	253.4384	3.6420	4.0459
31	253.4384	3.6420	4.0459	258.7395	-0.1095	14.3421
32	258.7395	-0.1095	14.3421	252.7794	-3.8586	24.6368
33	252.7794	-3.8586	24.6368	235.5894	-7.6062	35.0071
34	235.5894	-7.6062	35.0071	207.1387	-11.3582	45.3298
35	207.1387	-11.3582	45.3298	167.4270	-15.1083	55.6588
36	167.4270	-15.1083	55.6588	116.4691	-18.8587	66.0151
37	116.4691	-18.8587	66.0151	54.2730	-22.6096	76.3423
38	54.2730	-22.6096	76.3423	47.6142	1.1839	-0.2880
39	47.6142	1.1839	-0.2880	51.1656	1.1837	-0.2875
40	51.1656	1.1837	-0.2875	54.7174	-1.4762	-2.9476
41	54.7174	-1.4762	-2.9476	42.3091	-4.1357	-5.6214
42	42.3091	-4.1357	-5.6214	38.0150	-0.9320	0.1937
43	38.0150	-0.9320	0.1937	55.5704	22.1366	-77.8593
44	55.5704	22.1366	-77.8593	116.3497	18.3872	-67.5417
45	116.3497	18.3872	-67.5417	165.8792	14.6364	-57.1997
46	165.8792	14.6364	-57.1997	204.1696	10.8840	-46.8399
47	204.1696	10.8840	-46.8399	231.2039	7.1333	-36.4866
48	231.2039	7.1333	-36.4866	246.9786	3.3870	-26.1550
49	246.9786	3.3870	-26.1550	251.5201	-0.3600	-15.8397
50	251.5201	-0.3600	-15.8397	244.8182	-4.1110	-5.4653
51	244.8182	-4.1110	-5.4653	249.6780	0.5468	15.8964
52	249.6780	0.5468	15.8964	245.6949	-3.2052	26.2304
53	245.6949	-3.2052	26.2304	230.4399	-6.9545	36.5646

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	230.4399	-6.9545	36.5646	203.9513	-10.7032	46.9163
55	203.9513	-10.7032	46.9163	166.2076	-14.4538	57.2670
56	166.2076	-14.4538	57.2670	117.2135	-18.2028	67.5974
57	117.2135	-18.2028	67.5974	56.9753	-21.9515	77.9435
58	56.9753	-21.9515	77.9435	47.4833	1.1658	-0.2779
59	47.4833	1.1658	-0.2779	50.9811	1.1658	-0.2706
60	50.9811	1.1658	-0.2706	56.2710	1.5322	2.8137
61	56.2710	1.5322	2.8137	52.6626	-1.2026	0.2490
62	52.6626	-1.2026	0.2490	49.0545	-1.2025	0.2607
63	49.0545	-1.2025	0.2607	56.2337	22.1184	-77.9159
64	56.2337	22.1184	-77.9159	116.9816	18.3692	-67.5588
65	116.9816	18.3692	-67.5588	166.4643	14.6185	-57.2333
66	166.4643	14.6185	-57.2333	204.7003	10.8689	-46.8902
67	204.7003	10.8689	-46.8902	231.7003	7.1230	-36.5095
68	231.7003	7.1230	-36.5095	247.4510	3.3723	-26.1755
69	247.4510	3.3723	-26.1755	251.9292	-0.3787	-15.8393
70	251.9292	-0.3787	-15.8393	245.9626	4.0854	5.5897
71	245.9626	4.0854	5.5897	252.5889	0.3330	15.9802
72	252.5889	0.3330	15.9802	247.9668	-3.4155	26.3174
73	247.9668	-3.4155	26.3174	232.0960	-7.1665	36.6508
74	232.0960	-7.1665	36.6508	204.9691	-10.9162	47.0319
75	204.9691	-10.9162	47.0319	166.5985	-14.6630	57.3969
76	166.5985	-14.6630	57.3969	116.9854	-18.4124	67.7345
77	116.9854	-18.4124	67.7345	56.1235	-22.1628	78.0697
78	56.1235	-22.1628	78.0697	47.4800	1.1641	-0.2664
79	47.4800	1.1641	-0.2664	50.9716	1.1639	-0.2599
80	50.9716	1.1639	-0.2599	54.4632	-1.4838	-2.9232
81	54.4632	-1.4838	-2.9232	50.3862	-1.1506	0.2408
82	50.3862	-1.1506	0.2408	46.9355	-1.1506	0.2476
83	46.9355	-1.1506	0.2476	56.2826	22.1195	-77.9769
84	56.2826	22.1195	-77.9769	117.0232	18.3700	-67.6329
85	117.0232	18.3700	-67.6329	166.5007	14.6199	-57.2789
86	166.5007	14.6199	-57.2789	204.7469	10.8693	-46.9174
87	204.7469	10.8693	-46.9174	231.7320	7.1173	-36.5308
88	231.7320	7.1173	-36.5308	247.4618	3.3642	-26.1940
89	247.4618	3.3642	-26.1940	251.9328	-0.3824	-15.8394
90	251.9328	-0.3824	-15.8394	245.1815	-4.1294	-5.4106
91	245.1815	-4.1294	-5.4106	251.7859	0.3961	15.9904
92	251.7859	0.3961	15.9904	247.3403	-3.3569	26.3256
93	247.3403	-3.3569	26.3256	231.6396	-7.1047	36.7006
94	231.6396	-7.1047	36.7006	204.7077	-10.8544	47.0686
95	204.7077	-10.8544	47.0686	166.4935	-14.6059	57.4302
96	166.4935	-14.6059	57.4302	117.0418	-18.3560	67.7980
97	117.0418	-18.3560	67.7980	56.3335	-22.1066	78.1490
98	56.3335	-22.1066	78.1490	29.7718	4.1446	5.4277
99	29.7718	4.1446	5.4277	42.2059	4.1445	5.4296
100	42.2059	4.1445	5.4296	54.6377	1.4887	2.8348
101	54.6377	1.4887	2.8348	51.1353	-1.1674	0.2356
102	51.1353	-1.1674	0.2356	47.6338	-1.1676	0.2352
103	47.6338	-1.1676	0.2352	56.3057	22.1148	-78.0116
104	56.3057	22.1148	-78.0116	117.0406	18.3640	-67.6628
105	117.0406	18.3640	-67.6628	166.5045	14.6125	-57.3273
106	166.5045	14.6125	-57.3273	204.7293	10.8645	-46.9442
107	204.7293	10.8645	-46.9442	231.7166	7.1160	-36.5478
108	231.7166	7.1160	-36.5478	247.4473	3.3653	-26.1774
109	247.4473	3.3653	-26.1774	251.9222	-0.3830	-15.8235
110	251.9222	-0.3830	-15.8235	245.2245	4.1288	5.5908

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
111	245.2245	4.1288	5.5908	251.9845	0.3788	15.9795
112	251.9845	0.3788	15.9795	247.4931	-3.3744	26.3158
113	247.4931	-3.3744	26.3158	231.7290	-7.1233	36.7190
114	231.7290	-7.1233	36.7190	204.7195	-10.8676	47.1063
115	204.7195	-10.8676	47.1063	166.4877	-14.6142	57.4769
116	166.4877	-14.6142	57.4769	117.0025	-18.3642	67.8456
117	117.0025	-18.3642	67.8456	56.2721	-22.1145	78.1806
118	56.2721	-22.1145	78.1806	29.6488	4.1271	5.3940
119	29.6488	4.1271	5.3940	42.0266	4.1271	5.4079
120	42.0266	4.1271	5.4079	54.4058	1.4826	2.8192
121	54.4058	1.4826	2.8192	50.9225	-1.1619	0.2197
122	50.9225	-1.1619	0.2197	47.4363	-1.1616	0.2309
123	47.4363	-1.1616	0.2309	43.9523	-1.1616	0.2439
124	43.9523	-1.1616	0.2439	40.4659	-1.1616	0.2535
125	40.4659	-1.1616	0.2535	45.4938	18.4189	-51.8551
126	45.4938	18.4189	-51.8551	105.5923	19.1340	-35.9302
127	105.5923	19.1340	-35.9302	157.3709	15.3827	-25.5508
128	157.3709	15.3827	-25.5508	197.8999	11.6342	-15.1662
129	197.8999	11.6342	-15.1662	227.1807	7.8838	-4.8035
130	227.1807	7.8838	-4.8035	245.1898	4.1321	5.5532
131	245.1898	4.1321	5.5532	251.9587	0.3776	15.9453
132	251.9587	0.3776	15.9453	247.4545	-3.3742	26.3742
133	247.4545	-3.3742	26.3742	231.7106	-7.1214	36.7970
134	231.7106	-7.1214	36.7970	204.7116	-10.8707	47.1680
135	204.7116	-10.8707	47.1680	166.4734	-14.6197	57.5182
136	166.4734	-14.6197	57.5182	116.9776	-18.3691	67.9007
137	116.9776	-18.3691	67.9007	56.2230	-22.1172	78.2673
138	56.2230	-22.1172	78.2673	29.6972	4.1339	5.3764
139	29.6972	4.1339	5.3764	42.0952	4.1340	5.3940
140	42.0952	4.1340	5.3940	54.4950	1.4847	2.7961
141	54.4950	1.4847	2.7961	51.0030	-1.1646	0.2013
142	51.0030	-1.1646	0.2013	47.5087	-1.1649	0.2244
143	47.5087	-1.1649	0.2244	44.0145	-1.1650	0.2311
144	44.0145	-1.1650	0.2311	40.5194	-1.1651	0.2462
145	40.5194	-1.1651	0.2462	45.4151	18.4172	-51.8741
146	45.4151	18.4172	-51.8741	105.5381	19.1339	-35.9919
147	105.5381	19.1339	-35.9919	157.3364	15.3850	-25.5971
148	157.3364	15.3850	-25.5971	197.8655	11.6336	-15.1977
149	197.8655	11.6336	-15.1977	227.1402	7.8848	-4.8323
150	227.1402	7.8848	-4.8323	245.1633	4.1339	5.5577
151	245.1633	4.1339	5.5577	251.9296	0.3809	15.9493
152	251.9296	0.3809	15.9493	247.4391	-3.3688	26.3756
153	247.4391	-3.3688	26.3756	231.7013	-7.1151	36.7995
154	231.7013	-7.1151	36.7995	204.7303	-10.8639	47.1632
155	204.7303	-10.8639	47.1632	166.4908	-14.6156	57.5447
156	166.4908	-14.6156	57.5447	116.9951	-18.3647	67.9391
157	116.9951	-18.3647	67.9391	56.2597	-22.1150	78.3190
158	56.2597	-22.1150	78.3190	29.6763	4.1328	5.3615
159	29.6763	4.1328	5.3615	42.0761	4.1330	5.3696
160	42.0761	4.1330	5.3696	54.4712	1.4849	2.7853
161	54.4712	1.4849	2.7853	50.9801	-1.1630	0.2018
162	50.9801	-1.1630	0.2018	47.4919	-1.1631	0.2131
163	47.4919	-1.1631	0.2131	44.0014	-1.1632	0.2298
164	44.0014	-1.1632	0.2298	40.5110	-1.1632	0.2400
165	40.5110	-1.1632	0.2400	42.4902	22.8851	-46.3419
166	42.4902	22.8851	-46.3419	105.5432	19.1353	-35.9913
167	105.5432	19.1353	-35.9913	157.3230	15.3871	-25.6567

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
168	157.3230	15.3871	-25.6567	197.8611	11.6347	-15.2486
169	197.8611	11.6347	-15.2486	227.1434	7.8806	-4.8161
170	227.1434	7.8806	-4.8161	245.1602	4.1315	5.6051
171	245.1602	4.1315	5.6051	251.9319	0.3854	16.0071
172	251.9319	0.3854	16.0071	247.4604	-3.3628	26.3620
173	247.4604	-3.3628	26.3620	231.7197	-7.1168	36.8085
174	231.7197	-7.1168	36.8085	204.7275	-10.8694	47.2102
175	204.7275	-10.8694	47.2102	166.4758	-14.6185	57.5784
176	166.4758	-14.6185	57.5784	116.9841	-18.3683	67.9735
177	116.9841	-18.3683	67.9735	56.2220	-22.1184	78.3253
178	56.2220	-22.1184	78.3253	29.6922	4.1353	5.3597
179	29.6922	4.1353	5.3597	42.0997	4.1350	5.3695
180	42.0997	4.1350	5.3695	54.5023	1.4851	2.7882
181	54.5023	1.4851	2.7882	51.0080	-1.1646	0.2023
182	51.0080	-1.1646	0.2023	47.5139	-1.1648	0.2200
183	47.5139	-1.1648	0.2200	44.0194	-1.1648	0.2376
184	44.0194	-1.1648	0.2376	40.5247	-1.1644	0.2433
185	40.5247	-1.1644	0.2433	42.4848	22.8846	-46.3582
186	42.4848	22.8846	-46.3582	105.5201	19.1341	-35.9815
187	105.5201	19.1341	-35.9815	157.3123	15.3871	-25.6061
188	157.3123	15.3871	-25.6061	197.8501	11.6376	-15.2427
189	197.8501	11.6376	-15.2427	227.1451	7.8853	-4.8273
190	227.1451	7.8853	-4.8273	245.1761	4.1363	5.5575
191	245.1761	4.1363	5.5575	251.9662	0.3874	15.9863
192	251.9662	0.3874	15.9863	247.4933	-3.3656	26.4146
193	247.4933	-3.3656	26.4146	231.7645	-7.1169	36.7687
194	231.7645	-7.1169	36.7687	204.7733	-10.8684	47.1859
195	204.7733	-10.8684	47.1859	166.5116	-14.6215	57.5957
196	166.5116	-14.6215	57.5957	117.0197	-18.3710	67.9613
197	117.0197	-18.3710	67.9613	56.2616	-22.1199	78.3279
198	56.2616	-22.1199	78.3279	29.6822	4.1355	5.3450
199	29.6822	4.1355	5.3450	42.0882	4.1354	5.3492
200	42.0882	4.1354	5.3492	54.4957	1.4854	2.7772
201	54.4957	1.4854	2.7772	51.0016	-1.1645	0.2093
202	51.0016	-1.1645	0.2093	47.5089	-1.1647	0.2142
203	47.5089	-1.1647	0.2142	44.0153	-1.1646	0.2270
204	44.0153	-1.1646	0.2270	40.5219	-1.1646	0.2431
205	40.5219	-1.1646	0.2431	42.4804	22.8855	-46.3548
206	42.4804	22.8855	-46.3548	105.5173	19.1366	-35.9953
207	105.5173	19.1366	-35.9953	157.3170	15.3882	-25.6458
208	157.3170	15.3882	-25.6458	197.8620	11.6362	-15.2386
209	197.8620	11.6362	-15.2386	227.1475	7.8825	-4.8330
210	227.1475	7.8825	-4.8330	245.1638	4.1309	5.5587
211	245.1638	4.1309	5.5587	251.9279	0.3850	15.9455
212	251.9279	0.3850	15.9455	247.4420	-3.3626	26.3713
213	247.4420	-3.3626	26.3713	231.7016	-7.1145	36.7997
214	231.7016	-7.1145	36.7997	204.7132	-10.8702	47.1809
215	204.7132	-10.8702	47.1809	166.4612	-14.6236	57.5646
216	166.4612	-14.6236	57.5646	116.9543	-18.3722	67.9438
217	116.9543	-18.3722	67.9438	56.1882	-22.1228	78.3221
218	56.1882	-22.1228	78.3221	29.7162	4.1368	5.3498
219	29.7162	4.1368	5.3498	42.1282	4.1371	5.3640
220	42.1282	4.1371	5.3640	54.5384	1.4855	2.7806
221	54.5384	1.4855	2.7806	51.0368	-1.1664	0.1950
222	51.0368	-1.1664	0.1950	47.5368	-1.1666	0.2088
223	47.5368	-1.1666	0.2088	44.0364	-1.1666	0.2257
224	44.0364	-1.1666	0.2257	40.5359	-1.1665	0.2395

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
225	40.5359	-1.1665	0.2395	42.4231	22.8624	-46.3442
226	42.4231	22.8624	-46.3442	105.4028	19.1118	-35.9966
227	105.4028	19.1118	-35.9966	157.1228	15.3607	-25.6272
228	157.1228	15.3607	-25.6272	197.5882	11.6097	-15.2405
229	197.5882	11.6097	-15.2405	226.7971	7.8587	-4.8408
230	226.7971	7.8587	-4.8408	244.7558	4.1076	5.5840
231	244.7558	4.1076	5.5840	251.4626	0.3593	15.9639
232	251.4626	0.3593	15.9639	246.9295	-3.3885	26.3701
233	246.9295	-3.3885	26.3701	231.1425	-7.1361	36.7937
234	231.1425	-7.1361	36.7937	204.1124	-10.8841	47.2062
235	204.1124	-10.8841	47.2062	165.8199	-14.6332	57.5886
236	165.8199	-14.6332	57.5886	116.2903	-18.3852	67.9487
237	116.2903	-18.3852	67.9487	55.4597	-22.1367	78.3306
238	55.4597	-22.1367	78.3306	29.9277	4.1400	5.3611
239	29.9277	4.1400	5.3611	42.3478	4.1402	5.3671
240	42.3478	4.1402	5.3671	54.7686	1.4776	2.7820
241	54.7686	1.4776	2.7820	51.2130	-1.1852	0.2015
242	51.2130	-1.1852	0.2015	47.6558	-1.1853	0.2156
243	47.6558	-1.1853	0.2156	44.1003	-1.1851	0.2298
244	44.1003	-1.1851	0.2298	40.5441	-1.1853	0.2455
245	40.5441	-1.1853	0.2455	42.0072	22.6213	-46.2747
246	42.0072	22.6213	-46.2747	104.2549	18.8726	-35.9059
247	104.2549	18.8726	-35.9059	155.2688	15.1229	-25.5392
248	155.2688	15.1229	-25.5392	195.0244	11.3750	-15.1856
249	195.0244	11.3750	-15.1856	223.5237	7.6269	-4.7526
250	223.5237	7.6269	-4.7526	240.7802	3.8723	5.6669
251	240.7802	3.8723	5.6669	246.7585	0.1222	16.0371
252	246.7585	0.1222	16.0371	241.5038	-3.6224	26.4599
253	241.5038	-3.6224	26.4599	224.9948	-7.3731	36.9014
254	224.9948	-7.3731	36.9014	197.2352	-11.1257	47.2890
255	197.2352	-11.1257	47.2890	158.2213	-14.8769	57.6436
256	158.2213	-14.8769	57.6436	107.9355	-18.6280	68.0241
257	107.9355	-18.6280	68.0241	46.4109	-22.3785	78.3841
258	46.4109	-22.3785	78.3841	32.6754	4.2070	5.3643
259	32.6754	4.2070	5.3643	45.2962	4.2070	5.3766
260	45.2962	4.2070	5.3766	57.9160	1.4610	2.8245
261	57.9160	1.4610	2.8245	55.0236	-1.2847	0.2730
262	55.0236	-1.2847	0.2730	52.1335	-1.2841	0.2828
263	52.1335	-1.2841	0.2828	49.2436	-1.2833	0.3016
264	49.2436	-1.2833	0.3016	46.3535	-1.2832	0.3078
265	46.3535	-1.2832	0.3078	43.4665	-1.2840	0.3207
266	43.4665	-1.2840	0.3207	40.5760	-1.2845	0.3295
267	40.5760	-1.2845	0.3295	53.2183	16.7424	-17.8937
268	53.2183	16.7424	-17.8937	87.1351	13.6129	-9.2473
269	87.1351	13.6129	-9.2473	114.4842	10.4842	-0.6181
270	114.4842	10.4842	-0.6181	135.5748	7.9834	6.2705
271	135.5748	7.9834	6.2705	150.4113	5.4811	13.2080
272	150.4113	5.4811	13.2080	158.9885	2.3532	21.8666
273	158.9885	2.3532	21.8666	161.0008	-0.7718	30.5088
274	161.0008	-0.7718	30.5088	156.7574	-3.2707	37.4298
275	156.7574	-3.2707	37.4298	146.2660	-5.7681	44.3356
276	146.2660	-5.7681	44.3356	129.5236	-8.8927	52.9891
277	129.5236	-8.8927	52.9891	106.2122	-12.0204	61.6253
278	106.2122	-12.0204	61.6253	76.6396	-14.5210	68.5396
279	76.6396	-14.5210	68.5396	40.8353	-17.0210	75.4487
280	40.8353	-17.0210	75.4487	0.0349	-18.2716	78.8897

ENVOL. MIN. FLECTORES TREN TREN SIN CARGA, EC-1 en via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.0274	22.9983	-77.1336	-10.2705	-4.5644	-7.1821
2	-10.2705	-4.5644	-7.1821	-20.5402	-4.5640	-7.1863
3	-20.5402	-4.5640	-7.1863	-30.8130	-4.5641	-7.1803
4	-30.8130	-4.5641	-7.1803	-41.0923	-4.5659	-7.1675
5	-41.0923	-4.5659	-7.1675	-51.3634	-4.5680	-7.1730
6	-51.3634	-4.5680	-7.1730	-61.6390	-4.5698	-7.1832
7	-61.6390	-4.5698	-7.1832	-71.9232	-4.5722	-7.1742
8	-71.9232	-4.5722	-7.1742	-82.2155	-4.5730	-7.1600
9	-82.2155	-4.5730	-7.1600	-92.5027	-4.5717	-7.1722
10	-92.5027	-4.5717	-7.1722	-102.7914	-4.5715	-7.1595
11	-102.7914	-4.5715	-7.1595	-113.0854	-4.5705	-7.1624
12	-113.0854	-4.5705	-7.1624	-123.3681	-4.5712	-7.1590
13	-123.3681	-4.5712	-7.1590	-133.6602	-4.5703	-7.1353
14	-133.6602	-4.5703	-7.1353	-143.9322	-4.5668	-7.1349
15	-143.9322	-4.5668	-7.1349	-154.2133	-4.5689	-7.1488
16	-154.2133	-4.5689	-7.1488	-164.4984	-4.5699	-7.1655
17	-164.4984	-4.5699	-7.1655	-194.4229	-29.2966	49.6171
18	-194.4229	-29.2966	49.6171	-262.8317	-31.7968	56.5794
19	-262.8317	-31.7968	56.5794	-337.4928	-34.2970	63.4549
20	-337.4928	-34.2970	63.4549	-418.4153	1.8620	-13.6875
21	-418.4153	1.8620	-13.6875	-300.6215	37.3960	-89.0173
22	-300.6215	37.3960	-89.0173	-194.0607	33.6459	-78.6574
23	-194.0607	33.6459	-78.6574	-125.1168	3.3063	3.9220
24	-125.1168	3.3063	3.9220	-115.1951	3.3068	3.9214
25	-115.1951	3.3068	3.9214	-105.2702	3.3069	3.9215
26	-105.2702	3.3069	3.9215	-95.3493	3.3063	3.9352
27	-95.3493	3.3063	3.9352	-85.4319	3.3080	3.9367
28	-85.4319	3.3080	3.9367	-75.5089	3.3085	3.9346
29	-75.5089	3.3085	3.9346	-65.5871	3.3081	3.9363
30	-65.5871	3.3081	3.9363	-68.2251	-4.2030	-5.6407
31	-68.2251	-4.2030	-5.6407	-80.8350	-4.2023	-5.6288
32	-80.8350	-4.2023	-5.6288	-93.4384	-4.2039	-5.6157
33	-93.4384	-4.2039	-5.6157	-106.0507	-4.2043	-5.6315
34	-106.0507	-4.2043	-5.6315	-118.6580	-4.2025	-5.6214
35	-118.6580	-4.2025	-5.6214	-131.2679	-4.2025	-5.6245
36	-131.2679	-4.2025	-5.6245	-143.8752	-4.2023	-5.6348
37	-143.8752	-4.2023	-5.6348	-156.4814	-4.2030	-5.6361
38	-156.4814	-4.2030	-5.6361	-235.8913	-31.7457	81.3410
39	-235.8913	-31.7457	81.3410	-336.7435	-35.4956	91.6614
40	-336.7435	-35.4956	91.6614	-448.8649	1.2736	2.0301
41	-448.8649	1.2736	2.0301	-329.1093	38.0425	-87.5048
42	-329.1093	38.0425	-87.5048	-228.7398	31.0898	-82.9708
43	-228.7398	31.0898	-82.9708	-161.4220	4.2693	5.3890
44	-161.4220	4.2693	5.3890	-148.6143	4.2697	5.4099
45	-148.6143	4.2697	5.4099	-135.8055	4.2703	5.4125
46	-135.8055	4.2703	5.4125	-122.9921	4.2694	5.3931
47	-122.9921	4.2694	5.3931	-110.1818	4.2682	5.3856
48	-110.1818	4.2682	5.3856	-97.3755	4.2681	5.3854
49	-97.3755	4.2681	5.3854	-84.5660	4.2671	5.3925
50	-84.5660	4.2671	5.3925	-71.7630	4.2657	5.3830
51	-71.7630	4.2657	5.3830	-81.7716	-4.1376	-5.6345
52	-81.7716	-4.1376	-5.6345	-94.1763	-4.1375	-5.6335
53	-94.1763	-4.1375	-5.6335	-106.5891	-4.1381	-5.6329
54	-106.5891	-4.1381	-5.6329	-118.9938	-4.1375	-5.6436

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	-118.9938	-4.1375	-5.6436	-131.4032	-4.1374	-5.6501
56	-131.4032	-4.1374	-5.6501	-143.8182	-4.1375	-5.6523
57	-143.8182	-4.1375	-5.6523	-156.2304	-4.1388	-5.6642
58	-156.2304	-4.1388	-5.6642	-230.6346	-31.0066	82.8927
59	-230.6346	-31.0066	82.8927	-329.2863	-34.7566	93.1797
60	-329.2863	-34.7566	93.1797	-440.9948	-1.4751	-2.8661
61	-440.9948	-1.4751	-2.8661	-330.6225	34.9079	-93.2627
62	-330.6225	34.9079	-93.2627	-231.4930	31.1579	-82.9949
63	-231.4930	31.1579	-82.9949	-154.4422	4.0849	5.5093
64	-154.4422	4.0849	5.5093	-142.1856	4.0859	5.4893
65	-142.1856	4.0859	5.4893	-129.9305	4.0843	5.4864
66	-129.9305	4.0843	5.4864	-117.6812	4.0833	5.4889
67	-117.6812	4.0833	5.4889	-105.4285	4.0829	5.4620
68	-105.4285	4.0829	5.4620	-93.1839	4.0835	5.4627
69	-93.1839	4.0835	5.4627	-80.9304	4.0843	5.4620
70	-80.9304	4.0843	5.4620	-69.4613	-4.1319	-5.6033
71	-69.4613	-4.1319	-5.6033	-81.8575	-4.1309	-5.6212
72	-81.8575	-4.1309	-5.6212	-94.2439	-4.1306	-5.6217
73	-94.2439	-4.1306	-5.6217	-106.6403	-4.1322	-5.6221
74	-106.6403	-4.1322	-5.6221	-119.0315	-4.1319	-5.6474
75	-119.0315	-4.1319	-5.6474	-131.4261	-4.1316	-5.6641
76	-131.4261	-4.1316	-5.6641	-143.8248	-4.1322	-5.6648
77	-143.8248	-4.1322	-5.6648	-156.2242	-4.1324	-5.6664
78	-156.2242	-4.1324	-5.6664	-232.1151	-31.2091	82.9632
79	-232.1151	-31.2091	82.9632	-331.3690	-34.9592	93.2731
80	-331.3690	-34.9592	93.2731	-441.8955	1.4676	2.9215
81	-441.8955	1.4676	2.9215	-330.9399	34.9146	-93.2817
82	-330.9399	34.9146	-93.2817	-231.8185	31.1646	-82.9804
83	-231.8185	31.1646	-82.9804	-156.7229	4.1434	5.5522
84	-156.7229	4.1434	5.5522	-144.2926	4.1441	5.5409
85	-144.2926	4.1441	5.5409	-131.8604	4.1443	5.5205
86	-131.8604	4.1443	5.5205	-119.4244	4.1442	5.5028
87	-119.4244	4.1442	5.5028	-106.9899	4.1436	5.4772
88	-106.9899	4.1436	5.4772	-94.5559	4.1434	5.4755
89	-94.5559	4.1434	5.4755	-82.1243	4.1454	5.4695
90	-82.1243	4.1454	5.4695	-69.6920	4.1451	5.4416
91	-69.6920	4.1451	5.4416	-81.8736	-4.1331	-5.6124
92	-81.8736	-4.1331	-5.6124	-94.2728	-4.1330	-5.6145
93	-94.2728	-4.1330	-5.6145	-106.6665	-4.1323	-5.6318
94	-106.6665	-4.1323	-5.6318	-119.0572	-4.1308	-5.6486
95	-119.0572	-4.1308	-5.6486	-131.4480	-4.1306	-5.6669
96	-131.4480	-4.1306	-5.6669	-143.8405	-4.1308	-5.6999
97	-143.8405	-4.1308	-5.6999	-156.2338	-4.1301	-5.7200
98	-156.2338	-4.1301	-5.7200	-231.7436	-31.1515	82.9921
99	-231.7436	-31.1515	82.9921	-330.8495	-34.9014	93.3136
100	-330.8495	-34.9014	93.3136	-441.3280	-1.4848	-2.8572
101	-441.3280	-1.4848	-2.8572	-330.9669	34.9135	-93.3208
102	-330.9669	34.9135	-93.3208	-231.8604	31.1635	-82.9721
103	-231.8604	31.1635	-82.9721	-156.1280	4.1298	5.5609
104	-156.1280	4.1298	5.5609	-143.7406	4.1302	5.5248
105	-143.7406	4.1302	5.5248	-131.3510	4.1287	5.5241
106	-131.3510	4.1287	5.5241	-118.9679	4.1286	5.4967
107	-118.9679	4.1286	5.4967	-106.5815	4.1294	5.4631
108	-106.5815	4.1294	5.4631	-94.1928	4.1301	5.4476
109	-94.1928	4.1301	5.4476	-81.8056	4.1307	5.4402
110	-81.8056	4.1307	5.4402	-69.4202	4.1293	5.4239
111	-69.4202	4.1293	5.4239	-57.0365	4.1287	5.4087

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	-57.0365	4.1287	5.4087	-44.6508	4.1290	5.4092
113	-44.6508	4.1290	5.4092	-32.2617	4.1277	5.4004
114	-32.2617	4.1277	5.4004	-19.8755	4.1274	5.3924
115	-19.8755	4.1274	5.3924	-7.4938	4.1273	5.3902
116	-7.4938	4.1273	5.3902	-67.4010	-23.6679	62.3934
117	-67.4010	-23.6679	62.3934	-144.0377	-27.4181	72.6971
118	-144.0377	-27.4181	72.6971	-231.9560	-31.1679	83.0044
119	-231.9560	-31.1679	83.0044	-331.0968	-34.9179	93.2301
120	-331.0968	-34.9179	93.2301	-441.4875	1.4848	2.8162
121	-441.4875	1.4848	2.8162	-331.0084	34.9157	-93.2847
122	-331.0084	34.9157	-93.2847	-231.8778	31.1658	-83.0115
123	-231.8778	31.1658	-83.0115	-156.3004	4.1290	5.5875
124	-156.3004	4.1290	5.5875	-143.9093	4.1302	5.5536
125	-143.9093	4.1302	5.5536	-131.5200	4.1299	5.5419
126	-131.5200	4.1299	5.5419	-119.1298	4.1314	5.5135
127	-119.1298	4.1314	5.5135	-106.7321	4.1319	5.4724
128	-106.7321	4.1319	5.4724	-94.3374	4.1313	5.4441
129	-94.3374	4.1313	5.4441	-81.9343	4.1330	5.4303
130	-81.9343	4.1330	5.4303	-69.5255	4.1333	5.4254
131	-69.5255	4.1333	5.4254	-57.1262	4.1342	5.4114
132	-57.1262	4.1342	5.4114	-44.7216	4.1349	5.3917
133	-44.7216	4.1349	5.3917	-32.3184	4.1349	5.3775
134	-32.3184	4.1349	5.3775	-19.9123	4.1361	5.3712
135	-19.9123	4.1361	5.3712	-7.5064	4.1355	5.3700
136	-7.5064	4.1355	5.3700	-67.4082	-23.6655	62.4047
137	-67.4082	-23.6655	62.4047	-144.0578	-27.4152	72.7205
138	-144.0578	-27.4152	72.7205	-231.9456	-31.1649	83.0351
139	-231.9456	-31.1649	83.0351	-331.0914	-34.9151	93.2278
140	-331.0914	-34.9151	93.2278	-441.4786	1.4835	2.8643
141	-441.4786	1.4835	2.8643	-322.1655	37.8822	-87.4950
142	-322.1655	37.8822	-87.4950	-214.0954	34.1319	-77.2967
143	-214.0954	34.1319	-77.2967	-156.2952	4.1356	5.6343
144	-156.2952	4.1356	5.6343	-143.8914	4.1346	5.5800
145	-143.8914	4.1346	5.5800	-131.4921	4.1328	5.5469
146	-131.4921	4.1328	5.5469	-119.0955	4.1321	5.5311
147	-119.0955	4.1321	5.5311	-106.7001	4.1343	5.4775
148	-106.7001	4.1343	5.4775	-94.3025	4.1351	5.4391
149	-94.3025	4.1351	5.4391	-81.9015	4.1335	5.4264
150	-81.9015	4.1335	5.4264	-69.5025	4.1332	5.4115
151	-69.5025	4.1332	5.4115	-57.1009	4.1338	5.3954
152	-57.1009	4.1338	5.3954	-44.7037	4.1338	5.3788
153	-44.7037	4.1338	5.3788	-32.3053	4.1336	5.3619
154	-32.3053	4.1336	5.3619	-19.9081	4.1336	5.3586
155	-19.9081	4.1336	5.3586	-7.5070	4.1334	5.3551
156	-7.5070	4.1334	5.3551	-67.4422	-23.6655	62.4373
157	-67.4422	-23.6655	62.4373	-144.0824	-27.4155	72.7482
158	-144.0824	-27.4155	72.7482	-231.9601	-31.1653	83.0502
159	-231.9601	-31.1653	83.0502	-331.1135	-34.9154	93.3231
160	-331.1135	-34.9154	93.3231	-441.5077	1.4862	2.8840
161	-441.5077	1.4862	2.8840	-322.2219	37.8883	-87.5550
162	-322.2219	37.8883	-87.5550	-214.1726	34.1378	-77.2787
163	-214.1726	34.1378	-77.2787	-156.3297	4.1312	5.6379
164	-156.3297	4.1312	5.6379	-143.9332	4.1314	5.6027
165	-143.9332	4.1314	5.6027	-131.5410	4.1314	5.5527
166	-131.5410	4.1314	5.5527	-119.1410	4.1323	5.5043
167	-119.1410	4.1323	5.5043	-106.7420	4.1347	5.5038
168	-106.7420	4.1347	5.5038	-94.3388	4.1360	5.4677

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	-94.3388	4.1360	5.4677	-81.9378	4.1356	5.4266
170	-81.9378	4.1356	5.4266	-69.5387	4.1356	5.3993
171	-69.5387	4.1356	5.3993	-57.1354	4.1349	5.3800
172	-57.1354	4.1349	5.3800	-44.7299	4.1356	5.3765
173	-44.7299	4.1356	5.3765	-32.3280	4.1360	5.3602
174	-32.3280	4.1360	5.3602	-19.9238	4.1354	5.3507
175	-19.9238	4.1354	5.3507	-7.5171	4.1353	5.3503
176	-7.5171	4.1353	5.3503	-67.4474	-23.6667	62.4533
177	-67.4474	-23.6667	62.4533	-144.1078	-27.4166	72.7590
178	-144.1078	-27.4166	72.7590	-231.9843	-31.1666	83.0237
179	-231.9843	-31.1666	83.0237	-331.1633	-34.9166	93.2842
180	-331.1633	-34.9166	93.2842	-441.5102	1.4839	2.8595
181	-441.5102	1.4839	2.8595	-322.2027	37.8842	-87.5338
182	-322.2027	37.8842	-87.5338	-214.1545	34.1338	-77.2773
183	-214.1545	34.1338	-77.2773	-156.3158	4.1350	5.6100
184	-156.3158	4.1350	5.6100	-143.9110	4.1349	5.5893
185	-143.9110	4.1349	5.5893	-131.5090	4.1345	5.5576
186	-131.5090	4.1345	5.5576	-119.1100	4.1335	5.5025
187	-119.1100	4.1335	5.5025	-106.7123	4.1333	5.4586
188	-106.7123	4.1333	5.4586	-94.3135	4.1328	5.4441
189	-94.3135	4.1328	5.4441	-81.9194	4.1313	5.4131
190	-81.9194	4.1313	5.4131	-69.5234	4.1315	5.3944
191	-69.5234	4.1315	5.3944	-57.1293	4.1326	5.3730
192	-57.1293	4.1326	5.3730	-44.7329	4.1344	5.3519
193	-44.7329	4.1344	5.3519	-32.3293	4.1361	5.3490
194	-32.3293	4.1361	5.3490	-19.9282	4.1362	5.3399
195	-19.9282	4.1362	5.3399	-7.5236	4.1351	5.3329
196	-7.5236	4.1351	5.3329	-67.4207	-23.6670	62.4511
197	-67.4207	-23.6670	62.4511	-144.0722	-27.4170	72.7436
198	-144.0722	-27.4170	72.7436	-231.9688	-31.1670	83.0138
199	-231.9688	-31.1670	83.0138	-331.1153	-34.9171	93.3152
200	-331.1153	-34.9171	93.3152	-441.5032	1.4836	2.8685
201	-441.5032	1.4836	2.8685	-322.2007	37.8847	-87.6044
202	-322.2007	37.8847	-87.6044	-214.1747	34.1346	-77.2975
203	-214.1747	34.1346	-77.2975	-156.3386	4.1349	5.6444
204	-156.3386	4.1349	5.6444	-143.9377	4.1344	5.5880
205	-143.9377	4.1344	5.5880	-131.5368	4.1335	5.5470
206	-131.5368	4.1335	5.5470	-119.1426	4.1315	5.4998
207	-119.1426	4.1315	5.4998	-106.7475	4.1314	5.4830
208	-106.7475	4.1314	5.4830	-94.3528	4.1329	5.4488
209	-94.3528	4.1329	5.4488	-81.9516	4.1347	5.4151
210	-81.9516	4.1347	5.4151	-69.5439	4.1363	5.3998
211	-69.5439	4.1363	5.3998	-57.1353	4.1364	5.3841
212	-57.1353	4.1364	5.3841	-44.7306	4.1356	5.3685
213	-44.7306	4.1356	5.3685	-32.3248	4.1362	5.3512
214	-32.3248	4.1362	5.3512	-19.9168	4.1372	5.3464
215	-19.9168	4.1372	5.3464	-7.5093	4.1370	5.3415
216	-7.5093	4.1370	5.3415	-67.1990	-23.6605	62.4371
217	-67.1990	-23.6605	62.4371	-143.8267	-27.4102	72.7474
218	-143.8267	-27.4102	72.7474	-231.6940	-31.1602	83.0493
219	-231.6940	-31.1602	83.0493	-330.8507	-34.9102	93.2738
220	-330.8507	-34.9102	93.2738	-441.2225	1.4760	2.8554
221	-441.2225	1.4760	2.8554	-322.0106	37.8619	-87.5329
222	-322.0106	37.8619	-87.5329	-214.0302	34.1117	-77.2730
223	-214.0302	34.1117	-77.2730	-156.3772	4.1414	5.6515
224	-156.3772	4.1414	5.6515	-143.9504	4.1417	5.6019
225	-143.9504	4.1417	5.6019	-131.5342	4.1410	5.5521

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-131.5342	4.1410	5.5521	-119.1108	4.1410	5.5140
227	-119.1108	4.1410	5.5140	-106.6841	4.1406	5.4908
228	-106.6841	4.1406	5.4908	-94.2618	4.1411	5.4591
229	-94.2618	4.1411	5.4591	-81.8427	4.1431	5.4327
230	-81.8427	4.1431	5.4327	-69.4109	4.1435	5.4040
231	-69.4109	4.1435	5.4040	-56.9920	4.1416	5.3925
232	-56.9920	4.1416	5.3925	-44.5755	4.1391	5.3793
233	-44.5755	4.1391	5.3793	-32.1609	4.1384	5.3639
234	-32.1609	4.1384	5.3639	-19.7452	4.1389	5.3548
235	-19.7452	4.1389	5.3548	-7.3270	4.1391	5.3500
236	-7.3270	4.1391	5.3500	-64.8481	-23.5901	62.4575
237	-64.8481	-23.5901	62.4575	-141.2878	-27.3405	72.7421
238	-141.2878	-27.3405	72.7421	-228.9523	-31.0903	83.0442
239	-228.9523	-31.0903	83.0442	-327.8638	-34.8403	93.3333
240	-327.8638	-34.8403	93.3333	-438.0359	1.3911	2.9482
241	-438.0359	1.3911	2.9482	-319.5588	37.6227	-87.4561
242	-319.5588	37.6227	-87.4561	-212.2628	33.8731	-77.2030
243	-212.2628	33.8731	-77.2030	-156.6131	4.2085	5.6441
244	-156.6131	4.2085	5.6441	-143.9920	4.2086	5.5865
245	-143.9920	4.2086	5.5865	-131.3660	4.2088	5.5550
246	-131.3660	4.2088	5.5550	-118.7451	4.2085	5.5084
247	-118.7451	4.2085	5.5084	-106.1259	4.2085	5.4728
248	-106.1259	4.2085	5.4728	-93.5021	4.2080	5.4654
249	-93.5021	4.2080	5.4654	-80.8882	4.2058	5.4279
250	-80.8882	4.2058	5.4279	-68.2755	4.2055	5.3981
251	-68.2755	4.2055	5.3981	-55.6556	4.2062	5.3898
252	-55.6556	4.2062	5.3898	-43.0359	4.2049	5.3732
253	-43.0359	4.2049	5.3732	-30.4231	4.2050	5.3563
254	-30.4231	4.2050	5.3563	-17.8050	4.2066	5.3492
255	-17.8050	4.2066	5.3492	-5.1869	4.2076	5.3493
256	-5.1869	4.2076	5.3493	-7.2273	-21.9354	63.8573
257	-7.2273	-21.9354	63.8573	-78.6728	-25.6859	74.1900
258	-78.6728	-25.6859	74.1900	-161.3842	-29.4355	84.4648
259	-161.3842	-29.4355	84.4648	-255.3517	-33.1849	94.7394
260	-255.3517	-33.1849	94.7394	-360.5317	-0.4084	16.9608
261	-360.5317	-0.4084	16.9608	-282.5529	32.9929	-62.5440
262	-282.5529	32.9929	-62.5440	-210.8208	30.4928	-55.6960
263	-210.8208	30.4928	-55.6960	-174.9069	4.5628	7.1364
264	-174.9069	4.5628	7.1364	-164.6432	4.5619	7.1147
265	-164.6432	4.5619	7.1147	-154.3853	4.5641	7.0684
266	-154.3853	4.5641	7.0684	-144.1210	4.5652	7.0361
267	-144.1210	4.5652	7.0361	-133.8555	4.5657	7.0206
268	-133.8555	4.5657	7.0206	-123.5876	4.5668	6.9541
269	-123.5876	4.5668	6.9541	-113.3067	4.5692	6.9320
270	-113.3067	4.5692	6.9320	-103.0167	4.5725	6.9337
271	-103.0167	4.5725	6.9337	-92.7243	4.5749	6.9037
272	-92.7243	4.5749	6.9037	-82.4284	4.5753	6.8758
273	-82.4284	4.5753	6.8758	-72.1301	4.5773	6.8628
274	-72.1301	4.5773	6.8628	-61.8215	4.5792	6.8488
275	-61.8215	4.5792	6.8488	-51.5166	4.5778	6.8422
276	-51.5166	4.5778	6.8422	-41.2185	4.5788	6.8287
277	-41.2185	4.5788	6.8287	-30.9113	4.5808	6.8207
278	-30.9113	4.5808	6.8207	-20.6045	4.5802	6.8140
279	-20.6045	4.5802	6.8140	-10.3036	4.5795	6.8091
280	-10.3036	4.5795	6.8091	-0.0004	-1.2894	0.3936

ENVOL. MAX. CORTANTES TREN TREN SIN CARGA, EC-1 en via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.0269	24.0483	-74.4400	52.2067	21.5480	-67.5495
2	52.2067	21.5480	-67.5495	98.1995	19.0475	-60.6415
3	98.1995	19.0475	-60.6415	137.9345	16.5467	-53.7740
4	137.9345	16.5467	-53.7740	171.4083	13.4241	-45.2188
5	171.4083	13.4241	-45.2188	198.3376	10.3036	-36.5817
6	198.3376	10.3036	-36.5817	219.0299	7.8071	-29.6539
7	219.0299	7.8071	-29.6539	233.4708	5.3108	-22.7910
8	233.4708	5.3108	-22.7910	50.5846	2.8123	-35.4893
9	50.5846	2.8123	-35.4893	32.6148	1.6116	-31.6840
10	32.6148	1.6116	-31.6840	28.9471	1.2876	-0.3665
11	28.9471	1.2876	-0.3665	31.8460	1.2875	-0.3651
12	31.8460	1.2875	-0.3651	34.7425	1.2871	-0.3666
13	34.7425	1.2871	-0.3666	37.6391	1.2871	-0.3727
14	37.6391	1.2871	-0.3727	40.5332	1.2867	-0.3733
15	40.5332	1.2867	-0.3733	43.4281	1.2867	-0.3693
16	43.4281	1.2867	-0.3693	46.3250	1.2866	-0.3648
17	46.3250	1.2866	-0.3648	49.2193	1.2864	-0.3738
18	49.2193	1.2864	-0.3738	52.1150	1.2865	-0.3892
19	52.1150	1.2865	-0.3892	55.0101	1.2869	-0.3889
20	55.0101	1.2869	-0.3889	-205.6154	14.2193	-57.1471
21	-205.6154	14.2193	-57.1471	-300.6215	37.3960	-89.0173
22	-300.6215	37.3960	-89.0173	-194.0607	33.6459	-78.6574
23	-194.0607	33.6459	-78.6574	-98.7435	29.8957	-68.3229
24	-98.7435	29.8957	-68.3229	-14.6772	26.1453	-57.9876
25	-14.6772	26.1453	-57.9876	58.1368	22.3960	-47.6527
26	58.1368	22.3960	-47.6527	119.6972	18.6478	-37.3360
27	119.6972	18.6478	-37.3360	170.0098	14.8982	-26.9944
28	170.0098	14.8982	-26.9944	209.0779	11.1462	-16.6642
29	209.0779	11.1462	-16.6642	236.8802	7.3929	-6.3249
30	236.8802	7.3929	-6.3249	93.1286	4.1038	-32.5292
31	93.1286	4.1038	-32.5292	-45.7329	3.3089	3.9341
32	-45.7329	3.3089	3.9341	-35.8063	3.3091	3.9406
33	-35.8063	3.3091	3.9406	-25.8827	3.3085	3.9369
34	-25.8827	3.3085	3.9369	-15.9566	3.3088	3.9363
35	-15.9566	3.3088	3.9363	-6.0269	3.3087	3.9385
36	-6.0269	3.3087	3.9385	3.8998	3.3087	3.9364
37	3.8998	3.3087	3.9364	13.8252	3.3091	3.9377
38	13.8252	3.3091	3.9377	23.7537	3.3090	3.9366
39	23.7537	3.3090	3.9366	33.6791	3.3089	3.9377
40	33.6791	3.3089	3.9377	-194.2936	14.2806	-56.4144
41	-194.2936	14.2806	-56.4144	-329.1093	38.0425	-87.5048
42	-329.1093	38.0425	-87.5048	-220.6201	34.2924	-77.1540
43	-220.6201	34.2924	-77.1540	-123.3499	30.5424	-66.8508
44	-123.3499	30.5424	-66.8508	-37.3500	26.7929	-56.5108
45	-37.3500	26.7929	-56.5108	37.3899	23.0434	-46.1651
46	37.3899	23.0434	-46.1651	100.9007	19.2931	-35.8265
47	100.9007	19.2931	-35.8265	153.1531	15.5430	-25.4783
48	153.1531	15.5430	-25.4783	194.1440	11.7934	-15.1475
49	194.1440	11.7934	-15.1475	223.9026	8.0438	-4.8261
50	223.9026	8.0438	-4.8261	242.4138	4.2952	5.5427
51	242.4138	4.2952	5.5427	-58.9602	4.2668	5.3749
52	-58.9602	4.2668	5.3749	-46.1567	4.2687	5.3764
53	-46.1567	4.2687	5.3764	-33.3452	4.2687	5.3758

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	-33.3452	4.2687	5.3758	-20.5438	4.2676	5.3755
55	-20.5438	4.2676	5.3755	-7.7403	4.2678	5.3727
56	-7.7403	4.2678	5.3727	5.0674	4.2680	5.3731
57	5.0674	4.2680	5.3731	17.8688	4.2675	5.3736
58	17.8688	4.2675	5.3736	30.6696	4.2675	5.3737
59	30.6696	4.2675	5.3737	43.4690	4.2673	5.3799
60	43.4690	4.2673	5.3799	-193.4810	14.3025	-56.4390
61	-193.4810	14.3025	-56.4390	-320.0346	37.8354	-87.4152
62	-320.0346	37.8354	-87.4152	-212.1229	34.0848	-77.1442
63	-212.1229	34.0848	-77.1442	-115.5117	30.3353	-66.8174
64	-115.5117	30.3353	-66.8174	-30.1120	26.5849	-56.4793
65	-30.1120	26.5849	-56.4793	44.0181	22.8344	-46.1610
66	44.0181	22.8344	-46.1610	106.9088	19.0884	-35.8120
67	106.9088	19.0884	-35.8120	158.5577	15.3399	-25.4516
68	158.5577	15.3399	-25.4516	198.9463	11.5882	-15.1168
69	198.9463	11.5882	-15.1168	228.0784	7.8383	-4.7833
70	228.0784	7.8383	-4.7833	245.9626	4.0854	5.5897
71	245.9626	4.0854	5.5897	-56.4240	4.0849	5.4360
72	-56.4240	4.0849	5.4360	-44.1734	4.0838	5.4358
73	-44.1734	4.0838	5.4358	-31.9174	4.0841	5.4368
74	-31.9174	4.0841	5.4368	-19.6666	4.0844	5.4316
75	-19.6666	4.0844	5.4316	-7.4153	4.0840	5.4293
76	-7.4153	4.0840	5.4293	4.8366	4.0831	5.4292
77	4.8366	4.0831	5.4292	17.0870	4.0833	5.4284
78	17.0870	4.0833	5.4284	29.3372	4.0837	5.4346
79	29.3372	4.0837	5.4346	41.5869	4.0838	5.4379
80	41.5869	4.0838	5.4379	-193.4139	14.3048	-56.4830
81	-193.4139	14.3048	-56.4830	-322.6115	37.8946	-87.4576
82	-322.6115	37.8946	-87.4576	-214.5524	34.1449	-77.1539
83	-214.5524	34.1449	-77.1539	-117.7240	30.3950	-66.8499
84	-117.7240	30.3950	-66.8499	-32.1536	26.6448	-56.5184
85	-32.1536	26.6448	-56.5184	42.1425	22.8967	-46.1842
86	42.1425	22.8967	-46.1842	105.2276	19.1458	-35.8385
87	105.2276	19.1458	-35.8385	157.0358	15.3942	-25.4694
88	157.0358	15.3942	-25.4694	197.5973	11.6476	-15.1443
89	197.5973	11.6476	-15.1443	226.9106	7.8985	-4.7862
90	226.9106	7.8985	-4.7862	244.9700	4.1480	5.6384
91	244.9700	4.1480	5.6384	-57.2644	4.1435	5.4359
92	-57.2644	4.1435	5.4359	-44.8276	4.1439	5.4356
93	-44.8276	4.1439	5.4356	-32.3951	4.1446	5.4290
94	-32.3951	4.1446	5.4290	-19.9659	4.1458	5.4251
95	-19.9659	4.1458	5.4251	-7.5272	4.1457	5.4224
96	-7.5272	4.1457	5.4224	4.9033	4.1451	5.4226
97	4.9033	4.1451	5.4226	17.3370	4.1452	5.4233
98	17.3370	4.1452	5.4233	29.7718	4.1446	5.4277
99	29.7718	4.1446	5.4277	42.2059	4.1445	5.4296
100	42.2059	4.1445	5.4296	-193.4027	14.3051	-56.5387
101	-193.4027	14.3051	-56.5387	-321.8928	37.8774	-87.5153
102	-321.8928	37.8774	-87.5153	-213.8947	34.1272	-77.1649
103	-213.8947	34.1272	-77.1649	-117.1023	30.3776	-66.8867
104	-117.1023	30.3776	-66.8867	-31.5829	26.6254	-56.5780
105	-31.5829	26.6254	-56.5780	42.6636	22.8755	-46.2421
106	42.6636	22.8755	-46.2421	105.6769	19.1283	-35.8845
107	105.6769	19.1283	-35.8845	157.4423	15.3771	-25.5137
108	157.4423	15.3771	-25.5137	197.9622	11.6244	-15.1499
109	197.9622	11.6244	-15.1499	227.2162	7.8751	-4.7987
110	227.2162	7.8751	-4.7987	-69.4202	4.1293	5.4239

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
111	-69.4202	4.1293	5.4239	-57.0365	4.1287	5.4087
112	-57.0365	4.1287	5.4087	-44.6508	4.1290	5.4092
113	-44.6508	4.1290	5.4092	-32.2617	4.1277	5.4004
114	-32.2617	4.1277	5.4004	-19.8755	4.1274	5.3924
115	-19.8755	4.1274	5.3924	-7.4938	4.1273	5.3902
116	-7.4938	4.1273	5.3902	4.8868	4.1266	5.3871
117	4.8868	4.1266	5.3871	17.2658	4.1269	5.3909
118	17.2658	4.1269	5.3909	29.6488	4.1271	5.3940
119	29.6488	4.1271	5.3940	42.0266	4.1271	5.4079
120	42.0266	4.1271	5.4079	-441.4875	1.4848	2.8162
121	-441.4875	1.4848	2.8162	-322.1625	37.8876	-87.5026
122	-322.1625	37.8876	-87.5026	-214.1180	34.1381	-77.2258
123	-214.1180	34.1381	-77.2258	-117.3021	30.3886	-66.9392
124	-117.3021	30.3886	-66.9392	-31.7274	26.6387	-56.6242
125	-31.7274	26.6387	-56.6242	42.5629	22.8869	-46.2905
126	42.5629	22.8869	-46.2905	105.5923	19.1340	-35.9302
127	105.5923	19.1340	-35.9302	157.3709	15.3827	-25.5508
128	157.3709	15.3827	-25.5508	197.8999	11.6342	-15.1662
129	197.8999	11.6342	-15.1662	227.1807	7.8838	-4.8035
130	227.1807	7.8838	-4.8035	-69.5255	4.1333	5.4254
131	-69.5255	4.1333	5.4254	-57.1262	4.1342	5.4114
132	-57.1262	4.1342	5.4114	-44.7216	4.1349	5.3917
133	-44.7216	4.1349	5.3917	-32.3184	4.1349	5.3775
134	-32.3184	4.1349	5.3775	-19.9123	4.1361	5.3712
135	-19.9123	4.1361	5.3712	-7.5064	4.1355	5.3700
136	-7.5064	4.1355	5.3700	4.8920	4.1346	5.3710
137	4.8920	4.1346	5.3710	17.2945	4.1341	5.3733
138	17.2945	4.1341	5.3733	29.6972	4.1339	5.3764
139	29.6972	4.1339	5.3764	42.0952	4.1340	5.3940
140	42.0952	4.1340	5.3940	54.4950	1.4847	2.7961
141	54.4950	1.4847	2.7961	-322.1655	37.8822	-87.4950
142	-322.1655	37.8822	-87.4950	-214.0954	34.1319	-77.2967
143	-214.0954	34.1319	-77.2967	-117.3375	30.3825	-66.9877
144	-117.3375	30.3825	-66.9877	-31.7712	26.6319	-56.6708
145	-31.7712	26.6319	-56.6708	42.5006	22.8811	-46.3477
146	42.5006	22.8811	-46.3477	105.5381	19.1339	-35.9919
147	105.5381	19.1339	-35.9919	157.3364	15.3850	-25.5971
148	157.3364	15.3850	-25.5971	197.8655	11.6336	-15.1977
149	197.8655	11.6336	-15.1977	227.1402	7.8848	-4.8323
150	227.1402	7.8848	-4.8323	245.1633	4.1339	5.5577
151	245.1633	4.1339	5.5577	-57.1009	4.1338	5.3954
152	-57.1009	4.1338	5.3954	-44.7037	4.1338	5.3788
153	-44.7037	4.1338	5.3788	-32.3053	4.1336	5.3619
154	-32.3053	4.1336	5.3619	-19.9081	4.1336	5.3586
155	-19.9081	4.1336	5.3586	-7.5070	4.1334	5.3551
156	-7.5070	4.1334	5.3551	4.8865	4.1332	5.3560
157	4.8865	4.1332	5.3560	17.2806	4.1328	5.3575
158	17.2806	4.1328	5.3575	29.6763	4.1328	5.3615
159	29.6763	4.1328	5.3615	42.0761	4.1330	5.3696
160	42.0761	4.1330	5.3696	-441.5077	1.4862	2.8840
161	-441.5077	1.4862	2.8840	-322.2219	37.8883	-87.5550
162	-322.2219	37.8883	-87.5550	-214.1726	34.1378	-77.2787
163	-214.1726	34.1378	-77.2787	-117.3526	30.3872	-67.0007
164	-117.3526	30.3872	-67.0007	-31.8042	26.6364	-56.6919
165	-31.8042	26.6364	-56.6919	42.4902	22.8851	-46.3419
166	42.4902	22.8851	-46.3419	105.5432	19.1353	-35.9913
167	105.5432	19.1353	-35.9913	157.3230	15.3871	-25.6567

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
168	157.3230	15.3871	-25.6567	197.8611	11.6347	-15.2486
169	197.8611	11.6347	-15.2486	227.1434	7.8806	-4.8161
170	227.1434	7.8806	-4.8161	-69.5387	4.1356	5.3993
171	-69.5387	4.1356	5.3993	-57.1354	4.1349	5.3800
172	-57.1354	4.1349	5.3800	-44.7299	4.1356	5.3765
173	-44.7299	4.1356	5.3765	-32.3280	4.1360	5.3602
174	-32.3280	4.1360	5.3602	-19.9238	4.1354	5.3507
175	-19.9238	4.1354	5.3507	-7.5171	4.1353	5.3503
176	-7.5171	4.1353	5.3503	4.8847	4.1356	5.3479
177	4.8847	4.1356	5.3479	17.2932	4.1356	5.3512
178	17.2932	4.1356	5.3512	29.6922	4.1353	5.3597
179	29.6922	4.1353	5.3597	42.0997	4.1350	5.3695
180	42.0997	4.1350	5.3695	54.5023	1.4851	2.7882
181	54.5023	1.4851	2.7882	-322.2027	37.8842	-87.5338
182	-322.2027	37.8842	-87.5338	-214.1545	34.1338	-77.2773
183	-214.1545	34.1338	-77.2773	-117.3510	30.3834	-67.0227
184	-117.3510	30.3834	-67.0227	-31.8190	26.6351	-56.6922
185	-31.8190	26.6351	-56.6922	42.4848	22.8846	-46.3582
186	42.4848	22.8846	-46.3582	105.5201	19.1341	-35.9815
187	105.5201	19.1341	-35.9815	157.3123	15.3871	-25.6061
188	157.3123	15.3871	-25.6061	197.8501	11.6376	-15.2427
189	197.8501	11.6376	-15.2427	227.1451	7.8853	-4.8273
190	227.1451	7.8853	-4.8273	245.1761	4.1363	5.5575
191	245.1761	4.1363	5.5575	-57.1293	4.1326	5.3730
192	-57.1293	4.1326	5.3730	-44.7329	4.1344	5.3519
193	-44.7329	4.1344	5.3519	-32.3293	4.1361	5.3490
194	-32.3293	4.1361	5.3490	-19.9282	4.1362	5.3399
195	-19.9282	4.1362	5.3399	-7.5236	4.1351	5.3329
196	-7.5236	4.1351	5.3329	4.8772	4.1347	5.3324
197	4.8772	4.1347	5.3324	17.2796	4.1352	5.3372
198	17.2796	4.1352	5.3372	29.6822	4.1355	5.3450
199	29.6822	4.1355	5.3450	42.0882	4.1354	5.3492
200	42.0882	4.1354	5.3492	54.4957	1.4854	2.7772
201	54.4957	1.4854	2.7772	-322.2007	37.8847	-87.6044
202	-322.2007	37.8847	-87.6044	-214.1747	34.1346	-77.2975
203	-214.1747	34.1346	-77.2975	-117.3869	30.3844	-66.9958
204	-117.3869	30.3844	-66.9958	-31.8153	26.6360	-56.6980
205	-31.8153	26.6360	-56.6980	42.4804	22.8855	-46.3548
206	42.4804	22.8855	-46.3548	105.5173	19.1366	-35.9953
207	105.5173	19.1366	-35.9953	157.3170	15.3882	-25.6458
208	157.3170	15.3882	-25.6458	197.8620	11.6362	-15.2386
209	197.8620	11.6362	-15.2386	227.1475	7.8825	-4.8330
210	227.1475	7.8825	-4.8330	-69.5439	4.1363	5.3998
211	-69.5439	4.1363	5.3998	-57.1353	4.1364	5.3841
212	-57.1353	4.1364	5.3841	-44.7306	4.1356	5.3685
213	-44.7306	4.1356	5.3685	-32.3248	4.1362	5.3512
214	-32.3248	4.1362	5.3512	-19.9168	4.1372	5.3464
215	-19.9168	4.1372	5.3464	-7.5093	4.1370	5.3415
216	-7.5093	4.1370	5.3415	4.8966	4.1371	5.3435
217	4.8966	4.1371	5.3435	17.3057	4.1371	5.3452
218	17.3057	4.1371	5.3452	29.7162	4.1368	5.3498
219	29.7162	4.1368	5.3498	42.1282	4.1371	5.3640
220	42.1282	4.1371	5.3640	54.5384	1.4855	2.7806
221	54.5384	1.4855	2.7806	-322.0106	37.8619	-87.5329
222	-322.0106	37.8619	-87.5329	-214.0302	34.1117	-77.2730
223	-214.0302	34.1117	-77.2730	-117.2757	30.3617	-66.9939
224	-117.2757	30.3617	-66.9939	-31.7942	26.6125	-56.6895

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
225	-31.7942	26.6125	-56.6895	42.4231	22.8624	-46.3442
226	42.4231	22.8624	-46.3442	105.4028	19.1118	-35.9966
227	105.4028	19.1118	-35.9966	157.1228	15.3607	-25.6272
228	157.1228	15.3607	-25.6272	197.5882	11.6097	-15.2405
229	197.5882	11.6097	-15.2405	226.7971	7.8587	-4.8408
230	226.7971	7.8587	-4.8408	-69.4109	4.1435	5.4040
231	-69.4109	4.1435	5.4040	-56.9920	4.1416	5.3925
232	-56.9920	4.1416	5.3925	-44.5755	4.1391	5.3793
233	-44.5755	4.1391	5.3793	-32.1609	4.1384	5.3639
234	-32.1609	4.1384	5.3639	-19.7452	4.1389	5.3548
235	-19.7452	4.1389	5.3548	-7.3270	4.1391	5.3500
236	-7.3270	4.1391	5.3500	5.0877	4.1399	5.3521
237	5.0877	4.1399	5.3521	17.5082	4.1403	5.3569
238	17.5082	4.1403	5.3569	29.9277	4.1400	5.3611
239	29.9277	4.1400	5.3611	42.3478	4.1402	5.3671
240	42.3478	4.1402	5.3671	54.7686	1.4776	2.7820
241	54.7686	1.4776	2.7820	-319.5588	37.6227	-87.4561
242	-319.5588	37.6227	-87.4561	-212.2628	33.8731	-77.2030
243	-212.2628	33.8731	-77.2030	-116.2460	30.1222	-66.9122
244	-116.2460	30.1222	-66.9122	-31.4951	26.3709	-56.6085
245	-31.4951	26.3709	-56.6085	42.0072	22.6213	-46.2747
246	42.0072	22.6213	-46.2747	104.2549	18.8726	-35.9059
247	104.2549	18.8726	-35.9059	155.2688	15.1229	-25.5392
248	155.2688	15.1229	-25.5392	195.0244	11.3750	-15.1856
249	195.0244	11.3750	-15.1856	223.5237	7.6269	-4.7526
250	223.5237	7.6269	-4.7526	-68.2755	4.2055	5.3981
251	-68.2755	4.2055	5.3981	-55.6556	4.2062	5.3898
252	-55.6556	4.2062	5.3898	-43.0359	4.2049	5.3732
253	-43.0359	4.2049	5.3732	-30.4231	4.2050	5.3563
254	-30.4231	4.2050	5.3563	-17.8050	4.2066	5.3492
255	-17.8050	4.2066	5.3492	-5.1869	4.2076	5.3493
256	-5.1869	4.2076	5.3493	7.4359	4.2079	5.3499
257	7.4359	4.2079	5.3499	20.0565	4.2071	5.3521
258	20.0565	4.2071	5.3521	32.6754	4.2070	5.3643
259	32.6754	4.2070	5.3643	45.2962	4.2070	5.3766
260	45.2962	4.2070	5.3766	57.9160	1.4610	2.8245
261	57.9160	1.4610	2.8245	-282.5529	32.9929	-62.5440
262	-282.5529	32.9929	-62.5440	-210.8208	30.4928	-55.6960
263	-210.8208	30.4928	-55.6960	-145.3123	27.9925	-48.8716
264	-145.3123	27.9925	-48.8716	-86.0539	24.8675	-40.2802
265	-86.0539	24.8675	-40.2802	-33.3893	21.7422	-31.6736
266	-33.3893	21.7422	-31.6736	13.0480	19.2430	-24.7975
267	13.0480	19.2430	-24.7975	53.2183	16.7424	-17.8937
268	53.2183	16.7424	-17.8937	87.1351	13.6129	-9.2473
269	87.1351	13.6129	-9.2473	114.4842	10.4842	-0.6181
270	114.4842	10.4842	-0.6181	135.5748	7.9834	6.2705
271	135.5748	7.9834	6.2705	150.4113	5.4811	13.2080
272	150.4113	5.4811	13.2080	-82.4284	4.5753	6.8758
273	-82.4284	4.5753	6.8758	-72.1301	4.5773	6.8628
274	-72.1301	4.5773	6.8628	-61.8215	4.5792	6.8488
275	-61.8215	4.5792	6.8488	-51.5166	4.5778	6.8422
276	-51.5166	4.5778	6.8422	-41.2185	4.5788	6.8287
277	-41.2185	4.5788	6.8287	-30.9113	4.5808	6.8207
278	-30.9113	4.5808	6.8207	-20.6045	4.5802	6.8140
279	-20.6045	4.5802	6.8140	-10.3036	4.5795	6.8091
280	-10.3036	4.5795	6.8091	0.0043	4.5797	6.8103

ENVOL. MIN. CORTANTES TREN TREN SIN CARGA, EC-1 en via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0004	-4.5646	-7.1822	-10.2705	-4.5644	-7.1821
2	-10.2705	-4.5644	-7.1821	-20.5402	-4.5640	-7.1863
3	-20.5402	-4.5640	-7.1863	-30.8130	-4.5641	-7.1803
4	-30.8130	-4.5641	-7.1803	-41.0923	-4.5659	-7.1675
5	-41.0923	-4.5659	-7.1675	-51.3634	-4.5680	-7.1730
6	-51.3634	-4.5680	-7.1730	-61.6390	-4.5698	-7.1832
7	-61.6390	-4.5698	-7.1832	-71.9232	-4.5722	-7.1742
8	-71.9232	-4.5722	-7.1742	108.8845	-5.1948	14.1052
9	108.8845	-5.1948	14.1052	118.2146	-7.1187	18.9282
10	118.2146	-7.1187	18.9282	106.9868	-9.2955	-5.5117
11	106.9868	-9.2955	-5.5117	82.9454	-11.7952	1.3712
12	82.9454	-11.7952	1.3712	52.6585	-14.9205	9.9928
13	52.6585	-14.9205	9.9928	15.8023	-18.0459	18.5909
14	15.8023	-18.0459	18.5909	-27.2907	-20.5464	25.4855
15	-27.2907	-20.5464	25.4855	-76.6551	-23.0465	32.3635
16	-76.6551	-23.0465	32.3635	-132.2814	-26.1717	40.9723
17	-132.2814	-26.1717	40.9723	-194.4229	-29.2966	49.6171
18	-194.4229	-29.2966	49.6171	-262.8317	-31.7968	56.5794
19	-262.8317	-31.7968	56.5794	-337.4928	-34.2970	63.4549
20	-337.4928	-34.2970	63.4549	-154.8882	-13.8165	40.4576
21	-154.8882	-13.8165	40.4576	45.2940	-4.2043	-5.6301
22	45.2940	-4.2043	-5.6301	32.6800	-4.2049	-5.6337
23	32.6800	-4.2049	-5.6337	20.0652	-4.2051	-5.6336
24	20.0652	-4.2051	-5.6336	7.4524	-4.2050	-5.6334
25	7.4524	-4.2050	-5.6334	-5.1617	-4.2050	-5.6334
26	-5.1617	-4.2050	-5.6334	-17.7768	-4.2045	-5.6309
27	-17.7768	-4.2045	-5.6309	-30.3904	-4.2045	-5.6326
28	-30.3904	-4.2045	-5.6326	-43.0057	-4.2042	-5.6314
29	-43.0057	-4.2042	-5.6314	-55.6157	-4.2031	-5.6334
30	-55.6157	-4.2031	-5.6334	92.0842	-4.6645	30.9333
31	92.0842	-4.6645	30.9333	223.6287	-7.6200	4.7793
32	223.6287	-7.6200	4.7793	195.1424	-11.3690	15.0803
33	195.1424	-11.3690	15.0803	155.4097	-15.1183	25.4396
34	155.4097	-15.1183	25.4396	104.4246	-18.8696	35.7738
35	104.4246	-18.8696	35.7738	42.1748	-22.6200	46.0953
36	42.1748	-22.6200	46.0953	-31.3187	-26.3706	56.4444
37	-31.3187	-26.3706	56.4444	-116.0497	-30.1213	66.7680
38	-116.0497	-30.1213	66.7680	-212.0446	-33.8710	77.1170
39	-212.0446	-33.8710	77.1170	-319.2707	-37.6208	87.4363
40	-319.2707	-37.6208	87.4363	-199.8483	-14.4825	55.4961
41	-199.8483	-14.4825	55.4961	42.3091	-4.1357	-5.6214
42	42.3091	-4.1357	-5.6214	29.9034	-4.1357	-5.6231
43	29.9034	-4.1357	-5.6231	17.4952	-4.1360	-5.6189
44	17.4952	-4.1360	-5.6189	5.0856	-4.1358	-5.6195
45	5.0856	-4.1358	-5.6195	-7.3193	-4.1351	-5.6212
46	-7.3193	-4.1351	-5.6212	-19.7239	-4.1354	-5.6219
47	-19.7239	-4.1354	-5.6219	-32.1317	-4.1353	-5.6246
48	-32.1317	-4.1353	-5.6246	-44.5308	-4.1356	-5.6235
49	-44.5308	-4.1356	-5.6235	-56.9427	-4.1371	-5.6197
50	-56.9427	-4.1371	-5.6197	-69.3532	-4.1384	-5.6291
51	-69.3532	-4.1384	-5.6291	226.8589	-7.8626	4.8906
52	226.8589	-7.8626	4.8906	197.6558	-11.6117	15.2204
53	197.6558	-11.6117	15.2204	157.1920	-15.3611	25.5567
54	157.1920	-15.3611	25.5567	105.4866	-19.1129	35.8975

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	105.4866	-19.1129	35.8975	42.5314	-22.8611	46.2439
56	42.5314	-22.8611	46.2439	-31.6887	-26.6082	56.5725
57	-31.6887	-26.6082	56.5725	-117.1386	-30.3584	66.9061
58	-117.1386	-30.3584	66.9061	-213.8343	-34.1083	77.2413
59	-213.8343	-34.1083	77.2413	-321.7872	-37.8579	87.5295
60	-321.7872	-37.8579	87.5295	-191.2227	-14.2459	56.3869
61	-191.2227	-14.2459	56.3869	42.0862	-4.1310	-5.5991
62	42.0862	-4.1310	-5.5991	29.6931	-4.1312	-5.5905
63	29.6931	-4.1312	-5.5905	17.3015	-4.1311	-5.5894
64	17.3015	-4.1311	-5.5894	4.9089	-4.1308	-5.5896
65	4.9089	-4.1308	-5.5896	-7.4847	-4.1319	-5.5868
66	-7.4847	-4.1319	-5.5868	-19.8829	-4.1321	-5.5894
67	-19.8829	-4.1321	-5.5894	-32.2770	-4.1326	-5.5937
68	-32.2770	-4.1326	-5.5937	-44.6758	-4.1322	-5.5941
69	-44.6758	-4.1322	-5.5941	-57.0684	-4.1311	-5.5952
70	-57.0684	-4.1311	-5.5952	-69.4613	-4.1319	-5.6033
71	-69.4613	-4.1319	-5.6033	227.1552	-7.8809	4.9234
72	227.1552	-7.8809	4.9234	197.8829	-11.6304	15.2572
73	197.8829	-11.6304	15.2572	157.3629	-15.3794	25.5911
74	157.3629	-15.3794	25.5911	105.5916	-19.1297	35.9537
75	105.5916	-19.1297	35.9537	42.5746	-22.8801	46.3037
76	42.5746	-22.8801	46.3037	-31.6947	-26.6292	56.6395
77	-31.6947	-26.6292	56.6395	-117.2027	-30.3783	66.9750
78	-117.2027	-30.3783	66.9750	-213.9854	-34.1293	77.2626
79	-213.9854	-34.1293	77.2626	-321.9986	-37.8793	87.5755
80	-321.9986	-37.8793	87.5755	-194.0138	-14.3214	56.4808
81	-194.0138	-14.3214	56.4808	42.0695	-4.1314	-5.5823
82	42.0695	-4.1314	-5.5823	29.6768	-4.1316	-5.5779
83	29.6768	-4.1316	-5.5779	17.2806	-4.1315	-5.5736
84	17.2806	-4.1315	-5.5736	4.8856	-4.1314	-5.5731
85	4.8856	-4.1314	-5.5731	-7.5056	-4.1321	-5.5726
86	-7.5056	-4.1321	-5.5726	-19.9042	-4.1314	-5.5751
87	-19.9042	-4.1314	-5.5751	-32.2943	-4.1315	-5.5813
88	-32.2943	-4.1315	-5.5813	-44.6909	-4.1325	-5.5795
89	-44.6909	-4.1325	-5.5795	-57.0840	-4.1326	-5.5860
90	-57.0840	-4.1326	-5.5860	-69.4769	-4.1332	-5.6106
91	-69.4769	-4.1332	-5.6106	227.1631	-7.8805	4.9402
92	227.1631	-7.8805	4.9402	197.8884	-11.6318	15.2743
93	197.8884	-11.6318	15.2743	157.3572	-15.3834	25.6391
94	157.3572	-15.3834	25.6391	105.5993	-19.1337	35.9965
95	105.5993	-19.1337	35.9965	42.5569	-22.8838	46.3410
96	42.5569	-22.8838	46.3410	-31.7178	-26.6329	56.6749
97	-31.7178	-26.6329	56.6749	-117.2528	-30.3834	67.0056
98	-117.2528	-30.3834	67.0056	-214.0424	-34.1328	77.3089
99	-214.0424	-34.1328	77.3089	-322.0889	-37.8824	87.6323
100	-322.0889	-37.8824	87.6323	-193.2665	-14.3013	56.5163
101	-193.2665	-14.3013	56.5163	51.1353	-1.1674	0.2356
102	51.1353	-1.1674	0.2356	47.6338	-1.1676	0.2352
103	47.6338	-1.1676	0.2352	44.1303	-1.1676	0.2521
104	44.1303	-1.1676	0.2521	40.6275	-1.1680	0.2623
105	40.6275	-1.1680	0.2623	37.1231	-1.1679	0.2624
106	37.1231	-1.1679	0.2624	33.6208	-1.1673	0.2700
107	33.6208	-1.1673	0.2700	30.1191	-1.1675	0.2796
108	30.1191	-1.1675	0.2796	26.6149	-1.1675	0.2839
109	26.6149	-1.1675	0.2839	67.0296	-2.2427	27.4853
110	67.0296	-2.2427	27.4853	245.1440	-4.1323	-5.4303
111	245.1440	-4.1323	-5.4303	227.1238	-7.8840	4.9587

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	227.1238	-7.8840	4.9587	197.8440	-11.6365	15.2934
113	197.8440	-11.6365	15.2934	157.3017	-15.3868	25.6740
114	157.3017	-15.3868	25.6740	105.5044	-19.1343	36.0474
115	105.5044	-19.1343	36.0474	42.4865	-22.8804	46.3895
116	42.4865	-22.8804	46.3895	-31.7889	-26.6285	56.7416
117	-31.7889	-26.6285	56.7416	-117.3085	-30.3797	67.0497
118	-117.3085	-30.3797	67.0497	-214.1166	-34.1301	77.3642
119	-214.1166	-34.1301	77.3642	-322.1409	-37.8800	87.5917
120	-322.1409	-37.8800	87.5917	-193.4729	-14.3054	56.5507
121	-193.4729	-14.3054	56.5507	50.9225	-1.1619	0.2197
122	50.9225	-1.1619	0.2197	47.4363	-1.1616	0.2309
123	47.4363	-1.1616	0.2309	43.9523	-1.1616	0.2439
124	43.9523	-1.1616	0.2439	40.4659	-1.1616	0.2535
125	40.4659	-1.1616	0.2535	36.9810	-1.1614	0.2569
126	36.9810	-1.1614	0.2569	33.4949	-1.1619	0.2645
127	33.4949	-1.1619	0.2645	30.0078	-1.1629	0.2767
128	30.0078	-1.1629	0.2767	26.5184	-1.1634	0.2849
129	26.5184	-1.1634	0.2849	66.9433	-2.2380	27.4911
130	66.9433	-2.2380	27.4911	81.5751	-4.0388	32.5013
131	81.5751	-4.0388	32.5013	115.4809	-6.0628	38.0079
132	115.4809	-6.0628	38.0079	126.6126	-8.6665	21.0278
133	126.6126	-8.6665	21.0278	94.9845	-12.4159	31.4048
134	94.9845	-12.4159	31.4048	52.1036	-16.1667	41.7545
135	52.1036	-16.1667	41.7545	-2.0299	-19.9162	52.0897
136	-2.0299	-19.9162	52.0897	-67.4082	-23.6655	62.4047
137	-67.4082	-23.6655	62.4047	-144.0578	-27.4152	72.7205
138	-144.0578	-27.4152	72.7205	-231.9456	-31.1649	83.0351
139	-231.9456	-31.1649	83.0351	-331.0914	-34.9151	93.2278
140	-331.0914	-34.9151	93.2278	-193.5142	-14.3045	56.6406
141	-193.5142	-14.3045	56.6406	51.0030	-1.1646	0.2013
142	51.0030	-1.1646	0.2013	47.5087	-1.1649	0.2244
143	47.5087	-1.1649	0.2244	44.0145	-1.1650	0.2311
144	44.0145	-1.1650	0.2311	40.5194	-1.1651	0.2462
145	40.5194	-1.1651	0.2462	37.0257	-1.1651	0.2560
146	37.0257	-1.1651	0.2560	33.5326	-1.1645	0.2605
147	33.5326	-1.1645	0.2605	30.0396	-1.1642	0.2751
148	30.0396	-1.1642	0.2751	26.5471	-1.1643	0.2858
149	26.5471	-1.1643	0.2858	66.9409	-2.2370	27.4852
150	66.9409	-2.2370	27.4852	81.5676	-4.0393	32.5067
151	81.5676	-4.0393	32.5067	115.4685	-6.0638	38.0179
152	115.4685	-6.0638	38.0179	126.5983	-8.6664	21.0604
153	126.5983	-8.6664	21.0604	94.9681	-12.4160	31.4422
154	94.9681	-12.4160	31.4422	52.0898	-16.1656	41.7847
155	52.0898	-16.1656	41.7847	-2.0514	-19.9155	52.1277
156	-2.0514	-19.9155	52.1277	-67.4422	-23.6655	62.4373
157	-67.4422	-23.6655	62.4373	-144.0824	-27.4155	72.7482
158	-144.0824	-27.4155	72.7482	-231.9601	-31.1653	83.0502
159	-231.9601	-31.1653	83.0502	-331.1135	-34.9154	93.3231
160	-331.1135	-34.9154	93.3231	-193.4727	-14.3055	56.6664
161	-193.4727	-14.3055	56.6664	50.9801	-1.1630	0.2018
162	50.9801	-1.1630	0.2018	47.4919	-1.1631	0.2131
163	47.4919	-1.1631	0.2131	44.0014	-1.1632	0.2298
164	44.0014	-1.1632	0.2298	40.5110	-1.1632	0.2400
165	40.5110	-1.1632	0.2400	37.0202	-1.1637	0.2538
166	37.0202	-1.1637	0.2538	33.5283	-1.1638	0.2674
167	33.5283	-1.1638	0.2674	30.0375	-1.1640	0.2671
168	30.0375	-1.1640	0.2671	26.5445	-1.1647	0.2775

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	26.5445	-1.1647	0.2775	66.9223	-2.2365	27.4836
170	66.9223	-2.2365	27.4836	81.5526	-4.0375	32.5177
171	81.5526	-4.0375	32.5177	115.4586	-6.0620	38.0427
172	115.4586	-6.0620	38.0427	126.5936	-8.6654	21.0457
173	126.5936	-8.6654	21.0457	94.9615	-12.4161	31.4278
174	94.9615	-12.4161	31.4278	52.0824	-16.1669	41.7934
175	52.0824	-16.1669	41.7934	-2.0661	-19.9170	52.1230
176	-2.0661	-19.9170	52.1230	-67.4474	-23.6667	62.4533
177	-67.4474	-23.6667	62.4533	-144.1078	-27.4166	72.7590
178	-144.1078	-27.4166	72.7590	-231.9843	-31.1666	83.0237
179	-231.9843	-31.1666	83.0237	-331.1633	-34.9166	93.2842
180	-331.1633	-34.9166	93.2842	-193.5236	-14.3038	56.6629
181	-193.5236	-14.3038	56.6629	51.0080	-1.1646	0.2023
182	51.0080	-1.1646	0.2023	47.5139	-1.1648	0.2200
183	47.5139	-1.1648	0.2200	44.0194	-1.1648	0.2376
184	44.0194	-1.1648	0.2376	40.5247	-1.1644	0.2433
185	40.5247	-1.1644	0.2433	37.0311	-1.1644	0.2523
186	37.0311	-1.1644	0.2523	33.5364	-1.1646	0.2678
187	33.5364	-1.1646	0.2678	30.0429	-1.1644	0.2803
188	30.0429	-1.1644	0.2803	26.5504	-1.1640	0.2843
189	26.5504	-1.1640	0.2843	66.9328	-2.2364	27.4753
190	66.9328	-2.2364	27.4753	81.5652	-4.0368	32.4995
191	81.5652	-4.0368	32.4995	115.4746	-6.0610	38.0244
192	115.4746	-6.0610	38.0244	126.6161	-8.6663	21.0742
193	126.6161	-8.6663	21.0742	94.9908	-12.4168	31.4175
194	94.9908	-12.4168	31.4175	52.1077	-16.1667	41.7756
195	52.1077	-16.1667	41.7756	-2.0398	-19.9165	52.1259
196	-2.0398	-19.9165	52.1259	-67.4207	-23.6670	62.4511
197	-67.4207	-23.6670	62.4511	-144.0722	-27.4170	72.7436
198	-144.0722	-27.4170	72.7436	-231.9688	-31.1670	83.0138
199	-231.9688	-31.1670	83.0138	-331.1153	-34.9171	93.3152
200	-331.1153	-34.9171	93.3152	-193.5262	-14.3054	56.6712
201	-193.5262	-14.3054	56.6712	51.0016	-1.1645	0.2093
202	51.0016	-1.1645	0.2093	47.5089	-1.1647	0.2142
203	47.5089	-1.1647	0.2142	44.0153	-1.1646	0.2270
204	44.0153	-1.1646	0.2270	40.5219	-1.1646	0.2431
205	40.5219	-1.1646	0.2431	37.0283	-1.1643	0.2546
206	37.0283	-1.1643	0.2546	33.5366	-1.1638	0.2682
207	33.5366	-1.1638	0.2682	30.0454	-1.1638	0.2725
208	30.0454	-1.1638	0.2725	26.5541	-1.1640	0.2821
209	26.5541	-1.1640	0.2821	66.9233	-2.2371	27.4797
210	66.9233	-2.2371	27.4797	81.5564	-4.0365	32.5003
211	81.5564	-4.0365	32.5003	115.4637	-6.0617	38.0129
212	115.4637	-6.0617	38.0129	126.7583	-8.6588	21.0498
213	126.7583	-8.6588	21.0498	95.1473	-12.4084	31.4328
214	95.1473	-12.4084	31.4328	52.2846	-16.1581	41.7786
215	52.2846	-16.1581	41.7786	-1.8241	-19.9096	52.1259
216	-1.8241	-19.9096	52.1259	-67.1990	-23.6605	62.4371
217	-67.1990	-23.6605	62.4371	-143.8267	-27.4102	72.7474
218	-143.8267	-27.4102	72.7474	-231.6940	-31.1602	83.0493
219	-231.6940	-31.1602	83.0493	-330.8507	-34.9102	93.2738
220	-330.8507	-34.9102	93.2738	-193.6400	-14.3036	56.6702
221	-193.6400	-14.3036	56.6702	51.0368	-1.1664	0.1950
222	51.0368	-1.1664	0.1950	47.5368	-1.1666	0.2088
223	47.5368	-1.1666	0.2088	44.0364	-1.1666	0.2257
224	44.0364	-1.1666	0.2257	40.5359	-1.1665	0.2395
225	40.5359	-1.1665	0.2395	37.0374	-1.1668	0.2537

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	37.0374	-1.1668	0.2537	33.5368	-1.1674	0.2649
227	33.5368	-1.1674	0.2649	30.0347	-1.1669	0.2714
228	30.0347	-1.1669	0.2714	26.5352	-1.1664	0.2800
229	26.5352	-1.1664	0.2800	66.8725	-2.2397	27.4814
230	66.8725	-2.2397	27.4814	81.4606	-4.0419	32.5152
231	81.4606	-4.0419	32.5152	115.2983	-6.0679	38.0258
232	115.2983	-6.0679	38.0258	128.2674	-8.5902	21.0521
233	128.2674	-8.5902	21.0521	96.8637	-12.3388	31.4311
234	96.8637	-12.3388	31.4311	54.2102	-16.0889	41.7907
235	54.2102	-16.0889	41.7907	0.2969	-19.8393	52.1407
236	0.2969	-19.8393	52.1407	-64.8481	-23.5901	62.4575
237	-64.8481	-23.5901	62.4575	-141.2878	-27.3405	72.7421
238	-141.2878	-27.3405	72.7421	-228.9523	-31.0903	83.0442
239	-228.9523	-31.0903	83.0442	-327.8638	-34.8403	93.3333
240	-327.8638	-34.8403	93.3333	-194.4637	-14.2775	56.6895
241	-194.4637	-14.2775	56.6895	51.2130	-1.1852	0.2015
242	51.2130	-1.1852	0.2015	47.6558	-1.1853	0.2156
243	47.6558	-1.1853	0.2156	44.1003	-1.1851	0.2298
244	44.1003	-1.1851	0.2298	40.5441	-1.1853	0.2455
245	40.5441	-1.1853	0.2455	36.9866	-1.1855	0.2546
246	36.9866	-1.1855	0.2546	33.4311	-1.1849	0.2675
247	33.4311	-1.1849	0.2675	29.8760	-1.1848	0.2775
248	29.8760	-1.1848	0.2775	26.3192	-1.1846	0.2796
249	26.3192	-1.1846	0.2796	66.4184	-2.2740	27.4982
250	66.4184	-2.2740	27.4982	80.6622	-4.0904	32.5365
251	80.6622	-4.0904	32.5365	113.7299	-6.1485	38.0455
252	113.7299	-6.1485	38.0455	115.1149	-8.2656	43.7420
253	115.1149	-8.2656	43.7420	130.7130	-10.9147	50.5909
254	130.7130	-10.9147	50.5909	101.9102	-14.4358	43.1763
255	101.9102	-14.4358	43.1763	52.9796	-18.1848	53.5166
256	52.9796	-18.1848	53.5166	-7.2273	-21.9354	63.8573
257	-7.2273	-21.9354	63.8573	-78.6728	-25.6859	74.1900
258	-78.6728	-25.6859	74.1900	-161.3842	-29.4355	84.4648
259	-161.3842	-29.4355	84.4648	-255.3517	-33.1849	94.7394
260	-255.3517	-33.1849	94.7394	-205.6993	-14.2192	57.4440
261	-205.6993	-14.2192	57.4440	55.0236	-1.2847	0.2730
262	55.0236	-1.2847	0.2730	52.1335	-1.2841	0.2828
263	52.1335	-1.2841	0.2828	49.2436	-1.2833	0.3016
264	49.2436	-1.2833	0.3016	46.3535	-1.2832	0.3078
265	46.3535	-1.2832	0.3078	43.4665	-1.2840	0.3207
266	43.4665	-1.2840	0.3207	40.5760	-1.2845	0.3295
267	40.5760	-1.2845	0.3295	37.6870	-1.2848	0.3338
268	37.6870	-1.2848	0.3338	34.7957	-1.2854	0.3521
269	34.7957	-1.2854	0.3521	31.9015	-1.2871	0.3591
270	31.9015	-1.2871	0.3591	29.0034	-1.2882	0.3591
271	29.0034	-1.2882	0.3591	26.1064	-1.2885	0.3675
272	26.1064	-1.2885	0.3675	62.2244	-2.8271	35.7495
273	62.2244	-2.8271	35.7495	76.3282	-4.8411	41.6945
274	76.3282	-4.8411	41.6945	85.9136	-6.3590	46.1959
275	85.9136	-6.3590	46.1959	90.1487	-8.0057	50.9595
276	90.1487	-8.0057	50.9595	104.1557	-9.8282	56.1483
277	104.1557	-9.8282	56.1483	91.9754	-12.5058	63.4610
278	91.9754	-12.5058	63.4610	71.1665	-14.6958	69.3220
279	71.1665	-14.6958	69.3220	40.8353	-17.0210	75.4487
280	40.8353	-17.0210	75.4487	0.0349	-18.2716	78.8897

ENVOL. MAX. TORSORES TREN TREN SIN CARGA, EC-1 en via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.0012	-0.0002	0.2239	3.5113	-0.1045	0.8753
2	3.5113	-0.1045	0.8753	10.9317	-0.3470	1.8004
3	10.9317	-0.3470	1.8004	21.3337	-0.7275	2.9952
4	21.3337	-0.7275	2.9952	33.7915	-1.2443	4.4489
5	33.7915	-1.2443	4.4489	47.3987	-1.8961	6.1864
6	47.3987	-1.8961	6.1864	61.2615	-2.6810	8.2043
7	61.2615	-2.6810	8.2043	74.5117	-3.5988	10.4773
8	74.5117	-3.5988	10.4773	108.8845	-5.1948	14.1052
9	108.8845	-5.1948	14.1052	118.2146	-7.1187	18.9282
10	118.2146	-7.1187	18.9282	123.9725	-8.5386	22.2794
11	123.9725	-8.5386	22.2794	125.4230	-10.0774	25.9057
12	125.4230	-10.0774	25.9057	121.8767	-11.7318	29.8163
13	121.8767	-11.7318	29.8163	130.8631	-14.1131	34.9576
14	130.8631	-14.1131	34.9576	113.3693	-16.0812	39.6726
15	113.3693	-16.0812	39.6726	88.7850	-18.1432	44.6595
16	88.7850	-18.1432	44.6595	56.6710	-20.9235	51.6552
17	56.6710	-20.9235	51.6552	16.3865	-23.7859	58.9014
18	16.3865	-23.7859	58.9014	-32.1358	-26.0994	64.7061
19	-32.1358	-26.0994	64.7061	-89.1422	-28.4871	70.7467
20	-89.1422	-28.4871	70.7467	-154.8882	-13.8165	40.4576
21	-154.8882	-13.8165	40.4576	-144.3626	3.2934	4.2850
22	-144.3626	3.2934	4.2850	-126.5249	3.0977	5.6022
23	-126.5249	3.0977	5.6022	-109.9771	2.9071	6.5396
24	-109.9771	2.9071	6.5396	-80.3221	2.3112	9.0539
25	-80.3221	2.3112	9.0539	-43.7371	2.0255	10.6992
26	-43.7371	2.0255	10.6992	-22.0764	0.8164	14.4292
27	-22.0764	0.8164	14.4292	19.7330	0.0000	17.3500
28	19.7330	0.0000	17.3500	39.2065	-1.4874	21.7145
29	39.2065	-1.4874	21.7145	79.6734	-2.8812	25.9141
30	79.6734	-2.8812	25.9141	92.0842	-4.6645	30.9333
31	92.0842	-4.6645	30.9333	123.6701	-6.6570	36.4025
32	123.6701	-6.6570	36.4025	123.8015	-8.7404	42.0251
33	123.8015	-8.7404	42.0251	138.7060	-11.3270	48.7990
34	138.7060	-11.3270	48.7990	121.3889	-13.7025	55.0812
35	121.3889	-13.7025	55.0812	112.2710	-16.8550	63.1081
36	112.2710	-16.8550	63.1081	86.4982	-19.7310	70.2990
37	86.4982	-19.7310	70.2990	33.5083	-23.1670	79.3631
38	33.5083	-23.1670	79.3631	-25.1026	-26.5062	87.8176
39	-25.1026	-26.5062	87.8176	-105.7460	-30.1530	97.4830
40	-105.7460	-30.1530	97.4830	-199.8483	-14.4825	55.4961
41	-199.8483	-14.4825	55.4961	-186.4045	4.2547	5.7928
42	-186.4045	4.2547	5.7928	-165.2846	4.0501	7.1075
43	-165.2846	4.0501	7.1075	-145.5609	3.8489	8.0236
44	-145.5609	3.8489	8.0236	-112.2854	3.2315	10.5597
45	-112.2854	3.2315	10.5597	-72.0424	2.9172	12.2055
46	-72.0424	2.9172	12.2055	-47.2617	1.6918	15.9233
47	-47.2617	1.6918	15.9233	-1.9879	0.8425	18.8491
48	-1.9879	0.8425	18.8491	20.3871	-0.6622	23.2169
49	20.3871	-0.6622	23.2169	63.9729	-2.0884	27.4173
50	63.9729	-2.0884	27.4173	79.0245	-3.8870	32.4334
51	79.0245	-3.8870	32.4334	113.3359	-5.9093	37.9311
52	113.3359	-5.9093	37.9311	115.8605	-8.0070	43.5784
53	115.8605	-8.0070	43.5784	133.1459	-10.6175	50.3470

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	133.1459	-10.6175	50.3470	117.9990	-13.0019	56.6395
55	117.9990	-13.0019	56.6395	111.0138	-16.1723	64.7009
56	111.0138	-16.1723	64.7009	87.2619	-19.0613	71.8736
57	87.2619	-19.0613	71.8736	36.2502	-22.5008	80.9585
58	36.2502	-22.5008	80.9585	-20.4018	-25.8461	89.4070
59	-20.4018	-25.8461	89.4070	-99.0941	-29.4952	99.0719
60	-99.0941	-29.4952	99.0719	-191.2227	-14.2459	56.3869
61	-191.2227	-14.2459	56.3869	-178.3179	4.0707	5.9294
62	-178.3179	4.0707	5.9294	-157.7193	3.8649	7.2016
63	-157.7193	3.8649	7.2016	-138.5246	3.6636	8.1395
64	-138.5246	3.6636	8.1395	-105.7493	3.0436	10.6384
65	-105.7493	3.0436	10.6384	-65.9968	2.7263	12.2804
66	-65.9968	2.7263	12.2804	-41.7553	1.5002	16.0061
67	-41.7553	1.5002	16.0061	3.0097	0.6483	18.9226
68	3.0097	0.6483	18.9226	24.8356	-0.8569	23.2880
69	24.8356	-0.8569	23.2880	67.8938	-2.2856	27.4887
70	67.8938	-2.2856	27.4887	82.3761	-4.0862	32.5036
71	82.3761	-4.0862	32.5036	116.1241	-6.1097	38.0147
72	116.1241	-6.1097	38.0147	118.0518	-8.2085	43.6664
73	118.0518	-8.2085	43.6664	134.7556	-10.8214	50.4307
74	134.7556	-10.8214	50.4307	118.9934	-13.2085	56.7488
75	118.9934	-13.2085	56.7488	111.3903	-16.3797	64.8222
76	111.3903	-16.3797	64.8222	87.0290	-19.2689	72.0061
77	87.0290	-19.2689	72.0061	35.3973	-22.7098	81.0836
78	35.3973	-22.7098	81.0836	-21.9115	-26.0573	89.5298
79	-21.9115	-26.0573	89.5298	-101.2375	-29.7064	99.2133
80	-101.2375	-29.7064	99.2133	-194.0138	-14.3214	56.4808
81	-194.0138	-14.3214	56.4808	-180.9550	4.1306	5.9808
82	-180.9550	4.1306	5.9808	-160.1789	3.9247	7.2650
83	-160.1789	3.9247	7.2650	-140.8082	3.7221	8.1787
84	-140.8082	3.7221	8.1787	-107.8486	3.1030	10.6782
85	-107.8486	3.1030	10.6782	-67.9133	2.7863	12.3017
86	-67.9133	2.7863	12.3017	-43.4871	1.5608	16.0149
87	-43.4871	1.5608	16.0149	1.4648	0.7082	18.9288
88	1.4648	0.7082	18.9288	23.4740	-0.7973	23.2926
89	23.4740	-0.7973	23.2926	66.7126	-2.2260	27.4934
90	66.7126	-2.2260	27.4934	81.3692	-4.0257	32.5275
91	81.3692	-4.0257	32.5275	115.3136	-6.0504	38.0295
92	115.3136	-6.0504	38.0295	117.4158	-8.1462	43.6741
93	117.4158	-8.1462	43.6741	134.2924	-10.7622	50.4692
94	134.2924	-10.7622	50.4692	118.7218	-13.1490	56.7799
95	118.7218	-13.1490	56.7799	111.2887	-16.3196	64.8511
96	111.2887	-16.3196	64.8511	87.0921	-19.2126	72.0595
97	87.0921	-19.2126	72.0595	35.6136	-22.6544	81.1550
98	35.6136	-22.6544	81.1550	-21.5243	-26.0009	89.6059
99	-21.5243	-26.0009	89.6059	-100.6956	-29.6481	99.2910
100	-100.6956	-29.6481	99.2910	-193.2665	-14.3013	56.5163
101	-193.2665	-14.3013	56.5163	-180.2644	4.1136	5.9990
102	-180.2644	4.1136	5.9990	-159.5356	3.9082	7.3051
103	-159.5356	3.9082	7.3051	-140.2093	3.7078	8.1859
104	-140.2093	3.7078	8.1859	-107.2934	3.0880	10.6640
105	-107.2934	3.0880	10.6640	-67.3998	2.7705	12.2972
106	-67.3998	2.7705	12.2972	-43.0219	1.5445	16.0040
107	-43.0219	1.5445	16.0040	1.8807	0.6924	18.9140
108	1.8807	0.6924	18.9140	23.8380	-0.8133	23.2799
109	23.8380	-0.8133	23.2799	67.0296	-2.2427	27.4853
110	67.0296	-2.2427	27.4853	81.6405	-4.0438	32.5079

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
111	81.6405	-4.0438	32.5079	115.5260	-6.0674	38.0225
112	115.5260	-6.0674	38.0225	117.5807	-8.1683	43.6716
113	117.5807	-8.1683	43.6716	134.4005	-10.7792	50.4771
114	134.4005	-10.7792	50.4771	118.7533	-13.1616	56.8065
115	118.7533	-13.1616	56.8065	111.2903	-16.3321	64.8880
116	111.2903	-16.3321	64.8880	87.0553	-19.2193	72.1062
117	87.0553	-19.2193	72.1062	35.5520	-22.6641	81.1858
118	35.5520	-22.6641	81.1858	-21.6390	-26.0122	89.6600
119	-21.6390	-26.0122	89.6600	-100.8424	-29.6598	99.3048
120	-100.8424	-29.6598	99.3048	-193.4729	-14.3054	56.5507
121	-193.4729	-14.3054	56.5507	-180.4429	4.1161	6.0542
122	-180.4429	4.1161	6.0542	-159.7092	3.9092	7.3201
123	-159.7092	3.9092	7.3201	-140.3844	3.7088	8.2104
124	-140.3844	3.7088	8.2104	-107.4608	3.0903	10.6861
125	-107.4608	3.0903	10.6861	-67.5598	2.7734	12.3070
126	-67.5598	2.7734	12.3070	-43.1695	1.5486	16.0121
127	-43.1695	1.5486	16.0121	1.7553	0.6971	18.9146
128	1.7553	0.6971	18.9146	23.7295	-0.8084	23.2814
129	23.7295	-0.8084	23.2814	66.9433	-2.2380	27.4911
130	66.9433	-2.2380	27.4911	81.5751	-4.0388	32.5013
131	81.5751	-4.0388	32.5013	115.4809	-6.0628	38.0079
132	115.4809	-6.0628	38.0079	117.5353	-8.1654	43.7023
133	117.5353	-8.1654	43.7023	134.3704	-10.7759	50.5349
134	134.3704	-10.7759	50.5349	118.7414	-13.1623	56.8549
135	118.7414	-13.1623	56.8549	111.2763	-16.3358	64.9307
136	111.2763	-16.3358	64.9307	87.0363	-19.2247	72.1557
137	87.0363	-19.2247	72.1557	35.5086	-22.6638	81.2661
138	35.5086	-22.6638	81.2661	-21.6659	-26.0121	89.7237
139	-21.6659	-26.0121	89.7237	-100.8819	-29.6590	99.3674
140	-100.8819	-29.6590	99.3674	-193.5142	-14.3045	56.6406
141	-193.5142	-14.3045	56.6406	-180.4680	4.1196	6.1194
142	-180.4680	4.1196	6.1194	-159.7230	3.9145	7.3426
143	-159.7230	3.9145	7.3426	-140.3777	3.7145	8.2522
144	-140.3777	3.7145	8.2522	-107.4482	3.0937	10.7062
145	-107.4482	3.0937	10.7062	-67.5438	2.7757	12.3088
146	-67.5438	2.7757	12.3088	-43.1544	1.5491	16.0165
147	-43.1544	1.5491	16.0165	1.7629	0.6974	18.9118
148	1.7629	0.6974	18.9118	23.7326	-0.8084	23.2779
149	23.7326	-0.8084	23.2779	66.9409	-2.2370	27.4852
150	66.9409	-2.2370	27.4852	81.5676	-4.0393	32.5067
151	81.5676	-4.0393	32.5067	115.4685	-6.0638	38.0179
152	115.4685	-6.0638	38.0179	117.5258	-8.1598	43.7060
153	117.5258	-8.1598	43.7060	134.3648	-10.7739	50.5441
154	134.3648	-10.7739	50.5441	118.7499	-13.1576	56.8560
155	118.7499	-13.1576	56.8560	111.2843	-16.3309	64.9523
156	111.2843	-16.3309	64.9523	87.0437	-19.2230	72.1900
157	87.0437	-19.2230	72.1900	35.5329	-22.6627	81.3118
158	35.5329	-22.6627	81.3118	-21.6201	-26.0121	89.7743
159	-21.6201	-26.0121	89.7743	-100.8345	-29.6588	99.4457
160	-100.8345	-29.6588	99.4457	-193.4727	-14.3055	56.6664
161	-193.4727	-14.3055	56.6664	-180.4796	4.1164	6.1161
162	-180.4796	4.1164	6.1161	-159.7453	3.9103	7.3783
163	-159.7453	3.9103	7.3783	-140.4135	3.7105	8.2547
164	-140.4135	3.7105	8.2547	-107.4900	3.0926	10.7206
165	-107.4900	3.0926	10.7206	-67.5872	2.7757	12.3102
166	-67.5872	2.7757	12.3102	-43.1921	1.5498	16.0043
167	-43.1921	1.5498	16.0043	1.7397	0.6985	18.9072

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
168	1.7397	0.6985	18.9072	23.7127	-0.8073	23.2673
169	23.7127	-0.8073	23.2673	66.9223	-2.2365	27.4836
170	66.9223	-2.2365	27.4836	81.5526	-4.0375	32.5177
171	81.5526	-4.0375	32.5177	115.4586	-6.0620	38.0427
172	115.4586	-6.0620	38.0427	117.5336	-8.1580	43.7064
173	117.5336	-8.1580	43.7064	134.3712	-10.7732	50.5440
174	134.3712	-10.7732	50.5440	118.7460	-13.1630	56.8876
175	118.7460	-13.1630	56.8876	111.2761	-16.3341	64.9770
176	111.2761	-16.3341	64.9770	87.0397	-19.2243	72.2209
177	87.0397	-19.2243	72.2209	35.5029	-22.6659	81.3190
178	35.5029	-22.6659	81.3190	-21.6615	-26.0125	89.7877
179	-21.6615	-26.0125	89.7877	-100.8988	-29.6595	99.4583
180	-100.8988	-29.6595	99.4583	-193.5236	-14.3038	56.6629
181	-193.5236	-14.3038	56.6629	-180.4845	4.1192	6.1143
182	-180.4845	4.1192	6.1143	-159.7415	3.9134	7.3552
183	-159.7415	3.9134	7.3552	-140.3947	3.7138	8.2279
184	-140.3947	3.7138	8.2279	-107.4641	3.0935	10.7089
185	-107.4641	3.0935	10.7089	-67.5570	2.7757	12.3089
186	-67.5570	2.7757	12.3089	-43.1673	1.5496	15.9994
187	-43.1673	1.5496	15.9994	1.7537	0.6974	18.9005
188	1.7537	0.6974	18.9005	23.7275	-0.8079	23.2621
189	23.7275	-0.8079	23.2621	66.9328	-2.2364	27.4753
190	66.9328	-2.2364	27.4753	81.5652	-4.0368	32.4995
191	81.5652	-4.0368	32.4995	115.4746	-6.0610	38.0244
192	115.4746	-6.0610	38.0244	117.5443	-8.1590	43.7265
193	117.5443	-8.1590	43.7265	134.4023	-10.7750	50.5242
194	134.4023	-10.7750	50.5242	118.7775	-13.1632	56.8662
195	118.7775	-13.1632	56.8662	111.3001	-16.3349	64.9870
196	111.3001	-16.3349	64.9870	87.0698	-19.2267	72.2124
197	87.0698	-19.2267	72.2124	35.5387	-22.6665	81.3187
198	35.5387	-22.6665	81.3187	-21.6483	-26.0163	89.7955
199	-21.6483	-26.0163	89.7955	-100.8649	-29.6639	99.4764
200	-100.8649	-29.6639	99.4764	-193.5262	-14.3054	56.6712
201	-193.5262	-14.3054	56.6712	-180.5095	4.1202	6.0870
202	-180.5095	4.1202	6.0870	-159.7616	3.9144	7.3726
203	-159.7616	3.9144	7.3726	-140.4195	3.7123	8.2605
204	-140.4195	3.7123	8.2605	-107.4893	3.0922	10.7094
205	-107.4893	3.0922	10.7094	-67.5832	2.7749	12.3052
206	-67.5832	2.7749	12.3052	-43.1921	1.5490	15.9995
207	-43.1921	1.5490	15.9995	1.7362	0.6981	18.9016
208	1.7362	0.6981	18.9016	23.7097	-0.8072	23.2640
209	23.7097	-0.8072	23.2640	66.9233	-2.2371	27.4797
210	66.9233	-2.2371	27.4797	81.5564	-4.0365	32.5003
211	81.5564	-4.0365	32.5003	115.4637	-6.0617	38.0129
212	115.4637	-6.0617	38.0129	117.5248	-8.1624	43.7044
213	117.5248	-8.1624	43.7044	134.3626	-10.7738	50.5427
214	134.3626	-10.7738	50.5427	118.7350	-13.1618	56.8660
215	118.7350	-13.1618	56.8660	111.2670	-16.3326	64.9663
216	111.2670	-16.3326	64.9663	87.0114	-19.2285	72.1940
217	87.0114	-19.2285	72.1940	35.4750	-22.6688	81.3161
218	35.4750	-22.6688	81.3161	-21.7121	-26.0174	89.7770
219	-21.7121	-26.0174	89.7770	-100.9707	-29.6665	99.4334
220	-100.9707	-29.6665	99.4334	-193.6400	-14.3036	56.6702
221	-193.6400	-14.3036	56.6702	-180.5887	4.1264	6.1399
222	-180.5887	4.1264	6.1399	-159.8185	3.9202	7.3929
223	-159.8185	3.9202	7.3929	-140.4560	3.7206	8.2671
224	-140.4560	3.7206	8.2671	-107.5030	3.0988	10.7221

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
225	-107.5030	3.0988	10.7221	-67.5850	2.7813	12.3125
226	-67.5850	2.7813	12.3125	-43.1816	1.5533	16.0117
227	-43.1816	1.5533	16.0117	1.7375	0.6994	18.9119
228	1.7375	0.6994	18.9119	23.7013	-0.8077	23.2740
229	23.7013	-0.8077	23.2740	66.8725	-2.2397	27.4814
230	66.8725	-2.2397	27.4814	81.4606	-4.0419	32.5152
231	81.4606	-4.0419	32.5152	115.2983	-6.0679	38.0258
232	115.2983	-6.0679	38.0258	117.3114	-8.1668	43.7061
233	117.3114	-8.1668	43.7061	134.0536	-10.7796	50.5379
234	134.0536	-10.7796	50.5379	118.3683	-13.1686	56.8814
235	118.3683	-13.1686	56.8814	110.7870	-16.3445	64.9882
236	110.7870	-16.3445	64.9882	86.4448	-19.2391	72.2012
237	86.4448	-19.2391	72.2012	34.8142	-22.6818	81.3218
238	34.8142	-22.6818	81.3218	-22.4680	-26.0302	89.7980
239	-22.4680	-26.0302	89.7980	-101.7419	-29.6783	99.4687
240	-101.7419	-29.6783	99.4687	-194.4637	-14.2775	56.6895
241	-194.4637	-14.2775	56.6895	-181.2225	4.1919	6.1238
242	-181.2225	4.1919	6.1238	-160.2260	3.9830	7.3766
243	-160.2260	3.9830	7.3766	-140.6645	3.7786	8.2620
244	-140.6645	3.7786	8.2620	-107.5251	3.1486	10.7141
245	-107.5251	3.1486	10.7141	-67.4790	2.8158	12.3186
246	-67.4790	2.8158	12.3186	-43.0189	1.5790	16.0152
247	-43.0189	1.5790	16.0152	1.8063	0.7037	18.9197
248	1.8063	0.7037	18.9197	23.6539	-0.8154	23.2807
249	23.6539	-0.8154	23.2807	66.4184	-2.2740	27.4982
250	66.4184	-2.2740	27.4982	80.6622	-4.0904	32.5365
251	80.6622	-4.0904	32.5365	113.7299	-6.1485	38.0455
252	113.7299	-6.1485	38.0455	115.1149	-8.2656	43.7420
253	115.1149	-8.2656	43.7420	130.7130	-10.9147	50.5909
254	130.7130	-10.9147	50.5909	114.1640	-13.3212	56.9292
255	114.1640	-13.3212	56.9292	105.1712	-16.5289	65.0193
256	105.1712	-16.5289	65.0193	79.3176	-19.4493	72.2572
257	79.3176	-19.4493	72.2572	26.6720	-22.9004	81.3638
258	26.6720	-22.9004	81.3638	-31.9661	-26.2645	89.8214
259	-31.9661	-26.2645	89.8214	-112.1844	-29.9175	99.4995
260	-112.1844	-29.9175	99.4995	-205.6993	-14.2192	57.4440
261	-205.6993	-14.2192	57.4440	-194.7553	4.5482	7.7206
262	-194.7553	4.5482	7.7206	-181.3130	4.4692	8.3988
263	-181.3130	4.4692	8.3988	-165.5946	4.3212	9.2843
264	-165.5946	4.3212	9.2843	-147.8477	4.0997	10.4794
265	-147.8477	4.0997	10.4794	-115.1805	3.4053	13.6794
266	-115.1805	3.4053	13.6794	-92.2798	2.9233	15.6819
267	-92.2798	2.9233	15.6819	-68.6872	2.3431	17.9685
268	-68.6872	2.3431	17.9685	-44.9297	1.6616	20.5097
269	-44.9297	1.6616	20.5097	-21.5743	0.8715	23.3490
270	-21.5743	0.8715	23.3490	0.7437	-0.0311	26.4658
271	0.7437	-0.0311	26.4658	44.1104	-0.9402	30.0752
272	44.1104	-0.9402	30.0752	62.2244	-2.8271	35.7495
273	62.2244	-2.8271	35.7495	76.3282	-4.8411	41.6945
274	76.3282	-4.8411	41.6945	85.9136	-6.3590	46.1959
275	85.9136	-6.3590	46.1959	90.1487	-8.0057	50.9595
276	90.1487	-8.0057	50.9595	104.1557	-9.8282	56.1483
277	104.1557	-9.8282	56.1483	91.9754	-12.5058	63.4610
278	91.9754	-12.5058	63.4610	71.1665	-14.6958	69.3220
279	71.1665	-14.6958	69.3220	40.8353	-17.0210	75.4487
280	40.8353	-17.0210	75.4487	0.0349	-18.2716	78.8897

ENVOL. MIN. TORSORES TREN TREN SIN CARGA, EC-1 en via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.0248	19.4834	-81.8463	38.4236	17.0881	-75.6078
2	38.4236	17.0881	-75.6078	66.7269	14.8303	-69.6280
3	66.7269	14.8303	-69.6280	85.7864	12.7113	-63.9507
4	85.7864	12.7113	-63.9507	96.5285	10.1042	-56.8349
5	96.5285	10.1042	-56.8349	99.5737	7.6336	-49.9431
6	99.5737	7.6336	-49.9431	96.1291	5.9212	-45.0434
7	96.1291	5.9212	-45.0434	87.0404	4.3400	-40.4441
8	87.0404	4.3400	-40.4441	50.5846	2.8123	-35.4893
9	50.5846	2.8123	-35.4893	32.6148	1.6116	-31.6840
10	32.6148	1.6116	-31.6840	11.9650	0.5322	-28.1582
11	11.9650	0.5322	-28.1582	-10.6271	-0.4294	-24.8998
12	-10.6271	-0.4294	-24.8998	-34.4684	-1.9021	-20.1888
13	-34.4684	-1.9021	-20.1888	-77.4172	-2.6461	-16.7371
14	-77.4172	-2.6461	-16.7371	-100.1208	-3.1770	-14.5604
15	-100.1208	-3.1770	-14.5604	-122.0049	-3.6128	-12.6667
16	-122.0049	-3.6128	-12.6667	-142.6228	-3.9622	-11.0478
17	-142.6228	-3.9622	-11.0478	-161.5836	-4.2245	-9.6586
18	-161.5836	-4.2245	-9.6586	-178.5757	-4.4099	-8.5154
19	-178.5757	-4.4099	-8.5154	-193.3345	-4.5231	-7.6806
20	-193.3345	-4.5231	-7.6806	-205.6154	14.2193	-57.1471
21	-205.6154	14.2193	-57.1471	-110.9607	29.8979	-98.9313
22	-110.9607	29.8979	-98.9313	-34.8547	26.3432	-89.8930
23	-34.8547	26.3432	-89.8930	31.2999	22.7838	-80.4952
24	31.2999	22.7838	-80.4952	73.0967	19.6312	-72.6755
25	73.0967	19.6312	-72.6755	96.7159	16.1667	-63.9853
26	96.7159	16.1667	-63.9853	124.0000	13.6257	-57.3961
27	124.0000	13.6257	-57.3961	119.8855	10.6917	-49.9755
28	119.8855	10.6917	-49.9755	126.8630	8.4293	-44.0090
29	126.8630	8.4293	-44.0090	101.5923	6.0716	-37.8713
30	101.5923	6.0716	-37.8713	93.1286	4.1038	-32.5292
31	93.1286	4.1038	-32.5292	54.2337	2.3454	-27.6900
32	54.2337	2.3454	-27.6900	35.5433	0.6787	-23.0035
33	35.5433	0.6787	-23.0035	-9.1678	-0.4850	-19.4236
34	-9.1678	-0.4850	-19.4236	-32.9039	-1.8596	-15.3703
35	-32.9039	-1.8596	-15.3703	-76.1087	-2.4581	-13.0746
36	-76.1087	-2.4581	-13.0746	-113.9010	-3.3302	-9.9174
37	-113.9010	-3.3302	-9.9174	-135.7145	-3.6456	-8.6569
38	-135.7145	-3.6456	-8.6569	-163.1664	-4.0545	-6.7648
39	-163.1664	-4.0545	-6.7648	-179.8257	-4.1590	-6.1084
40	-179.8257	-4.1590	-6.1084	-194.2936	14.2806	-56.4144
41	-194.2936	14.2806	-56.4144	-100.3923	29.6521	-98.9193
42	-100.3923	29.6521	-98.9193	-25.4292	26.1078	-89.8844
43	-25.4292	26.1078	-89.8844	39.7069	22.5582	-80.4935
44	39.7069	22.5582	-80.4935	80.0219	19.4247	-72.6910
45	80.0219	19.4247	-72.6910	102.1138	15.9895	-63.9922
46	102.1138	15.9895	-63.9922	128.4379	13.4639	-57.3705
47	128.4379	13.4639	-57.3705	123.0104	10.5637	-49.9514
48	123.0104	10.5637	-49.9514	129.2206	8.3170	-43.9863
49	129.2206	8.3170	-43.9863	102.9859	5.9963	-37.8654
50	102.9859	5.9963	-37.8654	94.0356	4.0465	-32.5194
51	94.0356	4.0465	-32.5194	54.5741	2.3172	-27.6684
52	54.5741	2.3172	-27.6684	35.6555	0.6638	-22.9813
53	35.6555	0.6638	-22.9813	-9.2877	-0.4750	-19.4138
54	-9.2877	-0.4750	-19.4138	-33.0399	-1.8396	-15.3681

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	-33.0399	-1.8396	-15.3681	-76.2055	-2.4190	-13.0842
56	-76.2055	-2.4190	-13.0842	-113.8662	-3.2794	-9.9280
57	-113.8662	-3.2794	-9.9280	-135.5054	-3.5904	-8.6790
58	-135.5054	-3.5904	-8.6790	-162.7439	-3.9938	-6.7928
59	-162.7439	-3.9938	-6.7928	-179.2043	-4.0961	-6.1622
60	-179.2043	-4.0961	-6.1622	-193.4810	14.3025	-56.4390
61	-193.4810	14.3025	-56.4390	-99.6259	29.6335	-98.9433
62	-99.6259	29.6335	-98.9433	-24.7086	26.0892	-89.9360
63	-24.7086	26.0892	-89.9360	40.3181	22.5404	-80.5470
64	40.3181	22.5404	-80.5470	80.5438	19.4104	-72.7081
65	80.5438	19.4104	-72.7081	102.5297	15.9790	-64.0291
66	102.5297	15.9790	-64.0291	128.7810	13.4542	-57.4072
67	128.7810	13.4542	-57.4072	123.2669	10.5574	-49.9695
68	123.2669	10.5574	-49.9695	129.4331	8.3127	-44.0004
69	129.4331	8.3127	-44.0004	103.1153	5.9911	-37.8653
70	103.1153	5.9911	-37.8653	94.1210	4.0398	-32.5194
71	94.1210	4.0398	-32.5194	54.6089	2.3142	-27.6559
72	54.6089	2.3142	-27.6559	35.6702	0.6626	-22.9706
73	35.6702	0.6626	-22.9706	-9.2969	-0.4743	-19.4038
74	-9.2969	-0.4743	-19.4038	-33.0509	-1.8380	-15.3621
75	-33.0509	-1.8380	-15.3621	-76.2173	-2.4162	-13.0893
76	-76.2173	-2.4162	-13.0893	-113.8684	-3.2754	-9.9377
77	-113.8684	-3.2754	-9.9377	-135.4980	-3.5851	-8.6804
78	-135.4980	-3.5851	-8.6804	-162.7177	-3.9869	-6.8326
79	-162.7177	-3.9869	-6.8326	-179.1544	-4.0893	-6.1997
80	-179.1544	-4.0893	-6.1997	-193.4139	14.3048	-56.4830
81	-193.4139	14.3048	-56.4830	-99.5822	29.6320	-99.0225
82	-99.5822	29.6320	-99.0225	-24.6931	26.0887	-89.9971
83	-24.6931	26.0887	-89.9971	40.3666	22.5392	-80.6033
84	40.3666	22.5392	-80.6033	80.5794	19.4108	-72.7702
85	80.5794	19.4108	-72.7702	102.5522	15.9762	-64.0593
86	102.5522	15.9762	-64.0593	128.8109	13.4508	-57.4283
87	128.8109	13.4508	-57.4283	123.2730	10.5552	-49.9818
88	123.2730	10.5552	-49.9818	129.4357	8.3105	-44.0135
89	129.4357	8.3105	-44.0135	103.1102	5.9901	-37.8633
90	103.1102	5.9901	-37.8633	94.1207	4.0403	-32.4981
91	94.1207	4.0403	-32.4981	54.5960	2.3139	-27.6529
92	54.5960	2.3139	-27.6529	35.6546	0.6619	-22.9665
93	35.6546	0.6619	-22.9665	-9.3146	-0.4753	-19.4006
94	-9.3146	-0.4753	-19.4006	-33.0727	-1.8381	-15.3594
95	-33.0727	-1.8381	-15.3594	-76.2430	-2.4153	-13.0890
96	-76.2430	-2.4153	-13.0890	-113.8893	-3.2749	-9.9628
97	-113.8893	-3.2749	-9.9628	-135.5109	-3.5828	-8.7262
98	-135.5109	-3.5828	-8.7262	-162.7263	-3.9871	-6.8694
99	-162.7263	-3.9871	-6.8694	-179.1692	-4.0896	-6.2284
100	-179.1692	-4.0896	-6.2284	-193.4027	14.3051	-56.5387
101	-193.4027	14.3051	-56.5387	-99.5508	29.6308	-99.0845
102	-99.5508	29.6308	-99.0845	-24.6805	26.0861	-90.0424
103	-24.6805	26.0861	-90.0424	40.3874	22.5363	-80.6366
104	40.3874	22.5363	-80.6366	80.5910	19.4061	-72.8020
105	80.5910	19.4061	-72.8020	102.5511	15.9734	-64.0999
106	102.5511	15.9734	-64.0999	128.7906	13.4497	-57.4525
107	128.7906	13.4497	-57.4525	123.2553	10.5518	-49.9988
108	123.2553	10.5518	-49.9988	129.4201	8.3085	-44.0100
109	129.4201	8.3085	-44.0100	148.7242	4.5585	-33.6637
110	148.7242	4.5585	-33.6637	156.7756	0.8088	-23.2918
111	156.7756	0.8088	-23.2918	153.5851	-2.9420	-12.9223

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	153.5851	-2.9420	-12.9223	139.1321	-6.6936	-2.5883
113	139.1321	-6.6936	-2.5883	-0.1576	0.0202	-0.0003
114	-0.1576	0.0202	-0.0003	-0.0993	0.0207	-0.0004
115	-0.0993	0.0207	-0.0004	-0.0372	0.0207	-0.0004
116	-0.0372	0.0207	-0.0004	0.0234	0.0195	-0.0004
117	0.0234	0.0195	-0.0004	0.0818	0.0195	-0.0003
118	0.0818	0.0195	-0.0003	0.1491	0.0207	-0.0003
119	0.1491	0.0207	-0.0003	0.2111	0.0207	-0.0003
120	0.2111	0.0207	-0.0003	-381.5073	0.3479	-12.3179
121	-381.5073	0.3479	-12.3179	-274.9417	33.6356	-94.2579
122	-274.9417	33.6356	-94.2579	-179.6516	29.8861	-83.9725
123	-179.6516	29.8861	-83.9725	-95.5889	26.1364	-73.6770
124	-95.5889	26.1364	-73.6770	-22.7747	22.3859	-63.3577
125	-22.7747	22.3859	-63.3577	38.7584	18.6348	-53.0243
126	38.7584	18.6348	-53.0243	89.0419	14.8839	-42.6687
127	89.0419	14.8839	-42.6687	128.0754	11.1330	-32.2962
128	128.0754	11.1330	-32.2962	155.8552	7.3820	-21.9205
129	155.8552	7.3820	-21.9205	172.3822	3.6313	-11.5620
130	172.3822	3.6313	-11.5620	177.6488	-0.1187	-1.2136
131	177.6488	-0.1187	-1.2136	-0.3621	0.0262	-0.0003
132	-0.3621	0.0262	-0.0003	-0.2748	0.0255	-0.0004
133	-0.2748	0.0255	-0.0004	-0.2046	0.0263	-0.0005
134	-0.2046	0.0263	-0.0005	-0.1259	0.0263	-0.0006
135	-0.1259	0.0263	-0.0006	-0.0457	0.0254	-0.0006
136	-0.0457	0.0254	-0.0006	0.0316	0.0262	-0.0006
137	0.0316	0.0262	-0.0006	0.1125	0.0268	-0.0006
138	0.1125	0.0268	-0.0006	0.1928	0.0268	-0.0005
139	0.1928	0.0268	-0.0005	0.2366	0.0232	-0.0004
140	0.2366	0.0232	-0.0004	-388.5316	-0.0435	-0.6286
141	-388.5316	-0.0435	-0.6286	-281.5211	33.7807	-93.0845
142	-281.5211	33.7807	-93.0845	-185.7542	30.0307	-82.8690
143	-185.7542	30.0307	-82.8690	-101.2945	26.2810	-72.5563
144	-101.2945	26.2810	-72.5563	-28.0346	22.5312	-62.2369
145	-28.0346	22.5312	-62.2369	33.9377	18.7814	-51.9139
146	33.9377	18.7814	-51.9139	84.6714	15.0322	-41.5626
147	84.6714	15.0322	-41.5626	124.1597	11.2814	-31.1787
148	124.1597	11.2814	-31.1787	152.3875	7.5306	-20.7914
149	152.3875	7.5306	-20.7914	169.3583	3.7806	-10.4361
150	169.3583	3.7806	-10.4361	175.0779	0.0299	-0.0610
151	175.0779	0.0299	-0.0610	-0.3206	0.0232	-0.0004
152	-0.3206	0.0232	-0.0004	-0.2509	0.0232	-0.0005
153	-0.2509	0.0232	-0.0005	-0.1812	0.0232	-0.0006
154	-0.1812	0.0232	-0.0006	-0.1115	0.0232	-0.0006
155	-0.1115	0.0232	-0.0006	-0.0460	0.0256	-0.0007
156	-0.0460	0.0256	-0.0007	0.0308	0.0256	-0.0007
157	0.0308	0.0256	-0.0007	0.0976	0.0232	-0.0006
158	0.0976	0.0232	-0.0006	0.1748	0.0243	-0.0006
159	0.1748	0.0243	-0.0006	0.2476	0.0243	-0.0005
160	0.2476	0.0243	-0.0005	-386.6131	0.0142	-0.0253
161	-386.6131	0.0142	-0.0253	-279.7522	33.7465	-93.0937
162	-279.7522	33.7465	-93.0937	-184.1280	29.9967	-82.8100
163	-184.1280	29.9967	-82.8100	-99.7280	26.2457	-72.5235
164	-99.7280	26.2457	-72.5235	-26.6045	22.4948	-62.2113
165	-26.6045	22.4948	-62.2113	35.2752	18.7444	-51.8629
166	35.2752	18.7444	-51.8629	85.9036	14.9944	-41.5146
167	85.9036	14.9944	-41.5146	125.2633	11.2447	-31.1808
168	125.2633	11.2447	-31.1808	153.3817	7.4936	-20.7879

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	153.3817	7.4936	-20.7879	168.4227	3.8593	-10.3812
170	168.4227	3.8593	-10.3812	-0.4366	0.0260	-0.0004
171	-0.4366	0.0260	-0.0004	-0.3402	0.0246	-0.0005
172	-0.3402	0.0246	-0.0005	-0.2663	0.0247	-0.0005
173	-0.2663	0.0247	-0.0005	-0.2045	0.0262	-0.0007
174	-0.2045	0.0262	-0.0007	-0.1247	0.0260	-0.0007
175	-0.1247	0.0260	-0.0007	-0.0458	0.0254	-0.0007
176	-0.0458	0.0254	-0.0007	0.0296	0.0247	-0.0007
177	0.0296	0.0247	-0.0007	0.1092	0.0260	-0.0007
178	0.1092	0.0260	-0.0007	0.1871	0.0260	-0.0007
179	0.1871	0.0260	-0.0007	0.2516	0.0247	-0.0005
180	0.2516	0.0247	-0.0005	-386.0964	0.0101	-0.0121
181	-386.0964	0.0101	-0.0121	-278.6284	33.6867	-93.0714
182	-278.6284	33.6867	-93.0714	-183.7443	29.9659	-82.8038
183	-183.7443	29.9659	-82.8038	-99.4425	26.2159	-72.5381
184	-99.4425	26.2159	-72.5381	-26.2083	22.4544	-62.2063
185	-26.2083	22.4544	-62.2063	35.5519	18.7050	-51.8726
186	35.5519	18.7050	-51.8726	85.6082	14.9833	-41.5025
187	85.6082	14.9833	-41.5025	124.8320	11.2400	-31.1361
188	124.8320	11.2400	-31.1361	153.1177	7.4799	-20.7794
189	153.1177	7.4799	-20.7794	170.0428	3.7016	-10.3834
190	170.0428	3.7016	-10.3834	175.3871	-0.0087	-0.0105
191	175.3871	-0.0087	-0.0105	-0.3499	0.0253	-0.0005
192	-0.3499	0.0253	-0.0005	-0.2739	0.0254	-0.0007
193	-0.2739	0.0254	-0.0007	-0.1978	0.0254	-0.0007
194	-0.1978	0.0254	-0.0007	-0.1217	0.0254	-0.0008
195	-0.1217	0.0254	-0.0008	-0.0456	0.0254	-0.0008
196	-0.0456	0.0254	-0.0008	0.0295	0.0246	-0.0008
197	0.0295	0.0246	-0.0008	0.1032	0.0246	-0.0008
198	0.1032	0.0246	-0.0008	0.1768	0.0246	-0.0007
199	0.1768	0.0246	-0.0007	0.2505	0.0246	-0.0007
200	0.2505	0.0246	-0.0007	3.7007	0.1007	-0.0010
201	3.7007	0.1007	-0.0010	-281.9863	33.9111	-93.1249
202	-281.9863	33.9111	-93.1249	-185.8808	30.1611	-82.8148
203	-185.8808	30.1611	-82.8148	-101.3100	26.4823	-72.5089
204	-101.3100	26.4823	-72.5089	-27.3611	22.6613	-62.2052
205	-27.3611	22.6613	-62.2052	35.0107	18.9126	-51.8644
206	35.0107	18.9126	-51.8644	85.9899	15.1295	-41.5087
207	85.9899	15.1295	-41.5087	126.2764	11.4493	-31.1620
208	126.2764	11.4493	-31.1620	155.2032	7.7167	-20.7706
209	155.2032	7.7167	-20.7706	170.6723	3.7965	-10.3794
210	170.6723	3.7965	-10.3794	176.7340	0.0723	-0.0052
211	176.7340	0.0723	-0.0052	-0.3577	0.0259	-0.0005
212	-0.3577	0.0259	-0.0005	-0.2800	0.0259	-0.0006
213	-0.2800	0.0259	-0.0006	-0.2022	0.0259	-0.0007
214	-0.2022	0.0259	-0.0007	-0.1244	0.0259	-0.0007
215	-0.1244	0.0259	-0.0007	-0.0423	0.0236	-0.0007
216	-0.0423	0.0236	-0.0007	0.0296	0.0246	-0.0007
217	0.0296	0.0246	-0.0007	0.1034	0.0246	-0.0007
218	0.1034	0.0246	-0.0007	0.1772	0.0246	-0.0007
219	0.1772	0.0246	-0.0007	0.2279	0.0223	-0.0005
220	0.2279	0.0223	-0.0005	3.7045	0.1007	-0.0008
221	3.7045	0.1007	-0.0008	-278.5240	33.5906	-92.9774
222	-278.5240	33.5906	-92.9774	-183.3560	29.8406	-82.7076
223	-183.3560	29.8406	-82.7076	-99.4164	26.0905	-72.4202
224	-99.4164	26.0905	-72.4202	-26.7462	22.3405	-62.1107
225	-26.7462	22.3405	-62.1107	34.6571	18.5900	-51.7675

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	34.6571	18.5900	-51.7675	84.8246	14.8391	-41.4221
227	84.8246	14.8391	-41.4221	123.7282	11.0889	-31.0601
228	123.7282	11.0889	-31.0601	151.3840	7.3391	-20.6833
229	151.3840	7.3391	-20.6833	167.7790	3.5885	-10.3027
230	167.7790	3.5885	-10.3027	-0.4258	0.0254	-0.0003
231	-0.4258	0.0254	-0.0003	-0.3072	0.0223	-0.0004
232	-0.3072	0.0223	-0.0004	-0.2733	0.0254	-0.0005
233	-0.2733	0.0254	-0.0005	-0.1970	0.0254	-0.0006
234	-0.1970	0.0254	-0.0006	-0.1208	0.0254	-0.0007
235	-0.1208	0.0254	-0.0007	-0.0445	0.0254	-0.0007
236	-0.0445	0.0254	-0.0007	0.0318	0.0254	-0.0007
237	0.0318	0.0254	-0.0007	0.1080	0.0254	-0.0007
238	0.1080	0.0254	-0.0007	0.1710	0.0236	-0.0006
239	0.1710	0.0236	-0.0006	0.2417	0.0236	-0.0005
240	0.2417	0.0236	-0.0005	3.4859	0.0939	-0.0007
241	3.4859	0.0939	-0.0007	-285.8925	34.3148	-91.4442
242	-285.8925	34.3148	-91.4442	-188.5219	30.5646	-81.1822
243	-188.5219	30.5646	-81.1822	-102.4270	26.8146	-70.8869
244	-102.4270	26.8146	-70.8869	-27.5932	23.0651	-60.5801
245	-27.5932	23.0651	-60.5801	35.9923	19.3149	-50.2451
246	35.9923	19.3149	-50.2451	88.3153	15.5646	-39.8799
247	88.3153	15.5646	-39.8799	129.4064	11.8161	-29.5193
248	129.4064	11.8161	-29.5193	159.2348	8.0691	-19.1726
249	159.2348	8.0691	-19.1726	177.8181	4.3195	-8.7577
250	177.8181	4.3195	-8.7577	-0.3682	0.0227	-0.0004
251	-0.3682	0.0227	-0.0004	-0.3167	0.0240	-0.0004
252	-0.3167	0.0240	-0.0004	-0.2448	0.0240	-0.0005
253	-0.2448	0.0240	-0.0005	-0.1729	0.0240	-0.0007
254	-0.1729	0.0240	-0.0007	-0.1010	0.0240	-0.0007
255	-0.1010	0.0240	-0.0007	-0.0291	0.0240	-0.0007
256	-0.0291	0.0240	-0.0007	0.0448	0.0250	-0.0007
257	0.0448	0.0250	-0.0007	0.1199	0.0250	-0.0007
258	0.1199	0.0250	-0.0007	0.2074	0.0266	-0.0007
259	0.2074	0.0266	-0.0007	0.2872	0.0266	-0.0006
260	0.2872	0.0266	-0.0006	0.3671	0.0093	-0.0005
261	0.3671	0.0093	-0.0005	-282.5529	32.9929	-62.5440
262	-282.5529	32.9929	-62.5440	-210.8208	30.4928	-55.6960
263	-210.8208	30.4928	-55.6960	-145.3123	27.9925	-48.8716
264	-145.3123	27.9925	-48.8716	-86.0539	24.8675	-40.2802
265	-86.0539	24.8675	-40.2802	-33.3893	21.7422	-31.6736
266	-33.3893	21.7422	-31.6736	13.0480	19.2430	-24.7975
267	13.0480	19.2430	-24.7975	53.2183	16.7424	-17.8937
268	53.2183	16.7424	-17.8937	87.1351	13.6129	-9.2473
269	87.1351	13.6129	-9.2473	114.4842	10.4842	-0.6181
270	114.4842	10.4842	-0.6181	-0.5209	0.0231	-0.0001
271	-0.5209	0.0231	-0.0001	-0.4689	0.0232	-0.0002
272	-0.4689	0.0232	-0.0002	-0.4448	0.0247	-0.0004
273	-0.4448	0.0247	-0.0004	-0.4289	0.0272	-0.0005
274	-0.4289	0.0272	-0.0005	-0.3676	0.0272	-0.0006
275	-0.3676	0.0272	-0.0006	-0.3163	0.0281	-0.0007
276	-0.3163	0.0281	-0.0007	-0.2584	0.0287	-0.0008
277	-0.2584	0.0287	-0.0008	-0.1898	0.0281	-0.0008
278	-0.1898	0.0281	-0.0008	-0.1303	0.0290	-0.0008
279	-0.1303	0.0290	-0.0008	-0.0652	0.0290	-0.0008
280	-0.0652	0.0290	-0.0008	0.0000	0.0261	-0.0008

ENVOLVENTE MAXIMOS FLECTORES TREN IPF-B, l=30 m, via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0726	141.1248	669.1713	-390.5869	-159.4441	-682.6644
2	520.9159	217.3777	637.0315	-981.6941	-192.5672	-570.9932
3	981.5201	192.5627	571.2816	-1384.5842	-166.3144	-498.8720
4	1384.8059	166.3301	498.2101	-1727.4392	-138.5827	-421.5966
5	1727.4949	138.6021	421.3691	-2010.7568	-112.2943	-350.9957
6	2010.6450	112.3472	351.5912	-2234.5935	-86.0993	-279.3291
7	2234.5850	86.1269	279.3289	-2398.7944	-61.3366	-212.7501
8	2398.8340	61.3610	212.3237	-2505.1602	-33.6137	-135.7243
9	2505.1821	33.6418	135.4268	-2550.2139	-5.8897	-59.0286
10	2550.2117	5.8466	59.8001	-2537.3599	18.9448	6.9879
11	2537.4097	-18.8977	-8.2030	-2464.6006	45.1541	80.5643
12	2464.6543	-45.1909	-79.3630	-2333.3525	71.4456	150.4392
13	2333.2791	-71.4392	-151.5984	-2141.8447	99.1966	228.1753
14	2141.8469	-99.2439	-227.7819	-1891.9822	123.9660	294.8898
15	1891.9205	-123.9623	-295.2452	-1582.6759	150.2188	367.5831
16	1582.7793	-150.2170	-367.0569	-1215.8252	176.3910	438.4301
17	1215.8329	-175.7497	-433.7509	-790.7444	201.8501	505.1451
18	865.7416	-128.4323	-320.6155	-623.4336	98.7968	262.5068
19	682.9317	-38.8264	-119.7086	-572.8116	59.0740	175.5121
20	623.0452	-5.1379	-42.0537	-588.6956	27.5865	95.7425
21	627.2306	-43.3309	40.5499	-490.6802	45.5276	-42.6643
22	529.6299	-20.3420	103.9078	-428.0989	47.3437	-29.4887
23	516.9848	22.6871	208.5869	-565.6397	-16.9568	-191.9784
24	636.7687	74.5495	339.9808	-880.3981	-68.6593	-288.7609
25	974.9105	133.0417	466.3013	-1330.4781	-102.5965	-383.9288
26	1455.6002	184.8938	452.1168	-1961.8938	-153.9141	-368.8929
27	1961.9900	153.9417	368.4323	-2371.3872	-120.2801	-277.0151
28	2371.3191	120.2512	277.5692	-2680.5713	-86.4812	-185.9371
29	2680.6160	86.4714	185.3087	-2888.8262	-52.6295	-93.5355
30	2888.8142	52.6035	94.2244	-2995.3425	-18.6757	-2.3487
31	2995.3330	18.6489	2.3268	-2999.6350	15.3279	89.8964
32	2999.5972	-15.3182	-90.6129	-2901.4150	49.3273	183.0009
33	2901.4141	-49.2997	-183.0156	-2700.7124	83.3430	275.3974
34	2700.7783	-83.3581	-274.7402	-2397.2822	117.4197	367.3988
35	2397.1653	-117.4386	-368.2589	-1991.0859	151.4985	461.0170
36	1991.2587	-151.4856	-460.2638	-1482.9873	185.5295	553.0492
37	1521.5144	-142.5866	-503.2349	-1040.3071	176.5978	596.0685
38	1124.7808	-121.9566	-435.7072	-763.7151	97.0388	390.0710
39	885.3928	-24.6420	-200.0744	-770.9868	51.6388	274.4756
40	871.7488	17.7684	-95.3267	-884.5570	13.7872	166.2298
41	956.5950	-45.6205	32.8411	-806.0615	50.1749	-36.3318
42	848.9954	-25.0846	97.3068	-733.2546	52.0817	-22.9014
43	838.0030	17.5519	202.0037	-850.1578	9.4494	-127.5994
44	941.1653	47.6117	275.3601	-1115.2825	-64.7364	-293.9601
45	1239.3811	136.2866	495.9538	-1597.6741	-102.9653	-405.0671
46	1738.2985	175.9233	448.3417	-2218.4810	-144.9104	-365.1884
47	2218.4841	144.9110	365.1874	-2601.0115	-111.2374	-273.7605
48	2600.9392	111.2447	274.0981	-2883.1475	-77.4931	-182.4846
49	2883.1357	77.5242	182.0822	-3064.4731	-43.6787	-90.2506
50	3064.4985	43.6966	90.2862	-3144.2114	-9.7905	1.5905
51	3144.2146	9.7987	-0.8644	-3121.7966	24.1772	92.9657
52	3121.7512	-24.1814	-93.3012	-2996.8694	58.1727	185.5920
53	2996.9141	-58.2114	-185.2891	-2769.2427	92.2470	277.7786
54	2769.1895	-92.2319	-278.0566	-2439.1592	126.2577	370.6313

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	2439.2205	-126.2447	-370.0607	-2006.7947	160.2757	462.7508
56	2006.7206	-160.2578	-463.0162	-1472.0549	194.2834	555.8686
57	1536.1560	-130.3795	-513.0888	-1091.6713	164.3663	605.8876
58	1179.6943	-108.8614	-445.8726	-870.2664	82.2434	400.6000
59	995.5543	-9.3773	-210.5040	-926.9305	36.3750	284.8978
60	1029.4680	33.2061	-105.7547	-1088.5903	-0.3344	175.9932
61	1161.0044	-48.6748	31.3722	-997.3784	54.5446	-35.5562
62	1040.5950	-29.4568	97.0102	-911.7065	56.4597	-22.6158
63	1017.6928	13.1391	201.5702	-1016.6193	13.8558	-127.1738
64	1109.5977	59.0728	316.9446	-1304.4171	-76.5871	-335.5345
65	1382.4866	132.1693	495.8385	-1728.5217	-98.8515	-404.8980
66	1872.3125	171.7634	446.5127	-2340.1150	-140.7500	-363.3383
67	2339.9644	140.7609	364.2157	-2710.0413	-107.0944	-272.8423
68	2710.0593	107.0899	272.8641	-2979.8596	-73.3206	-181.2350
69	2979.9011	73.2993	181.2475	-3148.5430	-39.4542	-89.4557
70	3148.5288	39.4635	89.4652	-3215.5002	-5.5495	2.4128
71	3215.5310	5.5291	-1.6457	-3180.2925	28.4338	93.6530
72	3180.2734	-28.4249	-93.2088	-3042.6267	62.4283	185.4992
73	3042.5591	-62.4098	-185.9145	-2802.3342	96.4252	278.4105
74	2802.3123	-96.4442	-278.0457	-2459.5918	130.4760	370.5593
75	2459.6838	-130.4642	-369.9884	-2014.5195	164.4984	462.6576
76	2014.5234	-164.4838	-462.6438	-1467.3113	198.4989	555.4889
77	1538.9243	-128.1952	-512.9420	-1100.9403	162.1861	605.7825
78	1189.1853	-106.6178	-445.9829	-887.2121	79.8906	400.8429
79	1012.8499	-6.9774	-210.4763	-951.4303	33.9747	284.8742
80	1053.9993	35.6253	-106.2452	-1120.3798	-2.7975	176.4536
81	1192.8905	-49.3990	31.4574	-1027.2418	55.2221	-35.6825
82	1070.5103	-30.1405	96.8332	-939.6060	57.1370	-22.4436
83	1045.7081	12.4643	201.3940	-1042.5999	14.5369	-126.9918
84	1135.8345	58.3949	316.7385	-1327.8945	-75.9375	-335.2320
85	1406.3549	131.5100	494.9933	-1750.3352	-98.1982	-404.1151
86	1894.1794	171.0923	446.3700	-2360.0095	-140.0681	-363.1958
87	2359.9529	140.0493	363.5354	-2727.8452	-106.3748	-272.1792
88	2727.7515	106.4001	272.8595	-2995.4834	-72.6308	-181.2071
89	2995.4934	72.6078	180.4867	-3162.0964	-38.7760	-88.7349
90	3162.0398	38.8013	89.9106	-3227.0522	-4.9049	1.8254
91	3227.0850	4.8982	-1.0270	-3189.9160	29.0665	93.1248
92	3189.9148	-29.0779	-93.5605	-3050.2148	63.0823	185.8991
93	3050.2297	-63.0990	-185.4922	-2807.9419	97.1294	277.8736
94	2807.9988	-97.1221	-277.4520	-2463.2771	131.1555	369.9858
95	2463.3357	-131.1842	-369.7473	-2015.9493	165.2279	462.4342
96	2016.0474	-165.1985	-462.1394	-1466.7938	199.2085	554.9013
97	1540.6718	-127.0553	-512.2174	-1106.1213	161.0464	605.0288
98	1194.3127	-105.4642	-445.4219	-895.8165	78.7246	400.4536
99	1021.4026	-5.7906	-210.4149	-963.5107	32.7964	284.8359
100	1066.1384	36.8027	-106.3087	-1136.0464	-3.9538	176.4695
101	1208.5486	-49.6975	31.6319	-1041.8735	55.5541	-35.8559
102	1085.1484	-30.4725	96.7167	-953.2456	57.4703	-22.3101
103	1059.4161	12.1315	201.1608	-1055.3068	14.8717	-126.7796
104	1148.4952	58.0512	316.8819	-1339.4333	-75.5937	-335.3193
105	1417.9717	131.1549	494.7375	-1760.9629	-97.8332	-403.8052
106	1904.8943	170.7158	445.6371	-2369.4880	-139.7039	-362.5099
107	2369.3708	139.7226	363.4257	-2736.2747	-106.0554	-272.0888
108	2736.2498	106.0294	272.3720	-3002.9102	-72.2588	-180.7872
109	3002.9231	72.2789	181.2066	-3168.5266	-38.4344	-89.4514
110	3168.5098	38.4322	89.4348	-3232.4058	-4.5286	2.3988
111	3232.3992	4.5403	-1.1478	-3194.1753	29.4306	93.1579

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	3194.2014	-29.4715	-93.1814	-3053.4214	63.4746	185.4982
113	3053.4292	-63.4817	-185.4958	-2810.0493	97.4952	277.8214
114	2810.1465	-97.4577	-276.4965	-2464.2654	131.4885	369.0322
115	2464.2229	-131.4478	-369.2749	-2016.2496	165.4600	461.9235
116	2016.4886	-165.4279	-460.9350	-1466.3875	199.4520	553.7135
117	1540.7134	-126.8115	-512.3343	-1106.9485	160.8058	605.1720
118	1195.3038	-105.2395	-445.1528	-897.3204	78.5192	400.3456
119	1022.6913	-5.6146	-210.8932	-965.3656	32.6106	285.2620
120	1068.0149	36.9910	-105.9265	-1138.4865	-4.1485	176.0796
121	1210.8822	-49.7543	31.2756	-1044.0580	55.5997	-35.5003
122	1087.3108	-30.5169	96.7816	-955.2810	57.5130	-22.4036
123	1061.3840	12.1027	201.2115	-1057.1904	14.8981	-126.8252
124	1150.4053	58.0455	316.5531	-1341.4451	-75.5892	-334.8961
125	1420.0779	131.1872	494.3183	-1763.1654	-97.8708	-403.3980
126	1907.3700	170.7365	444.9758	-2372.0337	-139.7179	-361.8307
127	2371.8936	139.6873	362.7369	-2738.6628	-106.0155	-271.4304
128	2738.5759	105.9998	272.0734	-3005.0786	-72.2289	-180.5760
129	3005.0508	72.2022	181.3115	-3170.4695	-38.3576	-89.5725
130	3170.4375	38.3428	89.5728	-3234.0527	-4.4337	2.3768
131	3233.9919	4.4460	-1.9773	-3195.5024	29.5200	93.9716
132	3195.5427	-29.5486	-93.2063	-3054.4980	63.5581	185.2982
133	3054.5591	-63.5455	-184.1758	-2811.0103	97.5634	276.4612
134	2811.0593	-97.5686	-275.7786	-2464.8750	131.5986	368.3478
135	2464.8997	-131.5878	-368.3116	-2016.3354	165.6228	461.0357
136	2016.3981	-165.5869	-460.7577	-1466.0540	199.5939	553.4864
137	1540.8821	-126.7698	-511.3094	-1107.1492	160.7592	604.1104
138	1195.3217	-105.1805	-444.9247	-897.6445	78.4482	400.3081
139	1023.2197	-5.5188	-210.7718	-966.1867	32.5141	285.1334
140	1068.8724	37.0873	-105.9076	-1139.6387	-4.2403	176.0859
141	1212.0349	-49.7572	31.1260	-1045.2085	55.6082	-35.3606
142	1088.4645	-30.5242	97.1776	-956.3791	57.5269	-22.8103
143	1062.5529	12.0694	201.4090	-1058.2716	14.9249	-127.0273
144	1151.5272	57.9941	316.3805	-1342.3612	-75.5286	-334.6751
145	1420.7518	131.1104	494.4870	-1763.5371	-97.7977	-403.5699
146	1907.4431	170.6444	444.2143	-2371.9045	-139.6278	-361.0242
147	2371.7769	139.6257	361.9565	-2738.4399	-105.9516	-270.6686
148	2738.3240	105.9464	271.7195	-3004.6338	-72.1796	-180.2611
149	3004.6265	72.1739	180.9822	-3169.9126	-38.3380	-89.2340
150	3169.8521	38.3338	89.2614	-3233.4119	-4.4263	2.5958
151	3233.4387	4.3959	-1.3847	-3194.7681	29.5765	93.4045
152	3194.7849	-29.5697	-93.4044	-3053.7124	63.5636	185.5127
153	3053.8501	-63.5522	-183.6745	-2810.2583	97.5785	275.9534
154	2810.2791	-97.5493	-275.9726	-2464.1880	131.5757	368.5685
155	2464.2986	-131.5837	-367.9574	-2015.6953	165.6207	460.6253
156	2015.7957	-165.5969	-460.3298	-1465.3413	199.6187	553.0433
157	1540.2467	-126.7681	-510.9071	-1106.6351	160.7486	603.6593
158	1194.6578	-105.1801	-444.6413	-896.9016	78.4480	400.1491
159	1022.3002	-5.5284	-210.6536	-965.2051	32.5317	285.0584
160	1067.7681	37.0617	-106.5129	-1138.4531	-4.2188	176.6563
161	1210.9491	-49.6761	31.3017	-1044.3512	55.5240	-35.5598
162	1087.6425	-30.4423	96.8095	-955.8330	57.4396	-22.4304
163	1062.0253	12.1674	201.0593	-1058.0250	14.8349	-126.6785
164	1151.3273	58.0982	316.3257	-1342.5643	-75.6442	-334.5550
165	1421.2751	131.2354	493.4815	-1764.4811	-97.9191	-402.6361
166	1908.0208	170.6030	444.9693	-2372.2803	-139.5860	-361.8246
167	2372.2866	139.5797	361.8157	-2738.8250	-105.9081	-270.3300
168	2738.7991	105.8730	270.3306	-3004.9194	-72.0977	-178.8845

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	3004.8289	72.0955	180.7492	-3169.8521	-38.2556	-89.1746
170	3169.8770	38.2744	89.6010	-3233.2964	-4.3666	2.1481
171	3233.2830	4.3366	-0.6287	-3194.4673	29.6174	92.6255
172	3194.4390	-29.5942	-92.6505	-3053.2166	63.6120	184.9165
173	3053.2424	-63.6354	-184.4696	-2809.4297	97.6588	276.6989
174	2809.5688	-97.6615	-275.0083	-2463.1711	131.6928	367.4994
175	2463.0762	-131.6836	-367.8735	-2014.2344	165.7139	460.5683
176	2014.4702	-165.7357	-459.5139	-1463.6360	199.7510	552.2255
177	1538.2180	-126.8555	-511.0291	-1104.1942	160.8442	603.8707
178	1192.4457	-105.2521	-444.5686	-894.6030	78.5066	400.0644
179	1020.0570	-5.5795	-210.5212	-962.7960	32.5879	284.9349
180	1065.3793	37.0073	-106.4126	-1135.9001	-4.1572	176.5634
181	1208.3159	-49.4708	31.3884	-1042.3666	55.3189	-35.6424
182	1085.6489	-30.2389	96.7117	-954.4477	57.2369	-22.3451
183	1060.5680	12.3637	201.4828	-1057.1539	14.6369	-127.1120
184	1150.4435	58.2830	316.2927	-1342.1470	-75.8250	-334.5279
185	1420.6459	131.4034	493.8726	-1764.4270	-98.0834	-402.9522
186	1907.0704	170.2530	444.3106	-2370.2278	-139.2380	-361.2287
187	2369.9814	139.2474	362.7174	-2735.4758	-105.5837	-271.3836
188	2735.4724	105.5995	271.3852	-3000.7808	-71.8349	-179.8133
189	3000.7830	71.8638	180.5368	-3165.1619	-38.0220	-88.9205
190	3165.1108	38.0007	90.1001	-3227.7153	-4.0929	1.7576
191	3227.6624	4.1049	-1.7762	-3188.2061	29.8549	93.7246
192	3188.2827	-29.8685	-91.7918	-3046.2583	63.8777	183.9051
193	3046.3159	-63.9255	-183.8752	-2801.5544	97.9647	276.3202
194	2801.5769	-98.0085	-275.9121	-2454.1892	132.0293	368.3724
195	2454.3574	-132.0154	-367.2259	-2004.5107	166.0559	459.8201
196	2004.5801	-166.0517	-459.5060	-1452.7747	200.0674	552.2848
197	1527.3289	-127.1753	-511.0860	-1092.4658	161.1614	603.8776
198	1180.6332	-105.5789	-444.5061	-881.6802	78.8305	400.0760
199	1007.0438	-5.8911	-210.6816	-948.8640	32.8931	285.0908
200	1051.3756	36.7057	-106.7663	-1121.0009	-3.8522	176.9014
201	1193.4894	-48.3404	31.4445	-1030.8943	54.1908	-35.7381
202	1074.1694	-29.1114	96.9927	-946.3532	56.1080	-22.5996
203	1052.5765	13.4909	200.9606	-1052.5558	13.5060	-126.5871
204	1145.7683	59.4271	316.3549	-1340.9572	-76.9661	-334.5936
205	1419.5857	132.5562	493.7315	-1766.7565	-99.2390	-402.8593
206	1906.0702	169.5746	444.6762	-2367.1846	-138.5731	-361.5602
207	2367.0610	138.5851	362.1419	-2730.6021	-104.9073	-270.7242
208	2730.6143	104.8994	270.6952	-2993.8521	-71.1381	-179.2383
209	2993.7327	71.0899	181.0496	-3155.7175	-37.2332	-89.4106
210	3155.7231	37.1874	89.3894	-3215.8838	-3.2764	2.4676
211	3215.8789	3.2643	-1.2612	-3173.8157	30.6979	93.2763
212	3173.8020	-30.6680	-93.3321	-3029.4023	64.6739	185.4446
213	3029.5068	-64.6799	-183.5780	-2782.4744	98.7046	275.8597
214	2782.4412	-98.7046	-275.8535	-2432.8777	132.7415	368.3952
215	2433.0046	-132.7772	-367.5181	-1980.9742	166.8102	460.1596
216	1981.0092	-166.8126	-460.1174	-1426.9192	200.8245	552.8656
217	1501.9980	-127.9162	-510.9558	-1064.8923	161.9084	603.7194
218	1153.1284	-106.3018	-444.7637	-852.2522	79.5451	400.3172
219	977.9504	-6.6048	-210.8846	-917.6210	33.6099	285.2782
220	1020.4411	36.0005	-106.4572	-1087.9462	-3.1445	176.6149
221	1160.4106	-45.8254	31.0044	-1005.4003	51.6794	-35.2586
222	1048.7294	-26.5997	96.6134	-928.4329	53.5985	-22.2339
223	1034.7959	15.9789	200.8227	-1042.2288	11.0258	-126.4366
224	1135.7764	61.8446	316.1045	-1338.2432	-79.3607	-334.3666
225	1416.9845	134.8755	493.5025	-1771.0902	-101.5573	-402.6615

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	1898.7799	165.4145	444.5086	-2347.4819	-134.3867	-361.3321
227	2347.4778	134.3795	361.3638	-2698.4224	-100.7020	-269.9742
228	2698.3376	100.7032	270.9641	-2948.9346	-66.9436	-179.4646
229	2948.9172	66.9569	179.8836	-3098.4741	-33.1127	-88.2458
230	3098.4719	33.0894	89.2586	-3146.3037	0.8300	2.5403
231	3146.3037	-0.7920	-1.6000	-3092.1113	34.7415	93.6285
232	3092.1230	-34.7205	-93.6209	-2935.6179	68.7068	185.7599
233	2935.6821	-68.6514	-184.4451	-2676.7256	102.6770	276.7396
234	2676.7515	-102.6913	-276.3111	-2315.2739	136.7278	368.7631
235	2315.4194	-136.7151	-367.7445	-1851.4664	170.7521	460.4130
236	1851.3840	-170.7918	-460.5694	-1285.4802	204.8011	553.3427
237	1363.8232	-131.8419	-511.6191	-914.9742	165.8361	604.3807
238	1005.5716	-94.2727	-402.9231	-742.7001	67.4848	358.4683
239	822.7203	-10.4177	-211.4028	-750.9633	37.4190	285.8021
240	855.0084	32.2125	-107.2525	-911.1505	0.6706	177.4237
241	983.9623	-32.4491	21.6428	-869.0191	38.3272	-25.9081
242	912.6314	-13.2719	87.3269	-832.2836	40.2789	-12.9267
243	939.9052	29.1247	191.3999	-986.7809	-2.1238	-117.0178
244	1082.2936	74.5022	306.5983	-1322.9963	-91.7602	-324.8212
245	1402.6086	146.3902	483.9836	-1791.2737	-113.0308	-393.0697
246	1881.3854	155.9787	442.2381	-2301.3513	-124.9019	-359.1301
247	2301.2024	124.9355	360.2761	-2623.5818	-91.2319	-268.8843
248	2623.5862	91.2308	268.8703	-2845.5090	-57.4352	-177.2601
249	2845.4834	57.4504	177.6943	-2966.2410	-23.5913	-86.1306
250	2966.1816	23.5842	87.9082	-2985.1460	10.3521	3.8634
251	2985.1189	-10.3631	-3.8750	-2901.9094	44.3464	95.9395
252	2901.9143	-44.3403	-95.2446	-2716.2578	78.3404	187.3837
253	2716.2896	-78.3176	-186.4632	-2428.2822	112.3448	278.7243
254	2428.4136	-112.3541	-277.7874	-2038.0359	146.3879	370.3090
255	2037.9976	-146.4260	-370.3366	-1545.3755	180.4555	463.0507
256	1545.5112	-180.4698	-462.7393	-951.0325	214.4709	555.5109
257	1072.5033	-132.2058	-489.1371	-623.6571	166.1607	581.9523
258	721.7690	-101.7819	-405.6950	-461.6469	74.3708	361.0394
259	563.1320	-16.7912	-213.4666	-472.2475	43.7939	287.8583
260	593.1330	26.2282	-109.3088	-631.3162	6.8358	179.5352
261	708.3396	-9.6509	-8.2384	-672.9868	15.7131	4.0452
262	700.1691	3.3675	40.5323	-684.9692	16.8782	15.2447
263	756.1688	37.0637	117.8030	-816.7858	-16.8128	-62.0303
264	892.2271	76.8268	204.6127	-1042.3394	-56.5717	-148.8008
265	1132.9188	130.0876	331.8760	-1454.8983	-152.3197	-349.0631
266	1456.1006	152.9441	354.8904	-1772.6522	-128.6535	-288.5428
267	1772.7418	128.6507	287.9937	-2031.8982	-102.3947	-215.7032
268	2031.8025	102.3379	216.7666	-2233.7258	-76.3470	-146.2470
269	2233.6729	76.2987	146.9903	-2374.9697	-50.1012	-76.1445
270	2374.9761	50.0246	76.0899	-2458.7175	-23.7678	-3.7481
271	2458.7437	23.7877	3.7783	-2481.9846	2.4639	68.4220
272	2481.9839	-2.5475	-67.1817	-2446.7249	28.9376	138.1616
273	2446.7517	-28.9461	-138.1894	-2350.9990	56.7000	214.5770
274	2351.0852	-56.7565	-213.8396	-2194.5798	83.0090	286.0953
275	2194.5811	-82.9698	-286.0944	-1979.1984	108.0304	353.2675
276	1979.2675	-108.0246	-352.9029	-1704.5170	135.7755	429.2634
277	1704.6376	-135.8040	-428.7651	-1368.3989	163.5571	505.1859
278	1368.4059	-163.5531	-505.1738	-971.6549	189.7991	577.4576
279	971.9267	-189.7822	-576.9861	-514.7152	216.0303	649.2720
280	514.6039	-216.0287	-649.3640	0.3099	190.2142	550.1373

ENVOLVENTE MAXIMOS CORTANTES TREN IPF-B, l=30 m, via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0366	243.6273	709.3715	-518.1563	-218.8198	-643.2912
2	496.8098	219.4536	648.1506	-954.2247	-194.6404	-581.8927
3	894.2343	196.5314	589.4739	-1293.9525	-171.7202	-522.8869
4	1201.5415	174.8845	532.0806	-1546.5381	-148.5850	-461.0865
5	1426.6350	153.0022	473.1911	-1718.8813	-126.7591	-402.1681
6	1577.0408	132.4244	417.3866	-1820.7968	-107.7109	-350.3242
7	1662.5536	114.5749	367.5077	-1860.9828	-89.9140	-300.1960
8	1691.4198	97.9572	319.5615	-1808.6453	-72.5666	-250.8112
9	1632.5378	81.7835	272.7937	-1746.5083	-56.8305	-205.0410
10	1568.6265	67.1398	230.1441	-1647.3287	-42.7765	-164.0607
11	1472.2391	54.2475	190.4347	-1231.6646	-30.4776	-98.5136
12	1063.0922	42.9783	128.7807	-1137.0017	-22.7291	-72.9736
13	979.0933	36.2830	104.3725	-1037.9434	-16.0302	-48.5547
14	893.8165	30.5558	83.3118	-939.7743	-10.3109	-27.5143
15	812.5958	25.8000	64.3127	-847.8561	-5.5479	-8.5019
16	740.0098	21.9261	48.2686	-766.5623	-1.6698	7.5568
17	680.1777	18.8971	34.2528	-699.9129	1.3471	21.5480
18	636.5414	16.6411	22.6980	-651.2003	3.6114	33.1285
19	611.7936	15.1069	13.5258	-623.0068	5.1407	42.2775
20	608.0847	14.2280	7.1160	-40.0693	-11.8071	-13.5879
21	-3708.7920	327.0069	779.9130	2642.0259	-349.0223	-808.6342
22	-2661.0256	349.4599	814.0658	1685.1891	-317.1622	-725.9428
23	-1741.3997	318.5418	733.9855	879.3017	-286.5560	-648.0575
24	-971.8767	288.9888	659.3190	175.2827	-256.3223	-570.6222
25	-302.8548	259.9399	585.3512	-382.3336	-227.3347	-498.3923
26	222.3256	232.2571	516.5524	-845.8794	-199.3404	-427.2951
27	657.3373	205.6620	448.8174	-1170.2938	-172.6736	-360.8753
28	957.7576	180.4388	386.1722	-1419.9182	-147.3945	-296.4466
29	1189.3411	156.7060	324.7480	-1542.1913	-123.5886	-235.8776
30	1299.6095	134.4741	268.1745	-1617.0153	-101.4272	-178.1574
31	1369.2495	113.9269	213.5793	-1580.6426	-80.9288	-124.6320
32	1334.6187	95.0703	163.2392	-1052.2368	-64.9699	-56.1062
33	814.8774	80.7196	98.5090	-1016.5216	-53.7224	-24.0990
34	794.5329	71.0626	70.2036	-967.2263	-44.0614	4.2166
35	767.0083	62.9571	44.6716	-915.4014	-35.9529	29.7497
36	742.6945	56.3561	23.3997	-871.2705	-29.3545	51.0199
37	731.1274	51.1888	4.9341	-844.1841	-24.1920	69.4660
38	740.5929	47.3607	-9.6092	-842.1747	-20.3588	84.0291
39	777.9075	44.7662	-21.1569	-871.7022	-17.7694	95.5580
40	848.4348	43.2902	-29.0165	-299.7486	-27.6333	46.9034
41	-4245.8306	337.7617	756.6295	3143.1345	-360.4322	-797.3895
42	-3163.0945	360.8940	803.3074	2152.1606	-328.5786	-715.1988
43	-2211.2654	330.0264	722.7172	1313.6350	-298.0110	-636.7510
44	-1410.1035	300.5497	648.0707	578.5638	-267.8791	-559.3612
45	-710.5975	271.6275	574.3603	-9.4651	-239.0211	-487.4410
46	-155.5090	244.0946	505.6221	-503.2895	-211.1809	-416.4350
47	309.8212	217.6579	438.1249	-858.2131	-184.6950	-350.1721
48	641.1466	192.6633	375.3586	-1139.4482	-159.6406	-285.6557
49	904.8419	169.1495	314.1244	-1294.3201	-136.0848	-225.2088
50	1048.3157	147.1603	257.2815	-1403.4076	-114.1438	-167.2780
51	1152.7823	126.8220	202.9917	-1402.2087	-93.8742	-114.1358
52	1153.9586	108.1609	152.9542	-892.7523	-79.7365	-45.5524
53	653.8528	95.6363	88.0201	-900.3137	-68.6319	-13.5871
54	677.2764	86.1082	59.3271	-895.0645	-59.1144	15.0734

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	694.3540	78.1256	34.4291	-888.2230	-51.1269	39.9866
56	715.4076	71.6225	12.5891	-889.8069	-44.6149	61.8365
57	749.7567	66.5306	-5.5176	-908.8453	-39.5311	79.9230
58	805.5024	62.7589	-20.3051	-953.2710	-35.7599	94.7123
59	889.3112	60.2050	-31.6324	-1029.4200	-33.2073	106.0254
60	1006.3861	58.7512	-39.4543	-485.6768	-41.2764	56.5053
61	-4345.3867	340.3208	756.8991	3236.3333	-362.5735	-798.2238
62	-3256.7485	363.0356	802.4985	2239.1470	-330.7120	-714.2688
63	-2298.3901	332.1649	722.0254	1394.4607	-300.1550	-636.0834
64	-1491.1251	302.7057	647.6569	653.1027	-270.0315	-558.9810
65	-785.8250	273.7944	573.3990	59.2020	-241.1923	-486.4127
66	-224.2218	246.2867	504.8224	-441.1997	-213.3826	-415.6376
67	247.1762	219.8777	437.3769	-802.1036	-186.9086	-349.4824
68	584.7561	194.8688	374.6300	-1089.7673	-161.8402	-284.9105
69	854.7687	171.3503	313.5256	-1250.7281	-138.2808	-224.6444
70	1004.4393	149.3719	256.7139	-1366.0824	-116.3589	-166.7248
71	1115.2397	129.0581	202.4398	-1371.2722	-96.1134	-113.6618
72	1122.7798	110.4252	152.7045	-867.2432	-82.1147	-45.2399
73	628.1852	98.0177	87.4516	-881.7590	-71.0136	-13.0343
74	658.6337	88.4896	59.0014	-883.5977	-61.4928	15.4120
75	682.8120	80.5230	34.0591	-883.8822	-53.5210	40.3539
76	711.0270	74.0227	12.3190	-892.6041	-47.0220	62.0920
77	752.5681	68.9375	-5.9500	-918.8857	-41.9373	80.3652
78	815.5482	65.1734	-20.7503	-970.5744	-38.1730	95.1500
79	906.6435	62.6225	-31.6892	-1054.0029	-35.6252	106.0864
80	1030.9658	61.1720	-39.9654	-516.4670	-43.7120	56.9946
81	-4399.4150	341.3809	756.1472	3286.8611	-363.7329	-797.4232
82	-3307.0994	364.2007	802.5446	2286.1719	-331.8832	-714.3699
83	-2345.5117	333.3336	721.8703	1437.8396	-301.3215	-635.8876
84	-1534.6270	303.8687	647.2619	693.1405	-271.1923	-558.5592
85	-825.7614	274.9596	573.2427	95.8094	-242.3651	-486.3205
86	-261.1148	247.4580	504.5565	-407.8853	-214.5453	-415.3732
87	213.8980	221.0300	437.1162	-772.2297	-188.0640	-349.2336
88	554.7588	196.0525	374.4764	-1063.3541	-163.0287	-284.7423
89	828.3409	172.5249	313.2230	-1227.7864	-139.4585	-224.3905
90	981.3835	150.5546	256.7752	-1346.5208	-117.5398	-166.8940
91	1095.6926	130.2238	202.5552	-1355.1875	-97.2838	-113.7007
92	1106.8052	111.5955	152.4558	-854.7257	-83.2715	-44.9654
93	615.5435	99.1776	87.4717	-872.6070	-72.1816	-13.0469
94	649.5038	89.6747	58.9807	-877.9699	-62.6823	15.4177
95	677.2023	81.6991	33.8872	-881.8302	-54.6947	40.5400
96	708.9478	75.2108	12.2753	-894.0632	-48.2138	62.1279
97	754.0328	70.1248	-5.7988	-923.9118	-43.1237	80.2142
98	820.5644	66.3578	-20.6537	-979.1482	-39.3558	95.0573
99	915.2070	63.8073	-31.7628	-1066.1493	-36.8015	106.1853
100	1043.1195	62.3575	-40.0228	-532.0917	-44.8738	57.0734
101	-4408.2866	341.5989	755.2356	3295.0063	-363.9175	-796.4629
102	-3315.0588	364.3830	802.4166	2293.5447	-332.0644	-714.2866
103	-2352.8828	333.5135	721.8269	1444.6840	-301.4937	-635.8374
104	-1541.7296	304.0395	646.5582	699.8408	-271.3642	-557.8457
105	-832.3647	275.1224	572.6725	101.7391	-242.5185	-485.7125
106	-267.0069	247.6156	504.0342	-402.2998	-214.7138	-414.8967
107	208.2958	221.2126	436.6550	-767.1437	-188.2548	-348.7852
108	549.7679	196.2142	373.9838	-1058.9697	-163.1790	-284.3113
109	823.8402	172.7058	313.0094	-1223.8616	-139.6370	-224.1633
110	977.5461	150.7283	256.2152	-1343.2986	-117.7124	-166.2592
111	1092.3921	130.4128	202.0885	-1352.4333	-97.4781	-113.3088

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	1104.0667	111.7740	152.1891	-852.4623	-83.4670	-44.6701
113	613.4043	99.3823	87.0215	-871.0469	-72.3862	-12.5927
114	647.9491	89.8657	58.8420	-877.1023	-62.8549	15.6051
115	676.2847	81.8912	33.4831	-881.4249	-54.8937	40.9166
116	708.6016	75.3959	12.1790	-894.3046	-48.3940	62.2478
117	754.2454	70.3017	-6.4095	-924.6523	-43.3048	80.8109
118	821.3242	66.5398	-20.7782	-980.4763	-39.5325	95.2028
119	916.4989	63.9865	-32.2836	-1067.9409	-36.9905	106.6522
120	1044.9282	62.5347	-39.6796	-534.4796	-45.0614	56.8261
121	-4412.3125	341.7156	756.0141	3298.5986	-364.0477	-797.3529
122	-3318.9492	364.5125	801.9632	2297.1357	-332.1972	-713.7436
123	-2356.4700	333.6573	721.2825	1447.8578	-301.6445	-635.2810
124	-1544.8083	304.1761	646.2513	702.2907	-271.4991	-557.5285
125	-834.9288	275.2594	572.2487	103.9364	-242.6527	-485.2962
126	-269.2325	247.7253	503.6312	-400.3774	-214.8179	-414.5006
127	206.3429	221.3060	436.2769	-765.4025	-188.3425	-348.4391
128	547.9370	196.3234	373.6957	-1057.2496	-163.2882	-284.1054
129	822.0835	172.7886	312.8512	-1222.4326	-139.7239	-224.0055
130	976.0314	150.8131	256.0562	-1342.0333	-117.7840	-166.0079
131	1091.0966	130.4888	201.6351	-1351.3369	-97.5578	-112.8859
132	1102.8944	111.8617	152.0373	-851.5028	-83.5539	-44.5560
133	612.3435	99.4642	87.2320	-870.2280	-72.4674	-12.7924
134	647.1297	89.9467	58.7248	-876.4992	-62.9454	15.7003
135	675.6856	81.9830	33.4495	-881.1453	-54.9786	40.9749
136	708.2875	75.4878	11.7826	-894.2170	-48.4904	62.6118
137	754.2150	70.3996	-6.1021	-924.9322	-43.3956	80.5199
138	821.5875	66.6302	-21.0105	-981.0012	-39.6263	95.4249
139	917.0637	64.0812	-32.2668	-1068.7982	-37.0859	106.6292
140	1045.7969	62.6325	-39.6758	-535.7824	-45.1508	56.7904
141	-4411.8853	341.6669	757.0347	3298.5242	-363.9895	-798.3506
142	-3319.2463	364.4525	801.3060	2297.4355	-332.1274	-712.9773
143	-2356.7168	333.5803	720.7551	1448.5580	-301.5746	-634.7714
144	-1545.3920	304.1214	646.0302	703.0331	-271.4435	-557.3211
145	-835.8647	275.2087	571.6602	105.1237	-242.6100	-484.7061
146	-270.2751	247.7079	503.1046	-399.4406	-214.8004	-413.9459
147	205.3945	221.2949	435.7685	-764.5723	-188.3267	-347.9467
148	547.0597	196.2971	373.2925	-1056.2548	-163.2787	-283.7309
149	821.1870	172.7940	312.4776	-1221.4989	-139.7220	-223.6452
150	975.1506	150.8187	255.7090	-1341.1550	-117.7933	-165.7448
151	1090.2408	130.4804	201.5748	-1350.4977	-97.5438	-112.8025
152	1102.1086	111.8510	151.7047	-850.7754	-83.5469	-44.1913
153	611.6353	99.4530	87.0990	-869.5095	-72.4526	-12.6526
154	646.4301	89.9445	58.3401	-875.7521	-62.9426	16.0838
155	674.9426	81.9662	33.3106	-880.3700	-54.9610	41.1221
156	707.4904	75.4678	11.6213	-893.3812	-48.4694	62.7796
157	753.3592	70.3841	-6.1566	-924.0080	-43.3860	80.5600
158	820.6503	66.6162	-21.1001	-979.9915	-39.6180	95.4994
159	916.0397	64.0646	-32.2778	-1067.7512	-37.0613	106.6820
160	1044.7241	62.6139	-40.2721	-534.6120	-45.1392	57.3204
161	-4411.3755	341.6401	755.7666	3297.8364	-363.9654	-796.9329
162	-3318.2061	364.4320	801.5436	2296.6060	-332.1163	-713.3186
163	-2355.9565	333.5684	720.8847	1447.6061	-301.5515	-634.8726
164	-1544.6666	304.0931	645.6324	702.6286	-271.4208	-556.9159
165	-835.1828	275.1812	571.8217	104.4533	-242.5760	-484.9467
166	-270.0373	247.6548	503.0083	-399.4041	-214.7443	-413.8635
167	205.5291	221.2347	435.6370	-764.5794	-188.2757	-347.6754
168	547.1497	196.2538	372.9305	-1056.2683	-163.2205	-283.3914

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	820.9903	172.7309	312.4559	-1221.0905	-139.6564	-223.7649
170	974.7007	150.7542	255.9147	-1340.4283	-117.7525	-166.0350
171	1089.5138	130.4361	201.9016	-1349.6592	-97.4924	-113.1287
172	1101.1825	111.7965	151.9753	-849.6187	-83.4805	-44.3423
173	610.4651	99.3966	86.8006	-868.1188	-72.3995	-12.3669
174	644.9893	89.8878	58.6610	-874.1267	-62.8906	15.7619
175	673.3152	81.9123	33.2002	-878.5799	-54.9078	41.2273
176	705.6784	75.4133	11.8707	-891.3995	-48.4168	62.5303
177	751.3771	70.3316	-6.4516	-921.9105	-43.3239	80.8725
178	818.5512	66.5638	-21.0804	-977.7135	-39.5725	95.4503
179	913.7765	64.0144	-32.1727	-1065.3599	-37.0060	106.5866
180	1042.3284	62.5638	-40.1717	-532.1108	-45.0809	57.2647
181	-4407.3921	341.3048	755.6387	3295.1704	-363.6342	-796.9052
182	-3315.4036	364.1030	802.0809	2294.7981	-331.7819	-713.8468
183	-2354.4155	333.2248	720.3940	1447.1891	-301.2079	-634.3411
184	-1543.9633	303.7546	645.7673	702.8801	-271.0872	-557.0754
185	-835.5252	274.8459	571.7303	105.6216	-242.2386	-484.7821
186	-270.9687	247.3382	503.0802	-397.4388	-214.4385	-414.0076
187	203.3246	220.9442	435.7811	-761.4004	-187.9865	-347.9211
188	544.0378	195.9553	373.1060	-1052.2787	-162.9322	-283.4522
189	817.1931	172.4486	312.2502	-1216.5044	-139.3783	-223.5243
190	970.0503	150.4663	255.8663	-1334.9788	-117.4501	-165.8923
191	1084.1188	130.1397	201.3611	-1343.3585	-97.2014	-112.6541
192	1094.8213	111.5061	152.1096	-842.2756	-83.1780	-44.4461
193	603.1172	99.0824	86.7045	-859.8948	-72.0852	-12.2846
194	636.7292	89.5669	58.1429	-864.8941	-62.5733	16.2716
195	664.0757	81.5953	33.3129	-868.3819	-54.5919	41.1247
196	695.4778	75.1053	11.5652	-880.2718	-48.1089	62.8350
197	740.2297	70.0216	-6.5994	-909.7948	-43.0202	81.0014
198	806.4384	66.2557	-21.1551	-964.6978	-39.2588	95.5450
199	900.7370	63.7084	-32.3665	-1051.3739	-36.7064	106.7755
200	1028.3241	62.2571	-40.5400	-517.1812	-44.7706	57.5805
201	-4398.0430	340.5936	755.2999	3287.7456	-362.9143	-796.4523
202	-3308.1050	363.3815	801.0713	2289.6416	-331.0622	-712.8677
203	-2348.8098	332.5089	721.0369	1443.8025	-300.5008	-635.0636
204	-1540.8889	303.0624	645.6592	701.7284	-270.3880	-556.9281
205	-834.3763	274.1483	571.6962	106.7320	-241.5494	-484.7870
206	-272.2034	246.6394	502.9505	-394.0735	-213.7361	-413.8468
207	200.1057	220.2333	435.6193	-756.1412	-187.2710	-347.6911
208	538.7403	195.2393	372.9191	-1044.8141	-162.2074	-283.3803
209	809.5450	171.7047	312.3914	-1206.5671	-138.6256	-223.6331
210	960.1938	149.7113	255.6776	-1322.8933	-116.6918	-165.7106
211	1071.9404	129.3885	201.5220	-1328.9209	-96.4508	-112.7476
212	1080.4946	110.7684	151.6210	-825.8391	-82.4679	-44.0802
213	586.6696	98.3744	86.9828	-841.3065	-71.3722	-12.5338
214	618.1993	88.8624	58.2225	-844.2855	-61.8599	16.1946
215	643.4682	80.8836	33.2831	-845.6146	-53.8873	41.1373
216	672.7887	74.3928	11.4539	-855.4592	-47.3961	62.9476
217	715.4674	69.3162	-6.3622	-882.9122	-42.3166	80.7706
218	779.5960	65.5546	-21.3064	-935.7621	-38.5546	95.7089
219	871.8507	63.0053	-32.4974	-1020.3905	-36.0002	106.8910
220	997.4113	61.5559	-40.2177	-484.4682	-44.0573	57.3145
221	-4344.6641	336.5924	755.7694	3246.6836	-358.9028	-797.0415
222	-3267.1396	359.3723	801.3236	2260.6414	-327.0499	-713.0726
223	-2320.0056	328.5031	720.6888	1426.7469	-296.4775	-634.6689
224	-1523.8408	299.0186	645.4222	696.9695	-266.3436	-556.7041
225	-829.6107	270.1346	571.4536	114.1206	-237.5311	-484.5797

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-279.6066	242.6113	502.7006	-374.7589	-209.6911	-413.5422
227	180.9039	216.1919	435.3350	-724.8543	-183.2315	-347.4364
228	507.4023	191.2298	372.7750	-1001.4453	-158.2076	-283.1826
229	766.4889	167.7318	311.9177	-1151.4924	-134.6736	-223.1820
230	905.3660	145.7688	255.4753	-1256.3528	-112.7341	-165.5575
231	1005.6479	125.4637	201.2681	-1250.9404	-92.5499	-112.4796
232	1002.9124	106.8609	151.3589	-737.7780	-78.5994	-43.8364
233	499.0513	94.5246	86.5286	-742.1631	-67.5184	-12.0698
234	519.4467	85.0222	57.9114	-733.9824	-58.0244	16.5068
235	533.6226	77.0593	32.9760	-724.3406	-50.0531	41.4609
236	551.9024	70.5727	11.0404	-723.1050	-43.5815	63.3545
237	583.5496	65.5054	-6.9659	-739.5945	-38.5043	81.3744
238	636.6684	61.7541	-21.6127	-781.4413	-34.7535	96.0177
239	717.8396	59.2124	-33.0605	-854.9780	-32.2111	107.4599
240	832.2015	57.7676	-41.0228	-310.8354	-40.1653	58.0960
241	-4232.3057	328.2548	754.0180	3159.6472	-350.3648	-795.2139
242	-3180.2349	350.8418	799.2117	2198.7786	-318.4750	-710.9182
243	-2258.2573	319.9543	718.7633	1390.4989	-287.8662	-632.7551
244	-1487.7437	290.4551	643.5366	686.6580	-257.7499	-554.8306
245	-819.3870	261.5812	569.4926	129.4438	-228.9223	-482.5406
246	-294.6548	234.0930	500.8348	-333.8870	-201.1753	-411.7512
247	140.3836	207.7881	433.5068	-658.9234	-174.7939	-345.5893
248	442.5138	182.8917	370.8188	-911.6271	-149.8609	-281.1273
249	678.0753	159.5222	309.9058	-1038.7073	-126.4695	-221.2371
250	794.4956	137.7218	253.6613	-1121.5470	-104.7396	-163.7361
251	873.6632	117.5958	199.2009	-1096.5957	-84.7241	-110.3734
252	851.8345	99.2196	149.4636	-577.0082	-71.5247	-42.0401
253	342.2345	87.6200	84.6036	-564.6154	-60.6201	-10.1581
254	346.4884	78.3047	56.0985	-540.8887	-51.3078	18.3176
255	345.5700	70.5227	30.8190	-516.6322	-43.5266	43.5883
256	349.5263	64.2157	9.1503	-501.6910	-37.2128	65.2658
257	367.3855	59.2943	-9.0017	-504.7719	-32.2947	83.4076
258	406.7990	55.6719	-23.8784	-533.3208	-28.6717	98.2644
259	473.9297	53.2309	-34.9185	-593.1291	-26.2282	109.3088
260	573.2452	51.8509	-43.0338	-107.8766	-33.3194	71.8827
261	-3628.1321	290.8462	554.6638	2919.2759	-317.4792	-603.6822
262	-2931.5305	317.7592	608.1473	2242.4927	-293.5138	-541.2844
263	-2278.3770	294.4038	547.2313	1658.3402	-270.1191	-480.8363
264	-1717.2380	271.6403	489.2434	1167.2800	-246.2121	-421.3397
265	-1248.3579	248.4604	433.0294	737.2348	-223.0921	-364.7357
266	-839.7689	226.1159	378.0523	382.2067	-201.0458	-310.8590
267	-504.0683	204.9234	327.5351	73.3188	-178.6677	-255.2388
268	-212.7900	183.4258	273.9218	-168.0262	-155.6739	-197.6073
269	13.8803	161.3714	218.8573	-346.2726	-133.6102	-142.4339
270	180.5027	140.3151	166.2435	-467.4260	-114.0523	-93.9006
271	293.4380	121.7853	120.1739	123.3917	-97.1789	-43.4120
272	-301.7601	105.9910	72.1441	86.0830	-85.7420	-16.2749
273	-264.5286	95.6659	47.4209	72.0671	-75.4220	8.4096
274	-246.1931	86.4901	25.1855	74.3297	-66.2399	30.6615
275	-239.3501	78.4472	5.3893	85.6012	-58.1950	50.4414
276	-236.5209	71.6221	-11.9153	98.1772	-51.3769	67.7427
277	-229.7830	66.0166	-26.8013	104.0177	-45.7660	82.6281
278	-211.0564	61.6303	-39.1915	95.1508	-41.3797	95.0159
279	-172.0725	58.4798	-49.1542	63.2900	-38.2300	104.9686
280	-104.5996	56.5836	-56.5554	0.0497	-36.3279	112.3773

ENVOLVENTE MAXIMOS TORSORES TREN IPF-B, l=30 m, via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0651	198.0537	757.5557	-415.6424	-173.2462	-691.4746
2	394.2917	173.8805	696.3338	-749.1663	-149.0673	-630.0750
3	689.1599	150.9572	637.5813	-986.3195	-126.1460	-570.9947
4	893.9445	129.3070	580.3765	-1136.3503	-103.0075	-509.3784
5	1016.4240	107.4031	521.5542	-1206.1096	-81.1600	-450.5365
6	1064.2981	86.8100	465.5594	-1205.4360	-62.0965	-398.5000
7	1047.2013	68.9388	415.6815	-1142.9524	-44.2779	-348.3723
8	973.3486	52.3074	367.9002	-987.8348	-26.9168	-299.1482
9	809.0007	35.9691	321.2513	-819.9172	-11.0161	-253.5022
10	645.1426	21.5022	278.2552	-621.1581	2.8611	-212.1716
11	422.1069	7.5172	239.1689	-363.8154	16.7526	-173.5259
12	221.5809	-3.1650	203.1002	150.0168	25.4669	-136.8794
13	-338.3129	-13.0313	169.0446	421.3698	33.8789	-110.4925
14	-538.9200	-18.4273	144.9442	616.5502	39.0969	-87.4169
15	-772.3166	-24.5165	124.5461	862.0641	45.1184	-67.2031
16	-931.9089	-27.6101	106.3544	1026.8342	48.1442	-49.2145
17	-1121.9927	-31.1724	91.3069	1222.9291	51.6264	-34.4498
18	-1320.0492	-34.5152	79.0851	1426.4852	54.9151	-22.4381
19	-1468.9069	-36.2723	69.8221	1577.1643	56.6123	-13.3530
20	-1588.9049	-37.1788	61.9755	2063.4312	34.9504	-62.4395
21	-2010.0171	260.8692	847.1306	1141.6178	-282.8846	-875.8525
22	-1164.1527	283.6493	881.0347	385.7594	-251.3516	-792.9128
23	-441.9681	252.7328	800.9538	-222.6898	-220.7470	-715.0250
24	130.1125	223.1789	726.2854	-729.2675	-190.5124	-637.5904
25	601.6949	194.1298	652.3194	-1089.4429	-161.5246	-565.3611
26	929.4365	166.4421	583.5204	-1355.5443	-133.5254	-494.2630
27	1166.3436	139.6905	515.6374	-1481.4080	-106.7022	-427.6989
28	1270.0870	114.6389	453.0836	-1534.8363	-81.5948	-363.3583
29	1299.5479	90.4444	391.6304	-1453.6375	-57.3271	-302.7584
30	1217.1552	68.6793	335.0301	-1337.1619	-35.6324	-245.0081
31	1089.4016	48.1324	280.4363	-1103.3914	-15.1343	-191.4866
32	840.1103	28.3838	230.2358	-463.0118	8.2793	-148.8830
33	225.6443	7.4584	191.2919	-170.1236	20.4696	-114.0378
34	-29.2104	-2.2235	159.8791	94.2158	30.3250	-82.2249
35	-324.6244	-12.4960	131.5991	432.7379	39.9792	-55.3421
36	-572.0502	-18.5096	107.9034	692.4145	46.2086	-30.9534
37	-865.6683	-25.3434	87.3348	991.6381	52.5927	-11.9222
38	-1059.1011	-28.4516	71.2947	1198.1742	55.7805	4.6334
39	-1301.4705	-32.3454	58.7807	1442.5826	59.4259	16.1504
40	-1423.8997	-32.9254	49.7915	1953.7351	38.1491	-19.6212
41	-1935.4688	258.2132	832.6960	1071.4370	-280.8837	-873.4561
42	-1099.6914	282.1591	878.7712	324.9385	-249.8437	-790.6641
43	-379.8057	250.7009	798.7133	-279.8413	-218.6855	-712.7472
44	183.0971	221.2949	724.0704	-776.8526	-188.6243	-635.3577
45	644.7490	192.4428	649.9687	-1127.2687	-159.8364	-563.0486
46	962.6934	165.1373	581.5537	-1384.6107	-132.2237	-492.3666
47	1190.7509	138.6223	514.0516	-1502.0203	-105.6593	-426.0998
48	1287.2307	113.9218	451.3918	-1549.3685	-80.8990	-361.6894
49	1309.1716	89.8828	390.0978	-1460.8331	-56.8182	-301.1749
50	1215.8640	67.9674	333.2486	-1333.3740	-34.9509	-243.2460
51	1090.3676	48.0916	278.9399	-1103.5515	-15.1438	-190.0846
52	855.1257	29.4269	228.9385	-485.3415	7.6230	-148.7958
53	246.6309	8.2833	191.2023	-193.4211	19.6341	-113.9171
54	-29.8395	-2.1653	159.7496	94.6906	30.2505	-82.1078

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	-295.0680	-11.2312	131.3229	399.3797	38.6929	-55.0749
56	-572.2696	-18.2074	107.8611	691.7404	45.9020	-30.8993
57	-831.6984	-23.9841	86.9753	953.5803	51.2313	-11.5452
58	-1056.9197	-28.0084	71.1618	1194.6132	55.3299	4.7568
59	-1258.5773	-30.8868	58.3175	1395.3146	57.9668	16.6349
60	-1415.7992	-32.3605	49.3069	1935.9310	37.4032	-18.5464
61	-1953.4480	258.9289	832.0701	1088.5590	-281.1816	-873.3962
62	-1075.5916	280.8370	878.2980	304.6070	-248.5134	-790.0681
63	-363.5270	249.9175	798.1511	-293.7062	-217.9076	-712.2068
64	197.0275	220.4692	723.4941	-788.3099	-187.7950	-634.8160
65	655.5547	191.5538	649.8917	-1135.4775	-158.9515	-562.9062
66	970.4854	164.0480	580.7756	-1389.1699	-131.1439	-491.5904
67	1195.3317	137.6860	513.7578	-1503.6913	-104.7170	-425.8647
68	1286.3477	112.6805	451.0148	-1544.7988	-79.6518	-361.2964
69	1309.8062	89.1591	389.9096	-1459.1938	-56.0897	-301.0312
70	1212.9058	67.1842	333.1011	-1327.9988	-34.1712	-243.1122
71	1080.2975	47.0549	278.8187	-1090.2878	-14.1102	-190.0392
72	857.8281	29.2327	229.0370	-485.5377	7.6314	-148.9495
73	228.0230	7.4596	191.2453	-172.3224	20.4538	-113.9697
74	-29.9026	-2.1666	159.8170	94.7433	30.2534	-82.1683
75	-295.2120	-11.2091	131.3482	399.4722	38.6726	-55.0933
76	-572.3319	-18.1765	107.7677	691.6889	45.8650	-30.8223
77	-831.7269	-23.9498	86.9576	953.5220	51.1981	-11.5342
78	-1056.8615	-27.9631	71.1396	1194.4310	55.2857	4.8181
79	-1169.7975	-28.6582	57.7620	1299.8438	55.7369	17.1880
80	-1415.4047	-32.3004	49.2901	1937.4731	37.4067	-18.4741
81	-2025.6982	260.3095	831.3701	1156.3378	-282.6615	-872.6438
82	-1176.5811	283.1340	877.7562	398.8338	-250.8165	-789.5812
83	-364.7351	249.9817	797.6455	-292.8559	-217.9696	-711.6607
84	196.0652	220.5192	723.0242	-787.4913	-187.8428	-634.3239
85	654.8456	191.5991	649.2556	-1134.7761	-159.0046	-562.3344
86	969.4642	164.0988	580.7189	-1388.3304	-131.1861	-491.5376
87	1194.3351	137.6731	513.4420	-1502.6073	-104.7071	-425.5579
88	1285.1144	112.6908	451.0181	-1543.5983	-79.6670	-361.2845
89	1308.6118	89.1645	389.6238	-1457.9963	-56.0982	-300.7973
90	1212.2017	67.2392	333.2813	-1327.4438	-34.2245	-243.3981
91	1094.8425	47.1908	279.0539	-1105.2345	-14.2508	-190.1997
92	841.8325	28.1366	228.9923	-466.6988	8.7888	-148.8915
93	245.2394	7.6556	191.3242	-190.1414	20.2538	-114.0566
94	-26.1252	-2.5650	159.8599	92.1568	30.6474	-82.2241
95	-292.8607	-11.6169	131.4091	398.3536	39.0840	-55.1388
96	-569.8983	-18.5701	107.7428	690.4169	46.2535	-30.7835
97	-798.4475	-23.4230	86.6914	918.6654	50.6718	-11.2484
98	-1022.0114	-27.4350	70.8110	1158.0005	54.7592	5.1381
99	-1161.2703	-28.7559	57.5938	1291.6647	55.8433	17.3724
100	-1326.6404	-30.5944	49.0589	1842.9165	35.6731	-18.2161
101	-2022.9607	260.2708	830.7058	1153.6812	-282.5896	-871.9338
102	-1194.5388	283.5521	877.2881	415.4975	-251.2335	-789.1596
103	-464.8397	252.4117	797.2359	-200.0281	-220.3920	-711.2449
104	191.5232	220.5925	722.7349	-783.0814	-187.9172	-634.0218
105	650.5566	191.6710	648.8592	-1130.8346	-159.0671	-561.8959
106	965.5577	164.1660	580.2209	-1384.5354	-131.2642	-491.0892
107	1194.6187	137.6526	513.2879	-1502.8193	-104.6948	-425.4227
108	1285.4360	112.6545	450.7072	-1543.8850	-79.6193	-361.0353
109	1321.1702	88.6021	389.8148	-1468.8752	-55.5333	-300.9675
110	1223.8276	66.5569	333.0227	-1337.0632	-33.5411	-243.0659
111	1093.1915	46.2740	278.8901	-1100.8557	-13.3393	-190.1153

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	851.2099	27.5723	228.9954	-841.6901	5.3230	-139.5576
113	602.8291	10.6031	181.9120	-186.0358	21.1266	-98.4780
114	-13.3964	-2.7310	144.3031	62.0566	29.7464	-69.8708
115	-263.7823	-10.7475	119.0824	336.5134	37.7379	-44.6845
116	-449.7758	-15.3700	97.0592	536.4006	42.3729	-22.6389
117	-739.8666	-22.3100	78.9086	847.2730	49.3029	-4.4997
118	-852.5996	-23.4503	63.5559	963.5351	50.4635	10.8766
119	-1036.0149	-26.2132	52.2688	1155.1284	53.2086	22.1293
120	-1154.0488	-27.0818	43.2665	1810.3411	35.2335	-17.0551
121	-2058.4087	261.0945	830.5276	1186.5885	-283.4265	-871.8667
122	-1206.6921	283.8640	876.8472	426.8008	-251.5487	-788.6274
123	-470.3052	252.6251	796.7042	-195.2006	-220.6123	-710.6993
124	131.7675	222.2604	722.1463	-728.4798	-189.5834	-633.4225
125	647.5607	191.8530	648.3851	-1128.3486	-159.2463	-561.4349
126	963.0396	164.3146	579.7743	-1382.4376	-131.4072	-490.6462
127	1190.1298	137.8299	512.8655	-1498.8099	-104.8664	-425.0311
128	1285.7125	112.6674	450.4964	-1544.0685	-79.6322	-360.9066
129	1325.5151	88.4444	389.7982	-1472.8041	-55.3798	-300.9503
130	1227.3990	66.4188	332.9978	-1340.1868	-33.3897	-242.9538
131	1089.2758	46.0963	278.5794	-1096.3745	-13.1653	-189.8306
132	851.9187	27.5838	228.9078	-842.4313	5.3190	-139.6343
133	624.0309	11.4342	182.0873	-209.7617	20.3011	-98.5713
134	-12.0944	-2.7766	144.2877	60.9190	29.7789	-69.8747
135	-261.7383	-10.7484	119.0183	334.4957	37.7471	-44.5979
136	-507.0658	-17.2317	97.1518	599.2319	44.2264	-22.7558
137	-649.3596	-19.7375	78.4500	749.0867	46.7411	-4.0300
138	-852.4306	-23.4996	63.5373	963.4476	50.5033	10.8820
139	-1020.0344	-25.8718	51.9592	1138.0674	52.8620	22.4446
140	-1153.8978	-27.1062	42.9456	1810.1328	35.2675	-16.7420
141	-2064.5420	261.1729	830.6948	1192.6650	-283.4955	-872.0118
142	-1206.3718	283.7958	876.5170	426.5487	-251.4707	-788.1892
143	-478.5217	252.7403	796.2986	-187.1665	-220.7348	-710.3151
144	90.3221	223.2865	721.7504	-690.1143	-190.6086	-633.0409
145	647.1335	191.7945	648.2831	-1127.6682	-159.1957	-561.3296
146	933.8224	165.1972	579.5189	-1355.9745	-132.2896	-490.3611
147	1188.2262	137.8679	512.6307	-1497.1233	-104.8997	-424.8116
148	1285.3391	112.6493	450.4928	-1543.6167	-79.6310	-360.9308
149	1326.4250	88.3592	389.8195	-1473.4109	-55.2871	-300.9866
150	1226.8512	66.3926	333.0557	-1339.5635	-33.3672	-243.0880
151	1090.7339	45.9874	278.9182	-1097.5239	-13.0508	-190.1478
152	849.1678	27.3556	229.0482	-839.0111	5.5353	-139.7780
153	624.0473	11.3900	182.3182	-209.6942	20.3543	-98.7858
154	-13.3845	-2.8673	144.4779	62.4862	29.8676	-70.0601
155	-263.2305	-10.8377	119.1667	336.2702	37.8428	-44.7436
156	-508.6596	-17.3230	97.2734	601.1111	44.3200	-22.8692
157	-650.6565	-19.8086	78.4314	750.5605	46.8037	-4.0270
158	-853.9110	-23.5704	63.4866	965.1070	50.5690	10.9231
159	-1021.6657	-25.9283	51.7643	1140.0052	52.9353	22.6589
160	-1156.4437	-27.2326	43.3845	1813.0039	35.3786	-17.1938
161	-2066.7178	261.3262	829.9934	1194.1660	-283.6514	-871.1605
162	-1214.0852	284.1065	876.1458	433.4344	-251.7908	-787.9203
163	-486.9259	253.0950	796.0161	-179.9841	-221.0781	-710.0007
164	99.1362	223.1868	721.5094	-698.4669	-190.5145	-632.7915
165	565.9603	194.2717	647.6972	-1053.9772	-161.6665	-560.8223
166	963.2786	164.3917	579.7857	-1382.9272	-131.4812	-490.6378
167	1189.0459	137.9696	512.4094	-1498.2872	-105.0106	-424.4460
168	1280.8619	112.9757	449.7089	-1540.1461	-79.9423	-360.1717

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	1325.9750	88.5386	389.5947	-1473.4684	-55.4641	-300.9059
170	1229.0121	66.4630	333.0962	-1341.9117	-33.4613	-243.2148
171	1094.9067	46.1744	279.0821	-1102.2439	-13.2307	-190.3146
172	853.7764	27.5325	229.1616	-844.1498	5.3715	-139.7556
173	619.4698	11.1803	182.1222	-204.3608	20.5552	-98.6341
174	-13.4060	-2.8611	144.3850	62.4830	29.8587	-69.9829
175	-263.2933	-10.8322	119.1199	336.3182	37.8373	-44.6908
176	-435.0567	-15.0040	97.0245	520.5342	42.0023	-22.6291
177	-659.4316	-20.0576	78.5557	760.1339	47.0644	-4.1259
178	-848.8524	-23.4356	63.3425	959.5809	50.4237	11.0487
179	-1017.3887	-25.8273	51.5098	1135.4507	52.8393	22.9248
180	-1158.4985	-27.2859	43.1161	1815.1965	35.4401	-16.8791
181	-2068.3176	261.4558	830.0562	1195.6233	-283.7851	-871.3205
182	-1215.8542	284.2501	876.4657	434.7807	-251.9292	-788.2340
183	-472.5026	252.8310	796.1923	-193.5486	-220.8142	-710.1386
184	96.7663	223.3639	721.5510	-696.6902	-190.6966	-632.8557
185	592.3121	193.6434	647.9203	-1078.5701	-161.0361	-560.9728
186	963.1082	164.5682	579.4703	-1383.2300	-131.6685	-490.3986
187	1195.8390	137.9358	512.9050	-1504.9005	-104.9781	-425.0424
188	1287.5435	112.9519	450.2334	-1546.7828	-79.9288	-360.5793
189	1328.0604	88.7272	389.5233	-1476.1851	-55.6569	-300.7952
190	1233.0156	66.6008	333.2615	-1346.3450	-33.5846	-243.2853
191	1095.4819	46.2757	278.7583	-1103.1184	-13.3374	-190.0501
192	864.9480	28.1182	229.3307	-857.0386	4.7873	-140.0324
193	617.8965	11.1189	182.2889	-202.5483	20.6291	-98.6912
194	-20.4000	-3.1438	144.4275	70.2892	30.1413	-70.0326
195	-265.9320	-10.9383	119.0500	339.2534	37.9417	-44.6298
196	-461.4749	-15.8346	97.1148	549.4573	42.8271	-22.7164
197	-663.2199	-20.1582	78.5381	764.2166	47.1622	-4.1235
198	-860.8828	-23.7413	63.2250	972.5999	50.7391	11.1824
199	-1030.4734	-26.1394	51.4772	1149.4031	53.1418	22.9415
200	-1172.4449	-27.5905	43.2761	1830.0585	35.7449	-17.0461
201	-2080.9121	262.4029	829.8606	1205.2161	-284.7236	-871.0142
202	-1219.3303	285.0485	876.0001	435.8400	-252.7293	-787.7985
203	-495.0003	254.1748	795.9804	-175.0385	-222.1668	-710.0074
204	94.1926	224.3018	721.5409	-697.0182	-191.6274	-632.8095
205	572.5712	195.1570	647.7858	-1063.2480	-162.5582	-560.8769
206	964.8656	165.5402	579.6092	-1387.8723	-132.6369	-490.5066
207	1195.2842	139.0861	512.5699	-1507.8782	-106.1238	-424.6430
208	1290.4871	114.0913	449.8627	-1553.1121	-81.0594	-360.3204
209	1340.7264	89.5492	389.7126	-1491.2531	-56.4701	-300.9567
210	1244.7053	67.5608	332.9948	-1360.9365	-34.5413	-243.0279
211	1111.0686	47.1729	278.8555	-1121.3955	-14.2352	-190.0821
212	872.9672	28.5486	228.9614	-866.3732	4.3460	-139.6879
213	627.4780	11.5294	182.2484	-213.4738	20.2080	-98.7162
214	-9.6238	-2.7175	144.3996	58.2654	29.7219	-69.9910
215	-259.0809	-10.7038	119.0573	331.6797	37.7022	-44.6465
216	-504.4986	-17.1922	97.2091	596.5665	44.1901	-22.8032
217	-683.3970	-20.7370	78.3524	786.0903	47.7335	-3.9404
218	-889.4046	-24.4937	63.4096	1003.3868	51.4938	11.0033
219	-1062.5341	-26.9168	51.6779	1183.8058	53.9217	22.7488
220	-1202.0643	-28.2543	42.9403	1861.3289	36.4216	-16.6860
221	-2060.6501	260.8939	829.4753	1189.7192	-283.2043	-870.7464
222	-1209.7013	283.6561	875.6309	430.3485	-251.3336	-787.3790
223	-483.9015	252.6424	795.4824	-181.7465	-220.6168	-709.4635
224	91.6281	222.9762	720.9919	-690.3629	-190.3012	-632.2768
225	574.3763	193.6126	647.2540	-1060.3542	-161.0091	-560.3811

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	962.0608	163.9694	579.1912	-1380.4708	-131.0493	-490.0341
227	1186.7418	137.5430	511.8359	-1494.7230	-104.5826	-423.9387
228	1283.1980	112.3426	449.6199	-1540.5845	-79.3204	-360.0322
229	1305.6306	88.8525	388.8575	-1454.0581	-55.7943	-300.1201
230	1223.9238	66.0808	332.5373	-1335.7498	-33.0461	-242.6216
231	1086.1367	45.7018	278.3620	-1092.2035	-12.7880	-189.5732
232	844.1724	27.1068	228.4502	-833.3771	5.7835	-139.1590
233	594.9134	10.1132	181.6347	-177.5330	21.5995	-98.1011
234	-45.1870	-4.1025	143.8241	97.9819	31.0986	-69.4248
235	-298.3764	-12.0640	118.4183	375.0874	39.0739	-43.9905
236	-547.5139	-18.5483	96.6142	643.6263	45.5423	-22.2172
237	-783.2310	-23.6099	77.8201	894.5751	50.6131	-3.3987
238	-997.5335	-27.3615	62.4439	1120.1147	54.3620	11.9678
239	-1183.7178	-29.9084	50.9768	1313.9470	56.9090	23.4373
240	-1336.7448	-31.3516	42.4276	2001.8307	39.6125	-16.2031
241	-2119.7947	265.5221	818.4529	1235.2677	-287.6322	-859.6494
242	-1249.1433	287.9468	864.4260	456.4168	-255.5799	-776.1328
243	-515.8708	257.0610	784.2568	-163.2151	-224.9729	-698.2489
244	82.2461	227.1185	709.7638	-693.3525	-194.4133	-621.0595
245	590.5294	197.3606	636.1065	-1087.8022	-164.7017	-549.1532
246	969.8243	168.3660	567.6693	-1401.2129	-135.4483	-478.5830
247	1214.4392	141.8298	500.9637	-1535.0717	-108.8356	-413.0457
248	1318.6656	116.9346	438.2657	-1589.8715	-83.9038	-348.5781
249	1356.3055	93.5642	377.4756	-1519.1115	-60.5115	-288.8070
250	1291.9919	70.8677	321.6044	-1418.4998	-37.8855	-231.6784
251	1170.6189	50.7491	267.1351	-1193.0193	-17.8774	-178.3107
252	948.6119	32.3433	217.4294	-954.4877	0.5147	-128.1127
253	719.7016	15.5815	170.6251	-328.6309	15.7427	-87.2673
254	110.5112	1.9311	133.0686	-75.8253	25.0704	-58.6633
255	-119.4889	-5.8521	107.8032	177.5474	32.8464	-33.3947
256	-344.6710	-12.1585	85.9414	421.6632	39.1649	-11.5236
257	-555.9976	-17.0854	67.3620	647.7484	44.0851	7.0501
258	-745.7133	-20.7067	52.4931	848.3316	47.7069	21.9203
259	-907.7184	-23.1409	40.4399	1017.6523	50.1430	33.9752
260	-1037.5393	-24.5206	32.2968	1619.5979	33.5608	5.3159
261	-1736.8353	248.4860	600.6183	1104.9049	-275.1209	-649.2581
262	-1117.1602	275.4057	653.7654	538.9294	-251.1245	-587.3942
263	-566.6745	251.8100	593.9649	42.6852	-227.3212	-527.3472
264	-81.4738	228.3471	536.3801	-387.3831	-203.1588	-468.2024
265	297.1003	205.6602	479.6712	-711.9440	-180.2919	-411.3767
266	697.2585	180.7157	425.8083	-1052.6447	-155.6456	-358.6153
267	911.7130	160.1133	374.7845	-1241.6489	-133.8576	-302.4899
268	1120.8379	137.9438	321.9925	-1399.3330	-110.1919	-245.6758
269	1251.3132	115.6369	267.4116	-1480.8014	-87.8757	-190.9917
270	1315.0139	94.5211	214.7663	-1498.9006	-68.2583	-142.4254
271	1324.9272	76.0085	168.7270	-1013.9442	-41.0947	-103.4319
272	855.1722	48.8889	132.7364	-942.6394	-28.6262	-76.9331
273	764.2104	38.5467	108.0631	-828.1557	-18.2983	-52.2598
274	654.0609	29.3286	86.1491	-697.1904	-9.0817	-30.3343
275	532.5479	21.2894	66.3897	-557.6712	-1.0367	-10.5726
276	406.7752	14.4562	49.2168	-416.6134	5.7995	6.5789
277	284.9807	8.8226	34.5130	-282.0221	11.4238	21.2975
278	174.9851	4.4420	22.1444	-162.2149	15.8124	33.6653
279	85.2821	1.2913	12.3285	-65.4111	18.9567	43.4747
280	24.1169	-0.6012	4.9158	0.0288	20.8565	50.9079

ENVOLVENTE MINIMOS FLECTORES TREN IPF-B, l=30 m, via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.0053	13.1451	2.9033	-19.1245	-8.5007	-8.2673
2	-111.2027	-49.4334	53.9011	222.4302	49.4334	-53.8968
3	-222.4471	-49.4343	53.8217	333.6942	49.4350	-53.8268
4	-333.6583	-49.4384	54.0160	444.9378	49.4394	-54.0223
5	-444.9318	-49.4578	54.0937	556.1729	49.4587	-54.0941
6	-556.1809	-49.4772	53.8975	667.4939	49.4788	-53.8931
7	-667.4851	-49.5006	53.8912	778.8609	49.5023	-53.8991
8	-778.8497	-49.5128	54.0626	890.2856	49.5144	-54.0735
9	-890.2912	-49.5277	54.1942	1001.7008	49.5272	-54.1873
10	-1001.7230	-49.5050	53.8359	1113.1071	49.5046	-53.8475
11	-1113.0966	-49.5310	54.4699	1224.5630	49.5321	-54.4646
12	-1224.5974	-49.5115	53.7725	1358.6156	63.8469	-45.1588
13	-1358.5875	-63.8378	45.9226	1504.8676	66.3355	-39.0487
14	-1504.8634	-66.3186	38.7470	1656.0428	68.3189	-33.2467
15	-1656.0166	-68.3192	33.5727	1812.2401	70.3191	-28.0316
16	-1812.2595	-70.3156	27.4201	1973.5197	72.8170	-20.5104
17	-1973.5720	-73.4627	15.9305	2141.4551	75.9631	-9.1101
18	-2216.5222	-149.3844	-175.1841	2554.6763	151.3835	180.5717
19	-2614.3311	-211.3484	-322.7827	3092.3147	213.3491	328.3059
20	-3142.3748	-267.2864	-462.5497	3746.8037	220.2055	364.0731
21	-3785.1011	321.7319	770.3902	2719.2441	-339.4728	-789.6329
22	-2758.0796	314.2864	728.6918	1855.0215	-263.0684	-574.5853
23	-1943.9087	193.0391	395.4871	1364.7561	-193.0385	-395.4890
24	-1435.8940	135.4436	247.4846	1029.5342	-135.4438	-247.4857
25	-1124.0499	71.0589	69.9536	910.8542	-71.0590	-69.9517
26	-1035.9802	-11.2373	1.7538	1069.6891	11.2384	-1.7853
27	-1069.6903	-11.2511	2.0358	1103.4479	11.2520	-2.0401
28	-1103.4524	-11.2327	1.7654	1137.1483	11.2305	-1.7593
29	-1137.1493	-11.2304	2.0439	1170.8232	11.2289	-2.0466
30	-1170.8262	-11.2167	1.7404	1204.4752	11.2159	-1.7220
31	-1204.4576	-11.2022	1.7333	1238.0558	11.2012	-1.7499
32	-1238.0454	-11.1919	2.0849	1271.6215	11.1916	-2.0988
33	-1271.6282	-11.2140	2.1112	1334.5474	21.6828	-14.0124
34	-1334.5605	-21.6646	13.6303	1417.7338	37.2658	18.8490
35	-1417.7429	-37.2634	-18.2695	1534.0542	40.2629	26.5502
36	-1534.0618	-40.2733	-27.1777	1659.3740	43.2738	35.4499
37	-1698.0282	-86.2170	-85.2043	1961.1438	89.2163	93.4828
38	-2045.4736	-143.8584	-254.0599	2481.5679	146.8584	262.3159
39	-2603.4170	-219.2542	-451.9174	3265.6021	222.2544	460.1982
40	-3366.1748	-291.6638	-639.9428	4245.7183	244.5032	530.8854
41	-4317.8999	332.5076	747.2123	3217.8315	-350.8217	-778.3977
42	-3260.5718	325.7311	718.0217	2398.9775	-276.3798	-563.9090
43	-2503.8992	206.7496	384.4051	1883.6144	-206.7489	-384.3518
44	-1974.6268	149.6865	236.5927	1525.5345	-149.6869	-236.6430
45	-1649.5076	78.1310	34.7117	1415.1245	-78.1327	-34.7192
46	-1555.8574	5.1770	-8.4829	1540.3254	-5.1772	8.5258
47	-1540.3285	5.1747	-8.5231	1524.8040	-5.1764	8.5354
48	-1524.7904	5.1750	-8.7370	1509.2678	-5.1720	8.7355
49	-1509.2617	5.1516	-8.5175	1493.8237	-5.1475	8.5020
50	-1493.8499	5.1315	-8.5255	1478.4578	-5.1325	8.5501
51	-1478.4594	5.1241	-8.9311	1463.0824	-5.1238	8.9400
52	-1463.0603	5.1272	-8.7576	1447.6721	-5.1280	8.7541
53	-1447.6833	5.1562	-8.9209	1445.9347	7.3103	-4.4652
54	-1445.9225	-7.3234	4.6382	1489.0583	22.3001	29.0863

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	-1489.0428	-22.3070	-29.4795	1560.4583	25.3079	37.7517
56	-1560.4464	-25.3277	-37.5130	1640.9408	28.3280	45.7895
57	-1704.9668	-92.2248	-88.6121	1986.1129	95.2255	96.9054
58	-2074.1423	-150.7283	-256.9040	2530.7964	153.7289	265.1716
59	-2656.0752	-226.5947	-455.2720	3340.3059	229.5940	463.6134
60	-3442.6467	-299.1766	-643.3334	4344.7520	252.4513	533.6059
61	-4417.1426	335.0756	747.4741	3310.8418	-352.9600	-779.2083
62	-3354.2529	327.8698	717.1768	2490.8127	-278.6363	-563.1421
63	-2596.8962	209.0400	383.9659	1969.9026	-209.0391	-383.9650
64	-2062.8062	136.1119	194.3096	1654.4211	-136.1116	-194.2709
65	-1732.6968	80.5262	33.8816	1491.1370	-80.5235	-33.8739
66	-1634.7319	7.6205	-7.8631	1611.8721	-7.6182	7.8570
67	-1611.8621	7.6072	-8.4561	1589.0393	-7.6073	8.5130
68	-1589.0444	7.5983	-8.5220	1566.2461	-7.5982	8.5189
69	-1566.2476	7.6268	-8.5252	1543.3745	-7.6298	8.5318
70	-1543.3523	7.6239	-8.5355	1520.4749	-7.6243	8.5555
71	-1520.4847	7.6439	-8.9630	1497.5637	-7.6436	8.9930
72	-1497.5615	7.6417	-9.2293	1474.6260	-7.6425	9.2311
73	-1474.6223	7.6248	-9.0013	1466.0731	4.7641	-4.4983
74	-1466.0392	-4.7602	4.2819	1500.6885	19.8957	29.4879
75	-1500.7073	-19.8931	-29.8890	1564.8835	22.8940	38.1686
76	-1564.8889	-22.9100	-38.1775	1638.1184	25.9102	46.4375
77	-1709.7369	-96.2118	-88.9820	2002.8870	99.2119	97.2513
78	-2091.1353	-154.7801	-257.0498	2559.9692	157.7796	265.4096
79	-2685.3477	-230.6960	-456.3756	3381.8584	233.6951	464.6939
80	-3484.5400	-303.2964	-642.9863	4399.0757	256.4729	533.2486
81	-4471.1353	336.1370	746.7112	3361.3506	-354.1201	-778.4109
82	-3404.6172	329.0413	717.2640	2538.2644	-279.8122	-563.4951
83	-2644.5452	210.2096	384.1549	2013.8665	-210.2085	-384.1013
84	-2107.0916	137.2764	194.3621	1695.2325	-137.2769	-194.3328
85	-1773.7595	81.7018	34.5356	1528.7075	-81.7032	-34.4935
86	-1672.6091	8.8216	-7.7338	1646.1401	-8.8203	7.7727
87	-1646.1456	8.8296	-8.0062	1619.6534	-8.8294	8.0634
88	-1619.6401	8.8181	-8.4774	1593.1783	-8.8185	8.4883
89	-1593.1552	8.8208	-8.0803	1566.7014	-8.8228	8.0916
90	-1566.6783	8.8036	-8.7139	1540.2582	-8.8012	8.7763
91	-1540.2708	8.8063	-9.2008	1513.8607	-8.8013	9.2114
92	-1513.8494	8.8172	-8.9825	1487.3837	-8.8210	8.9813
93	-1487.3789	8.8239	-9.2073	1474.7892	3.6138	-4.2980
94	-1474.7990	-3.6171	4.0390	1506.1965	18.7033	29.7007
95	-1506.2164	-18.6748	-29.8745	1566.7361	21.6752	38.1651
96	-1566.7620	-21.6975	-38.4097	1636.3302	24.6981	46.7256
97	-1710.0796	-96.8585	-89.4598	2005.1525	99.8584	97.7626
98	-2093.3359	-155.4396	-257.3604	2564.1616	158.4408	265.6847
99	-2689.5664	-231.3647	-456.1242	3388.3035	234.3639	464.4205
100	-3491.0139	-303.9671	-642.6932	4407.2275	257.1729	533.0496
101	-4479.9834	336.3564	745.7754	3369.4724	-354.3038	-777.4385
102	-3412.5586	329.2222	717.1444	2545.7646	-279.9934	-563.6004
103	-2652.1040	210.3914	384.3708	2020.8640	-210.3927	-384.2411
104	-2114.2932	137.4658	193.8133	1701.8995	-137.4658	-193.7371
105	-1780.4274	81.8960	34.3201	1534.7402	-81.8947	-34.3229
106	-1678.6681	9.0261	-7.5001	1651.5917	-9.0263	7.5669
107	-1651.5968	9.0124	-8.1994	1624.5632	-9.0140	8.2780
108	-1624.5725	9.0320	-8.4503	1597.4620	-9.0327	8.4826
109	-1597.4946	9.0182	-8.7196	1570.4448	-9.0161	8.7371
110	-1570.4340	9.0234	-8.7338	1543.3685	-9.0245	8.7659
111	-1543.3861	9.0110	-9.4213	1516.3296	-9.0109	9.4562

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	-1516.3424	9.0312	-9.4303	1489.2554	-9.0307	9.4277
113	-1489.2625	9.0468	-9.4359	1462.1008	-9.0480	9.4578
114	-1462.0798	9.0057	-10.2544	1506.8630	18.5243	30.4290
115	-1506.8518	-18.5403	-30.2648	1566.9558	21.5419	38.5796
116	-1566.9698	-21.5677	-39.4082	1636.1881	24.5696	47.6949
117	-1710.6326	-97.2150	-89.0165	2006.7668	100.2150	97.3429
118	-2094.8154	-155.7745	-257.7796	2566.7537	158.7740	266.1156
119	-2692.1995	-231.6790	-455.4043	3391.6030	234.6792	463.8369
120	-3493.7568	-304.2803	-644.6750	4411.0098	257.4708	535.0282
121	-4484.0454	336.4743	746.5239	3373.0830	-354.4374	-778.3090
122	-3416.4536	329.3550	716.6758	2549.1807	-280.1023	-563.2027
123	-2655.4639	210.4949	384.0161	2023.9493	-210.4926	-383.9202
124	-2117.3164	137.5369	193.9821	1704.6089	-137.5398	-193.9065
125	-1783.3038	81.9389	34.4581	1537.4875	-81.9414	-34.4281
126	-1681.6970	9.0665	-7.1461	1654.4977	-9.0666	7.2048
127	-1654.4791	9.0941	-7.8323	1627.1816	-9.0976	7.9231
128	-1627.1713	9.1134	-8.3174	1599.8226	-9.1159	8.3820
129	-1599.8528	9.1341	-8.7963	1572.4340	-9.1337	8.8248
130	-1572.4276	9.1475	-8.8210	1544.9810	-9.1468	8.8333
131	-1544.9429	9.1347	-9.0370	1517.5336	-9.1364	9.0643
132	-1517.5455	9.1568	-9.4756	1490.0645	-9.1588	9.5194
133	-1490.0652	9.1570	-10.1501	1462.6010	-9.1579	10.1852
134	-1462.6018	9.1468	-10.5945	1506.8562	18.3808	30.7195
135	-1506.8560	-18.3813	-30.7486	1566.4962	21.3829	39.0304
136	-1566.5051	-21.4105	-39.2622	1635.1892	24.4116	47.6148
137	-1709.7737	-97.2436	-89.9011	2006.0236	100.2435	98.2370
138	-2094.1855	-155.8170	-257.4265	2566.1943	158.8171	265.7281
139	-2691.6667	-231.7447	-455.4924	3391.2568	234.7438	463.9810
140	-3493.4543	-304.3447	-644.6976	4410.8906	257.5462	534.9748
141	-4483.5815	336.4241	747.5409	3372.9910	-354.3780	-779.2910
142	-3416.7395	329.2905	715.9921	2549.6326	-280.0631	-562.6195
143	-2655.9128	210.4702	383.7857	2024.6246	-210.4683	-383.7348
144	-2117.9443	137.5441	194.3067	1705.2061	-137.5446	-194.1853
145	-1783.8556	81.9631	34.2593	1537.9950	-81.9646	-34.1808
146	-1681.8135	9.1325	-6.5106	1654.4119	-9.1293	6.5513
147	-1654.4204	9.1291	-7.1902	1627.0383	-9.1279	7.3108
148	-1627.0242	9.1337	-7.9458	1599.6173	-9.1361	8.0318
149	-1599.6376	9.1447	-8.4398	1572.1913	-9.1440	8.4730
150	-1572.1641	9.1554	-8.4855	1544.7002	-9.1558	8.5223
151	-1544.7413	9.1691	-9.1533	1517.2262	-9.1701	9.1878
152	-1517.2400	9.1613	-9.1770	1489.7539	-9.1627	9.2099
153	-1489.7823	9.1483	-10.2399	1462.3335	-9.1481	10.2781
154	-1462.3447	9.1252	-10.2588	1506.7477	18.4017	30.2797
155	-1506.7545	-18.3972	-30.7026	1566.4368	21.3973	39.0002
156	-1566.4464	-21.4080	-39.2487	1635.1407	24.4090	47.6249
157	-1709.7103	-97.2578	-89.9011	2005.9559	100.2581	98.2572
158	-2093.9783	-155.8314	-257.2809	2565.9302	158.8302	265.6069
159	-2691.1597	-231.7502	-455.4821	3390.9836	234.7493	463.8541
160	-3493.4314	-304.3417	-642.7513	4410.7920	257.5376	533.1260
161	-4483.0962	336.3992	746.2684	3372.3167	-354.3562	-777.8840
162	-3415.7268	329.2758	716.2764	2548.7671	-280.0237	-563.1011
163	-2655.1340	210.4194	384.0954	2023.8192	-210.4212	-383.9651
164	-2117.3633	137.4799	193.9873	1704.9337	-137.4824	-193.9120
165	-1783.6428	81.8896	34.9866	1537.9821	-81.8919	-34.8796
166	-1681.7885	9.2042	-7.2598	1654.1743	-9.2042	7.3711
167	-1654.1675	9.2119	-7.3652	1626.5236	-9.2145	7.3575
168	-1626.5249	9.2463	-7.3674	1598.7772	-9.2505	7.4488

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	-1598.8060	9.2562	-8.4857	1571.0481	-9.2523	8.5764
170	-1571.0808	9.2375	-8.8071	1543.4014	-9.2354	8.8641
171	-1543.3865	9.2435	-9.6495	1515.6418	-9.2472	9.6941
172	-1515.6085	9.2263	-9.6792	1487.9297	-9.2281	9.6835
173	-1487.9084	9.2546	-9.9498	1460.1478	-9.2535	9.9836
174	-1460.1322	9.2543	-11.0122	1504.0564	18.2714	31.0621
175	-1504.0403	-18.2697	-30.8036	1563.3529	21.2688	39.1174
176	-1563.3632	-21.2673	-40.0105	1631.6255	24.2683	48.3429
177	-1706.1627	-97.1575	-89.5688	2002.1951	100.1589	97.9062
178	-2090.2620	-155.7514	-257.4596	2561.8438	158.7517	265.8666
179	-2687.0652	-231.6776	-455.9192	3386.7876	234.6772	464.3145
180	-3489.2524	-304.2720	-643.1934	4406.6089	257.4713	533.5172
181	-4479.1216	336.0616	746.1336	3369.6650	-354.0232	-777.8604
182	-3412.9380	328.9449	716.8198	2546.9998	-279.7123	-563.5399
183	-2653.5732	210.1047	383.4029	2023.2627	-210.1071	-383.2607
184	-2116.5342	137.1846	194.0886	1704.9929	-137.1826	-194.0461
185	-1783.6050	81.5981	34.6522	1538.7690	-81.5962	-34.5804
186	-1681.4590	9.4347	-6.7394	1653.1450	-9.4347	6.8595
187	-1653.1334	9.4457	-7.8923	1624.7944	-9.4438	7.9916
188	-1624.8102	9.4162	-7.9879	1596.5488	-9.4116	8.0172
189	-1596.5656	9.3885	-8.4181	1568.3888	-9.3878	8.4925
190	-1568.3630	9.4104	-9.1141	1540.1177	-9.4131	9.1550
191	-1540.0808	9.4050	-9.1355	1511.8755	-9.4043	9.1792
192	-1511.8934	9.4167	-10.2088	1483.6364	-9.4200	10.2589
193	-1483.6947	9.4578	-10.2746	1455.3064	-9.4625	10.2795
194	-1455.3130	9.4851	-10.5256	1498.5396	18.0395	30.5528
195	-1498.5369	-18.0505	-31.3586	1557.1757	21.0519	39.6750
196	-1557.1802	-21.0549	-39.9307	1624.8235	24.0540	48.2469
197	-1699.2437	-96.9438	-89.5052	1994.5613	99.9422	97.8838
198	-2082.4834	-155.5272	-257.5809	2553.5129	158.5271	265.9807
199	-2678.7048	-231.4704	-455.7401	3377.6638	234.4706	464.0674
200	-3480.1692	-304.0650	-642.4119	4396.9883	257.2671	532.7714
201	-4469.7510	335.3515	745.7898	3362.2202	-353.3029	-777.3824
202	-3405.6147	328.2247	715.7748	2541.8650	-278.9918	-562.6442
203	-2648.0830	209.3880	384.2804	2019.9983	-209.3884	-384.1798
204	-2113.5107	136.4686	193.9965	1704.0120	-136.4706	-193.8699
205	-1782.7163	80.8762	34.7041	1540.0961	-80.8714	-34.6123
206	-1679.5894	10.5440	-7.0903	1647.9714	-10.5401	7.1980
207	-1647.9572	10.5319	-7.5941	1616.3562	-10.5324	7.6330
208	-1616.3772	10.5307	-7.6236	1584.7820	-10.5362	7.6984
209	-1584.7660	10.5732	-8.6940	1553.0352	-10.5786	8.7713
210	-1553.0334	10.6086	-8.7525	1521.2080	-10.6065	8.7881
211	-1521.2097	10.6176	-9.4125	1489.3511	-10.6175	9.4461
212	-1489.3527	10.5981	-9.4110	1457.5582	-10.6006	9.4477
213	-1457.5544	10.6026	-10.4708	1425.7396	-10.6016	10.5044
214	-1425.7303	10.6083	-10.5202	1465.3066	16.9082	30.5427
215	-1465.3074	-16.8981	-31.1385	1520.4799	19.8967	39.4372
216	-1520.4912	-19.8912	-39.4724	1584.6440	22.8905	47.8309
217	-1659.3883	-95.7975	-89.8784	1951.2585	98.7966	98.2345
218	-2039.4974	-154.4048	-257.1972	2507.2014	157.4047	265.5224
219	-2632.7280	-230.3458	-455.3281	3328.3735	233.3456	463.7735
220	-3430.8779	-302.9557	-643.5300	4344.2441	256.1858	533.8731
221	-4416.1313	331.3439	746.2688	3320.9934	-349.2748	-777.9928
222	-3364.5210	324.1990	716.0510	2513.2900	-275.0273	-562.8810
223	-2619.8147	205.4464	383.9420	2003.3778	-205.4460	-383.8078
224	-2097.1736	132.5657	193.8031	1699.4550	-132.5669	-193.6870
225	-1778.2666	77.0664	34.5126	1547.1183	-77.0694	-34.4036

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-1675.0288	13.2048	-7.2933	1635.4048	-13.2044	7.3752
227	-1635.4026	13.2064	-7.3929	1595.7904	-13.2034	7.4482
228	-1595.7980	13.2060	-8.0429	1556.1727	-13.2061	8.1106
229	-1556.1786	13.1954	-8.3378	1516.6039	-13.1956	8.3930
230	-1516.6083	13.2057	-8,9229	1476.9657	-13.2064	8.9835
231	-1476.9666	13.1918	-9.4741	1437.3906	-13.1911	9.5032
232	-1437.4005	13.1681	-9.5164	1397.9056	-13.1649	9.5430
233	-1397.9006	13.1362	-10.2634	1358.4932	-13.1345	10.2973
234	-1358.4890	13.1414	-10.5565	1387.0760	14.2524	30.6229
235	-1387.0671	-14.2589	-31.3225	1434.3502	17.2581	39.6117
236	-1434.3293	-17.2354	-39.4760	1490.5175	20.2347	47.8088
237	-1568.6028	-93.1961	-89.6701	1852.6993	96.1949	98.0803
238	-1943.0647	-167.7595	-299.8763	2450.8401	170.7598	308.2151
239	-2530.8582	-227.8262	-455.2903	3218.8508	230.8266	463.6286
240	-3322.7080	-300.4582	-642.7465	4228.7314	253.9797	533.1262
241	-4301.2007	322.9359	744.5062	3232.0925	-340.5553	-776.1284
242	-3275.9712	315.5026	713.8802	2454.9736	-266.9574	-560.7335
243	-2562.6960	197.5567	382.0371	1970.0266	-197.5557	-381.9262
244	-2065.7915	125.1706	192.0032	1690.3147	-125.1732	-191.8744
245	-1770.0564	70.5431	32.6588	1558.4110	-70.5433	-32.5889
246	-1648.6040	27.5912	-16.5319	1565.8345	-27.5894	16.6314
247	-1565.8464	27.5749	-17.4029	1483.1011	-27.5744	17.4797
248	-1483.1129	27.5728	-17.4720	1400.3774	-27.5725	17.4935
249	-1400.3824	27.5618	-17.7037	1317.7296	-27.5616	17.7901
250	-1317.7258	27.5732	-18.6362	1235.0126	-27.5714	18.6996
251	-1235.0066	27.5671	-18.6918	1152.3110	-27.5654	18.7101
252	-1152.2964	27.5694	-19.0120	1069.5670	-27.5703	19.0533
253	-1069.5485	27.5495	-19.4621	986.8868	-27.5504	19.4972
254	-986.8971	27.5583	-19.9534	909.5305	-2.3445	40.9066
255	-909.5071	2.3640	-40.8860	906.9063	0.6356	49.1680
256	-906.9232	-0.6223	-49.3850	913.2740	3.6223	57.7025
257	-1034.5286	-85.8853	-124.1033	1296.6731	88.8853	132.4075
258	-1394.8015	-153.2598	-308.6637	1859.0591	156.2601	317.0436
259	-1960.0863	-213.8450	-465.4898	2606.1499	216.8456	473.8718
260	-2727.0283	-286.8635	-652.4230	.3592.1670	241.4669	551.7080
261	-3668.8557	287.5557	547.1430	3015.4656	-262.9127	-451.7126
262	-3042.6611	243.8278	407.0842	2494.1379	-243.8267	-407.0061
263	-2565.4849	189.8928	273.4052	2138.1790	-189.8945	-273.2585
264	-2213.7615	129.8757	130.2811	1921.4564	-129.8733	-130.2360
265	-2011.9849	56.3583	-52.7508	1885.2142	-56.3564	52.8498
266	-1886.5818	55.7260	-58.8540	1761.1621	-55.7233	58.9233
267	-1761.1824	55.7379	-58.4130	1635.7905	-55.7479	58.4504
268	-1635.7695	55.7826	-59.2753	1510.2468	-55.7944	59.4178
269	-1510.2179	55.8196	-59.9049	1384.6348	-55.8257	59.9575
270	-1384.6172	55.8852	-59.9225	1258.8578	-55.8950	59.9262
271	-1258.8722	55.8778	-59.9545	1133.1488	-55.8772	60.0189
272	-1133.0927	55.9249	-60.5804	1007.2690	-55.9240	60.6452
273	-1007.2850	55.9273	-60.6291	881.4500	-55.9319	60.6556
274	-881.4386	55.9664	-60.9445	755.4776	-55.9692	60.9761
275	-755.4733	55.9408	-60.9805	629.5851	-55.9414	60.9938
276	-629.5610	55.9448	-61.1092	503.7103	-55.9451	61.1402
277	-503.6833	55.9624	-61.2871	377.7566	-55.9622	61.3030
278	-377.7583	55.9606	-61.3082	251.8254	-55.9604	61.3227
279	-251.7995	55.9538	-61.4520	125.9231	-55.9520	61.4629
280	-125.9384	55.9501	-61.4405	0.1053	2.7165	213.1276

ENVOLVENTE MINIMOS CORTANTES TREN IPF-B, l=30 m, via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0329	-29.8198	104.8497	89.8457	50.0686	-49.0433
2	-48.5540	-31.7143	97.5256	142.6948	51.9633	-41.7151
3	-65.7606	-34.8617	87.7347	167.0007	55.1159	-31.9214
4	-59.9128	-39.2589	75.5503	171.0744	59.5166	-19.7291
5	-39.4791	-44.9162	60.7775	8.3917	66.0579	15.6068
6	142.4630	-52.6490	22.9674	-44.7491	74.7808	37.6225
7	209.6538	-62.5832	-1.4674	-92.3494	85.0356	62.7480
8	266.3958	-73.9770	-29.0659	-179.0201	98.0673	93.6911
9	357.2870	-88.1558	-62.5400	-186.6757	113.0185	129.8587
10	364.8969	-104.2159	-101.1313	-159.8894	127.8730	165.0345
11	333.7092	-120.1459	-138.7678	-90.1543	144.0893	203.3243
12	255.9312	-137.3871	-179.6289	30.0442	161.6054	244.7861
13	123.8877	-155.8888	-223.3386	164.7717	181.8522	291.3053
14	-25.4879	-177.1025	-272.5945	413.1805	201.9069	338.6643
15	-291.3180	-198.0363	-322.1858	732.7745	222.8526	388.5018
16	-630.3050	-219.8102	-374.9581	1126.9967	246.1304	445.5970
17	-1045.9747	-243.8870	-433.9714	1599.4923	270.1713	504.8439
18	-1540.8209	-268.6357	-495.5361	2151.9307	293.4029	562.4938
19	-2116.3813	-292.5172	-555.0593	2785.3782	317.2357	622.2105
20	-2772.9756	-316.9536	-618.7042	3500.7515	303.9288	606.1134
21	238.2223	-46.4143	18.9683	-509.7855	45.9662	-37.6149
22	529.6269	-20.3420	103.9078	-428.0968	47.3437	-29.4887
23	487.4674	-22.7789	92.6409	-378.6244	49.7805	-18.2255
24	476.5499	-26.3981	77.9261	-356.8524	53.3994	-3.5110
25	491.1051	-31.3142	59.7544	-356.6579	58.3157	14.6597
26	523.7327	-37.6296	38.1351	-370.3457	64.6315	36.2771
27	565.6287	-45.4103	12.8835	-581.6670	73.7301	103.3357
28	799.7852	-56.0404	-57.3280	-643.2849	86.8503	141.7728
29	877.9731	-70.7533	-99.5374	-739.2500	101.4070	183.0709
30	984.0781	-86.9191	-143.9523	-734.3054	118.2585	229.8189
31	982.2573	-105.3918	-194.2853	-733.1434	137.0417	280.4035
32	977.1898	-125.7842	-248.5147	-605.3992	157.5804	335.3390
33	838.8810	-147.9192	-306.7930	-447.6264	180.3947	394.0501
34	664.1428	-172.2892	-368.8556	-143.8659	204.4601	456.1798
35	337.1285	-197.8717	-434.4793	224.0200	230.9793	522.8511
36	-58.6999	-225.8068	-504.8172	749.9392	258.2289	592.6056
37	-617.4729	-254.4030	-577.5866	1368.7500	287.8893	666.9470
38	-1271.6179	-285.2969	-656.0330	2151.0632	317.8453	744.3467
39	-2091.8926	-316.3679	-735.6548	3045.9504	349.9751	825.9401
40	-3025.4475	-349.5041	-821.6513	4104.3179	341.5959	813.4952
41	440.9226	-53.4790	-1.2393	-772.3672	51.9425	-36.1352
42	795.1576	-26.3897	102.2135	-675.5025	53.3867	-27.8071
43	739.0802	-28.9257	91.0967	-611.7905	55.9274	-16.6846
44	714.7037	-32.6773	76.3268	-576.1611	59.6791	-1.9101
45	715.7366	-37.7548	57.8746	-561.9894	64.7515	16.5304
46	734.4080	-44.2307	36.3666	-561.2072	71.2321	38.0531
47	761.5880	-52.1924	11.2180	-744.7536	80.0418	106.3372
48	967.3969	-62.5439	-60.4021	-792.9064	93.4092	144.8062
49	1031.6218	-77.4873	-102.5502	-874.6869	108.2451	186.1020
50	1122.8032	-93.9190	-147.1982	-852.7025	125.2994	233.0730
51	1103.3875	-112.5879	-197.3991	-833.5300	144.3030	283.4448
52	1079.5712	-133.1914	-251.4957	-685.8593	165.0098	338.2506
53	920.8584	-155.5019	-309.5986	-506.8573	188.0220	396.9067
54	724.0571	-180.0368	-371.8199	-180.7975	212.1986	459.1046

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	374.6961	-205.6907	-437.4247	209.7350	238.7931	525.7051
56	-44.5161	-233.6993	-507.3850	759.5449	266.1128	595.2327
57	-626.9458	-262.3400	-580.6036	1401.9478	295.7988	669.9285
58	-1305.1571	-293.2416	-658.5836	2208.1943	325.7625	746.9159
59	-2149.0103	-324.3096	-738.8219	3126.5015	357.8830	829.1158
60	-3106.0657	-357.4183	-824.8455	4208.4106	349.6974	816.0442
61	622.6796	-57.1535	-2.4010	-938.2062	55.7304	-35.4806
62	961.1935	-30.1779	102.0481	-830.1404	57.1806	-27.6355
63	894.0319	-32.7345	90.8356	-755.3637	59.7295	-16.4403
64	858.6644	-36.4921	75.9086	-708.6655	63.4953	-1.4904
65	848.6448	-41.5807	58.0034	-683.4118	68.5805	16.4043
66	856.2341	-48.0716	35.9278	-671.5012	75.0742	38.4940
67	872.2843	-56.0488	11.0872	-848.3174	84.0628	106.5676
68	1071.3823	-66.5755	-60.7541	-884.8579	97.4518	145.1762
69	1123.9529	-81.5375	-102.8380	-955.0624	112.3043	186.3639
70	1203.4606	-97.9961	-147.4818	-921.2317	129.3766	233.3506
71	1172.1370	-116.6820	-197.6776	-890.0951	148.4067	283.6739
72	1136.3978	-137.3162	-251.5140	-730.3188	169.1289	338.2591
73	965.3257	-159.6086	-309.7528	-539.0636	192.1335	397.0669
74	756.4346	-184.1658	-371.8960	-200.7717	216.3289	459.1277
75	394.7303	-209.8249	-437.4281	202.1772	242.9317	525.6877
76	-36.9027	-237.8449	-507.4105	764.2154	270.2516	595.2365
77	-631.6808	-266.4855	-580.4300	1419.2181	299.9495	669.7769
78	-1322.4257	-297.3997	-658.4438	2237.9543	329.9216	746.7981
79	-2178.5322	-328.4726	-739.6501	3168.4602	362.0398	829.9016
80	-3148.3325	-361.5769	-824.2986	4263.2314	353.7393	815.5027
81	653.1344	-57.9220	-2.1701	-968.9675	56.4278	-35.6516
82	991.9959	-30.8812	101.9178	-858.8683	57.8790	-27.5169
83	922.8024	-33.4265	90.8152	-782.0103	60.4286	-16.4011
84	885.3510	-37.1909	75.9714	-733.2679	64.1927	-1.5539
85	873.2798	-42.2882	57.7809	-705.9685	69.2820	16.6133
86	878.8646	-48.7668	36.1457	-692.0145	75.7728	38.2876
87	892.8241	-56.7492	11.0540	-865.6143	84.7202	106.6216
88	1088.7424	-67.2287	-60.5840	-900.2183	98.1089	145.0229
89	1139.2791	-82.2062	-102.9444	-968.4142	112.9717	186.4615
90	1216.8521	-98.6676	-147.2348	-932.7076	130.0477	233.0171
91	1183.6016	-117.3452	-197.2879	-899.6428	149.0620	283.3147
92	1146.0042	-137.9700	-251.3706	-737.7731	169.7910	338.1706
93	972.8673	-160.2851	-309.4988	-544.6517	192.8030	396.7270
94	762.0402	-184.8323	-371.5192	-204.4740	216.9978	458.7503
95	398.4267	-210.5012	-437.0350	200.5981	243.6148	525.3118
96	-35.2617	-238.5284	-507.1001	764.4747	270.9329	594.8627
97	-631.7850	-267.1750	-580.2703	1421.3689	300.6380	669.5821
98	-1324.5554	-298.0848	-658.1999	2242.1877	330.6104	746.5476
99	-2182.8262	-329.1489	-739.0564	3175.0876	362.7201	829.3359
100	-3154.9368	-362.2617	-823.8445	4271.4072	354.4418	815.1051
101	668.6821	-58.2222	-1.9111	-1062.1053	56.0188	-30.7359
102	1085.1484	-30.4725	96.7167	-953.2456	57.4703	-22.3101
103	1017.1938	-33.0164	85.5667	-877.6280	60.0196	-11.1861
104	980.9553	-36.7855	71.1188	-830.1046	63.7846	3.2672
105	970.1406	-41.8738	52.8357	-804.0240	68.8719	21.5764
106	976.8742	-48.3633	31.0368	-791.2901	75.3619	43.3536
107	992.0776	-56.3380	6.1940	-874.1899	85.0483	106.4654
108	1097.3340	-67.5546	-60.5780	-907.7868	98.4380	145.0056
109	1146.8912	-82.5325	-102.5324	-975.0043	113.3038	186.0319
110	1223.4111	-98.9941	-147.1586	-938.1797	130.3705	233.0094
111	1189.0365	-117.6820	-197.1837	-904.1098	149.3995	283.1531

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	1150.3975	-138.3242	-251.1017	-741.2691	170.1523	337.8609
113	976.2820	-160.6376	-309.2873	-547.1081	193.1447	396.4742
114	764.6843	-185.1665	-371.1189	-205.7626	217.3420	458.3398
115	399.5320	-210.8296	-436.5962	200.1824	243.9173	524.8399
116	-34.6473	-238.8233	-506.7456	764.9373	271.2335	594.5034
117	-632.5198	-267.4673	-579.3999	1422.8944	300.9240	668.7490
118	-1325.7609	-298.3672	-658.2076	2244.4573	330.9030	746.5319
119	-2185.3618	-329.4514	-738.1306	3178.1140	363.0128	828.4810
120	-3157.3799	-362.5466	-825.5619	4274.8281	354.7313	816.7903
121	671.2759	-58.2722	-2.1546	-1064.2968	56.0643	-30.3719
122	1087.3108	-30.5169	96.7816	-955.2810	57.5130	-22.4036
123	1019.2086	-33.0609	85.6548	-879.5179	60.0617	-11.2687
124	982.8695	-36.8157	71.0519	-831.8760	63.8220	3.3566
125	971.9205	-41.9073	52.8427	-805.7119	68.9053	21.5546
126	978.5875	-48.3972	31.0290	-792.9173	75.3953	43.3616
127	993.7396	-56.3727	6.1507	-875.8183	85.0854	106.5027
128	1098.9478	-67.6060	-60.5215	-909.3855	98.4806	144.9011
129	1148.5770	-82.5717	-102.3139	-976.5795	113.3467	185.8104
130	1225.0586	-99.0352	-146.9117	-939.6380	130.4237	232.8103
131	1190.4773	-117.7383	-197.2701	-905.4410	149.4514	283.2535
132	1151.8525	-138.3698	-251.0446	-742.5472	170.1973	337.6786
133	977.6978	-160.6716	-308.8215	-548.4137	193.1868	395.9475
134	765.8850	-185.2247	-370.6156	-206.8884	217.3917	457.8601
135	400.7928	-210.8955	-436.0714	199.3904	244.0005	524.3585
136	-34.0931	-238.9071	-506.1144	764.3506	271.3082	593.8454
137	-631.5469	-267.5490	-579.4704	1422.3253	301.0166	668.7616
138	-1325.5144	-298.4594	-657.3566	2244.3662	330.9811	745.7202
139	-2185.1084	-329.5293	-737.9427	3178.0671	363.0939	828.3024
140	-3157.3438	-362.6295	-825.3632	4275.0625	354.8065	816.5393
141	672.2952	-58.2827	-2.0903	-1065.4617	56.0735	-30.2229
142	1088.4645	-30.5242	97.1776	-956.3791	57.5269	-22.8103
143	1020.3162	-33.0805	85.9337	-880.6132	60.0748	-11.5521
144	983.9637	-36.8378	71.1467	-832.9053	63.8442	3.2492
145	972.9167	-41.9296	53.2994	-806.6561	68.9248	21.0813
146	979.5210	-48.4132	31.3567	-793.7496	75.4160	43.0568
147	994.5621	-56.3919	6.4279	-876.5024	85.1068	106.2394
148	1099.5907	-67.6209	-60.1430	-909.9672	98.4944	144.5021
149	1149.0956	-82.5832	-101.9381	-977.0405	113.3569	185.4367
150	1225.4482	-99.0488	-146.5564	-940.0278	130.4279	232.4159
151	1190.9058	-117.7445	-196.6174	-905.7460	149.4639	282.6071
152	1152.0435	-138.3766	-250.5759	-742.7786	170.1942	337.2131
153	977.9989	-160.6806	-308.2065	-548.6349	193.1972	395.3293
154	766.0107	-185.2200	-370.0984	-207.0890	217.3922	457.3526
155	401.1038	-210.8972	-435.5726	199.1055	244.0008	523.8242
156	-33.7563	-238.9019	-505.5653	764.0833	271.3033	593.2893
157	-631.1953	-267.5381	-579.0372	1421.7793	301.0029	668.2788
158	-1324.9684	-298.4550	-656.8491	2243.5986	330.9761	745.1915
159	-2184.2449	-329.5244	-737.6395	3177.5671	363.1000	827.9681
160	-3157.2195	-362.6341	-823.3527	4274.8286	354.8133	814.6456
161	671.3380	-58.2016	-1.8261	-1064.6041	55.9889	-30.4214
162	1087.6403	-30.4423	96.8095	-955.8311	57.4396	-22.4304
163	1019.7863	-32.9854	85.6397	-880.3173	59.9877	-11.2583
164	983.6586	-36.7535	71.1210	-832.9072	63.7533	3.2656
165	972.9625	-41.8375	52.7315	-806.9550	68.8369	21.6457
166	979.8484	-48.3267	31.5393	-794.3687	75.3273	42.8458
167	995.1975	-56.2972	6.2924	-877.4851	85.0139	106.4488
168	1100.5936	-67.5359	-60.7966	-911.2119	98.4151	145.1881

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	1150.4264	-82.4993	-102.3104	-978.6422	113.2630	185.7403
170	1227.0592	-98.9622	-146.7311	-941.9865	130.3438	232.5155
171	1192.9889	-117.6636	-196.5720	-908.0374	149.3862	282.5263
172	1154.4150	-138.2877	-250.4524	-745.3038	170.1105	337.1809
173	980.3941	-160.5996	-308.4907	-551.3833	193.1105	395.5869
174	768.9749	-185.1402	-370.1311	-210.3318	217.3134	457.3023
175	404.1699	-210.8040	-435.5075	195.7821	243.9077	523.7780
176	-30.2806	-238.8445	-505.6756	760.3711	271.2529	593.3638
177	-627.7465	-267.4842	-578.5578	1418.4393	300.9556	667.8804
178	-1321.4727	-298.4039	-656.9688	2239.6704	330.9138	745.2919
179	-2180.2419	-329.4605	-737.9381	3173.5161	363.0335	828.2841
180	-3153.1555	-362.5687	-823.6739	4270.8403	354.7494	815.0161
181	668.5798	-57.9998	-1.7675	-1062.6088	55.7839	-30.5087
182	1085.6481	-30.2389	96.7117	-954.4469	57.2369	-22.3451
183	1018.3714	-32.7871	85.9890	-879.5059	59.7877	-11.6172
184	982.8431	-36.5520	71.1033	-832.6901	63.5514	3.2956
185	972.7363	-41.6331	52.9595	-807.3050	68.6367	21.4456
186	980.1378	-48.1373	31.2277	-795.2605	75.1335	43.1408
187	996.0645	-56.1032	6.6124	-878.9045	84.8175	106.0714
188	1101.9618	-67.3350	-60.3336	-913.1972	98.2059	144.7467
189	1152.3541	-82.2956	-102.2223	-981.1799	113.0631	185.6799
190	1229.6847	-98.7478	-146.4145	-945.1613	130.1290	232.2563
191	1195.9988	-117.4261	-196.8022	-911.8243	149.1465	282.7488
192	1158.3372	-138.0540	-250.1793	-749.9757	169.8770	336.7928
193	985.0872	-160.3708	-308.1093	-556.6126	192.8982	395.3567
194	774.0197	-184.9444	-370.0948	-216.0610	217.1072	457.2566
195	410.1853	-210.6109	-435.4698	189.1230	243.7233	523.6509
196	-23.7754	-238.6402	-505.3365	753.2968	271.0436	593.0836
197	-620.5958	-267.2770	-578.4375	1410.4305	300.7373	667.7313
198	-1313.3693	-298.1908	-656.9506	2231.1790	330.7144	745.2679
199	-2171.8130	-329.2679	-737.6702	3164.3142	362.8375	827.9753
200	-3144.0537	-362.3674	-822.8683	4261.2222	354.5457	814.2452
201	653.7124	-56.8665	-1.6481	-1051.1257	54.6560	-30.6030
202	1074.1567	-29.1114	96.9927	-946.3413	56.1080	-22.5996
203	1010.2963	-31.6617	85.5465	-874.8354	58.6586	-11.1731
204	978.1813	-35.4176	71.1401	-831.3881	62.4229	3.2543
205	971.4295	-40.5070	52.8775	-809.4169	67.5044	21.5052
206	982.2642	-46.9969	31.4332	-800.7929	73.9919	42.9357
207	1001.6157	-54.9670	6.4528	-887.8615	83.6824	106.2686
208	1110.9733	-66.1972	-60.6023	-925.6187	97.0752	144.9798
209	1164.8456	-81.1642	-102.0634	-997.0623	111.9312	185.5156
210	1245.5403	-97.6362	-146.6344	-964.3584	129.0276	232.4899
211	1215.2817	-116.3377	-196.6710	-934.3481	148.0558	282.6558
212	1180.6598	-136.9650	-250.6332	-775.6185	168.7849	337.2710
213	1010.8699	-159.2737	-308.2164	-585.7051	191.7922	395.3369
214	803.0697	-183.8115	-370.1154	-248.3340	215.9895	457.3441
215	442.3341	-209.5212	-435.5323	153.5739	242.6247	523.7447
216	11.6950	-237.5387	-505.4150	714.5679	269.9484	593.1555
217	-581.7069	-266.1871	-578.8634	1368.2476	299.6477	668.1161
218	-1271.4733	-297.1028	-656.6896	2186.1265	329.6261	745.0427
219	-2126.7991	-328.1749	-737.4710	3116.0930	361.7491	827.8428
220	-3095.5625	-361.2852	-824.0633	4209.3677	353.4509	815.3436
221	620.3909	-54.3606	-2.1283	-1025.6475	52.1454	-30.1214
222	1048.7100	-26.5997	96.6134	-928.4148	53.5985	-22.2339
223	992.4145	-29.1523	85.4215	-864.4336	56.1570	-11.0351
224	967.8115	-32.9246	70.9048	-828.5313	59.9255	3.4772
225	968.5697	-38.0290	52.6503	-814.0409	65.0231	21.7116

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	986.9230	-44.5206	31.3368	-812.8417	71.5240	43.0603
227	1013.6267	-52.5125	6.0855	-907.1861	81.2364	106.6235
228	1130.2183	-63.7700	-60.5394	-952.0969	94.6479	144.9297
229	1191.0070	-78.7492	-102.5190	-1030.4883	109.5159	185.9730
230	1278.8318	-95.2275	-146.7485	-1004.6951	126.6214	232.5739
231	1255.2512	-113.9348	-196.8089	-981.4536	145.6521	282.7807
232	1227.3781	-134.5726	-250.7567	-829.5213	166.3863	337.4097
233	1064.3477	-156.8620	-308.4491	-646.1922	189.3880	395.5819
234	863.1788	-181.4380	-370.2846	-315.6298	213.6035	457.4567
235	509.3101	-207.1103	-435.5906	79.7253	240.2249	523.8147
236	85.0408	-235.1702	-505.4379	634.0900	267.5801	593.1951
237	-501.6539	-263.8296	-578.7355	1281.3164	297.3005	668.0088
238	-1184.6069	-294.7604	-657.1523	2092.2534	327.2850	745.4683
239	-2033.3031	-325.8384	-737.3073	3015.3896	359.4025	827.6322
240	-2995.0483	-358.9407	-823.2645	4101.9360	351.0289	814.5973
241	441.7763	-40.9221	-11.4770	-889.3280	38.8006	-20.7679
242	912.6106	-13.2719	87.3269	-832.2642	40.2789	-12.9267
243	896.5448	-15.8729	75.9988	-808.4282	42.8738	-1.6163
244	912.0245	-19.7084	61.4390	-812.4174	46.7050	12.9279
245	952.5573	-24.8768	43.3071	-837.4182	51.8791	31.0913
246	1010.0451	-31.4865	21.5960	-875.1172	58.4805	52.7730
247	1075.3481	-39.5697	-3.1112	-1007.4230	68.3346	115.8462
248	1229.3918	-50.9901	-70.1545	-1089.1844	81.9067	154.6030
249	1326.5160	-66.1608	-112.1923	-1202.7642	97.0005	195.6325
250	1448.8459	-82.8654	-156.0183	-1211.3486	114.2817	241.8047
251	1459.0317	-101.7774	-206.3574	-1220.2139	133.5759	292.3746
252	1462.8043	-122.6669	-260.0716	-1099.6631	154.5314	346.7249
253	1330.3816	-145.2020	-317.7466	-945.5845	177.7827	404.8658
254	1158.1979	-170.0039	-379.3041	-643.9966	202.2143	466.4986
255	832.6281	-195.9258	-444.7381	-275.7464	229.0861	533.0136
256	435.9286	-224.1718	-514.7005	251.1141	256.6088	602.4624
257	-123.2894	-252.9806	-587.7748	871.2117	286.4639	677.0861
258	-778.6313	-284.0223	-665.7141	1654.1443	316.5512	754.0923
259	-1597.4493	-315.1739	-747.1245	2546.9231	348.7256	837.4581
260	-2527.7778	-348.2814	-832.3744	3601.6890	339.7283	825.0203
261	144.7995	-24.5249	-60.8169	-685.2058	15.9995	8.5751
262	700.1465	3.3675	40.5323	-684.9476	16.8782	15.2447
263	724.3684	1.8396	31.7428	-705.7261	18.4113	24.0299
264	769.1328	-0.3966	20.5150	-745.4467	20.6517	35.2971
265	831.8073	-3.4317	6.3864	-801.3175	23.6779	49.3749
266	909.2144	-7.2916	-9.4671	-870.0176	27.5462	65.2673
267	997.2568	-12.0537	-28.7153	-947.3610	32.3005	84.5114
268	1091.5432	-17.7772	-49.5560	-1028.7839	38.0273	105.3131
269	1186.8887	-24.4897	-72.9240	-1141.4563	46.0581	176.2822
270	1310.0476	-33.5709	-146.7930	-1268.3390	56.3379	209.5188
271	1443.6989	-44.8888	-182.4664	-1375.3964	67.8851	245.7633
272	1553.4663	-57.6001	-220.3762	-1511.6586	82.4900	288.9251
273	1687.8688	-73.3092	-266.7698	-1550.3400	98.4549	336.0741
274	1720.2264	-90.4640	-315.8292	-1542.6862	114.3309	381.5365
275	1701.0267	-107.4683	-364.2635	-1479.4562	131.5540	430.2834
276	1621.2938	-125.9331	-415.2008	-1351.5890	150.2196	481.4102
277	1471.6729	-145.8563	-468.6459	-1177.0110	171.7914	537.8040
278	1269.6650	-168.6455	-527.9238	-882.2728	193.5205	594.8460
279	942.3673	-191.6115	-587.0158	-493.3768	216.6638	654.1622
280	514.6028	-216.0287	-649.3640	0.3992	239.2842	713.4659

ENVOLVENTE MINIMOS TORSORES TREN IPF-B, l=30 m, via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0019	19.4374	50.4099	-29.3915	1.0620	6.9575
2	70.6559	17.2778	41.5251	-105.1301	3.5535	16.4867
3	181.9565	13.5215	29.6078	-216.4298	7.6446	29.0702
4	324.9527	8.4336	14.3707	-354.9714	13.0643	44.9969
5	486.5605	1.5545	-4.0199	-506.6835	20.2543	63.9752
6	655.4039	-7.0174	-25.2054	-660.3489	29.1492	85.7983
7	825.2448	-16.9299	-49.6412	-810.6578	39.3823	110.9242
8	987.6925	-28.1226	-77.4046	-1003.5182	52.2129	142.0282
9	1181.7900	-42.2881	-110.9978	-1114.3536	67.1508	178.3200
10	1288.1807	-58.5887	-149.2424	-1185.8381	82.2458	213.1455
11	1380.5619	-73.5620	-187.5019	-1241.8383	97.5054	252.0562
12	1383.9224	-91.7831	-227.6681	-1200.5485	116.0013	292.8263
13	1383.5157	-109.2167	-272.1452	-1199.8895	135.1800	340.1098
14	1314.9111	-131.2772	-321.0936	-1030.2996	156.0816	387.1681
15	1178.2578	-151.3814	-371.0201	-841.7802	176.1977	437.3350
16	914.1370	-174.0515	-423.1757	-520.4329	200.3717	493.8191
17	603.7410	-198.0531	-482.4763	-153.3287	224.3374	553.3481
18	246.2329	-221.9121	-544.4296	259.7449	246.6793	611.3833
19	-219.8036	-245.6841	-604.6785	783.4267	270.4026	671.8325
20	-775.6594	-270.2193	-667.5552	1398.2781	257.1946	654.9650
21	-1458.4948	19.5744	-48.2491	1313.1588	-29.9531	43.4257
22	-1293.3286	55.5787	23.1162	1121.6573	-27.4636	53.9253
23	-1062.2883	52.0268	9.2286	916.1167	-24.2185	67.1583
24	-818.1889	47.6019	-7.4564	640.5160	-18.4500	87.2871
25	-506.2630	40.5354	-31.0438	381.4581	-12.1798	108.8984
26	-214.3846	32.8708	-56.1029	59.1973	-2.5876	138.8755
27	136.0619	21.8033	-89.5670	-270.6778	7.7410	170.1594
28	488.8161	9.9482	-124.2394	-530.2913	20.8617	208.6844
29	764.9597	-4.7662	-166.4200	-824.1733	35.4199	249.9517
30	1069.0233	-20.9354	-210.8079	-1017.2155	52.2748	296.6696
31	1265.1622	-39.4082	-261.1423	-1214.0173	71.0581	347.2581
32	1460.0375	-59.7040	-315.5110	-1286.4712	91.5001	402.3346
33	1527.1331	-81.5041	-373.7944	-1335.1010	113.9795	461.0522
34	1540.8778	-106.3074	-435.5945	-1218.5588	138.4783	522.9206
35	1434.6282	-131.0849	-501.7061	-1073.8782	164.1925	590.0784
36	1208.9015	-159.9873	-571.4563	-715.1237	192.4094	659.2446
37	872.4806	-187.8547	-644.6525	-320.8189	221.3410	734.0142
38	389.8566	-219.5051	-722.6160	292.2158	252.0537	810.9296
39	-199.1132	-249.7306	-802.7797	953.2861	283.3377	893.0651
40	-969.7254	-283.7308	-888.1765	1851.2557	275.8226	880.0198
41	-1861.0249	25.4347	-77.3054	1683.8726	-38.4310	55.4160
42	-1661.1035	63.9815	11.2648	1453.6675	-35.6100	65.6794
43	-1390.0654	60.0737	-2.9203	1215.1484	-32.1427	79.2978
44	-1112.2395	55.3881	-19.6593	903.3474	-26.0094	99.3845
45	-763.7957	47.9388	-43.0316	613.5111	-19.4843	120.8463
46	-441.0824	40.0114	-68.2733	259.1916	-9.5433	150.9983
47	-58.8123	28.5785	-101.7223	-100.0203	1.1255	182.2654
48	322.6786	16.3742	-136.4353	-384.8807	14.4911	220.8399
49	623.5785	1.4340	-178.5237	-703.4242	29.3238	262.0681
50	951.5372	-14.9963	-223.1655	-918.2067	46.3767	309.0411
51	1168.9084	-33.6716	-273.3473	-1135.8501	65.3867	359.3936
52	1381.8855	-54.2809	-327.4800	-1224.8557	86.0992	414.2313
53	1459.8755	-76.5885	-385.5181	-1282.6648	109.1087	472.8290
54	1499.8512	-101.1250	-447.8346	-1193.2828	133.2867	535.1185

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	1380.9526	-126.9920	-513.1512	-1032.6072	160.0944	601.4312
56	1204.7034	-154.7761	-583.3216	-726.4917	187.1896	671.1655
57	851.5529	-183.6335	-656.2935	-312.6532	217.0923	745.6144
58	409.4404	-214.5301	-734.2681	257.4828	247.0513	822.6013
59	-198.2942	-245.5964	-814.5018	939.6619	279.1698	904.7972
60	-920.1097	-278.7293	-899.8979	1786.3677	271.0084	891.0958
61	-1758.6689	23.9240	-77.5716	1586.3988	-36.7038	55.1398
62	-1605.9948	63.3338	10.8002	1399.8982	-34.9427	66.2445
63	-1336.1443	59.4119	-3.3704	1162.9574	-31.4797	79.6971
64	-1059.6506	54.7082	-19.9430	852.3018	-25.3131	99.7259
65	-712.2903	47.2324	-43.8709	563.9338	-18.7684	121.6970
66	-391.1273	39.2821	-68.8247	211.0695	-8.8010	151.5606
67	-10.3925	27.7957	-102.4075	-146.3893	1.9148	182.9498
68	369.4075	15.5638	-137.1388	-429.2958	15.3125	221.5619
69	668.3257	0.5992	-179.2218	-745.8435	30.1676	262.7508
70	994.2408	-15.8629	-223.8689	-958.3973	47.2433	309.7379
71	1196.4277	-35.3128	-274.0566	-1158.5253	67.0375	360.0513
72	1404.8363	-55.9475	-327.8464	-1242.8247	87.7601	414.5912
73	1478.9916	-78.1866	-386.1690	-1297.0295	110.7115	473.4840
74	1513.0746	-102.7960	-448.1933	-1201.4843	134.9592	535.4231
75	1389.2271	-128.6741	-513.4322	-1035.7773	161.7809	601.6905
76	1201.0558	-156.6884	-583.4150	-717.2205	189.0951	671.2413
77	849.7569	-185.3287	-656.4279	-305.6994	218.7927	745.7776
78	402.4935	-216.2419	-734.4349	269.5606	248.7640	822.7885
79	-284.8562	-249.1535	-814.7597	1036.8442	282.7207	905.0118
80	-937.2795	-280.4463	-899.7657	1808.7361	272.6087	890.9713
81	-1719.9006	23.0981	-77.3928	1549.6770	-35.9976	54.9419
82	-1525.2883	61.5087	11.3332	1324.6361	-33.1195	65.6849
83	-1355.7457	59.9357	-2.9502	1180.9314	-31.9975	79.3457
84	-1070.0613	55.0336	-19.7646	861.7029	-25.6381	99.5681
85	-728.5997	47.7564	-43.5896	578.6387	-19.2980	121.4238
86	-405.7360	39.8119	-68.8133	224.0445	-9.3264	151.5771
87	-23.2433	28.3440	-102.3969	-135.2059	1.3670	182.9460
88	357.5604	16.0743	-137.1257	-418.9711	14.8059	221.5650
89	658.9410	1.1570	-179.3452	-738.1437	29.6085	262.8683
90	980.4723	-15.2773	-223.7410	-946.4448	46.6574	309.5212
91	1181.0205	-34.4019	-273.7866	-1145.8939	66.1186	359.8137
92	1403.7180	-54.4986	-327.9069	-1245.9685	86.3196	414.7063
93	1468.0570	-77.3360	-385.9610	-1288.6987	109.8539	473.1891
94	1505.8809	-101.8505	-447.8506	-1197.1744	134.0160	535.0803
95	1385.4681	-127.7276	-513.2451	-1034.7993	160.8412	601.5227
96	1199.0953	-155.7777	-583.0996	-718.0988	188.1822	670.8618
97	829.4486	-185.0376	-655.8483	-286.2812	218.5006	745.1603
98	393.1132	-215.6850	-733.7802	277.3128	248.2106	822.1305
99	-299.8051	-248.7748	-814.0766	1050.8868	282.3460	904.3556
100	-1020.1310	-281.6282	-899.1331	1894.7560	273.8083	890.3946
101	-1705.6013	22.8563	-77.3809	1536.2065	-35.7232	54.9787
102	-1502.5303	61.0167	11.6013	1303.3429	-32.6286	65.3879
103	-1247.9089	57.2992	-2.6674	1080.9985	-29.3625	79.1245
104	-1067.0914	54.9705	-19.9610	858.9216	-25.5773	99.7811
105	-718.8848	47.4925	-43.6888	569.7115	-19.0291	121.5270
106	-396.8521	39.5358	-68.9171	216.0096	-9.0560	151.6708
107	-15.3022	28.0739	-102.5636	-142.3333	1.6355	183.1030
108	362.5897	15.9701	-137.3013	-423.6896	14.9133	221.7295
109	646.1210	1.7117	-179.3378	-726.9725	29.0596	262.8362
110	975.3762	-14.7460	-223.9659	-942.8915	46.1224	309.8162
111	1181.4950	-33.9478	-273.9850	-1147.7327	65.6653	359.9596

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	1397.5859	-54.4113	-327.9080	-1240.1570	86.2394	414.6647
113	1474.4722	-76.7576	-386.0942	-1296.9124	109.2647	473.2810
114	1498.5237	-101.8710	-447.5016	-1189.5496	134.0465	534.7176
115	1384.0715	-127.5022	-513.0973	-1034.2939	160.5899	601.3420
116	1140.9882	-157.3388	-582.5268	-655.1745	189.7490	670.2829
117	850.6900	-184.1714	-655.6106	-310.2019	217.6281	744.9596
118	309.3849	-217.6650	-733.4420	367.1373	250.2007	821.7656
119	-297.8514	-248.5040	-813.5903	1047.8027	282.0654	903.9427
120	-1052.6267	-282.2009	-899.4469	1929.0630	274.3855	890.6713
121	-1682.6129	22.3467	-76.6680	1514.8300	-35.2083	54.2361
122	-1491.8350	60.7607	11.8037	1293.4250	-32.3754	65.2663
123	-1245.4174	57.2137	-2.5530	1078.7844	-29.2743	78.9911
124	-1006.0594	53.3501	-19.6847	802.7305	-23.9558	99.5389
125	-717.4970	47.4499	-43.5816	568.4425	-18.9893	121.4352
126	-395.5542	39.5017	-68.8561	214.7775	-9.0250	151.6210
127	-14.7409	28.0504	-102.5515	-142.8585	1.6590	183.0950
128	362.7496	15.9522	-137.3220	-423.8510	14.9224	221.7022
129	642.9101	1.8614	-179.2609	-724.2399	28.9136	262.7553
130	972.7240	-14.6025	-223.8533	-940.6337	45.9910	309.7563
131	1189.6056	-33.3244	-274.2143	-1157.7749	65.0375	360.1983
132	1393.0657	-54.5133	-327.9150	-1235.3220	86.3408	414.5501
133	1460.3004	-77.2302	-385.4698	-1281.3278	109.7454	472.5978
134	1497.8468	-101.8205	-447.0497	-1189.0837	133.9875	534.2946
135	1382.9938	-127.4842	-512.4998	-1033.0607	160.5892	600.7873
136	1198.3767	-155.4947	-582.3394	-718.3035	187.8958	670.0716
137	761.2725	-186.7131	-654.8810	-213.0258	220.1807	744.1744
138	309.8359	-217.6304	-732.7673	366.4947	250.1523	821.1331
139	-314.5386	-248.8758	-813.0391	1065.5710	282.4404	903.3975
140	-1052.0840	-282.1657	-898.8953	1928.4312	274.3427	890.0717
141	-1674.7511	22.1940	-75.7499	1507.3760	-35.0673	53.3628
142	-1491.0542	60.7767	12.0419	1292.5734	-32.3863	65.1326
143	-1235.9652	57.0189	-2.3405	1069.9338	-29.0879	78.7347
144	-966.6255	52.3228	-19.3164	766.3819	-22.9213	99.2143
145	-716.3600	47.4191	-43.5687	567.4208	-18.9576	121.4343
146	-354.8972	38.2210	-68.7870	177.9937	-7.7381	151.5782
147	-14.6636	28.0648	-102.5404	-142.9458	1.6483	183.1045
148	355.5376	16.2370	-137.3435	-417.4621	14.6365	221.7021
149	641.8719	1.9169	-179.2801	-723.3375	28.8568	262.7781
150	971.7448	-14.5468	-223.9031	-939.8440	45.9259	309.7594
151	1189.2834	-33.2687	-273.9608	-1157.5380	64.9881	359.9525
152	1403.8428	-53.9013	-327.9193	-1247.9811	85.7189	414.5532
153	1464.6252	-77.0159	-385.1791	-1286.2555	109.5325	472.3021
154	1503.6306	-101.5504	-447.0759	-1195.7146	133.7226	534.3293
155	1383.2258	-127.4598	-512.2615	-1033.3740	160.5634	600.5147
156	1198.6066	-155.4660	-582.0423	-718.5625	187.8674	669.7646
157	761.6069	-186.6807	-654.4518	-213.5844	220.1455	743.6960
158	310.3881	-217.6007	-732.2659	365.7024	250.1218	820.6071
159	-313.6398	-248.8599	-812.5207	1064.9387	282.4355	902.8489
160	-1050.7148	-282.1092	-897.8668	1926.7784	274.2884	889.1600
161	-1673.3588	22.1126	-76.0527	1506.1499	-34.9758	53.7453
162	-1483.1632	60.5247	12.2681	1285.4661	-32.1399	64.8236
163	-1227.6493	56.7478	-2.1441	1062.4021	-28.8109	78.6179
164	-973.7466	52.4377	-19.5039	773.1720	-23.0482	99.3704
165	-633.1122	44.9658	-43.3731	491.5233	-16.5030	121.2590
166	-395.4687	39.4280	-68.9756	214.9249	-8.9498	151.7474
167	-13.9387	27.9767	-102.6073	-143.4196	1.7377	183.2193
168	366.5241	15.7535	-137.5749	-427.0105	15.1257	221.9684

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	642.4313	1.7899	-179.4491	-723.5445	28.9738	262.8813
170	971.0511	-14.6258	-223.9124	-938.9426	46.0074	309.6951
171	1186.6323	-33.4674	-273.7524	-1154.2922	65.1900	359.7122
172	1400.6610	-54.0893	-327.6387	-1244.1765	85.9121	414.3666
173	1464.8936	-77.0361	-385.5845	-1286.5208	109.5470	472.6864
174	1500.4939	-101.7199	-446.6873	-1192.0797	133.8931	533.8562
175	1386.0157	-127.3828	-512.2362	-1036.3782	160.4865	600.5049
176	1127.4066	-157.7629	-581.6383	-640.5078	190.1713	669.3275
177	772.0074	-186.4325	-654.3695	-224.5299	219.9039	743.6920
178	306.8632	-217.7394	-732.2048	369.4195	250.2492	820.5261
179	-315.7272	-248.9390	-812.4531	1067.3649	282.5119	902.7999
180	-1047.4852	-282.0542	-897.8159	1923.6206	274.2349	889.1600
181	-1669.9554	21.8255	-76.1851	1503.6398	-34.7022	53.8472
182	-1480.6022	60.2508	12.3864	1283.7201	-31.8650	64.7464
183	-1241.7722	56.8579	-2.5131	1076.2080	-28.9200	78.9802
184	-972.8624	52.1527	-19.4803	773.1600	-22.7614	99.3207
185	-652.5769	45.2386	-43.4751	510.1553	-16.7695	121.3686
186	-395.0511	39.0830	-68.8948	215.5468	-8.6055	151.6649
187	-18.3709	27.7667	-102.6443	-138.3396	1.9446	183.1927
188	362.8579	15.4761	-137.4611	-422.5189	15.3948	221.8738
189	638.8967	1.5149	-179.4953	-719.1775	29.2526	262.9509
190	965.9944	-14.8871	-223.8097	-933.0569	46.2683	309.6494
191	1183.8978	-33.5669	-274.1994	-1151.3137	65.2873	360.1447
192	1388.1003	-54.6849	-327.4004	-1229.8677	86.5079	414.0121
193	1464.9827	-77.0053	-385.3265	-1286.6157	109.5327	472.5732
194	1504.0375	-101.5775	-447.1891	-1196.1206	133.7403	534.3512
195	1390.2814	-127.2441	-511.9971	-1041.0961	160.3565	600.1788
196	1150.0941	-157.0453	-581.6594	-665.3232	189.4487	669.4078
197	771.7448	-186.4382	-654.3476	-224.4358	219.8985	743.6395
198	314.8070	-217.5375	-732.1143	361.0594	250.0609	820.4316
199	-307.3499	-248.7516	-812.3147	1058.2861	282.3212	902.6198
200	-1038.0327	-281.8517	-897.4948	1913.6370	274.0300	888.8717
201	-1663.0676	21.3164	-76.2089	1498.2560	-34.1890	53.9712
202	-1481.8203	59.8840	12.0520	1286.0443	-31.4996	64.9964
203	-1222.0969	55.9470	-2.0623	1059.2737	-28.0109	78.5025
204	-970.5987	51.6370	-19.4735	772.4108	-22.2392	99.3835
205	-641.4561	44.4112	-43.4601	501.5200	-15.9473	121.3400
206	-396.1893	38.5761	-68.9702	218.2169	-8.1013	151.7287
207	-18.8735	27.1776	-102.6310	-136.0902	2.5341	183.2206
208	359.1920	14.9519	-137.5460	-417.2908	15.9261	221.9199
209	632.4999	1.0421	-179.3846	-711.3649	29.7249	262.8392
210	959.8359	-15.4256	-223.9516	-925.3029	46.8170	309.8073
211	1175.7880	-34.1005	-274.0046	-1141.5730	65.8186	359.9903
212	1387.8871	-54.7236	-327.9736	-1229.5591	86.5435	414.6102
213	1464.8593	-77.0312	-385.2135	-1286.4320	109.5497	472.3331
214	1503.7870	-101.5693	-447.1063	-1195.7880	133.7473	534.3335
215	1389.8096	-127.2782	-512.1101	-1040.6074	160.3817	600.3216
216	1205.8694	-155.3002	-581.9633	-726.3038	187.7099	669.7024
217	806.0030	-185.4816	-654.3742	-261.5724	218.9422	743.6274
218	358.3450	-216.3991	-732.2061	314.1970	248.9224	820.5582
219	-259.5981	-247.5928	-812.4563	1007.1073	281.1670	902.8272
220	-991.2784	-280.8126	-898.0634	1863.6515	272.9784	889.3442
221	-1663.7312	21.3401	-75.8343	1498.7977	-34.2329	53.4583
222	-1475.7766	59.7865	12.4315	1280.2467	-31.3964	64.6869
223	-1222.3861	55.9950	-1.9866	1059.3870	-28.0523	78.4735
224	-962.8082	51.4618	-19.3789	765.1409	-22.0631	99.2707
225	-633.4810	44.2011	-43.3708	494.1740	-15.7420	121.2423

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-396.1097	38.6044	-68.8831	218.0618	-8.1160	151.6652
227	-17.5072	27.1381	-102.5285	-137.2785	2.5863	183.1258
228	359.2029	14.9313	-137.3842	-417.1816	15.9466	221.7793
229	642.4966	0.5419	-179.4588	-719.7893	30.2248	262.9111
230	959.0829	-15.4795	-223.8105	-924.2882	46.8734	309.6380
231	1174.4408	-34.1540	-273.9028	-1139.9268	65.8713	359.8742
232	1385.8542	-54.7996	-327.8479	-1227.2742	86.6133	414.5013
233	1462.1110	-77.0859	-385.3242	-1283.3324	109.6119	472.4530
234	1500.3385	-101.6571	-447.0371	-1192.0898	133.8226	534.2092
235	1385.8135	-127.3309	-511.8538	-1036.1694	160.4455	600.0773
236	1200.9237	-155.3968	-581.8229	-721.0597	187.8067	669.5815
237	853.5474	-184.0629	-654.3362	-313.2156	217.5338	743.6076
238	409.9656	-214.9935	-732.0345	258.3780	247.5181	820.3528
239	-199.4263	-246.0662	-812.1793	942.1886	279.6303	902.5036
240	-921.8263	-279.1694	-897.5639	1789.3529	271.2576	888.8964
241	-1670.8445	21.8127	-75.9120	1504.2024	-34.7835	53.6049
242	-1487.5909	60.4736	12.1754	1289.8364	-32.0532	64.9644
243	-1225.5441	56.4565	-2.1713	1061.1134	-28.5020	78.6302
244	-972.2199	52.0684	-19.5408	772.7164	-22.6392	99.4258
245	-660.6540	45.2980	-43.5757	518.1105	-16.8046	121.4593
246	-395.3111	38.7868	-68.9940	216.9882	-8.2542	151.7558
247	-18.5062	27.2199	-102.7191	-136.0302	2.5650	183.3026
248	357.9961	14.7783	-137.6014	-415.1297	16.1383	222.0539
249	642.1792	0.0718	-179.7622	-717.0772	30.7679	263.2024
250	950.9747	-15.9921	-223.9614	-914.0797	47.4084	309.7470
251	1161.7599	-34.9115	-274.2916	-1123.5326	66.7100	360.3119
252	1366.1107	-55.7973	-328.0374	-1203.6073	87.6618	414.6925
253	1434.3591	-78.3354	-385.6631	-1250.1696	110.9161	472.7816
254	1462.8113	-103.1314	-447.0809	-1149.2087	135.3418	534.2717
255	1337.8358	-129.0567	-512.5145	-981.5507	162.2170	600.7877
256	1141.7506	-157.3015	-582.2826	-655.3423	189.7385	670.0462
257	783.1959	-186.1083	-654.9329	-235.8890	219.5916	744.2421
258	328.4614	-217.1512	-732.8842	346.4381	249.6801	821.2626
259	-289.6927	-248.3026	-813.3091	1038.5377	281.8543	903.6458
260	-1019.3889	-281.4097	-898.5592	1892.6675	272.8566	891.2064
261	-1764.9431	17.8356	-106.3908	1633.2753	-38.1274	66.9414
262	-1618.3341	57.4896	-17.8762	1484.2416	-36.5647	75.1227
263	-1452.9087	55.4858	-28.7589	1318.1230	-34.3794	86.6137
264	-1274.6292	52.8842	-42.6946	1140.9658	-31.5861	101.1020
265	-1044.1580	48.5186	-59.1976	867.7378	-25.6163	122.0290
266	-848.7955	44.6353	-83.2362	719.3741	-22.7432	143.5137
267	-560.3523	37.2435	-106.4548	445.0305	-15.1433	167.3263
268	-332.0701	30.7661	-133.1903	229.5888	-8.4496	194.6526
269	-90.1639	22.7037	-162.7491	5.0624	-0.1600	224.8400
270	170.7365	12.4174	-195.3158	-232.5003	10.3496	258.0436
271	401.5227	1.3631	-231.0195	-437.2978	21.6332	294.3179
272	605.4775	-10.8092	-269.5032	-668.9398	35.6991	338.0545
273	845.1852	-26.5178	-315.8832	-812.9332	51.6635	385.1836
274	982.3398	-43.6064	-365.2329	-910.2421	67.4733	430.9416
275	1068.5867	-60.6394	-413.6732	-952.3969	84.7251	479.6922
276	1094.2590	-79.1007	-464.7277	-929.9056	103.3872	530.9377
277	1050.0165	-99.0064	-518.3239	-860.7751	124.9415	587.4815
278	953.4275	-121.7971	-577.6066	-671.4548	146.6721	644.5298
279	731.5448	-144.7633	-636.8317	-387.9467	169.8156	703.9772
280	409.1573	-169.1824	-699.1563	0.4154	192.4379	763.2589

ENVOLVENTE MAXIMOS FLECTORES TREN IPF-B, l=15 m, via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0703	144.7300	665.6726	-352.1097	-143.2326	-628.3601
2	482.4387	201.1662	582.7272	-911.8092	-178.3720	-521.4484
3	911.6352	178.3675	521.7368	-1287.5509	-155.4918	-460.1624
4	1287.7726	155.5075	459.5005	-1609.7891	-131.0615	-393.5234
5	1609.8450	131.0809	393.2959	-1876.5170	-106.5836	-327.2466
6	1876.4052	106.6365	327.8421	-2088.4929	-83.5799	-265.7150
7	2088.4844	83.6075	265.7148	-2246.3040	-57.3611	-193.3312
8	2246.3435	57.3855	192.9048	-2350.1404	-32.7657	-126.2817
9	2350.1624	32.7938	125.9842	-2397.8757	-8.1438	-59.2937
10	2397.8735	8.1007	60.0652	-2390.0518	15.1000	2.8084
11	2390.1018	-15.0529	-4.0235	-2326.9014	38.2683	67.0862
12	2326.9553	-38.3051	-65.8849	-2208.9771	66.0579	142.3561
13	2208.9036	-66.0515	-143.5153	-2035.6266	90.7994	210.9837
14	2035.6287	-90.8467	-210.5903	-1806.9630	114.0959	274.0605
15	1806.9014	-114.0922	-274.4159	-1523.0312	137.3466	338.1109
16	1523.1346	-137.3448	-337.5847	-1184.3578	162.1002	405.5824
17	1184.3655	-161.4589	-400.9032	-791.9594	186.1858	469.0463
18	866.9566	-112.7680	-284.5167	-623.4337	98.7968	262.5068
19	682.9318	-38.8264	-119.7086	-572.8125	59.0738	175.5122
20	623.0461	-5.1377	-42.0538	-588.6962	27.5867	95.7423
21	627.2312	-43.3311	40.5501	-490.6808	45.5277	-42.6646
22	529.6305	-20.3421	103.9081	-428.0991	47.3435	-29.4889
23	516.9850	22.6873	208.5871	-565.6389	-16.9562	-191.9778
24	636.7679	74.5489	339.9802	-823.1751	-56.1139	-257.5681
25	917.6875	120.4963	435.1085	-1231.4125	-88.6680	-347.5809
26	1356.5345	170.9653	415.7689	-1830.6470	-142.9707	-339.3886
27	1830.7432	142.9983	338.9280	-2214.1287	-114.5951	-261.9247
28	2214.0605	114.5662	262.4788	-2507.4932	-82.2148	-174.0951
29	2507.5378	82.2050	173.4667	-2706.6980	-49.7733	-84.9359
30	2706.6860	49.7473	85.6248	-2811.7197	-20.6450	-7.2821
31	2811.7100	20.6182	7.2602	-2822.3240	12.0380	81.8609
32	2822.2861	-12.0283	-82.5774	-2736.6296	44.7283	171.8646
33	2736.6287	-44.7007	-171.8793	-2554.4595	77.4588	261.2122
34	2554.5254	-77.4739	-260.5550	-2275.3337	110.2754	350.1547
35	2275.2168	-110.2943	-351.0148	-1899.5127	139.9860	431.4782
36	1899.6854	-139.9731	-430.7250	-1427.9257	172.8451	520.7647
37	1466.4528	-129.9022	-470.9504	-1026.7225	162.7725	561.1207
38	1111.1963	-108.1313	-400.7594	-750.7533	103.1984	382.4439
39	872.4310	-30.8016	-192.4473	-748.3474	53.8633	271.9221
40	849.1094	15.5439	-92.7732	-855.2444	14.5860	164.8894
41	927.2824	-46.4193	34.1815	-778.6289	49.5484	-36.4661
42	821.5628	-24.4581	97.4411	-707.7004	51.4553	-23.0360
43	812.4488	18.1783	202.1383	-826.4832	8.8230	-127.7306
44	917.4907	48.2381	275.4913	-1066.9540	-37.3235	-255.2524
45	1191.0526	108.8737	457.2461	-1491.5374	-89.2662	-368.8176
46	1632.1617	162.2242	412.0922	-2080.9841	-134.1918	-335.7485
47	2080.9873	134.1924	335.7475	-2438.5903	-105.7644	-258.7236
48	2438.5181	105.7717	259.0612	-2705.6506	-73.4250	-170.6836
49	2705.6389	73.4561	170.2812	-2878.6909	-41.0191	-81.7056
50	2878.7163	41.0370	81.7412	-2957.6328	-11.9344	-3.3987
51	2957.6357	11.9426	4.1248	-2942.1858	20.7116	84.9235
52	2942.1404	-20.7158	-85.2590	-2830.3806	53.4130	174.4740
53	2830.4253	-53.4517	-174.1711	-2621.8577	86.2104	263.5960
54	2621.8047	-86.1953	-263.8740	-2316.5735	118.9786	353.4063

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	2316.6348	-118.9656	-352.8357	-1914.9830	148.6300	433.2476
56	1914.9089	-148.6121	-433.5130	-1417.1628	181.4742	523.5990
57	1481.2639	-117.5703	-480.8192	-1078.5625	150.4302	570.9675
58	1166.5856	-94.9253	-410.9525	-848.2326	85.3046	398.0542
59	973.5205	-12.4385	-207.9582	-895.7108	39.4369	282.3565
60	998.2483	30.1442	-103.2134	-1048.1826	0.7651	174.6481
61	1120.5967	-49.7743	32.7173	-959.5621	53.6810	-35.7038
62	1002.7787	-28.5932	97.1578	-876.4814	55.5958	-22.7553
63	982.4677	14.0030	201.7097	-983.9844	12.9919	-127.3127
64	1076.9628	59.9367	317.0835	-1250.1149	-49.3499	-296.9189
65	1328.1843	104.9321	457.2229	-1621.8417	-85.1668	-368.7062
66	1765.6324	158.0787	410.3209	-2202.1411	-130.0460	-333.9596
67	2201.9905	130.0569	334.8370	-2547.2065	-101.6258	-257.8419
68	2547.2246	101.6213	257.8637	-2801.9841	-69.2648	-169.4668
69	2802.0256	69.2435	169.4793	-2962.4263	-36.8061	-80.9289
70	2962.4121	36.8154	80.9384	-3028.6555	-7.7172	-2.5918
71	3028.6863	7.6968	3.3589	-3000.4619	24.9555	85.6231
72	3000.4429	-24.9466	-85.1789	-2875.9783	57.6439	174.4010
73	2875.9106	-57.6254	-174.8163	-2654.8474	90.3810	264.2357
74	2654.8254	-90.4000	-263.8709	-2336.9329	123.1881	353.3613
75	2337.0249	-123.1763	-352.7904	-1922.6892	152.8413	433.1923
76	1922.6931	-152.8267	-433.1785	-1412.4105	185.6793	523.2639
77	1484.0236	-115.3756	-480.7170	-1087.8552	148.2381	570.8989
78	1176.1002	-92.6698	-411.0993	-864.8445	83.0003	398.2809
79	990.4823	-10.0871	-207.9143	-919.7369	37.0839	282.3159
80	1022.3059	32.5161	-103.6869	-1079.3571	-1.6813	175.0942
81	1151.8678	-50.5152	32.8168	-988.8494	54.3450	-35.8401
82	1032.1178	-29.2634	96.9908	-903.8444	56.2607	-22.5966
83	1009.9465	13.3406	201.5470	-1009.4653	13.6608	-127.1394
84	1102.7000	59.2710	316.8861	-1275.1149	-48.6508	-296.6864
85	1353.5752	104.2233	456.4477	-1643.5905	-84.5088	-367.9644
86	1787.4347	157.4029	410.2193	-2221.9636	-129.3662	-333.8466
87	2221.9070	129.3474	334.1862	-2564.9636	-100.9178	-257.1875
88	2564.8699	100.9431	257.8678	-2817.5938	-68.5869	-169.4630
89	2817.6038	68.5639	168.7426	-2975.9614	-36.1287	-80.2162
90	2975.9048	36.1540	81.3919	-3040.1831	-7.0530	-3.1498
91	3040.2158	7.0463	3.9482	-3010.0496	25.5996	85.0932
92	3010.0483	-25.6110	-85.5289	-2883.5356	58.3218	174.7968
93	2883.5505	-58.3385	-174.3899	-2660.4143	91.0953	263.7301
94	2660.4712	-91.0880	-263.3085	-2340.5981	123.8682	352.8106
95	2340.6565	-123.8969	-352.5721	-1924.0981	153.5688	432.9884
96	1924.1962	-153.5394	-432.6936	-1411.8813	186.3886	522.7073
97	1485.7593	-114.2354	-480.0234	-1093.0194	147.0970	570.1843
98	1181.2109	-91.5148	-410.5774	-873.4196	81.8371	397.8860
99	999.0057	-8.9031	-207.8473	-931.7772	35.9085	282.2698
100	1034.4049	33.6906	-103.7426	-1094.9730	-2.8360	175.1071
101	1167.4751	-50.8153	32.9943	-1003.4329	54.6765	-36.0174
102	1046.7078	-29.5949	96.8782	-917.4371	56.5928	-22.4721
103	1023.6077	13.0090	201.3228	-1022.1317	13.9934	-126.9287
104	1115.3202	58.9295	317.0310	-1286.2070	-48.3235	-296.8132
105	1364.7454	103.8847	456.2314	-1654.2072	-84.1551	-367.6987
106	1798.1384	157.0377	409.5306	-2231.4573	-129.0071	-333.1914
107	2231.3401	129.0258	334.1072	-2573.3933	-100.5976	-257.1287
108	2573.3684	100.5716	257.4119	-2825.0247	-68.2066	-169.0426
109	2825.0376	68.2267	169.4620	-2982.3862	-35.7885	-80.9305
110	2982.3691	35.7863	80.9139	-3045.5422	-6.6856	-2.5877
111	3045.5356	6.6973	3.8387	-3014.3337	25.9493	85.1392

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	3014.3599	-25.9902	-85.1627	-2886.7629	58.6917	174.4122
113	2886.7708	-58.6988	-174.4098	-2662.5610	91.4472	263.7059
114	2662.6582	-91.4097	-262.3810	-2341.6077	124.1977	351.8912
115	2341.5649	-124.1570	-352.1339	-1924.3977	153.8094	432.5184
116	1924.6367	-153.7773	-431.5299	-1411.4740	186.6367	521.5647
117	1485.7999	-113.9962	-480.1855	-1093.8271	146.8601	570.3589
118	1182.1825	-91.2938	-410.3397	-874.9277	81.6320	397.7505
119	1000.2986	-8.7274	-208.2981	-933.6368	35.7230	282.6776
120	1036.2861	33.8786	-103.3421	-1097.4221	-3.0310	174.7050
121	1169.8179	-50.8718	32.6502	-1005.6245	54.7227	-35.6738
122	1048.8773	-29.6399	96.9551	-919.4787	56.6363	-22.5691
123	1025.5818	12.9794	201.3770	-1024.0176	14.0214	-126.9804
124	1117.2324	58.9222	316.7083	-1276.6820	-60.4301	-295.4647
125	1355.3148	116.0281	454.8869	-1656.3578	-84.1764	-367.3413
126	1800.5624	157.0421	408.9191	-2233.9231	-129.0132	-332.5709
127	2233.7827	128.9826	333.4771	-2575.7056	-100.5528	-256.5049
128	2575.6187	100.5371	257.1479	-2827.1226	-68.1852	-168.8366
129	2827.0947	68.1585	169.5721	-2984.2646	-35.7093	-81.0494
130	2984.2327	35.6945	81.0497	-3047.1531	-6.5915	-2.6356
131	3047.0923	6.6038	3.0351	-3015.6174	26.0429	85.9248
132	3015.6577	-26.0715	-85.1595	-2887.8103	58.7705	174.2522
133	2887.8713	-58.7579	-173.1298	-2663.4731	91.5064	262.4016
134	2663.5222	-91.5116	-261.7190	-2342.1958	124.3054	351.2475
135	2342.2205	-124.2946	-351.2113	-1924.4912	153.9612	431.6665
136	1924.5540	-153.9253	-431.3885	-1411.1318	186.7728	521.3765
137	1485.9600	-113.9487	-479.1995	-1094.0449	146.8139	569.3457
138	1182.2174	-91.2352	-410.1600	-875.2438	81.5598	397.7017
139	1000.8190	-8.6304	-208.1654	-934.4494	35.6265	282.5401
140	1037.1351	33.9749	-103.3143	-1098.5597	-3.1223	174.6938
141	1170.9559	-50.8752	32.5181	-1006.7631	54.7306	-35.5480
142	1050.0190	-29.6466	97.3650	-920.5672	56.6486	-22.9803
143	1026.7410	12.9477	201.5790	-1025.0952	14.0463	-127.1925
144	1118.3508	58.8727	316.5457	-1277.6342	-60.3765	-295.2930
145	1356.0248	115.9583	455.1049	-1656.7850	-84.1130	-367.5596
146	1800.6909	156.9597	408.2040	-2233.8640	-128.9261	-331.8156
147	2233.7363	128.9240	332.7479	-2575.5474	-100.4937	-255.7779
148	2575.4314	100.4885	256.8288	-2826.7292	-68.1315	-168.5465
149	2826.7217	68.1258	169.2676	-2983.7637	-35.6875	-80.7309
150	2983.7029	35.6833	80.7583	-3046.5593	-6.5844	-2.4078
151	3046.5862	6.5540	3.6189	-3014.9243	26.0958	85.3714
152	3014.9412	-26.0890	-85.3713	-2887.0491	58.7925	174.4708
153	2887.1868	-58.7811	-172.6326	-2662.7251	91.5256	261.8996
154	2662.7461	-91.4964	-261.9188	-2341.5042	124.2863	351.4720
155	2341.6147	-124.2943	-350.8609	-1923.8474	153.9637	431.2853
156	1923.9478	-153.9399	-430.9898	-1410.4192	186.7945	520.9612
157	1485.3246	-113.9439	-478.8250	-1093.5089	146.8032	568.9313
158	1181.5317	-91.2347	-409.9133	-874.5118	81.5609	397.5314
159	999.9104	-8.6413	-208.0359	-933.4762	35.6442	282.4470
160	1036.0391	33.9492	-103.9015	-1097.3877	-3.1008	175.2565
161	1169.8837	-50.7941	32.7015	-1005.9151	54.6470	-35.7473
162	1049.2063	-29.5653	96.9970	-920.0279	56.5625	-22.6094
163	1026.2202	13.0445	201.2383	-1024.8492	13.9576	-126.8447
164	1118.1515	58.9755	316.4919	-1277.7889	-60.4875	-295.2196
165	1356.4998	116.0787	454.1461	-1657.6652	-84.2278	-366.6356
166	1801.2048	156.9117	408.9688	-2234.1819	-128.8807	-332.6009
167	2234.1885	128.8744	332.5920	-2575.8806	-100.4428	-255.4914
168	2575.8547	100.4077	255.4920	-2826.9692	-68.0507	-167.2141

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	2826.8787	68.0485	169.0788	-2983.6636	-35.6085	-80.6646
170	2983.6885	35.6273	81.0910	-3046.3953	-6.5357	-2.8198
171	3046.3818	6.5057	4.3392	-3014.5774	26.1500	84.6339
172	3014.5491	-26.1268	-84.6589	-2886.5281	58.8284	173.8774
173	2886.5540	-58.8518	-173.4305	-2661.8833	91.6015	262.6527
174	2662.0227	-91.6042	-260.9621	-2340.4685	124.3914	350.4424
175	2340.3735	-124.3822	-350.8165	-1922.3506	154.0545	431.2502
176	1922.5864	-154.0763	-430.1958	-1408.6952	186.9308	520.1669
177	1483.2771	-114.0353	-478.9705	-1091.0734	146.8996	569.1452
178	1179.3250	-91.3075	-409.8431	-872.2113	81.6190	397.4450
179	997.6653	-8.6919	-207.9018	-931.0627	35.7004	282.3229
180	1033.6460	33.8948	-103.8006	-1094.8292	-3.0398	175.1655
181	1167.2450	-50.5882	32.7863	-1003.9306	54.4419	-35.8295
182	1047.2129	-29.3619	96.8988	-918.6417	56.3600	-22.5188
183	1024.7620	13.2406	201.6565	-1023.9820	13.7589	-127.2722
184	1117.2716	59.1610	316.4529	-1277.4102	-60.6733	-295.1682
185	1355.9091	116.2517	454.5129	-1657.6541	-84.3936	-366.9572
186	1800.2975	156.5632	408.3156	-2232.1819	-128.5363	-331.9970
187	2231.9355	128.5457	333.4857	-2572.5833	-100.1211	-256.4816
188	2572.5798	100.1369	256.4832	-2822.8784	-67.7896	-168.1225
189	2822.8806	67.8185	168.8460	-2979.0046	-35.3769	-80.3999
190	2978.9536	35.3556	81.5795	-3040.8269	-6.2542	-3.2264
191	3040.7739	6.2662	3.2078	-3008.3010	26.3816	85.7270
192	3008.3777	-26.3952	-83.7942	-2879.5337	59.1035	172.9037
193	2879.5911	-59.1513	-172.8738	-2653.9810	91.9124	262.2603
194	2654.0034	-91.9562	-261.8522	-2331.4570	124.7410	351.3033
195	2331.6252	-124.7271	-350.1568	-1912.6060	154.3981	430.5169
196	1912.6752	-154.3939	-430.2028	-1397.8180	187.2397	520.2297
197	1472.3722	-114.3476	-479.0309	-1079.3245	147.2106	569.1624
198	1167.4918	-91.6281	-409.7909	-859.2899	81.9440	397.4460
199	984.6535	-9.0046	-208.0516	-917.1311	36.0069	282.4640
200	1019.6427	33.5919	-104.1395	-1079.9249	-2.7344	175.4958
201	1152.4135	-49.4582	32.8501	-992.4520	53.3133	-35.9198
202	1035.7271	-28.2339	97.1744	-910.5420	55.2303	-22.7769
203	1016.7654	14.3686	201.1379	-1019.3800	12.6274	-126.7550
204	1112.5924	60.3057	316.5228	-1276.1954	-61.8108	-295.2409
205	1354.8240	117.4009	454.3788	-1659.9644	-85.5538	-366.8547
206	1799.2781	155.8894	408.6716	-2229.1074	-127.8638	-332.3350
207	2228.9836	127.8758	332.9167	-2567.6758	-99.4473	-255.8619
208	2567.6880	99.4394	255.8329	-2815.9062	-67.0823	-167.5580
209	2815.7869	67.0341	169.3693	-2969.5244	-34.5865	-80.9060
210	2969.5300	34.5407	80.8848	-3028.9790	-5.4360	-2.5272
211	3028.9741	5.4239	3.7336	-2993.9395	27.2217	85.2501
212	2993.9258	-27.1918	-85.3059	-2862.7192	59.8956	174.4083
213	2862.8237	-59.9016	-172.5417	-2634.9561	92.6520	261.8087
214	2634.9229	-92.6520	-261.8025	-2310.2087	125.4473	351.3187
215	2310.3357	-125.4830	-350.4416	-1889.1334	155.1467	430.8386
216	1889.1683	-155.1491	-430.7964	-1372.0099	188.0032	520.7948
217	1447.0886	-115.0949	-478.8850	-1051.8077	147.9562	568.9971
218	1140.0438	-92.3496	-410.0414	-829.8404	82.6597	397.6906
219	955.5386	-9.7194	-208.2580	-885.8633	36.7243	282.6623
220	988.6834	32.8861	-103.8413	-1046.8433	-2.0269	175.2113
221	1119.3077	-46.9430	32.4080	-966.9362	50.8002	-35.4515
222	1010.2653	-25.7205	96.8063	-892.6057	52.7200	-22.4161
223	998.9687	16.8574	201.0049	-1009.0381	10.1471	-126.6060
224	1102.5857	62.7233	316.2739	-1273.4563	-64.2258	-295.0160
225	1352.1976	119.7406	454.1519	-1664.3296	-87.8915	-366.6594

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	1792.0193	151.7487	408.5065	-2209.5063	-123.7111	-332.1144
227	2209.5022	123.7039	332.1461	-2535.6604	-95.2660	-255.1038
228	2535.5757	95.2672	256.0937	-2771.2300	-62.9105	-167.7865
229	2771.2126	62.9238	168.2055	-2912.5947	-30.4934	-79.7485
230	2912.5925	30.4701	80.7613	-2959.7407	-1.3528	-2.4400
231	2959.7407	1.3908	3.3803	-2912.6104	31.2448	85.6062
232	2912.6221	-31.2238	-85.5986	-2769.3467	63.9190	174.7189
233	2769.4109	-63.8636	-173.4041	-2529.6157	96.6198	262.6836
234	2529.6416	-96.6341	-262.2551	-2193.0327	129.4203	351.6988
235	2193.1782	-129.4076	-350.6802	-1760.0654	159.0827	431.0969
236	1759.9830	-159.1224	-431.2533	-1231.0164	191.9750	521.2688
237	1309.3594	-119.0158	-479.5452	-902.3177	151.8785	569.6598
238	992.9151	-80.3151	-368.2022	-720.1255	70.6026	355.8491
239	800.1458	-13.5355	-208.7836	-719.0388	40.5359	283.1883
240	823.0839	29.0956	-104.6387	-869.8733	1.7823	176.0212
241	942.6851	-33.5608	23.0453	-830.4212	37.4337	-26.0960
242	874.0335	-12.3784	87.5148	-796.3657	39.3856	-13.1038
243	903.9873	30.0180	191.5770	-953.5432	-3.0174	-117.1843
244	1049.0559	75.3958	306.7648	-1258.0148	-76.8184	-285.4915
245	1337.6271	131.4484	444.6539	-1684.9039	-99.5674	-357.1048
246	1775.0156	142.5153	406.2732	-2164.4670	-114.4388	-329.9371
247	2164.3184	114.4724	331.0831	-2462.4180	-85.9933	-254.0339
248	2462.4224	85.9922	254.0199	-2670.0388	-53.6074	-165.6331
249	2670.0132	53.6226	166.0673	-2783.2554	-21.1713	-77.6573
250	2783.1958	21.1642	79.4349	-2801.8232	7.9829	-1.1456
251	2801.7961	-7.9939	1.1340	-2726.2378	40.6479	87.8914
252	2726.2427	-40.6418	-87.1965	-2554.3333	73.3637	176.3154
253	2554.3650	-73.3409	-175.3949	-2285.9744	106.1003	264.6499
254	2286.1057	-106.1096	-263.7130	-1920.8977	138.9092	353.2053
255	1920.8594	-138.9473	-353.2329	-1459.3519	168.6085	433.6872
256	1459.4877	-168.6228	-433.3758	-902.1323	201.4743	523.3977
257	1023.6031	-119.2092	-457.0239	-616.5535	152.0535	547.1756
258	714.6655	-87.6747	-370.9183	-437.0026	77.5394	358.4179
259	538.4877	-19.9598	-210.8451	-438.0995	46.9615	285.2464
260	558.9850	23.0606	-106.6969	-587.6664	7.9354	178.1158
261	664.6898	-10.7505	-6.8190	-631.5163	14.7451	3.8188
262	658.6986	4.3355	40.7587	-645.6761	15.9108	15.0258
263	716.8757	38.0311	118.0219	-779.6718	-17.7796	-62.2353
264	855.1132	77.7936	204.8177	-1007.4014	-57.5382	-149.0018
265	1097.9808	131.0541	332.0770	-1381.3845	-139.8146	-321.7205
266	1382.5869	140.4390	327.5478	-1672.4989	-118.0077	-265.5138
267	1672.5885	118.0049	264.9647	-1911.4791	-95.4236	-202.7634
268	1911.3835	95.3668	203.8268	-2098.1099	-71.1333	-137.3595
269	2098.0569	71.0850	138.1028	-2230.8635	-46.6999	-71.3464
270	2230.8699	46.6233	71.2918	-2309.4094	-23.5920	-8.4198
271	2309.4358	23.6119	8.4500	-2332.8799	-0.4416	54.5456
272	2332.8789	0.3580	-53.3053	-2301.8967	27.3923	129.6860
273	2301.9238	-27.4008	-129.7138	-2214.3135	52.2190	197.0806
274	2214.3997	-52.2755	-196.3432	-2069.1650	75.7157	259.8106
275	2069.1660	-75.6765	-259.8097	-1868.5815	101.9293	332.1360
276	1868.6506	-101.9235	-331.7714	-1610.6000	127.0020	399.5578
277	1610.7206	-127.0305	-399.0595	-1294.2240	154.7830	475.4979
278	1294.2310	-154.7790	-475.4858	-920.7885	178.4920	539.4062
279	921.0602	-178.4751	-538.9347	-489.2829	204.7224	611.2344
280	489.1716	-204.7208	-611.3264	0.3099	190.2023	550.1408

ENVOLVENTE MAXIMOS CORTANTES TREN IPF-B, l=15 m, via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0334	225.4159	649.5550	-481.7069	-202.6227	-588.2482
2	460.3604	203.2565	593.1076	-890.0822	-180.3841	-531.6102
3	830.0918	182.2751	539.1914	-1210.3192	-159.3284	-477.3985
4	1117.9082	162.4927	486.5922	-1451.0649	-138.9837	-423.1528
5	1331.1619	143.4009	435.2574	-1619.1326	-119.8439	-371.7522
6	1477.2919	125.5092	386.9707	-1723.1667	-102.3971	-324.6250
7	1564.9236	109.2611	341.8085	-1771.1567	-86.1135	-279.1485
8	1601.5938	94.1567	298.5140	-1753.2471	-69.4871	-232.4884
9	1577.1395	78.7040	254.4709	-1708.7319	-54.9672	-189.8829
10	1530.8501	65.2765	214.9860	-1630.3971	-42.0175	-151.4649
11	1455.3075	53.4885	177.8389	-1231.6650	-30.4774	-98.5136
12	1063.0927	42.9781	128.7807	-1137.0023	-22.7288	-72.9739
13	979.0939	36.2827	104.3728	-1037.9440	-16.0301	-48.5549
14	893.8171	30.5557	83.3120	-939.7748	-10.3115	-27.5147
15	812.5963	25.8006	64.3131	-847.8568	-5.5482	-8.5017
16	740.0105	21.9264	48.2684	-766.5627	-1.6696	7.5571
17	680.1781	18.8969	34.2525	-699.9138	1.3474	21.5476
18	636.5423	16.6408	22.6984	-651.2004	3.6114	33.1285
19	611.7937	15.1069	13.5258	-623.0077	5.1405	42.2776
20	608.0856	14.2282	7.1159	-406.4616	-4.3212	3.2211
21	-3342.3997	319.5210	763.1040	2563.2329	-323.8569	-742.5187
22	-2582.2327	324.2945	747.9503	1654.2999	-294.2931	-665.2865
23	-1710.5105	295.6727	673.3292	868.4469	-265.6699	-590.6453
24	-961.0219	268.1027	601.9068	201.6781	-238.1020	-519.2231
25	-329.2502	241.7196	533.9521	-323.9534	-211.5124	-451.7472
26	163.9454	216.4348	469.9073	-755.4302	-186.1807	-387.1762
27	566.8881	192.5023	408.6985	-1073.2700	-161.7280	-325.5033
28	860.7338	169.4932	350.8002	-1310.2987	-138.9756	-267.5847
29	1079.7216	148.2871	295.8861	-1448.7323	-117.0523	-211.6610
30	1206.1505	127.9378	243.9579	-1527.6421	-97.2224	-160.2812
31	1279.8763	109.7221	195.7031	-1525.0222	-78.1663	-110.3723
32	1278.9983	92.3078	148.9795	-1076.2855	-62.7479	-58.2651
33	838.9261	78.4976	100.6679	-1033.9005	-51.4996	-26.2606
34	811.9118	68.8398	72.3652	-977.9514	-41.8379	1.6625
35	777.7334	60.7336	47.2257	-919.4523	-33.7286	27.1961
36	746.7454	54.1318	25.9533	-868.6367	-27.1303	48.8557
37	728.4936	48.9646	7.0983	-834.8802	-21.9679	67.3037
38	731.2890	45.1366	-7.4469	-826.1996	-18.1350	81.8663
39	761.9324	42.5424	-18.9941	-849.0584	-15.5457	93.3962
40	825.7910	41.0665	-26.8547	-688.6845	-20.6073	50.9844
41	-3856.8945	330.7357	752.5485	3072.3232	-335.4510	-731.3623
42	-3092.2832	335.9128	737.2802	2129.6392	-305.9150	-654.6299
43	-2188.7439	307.3628	662.1483	1311.6204	-277.3612	-579.4402
44	-1408.0889	279.8999	590.7599	613.3224	-249.9002	-508.0701
45	-745.3561	253.6486	523.0692	55.5793	-223.4140	-440.8793
46	-220.5534	228.4875	459.0604	-407.3322	-198.2224	-376.3679
47	213.8639	204.6994	398.0578	-757.2222	-173.9075	-314.8450
48	540.1557	181.8758	340.0315	-1026.7837	-151.3717	-256.8234
49	792.1774	160.8806	285.2921	-1198.9714	-129.6455	-201.0241
50	952.9670	140.7210	233.0968	-1312.7400	-110.0192	-149.4302
51	1062.1146	122.6974	185.1439	-1346.0116	-91.1482	-99.8814
52	1097.7615	105.4349	138.6998	-925.8479	-76.6730	-48.0972
53	686.9484	92.5728	90.5649	-924.2247	-65.5670	-16.1329
54	701.1874	83.0433	61.8729	-909.7807	-56.0484	12.5281

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	709.0702	75.0596	36.9744	-893.7522	-48.0629	37.4388
56	720.9368	68.5585	15.1369	-886.1465	-41.5527	59.2890
57	746.0963	63.4684	-2.9701	-895.9973	-36.4695	77.3772
58	792.6544	59.6973	-17.7593	-931.2372	-32.6987	92.1665
59	867.2774	57.1438	-29.0866	-998.2004	-30.1454	103.4841
60	975.1664	55.6893	-36.9130	-866.6239	-34.0349	59.9741
61	-3964.4399	333.0793	753.4303	3166.1333	-337.6063	-732.2235
62	-3186.5486	338.0684	736.4982	2217.2693	-308.0652	-653.7586
63	-2276.5125	309.5181	661.5152	1393.1199	-279.5233	-578.8420
64	-1489.7843	282.0740	590.4155	688.4834	-252.0723	-507.7484
65	-821.2057	255.8352	522.1664	124.7636	-225.6013	-439.9236
66	-289.7834	230.6957	458.3333	-344.7926	-200.4281	-375.6420
67	150.7691	206.9232	397.3813	-700.7762	-176.1324	-314.1964
68	483.4288	184.0926	339.3440	-976.8223	-153.5769	-256.1225
69	741.8237	163.0870	284.7376	-1155.1949	-131.8549	-200.4859
70	908.9061	142.9460	232.5554	-1275.3044	-112.2395	-148.8903
71	1024.4618	124.9387	184.6053	-1315.0359	-93.3914	-99.4098
72	1066.5435	107.7032	138.4525	-900.8458	-79.0041	-47.8001
73	661.7878	94.9071	90.0118	-906.0318	-67.9027	-15.5942
74	682.9065	85.3787	61.5613	-898.5396	-58.3829	12.8481
75	697.7539	77.4131	36.6230	-889.4977	-50.4128	37.7890
76	716.6425	70.9145	14.8839	-888.8941	-43.9134	59.5265
77	748.8581	65.8289	-3.3845	-905.8487	-38.8273	77.7986
78	802.5111	62.0634	-18.1837	-948.2068	-35.0633	92.5880
79	884.2759	59.5128	-29.1272	-1022.3094	-32.5160	103.5281
80	999.2725	58.0628	-37.4071	-899.5104	-36.5291	60.4161
81	-4016.3716	334.1980	752.7257	3216.7317	-338.7676	-731.4778
82	-3236.9700	339.2354	736.5992	2264.3601	-309.2392	-653.9043
83	-2323.7000	310.6896	661.4047	1436.5833	-280.6880	-578.6981
84	-1533.3706	283.2352	590.0724	728.6213	-253.2330	-507.3879
85	-861.2422	257.0003	522.0714	161.4360	-226.7684	-439.8700
86	-326.7414	231.8613	458.1060	-311.4184	-201.5907	-375.4087
87	117.4311	208.0754	397.1517	-670.8638	-177.2873	-313.9690
88	453.3929	185.2758	339.2118	-950.3752	-154.7606	-255.9754
89	715.3620	164.2568	284.4561	-1132.2393	-133.0305	-200.2350
90	885.8364	144.1266	232.6197	-1255.7340	-113.4198	-149.0518
91	1004.9059	126.1038	184.7130	-1298.9370	-94.5614	-99.4538
92	1050.5547	108.8731	138.2089	-888.3751	-80.1613	-47.5275
93	649.1928	96.0674	90.0338	-896.9098	-69.0677	-15.6146
94	673.8066	86.5608	61.5484	-892.9365	-59.5683	12.8463
95	692.1689	78.5851	36.4586	-887.4555	-51.5801	37.9684
96	714.5731	72.0962	14.8469	-890.3485	-45.0999	59.5562
97	750.3181	67.0109	-3.2271	-910.8578	-40.0105	77.6419
98	807.5104	63.2446	-18.0814	-956.7513	-36.2433	92.4897
99	892.8101	60.6948	-29.1952	-1034.4158	-33.6894	103.6192
100	1011.3860	59.2454	-37.4567	-914.5082	-37.6745	60.4609
101	-4025.8701	334.3996	751.8481	3224.8958	-338.9503	-730.5663
102	-3244.9482	339.4158	736.5200	2271.7712	-309.4183	-653.8648
103	-2331.1094	310.8674	661.4051	1443.4591	-280.8643	-578.6890
104	-1540.5048	283.4101	589.4098	735.3226	-253.4107	-506.7221
105	-867.8466	257.1689	521.5489	167.3764	-226.9337	-439.3121
106	-332.6442	232.0308	457.6338	-305.8412	-201.7678	-374.9688
107	111.8372	208.2666	396.7271	-665.7908	-177.4754	-313.5569
108	448.4150	185.4348	338.7555	-945.9839	-154.9094	-255.5582
109	710.8544	164.4362	284.2563	-1128.3210	-133.2036	-200.0196
110	882.0055	144.2949	232.0715	-1252.4921	-113.5927	-148.4385
111	1001.5855	126.2931	184.2678	-1296.1721	-94.7603	-99.0606

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	1047.8053	109.0562	137.9409	-886.1099	-80.3546	-47.2504
113	647.0519	96.2699	89.6018	-895.3476	-69.2697	-15.1826
114	672.2498	86.7492	61.4319	-892.0527	-59.7432	13.0077
115	691.2351	78.7795	36.0805	-887.0452	-51.7863	38.3215
116	714.2219	72.2885	14.7741	-890.5912	-45.2835	59.6491
117	750.5320	67.1912	-3.8108	-911.5992	-40.1916	78.2132
118	808.2711	63.4266	-18.1805	-958.0836	-36.4197	92.6077
119	894.1062	60.8737	-29.6885	-1036.2120	-33.8781	104.0678
120	1013.1994	59.4223	-37.0952	-754.8386	-33.6712	94.7965
121	-4191.9531	330.3254	718.0437	3228.4641	-339.0754	-731.4771
122	-3248.8147	339.5402	736.0874	2275.3311	-309.5437	-653.3677
123	-2334.6653	311.0038	660.9066	1446.6271	-281.0041	-578.2000
124	-1543.5776	283.5357	589.1703	737.8164	-253.5283	-506.4748
125	-870.4545	257.2886	521.1950	169.6377	-227.0533	-438.9542
126	-334.9338	232.1259	457.2892	-303.8393	-201.8607	-374.6291
127	109.8048	208.3488	396.4054	-663.9806	-177.5631	-313.2444
128	446.5151	185.5440	338.5010	-944.2305	-155.0249	-255.3616
129	709.0643	164.5253	284.1074	-1126.8552	-133.2849	-199.8746
130	880.4541	144.3741	231.9253	-1251.2100	-113.6710	-148.2132
131	1000.2733	126.3758	183.8404	-1295.0726	-94.8354	-98.6526
132	1046.6302	109.1393	137.8040	-885.1484	-80.4416	-47.1515
133	645.9891	96.3519	89.8275	-894.5346	-69.3533	-15.3994
134	671.4363	86.8326	61.3318	-891.4621	-59.8301	13.0892
135	690.6485	78.8677	36.0606	-886.7629	-51.8642	38.3623
136	713.9051	72.3734	14.3952	-890.4972	-45.3766	60.0005
137	750.4952	67.2858	-3.4908	-911.8693	-40.2826	77.9100
138	808.5246	63.5172	-18.4006	-958.6005	-36.5147	92.8185
139	894.6630	60.9696	-29.6604	-1037.0609	-33.9735	104.0359
140	1014.0596	59.5201	-37.0825	-756.0164	-33.7618	94.7258
141	-4191.6514	330.2779	719.0993	3228.4438	-339.0245	-732.5030
142	-3249.1660	339.4875	735.4584	2275.6738	-309.4856	-652.6578
143	-2334.9551	310.9385	660.4356	1447.3252	-280.9443	-577.7557
144	-1544.1592	283.4911	589.0145	738.5296	-253.4840	-506.3269
145	-871.3611	257.2492	520.6660	170.7672	-227.0183	-438.4194
146	-335.9186	232.1162	456.8179	-302.9552	-201.8499	-374.1289
147	108.9091	208.3444	395.9515	-663.1872	-177.5503	-312.7900
148	445.6746	185.5207	338.1358	-943.2836	-155.0097	-255.0226
149	708.2158	164.5250	283.7693	-1125.9445	-133.2890	-199.5299
150	879.5963	144.3857	231.5937	-1250.3474	-113.6796	-147.9437
151	999.4333	126.3667	183.7737	-1294.2377	-94.8253	-98.5658
152	1045.8486	109.1325	137.4680	-884.4100	-80.4325	-46.7961
153	645.2699	96.3386	89.7038	-893.8056	-69.3400	-15.2698
154	670.7262	86.8319	60.9573	-890.7150	-59.8305	13.4636
155	689.9055	78.8541	35.9308	-885.9886	-51.8476	38.4988
156	713.1090	72.3544	14.2446	-889.6646	-45.3568	60.1573
157	749.6426	67.2715	-3.5343	-910.9558	-40.2730	77.9397
158	807.5981	63.5032	-18.4798	-957.6017	-36.5051	92.8817
159	893.6499	60.9517	-29.6601	-1036.0223	-33.9488	104.0706
160	1012.9952	59.5014	-37.6607	-754.9116	-33.7471	95.2458
161	-4191.0762	330.2480	717.8412	3227.7446	-338.9956	-731.1301
162	-3248.1143	339.4622	735.7408	2274.8477	-309.4653	-653.0239
163	-2334.1982	310.9174	660.5900	1446.4160	-280.9146	-577.8746
164	-1543.4766	283.4562	588.6344	738.1687	-253.4559	-505.9504
165	-870.7229	257.2163	520.8562	170.1431	-226.9817	-438.6528
166	-335.7271	232.0605	456.7144	-302.8776	-201.7966	-374.0362
167	109.0026	208.2870	395.8097	-663.1463	-177.4965	-312.5448
168	445.7166	185.4746	337.7999	-943.2465	-154.9519	-254.7019

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	707.9685	164.4623	283.7664	-1125.5013	-133.2336	-199.6399
170	879.1116	144.3314	231.7897	-1249.6002	-113.6316	-148.2150
171	998.6857	126.3152	184.0816	-1293.3918	-94.7703	-98.8775
172	1044.9152	109.0744	137.7241	-883.2572	-80.3636	-46.9509
173	644.1036	96.2797	89.4092	-892.4188	-69.2856	-14.9863
174	669.2893	86.7739	61.2804	-889.0901	-59.7771	13.1336
175	688.2786	78.7988	35.8285	-884.2025	-51.7939	38.5997
176	711.3010	72.2994	14.4983	-887.6850	-45.3046	59.9010
177	747.6626	67.2194	-3.8223	-908.8547	-40.2117	78.2466
178	805.4954	63.4516	-18.4545	-955.3218	-36.4601	92.8309
179	891.3848	60.9020	-29.5533	-1033.6266	-33.8935	103.9746
180	1010.5951	59.4513	-37.5597	-752.3575	-33.6907	95.1736
181	-4187.1455	329.9146	717.7298	3225.0869	-338.6662	-731.0845
182	-3245.3201	339.1350	736.2602	2273.0310	-309.1365	-653.5278
183	-2332.6484	310.5794	660.0751	1445.9592	-280.5801	-577.3350
184	-1542.7334	283.1268	588.7612	738.3786	-253.1292	-506.0918
185	-871.0237	256.8879	520.7467	171.2861	-226.6460	-438.4968
186	-336.6332	231.7456	456.7949	-300.9597	-201.4853	-374.1697
187	106.8455	207.9910	395.9432	-660.0223	-177.1997	-312.7583
188	442.6597	185.1685	337.9432	-939.2749	-154.6628	-254.7620
189	704.1893	164.1792	283.5600	-1120.9143	-132.9431	-199.3986
190	874.4603	144.0311	231.7406	-1244.1432	-113.3272	-148.0893
191	993.2832	126.0168	183.5581	-1287.0735	-94.4748	-98.4078
192	1038.5361	108.7795	137.8633	-875.9326	-80.0664	-47.0734
193	636.7742	95.9708	89.3318	-884.2025	-68.9711	-14.9124
194	661.0369	86.4528	60.7707	-879.8668	-59.4602	13.6389
195	679.0484	78.4822	35.9456	-874.0121	-51.4774	38.4850
196	701.1080	71.9908	14.2049	-876.5616	-44.9948	60.1956
197	736.5195	66.9075	-3.9600	-896.7446	-39.9072	78.3655
198	793.3882	63.1427	-18.5192	-942.3075	-36.1453	92.9150
199	878.3467	60.5949	-29.7365	-1019.6410	-33.5926	104.1487
200	996.5912	59.1433	-37.9132	-737.4316	-33.3794	95.4903
201	-4177.7925	329.2024	717.3901	3217.6599	-337.9476	-730.6520
202	-3238.0190	338.4148	735.2710	2267.8879	-308.4188	-652.5752
203	-2327.0562	309.8655	660.7444	1442.5903	-279.8688	-578.0646
204	-1539.6768	282.4304	588.6602	737.2557	-252.4249	-505.9574
205	-869.9036	256.1852	520.7255	172.4145	-225.9518	-438.5026
206	-337.8859	231.0418	456.6661	-297.5766	-200.7851	-374.0214
207	103.6088	207.2823	395.7939	-654.7179	-176.4873	-312.5571
208	437.3170	184.4556	337.7851	-931.7993	-153.9440	-254.6856
209	696.5303	163.4413	283.6967	-1110.9963	-132.1948	-199.5205
210	864.6230	143.2805	231.5650	-1232.0790	-112.5752	-147.9097
211	981.1262	125.2719	183.7211	-1272.6545	-93.7312	-98.5145
212	1024.2284	108.0488	137.3879	-859.4865	-79.3518	-46.6953
213	620.3169	95.2583	89.5979	-865.6055	-68.2577	-15.1592
214	642.4983	85.7479	60.8479	-859.2485	-58.7477	13.5656
215	658.4312	77.7714	35.9121	-851.2354	-50.7730	38.5051
216	678.4094	71.2785	14.0861	-851.7348	-44.2816	60.3161
217	711.7430	66.2017	-3.7307	-869.8474	-39.2024	78.1413
218	766.5312	62.4404	-18.6771	-913.3503	-35.4400	93.0823
219	849.4389	59.8907	-29.8708	-988.6328	-32.8858	104.2751
220	965.6536	58.4415	-37.6018	-704.4049	-32.6737	95.2169
221	-4124.7271	325.2088	717.8670	3176.7603	-333.9500	-731.2340
222	-3197.2163	334.4195	735.5161	2239.0208	-304.4195	-652.7784
223	-2298.3850	305.8727	660.3946	1425.6631	-275.8683	-577.6729
224	-1522.7570	278.4094	588.4262	732.5285	-248.4095	-505.7364
225	-865.1697	252.2005	520.4859	179.7441	-221.9673	-438.2946

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-345.2301	227.0475	456.4155	-278.3877	-196.7749	-373.7216
227	84.5327	203.2757	395.5144	-623.6356	-172.4792	-312.2969
228	406.1836	180.4775	337.6355	-888.6905	-149.9608	-254.4974
229	653.7341	159.4850	283.2325	-1056.1688	-128.2552	-199.0713
230	810.0424	139.3504	231.3646	-1165.7876	-108.6372	-147.7383
231	915.0828	121.3668	183.4489	-1194.8260	-89.8313	-98.2466
232	946.7980	104.1423	137.1259	-771.3065	-75.4820	-46.4418
233	532.5798	91.4072	89.1340	-766.3418	-64.4024	-14.6873
234	543.6254	81.9062	60.5289	-748.8154	-54.9105	13.8836
235	548.4556	73.9454	35.5992	-729.8226	-46.9394	38.8354
236	557.3844	67.4590	13.6659	-719.2387	-40.4663	60.7298
237	579.6833	62.3902	-4.3412	-726.3755	-35.3868	78.7528
238	623.4494	58.6366	-18.9911	-758.8667	-31.6357	93.3985
239	695.2650	56.0946	-30.4413	-823.0535	-29.0942	104.8461
240	800.2770	54.6507	-38.4090	-527.8962	-28.8616	96.0092
241	-4015.2449	316.9511	716.1048	3091.1206	-325.5529	-729.4195
242	-3111.7083	326.0299	733.4173	2178.4116	-296.0223	-650.6471
243	-2237.8904	297.5016	658.4922	1390.4111	-267.5005	-575.7878
244	-1487.6559	270.0894	586.5693	722.5148	-240.0909	-503.8964
245	-855.2438	243.9222	518.5584	194.5523	-213.6316	-436.3080
246	-359.7633	218.8023	454.6022	-238.8451	-188.5222	-371.9674
247	45.3417	195.1350	393.7230	-559.7032	-164.2939	-310.4924
248	343.2937	172.3917	335.7219	-801.4404	-141.8592	-252.5053
249	567.8885	151.5205	281.2838	-946.0404	-120.2543	-197.1739
250	701.8287	131.5066	229.5981	-1033.6818	-100.7867	-145.9980
251	785.7979	113.6429	181.4628	-1042.1646	-82.0914	-96.2187
252	797.4034	96.5869	135.3089	-609.3800	-68.3603	-44.6557
253	374.6063	84.4556	87.2192	-587.4868	-57.4548	-12.7870
254	369.3597	75.1394	58.7274	-554.2589	-48.1417	15.6858
255	358.9402	67.3566	33.4508	-520.4997	-40.3592	40.9550
256	353.3938	61.0483	11.7836	-496.0542	-34.0452	62.6334
257	361.7487	56.1267	-6.3693	-489.6332	-29.1264	80.7766
258	391.6603	52.5036	-21.2474	-508.6765	-25.5031	95.6429
259	449.2854	50.0623	-32.2970	-558.9811	-23.0606	106.6969
260	539.0972	48.6833	-40.4219	-276.4581	-22.7383	102.4301
261	-3459.5505	280.2651	524.1164	2828.9250	-294.9996	-549.2768
262	-2841.1797	295.2796	553.7419	2201.7026	-273.0336	-492.4008
263	-2237.5872	273.9236	498.3477	1646.5161	-251.6726	-436.9847
264	-1705.4139	253.1938	445.3918	1187.9169	-230.2379	-381.4752
265	-1268.9948	232.4862	393.1649	783.3104	-209.4122	-329.5924
266	-885.8445	212.4360	342.9090	444.4169	-189.7047	-280.4475
267	-566.2784	193.5823	297.1236	168.6591	-170.7000	-234.5005
268	-308.1303	175.4581	253.1835	-46.6853	-151.9331	-189.0433
269	-107.4606	157.6306	210.2933	-205.5011	-133.9592	-145.8627
270	39.7312	140.6641	169.6723	-312.2711	-117.3487	-106.3678
271	138.2831	125.0817	132.6411	-371.6690	-101.6265	-69.2205
272	193.3006	110.4386	97.9526	-388.9465	-85.3556	-30.1674
273	210.5009	95.2795	61.3134	17.7595	-71.9776	5.1107
274	-191.8855	83.0457	28.4844	27.7896	-62.7909	27.3533
275	-192.8100	74.9982	8.6975	46.8212	-54.7455	47.1292
276	-197.7409	68.1726	-8.6031	67.1505	-47.9309	64.4192
277	-198.7563	62.5706	-23.4778	80.7439	-42.3202	79.2989
278	-187.7826	58.1845	-35.8623	79.6390	-37.9318	91.6825
279	-156.5607	55.0319	-45.8208	55.5322	-34.7830	101.6307
280	-96.8418	53.1366	-53.2175	0.0495	-32.8806	109.0410

ENVOLVENTE MAXIMOS TORSORES TREN IPF-B, l=15 m, via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0614	179.2981	697.7492	-379.1930	-157.0491	-636.4316
2	357.8423	157.6834	641.2908	-685.0238	-134.8110	-579.7925
3	625.0174	136.7009	587.2988	-902.6862	-113.7542	-525.5063
4	810.3111	116.9152	534.8881	-1040.8772	-93.4062	-471.4447
5	920.9508	97.8018	483.6205	-1106.3608	-74.2448	-420.1206
6	964.5493	79.8948	435.1435	-1107.8060	-56.7827	-372.8008
7	949.5713	63.6250	389.9823	-1053.1265	-40.4774	-327.3248
8	883.5226	48.5069	346.8527	-932.4366	-23.8373	-280.8254
9	753.6025	32.8896	302.9285	-782.1409	-9.1528	-238.3441
10	607.3663	19.6389	263.0971	-604.2265	3.6201	-199.5758
11	405.1753	6.7582	226.5731	-42.3857	17.6281	-166.8752
12	-99.8488	-4.0405	196.4495	150.0262	25.4673	-136.8793
13	-338.3223	-13.0317	169.0445	421.3787	33.8788	-110.4926
14	-538.9289	-18.4272	144.9443	616.5583	39.0968	-87.4171
15	-772.3246	-24.5164	124.5463	862.0720	45.1184	-67.2030
16	-931.9168	-27.6101	106.3543	1026.8418	48.1445	-49.2146
17	-1122.0002	-31.1727	91.3070	1222.9359	51.6266	-34.4498
18	-1320.0560	-34.5154	79.0851	1426.4891	54.9163	-22.4388
19	-1468.9108	-36.2735	69.8228	1577.1672	56.6116	-13.3529
20	-1588.9078	-37.1781	61.9754	1697.0388	42.4363	-45.6305
21	-1643.6248	253.3833	830.3215	1087.3441	-257.5122	-810.2165
22	-1109.8790	258.2769	815.3987	380.0096	-228.2758	-732.7386
23	-436.2183	229.6570	740.7796	-207.7896	-199.6552	-658.0946
24	115.2123	202.0871	669.3550	-676.4977	-172.0847	-586.6738
25	548.9252	175.7021	601.4028	-1031.0626	-145.7023	-518.7160
26	871.0563	150.6198	536.8753	-1265.0951	-120.3657	-454.1441
27	1075.8944	126.5308	475.5185	-1384.3842	-95.7566	-392.3269
28	1173.0632	103.6933	417.7116	-1425.2168	-73.1759	-334.4964
29	1189.9283	82.0255	362.7685	-1360.1785	-50.7908	-278.5418
30	1123.6962	62.1430	310.8135	-950.7760	-22.7095	-231.1767
31	703.0159	35.2095	266.6049	-727.2055	-6.8012	-188.2944
32	463.9244	20.0507	227.0436	-463.0025	8.2798	-148.8831
33	225.6350	7.4579	191.2920	-170.1142	20.4700	-114.0381
34	-29.2198	-2.2239	159.8794	94.2247	30.3254	-82.2249
35	-324.6333	-12.4964	131.5991	432.7462	39.9792	-55.3426
36	-572.0585	-18.5096	107.9039	692.4224	46.2097	-30.9538
37	-865.6762	-25.3445	87.3352	991.6450	52.5931	-11.9221
38	-1059.1080	-28.4520	71.2946	1198.1776	55.7811	4.6332
39	-1301.4739	-32.3460	58.7809	1442.5865	59.4264	16.1505
40	-1423.9036	-32.9259	49.7914	1564.7992	45.1751	-15.5402
41	-1546.5328	251.1872	828.6150	1023.9058	-255.6674	-807.9032
42	-1052.1602	256.9428	813.2183	326.4042	-226.9453	-730.5688
43	-381.2714	227.8025	738.6180	-257.1674	-197.8014	-655.9073
44	160.4232	200.4108	667.2305	-716.7007	-170.4096	-584.5407
45	584.5971	174.2281	599.1517	-1062.2244	-144.2293	-516.4869
46	897.6490	149.5302	534.9920	-1288.6533	-119.2652	-452.2995
47	1094.7935	125.6638	473.9845	-1401.0293	-94.8718	-390.7727
48	1186.2399	103.1343	416.0647	-1436.7040	-72.6301	-332.8571
49	1196.5072	81.6139	361.2655	-1109.6067	-39.0705	-277.2903
50	864.6375	50.2197	309.3640	-953.2464	-21.6578	-230.6997
51	710.2399	34.7985	266.3936	-732.8684	-6.4097	-188.0886
52	484.4426	20.6928	226.9425	-485.3320	7.6235	-148.7959
53	246.6214	8.2828	191.2024	-193.4116	19.6345	-113.9171
54	-29.8490	-2.1657	159.7496	94.7000	30.2507	-82.1074

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	-295.0774	-11.2314	131.3225	399.3883	38.6933	-55.0745
56	-572.2782	-18.2078	107.8607	691.7472	45.9023	-30.8991
57	-831.7052	-23.9844	86.9751	953.5858	51.2310	-11.5451
58	-1056.9252	-28.0081	71.1617	1194.6165	55.3299	4.7570
59	-1258.5806	-30.8868	58.3173	1395.3176	57.9670	16.6343
60	-1415.8022	-32.3607	49.3075	1554.9839	44.6447	-15.0776
61	-1572.5009	251.6874	828.6013	1041.5472	-255.9771	-807.8607
62	-1028.5798	255.6325	812.7625	306.6296	-225.6297	-730.0168
63	-365.5496	227.0338	738.0999	-270.4395	-197.0399	-655.4239
64	173.7608	199.6015	666.7112	-727.6104	-169.6005	-584.0385
65	594.8552	173.3593	599.1143	-1069.9159	-143.3605	-516.4171
66	904.9237	148.4570	534.2865	-1292.7628	-118.1894	-451.5948
67	1098.9246	124.7315	473.7622	-1402.3640	-93.9408	-390.5787
68	1185.0204	101.9043	415.7288	-1431.8538	-71.3885	-332.5084
69	1196.8611	80.8958	361.1216	-1104.3210	-38.5290	-277.2733
70	858.0330	49.6235	309.3432	-944.8125	-21.0635	-230.6864
71	697.1111	33.9472	266.3929	-717.1374	-5.5633	-188.1074
72	484.6776	20.6858	227.1052	-485.5282	7.6319	-148.9495
73	228.0135	7.4591	191.2453	-172.3129	20.4544	-113.9700
74	-29.9121	-2.1672	159.8173	94.7525	30.2536	-82.1685
75	-295.2212	-11.2093	131.3484	399.4824	38.6730	-55.0936
76	-572.3421	-18.1769	107.7680	691.6959	45.8652	-30.8218
77	-831.7339	-23.9500	86.9571	953.5291	51.1980	-11.5344
78	-1056.8685	-27.9630	71.1398	1194.4352	55.2856	4.8184
79	-1169.8016	-28.6581	57.7617	1299.8469	55.7369	17.1882
80	-1415.4078	-32.3004	49.2899	1554.4298	44.5896	-15.0526
81	-1642.6548	253.1266	827.9486	1109.3875	-257.4602	-807.1591
82	-1129.6306	257.9327	812.2715	400.9094	-227.9367	-729.5721
83	-366.8107	227.1019	737.6364	-269.5145	-197.0988	-654.9248
84	172.7238	199.6484	666.2883	-726.7033	-169.6445	-583.6046
85	594.0576	173.4008	598.5363	-1069.1494	-143.4079	-515.8839
86	903.8376	148.5021	534.2684	-1291.8635	-118.2315	-451.5731
87	1097.8682	124.7185	473.4775	-1401.2415	-93.9304	-390.2933
88	1183.7485	101.9141	415.7535	-1430.6194	-71.3989	-332.5176
89	1195.6328	80.8964	360.8569	-1103.9980	-38.4832	-277.0581
90	858.2033	49.6242	309.5421	-945.0045	-21.0691	-230.9189
91	712.4032	34.0354	266.5747	-732.6824	-5.6544	-188.2814
92	469.2804	19.5402	227.0740	-466.6895	8.7891	-148.8915
93	245.2301	7.6553	191.3242	-190.1320	20.2539	-114.0569
94	-26.1346	-2.5651	159.8602	92.1661	30.6486	-82.2242
95	-292.8700	-11.6181	131.4092	398.3619	39.0840	-55.1386
96	-569.9066	-18.5701	107.7426	690.4249	46.2541	-30.7836
97	-798.4555	-23.4236	86.6915	918.6718	50.6721	-11.2480
98	-1022.0178	-27.4353	70.8106	1158.0051	54.7596	5.1383
99	-1161.2749	-28.7563	57.5936	1291.6680	55.8433	17.3722
100	-1326.6437	-30.5944	49.0591	1460.5000	42.8724	-14.8286
101	-1640.5443	253.0715	827.3183	1106.7422	-257.3858	-806.4928
102	-1147.5999	258.3483	811.8471	417.6055	-228.3510	-729.1937
103	-466.9477	229.5292	737.2700	-176.6614	-199.5254	-654.5439
104	168.1565	199.7259	666.0341	-722.2941	-169.7259	-583.3412
105	589.7693	173.4797	598.1786	-1065.1973	-143.4823	-515.4955
106	899.9204	148.5812	533.8205	-1288.0768	-118.3182	-451.1613
107	1098.1600	124.7066	473.3600	-1401.4664	-93.9154	-390.1944
108	1184.0831	101.8751	415.4789	-1430.8993	-71.3497	-332.2822
109	1208.1844	80.3325	361.0617	-1373.3346	-49.0999	-276.8238
110	1128.2870	60.1235	308.8790	-1246.2567	-29.4214	-225.2452
111	1002.3850	42.1543	261.0694	-807.3431	-0.5545	-176.4662

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	557.6973	14.7875	215.3463	-557.0661	15.2097	-132.6632
113	318.2051	0.7164	175.0176	-185.5387	21.0627	-98.4773
114	-13.8935	-2.6671	144.3024	62.3815	29.6787	-69.8699
115	-264.1072	-10.6798	119.0815	336.6464	37.6638	-44.6836
116	-449.9088	-15.2959	97.0583	536.3171	42.3035	-22.6380
117	-739.7831	-22.2406	78.9077	847.0051	49.2392	-4.4988
118	-852.3317	-23.3866	63.5550	963.0349	50.3941	10.8775
119	-1035.5148	-26.1438	52.2679	1154.4198	53.1392	22.1300
120	-1153.3402	-27.0124	43.2658	1711.3345	47.3695	18.5862
121	-1959.4021	248.9585	794.8864	1139.6331	-258.2189	-806.4430
122	-1159.7366	258.6564	811.4235	428.8798	-228.6611	-728.6973
123	-472.3842	229.7375	736.7740	-171.8403	-199.7375	-654.0568
124	108.4072	201.3856	665.5038	-667.6570	-171.3770	-582.8023
125	586.7379	173.6466	597.7649	-1062.6472	-143.6469	-515.0929
126	897.3383	148.7152	533.4323	-1285.8994	-118.4500	-450.7747
127	1093.5917	124.8727	472.9940	-1397.3881	-94.0870	-389.8364
128	1184.2905	101.8880	415.3017	-1431.0493	-71.3689	-332.1628
129	1212.4960	80.1811	361.0544	-1377.2268	-48.9408	-276.8194
130	1131.8218	59.9798	308.8669	-1249.3634	-29.2767	-225.1591
131	998.4525	41.9833	260.7847	-1040.1104	-10.4429	-175.5973
132	795.6545	24.8614	214.6745	-803.2562	5.9594	-130.5775
133	584.8558	10.7938	173.0305	-209.1837	20.2269	-98.5701
134	-12.6724	-2.7024	144.2865	61.2745	29.7047	-69.8734
135	-262.0938	-10.6742	119.0170	334.6164	37.6799	-44.5967
136	-507.1865	-17.1645	97.1506	599.1509	44.1591	-22.7545
137	-649.2786	-19.6702	78.4487	748.8039	46.6738	-4.0288
138	-852.1478	-23.4323	63.5361	962.9630	50.4360	10.8832
139	-1019.5498	-25.8045	51.9580	1137.4048	52.7971	22.4454
140	-1153.2352	-27.0413	42.9448	1711.1881	47.4044	18.8785
141	-1965.5972	249.0360	795.0743	1145.7540	-258.2942	-806.6089
142	-1159.4608	258.5945	811.1141	428.6648	-228.5923	-728.3036
143	-480.6378	229.8619	736.4130	-163.8098	-199.8657	-653.7307
144	66.9654	202.4174	665.1660	-629.3130	-172.4108	-582.4691
145	586.3322	173.5967	597.7113	-1062.0247	-143.6040	-515.0429
146	868.1790	149.6055	533.2322	-1259.4890	-119.3391	-450.5441
147	1091.7407	124.9174	472.8137	-1395.7383	-94.1233	-389.6549
148	1183.9540	101.8729	415.3361	-1430.6455	-71.3620	-332.2225
149	1213.4539	80.0902	361.1112	-1377.8566	-48.8541	-276.8713
150	1131.2968	59.9596	308.9404	-1248.7559	-29.2535	-225.2869
151	999.9263	41.8737	261.1171	-1041.2638	-10.3323	-175.9111
152	792.9077	24.6371	214.8115	-799.8407	6.1860	-130.7160
153	584.8769	10.7393	173.2562	-209.1415	20.2835	-98.7843
154	-13.9372	-2.7965	144.4764	62.8264	29.7967	-70.0586
155	-263.5707	-10.7668	119.1652	336.3975	37.7718	-44.7420
156	-508.7869	-17.2520	97.2718	601.0219	44.2458	-22.8676
157	-650.5672	-19.7344	78.4298	750.2775	46.7363	-4.0255
158	-853.6280	-23.5030	63.4851	964.6355	50.5035	10.9245
159	-1021.1942	-25.8628	51.7629	1139.2821	52.8644	22.6603
160	-1155.7206	-27.1617	43.3831	1714.0278	47.5154	18.4264
161	-1967.7417	249.1894	794.3732	1147.2480	-258.4461	-805.7988
162	-1167.1672	258.9012	810.7841	435.5562	-228.9043	-728.0609
163	-489.0477	230.2085	736.1567	-156.5878	-200.2047	-653.4300
164	75.7399	202.3134	664.9387	-637.6291	-172.3128	-582.2484
165	505.1225	176.0700	597.1541	-988.2874	-146.0722	-514.5284
166	897.5887	148.7974	533.4918	-1286.4008	-118.5335	-450.8105
167	1092.5194	125.0219	472.5821	-1396.8541	-94.2314	-389.3154
168	1179.4288	102.1965	414.5783	-1427.1244	-71.6737	-331.4822

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	1212.9532	80.2700	360.9052	-1377.8793	-49.0413	-276.7809
170	1133.4230	60.0402	308.9712	-1251.0835	-29.3404	-225.3948
171	1004.0786	42.0535	261.2621	-1045.9766	-10.5086	-176.0634
172	797.5091	24.8104	214.9104	-804.9638	6.0174	-130.6973
173	580.2838	10.5344	173.0639	-203.8352	20.4879	-98.6327
174	-13.9316	-2.7938	144.3836	62.8063	29.7913	-69.9813
175	-263.6166	-10.7648	119.1183	336.4452	37.7667	-44.6892
176	-435.1837	-14.9334	97.0229	520.4490	41.9314	-22.6275
177	-659.3464	-19.9867	78.5541	759.8359	46.9935	-4.1244
178	-848.5544	-23.3647	63.3410	959.0956	50.3564	11.0501
179	-1016.9034	-25.7600	51.5084	1134.7273	52.7684	22.9261
180	-1157.7751	-27.2150	43.1148	1716.2457	47.5773	18.7320
181	-1969.3669	249.3186	794.4451	1148.7103	-258.5803	-805.9484
182	-1168.9413	259.0453	811.0936	436.8946	-229.0467	-728.3553
183	-474.6165	229.9485	736.3137	-170.1863	-199.9490	-653.5642
184	73.4040	202.4987	664.9766	-635.8885	-172.5006	-582.2993
185	531.5104	175.4474	597.3639	-1012.9055	-145.4435	-514.6875
186	897.4437	148.9756	533.1850	-1286.7509	-118.7153	-450.5607
187	1099.3599	124.9826	473.0671	-1403.5225	-94.1913	-389.8796
188	1186.1653	102.1651	415.0706	-1433.7791	-71.6594	-331.8891
189	1215.0566	80.4578	360.8331	-1380.5951	-49.2217	-276.6695
190	1137.4257	60.1656	309.1358	-1255.5095	-29.4617	-225.4823
191	1004.6464	42.1528	260.9553	-1046.8333	-10.6108	-175.8038
192	808.6629	25.3916	215.0844	-817.8457	5.4383	-130.9610
193	578.7036	10.4679	173.2175	-201.9970	20.5583	-98.6897
194	-20.9513	-3.0730	144.4260	70.6296	30.0704	-70.0309
195	-266.2724	-10.8674	119.0483	339.3811	37.8708	-44.6279
196	-461.6026	-15.7637	97.1129	549.3766	42.7597	-22.7145
197	-663.1392	-20.0908	78.5362	763.9187	47.0913	-4.1216
198	-860.5849	-23.6704	63.2231	972.0893	50.6682	11.1841
199	-1029.9628	-26.0685	51.4755	1148.6990	53.0728	22.9431
200	-1171.7408	-27.5215	43.2745	1731.1014	47.8819	18.5689
201	-1981.9551	250.2659	794.2456	1158.2982	-259.5200	-805.6548
202	-1172.4125	259.8449	810.6407	437.9650	-229.8484	-727.9448
203	-497.1253	231.2939	736.1267	-151.6616	-201.2978	-653.4402
204	70.8157	203.4328	664.9737	-636.1914	-173.4279	-582.2612
205	511.7444	176.9575	597.2375	-997.5656	-146.9606	-514.5925
206	899.1831	149.9426	533.3248	-1291.3754	-119.6859	-450.6812
207	1098.7874	126.1351	472.7445	-1406.4548	-95.3401	-389.5090
208	1189.0637	103.3076	414.7287	-1440.0972	-72.7960	-331.6257
209	1227.7117	81.2858	361.0179	-1395.6823	-50.0393	-276.8441
210	1149.1345	61.1300	308.8822	-1270.1223	-30.4247	-225.2270
211	1020.2543	43.0563	261.0546	-1065.1292	-11.5156	-175.8490
212	816.7009	25.8290	214.7283	-827.2033	4.9874	-130.6257
213	588.3081	10.8880	173.1862	-212.9225	20.1373	-98.7146
214	-10.1751	-2.6468	144.3980	58.6215	29.6476	-69.9894
215	-259.4370	-10.6295	119.0557	331.8071	37.6312	-44.6448
216	-504.6260	-17.1212	97.2074	596.4809	44.1192	-22.8015
217	-683.3114	-20.6661	78.3507	785.8070	47.6661	-3.9388
218	-889.1213	-24.4263	63.4080	1002.9011	51.4264	11.0048
219	-1062.0483	-26.8494	51.6764	1183.0841	53.8510	22.7501
220	-1201.3427	-28.1836	42.9390	1762.4661	48.5571	18.9171
221	-1961.7874	248.7584	793.8722	1142.9199	-258.0100	-805.3851
222	-1162.9020	258.4618	810.2697	432.5768	-228.4634	-727.5233
223	-486.1298	229.7722	735.6267	-158.2611	-199.7672	-652.8973
224	68.1427	202.1266	664.4258	-629.5051	-172.1272	-581.7317
225	513.5185	175.4386	596.7089	-994.7307	-145.4453	-514.0960

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	896.4373	148.4056	532.9061	-1284.0996	-118.1331	-450.2135
227	1090.3706	124.6268	472.0153	-1393.5044	-93.8303	-388.7992
228	1181.9792	101.5903	414.4804	-1427.8297	-71.0736	-331.3470
229	1192.8757	80.6057	360.1723	-1358.7346	-49.3759	-276.0094
230	1128.6003	59.6624	308.4266	-1245.1846	-28.9492	-224.8024
231	995.5715	41.6049	260.5428	-1036.0891	-10.0694	-175.3402
232	788.0580	24.3882	214.2172	-794.2815	6.4219	-130.0957
233	555.8177	9.4748	172.5714	-176.9847	21.5288	-98.0998
234	-45.7353	-4.0318	143.8228	98.3023	31.0311	-69.4233
235	-298.6968	-11.9965	118.4168	375.2175	38.9996	-43.9889
236	-547.6439	-18.4740	96.6126	643.5336	45.4680	-22.2156
237	-783.1383	-23.5356	77.8185	894.2734	50.5421	-3.3972
238	-997.2318	-27.2905	62.4424	1119.6000	54.2910	11.9692
239	-1183.2030	-29.8374	50.9754	1313.2192	56.8380	23.4386
240	-1336.0170	-31.2806	42.4263	1903.7031	51.7273	19.4095
241	-2021.6671	253.4073	782.8403	1189.3792	-262.5309	-794.2927
242	-1203.2548	262.8455	799.0693	459.5553	-232.8380	-716.2927
243	-519.0093	234.3191	724.4167	-138.9333	-204.3171	-641.7044
244	57.9643	206.4627	653.2193	-632.2553	-176.4634	-570.5397
245	529.4322	179.4107	585.5867	-1022.6938	-149.4110	-502.9206
246	904.7159	153.0753	521.4367	-1306.1710	-122.7952	-438.7992
247	1119.3973	129.1767	461.1799	-1435.8516	-98.3356	-377.9488
248	1219.4456	106.4346	403.1688	-1479.6848	-75.9021	-319.9561
249	1246.1189	85.5625	348.8536	-1426.4446	-54.2963	-264.7438
250	1199.3250	64.6525	297.5412	-1330.6344	-33.9326	-213.9403
251	1082.7537	46.7962	249.3970	-1138.5881	-15.2447	-164.1560
252	894.1808	29.7106	203.2747	-569.4366	4.7694	-119.1620
253	334.6506	11.3268	161.6744	-328.1363	15.6740	-87.2657
254	110.0166	1.9998	133.0670	-75.5214	24.9981	-58.6616
255	-119.7928	-5.7798	107.8015	177.6346	32.7745	-33.3930
256	-344.7582	-12.0866	85.9397	421.5282	39.0893	-11.5218
257	-555.8626	-17.0098	67.3602	647.3868	44.0095	7.0518
258	-745.3517	-20.6311	52.4914	847.7433	47.6313	21.9218
259	-907.1301	-23.0653	40.4384	1016.8374	50.0674	33.9765
260	-1036.7244	-24.4450	32.2955	1455.1277	44.1625	36.1347
261	-1572.3650	237.8843	569.7995	979.1537	-252.2292	-595.1538
262	-991.4089	252.5140	599.6611	466.4954	-230.5503	-538.2923
263	-494.2405	231.2358	544.8630	15.0531	-209.1146	-483.2221
264	-53.8417	210.1405	492.2550	-366.7462	-187.1846	-428.3379
265	276.4634	189.6860	439.8067	-665.8684	-166.6120	-376.2334
266	651.1829	167.0358	390.6650	-990.4344	-144.3045	-328.2038
267	849.5028	148.7722	344.3730	-1146.3087	-125.8899	-281.7516
268	1025.4976	129.9761	301.2542	-1277.9922	-106.4511	-237.1118
269	1129.9723	111.8961	258.8476	-1340.0299	-88.2247	-194.4205
270	1174.2424	94.8701	218.1951	-1343.7458	-71.5547	-154.8926
271	1169.7723	79.3049	181.1942	-1300.1475	-55.8497	-117.7751
272	1141.3755	63.6439	147.0796	-1203.0859	-38.0957	-79.4244
273	1024.6570	48.0162	110.5544	-826.9230	-18.3764	-52.2587
274	652.8282	29.4067	86.1480	-696.2674	-9.1501	-30.3330
275	531.6249	21.3578	66.3884	-556.8611	-1.1087	-10.5713
276	405.9651	14.5282	49.2155	-415.9069	5.7210	6.5804
277	284.2742	8.9011	34.5115	-281.5185	11.3493	21.2992
278	174.4815	4.5165	22.1427	-161.8616	15.7339	33.6671
279	84.9288	1.3698	12.3267	-65.2344	18.8782	43.4766
280	23.9402	-0.5227	4.9139	0.0287	20.7743	50.9099

ENVOLVENTE MINIMOS FLECTORES TREN IPF-B, l=15 m, via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.0053	13.1816	2.8449	-19.1238	-8.5003	-8.2676
2	-111.2034	-49.4338	53.9014	222.4306	49.4337	-53.8973
3	-222.4475	-49.4346	53.8222	333.6955	49.4344	-53.8268
4	-333.6596	-49.4378	54.0160	444.9386	49.4391	-54.0222
5	-444.9326	-49.4575	54.0936	556.1740	49.4588	-54.0943
6	-556.1820	-49.4773	53.8977	667.4956	49.4790	-53.8926
7	-667.4868	-49.5008	53.8907	778.8613	49.5024	-53.8993
8	-778.8501	-49.5129	54.0628	890.2848	49.5139	-54.0732
9	-890.2904	-49.5272	54.1939	1001.7000	49.5260	-54.1879
10	-1001.7222	-49.5038	53.8365	1113.1085	49.5036	-53.8475
11	-1113.0980	-49.5300	54.4699	1224.5637	49.5315	-54.4645
12	-1224.5981	-49.5109	53.7724	1335.9878	49.5104	-53.7762
13	-1335.9597	-49.5013	54.5400	1447.3538	49.5006	-54.5569
14	-1447.3496	-49.4837	54.2552	1558.6566	49.4818	-54.2600
15	-1558.6304	-49.4821	54.5860	1690.7559	66.7197	-24.6939
16	-1690.7753	-66.7162	24.0824	1843.9304	69.2162	-17.1853
17	-1843.9828	-69.8619	12.6054	2003.7694	72.3617	-5.7587
18	-2078.8364	-145.7830	-178.5355	2408.8911	147.7830	183.9648
19	-2468.5454	-207.7479	-326.1758	2938.4299	209.7479	331.6987
20	-2988.4900	-263.6852	-465.9425	3584.8203	228.0117	391.4104
21	-3623.1177	313.9257	743.0529	2613.4211	-321.5201	-741.2145
22	-2652.2563	296.3337	680.2734	1769.7174	-291.9748	-670.1234
23	-1858.6045	221.9455	491.0252	1280.6984	-190.8167	-397.6624
24	-1351.8362	133.2218	249.6580	952.1454	-133.2228	-249.6580
25	-1046.6611	68.8379	72.1259	840.1329	-68.8377	-72.1241
26	-965.2589	-13.4586	3.9262	1005.6340	13.4599	-3.9480
27	-1005.6352	-13.4726	4.1985	1046.0569	13.4712	-4.2027
28	-1046.0613	-13.4519	3.9280	1086.4235	13.4509	-3.9247
29	-1086.4246	-13.4508	4.2093	1126.7678	13.4514	-4.2100
30	-1126.7708	-13.4392	3.9038	1167.0859	13.4391	-3.8920
31	-1167.0684	-13.4254	3.9033	1207.3425	13.4239	-3.9141
32	-1207.3323	-13.4146	4.2491	1269.4979	21.6596	-14.0118
33	-1269.5046	-21.6820	14.0242	1334.5488	21.6829	-14.0126
34	-1334.5620	-21.6647	13.6305	1399.5625	21.6635	-13.6410
35	-1399.5717	-21.6611	14.2205	1464.5696	21.6611	-14.2196
36	-1464.5771	-21.6715	13.5921	1546.0649	39.9628	38.0665
37	-1584.7190	-82.9060	-87.8209	1837.9011	85.9060	96.0988
38	-1922.2311	-140.5481	-256.6759	2348.3958	143.5481	264.9320
39	-2470.2449	-215.9439	-454.5335	3122.5000	218.9437	462.8137
40	-3223.0728	-288.3531	-642.5583	4092.6812	252.3578	557.7967
41	-4164.8628	324.6530	720.3010	3120.2671	-333.0611	-730.0531
42	-3163.0073	307.9705	669.6771	2273.9697	-273.3168	-566.4247
43	-2378.8914	203.6866	386.9208	1767.7961	-203.6866	-386.8859
44	-1858.8086	146.6242	239.1268	1418.9091	-146.6239	-239.1630
45	-1542.8821	75.0680	37.2317	1317.6877	-75.0691	-37.2360
46	-1458.4207	2.1134	-5.9661	1452.0819	-2.1134	5.9952
47	-1452.0850	2.1109	-5.9925	1445.7515	-2.1110	5.9981
48	-1445.7379	2.1096	-6.1997	1439.4146	-2.1088	6.1990
49	-1439.4084	2.0884	-5.9810	1433.1541	-2.0853	5.9686
50	-1433.1799	2.0693	-5.9921	1426.9806	-2.0693	6.0073
51	-1426.9822	2.0609	-6.3883	1420.7926	-2.0610	6.3933
52	-1420.7705	2.0644	-6.2109	1423.9844	7.3391	-4.6300
53	-1423.9956	-7.3109	4.4632	1445.9363	7.3098	-4.4651
54	-1445.9241	-7.3229	4.6381	1467.9001	7.3234	-4.6246

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	-1467.8846	-7.3303	4.2314	1489.8800	7.3312	-4.2238
56	-1489.8682	-7.3510	4.4625	1527.7130	25.0688	48.3884
57	-1591.7390	-88.9656	-91.2110	1863.1128	91.9660	99.4936
58	-1951.1421	-147.4688	-259.4922	2398.0161	150.4689	267.7600
59	-2523.2949	-223.3347	-457.8604	3197.7473	226.3348	466.1809
60	-3300.0881	-295.9174	-645.9009	4192.4189	260.3237	560.4948
61	-4264.8096	327.2032	720.5852	3213.9094	-335.2138	-730.8921
62	-3257.3206	310.1236	668.8606	2363.9241	-275.5246	-565.6456
63	-2470.0076	205.9283	386.4694	1852.3384	-205.9281	-386.4707
64	-1945.2417	133.0009	196.8153	1546.1927	-133.0004	-196.7918
65	-1624.4684	77.4150	36.4025	1392.2426	-77.4149	-36.3959
66	-1535.8376	4.5119	-5.3411	1522.2985	-4.5109	5.3389
67	-1522.2885	4.4999	-5.9380	1508.7922	-4.4994	5.9739
68	-1508.7974	4.4904	-5.9829	1495.3248	-4.4891	5.9798
69	-1495.3263	4.5177	-5.9861	1481.7833	-4.5185	5.9898
70	-1481.7611	4.5126	-5.9935	1468.2144	-4.5160	6.0076
71	-1468.2244	4.5356	-6.4151	1454.6259	-4.5356	6.4323
72	-1454.6237	4.5337	-6.6686	1451.7878	4.7473	-4.2694
73	-1451.7842	-4.7650	4.4992	1466.0758	4.7640	-4.4991
74	-1466.0419	-4.7601	4.2827	1480.3124	4.7595	-4.2590
75	-1480.3312	-4.7569	3.8579	1494.6072	4.7578	-3.8505
76	-1494.6125	-4.7738	3.8416	1524.8955	22.6560	49.0251
77	-1596.5140	-92.9576	-91.5696	1879.9019	95.9574	99.8381
78	-1968.1500	-151.5256	-259.6366	2427.2195	154.5254	267.9652
79	-2552.5979	-227.4418	-458.9312	3239.3499	230.4416	467.2315
80	-3342.0315	-300.0429	-645.5239	4246.8101	264.3479	560.1021
81	-4318.8691	328.2620	719.8577	3264.4888	-336.3750	-730.1488
82	-3307.7554	311.2962	669.0018	2411.2266	-276.7005	-565.9518
83	-2517.5073	207.0979	386.6116	1896.1686	-207.0973	-386.5751
84	-1989.3937	134.1652	196.8359	1586.8771	-134.1651	-196.8154
85	-1665.4041	78.5900	37.0182	1429.6891	-78.5893	-36.9898
86	-1573.5908	5.7077	-5.2375	1556.4647	-5.7076	5.2636
87	-1556.4702	5.7169	-5.4971	1539.3102	-5.7168	5.5335
88	-1539.2969	5.7055	-5.9475	1522.1841	-5.7065	5.9560
89	-1522.1609	5.7088	-5.5480	1505.0380	-5.7092	5.5563
90	-1505.0149	5.6900	-6.1786	1487.9382	-5.6876	6.2179
91	-1487.9508	5.6927	-6.6424	1470.8782	-5.6933	6.6498
92	-1470.8668	5.7092	-6.4209	1463.9573	3.6170	-4.5337
93	-1463.9526	-3.6141	4.3077	1474.7911	3.6135	-4.2986
94	-1474.8009	-3.6168	4.0396	1485.6412	3.6154	-4.0255
95	-1485.6611	-3.5869	3.8517	1496.4138	3.5865	-3.8354
96	-1496.4396	-3.6088	3.5908	1523.1281	21.4454	49.2869
97	-1596.8774	-93.6058	-92.0211	1882.1938	96.6060	100.3073
98	-1970.3774	-152.1872	-259.9051	2431.4465	155.1875	268.2101
99	-2556.8513	-228.1114	-458.6496	3245.8257	231.1114	466.9350
100	-3348.5361	-300.7146	-645.2077	4254.9863	265.0490	559.8590
101	-4327.7422	328.4803	718.9659	3272.6401	-336.5578	-729.2251
102	-3315.7263	311.4762	668.9310	2418.7073	-276.8793	-566.0251
103	-2525.0464	207.2773	386.7955	1903.1533	-207.2779	-386.7105
104	-1996.5825	134.3510	196.2827	1593.5321	-134.3540	-196.2324
105	-1672.0599	78.7842	36.8154	1435.7109	-78.7833	-36.8152
106	-1579.6388	5.9147	-5.0078	1561.9030	-5.9122	5.0495
107	-1561.9081	5.8983	-5.6820	1544.2164	-5.8995	5.7351
108	-1544.2257	5.9175	-5.9074	1526.4592	-5.9187	5.9292
109	-1526.4918	5.9042	-6.1662	1508.7850	-5.9028	6.1753
110	-1508.7742	5.9101	-6.1720	1491.0408	-5.9082	6.1924
111	-1491.0583	5.8947	-6.8478	1473.3590	-5.8970	6.8735

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	-1473.3718	5.9173	-6.8476	1455.6078	-5.9183	6.8474
113	-1455.6147	5.9344	-6.8556	1437.8000	-5.9315	6.8679
114	-1437.7791	5.8892	-7.6645	1420.0897	-5.8894	7.6758
115	-1420.0785	5.8734	-7.5116	1463.5099	18.2887	41.1407
116	-1463.5239	-18.3145	-41.9693	1522.9764	21.3144	50.2410
117	-1597.4209	-93.9598	-91.5626	1883.7872	96.9598	99.8703
118	-1971.8358	-152.5193	-260.3070	2434.0066	155.5196	268.6147
119	-2559.4524	-228.4246	-457.9034	3249.0935	231.4246	466.2911
120	-3351.2473	-301.0257	-647.1292	4258.7266	265.3474	561.7727
121	-4331.7622	328.5977	719.7794	3276.2214	-336.6853	-730.1255
122	-3319.5920	311.6029	668.4923	2422.1685	-276.9920	-565.6147
123	-2528.4517	207.3846	386.4282	1906.2648	-207.3832	-386.3675
124	-1999.6320	134.4275	196.4294	1596.2511	-134.4282	-196.3804
125	-1674.9460	78.8273	36.9320	1438.4692	-78.8288	-36.9124
126	-1582.6787	5.9539	-4.6618	1564.8081	-5.9551	4.7007
127	-1564.7896	5.9826	-5.3282	1546.8251	-5.9839	5.3865
128	-1546.8147	5.9997	-5.7808	1528.8044	-6.0014	5.8238
129	-1528.8346	6.0196	-6.2381	1510.7634	-6.0217	6.2583
130	-1510.7571	6.0355	-6.2545	1492.6464	-6.0358	6.2613
131	-1492.6083	6.0237	-6.4650	1474.5441	-6.0242	6.4833
132	-1474.5560	6.0446	-6.8946	1456.4188	-6.0465	6.9239
133	-1456.4196	6.0447	-7.5546	1438.2944	-6.0438	7.5782
134	-1438.2953	6.0327	-7.9875	1420.1882	-6.0325	7.9982
135	-1420.1880	6.0320	-8.0273	1463.0770	18.1312	41.5920
136	-1463.0859	-18.1588	-41.8238	1522.0175	21.1588	50.1361
137	-1596.6021	-93.9908	-92.4224	1883.0930	96.9907	100.7253
138	-1971.2551	-152.5642	-259.9148	2433.5083	155.5640	268.2062
139	-2558.9807	-228.4916	-457.9705	3248.8118	231.4916	466.3940
140	-3351.0093	-301.0925	-647.1106	4258.6934	265.4229	561.6949
141	-4331.3843	328.5474	720.8208	3276.1833	-336.6326	-731.1398
142	-3319.9319	311.5451	667.8408	2422.6023	-276.9513	-565.0145
143	-2528.8826	207.3584	386.1807	1906.9337	-207.3596	-386.1463
144	-2000.2534	134.4354	196.7182	1596.8528	-134.4337	-196.6352
145	-1675.5023	78.8522	36.7092	1438.9851	-78.8508	-36.6577
146	-1582.8035	6.0187	-4.0337	1564.7451	-6.0190	4.0616
147	-1564.7535	6.0188	-4.7005	1546.7032	-6.0197	4.7815
148	-1546.6891	6.0255	-5.4165	1528.6191	-6.0250	5.4736
149	-1528.6394	6.0336	-5.8816	1510.5399	-6.0318	5.9049
150	-1510.5127	6.0432	-5.9174	1492.3807	-6.0453	5.9433
151	-1492.4219	6.0586	-6.5743	1474.2433	-6.0578	6.5953
152	-1474.2571	6.0490	-6.5845	1456.1193	-6.0483	6.6051
153	-1456.1477	6.0339	-7.6351	1438.0375	-6.0355	7.6609
154	-1438.0487	6.0126	-7.6416	1420.0105	-6.0115	7.6436
155	-1420.0173	6.0160	-8.0665	1462.9929	18.1454	41.5690
156	-1463.0026	-18.1561	-41.8175	1521.9370	21.1562	50.1423
157	-1596.5066	-94.0050	-92.4185	1882.9907	97.0052	100.7318
158	-1971.0129	-152.5785	-259.7555	2433.2046	155.5783	268.0627
159	-2558.4341	-228.4983	-457.9379	3248.5024	231.4975	466.2785
160	-3350.9502	-301.0899	-645.1757	4258.5488	265.4152	559.8420
161	-4330.8535	328.5216	719.5524	3275.4961	-336.6061	-729.7675
162	-3318.9062	311.5257	668.1599	2421.7720	-276.9167	-565.4673
163	-2528.1389	207.3124	386.4616	1906.1537	-207.3131	-386.3756
164	-1999.6979	134.3718	196.3978	1596.6002	-134.3711	-196.3494
165	-1675.3093	78.7783	37.4240	1438.9855	-78.7790	-37.3530
166	-1582.7919	6.0913	-4.7864	1564.5081	-6.0940	4.8588
167	-1564.5012	6.1017	-4.8529	1546.1890	-6.1026	4.8498
168	-1546.1903	6.1344	-4.8597	1527.7822	-6.1354	4.9088

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	-1527.8110	6.1411	-5.9457	1509.3960	-6.1401	6.0072
170	-1509.4287	6.1253	-6.2379	1491.0773	-6.1244	6.2742
171	-1491.0624	6.1325	-7.0596	1472.6592	-6.1320	7.0885
172	-1472.6259	6.1111	-7.0736	1454.2911	-6.1112	7.0749
173	-1454.2700	6.1377	-7.3412	1435.8478	-6.1396	7.3642
174	-1435.8322	6.1404	-8.3928	1417.3959	-6.1411	8.4018
175	-1417.3798	6.1428	-8.1433	1459.9258	18.0187	41.6611
176	-1459.9360	-18.0172	-42.5542	1518.4458	21.0174	50.8485
177	-1592.9830	-93.9066	-92.0744	1879.2589	96.9069	100.3844
178	-1967.3258	-152.4994	-259.9378	2429.1541	155.4998	268.2970
179	-2554.3755	-228.4257	-458.3496	3244.3408	231.4254	466.7066
180	-3346.8057	-301.0202	-645.5855	4254.3994	265.3473	560.2195
181	-4326.9121	328.1856	719.4313	3272.8530	-336.2752	-729.7292
182	-3316.1260	311.1969	668.6886	2419.9751	-276.5985	-565.9229
183	-2526.5483	206.9909	385.7859	1905.5797	-206.9925	-385.6925
184	-1998.8513	134.0700	196.5204	1596.6512	-134.0712	-196.4918
185	-1675.2633	78.4867	37.0979	1439.7600	-78.4845	-37.0513
186	-1582.4500	6.3230	-4.2685	1563.4812	-6.3209	4.3469
187	-1563.4696	6.3319	-5.3797	1544.4678	-6.3319	5.4458
188	-1544.4835	6.3043	-5.4421	1525.5632	-6.3037	5.4638
189	-1525.5798	6.2806	-5.8647	1506.7268	-6.2802	5.9154
190	-1506.7010	6.3028	-6.5370	1487.7992	-6.3028	6.5611
191	-1487.7623	6.2947	-6.5416	1468.8888	-6.2957	6.5717
192	-1468.9067	6.3081	-7.6013	1449.9794	-6.3084	7.6316
193	-1450.0377	6.3462	-7.6473	1430.9988	-6.3484	7.6517
194	-1431.0054	6.3710	-7.8978	1411.8744	-6.3724	7.9072
195	-1411.8717	6.3614	-8.7130	1453.7350	17.8004	42.2130
196	-1453.7395	-17.8034	-42.4687	1511.6309	20.8033	50.7594
197	-1586.0510	-93.6931	-92.0177	1871.6160	96.6931	100.3501
198	-1959.5381	-152.2781	-260.0472	2420.8181	155.2781	268.4005
199	-2546.0100	-228.2214	-458.1599	3235.2188	231.2211	466.4680
200	-3337.7241	-300.8155	-644.8125	4244.7803	265.1445	559.4736
201	-4317.5430	327.4741	719.0876	3265.4106	-335.5565	-729.2810
202	-3308.8052	310.4783	667.6733	2414.8381	-275.8805	-565.0131
203	-2521.0562	206.2767	386.6493	1902.3052	-206.2753	-386.5847
204	-1995.8176	133.3555	196.4014	1595.6632	-133.3555	-196.3184
205	-1674.3676	77.7611	37.1526	1441.0895	-77.7602	-37.0911
206	-1580.5828	7.4328	-4.6115	1558.2899	-7.4309	4.6845
207	-1558.2756	7.4227	-5.0806	1536.0088	-7.4218	5.1056
208	-1536.0298	7.4201	-5.0962	1513.7668	-7.4211	5.1416
209	-1513.7509	7.4581	-6.1372	1491.3661	-7.4621	6.1921
210	-1491.3644	7.4921	-6.1733	1468.8781	-7.4937	6.1990
211	-1468.8798	7.5048	-6.8234	1446.3610	-7.5041	6.8449
212	-1446.3625	7.4847	-6.8098	1423.9109	-7.4845	6.8326
213	-1423.9071	7.4865	-7.8557	1401.4407	-7.4871	7.8790
214	-1401.4314	7.4938	-7.8948	1378.9412	-7.4944	7.8969
215	-1378.9418	7.5045	-8.4927	1417.1782	16.6506	41.9937
216	-1417.1896	-16.6451	-42.0289	1471.6044	19.6451	50.3442
217	-1546.3486	-92.5521	-92.3917	1828.4797	95.5522	100.7066
218	-1916.7186	-151.1604	-259.6693	2374.6887	154.1603	267.9758
219	-2500.2153	-227.1014	-457.7815	3186.1230	230.1009	466.1754
220	-3288.6272	-299.7110	-645.9319	4192.2686	264.0580	560.5702
221	-4264.1558	323.4717	719.5717	3224.3721	-331.5442	-729.8733
222	-3267.8999	306.4684	667.9315	2386.2224	-271.9092	-565.2337
223	-2492.7471	202.3283	386.2947	1885.6614	-202.3274	-386.2077
224	-1979.4572	129.4471	196.2030	1591.0907	-129.4474	-196.1279
225	-1669.9023	73.9469	36.9535	1448.1100	-73.9481	-36.8809

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-1576.0205	10.0835	-4.8160	1545.7560	-10.0851	4.8707
227	-1545.7538	10.0871	-4.8884	1515.4929	-10.0880	4.9265
228	-1515.5005	10.0906	-5.5212	1485.2281	-10.0914	5.5681
229	-1485.2340	10.0807	-5.7953	1455.0156	-10.0807	5.8312
230	-1455.0200	10.0908	-6.3611	1424.7268	-10.0891	6.3973
231	-1424.7277	10.0745	-6.8879	1394.5128	-10.0724	6.9058
232	-1394.5227	10.0494	-6.9190	1364.3772	-10.0475	6.9376
233	-1364.3722	10.0188	-7.6580	1334.3145	-10.0185	7.6798
234	-1334.3103	10.0254	-7.9390	1304.2314	-10.0258	7.9527
235	-1304.2225	10.0193	-8.6523	1332.5697	14.0574	42.1584
236	-1332.5488	-14.0347	-42.0227	1379.1357	17.0344	50.3289
237	-1457.2212	-89.9958	-92.1902	1731.7167	92.9955	100.5409
238	-1822.0820	-164.5601	-302.3369	2320.2595	167.5603	310.6479
239	-2400.2776	-224.6267	-457.7231	3078.6711	227.6271	466.0418
240	-3182.5283	-297.2587	-645.1597	4078.9512	261.7912	559.8299
241	-4151.4204	315.1244	717.8025	3137.2134	-322.9981	-728.0293
242	-3181.0923	297.9454	665.7811	2327.5728	-263.7898	-563.1067
243	-2435.2952	194.3891	384.4103	1852.1274	-194.3888	-384.3351
244	-1947.8923	122.0037	194.4121	1581.9215	-122.0047	-194.3288
245	-1661.6633	67.3746	35.1132	1459.5251	-67.3749	-35.0667
246	-1549.7181	24.4228	-14.0541	1476.4474	-24.4214	14.1184
247	-1476.4592	24.4069	-14.8899	1403.2239	-24.4050	14.9403
248	-1403.2357	24.4034	-14.9326	1330.0017	-24.4012	14.9492
249	-1330.0068	24.3905	-15.1594	1256.8568	-24.3919	15.2133
250	-1256.8530	24.4035	-16.0594	1183.6411	-24.4049	16.1033
251	-1183.6351	24.4006	-16.0955	1110.4382	-24.4006	16.1093
252	-1110.4236	24.4046	-16.4112	1037.1952	-24.4059	16.4377
253	-1037.1766	24.3851	-16.8465	964.0155	-24.3851	16.8683
254	-964.0258	24.3930	-17.3245	890.8488	-24.3932	17.3346
255	-890.8255	24.4127	-17.3140	832.6022	-1.6987	51.6956
256	-832.6191	1.7120	-51.9126	831.9652	1.2877	60.2011
257	-953.2197	-83.5507	-126.6019	1208.3594	86.5507	134.8878
258	-1306.4878	-150.9252	-311.1440	1763.7418	153.9252	319.4884
259	-1864.7690	-211.5101	-467.9346	2503.8254	214.5102	476.2807
260	-2624.7039	-284.5281	-654.8319	3482.8379	250.6077	578.0234
261	-3559.5266	278.4149	520.8276	2875.5188	-292.5890	-543.2118
262	-2902.7144	273.5041	498.5834	2354.7378	-240.3937	-410.0475
263	-2426.0847	186.4598	276.4466	2006.5063	-186.4583	-276.3506
264	-2082.0889	126.4395	133.3732	1797.5138	-126.4392	-133.3465
265	-1888.0422	52.9242	-49.6403	1768.9907	-52.9230	49.7067
266	-1770.3583	52.2926	-55.7109	1652.6744	-52.2921	55.7561
267	-1652.6947	52.3067	-55.2458	1535.0112	-52.3125	55.2735
268	-1534.9902	52.3472	-56.0984	1417.2155	-52.3506	56.1892
269	-1417.1865	52.3758	-56.6763	1299.3348	-52.3799	56.7143
270	-1299.3173	52.4394	-56.6793	1181.3137	-52.4496	56.6813
271	-1181.3281	52.4324	-56.7096	1063.3385	-52.4339	56.7547
272	-1063.2823	52.4816	-57.3162	945.2169	-52.4812	57.3581
273	-945.2329	52.4845	-57.3420	827.1425	-52.4875	57.3567
274	-827.1310	52.5220	-57.6456	708.9375	-52.5202	57.6679
275	-708.9332	52.4918	-57.6723	590.8051	-52.4919	57.6816
276	-590.7810	52.4953	-57.7970	472.6836	-52.4991	57.8167
277	-472.6566	52.5164	-57.9636	354.4828	-52.5164	57.9738
278	-354.4845	52.5148	-57.9790	236.3136	-52.5125	57.9893
279	-236.2877	52.5059	-58.1186	118.1653	-52.5050	58.1250
280	-118.1806	52.5031	-58.1026	0.0857	-8.5916	175.0879

ENVOLVENTE MINIMOS CORTANTES TREN IPF-B, l=15 m, via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0328	-29.8201	104.8501	89.8464	50.0690	-49.0436
2	-48.5547	-31.7147	97.5259	142.6952	51.9636	-41.7156
3	-65.7610	-34.8620	87.7352	167.0020	55.1153	-31.9214
4	-59.9141	-39.2583	75.5503	171.0752	59.5163	-19.7290
5	-39.4799	-44.9159	60.7774	8.3917	66.0579	15.6068
6	142.4630	-52.6490	22.9674	-44.7491	74.7808	37.6225
7	209.6538	-62.5832	-1.4674	-92.3494	85.0356	62.7480
8	266.3958	-73.9770	-29.0659	-173.0255	97.7337	91.6061
9	351.2924	-87.8222	-60.4550	-173.5206	112.1856	126.0803
10	351.7418	-103.3830	-97.3529	-138.7490	126.3235	159.1286
11	312.5688	-118.5964	-132.8619	-61.6599	141.6014	194.8539
12	227.4368	-134.8992	-171.1585	63.8837	157.9676	233.3268
13	90.0482	-152.2510	-211.8793	244.1882	175.3747	274.3478
14	-104.9044	-170.6250	-255.6370	484.1104	193.7804	318.2357
15	-362.2479	-189.9098	-301.7572	788.7433	213.1077	364.6012
16	-686.2738	-210.0653	-351.0575	1138.5049	234.7857	417.4172
17	-1057.4829	-232.5423	-405.7916	1586.5139	257.2879	473.4107
18	-1527.8425	-255.7523	-464.1029	2108.7612	279.0048	527.8177
19	-2073.2119	-278.1191	-520.3832	2706.7512	301.3610	584.2706
20	-2694.3486	-301.0789	-580.7643	3381.8003	296.5449	584.4484
21	357.1735	-39.0304	40.6333	-509.7861	45.9663	-37.6152
22	529.6275	-20.3421	103.9081	-428.0970	47.3435	-29.4889
23	487.4676	-22.7787	92.6411	-378.6244	49.7800	-18.2258
24	476.5499	-26.3976	77.9264	-356.8528	53.3989	-3.5108
25	491.1055	-31.3137	59.7542	-356.6583	58.3156	14.6597
26	523.7331	-37.6295	38.1351	-370.3457	64.6317	36.2772
27	565.6287	-45.4105	12.8834	-585.0475	73.8597	98.0081
28	803.1656	-56.1700	-52.0004	-632.5896	86.3818	135.2260
29	867.2778	-70.2848	-92.9906	-702.0623	99.5520	173.1244
30	946.8904	-85.0641	-134.0058	-688.9520	115.6188	217.6976
31	936.9039	-102.7521	-182.1640	-669.6122	132.6665	263.3640
32	913.6586	-121.4090	-231.4752	-543.0447	152.2501	315.7616
33	776.5265	-142.5889	-287.2156	-380.0785	173.0295	369.3561
34	596.5949	-164.9240	-344.1616	-89.5131	196.0182	428.9273
35	282.7757	-189.4298	-407.2268	267.1617	220.2906	490.4722
36	-101.8416	-215.1181	-472.4383	766.1504	246.3789	557.6736
37	-633.6841	-242.5530	-542.6546	1356.0117	273.6801	626.8888
38	-1258.8796	-271.0877	-615.9748	2097.2769	302.4438	701.7393
39	-2038.1062	-300.9664	-693.0474	2946.3445	332.2075	778.2086
40	-2925.8416	-331.7365	-773.9198	3950.5369	333.7698	787.0637
41	594.7034	-45.6529	25.1922	-772.3676	51.9427	-36.1351
42	795.1580	-26.3899	102.2134	-675.5031	53.3869	-27.8074
43	739.0808	-28.9259	91.0970	-611.7902	55.9272	-16.6846
44	714.7034	-32.6771	76.3268	-576.1614	59.6786	-1.9102
45	715.7369	-37.7543	57.8747	-561.9901	64.7513	16.5301
46	734.4087	-44.2305	36.3669	-561.2063	71.2320	38.0530
47	761.5871	-52.1923	11.2181	-748.9120	80.1999	100.9168
48	971.5553	-62.7020	-54.9817	-782.0091	92.9306	138.1854
49	1020.7245	-77.0087	-95.9294	-836.0505	106.3173	176.1054
50	1084.1669	-91.9912	-137.2016	-805.6874	122.5557	220.9037
51	1056.3723	-109.8442	-185.2298	-768.0597	139.7868	266.3736
52	1014.1009	-128.6752	-234.4245	-621.8000	159.5280	318.6564
53	856.7992	-150.0201	-290.0044	-437.9173	180.4751	372.2055
54	655.1171	-172.4899	-347.1187	-125.5757	203.5653	431.8467

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	319.4743	-197.0574	-410.1668	253.2089	227.9098	493.3434
56	-87.9900	-222.8160	-475.0233	775.5078	254.0708	560.3181
57	-642.9087	-250.2980	-545.6890	1388.4257	281.4074	629.9024
58	-1291.6350	-278.8502	-618.5575	2153.1416	310.1917	704.3336
59	-2093.9575	-308.7388	-696.2396	3025.2976	339.9561	781.4091
60	-3004.8618	-339.4914	-777.1388	4052.7080	341.8189	789.6703
61	778.3822	-49.2750	23.9728	-938.2068	55.7306	-35.4806
62	961.1941	-30.1781	102.0481	-830.1410	57.1809	-27.6356
63	894.0324	-32.7348	90.8357	-755.3637	59.7294	-16.4401
64	858.6644	-36.4920	75.9084	-708.6656	63.4948	-1.4906
65	848.6449	-41.5802	58.0036	-683.4125	68.5801	16.4045
66	856.2348	-48.0712	35.9276	-671.5019	75.0750	38.4936
67	872.2850	-56.0496	11.0876	-852.5264	84.2239	101.1466
68	1075.5913	-66.7366	-55.3331	-873.9417	96.9723	138.5552
69	1113.0366	-81.0580	-96.2170	-916.3074	110.3695	176.3695
70	1164.7056	-96.0613	-137.4874	-874.0822	126.6325	221.1842
71	1124.9875	-113.9379	-185.5112	-824.4454	143.8791	266.6190
72	1070.7480	-132.7886	-234.4591	-666.1181	163.6311	318.6845
73	901.1250	-154.1108	-290.1782	-470.0035	184.5688	372.3854
74	687.3745	-176.6011	-347.2145	-145.4519	207.6806	431.9062
75	339.4105	-201.1766	-410.2066	245.6978	232.0312	493.3694
76	-80.4233	-226.9444	-475.0922	780.1847	258.1914	560.3654
77	-647.6501	-254.4253	-545.5590	1405.6494	285.5407	629.8006
78	-1308.8569	-282.9909	-618.4675	2182.8196	314.3319	704.2543
79	-2123.3975	-312.8829	-697.1063	3067.1350	344.1010	782.2457
80	-3047.0073	-343.6381	-776.6427	4107.3740	345.8559	789.1732
81	808.9922	-50.0386	24.1594	-968.9680	56.4278	-35.6516
82	991.9964	-30.8812	101.9178	-858.8683	57.8788	-27.5171
83	922.8024	-33.4263	90.8154	-782.0110	60.4285	-16.4013
84	885.3518	-37.1908	75.9716	-733.2682	64.1929	-1.5541
85	873.2801	-42.2884	57.7811	-705.9684	69.2823	16.6128
86	878.8645	-48.7671	36.1462	-692.0149	75.7736	38.2873
87	892.8245	-56.7500	11.0543	-869.8214	84.8806	101.2011
88	1092.9495	-67.3891	-55.1635	-889.2990	97.6278	138.4055
89	1128.3599	-81.7251	-96.3270	-929.6485	111.0355	176.4718
90	1178.0864	-96.7314	-137.2451	-885.5321	127.3013	220.8663
91	1136.4261	-114.5988	-185.1371	-833.9731	144.5312	266.2673
92	1080.3345	-133.4392	-234.3232	-673.5397	164.2973	318.6041
93	908.6339	-154.7914	-289.9323	-475.5799	185.2463	372.0684
94	692.9684	-177.2756	-346.8606	-149.1272	208.3548	431.5513
95	343.0799	-201.8582	-409.8360	244.1448	232.7157	493.0226
96	-78.8084	-227.6293	-474.8109	780.4700	258.8714	560.0300
97	-647.7803	-255.1135	-545.4376	1407.8228	286.2278	629.6511
98	-1311.0094	-283.6746	-618.2689	2187.0520	315.0176	704.0548
99	-2127.6904	-313.5561	-696.5636	3073.7493	344.7791	781.7332
100	-3053.5984	-344.3207	-776.2418	4115.5435	346.5567	788.7993
101	824.5460	-50.3371	24.3947	-1023.6647	55.1412	-30.8974
102	1046.7078	-29.5949	96.8782	-917.4371	56.5928	-22.4721
103	981.3853	-32.1389	85.7287	-844.4529	59.1413	-11.3352
104	947.7802	-35.9072	71.2679	-799.5643	62.9068	3.1255
105	939.6003	-40.9960	52.9774	-776.1162	67.9955	21.4345
106	948.9664	-47.4869	31.1787	-802.3245	75.6213	71.5616
107	1003.1120	-56.5974	-22.0140	-878.3942	85.2090	101.0400
108	1101.5383	-67.7153	-55.1526	-896.8596	97.9592	138.3840
109	1135.9640	-82.0537	-95.9108	-936.2409	111.3697	176.0434
110	1184.6477	-97.0600	-137.1701	-891.0142	127.6265	220.8552
111	1141.8710	-114.9380	-185.0295	-838.4562	144.8740	266.1158

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	1084.7439	-133.7987	-234.0644	-677.0607	164.6432	318.3162
113	912.0736	-155.1285	-289.7426	-478.0396	185.5762	371.8489
114	695.6158	-177.5980	-346.4936	-150.4551	208.6897	431.1863
115	344.2245	-202.1773	-409.4427	243.7109	233.0152	492.5926
116	-78.1758	-227.9212	-474.4983	780.9152	259.1760	559.7216
117	-648.4977	-255.4098	-544.6181	1409.3588	286.5226	628.8584
118	-1312.2252	-283.9658	-618.3170	2189.3552	315.3174	704.0907
119	-2130.2598	-313.8658	-695.6895	3076.8423	345.0789	780.8996
120	-3056.1082	-344.6127	-777.9805	4119.0483	346.8477	790.5146
121	827.0557	-50.3886	24.1211	-1025.8632	55.1873	-30.5454
122	1048.8773	-29.6399	96.9551	-919.4787	56.6363	-22.5691
123	983.4063	-32.1842	85.8203	-846.3450	59.1850	-11.4239
124	949.6966	-35.9390	71.2071	-801.3338	62.9453	3.2084
125	941.3783	-41.0306	52.9909	-777.8015	68.0294	21.4088
126	950.6771	-47.5213	31.1748	-803.9803	75.6559	71.5674
127	1004.8026	-56.6333	-22.0551	-880.0253	85.2442	101.0827
128	1103.1548	-67.7648	-55.1015	-898.4565	98.0030	138.2817
129	1137.6479	-82.0941	-95.6945	-937.7951	111.4109	175.8278
130	1186.2742	-97.0994	-136.9291	-892.4600	127.6692	220.6652
131	1143.2993	-114.9838	-185.1250	-839.7555	144.9127	266.2246
132	1086.1670	-133.8311	-234.0157	-678.3029	164.6947	318.1540
133	913.4534	-155.1690	-289.2969	-479.3141	185.6225	371.3638
134	696.7854	-177.6604	-346.0319	-151.5332	208.7407	430.7420
135	345.4376	-202.2445	-408.9533	242.9249	233.0995	492.1505
136	-77.6276	-228.0061	-473.9064	780.3385	259.2434	559.1054
137	-647.5349	-255.4842	-544.7304	1408.7703	286.6010	628.9342
138	-1311.9594	-284.0438	-617.5292	2189.2266	315.3896	703.3371
139	-2129.9688	-313.9378	-695.5596	3076.7554	345.1547	780.7711
140	-3056.0320	-344.6903	-777.8319	4119.2300	346.9221	790.3341
141	828.1277	-50.3983	24.1149	-1027.0162	55.1959	-30.4103
142	1050.0190	-29.6466	97.3650	-920.5672	56.6486	-22.9803
143	984.5043	-32.2022	86.1037	-847.4368	59.1962	-11.7173
144	950.7873	-35.9592	71.3119	-802.3618	62.9658	3.0955
145	942.3731	-41.0512	53.4531	-778.7463	68.0466	20.9349
146	951.6112	-47.5350	31.5031	-804.7956	75.6759	71.2612
147	1005.6081	-56.6518	-21.7765	-880.7019	85.2666	100.8202
148	1103.7902	-67.7807	-54.7238	-899.0369	98.0142	137.8864
149	1138.1653	-82.1030	-95.3224	-938.2630	111.4188	175.4612
150	1186.6708	-97.1107	-136.5809	-892.8541	127.6802	220.2790
151	1143.7321	-114.9968	-184.4805	-840.0797	144.9325	265.5904
152	1086.3772	-133.8452	-233.5592	-678.5355	164.6954	317.7057
153	913.7559	-155.1818	-288.6991	-479.5565	185.6292	370.7683
154	696.9323	-177.6520	-345.5374	-151.7485	208.7394	430.2580
155	345.7633	-202.2444	-408.4780	242.6473	233.1028	491.6513
156	-77.2981	-228.0039	-473.3924	780.0883	259.2464	558.5838
157	-647.2003	-255.4812	-544.3317	1408.2640	286.5944	628.4865
158	-1311.4531	-284.0465	-617.0568	2188.5168	315.3879	702.8442
159	-2129.1631	-313.9362	-695.2922	3076.2878	345.1594	780.5000
160	-3055.9402	-344.6935	-775.8846	4119.0415	346.9276	788.4651
161	827.1251	-50.3159	24.3544	-1026.1680	55.1119	-30.6089
162	1049.2042	-29.5653	96.9970	-920.0260	56.5625	-22.6094
163	983.9812	-32.1083	85.8187	-847.1416	59.1104	-11.4245
164	950.4829	-35.8762	71.2872	-802.3646	62.8750	3.1074
165	942.4199	-40.9592	52.8897	-779.0452	67.9581	21.4983
166	951.9387	-47.4479	31.6867	-805.4735	75.5873	71.0588
167	1006.3022	-56.5572	-21.9206	-881.6770	85.1716	101.0273
168	1104.7855	-67.6936	-55.3751	-900.2684	97.9315	138.5638

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	1139.4829	-82.0157	-95.6861	-939.8506	111.3319	175.7570
170	1188.2676	-97.0311	-136.7478	-894.7968	127.5960	220.3813
171	1145.7992	-114.9158	-184.4378	-842.3555	144.8515	265.5219
172	1088.7332	-133.7530	-233.4480	-681.0554	164.6100	317.6714
173	916.1457	-155.0991	-288.9812	-482.2679	185.5513	371.0227
174	699.8595	-177.5810	-345.5669	-154.9634	208.6628	430.2227
175	348.8015	-202.1534	-408.4279	239.3316	233.0090	491.6161
176	-73.8301	-227.9458	-473.5137	776.3907	259.1895	558.6772
177	-643.7661	-255.4208	-543.8712	1404.9031	286.5387	628.1104
178	-1307.9364	-283.9870	-617.1988	2184.5708	315.3228	702.9571
179	-2125.1423	-313.8695	-695.6033	3072.2192	345.0953	780.8256
180	-3051.8586	-344.6305	-776.2154	4115.0107	346.8643	788.8322
181	824.4098	-50.1147	24.4165	-1024.1729	54.9069	-30.6958
182	1047.2122	-29.3619	96.8988	-918.6409	56.3600	-22.5188
183	982.5654	-31.9102	86.1627	-846.3340	58.9097	-11.7774
184	949.6712	-35.6740	71.2635	-802.1520	62.6731	3.1398
185	942.1982	-40.7548	53.1153	-779.4016	67.7591	21.2964
186	952.2344	-47.2597	31.3769	-806.3369	75.3948	71.3600
187	1007.1407	-56.3645	-21.6068	-883.1040	84.9773	100.6484
188	1106.1613	-67.4948	-54.9106	-902.2615	97.7291	138.1245
189	1141.4183	-81.8188	-95.6001	-942.3931	111.1299	175.7022
190	1190.8979	-96.8146	-136.4368	-897.9852	127.3824	220.1238
191	1148.8228	-114.6795	-184.6697	-846.1387	144.6125	265.7474
192	1092.6516	-133.5200	-233.1779	-685.7118	164.3762	317.3132
193	920.8234	-154.8700	-288.6297	-487.4828	185.3327	370.7954
194	704.8899	-177.3789	-345.5335	-160.6732	208.4601	430.1762
195	354.7975	-201.9638	-408.3894	232.6948	232.8167	491.5053
196	-67.3472	-227.7336	-473.1909	769.3262	258.9804	558.4063
197	-636.6253	-255.2138	-543.7602	1396.9253	286.3269	627.9644
198	-1299.8640	-283.7804	-617.1837	2176.1008	315.1224	702.9421
199	-2116.7349	-313.6759	-695.3443	3063.0295	344.8957	780.5403
200	-3042.7690	-344.4256	-775.4332	4105.3911	346.6600	788.0744
201	809.5437	-48.9808	24.5227	-1012.6833	53.7785	-30.7847
202	1035.7144	-28.2339	97.1744	-910.5301	55.2303	-22.7769
203	974.4851	-30.7840	85.7238	-841.6596	57.7800	-11.3410
204	945.0055	-34.5390	71.3080	-800.8452	61.5449	3.0982
205	940.8866	-39.6290	53.0336	-781.5067	66.6274	21.3573
206	954.3540	-46.1199	31.5811	-811.8660	74.2526	71.1539
207	1012.6888	-55.2277	-21.7654	-892.0627	83.8407	100.8445
208	1115.1746	-66.3555	-55.1782	-914.6837	96.5932	138.3567
209	1153.9105	-80.6822	-95.4403	-958.2699	110.0003	175.5346
210	1206.7478	-95.7053	-136.6534	-917.1701	126.2770	220.3519
211	1168.0935	-113.5871	-184.5330	-868.6678	143.5226	265.6378
212	1114.9795	-132.4318	-233.6152	-711.3666	163.2873	317.7673
213	946.6180	-153.7761	-288.7127	-516.5959	184.2268	370.7758
214	733.9605	-176.2461	-345.5543	-192.9880	207.3333	430.2530
215	386.9881	-200.8650	-408.4412	197.1093	231.7166	491.5852
216	-31.8404	-226.6306	-473.2555	730.5397	257.8809	558.4628
217	-597.6787	-254.1196	-544.1707	1354.6831	285.2307	628.3419
218	-1257.9087	-282.6858	-616.9154	2130.9617	314.0310	702.7123
219	-2071.6343	-312.5798	-695.1406	3014.7085	343.8012	780.3734
220	-2994.1780	-343.3373	-776.5939	4053.4492	345.5653	789.1677
221	776.3092	-46.4750	24.0476	-987.1833	51.2662	-30.3143
222	1010.2459	-25.7205	96.8063	-892.5876	52.7200	-22.4161
223	956.5873	-28.2738	85.6037	-831.2429	55.2783	-11.2045
224	934.6208	-32.0459	71.0742	-797.9806	59.0461	3.3191
225	938.0190	-37.1496	52.8084	-786.1264	64.1434	21.5634

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	959.0085	-43.6409	31.4850	-823.9137	71.7844	71.2639
227	1024.6987	-52.7729	-22.1181	-911.3734	81.3949	101.2056
228	1134.4056	-63.9285	-55.1215	-941.1628	94.1679	138.3068
229	1180.0729	-78.2692	-95.8961	-991.7492	107.5794	175.9900
230	1240.0928	-93.2910	-136.7655	-957.5769	123.8674	220.4407
231	1208.1329	-111.1808	-184.6757	-915.9252	141.1139	265.7696
232	1161.8497	-130.0344	-233.7456	-765.4583	160.8816	317.9003
233	1000.2847	-151.3573	-288.9397	-577.3598	181.8101	371.0204
234	794.3464	-173.8601	-345.7231	-260.5816	204.9447	430.3713
235	454.2619	-198.4515	-408.5052	122.8762	229.3150	491.6586
236	41.8899	-224.2603	-473.2818	649.6257	255.5109	558.4974
237	-517.1896	-251.7604	-544.0378	1267.2241	282.8746	628.2263
238	-1170.5146	-280.3345	-617.3698	2036.5121	311.6783	703.1375
239	-1977.5619	-310.2317	-694.9766	2913.3831	341.4479	780.1858
240	-2893.0417	-340.9861	-775.8181	3945.3442	343.1660	788.4329
241	598.3682	-33.0592	14.6874	-850.7301	37.9071	-20.9558
242	874.0127	-12.3784	87.5148	-796.3463	39.3856	-13.1038
243	860.6269	-14.9796	76.1759	-775.1906	41.9802	-1.7828
244	878.7867	-18.8148	61.6055	-781.8614	45.8118	12.7736
245	922.0013	-23.9836	43.4614	-809.5402	50.9855	30.9439
246	982.1671	-30.5929	21.7434	-886.2191	58.7416	81.0079
247	1086.4500	-39.8308	-31.3461	-1011.5948	68.4979	110.4199
248	1233.5636	-51.1534	-64.7282	-1078.3451	81.4179	147.9735
249	1315.6765	-65.6720	-105.5628	-1164.4496	95.0313	185.6441
250	1410.5314	-80.8962	-146.0299	-1164.9669	111.4902	229.6673
251	1412.6501	-98.9859	-194.2200	-1156.0515	128.9699	275.3506
252	1398.6420	-118.0609	-243.0476	-1037.5046	148.9381	327.2122
253	1268.2231	-139.6087	-298.2339	-879.5942	170.1018	380.2918
254	1092.2075	-162.3230	-354.7301	-592.5250	193.4297	439.4025
255	781.1564	-187.1412	-417.6420	-237.3157	218.0237	500.8348
256	397.4979	-213.1094	-482.5217	261.0944	244.3725	567.7446
257	-133.2697	-240.7443	-553.0570	850.4000	271.8615	637.2800
258	-757.8196	-269.4199	-625.9081	1590.8870	300.7600	711.7127
259	-1534.1920	-299.3827	-704.7449	2436.4932	330.5774	789.9446
260	-2417.3479	-330.1332	-784.8609	3436.0571	331.9116	798.4719
261	310.4313	-16.7082	-34.2685	-643.7354	15.0315	8.3487
262	658.6760	4.3355	40.7587	-645.6545	15.9108	15.0258
263	685.0753	2.8070	31.9617	-668.6121	17.4445	23.8249
264	732.0188	0.5702	20.7200	-710.5087	19.6852	35.0961
265	796.8693	-2.4652	6.5874	-768.5541	22.7085	49.1854
266	876.4510	-6.3222	-9.2776	-839.4375	26.5756	65.0849
267	966.6767	-11.0831	-28.5329	-918.9582	31.3335	84.3315
268	1063.1404	-16.8102	-49.3761	-1039.9091	38.4430	141.5927
269	1198.0138	-24.9054	-109.2036	-1161.7697	46.8744	170.5109
270	1330.3611	-34.3872	-141.0217	-1272.3501	56.5181	202.5894
271	1447.7100	-45.0690	-175.5370	-1364.6046	67.3463	237.2729
272	1542.6746	-57.0613	-211.8858	-1472.7310	80.3258	276.0812
273	1648.9412	-71.1450	-253.9259	-1501.8109	95.3796	320.4363
274	1671.6974	-87.3887	-300.1914	-1487.7622	110.2725	362.7876
275	1646.1028	-103.4099	-345.5146	-1421.8350	126.4313	408.3667
276	1563.6726	-120.8104	-393.2841	-1295.4176	143.9769	456.2828
277	1415.5015	-139.6136	-443.5185	-1118.5352	163.1206	506.2156
278	1211.1892	-159.9747	-496.3354	-837.4673	183.5551	560.0343
279	897.5618	-181.6461	-552.2041	-467.9445	205.3559	616.1246
280	489.1705	-204.7208	-611.3264	0.3796	227.9761	675.4261

ENVOLVENTE MINIMOS TORSORES TREN IPF-B, l=15 m, via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0019	19.4374	50.4099	-29.3915	1.0620	6.9575
2	70.6559	17.2778	41.5251	-105.1301	3.5535	16.4867
3	181.9565	13.5215	29.6078	-216.4298	7.6446	29.0702
4	324.9527	8.4336	14.3707	-354.9714	13.0643	44.9969
5	486.5605	1.5545	-4.0199	-506.6835	20.2543	63.9752
6	655.4039	-7.0174	-25.2054	-660.3489	29.1492	85.7983
7	825.2448	-16.9299	-49.6412	-810.6578	39.3823	110.9242
8	987.6925	-28.1226	-77.4046	-997.5236	51.8793	139.9432
9	1175.7954	-41.9545	-108.9128	-1101.1985	66.3179	174.5416
10	1275.0256	-57.7558	-145.4640	-1164.6978	80.6963	207.2396
11	1359.4215	-72.0125	-181.5960	-1213.3439	95.0175	243.5858
12	1355.4280	-89.2952	-219.1977	-1166.7090	112.3635	281.3670
13	1349.6763	-105.5789	-260.6859	-1120.4730	128.7025	323.1523
14	1235.4946	-124.7997	-304.1361	-959.3697	147.9551	366.7395
15	1107.3280	-143.2549	-350.5915	-785.8114	166.4528	413.4344
16	858.1682	-164.3066	-399.2751	-508.9247	189.0270	465.6393
17	592.2328	-186.7084	-454.2965	-166.3070	211.4540	521.9149
18	259.2112	-209.0287	-512.9964	216.5755	232.2812	576.7072
19	-176.6342	-231.2860	-570.0024	704.7999	254.5279	633.8926
20	-697.0326	-254.3446	-629.6153	1279.3269	249.8107	633.3000
21	-1339.5435	26.9583	-26.5841	1199.3236	-27.3560	41.1478
22	-1179.4934	52.9816	25.3941	1016.6270	-24.8913	51.3250
23	-957.2579	49.4545	11.8289	822.1917	-21.7356	64.3930
24	-724.2639	45.1190	-4.6911	566.3091	-16.3200	84.1905
25	-432.0561	38.4054	-27.9472	322.2079	-10.3191	105.6397
26	-155.1344	31.0101	-52.8442	26.6507	-1.4606	135.0987
27	168.6085	20.6763	-85.7902	-274.0583	7.8706	164.8318
28	492.1966	9.8186	-118.9118	-519.5960	20.3932	202.1376
29	754.2644	-4.2977	-159.8732	-786.9856	33.5649	240.0052
30	1031.8356	-19.0804	-200.8614	-971.8621	49.6351	284.5483
31	1219.8088	-36.7685	-249.0210	-1150.4862	66.6829	330.2186
32	1396.5062	-55.3288	-298.4715	-1224.1167	86.1698	382.7572
33	1464.7784	-76.1738	-354.2170	-1267.5530	106.6143	436.3582
34	1473.3300	-98.9422	-410.9005	-1164.2061	130.0364	495.6681
35	1380.2754	-122.6430	-474.4536	-1030.7365	153.5038	557.6995
36	1165.7598	-149.2986	-539.0774	-698.9124	180.5594	624.3126
37	856.2694	-176.0047	-609.7205	-333.5572	207.1318	693.9560
38	402.5949	-205.2959	-682.5578	238.4294	236.6522	768.3222
39	-145.3268	-234.3291	-760.1723	853.6801	265.5701	845.3336
40	-870.1194	-265.9632	-840.4450	1697.4750	267.9965	853.5883
41	-1707.2441	33.2608	-50.8739	1540.8954	-35.1664	52.7466
42	-1518.1263	60.7169	13.9342	1327.7422	-32.5248	62.7500
43	-1264.1400	56.9885	0.0091	1104.6494	-29.2213	76.2199
44	-1001.7405	52.4667	-16.5814	818.7187	-23.5795	96.0579
45	-679.1670	45.5089	-39.7050	546.7529	-17.3871	117.3930
46	-374.3242	37.9142	-64.8200	223.0972	-8.2919	147.0772
47	-22.7179	27.3271	-97.8012	-104.1787	1.2836	176.8450
48	326.8370	16.2161	-131.0149	-373.9834	14.0125	214.2191
49	612.6812	1.9126	-171.9029	-664.7878	27.3960	252.0715
50	912.9008	-13.0685	-213.1689	-871.1917	43.6330	296.8718
51	1121.8933	-30.9279	-261.1780	-1070.3799	60.8705	342.3224
52	1316.4153	-49.7647	-310.4088	-1160.7965	80.6174	394.6371
53	1395.8162	-71.1067	-365.9239	-1213.7249	101.5618	448.1278
54	1430.9111	-93.5781	-423.1334	-1138.0610	124.6534	507.8606

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	1325.7308	-118.3587	-485.8933	-989.1333	149.2111	569.0695
56	1161.2295	-143.8928	-550.9599	-710.5288	175.1476	636.2509
57	835.5899	-171.5915	-621.3789	-326.1753	202.7009	705.5883
58	422.9625	-200.1387	-694.2420	202.4301	231.4805	780.0190
59	-143.2415	-230.0256	-771.9195	838.4579	261.2429	857.0905
60	-818.9058	-260.8024	-852.1912	1630.6649	263.1299	864.7220
61	-1602.9662	31.8025	-51.1978	1441.7704	-33.4010	52.5171
62	-1461.3663	60.0310	13.4229	1272.7302	-31.8258	63.3270
63	-1208.9762	56.2950	-0.4529	1051.4496	-28.5302	76.6463
64	-948.1428	51.7587	-16.8922	767.0097	-22.8636	96.4002
65	-626.9982	44.7829	-40.5452	496.6898	-16.6562	118.2418
66	-323.8833	37.1699	-65.3695	174.7362	-7.5427	147.6459
67	25.9408	26.5374	-98.4928	-150.5983	2.0759	177.5288
68	373.6165	15.4027	-131.7178	-418.3795	14.8330	214.9409
69	657.4094	1.0787	-172.6008	-707.0885	28.2328	252.7564
70	955.4858	-13.9281	-213.8745	-911.2478	44.4992	297.5715
71	1149.2783	-32.5687	-261.8902	-1092.8755	62.5099	342.9964
72	1339.1866	-51.4199	-310.7915	-1178.6240	82.2623	395.0166
73	1414.7909	-72.6888	-366.5944	-1227.9695	103.1468	448.8025
74	1444.0144	-95.2313	-423.5118	-1146.1644	126.3109	508.2016
75	1333.9072	-120.0258	-486.2107	-992.2567	150.8804	569.3722
76	1157.5352	-145.7879	-551.0967	-701.2512	177.0349	636.3704
77	833.7876	-173.2685	-621.5569	-319.2681	204.3839	705.8013
78	416.0622	-201.8331	-694.4586	214.4257	233.1743	780.2447
79	-229.7213	-233.5638	-772.2159	935.5190	264.7819	857.3559
80	-835.9543	-262.5075	-852.1098	1652.8783	264.7253	864.6418
81	-1564.0428	30.9815	-51.0633	1404.9237	-32.6923	52.3567
82	-1380.5349	58.2034	13.9184	1197.3722	-30.0029	62.8156
83	-1228.4818	56.8191	-0.0809	1069.3450	-29.0459	76.3246
84	-958.4749	52.0820	-16.7435	776.3572	-23.1880	96.2708
85	-643.2540	45.3063	-40.2923	511.3553	-17.1849	117.9842
86	-338.4526	37.6988	-65.3737	187.6971	-8.0670	147.6645
87	13.1041	27.0846	-98.4843	-139.4130	1.5274	177.5255
88	361.7675	15.9139	-131.7052	-408.0518	14.3248	214.9476
89	648.0217	1.6381	-172.7278	-699.3780	27.6723	252.8786
90	941.7066	-13.3411	-213.7513	-899.2693	43.9110	297.3704
91	1133.8450	-31.6555	-261.6358	-1080.2242	61.5878	342.7663
92	1338.0482	-49.9678	-310.8595	-1181.7351	80.8259	395.1398
93	1403.8236	-71.8423	-366.3945	-1219.6270	102.2972	448.5305
94	1436.8091	-94.2938	-423.1920	-1141.8276	125.3730	507.8813
95	1330.1213	-119.0846	-486.0461	-991.2526	149.9421	569.2335
96	1155.5486	-144.8786	-550.8104	-702.1035	176.1207	636.0291
97	813.4533	-172.9761	-621.0156	-299.8273	204.0904	705.2293
98	406.6593	-201.2748	-693.8491	222.1771	232.6178	779.6377
99	-244.6694	-233.1820	-771.5838	949.5485	264.4050	856.7529
100	-918.7927	-263.6872	-851.5304	1738.8921	265.9232	864.0888
101	-1549.7374	30.7414	-51.0751	1391.4426	-32.4186	52.4085
102	-1357.7662	57.7121	14.1715	1176.0726	-29.5120	62.5511
103	-1120.6385	54.1826	0.1694	969.4041	-26.4105	76.1089
104	-955.4971	52.0185	-16.9454	773.5747	-23.1266	96.4736
105	-633.5379	45.0418	-40.3813	502.4280	-16.9148	118.0873
106	-329.5686	37.4215	-65.4774	179.6577	-7.7975	147.7542
107	21.0497	26.8154	-98.6470	-146.5376	1.7962	177.6776
108	366.7940	15.8094	-131.8759	-412.7624	14.4345	215.1079
109	635.1938	2.1905	-172.7162	-688.2091	27.1255	252.8477
110	936.6128	-12.8119	-213.9774	-895.7260	43.3784	297.6620
111	1134.3295	-31.2038	-261.8308	-1082.0790	61.1398	342.9223

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	1331.9324	-49.8858	-310.8707	-1175.9485	80.7303	395.1200
113	1410.2638	-71.2485	-366.5495	-1227.8439	101.6962	448.6557
114	1429.4552	-94.3025	-422.8763	-1134.2421	125.3942	507.5641
115	1328.7640	-118.8499	-485.9438	-990.7654	149.6878	569.0947
116	1097.4597	-146.4367	-550.2795	-639.1966	177.6915	635.5011
117	834.7121	-172.1139	-620.8288	-323.7375	203.2267	705.0690
118	322.9205	-203.2636	-693.5514	312.0351	234.6151	779.3243
119	-242.7492	-232.9184	-771.1490	946.5308	264.1315	856.3613
120	-951.3549	-264.2670	-851.8655	1773.2832	266.5019	864.3956
121	-1526.8331	30.2303	-50.3923	1370.1155	-31.9075	51.7136
122	-1347.1206	57.4599	14.3262	1166.1918	-29.2598	62.4409
123	-1118.1841	54.0981	0.2724	967.2199	-26.3278	75.9941
124	-894.4950	50.4036	-16.6877	717.3956	-21.5077	96.2505
125	-632.1621	45.0018	-40.2932	501.1598	-16.8768	118.0057
126	-328.2715	37.3892	-65.4266	178.4240	-7.7677	147.7132
127	21.6126	26.7931	-98.6437	-147.0655	1.8178	177.6750
128	366.9566	15.7934	-131.9020	-412.9220	14.4448	215.0828
129	631.9811	2.3390	-172.6415	-685.4555	26.9778	252.7727
130	933.9396	-12.6667	-213.8707	-893.4557	43.2365	297.6112
131	1142.4276	-30.5699	-262.0692	-1092.0894	60.4988	343.1694
132	1327.3801	-49.9746	-310.8861	-1171.0776	80.8382	395.0255
133	1396.0560	-71.7276	-365.9452	-1212.2281	102.1811	448.0141
134	1428.7472	-94.2562	-422.4660	-1133.7285	125.3365	507.1765
135	1327.6387	-118.8332	-485.3817	-989.5262	149.6882	568.5793
136	1154.8423	-144.5937	-550.1314	-702.3156	175.8310	635.3316
137	745.2846	-174.6483	-620.1410	-226.5809	205.7651	704.3470
138	323.3910	-203.2148	-692.9399	311.3549	234.5608	778.7500
139	-259.3988	-233.2843	-770.6559	964.2595	264.5012	855.8662
140	-950.7724	-264.2265	-851.3640	1772.5986	266.4583	863.8665
141	-1518.9186	30.0784	-49.5447	1362.6356	-31.7635	50.8906
142	-1346.3138	57.4729	14.5141	1165.3286	-29.2682	62.3258
143	-1108.7203	53.9008	0.4663	958.3648	-26.1353	75.7732
144	-855.0565	49.3702	-16.3549	681.0585	-20.4710	95.9420
145	-631.0366	44.9688	-40.2964	500.1533	-16.8450	118.0101
146	-287.6297	36.1084	-65.3628	141.6540	-6.4800	147.6766
147	21.6761	26.8067	-98.6388	-147.1453	1.8081	177.6853
148	359.7371	16.0772	-131.9243	-406.5318	14.1563	215.0864
149	630.9416	2.3971	-172.6644	-684.5600	26.9187	252.8026
150	932.9672	-12.6087	-213.9276	-892.6703	43.1782	297.6225
151	1142.1097	-30.5210	-261.8239	-1091.8717	60.4567	342.9358
152	1338.1765	-49.3699	-310.9026	-1183.7380	80.2201	395.0458
153	1400.3821	-71.5171	-365.6717	-1217.1770	101.9645	447.7411
154	1434.5522	-93.9824	-422.5149	-1140.3741	125.0698	507.2347
155	1327.8854	-118.8070	-485.1669	-989.8322	149.6654	568.3418
156	1155.0648	-144.5680	-549.8694	-702.5575	175.8105	635.0591
157	745.6019	-174.6238	-619.7463	-227.0996	205.7370	703.9037
158	323.9033	-203.1922	-692.4736	310.6208	234.5336	778.2598
159	-258.5582	-233.2717	-770.1734	963.6594	264.4949	855.3808
160	-949.4356	-264.1686	-850.3987	1770.9913	266.4027	862.9795
161	-1517.5717	29.9983	-49.8722	1361.4598	-31.6761	51.2690
162	-1338.4731	57.2250	14.7444	1158.2562	-29.0262	62.0452
163	-1100.4395	53.6341	0.6343	950.8545	-25.8622	75.6556
164	-862.1990	49.4890	-16.5416	687.8604	-20.6000	96.1068
165	-547.8006	42.5176	-40.1095	424.2629	-14.3917	117.8340
166	-328.2083	37.3167	-65.5506	178.5920	-7.6921	147.8330
167	22.3942	26.7190	-98.6929	-147.6115	1.8954	177.7978
168	370.7160	15.5958	-132.1534	-416.0670	14.6421	215.3441

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	631.4878	2.2735	-172.8248	-684.7529	27.0427	252.8980
170	932.2596	-12.6947	-213.9291	-891.7529	43.2596	297.5609
171	1139.4426	-30.7196	-261.6182	-1088.6104	60.6553	342.7078
172	1334.9791	-49.5546	-310.6343	-1179.9282	80.4116	394.8571
173	1400.6453	-71.5356	-366.0750	-1217.4054	101.9878	448.1222
174	1431.3784	-94.1607	-422.1231	-1136.7113	125.2425	506.7766
175	1330.6473	-118.7322	-485.1566	-992.8287	149.5878	568.3430
176	1083.8571	-146.8642	-549.4764	-624.4882	178.1079	634.6409
177	755.9879	-174.3691	-619.6829	-238.0662	205.4870	703.9220
178	320.3995	-203.3225	-692.4348	314.3199	234.6582	778.1913
179	-260.6276	-233.3480	-770.1183	966.0679	264.5737	855.3414
180	-946.1882	-264.1160	-850.3574	1767.7906	266.3498	862.9760
181	-1514.1255	29.7106	-50.0011	1358.9094	-31.3986	51.3696
182	-1335.8718	56.9472	14.8640	1156.4805	-28.7457	61.9494
183	-1114.5325	53.7386	0.2839	964.6464	-25.9705	76.0011
184	-861.3008	49.2032	-16.5012	687.8372	-20.3110	96.0521
185	-567.2541	42.7882	-40.2065	442.8941	-14.6560	117.9473
186	-327.7899	36.9695	-65.4735	179.2102	-7.3472	147.7512
187	17.9657	26.5084	-98.7306	-142.5390	2.1044	177.7697
188	367.0573	15.3163	-132.0381	-411.5832	14.9180	215.2516
189	627.9610	1.9917	-172.8731	-680.3907	27.3194	252.9732
190	927.2076	-12.9539	-213.8320	-885.8809	43.5217	297.5169
191	1136.7217	-30.8203	-262.0669	-1085.6282	60.7533	343.1433
192	1322.4148	-50.1509	-310.3990	-1165.6038	81.0071	394.5325
193	1400.7189	-71.5045	-365.8469	-1217.4858	101.9672	448.0119
194	1434.9077	-94.0120	-422.6278	-1140.7328	125.0932	507.2708
195	1334.8936	-118.5970	-484.9167	-997.5242	149.4499	568.0332
196	1106.5222	-146.1387	-549.5138	-649.2937	177.3855	634.7305
197	755.7152	-174.3750	-619.6703	-237.9411	205.4881	703.8726
198	328.3123	-203.1271	-692.3474	305.9811	234.4689	778.1057
199	-252.2716	-233.1596	-769.9888	957.0014	264.3794	855.1847
200	-936.7480	-263.9099	-850.0596	1757.8057	266.1443	862.7009
201	-1507.2363	29.2021	-50.0381	1353.5244	-30.8857	51.4723
202	-1337.0887	56.5807	14.5509	1158.8015	-28.3810	62.2133
203	-1094.8541	52.8284	0.7208	947.7072	-25.0619	75.5480
204	-859.0322	48.6880	-16.5190	687.0842	-19.7888	96.1132
205	-556.1295	41.9608	-40.1898	434.2508	-13.8346	117.9122
206	-328.9201	36.4634	-65.5424	181.8722	-6.8443	147.8137
207	17.4712	25.9206	-98.7160	-140.2914	2.6924	177.7965
208	363.3932	14.7936	-132.1219	-406.3558	15.4441	215.2968
209	621.5649	1.5241	-172.7615	-672.5725	27.7940	252.8582
210	921.0435	-13.4947	-213.9706	-878.1146	44.0664	297.6693
211	1128.5996	-31.3499	-261.8666	-1075.8926	61.2854	342.9723
212	1322.2068	-50.1904	-310.9556	-1165.3073	81.0459	395.1065
213	1400.6074	-71.5336	-365.7098	-1217.3228	101.9843	447.7720
214	1434.6777	-94.0039	-422.5452	-1140.4420	125.0911	507.2424
215	1334.4636	-118.6220	-485.0190	-997.0721	149.4736	568.1621
216	1162.3340	-144.3921	-549.8038	-710.3320	175.6424	635.0096
217	790.0312	-173.4141	-619.6815	-275.1369	204.5252	703.8532
218	371.9095	-201.9821	-692.4319	259.0323	233.3273	778.2278
219	-204.4334	-231.9977	-770.1259	905.7229	263.2191	855.3578
220	-889.8940	-262.8647	-850.5940	1707.7332	265.0928	863.1683
221	-1507.8129	29.2257	-49.6584	1354.0024	-30.9247	51.0014
222	-1330.9813	56.4783	14.8884	1152.9666	-28.2747	61.9202
223	-1095.1060	52.8733	0.7801	947.7973	-25.0971	75.5226
224	-851.2185	48.5066	-16.4280	679.8133	-19.6108	96.0087
225	-548.1534	41.7488	-40.1088	426.9153	-13.6254	117.8174

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-328.8510	36.4878	-65.4582	181.7376	-6.8551	147.7558
227	18.8170	25.8772	-98.6191	-141.4658	2.7448	177.7079
228	363.3902	14.7728	-131.9663	-406.2475	15.4666	215.1564
229	631.5625	1.0219	-172.8359	-681.0503	28.2883	252.9281
230	920.3439	-13.5430	-213.8275	-877.1700	44.1194	297.5048
231	1127.3226	-31.4000	-261.7696	-1074.3984	61.3331	342.8631
232	1320.3259	-50.2614	-310.8368	-1163.2112	81.1086	394.9919
233	1398.0480	-71.5812	-365.8148	-1214.5000	102.0340	447.8915
234	1431.5061	-94.0792	-422.4756	-1137.0416	125.1638	507.1238
235	1330.7653	-118.6721	-484.7684	-993.0186	149.5356	567.9212
236	1157.7728	-144.4869	-549.6668	-705.5240	175.7375	634.8839
237	838.0117	-171.9937	-619.6385	-327.3079	203.1079	703.8251
238	424.0579	-200.5676	-692.2520	202.6368	231.9114	778.0220
239	-143.6851	-230.4595	-769.8485	840.1821	261.6757	855.0573
240	-819.8198	-261.2148	-850.1176	1632.7610	263.3947	862.7320
241	-1514.2526	29.6756	-49.7476	1358.8931	-31.4215	51.1305
242	-1342.2816	57.1116	14.6498	1162.2141	-28.8810	62.1783
243	-1097.9218	53.2843	0.6148	949.3424	-25.4997	75.6689
244	-860.4489	49.0661	-16.5795	687.3507	-20.1449	96.1498
245	-575.2883	42.8037	-40.2997	450.9255	-14.6542	118.0310
246	-328.1261	36.6364	-65.5657	180.7663	-6.9731	147.8397
247	17.7157	25.9388	-98.8030	-140.2020	2.7283	177.8763
248	362.1679	14.6150	-132.1751	-404.2903	15.6495	215.4244
249	631.3398	0.5606	-173.1327	-678.7627	28.7987	253.2140
250	912.6602	-14.0229	-213.9730	-867.6980	44.6169	297.6096
251	1115.3782	-32.1200	-262.1542	-1059.3704	62.1040	343.2879
252	1301.9484	-51.1913	-311.0134	-1141.4487	82.0685	395.1798
253	1372.2007	-72.7421	-366.1504	-1184.1792	103.2352	448.2076
254	1396.8209	-95.4505	-422.5069	-1097.7371	126.5572	507.1756
255	1286.3641	-120.2721	-485.4184	-943.1199	151.1546	568.6089
256	1103.3198	-146.2391	-550.1038	-645.3620	177.5022	635.3284
257	773.2156	-173.8720	-620.2151	-256.7007	204.9892	704.4360
258	349.2731	-202.5488	-693.0781	283.1808	233.8889	778.8830
259	-226.4354	-232.5114	-770.9295	928.1075	263.7061	856.1323
260	-908.9587	-263.2615	-851.0457	1727.0356	265.0399	864.6580
261	-1599.3113	25.6523	-79.8424	1477.1160	-34.4827	63.7455
262	-1462.1748	53.8449	-14.6803	1339.3805	-32.9957	71.7285
263	-1308.0476	51.9168	-25.3647	1186.2242	-30.9378	82.9981
264	-1142.7303	49.4426	-39.0790	1023.4726	-28.3343	97.2965
265	-926.6647	45.2668	-55.3921	776.2218	-22.9138	117.8469
266	-757.2795	41.9328	-79.0541	645.6822	-20.4114	139.1439
267	-486.6603	34.9117	-102.0850	389.4234	-13.2483	162.7853
268	-276.4630	28.8711	-128.6493	191.9223	-7.0586	189.6613
269	-52.4974	21.3127	-157.7578	-15.2510	0.6563	219.0687
270	191.0499	11.6011	-189.5445	-236.5115	10.5298	251.1142
271	405.5339	1.1829	-224.0901	-426.5061	21.0944	285.8275
272	594.6858	-10.2704	-261.0128	-630.0122	33.5349	325.2106
273	806.2576	-24.3536	-303.0393	-764.4041	48.5882	369.5458
274	933.8107	-40.5311	-349.5951	-855.3180	63.4149	412.1927
275	1013.6627	-56.5810	-394.9243	-894.7756	79.6024	457.7755
276	1036.6378	-73.9780	-442.8110	-873.7343	97.1445	505.8103
277	993.8451	-92.7637	-493.1965	-782.9759	116.0729	556.4524
278	875.6282	-112.9285	-546.5775	-613.1566	136.3762	610.0564
279	673.2466	-134.4674	-602.3583	-355.4738	158.0451	666.0514
280	376.6844	-157.4119	-661.2305	0.3958	181.1298	725.2192

ENVOLVENTE MAXIMOS FLECTORES TREN IPF-B, l=30 m, via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0115	-44.4243	-39.4322	-22.1907	-5.8826	174.7580
2	520.6624	217.3916	-636.0205	-981.5245	-192.5866	569.8888
3	981.6841	192.5835	-569.6079	-1384.7821	-166.3333	497.3001
4	1384.5350	166.3457	-497.9604	-1727.0984	-138.5900	421.5825
5	1727.0513	138.6255	-421.8078	-2010.3658	-112.3267	351.3338
6	2010.4492	112.3534	-350.7357	-2234.4600	-86.1131	278.3158
7	2234.4529	86.1484	-278.3129	-2398.7014	-61.3477	211.8501
8	2398.6763	61.3646	-212.2713	-2504.9854	-33.6161	135.8820
9	2504.9939	33.6411	-136.1846	-2550.0518	-5.8942	59.6513
10	2550.0874	5.8650	-58.8847	-2537.2893	18.9264	-7.7975
11	2537.3325	-18.8928	6.5838	-2464.5525	45.1516	-78.9312
12	2464.5356	-45.1761	80.1284	-2333.2932	71.4348	-151.2274
13	2333.3611	-71.4425	150.0746	-2141.9373	99.2057	-226.4619
14	2141.8777	-99.2386	226.8631	-1892.0546	123.9605	-293.9776
15	1892.0861	-123.9491	293.6145	-1582.8699	150.1960	-365.9851
16	1582.7511	-150.1953	366.5054	-1215.8308	176.3678	-437.9569
17	1215.9409	-175.7358	432.9175	-790.9290	201.8361	-504.2704
18	865.9853	-128.4198	319.8433	-623.6531	98.7887	-261.8733
19	683.1819	-38.8219	118.7723	-573.0719	59.0695	-174.5754
20	623.1194	-5.1342	41.7154	-588.7771	27.5830	-95.4394
21	627.3148	-43.3349	-40.3384	-490.7514	45.5316	42.4411
22	529.6933	-20.3462	-103.8329	-428.1480	47.3477	29.4196
23	517.0304	22.6835	-208.4736	-565.6784	-16.9525	191.8534
24	636.8249	74.5435	-339.7967	-880.4560	-68.6555	288.5654
25	974.9976	133.0405	-466.0622	-1330.5574	-102.5933	383.6861
26	1455.7090	184.9062	-452.0058	-1962.0087	-153.9215	368.8926
27	1961.9314	153.9447	-369.3471	-2371.3298	-120.2812	277.8964
28	2371.3953	120.2520	-277.3304	-2680.6765	-86.4928	185.7194
29	2680.6428	86.4787	-186.3507	-2888.8467	-52.6294	94.5546
30	2888.8901	52.6044	-93.8654	-2995.4365	-18.6822	1.8159
31	2995.4272	18.6731	-1.8463	-2999.7654	15.3049	-90.2060
32	2999.7634	-15.3102	89.4963	-2901.6072	49.3168	-181.7025
33	2901.6045	-49.2933	181.6857	-2700.9221	83.3406	-274.2319
34	2700.8530	-83.3518	274.8890	-2397.4092	117.4162	-367.4915
35	2397.5503	-117.4235	366.6326	-1991.4836	151.4770	-459.3509
36	1991.3104	-151.4824	460.1041	-1483.0376	185.5293	-552.9837
37	1521.8093	-142.5862	502.6705	-1040.5923	176.6017	-595.4733
38	1124.8295	-121.9572	435.8597	-763.7640	97.0359	-390.3368
39	885.6117	-24.6432	199.9731	-771.1989	51.6403	-274.3812
40	871.8482	17.7669	95.7065	-884.6497	13.7879	-166.5991
41	956.7341	-45.6380	-32.4626	-806.1518	50.1912	36.0090
42	849.0549	-25.1009	-97.4540	-733.2693	52.0977	23.0521
43	838.0454	17.5373	-201.8345	-850.1543	9.4644	127.4060
44	941.1520	47.5985	-275.3771	-1115.1997	-64.7207	294.1838
45	1239.0303	136.2703	-497.2478	-1597.2721	-102.9536	406.3522
46	1738.1049	175.9302	-449.2421	-2218.3120	-144.9140	366.0438
47	2218.3320	144.9183	-366.0469	-2600.8757	-111.2469	274.5741
48	2600.8953	111.2585	-274.2338	-2883.0852	-77.5028	182.6530
49	2883.0491	77.5218	-183.0545	-3064.3943	-43.6757	91.3035
50	3064.4409	43.6933	-91.2649	-3144.1677	-9.7941	-0.7746
51	3144.1794	9.8077	1.5022	-3121.7803	24.1641	-93.6953
52	3121.7544	-24.1731	93.3569	-2996.8916	58.1703	-185.6327
53	2996.8940	-58.2029	185.9266	-2769.2266	92.2467	-278.4227
54	2769.2192	-92.2199	278.1322	-2439.2202	126.2397	-370.7700

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	2439.0850	-126.2350	371.3318	-2006.6987	160.2647	-464.0914
56	2006.7490	-160.2533	463.8195	-1472.0649	194.2781	-556.6497
57	1536.0580	-130.3723	513.9572	-1091.5717	164.3622	-606.7966
58	1179.6771	-108.8605	446.5157	-870.3226	82.2390	-401.0085
59	995.6737	-9.3719	210.6282	-927.0625	36.3707	-285.0493
60	1029.5806	33.2128	106.3028	-1088.7196	-0.3403	-176.4922
61	1161.2164	-48.6973	-31.4750	-997.5240	54.5672	35.7022
62	1040.7401	-29.4766	-96.6979	-911.7891	56.4796	22.2529
63	1017.7877	13.1156	-201.1663	-1016.6492	13.8786	126.7675
64	1109.4850	59.0545	-317.5077	-1304.1974	-76.5707	336.3431
65	1382.4948	132.1534	-496.3009	-1728.4725	-98.8334	405.4456
66	1871.9625	171.7706	-450.0106	-2339.7939	-140.7594	366.8481
67	2339.9194	140.7784	-365.9682	-2710.0715	-107.1150	274.4589
68	2710.0696	107.1226	-274.4373	-2979.9404	-73.3534	182.8324
69	2979.9561	73.3149	-182.8266	-3148.6311	-39.4709	91.0422
70	3148.6094	39.4727	-91.0406	-3215.6301	-5.5577	-0.9985
71	3215.6511	5.5349	1.7658	-3180.4395	28.4361	-94.0234
72	3180.4126	-28.4234	94.4634	-3042.7856	62.4164	-186.7486
73	3042.7812	-62.4015	186.3470	-2802.5637	96.4258	-278.8115
74	2802.4861	-96.4350	279.1782	-2459.7444	130.4623	-371.8860
75	2459.6917	-130.4622	372.4604	-2014.5399	164.4973	-465.2485
76	2014.5460	-164.4731	465.2515	-1467.3528	198.4879	-558.0622
77	1539.0167	-128.1804	514.4187	-1101.0717	162.1715	-607.2296
78	1189.4197	-106.6038	446.7453	-887.5186	79.8781	-401.1234
79	1013.0289	-6.9625	210.9922	-951.6526	33.9594	-285.4033
80	1054.4038	35.6429	106.1425	-1120.8359	-2.8137	-176.3137
81	1193.3124	-49.4355	-31.3249	-1027.5487	55.2592	35.5732
82	1070.7574	-30.1762	-96.8479	-939.7469	57.1731	22.4280
83	1045.7950	12.4308	-201.3564	-1042.5896	14.5704	126.9239
84	1135.6409	58.3665	-317.7142	-1327.4161	-75.9105	336.6538
85	1405.7759	131.4813	-497.1519	-1749.7094	-98.1682	406.2690
86	1893.6414	171.1038	-450.1824	-2359.5559	-140.0814	366.9867
87	2359.5984	140.0658	-366.6456	-2727.5457	-106.3828	275.1160
88	2727.6001	106.3957	-274.4445	-2995.3716	-72.6413	182.8459
89	2995.2964	72.6338	-183.5642	-3161.9446	-38.7832	91.7400
90	3161.9404	38.8148	-90.5546	-3227.0322	-4.9239	-1.5854
91	3227.0640	4.8995	2.3932	-3189.9480	29.0719	-94.5497
92	3189.9617	-29.0681	94.1100	-3050.2998	63.0777	-186.4077
93	3050.2581	-63.0912	186.8232	-2808.0005	97.1136	-279.3664
94	2807.9810	-97.1281	279.7918	-2463.2668	131.1604	-372.4632
95	2463.2705	-131.1912	372.6985	-2015.8701	165.2322	-465.4837
96	2015.8455	-165.1912	465.7775	-1466.6038	199.1914	-558.6409
97	1540.3226	-127.0204	515.1619	-1105.8171	161.0162	-608.0113
98	1194.2467	-105.4358	447.3545	-895.9989	78.6905	-401.5565
99	1021.6692	-5.7591	211.0835	-963.8729	32.7640	-285.5151
100	1066.7123	36.8393	106.1671	-1136.7233	-3.9861	-176.3207
101	1209.2720	-49.7450	-31.1348	-1042.4442	55.6049	35.3860
102	1085.6638	-30.5207	-96.9474	-953.6172	57.5186	22.5418
103	1059.6749	12.0871	-201.5739	-1055.4312	14.9149	127.1185
104	1148.6360	58.0086	-317.5317	-1339.2483	-75.5567	336.5313
105	1417.5795	131.1187	-497.3833	-1760.4578	-97.7996	406.5093
106	1904.4108	170.7324	-450.8386	-2369.0552	-139.7217	367.6466
107	2369.1895	139.7396	-366.7346	-2736.1675	-106.0708	275.2015
108	2736.1975	106.0448	-274.9158	-3002.9187	-72.2703	183.2280
109	3002.9866	72.2864	-182.7902	-3168.6069	-38.4451	90.9781
110	3168.5923	38.4416	-90.9895	-3232.4863	-4.5337	-1.0882
111	3232.4795	4.5627	2.3234	-3194.3401	29.4004	-94.5675

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	3194.3428	-29.4522	94.5425	-3053.5623	63.4583	-186.8139
113	3053.5791	-63.4748	186.8140	-2810.1787	97.4942	-279.4142
114	2810.0381	-97.4507	280.7452	-2464.1292	131.4822	-373.4784
115	2464.1611	-131.4411	373.2321	-2016.1727	165.4689	-466.0168
116	2015.9690	-165.4329	466.9977	-1465.8716	199.4460	-559.8782
117	1540.5508	-126.7802	515.1023	-1106.8481	160.7691	-607.9015
118	1195.0264	-105.2060	447.6374	-897.3502	78.4825	-401.7147
119	1023.1143	-5.5761	210.6752	-965.9012	32.5718	-285.1057
120	1068.5345	37.0338	106.5159	-1139.1348	-4.1885	-176.6917
121	1211.7524	-49.8145	-31.4791	-1044.7428	55.6632	35.7304
122	1087.9572	-30.5781	-96.8661	-955.7440	57.5742	22.4385
123	1061.7574	12.0430	-201.5326	-1057.3901	14.9586	127.0893
124	1150.4894	57.9931	-317.8507	-1341.1165	-75.5427	336.9092
125	1419.5780	131.1376	-497.7532	-1762.5234	-97.8244	406.8928
126	1906.7474	170.7568	-451.4770	-2371.4526	-139.7352	368.3089
127	2371.5801	139.6940	-367.3951	-2738.3972	-106.0196	275.8435
128	2738.4397	106.0022	-275.1912	-3004.9736	-72.2357	183.4566
129	3005.0605	72.2093	-182.7284	-3170.4678	-38.3546	90.8703
130	3170.4631	38.3361	-90.8778	-3234.0757	-4.4363	-1.1134
131	3234.0161	4.4594	1.5137	-3195.5513	29.5112	-93.7376
132	3195.5388	-29.5448	94.5147	-3054.5005	63.5422	-187.0124
133	3054.4263	-63.5312	188.1403	-2810.8496	97.5573	-280.7914
134	2810.7742	-97.5612	281.4674	-2464.6042	131.5964	-374.1583
135	2464.6106	-131.5953	374.1938	-2016.0435	165.6261	-466.9340
136	2015.9786	-165.5723	467.2104	-1465.5647	199.5825	-560.1031
137	1540.0549	-126.7332	516.1093	-1106.3818	160.7274	-608.9800
138	1194.9818	-105.1440	447.8869	-897.7224	78.3976	-401.7477
139	1023.5646	-5.4681	210.7583	-966.6726	32.4640	-285.2003
140	1069.4163	37.1429	106.5264	-1140.3394	-4.2897	-176.6838
141	1212.9604	-49.8170	-31.6548	-1045.9412	55.6727	35.8955
142	1089.1741	-30.5863	-96.5259	-956.9043	57.5887	22.0577
143	1062.9670	12.0124	-201.3286	-1058.5132	14.9824	126.9184
144	1151.4941	57.9430	-318.0867	-1341.8416	-75.4866	337.2017
145	1420.2886	131.0614	-497.6725	-1762.9983	-97.7468	406.7973
146	1906.7865	170.6571	-452.3116	-2371.2776	-139.6417	369.1602
147	2371.4250	139.6523	-368.2330	-2738.1985	-105.9778	276.6271
148	2738.2751	105.9554	-275.5684	-3004.6577	-72.1945	183.8128
149	3004.7314	72.1848	-183.0952	-3170.0640	-38.3393	91.2551
150	3170.0020	38.3344	-91.2393	-3233.6060	-4.4207	-0.8477
151	3233.6384	4.3991	2.0601	-3195.0151	29.5521	-94.2743
152	3195.0056	-29.5368	94.2690	-3053.9539	63.5379	-186.7446
153	3053.8774	-63.5382	188.5980	-2810.2446	97.5627	-281.2534
154	2810.2773	-97.5257	281.2329	-2464.2222	131.5645	-373.8966
155	2464.1565	-131.5758	374.5011	-2015.5527	165.6123	-467.3077
156	2015.5266	-165.5936	467.6055	-1464.9911	199.6069	-560.5242
157	1539.4512	-126.7117	516.4814	-1105.9244	160.7020	-609.3711
158	1194.4323	-105.1323	448.1224	-897.1244	78.3882	-401.8363
159	1022.7834	-5.4669	210.8113	-965.8713	32.4700	-285.2499
160	1068.6301	37.1303	105.9390	-1139.5117	-4.2804	-176.1211
161	1212.0496	-49.7423	-31.4635	-1045.2283	55.5965	35.6792
162	1088.4314	-30.5113	-96.8444	-956.4156	57.5078	22.4158
163	1062.4296	12.1025	-201.6632	-1058.2339	14.8998	127.2099
164	1151.3634	58.0448	-318.0775	-1341.9792	-75.6031	337.2894
165	1420.2507	131.1871	-498.6175	-1763.3606	-97.8639	407.6667
166	1907.4104	170.6255	-451.5231	-2371.7764	-139.6111	368.3393
167	2371.7686	139.5857	-368.3425	-2738.3022	-105.9090	276.9345
168	2738.2966	105.8742	-276.9329	-3004.4724	-72.1086	185.1482

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	3004.5981	72.1081	-183.2831	-3169.7043	-38.2719	91.2770
170	3169.7563	38.2915	-90.8430	-3233.1985	-4.3854	-1.2842
171	3233.1750	4.3651	2.7950	-3194.4099	29.6063	-95.0768
172	3194.3750	-29.5858	95.0523	-3053.1641	63.5913	-187.3935
173	3053.1406	-63.6231	187.8555	-2809.2812	97.6462	-280.5303
174	2809.1021	-97.6538	282.2306	-2462.6917	131.6886	-374.9715
175	2462.7249	-131.6788	374.5863	-2013.8339	165.7162	-467.3733
176	2013.6064	-165.7327	468.4327	-1462.7312	199.7462	-561.3351
177	1537.4292	-126.7842	516.3750	-1103.5496	160.7755	-609.2146
178	1192.0095	-105.1922	448.2399	-894.7141	78.4322	-401.9292
179	1020.4689	-5.5001	210.9574	-963.4350	32.5087	-285.4137
180	1066.3215	37.0922	106.0858	-1137.0950	-4.2335	-176.2890
181	1209.6846	-49.5410	-31.3884	-1043.4983	55.3984	35.6098
182	1086.7175	-30.3141	-96.9684	-955.2876	57.3118	22.5235
183	1061.3951	12.2931	-201.2837	-1057.7747	14.7071	126.8337
184	1150.7651	58.2178	-318.1475	-1341.8534	-75.7727	337.3618
185	1420.1405	131.3512	-498.2979	-1763.7986	-98.0230	407.3882
186	1906.5371	170.2551	-452.1990	-2369.7549	-139.2467	368.9564
187	2369.9512	139.2426	-367.4678	-2735.4697	-105.5791	275.9186
188	2735.4805	105.5925	-275.9206	-3000.7764	-71.8269	184.2627
189	3000.8667	71.8722	-183.5413	-3165.2720	-38.0354	91.5784
190	3165.2908	38.0015	-90.3996	-3227.8801	-4.0887	-1.6577
191	3227.8389	4.1142	1.6333	-3188.3574	29.8448	-93.9438
192	3188.3118	-29.8701	95.8837	-3046.2886	63.8779	-188.3834
193	3046.3533	-63.9268	188.3992	-2801.5376	97.9655	-280.9029
194	2801.4863	-97.9968	281.3102	-2454.0452	132.0307	-374.0686
195	2453.8594	-132.0224	375.2187	-2003.9504	166.0527	-468.0861
196	2003.8895	-166.0494	468.3959	-1452.0244	200.0644	-561.2509
197	1526.5415	-127.1181	516.2881	-1091.7590	161.1113	-609.1461
198	1180.0715	-105.5265	448.2487	-881.6281	78.7663	-401.9048
199	1007.3705	-5.8238	210.7935	-949.3888	32.8261	-285.2208
200	1052.2310	36.7810	105.6907	-1122.0784	-3.9200	-175.9194
201	1194.6812	-48.4028	-31.2800	-1031.8719	54.2614	35.4616
202	1075.1051	-29.1790	-96.6221	-947.0873	56.1760	22.2098
203	1053.1024	13.4300	-201.7342	-1052.8961	13.5659	127.3018
204	1145.9807	59.3678	-318.0359	-1340.5712	-76.9168	337.2024
205	1418.9084	132.5017	-498.3428	-1765.9517	-99.1840	407.4215
206	1905.5853	169.5803	-451.8125	-2366.7700	-138.5740	368.6203
207	2366.8250	138.5856	-368.0365	-2730.3967	-104.9190	276.5703
208	2730.4062	104.9165	-276.5943	-2993.6821	-71.1488	184.8212
209	2993.7720	71.1022	-183.0154	-3155.8306	-37.2451	91.0530
210	3155.8296	37.1990	-91.0733	-3215.9998	-3.2841	-0.9882
211	3215.9888	3.2658	2.1883	-3173.9546	30.7013	-94.4363
212	3173.9512	-30.6866	94.3773	-3029.5232	64.6858	-186.8508
213	3029.4211	-64.6720	188.7123	-2782.3835	98.6942	-281.3581
214	2782.3611	-98.7085	281.3813	-2432.7649	132.7545	-374.0991
215	2432.6450	-132.7770	374.9677	-1980.5979	166.8030	-467.7515
216	1980.6340	-166.8044	467.8052	-1426.4475	200.8231	-560.6922
217	1501.1125	-127.8518	516.4449	-1064.1493	161.8358	-609.3300
218	1152.8789	-106.2390	448.0126	-852.4933	79.4750	-401.6983
219	978.4636	-6.5271	210.6262	-918.3587	33.5321	-285.0821
220	1021.3154	36.0838	106.0343	-1089.0642	-3.2199	-176.2350
221	1161.6414	-45.8881	-31.5192	-1006.4166	51.7512	35.7415
222	1049.6569	-26.6680	-96.8220	-929.1564	53.6679	22.3814
223	1035.3186	15.9188	-201.6731	-1042.5692	11.0847	127.2118
224	1135.9371	61.7886	-318.0507	-1337.7795	-79.3184	337.2273
225	1416.2142	134.8384	-498.3698	-1770.2308	-101.5161	407.4436

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	1898.3113	165.4168	-451.0834	-2347.0469	-134.3925	367.9187
227	2347.0596	134.3891	-367.8988	-2698.0325	-100.7107	276.3745
228	2698.1553	100.7075	-275.3734	-2948.7859	-66.9483	183.6604
229	2948.8364	66.9646	-183.2388	-3098.4214	-33.1203	91.3346
230	3098.4624	33.0920	-90.3388	-3146.2930	0.8245	-1.8430
231	3146.3140	-0.7878	2.7749	-3092.0979	34.7434	-94.9766
232	3092.1162	-34.7002	94.9889	-2935.6455	68.6831	-187.4049
233	2935.5225	-68.6426	188.7206	-2676.5056	102.6808	-281.3849
234	2676.4443	-102.7033	281.8183	-2314.9453	136.7317	-374.5839
235	2314.7568	-136.7193	375.6017	-1850.7673	170.7567	-468.4151
236	1850.7753	-170.7828	468.2623	-1284.8177	204.8019	-561.1061
237	1362.8710	-131.7888	516.6801	-914.0915	165.7759	-609.5781
238	1005.0060	-94.2118	406.0149	-742.6856	67.4122	-359.7171
239	823.0766	-10.3428	211.0253	-751.5436	37.3440	-285.4516
240	855.7840	32.2936	106.1362	-912.1654	0.5974	-176.3425
241	985.0801	-32.4976	-22.7645	-869.9640	38.3841	26.9742
242	913.5118	-13.3246	-88.0122	-833.0067	40.3322	13.5490
243	940.4410	29.0767	-192.8891	-987.1730	-2.0758	118.4440
244	1082.5405	74.4578	-309.2133	-1322.6726	-91.7305	328.3304
245	1402.0896	146.3531	-489.1469	-1790.6609	-112.9902	398.2331
246	1880.8247	155.9719	-449.2113	-2300.8147	-124.8887	366.0000
247	2300.9971	124.9123	-364.8489	-2623.3447	-91.2122	273.3191
248	2623.3696	91.2105	-273.3284	-2845.2417	-57.4125	181.6672
249	2845.2778	57.4532	-181.2458	-2966.0420	-23.5970	89.2400
250	2966.0745	23.5632	-87.4604	-2985.0117	10.3741	-4.6935
251	2984.9907	-10.3637	4.6776	-2901.7471	44.3482	-96.8713
252	2901.7017	-44.3607	97.5645	-2715.9829	78.3770	-190.0620
253	2715.8823	-78.3518	190.9785	-2427.7910	112.3691	-283.6657
254	2427.7014	-112.3651	284.6061	-2037.2661	146.4003	-377.3295
255	2037.2128	-146.4491	377.2998	-1544.5494	180.4731	-470.0383
256	1544.4659	-180.4762	470.3457	-949.8911	214.4729	-563.2532
257	1071.3021	-132.1497	493.1427	-622.5620	166.1059	-585.9874
258	721.1965	-101.7305	407.1997	-461.5539	74.3094	-360.7965
259	562.9958	-16.7221	212.4386	-472.3102	43.7253	-286.8852
260	593.5819	26.3009	107.2915	-631.9771	6.7721	-177.5435
261	709.0835	-9.6586	6.2063	-673.6935	15.7295	-2.0409
262	700.8083	3.3551	-42.6627	-685.5801	16.8918	-13.1584
263	756.6663	37.0559	-120.1075	-817.2661	-16.8060	64.2537
264	892.6166	76.8325	-207.5833	-1042.7444	-56.5773	151.7429
265	1132.8928	130.1180	-337.6358	-1454.5818	-152.3743	355.5183
266	1456.1998	152.9898	-359.4125	-1772.8926	-128.6909	293.0887
267	1772.8156	128.6951	-293.6360	-2032.0847	-102.4394	221.2457
268	2032.1887	102.3745	-220.1794	-2234.2571	-76.3885	149.3580
269	2234.2908	76.3565	-148.6245	-2375.7515	-50.1513	77.6703
270	2375.7178	50.0634	-77.7169	-2459.5833	-23.8072	5.3718
271	2459.6030	23.8218	-5.3348	-2482.9136	2.4347	-67.1565
272	2482.8462	-2.5115	68.3972	-2447.6943	28.8943	-139.6344
273	2447.7214	-28.9049	139.5989	-2352.0439	56.6576	-216.1645
274	2352.0010	-56.7063	216.9037	-2195.5813	82.9611	-289.3571
275	2195.5742	-82.9210	289.3521	-1980.2959	107.9745	-356.5922
276	1980.2240	-107.9815	356.9567	-1705.5237	135.7301	-433.5367
277	1705.3927	-135.7574	434.0247	-1369.2196	163.5126	-510.5698
278	1369.2286	-163.5055	510.5841	-972.4853	189.7520	-582.9892
279	972.2222	-189.7381	583.4642	-515.0616	215.9868	-655.8585
280	515.1863	-215.9825	655.7663	-0.3168	239.2382	-719.8470

ENVOLVENTE MAXIMOS CORTANTES TREN IPF-B, l=30 m, via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.2468	243.6400	-708.3641	-517.9071	-218.8341	642.2752
2	496.5784	219.4693	-647.1382	-954.0801	-194.6537	580.7910
3	894.4500	196.5456	-587.8785	-1294.1857	-171.7340	521.3952
4	1201.2681	174.8967	-531.8067	-1546.1970	-148.6058	461.0269
5	1426.2062	153.0333	-473.4733	-1718.5121	-126.7878	402.3493
6	1576.9377	132.4339	-416.6068	-1820.7819	-107.7201	349.4096
7	1662.5520	114.5813	-366.6463	-1860.9988	-89.9223	299.4500
8	1691.3512	97.9650	-319.4425	-1808.5480	-72.5788	250.8581
9	1632.4138	81.7916	-273.1971	-1746.4097	-56.8299	205.3311
10	1568.6938	67.1506	-229.4667	-1647.4320	-42.7958	163.4689
11	1472.1578	54.2562	-191.2759	-1231.6025	-30.4752	99.3052
12	1063.1970	42.9842	-128.1748	-1137.1327	-22.7349	72.3683
13	979.1084	36.2840	-105.0316	-1037.9716	-16.0315	49.2224
14	893.8849	30.5585	-83.4731	-939.8530	-10.3137	27.6816
15	812.6536	25.8023	-64.8104	-847.9214	-5.5500	8.9946
16	740.1081	21.9334	-48.1221	-766.6727	-1.6768	-7.7071
17	680.2827	18.9012	-34.3391	-700.0302	1.3432	-21.4486
18	636.6507	16.6442	-23.0506	-651.3177	3.6079	-32.7528
19	611.8932	15.1095	-14.3106	-623.1132	5.1381	-41.4928
20	608.1689	14.2308	-7.4212	-40.2441	-11.8102	13.8560
21	-3708.2893	327.0099	-780.6852	2641.5383	-349.0234	809.4281
22	-2660.7593	349.4577	-814.1009	1684.9530	-317.1609	725.9219
23	-1741.1570	318.5471	-733.9717	879.0509	-286.5624	648.0482
24	-971.6211	288.9885	-659.3234	175.0295	-256.3230	570.6320
25	-302.5959	259.9472	-585.3535	-382.6038	-227.3395	498.4071
26	222.6001	232.2621	-516.5977	-846.1282	-199.3444	427.4450
27	657.3787	205.6632	-449.1894	-1170.3442	-172.6733	361.2069
28	957.9951	180.4375	-386.0660	-1420.1545	-147.3905	296.3642
29	1189.4255	156.7045	-325.1534	-1542.2754	-123.5899	236.2441
30	1299.8245	134.4747	-267.9378	-1617.2567	-101.4324	177.8031
31	1369.4885	113.9404	-213.2960	-1580.8813	-80.9390	124.4840
32	1334.7883	95.0655	-163.6874	-1052.4073	-64.9656	56.4490
33	815.0460	80.7225	-98.7608	-1016.6963	-53.7257	24.3673
34	794.7375	71.0613	-69.8814	-967.4264	-44.0598	-4.5346
35	767.1718	62.9574	-45.1283	-915.5597	-35.9520	-29.3006
36	742.8635	56.3537	-23.0232	-871.4340	-29.3528	-51.3887
37	731.2928	51.1856	-5.0294	-844.3402	-24.1890	-69.3772
38	740.7366	47.3585	9.9740	-842.3159	-20.3572	-84.3866
39	778.0625	44.7662	21.0684	-871.8533	-17.7691	-95.4757
40	848.5618	43.2884	29.4020	-299.8551	-27.6324	-47.0353
41	-4245.9775	337.7670	-758.1960	3143.2908	-360.4387	798.9197
42	-3163.6245	360.9000	-803.2044	2152.6838	-328.5822	715.0432
43	-2211.4434	330.0298	-723.7061	1313.7484	-298.0171	637.8239
44	-1410.2131	300.5557	-649.1254	578.7078	-267.8846	560.4507
45	-710.9995	271.6362	-574.9816	-9.0694	-239.0259	488.0331
46	-155.6651	244.0909	-506.2855	-503.1796	-211.1822	417.0489
47	309.7314	217.6652	-438.7028	-858.1225	-184.7006	350.7130
48	641.1643	192.6695	-375.7769	-1139.4594	-159.6551	286.0980
49	904.7884	169.1561	-314.7608	-1294.2363	-136.0799	225.8897
50	1048.2361	147.1610	-257.8718	-1403.3418	-114.1439	167.7345
51	1152.8120	126.8225	-202.9805	-1402.2419	-93.8761	114.0617
52	1153.9645	108.1679	-153.1379	-892.7963	-79.7479	45.7827
53	653.9083	95.6398	-88.0641	-900.3861	-68.6335	13.6391
54	677.3285	86.1193	-59.6020	-895.1388	-59.1227	-14.7921

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	694.4381	78.1309	-34.2595	-888.3285	-51.1327	-40.1433
56	715.5009	71.6325	-12.7637	-889.9240	-44.6267	-61.6623
57	749.8642	66.5344	5.5763	-908.9618	-39.5369	-79.9843
58	805.6306	62.7667	20.3139	-953.4219	-35.7681	-94.7204
59	889.4659	60.2119	31.6108	-1029.5895	-33.2131	-106.0317
60	1006.5440	58.7582	39.9723	-485.6354	-41.2819	-56.8437
61	-4346.8271	340.3395	-756.4155	3237.6646	-362.5938	797.7539
62	-3257.6943	363.0545	-803.6866	2239.9629	-330.7324	715.6149
63	-2299.0132	332.1810	-724.0396	1395.0492	-300.1698	638.1739
64	-1491.8792	302.7210	-649.2177	653.7786	-270.0495	560.5008
65	-786.0724	273.8140	-575.6095	59.4062	-241.2063	488.7137
66	-224.8104	246.2892	-506.7384	-440.6590	-213.3830	417.5114
67	246.9586	219.8902	-439.1161	-801.9774	-186.9319	351.0948
68	584.6089	194.9029	-376.1859	-1089.6801	-161.8806	286.4816
69	854.6516	171.3690	-315.0214	-1250.6394	-138.2927	226.1198
70	1004.3364	149.3948	-258.1093	-1366.0660	-116.3784	167.9717
71	1115.2773	129.0622	-203.2023	-1371.3298	-96.1159	114.2319
72	1122.9022	110.4298	-153.0620	-867.3566	-82.1176	45.7527
73	628.2658	98.0256	-88.2957	-881.8723	-71.0230	13.8739
74	658.7552	88.5148	-59.5934	-883.7651	-61.5193	-14.7956
75	682.9949	80.5323	-34.2938	-884.0986	-53.5305	-40.1176
76	711.2423	74.0403	-12.6957	-892.8677	-47.0391	-61.7158
77	752.8322	68.9542	5.4721	-919.1977	-41.9533	-79.8873
78	815.8570	65.1898	20.2035	-970.9257	-38.1891	-94.6325
79	906.9650	62.6395	31.8893	-1054.3738	-35.6426	-106.3010
80	1031.3652	61.1904	39.7950	-516.6230	-43.7286	-56.6369
81	-4401.8071	341.4182	-757.0660	3289.1863	-363.7740	798.5245
82	-3309.3999	364.2348	-803.6047	2288.3340	-331.9182	715.5114
83	-2347.3000	333.3704	-724.1917	1439.4865	-301.3531	638.3271
84	-1536.2656	303.9060	-649.5829	694.6615	-271.2354	560.8914
85	-827.1229	274.9937	-575.7349	97.0382	-242.3935	488.8086
86	-262.2504	247.4876	-507.0038	-406.9029	-214.5675	417.7350
87	213.0212	221.0551	-439.3419	-771.4730	-188.0971	351.2986
88	554.1747	196.0680	-376.3008	-1062.8230	-163.0374	286.5895
89	827.6545	172.5562	-315.2645	-1227.1836	-139.4873	226.3210
90	980.9413	150.5839	-257.9852	-1346.2041	-117.5799	167.7673
91	1095.4407	130.2569	-203.0501	-1355.0299	-97.3129	114.1646
92	1106.5559	111.6284	-153.2710	-854.5902	-83.3132	45.9354
93	615.4046	99.2184	-88.2199	-872.5579	-72.2206	13.8261
94	649.4601	89.7045	-59.5676	-878.0222	-62.7146	-14.8146
95	677.2471	81.7336	-34.4271	-881.9722	-54.7293	-39.9935
96	709.0808	75.2453	-12.6936	-894.2915	-48.2459	-61.7107
97	754.2636	70.1569	5.6655	-924.2364	-43.1548	-80.0816
98	820.9049	66.3935	20.3418	-979.5904	-39.3926	-94.7646
99	915.6477	63.8428	31.8595	-1066.6990	-36.8379	-106.2905
100	1043.7073	62.3950	39.7852	-532.3873	-44.9053	-56.5422
101	-4410.8843	341.6374	-757.9503	3297.4849	-363.9606	799.4283
102	-3317.8931	364.4298	-803.6824	2296.2654	-332.1096	715.5357
103	-2355.2537	333.5560	-724.1756	1446.8462	-301.5358	638.3122
104	-1543.4139	304.0852	-650.2211	701.3394	-271.4115	561.5537
105	-833.8881	275.1671	-576.2627	103.1483	-242.5684	489.3413
106	-268.4278	247.6598	-507.4623	-401.0442	-214.7519	418.1865
107	207.3192	221.2477	-439.7755	-766.3140	-188.2904	351.7299
108	548.9864	196.2591	-376.7703	-1058.2947	-163.2200	286.9826
109	823.2254	172.7375	-315.4353	-1223.3358	-139.6697	226.5178
110	976.9762	150.7725	-258.5233	-1342.8304	-117.7580	168.3439
111	1092.0376	130.4529	-203.4762	-1352.1865	-97.5174	114.5198

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	1103.7729	111.8097	-153.5065	-852.2843	-83.5097	46.2525
113	613.2025	99.4098	-88.6624	-870.9229	-72.4109	14.2787
114	647.8889	89.9062	-59.6968	-877.1513	-62.8981	-14.7101
115	676.3107	81.9336	-34.8038	-881.5689	-54.9379	-39.5931
116	708.7557	75.4359	-12.7782	-894.5703	-48.4311	-61.6359
117	754.5284	70.3456	5.0743	-925.0562	-43.3464	-79.4901
118	821.7096	66.5790	20.2379	-980.9776	-39.5713	-94.6767
119	917.0389	64.0292	31.3605	-1068.6058	-37.0335	-105.7906
120	1045.5652	62.5785	40.1430	-534.6386	-45.1003	-56.8199
121	-4416.1890	341.7608	-757.1795	3302.2583	-364.0967	798.5338
122	-3322.3591	364.5658	-804.1313	2300.3391	-332.2530	716.0831
123	-2359.3269	333.7080	-724.7257	1450.5033	-301.6905	638.8817
124	-1547.1598	304.2290	-650.5404	704.4329	-271.5490	561.8524
125	-836.9391	275.3029	-576.6602	105.8127	-242.7014	489.7464
126	-271.1104	247.7802	-507.8434	-398.6709	-214.8669	418.5860
127	204.9239	221.3462	-440.1453	-764.1635	-188.3808	352.0747
128	546.8346	196.3503	-377.0508	-1056.2723	-163.3196	287.2190
129	821.2267	172.8290	-315.6278	-1221.6768	-139.7667	226.6767
130	975.2347	150.8458	-258.7004	-1341.3203	-117.8204	168.5755
131	1090.4082	130.5370	-203.9271	-1350.7775	-97.5993	114.9703
132	1102.3667	111.8928	-153.6641	-851.0847	-83.5936	46.3589
133	611.9784	99.5134	-88.4550	-870.0039	-72.5151	14.0804
134	646.9166	89.9962	-59.8182	-876.4233	-62.9935	-14.5917
135	675.5975	82.0221	-34.8452	-881.1874	-55.0202	-39.5686
136	708.3288	75.5355	-13.1695	-894.4022	-48.5391	-61.2302
137	754.3980	70.4511	5.3714	-925.2613	-43.4471	-79.7988
138	821.9430	66.6872	19.9955	-981.5216	-39.6837	-94.4252
139	917.5958	64.1375	31.3651	-1069.4879	-37.1416	-105.8057
140	1046.4686	62.6895	40.1358	-535.8039	-45.1979	-56.8500
141	-4417.2178	341.7277	-756.2057	3303.5369	-364.0578	797.6129
142	-3323.2664	364.5203	-804.8619	2301.1279	-332.1972	716.8922
143	-2360.1934	333.6479	-725.2969	1451.8262	-301.6384	639.4720
144	-1548.5316	304.1892	-650.8392	705.8991	-271.5109	562.1287
145	-838.1760	275.2737	-577.3339	107.1940	-242.6741	490.4174
146	-272.5129	247.7654	-508.4432	-397.3811	-214.8557	419.1905
147	203.6354	221.3509	-440.7156	-763.0549	-188.3902	352.5895
148	545.7682	196.3546	-377.4927	-1055.1803	-163.3263	287.6457
149	820.1943	172.8428	-316.0420	-1220.6605	-139.7728	227.0858
150	974.2494	150.8602	-259.0875	-1340.4214	-117.8451	168.9036
151	1089.6111	130.5301	-204.0339	-1349.9919	-97.5881	115.0713
152	1101.5555	111.9032	-154.0276	-850.3479	-83.6056	46.7696
153	611.3086	99.5199	-88.6205	-869.3522	-72.5167	14.2445
154	646.2373	89.9979	-60.2291	-875.7316	-62.9972	-14.1757
155	674.9169	82.0252	-35.0135	-880.5117	-55.0193	-39.4032
156	707.6218	75.5309	-13.3557	-893.6935	-48.5332	-61.0496
157	753.6544	70.4459	5.2993	-924.4830	-43.4472	-79.7102
158	821.1490	66.6812	19.8841	-980.6871	-39.6835	-94.3003
159	916.7332	64.1321	31.3300	-1068.6455	-37.1290	-105.7692
160	1045.6328	62.6840	39.5219	-534.9167	-45.1995	-56.2915
161	-4417.1016	341.7160	-757.4318	3303.3267	-364.0498	798.9494
162	-3323.4209	364.5133	-804.5483	2301.5225	-332.1961	716.5036
163	-2360.5005	333.6462	-725.1190	1451.8523	-301.6294	639.2834
164	-1548.4081	304.1684	-651.1421	706.1098	-271.4977	562.4936
165	-838.6470	275.2511	-577.1162	107.6377	-242.6444	490.1175
166	-272.6380	247.7470	-508.4986	-397.1042	-214.8333	419.2364
167	203.1834	221.3047	-440.7978	-762.3833	-188.3401	352.8276
168	544.9510	196.3108	-377.8170	-1054.2963	-163.2791	287.9273

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	819.3618	172.7912	-316.0186	-1219.6759	-139.7188	226.9280
170	973.3183	150.8036	-258.8264	-1339.2533	-117.7891	168.5982
171	1088.4943	130.4832	-203.6849	-1348.8000	-97.5524	114.7161
172	1100.2847	111.8698	-153.7445	-848.9069	-83.5594	46.5675
173	609.7344	99.4699	-88.8813	-867.6111	-72.4770	14.5216
174	644.5429	89.9528	-59.8772	-873.8904	-62.9560	-14.5052
175	673.0761	81.9863	-35.1013	-878.5494	-54.9812	-39.3259
176	705.6628	75.4934	-13.0812	-891.6057	-48.4985	-61.3091
177	751.5970	70.4128	5.0226	-922.3656	-43.4053	-79.4602
178	819.0203	66.6454	19.9272	-978.4252	-39.6540	-94.3368
179	914.5053	64.0999	31.4565	-1066.3364	-37.0913	-105.9134
180	1043.3483	62.6508	39.6460	-532.5579	-45.1536	-56.3968
181	-4412.5361	341.3670	-757.5610	3300.0525	-363.7038	799.0284
182	-3320.2815	364.1689	-804.0579	2299.3796	-331.8465	716.0127
183	-2358.0991	333.2912	-725.6528	1450.5785	-301.2801	639.8719
184	-1547.3859	303.8307	-651.0672	706.0894	-271.1605	562.3813
185	-838.4835	274.9197	-577.2592	108.3318	-242.3110	490.2956
186	-273.5716	247.4038	-508.4385	-395.0962	-214.4970	419.1188
187	201.4776	220.9962	-440.6836	-759.7735	-188.0341	352.6186
188	542.3670	196.0017	-377.6772	-1050.7750	-162.9889	287.9014
189	815.7863	172.5065	-316.2534	-1215.2375	-139.4369	227.1893
190	968.9421	150.5209	-258.9093	-1334.0148	-117.5005	168.7517
191	1083.1108	130.2011	-204.2502	-1342.5322	-97.2581	115.2156
192	1094.1215	111.5519	-153.6205	-841.7115	-83.2400	46.4770
193	602.5301	99.1376	-88.9915	-859.4648	-72.1404	14.5859
194	636.3047	89.6368	-60.4067	-864.6639	-62.6421	-13.9725
195	663.8521	81.6667	-35.0005	-868.3697	-54.6609	-39.4020
196	695.4612	75.1715	-13.4007	-880.4521	-48.1751	-61.0006
197	740.4118	70.0898	4.8650	-910.1851	-43.0904	-79.2881
198	806.8359	66.3265	19.8421	-965.3031	-39.3295	-94.2645
199	901.3715	63.7828	31.2556	-1052.2275	-36.7805	-105.6832
200	1029.2310	62.3346	39.2664	-517.5025	-44.8347	-56.0805
201	-4403.4194	340.6641	-757.8979	3292.8145	-362.9939	799.4424
202	-3312.9202	363.4596	-805.0284	2294.2192	-331.1427	716.9645
203	-2353.3662	332.5963	-724.9773	1448.0712	-300.5876	639.1272
204	-1544.5465	303.1318	-651.1544	705.0968	-270.4533	562.4714
205	-837.5890	274.2165	-577.2387	109.7159	-241.6127	490.2704
206	-274.8269	246.7078	-508.5486	-391.7489	-213.8081	419.2720
207	197.9537	220.2975	-440.8360	-754.1617	-187.3360	352.8319
208	536.7145	195.3100	-377.8507	-1043.0555	-162.2701	287.9642
209	808.1063	171.7651	-316.1034	-1205.3525	-138.6940	227.0712
210	958.9319	149.7821	-259.0977	-1321.8220	-116.7588	168.9088
211	1070.9647	129.4469	-204.0568	-1328.1281	-96.5121	115.0939
212	1079.6501	110.8225	-154.0754	-825.1459	-82.5269	46.8414
213	586.0793	98.4407	-88.7080	-840.9173	-71.4378	14.3295
214	617.7894	88.9270	-60.3124	-844.0835	-61.9303	-14.0886
215	643.2736	80.9633	-35.0115	-845.6498	-53.9673	-39.3840
216	672.8066	74.4752	-13.5001	-855.7113	-47.4768	-60.9095
217	715.6962	69.3958	5.1155	-883.3777	-42.3970	-79.5309
218	780.0792	65.6356	19.7071	-936.4842	-38.6354	-94.1284
219	872.5756	63.0881	31.1427	-1021.3567	-36.0831	-105.5994
220	998.3710	61.6407	39.6104	-484.8004	-44.1297	-56.3626
221	-4350.6479	336.6702	-756.4893	3252.4165	-358.9890	797.9695
222	-3272.4431	359.4477	-803.8904	2265.6389	-327.1234	715.8591
223	-2324.6479	328.5825	-724.4228	1431.0793	-296.5555	638.5787
224	-1527.6543	299.0949	-650.4553	700.4907	-266.4281	561.7845
225	-832.9640	270.2147	-576.5600	117.2181	-237.6028	489.5876

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-282.2351	242.6778	-507.8955	-372.3760	-209.7659	418.6403
227	178.5073	216.2760	-440.2019	-722.6730	-183.3044	352.1429
228	505.4477	191.2870	-377.0458	-999.7252	-158.2582	287.2290
229	764.8181	167.7903	-315.6445	-1150.0239	-134.7343	226.6390
230	903.9900	145.8317	-258.3916	-1255.2102	-112.8064	168.1177
231	1004.5750	125.5230	-203.3920	-1250.0024	-92.6007	114.4678
232	1001.9241	106.9329	-153.4368	-736.9748	-78.6833	46.1986
233	498.2900	94.5980	-88.2545	-741.6093	-67.5923	13.8704
234	518.8775	85.0893	-59.7109	-733.6399	-58.0951	-14.6726
235	533.2906	77.1347	-34.4056	-724.2264	-50.1303	-40.0134
236	551.7775	70.6524	-12.9923	-723.2037	-43.6590	-61.4052
237	583.6383	65.5832	5.4312	-739.8991	-38.5807	-79.8635
238	636.9811	61.8361	20.3202	-781.9891	-34.8352	-94.7434
239	718.4277	59.2927	31.5012	-855.8066	-32.2915	-105.9274
240	833.0468	57.8505	39.7241	-311.0625	-40.2354	-56.5741
241	-4237.9150	328.3163	-754.1328	3165.0120	-350.4347	795.6416
242	-3185.0388	350.9108	-801.8544	2203.3079	-318.5430	713.8018
243	-2262.5769	320.0170	-722.1573	1394.5698	-287.9296	636.3015
244	-1491.3069	290.5152	-648.1679	689.9692	-257.8102	559.4933
245	-822.4403	261.6386	-574.3790	132.3005	-228.9728	487.4088
246	-297.3722	234.1436	-505.5819	-331.3878	-201.2240	416.2885
247	138.2570	207.8239	-437.8887	-656.9603	-174.8262	349.8219
248	440.5315	182.9361	-374.8813	-909.7948	-149.9163	285.1073
249	676.2959	159.5745	-313.5328	-1037.1049	-126.5221	224.4239
250	793.1389	137.7688	-256.0907	-1120.3348	-104.7723	165.8650
251	872.3936	117.6506	-201.4145	-1095.4751	-84.7800	112.4636
252	850.7311	99.2551	-151.2867	-576.0664	-71.5819	44.2250
253	341.3214	87.6837	-86.5004	-563.8748	-60.6831	12.1221
254	345.7825	78.3671	-57.9143	-540.3647	-51.3695	-16.4776
255	345.0311	70.5912	-33.0250	-516.2805	-43.5940	-41.3812
256	349.1737	64.2835	-11.4292	-501.5252	-37.2803	-62.9921
257	367.2247	59.3628	6.7796	-504.8069	-32.3631	-81.1949
258	406.8593	55.7432	21.3493	-533.5842	-28.7432	-95.7869
259	474.1705	53.3046	32.8456	-593.5813	-26.3014	-107.2925
260	573.7493	51.9256	40.8224	-107.8192	-33.3867	-69.5744
261	-3633.1443	290.9663	-553.7777	2924.0183	-317.6115	603.0898
262	-2936.2180	317.8959	-607.6489	2246.8350	-293.6492	540.8666
263	-2282.3831	294.5375	-548.2150	1661.9698	-270.2536	481.9575
264	-1720.5699	271.7715	-491.4593	1170.3020	-246.3408	423.6225
265	-1251.4739	248.5811	-434.7877	740.0452	-223.2088	366.4006
266	-842.1497	226.2390	-380.8588	384.2754	-201.1751	313.6359
267	-506.3586	205.0470	-329.6952	75.3087	-178.7875	257.3042
268	-214.5791	183.5312	-276.2908	-166.5472	-155.7718	199.6692
269	12.4796	161.4815	-221.0320	-345.1769	-133.7186	144.4876
270	179.3148	140.4142	-168.2246	-466.4700	-114.1630	95.8864
271	292.4021	121.8899	-122.0925	124.5474	-97.2806	45.0949
272	-302.8912	106.1001	-73.8047	86.9778	-85.8600	18.0628
273	-265.5082	95.7673	-49.2814	72.8415	-75.5203	-6.4925
274	-247.0139	86.5909	-27.2097	74.9529	-66.3363	-28.5815
275	-240.0578	78.5466	-7.6329	86.1025	-58.2927	-48.1687
276	-237.1112	71.7097	9.4897	98.5688	-51.4668	-65.2568
277	-230.2722	66.1082	24.0834	104.2980	-45.8610	-79.8802
278	-211.4097	61.7228	36.2407	95.3118	-41.4694	-92.0360
279	-172.3482	58.5676	45.8840	63.3779	-38.3163	-101.6757
280	-104.6888	56.6695	53.1453	-0.0605	-36.4138	-108.9710

ENVOLVENTE MAXIMOS TORSORES TREN IPF-B, l=30 m, via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.0028	-0.0005	0.5373	-8.4271	0.2508	-2.1008
2	29.7604	-0.8851	6.9648	-46.1425	1.4674	-9.1850
3	108.2067	-2.8568	16.5543	-128.6174	3.7695	-19.4220
4	217.8748	-7.4254	29.1724	-234.9908	8.6654	-32.6612
5	354.9345	-13.0574	44.8824	-364.9316	14.6223	-49.0519
6	506.5892	-20.2417	63.9075	-504.5557	22.1269	-68.7495
7	662.7784	-28.9528	85.9891	-643.9164	31.1531	-91.4425
8	813.5389	-39.1789	111.0138	-827.2847	43.0103	-119.7190
9	1003.4268	-52.1981	141.7554	-936.4647	56.8137	-153.3347
10	1125.1443	-66.6235	178.2380	-1027.5020	70.0358	-186.2828
11	1185.2729	-82.2431	212.8769	-1049.8051	85.9361	-221.5796
12	1241.7538	-97.5170	251.6468	-1068.2660	101.4871	-261.0261
13	1200.4602	-116.0035	292.5370	-1024.3732	121.7117	-304.5091
14	1175.6353	-136.0242	339.1586	-903.1259	140.5858	-349.4377
15	1022.5652	-156.3102	386.2060	-697.7471	160.8756	-396.7106
16	813.7899	-177.0111	436.3561	-436.2135	183.0675	-451.2341
17	522.6618	-200.2933	493.1002	-90.0140	206.3399	-508.1526
18	143.5215	-224.5924	552.5010	345.6099	229.1020	-563.6556
19	-361.7903	-249.1899	610.5985	910.5307	253.6623	-621.8887
20	-836.6983	-271.6438	670.7662	1439.8088	238.3696	-602.3832
21	-1438.1440	-6.9843	116.9212	1332.0015	-30.3868	-37.8407
22	-1312.8794	29.9478	43.0647	1177.6071	-28.8327	-45.7425
23	-1121.3997	27.4559	53.7909	1008.4462	-26.6497	-55.7673
24	-915.8854	24.2161	67.0395	767.8697	-22.0662	-72.4625
25	-640.3024	18.4406	87.1908	541.2800	-17.0864	-90.6376
26	-381.2756	12.1725	108.8279	247.6784	-8.8908	-117.1804
27	-58.9969	2.5790	138.8631	-58.4344	-0.0326	-145.0299
28	270.8336	-7.7462	170.1019	-299.7260	11.5555	-180.1317
29	530.4280	-20.8721	208.6010	-581.8210	24.5273	-217.7087
30	824.2926	-35.4335	249.8123	-769.4655	39.7672	-261.3633
31	1017.2365	-52.2709	296.8339	-968.0082	56.9239	-308.4594
32	1210.9924	-71.2138	347.1483	-1043.3865	76.0106	-359.4383
33	1280.1326	-91.7844	401.7449	-1097.7444	97.2669	-414.6781
34	1324.4001	-114.4216	460.7309	-1018.2946	119.5893	-473.6165
35	1212.0784	-138.7210	522.5199	-868.9008	144.8303	-536.4067
36	1048.7310	-165.0090	589.4348	-580.4054	170.4203	-602.8882
37	713.8354	-192.4505	658.9424	-188.8592	198.9418	-673.8571
38	314.4771	-221.5144	733.5300	333.1255	227.0603	-747.4834
39	-293.4819	-252.0842	810.6564	1014.2362	258.6980	-826.4938
40	-957.1537	-283.4420	892.5686	1797.3446	248.5303	-810.0267
41	-1840.2961	-1.2459	146.5776	1702.6602	-38.7524	-50.4598
42	-1683.9656	38.4327	55.9506	1512.6821	-37.0591	-58.4717
43	-1453.6360	35.5985	66.2003	1311.6497	-34.6682	-68.0790
44	-1215.2642	32.1392	79.3898	1035.6151	-29.7612	-84.7285
45	-903.4251	26.0188	99.7119	778.4132	-24.5632	-103.1085
46	-613.5983	19.4909	121.1036	452.7753	-16.0234	-129.3785
47	-259.3018	9.5411	151.0345	117.0770	-6.8384	-157.1676
48	99.9004	-1.1177	182.2581	-150.1229	4.9887	-192.2673
49	384.3655	-14.5299	220.8194	-456.8246	18.2882	-229.8882
50	703.3919	-29.3255	261.8870	-667.5767	33.7000	-273.4091
51	918.0949	-46.3746	309.0250	-887.4319	51.0857	-320.7302
52	1135.7202	-65.3843	359.6100	-985.8909	70.2084	-371.9582
53	1224.7615	-86.1139	414.4329	-1059.4999	91.6284	-427.3264
54	1282.5653	-109.0931	473.0769	-992.5811	114.2540	-485.9999

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	1213.3647	-132.5602	535.5158	-888.7672	138.6693	-549.4757
56	1039.3164	-159.8654	602.1264	-586.3294	165.2745	-615.5262
57	750.7571	-186.4748	671.8296	-243.7940	192.9366	-686.7876
58	347.1243	-216.1604	746.4666	284.1866	221.6847	-760.3836
59	-220.2251	-246.1253	823.4954	922.7350	252.6992	-839.3125
60	-891.1488	-278.0478	905.4388	1714.8661	243.3249	-822.3497
61	-1772.8960	-2.5202	148.7834	1639.4088	-37.2600	-52.0072
62	-1619.1423	36.7910	56.7324	1452.1766	-35.4024	-59.1710
63	-1392.9860	33.9425	67.0548	1255.7021	-33.0046	-68.9648
64	-1158.9740	30.4587	80.4138	983.8639	-28.0674	-85.6982
65	-851.3793	24.3023	100.0661	731.3039	-22.8370	-103.4585
66	-566.0243	17.7414	121.9005	410.0734	-14.2629	-130.1638
67	-216.2317	7.7812	151.6138	79.0116	-5.0706	-157.7472
68	138.3402	-2.8950	182.8496	-183.3552	6.7721	-192.8511
69	418.3850	-16.2954	221.3995	-485.7241	20.0634	-230.4828
70	732.0531	-31.1511	262.4605	-690.8408	35.5377	-273.9933
71	942.9755	-48.1519	309.5971	-907.0731	52.8633	-321.3331
72	1158.3210	-67.0189	360.4175	-1003.5601	71.8458	-372.7782
73	1238.7501	-87.9284	415.0696	-1068.0891	93.4432	-427.9465
74	1295.6064	-110.7640	473.9347	-1000.5573	115.9310	-486.9078
75	1221.9451	-134.2322	536.4645	-892.3230	140.3374	-550.4398
76	1065.1876	-160.8266	603.2502	-609.4470	166.2355	-616.6652
77	749.4922	-188.1515	672.9259	-237.4979	194.6117	-687.8592
78	340.8409	-217.8450	747.5461	295.6102	223.3708	-761.4555
79	-224.2794	-247.6371	824.5051	931.2609	254.2078	-840.3614
80	-908.3260	-279.7655	906.8290	-1737.2415	244.9179	-823.6795
81	-1820.2520	-1.6385	149.1192	1683.7827	-38.2602	-52.3006
82	-1663.5618	37.7884	57.3976	1493.5713	-36.3987	-59.8420
83	-1433.8635	34.9287	67.5462	1293.5809	-33.9905	-69.4066
84	-1197.3092	31.4559	80.6716	1019.1739	-29.0619	-85.9367
85	-886.1717	25.2869	100.4967	763.1180	-23.8242	-103.8654
86	-597.2073	18.7225	121.9284	438.2758	-15.2428	-130.1765
87	-242.6320	8.6855	151.7235	102.6638	-5.9720	-157.8458
88	125.8368	-2.4184	182.8869	-172.2814	6.2928	-192.8848
89	398.3645	-15.4236	221.3903	-468.3264	19.1942	-230.4750
90	722.6006	-30.6469	262.5963	-682.8991	35.0239	-274.1977
91	937.3492	-47.5237	309.8620	-903.3605	52.2425	-321.5625
92	1147.9515	-66.7348	360.4191	-993.9691	71.5570	-372.7647
93	1237.6162	-87.2795	415.3160	-1068.9203	92.8037	-428.2732
94	1291.9861	-110.2984	474.3147	-998.4052	115.4687	-487.2640
95	1214.3116	-133.9779	536.6916	-885.3837	140.0865	-550.6611
96	1067.2747	-160.2877	603.6131	-613.2040	165.6908	-617.0758
97	756.3770	-187.5155	673.5044	-246.2329	193.9838	-688.4738
98	349.5712	-217.2185	748.2126	284.9959	222.7408	-762.1218
99	-220.9664	-247.1791	825.2332	926.7462	253.7412	-841.0804
100	-903.7830	-279.3081	907.5548	1730.9855	244.4918	-824.3184
101	-1828.3820	-1.4505	149.1522	1691.4382	-38.4192	-52.2968
102	-1671.1958	37.9548	57.7558	1500.6951	-36.5659	-60.2345
103	-1441.5659	35.1232	67.9249	1300.6848	-34.1866	-69.7259
104	-1202.8296	31.6138	80.5028	1024.2148	-29.2214	-85.7402
105	-891.6771	25.4585	100.4331	768.0973	-23.9937	-103.8109
106	-602.8149	18.8998	121.9322	443.3673	-15.4193	-130.1671
107	-222.4598	7.9854	151.5820	84.5974	-5.2723	-157.7014
108	132.9870	-2.7088	182.7642	-178.5631	6.5846	-192.7869
109	413.7297	-16.1016	221.3591	-481.6611	19.8668	-230.4636
110	728.0090	-30.9619	262.4628	-687.3372	35.3439	-274.0193
111	939.1335	-47.9629	309.7378	-903.8138	52.6878	-321.4907

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	1151.7262	-67.0335	360.4731	-996.9459	71.8606	-372.8229
113	1236.2815	-87.7641	415.2308	-1066.1387	93.2748	-428.2163
114	1314.3699	-109.7712	474.6012	-1022.1694	114.9353	-487.6023
115	1218.0117	-134.1175	536.9079	-888.8025	140.2193	-550.8944
116	1070.4559	-160.4147	604.1632	-615.9031	165.8210	-617.6496
117	754.8414	-187.7786	673.8244	-243.9996	194.2416	-688.7494
118	348.5427	-217.4296	748.6182	286.8261	222.9554	-762.5722
119	-222.8128	-247.4172	825.8031	929.1130	253.9832	-841.5605
120	-906.1957	-279.5134	907.4010	1734.1439	244.6964	-824.2062
121	-1832.8563	-1.3772	149.9574	1695.6488	-38.4942	-53.1317
122	-1675.0568	38.0278	57.9752	1504.3441	-36.6383	-60.3742
123	-1445.2263	35.1747	68.0593	1304.2065	-34.2363	-69.8776
124	-1207.4286	31.6964	80.8132	1028.5369	-29.3074	-86.0328
125	-895.8874	25.5434	100.5709	772.0439	-24.0797	-103.9320
126	-606.7226	19.0045	122.0315	446.9450	-15.5265	-130.2480
127	-247.6660	8.8549	151.6312	107.1612	-6.1414	-157.7478
128	133.1237	-2.7082	182.7634	-178.7118	6.5864	-192.8122
129	413.8375	-16.1060	221.3837	-481.7876	19.8723	-230.5127
130	728.2177	-30.9675	262.5371	-687.5306	35.3494	-274.0467
131	938.4958	-48.0448	309.5935	-902.9524	52.7698	-321.3114
132	1152.5675	-67.0290	360.4478	-997.7532	71.8549	-372.9409
133	1252.9026	-87.0849	415.7549	-1084.8206	92.5953	-428.8041
134	1326.3335	-110.9937	475.0343	-1030.5070	116.1663	-488.0136
135	1231.3405	-135.1962	537.4681	-898.8038	141.2990	-551.4194
136	1072.3325	-162.0174	604.4129	-613.0522	167.4239	-617.8969
137	754.2462	-189.0619	674.5182	-239.3973	195.5243	-689.5151
138	342.7219	-218.7617	749.3134	296.5316	224.2864	-763.2200
139	-227.6497	-248.0406	826.3892	935.8538	254.6090	-842.1378
140	-907.0729	-279.5721	907.9996	1735.2048	244.7446	-824.8512
141	-1834.4661	-1.3171	150.9967	1697.0397	-38.5612	-54.1147
142	-1654.8608	35.9772	58.2172	1490.2622	-34.5881	-60.5239
143	-1430.7478	33.1331	68.3391	1295.8660	-32.1962	-70.1842
144	-1199.0923	29.6401	81.2787	1026.3812	-27.2454	-86.4584
145	-893.5072	23.2557	100.5700	776.5594	-21.7904	-103.9125
146	-611.3680	16.6938	122.1189	458.5232	-13.2133	-130.3273
147	-261.4020	6.8769	151.6682	126.8460	-4.1630	-157.7827
148	118.8386	-4.5173	182.7432	-158.9984	8.3903	-192.7991
149	402.0005	-17.2518	221.3639	-466.4768	21.0209	-230.4835
150	716.0710	-31.8745	262.4816	-672.6721	36.2603	-274.0455
151	939.1540	-48.0964	309.7563	-903.4432	52.8179	-321.4860
152	1151.8879	-67.1216	360.4468	-996.8140	71.9425	-372.9243
153	1260.6082	-89.4389	415.9740	-1085.4351	94.9439	-429.0254
154	1308.5707	-112.4159	475.0094	-1008.5012	117.5943	-487.9675
155	1231.6387	-135.9145	537.6405	-896.8932	142.0131	-551.6339
156	1072.2382	-162.6946	604.6606	-610.8742	168.1041	-618.1651
157	752.6295	-189.7143	674.9104	-235.9231	196.1771	-689.9390
158	339.2539	-219.4100	749.7603	301.8254	224.9362	-763.6741
159	-235.8158	-249.0913	826.8388	947.3685	255.6636	-842.6366
160	-920.7778	-280.8871	908.9301	1752.8162	246.0665	-825.6665
161	-1823.8801	-2.1548	150.6547	1689.0446	-37.7207	-53.7153
162	-1662.8571	36.6698	58.5515	1496.2075	-35.2831	-60.9220
163	-1434.5941	33.5057	68.5915	1298.5673	-32.5677	-70.3759
164	-1199.8821	29.7145	81.1078	1026.9498	-27.3247	-86.2937
165	-894.4010	23.5586	100.9206	776.5022	-22.0949	-104.2491
166	-608.2273	17.2470	121.8561	453.7240	-13.7671	-130.0716
167	-259.8099	7.2749	151.6413	124.0326	-4.5610	-157.7032
168	93.3931	-3.4147	182.6794	-136.8706	7.2905	-192.7186

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	414.4999	-15.9976	221.2499	-482.7409	19.7632	-230.4331
170	729.9756	-30.8991	262.4998	-689.5378	35.2815	-274.1053
171	941.3423	-47.9476	309.9162	-906.0248	52.6700	-321.6912
172	1154.5454	-66.9786	360.7066	-999.9095	71.8013	-373.1032
173	1254.6976	-88.8640	415.7100	-1081.2582	94.3817	-428.7772
174	1331.6222	-111.9391	475.3755	-1033.0125	117.1116	-488.4165
175	1232.5071	-136.1767	537.7193	-896.9709	142.2833	-551.6981
176	1072.0116	-162.7332	605.0798	-610.6015	168.1427	-618.6016
177	750.5374	-190.0394	675.0269	-232.6948	196.5030	-689.9950
178	336.8452	-219.5028	749.8919	304.3736	225.0224	-763.8125
179	-238.1657	-249.1583	826.9494	950.0441	255.7261	-842.7446
180	-923.8707	-280.9550	909.0504	1756.2257	246.1297	-825.7476
181	-1826.3596	-1.9619	150.5012	1690.8829	-37.9182	-53.5673
182	-1670.6647	37.4543	58.6556	1501.6482	-36.0656	-60.9902
183	-1433.6241	33.4751	68.1011	1297.6931	-32.5372	-69.8841
184	-1200.8989	29.9870	81.1037	1027.1611	-27.5932	-86.3208
185	-894.3858	23.8127	100.7081	775.7267	-22.3476	-104.0420
186	-610.4242	17.2669	122.0102	455.8880	-13.7861	-130.2219
187	-228.2055	6.7737	151.4776	93.9629	-4.0601	-157.5994
188	123.4173	-3.9216	182.6506	-165.3767	7.7975	-192.6651
189	416.1610	-15.8552	221.1974	-484.8240	19.6207	-230.3605
190	732.3029	-30.7680	262.5113	-692.2438	35.1497	-274.0732
191	943.1316	-47.8389	309.5653	-908.1870	52.5506	-321.3320
192	1185.6833	-68.9802	360.8400	-1025.0361	73.8093	-373.3608
193	1264.2502	-89.7306	415.8860	-1088.2086	95.2527	-428.8340
194	1311.3245	-112.7478	474.9389	-1010.2956	117.9243	-487.9687
195	1226.9421	-136.6927	537.8737	-889.8608	142.7949	-551.9354
196	1062.6870	-163.3100	605.0143	-599.5458	168.7200	-618.4948
197	740.0038	-190.6203	675.0067	-220.5512	197.0843	-689.9927
198	324.7301	-220.0680	749.9063	318.3487	225.5964	-763.8423
199	-254.5938	-250.0518	827.0342	968.9529	256.6180	-842.8494
200	-945.9657	-282.1690	909.2640	1782.0693	247.3377	-825.9364
201	-1830.9877	-1.6215	150.4494	1694.5085	-38.2619	-53.4369
202	-1670.6187	37.4433	58.2777	1501.6384	-36.0538	-60.6919
203	-1443.5409	34.7543	68.6878	1303.7889	-33.8157	-70.4912
204	-1204.9244	30.9017	81.0835	1028.4192	-28.5072	-86.2516
205	-895.6954	24.7357	100.7621	774.2827	-23.2710	-104.0978
206	-607.8838	18.3070	121.8816	450.1947	-14.8279	-130.1015
207	-251.1962	8.2114	151.5448	112.6095	-5.4988	-157.6332
208	104.5888	-2.4603	182.6365	-150.9235	6.3381	-192.6808
209	416.9645	-15.9001	221.2543	-485.5313	19.6720	-230.4285
210	731.9570	-30.7582	262.4457	-691.9357	35.1374	-273.9956
211	943.0269	-47.8550	309.7192	-908.0263	52.5802	-321.4725
212	1156.4985	-66.8951	360.4207	-1002.1254	71.7137	-372.8938
213	1261.2812	-89.4904	415.9601	-1085.9313	95.0057	-429.0210
214	1310.9341	-112.7380	475.0188	-1009.8843	117.9099	-488.0004
215	1210.5425	-136.9542	537.8022	-872.7378	143.0733	-551.8156
216	1045.5974	-163.5852	604.7457	-581.5716	168.9947	-618.2236
217	721.2068	-190.9141	674.9403	-200.8754	197.3748	-689.9638
218	304.1692	-220.6223	749.7826	340.5878	226.1468	-763.6911
219	-275.1235	-250.3636	826.8441	990.5485	256.9325	-842.6000
220	-957.9959	-281.5164	908.6631	1792.1014	246.6757	-825.4305
221	-1839.1875	-1.0292	150.9164	1700.8840	-38.8629	-54.0136
222	-1680.6593	38.4003	58.6909	1508.7615	-37.0101	-61.0441
223	-1449.5092	35.5592	68.7281	1307.3125	-34.6217	-70.5049
224	-1209.9764	32.0571	81.1938	1030.0082	-29.6572	-86.3692
225	-897.1434	25.8693	100.8655	772.3518	-24.4026	-104.1929

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-606.2689	19.2901	121.9186	445.6361	-15.8041	-130.1339
227	-251.7616	9.3069	151.6830	109.9513	-6.5875	-157.7664
228	134.5790	-2.4583	182.7174	-180.8598	6.3404	-192.7549
229	415.7790	-15.8678	221.2779	-484.3482	19.6397	-230.4154
230	731.2310	-30.7968	262.5139	-690.9744	35.1847	-274.1262
231	941.8879	-47.9093	309.8257	-906.6216	52.6342	-321.5511
232	1154.7190	-66.9372	360.5240	-1000.1602	71.7567	-372.9754
233	1255.5913	-89.2419	415.8581	-1080.8147	94.7577	-428.9057
234	1305.3953	-112.5142	475.0512	-1005.0018	117.6877	-488.0829
235	1206.5461	-137.0188	537.9733	-868.3398	143.1293	-551.9983
236	1040.8254	-163.6672	604.8687	-576.5717	169.0846	-618.3210
237	715.8383	-191.0202	674.9434	-195.0013	197.4873	-689.9558
238	298.9271	-220.4418	749.8683	345.3228	225.9670	-763.8101
239	-281.7694	-250.4221	827.0520	997.1353	256.9878	-842.8433
240	-968.7074	-281.9726	909.0446	1804.2146	247.0481	-825.7776
241	-1847.0649	-0.4834	150.9033	1706.8418	-39.4835	-53.9337
242	-1686.5121	39.0131	58.4632	1512.6075	-37.5984	-60.8218
243	-1453.1976	36.1223	68.6462	1309.2579	-35.1701	-70.4456
244	-1211.5956	32.5615	81.1578	1030.0826	-30.1262	-86.3344
245	-897.3388	26.3005	100.7497	771.2812	-24.8098	-104.0959
246	-606.0771	19.6291	122.0784	444.7224	-16.0896	-130.2987
247	-220.6577	8.3872	151.6433	82.0925	-5.6050	-157.7563
248	134.3620	-2.4870	182.8130	-180.2119	6.4007	-192.8184
249	413.9314	-16.0730	221.3366	-480.8891	19.9148	-230.5160
250	726.0507	-31.2279	262.7658	-683.9393	35.6532	-274.3805
251	931.8431	-48.5131	309.9135	-893.3239	53.3106	-321.6427
252	1150.1372	-68.7231	360.8354	-989.3339	73.5769	-373.3303
253	1234.0503	-90.6659	416.1685	-1053.3250	96.2564	-429.2593
254	1273.0596	-114.1720	475.6903	-966.7981	119.3763	-488.7079
255	1162.1012	-138.6239	538.2054	-817.6021	144.7927	-552.1836
256	984.5829	-165.4755	605.2784	-514.0562	170.9073	-618.7712
257	648.1023	-192.9889	675.3854	-120.6012	199.4733	-690.3766
258	218.5391	-222.8564	750.2112	433.1070	228.3900	-764.1038
259	-367.2978	-252.0597	827.1379	1087.0061	258.6078	-842.9503
260	-1067.1796	-284.2327	909.4211	1908.4626	248.6707	-827.5396
261	-1953.7336	2.2891	163.0173	1834.2882	-42.8352	-67.6335
262	-1822.0775	42.5470	72.0883	1698.8164	-41.8692	-73.3177
263	-1662.6323	40.9850	79.4287	1537.7014	-40.1289	-81.1642
264	-1478.7516	38.5711	89.5857	1354.4998	-37.5316	-92.0213
265	-1273.4590	35.2822	103.5200	1104.0228	-32.6224	-110.2805
266	-1000.2896	29.5704	123.3947	881.9810	-27.9313	-127.7268
267	-760.9468	24.1053	144.2766	652.3868	-22.2542	-149.2526
268	-507.1491	17.3149	167.6333	412.1758	-15.2439	-173.2687
269	-231.1135	8.5599	194.3828	155.0304	-6.2664	-200.6674
270	10.8261	-0.4179	224.4228	-66.5494	2.9355	-231.3184
271	240.6044	-10.6640	257.5139	-272.0794	13.4052	-265.0924
272	451.6574	-22.2727	293.9126	-512.1060	26.9073	-306.8234
273	690.6417	-36.8263	338.0388	-657.9630	41.7292	-351.6647
274	832.1208	-52.7985	385.5459	-762.0968	56.4225	-395.6063
275	927.2216	-68.6297	431.7971	-815.8504	72.4533	-442.0945
276	978.0386	-86.8797	480.9025	-818.9208	90.9228	-491.5238
277	957.1227	-106.2965	532.8938	-774.2723	111.9734	-546.4079
278	883.2185	-128.1034	590.0451	-609.7448	132.7312	-601.2746
279	687.9406	-150.1589	647.6524	-354.9267	154.9663	-659.0858
280	395.7862	-173.0540	707.5676	-0.3254	176.0543	-715.8238

ENVOLVENTE MINIMOS FLECTORES TREN IPF-B, l=30 m, via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.2486	237.5675	-715.4070	-387.2595	-162.0795	515.5476
2	-111.2097	-49.4272	-54.2840	222.4220	49.4270	54.2883
3	-222.4011	-49.4258	-54.3627	333.6349	49.4261	54.3583
4	-333.6572	-49.4340	-54.1699	444.9342	49.4355	54.1621
5	-444.9420	-49.4465	-54.0922	556.1664	49.4477	54.0933
6	-556.1391	-49.4683	-54.2888	667.4319	49.4690	54.2947
7	-667.4254	-49.4902	-54.2920	778.7851	49.4923	54.2846
8	-778.7951	-49.5034	-54.1209	890.2222	49.5045	54.1052
9	-890.2435	-49.5135	-53.9903	1001.6373	49.5128	54.0004
10	-1001.6251	-49.4979	-54.3529	1112.9915	49.4981	54.3406
11	-1113.0481	-49.5281	-53.7171	1224.4949	49.5294	53.7165
12	-1224.4667	-49.5073	-54.4139	1358.4708	63.8406	45.8066
13	-1358.4921	-63.8403	-45.0388	1504.7754	66.3386	38.1301
14	-1504.7388	-66.3033	-38.4352	1655.8898	68.3033	32.9205
15	-1655.8928	-68.3114	-32.5877	1812.1040	70.3104	27.1064
16	-1812.0774	-70.3120	-27.7138	1973.3351	72.8124	20.8471
17	-1973.3982	-73.4471	-15.7069	2141.2429	75.9478	8.7457
18	-2216.2219	-149.3648	175.9103	2554.3179	151.3641	-181.5556
19	-2613.6948	-211.3292	325.2406	3091.6436	213.3311	-330.7383
20	-3141.8691	-267.2714	462.8140	3746.2837	220.1928	-364.0213
21	-3784.6013	321.7352	-771.1630	2718.7593	-339.4741	790.4506
22	-2757.8130	314.2843	-728.7540	1854.7543	-263.0644	574.6339
23	-1943.6334	193.0404	-395.5807	1364.4835	-193.0402	395.5827
24	-1435.6337	135.4409	-247.6414	1029.2780	-135.4421	247.6420
25	-1123.8188	71.0597	-70.1392	910.6232	-71.0606	70.1389
26	-1035.7750	-11.2470	-1.8200	1069.5114	11.2470	1.7911
27	-1069.5176	-11.2635	-1.5458	1103.3083	11.2645	1.5445
28	-1103.3048	-11.2448	-1.8089	1137.0394	11.2458	1.8144
29	-1137.0520	-11.2406	-1.5319	1170.7581	11.2373	1.5273
30	-1170.7634	-11.2246	-1.8362	1204.4283	11.2225	1.8595
31	-1204.4153	-11.2139	-1.8442	1238.0531	11.2145	1.8288
32	-1238.0443	-11.2048	-1.4916	1271.6515	11.2044	1.4729
33	-1271.6592	-11.2233	-1.4637	1334.6276	21.6903	13.4126
34	-1334.6318	-21.6794	-13.7905	1417.8572	37.2823	-18.7036
35	-1417.8716	-37.2770	19.2868	1534.2168	40.2770	-27.5427
36	-1534.2123	-40.2838	26.9133	1659.5763	43.2839	-35.1795
37	-1698.1971	-86.2215	85.5554	1961.3368	89.2211	-93.8093
38	-2045.7222	-143.8651	253.2096	2481.8403	146.8654	-261.4890
39	-2603.5203	-219.2583	452.2459	3265.7229	222.2577	-460.5003
40	-3366.5645	-291.6676	638.5779	4246.1162	244.5057	-529.2985
41	-4318.0571	332.5134	-748.8270	3217.9963	-350.8291	779.9572
42	-3261.0933	325.7375	-717.9095	2399.4282	-276.3837	563.4527
43	-2504.0339	206.7529	-385.0715	1883.7408	-206.7532	385.1291
44	-1974.7365	149.6880	-237.1515	1525.6401	-149.6885	237.1051
45	-1649.5967	78.1370	-33.9766	1415.2134	-78.1377	33.9683
46	-1555.9395	5.1545	8.9872	1540.4644	-5.1559	-8.9454
47	-1540.4644	5.1557	8.9507	1524.9866	-5.1547	-8.9373
48	-1524.9696	5.1533	8.7343	1509.5087	-5.1523	-8.7377
49	-1509.4929	5.1312	8.9588	1494.1128	-5.1297	-8.9710
50	-1494.1301	5.1162	8.9499	1478.7894	-5.1142	-8.9225
51	-1478.7979	5.1067	8.5454	1463.4717	-5.1068	-8.5369
52	-1463.4502	5.1088	8.7162	1448.1124	-5.1120	-8.7191
53	-1448.1268	5.1376	8.5570	1446.4613	7.3322	4.7994
54	-1446.4445	-7.3460	-4.6296	1489.7194	22.3260	-29.0772

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	-1489.7009	-22.3312	28.6864	1561.1880	25.3309	-36.9485
56	-1561.1852	-25.3406	37.1813	1641.7190	28.3405	-45.4429
57	-1705.7865	-92.2389	88.0967	1986.9929	95.2404	-96.3440
58	-2075.1047	-150.7468	256.6303	2531.8115	153.7479	-264.8987
59	-2657.1619	-226.6129	455.2750	3341.4666	229.6121	-463.4712
60	-3444.1775	-299.1959	641.6378	4346.3501	252.4668	-531.8640
61	-4418.6006	335.0946	-747.0554	3312.1895	-352.9803	778.8160
62	-3355.2134	327.8887	-718.4017	2491.6116	-278.6555	563.8656
63	-2597.5078	209.0553	-385.1698	1970.4639	-209.0530	385.1725
64	-2063.3857	136.1231	-194.3132	1654.9669	-136.1232	194.3562
65	-1733.0533	80.5445	-34.4768	1491.4263	-80.5449	34.4800
66	-1635.0723	7.6047	9.9597	1612.2485	-7.6011	-9.9670
67	-1612.2397	7.5948	9.3657	1589.4587	-7.5922	-9.3054
68	-1589.4680	7.5897	9.2970	1566.7028	-7.5936	-9.2930
69	-1566.7080	7.6039	9.2929	1543.8879	-7.6071	-9.2927
70	-1543.8484	7.6129	9.2829	1521.0178	-7.6137	-9.2601
71	-1521.0295	7.6310	8.8555	1498.1394	-7.6298	-8.8189
72	-1498.1305	7.6260	8.5885	1475.2594	-7.6239	-8.5877
73	-1475.2457	7.6112	8.8187	1466.7653	4.7802	4.5508
74	-1466.7218	-4.7730	-4.7687	1501.5381	19.9107	-29.0130
75	-1501.5576	-19.9141	28.6140	1565.7983	22.9136	-36.8696
76	-1565.8083	-22.9281	36.8602	1639.0863	25.9282	-45.1333
77	-1710.7460	-96.2383	88.7860	2003.9685	99.2384	-97.0574
78	-2092.3110	-154.8056	257.5370	2561.2468	157.8057	-265.7127
79	-2687.0325	-230.7169	455.2394	3383.6257	233.7170	-463.4575
80	-3486.2747	-303.3210	643.0523	4400.9121	256.4933	-533.2248
81	-4473.5620	336.1736	-747.7190	3363.6987	-354.1621	779.5898
82	-3406.9072	329.0752	-718.3095	2540.3247	-279.8465	563.4978
83	-2646.1936	210.2458	-384.9614	2015.4164	-210.2442	385.0157
84	-2108.4636	137.3116	-194.2230	1696.5095	-137.3132	194.2481
85	-1774.7889	81.7345	-33.7820	1529.6349	-81.7345	33.8240
86	-1673.5393	8.8121	10.1123	1647.1084	-8.8132	-10.0723
87	-1647.1113	8.8201	9.8396	1620.6443	-8.8207	-9.7802
88	-1620.6282	8.8111	9.3675	1594.1927	-8.8070	-9.3655
89	-1594.1770	8.8082	9.7706	1567.7462	-8.8084	-9.7587
90	-1567.7275	8.7998	9.1372	1541.3467	-8.8026	-9.0725
91	-1541.3633	8.8002	8.6457	1514.9607	-8.7993	-8.6359
92	-1514.9568	8.8091	8.8681	1488.5271	-8.8092	-8.8723
93	-1488.5034	8.8142	8.6473	1475.9901	3.6341	4.7259
94	-1475.9927	-3.6347	-4.9842	1507.6370	18.7241	-28.8319
95	-1507.6484	-18.6979	28.6605	1568.2544	21.6976	-36.9042
96	-1568.2756	-21.7174	36.6577	1637.9209	24.7173	-44.8777
97	-1711.7667	-96.8955	88.3078	2006.9727	99.8955	-96.5422
98	-2095.3933	-155.4745	257.1992	2566.3391	158.4750	-265.4061
99	-2692.1807	-231.4022	455.4863	3391.0388	234.4017	-463.7249
100	-3493.7937	-304.0057	643.3303	4410.0742	257.2077	-533.4131
101	-4482.6270	336.3933	-748.6245	3371.9934	-354.3453	780.4998
102	-3415.4028	329.2658	-718.3726	2548.3459	-280.0406	563.3447
103	-2654.2390	210.4333	-384.6878	2022.8861	-210.4330	384.8183
104	-2115.8552	137.5082	-194.7317	1703.3472	-137.5089	194.8090
105	-1781.6791	81.9375	-33.9645	1535.8712	-81.9394	33.9659
106	-1679.8181	9.0127	10.3695	1652.7798	-9.0135	-10.3047
107	-1652.7781	9.0042	9.6719	1625.7944	-9.0032	-9.5968
108	-1625.7915	9.0177	9.4281	1598.7388	-9.0156	-9.3922
109	-1598.7589	9.0077	9.1516	1571.7336	-9.0063	-9.1355
110	-1571.7368	9.0110	9.1421	1544.7091	-9.0117	-9.1023
111	-1544.7095	8.9989	8.4524	1517.7224	-9.0009	-8.4169

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	-1517.7314	9.0271	8.4391	1490.6545	-9.0286	-8.4374
113	-1490.6654	9.0358	8.4348	1463.5533	-9.0342	-8.4131
114	-1463.5347	8.9958	7.6148	1508.6520	18.5513	-28.1290
115	-1508.6378	-18.5696	28.2946	1568.8462	21.5709	-36.5213
116	-1568.8511	-21.6001	35.6910	1638.1755	24.5996	-43.9408
117	-1712.7195	-97.2691	88.7760	2009.0183	100.2691	-96.9871
118	-2097.5073	-155.8285	256.8347	2569.6326	158.8284	-265.0349
119	-2695.3293	-231.7345	456.2320	3394.9355	234.7349	-464.3380
120	-3498.0752	-304.3412	641.4232	4415.5063	257.5250	-531.5089
121	-4487.9717	336.5167	-747.8833	3376.7886	-354.4855	779.6252
122	-3419.8840	329.4065	-718.8423	2552.2925	-280.1569	563.7444
123	-2658.1482	210.5435	-385.0277	2026.4890	-210.5438	385.1301
124	-2119.4495	137.5879	-194.5806	1706.5923	-137.5904	194.6577
125	-1784.9775	81.9871	-33.8332	1539.0336	-81.9889	33.8616
126	-1683.2495	9.0552	10.7315	1656.0892	-9.0585	-10.6698
127	-1656.0681	9.0873	10.0416	1628.8140	-9.0916	-9.9511
128	-1628.7963	9.1019	9.5542	1601.4906	-9.1036	-9.4954
129	-1601.5157	9.1229	9.0780	1574.1429	-9.1234	-9.0442
130	-1574.1326	9.1314	9.0513	1546.7214	-9.1293	-9.0411
131	-1546.6727	9.1221	8.8385	1519.3132	-9.1211	-8.8066
132	-1519.3214	9.1419	8.3979	1491.8945	-9.1449	-8.3524
133	-1491.8965	9.1485	7.7206	1464.4491	-9.1478	-7.6860
134	-1464.4518	9.1367	7.2754	1509.1238	18.4094	-27.8473
135	-1509.1306	-18.4094	27.8169	1568.8695	21.4111	-36.0637
136	-1568.8695	-21.4453	35.8405	1637.6964	24.4451	-44.0236
137	-1712.4504	-97.3049	87.9022	2008.9102	100.3044	-96.1029
138	-2097.5010	-155.8804	257.1926	2569.7168	158.8806	-265.4270
139	-2695.6584	-231.8121	456.1827	3395.5210	234.8119	-464.2314
140	-3498.7617	-304.4179	641.4131	4416.4580	257.6115	-531.5682
141	-4488.9731	336.4830	-746.9136	3378.0544	-354.4439	778.7172
142	-3420.7925	329.3546	-719.5691	2553.2664	-280.1344	564.3685
143	-2659.2271	210.5354	-385.3314	2027.7487	-210.5351	385.3812
144	-2120.6694	137.6115	-194.2945	1707.7472	-137.6118	194.4179
145	-1785.9116	82.0368	-34.0720	1539.8518	-82.0346	34.1475
146	-1683.6938	9.1310	11.3239	1656.3099	-9.1302	-11.2837
147	-1656.3147	9.1249	10.6407	1628.9380	-9.1238	-10.5294
148	-1628.9282	9.1373	9.8838	1601.5189	-9.1367	-9.7977
149	-1601.5491	9.1473	9.3933	1574.0984	-9.1515	-9.3648
150	-1574.0742	9.1527	9.3508	1546.6082	-9.1548	-9.3184
151	-1546.6324	9.1611	8.6870	1519.1548	-9.1626	-8.6517
152	-1519.1418	9.1621	8.6558	1491.6813	-9.1601	-8.6231
153	-1491.6963	9.1521	7.5928	1464.2522	-9.1492	-7.5545
154	-1464.2628	9.1242	7.5748	1509.0372	18.4229	-28.2358
155	-1509.0391	-18.4150	27.8154	1568.7974	21.4151	-36.0533
156	-1568.8098	-21.4306	35.8046	1637.6006	24.4307	-43.9647
157	-1712.3806	-97.3208	87.8606	2008.8512	100.3209	-96.0375
158	-2097.3577	-155.8851	257.2849	2569.4951	158.8834	-265.4961
159	-2695.3420	-231.8078	456.1396	3395.3730	234.8075	-464.3050
160	-3498.2563	-304.4114	643.2679	4415.8750	257.5988	-533.3326
161	-4488.8848	336.4730	-748.1432	3377.8596	-354.4380	780.0448
162	-3420.9441	329.3527	-719.2382	2553.5645	-280.1090	563.8466
163	-2659.4102	210.4992	-384.9757	2027.8734	-210.5006	385.1065
164	-2120.7625	137.5516	-194.5628	1708.1320	-137.5534	194.6462
165	-1786.4006	81.9608	-33.3137	1540.5144	-81.9611	33.4216
166	-1684.2942	9.2249	10.6174	1656.6361	-9.2248	-10.5026
167	-1656.6383	9.2295	10.5081	1628.9500	-9.2311	-10.5147
168	-1628.9476	9.2538	10.5068	1601.1880	-9.2568	-10.4313

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	-1601.2087	9.2642	9.3899	1573.4208	-9.2638	-9.2980
170	-1573.4489	9.2358	9.0705	1545.7393	-9.2335	-9.0137
171	-1545.7140	9.2478	8.2278	1517.9598	-9.2473	-8.1856
172	-1517.9188	9.2338	8.1970	1490.1945	-9.2355	-8.1849
173	-1490.1843	9.2668	7.9242	1462.3887	-9.2698	-7.8877
174	-1462.3750	9.2684	6.8590	1506.6840	18.2788	-27.4926
175	-1506.6544	-18.2822	27.7574	1566.0360	21.2816	-35.9812
176	-1566.0443	-21.2728	35.0848	1634.3540	24.2732	-43.2827
177	-1709.1166	-97.2242	88.2244	2005.3768	100.2257	-96.4232
178	-2094.0278	-155.8093	257.1411	2565.8350	158.8094	-265.2739
179	-2691.8235	-231.7425	455.7299	3391.7891	234.7426	-463.8730
180	-3494.7939	-304.3449	642.8430	4412.3096	257.5378	-532.9534
181	-4484.3306	336.1219	-748.2792	3374.6030	-354.0891	780.1157
182	-3417.8315	329.0053	-718.7306	2551.5134	-279.7809	563.4348
183	-2657.1750	210.1716	-385.6800	2026.6558	-210.1731	385.8206
184	-2119.6597	137.2522	-194.4957	1707.9119	-137.2516	194.5437
185	-1786.0632	81.6657	-33.6598	1541.0308	-81.6641	33.7325
186	-1683.7025	9.4433	11.1135	1655.3794	-9.4391	-10.9947
187	-1655.3663	9.4513	9.9593	1627.0200	-9.4484	-9.8616
188	-1627.0420	9.4220	9.8631	1598.7627	-9.4237	-9.8357
189	-1598.7896	9.3985	9.4292	1570.5919	-9.3990	-9.3605
190	-1570.5726	9.4255	8.7281	1542.2952	-9.4222	-8.6901
191	-1542.2699	9.3994	8.7113	1514.0637	-9.4003	-8.6673
192	-1514.0769	9.4155	7.6363	1485.8188	-9.4228	-7.5893
193	-1485.8523	9.4531	7.5768	1457.4817	-9.4577	-7.5683
194	-1457.4684	9.4933	7.3194	1501.0989	18.0556	-27.9752
195	-1501.0963	-18.0618	27.1765	1559.8018	21.0627	-35.3902
196	-1559.8096	-21.0733	35.1345	1627.5239	24.0726	-43.3518
197	-1702.1654	-97.0187	88.2567	1997.7543	100.0185	-96.4123
198	-2086.3015	-155.6031	256.9806	2557.6008	158.6034	-265.1194
199	-2683.4998	-231.5502	455.8623	3382.7195	234.5504	-464.0737
200	-3485.5642	-304.1541	643.5831	4402.5996	257.3477	-533.6608
201	-4475.1943	335.4198	-748.6222	3367.3550	-353.3809	780.5540
202	-3410.4685	328.2995	-719.7434	2546.3643	-279.0740	564.3068
203	-2652.3760	209.4729	-384.7843	2024.0439	-209.4717	384.8862
204	-2116.8362	136.5341	-194.5694	1707.1482	-136.5321	194.6922
205	-1785.4043	80.9458	-33.5793	1542.5795	-80.9446	33.6701
206	-1682.0481	10.5636	10.8245	1650.3617	-10.5625	-10.7195
207	-1650.3552	10.5512	10.3194	1618.7120	-10.5508	-10.2844
208	-1618.7332	10.5539	10.2904	1587.0713	-10.5557	-10.2147
209	-1587.0619	10.5811	9.2174	1555.3065	-10.5857	-9.1461
210	-1555.3029	10.6263	9.1593	1523.4109	-10.6286	-9.1220
211	-1523.4210	10.6384	8.5048	1491.5105	-10.6381	-8.4723
212	-1491.5118	10.6202	8.4984	1459.6584	-10.6181	-8.4615
213	-1459.6587	10.6135	7.4414	1427.8195	-10.6118	-7.4037
214	-1427.7991	10.6267	7.3892	1467.6903	16.9046	-28.0404
215	-1467.7008	-16.8916	27.4499	1522.8813	19.8910	-35.6895
216	-1522.9030	-19.8949	35.6554	1587.0972	22.8959	-43.8326
217	-1662.0848	-95.8632	87.9441	1954.1898	98.8630	-96.1202
218	-2042.9230	-154.4656	257.4356	2510.8230	157.4643	-265.6451
219	-2636.9539	-230.4150	456.3419	3332.8555	233.4151	-464.4332
220	-3436.1187	-303.0263	642.5464	4349.7559	256.2486	-532.6367
221	-4422.1826	331.4195	-747.2065	3326.7739	-349.3570	779.0623
222	-3369.8206	324.2683	-718.5697	2518.1553	-275.1052	563.1663
223	-2624.1580	205.5263	-384.2238	2007.4894	-205.5275	384.3601
224	-2100.6079	132.6425	-193.8584	1702.6798	-132.6430	193.9651
225	-1781.0306	77.1395	-32.8568	1549.6833	-77.1384	32.9672

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-1677.5479	13.2212	10.8212	1637.8828	-13.2224	-10.7384
227	-1637.8840	13.2318	10.7178	1598.1885	-13.2331	-10.6622
228	-1598.2023	13.2307	10.0639	1558.5229	-13.2304	-9.9937
229	-1558.5361	13.2232	9.7642	1518.8843	-13.2222	-9.7147
230	-1518.9010	13.2312	9.1840	1479.1837	-13.2316	-9.1219
231	-1479.1975	13.2152	8.6336	1439.5656	-13.2131	-8.6038
232	-1439.5708	13.1885	8.5957	1400.0271	-13.1830	-8.5654
233	-1400.0222	13.1547	7.8446	1360.5570	-13.1534	-7.8033
234	-1360.5518	13.1560	7.5488	1389.4774	14.2579	-28.1718
235	-1389.4697	-14.2617	27.4745	1436.7783	17.2611	-35.7150
236	-1436.7517	-17.2386	35.8547	1492.9708	20.2368	-44.0543
237	-1571.2875	-93.2597	88.3485	1855.6285	96.2591	-96.4763
238	-1946.7708	-167.8241	299.6973	2454.7717	170.8251	-307.8891
239	-2535.1648	-227.8926	456.5691	3223.3704	230.8934	-464.7663
240	-3327.7942	-300.5309	643.5156	4234.0620	254.0456	-533.6587
241	-4306.8672	322.9946	-744.8214	3237.5000	-340.6193	776.6967
242	-3280.7834	315.5641	-716.4902	2459.4158	-267.0279	561.2391
243	-2566.7688	197.6178	-382.1242	1973.9060	-197.6188	382.2359
244	-2069.0403	125.2292	-191.8149	1693.3914	-125.2336	191.9374
245	-1772.6855	70.6097	-31.1772	1560.8458	-70.6088	31.2480
246	-1650.9532	27.6259	19.7684	1568.0991	-27.6225	-19.6659
247	-1568.1094	27.6016	18.8983	1485.2941	-27.6028	-18.8203
248	-1485.3007	27.6156	18.8225	1402.4473	-27.6145	-18.8036
249	-1402.4584	27.5841	18.5943	1319.7261	-27.5810	-18.5112
250	-1319.7310	27.6039	17.6625	1236.9265	-27.6032	-17.5981
251	-1236.9330	27.6048	17.6025	1154.1176	-27.6061	-17.5854
252	-1154.1191	27.6061	17.2815	1071.2889	-27.6084	-17.2437
253	-1071.2817	27.5898	16.8323	988.5219	-27.5900	-16.7939
254	-988.5428	27.5928	16.3396	911.4252	-2.3560	-37.9840
255	-911.3982	2.3797	38.0072	908.7670	0.6201	-46.2621
256	-908.7849	-0.6103	46.0449	915.1321	3.6105	-54.2628
257	-1036.7615	-85.9344	124.3528	1299.0760	88.9341	-132.5868
258	-1397.7118	-153.3078	311.3754	1862.1624	156.3076	-319.5308
259	-1964.0625	-213.8931	467.0133	2610.3188	216.8936	-475.1641
260	-2731.5925	-286.9218	654.7596	3596.9050	241.5133	-553.8592
261	-3673.9114	287.6749	-546.4003	3020.1636	-263.0402	449.0472
262	-3047.2668	243.9570	-404.3987	2498.4639	-243.9560	404.4780
263	-2569.4009	190.0162	-271.7634	2141.8345	-190.0178	271.9098
264	-2217.0571	129.9858	-128.9752	1924.5073	-129.9845	129.0242
265	-2014.6877	56.4424	56.9575	1887.7368	-56.4388	-56.8503
266	-1889.1603	55.8237	60.5753	1763.5537	-55.8262	-60.5040
267	-1763.5490	55.8315	61.0175	1637.9230	-55.8385	-60.9842
268	-1637.9745	55.8744	60.1570	1512.2798	-55.8807	-60.0153
269	-1512.2986	55.9084	59.5244	1386.4935	-55.9198	-59.4707
270	-1386.4794	55.9694	59.5033	1260.5302	-55.9744	-59.5024
271	-1260.5464	55.9664	59.4785	1134.6331	-55.9690	-59.4083
272	-1134.6427	56.0160	58.8416	1008.6231	-56.0240	-58.7808
273	-1008.6337	56.0236	58.7970	882.6024	-56.0251	-58.7649
274	-882.6270	56.0526	58.4840	756.4954	-56.0511	-58.4559
275	-756.4821	56.0325	58.4465	630.3998	-56.0315	-58.4339
276	-630.3984	56.0302	58.3154	504.3556	-56.0329	-58.2886
277	-504.3657	56.0499	58.1401	378.2405	-56.0532	-58.1269
278	-378.2437	56.0513	58.1185	252.1221	-56.0483	-58.1042
279	-252.1517	56.0411	57.9761	126.0887	-56.0378	-57.9644
280	-126.0768	56.0350	57.9868	-0.0309	-43.0824	-47.6390

ENVOLVENTE MINIMOS CORTANTES TREN IPF-B, l=30 m, via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.0084	-29.8142	-105.2259	89.8741	50.0630	49.4202
2	-48.5985	-31.7075	-97.8878	142.7223	51.9562	42.0857
3	-65.7458	-34.8525	-88.0964	166.9729	55.1063	32.2732
4	-59.9484	-39.2521	-75.7475	171.1044	59.5104	19.9119
5	-39.5472	-44.8968	-60.9764	8.4646	66.0387	-15.4018
6	142.3714	-52.6443	-23.2097	-44.6624	74.7785	-37.4398
7	209.5534	-62.5658	1.3506	-92.2823	85.0151	-62.6110
8	266.3211	-73.9682	28.9594	-178.9619	98.0563	-93.4960
9	357.2361	-88.1438	62.2832	-186.6319	113.0038	-129.6562
10	364.7688	-104.1992	100.9488	-159.8076	127.8605	-164.8018
11	333.7377	-120.1396	138.5705	-90.2172	144.0848	-203.0923
12	255.8115	-137.3795	179.2299	30.1459	161.5986	-244.4153
13	124.0075	-155.8970	223.2546	164.6385	181.8575	-291.0419
14	-25.4291	-177.0743	272.0918	413.0568	201.8804	-338.1613
15	-291.1069	-198.0111	321.9028	732.5442	222.8288	-388.2192
16	-630.2980	-219.7998	373.9629	1126.9796	246.1129	-444.6696
17	-1045.8534	-243.8640	433.4536	1599.2860	270.1550	-504.3003
18	-1540.4510	-268.6155	495.6900	2151.4272	293.3774	-562.6623
19	-2115.5344	-292.4941	556.7933	2784.4868	317.2142	-623.8880
20	-2772.4355	-316.9370	618.3721	3500.2461	303.9148	-605.8056
21	238.3826	-46.4177	-18.9672	-509.8632	45.9705	37.3856
22	529.6903	-20.3462	-103.8329	-428.1460	47.3477	29.4196
23	487.5146	-22.7838	-92.5612	-378.6564	49.7853	18.1446
24	476.5819	-26.4020	-77.8306	-356.8715	53.4037	3.4144
25	491.1232	-31.3202	-59.6435	-356.6611	58.3216	-14.7754
26	523.7352	-37.6313	-37.9919	-370.3323	64.6329	-36.4263
27	565.6323	-45.4184	-13.0525	-581.6686	73.7388	-103.1280
28	799.7509	-56.0470	57.4001	-643.2298	86.8578	-141.8437
29	877.9698	-70.7632	99.2581	-739.2217	101.4154	-182.7702
30	983.9776	-86.9233	143.9618	-734.1736	118.2585	-229.9318
31	982.1194	-105.3868	194.4476	-733.0313	137.0413	-280.4846
32	977.1857	-125.7835	248.2878	-605.4059	157.5775	-334.9868
33	838.8843	-147.9244	306.3432	-447.6096	180.4040	-393.6791
34	663.9553	-172.2990	368.5916	-143.6909	204.4682	-455.8921
35	337.2596	-197.8670	434.2209	223.8957	230.9811	-522.5295
36	-58.9429	-225.8216	504.1018	750.2288	258.2344	-591.9713
37	-617.4669	-254.4018	577.4489	1368.7689	287.8901	-666.7655
38	-1271.9352	-285.2967	655.0393	2151.3977	317.8440	-743.4094
39	-2091.8843	-316.3690	735.9063	3045.9600	349.9799	-826.1468
40	-3025.8337	-349.5086	820.2218	4104.7456	341.5984	-812.0961
41	441.0488	-53.4960	1.5140	-772.4935	51.9612	35.7683
42	795.2491	-26.4083	-102.3153	-675.5428	53.4054	27.9139
43	739.1357	-28.9442	-90.8308	-611.7908	55.9457	16.4118
44	714.7079	-32.6977	-76.0703	-576.1032	59.6992	1.6554
45	715.6725	-37.7747	-58.0672	-561.8728	64.7719	-16.3349
46	734.2850	-44.2503	-36.2606	-561.0241	71.2521	-38.1579
47	761.4082	-52.2094	-11.1560	-744.5094	80.0563	-106.3832
48	967.1519	-62.5604	60.6683	-792.6065	93.4251	-145.0710
49	1031.3711	-77.5049	102.5518	-874.3868	108.2647	-186.0333
50	1122.5286	-93.9427	147.0665	-852.3577	125.3187	-233.0066
51	1102.9490	-112.5996	197.7053	-833.0503	144.3167	-283.8417
52	1079.1440	-133.2166	251.7556	-685.3921	165.0345	-338.4949
53	920.3320	-155.5192	309.9783	-506.2828	188.0397	-397.3041
54	723.5588	-180.0474	372.1487	-180.2792	212.2020	-459.4656

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	373.9634	-205.6994	437.7981	210.5325	238.8067	-526.1630
56	-45.1780	-233.7132	508.0319	760.2771	266.1284	-595.8620
57	-627.8272	-262.3482	580.9571	1402.8868	295.8082	-670.3233
58	-1306.1058	-293.2597	659.0349	2209.1860	325.7820	-747.3608
59	-2150.0132	-324.3260	739.2715	3127.6055	357.8981	-829.4981
60	-3107.5645	-357.4335	823.5583	4209.9688	349.7133	-814.8888
61	622.7519	-57.1753	2.6218	-938.3469	55.7542	35.4881
62	961.3494	-30.1995	-101.5747	-830.2316	57.2023	27.1482
63	894.1383	-32.7599	-90.1221	-755.3986	59.7550	15.7227
64	858.6911	-36.5150	-75.5604	-708.6277	63.5180	1.1404
65	848.6175	-41.5985	-57.0130	-683.3242	68.5979	-17.3988
66	856.1551	-48.0910	-35.7652	-671.3663	75.0944	-38.6542
67	872.1193	-56.0662	-10.3427	-848.0911	84.0758	-107.2186
68	1071.1526	-66.5839	61.3552	-884.6198	97.4603	-145.7690
69	1123.7091	-81.5552	103.3419	-954.7656	112.3227	-186.8368
70	1203.1890	-98.0246	147.8515	-920.8759	129.4105	-233.7954
71	1171.7214	-116.7100	198.4899	-889.6138	148.4254	-284.6501
72	1135.8662	-137.3323	252.7614	-729.7309	169.1554	-339.5278
73	964.8463	-159.6373	310.8874	-538.5144	192.1560	-398.1899
74	755.8262	-184.1856	373.1200	-200.0463	216.3488	-460.4926
75	393.8390	-209.8512	438.8529	203.1543	242.9570	-527.2422
76	-37.8756	-237.8644	509.0700	765.2325	270.2739	-596.9009
77	-632.6847	-266.5113	582.1783	1420.2653	299.9722	-671.5260
78	-1323.4576	-297.4236	660.2308	2239.1423	329.9496	-748.5526
79	-2180.2498	-328.4943	739.5153	3170.2725	362.0623	-829.7768
80	-3149.9426	-361.6005	825.1697	4264.9263	353.7580	-816.4462
81	653.3352	-57.9558	2.9192	-969.2595	56.4672	35.3232
82	992.2549	-30.9202	-101.6856	-859.0124	57.9179	27.2771
83	922.9442	-33.4632	-90.1898	-782.0459	60.4650	15.7692
84	885.3677	-37.2268	-75.5029	-733.1769	64.2290	1.0853
85	873.1840	-42.3222	-57.2221	-705.7675	69.3165	-17.1730
86	878.6561	-48.7994	-35.5789	-691.7087	75.8052	-38.8484
87	892.5118	-56.7833	-10.3838	-865.1175	84.7465	-107.1521
88	1088.2317	-67.2520	61.5030	-899.6554	98.1295	-145.9176
89	1138.7737	-82.2325	103.2294	-967.8409	113.0017	-186.7272
90	1216.1699	-98.6813	148.1090	-931.9333	130.0536	-234.1084
91	1182.7550	-117.3695	198.8821	-898.7222	149.0882	-284.9902
92	1145.1761	-137.9902	252.8610	-736.8562	169.8201	-339.6360
93	971.9044	-160.3094	311.1663	-543.6205	192.8335	-398.5348
94	760.9273	-184.8765	373.5185	-203.2194	217.0389	-460.8600
95	397.1340	-210.5490	439.2223	202.0563	243.6619	-527.6161
96	-36.8321	-238.5598	509.3948	766.1763	270.9595	-597.2588
97	-633.7578	-267.2004	582.3194	1423.4730	300.6699	-671.7052
98	-1326.6700	-298.1208	660.4535	2244.4480	330.6441	-748.7779
99	-2185.4514	-329.1886	740.0880	3177.8342	362.7563	-830.3620
100	-3157.5388	-362.2947	825.6536	4274.1260	354.4717	-816.8107
101	669.1160	-58.2661	3.1711	-1062.6710	56.0689	30.2994
102	1085.6638	-30.5207	-96.9474	-953.6172	57.5186	22.5418
103	1017.5589	-33.0638	-85.4931	-877.8501	60.0658	11.0378
104	981.1969	-36.8332	-70.3937	-830.2033	63.8322	-4.0402
105	970.2460	-41.9195	-52.2455	-803.9901	68.9191	-22.1650
106	976.8505	-48.4109	-30.6970	-791.1201	75.4097	-43.7248
107	991.9027	-56.3816	-5.2887	-873.7622	85.0840	-107.3228
108	1096.9214	-67.6015	61.5170	-907.2448	98.4853	-145.9749
109	1146.3577	-82.5690	103.6792	-974.3840	113.3349	-187.1958
110	1222.8251	-99.0384	148.2132	-937.4248	130.4208	-234.1853
111	1188.1849	-117.7113	199.0493	-903.1385	149.4334	-285.2061

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	1149.4486	-138.3573	253.2120	-740.2250	170.1815	-339.9654
113	975.2703	-160.6772	311.3979	-545.9146	193.1852	-398.7899
114	763.1789	-185.2078	373.8955	-204.0937	217.3781	-461.3206
115	397.9724	-210.8648	439.7316	201.9276	243.9606	-528.1146
116	-36.8610	-238.8674	509.7628	767.3144	271.2767	-597.6656
117	-634.6388	-267.5122	583.2428	1425.1663	300.9739	-672.5788
118	-1328.6616	-298.4206	660.4881	2247.5913	330.9539	-748.8756
119	-2188.3752	-329.5037	741.0925	3181.3804	363.0651	-831.2494
120	-3161.6589	-362.6022	823.9640	4279.3379	354.7819	-815.1697
121	671.6296	-58.3297	2.9302	-1064.9565	56.1267	30.6518
122	1087.9572	-30.5781	-96.8661	-955.7440	57.5742	22.4385
123	1019.6709	-33.1205	-85.3915	-879.8062	60.1221	10.9468
124	983.1615	-36.8761	-70.4810	-831.9919	63.8828	-3.9693
125	972.0425	-41.9648	-52.2158	-805.6623	68.9634	-22.1988
126	978.5466	-48.4558	-30.6873	-792.6945	75.4546	-43.7356
127	993.5193	-56.4342	-5.3078	-875.2564	85.1353	-107.3024
128	1098.3989	-67.6516	61.6172	-908.6751	98.5294	-146.0792
129	1147.8735	-82.6264	103.8777	-975.7211	113.3966	-187.4268
130	1224.2657	-99.0835	148.4470	-938.6882	130.4695	-234.3773
131	1189.5154	-117.7783	198.9813	-904.3136	149.4996	-285.0986
132	1150.6396	-138.4138	253.2586	-741.1694	170.2404	-340.1655
133	976.1163	-160.7230	311.8835	-546.6408	193.2310	-399.3386
134	763.9663	-185.2705	374.4179	-204.7853	217.4453	-461.8164
135	398.6813	-210.9521	440.2571	201.6498	244.0573	-528.6259
136	-36.4746	-238.9561	510.4504	767.0111	271.3573	-598.3309
137	-634.7387	-267.6048	583.1678	1425.7548	301.0708	-672.5886
138	-1328.9611	-298.5153	661.3693	2248.0215	331.0434	-749.6984
139	-2188.9800	-329.5950	741.2916	3182.2979	363.1593	-831.4402
140	-3162.5791	-362.6964	824.1763	4280.5537	354.8664	-815.4338
141	672.5749	-58.3372	2.9849	-1066.1431	56.1362	30.8294
142	1089.1741	-30.5863	-96.5259	-956.9043	57.5887	22.0577
143	1020.8325	-33.1409	-85.1077	-880.9501	60.1357	10.6972
144	984.2920	-36.8959	-70.4258	-833.0558	63.9025	-4.0384
145	973.0786	-41.9886	-51.7888	-806.6524	68.9838	-22.6346
146	979.5346	-48.4723	-30.4263	-793.5890	75.4755	-44.0071
147	994.3957	-56.4450	-5.0935	-875.9891	85.1489	-107.5318
148	1099.0514	-67.6659	61.9657	-909.2925	98.5360	-146.4233
149	1148.4160	-82.6305	104.2114	-976.2491	113.4016	-187.7475
150	1224.7134	-99.0929	148.7562	-939.1333	130.4805	-234.7360
151	1189.9255	-117.7930	199.5757	-904.6342	149.5133	-285.7142
152	1150.9689	-138.4156	253.6790	-741.5285	170.2351	-340.5672
153	976.4351	-160.7366	312.4376	-546.8736	193.2419	-399.9055
154	764.3066	-185.2511	374.8872	-205.2269	217.4299	-462.2584
155	399.0674	-210.9377	440.6900	201.3107	244.0413	-529.1105
156	-36.0840	-238.9558	510.9401	766.6996	271.3624	-598.8500
157	-634.4834	-267.5959	583.5650	1425.3219	301.0573	-673.0004
158	-1328.5215	-298.5007	661.8081	2247.3535	331.0253	-750.1311
159	-2188.3611	-329.5777	741.4955	3181.9089	363.1537	-831.7168
160	-3161.8120	-362.6947	826.1320	4279.7314	354.8695	-817.2675
161	671.7723	-58.2635	3.2455	-1065.4332	56.0597	30.6095
162	1088.4293	-30.5113	-96.8444	-956.4137	57.5078	22.4158
163	1020.3440	-33.0541	-85.4141	-880.6694	60.0564	10.9598
164	984.0090	-36.8170	-70.3855	-833.0656	63.8164	-4.0448
165	973.1034	-41.9010	-52.3392	-806.9101	68.9005	-22.1009
166	979.7874	-48.3829	-30.2050	-794.1274	75.3838	-44.2330
167	994.9717	-56.3574	-5.2043	-876.8206	85.0609	-107.3576
168	1099.9589	-67.5857	61.3376	-910.4213	98.4618	-145.7880

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	1149.5289	-82.5427	103.8933	-977.6036	113.3102	-187.4916
170	1226.0183	-99.0095	148.6515	-940.8108	130.3862	-234.6496
171	1191.6487	-117.7008	199.6234	-906.5469	149.4269	-285.8263
172	1152.9705	-138.3332	253.8384	-743.7242	170.1592	-340.6538
173	978.7706	-160.6506	312.2166	-549.5144	193.1642	-399.6841
174	766.7041	-185.1945	374.9003	-207.8542	217.3645	-462.3455
175	401.8537	-210.8671	440.7874	198.3071	243.9788	-529.1901
176	-33.3074	-238.9050	510.8659	763.6665	271.3092	-598.7841
177	-631.1654	-267.5358	584.0607	1422.0726	301.0062	-673.4599
178	-1325.5089	-298.4562	661.7486	2243.9883	330.9674	-750.0562
179	-2185.0564	-329.5199	741.2135	3178.6238	363.0961	-831.4422
180	-3158.5405	-362.6352	825.8477	4276.4429	354.8108	-816.9611
181	669.2637	-58.0675	3.3261	-1063.7174	55.8622	30.5401
182	1086.7168	-30.3141	-96.9684	-955.2870	57.3118	22.5235
183	1019.2460	-32.8611	-85.0779	-880.1645	59.8613	10.6271
184	983.4916	-36.6237	-70.4340	-833.1222	63.6231	-3.9881
185	973.1730	-41.7062	-52.1629	-807.5212	68.7099	-22.2786
186	980.3650	-48.2001	-30.5208	-795.2858	75.1966	-43.9192
187	996.0652	-56.1723	-4.9012	-878.4623	84.8736	-107.7022
188	1101.5665	-67.3946	61.7652	-912.6271	98.2690	-146.1914
189	1151.7689	-82.3390	103.9315	-980.4537	113.1073	-187.5128
190	1228.8655	-98.8067	148.9020	-944.1990	130.1885	-234.8784
191	1195.0857	-117.4912	199.3763	-910.6904	149.2030	-285.5589
192	1156.9565	-138.1124	254.0702	-748.3809	169.9432	-341.0058
193	983.5488	-160.4412	312.5221	-554.8642	192.9651	-399.8907
194	772.2126	-184.9967	374.9138	-214.0084	217.1672	-462.3341
195	407.7525	-210.6763	440.7893	191.8168	243.7820	-529.2732
196	-26.5970	-238.7048	511.1478	756.3737	271.1108	-599.0286
197	-623.9395	-267.3467	584.1452	1414.0867	300.8112	-673.5420
198	-1317.5306	-298.2637	661.6917	2235.6755	330.7900	-750.0325
199	-2176.6702	-329.3472	741.4406	3169.4397	362.9158	-831.6761
200	-3149.2268	-362.4491	826.5775	4266.6938	354.6204	-817.6690
201	654.2327	-56.9261	3.4662	-1052.0791	54.7254	30.3895
202	1075.0925	-29.1790	-96.6221	-947.0754	56.1760	22.2098
203	1010.9943	-31.7265	-85.4455	-875.3383	58.7224	11.0143
204	978.6914	-35.4813	-70.3676	-831.7035	62.4864	-4.0966
205	971.7462	-40.5705	-52.1540	-809.5411	67.5692	-22.2799
206	982.3859	-47.0582	-30.2514	-800.7480	74.0530	-44.1788
207	1001.5695	-55.0233	-5.0087	-887.3928	83.7250	-107.5667
208	1110.5419	-66.2365	61.5618	-925.0451	97.1146	-146.0167
209	1164.1631	-81.2160	104.1499	-996.2638	111.9902	-187.7427
210	1244.7771	-97.6830	148.7553	-963.4611	129.0640	-234.7252
211	1214.2712	-116.3786	199.5831	-933.1985	148.1030	-285.7430
212	1179.5764	-137.0161	253.6941	-774.3485	168.8338	-340.5803
213	1009.2736	-159.3180	312.4836	-583.9257	191.8345	-399.9549
214	801.3405	-183.8619	374.9444	-246.4148	216.0346	-462.3415
215	440.1405	-209.5561	440.8087	155.9496	242.6736	-529.2312
216	9.3335	-237.5970	511.1360	717.2019	270.0046	-599.0239
217	-585.0089	-266.2409	583.7848	1371.8184	299.7017	-673.2190
218	-1275.0522	-297.1621	662.0202	2189.9260	329.6867	-750.3395
219	-2130.9380	-328.2394	741.7206	3120.5454	361.8132	-831.9045
220	-3100.6462	-361.3464	825.4776	4214.7539	353.5075	-816.6613
221	620.8739	-54.4188	3.2364	-1026.6079	52.2152	30.6763
222	1049.6373	-26.6680	-96.8220	-929.1382	53.6679	22.3814
223	993.1075	-29.2159	-85.4137	-864.9336	56.2194	10.9524
224	968.3081	-32.9875	-70.3784	-828.8461	59.9879	-4.0660
225	968.8698	-38.0842	-52.1697	-814.1634	65.0782	-22.2575

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	987.0387	-44.5840	-30.1869	-812.7681	71.5872	-44.2570
227	1013.5812	-52.5679	-5.1922	-906.6793	81.2758	-107.4089
228	1129.6991	-63.8064	61.8158	-951.4407	94.6886	-146.2677
229	1190.3604	-78.7919	103.9353	-1029.7238	109.5565	-187.4633
230	1278.0106	-95.2770	148.7863	-1003.7203	126.6747	-234.8401
231	1254.2170	-113.9797	199.6541	-980.2889	145.6991	-285.7741
232	1226.2692	-134.6165	253.7668	-828.2463	166.4305	-340.6200
233	1062.8322	-156.9144	312.4175	-644.4906	189.4346	-399.8942
234	861.4040	-181.4878	374.9563	-313.6355	213.6574	-462.3824
235	506.9491	-207.1716	440.8971	82.2837	240.2883	-529.3471
236	82.5994	-235.2184	511.3016	636.7493	267.6298	-599.1491
237	-504.8506	-263.8886	584.0787	1284.8291	297.3590	-673.5139
238	-1188.6030	-294.8245	661.7384	2096.5068	327.3502	-750.0907
239	-2037.5886	-325.9007	742.0640	3019.8960	359.4670	-832.2685
240	-2999.9460	-359.0077	826.4288	4107.1177	351.0885	-817.5882
241	442.1876	-40.9667	12.0345	-890.2263	38.8558	21.9062
242	913.4910	-13.3246	-88.0122	-832.9872	40.3322	13.5490
243	897.2383	-15.9241	-76.6604	-808.9671	42.9250	2.2153
244	912.5624	-19.7579	-61.6497	-812.8008	46.7553	-12.7878
245	952.9425	-24.9244	-43.3515	-837.6547	51.9266	-31.0875
246	1010.2823	-31.5332	-21.6660	-875.2252	58.5271	-52.7614
247	1075.4338	-39.6228	3.8684	-1007.0941	68.3743	-116.5081
248	1229.1088	-51.0251	70.5515	-1088.8186	81.9430	-154.9823
249	1326.1521	-66.1864	112.6713	-1202.2965	97.0246	-196.2561
250	1448.2123	-82.9008	158.0593	-1210.5909	114.3247	-244.0868
251	1458.3242	-101.8130	208.6318	-1219.4042	133.6091	-294.7659
252	1461.9137	-122.7106	263.0651	-1098.6135	154.5675	-349.9802
253	1329.1494	-145.2366	321.8653	-944.1962	177.8279	-409.3684
254	1156.5293	-170.0397	384.7601	-642.1889	202.2420	-472.1862
255	830.8258	-195.9655	450.6813	-273.8138	229.1323	-539.0661
256	433.7655	-224.2106	521.0145	253.4917	256.6451	-608.9268
257	-126.1248	-253.0226	594.1732	874.2254	286.5068	-683.5761
258	-781.6428	-284.0691	672.4095	1657.4343	316.6029	-760.7156
259	-1601.6661	-315.2222	751.5894	2551.3877	348.7724	-841.8184
260	-2532.2861	-348.3354	836.7989	3606.3982	339.7755	-829.3359
261	144.8186	-24.5275	60.3869	-685.8823	16.0141	-6.5316
262	700.7858	3.3551	-42.6627	-685.5584	16.8918	-13.1584
263	724.9502	1.8268	-33.5711	-706.2791	18.4231	-22.2831
264	769.6693	-0.4045	-21.9673	-745.9661	20.6597	-33.8717
265	832.3290	-3.4333	-8.2482	-801.8280	23.6772	-47.5726
266	909.6827	-7.2937	8.5781	-870.4826	27.5464	-64.4173
267	997.7877	-12.0482	27.0294	-947.8993	32.2979	-82.8406
268	1092.0206	-17.7703	48.8033	-1029.2668	38.0199	-104.6412
269	1187.3397	-24.4758	72.9566	-1141.7108	46.0268	-176.2623
270	1310.3539	-33.5478	146.6269	-1268.7474	56.3164	-209.3343
271	1444.1776	-44.8550	182.1967	-1375.9418	67.8471	-245.5898
272	1553.8480	-57.5654	221.7369	-1512.1265	82.4481	-290.4504
273	1688.4270	-73.2593	268.2949	-1551.0038	98.4107	-337.7301
274	1720.7688	-90.4223	318.6063	-1543.2932	114.2994	-384.4808
275	1701.7209	-107.4275	367.3139	-1480.2649	131.5040	-433.4265
276	1622.0203	-125.8919	419.0295	-1352.3677	150.1806	-485.4435
277	1472.2419	-145.8172	473.6516	-1177.6792	171.7446	-542.9725
278	1270.4083	-168.5932	533.2490	-883.0387	193.4714	-600.2878
279	942.6093	-191.5656	593.4577	-493.6717	216.6210	-660.6949
280	515.1852	-215.9825	655.7663	-0.3168	239.2382	-719.8470

ENVOLVENTE MINIMOS TORSORES TREN IPF-B, l=30 m, via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.2183	177.6981	-705.9602	-392.3473	-173.1412	695.6781
2	351.0716	154.7894	-647.2084	-685.8234	-150.2227	636.6686
3	608.0042	132.8862	-590.5266	-887.2672	-128.3281	579.8618
4	785.3919	113.2765	-536.6702	-1014.4193	-107.2424	521.7209
5	884.4269	92.8232	-480.7419	-1064.0676	-86.8221	465.4078
6	904.0214	72.5815	-426.5891	-1035.9883	-68.1167	415.1955
7	870.9751	55.8872	-379.0978	-960.1366	-51.4772	367.7074
8	799.2949	41.2668	-334.1498	-811.6687	-36.1373	321.3903
9	633.3617	26.2318	-290.2503	-645.1343	-21.5145	278.1778
10	447.0614	11.7221	-249.4097	-423.8716	-7.6163	239.2168
11	272.3031	0.8668	-212.9529	-221.8334	3.1555	203.1155
12	29.7432	-10.9140	-179.4512	336.4876	12.9717	168.9903
13	-460.8909	-17.5789	-147.4471	531.3891	18.1745	144.6857
14	-671.6019	-22.9550	-125.9426	736.6465	23.3818	124.2037
15	-857.1451	-27.2105	-107.6451	930.1540	27.5590	106.1358
16	-1050.1074	-31.1130	-92.5713	1130.1257	31.3909	91.2779
17	-1194.0288	-33.1665	-79.6801	1276.6837	33.3763	78.5671
18	-1333.5441	-34.8626	-69.3481	1417.9786	35.0109	68.4312
19	-1386.3138	-34.2326	-61.2734	1467.2079	34.3233	60.6032
20	-1550.7769	-36.2850	-56.6193	2000.4451	13.8052	113.0347
21	-1994.2664	234.6556	-777.8951	1164.0319	-283.6629	881.0325
22	-1183.9835	258.0344	-814.5268	441.9574	-252.7391	800.7647
23	-501.3227	228.1801	-737.6236	-130.1729	-223.1968	726.1170
24	32.2488	199.8046	-666.4320	-601.7780	-194.1407	652.1593
25	467.5267	172.0638	-595.9247	-929.5639	-166.4576	583.3936
26	762.4889	145.7691	-530.6274	-1167.0287	-139.8530	515.8886
27	971.6291	120.6451	-466.7667	-1270.0594	-114.6522	453.1860
28	1052.0651	96.9558	-407.0680	-1304.2731	-90.9105	391.7838
29	1069.4694	74.8007	-349.5759	-1217.1284	-68.6832	335.0756
30	972.3046	54.1785	-295.9167	-1089.3430	-48.1377	280.2024
31	841.4031	35.2606	-244.7261	-857.2595	-29.2607	230.3292
32	613.2806	18.0219	-198.3629	-245.5877	-8.3579	191.3684
33	12.0941	-1.2964	-162.7346	29.1898	2.2273	159.8718
34	-254.8019	-10.6892	-134.7642	304.7147	11.7895	131.5240
35	-486.8796	-17.9947	-109.6450	570.9667	18.4726	107.8091
36	-763.2059	-24.5143	-89.8376	861.0934	25.2131	87.3091
37	-965.0603	-28.2004	-72.2971	1059.1125	28.4526	71.2900
38	-1189.6791	-31.9486	-60.2598	1298.7408	32.2757	58.7466
39	-1321.7749	-32.8491	-50.3114	1423.9070	32.9324	49.7868
40	-1486.2064	-34.3696	-45.0573	1979.8994	12.5918	89.5193
41	-1927.2534	232.4814	-764.6315	1099.9425	-282.1547	879.7720
42	-1122.9158	256.6009	-813.2255	384.3447	-251.2800	799.4663
43	-447.7456	226.8208	-736.4178	-180.8106	-221.8096	724.9518
44	77.8951	198.5667	-665.2893	-643.9205	-192.8971	651.0305
45	504.2014	170.9598	-594.9420	-962.7646	-165.3466	582.3991
46	790.4856	144.8189	-529.4150	-1192.0117	-138.9117	514.5949
47	991.6422	119.8765	-465.2786	-1287.1519	-113.9135	451.7050
48	1064.5631	96.4252	-405.7421	-1314.6716	-90.4045	390.4570
49	1075.8760	74.4816	-348.1881	-1221.7904	-68.4070	333.7361
50	973.6738	54.0881	-294.7509	-1090.0560	-48.0725	279.0278
51	837.4609	35.2409	-243.3956	-852.6060	-29.3005	228.9075
52	608.8786	18.3139	-196.9432	-246.2540	-8.2580	191.2201
53	8.6752	-1.3734	-162.6331	33.0075	2.2846	159.7773
54	-247.2916	-10.1564	-134.6507	295.6204	11.2481	131.4148

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	-518.4510	-18.7608	-109.8694	604.8486	19.2250	108.0438
56	-740.0658	-23.3746	-89.7345	834.5295	24.0629	87.2116
57	-999.9822	-28.7795	-72.6014	1095.7563	29.0277	71.6021
58	-1192.5508	-31.5916	-60.3108	1300.4962	31.9150	58.8005
59	-1359.6724	-33.3699	-50.7218	1463.3627	33.4514	50.2154
60	-1486.8518	-33.9880	-45.5008	1971.5117	12.0271	89.2637
61	-1913.0216	232.5876	-763.9449	1086.6011	-281.8401	879.6886
62	-1109.6102	256.3069	-813.5570	371.6469	-250.9875	799.9042
63	-435.5440	226.5538	-736.8252	-192.0837	-221.5374	725.3579
64	88.7108	198.3013	-665.6866	-654.0170	-192.6327	651.3938
65	514.2607	170.7193	-594.9375	-972.1525	-165.1110	582.4534
66	799.1426	144.6152	-529.9573	-1200.0574	-138.7117	515.1496
67	999.3473	119.6659	-465.4408	-1294.2067	-113.7071	451.8275
68	1071.1816	96.2254	-405.9490	-1320.7242	-90.2024	390.6559
69	1081.5382	74.2650	-348.2263	-1226.7117	-68.1883	333.7394
70	978.2239	53.8857	-294.7587	-1093.9323	-47.8687	279.0290
71	842.9728	35.1598	-243.3712	-857.7930	-29.2175	228.8241
72	611.5205	18.1270	-196.7706	-246.3960	-8.2550	191.1037
73	11.2662	-1.2567	-162.5532	30.0829	2.1662	159.7024
74	-247.4128	-10.1390	-134.6033	295.7028	11.2294	131.3732
75	-518.6322	-18.7365	-109.8500	604.9629	19.1995	108.0290
76	-770.2574	-24.2932	-89.8667	867.4573	24.9804	87.3422
77	-1000.0048	-28.7473	-72.6182	1095.6957	28.9962	71.6099
78	-1192.4949	-31.5471	-60.3267	1300.3048	31.8686	58.8483
79	-1362.4825	-33.3854	-51.3263	1466.2128	33.4668	50.8202
80	-1486.4596	-33.9270	-45.5073	1973.1084	12.0259	89.2573
81	-1890.4189	232.0325	-764.6322	1065.4327	-281.3856	880.4976
82	-1088.4347	255.8420	-814.1410	352.0233	-250.5228	800.4515
83	-416.5031	226.1024	-737.3477	-209.9937	-221.0870	725.8990
84	106.6747	197.8528	-666.1693	-670.6096	-192.1841	651.8938
85	529.9519	170.2860	-595.5376	-986.4649	-164.6797	583.0083
86	812.4741	144.2109	-530.0784	-1212.2383	-138.2972	515.2437
87	1004.4227	119.5086	-465.7347	-1298.7434	-113.5492	452.1008
88	1070.2249	96.2568	-405.9734	-1319.9269	-90.2293	390.6837
89	1080.8591	74.3333	-348.4524	-1226.2498	-68.2631	333.9086
90	977.2535	53.9159	-294.6197	-1093.0618	-47.9073	278.8029
91	842.2295	35.2040	-243.1964	-857.1516	-29.2598	228.7210
92	610.7625	18.1713	-196.7570	-246.2477	-8.2516	191.1015
93	11.1370	-1.2643	-162.5172	30.2287	2.1736	159.6608
94	-253.6984	-10.3884	-134.6100	302.7147	11.4790	131.3756
95	-517.2015	-18.6762	-109.7961	603.3683	19.1386	107.9810
96	-771.9289	-24.3322	-89.9301	869.2353	25.0199	87.4282
97	-1002.7389	-28.8132	-72.9691	1098.6229	29.0598	71.9782
98	-1195.4141	-31.6100	-60.7252	1303.4150	31.9331	59.2402
99	-1362.7493	-33.3903	-51.5428	1466.5317	33.4722	51.0309
100	-1486.5581	-33.9242	-45.7765	1972.5615	12.0057	89.5800
101	-1875.7356	231.7568	-765.2680	1051.4915	-281.0822	881.1628
102	-1074.6350	255.5325	-814.5880	339.1722	-250.2101	800.8460
103	-402.9475	225.7516	-737.6965	-222.5257	-220.7340	726.2526
104	118.3773	197.5246	-666.4177	-681.2841	-191.8500	652.1613
105	541.2500	169.9257	-595.8743	-996.7770	-164.3261	583.3649
106	823.9270	143.8324	-530.4912	-1222.4268	-137.9235	515.6258
107	998.6652	119.7070	-465.8798	-1293.5712	-113.7459	452.2339
108	1070.4456	96.2441	-406.2166	-1320.1527	-90.2130	390.8590
109	1079.0679	74.3936	-348.2884	-1224.6499	-68.3265	333.7885
110	976.3905	54.0145	-294.8093	-1092.4788	-48.0004	279.0405
111	839.7856	35.3234	-243.3197	-855.0607	-29.3851	228.7708

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	608.7971	18.2826	-196.7782	-611.8781	-12.3793	181.7655
113	376.8354	2.8705	-153.2009	24.4080	1.6206	144.1703
114	-268.8803	-10.6454	-119.1772	300.8160	10.6441	119.1808
115	-491.8687	-17.0439	-97.5446	542.9968	17.0439	97.5437
116	-712.4111	-22.2718	-79.7882	779.2477	22.2750	79.7918
117	-910.8283	-26.0116	-64.8636	988.8583	26.0116	64.8619
118	-1087.0446	-28.6019	-54.2213	1172.8527	28.5987	54.2208
119	-1231.6210	-30.0318	-46.0370	1321.7024	30.0318	46.0363
120	-1343.1498	-30.5404	-41.9529	1973.1182	11.9397	90.8766
121	-1874.3552	231.7384	-765.5154	1050.0178	-281.0788	881.2939
122	-1072.9932	255.5378	-815.0310	337.5269	-250.2217	801.3891
123	-401.3115	225.7855	-738.2340	-224.2333	-220.7692	726.8064
124	119.9759	197.7045	-666.9724	-683.5760	-192.0303	652.7119
125	541.9657	170.5012	-596.2956	-999.1990	-164.8980	583.7879
126	825.8547	144.1833	-530.8863	-1225.3767	-138.2680	516.0300
127	1010.1106	119.3382	-466.2394	-1303.8708	-113.3675	452.5663
128	1070.7793	96.2465	-406.4100	-1320.4233	-90.2154	390.9908
129	1076.2533	74.5186	-348.3303	-1222.2402	-68.4602	333.8077
130	973.8405	54.1359	-294.8296	-1090.2719	-48.1146	279.1327
131	838.9323	35.4349	-243.5364	-854.5323	-29.4935	228.9819
132	607.4687	18.3697	-196.8477	-610.8226	-12.4688	181.6794
133	354.1109	2.0160	-153.1235	49.8060	2.4640	144.1713
134	-278.7373	-9.4103	-119.2125	306.9700	9.4090	119.2105
135	-500.8741	-15.8988	-97.6585	548.5754	15.8987	97.6632
136	-714.8965	-20.9130	-79.6365	777.6194	20.9134	79.6359
137	-910.2340	-24.7873	-65.4659	984.6115	24.7899	65.4630
138	-1082.3770	-27.5676	-54.2450	1165.0931	27.5676	54.2426
139	-1230.7211	-29.9239	-46.4127	1320.4479	29.9209	46.4133
140	-1341.3982	-30.3999	-42.3248	1971.0815	11.8156	91.2409
141	-1879.3718	232.1703	-765.5228	1053.8672	-281.5009	881.3417
142	-1092.8167	257.5246	-815.4635	351.1853	-252.2036	801.9108
143	-415.0096	227.7571	-738.7400	-216.2331	-222.7419	727.3132
144	112.9092	199.5097	-667.4741	-681.9486	-193.8381	653.1948
145	540.6760	172.1857	-596.5237	-1002.9402	-166.5818	584.0091
146	830.9746	146.0608	-531.2149	-1236.2229	-140.1546	516.3796
147	1030.6053	121.0365	-466.5263	-1329.5750	-115.0761	452.8124
148	1083.9569	98.0690	-406.4774	-1339.0281	-92.0378	391.0328
149	1089.1155	75.7574	-348.3632	-1238.8101	-69.6894	333.8259
150	988.8296	55.2659	-294.8275	-1108.6965	-49.2526	279.0625
151	838.1833	35.4040	-243.3204	-853.6821	-29.4608	228.7627
152	607.3461	18.3813	-196.7345	-610.7374	-12.4622	181.5678
153	349.8315	4.5000	-152.9908	46.6144	-0.0164	144.0408
154	-261.2460	-7.8519	-119.0218	284.8099	7.8509	119.0223
155	-504.1302	-15.2286	-97.5696	549.8268	15.2286	97.5677
156	-715.9057	-20.3391	-79.5667	776.9176	20.3401	79.5664
157	-909.4865	-24.1091	-65.5693	981.8094	24.1078	65.5703
158	-1078.6041	-26.6546	-54.3758	1158.5592	26.6546	54.3755
159	-1220.4382	-28.4336	-46.6980	1305.7722	28.4365	46.6963
160	-1329.5912	-29.2505	-41.8542	1955.8419	10.6579	90.7652
161	-1888.2686	232.8718	-766.1292	1060.5709	-282.2105	882.0726
162	-1086.7747	256.9875	-815.7922	346.9260	-251.6672	802.1500
163	-413.1899	227.5218	-738.9589	-217.5651	-222.5069	727.5405
164	113.4432	199.5000	-667.6362	-682.2505	-193.8280	653.3916
165	542.2074	171.9081	-597.0034	-1003.6812	-166.3001	584.4138
166	826.3405	145.6925	-530.9685	-1230.4232	-139.7791	516.1192
167	1029.7223	120.7267	-466.6855	-1327.6985	-114.7626	453.1263
168	1104.5569	97.2684	-407.1057	-1357.2686	-91.2370	391.6287

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	1075.4342	74.4575	-348.5266	-1221.2231	-68.3870	333.8549
170	972.5700	54.0971	-294.7703	-1088.9274	-48.0769	278.9404
171	838.0496	35.3846	-243.1884	-853.5447	-29.4575	228.6333
172	607.0939	18.3715	-196.6587	-610.4433	-12.4692	181.6104
173	363.0819	4.0949	-153.0637	34.6468	0.3893	144.0932
174	-284.7127	-8.3629	-119.2091	309.8081	8.3625	119.2109
175	-501.4882	-15.1267	-97.5897	546.8847	15.1270	97.5892
176	-713.6565	-19.9396	-79.9141	773.4567	19.9397	79.9166
177	-906.0135	-23.7087	-65.3687	977.1528	23.7087	65.3689
178	-1075.4661	-26.5631	-54.5352	1155.1311	26.5641	54.5359
179	-1216.6606	-28.3390	-46.9813	1301.7218	28.3406	46.9819
180	-1327.8844	-29.3954	-42.1422	1954.5112	10.8069	91.0833
181	-1882.3660	232.4274	-766.0642	1056.1774	-281.7619	881.9395
182	-1079.1843	256.2135	-815.5172	341.6276	-250.8889	801.8763
183	-412.3771	227.3902	-738.8033	-217.9448	-222.3787	727.4327
184	114.6036	199.1487	-667.6282	-682.3667	-193.4780	653.3525
185	542.2302	171.5670	-596.8155	-1002.7863	-165.9625	584.2734
186	829.9373	145.4655	-531.2289	-1233.3313	-139.5554	516.3132
187	1004.2565	120.9034	-466.2772	-1302.7935	-114.9394	452.6216
188	1079.6931	97.4487	-406.6785	-1332.9463	-91.4345	391.3105
189	1078.1570	74.7534	-348.6009	-1224.8350	-68.6866	333.9540
190	968.7695	53.8608	-294.6808	-1084.3546	-47.8405	278.9315
191	833.4529	35.1372	-243.4294	-848.1860	-29.1943	228.8053
192	576.8160	19.9157	-196.6023	-584.8094	-14.0095	181.4454
193	346.4607	4.7911	-152.9657	49.2261	-0.3055	144.0823
194	-274.7441	-7.9706	-119.0730	301.4060	7.3959	119.0723
195	-502.5161	-13.8675	-97.7568	544.0537	13.9050	97.7582
196	-709.3279	-18.9921	-79.8007	766.2481	18.9548	79.8011
197	-898.7790	-22.7165	-65.4102	967.0883	22.7537	65.4127
198	-1064.8082	-25.5206	-54.6878	1145.2260	26.0566	54.6886
199	-1204.5725	-27.5129	-47.0168	1287.1147	27.5129	47.0141
200	-1307.3236	-27.9760	-41.9547	1929.7354	9.3898	90.8835
201	-1883.2527	232.4877	-766.1801	1056.7076	-281.8214	882.1466
202	-1081.9304	256.4783	-815.8684	343.6414	-251.1581	802.2053
203	-407.5463	226.7090	-738.9568	-220.6191	-221.6968	727.5076
204	116.9417	198.6082	-667.5542	-683.2755	-192.9355	653.2976
205	543.2195	171.0234	-596.8451	-1002.0284	-165.4183	584.2862
206	828.0610	144.9665	-531.0532	-1229.9526	-139.0623	516.1776
207	1006.8064	120.6430	-466.5021	-1304.5527	-114.6813	452.9130
208	1086.3616	96.9958	-406.9288	-1338.2629	-90.9562	391.4584
209	1076.8774	74.6344	-348.4091	-1223.2079	-68.5656	333.7990
210	974.6942	54.2457	-294.8166	-1091.4623	-48.2242	279.0462
211	840.6006	35.5378	-243.3139	-856.5269	-29.6022	228.7630
212	610.1451	18.5135	-196.7466	-613.9413	-12.6174	181.5873
213	359.3530	4.9245	-153.0076	35.8536	-0.4420	144.0594
214	-253.2685	-7.5272	-119.0464	275.8488	7.5282	119.0496
215	-471.1015	-13.7189	-97.6624	512.2515	13.7189	97.6637
216	-677.5230	-18.8021	-79.5754	733.9178	18.8011	79.5740
217	-866.3752	-22.5563	-65.5293	934.0389	22.5563	65.5320
218	-1030.8066	-25.0987	-54.3322	1106.0981	25.0983	54.3346
219	-1167.3583	-26.8417	-46.6336	1247.8940	26.8417	46.6319
220	-1281.0043	-28.5700	-42.1483	1904.8585	9.9919	91.1042
221	-1852.9358	230.2225	-765.5080	1033.4969	-279.5355	881.3865
222	-1056.3708	253.9817	-815.1729	325.4645	-248.6566	801.5523
223	-389.6146	224.2183	-738.3388	-231.3318	-219.1954	726.9146
224	128.2047	195.9517	-666.9752	-686.4330	-190.2856	652.7227
225	546.4955	168.4072	-596.2761	-997.3734	-162.7890	583.6936

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	821.8227	142.3636	-530.3697	-1215.9641	-136.4545	515.5343
227	1014.9017	117.4435	-466.0737	-1303.0471	-111.4748	452.4328
228	1059.2812	94.8113	-406.0822	-1304.6340	-88.7826	390.6755
229	1064.8955	72.9381	-348.0662	-1206.0966	-66.8748	333.4509
230	954.0754	52.7649	-294.1896	-1066.5325	-46.7494	278.3524
231	815.9972	34.0896	-242.7044	-827.6621	-28.1618	228.1754
232	581.6883	17.0872	-196.1636	-581.3033	-11.1998	181.0345
233	330.6147	3.1968	-152.4690	68.8727	1.2628	143.5029
234	-288.3658	-8.9099	-118.5124	315.0745	8.9099	118.5139
235	-509.9358	-15.0888	-97.2000	555.2184	15.0875	97.2061
236	-720.0698	-20.1488	-79.0513	780.5104	20.1501	79.0562
237	-913.0065	-24.1955	-64.8974	985.5993	24.1955	64.8959
238	-1082.0234	-26.7349	-54.1739	1162.2281	26.7349	54.1760
239	-1221.1422	-28.1830	-46.1726	1305.6895	28.1830	46.1743
240	-1335.1694	-29.5575	-41.4649	1958.5336	11.0726	90.3269
241	-1911.2247	234.7974	-754.3659	1078.3066	-283.9065	870.2617
242	-1101.7301	258.3869	-804.1351	357.1189	-253.0263	790.5146
243	-421.2774	228.6161	-727.3224	-213.0275	-223.5289	715.8794
244	109.6484	200.3515	-655.9875	-681.0196	-194.6431	641.7174
245	540.7713	172.8092	-585.2202	-1004.9176	-167.1454	572.6668
246	831.4647	146.7854	-519.6465	-1238.6835	-140.8603	504.7478
247	1013.4993	122.8649	-454.8320	-1317.7926	-116.8710	441.1890
248	1095.7889	99.5261	-395.2440	-1355.2976	-93.5105	379.8919
249	1118.0031	77.7794	-337.2494	-1273.9418	-71.7234	322.5438
250	1023.4883	57.8208	-283.0682	-1151.3398	-51.8229	267.2475
251	903.5890	39.3168	-231.7990	-932.1685	-33.4448	217.2594
252	685.0104	22.8899	-185.1495	-703.0567	-17.0432	169.9754
253	457.1625	9.2220	-141.4131	-85.7721	-5.1575	132.6703
254	-128.8256	-2.3299	-107.7286	135.7946	2.3329	107.7278
255	-324.4535	-8.6337	-86.2308	351.0245	8.0853	86.2306
256	-511.0527	-13.0003	-68.2830	551.0388	13.5471	68.2837
257	-678.5880	-17.1719	-53.9728	730.1038	17.1719	53.9727
258	-822.6793	-19.6032	-42.7934	881.4942	19.6032	42.7945
259	-945.4004	-21.9780	-35.5122	1011.3613	21.9796	35.5110
260	-1030.4614	-22.4200	-30.4884	1570.0027	4.7149	67.8651
261	-1533.6884	224.2362	-554.2354	933.5192	-271.1303	658.9003
262	-948.4102	251.7677	-609.7119	400.5511	-247.7323	599.2578
263	-439.8018	229.0136	-552.3935	-55.7586	-224.7779	541.7187
264	-7.5295	206.7830	-497.1780	-435.6178	-201.8469	484.8694
265	349.2685	184.6283	-442.9053	-739.6121	-179.4997	430.3046
266	628.9442	163.1852	-390.3044	-967.7263	-158.3752	378.8997
267	842.9847	142.7977	-342.0699	-1156.7537	-136.7868	325.4842
268	999.1769	122.6558	-290.3628	-1266.1266	-115.1426	269.5434
269	1089.7507	102.2442	-237.1249	-1311.9458	-94.7319	216.3885
270	1143.7021	82.1475	-186.7995	-1322.5330	-76.1473	170.2693
271	1146.2220	64.7406	-143.0949	-827.1256	-50.3315	133.1585
272	647.1293	40.0727	-108.0680	-737.2800	-40.0728	108.0694
273	561.0059	30.8737	-85.9493	-630.4584	-30.8741	85.9491
274	460.6051	22.8399	-66.0877	-512.0052	-22.8395	66.0854
275	353.5705	16.0075	-48.9237	-389.6014	-16.0064	48.9260
276	238.2195	11.2366	-34.1660	-263.4976	-11.2366	34.1669
277	136.3224	7.6427	-21.8925	-153.5201	-7.6427	21.8928
278	60.1874	4.5891	-12.1552	-70.5127	-4.5891	12.1558
279	9.4148	2.9780	-4.8577	-16.1123	-2.9791	4.8579
280	-5.2766	2.3447	-0.0204	-0.0004	-2.3447	0.0204

ENVOLVENTE MAXIMOS FLECTORES TREN IPF-B, l=15 m, via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0115	-44.8071	-40.3581	16.2667	10.3275	120.5560
2	482.2050	201.1815	-581.8185	-911.6386	-178.3875	520.4673
3	911.7982	178.3844	-520.1864	-1287.7483	-155.5082	458.6657
4	1287.5012	155.5206	-459.3260	-1609.4714	-131.0754	393.5012
5	1609.4242	131.1109	-393.7265	-1876.1547	-106.6101	327.6028
6	1876.2380	106.6368	-327.0047	-2088.3799	-83.5778	264.7638
7	2088.3728	83.6131	-264.7609	-2246.2253	-57.3699	192.4637
8	2246.2004	57.3868	-192.8849	-2349.9795	-32.7746	126.4026
9	2349.9880	32.7996	-126.7052	-2397.7295	-8.1470	59.9192
10	2397.7651	8.1178	-59.1526	-2389.9971	15.0812	-3.6450
11	2390.0403	-15.0476	2.4313	-2326.8618	38.2730	-65.4899
12	2326.8450	-38.2975	66.6871	-2208.9207	66.0449	-143.1705
13	2208.9885	-66.0526	142.0177	-2035.7122	90.8055	-209.3482
14	2035.6526	-90.8384	209.7494	-1807.0264	114.0870	-273.2268
15	1807.0579	-114.0756	272.8637	-1523.2178	137.3246	-336.5903
16	1523.0990	-137.3239	337.1106	-1184.3640	162.0777	-405.1748
17	1184.4740	-161.4457	400.1354	-792.1371	186.1719	-468.2416
18	867.1934	-112.7556	283.8145	-623.6534	98.7887	-261.8731
19	683.1822	-38.8219	118.7721	-573.0728	59.0694	-174.5753
20	623.1204	-5.1341	41.7153	-588.7779	27.5831	-95.4395
21	627.3156	-43.3350	-40.3383	-490.7521	45.5317	42.4411
22	529.6940	-20.3463	-103.8329	-428.1487	47.3479	29.4194
23	517.0311	22.6833	-208.4734	-565.6776	-16.9531	191.8538
24	636.8241	74.5441	-339.7971	-823.2302	-56.1079	257.3808
25	917.7718	120.4929	-434.8776	-1231.4882	-88.6655	347.3497
26	1356.6396	170.9784	-415.6694	-1830.7594	-142.9845	339.3627
27	1830.6821	143.0077	-339.8172	-2214.0701	-114.6015	262.7919
28	2214.1353	114.5723	-262.2259	-2507.5881	-82.2238	173.8477
29	2507.5544	82.2097	-174.4790	-2706.7209	-49.7764	85.9278
30	2706.7644	49.7514	-85.2386	-2811.8213	-20.6498	6.7862
31	2811.8120	20.6407	-6.8166	-2822.4648	12.0087	-82.1886
32	2822.4629	-12.0140	81.4789	-2736.8208	44.7197	-170.6430
33	2736.8181	-44.6962	170.6262	-2554.6619	77.4527	-260.0773
34	2554.5928	-77.4639	260.7344	-2275.4500	110.2686	-350.2873
35	2275.5911	-110.2759	349.4284	-1899.9004	139.9697	-429.8675
36	1899.7272	-139.9751	430.6207	-1427.9838	172.8436	-520.7221
37	1466.7555	-129.9005	470.4089	-1027.0143	162.7725	-560.5582
38	1111.2515	-108.1280	400.9446	-750.8273	103.1939	-382.6757
39	872.6750	-30.8012	192.3120	-748.5645	53.8644	-271.8165
40	849.2137	15.5428	93.1418	-855.3439	14.5867	-165.2498
41	927.4283	-46.4368	-33.8119	-778.7257	49.5650	36.1352
42	821.6288	-24.4747	-97.5802	-707.7218	51.4718	23.1778
43	812.4979	18.1632	-201.9602	-826.4847	8.8384	127.5358
44	917.4824	48.2245	-275.5069	-1066.8860	-37.3075	255.3689
45	1190.7166	108.8571	-458.4329	-1491.1472	-89.2549	370.0051
46	1631.9800	162.2315	-412.8950	-2080.8406	-134.2004	336.5288
47	2080.8604	134.2047	-336.5319	-2438.4602	-105.7697	259.4984
48	2438.4797	105.7813	-259.1581	-2705.6150	-73.4325	170.8159
49	2705.5789	73.4515	-171.2174	-2878.6125	-41.0217	82.6932
50	2878.6592	41.0393	-82.6546	-2957.5830	-11.9409	4.2079
51	2957.5947	11.9545	-3.4803	-2942.1582	20.7044	-85.6314
52	2942.1323	-20.7134	85.2930	-2830.3960	53.4140	-174.4995
53	2830.3984	-53.4466	174.7934	-2621.8523	86.2028	-264.2156
54	2621.8447	-86.1760	263.9251	-2316.6460	118.9591	-353.5035

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	2316.5107	-118.9544	354.0653	-1914.8944	148.6226	-434.5297
56	1914.9447	-148.6112	434.2578	-1417.1901	181.4676	-524.3294
57	1481.1831	-117.5618	481.6369	-1078.4807	150.4238	-571.8168
58	1166.5861	-94.9221	411.5359	-848.2885	85.3027	-398.4776
59	973.6396	-12.4356	208.0973	-895.8439	39.4333	-282.5135
60	998.3619	30.1502	103.7670	-1048.3145	0.7592	-175.1690
61	1120.8112	-49.7968	-32.7982	-959.7096	53.7035	35.8136
62	1002.9256	-28.6129	-96.8093	-876.5672	55.6158	22.3729
63	982.5658	13.9794	-201.2863	-984.0175	13.0158	126.8872
64	1076.8533	59.9173	-317.6274	-1249.9215	-49.3300	297.5617
65	1328.2189	104.9127	-457.5195	-1621.8115	-85.1508	369.0440
66	1765.3015	158.0880	-413.6090	-2201.8347	-130.0556	337.2720
67	2201.9602	130.0746	-336.3921	-2547.2388	-101.6431	259.3411
68	2547.2368	101.6507	-259.3195	-2802.0657	-69.2959	170.9574
69	2802.0813	69.2574	-170.9516	-2962.5225	-36.8223	82.4068
70	2962.5007	36.8241	-82.4052	-3028.7825	-7.7209	3.9695
71	3028.8035	7.6981	-3.2022	-3000.6155	24.9560	-85.9485
72	3000.5886	-24.9433	86.3885	-2876.1416	57.6399	-175.5966
73	2876.1372	-57.6250	175.1950	-2655.0706	90.3796	-264.5956
74	2654.9929	-90.3888	264.9623	-2337.0950	123.1775	-354.5967
75	2337.0422	-123.1774	355.1711	-1922.7168	152.8402	-435.6437
76	1922.7229	-152.8160	435.6467	-1412.4712	185.6762	-525.7009
77	1484.1351	-115.3687	482.0574	-1088.0061	148.2280	-572.2154
78	1176.3540	-92.6603	411.7311	-865.1514	82.9879	-398.6039
79	990.6618	-10.0723	208.4727	-919.9567	37.0693	-282.8815
80	1022.7079	32.5330	103.6207	-1079.8097	-1.6974	-175.0036
81	1152.2861	-50.5518	-32.6350	-989.1540	54.3823	35.6743
82	1032.3628	-29.2993	-96.9490	-903.9822	56.2965	22.5340
83	1010.0303	13.3074	-201.4624	-1009.4543	13.6939	127.0350
84	1102.5056	59.2430	-317.8253	-1274.7542	-48.6212	297.8086
85	1353.1138	104.1920	-458.3067	-1643.0093	-84.4815	369.8243
86	1786.9413	157.4171	-413.7377	-2221.5444	-129.3816	337.3780
87	2221.5869	129.3660	-337.0369	-2564.6831	-100.9343	259.9813
88	2564.7375	100.9472	-259.3098	-2817.4902	-68.5925	170.9478
89	2817.4150	68.5850	-171.6661	-2975.8169	-36.1494	83.1025
90	2975.8127	36.1810	-81.9171	-3040.1694	-7.0880	3.4167
91	3040.2009	7.0636	-2.6089	-3010.0808	25.5874	-86.4572
92	3010.0945	-25.5836	86.0175	-2883.6404	58.2977	-175.2516
93	2883.5986	-58.3112	175.6671	-2660.5066	91.0616	-265.1192
94	2660.4871	-91.0761	265.5446	-2340.6079	123.8671	-355.1447
95	2340.6113	-123.8979	355.3800	-1924.0505	153.5634	-435.8590
96	1924.0260	-153.5224	436.1528	-1411.7231	186.3766	-526.2458
97	1485.4420	-114.2056	482.7668	-1092.7710	147.0660	-572.9547
98	1181.2006	-91.4856	412.2979	-873.5986	81.8052	-399.0454
99	999.2689	-8.8738	208.5724	-932.1257	35.8793	-283.0025
100	1034.9651	33.7240	103.6545	-1095.6344	-2.8675	-175.0138
101	1168.1832	-50.8636	-32.4417	-1003.9886	54.7266	35.4834
102	1047.2083	-29.6424	-97.0448	-917.7973	56.6405	22.6390
103	1023.8550	12.9652	-201.6711	-1022.2448	14.0380	127.2281
104	1115.4496	58.8855	-317.6413	-1286.1243	-48.2765	297.6455
105	1364.4554	103.8385	-458.4975	-1653.7493	-84.1127	370.0221
106	1797.7023	157.0455	-414.3514	-2231.0500	-129.0213	338.0087
107	2231.1841	129.0392	-337.0967	-2573.3149	-100.6036	260.0430
108	2573.3450	100.5776	-259.7573	-2825.0298	-68.2202	171.3350
109	2825.0977	68.2363	-170.8972	-2982.4773	-35.7967	82.3366
110	2982.4626	35.7932	-82.3480	-3045.6399	-6.6903	3.8921
111	3045.6333	6.7193	-2.6569	-3014.4917	25.9256	-86.4751

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	3014.4944	-25.9774	86.4501	-2886.9219	58.6796	-175.6544
113	2886.9387	-58.6961	175.6545	-2662.6934	91.4403	-265.1416
114	2662.5527	-91.3968	266.4726	-2341.5015	124.1932	-356.1302
115	2341.5334	-124.1521	355.8839	-1924.3639	153.8089	-436.3471
116	1924.1602	-153.7729	437.3280	-1411.0125	186.6291	-527.4371
117	1485.6915	-113.9633	482.6612	-1093.7975	146.8237	-572.8128
118	1181.9757	-91.2606	412.5487	-874.9502	81.5953	-399.2279
119	1000.7143	-8.6889	208.1884	-934.1613	35.6846	-282.6086
120	1036.7947	33.9210	104.0188	-1098.0533	-3.0703	-175.3968
121	1170.6710	-50.9327	-32.7740	-1006.2910	54.7862	35.8154
122	1049.5054	-29.7011	-96.9511	-919.9233	56.6973	22.5316
123	1025.9368	12.9199	-201.6257	-1024.2004	14.0806	127.1930
124	1117.2997	58.8711	-317.9544	-1276.4268	-60.3848	296.9971
125	1354.8882	115.9797	-457.8411	-1655.7676	-84.1293	370.3558
126	1799.9916	157.0617	-414.9400	-2233.3792	-129.0340	338.6182
127	2233.5066	128.9928	-337.7044	-2575.4727	-100.5595	260.6525
128	2575.5151	100.5421	-260.0002	-2827.0432	-68.1903	171.5602
129	2827.1301	68.1639	-170.8320	-2984.2976	-35.7167	82.2391
130	2984.2930	35.6982	-82.2466	-3047.1826	-6.5927	3.8514
131	3047.1230	6.6158	-3.4511	-3015.6870	26.0256	-85.6696
132	3015.6746	-26.0592	86.4467	-2887.8340	58.7665	-175.8101
133	2887.7600	-58.7555	176.9380	-2663.3635	91.5114	-266.4711
134	2663.2881	-91.5153	267.1471	-2341.9702	124.3004	-356.7669
135	2341.9766	-124.2993	356.8024	-1924.2445	153.9621	-437.2328
136	1924.1797	-153.9083	437.5092	-1410.7186	186.7604	-527.6227
137	1485.2089	-113.9111	483.6289	-1093.3701	146.7742	-573.8401
138	1181.9702	-91.1908	412.7470	-875.3106	81.5139	-399.2755
139	1001.1528	-8.5844	208.2861	-934.9162	35.5800	-282.7143
140	1037.6598	34.0269	104.0404	-1099.2365	-3.1708	-175.4065
141	1171.8575	-50.9359	-32.9321	-1007.4723	54.7944	35.9664
142	1050.7052	-29.7080	-96.5968	-921.0709	56.7099	22.1457
143	1027.1337	12.8912	-201.4166	-1025.3152	14.1032	127.0116
144	1118.2961	58.8222	-318.1799	-1277.1931	-60.3345	297.2346
145	1355.6400	115.9093	-457.7054	-1656.3032	-84.0640	370.2146
146	1800.0914	156.9743	-415.7289	-2233.2759	-128.9399	339.4142
147	2233.4233	128.9505	-338.4870	-2575.3320	-100.5164	261.4029
148	2575.4087	100.4940	-260.3442	-2826.7690	-68.1418	171.8894
149	2826.8428	68.1321	-171.1718	-2983.9304	-35.6899	82.5901
150	2983.8684	35.6850	-82.5743	-3046.7439	-6.5845	4.1259
151	3046.7764	6.5629	-2.9135	-3015.1514	26.0877	-86.2044
152	3015.1416	-26.0724	86.1991	-2887.3003	58.7755	-175.5469
153	2887.2239	-58.7758	177.4003	-2662.7573	91.5212	-266.9244
154	2662.7903	-91.4842	266.9039	-2341.5750	124.2735	-356.5012
155	2341.5093	-124.2848	357.1057	-1923.7378	153.9523	-437.5844
156	1923.7117	-153.9336	437.8822	-1410.1257	186.7910	-528.0239
157	1484.5858	-113.8958	483.9811	-1092.8828	146.7549	-574.2016
158	1181.3906	-91.1852	412.9529	-874.7216	81.5043	-399.3746
159	1000.3807	-8.5830	208.3496	-934.1188	35.5861	-282.7825
160	1036.8776	34.0142	103.4716	-1098.4131	-3.1611	-174.8521
161	1170.9508	-50.8616	-32.7325	-1006.7632	54.7189	35.7506
162	1049.9664	-29.6337	-96.9158	-920.5829	56.6307	22.4961
163	1026.5968	12.9796	-201.7435	-1025.0332	14.0221	127.3025
164	1118.1627	58.9225	-318.1701	-1277.3217	-60.4446	297.2816
165	1355.5931	116.0286	-458.6097	-1656.6333	-84.1785	371.0796
166	1800.6831	156.9401	-414.9360	-2233.7366	-128.9081	338.6099
167	2233.7288	128.8827	-338.6131	-2575.4065	-100.4486	261.6591
168	2575.4009	100.4138	-261.6575	-2826.5588	-68.0557	173.1753

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	2826.6846	68.0552	-171.3102	-2983.5269	-35.6158	82.6254
170	2983.5789	35.6354	-82.1914	-3046.3013	-6.5398	3.7089
171	3046.2778	6.5195	-2.1981	-3014.5308	26.1318	-86.9530
172	3014.4958	-26.1113	86.9285	-2886.4910	58.8149	-176.1876
173	2886.4678	-58.8467	176.6496	-2661.7722	91.5993	-266.1914
174	2661.5930	-91.6069	267.8917	-2340.0405	124.3952	-357.5479
175	2340.0737	-124.3854	357.1627	-1922.0254	154.0512	-437.6267
176	1921.7980	-154.0677	438.6861	-1407.8774	186.9225	-528.8052
177	1482.5754	-113.9605	483.8451	-1090.5372	146.8308	-574.0395
178	1178.9972	-91.2475	413.0648	-872.3013	81.5503	-399.4687
179	998.0561	-8.6182	208.4969	-931.6675	35.6265	-282.9457
180	1034.5540	33.9744	103.6178	-1095.9778	-3.1143	-175.0172
181	1168.5674	-50.6602	-32.6602	-1005.0186	54.5196	35.6819
182	1048.2378	-29.4353	-97.0405	-919.4434	56.4333	22.6091
183	1025.5510	13.1716	-201.3693	-1024.5665	13.8282	126.9327
184	1117.5569	59.0967	-318.2465	-1277.2123	-60.6166	297.3708
185	1355.4994	116.1951	-458.3069	-1657.0955	-84.3384	370.7877
186	1799.8340	156.5705	-415.5985	-2231.7527	-128.5434	339.2396
187	2231.9487	128.5393	-337.7510	-2572.6104	-100.1107	260.7021
188	2572.6211	100.1241	-260.7041	-2822.8982	-67.7757	172.3064
189	2822.9885	67.8210	-171.5850	-2979.1130	-35.3782	82.9309
190	2979.1318	35.3443	-81.7521	-3040.9885	-6.2452	3.3209
191	3040.9473	6.2707	-3.3453	-3008.4663	26.3747	-85.8324
192	3008.4207	-26.4000	87.7723	-2879.5857	59.1102	-177.1468
193	2879.6504	-59.1591	177.1626	-2653.9922	91.9233	-266.5808
194	2653.9412	-91.9546	266.9881	-2331.3660	124.7388	-356.6476
195	2331.1802	-124.7305	357.7977	-1912.1123	154.3979	-438.3290
196	1912.0514	-154.3946	438.6388	-1397.1438	187.2449	-528.7242
197	1471.6608	-114.2986	483.7614	-1078.7178	147.1622	-573.9647
198	1167.0303	-91.5774	413.0673	-859.2196	81.8845	-399.4547
199	984.9620	-8.9420	208.3434	-917.6256	35.9443	-282.7682
200	1020.4678	33.6628	103.2381	-1080.9603	-2.8003	-174.6558
201	1153.5631	-49.5225	-32.5436	-993.3908	53.3826	35.5392
202	1036.6239	-28.3002	-96.6997	-911.2410	55.2972	22.2910
203	1017.2561	14.3088	-201.8154	-1019.6864	12.6876	127.3924
204	1112.7710	60.2461	-318.1265	-1275.9125	-61.7618	297.2081
205	1354.2498	117.3467	-458.3485	-1659.2319	-85.4981	370.8300
206	1798.8656	155.8944	-415.2210	-2228.7502	-127.8698	338.8943
207	2228.8052	127.8814	-338.3105	-2567.5076	-99.4472	261.3122
208	2567.5171	99.4447	-261.3362	-2815.7573	-67.0889	172.8644
209	2815.8472	67.0423	-171.0586	-2969.6628	-34.5977	82.4062
210	2969.6619	34.5516	-82.4265	-3029.1108	-5.4474	3.9881
211	3029.0999	5.4291	-2.7880	-2994.0942	27.2232	-86.3471
212	2994.0908	-27.2085	86.2881	-2862.8574	59.9084	-175.6428
213	2862.7554	-59.8946	177.5043	-2634.9014	92.6457	-267.0291
214	2634.8789	-92.6600	267.0523	-2310.1230	125.4504	-356.6820
215	2310.0032	-125.4729	357.5506	-1888.7881	155.1383	-438.0098
216	1888.8241	-155.1397	438.0635	-1371.6172	187.9974	-528.1805
217	1446.2822	-115.0261	483.9332	-1051.1558	147.8867	-574.1536
218	1139.8854	-92.2899	412.8362	-830.0593	82.5946	-399.2448
219	956.0296	-9.6467	208.1727	-886.5692	36.6511	-282.6174
220	989.5259	32.9648	103.5696	-1047.9169	-2.1002	-174.9685
221	1120.4940	-47.0078	-32.7857	-967.9107	50.8707	35.8081
222	1011.1510	-25.7875	-96.8886	-893.2918	52.7869	22.4588
223	999.4540	16.7998	-201.7505	-1009.3473	10.2048	127.3014
224	1102.7152	62.6685	-318.1403	-1273.1006	-64.1811	297.2304
225	1351.5353	119.7011	-458.3729	-1663.5471	-87.8528	370.8532

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	1791.6277	151.7535	-414.4930	-2209.1379	-123.7146	338.1772
227	2209.1506	123.7112	-338.1573	-2535.3120	-95.2696	261.1257
228	2535.4348	95.2664	-260.1246	-2771.1030	-62.9103	171.6945
229	2771.1536	62.9266	-171.2729	-2912.5598	-30.4944	82.6661
230	2912.6008	30.4661	-81.6703	-2959.7524	-1.3572	3.1439
231	2959.7734	1.3939	-2.2120	-2912.6228	31.2476	-86.8822
232	2912.6411	-31.2044	86.8945	-2769.3804	63.9014	-176.2044
233	2769.2573	-63.8609	177.5201	-2529.4482	96.6148	-267.0553
234	2529.3870	-96.6373	267.4887	-2192.7432	129.4235	-357.1612
235	2192.5549	-129.4111	358.1790	-1759.4227	159.0869	-438.6696
236	1759.4307	-159.1130	438.5168	-1230.4288	191.9651	-528.5913
237	1308.4821	-118.9520	484.1653	-901.5405	151.8191	-574.4028
238	992.4550	-80.2550	370.8396	-720.0908	70.5334	-357.2555
239	800.4818	-13.4640	208.5637	-719.5855	40.4649	-282.9853
240	823.8259	29.1727	103.6699	-870.8419	1.7111	-175.0757
241	943.7566	-33.6113	-24.0313	-831.3222	37.4898	27.0451
242	874.8700	-12.4303	-88.0831	-797.0487	39.4375	13.6303
243	904.4831	29.9714	-192.9704	-953.8966	-2.9711	118.5367
244	1049.2642	75.3531	-309.3060	-1257.7847	-76.7845	288.3745
245	1337.2015	131.4071	-449.1910	-1684.3630	-99.5261	361.6687
246	1774.5270	142.5078	-412.6469	-2163.9834	-114.4332	336.3115
247	2164.1658	114.4568	-335.1604	-2462.2319	-85.9687	258.1219
248	2462.2568	85.9670	-258.1312	-2669.8176	-53.5839	169.7283
249	2669.8538	53.6246	-169.3069	-2783.0830	-21.1745	80.6247
250	2783.1155	21.1407	-78.8451	-2801.6980	7.9993	0.3491
251	2801.6770	-7.9889	-0.3650	-2726.0840	40.6542	-88.7363
252	2726.0386	-40.6667	89.4295	-2554.0796	73.3845	-178.7932
253	2553.9790	-73.3593	179.7097	-2285.5146	106.1187	-269.2686
254	2285.4250	-106.1147	270.2090	-1920.1879	138.9146	-359.8509
255	1920.1345	-138.9634	359.8212	-1458.5896	168.6257	-440.2510
256	1458.5061	-168.6288	440.5584	-901.0649	201.4802	-530.6890
257	1022.4759	-119.1570	460.5785	-615.5523	151.9999	-550.7664
258	714.1868	-87.6245	371.9787	-436.8869	77.4826	-358.3344
259	538.3288	-19.8953	209.9765	-438.1277	46.8976	-284.4134
260	559.3994	23.1286	104.8197	-588.2805	7.8733	-176.2558
261	665.3868	-10.7598	4.9186	-632.1790	14.7596	-1.9373
262	659.2937	4.3250	-42.7663	-646.2467	15.9216	-13.0469
263	717.3329	38.0261	-120.2190	-780.1138	-17.7749	64.3793
264	855.4643	77.8014	-207.7089	-1007.7698	-57.5462	151.8728
265	1097.9183	131.0869	-337.7657	-1381.1033	-139.8611	327.7014
266	1382.7213	140.4766	-331.5956	-1672.7500	-118.0447	269.6206
267	1672.6730	118.0489	-270.1679	-1911.6689	-95.4724	207.9621
268	1911.7729	95.4075	-206.8958	-2098.6089	-71.1753	140.2652
269	2098.6426	71.1433	-139.5317	-2231.6179	-46.7535	72.7219
270	2231.5842	46.6656	-72.7685	-2310.2217	-23.6387	9.9366
271	2310.2415	23.6533	-9.8996	-2333.7612	-0.4821	-53.2720
272	2333.6941	0.4053	54.5127	-2302.8140	27.3493	-131.0761
273	2302.8408	-27.3599	131.0406	-2215.3130	52.1705	-198.5215
274	2215.2700	-52.2192	199.2607	-2070.1184	75.6678	-262.8350
275	2070.1113	-75.6277	262.8300	-1869.6255	101.8752	-335.2174
276	1869.5535	-101.8822	335.5819	-1611.5612	126.9642	-403.4984
277	1611.4302	-126.9915	403.9864	-1295.0042	154.7455	-480.5165
278	1295.0132	-154.7384	480.5308	-921.5955	178.4506	-544.4984
279	921.3324	-178.4367	544.9734	-489.6083	204.6853	-617.3528
280	489.7330	-204.6810	617.2606	-0.2993	227.9363	-681.3438

ENVOLVENTE MAXIMOS CORTANTES TREN IPF-B, l=15 m, via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.2272	225.4290	-648.6499	-481.4744	-202.6358	587.3279
2	460.1457	203.2710	-592.1909	-889.9304	-180.3996	530.6228
3	830.3003	182.2915	-537.7103	-1210.5524	-159.3472	475.9790
4	1117.6348	162.5099	-486.3905	-1450.7562	-138.9944	423.1018
5	1330.7654	143.4219	-435.5482	-1618.7896	-119.8678	371.9631
6	1477.2151	125.5139	-386.2206	-1723.1523	-102.4061	323.7631
7	1564.9226	109.2673	-340.9998	-1771.1664	-86.1124	278.4291
8	1601.5188	94.1551	-298.4216	-1753.1539	-69.4879	232.5247
9	1577.0198	78.7007	-254.8637	-1708.6228	-54.9635	190.1847
10	1530.9070	65.2842	-214.3203	-1630.4961	-42.0343	150.8744
11	1455.2219	53.4947	-178.6814	-1231.6029	-30.4751	99.3053
12	1063.1974	42.9841	-128.1749	-1137.1332	-22.7350	72.3683
13	979.1089	36.2841	-105.0316	-1037.9722	-16.0314	49.2223
14	893.8856	30.5584	-83.4730	-939.8530	-10.3140	27.6818
15	812.6536	25.8026	-64.8106	-847.9222	-5.5507	8.9947
16	740.1089	21.9341	-48.1222	-766.6737	-1.6767	-7.7071
17	680.2836	18.9011	-34.3391	-700.0307	1.3434	-21.4487
18	636.6512	16.6440	-23.0505	-651.3180	3.6079	-32.7526
19	611.8935	15.1095	-14.3108	-623.1141	5.1380	-41.4927
20	608.1699	14.2309	-7.4213	-406.5784	-4.3246	-2.9865
21	-3341.9551	319.5243	-763.8427	2562.7612	-323.8585	743.3125
22	-2581.9824	324.2928	-747.9853	1654.0670	-294.2916	665.2783
23	-1710.2710	295.6778	-673.3281	868.2043	-265.6762	590.6482
24	-960.7745	268.1023	-601.9234	201.4337	-238.1017	519.2407
25	-329.0001	241.7259	-533.9622	-324.2151	-211.5175	451.7661
26	164.2114	216.4401	-469.9567	-755.6858	-186.1884	387.2991
27	566.9363	192.5072	-409.0435	-1073.3187	-161.7308	325.8196
28	860.9696	169.4950	-350.6787	-1310.5405	-138.9747	267.4787
29	1079.8114	148.2887	-296.2679	-1448.8257	-117.0552	212.0121
30	1206.3748	127.9400	-243.7058	-1527.8810	-97.2275	159.9327
31	1280.1128	109.7355	-195.4256	-1525.2640	-78.1754	110.2161
32	1279.1710	92.3019	-149.4195	-1076.4471	-62.7430	58.6278
33	839.0858	78.4999	-100.9396	-1034.0720	-51.5029	26.5419
34	812.1133	68.8385	-72.0560	-978.1308	-41.8365	-2.3606
35	777.8762	60.7341	-47.3023	-919.5956	-33.7291	-27.1261
36	746.8994	54.1308	-25.1977	-868.8004	-27.1294	-49.2156
37	728.6592	48.9622	-7.2025	-835.0389	-21.9655	-67.2035
38	731.4353	45.1350	7.8003	-826.3447	-18.1336	-82.2138
39	762.0912	42.5426	18.8956	-849.2139	-15.5457	-93.3020
40	825.9224	41.0650	27.2283	-688.8337	-20.6064	-51.2523
41	-3856.9990	330.7410	-753.9790	3072.4600	-335.4572	732.8090
42	-3092.7937	335.9185	-737.0936	2130.1372	-305.9218	654.4033
43	-2188.8967	307.3694	-663.0662	1311.7223	-277.3681	580.4066
44	-1408.1870	279.9067	-591.7081	613.4401	-249.9044	509.0333
45	-745.7318	253.6560	-523.5642	55.9519	-223.4224	441.3719
46	-220.6864	228.4874	-459.6243	-407.2251	-198.2236	376.9090
47	213.7769	204.7066	-398.5629	-757.1281	-173.9120	315.3315
48	540.1699	181.8809	-340.3954	-1026.8007	-151.3765	257.2192
49	792.1297	160.8775	-285.8820	-1198.9011	-129.6440	201.6583
50	952.9009	140.7251	-233.6404	-1312.6887	-110.0235	149.8668
51	1062.1589	122.7021	-185.1128	-1346.0619	-91.1476	99.8033
52	1097.7845	105.4394	-138.8795	-925.8969	-76.6831	48.3168
53	687.0089	92.5750	-90.5982	-924.2913	-65.5690	16.1717
54	701.2336	83.0548	-62.1346	-909.8570	-56.0609	-12.2602

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	709.1563	75.0691	-36.7914	-893.8584	-48.0710	-37.6114
56	721.0308	68.5708	-15.2956	-886.2668	-41.5644	-59.1316
57	746.2071	63.4721	3.0456	-896.1154	-36.4729	-77.4529
58	792.7842	59.7027	17.7825	-931.3878	-32.7044	-92.1895
59	867.4318	57.1482	29.0799	-998.3709	-30.1505	-103.4959
60	975.3254	55.6956	37.4365	-866.7308	-34.0398	-60.3855
61	-3965.7319	333.0974	-752.8737	3167.4180	-337.6270	731.6182
62	-3187.4478	338.0877	-737.5510	2218.0640	-308.0859	654.9168
63	-2277.1143	309.5345	-663.3415	1393.6707	-279.5404	580.6875
64	-1490.5006	282.0916	-591.7313	689.1357	-252.0881	509.0277
65	-821.4294	255.8526	-524.1364	124.9442	-225.6167	441.9864
66	-290.3484	230.6996	-460.0111	-344.2766	-200.4348	377.3029
67	150.5762	206.9420	-398.9076	-700.6477	-176.1504	315.6642
68	483.2792	184.1214	-340.7553	-976.7397	-153.6100	257.5622
69	741.7113	163.0984	-286.1020	-1155.1199	-131.8622	201.8632
70	908.8168	142.9643	-233.8527	-1275.2900	-112.2598	150.0892
71	1024.5013	124.9436	-185.3198	-1315.1016	-93.3985	99.9750
72	1066.6740	107.7124	-138.8051	-900.9709	-79.0100	48.2730
73	661.8801	94.9180	-90.8160	-906.1523	-67.9137	16.3961
74	683.0352	85.4055	-62.1156	-898.7146	-58.4093	-12.2772
75	697.9445	77.4223	-36.8122	-889.7195	-50.4202	-37.6026
76	716.8633	70.9300	-15.2107	-889.1585	-43.9290	-59.2011
77	749.1230	65.8441	2.9574	-906.1577	-38.8434	-77.3727
78	802.8170	62.0799	17.6889	-948.5586	-35.0793	-92.1130
79	884.5979	59.5297	29.3698	-1022.6779	-32.5327	-103.7792
80	999.6693	58.0805	37.2732	-899.8744	-36.5433	-60.1601
81	-4018.5557	334.2329	-753.5428	3218.9741	-338.8088	732.3315
82	-3239.1877	339.2696	-737.4117	2266.4495	-309.2732	654.7629
83	-2325.4155	310.7254	-663.4432	1438.1658	-280.7234	580.7811
84	-1534.9449	283.2763	-592.0369	730.0702	-253.2723	509.3506
85	-862.5316	257.0306	-524.1941	162.6157	-226.8002	442.0342
86	-327.8279	231.8943	-460.2294	-310.4657	-201.6242	377.4939
87	116.5840	208.1118	-399.1008	-670.1203	-177.3233	315.8490
88	452.8220	185.2942	-340.8512	-949.8669	-154.7818	257.6559
89	714.6985	164.3006	-286.3309	-1131.6715	-133.0663	202.0689
90	885.4292	144.1629	-233.7331	-1255.4263	-113.4639	149.9017
91	1004.6630	126.1409	-185.1845	-1298.8043	-94.5975	99.9121
92	1050.3303	108.9130	-139.0185	-888.2537	-80.1994	48.4557
93	649.0681	96.1046	-90.7402	-896.8781	-69.1051	16.3389
94	673.7802	86.5890	-62.0804	-893.0005	-59.5970	-12.3054
95	692.2254	78.6160	-36.9363	-887.6010	-51.6121	-37.4860
96	714.7096	72.1281	-15.2011	-890.5796	-45.1316	-59.2016
97	750.5517	67.0426	3.1564	-911.1812	-40.0408	-77.5730
98	807.8497	63.2795	17.8332	-957.1901	-36.2779	-92.2535
99	893.2474	60.7281	29.3484	-1034.9518	-33.7226	-103.7779
100	1011.9600	59.2797	37.2726	-915.0562	-37.7024	-60.0969
101	-4028.2153	334.4345	-754.3956	3227.2883	-338.9933	733.1899
102	-3247.6965	339.4625	-737.4440	2274.3894	-309.4638	654.7514
103	-2333.3777	310.9102	-663.3913	1445.5387	-280.9072	580.7350
104	-1542.1064	283.4566	-592.6439	736.7502	-253.4564	509.9701
105	-869.2990	257.2120	-524.6791	168.7262	-226.9759	442.5204
106	-334.0057	232.0673	-460.6414	-304.6219	-201.8048	377.9125
107	110.8969	208.3006	-399.5015	-664.9878	-177.5127	316.2520
108	447.6602	185.4814	-341.2924	-945.3462	-154.9595	258.0417
109	710.2769	164.4770	-286.4944	-1127.8347	-133.2399	202.2440
110	881.4751	144.3427	-234.2495	-1252.0765	-113.6397	150.4548
111	1001.2837	126.3346	-185.5871	-1295.9713	-94.7967	100.2574

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	1047.5577	109.0890	-139.2441	-885.9522	-80.3949	48.7494
113	646.8704	96.2950	-91.1593	-895.2430	-69.2960	16.7706
114	672.2090	86.7913	-62.1887	-892.1218	-59.7831	-12.2256
115	691.2812	78.8186	-37.2883	-887.1966	-51.8216	-37.1110
116	714.3834	72.3196	-15.2603	-890.8535	-45.3160	-59.1562
117	750.8116	67.2305	2.5946	-912.0006	-40.2331	-77.0061
118	808.6541	63.4657	17.7539	-958.5776	-36.4585	-92.1899
119	894.6389	60.9164	28.8737	-1036.8660	-33.9207	-103.2935
120	1013.8253	59.4657	37.6459	-755.2054	-33.7112	-95.3793
121	-4195.6221	330.3717	-718.6201	3232.0098	-339.1264	732.2760
122	-3252.1106	339.5955	-737.8736	2278.4275	-309.6001	655.2501
123	-2337.4153	311.0551	-663.8927	1449.1779	-281.0528	581.2375
124	-1545.8344	283.5913	-592.8962	739.8750	-253.5843	510.2033
125	-872.3813	257.3382	-525.0111	171.4408	-227.1052	442.8724
126	-336.7385	232.1840	-460.9694	-302.1959	-201.9152	378.2587
127	108.4489	208.3945	-399.8180	-662.7767	-177.6091	316.5618
128	445.4479	185.5786	-341.5379	-943.2906	-155.0624	258.2615
129	708.2449	164.5718	-286.6703	-1126.1396	-133.3324	202.3987
130	879.6975	144.4115	-234.4224	-1250.5514	-113.7028	150.6658
131	999.6393	126.4194	-186.0174	-1294.5574	-94.8779	100.6949
132	1046.1466	109.1714	-139.3887	-884.7708	-80.4760	48.8436
133	645.6645	96.3958	-90.9397	-894.3349	-69.3983	16.5513
134	671.2476	86.8794	-62.2891	-891.4051	-59.8769	-12.1230
135	690.5793	78.9055	-37.3139	-886.8172	-51.9017	-37.0999
136	713.9586	72.4170	-15.6382	-890.6862	-45.4219	-58.7622
137	750.6819	67.3339	2.9034	-912.1983	-40.3308	-77.3289
138	808.8800	63.5709	17.5256	-959.1098	-36.5674	-91.9530
139	895.1840	61.0212	28.8929	-1037.7314	-34.0256	-103.3197
140	1014.7122	59.5735	37.6498	-756.3172	-33.8116	-95.4441
141	-4196.7046	330.3414	-717.6116	3233.3022	-339.0925	731.3207
142	-3253.0317	339.5550	-738.5697	2279.2478	-309.5524	655.9994
143	-2338.3132	311.0031	-664.4041	1450.4695	-281.0096	581.7557
144	-1547.1749	283.5604	-593.1229	741.2871	-253.5547	510.4143
145	-873.5640	257.3175	-525.6195	172.7532	-227.0858	443.4862
146	-338.0721	232.1771	-461.5120	-300.9728	-201.9082	378.7998
147	107.2271	208.4034	-400.3249	-661.7151	-177.6115	317.0395
148	444.4284	185.5759	-341.9427	-942.2325	-155.0629	258.6601
149	707.2466	164.5794	-287.0564	-1125.1439	-133.3383	202.7837
150	878.7328	144.4257	-234.7854	-1249.6504	-113.7207	150.9864
151	998.8401	126.4057	-186.1167	-1293.7726	-94.8676	100.8028
152	1045.3363	109.1827	-139.7591	-884.0237	-80.4873	49.2438
153	644.9844	96.4016	-91.0947	-893.6831	-69.3998	16.7065
154	670.5682	86.8810	-62.6911	-890.7124	-59.8803	-11.7173
155	689.8976	78.9083	-37.4719	-886.1448	-51.9039	-36.9467
156	713.2549	72.4155	-15.8122	-889.9822	-45.4184	-58.5920
157	749.9431	67.3311	2.8417	-911.4268	-40.3320	-77.2513
158	808.0928	63.5660	17.4252	-958.2843	-36.5674	-91.8386
159	894.3304	61.0160	28.8683	-1036.8931	-34.0129	-103.3018
160	1013.8802	59.5679	37.0545	-755.4872	-33.8098	-94.8971
161	-4196.5308	330.3263	-718.8262	3233.0713	-339.0779	732.6170
162	-3253.1655	339.5414	-738.2159	2279.6121	-309.5439	655.5918
163	-2338.5898	310.9940	-664.2072	1450.5170	-280.9921	581.5551
164	-1547.0728	283.5311	-593.4138	741.5118	-253.5327	510.7530
165	-874.0490	257.2861	-525.3756	173.2243	-227.0510	443.1932
166	-338.2246	232.1536	-461.5743	-300.6688	-201.8879	378.8588
167	106.7480	208.3593	-400.4202	-661.0394	-177.5625	317.2445
168	443.6071	185.5332	-342.2339	-941.3377	-155.0171	258.9175

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	706.4033	164.5292	-287.0088	-1124.1606	-133.2946	202.6446
170	877.8031	144.3794	-234.5430	-1248.4705	-113.6792	150.7130
171	997.7113	126.3733	-185.7997	-1292.5792	-94.8278	100.4572
172	1044.0638	109.1452	-139.4856	-882.6008	-80.4413	49.0400
173	643.4283	96.3518	-91.3538	-891.9544	-69.3576	16.9818
174	668.8862	86.8334	-62.3374	-888.8809	-59.8373	-12.0527
175	688.0666	78.8676	-37.5538	-884.1855	-51.8643	-36.8712
176	711.2989	72.3765	-15.5359	-887.8955	-45.3813	-58.8579
177	747.8868	67.2956	2.5714	-909.3019	-40.2878	-77.0066
178	805.9566	63.5279	17.4736	-956.0124	-36.5359	-91.8763
179	892.0925	60.9818	28.9960	-1034.5688	-33.9735	-103.4454
180	1011.5808	59.5330	37.1780	-753.0764	-33.7665	-95.0196
181	-4192.0176	329.9799	-718.9382	3229.8137	-338.7352	732.7104
182	-3250.0427	339.2003	-737.7399	2277.4795	-309.2021	655.1221
183	-2336.1990	310.6468	-664.7622	1449.2234	-280.6458	582.1453
184	-1546.0308	283.1964	-593.3406	741.4539	-253.1971	510.6544
185	-873.8480	256.9563	-525.5323	173.8908	-226.7173	443.3646
186	-339.1306	231.8101	-461.5075	-298.6917	-201.5468	378.7553
187	105.0731	208.0460	-400.3201	-658.4390	-177.2577	317.0694
188	441.0325	185.2253	-342.1280	-937.8190	-154.7162	258.8916
189	702.8303	164.2338	-287.2436	-1119.7046	-133.0015	202.9018
190	873.4092	144.0855	-234.6218	-1243.2382	-113.3835	150.8488
191	992.3342	126.0841	-186.3473	-1286.3041	-94.5368	100.9587
192	1037.8933	108.8306	-139.3636	-875.4159	-80.1214	48.9309
193	636.2345	96.0190	-91.4454	-883.8096	-69.0197	17.0371
194	660.6495	86.5161	-62.8579	-879.6642	-59.5227	-11.5267
195	678.8524	78.5473	-37.4463	-874.0131	-51.5425	-36.9610
196	701.1046	72.0531	-15.8417	-876.7471	-45.0577	-58.5602
197	736.7067	66.9724	2.4246	-897.1285	-39.9727	-76.8436
198	793.7793	63.2088	17.3976	-942.8946	-36.2113	-91.8144
199	878.9630	60.6646	28.8055	-1020.4643	-33.6623	-103.2306
200	997.4677	59.2164	36.8138	-738.0201	-33.4467	-94.7015
201	-4182.9019	329.2761	-719.2769	3222.5925	-338.0263	733.1034
202	-3242.6982	338.4920	-738.6894	2272.3223	-308.4951	656.0461
203	-2331.4692	309.9487	-664.0589	1446.7112	-279.9530	581.3992
204	-1543.1865	282.4972	-593.4264	740.5015	-252.4931	510.7360
205	-872.9937	256.2563	-525.5033	175.2908	-226.0225	443.3383
206	-340.4018	231.1176	-461.6165	-295.3292	-200.8583	378.8936
207	101.5340	207.3477	-400.4576	-652.8267	-176.5565	317.2541
208	435.3795	184.5305	-342.2729	-930.0944	-154.0103	258.9612
209	695.1451	163.5053	-287.1004	-1109.8232	-132.2667	202.7669
210	863.4026	143.3548	-234.7934	-1231.0439	-112.6425	150.9961
211	980.1865	125.3306	-186.1441	-1271.9048	-93.7910	100.8287
212	1023.4268	108.1014	-139.8102	-858.8365	-79.4069	49.3072
213	619.7699	95.3207	-91.1738	-865.2587	-68.3224	16.7852
214	642.1308	85.8116	-62.7681	-859.0757	-58.8133	-11.6381
215	658.2658	77.8463	-37.4620	-851.2845	-50.8480	-36.9369
216	678.4413	71.3559	-15.9472	-851.9927	-44.3572	-58.4610
217	711.9776	66.2762	2.6670	-870.3017	-39.2760	-77.0815
218	767.0032	62.5146	17.2577	-914.0502	-35.5158	-91.6749
219	850.1416	59.9685	28.6892	-989.5672	-32.9641	-103.1347
220	966.5815	58.5217	37.1457	-705.0210	-32.7486	-94.9903
221	-4130.4272	325.2891	-717.8616	3182.3162	-334.0351	731.6374
222	-3202.3428	334.4938	-737.5583	2243.8589	-304.4937	654.9421
223	-2302.8679	305.9528	-663.5057	1429.8447	-275.9486	580.8457
224	-1526.4197	278.4880	-592.7223	735.9170	-248.4891	510.0431
225	-868.3903	252.2757	-524.8186	182.7403	-222.0366	442.6524

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-347.7573	227.1116	-460.9603	-276.0732	-196.8416	378.2489
227	82.2045	203.3517	-399.8105	-621.5357	-172.5507	316.5699
228	404.3104	180.5333	-341.4728	-887.0201	-150.0255	258.2099
229	652.1130	159.5576	-286.6254	-1054.7645	-128.3199	202.3286
230	808.7306	139.4173	-234.0812	-1164.6735	-108.7075	150.2172
231	914.0382	121.4241	-185.4915	-1193.9399	-89.8890	100.1979
232	945.8617	104.2212	-139.1669	-770.5577	-75.5636	48.6740
233	531.8729	91.4783	-90.7299	-765.8318	-64.4733	16.3329
234	543.1001	81.9703	-62.1734	-748.4997	-54.9750	-12.2162
235	548.1505	74.0146	-36.8620	-729.7221	-47.0090	-37.5603
236	557.2732	67.5311	-15.4454	-719.3385	-40.5377	-58.9499
237	579.7731	62.4619	2.9759	-726.6710	-35.4593	-77.4048
238	623.7531	58.7147	17.8615	-759.3943	-31.7140	-92.2818
239	695.8329	56.1715	29.0396	-823.8485	-29.1706	-103.4611
240	801.0887	54.7296	37.2578	-528.4050	-28.9348	-95.1557
241	-4020.5728	317.0157	-715.5512	3096.3215	-325.6208	729.3434
242	-3116.3484	326.0969	-735.5562	2182.7986	-296.0892	652.9232
243	-2242.0676	297.5632	-661.2789	1394.3351	-267.5623	578.6186
244	-1491.0721	270.1479	-590.4850	725.7039	-240.1518	507.8136
245	-858.1749	243.9802	-522.6993	197.3095	-213.6866	440.5258
246	-362.3812	218.8574	-458.6989	-236.4350	-188.5780	375.9766
247	43.3042	195.1779	-397.5768	-557.7998	-164.3357	314.3293
248	341.3710	172.4456	-339.3887	-799.6636	-141.9024	256.1531
249	566.1647	151.5606	-284.5786	-944.4801	-120.3001	200.2011
250	700.5142	131.5468	-231.8679	-1032.5262	-100.8289	148.0382
251	784.5849	113.7072	-183.5877	-1041.1019	-82.1535	98.2810
252	796.3579	96.6286	-137.1041	-608.4869	-68.4052	46.6927
253	373.7419	84.5070	-88.9681	-586.7788	-57.5080	14.5776
254	368.6865	75.1920	-60.3698	-553.7565	-48.1975	-14.0251
255	358.4229	67.4192	-35.4775	-520.1627	-40.4218	-38.9302
256	353.0559	61.1113	-13.8802	-495.8886	-34.1077	-60.5389
257	361.5881	56.1902	4.3264	-489.6570	-29.1902	-78.7420
258	391.7094	52.5703	18.8964	-508.9172	-25.5700	-93.3248
259	449.5035	50.1314	30.3835	-559.3988	-23.1291	-104.8207
260	539.5668	48.7533	38.3506	-276.6366	-22.8053	-100.7010
261	-3464.3267	280.3849	-522.6511	2833.4912	-295.1264	548.1263
262	-2845.6909	295.4108	-552.6854	2205.8970	-273.1642	491.4055
263	-2241.4451	274.0525	-498.7539	1650.0383	-251.8014	437.4673
264	-1708.6384	253.3193	-446.9691	1190.8683	-230.3642	383.2060
265	-1272.0402	232.6045	-394.3712	786.0733	-209.5289	330.8041
266	-888.1778	212.5591	-345.2623	446.4735	-189.8256	282.8507
267	-568.5567	193.6975	-298.9100	170.6479	-170.8183	236.2513
268	-309.9183	175.5620	-255.2379	-45.1817	-152.0403	190.9240
269	-108.8859	157.7500	-212.2868	-204.3602	-134.0712	147.8001
270	38.4981	140.7668	-171.5371	-311.2614	-117.4506	108.2570
271	137.1935	125.1775	-134.4631	-370.8091	-101.7378	70.8645
272	192.4653	110.5573	-99.5743	-388.3449	-85.4679	31.6422
273	209.8145	95.3752	-62.8608	18.4742	-72.0648	-3.3288
274	-192.6466	83.1354	-30.3734	28.3474	-62.8849	-25.4281
275	-193.4523	75.0952	-10.7863	47.2690	-54.8393	-45.0197
276	-198.2777	68.2563	6.3407	67.4988	-48.0114	-62.1182
277	-199.2022	62.6528	20.9448	80.9973	-42.4033	-76.7466
278	-188.1090	58.2651	33.1071	79.7804	-38.0145	-88.9080
279	-156.8168	55.1127	42.7560	55.6113	-34.8646	-98.5517
280	-96.9222	53.2178	50.0213	-0.0591	-32.9627	-105.8455

ENVOLVENTE MAXIMOS TORSORES TREN IPF-B, l=15 m, via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.0028	-0.0005	0.5373	-8.4271	0.2508	-2.1008
2	29.7604	-0.8851	6.9648	-46.1425	1.4674	-9.1850
3	108.2067	-2.8568	16.5543	-128.6174	3.7695	-19.4220
4	217.8748	-7.4254	29.1724	-234.9908	8.6654	-32.6612
5	354.9345	-13.0574	44.8824	-364.9316	14.6223	-49.0519
6	506.5892	-20.2417	63.9075	-504.5557	22.1269	-68.7495
7	662.7784	-28.9528	85.9891	-643.9164	31.1531	-91.4425
8	813.5389	-39.1789	111.0138	-821.2963	42.6785	-117.6369
9	997.4385	-51.8663	139.6733	-923.3105	55.9870	-149.5587
10	1111.9901	-65.7968	174.4620	-1006.3689	68.4862	-180.3854
11	1164.1399	-80.6935	206.9795	-1021.3083	83.4485	-213.1221
12	1213.2571	-95.0294	243.1893	-1034.4292	97.8527	-249.5788
13	1166.6234	-112.3691	281.0897	-944.9695	115.2316	-287.6156
14	1096.2314	-129.5441	322.2651	-832.1864	132.4589	-329.0754
15	951.6257	-148.1833	365.8437	-641.7786	151.1264	-372.8771
16	757.8214	-167.2619	412.5226	-424.6974	171.7257	-423.1265
17	511.1457	-188.9515	464.9926	-102.9901	193.4519	-476.7935
18	156.4976	-211.7044	521.1419	302.4780	214.7100	-529.0350
19	-318.6584	-234.7979	575.9779	831.9457	237.7901	-584.0248
20	-758.1133	-255.7716	632.9023	1320.8844	230.9861	-580.7971
21	-1319.2196	0.3992	95.3351	1218.1898	-27.7896	-35.5930
22	-1199.0677	27.3506	40.8170	1072.5999	-26.2618	-43.1526
23	-1016.3926	24.8850	51.2010	914.5399	-24.1676	-53.0121
24	-821.9791	21.7340	64.2843	693.6778	-19.9364	-69.3757
25	-566.1105	16.3108	84.1040	482.0395	-15.2263	-87.3877
26	-322.0351	10.3124	105.5780	215.1382	-7.7653	-113.4005
27	-26.4567	1.4535	135.0832	-61.8164	0.0980	-139.7060
28	274.2156	-7.8768	164.7780	-289.0347	11.0876	-173.5891
29	519.7367	-20.4042	202.0584	-544.6258	22.6704	-207.7743
30	787.0974	-33.5766	239.8779	-724.1131	37.1351	-249.2426
31	971.8840	-49.6388	284.7132	-904.4873	52.5495	-291.4316
32	1147.4716	-66.8394	330.1205	-981.0226	70.6829	-339.8994
33	1217.7687	-86.4567	382.2060	-1030.1899	89.9021	-390.0133
34	1256.8458	-107.0568	436.0661	-963.9317	111.1445	-446.3996
35	1157.7156	-130.2762	495.3030	-825.7472	134.1327	-504.0745
36	1005.5774	-154.3114	557.1026	-564.1897	158.5744	-567.9925
37	697.6198	-180.6046	624.0467	-201.5984	184.7323	-633.8509
38	327.2163	-207.3049	693.5238	279.3401	211.6621	-704.9092
39	-239.6965	-236.6860	768.0822	914.6320	240.9291	-778.8081
40	-857.5495	-265.6731	844.8829	1643.5546	240.7042	-783.6296
41	-1686.5061	6.5802	120.1805	1559.6823	-35.4878	-47.7459
42	-1540.9877	35.1681	53.2367	1386.7506	-33.9729	-55.4965
43	-1327.7045	32.5123	63.2251	1201.1425	-31.7461	-64.9916
44	-1104.7570	29.2171	76.3024	950.9811	-27.3317	-81.3699
45	-818.7911	23.5893	96.3533	711.6531	-22.4649	-99.6255
46	-546.8382	17.3926	117.6206	416.6794	-14.7734	-125.4506
47	-223.2059	8.2911	147.1066	112.9168	-6.6798	-151.7468
48	104.0606	-1.2763	176.8373	-139.2273	4.5119	-185.6464
49	373.4699	-14.0531	214.1985	-418.1919	16.3566	-219.8971
50	664.7592	-27.3939	251.8959	-620.5650	30.9632	-261.2399
51	871.0833	-43.6378	296.8558	-821.9628	46.5712	-303.6408
52	1070.2511	-60.8698	342.5206	-921.8348	64.7260	-352.3463
53	1160.7053	-80.6315	394.8210	-990.5687	84.0802	-402.5970
54	1213.6342	-101.5449	448.3475	-937.3442	105.6272	-458.7059

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	1158.1278	-123.9334	508.2218	-845.3029	127.7875	-517.0542
56	995.8521	-148.9836	569.7049	-570.3781	153.2290	-580.5471
57	734.8058	-174.4293	636.8505	-257.3346	178.5461	-646.6884
58	360.6649	-201.7699	706.3673	229.1176	206.1147	-717.7284
59	-165.1561	-230.5553	780.8402	821.4995	234.7747	-791.5522
60	-789.9133	-260.1233	857.6785	1559.1250	235.4465	-795.8712
61	-1617.1549	5.3582	122.3049	1494.7559	-33.9561	-49.2448
62	-1474.4894	33.4871	53.9700	1324.9849	-32.2852	-56.1801
63	-1265.7942	30.8253	64.0639	1144.1711	-30.0547	-65.8466
64	-1047.4429	27.5088	77.2956	898.5548	-25.6167	-82.3380
65	-766.0703	21.8516	96.7059	664.0450	-20.7240	-99.9756
66	-498.7654	15.6284	118.4176	373.7275	-13.0057	-126.2290
67	-179.8858	6.5240	147.6790	74.7942	-4.9102	-152.3242
68	142.5576	-3.0554	177.4266	-172.4436	6.2941	-186.2273
69	407.4734	-15.8174	214.7757	-446.9657	18.1312	-220.4874
70	693.2947	-29.2189	252.4651	-643.6858	32.7887	-261.8176
71	895.8204	-45.4029	297.4214	-841.4358	48.3359	-304.2315
72	1092.6838	-62.4915	343.3159	-939.3654	66.3480	-353.1475
73	1174.5554	-82.4306	395.4389	-999.0442	85.8755	-403.1949
74	1226.5615	-103.1963	449.1831	-945.2554	107.2850	-459.5836
75	1166.6432	-125.5862	509.1403	-848.8298	129.4392	-517.9807
76	1021.6944	-149.9284	570.7911	-593.5025	154.1737	-581.6418
77	733.5477	-176.0897	637.9025	-251.0855	180.2029	-647.7133
78	354.4285	-203.4362	707.4002	240.4302	207.7817	-718.7596
79	-169.0994	-232.0480	781.8092	829.8820	236.2671	-792.5504
80	-806.9471	-261.8248	859.0180	1581.3219	237.0353	-797.1559
81	-1664.3324	6.2441	122.5956	1538.9609	-34.9537	-49.4987
82	-1518.7400	34.4819	54.5957	1366.2434	-33.2790	-56.8048
83	-1306.5354	31.8090	64.5090	1181.9329	-31.0380	-66.2608
84	-1085.6611	28.5034	77.5258	933.7801	-26.6115	-82.5485
85	-800.7779	22.8365	97.1085	695.7909	-21.7092	-100.3678
86	-529.8802	16.6075	118.4308	401.8931	-13.9827	-126.2402
87	-206.2493	7.4254	147.7872	98.4339	-5.8110	-152.4228
88	130.0667	-2.5794	177.4639	-161.3719	5.8175	-186.2652
89	387.4550	-14.9483	214.7707	-429.5784	17.2551	-220.4802
90	683.8526	-28.7078	252.6015	-635.7467	32.2761	-262.0065
91	890.1968	-44.7759	297.6708	-837.7198	47.7139	-304.4483
92	1082.3108	-62.2062	343.3049	-929.7606	66.0623	-353.1283
93	1173.4077	-81.7848	395.6796	-999.8553	85.2376	-403.4897
94	1222.9211	-102.7323	449.5312	-943.0826	106.8168	-459.9130
95	1158.9891	-125.3260	509.3406	-841.8851	129.1799	-518.1706
96	1023.7760	-149.3811	571.1226	-597.2517	153.6323	-582.0145
97	740.4247	-175.4570	638.4431	-259.8387	179.5704	-648.2831
98	363.1770	-202.8051	708.0221	229.7865	207.1468	-719.3772
99	-165.7570	-231.5851	782.4886	825.3299	235.8027	-793.2185
100	-802.3667	-261.3696	859.6929	1575.0354	236.6086	-797.7705
101	-1672.4319	6.4327	122.6043	1546.5834	-35.1132	-49.4811
102	-1526.3409	34.6488	54.9401	1373.3368	-33.4454	-57.1629
103	-1314.2076	32.0027	64.8533	1189.0150	-31.2343	-66.5737
104	-1091.1598	28.6615	77.3506	938.8056	-26.7683	-82.3616
105	-806.2679	23.0054	97.0545	700.7629	-21.8776	-100.3123
106	-535.4805	16.7837	118.4336	406.9806	-14.1593	-126.2336
107	-186.0731	6.7254	147.6485	80.3608	-5.1120	-152.2817
108	137.2236	-2.8691	177.3445	-167.6578	6.1079	-186.1657
109	402.8244	-15.6249	214.7379	-442.9040	17.9405	-220.4639
110	689.2519	-29.0356	252.4631	-640.1882	32.6016	-261.8301
111	891.9845	-45.2206	297.5486	-838.1759	48.1527	-304.3619

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	1086.0883	-62.4984	343.3443	-932.7397	66.3596	-353.1668
113	1172.0754	-82.2631	395.5747	-997.0929	85.7123	-403.4149
114	1245.3240	-102.2087	449.7998	-966.8843	106.2883	-460.2124
115	1162.7266	-125.4705	509.5180	-845.3201	129.3229	-518.3633
116	1026.9735	-149.5183	571.6321	-599.9789	153.7625	-582.5380
117	738.9172	-175.7201	638.7128	-257.5977	179.8341	-648.5153
118	362.1408	-203.0221	708.3841	231.6250	207.3660	-719.7744
119	-167.6117	-231.8278	783.0053	827.7141	236.0470	-793.6733
120	-804.7968	-261.5772	859.5138	1578.2150	236.8138	-797.6277
121	-1676.9274	6.5054	123.3789	1550.8213	-35.1896	-50.2713
122	-1530.2292	34.7232	55.1148	1377.0021	-33.5200	-57.2919
123	-1317.8843	32.0564	64.9770	1192.5382	-31.2873	-66.7049
124	-1095.7604	28.7474	77.6405	943.1212	-26.8566	-82.6369
125	-810.4717	23.0926	97.1750	704.6980	-21.9659	-100.4230
126	-539.3767	16.8907	118.5225	410.5464	-14.2676	-126.3075
127	-211.2674	7.5960	147.6907	102.9243	-5.9798	-152.3267
128	137.3606	-2.8698	177.3423	-167.8082	6.1074	-186.1877
129	402.9339	-15.6270	214.7592	-443.0219	17.9426	-220.5061
130	689.4519	-29.0378	252.5305	-640.3611	32.6037	-261.8527
131	891.3263	-45.2991	297.3995	-837.2885	48.2403	-304.1908
132	1086.9036	-62.4995	343.3272	-933.5299	66.3542	-353.2517
133	1188.6793	-81.5842	396.0657	-1015.7576	85.0338	-403.9521
134	1257.2705	-103.4322	450.1823	-975.2029	107.5142	-460.5811
135	1176.0364	-126.5441	510.0356	-855.3214	130.3991	-518.8475
136	1028.8500	-151.1175	571.8410	-597.1382	155.3649	-582.7479
137	738.3322	-177.0029	639.3692	-253.0446	181.1141	-649.2212
138	356.3692	-204.3515	709.0195	241.2880	208.6942	-720.3670
139	-172.4061	-232.4484	783.5362	834.3896	236.6667	-794.2021
140	-805.6087	-261.6298	860.0638	1579.1963	236.8623	-798.2041
141	-1678.4575	6.5652	124.3496	1552.1465	-35.2519	-51.2039
142	-1509.9677	32.6679	55.3064	1362.8772	-31.4657	-57.4244
143	-1303.3628	30.0107	65.2396	1184.1709	-29.2405	-66.9788
144	-1087.3972	26.6844	78.0733	940.9573	-24.7915	-83.0465
145	-808.0833	20.8018	97.1581	709.2114	-19.6739	-100.4017
146	-544.0200	14.5773	118.6081	422.1263	-11.9517	-126.3818
147	-225.0051	5.6153	147.7227	122.6090	-4.0041	-152.3591
148	123.0756	-4.6762	177.3196	-148.0950	7.9125	-186.1762
149	391.0971	-16.7740	214.7410	-427.7256	19.0906	-220.4748
150	677.3198	-29.9442	252.4729	-625.5250	33.5158	-261.8419
151	892.0068	-45.3519	297.5527	-837.8047	48.2838	-304.3448
152	1086.2494	-62.5875	343.3056	-932.6121	66.4400	-353.2258
153	1196.4062	-83.9364	396.2755	-1016.3788	87.3883	-404.1584
154	1239.5145	-104.8603	450.1424	-953.1969	108.9417	-460.5135
155	1176.3344	-127.2619	510.1865	-853.3998	131.1164	-519.0345
156	1028.7448	-151.7979	572.0612	-594.9470	156.0496	-582.9848
157	736.7023	-177.6598	639.7301	-249.5465	181.7706	-649.6109
158	352.8773	-205.0035	709.4323	246.6205	209.3494	-720.7879
159	-180.6109	-233.5045	783.9526	845.9409	237.7249	-794.6378
160	-819.3502	-262.9484	860.9313	1596.8435	238.1819	-798.9935
161	-1667.9075	5.7298	123.9817	1544.1556	-34.4161	-50.8039
162	-1517.9681	33.3652	55.6401	1368.8152	-32.1620	-57.7935
163	-1307.2017	30.3846	65.4630	1186.8594	-29.6169	-67.1686
164	-1088.1742	26.7637	77.9005	941.5005	-24.8719	-82.8703
165	-808.9517	21.1058	97.4972	709.1291	-19.9787	-100.7364
166	-540.8542	15.1308	118.3434	417.3083	-12.5063	-126.1362
167	-223.3942	6.0141	147.7059	119.7831	-4.3988	-152.2817
168	97.6426	-3.5769	177.2579	-125.9735	6.8148	-186.1002

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	403.6028	-15.5219	214.6315	-443.9849	17.8338	-220.4267
170	691.2196	-28.9697	252.4934	-642.3776	32.5401	-261.9015
171	894.1820	-45.2062	297.7124	-840.3723	48.1372	-304.5362
172	1088.8929	-62.4458	343.5516	-935.6911	66.3027	-353.4094
173	1190.4791	-83.3654	396.0162	-1012.1863	86.8209	-403.9081
174	1262.5503	-104.3783	450.5064	-977.7114	108.4616	-460.9448
175	1177.2061	-127.5267	510.2476	-853.4771	131.3752	-519.0734
176	1028.5178	-151.8251	572.4551	-594.6850	156.0794	-583.3938
177	734.6209	-177.9761	639.8191	-246.3483	182.0911	-649.6466
178	350.4987	-205.0909	709.5435	249.1314	209.4328	-720.9087
179	-182.9235	-233.5687	784.0456	848.5645	237.7849	-794.7354
180	-822.3911	-263.0138	861.0413	1600.2035	238.2463	-799.0784
181	-1670.3374	5.9215	123.8320	1545.9703	-34.6099	-50.6588
182	-1525.7521	34.1460	55.7471	1374.2432	-32.9431	-57.8801
183	-1306.2191	30.3526	64.9910	1185.9847	-29.5822	-66.6982
184	-1089.1906	27.0320	77.9178	941.7220	-25.1391	-82.9041
185	-808.9467	21.3586	97.2914	708.3700	-20.2309	-100.5260
186	-543.0675	15.1502	118.4942	419.4862	-12.5259	-126.2870
187	-191.8037	5.5135	147.5427	89.7229	-3.8965	-152.1816
188	127.6573	-4.0852	177.2328	-154.4766	7.3203	-186.0450
189	405.2609	-15.3780	214.5773	-446.0658	17.6885	-220.3494
190	693.5447	-28.8358	252.5002	-645.0868	32.4035	-261.8698
191	895.9746	-45.0927	297.3619	-842.5381	48.0244	-304.1804
192	1120.0344	-64.4540	343.6884	-960.8086	68.3109	-353.6418
193	1200.0227	-84.2322	396.1670	-1019.1256	87.6921	-403.9644
194	1242.2415	-105.1872	450.0693	-954.9766	109.2728	-460.5028
195	1171.6232	-128.0412	510.4078	-846.3580	131.8935	-519.3033
196	1019.1841	-152.4086	572.3822	-583.5987	156.6602	-583.2793
197	724.0567	-178.5605	639.7913	-234.1667	182.6717	-649.6375
198	338.3456	-205.6554	709.5511	263.1202	210.0019	-720.9308
199	-199.3653	-234.4573	784.1227	867.4955	238.6734	-794.8189
200	-844.5083	-264.2244	861.2336	1626.0455	239.4537	-799.2552
201	-1674.9639	6.2625	123.7682	1549.5854	-34.9529	-50.5491
202	-1525.6956	34.1343	55.3899	1374.2223	-32.9310	-57.5700
203	-1316.1248	31.6315	65.5659	1192.0665	-30.8615	-67.2776
204	-1093.2020	27.9475	77.8699	942.9677	-26.0546	-82.8353
205	-810.2440	22.2831	97.3458	706.9080	-21.1552	-100.5868
206	-540.5091	16.1912	118.3706	413.7805	-13.5672	-126.1671
207	-214.7820	6.9507	147.6104	108.3624	-5.3373	-152.2134
208	108.8359	-2.6218	177.2167	-140.0271	5.8603	-186.0605
209	406.0681	-15.4223	214.6340	-446.7746	17.7347	-220.4146
210	693.2003	-28.8209	252.4318	-644.7720	32.3942	-261.7936
211	895.8632	-45.1118	297.5172	-842.3757	48.0461	-304.3265
212	1090.8480	-62.3610	343.2747	-937.9102	66.2179	-353.1989
213	1197.0660	-83.9946	396.2652	-1016.8662	87.4455	-404.1487
214	1241.8690	-105.1778	450.1465	-954.5733	109.2653	-460.5459
215	1155.2316	-128.3096	510.3477	-829.2570	132.1601	-519.1975
216	1002.1165	-152.6720	572.1276	-565.6688	156.9277	-583.0253
217	705.3040	-178.8471	639.7420	-214.5517	182.9588	-649.6159
218	317.8455	-206.2063	709.4347	285.2998	210.5504	-720.7880
219	-219.8355	-234.7672	783.9410	889.0027	238.9852	-794.6041
220	-856.4501	-263.5691	860.6672	1635.9844	238.7927	-798.7522
221	-1683.0704	6.8538	124.2381	1555.8926	-35.5499	-51.0841
222	-1535.6678	35.0873	55.7614	1381.3003	-33.8832	-57.9038
223	-1322.0480	32.4323	65.5878	1195.5637	-31.6605	-67.2879
224	-1098.2275	29.0959	77.9768	944.5455	-27.1999	-82.9458
225	-811.6807	23.4120	97.4421	704.9778	-22.2826	-100.6789

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-538.8950	17.1701	118.4046	409.2300	-14.5399	-126.1947
227	-215.3555	8.0427	147.7438	105.7037	-6.4247	-152.3451
228	138.8266	-2.6211	177.2961	-169.9728	5.8613	-186.1340
229	404.8920	-15.3887	214.6570	-445.6382	17.7064	-220.4085
230	692.5210	-28.8635	252.5070	-643.9042	32.4363	-261.9192
231	894.8177	-45.1609	297.6187	-841.1168	48.0953	-304.4069
232	1089.2142	-62.3983	343.3798	-936.1346	66.2526	-353.2772
233	1191.5657	-83.7378	396.1599	-1012.0223	87.1890	-404.0324
234	1236.6029	-104.9455	450.1779	-950.0162	109.0300	-460.6222
235	1151.5605	-128.3611	510.5126	-825.2627	132.2212	-519.3777
236	997.7483	-152.7591	572.2481	-561.1140	157.0123	-583.1228
237	700.3806	-178.9479	639.7452	-209.2162	183.0606	-649.6143
238	313.1420	-206.0151	709.5268	289.4395	210.3587	-720.9049
239	-225.8861	-234.8138	784.1469	894.9633	239.0312	-794.8255
240	-866.5353	-264.0160	861.0268	1647.4301	239.1865	-799.0874
241	-1690.2804	7.3782	124.2130	1561.3384	-36.1166	-51.0187
242	-1541.0087	35.6462	55.5482	1384.8118	-34.4212	-57.6962
243	-1325.4019	32.9451	65.5206	1197.3297	-32.1626	-67.2346
244	-1099.6674	29.5540	77.9468	944.5916	-27.6286	-82.9202
245	-811.8477	23.8029	97.3355	703.9882	-22.6555	-100.5805
246	-538.7842	17.4748	118.5630	408.4239	-14.8061	-126.3599
247	-184.3592	7.1037	147.7045	77.8690	-5.4397	-152.3338
248	138.5855	-2.6523	177.3905	-169.4106	5.9103	-186.1931
249	403.1301	-15.5826	214.7113	-442.6074	17.9513	-220.5022
250	687.7690	-29.2644	252.7520	-637.5870	32.8570	-262.1606
251	885.4908	-45.7169	297.6936	-829.1984	48.7039	-304.4832
252	1086.0117	-64.1164	343.6759	-927.2202	67.9908	-353.6143
253	1171.9366	-85.0798	396.4525	-987.3798	88.5788	-404.3659
254	1207.1145	-106.4944	450.7969	-915.3860	110.5958	-461.2178
255	1110.6891	-129.8434	510.7153	-779.2354	133.7302	-519.5406
256	946.2162	-154.4130	572.6354	-504.1681	158.6735	-583.5439
257	638.2142	-180.7551	640.1581	-141.5216	184.8712	-650.0050
258	239.4595	-208.2543	709.8396	369.7018	212.5952	-721.1843
259	-303.8926	-236.2649	784.2185	976.3901	240.4587	-794.9308
260	-956.5635	-266.0836	861.4016	1742.6279	240.8554	-800.5032
261	-1787.8989	10.1044	135.9809	1677.9224	-39.1842	-63.9781
262	-1665.7117	38.8960	68.4329	1553.7639	-38.2920	-69.5316
263	-1517.5798	37.4078	75.6426	1405.6213	-36.6825	-77.2702
264	-1346.6715	35.1247	85.6917	1236.8402	-34.2713	-87.9832
265	-1155.7994	32.0219	99.4819	1012.3738	-29.9141	-105.9595
266	-908.6406	26.8621	119.0737	808.1786	-25.5949	-123.2706
267	-687.1444	21.7689	139.8204	596.6902	-20.3544	-144.6538
268	-451.4525	15.4151	163.0345	374.4356	-13.8494	-168.2756
269	-193.3733	7.1654	189.3897	134.6574	-5.4449	-194.9042
270	31.1991	-1.2394	218.6596	-70.6003	3.1166	-224.3950
271	244.6553	-10.8451	250.5905	-261.3118	12.8703	-256.5933
272	440.8898	-21.7378	285.4135	-473.1957	24.7552	-293.9256
273	651.7314	-34.6742	325.1410	-609.4297	38.6573	-335.9346
274	783.5875	-49.7266	369.8158	-707.1676	52.3563	-376.7114
275	872.2924	-64.5635	412.9022	-758.2173	67.3358	-419.9843
276	920.4055	-81.7622	458.7923	-762.7299	84.6813	-466.1327
277	900.9318	-100.0550	507.5027	-696.4351	103.1133	-515.0351
278	805.3813	-119.2433	558.6723	-551.4162	122.4421	-566.4083
279	629.6120	-139.8698	612.7861	-322.4249	143.2013	-620.7324
280	363.2844	-161.2890	669.2142	-0.3079	164.7524	-677.3206

ENVOLVENTE MINIMOS FLECTORES TREN IPF-B, l=15 m, via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.2288	219.3335	-656.1868	-387.2595	-162.0790	515.5480
2	-111.2097	-49.4277	-54.2844	222.4221	49.4274	54.2884
3	-222.4012	-49.4262	-54.3628	333.6355	49.4258	54.3583
4	-333.6578	-49.4337	-54.1699	444.9341	49.4344	54.1620
5	-444.9419	-49.4454	-54.0921	556.1664	49.4472	54.0931
6	-556.1391	-49.4678	-54.2886	667.4316	49.4705	54.2947
7	-667.4251	-49.4917	-54.2920	778.7861	49.4935	54.2844
8	-778.7961	-49.5046	-54.1207	890.2242	49.5043	54.1060
9	-890.2455	-49.5133	-53.9911	1001.6392	49.5127	54.0006
10	-1001.6270	-49.4978	-54.3531	1112.9938	49.4981	54.3405
11	-1113.0504	-49.5281	-53.7170	1224.4982	49.5277	53.7165
12	-1224.4700	-49.5056	-54.4139	1335.8547	49.5063	54.4129
13	-1335.8760	-49.5060	-53.6451	1447.2769	49.5060	53.6250
14	-1447.2402	-49.4707	-53.9301	1558.5247	49.4689	53.9325
15	-1558.5277	-49.4770	-53.5997	1690.6294	66.7118	23.7950
16	-1690.6028	-66.7134	-24.4024	1843.7638	69.2134	17.5229
17	-1843.8269	-69.8481	-12.3827	2003.5706	72.3488	5.4485
18	-2078.5496	-145.7658	179.2075	2408.5474	147.7656	-184.8096
19	-2467.9243	-207.7307	328.4946	2937.7754	209.7309	-333.9947
20	-2988.0010	-263.6712	466.0704	3584.3184	227.9992	-391.3291
21	-3622.6360	313.9288	-743.8552	2612.9460	-321.5223	742.0280
22	-2651.9998	296.3325	-680.3314	1769.4828	-291.9729	670.1315
23	-1858.3619	221.9489	-491.0783	1280.4438	-190.8201	397.7457
24	-1351.5940	133.2208	-249.8044	951.9042	-133.2211	249.8042
25	-1046.4451	68.8387	-72.3014	839.9156	-68.8391	72.3017
26	-965.0674	-13.4685	-3.9828	1005.4706	13.4696	3.9640
27	-1005.4768	-13.4861	-3.7187	1045.9305	13.4866	3.7174
28	-1045.9269	-13.4669	-3.9818	1086.3284	13.4658	3.9866
29	-1086.3408	-13.4606	-3.7041	1126.7096	13.4586	3.7012
30	-1126.7150	-13.4459	-4.0101	1167.0482	13.4458	4.0237
31	-1167.0352	-13.4372	-4.0084	1207.3467	13.4380	3.9984
32	-1207.3379	-13.4283	-3.6612	1269.5530	21.6711	13.4085
33	-1269.5607	-21.6900	-13.3993	1334.6299	21.6897	13.4131
34	-1334.6342	-21.6788	-13.7910	1399.6736	21.6782	13.7847
35	-1399.6880	-21.6729	-13.2015	1464.7120	21.6738	13.2012
36	-1464.7075	-21.6806	-13.8306	1546.2554	39.9725	-37.7920
37	-1584.8762	-82.9101	88.1679	1838.0839	85.9100	-96.4234
38	-1922.4692	-140.5540	255.8237	2348.6560	143.5542	-264.1022
39	-2470.3359	-215.9471	454.8591	3122.6069	218.9471	-463.1148
40	-3223.4485	-288.3570	641.1924	4093.0713	252.3609	-556.2877
41	-4165.0122	324.6582	-721.8378	3120.4114	-333.0673	731.5269
42	-3163.5083	307.9757	-669.4792	2274.4192	-273.3198	566.0129
43	-2379.0249	203.6890	-387.6317	1767.9238	-203.6891	387.6707
44	-1858.9194	146.6239	-239.6931	1419.0164	-146.6260	239.6632
45	-1542.9728	75.0745	-36.5347	1317.7756	-75.0759	36.5293
46	-1458.5017	2.0927	6.4262	1452.2205	-2.0931	-6.4003
47	-1452.2205	2.0929	6.4056	1445.9396	-2.0929	-6.3962
48	-1445.9226	2.0915	6.1932	1439.6515	-2.0901	-6.1979
49	-1439.6357	2.0690	6.4190	1433.4485	-2.0685	-6.4258
50	-1433.4658	2.0550	6.4047	1427.3123	-2.0539	-6.3847
51	-1427.3207	2.0464	6.0076	1421.1823	-2.0453	-6.0047
52	-1421.1608	2.0473	6.1840	1424.4504	7.3583	4.6350
53	-1424.4648	-7.3327	-4.7971	1446.4625	7.3324	4.7990
54	-1446.4457	-7.3462	-4.6292	1468.4763	7.3468	4.6394

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	-1468.4579	-7.3520	-5.0302	1490.5117	7.3529	5.0390
56	-1490.5089	-7.3626	-4.8062	1528.4497	25.0808	-48.0701
57	-1592.5172	-88.9792	90.7239	1863.9445	91.9794	-98.9816
58	-1952.0564	-147.4858	259.2679	2398.9817	150.4861	-267.5364
59	-2524.3320	-223.3511	457.9127	3198.8521	226.3511	-466.1294
60	-3301.5630	-295.9349	644.2960	4193.9556	260.3395	-558.8738
61	-4266.2056	327.2219	-720.0456	3215.2119	-335.2348	730.3604
62	-3258.2358	310.1432	-669.9460	2364.7017	-275.5460	566.4428
63	-2470.5979	205.9458	-387.7470	1852.8820	-205.9449	387.7485
64	-1945.8037	133.0150	-196.8892	1546.7163	-133.0132	196.9148
65	-1624.8027	77.4345	-37.0354	1392.5116	-77.4336	37.0389
66	-1536.1576	4.4934	7.4008	1522.6625	-4.4925	-7.4055
67	-1522.6537	4.4862	6.8042	1509.1951	-4.4842	-6.7644
68	-1509.2043	4.4817	6.7560	1495.7687	-4.4821	-6.7558
69	-1495.7739	4.4924	6.7557	1482.2877	-4.4961	-6.7535
70	-1482.2482	4.5019	6.7437	1468.7427	-4.5033	-6.7270
71	-1468.7544	4.5206	6.3224	1455.2028	-4.5213	-6.2992
72	-1455.1938	4.5175	6.0688	1452.4266	4.7678	4.7793
73	-1452.4130	-4.7805	-4.5483	1466.7681	4.7799	4.5504
74	-1466.7246	-4.7727	-4.7683	1481.0389	4.7728	4.7916
75	-1481.0585	-4.7762	-5.1906	1495.3849	4.7772	5.1999
76	-1495.3949	-4.7917	-5.2093	1525.8066	22.6735	-47.7735
77	-1597.4663	-92.9836	91.4262	1880.9211	95.9836	-99.6982
78	-1969.2635	-151.5508	260.1778	2428.4329	154.5504	-268.3830
79	-2554.2185	-227.4616	457.9097	3241.0459	230.4614	-466.1464
80	-3343.6948	-300.0654	645.7412	4248.5645	264.3675	-560.2719
81	-4321.2139	328.2994	-720.6719	3266.7524	-336.4147	731.0708
82	-3309.9609	311.3278	-669.7905	2413.2236	-276.7327	566.1214
83	-2519.0925	207.1320	-387.5850	1897.6560	-207.1310	387.6211
84	-1990.7032	134.1984	-196.8284	1588.0907	-134.1971	196.8435
85	-1666.3701	78.6184	-36.3774	1430.5681	-78.6193	36.4062
86	-1574.4724	5.6969	7.5301	1557.3812	-5.6977	-7.5039
87	-1557.3842	5.7046	7.2712	1540.2631	-5.7040	-7.2327
88	-1540.2469	5.6944	6.8200	1523.1619	-5.6948	-6.8184
89	-1523.1461	5.6960	7.2235	1506.0500	-5.6948	-7.2155
90	-1506.0314	5.6862	6.5940	1488.9989	-5.6861	-6.5513
91	-1489.0155	5.6837	6.1245	1471.9523	-5.6854	-6.1183
92	-1471.9484	5.6952	6.3505	1465.1091	3.6380	4.4870
93	-1465.0854	-3.6330	-4.7120	1475.9907	3.6329	4.7261
94	-1475.9933	-3.6335	-4.9844	1486.8892	3.6328	4.9986
95	-1486.9006	-3.6066	-5.1700	1497.7201	3.6066	5.1874
96	-1497.7413	-3.6264	-5.4339	1524.6304	21.4627	-47.5438
97	-1598.4762	-93.6409	90.9739	1883.9170	96.6408	-99.2240
98	-1972.3376	-152.2198	259.8810	2433.5203	155.2204	-268.1084
99	-2559.3618	-228.1476	458.1886	3248.4507	231.1474	-466.4376
100	-3351.2056	-300.7514	646.0430	4257.7310	265.0829	-560.5013
101	-4330.2837	328.5181	-721.5363	3275.0637	-336.5993	731.9389
102	-3318.4731	311.5198	-669.8117	2421.2131	-276.9247	566.0007
103	-2527.1062	207.3174	-387.3438	1905.0974	-207.3176	387.4297
104	-1998.0667	134.3928	-197.3431	1594.9062	-134.3927	197.3935
105	-1673.2382	78.8213	-36.5490	1436.7798	-78.8215	36.5502
106	-1580.7268	5.8948	7.7852	1563.0364	-5.8959	-7.7430
107	-1563.0347	5.8866	7.1102	1545.3962	-5.8874	-7.0576
108	-1545.3933	5.9019	6.8889	1527.6904	-5.8998	-6.8663
109	-1527.7106	5.8919	6.6257	1510.0316	-5.8930	-6.6121
110	-1510.0348	5.8977	6.6187	1492.3495	-5.8999	-6.5918
111	-1492.3499	5.8871	5.9419	1474.7086	-5.8877	-5.9190

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	-1474.7177	5.9139	5.9412	1456.9867	-5.9138	-5.9405
113	-1456.9976	5.9210	5.9379	1439.2332	-5.9193	-5.9212
114	-1439.2145	5.8809	5.1229	1421.5579	-5.8789	-5.1108
115	-1421.5437	5.8606	5.2764	1465.2952	18.3117	-39.1872
116	-1465.2999	-18.3409	38.3569	1524.8478	21.3412	-46.6206
117	-1599.3917	-94.0107	91.4558	1885.9175	97.0107	-99.6862
118	-1974.4065	-152.5701	259.5338	2436.7542	155.5699	-267.7622
119	-2562.4509	-228.4760	458.9593	3252.2842	231.4761	-467.1104
120	-3355.4238	-301.0824	644.1956	4263.0806	265.3999	-558.6620
121	-4335.5459	328.6418	-720.7301	3279.8032	-336.7346	731.0369
122	-3322.8987	311.6556	-670.2540	2425.1763	-277.0473	566.4128
123	-2531.0320	207.4339	-387.6961	1908.7047	-207.4326	387.7618
124	-2001.6652	134.4767	-197.2123	1598.1486	-134.4782	197.2649
125	-1676.5338	78.8749	-36.4404	1439.9233	-78.8761	36.4595
126	-1584.1393	5.9424	8.1336	1566.3232	-5.9415	-8.0935
127	-1566.3022	5.9703	7.4653	1548.3912	-5.9712	-7.4065
128	-1548.3735	5.9815	7.0096	1530.4153	-5.9848	-6.9716
129	-1530.4404	6.0041	6.5542	1512.4113	-6.0048	-6.5311
130	-1512.4009	6.0128	6.5382	1494.3462	-6.0115	-6.5327
131	-1494.2975	6.0043	6.3301	1476.2831	-6.0053	-6.3062
132	-1476.2913	6.0261	5.8975	1458.2085	-6.0273	-5.8677
133	-1458.2104	6.0309	5.2359	1440.1182	-6.0310	-5.2151
134	-1440.1208	6.0199	4.8045	1422.0555	-6.0197	-4.7952
135	-1422.0624	6.0197	4.7648	1465.3193	18.1541	-38.7280
136	-1465.3193	-18.1883	38.5048	1524.3804	21.1885	-46.7292
137	-1599.1345	-94.0483	90.6078	1885.8284	97.0478	-98.8404
138	-1974.4192	-152.6238	259.9301	2436.8650	155.6236	-268.1750
139	-2562.8066	-228.5551	458.9307	3252.9014	231.5555	-467.0438
140	-3356.1418	-301.1615	644.2255	4264.0664	265.4858	-558.7448
141	-4336.5815	328.6087	-719.7370	3281.0896	-336.6987	730.0955
142	-3323.8276	311.6094	-670.9474	2426.0981	-277.0178	567.0517
143	-2532.0588	207.4188	-388.0146	1909.9316	-207.4175	388.0478
144	-2002.8523	134.4939	-196.9611	1599.2827	-134.4945	197.0430
145	-1677.4471	78.9195	-36.6971	1440.7413	-78.9203	36.7499
146	-1584.5834	6.0167	8.7215	1566.5383	-6.0160	-8.6944
147	-1566.5430	6.0107	8.0514	1548.5160	-6.0092	-7.9790
148	-1548.5062	6.0227	7.3334	1530.4427	-6.0218	-7.2768
149	-1530.4729	6.0324	6.8724	1512.3693	-6.0330	-6.8541
150	-1512.3451	6.0342	6.8401	1494.2340	-6.0349	-6.8213
151	-1494.2583	6.0412	6.1899	1476.1243	-6.0423	-6.1664
152	-1476.1115	6.0418	6.1705	1458.0055	-6.0418	-6.1489
153	-1458.0205	6.0338	5.1186	1439.9213	-6.0323	-5.0925
154	-1439.9319	6.0073	5.1128	1421.9176	-6.0069	-5.1092
155	-1421.9194	6.0148	4.6888	1465.2218	18.1577	-38.7102
156	-1465.2343	-18.1732	38.4615	1524.2540	21.1730	-46.6743
157	-1599.0341	-94.0631	90.5702	1885.7321	97.0633	-98.7896
158	-1974.2385	-152.6275	260.0370	2436.6042	155.6275	-268.2676
159	-2562.4512	-228.5519	458.9111	3252.7146	231.5514	-467.1069
160	-3355.5979	-301.1553	646.0698	4263.4438	265.4753	-560.5147
161	-4336.4536	328.5965	-720.9611	3280.8711	-336.6867	731.3909
162	-3323.9556	311.6014	-670.5844	2426.3943	-276.9943	566.5599
163	-2532.2402	207.3845	-387.6890	1910.0480	-207.3849	387.7760
164	-2002.9369	134.4359	-197.2323	1599.6543	-134.4376	197.2894
165	-1677.9230	78.8450	-35.9569	1441.3793	-78.8461	36.0283
166	-1585.1591	6.1099	8.0107	1566.8446	-6.1106	-7.9328
167	-1566.8468	6.1153	7.9383	1548.5042	-6.1174	-7.9466
168	-1548.5018	6.1401	7.9387	1530.0929	-6.1412	-7.8884

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	-1530.1136	6.1486	6.8470	1511.6787	-6.1476	-6.7862
170	-1511.7068	6.1196	6.5587	1493.3430	-6.1201	-6.5203
171	-1493.3177	6.1344	5.7344	1474.9095	-6.1322	-5.7090
172	-1474.8685	6.1187	5.7204	1456.5005	-6.1174	-5.7124
173	-1456.4904	6.1487	5.4517	1438.0454	-6.1504	-5.4275
174	-1438.0317	6.1490	4.3988	1419.5773	-6.1504	-4.3835
175	-1419.5477	6.1470	4.6483	1462.4619	18.0270	-38.6623
176	-1462.4702	-18.0182	37.7659	1521.0170	21.0185	-46.0050
177	-1595.7795	-93.9695	90.9467	1882.2719	96.9695	-99.1734
178	-1970.9229	-152.5531	259.8913	2432.9644	155.5531	-268.0705
179	-2558.9529	-228.4862	458.5265	3249.1489	231.4864	-466.7077
180	-3352.1538	-301.0887	645.6777	4259.9146	265.4118	-560.1489
181	-4331.9355	328.2479	-721.0837	3277.6292	-336.3419	731.4758
182	-3320.8577	311.2581	-670.0907	2424.3269	-276.6645	566.1309
183	-2529.9885	207.0552	-388.3761	1908.8202	-207.0558	388.4714
184	-2001.8240	134.1349	-197.1465	1599.4315	-134.1343	197.1757
185	-1677.5829	78.5484	-36.2918	1441.8997	-78.5461	36.3403
186	-1584.5714	6.3253	8.5057	1565.6062	-6.3249	-8.4275
187	-1565.5931	6.3371	7.3921	1546.5845	-6.3363	-7.3253
188	-1546.6064	6.3099	7.3268	1527.6727	-6.3071	-7.3133
189	-1527.6995	6.2819	6.9068	1508.8583	-6.2832	-6.8609
190	-1508.8390	6.3097	6.2285	1489.9055	-6.3115	-6.2026
191	-1489.8802	6.2887	6.2238	1471.0085	-6.2883	-6.1952
192	-1471.0217	6.3035	5.1642	1452.1145	-6.3042	-5.1354
193	-1452.1479	6.3345	5.1229	1433.1370	-6.3370	-5.1171
194	-1433.1237	6.3726	4.8682	1413.9961	-6.3732	-4.8570
195	-1413.9935	6.3670	4.0583	1456.2202	17.8077	-38.0801
196	-1456.2280	-17.8183	37.8244	1514.1780	20.8183	-46.0677
197	-1588.8195	-93.7644	90.9726	1874.6433	96.7641	-99.1722
198	-1963.1906	-152.3487	259.7405	2424.7273	155.3486	-267.9268
199	-2550.6262	-228.2954	458.6697	3240.0823	231.2957	-466.8992
200	-3342.9270	-300.8994	646.4086	4250.2095	265.2227	-560.8558
201	-4322.8037	327.5448	-721.4272	3270.3967	-335.6329	731.8852
202	-3313.5103	310.5515	-671.0746	2419.1709	-275.9564	567.0166
203	-2525.1826	206.3553	-387.4941	1906.2035	-206.3561	387.5611
204	-1998.9957	133.4185	-197.2443	1598.6560	-133.4174	197.3259
205	-1676.9120	77.8311	-36.2130	1443.4360	-77.8286	36.2740
206	-1582.9047	7.4476	8.2206	1560.5610	-7.4482	-8.1523
207	-1560.5546	7.4369	7.7522	1538.2607	-7.4376	-7.7271
208	-1538.2819	7.4407	7.7331	1515.9617	-7.4413	-7.6869
209	-1515.9523	7.4667	6.6896	1493.5491	-7.4701	-6.6405
210	-1493.5454	7.5107	6.6537	1471.0065	-7.5113	-6.6287
211	-1471.0166	7.5211	6.0115	1448.4585	-7.5173	-5.9943
212	-1448.4598	7.4994	6.0204	1425.9678	-7.4981	-5.9957
213	-1425.9680	7.4935	4.9756	1403.4780	-7.4964	-4.9480
214	-1403.4576	7.5113	4.9335	1380.9236	-7.5138	-4.9218
215	-1380.9341	7.5268	4.3313	1419.4440	16.6420	-38.3601
216	-1419.4656	-16.6459	38.3260	1473.9116	19.6459	-46.5455
217	-1548.8993	-92.6132	90.6570	1831.2534	95.6129	-98.8746
218	-1919.9866	-151.2155	260.1900	2378.1384	154.2152	-268.4184
219	-2504.2693	-227.1659	459.1152	3190.4248	230.1655	-467.2580
220	-3293.6880	-299.7767	645.3712	4197.5820	264.1183	-559.8378
221	-4270.0093	323.5498	-720.0054	3229.9751	-331.6273	730.4095
222	-3273.0220	306.5386	-669.9169	2390.9104	-271.9834	565.8924
223	-2496.9131	202.4045	-386.9499	1889.6078	-202.4044	387.0398
224	-1982.7263	129.5194	-196.5381	1594.1692	-129.5206	196.6082
225	-1672.5200	74.0171	-35.4999	1450.5333	-74.0191	35.5738

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-1578.3979	10.1019	8.2146	1548.0973	-10.1007	-8.1609
227	-1548.0985	10.1101	8.1403	1517.7742	-10.1078	-8.1045
228	-1517.7880	10.1054	7.5062	1487.4763	-10.1051	-7.4604
229	-1487.4895	10.0979	7.2309	1457.2048	-10.0979	-7.2002
230	-1457.2216	10.1069	6.6695	1426.8741	-10.1079	-6.6272
231	-1426.8879	10.0915	6.1389	1396.6234	-10.0904	-6.1190
232	-1396.6287	10.0658	6.1109	1366.4442	-10.0633	-6.0900
233	-1366.4393	10.0350	5.3692	1336.3345	-10.0344	-5.3408
234	-1336.3292	10.0370	5.0863	1306.2120	-10.0378	-5.0719
235	-1306.2043	10.0340	4.3746	1334.8612	14.0560	-38.3922
236	-1334.8346	-14.0335	38.5319	1381.4417	17.0332	-46.7586
237	-1459.7583	-90.0561	91.0528	1734.4879	93.0561	-99.2404
238	-1825.6301	-164.6211	302.4614	2324.0208	167.6215	-310.6810
239	-2404.4138	-224.6890	459.3610	3083.0071	227.6890	-467.5770
240	-3187.4309	-297.3265	646.3263	4084.0903	261.8540	-560.8209
241	-4156.8955	315.1862	-717.6591	3142.4609	-323.0641	728.0882
242	-3185.7441	298.0089	-667.8817	2331.8501	-263.8568	563.9502
243	-2439.2031	194.4467	-384.8353	1855.8533	-194.4485	384.9088
244	-1950.9875	122.0589	-194.4878	1584.8556	-122.0610	194.5695
245	-1664.1498	67.4371	-33.8093	1461.8325	-67.4388	33.8565
246	-1551.9399	24.4559	17.1599	1478.5957	-24.4533	-17.0917
247	-1478.6060	24.4324	16.3241	1405.3030	-24.4282	-16.2748
248	-1405.3096	24.4410	16.2770	1331.9789	-24.4384	-16.2662
249	-1331.9900	24.4080	16.0569	1258.7666	-24.4081	-15.9995
250	-1258.7716	24.4310	15.1508	1185.4786	-24.4328	-15.1061
251	-1185.4851	24.4344	15.1105	1112.1823	-24.4335	-15.1030
252	-1112.1838	24.4335	14.7991	1038.8685	-24.4317	-14.7760
253	-1038.8612	24.4131	14.3646	965.6179	-24.4149	-14.3384
254	-965.6388	24.4177	13.8841	892.3814	-24.4212	-13.8724
255	-892.3544	24.4449	13.8956	834.3480	-1.7188	-48.8744
256	-834.3659	1.7286	48.6572	833.6983	1.2713	-56.9044
257	-955.3277	-83.5952	126.9944	1210.6270	86.5953	-135.2468
258	-1309.2627	-150.9690	314.0354	1766.7006	153.9692	-322.2265
259	-1868.6007	-211.5547	469.7090	2507.8411	214.5547	-477.8955
260	-2629.1147	-284.5829	657.4911	3487.4185	250.6542	-580.5519
261	-3564.4248	278.5340	-519.7076	2880.1362	-292.7162	542.2266
262	-2907.2395	273.6330	-497.5781	2358.8789	-240.5202	407.8987
263	-2429.8159	186.5804	-275.1841	2009.9865	-186.5775	275.2802
264	-2085.2095	126.5455	-132.3456	1800.4061	-126.5434	132.3782
265	-1890.5865	53.0013	53.6035	1771.3660	-53.0038	-53.5311
266	-1772.7894	52.3887	57.2561	1654.9088	-52.3889	-57.2075
267	-1654.9041	52.3942	57.7210	1537.0244	-52.4009	-57.6973
268	-1537.0759	52.4368	56.8701	1419.1082	-52.4394	-56.7776
269	-1419.1270	52.4671	56.2867	1301.0837	-52.4702	-56.2535
270	-1301.0696	52.5198	56.2861	1182.8717	-52.5238	-56.2856
271	-1182.8879	52.5158	56.2617	1064.7369	-52.5149	-56.2158
272	-1064.7466	52.5619	55.6491	946.4886	-52.5647	-55.6101
273	-946.4992	52.5643	55.6263	828.2351	-52.5696	-55.6012
274	-828.2596	52.5971	55.3203	709.8898	-52.5997	-55.3025
275	-709.8765	52.5811	55.2931	591.5663	-52.5781	-55.2849
276	-591.5649	52.5768	55.1664	473.2856	-52.5775	-55.1500
277	-473.2957	52.5945	55.0015	354.9398	-52.5955	-54.9933
278	-354.9430	52.5936	54.9849	236.5907	-52.5934	-54.9762
279	-236.6203	52.5862	54.8481	118.3221	-52.5861	-54.8404
280	-118.3102	52.5833	54.8628	-0.0311	-44.0553	-47.4354

ENVOLVENTE MINIMOS CORTANTES TREN IPF-B, l=15 m, via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.0085	-29.8143	-105.2261	89.8741	50.0635	49.4206
2	-48.5985	-31.7080	-97.8882	142.7224	51.9566	42.0858
3	-65.7459	-34.8529	-88.0965	166.9735	55.1060	32.2732
4	-59.9490	-39.2518	-75.7475	171.1043	59.5093	19.9118
5	-39.5471	-44.8957	-60.9763	8.4646	66.0387	-15.4018
6	142.3714	-52.6443	-23.2097	-44.6624	74.7785	-37.4398
7	209.5534	-62.5658	1.3506	-92.2823	85.0151	-62.6110
8	266.3211	-73.9682	28.9594	-172.9736	97.7245	-91.4139
9	351.2478	-87.8120	60.2011	-173.4777	112.1771	-125.8802
10	351.6146	-103.3725	97.1728	-138.6746	126.3109	-158.9044
11	312.6047	-118.5900	132.6731	-61.7204	141.5972	-194.6348
12	227.3147	-134.8919	170.7724	63.9827	157.9642	-232.9680
13	90.1707	-152.2626	211.8073	244.0422	175.3774	-274.1484
14	-104.8328	-170.5942	255.1983	483.9963	193.7535	-317.7990
15	-362.0464	-189.8842	301.5405	788.5127	213.0796	-364.3857
16	-686.2665	-210.0506	350.1294	1138.4957	234.7711	-416.5620
17	-1057.3695	-232.5222	405.3460	1586.3099	257.2670	-472.9412
18	-1527.4750	-255.7275	464.3309	2108.2952	278.9854	-528.0417
19	-2072.4023	-278.1021	522.1727	2705.9019	301.3420	-586.0241
20	-2693.8506	-301.0648	580.5082	3381.3218	296.5313	-584.2195
21	357.3071	-39.0342	-40.5533	-509.8639	45.9706	37.3856
22	529.6910	-20.3463	-103.8329	-428.1467	47.3479	29.4194
23	487.5153	-22.7840	-92.5610	-378.6564	49.7856	18.1444
24	476.5819	-26.4023	-77.8304	-356.8708	53.4040	3.4145
25	491.1225	-31.3205	-59.6436	-356.6609	58.3220	-14.7749
26	523.7350	-37.6317	-37.9924	-370.3318	64.6333	-36.4266
27	565.6318	-45.4188	-13.0522	-585.0506	73.8694	-97.8041
28	803.1329	-56.1776	52.0762	-632.5385	86.3899	-135.3011
29	867.2785	-70.2953	92.7155	-702.0265	99.5585	-172.8358
30	946.7823	-85.0664	134.0274	-688.8212	115.6264	-217.8111
31	936.7670	-102.7547	182.3269	-669.5104	132.6669	-263.4568
32	913.6648	-121.4091	231.2600	-543.0420	152.2498	-315.4479
33	776.5204	-142.5967	286.8043	-380.0552	173.0392	-369.0143
34	596.4009	-164.9342	343.9268	-89.3280	196.0234	-428.6752
35	282.8967	-189.4222	407.0040	267.0492	220.2835	-490.1973
36	-102.0964	-215.1240	471.7696	766.4445	246.3885	-557.0756
37	-633.6826	-242.5559	542.5532	1356.0298	273.6806	-626.7593
38	-1259.1960	-271.0872	615.0331	2097.6123	302.4458	-700.8352
39	-2038.0989	-300.9708	693.3322	2946.3557	332.2110	-778.4611
40	-2926.2295	-331.7397	772.5361	3950.9553	333.7723	-785.6990
41	594.8389	-45.6699	-24.8831	-772.4940	51.9613	35.7684
42	795.2496	-26.4084	-102.3154	-675.5432	53.4054	27.9140
43	739.1360	-28.9442	-90.8309	-611.7912	55.9458	16.4117
44	714.7084	-32.6978	-76.0702	-576.1030	59.6993	1.6549
45	715.6723	-37.7748	-58.0667	-561.8725	64.7715	-16.3347
46	734.2847	-44.2499	-36.2608	-561.0240	71.2511	-38.1579
47	761.4081	-52.2084	-11.1560	-748.6696	80.2149	-100.9624
48	971.3120	-62.7190	55.2475	-781.7109	92.9483	-138.4501
49	1020.4755	-77.0281	95.9309	-835.7541	106.3331	-176.0422
50	1083.8959	-92.0111	137.0754	-805.3459	122.5819	-220.8374
51	1055.9373	-109.8628	185.5361	-767.5812	139.8022	-266.7523
52	1013.6749	-128.7021	234.6662	-621.3360	159.5521	-318.8830
53	856.2759	-150.0368	290.3664	-437.3516	180.4915	-372.5747
54	654.6276	-172.4992	347.4193	-125.0423	203.5752	-432.1716

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	318.7265	-197.0726	410.5041	253.9968	227.9249	-493.7415
56	-88.6423	-222.8314	475.6104	776.2284	254.0829	-560.8829
57	-643.7785	-250.3027	545.9780	1389.3462	281.4177	-630.2241
58	-1292.5652	-278.8692	618.9357	2154.1169	310.2120	-704.7056
59	-2094.9441	-308.7560	696.6163	3026.3701	339.9736	-781.7378
60	-3006.3291	-339.5090	775.7980	4054.2278	341.8349	-788.4103
61	778.4930	-49.2969	-23.8567	-938.3472	55.7543	35.4880
62	961.3497	-30.1996	-101.5746	-830.2319	57.2023	27.1480
63	894.1386	-32.7599	-90.1219	-755.3986	59.7548	15.7226
64	858.6911	-36.5148	-75.5603	-708.6278	63.5173	1.1407
65	848.6176	-41.5978	-57.0133	-683.3253	68.5975	-17.3989
66	856.1562	-48.0906	-35.7651	-671.3656	75.0942	-38.6541
67	872.1186	-56.0660	-10.3428	-852.3084	84.2362	-101.7956
68	1075.3700	-66.7443	55.9322	-873.7082	96.9823	-139.1452
69	1112.7975	-81.0772	96.7181	-916.0072	110.3905	-176.8414
70	1164.4307	-96.0924	137.8561	-873.7209	126.6615	-221.6197
71	1124.5664	-113.9610	186.3142	-823.9765	143.8980	-267.5485
72	1070.2289	-132.8049	235.6598	-665.5362	163.6576	-319.8971
73	900.6516	-154.1395	291.2567	-469.4694	184.5883	-373.4383
74	686.7812	-176.6179	348.3684	-144.7444	207.7028	-433.1684
75	338.5371	-201.2052	411.5287	246.6475	232.0588	-494.7831
76	-81.3688	-226.9662	476.6109	781.1770	258.2121	-561.8775
77	-648.6292	-254.4495	547.1549	1406.6776	285.5634	-631.3801
78	-1309.8700	-283.0148	620.0849	2183.9622	314.3605	-705.8567
79	-2125.0696	-312.9052	696.8193	3068.8936	344.1216	-781.9658
80	-3048.5637	-343.6598	777.3587	4109.0063	345.8754	-789.9226
81	809.2548	-50.0732	-23.6044	-969.2598	56.4672	35.3229
82	992.2552	-30.9202	-101.6853	-859.0120	57.9177	27.2770
83	922.9438	-33.4630	-90.1897	-782.0466	60.4651	15.7690
84	885.3684	-37.2269	-75.5027	-733.1763	64.2290	1.0850
85	873.1833	-42.3222	-57.2218	-705.7668	69.3157	-17.1725
86	878.6555	-48.7986	-35.5794	-691.7094	75.8048	-38.8485
87	892.5125	-56.7829	-10.3837	-869.3474	84.9075	-101.7291
88	1092.4615	-67.4130	56.0800	-888.7459	97.6542	-139.2980
89	1127.8643	-81.7572	96.6098	-929.0929	111.0626	-176.7324
90	1177.4220	-96.7422	138.1142	-884.7809	127.3058	-221.9172
91	1135.6025	-114.6217	186.6909	-833.0815	144.5596	-267.8760
92	1079.5355	-133.4616	235.7468	-672.6477	164.3254	-319.9996
93	907.6959	-154.8147	291.5299	-474.5555	185.2674	-373.7513
94	691.8623	-177.3104	348.7350	-147.8969	208.3870	-433.5090
95	341.8115	-201.8971	411.8713	245.5549	232.7553	-495.1256
96	-80.3307	-227.6532	476.9043	782.1285	258.9010	-562.1975
97	-649.7101	-255.1419	547.2581	1409.8673	286.2565	-631.5146
98	-1313.0643	-283.7074	620.2629	2189.2388	315.0501	-706.0333
99	-2130.2422	-313.5946	697.3434	3076.4177	344.8178	-782.5001
100	-3056.1223	-344.3562	777.7917	4118.1763	346.5885	-790.2628
101	825.0660	-50.3829	-23.3768	-1024.2155	55.1906	30.3968
102	1047.2083	-29.6424	-97.0448	-917.7973	56.6405	22.6390
103	981.7390	-32.1857	-85.5903	-844.6637	59.1889	11.1474
104	948.0105	-35.9563	-70.5033	-799.6489	62.9552	-3.9227
105	939.6916	-41.0425	-52.3630	-776.0718	68.0417	-22.0479
106	948.9323	-47.5335	-30.8141	-802.0453	75.6628	-71.8804
107	1002.8279	-56.6347	22.8669	-877.9988	85.2443	-101.9031
108	1101.1580	-67.7618	56.0973	-896.3395	98.0086	-139.3537
109	1135.4524	-82.0923	97.0580	-935.6270	111.4086	-177.1961
110	1184.0680	-97.1121	138.2135	-890.2758	127.6785	-221.9961
111	1141.0359	-114.9690	186.8601	-837.5006	144.8983	-268.0773

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	1083.8107	-133.8222	236.0832	-676.0189	164.6805	-320.3093
113	911.0641	-155.1762	291.7418	-476.8688	185.6227	-373.9885
114	694.1331	-177.6453	349.0941	-148.8086	208.7311	-433.9307
115	342.6873	-202.2178	412.3417	245.4100	233.0642	-495.5835
116	-80.3434	-227.9710	477.2317	783.2386	259.2182	-562.5540
117	-650.5630	-255.4537	548.1312	1411.5681	286.5664	-632.3447
118	-1315.0635	-284.0131	620.2540	2192.3901	315.3645	-706.0778
119	-2133.1741	-313.9143	698.2947	3079.9814	345.1289	-783.3622
120	-3060.2600	-344.6660	776.0768	4123.4087	346.8993	-788.5912
121	827.5587	-50.4471	-23.6483	-1026.5048	55.2497	30.7368
122	1049.5054	-29.7011	-96.9511	-919.9233	56.6973	22.5316
123	983.8502	-32.2436	-85.4846	-846.6165	59.2441	11.0505
124	949.9718	-35.9981	-70.5847	-801.4360	63.0042	-3.8579
125	941.4866	-41.0862	-52.3272	-777.7382	68.0850	-22.0852
126	950.6225	-47.5774	-30.8009	-803.6186	75.7064	-71.8937
127	1004.4434	-56.6860	22.8503	-879.4933	85.2969	-101.8813
128	1102.6357	-67.8132	56.1961	-897.7715	98.0504	-139.4547
129	1136.9700	-82.1474	97.2532	-936.9553	111.4669	-177.4202
130	1185.5000	-97.1538	138.4404	-891.5187	127.7238	-222.1833
131	1142.3459	-115.0326	186.7873	-838.6497	144.9701	-267.9780
132	1084.9758	-133.8843	236.1380	-676.9461	164.7397	-320.4763
133	911.8930	-155.2223	292.1943	-477.5778	185.6695	-374.4866
134	694.9033	-177.7090	349.5659	-149.4812	208.7932	-434.3839
135	343.3772	-202.3000	412.8246	245.1323	233.1574	-496.0540
136	-79.9571	-228.0562	477.8785	782.9251	259.2983	-563.1819
137	-650.6527	-255.5458	548.0188	1412.1074	286.6606	-632.2947
138	-1315.3137	-284.1051	621.0754	2192.7778	315.4512	-706.8454
139	-2133.7363	-314.0028	698.4386	3080.8337	345.2170	-783.5045
140	-3061.1147	-344.7541	776.2406	4124.5454	346.9841	-788.7867
141	828.5835	-50.4549	-23.6622	-1027.6741	55.2579	30.9003
142	1050.7052	-29.7080	-96.5968	-921.0709	56.7099	22.1457
143	984.9991	-32.2621	-85.1957	-847.7520	59.2565	10.7904
144	951.0939	-36.0167	-70.5190	-802.4943	63.0231	-3.9340
145	942.5171	-41.1092	-51.8932	-778.7256	68.1045	-22.5226
146	951.6078	-47.5930	-30.5383	-804.4645	75.7268	-72.1611
147	1005.2712	-56.6963	23.0605	-880.2261	85.3078	-102.1082
148	1103.2883	-67.8248	56.5421	-898.3891	98.0582	-139.8004
149	1137.5126	-82.1527	97.5885	-937.4980	111.4713	-177.7388
150	1185.9622	-97.1626	138.7475	-891.9862	127.7360	-222.5324
151	1142.7784	-115.0485	187.3721	-838.9957	144.9792	-268.5730
152	1085.3304	-133.8815	236.5378	-677.3266	164.7326	-320.8687
153	912.2332	-155.2341	292.7391	-477.8174	185.6863	-375.0385
154	695.2504	-177.6955	350.0202	-149.9226	208.7773	-434.8044
155	343.7631	-202.2851	413.2360	244.8041	233.1446	-496.5111
156	-79.5774	-228.0591	478.3407	782.6268	259.3079	-563.6697
157	-650.4106	-255.5414	548.3847	1411.6985	286.6508	-632.6723
158	-1314.8981	-284.0942	621.4800	2192.1487	315.4385	-707.2449
159	-2133.1562	-313.9909	698.6093	3080.4814	345.2150	-783.7180
160	-3060.3845	-344.7560	778.1332	4123.7588	346.9849	-790.5945
161	827.7449	-50.3789	-23.4275	-1026.9681	55.1821	30.6809
162	1049.9642	-29.6337	-96.9158	-920.5810	56.6307	22.4961
163	984.5113	-32.1770	-85.4944	-847.4687	59.1787	11.0524
164	950.8083	-35.9393	-70.4781	-802.5000	62.9383	-3.9444
165	942.5378	-41.0229	-52.4396	-778.9763	68.0222	-21.9891
166	951.8536	-47.5046	-30.3168	-804.9803	75.6337	-72.3850
167	1005.8247	-56.6073	22.9477	-881.0701	85.2231	-101.9361
168	1104.2084	-67.7479	55.9161	-899.5242	97.9861	-139.1696

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	1138.6318	-82.0670	97.2749	-938.8477	111.3808	-177.4852
170	1187.2623	-97.0801	138.6451	-893.6505	127.6448	-222.4458
171	1144.4884	-114.9594	187.4196	-840.8944	144.8941	-268.6713
172	1087.3180	-133.8004	236.6834	-679.5057	164.6606	-320.9600
173	914.5522	-155.1520	292.5228	-480.4425	185.6034	-374.8150
174	697.6322	-177.6337	350.0312	-152.5532	208.7145	-434.8738
175	346.5527	-202.2171	413.3157	241.8009	233.0707	-496.5654
176	-76.8012	-227.9969	478.2412	779.5830	259.2459	-563.5763
177	-647.0819	-255.4725	548.8529	1408.4192	286.5943	-633.1115
178	-1311.8555	-284.0443	621.4002	2188.7461	315.3778	-707.1524
179	-2129.8142	-313.9303	698.3097	3077.1440	345.1549	-783.4330
180	-3057.0608	-344.6940	777.8385	4120.4209	346.9274	-790.2919
181	825.2859	-50.1841	-23.3431	-1025.2377	54.9834	30.6122
182	1048.2371	-29.4353	-97.0405	-919.4427	56.4333	22.6091
183	983.4018	-31.9826	-85.1635	-846.9563	58.9824	10.7261
184	950.2834	-35.7448	-70.5330	-802.5502	62.7441	-3.8850
185	942.6010	-40.8272	-52.2660	-779.5856	67.8312	-22.1683
186	952.4294	-47.3214	-30.6311	-806.1309	75.4464	-72.0598
187	1006.9103	-56.4221	23.2394	-882.7023	85.0372	-102.2844
188	1105.8065	-67.5582	56.3474	-901.7270	97.7918	-139.5713
189	1140.8688	-81.8618	97.3114	-941.6956	111.1751	-177.5017
190	1190.1073	-96.8745	138.8909	-897.0420	127.4423	-222.6750
191	1147.9287	-114.7450	187.1729	-845.0415	144.6768	-268.4073
192	1091.3076	-133.5862	236.9186	-684.1534	164.4448	-321.2868
193	919.3213	-154.9428	292.8031	-485.7812	185.4045	-375.0211
194	703.1296	-177.4361	350.0442	-158.6894	208.5157	-434.8682
195	352.4335	-202.0248	413.3234	235.3197	232.8806	-496.6411
196	-70.0999	-227.8034	478.5157	772.3207	259.0510	-563.8131
197	-639.8866	-255.2869	548.9297	1400.4712	286.3986	-633.1868
198	-1303.9152	-283.8511	621.3365	2180.4470	315.1955	-707.1210
199	-2121.4417	-313.7527	698.5291	3067.9824	344.9712	-783.6458
200	-3047.7695	-344.5045	778.5471	4110.6704	346.7364	-790.9878
201	810.2565	-49.0421	-23.2150	-1013.5979	53.8466	30.4671
202	1036.6113	-28.3002	-96.6997	-911.2291	55.2972	22.2910
203	975.1480	-30.8477	-85.5267	-842.1285	57.8441	11.1049
204	945.4817	-34.6030	-70.4582	-801.1277	61.6081	-3.9937
205	941.1705	-39.6922	-52.2569	-781.6034	66.6905	-22.1684
206	954.4482	-46.1795	-30.3629	-811.5781	74.3030	-72.3245
207	1012.3995	-55.2733	23.1370	-891.6399	83.8865	-102.1469
208	1114.7889	-66.3980	56.1420	-914.1487	96.6368	-139.3964
209	1153.2667	-80.7382	97.5296	-957.5071	110.0529	-177.7288
210	1206.0204	-95.7457	138.7414	-916.2974	126.3208	-222.5232
211	1167.1075	-113.6354	187.3811	-867.5479	143.5689	-268.5970
212	1113.9258	-132.4820	236.5481	-710.1333	163.3380	-320.8854
213	945.0583	-153.8222	292.7887	-514.8606	184.2743	-375.0826
214	732.2754	-176.3017	350.0721	-191.1038	207.3900	-434.8870
215	384.8295	-200.9115	413.3542	199.4305	231.7604	-496.6131
216	-34.1474	-226.6838	478.5179	733.1047	257.9376	-563.8256
217	-600.9117	-254.1739	548.5865	1358.1421	285.2857	-632.8711
218	-1261.3760	-282.7461	621.6723	2134.6379	314.0903	-707.4364
219	-2075.6499	-312.6430	698.8175	3018.9998	343.8659	-783.9086
220	-2999.1006	-343.3991	777.4817	4058.6367	345.6245	-789.9830
221	776.9910	-46.5358	-23.4419	-988.1020	51.3347	30.7429
222	1011.1315	-25.7875	-96.8886	-893.2736	52.7869	22.4588
223	957.2429	-28.3349	-85.4911	-831.7117	55.3395	11.0420
224	935.0862	-32.1076	-70.4680	-798.2621	59.1082	-3.9659
225	938.2857	-37.2045	-52.2698	-786.2206	64.1983	-22.1466

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	959.0959	-43.7041	-30.2978	-823.5789	71.8370	-72.4160
227	1024.3920	-52.8177	22.9668	-910.9269	81.4386	-101.9876
228	1133.9467	-63.9692	56.3945	-940.5537	94.2095	-139.6468
229	1179.4734	-78.3128	97.3144	-991.0138	107.6232	-177.4564
230	1239.3005	-93.3437	138.7794	-956.6501	123.9263	-222.6331
231	1207.1469	-111.2313	187.4471	-914.7841	141.1602	-268.6299
232	1160.7644	-130.0776	236.6226	-764.2207	160.9264	-320.9218
233	998.8066	-151.4103	292.7193	-575.6982	181.8659	-375.0209
234	792.6116	-173.9191	350.0830	-258.6499	204.9997	-434.9217
235	451.9635	-198.5139	413.4364	125.3608	229.3802	-496.7265
236	39.5223	-224.3103	478.6810	652.2070	255.5575	-563.9509
237	-520.3083	-251.8163	548.8805	1270.6143	282.9323	-633.1724
238	-1174.3881	-280.3978	621.3969	2040.6235	311.7419	-707.1855
239	-1981.7053	-310.2924	699.1588	2917.7239	341.5104	-784.2507
240	-2897.7739	-341.0511	778.4110	3950.3333	343.2269	-790.8979
241	598.9721	-33.1051	-14.6558	-851.5845	37.9615	21.9771
242	874.8492	-12.4303	-88.0831	-797.0293	39.4375	13.6303
243	861.2804	-15.0294	-76.7417	-775.6907	42.0297	2.3080
244	879.2860	-18.8626	-61.7424	-782.2095	45.8595	-12.6827
245	922.3512	-24.0286	-43.4566	-809.7476	51.0307	-30.9762
246	982.3752	-30.6373	-21.7773	-886.0774	58.7761	-80.9285
247	1086.2860	-39.8718	32.0355	-1011.3176	68.5396	-111.0856
248	1233.3323	-51.1904	65.1290	-1078.0173	81.4526	-148.3570
249	1315.3508	-65.6960	106.0460	-1164.0149	95.0611	-186.2423
250	1409.9307	-80.9373	148.0455	-1164.2386	111.5285	-231.8669
251	1411.9719	-99.0168	196.4119	-1155.2787	129.0024	-277.6064
252	1397.7882	-118.1039	245.9056	-1036.4998	148.9814	-330.2642
253	1267.0356	-139.6505	302.1493	-878.2511	170.1503	-384.4750
254	1090.5842	-162.3621	359.8667	-590.7768	193.4615	-444.6961
255	779.4137	-187.1850	423.1912	-235.4471	218.0698	-506.4231
256	395.3988	-213.1481	488.3715	263.3798	244.4113	-573.6995
257	-136.0129	-240.7888	558.9459	853.3050	271.9047	-643.2045
258	-760.7224	-269.4670	632.0379	1594.0292	300.8081	-717.7961
259	-1538.2610	-299.4274	708.6699	2440.7717	330.6233	-793.7989
260	-2421.6702	-330.1863	788.7794	3440.5635	331.9602	-802.2995
261	310.6532	-16.7122	33.3505	-644.3677	15.0442	-6.4280
262	659.2712	4.3250	-42.7663	-646.2250	15.9216	-13.0469
263	685.6168	2.7970	-33.6826	-669.1268	17.4542	-22.1575
264	732.5170	0.5644	-22.0929	-710.9916	19.6908	-33.7418
265	797.3545	-2.4644	-8.3781	-769.0360	22.7079	-47.4328
266	876.8907	-6.3244	8.4383	-839.8690	26.5783	-64.2713
267	967.1741	-11.0801	26.8834	-919.4664	31.3299	-82.6911
268	1063.5876	-16.8023	48.6538	-1040.1716	38.4213	-140.8582
269	1198.2445	-24.8772	109.1736	-1162.0837	46.8483	-170.4991
270	1330.7268	-34.3693	140.8637	-1272.7983	56.4975	-202.4109
271	1448.2285	-45.0361	175.2733	-1365.1742	67.3122	-237.0907
272	1543.0804	-57.0305	213.2378	-1473.2161	80.2960	-277.5526
273	1649.5167	-71.1072	255.3971	-1502.4705	95.3388	-322.0000
274	1672.2355	-87.3504	302.8762	-1488.3640	110.2332	-365.5859
275	1646.7917	-103.3613	348.4190	-1422.6318	126.3865	-411.3163
276	1564.3872	-120.7744	396.9193	-1296.1769	143.9391	-460.0524
277	1416.0511	-139.5757	448.2605	-1119.1763	163.0826	-511.0286
278	1211.9053	-159.9312	501.3051	-838.2052	183.5152	-565.0596
279	897.7758	-181.6094	558.2295	-468.2184	205.3195	-622.1892
280	489.7319	-204.6810	617.2606	-0.2993	227.9363	-681.3438

ENVOLVENTE MINIMOS TORSORES TREN IPF-B, l=15 m, via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.1987	159.4871	-646.2458	-355.9146	-156.9429	640.7308
2	314.6389	138.5911	-592.2611	-621.6737	-135.9686	586.5004
3	543.8545	118.6321	-540.3584	-803.6339	-115.9413	534.4456
4	701.7586	100.8897	-491.2540	-918.9785	-97.6310	483.7958
5	788.9861	83.2118	-442.8168	-964.3450	-79.9021	435.0216
6	804.2988	65.6615	-396.2029	-938.3588	-62.8027	389.5490
7	773.3456	50.5732	-353.4513	-870.3042	-47.6673	346.6865
8	709.4625	37.4569	-313.1289	-756.2747	-33.0464	303.0569
9	577.9677	23.1409	-271.9169	-607.3475	-19.6481	263.0314
10	409.2746	9.8557	-234.2633	-406.9357	-6.8548	226.6223
11	255.3672	0.1053	-200.3584	99.5768	4.0358	196.4214
12	-291.6670	-11.7943	-172.7571	336.4974	12.9729	168.9907
13	-460.9007	-17.5801	-147.4475	531.3977	18.1755	144.6855
14	-671.6105	-22.9560	-125.9424	736.6542	23.3806	124.2042
15	-857.1528	-27.2093	-107.6456	930.1610	27.5589	106.1361
16	-1050.1144	-31.1129	-92.5716	1130.1318	31.3901	91.2785
17	-1194.0350	-33.1657	-79.6807	1276.6904	33.3765	78.5668
18	-1333.5508	-34.8628	-69.3478	1417.9836	35.0103	68.4314
19	-1386.3188	-34.2320	-61.2736	1467.2107	34.3236	60.6031
20	-1550.7797	-36.2853	-56.6192	1634.1107	21.2908	96.1922
21	-1627.9320	227.1700	-761.0526	1109.7721	-258.2919	815.4045
22	-1129.7238	232.6634	-748.8988	436.2085	-229.6639	740.6068
23	-495.5738	205.1049	-677.4657	-115.2663	-202.1045	669.2033
24	17.3422	178.7123	-609.5183	-549.0018	-175.7115	601.2546
25	414.7505	153.6346	-545.0201	-871.1752	-150.6356	536.7526
26	704.1002	129.9471	-483.9864	-1076.5863	-126.6970	475.7427
27	881.1866	107.4891	-426.6208	-1173.0339	-103.7097	417.7987
28	955.0396	86.0133	-371.6807	-1194.6591	-82.4947	362.8983
29	959.8553	66.3849	-320.6904	-1123.6787	-62.1485	310.8436
30	878.8549	47.6438	-271.6847	-702.9439	-35.2130	266.4344
31	455.0040	22.3359	-230.9581	-481.0614	-20.9299	227.0865
32	237.0825	9.6911	-195.1202	-245.5784	-8.3575	191.3684
33	12.0848	-1.2968	-162.7346	29.1996	2.2276	159.8718
34	-254.8117	-10.6895	-134.7642	304.7240	11.7896	131.5241
35	-486.8889	-17.9948	-109.6451	570.9759	18.4724	107.8088
36	-763.2151	-24.5141	-89.8373	861.0999	25.2123	87.3091
37	-965.0668	-28.1996	-72.2971	1059.1195	28.4520	71.2907
38	-1189.6860	-31.9480	-60.2605	1298.7454	32.2761	58.7467
39	-1321.7794	-32.8495	-50.3115	1423.9104	32.9323	49.7866
40	-1486.2098	-34.3695	-45.0571	1590.9208	19.6178	85.3023
41	-1538.2747	225.4554	-760.4146	1052.3962	-256.9381	814.1520
42	-1075.3695	231.3843	-747.6055	385.7883	-228.3840	739.3171
43	-449.1892	203.9248	-676.2687	-158.1410	-200.9253	668.0284
44	55.2255	177.6824	-608.3659	-583.7880	-174.6820	600.1043
45	444.0689	152.7447	-544.0158	-897.7433	-149.7431	535.7379
46	725.4643	129.2154	-482.7538	-1096.0571	-125.9531	474.4550
47	895.6877	106.9179	-425.1387	-1186.1575	-103.1249	416.3235
48	963.5687	85.6366	-370.3606	-1202.0129	-82.1259	361.5782
49	963.2173	66.2030	-319.3093	-870.5614	-50.6610	309.7093
50	622.4448	36.3421	-270.7241	-709.9288	-34.7820	266.4519
51	457.3336	21.9504	-230.8197	-481.9225	-20.5669	226.9328
52	238.1951	9.5803	-194.9685	-246.2444	-8.2576	191.2200
53	8.6656	-1.3738	-162.6330	33.0167	2.2850	159.7774
54	-247.3008	-10.1568	-134.6508	295.6299	11.2483	131.4147

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	-518.4605	-18.7610	-109.8693	604.8558	19.2244	108.0447
56	-740.0730	-23.3740	-89.7354	834.5377	24.0631	87.2118
57	-999.9904	-28.7797	-72.6016	1095.7644	29.0279	71.6020
58	-1192.5588	-31.5918	-60.3107	1300.5009	31.9145	58.8004
59	-1359.6770	-33.3694	-50.7217	1463.3656	33.4518	50.2152
60	-1486.8547	-33.9884	-45.5006	1590.4163	19.2692	85.7219
61	-1531.9261	225.3455	-760.4031	1039.5493	-256.6362	814.0543
62	-1062.5586	231.1030	-747.9227	373.6550	-228.1032	739.7122
63	-437.5521	203.6695	-676.6332	-168.8449	-200.6707	668.3777
64	65.4720	177.4346	-608.7065	-593.3351	-174.4328	600.4305
65	453.5788	152.5194	-543.9742	-906.6145	-149.5214	535.7261
66	733.6046	129.0256	-483.2300	-1103.6750	-125.7635	474.9411
67	902.9649	106.7177	-425.2323	-1192.8770	-102.9256	416.3969
68	969.8521	85.4439	-370.5184	-1207.7839	-81.9318	361.7365
69	968.5979	65.9944	-319.3069	-871.8328	-50.6195	309.7053
70	623.3451	36.3169	-270.7246	-710.7320	-34.7558	266.4507
71	459.7726	22.0469	-230.7929	-484.6209	-20.6669	226.9098
72	238.3484	9.5764	-194.8563	-246.3867	-8.2545	191.1037
73	11.2569	-1.2572	-162.5532	30.0922	2.1668	159.7023
74	-247.4221	-10.1396	-134.6032	295.7125	11.2298	131.3729
75	-518.6419	-18.7369	-109.8497	604.9718	19.1999	108.0291
76	-770.2663	-24.2936	-89.8668	867.4642	24.9809	87.3420
77	-1000.0117	-28.7478	-72.6180	1095.7023	28.9959	71.6100
78	-1192.5015	-31.5468	-60.3268	1300.3098	31.8684	58.8491
79	-1362.4875	-33.3852	-51.3271	1466.2158	33.4662	50.8205
80	-1486.4626	-33.9264	-45.5076	1589.8571	19.2112	85.7341
81	-1507.1675	224.8472	-761.1090	1018.4097	-256.1831	814.8078
82	-1041.4116	230.6395	-748.4512	354.0402	-227.6401	740.2099
83	-418.5200	203.2197	-677.1061	-186.7014	-200.2208	668.8632
84	83.3824	176.9866	-609.1335	-609.8789	-173.9861	600.8654
85	469.2212	152.0880	-544.5092	-920.8874	-149.0864	536.2339
86	746.8966	128.6176	-483.3040	-1115.8010	-125.3539	475.0026
87	907.9855	106.5653	-425.4936	-1197.3907	-102.7754	416.6512
88	968.8721	85.4830	-370.5238	-1206.9709	-81.9737	361.7501
89	967.9031	66.0777	-319.5188	-872.2940	-50.6530	309.8712
90	623.2979	36.3058	-270.5823	-710.6331	-34.7462	266.2886
91	459.8009	22.0429	-230.6821	-484.6091	-20.6617	226.8087
92	238.2200	9.5732	-194.8447	-246.2385	-8.2512	191.1014
93	11.1278	-1.2647	-162.5171	30.2382	2.1742	159.6609
94	-253.7079	-10.3890	-134.6101	302.7240	11.4797	131.3751
95	-517.2108	-18.6769	-109.7956	603.3760	19.1388	107.9805
96	-771.9366	-24.3324	-89.9296	869.2408	25.0197	87.4287
97	-1002.7444	-28.8130	-72.9696	1098.6284	29.0598	71.9788
98	-1195.4196	-31.6100	-60.7258	1303.4181	31.9329	59.2404
99	-1362.7524	-33.3901	-51.5430	1466.5349	33.4721	51.0310
100	-1486.5613	-33.9241	-45.7766	1589.8927	19.2086	86.0253
101	-1493.0668	224.5539	-761.7133	1004.4819	-255.8771	815.4323
102	-1027.6255	230.3274	-748.8574	341.1964	-227.3270	740.5699
103	-404.9717	202.8685	-677.4204	-199.2226	-199.8680	669.1921
104	95.0742	176.6586	-609.3572	-620.5449	-173.6582	601.1008
105	480.5108	151.7339	-544.8139	-931.1991	-148.7336	536.5440
106	758.3491	128.2399	-483.6703	-1126.0044	-124.9764	475.3518
107	902.2428	106.7599	-425.6058	-1192.2449	-102.9682	416.7560
108	969.1193	85.4664	-370.7387	-1207.2042	-81.9525	361.9181
109	966.1193	66.1331	-319.3475	-1129.1488	-61.8967	309.5147
110	880.8894	47.5847	-270.5355	-1001.7249	-43.8821	261.1514
111	749.0317	31.2051	-225.4306	-561.5629	-16.5949	215.0601

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	315.2993	5.4924	-183.0675	-327.2662	-2.4909	174.8030
113	92.2235	-7.0179	-146.2384	24.2792	1.6371	144.1700
114	-268.7515	-10.6619	-119.1769	300.7307	10.6619	119.1805
115	-491.7834	-17.0617	-97.5443	542.9725	17.0574	97.5434
116	-712.3868	-22.2853	-79.7879	779.2607	22.2858	79.7916
117	-910.8413	-26.0224	-64.8634	988.9075	26.0233	64.8616
118	-1087.0938	-28.6136	-54.2210	1172.9691	28.6149	54.2205
119	-1231.7374	-30.0480	-46.0367	1321.8838	30.0496	46.0361
120	-1343.3312	-30.5582	-41.9527	1881.8076	24.2916	54.9731
121	-1783.0447	219.3865	-729.6119	1002.9645	-255.8715	815.5467
122	-1025.9399	230.3305	-749.2837	339.5225	-227.3321	741.0725
123	-403.3071	202.8959	-677.9174	-190.7683	-199.6305	669.6874
124	86.5109	176.5658	-609.8534	-611.8420	-173.5653	601.5960
125	470.2317	152.0362	-545.1798	-921.8070	-149.0349	536.9178
126	748.4627	128.3202	-484.0162	-1128.9017	-125.3163	475.7027
127	913.6356	106.3865	-425.9121	-1202.4841	-102.5958	417.0534
128	969.3925	85.4748	-370.8971	-1207.4417	-81.9582	362.0333
129	963.2715	66.2614	-319.3728	-1126.7030	-62.0259	309.5297
130	878.3033	47.7016	-270.5516	-999.5029	-43.9970	261.2230
131	748.1634	31.3173	-225.6267	-798.3122	-26.7721	214.7065
132	551.2486	15.6483	-182.5723	-214.5017	-7.9701	172.7296
133	-42.2100	-2.4827	-144.1737	49.6430	2.4849	144.1709
134	-278.5743	-9.4312	-119.2121	306.8631	9.4312	119.2101
135	-500.7672	-15.9210	-97.6581	548.5354	15.9210	97.6627
136	-714.8565	-20.9353	-79.6360	777.6458	20.9353	79.6355
137	-910.2604	-24.8092	-65.4655	984.6925	24.8092	65.4626
138	-1082.4579	-27.5869	-54.2446	1165.2119	27.5841	54.2422
139	-1230.8398	-29.9404	-46.4123	1320.6525	29.9410	46.4130
140	-1341.6028	-30.4200	-42.3245	1879.7803	24.1671	55.3165
141	-1788.0706	219.8188	-729.5984	1006.8260	-256.2979	815.5697
142	-1045.7755	232.3216	-749.6915	362.5959	-229.0560	741.5492
143	-426.4202	204.6095	-678.3784	-182.7905	-201.6108	670.1332
144	79.4666	178.3786	-610.2941	-610.2581	-175.3807	602.0288
145	468.9854	153.7283	-545.3577	-925.6126	-150.7279	537.0869
146	753.6470	130.2069	-484.2927	-1139.8146	-127.2071	475.9889
147	934.1970	108.0890	-426.1356	-1228.2352	-104.2974	417.2624
148	982.6171	87.2903	-370.9274	-1226.0804	-83.7744	362.0472
149	976.1678	67.4940	-319.3776	-1143.2935	-63.2549	309.5238
150	893.3130	48.8314	-270.5254	-1017.9257	-45.1282	261.1453
151	747.4124	31.2796	-225.4032	-797.4628	-26.7403	214.4942
152	551.1268	15.6608	-182.4660	-214.4520	-7.9787	172.6197
153	-46.4539	-0.0035	-144.0427	46.4591	0.0035	144.0403
154	-261.0907	-7.8718	-119.0213	284.7141	7.8709	119.0219
155	-504.0344	-15.2486	-97.5692	549.7909	15.2486	97.5672
156	-715.8698	-20.3591	-79.5662	776.9396	20.3585	79.5660
157	-909.5085	-24.1275	-65.5689	981.8922	24.1275	65.5699
158	-1078.6868	-26.6743	-54.3754	1158.7014	26.6744	54.3751
159	-1220.5804	-28.4534	-46.6976	1305.9496	28.4539	46.6959
160	-1329.7686	-29.2679	-41.8538	1864.5253	23.0101	54.8408
161	-1796.9519	220.5196	-730.2047	1013.5148	-257.0029	816.2642
162	-1039.7184	231.7799	-749.9836	358.3083	-228.5161	741.7682
163	-424.5722	204.3707	-678.5771	-184.1050	-201.3694	670.3554
164	79.9831	178.3625	-610.4511	-610.5527	-175.3601	602.2002
165	470.5095	153.4402	-545.8120	-926.3278	-150.4399	537.5007
166	748.9870	129.8323	-484.0554	-1133.9878	-126.8337	475.7416
167	933.2869	107.7813	-426.3079	-1226.3546	-103.9850	417.5432
168	1003.2130	86.4908	-371.5226	-1244.3101	-82.9750	362.6189

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	962.4757	66.1955	-319.5168	-1125.7080	-61.9628	309.5715
170	877.0548	47.6729	-270.4869	-998.1444	-43.9670	261.0552
171	747.2667	31.2747	-225.3032	-797.3239	-26.7329	214.3744
172	550.8731	15.6469	-182.3998	-214.1026	-7.9656	172.6381
173	-33.2588	-0.4087	-144.0914	34.4735	0.4115	144.0927
174	-284.5394	-8.3851	-119.2086	309.7060	8.3838	119.2104
175	-501.3861	-15.1480	-97.5892	546.8470	15.1480	97.5887
176	-713.6188	-19.9606	-79.9136	773.4834	19.9619	79.9160
177	-906.0402	-23.7309	-65.3681	977.2369	23.7287	65.3684
178	-1075.5502	-26.5831	-54.5347	1155.2682	26.5831	54.5355
179	-1216.7977	-28.3580	-46.9809	1301.8994	28.3580	46.9815
180	-1328.0620	-29.4128	-42.1418	1863.2251	23.1585	55.1515
181	-1791.0798	220.0758	-730.1324	1009.1379	-256.5569	816.1403
182	-1032.1450	231.0085	-749.7180	353.0236	-227.7427	741.5140
183	-423.7731	204.2440	-678.4410	-184.4961	-201.2432	670.2473
184	81.1549	178.0132	-610.4427	-610.6960	-175.0144	602.1709
185	470.5595	153.1034	-545.6339	-925.4623	-150.1031	537.3509
186	752.6132	129.6061	-484.3064	-1136.9268	-126.6052	475.9497
187	907.8521	107.9532	-425.9137	-1201.4589	-104.1630	417.0724
188	978.3586	86.6723	-371.1293	-1219.9902	-83.1618	362.3007
189	965.2009	66.4807	-319.5911	-1129.3021	-62.2512	309.6665
190	873.2366	47.4254	-270.3933	-993.5780	-43.7235	261.0286
191	742.6763	31.0202	-225.5265	-791.9579	-26.4730	214.5484
192	520.5879	17.1944	-182.3454	-188.4187	-9.5039	172.5584
193	-49.9300	0.2855	-144.0787	49.0819	-0.2870	144.0819
194	-274.5999	-7.9891	-119.0726	298.5598	7.9890	119.0713
195	-499.6699	-14.4606	-97.7558	543.6572	14.1253	97.7564
196	-708.9314	-19.2124	-79.7989	766.5568	19.2124	79.7993
197	-899.0877	-22.9741	-65.4084	969.4245	23.3100	65.4113
198	-1067.1444	-26.0769	-54.6864	1145.3793	26.0779	54.6881
199	-1204.7258	-27.5342	-47.0163	1287.3318	27.5342	47.0136
200	-1307.5406	-27.9973	-41.9542	1838.4459	21.7412	54.9560
201	-1791.9633	220.1363	-730.2526	1018.2748	-256.3522	816.3324
202	-1043.4976	231.0091	-750.0542	355.0370	-228.0080	741.8148
203	-418.9419	203.5589	-678.5663	-187.1849	-200.5590	670.3157
204	83.5075	177.4704	-610.3623	-611.5687	-174.4713	602.1128
205	471.5128	152.5592	-545.6603	-924.6868	-149.5624	537.3629
206	750.7194	129.1106	-484.1299	-1133.5328	-126.1125	475.7992
207	910.3867	107.6932	-426.1237	-1203.2178	-103.9018	417.3352
208	985.0266	86.2163	-371.3510	-1225.3018	-82.6964	362.4554
209	963.9163	66.3746	-319.4061	-1127.6786	-62.1383	309.4947
210	879.1649	47.8184	-270.5123	-1000.6841	-44.1079	261.1335
211	749.8224	31.4215	-225.4012	-800.3036	-26.8811	214.4978
212	553.9218	15.7924	-182.4814	-217.6266	-8.1149	172.6350
213	-36.9617	0.4220	-144.0553	35.6975	-0.4220	144.0589
214	-253.1124	-7.5472	-119.0459	275.7601	7.5467	119.0492
215	-471.0128	-13.7374	-97.6620	512.2183	13.7374	97.6632
216	-677.4898	-18.8206	-79.5749	733.9420	18.8211	79.5735
217	-866.3994	-22.5763	-65.5288	934.1324	22.5785	65.5314
218	-1030.9001	-25.1209	-54.3316	1106.2607	25.1209	54.3341
219	-1167.5209	-26.8643	-46.6331	1248.0953	26.8615	46.6314
220	-1281.2056	-28.5898	-42.1478	1813.6177	22.3427	55.1645
221	-1761.6949	217.8717	-729.5683	986.5442	-254.3400	815.5740
222	-1009.4180	228.7862	-749.3604	336.9283	-225.5189	741.1622
223	-401.0784	201.0806	-677.9487	-197.8009	-198.0799	669.7221
224	94.6738	174.8362	-609.7827	-614.7122	-171.8367	601.5310
225	474.7747	149.9583	-545.0844	-920.0791	-146.9572	536.7729

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	744.5284	126.5318	-483.4490	-1119.6613	-123.5302	475.1429
227	918.5990	104.5192	-425.6823	-1201.9098	-100.7211	416.8598
228	958.1439	84.0576	-370.5092	-1191.9290	-80.5499	361.6564
229	952.1904	64.7054	-319.0471	-1110.8372	-60.4604	309.1405
230	858.8160	46.3505	-269.8792	-975.9958	-42.6505	260.4519
231	725.4604	29.9907	-224.8039	-771.5997	-25.4501	213.9055
232	525.6259	14.3755	-181.8937	-185.8163	-6.7217	172.0660
233	-64.8723	-1.2813	-143.5005	68.7293	1.2813	143.5024
234	-288.2224	-8.9284	-118.5119	314.9795	8.9299	118.5135
235	-509.8408	-15.1088	-97.1996	555.1811	15.1088	97.2056
236	-720.0325	-20.1701	-79.0508	780.5354	20.1701	79.0557
237	-913.0315	-24.2155	-64.8969	985.6843	24.2155	64.8955
238	-1082.1084	-26.7549	-54.1735	1162.3730	26.7549	54.1755
239	-1221.2871	-28.2030	-46.1721	1305.8942	28.2030	46.1738
240	-1335.3741	-29.5775	-41.4644	1867.7231	23.4111	54.4034
241	-1820.4143	222.4589	-718.4424	1032.2787	-258.8031	804.4758
242	-1055.7023	233.2835	-738.3492	360.1400	-230.2830	730.1548
243	-424.2985	205.8728	-666.9626	-178.7845	-202.5839	658.7246
244	75.4054	179.4065	-598.8327	-609.0747	-176.4058	590.5763
245	468.8264	154.5719	-534.0791	-928.0942	-151.5718	525.7932
246	754.6413	131.2118	-472.7729	-1143.7307	-128.2143	464.4359
247	918.5465	110.2189	-414.5201	-1218.6321	-106.3805	405.6964
248	996.6285	89.0356	-359.7514	-1245.1664	-85.4966	350.9377
249	1007.8718	69.7655	-308.2952	-1181.3170	-65.5014	298.3210
250	930.8636	51.5988	-258.8454	-1063.5312	-47.8795	249.4207
251	815.7804	35.3734	-213.9722	-877.7952	-30.8183	203.0768
252	630.6372	20.2634	-170.9669	-316.4037	-12.9579	161.2318
253	70.5095	5.1367	-132.6695	-85.9215	-5.1367	132.6698
254	-128.6762	-2.3507	-107.7281	135.7198	2.3507	107.7273
255	-324.3787	-8.6515	-86.2303	350.3387	8.6509	86.2301
256	-510.3669	-13.5659	-68.2825	551.0735	13.5664	68.2832
257	-678.6227	-17.1912	-53.9723	730.2074	17.1935	53.9721
258	-822.7829	-19.6248	-42.7928	881.6626	19.6248	42.7940
259	-945.5688	-21.9996	-35.5117	1011.5771	21.9996	35.5106
260	-1030.6772	-22.4400	-30.4880	1424.9520	15.3852	36.5193
261	-1388.6377	213.5659	-522.8895	826.5591	-248.5158	604.1435
262	-841.4501	229.1532	-554.9551	327.9390	-227.1524	549.4710
263	-367.1897	208.4337	-502.6067	-83.5075	-206.5643	496.9323
264	20.2194	188.5694	-452.3916	-415.0516	-185.8703	444.4529
265	328.7023	168.6517	-402.4888	-693.5840	-165.8198	394.7081
266	582.9161	149.5053	-354.7079	-905.5282	-147.0257	348.1145
267	780.7866	131.4482	-311.2847	-1061.4146	-128.8176	304.4313
268	903.8377	114.6866	-269.3099	-1144.7611	-111.4111	260.7982
269	968.3852	98.5127	-228.3797	-1171.1290	-95.0845	219.7010
270	1002.8854	82.5001	-190.1120	-1167.3243	-79.4349	182.6399
271	991.0134	68.0282	-155.4655	-1118.8278	-64.8394	147.6749
272	938.8315	54.5806	-122.5844	-1002.8977	-49.2690	110.5911
273	826.6237	40.0699	-88.4710	-630.8297	-30.8504	85.9488
274	460.9764	22.8162	-66.0874	-512.3046	-22.8173	66.0849
275	353.8699	15.9853	-48.9232	-389.8501	-15.9843	48.9256
276	238.4682	11.2145	-34.1656	-263.6965	-11.2144	34.1664
277	136.5213	7.6205	-21.8920	-153.6693	-7.6205	21.8922
278	60.3366	4.5669	-12.1546	-70.6048	-4.5686	12.1552
279	9.5069	2.9575	-4.8571	-16.1609	-2.9575	4.8572
280	-5.2280	2.3231	-0.0197	-0.0004	-2.3215	0.0197

ENVOLVENTE MAXIMOS FLECTORES TREN UIC-71, via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0649	136.5214	612.9226	-337.7915	-141.1057	-610.8658
2	453.6391	192.6024	569.1194	-854.7139	-171.9362	-512.6764
3	854.5575	171.9344	512.9303	-1203.3943	-151.2875	-456.3855
4	1203.5985	151.3033	455.7981	-1500.4232	-130.6872	-399.1995
5	1500.4653	130.7100	398.9971	-1744.6805	-97.9495	-307.9668
6	1744.5685	97.9739	308.5028	-1936.1940	-67.7801	-222.9193
7	1936.2078	67.8062	222.9221	-2077.4639	-47.2811	-166.3894
8	2077.5010	47.3184	166.0058	-2167.9121	-26.8382	-109.4195
9	2167.9338	26.8557	109.1549	-2207.8489	-6.4273	-52.7267
10	2207.8486	6.3916	53.4145	-2196.4106	26.1587	37.7120
11	2196.4507	-26.1153	-38.7934	-2133.9282	46.4154	95.2922
12	2133.9634	-46.4471	-94.2312	-2022.5441	66.6646	150.6984
13	2022.4724	-66.6648	-151.7311	-1862.9255	86.8069	208.3021
14	1862.9368	-86.8492	-207.9493	-1656.7336	96.6462	235.2486
15	1656.6838	-96.6402	-235.5670	-1405.2122	116.4954	292.0405
16	1405.3110	-116.4915	-291.5785	-1108.8151	136.2436	348.0497
17	1108.8153	-135.6695	-343.7652	-769.7617	155.2965	400.2725
18	836.4180	-90.0388	-231.4846	-599.7743	121.7557	322.4694
19	652.6612	-68.4495	-191.8481	-543.9556	51.6955	160.5286
20	588.6090	-3.7534	-38.4627	-559.9068	25.4426	87.4585
21	594.1603	-39.4365	37.1997	-464.8187	43.1236	-39.2374
22	499.4407	-20.7367	95.2580	-460.7790	18.5291	-72.8766
23	539.7891	43.7217	236.6965	-638.3826	-18.3645	-164.4907
24	701.6086	69.5572	299.8667	-884.8742	-42.5592	-223.2388
25	968.8815	99.7860	385.6310	-1238.3813	-74.1589	-313.2835
26	1349.6038	147.3198	375.6610	-1767.3772	-119.8651	-298.9769
27	1767.4619	119.8832	298.5643	-2095.9670	-94.0728	-226.2275
28	2095.9170	94.0556	226.7315	-2348.4495	-66.2945	-150.0905
29	2348.4944	66.2821	149.5340	-2512.3989	-40.3602	-77.1949
30	2512.3696	40.3420	77.8039	-2594.6755	-12.4478	-1.2500
31	2594.6389	12.4324	1.2323	-2592.0669	13.5264	71.1908
32	2592.0166	-13.5451	-71.8270	-2502.8589	41.4043	148.5078
33	2502.8735	-41.3785	-148.5257	-2334.3298	67.2737	220.8038
34	2334.3979	-67.2889	-220.2163	-2077.6709	105.3539	327.1817
35	2077.5630	-105.3585	-327.9503	-1743.8950	120.7411	370.0069
36	1744.0439	-120.7273	-369.3461	-1325.3016	158.6304	476.2548
37	1359.5310	-120.4657	-430.6835	-980.7410	135.4398	472.7163
38	1055.8374	-86.8652	-326.0434	-741.2368	113.6914	402.3545
39	849.3915	-49.3405	-228.5612	-689.7264	50.6272	244.0720
40	779.2941	11.0679	-80.2139	-776.4972	16.5039	146.2084
41	840.5293	-44.8002	35.8794	-695.4102	48.3704	-37.9346
42	733.5731	-26.0675	93.7128	-689.4897	24.1195	-71.2267
43	782.6000	37.7776	235.0458	-864.8173	-12.3813	-162.8533
44	945.7133	63.1003	298.0119	-1111.7067	-36.0413	-221.3262
45	1222.0203	99.6440	406.0959	-1491.9734	-84.4870	-364.0671
46	1616.9658	149.3318	403.6463	-2009.8546	-111.3544	-296.7332
47	2009.8640	111.3699	296.7293	-2313.0264	-85.5524	-224.4002
48	2312.9661	85.5429	224.7011	-2539.9546	-57.7907	-148.0747
49	2539.9473	57.8289	147.7020	-2678.4302	-31.9144	-75.3215
50	2678.4451	31.9299	75.3568	-2735.2041	-4.0529	1.2075
51	2735.2122	4.0611	-0.5567	-2707.3188	21.8792	72.8969
52	2707.2712	-21.8889	-73.1904	-2592.7217	49.7203	149.8142
53	2592.7417	-49.7503	-149.5444	-2398.8337	75.6316	221.9096
54	2398.7837	-75.6158	-222.1640	-2117.0942	113.6499	329.0651

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	2117.1494	-113.6453	-328.5633	-1758.6202	128.9779	370.5662
56	1758.5508	-128.9636	-370.8075	-1315.0629	166.8474	477.7765
57	1372.0587	-110.0496	-438.6405	-1024.6863	124.9796	480.6512
58	1102.9419	-75.6362	-334.2941	-822.4092	102.4166	410.6222
59	933.7741	-37.6454	-236.7388	-809.4456	38.9076	252.2383
60	900.5924	22.9453	-88.3835	-933.4230	4.6122	154.3861
61	997.7889	-48.1778	35.2979	-853.5639	47.7305	-32.7382
62	891.9778	-25.4300	88.9433	-827.6083	27.5094	-71.0202
63	921.8180	34.3567	234.7076	-993.8868	-8.9634	-162.4943
64	1076.5350	73.7920	336.0903	-1274.7688	-46.7285	-259.4640
65	1344.1519	96.1352	406.0939	-1603.6538	-80.9725	-364.0175
66	1731.4679	145.7794	402.1163	-2113.7795	-107.8019	-295.1655
67	2113.6528	107.8122	295.9509	-2406.1499	-81.9973	-223.6729
68	2406.1641	82.0065	223.6822	-2622.6191	-54.2485	-147.0336
69	2622.6235	54.2225	147.0419	-2750.2439	-28.2986	-74.6879
70	2750.2178	28.2971	74.6955	-2796.0808	-0.4292	1.8792
71	2796.0959	0.4100	-1.1926	-2757.2661	25.5272	73.4526
72	2757.2651	-25.5168	-73.0688	-2631.7412	53.3416	149.7106
73	2631.6963	-53.3334	-150.0790	-2427.0608	79.2111	222.4470
74	2427.0493	-79.2124	-222.1261	-2134.5085	117.2554	328.9755
75	2134.5964	-117.2469	-328.4699	-1765.2189	132.5748	370.4846
76	1765.2153	-132.5672	-370.4686	-1311.0007	170.4426	477.4413
77	1374.6606	-107.9464	-438.5071	-1033.5485	122.8750	480.5770
78	1111.9901	-73.4810	-334.4027	-837.9308	100.2616	410.7169
79	949.6098	-35.4528	-236.5949	-831.8657	36.7119	252.1073
80	923.0391	25.1560	-88.7100	-962.5046	2.4013	154.7176
81	1026.9576	-48.7994	35.4525	-881.7727	48.3708	-32.8593
82	920.2340	-26.0747	88.7953	-853.2190	28.1308	-70.8507
83	947.5340	33.7362	234.5354	-1017.7532	-8.3377	-162.3145
84	1100.6263	73.1703	335.8876	-1297.0167	-46.1070	-259.2126
85	1366.7487	95.5096	405.3573	-1624.3445	-80.3509	-363.3330
86	1752.1956	145.1410	402.0042	-2132.6152	-107.1615	-295.0687
87	2132.5679	107.1379	295.3717	-2423.0369	-81.3177	-223.1048
88	2422.9419	81.3401	223.6968	-2637.3972	-53.5838	-147.0265
89	2637.3926	53.5780	146.3828	-2763.1006	-27.6612	-74.0537
90	2763.0342	27.6831	75.0997	-2807.0100	0.1850	1.3678
91	2807.0527	-0.2136	-0.6486	-2766.3372	26.1478	72.9825
92	2766.3528	-26.1516	-73.3643	-2638.8882	53.9855	150.0562
93	2638.9238	-53.9888	-149.6968	-2432.3379	79.8685	221.9891
94	2432.3982	-79.8630	-221.6221	-2137.9832	117.8982	328.5085
95	2138.0217	-117.9231	-328.2863	-1766.5331	133.2595	370.3085
96	1766.6191	-133.2357	-370.0438	-1310.4816	171.1047	476.9486
97	1376.1497	-106.9702	-437.8981	-1037.9659	121.8999	479.9517
98	1116.3503	-72.4910	-333.9523	-845.2380	99.2693	410.3135
99	956.8657	-34.4446	-236.4786	-842.1165	35.7114	252.0415
100	933.3386	26.1547	-88.7319	-975.8000	1.3921	154.7037
101	1040.2476	-49.0814	35.6364	-894.2642	48.6538	-33.0179
102	932.7316	-26.3596	88.6960	-864.8160	28.4146	-70.6996
103	959.1897	33.4549	234.2962	-1028.5645	-8.0542	-162.1080
104	1111.3997	72.8721	335.9959	-1306.8486	-45.8089	-259.3471
105	1376.6471	95.2108	405.1759	-1633.4247	-80.0497	-363.0844
106	1761.3339	144.8256	401.3794	-2140.7202	-106.8576	-294.4931
107	2140.5891	106.8802	295.3068	-2430.2375	-81.0609	-223.0536
108	2430.1926	81.0329	223.3025	-2643.7473	-53.2682	-146.6708
109	2643.7642	53.2798	147.0450	-2768.5498	-27.3617	-74.7167
110	2768.5586	27.3474	74.7102	-2811.5420	0.5259	1.8540
111	2811.5652	-0.4993	-0.7504	-2769.9963	26.4354	73.0104

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	2769.9973	-26.4701	-73.0412	-2641.6575	54.2945	149.7077
113	2641.6621	-54.3122	-149.7077	-2434.1409	80.1870	221.9450
114	2434.2358	-80.1322	-220.7733	-2138.7983	118.1706	327.6655
115	2138.7471	-118.1465	-327.8800	-1766.7953	133.4707	369.8845
116	1767.0023	-133.4406	-369.0096	-1310.1338	171.3161	475.9448
117	1376.1708	-106.7436	-438.0445	-1038.7395	121.6738	480.1316
118	1117.2631	-72.2858	-333.7590	-846.6826	99.0731	410.1267
119	958.1140	-34.2727	-236.8156	-843.9049	35.5315	252.3460
120	935.1500	26.3361	-88.3176	-978.1594	1.2149	154.2987
121	1042.5095	-49.1269	35.3780	-896.3525	48.6978	-32.7109
122	934.8013	-26.4035	88.7615	-866.7432	28.4551	-70.7803
123	961.0594	33.4270	234.3373	-1030.3533	-8.0295	-162.1278
124	1113.2114	72.8665	335.6823	-1308.7021	-45.7984	-258.9980
125	1378.6051	95.2111	404.8383	-1635.3939	-80.0496	-362.7547
126	1763.5887	144.8373	400.8183	-2143.0156	-106.8647	-293.9196
127	2142.8738	106.8273	294.7198	-2432.3494	-81.0049	-222.4971
128	2432.2725	80.9969	223.0642	-2645.6938	-53.2406	-146.4984
129	2645.6731	53.2111	147.1619	-2770.2881	-27.2896	-74.8452
130	2770.2749	27.2733	74.8336	-2813.0447	0.6013	1.8264
131	2812.9878	-0.5817	-1.4668	-2771.1831	26.5171	73.7278
132	2771.2168	-26.5645	-73.0406	-2642.5994	54.3939	149.5583
133	2642.6809	-54.3773	-148.5558	-2434.9541	80.2505	220.7707
134	2435.0339	-80.2493	-220.1648	-2139.3115	118.2847	327.0984
135	2139.3369	-118.2634	-327.0641	-1766.8551	133.5993	369.1579
136	1766.9108	-133.5775	-368.9119	-1309.8121	171.4451	475.7899
137	1376.3433	-106.7044	-437.1859	-1038.8989	121.6356	479.2476
138	1117.2631	-72.2306	-333.6195	-846.9184	99.0132	410.0470
139	958.5287	-34.1915	-236.6617	-844.5674	35.4501	252.1853
140	935.8395	26.4165	-88.2559	-979.0915	-2.8451	158.9637
141	1043.4404	-45.1522	30.5852	-897.3255	48.7044	-32.5978
142	935.7742	-26.4064	89.1254	-867.6837	28.4659	-71.1335
143	962.0603	33.3952	234.5049	-1031.2609	-8.0008	-162.2729
144	1114.1560	72.8235	335.4953	-1309.5198	-45.7548	-258.8267
145	1379.1779	95.1652	405.0045	-1635.7559	-80.0082	-362.9341
146	1763.6527	144.7451	400.1816	-2142.8894	-106.7720	-293.2397
147	2142.7761	106.7831	294.0558	-2432.1812	-80.9631	-221.8448
148	2432.0725	80.9463	222.7918	-2645.2915	-53.1897	-146.2474
149	2645.3042	53.1865	146.8897	-2769.7900	-27.2667	-74.5621
150	2769.7510	27.2516	74.5832	-2812.4778	0.6263	2.0108
151	2812.5042	-0.6310	-0.9440	-2770.5369	26.5654	73.2174
152	2770.5242	-26.5718	-73.2244	-2641.9097	54.3965	149.7520
153	2642.0432	-54.3752	-148.1089	-2434.2927	80.2476	220.3438
154	2434.3005	-80.2238	-220.3661	-2138.7043	118.2608	327.3072
155	2138.7886	-118.2651	-326.7736	-1766.2831	133.6043	368.8289
156	1766.3458	-133.5845	-368.5589	-1309.1881	171.4549	475.4257
157	1375.7693	-106.7089	-436.8563	-1038.3986	121.6372	478.8922
158	1116.6359	-72.2387	-333.4110	-846.3055	99.0175	409.8366
159	957.7693	-34.2026	-236.4855	-843.7353	35.4684	252.0764
160	934.9026	26.3952	-88.7538	-978.0878	1.1538	154.7302
161	1042.5286	-49.0590	35.4812	-896.5814	48.6296	-32.7752
162	935.0649	-26.3362	88.7996	-867.2435	28.3897	-70.7727
163	961.6419	33.4854	234.1688	-1031.1106	-8.0856	-161.9561
164	1114.0446	72.9150	335.4389	-1309.6348	-45.8541	-258.7297
165	1379.6125	95.2612	404.1356	-1636.5328	-80.0987	-362.1326
166	1764.1207	144.7155	400.8647	-2143.1677	-106.7470	-293.9780
167	2143.1719	106.7304	293.9816	-2432.4355	-80.9010	-221.5768
168	2432.4470	80.8736	221.5840	-2645.5078	-53.1165	-145.0310

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	2645.4314	53.1126	146.6862	-2769.7090	-27.1912	-74.5034
170	2769.7334	27.2075	74.8930	-2812.3396	0.6517	1.6183
171	2812.3403	-0.6680	-0.2806	-2770.2129	26.6096	72.5453
172	2770.1846	-26.5919	-72.5659	-2641.4504	54.4241	149.2418
173	2641.4597	-54.4470	-148.8423	-2433.5652	80.3246	221.0141
174	2433.6907	-80.3334	-219.5069	-2137.7625	118.3660	326.3741
175	2137.7024	-118.3666	-326.7114	-1764.9293	133.7037	368.7857
176	1765.1614	-133.7078	-367.8467	-1307.6351	171.5812	474.7189
177	1373.9364	-106.7878	-436.9869	-1036.2502	121.7170	479.1019
178	1114.7029	-72.3029	-333.3690	-844.2669	99.0737	409.7355
179	955.7819	-34.2450	-236.3448	-841.5765	35.5150	251.9502
180	932.7585	26.3455	-88.6467	-975.7933	1.2075	154.6438
181	1040.1622	-48.8754	35.5638	-894.8143	48.4482	-32.8479
182	933.2896	-26.1542	88.7114	-866.0037	28.2106	-70.7166
183	960.3301	33.6577	234.5677	-1030.2897	-8.2600	-162.3495
184	1113.2133	73.0745	335.4179	-1309.3036	-46.0135	-258.7040
185	1379.0891	95.4149	404.4729	-1636.5188	-80.2502	-362.3827
186	1763.3066	144.4111	400.2534	-2141.4141	-106.4405	-293.4249
187	2141.1934	106.4281	294.7540	-2429.5085	-80.6121	-222.5082
188	2429.5195	80.6422	222.5097	-2641.8772	-52.8923	-145.8569
189	2641.8613	52.9214	146.5008	-2765.5869	-27.0009	-74.2801
190	2765.5286	26.9853	75.3240	-2807.4065	0.8876	1.2811
191	2807.3599	-0.8808	-1.3041	-2764.6675	26.8217	73.5117
192	2764.7351	-26.8474	-71.7966	-2635.2292	54.6804	148.3376
193	2635.2903	-54.7315	-148.3108	-2426.4993	80.6137	220.6657
194	2426.5488	-80.6452	-220.3075	-2129.7712	118.6828	327.1483
195	2129.9490	-118.6715	-326.1175	-1756.2482	134.0003	368.1214
196	1756.3290	-133.9871	-367.8455	-1297.9589	171.8594	474.7735
197	1364.2312	-107.0651	-437.0467	-1025.8026	121.9915	479.1155
198	1104.1603	-72.5838	-333.3191	-832.8024	99.3598	409.7057
199	944.2258	-34.5276	-236.4445	-829.1247	35.7936	252.0529
200	920.2415	26.0723	-88.9259	-962.5280	-2.4996	159.6777
201	1026.9637	-43.8923	30.8799	-884.6095	47.4447	-32.9279
202	923.0770	-25.1523	88.9566	-858.7921	27.2058	-70.9154
203	953.2138	34.6619	234.0756	-1026.2172	-9.2648	-161.8666
204	1109.0764	74.0898	335.4578	-1308.2240	-47.0252	-258.7658
205	1378.1224	96.4360	404.3569	-1638.5658	-81.2772	-362.3184
206	1762.3965	143.8015	400.5980	-2138.6597	-105.8344	-293.7455
207	2138.5464	105.8549	294.2607	-2425.1692	-80.0341	-221.9167
208	2425.1912	80.0162	221.9108	-2635.6968	-52.2615	-145.3588
209	2635.5901	52.2249	146.9573	-2757.1711	-26.2942	-74.7302
210	2757.1658	26.2535	74.7131	-2796.8816	1.6171	1.8992
211	2796.8762	-1.6281	-0.8196	-2751.8735	27.5675	73.0951
212	2751.8801	-27.5552	-73.1317	-2620.2822	55.3791	149.6804
213	2620.3896	-55.3766	-148.0334	-2409.5945	81.2590	220.2648
214	2409.5869	-81.2617	-220.2426	-2110.8779	119.2981	327.1562
215	2110.9863	-119.3263	-326.3827	-1735.3926	134.6608	368.4202
216	1735.4374	-134.6592	-368.3829	-1275.0443	172.5321	475.2846
217	1341.7820	-107.7268	-436.9140	-1001.3553	122.6526	478.9644
218	1079.7843	-73.2266	-333.5280	-806.4959	100.0042	409.9620
219	918.2256	-35.1651	-236.6707	-800.4196	36.4507	252.2514
220	891.8088	25.4241	-88.6821	-933.1297	-1.8720	159.4250
221	997.5399	-41.6567	30.4852	-861.9344	45.2115	-32.5098
222	900.4502	-22.9189	88.6264	-842.8887	24.9792	-70.5987
223	937.4337	36.8675	233.9596	-1017.0710	-11.4617	-161.7376
224	1100.2295	76.2387	335.2390	-1305.8064	-49.1740	-258.5530
225	1375.8058	98.5120	404.1420	-1642.4318	-83.3478	-362.1427

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	1755.9399	140.1151	400.4403	-2121.2148	-102.1367	-293.5261
227	2121.2188	102.1271	293.5488	-2396.7012	-76.3057	-221.2440
228	2396.6140	76.3193	222.1211	-2595.9414	-48.5560	-145.5360
229	2595.9153	48.5659	145.9078	-2706.5105	-22.6522	-73.6676
230	2706.4880	22.6179	74.5695	-2735.2646	5.2634	1.9778
231	2735.2639	-5.2216	-1.1475	-2679.5398	31.1532	73.4368
232	2679.5491	-31.1375	-73.4207	-2537.2275	58.9510	149.9873
233	2537.3052	-58.9097	-148.8148	-2315.9204	84.7864	221.0537
234	2315.9634	-84.8022	-220.6671	-2006.7058	122.8415	327.5076
235	2006.8579	-122.8284	-326.5989	-1620.7028	138.1673	368.6586
236	1620.6505	-138.1892	-368.8025	-1149.7771	176.0595	475.7252
237	1219.4276	-111.2127	-437.5226	-868.6945	126.1388	479.5568
238	949.2136	-62.5211	-295.2594	-708.2774	89.2933	371.6762
239	779.3953	-38.5709	-237.1368	-641.1766	35.8366	257.4321
240	733.6577	26.0576	-94.1042	-775.8352	1.5161	160.1566
241	840.5554	-29.7611	21.9285	-740.5970	33.3302	-23.9598
242	779.3642	-11.0579	80.1338	-757.6352	13.1652	-62.0738
243	853.3010	48.5256	225.3337	-967.9961	-23.1023	-153.1140
244	1052.9042	87.4348	326.5400	-1292.0876	-60.3252	-249.8773
245	1362.8744	108.8815	395.4842	-1660.5781	-93.6688	-353.4012
246	1740.7043	131.8499	398.3928	-2080.9990	-93.8592	-291.5510
247	2080.8618	93.8813	292.5698	-2331.4092	-68.0367	-220.2721
248	2331.4336	68.0429	220.2557	-2505.5649	-40.2417	-143.5641
249	2505.5454	40.2784	143.9412	-2591.0623	-14.3460	-71.7620
250	2590.9995	14.3098	73.3482	-2594.3960	13.5936	3.1815
251	2594.3726	-13.5847	-3.1928	-2513.3684	39.5272	75.5155
252	2513.3696	-39.5383	-74.8901	-2345.5684	67.3778	151.4451
253	2345.6104	-67.3537	-150.6323	-2098.9629	93.2286	222.8334
254	2099.0881	-93.2332	-221.9962	-1764.6418	131.2642	328.8915
255	1764.6036	-131.2981	-328.9208	-1353.9182	146.6086	371.0089
256	1354.0431	-146.6216	-370.7299	-858.3718	184.4799	477.6415
257	966.3527	-111.3577	-416.8805	-617.2860	126.2236	458.9716
258	704.4944	-68.9959	-297.7189	-447.3833	95.6892	374.1150
259	537.5894	-44.5065	-239.1242	-391.6021	41.5426	259.3043
260	499.0479	20.6983	-95.9737	-525.1377	6.9846	162.0484
261	593.6015	-9.4868	-5.3633	-563.9751	13.1678	3.3672
262	588.1385	3.7922	37.4079	-586.7430	-8.9170	-36.0995
263	650.0358	56.8634	157.8018	-765.0498	-37.3982	-101.5274
264	832.1088	90.7461	231.9565	-1027.0499	-81.6640	-204.5205
265	1107.5653	147.0214	372.0109	-1405.9165	-127.2148	-315.5632
266	1406.9711	127.7590	320.8696	-1661.3319	-107.8434	-264.3555
267	1661.4067	107.8440	263.8701	-1869.4430	-87.8353	-207.3876
268	1869.3535	87.7830	208.3355	-2027.6588	-55.4757	-117.3995
269	2027.5996	55.4384	118.0547	-2137.3811	-35.2456	-61.5987
270	2137.3484	35.1802	61.5503	-2198.3689	-14.9100	-5.0182
271	2198.3884	14.9112	5.0511	-2210.1636	5.4255	51.3423
272	2210.1768	-5.4836	-50.2428	-2171.9417	25.8893	106.6254
273	2171.9534	-25.9004	-106.6590	-2083.3562	46.3562	163.1025
274	2083.4238	-46.3968	-162.4386	-1942.6001	79.1136	253.4901
275	1942.5713	-79.0753	-253.4943	-1748.7239	99.6334	309.9936
276	1748.7563	-99.6385	-309.6670	-1503.3400	120.2291	366.0914
277	1503.4399	-120.2583	-365.6524	-1205.9163	140.8865	422.1339
278	1205.9243	-140.8850	-422.1282	-856.2376	161.5377	478.6244
279	856.4836	-161.5268	-478.2013	-454.4777	182.1988	534.7199
280	454.3750	-182.1939	-534.8024	0.2833	169.2955	503.2591

ENVOLVENTE MAXIMOS CORTANTES TREN UIC-71, via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0337	213.2876	625.5894	-453.6318	-192.6029	-569.1182
2	434.6577	193.1667	573.5631	-837.0015	-172.5005	-517.1203
3	783.6745	174.1832	524.0459	-1137.5715	-153.5363	-467.5014
4	1055.4368	156.3523	475.9275	-1363.6223	-135.7361	-419.3281
5	1257.0342	139.6651	430.4046	-1493.5245	-116.5745	-368.5405
6	1367.4307	121.5943	382.4544	-1587.2451	-101.1227	-326.0181
7	1446.6034	107.2214	341.7391	-1629.4323	-86.8012	-285.2058
8	1478.7158	93.9655	302.9265	-1627.4490	-73.6003	-246.3439
9	1470.9115	81.7882	266.4538	-1588.2404	-61.4979	-210.0389
10	1430.1238	70.6620	232.9894	-1518.9746	-50.4479	-176.4416
11	1363.3381	60.6448	200.5858	-1426.7059	-40.5115	-144.1027
12	1276.8630	51.6255	171.7674	-1317.4402	-31.5664	-115.2796
13	1177.0681	43.6105	144.0135	-1143.6433	-21.8022	-82.0307
14	1015.5208	34.7150	113.8178	-1018.3837	-14.9735	-57.3536
15	905.3378	28.7378	91.0165	-894.6463	-9.1055	-34.5464
16	798.7836	23.6685	70.9089	-777.2589	-4.1468	-14.5557
17	700.4727	19.4581	52.8021	-670.5216	-0.0647	3.3121
18	614.1920	16.0568	37.1630	-611.8031	2.3961	30.3002
19	576.7756	14.2417	12.3816	-588.5747	3.7560	38.6611
20	575.3107	13.4609	6.5119	-447.0004	-16.7466	-22.8109
21	-2885.3271	296.9245	723.7684	2046.2557	-294.8764	-707.3480
22	-2063.1426	295.2643	712.3068	1254.6075	-269.9071	-640.1018
23	-1304.5684	271.1357	647.4565	605.1465	-244.1400	-570.8279
24	-687.4313	246.2996	581.1307	22.3123	-220.6698	-508.7823
25	-135.7076	223.8874	522.2525	-424.5584	-196.4317	-445.6121
26	282.3364	200.8096	462.2292	-810.3167	-174.9970	-389.8296
27	642.7277	180.6121	409.5134	-1068.5742	-152.8592	-332.9005
28	879.6574	159.7725	356.0410	-1281.0103	-133.8459	-283.6796
29	1076.0398	142.1215	309.5759	-1377.7322	-114.2300	-232.9708
30	1162.0886	123.9034	262.5062	-1450.9808	-97.9496	-190.2133
31	1230.7417	109.0610	222.6101	-1423.3740	-81.1898	-145.9035
32	1204.6992	93.7484	181.2297	-1398.3848	-67.8535	-108.8427
33	1187.4058	81.8546	147.6244	-1290.1060	-54.1814	-71.0616
34	1092.7968	69.5894	113.2283	-1210.8177	-43.8216	-40.8493
35	1032.8584	60.6266	85.5707	-1068.2134	-33.2949	-8.9456
36	914.6929	51.4326	57.5491	-978.0816	-25.8823	14.7852
37	853.5038	45.2902	36.3987	-742.3925	-19.5882	60.7745
38	650.3109	40.1819	-6.0277	-734.8590	-16.1806	74.0972
39	677.7321	37.8774	-16.5834	-755.3595	-13.8802	84.6375
40	734.6774	36.5648	-23.7793	-693.1130	-31.1996	21.1891
41	-3347.3984	306.8688	713.8156	2474.3215	-304.6256	-698.1895
42	-2492.0566	305.0382	703.5822	1652.7385	-279.6447	-631.4059
43	-1705.2823	280.9300	638.2971	974.2101	-253.8729	-561.6609
44	-1059.9570	256.1301	572.0162	364.5784	-230.4806	-499.6206
45	-481.9360	233.8108	513.3342	-108.8800	-206.3266	-436.7132
46	-37.7492	210.8298	453.3465	-520.4692	-185.0064	-381.0323
47	348.4985	190.7835	400.8669	-804.9401	-163.0245	-324.2556
48	612.0004	170.0879	347.2898	-1044.0939	-144.1782	-274.9458
49	835.5578	152.6418	300.9809	-1168.5292	-124.7688	-224.3203
50	949.8411	134.6145	253.6585	-1270.6743	-108.6784	-181.3821
51	1047.8849	119.9490	214.0381	-1272.7594	-92.1111	-137.4132
52	1052.0779	104.8150	172.9199	-1278.7062	-78.9422	-100.5832
53	1066.3370	93.0608	139.4320	-1202.3875	-65.4176	-62.7795
54	1004.1460	80.9573	104.6174	-1156.1448	-55.2258	-32.3153

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	977.7305	72.1260	77.5890	-1047.4625	-44.8423	-0.9691
56	893.8438	63.0609	49.0608	-992.1820	-37.5318	23.3068
57	867.6903	57.0103	28.2093	-796.6647	-32.4661	69.2348
58	704.8086	53.1127	-14.7028	-828.1388	-29.1140	82.7635
59	771.2854	50.8418	-25.0642	-887.8036	-26.8432	93.1152
60	867.3300	49.5515	-32.2303	-850.9129	-43.1271	29.4147
61	-3443.3435	308.9423	714.6006	2563.8762	-306.6817	-698.9906
62	-2582.0308	307.0935	702.9215	1736.2725	-281.6919	-630.7064
63	-1788.9364	282.9779	637.8115	1051.7192	-255.9231	-561.1562
64	-1137.6293	258.1960	571.7415	435.9825	-232.5465	-499.4160
65	-553.9669	235.8945	512.6138	-43.1994	-208.4063	-435.9316
66	-103.4843	212.9284	452.7674	-461.0890	-187.1093	-380.4245
67	288.6383	192.8814	400.3134	-751.3232	-165.1236	-323.7356
68	558.1397	172.2137	346.7318	-996.6982	-146.2934	-274.3776
69	787.7888	154.7459	300.5403	-1126.9758	-126.8739	-223.8961
70	908.0395	136.7208	253.2285	-1235.1404	-110.7863	-180.9501
71	1012.1512	122.0731	213.6157	-1243.3324	-94.2392	-137.0632
72	1022.4728	106.9553	172.7702	-1255.5150	-81.0868	-100.4113
73	1043.0327	95.2209	139.0279	-1185.5325	-67.5801	-62.3784
74	987.2092	83.1281	104.4235	-1145.7152	-57.3943	-32.1592
75	967.2495	74.3070	77.3998	-1043.5189	-47.0266	-0.7773
76	889.8698	65.2520	48.9640	-994.7519	-39.7289	23.4004
77	870.2767	59.2078	27.9569	-806.1595	-34.7388	69.5619
78	714.3079	55.3932	-15.0317	-844.4895	-31.3930	83.0899
79	787.6629	53.1265	-25.0525	-911.0315	-29.1285	93.1050
80	890.5544	51.8367	-32.6200	-880.1138	-45.3410	29.7864
81	-3489.5217	309.9354	713.9943	2607.0642	-307.6733	-698.3350
82	-2625.0557	308.0904	703.0179	1776.4572	-282.6958	-630.8121
83	-1829.2012	283.9836	637.6897	1088.7660	-256.9211	-561.0123
84	-1174.8068	259.1913	571.4105	470.1849	-233.5433	-499.0540
85	-588.0877	236.8842	512.4888	-11.9260	-209.3989	-435.8656
86	-135.0043	213.9271	452.5457	-432.6258	-188.1013	-380.2153
87	260.1956	193.8657	400.0973	-725.8511	-166.1058	-323.5316
88	532.5252	173.2027	346.6134	-974.1160	-147.2897	-274.2369
89	765.2051	155.7434	300.2862	-1107.3750	-127.8720	-223.6930
90	888.3506	137.7321	253.3017	-1218.3909	-111.7980	-181.1087
91	995.4354	123.0772	213.7287	-1229.5829	-95.2491	-137.0896
92	1008.7786	107.9656	172.5441	-1244.9618	-82.0827	-100.1643
93	1032.3431	96.2284	139.0434	-1177.8083	-68.5908	-62.4534
94	979.4920	84.1295	104.4676	-1140.9908	-58.3989	-32.1747
95	962.5306	75.3032	77.2785	-1041.8186	-48.0209	-0.6418
96	888.1466	66.2558	48.9512	-996.0259	-40.7364	23.3548
97	871.5514	60.2110	28.1658	-810.4516	-35.7497	69.4208
98	718.5880	56.4046	-14.9404	-851.8089	-32.4030	83.0008
99	794.9697	54.1378	-25.1085	-921.4008	-30.1330	93.1851
100	900.9274	52.8486	-32.6608	-893.4127	-46.3583	29.7948
101	-3497.9888	310.1126	713.2468	2614.8484	-307.8463	-697.5270
102	-2632.6716	308.2628	702.9483	1783.5066	-282.8655	-630.7342
103	-1836.2573	284.1519	637.6491	1095.3049	-257.0875	-561.0120
104	-1181.5704	259.3525	570.8313	476.5606	-233.7033	-498.4904
105	-594.3704	237.0501	512.0468	-6.3035	-209.5663	-435.3627
106	-140.6203	214.0912	452.1171	-427.3579	-188.2690	-379.8370
107	254.8802	194.0477	399.7307	-721.0343	-166.2945	-323.1704
108	527.8044	173.3776	346.2130	-969.9465	-147.4546	-273.8873
109	760.9379	155.9147	300.1374	-1103.6544	-128.0411	-223.5061
110	884.7090	137.8940	252.8271	-1215.3350	-111.9571	-180.5716
111	992.3244	123.2466	213.3315	-1226.9755	-95.4252	-136.7542

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	1006.1918	108.1390	172.3152	-1242.7858	-82.2564	-99.9564
113	1030.2808	96.3923	138.6951	-1176.2476	-68.7693	-62.1524
114	977.9512	84.3233	104.4351	-1140.0920	-58.5800	-32.1181
115	961.5797	75.4932	77.0345	-1041.4106	-48.2219	-0.4340
116	887.7913	66.4420	48.9840	-996.2393	-40.9156	23.3735
117	871.7394	60.3954	27.7094	-811.1718	-35.9290	69.9325
118	719.3135	56.5782	-15.0288	-853.0762	-32.5715	83.1071
119	796.2034	54.3087	-25.5508	-923.1143	-30.3127	93.5845
120	902.6594	53.0175	-32.3412	-895.6823	-46.5261	29.4857
121	-3501.4045	310.2196	714.0274	2617.8860	-307.9540	-698.3263
122	-2635.9773	308.3624	702.5567	1786.5803	-282.9687	-630.3329
123	-1839.3151	284.2671	637.2457	1098.0420	-257.2061	-560.5695
124	-1184.2192	259.4578	570.6135	478.6899	-233.8043	-498.2515
125	-596.5987	237.1478	511.7163	-4.3551	-209.6610	-435.0392
126	-142.5731	214.1847	451.7989	-425.6862	-188.3616	-379.5118
127	253.1745	194.1229	399.4219	-719.5289	-166.3666	-322.8876
128	526.2173	173.4517	345.9932	-968.4622	-147.5349	-273.7340
129	759.4373	155.9738	300.0342	-1102.3923	-128.0994	-223.3955
130	883.3738	137.9698	252.6952	-1214.2612	-112.0268	-180.3516
131	991.1891	123.3214	212.9398	-1226.0498	-95.4941	-136.3825
132	1005.2050	108.1908	172.1829	-1242.0139	-82.3193	-99.9655
133	1029.4397	96.4695	138.9958	-1175.5935	-68.8354	-62.4521
134	977.2961	84.3803	104.4707	-1139.5870	-58.6404	-32.1309
135	961.0937	75.5607	77.0916	-1041.1670	-48.2835	-0.4109
136	887.5170	66.5103	48.6666	-996.1540	-40.9926	23.6231
137	871.7027	60.4706	28.0569	-811.3990	-36.0046	69.6617
138	719.5295	56.6592	-15.2257	-853.5195	-32.6555	83.2951
139	796.6788	54.3912	-25.5257	-923.8414	-30.3952	93.5556
140	903.3925	53.1013	-32.3305	-896.6931	-46.6074	29.4789
141	-3501.1660	310.1751	714.9124	2617.8977	-307.9094	-699.2249
142	-2636.3325	308.3232	701.9843	1786.9141	-282.9221	-629.7275
143	-1839.6102	284.2149	636.8523	1098.6887	-257.1555	-560.1490
144	-1184.7657	259.4250	570.4368	479.3244	-233.7719	-498.1104
145	-597.4400	237.1203	511.2306	-3.3527	-209.6399	-434.5583
146	-143.4737	214.1607	451.3861	-424.8269	-188.3393	-379.0585
147	252.3389	194.1183	399.0067	-718.7702	-166.3593	-322.4839
148	525.4160	173.4454	345.6624	-967.5916	-147.5295	-273.4318
149	758.6398	155.9812	299.7251	-1101.5620	-128.1079	-223.0836
150	882.5889	137.9583	252.4104	-1213.4377	-112.0152	-180.1370
151	990.4071	123.3123	212.8913	-1225.2754	-95.4883	-136.2994
152	1004.4720	108.1953	171.8886	-1241.2823	-82.3227	-99.6745
153	1028.7163	96.4720	138.9140	-1174.9048	-68.8389	-62.3385
154	976.6136	84.3811	104.1346	-1138.9194	-58.6450	-31.7976
155	960.4116	75.5574	76.9695	-1040.4852	-48.2734	-0.3185
156	886.8170	66.4988	48.5668	-995.4375	-40.9777	23.7086
157	870.9763	60.4555	28.0779	-810.5764	-35.9917	69.6863
158	718.7076	56.6409	-15.2944	-852.6277	-32.6425	83.3478
159	795.7842	54.3752	-25.5258	-922.9225	-30.3720	93.5881
160	902.4543	53.0860	-32.8459	-895.7009	-46.5953	29.9477
161	-3500.6550	310.1531	713.7821	2617.3032	-307.8859	-698.0199
162	-2635.4141	308.2988	702.2485	1786.1978	-282.9043	-630.0081
163	-1838.9534	284.1940	636.9466	1097.8809	-257.1309	-560.2518
164	-1184.1460	259.3813	570.1155	479.0457	-233.7332	-497.7516
165	-596.8546	237.0838	511.3836	-3.8788	-209.5990	-434.7914
166	-143.3255	214.1241	451.3102	-424.7610	-188.3021	-379.0120
167	252.4137	194.0608	398.9367	-718.7231	-166.3041	-322.2220
168	525.4769	173.3912	345.3343	-967.5389	-147.4644	-273.1204

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	758.4095	155.9229	299.6837	-1101.1653	-128.0555	-223.1870
170	882.1518	137.9178	252.5942	-1212.7852	-111.9855	-180.3953
171	989.7546	123.2658	213.1886	-1224.4965	-95.4315	-136.5905
172	1003.6244	108.1526	172.1211	-1240.3501	-82.2758	-99.7812
173	1027.7560	96.4171	138.6187	-1173.7715	-68.7927	-62.1121
174	975.4371	84.3312	104.4505	-1137.5159	-58.5902	-32.1536
175	959.0301	75.5001	76.9449	-1038.9301	-48.2170	-0.2862
176	885.2381	66.4500	48.8454	-993.6728	-40.9298	23.4547
177	869.2053	60.4072	27.8423	-808.7122	-35.9398	69.9622
178	716.8424	56.5961	-15.2736	-850.6001	-32.6030	83.3048
179	793.7677	54.3312	-25.4297	-920.7922	-30.3241	93.5025
180	900.3185	53.0401	-32.7553	-893.4500	-46.5442	29.8757
181	-3497.1443	309.8544	713.6928	2614.9172	-307.5910	-697.9636
182	-2632.9023	308.0042	702.6951	1784.5513	-282.6074	-630.4880
183	-1837.5581	283.8985	636.5115	1097.4581	-256.8348	-559.7965
184	-1183.4921	259.0945	570.2470	479.2063	-233.4505	-497.8786
185	-597.1200	236.7943	511.2876	-2.8810	-209.3024	-434.6168
186	-144.1011	213.8381	451.3483	-423.0643	-188.0251	-379.1266
187	250.5192	193.7938	399.0437	-715.9379	-166.0369	-322.4637
188	522.7477	173.1275	345.5060	-964.0289	-147.2155	-273.1870
189	755.0617	155.6818	299.5173	-1097.1064	-127.8089	-222.9745
190	878.0356	137.6659	252.5502	-1207.9532	-111.7260	-180.2613
191	984.9675	123.0002	212.6982	-1218.9115	-95.1698	-136.1888
192	997.9927	107.8780	172.2643	-1233.8552	-81.9986	-100.0129
193	1021.2788	96.1356	138.6664	-1166.5089	-68.4976	-61.9993
194	968.1516	84.0368	103.9532	-1129.3699	-58.3012	-31.7127
195	950.8727	75.2138	77.0578	-1029.9061	-47.9354	-0.4296
196	876.2145	66.1685	48.6277	-983.8308	-40.6502	23.7050
197	859.3503	60.1305	27.7308	-797.9473	-35.6690	70.0697
198	706.0751	56.3229	-15.3319	-839.0364	-32.3248	83.3808
199	782.1790	54.0569	-25.5929	-908.3584	-30.0545	93.6566
200	887.8701	52.7667	-33.0700	-880.1792	-46.2681	30.1607
201	-3488.8320	309.2226	713.3872	2608.3284	-306.9534	-697.6370
202	-2626.4246	307.3661	701.8760	1779.9940	-281.9696	-629.6165
203	-1832.5923	283.2634	637.0812	1094.4585	-256.2055	-560.4059
204	-1180.7672	258.4682	570.1190	478.2193	-232.8171	-497.7684
205	-596.1216	236.1676	511.2788	-1.8690	-208.6820	-434.6586
206	-145.2181	213.2038	451.2734	-420.0314	-187.3910	-379.0109
207	247.6123	193.1799	398.9141	-711.2462	-165.4255	-322.2526
208	518.0036	172.4964	345.3433	-957.4043	-146.5711	-273.1203
209	748.2744	155.0250	299.6381	-1088.2911	-127.1510	-223.0868
210	869.2928	136.9930	252.3986	-1197.2306	-111.0535	-180.1108
211	974.1614	122.3402	212.8607	-1206.0831	-94.5101	-136.2618
212	985.2690	107.2276	171.8374	-1219.1646	-81.3505	-99.6203
213	1006.5852	95.4961	138.8354	-1149.8718	-67.8658	-62.2594
214	951.5588	83.4182	104.0593	-1110.9568	-57.6766	-31.7496
215	932.4454	74.5823	77.0079	-1009.5584	-47.3040	-0.3584
216	855.9348	65.5356	48.4660	-961.6761	-40.0145	23.8353
217	837.2285	59.4967	27.9150	-774.0438	-35.0414	69.8697
218	682.2049	55.6965	-15.4685	-813.2936	-31.6968	83.5287
219	756.4839	53.4324	-25.7129	-880.8007	-29.4282	93.7694
220	860.3721	52.1442	-32.7931	-850.8106	-45.6427	29.9142
221	-3441.6672	305.6745	713.8027	2572.0386	-303.4089	-698.0738
222	-2590.2246	303.8212	702.0112	1754.3699	-278.4203	-629.7619
223	-1807.1322	279.7147	636.7402	1079.4071	-252.6453	-560.0431
224	-1165.7122	254.9081	569.8930	473.9937	-229.2550	-497.5485
225	-591.8835	232.6093	511.0494	4.6609	-205.1264	-434.4559

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-151.7437	209.6559	451.0311	-402.9648	-183.8278	-378.7148
227	230.6593	189.6126	398.6402	-683.6132	-161.8507	-322.0211
228	490.3065	168.9538	345.1992	-919.0479	-143.0341	-272.9323
229	710.1969	151.5010	299.2088	-1039.5154	-123.6316	-222.6628
230	820.7245	133.4897	252.1950	-1138.2509	-107.5442	-179.9526
231	915.4093	118.8595	212.6135	-1136.8765	-91.0425	-136.0100
232	916.4000	103.7667	171.5727	-1139.8972	-77.9026	-99.3222
233	927.7110	92.0565	138.3677	-1060.7341	-64.4181	-61.8015
234	862.7709	79.9714	103.7381	-1011.8611	-54.2368	-31.4913
235	833.7632	71.1639	76.7463	-900.7695	-43.8822	-0.0607
236	747.4931	62.1236	48.0918	-843.0554	-36.6049	24.2311
237	719.0026	56.0938	27.3391	-646.5256	-31.6547	70.4237
238	555.0306	52.3208	-15.7616	-675.9927	-28.3200	83.8212
239	619.4548	50.0579	-26.2317	-733.6307	-26.0569	94.2895
240	713.3837	48.7734	-33.5223	-693.7370	-42.2564	30.6531
241	-3344.5330	298.3377	712.1609	2496.7053	-296.0200	-696.4427
242	-2515.0100	296.4420	700.1273	1700.8910	-271.0124	-627.8484
243	-1753.7692	272.3251	635.0306	1048.1353	-245.2133	-558.3382
244	-1134.5742	247.5163	568.2108	465.1026	-221.8439	-495.8895
245	-583.0847	225.2428	509.3094	17.8682	-197.7075	-432.6414
246	-164.7059	202.3089	449.3708	-367.7418	-176.4721	-377.1305
247	195.7356	182.3412	397.0290	-626.5799	-154.5375	-320.3978
248	434.2421	161.7499	343.4613	-841.2850	-135.8116	-271.1107
249	633.6762	144.4095	297.4203	-941.4142	-116.5176	-220.9459
250	724.3273	126.4980	250.5996	-1020.5653	-100.5475	-178.3640
251	800.2316	111.9917	210.7974	-1000.9536	-84.1577	-134.1721
252	783.3848	97.0299	169.9244	-986.7271	-71.1520	-97.6847
253	778.0450	85.4749	136.6024	-891.6759	-57.8566	-60.0650
254	697.7687	73.5676	102.0947	-828.0456	-47.8458	-29.7781
255	654.4254	64.9217	74.7299	-704.0611	-37.6888	1.9491
256	555.5289	56.0787	46.2906	-634.0324	-30.5858	26.0341
257	514.6589	50.2156	25.4311	-436.2049	-26.0884	72.2621
258	349.1236	46.8685	-17.8077	-453.7299	-22.8687	85.8576
259	400.9398	44.7001	-27.9222	-499.0450	-20.6983	95.9735
260	481.3684	43.4741	-35.3502	-445.6419	-36.8492	34.1414
261	-2875.1882	265.7604	538.9158	2317.9246	-269.0807	-536.2431
262	-2328.8145	269.3325	540.3283	1776.5863	-249.7538	-483.8258
263	-1808.4895	250.5357	489.2841	1297.5334	-230.8376	-432.7705
264	-1349.8914	232.2003	440.4732	879.9551	-212.3884	-383.9243
265	-952.0250	214.3808	394.6108	523.0714	-194.4764	-338.1659
266	-614.2207	197.1656	350.3579	224.9963	-177.1524	-293.8442
267	-333.3167	180.5954	309.0953	-16.6155	-160.4891	-252.6382
268	-107.3613	164.7281	269.7265	-204.3489	-144.5426	-213.3787
269	67.3223	149.6113	232.8222	-302.2812	-127.0073	-170.8811
270	154.9062	132.9673	192.6555	-390.2147	-112.5585	-136.1441
271	235.5448	119.4297	160.1793	-436.1654	-98.9695	-103.7902
272	277.6142	106.8027	130.0708	-445.1875	-86.2912	-73.6614
273	286.5631	95.1008	102.1505	-422.9097	-74.5362	-45.7115
274	268.1424	84.3750	76.4470	-375.1786	-63.7770	-19.9799
275	228.4852	74.6468	52.9537	-308.1817	-54.0218	3.5372
276	174.0122	65.9427	31.6983	-228.4215	-45.2898	24.7432
277	111.4305	58.3033	12.7104	73.2286	-37.8345	70.4726
278	-168.3718	51.9333	-30.7374	71.7640	-33.9317	81.7942
279	-140.1323	49.1334	-39.8418	49.8490	-31.1333	90.8904
280	-86.5662	47.4483	-46.6062	0.0435	-29.4434	97.6676

ENVOLVENTE MAXIMOS TORSORES TREN UIC-71, via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0600	172.7776	669.6679	-362.5092	-152.0929	-613.1965
2	343.5321	152.6580	617.6408	-654.7274	-131.9918	-561.1975
3	601.3867	133.6744	568.0575	-864.1190	-113.0275	-511.5121
4	781.9963	115.8355	520.1035	-998.9874	-95.2194	-463.5026
5	892.4014	99.1357	474.6433	-1037.7249	-76.0451	-412.7822
6	911.6555	81.0497	426.5208	-1040.2616	-60.5781	-370.0881
7	899.6193	66.6622	385.8093	-991.1884	-46.2420	-329.2760
8	840.4259	53.3885	347.1429	-897.8359	-33.0233	-290.5642
9	739.8340	41.1244	310.7745	-765.6836	-20.8341	-254.3632
10	609.2419	30.1005	277.0029	-606.8329	-9.8864	-220.4524
11	429.9339	19.1128	245.1502	-399.8506	1.0205	-188.6717
12	273.3465	11.0491	215.7143	-222.6366	9.0100	-159.2314
13	55.3783	2.0457	188.6446	71.5786	19.7626	-126.6628
14	-175.7817	-6.0126	158.1747	264.5290	25.7541	-101.7095
15	-403.3096	-12.8039	135.6715	507.4749	32.4362	-79.2025
16	-569.8128	-16.8748	115.0181	682.6014	36.3965	-58.6664
17	-766.3136	-21.2843	97.1660	887.9289	40.6777	-41.0490
18	-975.0768	-25.4946	81.8715	1104.7229	44.7814	-26.5399
19	-1142.4282	-28.2131	69.8663	1276.3767	47.3862	-16.0339
20	-1286.6212	-30.1054	60.5222	1422.5801	24.8104	-67.4822
21	-1375.6440	238.1602	785.2429	712.8280	-236.1122	-768.8230
22	-732.5885	236.7666	773.5607	99.5554	-211.4094	-701.3566
23	-149.5182	212.6405	708.7095	-374.4072	-185.6447	-632.0808
24	292.1184	187.8022	642.3841	-781.7337	-162.1724	-570.0346
25	668.3357	165.3903	583.5043	-1053.1024	-137.9346	-506.8655
26	910.8776	142.3123	523.4808	-1263.3596	-116.4998	-451.0799
27	1095.3510	122.0151	470.6355	-1345.4314	-94.2623	-394.0224
28	1157.2891	101.2819	417.2453	-1383.1575	-75.3554	-344.8845
29	1173.5605	83.1783	370.7495	-1298.4458	-55.2867	-294.1469
30	1088.7944	65.4226	323.6554	-1202.2299	-39.4688	-251.3634
31	981.9875	50.5791	283.7630	-999.1593	-22.7078	-207.0551
32	766.2620	34.5220	242.5096	-782.2931	-8.6271	-170.1234
33	570.0172	22.5695	208.9067	-494.8822	5.1037	-132.3408
34	317.7090	11.1019	174.2784	-260.2645	14.6659	-101.8980
35	55.5842	1.2042	147.0539	87.3719	26.1275	-70.4273
36	-211.3318	-7.0527	118.5104	323.4075	32.6030	-46.1775
37	-477.1421	-14.0445	97.7386	662.3426	40.8680	-21.4348
38	-722.7037	-19.4188	75.7524	868.4975	44.6928	-3.8315
39	-960.2040	-23.8638	61.8270	1165.5468	50.1207	11.7096
40	-1149.0563	-26.5660	48.6157	1310.1064	27.2773	-39.6698
41	-1294.7601	236.2367	783.3882	633.5936	-233.9935	-767.7620
42	-657.9230	235.0507	772.6179	28.5441	-209.6573	-700.4435
43	-77.4016	210.4294	707.8088	-442.1612	-183.3723	-631.1714
44	356.1656	185.6948	641.5278	-840.2258	-160.0453	-569.1304
45	722.7196	163.4988	582.4973	-1102.6310	-136.0146	-505.8781
46	956.1985	140.6451	522.7971	-1303.8446	-114.8217	-450.4821
47	1131.7085	120.5616	470.3150	-1377.4773	-92.8025	-393.7058
48	1186.1917	100.0800	416.8355	-1408.3143	-74.1704	-344.4901
49	1194.4515	82.1378	370.4692	-1315.8912	-54.2648	-293.8070
50	1099.7264	64.2897	323.1478	-1209.5771	-38.3536	-250.8650
51	992.4146	49.9667	283.5107	-1007.2870	-22.1288	-206.8827
52	786.4586	34.8218	242.4240	-803.1600	-8.9490	-170.0894
53	590.9695	23.0799	208.8797	-517.0335	4.5634	-132.2242
54	318.5968	10.9674	174.1456	-260.6738	14.7642	-101.8430

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	82.4805	2.1363	146.8590	57.7357	25.1474	-70.2421
56	-211.3372	-6.9238	118.5126	322.9949	32.4529	-46.1460
57	-447.4124	-12.9735	97.4453	629.2169	39.7545	-21.1388
58	-721.0774	-19.1140	75.6662	865.7857	44.3653	-3.7507
59	-922.6458	-22.6366	61.4441	1123.9644	48.8604	12.1095
60	-1142.1766	-26.1012	48.2166	1301.6146	26.8110	-39.2566
61	-1317.1827	236.5936	783.3793	654.7498	-234.3330	-767.7711
62	-643.2296	234.0294	772.2592	16.6872	-208.6277	-700.0440
63	-69.1105	209.8780	707.4380	-448.8479	-182.8231	-630.7832
64	362.9462	185.0976	641.1106	-845.2762	-159.4481	-568.7856
65	727.2565	162.7950	582.5719	-1105.1321	-135.3067	-505.8892
66	958.4847	139.8299	522.2419	-1303.7552	-114.0108	-449.9007
67	1131.4403	119.8239	470.1679	-1374.9590	-92.0660	-393.5916
68	1181.7756	99.1578	416.5882	-1401.1812	-73.2376	-344.2366
69	1192.2640	81.6832	370.3993	-1312.2888	-53.8112	-293.7579
70	1093.3486	63.6641	323.0911	-1201.2858	-37.7296	-250.8095
71	981.3600	49.1957	283.4677	-993.8877	-21.3618	-206.9144
72	786.9630	34.7822	242.5845	-803.5179	-8.9137	-170.2262
73	574.8569	22.3343	208.9164	-498.6766	5.3065	-132.2699
74	318.6771	10.9626	174.1981	-260.7166	14.7712	-101.9338
75	82.5256	2.1469	146.9231	57.6880	25.1335	-70.2987
76	-211.3399	-6.9124	118.4835	322.9523	32.4355	-46.1205
77	-447.4348	-12.9563	97.4722	629.1912	39.7355	-21.1325
78	-721.0477	-19.0806	75.6530	865.6606	44.3335	-3.7448
79	-852.5569	-20.8834	60.9995	1048.5916	47.1026	12.5746
80	-1141.8683	-26.0542	48.2282	1301.1516	26.7658	-39.2582
81	-1379.6002	237.8740	782.8192	713.3068	-235.6119	-767.1573
82	-731.3012	236.0318	771.8317	98.8551	-210.6370	-699.6250
83	-68.5303	209.8919	707.0033	-449.6198	-182.8294	-630.3266
84	363.5796	185.1009	640.7199	-845.9142	-159.4530	-568.3612
85	727.9914	162.7945	582.0153	-1105.7878	-135.3092	-505.3933
86	958.8342	139.8353	522.2052	-1304.1333	-114.0095	-449.8762
87	1131.6967	119.7647	469.9082	-1375.0603	-92.0047	-393.3407
88	1181.7751	99.1108	416.6130	-1401.0706	-73.1978	-344.2344
89	1192.1168	81.6458	370.1613	-1312.0114	-53.7745	-293.5692
90	1093.5938	63.6898	323.2618	-1201.5532	-37.7557	-251.0682
91	995.4366	49.3729	283.6886	-1008.4733	-21.5448	-207.0466
92	772.4257	33.8328	242.5433	-786.1485	-7.9499	-170.1619
93	591.8457	22.5973	208.9723	-516.4252	5.0403	-132.3825
94	322.0527	10.5961	174.2798	-263.0226	15.1345	-101.9872
95	84.5511	1.7782	146.9840	56.7695	25.5041	-70.3484
96	-209.4793	-7.2445	118.4670	322.0736	32.7639	-46.1614
97	-428.8698	-12.7796	97.3088	610.1118	39.5582	-20.9608
98	-701.9748	-18.9034	75.4426	846.0588	44.1562	-3.5116
99	-836.2163	-20.7558	60.9013	1031.8911	46.9814	12.7178
100	-1063.0520	-24.5381	48.0446	1217.7529	25.2391	-39.0895
101	-1377.7219	237.8230	782.2926	711.4652	-235.5567	-766.5744
102	-747.7789	236.4104	771.4641	114.1507	-211.0132	-699.2496
103	-149.7265	211.8614	706.6395	-374.3324	-184.7970	-630.0007
104	359.0889	185.1755	640.5093	-841.5738	-159.5262	-568.1675
105	723.7639	162.8747	581.7287	-1101.9209	-135.3909	-505.0436
106	954.9925	139.9125	521.8038	-1300.4434	-114.0903	-449.5242
107	1131.5983	119.7774	469.8096	-1374.9702	-92.0242	-393.2508
108	1181.7263	99.1012	416.3723	-1400.9863	-73.1782	-344.0456
109	1202.4330	81.1842	370.3690	-1320.9598	-53.3106	-293.7383
110	1102.5006	63.1357	323.0585	-1208.8480	-37.1988	-250.8024
111	992.2078	48.4114	283.5653	-1002.3739	-20.5900	-206.9898

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	781.5909	33.3009	242.5487	-793.6982	-7.4183	-170.1880
113	581.1976	21.5578	208.9284	-502.6919	6.0652	-132.3890
114	324.8201	10.2779	174.2885	-264.7747	15.4654	-101.9739
115	86.0553	1.4270	146.9996	56.2526	25.8443	-70.3982
116	-156.9003	-5.9534	118.3024	265.6591	31.4798	-45.9447
117	-446.5453	-13.6244	97.4155	630.2925	40.4038	-21.0622
118	-635.0141	-17.4422	75.0964	774.7484	42.7017	-3.1470
119	-839.1811	-21.1473	60.9039	1035.9767	47.3646	12.7047
120	-1035.0203	-24.1431	47.1372	1188.5757	24.8474	-38.1489
121	-1409.0762	238.5562	782.2204	740.5713	-236.2907	-766.5192
122	-758.4430	236.6783	771.0777	124.0773	-211.2845	-698.8531
123	-161.5895	212.2180	706.2418	-363.5292	-185.1570	-629.5662
124	306.0467	186.6439	640.0365	-793.0820	-160.9905	-567.6750
125	721.1590	163.0088	581.3552	-1099.7109	-135.5220	-504.6771
126	952.7809	140.0429	521.4464	-1298.6302	-114.2198	-449.1568
127	1127.3014	119.9306	469.4653	-1371.1226	-92.1743	-392.9333
128	1182.0120	99.0970	416.2197	-1401.1942	-73.1802	-343.9648
129	1206.9355	81.0039	370.3914	-1324.9434	-53.1295	-293.7544
130	1105.9307	62.9962	323.0532	-1211.8585	-37.0532	-250.7097
131	989.6440	48.3082	283.2940	-999.5013	-20.4809	-206.7336
132	782.1237	33.2834	242.4736	-794.2059	-7.4119	-170.2526
133	599.7506	22.3286	209.0899	-523.4921	5.3055	-132.5490
134	326.3621	10.2504	174.3765	-266.2520	15.4895	-102.0366
135	87.7613	1.4279	146.9912	54.5896	25.8493	-70.3074
136	-207.8329	-7.6221	118.3888	321.5496	33.1398	-46.0990
137	-366.0078	-11.3551	97.0492	542.9835	38.1377	-20.6798
138	-634.8485	-17.4830	75.1159	774.6655	42.7370	-3.1497
139	-824.9942	-20.8411	60.6361	1020.8572	47.0584	12.9935
140	-1034.9862	-24.1703	46.8439	1188.5892	24.8760	-37.8430
141	-1414.6464	238.6297	782.3479	746.0217	-236.3640	-766.6615
142	-758.2500	236.6298	770.7994	123.9289	-211.2287	-698.5435
143	-170.1299	212.3576	705.9621	-355.2698	-185.2981	-629.2570
144	269.1830	187.5696	639.7065	-759.0046	-161.9165	-567.3776
145	720.7645	162.9743	581.3005	-1099.1443	-135.4940	-504.6279
146	930.6807	140.6951	521.2709	-1278.5630	-114.8737	-448.9420
147	1126.1199	119.9593	469.2889	-1370.0736	-92.2003	-392.7665
148	1181.6555	99.0935	416.2480	-1400.7920	-73.1776	-344.0162
149	1207.4015	80.9442	370.4330	-1325.1958	-53.0709	-293.7936
150	1106.2290	62.9216	323.1254	-1211.9445	-36.9785	-250.8503
151	990.8042	48.2061	283.6042	-1000.3730	-20.3821	-207.0137
152	779.5734	33.0899	242.5991	-791.0877	-7.2173	-170.3837
153	600.0750	22.2738	209.2943	-523.6671	5.3593	-132.7209
154	325.3693	10.1774	174.5194	-265.0632	15.5587	-102.1815
155	86.6169	1.3596	147.1016	55.9499	25.9244	-70.4472
156	-209.6319	-7.7059	118.5129	323.5967	33.2270	-46.2383
157	-367.1421	-11.4159	97.0689	544.2836	38.1939	-20.7042
158	-636.1603	-17.5444	75.1028	776.1546	42.7955	-3.1474
159	-826.4366	-20.8975	60.4925	1022.5208	47.1216	13.1736
160	-1037.1083	-24.2713	47.2431	1191.0118	24.9742	-38.2463
161	-1416.1427	238.7559	781.7198	747.0208	-236.4887	-765.9583
162	-765.0249	236.8995	770.5194	129.9813	-211.5051	-698.2818
163	-177.6356	212.6684	705.6886	-348.8390	-185.6053	-628.9926
164	277.1247	187.4683	639.5190	-766.4937	-161.8202	-567.1568
165	648.6785	165.1633	580.7910	-1033.6598	-137.6786	-504.1992
166	952.9430	140.1132	521.5201	-1298.9862	-114.2913	-449.2177
167	1126.6395	120.0477	469.1379	-1370.9045	-92.2911	-392.4258
168	1177.6593	99.3751	415.5407	-1397.6699	-73.4482	-343.3275

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	1206.0811	81.1421	370.2124	-1324.4636	-53.2747	-293.7149
170	1108.0242	63.0008	323.1633	-1213.9539	-37.0685	-250.9670
171	994.1674	48.3923	283.7581	-1004.2637	-20.5580	-207.1631
172	783.7065	33.2592	242.6931	-795.7142	-7.3824	-170.3502
173	596.8469	22.1162	209.1105	-520.0118	5.5082	-132.6019
174	325.4422	10.1863	174.4609	-265.0999	15.5547	-102.1615
175	86.6322	1.3507	147.1105	55.9595	25.9324	-70.4529
176	-143.7283	-5.6240	118.3280	251.4720	31.1442	-46.0275
177	-374.9381	-11.6407	97.1912	552.7586	38.4231	-20.7880
178	-631.6277	-17.4234	74.9634	771.2247	42.6682	-3.0450
179	-822.6166	-20.8073	60.2780	1018.4543	47.0351	13.4158
180	-1038.9176	-24.3165	46.9998	1192.9719	25.0250	-37.9894
181	-1417.9370	238.8768	781.8006	748.6226	-236.6135	-766.0697
182	-766.6040	237.0259	770.7753	131.1696	-211.6290	-698.5695
183	-163.3200	212.4003	705.8494	-362.2951	-185.3366	-629.1345
184	276.2591	187.5992	639.5730	-766.0681	-161.9552	-567.2062
185	674.5771	164.5426	580.9730	-1057.7955	-137.0507	-504.3016
186	952.8354	140.2654	521.2131	-1299.3115	-114.4524	-448.9929
187	1132.7322	120.0087	469.5611	-1376.8167	-92.2518	-392.9812
188	1183.6283	99.3479	416.0234	-1403.5815	-73.4359	-343.7077
189	1208.8320	81.2773	370.1656	-1327.6482	-53.4044	-293.6301
190	1111.6624	63.1267	323.3062	-1217.9681	-37.1868	-251.0167
191	994.9728	48.4622	283.4573	-1005.2981	-20.6318	-206.9457
192	793.3997	33.7454	242.8634	-806.8567	-7.8660	-170.6149
193	594.5495	22.0172	209.2648	-517.4105	5.6208	-132.5961
194	319.2378	9.9351	174.4365	-258.2019	15.8005	-102.1934
195	79.7451	1.1043	147.0456	63.5811	26.1741	-70.4156
196	-167.1918	-6.3646	118.4283	277.1500	31.8829	-46.0949
197	-384.6736	-11.9202	97.1674	563.3291	38.6999	-20.8004
198	-642.2909	-17.6957	74.8743	782.7462	42.9450	-2.9344
199	-834.1935	-21.0762	60.2586	1030.8075	47.2982	13.4261
200	-1051.2908	-24.5865	47.1447	1206.1693	25.2961	-38.1341
201	-1429.0931	239.7180	781.6233	757.1295	-237.4488	-765.8738
202	-769.7386	237.7374	770.4381	132.1660	-212.3409	-698.1795
203	-184.7556	213.6324	705.6594	-344.5134	-186.5745	-628.9812
204	272.7613	188.4577	639.5278	-765.2345	-162.8067	-567.1786
205	663.6628	165.6869	580.8764	-1050.2238	-138.2013	-504.2560
206	954.3706	141.1210	521.3744	-1303.4028	-115.3082	-449.1115
207	1133.2646	121.0139	469.2747	-1380.3948	-93.2595	-392.6114
208	1186.8306	100.3385	415.6979	-1409.7565	-74.4132	-343.4764
209	1220.0503	82.0099	370.3310	-1341.0120	-54.1359	-293.7792
210	1122.0188	63.9844	323.0842	-1230.9073	-38.0449	-250.7984
211	1008.9395	49.2577	283.5673	-1021.6177	-21.4276	-206.9676
212	800.7987	34.1492	242.5398	-815.4704	-8.2721	-170.3233
213	603.1032	22.3874	209.2429	-527.0593	5.2429	-132.6665
214	328.7519	10.3076	174.4603	-268.8108	15.4340	-102.1500
215	90.2832	1.4841	147.0332	51.8948	25.7942	-70.3847
216	-205.5256	-7.5662	118.4674	319.0780	33.0873	-46.1670
217	-396.2763	-12.2485	96.9964	575.9043	39.0267	-20.6264
218	-667.7420	-18.3634	75.0295	810.1825	43.6137	-3.0653
219	-862.7838	-21.7773	60.4129	1061.4594	47.9996	13.2569
220	-1077.6805	-25.1836	46.8436	1234.2800	25.8935	-37.8252
221	-1411.4487	238.3871	781.2758	743.6398	-236.1215	-765.5464
222	-761.3674	236.5192	770.0193	127.4118	-211.1183	-697.7707
223	-175.0390	212.2846	705.1805	-350.3710	-185.2152	-628.4840
224	277.5427	187.1216	639.0266	-765.8947	-161.4685	-566.6822
225	656.1504	164.5910	580.3818	-1039.3688	-137.1081	-503.7931

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	952.0570	139.7495	520.9817	-1297.0339	-113.9214	-448.6658
227	1124.7179	119.6976	468.6002	-1367.9222	-91.9357	-391.9861
228	1179.8829	98.8351	415.4629	-1398.2798	-72.9154	-343.1981
229	1189.4198	81.3874	369.5559	-1308.4559	-53.5180	-293.0089
230	1103.6233	62.6709	322.6506	-1208.6195	-36.7254	-250.4089
231	986.8538	47.9721	283.0951	-995.7056	-20.1551	-206.4931
232	775.2227	32.8815	242.0552	-786.1070	-7.0174	-169.8089
233	574.2003	21.1399	208.6573	-494.4481	6.4985	-132.0915
234	296.4565	9.0563	173.9175	-232.8278	16.6783	-101.6697
235	54.6926	0.2426	146.4941	91.1075	27.0391	-69.8099
236	-244.3730	-8.7923	117.9471	361.5118	34.3110	-45.6240
237	-485.5991	-14.8205	96.5013	672.7181	41.5957	-20.1508
238	-764.2389	-20.9287	74.1744	914.2294	46.1766	-2.2133
239	-970.7647	-24.4384	59.7920	1177.0122	50.6493	13.8808
240	-1197.2606	-27.9302	46.3776	1361.8986	28.6541	-37.3504
241	-1466.7577	242.5764	771.1603	786.1541	-240.2587	-755.4422
242	-798.4893	240.5386	759.8186	152.1213	-215.1090	-687.5414
243	-204.9731	216.4227	694.9698	-332.9497	-189.3109	-618.2796
244	261.1032	191.2122	628.8076	-761.6841	-165.5399	-556.4862
245	680.9960	167.8454	570.2455	-1073.9974	-140.3101	-493.5783
246	959.2528	143.8857	510.5039	-1316.4574	-118.0489	-438.2614
247	1150.4281	123.7144	458.7159	-1405.3699	-95.9107	-382.0846
248	1213.0308	103.1174	405.1457	-1444.1520	-77.1791	-332.7942
249	1236.5408	85.7835	359.2110	-1368.4274	-57.8916	-282.7358
250	1166.4253	67.0856	312.7167	-1284.4341	-41.1351	-240.4779
251	1064.0983	52.5757	272.9142	-1086.5896	-24.7417	-196.2854
252	869.3808	37.5861	232.0632	-894.3728	-11.7082	-159.8260
253	685.6821	26.0321	198.7016	-620.9800	1.5862	-122.1628
254	427.0596	14.1221	164.0659	-379.0112	11.5997	-91.7480
255	205.3931	5.4769	136.6997	-76.6995	21.7560	-60.0198
256	-71.8510	-3.3661	108.0873	171.6961	28.8590	-35.7633
257	-291.1021	-9.2323	86.8514	458.4623	35.9249	-10.4636
258	-545.5394	-15.1440	64.9295	676.2002	40.3429	7.0102
259	-729.0055	-18.5082	50.0521	912.5470	44.6075	23.6449
260	-930.2245	-21.8320	36.9787	1073.5046	22.5949	-26.4165
261	-1177.7458	228.1084	580.6706	705.1840	-231.4287	-578.0002
262	-716.0784	231.6858	582.1248	248.5446	-212.1071	-525.6214
263	-273.1726	212.7108	531.6331	-152.6646	-193.0127	-475.1176
264	118.3070	193.9222	483.3793	-502.0855	-174.1103	-426.8294
265	421.7223	176.3448	437.3149	-765.1123	-156.4404	-380.8701
266	751.9988	156.8094	394.0575	-1050.4011	-136.7962	-337.5417
267	936.3570	140.4152	352.3386	-1195.8922	-120.3089	-295.8808
268	1078.3152	124.2844	313.7030	-1299.0483	-104.0989	-257.3546
269	1167.2391	108.9518	277.2253	-1310.7269	-86.3478	-215.2904
270	1163.3400	92.2626	237.0369	-1307.0604	-71.8538	-180.5284
271	1152.4167	78.7249	204.5908	-1261.4539	-58.2647	-148.1997
272	1120.2085	65.2112	174.9866	-1194.2139	-44.6997	-118.5796
273	1035.6014	53.5114	147.0523	-1078.3762	-32.9468	-90.6124
274	923.7239	42.7486	121.6091	-937.0898	-22.1506	-65.1417
275	790.3914	33.0319	98.1226	-776.4446	-12.4069	-41.6284
276	642.5486	24.3077	76.9725	-603.2938	-3.6548	-20.5303
277	486.3185	16.6501	58.1157	-250.2757	10.0934	19.4889
278	155.1337	4.0082	20.2508	-143.9001	13.9922	30.7989
279	75.5175	1.2122	11.2719	-58.0016	16.7871	39.7707
280	21.2891	-0.4684	4.4935	0.0262	18.4720	46.5680

ENVOLVENTE MINIMOS FLECTORES TREN UIC-71, via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.0050	12.4964	2.5897	-10.5161	-4.6735	-7.8188
2	-105.3287	-46.8224	49.5658	210.6834	46.8224	-49.5601
3	-210.6974	-46.8225	49.4941	316.0704	46.8223	-49.5004
4	-316.0386	-46.8274	49.6669	421.4359	46.8293	-49.6825
5	-421.4329	-46.8418	49.7467	526.8024	46.8444	-49.7415
6	-526.8112	-46.8628	49.5653	632.2363	46.8642	-49.5569
7	-632.2371	-46.8787	49.5572	737.7184	46.8815	-49.5673
8	-737.7183	-46.8966	49.7144	843.2674	46.8973	-49.7376
9	-843.2708	-46.9029	49.8379	948.7923	46.8987	-49.8258
10	-948.8212	-46.8805	49.5138	1054.3038	46.8839	-49.5304
11	-1054.3130	-46.9086	50.0832	1159.8800	46.9105	-50.0811
12	-1159.9227	-46.9007	49.4594	1265.4309	46.8977	-49.4710
13	-1265.4001	-46.8885	50.1485	1370.9175	46.8880	-50.1798
14	-1370.9137	-46.8689	49.9077	1476.3311	46.8666	-49.9088
15	-1476.3114	-46.8632	50.2042	1581.7612	46.8637	-50.1872
16	-1581.7838	-46.8593	49.6438	1687.2671	46.8606	-49.6238
17	-1687.3159	-47.4309	45.4291	1794.0244	47.4310	-45.4703
18	-1860.7528	-112.7044	-123.1053	2114.3591	112.7039	123.0337
19	-2167.3855	-166.0076	-253.1353	2540.8662	166.0085	253.1358
20	-2585.3564	-213.9503	-375.8980	3066.7927	194.9544	336.1976
21	-3100.8357	286.7678	701.4940	2232.0181	-254.3118	-584.0820
22	-2266.5352	231.9229	528.3307	1570.7318	-231.9234	-528.3470
23	-1649.7390	169.6763	364.5258	1140.6859	-169.6760	-364.5255
24	-1203.9132	118.4787	229.1501	848.4520	-118.4782	-229.1513
25	-932.4624	61.2499	66.7639	748.7020	-61.2499	-66.7625
26	-859.9212	-11.9034	4.3827	895.6284	11.9037	-4.4019
27	-895.6285	-11.9168	4.6223	931.3757	11.9156	-4.6238
28	-931.3746	-11.9016	4.3838	967.0791	11.9010	-4.3851
29	-967.0826	-11.8911	4.6333	1002.7484	11.8913	-4.6355
30	-1002.7582	-11.8828	4.3610	1055.9395	21.9261	-12.6914
31	-1055.9255	-21.9170	12.7044	1121.6844	21.9163	-12.7195
32	-1121.6708	-21.9072	13.0181	1187.3854	21.9069	-13.0349
33	-1187.3942	-21.9244	13.0443	1253.1603	21.9254	-13.0201
34	-1253.1694	-21.9218	12.6857	1318.9276	21.9210	-12.7025
35	-1318.9335	-21.9027	13.2182	1384.6583	21.9025	-13.2118
36	-1384.6664	-21.9207	12.6560	1450.4189	21.9212	-12.6460
37	-1484.7725	-60.0872	-32.8739	1665.0137	60.0866	32.8790
38	-1739.9744	-108.6618	-179.7383	2065.9727	108.6616	179.7356
39	-2174.2756	-173.0156	-353.1794	2693.2566	173.0153	353.1831
40	-2782.6472	-234.7098	-517.5709	3486.8149	216.1249	477.2844
41	-3550.9800	296.7747	691.7780	2714.1646	-265.2983	-574.8813
42	-2752.1489	242.9977	519.6351	2023.2350	-242.9978	-519.6396
43	-2116.5059	181.1025	355.4639	1573.1644	-181.1028	-355.4318
44	-1654.0592	130.3803	220.2774	1262.9000	-130.3816	-220.3046
45	-1373.0945	66.7748	35.5901	1172.7998	-66.7755	-35.5905
46	-1297.8770	1.9255	-3.9256	1292.0962	-1.9234	3.9465
47	-1292.1018	1.9238	-3.9443	1286.3287	-1.9240	3.9540
48	-1286.3113	1.9212	-4.1319	1280.5502	-1.9210	4.1335
49	-1280.5330	1.8957	-3.9315	1274.8459	-1.8943	3.9227
50	-1274.8586	1.8855	-3.9451	1270.3513	9.1351	-4.6259
51	-1270.3553	-9.1374	4.2877	1297.7750	9.1351	-4.2818
52	-1297.7615	-9.1330	4.4421	1325.1509	9.1310	-4.4447
53	-1325.1600	-9.1088	4.2995	1352.4928	9.1097	-4.2965
54	-1352.4790	-9.1239	4.4526	1379.8462	9.1254	-4.4367

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	-1379.8317	-9.1311	4.0890	1407.2220	9.1322	-4.0821
56	-1407.2167	-9.1377	4.2805	1434.6366	9.1382	-4.2788
57	-1491.5640	-65.9423	-34.8842	1689.3740	65.9426	34.9021
58	-1767.6241	-115.2782	-181.2600	2113.4397	115.2790	181.2565
59	-2224.8035	-180.0468	-355.1438	2764.9170	180.0471	355.1790
60	-2855.8853	-241.9038	-519.5455	3581.6604	223.3758	479.2158
61	-3646.0073	298.8717	692.5484	2807.2893	-267.4379	-575.7749
62	-2845.8845	245.1369	519.0554	2110.3950	-245.1373	-519.0025
63	-2204.6938	183.2667	355.1201	1654.9951	-183.2669	-355.1177
64	-1737.5619	118.4472	181.6300	1382.1829	-118.4475	-181.6028
65	-1451.7605	69.0390	34.8997	1244.6530	-69.0369	-34.8970
66	-1372.2992	4.2364	-3.3145	1359.5927	-4.2338	3.3068
67	-1359.5837	4.2208	-3.8393	1346.9198	-4.2205	3.8729
68	-1346.9271	4.2187	-3.8875	1334.2635	-4.2193	3.8858
69	-1334.2780	4.2414	-3.8926	1321.5493	-4.2418	3.8929
70	-1321.5414	4.2447	-3.8981	1308.9128	6.8323	-4.7127
71	-1308.9369	-6.8273	4.3598	1329.4253	6.8286	-4.3368
72	-1329.4167	-6.8308	4.1330	1349.8970	6.8316	-4.1335
73	-1349.8856	-6.8494	4.3376	1370.4216	6.8500	-4.3381
74	-1370.3920	-6.8338	4.1360	1390.8812	6.8339	-4.1044
75	-1390.9078	-6.8379	3.7507	1411.4191	6.8382	-3.7292
76	-1411.4281	-6.8499	3.7223	1431.9763	6.8502	-3.7257
77	-1495.6427	-69.3449	-35.2003	1703.6830	69.3451	35.2000
78	-1782.1206	-118.7409	-181.3754	2138.3496	118.7414	181.4249
79	-2249.7847	-183.5509	-356.0827	2800.3865	183.5493	356.1129
80	-2891.6592	-245.4197	-519.2126	3628.0439	226.8969	478.8943
81	-3692.0903	299.8690	691.8856	2850.7690	-268.4360	-575.2421
82	-2889.2305	246.1448	519.3087	2150.8735	-246.1437	-519.2776
83	-2245.3452	184.2745	355.2483	1692.4874	-184.2726	-355.2166
84	-1775.3591	119.4438	181.6450	1416.9973	-119.4440	-181.6318
85	-1486.8097	70.0373	35.4559	1276.7362	-70.0368	-35.4296
86	-1404.6311	5.2524	-3.2137	1388.8724	-5.2527	3.2401
87	-1388.8713	5.2711	-3.4541	1373.0359	-5.2737	3.4884
88	-1373.0388	5.2574	-3.8531	1357.2554	-5.2554	3.8566
89	-1357.2372	5.2578	-3.4951	1341.4656	-5.2551	3.4987
90	-1341.4349	5.2359	-4.0515	1325.7368	5.8454	-4.5501
91	-1325.7501	-5.8256	4.1687	1343.2297	5.8244	-4.1640
92	-1343.2367	-5.8244	4.3695	1360.7158	5.8240	-4.3676
93	-1360.7089	-5.8193	4.1686	1378.1633	5.8188	-4.1481
94	-1378.1733	-5.8201	3.9184	1395.6237	5.8202	-3.8942
95	-1395.6332	-5.7956	3.7437	1413.0283	5.7948	-3.7165
96	-1413.0491	-5.8121	3.4952	1430.4796	5.8124	-3.4546
97	-1496.0358	-69.9552	-35.6398	1705.9150	69.9551	35.6652
98	-1784.2986	-119.3606	-181.6662	2142.3972	119.3619	181.6968
99	-2253.8584	-184.1876	-355.8829	2806.5469	184.1878	355.8996
100	-2897.8408	-246.0557	-518.9830	3635.8423	227.5333	478.6997
101	-3700.5186	300.0471	691.0747	2858.5798	-268.6065	-574.5168
102	-2896.8779	246.3142	519.3400	2157.9934	-246.3150	-519.3414
103	-2252.5222	184.4435	355.4129	1699.1368	-184.4435	-355.3346
104	-1782.1884	119.6255	181.1554	1423.3285	-119.6265	-181.1068
105	-1493.1294	70.2257	35.2733	1282.4594	-70.2275	-35.2709
106	-1410.3854	5.4545	-3.0173	1394.0199	-5.4525	3.0513
107	-1394.0269	5.4399	-3.6156	1377.7137	-5.4392	3.6608
108	-1377.7104	5.4527	-3.8139	1361.3412	-5.4536	3.8342
109	-1361.3687	5.4519	-4.0506	1345.0106	-5.4512	4.0645
110	-1345.0129	5.4544	-4.0546	1328.6726	5.6298	-4.6052
111	-1328.6754	-5.6458	4.0301	1345.6281	5.6449	-4.0048

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	-1345.6222	-5.6220	4.0301	1362.4932	5.6216	-4.0278
113	-1362.4955	-5.6141	4.0234	1379.3291	5.6141	-3.9788
114	-1379.3053	-5.6437	3.2661	1396.2378	5.6460	-3.2362
115	-1396.2307	-5.6696	3.3862	1413.2363	5.6728	-3.3452
116	-1413.2397	-5.6918	2.6020	1430.3291	5.6929	-2.5769
117	-1496.5031	-70.2658	-35.2650	1707.2930	70.2656	35.2993
118	-1785.5504	-119.6548	-182.0374	2144.6133	119.6537	182.0860
119	-2256.1150	-184.4562	-355.2562	2809.3889	184.4569	355.3310
120	-2900.1785	-246.3263	-520.6897	3639.0891	227.7979	480.4158
121	-3704.0042	300.1559	691.7763	2861.5193	-268.7067	-575.4016
122	-2900.0730	246.4068	519.0380	2160.9346	-246.4055	-518.9821
123	-2255.4028	184.5338	355.0914	1701.7815	-184.5335	-355.0281
124	-1784.7751	119.6871	181.2882	1425.6245	-119.6891	-181.2410
125	-1495.5887	70.2716	35.3744	1284.7948	-70.2721	-35.3584
126	-1412.9828	5.4905	-2.7072	1396.5054	-5.4903	2.7429
127	-1396.4935	5.5153	-3.3003	1379.9395	-5.5169	3.3586
128	-1379.9266	5.5240	-3.7011	1363.3489	-5.5262	3.7413
129	-1363.3539	5.5384	-4.1071	1346.7330	-5.5389	4.1264
130	-1346.7115	5.5599	-4.1282	1330.0293	-5.5605	4.1379
131	-1329.9923	5.5526	-4.3162	1346.5903	5.5287	-4.3630
132	-1346.6049	-5.5137	3.9948	1363.1405	5.5137	-3.9557
133	-1363.1444	-5.5197	3.3947	1379.7080	5.5204	-3.3422
134	-1379.7003	-5.5196	2.9776	1396.2588	5.5201	-2.9502
135	-1396.2649	-5.5236	2.9300	1412.8442	5.5256	-2.9129
136	-1412.8389	-5.5534	2.7093	1429.4891	5.5531	-2.6374
137	-1495.7860	-70.2830	-36.0670	1706.6641	70.2822	36.1185
138	-1785.0380	-119.6917	-181.7505	2144.1584	119.6925	181.7700
139	-2255.6809	-184.5178	-355.3567	2809.1487	184.5182	355.4688
140	-2899.9685	-246.3831	-520.7205	3639.0454	227.8619	480.4159
141	-3703.6638	300.1089	692.6411	2861.6313	-268.6714	-576.4032
142	-2900.5337	246.3734	518.5583	2161.3550	-246.3739	-518.4508
143	-2255.8296	184.5152	354.8715	1702.4061	-184.5145	-354.8403
144	-1785.3597	119.6966	181.5392	1426.1820	-119.6967	-181.4669
145	-1496.1140	70.2861	35.1786	1285.2681	-70.2852	-35.1358
146	-1413.1145	5.5459	-2.1504	1396.4791	-5.5449	2.1711
147	-1396.4839	5.5406	-2.7389	1379.8623	-5.5419	2.8139
148	-1379.8462	5.5556	-3.3863	1363.1812	-5.5551	3.4353
149	-1363.2087	5.5579	-3.7939	1346.5242	-5.5576	3.8137
150	-1346.4998	5.5599	-3.8245	1329.8376	5.5212	-4.9066
151	-1329.8557	-5.5076	4.3431	1346.3765	5.5081	-4.3189
152	-1346.3757	-5.5197	4.3327	1362.9247	5.5205	-4.2882
153	-1362.9399	-5.5225	3.3697	1379.5132	5.5236	-3.3242
154	-1379.5175	-5.5457	3.3413	1396.1542	5.5458	-3.3195
155	-1396.1553	-5.5354	2.9458	1412.7679	5.5361	-2.9039
156	-1412.7706	-5.5534	2.6907	1429.4326	5.5538	-2.5993
157	-1495.7119	-70.3026	-36.0955	1706.6077	70.3018	36.1706
158	-1784.8528	-119.6981	-181.6490	2143.9324	119.6967	181.6822
159	-2255.2371	-184.5176	-355.3722	2808.8633	184.5173	355.4280
160	-2899.9248	-246.3796	-519.0605	3638.9485	227.8543	478.7880
161	-3703.2063	300.0909	691.4877	2860.9502	-268.6389	-575.2448
162	-2899.5427	246.3437	518.9013	2160.5938	-246.3425	-518.8470
163	-2255.1445	184.4699	355.1195	1701.6960	-184.4694	-355.0399
164	-1784.8381	119.6260	181.2676	1425.9695	-119.6289	-181.2167
165	-1495.9324	70.2243	35.8148	1285.2628	-70.2248	-35.7503
166	-1413.1034	5.6169	-2.8169	1396.2523	-5.6168	2.8818
167	-1396.2563	5.6183	-2.8791	1379.3933	-5.6195	2.8754
168	-1379.3899	5.6425	-2.8807	1362.4456	-5.6450	2.9248

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	-1362.4650	5.6523	-3.8480	1345.5162	-5.6523	3.9047
170	-1345.5381	5.6354	-4.1082	1328.6686	5.4450	-4.5843
171	-1328.6508	-5.4332	3.8845	1344.9543	5.4346	-3.8647
172	-1344.9257	-5.4438	3.8717	1361.2693	5.4454	-3.8598
173	-1361.2668	-5.4333	3.6302	1377.5553	5.4302	-3.5638
174	-1377.5312	-5.4247	2.6534	1393.8004	5.4228	-2.6161
175	-1393.7755	-5.4244	2.8444	1410.0658	5.4260	-2.8034
176	-1410.0739	-5.4158	2.0092	1426.3163	5.4177	-1.9467
177	-1492.5776	-70.2123	-35.8065	1703.2695	70.2134	35.8541
178	-1781.5502	-119.6299	-181.8139	2140.3206	119.6291	181.8937
179	-2251.6165	-184.4548	-355.7422	2805.1497	184.4547	355.8059
180	-2896.2170	-246.3125	-519.4284	3635.1934	227.7913	479.1184
181	-3699.6604	299.7892	691.3870	2858.6443	-268.3511	-575.1797
182	-2897.1104	246.0566	519.3413	2158.9998	-246.0585	-519.2571
183	-2253.7427	184.1904	354.5135	1701.1776	-184.1930	-354.4266
184	-1784.0986	119.3736	181.3677	1425.9857	-119.3714	-181.3395
185	-1495.8749	69.9644	35.5264	1285.9619	-69.9622	-35.4848
186	-1412.7983	5.8167	-2.3567	1395.3345	-5.8180	2.4262
187	-1395.3220	5.8193	-3.3420	1377.8674	-5.8180	3.4048
188	-1377.8666	5.7995	-3.3996	1360.4670	-5.7962	3.4223
189	-1360.4756	5.7809	-3.7826	1343.1389	-5.7803	3.8271
190	-1343.1216	5.7942	-4.3780	1325.7491	5.2857	-4.3562
191	-1325.7166	-5.2966	4.3699	1341.6051	5.2953	-4.3354
192	-1341.6101	-5.2872	3.4229	1357.4838	5.2860	-3.3787
193	-1357.5153	-5.2464	3.3616	1373.2551	5.2438	-3.3501
194	-1373.2509	-5.2197	3.1335	1388.9043	5.2200	-3.0768
195	-1388.9025	-5.2277	2.3647	1404.5789	5.2281	-2.3028
196	-1404.5957	-5.2292	2.0752	1420.2849	5.2289	-2.0326
197	-1486.4413	-70.0225	-35.7538	1696.5159	70.0219	35.8305
198	-1774.6653	-119.4327	-181.9168	2132.9368	119.4313	181.9964
199	-2244.2161	-184.2648	-355.5814	2797.0620	184.2652	355.6145
200	-2888.1765	-246.1317	-518.7579	3626.6675	227.6126	478.4626
201	-3691.3464	299.1585	691.0730	2852.0405	-267.7136	-574.8136
202	-2890.6123	245.4189	518.4735	2154.4414	-245.4191	-518.4521
203	-2248.8635	183.5569	355.2835	1698.2638	-183.5580	-355.2247
204	-1781.3992	118.7306	181.2646	1425.1304	-118.7303	-181.1885
205	-1495.0914	69.3202	35.5750	1287.1423	-69.3169	-35.5198
206	-1411.1372	6.7961	-2.6602	1390.7433	-6.7930	2.7232
207	-1390.7267	6.7913	-3.0807	1370.3529	-6.7928	3.1037
208	-1370.3706	6.7972	-3.0972	1349.9717	-6.7996	3.1461
209	-1349.9712	6.8285	-4.0302	1329.4855	-6.8302	4.0734
210	-1329.4838	6.8510	-4.0558	1308.9221	-6.8532	4.0749
211	-1308.9127	6.8659	-4.6283	1321.4668	4.2111	-4.1077
212	-1321.4619	-4.2301	4.1346	1334.1526	4.2298	-4.0896
213	-1334.1439	-4.2246	3.1752	1346.8132	4.2253	-3.1330
214	-1346.8047	-4.2240	3.1193	1359.4796	4.2237	-3.0833
215	-1359.4784	-4.2026	2.5571	1372.0858	4.2005	-2.5169
216	-1372.1033	-4.2019	2.4850	1384.7102	4.2022	-2.4135
217	-1451.1473	-69.0100	-36.0705	1658.1787	69.0089	36.1419
218	-1736.6083	-118.4337	-181.5733	2091.9041	118.4328	181.6069
219	-2203.4856	-183.2736	-355.2315	2753.4077	183.2738	355.3187
220	-2844.5115	-245.1514	-519.7198	3580.4580	252.2251	567.0582
221	-3644.3469	270.0255	603.8702	2815.9573	-264.1849	-575.3359
222	-2854.6516	241.8899	518.6965	2129.0063	-241.8900	-518.6316
223	-2223.6902	180.0441	354.9573	1683.4791	-180.0443	-354.8766
224	-1766.8574	115.2611	181.0764	1421.0626	-115.2611	-181.0076
225	-1491.1149	65.9247	35.3902	1293.3916	-65.9239	-35.3205

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-1407.0864	9.1634	-2.8458	1379.6029	-9.1642	2.8954
227	-1379.6027	9.1710	-2.9141	1352.0973	-9.1704	2.9462
228	-1352.1097	9.1623	-3.4727	1324.6270	-9.1633	3.5176
229	-1324.6223	9.1474	-3.7166	1297.1777	-9.1490	3.7515
230	-1297.1790	9.1682	-4.2270	1269.6549	-9.1663	4.2594
231	-1269.6555	9.1491	-4.6918	1274.1558	1.8677	-4.0283
232	-1274.1708	-1.8841	4.0146	1279.8218	1.8856	-3.9798
233	-1279.8201	-1.9123	3.3402	1285.5663	1.9118	-3.2918
234	-1285.5591	-1.9096	3.0656	1291.2986	1.9105	-3.0096
235	-1291.2812	-1.9099	2.3828	1297.0225	1.9105	-2.3488
236	-1297.0098	-1.8956	2.4699	1302.6920	1.8930	-2.4216
237	-1372.0933	-66.7492	-35.8974	1572.3639	66.7476	36.0031
238	-1652.6721	-130.3586	-220.6041	2043.7526	130.3596	220.6490
239	-2114.8718	-181.0861	-355.1963	2658.1458	181.0870	355.2287
240	-2750.4553	-242.9794	-519.0643	3484.2490	250.0810	566.4024
241	-3548.6592	262.7335	602.2449	2742.0925	-256.9477	-573.6704
242	-2781.1013	234.6766	516.7583	2076.8796	-234.6767	-516.6898
243	-2172.6436	172.9841	353.2327	1653.6792	-172.9856	-353.1644
244	-1738.8060	108.6480	179.4324	1412.9030	-108.6491	-179.3573
245	-1483.7986	60.0862	33.7069	1303.5093	-60.0853	-33.6644
246	-1383.6899	21.9102	-11.2897	1317.9604	-21.9088	11.3516
247	-1317.9718	21.8925	-12.0346	1252.2864	-21.8913	12.0782
248	-1252.2946	21.8998	-12.0796	1186.5897	-21.8996	12.0864
249	-1186.6022	21.8747	-12.2770	1120.9834	-21.8765	12.3282
250	-1120.9719	21.8896	-13.0781	1055.3052	-21.8897	13.1167
251	-1055.2959	21.8903	-13.1127	1002.2375	-11.8539	4.5989
252	-1002.2237	11.8541	-4.8680	966.6617	-11.8529	4.9051
253	-966.6381	11.8452	-5.2717	931.1129	-11.8442	5.3197
254	-931.1239	11.8417	-5.7177	895.5975	-11.8447	5.7470
255	-895.5715	11.8654	-5.7285	859.9747	-11.8670	5.7476
256	-859.9865	11.8754	-5.9378	824.3650	-11.8743	5.9931
257	-932.1348	-61.2474	-66.7783	1115.8716	61.2479	66.8135
258	-1203.0890	-118.4714	-228.0675	1558.4968	118.4707	228.1305
259	-1648.2875	-169.6543	-363.8988	2157.2900	169.6544	363.9674
260	-2264.7324	-231.8914	-527.2981	3030.2578	239.9856	575.0992
261	-3098.4197	230.2540	430.0301	2558.8049	-230.8628	-417.9567
262	-2582.9763	213.9014	377.1351	2101.7844	-213.9010	-377.0863
263	-2165.2119	165.9523	254.8933	1791.7776	-165.9501	-254.8057
264	-1858.9640	112.6088	124.0242	1605.5193	-112.6063	-123.9976
265	-1685.9891	47.2458	-43.4135	1579.7078	-47.2476	43.4734
266	-1580.9148	46.6984	-48.9386	1475.8169	-46.6978	48.9787
267	-1475.8297	46.7034	-48.5219	1370.7578	-46.7039	48.5414
268	-1370.7373	46.7487	-49.2796	1265.5575	-46.7557	49.3674
269	-1265.5326	46.7779	-49.7958	1160.2853	-46.7827	49.8348
270	-1160.2733	46.8279	-49.8069	1054.8965	-46.8295	49.8092
271	-1054.9226	46.8296	-49.8364	949.5487	-46.8327	49.8742
272	-949.5091	46.8632	-50.3712	844.0631	-46.8656	50.4093
273	-844.0751	46.8634	-50.3931	738.6332	-46.8647	50.4086
274	-738.6152	46.8927	-50.6647	633.0821	-46.8969	50.6842
275	-633.0775	46.8858	-50.6911	527.5684	-46.8854	50.6981
276	-527.5593	46.8804	-50.8044	422.0965	-46.8804	50.8203
277	-422.0777	46.8945	-50.9493	316.5496	-46.8972	50.9608
278	-316.5504	46.8945	-50.9650	211.0276	-46.8933	50.9723
279	-210.9998	46.8879	-51.0877	105.5223	-46.8860	51.0934
280	-105.5336	46.8851	-51.0740	0.0807	2.1171	162.7120

ENVOLVENTE MINIMOS CORTANTES TREN UIC-71, via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0318	-29.3891	96.1684	86.3451	47.3880	-45.1226
2	-49.6403	-31.0723	89.4683	139.8066	49.0714	-38.4172
3	-71.4189	-33.8689	80.5119	167.8967	51.8717	-29.4611
4	-72.7087	-37.7786	69.3648	-82.4576	57.2071	11.4645
5	199.4264	-44.2214	26.0821	-147.3561	64.8788	30.3812
6	281.4448	-52.9739	4.9022	-203.9803	73.6121	51.5219
7	350.5612	-62.7595	-18.4489	-245.5881	83.3617	74.9642
8	400.2858	-73.5340	-44.1555	-265.7772	94.1104	100.7221
9	424.2395	-85.3008	-72.2326	-305.8811	108.3061	134.1191
10	464.2965	-100.4802	-107.8448	-261.0261	120.9000	164.3627
11	415.5117	-114.0286	-140.3433	-177.8487	134.3898	196.8452
12	325.1818	-128.4422	-175.1816	-51.6584	148.7454	231.6415
13	188.4934	-143.6633	-212.0301	122.3144	163.8801	268.6016
14	1.5100	-159.6580	-251.4845	347.5442	179.7980	307.9483
15	-239.2229	-176.3471	-292.8765	627.7939	196.3958	349.3641
16	-536.7101	-193.6930	-336.9690	965.6499	213.6477	393.4318
17	-893.6366	-211.6437	-382.8020	1332.4230	233.2400	444.7372
18	-1280.2806	-231.8889	-436.2300	1790.8760	251.5226	492.7549
19	-1759.2778	-250.7370	-485.9795	2310.7463	270.2492	542.3409
20	-2299.7131	-269.9970	-539.1053	2892.7986	265.3646	537.4213
21	430.7361	-36.4619	34.3289	-481.8004	43.5135	-34.6186
22	499.4374	-20.7367	95.2580	-401.2242	44.7380	-27.1855
23	453.9981	-22.9025	84.9507	-349.2847	46.9037	-16.8839
24	436.3330	-26.1195	71.4923	-321.9669	50.1209	-3.4236
25	441.3027	-30.4906	54.8693	-535.2149	55.4922	45.1233
26	683.7285	-37.0993	3.1693	-633.2511	64.2681	73.4997
27	806.8326	-47.1847	-28.5313	-677.4147	72.8772	100.8784
28	871.3053	-57.1596	-58.7896	-757.6965	84.7403	135.4158
29	966.3191	-70.4263	-96.7830	-764.2601	96.2812	169.1291
30	981.8765	-83.3971	-133.3580	-781.6276	111.2215	209.9224
31	1002.0013	-99.7825	-177.4153	-707.1259	125.7285	249.8236
32	924.0370	-115.7359	-220.6474	-616.8161	143.6331	297.3386
33	824.3662	-135.0435	-271.2326	-418.8490	160.9788	343.5313
34	611.3083	-153.7851	-320.4791	-180.7073	181.6143	397.1082
35	352.4854	-175.7373	-377.2571	179.1467	201.6020	449.6421
36	-32.1982	-197.0101	-433.1477	597.8348	224.5889	509.7352
37	-480.0921	-221.1892	-496.0031	1149.0896	246.8895	568.3551
38	-1062.7422	-244.5835	-558.3580	1769.8541	271.7616	634.9760
39	-1717.2546	-270.4536	-627.0416	2531.1931	295.9095	699.3282
40	-2512.9585	-295.4877	-695.3846	3363.2791	297.9512	711.8382
41	676.9237	-41.8460	31.1020	-713.3130	48.7815	-33.2666
42	733.5706	-26.0675	93.7128	-619.3823	50.0648	-25.6539
43	675.8958	-28.3213	83.5405	-554.9185	52.3227	-15.4783
44	646.4008	-31.6597	70.0338	-515.4071	55.6612	-1.9642
45	639.4813	-36.1717	53.1601	-726.8376	61.5047	46.9731
46	880.0967	-43.2612	1.4022	-812.5353	70.4812	75.1970
47	990.6504	-53.5573	-30.1282	-842.4609	79.2750	102.4583
48	1040.3651	-63.7230	-60.4412	-907.5453	91.3068	137.0538
49	1119.7446	-77.1579	-98.4010	-897.4886	103.0163	170.7881
50	1118.0540	-90.2831	-135.2048	-897.0271	118.0989	211.7943
51	1119.8726	-106.7902	-179.1605	-803.8028	132.7242	251.4901
52	1022.5036	-122.8622	-222.2590	-693.7054	150.7392	298.8744
53	902.5873	-142.2730	-272.6728	-475.0534	168.2024	345.0392
54	668.1097	-161.1067	-322.0953	-215.5329	188.8865	398.6899

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	387.8934	-183.1097	-378.8644	165.7159	208.9480	451.1710
56	-18.8580	-204.4122	-434.4325	606.7922	231.9540	511.0897
57	-488.9201	-228.6084	-497.6998	1180.0844	254.2833	570.0213
58	-1094.0400	-252.0054	-559.6595	1822.9781	279.1347	636.2945
59	-1770.3751	-277.8380	-628.8914	2606.2798	303.2744	701.1727
60	-2588.1113	-302.8661	-697.2434	3460.0918	305.2707	713.6954
61	834.1862	-45.2305	30.5161	-860.5805	52.1455	-32.6875
62	881.0125	-29.4319	93.5697	-756.6995	53.4340	-25.5106
63	813.4927	-31.7044	83.3167	-682.4129	55.7000	-15.2674
64	774.2343	-35.0428	69.6675	-633.0865	59.0449	-1.5958
65	757.5077	-39.5674	53.2827	-835.4421	64.9290	46.8920
66	989.0562	-46.6945	0.9807	-911.2961	73.9177	75.6860
67	1089.7639	-57.0114	-30.3432	-931.3220	82.7225	102.6224
68	1129.5916	-67.1707	-60.7283	-986.4257	94.7645	137.3638
69	1198.9325	-80.6253	-98.6306	-966.3053	106.4888	170.9864
70	1187.0885	-93.7605	-135.4225	-955.6575	121.5785	212.0150
71	1178.6719	-110.3094	-179.3787	-852.1031	136.2387	251.6424
72	1071.0481	-126.3733	-222.2337	-731.6273	154.2499	298.8584
73	940.5305	-145.7945	-272.7849	-502.4948	171.7171	345.1526
74	695.7053	-164.6176	-322.1455	-232.5449	192.3999	398.7019
75	404.9414	-186.6270	-378.8487	159.2849	212.4620	451.1570
76	-12.3856	-207.9436	-434.4414	610.7832	235.4754	511.0984
77	-492.9791	-232.1258	-497.5528	1194.7893	257.8034	569.9216
78	-1108.7487	-255.5389	-559.5573	1848.3083	282.6678	636.1989
79	-1795.4772	-281.3789	-629.6391	2641.9678	306.8116	701.8894
80	-2624.0771	-306.4016	-696.7782	3506.7104	308.8029	713.2829
81	863.3622	-45.8537	30.6665	-887.9071	52.7652	-32.8485
82	908.3771	-30.0558	93.4633	-782.2243	54.0540	-25.4118
83	839.0534	-32.3183	83.3050	-706.0844	56.3199	-15.2421
84	797.9423	-35.6651	69.7321	-654.9386	59.6661	-1.6636
85	779.3881	-40.1876	53.0929	-855.6036	65.5458	47.1364
86	1009.2864	-47.3195	1.1256	-929.6116	74.5466	75.5225
87	1108.1155	-57.6343	-30.3952	-947.7820	83.3453	102.6817
88	1146.1130	-67.8018	-60.5805	-1001.0045	95.4008	137.2393
89	1213.4971	-81.2578	-98.7459	-978.9950	107.1213	171.0876
90	1199.8175	-94.4024	-135.2124	-966.5381	122.2096	211.6926
91	1189.5587	-110.9353	-179.0159	-861.1479	136.8679	251.3306
92	1080.1584	-127.0105	-222.1007	-738.6418	154.8872	298.7904
93	947.6481	-146.4321	-272.5705	-507.7676	172.3596	344.8630
94	701.0114	-165.2624	-321.8197	-236.0093	193.0383	398.4008
95	408.4062	-187.2646	-378.5315	157.8403	213.1089	450.8531
96	-10.8743	-208.5870	-434.1960	611.0775	236.1149	510.7977
97	-493.1299	-232.7736	-497.4456	1196.8787	258.4473	569.7785
98	-1110.8298	-256.1782	-559.3776	1852.3613	283.3076	636.0459
99	-1799.5875	-282.0184	-629.1747	2648.2642	307.4580	701.4745
100	-2630.3477	-307.0473	-696.4635	3514.4834	309.4378	712.9812
101	876.6605	-46.1310	30.8472	-900.3156	53.0468	-33.0258
102	920.7989	-30.3396	93.3867	-793.7949	54.3380	-25.3251
103	850.6373	-32.6017	83.1832	-716.8156	56.6040	-15.1245
104	808.6625	-35.9511	69.9360	-664.8194	59.9498	-1.8796
105	789.2917	-40.4688	53.1958	-864.6168	65.8324	47.0933
106	1018.2577	-47.6075	1.0357	-937.7929	74.8284	75.5883
107	1116.2743	-57.9146	-30.2716	-955.1232	83.6219	102.5348
108	1153.4636	-68.0850	-60.5618	-1007.4490	95.6870	137.1907
109	1219.9919	-81.5358	-98.3523	-984.6131	107.3966	170.6807
110	1205.4229	-94.6861	-135.1108	-971.1893	122.5040	211.6956
111	1194.1986	-111.2169	-178.9312	-864.9635	137.1496	251.1854

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	1083.8925	-127.3024	-221.8741	-741.6572	155.1749	298.5269
113	950.5699	-146.7280	-272.3906	-509.8605	172.6472	344.6538
114	703.2641	-165.5380	-321.4713	-237.1043	193.3208	398.0469
115	409.3341	-187.5477	-378.1618	157.4755	213.3784	450.4574
116	-10.3316	-208.8418	-433.9092	611.4535	236.3749	510.5382
117	-493.7786	-233.0277	-496.7226	1198.1998	258.7020	569.0986
118	-1111.8552	-256.4333	-559.4322	1854.3430	283.5702	636.0997
119	-1801.8126	-282.2813	-628.4273	2650.9141	307.7137	700.7384
120	-2632.4690	-307.3005	-698.0078	3517.5151	309.6964	714.5117
121	878.9658	-46.1739	30.5929	-902.4311	53.0936	-32.7412
122	922.8896	-30.3864	93.4820	-795.7528	54.3838	-25.4375
123	852.5786	-32.6461	83.2885	-718.6277	56.6474	-15.2308
124	810.4933	-35.9843	69.9112	-666.4962	59.9894	-1.8358
125	790.9800	-40.5120	53.2391	-866.2487	65.8690	47.0920
126	1019.9215	-47.6392	1.0133	-939.3962	74.8588	75.6283
127	1117.9154	-57.9559	-30.3448	-956.6531	83.6710	102.5855
128	1155.0117	-68.1270	-60.5324	-1008.9733	95.7200	137.0979
129	1221.6066	-81.5795	-98.1485	-986.0612	107.4441	170.4630
130	1206.9550	-94.7312	-134.8857	-972.5253	122.5527	211.5474
131	1195.5056	-111.2643	-179.0327	-866.1805	137.1957	251.3105
132	1085.2147	-127.3568	-221.8432	-742.8208	155.2308	298.3643
133	951.8597	-146.7701	-271.9744	-511.0022	172.6912	344.1853
134	704.3474	-165.6038	-321.0261	-238.0693	193.3844	397.6521
135	410.4195	-187.5976	-377.7196	156.7767	213.4362	450.0910
136	-9.8381	-208.9206	-433.4012	610.9719	236.4474	510.0100
137	-492.9032	-233.0911	-496.8534	1197.6775	258.7687	569.1737
138	-1111.6360	-256.5055	-558.7445	1854.2306	283.6359	635.4695
139	-1801.5542	-282.3495	-628.3459	2650.8464	307.7813	700.6629
140	-2632.4041	-307.3651	-697.9156	3517.6526	309.7595	714.4237
141	879.9226	-46.1829	30.5197	-903.3908	53.0965	-32.6876
142	923.8361	-30.3849	93.9137	-796.6685	54.3865	-25.8692
143	853.4996	-32.6583	83.6058	-719.5623	56.6535	-15.5610
144	811.4268	-35.9935	70.0729	-667.4002	59.9998	-1.9967
145	791.8493	-40.5248	53.7089	-867.0274	65.8859	46.6717
146	1020.6883	-47.6598	1.3018	-940.0303	74.8824	75.3895
147	1118.5400	-57.9667	-30.1338	-957.2000	83.6817	102.3767
148	1155.5110	-68.1419	-60.2142	-1009.4315	95.7297	136.7577
149	1222.0034	-81.5847	-97.8298	-986.4427	107.4562	170.1487
150	1207.2603	-94.7451	-134.5812	-972.8304	122.5546	211.1906
151	1195.8507	-111.2728	-178.4576	-866.4447	137.2140	250.7236
152	1085.3694	-127.3680	-221.4308	-742.9921	155.2338	297.9755
153	952.0978	-146.7656	-271.4482	-511.2133	172.6898	343.6642
154	704.4335	-165.5926	-320.5969	-238.2476	193.3730	397.2417
155	410.7021	-187.5965	-377.3256	156.5277	213.4352	449.6568
156	-9.5756	-208.9084	-432.9443	610.7390	236.4402	509.5425
157	-492.6171	-233.0948	-496.4976	1197.2341	258.7682	568.7862
158	-1111.1941	-256.4980	-558.3266	1853.6306	283.6262	635.0462
159	-1800.8657	-282.3434	-628.1234	2650.4495	307.7826	700.4612
160	-2632.3596	-307.3687	-696.2238	3517.5337	309.7632	712.7948
161	878.9921	-46.1071	30.6984	-902.6648	53.0256	-32.8570
162	923.1430	-30.3189	93.5805	-796.2016	54.3164	-25.5345
163	853.0523	-32.5775	83.3481	-719.3052	56.5786	-15.2897
164	811.1606	-35.9242	70.0379	-667.3956	59.9223	-1.9818
165	791.8883	-40.4452	53.2085	-867.3506	65.8070	47.1899
166	1021.0339	-47.5744	1.4438	-940.6555	74.7947	75.1610
167	1119.1748	-57.8854	-30.2087	-958.0516	83.6022	102.5946
168	1156.3914	-68.0644	-60.8345	-1010.5555	95.6623	137.4174

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	1223.1979	-81.5186	-98.2070	-987.8639	107.3843	170.4058
170	1208.6903	-94.6729	-134.7206	-974.5798	122.4787	211.2319
171	1197.6997	-111.1973	-178.3785	-868.4521	137.1302	250.6266
172	1087.4553	-127.2626	-221.2895	-745.2462	155.1405	297.9568
173	954.1970	-146.6983	-271.7071	-513.6373	172.6226	343.9085
174	707.0621	-165.5326	-320.6334	-241.1079	193.3131	397.1899
175	413.4301	-187.5425	-377.2602	153.6203	213.3795	449.6090
176	-6.4828	-208.8560	-433.0478	607.4509	236.3844	509.6365
177	-489.5618	-233.0390	-496.0904	1194.2560	258.7211	568.4598
178	-1108.0605	-256.4553	-558.4724	1850.0952	283.5733	635.1428
179	-1797.2561	-282.2812	-628.4032	2646.8054	307.7238	700.7367
180	-2628.6963	-307.3066	-696.5088	3513.8901	309.7038	713.1140
181	876.6156	-45.9295	30.7623	-900.8792	52.8412	-32.9318
182	921.3603	-30.1338	93.4902	-794.9695	54.1318	-25.4460
183	851.7911	-32.3992	83.6469	-718.5959	56.3988	-15.5992
184	810.4496	-35.7453	70.0143	-667.2179	59.7452	-1.9522
185	791.7071	-40.2646	53.4049	-867.6102	65.6337	47.0272
186	1021.2391	-47.4066	1.1528	-941.4130	74.6218	75.4381
187	1119.9084	-57.7217	-29.9370	-959.3207	83.4368	102.1868
188	1157.6030	-67.8811	-60.3544	-1012.2974	95.4692	136.9953
189	1224.8727	-81.3227	-98.1046	-990.1393	107.1845	170.3455
190	1211.0083	-94.4655	-134.4427	-977.4276	122.2755	211.0314
191	1200.3965	-110.9859	-178.6036	-871.8443	136.9202	250.8451
192	1090.9764	-127.0686	-221.0690	-749.4025	154.9522	297.5802
193	958.4070	-146.5096	-271.3454	-518.2592	172.4342	343.6959
194	711.5447	-165.3514	-320.6033	-246.2048	193.1355	397.1698
195	418.7821	-187.3624	-377.2264	147.7031	213.2056	449.4922
196	-0.7183	-208.6760	-432.7480	601.1830	236.1976	509.3921
197	-483.2284	-232.8530	-495.9965	1187.1664	258.5305	568.3280
198	-1100.8998	-256.2671	-558.4568	1842.5736	283.3920	635.1290
199	-1789.8093	-282.1034	-628.1670	2638.6426	307.5394	700.4953
200	-2620.6367	-307.1266	-695.8222	3505.3577	309.5243	712.4522
201	863.3955	-44.9209	30.8439	-890.5956	51.8322	-33.0214
202	911.0681	-29.1263	93.7463	-787.7066	53.1232	-25.6948
203	844.5541	-31.3911	83.2749	-714.4038	55.3877	-15.2268
204	806.2644	-34.7284	70.0682	-666.0350	58.7342	-1.9956
205	790.5118	-39.2572	53.3424	-869.5031	64.6240	47.0652
206	1023.1378	-46.3966	1.3505	-946.3370	73.6067	75.2488
207	1124.8464	-56.6920	-30.0745	-967.3027	82.4085	102.4089
208	1165.6331	-66.8633	-60.6304	-1023.3798	94.4600	137.2078
209	1236.0146	-80.3225	-97.9709	-1004.2817	106.1933	170.2023
210	1225.1359	-93.4828	-134.6345	-994.4669	121.3010	211.2404
211	1217.5194	-110.0196	-178.4766	-891.8449	135.9457	250.7533
212	1110.8035	-126.0939	-221.4708	-772.1969	153.9752	298.0180
213	981.3136	-145.5141	-271.4578	-544.1579	171.4354	343.6789
214	737.3883	-164.3551	-320.5952	-274.8873	192.1381	397.2167
215	447.3344	-186.3700	-377.2774	116.0665	212.2069	449.5839
216	30.8465	-207.6919	-432.8214	566.7062	235.2238	509.4499
217	-448.5960	-231.8831	-496.3579	1149.6165	257.5594	568.6602
218	-1063.5902	-255.2929	-558.2033	1802.4249	282.4174	634.9322
219	-1749.6932	-281.1308	-627.9948	2595.6514	306.5700	700.3356
220	-2577.3943	-306.1600	-696.8445	3459.1057	308.5538	713.4149
221	833.9372	-42.6945	30.4281	-867.1781	49.5263	-32.6051
222	887.6785	-26.8195	93.4197	-771.2259	50.8185	-25.3722
223	828.1132	-29.0879	83.1657	-704.8273	53.0916	-15.1010
224	796.7191	-32.4407	69.8584	-663.3930	56.4418	-1.7993
225	787.8656	-36.9713	53.1381	-873.6273	62.4179	47.2447

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	1027.2913	-44.1982	1.2707	-956.9799	71.4276	75.3625
227	1135.4524	-54.5316	-30.4075	-984.3717	80.2515	102.7275
228	1182.6187	-64.7160	-60.5887	-1046.7609	92.3110	137.1751
229	1259.1208	-78.1901	-98.3803	-1033.8444	104.0538	170.6314
230	1254.5880	-91.3544	-134.7664	-1030.1960	119.1730	211.3108
231	1252.9061	-107.8890	-178.6083	-933.6871	133.8173	250.8852
232	1152.2839	-123.9717	-221.5839	-820.0827	151.8404	298.1531
233	1028.8298	-143.3833	-271.6698	-598.0093	169.3076	343.9059
234	790.9054	-162.2400	-320.7674	-334.8705	190.0147	397.3237
235	507.0612	-184.2438	-377.3273	50.1212	210.0915	449.6353
236	96.3463	-205.5893	-432.8384	494.7464	233.1187	509.4935
237	-377.0035	-229.7947	-496.2508	1071.7622	255.4697	568.5613
238	-985.7883	-253.2039	-558.6230	1718.1896	280.3278	635.3069
239	-1665.7903	-279.0440	-627.8420	2505.2397	304.4754	700.1856
240	-2487.1521	-304.0624	-696.1750	3362.3877	306.4403	712.7850
241	676.3978	-30.7883	21.8520	-734.7434	36.5584	-23.8040
242	755.4391	-13.8652	84.6788	-677.8113	37.8717	-16.6075
243	734.9490	-16.1787	74.3007	-650.4107	40.1788	-6.2431
244	742.5005	-19.5888	60.9597	-832.7176	44.7033	34.9224
245	957.2946	-25.3031	16.5111	-894.2378	50.8171	55.8406
246	1047.6907	-32.6855	-7.6515	-1011.7650	59.9502	84.2564
247	1189.7532	-43.1459	-38.8387	-1072.6514	68.8896	111.1329
248	1269.9651	-53.4668	-69.3395	-1167.3274	81.1049	146.0283
249	1378.2920	-67.1042	-107.2438	-1185.9854	92.9864	179.4541
250	1404.7246	-80.4325	-143.2325	-1212.6277	108.2813	219.7507
251	1432.7917	-97.1572	-187.3244	-1145.4139	123.1039	259.6455
252	1361.0533	-113.4176	-230.0956	-1059.8683	141.3183	306.6511
253	1264.9683	-133.0255	-280.1556	-865.1242	158.9546	352.3652
254	1054.1343	-152.0336	-328.9925	-628.6005	179.8207	405.5908
255	796.2708	-174.2256	-385.6966	-269.4707	200.0601	458.0504
256	411.8525	-195.6955	-441.2984	148.9318	223.2042	517.9492
257	-35.3003	-219.9832	-504.5141	699.8319	245.6370	576.8544
258	-617.5358	-243.4660	-566.4571	1318.4340	270.5332	643.1695
259	-1268.0323	-269.3060	-636.7681	2076.7051	294.7030	709.0667
260	-2059.6877	-294.3085	-704.4154	2901.3489	296.4765	721.8396
261	428.8031	-16.2969	-22.7674	-574.8370	13.4223	7.5102
262	588.1184	3.7922	37.4079	-576.4039	14.2045	13.6178
263	611.4470	2.4332	29.3587	-596.6714	15.5678	21.6695
264	653.0354	0.4446	19.0723	-679.8102	18.8373	51.4473
265	756.5776	-3.5270	-13.3144	-831.4589	24.5700	75.0230
266	927.3695	-10.0082	-38.5290	-938.1763	29.7065	95.0353
267	1051.2782	-15.9330	-61.5930	-1048.1641	35.7465	118.0983
268	1176.3276	-22.8354	-86.1324	-1156.4208	42.7522	142.4947
269	1296.9513	-30.7193	-112.8839	-1257.3568	50.7358	169.3365
270	1407.2002	-39.6399	-142.3598	-1345.0266	59.7535	198.8819
271	1500.9019	-49.5745	-174.1325	-1413.3900	69.7627	230.5451
272	1571.6780	-60.6161	-207.3460	-1455.8082	80.8798	263.7378
273	1612.4321	-72.7139	-243.4808	-1503.1489	95.4429	305.3836
274	1654.1455	-88.3388	-286.8739	-1468.2522	108.8039	343.3164
275	1608.9795	-102.7010	-327.5245	-1385.8457	123.2119	384.0244
276	1511.8976	-118.2214	-370.2345	-1248.7194	138.7775	426.6537
277	1355.4540	-134.9028	-414.9944	-1049.1603	155.4969	471.4693
278	1131.5215	-152.7022	-462.4390	-779.5158	173.3307	518.9261
279	832.9366	-171.6387	-511.7727	-432.5485	192.2876	568.2733
280	451.4120	-191.7194	-563.8835	0.3488	212.3979	620.4726

ENVOLVENTE MINIMOS TORSORES TREN UIC-71, via 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0030	17.2921	44.3531	-46.1100	1.5203	10.5709
2	82.8179	14.7941	33.7755	-147.1152	4.8282	22.7637
3	215.2767	10.3212	19.3966	-289.6854	10.1082	38.7999
4	386.1492	4.1837	0.9385	-448.7314	16.5082	55.6390
5	565.6972	-3.5100	-18.1566	-605.2030	24.1674	74.6229
6	737.7200	-12.3848	-39.1641	-751.5641	33.0230	95.5919
7	898.3383	-22.1416	-62.5191	-884.7559	42.7438	119.0344
8	1041.4419	-32.7746	-88.3721	-998.6672	53.3510	144.9424
9	1157.1332	-44.5358	-116.5532	-1130.4810	67.5411	178.4434
10	1284.9995	-59.9274	-151.8583	-1172.9700	80.3472	208.3736
11	1346.0547	-72.6239	-184.9076	-1201.5562	92.9851	241.4142
12	1327.9994	-87.8941	-219.1286	-1145.6995	108.1973	275.5933
13	1307.4702	-102.1990	-256.6612	-1089.9675	122.4157	313.2338
14	1192.9790	-118.9246	-295.8415	-935.5487	139.0645	352.3044
15	1066.7543	-134.8901	-337.5315	-771.4657	154.9388	394.0202
16	836.7793	-153.0045	-381.0781	-499.4299	172.9591	437.5426
17	572.7820	-170.9114	-427.1658	-225.6369	192.5076	489.0985
18	307.8630	-190.3666	-480.9385	109.3015	210.0003	537.4623
19	-73.5057	-209.1076	-531.3313	531.3107	228.6198	587.6950
20	-527.0465	-228.5194	-583.7749	1026.8019	223.8870	582.0928
21	-1077.4579	22.1947	-27.1454	937.5523	-21.3823	38.0897
22	-919.9261	44.1599	22.7705	741.1868	-18.1448	49.8483
23	-688.4110	39.9778	7.9189	560.4395	-14.8175	63.9264
24	-473.3873	35.6039	-9.3184	310.1208	-8.9885	85.4743
25	-190.7825	28.6185	-34.0281	93.1368	-3.1646	106.3767
26	55.3793	21.5575	-58.0824	-180.8788	5.6113	134.7501
27	354.4528	11.4704	-89.6533	-400.9727	14.2221	162.0003
28	594.8813	1.4989	-119.9939	-657.2596	26.0818	196.6206
29	865.8619	-11.7703	-157.9568	-839.7475	37.6252	230.3051
30	1057.3848	-24.7482	-194.5073	-1033.0952	52.5726	271.0725
31	1253.4722	-41.1327	-238.5682	-1134.5598	67.0787	310.9751
32	1355.8800	-56.8523	-281.9273	-1225.2848	84.7495	358.6195
33	1431.4474	-76.2220	-332.5147	-1202.3728	102.1572	404.8103
34	1390.6207	-95.1297	-381.5292	-1135.9872	122.9587	458.1569
35	1327.4958	-116.3947	-438.7404	-973.9353	142.2594	511.1239
36	1095.8854	-138.4583	-494.1090	-705.9111	166.0372	570.6980
37	844.3054	-162.0367	-557.3428	-352.7441	187.7370	629.6947
38	414.6024	-186.0922	-619.2686	117.0289	213.2702	695.8865
39	-35.6296	-211.2382	-688.4343	671.9495	236.6941	760.7205
40	-685.6512	-237.0212	-756.2431	1360.5614	239.4849	772.6971
41	-1369.2468	28.2976	-38.4705	1207.5640	-27.5548	47.6681
42	-1187.3220	50.2692	13.3148	985.4231	-24.1384	59.2709
43	-928.8892	45.8839	-1.8582	781.2892	-20.6720	73.6952
44	-689.8080	41.3283	-19.1408	506.4640	-14.6292	95.3289
45	-382.4035	34.1250	-43.7861	267.2046	-8.6409	116.1381
46	-113.9177	26.8855	-68.0484	-28.9799	0.3345	144.6470
47	207.0960	16.5920	-99.5762	-269.3619	9.1257	171.9087
48	467.2785	6.4273	-129.9869	-544.8573	21.1565	206.5980
49	757.0396	-7.0085	-167.8894	-745.2516	32.8669	240.2747
50	965.8091	-20.1301	-204.6940	-955.2488	47.9459	281.2772
51	1178.1038	-36.6431	-248.6331	-1072.5317	62.5771	320.9596
52	1291.2175	-52.7124	-291.7630	-1172.8167	80.5894	368.3808
53	1381.7061	-72.1272	-342.1204	-1164.6532	98.0565	414.4841
54	1357.6943	-90.9600	-391.6234	-1115.5096	118.7398	468.2175

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	1282.5519	-113.1405	-448.1345	-938.8284	138.9788	520.4442
56	1091.5579	-134.2625	-503.8843	-714.1155	161.8043	580.5425
57	825.2947	-158.6500	-566.9358	-343.9885	184.3249	639.2578
58	430.0368	-182.0410	-628.8914	89.0230	209.1703	705.5292
59	-36.4129	-207.8744	-698.1203	662.4382	233.3111	770.4024
60	-644.9509	-232.9175	-765.9143	1307.0695	235.3220	782.3667
61	-1287.5430	26.8891	-38.2619	1129.8092	-26.1632	47.4716
62	-1142.2999	49.7727	12.8528	941.5013	-23.6270	59.7595
63	-884.8003	45.3718	-2.2421	738.5996	-20.1621	74.0862
64	-646.7255	40.8033	-19.4280	464.7228	-14.0957	95.5979
65	-340.2780	33.5839	-44.4994	226.6235	-8.0964	116.8494
66	-73.0208	26.3441	-68.4937	-68.3425	0.8791	145.1621
67	246.7289	15.9975	-100.1976	-307.3078	9.7136	172.4783
68	505.2263	5.7915	-130.5846	-580.9337	21.8023	207.2227
69	793.9331	-7.6112	-168.4894	-780.3225	33.4747	240.8481
70	1000.4888	-20.7973	-205.2850	-987.9406	48.6153	281.8744
71	1200.2622	-37.9798	-249.2306	-1090.7024	63.9091	321.4936
72	1309.6561	-54.0437	-292.0478	-1187.1923	81.9203	368.6733
73	1396.0723	-73.4623	-342.6735	-1175.0543	99.3848	415.0440
74	1368.2758	-92.2955	-391.9202	-1122.0515	120.0778	468.4765
75	1288.9303	-114.4923	-448.3721	-941.1106	140.3273	520.6784
76	1088.0129	-135.8045	-503.9608	-706.0329	163.3363	580.6194
77	823.8446	-159.9871	-567.0680	-338.4557	185.6647	639.4382
78	424.5010	-183.4007	-629.0642	98.6387	210.5296	705.7059
79	-112.2245	-210.8709	-698.3634	747.2106	236.3039	770.6156
80	-658.7126	-234.2841	-765.8222	1324.9515	236.6854	782.3277
81	-1245.7657	26.1482	-38.1581	1090.2039	-25.4243	47.3687
82	-1069.7310	48.1310	13.2545	873.8508	-21.9902	59.3731
83	-900.4727	45.8118	-1.9803	752.9282	-20.5962	73.8437
84	-661.0708	41.2497	-19.3488	477.7086	-14.5431	95.5472
85	-353.2433	34.0245	-44.3372	238.2644	-8.5409	116.6640
86	-84.5716	26.7622	-68.5338	-58.0521	0.4649	145.1833
87	236.4924	16.4591	-100.2061	-298.4264	9.2519	172.4907
88	495.8032	6.2471	-130.5801	-572.8587	21.3519	207.2367
89	786.4532	-7.1643	-168.6209	-774.2126	33.0278	240.9637
90	988.9575	-20.2496	-205.1723	-978.0884	48.0568	281.6520
91	1187.2545	-37.2013	-248.9758	-1080.0410	63.1339	321.2876
92	1308.6875	-52.8331	-292.0998	-1189.7646	80.7098	368.7880
93	1387.8053	-72.6929	-342.4993	-1169.1326	98.6203	414.7922
94	1362.1919	-91.5005	-391.6319	-1118.4019	119.2765	468.2133
95	1286.0328	-113.6771	-448.2371	-940.5806	139.5214	520.5597
96	1086.3179	-135.0326	-503.7117	-706.7481	162.5605	580.3138
97	824.5755	-159.2243	-566.5885	-341.4845	184.8980	638.9232
98	427.5330	-182.6286	-628.5237	93.3411	209.7580	705.1936
99	-125.6476	-210.5693	-697.8197	759.9277	236.0091	770.1200
100	-721.2062	-235.1101	-765.3474	1389.5814	237.5007	781.8656
101	-1243.2283	26.1348	-38.1982	1087.7231	-25.4066	47.4344
102	-1048.9121	47.6925	13.4581	854.3495	-21.5516	59.1946
103	-806.2782	43.5070	-1.8116	665.6268	-18.2902	73.6666
104	-652.1496	41.0241	-19.5443	469.4710	-14.3194	95.7145
105	-344.9986	33.7988	-44.4030	230.7033	-8.3106	116.7742
106	-77.0578	26.5387	-68.6510	-64.9062	0.6822	145.2755
107	243.3280	16.2219	-100.3504	-304.5575	9.4854	172.6151
108	501.1790	6.1248	-130.7212	-577.8465	21.4772	207.3492
109	775.0627	-6.6717	-168.5837	-764.2741	32.5325	240.9130
110	985.0344	-19.8131	-205.3421	-975.4230	47.6310	281.9265
111	1185.6979	-36.8975	-249.1648	-1079.4004	62.8302	321.4210

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	1302.4373	-52.7780	-292.1075	-1183.7476	80.6505	368.7586
113	1390.3248	-72.3046	-342.6237	-1172.8550	98.2238	414.8901
114	1355.5587	-91.4973	-391.3246	-1111.5702	119.2801	467.9027
115	1284.4622	-113.4706	-448.1270	-939.8245	139.3013	520.4217
116	1041.5835	-136.1965	-503.2275	-658.4176	163.7296	579.8564
117	824.6110	-158.9843	-566.4287	-342.3089	184.6586	638.8029
118	341.7812	-184.6952	-628.2674	185.4316	211.8321	704.9345
119	-123.9586	-210.3265	-697.4626	757.2352	235.7588	769.7759
120	-761.5366	-235.8800	-765.6439	1432.3447	238.2758	782.1462
121	-1213.3096	25.4845	-37.5999	1059.8143	-24.7536	46.8590
122	-1039.4594	47.4639	13.5537	845.5752	-21.3254	59.1077
123	-802.8651	43.4032	-1.7326	662.5411	-18.1892	73.5999
124	-598.0032	39.6035	-19.3456	419.5698	-12.8947	95.5592
125	-343.9516	33.7797	-44.3713	229.6879	-8.2914	116.7299
126	-76.0129	26.5240	-68.6343	-65.9358	0.6956	145.2735
127	243.8779	16.2072	-100.3882	-305.0625	9.5079	172.6312
128	501.8973	6.0912	-130.7589	-578.5123	21.5018	207.3286
129	772.0442	-6.5376	-168.5055	-761.6626	32.4022	240.8218
130	982.5507	-19.6855	-205.2437	-973.2969	47.5070	281.9055
131	1194.5992	-36.2476	-249.3867	-1090.2888	62.1790	321.6617
132	1296.3483	-52.9888	-292.1339	-1177.0630	80.8628	368.6516
133	1381.0667	-72.5939	-342.0683	-1162.7278	98.5151	414.2823
134	1355.0670	-91.4621	-390.9318	-1111.2253	119.2427	467.5578
135	1283.4688	-113.4593	-447.6192	-938.7141	139.2979	519.9875
136	1085.6586	-134.7697	-503.1234	-706.9341	162.2965	579.7320
137	745.1352	-161.2410	-565.8458	-255.9419	186.9186	638.1678
138	341.9786	-184.6556	-627.7386	185.0373	211.7860	704.4634
139	-138.8717	-210.6596	-697.0567	773.1261	236.0915	769.3721
140	-761.0661	-235.8416	-765.2369	1431.7635	238.2359	781.7454
141	-1206.2500	25.3438	-36.9155	1053.1488	-24.6166	46.1866
142	-1038.6681	47.4754	13.6613	844.7351	-21.3296	59.0326
143	-794.4424	43.2230	-1.5899	654.6765	-18.0136	73.4601
144	-562.8021	38.6715	-19.1099	387.1713	-11.9591	95.3269
145	-342.8221	33.7353	-44.4174	228.6912	-8.2523	116.7416
146	-42.8138	25.4656	-68.5832	-95.9257	1.7570	145.2733
147	243.9270	16.2101	-100.4162	-305.1182	9.5049	172.6593
148	492.4572	6.4568	-130.7996	-570.1577	21.1310	207.3419
149	771.9268	-6.5128	-168.5376	-761.5989	32.3843	240.8587
150	982.4104	-19.6735	-205.2963	-973.2184	47.4830	281.9040
151	1194.4030	-36.1791	-249.1704	-1090.2583	62.1203	321.4378
152	1309.1792	-52.2751	-292.1413	-1192.0605	80.1409	368.6847
153	1384.6482	-72.4001	-341.8285	-1166.8621	98.3243	414.0465
154	1360.0889	-91.2216	-390.9816	-1117.0171	119.0020	467.6256
155	1283.8621	-113.4241	-447.4577	-939.1963	139.2627	519.7855
156	1085.8383	-134.7393	-502.8905	-707.1533	162.2711	579.4895
157	745.4184	-161.2286	-565.4886	-256.3866	186.9020	637.7761
158	342.4349	-184.6321	-627.3233	184.4146	211.7602	704.0434
159	-138.1335	-210.6409	-696.6438	772.5871	236.0801	768.9816
160	-759.9434	-235.7909	-764.4186	1430.4088	238.1854	780.9889
161	-1205.1978	25.2840	-37.2395	1052.2279	-24.5529	46.5215
162	-1031.7367	47.2575	13.8697	838.4983	-21.1188	58.8300
163	-787.0975	42.9925	-1.4852	647.9899	-17.7768	73.3624
164	-569.1755	38.7787	-19.2768	393.2348	-12.0755	95.5049
165	-268.7358	31.5601	-44.2805	161.1302	-6.0718	116.5976
166	-76.2184	26.4666	-68.7660	-65.5368	0.7537	145.3667
167	244.0553	16.1578	-100.4099	-305.0677	9.5590	172.7983
168	503.4066	5.9819	-131.0407	-579.7130	21.6160	207.6245

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	771.6584	-6.5993	-168.7356	-761.1124	32.4650	240.9338
170	981.2563	-19.7132	-205.2896	-971.9778	47.5190	281.8036
171	1191.7567	-36.3818	-248.9478	-1086.9822	62.3147	321.1994
172	1305.9835	-52.4499	-291.8614	-1188.2512	80.3278	368.5259
173	1384.8516	-72.4144	-342.1988	-1167.0922	98.3388	414.3985
174	1357.2908	-91.3866	-390.6437	-1113.7620	119.1671	467.1977
175	1286.4482	-113.3788	-447.4258	-941.9337	139.2157	519.7758
176	1029.0146	-136.5832	-502.5304	-644.8226	164.1116	579.1187
177	755.6423	-160.9667	-565.4392	-267.2177	186.6488	637.8085
178	339.3226	-184.7551	-627.3079	187.6794	211.8731	703.9794
179	-139.9448	-210.7054	-696.5979	774.7038	236.1478	768.9325
180	-756.9944	-235.7405	-764.3728	1427.4843	238.1378	780.9792
181	-1202.0404	25.0252	-37.3456	1049.8695	-24.3000	46.6109
182	-1029.3920	47.0082	13.9736	836.8812	-20.8670	58.7180
183	-799.5955	43.0870	-1.7735	660.2290	-17.8728	73.6371
184	-568.3732	38.5234	-19.2100	393.2164	-11.8183	95.4467
185	-293.6674	32.0126	-44.3519	184.7016	-6.5200	116.7121
186	-75.4044	26.1408	-68.7120	-65.3847	1.0744	145.3044
187	242.1209	15.8922	-100.4543	-302.3548	9.8229	172.7043
188	500.2699	5.7416	-130.8717	-575.8234	21.8465	207.5161
189	768.4781	-6.8250	-168.7529	-757.2542	32.6868	241.0012
190	976.6299	-19.9253	-205.1987	-966.6664	47.7353	281.7869
191	1189.6453	-36.4470	-249.3627	-1084.7162	62.3813	321.6019
192	1295.2137	-52.9632	-291.6680	-1175.9653	80.8468	368.1822
193	1384.9703	-72.4065	-341.9437	-1167.1477	98.3311	414.2927
194	1360.4484	-91.2597	-391.0865	-1117.3346	119.0438	467.6506
195	1289.9630	-113.2647	-447.2143	-945.8040	139.1079	519.4782
196	1042.7073	-136.1546	-502.5486	-659.7843	163.6762	579.1920
197	761.7390	-160.7866	-565.4331	-274.0025	186.4641	637.7646
198	346.3372	-184.5742	-627.2293	180.2719	211.6991	703.9023
199	-132.5404	-210.5364	-696.4767	766.6543	235.9725	768.8058
200	-748.6533	-235.5592	-764.1169	1418.6582	237.9570	780.7470
201	-1195.9231	24.5746	-37.3922	1045.0896	-23.8445	46.6787
202	-1030.4781	46.6829	13.7207	838.9574	-20.5425	58.9713
203	-782.1195	42.2770	-1.4064	645.1689	-17.0654	73.2771
204	-566.3481	38.0640	-19.2694	392.5369	-11.3539	95.4934
205	-276.1911	31.0654	-44.3340	170.0699	-5.5802	116.6625
206	-76.6204	25.6914	-68.7505	-62.8119	1.5187	145.3494
207	240.2222	15.4382	-100.4351	-299.0754	10.2783	172.7676
208	497.3938	5.2717	-130.9849	-571.5464	22.3250	207.5639
209	762.8801	-7.2480	-168.6638	-750.3813	33.1188	240.8947
210	971.3094	-20.4187	-205.3201	-959.8566	48.2369	281.9280
211	1182.4550	-36.9202	-249.1832	-1076.0753	62.8463	321.4591
212	1295.0388	-52.9986	-292.1732	-1175.7072	80.8799	368.7210
213	1384.8551	-72.4111	-341.8653	-1167.0133	98.3324	414.0860
214	1360.2382	-91.2502	-390.9962	-1117.0594	119.0332	467.6171
215	1289.5317	-113.2793	-447.3025	-945.3997	139.1163	519.6102
216	1092.3197	-134.5976	-502.8226	-714.0395	162.1295	579.4522
217	784.9005	-160.1454	-565.4393	-299.0916	185.8217	637.7411
218	385.1164	-183.5634	-627.2863	138.5285	210.6879	704.0150
219	-89.9921	-209.5003	-696.6095	721.0278	234.9395	768.9510
220	-706.9567	-234.6273	-764.5842	1374.0601	237.0212	781.1545
221	-1196.3798	24.5949	-37.0450	1045.4596	-23.8739	46.3028
222	-1024.9674	46.5849	13.9761	833.6955	-20.4393	58.7325
223	-782.2595	42.3058	-1.3706	645.2080	-17.0855	73.2576
224	-566.3704	38.0816	-19.1927	392.5048	-11.3703	95.4119
225	-276.1578	31.0720	-44.2716	170.0143	-5.5880	116.5817

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-76.6812	25.7136	-68.6799	-62.7553	1.5158	145.3135
227	241.2383	15.3888	-100.3676	-299.9232	10.3311	172.6925
228	497.2916	5.2376	-130.8524	-571.2835	22.3574	207.4409
229	771.8268	-7.7216	-168.7273	-757.8976	33.5853	240.9775
230	970.5042	-20.4755	-205.2220	-958.8218	48.2941	281.7671
231	1181.0839	-36.9792	-249.0898	-1074.5486	62.9075	321.3683
232	1293.1514	-53.0641	-292.0664	-1173.6311	80.9328	368.6398
233	1382.4004	-72.4724	-341.9594	-1164.3384	98.3967	414.1959
234	1357.2628	-91.3306	-390.9468	-1113.9299	119.1053	467.5021
235	1286.1583	-113.3282	-447.0750	-941.7655	139.1759	519.3845
236	1088.2219	-134.6791	-502.6937	-709.8144	162.2085	579.3486
237	827.5917	-158.8861	-565.4130	-345.5804	184.5611	637.7214
238	431.5802	-182.2962	-627.1447	88.1027	209.4201	703.8281
239	-35.7062	-208.1366	-696.3524	662.4341	233.5681	768.6976
240	-644.3233	-233.1554	-764.1782	1306.7969	235.5333	780.7886
241	-1201.5090	24.9758	-37.1471	1049.2727	-24.2585	46.4015
242	-1034.4458	47.0914	13.7814	841.4081	-20.9042	58.9429
243	-784.2597	42.5953	-1.4962	646.2644	-17.3584	73.3798
244	-567.2473	38.3091	-19.3186	392.6577	-11.5593	95.5191
245	-303.0828	31.9858	-44.4251	194.2497	-6.4718	116.7775
246	-76.0192	25.7296	-68.7845	-63.2739	1.5351	145.3873
247	239.7890	15.3128	-100.5256	-298.0869	10.4309	172.8197
248	495.4018	4.9979	-131.0239	-568.1834	22.6402	207.7118
249	772.3470	-8.3400	-169.0344	-756.3065	34.2222	241.2440
250	962.1853	-20.9973	-205.3496	-948.3864	48.8461	281.8646
251	1168.5529	-37.7184	-249.4412	-1059.4751	63.6651	321.7588
252	1275.1022	-53.9773	-292.2344	-1152.2568	81.8780	368.7924
253	1357.3876	-73.5884	-342.2548	-1135.8599	99.5175	414.4630
254	1324.8965	-92.5956	-390.9637	-1077.6663	120.3827	467.5607
255	1245.3345	-114.7883	-447.6663	-896.8408	140.6228	520.0192
256	1039.2410	-136.2582	-503.0951	-656.7837	163.7669	579.7466
257	770.4478	-160.5428	-565.9344	-284.2341	186.1966	638.2742
258	366.5259	-184.0264	-627.8884	156.0548	211.0936	704.6007
259	-105.6063	-209.8657	-697.3261	735.9443	235.2627	769.6236
260	-718.9259	-234.8679	-764.9728	1382.2490	237.0359	782.3974
261	-1268.7766	21.3579	-64.5222	1142.5104	-26.6708	57.7668
262	-1129.2249	43.8800	-12.8881	1004.9489	-24.7543	66.1367
263	-977.0379	41.5667	-23.7135	856.3174	-22.3281	78.4514
264	-817.6532	38.7858	-38.2686	701.9308	-19.4322	94.3524
265	-615.9182	34.4741	-56.0185	455.5513	-13.4311	117.7272
266	-438.7790	30.3458	-82.2286	337.1544	-10.6475	138.7328
267	-211.6675	24.0340	-104.8363	124.8644	-4.2205	161.3409
268	-9.6076	17.6171	-130.1089	-61.4828	2.2997	186.4706
269	185.9199	10.3508	-157.2870	-238.7212	9.6657	213.7458
270	391.7043	1.3498	-186.7411	-421.7601	18.7638	243.2662
271	574.7657	-8.4585	-218.5440	-579.7627	28.6467	274.9546
272	729.0883	-19.0250	-252.2618	-706.7859	39.2887	308.6560
273	863.3978	-31.1250	-288.3826	-847.6855	53.8540	350.2845
274	998.2642	-46.6936	-332.0360	-906.0844	67.1587	388.4782
275	1046.8167	-61.0674	-372.6934	-917.3690	81.5783	429.1900
276	1043.4305	-76.5928	-415.5087	-873.9023	97.1489	471.9272
277	980.6556	-93.2598	-460.3997	-768.0671	113.8539	516.8744
278	850.4270	-111.0620	-507.8486	-592.1225	131.6905	564.3351
279	645.5709	-130.0041	-557.3001	-338.8459	150.6530	613.7994
280	357.6981	-150.0856	-609.3896	0.3641	170.7641	665.9800

ENVOLVENTE MAXIMOS FLECTORES TREN UIC-71, via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0114	-42.7425	-37.5223	-10.3321	-4.6079	146.3782
2	453.4167	192.6132	-568.3054	-854.5659	-171.9488	511.7674
3	854.7166	171.9475	-511.5141	-1203.5668	-151.3024	455.0564
4	1203.3416	151.3174	-455.6389	-1500.1193	-130.7030	399.2200
5	1500.0636	130.7211	-399.4237	-1744.3142	-97.9565	308.2936
6	1744.3925	97.9880	-307.7625	-1936.0785	-67.7955	222.0605
7	1936.0756	67.8242	-222.0552	-2077.3843	-47.2980	165.6048
8	2077.3618	47.3270	-165.9884	-2167.7817	-26.8497	109.5521
9	2167.7837	26.8683	-109.8160	-2207.6860	-6.4413	53.2859
10	2207.7227	6.4147	-52.6014	-2196.3728	26.1377	-38.4473
11	2196.4087	-26.1144	37.3630	-2133.8647	46.4133	-93.8670
12	2133.8430	-46.4277	94.9324	-2022.4744	66.6501	-151.4416
13	2022.5453	-66.6662	150.4161	-1863.0255	86.8078	-206.8379
14	1862.9755	-86.8239	207.1844	-1656.7922	96.6214	-234.5293
15	1656.8165	-96.6245	234.2180	-1405.3733	116.4790	-290.7435
16	1405.2799	-116.4804	291.2082	-1108.7975	136.2322	-347.7562
17	1108.9067	-135.6624	343.1504	-769.9109	155.2893	-399.6004
18	836.6277	-90.0326	230.9070	-600.0456	121.7482	-321.8433
19	652.9606	-68.4426	190.9559	-544.2005	51.6908	-159.6662
20	588.6847	-3.7501	38.1325	-559.9891	25.4392	-87.1885
21	594.2455	-39.4411	-37.0127	-464.8902	43.1287	39.0301
22	499.5055	-20.7405	-95.1829	-460.8200	18.5328	72.8065
23	539.8262	43.7158	-236.5861	-638.4058	-18.3579	164.3758
24	701.6437	69.5527	-299.6991	-884.9060	-42.5555	223.0579
25	968.9368	99.7864	-385.4118	-1238.4285	-74.1615	313.0570
26	1349.6709	147.3265	-375.5510	-1767.4730	-119.8695	298.9638
27	1767.3922	119.8882	-299.3724	-2095.9072	-94.0776	227.0328
28	2095.9521	94.0478	-226.5333	-2348.5415	-66.2882	149.8936
29	2348.4998	66.2886	-150.4548	-2512.3872	-40.3662	78.1029
30	2512.4141	40.3471	-77.4878	-2594.7534	-12.4488	0.7839
31	2594.7373	12.4355	-0.7996	-2592.1814	13.5124	-71.4907
32	2592.1836	-13.5392	70.8482	-2503.0049	41.4057	-147.4114
33	2503.0216	-41.3702	147.3974	-2334.4944	67.2616	-219.8027
34	2334.4470	-67.2745	220.3949	-2077.7754	105.3417	-327.3253
35	2077.9165	-105.3447	326.5505	-1744.2301	120.7319	-368.5862
36	1744.0674	-120.7284	369.2534	-1325.3585	158.6284	-476.2476
37	1359.8035	-120.4654	430.2268	-980.9980	135.4400	-472.2482
38	1055.8699	-86.8681	326.2367	-741.2972	113.6942	-402.5636
39	849.6113	-49.3418	228.4450	-689.9573	50.6276	-243.9528
40	779.4230	11.0686	80.5165	-776.6276	16.5046	-146.5456
41	840.7043	-44.8173	-35.5348	-695.5310	48.3887	37.5918
42	733.6658	-26.0850	-93.7891	-689.4860	24.1342	71.3793
43	782.6201	37.7649	-234.9152	-864.8325	-12.3690	162.6960
44	945.7187	63.0852	-298.0395	-1111.6689	-36.0264	221.4646
45	1221.7339	99.6344	-407.1941	-1491.6133	-84.4745	365.1881
46	1616.7961	149.3376	-404.4205	-2009.7245	-111.3650	297.4378
47	2009.7294	111.3774	-297.4456	-2312.9275	-85.5515	225.0723
48	2312.9260	85.5464	-224.7671	-2539.9490	-57.7974	148.1765
49	2539.8970	57.8329	-148.5439	-2678.4004	-31.9170	76.2336
50	2678.4014	31.9229	-76.1974	-2735.1689	-4.0493	-0.5023
51	2735.1663	4.0677	1.1480	-2707.3257	21.8749	-73.5458
52	2707.3042	-21.8920	73.2409	-2592.7285	49.7246	-149.8344
53	2592.7356	-49.7534	150.0973	-2398.8540	75.6365	-222.4573
54	2398.8591	-75.6173	222.2048	-2117.1499	113.6475	-329.1553

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	2117.0488	-113.6392	329.6537	-1758.5618	128.9721	-371.6993
56	1758.6138	-128.9631	371.4583	-1315.1095	166.8457	-478.4055
57	1371.9939	-110.0442	439.3526	-1024.6409	124.9733	-481.3827
58	1102.9644	-75.6319	334.7826	-822.4366	102.4136	-411.0672
59	933.8604	-37.6423	236.9281	-809.6004	38.9028	-252.4326
60	900.7281	22.9494	88.9288	-933.5743	4.6098	-154.9570
61	998.0166	-48.1994	-35.2623	-853.6980	47.7510	32.8359
62	892.1116	-25.4497	-88.6340	-827.6837	27.5281	70.7314
63	921.9091	34.3368	-234.3801	-993.9277	-8.9422	162.2178
64	1076.4449	73.7719	-336.6729	-1274.6035	-46.7097	260.0303
65	1344.1975	96.1186	-406.3514	-1603.6787	-80.9543	364.3773
66	1731.2205	145.7821	-405.0984	-2113.5142	-107.8123	298.1490
67	2113.6289	107.8319	-297.3667	-2406.2224	-82.0102	224.9518
68	2406.2375	82.0193	-224.9410	-2622.7056	-54.2634	148.3464
69	2622.7214	54.2249	-148.3389	-2750.3503	-28.3061	76.0108
70	2750.3357	28.3085	-76.0080	-2796.2046	-0.4319	-0.6602
71	2796.2300	0.4145	1.3550	-2757.4126	25.5179	-73.8069
72	2757.4055	-25.5082	74.1808	-2631.9282	53.3356	-150.7739
73	2631.9329	-53.3269	150.4092	-2427.2996	79.2076	-222.7529
74	2427.2290	-79.2174	223.0762	-2134.6780	117.2561	-330.0846
75	2134.6270	-117.2466	330.5938	-1765.2657	132.5781	-372.6406
76	1765.2755	-132.5635	372.6518	-1311.0913	170.4387	-479.5658
77	1374.7874	-107.9306	439.6562	-1033.7397	122.8586	-481.6470
78	1112.2594	-73.4731	334.8682	-838.1801	100.2538	-411.1739
79	949.7452	-35.4415	237.2618	-832.1147	36.6992	-252.7481
80	923.4514	25.1700	88.7854	-962.9630	2.3898	-154.8182
81	1027.3853	-48.8344	-35.1109	-882.0538	48.4041	32.7162
82	920.4597	-26.1070	-88.7620	-853.2762	28.1601	70.9100
83	947.5396	33.7100	-234.5744	-1017.7132	-8.3096	162.3829
84	1100.4174	73.1464	-336.8863	-1296.7206	-46.0831	260.2972
85	1366.3669	95.4809	-407.0914	-1623.8823	-80.3242	365.0978
86	1751.8289	145.1440	-405.2405	-2132.2764	-107.1623	298.2516
87	2132.3232	107.1530	-297.9540	-2422.8613	-81.3348	225.5418
88	2422.8872	81.3523	-224.9351	-2637.3999	-53.5939	148.3530
89	2637.3105	53.5837	-148.9970	-2763.0154	-27.6675	76.6334
90	2763.0237	27.6900	-75.5812	-2807.0403	0.1740	-1.1825
91	2807.0806	-0.1861	1.8921	-2766.4458	26.1302	-74.2471
92	2766.4670	-26.1497	73.8576	-2639.0356	53.9838	-150.4645
93	2639.0110	-53.9838	150.8228	-2432.4585	79.8589	-223.2226
94	2432.4348	-79.8509	223.5873	-2138.0300	117.8860	-330.5459
95	2138.0120	-117.9208	330.7667	-1766.5469	133.2585	-372.8175
96	1766.4990	-133.2263	373.0748	-1310.3793	171.0971	-480.0466
97	1375.9053	-106.9516	440.2869	-1037.7950	121.8802	-482.2969
98	1116.4070	-72.4725	335.3588	-845.3372	99.2519	-411.6196
99	957.0450	-34.4220	237.3994	-842.4748	35.6847	-252.8766
100	933.8913	26.1836	88.8393	-976.4403	1.3670	-154.8512
101	1040.9291	-49.1280	-34.9144	-894.7717	48.6987	32.5467
102	933.1908	-26.4044	-88.8479	-865.0393	28.4563	71.0406
103	959.3135	33.4182	-234.7955	-1028.6075	-8.0160	162.5685
104	1111.4530	72.8374	-336.7331	-1306.8391	-45.7755	260.1346
105	1376.4592	95.1696	-407.2435	-1633.0873	-80.0084	365.2895
106	1761.0284	144.8278	-405.8070	-2140.4209	-106.8546	298.8142
107	2140.5417	106.8857	-298.0053	-2430.2676	-81.0720	225.5850
108	2430.2725	81.0339	-225.3257	-2643.8328	-53.2663	148.6613
109	2643.8960	53.2852	-148.2790	-2768.7075	-27.3682	75.9308
110	2768.7051	27.3609	-75.9394	-2811.7202	0.5154	-0.7589

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
111	2811.7178	-0.4961	1.8578	-2770.1938	26.4293	-74.2739
112	2770.1948	-26.4623	74.2468	-2641.8542	54.2889	-150.8126
113	2641.8618	-54.3139	150.8184	-2434.3123	80.1867	-223.2503
114	2434.1809	-80.1317	224.4242	-2138.7632	118.1708	-331.4494
115	2138.7837	-118.1407	331.2369	-1766.8031	133.4662	-373.2526
116	1766.6166	-133.4347	374.1228	-1309.7847	171.3129	-481.0938
117	1376.1716	-106.7275	440.1895	-1038.7423	121.6563	-482.1495
118	1117.1317	-72.2648	335.5588	-846.6272	99.0523	-411.8492
119	958.4265	-34.2459	237.1278	-844.4384	35.5003	-252.5830
120	935.6699	26.3708	89.2217	-978.7851	1.1845	-155.2407
121	1043.3384	-49.1868	-35.1625	-896.9654	48.7557	32.8437
122	935.3778	-26.4592	-88.7649	-867.0571	28.5076	70.9489
123	961.2915	33.3778	-234.7618	-1030.4679	-7.9795	162.5631
124	1113.2202	72.8231	-337.0360	-1308.5948	-45.7580	260.4364
125	1378.3456	95.1676	-407.5469	-1634.9773	-80.0031	365.5942
126	1763.1763	144.8501	-406.3501	-2142.6267	-106.8785	299.3666
127	2142.7263	106.8350	-298.5537	-2432.2590	-81.0132	226.1208
128	2432.3020	81.0019	-225.5482	-2645.7231	-53.2470	148.8650
129	2645.7900	53.2204	-148.2042	-2770.4529	-27.2949	75.8168
130	2770.4392	27.2764	-75.8227	-2813.1863	0.6014	-0.7780
131	2813.1370	-0.5912	1.1349	-2771.3232	26.5246	-73.5516
132	2771.3281	-26.5616	74.2429	-2642.6863	54.3896	-150.9733
133	2642.6387	-54.3685	151.9796	-2434.9404	80.2446	-224.4402
134	2434.8882	-80.2478	225.0404	-2139.1785	118.2881	-332.0149
135	2139.1953	-118.2708	332.0459	-1766.7158	133.6000	-374.0211
136	1766.6685	-133.5738	374.2693	-1309.5029	171.4448	-481.2542
137	1375.7174	-106.6718	441.0287	-1038.4081	121.6031	-483.0397
138	1117.1516	-72.2008	335.7145	-846.8796	98.9824	-411.9272
139	958.7386	-34.1584	237.2528	-845.0347	35.4125	-252.7148
140	936.3620	26.4590	89.2780	-979.7411	1.0954	-155.3012
141	1044.2963	-49.1915	-35.2492	-897.9758	48.7631	32.9785
142	936.4051	-26.4624	-88.4511	-868.0597	28.5182	70.6234
143	962.3376	33.3463	-234.5927	-1031.4003	-7.9525	162.4523
144	1114.0403	72.7811	-337.2916	-1309.2585	-45.7121	260.6743
145	1378.9955	95.1155	-407.4424	-1635.4606	-79.9574	365.4832
146	1763.2668	144.7520	-407.0468	-2142.4834	-106.7789	300.0837
147	2142.6211	106.7991	-299.2679	-2432.1252	-80.9763	226.7880
148	2432.1877	80.9501	-225.8449	-2645.4624	-53.1961	149.1470
149	2645.5393	53.1878	-148.4989	-2770.0708	-27.2698	76.1254
150	2770.0356	27.2658	-76.1117	-2812.7773	0.6162	-0.5545
151	2812.7988	-0.6272	1.6300	-2770.8699	26.5639	-74.0317
152	2770.8621	-26.5597	74.0270	-2642.2073	54.3822	-150.7348
153	2642.1423	-54.3755	152.3742	-2434.4312	80.2536	-224.8332
154	2434.4482	-80.2269	224.8178	-2138.8418	118.2633	-331.7592
155	2138.7791	-118.2701	332.2990	-1766.2804	133.6060	-374.3277
156	1766.2327	-133.5863	374.5866	-1309.0061	171.4588	-481.5973
157	1375.1803	-106.6679	441.3462	-1037.9557	121.5950	-483.3520
158	1116.6429	-72.1995	335.8890	-846.4138	98.9782	-412.0742
159	958.1217	-34.1565	237.3650	-844.3642	35.4172	-252.8044
160	935.7082	26.4485	88.7991	-979.0553	1.1056	-154.8152
161	1043.5344	-49.1282	-35.0655	-897.3586	48.6968	32.7855
162	935.7615	-26.3984	-88.7346	-867.5935	28.4462	70.9619
163	961.8232	33.4331	-234.9102	-1031.1624	-8.0325	162.7139
164	1113.9430	72.8705	-337.2826	-1309.4141	-45.8106	260.7439
165	1378.9854	95.2104	-408.2832	-1635.7499	-80.0490	366.2399
166	1763.8237	144.7167	-406.3268	-2142.9417	-106.7453	299.3243
167	2142.9380	106.7472	-299.3308	-2432.2439	-80.9197	227.0449

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
168	2432.2200	80.8851	-227.0427	-2645.2798	-53.1280	150.3341
169	2645.4099	53.1162	-148.6742	-2769.7419	-27.1866	76.1584
170	2769.7979	27.2080	-75.7765	-2812.4006	0.6525	-0.9310
171	2812.3811	-0.6672	2.2767	-2770.3162	26.6029	-74.7150
172	2770.2827	-26.5854	74.7010	-2641.5217	54.4216	-151.2908
173	2641.4941	-54.4442	151.6932	-2433.5518	80.3174	-224.1817
174	2433.3877	-80.3286	225.6904	-2137.4968	118.3666	-332.6946
175	2137.5278	-118.3616	332.3691	-1764.7184	133.6956	-374.3657
176	1764.5297	-133.7082	375.3119	-1306.9794	171.5814	-482.2990
177	1373.4003	-106.7271	441.2211	-1035.8687	121.6594	-483.1794
178	1114.5173	-72.2505	335.9653	-844.2090	99.0210	-412.1754
179	955.9966	-34.1903	237.5125	-842.1501	35.4549	-252.9639
180	933.6077	26.4121	88.9438	-976.8442	1.1461	-154.9671
181	1041.3702	-48.9477	-34.9958	-895.8103	48.5191	32.7247
182	934.2256	-26.2221	-88.8461	-866.5805	28.2735	71.0399
183	960.8972	33.5980	-234.5560	-1030.7539	-8.1998	162.3747
184	1113.4146	73.0149	-337.3421	-1309.2969	-45.9522	260.8073
185	1378.8956	95.3555	-407.9906	-1636.1455	-80.1901	366.0042
186	1763.0386	144.4074	-406.9473	-2141.1587	-106.4414	299.9057
187	2141.3279	106.4340	-298.5809	-2429.7048	-80.6097	226.1431
188	2429.7209	80.6283	-226.1404	-2642.0242	-52.8803	149.5449
189	2642.0996	52.9064	-148.8999	-2765.8137	-26.9851	76.4310
190	2765.8308	26.9656	-75.3786	-2807.6821	0.9012	-1.2718
191	2807.6414	-0.8806	1.2469	-2764.9050	26.8259	-73.7161
192	2764.8708	-26.8499	75.4435	-2635.3872	54.6836	-152.1734
193	2635.4570	-54.7341	152.1898	-2426.6228	80.6134	-224.5336
194	2426.6089	-80.6466	224.8871	-2129.7693	118.6860	-331.9062
195	2129.6213	-118.6687	332.9296	-1755.9167	133.9999	-375.0070
196	1755.8773	-133.9978	375.2771	-1297.4395	171.8700	-482.2140
197	1363.6892	-107.0190	441.1363	-1025.3577	121.9480	-483.1233
198	1103.8528	-72.5428	335.9730	-832.6199	99.3181	-412.1956
199	944.3908	-34.4811	237.4101	-829.6026	35.7412	-252.8283
200	921.0204	26.1321	88.6296	-963.4856	-2.5608	-158.9225
201	1028.0222	-43.9524	-30.6158	-885.4755	47.5096	32.5969
202	923.9048	-25.2133	-88.5418	-859.2972	27.2627	70.7862
203	953.5295	34.6069	-234.9788	-1026.3740	-9.2112	162.8008
204	1109.1132	74.0435	-337.2493	-1308.1545	-46.9772	260.6631
205	1377.7866	96.3811	-408.0284	-1638.0708	-81.2202	366.0183
206	1762.2061	143.8011	-406.5855	-2138.5081	-105.8389	299.5785
207	2138.5596	105.8550	-299.0655	-2425.2075	-80.0327	226.7134
208	2425.2207	80.0207	-226.7273	-2635.6880	-52.2607	150.0327
209	2635.7920	52.2260	-148.4195	-2757.4451	-26.2960	75.9461
210	2757.4285	26.2556	-75.9726	-2797.1240	1.6201	-0.6863
211	2797.1284	-1.6384	1.7565	-2752.1675	27.5741	-74.1568
212	2752.1733	-27.5580	74.1226	-2620.5249	55.3834	-150.8253
213	2620.4253	-55.3832	152.4793	-2409.6707	81.2625	-224.9446
214	2409.6558	-81.2621	224.9581	-2110.9160	119.3047	-331.9326
215	2110.7974	-119.3356	332.7098	-1735.2128	134.6645	-374.7173
216	1735.2448	-134.6687	374.7600	-1274.7561	172.5443	-481.7370
217	1341.1240	-107.6786	441.2949	-1000.8841	122.6025	-483.3027
218	1079.7643	-73.1750	335.7784	-806.6064	99.9532	-411.9663
219	918.5789	-35.1089	237.2151	-801.0854	36.3896	-252.6732
220	892.5989	25.4891	88.9029	-934.1150	-1.9382	-159.2008
221	998.6282	-41.7168	-30.8287	-862.8268	45.2764	32.8335
222	901.2620	-22.9796	-88.7069	-843.3334	25.0350	70.9276
223	937.6974	36.8205	-234.9166	-1017.2169	-11.4162	162.7129
224	1100.2097	76.1941	-337.2551	-1305.6807	-49.1273	260.6926

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
225	1375.4016	98.4642	-408.0546	-1641.8862	-83.3021	366.0332
226	1755.7583	140.1074	-405.9373	-2121.0564	-102.1310	298.9520
227	2121.0725	102.1399	-298.9308	-2396.5605	-76.3103	226.5358
228	2396.6592	76.3043	-225.6571	-2595.9785	-48.5411	148.9847
229	2596.0107	48.5579	-148.6184	-2706.6260	-22.6481	76.2138
230	2706.6562	22.6230	-75.3099	-2735.4131	5.2600	-1.4501
231	2735.4304	-5.2350	2.2743	-2679.6990	31.1669	-74.6491
232	2679.7068	-31.1311	74.6728	-2537.3589	58.9495	-151.3256
233	2537.2788	-58.9204	152.4909	-2315.8896	84.7975	-224.9679
234	2315.8472	-84.8059	225.3448	-2006.5432	122.8427	-332.3798
235	2006.3860	-122.8362	333.2892	-1620.2405	138.1747	-375.3159
236	1620.2667	-138.1936	375.1711	-1149.3395	176.0646	-482.1022
237	1218.7109	-111.1568	441.4968	-868.1052	126.0839	-483.5344
238	948.9110	-62.4741	297.3661	-708.1404	89.2458	-373.5726
239	779.5998	-38.5188	237.5868	-641.6786	35.7728	-257.2430
240	734.3405	26.1285	93.2345	-776.7244	1.4502	-159.3077
241	841.5390	-29.8071	-22.8139	-741.4270	33.3814	24.8121
242	780.1358	-11.1071	-80.6468	-758.1002	13.2083	62.8300
243	853.5971	48.4879	-226.8591	-968.1992	-23.0644	154.6673
244	1052.9681	87.4043	-329.1518	-1292.0758	-60.2945	252.5686
245	1362.6716	108.8394	-399.6398	-1660.2639	-93.6230	357.6472
246	1740.4297	131.8380	-404.2485	-2080.7068	-93.8493	297.2306
247	2080.8862	93.8700	-296.2061	-2331.4312	-68.0209	223.7884
248	2331.4590	68.0139	-223.7972	-2505.5000	-40.2126	147.2066
249	2505.5342	40.2598	-146.8359	-2591.0278	-14.3301	74.3345
250	2591.0586	14.2988	-72.7404	-2594.4329	13.5998	-3.9737
251	2594.4180	-13.6020	3.9652	-2513.3467	39.5501	-76.3350
252	2513.3044	-39.5427	76.9462	-2345.4397	67.3842	-153.6745
253	2345.3479	-67.3670	154.4960	-2098.6499	93.2413	-226.9916
254	2098.5825	-93.2484	227.8268	-1764.0789	131.2835	-334.8102
255	1764.0369	-131.3048	334.7769	-1353.3264	146.6119	-376.7389
256	1353.2482	-146.6397	377.0271	-857.4776	184.4984	-484.0239
257	965.4172	-111.3155	419.9360	-616.5029	126.1817	-461.9068
258	704.1903	-68.9564	298.4031	-447.1390	95.6494	-374.6371
259	537.3061	-44.4620	238.9460	-391.6281	41.4877	-258.5559
260	499.4324	20.7580	94.2965	-525.7030	6.9297	-160.3870
261	594.2435	-9.4960	3.6680	-564.5850	13.1817	-1.6894
262	588.6862	3.7824	-39.1992	-587.0913	-8.9155	38.0009
263	650.2779	56.8697	-159.8946	-765.3345	-37.4050	103.6684
264	832.3091	90.7637	-234.7643	-1027.2933	-81.6778	207.5449
265	1107.4139	147.0449	-377.5418	-1405.8496	-127.2458	321.0334
266	1407.2882	127.7969	-324.6248	-1661.7607	-107.8799	268.1347
267	1661.7034	107.8681	-268.6117	-1869.7603	-87.8569	212.1184
268	1869.8744	87.8086	-211.1742	-2028.2949	-55.5053	119.9510
269	2028.3402	55.4749	-119.2969	-2138.2114	-35.2838	62.7640
270	2138.1833	35.2134	-62.8085	-2199.2529	-14.9454	6.3571
271	2199.2703	14.9413	-6.3203	-2211.1206	5.4124	-50.2936
272	2211.0645	-5.4632	51.3909	-2172.9146	25.8636	-107.9698
273	2172.9243	-25.8620	107.9359	-2084.4038	46.3177	-164.4673
274	2084.3354	-46.3659	165.1340	-1943.5808	79.0779	-256.2875
275	1943.5627	-79.0487	256.2847	-1749.7643	99.6095	-312.7867
276	1749.6805	-99.6090	313.1113	-1504.2877	120.1975	-369.6550
277	1504.1652	-120.2272	370.0923	-1206.6989	140.8627	-426.6001
278	1206.7017	-140.8528	426.6066	-857.0135	161.5030	-483.0937
279	856.7632	-161.4997	483.5199	-454.8050	182.1723	-539.9760
280	454.9190	-182.1687	539.8951	-0.2746	212.3736	-625.5461

ENVOLVENTE MAXIMOS CORTANTES TREN UIC-71, via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.2175	213.3002	-624.8175	-453.4114	-192.6152	568.3064
2	434.4530	193.1772	-572.7543	-836.8704	-172.5128	516.2164
3	783.8752	174.1955	-522.7020	-1137.7834	-153.5504	466.2445
4	1055.1842	156.3660	-475.7478	-1363.3234	-135.7516	419.3288
5	1256.6542	139.6736	-430.7124	-1493.1923	-116.5771	368.7254
6	1367.3558	121.6012	-381.7786	-1587.2402	-101.1292	325.2344
7	1446.5957	107.2329	-340.9978	-1629.4307	-86.8141	284.5510
8	1478.6318	93.9675	-302.8342	-1627.3574	-73.6016	246.3938
9	1470.7817	81.7955	-266.8228	-1588.1469	-61.5091	210.2843
10	1430.1793	70.6737	-232.3683	-1519.0356	-50.4557	175.9312
11	1363.2380	60.6459	-201.3482	-1426.6190	-40.5129	144.8343
12	1276.9293	51.6291	-171.2551	-1317.5580	-31.5780	114.7683
13	1177.1008	43.6187	-144.6272	-1143.6351	-21.8060	82.7232
14	1015.5640	34.7236	-114.0622	-1018.4341	-14.9793	57.5760
15	905.3662	28.7451	-91.5282	-894.7038	-9.1124	35.0002
16	798.8734	23.6725	-70.8004	-777.3883	-4.1520	14.4092
17	700.5997	19.4650	-52.8662	-670.6739	-0.0717	-3.2109
18	614.3364	16.0620	-37.4889	-611.9198	2.3926	-29.9336
19	576.8742	14.2455	-13.1080	-588.6808	3.7522	-37.9344
20	575.3956	13.4631	-6.8127	-447.1020	-16.7494	23.0260
21	-2884.9255	296.9266	-724.4330	2045.8522	-294.8779	708.0216
22	-2062.9419	295.2693	-712.3052	1254.4133	-269.9119	640.0928
23	-1304.3721	271.1344	-647.4536	604.9535	-244.1366	570.8160
24	-687.2322	246.2968	-581.1292	22.1084	-220.6716	508.7731
25	-135.5090	223.8938	-522.2411	-424.7763	-196.4352	445.6064
26	282.5485	200.8112	-462.2528	-810.5350	-174.9984	389.9501
27	642.7482	180.6160	-409.8387	-1068.6074	-152.8625	333.2049
28	879.8448	159.7562	-355.9515	-1281.1929	-133.8307	283.6044
29	1076.1007	142.1204	-309.9341	-1377.7809	-114.2278	233.2862
30	1162.2698	123.9033	-262.2778	-1451.1830	-97.9501	189.8709
31	1230.9534	109.0641	-222.3276	-1423.5884	-81.1924	145.7716
32	1204.8413	93.7450	-181.6280	-1398.5006	-67.8527	109.3336
33	1187.5259	81.8610	-148.0384	-1290.2488	-54.1842	71.3500
34	1092.9648	69.5953	-112.9873	-1211.0214	-43.8291	40.6679
35	1033.0126	60.6264	-86.0858	-1068.3447	-33.2948	9.4258
36	914.8348	51.4311	-57.2961	-978.2340	-25.8799	-15.0750
37	853.6630	45.2866	-36.5220	-742.5377	-19.5857	-60.6840
38	650.4465	40.1809	6.3414	-734.9913	-16.1792	-74.4074
39	677.8786	37.8755	16.4970	-755.5009	-13.8782	-84.5545
40	734.7976	36.5637	24.1122	-693.2520	-31.1996	-21.4800
41	-3347.4922	306.8757	-715.0356	2474.4226	-304.6330	699.4692
42	-2492.5012	305.0410	-703.4124	1653.1908	-279.6482	631.2000
43	-1705.4172	280.9370	-639.1093	974.2888	-253.8795	562.4864
44	-1060.0450	256.1377	-572.8256	364.6639	-230.4889	500.5243
45	-482.2699	233.8230	-513.8242	-108.5615	-206.3378	437.2039
46	-37.8697	210.8410	-453.8951	-520.3952	-185.0155	381.5175
47	348.4258	190.7812	-401.3254	-804.8905	-163.0240	324.6709
48	612.0353	170.0994	-347.5976	-1044.1525	-144.1909	275.2898
49	835.5311	152.6445	-301.5116	-1168.4868	-124.7720	224.9161
50	949.7953	134.6067	-254.1692	-1270.6311	-108.6692	181.7529
51	1047.9243	119.9562	-214.0029	-1272.8452	-92.1158	137.3346
52	1052.1385	104.8087	-173.0685	-1278.7458	-78.9370	100.7484
53	1066.4158	93.0601	-139.4218	-1202.4645	-65.4161	62.7927
54	1004.2046	80.9585	-104.8322	-1156.2074	-55.2275	32.4786

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	977.8127	72.1257	-77.3503	-1047.5497	-44.8432	0.7276
56	893.9356	63.0652	-49.1187	-992.2682	-37.5358	-23.2334
57	867.7771	57.0140	-28.0738	-796.7770	-32.4697	-69.3021
58	704.9274	53.1170	14.7240	-828.2748	-29.1183	-82.7848
59	771.4248	50.8476	25.0585	-887.9601	-26.8492	-93.1266
60	867.4742	49.5551	32.6955	-851.0326	-43.1309	-29.8329
61	-3444.5051	308.9601	-714.0505	2564.9912	-306.7004	698.4874
62	-2582.7920	307.1132	-703.8901	1736.9382	-281.7116	631.6900
63	-1789.4216	282.9966	-639.3869	1052.1716	-255.9401	562.8166
64	-1138.2458	258.2105	-572.9274	436.5369	-232.5598	500.5434
65	-554.1434	235.9119	-514.3641	-43.0878	-208.4274	437.7962
66	-103.9534	212.9375	-454.2836	-460.6440	-187.1137	381.9199
67	288.4799	192.8938	-401.6816	-751.2568	-165.1410	325.0057
68	558.0610	172.2279	-347.9684	-996.6442	-146.3105	275.6409
69	787.7298	154.7518	-301.7486	-1126.9208	-126.8736	225.1461
70	907.9789	136.7365	-254.4055	-1235.1149	-110.8020	182.0075
71	1012.1991	122.0747	-214.2397	-1243.4200	-94.2451	137.5278
72	1022.5898	106.9678	-173.0617	-1255.6781	-81.0913	100.7395
73	1043.1532	95.2328	-139.6474	-1185.6639	-67.5997	63.0271
74	987.3398	83.1416	-104.8486	-1145.8868	-57.4025	32.4462
75	967.4302	74.3118	-77.3558	-1043.7445	-47.0316	0.7213
76	890.0949	65.2642	-49.0254	-995.0206	-39.7425	-23.3054
77	870.5382	59.2230	-28.1430	-806.4547	-34.7553	-69.1766
78	714.5908	55.4080	14.5879	-844.8136	-31.4075	-82.6616
79	787.9591	53.1398	25.2637	-911.3709	-29.1426	-93.3249
80	890.9185	51.8520	32.4962	-880.4723	-45.3555	-29.6575
81	-3491.4951	309.9673	-714.6214	2608.9814	-307.7071	699.1164
82	-2626.9561	308.1255	-703.7643	1778.2385	-282.7300	631.5822
83	-1830.6549	284.0162	-639.5069	1090.1051	-256.9526	562.9242
84	-1176.1400	259.2181	-573.2226	471.4288	-233.5696	500.8777
85	-589.1696	236.9153	-514.4537	-10.9371	-209.4300	437.8563
86	-135.9038	213.9426	-454.4897	-431.8051	-188.1177	382.0963
87	259.4909	193.8936	-401.8651	-725.2491	-166.1366	325.1939
88	532.0781	173.2296	-348.0618	-973.7506	-147.3114	275.7444
89	764.6844	155.7614	-301.9755	-1106.9115	-127.8951	225.3189
90	888.0330	137.7700	-254.3022	-1218.2056	-111.8305	181.8154
91	995.2999	123.0977	-214.0943	-1229.5171	-95.2706	137.4878
92	1008.6704	107.9795	-173.2515	-1244.8953	-82.0951	100.9029
93	1032.2883	96.2458	-139.5865	-1177.8256	-68.6120	62.9218
94	979.5109	84.1540	-104.7614	-1141.0671	-58.4192	32.4020
95	962.6058	75.3215	-77.4445	-1041.9509	-48.0420	0.8062
96	888.2713	66.2816	-48.9998	-996.2148	-40.7599	-23.3674
97	871.7461	60.2325	-27.9001	-810.7485	-35.7759	-69.3544
98	718.9015	56.4341	14.7136	-852.2070	-32.4327	-82.7863
99	795.3701	54.1682	25.2409	-921.8888	-30.1635	-93.3209
100	901.4523	52.8802	32.4926	-893.9521	-46.3867	-29.6304
101	-3500.0964	310.1487	-715.3494	2616.8625	-307.8856	699.8750
102	-2635.0059	308.2970	-703.7875	1785.7731	-282.8995	631.6083
103	-1838.1987	284.1906	-639.4960	1097.0951	-257.1256	562.8712
104	-1182.9314	259.3885	-573.7482	477.7695	-233.7398	501.4060
105	-595.5812	237.0857	-514.8623	-5.1578	-209.5979	438.2960
106	-141.7625	214.1143	-454.8714	-426.3045	-188.2948	382.4698
107	254.1081	194.0860	-402.2203	-720.4072	-166.3329	325.5519
108	527.2126	173.4017	-348.4452	-969.4592	-147.4791	276.0404
109	760.4889	155.9466	-302.0789	-1103.2810	-128.0716	225.4596
110	884.2954	137.9207	-254.7331	-1215.0236	-111.9833	182.2986
111	992.1046	123.2781	-214.4523	-1226.8527	-95.4522	137.7867

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	1006.0308	108.1687	-173.4510	-1242.7112	-82.2893	101.1370
113	1030.1831	96.4169	-139.9192	-1176.1951	-68.7900	63.2261
114	977.9447	84.3428	-104.7860	-1140.1758	-58.6038	32.3814
115	961.6414	75.5212	-77.6620	-1041.5420	-48.2472	1.0404
116	887.9290	66.4683	-48.9528	-996.4781	-40.9424	-23.3931
117	871.9905	60.4219	-28.3341	-811.5336	-35.9627	-68.8473
118	719.6677	56.6137	14.6390	-853.5327	-32.6068	-82.7272
119	796.6964	54.3457	24.8170	-923.7173	-30.3497	-92.8878
120	903.2378	53.0555	32.8258	-896.2468	-46.5600	-29.9685
121	-3504.5393	310.2625	-714.5778	2620.8984	-307.9997	699.0752
122	-2638.7622	308.4062	-704.1793	1789.2271	-283.0127	632.0163
123	-1841.6423	284.3115	-639.9083	1100.2178	-257.2526	563.3230
124	-1186.1191	259.5067	-573.9734	480.4340	-233.8525	501.6172
125	-598.2030	237.1911	-515.1745	-2.8521	-209.7047	438.6139
126	-144.0998	214.2299	-455.1856	-424.2913	-188.4077	382.7897
127	252.0496	194.1613	-402.5134	-718.5369	-166.4034	325.8236
128	525.3567	173.4832	-348.6669	-967.7095	-147.5670	276.2351
129	758.7976	156.0170	-302.2172	-1101.8679	-128.1385	225.5797
130	882.8166	137.9957	-254.8736	-1213.7646	-112.0521	182.5142
131	990.7338	123.3384	-214.8466	-1225.6469	-95.5141	138.1808
132	1004.8411	108.2324	-173.5852	-1241.7572	-82.3517	101.1149
133	1029.2190	96.5035	-139.6178	-1175.4862	-68.8732	62.9218
134	977.1953	84.4146	-104.7542	-1139.6002	-58.6764	32.3975
135	961.0807	75.5923	-77.6127	-1041.2281	-48.3136	1.0252
136	887.5692	66.5429	-49.2690	-996.2873	-41.0250	-23.1091
137	871.8369	60.5058	-27.9928	-811.7043	-36.0484	-69.1340
138	719.8593	56.7051	14.4372	-853.9853	-32.7009	-82.5151
139	797.1601	54.4363	24.8335	-924.4546	-30.4404	-92.9110
140	903.9927	53.1488	32.8273	-897.2432	-46.6494	-29.9704
141	-3505.5120	310.2327	-713.7337	2622.0798	-307.9704	698.2401
142	-2639.6045	308.3821	-704.8162	1789.9342	-282.9813	632.6633
143	-1842.4343	284.2723	-640.3404	1101.3494	-257.2127	563.8212
144	-1187.3190	259.4772	-574.2193	481.6922	-233.8252	501.8207
145	-599.2585	237.1712	-515.7144	-1.6747	-209.6900	439.1585
146	-145.2801	214.2098	-455.6563	-423.1524	-188.3866	383.2781
147	250.9439	194.1678	-402.9753	-717.5718	-166.4098	326.2416
148	524.4206	173.4923	-349.0270	-966.7837	-147.5793	276.5820
149	757.8979	156.0284	-302.5520	-1100.9639	-128.1524	225.9367
150	881.9569	138.0078	-255.2005	-1212.9406	-112.0639	182.7781
151	989.9984	123.3548	-214.9287	-1224.9705	-95.5317	138.2791
152	1004.1237	108.2449	-173.9114	-1241.0542	-82.3644	101.4420
153	1028.5775	96.5080	-139.7361	-1174.9039	-68.8810	63.0583
154	976.5770	84.4274	-105.1140	-1138.9978	-58.6858	32.7605
155	960.4910	75.5907	-77.7553	-1040.6542	-48.3070	1.1288
156	886.9709	66.5448	-49.3881	-995.7064	-41.0249	-23.0124
157	871.2311	60.4992	-27.9911	-811.0130	-36.0443	-69.0678
158	719.1671	56.6978	14.3489	-853.2536	-32.6994	-82.4139
159	796.4104	54.4340	24.8122	-923.7230	-30.4313	-92.8955
160	903.2662	53.1452	32.2974	-896.4978	-46.6480	-29.4776
161	-3505.3762	310.2205	-714.8211	2621.8477	-307.9576	699.3721
162	-2639.7092	308.3688	-704.4814	1790.2637	-282.9736	632.3364
163	-1842.6826	284.2642	-640.1990	1101.3912	-257.2015	563.6379
164	-1187.2092	259.4520	-574.4729	481.8741	-233.8033	502.1475
165	-599.6885	237.1464	-515.5356	-1.2628	-209.6593	438.8777
166	-145.3903	214.1776	-455.6807	-422.9220	-188.3574	383.2861
167	250.5440	194.1312	-403.0158	-717.0115	-166.3735	326.4817
168	523.7164	173.4505	-349.3309	-965.9828	-147.5212	276.8496

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	757.1602	155.9754	-302.5590	-1100.1016	-128.1028	225.8025
170	881.1136	137.9630	-254.9882	-1211.9167	-112.0380	182.5265
171	989.0120	123.3171	-214.6216	-1223.9100	-95.4823	137.9544
172	1003.0076	108.2065	-173.6483	-1239.8607	-82.3272	101.2908
173	1027.2708	96.4643	-139.9990	-1173.4060	-68.8343	63.2750
174	975.1326	84.3792	-104.7821	-1137.4025	-58.6448	32.4034
175	958.8948	75.5515	-77.7657	-1038.9014	-48.2661	1.1478
176	885.2275	66.5051	-49.0949	-993.8342	-40.9855	-23.2670
177	869.3765	60.4669	-28.2144	-809.1290	-36.0108	-68.8464
178	717.2666	56.6675	14.3914	-851.2361	-32.6748	-82.4467
179	794.4175	54.4040	24.9245	-921.6566	-30.3967	-93.0222
180	901.2216	53.1155	32.4067	-894.3741	-46.6099	-29.5942
181	-3501.3354	309.9110	-714.9126	2618.9458	-307.6521	699.4732
182	-2636.9250	308.0639	-704.0722	1788.3693	-282.6664	631.8885
183	-1840.5490	283.9547	-640.6724	1100.2311	-256.8915	564.1367
184	-1186.2777	259.1469	-574.3779	481.8335	-233.5000	502.0615
185	-599.5071	236.8474	-515.6601	-0.6480	-209.3582	439.0608
186	-146.2309	213.9005	-455.6628	-421.1672	-188.0799	383.2074
187	249.0500	193.8333	-402.9297	-714.6387	-166.0785	326.2630
188	521.4167	173.1759	-349.1827	-962.8358	-147.2634	276.8182
189	753.9538	155.7248	-302.7608	-1096.1475	-127.8576	226.0364
190	877.2081	137.7001	-255.0477	-1207.2570	-111.7569	182.6460
191	984.2205	123.0513	-215.1165	-1218.3051	-95.2206	138.3888
192	997.5007	107.9312	-173.5266	-1233.5553	-82.0543	101.0690
193	1020.9304	96.1905	-139.9580	-1166.2559	-68.5443	63.3719
194	967.8796	84.0861	-105.2835	-1129.2477	-58.3563	32.8647
195	950.7450	75.2656	-77.6670	-1029.9177	-47.9841	1.0239
196	876.2187	66.2192	-49.3252	-983.9665	-40.7001	-23.0101
197	859.4864	60.1790	-28.3375	-798.3083	-35.7294	-68.7048
198	706.4400	56.3838	14.3208	-839.5779	-32.3861	-82.3901
199	782.7482	54.1215	24.7551	-909.1222	-30.1195	-92.8317
200	888.6796	52.8349	32.0830	-880.9796	-46.3268	-29.3104
201	-3493.2439	309.2862	-715.2166	2612.5159	-307.0212	699.7651
202	-2630.3860	307.4326	-704.8617	1783.7609	-282.0370	632.7359
203	-1836.3351	283.3272	-640.0692	1098.0052	-256.2669	563.5109
204	-1183.7568	258.5331	-574.4915	480.9663	-232.8823	502.1282
205	-598.7332	236.2190	-515.6339	0.5690	-208.7349	439.0110
206	-147.3115	213.2656	-455.7205	-418.1604	-187.4505	383.3212
207	245.9183	193.2255	-403.0529	-709.6901	-165.4701	326.4559
208	516.4102	172.5588	-349.3357	-955.9989	-146.6340	276.8660
209	747.1686	155.0742	-302.6029	-1087.3831	-127.1950	225.9029
210	868.3308	137.0437	-255.1953	-1196.4207	-111.1045	182.7750
211	973.4578	122.3891	-214.9364	-1205.5298	-94.5616	138.2958
212	984.6716	107.2848	-173.9419	-1218.7317	-81.4120	101.4812
213	1006.2207	95.5524	-139.7868	-1149.6750	-67.9159	63.1011
214	951.3368	83.4616	-105.1601	-1110.8732	-57.7227	32.7780
215	932.3781	74.6416	-77.6976	-1009.6381	-47.3598	1.1024
216	855.9980	65.5885	-49.4744	-961.8721	-40.0700	-22.9074
217	837.4196	59.5516	-28.1376	-774.4603	-35.1065	-68.9148
218	682.6425	55.7659	14.1973	-813.9403	-31.7657	-82.2676
219	757.1326	53.5037	24.6525	-881.6580	-29.4996	-92.7479
220	861.2244	52.2165	32.3792	-851.6597	-45.7072	-29.5695
221	-3446.5986	305.7443	-713.9447	2576.7998	-303.4822	698.5196
222	-2594.5959	303.8935	-703.9152	1758.5006	-278.4935	631.7660
223	-1810.9525	279.7798	-639.5883	1083.0116	-252.7089	563.0106
224	-1168.8376	254.9714	-573.8610	476.8779	-229.3204	501.5121
225	-594.6307	232.6784	-515.0213	7.1972	-205.1941	438.3901

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-153.8686	209.7064	-455.1397	-401.0553	-183.8801	382.7561
227	228.7280	189.6760	-402.4820	-681.8653	-161.9091	325.8307
228	488.7664	169.0054	-348.6225	-917.6924	-143.0873	276.1975
229	708.8856	151.5511	-302.1938	-1038.3804	-123.6840	225.5236
230	819.7013	133.5509	-254.5651	-1137.3900	-107.6057	182.0666
231	914.6158	118.9157	-214.3442	-1136.2192	-91.0899	137.7194
232	915.6998	103.8193	-173.3616	-1139.3416	-77.9542	100.9435
233	927.1923	92.1097	-139.4322	-1060.3813	-64.4757	62.7242
234	862.3941	80.0298	-104.6542	-1011.6385	-54.2955	32.2353
235	833.5503	71.2154	-77.1319	-900.6927	-43.9313	0.5291
236	747.4039	62.1788	-49.0121	-843.0982	-36.6609	-23.3254
237	719.0293	56.1493	-27.8767	-646.8054	-31.7198	-69.2147
238	555.3156	52.3874	14.7468	-676.4788	-28.3867	-82.8179
239	619.9772	50.1266	24.9760	-734.3624	-26.1267	-93.0491
240	714.1305	48.8458	32.4902	-694.4648	-42.3200	-29.6973
241	-3349.1433	298.3918	-711.8680	2501.1582	-296.0780	696.4330
242	-2518.9553	296.4980	-702.0858	1704.6370	-271.0691	629.9185
243	-1757.3118	272.3799	-637.5535	1051.5125	-245.2674	560.9815
244	-1137.4907	247.5735	-571.8243	467.7959	-221.9024	499.4659
245	-585.5508	225.2916	-513.0736	20.2037	-197.7551	436.4699
246	-166.9144	202.3603	-453.0941	-365.7020	-176.5219	380.6715
247	194.0427	182.3927	-400.4335	-625.0451	-154.5897	323.7807
248	432.6615	161.7874	-346.7050	-839.8002	-135.8465	274.3342
249	632.2533	144.4447	-300.3466	-940.1212	-116.5519	223.5862
250	723.2740	126.5427	-252.5534	-1019.6769	-100.5953	180.1060
251	799.2984	112.0265	-212.6121	-1000.0806	-84.1858	135.9804
252	782.5484	97.0762	-171.5018	-986.0309	-71.1977	99.0351
253	777.3688	85.5095	-137.7062	-891.1086	-57.8936	60.9789
254	697.2474	73.6085	-102.8694	-827.6489	-47.8869	30.5016
255	654.0154	64.9670	-75.7784	-703.7547	-37.7344	-0.7921
256	555.2242	56.1208	-47.5069	-633.8537	-30.6268	-24.8791
257	514.4863	50.2609	-26.5394	-436.2327	-26.1455	-70.4443
258	349.1750	46.9270	15.7093	-453.9546	-22.9266	-83.7891
259	401.1453	44.7618	26.2105	-499.4304	-20.7594	-94.2969
260	481.8031	43.5359	33.5003	-446.0467	-36.9043	-32.3596
261	-2879.3147	265.8664	-537.8571	2321.8445	-269.1924	535.4811
262	-2332.6846	269.4421	-539.6485	1780.1910	-249.8626	483.2359
263	-1811.7858	250.6460	-489.9366	1300.5472	-230.9493	433.4629
264	-1352.6294	232.3004	-442.1403	882.4620	-212.4908	385.6732
265	-954.6125	214.4883	-395.8929	525.3862	-194.5791	339.3771
266	-616.1414	197.2646	-352.6010	226.6888	-177.2558	296.1065
267	-335.1911	180.6880	-310.7957	-14.9485	-160.5838	254.2807
268	-108.8147	164.8167	-271.6516	-203.1471	-144.6336	215.0351
269	66.2118	149.7088	-234.5679	-301.3808	-127.0959	172.6158
270	153.9402	133.0500	-194.3409	-389.4234	-112.6526	137.8716
271	234.6938	119.5091	-161.8349	-435.5067	-99.0431	105.2243
272	276.9838	106.8859	-131.4840	-444.7385	-86.3626	74.9199
273	286.0416	95.1832	-103.4786	-422.5838	-74.6250	46.9421
274	267.7491	84.4570	-77.7645	-374.9600	-63.8620	21.2378
275	228.1905	74.7194	-54.3555	-308.0222	-54.0878	-2.1528
276	173.7795	66.0119	-33.2266	-228.2964	-45.3585	-23.2955
277	111.2232	58.3757	-14.3639	73.4545	-37.9148	-68.1904
278	-168.6701	52.0105	28.2788	71.8925	-34.0090	-79.3197
279	-140.3664	49.2066	37.1077	49.9194	-31.2074	-88.1439
280	-86.6414	47.5242	43.7549	-0.0543	-29.5191	-94.8171

ENVOLVENTE MAXIMOS TORSORES TREN UIC-71, via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.0117	-0.0019	2.2486	-27.4222	0.8151	-6.1335
2	46.3849	-1.3791	10.5824	-94.5265	3.0016	-16.1179
3	149.3886	-4.3041	22.8576	-211.1554	6.7328	-30.0159
4	290.9534	-9.9149	38.9361	-342.0951	12.5995	-44.3141
5	448.7090	-16.5034	55.4940	-479.1691	19.1654	-60.9546
6	605.0834	-24.1580	74.5389	-612.6548	26.7954	-80.0444
7	753.2964	-32.8704	95.8131	-735.8297	35.4742	-101.2366
8	886.6061	-42.5986	119.1362	-842.0110	45.1693	-124.5201
9	998.5883	-53.3446	144.6852	-972.3464	58.3551	-155.6115
10	1138.0825	-67.1643	178.3807	-1030.0437	69.5907	-183.7990
11	1172.4830	-80.3532	208.1326	-1030.8568	82.7035	-213.5693
12	1201.4670	-92.9873	241.0556	-1027.9299	95.2896	-246.5253
13	1145.4365	-108.1995	275.3592	-934.7281	110.4173	-280.7296
14	1069.1805	-123.1311	312.4132	-822.5193	125.2730	-317.8714
15	928.6861	-139.2618	351.5144	-643.7661	141.3069	-356.9701
16	746.9234	-155.6485	393.2329	-423.8489	157.6050	-398.7249
17	500.7009	-172.9114	437.0208	-169.3441	176.5105	-447.9025
18	217.0746	-192.7332	488.4700	185.1043	194.3658	-493.8913
19	-195.3592	-212.1212	536.8269	639.7214	213.6343	-542.1195
20	-578.3307	-229.7152	586.8354	1060.5898	207.0814	-534.1704
21	-1059.4303	-1.4136	90.1145	954.3488	-21.7673	-33.0550
22	-937.3535	21.3797	37.8287	790.9508	-19.3656	-42.3905
23	-740.9887	18.1379	49.7533	642.5427	-16.9793	-53.5367
24	-560.2596	14.8171	63.8486	423.3542	-12.2032	-71.9488
25	-309.9625	8.9849	85.4187	235.2236	-7.5322	-89.7064
26	-92.9985	3.1610	106.3445	-13.3402	0.0065	-114.8807
27	181.0518	-5.6187	134.7119	-212.3027	7.3165	-138.9919
28	401.1043	-14.2318	161.9188	-452.3051	17.8066	-170.4925
29	657.3744	-26.0861	196.5392	-624.3025	27.9464	-200.8179
30	839.8234	-37.6302	230.1744	-812.8617	41.4523	-238.8090
31	1033.0902	-52.5774	271.2598	-915.8748	54.5196	-275.5010
32	1131.8672	-67.2337	310.8897	-1006.1429	71.1324	-319.3846
33	1217.1276	-85.1186	358.0818	-997.3260	87.0628	-362.4156
34	1198.1838	-102.3356	404.5389	-957.9425	106.1535	-413.1061
35	1130.3993	-123.1542	457.8396	-792.5472	125.0234	-462.1058
36	952.1842	-142.9579	510.6009	-584.6928	146.5386	-519.2211
37	703.6102	-166.1178	570.4886	-235.8181	167.8148	-574.7632
38	345.8371	-187.9275	629.3409	155.2894	191.1053	-637.9299
39	-117.9488	-213.2914	695.7085	724.4394	214.7508	-699.9033
40	-674.4769	-236.7646	760.3485	1312.6351	215.2260	-708.7594
41	-1351.1753	4.6112	101.9002	1224.5321	-27.8696	-43.0400
42	-1207.6333	27.5567	48.0500	1037.8792	-25.4231	-52.5438
43	-985.5186	24.1406	59.6246	867.1464	-22.9305	-63.4085
44	-781.4006	20.6707	73.7516	624.0023	-17.9727	-81.8087
45	-506.5029	14.6409	95.5087	413.7686	-13.1520	-99.7761
46	-267.2689	8.6525	116.2414	143.0999	-5.4359	-124.8252
47	28.8706	-0.3298	144.6395	-76.3877	2.0393	-148.9428
48	269.2557	-9.1218	171.8997	-336.1946	12.7182	-180.4577
49	544.7801	-21.1538	206.5693	-526.5608	23.0126	-210.8063
50	745.2392	-32.8666	240.0786	-732.4713	36.6784	-248.6910
51	955.1572	-47.9379	281.2617	-851.7090	49.8725	-285.5904
52	1072.4224	-62.5880	321.1500	-960.3997	66.4683	-329.6961
53	1172.7400	-80.6008	368.5481	-966.2960	82.5232	-372.8241
54	1164.5896	-98.0539	414.6783	-937.0878	101.8400	-423.2554

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	1131.8511	-118.1615	468.5437	-809.0706	119.9991	-472.8537
56	944.5612	-138.7886	521.0184	-589.5524	142.3264	-529.5634
57	735.7149	-161.1758	581.0581	-282.8111	162.8519	-585.3529
58	374.6635	-183.4877	639.9438	112.7293	186.6179	-648.4871
59	-55.8774	-208.3470	706.2142	647.3482	209.7857	-710.4097
60	-619.2722	-232.3149	770.8981	1243.5658	210.7166	-719.2926
61	-1295.3757	3.3498	103.1695	1172.2308	-26.6228	-44.2812
62	-1154.0359	26.1882	48.6145	988.0067	-24.0451	-53.0936
63	-935.4356	22.7532	60.3096	821.0811	-21.5402	-64.0740
64	-735.0744	19.2747	74.5424	581.6588	-16.5674	-82.6241
65	-463.9040	13.2233	95.7774	375.3276	-11.7349	-100.0500
66	-228.4151	7.2010	116.9198	108.4643	-3.9844	-125.4414
67	63.8648	-1.7699	145.0637	-107.0992	3.4852	-149.4138
68	300.3041	-10.5717	172.3737	-362.9404	14.1633	-180.9200
69	571.8610	-22.6255	207.0230	-549.2184	24.4925	-211.2949
70	768.1682	-34.3412	240.5479	-750.9830	38.1546	-249.1373
71	975.2058	-49.3625	281.7137	-867.4642	51.2996	-286.0843
72	1090.5480	-63.9019	321.8271	-974.5479	67.7681	-330.3838
73	1184.4917	-82.0212	369.0574	-973.7860	83.9496	-373.3181
74	1175.0026	-99.3830	415.3773	-943.4890	103.1607	-423.9895
75	1139.8521	-119.4400	469.3177	-813.1691	121.2801	-473.6406
76	966.8243	-139.4979	521.9441	-609.7999	143.0311	-530.4732
77	734.2744	-162.5036	581.9349	-277.3508	164.1807	-586.1953
78	369.7398	-184.8308	640.7963	121.7342	187.9580	-649.3413
79	-58.3968	-209.5297	707.0155	653.3814	210.9660	-711.2385
80	-633.8994	-233.7017	772.0302	1262.3556	212.0968	-720.3764
81	-1335.0839	4.1740	103.3551	1209.4695	-27.4490	-44.4618
82	-1191.5002	27.0354	49.1245	1022.9052	-24.8920	-53.5736
83	-969.8372	23.5810	60.6306	852.9808	-22.3678	-64.3904
84	-766.9554	20.1021	74.6944	611.0229	-17.3951	-82.7431
85	-493.2167	14.0531	96.0656	402.1606	-12.5652	-100.3502
86	-254.6742	8.0258	116.8842	132.2425	-4.8031	-125.4387
87	41.6793	-1.0117	145.1399	-87.2041	2.7262	-149.4781
88	290.3164	-10.1935	172.3878	-354.0997	13.7843	-180.9308
89	554.9999	-21.9018	207.0029	-534.5272	23.7633	-211.2864
90	760.5616	-33.9621	240.6631	-744.5249	37.7767	-249.3588
91	970.7122	-48.8697	281.9657	-864.5035	50.8022	-286.2772
92	1082.0824	-63.6839	321.8268	-966.6463	67.5580	-330.3476
93	1183.0090	-81.5295	369.2548	-973.8110	83.4573	-373.5863
94	1172.0901	-99.0014	415.6785	-941.7759	102.7856	-424.2681
95	1131.9290	-119.3007	469.4853	-805.6196	121.1383	-473.7973
96	968.9304	-139.0504	522.2224	-613.2880	142.5816	-530.8060
97	740.7591	-161.9768	582.4135	-285.3968	163.6522	-586.7075
98	377.2544	-184.3032	641.3478	112.6344	187.4317	-649.8637
99	-55.6211	-209.1485	707.5886	649.6355	210.5824	-711.7832
100	-629.3923	-233.3188	772.5829	1256.3950	211.7136	-720.8907
101	-1342.8096	4.3284	103.3330	1216.7256	-27.6040	-44.4278
102	-1198.7339	27.1892	49.4103	1029.6544	-25.0462	-53.8396
103	-977.0972	23.7641	60.8854	859.6948	-22.5491	-64.6543
104	-772.7123	20.2623	74.5254	616.2956	-17.5556	-82.5929
105	-498.3686	14.2063	96.0354	406.8254	-12.7166	-100.2897
106	-259.9112	8.1929	116.8642	136.9769	-4.9769	-125.4195
107	59.2645	-1.6180	145.0066	-102.9423	3.3366	-149.3560
108	296.3254	-10.4336	172.2872	-359.3534	14.0262	-180.8635
109	568.3708	-22.4884	206.9970	-546.1448	24.3517	-211.2921
110	765.1213	-34.2111	240.5648	-748.3310	38.0219	-249.1743
111	972.3220	-49.2531	281.8530	-864.9472	51.1886	-286.2177

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	1085.7808	-63.9004	321.8637	-969.7586	67.7784	-330.3890
113	1182.2872	-81.9289	369.1804	-971.8932	83.8540	-373.5340
114	1191.3021	-98.5537	415.9371	-962.1649	102.3272	-424.5640
115	1135.2789	-119.4216	469.6684	-808.7424	121.2555	-473.9770
116	971.9845	-139.1495	522.6854	-615.9636	142.6847	-531.2553
117	739.4234	-162.2077	582.6461	-283.4220	163.8839	-586.8957
118	376.4756	-184.4949	641.6535	114.1283	187.6245	-650.1945
119	-57.2106	-209.3640	708.0278	651.6685	210.8000	-712.1852
120	-631.3039	-233.4938	772.4221	1258.9427	211.8904	-720.7523
121	-1346.6783	4.3965	104.0073	1220.3701	-27.6715	-45.0827
122	-1202.0660	27.2514	49.5237	1032.8208	-25.1103	-53.9393
123	-980.2598	23.8103	60.9797	862.7160	-22.5973	-64.7383
124	-776.6943	20.3466	74.7508	620.0136	-17.6417	-82.7926
125	-502.1017	14.2950	96.0928	410.2805	-12.8097	-100.3576
126	-263.3474	8.3024	116.9067	140.0737	-5.0770	-125.4504
127	35.7376	-0.8087	145.0186	-81.8528	2.5237	-149.3821
128	296.5874	-10.4392	172.2664	-359.6030	14.0375	-180.8874
129	568.6615	-22.4970	207.0308	-546.4060	24.3606	-211.3458
130	765.4659	-34.2294	240.6362	-748.5954	38.0416	-249.1725
131	971.7156	-49.3166	281.6792	-864.1713	51.2481	-286.0279
132	1086.0745	-63.9219	321.8259	-969.9275	67.8042	-330.4918
133	1195.1346	-81.4129	369.6391	-986.3181	83.3336	-374.0490
134	1202.3641	-99.6357	416.3187	-970.0327	103.4151	-424.8947
135	1148.5785	-120.3177	470.1186	-819.2343	122.1590	-474.3882
136	973.2421	-140.3691	522.8586	-613.6688	143.8964	-531.4234
137	739.3604	-163.0245	583.1959	-280.7930	164.7007	-587.5127
138	372.6168	-185.3596	642.2041	120.4757	188.4884	-650.6765
139	-57.9791	-209.4272	708.4625	652.6473	210.8618	-712.6206
140	-632.0726	-233.5409	772.8766	1259.8412	211.9351	-721.1996
141	-1347.9600	4.4460	104.8053	1221.4860	-27.7221	-45.8562
142	-1184.5553	25.4779	49.6350	1020.6072	-23.3340	-54.0303
143	-967.3412	21.9889	61.1867	855.2721	-20.7744	-64.9200
144	-769.2606	18.5101	75.0720	618.1106	-15.8048	-83.1107
145	-500.2504	12.4487	96.0440	413.9927	-10.9596	-100.3302
146	-267.1526	6.4386	116.9749	149.4512	-3.2217	-125.4800
147	24.7775	-2.6122	145.0076	-65.4661	4.3257	-149.3901
148	286.1231	-11.7556	172.2297	-345.2008	15.3530	-180.8683
149	563.2186	-22.9795	207.0024	-539.5222	24.8392	-211.3149
150	755.8086	-34.8923	240.5836	-736.9668	38.7113	-249.1772
151	972.1139	-49.3638	281.8384	-864.3948	51.3011	-286.1868
152	1085.2832	-64.0205	321.8271	-968.8817	67.8947	-330.4667
153	1201.0227	-83.2248	369.8102	-986.7398	85.1452	-374.2194
154	1186.7716	-100.8940	416.2707	-950.7141	104.6736	-424.8048
155	1149.0515	-120.9569	470.2353	-817.7716	122.7951	-474.5456
156	972.7708	-140.9735	523.0377	-611.3405	144.5056	-531.6274
157	737.6240	-163.8745	583.5256	-276.5980	165.5505	-587.8610
158	368.2469	-186.2578	642.5794	127.4310	189.3869	-651.0436
159	-68.7432	-210.8570	708.8179	667.8645	212.2937	-712.9715
160	-643.2394	-234.6161	773.6085	1274.2019	213.0093	-721.8674
161	-1340.2435	3.8264	104.4459	1215.6655	-27.1026	-45.5018
162	-1193.2963	26.2641	49.9319	1026.9816	-24.1218	-54.3123
163	-970.7372	22.3270	61.3399	857.6396	-21.1136	-65.0870
164	-770.8773	18.8321	74.9169	618.7365	-16.1263	-82.9278
165	-500.9164	12.7932	96.3058	413.6204	-11.3074	-100.6075
166	-264.6526	6.7206	116.7353	146.1208	-3.4990	-125.3154
167	26.2527	-2.2646	145.0481	-68.0215	3.9806	-149.2829
168	261.2907	-11.0633	172.1352	-322.4093	14.6640	-180.7404

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	569.2413	-22.4144	206.8453	-547.2235	24.2747	-211.2784
170	766.7016	-34.1532	240.6133	-750.1280	37.9718	-249.2735
171	974.2913	-49.2381	282.0178	-866.9403	51.1660	-286.3890
172	1087.8447	-63.8773	322.0794	-971.8696	67.7516	-330.6048
173	1198.1349	-82.9271	369.5656	-984.7408	84.8534	-373.9810
174	1207.2809	-100.4615	416.5860	-972.5035	104.2442	-425.2044
175	1148.8098	-120.9836	470.3148	-817.4361	122.8226	-474.6015
176	973.3450	-141.2142	523.4142	-611.2230	144.7434	-531.9912
177	735.7153	-164.2072	583.6008	-273.5424	165.8856	-587.8632
178	366.1332	-186.3298	642.6497	129.6507	189.4562	-651.1432
179	-70.8148	-210.9089	708.8961	670.1914	212.3436	-713.0639
180	-643.8036	-234.4636	773.7110	1274.4004	212.8565	-721.9489
181	-1344.8274	4.1833	104.3189	1219.1416	-27.4594	-45.3731
182	-1202.5778	27.1865	50.0280	1033.5054	-25.0427	-54.4153
183	-971.1050	22.4962	60.9437	857.5064	-21.2821	-64.6996
184	-771.4649	19.0110	74.9639	618.7988	-16.3038	-82.9655
185	-501.0084	12.9607	96.1335	413.2068	-11.4735	-100.4076
186	-266.2094	6.9517	116.8487	146.9989	-3.7306	-125.4400
187	55.3149	-2.5066	144.8956	-96.3365	4.2182	-149.2650
188	290.3060	-11.2202	172.1842	-351.0178	14.8120	-180.7278
189	570.6438	-22.2734	206.8171	-549.0534	24.1353	-211.1995
190	768.9151	-34.0430	240.6128	-752.6422	37.8564	-249.2201
191	975.6550	-49.1356	281.6774	-868.6450	51.0719	-286.0576
192	1112.4080	-65.4634	322.1840	-991.6809	69.3406	-330.8637
193	1204.3308	-83.5017	369.7623	-989.2262	85.4331	-374.0473
194	1189.2488	-101.2012	416.2067	-952.2874	104.9835	-424.8096
195	1144.7469	-121.6304	470.4438	-811.4394	123.4700	-474.8199
196	965.1307	-141.7359	523.3569	-601.4613	145.2642	-531.8866
197	726.3590	-164.6919	583.5709	-262.8395	166.3668	-587.8610
198	355.3106	-186.8256	642.6587	142.0784	189.9547	-651.1661
199	-85.4256	-211.6932	708.9677	687.0053	213.1271	-713.1253
200	-666.5794	-235.8413	773.8736	1301.3932	214.2323	-722.0930
201	-1346.3917	4.2974	104.2493	1220.3784	-27.5741	-45.2989
202	-1199.2795	26.8551	49.7324	1031.1686	-24.7106	-54.1193
203	-978.5990	23.4256	61.4337	862.2201	-22.2121	-65.1710
204	-774.7650	19.7505	74.8777	619.8815	-17.0462	-82.9070
205	-502.0495	13.6962	96.1885	412.0420	-12.2080	-100.4814
206	-264.2807	7.7061	116.7643	142.7868	-4.4889	-125.3399
207	36.4492	-1.3692	144.9612	-80.8962	3.0838	-149.2508
208	272.4463	-10.1017	172.1267	-336.4796	13.6988	-180.7310
209	571.3057	-22.3028	206.8693	-549.6152	24.1656	-211.2744
210	768.5760	-34.0349	240.5615	-752.3144	37.8587	-249.1567
211	975.6700	-49.1643	281.8181	-868.5775	51.0916	-286.1634
212	1089.4440	-63.8106	321.8055	-973.6640	67.6896	-330.4474
213	1203.9871	-83.4929	369.8093	-988.8811	85.4150	-374.2203
214	1187.2286	-100.9649	416.2943	-950.9227	104.7515	-424.8550
215	1130.3020	-121.8954	470.3990	-796.2966	123.7328	-474.7118
216	949.9517	-141.9702	523.1168	-585.5369	145.5040	-531.6698
217	709.6521	-164.9855	583.5305	-245.2863	166.6610	-587.8565
218	337.1118	-187.3234	642.5727	161.7794	190.4490	-651.0323
219	-103.2252	-211.9164	708.7932	705.5599	213.3511	-712.9453
220	-673.9260	-234.9422	773.3800	1305.9670	213.3305	-721.6574
221	-1351.9993	4.7041	104.6766	1224.7424	-27.9813	-45.7306
222	-1206.7590	27.5735	50.0205	1036.4877	-25.4265	-54.3936
223	-983.8176	24.1292	61.4337	865.2997	-22.9128	-65.1779
224	-778.5046	20.6297	74.9699	620.9686	-17.9212	-82.9916
225	-503.1509	14.5657	96.2560	410.5455	-13.0732	-100.5646

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-262.8498	8.5208	116.7927	138.9332	-5.2940	-125.3503
227	33.5212	-0.4876	145.0627	-80.5949	2.2055	-149.3685
228	297.5882	-10.2311	172.1949	-361.1990	13.8299	-180.7966
229	570.2096	-22.3097	206.8836	-548.5339	24.1727	-211.2386
230	767.8189	-34.0694	240.5984	-751.3436	37.8860	-249.2627
231	974.4744	-49.2137	281.9146	-867.2394	51.1426	-286.2457
232	1087.7590	-63.8557	321.8938	-971.8575	67.7367	-330.4943
233	1198.1635	-83.2131	369.7045	-983.8801	85.1302	-374.1017
234	1184.0632	-100.9806	416.2979	-947.7614	104.7578	-424.9261
235	1125.9138	-121.7286	470.5499	-792.3068	123.5726	-474.8775
236	946.0145	-142.0334	523.2225	-581.5433	145.5689	-531.7367
237	705.5890	-164.8566	583.5172	-241.5784	166.5302	-587.8472
238	333.9626	-186.9304	642.6433	163.5857	190.0542	-651.1448
239	-107.0937	-211.7931	708.9884	708.7924	213.2240	-713.1263
240	-682.6303	-235.3455	773.6823	1315.6604	213.7133	-721.9343
241	-1357.7949	5.1493	104.6361	1229.0317	-28.4268	-45.6895
242	-1210.9196	28.0058	49.8495	1039.0748	-25.8242	-54.2355
243	-986.2871	24.5128	61.4009	866.5508	-23.2773	-65.1449
244	-779.6128	20.9612	74.9563	621.0508	-18.2077	-83.0017
245	-503.2067	14.8005	96.2004	409.9278	-13.2862	-100.4842
246	-263.0720	8.6875	116.9402	138.8947	-5.4193	-125.5168
247	60.2720	-1.4192	145.0443	-104.3714	3.1565	-149.3905
248	296.7653	-10.3535	172.3144	-359.5322	13.9954	-180.8381
249	567.2743	-22.5909	206.9216	-544.4583	24.4735	-211.3355
250	762.2611	-34.5299	240.8378	-743.8622	38.3826	-249.5078
251	964.2471	-49.8209	282.0146	-854.8781	51.7742	-286.3248
252	1076.7858	-64.9830	322.1711	-956.9303	68.8756	-330.8174
253	1178.9161	-84.4973	369.9944	-960.6171	86.4274	-374.4205
254	1156.3114	-102.4179	416.8787	-915.6299	106.2070	-425.4747
255	1089.2467	-123.2902	470.7330	-751.2336	125.1276	-475.0031
256	899.6575	-143.5348	523.5755	-531.3448	147.0406	-532.1308
257	650.5096	-166.6649	583.9001	-181.9012	168.3198	-588.1920
258	268.9598	-189.0970	642.9170	232.8506	192.1636	-651.4029
259	-174.3691	-213.2079	709.0668	778.7862	214.6017	-713.2594
260	-761.1588	-237.3788	774.0559	1395.9425	215.5413	-723.1400
261	-1436.2234	7.5326	115.3098	1320.8080	-30.8464	-57.3556
262	-1309.9530	30.5882	61.4316	1195.3187	-29.4594	-63.5059
263	-1163.1191	28.6690	69.1119	1051.1476	-27.4317	-72.7078
264	-998.5651	26.0389	80.4218	891.2556	-24.6910	-85.3594
265	-819.3720	22.7037	95.8734	665.2405	-19.6595	-106.4317
266	-573.0727	16.9400	118.4411	481.3221	-15.2393	-123.8881
267	-373.7180	11.8369	139.0211	294.1128	-10.0229	-144.4540
268	-164.8053	5.6322	161.2689	100.4461	-3.7195	-166.8266
269	60.3314	-2.2107	186.1458	-105.1499	4.2290	-191.6297
270	252.5783	-10.1706	213.3594	-276.9874	12.2741	-218.7668
271	431.6933	-19.1456	242.7372	-432.8823	21.3396	-248.2682
272	592.4436	-29.2149	274.6337	-567.4166	31.4848	-280.1647
273	726.1078	-40.2916	308.7083	-710.0273	45.0294	-319.6270
274	864.8235	-54.8723	350.6183	-774.5237	57.3368	-356.1205
275	921.2855	-68.1966	389.2315	-796.0578	70.6959	-394.6796
276	936.2739	-83.1581	430.1765	-772.1577	85.7212	-435.6851
277	898.1578	-99.7455	473.5207	-691.2213	102.3381	-478.9868
278	786.4249	-116.4330	518.8963	-536.2183	119.0643	-524.3459
279	605.7318	-134.5702	566.7612	-308.9516	137.2217	-572.1937
280	345.8074	-153.5337	616.5400	-0.2836	156.2079	-621.9009

ENVOLVENTE MINIMOS FLECTORES TREN UIC-71, via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.2185	209.2499	-636.9465	-337.7473	-141.1891	471.8565
2	-105.3348	-46.8174	-49.9288	210.6747	46.8172	49.9357
3	-210.6569	-46.8165	-50.0013	316.0139	46.8179	49.9944
4	-316.0343	-46.8237	-49.8256	421.4313	46.8245	49.8107
5	-421.4448	-46.8363	-49.7495	526.7909	46.8376	49.7545
6	-526.7650	-46.8604	-49.9282	632.1889	46.8621	49.9388
7	-632.1812	-46.8758	-49.9406	737.6504	46.8779	49.9265
8	-737.6655	-46.8875	-49.7787	843.2083	46.8918	49.7594
9	-843.2259	-46.9048	-49.6543	948.7261	46.9046	49.6691
10	-948.7245	-46.8897	-49.9795	1054.2197	46.8893	49.9653
11	-1054.2610	-46.9108	-49.4068	1159.8223	46.9107	49.4148
12	-1159.8003	-46.8963	-50.0294	1265.2981	46.8946	50.0285
13	-1265.3209	-46.8855	-49.3485	1370.8260	46.8847	49.3165
14	-1370.7990	-46.8644	-49.5876	1476.2104	46.8655	49.5851
15	-1476.2079	-46.8615	-49.2900	1581.6522	46.8594	49.3098
16	-1581.6345	-46.8607	-49.8511	1687.1046	46.8585	49.8750
17	-1687.1648	-47.4271	-45.1739	1793.8613	47.4282	45.1306
18	-1860.5111	-112.6889	123.7694	2114.0933	112.6892	-123.8411
19	-2166.8623	-165.9948	255.2508	2540.3132	165.9960	-255.2473
20	-2584.9575	-213.9380	376.0850	3066.3604	194.9416	-336.2007
21	-3100.4229	286.7700	-702.1341	2231.5918	-254.3125	584.8192
22	-2266.3091	231.9267	-528.3952	1570.4977	-231.9267	528.3793
23	-1649.5033	169.6745	-364.5990	1140.4542	-169.6745	364.6016
24	-1203.6906	118.4758	-229.2801	848.2302	-118.4764	229.2789
25	-932.2689	61.2507	-66.9211	748.5064	-61.2509	66.9212
26	-859.7528	-11.9113	-4.4336	895.4779	11.9127	4.4142
27	-895.4878	-11.9260	-4.1948	931.2698	11.9253	4.1917
28	-931.2566	-11.9129	-4.4296	966.9985	11.9119	4.4303
29	-966.9994	-11.9029	-4.1829	1002.7055	11.9021	4.1827
30	-1002.7084	-11.8916	-4.4557	1055.9480	21.9369	12.8153
31	-1055.9308	-21.9289	-12.8037	1121.7094	21.9276	12.7885
32	-1121.7032	-21.9192	-12.4893	1187.4435	21.9182	12.4715
33	-1187.4547	-21.9340	-12.4654	1253.2456	21.9342	12.4830
34	-1253.2592	-21.9245	-12.8214	1319.0322	21.9239	12.8077
35	-1319.0468	-21.9157	-12.2894	1384.8077	21.9161	12.2926
36	-1384.8060	-21.9285	-12.8526	1450.5900	21.9289	12.8659
37	-1484.9250	-60.0932	33.2046	1665.1757	60.0921	-33.2017
38	-1740.1903	-108.6651	179.0184	2066.2039	108.6658	-179.0237
39	-2174.3616	-173.0143	353.4907	2693.3459	173.0138	-353.4884
40	-2782.9829	-234.7146	516.3954	3487.1597	216.1289	-475.9798
41	-3551.1028	296.7813	-693.1101	2714.2556	-265.3054	576.0094
42	-2752.5684	242.9999	-519.2793	2023.6448	-242.9997	519.2744
43	-2116.6240	181.1047	-356.0957	1573.2731	-181.1043	356.1290
44	-1654.1664	130.3876	-220.7817	1262.9843	-130.3881	220.7542
45	-1373.1749	66.7794	-34.9683	1172.8591	-66.7807	34.9648
46	-1297.9485	1.9125	4.3297	1292.2095	-1.9118	-4.3031
47	-1292.2120	1.9054	4.3099	1286.4978	-1.9060	-4.3035
48	-1286.4790	1.9048	4.1262	1280.7571	-1.9057	-4.1266
49	-1280.7472	1.8842	4.3248	1275.1039	-1.8815	-4.3329
50	-1275.1160	1.8696	4.3117	1270.6923	9.1500	4.2739
51	-1270.6968	-9.1522	-4.6099	1298.1620	9.1547	4.6111
52	-1298.1393	-9.1564	-4.4469	1325.6066	9.1567	4.4504
53	-1325.6068	-9.1279	-4.5981	1352.9906	9.1278	4.5987
54	-1352.9800	-9.1435	-4.4465	1380.4030	9.1438	4.4618

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	-1380.3862	-9.1545	-4.8052	1407.8357	9.1535	4.8160
56	-1407.8220	-9.1592	-4.6149	1435.3015	9.1593	4.6179
57	-1492.2482	-65.9556	34.4008	1690.0980	65.9568	-34.3856
58	-1768.4285	-115.2939	180.9932	2114.2900	115.2960	-180.9918
59	-2225.7161	-180.0674	355.1271	2765.8833	180.0677	-355.0916
60	-2857.1826	-241.9213	518.0794	3583.0149	223.3912	-477.7035
61	-3647.2324	298.8889	-692.1408	2808.3997	-267.4565	574.9310
62	-2846.6396	245.1560	-519.6470	2111.1018	-245.1560	519.7016
63	-2205.2283	183.2857	-356.2439	1655.4807	-183.2872	356.2467
64	-1738.0764	118.4626	-181.6887	1382.6509	-118.4632	181.7132
65	-1452.0623	69.0583	-35.4685	1244.8995	-69.0564	35.4698
66	-1372.5834	4.2222	5.1471	1359.9265	-4.2191	-5.1527
67	-1359.9127	4.2112	4.6162	1347.2871	-4.2105	-4.5843
68	-1347.2877	4.2024	4.5746	1334.6727	-4.2030	-4.5728
69	-1334.6783	4.2258	4.5660	1321.9965	-4.2272	-4.5670
70	-1321.9871	4.2316	4.5593	1309.4365	6.8522	3.9848
71	-1309.4587	-6.8423	-4.3442	1329.9789	6.8410	4.3680
72	-1329.9723	-6.8517	-4.5686	1350.5208	6.8518	4.5690
73	-1350.4991	-6.8624	-4.3637	1371.0815	6.8629	4.3654
74	-1371.0508	-6.8515	-4.5597	1391.5989	6.8522	4.5962
75	-1391.6147	-6.8595	-4.9461	1412.1855	6.8593	4.9694
76	-1412.1887	-6.8606	-4.9800	1432.7765	6.8617	4.9782
77	-1496.4890	-69.3637	34.9395	1704.5856	69.3650	-34.9394
78	-1783.1166	-118.7623	181.7239	2139.4070	118.7613	-181.6726
79	-2251.2109	-183.5775	355.0524	2801.8833	183.5765	-355.0197
80	-2893.1135	-245.4409	519.2784	3629.5786	226.9166	-478.8901
81	-3694.1599	299.8996	-692.7673	2852.7209	-268.4699	575.4355
82	-2891.1348	246.1789	-519.3853	2152.6736	-246.1775	519.4180
83	-2246.7805	184.3061	-356.1016	1693.8286	-184.3056	356.1353
84	-1776.5421	119.4708	-181.6324	1418.1074	-119.4725	181.6465
85	-1487.6836	70.0724	-34.8809	1277.5182	-70.0732	34.9067
86	-1405.4242	5.2455	5.2684	1389.6945	-5.2443	-5.2417
87	-1389.6868	5.2608	5.0274	1373.9050	-5.2611	-4.9964
88	-1373.8997	5.2496	4.6273	1358.1425	-5.2499	-4.6229
89	-1358.1327	5.2536	4.9821	1342.3763	-5.2534	-4.9814
90	-1342.3615	5.2372	4.4241	1326.7051	5.8565	4.1270
91	-1326.7198	-5.8514	-4.5088	1344.2769	5.8507	4.5148
92	-1344.2705	-5.8397	-4.3067	1361.8011	5.8390	4.3079
93	-1361.7935	-5.8402	-4.5086	1379.3059	5.8391	4.5276
94	-1379.3120	-5.8410	-4.7590	1396.8258	5.8410	4.7804
95	-1396.8307	-5.8182	-4.9341	1414.2817	5.8192	4.9562
96	-1414.2942	-5.8349	-5.1787	1431.7899	5.8349	5.2216
97	-1497.4321	-69.9915	34.4932	1707.4083	69.9913	-34.4673
98	-1786.0120	-119.3929	181.4054	2144.2070	119.3936	-181.3741
99	-2256.0693	-184.2229	355.2427	2808.8572	184.2228	-355.2248
100	-2900.1843	-246.0930	519.4879	3638.2695	227.5679	-479.0684
101	-3702.7527	300.0812	-693.5587	2860.6836	-268.6474	576.1160
102	-2899.2722	246.3489	-519.3119	2160.2798	-246.3491	519.3086
103	-2254.3975	184.4799	-355.8853	1700.9093	-184.4802	355.9668
104	-1783.5437	119.6566	-182.0925	1424.5878	-119.6573	182.1375
105	-1494.2076	70.2617	-35.0333	1283.4297	-70.2618	35.0350
106	-1411.3785	5.4378	5.4855	1395.0566	-5.4373	-5.4501
107	-1395.0664	5.4357	4.8824	1378.7739	-5.4346	-4.8321
108	-1378.7778	5.4472	4.6885	1362.4413	-5.4468	-4.6657
109	-1362.4749	5.4370	4.4514	1346.1531	-5.4377	-4.4409
110	-1346.1613	5.4385	4.4473	1329.8959	5.6545	4.0507
111	-1329.8954	-5.6763	-4.6240	1346.9283	5.6781	4.6458

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	-1346.9131	-5.6488	-4.6301	1363.8534	5.6482	4.6326
113	-1363.8494	-5.6360	-4.6334	1380.7476	5.6350	4.6758
114	-1380.7262	-5.6651	-5.3881	1397.7255	5.6659	5.4184
115	-1397.7158	-5.6925	-5.2704	1414.7874	5.6947	5.3120
116	-1414.7939	-5.7115	-6.0538	1431.9465	5.7130	6.0768
117	-1498.2175	-70.3123	34.8875	1709.1478	70.3127	-34.8524
118	-1787.8064	-119.6990	181.0752	2147.0049	119.6987	-181.0296
119	-2258.7366	-184.5037	355.8900	2812.1560	184.5046	-355.8124
120	-2903.8435	-246.3783	517.8417	3642.8914	227.8462	-477.4127
121	-3707.2954	300.1966	-692.8660	2864.6328	-268.7552	575.2303
122	-2902.9360	246.4522	-519.6188	2163.6738	-246.4508	519.6727
123	-2257.7471	184.5761	-356.1966	1704.0000	-184.5759	356.2599
124	-1786.6166	119.7270	-181.9702	1427.3567	-119.7287	182.0169
125	-1497.0272	70.3110	-34.9376	1286.1047	-70.3116	34.9514
126	-1414.3201	5.4785	5.7934	1397.8757	-5.4798	-5.7588
127	-1397.8777	5.5058	5.2000	1381.3527	-5.5061	-5.1434
128	-1381.3453	5.5155	4.7991	1364.8093	-5.5171	-4.7634
129	-1364.8160	5.5262	4.3936	1348.2317	-5.5287	-4.3763
130	-1348.2042	5.5421	4.3775	1331.6219	5.5537	4.0863
131	-1331.5800	-5.5608	-4.2687	1348.2463	5.5579	4.2907
132	-1348.2577	-5.5359	-4.6549	1364.8776	5.5352	4.7001
133	-1364.8815	-5.5428	-5.2628	1381.5073	5.5440	5.3133
134	-1381.5013	-5.5438	-5.6760	1398.1443	5.5460	5.6997
135	-1398.1425	-5.5531	-5.7252	1414.7982	5.5536	5.7368
136	-1414.8021	-5.5763	-5.9458	1431.5198	5.5774	6.0171
137	-1497.9827	-70.3429	34.1002	1709.0397	70.3442	-34.0458
138	-1787.8000	-119.7460	181.3676	2147.0857	119.7457	-181.3502
139	-2259.0427	-184.5785	355.8253	2812.6873	184.5779	-355.7137
140	-2904.4648	-246.4486	517.8247	3643.7451	227.9229	-477.4242
141	-3708.2009	300.1641	-692.0422	2865.9185	-268.7356	574.2896
142	-2903.8950	246.4348	-520.1346	2164.5386	-246.4355	520.2456
143	-2258.7229	184.5716	-356.4823	1705.1223	-184.5710	356.5131
144	-1787.7162	119.7449	-181.7494	1428.3983	-119.7440	181.8197
145	-1497.8699	70.3385	-35.1573	1286.8884	-70.3382	35.2027
146	-1414.7441	5.5432	6.3184	1398.1129	-5.5424	-6.2969
147	-1398.1110	5.5377	5.7280	1381.5085	-5.5374	-5.6558
148	-1381.4924	5.5502	5.0849	1364.8431	-5.5511	-5.0325
149	-1364.8698	5.5525	4.6758	1348.1984	-5.5531	-4.6559
150	-1348.1719	5.5573	4.6449	1331.5417	5.5371	3.7823
151	-1331.5607	-5.5244	-4.3464	1348.1385	5.5242	4.3663
152	-1348.1317	-5.5340	-4.3551	1364.7324	5.5350	4.3994
153	-1364.7417	-5.5369	-5.3178	1381.3640	5.5406	5.3658
154	-1381.3705	-5.5573	-5.3500	1398.0511	5.5584	5.3759
155	-1398.0559	-5.5613	-5.7450	1414.7299	5.5599	5.7847
156	-1414.7334	-5.5664	-6.0059	1431.4299	5.5653	6.0910
157	-1497.9067	-70.3586	34.0338	1708.9712	70.3590	-33.9620
158	-1787.6512	-119.7564	181.4300	2146.9019	119.7559	-181.3995
159	-2258.7578	-184.5788	355.7673	2812.5615	184.5782	-355.7140
160	-2904.0076	-246.4463	519.4090	3643.2197	227.9158	-478.9784
161	-3708.1221	300.1561	-693.1528	2865.6677	-268.7145	575.3779
162	-2903.9639	246.4153	-519.7489	2164.7976	-246.4150	519.8048
163	-2258.8738	184.5400	-356.1863	1705.2281	-184.5400	356.2681
164	-1787.7871	119.6884	-181.9884	1428.7299	-119.6908	182.0357
165	-1498.2983	70.2915	-34.5028	1287.4329	-70.2930	34.5697
166	-1415.2461	5.6239	5.6894	1398.3840	-5.6225	-5.6241
167	-1398.3843	5.6288	5.6274	1381.4982	-5.6304	-5.6278
168	-1381.4966	5.6546	-5.6289	1364.5306	-5.6551	-5.5777

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	-1364.5531	5.6554	4.6535	1347.5889	-5.6544	-4.5955
170	-1347.6099	5.6371	4.3978	1330.7266	5.4595	4.0667
171	-1330.7041	-5.4462	-4.7679	1347.0479	5.4474	4.7938
172	-1347.0138	-5.4559	-4.7813	1363.3757	5.4560	4.7952
173	-1363.3739	-5.4419	-5.0243	1379.6868	5.4397	5.0877
174	-1379.6705	-5.4319	-6.0033	1395.9584	5.4308	6.0431
175	-1395.9358	-5.4386	-5.8105	1412.2590	5.4392	5.8469
176	-1412.2606	-5.4324	-6.6463	1428.5424	5.4329	6.7106
177	-1495.0001	-70.2739	34.3487	1705.8743	70.2748	-34.3001
178	-1784.6742	-119.6886	181.2939	2143.6335	119.6886	-181.2119
179	-2255.6196	-184.5180	355.4184	2809.3428	184.5178	-355.3535
180	-2900.9045	-246.3811	519.0501	3640.0464	227.8549	-478.6542
181	-3704.0591	299.8435	-693.2572	2862.8481	-268.4167	575.4847
182	-2901.2717	246.1190	-519.3375	2162.9780	-246.1193	519.4214
183	-2256.8843	184.2473	-356.8038	1704.1484	-184.2493	356.8907
184	-1786.8174	119.4250	-181.9118	1428.5404	-119.4243	181.9436
185	-1498.0067	70.0227	-34.8022	1287.9150	-70.0214	34.8435
186	-1414.7474	5.8256	6.1301	1397.2720	-5.8257	-6.0563
187	-1397.2656	5.8213	5.1413	1379.8141	-5.8198	-5.0796
188	-1379.8118	5.8027	5.0809	1362.4039	-5.8017	-5.0639
189	-1362.4293	5.7885	4.7001	1345.0732	-5.7881	-4.6553
190	-1345.0591	5.7985	4.1018	1327.6917	5.2992	4.3197
191	-1327.6763	-5.3041	-4.3048	1343.5864	5.3036	4.3475
192	-1343.6123	-5.2961	-5.2584	1359.4993	5.2943	5.2984
193	-1359.5443	-5.2634	-5.3130	1375.3330	5.2615	5.3282
194	-1375.3275	-5.2351	-5.5446	1391.0154	5.2352	5.6031
195	-1391.0117	-5.2482	-6.3105	1406.7378	5.2485	6.3722
196	-1406.7473	-5.2480	-6.6059	1422.4883	5.2470	6.6499
197	-1488.8486	-70.0900	34.3765	1699.1198	70.0885	-34.3005
198	-1777.8466	-119.4999	181.1574	2136.3169	119.4996	-181.0766
199	-2248.2437	-184.3371	355.5354	2801.3032	184.3372	-355.5022
200	-2892.7310	-246.2121	519.6870	3631.4246	227.6878	-479.2778
201	-3695.9460	299.2204	-693.5696	2856.4526	-267.7874	575.8176
202	-2894.7734	245.4901	-520.1836	2158.3889	-245.4900	520.2062
203	-2252.6174	183.6213	-356.0169	1701.8210	-183.6220	356.0780
204	-1784.2937	118.7933	-181.9989	1427.8439	-118.7928	182.0759
205	-1497.4026	69.3796	-34.7307	1289.2771	-69.3777	34.7885
206	-1413.2418	6.8112	5.8798	1392.8176	-6.8086	-5.8168
207	-1392.7915	6.8004	5.4613	1372.3984	-6.8012	-5.4343
208	-1372.4121	6.8117	5.4379	1351.9786	-6.8137	-5.3940
209	-1351.9789	6.8407	4.5125	1331.4595	-6.8414	-4.4663
210	-1331.4587	6.8569	4.4846	1310.8718	-6.8585	-4.4640
211	-1310.8552	6.8738	3.9092	1323.4231	4.2160	4.5156
212	-1323.4099	-4.2355	-4.4833	1336.1116	4.2363	4.5303
213	-1336.1051	-4.2261	-5.4437	1348.7898	4.2271	5.4938
214	-1348.7742	-4.2286	-5.4995	1361.4567	4.2295	5.5372
215	-1361.4556	-4.2051	-6.0692	1374.0663	4.2038	6.1054
216	-1374.0906	-4.2082	-6.1382	1386.7104	4.2063	6.2093
217	-1453.3632	-69.0706	34.1089	1660.5709	69.0702	-34.0383
218	-1739.4441	-118.4941	181.5647	2094.9309	118.4938	-181.5305
219	-2207.0505	-183.3342	355.9457	2757.1545	183.3342	-355.8576
220	-2848.9590	-245.2167	518.7972	3585.1011	252.2790	-567.6956
221	-3649.4829	270.0988	-602.9729	2820.8809	-264.2623	574.4847
222	-2859.1382	241.9646	-519.1346	2133.2737	-241.9645	519.1990
223	-2227.4939	180.1043	-355.5224	1687.0869	-180.1044	355.5997
224	-1769.8386	115.3222	-181.3579	1423.8640	-115.3226	181.4260
225	-1493.5090	65.9905	-34.0877	1295.5868	-65.9903	34.1515

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-1409.2507	9.1743	5.8755	1381.7190	-9.1749	-5.8283
227	-1381.7285	9.1808	5.8057	1354.1782	-9.1830	-5.7725
228	-1354.1986	9.1833	5.2423	1326.6589	-9.1825	-5.1979
229	-1326.6610	9.1635	5.0012	1299.1772	-9.1622	-4.9714
230	-1299.1802	9.1824	4.4944	1271.6222	-9.1819	-4.4557
231	-1271.6249	9.1691	4.0242	1276.1174	1.8629	4.4076
232	-1276.1356	-1.8841	-4.4201	1281.7954	1.8854	4.4575
233	-1281.7892	-1.9167	-5.0982	1287.5447	1.9195	5.1471
234	-1287.5386	-1.9100	-5.3755	1293.2668	1.9100	5.4336
235	-1293.2552	-1.9161	-6.0546	1299.0055	1.9141	6.0895
236	-1298.9976	-1.8910	-5.9740	1304.6705	1.8885	6.0247
237	-1374.2942	-66.8071	34.4624	1574.7384	66.8068	-34.3598
238	-1655.7601	-130.4161	220.2238	2047.0165	130.4171	-220.1772
239	-2118.4844	-181.1438	356.1507	2661.9319	181.1441	-356.1153
240	-2754.7615	-243.0456	519.6198	3488.7310	250.1353	-568.5170
241	-3553.4519	262.7919	-600.8875	2746.7195	-257.0111	572.4543
242	-2785.1885	234.7362	-517.3564	2080.7917	-234.7365	517.4229
243	-2176.2039	173.0393	-353.5921	1657.0858	-173.0396	353.6605
244	-1741.6334	108.7010	-179.4897	1415.5732	-108.7023	179.5631
245	-1486.0625	60.1393	-32.5346	1305.6290	-60.1414	32.5796
246	-1385.7213	21.9395	14.0583	1319.9175	-21.9369	-13.9974
247	-1319.9343	21.9241	13.3102	1254.1677	-21.9221	-13.2687
248	-1254.1826	21.9257	13.2728	1188.3987	-21.9250	-13.2614
249	-1188.4080	21.8989	13.0721	1122.7244	-21.8984	-13.0181
250	-1122.7263	21.9150	12.2686	1056.9808	-21.9159	-12.2282
251	-1056.9725	21.9133	12.2339	1003.8676	-11.8622	-4.0063
252	-1003.8514	11.8622	3.7398	968.2581	-11.8622	-3.7041
253	-968.2400	11.8522	3.3377	932.6837	-11.8516	-3.2888
254	-932.7009	11.8528	2.8848	897.1359	-11.8530	-2.8594
255	-897.1057	11.8729	2.8775	861.4830	-11.8750	-2.8563
256	-861.4941	11.8837	2.6657	825.8357	-11.8855	-2.6110
257	-933.9531	-61.2903	66.6734	1117.8235	61.2915	-66.6401
258	-1205.5092	-118.5110	230.1437	1561.0421	118.5118	-230.0793
259	-1651.6332	-169.7003	364.9964	2160.7773	169.6997	-364.9276
260	-2268.5815	-231.9454	529.1861	3034.3044	240.0298	-578.4119
261	-3102.7625	230.3620	-427.9685	2562.9111	-230.9757	415.9448
262	-2586.9988	214.0099	-375.1040	2105.5588	-214.0109	375.1511
263	-2168.6108	166.0581	-253.7440	1794.9473	-166.0576	253.8365
264	-1861.8036	112.6965	-123.0935	1608.1628	-112.6926	123.1225
265	-1688.3105	47.3288	46.9529	1581.8597	-47.3306	-46.8949
266	-1583.1211	46.7741	50.3238	1477.8572	-46.7760	-50.2860
267	-1477.8411	46.7830	50.7414	1372.5962	-46.7863	-50.7211
268	-1372.6267	46.8245	49.9789	1267.2931	-46.8310	-49.8880
269	-1267.3077	46.8591	49.4543	1161.8761	-46.8613	-49.4267
270	-1161.8682	46.9028	49.4516	1056.3306	-46.9043	-49.4489
271	-1056.3511	46.8989	49.4339	950.8232	-46.9037	-49.3891
272	-950.8327	46.9405	48.8919	845.2310	-46.9438	-48.8504
273	-845.2387	46.9499	48.8598	739.6138	-46.9491	-48.8446
274	-739.6409	46.9705	48.5950	633.9363	-46.9692	-48.5713
275	-633.9312	46.9534	48.5694	528.2728	-46.9542	-48.5619
276	-528.2775	46.9545	48.4580	422.6485	-46.9579	-48.4406
277	-422.6614	46.9735	48.3078	316.9618	-46.9739	-48.2976
278	-316.9693	46.9694	48.2933	211.2812	-46.9683	-48.2852
279	-211.3041	46.9607	48.1710	105.6636	-46.9597	-48.1643
280	-105.6538	46.9603	48.1839	-0.0293	-39.1318	-43.2708

ENVOLVENTE MINIMOS CORTANTES TREN UIC-71, via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.0068	-29.3826	-96.5245	86.3701	47.3819	45.4795
2	-49.6811	-31.0666	-89.8131	139.8307	49.0654	38.7745
3	-71.4085	-33.8626	-80.8596	167.8692	51.8671	29.7958
4	-72.7378	-37.7749	-69.5615	-82.4350	57.2027	-11.2405
5	199.3647	-44.2140	-26.3227	-147.2629	64.8711	-30.1758
6	281.3392	-52.9671	-5.1420	-203.8562	73.6035	-51.4102
7	350.4281	-62.7500	18.3962	-245.4913	83.3529	-74.8648
8	400.1881	-73.5228	44.0818	-265.7242	94.0995	-100.5294
9	424.1926	-85.2988	71.9893	-305.8404	108.3044	-133.9494
10	464.1779	-100.4719	107.6937	-260.9506	120.8974	-164.1548
11	415.5662	-114.0367	140.1603	-177.8932	134.3890	-196.6472
12	325.0757	-128.4254	174.8293	-51.5639	148.7268	-231.3389
13	188.5868	-143.6542	211.9748	122.1608	163.8741	-268.3999
14	1.5752	-159.6277	251.0625	347.4244	179.7647	-307.5543
15	-239.0169	-176.3254	292.6880	627.5977	196.3725	-349.1949
16	-536.7084	-193.6783	336.1655	965.6472	213.6408	-392.7208
17	-893.5303	-211.6397	382.4624	1332.2491	233.2339	-444.3769
18	-1279.9525	-231.8702	436.4961	1790.4562	251.5048	-492.9691
19	-1758.5397	-250.7218	487.5821	2309.9961	270.2329	-543.9181
20	-2299.2849	-269.9816	538.8995	2892.4048	265.3498	-537.2882
21	430.8137	-36.4655	-34.1890	-481.8779	43.5188	34.4059
22	499.5022	-20.7405	-95.1829	-401.2735	44.7419	27.1194
23	454.0447	-22.9086	-84.8753	-349.3164	46.9100	16.8072
24	436.3609	-26.1244	-71.4012	-321.9856	50.1254	3.3331
25	441.3200	-30.4940	-54.7652	-535.2136	55.4950	-45.2424
26	683.7245	-37.1053	-3.0229	-633.2541	64.2741	-73.5811
27	806.8445	-47.1937	28.3253	-677.4048	72.8889	-100.6637
28	871.2520	-57.1672	58.8294	-757.6388	84.7432	-135.4706
29	966.2920	-70.4285	96.5212	-764.2160	96.2862	-168.8590
30	981.7676	-83.4052	133.3585	-781.4785	111.2286	-210.0610
31	1001.8665	-99.7864	177.6052	-707.0155	125.7299	-249.9173
32	924.0413	-115.7413	220.4614	-616.8233	143.6374	-297.0107
33	824.3633	-135.0424	270.8132	-418.8146	160.9841	-343.2062
34	611.1168	-153.7862	320.2629	-180.5150	181.6056	-396.8969
35	352.5982	-175.7300	377.0636	179.0328	201.6035	-449.4091
36	-32.4152	-197.0159	432.5527	598.0918	224.5980	-509.2378
37	-480.1048	-221.1968	495.9402	1149.1001	246.8913	-568.2707
38	-1063.0356	-244.5875	557.5517	1770.1553	271.7667	-634.2094
39	-1717.2485	-270.4507	627.3296	2531.1895	295.9074	-699.5807
40	-2513.3005	-295.4922	694.1829	3363.6599	297.9547	-710.6611
41	677.0540	-41.8619	-30.7936	-713.4375	48.7998	32.9250
42	733.6633	-26.0850	-93.7891	-619.4236	50.0824	25.7350
43	675.9516	-28.3401	-83.2896	-554.9216	52.3419	15.2156
44	646.4037	-31.6779	-69.7849	-515.3598	55.6796	1.7178
45	639.4230	-36.1882	-53.3106	-726.7315	61.5203	-46.6854
46	879.9872	-43.2826	-1.4273	-812.3450	70.5005	-75.2268
47	990.4626	-53.5705	30.1184	-842.2543	79.2814	-102.4884
48	1040.1355	-63.7358	60.6742	-907.2917	91.3266	-137.2806
49	1119.5240	-77.1700	98.3873	-897.2451	103.0301	-170.6936
50	1117.8014	-90.2953	135.0496	-896.7229	118.1085	-211.7278
51	1119.4718	-106.8057	179.4382	-803.3700	132.7457	-251.8467
52	1022.1326	-122.8852	222.4976	-693.2762	150.7599	-299.0899
53	902.1231	-142.2916	272.9992	-474.5573	168.2195	-345.3586
54	667.6861	-161.1220	322.3550	-215.0378	188.9025	-398.9836

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	387.2142	-183.1263	379.1660	166.4295	208.9623	-451.5369
56	-19.4392	-204.4337	434.9460	607.4299	231.9769	-511.5695
57	-489.6987	-228.6208	497.9434	1180.9094	254.2953	-570.3007
58	-1094.8813	-252.0209	559.9769	1823.8488	279.1495	-636.5806
59	-1771.2522	-277.8579	629.1816	2607.2432	303.2947	-701.4377
60	-2589.4280	-302.8822	696.0262	3461.4460	305.2864	-712.4909
61	834.3269	-45.2503	-30.5014	-860.7255	52.1681	32.6510
62	881.1717	-29.4543	-93.1060	-756.7937	53.4564	25.0239
63	813.6014	-31.7272	-82.6269	-682.4510	55.7236	14.5744
64	774.2668	-35.0674	-69.3035	-633.0496	59.0701	1.2328
65	757.4929	-39.5920	-52.3431	-835.3686	64.9500	-47.6208
66	989.0097	-46.7168	-0.9936	-911.1912	73.9358	-75.5968
67	1089.6375	-57.0192	30.7702	-931.1387	82.7340	-103.1846
68	1129.4271	-67.1867	61.2350	-986.2239	94.7777	-137.8362
69	1198.7488	-80.6391	99.0292	-966.0723	106.5056	-171.3622
70	1186.8674	-93.7873	135.7017	-955.3651	121.6001	-212.3562
71	1178.3201	-110.3145	180.0745	-851.6870	136.2551	-252.5212
72	1070.5923	-126.4006	223.3486	-731.1274	154.2633	-299.9593
73	940.1342	-145.8093	273.7537	-502.0429	171.7413	-346.0893
74	695.1922	-164.6512	323.1542	-231.9147	192.4253	-399.8208
75	404.1661	-186.6509	380.0318	160.1485	212.4916	-452.4188
76	-13.2248	-207.9617	435.8017	611.6492	235.4955	-512.3932
77	-493.8442	-232.1417	498.9284	1195.6853	257.8194	-571.2537
78	-1109.6467	-255.5647	560.9285	1849.3269	282.6925	-637.5378
79	-1796.9720	-281.4058	629.2988	2643.5479	306.8394	-701.5789
80	-2625.4607	-306.4226	697.3531	3508.1372	308.8222	-713.7769
81	863.6758	-45.8857	-30.3498	-888.1948	52.8025	32.4944
82	908.6336	-30.0929	-93.1941	-782.3705	54.0907	25.1309
83	839.1972	-32.3528	-82.6811	-706.1269	56.3545	14.6069
84	797.9627	-35.6964	-69.2433	-654.8588	59.6979	1.1730
85	779.3028	-40.2233	-52.5221	-855.3976	65.5753	-47.3630
86	1009.0761	-47.3471	-0.8868	-929.3409	74.5755	-75.7493
87	1107.8326	-57.6584	30.7061	-947.4196	83.3717	-103.1020
88	1145.7277	-67.8248	61.3444	-1000.5914	95.4183	-137.9567
89	1213.1351	-81.2789	98.9155	-978.5543	107.1391	-171.2611
90	1199.2955	-94.4341	135.9294	-965.8800	122.2445	-212.6741
91	1188.8491	-110.9533	180.4389	-860.3825	136.8857	-252.8126
92	1079.4526	-127.0250	223.4252	-737.9195	154.9059	-300.0354
93	946.8487	-146.4587	273.9834	-506.8724	172.3865	-346.3764
94	700.0319	-165.2901	323.4733	-234.9352	193.0673	-400.1063
95	407.2764	-187.3036	380.3252	159.0850	213.1451	-452.7149
96	-12.2463	-208.6186	436.0421	612.5594	236.1469	-512.6788
97	-494.8561	-232.8073	499.0159	1198.7147	258.4837	-571.3792
98	-1112.6705	-256.2148	561.0851	1854.3031	283.3442	-637.6707
99	-1801.8636	-282.0540	629.7355	2650.6523	307.4926	-702.0082
100	-2632.5981	-307.0831	697.6892	3516.8247	309.4721	-714.0453
101	877.2096	-46.1747	-30.1786	-900.8412	53.0967	32.3009
102	921.2809	-30.3899	-93.2552	-794.1228	54.3881	25.1989
103	850.9615	-32.6484	-82.7831	-716.9999	56.6504	14.7017
104	808.8622	-35.9970	-69.0022	-664.8792	59.9961	0.9349
105	789.3535	-40.5180	-52.4143	-864.5637	65.8763	-47.4384
106	1018.2070	-47.6510	-0.9133	-937.6155	74.8660	-75.7028
107	1116.0779	-57.9440	30.8587	-954.8110	83.6591	-103.2672
108	1153.1611	-68.1215	61.3652	-1007.0638	95.7212	-138.0247
109	1219.6125	-81.5783	99.3378	-984.1125	107.4422	-171.6942
110	1204.9476	-94.7237	136.0375	-970.6064	122.5348	-212.7167
111	1193.4958	-111.2620	180.5852	-864.1199	137.1950	-253.0058

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	1083.0938	-127.3459	223.7370	-740.7770	155.2213	-300.3169
113	949.7214	-146.7690	274.1863	-508.8400	172.6918	-346.5945
114	701.9568	-165.5817	323.8100	-235.6636	193.3608	-400.5140
115	407.9916	-187.5850	380.7697	158.9815	213.4137	-453.1256
116	-12.2661	-208.8788	436.3398	613.5099	236.4166	-512.9815
117	-495.5756	-233.0827	499.7876	1200.1870	258.7577	-572.0973
118	-1114.3951	-256.4845	561.0611	1857.0498	283.6207	-637.6850
119	-1804.4038	-282.3296	630.5567	2653.7090	307.7614	-702.7672
120	-2636.1868	-307.3510	696.1632	3521.3679	309.7448	-712.5468
121	879.5587	-46.2300	-30.4331	-903.0463	53.1569	32.5746
122	923.4914	-30.4485	-93.1417	-796.1688	54.4460	25.0746
123	852.9959	-32.7082	-82.6616	-718.8626	56.7096	14.5851
124	810.7318	-36.0439	-69.0436	-666.5609	60.0488	0.9613
125	791.0493	-40.5701	-52.3531	-866.1680	65.9144	-47.4523
126	1019.8362	-47.6789	-0.9247	-939.1821	74.9025	-75.6796
127	1117.6731	-57.9970	30.8156	-956.2660	83.7073	-103.2303
128	1154.6089	-68.1586	61.4327	-1008.4766	95.7565	-138.1173
129	1221.0879	-81.6254	99.5209	-985.4145	107.4924	-171.9097
130	1206.3440	-94.7771	136.2549	-971.7791	122.5930	-212.8662
131	1194.7317	-111.3092	180.4818	-865.2471	137.2374	-252.8843
132	1084.2163	-127.4003	223.7582	-741.6399	155.2832	-300.4920
133	950.5031	-146.8216	274.6100	-509.4880	172.7402	-347.0782
134	702.6835	-165.6550	324.2753	-236.2665	193.4364	-400.9160
135	408.6428	-187.6557	381.1967	158.7437	213.4991	-453.5366
136	-11.9116	-208.9744	436.9040	613.2466	236.4970	-513.5206
137	-495.6860	-233.1466	499.6551	1200.6570	258.8260	-572.0438
138	-1114.6395	-256.5601	561.7786	1857.3694	283.6921	-638.3250
139	-1804.8962	-282.4107	630.6520	2654.4639	307.8416	-702.8615
140	-2636.9451	-307.4292	696.2734	3522.3528	309.8211	-712.6538
141	880.5027	-46.2391	-30.5104	-904.0063	53.1605	32.6543
142	924.4791	-30.4479	-92.7616	-797.1253	54.4495	24.6691
143	853.9523	-32.7212	-82.3419	-719.8280	56.7160	14.2884
144	811.6878	-36.0530	-68.9222	-667.4801	60.0590	0.8365
145	791.9467	-40.5829	-51.9059	-866.9577	65.9349	-47.8300
146	1020.6301	-47.7033	-0.6955	-939.8725	74.9233	-75.8830
147	1118.3740	-58.0059	30.9650	-956.8776	83.7197	-103.4126
148	1155.1656	-68.1846	61.7319	-1008.9869	95.7794	-138.4255
149	1221.5573	-81.6384	99.8141	-985.8566	107.4999	-172.1941
150	1206.7118	-94.7798	136.5236	-972.1861	122.6004	-213.1833
151	1195.1073	-111.3238	181.0193	-865.5222	137.2600	-253.4292
152	1084.5034	-127.4028	224.1358	-741.9751	155.2757	-300.8320
153	950.7850	-146.8194	275.0802	-509.7195	172.7401	-347.5526
154	702.9816	-165.6444	324.6669	-236.6793	193.4242	-401.2643
155	408.9812	-187.6541	381.5392	158.4386	213.4966	-453.9274
156	-11.5811	-208.9677	437.3015	612.9604	236.4973	-513.9494
157	-495.4605	-233.1513	499.9835	1200.2996	258.8260	-572.3788
158	-1114.2568	-256.5630	562.1467	1856.8339	283.6908	-638.6746
159	-1804.3815	-282.4046	630.7870	2654.1792	307.8445	-703.0152
160	-2636.3057	-307.4340	697.9187	3521.6838	309.8232	-714.2299
161	879.7267	-46.1700	-30.3354	-903.4060	53.0982	32.4645
162	923.8476	-30.3881	-93.0517	-796.7022	54.3853	24.9859
163	853.5276	-32.6462	-82.6116	-719.5789	56.6472	14.5324
164	811.4351	-35.9926	-68.8928	-667.4671	59.9910	0.8283
165	791.9451	-40.5083	-52.3999	-867.2134	65.8555	-47.3390
166	1020.8875	-47.6276	-0.5106	-940.3762	74.8495	-76.1363
167	1118.9124	-57.9284	30.9170	-957.6786	83.6448	-103.2219
168	1156.0170	-68.1034	61.1296	-1010.0219	95.7043	-137.7988

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	1222.5682	-81.5751	99.4707	-987.0566	107.4371	-171.9752
170	1207.8915	-94.7201	136.4506	-973.6711	122.5336	-213.1583
171	1196.6481	-111.2446	181.0990	-867.2462	137.1757	-253.5488
172	1086.2766	-127.3125	224.2935	-743.9648	155.1898	-300.8932
173	952.8804	-146.7435	274.8748	-512.0779	172.6662	-347.3436
174	705.1301	-165.5842	324.6642	-239.0221	193.3646	-401.3405
175	411.4679	-187.5897	381.6319	155.7781	213.4333	-453.9959
176	-9.0930	-208.9285	437.2415	610.2974	236.4530	-513.8702
177	-492.4928	-233.0965	500.3989	1197.4015	258.7810	-572.7437
178	-1111.5476	-256.5183	562.0485	1853.8112	283.6373	-638.5841
179	-1801.4160	-282.3474	630.5170	2651.1973	307.7894	-702.7704
180	-2633.3438	-307.3740	697.6602	3518.6841	309.7679	-713.9651
181	877.5760	-45.9976	-30.2525	-901.8370	52.9175	32.4070
182	922.2795	-30.2082	-93.1665	-795.6711	54.2058	25.0930
183	852.5242	-32.4723	-82.3242	-719.1136	56.4717	14.2461
184	810.9585	-35.8165	-68.9475	-667.5138	59.8169	0.8828
185	792.0035	-40.3327	-52.2490	-867.7253	65.6904	-47.4812
186	1021.3608	-47.4620	-0.8092	-941.3584	74.6802	-75.8319
187	1119.8287	-57.7648	31.1680	-959.0773	83.4747	-103.5926
188	1157.3948	-67.9437	61.5817	-1011.9664	95.5342	-138.1881
189	1224.5339	-81.3793	99.5345	-989.6008	107.2438	-171.9849
190	1210.4172	-94.5219	136.6595	-976.6891	122.3354	-213.3309
191	1199.7002	-111.0450	180.8519	-870.9406	136.9814	-253.2969
192	1089.8339	-127.1327	224.4845	-748.0850	155.0114	-301.2397
193	957.1364	-146.5697	275.1872	-516.8036	172.5027	-347.5398
194	710.0380	-165.4247	324.6855	-244.4642	193.2017	-401.3380
195	416.7017	-187.4270	381.6278	150.0237	213.2697	-454.0777
196	-3.1503	-208.7505	437.4874	603.8172	236.2752	-514.0722
197	-486.1006	-232.9225	500.4616	1190.3177	258.5978	-572.8192
198	-1104.5107	-256.3387	561.9955	1846.4186	283.4658	-638.5610
199	-1793.9844	-282.1800	630.7148	2643.0476	307.6161	-702.9427
200	-2625.0869	-307.2061	698.2832	3510.0159	309.5993	-714.5726
201	864.2195	-44.9824	-30.1509	-891.4271	51.9016	32.2650
202	911.8831	-29.1930	-92.8502	-788.3223	53.1900	24.7901
203	845.1387	-31.4591	-82.6261	-714.7887	55.4562	14.5653
204	806.6568	-34.7942	-68.8636	-666.2396	58.7995	0.7782
205	790.7183	-39.3197	-52.2267	-869.5208	64.6763	-47.5032
206	1023.1586	-46.4442	-0.5489	-946.2390	73.6574	-76.0795
207	1124.7490	-56.7446	31.0834	-967.0775	82.4590	-103.4393
208	1165.4340	-66.9145	61.3620	-1023.0319	94.5119	-138.0308
209	1235.5870	-80.3672	99.7243	-1003.6885	106.2321	-172.1983
210	1224.5840	-93.5297	136.5372	-993.8134	121.3550	-213.1975
211	1216.7805	-110.0762	181.0459	-890.9489	136.0028	-253.4506
212	1109.9630	-126.1521	224.1585	-771.1719	154.0303	-300.8552
213	979.9996	-145.5662	275.1329	-542.6568	171.4893	-347.6116
214	735.9143	-164.4018	324.7334	-273.2969	192.1891	-401.3601
215	445.4874	-186.4315	381.6617	118.1044	212.2675	-454.0363
216	28.8087	-207.7584	437.4772	568.9539	235.2905	-514.0892
217	-451.4524	-231.9466	500.1607	1152.6992	257.6222	-572.5510
218	-1066.6766	-255.3569	562.3102	1805.6760	282.4825	-638.8329
219	-1753.2466	-281.1923	630.9606	2599.4565	306.6313	-703.1891
220	-2581.7842	-306.2234	697.3450	3463.6838	308.6133	-713.6903
221	834.7328	-42.7550	-30.3405	-868.0018	49.5957	32.5015
222	888.4726	-26.8864	-93.0089	-771.8216	50.8855	24.9334
223	828.6844	-29.1512	-82.5911	-705.2057	53.1549	14.5057
224	797.0979	-32.5040	-68.8671	-663.5861	56.5048	0.7976
225	788.0534	-37.0353	-52.2342	-873.6099	62.4712	-47.4971

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	1027.2795	-44.2501	-0.4867	-956.8553	71.4794	-76.1437
227	1135.3453	-54.5771	30.9180	-984.1268	80.2976	-103.2945
228	1182.3521	-64.7662	61.5841	-1046.3625	92.3651	-138.2533
229	1258.7299	-78.2397	99.5256	-1033.3262	104.0962	-171.9230
230	1254.0103	-91.3949	136.5430	-1029.4797	119.2202	-213.2965
231	1252.1406	-107.9446	181.1083	-932.7579	133.8686	-253.4870
232	1151.3986	-124.0119	224.2166	-819.0664	151.8880	-300.8679
233	1027.6093	-143.4482	275.0673	-596.5763	169.3692	-347.5401
234	789.4010	-162.2881	324.7123	-333.2109	190.0619	-401.3967
235	505.0575	-184.3007	381.7421	52.3219	210.1503	-454.1502
236	94.2448	-205.6417	437.6277	496.9931	233.1719	-514.1910
237	-379.7600	-229.8486	500.4116	1074.7766	255.5251	-572.8134
238	-989.2505	-253.2675	562.0549	1721.8146	280.3917	-638.6232
239	-1669.4479	-279.1046	631.2765	2509.0898	304.5361	-703.4789
240	-2491.3608	-304.1279	698.1559	3366.7925	306.5005	-714.4854
241	677.1052	-30.8352	-22.3169	-735.5021	36.6129	24.3047
242	756.1821	-13.9194	-84.7760	-678.3946	37.9259	16.6822
243	735.5093	-16.2304	-74.4089	-650.8188	40.2308	6.3370
244	742.9057	-19.6375	-60.7074	-832.9513	44.7412	-34.5860
245	957.5195	-25.3401	-16.7636	-894.3613	50.8562	-55.5901
246	1047.8104	-32.7214	7.3411	-1011.7946	59.9847	-83.9655
247	1189.7603	-43.1813	39.2345	-1072.5403	68.9219	-111.6483
248	1269.8929	-53.5042	69.6198	-1167.1833	81.1499	-146.2194
249	1378.1453	-67.1402	107.5142	-1185.7122	93.0196	-179.9815
250	1404.2946	-80.4657	145.0365	-1212.0991	108.3171	-221.7708
251	1432.3132	-97.1994	189.3425	-1144.8140	123.1514	-261.7138
252	1360.3774	-113.4631	232.7074	-1059.0632	141.3585	-309.4333
253	1263.9916	-133.0648	283.7123	-863.9822	158.9956	-356.2020
254	1052.7384	-152.0797	333.6805	-627.0809	179.8669	-410.3325
255	794.7726	-174.2604	390.6510	-267.8608	200.0960	-462.9804
256	410.0332	-195.7458	446.4801	150.9373	223.2540	-523.1066
257	-37.7135	-220.0292	509.6048	702.4117	245.6839	-581.9625
258	-620.1191	-243.5126	571.7439	1321.1787	270.5794	-648.2949
259	-1271.6256	-269.3570	639.9803	2080.5061	294.7527	-712.2427
260	-2063.5269	-294.3618	707.6471	2905.2793	296.5262	-724.8012
261	429.1930	-16.3065	21.5127	-575.4191	13.4347	-5.7975
262	588.6661	3.7824	-39.1992	-576.9301	14.2142	-11.8528
263	611.9438	2.4257	-30.8931	-597.1513	15.5756	-20.1835
264	653.4962	0.4397	-20.2972	-680.1478	18.8349	-50.1348
265	756.9146	-3.5230	11.6137	-831.8157	24.5615	-73.2017
266	927.6850	-9.9942	37.5231	-938.5604	29.6984	-94.0226
267	1051.7266	-15.9287	59.8349	-1048.6245	35.7414	-116.3122
268	1176.7419	-22.8285	85.1644	-1156.8339	42.7377	-141.7631
269	1297.3510	-30.6961	112.7735	-1257.8250	50.7149	-169.3056
270	1407.7394	-39.6232	142.2002	-1345.6276	59.7277	-198.6625
271	1501.5657	-49.5439	173.8422	-1414.1018	69.7387	-230.4270
272	1572.2405	-60.5863	208.5876	-1456.3949	80.8546	-265.1661
273	1613.0969	-72.6822	244.8961	-1503.9008	95.4186	-306.8588
274	1654.7770	-88.3180	289.3599	-1468.9513	108.7852	-345.9209
275	1609.7678	-102.6854	330.2205	-1386.6790	123.1873	-386.7234
276	1512.6671	-118.1914	373.5484	-1249.5022	138.7505	-430.0933
277	1356.0520	-134.8789	419.2986	-1049.8068	155.4719	-475.8141
278	1132.2294	-152.6656	466.9121	-780.2384	173.2973	-523.4092
279	833.1738	-171.6124	517.1532	-432.8163	192.2621	-573.6283
280	451.9432	-191.6946	569.1229	-0.2746	212.3736	-625.5461

ENVOLVENTE MINIMOS TORSORES TREN UIC-71, via 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.1920	154.6863	-622.6132	-341.8028	-152.0003	617.1479
2	305.1144	135.6844	-572.8141	-598.4200	-133.0190	567.3229
3	529.2559	117.6101	-525.1163	-776.0781	-114.9681	519.7164
4	685.9253	101.6562	-480.1950	-891.1820	-99.0478	474.8442
5	775.0713	86.1537	-437.3624	-911.4657	-81.0523	426.4060
6	769.9723	68.4629	-390.9044	-890.5560	-65.9899	385.4021
7	743.9970	55.1374	-352.3864	-829.8705	-52.7177	346.9802
8	685.6898	43.5693	-316.2854	-741.2408	-41.2094	310.9115
9	582.7392	32.4015	-282.4251	-609.2428	-30.1102	276.9185
10	433.1713	21.4022	-250.5998	-431.4240	-19.1833	245.2093
11	296.5793	13.1843	-221.1828	-273.4159	-11.0533	215.7242
12	102.8632	4.1583	-194.0704	-56.9486	-2.1063	188.6323
13	-54.1046	-2.0028	-168.9340	169.9742	5.8135	158.0832
14	-294.2517	-10.0540	-140.9397	371.8662	11.8033	135.4837
15	-479.3231	-15.2084	-120.3406	568.6391	16.8391	114.8695
16	-676.5097	-20.0387	-102.4560	776.1207	21.5532	97.1324
17	-831.2013	-23.0864	-86.5223	936.6090	24.4846	81.4795
18	-987.3639	-25.8119	-73.0530	1097.5012	27.0971	68.7831
19	-1078.7357	-26.6368	-62.2455	1188.9076	27.8121	59.4105
20	-1253.5205	-29.3287	-55.7529	1367.4705	6.0322	113.7564
21	-1361.3500	214.8341	-721.8882	732.5153	-236.7799	773.5252
22	-750.2512	214.0026	-712.6959	149.5347	-212.6465	708.5517
23	-202.3079	190.8112	-650.7972	-292.1366	-187.8147	642.2275
24	205.0909	167.0233	-587.6356	-668.3863	-165.3995	583.3482
25	549.0457	145.7746	-531.9101	-910.9613	-142.3173	523.3458
26	762.4453	123.9284	-475.0852	-1095.7762	-122.1169	470.8523
27	922.0793	105.0420	-425.9175	-1157.2345	-101.2860	417.3388
28	963.4047	85.5428	-375.1614	-1178.0941	-83.6186	370.8826
29	969.4629	69.3207	-332.2777	-1088.7642	-65.4255	323.6859
30	871.1416	52.5274	-287.8661	-981.9202	-50.5755	283.5280
31	761.5361	39.1337	-251.0745	-780.3675	-35.2633	242.5855
32	563.4961	25.2630	-213.3483	-587.7278	-23.3680	209.1097
33	380.1883	14.7903	-182.9206	-317.7087	-11.1108	174.2848
34	118.4360	3.6386	-151.3192	-74.6151	-1.8738	147.0689
35	-89.1343	-3.6987	-127.0646	210.8112	7.0260	118.4797
36	-378.8403	-12.3121	-102.0334	470.6786	13.8619	97.7323
37	-565.8467	-16.5979	-84.0060	722.7165	19.4230	75.7520
38	-838.6788	-22.5252	-65.6571	957.7755	23.7978	61.8046
39	-978.3599	-24.3119	-54.0957	1149.0729	26.5712	48.6123
40	-1204.3286	-27.8470	-44.2762	1333.2004	4.5566	103.4159
41	-1286.3999	213.2871	-720.9275	658.1086	-235.0457	773.4288
42	-678.5362	212.3324	-712.5660	81.3319	-210.9370	708.4097
43	-137.6844	189.1965	-650.7414	-354.2125	-186.1402	642.1839
44	262.7268	165.4770	-587.6102	-722.1136	-163.8295	583.3794
45	597.9065	144.3342	-532.0744	-956.2952	-140.8464	523.5106
46	803.1595	122.5949	-475.0481	-1132.6829	-120.7707	470.7360
47	954.5679	103.8528	-425.6360	-1186.2507	-100.0970	417.0510
48	988.3912	84.5461	-375.0113	-1199.8934	-82.6321	370.7522
49	987.6124	68.4855	-332.0872	-1104.0762	-64.6143	323.5586
50	883.5109	51.8867	-287.9038	-992.1564	-49.9505	283.5569
51	769.0404	38.6301	-250.9686	-785.9436	-34.7950	242.3802
52	567.6200	24.9418	-213.1381	-590.6687	-23.0644	208.8681
53	380.0774	14.5286	-182.7256	-316.4900	-10.8899	174.1733
54	125.3392	3.8646	-151.1849	-82.0896	-2.1280	146.8786

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	-114.5172	-4.5042	-127.1677	238.6498	7.7883	118.6041
56	-359.3797	-11.4907	-101.8667	448.7386	13.0147	97.5942
57	-596.7743	-17.2337	-84.2243	755.3614	20.0174	75.9783
58	-841.4057	-22.2950	-65.6524	959.6565	23.5475	61.8089
59	-1012.2599	-24.8391	-54.4188	1184.1981	27.0645	48.9552
60	-1205.2284	-27.5486	-44.6323	1333.0009	4.2550	103.7876
61	-1281.0806	213.1774	-720.9161	652.9021	-234.9162	773.4110
62	-673.1841	212.2052	-712.9148	76.0689	-210.8060	708.7852
63	-132.8718	189.0874	-651.0837	-358.6894	-186.0264	642.5656
64	266.8446	165.3611	-587.9878	-725.9852	-163.7129	583.6789
65	601.7410	144.2493	-532.0540	-959.9927	-140.7642	523.5496
66	806.2092	122.5492	-475.5262	-1135.6294	-120.7278	471.2315
67	957.1985	103.7928	-425.7739	-1188.6890	-100.0395	417.1607
68	990.4191	84.4939	-375.2057	-1201.8087	-82.5760	370.9433
69	989.2985	68.4268	-332.1303	-1105.5187	-64.5481	323.5899
70	884.7061	51.8293	-287.9328	-993.1329	-49.8942	283.5943
71	770.1554	38.6048	-250.9863	-786.9380	-34.7787	242.3513
72	568.0421	24.9161	-213.0412	-590.9963	-23.0361	208.7760
73	382.0168	14.5755	-182.6550	-318.5455	-10.9459	174.1087
74	125.3741	3.8648	-151.1531	-82.1055	-2.1222	146.8067
75	-115.8720	-4.5446	-127.1177	240.1222	7.8242	118.5496
76	-387.0380	-12.3426	-101.9304	478.9389	13.8637	97.6692
77	-596.9705	-17.2190	-84.2015	755.5214	19.9981	75.9830
78	-841.5722	-22.2647	-65.6586	959.7471	23.5172	61.8031
79	-1015.0165	-24.8727	-54.9049	1187.0031	27.0939	49.4671
80	-1204.8965	-27.4975	-44.6119	1332.5286	4.2033	103.7737
81	-1259.1956	212.7345	-721.5200	632.3620	-234.4719	774.0739
82	-652.7033	211.7672	-713.3802	57.0368	-210.3694	709.2553
83	-114.3544	188.6635	-651.5337	-376.1227	-185.6015	643.0177
84	284.2773	164.9475	-588.3872	-742.1606	-163.3007	584.1136
85	617.1306	143.8369	-532.5686	-974.0544	-140.3463	524.0186
86	819.4027	122.1420	-475.6049	-1147.6632	-120.3228	471.2926
87	962.9329	103.6198	-426.0150	-1193.8745	-99.8615	417.4069
88	990.6926	84.4986	-375.2159	-1202.1512	-82.5831	370.9707
89	989.7203	68.4584	-332.3403	-1106.0466	-64.5908	323.7484
90	884.7608	51.8439	-287.8201	-993.1827	-49.9001	283.3900
91	770.2234	38.6087	-250.8275	-786.9707	-34.7815	242.2829
92	567.9018	24.9130	-213.0440	-590.8725	-23.0354	208.7761
93	381.9383	14.5727	-182.6324	-318.4624	-10.9388	174.0318
94	121.8072	3.7187	-151.1142	-78.1189	-1.9769	146.7996
95	-114.7261	-4.5021	-127.0586	238.8774	7.7777	118.4926
96	-388.4961	-12.3796	-101.9818	480.5157	13.9042	97.6731
97	-599.4019	-17.2843	-84.4398	758.1463	20.0624	76.2277
98	-844.1841	-22.3263	-65.9328	962.5362	23.5774	62.0964
99	-1015.1066	-24.8742	-55.0448	1187.1306	27.0948	49.6300
100	-1205.1046	-27.4971	-44.8302	1332.6881	4.2024	104.0035
101	-1246.6566	212.4738	-722.0274	620.4593	-234.2127	774.6215
102	-640.9445	211.4955	-713.7312	46.0995	-210.0962	709.6118
103	-102.8822	188.3638	-651.8501	-386.7217	-185.3010	643.2947
104	294.2432	164.6668	-588.5681	-751.2498	-163.0173	584.2899
105	626.7773	143.5363	-532.8066	-982.8787	-140.0478	524.3031
106	829.2273	121.8206	-475.9445	-1156.4158	-120.0001	471.6018
107	957.5269	103.8158	-426.1119	-1189.0504	-100.0592	417.4938
108	990.7140	84.4910	-375.3981	-1202.1768	-82.5755	371.0789
109	988.0421	68.5108	-332.1511	-1104.5237	-64.6364	323.5969
110	884.0409	51.8967	-287.9434	-992.6759	-49.9596	283.5749
111	767.9259	38.7131	-250.9170	-785.0096	-34.8847	242.3093

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	566.0546	25.0235	-213.0449	-589.3288	-23.1415	208.7874
113	380.4079	14.6865	-182.6561	-317.2519	-11.0573	174.0193
114	99.9806	3.0405	-151.1550	-54.2554	-1.3071	146.8322
115	-115.5718	-4.3882	-127.0402	239.3634	7.6674	118.4672
116	-389.9636	-12.3069	-102.2207	481.7646	13.8302	97.9464
117	-598.7306	-17.1536	-84.2961	757.1113	19.9336	76.0959
118	-844.1429	-22.2265	-66.3453	962.2130	23.4795	62.5113
119	-1014.7498	-24.7660	-55.0287	1186.4406	26.9877	49.6318
120	-1205.4830	-27.4421	-45.8658	1332.9247	4.1466	105.0666
121	-1245.0620	212.4599	-722.1594	618.8558	-234.2009	774.7320
122	-639.2948	211.4902	-714.1216	44.4796	-210.0937	710.0137
123	-101.2221	188.3852	-652.2496	-388.4157	-185.3274	643.7323
124	296.3318	164.6572	-589.0015	-753.4324	-163.0082	584.7243
125	627.8213	143.5541	-533.1378	-983.9770	-140.0662	524.6396
126	830.2940	121.8406	-476.2625	-1157.5275	-120.0166	471.9249
127	966.8232	103.5119	-426.3971	-1197.3942	-99.7493	417.7580
128	991.0598	84.5074	-375.5448	-1202.5024	-82.5908	371.1775
129	985.5342	68.6150	-332.1604	-1102.3828	-64.7399	323.5990
130	881.4738	52.0260	-287.9500	-990.4769	-50.0861	283.6643
131	767.1177	38.8031	-251.1054	-784.4504	-34.9755	242.4934
132	564.9288	25.0984	-213.1065	-588.4428	-23.2183	208.6980
133	361.6303	13.9811	-182.5736	-296.3584	-10.3487	173.9353
134	92.9719	3.9155	-151.0948	-49.8605	-2.1793	146.8105
135	-123.4935	-3.3881	-127.0888	244.3058	6.6647	118.5716
136	-391.8996	-11.2112	-102.0871	480.4151	12.7338	97.7611
137	-598.6556	-16.4117	-84.7827	754.7913	19.1907	76.5908
138	-840.8213	-21.4534	-66.3268	956.5613	22.7050	62.5169
139	-1014.0262	-24.6791	-55.3470	1185.4286	26.9002	49.9684
140	-1204.0619	-27.3285	-46.2037	1331.1561	4.0333	105.4171
141	-1243.1503	212.3567	-722.1887	617.3500	-234.0948	774.7590
142	-656.9389	213.2719	-714.4896	56.6135	-211.8729	710.4040
143	-113.3803	190.1429	-652.6233	-381.3675	-187.0782	644.1538
144	289.5583	166.4200	-589.4240	-751.9633	-164.7739	585.1068
145	626.5531	145.3393	-533.2885	-988.0233	-141.8542	524.7854
146	835.5521	123.8008	-476.4921	-1168.7322	-121.9807	472.1880
147	984.7376	105.0380	-426.6065	-1219.9769	-101.2803	417.9374
148	1003.2496	86.0965	-375.5663	-1219.4531	-84.1809	371.1791
149	993.6360	69.4225	-332.1490	-1112.8658	-65.5483	323.6025
150	892.0005	52.8297	-287.9314	-1003.4320	-50.8874	283.5773
151	766.4973	38.7965	-250.9012	-783.8094	-34.9723	242.3054
152	564.8225	25.1072	-213.0071	-588.3540	-23.2254	208.5979
153	362.0708	15.9572	-182.4537	-302.7423	-12.3305	173.8392
154	111.1409	5.3031	-150.9479	-72.1821	-3.5617	146.6619
155	-126.2187	-2.7821	-127.0311	245.2059	6.0615	118.4782
156	-393.0181	-10.6088	-102.0096	479.7253	12.1312	97.6634
157	-597.5581	-15.4791	-84.8446	750.8779	18.2583	76.6574
158	-836.9202	-20.5215	-66.4142	949.8577	21.7737	62.6089
159	-1004.8557	-23.3554	-55.5776	1172.3372	25.5763	50.2135
160	-1196.8396	-26.6300	-45.7770	1321.8706	3.3344	104.9873
161	-1253.4973	213.1635	-722.7257	625.1778	-234.9050	775.3526
162	-651.5394	212.7877	-714.7262	52.8096	-211.3899	710.6372
163	-111.3489	189.8803	-652.8360	-382.7772	-186.8192	644.3435
164	290.0243	166.4137	-589.5560	-752.2495	-164.7639	585.2907
165	627.7719	145.2723	-533.7221	-989.1091	-141.7840	525.1248
166	831.3456	123.4681	-476.2556	-1163.5323	-121.6482	471.9244
167	984.9915	104.7333	-426.7145	-1219.2622	-100.9759	418.2410
168	1020.9050	85.4192	-376.1453	-1235.0773	-83.4900	371.7300

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	984.9561	68.5586	-332.3260	-1101.6407	-64.6877	323.6389
170	880.5905	51.9868	-287.8950	-989.4940	-50.0567	283.4833
171	766.3480	38.7805	-250.7843	-783.6222	-34.9489	242.1853
172	564.5891	25.0908	-212.9296	-588.0877	-23.2145	208.6456
173	371.7984	15.4437	-182.5333	-310.8954	-11.8101	173.8662
174	88.1062	4.7895	-151.0982	-47.6237	-3.0528	146.7745
175	-124.0320	-2.6960	-126.9996	242.7959	5.9768	118.4581
176	-391.0337	-10.2560	-102.2754	476.6694	11.7803	97.9624
177	-594.4946	-15.1255	-84.6568	746.7827	17.9032	76.4880
178	-834.1666	-20.4444	-66.5647	946.8529	21.6961	62.7414
179	-1003.0597	-23.4904	-55.8180	1170.9456	25.7109	50.4688
180	-1195.2714	-26.7458	-46.0371	1320.5953	3.4506	105.2495
181	-1249.5521	212.8693	-722.6440	622.2664	-234.6084	775.2651
182	-642.7153	211.8965	-714.5097	46.6391	-210.4970	710.3819
183	-109.4683	189.6087	-652.6921	-383.8157	-186.5451	644.2216
184	291.9595	165.8871	-589.5203	-752.6283	-164.2398	585.2657
185	627.8182	144.9726	-533.5527	-988.3190	-141.4871	525.0292
186	833.5892	123.0921	-476.5170	-1164.5927	-121.2685	472.1205
187	962.3040	104.7960	-426.3701	-1196.7955	-101.0395	417.7646
188	998.4911	85.5088	-375.7451	-1212.9255	-83.5949	371.4365
189	982.0778	68.3508	-332.3674	-1098.1273	-64.4862	323.7185
190	877.0566	51.7806	-287.7972	-985.3293	-49.8375	283.4640
191	762.2910	38.5633	-250.9918	-778.8959	-34.7327	242.3257
192	537.6667	26.4720	-212.8689	-565.3370	-24.5966	208.4796
193	356.1462	16.1334	-182.4330	-297.2950	-12.4888	173.9134
194	94.9568	5.4008	-151.0329	-56.3012	-3.6657	146.6623
195	-121.4697	-2.2998	-127.1520	239.0114	5.5782	118.5839
196	-386.2886	-9.8869	-102.1564	470.8326	11.4096	97.8749
197	-588.6466	-14.7539	-84.7035	739.8148	17.5329	76.5088
198	-826.6810	-19.9984	-66.6858	938.0386	21.2494	62.8679
199	-992.6774	-22.8015	-55.8418	1158.4896	25.0210	50.4993
200	-1176.4552	-25.4353	-45.8670	1297.8763	2.1404	105.0728
201	-1251.4125	213.0011	-722.7499	623.5622	-234.7396	775.3713
202	-645.9349	212.2087	-714.7446	48.9585	-210.8101	710.6744
203	-105.7626	189.0759	-652.8257	-385.8396	-186.0125	644.3234
204	293.1506	165.6220	-589.4900	-753.1647	-163.9764	585.2038
205	628.5553	144.4975	-533.5712	-987.5574	-141.0122	525.0083
206	832.5814	122.7077	-476.3277	-1162.4143	-120.8886	471.9790
207	961.9950	104.7479	-426.5575	-1196.3318	-100.9923	418.0233
208	999.4945	85.3822	-375.9624	-1213.5524	-83.4577	371.5579
209	986.0812	68.7332	-332.1893	-1103.2614	-64.8561	323.5574
210	882.3436	52.1288	-287.9074	-991.6691	-50.1911	283.5588
211	768.6900	38.9071	-250.8764	-786.3191	-35.0789	242.2972
212	567.3353	25.2172	-213.0049	-591.2110	-23.3436	208.6058
213	364.9256	16.5130	-182.4586	-307.2419	-12.8775	173.8407
214	113.9902	5.7904	-150.9617	-76.5084	-4.0522	146.6463
215	-97.0426	-1.4433	-127.0818	212.0209	4.7265	118.5461
216	-358.9337	-9.2441	-102.0002	441.5483	10.7643	97.6776
217	-559.2817	-14.1055	-84.8128	708.4717	16.8837	76.6260
218	-794.6997	-19.1891	-66.3797	903.6401	20.4402	62.5771
219	-957.7351	-21.9411	-55.5225	1120.9210	24.1591	50.1600
220	-1155.3309	-26.1860	-46.0430	1278.9656	2.8914	105.2609
221	-1226.3986	211.1224	-722.1313	604.4189	-232.8552	774.7570
222	-624.7179	210.1405	-714.1906	33.8744	-208.7398	710.1027
223	-90.8899	187.0125	-652.2878	-394.7185	-183.9454	643.7848
224	303.0610	163.2873	-588.9654	-755.9664	-161.6368	584.6827
225	631.4363	142.1787	-533.0487	-983.4212	-138.6888	524.4677

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	827.0143	120.5537	-475.7168	-1150.4509	-118.7299	471.4024
227	971.9626	101.8388	-426.1659	-1197.5590	-98.0744	417.5857
228	981.0708	83.2482	-375.2130	-1188.7352	-81.3302	370.8522
229	976.4097	67.2082	-331.8760	-1088.9093	-63.3346	323.2562
230	864.2220	50.8280	-287.3407	-969.6845	-48.8915	282.9329
231	746.9884	37.6404	-250.3337	-760.8031	-33.8097	241.7635
232	542.1432	23.9659	-212.4766	-562.2478	-22.0959	208.1113
233	341.7514	14.7539	-181.9830	-278.8453	-11.1238	173.3523
234	83.7687	4.3391	-150.4938	-41.9589	-2.6014	146.1317
235	-131.0321	-2.9420	-126.6278	250.3932	6.2205	118.1034
236	-396.9358	-10.7218	-101.5015	483.9126	12.2450	97.2143
237	-601.3569	-15.5744	-84.2497	754.7289	18.3479	76.0340
238	-841.6777	-20.8946	-66.2122	955.5536	22.1416	62.4060
239	-1007.9282	-23.4290	-55.0855	1175.1881	25.6395	49.7374
240	-1199.6613	-26.6924	-45.4198	1324.6042	3.4086	104.6279
241	-1280.9973	215.2653	-712.0140	646.3308	-236.9431	764.6194
242	-667.0916	214.2550	-704.1287	63.5485	-212.8325	700.0426
243	-120.5702	191.1347	-642.2430	-377.4952	-188.0224	633.7345
244	285.6127	167.4223	-578.9600	-750.8758	-165.7482	574.6594
245	626.2183	146.3351	-522.9863	-990.6818	-142.8004	514.4508
246	836.3429	124.7139	-465.9604	-1172.0493	-122.8706	461.5869
247	972.0494	106.8680	-415.9467	-1212.4600	-103.0683	407.3694
248	1015.1226	87.6430	-365.3498	-1235.8176	-85.7059	361.0545
249	1024.8960	71.7274	-322.0576	-1150.6349	-67.8314	313.3548
250	928.0282	55.4766	-277.2557	-1047.2437	-53.5279	272.8630
251	827.0094	42.4077	-240.4410	-854.9395	-38.5657	231.8712
252	639.3614	28.8767	-202.5003	-674.2330	-27.0010	198.1034
253	452.4789	20.3601	-171.9781	-406.7704	-16.7449	163.3186
254	216.0249	10.0910	-140.5024	-191.8843	-8.3675	136.1962
255	24.1858	2.7613	-116.5265	76.6824	0.4731	108.0154
256	-218.9270	-4.8407	-91.5931	287.1962	6.3323	87.2762
257	-400.5728	-9.5527	-74.1764	532.9077	12.2456	65.9983
258	-615.1978	-14.4096	-55.7699	707.6775	15.6083	51.9389
259	-766.1509	-17.9320	-45.2577	911.9552	20.0293	39.8636
260	-928.9348	-20.4196	-35.2698	1031.9941	-2.8233	92.9282
261	-996.7869	206.5508	-537.7914	552.5123	-227.8738	586.4523
262	-565.7464	210.6618	-541.4598	125.2475	-209.0790	536.0875
263	-160.1017	192.4367	-493.2203	-240.4076	-190.7415	487.7999
264	184.1560	174.7537	-447.0616	-545.0560	-172.9494	441.6583
265	468.2479	157.6410	-403.2744	-789.8482	-155.7261	397.7931
266	691.4020	141.2269	-361.2250	-975.0038	-139.2216	355.7936
267	864.1756	125.3642	-322.0929	-1110.0970	-123.2587	316.6251
268	970.0995	110.7055	-284.5172	-1180.5763	-108.5189	278.9364
269	1023.3204	97.0674	-249.2924	-1160.3004	-92.4550	238.3923
270	1012.9218	81.1895	-211.3307	-1151.9659	-78.7931	205.9079
271	994.0363	68.6944	-181.0511	-1100.7573	-66.2292	175.4903
272	940.4333	57.1313	-152.5565	-1016.5073	-54.6064	147.0327
273	859.8149	46.4356	-126.7966	-906.9294	-43.8760	121.3045
274	755.9444	36.7299	-103.1403	-776.0081	-34.1376	97.6632
275	635.1735	28.0670	-81.9655	-630.2780	-25.4380	76.5150
276	499.9266	20.8230	-63.0162	-473.0325	-18.1656	57.5319
277	356.6153	15.3472	-46.3044	-134.1745	-7.1346	20.0268
278	51.7545	4.3383	-11.1183	-61.5150	-4.3383	11.1190
279	6.8809	2.9782	-4.4423	-13.5232	-3.0036	4.4428
280	-5.4899	2.4397	-0.0173	-0.0003	-2.4397	0.0172

ENVOLVENTE DE MAX. FLECTORES CON SOBRECARGA UNIFORME

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0033	-7.3059	-0.0282	16.4357	7.3059	0.0283
2	72.1477	30.2717	0.0721	-136.2089	-26.6719	-0.0724
3	136.2074	26.6712	0.1236	-192.1801	-23.0706	-0.1233
4	192.1787	23.0732	0.0060	-240.0605	-19.4720	-0.0069
5	240.0617	19.4768	-0.0328	-279.8239	-15.8777	0.0339
6	279.8219	15.8840	0.0732	-311.5074	-12.2842	-0.0716
7	311.5097	12.2884	0.0731	-335.1096	-8.6886	-0.0726
8	335.1128	8.6956	-0.0043	-350.6330	-5.0944	0.0042
9	350.6354	5.0978	-0.0564	-358.0547	-1.4988	0.0566
10	358.0590	1.4914	0.0803	-357.3662	2.1084	-0.0794
11	357.3755	-2.0995	-0.1359	-348.6009	5.6999	0.1355
12	348.6039	-5.7033	0.0770	-331.7197	9.3031	-0.0763
13	331.7194	-9.3052	-0.1292	-306.7311	12.9056	0.1283
14	306.7246	-12.9132	-0.0575	-273.6299	16.5122	0.0574
15	273.6295	-16.5110	-0.1221	-232.4234	20.1114	0.1231
16	232.4216	-20.1124	-0.0299	-183.1014	23.7136	0.0302
17	183.1135	-23.5987	-0.0615	-125.9839	27.1977	0.0621
18	139.3227	-14.1454	-0.0525	-103.4405	17.7458	0.0526
19	114.0206	-7.0853	-0.0795	-94.0327	10.6849	0.0796
20	102.9461	-1.0963	-0.0263	-96.4283	4.6967	0.0264
21	103.2789	-7.4962	0.0187	-80.7962	7.4962	-0.0187
22	87.7197	-3.0183	0.0053	-71.4631	7.8186	-0.0053
23	87.2644	4.6312	0.0091	-93.9573	0.1691	-0.0092
24	106.6040	10.0692	0.0139	-129.6122	-5.2689	-0.0141
25	146.4186	16.7146	0.0186	-189.3645	-11.9143	-0.0177
26	211.6135	26.5467	0.0078	-284.0542	-21.7464	-0.0076
27	284.0551	21.7503	-0.0734	-342.1017	-16.9508	0.0746
28	342.1012	16.9470	0.0253	-385.7444	-12.1467	-0.0257
29	385.7453	12.1425	-0.0853	-414.9709	-7.3431	0.0861
30	414.9744	7.3395	0.0363	-429.7964	-2.5392	-0.0358
31	429.7929	2.5374	0.0313	-430.2057	2.2628	-0.0332
32	430.2020	-2.2668	-0.0942	-416.2098	7.0662	0.0936
33	416.2117	-7.0580	-0.0970	-387.8424	11.8574	0.0976
34	387.8431	-11.8613	0.0195	-345.0551	16.6616	-0.0208
35	345.0576	-16.6638	-0.1336	-287.8532	21.4647	0.1344
36	287.8565	-21.4627	-0.0003	-216.2621	26.2629	0.0008
37	223.1320	-18.6281	-0.0458	-160.0522	23.4276	0.0456
38	175.0487	-13.7143	0.0211	-126.7027	18.5145	-0.0207
39	148.3490	-5.6440	-0.0120	-124.2215	10.4434	0.0120
40	142.1241	1.8955	0.0302	-140.6110	2.9047	-0.0303
41	153.4221	-8.5657	0.0313	-127.7229	8.5657	-0.0313
42	135.3532	-4.1052	-0.0110	-115.8410	8.9046	0.0114
43	134.4658	3.4750	0.0171	-137.6907	1.3252	-0.0171
44	153.8692	8.8188	-0.0021	-173.1244	-4.0185	0.0016
45	195.1631	16.7382	-0.0972	-238.1757	-11.9387	0.0972
46	263.1915	24.9104	-0.0635	-330.7275	-20.1102	0.0640
47	330.7280	20.1113	-0.0650	-383.8655	-15.3110	0.0657
48	383.8585	15.3121	-0.0056	-422.5904	-10.5133	0.0065
49	422.5847	10.5198	-0.0775	-446.9428	-5.7195	0.0783
50	446.9487	5.7209	-0.0697	-456.9124	-0.9206	0.0703
51	456.9144	0.9212	0.0587	-452.4790	3.8798	-0.0590
52	452.4756	-3.8803	-0.0009	-433.6419	8.6792	0.0004
53	433.6468	-8.6843	0.0518	-400.3842	13.4854	-0.0522
54	400.3789	-13.4813	0.0009	-352.7469	18.2802	-0.0015

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	352.7398	-18.2790	0.1029	-290.7085	23.0787	-0.1030
56	290.7084	-23.0776	0.0556	-214.2543	27.8787	-0.0574
57	225.6454	-16.5180	0.0650	-168.8951	21.3177	-0.0652
58	184.5537	-11.4494	0.0408	-143.0093	16.2491	-0.0408
59	165.2885	-3.2950	0.0152	-148.2066	8.0946	-0.0153
60	166.4341	4.2759	0.0494	-172.0626	0.5246	-0.0493
61	184.9431	-9.2398	-0.0035	-157.2248	9.2398	0.0036
62	164.9075	-4.7797	0.0371	-143.3663	9.5802	-0.0369
63	162.2090	2.7935	0.0406	-163.3903	2.0056	-0.0403
64	179.9059	10.9598	-0.0455	-205.5849	-6.1593	0.0450
65	219.4841	16.0394	-0.0142	-260.4025	-11.2395	0.0135
66	285.9391	24.2046	-0.2755	-351.3567	-19.4042	0.2753
67	351.3548	19.4066	-0.1190	-402.3748	-14.6067	0.1204
68	402.3770	14.6077	-0.1177	-439.0013	-9.8079	0.1179
69	439.0016	9.8037	-0.1188	-461.2153	-5.0038	0.1169
70	461.2059	5.0029	-0.1137	-469.0147	-0.2030	0.1151
71	469.0196	0.2000	0.0244	-462.4142	4.6007	-0.0243
72	462.4122	-4.5985	0.1000	-441.4187	9.3978	-0.1001
73	441.4129	-9.3959	0.0267	-406.0182	14.1965	-0.0276
74	406.0092	-14.1990	0.0929	-356.2198	18.9983	-0.0922
75	356.2224	-18.9965	0.1955	-292.0296	23.7966	-0.1937
76	292.0310	-23.7953	0.1972	-213.4427	28.5954	-0.1953
77	226.1811	-16.0948	0.0974	-170.6937	20.8949	-0.0964
78	186.3913	-11.0162	0.0358	-146.1408	15.8163	-0.0361
79	168.4642	-2.8539	0.0566	-152.7045	7.6534	-0.0565
80	170.9551	4.7202	-0.0008	-177.9158	0.0807	0.0008
81	190.8032	-9.3653	0.0244	-162.7092	9.3653	-0.0245
82	170.3963	-4.9060	0.0135	-148.4814	9.7056	-0.0132
83	167.3391	2.6683	0.0149	-168.1434	2.1320	-0.0150
84	184.7009	10.8352	-0.0781	-210.0065	-6.0349	0.0780
85	223.9429	15.9146	-0.1438	-264.4790	-11.1157	0.1446
86	290.0567	24.0771	-0.2916	-355.1035	-19.2760	0.2901
87	355.1033	19.2710	-0.2278	-405.7132	-14.4713	0.2292
88	405.7116	14.4749	-0.1088	-441.9372	-9.6743	0.1080
89	441.9328	9.6740	-0.2376	-463.7552	-4.8742	0.2370
90	463.7498	4.8783	-0.0301	-471.1867	-0.0791	0.0296
91	471.1893	0.0763	0.1133	-464.2232	4.7236	-0.1125
92	464.2222	-4.7245	0.0354	-442.8407	9.5259	-0.0358
93	442.8358	-9.5268	0.1078	-407.0554	14.3268	-0.1077
94	407.0578	-14.3287	0.1816	-356.8905	19.1273	-0.1813
95	356.8940	-19.1318	0.2257	-292.2880	23.9326	-0.2259
96	292.2913	-23.9271	0.2770	-213.3195	28.7265	-0.2770
97	226.4396	-15.8987	0.2069	-171.5411	20.6989	-0.2071
98	187.2423	-10.8172	0.1125	-147.5894	15.6174	-0.1120
99	169.9227	-2.6511	0.0738	-154.7648	7.4520	-0.0739
100	173.0280	4.9207	0.0006	-180.5912	-0.1219	-0.0006
101	193.4851	-9.4228	0.0585	-165.2137	9.4228	-0.0584
102	172.9020	-4.9634	-0.0046	-150.8136	9.7630	0.0046
103	169.6782	2.6104	-0.0196	-170.3094	2.1900	0.0192
104	186.8768	10.7753	-0.0479	-212.0022	-5.9755	0.0479
105	225.9455	15.8522	-0.1739	-266.3000	-11.0523	0.1744
106	291.8896	24.0128	-0.3959	-356.7260	-19.2130	0.3964
107	356.7292	19.2159	-0.2346	-407.1734	-14.4166	0.2336
108	407.1739	14.4130	-0.1833	-443.2217	-9.6116	0.1843
109	443.2307	9.6133	-0.1075	-464.8704	-4.8132	0.1068
110	464.8711	4.8118	-0.1099	-472.1092	-0.0118	0.1098
111	472.1103	0.0176	0.1107	-464.9661	4.7819	-0.1107

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	464.9631	-4.7889	0.1047	-443.4032	9.5883	-0.1053
113	443.4004	-9.5923	0.1062	-407.4324	14.3919	-0.1066
114	407.4240	-14.3839	0.3408	-357.0637	19.1850	-0.3417
115	357.0600	-19.1781	0.2972	-292.3428	23.9771	-0.2970
116	292.3440	-23.9706	0.4720	-213.2264	28.7711	-0.4725
117	226.4697	-15.8549	0.1718	-171.7117	20.6546	-0.1716
118	187.4036	-10.7776	0.1503	-147.8598	15.5789	-0.1509
119	170.1836	-2.6177	0.0091	-155.1365	7.4169	-0.0090
120	173.3842	4.9573	0.0755	-181.0577	-0.1579	-0.0753
121	193.9480	-9.4333	0.0029	-165.6440	9.4333	-0.0030
122	173.3300	-4.9737	0.0153	-151.2130	9.7731	-0.0154
123	170.0672	2.6034	-0.0094	-170.6773	2.1968	0.0095
124	187.2382	10.7712	-0.1014	-212.3565	-5.9702	0.1017
125	226.3203	15.8534	-0.2290	-266.6792	-11.0537	0.2292
126	292.3177	24.0154	-0.4962	-357.1581	-19.2157	0.4977
127	357.1565	19.2082	-0.3354	-407.5701	-14.4091	0.3359
128	407.5720	14.4055	-0.2203	-443.5831	-9.6056	0.2211
129	443.5919	9.6020	-0.0919	-465.2016	-4.8013	0.0899
130	465.2000	4.7962	-0.0900	-472.3871	0.0045	0.0904
131	472.3786	-0.0019	-0.0208	-465.1822	4.8012	0.0206
132	465.1862	-4.8046	0.1176	-443.5723	9.6048	-0.1179
133	443.5717	-9.6038	0.3183	-407.5677	14.4034	-0.3180
134	407.5628	-14.4030	0.4384	-357.1504	19.2034	-0.4390
135	357.1522	-19.2014	0.4467	-292.3395	24.0019	-0.4462
136	292.3415	-23.9963	0.4945	-213.1693	28.7954	-0.4945
137	226.4441	-15.8457	0.3338	-171.6994	20.6464	-0.3332
138	187.4129	-10.7643	0.1629	-147.9137	15.5650	-0.1621
139	170.2608	-2.5999	0.0326	-155.2656	7.3991	-0.0329
140	173.5258	4.9747	0.0834	-181.2493	-0.1751	-0.0835
141	194.1404	-9.4344	-0.0174	-165.8376	9.4344	0.0175
142	173.5253	-4.9740	0.0890	-151.4003	9.7743	-0.0890
143	170.2658	2.5979	0.0297	-170.8614	2.2011	-0.0296
144	187.4164	10.7635	-0.1322	-212.5117	-5.9623	0.1324
145	226.4513	15.8433	-0.1921	-266.7770	-11.0440	0.1923
146	292.3474	23.9992	-0.6230	-357.1519	-19.1986	0.6231
147	357.1541	19.1983	-0.4580	-407.5497	-14.3982	0.4588
148	407.5499	14.3968	-0.2700	-443.5347	-9.5973	0.2711
149	443.5419	9.5959	-0.1426	-465.1315	-4.7956	0.1417
150	465.1223	4.7957	-0.1386	-472.3057	0.0046	0.1398
151	472.3112	-0.0091	0.0751	-465.0844	4.8089	-0.0754
152	465.0814	-4.8060	0.0730	-443.4648	9.6058	-0.0744
153	443.4681	-9.6068	0.4003	-407.4490	14.4068	-0.4007
154	407.4511	-14.3995	0.3945	-357.0538	19.1995	-0.3959
155	357.0536	-19.1997	0.5027	-292.2380	24.0006	-0.5022
156	292.2386	-23.9980	0.5556	-213.0520	28.7975	-0.5563
157	226.3268	-15.8426	0.3877	-171.5997	20.6423	-0.3885
158	187.2905	-10.7640	0.1897	-147.8008	15.5638	-0.1902
159	170.1174	-2.6004	0.0544	-155.1115	7.4010	-0.0544
160	173.3624	4.9715	-0.0140	-181.0775	-0.1723	0.0139
161	193.9697	-9.4197	0.0185	-165.7036	9.4197	-0.0187
162	173.3914	-4.9606	0.0260	-151.3128	9.7600	-0.0260
163	170.1755	2.6148	-0.0280	-170.8185	2.1855	0.0280
164	187.3899	10.7823	-0.1364	-212.5337	-5.9825	0.1368
165	226.4882	15.8627	-0.3491	-266.8720	-11.0629	0.3494
166	292.4382	23.9931	-0.4860	-357.2119	-19.1930	0.4854
167	357.2121	19.1886	-0.4858	-407.5782	-14.3885	0.4862
168	407.5804	14.3810	-0.4852	-443.5252	-9.5809	0.4850

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	443.5306	9.5846	-0.1553	-465.0804	-4.7843	0.1555
170	465.0864	4.7887	-0.0790	-472.2438	0.0103	0.0789
171	472.2376	-0.0128	0.1891	-464.9892	4.8134	-0.1883
172	464.9784	-4.8129	0.1866	-443.3341	9.6135	-0.1858
173	443.3322	-9.6185	0.2690	-407.2793	14.4178	-0.2685
174	407.2742	-14.4196	0.5697	-356.8193	19.2191	-0.5687
175	356.8118	-19.2168	0.5013	-291.9439	24.0177	-0.5009
176	291.9472	-24.0221	0.6900	-212.6951	28.8212	-0.6894
177	225.9664	-15.8565	0.3554	-171.1807	20.6577	-0.3559
178	186.8895	-10.7746	0.2072	-147.3787	15.5731	-0.2076
179	169.7074	-2.6076	0.0798	-154.6764	7.4091	-0.0801
180	172.9400	4.9632	0.0085	-180.6300	-0.1631	-0.0087
181	193.5192	-9.3838	0.0327	-165.3690	9.3838	-0.0327
182	173.0583	-4.9249	0.0070	-151.0852	9.7245	-0.0069
183	169.9496	2.6497	0.0408	-170.6985	2.1502	-0.0410
184	187.2569	10.8137	-0.1486	-212.4961	-6.0137	0.1493
185	226.4329	15.8951	-0.2907	-266.9205	-11.0944	0.2910
186	292.2882	23.9286	-0.5971	-356.8686	-19.1292	0.5968
187	356.8641	19.1298	-0.3343	-407.0497	-14.3302	0.3335
188	407.0521	14.3331	-0.3326	-442.8517	-9.5334	0.3327
189	442.8595	9.5381	-0.2047	-464.2759	-4.7376	0.2048
190	464.2762	4.7340	0.0049	-471.2768	0.0661	-0.0038
191	471.2713	-0.0634	0.0004	-463.8818	4.8635	0.0005
192	463.8898	-4.8660	0.3426	-442.0900	9.6663	-0.3429
193	442.1021	-9.6746	0.3466	-405.8767	14.4749	-0.3475
194	405.8753	-14.4831	0.4196	-355.2361	19.2820	-0.4183
195	355.2375	-19.2783	0.6235	-290.1888	24.0789	-0.6226
196	290.1922	-24.0781	0.6782	-210.7676	28.8774	-0.6785
197	224.0191	-15.9146	0.3451	-169.0726	20.7147	-0.3449
198	184.7631	-10.8328	0.2097	-145.0680	15.6324	-0.2095
199	167.3890	-2.6658	0.0567	-152.1902	7.4662	-0.0568
200	170.4438	4.9082	-0.0503	-177.9693	-0.1078	0.0503
201	190.8666	-9.1828	0.0518	-163.3140	9.1828	-0.0518
202	171.0036	-4.7236	0.0597	-149.6361	9.5230	-0.0595
203	168.5007	2.8506	-0.0435	-169.8526	1.9488	0.0429
204	186.4135	11.0173	-0.1289	-212.2678	-6.2163	0.1294
205	226.2215	16.0978	-0.3069	-267.3121	-11.2980	0.3061
206	292.1092	23.8077	-0.5367	-356.3222	-19.0085	0.5351
207	356.3199	19.0100	-0.4315	-406.1510	-14.2101	0.4304
208	406.1577	14.2088	-0.4333	-441.5821	-9.4088	0.4326
209	441.5844	9.4020	-0.1141	-462.5901	-4.6016	0.1123
210	462.5898	4.5923	-0.1169	-469.1663	0.2080	0.1164
211	469.1667	-0.2080	0.0967	-461.3401	5.0079	-0.0961
212	461.3383	-5.0055	0.0879	-439.1213	9.8053	-0.0878
213	439.1234	-9.8052	0.4182	-402.5025	14.6055	-0.4181
214	402.5009	-14.6067	0.4223	-351.4775	19.4068	-0.4215
215	351.4772	-19.4116	0.5760	-286.0473	24.2113	-0.5757
216	286.0515	-24.2124	0.5851	-206.2235	29.0120	-0.5842
217	219.5335	-16.0449	0.3774	-164.1978	20.8449	-0.3773
218	179.9317	-10.9610	0.1688	-139.8495	15.7610	-0.1681
219	162.2216	-2.7918	0.0225	-146.6412	7.5926	-0.0226
220	164.9323	4.7828	0.0024	-172.0818	0.0175	-0.0025
221	184.9745	-8.7353	-0.0096	-158.7734	8.7353	0.0096
222	166.4686	-4.2761	0.0144	-146.4390	9.0760	-0.0144
223	165.3300	3.2943	-0.0483	-168.0109	1.5065	0.0481
224	184.6265	11.4480	-0.1517	-211.7708	-6.6479	0.1516
225	225.7417	16.5175	-0.3303	-268.0886	-11.7186	0.3292

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	290.8256	23.0741	-0.4892	-352.8526	-18.2736	0.4897
227	352.8530	18.2743	-0.4859	-400.4800	-13.4738	0.4864
228	400.4830	13.4736	-0.3091	-433.7032	-8.6736	0.3092
229	433.7056	8.6749	-0.2352	-452.5259	-3.8762	0.2358
230	452.5326	3.8721	-0.0551	-456.9415	0.9296	0.0554
231	456.9481	-0.9233	0.1089	-446.9814	5.7223	-0.1092
232	446.9859	-5.7178	0.1136	-422.6383	10.5168	-0.1132
233	422.6363	-10.5070	0.3473	-383.9056	15.3078	-0.3469
234	383.9026	-15.3090	0.4230	-330.7813	20.1083	-0.4226
235	330.7784	-20.1110	0.6065	-263.2327	24.9121	-0.6067
236	263.2299	-24.9154	0.5791	-181.3041	29.7143	-0.5791
237	195.2077	-16.7378	0.3391	-137.7835	21.5383	-0.3386
238	153.9200	-8.8170	0.1522	-120.2679	13.6171	-0.1518
239	134.5270	-3.4715	0.0074	-116.9123	8.2716	-0.0074
240	135.4266	4.1078	-0.0606	-140.5506	0.6932	0.0605
241	153.5046	-6.3528	-0.0645	-134.4517	6.3528	0.0644
242	142.1992	-1.8981	-0.0307	-129.2988	6.6994	0.0306
243	148.4147	5.6390	-0.1068	-158.1327	-0.8390	0.1062
244	175.1013	13.7056	-0.2129	-209.0130	-8.9062	0.2130
245	223.1528	18.6171	-0.3593	-271.8070	-13.8168	0.3588
246	287.8377	21.4565	-0.5195	-344.9950	-16.6575	0.5210
247	344.9977	16.6638	-0.3173	-387.7942	-11.8631	0.3167
248	387.7951	11.8623	-0.3179	-416.1815	-7.0616	0.3186
249	416.1816	7.0676	-0.2434	-430.1838	-2.2682	0.2437
250	430.1811	2.2618	0.0746	-429.7684	2.5379	-0.0742
251	429.7661	-2.5344	0.0718	-414.9589	7.3341	-0.0731
252	414.9543	-7.3360	0.1952	-385.7399	12.1365	-0.1948
253	385.7344	-12.1336	0.3595	-342.1320	16.9337	-0.3576
254	342.1364	-16.9347	0.5255	-284.1352	21.7344	-0.5269
255	284.1276	-21.7389	0.5200	-211.7151	26.5386	-0.5196
256	211.7188	-26.5431	0.5771	-124.8806	31.3436	-0.5768
257	146.4719	-16.7148	0.2455	-89.1277	21.5148	-0.2450
258	106.6219	-10.0683	0.0194	-69.2155	14.8684	-0.0197
259	87.2545	-4.6314	-0.0499	-66.1572	9.4317	0.0499
260	87.6826	3.0170	-0.1426	-89.5339	1.7834	0.1425
261	103.2343	-2.2901	-0.1464	-98.0823	2.2901	0.1463
262	102.9086	1.1028	-0.1575	-101.3398	2.4965	0.1575
263	113.9880	7.0929	-0.1763	-125.8976	-3.4926	0.1766
264	139.3009	14.1637	-0.2428	-167.1248	-10.5626	0.2429
265	183.1882	23.6345	-0.4933	-232.3000	-20.0357	0.4930
266	232.5501	20.1448	-0.3209	-273.8351	-16.5441	0.3215
267	273.8384	16.5414	-0.4173	-307.0037	-12.9417	0.4175
268	307.0105	12.9319	-0.2284	-332.0534	-9.3326	0.2299
269	332.0545	9.3283	-0.0983	-348.9919	-5.7282	0.0983
270	348.9881	5.7143	-0.1073	-357.7911	-2.1141	0.1090
271	357.7943	2.1165	-0.1006	-358.5064	1.4837	0.1006
272	358.4969	-1.4969	0.1197	-351.0798	5.0966	-0.1195
273	351.0831	-5.1001	0.1133	-335.5603	8.6998	-0.1140
274	335.5616	-8.7067	0.2456	-311.9183	12.3072	-0.2460
275	311.9144	-12.2999	0.2451	-280.1825	15.9004	-0.2461
276	280.1771	-15.9009	0.3100	-240.3600	19.5001	-0.3099
277	240.3557	-19.5069	0.3978	-192.4112	23.1070	-0.3975
278	192.4128	-23.1057	0.3995	-136.3689	26.7058	-0.3989
279	136.3689	-26.7030	0.4836	-72.2447	30.3026	-0.4839
280	72.2451	-30.3022	0.4672	0.0050	33.9031	-0.4677
281	30.4474	-16.9132	0.0000	0.0000	16.9132	0.0000
282	30.5187	-16.9579	0.0000	0.0000	16.9579	0.0000

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
283	93.0261	-51.6804	0.0000	0.0000	51.6804	0.0000
284	93.0042	-51.6545	0.0000	0.0000	51.6545	0.0000
285	100.6515	-55.9166	0.0000	0.0000	55.9166	0.0000
286	100.6495	-55.9154	0.0000	0.0000	55.9154	0.0000
287	102.3479	-56.8434	0.0000	0.0000	56.8434	0.0000
288	102.3396	-56.8663	0.0000	0.0000	56.8663	0.0000
289	103.1359	-57.2886	0.0000	-0.0001	57.2886	0.0000
290	103.1571	-57.3276	0.0000	0.0000	57.3276	0.0000
291	103.2609	-57.3767	0.0000	0.0000	57.3767	0.0000
292	103.3599	-57.4038	0.0000	0.0000	57.4038	0.0000
293	103.3354	-57.4049	0.0000	0.0000	57.4049	0.0000
294	103.3908	-57.4519	0.0000	0.0000	57.4519	0.0000
295	103.3377	-57.4018	0.0000	0.0000	57.4018	0.0000
296	103.3661	-57.4618	0.0000	0.0001	57.4618	0.0000
297	103.2903	-57.3925	0.0000	0.0001	57.3925	0.0000
298	103.4743	-57.4676	0.0000	0.0000	57.4676	0.0000
299	103.2221	-57.3594	0.0000	0.0002	57.3594	0.0000
300	103.3781	-57.4282	0.0000	0.0000	57.4282	0.0000
301	103.0967	-57.2854	0.0000	0.0002	57.2854	0.0000
302	103.2466	-57.3416	0.0000	0.0000	57.3416	0.0000
303	102.2958	-56.8242	0.0000	0.0001	56.8242	0.0000
304	102.4105	-56.8985	0.0000	-0.0001	56.8985	0.0000
305	100.5955	-55.8886	0.0000	-0.0001	55.8886	0.0000
306	100.7278	-55.9459	0.0000	0.0000	55.9459	0.0000
307	92.9648	-51.6542	0.0000	0.0000	51.6542	0.0000
308	93.0476	-51.6856	0.0000	0.0000	51.6856	0.0000
309	30.7470	-17.0882	0.0000	0.0000	17.0882	0.0000
310	30.2786	-16.8145	0.0000	0.0000	16.8145	0.0000

ENVOLVENTE DE MIN. FLECTORES CON SOBRECARGA UNIFORME

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.0145	33.0389	0.0687	-70.2742	-29.4391	-0.0689
2	-18.3091	-8.1387	-0.0315	36.6207	8.1387	0.0315
3	-36.6202	-8.1385	-0.0449	54.9353	8.1385	0.0448
4	-54.9340	-8.1399	-0.0116	73.2539	8.1399	0.0119
5	-73.2550	-8.1424	0.0009	91.5688	8.1424	-0.0016
6	-91.5676	-8.1453	-0.0331	109.8919	8.1453	0.0325
7	-109.8921	-8.1490	-0.0330	128.2255	8.1490	0.0332
8	-128.2269	-8.1523	-0.0034	146.5733	8.1523	0.0034
9	-146.5750	-8.1543	0.0175	164.9172	8.1543	-0.0182
10	-164.9184	-8.1488	-0.0450	183.2534	8.1488	0.0452
11	-183.2591	-8.1553	0.0652	201.6085	8.1553	-0.0654
12	-201.6085	-8.1512	-0.0557	219.9482	8.1512	0.0570
13	-219.9484	-8.1504	0.0780	238.2899	8.1504	-0.0781
14	-238.2872	-8.1459	0.0241	256.6084	8.1459	-0.0241
15	-256.6072	-8.1463	0.0827	274.9368	8.1463	-0.0827
16	-274.9366	-8.1470	-0.0243	293.2722	8.1470	0.0240
17	-293.2838	-8.2599	0.0246	311.8624	8.2599	-0.0244
18	-325.2007	-21.3123	0.0564	373.1570	21.3123	-0.0560
19	-383.7380	-31.9740	0.1882	455.6730	31.9740	-0.1885
20	-464.5856	-41.5620	-0.0046	558.1088	41.5620	0.0048
21	-564.9198	54.7817	-0.0681	407.8097	-49.9828	0.0679
22	-414.7333	45.5050	-0.0014	278.2101	-45.5050	0.0010
23	-294.0118	33.0554	-0.0050	194.8405	-33.0554	0.0053
24	-207.4866	22.8160	-0.0107	139.0356	-22.8160	0.0112
25	-155.8398	11.3708	-0.0133	121.7263	-11.3708	0.0131
26	-143.9724	-3.2615	-0.0038	153.7570	3.2615	0.0040
27	-153.7581	-3.2629	0.0411	163.5468	3.2629	-0.0412
28	-163.5466	-3.2610	-0.0066	173.3292	3.2610	0.0069
29	-173.3309	-3.2591	0.0429	183.1064	3.2591	-0.0426
30	-183.1070	-3.2574	-0.0108	192.8800	3.2574	0.0113
31	-192.8773	-3.2554	-0.0086	202.6437	3.2554	0.0083
32	-202.6417	-3.2544	0.0514	212.4039	3.2544	-0.0512
33	-212.4043	-3.2578	0.0520	222.1769	3.2578	-0.0523
34	-222.1785	-3.2552	-0.0145	231.9445	3.2552	0.0148
35	-231.9450	-3.2547	0.0878	241.7121	3.2547	-0.0885
36	-241.7113	-3.2561	-0.0224	251.4786	3.2561	0.0230
37	-258.3470	-10.8895	0.0322	291.0126	10.8895	-0.0326
38	-306.0095	-20.6038	-0.0719	367.8243	20.6038	0.0716
39	-389.4712	-33.4751	0.0302	489.8834	33.4751	-0.0303
40	-507.7862	-45.8136	-0.1173	645.2347	45.8136	0.1175
41	-658.0463	56.7664	-0.1196	494.9364	-51.9662	0.1202
42	-502.5669	47.5058	0.0284	360.0625	-47.5058	-0.0292
43	-378.6875	35.1264	-0.0708	273.3012	-35.1264	0.0708
44	-289.4796	24.9833	-0.0521	214.5247	-24.9833	0.0522
45	-236.5642	12.2610	0.0557	199.7832	-12.2610	-0.0557
46	-224.8014	-0.7098	0.0328	226.9319	0.7098	-0.0336
47	-226.9302	-0.7125	0.0349	229.0685	0.7125	-0.0349
48	-229.0627	-0.7102	-0.0010	231.1933	0.7102	0.0009
49	-231.1919	-0.7164	0.0388	233.3401	0.7164	-0.0389
50	-233.3431	-0.7163	0.0336	235.4938	0.7163	-0.0335
51	-235.4965	-0.7184	-0.0328	237.6524	0.7184	0.0332
52	-237.6491	-0.7172	-0.0013	239.8018	0.7172	0.0011
53	-239.8045	-0.7130	-0.0300	241.9449	0.7130	0.0291

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	-241.9422	-0.7163	0.0007	244.0900	0.7163	-0.0004
55	-244.0852	-0.7184	-0.0683	246.2408	0.7184	0.0688
56	-246.2372	-0.7194	-0.0287	248.3954	0.7194	0.0292
57	-259.7815	-12.0794	-0.0435	296.0159	12.0794	0.0432
58	-311.6737	-21.9457	-0.0182	377.5068	21.9457	0.0177
59	-399.7865	-34.9008	0.0068	504.4813	34.9008	-0.0065
60	-522.7083	-47.2708	-0.1310	664.5350	47.2708	0.1307
61	-677.3920	57.1815	0.0607	513.0583	-52.3819	-0.0610
62	-520.7416	47.9210	-0.0825	376.9639	-47.9210	0.0824
63	-395.8061	35.5485	-0.1247	289.1815	-35.5485	0.1255
64	-305.6978	22.5831	-0.0172	237.9443	-22.5831	0.0182
65	-251.8416	12.7018	-0.0633	213.7382	-12.7018	0.0630
66	-239.2704	-0.2613	0.1764	240.0553	0.2613	-0.1768
67	-240.0527	-0.2625	0.0699	240.8445	0.2625	-0.0695
68	-240.8464	-0.2646	0.0682	241.6371	0.2646	-0.0684
69	-241.6401	-0.2600	0.0683	242.4217	0.2600	-0.0672
70	-242.4187	-0.2613	0.0670	243.2010	0.2613	-0.0668
71	-243.2031	-0.2578	-0.0055	243.9780	0.2578	0.0056
72	-243.9764	-0.2589	-0.0468	244.7540	0.2589	0.0467
73	-244.7500	-0.2602	-0.0059	245.5308	0.2602	0.0055
74	-245.5266	-0.2594	-0.0452	246.3040	0.2594	0.0453
75	-246.3092	-0.2588	-0.1151	247.0870	0.2588	0.1137
76	-247.0902	-0.2623	-0.1164	247.8774	0.2623	0.1154
77	-260.6116	-12.7617	-0.0162	298.9003	12.7617	0.0162
78	-314.5964	-22.6403	0.0445	382.5184	22.6403	-0.0441
79	-404.8441	-35.6028	-0.0843	511.6414	35.6028	0.0840
80	-529.8930	-47.9766	0.0323	673.8502	47.9766	-0.0320
81	-686.7134	57.3811	-0.0544	521.7856	-52.5815	0.0548
82	-529.4746	48.1231	-0.0433	385.1177	-48.1231	0.0429
83	-403.9758	35.7492	-0.1153	296.7192	-35.7492	0.1150
84	-313.2780	22.7836	-0.0218	244.9242	-22.7836	0.0221
85	-258.8633	12.9026	0.0374	220.1649	-12.9026	-0.0372
86	-245.7462	-0.0577	0.1895	245.9209	0.0577	-0.1890
87	-245.9195	-0.0574	0.1480	246.0899	0.0574	-0.1477
88	-246.0858	-0.0578	0.0744	246.2582	0.0578	-0.0741
89	-246.2566	-0.0570	0.1453	246.4269	0.0570	-0.1446
90	-246.4254	-0.0608	0.0358	246.6047	0.0608	-0.0352
91	-246.6090	-0.0590	-0.0402	246.7856	0.0590	0.0402
92	-246.7843	-0.0591	0.0018	246.9603	0.0591	-0.0009
93	-246.9555	-0.0573	-0.0385	247.1276	0.0573	0.0389
94	-247.1278	-0.0577	-0.0837	247.2997	0.0577	0.0841
95	-247.3002	-0.0534	-0.1138	247.4582	0.0534	0.1142
96	-247.4597	-0.0576	-0.1585	247.6301	0.0576	0.1575
97	-260.7480	-12.8854	-0.0967	299.4074	12.8854	0.0966
98	-315.1064	-22.7661	-0.0024	383.4077	22.7661	0.0019
99	-405.7419	-35.7318	-0.0336	512.9584	35.7318	0.0338
100	-531.2216	-48.1057	0.0836	675.5038	48.1057	-0.0836
101	-688.4205	57.4164	-0.2010	523.3554	-52.6160	0.2011
102	-531.0437	48.1572	-0.0379	386.5806	-48.1572	0.0376
103	-405.4460	35.7834	-0.0877	298.0852	-35.7834	0.0883
104	-314.6537	22.8180	-0.1186	246.1990	-22.8180	0.1188
105	-260.1421	12.9396	0.0080	221.3224	-12.9396	-0.0080
106	-246.9110	-0.0194	0.2309	246.9701	0.0194	-0.2315
107	-246.9706	-0.0215	0.1175	247.0378	0.0215	-0.1175
108	-247.0353	-0.0198	0.0880	247.0941	0.0198	-0.0876
109	-247.0976	-0.0219	0.0445	247.1600	0.0219	-0.0443
110	-247.1588	-0.0202	0.0463	247.2182	0.0202	-0.0462

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
111	-247.2176	-0.0243	-0.0686	247.2890	0.0243	0.0686
112	-247.2873	-0.0178	-0.0657	247.3417	0.0178	0.0651
113	-247.3412	-0.0151	-0.0669	247.3866	0.0151	0.0672
114	-247.3830	-0.0224	-0.2076	247.4499	0.0224	0.2083
115	-247.4488	-0.0257	-0.1794	247.5256	0.0257	0.1790
116	-247.5281	-0.0308	-0.3258	247.6221	0.0308	0.3259
117	-260.8655	-12.9478	-0.0148	299.7068	12.9478	0.0153
118	-315.3999	-22.8245	-0.0673	383.8933	22.8245	0.0676
119	-406.2185	-35.7858	0.1020	513.5570	35.7858	-0.1025
120	-531.8062	-48.1603	-0.2306	676.2691	48.1603	0.2303
121	-689.2014	57.4388	-0.0390	524.0582	-52.6380	0.0389
122	-531.7443	48.1794	-0.1138	387.2250	-48.1794	0.1143
123	-406.0806	35.8032	-0.1562	298.6669	-35.8032	0.1565
124	-315.2266	22.8347	-0.1011	246.7079	-22.8347	0.1010
125	-260.6706	12.9496	0.0210	221.8249	-12.9496	-0.0202
126	-247.4633	-0.0106	0.2887	247.4965	0.0106	-0.2887
127	-247.4946	-0.0068	0.1769	247.5141	0.0068	-0.1770
128	-247.5103	-0.0043	0.1082	247.5235	0.0043	-0.1079
129	-247.5281	-0.0011	0.0332	247.5280	0.0011	-0.0339
130	-247.5269	0.0020	0.0340	247.5226	-0.0020	-0.0346
131	-247.5160	-0.0001	-0.0023	247.5166	0.0001	0.0015
132	-247.5196	0.0033	-0.0749	247.5097	-0.0033	0.0747
133	-247.5096	0.0014	-0.1862	247.5045	-0.0014	0.1867
134	-247.5015	0.0008	-0.2598	247.4968	-0.0008	0.2602
135	-247.4972	0.0003	-0.2645	247.4942	-0.0003	0.2647
136	-247.4934	-0.0040	-0.3061	247.5045	0.0040	0.3064
137	-260.7799	-12.9542	-0.1656	299.6463	12.9542	0.1648
138	-315.3579	-22.8350	0.0049	383.8729	22.8350	-0.0045
139	-406.2198	-35.8007	0.0923	513.6044	35.8007	-0.0924
140	-531.8633	-48.1742	-0.2208	676.3716	48.1742	0.2210
141	-689.2789	57.4320	0.1371	524.1807	-52.6320	-0.1374
142	-531.8687	48.1718	-0.2309	387.3419	-48.1718	0.2306
143	-406.2068	35.7993	-0.2126	298.8326	-35.7993	0.2125
144	-315.3871	22.8341	-0.0655	246.8673	-22.8341	0.0661
145	-260.8057	12.9538	-0.0286	221.9507	-12.9538	0.0291
146	-247.5215	0.0005	0.3953	247.5189	-0.0005	-0.3946
147	-247.5197	-0.0013	0.2803	247.5224	0.0013	-0.2810
148	-247.5204	0.0016	0.1669	247.5140	-0.0016	-0.1667
149	-247.5202	0.0031	0.0947	247.5121	-0.0031	-0.0940
150	-247.5053	0.0028	0.0927	247.4975	-0.0028	-0.0926
151	-247.4998	0.0051	-0.0207	247.4845	-0.0051	0.0207
152	-247.4828	0.0035	-0.0193	247.4715	-0.0035	0.0190
153	-247.4742	0.0035	-0.2011	247.4652	-0.0035	0.1997
154	-247.4683	-0.0005	-0.1990	247.4691	0.0005	0.1977
155	-247.4702	-0.0007	-0.2724	247.4703	0.0007	0.2721
156	-247.4715	-0.0025	-0.3170	247.4773	0.0025	0.3167
157	-260.7527	-12.9566	-0.1738	299.6212	12.9566	0.1739
158	-315.3138	-22.8362	0.0248	383.8179	22.8362	-0.0248
159	-406.1348	-35.7993	0.0923	513.5479	35.7993	-0.0917
160	-531.8007	-48.1732	0.0991	676.2951	48.1732	-0.0993
161	-689.2106	57.4282	-0.0864	524.0980	-52.6273	0.0863
162	-531.7856	48.1669	-0.1576	387.2981	-48.1669	0.1573
163	-406.1603	35.7930	-0.1684	298.7761	-35.7930	0.1684
164	-315.3469	22.8253	-0.1182	246.8759	-22.8253	0.1181
165	-260.8306	12.9431	0.0951	222.0026	-12.9431	-0.0956
166	-247.5680	0.0160	0.2624	247.5198	-0.0160	-0.2630
167	-247.5209	0.0175	0.2638	247.4712	-0.0175	-0.2648

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
168	-247.4722	0.0216	0.2634	247.4066	-0.0216	-0.2630
169	-247.4118	0.0225	0.0800	247.3459	-0.0225	-0.0798
170	-247.3521	0.0189	0.0382	247.2949	-0.0189	-0.0379
171	-247.2904	0.0203	-0.1014	247.2309	-0.0203	0.1013
172	-247.2243	0.0184	-0.0988	247.1688	-0.0184	0.0987
173	-247.1666	0.0227	-0.1448	247.1007	-0.0227	0.1447
174	-247.0973	0.0228	-0.3277	247.0273	-0.0228	0.3275
175	-247.0240	0.0231	-0.2814	246.9554	-0.0231	0.2810
176	-246.9581	0.0243	-0.4400	246.8848	-0.0243	0.4398
177	-260.1569	-12.9391	-0.1098	298.9852	12.9391	0.1098
178	-314.6950	-22.8210	-0.0066	383.1393	22.8210	0.0068
179	-405.4702	-35.7862	0.0292	512.8654	35.7862	-0.0294
180	-531.1301	-48.1601	0.0380	675.6160	48.1601	-0.0379
181	-688.4642	57.3672	-0.1031	523.5745	-52.5676	0.1034
182	-531.2633	48.1087	-0.0730	386.9487	-48.1087	0.0725
183	-405.8134	35.7342	-0.2852	298.6111	-35.7342	0.2848
184	-315.1698	22.7699	-0.0935	246.8596	-22.7699	0.0935
185	-260.7951	12.8893	0.0391	222.1189	-12.8893	-0.0394
186	-247.4865	0.0539	0.3528	247.3226	-0.0539	-0.3527
187	-247.3195	0.0554	0.1696	247.1539	-0.0554	-0.1690
188	-247.1543	0.0518	0.1691	246.9982	-0.0518	-0.1699
189	-247.0033	0.0483	0.0979	246.8571	-0.0483	-0.0979
190	-246.8552	0.0527	-0.0138	246.6978	-0.0527	0.0141
191	-246.6942	0.0489	-0.0103	246.5468	-0.0489	0.0098
192	-246.5505	0.0509	-0.1939	246.3941	-0.0509	0.1930
193	-246.4033	0.0592	-0.1964	246.2278	-0.0592	0.1961
194	-246.2280	0.0630	-0.2393	246.0382	-0.0630	0.2386
195	-246.0373	0.0612	-0.3816	245.8520	-0.0612	0.3817
196	-245.8535	0.0606	-0.4270	245.6728	-0.0606	0.4268
197	-258.9223	-12.9033	-0.1032	297.6317	12.9033	0.1034
198	-313.3185	-22.7844	-0.0267	381.6669	22.7844	0.0266
199	-403.9884	-35.7521	0.0616	511.2548	35.7521	-0.0611
200	-529.5082	-48.1262	0.1654	673.9002	48.1262	-0.1654
201	-686.8210	57.2418	-0.1665	522.2715	-52.4411	0.1666
202	-529.9610	47.9819	-0.2372	386.0325	-47.9819	0.2369
203	-404.8981	35.6090	-0.1348	298.0835	-35.6090	0.1344
204	-314.6446	22.6431	-0.1218	246.6996	-22.6431	0.1228
205	-260.6505	12.7610	0.0515	222.3715	-12.7610	-0.0508
206	-247.1664	0.2527	0.3003	246.4096	-0.2527	-0.3001
207	-246.4048	0.2502	0.2284	245.6545	-0.2502	-0.2282
208	-245.6560	0.2522	0.2289	244.8996	-0.2522	-0.2291
209	-244.8985	0.2569	0.0535	244.1268	-0.2569	-0.0536
210	-244.1248	0.2620	0.0561	243.3366	-0.2620	-0.0563
211	-243.3343	0.2646	-0.0549	242.5411	-0.2646	0.0545
212	-242.5410	0.2625	-0.0500	241.7520	-0.2625	0.0500
213	-241.7526	0.2615	-0.2319	240.9699	-0.2615	0.2321
214	-240.9653	0.2627	-0.2342	240.1738	-0.2627	0.2340
215	-240.1756	0.2658	-0.3394	239.3766	-0.2658	0.3394
216	-239.3812	0.2670	-0.3467	238.5802	-0.2670	0.3468
217	-251.8917	-12.7002	-0.1621	289.9897	12.7002	0.1629
218	-305.7225	-22.5850	0.0463	373.4795	22.5850	-0.0460
219	-395.8506	-35.5538	0.1254	502.5315	35.5538	-0.1255
220	-520.8231	-47.9293	-0.0209	664.6215	47.9293	0.0204
221	-677.4494	56.5327	0.0056	515.0849	-51.7337	-0.0052
222	-522.7799	47.2743	-0.1233	380.9615	-47.2743	0.1233
223	-399.8512	34.9044	-0.1228	295.1218	-34.9044	0.1223
224	-311.7361	21.9495	-0.0799	245.8875	-21.9495	0.0796

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
225	-259.8602	12.0802	0.0933	223.6270	-12.0802	-0.0938
226	-246.3616	0.7228	0.2787	244.1923	-0.7228	-0.2791
227	-244.1940	0.7235	0.2764	242.0216	-0.7235	-0.2767
228	-242.0247	0.7220	0.1696	239.8568	-0.7220	-0.1709
229	-239.8564	0.7220	0.1294	237.6935	-0.7220	-0.1295
230	-237.6948	0.7244	0.0355	235.5195	-0.7244	-0.0358
231	-235.5202	0.7200	-0.0513	233.3606	-0.7200	0.0514
232	-233.3617	0.7160	-0.0526	231.2120	-0.7160	0.0538
233	-231.2093	0.7114	-0.1803	229.0782	-0.7114	0.1815
234	-229.0753	0.7128	-0.2269	226.9379	-0.7128	0.2272
235	-226.9352	0.7115	-0.3521	224.7997	-0.7115	0.3527
236	-224.7963	0.7158	-0.3286	222.6514	-0.7158	0.3291
237	-236.5528	-12.2623	-0.1128	273.3401	12.2623	0.1126
238	-289.4750	-24.9829	0.0140	364.4262	24.9829	-0.0142
239	-378.6850	-35.1287	0.1564	484.0757	35.1287	-0.1566
240	-502.5894	-47.5084	0.1237	645.1426	47.5084	-0.1234
241	-658.0551	55.0659	0.0477	500.1111	-50.2676	-0.0477
242	-507.8590	45.8124	-0.1333	370.3847	-45.8124	0.1338
243	-389.4998	33.4741	-0.0967	289.0770	-33.4741	0.0967
244	-306.0450	20.6057	-0.0520	244.2355	-20.6057	0.0518
245	-258.3725	10.8933	0.0850	225.6879	-10.8933	-0.0858
246	-241.7149	3.2561	0.2538	231.9467	-3.2561	-0.2545
247	-231.9478	3.2519	0.1170	222.1914	-3.2519	-0.1179
248	-222.1906	3.2547	0.1187	212.4296	-3.2547	-0.1176
249	-212.4319	3.2495	0.0801	202.6835	-3.2495	-0.0807
250	-202.6818	3.2519	-0.0695	192.9274	-3.2519	0.0695
251	-192.9254	3.2514	-0.0682	183.1712	-3.2514	0.0685
252	-183.1686	3.2523	-0.1228	173.4087	-3.2523	0.1228
253	-173.4046	3.2488	-0.1954	163.6590	-3.2488	0.1950
254	-163.6605	3.2507	-0.2767	153.9091	-3.2507	0.2767
255	-153.9045	3.2538	-0.2725	144.1428	-3.2538	0.2734
256	-144.1444	3.2559	-0.3111	134.3770	-3.2559	0.3118
257	-155.9653	-11.3737	0.0164	190.0845	11.3737	-0.0160
258	-207.5762	-22.8177	0.2419	276.0299	22.8177	-0.2416
259	-294.0675	-33.0552	0.1571	393.2417	33.0552	-0.1563
260	-414.7674	-45.5040	0.2493	551.2899	45.5040	-0.2488
261	-564.9510	48.5593	0.1240	459.7601	-44.9599	-0.1237
262	-464.5863	41.5688	0.1256	371.0741	-41.5688	-0.1252
263	-383.7220	31.9770	0.0474	311.7686	-31.9770	-0.0473
264	-325.1704	21.3069	0.0439	277.2149	-21.3069	-0.0441
265	-293.2783	8.2358	0.3096	274.7517	-8.2358	-0.3093
266	-275.0003	8.1245	0.1062	256.7178	-8.1245	-0.1069
267	-256.7178	8.1252	0.1993	238.4364	-8.1252	-0.1995
268	-238.4367	8.1332	0.0513	220.1411	-8.1332	-0.0507
269	-220.1403	8.1378	-0.0356	201.8297	-8.1378	0.0354
270	-201.8277	8.1482	-0.0307	183.4935	-8.1482	0.0304
271	-183.4999	8.1468	-0.0354	165.1683	-8.1468	0.0356
272	-165.1662	8.1527	-0.1354	146.8237	-8.1527	0.1357
273	-146.8255	8.1538	-0.1330	128.4806	-8.1538	0.1333
274	-128.4821	8.1603	-0.1843	110.1206	-8.1603	0.1847
275	-110.1203	8.1552	-0.1841	91.7688	-8.1552	0.1841
276	-91.7670	8.1560	-0.2058	73.4198	-8.1560	0.2057
277	-73.4196	8.1580	-0.2311	55.0611	-8.1580	0.2314
278	-55.0620	8.1582	-0.2325	36.7044	-8.1582	0.2325
279	-36.7051	8.1567	-0.2550	18.3549	-8.1567	0.2552
280	-18.3550	8.1564	-0.2508	-0.0017	-8.1564	0.2510
281	-7.3080	4.0596	0.0000	0.0000	-4.0596	0.0000

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
282	-7.3397	4.0783	0.0000	0.0000	-4.0783	0.0000
283	-8.8305	4.9063	0.0000	0.0000	-4.9063	0.0000
284	-8.7957	4.8852	0.0000	0.0000	-4.8852	0.0000
285	-13.4225	7.4575	0.0000	0.0000	-7.4575	0.0000
286	-13.4220	7.4568	0.0000	0.0000	-7.4568	0.0000
287	-16.1793	8.9859	0.0000	0.0000	-8.9859	0.0000
288	-16.1752	8.9886	0.0000	0.0000	-8.9886	0.0000
289	-16.6868	9.2697	0.0000	0.0000	-9.2697	0.0000
290	-16.6882	9.2745	0.0000	0.0000	-9.2745	0.0000
291	-16.9038	9.3921	0.0000	0.0000	-9.3921	0.0000
292	-16.9460	9.4122	0.0000	0.0000	-9.4122	0.0000
293	-16.9527	9.4170	0.0000	0.0000	-9.4170	0.0000
294	-16.9745	9.4325	0.0000	0.0000	-9.4325	0.0000
295	-16.9803	9.4324	0.0000	0.0000	-9.4324	0.0000
296	-16.9734	9.4360	0.0000	0.0000	-9.4360	0.0000
297	-16.9410	9.4131	0.0000	0.0000	-9.4131	0.0000
298	-16.9960	9.4389	0.0000	0.0000	-9.4389	0.0000
299	-16.9046	9.3939	0.0000	0.0000	-9.3939	0.0000
300	-16.9467	9.4143	0.0000	0.0000	-9.4143	0.0000
301	-16.6895	9.2735	0.0000	0.0000	-9.2735	0.0000
302	-16.7045	9.2774	0.0000	0.0000	-9.2774	0.0000
303	-16.1716	8.9833	0.0000	0.0000	-8.9833	0.0000
304	-16.1908	8.9960	0.0000	0.0000	-8.9960	0.0000
305	-13.4129	7.4526	0.0000	0.0000	-7.4526	0.0000
306	-13.4486	7.4699	0.0000	0.0000	-7.4699	0.0000
307	-8.7938	4.8869	0.0000	0.0000	-4.8869	0.0000
308	-8.8171	4.8984	0.0000	0.0000	-4.8984	0.0000
309	-7.4668	4.1497	0.0000	0.0000	-4.1497	0.0000
310	-7.2149	4.0067	0.0000	0.0000	-4.0067	0.0000

ENVOLVENTE DE MAX. CORTANTES CON SOBRECARGA UNIFORME

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.0145	33.8716	0.0718	-72.1463	-30.2718	-0.0721
2	68.3528	30.3845	0.0716	-132.6674	-26.7847	-0.0719
3	122.0342	27.1209	0.1163	-179.0183	-23.5203	-0.1160
4	162.5455	24.0828	0.0081	-212.6989	-20.4816	-0.0090
5	191.3751	21.2677	-0.0210	-235.1648	-17.6686	0.0222
6	209.9733	18.6737	0.0646	-247.9341	-15.0739	-0.0630
7	219.8061	16.2928	0.0599	-252.4142	-12.6930	-0.0591
8	222.2638	14.1257	0.0024	-250.0037	-10.5245	-0.0021
9	218.6929	12.1622	-0.0285	-242.0017	-8.5632	0.0287
10	210.3930	10.3960	0.0566	-229.7329	-6.7962	-0.0558
11	198.5909	8.8353	-0.0700	-214.4203	-5.2349	0.0702
12	184.4678	7.4582	0.0542	-197.1969	-3.8584	-0.0538
13	169.1136	6.2670	-0.0586	-179.1650	-2.6666	0.0579
14	153.5451	5.2493	-0.0130	-161.3044	-1.6503	0.0130
15	138.6936	4.4031	-0.0426	-144.5503	-0.8027	0.0431
16	125.3801	3.7146	0.0131	-129.6885	-0.1134	-0.0130
17	114.3307	3.1769	-0.0073	-117.4282	0.4221	0.0074
18	106.1618	2.7758	-0.0295	-108.3561	0.8246	0.0293
19	101.3490	2.5025	-0.0659	-102.9307	1.0971	0.0661
20	100.2755	2.3465	-0.0234	-101.5040	1.2539	0.0235
21	-564.9147	54.7817	-0.0681	407.8060	-49.9828	0.0679
22	-411.2036	50.0604	-0.0011	268.2159	-45.2601	0.0007
23	-278.2086	45.5056	-0.0013	148.8864	-40.7053	0.0017
24	-165.3423	41.1373	-0.0031	49.1262	-36.3370	0.0035
25	-71.8034	36.9813	-0.0022	-31.9427	-32.1810	0.0029
26	3.5007	33.0548	-0.0047	-95.4675	-28.2545	0.0053
27	61.9311	29.3797	-0.0249	-142.8586	-24.5802	0.0264
28	105.0904	25.9600	0.0132	-175.7742	-21.1597	-0.0131
29	134.7686	22.8144	-0.0293	-196.0072	-18.0150	0.0301
30	152.8939	19.9506	0.0240	-205.5481	-15.1503	-0.0237
31	161.5020	17.3742	0.0170	-206.4273	-12.5740	-0.0188
32	162.6831	15.0852	-0.0347	-200.7373	-10.2858	0.0351
33	158.5399	13.0878	-0.0277	-190.6003	-8.2884	0.0269
34	151.1378	11.3700	0.0246	-178.0482	-6.5697	-0.0252
35	142.4507	9.9295	-0.0437	-165.0393	-5.1286	0.0437
36	134.3382	8.7557	0.0300	-153.4050	-3.9555	-0.0298
37	128.4900	7.8369	-0.0116	-144.7984	-3.0374	0.0113
38	126.3810	7.1562	0.0292	-140.6491	-2.3560	-0.0289
39	129.2247	6.6955	-0.0109	-142.1099	-1.8961	0.0110
40	137.9707	6.4327	0.0307	-150.0687	-1.6325	-0.0308
41	-658.0415	56.7664	-0.1196	494.9330	-51.9662	0.1202
42	-498.5151	52.0484	0.0250	349.5843	-47.2490	-0.0258
43	-360.0609	47.5056	-0.0761	224.7362	-42.7054	0.0760
44	-241.8853	43.1586	-0.0757	119.6038	-38.3583	0.0756
45	-143.1010	39.0225	-0.0328	33.2412	-34.2230	0.0333
46	-62.5508	35.1253	-0.0410	-35.6318	-30.3251	0.0407
47	1.2385	31.4764	-0.0374	-88.4715	-26.6761	0.0383
48	49.8917	28.0937	-0.0283	-126.9583	-23.2949	0.0284
49	85.2431	24.9839	-0.0447	-152.9985	-20.1836	0.0455
50	109.2660	22.1540	-0.0373	-168.5313	-17.3537	0.0375
51	123.9804	19.6083	0.0039	-175.6161	-14.8073	-0.0034
52	131.4785	17.3476	-0.0186	-176.3122	-12.5487	0.0179
53	133.8409	15.3732	-0.0018	-172.7682	-10.5721	0.0018
54	133.1166	13.6802	-0.0210	-166.9505	-8.8813	0.0208

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	131.2705	12.2605	0.0187	-160.8506	-7.4608	-0.0179
56	130.1285	11.1045	-0.0116	-156.2460	-6.3034	0.0111
57	131.3498	10.1995	0.0099	-154.7463	-5.3998	-0.0095
58	136.3763	9.5293	0.0049	-157.7638	-4.7296	-0.0050
59	146.3938	9.0753	0.0023	-166.4190	-4.2757	-0.0023
60	162.3233	8.8173	0.0467	-181.5763	-4.0168	-0.0466
61	-677.3885	57.1815	0.0607	513.0556	-52.3819	-0.0610
62	-516.6509	52.4637	-0.0861	366.4461	-47.6632	0.0860
63	-376.9613	47.9221	-0.1450	240.4216	-43.1230	0.1462
64	-257.6207	43.5759	-0.0975	134.0849	-38.7754	0.0981
65	-157.6401	39.4439	-0.1597	46.5136	-34.6440	0.1588
66	-75.8840	35.5501	-0.1257	-23.5714	-30.7497	0.1250
67	-10.8915	31.9042	-0.1123	-77.6153	-27.1043	0.1146
68	38.9759	28.5209	-0.1097	-117.3400	-23.7211	0.1101
69	75.5550	25.4112	-0.1050	-144.5886	-20.6113	0.1047
70	100.7962	22.5816	-0.0961	-161.3392	-17.7817	0.0961
71	116.7502	20.0386	-0.0519	-169.6702	-15.2379	0.0521
72	125.5011	17.7831	-0.0359	-171.6413	-12.9838	0.0352
73	129.1408	15.8094	-0.0642	-169.3731	-11.0088	0.0636
74	129.7085	14.1181	-0.0419	-164.8595	-9.3188	0.0427
75	129.1658	12.7014	-0.0076	-160.0683	-7.9013	0.0080
76	129.3380	11.5461	-0.0197	-156.7747	-6.7460	0.0199
77	131.8814	10.6423	-0.0291	-156.6076	-5.8422	0.0293
78	138.2363	9.9728	-0.0349	-160.9543	-5.1727	0.0350
79	149.5858	9.5195	0.0286	-170.9414	-4.7200	-0.0284
80	166.8483	9.2619	-0.0068	-187.4357	-4.4610	0.0068
81	-686.7095	57.3811	-0.0544	521.7824	-52.5815	0.0548
82	-525.3804	52.6649	-0.0515	374.5992	-47.8653	0.0511
83	-385.1158	48.1230	-0.1569	247.9370	-43.3227	0.1565
84	-265.1455	43.7772	-0.1466	141.0087	-38.9769	0.1471
85	-164.5757	39.6454	-0.1616	52.8652	-34.8465	0.1622
86	-82.2453	35.7507	-0.1578	-17.8299	-30.9496	0.1564
87	-16.6445	32.1004	-0.1429	-72.4520	-27.3007	0.1446
88	33.8088	28.7208	-0.1218	-112.7771	-23.9202	0.1210
89	70.9834	25.6112	-0.1415	-140.6171	-20.8114	0.1405
90	96.8261	22.7835	-0.0777	-157.9688	-17.9843	0.0779
91	113.3805	20.2401	-0.0440	-166.9047	-15.4402	0.0445
92	122.7373	17.9833	-0.0749	-169.4986	-13.1819	0.0758
93	126.9770	16.0109	-0.0545	-167.8082	-11.2109	0.0544
94	128.1467	14.3196	-0.0388	-163.8979	-9.5210	0.0387
95	128.2047	12.9022	-0.0318	-159.7144	-8.1014	0.0321
96	128.9786	11.7482	-0.0212	-157.0206	-6.9488	0.0206
97	132.1273	10.8438	0.0045	-157.4600	-6.0436	-0.0047
98	139.0892	10.1748	-0.0114	-162.4142	-5.3746	0.0119
99	151.0469	9.7219	0.0230	-173.0148	-4.9210	-0.0230
100	168.9237	9.4638	-0.0079	-190.1121	-4.6650	0.0079
101	-688.4119	57.4164	-0.2010	523.3485	-52.6160	0.2011
102	-526.9448	52.6991	-0.0498	376.0583	-47.8995	0.0495
103	-386.5767	48.1571	-0.1463	249.2942	-43.3567	0.1468
104	-266.5044	43.8092	-0.2528	142.2802	-39.0094	0.2529
105	-165.8432	39.6782	-0.2420	54.0128	-34.8783	0.2423
106	-83.3961	35.7836	-0.2240	-16.7490	-30.9838	0.2242
107	-17.7147	32.1373	-0.2107	-71.4860	-27.3380	0.2102
108	32.8480	28.7555	-0.1943	-111.9335	-23.9541	0.1948
109	70.1393	25.6449	-0.1736	-139.8758	-20.8448	0.1730
110	96.0860	22.8175	-0.1694	-157.3385	-18.0175	0.1696
111	112.7465	20.2753	-0.1071	-166.3697	-15.4758	0.1075

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	122.2081	18.0195	-0.1174	-169.0612	-13.2201	0.1174
113	126.5580	16.0471	-0.1225	-167.4968	-11.2475	0.1225
114	127.8392	14.3570	-0.0502	-163.7187	-9.5559	0.0510
115	128.0133	12.9391	-0.0876	-159.6251	-8.1401	0.0872
116	128.9023	11.7840	-0.0232	-157.0575	-6.9835	0.0228
117	132.1593	10.8797	-0.0877	-157.5976	-6.0800	0.0875
118	139.2259	10.2097	-0.0182	-162.6598	-5.4084	0.0180
119	151.2892	9.7564	-0.0537	-173.3562	-4.9572	0.0537
120	169.2627	9.4985	0.0643	-190.5560	-4.6991	-0.0641
121	-689.2009	57.4388	-0.0390	524.0577	-52.6380	0.0389
122	-527.6538	52.7213	-0.1260	376.7089	-47.9219	0.1265
123	-387.2256	48.1802	-0.2249	249.8802	-43.3800	0.2251
124	-267.0872	43.8318	-0.2853	142.7662	-39.0308	0.2854
125	-166.3354	39.6981	-0.2941	54.4476	-34.8984	0.2951
126	-83.8352	35.8024	-0.2744	-16.3624	-31.0027	0.2756
127	-18.1101	32.1533	-0.2556	-71.1332	-27.3542	0.2555
128	32.4887	28.7720	-0.2282	-111.5980	-23.9721	0.2299
129	69.8043	25.6624	-0.2001	-139.6024	-20.8617	0.1986
130	95.7941	22.8329	-0.1963	-157.0998	-18.0322	0.1958
131	112.4887	20.2897	-0.1732	-166.1559	-15.4904	0.1726
132	121.9913	18.0346	-0.1322	-168.8943	-13.2344	0.1321
133	126.3816	16.0622	-0.0797	-167.3667	-11.2626	0.0802
134	127.7051	14.3713	-0.0623	-163.6241	-9.5709	0.0623
135	127.9211	12.9549	-0.0871	-159.5870	-8.1544	0.0875
136	128.8571	11.8004	-0.0859	-157.0530	-7.0013	0.0862
137	132.1641	10.8960	-0.0281	-157.6558	-6.0953	0.0280
138	139.2852	10.2274	-0.0544	-162.7704	-5.4267	0.0544
139	151.4036	9.7741	-0.0464	-173.5241	-4.9749	0.0462
140	169.4331	9.5162	0.0693	-190.7796	-4.7166	-0.0694
141	-689.2755	57.4320	0.1371	524.1776	-52.6320	-0.1374
142	-527.7737	52.7143	-0.2436	376.8199	-47.9140	0.2433
143	-387.3387	48.1718	-0.2986	250.0515	-43.3728	0.2985
144	-267.2550	43.8251	-0.3085	142.9497	-39.0239	0.3094
145	-166.5154	39.6943	-0.3871	54.6489	-34.8950	0.3875
146	-84.0278	35.8007	-0.3535	-16.1865	-31.0001	0.3538
147	-18.2836	32.1526	-0.3274	-70.9760	-27.3525	0.3274
148	32.3300	28.7711	-0.2874	-111.4345	-23.9716	0.2879
149	69.6529	25.6616	-0.2562	-139.4429	-20.8613	0.2560
150	95.6466	22.8333	-0.2500	-156.9490	-18.0330	0.2514
151	112.3543	20.2900	-0.1897	-166.0204	-15.4902	0.1898
152	121.8573	18.0343	-0.1954	-168.7582	-13.2345	0.1948
153	126.2533	16.0618	-0.1020	-167.2391	-11.2618	0.1012
154	127.5778	14.3721	-0.1291	-163.4941	-9.5721	0.1281
155	127.7932	12.9538	-0.1101	-159.4596	-8.1529	0.1102
156	128.7239	11.7992	-0.1119	-156.9192	-6.9997	0.1120
157	132.0248	10.8951	-0.0331	-157.5077	-6.0954	0.0330
158	139.1358	10.2259	-0.0665	-162.6120	-5.4261	0.0662
159	151.2432	9.7723	-0.0440	-173.3602	-4.9717	0.0439
160	169.2675	9.5143	-0.0297	-190.6082	-4.7151	0.0296
161	-689.2070	57.4282	-0.0864	524.0945	-52.6273	0.0863
162	-527.6906	52.7087	-0.1742	376.7775	-47.9093	0.1739
163	-387.2940	48.1680	-0.2663	249.9840	-43.3677	0.2665
164	-267.1928	43.8198	-0.3640	142.9420	-39.0200	0.3646
165	-166.5054	39.6873	-0.3393	54.6482	-34.8875	0.3388
166	-84.0340	35.7940	-0.3695	-16.1450	-30.9939	0.3689
167	-18.3280	32.1451	-0.3489	-70.9070	-27.3450	0.3482
168	32.2563	28.7595	-0.3240	-111.3372	-23.9594	0.3244

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	69.5445	25.6556	-0.2382	-139.3109	-20.8553	0.2384
170	95.5090	22.8261	-0.2157	-156.7720	-18.0271	0.2154
171	112.1799	20.2826	-0.1462	-165.8297	-15.4820	0.1470
172	121.6503	18.0264	-0.1641	-168.5350	-13.2258	0.1637
173	126.0163	16.0541	-0.1494	-166.9689	-11.2548	0.1497
174	127.3068	14.3626	-0.0672	-163.1927	-9.5631	0.0670
175	127.4909	12.9445	-0.1245	-159.1271	-8.1436	0.1239
176	128.3918	11.7904	-0.0625	-156.5583	-6.9913	0.0628
177	131.6664	10.8871	-0.0810	-157.1320	-6.0859	0.0807
178	138.7584	10.2179	-0.0576	-162.2066	-5.4194	0.0576
179	150.8406	9.7650	-0.0226	-172.9390	-4.9635	0.0224
180	168.8481	9.5067	-0.0092	-190.1690	-4.7066	0.0090
181	-688.4525	57.3672	-0.1031	523.5634	-52.5676	0.1034
182	-527.1598	52.6505	-0.0906	376.4205	-47.8509	0.0901
183	-386.9387	48.1080	-0.3662	249.8160	-43.3081	0.3659
184	-267.0239	43.7611	-0.3456	142.9415	-38.9611	0.3461
185	-166.5020	39.6310	-0.3652	54.7936	-34.8303	0.3656
186	-84.1805	35.7339	-0.3509	-15.8116	-30.9345	0.3510
187	-18.6518	32.0893	-0.3328	-70.4091	-27.2897	0.3326
188	31.7681	28.7080	-0.3207	-110.6901	-23.9083	0.3207
189	68.9048	25.6004	-0.2821	-138.5128	-20.7999	0.2822
190	94.7124	22.7708	-0.2260	-155.8238	-17.9707	0.2275
191	111.2233	20.2276	-0.2296	-164.7071	-15.4275	0.2302
192	120.5358	17.9697	-0.1366	-167.2462	-13.1694	0.1361
193	124.7288	15.9972	-0.1594	-165.5210	-11.1969	0.1592
194	125.8468	14.3049	-0.1552	-161.5538	-9.5060	0.1550
195	125.8533	12.8891	-0.1021	-157.3225	-8.0885	0.1025
196	126.5824	11.7335	-0.1113	-154.5800	-6.9342	0.1115
197	129.6841	10.8306	-0.1023	-154.9754	-6.0305	0.1026
198	136.6022	10.1617	-0.0666	-159.8845	-5.3621	0.0670
199	148.5158	9.7080	-0.0520	-170.4416	-4.9076	0.0519
200	166.3485	9.4508	-0.0679	-187.5022	-4.6504	0.0679
201	-686.8048	57.2418	-0.1665	522.2564	-52.4411	0.1666
202	-525.8531	52.5235	-0.2524	375.5004	-47.7241	0.2520
203	-386.0182	47.9824	-0.2390	249.2868	-43.1830	0.2383
204	-266.4916	43.6359	-0.3649	142.7598	-38.8349	0.3661
205	-166.3250	39.5039	-0.3648	55.0216	-34.7041	0.3649
206	-84.4034	35.6087	-0.3751	-15.2064	-30.8095	0.3739
207	-19.2549	31.9636	-0.3558	-69.4343	-27.1637	0.3558
208	30.7869	28.5811	-0.3355	-109.3280	-23.7811	0.3350
209	67.5343	25.4699	-0.2578	-136.7486	-20.6695	0.2570
210	92.9461	22.6395	-0.2564	-153.6689	-17.8392	0.2555
211	109.0667	20.0972	-0.1976	-162.1577	-15.2973	0.1980
212	117.9892	17.8415	-0.2060	-164.3109	-13.0417	0.2061
213	121.8040	15.8700	-0.1156	-162.2132	-11.0697	0.1151
214	122.5494	14.1790	-0.1409	-157.8895	-9.3789	0.1408
215	122.1881	12.7626	-0.1077	-153.2726	-7.9629	0.1080
216	122.5457	11.6083	-0.1338	-150.1690	-6.8087	0.1343
217	125.2786	10.7049	-0.0633	-150.1939	-5.9049	0.0636
218	131.8290	10.0356	-0.0944	-154.7367	-5.2356	0.0949
219	143.3762	9.5835	-0.0750	-164.9279	-4.7827	0.0749
220	160.8425	9.3261	-0.0140	-181.6217	-4.5258	0.0139
221	-677.4326	56.5327	0.0056	515.0695	-51.7337	-0.0052
222	-518.6674	51.8159	-0.1402	370.4252	-47.0160	0.1402
223	-380.9460	47.2749	-0.2243	246.3022	-42.4741	0.2238
224	-263.5167	42.9281	-0.3257	141.9333	-38.1280	0.3254
225	-165.5013	38.7978	-0.3265	56.3284	-33.9989	0.3246

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-85.7032	34.9027	-0.3432	-11.8146	-30.1022	0.3435
227	-22.6528	31.2589	-0.3230	-63.9349	-26.4584	0.3232
228	25.2959	27.8778	-0.2843	-101.7319	-23.0778	0.2832
229	59.9683	24.7721	-0.2558	-127.0664	-19.9734	0.2555
230	83.3209	21.9476	-0.2070	-141.9808	-17.1459	0.2065
231	97.4188	19.4065	-0.1696	-148.4269	-14.6075	0.1700
232	104.3309	17.1533	-0.1757	-148.5842	-12.3543	0.1763
233	106.1500	15.1862	-0.1198	-144.5101	-10.3854	0.1196
234	104.9156	13.4966	-0.1198	-138.1986	-8.6973	0.1195
235	102.5804	12.0804	-0.0841	-131.6268	-7.2793	0.0839
236	100.9702	10.9282	-0.1284	-126.5502	-6.1293	0.1292
237	101.7393	10.0271	-0.0921	-124.6208	-5.2266	0.0922
238	106.3237	9.3598	-0.0724	-127.2028	-4.5597	0.0722
239	115.8993	8.9079	-0.0977	-135.4228	-4.1078	0.0978
240	131.3750	8.6511	-0.0769	-150.1305	-3.8501	0.0768
241	-658.0372	55.0659	0.0477	500.0947	-50.2676	-0.0477
242	-503.7050	50.3512	-0.1487	359.8154	-45.5499	0.1492
243	-370.3680	45.8128	-0.1947	240.1298	-41.0128	0.1946
244	-257.3709	41.4721	-0.2905	140.1697	-36.6727	0.2902
245	-163.7409	37.3523	-0.3104	58.8747	-32.5520	0.3090
246	-88.2279	33.4741	-0.2986	-4.9747	-28.6751	0.2995
247	-29.3918	29.8488	-0.2869	-52.9648	-25.0481	0.2859
248	14.4916	26.4902	-0.2698	-86.7653	-21.6895	0.2707
249	45.2477	23.4071	-0.2407	-108.2621	-18.6077	0.2388
250	64.8690	20.6045	-0.1714	-119.4802	-15.8048	0.1703
251	75.4093	18.0940	-0.1787	-122.4871	-13.2943	0.1786
252	78.9757	15.8700	-0.1562	-119.3903	-11.0695	0.1559
253	77.6546	13.9309	-0.1309	-112.2469	-9.1308	0.1303
254	73.4712	12.2753	-0.1174	-103.0930	-7.4756	0.1170
255	68.3671	10.8914	-0.1491	-93.8386	-6.0917	0.1497
256	64.1321	9.7693	-0.1552	-86.2402	-4.9688	0.1559
257	62.3656	8.8945	-0.1505	-81.8484	-4.0945	0.1507
258	64.4344	8.2510	-0.1786	-81.9864	-3.4509	0.1786
259	71.4271	7.8176	-0.1428	-87.6789	-3.0173	0.1427
260	84.1487	7.5724	-0.1599	-99.6659	-2.7720	0.1598
261	-564.9323	48.5593	0.1240	459.7422	-44.9599	-0.1237
262	-461.9156	45.0117	0.1154	364.7080	-41.4124	-0.1150
263	-371.0578	41.5672	-0.0084	281.5763	-37.9669	0.0086
264	-292.0175	38.2386	-0.1054	210.0083	-34.6375	0.1051
265	-224.4321	35.0378	-0.0597	149.6704	-31.4390	0.0593
266	-167.8623	31.9749	-0.1612	99.9556	-28.3742	0.1609
267	-121.6357	29.0593	-0.1032	60.3068	-25.4596	0.1031
268	-85.0753	26.3068	-0.1316	29.9452	-22.7075	0.1332
269	-57.3390	23.7231	-0.1412	8.0137	-20.1230	0.1417
270	-37.4914	21.3159	-0.1362	-6.4181	-17.7157	0.1371
271	-24.5234	19.0901	-0.1305	-14.3813	-15.4899	0.1308
272	-17.3295	17.0545	-0.1278	-16.9900	-13.4548	0.1285
273	-14.7397	15.2176	-0.1354	-15.4481	-11.6179	0.1355
274	-15.5112	13.5876	-0.1451	-11.0109	-9.9871	0.1459
275	-18.3347	12.1577	-0.1585	-4.9713	-8.5572	0.1583
276	-21.8676	10.9434	-0.1731	1.2989	-7.3442	0.1732
277	-24.7058	9.9458	-0.1930	6.3758	-6.3457	0.1935
278	-25.4116	9.1661	-0.2111	8.8376	-5.5660	0.2111
279	-22.5229	8.6057	-0.2367	7.2127	-5.0061	0.2369
280	-14.5564	8.2691	-0.2469	-0.0012	-4.6682	0.2471
281	-7.3079	4.0596	0.0000	0.0000	-4.0596	0.0000
282	-7.3396	4.0783	0.0000	0.0000	-4.0783	0.0000

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
283	-8.8304	4.9063	0.0000	0.0000	-4.9063	0.0000
284	-8.7956	4.8852	0.0000	0.0000	-4.8852	0.0000
285	-13.4224	7.4575	0.0000	0.0000	-7.4575	0.0000
286	-13.4219	7.4568	0.0000	0.0000	-7.4568	0.0000
287	-16.1792	8.9859	0.0000	0.0000	-8.9859	0.0000
288	-16.1751	8.9886	0.0000	0.0000	-8.9886	0.0000
289	-16.6867	9.2697	0.0000	0.0000	-9.2697	0.0000
290	-16.6881	9.2745	0.0000	0.0000	-9.2745	0.0000
291	-16.9037	9.3921	0.0000	0.0000	-9.3921	0.0000
292	-16.9459	9.4122	0.0000	0.0000	-9.4122	0.0000
293	-16.9524	9.4170	0.0000	0.0000	-9.4170	0.0000
294	-16.9742	9.4325	0.0000	0.0000	-9.4325	0.0000
295	-16.9803	9.4324	0.0000	0.0000	-9.4324	0.0000
296	-16.9734	9.4360	0.0000	0.0000	-9.4360	0.0000
297	-16.9407	9.4131	0.0000	0.0000	-9.4131	0.0000
298	-16.9957	9.4389	0.0000	0.0000	-9.4389	0.0000
299	-16.9045	9.3939	0.0000	0.0000	-9.3939	0.0000
300	-16.9466	9.4143	0.0000	0.0000	-9.4143	0.0000
301	-16.6894	9.2735	0.0000	0.0000	-9.2735	0.0000
302	-16.7044	9.2774	0.0000	0.0000	-9.2774	0.0000
303	-16.1715	8.9833	0.0000	0.0000	-8.9833	0.0000
304	-16.1907	8.9960	0.0000	0.0000	-8.9960	0.0000
305	-13.4128	7.4526	0.0000	0.0000	-7.4526	0.0000
306	-13.4485	7.4699	0.0000	0.0000	-7.4699	0.0000
307	-8.7937	4.8869	0.0000	0.0000	-4.8869	0.0000
308	-8.8170	4.8984	0.0000	0.0000	-4.8984	0.0000
309	-7.4667	4.1497	0.0000	0.0000	-4.1497	0.0000
310	-7.2148	4.0067	0.0000	0.0000	-4.0067	0.0000

ENVOLVENTE DE MIN. CORTANTES CON SOBRECARGA UNIFORME

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0018	-4.6516	-0.0308	14.5134	8.2514	0.0310
2	-7.1742	-4.9886	-0.0297	22.4470	8.5884	0.0296
3	-8.7660	-5.5476	-0.0289	25.3012	9.1482	0.0289
4	-6.2690	-6.3298	-0.0155	24.5673	9.9310	0.0157
5	-1.1769	-7.3340	-0.0170	21.7192	10.9331	0.0161
6	5.0967	-8.5512	-0.0198	18.1895	12.1510	0.0192
7	11.1265	-9.9815	-0.0141	15.3769	13.5813	0.0139
8	15.5630	-11.6167	-0.0114	14.6307	15.2179	0.0111
9	17.0628	-13.4571	-0.0160	17.2531	17.0561	0.0153
10	14.4245	-15.4886	-0.0139	24.4717	19.0884	0.0142
11	6.4375	-17.7152	-0.0125	37.4734	21.3156	0.0120
12	-8.0186	-20.1217	-0.0249	57.3414	23.7215	0.0265
13	-29.9575	-22.7078	-0.0023	85.1048	26.3082	0.0019
14	-60.3518	-25.4621	-0.0229	121.6709	29.0611	0.0227
15	-99.9977	-28.3724	-0.0040	167.8927	31.9728	0.0046
16	-149.6967	-31.4350	-0.0655	224.4994	35.0362	0.0654
17	-210.0856	-34.6351	-0.0304	292.0388	38.2341	0.0310
18	-281.5943	-37.9604	0.0308	371.0639	41.5608	-0.0301
19	-364.7142	-41.4050	0.1707	461.9144	45.0046	-0.1710
20	-459.7391	-44.9539	-0.0079	564.9448	48.5543	0.0082
21	99.7088	-2.7753	0.0192	-84.1901	7.5742	-0.0193
22	87.7160	-3.0183	0.0053	-71.4602	7.8186	-0.0053
23	82.0144	-3.4517	0.0061	-64.4585	8.2520	-0.0063
24	81.8676	-4.0953	0.0076	-62.3817	8.8956	-0.0076
25	86.2500	-4.9701	0.0094	-64.1398	9.7704	-0.0093
26	93.8427	-6.0911	0.0110	-68.3687	10.8914	-0.0112
27	103.0852	-7.4759	-0.0153	-73.4654	12.2754	0.0148
28	112.2392	-9.1302	0.0095	-77.6468	13.9305	-0.0097
29	119.3739	-11.0690	-0.0217	-78.9725	15.8684	0.0225
30	122.4916	-13.2922	0.0064	-75.4156	18.0925	-0.0057
31	119.4920	-15.8047	0.0106	-64.8764	20.6049	-0.0112
32	108.2732	-18.6065	-0.0164	-45.2665	23.4059	-0.0157
33	86.7770	-21.6872	-0.0256	-14.5262	26.4866	0.0265
34	53.0042	-25.0463	-0.0151	29.3398	29.8466	0.0142
35	5.0476	-28.6749	-0.0140	88.1942	33.4758	0.0142
36	-58.8328	-32.5555	-0.0484	163.7052	37.3557	0.0495
37	-140.1293	-36.6738	-0.0059	257.3401	41.4733	0.0055
38	-240.0982	-41.0133	-0.0776	370.3448	45.8135	0.0774
39	-359.7951	-45.5523	0.0273	503.6318	50.3517	-0.0276
40	-500.0196	-50.2668	-0.1173	658.0273	55.0670	0.1175
41	150.0445	-3.8477	0.0312	-131.3007	8.6479	-0.0312
42	135.3495	-4.1052	-0.0110	-115.8383	8.9046	0.0114
43	127.1422	-4.5557	0.0217	-106.2744	9.3559	-0.0216
44	124.5703	-5.2234	0.0201	-101.6991	10.0237	-0.0206
45	126.5131	-6.1255	-0.0192	-100.9401	10.9250	0.0188
46	131.5920	-7.2768	0.0077	-102.5591	12.0770	-0.0075
47	138.1844	-8.6933	0.0038	-104.9035	13.4936	-0.0037
48	144.4845	-10.3811	0.0238	-106.1525	15.1799	-0.0235
49	148.5928	-12.3492	-0.0003	-104.3414	17.1495	0.0001
50	148.4516	-14.6034	-0.0053	-97.4362	19.4037	0.0058
51	141.9957	-17.1452	0.0282	-83.3489	21.9462	-0.0285
52	127.0964	-19.9714	0.0157	-60.0006	24.7703	-0.0159
53	101.7750	-23.0769	0.0277	-25.3212	27.8780	-0.0288
54	63.9414	-26.4585	0.0204	22.6123	31.2574	-0.0206

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	11.8394	-30.1019	0.0238	85.6586	34.9016	-0.0242
56	-56.2714	-33.9962	0.0397	165.4885	38.7973	-0.0405
57	-141.9253	-38.1268	0.0162	263.4955	42.9265	-0.0169
58	-246.2879	-42.4703	0.0207	380.8899	47.2700	-0.0210
59	-370.3708	-47.0128	0.0212	518.5975	51.8124	-0.0210
60	-514.9993	-51.7295	-0.1270	677.4034	56.5300	0.1267
61	181.5817	-4.5227	-0.0055	-160.8162	9.3223	0.0056
62	164.9040	-4.7797	0.0371	-143.3636	9.5802	-0.0369
63	154.7235	-5.2340	0.0571	-131.8284	10.0331	-0.0571
64	150.1915	-5.9017	0.0243	-125.2831	10.7022	-0.0245
65	150.1687	-6.8068	0.0818	-122.5514	11.6067	-0.0819
66	153.2770	-7.9605	0.0086	-122.1934	12.7609	-0.0089
67	157.8858	-9.3775	0.0595	-122.5557	14.1774	-0.0599
68	162.2105	-11.0687	0.0549	-121.8076	15.8685	-0.0549
69	164.3094	-13.0385	0.0468	-117.9956	17.8384	-0.0473
70	162.1531	-15.2969	0.0401	-109.0658	20.0968	-0.0387
71	153.6657	-17.8397	0.0734	-92.9350	22.6404	-0.0732
72	136.7193	-20.6684	0.0971	-67.5253	25.4677	-0.0971
73	109.3150	-23.7736	0.0840	-30.7802	28.5742	-0.0848
74	69.4147	-27.1587	0.0934	19.2477	31.9580	-0.0929
75	15.2160	-30.8021	0.0999	84.3938	35.6022	-0.0996
76	-55.0121	-34.6996	0.1095	166.3127	39.4997	-0.1088
77	-142.7476	-38.8293	0.1166	266.4410	43.6294	-0.1157
78	-249.2312	-43.1760	0.1190	385.9615	47.9761	-0.1191
79	-375.4456	-47.7184	-0.0496	525.7842	52.5179	0.0492
80	-522.1877	-52.4357	0.0397	686.7264	57.2366	-0.0394
81	187.4445	-4.6483	0.0219	-166.3026	9.4479	-0.0220
82	170.3938	-4.9060	0.0135	-148.4793	9.7056	-0.0132
83	159.8450	-5.3582	0.0472	-136.5691	10.1585	-0.0472
84	154.9391	-6.0272	0.0326	-129.6555	10.8275	-0.0330
85	154.5449	-6.9326	0.0409	-126.5556	11.7315	-0.0405
86	157.2909	-8.0847	0.0410	-125.8277	12.8858	-0.0410
87	161.5265	-9.5045	0.0514	-125.8164	14.3042	-0.0513
88	165.4826	-11.1949	0.0852	-124.6931	15.9955	-0.0852
89	167.1972	-13.1661	0.0304	-120.5015	17.9659	-0.0294
90	164.6555	-15.4229	0.0829	-111.2000	20.2221	-0.0831
91	155.7937	-17.9660	0.1279	-94.6987	22.7659	-0.1278
92	138.5046	-20.7938	0.1125	-68.9024	25.5952	-0.1127
93	110.6925	-23.9041	0.1291	-31.7800	28.7041	-0.1282
94	70.4195	-27.2885	0.1462	18.6153	32.0871	-0.1452
95	15.8625	-30.9331	0.1544	84.1512	35.7339	-0.1544
96	-54.7679	-34.8290	0.1521	166.4393	39.6284	-0.1523
97	-142.8729	-38.9588	0.1213	266.9570	43.7590	-0.1213
98	-249.7464	-43.3050	0.1320	386.8673	48.1052	-0.1324
99	-376.3484	-47.8469	0.0262	527.1198	52.6478	-0.0261
100	-523.5244	-52.5663	0.0947	688.3809	57.3651	-0.0947
101	190.1268	-4.7049	0.0555	-168.8092	9.5053	-0.0554
102	172.9011	-4.9634	-0.0046	-150.8129	9.7630	0.0046
103	162.1809	-5.4161	0.0237	-138.7307	10.2165	-0.0240
104	157.1010	-6.0852	0.0744	-131.6467	10.8850	-0.0744
105	156.5425	-6.9905	0.0593	-128.3716	11.7904	-0.0589
106	159.1024	-8.1448	0.0366	-127.4693	12.9446	-0.0370
107	163.1658	-9.5612	0.0839	-127.2859	14.3605	-0.0841
108	166.9589	-11.2533	0.0906	-125.9853	16.0547	-0.0896
109	168.4964	-13.2257	0.1059	-121.6194	18.0258	-0.1056
110	165.7834	-15.4829	0.0966	-112.1364	20.2829	-0.0967
111	156.7258	-18.0254	0.1587	-95.4560	22.8249	-0.1591

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	139.2441	-20.8554	0.1615	-69.4892	25.6548	-0.1628
113	111.2712	-23.9639	0.1630	-32.1905	28.7635	-0.1629
114	70.8385	-27.3449	0.2045	18.4163	32.1460	-0.2056
115	16.0392	-30.9885	0.2172	84.1036	35.7875	-0.2168
116	-54.7190	-34.8809	0.1948	166.5747	39.6814	-0.1949
117	-143.0125	-39.0128	0.2558	267.2424	43.8125	-0.2551
118	-250.0305	-43.3582	0.1182	387.3457	48.1595	-0.1184
119	-376.8297	-47.9020	0.1730	527.7077	52.7012	-0.1734
120	-524.1122	-52.6189	-0.2143	689.1473	57.4183	0.2140
121	190.5864	-4.7150	-0.0015	-169.2375	9.5158	0.0014
122	173.3277	-4.9737	0.0153	-151.2110	9.7731	-0.0154
123	162.5757	-5.4260	0.0426	-139.0969	10.2262	-0.0424
124	157.4707	-6.0937	0.0647	-131.9833	10.8947	-0.0646
125	156.8811	-6.9989	0.0655	-128.6875	11.7986	-0.0654
126	159.4224	-8.1519	0.0395	-127.7704	12.9516	-0.0391
127	163.4726	-9.5700	0.0800	-127.5697	14.3691	-0.0793
128	167.2418	-11.2619	0.1057	-126.2571	16.0618	-0.1064
129	168.7812	-13.2331	0.1392	-121.8783	18.0338	-0.1403
130	166.0591	-15.4918	0.1336	-112.3720	20.2925	-0.1334
131	156.9681	-18.0350	0.1454	-95.6747	22.8343	-0.1458
132	139.4739	-20.8644	0.1797	-69.6806	25.6646	-0.1801
133	111.4686	-23.9743	0.2314	-32.3565	28.7739	-0.2311
134	71.0073	-27.3563	0.2663	18.2680	32.1567	-0.2664
135	16.2033	-31.0017	0.2890	84.0101	35.8022	-0.2885
136	-54.6320	-34.8969	0.2929	166.4977	39.6960	-0.2929
137	-142.9345	-39.0267	0.2227	267.2313	43.8274	-0.2227
138	-250.0212	-43.3733	0.2394	387.3621	48.1740	-0.2382
139	-376.8460	-47.9169	0.1823	527.7707	52.7161	-0.1825
140	-524.1736	-52.6331	-0.2008	689.2556	57.4327	0.2010
141	190.7819	-4.7169	-0.0238	-169.4318	9.5169	0.0239
142	173.5235	-4.9740	0.0890	-151.3987	9.7743	-0.0890
143	162.7646	-5.4288	0.0957	-139.2850	10.2278	-0.0956
144	157.6577	-6.0958	0.0830	-132.1621	10.8970	-0.0831
145	157.0531	-7.0019	0.1472	-128.8538	11.8012	-0.1468
146	159.5874	-8.1547	0.0922	-127.9180	12.9553	-0.0919
147	163.6192	-9.5734	0.1255	-127.6994	14.3735	-0.1256
148	167.3587	-11.2643	0.1731	-126.3709	16.0638	-0.1722
149	168.8812	-13.2346	0.2039	-121.9732	18.0349	-0.2038
150	166.1396	-15.4921	0.1939	-112.4560	20.2924	-0.1943
151	157.0500	-18.0373	0.2492	-95.7421	22.8371	-0.2498
152	139.5301	-20.8649	0.2482	-69.7402	25.6647	-0.2492
153	111.5280	-23.9747	0.3278	-32.4041	28.7747	-0.3285
154	71.0509	-27.3543	0.3434	18.2102	32.1543	-0.3449
155	16.2626	-30.9995	0.3633	83.9577	35.8004	-0.3632
156	-54.5777	-34.8956	0.3713	166.4524	39.6951	-0.3723
157	-142.8893	-39.0250	0.2791	267.1594	43.8247	-0.2797
158	-249.9521	-43.3727	0.3023	387.2617	48.1725	-0.3025
159	-376.7415	-47.9142	0.2057	527.7058	52.7148	-0.2050
160	-524.1116	-52.6335	0.1203	689.1817	57.4327	-0.1205
161	190.5814	-4.7013	0.0124	-169.2723	9.5022	-0.0126
162	173.3635	-4.9606	0.0260	-151.2865	9.7600	-0.0260
163	162.6536	-5.4128	0.0459	-139.2148	10.2131	-0.0460
164	157.5856	-6.0813	0.0846	-132.1442	10.8811	-0.0849
165	157.0401	-6.9853	0.0506	-128.8850	11.7851	-0.0502
166	159.6210	-8.1389	0.1275	-128.0033	12.9390	-0.1283
167	163.7083	-9.5563	0.1008	-127.8393	14.3564	-0.1007
168	167.5069	-11.2487	0.0693	-126.5624	16.0488	-0.0693

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	169.0793	-13.2207	0.1562	-122.2132	18.0210	-0.1559
170	166.3775	-15.4754	0.1696	-112.7603	20.2744	-0.1689
171	157.3644	-18.0177	0.2496	-96.0982	22.8183	-0.2497
172	139.8990	-20.8488	0.2613	-70.1415	25.6494	-0.2602
173	111.9302	-23.9589	0.2846	-32.8655	28.7582	-0.2842
174	71.5121	-27.3415	0.3438	17.7022	32.1410	-0.3429
175	16.7708	-30.9839	0.3645	83.4031	35.7848	-0.3638
176	-54.0243	-34.8850	0.3454	165.8557	39.6841	-0.3451
177	-142.2879	-39.0133	0.3525	266.5607	43.8145	-0.3527
178	-249.3588	-43.3605	0.2811	386.5979	48.1590	-0.2814
179	-376.0780	-47.9009	0.1486	527.0309	52.7024	-0.1490
180	-523.4369	-52.6211	0.0619	688.5052	57.4212	-0.0618
181	190.1505	-4.6668	0.0270	-168.9523	9.4664	-0.0270
182	173.0449	-4.9249	0.0070	-151.0728	9.7245	-0.0069
183	162.4400	-5.3774	0.1042	-139.1086	10.1773	-0.1045
184	157.4786	-6.0467	0.0762	-132.1381	10.8467	-0.0760
185	157.0360	-6.9497	0.0845	-128.9810	11.7504	-0.0848
186	159.7076	-8.1061	0.0736	-128.1966	12.9055	-0.0741
187	163.8924	-9.5222	0.1558	-128.1290	14.3218	-0.1559
188	167.7875	-11.2145	0.1380	-126.9495	16.0142	-0.1390
189	169.4642	-13.1852	0.1626	-122.7045	17.9857	-0.1628
190	166.8768	-15.4403	0.2194	-113.3539	20.2404	-0.2194
191	157.9525	-17.9843	0.2152	-96.7999	22.7844	-0.2156
192	140.6055	-20.8118	0.3091	-70.9682	25.6121	-0.3101
193	112.7702	-23.9224	0.3277	-33.8000	28.7227	-0.3285
194	72.4481	-27.3084	0.3537	16.6563	32.1073	-0.3526
195	17.8247	-30.9522	0.3756	82.2473	35.7528	-0.3750
196	-52.8601	-34.8478	0.3912	164.5894	39.6471	-0.3918
197	-141.0205	-38.9797	0.3712	265.1609	43.7798	-0.3711
198	-247.9480	-43.3261	0.2753	385.1145	48.1257	-0.2757
199	-374.5940	-47.8682	0.1879	525.4125	52.6686	-0.1874
200	-521.8148	-52.5863	0.1888	686.7894	57.3867	-0.1888
201	187.4945	-4.4647	0.0462	-166.8972	9.2654	-0.0462
202	170.9900	-4.7236	0.0597	-149.6240	9.5230	-0.0595
203	160.9897	-5.1767	0.0342	-138.2632	9.9761	-0.0346
204	156.6360	-5.8437	0.0891	-131.8978	10.6447	-0.0888
205	156.7932	-6.7492	0.0789	-129.3475	11.5490	-0.0792
206	160.0762	-7.9031	0.1149	-129.1722	12.7023	-0.1147
207	164.8745	-9.3207	0.1323	-129.7143	14.1206	-0.1332
208	169.3843	-11.0113	0.1031	-129.1512	15.8113	-0.1037
209	171.6727	-12.9825	0.1957	-125.5193	17.7829	-0.1968
210	169.6960	-15.2426	0.1872	-116.7658	20.0429	-0.1869
211	161.3664	-17.7845	0.2463	-100.8115	22.5844	-0.2464
212	144.6053	-20.6136	0.2441	-75.5683	25.4134	-0.2443
213	117.3596	-23.7223	0.3288	-38.9858	28.5226	-0.3280
214	77.6352	-27.1055	0.3487	10.8844	31.9056	-0.3481
215	23.5790	-30.7549	0.3734	75.8763	35.5546	-0.3730
216	-46.4969	-34.6505	0.3934	157.6358	39.4501	-0.3928
217	-134.0771	-38.7814	0.3105	257.6212	43.5814	-0.3100
218	-240.4167	-43.1289	0.3305	377.0056	47.9289	-0.3300
219	-366.4899	-47.6716	0.2374	516.7330	52.4724	-0.2375
220	-513.1407	-52.3902	0.0017	677.5230	57.1905	-0.0022
221	181.6078	-4.0190	-0.0160	-162.3565	8.8180	0.0160
222	166.4537	-4.2761	0.0144	-146.4257	9.0760	-0.0144
223	157.8009	-4.7295	0.0281	-136.4071	9.5303	-0.0283
224	154.7858	-5.4008	0.0683	-131.3844	10.2009	-0.0685
225	156.2784	-6.3062	0.0585	-130.1678	11.1051	-0.0581

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	160.9013	-7.4615	0.1119	-131.3115	12.2620	-0.1123
227	167.0087	-8.8805	0.0852	-133.1622	13.6810	-0.0850
228	172.8097	-10.5760	0.1281	-133.8805	15.3760	-0.1283
229	176.3536	-12.5504	0.1345	-131.5139	17.3491	-0.1336
230	175.6612	-14.8104	0.1843	-124.0045	19.6121	-0.1843
231	168.5477	-17.3566	0.2351	-109.2935	22.1556	-0.2353
232	153.0188	-20.1858	0.2382	-85.2771	24.9848	-0.2374
233	127.0053	-23.2918	0.3069	-49.9136	28.0926	-0.3053
234	88.4834	-26.6770	0.3370	-1.2641	31.4763	-0.3359
235	35.6647	-30.3274	0.3725	62.5375	35.1285	-0.3720
236	-33.2324	-34.2265	0.4007	143.0860	39.0254	-0.4008
237	-119.5864	-38.3602	0.3469	241.8810	43.1607	-0.3466
238	-224.7299	-42.7081	0.2651	360.0579	47.5082	-0.2647
239	-349.5804	-47.2513	0.2766	498.5385	52.0514	-0.2769
240	-494.9565	-51.9695	0.1459	658.0977	56.7705	-0.1456
241	150.1557	-1.6385	-0.0709	-138.0469	6.4368	0.0708
242	142.1843	-1.8981	-0.0307	-129.2853	6.6994	0.0306
243	140.7100	-2.3608	-0.0333	-126.4292	7.1608	0.0327
244	144.8465	-3.0423	0.0005	-128.5223	7.8417	-0.0005
245	153.4372	-3.9611	0.0093	-134.3519	8.7614	-0.0093
246	165.0416	-5.1356	0.0033	-142.4418	9.9346	-0.0031
247	178.0359	-6.5724	0.0716	-151.1137	11.3731	-0.0720
248	190.5791	-8.2903	0.0488	-158.5022	13.0910	-0.0479
249	200.6944	-10.2901	0.0564	-162.6307	15.0895	-0.0549
250	206.3638	-12.5786	0.1834	-161.4322	17.3783	-0.1824
251	205.4703	-15.1531	0.1832	-152.8123	19.9528	-0.1837
252	195.9319	-18.0152	0.2369	-134.6772	22.8157	-0.2361
253	175.6798	-21.1586	0.3157	-105.0019	25.9587	-0.3133
254	142.7775	-24.5749	0.3987	-61.8598	29.3746	-0.4000
255	95.3966	-28.2543	0.4208	-3.4396	33.0540	-0.4202
256	31.8956	-32.1825	0.4459	71.8616	36.9830	-0.4457
257	-49.1755	-36.3391	0.4402	165.3912	41.1391	-0.4394
258	-148.9291	-40.7037	0.4576	278.2419	45.5038	-0.4577
259	-268.2448	-45.2592	0.2672	411.2331	50.0595	-0.2663
260	-407.8343	-49.9813	0.2722	564.9900	54.7817	-0.2717
261	101.4567	1.2586	-0.1499	-100.2400	2.3408	0.1498
262	102.8927	1.1028	-0.1575	-101.3245	2.4965	0.1575
263	108.3305	0.8305	-0.1341	-106.1497	2.7698	0.1343
264	117.4203	0.4336	-0.1080	-114.3441	3.1675	0.1082
265	129.6970	-0.1062	-0.1463	-125.4116	3.7050	0.1467
266	144.5898	-0.7916	-0.0656	-138.7577	4.3923	0.0657
267	161.3837	-1.6379	-0.1399	-153.6492	5.2376	0.1402
268	179.2771	-2.6549	-0.0584	-169.2548	6.2542	0.0585
269	197.3598	-3.8458	0.0028	-184.6562	7.4459	-0.0034
270	214.6301	-5.2266	-0.0101	-198.8176	8.8268	0.0111
271	229.9972	-6.7905	-0.0163	-210.6672	10.3907	0.0164
272	242.3063	-8.5611	0.1188	-218.9965	12.1608	-0.1193
273	250.3277	-10.5294	0.1193	-222.5899	14.1291	-0.1196
274	252.7777	-12.7079	0.2195	-220.1314	16.3084	-0.2202
275	248.2859	-15.0872	0.2288	-210.2834	18.6877	-0.2297
276	235.4861	-17.6892	0.2898	-191.6465	21.2884	-0.2898
277	212.9729	-20.5148	0.3767	-162.7618	24.1149	-0.3764
278	179.2407	-23.5547	0.3899	-122.1874	27.1548	-0.3893
279	132.8234	-26.8157	0.4788	-68.4462	30.4153	-0.4791
280	72.2445	-30.3022	0.4672	0.0050	33.9031	-0.4677
281	30.4463	-16.9132	0.0000	0.0000	16.9132	0.0000
282	30.5176	-16.9579	0.0000	0.0000	16.9579	0.0000

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
283	93.0250	-51.6804	0.0000	0.0000	51.6804	0.0000
284	93.0031	-51.6545	0.0000	0.0000	51.6545	0.0000
285	100.6504	-55.9166	0.0000	0.0000	55.9166	0.0000
286	100.6484	-55.9154	0.0000	0.0000	55.9154	0.0000
287	102.3467	-56.8434	0.0000	0.0000	56.8434	0.0000
288	102.3384	-56.8663	0.0000	0.0000	56.8663	0.0000
289	103.1347	-57.2886	0.0000	-0.0001	57.2886	0.0000
290	103.1559	-57.3276	0.0000	0.0000	57.3276	0.0000
291	103.2604	-57.3767	0.0000	0.0000	57.3767	0.0000
292	103.3594	-57.4038	0.0000	0.0000	57.4038	0.0000
293	103.3354	-57.4049	0.0000	0.0000	57.4049	0.0000
294	103.3908	-57.4519	0.0000	0.0000	57.4519	0.0000
295	103.3375	-57.4018	0.0000	0.0000	57.4018	0.0000
296	103.3659	-57.4618	0.0000	0.0001	57.4618	0.0000
297	103.2903	-57.3925	0.0000	0.0001	57.3925	0.0000
298	103.4743	-57.4676	0.0000	0.0000	57.4676	0.0000
299	103.2216	-57.3594	0.0000	0.0002	57.3594	0.0000
300	103.3776	-57.4282	0.0000	0.0000	57.4282	0.0000
301	103.0955	-57.2854	0.0000	0.0002	57.2854	0.0000
302	103.2454	-57.3416	0.0000	0.0000	57.3416	0.0000
303	102.2946	-56.8242	0.0000	0.0001	56.8242	0.0000
304	102.4093	-56.8985	0.0000	-0.0001	56.8985	0.0000
305	100.5944	-55.8886	0.0000	-0.0001	55.8886	0.0000
306	100.7267	-55.9459	0.0000	0.0000	55.9459	0.0000
307	92.9637	-51.6542	0.0000	0.0000	51.6542	0.0000
308	93.0465	-51.6856	0.0000	0.0000	51.6856	0.0000
309	30.7459	-17.0882	0.0000	0.0000	17.0882	0.0000
310	30.2776	-16.8145	0.0000	0.0000	16.8145	0.0000

ENVOLVENTE DE MAX. TORSORES CON SOBRECARGA UNIFORME

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	1.8953	-0.0564	0.9488	-1.7685	0.0564	-0.9488
3	7.0816	-0.2248	2.3827	-6.5757	0.2248	-2.3827
4	14.8151	-0.5048	4.2909	-13.6789	0.5048	-4.2909
5	24.3396	-0.8955	6.6815	-22.3253	0.8955	-6.6814
6	34.9135	-1.3947	9.5679	-31.7758	1.3947	-9.5679
7	45.8388	-2.0013	12.9287	-41.3360	2.0013	-12.9286
8	56.4152	-2.7155	16.7594	-50.3042	2.7155	-16.7593
9	65.9634	-3.5319	21.0729	-58.0192	3.5319	-21.0724
10	73.8139	-4.4516	25.9010	-63.7980	4.4516	-25.9010
11	79.3913	-5.4672	31.1429	-67.0895	5.4672	-31.1429
12	82.0445	-6.5811	36.9569	-67.2378	6.5811	-36.9565
13	81.3040	-7.7860	43.1602	-63.7844	7.7860	-43.1606
14	76.5809	-9.0800	49.9067	-56.1559	9.0800	-49.9066
15	67.4729	-10.4567	57.1019	-43.9423	10.4567	-57.1018
16	53.5019	-11.9124	64.8176	-26.6909	11.9124	-64.8171
17	34.3806	-13.4429	72.9932	-4.1424	13.4429	-72.9928
18	9.7931	-15.0427	81.6495	24.0572	15.0427	-81.6494
19	-20.5176	-16.7061	90.7994	58.1011	16.7061	-90.7996
20	-56.8101	-18.4270	100.3671	98.2757	18.4270	-100.3670
21	-99.1518	2.1170	5.6073	92.8018	-2.1170	-5.6071
22	-91.1012	2.0780	6.6081	84.8660	-2.0780	-6.6085
23	-79.8699	1.9551	8.1788	74.0035	-1.9551	-8.1787
24	-65.7751	1.7394	10.3781	60.5567	-1.7394	-10.3781
25	-49.2170	1.4175	13.2514	44.9654	-1.4175	-13.2514
26	-30.7425	0.9802	16.7996	27.8010	-0.9802	-16.7997
27	-11.0267	0.4194	21.0254	9.7691	-0.4194	-21.0254
28	9.1068	-0.2726	25.9189	-8.2891	0.2726	-25.9189
29	28.8022	-1.1007	31.4825	-25.5001	1.1007	-31.4822
30	47.0466	-2.0689	37.7345	-40.8389	2.0689	-37.7348
31	62.8613	-3.1814	44.6546	-53.3181	3.1814	-44.6549
32	75.2029	-4.4378	52.2280	-61.8902	4.4378	-52.2282
33	82.9892	-5.8367	60.4887	-65.4814	5.8367	-60.4885
34	85.1917	-7.3783	69.4494	-63.0555	7.3783	-69.4502
35	80.8901	-9.0594	79.0312	-53.7081	9.0594	-79.0307
36	69.0199	-10.8724	89.3474	-36.4011	10.8724	-89.3480
37	48.8877	-12.8133	100.2990	-10.4517	12.8133	-100.2987
38	19.6285	-14.8730	111.9380	24.9931	14.8730	-111.9379
39	-19.2471	-17.0421	124.2561	70.3672	17.0421	-124.2562
40	-68.3374	-19.3113	137.1744	126.2739	19.3113	-137.1744
41	-127.9297	2.7329	7.6818	119.7303	-2.7329	-7.6819
42	-117.9364	2.6918	8.7117	109.8623	-2.6918	-8.7115
43	-104.6283	2.5637	10.2583	96.9375	-2.5637	-10.2578
44	-88.3628	2.3370	12.4652	81.3519	-2.3370	-12.4651
45	-69.5985	2.0042	15.3664	63.5869	-2.0042	-15.3664
46	-48.9404	1.5536	18.9012	44.2787	-1.5536	-18.9013
47	-27.0810	0.9776	23.1288	24.1492	-0.9776	-23.1287
48	-4.8639	0.2692	28.0289	4.0558	-0.2692	-28.0284
49	16.8073	-0.5745	33.6016	-15.0837	0.5745	-33.6017
50	36.9520	-1.5586	39.8482	-32.2756	1.5586	-39.8485
51	54.5376	-2.6869	46.7851	-46.4755	2.6869	-46.7848
52	68.5523	-3.9570	54.3772	-56.6842	3.9570	-54.3773
53	77.9149	-5.3699	62.6554	-61.8000	5.3699	-62.6547
54	81.6339	-6.9229	71.5924	-60.8696	6.9229	-71.5927

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	78.6858	-8.6122	81.2297	-52.8509	8.6122	-81.2295
56	68.2253	-10.4345	91.5136	-36.9151	10.4345	-91.5140
57	49.3488	-12.3814	102.4897	-12.2060	12.3814	-102.4900
58	21.3904	-14.4458	114.1310	21.9422	14.4458	-114.1311
59	-16.2585	-16.6183	126.4442	66.1096	16.6183	-126.4439
60	-62.3766	-18.8498	139.3672	118.9322	18.8498	-139.3671
61	-122.4162	2.6152	7.8632	114.5688	-2.6152	-7.8632
62	-112.7750	2.5735	8.8252	105.0525	-2.5735	-8.8251
63	-99.7963	2.4453	10.3857	92.4602	-2.4453	-10.3857
64	-83.8584	2.2184	12.6053	77.2011	-2.2184	-12.6052
65	-65.4295	1.8841	15.4513	59.7762	-1.8841	-15.4515
66	-45.0796	1.4315	19.0265	40.7835	-1.4315	-19.0262
67	-23.5620	0.8544	23.2359	20.9987	-0.8544	-23.2363
68	-1.6774	0.1465	28.1360	1.2370	-0.1465	-28.1365
69	19.6553	-0.6998	33.7091	-17.5561	0.6998	-33.7095
70	39.4534	-1.6851	39.9547	-34.3990	1.6851	-39.9547
71	56.6825	-2.8141	46.8892	-48.2417	2.8141	-46.8893
72	70.3171	-4.0850	54.4997	-58.0665	4.0850	-54.4998
73	79.3256	-5.4988	62.7603	-62.8296	5.4988	-62.7607
74	82.6496	-7.0537	71.7188	-61.4929	7.0537	-71.7185
75	79.3184	-8.7439	81.3591	-53.0877	8.7439	-81.3596
76	68.4531	-10.5666	91.6580	-36.7528	10.5666	-91.6580
77	49.2027	-12.5137	102.6283	-11.6594	12.5137	-102.6278
78	20.8464	-14.5794	114.2714	22.8927	14.5794	-114.2719
79	-14.9084	-16.6955	126.5799	64.9909	16.6955	-126.5798
80	-63.7263	-18.9851	139.5329	120.6923	18.9851	-139.5327
81	-126.4541	2.7024	7.8825	118.3486	-2.7024	-7.8830
82	-116.5529	2.6606	8.8778	108.5730	-2.6606	-8.8778
83	-103.3217	2.5316	10.4216	95.7282	-2.5316	-10.4216
84	-87.1256	2.3050	12.6250	80.2117	-2.3050	-12.6248
85	-68.4327	1.9702	15.4880	62.5243	-1.9702	-15.4877
86	-47.7991	1.5174	19.0294	43.2466	-1.5174	-19.0290
87	-26.0124	0.9407	23.2464	23.1918	-0.9407	-23.2465
88	-3.5148	0.2180	28.1417	2.8622	-0.2180	-28.1419
89	17.7695	-0.6149	33.7119	-15.9221	0.6149	-33.7114
90	38.2552	-1.6250	39.9699	-33.3814	1.6250	-39.9697
91	55.8310	-2.7609	46.9074	-47.5449	2.7609	-46.9076
92	69.5955	-4.0305	54.4979	-57.4986	4.0305	-54.4979
93	78.7824	-5.4482	62.7833	-62.4371	5.4482	-62.7843
94	82.2775	-7.0053	71.7460	-61.2663	7.0053	-71.7460
95	79.1052	-8.6981	81.3750	-53.0045	8.6981	-81.3752
96	68.3583	-10.5198	91.6859	-36.8014	10.5198	-91.6859
97	50.9289	-12.4190	102.6707	-13.6698	12.4190	-102.6705
98	22.8547	-14.4846	114.3181	20.6028	14.4846	-114.3179
99	-14.2919	-16.6385	126.6305	64.2180	16.6385	-126.6305
100	-62.3833	-18.9182	139.5872	119.1253	18.9182	-139.5873
101	-126.6134	2.7047	7.8795	118.4992	-2.7047	-7.8794
102	-116.6993	2.6630	8.9069	108.7098	-2.6630	-8.9065
103	-103.4575	2.5352	10.4501	95.8518	-2.5352	-10.4503
104	-87.1694	2.3063	12.6100	80.2495	-2.3063	-12.6104
105	-68.4681	1.9720	15.4854	62.5525	-1.9720	-15.4853
106	-47.8599	1.5195	19.0308	43.3007	-1.5195	-19.0311
107	-25.0179	0.9058	23.2363	22.2999	-0.9058	-23.2370
108	-2.5624	0.1802	28.1336	2.0214	-0.1802	-28.1335
109	19.1417	-0.6774	33.7104	-17.1108	0.6774	-33.7103
110	38.9454	-1.6597	39.9569	-33.9681	1.6597	-39.9569
111	56.3435	-2.7927	46.9015	-47.9664	2.7927	-46.9016

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	70.0487	-4.0658	54.5020	-57.8545	4.0658	-54.5021
113	79.1086	-5.4805	62.7741	-62.6688	5.4805	-62.7738
114	82.4719	-7.0351	71.7661	-61.3606	7.0351	-71.7663
115	79.2231	-8.7252	81.3871	-53.0525	8.7252	-81.3865
116	70.1998	-10.4887	91.7243	-38.7305	10.4887	-91.7243
117	49.1979	-12.4949	102.6881	-11.7161	12.4949	-102.6884
118	23.3697	-14.4932	114.3474	20.1207	14.4932	-114.3472
119	-14.5073	-16.6698	126.6730	64.5070	16.6698	-126.6728
120	-62.1411	-18.9285	139.5703	118.9180	18.9285	-139.5706
121	-127.5114	2.7225	7.9440	119.3438	-2.7225	-7.9439
122	-117.4752	2.6798	8.9164	109.4365	-2.6798	-8.9166
123	-103.9962	2.5446	10.4597	96.3616	-2.5446	-10.4599
124	-87.2814	2.3067	12.6329	80.3593	-2.3067	-12.6333
125	-68.5768	1.9729	15.4943	62.6571	-1.9729	-15.4944
126	-47.9635	1.5220	19.0379	43.3975	-1.5220	-19.0382
127	-25.8756	0.9351	23.2412	23.0696	-0.9351	-23.2412
128	-2.5715	0.1812	28.1339	2.0295	-0.1812	-28.1337
129	19.1348	-0.6775	33.7104	-17.1036	0.6775	-33.7101
130	39.0129	-1.6633	39.9593	-34.0218	1.6633	-39.9591
131	56.3681	-2.7936	46.8887	-47.9876	2.7936	-46.8890
132	70.0871	-4.0673	54.5030	-57.8825	4.0673	-54.5032
133	79.1142	-5.4829	62.8121	-62.6679	5.4829	-62.8129
134	82.4801	-7.0372	71.7899	-61.3664	7.0372	-71.7906
135	79.2188	-8.7280	81.4232	-53.0321	8.7280	-81.4223
136	69.2990	-10.5214	91.7367	-37.7400	10.5214	-91.7368
137	51.5795	-12.4275	102.7396	-14.2929	12.4275	-102.7388
138	23.4754	-14.4932	114.3923	20.0101	14.4932	-114.3921
139	-14.3516	-16.6665	126.7122	64.3440	16.6665	-126.7121
140	-62.1862	-18.9315	139.6117	118.9753	18.9315	-139.6117
141	-127.6699	2.7279	8.0190	119.4858	-2.7279	-8.0186
142	-117.5628	2.6845	8.9247	109.5103	-2.6845	-8.9245
143	-104.1678	2.5533	10.4791	96.5094	-2.5533	-10.4789
144	-87.9096	2.3264	12.6662	80.9283	-2.3264	-12.6664
145	-68.6180	1.9760	15.4896	62.6905	-1.9760	-15.4893
146	-47.9988	1.5225	19.0424	43.4315	-1.5225	-19.0419
147	-26.0303	0.9415	23.2424	23.2061	-0.9415	-23.2425
148	-2.4771	0.1780	28.1319	1.9432	-0.1780	-28.1321
149	19.1116	-0.6748	33.7062	-17.0874	0.6748	-33.7064
150	38.9897	-1.6609	39.9542	-34.0063	1.6609	-39.9548
151	56.3690	-2.7950	46.8983	-47.9855	2.7950	-46.8985
152	70.0702	-4.0657	54.4972	-57.8739	4.0657	-54.4972
153	79.1013	-5.4809	62.8256	-62.6571	5.4809	-62.8256
154	82.4916	-7.0345	71.7825	-61.3881	7.0345	-71.7820
155	79.2185	-8.7261	81.4333	-53.0341	8.7261	-81.4332
156	68.3881	-10.5478	91.7495	-36.7467	10.5478	-91.7501
157	51.5712	-12.4263	102.7652	-14.2939	12.4263	-102.7654
158	23.4785	-14.4915	114.4190	19.9940	14.4915	-114.4192
159	-14.2794	-16.6632	126.7380	64.2756	16.6632	-126.7380
160	-62.1572	-18.9331	139.6771	118.9446	18.9331	-139.6772
161	-127.6700	2.7261	7.9853	119.4909	-2.7261	-7.9853
162	-117.6657	2.6836	8.9567	109.6158	-2.6836	-8.9565
163	-104.2935	2.5536	10.4986	96.6320	-2.5536	-10.4987
164	-87.8050	2.3222	12.6539	80.8388	-2.3222	-12.6540
165	-69.1083	1.9897	15.5222	63.1398	-1.9897	-15.5223
166	-47.8676	1.5195	19.0230	43.3105	-1.5195	-19.0230
167	-26.1729	0.9460	23.2426	23.3349	-0.9460	-23.2429
168	-3.9154	0.2341	28.1322	3.2135	-0.2341	-28.1322

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	19.0794	-0.6728	33.7055	-17.0599	0.6728	-33.7052
170	39.0098	-1.6622	39.9582	-34.0255	1.6622	-39.9584
171	56.3327	-2.7917	46.9093	-47.9544	2.7917	-46.9094
172	70.0450	-4.0644	54.5155	-57.8508	4.0644	-54.5150
173	79.1033	-5.4788	62.8052	-62.6662	5.4788	-62.8059
174	82.4587	-7.0354	71.8154	-61.3543	7.0354	-71.8153
175	79.2188	-8.7256	81.4341	-53.0361	8.7256	-81.4352
176	70.3795	-10.4863	91.7836	-38.9248	10.4863	-91.7836
177	51.4268	-12.4309	102.7688	-14.1221	12.4309	-102.7687
178	23.4498	-14.4920	114.4314	20.0146	14.4920	-114.4318
179	-14.2826	-16.6609	126.7456	64.2842	16.6609	-126.7456
180	-62.2688	-18.9335	139.6876	119.0727	18.9335	-139.6871
181	-127.6575	2.7276	7.9722	119.4768	-2.7276	-7.9721
182	-117.6809	2.6862	8.9665	109.6235	-2.6862	-8.9664
183	-104.0822	2.5512	10.4575	96.4301	-2.5512	-10.4575
184	-87.8256	2.3241	12.6566	80.8532	-2.3241	-12.6563
185	-68.6272	1.9765	15.5030	62.6970	-1.9765	-15.5029
186	-48.0048	1.5247	19.0367	43.4322	-1.5247	-19.0361
187	-24.6010	0.8921	23.2290	21.9264	-0.8921	-23.2291
188	-2.7320	0.1873	28.1241	2.1686	-0.1873	-28.1246
189	19.1092	-0.6751	33.6953	-17.0826	0.6751	-33.6959
190	39.0648	-1.6651	39.9578	-34.0696	1.6651	-39.9582
191	56.3752	-2.7931	46.8816	-47.9956	2.7931	-46.8817
192	70.0663	-4.0646	54.5269	-57.8696	4.0646	-54.5270
193	79.1326	-5.4800	62.8107	-62.6894	5.4800	-62.8111
194	82.5155	-7.0365	71.7796	-61.4096	7.0365	-71.7789
195	79.2152	-8.7279	81.4501	-53.0275	8.7279	-81.4494
196	69.0469	-10.5305	91.7716	-37.4590	10.5305	-91.7716
197	50.4680	-12.4609	102.7650	-13.0820	12.4609	-102.7650
198	22.4168	-14.5219	114.4276	21.1485	14.5219	-114.4281
199	-15.4263	-16.6940	126.7485	65.5143	16.6940	-126.7485
200	-63.4756	-18.9656	139.6987	120.3800	18.9656	-139.6986
201	-127.6590	2.7281	7.9657	119.4751	-2.7281	-7.9656
202	-117.6810	2.6866	8.9378	109.6236	-2.6866	-8.9377
203	-104.3680	2.5582	10.5082	96.6954	-2.5582	-10.5081
204	-87.8067	2.3233	12.6513	80.8361	-2.3233	-12.6513
205	-68.8340	1.9814	15.5096	62.8893	-1.9814	-15.5092
206	-47.9687	1.5227	19.0268	43.4025	-1.5227	-19.0265
207	-25.9421	0.9373	23.2351	23.1306	-0.9373	-23.2349
208	-3.8005	0.2292	28.1275	3.1131	-0.2292	-28.1268
209	19.1425	-0.6764	33.7026	-17.1125	0.6764	-33.7026
210	39.0204	-1.6635	39.9519	-34.0297	1.6635	-39.9515
211	56.3514	-2.7940	46.8970	-47.9709	2.7940	-46.8974
212	70.0606	-4.0643	54.4955	-57.8672	4.0643	-54.4957
213	79.0939	-5.4804	62.8246	-62.6518	5.4804	-62.8251
214	82.4869	-7.0356	71.7846	-61.3784	7.0356	-71.7836
215	79.1966	-8.7286	81.4465	-53.0128	8.7286	-81.4466
216	68.3779	-10.5521	91.7537	-36.7255	10.5521	-91.7536
217	49.0975	-12.5007	102.7655	-11.5957	12.5007	-102.7659
218	20.7768	-14.5671	114.4200	22.9234	14.5671	-114.4201
219	-17.2802	-16.7407	126.7376	67.5129	16.7407	-126.7377
220	-65.5229	-19.0115	139.6576	122.5607	19.0115	-139.6576
221	-127.7897	2.7329	8.0078	119.5924	-2.7329	-8.0078
222	-117.7736	2.6916	8.9658	109.6991	-2.6916	-8.9657
223	-104.4142	2.5619	10.5083	96.7280	-2.5619	-10.5086
224	-87.8874	2.3284	12.6605	80.9012	-2.3284	-12.6605
225	-68.9644	1.9884	15.5176	62.9999	-1.9884	-15.5177

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-47.9818	1.5261	19.0276	43.4019	-1.5261	-19.0276
227	-26.1669	0.9471	23.2460	23.3230	-0.9471	-23.2468
228	-2.8997	0.1948	28.1336	2.3138	-0.1948	-28.1333
229	18.9145	-0.6667	33.7047	-16.9132	0.6667	-33.7045
230	38.9764	-1.6647	39.9594	-33.9816	1.6647	-39.9594
231	56.2878	-2.7968	46.9044	-47.8994	2.7968	-46.9043
232	69.9549	-4.0684	54.5031	-57.7521	4.0684	-54.5033
233	78.9397	-5.4821	62.8162	-62.4898	5.4821	-62.8159
234	82.2885	-7.0404	71.7881	-61.1713	7.0404	-71.7877
235	78.9389	-8.7324	81.4590	-52.7368	8.7324	-81.4586
236	68.0755	-10.5572	91.7619	-36.4110	10.5572	-91.7618
237	48.7585	-12.5076	102.7632	-11.2323	12.5076	-102.7634
238	20.3276	-14.5739	114.4273	23.3950	14.5739	-114.4271
239	-17.7499	-16.7479	126.7525	67.9956	16.7479	-126.7523
240	-65.9987	-19.0187	139.6832	123.0654	19.0187	-139.6833
241	-128.3298	2.7761	8.0064	120.0040	-2.7761	-8.0066
242	-118.1451	2.7332	8.9518	109.9436	-2.7332	-8.9520
243	-104.6386	2.6015	10.5086	96.8342	-2.6015	-10.5085
244	-88.0082	2.3655	12.6631	80.9115	-2.3655	-12.6634
245	-68.6792	2.0133	15.5136	62.6393	-2.0133	-15.5135
246	-47.9639	1.5527	19.0490	43.3058	-1.5527	-19.0486
247	-25.1721	0.9321	23.2500	22.3767	-0.9321	-23.2501
248	-3.1342	0.2118	28.1493	2.4983	-0.2118	-28.1490
249	18.8725	-0.6753	33.7224	-16.8480	0.6753	-33.7227
250	38.7574	-1.6871	39.9930	-33.6976	1.6871	-39.9934
251	55.7373	-2.8303	46.9245	-47.2475	2.8303	-46.9236
252	68.9904	-4.1189	54.5470	-56.6327	4.1189	-54.5467
253	77.4924	-5.5511	62.8617	-60.8383	5.5511	-62.8614
254	80.1967	-7.1223	71.8608	-58.8323	7.1223	-71.8603
255	76.1929	-8.8315	81.5005	-49.7011	8.8315	-81.5002
256	64.5316	-10.6718	91.8265	-32.5146	10.6718	-91.8269
257	44.4042	-12.6342	102.8347	-6.5019	12.6342	-102.8344
258	15.2074	-14.7128	114.4947	28.9308	14.7128	-114.4952
259	-23.7355	-16.8945	126.8073	74.4220	16.8945	-126.8071
260	-72.6621	-19.1724	139.7673	130.1818	19.1724	-139.7671
261	-135.7087	3.0105	10.1065	128.9343	-3.0105	-10.1063
262	-127.8507	2.9856	10.9815	121.1321	-2.9856	-10.9812
263	-117.9026	2.9063	12.2307	111.3622	-2.9063	-12.2306
264	-106.0184	2.7656	13.9311	99.7938	-2.7656	-13.9311
265	-92.6245	2.5675	16.1672	86.8487	-2.5675	-16.1662
266	-76.9305	2.2741	18.8080	71.8131	-2.2741	-18.8076
267	-61.3421	1.9441	22.0171	56.9683	-1.9441	-22.0173
268	-43.9245	1.5003	25.6521	40.5492	-1.5003	-25.6529
269	-25.2882	0.9376	29.7929	23.1785	-0.9376	-29.7932
270	-8.5245	0.3474	34.4306	7.7435	-0.3474	-34.4306
271	7.8156	-0.3430	39.5474	-7.0446	0.3430	-39.5473
272	22.9837	-1.1309	45.1590	-20.4399	1.1309	-45.1594
273	36.3129	-2.0107	51.2462	-31.7895	2.0107	-51.2471
274	47.2765	-2.9959	57.8330	-40.5348	2.9959	-57.8333
275	55.2151	-4.0820	64.8898	-46.0291	4.0820	-64.8904
276	59.4398	-5.2750	72.4405	-47.5734	5.2750	-72.4407
277	59.2547	-6.5756	80.4804	-44.4582	6.5756	-80.4806
278	53.9825	-7.9855	88.9851	-36.0138	7.9855	-88.9847
279	42.8036	-9.5058	97.9951	-21.4173	9.5058	-97.9950
280	25.1176	-11.1372	107.4542	-0.0518	11.1372	-107.4543
281	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
282	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
283	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
284	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
285	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
286	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
287	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
288	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
289	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
290	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
291	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
292	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
293	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
294	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
295	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
296	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
297	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
298	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
299	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
300	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
301	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
302	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
303	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
304	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
305	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
306	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
307	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
308	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
309	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
310	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

ENVOLVENTE DE MIN. TORSORES CON SOBRECARGA UNIFORME

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.0261	11.0905	-107.3343	-24.9261	-11.0905	107.3339
2	21.2583	9.4590	-97.8757	-42.5400	-9.4590	97.8761
3	35.7065	7.9317	-88.8852	-53.5559	-7.9317	88.8851
4	44.1695	6.5494	-80.4191	-58.9105	-6.5494	80.4190
5	47.3108	5.2622	-72.4150	-59.1483	-5.2622	72.4150
6	45.4112	4.0387	-64.8634	-54.4989	-4.0387	64.8633
7	39.8435	2.9541	-57.8167	-46.4867	-2.9541	57.8168
8	31.5062	2.0031	-51.2576	-36.0142	-2.0031	51.2576
9	20.3313	1.1319	-45.1772	-22.8769	-1.1319	45.1772
10	6.0860	0.3023	-39.5697	-6.7645	-0.3023	39.5691
11	-7.4859	-0.3324	-34.4455	8.2325	0.3324	34.4455
12	-24.5913	-0.9933	-29.8154	26.8270	0.9933	29.8153
13	-38.7347	-1.4342	-25.6370	41.9614	1.4342	25.6372
14	-54.5284	-1.8640	-21.9710	58.7206	1.8640	21.9712
15	-69.3492	-2.2014	-18.7603	74.3017	2.2014	18.7603
16	-84.7824	-2.5112	-16.0782	90.4360	2.5112	16.0778
17	-96.4043	-2.6778	-13.8340	102.4285	2.6778	13.8339
18	-107.3102	-2.8049	-12.0624	113.6229	2.8049	12.0626
19	-116.7416	-2.8822	-10.7195	123.2271	2.8822	10.7196
20	-124.4743	-2.9120	-9.8860	131.0271	2.9120	9.8862
21	-129.8034	19.1631	-139.5774	72.3289	-19.1631	139.5773
22	-74.0586	16.8799	-126.6139	23.4171	-16.8799	126.6141
23	-28.6947	14.6965	-114.2928	-15.3955	-14.6965	114.2930
24	6.6913	12.6173	-102.6460	-44.5432	-12.6173	102.6460
25	32.6102	10.6547	-91.6734	-64.5756	-10.6547	91.6732
26	49.7244	8.8150	-81.3755	-76.1715	-8.8150	81.3756
27	58.8124	7.1128	-71.7696	-80.1489	-7.1128	71.7696
28	60.7043	5.5292	-62.7973	-77.2938	-5.5292	62.7969
29	56.5720	4.1131	-54.5394	-68.9086	-4.1131	54.5394
30	46.8010	2.7964	-46.9196	-55.1914	-2.7964	46.9191
31	33.2538	1.6593	-39.9936	-38.2319	-1.6593	39.9935
32	17.0127	0.6845	-33.7473	-19.0649	-0.6845	33.7473
33	-1.6899	-0.1740	-28.1646	2.2114	0.1740	28.1648
34	-22.4006	-0.9318	-23.2616	25.1963	0.9318	23.2619
35	-41.1547	-1.4743	-19.0126	45.5796	1.4743	19.0129
36	-62.0022	-1.9904	-15.4782	67.9726	1.9904	15.4787
37	-78.0551	-2.2807	-12.5743	84.8967	2.2807	12.5741
38	-95.5713	-2.5665	-10.3903	103.2702	2.5665	10.3907
39	-106.1869	-2.6390	-8.7812	114.1027	2.6390	8.7814
40	-118.4436	-2.7393	-7.8176	126.6615	2.7393	7.8176
41	-122.7217	19.0094	-139.5183	65.6878	-19.0094	139.5182
42	-67.6526	16.7282	-126.5574	17.4715	-16.7282	126.5571
43	-23.1577	14.5636	-114.2493	-20.5392	-14.5636	114.2494
44	11.3914	12.4972	-102.6085	-48.8860	-12.4972	102.6084
45	36.4512	10.5476	-91.6538	-68.0932	-10.5476	91.6535
46	52.7843	8.7191	-81.3400	-78.9437	-8.7191	81.3407
47	61.1311	7.0266	-71.7202	-82.2125	-7.0266	71.7204
48	62.3925	5.4665	-62.7661	-78.7894	-5.4665	62.7663
49	57.6604	4.0614	-54.5053	-69.8463	-4.0614	54.5053
50	47.7287	2.7838	-46.9035	-56.0811	-2.7838	46.9030
51	33.3330	1.6256	-39.9662	-38.2110	-1.6256	39.9657
52	16.7994	0.6627	-33.7224	-18.7860	-0.6627	33.7227
53	-2.6351	-0.2087	-28.1452	3.2595	0.2087	28.1455

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	-21.9629	-0.8947	-23.2429	24.6463	0.8947	23.2430
55	-43.1656	-1.5175	-19.0250	47.7187	1.5175	19.0247
56	-61.7292	-1.9485	-15.4630	67.5766	1.9485	15.4633
57	-80.1029	-2.3050	-12.5957	87.0179	2.3050	12.5957
58	-95.6210	-2.5326	-10.3897	103.2201	2.5326	10.3896
59	-108.4796	-2.6619	-8.8118	116.4662	2.6619	8.8118
60	-118.5147	-2.7087	-7.8501	126.6424	2.7087	7.8501
61	-122.3533	19.0060	-139.5150	65.3403	-19.0060	139.5149
62	-67.3442	16.7342	-126.5893	17.1355	-16.7342	126.5893
63	-22.8139	14.5635	-114.2797	-20.8681	-14.5635	114.2799
64	11.6678	12.4986	-102.6382	-49.1674	-12.4986	102.6383
65	36.7698	10.5501	-91.6506	-68.4186	-10.5501	91.6511
66	53.0169	8.7280	-81.3797	-79.2050	-8.7280	81.3795
67	61.3805	7.0349	-71.7255	-82.4823	-7.0349	71.7254
68	62.6541	5.4799	-62.7785	-79.0942	-5.4799	62.7783
69	57.8424	4.0650	-54.5045	-70.0363	-4.0650	54.5044
70	47.9548	2.7926	-46.9030	-56.3338	-2.7926	46.9030
71	33.9232	1.6568	-39.9634	-38.8950	-1.6568	39.9644
72	16.7065	0.6555	-33.7128	-18.6741	-0.6555	33.7128
73	-1.7916	-0.1698	-28.1393	2.3016	0.1698	28.1400
74	-22.1149	-0.8982	-23.2393	24.8096	0.8982	23.2396
75	-43.1802	-1.5158	-19.0238	47.7252	1.5158	19.0238
76	-62.4189	-1.9677	-15.4738	68.3207	1.9677	15.4734
77	-80.1038	-2.3030	-12.5957	87.0127	2.3030	12.5955
78	-95.6173	-2.5290	-10.3910	103.2051	2.5290	10.3910
79	-108.7654	-2.6651	-8.8618	116.7595	2.6651	8.8620
80	-118.4844	-2.7044	-7.8478	126.6000	2.7044	7.8477
81	-120.8174	18.9741	-139.5746	63.9015	-18.9741	139.5749
82	-65.9452	16.7033	-126.6313	15.8389	-16.7033	126.6313
83	-22.8190	14.5627	-114.3175	-20.8731	-14.5627	114.3174
84	11.6891	12.4974	-102.6703	-49.1846	-12.4974	102.6704
85	36.7578	10.5485	-91.6931	-68.3965	-10.5485	91.6928
86	53.0383	8.7260	-81.3837	-79.2259	-8.7260	81.3832
87	61.3877	7.0345	-71.7464	-82.4895	-7.0345	71.7470
88	62.6751	5.4799	-62.7754	-79.1172	-5.4799	62.7755
89	57.8449	4.0658	-54.5186	-70.0422	-4.0658	54.5186
90	47.9483	2.7924	-46.8920	-56.3237	-2.7924	46.8913
91	33.9144	1.6557	-39.9568	-38.8833	-1.6557	39.9571
92	17.0511	0.6734	-33.7125	-19.0735	-0.6734	33.7124
93	-2.0143	-0.1797	-28.1370	2.5541	0.1797	28.1361
94	-22.6127	-0.9177	-23.2411	25.3653	0.9177	23.2408
95	-43.0902	-1.5120	-19.0187	47.6264	1.5120	19.0190
96	-62.5690	-1.9718	-15.4796	68.4834	1.9718	15.4794
97	-80.3390	-2.3084	-12.6259	87.2648	2.3084	12.6255
98	-95.8683	-2.5350	-10.4235	103.4722	2.5350	10.4233
99	-109.2541	-2.6770	-8.8799	117.2890	2.6770	8.8797
100	-118.7460	-2.7097	-7.8704	126.8746	2.7097	7.8705
101	-119.3646	18.9434	-139.6225	62.5274	-18.9434	139.6219
102	-64.3491	16.6653	-126.6582	14.3572	-16.6653	126.6581
103	-20.2412	14.4983	-114.3414	-23.2587	-14.4983	114.3412
104	11.7145	12.4964	-102.6854	-49.2021	-12.4964	102.6854
105	36.7553	10.5474	-91.7121	-68.3974	-10.5474	91.7119
106	53.0325	8.7258	-81.4093	-79.2088	-8.7258	81.4095
107	61.3964	7.0354	-71.7514	-82.4985	-7.0354	71.7510
108	62.6527	5.4781	-62.7902	-79.0923	-5.4781	62.7901
109	57.8461	4.0644	-54.5030	-70.0400	-4.0644	54.5038
110	47.9535	2.7926	-46.9019	-56.3321	-2.7926	46.9020

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
111	33.9535	1.6578	-39.9588	-38.9272	-1.6578	39.9592
112	17.0310	0.6723	-33.7131	-19.0485	-0.6723	33.7131
113	-1.8458	-0.1734	-28.1381	2.3647	0.1734	28.1384
114	-23.2855	-0.9450	-23.2464	26.1207	0.9450	23.2466
115	-43.1218	-1.5144	-19.0214	47.6631	1.5144	19.0215
116	-62.6711	-1.9772	-15.5072	68.6034	1.9772	15.5074
117	-80.3108	-2.3096	-12.6122	87.2403	2.3096	12.6119
118	-96.5086	-2.5536	-10.4649	104.1715	2.5536	10.4648
119	-109.2670	-2.6787	-8.8777	117.3003	2.6787	8.8777
120	-119.4650	-2.7285	-7.9728	127.6504	2.7285	7.9727
121	-119.1014	18.9384	-139.6306	62.2735	-18.9384	139.6305
122	-64.2913	16.6672	-126.6960	14.2952	-16.6672	126.6964
123	-20.1415	14.5005	-114.3788	-23.3621	-14.5005	114.3785
124	13.8587	12.4422	-102.7215	-51.1937	-12.4422	102.7217
125	37.7571	10.5220	-91.7378	-69.3214	-10.5220	91.7381
126	53.9534	8.6985	-81.4331	-80.0471	-8.6985	81.4332
127	61.4030	7.0351	-71.7728	-82.5029	-7.0351	71.7733
128	62.6848	5.4795	-62.8005	-79.1239	-5.4795	62.8005
129	57.8555	4.0632	-54.5033	-70.0471	-4.0632	54.5037
130	47.9531	2.7912	-46.9022	-56.3278	-2.7912	46.9028
131	34.0329	1.6627	-39.9696	-39.0224	-1.6627	39.9694
132	17.0106	0.6716	-33.7115	-19.0256	-0.6716	33.7118
133	-3.0973	-0.2285	-28.1367	3.7813	0.2285	28.1362
134	-23.3084	-0.9450	-23.2486	26.1431	0.9450	23.2482
135	-43.3790	-1.5223	-19.0305	47.9455	1.5223	19.0307
136	-62.7037	-1.9768	-15.4933	68.6321	1.9768	15.4932
137	-80.9415	-2.3269	-12.6648	87.9224	2.3269	12.6652
138	-96.5235	-2.5532	-10.4660	104.1843	2.5532	10.4653
139	-109.4831	-2.6833	-8.9103	117.5321	2.6833	8.9104
140	-119.4974	-2.7284	-8.0047	127.6814	2.7284	8.0047
141	-118.9837	18.9311	-139.6352	62.1891	-18.9311	139.6351
142	-64.2796	16.6638	-126.7318	14.2834	-16.6638	126.7317
143	-20.0006	14.4921	-114.4141	-23.4669	-14.4921	114.4141
144	14.2944	12.4253	-102.7566	-51.5809	-12.4253	102.7565
145	36.7469	10.5489	-91.7505	-68.3901	-10.5489	91.7500
146	54.5674	8.6783	-81.4533	-80.6055	-8.6783	81.4525
147	61.3758	7.0353	-71.7853	-82.4822	-7.0353	71.7852
148	62.6823	5.4804	-62.7984	-79.1232	-5.4804	62.7983
149	57.8663	4.0647	-54.5019	-70.0619	-4.0647	54.5015
150	47.9729	2.7927	-46.8980	-56.3528	-2.7927	46.8990
151	34.0393	1.6619	-39.9521	-39.0265	-1.6619	39.9526
152	17.1273	0.6772	-33.7036	-19.1590	-0.6772	33.7037
153	-2.7027	-0.2121	-28.1266	3.3377	0.2121	28.1270
154	-22.6651	-0.9209	-23.2339	25.4262	0.9209	23.2337
155	-43.3811	-1.5223	-19.0235	47.9491	1.5223	19.0226
156	-62.7114	-1.9773	-15.4870	68.6435	1.9773	15.4870
157	-80.9436	-2.3273	-12.6757	87.9243	2.3273	12.6755
158	-96.5276	-2.5540	-10.4782	104.1887	2.5540	10.4780
159	-109.5989	-2.6853	-8.9371	117.6546	2.6853	8.9368
160	-119.4496	-2.7266	-7.9639	127.6295	2.7266	7.9640
161	-119.0088	18.9344	-139.6867	62.1947	-18.9344	139.6868
162	-64.2110	16.6639	-126.7502	14.2248	-16.6639	126.7501
163	-19.9713	14.4931	-114.4283	-23.5100	-14.4931	114.4289
164	14.1137	12.4334	-102.7669	-51.4116	-12.4334	102.7671
165	38.9653	10.4842	-91.7848	-70.4149	-10.4842	91.7849
166	53.0502	8.7260	-81.4318	-79.2291	-8.7260	81.4325
167	61.3730	7.0343	-71.8015	-82.4757	-7.0343	71.8014

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
168	62.6394	5.4790	-62.8403	-79.0766	-5.4790	62.8402
169	57.8455	4.0634	-54.5073	-70.0375	-4.0634	54.5072
170	47.9603	2.7920	-46.8970	-56.3348	-2.7920	46.8973
171	33.9757	1.6598	-39.9497	-38.9557	-1.6598	39.9494
172	17.0488	0.6734	-33.7042	-19.0679	-0.6734	33.7041
173	-2.0886	-0.1832	-28.1315	2.6401	0.1832	28.1312
174	-23.3154	-0.9453	-23.2484	26.1510	0.9453	23.2483
175	-43.3946	-1.5223	-19.0243	47.9630	1.5223	19.0244
176	-62.7125	-1.9760	-15.5180	68.6395	1.9760	15.5180
177	-80.4201	-2.3108	-12.6562	87.3547	2.3108	12.6559
178	-96.1025	-2.5418	-10.4914	103.7249	2.5418	10.4914
179	-109.2260	-2.6766	-8.9616	117.2571	2.6766	8.9615
180	-119.1091	-2.7192	-7.9894	127.2663	2.7192	7.9893
181	-118.6292	18.9068	-139.6803	61.9133	-18.9068	139.6807
182	-63.9573	16.6362	-126.7312	14.0523	-16.6362	126.7308
183	-19.9353	14.4685	-114.4203	-23.4699	-14.4685	114.4201
184	14.2837	12.4034	-102.7678	-51.4934	-12.4034	102.7680
185	38.7513	10.4643	-91.7711	-70.1493	-10.4643	91.7710
186	54.2165	8.6596	-81.4530	-80.1944	-8.6596	81.4527
187	61.2676	7.0081	-71.7700	-82.2922	-7.0081	71.7700
188	62.4594	5.4546	-62.8164	-78.8219	-5.4546	62.8164
189	57.5797	4.0415	-54.5161	-69.7058	-4.0415	54.5164
190	47.5880	2.7648	-46.8886	-55.8837	-2.7648	46.8893
191	33.6125	1.6379	-39.9638	-38.5278	-1.6379	39.9638
192	16.0260	0.6202	-33.6967	-17.8882	-0.6202	33.6966
193	-3.0157	-0.2246	-28.1288	3.6901	0.2246	28.1291
194	-23.2353	-0.9419	-23.2372	26.0592	0.9419	23.2375
195	-43.4082	-1.5154	-19.0393	47.9538	1.5154	19.0396
196	-62.6432	-1.9665	-15.5082	68.5422	1.9665	15.5081
197	-80.3204	-2.3011	-12.6609	87.2232	2.3011	12.6611
198	-95.8633	-2.5338	-10.5058	103.4640	2.5338	10.5059
199	-108.7177	-2.6626	-8.9646	116.7052	2.6626	8.9643
200	-118.4994	-2.7036	-7.9724	126.6094	2.7036	7.9722
201	-119.1606	18.9468	-139.6877	62.3114	-18.9468	139.6875
202	-64.4294	16.6780	-126.7510	14.4006	-16.6780	126.7510
203	-20.0782	14.5048	-114.4261	-23.4303	-14.5048	114.4259
204	14.0458	12.4462	-102.7581	-51.3927	-12.4462	102.7580
205	38.8042	10.5032	-91.7709	-70.3102	-10.5032	91.7711
206	53.0645	8.7415	-81.4363	-79.2847	-8.7415	81.4363
207	61.4541	7.0503	-71.7845	-82.6045	-7.0503	71.7844
208	62.7690	5.4956	-62.8268	-79.2545	-5.4956	62.8276
209	58.0356	4.0808	-54.4976	-70.2797	-4.0808	54.4967
210	48.1845	2.8073	-46.8956	-56.6080	-2.8073	46.8956
211	34.3245	1.6795	-39.9508	-39.3638	-1.6795	39.9505
212	17.4607	0.6943	-33.7012	-19.5430	-0.6943	33.7012
213	-1.3312	-0.1523	-28.1237	1.7873	0.1523	28.1236
214	-21.1137	-0.8595	-23.2323	23.6929	0.8595	23.2316
215	-40.9177	-1.4357	-19.0284	45.2253	1.4357	19.0287
216	-59.9179	-1.8876	-15.4858	65.5801	1.8876	15.4855
217	-77.3478	-2.2213	-12.6689	84.0123	2.2213	12.6691
218	-92.6140	-2.4472	-10.4719	99.9552	2.4472	10.4717
219	-105.2087	-2.5756	-8.9276	112.9368	2.5756	8.9275
220	-114.7255	-2.6169	-7.9876	122.5766	2.6169	7.9875
221	-117.3704	18.8124	-139.5683	60.9466	-18.8124	139.5684
222	-62.9853	16.5414	-126.6367	13.3624	-16.5414	126.6367
223	-19.1046	14.3705	-114.3134	-24.0135	-14.3705	114.3135
224	14.6948	12.3095	-102.6483	-51.6235	-12.3095	102.6486

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
225	39.1214	10.3666	-91.6620	-70.2132	-10.3666	91.6615
226	52.8297	8.6073	-81.3183	-78.6545	-8.6073	81.3187
227	60.8044	6.9171	-71.6844	-81.5578	-6.9171	71.6841
228	61.7627	5.3634	-62.6957	-77.8517	-5.3634	62.6953
229	56.6250	3.9508	-54.4056	-68.4744	-3.9508	54.4055
230	46.4200	2.6806	-46.7779	-54.4649	-2.6806	46.7779
231	32.2070	1.5542	-39.8402	-36.8695	-1.5542	39.8401
232	15.0020	0.5704	-33.5922	-16.7096	-0.5704	33.5923
233	-4.1392	-0.2748	-28.0162	4.9640	0.2748	28.0158
234	-24.2464	-0.9826	-23.1264	27.1943	0.9826	23.1263
235	-44.3815	-1.5586	-18.9287	49.0591	1.5586	18.9290
236	-63.7137	-2.0085	-15.3799	69.7384	2.0085	15.3803
237	-81.4770	-2.3414	-12.5530	88.5020	2.3414	12.5530
238	-97.0681	-2.5663	-10.3987	104.7683	2.5663	10.3985
239	-110.0036	-2.6951	-8.8273	118.0898	2.6951	8.8273
240	-119.8747	-2.7358	-7.8672	128.0851	2.7358	7.8673
241	-122.8554	19.2277	-137.4133	65.1930	-19.2277	137.4132
242	-67.3386	16.9612	-124.4878	16.4424	-16.9612	124.4877
243	-22.1317	14.7916	-112.1681	-22.2440	-14.7916	112.1680
244	12.8233	12.7375	-100.5084	-51.0312	-12.7375	100.5085
245	38.1673	10.8088	-89.5172	-70.5976	-10.8088	89.5173
246	54.1549	9.0329	-79.2034	-81.2472	-9.0329	79.2039
247	62.9896	7.3717	-69.5325	-85.1069	-7.3717	69.5326
248	65.3708	5.8295	-60.5801	-82.8613	-5.8295	60.5798
249	61.7736	4.4309	-52.2892	-75.0632	-4.4309	52.2896
250	53.2294	3.1741	-44.6464	-62.7503	-3.1741	44.6462
251	40.7257	2.0621	-37.7289	-46.9111	-2.0621	37.7293
252	25.3576	1.0928	-31.4750	-28.6369	-1.0928	31.4753
253	8.1445	0.2647	-25.9031	-8.9386	-0.2647	25.9031
254	-9.9374	-0.4271	-21.0205	11.2185	0.4271	21.0206
255	-27.9895	-0.9875	-16.8111	30.9523	0.9875	16.8113
256	-45.1753	-1.4244	-13.2845	49.4493	1.4244	13.2843
257	-60.7826	-1.7462	-10.4486	66.0218	1.7462	10.4488
258	-74.2504	-1.9626	-8.2572	80.1388	1.9626	8.2575
259	-85.1260	-2.0853	-6.7564	91.3824	2.0853	6.7563
260	-93.0782	-2.1244	-5.7730	99.4519	2.1244	5.7728
261	-94.9600	18.3658	-100.6140	53.6442	-18.3658	100.6138
262	-54.9644	16.6448	-91.0195	17.5212	-16.6448	91.0198
263	-20.9881	14.9803	-81.8756	-12.7206	-14.9803	81.8757
264	6.9078	13.3869	-73.2002	-37.0356	-13.3869	73.2000
265	29.3497	11.8555	-65.0181	-56.0157	-11.8555	65.0181
266	43.9711	10.4714	-57.2715	-67.5363	-10.4714	57.2713
267	58.0333	9.0345	-50.0691	-78.3596	-9.0345	50.0692
268	63.8732	7.7969	-43.2833	-81.4126	-7.7969	43.2834
269	67.3695	6.5904	-36.9979	-82.1976	-6.5904	36.9978
270	67.1990	5.4726	-31.2269	-79.5131	-5.4726	31.2270
271	63.9177	4.4546	-25.9325	-73.9400	-4.4546	25.9327
272	58.1253	3.5333	-21.0866	-66.0744	-3.5333	21.0864
273	50.4018	2.7155	-16.7668	-56.5114	-2.7155	16.7671
274	41.4171	2.0010	-12.9098	-45.9201	-2.0010	12.9095
275	31.8322	1.3940	-9.5554	-34.9695	-1.3940	9.5554
276	22.3594	0.8944	-6.6772	-24.3717	-0.8944	6.6772
277	13.6678	0.5080	-4.2820	-14.8108	-0.5080	4.2820
278	6.5782	0.2264	-2.3749	-7.0876	-0.2264	2.3749
279	1.7271	0.0674	-0.9472	-1.8792	-0.0674	0.9472
280	-0.0209	0.0093	-0.0005	0.0000	-0.0093	0.0005
281	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
282	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
283	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
284	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
285	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
286	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
287	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
288	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
289	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
290	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
291	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
292	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
293	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
294	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
295	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
296	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
297	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
298	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
299	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
300	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
301	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
302	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
303	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
304	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
305	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
306	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
307	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
308	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
309	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
310	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

ENVOLVENTES DE ESFUERZOS CON IMPACTO

ENVOLVENTES DE ESFUERZOS CON IMPACTO

ENVOL. MAX. FLECTORES -IPF

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0984	113.1396	736.7947	-482.9498	-193.4322	-594.2505
2	1218.6466	508.6801	1.1829	-2296.9656	-450.6299	-1.2922
3	2296.9487	450.6210	1.9582	-3240.1584	-389.1978	-1.8391
4	3240.1287	389.2307	0.2922	-4041.8088	-324.2921	-0.0165
5	4041.8188	324.3563	-0.5133	-4704.7134	-262.8065	0.3956
6	4704.6802	262.8997	1.0009	-5228.7925	-201.4885	-1.1856
7	5228.7744	201.5621	1.1887	-5613.0703	-143.5406	-1.0530
8	5613.0869	143.5889	0.0613	-5861.8701	-78.6589	0.1845
9	5861.9053	78.7210	-0.8866	-5967.3105	-13.7872	0.7286
10	5967.3496	13.7026	1.0710	-5937.3394	44.3093	-0.9472
11	5937.4482	-44.2149	-1.8945	-5767.1094	105.6577	1.9107
12	5767.1519	-105.7294	0.8955	-5459.9751	167.1701	-0.9222
13	5459.9688	-167.1716	-1.7829	-5012.0249	232.1307	2.0047
14	5011.9575	-232.2245	-1.0750	-4427.3228	290.0740	1.0673
15	4427.2876	-290.0563	-1.9079	-3703.6885	351.4853	1.8697
16	3703.6702	-351.4824	-0.6452	-2845.0374	412.7278	0.5537
17	2845.1753	-411.2380	-0.9750	-1853.3928	435.6585	0.9415
18	2028.9554	-263.8626	-0.8215	-1459.0919	231.1750	0.7414
19	1598.3534	-90.8485	-1.0957	-1340.6857	138.2275	1.0962
20	1458.0148	-12.0180	-0.3960	-1377.6447	64.5487	0.3543
21	1467.8198	-101.3993	0.2478	-1148.2764	106.5395	-0.2615
22	1239.4095	-47.6054	0.0880	-1001.8099	110.7889	-0.0813
23	1209.7988	53.0836	0.1330	-1323.6421	-39.6739	-0.1462
24	1490.1044	174.4388	0.2154	-2060.1992	-160.6583	-0.2287
25	2281.3926	311.3162	0.2798	-3113.4116	-240.0720	-0.2840
26	3406.2314	432.6660	0.1299	-4590.9653	-360.1676	-0.0004
27	4590.9878	360.2271	-1.0703	-5548.9785	-281.4567	1.0311
28	5548.9756	281.3887	0.2794	-6272.6602	-202.3796	-0.2547
29	6272.6724	202.3516	-1.2191	-6759.8770	-123.1529	1.1924
30	6759.9136	123.0932	0.4200	-7009.2114	-43.7087	-0.6234
31	7009.1895	43.6667	0.5622	-7019.2983	35.8404	-0.3622
32	7019.2515	-35.8352	-1.3064	-6789.5361	115.4136	1.5191
33	6789.5312	-115.3538	-1.5560	-6319.9126	195.0198	1.3636
34	6319.9082	-195.0506	0.1741	-5609.7886	274.7580	-0.1084
35	5609.8174	-274.7886	-1.9028	-4659.6064	354.4814	1.9493
36	4659.6055	-354.4726	-0.1868	-3470.2490	434.1388	0.0766
37	3560.6887	-333.6522	-0.6603	-2434.6523	413.2434	0.6963
38	2632.0439	-285.3791	0.1784	-1787.1504	227.0674	-0.3110
39	2072.0752	-57.6637	-0.1185	-1804.3573	120.8365	0.1104
40	2040.0083	41.5763	0.4444	-2069.9719	32.2629	-0.4321
41	2238.5950	-106.7724	0.4428	-1886.2896	117.4283	-0.3777
42	1986.7188	-58.7170	-0.1722	-1715.8329	121.8899	0.1763
43	1960.9764	41.0544	0.1980	-1989.3650	22.1291	-0.2263
44	2202.3110	111.3959	-0.0199	-2609.6641	-151.4648	0.2617
45	2899.7412	318.8915	-1.5140	-3738.0869	-240.9251	1.5036
46	4067.3918	411.6686	-1.0535	-5191.0474	-339.0945	1.0008
47	5191.0752	339.1003	-1.0056	-6086.2080	-260.3066	0.9519
48	6086.1460	260.3287	-0.1587	-6746.4917	-181.3452	0.1970
49	6746.4355	181.4038	-1.1376	-7170.7744	-102.2046	1.2319
50	7170.8589	102.2462	-1.1451	-7357.4028	-22.9140	0.9546

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
51	7357.4209	22.9395	0.7462	-7304.9849	56.5593	-0.8536
52	7304.9014	-56.5748	0.0652	-7012.6997	136.1213	-0.0476
53	7012.7554	-136.2047	0.7459	-6480.0088	215.8576	-0.7536
54	6479.9380	-215.8086	0.0884	-5707.7036	295.4220	-0.1623
55	5707.6172	-295.4012	1.4872	-4695.7871	375.0323	-1.5685
56	4695.7593	-374.9980	0.9398	-3444.6201	454.6170	-0.9139
57	3594.4900	-305.0796	1.0160	-2554.3940	384.6123	-1.0635
58	2760.4646	-254.7346	0.7524	-2036.4890	192.4444	-0.4780
59	2329.7368	-21.9366	0.1453	-2169.1716	85.1125	-0.1772
60	2409.0867	77.7101	0.6413	-2547.4526	-0.7894	-0.5838
61	2716.9980	-113.9254	-0.1203	-2334.0356	127.6608	0.1708
62	2435.1619	-68.9521	0.3654	-2133.4897	132.1390	-0.4246
63	2381.5120	30.7180	0.4726	-2378.9241	32.4492	-0.4754
64	2596.3264	138.2089	-0.6588	-3052.0789	-179.1946	0.9461
65	3235.0281	309.2575	-0.5410	-4044.6831	-231.2913	0.6407
66	4380.8013	401.9348	-4.0925	-5475.4937	-329.3660	4.1065
67	5475.4639	329.4010	-2.0504	-6341.5317	-250.6250	1.8914
68	6341.5508	250.6286	-1.8406	-6972.9653	-171.6086	1.8690
69	6973.0327	171.5386	-1.8475	-7367.6929	-92.3424	1.8562
70	7367.6514	92.3554	-1.8432	-7524.4224	-12.9954	1.6547
71	7524.4829	12.9449	0.1405	-7442.0562	66.5378	-0.4334
72	7442.0024	-66.5125	1.4679	-7119.9321	146.0683	-1.4618
73	7119.8481	-146.0292	0.5060	-6557.7305	225.6357	-0.4692
74	6557.6138	-225.6687	1.3250	-5755.6230	305.2978	-1.5522
75	5755.6689	-305.2839	2.8922	-4713.9995	384.9250	-3.0314
76	4714.0107	-384.8796	3.0510	-3433.5569	464.4745	-3.0108
77	3601.1907	-299.9594	1.7277	-2576.3540	379.4984	-1.6932
78	2782.9678	-249.4693	0.8920	-2076.4348	186.9294	-0.3282
79	2370.2781	-16.3097	0.6036	-2226.6069	79.4829	-0.6190
80	2466.8315	83.3838	-0.1202	-2622.2224	-6.5651	0.1637
81	2791.8572	-115.6364	0.1550	-2404.1047	129.2631	-0.1279
82	2505.2830	-70.5705	-0.0172	-2198.8428	133.7428	-0.0183
83	2447.0586	29.1273	0.0440	-2439.6716	34.0555	-0.0794
84	2657.6260	136.6108	-1.1416	-3106.7131	-177.6621	1.6635
85	3290.1929	307.6998	-2.5256	-4095.0518	-229.7487	2.5201
86	4431.7500	400.3694	-4.4605	-5521.8911	-327.7749	4.4353
87	5521.8750	327.7347	-3.6389	-6382.8066	-248.9264	3.4361
88	6382.7612	248.9711	-1.8544	-7009.3003	-169.9683	1.9174
89	7009.2241	169.9327	-3.6007	-7399.1279	-90.7443	3.5160
90	7399.0566	90.8108	-0.7535	-7551.2783	-11.4997	0.2808
91	7551.3540	11.4633	1.5985	-7464.4409	68.0219	-1.6671
92	7464.4551	-68.0308	0.6429	-7137.6021	147.6072	-0.5951
93	7137.5703	-147.6425	1.5573	-6570.6523	227.2643	-1.7466
94	6570.6958	-227.2727	2.7376	-5764.0562	306.9096	-2.8985
95	5764.1294	-306.9792	3.4529	-4717.2285	386.6383	-3.5679
96	4717.3145	-386.5559	4.2566	-3432.0750	466.1279	-4.3754
97	3604.7632	-297.2686	3.4451	-2587.9680	376.8133	-3.4895
98	2794.6145	-246.7530	2.2611	-2096.4241	184.1757	-1.2904
99	2390.3938	-13.5131	0.7823	-2255.0386	76.7057	-0.7947
100	2495.4351	86.1611	-0.1657	-2659.1401	-9.2897	0.1741
101	2828.8499	-116.3477	0.5816	-2438.6519	130.0560	-0.5498
102	2539.8503	-71.3620	-0.2699	-2231.0293	134.5370	0.2711
103	2479.3364	28.3358	-0.4833	-2469.5632	34.8503	0.3965
104	2687.6436	135.7900	-0.7603	-3134.0574	-176.8459	1.4180
105	3317.5950	306.8601	-3.0956	-4120.0620	-228.8904	3.1638
106	4456.8867	399.4944	-6.0858	-5544.0952	-326.9279	6.0100
107	5544.1157	326.9707	-3.8714	-6402.7573	-248.1876	3.6419

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
108	6402.7632	248.1268	-2.9762	-7026.8198	-169.0990	2.8557
109	7026.9141	169.1414	-1.8528	-7414.4463	-89.9490	1.7862
110	7414.4092	89.9423	-1.8190	-7563.9233	-10.6029	1.5334
111	7563.9082	10.6505	1.3755	-7474.5630	68.8323	-1.6492
112	7474.5962	-68.9407	1.5925	-7145.1704	148.5115	-1.5394
113	7145.1992	-148.5391	1.5423	-6575.6665	228.1376	-1.8636
114	6575.6157	-228.0428	4.9710	-5766.2212	307.6757	-5.2021
115	5766.2090	-307.5800	4.6299	-4717.9341	387.1868	-4.7892
116	4717.9751	-387.1071	7.0934	-3430.7429	466.7107	-7.2127
117	3605.0789	-296.7023	3.2386	-2590.1418	376.2426	-3.1935
118	2796.6860	-246.2212	2.9070	-2099.7646	183.6920	-1.6018
119	2393.5925	-13.0931	-0.2551	-2259.5820	76.2634	0.1828
120	2499.7627	86.6090	0.6896	-2664.8167	-9.7543	-0.7161
121	2834.4827	-116.4955	-0.2381	-2443.8967	130.1776	0.2692
122	2545.0635	-71.4811	-0.0989	-2235.8992	134.6520	0.0408
123	2484.0757	28.2505	-0.3757	-2474.0591	34.9323	0.3090
124	2692.0464	135.7652	-1.5182	-3138.5969	-176.8243	2.3554
125	3322.3972	306.9200	-4.0188	-4125.0562	-228.9634	4.0889
126	4462.5171	399.5471	-7.6064	-5549.8789	-326.9601	7.5795
127	5549.8638	326.8761	-5.4501	-6408.1602	-248.0811	5.1633
128	6408.1079	248.0423	-3.6478	-7031.7607	-169.0236	3.3703
129	7031.8301	168.9614	-1.6578	-7418.8965	-89.7533	1.5184
130	7418.8530	89.7143	-1.5269	-7567.7100	-10.3779	1.4782
131	7567.5688	10.4193	-0.5424	-7477.5327	69.0665	0.2738
132	7477.5649	-69.1393	1.5308	-7147.5278	148.7073	-2.0056
133	7147.5127	-148.6797	4.6385	-6577.5757	228.2912	-5.0663
134	6577.5449	-228.3019	6.6559	-5767.4907	307.9381	-6.7983
135	5767.5269	-307.9242	6.8821	-4717.8833	387.5612	-6.9010
136	4717.8804	-387.4562	7.5497	-3429.9937	467.0363	-7.7415
137	3604.6963	-296.5985	5.6159	-2589.8313	376.1393	-5.6974
138	2796.6550	-246.0797	3.4658	-2100.5793	183.5096	-1.6843
139	2394.7375	-12.8547	-0.0158	-2261.4453	76.0244	-0.0783
140	2501.7976	86.8493	0.7240	-2667.5742	-9.9801	-0.6995
141	2837.2444	-116.5018	-0.6187	-2446.6450	130.1987	0.6258
142	2547.8372	-71.4993	0.7625	-2238.5415	134.6852	-0.8805
143	2486.8584	28.1757	0.0941	-2476.6379	34.9915	-0.1274
144	2694.5352	135.6464	-1.9963	-3140.5171	-176.6878	2.9561
145	3324.0173	306.7410	-3.7270	-4126.0464	-228.7870	3.7761
146	4462.6484	399.3228	-9.4739	-5549.5229	-326.7453	9.5191
147	5549.5464	326.7553	-7.3435	-6407.6670	-247.9574	6.9714
148	6407.6206	247.9251	-4.5032	-7030.8706	-168.9177	4.1555
149	7030.9487	168.8997	-2.4722	-7417.7725	-89.7124	2.3647
150	7417.6289	89.7018	-2.3141	-7566.4102	-10.3510	2.0453
151	7566.4800	10.2901	0.7902	-7476.0459	69.1805	-1.0177
152	7476.0547	-69.1546	1.0116	-7145.9688	148.7088	-1.4413
153	7146.0410	-148.6958	5.7605	-6575.9883	228.3152	-6.2010
154	6576.0513	-228.2378	6.1546	-5766.2397	307.8740	-6.2339
155	5766.2920	-307.8966	7.6561	-4716.5601	387.5426	-7.8184
156	4716.6470	-387.4929	8.5126	-3428.4890	467.0939	-8.7526
157	3603.2463	-296.5714	6.5219	-2588.6946	376.0972	-6.6828
158	2795.2354	-246.0655	4.0729	-2099.0103	183.4983	-1.9740
159	2392.7476	-12.8645	0.1845	-2259.3594	76.0520	-0.2241
160	2499.5857	86.8046	-0.6715	-2665.2188	-9.9441	0.6262
161	2834.9082	-116.3195	-0.1893	-2444.8081	130.0110	0.1397
162	2546.0061	-71.3157	-0.0408	-2237.3308	134.4884	-0.0171
163	2485.6121	28.3958	-0.7066	-2476.0227	34.7896	0.6217
164	2694.1479	135.8873	-2.0496	-3140.9158	-176.9594	3.1993

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	3324.5852	307.0343	-6.0091	-4127.5747	-229.0661	5.8858
166	4464.0542	399.2373	-7.6679	-5550.5459	-326.6606	7.6222
167	5550.5444	326.6235	-7.6363	-6408.2383	-247.8260	7.7273
168	6408.2017	247.7442	-7.7247	-7030.9878	-168.7214	7.3285
169	7031.0288	168.7182	-2.9647	-7417.2808	-89.5372	2.4598
170	7417.3706	89.5821	-1.4531	-7565.7988	-10.2398	1.0108
171	7565.7554	10.1810	2.5346	-7474.9858	69.2917	-2.8680
172	7474.9121	-69.2406	2.8101	-7144.4653	148.8279	-2.8981
173	7144.4678	-148.8924	3.9615	-6573.8916	228.5068	-4.4827
174	6573.8447	-228.5189	8.4501	-5763.2593	308.1562	-8.7424
175	5763.1865	-308.1340	7.8540	-4712.8398	387.7732	-7.9618
176	4712.8496	-387.8180	10.4350	-3423.8494	467.4117	-10.6582
177	3598.5071	-296.7585	6.2547	-2583.0601	376.2950	-6.2523
178	2789.8123	-246.2198	4.2954	-2093.5010	183.6184	-2.1818
179	2387.4153	-12.9631	0.5104	-2253.6902	76.1630	-0.5602
180	2494.0896	86.6964	-0.3824	-2659.4043	-9.8171	0.3210
181	2829.0605	-115.8438	0.0000	-2440.4617	129.5392	-0.0381
182	2541.6687	-70.8470	-0.3003	-2234.3904	134.0220	0.2087
183	2482.6968	28.8485	0.2329	-2474.4666	34.3325	-0.3256
184	2692.4138	136.3059	-2.1701	-3140.2805	-177.3693	3.3157
185	3323.7200	307.4229	-5.1776	-4128.0239	-229.4445	5.1901
186	4461.9204	398.3945	-9.2294	-5545.7793	-325.8271	9.0414
187	5545.7212	325.8333	-5.5580	-6401.0059	-247.0605	5.3060
188	6401.0151	247.0946	-5.3064	-7021.8218	-168.0843	5.2058
189	7021.9297	168.1711	-3.5153	-7406.6069	-88.9872	3.1097
190	7406.5693	88.9226	-0.3504	-7553.0469	-9.5725	0.1169
191	7552.9360	9.6163	-0.1672	-7460.5791	69.8486	-0.2565
192	7460.6157	-69.8942	4.7875	-7128.2798	149.4740	-5.2396
193	7128.4224	-149.5872	5.2931	-6555.6172	229.2383	-5.3618
194	6555.5840	-229.3262	6.3158	-5742.6338	308.9502	-6.6646
195	5742.6133	-308.9242	9.3516	-4689.8994	388.5670	-9.6712
196	4689.9092	-388.5582	10.4012	-3398.6147	468.1542	-10.4904
197	3573.0281	-297.5233	6.0864	-2555.5430	377.0591	-6.1641
198	2762.0242	-246.9933	4.3788	-2063.0708	184.3882	-2.1397
199	2356.8647	-13.7064	0.1309	-2220.9558	76.8915	-0.1521
200	2461.2195	85.9794	-1.2585	-2624.4023	-9.0935	1.1489
201	2794.1592	-113.1895	0.1925	-2413.4363	126.8891	-0.3235
202	2514.6509	-68.1998	0.4336	-2215.3252	131.3723	-0.4561
203	2463.6443	31.4975	-0.9051	-2463.3787	31.6741	0.8362
204	2681.3462	138.9900	-1.9668	-3137.3879	-180.0430	3.0523
205	3321.0381	310.1177	-5.3952	-4133.2681	-232.1549	5.3378
206	4459.6367	396.8112	-8.3495	-5538.7266	-324.2621	8.2603
207	5538.6460	324.2897	-6.8967	-6389.3687	-245.4967	6.8399
208	6389.3936	245.4846	-6.9020	-7005.4146	-166.4757	6.5320
209	7005.3804	166.3648	-2.3000	-7384.5107	-87.1396	1.9216
210	7384.5166	87.0321	-1.9702	-7525.3037	-7.6758	1.7309
211	7525.2847	7.6402	1.0847	-7426.8911	71.8371	-1.3572
212	7426.8706	-71.7849	1.2229	-7088.9429	151.3508	-1.6453
213	7088.9453	-151.3417	6.0071	-6510.8833	230.9566	-6.4331
214	6510.8184	-230.9733	6.4675	-5692.8018	310.6303	-6.6735
215	5692.8096	-310.6984	8.7161	-4635.0396	390.3274	-8.8825
216	4635.1221	-390.3319	8.9947	-3338.4390	469.9276	-9.1571
217	3513.6392	-299.2486	6.4222	-2490.9785	378.7807	-6.5644
218	2698.0286	-248.6727	3.8012	-1994.5521	186.0535	-1.6159
219	2289.0044	-15.3643	-0.3023	-2148.0962	78.5561	0.2294
220	2388.8552	84.3386	-0.4948	-2547.1018	-7.4463	0.4445
221	2716.8008	-107.3048	-0.6023	-2353.8257	121.0138	0.5650

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
222	2455.1118	-62.3232	-0.2441	-2173.3794	125.5017	0.1726
223	2422.0339	37.3203	-0.9950	-2439.2134	25.8693	0.9070
224	2657.9045	144.6508	-2.2771	-3130.9465	-185.6546	3.3470
225	3314.8423	315.5652	-5.6948	-4143.3457	-237.5959	5.5951
226	4442.5967	387.0726	-7.6925	-5492.5986	-314.4716	7.7063
227	5492.6084	314.4593	-7.6460	-6313.8521	-235.6529	7.4883
228	6313.8970	235.6505	-5.1589	-6900.3330	-156.6535	4.9091
229	6900.3716	156.6882	-3.9256	-7250.3677	-77.4926	3.6139
230	7250.4131	77.4322	-1.2638	-7362.3379	1.9358	0.8158
231	7362.3623	-1.8484	1.3746	-7235.5244	81.2973	-1.5773
232	7235.5596	-81.2222	1.6006	-6869.3784	160.7462	-1.9247
233	6869.3091	-160.6340	5.0023	-6263.2808	240.2686	-5.4350
234	6263.2388	-240.3117	6.4434	-5417.3564	319.9476	-6.8103
235	5417.3062	-319.9182	9.1929	-4331.6133	399.5653	-9.3625
236	4331.5259	-399.6422	9.0007	-3007.2483	479.2355	-9.0831
237	3190.2322	-308.4479	5.9214	-2140.0068	387.9860	-6.0810
238	2352.3757	-220.5269	3.6174	-1737.9012	157.8295	-1.4611
239	1925.5823	-24.2898	-0.4417	-1757.9330	87.4727	0.4101
240	2001.6271	75.4721	-1.3061	-2133.2795	1.4836	1.2650
241	2303.7795	-75.9876	-1.3124	-2034.6102	89.7522	1.2473
242	2136.5874	-31.1179	-0.8018	-1948.3895	94.3150	0.7281
243	2200.0049	68.0956	-1.7424	-2309.5259	-4.9135	1.6687
244	2532.8557	174.2832	-3.0595	-3095.4326	-214.6841	4.1058
245	3281.4968	342.5096	-6.0411	-4190.8633	-264.4445	6.0412
246	4401.7856	364.9822	-8.1587	-5384.5342	-292.2550	8.0378
247	5384.5728	292.3219	-5.3502	-6138.9043	-213.4596	5.1887
248	6138.9385	213.4563	-5.2160	-6658.1782	-134.3718	5.1563
249	6658.1904	134.4372	-4.1553	-6940.7710	-55.2103	3.6380
250	6940.7393	55.1625	0.5239	-6985.0845	24.2497	-0.9712
251	6985.0278	-24.2504	0.9390	-6790.2773	103.7727	-1.0902
252	6790.2310	-103.7802	2.7143	-6355.7212	183.3594	-3.1336
253	6355.6406	-183.3032	5.2829	-5681.6055	262.9153	-5.7814
254	5681.6548	-262.9215	7.9779	-4768.1030	342.5622	-8.2140
255	4767.9961	-342.6638	8.1469	-3615.2119	422.2864	-8.1755
256	3615.2729	-422.3068	8.8995	-2224.0806	501.8642	-9.0584
257	2508.2522	-309.2959	4.6866	-1458.0763	388.7519	-4.7211
258	1688.2695	-238.1095	1.7605	-1080.1449	173.9558	0.2842
259	1317.5695	-39.2106	-1.2028	-1105.1326	102.3975	1.1385
260	1388.4563	61.4590	-2.3602	-1478.0531	15.9212	2.3303
261	1658.3850	-22.5921	-2.3776	-1575.6158	36.7878	2.3450
262	1639.1436	7.8654	-2.4926	-1603.5426	39.5109	2.4410
263	1770.0171	86.7199	-2.6963	-1911.8408	-39.3340	2.6014
264	2088.2671	179.7814	-3.4756	-2439.5479	-132.3843	3.4423
265	2650.9993	304.4406	-6.7390	-3404.0916	-356.4920	7.5526
266	3407.3911	357.9427	-5.2909	-4148.2876	-301.0930	5.3187
267	4148.3018	301.0946	-6.6015	-4754.8599	-239.6559	6.4847
268	4754.8696	239.5135	-3.9930	-5227.5400	-178.7005	3.6399
269	5227.5176	178.6066	-1.9120	-5558.3438	-117.2954	1.7852
270	5558.3115	117.1030	-1.9036	-5754.4116	-55.6627	1.8997
271	5754.4653	55.7031	-1.8211	-5808.9312	5.7314	1.4806
272	5808.8511	-5.9190	1.4221	-5726.4697	67.6633	-1.7232
273	5726.5332	-67.6857	1.6491	-5502.5601	132.6284	-1.8574
274	5502.6104	-132.7515	3.5850	-5136.4883	194.1850	-3.8163
275	5136.4814	-194.0922	3.8115	-4632.6079	252.7257	-3.8899
276	4632.6050	-252.7271	4.7429	-3989.7473	317.6616	-4.9998
277	3989.7354	-317.7268	6.1537	-3203.0137	382.6715	-6.2991
278	3203.0322	-382.6585	6.3301	-2274.6438	444.0748	-6.4720

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
279	2274.6541	-444.0387	7.5794	-1204.8389	505.4600	-7.7063
280	1204.8545	-505.4531	7.4907	-0.1128	94.1116	-255.9379

ENVOL. MAX CORTANTES -IPF

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.2459	570.1027	1.1787	-1212.1942	-512.0551	-1.1887
2	1162.2642	513.5398	1.1845	-2232.7163	-455.4741	-1.2890
3	2092.7605	459.9001	1.8666	-3028.1216	-401.8414	-1.7453
4	2811.2871	409.2440	0.3205	-3618.5000	-347.7132	-0.0697
5	3337.8242	358.0615	-0.3302	-4021.7502	-296.6499	0.2120
6	3690.1548	309.8842	0.9123	-4260.6470	-252.0543	-1.0701
7	3890.3733	268.1127	1.0078	-4354.7183	-210.4085	-0.8728
8	3957.8420	229.2290	0.1392	-4232.1162	-169.8201	0.0549
9	3819.9934	191.3829	-0.4720	-4086.7139	-132.9827	0.3394
10	3670.6646	157.1198	0.7926	-3854.8699	-100.1196	-0.6924
11	3444.9443	126.9493	-0.9842	-2882.0225	-71.3148	0.9262
12	2487.7581	100.5761	0.7089	-2660.7371	-53.1929	-0.7082
13	2291.0959	84.9034	-0.7712	-1193.5724	-40.8048	0.2579
14	2091.6106	71.5037	-0.1887	-1039.6895	-33.0124	0.2190
15	1901.5425	60.3757	-0.5821	-866.8069	-25.6898	0.0749
16	1731.7396	51.3168	0.1711	-679.0805	-18.8630	-0.0283
17	1591.7386	44.2240	-0.1010	-480.4684	-12.5618	0.0658
18	1489.6348	38.9438	-0.4125	-302.8357	-7.4793	0.1409
19	1431.7135	35.3532	-0.9182	-319.6593	-7.4784	0.1381
20	1423.0189	33.2971	-0.3573	351.9031	-97.2710	-0.0640
21	-8677.9844	765.1996	-0.9034	6181.7700	-816.7134	0.9288
22	-6226.4883	817.7336	-0.0411	3943.0662	-742.1580	-0.0245
23	-4074.5911	745.3939	0.0161	2057.2725	-670.5485	-0.0109
24	-2273.8923	676.2334	-0.0052	409.8653	-599.7949	0.0115
25	-708.3773	608.2679	-0.0027	-894.9767	-531.9688	0.0173
26	520.5630	543.4874	-0.0530	-1979.6488	-466.4612	0.1754
27	1538.2178	481.2505	-0.4352	-2738.5466	-404.0558	0.3880
28	2241.4307	422.2252	0.1243	-3322.8850	-344.8984	-0.0964
29	2783.1567	366.6903	-0.4743	-3608.8259	-289.1988	0.4288
30	3041.3376	314.6701	0.2769	-3784.0981	-237.3457	-0.4145
31	3204.3235	266.6047	0.3315	-3698.9829	-189.3853	-0.1732
32	3123.2061	222.4589	-0.5244	-2462.4333	-152.0245	0.4011
33	1907.0103	188.8873	-0.2946	-2378.8647	-125.7143	0.3139
34	1859.4463	166.2850	0.3770	-2263.5437	-103.1018	-0.3721
35	1794.9907	147.3200	-0.5343	-2142.2246	-84.1287	0.5254
36	1738.1029	131.8705	0.4405	-2038.9644	-68.6875	-0.4315
37	1711.0315	119.7780	-0.1115	-1975.5734	-56.6058	0.1039
38	1733.1554	110.8215	0.4268	-1970.8539	-47.6377	-0.4183
39	1820.4847	104.7529	-0.1035	-2039.9597	-41.5800	0.0963
40	1985.4860	101.2970	0.4510	332.6254	-97.3837	0.0501
41	-9935.4160	790.3685	-1.8328	7355.1172	-843.4189	1.7903
42	-7402.2607	844.4990	0.1205	5036.6680	-768.8781	-0.1820
43	-5174.5693	772.2657	-1.1570	3074.0383	-697.3528	1.2553
44	-3299.7703	703.2933	-1.2341	1354.0077	-626.8434	1.2747
45	-1663.2683	635.6185	-0.7270	-21.6854	-559.3149	0.6928
46	-364.0737	571.1770	-0.7762	-1177.5688	-494.1648	0.7183
47	724.8765	509.3280	-0.6761	-2008.1125	-432.1929	0.6329
48	1500.3037	450.8394	-0.4894	-2666.3220	-373.5760	0.5175
49	2117.2676	395.8175	-0.7446	-3028.6108	-318.4326	0.7966
50	2452.9656	344.3559	-0.6907	-3283.8967	-267.0966	0.5341
51	2697.5452	296.7641	0.0131	-3281.2073	-219.6678	-0.0867
52	2700.2700	253.1047	-0.2149	-2089.0918	-186.5967	0.2695
53	1530.0804	223.7930	-0.0515	-2106.8186	-160.6005	0.0608
54	1584.8878	201.5062	-0.3216	-2094.5378	-138.3374	0.3291

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	1624.8867	182.8201	0.1984	-2078.5652	-119.6437	-0.1833
56	1674.1628	167.6084	-0.2043	-2082.2852	-104.4127	0.2038
57	1754.5563	155.6861	0.0687	-2126.8342	-92.5096	-0.0717
58	1885.0256	146.8649	0.0103	-2230.8306	-83.6878	-0.0095
59	2081.1692	140.8878	-0.0253	-2409.0410	-77.7119	-0.0074
60	2355.1282	137.4860	0.6061	331.1324	-97.4212	0.1653
61	-10169.8896	796.3725	0.5658	7574.5776	-848.4457	-0.5498
62	-7621.8979	849.5254	-1.3901	5240.5581	-773.8899	1.5750
63	-5378.9619	777.2847	-2.3566	3263.7263	-702.3800	2.4459
64	-3490.1150	708.3492	-1.8261	1529.0511	-631.8947	1.7781
65	-1839.1200	640.7018	-2.5863	138.7716	-564.4064	2.6922
66	-525.3677	576.3138	-2.2417	-1031.7747	-499.3157	2.1924
67	578.1377	514.5284	-2.0349	-1876.7748	-437.3934	1.8865
68	1368.1570	456.0329	-1.8204	-2549.9531	-378.7533	1.8382
69	2000.0216	400.9816	-1.7501	-2926.6001	-323.5910	1.7262
70	2350.2673	349.5571	-1.6326	-3196.6135	-272.3026	1.4589
71	2609.7048	302.0007	-0.8921	-3208.8442	-224.9083	0.6670
72	2627.4480	258.4004	-0.4183	-2029.4818	-192.1518	0.6000
73	1470.0475	229.3707	-0.9876	-2063.4485	-166.1828	0.9823
74	1541.3450	207.0951	-0.6926	-2067.8145	-143.9241	0.7212
75	1597.9940	188.4347	-0.2746	-2068.5374	-125.2503	0.2765
76	1664.0551	173.2337	-0.4407	-2089.0020	-110.0515	0.4402
77	1761.3184	161.3333	-0.5591	-2150.5574	-98.1520	0.5591
78	1908.7441	152.5249	-0.6398	-2271.5552	-89.3437	0.6055
79	2121.9219	146.5565	0.2341	-2466.8005	-83.3833	-0.2511
80	2412.9272	143.1640	-0.1994	-1208.7152	-102.3055	0.4185
81	-10297.4297	798.8749	-1.0750	7693.9751	-851.1830	1.2885
82	-7741.3037	852.2695	-1.2403	5352.1719	-776.6476	1.3356
83	-5490.5894	780.0436	-2.7161	3366.4714	-705.1292	2.8542
84	-3592.9441	711.0964	-2.7156	1623.7283	-634.6404	2.7287
85	-1933.8745	643.4454	-2.9159	225.6317	-567.1675	2.9111
86	-612.3373	579.0863	-2.8634	-953.3022	-502.0620	2.7633
87	499.4954	517.2395	-2.6040	-1806.1320	-440.1085	2.4161
88	1297.4521	458.7809	-2.1346	-2487.6272	-381.4973	2.1612
89	1937.5145	403.7449	-2.3886	-2872.3147	-326.3666	2.2587
90	2295.9199	352.3320	-1.4157	-3150.4880	-275.0901	1.0218
91	2563.6260	304.7624	-0.5790	-3170.9541	-227.6781	0.5428
92	2589.6323	261.1720	-0.9538	-1999.8995	-194.9041	1.1349
93	1440.2092	232.1233	-0.8754	-2041.8429	-168.9506	0.9117
94	1519.7877	209.8737	-0.6867	-2054.5107	-146.7144	0.7056
95	1584.7057	191.2162	-0.6317	-2063.6489	-128.0261	0.6394
96	1659.0934	176.0336	-0.4894	-2092.3750	-112.8578	0.4881
97	1764.7067	164.1296	-0.1560	-2162.3333	-100.9458	0.1551
98	1920.5189	155.3190	-0.3649	-2291.7239	-92.1356	0.3425
99	2142.0999	149.3506	0.1131	-2495.4321	-86.1581	-0.1231
100	2441.5872	145.9604	-0.2780	-1245.4404	-105.0415	0.6215
101	-10318.4297	799.3865	-3.1762	7713.2144	-851.6174	3.4695
102	-7760.5537	852.7109	-1.4809	5370.0776	-777.0835	1.4614
103	-5508.5195	780.4713	-2.7480	3383.0903	-705.5446	2.8955
104	-3609.6179	711.5059	-4.2856	1639.3807	-635.0475	4.3384
105	-1949.5157	643.8387	-4.2005	239.7182	-567.5517	4.2457
106	-626.4586	579.4722	-4.0109	-939.9124	-502.4749	3.8491
107	486.2695	517.6785	-3.6510	-1794.1455	-440.5579	3.4453
108	1285.5425	459.1937	-3.2602	-2477.1992	-381.8868	3.1254
109	1927.0668	404.1686	-2.8383	-2863.2207	-326.7888	2.7548
110	2286.7910	352.7559	-2.7004	-3142.7708	-275.5004	2.4391
111	2555.7827	305.2129	-1.6236	-3164.4050	-228.1447	1.4169

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
112	2583.1721	261.5929	-1.5414	-1994.5535	-195.3627	1.8514
113	1435.1299	232.5867	-1.9199	-2038.1045	-169.4126	1.9726
114	1516.1304	210.3331	-1.0001	-2052.4768	-147.1310	1.0471
115	1582.5366	191.6750	-1.5452	-2062.7029	-128.5030	1.5485
116	1658.3080	176.4732	-0.7011	-2092.9836	-113.2854	0.7159
117	1765.2653	164.5573	-1.5622	-2164.1589	-101.3819	1.5453
118	1922.3495	155.7490	-0.6322	-2294.9009	-92.5515	0.6155
119	2145.2393	149.7784	-1.0800	-2499.7598	-86.6081	1.0081
120	2445.8772	146.3824	0.5422	-1250.8682	-105.4892	0.0073
121	-10329.3467	799.6674	-1.3635	7723.0024	-851.9290	1.3817
122	-7770.3306	853.0216	-2.5367	5379.0449	-777.4067	2.7373
123	-5517.4819	780.8174	-4.0286	3391.0823	-705.9019	4.2128
124	-3617.6028	711.8339	-5.0183	1645.8666	-635.3663	5.0590
125	-1956.0854	644.1578	-5.1615	245.4064	-567.8643	5.2067
126	-632.2012	579.7414	-4.9283	-934.8865	-502.7312	4.7799
127	481.1821	517.9031	-4.5260	-1789.5922	-440.7662	4.2537
128	1280.8827	459.4282	-3.9255	-2472.8206	-382.1311	3.6429
129	1922.6729	404.3726	-3.2486	-2859.6079	-327.0040	3.1253
130	2282.9812	352.9409	-3.0937	-3139.5234	-275.6571	3.0041
131	2552.3606	305.4002	-2.6816	-3161.4736	-228.3338	2.4387
132	2580.1555	261.7928	-1.9034	-1992.0273	-195.5626	2.1094
133	1432.4565	232.8038	-1.4309	-2036.0713	-169.6295	1.5070
134	1514.0342	210.5332	-1.2793	-2050.9192	-147.3485	1.2971
135	1581.0011	191.8860	-1.6330	-2061.9292	-128.6986	1.6454
136	1657.4409	176.6973	-1.6227	-2092.6843	-113.5245	1.6165
137	1765.0771	164.7953	-0.8549	-2164.7263	-101.6059	0.8437
138	1922.9307	155.9814	-1.1875	-2296.1516	-92.7927	1.1696
139	2146.5515	150.0159	-1.0550	-2501.7947	-86.8462	0.9635
140	2447.9507	146.6267	0.5382	-1253.7560	-105.7080	-0.0697
141	-10330.0508	799.5717	0.9700	7724.4111	-851.8153	-0.8631
142	-7771.7397	852.8981	-4.1603	5380.3188	-777.2598	4.5805
143	-5518.7847	780.6569	-5.3138	3393.4495	-705.7592	5.4997
144	-3619.8904	711.7234	-5.6265	1648.4506	-635.2567	5.6249
145	-1958.6277	644.0644	-6.6382	248.4117	-567.7824	6.6822
146	-635.0619	579.7037	-6.2462	-932.2814	-502.6976	6.1362
147	478.5650	517.8956	-5.7881	-1787.3237	-440.7588	5.4321
148	1278.6085	459.4025	-4.9142	-2470.3789	-382.1278	4.5803
149	1920.4161	404.3951	-4.1703	-2857.3264	-327.0089	4.0255
150	2280.7979	352.9643	-3.9528	-3137.4443	-275.6969	3.6958
151	2550.4268	305.3823	-2.8772	-3159.5730	-228.3043	2.6545
152	2578.2869	261.7924	-2.7178	-1990.3142	-195.5684	3.0166
153	1430.8442	232.7983	-1.7802	-2034.4681	-169.6141	1.8625
154	1512.4209	210.5326	-2.2101	-2049.2358	-147.3496	2.2325
155	1579.3356	191.8699	-1.9924	-2060.2314	-128.6769	2.0111
156	1655.6814	176.6685	-2.0292	-2090.8774	-113.4930	2.0241
157	1763.2059	164.7711	-1.0030	-2162.7344	-101.5948	0.9943
158	1920.9052	155.9579	-1.4227	-2293.9939	-92.7828	1.4029
159	2144.3442	149.9901	-1.1089	-2499.5840	-86.8027	1.0680
160	2445.7175	146.5985	-0.8777	-1251.3485	-105.6963	1.2038
161	-10329.3174	799.5266	-1.9483	7723.3604	-851.7778	2.3593
162	-7770.7031	852.8660	-3.5155	5379.8101	-777.2455	3.7264
163	-5518.2544	780.6411	-4.9541	3392.3662	-705.7216	5.1606
164	-3618.8972	711.6659	-6.4464	1648.2239	-635.2147	6.5259
165	-1958.3809	644.0058	-6.1946	248.1465	-567.7078	6.0498
166	-634.9301	579.6201	-6.4236	-931.9147	-502.6057	6.2863
167	478.1936	517.7711	-6.0381	-1786.5463	-440.6404	6.0281
168	1277.7578	459.3006	-5.7172	-2469.3604	-382.0045	5.3070

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
169	1919.2118	404.2608	-4.1683	-2855.6965	-326.8690	3.7008
170	2279.1821	352.8226	-3.4067	-3135.2273	-275.5836	2.9989
171	2548.2693	305.2756	-2.0865	-3157.1973	-228.2024	1.8573
172	2575.7166	261.6895	-2.0700	-1987.2749	-195.4367	2.6035
173	1427.6333	232.6738	-2.4344	-2030.8038	-169.5055	2.5210
174	1508.7527	210.4135	-1.4230	-2045.1799	-147.2405	1.4703
175	1575.2778	191.7613	-2.2243	-2055.8411	-128.5701	2.2246
176	1651.2692	176.5608	-1.4163	-2086.1160	-113.3909	1.4288
177	1758.4796	164.6709	-1.6719	-2157.8030	-101.4732	1.6524
178	1915.9586	155.8548	-1.3492	-2288.6821	-92.6950	1.3028
179	2139.0896	149.8937	-0.8380	-2494.0845	-86.6938	0.7876
180	2440.2417	146.5011	-0.6151	-1245.6624	-105.5744	1.0154
181	-10319.3154	798.7260	-2.2491	7716.4102	-850.9855	2.4841
182	-7763.7515	852.0781	-2.3131	5375.1880	-776.4452	2.5341
183	-5513.6421	779.8237	-6.1528	3390.3879	-704.9109	6.4710
184	-3616.8784	710.8748	-6.2009	1648.4943	-634.4297	6.2079
185	-1958.5902	643.2258	-6.4688	250.3255	-566.9230	6.4508
186	-637.1121	578.8481	-6.2692	-927.2659	-501.8545	5.9801
187	473.6185	517.0703	-5.7359	-1779.7733	-439.9441	5.4961
188	1271.0935	458.5897	-5.3483	-2460.5728	-381.3277	5.2056
189	1910.5859	403.5974	-4.6837	-2845.1379	-326.2137	4.2880
190	2268.6211	352.1550	-3.5603	-3122.7224	-274.8922	3.3455
191	2535.6584	304.5987	-3.3802	-3142.4919	-227.5176	2.9970
192	2561.0630	260.9779	-1.7677	-1970.2648	-194.7090	2.3762
193	1410.6072	231.9174	-2.6758	-2011.6506	-168.7439	2.6925
194	1489.4497	209.6683	-2.6486	-2023.5828	-146.5020	2.6899
195	1553.6754	191.0165	-1.9745	-2031.9993	-127.8258	2.0156
196	1627.3986	175.8238	-2.1475	-2060.0469	-112.6523	2.1462
197	1732.3505	163.9303	-2.0292	-2129.3765	-100.7494	2.0046
198	1887.5309	155.1212	-1.5362	-2258.1011	-91.9483	1.4982
199	2108.4668	149.1647	-1.2998	-2461.2136	-85.9797	1.2780
200	2407.3394	145.7723	-1.4901	-1210.5800	-104.8382	1.7550
201	-10297.7109	797.0715	-3.0396	7699.2549	-849.3126	3.4984
202	-7746.5996	850.4040	-4.6298	5363.1172	-774.7797	4.7933
203	-5501.5454	778.1731	-4.6102	3383.4919	-703.2734	4.7544
204	-3609.9595	709.2472	-6.4294	1645.9855	-632.7843	6.4856
205	-1956.1993	641.5867	-6.4847	253.2440	-565.2996	6.4156
206	-640.0254	577.2162	-6.5498	-919.4122	-500.2267	6.3475
207	465.7295	515.4210	-6.1035	-1767.0543	-438.2902	6.0147
208	1258.2821	456.9427	-5.7700	-2442.8074	-379.6386	5.3632
209	1892.6520	401.8596	-4.3430	-2821.9458	-324.4639	4.0226
210	2245.3770	350.4073	-4.0015	-3094.3169	-273.1372	3.7419
211	2507.1990	302.8374	-2.9657	-3108.7471	-225.7666	2.7452
212	2527.3694	259.2614	-2.8716	-1931.6523	-193.0439	3.2306
213	1372.1162	230.2737	-2.0185	-1968.2019	-167.0877	2.1010
214	1446.1068	208.0136	-2.4452	-1975.3917	-144.8345	2.4640
215	1505.4879	189.3609	-2.0222	-1978.7793	-126.1899	2.0514
216	1574.3463	174.1756	-2.3941	-2002.0695	-111.0013	2.3846
217	1674.4613	162.2930	-1.4586	-2066.5591	-99.1149	1.4504
218	1824.8201	153.4925	-1.8712	-2190.5281	-90.3123	1.8492
219	2040.9786	147.5293	-1.5850	-2388.8442	-84.3375	1.5112
220	2335.0652	144.1400	-0.7105	-1134.0442	-103.1788	1.1137
221	-10173.5156	787.7172	-0.8423	7603.9468	-839.9334	1.0857
222	-7651.3120	841.0193	-3.0031	5295.7476	-765.3828	3.2602
223	-5434.2441	768.7901	-4.3688	3343.6565	-693.8486	4.5745
224	-3570.2493	699.7928	-5.8888	1635.0283	-623.3429	5.9440
225	-1945.2123	632.2087	-5.9745	270.6663	-555.9067	5.8592

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-657.3547	567.7882	-6.0781	-874.1478	-490.7647	5.9648
227	420.5111	505.9874	-5.6943	-1693.6069	-428.8470	5.5066
228	1185.0344	447.5446	-4.9969	-2341.3694	-370.2650	4.7343
229	1791.6292	392.5608	-4.3604	-2692.7739	-315.2072	4.0447
230	2116.9463	341.1726	-3.4121	-2938.5286	-263.8824	2.9954
231	2351.9607	293.6544	-2.4850	-2926.1030	-216.6262	2.3262
232	2345.6584	250.1387	-2.4311	-1725.4607	-184.0208	2.7638
233	1166.8893	221.2734	-2.0193	-1736.0137	-158.0795	2.1067
234	1214.8392	199.0305	-2.1054	-1717.1180	-135.8598	2.1460
235	1248.2885	180.4070	-1.6726	-1694.8232	-117.2146	1.6936
236	1291.3054	165.2334	-2.2837	-1692.1810	-102.0714	2.2807
237	1365.6099	153.3736	-1.7956	-1731.0076	-90.1894	1.7677
238	1490.1698	144.6005	-1.5122	-1829.2135	-81.4188	1.4909
239	1680.4327	138.6510	-1.8244	-2001.6180	-75.4680	1.7930
240	1948.3405	135.2732	-1.5195	328.8809	-97.3736	0.5393
241	-9910.1582	768.1882	-0.1343	7399.8511	-819.9354	0.5004
242	-7447.3696	821.0505	-3.0920	5150.4409	-745.3110	3.3738
243	-5289.3755	748.7664	-3.9710	3258.5305	-673.6810	4.1493
244	-3485.4890	679.7353	-5.4186	1610.6538	-603.2053	5.4553
245	-1920.9380	612.1672	-5.7171	306.2408	-535.7372	5.6958
246	-692.6715	547.8368	-5.5541	-778.3715	-470.8072	5.3087
247	326.0095	486.2660	-5.1268	-1539.5840	-409.0555	4.9521
248	1033.1630	428.0185	-4.7531	-2131.0635	-350.7393	4.6566
249	1584.6143	373.3431	-4.2436	-2428.7000	-296.0002	3.7286
250	1857.5323	322.3240	-2.8424	-2623.0017	-245.1289	2.4908
251	2042.8865	275.2383	-2.5899	-2564.7227	-198.3198	2.4455
252	1992.0016	232.2154	-2.1330	-1349.0972	-167.4347	2.5563
253	799.7604	205.1053	-2.2193	-1320.3335	-141.9247	2.2979
254	809.9569	183.3060	-2.1245	-1265.0664	-120.1324	2.1528
255	808.0032	165.1032	-2.5810	-1208.5078	-101.9311	2.5823
256	817.4790	150.3441	-2.6663	-1173.7629	-87.1569	2.6602
257	859.4940	138.8288	-2.5999	-1181.2072	-75.6496	2.5889
258	951.9802	130.3557	-2.9590	-1248.2788	-67.1754	2.8987
259	1109.2772	124.6465	-2.4253	-1388.4512	-61.4596	2.3591
260	1341.9835	121.4185	-2.5873	305.2749	-97.2566	0.5277
261	-8495.6934	680.7206	1.0367	6836.6538	-743.0561	-0.6931
262	-6865.2656	743.7164	0.5831	5252.5132	-686.9807	-0.4889
263	-5336.0889	689.0613	-1.1509	3884.7627	-632.2360	1.3118
264	-4022.2354	635.7918	-2.5926	2734.9709	-576.2869	2.6709
265	-2924.8030	581.5385	-2.0572	1728.4176	-522.1721	1.9480
266	-1967.8448	529.2552	-3.2836	896.7840	-470.5984	3.2490
267	-1182.1995	479.6653	-2.5273	173.8942	-418.2226	2.4165
268	-500.0218	429.3397	-2.7717	-391.4509	-364.3915	2.4124
269	30.8411	377.7379	-2.5444	-479.5377	-313.5956	2.2667
270	91.5283	329.2741	-2.1818	-729.5330	-274.7152	2.2104
271	322.3076	292.8033	-2.1317	-868.6994	-237.9362	1.9235
272	451.3461	258.5652	-1.8974	202.4811	-200.7743	2.0918
273	-620.1431	223.9768	-2.1768	169.5431	-176.6025	2.2430
274	-577.0522	202.5048	-2.3683	174.6606	-155.1142	2.4336
275	-560.9072	183.6827	-2.6250	200.8933	-136.2906	2.6591
276	-554.1495	167.6982	-2.8380	230.1928	-120.3271	2.9085
277	-538.2646	154.5860	-3.1799	243.7294	-107.2036	3.2150
278	-494.2853	144.3231	-3.4524	222.8412	-96.9334	3.4865
279	-402.9722	136.9454	-3.8261	148.2014	-89.5592	3.8527
280	-244.8674	132.5061	-3.9898	-0.0126	-85.1078	3.9854

ENVOL. MAX. TORSORES -IPF

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0762	231.7228	886.3401	-486.3016	-202.6980	-809.0253
2	461.3213	203.4402	814.7105	-876.5245	-174.4087	-737.1877
3	806.3171	176.6199	745.9701	-1153.9938	-147.5908	-668.0638
4	1045.9150	151.2892	679.0405	-1329.5299	-120.5188	-595.9727
5	1189.2161	125.6616	610.2184	-1411.1482	-94.9572	-527.1277
6	1245.2288	101.5677	544.7045	-1410.3601	-72.6529	-466.2450
7	1225.2255	80.6584	486.3473	-1337.2543	-51.8051	-407.5956
8	1138.8177	61.1997	430.4432	-1155.7666	-31.4927	-350.0034
9	946.5308	42.0838	375.8640	-959.3030	-12.8888	-296.5976
10	754.8168	25.1576	325.5586	-726.7549	3.3475	-248.2408
11	493.8651	8.7951	279.8276	-425.6640	19.6005	-203.0253
12	259.2496	-3.7030	237.6272	175.5197	29.7963	-160.1489
13	-395.8261	-15.2466	197.7822	493.0131	39.6382	-129.2763
14	-630.5468	-21.5598	169.5848	721.3732	45.7433	-102.2780
15	-903.6198	-28.6842	145.7192	1008.6149	52.7885	-78.6276
16	-1090.3334	-32.3038	124.4346	1201.4049	56.3291	-57.5811
17	-1312.7402	-36.4721	106.8292	-240.1744	-6.2795	-41.1841
18	-1544.4575	-40.3828	92.5296	-136.7566	-3.3758	-30.7147
19	-1718.6255	-42.4400	81.6927	-30.4101	-0.7110	-22.2990
20	-1859.0187	-43.4992	72.5113	175.9793	-48.6350	-142.2867
21	-2351.7200	305.2169	991.1428	1335.6927	-330.9750	-1024.7473
22	-1362.0586	331.8697	1030.8105	451.3385	-294.0814	-927.7079
23	-517.1027	295.6974	937.1159	-260.5471	-258.2740	-836.5792
24	152.2316	261.1193	849.7539	-853.2430	-222.8995	-745.9807
25	703.9830	227.1319	763.2137	-1274.6481	-188.9838	-661.4725
26	1087.4407	194.7372	682.7188	-1585.9868	-156.2247	-578.2877
27	1364.6219	163.4379	603.2957	-1733.2472	-124.8416	-500.4077
28	1486.0018	134.1275	530.1078	-1795.7584	-95.4659	-425.1292
29	1520.4709	105.8199	458.2076	-1700.7557	-67.0727	-354.2273
30	1424.0715	80.3548	391.9852	-1564.4794	-41.6899	-286.6595
31	1274.5999	56.3149	328.1105	-1290.9679	-17.7071	-224.0393
32	982.9290	33.2090	269.3759	-541.7129	9.6874	-174.1932
33	263.9929	8.7257	223.8116	-199.0336	23.9499	-133.4246
34	-34.1872	-2.6020	187.0589	110.2325	35.4803	-96.2031
35	-379.8105	-14.6203	153.9709	-585.6964	-18.3885	-67.6907
36	-669.3084	-21.6562	126.2476	-403.0498	-11.6891	-49.4603
37	-1012.8411	-29.6531	102.1822	-322.2503	-8.6286	-40.5375
38	-1239.1482	-33.2884	83.4148	-124.9643	-3.1162	-24.2052
39	-1522.7244	-37.8448	68.7737	-28.2803	-0.6646	-17.5488
40	-1665.9625	-38.5227	58.2561	166.3301	-48.6914	-140.2891
41	-2264.4983	302.1094	974.2543	1253.5813	-328.6339	-1021.9436
42	-1286.6389	330.1261	1028.1622	380.1780	-292.3171	-925.0770
43	-444.3727	293.3200	934.4946	-327.4143	-255.8620	-833.9142
44	214.2236	258.9150	847.1623	-908.9175	-220.6904	-743.3685
45	754.3563	225.1581	760.4633	-1318.9043	-187.0086	-658.7668
46	1126.3513	193.2106	680.4178	-1619.9945	-154.7017	-576.0689
47	1393.1785	162.1881	601.4403	-1757.3636	-123.6214	-498.5367
48	1506.0599	133.2885	528.1284	-1812.7611	-94.6518	-423.1766
49	1531.7307	105.1629	456.4144	-1709.1747	-66.4773	-352.3746
50	1422.5608	79.5219	389.9008	-1560.0476	-40.8926	-284.5978
51	1275.7300	56.2672	326.3597	-1291.1553	-17.7182	-222.3990
52	1000.4970	34.4295	267.8580	-567.8384	8.9195	-174.0912
53	288.5470	9.6909	223.7068	-226.3027	22.9719	-133.2830

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	-34.9122	-2.5334	186.9070	110.7880	35.3931	-96.0661
55	-345.2296	-13.1405	153.6478	-586.1039	-18.1103	-67.7628
56	-669.5554	-21.3027	126.1975	-402.7843	-11.5099	-49.4784
57	-973.0871	-28.0614	101.7611	-321.6522	-8.4975	-40.5660
58	-1236.5959	-32.7698	83.2593	-124.6259	-3.0681	-24.2079
59	-1472.5354	-36.1376	68.2315	-28.1773	-0.6545	-17.5410
60	-1656.4885	-37.8620	57.6898	165.5108	-48.7107	-140.2265
61	-2285.5342	302.9468	973.5220	1273.6139	-328.9825	-1021.8735
62	-1258.4420	328.5793	1027.6086	356.3902	-290.7607	-924.3796
63	-425.3266	292.4035	933.8368	-343.6363	-254.9519	-833.2819
64	230.5222	257.9489	846.4880	-922.3225	-219.7201	-742.7347
65	766.9990	224.1179	760.3733	-1328.5087	-185.9733	-658.6002
66	1135.4679	191.9362	679.5074	-1625.3287	-153.4384	-575.1608
67	1398.5380	161.0926	601.0966	-1759.3187	-122.5189	-498.2617
68	1505.0267	131.8362	527.6873	-1807.4146	-93.1926	-422.7168
69	1532.4731	104.3161	456.1942	-1707.2567	-65.6249	-352.2065
70	1419.0997	78.6055	389.7283	-1553.7585	-39.9803	-284.4413
71	1263.9480	55.0542	326.2179	-1275.6367	-16.5089	-222.3459
72	1003.6589	34.2023	267.9733	-568.0791	8.9287	-174.2709
73	266.7869	8.7277	223.7570	-201.6061	23.9316	-133.3449
74	-34.9972	-2.5356	186.9862	110.8604	35.3967	-96.1371
75	-345.4088	-13.1149	153.6776	-586.1941	-18.0873	-67.8731
76	-669.6403	-21.2670	126.0886	-402.7701	-11.4931	-49.5330
77	-973.1205	-28.0213	101.7404	-321.6254	-8.4837	-40.5796
78	-1236.5361	-32.7167	83.2336	-124.5847	-3.0633	-24.2417
79	-1368.6630	-33.5301	67.5815	-28.1405	-0.6529	-17.5479
80	-1656.0234	-37.7915	57.6694	165.4393	-48.7131	-140.2054
81	-2370.0669	304.5621	972.7030	1352.9152	-330.7139	-1020.9932
82	-1376.5997	331.2668	1026.9747	466.6355	-293.4553	-923.8099
83	-426.7401	292.4786	933.2452	-342.6414	-255.0244	-832.6430
84	229.3963	258.0074	845.9382	-921.3647	-219.7761	-742.1589
85	766.1693	224.1709	759.6290	-1327.6880	-186.0354	-657.9312
86	1134.2731	191.9956	679.4410	-1624.3466	-153.4877	-575.0989
87	1397.3719	161.0775	600.7271	-1758.0505	-122.5073	-497.9027
88	1503.5837	131.8482	527.6912	-1806.0099	-93.2104	-422.7028
89	1531.0758	104.3225	455.8598	-1705.8557	-65.6349	-351.9328
90	1418.2759	78.6699	389.9391	-1553.1093	-40.0427	-284.7758
91	1280.9657	55.2132	326.4930	-1293.1243	-16.6734	-222.5336
92	984.9440	32.9198	267.9210	-546.0375	10.2829	-174.2030
93	286.9301	8.9571	223.8493	-222.4544	23.6971	-133.4466
94	-30.5775	-3.0012	187.0364	107.8343	35.8589	-96.2023
95	-342.6579	-13.5932	153.7487	-586.2578	-18.0854	-67.8908
96	-666.7810	-21.7270	126.0591	-402.8358	-11.4929	-49.6444
97	-934.1929	-27.4056	101.4290	-321.6528	-8.4821	-40.7070
98	-1195.7533	-32.0989	82.8489	-124.5856	-3.0628	-24.2829
99	-1358.6862	-33.6444	67.3847	-28.1908	-0.6539	-17.5637
100	-1552.1731	-35.7954	57.3991	165.4516	-48.7145	-140.1763
101	-2366.8640	304.5168	971.9258	1349.8069	-330.6298	-1020.1625
102	-1397.6104	331.7560	1026.4270	486.1320	-293.9432	-923.3167
103	-543.8624	295.3217	932.7660	-234.0329	-257.8586	-832.1565
104	224.0821	258.0932	845.5999	-916.2052	-219.8631	-741.8055
105	761.1512	224.2551	759.1652	-1323.0764	-186.1085	-657.4182
106	1129.7024	192.0742	678.8584	-1619.9064	-153.5791	-574.5743
107	1397.7037	161.0535	600.5468	-1758.2986	-122.4929	-497.7445
108	1503.9601	131.8058	527.3274	-1806.3453	-93.1546	-422.4113
109	1545.7690	103.6645	456.0833	-1718.5840	-64.9740	-352.1320
110	1431.8783	77.8716	389.6365	-1564.3639	-39.2431	-284.3871

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
111	1279.0341	54.1406	326.3014	-1288.0011	-15.6070	-222.4349
112	995.9155	32.2596	267.9246	-984.7774	6.2279	-163.2824
113	705.3100	12.4056	212.8370	-217.6619	24.7181	-115.2193
114	-15.6738	-3.1953	168.8346	72.6062	34.8033	-81.7488
115	-308.6253	-12.5746	139.3264	-586.2120	-18.0919	-68.0278
116	-526.2377	-17.9829	113.5593	-402.8341	-11.5027	-49.6754
117	-865.6439	-26.1027	92.3231	-321.6812	-8.4922	-40.7328
118	-997.5415	-27.4368	74.3604	-124.6740	-3.0676	-24.2894
119	-1212.1373	-30.6694	61.1545	-28.2654	-0.6564	-17.5633
120	-1350.2371	-31.6857	50.6218	165.4482	-48.7149	-140.0802
121	-2408.3381	305.4806	971.7172	1388.3085	-331.6090	-1020.0840
122	-1411.8297	332.1209	1025.9113	499.3569	-294.3120	-922.6940
123	-550.2571	295.5714	932.1439	-228.3847	-258.1164	-831.5181
124	154.1680	260.0447	844.9111	-852.3214	-221.8126	-741.1043
125	757.6460	224.4680	758.6105	-1320.1678	-186.3182	-656.8788
126	1126.7563	192.2481	678.3359	-1617.4519	-153.7464	-574.0560
127	1392.4518	161.2610	600.0526	-1753.6075	-122.6937	-497.2864
128	1504.2836	131.8208	527.0807	-1806.5601	-93.1697	-422.2607
129	1550.8527	103.4799	456.0639	-1723.1807	-64.7944	-352.1118
130	1436.0569	77.7100	389.6074	-1568.0184	-39.0659	-284.2559
131	1274.4526	53.9327	325.9379	-1282.7582	-15.4034	-222.1018
132	996.7449	32.2730	267.8221	-985.6445	6.2232	-163.3721
133	730.1161	13.3780	213.0421	-245.4212	23.7523	-115.3284
134	-14.1504	-3.2486	168.8166	71.2752	34.8413	-81.7534
135	-306.2338	-12.5756	139.2514	-586.2156	-18.0904	-68.0044
136	-593.2670	-20.1611	113.6676	-402.8088	-11.4960	-49.7616
137	-759.7507	-23.0929	91.7865	-321.6219	-8.4836	-40.8254
138	-997.3437	-27.4945	74.3386	-124.6611	-3.0658	-24.3028
139	-1193.4402	-30.2700	60.7923	-28.2550	-0.6559	-17.5645
140	-1350.0604	-31.7143	50.2463	165.3189	-48.7142	-140.0249
141	-2415.5142	305.5723	971.9129	1395.4181	-331.6897	-1020.2537
142	-1411.4550	332.0411	1025.5249	499.0620	-294.2207	-922.1813
143	-559.8704	295.7061	931.6693	-218.9848	-258.2597	-831.0687
144	105.6768	261.2452	844.4480	-807.4337	-223.0121	-740.6578
145	757.1461	224.3996	758.4911	-1319.3717	-186.2590	-656.7556
146	1092.5721	193.2807	678.0371	-1586.4901	-154.7788	-573.7225
147	1390.2246	161.3054	599.7779	-1751.6342	-122.7326	-497.0296
148	1503.8467	131.7997	527.0765	-1806.0315	-93.1683	-422.2890
149	1551.9172	103.3803	456.0888	-1723.8906	-64.6859	-352.1543
150	1435.4159	77.6793	389.6751	-1567.2892	-39.0396	-284.4129
151	1276.1586	53.8053	326.3343	-1284.1029	-15.2694	-222.4729
152	993.5262	32.0061	267.9864	-981.6429	6.4763	-163.5403
153	730.1353	13.3263	213.3123	-245.3422	23.8145	-115.5794
154	-15.6599	-3.3547	169.0391	73.1088	34.9451	-81.9703
155	-307.9797	-12.6801	139.4250	-586.2288	-18.0950	-68.0507
156	-595.1317	-20.2679	113.8099	-402.8597	-11.4984	-49.8291
157	-761.2681	-23.1761	91.7647	-321.6725	-8.4880	-40.9102
158	-999.0759	-27.5774	74.2793	-124.6149	-3.0648	-24.3528
159	-1195.3489	-30.3361	60.5642	-28.2064	-0.6550	-17.5829
160	-1353.0391	-31.8621	50.7599	165.3906	-48.7154	-140.0510
161	-2418.0598	305.7516	971.0922	1397.1742	-331.8721	-1019.2578
162	-1420.4796	332.4046	1025.0906	507.1182	-294.5952	-921.8667
163	-569.7033	296.1212	931.3388	-210.5814	-258.6613	-830.7007
164	115.9893	261.1285	844.1660	-817.2062	-222.9019	-740.3660
165	662.1736	227.2979	757.8057	-1233.1532	-189.1498	-656.1621
166	1127.0360	192.3383	678.3492	-1618.0248	-153.8330	-574.0462
167	1391.1836	161.4244	599.5190	-1752.9960	-122.8624	-496.6018

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
168	1498.6084	132.1816	526.1594	-1801.9709	-93.5325	-421.4009
169	1551.3906	103.5902	455.8258	-1723.9579	-64.8930	-352.0599
170	1437.9441	77.7617	389.7225	-1570.0366	-39.1497	-284.5613
171	1281.0409	54.0240	326.5260	-1289.6254	-15.4799	-222.6681
172	998.9184	32.2130	268.1191	-987.6552	6.2847	-163.5141
173	724.7796	13.0809	213.0830	-239.1021	24.0496	-115.4019
174	-15.6850	-3.3475	168.9304	73.1051	34.9347	-81.8800
175	-308.0532	-12.6737	139.3703	-586.2911	-18.0852	-68.1566
176	-509.0163	-17.5547	113.5187	-402.8476	-11.4921	-49.8490
177	-771.5349	-23.4674	91.9102	-321.7069	-8.4853	-40.8831
178	-993.1573	-27.4197	74.1107	-124.6443	-3.0648	-24.3697
179	-1190.3447	-30.2179	60.2665	-28.2382	-0.6556	-17.5847
180	-1355.4432	-31.9245	50.4458	165.3445	-48.7145	-140.0358
181	-2419.9316	305.9033	971.1657	1398.8792	-332.0286	-1019.4449
182	-1422.5494	332.5726	1025.4648	508.6934	-294.7571	-922.2338
183	-552.8280	295.8123	931.5450	-226.4519	-258.3526	-830.8621
184	113.2166	261.3358	844.2147	-815.1275	-223.1150	-740.4412
185	693.0051	226.5628	758.0667	-1261.9269	-188.4122	-656.3381
186	1126.8365	192.5448	677.9802	-1618.3790	-154.0521	-573.7664
187	1399.1316	161.3849	600.0989	-1760.7335	-122.8244	-497.2996
188	1506.4258	132.1537	526.7731	-1809.7358	-93.5167	-421.8778
189	1553.8307	103.8108	455.7422	-1727.1365	-65.1186	-351.9304
190	1442.6282	77.9229	389.9160	-1575.2235	-39.2940	-284.6438
191	1281.7139	54.1426	326.1472	-1290.6484	-15.6048	-222.3586
192	1011.9891	32.8983	268.3169	-1002.7351	5.6011	-163.8379
193	722.9388	13.0091	213.2780	-236.9815	24.1360	-115.4687
194	-23.8680	-3.6782	168.9802	82.2384	35.2653	-81.9381
195	-311.1404	-12.7978	139.2885	-586.3338	-18.0849	-68.2109
196	-539.9257	-18.5265	113.6243	-402.9220	-11.4914	-49.8365
197	-775.9673	-23.5851	91.8896	-321.7537	-8.4832	-40.9212
198	-1007.2328	-27.7773	73.9732	-124.6637	-3.0640	-24.3874
199	-1205.6538	-30.5831	60.2283	-28.2513	-0.6554	-17.5885
200	-1371.7605	-32.2809	50.6330	165.3485	-48.7160	-140.0588
201	-2434.6670	307.0114	970.9369	1410.1028	-333.1266	-1019.0866
202	-1426.6165	333.5067	1024.9202	509.9328	-295.6933	-921.7242
203	-579.1503	297.3845	931.2971	-204.7950	-259.9352	-830.7086
204	110.2053	262.4331	844.2028	-815.5112	-224.2040	-740.3871
205	669.9083	228.3337	757.9094	-1244.0001	-190.1931	-656.2260
206	1128.8927	193.6820	678.1427	-1623.8105	-155.1852	-573.8927
207	1398.4824	162.7307	599.7067	-1764.2174	-124.1648	-496.8323
208	1509.8698	133.4868	526.3394	-1817.1410	-94.8395	-421.5749
209	1568.6499	104.7726	455.9637	-1744.7660	-66.0700	-352.1193
210	1456.3052	79.0461	389.6039	-1592.2957	-40.4133	-284.3426
211	1299.9502	55.1923	326.2609	-1312.0327	-16.6552	-222.3961
212	1021.3716	33.4019	267.8848	-1013.6566	5.0848	-163.4348
213	734.1493	13.4894	213.2306	-249.7643	23.6434	-115.4980
214	-11.2598	-3.1795	168.9475	68.1705	34.7746	-81.8895
215	-303.1246	-12.5234	139.2970	-586.1644	-18.0769	-68.1070
216	-590.2633	-20.1149	113.7346	-402.7659	-11.4847	-49.8292
217	-799.5744	-24.2623	91.6723	-321.5617	-8.4762	-40.9038
218	-1040.6034	-28.6576	74.1892	-124.5606	-3.0603	-24.3443
219	-1243.1648	-31.4927	60.4631	-28.1826	-0.6538	-17.5789
220	-1406.4152	-33.0575	50.2402	165.2006	-48.7131	-140.0190
221	-2410.9607	305.2458	970.4860	1391.9714	-331.3490	-1018.7733
222	-1415.3505	331.8776	1024.4882	503.5078	-294.0603	-921.2335
223	-566.1647	295.5916	930.7144	-212.6434	-258.1216	-830.0723
224	107.2049	260.8821	843.5605	-807.7246	-222.6524	-739.7638

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
225	672.0202	226.5267	757.2872	-1240.6144	-188.3806	-655.6459
226	1125.6111	191.8442	677.6537	-1615.1508	-153.3277	-573.3398
227	1388.4879	160.9253	598.8480	-1748.8259	-122.3616	-496.0082
228	1501.3416	131.4408	526.0553	-1802.4838	-92.8049	-421.2376
229	1527.5878	103.9574	454.9633	-1701.2479	-65.2793	-351.1405
230	1431.9908	77.3145	389.0686	-1562.8271	-38.6639	-283.8672
231	1270.7799	53.4711	325.6835	-1277.8781	-14.9620	-221.8006
232	987.6817	31.7150	267.2867	-975.0511	6.7667	-162.8160
233	696.0486	11.8324	212.5126	-207.7136	25.2714	-114.7783
234	-52.8688	-4.7999	168.2742	114.6388	36.3854	-81.2270
235	-349.1004	-14.1149	138.5494	-584.6989	-18.0477	-68.1525
236	-640.5912	-21.7015	113.0386	-401.5781	-11.4556	-49.8036
237	-916.3802	-27.6236	91.0495	-320.5498	-8.4540	-40.9396
238	-1167.1141	-32.0130	73.0594	-124.1115	-3.0519	-24.3731
239	-1384.9497	-34.9928	59.6429	-28.1212	-0.6529	-17.5836
240	-1563.9913	-36.6814	49.6403	164.2674	-48.6874	-140.0306
241	-2480.1597	310.6608	957.5898	1445.2632	-336.5297	-1005.7898
242	-1461.4977	336.8978	1011.3784	534.0076	-299.0285	-908.0754
243	-603.5688	300.7614	917.5804	-190.9617	-263.2183	-816.9512
244	96.2279	265.7286	830.4236	-811.2224	-227.4635	-726.6396
245	690.9194	230.9119	744.2446	-1272.7286	-192.7010	-642.5092
246	1134.6943	196.9882	664.1731	-1639.4191	-158.4745	-559.9421
247	1420.8938	165.9409	586.1275	-1796.0338	-127.3376	-483.2634
248	1542.8387	136.8135	512.7708	-1860.1495	-98.1674	-407.8364
249	1586.8774	109.4701	441.6464	-1777.3604	-70.7985	-337.9042
250	1511.6305	82.9152	376.2771	-1659.6447	-44.3260	-271.0637
251	1369.6240	59.3764	312.5481	-1395.8325	-20.9166	-208.6235
252	1109.8759	37.8417	254.3924	-1116.7505	0.6022	-149.8919
253	842.0508	18.2304	199.6314	-384.4981	18.4190	-102.1027
254	129.2981	2.2594	155.6903	-621.9418	-20.9755	-77.1023
255	-139.8020	-6.8470	126.1297	-566.6581	-17.4721	-67.9460
256	-403.2650	-14.2254	100.5514	-386.2638	-11.0147	-49.6394
257	-650.5172	-19.9899	78.8135	-307.1168	-8.0972	-40.6624
258	-872.4846	-24.2268	61.4169	-118.0524	-2.9028	-24.1624
259	-1062.0305	-27.0749	47.3147	-26.9100	-0.6250	-17.3702
260	-1213.9209	-28.6891	37.7873	152.4848	-48.6275	-135.9561
261	-2032.0973	290.7286	702.7234	1292.7386	-321.8914	-759.6320
262	-1307.0774	322.2247	764.9055	630.5474	-293.8156	-687.2512
263	-663.0092	294.6177	694.9389	49.9417	-265.9658	-616.9962
264	-95.3243	267.1661	627.5647	-453.2382	-237.6958	-547.7968
265	347.6074	240.6224	561.2153	-832.9744	-210.9415	-481.3107
266	815.7924	211.4374	498.1957	-1231.5942	-182.1053	-419.5799
267	1066.7042	187.3326	438.4978	-1452.7292	-156.6134	-353.9132
268	1311.3802	161.3942	376.7312	-1637.2196	-128.9245	-287.4407
269	1464.0364	135.2952	312.8716	-1567.8350	-103.2229	-227.4720
270	1373.8636	110.9980	255.2883	-1572.1826	-83.7190	-181.2243
271	1368.6335	92.7867	211.9972	-1521.1725	-65.3441	-137.7969
272	1335.4093	74.4634	172.0831	-838.3126	-44.0900	-109.2397
273	1198.8486	56.1790	129.3486	-812.9620	-38.6287	-97.7391
274	765.2512	34.3145	100.7944	-764.2567	-33.0637	-86.1918
275	764.2567	33.0637	86.1918	-691.5154	-27.4476	-74.5924
276	691.5154	27.4476	74.5924	-435.1645	-15.9892	-51.3698
277	435.1645	15.9892	51.3698	-299.6185	-10.1961	-39.7167
278	299.6185	10.1961	39.7167	-1.3360	0.2969	-0.0074
279	99.7801	1.5108	14.4243	-0.6682	0.2968	-0.0077
280	28.2168	-0.7034	5.7515	0.0000	0.2969	-0.0076

ENVOLVENTES DE ESFUERZOS CON IMPACTO

ENVOL. MIN. FLECTORES -IPF

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.2971	293.3337	-833.6293	59.6191	26.5008	0.1031
2	-260.2233	-115.6679	-0.4481	520.4777	115.6675	0.4576
3	-520.4730	-115.6671	-0.6325	780.7772	115.6664	0.6219
4	-780.7613	-115.6797	-0.1801	1041.1510	115.6820	0.1636
5	-1041.1532	-115.7164	0.0018	1301.4381	115.7200	-0.0014
6	-1301.4155	-115.7658	-0.4574	1561.8649	115.7709	0.4705
7	-1561.8468	-115.8212	-0.4695	1822.4475	115.8252	0.4506
8	-1822.4460	-115.8505	-0.0677	2083.1956	115.8513	0.0384
9	-2083.2268	-115.8774	0.2373	2343.9067	115.8753	-0.2191
10	-2343.9185	-115.8319	-0.6044	2604.5396	115.8320	0.5768
11	-2604.5935	-115.8980	0.8809	2865.4023	115.8993	-0.8752
12	-2865.4097	-115.8493	-0.7506	3178.9910	149.3944	0.7579
13	-3178.9829	-149.3834	1.0340	3521.2822	155.2287	-1.0748
14	-3521.2344	-155.1676	0.3648	3874.9609	159.8480	-0.3817
15	-3874.9338	-159.8578	1.1525	4240.4824	164.5365	-1.0825
16	-4240.4741	-164.5343	-0.3436	4617.8198	170.3864	0.3939
17	-4617.9551	-171.8844	0.2616	5010.7568	177.7357	-0.4263
18	-5186.3105	-349.5366	0.8496	5977.5229	354.2147	-1.1512
19	-6116.7900	-494.5328	2.8757	7235.2305	499.2158	-2.8459
20	-7352.5654	-625.4326	0.3092	8766.9121	515.2660	0.0606
21	-8856.5508	752.8565	-0.9042	6362.4639	-794.3679	0.9568
22	-6453.5942	735.4277	-0.0728	4340.4375	-615.5754	0.0568
23	-4548.4238	451.7130	-0.1095	3193.2104	-451.7121	0.1096
24	-3359.6875	316.9349	-0.1835	2408.8101	-316.9365	0.1829
25	-2630.0063	166.2787	-0.2172	2131.1284	-166.2799	0.2190
26	-2423.9536	-26.3066	-0.0775	2502.8645	26.3079	0.0068
27	-2502.8733	-26.3421	0.5733	2581.9048	26.3443	-0.5799
28	-2581.9060	-26.2987	-0.0509	2660.7996	26.2973	0.0645
29	-2660.8152	-26.2911	0.5990	2739.6499	26.2855	-0.6076
30	-2739.6597	-26.2563	-0.1121	2818.4170	26.2529	0.1609
31	-2818.3813	-26.2268	-0.1298	2897.0474	26.2264	0.0923
32	-2897.0249	-26.2041	0.6942	2975.6292	26.2033	-0.7323
33	-2975.6460	-26.2516	0.7576	3122.9390	50.7459	-0.7014
34	-3122.9595	-50.7119	-0.1878	3317.6411	87.2213	0.1701
35	-3317.6689	-87.2123	1.1902	3589.8770	94.2317	-1.1612
36	-3589.8804	-94.2518	-0.3093	3883.1716	101.2725	0.3164
37	-3973.5835	-201.7531	0.4108	4589.3018	208.7718	-0.3820
38	-4786.6987	-336.6365	-0.9949	5807.1875	343.6569	0.9674
39	-6092.1167	-513.0596	0.3844	7641.6504	520.0791	-0.3534
40	-7877.3047	-682.4977	-1.5970	9935.4453	572.1404	1.8566
41	-10104.0693	778.0745	-1.8893	7529.9185	-820.9313	1.8246
42	-7630.3477	762.2183	0.1313	5614.1348	-646.7333	-0.5339
43	-5859.2817	483.7979	-0.7797	4407.8057	-483.7975	0.9094
44	-4620.7549	350.2682	-0.6538	3569.8745	-350.2692	0.5407
45	-3859.9519	182.8336	0.8601	3311.4951	-182.8364	-0.8786
46	-3640.8022	12.0879	0.5900	3604.5239	-12.0897	-0.4909
47	-3604.5276	12.0866	0.5003	3568.2549	-12.0874	-0.4702
48	-3568.2190	12.0841	-0.0032	3531.9683	-12.0794	-0.0026
49	-3531.9429	12.0309	0.5163	3495.8855	-12.0243	-0.5487
50	-3495.9365	11.9898	0.4965	3459.9790	-11.9886	-0.4357
51	-3459.9910	11.9700	-0.4513	3424.0684	-11.9698	0.4716

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
52	-3424.0171	11.9761	-0.0484	3388.0679	-11.9808	0.0409
53	-3388.0977	12.0437	-0.4258	3384.1067	17.1314	0.3907
54	-3384.0723	-17.1628	0.0104	3485.1699	52.2125	0.0106
55	-3485.1299	-52.2267	-0.9279	3652.3259	59.2474	0.9397
56	-3652.3088	-59.2819	-0.3881	3840.7117	66.3021	0.4055
57	-3990.5813	-215.8225	-0.6030	4648.5337	222.8451	0.6568
58	-4854.6187	-352.7259	-0.3202	5923.2510	359.7479	0.3193
59	-6216.4873	-530.2529	0.0035	7817.6733	537.2711	0.1664
60	-8057.5840	-700.0958	-1.9838	10168.5889	590.7542	2.0380
61	-10337.8193	784.0991	0.4899	7748.9463	-825.9501	-0.4590
62	-7850.0752	767.2375	-1.4331	5829.4360	-652.0313	0.8465
63	-6077.4526	489.1714	-1.4085	4610.2285	-489.1678	1.4128
64	-4827.6445	318.5149	-0.0042	3871.9841	-318.5147	0.0998
65	-4054.9272	188.4527	-0.6964	3489.5989	-188.4500	0.7091
66	-3825.6707	17.8135	2.4530	3772.2209	-17.8066	-2.4687
67	-3772.1990	17.7863	1.0642	3718.8425	-17.7834	-0.9271
68	-3718.8594	17.7700	0.9067	3665.5498	-17.7744	-0.9057
69	-3665.5579	17.8199	0.8982	3612.0969	-17.8272	-0.8903
70	-3612.0247	17.8271	0.8745	3558.5464	-17.8285	-0.8244
71	-3558.5715	17.8716	-0.1258	3504.9724	-17.8699	0.2037
72	-3504.9595	17.8632	-0.7497	3451.3657	-17.8617	0.7528
73	-3451.3457	17.8261	-0.2136	3431.4270	11.1664	0.0600
74	-3431.3369	-11.1534	-0.5682	3512.6050	46.5735	0.5556
75	-3512.6499	-46.5744	-1.4917	3662.8977	53.5949	1.5198
76	-3662.9158	-53.6306	-1.5412	3834.3293	60.6509	1.5259
77	-4001.9648	-225.1666	-0.2293	4688.0205	232.1868	0.2269
78	-4894.6318	-362.2152	0.5700	5991.8223	369.2348	-0.3546
79	-6285.6841	-539.8531	-1.3294	7915.6162	546.8721	1.4466
80	-8155.8525	-709.7424	0.0772	10295.9863	600.1704	0.0279
81	-10465.2959	786.6034	-1.1791	7868.3076	-828.6902	1.3793
82	-7969.4834	769.9962	-1.2233	5941.9487	-654.8007	0.0031
83	-6190.1641	491.9328	-0.9436	4714.2607	-491.9296	1.0698
84	-4932.1992	321.2680	0.1627	3968.3381	-321.2704	-0.0991
85	-4151.8013	191.2205	0.8817	3578.2603	-191.2221	-0.7833
86	-3914.9934	20.6314	2.7828	3853.1006	-20.6312	-2.6905
87	-3853.1104	20.6501	2.1451	3791.1484	-20.6506	-2.0087
88	-3791.1138	20.6262	1.0414	3729.2241	-20.6218	-1.0263
89	-3729.1782	20.6259	1.9777	3667.3037	-20.6285	-1.9505
90	-3667.2546	20.5960	0.4953	3605.4778	-20.5964	-0.3466
91	-3605.5117	20.5996	-0.6495	3543.7207	-20.5927	0.6733
92	-3543.7031	20.6228	-0.1338	3481.8154	-20.6273	0.1275
93	-3481.7822	20.6366	-0.6552	3452.4146	8.4783	0.5002
94	-3452.4290	-8.4829	-1.1054	3526.1851	43.7901	1.0165
95	-3526.2217	-43.7261	-1.4204	3667.9387	50.7462	1.4753
96	-3667.9939	-50.7954	-2.0498	3830.8735	57.8160	2.1620
97	-4003.5598	-226.6922	-1.3478	4694.1860	233.7121	1.4279
98	-4900.8135	-363.7695	-0.1886	6002.6860	370.7915	0.3260
99	-6296.6440	-541.4373	-0.7464	7931.8301	548.4557	0.8138
100	-8172.2246	-711.3281	0.7455	10316.2432	601.8253	-0.4253
101	-10486.2539	787.1172	-3.3335	7887.5146	-829.1194	3.5818
102	-7988.7144	770.4310	-1.4370	5960.1089	-655.2397	-0.2991
103	-6208.4209	492.3649	-0.3709	4731.1875	-492.3660	0.6753
104	-4949.2734	321.7196	-1.0745	3984.1384	-321.7204	1.2541
105	-4167.6646	191.6852	0.4161	3592.6152	-191.6859	-0.4177
106	-3929.4290	21.1054	3.3572	3866.1145	-21.1066	-3.2032
107	-3866.1187	21.0794	1.7228	3802.9182	-21.0801	-1.5430
108	-3802.9258	21.1181	1.1440	3739.5547	-21.1165	-1.0642

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
109	-3739.6165	21.0903	0.5054	3676.3486	-21.0862	-0.4661
110	-3676.3398	21.1002	0.4777	3613.0508	-21.1024	-0.3936
111	-3613.0718	21.0716	-1.1336	3549.8408	-21.0738	1.2160
112	-3549.8662	21.1282	-1.1597	3486.4944	-21.1294	1.1587
113	-3486.5154	21.1566	-1.1713	3423.0154	-21.1562	1.2223
114	-3422.9688	21.0618	-3.0883	3528.1526	43.3784	2.6910
115	-3528.1228	-43.4186	-2.3051	3668.8882	50.4420	2.4082
116	-3668.9102	-50.5063	-4.3491	3831.0054	57.5280	4.3923
117	-4005.3218	-227.5464	-0.2814	4698.4683	234.5664	0.4163
118	-4905.0176	-364.5755	-1.1056	6009.5718	371.5948	1.2644
119	-6303.4087	-542.1938	0.9684	7940.2500	549.2145	-0.5863
120	-8180.4434	-712.0871	-3.8046	10327.0225	602.5450	4.1176
121	-10497.2598	787.3994	-1.5905	7897.3496	-829.4398	1.5399
122	-7998.5151	770.7509	-2.5348	5968.7231	-655.5032	0.6338
123	-6216.9263	492.6149	-1.1836	4739.0127	-492.6125	1.4156
124	-4957.0156	321.8960	-0.7002	3991.1052	-321.9023	0.8789
125	-4174.8887	191.7934	0.7311	3599.5295	-191.7984	-0.6628
126	-3936.9873	21.2024	4.1949	3873.3865	-21.2064	-4.0540
127	-3873.3403	21.2722	2.5849	3809.5146	-21.2814	-2.3728
128	-3809.4819	21.3119	1.4471	3745.5364	-21.3168	-1.3027
129	-3745.6011	21.3607	0.3296	3681.4949	-21.3608	-0.2567
130	-3681.4751	21.3863	0.2695	3617.2917	-21.3830	-0.2431
131	-3617.1902	21.3605	-0.2322	3553.1106	-21.3613	0.3015
132	-3553.1343	21.4095	-1.2609	3488.8918	-21.4153	1.3654
133	-3488.8950	21.4174	-2.8425	3424.6484	-21.4177	2.9241
134	-3424.6528	21.3917	-3.8833	3528.6965	43.0445	3.3605
135	-3528.7041	-43.0451	-3.4301	3668.3777	50.0690	3.4710
136	-3668.3879	-50.1413	-4.0034	3829.2761	57.1623	4.2017
137	-4004.0020	-227.6217	-2.3387	4697.4722	234.6410	2.4969
138	-4904.2729	-364.6859	-0.2737	6009.0156	371.7063	0.3523
139	-6303.1704	-542.3615	0.8077	7940.5298	549.3802	-0.2930
140	-8180.8921	-712.2522	-3.8428	10327.9971	602.7345	3.9857
141	-10497.8887	787.3013	0.7340	7898.7227	-829.3216	-0.6713
142	-7999.9126	770.6148	-4.1850	5970.3916	-655.4311	2.0464
143	-6218.7134	492.5765	-1.8085	4741.2764	-492.5740	1.9263
144	-4959.1777	321.9320	0.0143	3993.1550	-321.9330	0.2721
145	-4176.6274	191.8799	0.2191	3601.0806	-191.8791	-0.0390
146	-3937.6433	21.3683	5.6316	3873.5442	-21.3636	-5.5369
147	-3873.5598	21.3572	4.0371	3809.4922	-21.3545	-3.7658

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
166	-3938.3164	21.5620	3.9284	3873.6482	-21.5619	-3.6639
167	-3873.6426	21.5764	3.6772	3808.9041	-21.5814	-3.6939
168	-3808.9028	21.6451	3.6731	3743.9592	-21.6535	-3.4895
169	-3744.0171	21.6689	1.0579	3679.0283	-21.6638	-0.8443
170	-3679.0996	21.6138	0.3082	3614.2944	-21.6086	-0.1750
171	-3614.2476	21.6348	-1.6634	3549.3137	-21.6386	1.7649
172	-3549.2268	21.5983	-1.7342	3484.4050	-21.6024	1.7534
173	-3484.3684	21.6700	-2.3700	3419.3677	-21.6723	2.4522
174	-3419.3335	21.6716	-4.8592	3522.5659	42.7637	4.1763
175	-3522.5127	-42.7657	-3.5641	3661.3850	49.7840	3.6694
176	-3661.4065	-49.7719	-5.7631	3821.1958	56.7935	5.9204
177	-3995.8767	-227.4266	-1.5729	4688.8589	234.4500	1.7351
178	-4895.6191	-364.5260	-0.3726	5999.3838	371.5465	0.6935
179	-6293.2993	-542.2015	-0.2215	7930.9346	549.2211	0.5166
180	-8171.3340	-712.0818	-0.4100	10318.1338	602.5607	0.6596
181	-10487.2383	786.4547	-2.5103	7890.7935	-828.4914	2.6387
182	-7992.0000	769.8017	-2.2356	5965.2603	-654.6071	-0.1230
183	-6213.5752	491.7233	-2.6642	4738.4043	-491.7278	2.9951
184	-4956.3467	321.0910	-0.4763	3993.0984	-321.0880	0.5822
185	-4176.5117	191.0186	1.1611	3603.3657	-191.0145	-0.9920
186	-3937.2390	22.0873	5.1177	3870.9734	-22.0823	-4.8382
187	-3870.9446	22.1095	2.4184	3804.6228	-22.1039	-2.1879
188	-3804.6667	22.0407	2.1940	3738.5144	-22.0373	-2.1276
189	-3738.5652	21.9808	1.1830	3672.6072	-21.9806	-1.0156
190	-3672.5544	22.0380	-0.4516	3606.4229	-22.0373	0.5439
191	-3606.3501	22.0011	-0.4963	3540.3486	-22.0014	0.5989
192	-3540.3850	22.0337	-3.0098	3474.2622	-22.0461	3.1234
193	-3474.3696	22.1258	-3.1564	3407.9619	-22.1366	3.1721
194	-3407.9539	22.2047	-3.7513	3509.5769	42.2313	3.0158
195	-3509.5708	-42.2514	-4.8931	3646.8635	49.2741	5.0132
196	-3646.8779	-49.2900	-5.6116	3805.2463	56.3081	5.7273
197	-3979.6487	-226.9361	-1.4608	4671.0088	233.9540	1.7217
198	-4877.4785	-364.0225	-0.7024	5980.0029	371.0427	1.0078
199	-6273.7793	-541.7341	0.1430	7909.6479	548.7545	-0.0074
200	-8149.9077	-711.6163	1.3703	10295.5176	602.0992	-1.0406
201	-10465.5859	784.8024	-3.3139	7873.6025	-826.8200	3.7108
202	-7974.8169	768.1332	-4.6433	5953.2285	-652.9370	1.9452
203	-6201.5366	490.0672	-0.5896	4731.5293	-490.0663	0.8265
204	-4949.5054	319.4131	-0.6703	3991.0571	-319.4131	0.9621

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
223	-6135.4478	480.8381	-0.3297	4692.7144	-480.8390	0.6462
224	-4911.4038	310.2936	-0.0647	3980.4976	-310.2956	0.3254
225	-4164.3779	180.4209	1.9373	3623.2578	-180.4231	-1.6806
226	-3922.5146	30.9184	4.1276	3829.7463	-30.9194	-3.9349
227	-3829.7451	30.9327	3.8901	3736.9553	-30.9307	-3.7604
228	-3736.9802	30.9309	2.3646	3644.1938	-30.9307	-2.2032
229	-3644.2163	30.9098	1.6689	3551.5212	-30.9088	-1.5464
230	-3551.5457	30.9312	0.3055	3458.6946	-30.9325	-0.1619
231	-3458.7119	30.8962	-0.9834	3366.0386	-30.8929	1.0523
232	-3366.0562	30.8372	-1.0772	3273.5811	-30.8270	1.1438
233	-3273.5696	30.7604	-2.8300	3181.2888	-30.7568	2.9180
234	-3181.2776	30.7680	-3.5190	3248.5674	33.3570	2.8678
235	-3248.5481	-33.3691	-4.5022	3359.2202	40.3875	4.5591
236	-3359.1648	-40.3346	-4.2369	3490.6812	47.3517	4.3928
237	-3673.6714	-218.1533	-1.5463	4338.7437	225.1712	1.8767
238	-4551.1074	-392.6328	-0.2094	5739.5654	399.6543	0.3814
239	-5927.2466	-533.1910	1.4962	7537.3984	540.2124	-1.3311
240	-7781.0869	-703.1573	0.8999	9901.4678	594.3896	-0.6230
241	-10071.4395	755.7387	-0.3688	7569.4233	-796.9742	0.6649
242	-7671.4028	738.3480	-3.0537	5749.8354	-624.7628	0.5915
243	-6001.4736	462.3542	-0.1019	4614.4009	-462.3542	0.3623
244	-4837.7534	292.9678	0.2203	3958.9360	-292.9760	0.0737
245	-4145.0078	165.1488	1.7335	3649.5303	-165.1479	-1.5689
246	-3860.4817	64.6040	3.7867	3666.7021	-64.5979	-3.5504
247	-3666.7283	64.5565	1.7496	3473.0220	-64.5573	-1.5685
248	-3473.0437	64.5704	1.5801	3279.3047	-64.5688	-1.5328
249	-3279.3237	64.5207	1.0420	3085.8230	-64.5168	-0.8437
250	-3085.8242	64.5572	-1.1392	2892.1685	-64.5543	1.2888
251	-2892.1689	64.5511	-1.2745	2698.5215	-64.5507	1.3159
252	-2698.5061	64.5553	-2.0247	2504.8013	-64.5591	2.1172
253	-2504.7710	-64.5130	-3.0769	2311.2280	-64.5143	3.1629
254	-2311.2646	64.5268	-4.2281	2130.5181	-5.4996	3.4194
255	-2130.4590	5.5501	-3.3682	2124.3376	1.4692	3.3999
256	-2124.3784	-1.4421	-3.9079	2139.2349	8.4624	4.0245
257	-2423.4092	-201.0290	0.2919	3037.0264	208.0487	-0.2098
258	-3267.2402	-358.6841	3.1727	4353.8291	365.7042	-2.9100
259	-4591.2539	-500.4536	1.7825	6103.2681	507.4749	-1.5120
260	-6386.5864	-671.3287	2.7338	8411.2139	565.0869	-2.5169
261	-8591.0371	673.0198	0.8689	7061.6855	-615.3649	-3.1185
262	-7125.2153	570.7082	3.1420	5841.3438	-570.7057	-2.9579
263	-6007.8159	444.4935	1.9209	5007.6157	-444.4974	-1.5780
264	-5184.0571	304.0380	1.5279	4499.7773	-304.0336	-1.4178
265	-4711.2065	131.9768	4.9218	4414.3525	-131.9704	-4.6806
266	-4417.6182	130.5131	2.0139	4123.9175	-130.5129	-1.8494
267	-4123.9355	130.5362	3.0473	3830.2446	-130.5561	-2.9645
268	-3830.2805	130.6387	1.0316	3536.3560	-130.6599	-0.6991
269	-3536.3442	130.7218	-0.4452	3242.2202	-130.7422	0.5696
270	-3242.1831	130.8699	-0.4905	2947.6838	-130.8872	0.4958
271	-2947.7195	130.8577	-0.5569	2653.3044	-130.8601	0.7144
272	-2653.2502	130.9709	-2.0344	2358.5938	-130.9792	2.1813
273	-2358.6248	130.9825	-2.1436	2063.9414	-130.9897	2.2121
274	-2063.9568	131.0622	-2.8788	1769.0084	-131.0638	2.9486
275	-1768.9878	131.0088	-2.9648	1474.1823	-131.0083	2.9951
276	-1474.1523	131.0108	-3.2687	1179.4371	-131.0143	3.3364
277	-1179.4172	131.0544	-3.6820	884.5165	-131.0580	3.7160
278	-884.5223	131.0539	-3.7320	589.6186	-131.0502	3.7656
279	-589.6229	131.0340	-4.0668	294.8538	-131.0281	4.0932
280	-294.8578	131.0226	-4.0408	0.1441	98.5582	254.7136

ENVOL. MIN. CORTANTES -IPF

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0284	-69.7722	-0.4399	210.2730	117.1550	0.4411
2	-113.6692	-74.2046	-0.4239	333.9386	121.5866	0.4331
3	-153.8631	-81.5664	-0.4227	390.7491	128.9600	0.4116
4	-140.2376	-91.8579	-0.2307	400.3492	139.2616	0.2139
5	-92.4608	-105.0812	-0.2327	19.7219	154.5530	0.2398
6	333.2563	-123.1932	-0.2835	-104.6115	174.9844	0.2138
7	490.4724	-146.4243	-0.1367	-216.0191	198.9593	0.1603
8	623.2787	-173.0959	-0.1246	-418.8389	229.4646	0.2283
9	835.9919	-206.2705	-0.3005	-436.7699	264.4461	0.2369
10	853.7089	-243.8457	-0.2135	-374.0455	299.2082	0.2723
11	780.9128	-281.1340	-0.2309	-211.0346	337.1637	0.2714
12	598.7389	-321.4769	-0.4668	70.4224	378.1487	0.4338
13	290.0374	-364.7894	-0.0983	385.4099	425.5403	0.3082
14	-59.5729	-414.3868	-0.5882	966.6976	472.4311	0.5885
15	-681.4371	-463.3754	-0.3311	1714.4227	521.4472	0.3306
16	-1474.9055	-514.3437	-1.1644	2637.1521	575.9246	1.0851
17	-2447.4387	-570.6686	-0.6058	3742.5706	632.1818	0.6360
18	-3605.0881	-628.5839	0.1801	5034.9287	686.5329	-0.1972
19	-4951.3418	-684.4633	2.0287	6516.7422	742.3063	-1.9627
20	-6488.1309	-741.6520	-0.3886	8191.1670	711.1770	0.3601
21	557.6277	-108.6134	0.0013	-1192.9905	107.5662	-0.2686
22	1239.4026	-47.6054	0.0880	-1001.8040	110.7889	-0.0808
23	1140.7289	-53.3084	0.0932	-886.0184	116.4920	-0.0947
24	1115.1642	-61.7761	0.1117	-835.0569	124.9596	-0.1130
25	1149.2070	-73.2822	0.1297	-834.5834	136.4660	-0.1348
26	1225.5375	-88.0556	0.1670	-866.5927	151.2401	-0.1748
27	1323.5747	-106.2703	-0.1975	-1369.0148	172.8430	0.2387
28	1879.3691	-131.4467	0.0887	-1505.2220	203.2385	-0.0830
29	2054.4531	-165.5743	-0.3268	-1729.8118	237.3022	0.3518
30	2302.6250	-203.3956	0.0111	-1718.1204	276.7249	-0.1321
31	2298.3206	-246.6109	0.1899	-1715.4243	320.6771	-0.0949
32	2286.6191	-294.3342	-0.2655	-1416.6418	368.7347	0.4121
33	1962.9852	-346.1370	-0.5263	-1047.4260	422.1345	0.4341
34	1553.8748	-403.1682	-0.3089	-336.4415	478.4461	0.3366
35	789.0341	-463.0143	-0.3024	524.0613	540.4937	0.3763
36	-137.6421	-528.4052	-0.8370	1755.1964	604.2621	0.7421
37	-1444.8795	-595.3016	-0.1611	3202.8972	673.6619	0.2124
38	-2975.9573	-667.5945	-1.1626	5033.8789	743.7565	1.0966
39	-4895.0186	-740.3021	0.2943	7127.5347	818.9473	-0.2418
40	-7079.9990	-817.8448	-1.6725	9604.6035	799.3373	1.6369
41	1031.9065	-125.1607	0.3214	-1807.4879	121.5677	-0.4290
42	1860.7769	-61.7740	-0.1193	-1580.7242	124.9470	0.1247
43	1729.5135	-67.7080	0.3113	-1431.5901	130.8915	-0.3192
44	1672.4115	-76.4887	0.3001	-1348.1492	139.6726	-0.2980
45	1674.7485	-88.3695	-0.2253	-1314.9187	151.5424	0.2287
46	1718.3707	-103.5228	0.1240	-1313.0106	166.7065	-0.1226
47	1781.9055	-122.1501	0.0725	-1752.1703	187.6853	-0.0534
48	2273.1548	-146.7426	0.3110	-1855.0500	218.5961	-0.3098
49	2413.7017	-181.3409	0.0019	-2046.4161	253.3165	0.0804
50	2627.0381	-219.7982	-0.1541	-1994.9205	293.2232	0.0777
51	2581.4136	-263.4694	0.3583	-1949.8989	337.6850	-0.4644
52	2525.6968	-311.6974	0.3041	-1604.3641	386.1518	-0.2858
53	2154.1926	-363.8947	0.4442	-1185.3739	439.9922	-0.4650

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
54	1693.7106	-421.2985	0.3847	-422.4597	496.5486	-0.4224
55	875.9316	-481.3264	0.4369	491.7130	558.7917	-0.5358
56	-104.9421	-546.8726	0.7569	1778.1917	622.7222	-0.7362
57	-1468.0844	-613.8852	0.4136	3281.6562	692.1802	-0.4619
58	-3055.1775	-686.2065	0.5280	5168.3350	762.3071	-0.5205
59	-5029.8574	-758.9036	0.5260	7317.3047	837.4639	-0.4473
60	-7269.9468	-836.3766	-1.5061	9849.5029	818.3104	1.3518
61	1457.1548	-133.7647	0.2583	-2195.5681	130.4373	0.0087
62	2249.3760	-70.6419	0.5540	-1942.6361	133.8283	-0.5705
63	2092.1599	-76.6288	0.8351	-1767.5919	139.7969	-0.8396
64	2009.3058	-85.4183	0.4074	-1658.2330	148.6056	-0.4095
65	1985.7968	-97.3197	1.1588	-1599.0812	160.4987	-1.1636
66	2003.4952	-112.5102	0.1902	-1571.1548	175.6980	-0.1878
67	2040.9521	-131.1752	0.8714	-1994.6567	197.0983	-0.7593
68	2516.6248	-156.1726	0.7009	-2070.2888	228.0471	-0.6936
69	2629.7646	-190.8185	0.5896	-2234.4988	262.8136	-0.5533
70	2815.7798	-229.3442	0.4326	-2155.2659	302.7809	-0.5204
71	2742.3142	-273.0686	0.9504	-2082.2593	347.2935	-1.1421
72	2658.5491	-321.3387	1.4594	-1708.2581	395.7926	-1.4844
73	2258.3013	-373.5177	1.3275	-1260.7662	449.6187	-1.3139
74	1769.3450	-430.9711	1.4321	-468.9570	506.2329	-1.5970
75	922.6260	-491.0210	1.6670	474.2378	568.4897	-1.8188
76	-87.4906	-556.5798	1.9416	1789.4540	632.4149	-1.9473
77	-1479.3075	-623.6063	2.0455	3322.1956	701.9083	-2.0464
78	-3095.6833	-695.9432	2.0908	5238.2031	772.0493	-2.0528
79	-5099.7749	-768.6512	-0.1577	7416.3169	847.1993	0.1460
80	-7368.9819	-846.1175	1.0192	9977.9443	827.7719	-1.1039
81	1528.5693	-135.5770	0.8764	-2267.7256	132.0871	-0.3842
82	2321.5732	-72.3076	0.2717	-2009.9203	135.4824	-0.2806
83	2159.5234	-78.2609	0.7317	-1829.9457	141.4455	-0.7393
84	2071.7410	-87.0687	0.5481	-1715.7400	150.2536	-0.5488
85	2043.3621	-98.9944	0.6544	-1651.7312	162.1602	-0.6548
86	2056.2993	-114.1525	0.6632	-1618.9574	177.3467	-0.6566
87	2088.8442	-132.8335	0.7846	-2034.8274	198.6521	-0.6178
88	2556.9309	-157.7184	1.0723	-2105.8523	229.5989	-1.0468
89	2665.3215	-192.3933	0.3335	-2265.4185	264.3889	-0.3109
90	2846.6355	-230.8982	1.0228	-2181.6296	304.3185	-1.2768
91	2768.6370	-274.6162	1.8652	-2104.0869	348.8357	-1.9603
92	2680.6807	-322.8734	1.7438	-1725.3162	397.3449	-1.7145
93	2275.3828	-375.0955	1.9510	-1273.2784	451.1947	-2.1151
94	1781.8719	-432.5593	2.3392	-477.0013	507.8229	-2.4683
95	930.8060	-492.6287	2.5591	471.1057	570.1137	-2.6960
96	-84.3497	-558.1932	2.6848	1790.8615	634.0141	-2.8035
97	-1480.6849	-625.2192	2.3974	3328.4648	703.5302	-2.4840
98	-3101.9338	-697.5605	2.6367	5249.3638	773.6678	-2.6094
99	-5110.8843	-770.2549	1.2070	7432.9185	848.8073	-1.2006
100	-7385.5962	-847.7310	2.1167	9998.2734	829.4288	-1.9956
101	1565.2238	-136.2913	1.4742	-2485.9883	131.1426	-0.5107
102	2539.8503	-71.3620	-0.2699	-2231.0293	134.5370	0.2711
103	2380.6606	-77.3138	0.0861	-2053.9092	140.4999	-0.1735
104	2295.7180	-86.1339	0.8484	-1942.5602	149.3116	-0.9044
105	2270.2522	-98.0382	0.6905	-1881.3765	161.2155	-0.6887
106	2285.8579	-113.2258	0.3976	-1877.1127	177.0024	-0.3730
107	2346.9497	-132.4816	0.9979	-2054.9797	199.4304	-1.0098
108	2577.1545	-158.5082	1.1053	-2123.5869	230.4003	-1.1341
109	2683.1013	-193.1687	1.3418	-2280.7842	265.1673	-1.3618
110	2862.0964	-231.6980	1.2339	-2194.4573	305.1258	-1.3758

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
111	2781.3489	-275.4102	2.1828	-2114.4805	349.6345	-2.4020
112	2690.8198	-323.7174	2.4691	-1733.3480	398.1905	-2.4623
113	2283.3162	-375.9383	2.4694	-1278.8365	452.0060	-2.7093
114	1787.6000	-433.3379	3.2486	-479.5319	508.6225	-3.4875
115	933.0801	-493.3824	3.6684	470.4687	570.8171	-3.8314
116	-83.6647	-558.8981	3.5301	1792.7344	634.7369	-3.6997
117	-1482.5754	-625.9260	4.4962	3332.2307	704.2206	-4.4808
118	-3105.6741	-698.2417	2.6682	5255.6968	774.3726	-2.7421
119	-5117.2725	-770.9774	3.4654	7440.6079	849.5111	-3.2390
120	-7393.2754	-848.4241	-1.8695	10008.3740	830.1304	1.8961
121	1571.1993	-136.4242	0.9075	-2491.2263	131.2635	0.3275
122	2545.0635	-71.4811	-0.0989	-2235.8992	134.6520	0.0408
123	2385.4890	-77.4322	0.3081	-2058.4092	140.6150	-0.3766
124	2300.2561	-86.2194	0.6680	-1946.7253	149.4146	-0.7169
125	2274.4365	-98.1304	0.7335	-1885.3079	161.3064	-0.7537
126	2289.8467	-113.3180	0.3998	-1880.8906	177.0939	-0.3818
127	2350.8179	-132.5836	0.9304	-2058.6367	199.5331	-0.9344
128	2580.7749	-158.6263	1.2807	-2127.1309	230.5017	-1.3784
129	2686.8472	-193.2818	1.8296	-2284.1917	265.2896	-1.8912
130	2865.7092	-231.7989	1.7963	-2197.6416	305.2450	-1.8334
131	2784.5913	-275.5544	2.0021	-2117.4128	349.7726	-2.1588
132	2693.9158	-323.8368	2.5904	-1735.9482	398.3121	-2.9097
133	2285.9624	-376.0316	3.5826	-1281.2136	452.1088	-3.9676
134	1789.9260	-433.4793	4.4487	-481.6582	508.7592	-4.6289
135	935.3847	-493.5617	4.8973	469.2170	571.0276	-4.9929
136	-82.5642	-559.1000	5.0731	1791.6931	634.9186	-5.2480
137	-1481.5542	-626.1299	4.3259	3332.2537	704.4423	-4.4776
138	-3105.7363	-698.4604	4.6949	5256.0933	774.5687	-4.6545
139	-5117.6831	-771.1754	3.9183	7441.6270	849.7162	-3.6712
140	-7394.3096	-848.6313	-1.3887	10010.0703	830.3172	1.2935
141	1573.4979	-136.4453	1.0467	-2493.9775	131.2853	0.7096
142	2547.8372	-71.4993	0.7625	-2238.5415	134.6852	-0.8805
143	2388.1438	-77.4790	0.9664	-2061.0288	140.6463	-1.0002
144	2302.8589	-86.2684	0.8435	-1949.1743	149.4636	-0.9234
145	2276.8145	-98.1843	1.7674	-1887.5710	161.3531	-1.8174
146	2292.0950	-113.3560	1.0886	-1882.8341	177.1412	-1.0529
147	2352.7288	-132.6173	1.5023	-2060.2856	199.5720	-1.5070
148	2582.2820	-158.6584	2.1274	-2128.5339	230.5256	-2.2478
149	2688.0886	-193.3000	2.6598	-2285.3486	265.3075	-2.7036
150	2866.6890	-231.8258	2.5738	-2198.6184	305.2628	-2.7145
151	2785.5725	-275.5789	3.4612	-2118.1448	349.8033	-3.6353
152	2694.5242	-323.8469	3.6306	-1736.6393	398.3023	-3.9243
153	2286.6877	-376.0581	4.9504	-1281.7450	452.1337	-5.3541
154	1790.4711	-433.4512	5.6029	-482.4096	508.7418	-5.7398
155	936.2003	-493.5468	5.9874	468.4869	571.0093	-6.1849
156	-81.7132	-559.0935	6.2885	1791.0160	634.9189	-6.5060
157	-1480.8440	-626.1068	5.2976	3331.1082	704.4104	-5.5243
158	-3104.5830	-698.4381	5.8020	5254.4141	774.5416	-5.7793
159	-5115.9487	-771.1494	4.5115	7440.5869	849.7167	-4.3860
160	-7393.2661	-848.6346	3.2518	10008.8359	830.3289	-3.0676
161	1571.4391	-136.2642	1.6607	-2492.1436	131.0969	0.2201
162	2546.0012	-71.3157	-0.0408	-2237.3264	134.4884	-0.0171
163	2386.9524	-77.2662	0.2640	-2060.3542	140.4516	-0.3492
164	2302.1709	-86.0775	0.8605	-1949.1882	149.2565	-0.9117
165	2276.8970	-97.9740	0.4590	-1888.2222	161.1527	-0.5326
166	2292.7737	-113.1502	1.5611	-1884.2310	176.9286	-1.5517
167	2354.1885	-132.4025	1.2017	-2062.4141	199.3618	-1.0633

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
168	2584.5227	-158.4666	0.6330	-2131.3108	230.3460	-0.7019
169	2690.9475	-193.0991	1.8520	-2288.8076	265.0906	-2.0490
170	2870.1008	-231.6269	2.2469	-2202.8728	305.0541	-2.4969
171	2790.0261	-275.3763	3.5701	-2123.0635	349.6113	-3.8610
172	2699.6409	-323.6465	3.9616	-1742.1626	398.1155	-4.0633
173	2292.2227	-375.8627	4.3593	-1288.0503	451.9414	-4.7937
174	1796.7443	-433.2916	5.5800	-489.2776	508.5732	-5.9005
175	943.0475	-493.3551	6.1775	461.0844	570.8272	-6.3322
176	-74.3980	-558.9669	6.0727	1783.1239	634.7977	-6.3418
177	-1472.9269	-625.9734	6.4384	3323.3989	704.2953	-6.5280
178	-3096.9683	-698.3263	5.5923	5245.8804	774.4010	-5.5743
179	-5107.3989	-771.0070	3.8322	7432.0029	849.5717	-3.6950
180	-7384.6846	-848.4885	2.5434	10000.3213	830.1854	-2.2757
181	1565.2769	-135.7987	1.8236	-2487.8015	130.6259	0.0367
182	2541.6667	-70.8470	-0.3003	-2234.3887	134.0220	0.2087
183	2384.0122	-76.8084	1.0660	-2058.8142	139.9893	-1.1584
184	2300.6116	-85.6156	0.7831	-1949.0002	148.7942	-0.8102
185	2276.7139	-97.5070	0.9320	-1889.3466	160.6955	-0.9746
186	2293.7881	-112.7148	0.8271	-1886.5873	176.4842	-0.8188
187	2356.4397	-131.9603	1.9101	-2065.9932	198.9169	-1.9141
188	2588.0022	-158.0120	1.6811	-2136.2144	229.8756	-1.6903
189	2695.8240	-192.6225	1.9998	-2295.1111	264.6194	-2.1445
190	2876.5037	-231.1388	2.9104	-2210.5515	304.5715	-3.0679
191	2797.5688	-274.8532	3.0117	-2132.3420	349.0689	-3.2878
192	2708.8936	-323.1147	4.5524	-1753.0773	397.5896	-4.9292
193	2303.3040	-375.3500	5.1630	-1300.4279	451.4600	-5.3048
194	1809.0917	-432.8311	5.6382	-503.1812	508.1010	-5.9407
195	956.9872	-492.9060	6.2238	445.6996	570.3812	-6.5781
196	-58.9357	-558.4937	6.7992	1766.3145	634.3206	-6.9557
197	-1456.1063	-625.5097	6.6780	3304.6848	703.8116	-6.7985
198	-3078.1528	-697.8517	5.5471	5226.2197	773.9601	-5.5746
199	-5087.7256	-770.5797	4.4114	7410.4917	849.1313	-4.3299
200	-7363.1377	-848.0353	4.3398	9977.6611	829.7243	-4.0059
201	1530.2957	-133.1373	2.1272	-2460.7495	127.9762	-0.2498
202	2514.6216	-68.1998	0.4336	-2215.2976	131.3723	-0.4561
203	2364.9099	-74.1642	0.1182	-2047.7031	137.3358	-0.1858
204	2289.5410	-82.9517	0.9038	-1945.8170	146.1439	-0.9855
205	2273.5156	-94.8607	0.8465	-1894.1808	158.0361	-0.9064
206	2298.6406	-110.0445	1.3827	-1899.4296	173.8100	-1.3696
207	2369.3533	-129.2862	1.6048	-2086.9321	196.2408	-1.5238
208	2609.0571	-155.3216	1.1276	-2165.2766	227.2021	-1.2132
209	2724.9402	-189.9848	2.4412	-2332.1917	261.9880	-2.6057
210	2913.6711	-228.5235	2.4814	-2255.5488	301.9672	-2.6153
211	2842.5769	-272.2781	3.4072	-2185.0295	346.5058	-3.6120
212	2761.4763	-320.5579	3.5813	-1813.4614	395.0139	-3.8719
213	2363.5679	-372.7523	4.9926	-1368.4680	448.8432	-5.4030
214	1877.1598	-430.1779	5.6499	-578.8561	505.4682	-5.8470
215	1032.4952	-490.3204	6.1734	362.1425	567.7990	-6.4192
216	24.6033	-555.9088	6.6935	1675.1705	631.7450	-6.8660
217	-1365.0575	-622.9407	5.7580	3205.8770	701.2387	-5.9704
218	-2979.4346	-695.2899	6.2368	5119.9814	771.3959	-6.1972
219	-4981.5522	-768.0047	4.9720	7296.8672	846.5679	-4.7522
220	-7249.5645	-845.4789	1.6547	9856.2217	827.1413	-1.5417
221	1452.2799	-127.2719	1.2965	-2401.1387	122.1019	0.6492
222	2455.0662	-62.3232	-0.2441	-2173.3369	125.5017	0.1726
223	2323.0605	-68.2908	0.0091	-2023.3595	131.4804	-0.0968
224	2265.2598	-77.1171	0.6159	-1939.1316	140.2987	-0.6889

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
225	2266.8040	-89.0524	0.5623	-1904.9990	152.2185	-0.6387
226	2309.5352	-104.2524	1.3454	-1927.5664	168.0370	-1.3480
227	2397.4363	-123.5410	0.9930	-2132.0913	190.5152	-0.9149
228	2653.9722	-149.6403	1.4894	-2227.1389	221.5237	-1.5655
229	2786.1995	-184.3231	1.6571	-2410.4478	256.3147	-1.7436
230	2991.5054	-222.8903	2.3842	-2349.8459	296.3564	-2.6515
231	2936.0776	-266.6599	3.3289	-2295.2385	340.8809	-3.5023
232	2870.7671	-314.9512	3.5218	-1939.5880	389.3957	-3.7560
233	2488.8000	-367.1184	4.6430	-1510.0989	443.2224	-5.0454
234	2017.7617	-424.6231	5.4659	-736.2403	499.8952	-5.7631
235	1189.0232	-484.7098	6.2086	189.5505	562.2004	-6.4729
236	196.1390	-550.3547	6.8605	1486.8820	626.1956	-6.9662
237	-1177.6102	-617.4303	6.2515	3002.3901	695.7516	-6.4410
238	-2776.6555	-689.8143	5.3658	4900.8491	765.9232	-5.4082
239	-4762.9429	-762.5348	5.5654	7061.2842	841.0773	-5.4245
240	-7014.1431	-839.9996	3.7022	9604.5928	821.4774	-3.4994
241	-241.8661	-99.6430	0.3974	-2082.0784	90.8580	1.3318
242	2136.5388	-31.1179	-0.8018	-1948.3441	94.3150	0.7281
243	2098.7261	-37.2025	-0.7741	-1892.3524	100.3846	0.7008
244	2134.7666	-46.1756	-0.2465	-1901.5052	109.3485	0.1639
245	2229.4346	-58.2674	-0.0520	-1959.8353	121.4527	0.0044
246	2363.7830	-73.7330	-0.0819	-2073.5869	137.4957	0.0929
247	2542.1008	-93.2520	0.8066	-2366.8074	160.3339	-0.7789
248	2886.2683	-119.7422	0.4689	-2548.2634	191.7041	-0.4438
249	3103.6213	-154.8462	0.5604	-2813.9207	227.0094	-0.7296
250	3389.5579	-193.9465	2.3880	-2833.6689	267.4695	-2.6701
251	3413.3064	-238.2007	2.6610	-2854.3530	312.6064	-2.7978
252	3421.9199	-287.0917	3.5024	-2571.9836	361.6457	-3.8087
253	3111.6511	-339.8131	4.8189	-2211.0435	416.0644	-5.2680
254	2708.2305	-397.8510	6.3835	-1504.8370	473.2139	-6.6545
255	1946.2410	-458.5128	6.9536	-642.9854	536.1155	-7.0814
256	1017.5421	-524.6074	7.3874	590.3888	600.5070	-7.5634
257	-291.8146	-592.0237	7.4862	2042.1613	670.3757	-7.5933
258	-1825.5208	-664.6669	7.8336	3874.5469	740.7903	-7.7493
259	-3742.9651	-737.5634	5.2239	5965.0229	816.0726	-5.1015
260	-5920.2744	-815.0416	5.1767	8433.4609	795.0194	-5.0492
261	-255.7636	-99.5637	0.3820	-1604.1731	37.4559	2.3909
262	319.6329	-7.4631	-0.4722	-1603.4919	39.5109	2.4410
263	302.8464	-7.4621	-0.4135	-1652.0459	43.0962	2.0438
264	367.1102	-9.5733	-0.4116	-1744.9530	48.3343	1.6677
265	563.3980	-15.6035	-0.5932	-1875.6802	55.4055	2.1087
266	988.6570	-29.2162	-0.8515	-2036.3853	64.4583	0.9945
267	1161.2385	-36.7625	-0.8479	-2217.4543	75.5801	1.9548
268	1313.3433	-44.7947	-0.9142	-2433.6941	89.9312	0.8594
269	2803.6221	-58.2456	-0.0351	-2718.9084	109.6556	0.0138
270	3113.4727	-80.4451	-0.1849	-2977.8235	132.2283	0.2088
271	3388.2478	-105.4230	-0.3085	-3219.0654	158.8067	0.2030
272	3635.5579	-134.7436	1.5920	-3537.8286	192.9776	-1.7846
273	3950.2661	-171.4851	1.7843	-3628.5720	230.3327	-1.9375
274	4025.9641	-211.6369	3.2492	-3610.5959	267.4975	-3.4448
275	3981.2146	-251.4281	3.5690	-3462.8738	307.7778	-3.6775
276	3794.6772	-294.6352	4.4796	-3163.6292	351.4682	-4.7190
277	3444.3801	-341.2580	5.8567	-2754.9873	401.9371	-6.0471
278	2971.8855	-394.5693	6.2305	-2065.4143	452.7805	-6.3669
279	2205.4226	-448.3172	7.5370	-1154.8467	506.9432	-7.6433
280	1204.8519	-505.4531	7.4907	0.0964	559.8712	-7.4659

ENVOLVENTES DE ESFUERZOS CON IMPACTO

ENVOL. MIN. TORSORES -IPF

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0032	-0.0063	-6.3916	-82.2542	2.4437	17.6131
2	82.2542	-2.4437	-17.6131	-230.3761	7.3063	33.6191
3	230.3761	-7.3063	-33.6191	-385.2349	13.1166	45.2162
4	385.2349	-13.1166	-45.2162	-514.3110	18.8960	57.0049
5	514.3110	-18.8960	-57.0049	-592.8197	23.6975	74.8510
6	618.0181	-24.6183	-68.5762	-772.6082	34.1046	100.3840
7	696.6076	-30.2932	-80.0381	-948.4695	46.0773	129.7813
8	750.7871	-35.8762	-91.7004	-1174.1162	61.0891	166.1730
9	1382.6943	-49.4771	-129.8674	-1303.7937	78.5664	208.6344
10	1507.1713	-68.5488	-174.6136	-1387.4305	96.2276	249.3802
11	1615.2573	-86.0675	-219.3772	-1452.9507	114.0813	294.9057
12	1619.1891	-107.3862	-266.3717	-1404.6416	135.7215	342.6068
13	1618.7134	-127.7835	-318.4099	-1403.8707	158.1606	397.9285
14	1538.4459	-153.5943	-375.6795	-1205.4504	182.6155	452.9867
15	1378.5616	-177.1162	-434.0935	-984.8828	206.1513	511.6819
16	1069.5403	-203.6402	-495.1155	-608.9065	234.4349	577.7683
17	706.3770	-231.7221	-564.4973	-179.3946	262.4748	647.4172
18	288.0925	-259.6371	-636.9827	303.9015	288.6148	715.3184
19	-257.1702	-287.4504	-707.4739	916.6092	316.3710	786.0440
20	-907.5215	-316.1566	-781.0396	1635.9852	300.9177	766.3091
21	-111.2128	-49.7779	-138.9685	1536.3958	-35.0451	50.8081
22	-19.3170	0.4314	-15.2237	1312.3390	-32.1324	63.0926
23	167.8511	-4.1183	-27.9517	1071.8564	-28.3356	78.5752
24	254.3089	-6.7128	-36.0627	749.4037	-21.5865	102.1259
25	441.1106	-12.5480	-53.8067	446.3060	-14.2504	127.4111
26	-250.8300	38.4588	-65.6404	69.2608	-3.0275	162.4843
27	159.1924	25.5099	-104.7934	-316.6930	9.0570	199.0865
28	571.9148	11.6394	-145.3601	-620.4408	24.4082	244.1607
29	895.0028	-5.5765	-194.7114	-964.2827	41.4413	292.4435
30	1250.7572	-24.4944	-246.6452	-1190.1421	61.1615	347.1034
31	1480.2397	-46.1076	-305.5365	-1420.4003	83.1380	406.2920
32	1708.2438	-69.8537	-369.1478	-1505.1713	107.0551	470.7314
33	1786.7456	-95.3598	-437.3394	-1562.0681	133.3560	539.4310
34	1802.8270	-124.3797	-509.6456	-1425.7137	162.0196	611.8171
35	1678.5149	-153.3693	-586.9961	-1256.4374	192.1052	690.3917
36	1414.4147	-187.1851	-668.6038	-836.6947	225.1190	771.3162
37	1020.8022	-219.7900	-754.2434	-375.3581	258.9690	858.7966
38	456.1322	-256.8210	-845.4607	341.8925	294.9028	948.7876
39	-232.9624	-292.1848	-939.2523	1115.3446	331.5051	1044.8861
40	-1134.5787	-331.9650	-1039.1665	2165.9692	322.7124	1029.6230
41	-119.5872	-49.8184	-142.3717	1970.1309	-44.9643	64.8367
42	-20.9999	0.4699	-15.4559	1700.7909	-41.6637	76.8449
43	176.3056	-4.3272	-28.1765	1421.7236	-37.6070	92.7784
44	266.0581	-7.0283	-36.2608	1056.9164	-30.4310	116.2799
45	457.7889	-13.0311	-54.0882	717.8080	-22.7966	141.3902
46	-516.0664	46.8133	-79.8798	303.2542	-11.1657	176.6680
47	-68.8104	33.4368	-119.0151	-117.0238	1.3168	213.2505
48	377.5339	19.1578	-159.6293	-450.3104	16.9546	258.3827
49	729.5868	1.6778	-208.8727	-823.0063	34.3088	306.6197
50	1113.2985	-17.5457	-261.1036	-1074.3019	54.2607	361.5781
51	1367.6228	-39.3958	-319.8163	-1328.9446	76.5024	420.4905

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
52	1616.8060	-63.5086	-383.1516	-1433.0812	100.7361	484.6506
53	1708.0542	-89.6085	-451.0562	-1500.7178	127.6572	553.2099
54	1754.8258	-118.3162	-523.9664	-1396.1409	155.9454	626.0887
55	1615.7145	-148.5806	-600.3868	-1208.1504	187.3105	703.6745
56	1409.5029	-181.0880	-682.4863	-849.9952	219.0118	785.2636
57	996.3169	-214.8512	-767.8634	-365.8042	253.9980	872.3688
58	479.0453	-251.0002	-859.0937	301.2549	289.0500	962.4435
59	-232.0042	-287.3478	-952.9670	1099.4044	326.6287	1058.6127
60	-1076.5283	-326.1133	-1052.8805	2090.0500	317.0798	1042.5820
61	-120.2264	-49.8349	-142.3255	1856.0865	-42.9434	64.5136
62	-21.1112	0.4721	-15.4456	1637.8809	-40.8830	77.5061
63	176.9424	-4.3439	-28.1887	1360.6602	-36.8312	93.2456
64	266.9371	-7.0537	-36.3305	997.1931	-29.6163	116.6793
65	459.0647	-13.0719	-54.0959	659.8025	-21.9590	142.3855
66	-457.6189	45.9601	-80.5249	246.9513	-10.2972	177.3259
67	-12.1592	32.5210	-119.8168	-171.2755	2.2403	214.0513
68	432.2068	18.2096	-160.4524	-502.2761	17.9156	259.2274
69	781.9410	0.7011	-209.6895	-872.6368	35.2961	307.4184
70	1163.2617	-18.5596	-261.9266	-1121.3248	55.2747	362.3933
71	1399.8204	-41.3160	-320.6462	-1355.4745	78.4339	421.2600
72	1643.6584	-65.4586	-383.5803	-1454.1049	102.6793	485.0717
73	1730.4200	-91.4783	-451.8177	-1517.5245	129.5325	553.9763
74	1770.2972	-120.2713	-524.3862	-1405.7366	157.9023	626.4450
75	1625.3956	-150.5487	-600.7156	-1211.8595	189.2836	703.9778
76	1405.2352	-183.3254	-682.5955	-839.1479	221.2413	785.3522
77	994.2155	-216.8346	-768.0206	-357.6683	255.9874	872.5598
78	470.9174	-253.0030	-859.2888	315.3859	291.0539	962.6625
79	-333.2817	-291.5096	-953.2688	1213.1077	330.7832	1058.8638
80	-1096.6169	-328.1221	-1052.7258	2116.2212	318.9522	1042.4364
81	-120.2906	-49.8379	-142.3107	1813.1221	-42.1172	64.2820
82	-21.0671	0.4710	-15.4397	1549.8242	-38.7498	76.8513
83	177.0346	-4.3454	-28.2525	1381.6897	-37.4371	92.8345
84	267.0548	-7.0525	-36.3900	1008.1923	-29.9966	116.4947
85	459.2212	-13.0715	-54.2325	677.0072	-22.5787	142.0658
86	-474.7111	46.5799	-80.5116	262.1320	-10.9119	177.3452
87	-27.1947	33.1625	-119.8044	-158.1909	1.5994	214.0468
88	418.3456	18.8069	-160.4371	-490.1962	17.3229	259.2310
89	770.9609	1.3537	-209.8339	-863.6281	34.6419	307.5559
90	1147.1526	-17.8744	-261.7769	-1107.3405	54.5892	362.1398
91	1381.7939	-40.2502	-320.3303	-1340.6958	77.3588	420.9820
92	1642.3500	-63.7634	-383.6511	-1457.7831	100.9939	485.2064
93	1717.6266	-90.4831	-451.5743	-1507.7775	128.5291	553.6312
94	1761.8805	-119.1651	-523.9852	-1400.6941	156.7987	626.0439
95	1620.9977	-149.4413	-600.4968	-1210.7152	188.1842	703.7816
96	1402.9415	-182.2599	-682.2265	-840.1756	220.1732	784.9083
97	970.4548	-216.4940	-767.3425	-334.9490	255.6457	871.8375
98	459.9424	-252.3514	-858.5228	324.4560	290.4064	961.8926
99	-350.7720	-291.0665	-952.4696	1229.5376	330.3448	1058.0959
100	-1193.5532	-329.5050	-1051.9857	2216.8645	320.3557	1041.7616
101	-120.2325	-49.8385	-142.3003	1797.3616	-41.7961	64.3251
102	-21.0813	0.4713	-15.4495	1524.9111	-38.1755	76.5038
103	177.0348	-4.3447	-28.3218	1264.7682	-34.3541	92.5757
104	267.0895	-7.0580	-36.4331	1004.9382	-29.9254	116.7439
105	459.2215	-13.0730	-54.2265	666.5624	-22.2640	142.1866
106	-464.3170	46.2569	-80.6330	252.7312	-10.5955	177.4548
107	-17.9036	32.8465	-119.9994	-166.5300	1.9135	214.2305
108	424.2299	18.6850	-160.6425	-495.7168	17.4486	259.4235

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
109	755.9615	2.0027	-209.8252	-850.5577	33.9997	307.5184
110	1141.1902	-17.2528	-262.0401	-1103.1830	53.9632	362.4849
111	1382.3491	-39.7189	-320.5624	-1342.8472	76.8284	421.1527
112	1635.1755	-63.6612	-383.6523	-1450.9836	100.9001	485.1577
113	1725.1323	-89.8064	-451.7302	-1517.3875	127.8397	553.7388
114	1753.2726	-119.1891	-523.5768	-1391.7729	156.8344	625.6196
115	1619.3636	-149.1776	-600.3238	-1210.1239	187.8902	703.5701
116	1334.9561	-184.0864	-681.5563	-766.5541	222.0063	784.2310
117	995.3073	-215.4805	-767.0644	-362.9362	254.6249	871.6027
118	361.9803	-254.6680	-858.1271	429.5506	292.7348	961.4658
119	-348.4861	-290.7497	-951.9006	1225.9292	330.0165	1057.6129
120	-1231.5732	-330.1750	-1052.3528	2257.0037	321.0310	1042.0854
121	-120.1538	-49.8370	-142.2303	1772.3510	-41.1937	63.4562
122	-21.1138	0.4714	-15.4321	1513.3073	-37.8792	76.3616
123	177.0150	-4.3407	-28.3235	1262.1777	-34.2509	92.4196
124	267.0605	-7.0484	-36.4671	939.1947	-28.0283	116.4605
125	459.2478	-13.0621	-54.3105	665.0777	-22.2175	142.0792
126	-462.7984	46.2170	-80.5616	251.2897	-10.5592	177.3966
127	-17.2469	32.8190	-119.9853	-167.1444	1.9410	214.2211
128	424.4170	18.6641	-160.6667	-495.9057	17.4592	259.3916
129	752.2048	2.1778	-209.7352	-847.3607	33.8289	307.4237
130	1138.0870	-17.0849	-261.9084	-1100.5414	53.8095	362.4149
131	1391.8385	-38.9895	-320.8307	-1354.5966	76.0939	421.4320
132	1629.8867	-63.7806	-383.6606	-1445.3267	101.0187	485.0236
133	1708.5514	-90.3593	-450.9996	-1499.1534	128.4021	552.9394
134	1752.4807	-119.1300	-523.0482	-1391.2279	156.7654	625.1247
135	1618.1027	-149.1565	-599.6248	-1208.6809	187.8894	702.9211
136	1402.1007	-181.9288	-681.3371	-840.4151	219.8381	783.9838
137	890.6888	-218.4543	-766.2107	-249.2402	257.6114	870.6840
138	362.5080	-254.6276	-857.3377	428.7988	292.6782	960.7257
139	-368.0102	-291.1847	-951.2557	1246.7180	330.4553	1056.9751
140	-1230.9382	-330.1339	-1051.7075	2256.2644	320.9810	1041.3839
141	-120.1743	-49.8370	-142.1762	1763.6299	-41.0287	62.4345
142	-21.0819	0.4709	-15.4174	1512.3108	-37.8920	76.2051
143	177.0452	-4.3476	-28.3352	1251.8225	-34.0328	92.1196
144	267.0558	-7.0595	-36.5376	896.6668	-26.8179	116.0807
145	459.2112	-13.0757	-54.3920	663.8823	-22.1804	142.0781
146	-415.2297	44.7186	-80.4808	208.2526	-9.0536	177.3465
147	-17.1564	32.8358	-119.9723	-167.2466	1.9285	214.2323
148	415.9790	18.9973	-160.6919	-488.4306	17.1247	259.3914
149	750.9901	2.2428	-209.7577	-846.3049	33.7625	307.4504
150	1136.9414	-17.0198	-261.9666	-1099.6174	53.7333	362.4185
151	1391.4615	-38.9244	-320.5341	-1354.3193	76.0361	421.1444
152	1642.4960	-63.0645	-383.6656	-1460.1378	100.2911	485.0272
153	1713.6115	-90.1086	-450.6595	-1504.9188	128.1530	552.5934
154	1759.2478	-118.8140	-523.0788	-1398.9861	156.4554	625.1652
155	1618.3741	-149.1280	-599.3459	-1209.0476	187.8592	702.6022
156	1402.3696	-181.8952	-680.9894	-840.7181	219.8049	783.6245
157	891.0800	-218.4164	-765.7086	-249.8937	257.5702	870.1243
158	363.1541	-254.5928	-856.7511	427.8718	292.6425	960.1103
159	-366.9586	-291.1661	-950.6492	1245.9783	330.4495	1056.3331
160	-1229.3363	-330.0677	-1050.5042	2254.3308	320.9174	1040.3171
161	-120.1514	-49.8399	-142.2013	1762.1953	-40.9217	62.8820
162	-20.9939	0.4686	-15.4359	1503.9952	-37.6037	75.8436
163	177.0878	-4.3436	-28.4023	1243.0104	-33.7088	91.9829
164	267.1313	-7.0530	-36.5679	904.6112	-26.9664	116.2634
165	459.2896	-13.0708	-54.4820	575.0822	-19.3085	141.8730

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
166	-462.6984	46.1308	-80.7015	251.4621	-10.4713	177.5445
167	-16.3083	32.7327	-120.0505	-167.8009	2.0331	214.3666
168	428.8332	18.4316	-160.9626	-499.6023	17.6971	259.7030
169	751.6446	2.0942	-209.9554	-846.5471	33.8993	307.5711
170	1136.1298	-17.1122	-261.9775	-1098.5629	53.8287	362.3433
171	1388.3597	-39.1569	-320.2903	-1350.5219	76.2723	420.8633
172	1638.7733	-63.2845	-383.3373	-1455.6865	100.5172	484.8089
173	1713.9254	-90.1322	-451.1339	-1505.2292	128.1700	553.0431
174	1755.5778	-119.0123	-522.6241	-1394.7332	156.6549	624.6118
175	1621.6383	-149.0379	-599.3163	-1212.5624	187.7692	702.5907
176	1319.0657	-184.5826	-680.5168	-749.3941	222.5004	783.1132
177	903.2486	-218.1260	-765.6123	-262.7000	257.2876	870.1196
178	359.0299	-254.7551	-856.6796	432.2208	292.7916	960.0155
179	-369.4008	-291.2586	-950.5701	1248.8169	330.5389	1056.2759
180	-1225.5576	-330.0034	-1050.4446	2250.6360	320.8548	1040.3171
181	-120.1952	-49.8378	-142.1931	1759.2584	-40.6016	63.0012
182	-21.0348	0.4698	-15.4322	1501.9524	-37.2820	75.7533
183	177.0710	-4.3480	-28.3723	1259.1633	-33.8364	92.4068
184	267.0814	-7.0569	-36.5184	904.5971	-26.6308	116.2052
185	459.2045	-13.0729	-54.4575	596.8817	-19.6203	142.0013
186	-462.2097	45.7271	-80.6069	252.1897	-10.0684	177.4479
187	-21.4940	32.4870	-120.0938	-161.8573	2.2752	214.3354
188	424.5437	18.1070	-160.8295	-494.3471	18.0119	259.5923
189	747.5092	1.7724	-210.0095	-841.4376	34.2255	307.6525
190	1130.2134	-17.4179	-261.8573	-1091.6765	54.1339	362.2898
191	1385.1604	-39.2733	-320.8133	-1347.0370	76.3861	421.3693
192	1624.0774	-63.9813	-383.0584	-1438.9451	101.2142	484.3941
193	1714.0297	-90.0962	-450.8320	-1505.3403	128.1533	552.9106
194	1759.7238	-118.8457	-523.2112	-1399.4611	156.4761	625.1909
195	1626.6292	-148.8756	-599.0366	-1218.0824	187.6171	702.2092
196	1345.6101	-183.7430	-680.5415	-778.4281	221.6550	783.2071
197	902.9414	-218.1327	-765.5867	-262.5899	257.2812	870.0582
198	368.3242	-254.5189	-856.5737	422.4395	292.5712	959.9049
199	-359.5994	-291.0394	-950.4081	1238.1947	330.3158	1056.0652
200	-1214.4983	-329.7665	-1050.0688	2238.9551	320.6151	1039.9799
201	-120.2044	-49.8384	-142.2013	1752.9595	-40.0011	63.1463
202	-21.0393	0.4700	-15.4396	1504.6718	-36.8545	76.0458
203	177.0458	-4.3460	-28.4003	1239.3502	-32.7728	91.8479
204	267.0945	-7.0574	-36.5874	903.7206	-26.0199	116.2787
205	459.2384	-13.0721	-54.4492	586.7784	-18.6583	141.9678
206	-463.5415	45.1340	-80.6951	255.3138	-9.4785	177.5226
207	-22.0820	31.7978	-120.0783	-159.2255	2.9649	214.3681
208	420.2546	17.4937	-160.9288	-488.2302	18.6335	259.6463
209	740.0248	1.2193	-209.8800	-832.2969	34.7781	307.5219
210	1123.0079	-18.0480	-262.0234	-1082.6044	54.7759	362.4745
211	1375.6719	-39.8976	-320.5854	-1335.6404	77.0078	421.1886
212	1623.8279	-64.0266	-383.7291	-1438.5841	101.2559	485.0939
213	1713.8853	-90.1265	-450.6998	-1505.1254	128.1731	552.6297
214	1759.4307	-118.8361	-523.1143	-1399.0719	156.4843	625.1702
215	1626.0771	-148.9155	-599.1688	-1217.5106	187.6466	702.3762
216	1410.8672	-181.7012	-680.8970	-849.7754	219.6206	783.5518
217	943.0234	-217.0135	-765.6178	-306.0397	256.1624	870.0440
218	419.2636	-253.1869	-856.6812	367.6105	291.2392	960.0531
219	-303.7298	-289.6836	-950.5739	1178.3156	328.9654	1056.3077
220	-1159.7957	-328.5507	-1050.7341	2180.4722	319.3847	1040.5326
221	-120.2500	-49.8388	-142.1770	1753.5933	-40.0525	62.5462
222	-20.9967	0.4693	-15.4250	1497.8885	-36.7338	75.6837

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
223	177.1586	-4.3542	-28.4023	1239.4827	-32.8212	91.8140
224	267.1873	-7.0694	-36.5717	895.2148	-25.8138	116.1467
225	459.3264	-13.0946	-54.4588	578.1836	-18.4181	141.8535
226	-463.4483	45.1671	-80.5932	255.1323	-9.4957	177.4483
227	-20.4834	31.7516	-119.9583	-160.6158	3.0260	214.2572
228	420.2674	17.4696	-160.7395	-488.1025	18.6575	259.4818
229	751.7209	0.6340	-209.9668	-842.1534	35.3630	307.6060
230	1122.1270	-18.1110	-261.8583	-1081.4171	54.8419	362.2765
231	1374.0957	-39.9602	-320.4663	-1333.7142	77.0694	421.0528
232	1621.4495	-64.1155	-383.5820	-1435.9108	101.3376	484.9665
233	1710.6698	-90.1905	-450.8293	-1501.4989	128.2459	552.7700
234	1755.3960	-118.9388	-523.0334	-1394.7451	156.5724	625.0248
235	1621.4017	-148.9772	-598.8689	-1212.3182	187.7212	702.0904
236	1405.0807	-181.8143	-680.7327	-843.6398	219.7338	783.4103
237	998.6505	-215.3536	-765.5733	-366.4622	254.5145	870.0209
238	479.6597	-251.5424	-856.4803	302.3022	289.5962	959.8127
239	-233.3288	-287.8974	-950.2498	1102.3606	327.1674	1055.9292
240	-1078.5367	-326.6282	-1050.1498	2093.5427	317.3714	1040.0088
241	-120.7942	-49.8223	-142.1911	1759.9167	-40.6967	62.7177
242	-21.0877	0.4769	-15.4439	1509.1085	-37.5022	76.0083
243	177.6071	-4.4235	-28.4072	1241.5027	-33.3473	91.9973
244	267.6147	-7.1829	-36.5919	904.0781	-26.4879	116.3282
245	459.5200	-13.3052	-54.4562	606.1892	-19.6614	142.1074
246	-462.5140	45.3806	-80.7230	253.8762	-9.6574	177.5543
247	-21.6523	31.8473	-120.1813	-159.1553	3.0010	214.4640
248	418.8554	17.2906	-160.9936	-485.7017	18.8818	259.8030
249	751.3496	0.0840	-210.3218	-838.9803	35.9984	307.9468
250	1112.6404	-18.7108	-262.0348	-1069.4733	55.4678	362.4040
251	1359.2590	-40.8465	-320.9211	-1314.5331	78.0507	421.5649
252	1598.3495	-65.2828	-383.8038	-1408.2205	102.5643	485.1902
253	1678.2001	-91.6524	-451.2258	-1462.6984	129.7718	553.1544
254	1711.4891	-120.6637	-523.0847	-1344.5742	158.3499	625.0979
255	1565.2678	-150.9963	-599.6420	-1148.4143	189.7939	702.9216
256	1335.8481	-184.0427	-681.2706	-766.7504	221.9940	783.9540
257	916.3392	-217.7467	-766.2715	-275.9901	256.9221	870.7632
258	384.2998	-254.0669	-857.4745	405.3326	292.1257	960.8772
259	-338.9404	-290.5140	-951.5716	1215.0891	329.7695	1057.2655
260	-1192.6849	-329.2493	-1051.3142	2214.4209	319.2422	1042.7114
261	-127.7483	-49.7828	-144.1679	1910.9320	-44.6091	78.3214
262	-1893.4508	67.2628	-20.9152	1736.5626	-42.7807	87.8936
263	-1699.9031	64.9184	-33.6479	1542.2039	-40.2239	101.3380
264	-1491.3160	61.8745	-49.9527	1334.9299	-36.9557	118.2893
265	-1221.6648	56.7668	-69.2612	1015.2532	-29.9711	142.7739
266	-993.0906	52.2233	-97.3863	841.6677	-26.6095	167.9110
267	-655.6122	43.5749	-124.5521	520.6857	-17.7177	195.7718
268	-388.5220	35.9963	-155.8327	268.6189	-9.8860	227.7435
269	-105.4918	26.5633	-190.4164	5.9230	-0.1872	263.0628
270	199.7617	14.5284	-228.5195	-272.0254	12.1090	301.9110
271	469.7816	1.5948	-270.2928	-511.6384	25.3108	344.3519
272	708.4086	-12.6468	-315.3187	-782.6595	41.7679	395.5237
273	988.8666	-31.0258	-369.5833	-951.1318	60.4463	450.6648
274	1149.3375	-51.0195	-427.3225	-1064.9833	78.9438	504.2016
275	1250.2463	-70.9481	-483.9976	-1114.3043	99.1284	561.2399
276	1280.2831	-92.5478	-543.7314	-1087.9895	120.9630	621.1971
277	1228.5193	-115.8375	-606.4390	-1007.1068	146.1815	687.3533
278	1115.5101	-142.5026	-675.7997	-785.6021	171.6064	754.0998
279	855.9074	-169.3731	-745.0931	-453.8976	198.6842	823.6533
280	478.7140	-197.9434	-818.0129	0.4860	225.1523	893.0129

ENVOL. MAX. FLECTORES -EC1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0763	93.7789	575.4003	-548.3071	-223.6972	-490.9260
2	991.3917	411.7025	68.9988	-1855.7972	-371.1499	-83.4604
3	1855.9480	371.1486	83.7137	-2615.5620	-320.5000	-57.2405
4	2615.3369	320.5150	56.6580	-3248.0967	-262.4089	-9.1635
5	3248.0410	262.4270	8.9598	-3762.2744	-202.7080	-37.3965
6	3762.3528	202.7395	37.9276	-4159.6128	-142.5674	-41.3277
7	4159.6099	142.5961	41.3330	-4439.0630	-103.0333	-55.2278
8	4439.0405	103.0623	54.8442	-4610.0596	-45.1482	-7.4913
9	4610.0615	45.1668	7.2274	-4664.8838	1.7454	5.0910
10	4664.9204	-1.7720	-4.4065	-4617.9346	54.4274	-34.6677
11	4617.9707	-54.4041	33.5834	-4463.3911	95.8716	-35.0722
12	4463.3691	-95.8860	36.1376	-4197.7422	145.7316	-13.8103
13	4197.8135	-145.7477	12.7848	-3820.8892	203.4596	34.5847
14	3820.8389	-203.4757	-34.2382	-3330.0898	236.3499	68.1367
15	3330.1143	-236.3530	-68.4480	-2810.5854	232.9744	1.2970
16	2810.5908	-232.9719	-0.3703	-2217.6125	272.4758	0.2935
17	2217.7222	-271.3319	-0.6148	-1539.6726	310.5858	0.6721
18	1673.0457	-180.0714	-0.5776	-1255.9861	105.5546	-324.8341
19	1308.9010	-52.2490	193.9467	-1236.5828	35.4938	-162.6635
20	1281.0669	12.4469	41.1298	-1288.8101	43.7900	-114.2636
21	1323.0664	-57.7919	-9.9376	-1035.0361	96.0291	-11.9391
22	1069.6515	-73.6409	-44.2137	-921.5990	37.0619	-0.0701
23	1079.6152	87.4375	0.1104	-1276.7885	-36.7224	-0.1149
24	1403.2522	139.1099	0.1676	-1988.7607	-263.8824	-382.8242
25	2072.7915	321.1133	220.4703	-2940.7988	-255.7242	-189.5841
26	3052.0413	328.8892	127.0901	-3947.0308	-256.4625	-79.3245
27	3946.9497	256.4812	78.9159	-4622.7178	-190.9701	-50.1676
28	4622.7627	190.9403	50.6671	-5098.4531	-118.1588	-3.2522
29	5098.4111	118.1592	2.6910	-5359.3457	-52.7910	23.7113
30	5359.3721	52.7719	-23.0962	-5501.4976	-47.0463	-61.5202
31	5501.4814	47.0330	61.5045	-5535.1411	23.9387	-9.3415
32	5535.1436	-23.9655	8.6990	-5360.0171	91.0872	14.0602
33	5360.0337	-91.0517	-14.0742	-4975.6299	156.4301	42.4713
34	4975.5820	-156.4430	-41.8791	-4383.7500	239.5297	59.1018
35	4383.8916	-239.5327	-59.8766	-3583.5698	294.6646	121.1803
36	3583.4070	-294.6611	-120.5131	-2650.6602	317.2588	0.0072
37	2719.3345	-240.9311	-0.4567	-1961.7390	270.8798	0.4681
38	2111.7073	-173.7333	0.1933	-1482.5339	227.3856	-0.2091
39	1699.0028	-98.6823	-0.1162	-1379.6836	101.2548	0.1192
40	1558.7170	22.1365	0.3026	-1553.1248	33.0085	-0.3372
41	1681.2336	-89.6175	0.3446	-1390.9412	96.7591	-0.3428
42	1467.2389	-52.1525	-0.0763	-1378.9757	48.2537	0.1526
43	1565.2201	75.5425	0.1306	-1729.6499	-24.7503	-0.1573
44	1891.4320	126.1855	-0.0276	-2321.4250	-254.2609	-382.8801
45	2443.7542	199.2784	-1.0982	-3289.3801	-262.9425	-136.0346
46	3414.5630	327.8056	96.8022	-4275.3262	-244.8452	-80.0187
47	4275.3311	244.8576	80.0109	-4914.7051	-179.4184	-51.4715
48	4914.7031	179.4133	51.7767	-5355.7480	-106.6632	-4.3451
49	5355.6958	106.6987	3.9777	-5580.4185	-41.5081	22.7096
50	5580.4194	41.5140	-22.6734	-5687.3086	-35.9055	-61.5571
51	5687.3057	35.9239	62.2028	-5687.4487	35.0108	-10.7768
52	5687.4272	-35.0279	10.4719	-5480.4038	102.2850	11.7092
53	5480.4111	-102.3138	-11.4463	-5062.4971	167.8014	40.1722
54	5062.5020	-167.7822	-40.4247	-4436.9053	250.7947	57.3399
55	4436.8042	-250.7864	-56.8415	-3603.0498	305.8941	117.8200
56	3603.1021	-305.8851	-118.0610	-2630.1724	333.6931	-0.6290

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
57	2744.0527	-220.0938	0.7121	-2049.3271	249.9529	-0.7315
58	2205.9062	-151.2681	0.4885	-1644.8457	204.8302	-0.4450
59	1867.6345	-75.2877	0.1893	-1619.0460	77.8104	-0.1943
60	1801.3206	45.8947	0.5453	-1866.9973	9.2220	-0.5709
61	1995.8054	-96.3772	0.0356	-1707.2620	95.4815	0.0977
62	1784.0894	-50.8797	0.3093	-1655.2920	55.0375	-0.2888
63	1843.7271	68.6935	0.3275	-1987.8145	-17.9056	-0.2765
64	2152.9800	147.5639	-0.5826	-2549.3723	-93.4382	0.5663
65	2688.3494	192.2538	-0.2575	-3408.5918	-259.2348	-136.1892
66	3536.1338	324.0626	95.4681	-4385.9263	-241.1130	-78.4794
67	4386.0410	241.1326	79.2617	-5014.0771	-175.7321	-51.1199
68	5014.0928	175.7412	51.1307	-5444.1953	-102.9751	-3.7024
69	5444.2114	102.9366	3.7099	-5657.2471	-37.6585	22.6666
70	5657.2324	37.6609	-22.6638	-5752.3174	-32.0594	-61.4339
71	5752.3428	32.0420	62.1287	-5740.7979	38.9226	-11.2543
72	5740.7910	-38.9129	11.6282	-5522.1470	106.0965	10.5586
73	5522.1514	-106.0878	-10.9233	-5093.0244	171.6079	39.7026
74	5092.9536	-171.6177	-39.3793	-4455.8403	254.6647	55.8195
75	4455.7891	-254.6552	-55.3103	-3610.4277	309.7235	116.1584
76	3610.4375	-309.7089	-116.1472	-2622.0920	340.8813	-2.1245
77	2749.4480	-215.8770	1.1491	-2067.2881	245.7336	-1.0700
78	2224.2495	-146.9541	0.4655	-1676.1108	200.5154	-0.4570
79	1899.3550	-70.8943	0.6669	-1663.9805	73.4111	-0.6408
80	1846.4905	50.3260	0.0754	-1925.4675	4.7911	-0.1006
81	2054.3428	-97.6338	0.3416	-1763.8264	96.7749	-0.1431
82	1840.6937	-52.1817	0.0333	-1706.4951	56.2909	0.0593
83	1895.0736	67.4462	-0.0390	-2035.4663	-16.6473	0.0684
84	2201.0437	146.3167	-0.9987	-2593.7373	-92.1901	1.0846
85	2733.1157	190.9905	-1.7341	-3429.8230	-258.5907	-134.9528
86	3557.7695	323.4105	94.8101	-4405.4746	-240.4237	-78.0622
87	4405.5215	240.4144	78.3598	-5031.2983	-175.0382	-50.2649
88	5031.3242	175.0557	50.8716	-5459.4072	-102.3107	-3.3770
89	5459.3184	102.3005	2.7330	-5670.3828	-37.0551	23.3957
90	5670.3916	37.0776	-22.3435	-5763.5488	-31.4349	-62.5137
91	5763.5889	31.4228	63.2233	-5750.3066	39.5227	-11.7636
92	5750.3281	-39.5422	11.3741	-5529.7700	106.7697	10.8041
93	5529.7451	-106.7697	-10.4458	-5098.6616	172.2530	38.6566
94	5098.6377	-172.2450	-38.2919	-4459.7021	255.2951	55.0048
95	4459.6846	-255.3299	-54.7840	-3611.9907	310.4610	115.6196
96	3611.9429	-310.4288	-115.3623	-2620.8608	342.2018	-3.0980
97	2752.0549	-213.9218	2.3888	-2075.7610	243.7801	-2.3452
98	2232.7573	-144.9635	1.4065	-1690.5752	198.5212	-1.3061
99	1913.9106	-68.8666	0.9208	-1684.5913	71.3961	-0.8351
100	1867.2300	52.3383	0.1074	-1952.2402	2.7591	-0.1475
101	2081.1768	-98.2094	0.7220	-1789.0359	97.3525	-0.4712
102	1865.9224	-52.7640	-0.1519	-1729.8552	56.8709	0.3410
103	1918.5032	66.8731	-0.4993	-2057.1719	-16.0702	0.4605
104	2222.8525	145.7095	-0.7372	-2613.6877	-91.5844	0.7875
105	2753.1064	190.3804	-2.0676	-3439.1523	-258.2447	-134.1002
106	3567.0935	323.0641	93.5827	-4413.6240	-240.1189	-77.0828
107	4413.7446	240.1500	77.8917	-5038.6880	-174.7685	-49.8953
108	5038.6929	174.7304	50.1546	-5465.7559	-101.9377	-3.2195
109	5465.8188	101.9566	3.6018	-5675.9160	-36.7097	22.5679
110	5675.9136	36.7024	-22.5765	-5768.1001	-31.1233	-61.7068
111	5768.0977	31.1426	62.8057	-5753.8413	39.8008	-11.8484
112	5753.8423	-39.8338	11.8213	-5532.3472	107.1091	10.3442
113	5532.3545	-107.1341	-10.3384	-5100.1230	172.6584	38.1961

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
114	5099.9922	-172.6034	-37.0222	-4459.8105	255.5950	53.4150
115	4459.8311	-255.5649	-53.6275	-3612.0913	310.5838	114.4257
116	3611.9048	-310.5523	-113.5555	-2619.9185	342.6290	-5.1490
117	2752.3423	-213.4711	2.1450	-2077.4819	243.3301	-2.0179
118	2234.3948	-144.5506	1.7998	-1693.3098	198.1254	-1.7225
119	1916.5405	-68.5186	0.3122	-1688.3433	71.0318	-0.2370
120	1870.8199	52.7069	0.9041	-1956.9446	2.3994	-0.9420
121	2085.8479	-98.3137	0.2155	-1793.3179	97.4535	0.1328
122	1870.1791	-52.8627	-0.0034	-1733.8003	56.9627	0.1686
123	1922.3508	66.8048	-0.4245	-2060.8213	-16.0090	0.4353
124	2226.4316	145.6896	-1.3537	-2617.2969	-91.5564	1.4384
125	2756.9507	190.3787	-2.7086	-3441.8120	-258.3419	-133.1697
126	3570.0112	323.1889	92.4138	-4416.7949	-240.1930	-75.9154
127	4416.8945	240.1495	76.7283	-5041.6055	-174.6864	-48.9432
128	5041.6484	174.6751	49.5158	-5468.5645	-101.9005	-2.9641
129	5468.6313	101.8739	3.6249	-5678.5088	-36.6360	22.3297
130	5678.4951	36.6175	-22.3356	-5770.2041	-30.9716	-61.3094
131	5770.1553	30.9818	61.6663	-5755.5405	39.9258	-10.7180
132	5755.5454	-39.9628	11.4093	-5533.7090	107.2358	9.4558
133	5533.6611	-107.2147	-8.4495	-5101.3560	172.6927	36.0532
134	5101.3037	-172.6959	-35.4530	-4460.7192	255.7280	52.1056
135	4460.7363	-255.7107	-52.0746	-3612.0542	310.7933	113.1000
136	3612.0068	-310.7671	-112.8518	-2619.3149	342.8899	-5.4643
137	2752.0605	-213.3762	3.8428	-2077.3071	243.2387	-3.7921
138	2234.4146	-144.4314	2.0950	-1693.7980	197.9956	-1.8802
139	1917.2673	-68.3499	0.5911	-1689.6021	70.8626	-0.5295
140	1872.2014	52.8755	1.0221	-1958.8325	-1.7497	3.6625
141	2087.7368	-94.3437	-4.6640	-1795.3013	97.4675	0.3807
142	1872.1792	-52.8688	0.6743	-1735.7434	56.9841	-0.5101
143	1924.3979	66.7415	-0.0878	-2062.6611	-15.9533	0.1794
144	2228.1963	145.6046	-1.7963	-2618.7783	-91.4669	1.8476
145	2758.1733	190.2807	-2.4379	-3441.4600	-258.2412	-132.7317
146	3569.2664	323.0358	91.1681	-4415.8667	-240.0939	-74.4916
147	4416.0044	240.1141	75.3074	-5040.7715	-174.6719	-47.8485
148	5040.8340	174.6457	48.7916	-5467.5415	-101.8638	-2.4569
149	5467.6182	101.8555	3.1050	-5677.4170	-36.6370	22.8336
150	5677.3818	36.6330	-22.8199	-5769.2383	-30.9617	-61.3138
151	5769.2598	30.9507	62.3893	-5754.5601	39.9845	-11.4597
152	5754.5522	-39.9803	11.4550	-5532.7822	107.1728	9.5349
153	5532.7178	-107.1661	-7.8955	-5100.4683	172.6439	35.4600
154	5100.4854	-172.6172	-35.4754	-4460.3330	255.6577	52.2252
155	4460.2705	-255.6645	-51.6854	-3611.6899	310.7628	112.3804
156	3611.6421	-310.7431	-112.1215	-2618.1943	342.9137	-6.1716
157	2750.9497	-213.3768	4.4899	-2076.3542	243.2322	-4.4598
158	2233.2788	-144.4382	2.4780	-1692.7192	197.9957	-2.2376
159	1915.8910	-68.3591	0.8795	-1688.0995	70.8856	-0.7280
160	1870.6108	52.8437	0.0453	-1957.1431	2.2594	-0.0850
161	2086.0630	-98.1872	0.4157	-1793.9399	97.3264	0.0103
162	1870.8264	-52.7346	0.0650	-1734.8370	56.8359	0.1892
163	1923.4651	66.9185	-0.7414	-2062.2729	-16.1181	0.7578
164	2227.9875	145.7855	-1.8437	-2619.0488	-91.6647	2.0142
165	2758.5979	190.4716	-4.1476	-3442.4487	-258.3414	-131.9821
166	3570.5225	323.0091	91.8952	-4416.8521	-240.0468	-75.5582
167	4416.8486	240.0487	75.5517	-5041.6055	-174.6477	-46.7184
168	5041.5815	174.6131	46.7206	-5468.1025	-101.8336	-0.4692
169	5468.2324	101.8218	2.1291	-5677.7822	-36.5526	22.7779
170	5677.8384	36.5740	-22.3960	-5769.5249	-30.9352	-62.1689

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
171	5769.5054	30.9205	63.5146	-5754.6572	39.9832	-12.7806
172	5754.6235	-39.9657	12.7666	-5532.7354	107.2537	9.1562
173	5532.7080	-107.2763	-8.7538	-5100.2866	172.7520	36.0726
174	5100.1226	-172.7632	-34.5639	-4459.4619	255.8033	50.8320
175	4459.4932	-255.7983	-51.1575	-3610.5991	310.9069	111.9824
176	3610.4102	-310.9195	-111.0362	-2614.6145	343.1626	-7.5801
177	2747.3367	-213.5149	4.2342	-2072.1189	243.3764	-4.0775
178	2229.2202	-144.5534	2.5963	-1688.4758	198.0947	-2.4399
179	1911.7786	-68.4353	1.1677	-1683.7266	70.9699	-1.0137
180	1866.3662	52.7576	0.2971	-1952.6375	2.3536	-0.3233
181	2081.5325	-97.8231	0.5680	-1790.6245	96.9673	-0.1232
182	1867.5151	-52.3763	-0.1347	-1732.5842	56.4841	0.3233
183	1921.2273	67.2557	0.0117	-2061.0435	-16.4598	0.0252
184	2226.6279	146.0894	-1.9242	-2618.6006	-91.9657	2.1033
185	2757.9849	190.7704	-3.5177	-3442.4629	-258.4881	-132.0316
186	3569.3560	322.7054	91.0885	-4414.5146	-239.7151	-75.0988
187	4414.6836	239.7077	76.4236	-5038.2998	-174.3532	-48.6222
188	5038.3159	174.3718	48.6249	-5464.2563	-101.6287	-1.6129
189	5464.3320	101.6548	2.2579	-5673.5859	-36.3887	22.9399
190	5673.6025	36.3692	-21.8875	-5764.6631	-30.7630	-62.1563
191	5764.6221	30.7836	62.1314	-5749.3809	40.1590	-11.6757
192	5749.3467	-40.1830	13.4031	-5526.9360	107.4540	7.4906
193	5527.0059	-107.5045	-7.4742	-5093.6641	173.0769	35.9615
194	5093.6504	-173.1101	-35.6080	-4452.0811	256.1326	51.7137
195	4451.9326	-256.1153	-50.6903	-3602.1147	311.2224	110.9533
196	3602.0752	-311.2203	-110.6832	-2595.3984	343.7294	-7.4405
197	2727.9204	-214.0841	4.0896	-2051.1602	243.9395	-4.0078
198	2208.0132	-145.1266	2.6539	-1665.4224	198.6779	-2.4899
199	1888.6167	-69.0087	0.9656	-1658.7273	71.5348	-0.7754
200	1841.2620	52.2044	-0.2963	-1926.0137	-5.0604	0.7552
201	2054.9858	-87.8447	0.2641	-1770.0850	94.9543	-0.3310
202	1846.9818	-50.3656	0.4148	-1718.0894	54.4685	-0.1292
203	1906.7433	69.2688	-0.9032	-2052.5913	-18.4760	0.9342
204	2218.1895	148.1333	-1.7915	-2616.3784	-94.0024	1.8973
205	2755.9092	192.8171	-3.6715	-3444.6091	-259.5266	-132.1204
206	3568.7444	322.1075	91.5532	-4412.1875	-239.1459	-75.2945
207	4412.2393	239.1620	75.8075	-5034.3164	-173.7997	-47.4077
208	5034.3301	173.7877	47.3938	-5458.4741	-100.9971	-1.1006
209	5458.5781	100.9624	2.7138	-5665.4951	-35.6466	22.5406
210	5665.4785	35.6062	-22.5671	-5754.2168	-29.9443	-61.5303
211	5754.2217	29.9260	62.6005	-5736.2500	41.0338	-11.6176
212	5736.2559	-41.0177	11.5834	-5511.4976	108.2345	9.3925
213	5511.3979	-108.2343	-7.7385	-5075.9395	173.7471	35.2589
214	5075.9248	-173.7467	-35.2454	-4432.3770	256.7722	51.7869
215	4432.2588	-256.8031	-51.0097	-3580.5063	311.8911	111.6742
216	3580.5386	-311.8953	-111.6315	-2549.8003	345.0764	-6.4524
217	2682.9060	-215.4054	4.3809	-2002.2394	245.2551	-4.3383
218	2159.5486	-146.4016	2.2504	-1613.1023	199.9574	-2.0043
219	1836.8044	-70.2740	0.5444	-1601.5050	72.8403	-0.4218
220	1784.4077	50.9132	0.2208	-1867.2446	-3.8102	0.2242
221	1996.1681	-83.3735	-0.3435	-1724.7612	90.4879	0.3237
222	1801.7122	-45.8985	-0.0805	-1686.2220	50.0142	0.3289
223	1875.1311	73.6880	-0.9570	-2034.2878	-22.8779	0.9753
224	2200.4392	152.4328	-2.0161	-2611.4871	-98.3013	2.1396
225	2751.2075	196.9762	-3.9126	-3447.8921	-261.2914	-132.2036
226	3561.7642	318.0967	92.2995	-4393.4062	-235.1102	-75.8065
227	4393.4219	235.1191	75.8277	-5003.3340	-169.6795	-47.7133

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
228	5003.4326	169.6735	48.5920	-5415.3555	-96.9444	-2.0599
229	5415.3877	96.9612	2.4262	-5610.6533	-31.7211	23.0498
230	5610.6836	31.6960	-22.1459	-5687.4839	-26.0227	-62.4950
231	5687.5010	26.0477	63.3192	-5658.2949	44.8173	-12.2168
232	5658.3027	-44.7815	12.2405	-5421.9863	111.9476	9.0604
233	5421.9062	-111.9185	-7.8951	-4975.2412	177.4214	35.4135
234	4975.1992	-177.4298	-35.0366	-4320.7139	260.4578	51.1276
235	4320.5566	-260.4513	-50.2182	-3457.6074	315.5535	110.8794
236	3457.6338	-315.5724	-111.0242	-2387.2021	398.4792	127.8348
237	2456.5735	-333.5714	-168.4402	-1736.7998	252.2227	-3.9776
238	1898.1246	-124.9952	2.1067	-1416.4177	178.5391	-1.8964
239	1558.9951	-77.0897	0.4500	-1282.8552	71.6094	0.1891
240	1467.9983	52.1861	-0.8697	-1552.5596	2.9663	0.8489
241	1682.0945	-59.5682	-0.8854	-1482.0239	66.7116	0.8523
242	1559.5000	-22.1650	-0.5130	-1515.7354	26.3735	0.7562
243	1706.8982	97.0135	-1.5254	-1936.1953	-46.1667	1.5533
244	2105.8723	174.8391	-2.6118	-2584.1636	-120.6197	2.6913
245	2725.5459	217.7209	-4.1556	-3460.5837	-268.5918	-139.7334
246	3540.7495	306.8068	93.1321	-4338.2686	-223.8641	-76.9623
247	4338.4478	223.8848	77.9868	-4915.4458	-158.6064	-49.8737
248	4915.4736	158.5994	49.8649	-5293.7974	-85.8062	-2.6682
249	5293.8315	85.8534	3.0389	-5457.4795	-20.7313	21.9397
250	5457.5098	20.7000	-20.3456	-5498.8789	-14.9443	-64.5717
251	5498.8643	14.9421	64.5632	-5435.8340	56.0291	-13.3345
252	5435.7920	-56.0217	13.9457	-5163.1934	123.3232	7.0899
253	5163.1016	-123.3060	-6.2684	-4681.1143	194.1747	56.5451
254	4681.0469	-194.1818	-55.7099	-3991.8069	271.9329	49.2291
255	3991.7649	-271.9542	-49.2624	-3094.2307	327.0998	110.3643
256	3094.1523	-327.1276	-110.0761	-1989.5164	410.0094	126.6063
257	2097.4561	-336.8265	-190.6942	-1233.7889	252.4053	-2.9352
258	1408.6847	-137.9523	0.6842	-894.5223	191.3386	-0.5221
259	1074.8955	-88.9685	-0.1782	-966.4357	-11.8486	-206.0396
260	1074.2400	74.0943	41.7802	-1260.5237	-11.5865	-131.9460
261	1329.0642	9.0202	-24.7730	-1262.7266	29.4835	2.6674
262	1286.8276	-12.5194	-43.5560	-1248.5591	7.3858	42.2296
263	1311.7456	40.5684	-164.1233	-1530.3843	-74.8032	2.1410
264	1664.4180	181.5098	-2.8078	-2054.3433	-163.3418	3.0244
265	2214.9792	294.0663	-5.5309	-2811.7661	-254.4606	5.4702
266	2814.2593	255.5559	-3.7552	-3323.0928	-215.7233	3.7792
267	3323.1101	215.7121	-4.7416	-3739.2031	-175.6922	4.7308
268	3739.2280	175.5916	-2.8387	-4055.9536	-110.9810	2.5515
269	4055.9399	110.9133	-1.2422	-4275.5928	-70.5294	1.1653
270	4275.5317	70.3936	-1.2582	-4397.6221	-29.8554	1.3389
271	4397.6587	29.8525	-1.2692	-4421.2842	10.8379	1.0487
272	4421.2412	-10.9468	1.1481	-4418.7471	16.4789	6.4995
273	4418.7568	-16.4773	-6.5334	-4312.0063	74.4696	52.9213
274	4311.9380	-74.5178	-52.2546	-4077.8376	137.2280	43.3530
275	4077.8196	-137.1988	-43.3558	-3715.6802	187.7473	69.3194
276	3715.5967	-187.7468	-68.9948	-3227.0820	245.8510	115.2619
277	3226.9595	-245.8807	-114.8246	-2607.4185	304.0284	161.3295
278	2607.4211	-304.0185	-161.3230	-1860.7755	354.6505	187.2138
279	1860.5251	-354.6472	-186.7876	-986.6846	405.3163	212.7633
280	986.7986	-405.3127	-212.8442	-0.2758	209.3715	-625.3708

ENVOL. MAX CORTANTES -EC1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.1818	462.3881	95.1594	-969.0972	-421.8032	-109.4113
2	950.1388	422.3652	104.9634	-1780.3174	-382.1823	-119.4182
3	1727.3223	383.8650	112.9325	-2424.4827	-344.1644	-126.8482
4	2341.8833	346.9800	117.3449	-2923.4453	-299.9200	-104.1202
5	2816.7759	303.8420	92.7366	-3284.6206	-253.1828	-82.5631
6	3158.7842	258.2069	69.5099	-3565.3926	-216.6007	-71.4323
7	3424.7480	222.7044	55.6689	-3743.7112	-180.1917	-53.6154
8	2957.3477	187.9330	0.0923	-3254.8064	-147.2019	0.0499
9	2941.6934	163.5837	-0.3690	-3176.3872	-123.0070	0.2454
10	2860.3032	141.3357	0.6211	-3038.0103	-100.9036	-0.5104
11	2726.5762	121.2907	-0.7624	-2853.3250	-81.0244	0.7316
12	2553.7925	103.2546	0.5123	-2634.9980	-63.1444	-0.5113
13	2354.1689	87.2292	-0.6137	-2287.2783	-43.6082	0.6925
14	2031.0848	69.4386	-0.2444	-1528.6002	-31.1807	54.3835
15	1810.7041	57.4829	-0.5117	-1441.3062	-25.3100	31.7545
16	1597.6570	47.3410	0.1085	-1360.4485	-20.3454	11.1091
17	1401.0724	38.9231	-0.0641	-1290.1685	-16.2656	-6.3902
18	1233.8311	32.2559	-34.3096	-1267.8602	-13.8010	-32.9244
19	1232.8147	30.4391	-10.1172	-1281.0630	-12.4448	-40.9317
20	1267.7778	29.6601	-3.8154	2136.5254	-182.3576	-542.0472
21	-5770.2529	593.8511	-0.6646	3541.6880	-651.2180	-269.7986
22	-3558.7778	651.6094	265.5150	1793.6207	-586.4642	-234.5945
23	-1843.5795	587.6867	227.2337	412.1918	-526.5745	-227.9595
24	-494.4705	528.7347	217.6463	-232.1287	-468.4214	-54.3565
25	118.7281	471.6436	40.8885	-1372.7445	-411.7573	-54.2009
26	1230.5167	416.1333	37.5545	-2371.1836	-361.5762	-43.3987
27	2203.3967	367.1938	23.5101	-2137.1816	-305.7217	0.3044
28	1759.5022	319.5287	0.0895	-2562.2031	-267.6766	-0.0752
29	2152.1406	284.2419	-0.3582	-2755.5132	-228.4578	0.3154
30	2324.3584	247.8067	0.2284	-2902.1638	-195.8997	-0.3424
31	2461.6951	218.1251	0.2825	-2846.9624	-162.3822	-0.1319
32	2409.5405	187.4934	-0.3983	-2796.8853	-135.7062	0.4909
33	2374.9316	163.7156	-0.4140	-2580.3547	-108.3656	0.2884
34	2185.7617	139.1847	0.2410	-2421.8391	-87.6507	-0.1814
35	2065.8711	121.2530	-0.5151	-2136.5581	-66.5897	0.4802
36	1829.5276	102.8637	0.2530	-1016.8389	-58.6306	23.4223
37	1707.1667	90.5768	-0.1233	-879.3850	-52.3376	-22.2008
38	1300.7573	80.3628	0.3137	-970.1035	-48.9317	-35.9119
39	1355.6107	75.7529	-0.0864	-1088.8611	-46.6306	-46.0721
40	1469.4751	73.1285	0.3329	1747.7188	-197.5824	-578.0308
41	-6694.8906	613.7445	-1.2200	3836.4243	-657.8820	-277.0209
42	-3854.5029	658.2900	273.0777	2069.4021	-593.1373	-242.2386
43	-2121.6284	594.4261	234.3293	674.1116	-533.4425	-235.0684
44	-759.8679	535.7007	224.7292	114.5958	-478.3280	-59.2618
45	-232.2018	481.6621	45.9619	-1090.3079	-420.5484	-59.9758
46	943.8767	425.0516	43.2846	-1040.8644	-370.0219	0.4852
47	696.9243	381.5647	-0.4585	-1609.8306	-326.0485	0.4153
48	1224.0356	340.1873	-0.3078	-2088.2463	-288.3691	0.3440
49	1671.0889	305.2863	-0.5307	-2337.0161	-249.5408	0.5958
50	1899.6365	269.2212	-0.5107	-2541.3054	-217.3476	0.3708
51	2095.8091	239.9052	0.0352	-2545.6045	-184.2269	-0.0786
52	2104.2163	209.6237	-0.1486	-2557.4521	-157.8792	0.1652
53	2132.7529	186.1209	0.0102	-2404.8521	-130.8337	0.0132
54	2008.3506	161.9158	-0.2148	-2312.3521	-110.4533	0.1633
55	1955.5432	144.2517	0.2387	-954.3202	-96.3613	52.1283
56	1787.7794	126.1261	-0.0579	-1053.6163	-89.0500	28.1558

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
57	1735.4674	114.0243	0.1355	-1012.6544	-83.9755	-17.9143
58	1409.7361	106.2297	0.0212	-1198.6519	-80.6230	-31.3968
59	1141.8019	102.3523	-26.3295	-1412.8367	-78.3548	-41.8188
60	1392.3508	101.0607	-18.6123	1578.6788	-209.7976	-585.9550
61	-6887.8486	617.9024	0.5501	3916.7058	-659.7097	-277.5442
62	-3934.5066	660.1225	272.1415	2143.6982	-594.9749	-240.9203
63	-2196.1816	596.2598	233.2234	743.8594	-535.2790	-233.9178
64	-829.9336	537.5494	223.8069	185.7906	-480.3722	-58.9407
65	-303.3971	483.7243	45.1200	-1027.8633	-422.5814	-58.7184
66	880.8221	427.0915	42.2310	-921.7330	-374.2230	1.4954
67	577.1182	385.7752	-1.3682	-1502.5800	-330.2646	1.2701
68	1116.2007	344.4416	-1.2366	-1993.3424	-292.6039	1.2633
69	1575.5186	309.4977	-1.2083	-2253.8965	-253.7475	1.2500
70	1816.0183	273.4573	-1.1770	-2470.2554	-221.5883	1.0574
71	2024.3503	244.1478	-0.6240	-2486.7524	-188.4843	0.4646
72	2045.0625	213.9231	-0.2915	-2511.1931	-162.1781	0.3282
73	2086.1860	190.4537	-0.6195	-2371.1963	-135.1798	0.6487
74	1974.5491	166.2697	-0.4251	-2291.6021	-114.7968	0.2870
75	1934.6797	148.6188	0.0440	-948.9494	-99.3838	52.4434
76	1779.9647	130.5162	-0.0614	-1057.2974	-92.0990	28.4303
77	1740.8149	118.4308	-0.1861	-1025.7830	-87.1085	-17.4425
78	1428.8987	110.8012	-0.4438	-1221.1948	-83.7617	-31.0075
79	1575.6221	106.2663	0.2112	-1444.8083	-81.4991	-41.7116
80	1424.3560	104.2085	-19.1171	1548.1761	-212.0718	-585.2524
81	-6981.0166	619.9027	-0.6271	3959.5596	-660.7144	-275.9873
82	-3977.5342	661.1328	271.3394	2183.9917	-596.0004	-240.2694
83	-2236.4080	597.2866	232.3447	780.6417	-536.2934	-233.1161
84	-866.6766	538.5589	222.8177	220.0972	-481.3884	-58.0648
85	-337.8380	484.7341	44.4888	-996.2728	-423.5569	-58.3110
86	849.4319	428.0695	41.6776	-864.4309	-376.2190	1.8810
87	519.6865	387.7593	-1.7678	-1451.1001	-332.2424	1.6623
88	1064.6033	346.4323	-1.4484	-1947.8667	-294.6011	1.5075
89	1529.8894	311.5048	-1.6893	-2214.2866	-255.7671	1.6259
90	1776.3835	275.5021	-1.0005	-2436.5964	-223.6285	0.7067
91	1990.7354	246.1749	-0.3656	-2459.1001	-190.5197	0.3982
92	2017.4490	215.9451	-0.7074	-2489.8569	-164.1778	0.7386
93	2064.6313	192.4742	-0.5431	-2355.6338	-137.2028	0.4684
94	1959.0029	168.2835	-0.2938	-2282.0581	-116.8181	0.2273
95	1925.1364	150.6247	-0.1660	-947.0072	-100.4616	52.6325
96	1776.4180	132.5374	-0.0486	-1058.5250	-93.1803	28.4638
97	1743.2975	120.4435	0.2657	-1030.3601	-88.1994	-17.5285
98	1437.4895	112.8387	-0.2268	-1229.0985	-84.8547	-31.0190
99	1590.3398	108.3060	0.1324	-1456.0696	-82.5870	-41.5736
100	1802.3796	105.7288	-0.1682	1534.3726	-213.1186	-584.5226
101	-6998.0850	620.2614	-2.1026	3967.0789	-660.8982	-274.4451
102	-3985.2222	661.3096	270.5327	2191.0154	-596.1710	-239.6632
103	-2243.4409	597.4622	231.7755	787.3464	-536.4535	-232.7313
104	-873.1827	538.7164	221.8542	226.5103	-481.5305	-57.0848
105	-344.3220	484.8764	43.6285	-990.6622	-423.7016	-57.3103
106	843.7419	428.2180	40.7349	-853.6624	-376.5638	2.6328
107	508.9883	388.1337	-2.4896	-1441.4415	-332.6274	2.3815
108	1055.0170	346.7793	-2.2322	-1939.4058	-294.9337	2.1531
109	1521.4268	311.8613	-1.9415	-2206.9355	-256.1127	1.9535
110	1769.0044	275.8147	-1.9060	-2430.3584	-223.9404	1.7270
111	1984.4290	246.5247	-1.1208	-2453.8281	-190.8774	1.0325
112	2012.2227	216.3077	-1.1358	-2485.4971	-164.5457	1.1806
113	2060.4639	192.8092	-1.2241	-2352.4426	-137.5593	1.0737

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
114	1955.8959	168.6661	-0.3509	-2280.2678	-117.1838	0.2633
115	1923.2212	151.0144	-0.6275	-946.7181	-100.6586	53.3078
116	1775.7203	132.9103	0.0312	-1058.8689	-93.3477	28.9152
117	1743.7299	120.8173	-0.6247	-1031.1288	-88.3678	-16.5831
118	1438.9812	113.1919	-0.3898	-1230.3923	-85.0106	-30.5089
119	1592.8999	108.6544	-0.7338	-1457.7782	-82.7538	-40.8461
120	1805.8972	106.0730	0.4846	1532.6628	-213.3060	-583.8021
121	-7005.9438	620.4821	-0.5504	3971.4976	-661.1029	-274.7911
122	-3989.3613	661.5094	269.6870	2194.8518	-596.3845	-238.5160
123	-2247.2671	597.6833	230.6240	790.4730	-536.7066	-231.5156
124	-876.3743	538.9607	220.8652	228.6006	-481.7114	-56.4283
125	-346.3696	485.0500	42.8710	-989.0187	-423.8839	-56.4922
126	-286.6729	428.4146	-3.3867	-849.9775	-376.7693	3.2779
127	505.2241	388.2842	-3.0915	-1438.0658	-332.7700	2.9360
128	1051.5740	346.9349	-2.6737	-1936.1716	-295.1019	2.5011
129	1518.2349	311.9908	-2.1830	-2204.2603	-256.2379	2.1842
130	1766.1904	275.9655	-2.1784	-2428.0259	-224.0789	2.1626
131	1981.9229	246.6598	-1.9068	-2451.6968	-191.0082	1.7983
132	2010.0461	216.4232	-1.4023	-2483.7710	-164.6710	1.1494
133	2058.6587	192.9730	-0.6220	-2351.0796	-137.7086	0.4697
134	1954.4915	168.7949	-0.2835	-2279.1873	-117.3168	0.2666
135	1922.1743	151.1530	-0.5211	-946.4014	-100.7502	53.5244
136	1775.0862	133.0532	-0.6024	-1058.6937	-93.4462	29.3773
137	1743.5396	120.9764	0.0641	-1031.4182	-88.4677	-16.6700
138	1439.3888	113.3643	-0.7885	-1230.9862	-85.1232	-30.0874
139	1593.8389	108.8275	-0.6922	-1458.7174	-82.8611	-40.7125
140	1807.3853	106.2501	0.4968	1530.2378	-213.3729	-583.4178
141	-7006.6777	620.4078	1.1787	3971.8171	-660.9732	-275.1361
142	-3989.3418	661.3849	268.5600	2195.0330	-596.2243	-237.0128
143	-2247.5332	597.5153	229.3357	791.6036	-536.5243	-230.2007
144	-877.5732	538.7888	219.8026	230.1139	-481.5977	-55.8409
145	-347.6802	484.9437	41.9472	-987.2500	-423.7922	-55.4707
146	-288.7538	428.3705	-4.2702	-847.9793	-376.7259	4.2196
147	503.2828	388.2861	-3.9686	-1436.3420	-332.7691	3.7577
148	1049.8367	346.9377	-3.3646	-1934.3752	-295.1088	3.1502
149	1516.5376	312.0096	-2.8269	-2202.5259	-256.2603	2.8531
150	1764.5459	275.9661	-2.7901	-2426.3784	-224.0791	2.6411
151	1980.4055	246.6671	-2.0374	-2450.2458	-191.0200	1.9797
152	2008.5957	216.4402	-2.0228	-2482.3364	-164.6871	1.7675
153	2057.2939	192.9800	-0.8221	-2349.8086	-137.7199	0.7198
154	1953.1907	168.8085	-0.9794	-2277.9172	-117.3308	0.9629
155	1920.9026	151.1481	-0.7858	-945.7994	-100.7220	53.8044
156	1773.7878	133.0436	-0.8213	-1058.0808	-93.4366	29.6535
157	1742.2074	120.9547	0.0868	-1030.6093	-88.4559	-16.4147
158	1437.8748	113.3387	-0.9455	-1230.0566	-85.1140	-29.8149
159	1592.1946	108.8092	-0.7136	-1457.8035	-82.8476	-40.4007
160	1805.7205	106.2312	-0.5485	1531.7712	-213.4132	-582.8874
161	-7006.0312	620.3736	-1.0390	3971.7681	-661.0494	-273.4114
162	-3989.6294	661.4606	268.3021	2195.2410	-596.3145	-237.1181
163	-2247.6599	597.6051	229.2556	791.1655	-536.5985	-230.1877
164	-876.9835	538.8490	219.3527	229.7289	-481.6216	-55.1308
165	-347.5433	484.9647	41.7427	-987.5138	-423.7928	-55.7177
166	840.8607	428.3111	38.9147	-847.6830	-376.6595	4.2741
167	502.9577	388.1920	-4.0791	-1435.7346	-332.6776	4.2597
168	1049.1934	346.8417	-3.9966	-1933.5217	-294.9856	3.7292
169	1515.5697	311.8983	-2.8753	-2201.2668	-256.1583	2.6155
170	1763.2654	275.8808	-2.3940	-2424.7019	-224.0235	2.1312

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
171	1978.7666	246.5829	-1.4330	-2448.4065	-190.9138	1.3639
172	2006.6321	216.3591	-1.5272	-2480.2109	-164.6030	1.5096
173	2055.0269	192.8814	-1.3803	-2347.1775	-137.6270	1.1629
174	1950.5697	168.7104	-0.3316	-2274.9185	-117.2350	0.2498
175	1917.9248	151.0516	-0.8208	-943.9980	-100.6830	53.9214
176	1770.4656	132.9551	-0.2495	-1056.1830	-93.3976	29.5215
177	1738.5818	120.8741	-0.3721	-1028.7739	-88.4172	-16.0972
178	1434.1090	113.2636	-0.8822	-1228.0830	-85.0844	-29.8073
179	1588.1852	108.7352	-0.5052	-1455.8071	-82.8065	-40.5051
180	1801.5400	106.1556	-0.3486	1533.3403	-213.3457	-582.8054
181	-6998.4795	619.7654	-1.2198	3968.7493	-660.6805	-273.5750
182	-3986.7285	661.0923	268.9760	2193.4873	-595.9456	-237.8765
183	-2245.6670	597.2338	229.0926	790.4952	-536.2409	-229.7705
184	-876.5418	538.4963	219.5293	230.1626	-481.2941	-55.3290
185	-347.8362	484.6415	41.7304	-986.5275	-423.4501	-55.4280
186	839.6486	427.9924	38.8260	-844.2315	-376.1050	4.0808
187	499.5692	387.6271	-3.8860	-1430.5767	-332.1154	3.7993
188	1044.1643	346.3034	-3.6767	-1926.8647	-294.4789	3.6312
189	1509.0155	311.4066	-3.2435	-2193.2539	-255.6665	3.0619
190	1755.2437	275.3660	-2.4975	-2415.2102	-223.4829	2.3847
191	1969.1880	246.0515	-2.4183	-2437.2166	-190.3904	2.2000
192	1995.4934	215.8092	-1.2623	-2467.4106	-164.0529	1.0561
193	2042.2092	192.3261	-1.2916	-2332.7646	-137.0419	1.3726
194	1936.0312	168.1229	-1.3303	-2258.6177	-116.6575	1.1520
195	1901.6177	150.4794	-0.6092	-934.9163	-100.4053	53.9896
196	1752.4331	132.3877	-0.6975	-1046.2218	-93.1179	29.9611
197	1718.8367	120.3095	-0.6067	-1017.8451	-88.1513	-15.7925
198	1412.5151	112.7067	-1.0111	-1216.4133	-84.8128	-29.5750
199	1564.9272	108.1784	-0.8378	-1443.2733	-82.5459	-40.0686
200	1776.5498	105.6016	-0.9870	1546.6681	-213.0715	-582.5219
201	-6982.0762	618.5088	-1.8294	3962.2537	-660.0432	-272.8376
202	-3980.1238	660.4546	267.7410	2188.6094	-595.3138	-236.5952
203	-2241.1836	596.6041	229.2619	787.9606	-535.6213	-230.3192
204	-873.7122	537.8875	219.3386	229.1164	-480.6976	-55.2107
205	-346.8833	484.0343	41.7050	-985.4327	-422.8694	-55.5304
206	838.6902	427.4001	38.8209	-838.1918	-374.8415	4.3103
207	493.5306	386.4054	-4.1388	-1420.9363	-330.8956	4.2033
208	1034.4138	345.0552	-3.9924	-1913.4032	-293.2051	3.7457
209	1495.4430	310.0992	-2.9648	-2175.6743	-254.3460	2.8161
210	1737.6235	274.0367	-2.7967	-2393.6514	-222.1580	2.6642
211	1947.6191	244.7293	-2.0757	-2411.6128	-189.0717	2.0340
212	1969.9406	214.5124	-2.1045	-2437.8962	-162.7625	1.8609
213	2012.8059	191.0485	-0.9514	-2299.5469	-135.7817	0.8417
214	1902.8955	166.8798	-1.1008	-2221.8301	-115.3993	1.0284
215	1864.8235	149.2239	-0.6897	-914.7988	-99.7987	53.9608
216	1711.9329	131.1241	-1.0084	-1024.3585	-92.5096	29.9278
217	1674.6482	119.0483	-0.2226	-994.2859	-87.5509	-16.0984
218	1364.8474	111.4624	-1.2712	-1191.1150	-84.2142	-29.5047
219	1513.6165	106.9361	-1.0604	-1416.2329	-81.9470	-40.1641
220	1395.7993	104.6639	-20.2046	1571.8682	-212.3647	-582.6691
221	-6888.2656	611.4188	-0.1420	3923.2964	-656.2139	-274.2858
222	-3941.0925	656.6252	268.8902	2161.1641	-591.4814	-237.6265
223	-2213.6160	592.7677	229.8042	771.5607	-531.7755	-230.8111
224	-857.3867	534.0380	219.9607	224.6505	-476.9471	-55.8890
225	-342.4033	480.3051	42.3798	-978.4836	-419.0966	-56.2597
226	831.8122	423.6089	39.5101	-2009.7819	-368.4543	-46.1376
227	459.3873	379.2886	-3.8418	-1365.4785	-323.7598	3.8096

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
228	979.0729	337.9592	-3.4233	-1836.7402	-286.1214	3.2652
229	1419.0825	303.0521	-2.9850	-2077.8958	-247.3156	2.8608
230	1640.4258	267.0406	-2.3701	-2275.6409	-215.1499	2.1140
231	1830.0251	237.7752	-1.7307	-2273.0957	-182.1324	1.7094
232	1832.0999	207.5860	-1.7889	-2279.2388	-155.8568	1.6213
233	1854.9033	184.1662	-1.0645	-2121.1155	-128.8938	0.9227
234	1725.1650	160.0012	-0.9161	-2023.4995	-108.5323	0.7440
235	1667.3135	142.3793	-0.3856	-808.1873	-96.4102	53.2999
236	1494.8970	124.3024	-0.9203	-908.0094	-89.1483	29.4189
237	1438.0320	112.2431	-0.5376	-869.2319	-84.2101	-16.5396
238	777.7421	104.8777	-37.9283	-1056.3708	-80.8713	-30.1957
239	999.8691	102.6112	-27.6462	-1271.7192	-78.6097	-40.5061
240	1251.4873	101.3288	-20.0528	1689.3647	-207.8697	-582.7746
241	-6693.6763	596.7295	0.2929	3817.4529	-645.7955	-275.8317
242	-3835.2500	646.2155	270.1789	2086.1694	-581.0894	-238.8127
243	-2138.8442	582.4002	231.1777	728.9215	-521.6340	-231.9869
244	-814.8998	523.9401	221.1441	213.9343	-467.8753	-57.6341
245	-331.6892	471.2645	44.0264	-961.5376	-409.6061	-57.6542
246	814.8269	414.2113	41.0300	-1963.2360	-358.8786	-47.9439
247	1791.5767	364.7494	28.1819	-1251.6250	-309.1272	3.3829
248	866.9036	323.5373	-3.2437	-1681.0852	-271.6581	3.2235
249	1265.9294	288.8542	-2.9263	-1881.5354	-233.0695	2.6403
250	1447.6013	253.0407	-1.9538	-2040.2422	-201.1428	1.7420
251	1599.5300	224.0182	-1.8147	-2001.0342	-168.3435	1.8083
252	1565.9332	194.1061	-1.5774	-1972.7581	-142.3497	1.3504
253	1555.4138	170.9844	-1.1038	-1782.7844	-115.7502	0.9139
254	1395.0161	147.1761	-0.7747	-602.3023	-101.2282	83.3745
255	1308.4408	129.8887	-1.0485	-638.4163	-91.0867	52.0822
256	1110.7531	112.1995	-1.2163	-728.5698	-83.9750	27.9745
257	609.2025	103.6091	-79.3930	-690.9753	-79.4860	-17.6154
258	603.9176	100.2675	-37.1196	-868.7272	-76.2638	-31.1151
259	815.9179	98.0990	-26.4635	-1074.2380	-74.0957	-41.7806
260	1056.6107	96.8722	-19.0160	763.5573	-157.0709	-383.9433
261	-5754.5029	531.6268	1.0587	4677.3691	-587.4937	-92.6974
262	-4688.2090	587.7434	88.5300	3444.3662	-550.2698	-100.5019
263	-3475.9609	551.0532	93.8012	2300.1106	-512.0557	-105.3408
264	-2352.1926	513.4068	96.6634	1224.4712	-465.8728	-103.4864
265	-1296.6217	467.8703	93.2667	287.6100	-424.5616	-100.9041
266	-378.3652	427.2471	87.6802	-526.8881	-382.5237	-92.3372
267	418.3858	385.9559	77.6480	-1210.2798	-339.8627	-79.5638
268	1086.5166	344.0956	62.1929	-407.4960	-289.1762	1.6564
269	133.5341	299.3201	-1.7457	-603.6620	-254.1032	1.7347
270	308.8464	266.0173	-1.6854	-779.6381	-225.2111	1.7275
271	470.2386	238.9388	-1.6556	-871.6721	-198.0126	1.4341
272	554.5980	213.6886	-1.4132	-889.9260	-172.6538	1.2585
273	572.6047	190.2840	-1.3281	-845.4935	-149.1612	1.2306
274	535.8915	168.8320	-1.3175	-750.1385	-127.6390	1.2579
275	456.6757	149.3662	-1.4018	345.1449	-112.1080	64.4929
276	347.7917	131.9546	-1.5283	294.2666	-103.3992	43.5186
277	222.6537	116.6790	-1.6535	465.3615	-95.9712	-1.2910
278	-560.5771	110.0669	-38.6206	333.1318	-92.0632	-12.3299
279	-401.6057	107.2608	-29.8821	180.5664	-89.2508	-21.0864
280	-217.2884	105.5676	-23.3026	-0.0286	-87.5619	-27.7751

ENVOL. MAX. TORSORES -EC1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0551	246.8748	805.5739	-522.0458	-218.6595	-744.5975
2	522.0458	218.6595	744.5975	-922.3756	-191.6566	-686.8695
3	922.3756	191.6566	686.8695	-1209.9059	-165.9286	-631.8074
4	1209.9059	165.9286	631.8074	-1200.0707	-133.3077	-572.3628
5	1200.0707	133.3077	572.3628	-1254.4878	-111.5354	-526.7767
6	1254.4878	111.5354	526.7767	-1229.1814	-91.0905	-483.8698
7	1229.1814	91.0905	483.8698	-1133.7837	-72.0118	-442.5638
8	1133.7837	72.0118	442.5638	-977.8142	-46.8354	-380.6047
9	977.8142	46.8354	380.6047	-469.4838	-23.1902	-320.3392
10	469.4838	23.1902	320.3392	-218.3596	-9.6998	-282.4170
11	218.3596	9.6998	282.4170	59.8177	2.4279	-247.6707
12	-59.8177	-2.4279	247.6707	356.7004	13.2266	-216.0353
13	-356.7004	-13.2266	216.0353	664.2792	22.7172	-187.5910
14	-664.2792	-22.7172	187.5910	974.8149	30.9510	-162.1728
15	-974.8149	-30.9510	162.1728	1281.1687	37.9683	-139.7206
16	-1281.1687	-37.9683	139.7206	1746.3181	48.5070	-104.0579
17	-1746.3181	-48.5070	104.0579	1995.0170	52.1637	-91.3149
18	-1995.0170	-52.1637	91.3149	2219.9106	54.8079	-81.8792
19	-2219.9106	-54.8079	81.8792	2417.2378	56.5542	-74.5091
20	-2417.2378	-56.5542	74.5091	2583.6274	-165.6082	-565.0732
21	-1375.6440	238.1602	785.2429	1495.8359	-356.3401	-977.8202
22	-1495.8359	356.3401	977.8202	614.3279	-314.3893	-876.8808
23	-614.3279	314.3893	876.8808	-192.7617	-282.4379	-798.7755
24	192.7617	282.4379	798.7755	-720.4269	-242.1387	-711.8651
25	720.4269	242.1387	711.8651	-1240.3521	-211.4911	-641.0545
26	1240.3521	211.4911	641.0545	-1415.1594	-174.6048	-568.4964
27	1415.1594	174.6048	568.4964	-1666.7900	-146.0532	-505.0623
28	1666.7900	146.0532	505.0623	-1529.8624	-113.9786	-447.1834
29	1529.8624	113.9786	447.1834	-1552.7888	-88.0868	-390.5815
30	1552.7888	88.0868	390.5815	-1175.8777	-61.8939	-345.1267
31	1175.8777	61.8939	345.1267	-1025.2886	-39.1504	-292.1489
32	1025.2886	39.1504	292.1489	-500.0114	-19.5082	-249.5305
33	500.0114	19.5082	249.5305	-237.9904	-0.1304	-199.4086
34	237.9904	0.1304	199.4086	340.9167	12.7300	-168.3735
35	-340.9167	-12.7300	168.3735	889.6598	28.6672	-126.4104
36	-889.6598	-28.6672	126.4104	1196.0024	35.0043	-108.9938
37	-1196.0024	-35.0043	108.9938	1661.0095	44.5975	-81.5566
38	-1661.0095	-44.5975	81.5566	1929.6235	47.9583	-71.5030
39	-1929.6235	-47.9583	71.5030	2247.8953	51.9935	-57.7783
40	-2247.8953	-51.9935	57.7783	2440.9707	-166.3828	-556.5508
41	-1294.7601	236.2367	783.3882	1362.0017	-353.2490	-976.4901
42	-1362.0017	353.2490	976.4901	494.1075	-311.4080	-875.6860
43	-494.1075	311.4080	875.6860	-300.1772	-279.5630	-797.5548
44	300.1772	279.5630	797.5548	-809.8837	-239.5505	-710.5864
45	809.8837	239.5505	710.5864	-1316.6189	-209.0299	-639.9399
46	1316.6189	209.0299	639.9399	-1473.2073	-172.5472	-567.8896
47	1473.2073	172.5472	567.8896	-1713.4581	-144.1787	-504.5554
48	1713.4581	144.1787	504.5554	-1561.5269	-112.5540	-446.7391
49	1561.5269	112.5540	446.7391	-1576.2678	-86.8788	-389.9973
50	1576.2678	86.8788	389.9973	-1189.1301	-61.0981	-344.7086
51	1189.1301	61.0981	344.7086	-1033.5332	-38.5644	-292.0017
52	1033.5332	38.5644	292.0017	-502.5823	-19.2785	-249.4373
53	502.5823	19.2785	249.4373	-238.6452	-0.0662	-199.2363
54	238.6452	0.0662	199.2363	341.8025	12.5057	-168.1689
55	-341.8025	-12.5057	168.1689	890.2310	28.1974	-126.1104
56	-890.2310	-28.1974	126.1104	1195.0455	34.4527	-108.7301

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
57	-1195.0455	-34.4527	108.7301	1657.7469	43.9171	-81.1534
58	-1657.7469	-43.9171	81.1534	1923.9048	47.2164	-71.0605
59	-1923.9048	-47.2164	71.0605	2239.3528	51.1939	-57.0146
60	-2239.3528	-51.1939	57.0146	2429.7114	-166.6667	-556.1221
61	-1317.1827	236.5936	783.3793	1351.7146	-353.0093	-976.0316
62	-1351.7146	353.0093	976.0316	484.8599	-311.1771	-874.8663
63	-484.8599	311.1771	874.8663	-308.3123	-279.3389	-796.7344
64	308.3123	279.3389	796.7344	-816.4996	-239.3535	-710.1953
65	816.4996	239.3535	710.1953	-1322.3800	-208.8808	-639.3198
66	1322.3800	208.8808	639.3198	-1477.8674	-172.4246	-567.2975
67	1477.8674	172.4246	567.2975	-1717.3066	-144.0792	-504.1477
68	1717.3066	144.0792	504.1477	-1564.3933	-112.4658	-446.4562
69	1564.3933	112.4658	446.4562	-1578.4087	-86.7935	-389.8761
70	1578.4087	86.7935	389.8761	-1190.3491	-61.0520	-344.6207
71	1190.3491	61.0520	344.6207	-1034.2872	-38.5076	-292.1139
72	1034.2872	38.5076	292.1139	-502.8297	-19.2617	-249.5196
73	502.8297	19.2617	249.5196	-238.7517	-0.0640	-199.3219
74	238.7517	0.0640	199.3219	341.8710	12.4825	-168.2106
75	-341.8710	-12.4825	168.2106	890.3188	28.1561	-126.0294
76	-890.3188	-28.1561	126.0294	1195.0057	34.3999	-108.6227
77	-1195.0057	-34.3999	108.6227	1657.5416	43.8562	-81.1217
78	-1657.5416	-43.8562	81.1217	1923.5073	47.1361	-70.5894
79	-1923.5073	-47.1361	70.5894	2238.6055	51.0950	-56.5369
80	-2238.6055	-51.0950	56.5369	2428.6484	-166.7163	-555.5949
81	-1379.6002	237.8740	782.8192	1350.5782	-353.0073	-975.1037
82	-1350.5782	353.0073	975.1037	483.8734	-311.1853	-874.1322
83	-483.8734	311.1853	874.1322	-309.4634	-279.3408	-796.0403
84	309.4634	279.3408	796.0403	-817.6155	-239.3483	-709.4329
85	817.6155	239.3483	709.4329	-1323.1655	-208.8703	-638.9061
86	1323.1655	208.8703	638.9061	-1478.5076	-172.3711	-567.0200
87	1478.5076	172.3711	567.0200	-1717.6771	-144.0381	-503.9996
88	1717.6771	144.0381	503.9996	-1564.7650	-112.4532	-446.2571
89	1564.7650	112.4532	446.2571	-1578.7173	-86.8084	-389.8837
90	1578.7173	86.8084	389.8837	-1190.5588	-61.0546	-344.8820
91	1190.5588	61.0546	344.8820	-1034.5215	-38.5164	-292.1431
92	1034.5215	38.5164	292.1431	-503.1281	-19.2675	-249.5663
93	503.1281	19.2675	249.5663	-239.0209	-0.0755	-199.4117
94	239.0209	0.0755	199.4117	341.5831	12.4644	-168.2524
95	-341.5831	-12.4644	168.2524	889.9738	28.1325	-126.0556
96	-889.9738	-28.1325	126.0556	1194.6238	34.3811	-108.3789
97	-1194.6238	-34.3811	108.3789	1657.0737	43.8167	-80.5798
98	-1657.0737	-43.8167	80.5798	1922.9214	47.1094	-70.1678
99	-1922.9214	-47.1094	70.1678	2238.0281	51.0705	-56.1838
100	-2238.0281	-51.0705	56.1838	2428.3247	-166.7319	-554.8923
101	-1377.7219	237.8230	782.2926	1350.2163	-353.0126	-974.3201
102	-1350.2163	353.0126	974.3201	483.3270	-311.1643	-873.5865
103	-483.3270	311.1643	873.5865	-309.7487	-279.3279	-795.6025
104	309.7487	279.3279	795.6025	-817.6071	-239.3380	-708.9744
105	817.6071	239.3380	708.9744	-1323.2988	-208.8387	-638.3242
106	1323.2988	208.8387	638.3242	-1478.4272	-172.3746	-566.6882
107	1478.4272	172.3746	566.6882	-1717.5930	-144.0399	-503.6931
108	1717.5930	144.0399	503.6931	-1564.6938	-112.4198	-446.2849
109	1564.6938	112.4198	446.2849	-1578.6718	-86.8089	-389.8024
110	1578.6718	86.8089	389.8024	-1190.5820	-61.0583	-344.6553
111	1190.5820	61.0583	344.6553	-1034.4531	-38.5053	-292.1090
112	1034.4531	38.5053	292.1090	-503.0754	-19.2678	-249.5135
113	503.0754	19.2678	249.5135	-238.9678	-0.0755	-199.3916

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
114	238.9678	0.0755	199.3916	341.6039	12.4760	-168.1533
115	-341.6039	-12.4760	168.1533	889.9963	28.1578	-125.7944
116	-889.9963	-28.1578	125.7944	1194.7411	34.4141	-108.1899
117	-1194.7411	-34.4141	108.1899	1657.3024	43.8513	-80.3242
118	-1657.3024	-43.8513	80.3242	1923.3124	47.1446	-69.7670
119	-1923.3124	-47.1446	69.7670	2238.4600	51.1138	-55.2215
120	-2238.4600	-51.1138	55.2215	2428.9097	-166.7460	-553.8336
121	-1409.0762	238.5562	782.2204	1350.5990	-353.1032	-973.8663
122	-1350.5990	353.1032	973.8663	483.7183	-311.2684	-872.8451
123	-483.7183	311.2684	872.8451	-309.7448	-279.4540	-794.8386
124	309.7448	279.4540	794.8386	-818.0997	-239.4031	-708.3184
125	818.0997	239.4031	708.3184	-1323.9753	-208.9277	-637.7323
126	1323.9753	208.9277	637.7323	-1479.1914	-172.4344	-566.1345
127	1479.1914	172.4344	566.1345	-1718.3022	-144.0153	-503.3387
128	1718.3022	144.0153	503.3387	-1565.1613	-112.4467	-446.1503
129	1565.1613	112.4467	446.1503	-1579.1149	-86.8077	-389.7534
130	1579.1149	86.8077	389.7534	-1191.0045	-61.0524	-344.4070
131	1191.0045	61.0524	344.4070	-1034.8831	-38.5194	-291.9236
132	1034.8831	38.5194	291.9236	-503.3709	-19.2808	-249.6028
133	503.3709	19.2808	249.6028	-239.2442	-0.0880	-199.4310
134	239.2442	0.0880	199.4310	341.2682	12.4507	-168.0751
135	-341.2682	-12.4507	168.0751	889.5605	28.1351	-125.7799
136	-889.5605	-28.1351	125.7799	1194.1658	34.3795	-107.8965
137	-1194.1658	-34.3795	107.8965	1656.5779	43.8130	-79.7820
138	-1656.5779	-43.8130	79.7820	1922.4053	47.0987	-69.4366
139	-1922.4053	-47.0987	69.4366	2237.4297	51.0756	-54.5770
140	-2237.4297	-51.0756	54.5770	2427.4810	-166.7235	-553.4474
141	-1414.6464	238.6297	782.3479	1349.7373	-353.0028	-973.3762
142	-1349.7373	353.0028	973.3762	483.1928	-311.1581	-871.9952
143	-483.1928	311.1581	871.9952	-309.7457	-279.3116	-794.0219
144	309.7457	279.3116	794.0219	-817.7594	-239.3309	-707.7689
145	817.7594	239.3309	707.7689	-1323.3010	-208.8531	-637.2746
146	1323.3010	208.8531	637.2746	-1478.6699	-172.3906	-565.6973
147	1478.6699	172.3906	565.6973	-1717.8475	-144.0655	-503.1210
148	1717.8475	144.0655	503.1210	-1564.7284	-112.4599	-446.1215
149	1564.7284	112.4599	446.1215	-1578.7224	-86.8031	-389.7529
150	1578.7224	86.8031	389.7529	-1190.6646	-61.0592	-344.6510
151	1190.6646	61.0592	344.6510	-1034.5801	-38.5164	-292.1469
152	1034.5801	38.5164	292.1469	-503.1306	-19.2729	-249.8364
153	503.1306	19.2729	249.8364	-239.0131	-0.0810	-199.6635
154	239.0131	0.0810	199.6635	341.5252	12.4639	-168.3348
155	-341.5252	-12.4639	168.3348	889.9338	28.1522	-125.9546
156	-889.9338	-28.1522	125.9546	1194.6262	34.3876	-107.9474
157	-1194.6262	-34.3876	107.9474	1657.1602	43.8318	-79.6480
158	-1657.1602	-43.8318	79.6480	1923.0403	47.1009	-69.1625
159	-1923.0403	-47.1009	69.1625	2238.0889	51.0677	-54.7726
160	-2238.0889	-51.0677	54.7726	2428.2690	-166.7652	-553.4098
161	-1416.1427	238.7559	781.7198	1349.9203	-353.0918	-972.7835
162	-1349.9203	353.0918	972.7835	483.0819	-311.2590	-871.7792
163	-483.0819	311.2590	871.7792	-310.2257	-279.3970	-793.8256
164	310.2257	279.3970	793.8256	-818.2419	-239.3678	-707.3514
165	818.2419	239.3678	707.3514	-1323.8053	-208.8879	-637.2781
166	1323.8053	208.8879	637.2781	-1478.9866	-172.4348	-565.7450
167	1478.9866	172.4348	565.7450	-1718.4954	-144.0600	-502.4197
168	1718.4954	144.0600	502.4197	-1565.3069	-112.4713	-445.6577
169	1565.3069	112.4713	445.6577	-1579.1086	-86.8101	-389.7938
170	1579.1086	86.8101	389.7938	-1190.9437	-61.0645	-344.8017

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
171	1190.9437	61.0645	344.8017	-1034.8767	-38.5382	-292.2664
172	1034.8767	38.5382	292.2664	-503.4766	-19.2849	-249.6900
173	503.4766	19.2849	249.6900	-239.3324	-0.0927	-199.5673
174	239.3324	0.0927	199.5673	341.2584	12.4487	-168.1768
175	-341.2584	-12.4487	168.1768	889.6377	28.1190	-125.7052
176	-889.6377	-28.1190	125.7052	1194.2181	34.3542	-107.7892
177	-1194.2181	-34.3542	107.7892	1656.6514	43.8017	-79.6785
178	-1656.6514	-43.8017	79.6785	1922.4319	47.0914	-68.7907
179	-1922.4319	-47.0914	68.7907	2237.4961	51.0667	-54.2582
180	-2237.4961	-51.0667	54.2582	2427.7144	-166.7358	-553.2112
181	-1417.9370	238.8768	781.8006	1349.8035	-353.0284	-973.0482
182	-1349.8035	353.0284	973.0482	483.2324	-311.1848	-872.0948
183	-483.2324	311.1848	872.0948	-309.7359	-279.3494	-793.9072
184	309.7359	279.3494	793.9072	-817.8032	-239.3238	-707.5304
185	817.8032	239.3238	707.5304	-1323.5872	-208.8811	-637.1497
186	1323.5872	208.8811	637.1497	-1478.5759	-172.4293	-565.9533
187	1478.5759	172.4293	565.9533	-1717.8409	-144.0868	-503.1176
188	1717.8409	144.0868	503.1176	-1564.9216	-112.4805	-445.8116
189	1564.9216	112.4805	445.8116	-1578.9736	-86.8367	-389.8366
190	1578.9736	86.8367	389.8366	-1190.9585	-61.0697	-344.6361
191	1190.9585	61.0697	344.6361	-1034.9213	-38.5489	-292.2980
192	1034.9213	38.5489	292.2980	-503.4044	-19.2922	-249.8495
193	503.4044	19.2922	249.8495	-239.3354	-0.0928	-199.5757
194	239.3354	0.0928	199.5757	341.2928	12.4446	-168.2358
195	-341.2928	-12.4446	168.2358	889.7047	28.1152	-125.6709
196	-889.7047	-28.1152	125.6709	1194.3000	34.3516	-107.8839
197	-1194.3000	-34.3516	107.8839	1656.7156	43.7915	-79.5535
198	-1656.7156	-43.7915	79.5535	1922.4690	47.0622	-68.6427
199	-1922.4690	-47.0622	68.6427	2237.3867	51.0287	-54.4065
200	-2237.3867	-51.0287	54.4065	2427.6477	-166.7447	-553.2114
201	-1429.0931	239.7180	781.6233	1349.7378	-353.0220	-972.6027
202	-1349.7378	353.0220	972.6027	482.9664	-311.1863	-871.6653
203	-482.9664	311.1863	871.6653	-310.0447	-279.3544	-793.8301
204	310.0447	279.3544	793.8301	-818.0800	-239.3520	-707.4645
205	818.0800	239.3520	707.4645	-1323.6995	-208.8829	-637.2467
206	1323.6995	208.8829	637.2467	-1478.8110	-172.4230	-565.8074
207	1478.8110	172.4230	565.8074	-1718.3369	-144.0678	-502.6754
208	1718.3369	144.0678	502.6754	-1565.3254	-112.4900	-445.8295
209	1565.3254	112.4900	445.8295	-1579.2891	-86.8186	-389.7817
210	1579.2891	86.8186	389.7817	-1191.3035	-61.0729	-344.6461
211	1191.3035	61.0729	344.6461	-1035.3102	-38.5553	-292.1081
212	1035.3102	38.5553	292.1081	-504.0737	-19.3132	-249.7863
213	504.0737	19.3132	249.7863	-240.1531	-0.1249	-199.6109
214	240.1531	0.1249	199.6109	340.0372	12.4045	-168.2402
215	-340.0372	-12.4045	168.2402	887.9680	28.0482	-125.8097
216	-887.9680	-28.0482	125.8097	1192.2623	34.2864	-107.8874
217	-1192.2623	-34.2864	107.8874	1654.1599	43.7099	-79.5930
218	-1654.1599	-43.7099	79.5930	1919.5435	46.9915	-69.1239
219	-1919.5435	-46.9915	69.1239	2234.0522	50.9462	-54.4106
220	-2234.0522	-50.9462	54.4106	2423.5278	-166.6575	-553.0996
221	-1411.4487	238.3871	781.2758	1346.4966	-352.7317	-972.8054
222	-1346.4966	352.7317	972.8054	480.8422	-310.9075	-871.7296
223	-480.8422	310.9075	871.7296	-311.4509	-279.0666	-793.8217
224	311.4509	279.0666	793.8217	-818.4625	-239.1241	-707.4332
225	818.4625	239.1241	707.4332	-1323.2986	-208.6797	-637.2970
226	1323.2986	208.6797	637.2970	-1478.2114	-172.2701	-565.6914
227	1478.2114	172.2701	565.6914	-1717.5508	-143.9863	-502.7684

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
228	1717.5508	143.9863	502.7684	-1565.1743	-112.4673	-445.7418
229	1565.1743	112.4673	445.7418	-1579.7993	-86.8768	-389.6514
230	1579.7993	86.8768	389.6514	-1193.9819	-61.2572	-344.7045
231	1193.9819	61.2572	344.7045	-1039.7566	-38.7891	-292.1192
232	1039.7566	38.7891	292.1192	-512.0713	-19.6718	-249.7328
233	512.0713	19.6718	249.7328	-250.8218	-0.5393	-199.5798
234	250.8218	0.5393	199.5798	324.7321	11.8839	-168.1999
235	-324.7321	-11.8839	168.1999	867.6223	27.4421	-125.7362
236	-867.6223	-27.4421	125.7362	1168.2664	33.6202	-107.9597
237	-1168.2664	-33.6202	107.9597	1624.9482	42.9588	-79.4482
238	-1624.9482	-42.9588	79.4482	1886.7068	46.2052	-68.8251
239	-1886.7068	-46.2052	68.8251	2196.9712	50.1355	-54.5924
240	-2196.9712	-50.1355	54.5924	2383.8296	-165.5497	-553.0773
241	-1466.7577	242.5764	771.1603	1316.2947	-349.7175	-972.2647
242	-1316.2947	349.7175	972.2647	460.4348	-308.0482	-870.9819
243	-460.4348	308.0482	870.9819	-322.5909	-276.3666	-792.9684
244	322.5909	276.3666	792.9684	-820.7062	-236.8788	-706.2552
245	820.7062	236.8788	706.2552	-1319.6384	-206.7458	-635.6364
246	1319.6384	206.7458	635.6364	-1473.0024	-171.3019	-563.7368
247	1473.0024	171.3019	563.7368	-1713.8411	-143.5562	-500.4526
248	1713.8411	143.5562	500.4526	-1575.2109	-113.4397	-442.3141
249	1575.2109	113.4397	442.3141	-1603.6436	-88.6230	-386.1210
250	1603.6436	88.6230	386.1210	-1253.5544	-64.7952	-340.1324
251	1253.5544	64.7952	340.1324	-1130.3624	-43.3712	-287.0263
252	1130.3624	43.3712	287.0263	-668.1338	-26.5154	-243.7321
253	668.1338	26.5154	243.7321	-459.1357	-8.6168	-193.1658
254	459.1357	8.6168	193.1658	16.4258	1.1714	-160.7226
255	-16.4258	-1.1714	160.7226	435.8982	13.8517	-117.1734
256	-435.8982	-13.8517	117.1734	233.0883	6.7517	-81.3403
257	-291.1021	-9.2323	86.8514	605.6341	16.0002	-56.9224
258	-545.5394	-15.1440	64.9295	797.2568	19.5173	-47.7786
259	-729.0055	-18.5082	50.0521	1070.0011	24.4103	-35.5836
260	-930.2245	-21.8320	36.9787	1209.6040	-120.1666	-351.5837
261	-1177.7458	228.1084	580.6706	2355.5244	-318.3013	-628.1785
262	-2355.5244	318.3013	628.1785	1664.1752	-300.4072	-583.7378
263	-1664.1752	300.4072	583.7378	999.5633	-281.1064	-538.8037
264	-999.5633	281.1064	538.8037	342.0092	-253.3820	-489.1596
265	-342.0092	253.3820	489.1596	-237.7762	-229.9825	-440.2812
266	237.7762	229.9825	440.2812	-753.5769	-205.2679	-388.4437
267	753.5769	205.2679	388.4437	-1195.3313	-179.2789	-333.8445
268	1195.3313	179.2789	333.8445	-1299.0483	-104.0989	-257.3546
269	1167.2391	108.9518	277.2253	-1310.7269	-86.3478	-215.2904
270	1163.3400	92.2626	237.0369	-1307.0604	-71.8538	-180.5284
271	1152.4167	78.7249	204.5908	-1261.4539	-58.2647	-148.1997
272	1120.2085	65.2112	174.9866	-1194.2139	-44.6997	-118.5796
273	1035.6014	53.5114	147.0523	-1078.3762	-32.9468	-90.6124
274	923.7239	42.7486	121.6091	-937.0898	-22.1506	-65.1417
275	790.3914	33.0319	98.1226	-776.4446	-12.4069	-41.6284
276	642.5486	24.3077	76.9725	-603.2938	-3.6548	-20.5303
277	486.3185	16.6501	58.1157	-8.7917	1.3027	-0.0280
278	155.1337	4.0082	20.2508	-5.8069	1.2907	-0.0301
279	75.5175	1.2122	11.2719	-2.9037	1.2904	-0.0316
280	21.2891	-0.4684	4.4935	0.0001	1.2903	-0.0313

ENVOL. MIN. FLECTORES -EC1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.2253	224.8937	-633.9861	-208.5382	-83.7491	407.3946
2	-234.5439	-104.2574	14.5331	469.1357	104.2557	-14.4785
3	-469.1179	-104.2550	14.4129	703.7325	104.2615	-14.4884
4	-703.7529	-104.2673	14.6572	938.4384	104.2888	-14.8316
5	-938.4519	-104.3006	14.8928	1173.0596	104.3129	-14.8114
6	-1173.0337	-104.3357	14.6377	1407.7682	104.3560	-14.5120
7	-1407.7605	-104.3697	14.5102	1642.6199	104.4138	-14.6330
8	-1642.6350	-104.4234	14.7808	1877.6843	104.4340	-14.9823
9	-1877.7019	-104.4470	15.0874	2112.6724	104.4419	-14.9212
10	-2112.6709	-104.4270	14.6108	2347.6118	104.4466	-14.7924
11	-2347.6531	-104.4681	15.3509	2582.7356	104.4620	-15.3038
12	-2582.7136	-104.4476	14.6892	2817.6443	104.4201	-14.7342
13	-2817.6670	-104.4110	15.4142	3052.5815	104.3943	-15.7170
14	-3052.5547	-104.3740	15.4459	3287.2793	104.3689	-15.4786
15	-3287.2769	-104.3649	15.7737	3522.1045	104.3572	-15.5777
16	-3522.0867	-104.3585	15.0364	3756.9453	104.3555	-14.8069
17	-3757.0056	-104.9241	19.5080	3993.0518	104.9287	-19.9651
18	-4059.7017	-170.1894	188.8651	4442.6431	170.1887	-189.6330
19	-4495.4121	-223.4943	321.0427	5081.1797	332.0045	-2.1115
20	-5170.3140	-427.8883	0.1870	6213.7358	202.0558	-367.4564
21	-6247.7983	279.6558	-670.8784	4463.6099	-508.6243	0.7372
22	-4532.8442	463.8496	-0.0645	3141.2295	-463.8501	0.0323
23	-3299.2422	339.3508	-0.0732	2378.8730	-202.3991	403.2401
24	-2442.1094	151.2004	-267.9186	1988.4219	-151.2126	267.9207
25	-2072.4604	93.9869	-105.5629	1790.4741	-93.9903	105.5691
26	-1901.7206	20.8281	-43.0815	1839.2219	-20.8079	42.9155
27	-1839.2319	20.7946	-42.6961	1862.6455	23.8409	-0.4321
28	-1862.6311	-23.8145	-0.0458	1934.0776	23.8129	0.0452
29	-1934.0820	-23.7940	0.4504	2005.4539	23.7934	-0.4528
30	-2005.4666	-23.7744	-0.0947	2111.8875	43.8630	0.1239
31	-2111.8564	-43.8459	-0.0993	2243.3938	43.8439	0.0690
32	-2243.3740	-43.8264	0.5288	2374.8289	43.8251	-0.5634
33	-2374.8489	-43.8584	0.5789	2587.2476	74.8131	-38.4464
34	-2587.2612	-74.8034	38.1080	2811.6782	74.8008	-38.2571
35	-2811.6929	-74.7926	38.7754	3036.0801	74.8010	-38.7341
36	-3036.0786	-74.8134	38.1741	3260.5322	74.8050	-38.0440
37	-3294.8672	-112.9693	84.1145	3633.7007	112.9615	-84.0898
38	-3708.7153	-161.5345	229.9065	4193.3599	161.5397	-229.9383
39	-4348.6372	-346.0299	0.3113	5386.6025	346.0291	-0.3053
40	-5565.6299	-469.4244	-1.1755	6973.9746	432.2538	1.3046
41	-7102.0830	593.5560	-1.3321	5428.4199	-530.6037	1.1281
42	-5504.7173	485.9976	0.3558	4126.3877	-294.5263	570.1698
43	-4233.1299	362.2072	-0.6318	3521.4363	-232.6228	407.3241
44	-3602.3296	181.9061	-271.9768	3056.5957	-181.9128	271.6910
45	-3166.7861	118.3041	-85.9051	2811.8572	-118.3114	85.8681
46	-2936.9465	53.4432	-46.5736	2776.5898	-53.4426	46.8317
47	-2776.5925	53.4362	-46.8249	2616.2439	-53.4466	46.9385
48	-2616.2251	53.4454	-47.1158	2561.3071	-3.8267	0.0069
49	-2561.2803	3.7799	0.3933	2549.9497	-3.7758	-0.4102
50	-2549.9746	3.7551	0.3666	2541.0435	18.2851	-0.3520
51	-2541.0522	-18.2896	-0.3222	2595.9370	18.2898	0.3293
52	-2595.9009	-18.2894	-0.0048	2650.7573	18.2877	0.0057
53	-2650.7668	-18.2367	-0.2986	2705.4834	18.2375	0.3022
54	-2705.4590	-18.2674	0.0061	2876.7104	61.1718	-46.2354
55	-2876.6938	-61.1825	45.8920	3060.2295	61.1914	-45.8071
56	-3060.2158	-61.1971	46.0082	3243.8530	61.2067	-45.9993

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
57	-3300.7998	-118.0030	85.0180	3654.7896	118.0110	-84.8465
58	-3733.1201	-167.3481	231.4541	4235.1250	167.3516	-231.4498
59	-4450.5195	-360.1142	-0.0167	5530.8003	360.1148	0.0874
60	-5713.0679	-483.8251	-1.4661	7164.6753	446.7670	1.5123
61	-7293.2397	597.7606	0.4076	5615.6890	-534.8944	-0.8439
62	-5692.5244	490.2929	-0.5916	4247.8789	-297.5347	570.3934
63	-4409.9219	366.5524	-1.1238	3635.1643	-235.6631	406.9470
64	-3717.7600	170.8385	-232.3890	3205.2002	-170.8295	232.6572
65	-3274.6113	121.4246	-86.4125	2910.3687	-121.4116	86.4544
66	-3038.0527	56.5774	-45.8375	2868.3555	-56.5801	45.7966
67	-2868.3418	56.5722	-46.3331	2698.6372	-56.5786	46.7185
68	-2698.6377	56.5705	-46.7282	2668.9363	-8.4223	-0.6870
69	-2668.9563	8.4672	0.6734	2643.5459	-8.4690	-0.6741
70	-2643.5283	8.4763	0.6612	2618.3494	13.6845	-0.7279
71	-2618.3955	-13.6696	0.0156	2659.4043	13.6696	0.0312
72	-2659.3892	-13.6825	-0.4356	2700.4177	13.6834	0.4355
73	-2700.3848	-13.7118	-0.0261	2741.5032	13.7129	0.0273
74	-2741.4429	-13.6853	-0.4237	2888.2837	58.8028	-46.0490
75	-2888.2996	-58.8101	45.6991	3064.7905	58.8155	-45.4662
76	-3064.7937	-58.8168	45.4556	3241.2888	58.8373	-45.4480
77	-3305.0015	-121.3393	85.3657	3669.0493	121.3492	-85.3550
78	-3747.5806	-170.7465	232.1395	4277.7568	237.5027	-0.2477
79	-4500.9956	-367.1284	-1.0303	5602.2695	367.1258	1.0932
80	-5784.7725	-490.8606	0.0658	7257.6226	453.8135	0.0042
81	-7386.2500	599.7686	-0.8817	5703.4902	-536.9059	0.1934
82	-5780.3652	492.3237	-0.0766	4303.5469	-492.3212	0.1404
83	-4492.1260	368.5806	-0.8533	3675.9780	-236.7176	406.3324
84	-3758.6917	171.8828	-231.8295	3243.0139	-171.9002	231.9839
85	-3312.5901	122.5001	-85.2183	2945.1567	-122.5076	85.5045
86	-3073.0625	57.6799	-45.3294	2900.0215	-57.6600	45.5797
87	-2900.0137	57.6765	-45.7940	2746.9409	-10.5348	-1.5080
88	-2746.9385	10.5070	0.7742	2715.3979	-10.5053	-0.7663
89	-2715.3699	10.5114	1.4870	2683.8418	-10.5085	-1.4827
90	-2683.7964	10.4731	0.3726	2652.4419	11.7019	-0.4231
91	-2652.4700	-11.6770	-0.3401	2687.5066	11.6751	0.3508
92	-2687.5073	-11.6641	0.0628	2722.5171	11.6630	-0.0597
93	-2722.5024	-11.6595	-0.3400	2757.4692	11.6579	0.3795
94	-2757.4854	-11.6611	-0.8406	2893.3931	57.7644	-45.8643
95	-2893.3979	-57.7416	45.7106	3066.6475	57.7397	-45.4570
96	-3066.6597	-57.7554	45.2345	3239.9702	57.7597	-44.7821
97	-3305.6125	-121.9163	84.4969	3671.4131	121.9255	-84.2223
98	-3750.0166	-171.3271	231.1604	4286.6045	238.7555	0.3227
99	-4509.9277	-368.4105	-0.6402	5615.4043	368.4106	0.6748
100	-5798.0254	-492.1487	0.5049	7274.1118	455.1012	-0.3687
101	-7403.2715	600.1283	-2.4840	5719.2637	-537.2539	1.5992
102	-5796.1504	492.6631	0.0281	4318.2734	-492.6641	-0.0328
103	-4506.9199	368.9234	-0.4724	3683.3022	-236.9138	406.0704
104	-3765.9365	172.0902	-232.1961	3249.6641	-172.0920	232.6983
105	-3319.2842	122.6964	-85.5941	2951.1711	-122.6817	85.5993
106	-3079.1201	57.8577	-45.0788	2905.5210	-57.8456	45.4495
107	-2905.5308	57.8440	-46.0172	2756.4878	-10.8738	-1.1713
108	-2756.4883	10.8999	0.8746	2723.7825	-10.9004	-0.8315
109	-2723.8435	10.8889	0.4008	2691.1636	-10.8889	-0.3764
110	-2691.1743	10.8929	0.3927	2658.5684	11.2843	-0.5545
111	-2658.5708	-11.3221	-0.5939	2692.5564	11.3230	0.6410
112	-2692.5352	-11.2708	-0.6000	2726.3467	11.2698	0.6048
113	-2726.3447	-11.2501	-0.6100	2760.0767	11.2491	0.6970

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
114	-2760.0315	-11.3088	-2.1220	2894.1631	57.6205	-44.9775
115	-2894.1533	-57.6471	45.1255	3067.1177	57.6815	-44.6915
116	-3067.1245	-57.6983	43.9497	3240.2729	57.7157	-43.7015
117	-3306.5439	-122.3150	84.6658	3673.4326	122.2993	-84.3189
118	-3752.0913	-171.6856	230.5417	4291.6182	239.3524	1.0564
119	-4514.8516	-368.9599	0.6338	5621.5449	368.9615	-0.4814
120	-5804.0220	-492.7046	-2.8480	7281.9805	455.6441	3.0031
121	-7411.2998	600.3525	-1.0897	5726.1523	-537.4619	-0.1713
122	-5803.0088	492.8590	-0.5807	4324.6084	-492.8563	0.6906
123	-4513.1499	369.1099	-1.1052	3685.9214	-236.9467	405.9928
124	-3768.5381	172.0978	-231.7031	3252.1274	-172.1204	232.1965
125	-3321.7979	122.7027	-85.1172	2953.7734	-122.6957	85.2915
126	-3081.9888	57.8626	-44.5467	2908.3799	-57.8673	44.9130
127	-2908.3818	57.8933	-45.4718	2761.2920	-11.0230	-1.7848
128	-2761.2720	11.0395	1.0980	2728.1582	-11.0433	-1.0221
129	-2728.1699	11.0646	0.2865	2694.9648	-11.0676	-0.2499
130	-2694.9158	11.1020	0.2493	2661.6514	-0.0068	8.2242
131	-2661.5723	-0.0082	-8.5849	2694.8367	11.0866	-0.0723
132	-2694.8625	-11.0496	-0.6601	2728.0181	11.0489	0.7444
133	-2728.0259	-11.0625	-1.8681	2761.2153	11.0644	1.9711
134	-2761.2017	-11.0634	-2.6984	2894.2603	57.4615	-44.4463
135	-2894.2585	-57.4686	44.4208	3066.6621	57.4790	-44.2609
136	-3066.6660	-57.5017	44.0519	3239.1672	57.5104	-43.3196
137	-3305.6301	-122.2759	83.4369	3672.4937	122.2830	-82.8889
138	-3751.2542	-171.6848	230.2107	4291.2441	239.4382	0.4198
139	-4514.7236	-369.0963	0.4686	5621.8359	369.0961	-0.2449
140	-5804.4336	-492.8317	-2.8958	7282.7905	455.7848	2.9917
141	-7411.8647	600.2729	0.5989	5727.5498	-537.4070	-2.1136
142	-5804.4287	492.8082	-1.5763	4325.8936	-492.8094	1.7948
143	-4514.5527	369.0868	-1.6108	3687.1558	-236.9939	405.6426
144	-3769.7495	172.1678	-230.8789	3253.1328	-172.1631	231.6286
145	-3322.6042	122.7576	-84.9662	2954.3467	-122.7559	85.4527
146	-3082.2024	57.9609	-43.9316	2908.3467	-57.9568	44.1552
147	-2908.3447	57.9521	-44.7241	2761.3708	-11.0793	-2.8419
148	-2761.3386	11.1058	1.6986	2728.0244	-11.1062	-1.5972
149	-2728.0786	11.1104	0.8819	2694.7227	-11.1107	-0.8422
150	-2694.6716	11.1172	0.8204	2661.3794	11.0583	-1.1243
151	-2661.4165	-11.0320	-0.0033	2694.5151	11.0323	0.0474
152	-2694.5073	-11.0537	-0.0224	2727.6572	11.0555	0.1112
153	-2727.6816	-11.0594	-1.9481	2760.8772	11.0642	2.0416
154	-2760.8879	-11.1030	-2.0087	2894.4663	57.5086	-45.1305
155	-2894.4712	-57.5115	44.7614	3067.0642	57.5082	-44.3566
156	-3067.0679	-57.5147	44.1354	3239.6279	57.5119	-43.2248
157	-3306.1050	-122.3052	83.3496	3673.0640	122.3107	-82.5959
158	-3751.7441	-171.7081	230.0639	4290.8340	239.4526	0.2827
159	-4513.9951	-369.0964	0.3951	5621.4248	369.0955	-0.2860
160	-5803.9326	-492.8259	0.3485	7282.1680	455.7701	-0.1904
161	-7411.3281	600.2470	-1.6651	5726.6182	-537.3534	0.1331
162	-5803.5068	492.7590	-0.8476	4325.3916	-492.7575	0.9578
163	-4514.0186	369.0099	-1.0668	3686.7959	-236.9127	405.3937
164	-3769.3550	172.0611	-231.1140	3253.1274	-172.0770	231.6174
165	-3322.6958	122.6777	-84.0845	2954.6733	-122.6803	84.7791
166	-3082.4863	58.0112	-44.5200	2908.4492	-58.0168	45.1990
167	-2908.4497	58.0231	-45.1957	2760.8916	-11.2499	-2.7524
168	-2760.8865	11.2971	2.7482	2726.9761	-11.3001	-2.6529
169	-2727.0181	11.3077	0.8055	2693.1050	-11.3067	-0.6908
170	-2693.1479	11.2725	0.2896	2659.3950	10.9045	-0.5176

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
171	-2659.3550	-10.8794	-0.8834	2692.0022	10.8820	0.9291
172	-2691.9395	-10.8997	-0.9096	2724.6450	10.9014	0.9354
173	-2724.6406	-10.8752	-1.3941	2757.2422	10.8699	1.5239
174	-2757.2017	-10.8566	-3.3499	2892.2563	57.3438	-44.0966
175	-2892.2339	-57.3516	44.3292	3064.3413	57.3486	-43.8967
176	-3064.3428	-57.3418	43.0973	3236.3491	57.3456	-42.4155
177	-3302.8069	-122.1866	83.4748	3669.4929	122.1998	-82.9832
178	-3748.2930	-171.6136	229.9770	4283.9541	239.3177	0.6818
179	-4507.2363	-368.9728	-0.3238	5614.4922	368.9725	0.4524
180	-5797.1216	-492.6936	-0.3783	7275.2397	455.6462	0.4642
181	-7403.7197	599.6327	-1.8702	5721.4922	-536.7678	0.3050
182	-5798.3818	492.1756	0.0038	4321.9775	-492.1778	0.1643
183	-4510.6270	368.4377	-2.2903	3686.0898	-236.6653	406.3565
184	-3768.7588	171.8410	-231.3776	3253.1763	-171.8386	231.6599
185	-3322.6426	122.4370	-84.5185	2955.2717	-122.4173	84.9685
186	-3082.1040	58.2215	-43.9949	2907.3901	-58.2272	44.7565
187	-2907.3838	58.2228	-45.6715	2757.6816	-11.6378	-1.6748
188	-2757.6782	11.6022	1.6813	2722.8711	-11.5979	-1.6416
189	-2722.9048	11.5694	0.9175	2688.2122	-11.5684	-0.8282
190	-2688.1807	11.5927	-0.2762	2653.4409	10.5849	-0.0365
191	-2653.3928	-10.6007	0.0651	2685.1914	10.5989	0.0121
192	-2685.2224	-10.5833	-1.8355	2716.9829	10.5803	1.9197
193	-2717.0596	-10.5098	-1.9514	2748.5881	10.5053	1.9781
194	-2748.5784	-10.4548	-2.4111	2887.4707	57.1342	-44.6189
195	-2887.4673	-57.1472	43.9115	3058.9409	57.1380	-43.2750
196	-3058.9502	-57.1375	43.0413	3230.4146	57.1356	-42.5736
197	-3296.7749	-121.9786	83.6000	3662.7991	121.9880	-82.8157
198	-3741.5259	-171.3994	229.6726	4269.2539	238.9309	0.9198
199	-4492.4600	-368.6019	-0.0460	5598.3652	368.6024	0.1123
200	-5780.9072	-492.3438	0.9291	7258.0918	455.3004	-0.8152
201	-7387.2925	598.3789	-2.4966	5708.4932	-535.5010	1.0040
202	-5785.3857	490.9090	-1.7101	4312.8301	-490.9091	1.7541
203	-4501.4810	367.1782	-0.7334	3683.7808	-236.0369	405.0951
204	-3766.2534	171.2082	-231.0160	3252.5261	-171.2024	231.8047
205	-3322.0850	121.7892	-84.4595	2956.7498	-121.7819	85.0530
206	-3080.7144	59.2154	-44.3847	2903.1001	-59.2079	45.0562
207	-2903.0740	59.1997	-45.4117	2742.7515	-13.5940	-2.3306
208	-2742.7827	13.6089	2.3407	2701.9502	-13.6133	-2.2479
209	-2701.9502	13.6692	0.4823	2660.9448	-13.6716	-0.3929
210	-2660.9424	13.7079	0.4288	2619.7939	-13.7117	-0.3891
211	-2619.7681	13.7397	-0.7191	2644.8899	8.4271	0.4079
212	-2644.8718	-8.4656	-0.3487	2670.2642	8.4661	0.4407
213	-2670.2490	-8.4507	-2.2685	2695.6030	8.4524	2.3608
214	-2695.5789	-8.4526	-2.3802	2855.7661	56.0633	-44.7497
215	-2855.7649	-56.0389	44.2177	3023.8423	56.0361	-43.8214
216	-3023.8665	-56.0405	43.7886	3192.0061	56.0447	-43.0494
217	-3258.6587	-120.9090	83.3676	3621.3677	120.8967	-82.6349
218	-3700.2410	-170.3206	230.1613	4211.1855	170.3100	-229.8226
219	-4410.5361	-366.6078	0.7142	5510.5625	366.6080	-0.5389
220	-5693.4707	-490.3681	-0.9226	7165.5591	504.5041	-0.6374
221	-7293.8301	540.1243	0.8973	5636.8379	-528.4472	-0.8512
222	-5713.7900	483.8545	-0.4381	4273.1602	-294.4525	567.3682
223	-4451.1841	360.1484	-0.5651	3669.4854	-232.5911	404.5360
224	-3752.2371	167.8089	-230.2942	3248.7207	-167.8128	230.9899
225	-3318.3657	118.4807	-83.6516	2963.0068	-118.4889	84.3499
226	-3076.6709	61.6729	-44.3229	2891.5947	-61.6758	44.8589
227	-2891.6042	61.6817	-44.8815	2706.5186	-61.6849	45.2152

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
228	-2706.5391	61.6852	-45.7454	2651.2859	-18.3458	-1.6803
229	-2651.2832	18.3109	1.2846	2596.3550	-18.3112	-1.2199
230	-2596.3591	18.3506	0.2674	2541.2771	-18.3482	-0.1963
231	-2541.2803	18.3182	-0.6676	2550.2732	3.7306	0.3793
232	-2550.3064	-3.7682	-0.4055	2561.6172	3.7710	0.4777
233	-2561.6094	-3.8290	-1.7580	2603.8020	52.9545	-45.4888
234	-2603.7959	-52.9450	45.2604	2762.5986	52.9488	-44.6688
235	-2762.5869	-52.9549	44.0478	2921.4358	52.9323	-43.6880
236	-2921.4277	-52.9092	43.8035	3080.0913	52.8870	-43.3238
237	-3149.7151	-117.8056	83.8109	3503.1831	117.7918	-82.7519
238	-3584.2046	-181.4011	268.6159	4128.4180	181.4031	-268.1315
239	-4233.3564	-362.2299	0.9544	5320.0776	362.2311	-0.8866
240	-5505.2168	-486.0250	0.5555	6972.9800	500.2163	-2.1146
241	-7102.1113	525.5254	1.3574	5488.8120	-513.9588	-1.2161
242	-5566.2900	469.4128	-0.5981	4226.3564	-288.0744	565.9064
243	-4348.8477	346.0234	-0.3594	3642.6321	-226.3796	402.7923
244	-3727.1797	162.0410	-228.6215	3241.0723	-162.0550	229.4165
245	-3311.5615	113.4920	-82.3880	2971.0098	-113.5011	82.8361
246	-3051.1021	75.2992	-36.1982	2825.2295	-75.2712	36.8274
247	-2825.2461	75.2584	-37.5146	2599.4963	-75.2467	38.0176
248	-2599.5112	75.2503	-38.0135	2374.9883	-43.8246	-1.1750
249	-2375.0103	43.7736	0.7951	2243.7078	-43.7749	-0.6899
250	-2243.6982	43.8046	-0.8095	2112.2861	-43.8056	0.8885
251	-2112.2686	43.8036	-0.8788	2006.1051	-23.7161	0.5926
252	-2006.0751	23.7163	-1.1282	1934.9198	-23.7151	1.2010
253	-1934.8782	23.6974	-1.9340	1863.7966	-23.6958	2.0309
254	-1863.8248	23.6945	-2.8329	1792.7334	-23.6977	2.8876
255	-1792.6772	23.7383	-2.8510	1721.4576	-23.7420	2.8913
256	-1721.4806	23.7591	-3.2721	1758.1669	14.8813	-31.5912
257	-1866.2843	-88.0571	95.6536	2233.6951	122.5394	0.1734
258	-2408.5981	-236.9824	2.0762	3119.5391	236.9825	-1.9488
259	-3299.9207	-339.3546	1.0976	4384.8682	449.8068	253.1687
260	-4533.3140	-463.8368	1.8880	6136.0366	220.9777	-587.6043
261	-6204.4946	249.4141	-418.7761	5121.7158	-461.8385	-2.0119
262	-5169.9751	427.9113	2.0311	4453.1289	-271.8463	437.2166
263	-4516.1807	223.8935	-315.8095	4012.3467	-223.8753	316.7479
264	-4079.2031	170.5142	-186.0049	3695.4290	-170.4885	186.3055
265	-3775.5767	105.1247	-16.2301	3539.1099	-105.1276	16.8786
266	-3540.3713	104.5711	-13.4497	3305.0083	-104.5953	13.8906
267	-3304.9922	104.6023	-13.4352	3069.6099	-104.6439	13.6228
268	-3069.6404	104.6821	-14.3650	2834.0933	-104.7247	15.2954
269	-2834.1079	104.7528	-15.7291	2598.3545	-104.8102	16.0542
270	-2598.3467	104.8517	-16.0293	2362.3301	-104.8799	16.0458
271	-2362.3506	104.8745	-16.0608	2126.3701	-104.8952	16.4653
272	-2126.3796	104.9320	-16.9625	1890.2349	-104.9757	17.3508
273	-1890.2427	104.9818	-17.3414	1654.0684	-104.9996	17.5421
274	-1654.0955	105.0210	-17.7917	1417.6840	-105.0017	17.9946
275	-1417.6790	104.9859	-17.9965	1181.4399	-104.9744	18.0838
276	-1181.4446	104.9747	-18.1877	945.2115	-104.9986	18.3735
277	-945.2244	105.0142	-18.5063	708.8688	-105.0303	18.6018
278	-708.8763	105.0258	-18.6061	472.5205	-105.0225	18.7046
279	-472.5434	105.0149	-18.8188	236.3106	-105.0031	18.8932
280	-236.3008	105.0037	-18.8736	0.4170	199.0230	750.8582

ENVOL. MIN. CORTANTES -EC1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0305	-86.8218	-32.0624	215.5792	104.8219	-18.9824
2	-178.8902	-88.5066	-25.3512	398.2917	106.5039	-25.6397
3	-329.8695	-91.3011	-16.4454	555.5878	109.3107	-34.6870
4	-460.4564	-95.2185	-5.0787	434.5721	114.6670	-75.8828
5	-317.6424	-101.6783	38.3196	-294.6190	129.7499	0.2054
6	-364.9295	-110.4424	59.4239	-407.8365	147.2156	0.1117
7	700.9893	-125.5095	-0.0527	-491.0794	166.7146	0.0994
8	800.4739	-147.0568	-0.0737	-531.5014	188.2099	0.1927
9	848.4321	-170.5996	-0.2433	-611.7215	216.6105	0.1697
10	928.4744	-200.9521	-0.1511	-521.9767	241.7974	0.2079
11	831.0779	-228.0653	-0.1830	-355.7419	268.7788	0.1980
12	650.2575	-256.8676	-0.3523	-103.2223	297.4722	0.3026
13	1630.7212	-289.3654	-32.0547	-941.8208	342.8547	51.4335
14	1065.5568	-338.6083	-68.7709	-263.1681	383.2387	63.9378
15	371.5756	-379.7994	-78.8041	536.3405	422.9916	70.9429
16	-445.4512	-420.2974	-83.9723	1449.9708	462.0886	73.0951
17	-1377.8539	-460.0875	-83.3535	2459.1094	506.2206	64.0920
18	-2406.8130	-504.8569	-71.9728	3557.7983	542.1736	56.0768
19	-3525.8818	-541.3906	-61.4638	4736.9263	577.1756	45.9380
20	-4726.2148	-576.9243	-50.9566	5785.2031	530.7144	0.1331
21	-1085.7336	-184.6196	-466.0731	-1052.0239	96.4192	-16.5633
22	1069.6482	-73.6409	-44.2137	-812.7222	97.6435	-23.8043
23	865.4934	-75.8102	-33.9516	-602.0507	99.8135	-34.1183
24	689.0952	-79.0279	-20.4757	-416.0142	103.0282	-47.5909
25	535.3486	-83.3968	-3.8412	-1070.4285	110.9872	-0.1191
26	619.0578	-90.0051	47.9029	-1266.5051	128.5422	-0.0814
27	583.4495	-100.0861	79.2757	-1354.8195	145.7661	0.2147
28	1742.5574	-114.3268	0.0398	-1515.3352	169.4835	-0.0548
29	1932.6111	-140.8548	-0.2618	-1528.4761	192.5674	0.2701
30	1963.6440	-166.8023	0.0005	-1563.1062	222.4501	-0.1386
31	2003.8678	-199.5689	0.1899	-1414.1414	251.4584	-0.0937
32	1848.0784	-231.4772	-0.1860	-1233.6394	287.2705	0.3279
33	1648.7295	-270.0859	-0.4194	-837.6636	321.9629	0.3251
34	1222.4250	-307.5713	-0.2162	-361.2223	363.2199	0.2113
35	1817.6189	-353.6819	-25.9901	-1158.0763	412.1439	198.9174
36	1304.6940	-407.5563	-215.7738	-384.3004	466.1741	200.6161
37	502.2874	-462.7729	-213.9137	823.9715	527.3370	238.1617
38	-737.9070	-525.0332	-248.8807	2154.7200	585.9620	248.1208
39	-2101.8132	-584.6460	-255.0006	3858.7957	649.8409	286.1416
40	-3840.9067	-649.4257	-291.5394	6726.9390	595.9059	1.1771
41	-1726.6621	-209.3072	-592.5037	-1245.8788	100.8165	-18.0666
42	1266.1046	-78.1017	-42.7975	-995.8340	102.0998	-25.2346
43	1052.3621	-80.3575	-32.3200	-1109.8401	104.6646	-0.2627
44	866.7500	-83.6992	-18.7600	-1030.7668	111.3408	-0.2464
45	703.6887	-88.2052	-2.2935	-1453.5691	123.0250	0.2877
46	788.2461	-95.2916	49.5673	-1624.8802	140.9817	-0.0298
47	1981.1130	-107.1278	-0.0098	-1684.7151	158.5564	-0.0301
48	2080.5005	-127.4588	0.2330	-1814.8369	182.6334	-0.2268
49	2239.2686	-154.3279	-0.0137	-1794.7336	206.0464	0.0945
50	2235.8555	-180.5784	-0.1552	-1793.7500	236.2074	0.0665
51	2239.3442	-213.5959	0.2777	-1607.1729	265.4699	-0.3566
52	2044.6362	-245.7474	0.2386	-1386.9816	301.4991	-0.2155
53	1804.7104	-284.5646	0.3264	-949.6107	336.4219	-0.3194
54	1335.7958	-322.2287	0.2597	-430.5707	377.7890	-0.2937
55	775.1076	-366.2360	0.3016	-1174.0618	421.4007	197.4564
56	1321.0520	-416.8721	-214.0473	-371.6414	476.0644	198.7529

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
57	489.3726	-472.7083	-212.3790	867.4120	537.4400	236.2010
58	-781.3839	-535.1656	-246.5248	2229.5718	596.2499	245.7494
59	-2176.9753	-594.9583	-253.1484	3965.0869	660.1723	284.2945
60	-3947.2717	-659.7598	-289.7060	6921.5381	610.5571	1.2045
61	-1608.5413	-213.7424	-591.5085	-1721.3060	104.3136	-0.0365
62	1410.8159	-81.4060	-41.8486	-1513.4932	106.8904	-0.4867
63	1187.3558	-83.6781	-31.2618	-1364.8639	111.4236	-0.6930
64	992.2062	-87.0245	-17.9228	-1266.1361	118.1150	-0.3630
65	819.5308	-91.5465	-0.9668	-1670.8107	129.8790	-0.7288
66	895.2152	-98.6727	50.4202	-1822.4873	147.8535	0.0892
67	2179.4014	-114.0306	0.4270	-1862.4607	165.4565	-0.5622
68	2259.0186	-134.3574	0.5067	-1972.6497	189.5422	-0.4724
69	2397.6812	-161.2644	0.3986	-1932.3777	212.9944	-0.3758
70	2373.9561	-187.5478	0.2792	-1911.0226	243.1786	-0.3412
71	2356.9919	-220.6239	0.6958	-1703.7900	272.4938	-0.8788
72	2141.6404	-252.7739	1.1149	-1462.7546	308.5132	-1.1009
73	1880.6648	-291.6038	0.9688	-1004.5377	343.4584	-0.9367
74	1390.8975	-329.2688	1.0087	-464.4596	384.8252	-1.1189
75	809.1075	-373.2779	1.1831	-1180.8237	425.1105	195.9157
76	1327.7474	-420.5806	-212.5328	-367.5114	479.7872	197.1861
77	485.3163	-476.4334	-210.6509	882.9045	541.1712	234.5760
78	-796.8660	-538.9165	-244.9012	2256.4597	600.0496	244.1813
79	-2204.1050	-598.7629	-252.4203	4003.6731	663.9889	283.3091
80	-3985.5859	-663.5721	-287.5349	7014.8477	617.6251	-0.4940
81	-1582.3733	-214.4878	-590.6621	-1776.1019	105.5677	-0.3541
82	1437.9592	-82.0349	-41.7118	-1564.5947	108.1447	-0.2809
83	1212.6990	-84.2995	-31.1438	-1412.2113	112.6744	-0.6352
84	1015.6005	-87.6409	-17.6509	-1309.7974	119.3640	-0.4906
85	841.1035	-92.1633	-0.9214	-1711.0012	131.1211	-0.2266
86	915.0665	-99.2881	50.7168	-1858.9524	149.1221	-0.2268
87	2215.9482	-115.2927	0.3109	-1895.2017	166.7170	-0.4203
88	2291.8408	-135.6266	0.7639	-2001.5959	190.8191	-0.7174
89	2426.6323	-162.5367	0.1696	-1957.5493	214.2604	-0.1735
90	2399.1130	-188.8365	0.7170	-1932.4181	244.4541	-0.9815
91	2378.4077	-221.8886	1.4230	-1721.5304	273.7536	-1.4820
92	2159.6111	-254.0355	1.3245	-1476.5613	309.7931	-1.2450
93	1894.4968	-292.8908	1.4129	-1014.6400	344.7461	-1.5134
94	1401.0433	-330.5525	1.6536	-470.9445	386.1056	-1.7055
95	815.6826	-374.5682	1.7937	316.9253	426.2540	-1.8618
96	1328.9215	-421.2573	-211.9659	-366.9648	480.4893	196.2531
97	484.6681	-477.1497	-209.9160	885.6543	541.9031	233.6346
98	-799.6101	-539.6342	-243.9287	2261.3940	600.7512	243.1810
99	-2208.9546	-599.4610	-251.1162	4011.1655	664.6687	282.0193
100	-3993.1113	-664.2592	-286.3383	7031.3081	618.9099	-1.0641
101	-1568.9559	-214.7947	-590.1147	-1801.1567	106.1435	-0.7249
102	1450.5465	-82.3302	-41.6330	-1587.9177	108.7261	-0.1262
103	1224.4127	-84.5901	-31.1838	-1433.8154	113.2544	-0.4228
104	1026.4584	-87.9396	-17.3001	-1329.6986	119.9459	-0.9447
105	851.1400	-92.4558	-0.6612	-1729.1805	131.7087	-0.3451
106	924.1981	-99.5843	50.8314	-1875.4084	149.6944	-0.1145
107	2232.3521	-115.8586	0.5871	-1909.9342	167.2810	-0.7324
108	2306.6248	-136.2065	0.8034	-2014.5127	191.4082	-0.8340
109	2439.6045	-163.1141	0.9855	-1968.7256	214.8388	-1.0135
110	2410.3706	-189.4098	0.9267	-1941.7957	245.0388	-1.0211
111	2387.6943	-222.4789	1.6540	-1729.0834	274.3446	-1.8204
112	2166.9863	-254.6483	1.8629	-1482.4342	310.3962	-1.7900
113	1900.2913	-293.4970	1.7957	-1018.7005	345.3390	-1.9407

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
114	1405.2209	-331.1197	2.3387	-472.7679	386.6816	-2.4671
115	817.3257	-375.1327	2.6079	316.4570	426.7921	-2.6682
116	1328.8268	-421.4482	-211.0603	-365.9335	480.6874	195.1940
117	483.8678	-477.3535	-208.3879	886.8779	542.0910	232.3668
118	-801.0861	-539.8178	-243.4030	2263.8269	600.9775	242.3347
119	-2211.1809	-599.6864	-249.4630	4013.1025	664.8735	280.9409
120	-3995.5801	-664.4631	-287.5449	7038.8828	619.4412	1.9649
121	-1565.2880	-214.8402	-589.8670	-1805.4774	106.2505	-0.1666
122	1452.8154	-82.4035	-41.4453	-1591.9216	108.8298	-0.3629
123	1226.4664	-84.6667	-30.8669	-1437.4902	113.3570	-0.6457
124	1028.2919	-87.9993	-17.1651	-1333.0571	120.0382	-0.8745
125	852.6998	-92.5172	-0.4359	-1732.4167	131.7834	-0.3603
126	925.6359	-99.6285	50.9907	-1878.5784	149.7613	-0.0513
127	2235.5884	-115.9529	0.4708	-1912.9191	167.3783	-0.6448
128	2309.6206	-136.2856	0.9003	-2017.4500	191.4765	-1.0194
129	2442.6943	-163.2049	1.3724	-1971.4757	214.9365	-1.4467
130	2413.2988	-189.5083	1.3692	-1944.3044	245.1457	-1.3188
131	2390.2373	-222.5735	1.4491	-1731.4275	274.4331	-1.5738
132	2169.4312	-254.7571	1.9150	-1484.4607	310.5140	-2.1277
133	1902.3628	-293.5917	2.6356	-1020.4902	345.4314	-2.8929
134	1407.0309	-331.2588	3.2492	-474.3358	386.8208	-3.2639
135	819.0623	-375.2533	3.4771	315.5204	426.9353	-3.4456
136	1329.1614	-421.6249	-209.9252	-366.2677	480.8557	194.0370
137	483.8283	-477.5053	-207.9026	887.5666	542.2303	231.4213
138	-801.5491	-539.9644	-241.6865	2264.6018	601.1036	240.8818
139	-2212.1287	-599.8222	-248.5548	4014.3962	665.0251	280.0749
140	-3996.8774	-664.6127	-286.6630	7040.0054	619.5806	1.7699
141	-1565.1111	-214.8589	-588.8299	-1807.3971	106.2570	-0.0333
142	1453.7589	-82.3816	-40.6372	-1593.7938	108.8360	-1.2001
143	1227.3984	-84.6542	-29.9920	-1439.3904	113.3695	-1.2726
144	1029.3684	-87.9837	-16.5224	-1334.8804	120.0588	-1.1602
145	853.7797	-92.5158	0.5284	-1733.9851	131.8208	-1.1583
146	926.6749	-99.6449	51.7639	-1879.9028	149.8057	-0.4935
147	2236.9141	-115.9726	0.8312	-1914.0776	167.4014	-1.0359
148	2310.6768	-136.3265	1.5177	-2018.4185	191.5091	-1.6678
149	2443.5605	-163.2231	1.9843	-1972.2993	214.9561	-2.0454
150	2413.9722	-189.5249	1.9424	-1945.0165	245.1550	-1.9927
151	2390.9580	-222.5966	2.5617	-1731.9669	274.4740	-2.7056
152	2169.8728	-254.7708	2.7050	-1484.9673	310.5095	-2.8565
153	1902.8828	-293.5850	3.6320	-1020.9328	345.4299	-3.8884
154	1407.4150	-331.2370	4.0700	-474.9269	386.7972	-4.0226
155	819.6833	-375.2506	4.2136	314.9663	426.9318	-4.2706
156	1329.5352	-421.5929	-209.1380	-366.7988	480.7984	193.0766
157	484.2987	-477.4524	-207.0425	886.6587	542.1917	230.4222
158	-800.6160	-539.9287	-240.6543	2263.1562	601.0851	239.8275
159	-2210.7039	-599.7989	-247.7151	4013.7012	665.0056	278.8548
160	-3995.8276	-664.5951	-283.9513	7039.2178	619.5864	-1.4351
161	-1565.1920	-214.8147	-588.2916	-1806.0708	106.1238	-0.3925
162	1453.1550	-82.3407	-41.0042	-1592.9038	108.7017	-0.5486
163	1226.9762	-84.5986	-30.4631	-1438.8840	113.2258	-0.7573
164	1028.9976	-87.9422	-16.6430	-1334.8628	119.9133	-1.1535
165	853.6700	-92.4539	-0.1019	-1734.5640	131.6625	-0.1491
166	926.7663	-99.5744	51.7558	-1881.0317	149.6442	-0.9753
167	2238.0872	-115.8138	0.7083	-1915.7302	167.2470	-0.6273
168	2312.4082	-136.1678	0.2951	-2020.5774	191.3666	-0.3814
169	2445.7661	-163.0937	1.2637	-1974.9204	214.8214	-1.5694
170	2416.5818	-189.3930	1.7300	-1948.2509	245.0123	-1.9264

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
171	2394.3477	-222.4419	2.7205	-1735.6982	274.3059	-2.9222
172	2173.7319	-254.5751	3.0040	-1489.2109	310.3303	-2.9364
173	1907.0774	-293.4418	3.1677	-1025.7152	345.2888	-3.4351
174	1412.1921	-331.1168	4.0308	-480.1300	386.6777	-4.1506
175	824.8980	-375.1322	4.3717	309.3984	426.8128	-4.3869
176	1332.3967	-421.6226	-208.9160	-369.5547	480.8464	192.7626
177	487.3594	-477.4899	-206.2339	884.0861	542.1908	229.9839
178	-798.2322	-539.9281	-240.6791	2260.2581	601.0486	239.8372
179	-2207.8628	-599.7587	-247.9043	4011.0454	664.9738	279.0286
180	-3993.1919	-664.5583	-284.1388	7032.5742	619.4717	-0.8511
181	-1568.1016	-214.6342	-588.2843	-1802.7162	105.7587	-0.5248
182	1451.5380	-82.1410	-41.1250	-1590.6406	108.3376	-0.3530
183	1225.9731	-84.4024	-30.1475	-1437.7095	112.8705	-1.3531
184	1028.5970	-87.7477	-16.6323	-1334.7317	119.5621	-1.0694
185	853.8456	-92.2660	0.0781	-1735.3354	131.3241	-0.4540
186	927.3624	-99.3927	51.5164	-1882.7715	149.3020	-0.3938
187	2239.7373	-115.4865	1.2310	-1918.3979	166.9115	-1.4058
188	2314.9978	-135.8248	1.2273	-2024.2638	191.0034	-1.1928
189	2449.4067	-162.7020	1.4299	-1979.7401	214.4283	-1.6394
190	2421.4255	-188.9874	2.2168	-1954.1167	244.6109	-2.2995
191	2400.0967	-222.0309	2.2483	-1742.7849	273.9016	-2.4518
192	2180.8103	-254.2013	3.4155	-1497.4875	309.9636	-3.6595
193	1915.5435	-293.0793	3.8418	-1035.0627	344.9369	-3.8439
194	1421.5828	-330.7761	4.0822	-490.6690	386.3372	-4.1682
195	835.4838	-374.7894	4.4014	297.7268	426.4753	-4.5855
196	1338.6649	-421.4165	-208.3972	-376.3117	480.6478	192.5374
197	494.0283	-477.2951	-206.1480	876.4932	542.0313	229.7135
198	-790.6862	-539.7722	-240.5372	2252.5610	600.9205	239.5765
199	-2200.1270	-599.6347	-247.4227	4002.6062	664.8383	278.4231
200	-3984.6455	-664.4283	-283.0826	7015.3735	619.1236	-2.1204
201	-1581.4375	-213.6227	-587.9824	-1419.9309	103.7667	-19.9624
202	1440.3870	-81.0581	-40.6228	-1576.0289	106.3132	-0.9047
203	1218.0525	-83.3242	-30.3556	-1429.1925	110.8439	-0.6615
204	1023.9721	-86.6597	-16.5354	-1332.2747	117.5337	-1.2174
205	852.3771	-91.1932	0.1690	-1739.0239	129.3003	-0.4380
206	929.1879	-98.3191	51.8273	-1892.5759	147.2641	-0.8307
207	2249.5955	-113.4366	1.0089	-1934.3801	164.8675	-1.0304
208	2331.0669	-133.7778	0.7316	-2046.4117	188.9719	-0.8230
209	2471.6016	-160.6897	1.7534	-2007.9702	212.4254	-1.9960
210	2449.7197	-187.0125	1.9027	-1988.2803	242.6560	-1.9571
211	2434.2998	-220.0958	2.5693	-1782.7938	271.9485	-2.6973
212	2220.7666	-252.2460	2.6877	-1543.3688	308.0055	-2.8372
213	1961.3132	-291.0803	3.6751	-1086.8147	342.9247	-3.9327
214	1473.3026	-328.7569	4.1382	-548.1842	384.3272	-4.1434
215	892.8218	-372.8015	4.3843	-1223.0004	424.9749	192.1357
216	1369.9135	-420.4658	-208.6948	-410.3614	479.7116	192.7932
217	527.8629	-476.3677	-206.7217	839.8855	541.0980	230.1286
218	-753.8629	-538.8327	-240.3694	2213.3330	599.9845	239.5625
219	-2160.9038	-598.6943	-247.4348	3960.6094	663.9108	278.7713
220	-3942.9370	-663.5029	-284.6154	6922.7896	617.1671	-0.2754
221	-1612.2694	-211.3957	-588.2108	-1387.5684	100.5861	-19.5511
222	1408.0391	-77.8768	-40.9563	-1138.4213	101.8756	-27.2438
223	1195.2841	-80.1413	-30.4139	-1410.0330	106.2465	-0.5953
224	1010.6844	-83.4903	-16.5977	-1326.9791	112.9466	-1.0017
225	848.6794	-88.0226	0.0893	-1747.2373	124.8891	-0.2524
226	934.9377	-95.2379	51.8147	-1913.8352	142.9070	-0.7812
227	2270.7979	-109.1087	0.5105	-1968.4985	160.5491	-0.5670

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
228	2364.9707	-129.4822	0.9954	-2093.1235	184.6761	-1.0782
229	2517.8506	-156.4298	1.1453	-2067.1704	208.1500	-1.2916
230	2508.5981	-182.7493	1.7766	-2059.6758	238.3932	-1.9857
231	2505.0469	-215.8336	2.5000	-1866.4449	267.6859	-2.6018
232	2303.6826	-247.9836	2.6327	-1639.1492	303.7284	-2.7148
233	2056.4390	-286.8315	3.3975	-1194.5856	338.6768	-3.6342
234	1580.3064	-324.5281	3.9449	-668.0814	380.0766	-4.0730
235	1012.1187	-368.5445	4.4148	-1282.4032	422.9863	191.8538
236	1428.9698	-418.4777	-208.3763	-474.6735	477.7224	192.6786
237	591.9066	-474.3991	-206.4580	770.4172	539.1686	229.8663
238	-684.8911	-536.9110	-240.6248	2138.8511	598.0503	239.6212
239	-2086.4844	-596.7632	-246.9679	3880.1875	661.9650	278.1246
240	-3862.4585	-661.5568	-283.4476	6729.1802	612.9408	-1.7004
241	-1780.5359	-199.1343	-580.0372	-1470.2455	73.1713	0.5007
242	1028.8834	-40.6942	-54.3356	-1356.2058	75.7976	0.0747
243	927.8577	-43.0033	-43.8972	-1301.2295	80.4096	0.0939
244	854.9230	-46.4083	-30.1551	-1665.6689	89.4445	0.3364
245	989.2255	-52.1113	13.8185	-1788.5991	101.6733	0.2505
246	2095.5010	-65.4069	-0.3104	-2023.5596	119.9349	0.2909
247	2379.5134	-86.3272	0.3958	-2145.1917	137.8115	-0.5154
248	2539.8579	-106.9710	0.2803	-2334.5107	162.2548	-0.1911
249	2756.4373	-134.2444	0.2704	-2371.6975	186.0060	-0.5274
250	2809.0190	-160.8982	1.8040	-2424.7268	216.5984	-2.0201
251	2865.1050	-194.3566	2.0181	-2290.2280	246.2553	-2.0683
252	2721.4307	-226.8807	2.6118	-2118.9316	282.6768	-2.7822
253	2528.9600	-266.0903	3.5567	-1729.1064	317.9502	-3.8368
254	2106.8726	-304.1133	4.6880	-2071.3635	361.0640	-7.8520
255	2239.0552	-355.4575	-11.8295	-1525.5520	415.3928	183.6461
256	1667.7244	-411.0426	-200.1464	-725.5339	470.5949	184.2645
257	838.7577	-467.3701	-197.7663	506.1874	532.2162	221.4303
258	-423.8948	-530.0449	-231.6489	1861.1788	591.2758	231.1024
259	-1811.6257	-590.0534	-239.4170	3584.7388	655.2428	270.5609
260	-3567.7595	-654.8519	-275.1565	5806.6279	593.0027	-2.9616
261	-2170.2300	-183.8715	-544.2645	-1273.5605	29.7365	-1.4407
262	1286.8076	-12.5194	-43.5560	-1238.3978	30.5155	-7.6241
263	1273.4115	-13.8756	-35.1218	-1221.9513	31.8711	-16.1927
264	1278.2961	-15.8558	-24.2880	-1359.9580	37.6722	1.3125
265	1345.0483	-19.8136	7.7020	-1663.2747	49.1315	1.8213
266	1479.1794	-26.2863	33.7746	-1876.7367	59.4049	1.0127
267	1566.5525	-32.2207	56.1942	-2096.7886	71.4879	1.7861
268	2353.0696	-45.6639	-0.9680	-2313.2546	85.4899	0.7316
269	2594.3022	-61.4154	-0.1104	-2515.1816	101.4507	0.0309
270	2814.9395	-79.2631	-0.1596	-2690.6543	119.4812	0.2194
271	3002.4675	-99.1184	-0.2903	-2827.4917	139.5014	0.1181
272	3143.9185	-121.2024	1.2416	-2912.2031	161.7344	-1.4283
273	3225.5291	-145.3961	1.4153	-3007.0498	190.8615	-1.4752
274	3308.9224	-176.6568	2.4860	-2937.2036	217.5891	-2.6045
275	3218.7473	-205.3864	2.6960	-2772.5247	246.3992	-2.6990
276	3024.5647	-236.4128	3.3139	-2498.2217	277.5280	-3.4396
277	2782.6763	-272.6281	-149.4826	-2286.4409	325.4513	164.9436
278	2368.8638	-322.6450	-173.8456	-1721.5464	369.2267	171.7619
279	1774.4818	-367.5418	-178.0179	-964.6959	415.4061	179.1110
280	983.8228	-414.8386	-183.6164	0.1717	450.5284	168.5829

ENVOL. MIN. TORSORES -EC1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.0013	-0.0027	-2.6856	-46.1100	1.5203	10.5709
2	42.1784	-1.2548	-10.4921	-147.1152	4.8282	22.7637
3	131.2567	-4.1670	-21.5200	-289.6854	10.1082	38.7999
4	256.0451	-8.7304	-35.8201	-448.7314	16.5082	55.6390
5	405.5522	-14.9336	-53.5164	-605.2030	24.1674	74.6229
6	568.9017	-22.7591	-74.3165	-735.3239	32.1779	98.2417
7	735.3239	-32.1779	-98.2417	-894.3051	43.1945	125.6297
8	894.3051	-43.1945	-125.6297	-1306.7258	62.3428	169.6097
9	1306.7258	-62.3428	-169.6097	-1418.7970	85.4482	227.2376
10	1418.7970	-85.4482	-227.2376	-1487.8059	102.4633	267.6802
11	1487.8059	-102.4633	-267.6802	-1505.2109	120.9321	311.3795
12	1505.2109	-120.9321	-311.3795	-1462.7130	140.7790	355.4603
13	1462.7130	-140.7790	-355.4603	-1542.1165	165.1957	399.1396
14	1542.1165	-165.1957	-399.1396	-1320.1707	184.2715	441.3887
15	1320.1707	-184.2715	-441.3887	-1029.9211	203.2566	489.8091
16	1029.9211	-203.2566	-489.8091	-674.0780	230.8493	562.0565
17	674.0780	-230.8493	-562.0565	-243.8636	259.4966	637.7747
18	243.8636	-259.4966	-637.7747	262.2498	281.6483	695.9841
19	-262.2498	-281.6483	-695.9841	847.6515	304.7213	757.3959
20	-847.6515	-304.7213	-757.3959	1026.8019	223.8870	582.0928
21	-1516.5474	-148.1541	-431.8841	1382.5844	-31.5341	45.9507
22	-1382.5844	31.5341	-45.9507	1151.6763	-28.1953	60.3377
23	-1151.6763	28.1953	-60.3377	968.7388	-25.6031	70.9880
24	-968.7388	25.6031	-70.9880	636.2115	-18.3288	99.9725
25	-636.2115	18.3288	-99.9725	423.7035	-13.4734	117.9849
26	-423.7035	13.4734	-117.9849	-6.7038	-0.3750	161.1841
27	6.7038	0.3750	-161.1841	-492.0001	9.8757	193.3499
28	492.0001	-9.8757	-193.3499	-702.6119	28.0196	244.0237
29	702.6119	-28.0196	-244.0237	-1169.5574	45.3167	290.1343
30	1169.5574	-45.3167	-290.1343	-1290.7551	67.0000	345.2570
31	1290.7551	-67.0000	-345.2570	-1640.8800	91.2426	394.9738
32	1640.8800	-91.2426	-394.9738	-1607.5598	116.2627	452.6566
33	1607.5598	-116.2627	-452.6566	-1743.9673	146.8009	511.4891
34	1743.9673	-146.8009	-511.4891	-1496.0054	174.7352	575.3466
35	1496.0054	-174.7352	-575.3466	-1337.1091	210.5404	648.3265
36	1337.1091	-210.5404	-648.3265	-829.4687	240.7524	719.1219
37	829.4687	-240.7524	-719.1219	-325.1286	280.4457	806.4324
38	325.1286	-280.4457	-806.4324	467.1536	312.1718	884.4905
39	-467.1536	-312.1718	-884.4905	1327.6062	353.9335	985.7223
40	-1327.6062	-353.9335	-985.7223	1360.5614	239.4849	772.6971
41	-2403.7161	-167.4453	-561.7101	2210.7571	-50.4567	57.8024
42	-2210.7571	50.4567	-57.8024	1889.0369	-46.2854	71.5227
43	-1889.0369	46.2854	-71.5227	1621.4956	-42.8925	81.8715
44	-1621.4956	42.8925	-81.8715	1153.6458	-33.1990	109.1288
45	-1153.6458	33.1990	-109.1288	848.4139	-26.8381	126.5035
46	-848.4139	26.8381	-126.5035	295.6826	-10.8844	168.6415
47	-295.6826	10.8844	-168.6415	-288.2148	1.9825	199.6829
48	288.2148	-1.9825	-199.6829	-550.0515	21.3335	249.8616
49	550.0515	-21.3335	-249.8616	-1081.1550	40.8769	295.1332
50	1081.1550	-40.8769	-295.1332	-1232.7858	63.5462	349.8621
51	1232.7858	-63.5462	-349.8621	-1618.1171	89.5992	398.3226
52	1618.1171	-89.5992	-398.3226	-1598.2626	115.4037	455.3215
53	1598.2626	-115.4037	-455.3215	-1747.3149	147.2841	513.5066
54	1747.3149	-147.2841	-513.5066	-1500.7400	175.7300	576.9290
55	1500.7400	-175.7300	-576.9290	-1340.4912	212.4384	648.9933
56	1340.4912	-212.4384	-648.9933	-826.4507	242.9845	719.7988

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
57	826.4507	-242.9845	-719.7988	-313.4974	283.1447	806.5018
58	313.4974	-283.1447	-806.5018	487.6754	314.9921	884.5654
59	-487.6754	-314.9921	-884.5654	1357.8438	356.8776	985.7322
60	-1357.8438	-356.8776	-985.7322	1307.0695	235.3220	782.3667
61	-2442.8682	-168.4921	-561.0071	2246.9678	-51.2947	57.0881
62	-2246.9678	51.2947	-57.0881	1920.8342	-47.0702	71.3326
63	-1920.8342	47.0702	-71.3326	1649.6733	-43.6357	81.4451
64	-1649.6733	43.6357	-81.4451	1176.5342	-33.8825	109.1257
65	-1176.5342	33.8825	-109.1257	867.7523	-27.4513	126.5494
66	-867.7523	27.4513	-126.5494	310.1532	-11.3754	168.6304
67	-310.1532	11.3754	-168.6304	-278.2001	1.5950	199.7599
68	278.2001	-1.5950	-199.7599	-542.5377	20.9998	249.9666
69	542.5377	-20.9998	-249.9666	-1076.9684	40.6670	295.1926
70	1076.9684	-40.6670	-295.1926	-1230.1658	63.4030	349.9318
71	1230.1658	-63.4030	-349.9318	-1617.4674	89.5688	398.1844
72	1617.4674	-89.5688	-398.1844	-1598.2234	115.3806	455.1356
73	1598.2234	-115.3806	-455.1356	-1748.0444	147.3569	513.3230
74	1748.0444	-147.3569	-513.3230	-1501.4519	175.9099	576.4492
75	1501.4519	-175.9099	-576.4492	-1340.9723	212.6189	648.3345
76	1340.9723	-212.6189	-648.3345	-826.6078	243.1681	719.0632
77	826.6078	-243.1681	-719.0632	-312.7808	283.3518	805.8297
78	312.7808	-283.3518	-805.8297	489.0575	315.2445	883.9833
79	-489.0575	-315.2445	-883.9833	1360.1252	357.1495	984.8880
80	-1360.1252	-357.1495	-984.8880	1324.9515	236.6854	782.3277
81	-2446.0491	-168.6021	-560.3123	2249.6738	-51.3493	56.4949
82	-2249.6738	51.3493	-56.4949	1923.2501	-47.1122	70.6095
83	-1923.2501	47.1122	-70.6095	1651.8237	-43.6731	81.0195
84	-1651.8237	43.6731	-81.0195	1178.3132	-33.9100	108.7258
85	-1178.3132	33.9100	-108.7258	869.2422	-27.4789	126.3114
86	-869.2422	27.4789	-126.3114	311.2050	-11.4128	168.5607
87	-311.2050	11.4128	-168.5607	-277.5365	1.5698	199.7285
88	277.5365	-1.5698	-199.7285	-542.0291	20.9795	249.9512
89	542.0291	-20.9795	-249.9512	-1076.7085	40.6604	295.1772
90	1076.7085	-40.6604	-295.1772	-1230.1060	63.3918	349.6170
91	1230.1060	-63.3918	-349.6170	-1617.5620	89.5579	398.0175
92	1617.5620	-89.5579	-398.0175	-1598.2844	115.3760	455.0248
93	1598.2844	-115.3760	-455.0248	-1748.2444	147.3557	512.8969
94	1748.2444	-147.3557	-512.8969	-1501.8020	175.8938	576.0728
95	1501.8020	-175.8938	-576.0728	-1341.1678	212.6387	648.0080
96	1341.1678	-212.6387	-648.0080	-826.9703	243.2061	718.4870
97	826.9703	-243.2061	-718.4870	-313.0604	283.4194	805.0138
98	313.0604	-283.4194	-805.0138	489.0151	315.2756	883.1382
99	-489.0151	-315.2756	-883.1382	1360.5132	357.1761	984.0275
100	-1360.5132	-357.1761	-984.0275	1389.5814	237.5007	781.8656
101	-2446.1655	-168.6200	-559.9361	2249.9790	-51.3432	56.2820
102	-2249.9790	51.3432	-56.2820	1923.5560	-47.1143	70.1329
103	-1923.5560	47.1143	-70.1329	1652.0472	-43.6841	80.9603
104	-1652.0472	43.6841	-80.9603	1178.4475	-33.9076	108.9156
105	-1178.4475	33.9076	-108.9156	869.3607	-27.4929	126.3784
106	-869.3607	27.4929	-126.3784	311.2778	-11.4148	168.7155
107	-311.2778	11.4148	-168.7155	-277.4515	1.5690	199.9097
108	277.4515	-1.5690	-199.9097	-541.9830	20.9810	250.0732
109	541.9830	-20.9810	-250.0732	-1076.6479	40.6567	295.2115
110	1076.6479	-40.6567	-295.2115	-1229.9388	63.4074	349.8497
111	1229.9388	-63.4074	-349.8497	-1617.4231	89.5583	398.0237
112	1617.4231	-89.5583	-398.0237	-1598.1536	115.4043	454.9961
113	1598.1536	-115.4043	-454.9961	-1748.1174	147.4033	512.6560

ESFUERZOS EN EXTREMO DE BARRA

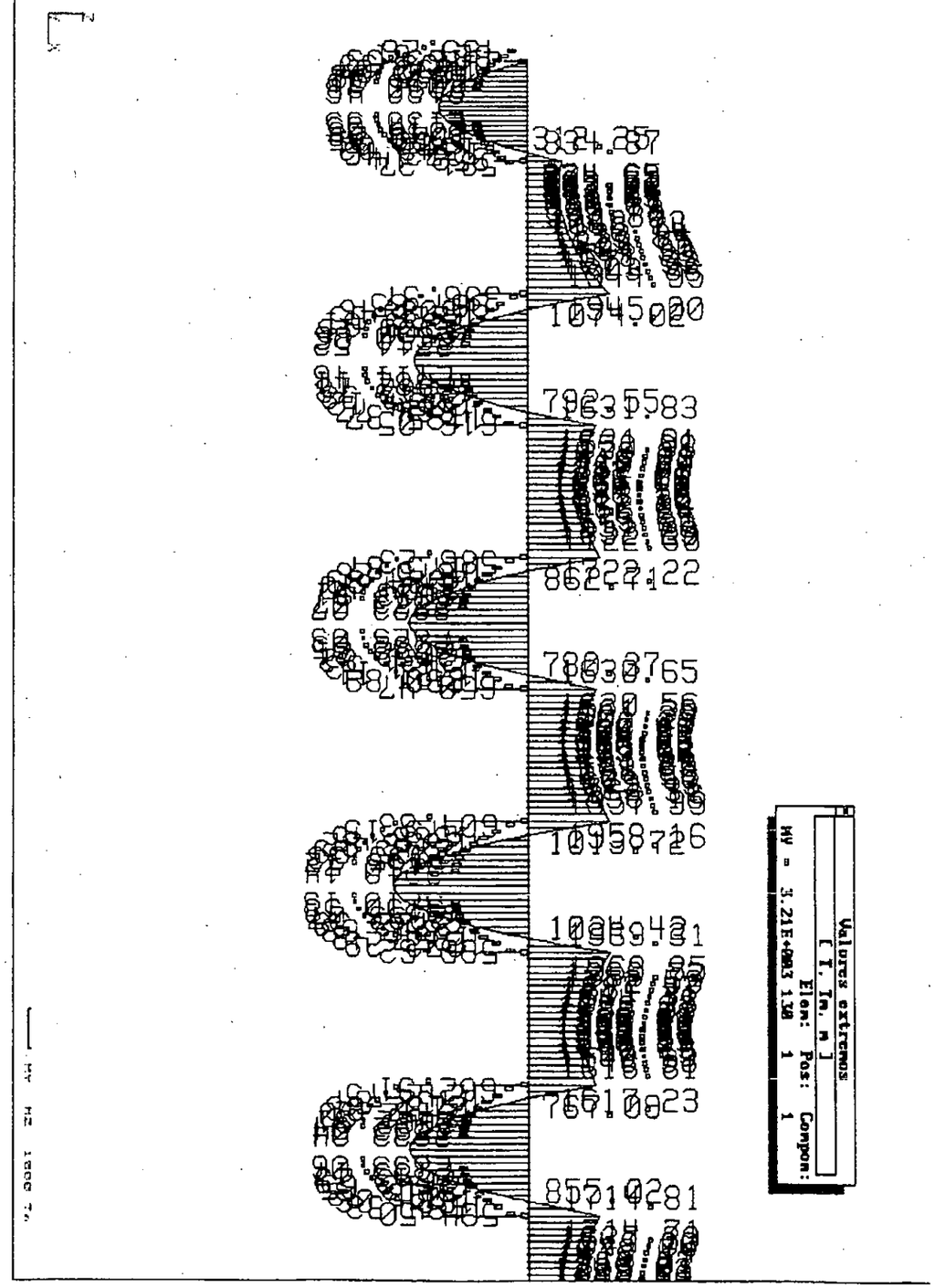
Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
114	1748.1174	-147.4033	-512.6560	-1501.3489	175.8583	575.5979
115	1501.3489	-175.8583	-575.5979	-1341.0929	212.5694	647.4001
116	1341.0929	-212.5694	-647.4001	-826.8584	243.1586	717.7413
117	826.8584	-243.1586	-717.7413	-313.3091	283.3333	804.4641
118	313.3091	-283.3333	-804.4641	488.6556	315.2060	882.3198
119	-488.6556	-315.2060	-882.3198	1359.3934	357.1121	983.7081
120	-1359.3934	-357.1121	-983.7081	1432.3447	238.2758	782.1462
121	-2444.8467	-168.6102	-559.4339	2249.1689	-51.2994	55.5672
122	-2249.1689	51.2994	-55.5672	1922.8608	-47.0659	69.9462
123	-1922.8608	47.0659	-69.9462	1651.6099	-43.6171	80.6505
124	-1651.6099	43.6171	-80.6505	1178.1835	-33.8719	108.6429
125	-1178.1835	33.8719	-108.6429	869.1860	-27.4569	126.2313
126	-869.1860	27.4569	-126.2313	311.1093	-11.3974	168.6428
127	-311.1093	11.3974	-168.6428	-277.7059	1.5785	199.9125
128	277.7059	-1.5785	-199.9125	-542.3146	20.9872	250.0327
129	542.3146	-20.9872	-250.0327	-1077.0430	40.6701	295.0866
130	1077.0430	-40.6701	-295.0866	-1230.2666	63.4252	349.8916
131	1230.2666	-63.4252	-349.8916	-1617.7622	89.5813	398.1832
132	1617.7622	-89.5813	-398.1832	-1598.5928	115.4361	454.5543
133	1598.5928	-115.4361	-454.5543	-1748.5647	147.4312	511.8588
134	1748.5647	-147.4312	-511.8588	-1501.7881	175.9211	574.9269
135	1501.7881	-175.9211	-574.9269	-1341.0730	212.6505	646.8292
136	1341.0730	-212.6505	-646.8292	-826.9817	243.2098	717.1530
137	826.9817	-243.2098	-717.1530	-313.0904	283.4043	803.4651
138	313.0904	-283.4043	-803.4651	489.1273	315.2814	881.5188
139	-489.1273	-315.2814	-881.5188	1359.9324	357.1835	982.9364
140	-1359.9324	-357.1835	-982.9364	1431.7635	238.2359	781.7454
141	-2445.6138	-168.6198	-558.3195	2249.6855	-51.3456	54.7500
142	-2249.6855	51.3456	-54.7500	1923.2058	-47.1236	69.6567
143	-1923.2058	47.1236	-69.6567	1651.7473	-43.6906	80.1383
144	-1651.7473	43.6906	-80.1383	1178.1489	-33.9025	108.3979
145	-1178.1489	33.9025	-108.3979	869.1006	-27.4828	126.1656
146	-869.1006	27.4828	-126.1656	311.0999	-11.3979	168.5758
147	-311.0999	11.3979	-168.5758	-277.6328	1.5784	199.9248
148	277.6328	-1.5784	-199.9248	-542.1932	20.9917	250.0244
149	542.1932	-20.9917	-250.0244	-1076.8103	40.6633	295.1250
150	1076.8103	-40.6633	-295.1250	-1230.1021	63.4123	349.7599
151	1230.1021	-63.4123	-349.7599	-1617.4518	89.5758	397.9908
152	1617.4518	-89.5758	-397.9908	-1598.3258	115.4187	454.3819
153	1598.3258	-115.4187	-454.3819	-1748.3098	147.3752	511.6589
154	1748.3098	-147.3752	-511.6589	-1501.6855	175.8710	574.8146
155	1501.6855	-175.8710	-574.8146	-1341.1162	212.6252	646.4395
156	1341.1162	-212.6252	-646.4395	-827.1906	243.1909	716.6646
157	827.1906	-243.1909	-716.6646	-313.6409	283.3657	802.8010
158	313.6409	-283.3657	-802.8010	488.2454	315.2641	880.8263
159	-488.2454	-315.2641	-880.8263	1359.5219	357.1611	981.8700
160	-1359.5219	-357.1611	-981.8700	1430.4088	238.1854	780.9889
161	-2444.9187	-168.6447	-557.9562	2248.7334	-51.2813	54.8218
162	-2248.7334	51.2813	-54.8218	1922.5046	-47.0636	69.2663
163	-1922.5046	47.0636	-69.2663	1651.1738	-43.6272	80.1539
164	-1651.1738	43.6272	-80.1539	1177.7545	-33.8752	108.2893
165	-1177.7545	33.8752	-108.2893	868.7422	-27.4474	126.2051
166	-868.7422	27.4474	-126.2051	310.7169	-11.3905	168.7239
167	-310.7169	11.3905	-168.7239	-277.9494	1.5930	200.0861
168	277.9494	-1.5930	-200.0861	-542.5078	21.0050	250.2769
169	542.5078	-21.0050	-250.2769	-1077.2345	40.6811	295.1892
170	1077.2345	-40.6811	-295.1892	-1230.6027	63.4283	349.6267

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
171	1230.6027	-63.4283	-349.6267	-1617.9946	89.5654	397.6675
172	1617.9946	-89.5654	-397.6675	-1598.7324	115.4113	454.4290
173	1598.7324	-115.4113	-454.4290	-1748.7983	147.4090	511.6738
174	1748.7983	-147.4090	-511.6738	-1502.1494	175.9139	574.4519
175	1502.1494	-175.9139	-574.4519	-1341.4897	212.6941	646.1575
176	1341.4897	-212.6941	-646.1575	-827.2950	243.2483	716.2601
177	827.2950	-243.2483	-716.2601	-313.3154	283.4098	802.7276
178	313.3154	-283.4098	-802.7276	488.3638	315.3110	880.7358
179	-488.3638	-315.3110	-880.7358	1359.8481	357.1844	981.7990
180	-1359.8481	-357.1844	-981.7990	1427.4843	238.1378	780.9792
181	-2445.6775	-168.6366	-558.0318	2249.4912	-51.3378	54.8223
182	-2249.4912	51.3378	-54.8223	1923.0330	-47.1161	69.5139
183	-1923.0330	47.1161	-69.5139	1651.5916	-43.6884	80.4287
184	-1651.5916	43.6884	-80.4287	1178.0364	-33.8977	108.3840
185	-1178.0364	33.8977	-108.3840	868.9813	-27.4758	126.1682
186	-868.9813	27.4758	-126.1682	310.9448	-11.3968	168.7448
187	-310.9448	11.3968	-168.7448	-277.7328	1.5812	200.0226
188	277.7328	-1.5812	-200.0226	-542.2496	20.9884	250.2354
189	542.2496	-20.9884	-250.2354	-1076.9773	40.6499	295.1895
190	1076.9773	-40.6499	-295.1895	-1230.2878	63.4020	349.7744
191	1230.2878	-63.4020	-349.7744	-1617.9048	89.5388	397.8158
192	1617.9048	-89.5388	-397.8158	-1598.9119	115.3959	454.0169
193	1598.9119	-115.3959	-454.0169	-1748.8613	147.4205	511.8021
194	1748.8613	-147.4205	-511.8021	-1502.3201	175.9380	574.5997
195	1502.3201	-175.9380	-574.5997	-1341.8152	212.6660	645.8846
196	1341.8152	-212.6660	-645.8846	-827.5384	243.2565	716.2300
197	827.5384	-243.2565	-716.2300	-313.8246	283.4335	802.5327
198	313.8246	-283.4335	-802.5327	488.0644	315.3299	880.4774
199	-488.0644	-315.3299	-880.4774	1359.5586	357.2222	981.3658
200	-1359.5586	-357.2222	-981.3658	1418.6582	237.9570	780.7470
201	-2445.6570	-168.6403	-557.8315	2249.4370	-51.3418	55.1724
202	-2249.4370	51.3418	-55.1724	1923.0558	-47.1147	69.3253
203	-1923.0558	47.1147	-69.3253	1651.6221	-43.6625	80.0723
204	-1651.6221	43.6625	-80.0723	1178.0726	-33.8971	108.3987
205	-1178.0726	33.8971	-108.3987	869.0214	-27.4678	126.2363
206	-869.0214	27.4678	-126.2363	311.0059	-11.3948	168.7616
207	-311.0059	11.3948	-168.7616	-277.7007	1.5809	200.0871
208	277.7007	-1.5809	-200.0871	-542.3190	20.9877	250.2423
209	542.3190	-20.9877	-250.2423	-1077.0771	40.6695	295.1775
210	1077.0771	-40.6695	-295.1775	-1230.3654	63.4249	349.7998
211	1230.3654	-63.4249	-349.7998	-1617.7594	89.5793	398.0040
212	1617.7594	-89.5793	-398.0040	-1598.6134	115.4239	454.3908
213	1598.6134	-115.4239	-454.3908	-1748.5164	147.3965	511.6234
214	1748.5164	-147.3965	-511.6234	-1501.7698	175.9462	574.6262
215	1501.7698	-175.9462	-574.6262	-1341.1047	212.7074	646.1720
216	1341.1047	-212.7074	-646.1720	-826.7743	243.2971	716.5205
217	826.7743	-243.2971	-716.5205	-312.8137	283.4758	802.6796
218	312.8137	-283.4758	-802.6796	489.5604	315.3846	880.7158
219	-489.5604	-315.3846	-880.7158	1361.1528	357.2795	981.9604
220	-1361.1528	-357.2795	-981.9604	1374.0601	237.0212	781.1545
221	-2447.0022	-168.6407	-557.8703	2250.3835	-51.4133	54.5115
222	-2250.3835	51.4133	-54.5115	1923.6150	-47.1800	69.0710
223	-1923.6150	47.1800	-69.0710	1651.9194	-43.7403	79.9839
224	-1651.9194	43.7403	-79.9839	1178.0940	-33.9568	108.2545
225	-1178.0940	33.9568	-108.2545	868.9257	-27.5046	126.1559
226	-868.9257	27.5046	-126.1559	310.8425	-11.4228	168.6391
227	-310.8425	11.4228	-168.6391	-277.7198	1.5951	199.9735

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
228	277.7198	-1.5951	-199.9735	-542.0392	21.0234	250.1397
229	542.0392	-21.0234	-250.1397	-1076.1667	40.7435	295.2036
230	1076.1667	-40.7435	-295.2036	-1228.8762	63.5099	349.6448
231	1228.8762	-63.5099	-349.6448	-1615.2864	89.6824	397.8882
232	1615.2864	-89.6824	-397.8882	-1595.4283	115.5168	454.4209
233	1595.4283	-115.5168	-454.4209	-1744.1633	147.5034	511.7426
234	1744.1633	-147.5034	-511.7426	-1496.7520	176.0228	574.5160
235	1496.7520	-176.0228	-574.5160	-1334.7251	212.8360	646.0040
236	1334.7251	-212.8360	-646.0040	-819.4957	243.4448	716.4607
237	819.4957	-243.4448	-716.4607	-304.3594	283.6435	802.6797
238	304.3594	-283.6435	-802.6797	498.7276	315.5441	880.5493
239	-498.7276	-315.5441	-880.5493	1371.0977	357.4289	981.6035
240	-1371.0977	-357.4289	-981.6035	1306.7969	235.5333	780.7886
241	-2457.6411	-168.2991	-557.7203	2258.4404	-52.2304	54.8121
242	-2258.4404	52.2304	-54.8121	1928.7277	-47.9356	69.3873
243	-1928.7277	47.9356	-69.3873	1654.5380	-44.4439	80.1862
244	-1654.5380	44.4439	-80.1862	1178.4517	-34.5060	108.5172
245	-1178.4517	34.5060	-108.5172	867.7908	-27.9778	126.2966
246	-867.7908	27.9778	-126.2966	309.6224	-11.6191	168.8409
247	-309.6224	11.6191	-168.8409	-277.0903	1.6911	200.1719
248	277.0903	-1.6911	-200.1719	-539.2277	21.2872	250.4556
249	539.2277	-21.2872	-250.4556	-1067.5161	41.3527	295.4503
250	1067.5161	-41.3527	-295.4503	-1215.1145	64.3143	349.8822
251	1215.1145	-64.3143	-349.8822	-1590.9698	90.9151	398.2534
252	1590.9698	-90.9151	-398.2534	-1562.5417	116.9842	454.6295
253	1562.5417	-116.9842	-454.6295	-1696.4275	149.3691	511.8699
254	1696.4275	-149.3691	-511.8699	-1437.5597	178.1249	574.7812
255	1437.5597	-178.1249	-574.7812	-1257.6912	215.2968	646.6265
256	1257.6912	-215.2968	-646.6265	-729.2447	246.0819	716.9465
257	729.2447	-246.0819	-716.9465	-196.2243	286.5323	803.3928
258	196.2243	-286.5323	-803.3928	619.1523	318.5140	881.6665
259	-619.1523	-318.5140	-881.6665	1504.2327	360.4901	982.8036
260	-1504.2327	-360.4901	-982.8036	1382.2490	237.0359	782.3974
261	-2599.4229	-167.5650	-565.7772	2426.9690	-56.6626	70.4425
262	-2426.9690	56.6626	-70.4425	2223.8616	-54.7843	78.3793
263	-2223.8616	54.7843	-78.3793	1993.2222	-51.9661	89.3741
264	-1993.2222	51.9661	-89.3741	1739.0195	-48.1628	102.9135
265	-1739.0195	48.1628	-102.9135	1262.2916	-37.2670	139.2119
266	-1262.2916	37.2670	-139.2119	951.0210	-30.0722	162.0238
267	-951.0210	30.0722	-162.0238	635.9779	-21.6514	187.7729
268	-635.9779	21.6514	-187.7729	324.3331	-11.9552	216.7137
269	-324.3331	11.9552	-216.7137	24.1303	-0.9396	248.4466
270	-24.1303	0.9396	-248.4466	-256.3617	11.4235	283.2432
271	256.3617	-11.4235	-283.2432	-508.7944	25.1516	321.0106
272	508.7944	-25.1516	-321.0106	-1021.5310	49.2665	384.3856
273	1021.5310	-49.2665	-384.3856	-1176.0979	74.7186	448.6173
274	1176.0979	-74.7186	-448.6173	-1268.8855	94.0356	492.4262
275	1268.8855	-94.0356	-492.4262	-1290.2671	114.7544	536.3877
276	1290.2671	-114.7544	-536.3877	-1230.9661	136.8320	582.0855
277	1230.9661	-136.8320	-582.0855	-1236.6343	169.9794	640.7577
278	1236.6343	-169.9794	-640.7577	-941.3080	195.9294	695.1711
279	941.3080	-195.9294	-695.1711	-531.8796	223.1440	752.7393
280	531.8796	-223.1440	-752.7393	0.4463	238.1548	794.1290



PEDELTA, S.L.
INGENIERÍA CIVIL

Fecha:

Hoja:

Contrato modelo

IPF

Robot

Viento Axial 3210 -7 ↩

Apoyo 1 Axil -2481 -7

Equiv. 2 meses = [1 + (1 - 0,17)]

Impacto = 0,17

M_E = 2 · 1,17 · 3210 = 7511 m-7

M_{apoyo} = 2 · 1,17 · 2481 = -8196 -7

Emp. mult. 2 M_E = 7551 m-7 ✓ (envolv)

(en impacto) M_{apoyo} = -10486 -7 (envolv)

62 Robot $M_{g2,max}$ = 2230 -7 (V) EXP. 2457 m-7 ✓

$M_{g2,apoyo}$ = -5268 m-7 (V) -5271 m-7 ✓

3.2 CÁLCULO ESTRUCTURAL DEL TABLERO EN CONSTRUCCIÓN

3.2 CÁLCULO ESTRUCTURAL CON MODELO DE VIGA CONTINUA

3.2.1 DISCRETIZACIÓN Y CARACTERÍSTICAS MECÁNICAS

El modelo de cálculo de esfuerzos para las distintas fases de construcción es el mismo que el empleado para el cálculo general de esfuerzos, definido en el apartado 3.1. Para cada fase se activan las barras correspondientes a la parte de la estructura ya construida.

Se modela el tablero mediante un emparrillado plano constituido por un nervio longitudinal, coincidente con el eje de viga en planta, considerándose 3 grados de libertad por nudo (desplazamiento vertical, giro de flexión longitudinal de la barra y giro a torsión). El nervio longitudinal se ha dividido para cada uno de los vanos del tablero en 20 barras de igual longitud asignando las características mecánicas en cada uno de los extremos de la barra. Las propiedades mecánicas de la barra se obtienen como media de las características de sus secciones extremas. En la zona de estribos se ha simulado la riostra de apoyo mediante 2 barras transversales, una a cada lado del nervio longitudinal, con su extremo final coincidente con la posición real de los apoyos tipo POT. En las barras transversales de las riostras de apoyo se ha despreciado su rigidez a torsión. En los apoyos se han prescrito únicamente los movimientos verticales del nudo.

La numeración de nudos y barras es correlativa, tomando como origen el extremo izquierdo del nervio longitudinal, en último lugar se numeran las barras y nudos que permiten simular las riostras de apoyo en los dos estribos. La discretización adoptada aparece en las hojas y esquemas adjuntos.

En los listados aparece la siguiente información:

1. Datos generales.
2. Discretización: numeración de barras y nudos, coordenadas de los nudos condiciones de vinculación.
3. Cargas en los nudos para cada hipótesis de carga.
4. Reacciones para cada hipótesis de carga.
5. Esfuerzos en extremo de barra para cada hipótesis de carga.

3.1.2 CÁLCULO DE ESFUERZOS LONGITUDINALES

El cálculo de esfuerzos longitudinales con el modelo de análisis estructural expuesto se detalla a continuación.

La notación adoptada para cada una de las hipótesis de carga es la siguiente:

- $\mathbf{g_1}$ Peso propio de la estructura.
- $\mathbf{g_2}$ Carga permanente.
- **q** Sobrecarga uniforme de ferrocarril.
- **ΔT** Gradiente de temperatura.
- **Pii** Pretensado inicial de descimbrado (pretensado parcial con pérdidas iniciales).
- **Pi** Pretensado inicial (con pérdidas iniciales).
- $\mathbf{P_\infty}$ Pretensado final (con pérdidas iniciales y diferidas).

3.2.2 CÁLCULO DE ESFUERZOS

Viaducto sobre rio Averno FASE 1

No de fase de construccion = 1

No de fase de construccion = 1

CONDICIONES DE VINCULACION

Nudo	Codigo	RX	RZ	RY
282	0 1 0	0.000	0.000	0.000
283	0 1 0	0.000	0.000	0.000
284	0 1 0	0.000	0.000	0.000
285	0 1 0	0.000	0.000	0.000

HIPOTESIS 1 PESO PROPIO FASE 1

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	294.15439	0.00000
283	0.00000	294.80621	0.00000
284	0.00000	662.39471	0.00000
285	0.00000	662.87445	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	1914.230
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PESO PROPIO FASE 1

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.25	514.96	1.01	-1090.26	-454.39	-1.01
2	1090.29	454.38	1.02	-2044.50	-393.81	-1.02
3	2044.52	393.75	1.79	-2862.53	-333.17	-1.80
4	2862.55	333.28	0.05	-3544.45	-272.68	-0.09
5	3544.43	272.79	-0.55	-4089.87	-212.23	0.57
6	4089.93	212.17	1.03	-4499.20	-151.61	-1.02
7	4499.28	151.78	1.01	-4772.59	-91.21	-1.04
8	4772.56	91.27	-0.08	-4909.85	-30.68	0.10
9	4909.96	30.68	-0.82	-4910.87	29.87	0.82
10	4911.05	-29.90	1.08	-4775.64	90.46	-1.08
11	4775.75	-90.40	-1.81	-4504.12	150.97	1.79
12	4504.23	-151.05	0.88	-4096.37	211.62	-0.93
13	4096.38	-211.56	-1.63	-3552.15	272.13	1.64
14	3552.07	-272.32	-0.78	-2871.52	332.87	0.79
15	2871.52	-332.69	-1.45	-2054.54	393.26	1.46
16	2054.47	-393.33	-0.63	-1100.98	453.92	0.63
17	1100.95	-453.94	-0.84	-11.74	514.50	0.83
18	11.74	-514.52	-0.86	1214.18	575.09	0.86
19	-1214.16	-575.11	-0.37	2591.84	649.70	0.38
20	-2591.84	-649.65	-1.38	4137.68	724.26	1.38
21	-4137.08	515.01	-0.46	2741.55	-415.56	0.46
22	-2741.55	415.56	-0.01	1643.99	-316.09	0.01
23	-1643.99	316.10	-0.01	816.77	-235.34	0.01
24	-816.78	235.32	0.01	231.91	-154.56	0.00
25	-231.85	154.55	-0.02	0.02	0.02	0.03
26	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	0.00	0.00	0.00	0.00	0.00
32	0.00	0.00	0.00	0.00	0.00	0.00
33	0.00	0.00	0.00	0.00	0.00	0.00
34	0.00	0.00	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00	0.00	0.00
36	0.00	0.00	0.00	0.00	0.00	0.00
37	0.00	0.00	0.00	0.00	0.00	0.00
38	0.00	0.00	0.00	0.00	0.00	0.00
39	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00
41	0.00	0.00	0.00	0.00	0.00	0.00
42	0.00	0.00	0.00	0.00	0.00	0.00
43	0.00	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00	0.00
45	0.00	0.00	0.00	0.00	0.00	0.00

HIPOTESIS 1 PRETENSADO INICIAL

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	1.25568	0.00000
283	0.00000	0.14498	0.00000
284	0.00000	0.19805	0.00000
285	0.00000	-1.08375	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	0.515
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-1148.61	1.39	-1.98	3019.85	-1.39	2.00
2	-3019.95	1.48	-2.05	4721.98	-1.48	2.02
3	-4721.91	1.44	-3.78	6204.96	-1.44	3.80
4	-6204.88	1.37	-0.03	7467.62	-1.37	0.04
5	-7467.58	1.11	1.24	8509.55	-1.11	-1.22
6	-8509.28	1.05	-1.95	9333.12	-1.05	2.00
7	-9332.79	0.81	-1.98	9939.09	-0.81	2.07
8	-9938.87	0.72	0.33	10328.08	-0.72	-0.28
9	-10328.21	0.71	1.88	10498.31	-0.71	-1.89
10	-10498.46	0.88	-2.23	10409.07	-0.88	2.18
11	-10409.38	0.70	3.95	9985.94	-0.70	-4.07
12	-9985.94	0.83	-1.94	9214.74	-0.83	2.03
13	-9214.86	0.76	3.75	8079.35	-0.76	-3.67
14	-8079.31	1.00	1.92	6562.73	-1.00	-1.99
15	-6562.55	0.77	3.46	4647.18	-0.77	-3.43
16	-4646.99	0.86	1.55	2320.41	-0.86	-1.57
17	-2320.38	0.77	2.01	-420.00	-0.77	-2.02
18	420.22	0.85	1.89	-5662.79	-0.85	-1.91
19	5662.75	0.83	-0.32	-8631.96	-0.83	0.30
20	8632.03	0.87	3.02	-9839.05	-0.87	-3.02
21	9839.05	0.01	1.38	-8208.79	-0.01	-1.38
22	8208.79	0.01	0.04	-1592.14	-0.01	-0.04
23	1592.10	0.04	0.01	2412.83	-0.04	-0.01
24	-2412.89	0.00	-0.01	5792.57	0.00	-0.02
25	-5792.60	0.03	0.02	8544.32	-0.03	-0.02
26	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	0.00	0.00	0.00	0.00	0.00
32	0.00	0.00	0.00	0.00	0.00	0.00
33	0.00	0.00	0.00	0.00	0.00	0.00
34	0.00	0.00	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00	0.00	0.00
36	0.00	0.00	0.00	0.00	0.00	0.00
37	0.00	0.00	0.00	0.00	0.00	0.00
38	0.00	0.00	0.00	0.00	0.00	0.00
39	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00
41	0.00	0.00	0.00	0.00	0.00	0.00
42	0.00	0.00	0.00	0.00	0.00	0.00
43	0.00	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00	0.00
45	0.00	0.00	0.00	0.00	0.00	0.00

Viaducto sobre rio Averno FASE 2

No de fase de construccion = 2

CONDICIONES DE VINCULACION

Nudo	Codigo	RX	RZ	RY
282	0 1 0	0.000	0.000	0.000
283	0 1 0	0.000	0.000	0.000
284	0 1 0	0.000	0.000	0.000
285	0 1 0	0.000	0.000	0.000
286	0 1 0	0.000	0.000	0.000
287	0 1 0	0.000	0.000	0.000

HIPOTESIS 1 PESO PROPIO FASE 2

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	-51.79881	0.00000
283	0.00000	-52.04523	0.00000
284	0.00000	284.97656	0.00000
285	0.00000	284.21082	0.00000
286	0.00000	692.20935	0.00000
287	0.00000	692.52576	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	1850.078
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PESO PROPIO FASE 2

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.04	-103.84	-0.42	233.60	103.84	0.42
2	-233.61	-103.84	-0.41	467.25	103.84	0.42
3	-467.23	-103.86	-0.57	700.97	103.86	0.58
4	-700.92	-103.84	-0.16	934.68	103.84	0.17
5	-934.69	-103.85	-0.01	1168.32	103.85	0.01
6	-1168.31	-103.94	-0.44	1402.15	103.94	0.43
7	-1402.13	-104.00	-0.40	1636.13	104.00	0.41
8	-1636.05	-104.05	-0.07	1870.16	104.05	0.06
9	-1870.27	-104.04	0.18	2104.16	104.04	-0.25
10	-2104.27	-104.02	-0.62	2338.20	104.02	0.59
11	-2338.26	-104.10	0.79	2572.36	104.10	-0.82
12	-2572.47	-103.95	-0.79	2806.32	103.95	0.76
13	-2806.38	-103.95	0.98	3040.39	103.95	-0.97
14	-3040.32	-103.89	0.31	3274.17	103.89	-0.33
15	-3274.12	-103.96	1.06	3508.04	103.96	-1.05
16	-3507.96	-103.96	-0.33	3741.94	103.96	0.35
17	-3741.95	-103.94	0.30	3975.74	103.94	-0.30
18	-3975.73	-103.96	1.20	4209.69	103.96	-1.19
19	-4209.64	-104.00	2.82	4443.59	104.00	-2.81
20	-4443.54	-103.97	1.08	4677.49	103.97	-1.09
21	-4677.26	465.21	-0.47	3281.93	-465.21	0.47
22	-3281.96	465.25	0.07	1886.15	-465.25	-0.08
23	-1886.21	465.23	0.05	490.42	-465.23	-0.07
24	-490.51	465.21	0.04	-905.24	-465.21	-0.04
25	905.08	465.28	0.01	-2300.98	-465.28	-0.03
26	2300.90	465.25	0.03	-3575.54	-384.49	-0.02
27	3575.53	384.54	-0.99	-4607.87	-303.79	0.97
28	4607.73	303.76	0.35	-5397.94	-222.99	-0.40
29	5397.90	222.85	-1.28	-5945.35	-142.10	1.22
30	5945.49	142.11	0.54	-6250.67	-61.35	-0.52
31	6250.41	61.44	0.40	-6313.56	19.33	-0.45
32	6313.34	-19.47	-1.39	-6133.68	100.22	1.38
33	6133.79	-100.18	-1.35	-5712.18	180.93	1.40
34	5712.22	-180.98	0.38	-5048.06	261.74	-0.36
35	5048.12	-261.75	-1.95	-4141.60	342.52	1.98
36	4141.61	-342.59	0.04	-2992.74	423.35	-0.03
37	2992.76	-423.21	-0.91	-1602.14	503.97	0.84
38	1602.02	-504.03	-0.43	31.32	584.79	0.45
39	-31.40	-584.76	-0.42	1934.70	684.22	0.42
40	-1934.75	-684.24	-0.98	4136.81	783.71	0.98
41	-4136.87	515.00	-0.39	2740.96	-415.53	0.40
42	-2740.95	415.51	0.41	1643.72	-316.05	-0.41
43	-1643.71	316.06	-0.09	816.59	-235.30	0.07
44	-816.59	235.27	-0.09	231.86	-154.51	0.07
45	-231.83	154.55	-0.02	-0.02	-0.01	-0.02

HIPOTESIS 1 PRETENSADO INICIAL

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	64.58247	0.00000
283	0.00000	64.90117	0.00000
284	0.00000	-113.89597	0.00000
285	0.00000	-112.96233	0.00000
286	0.00000	49.00711	0.00000
287	0.00000	47.96734	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	-0.400
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.06	129.48	0.53	-291.28	-129.48	-0.54
2	291.30	129.47	0.54	-582.65	-129.47	-0.55
3	582.62	129.49	0.75	-874.00	-129.49	-0.77
4	873.99	129.46	0.21	-1165.43	-129.46	-0.22
5	1165.46	129.52	0.02	-1456.80	-129.52	-0.01
6	1456.85	129.55	0.57	-1748.34	-129.55	-0.56
7	1748.35	129.62	0.57	-2039.97	-129.62	-0.58
8	2040.05	129.66	0.09	-2331.97	-129.66	-0.11
9	2331.90	129.69	-0.27	-2623.83	-129.69	0.25
10	2623.83	129.66	0.72	-2915.43	-129.66	-0.74
11	2915.53	129.71	-1.07	-3207.50	-129.71	1.06
12	3207.50	129.75	0.95	-3499.31	-129.75	-0.93
13	3499.35	129.74	-1.20	-3791.09	-129.74	1.24
14	3791.07	129.64	-0.34	-4082.53	-129.64	0.35
15	4082.54	129.52	-1.29	-4374.10	-129.52	1.26
16	4374.20	129.65	0.44	-4665.85	-129.65	-0.41
17	4665.83	129.61	-0.36	-4957.41	-129.61	0.39
18	4957.42	129.59	-1.45	-5249.02	-129.59	1.43
19	5249.07	129.62	-3.45	-5540.67	-129.62	3.49
20	5540.68	129.66	-1.33	-5832.41	-129.66	1.33
21	5832.33	-97.23	0.69	-5540.72	97.23	-0.69
22	5540.71	-97.21	-0.23	-5249.08	97.21	0.24
23	5249.10	-97.25	-0.22	-4957.37	97.25	0.19
24	4957.49	-97.23	-0.18	-4665.76	97.23	0.18
25	4665.79	-97.18	-0.22	-4374.23	97.18	0.21
26	-3795.34	-97.21	-0.27	6316.24	97.21	0.23
27	-6316.25	-97.40	1.65	8349.77	97.40	-1.70
28	-8349.68	-97.25	-0.89	9910.01	97.25	0.76
29	-9909.96	-97.22	2.21	11008.98	97.22	-2.17
30	-11008.71	-97.19	-1.15	11651.61	97.19	1.09
31	-11651.38	-97.00	-1.11	11831.82	97.00	1.17
32	-11831.89	-97.00	2.53	11534.02	97.00	-2.46
33	-11533.89	-97.09	2.46	10726.87	97.09	-2.52
34	-10726.89	-97.07	-0.75	9371.73	97.07	0.77
35	-9371.74	-96.99	3.42	7427.31	96.99	-3.43
36	-7427.35	-97.09	-0.04	4855.55	97.09	0.06
37	-4855.48	-96.98	1.42	1639.01	96.98	-1.36
38	-1639.01	-97.03	0.92	-4512.32	97.03	-0.93
39	4512.44	-97.02	-0.34	-8830.89	97.02	0.34
40	8830.92	-96.96	2.18	-10689.96	96.96	-2.17
41	10689.93	0.00	0.29	-8918.76	0.00	-0.28
42	8918.75	0.00	-2.32	-1730.50	0.00	2.29
43	1730.45	0.02	-1.83	2623.99	-0.02	1.81
44	-2623.90	0.00	-1.73	6296.00	0.00	1.77
45	-6295.96	-0.02	-0.01	9280.73	0.02	0.00

Viaducto 1 sobre rio Averno FASE 3

No de fase de construccion = 3

CONDICIONES DE VINCULACION

Nudo	Codigo	RX	RZ	RY
282	0 1 0	0.000	0.000	0.000
283	0 1 0	0.000	0.000	0.000
284	0 1 0	0.000	0.000	0.000
285	0 1 0	0.000	0.000	0.000
286	0 1 0	0.000	0.000	0.000
287	0 1 0	0.000	0.000	0.000
288	0 1 0	0.000	0.000	0.000
289	0 1 0	0.000	0.000	0.000

HIPOTESIS 1 PESO PROPIO FASE 3

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	14.66830	0.00000
283	0.00000	14.74214	0.00000
284	0.00000	-62.89860	0.00000
285	0.00000	-62.63822	0.00000
286	0.00000	278.91699	0.00000
287	0.00000	278.24371	0.00000
288	0.00000	694.31830	0.00000
289	0.00000	694.23157	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	1849.584
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PESO PROPIO FASE 3

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-0.01	29.41	0.13	-66.16	-29.41	-0.13
2	66.17	29.41	0.13	-132.33	-29.41	-0.13
3	132.33	29.41	0.17	-198.52	-29.41	-0.17
4	198.51	29.41	0.05	-264.71	-29.41	-0.06
5	264.71	29.43	0.00	-330.90	-29.43	-0.01
6	330.88	29.44	0.13	-397.12	-29.44	-0.13
7	397.10	29.45	0.12	-463.38	-29.45	-0.13
8	463.37	29.45	0.04	-529.67	-29.45	-0.03
9	529.67	29.48	-0.05	-595.96	-29.48	0.05
10	595.94	29.47	0.18	-662.22	-29.47	-0.18
11	662.22	29.49	-0.23	-728.55	-29.49	0.24
12	728.53	29.45	0.21	-794.84	-29.45	-0.22
13	794.80	29.46	-0.28	-861.11	-29.46	0.27
14	861.09	29.43	-0.07	-927.29	-29.43	0.08
15	927.30	29.42	-0.28	-993.53	-29.42	0.28
16	993.52	29.44	0.10	-1059.78	-29.44	-0.09
17	1059.77	29.45	-0.08	-1126.03	-29.45	0.09
18	1126.01	29.44	-0.33	-1192.26	-29.44	0.33
19	1192.26	29.44	-0.78	-1258.49	-29.44	0.79
20	1258.50	29.44	-0.30	-1324.75	-29.44	0.30
21	1324.70	-96.10	0.23	-1036.49	96.10	-0.23
22	1036.49	-96.09	0.06	-748.21	96.09	-0.06
23	748.21	-96.09	0.06	-459.92	96.09	-0.07
24	459.91	-96.09	0.06	-171.64	96.09	-0.06
25	171.67	-96.10	0.06	116.64	96.10	-0.07
26	-116.65	-96.10	0.06	404.91	96.10	-0.06
27	-404.96	-96.10	0.17	693.21	96.10	-0.19
28	-693.22	-96.10	-0.01	981.53	96.10	0.01
29	-981.50	-96.09	0.27	1269.71	96.09	-0.25
30	-1269.71	-96.09	-0.10	1557.96	96.09	0.13
31	-1557.91	-96.05	-0.09	1846.10	96.05	0.10
32	-1846.04	-96.05	0.47	2134.20	96.05	-0.46
33	-2134.18	-96.08	0.45	2422.34	96.08	-0.46
34	-2422.37	-96.06	-0.26	2710.47	96.06	0.29
35	-2710.56	-96.02	0.94	2998.70	96.02	-0.94
36	-2998.68	-96.07	-0.42	3286.91	96.07	0.41
37	-3286.89	-96.02	0.50	3574.93	96.02	-0.51
38	-3574.92	-96.07	-0.52	3863.12	96.07	0.50
39	-3863.07	-96.03	0.60	4151.16	96.03	-0.60
40	-4151.16	-96.03	-0.61	4439.29	96.03	0.61
41	-4439.29	461.13	-1.82	3055.84	-461.13	1.82
42	-3055.90	461.14	-0.95	1672.54	-461.14	0.92
43	-1672.59	461.14	-1.43	289.06	-461.14	1.43
44	-289.06	461.12	-1.39	-1094.42	-461.12	1.41
45	1094.32	461.12	-1.81	-2477.62	-461.12	1.77

HIPOTESIS 1 PESO PROPIO FASE 3

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
46	2477.53	461.10	-1.05	-3739.75	-380.34	1.05
47	3739.77	380.32	-1.08	-4759.61	-299.56	1.01
48	4759.69	299.53	-0.28	-5536.98	-218.79	0.31
49	5536.90	218.85	-1.25	-6072.46	-138.09	1.25
50	6072.53	138.20	-1.16	-6366.04	-57.43	1.14
51	6366.13	57.37	0.71	-6417.05	23.40	-0.60
52	6416.93	-23.26	-0.33	-6226.01	104.00	0.25
53	6226.01	-104.16	0.55	-5792.30	184.94	-0.43
54	5792.17	-184.83	-0.19	-5116.39	265.57	0.16
55	5116.26	-265.53	1.25	-4198.49	346.29	-1.32
56	4198.28	-346.34	0.54	-3037.96	427.12	-0.62
57	3037.92	-427.14	1.16	-1635.40	507.89	-1.17
58	1635.44	-507.84	1.16	9.08	588.59	-1.16
59	-8.99	-588.59	1.17	1923.86	688.05	-1.15
60	-1923.76	-688.06	0.60	4137.44	787.54	-0.60
61	-4137.02	515.01	1.03	2741.27	-415.55	-1.02
62	-2741.28	415.56	0.26	1643.72	-316.09	-0.23
63	-1643.74	316.09	-0.04	816.74	-235.34	0.02
64	-816.77	235.36	0.09	231.80	-154.59	-0.09
65	-231.82	154.56	-0.01	0.02	0.00	0.04
66	0.00	0.00	0.00	0.00	0.00	0.00
67	0.00	0.00	0.00	0.00	0.00	0.00
68	0.00	0.00	0.00	0.00	0.00	0.00
69	0.00	0.00	0.00	0.00	0.00	0.00
70	0.00	0.00	0.00	0.00	0.00	0.00
71	0.00	0.00	0.00	0.00	0.00	0.00
72	0.00	0.00	0.00	0.00	0.00	0.00
73	0.00	0.00	0.00	0.00	0.00	0.00
74	0.00	0.00	0.00	0.00	0.00	0.00
75	0.00	0.00	0.00	0.00	0.00	0.00
76	0.00	0.00	0.00	0.00	0.00	0.00
77	0.00	0.00	0.00	0.00	0.00	0.00
78	0.00	0.00	0.00	0.00	0.00	0.00
79	0.00	0.00	0.00	0.00	0.00	0.00
80	0.00	0.00	0.00	0.00	0.00	0.00
81	0.00	0.00	0.00	0.00	0.00	0.00
82	0.00	0.00	0.00	0.00	0.00	0.00
83	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0.00	0.00
85	0.00	0.00	0.00	0.00	0.00	0.00
86	0.00	0.00	0.00	0.00	0.00	0.00
87	0.00	0.00	0.00	0.00	0.00	0.00
88	0.00	0.00	0.00	0.00	0.00	0.00
89	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00

HIPOTESIS 1 PRETENSADO INICIAL

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	-18.31683	0.00000
283	0.00000	-18.40931	0.00000
284	0.00000	78.47165	0.00000
285	0.00000	78.14268	0.00000
286	0.00000	-106.28496	0.00000
287	0.00000	-105.51752	0.00000
288	0.00000	45.54657	0.00000
289	0.00000	46.72477	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	0.357
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.02	-36.73	-0.16	82.62	36.73	0.16
2	-82.61	-36.73	-0.15	165.25	36.73	0.16
3	-165.25	-36.73	-0.22	247.91	36.73	0.22
4	-247.90	-36.73	-0.07	330.56	36.73	0.06
5	-330.57	-36.73	-0.01	413.22	36.73	0.01
6	-413.21	-36.75	-0.17	495.88	36.75	0.17
7	-495.90	-36.79	-0.17	578.64	36.79	0.17
8	-578.64	-36.79	-0.03	661.43	36.79	0.02
9	-661.43	-36.80	0.07	744.19	36.80	-0.07
10	-744.21	-36.78	-0.21	826.93	36.78	0.21
11	-826.97	-36.79	0.29	909.75	36.79	-0.29
12	-909.80	-36.77	-0.27	992.52	36.77	0.28
13	-992.53	-36.77	0.34	1075.29	36.77	-0.33
14	-1075.26	-36.77	0.10	1157.99	36.77	-0.09
15	-1157.97	-36.76	0.35	1240.67	36.76	-0.35
16	-1240.66	-36.76	-0.12	1323.41	36.76	0.12
17	-1323.41	-36.77	0.10	1406.11	36.77	-0.10
18	-1406.10	-36.77	0.41	1488.82	36.77	-0.41
19	-1488.83	-36.78	0.98	1571.56	36.78	-0.98
20	-1571.54	-36.78	0.37	1654.29	36.78	-0.38
21	-1654.22	119.85	-0.30	1294.76	-119.85	0.30
22	-1294.76	119.84	-0.08	935.22	-119.84	0.09
23	-935.21	119.85	-0.09	575.66	-119.85	0.10
24	-575.66	119.84	-0.09	216.14	-119.84	0.09
25	-216.14	119.84	-0.09	-143.45	-119.84	0.09
26	143.41	119.83	-0.08	-502.95	-119.83	0.11
27	503.00	119.82	-0.24	-862.51	-119.82	0.24
28	862.53	119.82	0.01	-1222.09	-119.82	-0.04
29	1222.09	119.85	-0.33	-1581.58	-119.85	0.33
30	1581.58	119.80	0.14	-1941.03	-119.80	-0.16
31	1940.97	119.77	0.12	-2300.39	-119.77	-0.14
32	2300.31	119.81	-0.58	-2659.73	-119.81	0.58
33	2659.71	119.78	-0.59	-3019.05	-119.78	0.60
34	3019.10	119.75	0.35	-3378.48	-119.75	-0.35
35	3378.56	119.75	-1.16	-3737.85	-119.75	1.16
36	3737.90	119.78	0.54	-4097.32	-119.78	-0.56
37	4097.34	119.77	-0.65	-4456.64	-119.77	0.65
38	4456.58	119.79	0.63	-4815.95	-119.79	-0.63
39	4815.94	119.81	-0.77	-5175.30	-119.81	0.75
40	5175.25	119.78	0.75	-5534.61	-119.78	-0.75
41	5534.59	-92.04	2.16	-5258.48	92.04	-2.16
42	5258.51	-92.08	0.64	-4982.34	92.08	-0.63
43	4982.38	-92.02	2.08	-4706.24	92.02	-2.07
44	4706.20	-92.10	2.04	-4430.07	92.10	-2.06
45	4430.01	-92.01	0.84	-4154.01	92.01	-0.84

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
46	-4015.44	-91.89	2.03	6520.58	91.89	-2.04
47	-6520.74	-91.87	1.89	8538.14	91.87	-2.01
48	-8538.26	-91.99	0.65	10082.47	91.99	-0.65
49	-10082.55	-91.92	2.37	11165.99	91.92	-2.39
50	-11166.25	-92.32	2.45	11794.35	92.32	-2.44
51	-11794.09	-92.43	-1.09	11960.47	92.43	1.04
52	-11960.12	-92.26	0.41	11648.22	92.26	-0.46
53	-11648.05	-92.00	-1.05	10825.56	92.00	1.04
54	-10825.55	-92.02	0.29	9455.66	92.02	-0.33
55	-9455.82	-92.14	-2.32	7497.22	92.14	2.37
56	-7497.29	-92.25	-1.13	4910.62	92.25	1.11
57	-4910.74	-92.24	-1.96	1679.69	92.24	1.97
58	-1679.75	-92.20	-2.03	-4485.01	92.20	2.00
59	4484.96	-92.33	-1.97	-8817.61	92.33	1.95
60	8817.59	-92.31	0.58	-10690.74	92.31	-0.59
61	10690.71	-0.01	-0.40	-8919.77	0.01	0.39
62	8919.76	-0.03	2.17	-1729.83	0.03	-2.15
63	1729.91	-0.03	2.48	2623.57	0.03	-2.46
64	-2623.74	0.12	2.86	6295.65	-0.12	-2.86
65	-6295.86	0.06	-0.04	9280.58	-0.06	0.05
66	0.00	0.00	0.00	0.00	0.00	0.00
67	0.00	0.00	0.00	0.00	0.00	0.00
68	0.00	0.00	0.00	0.00	0.00	0.00
69	0.00	0.00	0.00	0.00	0.00	0.00
70	0.00	0.00	0.00	0.00	0.00	0.00
71	0.00	0.00	0.00	0.00	0.00	0.00
72	0.00	0.00	0.00	0.00	0.00	0.00
73	0.00	0.00	0.00	0.00	0.00	0.00
74	0.00	0.00	0.00	0.00	0.00	0.00
75	0.00	0.00	0.00	0.00	0.00	0.00
76	0.00	0.00	0.00	0.00	0.00	0.00
77	0.00	0.00	0.00	0.00	0.00	0.00
78	0.00	0.00	0.00	0.00	0.00	0.00
79	0.00	0.00	0.00	0.00	0.00	0.00
80	0.00	0.00	0.00	0.00	0.00	0.00
81	0.00	0.00	0.00	0.00	0.00	0.00
82	0.00	0.00	0.00	0.00	0.00	0.00
83	0.00	0.00	0.00	0.00	0.00	0.00
84	0.00	0.00	0.00	0.00	0.00	0.00
85	0.00	0.00	0.00	0.00	0.00	0.00
86	0.00	0.00	0.00	0.00	0.00	0.00
87	0.00	0.00	0.00	0.00	0.00	0.00
88	0.00	0.00	0.00	0.00	0.00	0.00
89	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00

Viaducto 1 sobre rio Averno FASE 4

No de fase de construccion = 4

CONDICIONES DE VINCULACION

Nudo	Codigo	RX	RZ	RY
282	0 1 0	0.000	0.000	0.000
283	0 1 0	0.000	0.000	0.000
284	0 1 0	0.000	0.000	0.000
285	0 1 0	0.000	0.000	0.000
286	0 1 0	0.000	0.000	0.000
287	0 1 0	0.000	0.000	0.000
288	0 1 0	0.000	0.000	0.000
289	0 1 0	0.000	0.000	0.000
290	0 1 0	0.000	0.000	0.000
291	0 1 0	0.000	0.000	0.000

HIPOTESIS 1 PESO PROPIO FASE 4

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	-4.13949	0.00000
283	0.00000	-4.16055	0.00000
284	0.00000	17.74698	0.00000
285	0.00000	17.67029	0.00000
286	0.00000	-60.88107	0.00000
287	0.00000	-60.75378	0.00000
288	0.00000	278.03778	0.00000
289	0.00000	277.43259	0.00000
290	0.00000	694.73529	0.00000
291	0.00000	694.17950	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	1849.867
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PESO PROPIO FASE 4

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.00	-8.30	-0.04	18.67	8.30	0.04
2	-18.67	-8.30	-0.04	37.35	8.30	0.04
3	-37.35	-8.30	-0.05	56.02	8.30	0.05
4	-56.02	-8.30	-0.02	74.71	8.30	0.01
5	-74.71	-8.31	0.00	93.39	8.31	0.00
6	-93.38	-8.31	-0.04	112.07	8.31	0.03
7	-112.07	-8.31	-0.04	130.77	8.31	0.04
8	-130.77	-8.31	-0.01	149.48	8.31	0.01
9	-149.48	-8.31	0.01	168.18	8.31	-0.02
10	-168.19	-8.31	-0.05	186.89	8.31	0.05
11	-186.89	-8.32	0.06	205.60	8.32	-0.07
12	-205.61	-8.31	-0.06	224.31	8.31	0.06
13	-224.31	-8.31	0.08	243.02	8.31	-0.08
14	-243.01	-8.31	0.02	261.69	8.31	-0.02
15	-261.70	-8.31	0.08	280.39	8.31	-0.08
16	-280.39	-8.31	-0.03	299.09	8.31	0.03
17	-299.09	-8.30	0.02	317.77	8.30	-0.02
18	-317.78	-8.31	0.09	336.47	8.31	-0.09
19	-336.47	-8.31	0.22	355.17	8.31	-0.22
20	-355.17	-8.31	0.08	373.87	8.31	-0.08
21	-373.85	27.11	-0.07	292.55	-27.11	0.07
22	-292.55	27.11	-0.02	211.22	-27.11	0.02
23	-211.22	27.11	-0.02	129.89	-27.11	0.02
24	-129.89	27.10	-0.02	48.58	-27.10	0.02
25	-48.58	27.11	-0.02	-32.76	-27.11	0.02
26	32.75	27.11	-0.03	-114.08	-27.11	0.03
27	114.09	27.11	-0.06	-195.40	-27.11	0.05
28	195.41	27.11	0.00	-276.74	-27.11	0.00
29	276.74	27.10	-0.08	-358.04	-27.10	0.08
30	358.03	27.11	0.03	-439.36	-27.11	-0.03
31	439.35	27.09	0.03	-520.62	-27.09	-0.03
32	520.64	27.10	-0.13	-601.90	-27.10	0.14
33	601.89	27.12	-0.14	-683.21	-27.12	0.14
34	683.20	27.10	0.07	-764.48	-27.10	-0.08
35	764.50	27.09	-0.27	-845.77	-27.09	0.27
36	845.78	27.10	0.12	-927.08	-27.10	-0.12
37	927.07	27.10	-0.16	-1008.36	-27.10	0.16
38	1008.36	27.09	0.14	-1089.63	-27.09	-0.15
39	1089.62	27.10	-0.18	-1170.91	-27.10	0.18
40	1170.90	27.09	0.17	-1252.17	-27.09	-0.16
41	1252.18	-94.55	0.40	-968.53	94.55	-0.40
42	968.53	-94.54	0.12	-684.92	94.54	-0.12
43	684.92	-94.55	0.32	-401.27	94.55	-0.32
44	401.25	-94.55	0.32	-117.61	94.55	-0.32
45	117.60	-94.54	0.28	165.96	94.54	-0.28

HIPOTESIS 1 PESO PROPIO FASE 4

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
46	-165.96	-94.54	0.23	449.60	94.54	-0.24
47	-449.61	-94.54	0.23	733.21	94.54	-0.25
48	-733.18	-94.53	0.15	1016.70	94.53	-0.15
49	-1016.68	-94.59	0.35	1300.45	94.59	-0.33
50	-1300.47	-94.53	0.26	1584.10	94.53	-0.28
51	-1584.17	-94.61	-0.15	1868.01	94.61	0.14
52	-1868.01	-94.54	0.05	2151.54	94.54	-0.05
53	-2151.62	-94.53	-0.18	2435.32	94.53	0.19
54	-2435.28	-94.56	0.14	2718.94	94.56	-0.15
55	-2718.92	-94.56	-0.66	3002.60	94.56	0.69
56	-3002.58	-94.60	-0.15	3286.39	94.60	0.15
57	-3286.42	-94.57	-0.69	3570.16	94.57	0.70
58	-3570.16	-94.61	-0.73	3853.98	94.61	0.72
59	-3854.01	-94.64	-0.74	4137.89	94.64	0.73
60	-4137.90	-94.60	-1.92	4421.74	94.60	1.92
61	-4421.63	460.86	-1.98	3039.16	-460.86	1.97
62	-3039.19	460.87	-2.85	1656.41	-460.87	2.87
63	-1656.46	460.86	-3.14	274.08	-460.86	3.11
64	-274.15	460.91	-3.10	-1108.65	-460.91	3.08
65	1108.63	460.87	-2.62	-2491.19	-460.87	2.62
66	2491.28	460.91	-3.72	-3753.03	-380.14	3.72
67	3752.91	380.16	-2.05	-4772.42	-299.40	2.06
68	4772.51	299.33	-2.03	-5549.46	-218.57	1.98
69	5549.70	218.58	-1.94	-6084.22	-137.82	1.99
70	6084.48	137.74	-1.88	-6376.49	-56.99	1.87
71	6376.66	57.07	-0.09	-6426.77	23.71	0.10
72	6426.64	-23.74	0.94	-6234.45	104.49	-1.05
73	6234.41	-104.51	-0.08	-5799.85	185.28	-0.03
74	5799.86	-185.16	0.83	-5123.16	265.91	-0.90
75	5123.27	-266.00	2.37	-4204.20	346.76	-2.36
76	4204.13	-346.59	2.32	-3043.13	427.35	-2.29
77	3043.15	-427.41	2.46	-1639.70	508.17	-2.40
78	1639.71	-508.18	2.43	6.01	588.94	-2.47
79	-6.04	-588.93	2.41	1921.87	688.38	-2.43
80	-1921.88	-688.45	2.76	4136.86	787.93	-2.74
81	-4136.47	514.99	0.45	2740.80	-415.54	-0.46
82	-2740.78	415.54	0.49	1643.44	-316.08	-0.48
83	-1643.51	316.04	-0.01	816.47	-235.28	-0.01
84	-816.46	235.26	-0.02	231.76	-154.50	-0.04
85	-231.73	154.49	0.01	0.05	0.03	0.03
86	0.00	0.00	0.00	0.00	0.00	0.00
87	0.00	0.00	0.00	0.00	0.00	0.00
88	0.00	0.00	0.00	0.00	0.00	0.00
89	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00

HIPOTESIS 1 PRETENSADO INICIAL

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	5.16951	0.00000
283	0.00000	5.19593	0.00000
284	0.00000	-22.16413	0.00000
285	0.00000	-22.06644	0.00000
286	0.00000	75.93695	0.00000
287	0.00000	75.81654	0.00000
288	0.00000	-105.79005	0.00000
289	0.00000	-103.94852	0.00000
290	0.00000	44.90802	0.00000
291	0.00000	46.85428	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	-0.088
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.00	10.37	0.05	-23.32	-10.37	-0.05
2	23.32	10.36	0.05	-46.64	-10.36	-0.05
3	46.64	10.36	0.06	-69.96	-10.36	-0.06
4	69.96	10.37	0.02	-93.30	-10.37	-0.02
5	93.30	10.37	0.01	-116.62	-10.37	0.00
6	116.62	10.37	0.05	-139.96	-10.37	-0.05
7	139.96	10.37	0.05	-163.31	-10.37	-0.05
8	163.31	10.39	0.01	-186.68	-10.39	-0.01
9	186.68	10.39	-0.02	-210.04	-10.39	0.02
10	210.04	10.38	0.06	-233.40	-10.38	-0.06
11	233.40	10.39	-0.08	-256.77	-10.39	0.08
12	256.77	10.38	0.07	-280.13	-10.38	-0.08
13	280.13	10.38	-0.09	-303.48	-10.38	0.10
14	303.48	10.37	-0.03	-326.82	-10.37	0.03
15	326.82	10.37	-0.10	-350.16	-10.37	0.10
16	350.16	10.38	0.04	-373.52	-10.38	-0.04
17	373.51	10.38	-0.03	-396.86	-10.38	0.03
18	396.85	10.38	-0.12	-420.20	-10.38	0.12
19	420.20	10.38	-0.28	-443.55	-10.38	0.28
20	443.55	10.38	-0.11	-466.90	-10.38	0.11
21	466.88	-33.85	0.09	-365.34	33.85	-0.09
22	365.35	-33.86	0.03	-263.78	33.86	-0.03
23	263.78	-33.85	0.03	-162.22	33.85	-0.03
24	162.22	-33.85	0.03	-60.66	33.85	-0.04
25	60.66	-33.85	0.04	40.90	33.85	-0.03
26	-40.91	-33.85	0.03	142.46	33.85	-0.04
27	-142.47	-33.86	0.08	244.04	33.86	-0.08
28	-244.05	-33.85	0.00	345.60	33.85	0.00
29	-345.60	-33.85	0.11	447.13	33.85	-0.10
30	-447.13	-33.85	-0.03	548.68	33.85	0.02
31	-548.67	-33.83	-0.03	650.17	33.83	0.03
32	-650.19	-33.83	0.17	751.67	33.83	-0.15
33	-751.68	-33.85	0.18	853.21	33.85	-0.19
34	-853.22	-33.83	-0.09	954.72	33.83	0.09
35	-954.73	-33.84	0.35	1056.24	33.84	-0.35
36	-1056.26	-33.83	-0.15	1157.77	33.83	0.15
37	-1157.77	-33.84	0.18	1259.27	33.84	-0.19
38	-1259.26	-33.84	-0.16	1360.78	33.84	0.17
39	-1360.76	-33.84	0.22	1462.27	33.84	-0.22
40	-1462.27	-33.83	-0.20	1563.76	33.83	0.20
41	-1563.77	117.92	-0.43	1209.98	-117.92	0.43
42	-1209.98	117.92	-0.08	856.26	-117.92	0.07
43	-856.24	117.92	-0.33	502.46	-117.92	0.33
44	-502.43	117.92	-0.32	148.66	-117.92	0.32
45	-148.67	117.93	-0.29	-205.08	-117.93	0.30

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
46	205.04	117.91	-0.24	-558.80	-117.91	0.24
47	558.80	117.89	-0.21	-912.49	-117.89	0.23
48	912.52	117.91	-0.11	-1266.14	-117.91	0.11
49	1266.12	117.93	-0.29	-1619.94	-117.93	0.32
50	1620.06	117.91	-0.26	-1973.85	-117.91	0.24
51	1973.86	117.98	0.27	-2327.87	-117.98	-0.28
52	2327.86	117.93	-0.04	-2681.65	-117.93	0.02
53	2681.73	117.90	0.35	-3035.45	-117.90	-0.30
54	3035.46	117.95	-0.11	-3389.30	-117.95	0.07
55	3389.18	117.98	0.87	-3743.09	-117.98	-0.87
56	3743.01	117.98	0.25	-4097.03	-117.98	-0.29
57	4097.06	118.00	0.95	-4451.00	-118.00	-0.96
58	4451.00	118.03	0.98	-4804.97	-118.03	-0.96
59	4805.03	118.02	1.01	-5159.04	-118.02	-0.99
60	5159.09	118.01	2.47	-5513.12	-118.01	-2.47
61	5513.10	-91.73	4.28	-5237.93	91.73	-4.28
62	5237.91	-91.73	5.79	-4962.71	91.73	-5.78
63	4962.71	-91.74	6.61	-4687.52	91.74	-6.61
64	4687.57	-91.76	5.87	-4412.24	91.76	-5.84
65	4412.21	-91.69	7.83	-4137.18	91.69	-7.85
66	-4032.54	-91.80	5.95	6537.27	91.80	-5.98
67	-6537.18	-92.04	3.15	8554.93	92.04	-3.01
68	-8554.60	-92.05	2.99	10099.26	92.05	-3.00
69	-10099.11	-91.77	2.89	11181.61	91.77	-2.99
70	-11181.54	-91.87	2.87	11808.25	91.87	-2.97
71	-11808.15	-91.73	-0.50	11973.17	91.73	0.48
72	-11972.85	-91.75	-2.62	11659.18	91.75	2.59
73	-11659.00	-91.80	-0.58	10835.89	91.80	0.58
74	-10835.78	-91.61	-2.41	9464.83	91.61	2.42
75	-9465.06	-91.82	-5.11	7505.05	91.82	5.11
76	-7505.30	-91.77	-5.13	4917.87	91.77	5.10
77	-4918.08	-91.89	-5.15	1685.83	91.89	5.00
78	-1685.82	-91.82	-5.19	-4480.83	91.82	5.22
79	4480.80	-91.84	-3.15	-8814.84	91.84	3.11
80	8814.84	-91.81	-4.62	-10689.60	91.81	4.61
81	10689.59	-0.04	0.65	-8918.58	0.04	-0.64
82	8918.60	-0.01	0.61	-1730.11	0.01	-0.60
83	1730.18	-0.01	1.13	2624.32	0.01	-1.12
84	-2624.30	0.02	1.13	6296.33	-0.02	-1.10
85	-6296.34	-0.04	0.03	9280.69	0.04	-0.03
86	0.00	0.00	0.00	0.00	0.00	0.00
87	0.00	0.00	0.00	0.00	0.00	0.00
88	0.00	0.00	0.00	0.00	0.00	0.00
89	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00

Viaducto 1 sobre rio Averno FASE 5

No de fase de construccion = 5

No de fase de construccion = 5

CONDICIONES DE VINCULACION

Nudo	Codigo	RX	RZ	RY
282	0 1 0	0.000	0.000	0.000
283	0 1 0	0.000	0.000	0.000
284	0 1 0	0.000	0.000	0.000
285	0 1 0	0.000	0.000	0.000
286	0 1 0	0.000	0.000	0.000
287	0 1 0	0.000	0.000	0.000
288	0 1 0	0.000	0.000	0.000
289	0 1 0	0.000	0.000	0.000
290	0 1 0	0.000	0.000	0.000
291	0 1 0	0.000	0.000	0.000
292	0 1 0	0.000	0.000	0.000
293	0 1 0	0.000	0.000	0.000

HIPOTESIS 1 PESO PROPIO FASE 5

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	1.16788	0.00000
283	0.00000	1.17382	0.00000
284	0.00000	-5.00699	0.00000
285	0.00000	-4.98532	0.00000
286	0.00000	17.17056	0.00000
287	0.00000	17.13538	0.00000
288	0.00000	-60.66693	0.00000
289	0.00000	-60.45610	0.00000
290	0.00000	277.96793	0.00000
291	0.00000	277.35614	0.00000
292	0.00000	695.20258	0.00000
293	0.00000	693.69690	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores.	=	0.000
Suma Reacciones Vertic.	=	1849.756
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PESO PROPIO FASE 5

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.00	2.34	0.01	-5.27	-2.34	-0.01
2	5.27	2.34	0.01	-10.54	-2.34	-0.01
3	10.54	2.34	0.01	-15.81	-2.34	-0.01
4	15.81	2.34	0.00	-21.08	-2.34	0.00
5	21.08	2.34	0.00	-26.35	-2.34	0.00
6	26.35	2.34	0.01	-31.62	-2.34	-0.01
7	31.62	2.34	0.01	-36.89	-2.34	-0.01
8	36.90	2.34	0.00	-42.17	-2.34	0.00
9	42.17	2.35	0.00	-47.45	-2.35	0.00
10	47.45	2.35	0.01	-52.73	-2.35	-0.01
11	52.73	2.35	-0.02	-58.01	-2.35	0.02
12	58.01	2.35	0.02	-63.29	-2.35	-0.02
13	63.29	2.35	-0.02	-68.56	-2.35	0.02
14	68.56	2.34	-0.01	-73.83	-2.34	0.01
15	73.83	2.34	-0.02	-79.11	-2.34	0.02
16	79.11	2.34	0.01	-84.38	-2.34	-0.01
17	84.38	2.34	-0.01	-89.66	-2.34	0.01
18	89.65	2.34	-0.03	-94.93	-2.34	0.03
19	94.93	2.34	-0.06	-100.20	-2.34	0.06
20	100.20	2.34	-0.02	-105.48	-2.34	0.02
21	105.48	-7.65	0.02	-82.54	7.65	-0.02
22	82.54	-7.65	0.01	-59.59	7.65	-0.01
23	59.59	-7.65	0.01	-36.65	7.65	-0.01
24	36.65	-7.65	0.01	-13.71	7.65	-0.01
25	13.70	-7.65	0.01	9.24	7.65	-0.01
26	-9.24	-7.65	0.01	32.19	7.65	-0.01
27	-32.19	-7.65	0.01	55.13	7.65	-0.01
28	-55.13	-7.65	0.00	78.08	7.65	0.00
29	-78.07	-7.64	0.02	101.01	7.64	-0.02
30	-101.01	-7.65	-0.01	123.95	7.65	0.01
31	-123.95	-7.64	0.00	146.89	7.64	0.01
32	-146.89	-7.64	0.04	169.82	7.64	-0.04
33	-169.82	-7.65	0.04	192.75	7.65	-0.04
34	-192.75	-7.65	-0.02	215.69	7.65	0.02
35	-215.69	-7.64	0.08	238.62	7.64	-0.08
36	-238.62	-7.64	-0.03	261.56	7.64	0.04
37	-261.56	-7.64	0.04	284.49	7.64	-0.04
38	-284.48	-7.65	-0.04	307.42	7.65	0.04
39	-307.42	-7.64	0.05	330.35	7.64	-0.05
40	-330.35	-7.64	-0.05	353.28	7.64	0.05
41	-353.28	26.66	-0.11	273.28	-26.66	0.11
42	-273.29	26.66	-0.03	193.30	-26.66	0.03
43	-193.30	26.66	-0.09	113.31	-26.66	0.09
44	-113.31	26.66	-0.09	33.31	-26.66	0.09
45	-33.31	26.66	-0.08	-46.67	-26.66	0.08

HIPOTESIS 1 PESO PROPIO FASE 5

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
46	46.66	26.66	-0.07	-126.65	-26.66	0.06
47	126.64	26.67	-0.07	-206.65	-26.67	0.06
48	206.62	26.66	-0.04	-286.58	-26.66	0.03
49	286.60	26.66	-0.08	-366.57	-26.66	0.08
50	366.59	26.67	-0.07	-446.61	-26.67	0.07
51	446.61	26.68	0.05	-526.66	-26.68	-0.05
52	526.63	26.67	-0.03	-606.66	-26.67	0.02
53	606.64	26.67	0.06	-686.66	-26.67	-0.05
54	686.65	26.66	-0.03	-766.62	-26.66	0.02
55	766.61	26.67	0.19	-846.63	-26.67	-0.19
56	846.63	26.68	0.04	-926.68	-26.68	-0.04
57	926.68	26.67	0.20	-1006.70	-26.67	-0.20
58	1006.70	26.68	0.20	-1086.75	-26.68	-0.20
59	1086.76	26.68	0.21	-1166.80	-26.68	-0.21
60	1166.80	26.68	0.54	-1246.86	-26.68	-0.54
61	1246.83	-94.44	0.61	-963.54	94.44	-0.61
62	963.53	-94.44	0.89	-680.17	94.44	-0.89
63	680.18	-94.44	1.01	-396.90	94.44	-1.00
64	396.89	-94.43	0.92	-113.56	94.43	-0.93
65	113.57	-94.46	1.00	169.77	94.46	-1.01
66	-169.78	-94.46	1.07	453.21	94.46	-1.07
67	-453.15	-94.49	0.88	736.63	94.49	-0.89
68	-736.61	-94.47	0.86	1019.99	94.47	-0.87
69	-1019.99	-94.44	0.88	1303.38	94.44	-0.86
70	-1303.31	-94.47	0.87	1586.69	94.47	-0.84
71	-1586.71	-94.43	0.38	1870.03	94.43	-0.37
72	-1870.08	-94.39	0.05	2153.25	94.39	-0.06
73	-2153.29	-94.47	0.42	2436.72	94.47	-0.43
74	-2436.62	-94.45	0.05	2719.98	94.45	-0.06
75	-2719.98	-94.42	-0.74	3003.34	94.42	0.74
76	-3003.35	-94.45	-0.74	3286.76	94.45	0.72
77	-3286.75	-94.49	-0.75	3570.26	94.49	0.75
78	-3570.24	-94.47	-0.79	3853.68	94.47	0.80
79	-3853.68	-94.46	-2.54	4137.02	94.46	2.54
80	-4137.04	-94.45	-1.85	4420.44	94.45	1.86
81	-4420.34	460.87	-3.94	3037.87	-460.87	3.95
82	-3037.90	460.91	-3.97	1655.29	-460.91	3.97
83	-1655.31	460.93	-4.44	272.45	-460.93	4.41
84	-272.41	460.92	-4.45	-1110.40	-460.92	4.45
85	1110.34	460.94	-4.29	-2492.72	-460.94	4.30
86	2492.65	460.96	-3.99	-3754.60	-380.18	3.99
87	3754.55	380.14	-3.36	-4773.77	-299.38	3.37
88	4773.66	299.30	-1.91	-5550.61	-218.53	1.90
89	5550.65	218.53	-3.52	-6085.18	-137.78	3.50
90	6085.12	137.89	-0.78	-6377.69	-57.14	0.79

HIPOTESIS 1 PESO PROPIO FASE 5

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
91	6377.82	57.12	1.14	-6427.95	23.64	-1.09
92	6428.03	-23.65	0.08	-6235.81	104.43	-0.09
93	6235.83	-104.48	1.09	-5801.12	185.24	-1.08
94	5801.39	-185.31	2.11	-5124.52	266.04	-2.20
95	5124.87	-266.05	2.84	-4205.17	346.82	-2.83
96	4205.33	-346.76	3.49	-3044.22	427.51	-3.51
97	3044.24	-427.51	4.39	-1640.48	508.27	-4.36
98	1640.55	-508.27	4.38	5.51	589.03	-4.41
99	-5.41	-589.00	4.37	1922.01	688.49	-4.38
100	-1921.95	-688.53	4.60	4136.12	787.97	-4.60
101	-4136.43	514.95	0.12	2740.70	-415.48	-0.11
102	-2740.67	415.48	0.90	1643.55	-316.02	-0.89
103	-1643.59	316.08	0.42	816.50	-235.31	-0.42
104	-816.53	235.31	0.00	231.81	-154.55	-0.01
105	-231.89	154.60	-0.03	-0.05	-0.04	-0.01
106	0.00	0.00	0.00	0.00	0.00	0.00
107	0.00	0.00	0.00	0.00	0.00	0.00
108	0.00	0.00	0.00	0.00	0.00	0.00
109	0.00	0.00	0.00	0.00	0.00	0.00
110	0.00	0.00	0.00	0.00	0.00	0.00
111	0.00	0.00	0.00	0.00	0.00	0.00
112	0.00	0.00	0.00	0.00	0.00	0.00
113	0.00	0.00	0.00	0.00	0.00	0.00
114	0.00	0.00	0.00	0.00	0.00	0.00
115	0.00	0.00	0.00	0.00	0.00	0.00
116	0.00	0.00	0.00	0.00	0.00	0.00
117	0.00	0.00	0.00	0.00	0.00	0.00
118	0.00	0.00	0.00	0.00	0.00	0.00
119	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00
121	0.00	0.00	0.00	0.00	0.00	0.00
122	0.00	0.00	0.00	0.00	0.00	0.00
123	0.00	0.00	0.00	0.00	0.00	0.00
124	0.00	0.00	0.00	0.00	0.00	0.00
125	0.00	0.00	0.00	0.00	0.00	0.00
126	0.00	0.00	0.00	0.00	0.00	0.00
127	0.00	0.00	0.00	0.00	0.00	0.00
128	0.00	0.00	0.00	0.00	0.00	0.00
129	0.00	0.00	0.00	0.00	0.00	0.00
130	0.00	0.00	0.00	0.00	0.00	0.00
131	0.00	0.00	0.00	0.00	0.00	0.00
132	0.00	0.00	0.00	0.00	0.00	0.00
133	0.00	0.00	0.00	0.00	0.00	0.00
134	0.00	0.00	0.00	0.00	0.00	0.00
135	0.00	0.00	0.00	0.00	0.00	0.00

HIPOTESIS 1 PRETENSADO INICIAL

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	-1.45854	0.00000
283	0.00000	-1.46597	0.00000
284	0.00000	6.25316	0.00000
285	0.00000	6.22607	0.00000
286	0.00000	-21.44377	0.00000
287	0.00000	-21.40025	0.00000
288	0.00000	75.69519	0.00000
289	0.00000	75.42397	0.00000
290	0.00000	-105.22437	0.00000
291	0.00000	-104.32793	0.00000
292	0.00000	44.75359	0.00000
293	0.00000	47.05884	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	0.090
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.00	-2.92	-0.01	6.58	2.92	0.01
2	-6.58	-2.92	-0.01	13.16	2.92	0.01
3	-13.16	-2.92	-0.02	19.74	2.92	0.02
4	-19.74	-2.92	-0.01	26.32	2.92	0.01
5	-26.32	-2.92	0.00	32.90	2.92	0.00
6	-32.90	-2.93	-0.01	39.49	2.93	0.01
7	-39.49	-2.93	-0.01	46.08	2.93	0.01
8	-46.08	-2.93	0.00	52.67	2.93	0.00
9	-52.67	-2.93	0.00	59.26	2.93	0.00
10	-59.26	-2.93	-0.02	65.85	2.93	0.02
11	-65.85	-2.93	0.02	72.44	2.93	-0.02
12	-72.45	-2.93	-0.02	79.03	2.93	0.02
13	-79.04	-2.93	0.03	85.63	2.93	-0.03
14	-85.62	-2.93	0.01	92.21	2.93	-0.01
15	-92.21	-2.93	0.03	98.79	2.93	-0.03
16	-98.79	-2.93	-0.01	105.38	2.93	0.01
17	-105.38	-2.93	0.01	111.97	2.93	-0.01
18	-111.97	-2.93	0.03	118.56	2.93	-0.03
19	-118.55	-2.93	0.08	125.14	2.93	-0.08
20	-125.14	-2.93	0.03	131.73	2.93	-0.03
21	-131.73	9.55	-0.03	103.08	-9.55	0.02
22	-103.08	9.55	-0.01	74.42	-9.55	0.01
23	-74.42	9.55	-0.01	45.77	-9.55	0.01
24	-45.77	9.55	-0.01	17.11	-9.55	0.01
25	-17.12	9.55	-0.01	-11.54	-9.55	0.01
26	11.54	9.55	-0.01	-40.20	-9.55	0.01
27	40.19	9.55	-0.02	-68.85	-9.55	0.02
28	68.85	9.55	0.00	-97.51	-9.55	0.00
29	97.51	9.55	-0.03	-126.16	-9.55	0.03
30	126.15	9.55	0.01	-154.80	-9.55	-0.01
31	154.80	9.54	0.01	-183.44	-9.54	-0.01
32	183.44	9.55	-0.05	-212.07	-9.55	0.04
33	212.07	9.55	-0.05	-240.73	-9.55	0.05
34	240.72	9.55	0.02	-269.37	-9.55	-0.02
35	269.36	9.55	-0.10	-298.02	-9.55	0.10
36	298.01	9.55	0.04	-326.65	-9.55	-0.04
37	326.65	9.55	-0.05	-355.29	-9.55	0.05
38	355.29	9.54	0.05	-383.93	-9.54	-0.05
39	383.92	9.55	-0.06	-412.57	-9.55	0.06
40	412.56	9.54	0.06	-441.20	-9.54	-0.06
41	441.20	-33.30	0.14	-341.30	33.30	-0.14
42	341.30	-33.30	0.04	-241.41	33.30	-0.04
43	241.41	-33.30	0.11	-141.51	33.30	-0.11
44	141.51	-33.30	0.11	-41.60	33.30	-0.11
45	41.60	-33.30	0.10	58.28	33.30	-0.09

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
46	-58.28	-33.29	0.08	158.16	33.29	-0.08
47	-158.16	-33.30	0.08	258.06	33.30	-0.09
48	-258.05	-33.29	0.04	357.90	33.29	-0.04
49	-357.90	-33.30	0.11	457.82	33.30	-0.11
50	-457.82	-33.32	0.10	557.76	33.32	-0.10
51	-557.77	-33.31	-0.05	657.72	33.31	0.05
52	-657.72	-33.31	0.02	757.61	33.31	-0.02
53	-757.63	-33.31	-0.07	857.53	33.31	0.06
54	-857.52	-33.31	0.05	957.44	33.31	-0.03
55	-957.43	-33.31	-0.24	1057.34	33.31	0.24
56	-1057.33	-33.31	-0.05	1157.29	33.31	0.07
57	-1157.30	-33.32	-0.25	1257.24	33.32	0.26
58	-1257.24	-33.33	-0.25	1357.20	33.33	0.25
59	-1357.21	-33.33	-0.26	1457.19	33.33	0.25
60	-1457.20	-33.32	-0.68	1557.17	33.32	0.68
61	-1557.14	117.79	-0.77	1203.78	-117.79	0.77
62	-1203.79	117.80	-1.12	850.35	-117.80	1.12
63	-850.34	117.79	-1.25	497.05	-117.79	1.26
64	-497.05	117.81	-1.18	143.57	-117.81	1.18
65	-143.63	117.81	-1.25	-209.78	-117.81	1.26
66	209.82	117.83	-1.32	-563.36	-117.83	1.34
67	563.32	117.77	-1.07	-916.71	-117.77	1.07
68	916.79	117.87	-1.10	-1270.29	-117.87	1.09
69	1270.21	117.85	-1.08	-1623.78	-117.85	1.10
70	1623.67	117.80	-1.10	-1977.08	-117.80	1.10
71	1977.13	117.82	-0.46	-2330.58	-117.82	0.50
72	2330.53	117.83	-0.15	-2683.98	-117.83	0.12
73	2683.80	117.87	-0.57	-3037.35	-117.87	0.61
74	3037.24	117.85	-0.09	-3390.70	-117.85	0.07
75	3390.72	117.79	0.89	-3744.07	-117.79	-0.92
76	3744.12	117.85	0.93	-4097.60	-117.85	-0.92
77	4097.65	117.86	0.95	-4451.24	-117.86	-0.93
78	4451.23	117.81	0.99	-4804.72	-117.81	-1.00
79	4804.70	117.83	3.13	-5158.17	-117.83	-3.13
80	5158.16	117.81	2.30	-5511.66	-117.81	-2.29
81	5511.64	-91.75	4.93	-5236.44	91.75	-4.93
82	5236.48	-91.77	4.95	-4961.16	91.77	-4.94
83	4961.10	-91.80	6.37	-4685.78	91.80	-6.38
84	4685.74	-91.74	6.38	-4410.40	91.74	-6.38
85	4410.39	-91.84	7.16	-4135.00	91.84	-7.17
86	-4034.09	-91.79	7.76	6539.56	91.79	-7.66
87	-6539.46	-91.67	6.47	8556.09	91.67	-6.49
88	-8556.12	-91.97	4.01	10100.56	91.97	-4.05
89	-10100.24	-91.66	6.96	11182.89	91.66	-7.00
90	-11182.74	-91.93	2.00	11809.57	91.93	-1.96

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
91	-11809.65	-91.83	-1.61	11974.85	91.83	1.54
92	-11974.75	-91.88	0.33	11661.19	91.88	-0.37
93	-11661.09	-91.83	-1.47	10837.77	91.83	1.51
94	-10838.01	-91.50	-3.56	9467.11	91.50	3.59
95	-9467.50	-91.53	-4.67	7506.65	91.53	4.67
96	-7506.89	-91.71	-5.91	4919.94	91.71	5.97
97	-4919.92	-91.63	-7.39	1686.96	91.63	7.42
98	-1687.11	-91.76	-7.45	-4480.02	91.76	7.41
99	4480.04	-91.83	-5.99	-8815.33	91.83	6.00
100	8815.35	-91.73	-7.15	-10689.49	91.73	7.15
101	10689.47	0.08	3.17	-8918.54	-0.08	-3.17
102	8918.55	0.08	0.66	-1730.26	-0.08	-0.65
103	1730.32	0.05	1.20	2624.23	-0.05	-1.20
104	-2624.12	0.03	0.02	6295.83	-0.03	-0.02
105	-6295.86	-0.02	-0.06	9280.62	0.02	0.03
106	0.00	0.00	0.00	0.00	0.00	0.00
107	0.00	0.00	0.00	0.00	0.00	0.00
108	0.00	0.00	0.00	0.00	0.00	0.00
109	0.00	0.00	0.00	0.00	0.00	0.00
110	0.00	0.00	0.00	0.00	0.00	0.00
111	0.00	0.00	0.00	0.00	0.00	0.00
112	0.00	0.00	0.00	0.00	0.00	0.00
113	0.00	0.00	0.00	0.00	0.00	0.00
114	0.00	0.00	0.00	0.00	0.00	0.00
115	0.00	0.00	0.00	0.00	0.00	0.00
116	0.00	0.00	0.00	0.00	0.00	0.00
117	0.00	0.00	0.00	0.00	0.00	0.00
118	0.00	0.00	0.00	0.00	0.00	0.00
119	0.00	0.00	0.00	0.00	0.00	0.00
120	0.00	0.00	0.00	0.00	0.00	0.00
121	0.00	0.00	0.00	0.00	0.00	0.00
122	0.00	0.00	0.00	0.00	0.00	0.00
123	0.00	0.00	0.00	0.00	0.00	0.00
124	0.00	0.00	0.00	0.00	0.00	0.00
125	0.00	0.00	0.00	0.00	0.00	0.00
126	0.00	0.00	0.00	0.00	0.00	0.00
127	0.00	0.00	0.00	0.00	0.00	0.00
128	0.00	0.00	0.00	0.00	0.00	0.00
129	0.00	0.00	0.00	0.00	0.00	0.00
130	0.00	0.00	0.00	0.00	0.00	0.00
131	0.00	0.00	0.00	0.00	0.00	0.00
132	0.00	0.00	0.00	0.00	0.00	0.00
133	0.00	0.00	0.00	0.00	0.00	0.00
134	0.00	0.00	0.00	0.00	0.00	0.00
135	0.00	0.00	0.00	0.00	0.00	0.00

Viaducto 1 sobre rio Averno FASE 6

No de fase de construccion = 6

CONDICIONES DE VINCULACION

Nudo	Codigo	RX	RZ	RY
282	0 1 0	0.000	0.000	0.000
283	0 1 0	0.000	0.000	0.000
284	0 1 0	0.000	0.000	0.000
285	0 1 0	0.000	0.000	0.000
286	0 1 0	0.000	0.000	0.000
287	0 1 0	0.000	0.000	0.000
288	0 1 0	0.000	0.000	0.000
289	0 1 0	0.000	0.000	0.000
290	0 1 0	0.000	0.000	0.000
291	0 1 0	0.000	0.000	0.000
292	0 1 0	0.000	0.000	0.000
293	0 1 0	0.000	0.000	0.000
294	0 1 0	0.000	0.000	0.000
295	0 1 0	0.000	0.000	0.000

HIPOTESIS 1 PESO PROPIO FASE 6

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	-0.32941	0.00000
283	0.00000	-0.33108	0.00000
284	0.00000	1.41226	0.00000
285	0.00000	1.40615	0.00000
286	0.00000	-4.84306	0.00000
287	0.00000	-4.83317	0.00000
288	0.00000	17.10618	0.00000
289	0.00000	17.04642	0.00000
290	0.00000	-60.61814	0.00000
291	0.00000	-60.43028	0.00000
292	0.00000	277.86786	0.00000
293	0.00000	277.37671	0.00000
294	0.00000	695.44196	0.00000
295	0.00000	693.37061	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	1849.643
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PESO PROPIO FASE 6

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.00	-0.66	0.00	1.49	0.66	0.00
2	-1.49	-0.66	0.00	2.97	0.66	0.00
3	-2.97	-0.66	0.00	4.46	0.66	0.00
4	-4.46	-0.66	0.00	5.95	0.66	0.00
5	-5.95	-0.66	0.00	7.43	0.66	0.00
6	-7.43	-0.66	0.00	8.92	0.66	0.00
7	-8.92	-0.66	0.00	10.41	0.66	0.00
8	-10.41	-0.66	0.00	11.89	0.66	0.00
9	-11.89	-0.66	0.00	13.38	0.66	0.00
10	-13.38	-0.66	0.00	14.87	0.66	0.00
11	-14.87	-0.66	0.01	16.36	0.66	-0.01
12	-16.36	-0.66	0.00	17.85	0.66	0.00
13	-17.85	-0.66	0.01	19.34	0.66	-0.01
14	-19.34	-0.66	0.00	20.83	0.66	0.00
15	-20.82	-0.66	0.01	22.31	0.66	-0.01
16	-22.31	-0.66	0.00	23.80	0.66	0.00
17	-23.80	-0.66	0.00	25.29	0.66	0.00
18	-25.29	-0.66	0.01	26.78	0.66	-0.01
19	-26.78	-0.66	0.02	28.26	0.66	-0.02
20	-28.26	-0.66	0.01	29.75	0.66	-0.01
21	-29.75	2.16	-0.01	23.28	-2.16	0.01
22	-23.28	2.16	0.00	16.81	-2.16	0.00
23	-16.81	2.16	0.00	10.34	-2.16	0.00
24	-10.34	2.16	0.00	3.86	-2.16	0.00
25	-3.87	2.16	0.00	-2.61	-2.16	0.00
26	2.61	2.16	0.00	-9.08	-2.16	0.00
27	9.08	2.16	0.00	-15.55	-2.16	0.00
28	15.55	2.16	0.00	-22.02	-2.16	0.00
29	22.02	2.16	-0.01	-28.49	-2.16	0.01
30	28.49	2.16	0.00	-34.96	-2.16	0.00
31	34.96	2.16	0.00	-41.43	-2.16	0.00
32	41.43	2.16	-0.01	-47.90	-2.16	0.01
33	47.90	2.16	-0.01	-54.37	-2.16	0.01
34	54.37	2.16	0.01	-60.84	-2.16	0.00
35	60.84	2.16	-0.02	-67.30	-2.16	0.02
36	67.30	2.16	0.01	-73.77	-2.16	-0.01
37	73.77	2.16	-0.01	-80.24	-2.16	0.01
38	80.24	2.16	0.01	-86.71	-2.16	-0.01
39	86.71	2.16	-0.01	-93.18	-2.16	0.01
40	93.18	2.16	0.01	-99.64	-2.16	-0.01
41	99.64	-7.52	0.03	-77.08	7.52	-0.03
42	77.08	-7.52	0.01	-54.52	7.52	-0.01
43	54.52	-7.52	0.02	-31.96	7.52	-0.02
44	31.96	-7.52	0.02	-9.40	7.52	-0.02
45	9.40	-7.52	0.02	13.16	7.52	-0.02

HIPOTESIS 1 PESO PROPIO FASE 6

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
46	-13.16	-7.52	0.02	35.72	7.52	-0.02
47	-35.72	-7.52	0.02	58.28	7.52	-0.02
48	-58.28	-7.52	0.01	80.83	7.52	-0.01
49	-80.83	-7.52	0.02	103.40	7.52	-0.02
50	-103.40	-7.52	0.02	125.97	7.52	-0.02
51	-125.97	-7.52	-0.01	148.55	7.52	0.01
52	-148.54	-7.52	0.01	171.11	7.52	0.00
53	-171.11	-7.52	-0.02	193.68	7.52	0.02
54	-193.67	-7.52	0.01	216.23	7.52	-0.01
55	-216.23	-7.53	-0.05	238.80	7.53	0.05
56	-238.80	-7.53	-0.01	261.38	7.53	0.01
57	-261.37	-7.52	-0.06	283.94	7.52	0.06
58	-283.95	-7.53	-0.06	306.52	7.53	0.06
59	-306.53	-7.53	-0.06	329.10	7.53	0.06
60	-329.10	-7.53	-0.15	351.68	7.53	0.15
61	-351.68	26.63	-0.17	271.80	-26.63	0.17
62	-271.80	26.63	-0.25	191.91	-26.63	0.25
63	-191.91	26.63	-0.28	112.05	-26.63	0.28
64	-112.05	26.63	-0.27	32.15	-26.63	0.27
65	-32.15	26.62	-0.28	-47.71	-26.62	0.28
66	47.72	26.63	-0.30	-127.63	-26.63	0.30
67	127.62	26.64	-0.25	-207.53	-26.64	0.25
68	207.53	26.63	-0.25	-287.44	-26.63	0.24
69	287.42	26.64	-0.25	-367.34	-26.64	0.24
70	367.32	26.64	-0.24	-447.21	-26.64	0.24
71	447.21	26.63	-0.12	-527.11	-26.63	0.11
72	527.09	26.63	-0.02	-606.96	-26.63	0.02
73	606.95	26.64	-0.13	-686.87	-26.64	0.13
74	686.85	26.63	-0.01	-766.72	-26.63	0.02
75	766.73	26.63	0.21	-846.62	-26.63	-0.20
76	846.62	26.64	0.21	-926.53	-26.64	-0.21
77	926.55	26.64	0.22	-1006.45	-26.64	-0.22
78	1006.45	26.63	0.23	-1086.36	-26.63	-0.23
79	1086.37	26.63	0.72	-1166.24	-26.63	-0.72
80	1166.26	26.63	0.52	-1246.15	-26.63	-0.52
81	1246.13	-94.42	1.12	-962.92	94.42	-1.12
82	962.92	-94.43	1.12	-679.67	94.43	-1.13
83	679.67	-94.44	1.32	-396.33	94.44	-1.32
84	396.35	-94.43	1.32	-113.04	94.43	-1.32
85	113.03	-94.42	1.34	170.15	94.42	-1.34
86	-170.13	-94.45	1.35	453.52	94.45	-1.34
87	-453.49	-94.44	1.26	736.74	94.44	-1.26
88	-736.73	-94.41	1.03	1020.00	94.41	-1.03
89	-1019.98	-94.48	1.34	1303.38	94.48	-1.35
90	-1303.27	-94.47	0.75	1586.62	94.47	-0.75

HIPOTESIS 1 PESO PROPIO FASE 6

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
91	-1586.58	-94.47	0.25	1869.89	94.47	-0.27
92	-1869.93	-94.42	0.56	2153.22	94.42	-0.56
93	-2153.23	-94.42	0.22	2436.48	94.42	-0.22
94	-2436.53	-94.38	-0.23	2719.65	94.38	0.25
95	-2719.72	-94.40	-0.57	3002.94	94.40	0.58
96	-3002.93	-94.41	-1.07	3286.18	94.41	1.07
97	-3286.19	-94.37	-2.02	3569.35	94.37	2.02
98	-3569.42	-94.39	-2.00	3852.67	94.39	2.01
99	-3852.67	-94.43	-3.16	4136.07	94.43	3.15
100	-4136.08	-94.41	-2.62	4419.27	94.41	2.63
101	-4419.38	460.81	-5.80	3036.80	-460.81	5.80
102	-3036.82	460.85	-4.97	1654.34	-460.85	4.95
103	-1654.37	460.80	-5.40	271.80	-460.80	5.40
104	-271.73	460.79	-5.49	-1110.51	-460.79	5.53
105	1110.58	460.74	-5.49	-2492.68	-460.74	5.50
106	2492.64	460.85	-5.55	-3754.00	-380.09	5.50
107	3753.97	380.09	-3.77	-4773.02	-299.35	3.80
108	4773.02	299.29	-3.11	-5549.81	-218.50	3.12
109	5549.96	218.51	-2.19	-6084.31	-137.75	2.20
110	6084.38	137.74	-2.29	-6376.70	-56.98	2.28
111	6376.47	57.06	0.74	-6426.74	23.69	-0.72
112	6426.42	-23.75	0.64	-6234.31	104.50	-0.69
113	6234.20	-104.65	0.76	-5799.20	185.41	-0.77
114	5799.22	-185.23	4.05	-5122.15	266.00	-4.04
115	5122.22	-265.94	3.50	-4203.41	346.68	-3.47
116	4203.44	-346.53	5.90	-3042.48	427.30	-5.92
117	3042.41	-427.28	5.00	-1639.50	508.03	-4.99
118	1639.29	-508.11	5.99	6.59	588.89	-5.98
119	-6.67	-588.92	6.03	1922.21	688.37	-6.01
120	-1922.31	-688.36	4.60	4136.24	787.81	-4.61
121	-4136.84	515.03	1.22	2740.82	-415.54	-1.22
122	-2740.83	415.52	0.74	1643.53	-316.07	-0.73
123	-1643.50	315.97	0.27	816.66	-235.21	-0.28
124	-816.58	235.29	0.06	231.82	-154.51	-0.05
125	-231.83	154.57	-0.04	0.01	-0.02	0.04
126	0.00	0.00	0.00	0.00	0.00	0.00
127	0.00	0.00	0.00	0.00	0.00	0.00
128	0.00	0.00	0.00	0.00	0.00	0.00
129	0.00	0.00	0.00	0.00	0.00	0.00
130	0.00	0.00	0.00	0.00	0.00	0.00
131	0.00	0.00	0.00	0.00	0.00	0.00
132	0.00	0.00	0.00	0.00	0.00	0.00
133	0.00	0.00	0.00	0.00	0.00	0.00
134	0.00	0.00	0.00	0.00	0.00	0.00
135	0.00	0.00	0.00	0.00	0.00	0.00

HIPOTESIS 1 PRETENSADO INICIAL

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	0.41136	0.00000
283	0.00000	0.41345	0.00000
284	0.00000	-1.76360	0.00000
285	0.00000	-1.75596	0.00000
286	0.00000	6.04786	0.00000
287	0.00000	6.03559	0.00000
288	0.00000	-21.36266	0.00000
289	0.00000	-21.28627	0.00000
290	0.00000	75.60686	0.00000
291	0.00000	75.40633	0.00000
292	0.00000	-105.14290	0.00000
293	0.00000	-104.28627	0.00000
294	0.00000	44.31657	0.00000
295	0.00000	47.65289	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	0.293
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.00	0.82	0.00	-1.86	-0.82	0.00
2	1.86	0.82	0.00	-3.71	-0.82	0.00
3	3.71	0.82	0.00	-5.57	-0.82	0.00
4	5.57	0.83	0.00	-7.42	-0.83	0.00
5	7.42	0.83	0.00	-9.28	-0.83	0.00
6	9.28	0.83	0.00	-11.14	-0.83	0.00
7	11.14	0.83	0.00	-13.00	-0.83	0.00
8	13.00	0.83	0.00	-14.85	-0.83	0.00
9	14.85	0.83	0.00	-16.71	-0.83	0.00
10	16.71	0.83	0.01	-18.57	-0.83	0.00
11	18.57	0.83	-0.01	-20.43	-0.83	0.01
12	20.43	0.83	0.01	-22.29	-0.83	-0.01
13	22.29	0.83	-0.01	-24.15	-0.83	0.01
14	24.15	0.83	0.00	-26.01	-0.83	0.00
15	26.01	0.83	-0.01	-27.86	-0.83	0.01
16	27.86	0.83	0.00	-29.72	-0.83	0.00
17	29.72	0.83	0.00	-31.58	-0.83	0.00
18	31.58	0.83	-0.01	-33.44	-0.83	0.01
19	33.44	0.83	-0.02	-35.29	-0.83	0.02
20	35.29	0.83	-0.01	-37.15	-0.83	0.01
21	37.15	-2.69	0.01	-29.07	2.69	-0.01
22	29.07	-2.69	0.00	-20.99	2.69	0.00
23	20.99	-2.69	0.00	-12.91	2.69	0.00
24	12.91	-2.69	0.00	-4.83	2.69	0.00
25	4.83	-2.69	0.00	3.25	2.69	0.00
26	-3.26	-2.69	0.00	11.34	2.69	0.00
27	-11.34	-2.69	0.01	19.42	2.69	-0.01
28	-19.42	-2.69	0.00	27.50	2.69	0.00
29	-27.50	-2.69	0.01	35.58	2.69	-0.01
30	-35.58	-2.69	0.00	43.66	2.69	0.00
31	-43.66	-2.69	0.00	51.74	2.69	0.00
32	-51.74	-2.69	0.01	59.81	2.69	-0.01
33	-59.81	-2.69	0.01	67.89	2.69	-0.01
34	-67.89	-2.69	-0.01	75.97	2.69	0.01
35	-75.97	-2.69	0.03	84.05	2.69	-0.03
36	-84.05	-2.69	-0.01	92.13	2.69	0.01
37	-92.13	-2.69	0.02	100.20	2.69	-0.02
38	-100.20	-2.69	-0.01	108.28	2.69	0.01
39	-108.28	-2.69	0.02	116.36	2.69	-0.02
40	-116.36	-2.69	-0.02	124.43	2.69	0.02
41	-124.43	9.39	-0.04	96.26	-9.39	0.04
42	-96.26	9.39	-0.01	68.09	-9.39	0.01
43	-68.09	9.39	-0.03	39.91	-9.39	0.03
44	-39.91	9.39	-0.03	11.73	-9.39	0.03
45	-11.73	9.39	-0.03	-16.43	-9.39	0.03

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
46	16.43	9.39	-0.02	-44.61	-9.39	0.02
47	44.61	9.39	-0.02	-72.78	-9.39	0.02
48	72.78	9.39	-0.01	-100.94	-9.39	0.01
49	100.93	9.39	-0.03	-129.12	-9.39	0.03
50	129.12	9.39	-0.03	-157.31	-9.39	0.03
51	157.31	9.39	0.02	-185.50	-9.39	-0.02
52	185.50	9.39	-0.01	-213.67	-9.39	0.01
53	213.67	9.40	0.02	-241.86	-9.40	-0.01
54	241.85	9.39	-0.01	-270.03	-9.39	0.01
55	270.02	9.39	0.06	-298.21	-9.39	-0.07
56	298.20	9.40	0.02	-326.40	-9.40	-0.02
57	326.40	9.39	0.07	-354.58	-9.39	-0.07
58	354.58	9.40	0.07	-382.78	-9.40	-0.07
59	382.78	9.40	0.07	-410.97	-9.40	-0.07
60	410.98	9.40	0.19	-439.18	-9.40	-0.19
61	439.17	-33.25	0.22	-339.42	33.25	-0.22
62	339.42	-33.25	0.31	-239.66	33.25	-0.31
63	239.66	-33.25	0.35	-139.93	33.25	-0.36
64	139.92	-33.25	0.33	-40.17	33.25	-0.33
65	40.16	-33.26	0.35	59.59	33.26	-0.35
66	-59.61	-33.26	0.38	159.38	33.26	-0.38
67	-159.36	-33.26	0.31	259.17	33.26	-0.31
68	-259.15	-33.27	0.31	358.95	33.27	-0.31
69	-358.95	-33.24	0.29	458.69	33.24	-0.30
70	-458.69	-33.25	0.30	558.45	33.25	-0.30
71	-558.47	-33.25	0.14	658.23	33.25	-0.14
72	-658.23	-33.26	0.03	757.98	33.26	-0.03
73	-757.94	-33.26	0.16	857.75	33.26	-0.16
74	-857.71	-33.26	0.02	957.49	33.26	-0.02
75	-957.47	-33.26	-0.26	1057.26	33.26	0.26
76	-1057.25	-33.27	-0.26	1157.05	33.27	0.26
77	-1157.04	-33.26	-0.27	1256.83	33.26	0.26
78	-1256.84	-33.26	-0.28	1356.63	33.26	0.28
79	-1356.63	-33.25	-0.89	1456.39	33.25	0.89
80	-1456.40	-33.25	-0.65	1556.18	33.25	0.65
81	-1556.14	117.75	-1.33	1202.92	-117.75	1.34
82	-1202.93	117.77	-1.35	849.64	-117.77	1.35
83	-849.64	117.78	-1.59	496.29	-117.78	1.59
84	-496.30	117.78	-1.61	142.92	-117.78	1.61
85	-142.94	117.77	-1.63	-210.28	-117.77	1.62
86	210.27	117.75	-1.60	-563.60	-117.75	1.61
87	563.67	117.73	-1.49	-916.87	-117.73	1.50
88	916.90	117.78	-1.21	-1270.22	-117.78	1.23
89	1270.24	117.76	-1.56	-1623.49	-117.76	1.59
90	1623.53	117.76	-0.85	-1976.74	-117.76	0.84

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
91	1976.82	117.77	-0.25	-2330.16	-117.77	0.27
92	2330.19	117.78	-0.61	-2683.58	-117.78	0.66
93	2683.54	117.79	-0.24	-3036.86	-117.79	0.23
94	3036.86	117.77	0.36	-3390.03	-117.77	-0.34
95	3390.04	117.74	0.71	-3743.30	-117.74	-0.75
96	3743.31	117.76	1.42	-4096.55	-117.76	-1.37
97	4096.55	117.74	2.58	-4449.79	-117.74	-2.57
98	4449.83	117.74	2.58	-4803.09	-117.74	-2.57
99	4803.13	117.77	4.00	-5156.48	-117.77	-4.01
100	5156.54	117.76	3.32	-5509.75	-117.76	-3.33
101	5509.76	-91.66	7.96	-5234.71	91.66	-7.96
102	5234.71	-91.70	6.49	-4959.62	91.70	-6.51
103	4959.67	-91.68	7.90	-4684.65	91.68	-7.86
104	4684.57	-91.58	9.97	-4409.94	91.58	-9.94
105	4409.76	-91.63	10.00	-4134.96	91.63	-10.03
106	-4034.45	-91.70	9.94	6538.49	91.70	-9.93
107	-6538.36	-91.67	6.93	8555.11	91.67	-6.93
108	-8554.98	-91.58	5.91	10099.06	91.58	-5.84
109	-10098.96	-91.69	4.25	11181.61	91.69	-4.16
110	-11181.19	-91.75	4.26	11807.91	91.75	-4.18
111	-11807.65	-91.89	-1.20	11972.33	91.89	1.30
112	-11972.27	-91.63	-1.12	11658.28	91.63	1.15
113	-11658.27	-91.54	-1.21	10834.36	91.54	1.29
114	-10834.40	-91.71	-7.46	9462.68	91.71	7.48
115	-9462.86	-91.78	-6.28	7503.64	91.78	6.39
116	-7503.55	-92.08	-10.67	4916.91	92.08	10.70
117	-4916.69	-91.96	-9.33	1684.99	91.96	9.39
118	-1685.05	-91.91	-10.41	-4482.98	91.91	10.43
119	4482.85	-91.88	-10.95	-8816.46	91.88	10.91
120	8816.40	-91.94	-4.37	-10690.14	91.94	4.38
121	10690.07	0.02	-0.26	-8918.87	-0.02	0.26
122	8918.86	0.05	1.30	-1730.81	-0.05	-1.31
123	1730.75	0.03	1.82	2623.49	-0.03	-1.81
124	-2623.45	0.02	1.04	6295.87	-0.02	-1.11
125	-6295.84	-0.06	0.08	9280.78	0.06	-0.05
126	0.00	0.00	0.00	0.00	0.00	0.00
127	0.00	0.00	0.00	0.00	0.00	0.00
128	0.00	0.00	0.00	0.00	0.00	0.00
129	0.00	0.00	0.00	0.00	0.00	0.00
130	0.00	0.00	0.00	0.00	0.00	0.00
131	0.00	0.00	0.00	0.00	0.00	0.00
132	0.00	0.00	0.00	0.00	0.00	0.00
133	0.00	0.00	0.00	0.00	0.00	0.00
134	0.00	0.00	0.00	0.00	0.00	0.00
135	0.00	0.00	0.00	0.00	0.00	0.00

Viaducto 1 sobre rio Averno FASE 7

No de fase de construccion = 7

No de fase de construccion = 7

CONDICIONES DE VINCULACION

Nudo	Codigo	RX	RZ	RY
282	0 1 0	0.000	0.000	0.000
283	0 1 0	0.000	0.000	0.000
284	0 1 0	0.000	0.000	0.000
285	0 1 0	0.000	0.000	0.000
286	0 1 0	0.000	0.000	0.000
287	0 1 0	0.000	0.000	0.000
288	0 1 0	0.000	0.000	0.000
289	0 1 0	0.000	0.000	0.000
290	0 1 0	0.000	0.000	0.000
291	0 1 0	0.000	0.000	0.000
292	0 1 0	0.000	0.000	0.000
293	0 1 0	0.000	0.000	0.000
294	0 1 0	0.000	0.000	0.000
295	0 1 0	0.000	0.000	0.000
296	0 1 0	0.000	0.000	0.000
297	0 1 0	0.000	0.000	0.000

HIPOTESIS 1 PESO PROPIO FASE 7

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	0.09295	0.00000
283	0.00000	0.09343	0.00000
284	0.00000	-0.39851	0.00000
285	0.00000	-0.39679	0.00000
286	0.00000	1.36662	0.00000
287	0.00000	1.36382	0.00000
288	0.00000	-4.82698	0.00000
289	0.00000	-4.81019	0.00000
290	0.00000	17.10033	0.00000
291	0.00000	17.04604	0.00000
292	0.00000	-60.58064	0.00000
293	0.00000	-60.49883	0.00000
294	0.00000	277.91751	0.00000
295	0.00000	277.63690	0.00000
296	0.00000	695.70258	0.00000
297	0.00000	693.19360	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	1850.002
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PESO PROPIO FASE 7

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.00	0.19	0.00	-0.42	-0.19	0.00
2	0.42	0.19	0.00	-0.84	-0.19	0.00
3	0.84	0.19	0.00	-1.26	-0.19	0.00
4	1.26	0.19	0.00	-1.68	-0.19	0.00
5	1.68	0.19	0.00	-2.10	-0.19	0.00
6	2.10	0.19	0.00	-2.52	-0.19	0.00
7	2.52	0.19	0.00	-2.94	-0.19	0.00
8	2.94	0.19	0.00	-3.36	-0.19	0.00
9	3.36	0.19	0.00	-3.78	-0.19	0.00
10	3.78	0.19	0.00	-4.20	-0.19	0.00
11	4.20	0.19	0.00	-4.62	-0.19	0.00
12	4.62	0.19	0.00	-5.04	-0.19	0.00
13	5.04	0.19	0.00	-5.46	-0.19	0.00
14	5.46	0.19	0.00	-5.88	-0.19	0.00
15	5.88	0.19	0.00	-6.30	-0.19	0.00
16	6.30	0.19	0.00	-6.72	-0.19	0.00
17	6.72	0.19	0.00	-7.14	-0.19	0.00
18	7.14	0.19	0.00	-7.56	-0.19	0.00
19	7.56	0.19	0.00	-7.98	-0.19	0.00
20	7.98	0.19	0.00	-8.40	-0.19	0.00
21	8.39	-0.61	0.00	-6.57	0.61	0.00
22	6.57	-0.61	0.00	-4.74	0.61	0.00
23	4.74	-0.61	0.00	-2.92	0.61	0.00
24	2.92	-0.61	0.00	-1.09	0.61	0.00
25	1.09	-0.61	0.00	0.74	0.61	0.00
26	-0.74	-0.61	0.00	2.56	0.61	0.00
27	-2.56	-0.61	0.00	4.39	0.61	0.00
28	-4.39	-0.61	0.00	6.21	0.61	0.00
29	-6.21	-0.61	0.00	8.04	0.61	0.00
30	-8.04	-0.61	0.00	9.87	0.61	0.00
31	-9.87	-0.61	0.00	11.69	0.61	0.00
32	-11.69	-0.61	0.00	13.52	0.61	0.00
33	-13.52	-0.61	0.00	15.34	0.61	0.00
34	-15.34	-0.61	0.00	17.17	0.61	0.00
35	-17.17	-0.61	0.01	18.99	0.61	-0.01
36	-18.99	-0.61	0.00	20.82	0.61	0.00
37	-20.82	-0.61	0.00	22.64	0.61	0.00
38	-22.64	-0.61	0.00	24.47	0.61	0.00
39	-24.47	-0.61	0.00	26.29	0.61	0.00
40	-26.29	-0.61	0.00	28.12	0.61	0.00
41	-28.12	2.12	-0.01	21.75	-2.12	0.01
42	-21.75	2.12	0.00	15.39	-2.12	0.00
43	-15.39	2.12	-0.01	9.02	-2.12	0.01
44	-9.02	2.12	-0.01	2.65	-2.12	0.01
45	-2.65	2.12	-0.01	-3.71	-2.12	0.01

HIPOTESIS 1 PESO PROPIO FASE 7

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
46	3.71	2.12	0.00	-10.08	-2.12	0.01
47	10.08	2.12	-0.01	-16.45	-2.12	0.01
48	16.45	2.12	0.00	-22.81	-2.12	0.00
49	22.81	2.12	-0.01	-29.18	-2.12	0.01
50	29.18	2.12	-0.01	-35.55	-2.12	0.01
51	35.55	2.12	0.00	-41.92	-2.12	0.00
52	41.92	2.12	0.00	-48.28	-2.12	0.00
53	48.28	2.12	0.00	-54.65	-2.12	0.00
54	54.65	2.12	0.00	-61.02	-2.12	0.00
55	61.02	2.12	0.02	-67.38	-2.12	-0.01
56	67.38	2.12	0.00	-73.75	-2.12	0.00
57	73.76	2.12	0.02	-80.12	-2.12	-0.02
58	80.12	2.12	0.02	-86.49	-2.12	-0.02
59	86.49	2.12	0.02	-92.87	-2.12	-0.02
60	92.87	2.12	0.04	-99.24	-2.12	-0.04
61	99.24	-7.51	0.05	-76.70	7.51	-0.05
62	76.70	-7.51	0.07	-54.15	7.51	-0.07
63	54.15	-7.51	0.08	-31.62	7.51	-0.08
64	31.62	-7.51	0.07	-9.08	7.51	-0.08
65	9.07	-7.51	0.08	13.46	7.51	-0.08
66	-13.47	-7.52	0.09	36.02	7.52	-0.09
67	-36.01	-7.51	0.07	58.56	7.51	-0.07
68	-58.56	-7.52	0.07	81.11	7.52	-0.07
69	-81.11	-7.51	0.07	103.65	7.51	-0.07
70	-103.65	-7.52	0.07	126.20	7.52	-0.07
71	-126.20	-7.51	0.03	148.74	7.51	-0.03
72	-148.74	-7.51	0.00	171.27	7.51	-0.01
73	-171.27	-7.51	0.03	193.82	7.51	-0.03
74	-193.81	-7.52	0.00	216.35	7.52	0.00
75	-216.36	-7.51	-0.06	238.90	7.51	0.06
76	-238.90	-7.52	-0.06	261.45	7.52	0.06
77	-261.45	-7.52	-0.06	284.00	7.52	0.06
78	-284.00	-7.51	-0.06	306.55	7.51	0.06
79	-306.55	-7.51	-0.20	329.09	7.51	0.20
80	-329.09	-7.51	-0.15	351.64	7.51	0.15
81	-351.63	26.63	-0.32	271.75	-26.63	0.32
82	-271.75	26.63	-0.32	191.85	-26.63	0.32
83	-191.85	26.63	-0.38	111.94	-26.63	0.38
84	-111.94	26.63	-0.37	32.03	-26.63	0.37
85	-32.03	26.64	-0.38	-47.85	-26.64	0.39
86	47.84	26.64	-0.38	-127.78	-26.64	0.38
87	127.78	26.63	-0.35	-207.66	-26.63	0.36
88	207.66	26.64	-0.29	-287.58	-26.64	0.29
89	287.57	26.64	-0.37	-367.47	-26.64	0.38
90	367.46	26.65	-0.22	-447.38	-26.65	0.21

HIPOTESIS 1 PESO PROPIO FASE 7

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
91	447.38	26.63	-0.07	-527.29	-26.63	0.08
92	527.28	26.64	-0.17	-607.23	-26.64	0.17
93	607.21	26.63	-0.08	-687.11	-26.63	0.06
94	687.11	26.64	0.05	-767.00	-26.64	-0.05
95	766.99	26.62	0.15	-846.87	-26.62	-0.15
96	846.88	26.63	0.30	-926.75	-26.63	-0.31
97	926.77	26.63	0.57	-1006.64	-26.63	-0.58
98	1006.66	26.63	0.57	-1086.55	-26.63	-0.56
99	1086.56	26.63	0.88	-1166.49	-26.63	-0.89
100	1166.49	26.63	0.73	-1246.37	-26.63	-0.73
101	1246.40	-94.44	1.54	-963.03	94.44	-1.54
102	963.03	-94.45	1.27	-679.70	94.45	-1.27
103	679.70	-94.44	1.46	-396.35	94.44	-1.46
104	396.35	-94.45	1.64	-113.04	94.45	-1.65
105	113.05	-94.43	1.65	170.27	94.43	-1.64
106	-170.26	-94.42	1.62	453.52	94.42	-1.63
107	-453.55	-94.43	1.43	736.85	94.43	-1.41
108	-736.88	-94.44	1.32	1020.27	94.44	-1.32
109	-1020.27	-94.47	1.16	1303.66	94.47	-1.17
110	-1303.63	-94.45	1.16	1586.94	94.45	-1.16
111	-1586.95	-94.44	0.40	1870.29	94.44	-0.41
112	-1870.29	-94.43	0.45	2153.57	94.43	-0.42
113	-2153.56	-94.41	0.44	2436.79	94.41	-0.44
114	-2436.75	-94.46	-0.98	2720.15	94.46	0.96
115	-2720.17	-94.51	-0.65	3003.56	94.51	0.64
116	-3003.56	-94.56	-2.41	3287.29	94.56	2.42
117	-3287.23	-94.50	-1.46	3570.79	94.50	1.45
118	-3570.84	-94.52	-3.56	3854.45	94.52	3.56
119	-3854.45	-94.51	-3.10	4137.95	94.51	3.08
120	-4137.94	-94.53	-6.18	4421.51	94.53	6.18
121	-4421.76	461.02	-6.08	3038.41	-461.02	6.08
122	-3038.44	461.05	-6.60	1655.47	-461.05	6.61
123	-1655.51	461.06	-7.06	272.18	-461.06	7.08
124	-272.15	461.05	-7.13	-1111.27	-461.05	7.18
125	1111.34	461.01	-6.91	-2494.19	-461.01	6.94
126	2494.16	461.03	-6.94	-3755.87	-380.28	6.93
127	3755.90	380.08	-5.28	-4775.00	-299.34	5.28
128	4774.92	299.45	-3.92	-5551.96	-218.69	3.90
129	5552.20	218.49	-2.21	-6086.47	-137.72	2.29
130	6086.47	137.85	-2.35	-6378.87	-57.08	2.41
131	6378.84	56.87	-1.21	-6428.28	23.88	1.21
132	6428.64	-23.86	0.67	-6235.85	104.62	-0.70
133	6235.94	-104.57	3.39	-5801.25	185.32	-3.34
134	5801.18	-185.26	5.13	-5124.18	266.03	-5.14
135	5124.23	-266.15	5.24	-4204.65	346.92	-5.28

HIPOTESIS 1 PESO PROPIO FASE 7

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
136	4204.77	-346.71	5.91	-3043.71	427.45	-5.90
137	3043.62	-427.46	7.69	-1639.83	508.23	-7.68
138	1639.83	-508.26	7.64	6.30	589.03	-7.60
139	-6.32	-589.04	7.59	1922.24	688.49	-7.62
140	-1922.27	-688.45	6.19	4136.57	787.90	-6.19
141	-4136.83	514.98	2.58	2741.06	-415.52	-2.56
142	-2741.09	415.56	0.55	1643.56	-316.09	-0.54
143	-1643.58	316.04	0.26	816.70	-235.30	-0.25
144	-816.68	235.35	0.16	231.64	-154.57	-0.15
145	-231.63	154.46	0.10	0.17	0.08	-0.07
146	0.00	0.00	0.00	0.00	0.00	0.00
147	0.00	0.00	0.00	0.00	0.00	0.00
148	0.00	0.00	0.00	0.00	0.00	0.00
149	0.00	0.00	0.00	0.00	0.00	0.00
150	0.00	0.00	0.00	0.00	0.00	0.00
151	0.00	0.00	0.00	0.00	0.00	0.00
152	0.00	0.00	0.00	0.00	0.00	0.00
153	0.00	0.00	0.00	0.00	0.00	0.00
154	0.00	0.00	0.00	0.00	0.00	0.00
155	0.00	0.00	0.00	0.00	0.00	0.00
156	0.00	0.00	0.00	0.00	0.00	0.00
157	0.00	0.00	0.00	0.00	0.00	0.00
158	0.00	0.00	0.00	0.00	0.00	0.00
159	0.00	0.00	0.00	0.00	0.00	0.00
160	0.00	0.00	0.00	0.00	0.00	0.00
161	0.00	0.00	0.00	0.00	0.00	0.00
162	0.00	0.00	0.00	0.00	0.00	0.00
163	0.00	0.00	0.00	0.00	0.00	0.00
164	0.00	0.00	0.00	0.00	0.00	0.00
165	0.00	0.00	0.00	0.00	0.00	0.00
166	0.00	0.00	0.00	0.00	0.00	0.00
167	0.00	0.00	0.00	0.00	0.00	0.00
168	0.00	0.00	0.00	0.00	0.00	0.00
169	0.00	0.00	0.00	0.00	0.00	0.00
170	0.00	0.00	0.00	0.00	0.00	0.00
171	0.00	0.00	0.00	0.00	0.00	0.00
172	0.00	0.00	0.00	0.00	0.00	0.00
173	0.00	0.00	0.00	0.00	0.00	0.00
174	0.00	0.00	0.00	0.00	0.00	0.00
175	0.00	0.00	0.00	0.00	0.00	0.00
176	0.00	0.00	0.00	0.00	0.00	0.00
177	0.00	0.00	0.00	0.00	0.00	0.00
178	0.00	0.00	0.00	0.00	0.00	0.00
179	0.00	0.00	0.00	0.00	0.00	0.00
180	0.00	0.00	0.00	0.00	0.00	0.00

HIPOTESIS 1 PRETENSADO INICIAL

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	-0.11609	0.00000
283	0.00000	-0.11668	0.00000
284	0.00000	0.49769	0.00000
285	0.00000	0.49554	0.00000
286	0.00000	-1.70674	0.00000
287	0.00000	-1.70324	0.00000
288	0.00000	6.02829	0.00000
289	0.00000	6.00737	0.00000
290	0.00000	-21.35663	0.00000
291	0.00000	-21.28801	0.00000
292	0.00000	75.57531	0.00000
293	0.00000	75.48904	0.00000
294	0.00000	-105.33903	0.00000
295	0.00000	-104.56485	0.00000
296	0.00000	43.51225	0.00000
297	0.00000	48.28435	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	-0.301
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.00	-0.23	0.00	0.52	0.23	0.00
2	-0.52	-0.23	0.00	1.05	0.23	0.00
3	-1.05	-0.23	0.00	1.57	0.23	0.00
4	-1.57	-0.23	0.00	2.10	0.23	0.00
5	-2.10	-0.23	0.00	2.62	0.23	0.00
6	-2.62	-0.23	0.00	3.14	0.23	0.00
7	-3.14	-0.23	0.00	3.67	0.23	0.00
8	-3.67	-0.23	0.00	4.19	0.23	0.00
9	-4.19	-0.23	0.00	4.72	0.23	0.00
10	-4.72	-0.23	0.00	5.24	0.23	0.00
11	-5.24	-0.23	0.00	5.77	0.23	0.00
12	-5.77	-0.23	0.00	6.29	0.23	0.00
13	-6.29	-0.23	0.00	6.81	0.23	0.00
14	-6.81	-0.23	0.00	7.34	0.23	0.00
15	-7.34	-0.23	0.00	7.86	0.23	0.00
16	-7.86	-0.23	0.00	8.39	0.23	0.00
17	-8.39	-0.23	0.00	8.91	0.23	0.00
18	-8.91	-0.23	0.00	9.44	0.23	0.00
19	-9.44	-0.23	0.01	9.96	0.23	-0.01
20	-9.96	-0.23	0.00	10.48	0.23	0.00
21	-10.48	0.76	0.00	8.20	-0.76	0.00
22	-8.20	0.76	0.00	5.92	-0.76	0.00
23	-5.92	0.76	0.00	3.64	-0.76	0.00
24	-3.64	0.76	0.00	1.36	-0.76	0.00
25	-1.36	0.76	0.00	-0.92	-0.76	0.00
26	0.92	0.76	0.00	-3.20	-0.76	0.00
27	3.20	0.76	0.00	-5.48	-0.76	0.00
28	5.48	0.76	0.00	-7.76	-0.76	0.00
29	7.76	0.76	0.00	-10.04	-0.76	0.00
30	10.04	0.76	0.00	-12.32	-0.76	0.00
31	12.32	0.76	0.00	-14.60	-0.76	0.00
32	14.60	0.76	0.00	-16.88	-0.76	0.00
33	16.88	0.76	0.00	-19.16	-0.76	0.00
34	19.16	0.76	0.00	-21.44	-0.76	0.00
35	21.44	0.76	-0.01	-23.72	-0.76	0.01
36	23.72	0.76	0.00	-26.00	-0.76	0.00
37	26.00	0.76	0.00	-28.28	-0.76	0.00
38	28.28	0.76	0.00	-30.56	-0.76	0.00
39	30.56	0.76	0.00	-32.84	-0.76	0.00
40	32.84	0.76	0.00	-35.12	-0.76	0.00
41	35.12	-2.65	0.01	-27.16	2.65	-0.01
42	27.16	-2.65	0.00	-19.21	2.65	0.00
43	19.21	-2.65	0.01	-11.26	2.65	-0.01
44	11.26	-2.65	0.01	-3.31	2.65	-0.01
45	3.31	-2.65	0.01	4.64	2.65	-0.01

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
46	-4.64	-2.65	0.01	12.59	2.65	-0.01
47	-12.59	-2.65	0.01	20.54	2.65	-0.01
48	-20.54	-2.65	0.00	28.49	2.65	0.00
49	-28.48	-2.65	0.01	36.44	2.65	-0.01
50	-36.44	-2.65	0.01	44.39	2.65	-0.01
51	-44.39	-2.65	0.00	52.35	2.65	0.00
52	-52.35	-2.65	0.00	60.30	2.65	0.00
53	-60.30	-2.65	-0.01	68.25	2.65	0.01
54	-68.25	-2.65	0.00	76.20	2.65	0.00
55	-76.20	-2.65	-0.02	84.15	2.65	0.02
56	-84.15	-2.65	0.00	92.11	2.65	0.00
57	-92.11	-2.65	-0.02	100.07	2.65	0.02
58	-100.07	-2.65	-0.02	108.02	2.65	0.02
59	-108.02	-2.65	-0.02	115.98	2.65	0.02
60	-115.98	-2.65	-0.05	123.94	2.65	0.05
61	-123.93	9.38	-0.06	95.79	-9.38	0.06
62	-95.79	9.38	-0.09	67.63	-9.38	0.09
63	-67.63	9.38	-0.10	39.49	-9.38	0.10
64	-39.49	9.39	-0.09	11.33	-9.39	0.09
65	-11.34	9.38	-0.10	-16.82	-9.38	0.10
66	16.82	9.39	-0.11	-44.98	-9.39	0.11
67	44.98	9.38	-0.09	-73.13	-9.38	0.09
68	73.14	9.39	-0.09	-101.30	-9.39	0.09
69	101.29	9.38	-0.09	-129.45	-9.38	0.09
70	129.45	9.38	-0.08	-157.60	-9.38	0.09
71	157.60	9.38	-0.04	-185.75	-9.38	0.04
72	185.75	9.38	-0.01	-213.90	-9.38	0.01
73	213.89	9.39	-0.05	-242.06	-9.39	0.05
74	242.05	9.39	0.00	-270.20	-9.39	0.01
75	270.20	9.38	0.07	-298.36	-9.38	-0.07
76	298.36	9.38	0.08	-326.51	-9.38	-0.08
77	326.52	9.39	0.07	-354.68	-9.39	-0.08
78	354.68	9.39	0.08	-382.85	-9.39	-0.08
79	382.84	9.39	0.25	-411.00	-9.39	-0.25
80	411.00	9.39	0.18	-439.16	-9.39	-0.18
81	439.15	-33.26	0.40	-339.38	33.26	-0.40
82	339.38	-33.26	0.40	-239.60	33.26	-0.40
83	239.60	-33.26	0.47	-139.80	33.26	-0.47
84	139.80	-33.26	0.47	-40.00	33.26	-0.47
85	40.00	-33.26	0.49	59.77	33.26	-0.48
86	-59.76	-33.26	0.47	159.57	33.26	-0.47
87	-159.57	-33.26	0.45	259.35	33.26	-0.45
88	-259.34	-33.26	0.36	359.13	33.26	-0.36
89	-359.15	-33.26	0.47	458.92	33.26	-0.47
90	-458.91	-33.26	0.27	558.70	33.26	-0.26

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
91	-558.70	-33.28	0.10	658.54	33.28	-0.11
92	-658.50	-33.26	0.20	758.33	33.26	-0.20
93	-758.31	-33.26	0.07	858.11	33.26	-0.08
94	-858.13	-33.26	-0.08	957.84	33.26	0.07
95	-957.88	-33.24	-0.19	1057.64	33.24	0.19
96	-1057.65	-33.26	-0.37	1157.40	33.26	0.37
97	-1157.41	-33.27	-0.71	1257.20	33.27	0.70
98	-1257.19	-33.26	-0.71	1356.98	33.26	0.70
99	-1356.98	-33.27	-1.10	1456.81	33.27	1.11
100	-1456.81	-33.26	-0.92	1556.56	33.26	0.92
101	-1556.60	117.80	-1.90	1203.16	-117.80	1.90
102	-1203.15	117.81	-1.56	849.76	-117.81	1.56
103	-849.77	117.82	-1.81	496.30	-117.82	1.81
104	-496.32	117.81	-2.02	142.95	-117.81	2.02
105	-142.95	117.77	-2.02	-210.35	-117.77	2.02
106	210.38	117.80	-2.01	-563.76	-117.80	2.01
107	563.80	117.80	-1.72	-917.10	-117.80	1.71
108	917.15	117.78	-1.62	-1270.59	-117.78	1.62
109	1270.62	117.81	-1.41	-1624.05	-117.81	1.42
110	1624.00	117.83	-1.40	-1977.50	-117.83	1.43
111	1977.39	117.84	-0.50	-2330.94	-117.84	0.51
112	2330.83	117.79	-0.55	-2684.16	-117.79	0.51
113	2684.19	117.78	-0.50	-3037.49	-117.78	0.48
114	3037.35	117.86	1.26	-3390.96	-117.86	-1.22
115	3390.85	117.87	0.82	-3744.41	-117.87	-0.84
116	3744.44	117.89	3.06	-4098.14	-117.89	-3.08
117	4098.21	117.93	1.85	-4451.93	-117.93	-1.85
118	4451.92	117.91	4.47	-4805.67	-117.91	-4.45
119	4805.68	117.91	3.88	-5159.34	-117.91	-3.87
120	5159.27	117.92	7.72	-5513.00	-117.92	-7.74
121	5513.07	-91.99	8.21	-5236.99	91.99	-8.22
122	5236.97	-92.00	9.14	-4961.02	92.00	-9.13
123	4961.08	-92.07	10.55	-4684.77	92.07	-10.56
124	4684.83	-92.01	11.90	-4408.70	92.01	-11.94
125	4408.67	-92.00	12.63	-4132.60	92.00	-12.66
126	-4036.67	-91.92	12.65	6541.43	91.92	-12.70
127	-6541.46	-91.74	9.67	8557.86	91.74	-9.68
128	-8558.07	-91.78	7.26	10102.12	91.78	-7.23
129	-10101.99	-91.77	4.33	11184.81	91.77	-4.29
130	-11184.69	-91.50	4.35	11810.93	91.50	-4.40
131	-11810.69	-91.74	2.53	11975.22	91.74	-2.53
132	-11975.14	-91.57	-0.98	11661.07	91.57	1.08
133	-11661.04	-91.46	-6.30	10837.26	91.46	6.34
134	-10837.38	-91.62	-9.54	9465.76	91.62	9.49
135	-9465.97	-91.57	-9.79	7505.26	91.57	9.70

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
136	-7505.43	-91.70	-10.94	4918.43	91.70	10.92
137	-4918.34	-91.75	-13.64	1685.53	91.75	13.69
138	-1685.37	-91.76	-13.63	-4482.11	91.76	13.62
139	4482.23	-91.82	-12.81	-8816.07	91.82	12.80
140	8816.19	-91.77	-6.34	-10690.54	91.77	6.35
141	10690.51	0.03	-2.64	-8919.51	-0.03	2.63
142	8919.56	-0.01	3.91	-1729.89	0.01	-3.93
143	1729.98	-0.04	4.25	2623.46	0.04	-4.26
144	-2623.37	-0.04	3.98	6296.28	0.04	-3.93
145	-6296.17	-0.03	-0.07	9280.77	0.03	0.04
146	0.00	0.00	0.00	0.00	0.00	0.00
147	0.00	0.00	0.00	0.00	0.00	0.00
148	0.00	0.00	0.00	0.00	0.00	0.00
149	0.00	0.00	0.00	0.00	0.00	0.00
150	0.00	0.00	0.00	0.00	0.00	0.00
151	0.00	0.00	0.00	0.00	0.00	0.00
152	0.00	0.00	0.00	0.00	0.00	0.00
153	0.00	0.00	0.00	0.00	0.00	0.00
154	0.00	0.00	0.00	0.00	0.00	0.00
155	0.00	0.00	0.00	0.00	0.00	0.00
156	0.00	0.00	0.00	0.00	0.00	0.00
157	0.00	0.00	0.00	0.00	0.00	0.00
158	0.00	0.00	0.00	0.00	0.00	0.00
159	0.00	0.00	0.00	0.00	0.00	0.00
160	0.00	0.00	0.00	0.00	0.00	0.00
161	0.00	0.00	0.00	0.00	0.00	0.00
162	0.00	0.00	0.00	0.00	0.00	0.00
163	0.00	0.00	0.00	0.00	0.00	0.00
164	0.00	0.00	0.00	0.00	0.00	0.00
165	0.00	0.00	0.00	0.00	0.00	0.00
166	0.00	0.00	0.00	0.00	0.00	0.00
167	0.00	0.00	0.00	0.00	0.00	0.00
168	0.00	0.00	0.00	0.00	0.00	0.00
169	0.00	0.00	0.00	0.00	0.00	0.00
170	0.00	0.00	0.00	0.00	0.00	0.00
171	0.00	0.00	0.00	0.00	0.00	0.00
172	0.00	0.00	0.00	0.00	0.00	0.00
173	0.00	0.00	0.00	0.00	0.00	0.00
174	0.00	0.00	0.00	0.00	0.00	0.00
175	0.00	0.00	0.00	0.00	0.00	0.00
176	0.00	0.00	0.00	0.00	0.00	0.00
177	0.00	0.00	0.00	0.00	0.00	0.00
178	0.00	0.00	0.00	0.00	0.00	0.00
179	0.00	0.00	0.00	0.00	0.00	0.00
180	0.00	0.00	0.00	0.00	0.00	0.00

Viaducto 1 sobre rio Averno FASE 8

No de fase de construccion = 8

No de fase de construccion = 8

CONDICIONES DE VINCULACION

Nudo	Codigo	RX	RZ	RY
282	0 1 0	0.000	0.000	0.000
283	0 1 0	0.000	0.000	0.000
284	0 1 0	0.000	0.000	0.000
285	0 1 0	0.000	0.000	0.000
286	0 1 0	0.000	0.000	0.000
287	0 1 0	0.000	0.000	0.000
288	0 1 0	0.000	0.000	0.000
289	0 1 0	0.000	0.000	0.000
290	0 1 0	0.000	0.000	0.000
291	0 1 0	0.000	0.000	0.000
292	0 1 0	0.000	0.000	0.000
293	0 1 0	0.000	0.000	0.000
294	0 1 0	0.000	0.000	0.000
295	0 1 0	0.000	0.000	0.000
296	0 1 0	0.000	0.000	0.000
297	0 1 0	0.000	0.000	0.000
298	0 1 0	0.000	0.000	0.000
299	0 1 0	0.000	0.000	0.000

HIPOTESIS 1 PESO PROPIO FASE 8

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	-0.02622	0.00000
283	0.00000	-0.02635	0.00000
284	0.00000	0.11242	0.00000
285	0.00000	0.11193	0.00000
286	0.00000	-0.38552	0.00000
287	0.00000	-0.38473	0.00000
288	0.00000	1.36168	0.00000
289	0.00000	1.35693	0.00000
290	0.00000	-4.82377	0.00000
291	0.00000	-4.80877	0.00000
292	0.00000	17.08713	0.00000
293	0.00000	17.05789	0.00000
294	0.00000	-60.55012	0.00000
295	0.00000	-60.58445	0.00000
296	0.00000	277.78912	0.00000
297	0.00000	277.50436	0.00000
298	0.00000	696.02655	0.00000
299	0.00000	692.86609	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	1849.684
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PESO PROPIO FASE 8

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.00	-0.05	0.00	0.12	0.05	0.00
2	-0.12	-0.05	0.00	0.24	0.05	0.00
3	-0.24	-0.05	0.00	0.35	0.05	0.00
4	-0.35	-0.05	0.00	0.47	0.05	0.00
5	-0.47	-0.05	0.00	0.59	0.05	0.00
6	-0.59	-0.05	0.00	0.71	0.05	0.00
7	-0.71	-0.05	0.00	0.83	0.05	0.00
8	-0.83	-0.05	0.00	0.95	0.05	0.00
9	-0.95	-0.05	0.00	1.07	0.05	0.00
10	-1.07	-0.05	0.00	1.18	0.05	0.00
11	-1.18	-0.05	0.00	1.30	0.05	0.00
12	-1.30	-0.05	0.00	1.42	0.05	0.00
13	-1.42	-0.05	0.00	1.54	0.05	0.00
14	-1.54	-0.05	0.00	1.66	0.05	0.00
15	-1.66	-0.05	0.00	1.78	0.05	0.00
16	-1.78	-0.05	0.00	1.89	0.05	0.00
17	-1.89	-0.05	0.00	2.01	0.05	0.00
18	-2.01	-0.05	0.00	2.13	0.05	0.00
19	-2.13	-0.05	0.00	2.25	0.05	0.00
20	-2.25	-0.05	0.00	2.37	0.05	0.00
21	-2.37	0.17	0.00	1.85	-0.17	0.00
22	-1.85	0.17	0.00	1.34	-0.17	0.00
23	-1.34	0.17	0.00	0.82	-0.17	0.00
24	-0.82	0.17	0.00	0.31	-0.17	0.00
25	-0.31	0.17	0.00	-0.21	-0.17	0.00
26	0.21	0.17	0.00	-0.72	-0.17	0.00
27	0.72	0.17	0.00	-1.24	-0.17	0.00
28	1.24	0.17	0.00	-1.75	-0.17	0.00
29	1.75	0.17	0.00	-2.27	-0.17	0.00
30	2.27	0.17	0.00	-2.78	-0.17	0.00
31	2.78	0.17	0.00	-3.30	-0.17	0.00
32	3.30	0.17	0.00	-3.81	-0.17	0.00
33	3.81	0.17	0.00	-4.33	-0.17	0.00
34	4.33	0.17	0.00	-4.84	-0.17	0.00
35	4.84	0.17	0.00	-5.36	-0.17	0.00
36	5.36	0.17	0.00	-5.87	-0.17	0.00
37	5.87	0.17	0.00	-6.39	-0.17	0.00
38	6.39	0.17	0.00	-6.90	-0.17	0.00
39	6.90	0.17	0.00	-7.42	-0.17	0.00
40	7.42	0.17	0.00	-7.93	-0.17	0.00
41	7.93	-0.60	0.00	-6.14	0.60	0.00
42	6.14	-0.60	0.00	-4.34	0.60	0.00
43	4.34	-0.60	0.00	-2.54	0.60	0.00
44	2.54	-0.60	0.00	-0.75	0.60	0.00
45	0.75	-0.60	0.00	1.05	0.60	0.00

HIPOTESIS 1 PESO PROPIO FASE 8

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
46	-1.05	-0.60	0.00	2.84	0.60	0.00
47	-2.84	-0.60	0.00	4.64	0.60	0.00
48	-4.64	-0.60	0.00	6.43	0.60	0.00
49	-6.43	-0.60	0.00	8.23	0.60	0.00
50	-8.23	-0.60	0.00	10.03	0.60	0.00
51	-10.03	-0.60	0.00	11.82	0.60	0.00
52	-11.82	-0.60	0.00	13.62	0.60	0.00
53	-13.62	-0.60	0.00	15.42	0.60	0.00
54	-15.42	-0.60	0.00	17.21	0.60	0.00
55	-17.21	-0.60	0.00	19.01	0.60	0.00
56	-19.01	-0.60	0.00	20.81	0.60	0.00
57	-20.81	-0.60	0.00	22.60	0.60	0.00
58	-22.60	-0.60	0.00	24.40	0.60	0.00
59	-24.40	-0.60	0.00	26.20	0.60	0.00
60	-26.20	-0.60	-0.01	27.99	0.60	0.01
61	-27.99	2.12	-0.01	21.64	-2.12	0.01
62	-21.64	2.12	-0.02	15.28	-2.12	0.02
63	-15.28	2.12	-0.02	8.92	-2.12	0.02
64	-8.92	2.12	-0.02	2.56	-2.12	0.02
65	-2.56	2.12	-0.02	-3.80	-2.12	0.02
66	3.80	2.12	-0.02	-10.16	-2.12	0.02
67	10.16	2.12	-0.02	-16.52	-2.12	0.02
68	16.52	2.12	-0.02	-22.88	-2.12	0.02
69	22.88	2.12	-0.02	-29.24	-2.12	0.02
70	29.24	2.12	-0.02	-35.60	-2.12	0.02
71	35.60	2.12	-0.01	-41.96	-2.12	0.01
72	41.96	2.12	0.00	-48.32	-2.12	0.00
73	48.32	2.12	-0.01	-54.67	-2.12	0.01
74	54.68	2.12	0.00	-61.03	-2.12	0.00
75	61.03	2.12	0.02	-67.39	-2.12	-0.02
76	67.39	2.12	0.02	-73.75	-2.12	-0.02
77	73.75	2.12	0.02	-80.12	-2.12	-0.02
78	80.12	2.12	0.02	-86.48	-2.12	-0.02
79	86.48	2.12	0.06	-92.84	-2.12	-0.06
80	92.84	2.12	0.04	-99.20	-2.12	-0.04
81	99.19	-7.51	0.09	-76.66	7.51	-0.09
82	76.66	-7.51	0.09	-54.12	7.51	-0.09
83	54.12	-7.51	0.11	-31.58	7.51	-0.11
84	31.58	-7.51	0.11	-9.04	7.51	-0.11
85	9.03	-7.51	0.11	13.50	7.51	-0.11
86	-13.50	-7.51	0.11	36.04	7.51	-0.11
87	-36.05	-7.51	0.10	58.58	7.51	-0.10
88	-58.58	-7.51	0.08	81.12	7.51	-0.08
89	-81.12	-7.51	0.11	103.66	7.51	-0.11
90	-103.66	-7.52	0.06	126.20	7.52	-0.06

HIPOTESIS 1 PESO PROPIO FASE 8

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
91	-126.20	-7.52	0.02	148.75	7.52	-0.02
92	-148.74	-7.51	0.04	171.29	7.51	-0.04
93	-171.29	-7.51	0.02	193.83	7.51	-0.02
94	-193.83	-7.51	-0.02	216.36	7.51	0.02
95	-216.37	-7.51	-0.05	238.90	7.51	0.04
96	-238.90	-7.51	-0.09	261.43	7.51	0.09
97	-261.44	-7.51	-0.16	283.97	7.51	0.16
98	-283.98	-7.51	-0.16	306.51	7.51	0.16
99	-306.51	-7.51	-0.25	329.06	7.51	0.25
100	-329.06	-7.51	-0.21	351.60	7.51	0.21
101	-351.60	26.63	-0.45	271.70	-26.63	0.45
102	-271.70	26.63	-0.37	191.81	-26.63	0.37
103	-191.81	26.63	-0.42	111.91	-26.63	0.42
104	-111.90	26.63	-0.47	32.03	-26.63	0.47
105	-32.02	26.63	-0.48	-47.86	-26.63	0.47
106	47.86	26.63	-0.47	-127.74	-26.63	0.48
107	127.74	26.64	-0.41	-207.64	-26.64	0.41
108	207.65	26.62	-0.38	-287.54	-26.62	0.38
109	287.55	26.63	-0.34	-367.46	-26.63	0.34
110	367.45	26.62	-0.33	-447.34	-26.62	0.34
111	447.35	26.63	-0.13	-527.24	-26.63	0.13
112	527.23	26.63	-0.14	-607.13	-26.63	0.14
113	607.12	26.62	-0.13	-686.98	-26.62	0.13
114	686.97	26.64	0.27	-766.89	-26.64	-0.26
115	766.90	26.63	0.18	-846.79	-26.63	-0.17
116	846.80	26.65	0.67	-926.79	-26.65	-0.67
117	926.79	26.66	0.39	-1006.76	-26.66	-0.39
118	1006.76	26.65	0.99	-1086.73	-26.65	-0.99
119	1086.74	26.65	0.86	-1166.68	-26.65	-0.86
120	1166.67	26.66	1.73	-1246.63	-26.66	-1.73
121	1246.68	-94.48	1.49	-963.19	94.48	-1.49
122	963.19	-94.48	1.66	-679.78	94.48	-1.65
123	679.79	-94.49	1.85	-396.27	94.49	-1.85
124	396.26	-94.47	1.96	-112.80	94.47	-1.96
125	112.76	-94.47	1.97	170.64	94.47	-1.98
126	-170.65	-94.46	1.97	453.98	94.46	-1.97
127	-454.00	-94.43	1.77	737.26	94.43	-1.76
128	-737.20	-94.46	1.60	1020.59	94.46	-1.57
129	-1020.60	-94.41	1.26	1303.87	94.41	-1.28
130	-1303.87	-94.35	1.25	1587.03	94.35	-1.24
131	-1587.05	-94.45	1.04	1870.33	94.45	-1.04
132	-1870.29	-94.38	0.46	2153.42	94.38	-0.46
133	-2153.47	-94.38	-0.51	2436.59	94.38	0.50
134	-2436.60	-94.38	-1.23	2719.79	94.38	1.22
135	-2719.80	-94.45	-1.25	3003.11	94.45	1.24

HIPOTESIS 1 PESO PROPIO FASE 8

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
136	-3003.09	-94.43	-1.75	3286.38	94.43	1.75
137	-3286.30	-94.45	-3.64	3569.70	94.45	3.63
138	-3569.73	-94.41	-3.64	3853.00	94.41	3.63
139	-3853.05	-94.46	-4.26	4136.37	94.46	4.27
140	-4136.35	-94.44	-7.34	4419.65	94.44	7.35
141	-4419.77	460.84	-6.24	3037.23	-460.84	6.23
142	-3037.19	460.82	-8.43	1654.62	-460.82	8.43
143	-1654.62	460.81	-8.73	272.46	-460.81	8.73
144	-272.49	460.82	-8.78	-1110.34	-460.82	8.79
145	1110.41	460.80	-8.05	-2492.52	-460.80	8.07
146	2492.69	460.97	-8.49	-3754.38	-380.20	8.55
147	3754.38	380.18	-6.83	-4773.73	-299.42	6.75
148	4773.61	299.30	-4.54	-5550.42	-218.55	4.54
149	5550.45	218.60	-3.02	-6085.23	-137.84	3.01
150	6085.10	137.84	-2.84	-6377.27	-57.08	2.94
151	6377.45	56.97	0.04	-6427.13	23.78	0.09
152	6427.19	-23.76	-0.08	-6234.72	104.51	-0.01
153	6234.84	-104.48	4.50	-5800.27	185.24	-4.55
154	5800.41	-185.21	4.50	-5123.65	265.97	-4.49
155	5123.69	-265.97	6.07	-4204.49	346.75	-6.08
156	4204.59	-346.74	6.83	-3043.45	427.49	-6.81
157	3043.43	-427.40	9.08	-1640.18	508.16	-9.08
158	1640.11	-508.17	9.10	5.46	588.93	-9.08
159	-5.48	-589.02	9.11	1921.98	688.49	-9.08
160	-1921.98	-688.50	8.78	4136.21	787.95	-8.77
161	-4136.54	514.95	1.31	2740.65	-415.47	-1.31
162	-2740.65	415.50	0.83	1643.49	-316.04	-0.82
163	-1643.52	316.02	0.37	816.58	-235.25	-0.38
164	-816.56	235.29	0.00	231.85	-154.54	0.02
165	-231.79	154.53	0.01	0.02	0.02	-0.01
166	0.00	0.00	0.00	0.00	0.00	0.00
167	0.00	0.00	0.00	0.00	0.00	0.00
168	0.00	0.00	0.00	0.00	0.00	0.00
169	0.00	0.00	0.00	0.00	0.00	0.00
170	0.00	0.00	0.00	0.00	0.00	0.00
171	0.00	0.00	0.00	0.00	0.00	0.00
172	0.00	0.00	0.00	0.00	0.00	0.00
173	0.00	0.00	0.00	0.00	0.00	0.00
174	0.00	0.00	0.00	0.00	0.00	0.00
175	0.00	0.00	0.00	0.00	0.00	0.00
176	0.00	0.00	0.00	0.00	0.00	0.00
177	0.00	0.00	0.00	0.00	0.00	0.00
178	0.00	0.00	0.00	0.00	0.00	0.00
179	0.00	0.00	0.00	0.00	0.00	0.00
180	0.00	0.00	0.00	0.00	0.00	0.00

HIPOTESIS 1 PRETENSADO INICIAL

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	0.03275	0.00000
283	0.00000	0.03291	0.00000
284	0.00000	-0.14039	0.00000
285	0.00000	-0.13978	0.00000
286	0.00000	0.48144	0.00000
287	0.00000	0.48045	0.00000
288	0.00000	-1.70049	0.00000
289	0.00000	-1.69455	0.00000
290	0.00000	6.02399	0.00000
291	0.00000	6.00528	0.00000
292	0.00000	-21.33878	0.00000
293	0.00000	-21.30199	0.00000
294	0.00000	75.53857	0.00000
295	0.00000	75.58690	0.00000
296	0.00000	-105.19075	0.00000
297	0.00000	-104.30500	0.00000
298	0.00000	44.18790	0.00000
299	0.00000	47.63359	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	0.192
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.00	0.07	0.00	-0.15	-0.07	0.00
2	0.15	0.07	0.00	-0.30	-0.07	0.00
3	0.30	0.07	0.00	-0.44	-0.07	0.00
4	0.44	0.07	0.00	-0.59	-0.07	0.00
5	0.59	0.07	0.00	-0.74	-0.07	0.00
6	0.74	0.07	0.00	-0.89	-0.07	0.00
7	0.89	0.07	0.00	-1.03	-0.07	0.00
8	1.03	0.07	0.00	-1.18	-0.07	0.00
9	1.18	0.07	0.00	-1.33	-0.07	0.00
10	1.33	0.07	0.00	-1.48	-0.07	0.00
11	1.48	0.07	0.00	-1.63	-0.07	0.00
12	1.63	0.07	0.00	-1.77	-0.07	0.00
13	1.77	0.07	0.00	-1.92	-0.07	0.00
14	1.92	0.07	0.00	-2.07	-0.07	0.00
15	2.07	0.07	0.00	-2.22	-0.07	0.00
16	2.22	0.07	0.00	-2.37	-0.07	0.00
17	2.37	0.07	0.00	-2.51	-0.07	0.00
18	2.51	0.07	0.00	-2.66	-0.07	0.00
19	2.66	0.07	0.00	-2.81	-0.07	0.00
20	2.81	0.07	0.00	-2.96	-0.07	0.00
21	2.96	-0.21	0.00	-2.31	0.21	0.00
22	2.31	-0.21	0.00	-1.67	0.21	0.00
23	1.67	-0.21	0.00	-1.03	0.21	0.00
24	1.03	-0.21	0.00	-0.38	0.21	0.00
25	0.38	-0.21	0.00	0.26	0.21	0.00
26	-0.26	-0.21	0.00	0.90	0.21	0.00
27	-0.90	-0.21	0.00	1.55	0.21	0.00
28	-1.55	-0.21	0.00	2.19	0.21	0.00
29	-2.19	-0.21	0.00	2.83	0.21	0.00
30	-2.83	-0.21	0.00	3.48	0.21	0.00
31	-3.48	-0.21	0.00	4.12	0.21	0.00
32	-4.12	-0.21	0.00	4.76	0.21	0.00
33	-4.76	-0.21	0.00	5.40	0.21	0.00
34	-5.40	-0.21	0.00	6.05	0.21	0.00
35	-6.05	-0.21	0.00	6.69	0.21	0.00
36	-6.69	-0.21	0.00	7.33	0.21	0.00
37	-7.33	-0.21	0.00	7.98	0.21	0.00
38	-7.98	-0.21	0.00	8.62	0.21	0.00
39	-8.62	-0.21	0.00	9.26	0.21	0.00
40	-9.26	-0.21	0.00	9.91	0.21	0.00
41	-9.91	0.75	0.00	7.66	-0.75	0.00
42	-7.66	0.75	0.00	5.42	-0.75	0.00
43	-5.42	0.75	0.00	3.18	-0.75	0.00
44	-3.18	0.75	0.00	0.93	-0.75	0.00
45	-0.93	0.75	0.00	-1.31	-0.75	0.00

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
46	1.31	0.75	0.00	-3.55	-0.75	0.00
47	3.55	0.75	0.00	-5.79	-0.75	0.00
48	5.79	0.75	0.00	-8.04	-0.75	0.00
49	8.04	0.75	0.00	-10.28	-0.75	0.00
50	10.28	0.75	0.00	-12.52	-0.75	0.00
51	12.52	0.75	0.00	-14.77	-0.75	0.00
52	14.77	0.75	0.00	-17.01	-0.75	0.00
53	17.01	0.75	0.00	-19.25	-0.75	0.00
54	19.25	0.75	0.00	-21.50	-0.75	0.00
55	21.49	0.75	0.00	-23.74	-0.75	-0.01
56	23.74	0.75	0.00	-25.98	-0.75	0.00
57	25.98	0.75	0.01	-28.23	-0.75	-0.01
58	28.23	0.75	0.01	-30.47	-0.75	-0.01
59	30.47	0.75	0.01	-32.72	-0.75	-0.01
60	32.72	0.75	0.02	-34.96	-0.75	-0.02
61	34.96	-2.65	0.02	-27.02	2.65	-0.02
62	27.02	-2.65	0.03	-19.08	2.65	-0.03
63	19.08	-2.65	0.03	-11.14	2.65	-0.03
64	11.14	-2.65	0.03	-3.20	2.65	-0.03
65	3.20	-2.65	0.03	4.74	2.65	-0.03
66	-4.74	-2.65	0.03	12.69	2.65	-0.03
67	-12.69	-2.65	0.02	20.63	2.65	-0.02
68	-20.63	-2.65	0.02	28.57	2.65	-0.02
69	-28.57	-2.65	0.02	36.51	2.65	-0.02
70	-36.52	-2.65	0.02	44.45	2.65	-0.02
71	-44.46	-2.65	0.01	52.40	2.65	-0.01
72	-52.40	-2.65	0.00	60.34	2.65	0.00
73	-60.34	-2.65	0.01	68.28	2.65	-0.01
74	-68.28	-2.65	0.00	76.22	2.65	0.00
75	-76.22	-2.65	-0.02	84.16	2.65	0.02
76	-84.16	-2.65	-0.02	92.10	2.65	0.02
77	-92.10	-2.65	-0.02	100.05	2.65	0.02
78	-100.05	-2.65	-0.02	107.99	2.65	0.02
79	-107.99	-2.65	-0.07	115.93	2.65	0.07
80	-115.93	-2.65	-0.05	123.88	2.65	0.05
81	-123.87	9.38	-0.11	95.73	-9.38	0.11
82	-95.73	9.38	-0.11	67.59	-9.38	0.11
83	-67.59	9.38	-0.13	39.44	-9.38	0.13
84	-39.44	9.38	-0.13	11.28	-9.38	0.13
85	-11.29	9.39	-0.14	-16.86	-9.39	0.13
86	16.86	9.38	-0.13	-45.01	-9.38	0.13
87	45.01	9.38	-0.12	-73.16	-9.38	0.13
88	73.15	9.38	-0.10	-101.31	-9.38	0.10
89	101.31	9.38	-0.13	-129.45	-9.38	0.13
90	129.45	9.39	-0.07	-157.61	-9.39	0.07

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
91	157.60	9.38	-0.03	-185.76	-9.38	0.03
92	185.76	9.38	-0.05	-213.90	-9.38	0.06
93	213.91	9.38	-0.02	-242.06	-9.38	0.02
94	242.05	9.38	0.02	-270.20	-9.38	-0.02
95	270.20	9.38	0.06	-298.33	-9.38	-0.05
96	298.34	9.38	0.11	-326.48	-9.38	-0.11
97	326.49	9.38	0.20	-354.63	-9.38	-0.20
98	354.63	9.38	0.20	-382.77	-9.38	-0.20
99	382.78	9.38	0.31	-410.93	-9.38	-0.31
100	410.94	9.38	0.26	-439.07	-9.38	-0.26
101	439.09	-33.26	0.56	-339.30	33.26	-0.56
102	339.30	-33.26	0.46	-239.53	33.26	-0.46
103	239.53	-33.26	0.53	-139.75	33.26	-0.53
104	139.74	-33.25	0.59	-40.00	33.25	-0.59
105	39.99	-33.25	0.59	59.77	33.25	-0.59
106	-59.76	-33.26	0.59	159.53	33.26	-0.60
107	-159.51	-33.28	0.52	259.33	33.28	-0.52
108	-259.31	-33.25	0.48	359.09	33.25	-0.48
109	-359.11	-33.25	0.41	458.86	33.25	-0.42
110	-458.88	-33.26	0.42	558.64	33.26	-0.42
111	-558.64	-33.28	0.16	658.45	33.28	-0.16
112	-658.42	-33.26	0.17	758.18	33.26	-0.17
113	-758.18	-33.24	0.16	857.88	33.24	-0.16
114	-857.88	-33.27	-0.32	957.71	33.27	0.32
115	-957.69	-33.28	-0.21	1057.50	33.28	0.21
116	-1057.51	-33.28	-0.84	1157.36	33.28	0.83
117	-1157.38	-33.29	-0.51	1257.24	33.29	0.50
118	-1257.24	-33.28	-1.24	1357.12	33.28	1.24
119	-1357.11	-33.28	-1.07	1456.96	33.28	1.07
120	-1456.95	-33.29	-2.16	1556.80	33.29	2.16
121	-1556.87	117.84	-1.84	1203.28	-117.84	1.84
122	-1203.27	117.83	-2.04	849.84	-117.83	2.05
123	-849.84	117.87	-2.29	496.21	-117.87	2.29
124	-496.23	117.84	-2.43	142.63	-117.84	2.43
125	-142.63	117.83	-2.44	-210.88	-117.83	2.46
126	210.83	117.82	-2.46	-564.29	-117.82	2.44
127	564.23	117.77	-2.21	-917.60	-117.77	2.21
128	917.56	117.79	-1.95	-1270.91	-117.79	1.94
129	1270.90	117.80	-1.57	-1624.24	-117.80	1.60
130	1624.25	117.71	-1.54	-1977.49	-117.71	1.59
131	1977.50	117.75	-1.25	-2330.70	-117.75	1.30
132	2330.70	117.70	-0.62	-2683.85	-117.70	0.60
133	2683.82	117.75	0.61	-3037.01	-117.75	-0.62
134	3037.05	117.74	1.53	-3390.24	-117.74	-1.49
135	3390.23	117.80	1.56	-3743.64	-117.80	-1.56

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
136	3743.58	117.78	2.19	-4096.81	-117.78	-2.20
137	4096.85	117.79	4.55	-4450.25	-117.79	-4.54
138	4450.26	117.79	4.51	-4803.69	-117.79	-4.51
139	4803.65	117.82	5.32	-5157.07	-117.82	-5.33
140	5157.02	117.80	9.14	-5510.37	-117.80	-9.15
141	5510.41	-91.68	8.37	-5235.38	91.68	-8.36
142	5235.35	-91.67	12.21	-4960.29	91.67	-12.19
143	4960.28	-91.63	13.09	-4685.39	91.63	-13.06
144	4685.46	-91.73	13.64	-4410.24	91.73	-13.62
145	4410.29	-91.71	16.41	-4135.29	91.71	-16.48
146	-4034.15	-91.73	15.72	6539.09	91.73	-15.71
147	-6539.20	-91.63	12.60	8555.88	91.63	-12.67
148	-8555.92	-91.87	8.85	10100.13	91.87	-8.86
149	-10100.02	-91.58	5.87	11182.39	91.58	-5.90
150	-11182.11	-91.78	5.70	11808.79	91.78	-5.76
151	-11808.61	-91.75	0.39	11973.36	91.75	-0.46
152	-11973.28	-91.66	0.45	11659.12	91.66	-0.38
153	-11659.17	-91.62	-8.12	10836.15	91.62	8.02
154	-10836.00	-91.90	-8.06	9465.27	91.90	8.07
155	-9465.22	-91.87	-10.88	7505.22	91.87	10.83
156	-7505.07	-91.92	-12.23	4918.28	91.92	12.21
157	-4918.33	-91.87	-16.02	1686.17	91.87	16.04
158	-1686.11	-91.88	-15.95	-4479.85	91.88	16.02
159	4479.87	-91.77	-14.73	-8815.23	91.77	14.70
160	8815.22	-91.76	-13.17	-10689.32	91.76	13.18
161	10689.36	0.07	-0.87	-8918.17	-0.07	0.88
162	8918.17	0.09	0.71	-1730.17	-0.09	-0.73
163	1730.21	0.07	1.23	2624.27	-0.07	-1.24
164	-2624.18	0.01	0.02	6295.86	-0.01	0.00
165	-6295.90	0.14	-0.02	9280.56	-0.14	0.05
166	0.00	0.00	0.00	0.00	0.00	0.00
167	0.00	0.00	0.00	0.00	0.00	0.00
168	0.00	0.00	0.00	0.00	0.00	0.00
169	0.00	0.00	0.00	0.00	0.00	0.00
170	0.00	0.00	0.00	0.00	0.00	0.00
171	0.00	0.00	0.00	0.00	0.00	0.00
172	0.00	0.00	0.00	0.00	0.00	0.00
173	0.00	0.00	0.00	0.00	0.00	0.00
174	0.00	0.00	0.00	0.00	0.00	0.00
175	0.00	0.00	0.00	0.00	0.00	0.00
176	0.00	0.00	0.00	0.00	0.00	0.00
177	0.00	0.00	0.00	0.00	0.00	0.00
178	0.00	0.00	0.00	0.00	0.00	0.00
179	0.00	0.00	0.00	0.00	0.00	0.00
180	0.00	0.00	0.00	0.00	0.00	0.00

Viaducto 1 sobre rio Averno FASE 9

No de fase de construccion = 9

No de fase de construccion = 9

CONDICIONES DE VINCULACION

Nudo	Codigo	RX	RZ	RY
282	0 1 0	0.000	0.000	0.000
283	0 1 0	0.000	0.000	0.000
284	0 1 0	0.000	0.000	0.000
285	0 1 0	0.000	0.000	0.000
286	0 1 0	0.000	0.000	0.000
287	0 1 0	0.000	0.000	0.000
288	0 1 0	0.000	0.000	0.000
289	0 1 0	0.000	0.000	0.000
290	0 1 0	0.000	0.000	0.000
291	0 1 0	0.000	0.000	0.000
292	0 1 0	0.000	0.000	0.000
293	0 1 0	0.000	0.000	0.000
294	0 1 0	0.000	0.000	0.000
295	0 1 0	0.000	0.000	0.000
296	0 1 0	0.000	0.000	0.000
297	0 1 0	0.000	0.000	0.000
298	0 1 0	0.000	0.000	0.000
299	0 1 0	0.000	0.000	0.000
300	0 1 0	0.000	0.000	0.000
301	0 1 0	0.000	0.000	0.000

Ancho de banda = 849

HIPOTESIS 1 PESO PROPIO FASE 9

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	0.00740	0.00000
283	0.00000	0.00744	0.00000
284	0.00000	-0.03172	0.00000
285	0.00000	-0.03158	0.00000
286	0.00000	0.10878	0.00000
287	0.00000	0.10856	0.00000
288	0.00000	-0.38421	0.00000
289	0.00000	-0.38287	0.00000
290	0.00000	1.36108	0.00000
291	0.00000	1.35685	0.00000
292	0.00000	-4.82144	0.00000
293	0.00000	-4.81297	0.00000
294	0.00000	17.07722	0.00000
295	0.00000	17.09122	0.00000
296	0.00000	-60.63969	0.00000
297	0.00000	-60.44498	0.00000
298	0.00000	277.66876	0.00000
299	0.00000	277.78287	0.00000
300	0.00000	696.28229	0.00000
301	0.00000	692.71899	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	1850.022
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PESO PROPIO FASE 9

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.00	0.01	0.00	-0.03	-0.01	0.00
2	0.03	0.01	0.00	-0.07	-0.01	0.00
3	0.07	0.01	0.00	-0.10	-0.01	0.00
4	0.10	0.01	0.00	-0.13	-0.01	0.00
5	0.13	0.01	0.00	-0.17	-0.01	0.00
6	0.17	0.01	0.00	-0.20	-0.01	0.00
7	0.20	0.01	0.00	-0.23	-0.01	0.00
8	0.23	0.01	0.00	-0.27	-0.01	0.00
9	0.27	0.01	0.00	-0.30	-0.01	0.00
10	0.30	0.01	0.00	-0.33	-0.01	0.00
11	0.33	0.01	0.00	-0.37	-0.01	0.00
12	0.37	0.01	0.00	-0.40	-0.01	0.00
13	0.40	0.01	0.00	-0.43	-0.01	0.00
14	0.43	0.01	0.00	-0.47	-0.01	0.00
15	0.47	0.01	0.00	-0.50	-0.01	0.00
16	0.50	0.01	0.00	-0.53	-0.01	0.00
17	0.53	0.01	0.00	-0.57	-0.01	0.00
18	0.57	0.01	0.00	-0.60	-0.01	0.00
19	0.60	0.01	0.00	-0.63	-0.01	0.00
20	0.63	0.01	0.00	-0.67	-0.01	0.00
21	0.67	-0.05	0.00	-0.52	0.05	0.00
22	0.52	-0.05	0.00	-0.38	0.05	0.00
23	0.38	-0.05	0.00	-0.23	0.05	0.00
24	0.23	-0.05	0.00	-0.09	0.05	0.00
25	0.09	-0.05	0.00	0.06	0.05	0.00
26	-0.06	-0.05	0.00	0.20	0.05	0.00
27	-0.20	-0.05	0.00	0.35	0.05	0.00
28	-0.35	-0.05	0.00	0.49	0.05	0.00
29	-0.49	-0.05	0.00	0.64	0.05	0.00
30	-0.64	-0.05	0.00	0.79	0.05	0.00
31	-0.79	-0.05	0.00	0.93	0.05	0.00
32	-0.93	-0.05	0.00	1.08	0.05	0.00
33	-1.08	-0.05	0.00	1.22	0.05	0.00
34	-1.22	-0.05	0.00	1.37	0.05	0.00
35	-1.37	-0.05	0.00	1.51	0.05	0.00
36	-1.51	-0.05	0.00	1.66	0.05	0.00
37	-1.66	-0.05	0.00	1.80	0.05	0.00
38	-1.80	-0.05	0.00	1.95	0.05	0.00
39	-1.95	-0.05	0.00	2.09	0.05	0.00
40	-2.09	-0.05	0.00	2.24	0.05	0.00
41	-2.24	0.17	0.00	1.73	-0.17	0.00
42	-1.73	0.17	0.00	1.22	-0.17	0.00
43	-1.22	0.17	0.00	0.72	-0.17	0.00
44	-0.72	0.17	0.00	0.21	-0.17	0.00
45	-0.21	0.17	0.00	-0.30	-0.17	0.00

HIPOTESIS 1 PESO PROPIO FASE 9

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
46	0.30	0.17	0.00	-0.80	-0.17	0.00
47	0.80	0.17	0.00	-1.31	-0.17	0.00
48	1.31	0.17	0.00	-1.82	-0.17	0.00
49	1.82	0.17	0.00	-2.32	-0.17	0.00
50	2.32	0.17	0.00	-2.83	-0.17	0.00
51	2.83	0.17	0.00	-3.34	-0.17	0.00
52	3.34	0.17	0.00	-3.84	-0.17	0.00
53	3.84	0.17	0.00	-4.35	-0.17	0.00
54	4.35	0.17	0.00	-4.86	-0.17	0.00
55	4.86	0.17	0.00	-5.36	-0.17	0.00
56	5.36	0.17	0.00	-5.87	-0.17	0.00
57	5.87	0.17	0.00	-6.38	-0.17	0.00
58	6.38	0.17	0.00	-6.88	-0.17	0.00
59	6.88	0.17	0.00	-7.39	-0.17	0.00
60	7.39	0.17	0.00	-7.90	-0.17	0.00
61	7.90	-0.60	0.00	-6.10	0.60	0.00
62	6.10	-0.60	0.01	-4.31	0.60	-0.01
63	4.31	-0.60	0.01	-2.52	0.60	-0.01
64	2.52	-0.60	0.01	-0.72	0.60	-0.01
65	0.72	-0.60	0.01	1.07	0.60	-0.01
66	-1.07	-0.60	0.01	2.87	0.60	-0.01
67	-2.87	-0.60	0.01	4.66	0.60	-0.01
68	-4.66	-0.60	0.01	6.46	0.60	-0.01
69	-6.46	-0.60	0.01	8.25	0.60	-0.01
70	-8.25	-0.60	0.01	10.04	0.60	-0.01
71	-10.04	-0.60	0.00	11.84	0.60	0.00
72	-11.84	-0.60	0.00	13.63	0.60	0.00
73	-13.63	-0.60	0.00	15.43	0.60	0.00
74	-15.43	-0.60	0.00	17.22	0.60	0.00
75	-17.22	-0.60	0.00	19.02	0.60	0.00
76	-19.02	-0.60	0.00	20.81	0.60	0.00
77	-20.81	-0.60	0.00	22.61	0.60	0.01
78	-22.61	-0.60	-0.01	24.40	0.60	0.01
79	-24.40	-0.60	-0.02	26.19	0.60	0.02
80	-26.19	-0.60	-0.01	27.99	0.60	0.01
81	-27.99	2.12	-0.03	21.63	-2.12	0.03
82	-21.63	2.12	-0.03	15.27	-2.12	0.03
83	-15.27	2.12	-0.03	8.91	-2.12	0.03
84	-8.91	2.12	-0.03	2.55	-2.12	0.03
85	-2.55	2.12	-0.03	-3.81	-2.12	0.03
86	3.81	2.12	-0.03	-10.17	-2.12	0.03
87	10.17	2.12	-0.03	-16.53	-2.12	0.03
88	16.53	2.12	-0.02	-22.89	-2.12	0.02
89	22.89	2.12	-0.03	-29.25	-2.12	0.03
90	29.25	2.12	-0.02	-35.61	-2.12	0.02

HIPOTESIS 1 PESO PROPIO FASE 9

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
91	35.61	2.12	-0.01	-41.97	-2.12	0.00
92	41.97	2.12	-0.01	-48.33	-2.12	0.01
93	48.33	2.12	-0.01	-54.69	-2.12	0.01
94	54.69	2.12	0.00	-61.05	-2.12	0.00
95	61.05	2.12	0.01	-67.41	-2.12	-0.01
96	67.41	2.12	0.02	-73.77	-2.12	-0.02
97	73.77	2.12	0.05	-80.13	-2.12	-0.04
98	80.13	2.12	0.05	-86.49	-2.12	-0.04
99	86.49	2.12	0.07	-92.85	-2.12	-0.07
100	92.85	2.12	0.06	-99.21	-2.12	-0.06
101	99.21	-7.51	0.13	-76.66	7.51	-0.13
102	76.66	-7.51	0.11	-54.12	7.51	-0.10
103	54.12	-7.51	0.12	-31.58	7.51	-0.12
104	31.57	-7.51	0.13	-9.04	7.51	-0.13
105	9.04	-7.51	0.13	13.51	7.51	-0.13
106	-13.50	-7.52	0.13	36.05	7.52	-0.13
107	-36.05	-7.51	0.12	58.58	7.51	-0.11
108	-58.59	-7.51	0.11	81.14	7.51	-0.11
109	-81.14	-7.51	0.10	103.68	7.51	-0.10
110	-103.68	-7.51	0.10	126.23	7.51	-0.09
111	-126.22	-7.52	0.04	148.77	7.52	-0.04
112	-148.77	-7.51	0.04	171.31	7.51	-0.04
113	-171.30	-7.51	0.04	193.84	7.51	-0.04
114	-193.83	-7.52	-0.07	216.39	7.52	0.07
115	-216.38	-7.52	-0.04	238.94	7.52	0.05
116	-238.94	-7.52	-0.19	261.50	7.52	0.19
117	-261.50	-7.52	-0.11	284.07	7.52	0.11
118	-284.07	-7.52	-0.28	306.63	7.52	0.28
119	-306.64	-7.52	-0.24	329.19	7.52	0.24
120	-329.19	-7.52	-0.49	351.75	7.52	0.49
121	-351.77	26.65	-0.41	271.81	-26.65	0.41
122	-271.81	26.65	-0.46	191.88	-26.65	0.46
123	-191.88	26.65	-0.51	111.91	-26.65	0.51
124	-111.92	26.65	-0.55	31.95	-26.65	0.55
125	-31.95	26.65	-0.55	-47.99	-26.65	0.55
126	47.97	26.65	-0.55	-127.91	-26.65	0.55
127	127.91	26.63	-0.49	-207.78	-26.63	0.49
128	207.80	26.64	-0.43	-287.70	-26.64	0.44
129	287.70	26.62	-0.35	-367.59	-26.62	0.35
130	367.60	26.63	-0.35	-447.48	-26.63	0.34
131	447.47	26.63	-0.29	-527.35	-26.63	0.29
132	527.35	26.62	-0.13	-607.22	-26.62	0.13
133	607.21	26.63	0.14	-687.10	-26.63	-0.14
134	687.08	26.63	0.35	-766.97	-26.63	-0.35
135	766.97	26.62	0.36	-846.84	-26.62	-0.36

HIPOTESIS 1 PESO PROPIO FASE 9

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
136	846.85	26.64	0.50	-926.75	-26.64	-0.50
137	926.75	26.63	1.04	-1006.66	-26.63	-1.03
138	1006.66	26.64	1.03	-1086.60	-26.64	-1.03
139	1086.58	26.65	1.21	-1166.50	-26.65	-1.21
140	1166.49	26.64	2.08	-1246.41	-26.64	-2.07
141	1246.42	-94.44	1.95	-963.09	94.44	-1.95
142	963.09	-94.44	2.66	-679.73	94.44	-2.65
143	679.74	-94.44	2.77	-396.48	94.44	-2.77
144	396.50	-94.45	2.83	-113.09	94.45	-2.82
145	113.10	-94.45	2.91	170.22	94.45	-2.90
146	-170.20	-94.46	2.92	453.63	94.46	-2.91
147	-453.64	-94.47	2.70	737.03	94.47	-2.71
148	-737.01	-94.44	2.38	1020.33	94.44	-2.38
149	-1020.38	-94.45	2.06	1303.74	94.45	-2.07
150	-1303.70	-94.45	2.04	1587.05	94.45	-2.05
151	-1587.11	-94.38	1.32	1870.30	94.38	-1.32
152	-1870.36	-94.44	1.33	2153.61	94.44	-1.34
153	-2153.68	-94.45	-0.25	2437.01	94.45	0.24
154	-2437.00	-94.48	-0.20	2720.48	94.48	0.23
155	-2720.44	-94.48	-1.04	3003.94	94.48	1.04
156	-3003.97	-94.46	-1.59	3287.27	94.46	1.58
157	-3287.35	-94.50	-4.05	3570.84	94.50	4.06
158	-3570.81	-94.48	-4.05	3854.25	94.48	4.06
159	-3854.26	-94.45	-5.16	4137.63	94.45	5.13
160	-4137.62	-94.45	-5.86	4420.97	94.45	5.86
161	-4421.11	461.01	-7.90	3037.82	-461.01	7.90
162	-3037.82	460.99	-8.44	1654.95	-460.99	8.45
163	-1654.95	461.04	-8.93	271.78	-461.04	8.91
164	-271.81	460.95	-9.04	-1110.98	-460.95	9.04
165	1110.92	460.97	-9.03	-2493.84	-460.97	9.05
166	2493.72	460.95	-7.16	-3755.38	-380.19	7.19
167	3755.37	380.18	-7.21	-4774.71	-299.42	7.18
168	4774.68	299.31	-7.15	-5551.52	-218.55	7.19
169	5551.61	218.59	-3.07	-6086.08	-137.82	3.04
170	6086.23	137.82	-2.02	-6378.61	-57.08	2.05
171	6378.57	56.99	1.57	-6428.46	23.78	-1.53
172	6428.39	-23.68	1.55	-6236.12	104.45	-1.56
173	6236.24	-104.55	2.71	-5801.49	185.30	-2.74
174	5801.50	-185.29	7.01	-5124.51	266.04	-7.01
175	5124.46	-266.00	6.00	-4205.24	346.78	-5.97
176	4205.09	-346.78	8.69	-3043.97	427.52	-8.70
177	3043.69	-427.49	9.02	-1639.65	508.27	-9.01
178	1639.63	-508.34	9.63	5.99	589.08	-9.66
179	-5.91	-589.06	9.62	1922.95	688.56	-9.63
180	-1922.86	-688.53	9.25	4137.75	788.00	-9.25

HIPOTESIS 1 PESO PROPIO FASE 9

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
181	-4137.13	515.01	1.31	2741.41	-415.56	-1.32
182	-2741.42	415.53	1.34	1644.08	-316.07	-1.36
183	-1644.10	316.12	0.12	816.83	-235.36	-0.11
184	-816.87	235.38	0.09	231.85	-154.62	-0.10
185	-231.94	154.60	0.01	0.06	-0.02	0.01
186	0.00	0.00	0.00	0.00	0.00	0.00
187	0.00	0.00	0.00	0.00	0.00	0.00
188	0.00	0.00	0.00	0.00	0.00	0.00
189	0.00	0.00	0.00	0.00	0.00	0.00
190	0.00	0.00	0.00	0.00	0.00	0.00
191	0.00	0.00	0.00	0.00	0.00	0.00
192	0.00	0.00	0.00	0.00	0.00	0.00
193	0.00	0.00	0.00	0.00	0.00	0.00
194	0.00	0.00	0.00	0.00	0.00	0.00
195	0.00	0.00	0.00	0.00	0.00	0.00
196	0.00	0.00	0.00	0.00	0.00	0.00
197	0.00	0.00	0.00	0.00	0.00	0.00
198	0.00	0.00	0.00	0.00	0.00	0.00
199	0.00	0.00	0.00	0.00	0.00	0.00
200	0.00	0.00	0.00	0.00	0.00	0.00
201	0.00	0.00	0.00	0.00	0.00	0.00
202	0.00	0.00	0.00	0.00	0.00	0.00
203	0.00	0.00	0.00	0.00	0.00	0.00
204	0.00	0.00	0.00	0.00	0.00	0.00
205	0.00	0.00	0.00	0.00	0.00	0.00
206	0.00	0.00	0.00	0.00	0.00	0.00
207	0.00	0.00	0.00	0.00	0.00	0.00
208	0.00	0.00	0.00	0.00	0.00	0.00
209	0.00	0.00	0.00	0.00	0.00	0.00
210	0.00	0.00	0.00	0.00	0.00	0.00
211	0.00	0.00	0.00	0.00	0.00	0.00
212	0.00	0.00	0.00	0.00	0.00	0.00
213	0.00	0.00	0.00	0.00	0.00	0.00
214	0.00	0.00	0.00	0.00	0.00	0.00
215	0.00	0.00	0.00	0.00	0.00	0.00
216	0.00	0.00	0.00	0.00	0.00	0.00
217	0.00	0.00	0.00	0.00	0.00	0.00
218	0.00	0.00	0.00	0.00	0.00	0.00
219	0.00	0.00	0.00	0.00	0.00	0.00
220	0.00	0.00	0.00	0.00	0.00	0.00
221	0.00	0.00	0.00	0.00	0.00	0.00
222	0.00	0.00	0.00	0.00	0.00	0.00
223	0.00	0.00	0.00	0.00	0.00	0.00
224	0.00	0.00	0.00	0.00	0.00	0.00
225	0.00	0.00	0.00	0.00	0.00	0.00

HIPOTESIS 1 PRETENSADO INICIAL

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	-0.00924	0.00000
283	0.00000	-0.00929	0.00000
284	0.00000	0.03962	0.00000
285	0.00000	0.03945	0.00000
286	0.00000	-0.13586	0.00000
287	0.00000	-0.13558	0.00000
288	0.00000	0.47986	0.00000
289	0.00000	0.47819	0.00000
290	0.00000	-1.69991	0.00000
291	0.00000	-1.69464	0.00000
292	0.00000	6.02178	0.00000
293	0.00000	6.01107	0.00000
294	0.00000	-21.32721	0.00000
295	0.00000	-21.34728	0.00000
296	0.00000	75.68667	0.00000
297	0.00000	75.39203	0.00000
298	0.00000	-104.05142	0.00000
299	0.00000	-105.72066	0.00000
300	0.00000	43.70816	0.00000
301	0.00000	48.01275	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	-0.262
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.00	-0.02	0.00	0.04	0.02	0.00
2	-0.04	-0.02	0.00	0.08	0.02	0.00
3	-0.08	-0.02	0.00	0.13	0.02	0.00
4	-0.13	-0.02	0.00	0.17	0.02	0.00
5	-0.17	-0.02	0.00	0.21	0.02	0.00
6	-0.21	-0.02	0.00	0.25	0.02	0.00
7	-0.25	-0.02	0.00	0.29	0.02	0.00
8	-0.29	-0.02	0.00	0.33	0.02	0.00
9	-0.33	-0.02	0.00	0.38	0.02	0.00
10	-0.38	-0.02	0.00	0.42	0.02	0.00
11	-0.42	-0.02	0.00	0.46	0.02	0.00
12	-0.46	-0.02	0.00	0.50	0.02	0.00
13	-0.50	-0.02	0.00	0.54	0.02	0.00
14	-0.54	-0.02	0.00	0.58	0.02	0.00
15	-0.58	-0.02	0.00	0.63	0.02	0.00
16	-0.63	-0.02	0.00	0.67	0.02	0.00
17	-0.67	-0.02	0.00	0.71	0.02	0.00
18	-0.71	-0.02	0.00	0.75	0.02	0.00
19	-0.75	-0.02	0.00	0.79	0.02	0.00
20	-0.79	-0.02	0.00	0.83	0.02	0.00
21	-0.83	0.06	0.00	0.65	-0.06	0.00
22	-0.65	0.06	0.00	0.47	-0.06	0.00
23	-0.47	0.06	0.00	0.29	-0.06	0.00
24	-0.29	0.06	0.00	0.11	-0.06	0.00
25	-0.11	0.06	0.00	-0.07	-0.06	0.00
26	0.07	0.06	0.00	-0.25	-0.06	0.00
27	0.25	0.06	0.00	-0.44	-0.06	0.00
28	0.44	0.06	0.00	-0.62	-0.06	0.00
29	0.62	0.06	0.00	-0.80	-0.06	0.00
30	0.80	0.06	0.00	-0.98	-0.06	0.00
31	0.98	0.06	0.00	-1.16	-0.06	0.00
32	1.16	0.06	0.00	-1.34	-0.06	0.00
33	1.34	0.06	0.00	-1.53	-0.06	0.00
34	1.53	0.06	0.00	-1.71	-0.06	0.00
35	1.71	0.06	0.00	-1.89	-0.06	0.00
36	1.89	0.06	0.00	-2.07	-0.06	0.00
37	2.07	0.06	0.00	-2.25	-0.06	0.00
38	2.25	0.06	0.00	-2.43	-0.06	0.00
39	2.43	0.06	0.00	-2.61	-0.06	0.00
40	2.61	0.06	0.00	-2.80	-0.06	0.00
41	2.80	-0.21	0.00	-2.16	0.21	0.00
42	2.16	-0.21	0.00	-1.53	0.21	0.00
43	1.53	-0.21	0.00	-0.90	0.21	0.00
44	0.90	-0.21	0.00	-0.26	0.21	0.00
45	0.26	-0.21	0.00	0.37	0.21	0.00

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
46	-0.37	-0.21	0.00	1.00	0.21	0.00
47	-1.00	-0.21	0.00	1.63	0.21	0.00
48	-1.63	-0.21	0.00	2.27	0.21	0.00
49	-2.27	-0.21	0.00	2.90	0.21	0.00
50	-2.90	-0.21	0.00	3.53	0.21	0.00
51	-3.53	-0.21	0.00	4.17	0.21	0.00
52	-4.17	-0.21	0.00	4.80	0.21	0.00
53	-4.80	-0.21	0.00	5.43	0.21	0.00
54	-5.43	-0.21	0.00	6.07	0.21	0.00
55	-6.07	-0.21	0.00	6.70	0.21	0.00
56	-6.70	-0.21	0.00	7.33	0.21	0.00
57	-7.33	-0.21	0.00	7.97	0.21	0.00
58	-7.97	-0.21	0.00	8.60	0.21	0.00
59	-8.60	-0.21	0.00	9.23	0.21	0.00
60	-9.23	-0.21	0.00	9.87	0.21	0.00
61	-9.87	0.75	0.00	7.62	-0.75	0.00
62	-7.62	0.75	-0.01	5.38	-0.75	0.01
63	-5.38	0.75	-0.01	3.14	-0.75	0.01
64	-3.14	0.75	-0.01	0.90	-0.75	0.01
65	-0.90	0.75	-0.01	-1.34	-0.75	0.01
66	1.34	0.75	-0.01	-3.58	-0.75	0.01
67	3.58	0.75	-0.01	-5.82	-0.75	0.01
68	5.82	0.75	-0.01	-8.06	-0.75	0.01
69	8.06	0.75	-0.01	-10.30	-0.75	0.01
70	10.30	0.75	-0.01	-12.54	-0.75	0.01
71	12.55	0.75	0.00	-14.79	-0.75	0.00
72	14.79	0.75	0.00	-17.03	-0.75	0.00
73	17.03	0.75	0.00	-19.27	-0.75	0.00
74	19.27	0.75	0.00	-21.51	-0.75	0.00
75	21.51	0.75	0.01	-23.75	-0.75	-0.01
76	23.75	0.75	0.01	-25.99	-0.75	-0.01
77	25.99	0.75	0.01	-28.23	-0.75	-0.01
78	28.23	0.75	0.01	-30.47	-0.75	-0.01
79	30.47	0.75	0.02	-32.72	-0.75	-0.02
80	32.72	0.75	0.01	-34.96	-0.75	-0.01
81	34.96	-2.65	0.03	-27.01	2.65	-0.03
82	27.02	-2.65	0.03	-19.07	2.65	-0.03
83	19.07	-2.65	0.04	-11.13	2.65	-0.04
84	11.13	-2.65	0.04	-3.18	2.65	-0.04
85	3.18	-2.65	0.04	4.76	2.65	-0.04
86	-4.76	-2.65	0.04	12.70	2.65	-0.04
87	-12.70	-2.65	0.04	20.64	2.65	-0.04
88	-20.65	-2.65	0.03	28.59	2.65	-0.03
89	-28.59	-2.65	0.04	36.53	2.65	-0.04
90	-36.53	-2.65	0.02	44.47	2.65	-0.02

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
91	-44.48	-2.65	0.01	52.42	2.65	-0.01
92	-52.42	-2.65	0.02	60.36	2.65	-0.02
93	-60.36	-2.65	0.01	68.31	2.65	-0.01
94	-68.31	-2.65	-0.01	76.25	2.65	0.01
95	-76.25	-2.65	-0.02	84.19	2.65	0.02
96	-84.19	-2.65	-0.03	92.13	2.65	0.03
97	-92.13	-2.65	-0.06	100.07	2.65	0.06
98	-100.07	-2.65	-0.06	108.02	2.65	0.06
99	-108.02	-2.65	-0.09	115.96	2.65	0.09
100	-115.96	-2.65	-0.07	123.90	2.65	0.07
101	-123.91	9.39	-0.16	95.75	-9.39	0.16
102	-95.75	9.39	-0.13	67.59	-9.39	0.13
103	-67.59	9.38	-0.15	39.44	-9.38	0.15
104	-39.44	9.38	-0.17	11.28	-9.38	0.17
105	-11.29	9.38	-0.17	-16.87	-9.38	0.17
106	16.86	9.39	-0.17	-45.02	-9.39	0.17
107	45.02	9.39	-0.15	-73.17	-9.39	0.14
108	73.17	9.39	-0.14	-101.33	-9.39	0.14
109	101.34	9.39	-0.12	-129.49	-9.39	0.12
110	129.49	9.39	-0.12	-157.65	-9.39	0.12
111	157.65	9.38	-0.05	-185.80	-9.38	0.04
112	185.81	9.38	-0.05	-213.95	-9.38	0.05
113	213.95	9.38	-0.05	-242.10	-9.38	0.05
114	242.09	9.39	0.09	-270.26	-9.39	-0.09
115	270.26	9.39	0.06	-298.42	-9.39	-0.06
116	298.42	9.39	0.24	-326.60	-9.39	-0.24
117	326.61	9.39	0.14	-354.78	-9.39	-0.14
118	354.79	9.39	0.35	-382.97	-9.39	-0.35
119	382.97	9.39	0.30	-411.14	-9.39	-0.30
120	411.14	9.39	0.61	-439.32	-9.39	-0.61
121	439.34	-33.28	0.51	-339.47	33.28	-0.51
122	339.47	-33.28	0.57	-239.65	33.28	-0.57
123	239.64	-33.28	0.64	-139.78	33.28	-0.63
124	139.78	-33.28	0.68	-39.91	33.28	-0.67
125	39.91	-33.28	0.68	59.93	33.28	-0.68
126	-59.93	-33.27	0.68	159.74	33.27	-0.68
127	-159.73	-33.27	0.61	259.54	33.27	-0.61
128	-259.52	-33.27	0.54	359.34	33.27	-0.55
129	-359.32	-33.27	0.43	459.12	33.27	-0.43
130	-459.12	-33.24	0.42	558.86	33.24	-0.43
131	-558.89	-33.24	0.34	658.61	33.24	-0.35
132	-658.64	-33.26	0.15	758.40	33.26	-0.16
133	-758.38	-33.26	-0.18	858.13	33.26	0.20
134	-858.14	-33.25	-0.45	957.88	33.25	0.44
135	-957.90	-33.26	-0.45	1057.68	33.26	0.46

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
136	-1057.67	-33.27	-0.63	1157.47	33.27	0.63
137	-1157.46	-33.28	-1.29	1257.28	33.28	1.29
138	-1257.27	-33.27	-1.29	1357.08	33.27	1.29
139	-1357.09	-33.27	-1.52	1456.88	33.27	1.52
140	-1456.89	-33.26	-2.60	1556.67	33.26	2.60
141	-1556.71	117.81	-2.53	1203.28	-117.81	2.52
142	-1203.27	117.80	-3.40	849.85	-117.80	3.40
143	-849.84	117.80	-3.56	496.52	-117.80	3.55
144	-496.54	117.80	-3.62	143.06	-117.80	3.62
145	-143.02	117.79	-3.71	-210.30	-117.79	3.70
146	210.35	117.83	-3.76	-563.86	-117.83	3.76
147	563.87	117.82	-3.50	-917.37	-117.82	3.47
148	917.37	117.78	-3.06	-1270.72	-117.78	3.06
149	1270.75	117.86	-2.68	-1624.37	-117.86	2.72
150	1624.22	117.81	-2.64	-1977.68	-117.81	2.68
151	1977.72	117.79	-1.75	-2331.08	-117.79	1.77
152	2331.06	117.81	-1.81	-2684.39	-117.81	1.82
153	2684.48	117.80	0.25	-3037.84	-117.80	-0.27
154	3037.91	117.84	0.18	-3391.44	-117.84	-0.17
155	3391.46	117.84	1.22	-3745.00	-117.84	-1.17
156	3745.02	117.86	1.81	-4098.56	-117.86	-1.85
157	4098.63	117.86	4.96	-4452.08	-117.86	-4.96
158	4452.15	117.85	4.94	-4805.69	-117.85	-4.96
159	4805.71	117.83	6.32	-5159.17	-117.83	-6.30
160	5159.17	117.81	7.20	-5512.60	-117.81	-7.20
161	5512.64	-91.96	7.21	-5236.73	91.96	-7.21
162	5236.73	-92.01	8.18	-4960.72	92.01	-8.15
163	4960.80	-91.99	9.56	-4684.87	91.99	-9.54
164	4684.93	-91.93	11.71	-4409.19	91.93	-11.67
165	4409.20	-91.91	11.70	-4133.56	91.91	-11.69
166	-4035.88	-91.74	14.78	6540.39	91.74	-14.78
167	-6540.63	-91.72	14.80	8557.91	91.72	-14.87
168	-8557.77	-91.74	14.81	10101.65	91.74	-14.84
169	-10101.80	-91.75	7.44	11184.35	91.75	-7.29
170	-11184.37	-91.74	5.43	11811.09	91.74	-5.41
171	-11810.96	-91.58	-1.30	11975.52	91.58	1.22
172	-11975.62	-91.58	-1.29	11661.70	91.58	1.24
173	-11661.82	-91.69	-3.39	10838.44	91.69	3.42
174	-10838.35	-91.74	-11.32	9467.57	91.74	11.39
175	-9467.25	-91.67	-9.64	7506.81	91.67	9.59
176	-7506.85	-91.65	-14.49	4919.50	91.65	14.43
177	-4919.50	-91.63	-14.97	1685.82	91.63	14.98
178	-1685.86	-91.73	-15.55	-4479.04	91.73	15.56
179	4479.14	-91.70	-13.80	-8815.35	91.70	13.81
180	8815.34	-91.70	-12.20	-10690.11	91.70	12.19

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
181	10690.10	0.03	0.55	-8919.30	-0.03	-0.54
182	8919.32	-0.01	0.41	-1730.85	0.01	-0.40
183	1730.82	0.01	1.70	2623.34	-0.01	-1.68
184	-2623.43	0.00	1.77	6295.17	0.00	-1.81
185	-6295.19	-0.01	-0.06	9280.73	0.01	0.04
186	0.00	0.00	0.00	0.00	0.00	0.00
187	0.00	0.00	0.00	0.00	0.00	0.00
188	0.00	0.00	0.00	0.00	0.00	0.00
189	0.00	0.00	0.00	0.00	0.00	0.00
190	0.00	0.00	0.00	0.00	0.00	0.00
191	0.00	0.00	0.00	0.00	0.00	0.00
192	0.00	0.00	0.00	0.00	0.00	0.00
193	0.00	0.00	0.00	0.00	0.00	0.00
194	0.00	0.00	0.00	0.00	0.00	0.00
195	0.00	0.00	0.00	0.00	0.00	0.00
196	0.00	0.00	0.00	0.00	0.00	0.00
197	0.00	0.00	0.00	0.00	0.00	0.00
198	0.00	0.00	0.00	0.00	0.00	0.00
199	0.00	0.00	0.00	0.00	0.00	0.00
200	0.00	0.00	0.00	0.00	0.00	0.00
201	0.00	0.00	0.00	0.00	0.00	0.00
202	0.00	0.00	0.00	0.00	0.00	0.00
203	0.00	0.00	0.00	0.00	0.00	0.00
204	0.00	0.00	0.00	0.00	0.00	0.00
205	0.00	0.00	0.00	0.00	0.00	0.00
206	0.00	0.00	0.00	0.00	0.00	0.00
207	0.00	0.00	0.00	0.00	0.00	0.00
208	0.00	0.00	0.00	0.00	0.00	0.00
209	0.00	0.00	0.00	0.00	0.00	0.00
210	0.00	0.00	0.00	0.00	0.00	0.00
211	0.00	0.00	0.00	0.00	0.00	0.00
212	0.00	0.00	0.00	0.00	0.00	0.00
213	0.00	0.00	0.00	0.00	0.00	0.00
214	0.00	0.00	0.00	0.00	0.00	0.00
215	0.00	0.00	0.00	0.00	0.00	0.00
216	0.00	0.00	0.00	0.00	0.00	0.00
217	0.00	0.00	0.00	0.00	0.00	0.00
218	0.00	0.00	0.00	0.00	0.00	0.00
219	0.00	0.00	0.00	0.00	0.00	0.00
220	0.00	0.00	0.00	0.00	0.00	0.00
221	0.00	0.00	0.00	0.00	0.00	0.00
222	0.00	0.00	0.00	0.00	0.00	0.00
223	0.00	0.00	0.00	0.00	0.00	0.00
224	0.00	0.00	0.00	0.00	0.00	0.00
225	0.00	0.00	0.00	0.00	0.00	0.00

Viaducto 1 sobre rio Averno FASE 10

No de fase de construccion = 10

No de fase de construccion = 10

CONDICIONES DE VINCULACION

Nudo	Codigo	RX	RZ	RY
282	0 1 0	0.000	0.000	0.000
283	0 1 0	0.000	0.000	0.000
284	0 1 0	0.000	0.000	0.000
285	0 1 0	0.000	0.000	0.000
286	0 1 0	0.000	0.000	0.000
287	0 1 0	0.000	0.000	0.000
288	0 1 0	0.000	0.000	0.000
289	0 1 0	0.000	0.000	0.000
290	0 1 0	0.000	0.000	0.000
291	0 1 0	0.000	0.000	0.000
292	0 1 0	0.000	0.000	0.000
293	0 1 0	0.000	0.000	0.000
294	0 1 0	0.000	0.000	0.000
295	0 1 0	0.000	0.000	0.000
296	0 1 0	0.000	0.000	0.000
297	0 1 0	0.000	0.000	0.000
298	0 1 0	0.000	0.000	0.000
299	0 1 0	0.000	0.000	0.000
300	0 1 0	0.000	0.000	0.000
301	0 1 0	0.000	0.000	0.000
302	0 1 0	0.000	0.000	0.000
303	0 1 0	0.000	0.000	0.000

Ancho de banda = 849

HIPOTESIS 1 PESO PROPIO FASE 10

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	-0.00209	0.00000
283	0.00000	-0.00210	0.00000
284	0.00000	0.00895	0.00000
285	0.00000	0.00891	0.00000
286	0.00000	-0.03069	0.00000
287	0.00000	-0.03063	0.00000
288	0.00000	0.10841	0.00000
289	0.00000	0.10803	0.00000
290	0.00000	-0.38403	0.00000
291	0.00000	-0.38284	0.00000
292	0.00000	1.36038	0.00000
293	0.00000	1.35798	0.00000
294	0.00000	-4.81831	0.00000
295	0.00000	-4.82238	0.00000
296	0.00000	17.10521	0.00000
297	0.00000	17.04796	0.00000
298	0.00000	-60.50563	0.00000
299	0.00000	-60.62207	0.00000
300	0.00000	277.39316	0.00000
301	0.00000	277.93506	0.00000
302	0.00000	696.38031	0.00000
303	0.00000	692.70721	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	1849.921
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PESO PROPIO FASE 10

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.00	0.00	0.00	0.01	0.00	0.00
2	-0.01	0.00	0.00	0.02	0.00	0.00
3	-0.02	0.00	0.00	0.03	0.00	0.00
4	-0.03	0.00	0.00	0.04	0.00	0.00
5	-0.04	0.00	0.00	0.05	0.00	0.00
6	-0.05	0.00	0.00	0.06	0.00	0.00
7	-0.06	0.00	0.00	0.07	0.00	0.00
8	-0.07	0.00	0.00	0.08	0.00	0.00
9	-0.08	0.00	0.00	0.08	0.00	0.00
10	-0.08	0.00	0.00	0.09	0.00	0.00
11	-0.09	0.00	0.00	0.10	0.00	0.00
12	-0.10	0.00	0.00	0.11	0.00	0.00
13	-0.11	0.00	0.00	0.12	0.00	0.00
14	-0.12	0.00	0.00	0.13	0.00	0.00
15	-0.13	0.00	0.00	0.14	0.00	0.00
16	-0.14	0.00	0.00	0.15	0.00	0.00
17	-0.15	0.00	0.00	0.16	0.00	0.00
18	-0.16	0.00	0.00	0.17	0.00	0.00
19	-0.17	0.00	0.00	0.18	0.00	0.00
20	-0.18	0.00	0.00	0.19	0.00	0.00
21	-0.19	0.01	0.00	0.15	-0.01	0.00
22	-0.15	0.01	0.00	0.11	-0.01	0.00
23	-0.11	0.01	0.00	0.07	-0.01	0.00
24	-0.07	0.01	0.00	0.02	-0.01	0.00
25	-0.02	0.01	0.00	-0.02	-0.01	0.00
26	0.02	0.01	0.00	-0.06	-0.01	0.00
27	0.06	0.01	0.00	-0.10	-0.01	0.00
28	0.10	0.01	0.00	-0.14	-0.01	0.00
29	0.14	0.01	0.00	-0.18	-0.01	0.00
30	0.18	0.01	0.00	-0.22	-0.01	0.00
31	0.22	0.01	0.00	-0.26	-0.01	0.00
32	0.26	0.01	0.00	-0.30	-0.01	0.00
33	0.30	0.01	0.00	-0.34	-0.01	0.00
34	0.34	0.01	0.00	-0.39	-0.01	0.00
35	0.39	0.01	0.00	-0.43	-0.01	0.00
36	0.43	0.01	0.00	-0.47	-0.01	0.00
37	0.47	0.01	0.00	-0.51	-0.01	0.00
38	0.51	0.01	0.00	-0.55	-0.01	0.00
39	0.55	0.01	0.00	-0.59	-0.01	0.00
40	0.59	0.01	0.00	-0.63	-0.01	0.00
41	0.63	-0.05	0.00	-0.49	0.05	0.00
42	0.49	-0.05	0.00	-0.35	0.05	0.00
43	0.35	-0.05	0.00	-0.20	0.05	0.00
44	0.20	-0.05	0.00	-0.06	0.05	0.00
45	0.06	-0.05	0.00	0.08	0.05	0.00

HIPOTESIS 1 PESO PROPIO FASE 10

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
46	-0.08	-0.05	0.00	0.23	0.05	0.00
47	-0.23	-0.05	0.00	0.37	0.05	0.00
48	-0.37	-0.05	0.00	0.51	0.05	0.00
49	-0.51	-0.05	0.00	0.66	0.05	0.00
50	-0.66	-0.05	0.00	0.80	0.05	0.00
51	-0.80	-0.05	0.00	0.94	0.05	0.00
52	-0.94	-0.05	0.00	1.08	0.05	0.00
53	-1.08	-0.05	0.00	1.23	0.05	0.00
54	-1.23	-0.05	0.00	1.37	0.05	0.00
55	-1.37	-0.05	0.00	1.51	0.05	0.00
56	-1.51	-0.05	0.00	1.66	0.05	0.00
57	-1.66	-0.05	0.00	1.80	0.05	0.00
58	-1.80	-0.05	0.00	1.94	0.05	0.00
59	-1.94	-0.05	0.00	2.09	0.05	0.00
60	-2.09	-0.05	0.00	2.23	0.05	0.00
61	-2.23	0.17	0.00	1.72	-0.17	0.00
62	-1.72	0.17	0.00	1.22	-0.17	0.00
63	-1.22	0.17	0.00	0.71	-0.17	0.00
64	-0.71	0.17	0.00	0.20	-0.17	0.00
65	-0.20	0.17	0.00	-0.30	-0.17	0.00
66	0.30	0.17	0.00	-0.81	-0.17	0.00
67	0.81	0.17	0.00	-1.32	-0.17	0.00
68	1.32	0.17	0.00	-1.82	-0.17	0.00
69	1.82	0.17	0.00	-2.33	-0.17	0.00
70	2.33	0.17	0.00	-2.83	-0.17	0.00
71	2.83	0.17	0.00	-3.34	-0.17	0.00
72	3.34	0.17	0.00	-3.85	-0.17	0.00
73	3.85	0.17	0.00	-4.35	-0.17	0.00
74	4.35	0.17	0.00	-4.86	-0.17	0.00
75	4.86	0.17	0.00	-5.37	-0.17	0.00
76	5.37	0.17	0.00	-5.87	-0.17	0.00
77	5.87	0.17	0.00	-6.38	-0.17	0.00
78	6.38	0.17	0.00	-6.88	-0.17	0.00
79	6.88	0.17	0.00	-7.39	-0.17	0.00
80	7.39	0.17	0.00	-7.90	-0.17	0.00
81	7.90	-0.60	0.01	-6.10	0.60	-0.01
82	6.10	-0.60	0.01	-4.31	0.60	-0.01
83	4.31	-0.60	0.01	-2.51	0.60	-0.01
84	2.51	-0.60	0.01	-0.72	0.60	-0.01
85	0.72	-0.60	0.01	1.07	0.60	-0.01
86	-1.07	-0.60	0.01	2.87	0.60	-0.01
87	-2.87	-0.60	0.01	4.66	0.60	-0.01
88	-4.66	-0.60	0.01	6.46	0.60	-0.01
89	-6.46	-0.60	0.01	8.25	0.60	-0.01
90	-8.25	-0.60	0.00	10.05	0.60	0.00

HIPOTESIS 1 PESO PROPIO FASE 10

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
91	-10.05	-0.60	0.00	11.84	0.60	0.00
92	-11.84	-0.60	0.00	13.64	0.60	0.00
93	-13.64	-0.60	0.00	15.43	0.60	0.00
94	-15.43	-0.60	0.00	17.23	0.60	0.00
95	-17.22	-0.60	0.00	19.02	0.60	0.00
96	-19.02	-0.60	-0.01	20.81	0.60	0.01
97	-20.81	-0.60	-0.01	22.61	0.60	0.01
98	-22.61	-0.60	-0.01	24.40	0.60	0.01
99	-24.40	-0.60	-0.02	26.20	0.60	0.02
100	-26.20	-0.60	-0.02	27.99	0.60	0.02
101	-27.99	2.12	-0.04	21.63	-2.12	0.04
102	-21.63	2.12	-0.03	15.27	-2.12	0.03
103	-15.27	2.12	-0.03	8.91	-2.12	0.03
104	-8.91	2.12	-0.04	2.55	-2.12	0.04
105	-2.55	2.12	-0.04	-3.81	-2.12	0.04
106	3.81	2.12	-0.04	-10.17	-2.12	0.04
107	10.17	2.12	-0.03	-16.53	-2.12	0.03
108	16.53	2.12	-0.03	-22.89	-2.12	0.03
109	22.89	2.12	-0.03	-29.25	-2.12	0.03
110	29.25	2.12	-0.03	-35.62	-2.12	0.03
111	35.61	2.12	-0.01	-41.98	-2.12	0.01
112	41.98	2.12	-0.01	-48.33	-2.12	0.01
113	48.33	2.12	-0.01	-54.69	-2.12	0.01
114	54.69	2.12	0.02	-61.05	-2.12	-0.02
115	61.05	2.12	0.01	-67.42	-2.12	-0.01
116	67.42	2.12	0.05	-73.78	-2.12	-0.05
117	73.78	2.12	0.03	-80.15	-2.12	-0.03
118	80.15	2.12	0.08	-86.52	-2.12	-0.08
119	86.52	2.12	0.07	-92.88	-2.12	-0.07
120	92.88	2.12	0.14	-99.25	-2.12	-0.14
121	99.25	-7.52	0.12	-76.69	7.52	-0.12
122	76.69	-7.52	0.13	-54.14	7.52	-0.13
123	54.14	-7.52	0.14	-31.58	7.52	-0.14
124	31.58	-7.52	0.15	-9.02	7.52	-0.15
125	9.02	-7.52	0.15	13.54	7.52	-0.15
126	-13.54	-7.52	0.16	36.09	7.52	-0.16
127	-36.09	-7.52	0.14	58.63	7.52	-0.14
128	-58.63	-7.51	0.12	81.17	7.51	-0.12
129	-81.18	-7.51	0.10	103.71	7.51	-0.10
130	-103.72	-7.51	0.10	126.26	7.51	-0.10
131	-126.26	-7.51	0.08	148.79	7.51	-0.08
132	-148.80	-7.51	0.03	171.33	7.51	-0.04
133	-171.33	-7.51	-0.04	193.86	7.51	0.04
134	-193.86	-7.51	-0.10	216.40	7.51	0.10
135	-216.41	-7.51	-0.10	238.94	7.51	0.10

HIPOTESIS 1 PESO PROPIO FASE 10

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
136	-238.94	-7.52	-0.14	261.49	7.52	0.14
137	-261.48	-7.52	-0.29	284.03	7.52	0.29
138	-284.03	-7.52	-0.29	306.58	7.52	0.29
139	-306.58	-7.52	-0.34	329.13	7.52	0.34
140	-329.13	-7.52	-0.59	351.68	7.52	0.59
141	-351.68	26.64	-0.55	271.77	-26.64	0.55
142	-271.77	26.63	-0.75	191.85	-26.63	0.75
143	-191.85	26.63	-0.78	111.97	-26.63	0.78
144	-111.97	26.63	-0.80	32.05	-26.63	0.80
145	-32.04	26.64	-0.82	-47.86	-26.64	0.82
146	47.86	26.64	-0.83	-127.79	-26.64	0.83
147	127.81	26.64	-0.76	-207.72	-26.64	0.76
148	207.72	26.63	-0.67	-287.63	-26.63	0.67
149	287.64	26.64	-0.58	-367.55	-26.64	0.59
150	367.54	26.64	-0.59	-447.47	-26.64	0.58
151	447.48	26.63	-0.38	-527.36	-26.63	0.38
152	527.36	26.63	-0.38	-607.26	-26.63	0.39
153	607.26	26.65	0.06	-687.18	-26.65	-0.06
154	687.19	26.64	0.06	-767.12	-26.64	-0.06
155	767.13	26.64	0.29	-847.06	-26.64	-0.29
156	847.08	26.65	0.44	-927.01	-26.65	-0.44
157	927.01	26.66	1.13	-1006.96	-26.66	-1.13
158	1006.95	26.65	1.13	-1086.89	-26.65	-1.14
159	1086.90	26.64	1.44	-1166.82	-26.64	-1.44
160	1166.82	26.64	1.65	-1246.73	-26.64	-1.65
161	1246.76	-94.49	2.09	-963.24	94.49	-2.09
162	963.24	-94.50	2.26	-679.78	94.50	-2.26
163	679.80	-94.50	2.45	-396.29	94.50	-2.45
164	396.30	-94.49	2.64	-112.85	94.49	-2.64
165	112.87	-94.47	2.62	170.50	94.47	-2.62
166	-170.51	-94.47	2.50	453.94	94.47	-2.51
167	-453.95	-94.46	2.50	737.32	94.46	-2.52
168	-737.29	-94.46	2.52	1020.69	94.46	-2.52
169	-1020.69	-94.43	1.74	1303.96	94.43	-1.75
170	-1304.02	-94.45	1.52	1587.36	94.45	-1.52
171	-1587.33	-94.43	0.63	1870.66	94.43	-0.63
172	-1870.66	-94.42	0.62	2153.97	94.42	-0.64
173	-2154.00	-94.47	0.26	2437.30	94.47	-0.23
174	-2437.27	-94.44	-1.56	2720.50	94.44	1.58
175	-2720.45	-94.46	-1.05	3003.88	94.46	1.05
176	-3003.79	-94.42	-2.98	3287.06	94.42	2.97
177	-3286.99	-94.48	-3.31	3570.41	94.48	3.32
178	-3570.36	-94.46	-4.59	3853.58	94.46	4.58
179	-3853.60	-94.42	-6.06	4136.98	94.42	6.07
180	-4137.00	-94.45	-6.79	4420.37	94.45	6.79

HIPOTESIS 1 PESO PROPIO FASE 10

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
181	-4420.13	460.89	-7.74	3037.59	-460.89	7.75
182	-3037.59	460.89	-7.72	1654.96	-460.89	7.71
183	-1655.00	460.87	-8.95	272.43	-460.87	8.97
184	-272.45	460.86	-8.95	-1110.07	-460.86	8.95
185	1110.17	460.81	-8.61	-2492.88	-460.81	8.60
186	2492.98	460.96	-8.21	-3754.36	-380.21	8.22
187	3754.35	380.10	-5.46	-4773.44	-299.35	5.44
188	4773.64	299.42	-5.40	-5550.74	-218.67	5.43
189	5550.85	218.74	-3.89	-6085.97	-137.97	3.79
190	6086.02	137.91	-1.00	-6378.56	-57.15	1.02
191	6378.56	57.14	-1.11	-6428.94	23.62	1.13
192	6429.01	-23.56	3.57	-6237.29	104.32	-3.60
193	6237.16	-104.29	3.67	-5802.92	185.06	-3.61
194	5802.59	-185.27	4.63	-5125.91	266.01	-4.62
195	5125.78	-266.03	7.63	-4206.34	346.80	-7.60
196	4206.39	-346.84	8.43	-3044.94	427.59	-8.42
197	3045.07	-427.59	9.38	-1641.16	508.35	-9.34
198	1641.26	-508.32	10.11	4.78	589.07	-10.14
199	-4.77	-589.11	10.14	1921.51	688.59	-10.14
200	-1921.54	-688.58	10.10	4136.73	788.05	-10.12
201	-4137.06	515.03	1.04	2741.00	-415.56	-1.03
202	-2741.01	415.56	0.55	1643.69	-316.10	-0.53
203	-1643.71	316.08	0.52	816.71	-235.33	-0.50
204	-816.72	235.36	0.03	231.72	-154.59	-0.01
205	-231.75	154.56	0.00	0.04	-0.01	0.03
206	0.00	0.00	0.00	0.00	0.00	0.00
207	0.00	0.00	0.00	0.00	0.00	0.00
208	0.00	0.00	0.00	0.00	0.00	0.00
209	0.00	0.00	0.00	0.00	0.00	0.00
210	0.00	0.00	0.00	0.00	0.00	0.00
211	0.00	0.00	0.00	0.00	0.00	0.00
212	0.00	0.00	0.00	0.00	0.00	0.00
213	0.00	0.00	0.00	0.00	0.00	0.00
214	0.00	0.00	0.00	0.00	0.00	0.00
215	0.00	0.00	0.00	0.00	0.00	0.00
216	0.00	0.00	0.00	0.00	0.00	0.00
217	0.00	0.00	0.00	0.00	0.00	0.00
218	0.00	0.00	0.00	0.00	0.00	0.00
219	0.00	0.00	0.00	0.00	0.00	0.00
220	0.00	0.00	0.00	0.00	0.00	0.00
221	0.00	0.00	0.00	0.00	0.00	0.00
222	0.00	0.00	0.00	0.00	0.00	0.00
223	0.00	0.00	0.00	0.00	0.00	0.00
224	0.00	0.00	0.00	0.00	0.00	0.00
225	0.00	0.00	0.00	0.00	0.00	0.00

HIPOTESIS 1 PRETENSADO INICIAL

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	0.00261	0.00000
283	0.00000	0.00262	0.00000
284	0.00000	-0.01118	0.00000
285	0.00000	-0.01113	0.00000
286	0.00000	0.03833	0.00000
287	0.00000	0.03825	0.00000
288	0.00000	-0.13539	0.00000
289	0.00000	-0.13491	0.00000
290	0.00000	0.47960	0.00000
291	0.00000	0.47812	0.00000
292	0.00000	-1.69894	0.00000
293	0.00000	-1.69595	0.00000
294	0.00000	6.01742	0.00000
295	0.00000	6.02257	0.00000
296	0.00000	-21.36284	0.00000
297	0.00000	-21.29002	0.00000
298	0.00000	75.47598	0.00000
299	0.00000	75.64761	0.00000
300	0.00000	-104.51617	0.00000
301	0.00000	-105.07529	0.00000
302	0.00000	43.35698	0.00000
303	0.00000	48.18134	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	-0.190
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.00	0.01	0.00	-0.01	-0.01	0.00
2	0.01	0.01	0.00	-0.02	-0.01	0.00
3	0.02	0.01	0.00	-0.04	-0.01	0.00
4	0.04	0.01	0.00	-0.05	-0.01	0.00
5	0.05	0.01	0.00	-0.06	-0.01	0.00
6	0.06	0.01	0.00	-0.07	-0.01	0.00
7	0.07	0.01	0.00	-0.08	-0.01	0.00
8	0.08	0.01	0.00	-0.09	-0.01	0.00
9	0.09	0.01	0.00	-0.11	-0.01	0.00
10	0.11	0.01	0.00	-0.12	-0.01	0.00
11	0.12	0.01	0.00	-0.13	-0.01	0.00
12	0.13	0.01	0.00	-0.14	-0.01	0.00
13	0.14	0.01	0.00	-0.15	-0.01	0.00
14	0.15	0.01	0.00	-0.16	-0.01	0.00
15	0.16	0.01	0.00	-0.18	-0.01	0.00
16	0.18	0.01	0.00	-0.19	-0.01	0.00
17	0.19	0.01	0.00	-0.20	-0.01	0.00
18	0.20	0.01	0.00	-0.21	-0.01	0.00
19	0.21	0.01	0.00	-0.22	-0.01	0.00
20	0.22	0.01	0.00	-0.24	-0.01	0.00
21	0.24	-0.02	0.00	-0.18	0.02	0.00
22	0.18	-0.02	0.00	-0.13	0.02	0.00
23	0.13	-0.02	0.00	-0.08	0.02	0.00
24	0.08	-0.02	0.00	-0.03	0.02	0.00
25	0.03	-0.02	0.00	0.02	0.02	0.00
26	-0.02	-0.02	0.00	0.07	0.02	0.00
27	-0.07	-0.02	0.00	0.12	0.02	0.00
28	-0.12	-0.02	0.00	0.17	0.02	0.00
29	-0.17	-0.02	0.00	0.23	0.02	0.00
30	-0.23	-0.02	0.00	0.28	0.02	0.00
31	-0.28	-0.02	0.00	0.33	0.02	0.00
32	-0.33	-0.02	0.00	0.38	0.02	0.00
33	-0.38	-0.02	0.00	0.43	0.02	0.00
34	-0.43	-0.02	0.00	0.48	0.02	0.00
35	-0.48	-0.02	0.00	0.53	0.02	0.00
36	-0.53	-0.02	0.00	0.58	0.02	0.00
37	-0.58	-0.02	0.00	0.64	0.02	0.00
38	-0.64	-0.02	0.00	0.69	0.02	0.00
39	-0.69	-0.02	0.00	0.74	0.02	0.00
40	-0.74	-0.02	0.00	0.79	0.02	0.00
41	-0.79	0.06	0.00	0.61	-0.06	0.00
42	-0.61	0.06	0.00	0.43	-0.06	0.00
43	-0.43	0.06	0.00	0.25	-0.06	0.00
44	-0.25	0.06	0.00	0.07	-0.06	0.00
45	-0.07	0.06	0.00	-0.10	-0.06	0.00

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
46	0.10	0.06	0.00	-0.28	-0.06	0.00
47	0.28	0.06	0.00	-0.46	-0.06	0.00
48	0.46	0.06	0.00	-0.64	-0.06	0.00
49	0.64	0.06	0.00	-0.82	-0.06	0.00
50	0.82	0.06	0.00	-1.00	-0.06	0.00
51	1.00	0.06	0.00	-1.18	-0.06	0.00
52	1.18	0.06	0.00	-1.35	-0.06	0.00
53	1.35	0.06	0.00	-1.53	-0.06	0.00
54	1.53	0.06	0.00	-1.71	-0.06	0.00
55	1.71	0.06	0.00	-1.89	-0.06	0.00
56	1.89	0.06	0.00	-2.07	-0.06	0.00
57	2.07	0.06	0.00	-2.25	-0.06	0.00
58	2.25	0.06	0.00	-2.43	-0.06	0.00
59	2.43	0.06	0.00	-2.60	-0.06	0.00
60	2.60	0.06	0.00	-2.78	-0.06	0.00
61	2.78	-0.21	0.00	-2.15	0.21	0.00
62	2.15	-0.21	0.00	-1.52	0.21	0.00
63	1.52	-0.21	0.00	-0.89	0.21	0.00
64	0.89	-0.21	0.00	-0.25	0.21	0.00
65	0.25	-0.21	0.00	0.38	0.21	0.00
66	-0.38	-0.21	0.00	1.01	0.21	0.00
67	-1.01	-0.21	0.00	1.64	0.21	0.00
68	-1.64	-0.21	0.00	2.27	0.21	0.00
69	-2.27	-0.21	0.00	2.91	0.21	0.00
70	-2.91	-0.21	0.00	3.54	0.21	0.00
71	-3.54	-0.21	0.00	4.17	0.21	0.00
72	-4.17	-0.21	0.00	4.80	0.21	0.00
73	-4.80	-0.21	0.00	5.44	0.21	0.00
74	-5.44	-0.21	0.00	6.07	0.21	0.00
75	-6.07	-0.21	0.00	6.70	0.21	0.00
76	-6.70	-0.21	0.00	7.33	0.21	0.00
77	-7.33	-0.21	0.00	7.97	0.21	0.00
78	-7.97	-0.21	0.00	8.60	0.21	0.00
79	-8.60	-0.21	-0.01	9.23	0.21	0.01
80	-9.23	-0.21	0.00	9.86	0.21	0.00
81	-9.86	0.75	-0.01	7.62	-0.75	0.01
82	-7.62	0.75	-0.01	5.38	-0.75	0.01
83	-5.38	0.75	-0.01	3.14	-0.75	0.01
84	-3.14	0.75	-0.01	0.90	-0.75	0.01
85	-0.90	0.75	-0.01	-1.34	-0.75	0.01
86	1.34	0.75	-0.01	-3.58	-0.75	0.01
87	3.58	0.75	-0.01	-5.82	-0.75	0.01
88	5.82	0.75	-0.01	-8.07	-0.75	0.01
89	8.07	0.75	-0.01	-10.31	-0.75	0.01
90	10.31	0.75	-0.01	-12.55	-0.75	0.01

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
91	12.55	0.75	0.00	-14.79	-0.75	0.00
92	14.79	0.75	0.00	-17.03	-0.75	0.00
93	17.03	0.75	0.00	-19.27	-0.75	0.00
94	19.27	0.75	0.00	-21.51	-0.75	0.00
95	21.51	0.75	0.00	-23.75	-0.75	0.00
96	23.75	0.75	0.01	-25.99	-0.75	-0.01
97	25.99	0.75	0.02	-28.23	-0.75	-0.02
98	28.23	0.75	0.02	-30.47	-0.75	-0.02
99	30.48	0.75	0.02	-32.72	-0.75	-0.02
100	32.72	0.75	0.02	-34.96	-0.75	-0.02
101	34.96	-2.65	0.04	-27.01	2.65	-0.04
102	27.01	-2.65	0.04	-19.07	2.65	-0.04
103	19.07	-2.65	0.04	-11.13	2.65	-0.04
104	11.13	-2.65	0.05	-3.18	2.65	-0.05
105	3.18	-2.65	0.05	4.76	2.65	-0.05
106	-4.76	-2.65	0.05	12.70	2.65	-0.05
107	-12.70	-2.65	0.04	20.64	2.65	-0.04
108	-20.64	-2.65	0.04	28.59	2.65	-0.04
109	-28.59	-2.65	0.03	36.53	2.65	-0.03
110	-36.53	-2.65	0.03	44.48	2.65	-0.03
111	-44.48	-2.65	0.01	52.42	2.65	-0.01
112	-52.42	-2.65	0.01	60.36	2.65	-0.01
113	-60.36	-2.65	0.01	68.30	2.65	-0.01
114	-68.30	-2.65	-0.03	76.25	2.65	0.03
115	-76.25	-2.65	-0.02	84.19	2.65	0.02
116	-84.19	-2.65	-0.07	92.15	2.65	0.07
117	-92.15	-2.65	-0.04	100.10	2.65	0.04
118	-100.10	-2.65	-0.10	108.05	2.65	0.10
119	-108.05	-2.65	-0.09	116.00	2.65	0.09
120	-116.00	-2.65	-0.17	123.95	2.65	0.17
121	-123.95	9.39	-0.14	95.78	-9.39	0.14
122	-95.78	9.39	-0.16	67.61	-9.39	0.16
123	-67.61	9.39	-0.18	39.44	-9.39	0.18
124	-39.44	9.39	-0.19	11.26	-9.39	0.19
125	-11.26	9.39	-0.19	-16.91	-9.39	0.19
126	16.90	9.39	-0.20	-45.07	-9.39	0.19
127	45.07	9.39	-0.17	-73.22	-9.39	0.17
128	73.22	9.39	-0.15	-101.38	-9.39	0.15
129	101.38	9.38	-0.12	-129.53	-9.38	0.12
130	129.53	9.38	-0.12	-157.68	-9.38	0.12
131	157.68	9.39	-0.10	-185.83	-9.39	0.10
132	185.83	9.38	-0.05	-213.98	-9.38	0.05
133	213.97	9.38	0.05	-242.11	-9.38	-0.05
134	242.11	9.38	0.12	-270.26	-9.38	-0.12
135	270.26	9.38	0.13	-298.41	-9.38	-0.13

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
136	298.41	9.38	0.18	-326.56	-9.38	-0.18
137	326.56	9.39	0.37	-354.72	-9.39	-0.36
138	354.72	9.39	0.36	-382.88	-9.39	-0.36
139	382.88	9.39	0.43	-411.04	-9.39	-0.43
140	411.04	9.39	0.73	-439.20	-9.39	-0.73
141	439.20	-33.27	0.69	-339.41	33.27	-0.69
142	339.40	-33.26	0.94	-239.60	33.26	-0.94
143	239.61	-33.27	0.98	-139.83	33.27	-0.98
144	139.84	-33.27	1.00	-40.02	33.27	-1.00
145	40.01	-33.26	1.02	59.76	33.26	-1.03
146	-59.76	-33.28	1.04	159.60	33.28	-1.04
147	-159.60	-33.29	0.96	259.43	33.29	-0.97
148	-259.42	-33.27	0.84	359.21	33.27	-0.84
149	-359.22	-33.26	0.74	459.03	33.26	-0.73
150	-459.01	-33.26	0.73	558.82	33.26	-0.73
151	-558.82	-33.26	0.47	658.62	33.26	-0.47
152	-658.60	-33.26	0.48	758.38	33.26	-0.47
153	-758.40	-33.26	-0.08	858.19	33.26	0.08
154	-858.19	-33.28	-0.07	958.04	33.28	0.06
155	-958.03	-33.28	-0.35	1057.89	33.28	0.35
156	-1057.86	-33.28	-0.53	1157.72	33.28	0.54
157	-1157.72	-33.27	-1.42	1257.55	33.27	1.42
158	-1257.55	-33.28	-1.41	1357.39	33.28	1.41
159	-1357.40	-33.26	-1.81	1457.20	33.26	1.80
160	-1457.20	-33.27	-2.05	1557.01	33.27	2.05
161	-1557.04	117.86	-2.57	1203.41	-117.86	2.57
162	-1203.40	117.87	-2.78	849.82	-117.87	2.78
163	-849.84	117.85	-3.02	496.26	-117.85	3.03
164	-496.26	117.85	-3.26	142.73	-117.85	3.25
165	-142.73	117.83	-3.25	-210.71	-117.83	3.25
166	210.75	117.78	-3.08	-564.12	-117.78	3.09
167	564.22	117.81	-3.08	-917.70	-117.81	3.09
168	917.66	117.83	-3.12	-1271.09	-117.83	3.10
169	1271.08	117.84	-2.15	-1624.54	-117.84	2.14
170	1624.62	117.79	-1.84	-1977.86	-117.79	1.84
171	1977.86	117.79	-0.75	-2331.33	-117.79	0.76
172	2331.35	117.79	-0.75	-2684.72	-117.79	0.75
173	2684.74	117.76	-0.27	-3037.96	-117.76	0.32
174	3037.98	117.75	1.96	-3391.25	-117.75	-1.97
175	3391.24	117.75	1.37	-3744.60	-117.75	-1.39
176	3744.68	117.76	3.73	-4097.91	-117.76	-3.76
177	4097.85	117.81	4.17	-4451.32	-117.81	-4.19
178	4451.27	117.82	5.74	-4804.61	-117.82	-5.76
179	4804.58	117.81	7.60	-5158.10	-117.81	-7.61
180	5158.08	117.80	8.51	-5511.47	-117.80	-8.52

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
181	5511.42	-91.79	10.03	-5236.06	91.79	-10.03
182	5236.04	-91.78	9.97	-4960.69	91.78	-9.96
183	4960.66	-91.78	13.71	-4685.42	91.78	-13.71
184	4685.46	-91.80	13.69	-4410.08	91.80	-13.71
185	4410.19	-91.86	14.89	-4134.60	91.86	-14.94
186	-4034.57	-91.87	15.69	6539.02	91.87	-15.66
187	-6539.08	-91.77	10.78	8555.86	91.77	-10.83
188	-8555.92	-91.94	10.78	10100.38	91.94	-10.79
189	-10100.49	-92.06	8.01	11184.13	92.06	-7.99
190	-11183.98	-91.88	2.84	11810.68	91.88	-2.80
191	-11810.81	-91.91	2.97	11976.08	91.91	-2.91
192	-11976.33	-91.87	-5.96	11663.09	91.87	5.79
193	-11663.14	-91.82	-6.04	10840.11	91.82	5.94
194	-10840.02	-91.38	-7.97	9468.55	91.38	7.96
195	-9468.53	-91.66	-13.33	7508.34	91.66	13.39
196	-7508.15	-91.61	-14.80	4920.88	91.61	14.77
197	-4920.74	-91.62	-16.24	1687.87	91.62	16.20
198	-1687.82	-91.64	-17.02	-4478.69	91.64	17.05
199	4478.93	-91.68	-15.78	-8814.32	91.68	15.77
200	8814.60	-91.60	-15.73	-10689.89	91.60	15.73
201	10689.93	-0.03	0.85	-8918.58	0.03	-0.86
202	8918.56	-0.05	2.42	-1730.34	0.05	-2.46
203	1730.43	-0.03	2.48	2623.38	0.03	-2.48
204	-2623.32	0.03	1.00	6295.90	-0.03	-0.96
205	-6295.88	-0.04	0.03	9280.69	0.04	-0.08
206	0.00	0.00	0.00	0.00	0.00	0.00
207	0.00	0.00	0.00	0.00	0.00	0.00
208	0.00	0.00	0.00	0.00	0.00	0.00
209	0.00	0.00	0.00	0.00	0.00	0.00
210	0.00	0.00	0.00	0.00	0.00	0.00
211	0.00	0.00	0.00	0.00	0.00	0.00
212	0.00	0.00	0.00	0.00	0.00	0.00
213	0.00	0.00	0.00	0.00	0.00	0.00
214	0.00	0.00	0.00	0.00	0.00	0.00
215	0.00	0.00	0.00	0.00	0.00	0.00
216	0.00	0.00	0.00	0.00	0.00	0.00
217	0.00	0.00	0.00	0.00	0.00	0.00
218	0.00	0.00	0.00	0.00	0.00	0.00
219	0.00	0.00	0.00	0.00	0.00	0.00
220	0.00	0.00	0.00	0.00	0.00	0.00
221	0.00	0.00	0.00	0.00	0.00	0.00
222	0.00	0.00	0.00	0.00	0.00	0.00
223	0.00	0.00	0.00	0.00	0.00	0.00
224	0.00	0.00	0.00	0.00	0.00	0.00
225	0.00	0.00	0.00	0.00	0.00	0.00

Viaducto 1 sobre rio Averno FASE 11

No de fase de construccion = 11

No de fase de construccion = 11

CONDICIONES DE VINCULACION

Nudo	Codigo	RX	RZ	RY
282	0 1 0	0.000	0.000	0.000
283	0 1 0	0.000	0.000	0.000
284	0 1 0	0.000	0.000	0.000
285	0 1 0	0.000	0.000	0.000
286	0 1 0	0.000	0.000	0.000
287	0 1 0	0.000	0.000	0.000
288	0 1 0	0.000	0.000	0.000
289	0 1 0	0.000	0.000	0.000
290	0 1 0	0.000	0.000	0.000
291	0 1 0	0.000	0.000	0.000
292	0 1 0	0.000	0.000	0.000
293	0 1 0	0.000	0.000	0.000
294	0 1 0	0.000	0.000	0.000
295	0 1 0	0.000	0.000	0.000
296	0 1 0	0.000	0.000	0.000
297	0 1 0	0.000	0.000	0.000
298	0 1 0	0.000	0.000	0.000
299	0 1 0	0.000	0.000	0.000
300	0 1 0	0.000	0.000	0.000
301	0 1 0	0.000	0.000	0.000
302	0 1 0	0.000	0.000	0.000
303	0 1 0	0.000	0.000	0.000
304	0 1 0	0.000	0.000	0.000
305	0 1 0	0.000	0.000	0.000

HIPOTESIS 1 PESO PROPIO FASE 11

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	0.00059	0.00000
283	0.00000	0.00059	0.00000
284	0.00000	-0.00253	0.00000
285	0.00000	-0.00251	0.00000
286	0.00000	0.00866	0.00000
287	0.00000	0.00864	0.00000
288	0.00000	-0.03059	0.00000
289	0.00000	-0.03048	0.00000
290	0.00000	0.10837	0.00000
291	0.00000	0.10803	0.00000
292	0.00000	-0.38389	0.00000
293	0.00000	-0.38321	0.00000
294	0.00000	1.35970	0.00000
295	0.00000	1.36085	0.00000
296	0.00000	-4.82697	0.00000
297	0.00000	-4.81083	0.00000
298	0.00000	17.06882	0.00000
299	0.00000	17.10159	0.00000
300	0.00000	-60.46373	0.00000
301	0.00000	-60.64730	0.00000
302	0.00000	277.46225	0.00000
303	0.00000	277.86642	0.00000
304	0.00000	696.18091	0.00000
305	0.00000	692.92126	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	1849.975
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PESO PROPIO FASE 11

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	-0.01	0.00	0.00
3	0.01	0.00	0.00	-0.01	0.00	0.00
4	0.01	0.00	0.00	-0.01	0.00	0.00
5	0.01	0.00	0.00	-0.01	0.00	0.00
6	0.01	0.00	0.00	-0.02	0.00	0.00
7	0.02	0.00	0.00	-0.02	0.00	0.00
8	0.02	0.00	0.00	-0.02	0.00	0.00
9	0.02	0.00	0.00	-0.02	0.00	0.00
10	0.02	0.00	0.00	-0.03	0.00	0.00
11	0.03	0.00	0.00	-0.03	0.00	0.00
12	0.03	0.00	0.00	-0.03	0.00	0.00
13	0.03	0.00	0.00	-0.03	0.00	0.00
14	0.03	0.00	0.00	-0.04	0.00	0.00
15	0.04	0.00	0.00	-0.04	0.00	0.00
16	0.04	0.00	0.00	-0.04	0.00	0.00
17	0.04	0.00	0.00	-0.05	0.00	0.00
18	0.05	0.00	0.00	-0.05	0.00	0.00
19	0.05	0.00	0.00	-0.05	0.00	0.00
20	0.05	0.00	0.00	-0.05	0.00	0.00
21	0.05	0.00	0.00	-0.04	0.00	0.00
22	0.04	0.00	0.00	-0.03	0.00	0.00
23	0.03	0.00	0.00	-0.02	0.00	0.00
24	0.02	0.00	0.00	-0.01	0.00	0.00
25	0.01	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.02	0.00	0.00
27	-0.02	0.00	0.00	0.03	0.00	0.00
28	-0.03	0.00	0.00	0.04	0.00	0.00
29	-0.04	0.00	0.00	0.05	0.00	0.00
30	-0.05	0.00	0.00	0.06	0.00	0.00
31	-0.06	0.00	0.00	0.07	0.00	0.00
32	-0.07	0.00	0.00	0.09	0.00	0.00
33	-0.09	0.00	0.00	0.10	0.00	0.00
34	-0.10	0.00	0.00	0.11	0.00	0.00
35	-0.11	0.00	0.00	0.12	0.00	0.00
36	-0.12	0.00	0.00	0.13	0.00	0.00
37	-0.13	0.00	0.00	0.14	0.00	0.00
38	-0.14	0.00	0.00	0.16	0.00	0.00
39	-0.16	0.00	0.00	0.17	0.00	0.00
40	-0.17	0.00	0.00	0.18	0.00	0.00
41	-0.18	0.01	0.00	0.14	-0.01	0.00
42	-0.14	0.01	0.00	0.10	-0.01	0.00
43	-0.10	0.01	0.00	0.06	-0.01	0.00
44	-0.06	0.01	0.00	0.02	-0.01	0.00
45	-0.02	0.01	0.00	-0.02	-0.01	0.00

HIPOTESIS 1 PESO PROPIO FASE 11

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
46	0.02	0.01	0.00	-0.06	-0.01	0.00
47	0.06	0.01	0.00	-0.10	-0.01	0.00
48	0.10	0.01	0.00	-0.14	-0.01	0.00
49	0.14	0.01	0.00	-0.18	-0.01	0.00
50	0.18	0.01	0.00	-0.23	-0.01	0.00
51	0.23	0.01	0.00	-0.27	-0.01	0.00
52	0.27	0.01	0.00	-0.31	-0.01	0.00
53	0.31	0.01	0.00	-0.35	-0.01	0.00
54	0.35	0.01	0.00	-0.39	-0.01	0.00
55	0.39	0.01	0.00	-0.43	-0.01	0.00
56	0.43	0.01	0.00	-0.47	-0.01	0.00
57	0.47	0.01	0.00	-0.51	-0.01	0.00
58	0.51	0.01	0.00	-0.55	-0.01	0.00
59	0.55	0.01	0.00	-0.59	-0.01	0.00
60	0.59	0.01	0.00	-0.63	-0.01	0.00
61	0.63	-0.05	0.00	-0.49	0.05	0.00
62	0.49	-0.05	0.00	-0.34	0.05	0.00
63	0.34	-0.05	0.00	-0.20	0.05	0.00
64	0.20	-0.05	0.00	-0.06	0.05	0.00
65	0.06	-0.05	0.00	0.09	0.05	0.00
66	-0.09	-0.05	0.00	0.23	-0.05	0.00
67	-0.23	-0.05	0.00	0.37	0.05	0.00
68	-0.37	-0.05	0.00	0.51	0.05	0.00
69	-0.51	-0.05	0.00	0.66	0.05	0.00
70	-0.66	-0.05	0.00	0.80	0.05	0.00
71	-0.80	-0.05	0.00	0.94	0.05	0.00
72	-0.94	-0.05	0.00	1.09	0.05	0.00
73	-1.09	-0.05	0.00	1.23	0.05	0.00
74	-1.23	-0.05	0.00	1.37	0.05	0.00
75	-1.37	-0.05	0.00	1.51	0.05	0.00
76	-1.51	-0.05	0.00	1.66	0.05	0.00
77	-1.66	-0.05	0.00	1.80	0.05	0.00
78	-1.80	-0.05	0.00	1.94	0.05	0.00
79	-1.94	-0.05	0.00	2.09	0.05	0.00
80	-2.09	-0.05	0.00	2.23	0.05	0.00
81	-2.23	0.17	0.00	1.72	-0.17	0.00
82	-1.72	0.17	0.00	1.22	-0.17	0.00
83	-1.22	0.17	0.00	0.71	-0.17	0.00
84	-0.71	0.17	0.00	0.20	-0.17	0.00
85	-0.20	0.17	0.00	-0.30	-0.17	0.00
86	0.30	0.17	0.00	-0.81	-0.17	0.00
87	0.81	0.17	0.00	-1.32	-0.17	0.00
88	1.32	0.17	0.00	-1.82	-0.17	0.00
89	1.82	0.17	0.00	-2.33	-0.17	0.00
90	2.33	0.17	0.00	-2.84	-0.17	0.00

HIPOTESIS 1 PESO PROPIO FASE 11

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
91	2.84	0.17	0.00	-3.34	-0.17	0.00
92	3.34	0.17	0.00	-3.85	-0.17	0.00
93	3.85	0.17	0.00	-4.35	-0.17	0.00
94	4.35	0.17	0.00	-4.86	-0.17	0.00
95	4.86	0.17	0.00	-5.37	-0.17	0.00
96	5.37	0.17	0.00	-5.87	-0.17	0.00
97	5.87	0.17	0.00	-6.38	-0.17	0.00
98	6.38	0.17	0.00	-6.89	-0.17	0.00
99	6.89	0.17	0.01	-7.39	-0.17	-0.01
100	7.39	0.17	0.00	-7.90	-0.17	0.00
101	7.90	-0.60	0.01	-6.10	0.60	-0.01
102	6.10	-0.60	0.01	-4.31	0.60	-0.01
103	4.31	-0.60	0.01	-2.51	0.60	-0.01
104	2.51	-0.60	0.01	-0.72	0.60	-0.01
105	0.72	-0.60	0.01	1.08	0.60	-0.01
106	-1.08	-0.60	0.01	2.87	0.60	-0.01
107	-2.87	-0.60	0.01	4.66	0.60	-0.01
108	-4.66	-0.60	0.01	6.46	0.60	-0.01
109	-6.46	-0.60	0.01	8.26	0.60	-0.01
110	-8.26	-0.60	0.01	10.05	0.60	-0.01
111	-10.05	-0.60	0.00	11.84	0.60	0.00
112	-11.85	-0.60	0.00	13.64	0.60	0.00
113	-13.64	-0.60	0.00	15.43	0.60	0.00
114	-15.43	-0.60	-0.01	17.23	0.60	0.01
115	-17.23	-0.60	0.00	19.02	0.60	0.00
116	-19.02	-0.60	-0.01	20.82	0.60	0.01
117	-20.82	-0.60	-0.01	22.62	0.60	0.01
118	-22.62	-0.60	-0.02	24.41	0.60	0.02
119	-24.41	-0.60	-0.02	26.21	0.60	0.02
120	-26.21	-0.60	-0.04	28.01	0.60	0.04
121	-28.01	2.12	-0.03	21.64	-2.12	0.03
122	-21.64	2.12	-0.04	15.28	-2.12	0.04
123	-15.28	2.12	-0.04	8.91	-2.12	0.04
124	-8.91	2.12	-0.04	2.54	-2.12	0.04
125	-2.54	2.12	-0.04	-3.82	-2.12	0.04
126	3.82	2.12	-0.04	-10.18	-2.12	0.04
127	10.18	2.12	-0.04	-16.55	-2.12	0.04
128	16.54	2.12	-0.03	-22.91	-2.12	0.03
129	22.91	2.12	-0.03	-29.27	-2.12	0.03
130	29.27	2.12	-0.03	-35.63	-2.12	0.03
131	35.63	2.12	-0.02	-41.99	-2.12	0.02
132	41.99	2.12	-0.01	-48.35	-2.12	0.01
133	48.35	2.12	0.01	-54.71	-2.12	-0.01
134	54.71	2.12	0.03	-61.07	-2.12	-0.03
135	61.07	2.12	0.03	-67.43	-2.12	-0.03

HIPOTESIS 1 PESO PROPIO FASE 11

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
136	67.43	2.12	0.04	-73.79	-2.12	-0.04
137	73.79	2.12	0.08	-80.15	-2.12	-0.08
138	80.15	2.12	0.08	-86.52	-2.12	-0.08
139	86.52	2.12	0.10	-92.88	-2.12	-0.10
140	92.88	2.12	0.17	-99.24	-2.12	-0.17
141	99.24	-7.52	0.16	-76.69	7.52	-0.16
142	76.69	-7.52	0.21	-54.14	7.52	-0.21
143	54.14	-7.52	0.22	-31.60	7.52	-0.22
144	31.60	-7.52	0.23	-9.04	7.52	-0.23
145	9.04	-7.52	0.23	13.51	7.52	-0.23
146	-13.51	-7.52	0.23	36.07	7.52	-0.23
147	-36.06	-7.52	0.22	58.62	7.52	-0.22
148	-58.62	-7.51	0.19	81.16	7.51	-0.19
149	-81.17	-7.52	0.16	103.72	7.52	-0.17
150	-103.72	-7.52	0.17	126.27	7.52	-0.16
151	-126.27	-7.52	0.11	148.82	7.52	-0.11
152	-148.81	-7.52	0.11	171.36	7.52	-0.11
153	-171.36	-7.52	-0.02	193.92	7.52	0.02
154	-193.92	-7.52	-0.02	216.48	7.52	0.02
155	-216.48	-7.52	-0.08	239.04	7.52	0.08
156	-239.04	-7.52	-0.12	261.60	7.52	0.12
157	-261.60	-7.52	-0.32	284.15	7.52	0.32
158	-284.16	-7.52	-0.32	306.71	7.52	0.32
159	-306.71	-7.52	-0.41	329.27	7.52	0.41
160	-329.27	-7.52	-0.46	351.82	7.52	0.46
161	-351.83	26.65	-0.59	271.85	-26.65	0.59
162	-271.85	26.65	-0.64	191.90	-26.65	0.64
163	-191.89	26.65	-0.69	111.93	-26.65	0.69
164	-111.93	26.65	-0.74	31.98	-26.65	0.74
165	-31.99	26.65	-0.74	-47.96	-26.65	0.75
166	47.95	26.64	-0.71	-127.90	-26.64	0.71
167	127.89	26.65	-0.71	-207.84	-26.65	0.71
168	207.84	26.63	-0.71	-287.76	-26.63	0.71
169	287.75	26.64	-0.50	-367.69	-26.64	0.49
170	367.70	26.64	-0.43	-447.61	-26.64	0.42
171	447.61	26.64	-0.18	-527.52	-26.64	0.17
172	527.50	26.65	-0.19	-607.48	-26.65	0.18
173	607.46	26.64	-0.07	-687.36	-26.64	0.07
174	687.36	26.63	0.43	-767.25	-26.63	-0.44
175	767.24	26.63	0.30	-847.15	-26.63	-0.30
176	847.16	26.64	0.84	-927.05	-26.64	-0.84
177	927.04	26.64	0.94	-1006.97	-26.64	-0.93
178	1006.98	26.64	1.29	-1086.87	-26.64	-1.29
179	1086.87	26.64	1.71	-1166.81	-26.64	-1.71
180	1166.81	26.64	1.92	-1246.74	-26.64	-1.91

HIPOTESIS 1 PESO PROPIO FASE 11

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
181	1246.69	-94.47	2.14	-963.30	94.47	-2.14
182	963.30	-94.48	2.13	-679.89	94.48	-2.13
183	679.90	-94.47	2.65	-396.50	94.47	-2.64
184	396.50	-94.44	2.63	-113.15	94.44	-2.63
185	113.12	-94.45	2.66	170.32	94.45	-2.67
186	-170.32	-94.47	2.65	453.69	94.47	-2.65
187	-453.69	-94.47	2.29	737.11	94.47	-2.29
188	-737.09	-94.51	2.31	1020.59	94.51	-2.34
189	-1020.56	-94.52	2.04	1304.17	94.52	-2.02
190	-1304.15	-94.48	1.40	1587.60	94.48	-1.43
191	-1587.61	-94.55	1.45	1871.14	94.55	-1.48
192	-1871.16	-94.49	0.07	2154.67	94.49	-0.06
193	-2154.72	-94.48	0.03	2438.03	94.48	-0.03
194	-2438.10	-94.40	-0.40	2721.18	94.40	0.39
195	-2721.25	-94.39	-1.96	3004.42	94.39	1.96
196	-3004.47	-94.46	-2.48	3287.83	94.46	2.47
197	-3287.79	-94.40	-3.48	3570.98	94.40	3.47
198	-3571.06	-94.41	-5.09	3854.24	94.41	5.10
199	-3854.25	-94.38	-6.19	4137.48	94.38	6.19
200	-4137.45	-94.41	-6.21	4420.67	94.41	6.22
201	-4420.79	460.93	-8.50	3037.80	-460.93	8.50
202	-3037.78	460.95	-9.02	1655.12	-460.95	9.00
203	-1655.09	460.91	-9.01	272.46	-460.91	9.00
204	-272.47	461.01	-9.15	-1110.78	-461.01	9.15
205	1110.71	460.99	-8.99	-2493.59	-460.99	8.98
206	2493.49	461.03	-7.82	-3755.27	-380.29	7.84
207	3755.18	380.35	-6.72	-4774.94	-299.59	6.74
208	4774.99	299.59	-6.79	-5552.47	-218.83	6.77
209	5552.44	218.65	-2.78	-6087.23	-137.89	2.80
210	6087.27	137.85	-2.82	-6379.56	-57.09	2.80
211	6379.49	57.00	0.07	-6429.37	23.76	-0.11
212	6429.34	-23.69	-0.06	-6237.20	104.44	0.01
213	6237.22	-104.50	4.75	-5802.56	185.27	-4.69
214	5802.63	-185.27	4.79	-5125.70	266.04	-4.73
215	5125.64	-266.05	7.02	-4206.44	346.80	-7.02
216	4206.48	-346.93	7.12	-3044.86	427.68	-7.15
217	3044.96	-427.64	9.40	-1640.97	508.40	-9.44
218	1640.95	-508.36	9.35	5.24	589.12	-9.37
219	-5.36	-589.13	9.35	1922.41	688.61	-9.34
220	-1922.43	-688.67	8.46	4137.79	788.14	-8.46
221	-4136.83	514.99	1.68	2741.34	-415.54	-1.69
222	-2741.32	415.56	0.89	1643.86	-316.10	-0.90
223	-1643.88	316.08	0.46	816.66	-235.31	-0.45
224	-816.72	235.36	-0.01	231.70	-154.60	-0.01
225	-231.77	154.53	-0.05	-0.07	-0.01	0.01

HIPOTESIS 1 PRETENSADO INICIAL

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	-0.00074	0.00000
283	0.00000	-0.00074	0.00000
284	0.00000	0.00315	0.00000
285	0.00000	0.00314	0.00000
286	0.00000	-0.01082	0.00000
287	0.00000	-0.01080	0.00000
288	0.00000	0.03821	0.00000
289	0.00000	0.03808	0.00000
290	0.00000	-0.13536	0.00000
291	0.00000	-0.13494	0.00000
292	0.00000	0.47949	0.00000
293	0.00000	0.47865	0.00000
294	0.00000	-1.69830	0.00000
295	0.00000	-1.69973	0.00000
296	0.00000	6.02905	0.00000
297	0.00000	6.00882	0.00000
298	0.00000	-21.31882	0.00000
299	0.00000	-21.36086	0.00000
300	0.00000	75.45669	0.00000
301	0.00000	75.66473	0.00000
302	0.00000	-104.11249	0.00000
303	0.00000	-105.54768	0.00000
304	0.00000	43.54360	0.00000
305	0.00000	47.95824	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	-0.329
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.01	0.00	0.00
3	-0.01	0.00	0.00	0.01	0.00	0.00
4	-0.01	0.00	0.00	0.01	0.00	0.00
5	-0.01	0.00	0.00	0.02	0.00	0.00
6	-0.02	0.00	0.00	0.02	0.00	0.00
7	-0.02	0.00	0.00	0.02	0.00	0.00
8	-0.02	0.00	0.00	0.03	0.00	0.00
9	-0.03	0.00	0.00	0.03	0.00	0.00
10	-0.03	0.00	0.00	0.03	0.00	0.00
11	-0.03	0.00	0.00	0.04	0.00	0.00
12	-0.04	0.00	0.00	0.04	0.00	0.00
13	-0.04	0.00	0.00	0.04	0.00	0.00
14	-0.04	0.00	0.00	0.05	0.00	0.00
15	-0.05	0.00	0.00	0.05	0.00	0.00
16	-0.05	0.00	0.00	0.05	0.00	0.00
17	-0.05	0.00	0.00	0.06	0.00	0.00
18	-0.06	0.00	0.00	0.06	0.00	0.00
19	-0.06	0.00	0.00	0.06	0.00	0.00
20	-0.06	0.00	0.00	0.07	0.00	0.00
21	-0.07	0.00	0.00	0.05	0.00	0.00
22	-0.05	0.00	0.00	0.04	0.00	0.00
23	-0.04	0.00	0.00	0.02	0.00	0.00
24	-0.02	0.00	0.00	0.01	0.00	0.00
25	-0.01	0.00	0.00	-0.01	0.00	0.00
26	0.01	0.00	0.00	-0.02	0.00	0.00
27	0.02	0.00	0.00	-0.03	0.00	0.00
28	0.03	0.00	0.00	-0.05	0.00	0.00
29	0.05	0.00	0.00	-0.06	0.00	0.00
30	0.06	0.00	0.00	-0.08	0.00	0.00
31	0.08	0.00	0.00	-0.09	0.00	0.00
32	0.09	0.00	0.00	-0.11	0.00	0.00
33	0.11	0.00	0.00	-0.12	0.00	0.00
34	0.12	0.00	0.00	-0.14	0.00	0.00
35	0.14	0.00	0.00	-0.15	0.00	0.00
36	0.15	0.00	0.00	-0.16	0.00	0.00
37	0.16	0.00	0.00	-0.18	0.00	0.00
38	0.18	0.00	0.00	-0.19	0.00	0.00
39	0.19	0.00	0.00	-0.21	0.00	0.00
40	0.21	0.00	0.00	-0.22	0.00	0.00
41	0.22	-0.02	0.00	-0.17	0.02	0.00
42	0.17	-0.02	0.00	-0.12	0.02	0.00
43	0.12	-0.02	0.00	-0.07	0.02	0.00
44	0.07	-0.02	0.00	-0.02	0.02	0.00
45	0.02	-0.02	0.00	0.03	0.02	0.00

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
46	-0.03	-0.02	0.00	0.08	0.02	0.00
47	-0.08	-0.02	0.00	0.13	0.02	0.00
48	-0.13	-0.02	0.00	0.18	0.02	0.00
49	-0.18	-0.02	0.00	0.23	0.02	0.00
50	-0.23	-0.02	0.00	0.28	0.02	0.00
51	-0.28	-0.02	0.00	0.33	0.02	0.00
52	-0.33	-0.02	0.00	0.38	0.02	0.00
53	-0.38	-0.02	0.00	0.43	0.02	0.00
54	-0.43	-0.02	0.00	0.48	0.02	0.00
55	-0.48	-0.02	0.00	0.53	0.02	0.00
56	-0.53	-0.02	0.00	0.58	0.02	0.00
57	-0.58	-0.02	0.00	0.63	0.02	0.00
58	-0.63	-0.02	0.00	0.68	0.02	0.00
59	-0.68	-0.02	0.00	0.74	0.02	0.00
60	-0.74	-0.02	0.00	0.79	0.02	0.00
61	-0.79	0.06	0.00	0.61	-0.06	0.00
62	-0.61	0.06	0.00	0.43	-0.06	0.00
63	-0.43	0.06	0.00	0.25	-0.06	0.00
64	-0.25	0.06	0.00	0.07	-0.06	0.00
65	-0.07	0.06	0.00	-0.11	-0.06	0.00
66	0.11	0.06	0.00	-0.29	-0.06	0.00
67	0.29	0.06	0.00	-0.46	-0.06	0.00
68	0.46	0.06	0.00	-0.64	-0.06	0.00
69	0.64	0.06	0.00	-0.82	-0.06	0.00
70	0.82	0.06	0.00	-1.00	-0.06	0.00
71	1.00	0.06	0.00	-1.18	-0.06	0.00
72	1.18	0.06	0.00	-1.36	-0.06	0.00
73	1.36	0.06	0.00	-1.53	-0.06	0.00
74	1.53	0.06	0.00	-1.71	-0.06	0.00
75	1.71	0.06	0.00	-1.89	-0.06	0.00
76	1.89	0.06	0.00	-2.07	-0.06	0.00
77	2.07	0.06	0.00	-2.25	-0.06	0.00
78	2.25	0.06	0.00	-2.43	-0.06	0.00
79	2.43	0.06	0.00	-2.61	-0.06	0.00
80	2.61	0.06	0.00	-2.78	-0.06	0.00
81	2.78	-0.21	0.00	-2.15	0.21	0.00
82	2.15	-0.21	0.00	-1.52	0.21	0.00
83	1.52	-0.21	0.00	-0.89	0.21	0.00
84	0.89	-0.21	0.00	-0.25	0.21	0.00
85	0.25	-0.21	0.00	0.38	0.21	0.00
86	-0.38	-0.21	0.00	1.01	0.21	0.00
87	-1.01	-0.21	0.00	1.64	0.21	0.00
88	-1.64	-0.21	0.00	2.28	0.21	0.00
89	-2.28	-0.21	0.00	2.91	0.21	0.00
90	-2.91	-0.21	0.00	3.54	0.21	0.00

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
91	-3.54	-0.21	0.00	4.17	0.21	0.00
92	-4.17	-0.21	0.00	4.81	0.21	0.00
93	-4.81	-0.21	0.00	5.44	0.21	0.00
94	-5.44	-0.21	0.00	6.07	0.21	0.00
95	-6.07	-0.21	0.00	6.70	0.21	0.00
96	-6.70	-0.21	0.00	7.34	0.21	0.00
97	-7.34	-0.21	0.00	7.97	0.21	0.00
98	-7.97	-0.21	0.00	8.60	0.21	0.00
99	-8.60	-0.21	-0.01	9.23	0.21	0.01
100	-9.23	-0.21	-0.01	9.87	0.21	0.01
101	-9.87	0.75	-0.01	7.62	-0.75	0.01
102	-7.62	0.75	-0.01	5.38	-0.75	0.01
103	-5.38	0.75	-0.01	3.14	-0.75	0.01
104	-3.14	0.75	-0.01	0.90	-0.75	0.01
105	-0.90	0.75	-0.01	-1.34	-0.75	0.01
106	1.34	0.75	-0.01	-3.58	-0.75	0.01
107	3.58	0.75	-0.01	-5.83	-0.75	0.01
108	5.83	0.75	-0.01	-8.07	-0.75	0.01
109	8.07	0.75	-0.01	-10.31	-0.75	0.01
110	10.31	0.75	-0.01	-12.55	-0.75	0.01
111	12.55	0.75	0.00	-14.79	-0.75	0.00
112	14.79	0.75	0.00	-17.04	-0.75	0.00
113	17.04	0.75	0.00	-19.28	-0.75	0.00
114	19.28	0.75	0.01	-21.52	-0.75	-0.01
115	21.52	0.75	0.00	-23.76	-0.75	0.00
116	23.76	0.75	0.02	-26.01	-0.75	-0.02
117	26.01	0.75	0.01	-28.25	-0.75	-0.01
118	28.25	0.75	0.03	-30.49	-0.75	-0.03
119	30.49	0.75	0.02	-32.74	-0.75	-0.02
120	32.74	0.75	0.05	-34.98	-0.75	-0.05
121	34.98	-2.65	0.04	-27.03	2.65	-0.04
122	27.03	-2.65	0.05	-19.08	2.65	-0.05
123	19.08	-2.65	0.05	-11.13	2.65	-0.05
124	11.13	-2.65	0.05	-3.18	2.65	-0.05
125	3.18	-2.65	0.05	4.77	2.65	-0.05
126	-4.77	-2.65	0.05	12.72	2.65	-0.05
127	-12.72	-2.65	0.05	20.67	2.65	-0.05
128	-20.66	-2.65	0.04	28.61	2.65	-0.04
129	-28.61	-2.65	0.04	36.56	2.65	-0.03
130	-36.56	-2.65	0.04	44.50	2.65	-0.04
131	-44.50	-2.65	0.03	52.44	2.65	-0.03
132	-52.45	-2.65	0.01	60.39	2.65	-0.01
133	-60.39	-2.65	-0.01	68.33	2.65	0.01
134	-68.33	-2.65	-0.03	76.28	2.65	0.04
135	-76.27	-2.65	-0.04	84.22	2.65	0.04

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
136	-84.22	-2.65	-0.05	92.16	2.65	0.05
137	-92.16	-2.65	-0.10	100.11	2.65	0.10
138	-100.11	-2.65	-0.10	108.06	2.65	0.10
139	-108.06	-2.65	-0.12	116.01	2.65	0.12
140	-116.01	-2.65	-0.21	123.95	2.65	0.21
141	-123.96	9.39	-0.19	95.79	-9.39	0.19
142	-95.79	9.39	-0.26	67.62	-9.39	0.26
143	-67.62	9.39	-0.28	39.47	-9.39	0.28
144	-39.47	9.39	-0.28	11.29	-9.39	0.28
145	-11.29	9.39	-0.29	-16.87	-9.39	0.29
146	16.87	9.39	-0.29	-45.04	-9.39	0.29
147	45.04	9.39	-0.27	-73.22	-9.39	0.27
148	73.21	9.39	-0.24	-101.38	-9.39	0.24
149	101.38	9.39	-0.21	-129.55	-9.39	0.21
150	129.55	9.39	-0.21	-157.71	-9.39	0.21
151	157.71	9.39	-0.14	-185.88	-9.39	0.13
152	185.88	9.39	-0.14	-214.04	-9.39	0.14
153	214.03	9.39	0.02	-242.22	-9.39	-0.02
154	242.20	9.39	0.02	-270.39	-9.39	-0.02
155	270.39	9.39	0.10	-298.57	-9.39	-0.10
156	298.57	9.39	0.16	-326.74	-9.39	-0.15
157	326.74	9.39	0.40	-354.92	-9.39	-0.40
158	354.92	9.39	0.40	-383.10	-9.39	-0.40
159	383.09	9.39	0.51	-411.27	-9.39	-0.51
160	411.26	9.39	0.58	-439.43	-9.39	-0.58
161	439.44	-33.29	0.73	-339.55	33.29	-0.73
162	339.55	-33.29	0.80	-239.68	33.29	-0.79
163	239.68	-33.29	0.86	-139.80	33.29	-0.86
164	139.79	-33.28	0.92	-39.96	33.28	-0.92
165	39.95	-33.29	0.92	59.90	33.29	-0.93
166	-59.90	-33.29	0.88	159.75	33.29	-0.88
167	-159.75	-33.28	0.88	259.59	33.28	-0.88
168	-259.59	-33.27	0.89	359.42	33.27	-0.89
169	-359.43	-33.26	0.62	459.24	33.26	-0.62
170	-459.25	-33.28	0.53	559.07	33.28	-0.54
171	-559.06	-33.28	0.21	658.89	33.28	-0.22
172	-658.88	-33.28	0.23	758.75	33.28	-0.22
173	-758.74	-33.26	0.08	858.50	33.26	-0.09
174	-858.53	-33.26	-0.56	958.29	33.26	0.56
175	-958.29	-33.27	-0.36	1058.14	33.27	0.37
176	-1058.13	-33.26	-1.05	1157.90	33.26	1.04
177	-1157.90	-33.28	-1.17	1257.74	33.28	1.16
178	-1257.74	-33.27	-1.61	1357.54	33.27	1.62
179	-1357.54	-33.26	-2.15	1457.35	33.26	2.14
180	-1457.38	-33.28	-2.40	1557.21	33.28	2.39

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
181	-1557.15	117.85	-2.71	1203.63	-117.85	2.71
182	-1203.62	117.84	-2.70	850.11	-117.84	2.69
183	-850.12	117.83	-3.34	496.61	-117.83	3.34
184	-496.61	117.84	-3.33	143.11	-117.84	3.33
185	-143.12	117.87	-3.39	-210.53	-117.87	3.38
186	210.48	117.85	-3.36	-563.96	-117.85	3.36
187	563.97	117.85	-2.95	-917.56	-117.85	2.94
188	917.57	117.88	-2.92	-1271.10	-117.88	2.95
189	1271.18	117.86	-2.54	-1624.86	-117.86	2.55
190	1624.91	117.90	-1.85	-1978.53	-117.90	1.86
191	1978.45	117.87	-1.85	-2332.18	-117.87	1.88
192	2332.20	117.87	-0.12	-2685.84	-117.87	0.14
193	2685.91	117.80	-0.10	-3039.37	-117.80	0.09
194	3039.43	117.76	0.49	-3392.55	-117.76	-0.49
195	3392.57	117.78	2.38	-3746.02	-117.78	-2.40
196	3746.03	117.80	3.10	-4099.28	-117.80	-3.07
197	4099.32	117.83	4.25	-4452.76	-117.83	-4.25
198	4452.77	117.77	6.33	-4806.02	-117.77	-6.34
199	4806.01	117.76	7.66	-5159.27	-117.76	-7.65
200	5159.26	117.78	7.69	-5512.59	-117.78	-7.69
201	5512.62	-91.90	9.08	-5236.86	91.90	-9.08
202	5236.82	-91.92	9.97	-4961.09	91.92	-9.98
203	4961.07	-91.93	9.98	-4685.34	91.93	-9.97
204	4685.31	-91.95	12.62	-4409.46	91.95	-12.65
205	4409.39	-91.94	13.28	-4133.79	91.94	-13.36
206	-4035.74	-91.87	15.32	6540.43	91.87	-15.23
207	-6540.52	-92.07	13.38	8558.42	92.07	-13.37
208	-8558.54	-92.06	13.40	10103.27	92.06	-13.43
209	-10103.43	-91.85	6.02	11186.38	91.85	-6.06
210	-11186.23	-91.83	6.18	11812.88	91.83	-6.13
211	-11812.75	-91.61	0.67	11977.34	91.61	-0.75
212	-11977.47	-91.78	0.94	11663.64	91.78	-0.84
213	-11663.58	-91.78	-7.74	10840.60	91.78	7.88
214	-10840.61	-91.74	-8.00	9469.14	91.74	8.03
215	-9469.38	-91.56	-12.13	7509.15	91.56	12.20
216	-7509.24	-91.62	-12.30	4921.71	91.62	12.29
217	-4921.72	-91.60	-15.94	1688.62	91.60	15.94
218	-1688.68	-91.47	-15.94	-4478.80	91.47	16.01
219	4478.78	-91.53	-14.65	-8815.06	91.53	14.63
220	8815.04	-91.51	-10.47	-10690.50	91.51	10.47
221	10690.54	-0.03	-0.83	-8919.80	0.03	0.83
222	8919.81	-0.06	1.78	-1730.80	0.06	-1.78
223	1730.83	-0.05	2.25	2624.31	0.05	-2.25
224	-2624.25	-0.06	1.05	6296.45	0.06	-1.05
225	-6296.40	-0.02	0.06	9280.68	0.02	-0.03

Viaducto 1 sobre rio Averno FASE 12

No de fase de construccion = 12

No de fase de construccion = 12

CONDICIONES DE VINCULACION

Nudo	Codigo	RX	RZ	RY
282	0 1 0	0.000	0.000	0.000
283	0 1 0	0.000	0.000	0.000
284	0 1 0	0.000	0.000	0.000
285	0 1 0	0.000	0.000	0.000
286	0 1 0	0.000	0.000	0.000
287	0 1 0	0.000	0.000	0.000
288	0 1 0	0.000	0.000	0.000
289	0 1 0	0.000	0.000	0.000
290	0 1 0	0.000	0.000	0.000
291	0 1 0	0.000	0.000	0.000
292	0 1 0	0.000	0.000	0.000
293	0 1 0	0.000	0.000	0.000
294	0 1 0	0.000	0.000	0.000
295	0 1 0	0.000	0.000	0.000
296	0 1 0	0.000	0.000	0.000
297	0 1 0	0.000	0.000	0.000
298	0 1 0	0.000	0.000	0.000
299	0 1 0	0.000	0.000	0.000
300	0 1 0	0.000	0.000	0.000
301	0 1 0	0.000	0.000	0.000
302	0 1 0	0.000	0.000	0.000
303	0 1 0	0.000	0.000	0.000
304	0 1 0	0.000	0.000	0.000
305	0 1 0	0.000	0.000	0.000
306	0 1 0	0.000	0.000	0.000
307	0 1 0	0.000	0.000	0.000

HIPOTESIS 1 PESO PROPIO FASE 12

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	-0.00017	0.00000
283	0.00000	-0.00017	0.00000
284	0.00000	0.00071	0.00000
285	0.00000	0.00071	0.00000
286	0.00000	-0.00244	0.00000
287	0.00000	-0.00244	0.00000
288	0.00000	0.00863	0.00000
289	0.00000	0.00860	0.00000
290	0.00000	-0.03057	0.00000
291	0.00000	-0.03048	0.00000
292	0.00000	0.10830	0.00000
293	0.00000	0.10811	0.00000
294	0.00000	-0.38358	0.00000
295	0.00000	-0.38391	0.00000
296	0.00000	1.36173	0.00000
297	0.00000	1.35718	0.00000
298	0.00000	-4.81530	0.00000
299	0.00000	-4.82446	0.00000
300	0.00000	17.05072	0.00000
301	0.00000	17.10462	0.00000
302	0.00000	-60.48211	0.00000
303	0.00000	-60.59321	0.00000
304	0.00000	277.53839	0.00000
305	0.00000	277.66101	0.00000
306	0.00000	696.19830	0.00000
307	0.00000	692.67438	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	1849.633
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PESO PROPIO FASE 12

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.01	0.00	0.00
8	-0.01	0.00	0.00	0.01	0.00	0.00
9	-0.01	0.00	0.00	0.01	0.00	0.00
10	-0.01	0.00	0.00	0.01	0.00	0.00
11	-0.01	0.00	0.00	0.01	0.00	0.00
12	-0.01	0.00	0.00	0.01	0.00	0.00
13	-0.01	0.00	0.00	0.01	0.00	0.00
14	-0.01	0.00	0.00	0.01	0.00	0.00
15	-0.01	0.00	0.00	0.01	0.00	0.00
16	-0.01	0.00	0.00	0.01	0.00	0.00
17	-0.01	0.00	0.00	0.01	0.00	0.00
18	-0.01	0.00	0.00	0.01	0.00	0.00
19	-0.01	0.00	0.00	0.01	0.00	0.00
20	-0.01	0.00	0.00	0.02	0.00	0.00
21	-0.02	0.00	0.00	0.01	0.00	0.00
22	-0.01	0.00	0.00	0.01	0.00	0.00
23	-0.01	0.00	0.00	0.01	0.00	0.00
24	-0.01	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	-0.01	0.00	0.00
28	0.01	0.00	0.00	-0.01	0.00	0.00
29	0.01	0.00	0.00	-0.01	0.00	0.00
30	0.01	0.00	0.00	-0.02	0.00	0.00
31	0.02	0.00	0.00	-0.02	0.00	0.00
32	0.02	0.00	0.00	-0.02	0.00	0.00
33	0.02	0.00	0.00	-0.03	0.00	0.00
34	0.03	0.00	0.00	-0.03	0.00	0.00
35	0.03	0.00	0.00	-0.03	0.00	0.00
36	0.03	0.00	0.00	-0.04	0.00	0.00
37	0.04	0.00	0.00	-0.04	0.00	0.00
38	0.04	0.00	0.00	-0.04	0.00	0.00
39	0.04	0.00	0.00	-0.05	0.00	0.00
40	0.05	0.00	0.00	-0.05	0.00	0.00
41	0.05	0.00	0.00	-0.04	0.00	0.00
42	0.04	0.00	0.00	-0.03	0.00	0.00
43	0.03	0.00	0.00	-0.02	0.00	0.00
44	0.02	0.00	0.00	0.00	0.00	0.00
45	0.00	0.00	0.00	0.01	0.00	0.00

HIPOTESIS 1 PESO PROPIO FASE 12

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
46	-0.01	0.00	0.00	0.02	0.00	0.00
47	-0.02	0.00	0.00	0.03	0.00	0.00
48	-0.03	0.00	0.00	0.04	0.00	0.00
49	-0.04	0.00	0.00	0.05	0.00	0.00
50	-0.05	0.00	0.00	0.06	0.00	0.00
51	-0.06	0.00	0.00	0.07	0.00	0.00
52	-0.07	0.00	0.00	0.09	0.00	0.00
53	-0.09	0.00	0.00	0.10	0.00	0.00
54	-0.10	0.00	0.00	0.11	0.00	0.00
55	-0.11	0.00	0.00	0.12	0.00	0.00
56	-0.12	0.00	0.00	0.13	0.00	0.00
57	-0.13	0.00	0.00	0.14	0.00	0.00
58	-0.14	0.00	0.00	0.15	0.00	0.00
59	-0.15	0.00	0.00	0.17	0.00	0.00
60	-0.17	0.00	0.00	0.18	0.00	0.00
61	-0.18	0.01	0.00	0.14	-0.01	0.00
62	-0.14	0.01	0.00	0.10	-0.01	0.00
63	-0.10	0.01	0.00	0.06	-0.01	0.00
64	-0.06	0.01	0.00	0.02	-0.01	0.00
65	-0.02	0.01	0.00	-0.02	-0.01	0.00
66	0.02	0.01	0.00	-0.06	-0.01	0.00
67	0.06	0.01	0.00	-0.10	-0.01	0.00
68	0.10	0.01	0.00	-0.15	-0.01	0.00
69	0.15	0.01	0.00	-0.19	-0.01	0.00
70	0.19	0.01	0.00	-0.23	-0.01	0.00
71	0.23	0.01	0.00	-0.27	-0.01	0.00
72	0.27	0.01	0.00	-0.31	-0.01	0.00
73	0.31	0.01	0.00	-0.35	-0.01	0.00
74	0.35	0.01	0.00	-0.39	-0.01	0.00
75	0.39	0.01	0.00	-0.43	-0.01	0.00
76	0.43	0.01	0.00	-0.47	-0.01	0.00
77	0.47	0.01	0.00	-0.51	-0.01	0.00
78	0.51	0.01	0.00	-0.55	-0.01	0.00
79	0.55	0.01	0.00	-0.59	-0.01	0.00
80	0.59	0.01	0.00	-0.63	-0.01	0.00
81	0.63	-0.05	0.00	-0.49	0.05	0.00
82	0.49	-0.05	0.00	-0.34	0.05	0.00
83	0.34	-0.05	0.00	-0.20	0.05	0.00
84	0.20	-0.05	0.00	-0.06	0.05	0.00
85	0.06	-0.05	0.00	0.09	0.05	0.00
86	-0.09	-0.05	0.00	0.23	0.05	0.00
87	-0.23	-0.05	0.00	0.37	0.05	0.00
88	-0.37	-0.05	0.00	0.51	0.05	0.00
89	-0.51	-0.05	0.00	0.66	0.05	0.00
90	-0.66	-0.05	0.00	0.80	0.05	0.00

HIPOTESIS 1 PESO PROPIO FASE 12

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
91	-0.80	-0.05	0.00	0.94	0.05	0.00
92	-0.94	-0.05	0.00	1.09	0.05	0.00
93	-1.09	-0.05	0.00	1.23	0.05	0.00
94	-1.23	-0.05	0.00	1.37	0.05	0.00
95	-1.37	-0.05	0.00	1.51	0.05	0.00
96	-1.51	-0.05	0.00	1.66	0.05	0.00
97	-1.66	-0.05	0.00	1.80	0.05	0.00
98	-1.80	-0.05	0.00	1.94	0.05	0.00
99	-1.94	-0.05	0.00	2.09	0.05	0.00
100	-2.09	-0.05	0.00	2.23	0.05	0.00
101	-2.23	0.17	0.00	1.72	-0.17	0.00
102	-1.72	0.17	0.00	1.22	-0.17	0.00
103	-1.22	0.17	0.00	0.71	-0.17	0.00
104	-0.71	0.17	0.00	0.20	-0.17	0.00
105	-0.20	0.17	0.00	-0.30	-0.17	0.00
106	0.30	0.17	0.00	-0.81	-0.17	0.00
107	0.81	0.17	0.00	-1.32	-0.17	0.00
108	1.32	0.17	0.00	-1.82	-0.17	0.00
109	1.82	0.17	0.00	-2.33	-0.17	0.00
110	2.33	0.17	0.00	-2.84	-0.17	0.00
111	2.84	0.17	0.00	-3.34	-0.17	0.00
112	3.34	0.17	0.00	-3.85	-0.17	0.00
113	3.85	0.17	0.00	-4.35	-0.17	0.00
114	4.35	0.17	0.00	-4.86	-0.17	0.00
115	4.86	0.17	0.00	-5.37	-0.17	0.00
116	5.37	0.17	0.00	-5.87	-0.17	0.00
117	5.87	0.17	0.00	-6.38	-0.17	0.00
118	6.38	0.17	0.01	-6.89	-0.17	-0.01
119	6.89	0.17	0.01	-7.39	-0.17	-0.01
120	7.39	0.17	0.01	-7.90	-0.17	-0.01
121	7.90	-0.60	0.01	-6.11	0.60	-0.01
122	6.11	-0.60	0.01	-4.31	0.60	-0.01
123	4.31	-0.60	0.01	-2.51	0.60	-0.01
124	2.51	-0.60	0.01	-0.72	0.60	-0.01
125	0.72	-0.60	0.01	1.08	0.60	-0.01
126	-1.08	-0.60	0.01	2.87	0.60	-0.01
127	-2.87	-0.60	0.01	4.67	0.60	-0.01
128	-4.67	-0.60	0.01	6.46	0.60	-0.01
129	-6.46	-0.60	0.01	8.26	0.60	-0.01
130	-8.26	-0.60	0.01	10.05	0.60	-0.01
131	-10.05	-0.60	0.01	11.85	0.60	-0.01
132	-11.85	-0.60	0.00	13.64	0.60	0.00
133	-13.64	-0.60	0.00	15.43	0.60	0.00
134	-15.43	-0.60	-0.01	17.23	0.60	0.01
135	-17.23	-0.60	-0.01	19.02	0.60	0.01

HIPOTESIS 1 PESO PROPIO FASE 12

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
136	-19.02	-0.60	-0.01	20.82	0.60	0.01
137	-20.82	-0.60	-0.02	22.61	0.60	0.02
138	-22.61	-0.60	-0.02	24.41	0.60	0.02
139	-24.41	-0.60	-0.03	26.20	0.60	0.03
140	-26.20	-0.60	-0.05	28.00	0.60	0.05
141	-28.00	2.12	-0.04	21.64	-2.12	0.04
142	-21.64	2.12	-0.06	15.27	-2.12	0.06
143	-15.27	2.12	-0.06	8.91	-2.12	0.06
144	-8.91	2.12	-0.06	2.55	-2.12	0.06
145	-2.55	2.12	-0.07	-3.81	-2.12	0.07
146	3.81	2.12	-0.07	-10.17	-2.12	0.07
147	10.17	2.12	-0.06	-16.54	-2.12	0.06
148	16.54	2.12	-0.05	-22.90	-2.12	0.05
149	22.90	2.12	-0.05	-29.26	-2.12	0.05
150	29.26	2.12	-0.05	-35.62	-2.12	0.05
151	35.62	2.12	-0.03	-41.98	-2.12	0.03
152	41.98	2.12	-0.03	-48.34	-2.12	0.03
153	48.35	2.12	0.01	-54.71	-2.12	-0.01
154	54.71	2.12	0.01	-61.07	-2.12	-0.01
155	61.07	2.12	0.02	-67.44	-2.12	-0.02
156	67.43	2.12	0.03	-73.80	-2.12	-0.03
157	73.80	2.12	0.09	-80.16	-2.12	-0.09
158	80.16	2.12	0.09	-86.53	-2.12	-0.09
159	86.53	2.12	0.12	-92.89	-2.12	-0.12
160	92.89	2.12	0.13	-99.25	-2.12	-0.13
161	99.25	-7.52	0.17	-76.69	7.52	-0.17
162	76.69	-7.52	0.18	-54.13	7.52	-0.18
163	54.14	-7.52	0.20	-31.57	7.52	-0.20
164	31.58	-7.52	0.21	-9.02	7.52	-0.21
165	9.02	-7.52	0.21	13.53	7.52	-0.21
166	-13.53	-7.52	0.20	36.08	7.52	-0.20
167	-36.08	-7.52	0.20	58.63	7.52	-0.20
168	-58.64	-7.51	0.20	81.17	7.51	-0.20
169	-81.18	-7.52	0.14	103.73	7.52	-0.14
170	-103.73	-7.51	0.12	126.27	7.51	-0.12
171	-126.27	-7.51	0.05	148.82	7.51	-0.05
172	-148.82	-7.52	0.05	171.37	7.52	-0.05
173	-171.37	-7.51	0.02	193.90	7.51	-0.02
174	-193.91	-7.51	-0.13	216.44	7.51	0.12
175	-216.44	-7.51	-0.08	238.99	7.51	0.08
176	-238.99	-7.51	-0.24	261.53	7.51	0.23
177	-261.52	-7.52	-0.26	284.08	7.52	0.27
178	-284.07	-7.52	-0.36	306.62	7.52	0.36
179	-306.61	-7.52	-0.48	329.17	7.52	0.48
180	-329.17	-7.52	-0.54	351.72	7.52	0.54

HIPOTESIS 1 PESO PROPIO FASE 12

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
181	-351.70	26.64	-0.60	271.79	-26.64	0.60
182	-271.79	26.64	-0.60	191.87	-26.64	0.60
183	-191.87	26.64	-0.74	111.96	-26.64	0.74
184	-111.97	26.64	-0.74	32.04	-26.64	0.74
185	-32.04	26.63	-0.74	-47.87	-26.63	0.75
186	47.88	26.64	-0.74	-127.80	-26.64	0.74
187	127.80	26.63	-0.65	-207.69	-26.63	0.64
188	207.71	26.65	-0.65	-287.65	-26.65	0.65
189	287.65	26.64	-0.56	-367.60	-26.64	0.56
190	367.61	26.64	-0.40	-447.57	-26.64	0.40
191	447.54	26.64	-0.40	-527.49	-26.64	0.40
192	527.51	26.64	-0.02	-607.44	-26.64	0.01
193	607.45	26.63	-0.02	-687.39	-26.63	0.01
194	687.36	26.62	0.11	-767.22	-26.62	-0.11
195	767.23	26.62	0.55	-847.09	-26.62	-0.55
196	847.10	26.63	0.71	-926.97	-26.63	-0.70
197	926.98	26.62	0.98	-1006.85	-26.62	-0.97
198	1006.86	26.62	1.44	-1086.73	-26.62	-1.45
199	1086.72	26.62	1.75	-1166.59	-26.62	-1.74
200	1166.58	26.62	1.75	-1246.45	-26.62	-1.75
201	1246.47	-94.46	2.42	-963.06	94.46	-2.41
202	963.05	-94.45	2.58	-679.73	94.45	-2.58
203	679.71	-94.45	2.58	-396.37	94.45	-2.57
204	396.36	-94.47	2.79	-112.92	94.47	-2.78
205	112.93	-94.48	2.82	170.49	94.48	-2.82
206	-170.44	-94.48	2.74	453.85	94.48	-2.74
207	-453.82	-94.49	2.61	737.33	94.49	-2.61
208	-737.33	-94.48	2.60	1020.75	94.48	-2.59
209	-1020.79	-94.44	1.86	1304.13	94.44	-1.88
210	-1304.13	-94.40	1.90	1587.44	94.40	-1.92
211	-1587.45	-94.43	1.16	1870.66	94.43	-1.17
212	-1870.65	-94.46	1.21	2153.90	94.46	-1.21
213	-2153.90	-94.43	-0.42	2437.16	94.43	0.42
214	-2437.15	-94.42	-0.43	2720.50	94.42	0.41
215	-2720.43	-94.40	-1.61	3003.64	94.40	1.60
216	-3003.62	-94.40	-1.70	3286.85	94.40	1.70
217	-3286.76	-94.40	-4.10	3570.00	94.40	4.10
218	-3569.94	-94.36	-4.11	3853.07	94.36	4.09
219	-3853.04	-94.35	-5.19	4136.13	94.35	5.18
220	-4136.12	-94.35	-7.13	4419.16	94.35	7.13
221	-4418.82	460.84	-7.73	3036.59	-460.84	7.73
222	-3036.56	460.82	-8.62	1654.20	-460.82	8.63
223	-1654.17	460.79	-9.07	271.46	-460.79	9.06
224	-271.45	460.81	-9.17	-1110.99	-460.81	9.17
225	1111.03	460.82	-8.95	-2493.28	-460.82	8.92

HIPOTESIS 1 PESO PROPIO FASE 12

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	2493.37	460.73	-7.51	-3754.51	-379.96	7.47
227	3754.69	380.04	-7.43	-4773.63	-299.27	7.51
228	4773.64	299.31	-5.35	-5550.35	-218.55	5.36
229	5550.45	218.43	-4.40	-6084.55	-137.69	4.43
230	6084.71	137.75	-2.00	-6376.66	-56.96	1.95
231	6376.76	57.00	0.36	-6426.61	23.74	-0.32
232	6426.69	-23.61	0.29	-6234.69	104.35	-0.29
233	6234.62	-104.25	3.75	-5800.56	185.02	-3.75
234	5800.55	-185.09	4.92	-5124.10	265.83	-4.93
235	5124.20	-265.91	7.79	-4205.16	346.69	-7.87
236	4205.15	-346.64	7.30	-3044.48	427.38	-7.32
237	3044.36	-427.47	9.14	-1640.55	508.24	-9.09
238	1640.60	-508.28	9.84	5.34	589.04	-9.88
239	-5.37	-588.99	9.83	1921.64	688.46	-9.83
240	-1921.63	-688.46	9.30	4136.65	787.95	-9.31
241	-4136.11	514.90	1.89	2741.03	-415.47	-1.90
242	-2741.03	415.53	0.76	1643.40	-316.04	-0.77
243	-1643.43	316.02	0.53	816.51	-235.26	-0.51
244	-816.57	235.29	0.11	231.85	-154.54	-0.12
245	-231.86	154.58	0.03	0.00	-0.01	-0.01
246	0.00	0.00	0.00	0.00	0.00	0.00
247	0.00	0.00	0.00	0.00	0.00	0.00
248	0.00	0.00	0.00	0.00	0.00	0.00
249	0.00	0.00	0.00	0.00	0.00	0.00
250	0.00	0.00	0.00	0.00	0.00	0.00
251	0.00	0.00	0.00	0.00	0.00	0.00
252	0.00	0.00	0.00	0.00	0.00	0.00
253	0.00	0.00	0.00	0.00	0.00	0.00
254	0.00	0.00	0.00	0.00	0.00	0.00
255	0.00	0.00	0.00	0.00	0.00	0.00
256	0.00	0.00	0.00	0.00	0.00	0.00
257	0.00	0.00	0.00	0.00	0.00	0.00
258	0.00	0.00	0.00	0.00	0.00	0.00
259	0.00	0.00	0.00	0.00	0.00	0.00
260	0.00	0.00	0.00	0.00	0.00	0.00
261	0.00	0.00	0.00	0.00	0.00	0.00
262	0.00	0.00	0.00	0.00	0.00	0.00
263	0.00	0.00	0.00	0.00	0.00	0.00
264	0.00	0.00	0.00	0.00	0.00	0.00
265	0.00	0.00	0.00	0.00	0.00	0.00
266	0.00	0.00	0.00	0.00	0.00	0.00
267	0.00	0.00	0.00	0.00	0.00	0.00
268	0.00	0.00	0.00	0.00	0.00	0.00
269	0.00	0.00	0.00	0.00	0.00	0.00
270	0.00	0.00	0.00	0.00	0.00	0.00

HIPOTESIS 1 PRETENSADO INICIAL

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	0.00021	0.00000
283	0.00000	0.00021	0.00000
284	0.00000	-0.00089	0.00000
285	0.00000	-0.00089	0.00000
286	0.00000	0.00305	0.00000
287	0.00000	0.00304	0.00000
288	0.00000	-0.01078	0.00000
289	0.00000	-0.01074	0.00000
290	0.00000	0.03818	0.00000
291	0.00000	0.03806	0.00000
292	0.00000	-0.13524	0.00000
293	0.00000	-0.13500	0.00000
294	0.00000	0.47900	0.00000
295	0.00000	0.47940	0.00000
296	0.00000	-1.70045	0.00000
297	0.00000	-1.69477	0.00000
298	0.00000	6.01315	0.00000
299	0.00000	6.02444	0.00000
300	0.00000	-21.29042	0.00000
301	0.00000	-21.36080	0.00000
302	0.00000	75.48196	0.00000
303	0.00000	75.56073	0.00000
304	0.00000	-103.98643	0.00000
305	0.00000	-105.35906	0.00000
306	0.00000	43.57705	0.00000
307	0.00000	48.28291	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	0.296
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	-0.01	0.00	0.00
7	0.01	0.00	0.00	-0.01	0.00	0.00
8	0.01	0.00	0.00	-0.01	0.00	0.00
9	0.01	0.00	0.00	-0.01	0.00	0.00
10	0.01	0.00	0.00	-0.01	0.00	0.00
11	0.01	0.00	0.00	-0.01	0.00	0.00
12	0.01	0.00	0.00	-0.01	0.00	0.00
13	0.01	0.00	0.00	-0.01	0.00	0.00
14	0.01	0.00	0.00	-0.01	0.00	0.00
15	0.01	0.00	0.00	-0.01	0.00	0.00
16	0.01	0.00	0.00	-0.01	0.00	0.00
17	0.01	0.00	0.00	-0.02	0.00	0.00
18	0.02	0.00	0.00	-0.02	0.00	0.00
19	0.02	0.00	0.00	-0.02	0.00	0.00
20	0.02	0.00	0.00	-0.02	0.00	0.00
21	0.02	0.00	0.00	-0.01	0.00	0.00
22	0.01	0.00	0.00	-0.01	0.00	0.00
23	0.01	0.00	0.00	-0.01	0.00	0.00
24	0.01	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.01	0.00	0.00
27	-0.01	0.00	0.00	0.01	0.00	0.00
28	-0.01	0.00	0.00	0.01	0.00	0.00
29	-0.01	0.00	0.00	0.02	0.00	0.00
30	-0.02	0.00	0.00	0.02	0.00	0.00
31	-0.02	0.00	0.00	0.03	0.00	0.00
32	-0.03	0.00	0.00	0.03	0.00	0.00
33	-0.03	0.00	0.00	0.03	0.00	0.00
34	-0.03	0.00	0.00	0.04	0.00	0.00
35	-0.04	0.00	0.00	0.04	0.00	0.00
36	-0.04	0.00	0.00	0.05	0.00	0.00
37	-0.05	0.00	0.00	0.05	0.00	0.00
38	-0.05	0.00	0.00	0.05	0.00	0.00
39	-0.05	0.00	0.00	0.06	0.00	0.00
40	-0.06	0.00	0.00	0.06	0.00	0.00
41	-0.06	0.00	0.00	0.05	0.00	0.00
42	-0.05	0.00	0.00	0.03	0.00	0.00
43	-0.03	0.00	0.00	0.02	0.00	0.00
44	-0.02	0.00	0.00	0.01	0.00	0.00
45	-0.01	0.00	0.00	-0.01	0.00	0.00

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
46	0.01	0.00	0.00	-0.02	0.00	0.00
47	0.02	0.00	0.00	-0.04	0.00	0.00
48	0.04	0.00	0.00	-0.05	0.00	0.00
49	0.05	0.00	0.00	-0.07	0.00	0.00
50	0.07	0.00	0.00	-0.08	0.00	0.00
51	0.08	0.00	0.00	-0.09	0.00	0.00
52	0.09	0.00	0.00	-0.11	0.00	0.00
53	0.11	0.00	0.00	-0.12	0.00	0.00
54	0.12	0.00	0.00	-0.14	0.00	0.00
55	0.14	0.00	0.00	-0.15	0.00	0.00
56	0.15	0.00	0.00	-0.16	0.00	0.00
57	0.16	0.00	0.00	-0.18	0.00	0.00
58	0.18	0.00	0.00	-0.19	0.00	0.00
59	0.19	0.00	0.00	-0.21	0.00	0.00
60	0.21	0.00	0.00	-0.22	0.00	0.00
61	0.22	-0.02	0.00	-0.17	0.02	0.00
62	0.17	-0.02	0.00	-0.12	0.02	0.00
63	0.12	-0.02	0.00	-0.07	0.02	0.00
64	0.07	-0.02	0.00	-0.02	0.02	0.00
65	0.02	-0.02	0.00	0.03	0.02	0.00
66	-0.03	-0.02	0.00	0.08	0.02	0.00
67	-0.08	-0.02	0.00	0.13	0.02	0.00
68	-0.13	-0.02	0.00	0.18	0.02	0.00
69	-0.18	-0.02	0.00	0.23	0.02	0.00
70	-0.23	-0.02	0.00	0.28	0.02	0.00
71	-0.28	-0.02	0.00	0.33	0.02	0.00
72	-0.33	-0.02	0.00	0.38	0.02	0.00
73	-0.38	-0.02	0.00	0.43	0.02	0.00
74	-0.43	-0.02	0.00	0.48	0.02	0.00
75	-0.48	-0.02	0.00	0.53	0.02	0.00
76	-0.53	-0.02	0.00	0.58	0.02	0.00
77	-0.58	-0.02	0.00	0.63	0.02	0.00
78	-0.63	-0.02	0.00	0.68	0.02	0.00
79	-0.68	-0.02	0.00	0.73	0.02	0.00
80	-0.73	-0.02	0.00	0.79	0.02	0.00
81	-0.79	0.06	0.00	0.61	-0.06	0.00
82	-0.61	0.06	0.00	0.43	-0.06	0.00
83	-0.43	0.06	0.00	0.25	-0.06	0.00
84	-0.25	0.06	0.00	0.07	-0.06	0.00
85	-0.07	0.06	0.00	-0.11	-0.06	0.00
86	0.11	0.06	0.00	-0.29	-0.06	0.00
87	0.29	0.06	0.00	-0.46	-0.06	0.00
88	0.46	0.06	0.00	-0.64	-0.06	0.00
89	0.64	0.06	0.00	-0.82	-0.06	0.00
90	0.82	0.06	0.00	-1.00	-0.06	0.00

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
91	1.00	0.06	0.00	-1.18	-0.06	0.00
92	1.18	0.06	0.00	-1.36	-0.06	0.00
93	1.36	0.06	0.00	-1.53	-0.06	0.00
94	1.53	0.06	0.00	-1.71	-0.06	0.00
95	1.71	0.06	0.00	-1.89	-0.06	0.00
96	1.89	0.06	0.00	-2.07	-0.06	0.00
97	2.07	0.06	0.00	-2.25	-0.06	0.00
98	2.25	0.06	0.00	-2.43	-0.06	0.00
99	2.43	0.06	0.00	-2.60	-0.06	0.00
100	2.60	0.06	0.00	-2.78	-0.06	0.00
101	2.78	-0.21	0.00	-2.15	0.21	0.00
102	2.15	-0.21	0.00	-1.52	0.21	0.00
103	1.52	-0.21	0.00	-0.89	0.21	0.00
104	0.89	-0.21	0.00	-0.25	0.21	0.00
105	0.25	-0.21	0.00	0.38	0.21	0.00
106	-0.38	-0.21	0.00	1.01	0.21	0.00
107	-1.01	-0.21	0.00	1.64	0.21	0.00
108	-1.64	-0.21	0.00	2.28	0.21	0.00
109	-2.28	-0.21	0.00	2.91	0.21	0.00
110	-2.91	-0.21	0.00	3.54	0.21	0.00
111	-3.54	-0.21	0.00	4.17	0.21	0.00
112	-4.17	-0.21	0.00	4.80	0.21	0.00
113	-4.80	-0.21	0.00	5.44	0.21	0.00
114	-5.44	-0.21	0.00	6.07	0.21	0.00
115	-6.07	-0.21	0.00	6.70	0.21	0.00
116	-6.70	-0.21	-0.01	7.33	0.21	0.01
117	-7.33	-0.21	0.00	7.97	0.21	0.00
118	-7.97	-0.21	-0.01	8.60	0.21	0.01
119	-8.60	-0.21	-0.01	9.23	0.21	0.01
120	-9.23	-0.21	-0.01	9.87	0.21	0.01
121	-9.87	0.75	-0.01	7.62	-0.75	0.01
122	-7.62	0.75	-0.01	5.38	-0.75	0.01
123	-5.38	0.75	-0.01	3.14	-0.75	0.01
124	-3.14	0.75	-0.02	0.90	-0.75	0.02
125	-0.90	0.75	-0.02	-1.35	-0.75	0.02
126	1.35	0.75	-0.02	-3.59	-0.75	0.02
127	3.59	0.75	-0.01	-5.83	-0.75	0.01
128	5.83	0.75	-0.01	-8.07	-0.75	0.01
129	8.07	0.75	-0.01	-10.31	-0.75	0.01
130	10.31	0.75	-0.01	-12.55	-0.75	0.01
131	12.55	0.75	-0.01	-14.79	-0.75	0.01
132	14.79	0.75	0.00	-17.03	-0.75	0.00
133	17.03	0.75	0.00	-19.27	-0.75	0.00
134	19.27	0.75	0.01	-21.51	-0.75	-0.01
135	21.51	0.75	0.01	-23.75	-0.75	-0.01

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
136	23.75	0.75	0.01	-25.99	-0.75	-0.01
137	25.99	0.75	0.03	-28.24	-0.75	-0.03
138	28.24	0.75	0.03	-30.48	-0.75	-0.03
139	30.48	0.75	0.03	-32.72	-0.75	-0.03
140	32.72	0.75	0.06	-34.96	-0.75	-0.06
141	34.96	-2.65	0.06	-27.02	2.65	-0.05
142	27.02	-2.65	0.07	-19.07	2.65	-0.07
143	19.07	-2.65	0.08	-11.13	2.65	-0.08
144	11.13	-2.65	0.08	-3.19	2.65	-0.08
145	3.19	-2.65	0.08	4.76	2.65	-0.08
146	-4.76	-2.65	0.08	12.70	2.65	-0.08
147	-12.70	-2.65	0.08	20.65	2.65	-0.08
148	-20.65	-2.65	0.07	28.59	2.65	-0.07
149	-28.60	-2.65	0.06	36.54	2.65	-0.06
150	-36.54	-2.65	0.06	44.48	2.65	-0.06
151	-44.48	-2.65	0.04	52.43	2.65	-0.04
152	-52.42	-2.65	0.04	60.37	2.65	-0.04
153	-60.37	-2.65	-0.01	68.31	2.65	0.01
154	-68.31	-2.65	-0.01	76.26	2.65	0.01
155	-76.26	-2.65	-0.03	84.21	2.65	0.03
156	-84.21	-2.65	-0.04	92.15	2.65	0.04
157	-92.16	-2.65	-0.11	100.10	2.65	0.11
158	-100.10	-2.65	-0.11	108.05	2.65	0.11
159	-108.05	-2.65	-0.14	115.99	2.65	0.14
160	-115.99	-2.65	-0.16	123.94	2.65	0.16
161	-123.94	9.39	-0.21	95.77	-9.39	0.21
162	-95.77	9.39	-0.22	67.60	-9.39	0.22
163	-67.60	9.39	-0.24	39.43	-9.39	0.24
164	-39.43	9.39	-0.26	11.27	-9.39	0.26
165	-11.27	9.39	-0.26	-16.89	-9.39	0.26
166	16.89	9.39	-0.25	-45.06	-9.39	0.25
167	45.06	9.39	-0.25	-73.22	-9.39	0.25
168	73.22	9.39	-0.25	-101.37	-9.39	0.25
169	101.37	9.39	-0.17	-129.53	-9.39	0.17
170	129.53	9.39	-0.15	-157.69	-9.39	0.15
171	157.68	9.39	-0.06	-185.84	-9.39	0.06
172	185.83	9.39	-0.06	-214.00	-9.39	0.07
173	214.00	9.38	-0.03	-242.14	-9.38	0.02
174	242.14	9.38	0.15	-270.29	-9.38	-0.15
175	270.28	9.38	0.10	-298.44	-9.38	-0.10
176	298.44	9.39	0.29	-326.59	-9.39	-0.29
177	326.58	9.38	0.33	-354.74	-9.38	-0.33
178	354.74	9.38	0.45	-382.88	-9.38	-0.45
179	382.88	9.39	0.60	-411.05	-9.39	-0.60
180	411.04	9.39	0.67	-439.20	-9.39	-0.67

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
181	439.18	-33.27	0.74	-339.39	33.27	-0.74
182	339.40	-33.27	0.74	-239.60	33.27	-0.74
183	239.60	-33.27	0.92	-139.81	33.27	-0.92
184	139.81	-33.26	0.92	-40.02	33.26	-0.92
185	40.02	-33.26	0.93	59.79	33.26	-0.93
186	-59.79	-33.27	0.92	159.59	33.27	-0.92
187	-159.58	-33.27	0.80	259.38	33.27	-0.80
188	-259.38	-33.28	0.80	359.20	33.28	-0.80
189	-359.19	-33.30	0.70	459.07	33.30	-0.70
190	-459.06	-33.27	0.49	558.87	33.27	-0.49
191	-558.88	-33.28	0.50	658.72	33.28	-0.50
192	-658.70	-33.29	0.02	758.58	33.29	-0.01
193	-758.58	-33.26	0.00	858.33	33.26	-0.01
194	-858.34	-33.23	-0.14	958.06	33.23	0.15
195	-958.08	-33.25	-0.70	1057.79	33.25	0.70
196	-1057.81	-33.24	-0.89	1157.55	33.24	0.88
197	-1157.56	-33.25	-1.22	1257.32	33.25	1.22
198	-1257.31	-33.25	-1.80	1357.05	33.25	1.80
199	-1357.04	-33.24	-2.19	1456.77	33.24	2.19
200	-1456.77	-33.24	-2.20	1556.48	33.24	2.20
201	-1556.52	117.80	-3.14	1203.07	-117.80	3.14
202	-1203.07	117.81	-3.34	849.68	-117.81	3.34
203	-849.67	117.79	-3.34	496.31	-117.79	3.33
204	-496.30	117.82	-3.62	142.78	-117.82	3.61
205	-142.78	117.81	-3.64	-210.61	-117.81	3.64
206	210.62	117.82	-3.56	-564.06	-117.82	3.55
207	564.04	117.84	-3.37	-917.56	-117.84	3.38
208	917.58	117.84	-3.40	-1271.13	-117.84	3.39
209	1271.16	117.77	-2.46	-1624.47	-117.77	2.46
210	1624.57	117.74	-2.49	-1977.76	-117.74	2.50
211	1977.76	117.74	-1.60	-2331.04	-117.74	1.57
212	2330.96	117.80	-1.67	-2684.36	-117.80	1.70
213	2684.31	117.79	0.36	-3037.61	-117.79	-0.33
214	3037.63	117.74	0.41	-3390.87	-117.74	-0.41
215	3390.88	117.72	1.92	-3744.04	-117.72	-1.91
216	3744.08	117.72	2.01	-4097.18	-117.72	-2.00
217	4097.21	117.71	5.01	-4450.33	-117.71	-5.02
218	4450.31	117.69	4.99	-4803.40	-117.69	-4.98
219	4803.34	117.71	6.35	-5156.52	-117.71	-6.33
220	5156.41	117.68	8.75	-5509.47	-117.68	-8.75
221	5509.33	-91.67	7.22	-5234.40	91.67	-7.23
222	5234.39	-91.66	8.76	-4959.46	91.66	-8.74
223	4959.44	-91.64	10.07	-4684.54	91.64	-10.05
224	4684.42	-91.64	12.26	-4409.60	91.64	-12.27
225	4409.61	-91.74	13.00	-4134.55	91.74	-12.97

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-4034.81	-91.70	15.38	6539.34	91.70	-15.31
227	-6539.34	-91.47	15.08	8555.58	91.47	-15.14
228	-8556.00	-91.51	11.37	10099.33	91.51	-11.43
229	-10099.33	-91.81	9.88	11181.65	91.81	-9.85
230	-11181.52	-91.49	5.26	11807.54	91.49	-5.28
231	-11807.38	-91.77	1.10	11972.35	91.77	-0.94
232	-11971.92	-91.89	0.98	11658.85	91.89	-1.02
233	-11658.42	-92.03	-5.43	10836.20	92.03	5.43
234	-10835.79	-92.05	-7.62	9465.74	92.05	7.66
235	-9465.55	-91.88	-12.90	7505.72	91.88	12.90
236	-7505.66	-91.83	-12.02	4919.13	91.83	12.11
237	-4919.15	-91.74	-15.00	1686.13	91.74	14.96
238	-1686.14	-91.80	-15.67	-4480.60	91.80	15.67
239	4480.84	-91.77	-15.65	-8815.59	91.77	15.65
240	8815.58	-91.76	-13.24	-10690.51	91.76	13.24
241	10690.56	0.12	-1.01	-8920.51	-0.12	1.01
242	8920.50	0.10	2.59	-1729.77	-0.10	-2.57
243	1729.74	0.11	2.83	2624.16	-0.11	-2.85
244	-2624.16	0.01	1.65	6295.55	-0.01	-1.67
245	-6295.46	-0.02	-0.02	9280.79	0.02	0.02
246	0.00	0.00	0.00	0.00	0.00	0.00
247	0.00	0.00	0.00	0.00	0.00	0.00
248	0.00	0.00	0.00	0.00	0.00	0.00
249	0.00	0.00	0.00	0.00	0.00	0.00
250	0.00	0.00	0.00	0.00	0.00	0.00
251	0.00	0.00	0.00	0.00	0.00	0.00
252	0.00	0.00	0.00	0.00	0.00	0.00
253	0.00	0.00	0.00	0.00	0.00	0.00
254	0.00	0.00	0.00	0.00	0.00	0.00
255	0.00	0.00	0.00	0.00	0.00	0.00
256	0.00	0.00	0.00	0.00	0.00	0.00
257	0.00	0.00	0.00	0.00	0.00	0.00
258	0.00	0.00	0.00	0.00	0.00	0.00
259	0.00	0.00	0.00	0.00	0.00	0.00
260	0.00	0.00	0.00	0.00	0.00	0.00
261	0.00	0.00	0.00	0.00	0.00	0.00
262	0.00	0.00	0.00	0.00	0.00	0.00
263	0.00	0.00	0.00	0.00	0.00	0.00
264	0.00	0.00	0.00	0.00	0.00	0.00
265	0.00	0.00	0.00	0.00	0.00	0.00
266	0.00	0.00	0.00	0.00	0.00	0.00
267	0.00	0.00	0.00	0.00	0.00	0.00
268	0.00	0.00	0.00	0.00	0.00	0.00
269	0.00	0.00	0.00	0.00	0.00	0.00
270	0.00	0.00	0.00	0.00	0.00	0.00

Viaducto 1 sobre rio Averno FASE 13

No de fase de construccion = 13

CONDICIONES DE VINCULACION

Nudo	Codigo	RX	RZ	RY
282	0 1 0	0.000	0.000	0.000
283	0 1 0	0.000	0.000	0.000
284	0 1 0	0.000	0.000	0.000
285	0 1 0	0.000	0.000	0.000
286	0 1 0	0.000	0.000	0.000
287	0 1 0	0.000	0.000	0.000
288	0 1 0	0.000	0.000	0.000
289	0 1 0	0.000	0.000	0.000
290	0 1 0	0.000	0.000	0.000
291	0 1 0	0.000	0.000	0.000
292	0 1 0	0.000	0.000	0.000
293	0 1 0	0.000	0.000	0.000
294	0 1 0	0.000	0.000	0.000
295	0 1 0	0.000	0.000	0.000
296	0 1 0	0.000	0.000	0.000
297	0 1 0	0.000	0.000	0.000
298	0 1 0	0.000	0.000	0.000
299	0 1 0	0.000	0.000	0.000
300	0 1 0	0.000	0.000	0.000
301	0 1 0	0.000	0.000	0.000
302	0 1 0	0.000	0.000	0.000
303	0 1 0	0.000	0.000	0.000
304	0 1 0	0.000	0.000	0.000
305	0 1 0	0.000	0.000	0.000
306	0 1 0	0.000	0.000	0.000
307	0 1 0	0.000	0.000	0.000
308	0 1 0	0.000	0.000	0.000
309	0 1 0	0.000	0.000	0.000

HIPOTESIS 1 PESO PROPIO FASE 13

REACCIONES

Nudo	Flector	Reac_vert	Torsor
284	0.00000	-0.00022	0.00000
285	0.00000	-0.00022	0.00000
286	0.00000	0.00076	0.00000
287	0.00000	0.00076	0.00000
288	0.00000	-0.00270	0.00000
289	0.00000	-0.00269	0.00000
290	0.00000	0.00957	0.00000
291	0.00000	0.00954	0.00000
292	0.00000	-0.03389	0.00000
293	0.00000	-0.03383	0.00000
294	0.00000	0.12002	0.00000
295	0.00000	0.12012	0.00000
296	0.00000	-0.42607	0.00000
297	0.00000	-0.42464	0.00000
298	0.00000	1.50665	0.00000
299	0.00000	1.50951	0.00000
300	0.00000	-5.33493	0.00000
301	0.00000	-5.35186	0.00000
302	0.00000	18.91859	0.00000
303	0.00000	18.95216	0.00000
304	0.00000	-67.08510	0.00000
305	0.00000	-67.14977	0.00000
306	0.00000	300.98099	0.00000
307	0.00000	301.13297	0.00000
308	0.00000	623.76794	0.00000
309	0.00000	618.05701	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	1739.241
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PESO PROPIO FASE 13

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.01	0.00	0.00
31	-0.01	0.00	0.00	0.01	0.00	0.00
32	-0.01	0.00	0.00	0.01	0.00	0.00
33	-0.01	0.00	0.00	0.01	0.00	0.00
34	-0.01	0.00	0.00	0.01	0.00	0.00
35	-0.01	0.00	0.00	0.01	0.00	0.00
36	-0.01	0.00	0.00	0.01	0.00	0.00
37	-0.01	0.00	0.00	0.01	0.00	0.00
38	-0.01	0.00	0.00	0.01	0.00	0.00
39	-0.01	0.00	0.00	0.01	0.00	0.00
40	-0.01	0.00	0.00	0.02	0.00	0.00
41	-0.02	0.00	0.00	0.01	0.00	0.00
42	-0.01	0.00	0.00	0.01	0.00	0.00
43	-0.01	0.00	0.00	0.01	0.00	0.00
44	-0.01	0.00	0.00	0.00	0.00	0.00
45	0.00	0.00	0.00	0.00	0.00	0.00

HIPOTESIS 1 PESO PROPIO FASE 13

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
46	0.00	0.00	0.00	-0.01	0.00	0.00
47	0.01	0.00	0.00	-0.01	0.00	0.00
48	0.01	0.00	0.00	-0.01	0.00	0.00
49	0.01	0.00	0.00	-0.02	0.00	0.00
50	0.02	0.00	0.00	-0.02	0.00	0.00
51	0.02	0.00	0.00	-0.02	0.00	0.00
52	0.02	0.00	0.00	-0.03	0.00	0.00
53	0.03	0.00	0.00	-0.03	0.00	0.00
54	0.03	0.00	0.00	-0.03	0.00	0.00
55	0.03	0.00	0.00	-0.04	0.00	0.00
56	0.04	0.00	0.00	-0.04	0.00	0.00
57	0.04	0.00	0.00	-0.04	0.00	0.00
58	0.04	0.00	0.00	-0.05	0.00	0.00
59	0.05	0.00	0.00	-0.05	0.00	0.00
60	0.05	0.00	0.00	-0.06	0.00	0.00
61	0.06	0.00	0.00	-0.04	0.00	0.00
62	0.04	0.00	0.00	-0.03	0.00	0.00
63	0.03	0.00	0.00	-0.02	0.00	0.00
64	0.02	0.00	0.00	-0.01	0.00	0.00
65	0.01	0.00	0.00	0.01	0.00	0.00
66	-0.01	0.00	0.00	0.02	0.00	0.00
67	-0.02	0.00	0.00	0.03	0.00	0.00
68	-0.03	0.00	0.00	0.05	0.00	0.00
69	-0.05	0.00	0.00	0.06	0.00	0.00
70	-0.06	0.00	0.00	0.07	0.00	0.00
71	-0.07	0.00	0.00	0.08	0.00	0.00
72	-0.08	0.00	0.00	0.10	0.00	0.00
73	-0.10	0.00	0.00	0.11	0.00	0.00
74	-0.11	0.00	0.00	0.12	0.00	0.00
75	-0.12	0.00	0.00	0.13	0.00	0.00
76	-0.13	0.00	0.00	0.15	0.00	0.00
77	-0.15	0.00	0.00	0.16	0.00	0.00
78	-0.16	0.00	0.00	0.17	0.00	0.00
79	-0.17	0.00	0.00	0.18	0.00	0.00
80	-0.18	0.00	0.00	0.20	0.00	0.00
81	-0.20	0.01	0.00	0.15	-0.01	0.00
82	-0.15	0.01	0.00	0.11	-0.01	0.00
83	-0.11	0.01	0.00	0.06	-0.01	0.00
84	-0.06	0.01	0.00	0.02	-0.01	0.00
85	-0.02	0.01	0.00	-0.03	-0.01	0.00
86	0.03	0.01	0.00	-0.07	-0.01	0.00
87	0.07	0.01	0.00	-0.12	-0.01	0.00
88	0.12	0.01	0.00	-0.16	-0.01	0.00
89	0.16	0.01	0.00	-0.21	-0.01	0.00
90	0.21	0.01	0.00	-0.25	-0.01	0.00

HIPOTESIS 1 PESO PROPIO FASE 13

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
91	0.25	0.01	0.00	-0.29	-0.01	0.00
92	0.29	0.01	0.00	-0.34	-0.01	0.00
93	0.34	0.01	0.00	-0.38	-0.01	0.00
94	0.38	0.01	0.00	-0.43	-0.01	0.00
95	0.43	0.01	0.00	-0.47	-0.01	0.00
96	0.47	0.01	0.00	-0.52	-0.01	0.00
97	0.52	0.01	0.00	-0.56	-0.01	0.00
98	0.56	0.01	0.00	-0.61	-0.01	0.00
99	0.61	0.01	0.00	-0.65	-0.01	0.00
100	0.65	0.01	0.00	-0.70	-0.01	0.00
101	0.70	-0.05	0.00	-0.54	0.05	0.00
102	0.54	-0.05	0.00	-0.38	0.05	0.00
103	0.38	-0.05	0.00	-0.22	0.05	0.00
104	0.22	-0.05	0.00	-0.06	0.05	0.00
105	0.06	-0.05	0.00	0.09	0.05	0.00
106	-0.09	-0.05	0.00	0.25	0.05	0.00
107	-0.25	-0.05	0.00	0.41	0.05	0.00
108	-0.41	-0.05	0.00	0.57	0.05	0.00
109	-0.57	-0.05	0.00	0.73	0.05	0.00
110	-0.73	-0.05	0.00	0.89	0.05	0.00
111	-0.89	-0.05	0.00	1.05	0.05	0.00
112	-1.05	-0.05	0.00	1.20	0.05	0.00
113	-1.20	-0.05	0.00	1.36	0.05	0.00
114	-1.36	-0.05	0.00	1.52	0.05	0.00
115	-1.52	-0.05	0.00	1.68	0.05	0.00
116	-1.68	-0.05	0.00	1.84	0.05	0.00
117	-1.84	-0.05	0.00	2.00	0.05	0.00
118	-2.00	-0.05	0.00	2.16	0.05	0.00
119	-2.16	-0.05	0.00	2.31	0.05	0.00
120	-2.31	-0.05	0.00	2.47	0.05	0.00
121	-2.47	0.19	0.00	1.91	-0.19	0.00
122	-1.91	0.19	0.00	1.35	-0.19	0.00
123	-1.35	0.19	0.00	0.79	-0.19	0.00
124	-0.79	0.19	0.00	0.22	-0.19	0.00
125	-0.22	0.19	0.00	-0.34	-0.19	0.00
126	0.34	0.19	0.00	-0.90	-0.19	0.00
127	0.90	0.19	0.00	-1.46	-0.19	0.00
128	1.46	0.19	0.00	-2.02	-0.19	0.00
129	2.02	0.19	0.00	-2.58	-0.19	0.00
130	2.58	0.19	0.00	-3.14	-0.19	0.00
131	3.14	0.19	0.00	-3.71	-0.19	0.00
132	3.71	0.19	0.00	-4.27	-0.19	0.00
133	4.27	0.19	0.00	-4.83	-0.19	0.00
134	4.83	0.19	0.00	-5.39	-0.19	0.00
135	5.39	0.19	0.00	-5.95	-0.19	0.00

HIPOTESIS 1 PESO PROPIO FASE 13

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
136	5.95	0.19	0.00	-6.51	-0.19	0.00
137	6.51	0.19	0.01	-7.07	-0.19	-0.01
138	7.07	0.19	0.01	-7.64	-0.19	-0.01
139	7.64	0.19	0.01	-8.20	-0.19	-0.01
140	8.20	0.19	0.01	-8.76	-0.19	-0.01
141	8.76	-0.66	0.01	-6.77	0.66	-0.01
142	6.77	-0.66	0.02	-4.78	0.66	-0.02
143	4.78	-0.66	0.02	-2.79	0.66	-0.02
144	2.79	-0.66	0.02	-0.80	0.66	-0.02
145	0.80	-0.66	0.02	1.19	0.66	-0.02
146	-1.19	-0.66	0.02	3.18	0.66	-0.02
147	-3.18	-0.66	0.02	5.17	0.66	-0.02
148	-5.17	-0.66	0.02	7.16	0.66	-0.02
149	-7.16	-0.66	0.01	9.16	0.66	-0.01
150	-9.15	-0.66	0.01	11.15	0.66	-0.01
151	-11.15	-0.66	0.01	13.14	0.66	-0.01
152	-13.14	-0.66	0.01	15.13	0.66	-0.01
153	-15.13	-0.66	0.00	17.12	0.66	0.00
154	-17.12	-0.66	0.00	19.11	0.66	0.00
155	-19.11	-0.66	-0.01	21.10	0.66	0.01
156	-21.10	-0.66	-0.01	23.09	0.66	0.01
157	-23.09	-0.66	-0.03	25.08	0.66	0.03
158	-25.08	-0.66	-0.03	27.07	0.66	0.03
159	-27.07	-0.66	-0.04	29.06	0.66	0.04
160	-29.06	-0.66	-0.04	31.05	0.66	0.04
161	-31.06	2.35	-0.05	24.00	-2.35	0.05
162	-24.00	2.35	-0.06	16.94	-2.35	0.06
163	-16.94	2.35	-0.06	9.88	-2.35	0.06
164	-9.88	2.35	-0.07	2.82	-2.35	0.07
165	-2.82	2.35	-0.07	-4.23	-2.35	0.07
166	4.23	2.35	-0.06	-11.29	-2.35	0.06
167	11.29	2.35	-0.06	-18.35	-2.35	0.06
168	18.35	2.35	-0.06	-25.40	-2.35	0.06
169	25.40	2.35	-0.04	-32.46	-2.35	0.04
170	32.46	2.35	-0.04	-39.51	-2.35	0.04
171	39.51	2.35	-0.02	-46.56	-2.35	0.02
172	46.56	2.35	-0.02	-53.62	-2.35	0.02
173	53.62	2.35	-0.01	-60.67	-2.35	0.01
174	60.67	2.35	0.04	-67.72	-2.35	-0.04
175	67.72	2.35	0.03	-74.78	-2.35	-0.03
176	74.78	2.35	0.07	-81.83	-2.35	-0.07
177	81.83	2.35	0.08	-88.88	-2.35	-0.08
178	88.88	2.35	0.11	-95.94	-2.35	-0.11
179	95.94	2.35	0.15	-102.99	-2.35	-0.15
180	102.99	2.35	0.17	-110.05	-2.35	-0.17

HIPOTESIS 1 PESO PROPIO FASE 13

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
181	110.04	-8.34	0.19	-85.04	8.34	-0.19
182	85.04	-8.34	0.19	-60.03	8.34	-0.19
183	60.04	-8.34	0.23	-35.03	8.34	-0.23
184	35.03	-8.33	0.23	-10.03	8.33	-0.23
185	10.03	-8.34	0.23	14.98	8.34	-0.23
186	-14.98	-8.33	0.23	39.99	8.33	-0.23
187	-39.98	-8.33	0.20	64.99	8.33	-0.20
188	-64.99	-8.34	0.20	90.00	8.34	-0.20
189	-90.00	-8.34	0.18	115.03	8.34	-0.18
190	-115.02	-8.34	0.13	140.03	8.34	-0.12
191	-140.03	-8.33	0.13	165.04	8.33	-0.13
192	-165.05	-8.34	0.01	190.07	8.34	0.00
193	-190.07	-8.33	0.00	215.07	8.33	0.00
194	-215.07	-8.33	-0.03	240.05	8.33	0.03
195	-240.05	-8.33	-0.17	265.04	8.33	0.17
196	-265.05	-8.33	-0.22	290.04	8.33	0.22
197	-290.04	-8.33	-0.31	315.04	8.33	0.31
198	-315.04	-8.33	-0.45	340.02	8.33	0.45
199	-340.02	-8.33	-0.55	365.01	8.33	0.55
200	-365.01	-8.33	-0.55	390.00	8.33	0.55
201	-390.01	29.54	-0.76	301.37	-29.54	0.76
202	-301.37	29.54	-0.81	212.74	-29.54	0.81
203	-212.74	29.54	-0.81	124.13	-29.54	0.81
204	-124.13	29.55	-0.88	35.48	-29.55	0.88
205	-35.47	29.54	-0.88	-53.15	-29.54	0.88
206	53.15	29.55	-0.86	-141.79	-29.55	0.86
207	141.79	29.54	-0.82	-230.43	-29.54	0.82
208	230.44	29.55	-0.82	-319.09	-29.55	0.82
209	319.10	29.53	-0.59	-407.72	-29.53	0.59
210	407.72	29.54	-0.60	-496.33	-29.54	0.60
211	496.32	29.52	-0.37	-584.89	-29.52	0.38
212	584.89	29.54	-0.39	-673.50	-29.54	0.39
213	673.50	29.54	0.13	-762.12	-29.54	-0.12
214	762.10	29.52	0.14	-850.66	-29.52	-0.12
215	850.67	29.53	0.50	-939.26	-29.53	-0.49
216	939.26	29.52	0.54	-1027.82	-29.52	-0.53
217	1027.82	29.52	1.28	-1116.36	-29.52	-1.28
218	1116.36	29.52	1.28	-1204.93	-29.52	-1.28
219	1204.91	29.51	1.63	-1293.45	-29.51	-1.62
220	1293.44	29.51	2.23	-1381.98	-29.51	-2.23
221	1381.89	-104.72	2.36	-1067.79	104.72	-2.37
222	1067.79	-104.73	2.68	-753.64	104.73	-2.68
223	753.64	-104.73	2.88	-439.42	104.73	-2.88
224	439.42	-104.72	3.09	-125.26	104.72	-3.09
225	125.28	-104.74	3.10	188.85	104.74	-3.09

HIPOTESIS 1 PESO PROPIO FASE 13

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-188.89	-104.72	2.96	503.02	104.72	-2.97
227	-503.10	-104.66	2.93	817.10	104.66	-2.96
228	-817.20	-104.68	2.61	1131.20	104.68	-2.60
229	-1131.28	-104.72	2.42	1445.37	104.72	-2.42
230	-1445.38	-104.68	1.84	1759.58	104.68	-1.84
231	-1759.60	-104.70	1.21	2073.70	104.70	-1.23
232	-2073.73	-104.77	1.18	2387.94	104.77	-1.19
233	-2387.91	-104.81	-0.13	2702.41	104.81	0.13
234	-2702.40	-104.79	-0.67	3016.67	104.79	0.68
235	-3016.67	-104.78	-2.38	3331.13	104.78	2.35
236	-3331.10	-104.76	-1.97	3645.36	104.76	1.98
237	-3645.33	-104.73	-4.10	3959.52	104.73	4.12
238	-3959.58	-104.68	-5.89	4273.65	104.68	5.89
239	-4273.68	-104.75	-5.89	4587.91	104.75	5.89
240	-4587.92	-104.73	-7.16	4902.18	104.73	7.16
241	-4901.91	497.37	-8.41	3410.31	-497.37	8.41
242	-3410.31	497.37	-9.79	1917.79	-497.37	9.79
243	-1917.80	497.38	-10.13	425.68	-497.38	10.10
244	-425.68	497.30	-10.31	-1066.12	-497.30	10.34
245	1066.11	497.31	-9.98	-2558.09	-497.31	9.95
246	2558.18	497.29	-9.51	-3928.65	-416.55	9.53
247	3928.73	416.65	-7.23	-5057.74	-335.88	7.19
248	5057.79	335.89	-7.32	-5944.57	-255.11	7.29
249	5944.47	255.21	-6.09	-6588.74	-174.46	6.17
250	6588.78	174.46	-1.32	-6991.04	-93.70	1.32
251	6990.84	93.66	-1.35	-7150.76	-12.90	1.37
252	7150.54	12.93	0.70	-7068.08	67.84	-0.77
253	7067.87	-67.74	3.74	-6743.47	148.50	-3.69
254	6743.50	-148.65	7.15	-6176.30	229.41	-7.05
255	6176.36	-229.50	7.02	-5366.78	310.25	-7.00
256	5366.95	-310.27	8.39	-4314.90	391.03	-8.43
257	4314.91	-391.01	10.44	-3020.75	471.77	-10.42
258	3020.65	-471.79	10.28	-1484.28	552.55	-10.32
259	1484.23	-552.49	11.47	322.61	651.96	-11.49
260	-322.63	-651.97	11.48	2427.93	751.44	-11.46
261	-2427.39	404.35	0.51	1601.65	-329.77	-0.51
262	-1601.63	329.78	0.48	943.58	-255.20	-0.50
263	-943.74	255.21	0.14	437.62	-194.63	-0.20
264	-437.62	194.43	0.02	109.37	-97.15	0.04
265	-109.28	97.10	0.00	0.08	0.12	0.11
266	0.00	0.00	0.00	0.00	0.00	0.00
267	0.00	0.00	0.00	0.00	0.00	0.00
268	0.00	0.00	0.00	0.00	0.00	0.00
269	0.00	0.00	0.00	0.00	0.00	0.00
270	0.00	0.00	0.00	0.00	0.00	0.00

HIPOTESIS 1 PRETENSADO INICIAL

REACCIONES

Nudo	Flector	Reac_vert	Torsor
284	0.00000	0.00028	0.00000
285	0.00000	0.00028	0.00000
286	0.00000	-0.00097	0.00000
287	0.00000	-0.00096	0.00000
288	0.00000	0.00341	0.00000
289	0.00000	0.00340	0.00000
290	0.00000	-0.01209	0.00000
291	0.00000	-0.01205	0.00000
292	0.00000	0.04282	0.00000
293	0.00000	0.04275	0.00000
294	0.00000	-0.15167	0.00000
295	0.00000	-0.15180	0.00000
296	0.00000	0.53845	0.00000
297	0.00000	0.53665	0.00000
298	0.00000	-1.90404	0.00000
299	0.00000	-1.90766	0.00000
300	0.00000	6.74206	0.00000
301	0.00000	6.76344	0.00000
302	0.00000	-23.90838	0.00000
303	0.00000	-23.95104	0.00000
304	0.00000	84.70631	0.00000
305	0.00000	84.78353	0.00000
306	0.00000	-136.30820	0.00000
307	0.00000	-136.97409	0.00000
308	0.00000	67.82635	0.00000
309	0.00000	73.06002	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	-0.233
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.01	0.00	0.00
18	-0.01	0.00	0.00	0.01	0.00	0.00
19	-0.01	0.00	0.00	0.01	0.00	0.00
20	-0.01	0.00	0.00	0.01	0.00	0.00
21	-0.01	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	-0.01	0.00	0.00
30	0.01	0.00	0.00	-0.01	0.00	0.00
31	0.01	0.00	0.00	-0.01	0.00	0.00
32	0.01	0.00	0.00	-0.01	0.00	0.00
33	0.01	0.00	0.00	-0.01	0.00	0.00
34	0.01	0.00	0.00	-0.01	0.00	0.00
35	0.01	0.00	0.00	-0.01	0.00	0.00
36	0.01	0.00	0.00	-0.01	0.00	0.00
37	0.01	0.00	0.00	-0.02	0.00	0.00
38	0.02	0.00	0.00	-0.02	0.00	0.00
39	0.02	0.00	0.00	-0.02	0.00	0.00
40	0.02	0.00	0.00	-0.02	0.00	0.00
41	0.02	0.00	0.00	-0.02	0.00	0.00
42	0.02	0.00	0.00	-0.01	0.00	0.00
43	0.01	0.00	0.00	-0.01	0.00	0.00
44	0.01	0.00	0.00	0.00	0.00	0.00
45	0.00	0.00	0.00	0.00	0.00	0.00

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
46	0.00	0.00	0.00	0.01	0.00	0.00
47	-0.01	0.00	0.00	0.01	0.00	0.00
48	-0.01	0.00	0.00	0.02	0.00	0.00
49	-0.02	0.00	0.00	0.02	0.00	0.00
50	-0.02	0.00	0.00	0.03	0.00	0.00
51	-0.03	0.00	0.00	0.03	0.00	0.00
52	-0.03	0.00	0.00	0.03	0.00	0.00
53	-0.03	0.00	0.00	0.04	0.00	0.00
54	-0.04	0.00	0.00	0.04	0.00	0.00
55	-0.04	0.00	0.00	0.05	0.00	0.00
56	-0.05	0.00	0.00	0.05	0.00	0.00
57	-0.05	0.00	0.00	0.06	0.00	0.00
58	-0.06	0.00	0.00	0.06	0.00	0.00
59	-0.06	0.00	0.00	0.07	0.00	0.00
60	-0.07	0.00	0.00	0.07	0.00	0.00
61	-0.07	0.01	0.00	0.05	-0.01	0.00
62	-0.05	0.01	0.00	0.04	-0.01	0.00
63	-0.04	0.01	0.00	0.02	-0.01	0.00
64	-0.02	0.01	0.00	0.01	-0.01	0.00
65	-0.01	0.01	0.00	-0.01	-0.01	0.00
66	0.01	0.01	0.00	-0.03	-0.01	0.00
67	0.03	0.01	0.00	-0.04	-0.01	0.00
68	0.04	0.01	0.00	-0.06	-0.01	0.00
69	0.06	0.01	0.00	-0.07	-0.01	0.00
70	0.07	0.01	0.00	-0.09	-0.01	0.00
71	0.09	0.01	0.00	-0.11	-0.01	0.00
72	0.11	0.01	0.00	-0.12	-0.01	0.00
73	0.12	0.01	0.00	-0.14	-0.01	0.00
74	0.14	0.01	0.00	-0.15	-0.01	0.00
75	0.15	0.01	0.00	-0.17	-0.01	0.00
76	0.17	0.01	0.00	-0.18	-0.01	0.00
77	0.18	0.01	0.00	-0.20	-0.01	0.00
78	0.20	0.01	0.00	-0.22	-0.01	0.00
79	0.22	0.01	0.00	-0.23	-0.01	0.00
80	0.23	0.01	0.00	-0.25	-0.01	0.00
81	0.25	-0.02	0.00	-0.19	0.02	0.00
82	0.19	-0.02	0.00	-0.14	0.02	0.00
83	0.14	-0.02	0.00	-0.08	0.02	0.00
84	0.08	-0.02	0.00	-0.02	0.02	0.00
85	0.02	-0.02	0.00	0.03	0.02	0.00
86	-0.03	-0.02	0.00	0.09	0.02	0.00
87	-0.09	-0.02	0.00	0.15	0.02	0.00
88	-0.15	-0.02	0.00	0.20	0.02	0.00
89	-0.20	-0.02	0.00	0.26	0.02	0.00
90	-0.26	-0.02	0.00	0.32	0.02	0.00

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
91	-0.32	-0.02	0.00	0.37	0.02	0.00
92	-0.37	-0.02	0.00	0.43	0.02	0.00
93	-0.43	-0.02	0.00	0.49	0.02	0.00
94	-0.49	-0.02	0.00	0.54	0.02	0.00
95	-0.54	-0.02	0.00	0.60	0.02	0.00
96	-0.60	-0.02	0.00	0.66	0.02	0.00
97	-0.66	-0.02	0.00	0.71	0.02	0.00
98	-0.71	-0.02	0.00	0.77	0.02	0.00
99	-0.77	-0.02	0.00	0.82	0.02	0.00
100	-0.82	-0.02	0.00	0.88	0.02	0.00
101	-0.88	0.07	0.00	0.68	-0.07	0.00
102	-0.68	0.07	0.00	0.48	-0.07	0.00
103	-0.48	0.07	0.00	0.28	-0.07	0.00
104	-0.28	0.07	0.00	0.08	-0.07	0.00
105	-0.08	0.07	0.00	-0.12	-0.07	0.00
106	0.12	0.07	0.00	-0.32	-0.07	0.00
107	0.32	0.07	0.00	-0.52	-0.07	0.00
108	0.52	0.07	0.00	-0.72	-0.07	0.00
109	0.72	0.07	0.00	-0.92	-0.07	0.00
110	0.92	0.07	0.00	-1.12	-0.07	0.00
111	1.12	0.07	0.00	-1.32	-0.07	0.00
112	1.32	0.07	0.00	-1.52	-0.07	0.00
113	1.52	0.07	0.00	-1.72	-0.07	0.00
114	1.72	0.07	0.00	-1.92	-0.07	0.00
115	1.92	0.07	0.00	-2.12	-0.07	0.00
116	2.12	0.07	0.00	-2.32	-0.07	0.00
117	2.32	0.07	0.00	-2.52	-0.07	0.00
118	2.52	0.07	0.00	-2.72	-0.07	0.00
119	2.72	0.07	0.00	-2.92	-0.07	0.00
120	2.92	0.07	0.00	-3.12	-0.07	0.00
121	3.12	-0.24	0.00	-2.41	0.24	0.00
122	2.41	-0.24	0.00	-1.70	0.24	0.00
123	1.70	-0.24	0.00	-0.99	0.24	0.00
124	0.99	-0.24	0.00	-0.28	0.24	0.00
125	0.28	-0.24	0.00	0.43	0.24	0.00
126	-0.43	-0.24	0.00	1.14	0.24	0.00
127	-1.14	-0.24	0.00	1.85	0.24	0.00
128	-1.85	-0.24	0.00	2.56	0.24	0.00
129	-2.56	-0.24	0.00	3.26	0.24	0.00
130	-3.26	-0.24	0.00	3.97	0.24	0.00
131	-3.97	-0.24	0.00	4.68	0.24	0.00
132	-4.68	-0.24	0.00	5.39	0.24	0.00
133	-5.39	-0.24	0.00	6.10	0.24	0.00
134	-6.10	-0.24	0.00	6.81	0.24	0.00
135	-6.81	-0.24	0.00	7.52	0.24	0.00

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
136	-7.52	-0.24	0.00	8.23	0.24	0.00
137	-8.23	-0.24	-0.01	8.94	0.24	0.01
138	-8.94	-0.24	-0.01	9.65	0.24	0.01
139	-9.65	-0.24	-0.01	10.36	0.24	0.01
140	-10.36	-0.24	-0.02	11.07	0.24	0.02
141	-11.07	0.84	-0.02	8.55	-0.84	0.02
142	-8.55	0.84	-0.02	6.04	-0.84	0.02
143	-6.04	0.84	-0.02	3.52	-0.84	0.02
144	-3.52	0.84	-0.03	1.01	-0.84	0.03
145	-1.01	0.84	-0.03	-1.51	-0.84	0.03
146	1.51	0.84	-0.03	-4.02	-0.84	0.03
147	4.02	0.84	-0.02	-6.54	-0.84	0.02
148	6.54	0.84	-0.02	-9.05	-0.84	0.02
149	9.05	0.84	-0.02	-11.57	-0.84	0.02
150	11.57	0.84	-0.02	-14.09	-0.84	0.02
151	14.09	0.84	-0.01	-16.60	-0.84	0.01
152	16.60	0.84	-0.01	-19.12	-0.84	0.01
153	19.12	0.84	0.00	-21.63	-0.84	0.00
154	21.63	0.84	0.00	-24.15	-0.84	0.00
155	24.15	0.84	0.01	-26.66	-0.84	-0.01
156	26.66	0.84	0.01	-29.18	-0.84	-0.01
157	29.18	0.84	0.04	-31.70	-0.84	-0.04
158	31.70	0.84	0.04	-34.21	-0.84	-0.04
159	34.21	0.84	0.05	-36.73	-0.84	-0.05
160	36.73	0.84	0.05	-39.24	-0.84	-0.05
161	39.25	-2.97	0.07	-30.32	2.97	-0.07
162	30.32	-2.97	0.07	-21.41	2.97	-0.07
163	21.41	-2.97	0.08	-12.49	2.97	-0.08
164	12.49	-2.97	0.08	-3.57	2.97	-0.08
165	3.57	-2.97	0.08	5.35	2.97	-0.08
166	-5.35	-2.97	0.08	14.27	2.97	-0.08
167	-14.27	-2.97	0.08	23.18	2.97	-0.08
168	-23.18	-2.97	0.08	32.10	2.97	-0.08
169	-32.10	-2.97	0.06	41.02	2.97	-0.05
170	-41.02	-2.97	0.05	49.93	2.97	-0.05
171	-49.93	-2.97	0.02	58.85	2.97	-0.02
172	-58.84	-2.97	0.02	67.76	2.97	-0.02
173	-67.76	-2.97	0.01	76.67	2.97	-0.01
174	-76.67	-2.97	-0.05	85.59	2.97	0.05
175	-85.58	-2.97	-0.03	94.50	2.97	0.03
176	-94.50	-2.97	-0.09	103.41	2.97	0.09
177	-103.41	-2.97	-0.10	112.33	2.97	0.10
178	-112.33	-2.97	-0.14	121.24	2.97	0.14
179	-121.24	-2.97	-0.19	130.16	2.97	0.19
180	-130.16	-2.97	-0.21	139.07	2.97	0.21

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
181	-139.07	10.53	-0.24	107.47	-10.53	0.24
182	-107.47	10.53	-0.24	75.87	-10.53	0.24
183	-75.87	10.53	-0.29	44.27	-10.53	0.29
184	-44.27	10.53	-0.29	12.67	-10.53	0.29
185	-12.67	10.54	-0.30	-18.93	-10.54	0.30
186	18.94	10.53	-0.29	-50.53	-10.53	0.29
187	50.53	10.53	-0.26	-82.13	-10.53	0.26
188	82.14	10.53	-0.26	-113.74	-10.53	0.26
189	113.74	10.54	-0.22	-145.36	-10.54	0.22
190	145.36	10.54	-0.16	-176.97	-10.54	0.16
191	176.97	10.54	-0.16	-208.58	-10.54	0.16
192	208.58	10.54	0.00	-240.20	-10.54	0.01
193	240.20	10.53	0.00	-271.79	-10.53	0.00
194	271.79	10.52	0.04	-303.37	-10.52	-0.04
195	303.37	10.53	0.22	-334.95	-10.53	-0.22
196	334.96	10.53	0.28	-366.54	-10.53	-0.28
197	366.54	10.53	0.39	-398.13	-10.53	-0.39
198	398.13	10.53	0.57	-429.71	-10.53	-0.57
199	429.70	10.53	0.69	-461.29	-10.53	-0.69
200	461.28	10.53	0.69	-492.86	-10.53	-0.69
201	492.87	-37.33	0.96	-380.86	37.33	-0.96
202	380.85	-37.34	1.02	-268.86	37.34	-1.02
203	268.86	-37.33	1.02	-156.87	37.33	-1.02
204	156.87	-37.33	1.11	-44.84	37.33	-1.11
205	44.83	-37.33	1.12	67.16	37.33	-1.11
206	-67.16	-37.35	1.09	179.20	37.35	-1.09
207	-179.17	-37.35	1.04	291.23	37.35	-1.04
208	-291.23	-37.34	1.04	403.26	37.34	-1.03
209	-403.24	-37.33	0.75	515.25	37.33	-0.75
210	-515.25	-37.32	0.76	627.23	37.32	-0.76
211	-627.22	-37.33	0.47	739.19	37.33	-0.47
212	-739.17	-37.34	0.48	851.15	37.34	-0.48
213	-851.13	-37.33	-0.16	963.10	37.33	0.15
214	-963.10	-37.30	-0.17	1075.05	37.30	0.17
215	-1075.06	-37.31	-0.64	1186.95	37.31	0.63
216	-1187.00	-37.32	-0.67	1298.92	37.32	0.67
217	-1298.91	-37.31	-1.62	1410.81	37.31	1.62
218	-1410.81	-37.30	-1.61	1522.72	37.30	1.62
219	-1522.69	-37.30	-2.05	1634.61	37.30	2.05
220	-1634.60	-37.29	-2.81	1746.47	37.29	2.81
221	-1746.37	132.20	-2.99	1349.87	-132.20	2.99
222	-1349.87	132.19	-3.38	953.33	-132.19	3.39
223	-953.31	132.18	-3.64	556.69	-132.18	3.63
224	-556.66	132.18	-3.89	160.15	-132.18	3.89
225	-160.14	132.21	-3.95	-236.41	-132.21	3.92

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	236.44	132.16	-3.77	-632.97	-132.16	3.76
227	632.98	132.19	-3.76	-1029.58	-132.19	3.77
228	1029.51	132.23	-3.33	-1426.11	-132.23	3.31
229	1426.08	132.20	-3.07	-1822.56	-132.20	3.05
230	1822.57	132.13	-2.31	-2219.13	-132.13	2.35
231	2219.20	132.18	-1.54	-2615.65	-132.18	1.56
232	2615.77	132.18	-1.48	-3012.26	-132.18	1.50
233	3012.30	132.31	0.15	-3409.21	-132.31	-0.13
234	3409.21	132.33	0.79	-3806.13	-132.33	-0.80
235	3805.97	132.27	2.93	-4202.92	-132.27	-2.94
236	4202.96	132.23	2.45	-4599.59	-132.23	-2.52
237	4599.56	132.20	5.15	-4996.22	-132.20	-5.15
238	4996.24	132.18	7.40	-5392.80	-132.18	-7.40
239	5392.75	132.25	7.39	-5789.51	-132.25	-7.41
240	5789.45	132.19	9.03	-6186.13	-132.19	-9.03
241	6186.02	-141.08	9.86	-5762.94	141.08	-9.86
242	5762.97	-141.10	12.18	-5339.61	141.10	-12.18
243	5339.69	-141.07	13.08	-4916.39	141.07	-13.07
244	4916.41	-140.94	15.35	-4493.61	140.94	-15.37
245	4493.57	-141.02	16.59	-4070.58	141.02	-16.53
246	-4152.47	-141.04	17.28	6819.03	141.04	-17.20
247	-6818.84	-141.20	13.27	8996.08	141.20	-13.32
248	-8995.68	-141.35	13.39	10696.94	141.35	-13.38
249	-10696.77	-141.27	11.42	11932.78	141.27	-11.38
250	-11932.68	-141.22	2.60	12710.19	141.22	-2.57
251	-12709.76	-141.22	2.61	13022.31	141.22	-2.71
252	-13022.08	-141.25	-1.20	12852.79	141.25	1.23
253	-12852.52	-141.22	-6.74	12170.54	141.22	6.78
254	-12170.73	-141.32	-12.66	10937.58	141.32	12.69
255	-10937.47	-140.88	-12.62	9110.72	140.88	12.52
256	-9110.84	-141.10	-14.86	6652.41	141.10	14.91
257	-6652.16	-141.04	-17.97	3544.51	141.04	18.07
258	-3544.35	-141.02	-17.90	-2516.87	141.02	17.91
259	2516.94	-141.03	-16.04	-8281.26	141.03	16.01
260	8281.27	-141.05	-16.08	-10751.87	141.05	16.04
261	10751.85	-0.14	-2.21	-9505.14	0.14	2.20
262	9505.23	-0.17	-1.94	-3928.79	0.17	1.93
263	3928.92	-0.24	-0.49	-453.66	0.24	0.51
264	453.89	0.05	-0.32	2568.93	-0.05	0.36
265	-2569.04	0.24	0.01	5125.70	-0.24	-0.02
266	0.00	0.00	0.00	0.00	0.00	0.00
267	0.00	0.00	0.00	0.00	0.00	0.00
268	0.00	0.00	0.00	0.00	0.00	0.00
269	0.00	0.00	0.00	0.00	0.00	0.00
270	0.00	0.00	0.00	0.00	0.00	0.00

Viaducto sobre rio Averno. Estructura completa

No de fase de construccion = 14

No de fase de construccion = 14

CONDICIONES DE VINCULACION

Nudo	Codigo	RX	RZ	RY
282	0 1 0	0.000	0.000	0.000
283	0 1 0	0.000	0.000	0.000
284	0 1 0	0.000	0.000	0.000
285	0 1 0	0.000	0.000	0.000
286	0 1 0	0.000	0.000	0.000
287	0 1 0	0.000	0.000	0.000
288	0 1 0	0.000	0.000	0.000
289	0 1 0	0.000	0.000	0.000
290	0 1 0	0.000	0.000	0.000
291	0 1 0	0.000	0.000	0.000
292	0 1 0	0.000	0.000	0.000
293	0 1 0	0.000	0.000	0.000
294	0 1 0	0.000	0.000	0.000
295	0 1 0	0.000	0.000	0.000
296	0 1 0	0.000	0.000	0.000
297	0 1 0	0.000	0.000	0.000
298	0 1 0	0.000	0.000	0.000
299	0 1 0	0.000	0.000	0.000
300	0 1 0	0.000	0.000	0.000
301	0 1 0	0.000	0.000	0.000
302	0 1 0	0.000	0.000	0.000
303	0 1 0	0.000	0.000	0.000
304	0 1 0	0.000	0.000	0.000
305	0 1 0	0.000	0.000	0.000
306	0 1 0	0.000	0.000	0.000
307	0 1 0	0.000	0.000	0.000
308	0 1 0	0.000	0.000	0.000
309	0 1 0	0.000	0.000	0.000
310	0 1 0	0.000	0.000	0.000
311	0 1 0	0.000	0.000	0.000

HIPOTESIS 1 PESO PROPIO

REACCIONES

Nudo	Flector	Reac_vert	Torsor
286	0.00000	-0.00012	0.00000
287	0.00000	-0.00012	0.00000
288	0.00000	0.00042	0.00000
289	0.00000	0.00042	0.00000
290	0.00000	-0.00149	0.00000
291	0.00000	-0.00149	0.00000
292	0.00000	0.00529	0.00000
293	0.00000	0.00528	0.00000
294	0.00000	-0.01872	0.00000
295	0.00000	-0.01874	0.00000
296	0.00000	0.06646	0.00000
297	0.00000	0.06624	0.00000
298	0.00000	-0.23501	0.00000
299	0.00000	-0.23546	0.00000
300	0.00000	0.83215	0.00000
301	0.00000	0.83479	0.00000
302	0.00000	-2.95092	0.00000
303	0.00000	-2.95622	0.00000
304	0.00000	10.46161	0.00000
305	0.00000	10.47056	0.00000
306	0.00000	-37.10959	0.00000
307	0.00000	-37.17108	0.00000
308	0.00000	229.71394	0.00000
309	0.00000	229.50674	0.00000
310	0.00000	292.70734	0.00000
311	0.00000	289.12106	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	983.093
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PESO PROPIO

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	0.00	0.00	0.00	0.00	0.00
32	0.00	0.00	0.00	0.00	0.00	0.00
33	0.00	0.00	0.00	0.00	0.00	0.00
34	0.00	0.00	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00	0.00	0.00
36	0.00	0.00	0.00	0.00	0.00	0.00
37	0.00	0.00	0.00	0.00	0.00	0.00
38	0.00	0.00	0.00	0.00	0.00	0.00
39	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00
41	0.00	0.00	0.00	0.00	0.00	0.00
42	0.00	0.00	0.00	0.00	0.00	0.00
43	0.00	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00	0.00
45	0.00	0.00	0.00	0.00	0.00	0.00

HIPOTESIS 1 PESO PROPIO

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
46	0.00	0.00	0.00	0.00	0.00	0.00
47	0.00	0.00	0.00	0.00	0.00	0.00
48	0.00	0.00	0.00	0.00	0.00	0.00
49	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00
51	0.00	0.00	0.00	0.00	0.00	0.00
52	0.00	0.00	0.00	0.00	0.00	0.00
53	0.00	0.00	0.00	0.00	0.00	0.00
54	0.00	0.00	0.00	0.01	0.00	0.00
55	-0.01	0.00	0.00	0.01	0.00	0.00
56	-0.01	0.00	0.00	0.01	0.00	0.00
57	-0.01	0.00	0.00	0.01	0.00	0.00
58	-0.01	0.00	0.00	0.01	0.00	0.00
59	-0.01	0.00	0.00	0.01	0.00	0.00
60	-0.01	0.00	0.00	0.01	0.00	0.00
61	-0.01	0.00	0.00	0.01	0.00	0.00
62	-0.01	0.00	0.00	0.00	0.00	0.00
63	0.00	0.00	0.00	0.00	0.00	0.00
64	0.00	0.00	0.00	0.00	0.00	0.00
65	0.00	0.00	0.00	0.00	0.00	0.00
66	0.00	0.00	0.00	0.00	0.00	0.00
67	0.00	0.00	0.00	-0.01	0.00	0.00
68	0.01	0.00	0.00	-0.01	0.00	0.00
69	0.01	0.00	0.00	-0.01	0.00	0.00
70	0.01	0.00	0.00	-0.01	0.00	0.00
71	0.01	0.00	0.00	-0.01	0.00	0.00
72	0.01	0.00	0.00	-0.01	0.00	0.00
73	0.01	0.00	0.00	-0.02	0.00	0.00
74	0.02	0.00	0.00	-0.02	0.00	0.00
75	0.02	0.00	0.00	-0.02	0.00	0.00
76	0.02	0.00	0.00	-0.02	0.00	0.00
77	0.02	0.00	0.00	-0.02	0.00	0.00
78	0.02	0.00	0.00	-0.03	0.00	0.00
79	0.03	0.00	0.00	-0.03	0.00	0.00
80	0.03	0.00	0.00	-0.03	0.00	0.00
81	0.03	0.00	0.00	-0.02	0.00	0.00
82	0.02	0.00	0.00	-0.02	0.00	0.00
83	0.02	0.00	0.00	-0.01	0.00	0.00
84	0.01	0.00	0.00	0.00	0.00	0.00
85	0.00	0.00	0.00	0.00	0.00	0.00
86	0.00	0.00	0.00	0.01	0.00	0.00
87	-0.01	0.00	0.00	0.02	0.00	0.00
88	-0.02	0.00	0.00	0.03	0.00	0.00
89	-0.03	0.00	0.00	0.03	0.00	0.00
90	-0.03	0.00	0.00	0.04	0.00	0.00

HIPOTESIS 1 PESO PROPIO

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
91	-0.04	0.00	0.00	0.05	0.00	0.00
92	-0.05	0.00	0.00	0.05	0.00	0.00
93	-0.05	0.00	0.00	0.06	0.00	0.00
94	-0.06	0.00	0.00	0.07	0.00	0.00
95	-0.07	0.00	0.00	0.07	0.00	0.00
96	-0.07	0.00	0.00	0.08	0.00	0.00
97	-0.08	0.00	0.00	0.09	0.00	0.00
98	-0.09	0.00	0.00	0.09	0.00	0.00
99	-0.09	0.00	0.00	0.10	0.00	0.00
100	-0.10	0.00	0.00	0.11	0.00	0.00
101	-0.11	0.01	0.00	0.08	-0.01	0.00
102	-0.08	0.01	0.00	0.06	-0.01	0.00
103	-0.06	0.01	0.00	0.03	-0.01	0.00
104	-0.03	0.01	0.00	0.01	-0.01	0.00
105	-0.01	0.01	0.00	-0.01	-0.01	0.00
106	0.01	0.01	0.00	-0.04	-0.01	0.00
107	0.04	0.01	0.00	-0.06	-0.01	0.00
108	0.06	0.01	0.00	-0.09	-0.01	0.00
109	0.09	0.01	0.00	-0.11	-0.01	0.00
110	0.11	0.01	0.00	-0.14	-0.01	0.00
111	0.14	0.01	0.00	-0.16	-0.01	0.00
112	0.16	0.01	0.00	-0.19	-0.01	0.00
113	0.19	0.01	0.00	-0.21	-0.01	0.00
114	0.21	0.01	0.00	-0.24	-0.01	0.00
115	0.24	0.01	0.00	-0.26	-0.01	0.00
116	0.26	0.01	0.00	-0.29	-0.01	0.00
117	0.29	0.01	0.00	-0.31	-0.01	0.00
118	0.31	0.01	0.00	-0.34	-0.01	0.00
119	0.34	0.01	0.00	-0.36	-0.01	0.00
120	0.36	0.01	0.00	-0.39	-0.01	0.00
121	0.39	-0.03	0.00	-0.30	0.03	0.00
122	0.30	-0.03	0.00	-0.21	0.03	0.00
123	0.21	-0.03	0.00	-0.12	0.03	0.00
124	0.12	-0.03	0.00	-0.04	0.03	0.00
125	0.04	-0.03	0.00	0.05	0.03	0.00
126	-0.05	-0.03	0.00	0.14	0.03	0.00
127	-0.14	-0.03	0.00	0.23	0.03	0.00
128	-0.23	-0.03	0.00	0.32	0.03	0.00
129	-0.32	-0.03	0.00	0.40	0.03	0.00
130	-0.40	-0.03	0.00	0.49	0.03	0.00
131	-0.49	-0.03	0.00	0.58	0.03	0.00
132	-0.58	-0.03	0.00	0.67	0.03	0.00
133	-0.67	-0.03	0.00	0.75	0.03	0.00
134	-0.75	-0.03	0.00	0.84	0.03	0.00
135	-0.84	-0.03	0.00	0.93	0.03	0.00

HIPOTESIS 1 PESO PROPIO

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
136	-0.93	-0.03	0.00	1.02	0.03	0.00
137	-1.02	-0.03	0.00	1.10	0.03	0.00
138	-1.10	-0.03	0.00	1.19	0.03	0.00
139	-1.19	-0.03	0.00	1.28	0.03	0.00
140	-1.28	-0.03	0.00	1.37	0.03	0.00
141	-1.37	0.10	0.00	1.06	-0.10	0.00
142	-1.06	0.10	0.00	0.75	-0.10	0.00
143	-0.75	0.10	0.00	0.44	-0.10	0.00
144	-0.44	0.10	0.00	0.12	-0.10	0.00
145	-0.12	0.10	0.00	-0.19	-0.10	0.00
146	0.19	0.10	0.00	-0.50	-0.10	0.00
147	0.50	0.10	0.00	-0.81	-0.10	0.00
148	0.81	0.10	0.00	-1.12	-0.10	0.00
149	1.12	0.10	0.00	-1.43	-0.10	0.00
150	1.43	0.10	0.00	-1.74	-0.10	0.00
151	1.74	0.10	0.00	-2.05	-0.10	0.00
152	2.05	0.10	0.00	-2.36	-0.10	0.00
153	2.36	0.10	0.00	-2.67	-0.10	0.00
154	2.67	0.10	0.00	-2.98	-0.10	0.00
155	2.98	0.10	0.00	-3.29	-0.10	0.00
156	3.29	0.10	0.00	-3.60	-0.10	0.00
157	3.60	0.10	0.00	-3.91	-0.10	0.00
158	3.91	0.10	0.00	-4.22	-0.10	0.00
159	4.22	0.10	0.01	-4.53	-0.10	-0.01
160	4.53	0.10	0.01	-4.84	-0.10	-0.01
161	4.84	-0.37	0.01	-3.74	0.37	-0.01
162	3.74	-0.37	0.01	-2.64	0.37	-0.01
163	2.64	-0.37	0.01	-1.54	0.37	-0.01
164	1.54	-0.37	0.01	-0.44	0.37	-0.01
165	0.44	-0.37	0.01	0.66	0.37	-0.01
166	-0.66	-0.37	0.01	1.76	0.37	-0.01
167	-1.76	-0.37	0.01	2.86	0.37	-0.01
168	-2.86	-0.37	0.01	3.96	0.37	-0.01
169	-3.96	-0.37	0.01	5.06	0.37	-0.01
170	-5.06	-0.37	0.01	6.16	0.37	-0.01
171	-6.16	-0.37	0.00	7.26	0.37	0.00
172	-7.26	-0.37	0.00	8.36	0.37	0.00
173	-8.36	-0.37	0.00	9.46	0.37	0.00
174	-9.46	-0.37	-0.01	10.56	0.37	0.01
175	-10.56	-0.37	0.00	11.66	0.37	0.00
176	-11.66	-0.37	-0.01	12.76	0.37	0.01
177	-12.76	-0.37	-0.01	13.86	0.37	0.01
178	-13.86	-0.37	-0.02	14.96	0.37	0.02
179	-14.96	-0.37	-0.02	16.06	0.37	0.02
180	-16.06	-0.37	-0.03	17.17	0.37	0.03

HIPOTESIS 1 PESO PROPIO

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
181	-17.16	1.30	-0.03	13.26	-1.30	0.03
182	-13.26	1.30	-0.03	9.36	-1.30	0.03
183	-9.36	1.30	-0.04	5.46	-1.30	0.04
184	-5.46	1.30	-0.04	1.56	-1.30	0.04
185	-1.56	1.30	-0.04	-2.34	-1.30	0.04
186	2.34	1.30	-0.04	-6.24	-1.30	0.04
187	6.24	1.30	-0.03	-10.14	-1.30	0.03
188	10.14	1.30	-0.03	-14.04	-1.30	0.03
189	14.04	1.30	-0.03	-17.94	-1.30	0.03
190	17.94	1.30	-0.02	-21.84	-1.30	0.02
191	21.84	1.30	-0.02	-25.74	-1.30	0.02
192	25.75	1.30	0.00	-29.65	-1.30	0.00
193	29.65	1.30	0.00	-33.55	-1.30	0.00
194	33.55	1.30	0.01	-37.44	-1.30	-0.01
195	37.44	1.30	0.03	-41.34	-1.30	-0.03
196	41.34	1.30	0.03	-45.24	-1.30	-0.03
197	45.24	1.30	0.05	-49.14	-1.30	-0.05
198	49.14	1.30	0.07	-53.04	-1.30	-0.07
199	53.04	1.30	0.09	-56.94	-1.30	-0.09
200	56.94	1.30	0.09	-60.83	-1.30	-0.09
201	60.83	-4.61	0.12	-47.01	4.61	-0.12
202	47.01	-4.61	0.13	-33.18	4.61	-0.13
203	33.18	-4.61	0.13	-19.36	4.61	-0.13
204	19.36	-4.61	0.14	-5.53	4.61	-0.14
205	5.53	-4.61	0.14	8.29	4.61	-0.14
206	-8.29	-4.61	0.13	22.12	4.61	-0.13
207	-22.12	-4.61	0.13	35.94	4.61	-0.13
208	-35.94	-4.61	0.13	49.77	4.61	-0.13
209	-49.77	-4.61	0.09	63.60	4.61	-0.09
210	-63.60	-4.61	0.09	77.42	4.61	-0.09
211	-77.42	-4.60	0.06	91.23	4.60	-0.06
212	-91.23	-4.61	0.06	105.06	4.61	-0.06
213	-105.06	-4.60	-0.02	118.87	4.60	0.02
214	-118.87	-4.61	-0.02	132.69	4.61	0.02
215	-132.69	-4.60	-0.08	146.50	4.60	0.08
216	-146.51	-4.61	-0.08	160.32	4.61	0.08
217	-160.32	-4.60	-0.20	174.13	4.60	0.20
218	-174.13	-4.60	-0.20	187.94	4.60	0.20
219	-187.94	-4.60	-0.25	201.75	4.60	0.25
220	-201.75	-4.60	-0.35	215.56	4.60	0.35
221	-215.55	16.33	-0.37	166.57	-16.33	.37
222	-166.57	16.33	-0.42	117.59	-16.33	0.42
223	-117.59	16.33	-0.45	68.60	-16.33	0.45
224	-68.60	16.33	-0.48	19.62	-16.33	0.48
225	-19.62	16.33	-0.48	-29.37	-16.33	0.48

HIPOTESIS 1 PESO PROPIO

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	29.37	16.33	-0.47	-78.35	-16.33	0.47
227	78.35	16.33	-0.46	-127.33	-16.33	0.46
228	127.34	16.33	-0.41	-176.32	-16.33	0.41
229	176.32	16.33	-0.38	-225.29	-16.33	0.38
230	225.29	16.32	-0.29	-274.28	-16.32	0.29
231	274.29	16.33	-0.19	-323.26	-16.33	0.19
232	323.27	16.33	-0.18	-372.26	-16.33	0.18
233	372.25	16.34	0.01	-421.29	-16.34	-0.02
234	421.30	16.34	0.10	-470.29	-16.34	-0.11
235	470.28	16.34	0.36	-519.33	-16.34	-0.37
236	519.32	16.33	0.30	-568.32	-16.33	-0.31
237	568.32	16.32	0.64	-617.30	-16.32	-0.63
238	617.31	16.33	0.91	-666.29	-16.33	-0.91
239	666.29	16.33	0.92	-715.29	-16.33	-0.92
240	715.29	16.33	1.12	-764.29	-16.33	-1.11
241	764.26	-57.95	1.25	-590.47	57.95	-1.25
242	590.47	-57.95	1.49	-416.57	57.95	-1.48
243	416.57	-57.95	1.56	-242.72	57.95	-1.56
244	242.71	-57.94	1.66	-68.94	57.94	-1.66
245	68.93	-57.94	1.68	104.90	57.94	-1.68
246	-104.90	-57.95	1.65	278.68	57.95	-1.66
247	-278.69	-57.95	1.49	452.59	57.95	-1.51
248	-452.60	-57.94	1.49	626.48	57.94	-1.49
249	-626.51	-57.98	1.37	800.37	57.98	-1.38
250	-800.38	-57.96	0.79	974.24	57.96	-0.79
251	-974.23	-57.96	0.80	1148.11	57.96	-0.81
252	-1148.09	-57.96	0.46	1321.97	57.96	-0.46
253	-1321.97	-57.97	-0.11	1495.87	57.97	0.10
254	-1495.88	-57.98	-0.83	1669.81	57.98	0.84
255	-1669.73	-57.97	-0.80	1843.62	57.97	0.82
256	-1843.57	-57.94	-1.32	2017.43	57.94	1.30
257	-2017.38	-57.96	-2.24	2191.26	57.96	2.24
258	-2191.21	-57.94	-2.21	2365.05	57.94	2.22
259	-2365.03	-57.95	-3.99	2538.90	57.95	3.99
260	-2538.88	-57.95	-3.99	2712.76	57.95	3.99
261	-2712.57	401.27	-5.36	1809.85	-401.27	5.35
262	-1809.84	401.29	-5.41	907.13	-401.29	5.41
263	-907.09	401.28	-5.72	4.14	-401.28	5.75
264	-4.11	401.33	-5.72	-899.13	-401.33	5.74
265	899.14	401.38	-5.87	-1801.87	-401.38	5.86
266	1801.89	401.33	-4.51	-2636.91	-340.75	4.48
267	2636.94	340.72	-5.44	-3335.38	-280.15	5.42
268	3335.32	280.06	-3.38	-3897.29	-219.50	3.39
269	3897.16	219.52	-1.82	-4322.77	-158.95	1.77
270	4322.69	158.68	-1.97	-4611.46	-98.11	1.97

HIPOTESIS 1 PESO PROPIO

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
271	4611.47	98.18	-1.86	-4764.18	-37.61	1.88
272	4764.04	37.36	1.07	-4779.99	23.21	-1.09
273	4780.01	-23.23	1.01	-4659.61	83.79	-1.03
274	4659.69	-83.89	2.87	-4402.80	144.47	-2.85
275	4402.75	-144.44	2.86	-4009.66	205.02	-2.88
276	4009.65	-205.03	3.73	-3480.49	265.59	-3.75
277	3480.49	-265.61	5.03	-2814.69	326.19	-4.98
278	2814.69	-326.11	5.01	-2012.79	386.68	-4.99
279	2012.72	-386.71	6.29	-1074.57	447.28	-6.31
280	1074.64	-447.24	6.03	0.10	507.83	-6.03
281	0.00	0.00	0.00	0.00	0.00	0.00
282	0.00	0.00	0.00	0.00	0.00	0.00
283	0.00	0.00	0.00	0.00	0.00	0.00
284	0.00	0.00	0.00	0.00	0.00	0.00
285	0.00	0.00	0.00	0.00	0.00	0.00
286	0.00	0.00	0.00	0.00	0.00	0.00
287	0.00	0.00	0.00	0.00	0.00	0.00
288	0.00	0.00	0.00	0.00	0.00	0.00
289	0.00	0.00	0.00	0.00	0.00	0.00
290	0.00	0.00	0.00	0.00	0.00	0.00
291	0.01	-0.01	0.00	0.00	0.01	0.00
292	0.01	-0.01	0.00	0.00	0.01	0.00
293	-0.03	0.02	0.00	0.00	-0.02	0.00
294	-0.03	0.02	0.00	0.00	-0.02	0.00
295	0.12	-0.07	0.00	0.00	0.07	0.00
296	0.12	-0.07	0.00	0.00	0.07	0.00
297	-0.42	0.24	0.00	0.00	-0.24	0.00
298	-0.42	0.24	0.00	0.00	-0.24	0.00
299	1.50	-0.83	0.00	0.00	0.83	0.00
300	1.50	-0.83	0.00	0.00	0.83	0.00
301	-5.31	2.95	0.00	0.00	-2.95	0.00
302	-5.32	2.96	0.00	0.00	-2.96	0.00
303	18.83	-10.46	0.00	0.00	10.46	0.00
304	18.85	-10.47	0.00	0.00	10.47	0.00
305	-66.79	37.11	0.00	0.00	-37.11	0.00
306	-66.93	37.17	0.00	0.00	-37.17	0.00
307	413.42	-229.72	0.00	0.00	229.72	0.00
308	413.17	-229.50	0.00	0.00	229.50	0.00
309	526.66	-292.71	0.00	0.00	292.71	0.00
310	520.62	-289.12	0.00	0.00	289.12	0.00

HIPOTESIS 1 PRETENSADO INICIAL

REACCIONES

Nudo	Flector	Reac_vert	Torsor
286	0.00000	0.00018	0.00000
287	0.00000	0.00018	0.00000
288	0.00000	-0.00063	0.00000
289	0.00000	-0.00063	0.00000
290	0.00000	0.00222	0.00000
291	0.00000	0.00222	0.00000
292	0.00000	-0.00787	0.00000
293	0.00000	-0.00786	0.00000
294	0.00000	0.02788	0.00000
295	0.00000	0.02791	0.00000
296	0.00000	-0.09898	0.00000
297	0.00000	-0.09865	0.00000
298	0.00000	0.35001	0.00000
299	0.00000	0.35068	0.00000
300	0.00000	-1.23937	0.00000
301	0.00000	-1.24331	0.00000
302	0.00000	4.39502	0.00000
303	0.00000	4.40286	0.00000
304	0.00000	-15.58059	0.00000
305	0.00000	-15.59492	0.00000
306	0.00000	55.20132	0.00000
307	0.00000	55.27303	0.00000
308	0.00000	-88.20536	0.00000
309	0.00000	-88.69320	0.00000
310	0.00000	41.57173	0.00000
311	0.00000	48.12647	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	-1.040
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00
31	0.00	0.00	0.00	0.00	0.00	0.00
32	0.00	0.00	0.00	0.00	0.00	0.00
33	0.00	0.00	0.00	0.00	0.00	0.00
34	0.00	0.00	0.00	0.00	0.00	0.00
35	0.00	0.00	0.00	0.00	0.00	0.00
36	0.00	0.00	0.00	0.00	0.00	0.00
37	0.00	0.00	0.00	0.00	0.00	0.00
38	0.00	0.00	0.00	0.00	0.00	0.00
39	0.00	0.00	0.00	0.00	0.00	0.00
40	0.00	0.00	0.00	0.00	0.00	0.00
41	0.00	0.00	0.00	0.00	0.00	0.00
42	0.00	0.00	0.00	0.00	0.00	0.00
43	0.00	0.00	0.00	0.00	0.00	0.00
44	0.00	0.00	0.00	0.00	0.00	0.00
45	0.00	0.00	0.00	0.00	0.00	0.00

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
46	0.00	0.00	0.00	0.00	0.00	0.00
47	0.00	0.00	0.00	0.00	0.00	0.00
48	0.00	0.00	0.00	0.00	0.00	0.00
49	0.00	0.00	0.00	0.00	0.00	0.00
50	0.00	0.00	0.00	0.00	0.00	0.00
51	0.00	0.00	0.00	-0.01	0.00	0.00
52	0.01	0.00	0.00	-0.01	0.00	0.00
53	0.01	0.00	0.00	-0.01	0.00	0.00
54	0.01	0.00	0.00	-0.01	0.00	0.00
55	0.01	0.00	0.00	-0.01	0.00	0.00
56	0.01	0.00	0.00	-0.01	0.00	0.00
57	0.01	0.00	0.00	-0.01	0.00	0.00
58	0.01	0.00	0.00	-0.01	0.00	0.00
59	0.01	0.00	0.00	-0.01	0.00	0.00
60	0.01	0.00	0.00	-0.01	0.00	0.00
61	0.01	0.00	0.00	-0.01	0.00	0.00
62	0.01	0.00	0.00	-0.01	0.00	0.00
63	0.01	0.00	0.00	0.00	0.00	0.00
64	0.00	0.00	0.00	0.00	0.00	0.00
65	0.00	0.00	0.00	0.00	0.00	0.00
66	0.00	0.00	0.00	0.00	0.00	0.00
67	0.00	0.00	0.00	0.01	0.00	0.00
68	-0.01	0.00	0.00	0.01	0.00	0.00
69	-0.01	0.00	0.00	0.01	0.00	0.00
70	-0.01	0.00	0.00	0.02	0.00	0.00
71	-0.02	0.00	0.00	0.02	0.00	0.00
72	-0.02	0.00	0.00	0.02	0.00	0.00
73	-0.02	0.00	0.00	0.03	0.00	0.00
74	-0.03	0.00	0.00	0.03	0.00	0.00
75	-0.03	0.00	0.00	0.03	0.00	0.00
76	-0.03	0.00	0.00	0.03	0.00	0.00
77	-0.03	0.00	0.00	0.04	0.00	0.00
78	-0.04	0.00	0.00	0.04	0.00	0.00
79	-0.04	0.00	0.00	0.04	0.00	0.00
80	-0.04	0.00	0.00	0.05	0.00	0.00
81	-0.05	0.00	0.00	0.04	0.00	0.00
82	-0.04	0.00	0.00	0.02	0.00	0.00
83	-0.02	0.00	0.00	0.01	0.00	0.00
84	-0.01	0.00	0.00	0.00	0.00	0.00
85	0.00	0.00	0.00	-0.01	0.00	0.00
86	0.01	0.00	0.00	-0.02	0.00	0.00
87	0.02	0.00	0.00	-0.03	0.00	0.00
88	0.03	0.00	0.00	-0.04	0.00	0.00
89	0.04	0.00	0.00	-0.05	0.00	0.00
90	0.05	0.00	0.00	-0.06	0.00	0.00

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
91	0.06	0.00	0.00	-0.07	0.00	0.00
92	0.07	0.00	0.00	-0.08	0.00	0.00
93	0.08	0.00	0.00	-0.09	0.00	0.00
94	0.09	0.00	0.00	-0.10	0.00	0.00
95	0.10	0.00	0.00	-0.11	0.00	0.00
96	0.11	0.00	0.00	-0.12	0.00	0.00
97	0.12	0.00	0.00	-0.13	0.00	0.00
98	0.13	0.00	0.00	-0.14	0.00	0.00
99	0.14	0.00	0.00	-0.15	0.00	0.00
100	0.15	0.00	0.00	-0.16	0.00	0.00
101	0.16	-0.01	0.00	-0.13	0.01	0.00
102	0.13	-0.01	0.00	-0.09	0.01	0.00
103	0.09	-0.01	0.00	-0.05	0.01	0.00
104	0.05	-0.01	0.00	-0.01	0.01	0.00
105	0.01	-0.01	0.00	0.02	0.01	0.00
106	-0.02	-0.01	0.00	0.06	0.01	0.00
107	-0.06	-0.01	0.00	0.10	0.01	0.00
108	-0.10	-0.01	0.00	0.13	0.01	0.00
109	-0.13	-0.01	0.00	0.17	0.01	0.00
110	-0.17	-0.01	0.00	0.21	0.01	0.00
111	-0.21	-0.01	0.00	0.24	0.01	0.00
112	-0.24	-0.01	0.00	0.28	0.01	0.00
113	-0.28	-0.01	0.00	0.32	0.01	0.00
114	-0.32	-0.01	0.00	0.35	0.01	0.00
115	-0.35	-0.01	0.00	0.39	0.01	0.00
116	-0.39	-0.01	0.00	0.43	0.01	0.00
117	-0.43	-0.01	0.00	0.46	0.01	0.00
118	-0.46	-0.01	0.00	0.50	0.01	0.00
119	-0.50	-0.01	0.00	0.54	0.01	0.00
120	-0.54	-0.01	0.00	0.57	0.01	0.00
121	-0.57	0.04	0.00	0.44	-0.04	0.00
122	-0.44	0.04	0.00	0.31	-0.04	0.00
123	-0.31	0.04	0.00	0.18	-0.04	0.00
124	-0.18	0.04	0.00	0.05	-0.04	0.00
125	-0.05	0.04	0.00	-0.08	-0.04	0.00
126	0.08	0.04	0.00	-0.21	-0.04	0.00
127	0.21	0.04	0.00	-0.34	-0.04	0.00
128	0.34	0.04	0.00	-0.47	-0.04	0.00
129	0.47	0.04	0.00	-0.60	-0.04	0.00
130	0.60	0.04	0.00	-0.73	-0.04	0.00
131	0.73	0.04	0.00	-0.86	-0.04	0.00
132	0.86	0.04	0.00	-0.99	-0.04	0.00
133	0.99	0.04	0.00	-1.12	-0.04	0.00
134	1.12	0.04	0.00	-1.25	-0.04	0.00
135	1.25	0.04	0.00	-1.38	-0.04	0.00

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
136	1.38	0.04	0.00	-1.51	-0.04	0.00
137	1.51	0.04	0.00	-1.64	-0.04	0.00
138	1.64	0.04	0.00	-1.77	-0.04	0.00
139	1.77	0.04	0.00	-1.90	-0.04	0.00
140	1.90	0.04	0.00	-2.04	-0.04	0.00
141	2.04	-0.15	0.00	-1.57	0.15	0.00
142	1.57	-0.15	0.00	-1.11	0.15	0.00
143	1.11	-0.15	0.00	-0.65	0.15	0.00
144	0.65	-0.15	0.00	-0.19	0.15	0.00
145	0.19	-0.15	0.00	0.28	0.15	0.00
146	-0.28	-0.15	0.00	0.74	0.15	0.00
147	-0.74	-0.15	0.00	1.20	0.15	0.00
148	-1.20	-0.15	0.00	1.66	0.15	0.00
149	-1.66	-0.15	0.00	2.13	0.15	0.00
150	-2.13	-0.15	0.00	2.59	0.15	0.00
151	-2.59	-0.15	0.00	3.05	0.15	0.00
152	-3.05	-0.15	0.00	3.51	0.15	0.00
153	-3.51	-0.15	0.00	3.98	0.15	0.00
154	-3.98	-0.15	0.00	4.44	0.15	0.00
155	-4.44	-0.15	0.00	4.90	0.15	0.00
156	-4.90	-0.15	0.00	5.36	0.15	0.00
157	-5.36	-0.15	-0.01	5.83	0.15	0.01
158	-5.83	-0.15	-0.01	6.29	0.15	0.01
159	-6.29	-0.15	-0.01	6.75	0.15	0.01
160	-6.75	-0.15	-0.01	7.21	0.15	0.01
161	-7.21	0.55	-0.01	5.57	-0.55	0.01
162	-5.57	0.55	-0.01	3.94	-0.55	0.01
163	-3.94	0.55	-0.01	2.30	-0.55	0.01
164	-2.30	0.55	-0.02	0.66	-0.55	0.02
165	-0.66	0.55	-0.02	-0.98	-0.55	0.02
166	0.98	0.55	-0.01	-2.62	-0.55	0.01
167	2.62	0.55	-0.01	-4.26	-0.55	0.01
168	4.26	0.55	-0.01	-5.90	-0.55	0.01
169	5.90	0.55	-0.01	-7.54	-0.55	0.01
170	7.54	0.55	-0.01	-9.18	-0.55	0.01
171	9.18	0.55	0.00	-10.82	-0.55	0.00
172	10.82	0.55	0.00	-12.46	-0.55	0.00
173	12.46	0.55	0.00	-14.09	-0.55	0.00
174	14.09	0.55	0.01	-15.73	-0.55	-0.01
175	15.73	0.55	0.01	-17.37	-0.55	-0.01
176	17.37	0.55	0.02	-19.01	-0.55	-0.02
177	19.01	0.55	0.02	-20.65	-0.55	-0.02
178	20.65	0.55	0.03	-22.29	-0.55	-0.03
179	22.29	0.55	0.04	-23.93	-0.55	-0.04
180	23.93	0.55	0.04	-25.57	-0.55	-0.04

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
181	25.56	-1.94	0.04	-19.76	1.94	-0.04
182	19.76	-1.94	0.04	-13.95	1.94	-0.04
183	13.95	-1.94	0.05	-8.14	1.94	-0.05
184	8.14	-1.94	0.05	-2.33	1.94	-0.05
185	2.33	-1.94	0.05	3.48	1.94	-0.05
186	-3.48	-1.94	0.05	9.29	1.94	-0.05
187	-9.29	-1.94	0.05	15.10	1.94	-0.05
188	-15.10	-1.94	0.05	20.91	1.94	-0.05
189	-20.91	-1.94	0.04	26.72	1.94	-0.04
190	-26.72	-1.94	0.03	32.53	1.94	-0.03
191	-32.53	-1.94	0.03	38.34	1.94	-0.03
192	-38.34	-1.94	0.00	44.16	1.94	0.00
193	-44.16	-1.94	0.00	49.96	1.94	0.00
194	-49.96	-1.94	-0.01	55.77	1.94	0.01
195	-55.77	-1.94	-0.04	61.57	1.94	0.04
196	-61.57	-1.94	-0.05	67.38	1.94	0.05
197	-67.38	-1.94	-0.07	73.19	1.94	0.07
198	-73.19	-1.94	-0.10	78.99	1.94	0.10
199	-78.99	-1.94	-0.13	84.80	1.94	0.13
200	-84.80	-1.94	-0.13	90.60	1.94	0.13
201	-90.60	6.86	-0.18	70.01	-6.86	0.18
202	-70.01	6.86	-0.19	49.42	-6.86	0.19
203	-49.42	6.86	-0.19	28.84	-6.86	0.19
204	-28.84	6.86	-0.20	8.24	-6.86	0.20
205	-8.24	6.86	-0.21	-12.35	-6.86	0.21
206	12.35	6.86	-0.20	-32.94	-6.86	0.20
207	32.94	6.86	-0.19	-53.53	-6.86	0.19
208	53.54	6.87	-0.19	-74.13	-6.87	0.19
209	74.13	6.86	-0.14	-94.72	-6.86	0.14
210	94.72	6.86	-0.14	-115.30	-6.86	0.14
211	115.30	6.86	-0.09	-135.88	-6.86	0.09
212	135.88	6.86	-0.09	-156.46	-6.86	0.09
213	156.46	6.86	0.03	-177.04	-6.86	-0.03
214	177.04	6.86	0.03	-197.63	-6.86	-0.03
215	197.62	6.86	0.12	-218.20	-6.86	-0.11
216	218.20	6.86	0.12	-238.78	-6.86	-0.12
217	238.78	6.86	0.30	-259.35	-6.86	-0.30
218	259.35	6.86	0.30	-279.92	-6.86	-0.30
219	279.92	6.86	0.38	-300.49	-6.86	-0.38
220	300.48	6.86	0.52	-321.05	-6.86	-0.52
221	321.03	-24.32	0.55	-248.09	24.32	-0.55
222	248.09	-24.32	0.62	-175.14	24.32	-0.62
223	175.14	-24.32	0.67	-102.17	24.32	-0.67
224	102.16	-24.32	0.71	-29.22	24.32	-0.71
225	29.22	-24.32	0.72	43.73	24.32	-0.72

HIPOTESIS 1 PRETENSADO INICIAL

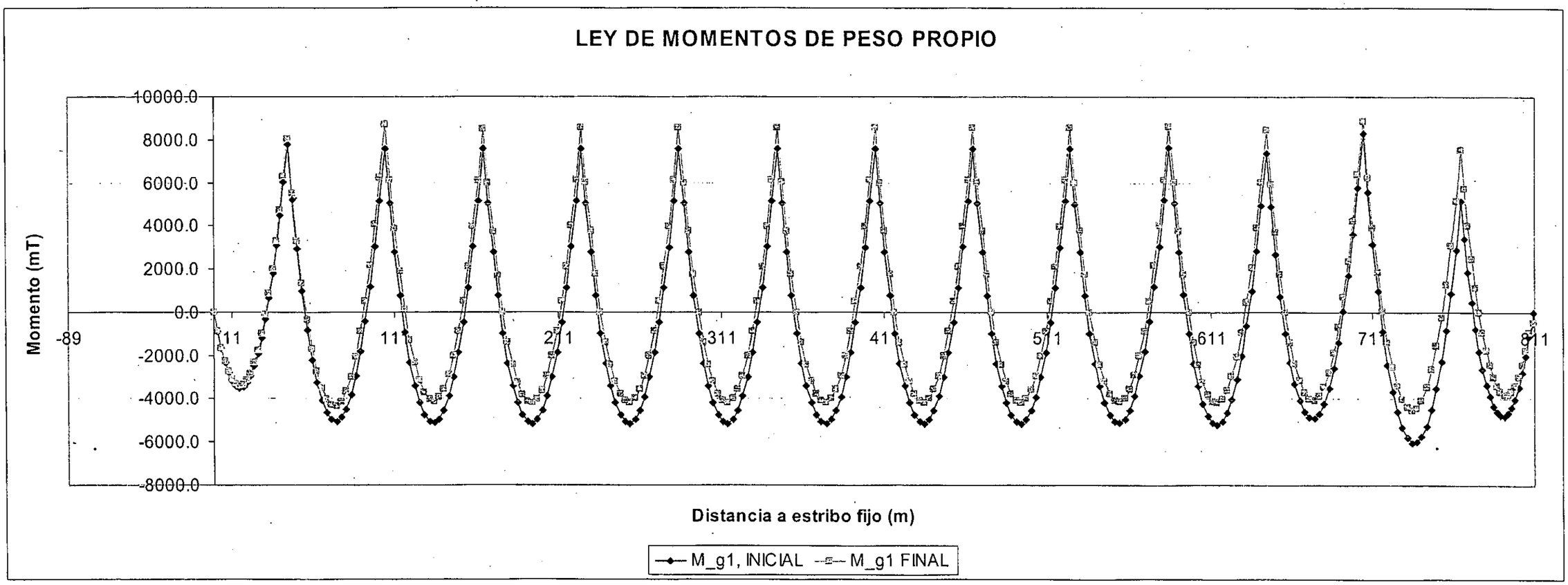
ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-43.74	-24.32	0.69	116.69	24.32	-0.69
227	-116.69	-24.31	0.69	189.64	24.31	-0.69
228	-189.64	-24.32	0.61	262.60	24.32	-0.61
229	-262.59	-24.32	0.56	335.54	24.32	-0.56
230	-335.54	-24.32	0.43	408.50	24.32	-0.43
231	-408.49	-24.33	0.28	481.46	24.33	-0.28
232	-481.45	-24.34	0.28	554.44	24.34	-0.28
233	-554.42	-24.34	-0.03	627.44	24.34	0.02
234	-627.44	-24.34	-0.15	700.43	24.34	0.15
235	-700.44	-24.33	-0.53	773.45	24.33	0.54
236	-773.45	-24.33	-0.45	846.42	24.33	0.46
237	-846.43	-24.32	-0.96	919.38	24.32	0.96
238	-919.39	-24.32	-1.35	992.36	24.32	1.36
239	-992.34	-24.33	-1.37	1065.32	24.33	1.37
240	-1065.32	-24.32	-1.66	1138.30	24.32	1.66
241	-1138.25	86.15	-1.90	879.88	-86.15	1.89
242	-879.88	86.15	-2.25	621.36	-86.15	2.25
243	-621.37	86.15	-2.35	362.92	-86.15	2.35
244	-362.92	86.14	-2.51	104.53	-86.14	2.52
245	-104.54	86.13	-2.54	-153.88	-86.13	2.55
246	153.88	86.15	-2.52	-412.28	-86.15	2.51
247	412.28	86.15	-2.26	-670.78	-86.15	2.28
248	670.80	86.18	-2.28	-929.35	-86.18	2.26
249	929.35	86.17	-2.09	-1187.85	-86.17	2.11
250	1187.80	86.16	-1.25	-1446.34	-86.16	1.22
251	1446.27	86.18	-1.23	-1704.82	-86.18	1.25
252	1704.78	86.15	-0.71	-1963.24	-86.15	0.71
253	1963.29	86.17	0.13	-2221.78	-86.17	-0.10
254	2221.86	86.19	1.18	-2480.34	-86.19	-1.19
255	2480.28	86.16	1.12	-2738.76	-86.16	-1.13
256	2738.74	86.10	1.88	-2997.16	-86.10	-1.90
257	2997.14	86.13	3.28	-3255.54	-86.13	-3.30
258	3255.55	86.12	3.24	-3513.90	-86.12	-3.25
259	3513.94	86.13	5.89	-3772.39	-86.13	-5.89
260	3772.41	86.14	5.89	-4030.87	-86.14	-5.88
261	4030.81	-90.76	6.60	-3826.62	90.76	-6.59
262	3826.61	-90.75	6.70	-3622.46	90.75	-6.70
263	3622.41	-90.71	7.99	-3418.25	90.71	-7.99
264	3418.15	-90.78	9.30	-3213.81	90.78	-9.27
265	3213.79	-90.91	8.87	-3009.29	90.91	-8.83
266	-1717.91	-90.82	11.03	4203.20	90.82	-11.02
267	-4203.24	-90.74	12.45	6150.72	90.74	-12.52
268	-6150.80	-90.66	8.72	7727.81	90.66	-8.76
269	-7727.95	-90.34	5.60	8937.53	90.34	-5.55
270	-8937.74	-89.80	5.87	9780.52	89.80	-5.87

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
271	-9780.75	-90.10	5.73	10256.66	90.10	-5.84
272	-10256.38	-89.72	-0.57	10405.17	89.72	0.54
273	-10405.14	-89.91	-0.35	10242.25	89.91	0.30
274	-10242.22	-89.36	-4.46	9731.31	89.36	4.56
275	-9731.36	-89.60	-4.42	8965.19	89.60	4.38
276	-8965.09	-89.95	-6.48	7943.09	89.95	6.43
277	-7942.90	-89.61	-9.40	6662.23	89.61	9.29
278	-6662.31	-89.59	-9.45	5124.33	89.59	9.45
279	-5124.32	-89.71	-12.56	3331.30	89.71	12.51
280	-3331.23	-89.72	-11.85	1341.76	89.72	11.85
281	0.00	0.00	0.00	0.00	0.00	0.00
282	0.00	0.00	0.00	0.00	0.00	0.00
283	0.00	0.00	0.00	0.00	0.00	0.00
284	0.00	0.00	0.00	0.00	0.00	0.00
285	0.00	0.00	0.00	0.00	0.00	0.00
286	0.00	0.00	0.00	0.00	0.00	0.00
287	0.00	0.00	0.00	0.00	-0.00	0.00
288	0.00	0.00	0.00	0.00	0.00	0.00
289	0.00	0.00	0.00	0.00	0.00	0.00
290	0.00	0.00	0.00	0.00	0.00	0.00
291	-0.01	0.01	0.00	0.00	-0.01	0.00
292	-0.01	0.01	0.00	0.00	-0.01	0.00
293	0.05	-0.03	0.00	0.00	0.03	0.00
294	0.05	-0.03	0.00	0.00	0.03	0.00
295	-0.18	0.10	0.00	0.00	-0.10	0.00
296	-0.18	0.10	0.00	0.00	-0.10	0.00
297	0.63	-0.35	0.00	0.00	0.35	0.00
298	0.63	-0.35	0.00	0.00	0.35	0.00
299	-2.23	1.24	0.00	0.00	-1.24	0.00
300	-2.24	1.24	0.00	0.00	-1.24	0.00
301	7.91	-4.39	0.00	0.00	4.39	0.00
302	7.93	-4.40	0.00	0.00	4.40	0.00
303	-28.05	15.58	0.00	0.00	-15.58	0.00
304	-28.07	15.60	0.00	0.00	-15.60	0.00
305	99.36	-55.20	0.00	0.00	55.20	0.00
306	99.52	-55.28	0.00	0.00	55.28	0.00
307	-158.75	88.21	0.00	0.00	-88.21	0.00
308	-159.68	88.70	0.00	0.00	-88.70	0.00
309	74.80	-41.57	0.00	0.00	41.57	0.00
310	86.66	-48.13	0.00	0.00	48.13	0.00


LEY DE MOMENTOS DE PESO PROPIO
Momento (mT)
10000.0
8000.0
6000.0
4000.0
2000.0
0.0
-2000.0
-4000.0
-6000.0
-8000.0
-89
11
111
211
311
411
511
611
711
811
Distancia a estribo fijo (m)
M_g1, INICIAL
M_g1 FINAL

PRETENSADO SOBRE ESQUEMA ESTRUCTURAL DEFINITIVO

HIPOTESIS 1 PRETENSADO INICIAL

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	70.32926	0.00000
283	0.00000	69.55927	0.00000
284	0.00000	-66.84208	0.00000
285	0.00000	-67.13953	0.00000
286	0.00000	-3.18314	0.00000
287	0.00000	-3.69274	0.00000
288	0.00000	0.57287	0.00000
289	0.00000	1.27167	0.00000
290	0.00000	-0.24412	0.00000
291	0.00000	-0.27035	0.00000
292	0.00000	0.46581	0.00000
293	0.00000	-0.27241	0.00000
294	0.00000	0.45863	0.00000
295	0.00000	-0.55569	0.00000
296	0.00000	0.67378	0.00000
297	0.00000	-0.58657	0.00000
298	0.00000	2.27125	0.00000
299	0.00000	-2.57160	0.00000
300	0.00000	2.05337	0.00000
301	0.00000	-1.34255	0.00000
302	0.00000	0.63896	0.00000
303	0.00000	-3.48949	0.00000
304	0.00000	6.84524	0.00000
305	0.00000	2.51067	0.00000
306	0.00000	-14.15955	0.00000
307	0.00000	-17.37032	0.00000
308	0.00000	-72.44601	0.00000
309	0.00000	-75.20843	0.00000
310	0.00000	83.03977	0.00000
311	0.00000	87.94344	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	-0.741
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-1148.67	139.90	-1.44	2708.27	-139.90	1.44
2	-2708.26	139.91	-1.44	4098.78	-139.91	1.45
3	-4098.77	139.89	-2.97	5270.19	-139.89	2.97
4	-5270.09	139.85	0.23	6221.07	-139.85	-0.18
5	-6221.04	139.67	1.29	6951.50	-139.67	-1.32
6	-6951.29	139.59	-1.38	7463.10	-139.59	1.39
7	-7462.90	139.37	-1.38	7757.15	-139.37	1.37
8	-7757.12	139.53	0.35	7833.73	-139.53	-0.29
9	-7833.91	139.49	1.54	7692.07	-139.49	-1.53
10	-7692.24	139.54	-1.44	7290.80	-139.54	1.38
11	-7290.92	139.32	3.05	6555.58	-139.32	-3.14
12	-6555.22	139.48	-0.88	5472.16	-139.48	0.94
13	-5472.02	139.51	2.39	4024.62	-139.51	-2.35
14	-4024.64	139.51	1.54	2196.11	-139.51	-1.53
15	-2196.07	139.50	2.02	-31.36	-139.50	-2.06
16	31.41	139.56	2.03	-2670.02	-139.56	-2.03
17	2669.98	139.54	1.61	-5722.52	-139.54	-1.62
18	5722.49	139.55	0.33	-11276.98	-139.55	-0.33
19	11276.97	139.54	-4.02	-14558.16	-139.54	4.01
20	14558.16	139.54	1.60	-16077.21	-139.54	-1.60
21	16077.16	5.55	2.14	-14463.57	-5.55	-2.14
22	14463.58	5.57	-0.25	-7863.64	-5.57	0.25
23	7863.64	5.58	-0.25	-3875.33	-5.58	0.26
24	3875.35	5.57	-0.25	-512.37	-5.57	0.22
25	512.44	5.51	-0.26	2222.75	-5.51	0.24
26	-1847.82	5.57	-0.28	4060.39	-5.57	0.24
27	-4060.40	5.54	0.92	5785.45	-5.54	-0.94
28	-5785.46	5.61	-0.79	7037.49	-5.61	0.76
29	-7037.39	5.54	1.32	7828.04	-5.54	-1.28
30	-7827.95	5.71	-1.01	8162.35	-5.71	1.05
31	-8162.49	5.71	-0.98	8034.68	-5.71	0.95
32	-8034.83	5.71	1.35	7428.75	-5.71	-1.36
33	-7428.85	5.64	1.46	6313.57	-5.64	-1.41
34	-6313.52	5.58	-0.44	4650.43	-5.58	0.44
35	-4650.32	5.67	1.62	2397.75	-5.67	-1.63
36	-2397.69	5.70	0.48	-482.19	-5.70	-0.48
37	482.15	5.65	0.39	-4006.61	-5.65	-0.37
38	4006.63	5.70	1.53	-10466.06	-5.70	-1.53
39	10466.08	5.68	-1.50	-15092.57	-5.68	1.51
40	15092.58	5.69	2.87	-17259.59	-5.69	-2.87
41	17259.59	-1.19	1.95	-15484.87	1.19	-1.95
42	15484.87	-1.18	-2.56	-8293.01	1.18	2.56
43	8293.01	-1.19	-0.13	-3934.93	1.19	0.14
44	3934.91	-1.20	-0.16	-259.30	1.20	0.13
45	259.29	-1.17	-0.24	2728.82	1.17	0.21

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
46	-1617.59	-1.09	1.68	3850.30	1.09	-1.63
47	-3850.26	-1.30	1.74	5595.88	1.30	-1.76
48	-5595.64	-1.13	0.86	6867.48	1.13	-0.89
49	-6867.39	-1.20	2.03	7678.54	1.20	-2.01
50	-7678.44	-1.33	1.91	8033.85	1.33	-1.89
51	-8033.72	-1.24	-0.44	7927.02	1.24	0.40
52	-7927.05	-1.28	0.65	7341.96	1.28	-0.61
53	-7342.18	-1.14	-0.31	6246.92	1.14	0.28
54	-6246.91	-1.18	0.50	4604.77	1.18	-0.49
55	-4604.78	-1.31	-0.80	2373.59	1.31	0.81
56	-2373.51	-1.25	-0.43	-485.96	1.25	0.44
57	485.95	-1.29	-0.36	-3989.64	1.29	0.36
58	3989.65	-1.30	-0.41	-10427.31	1.30	0.41
59	10427.27	-1.30	-0.37	-15033.03	1.30	0.37
60	15033.00	-1.31	3.98	-17179.12	1.31	-3.98
61	17179.12	0.54	0.27	-15409.81	-0.54	-0.26
62	15409.80	0.54	4.71	-8221.63	-0.54	-4.70
63	8221.60	0.53	6.09	-3869.83	-0.53	-6.10
64	3869.84	0.53	5.45	-199.18	-0.53	-5.44
65	199.17	0.55	5.54	2784.11	-0.55	-5.51
66	-1672.88	0.48	2.54	3900.91	-0.48	-2.56
67	-3900.83	0.41	0.84	5641.18	-0.41	-0.84
68	-5641.13	0.44	0.78	6908.50	-0.44	-0.81
69	-6908.55	0.50	0.82	7714.34	-0.50	-0.81
70	-7714.23	0.45	0.78	8064.00	-0.45	-0.68
71	-8064.05	0.60	-1.61	7951.86	-0.60	1.61
72	-7951.73	0.45	-2.86	7361.56	-0.45	2.84
73	-7361.33	0.46	-1.64	6261.37	-0.46	1.59
74	-6261.21	0.62	-2.72	4613.46	-0.62	2.74
75	-4613.65	0.54	-4.06	2376.78	-0.54	4.02
76	-2376.94	0.54	-4.06	-487.28	-0.54	4.04
77	487.29	0.44	-4.05	-3996.57	-0.44	4.01
78	3996.60	0.47	-4.04	-10440.14	-0.47	4.06
79	10440.16	0.48	0.67	-15051.15	-0.48	-0.67
80	15051.16	0.48	-1.83	-17202.85	-0.48	1.83
81	17202.85	-0.03	1.00	-15431.91	0.03	-1.01
82	15431.91	-0.03	0.98	-8243.44	0.03	-0.97
83	8243.44	-0.04	3.40	-3888.78	0.04	-3.40
84	3888.76	0.02	3.37	-216.62	-0.02	-3.38
85	216.55	-0.03	3.40	2767.77	0.03	-3.44
86	-1656.48	-0.09	4.22	3886.46	0.09	-4.21
87	-3886.32	-0.03	3.58	5628.02	0.03	-3.55
88	-5627.94	-0.10	1.90	6896.94	0.10	-1.93
89	-6896.82	-0.04	3.96	7704.26	0.04	-3.94
90	-7704.12	-0.11	0.49	8055.85	0.11	-0.48

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
91	-8055.70	-0.06	-2.02	7945.54	0.06	1.96
92	-7945.40	-0.05	-0.65	7356.51	0.05	0.63
93	-7356.32	-0.10	-1.77	6258.06	0.10	1.84
94	-6258.05	-0.04	-2.95	4612.45	0.04	2.99
95	-4612.42	0.03	-3.55	2376.83	-0.03	3.56
96	-2376.90	-0.05	-3.94	-485.33	0.05	3.92
97	485.31	0.03	-3.84	-3993.37	-0.03	3.82
98	3993.31	-0.01	-3.85	-10435.52	0.01	3.85
99	10435.52	-0.03	-0.72	-15046.33	0.03	0.73
100	15046.34	-0.02	-2.63	-17195.60	0.02	2.63
101	17195.59	0.18	5.89	-15424.94	-0.18	-5.88
102	15424.94	0.17	1.55	-8236.96	-0.17	-1.54
103	8236.94	0.20	3.87	-3882.91	-0.20	-3.87
104	3882.87	0.21	5.62	-211.75	-0.21	-5.61
105	211.77	0.20	5.62	2772.52	-0.20	-5.61
106	-1661.20	0.17	5.61	3889.72	-0.17	-5.65
107	-3889.69	0.15	3.87	5630.84	-0.15	-3.84
108	-5630.70	0.18	3.19	6899.24	-0.18	-3.14
109	-6899.34	0.24	2.02	7706.09	-0.24	-2.08
110	-7705.98	0.07	2.06	8056.97	-0.07	-2.02
111	-8056.75	0.11	-1.77	7945.98	-0.11	1.80
112	-7945.99	0.21	-1.62	7356.50	-0.21	1.56
113	-7356.37	0.18	-1.66	6257.45	-0.18	1.62
114	-6257.29	0.14	-5.25	4610.30	-0.14	5.27
115	-4610.16	0.14	-4.75	2375.20	-0.14	4.76
116	-2375.23	0.03	-6.15	-487.74	-0.03	6.16
117	487.85	0.02	-6.28	-3995.56	-0.02	6.29
118	3995.57	0.06	-4.02	-10439.53	-0.06	4.02
119	10439.49	0.06	-5.27	-15048.87	-0.06	5.27
120	15048.85	0.06	5.93	-17198.59	-0.06	-5.93
121	17198.58	-0.05	1.13	-15427.08	0.05	-1.13
122	15427.07	-0.05	3.81	-8238.75	0.05	-3.82
123	8238.75	-0.09	6.15	-3884.04	0.09	-6.16
124	3884.04	-0.05	7.29	-211.32	0.05	-7.28
125	211.27	-0.01	7.32	2773.62	0.01	-7.29
126	-1662.38	0.07	7.32	3891.30	-0.07	-7.32
127	-3891.32	0.12	5.60	5632.60	-0.12	-5.58
128	-5632.59	0.13	3.91	6900.83	-0.13	-3.96
129	-6900.97	0.16	2.01	7708.03	-0.16	-1.95
130	-7708.00	0.18	1.98	8058.68	-0.18	-1.92
131	-8058.78	0.20	0.70	7947.69	-0.20	-0.72
132	-7947.80	0.18	-1.62	7358.32	-0.18	1.66
133	-7358.34	0.17	-4.98	6259.33	-0.17	4.99
134	-6259.31	0.19	-6.78	4612.46	-0.19	6.79
135	-4612.50	0.20	-6.91	2376.57	-0.20	6.90

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
136	-2376.61	0.11	-7.28	-485.79	-0.11	7.30
137	485.83	0.10	-6.97	-3994.51	-0.10	6.94
138	3994.50	0.13	-6.95	-10437.75	-0.13	6.93
139	10437.72	0.11	-5.13	-15047.29	-0.11	5.15
140	15047.30	0.11	5.98	-17197.26	-0.11	-5.98
141	17197.26	0.20	-4.05	-15426.78	-0.20	4.05
142	15426.77	0.21	7.29	-8237.78	-0.21	-7.29
143	8237.79	0.19	8.73	-3885.05	-0.19	-8.73
144	3885.14	0.19	9.18	-212.93	-0.19	-9.19
145	212.96	0.18	9.31	2771.05	-0.18	-9.31
146	-1659.78	0.18	8.19	3888.79	-0.18	-8.23
147	-3888.87	0.18	6.36	5630.10	-0.18	-6.41
148	-5630.22	0.16	3.81	6898.14	-0.16	-3.85
149	-6898.28	0.25	1.79	7705.01	-0.25	-1.79
150	-7704.93	0.17	1.75	8055.79	-0.17	-1.82
151	-8055.85	0.29	-1.90	7944.51	-0.29	1.87
152	-7944.63	0.21	-1.82	7354.99	-0.21	1.87
153	-7355.08	0.14	-7.27	6256.19	-0.14	7.29
154	-6256.13	0.11	-7.27	4609.61	-0.11	7.24
155	-4609.55	0.16	-8.65	2373.53	-0.16	8.62
156	-2373.54	0.11	-9.05	-489.18	-0.11	9.07
157	489.13	0.12	-8.74	-3997.16	-0.12	8.72
158	3997.14	0.13	-8.76	-10439.16	-0.13	8.76
159	10439.13	0.13	-5.74	-15050.12	-0.13	5.74
160	15050.13	0.13	-3.13	-17199.98	-0.13	3.13
161	17199.99	-0.17	-2.11	-15428.11	0.17	2.11
162	15428.13	-0.17	0.65	-8239.33	0.17	-0.64
163	8239.33	-0.17	2.96	-3884.30	0.17	-2.97
164	3884.29	-0.15	4.74	-212.23	0.15	-4.77
165	212.24	-0.08	4.73	2772.88	0.08	-4.74
166	-1661.67	-0.09	9.63	3891.15	0.09	-9.60
167	-3891.23	-0.09	9.65	5633.19	0.09	-9.64
168	-5633.35	-0.08	9.62	6902.07	0.08	-9.68
169	-6902.07	-0.01	4.45	7709.53	0.01	-4.43
170	-7709.73	-0.01	3.18	8061.05	0.01	-3.24
171	-8061.05	-0.02	-1.45	7950.66	0.02	1.34
172	-7950.53	-0.16	-1.34	7361.84	0.16	1.33
173	-7361.75	0.02	-2.71	6263.43	-0.02	2.73
174	-6263.52	0.03	-7.40	4617.37	-0.03	7.34
175	-4617.36	-0.01	-6.50	2381.77	0.01	6.50
176	-2381.79	0.00	-8.00	-480.23	0.00	8.04
177	480.34	-0.02	-7.94	-3989.00	0.02	7.98
178	3989.02	-0.02	-6.54	-10428.99	0.02	6.55
179	10428.98	0.00	-2.50	-15040.38	0.00	2.51
180	15040.36	-0.02	0.18	-17190.22	0.02	-0.18

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
181	17190.22	0.70	2.10	-15421.41	-0.70	-2.10
182	15421.40	0.70	1.89	-8234.99	-0.70	-1.88
183	8235.00	0.71	8.12	-3882.89	-0.71	-8.13
184	3882.96	0.70	8.08	-213.24	-0.70	-8.10
185	213.21	0.70	8.13	2770.06	-0.70	-8.14
186	-1658.85	0.70	9.26	3885.70	-0.70	-9.26
187	-3885.72	0.73	6.39	5625.27	-0.73	-6.40
188	-5625.24	0.58	6.37	6892.12	-0.58	-6.41
189	-6892.04	0.57	4.44	7697.91	-0.57	-4.37
190	-7697.76	0.59	0.96	8047.25	-0.59	-1.03
191	-8047.23	0.65	0.92	7934.89	-0.65	-1.01
192	-7935.01	0.64	-4.96	7344.07	-0.64	4.87
193	-7344.35	0.77	-5.00	6243.50	-0.77	4.93
194	-6243.62	0.86	-6.07	4595.20	-0.86	6.08
195	-4595.38	0.84	-8.75	2357.55	-0.84	8.76
196	-2357.54	0.75	-9.18	-506.99	-0.75	9.16
197	506.94	0.75	-9.03	-4017.10	-0.75	9.04
198	4017.12	0.77	-7.19	-10460.87	-0.77	7.20
199	10460.90	0.77	-4.32	-15073.63	-0.77	4.31
200	15073.64	0.78	-4.18	-17226.04	-0.78	4.18
201	17226.04	-2.07	1.06	-15448.53	2.07	-1.06
202	15448.52	-2.08	3.75	-8254.10	2.08	-3.75
203	8254.09	-2.06	3.79	-3894.21	2.06	-3.77
204	3894.20	-2.04	6.02	-215.37	2.04	-6.01
205	215.32	-2.10	6.08	2775.77	2.10	-6.07
206	-1664.47	-2.12	9.09	3899.69	2.12	-9.10
207	-3899.68	-2.14	7.95	5647.78	2.14	-7.93
208	-5647.93	-2.10	8.02	6922.96	2.10	-8.00
209	-6922.92	-2.07	2.99	7736.58	2.07	-2.95
210	-7736.44	-2.02	2.94	8093.68	2.02	-2.91
211	-8093.63	-1.95	-0.75	7988.93	1.95	0.87
212	-7989.00	-1.98	-0.58	7405.99	1.98	0.58
213	-7405.95	-2.00	-6.18	6313.45	2.00	6.19
214	-6313.39	-1.90	-6.24	4672.92	1.90	6.19
215	-4672.96	-1.90	-8.24	2443.75	1.90	8.22
216	-2443.75	-1.93	-8.35	-412.88	1.93	8.37
217	412.85	-1.86	-8.09	-3915.08	1.86	8.08
218	3915.03	-1.88	-8.04	-10351.40	1.88	8.05
219	10351.42	-1.89	-5.10	-14956.60	1.89	5.10
220	14956.62	-1.88	1.90	-17100.97	1.88	-1.90
221	17100.98	7.48	-3.09	-15352.75	-7.48	3.09
222	15352.75	7.48	1.41	-8186.37	-7.48	-1.41
223	8186.37	7.49	3.58	-3853.87	-7.49	-3.57
224	3853.86	7.50	5.38	-204.46	-7.50	-5.39
225	204.48	7.44	5.44	2757.50	-7.44	-5.42

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	-1646.29	7.57	9.11	3853.01	-7.57	-9.08
227	-3853.18	7.46	9.05	5572.50	-7.46	-9.09
228	-5572.45	7.48	6.63	6818.66	-7.48	-6.66
229	-6818.68	7.50	5.50	7603.37	-7.50	-5.51
230	-7603.29	7.57	2.45	7932.18	-7.57	-2.48
231	-7932.16	7.46	-0.40	7799.26	-7.46	0.42
232	-7799.30	7.44	-0.47	7188.17	-7.44	0.53
233	-7188.16	7.25	-4.37	6067.74	-7.25	4.42
234	-6067.60	7.38	-5.65	4399.62	-7.38	5.68
235	-4399.58	7.35	-8.07	2141.90	-7.35	8.09
236	-2141.91	7.39	-7.84	-742.25	-7.39	7.89
237	742.21	7.43	-7.46	-4272.79	-7.43	7.43
238	4272.73	7.42	-5.53	-10737.13	-7.42	5.53
239	10737.14	7.40	-5.42	-15369.45	-7.40	5.42
240	15369.46	7.41	-1.20	-17541.97	-7.41	1.20
241	17541.96	-24.12	-0.88	-15699.19	24.12	0.88
242	15699.18	-24.11	5.44	-8435.85	24.11	-5.44
243	8435.84	-24.12	6.83	-4009.21	24.12	-6.81
244	4009.23	-24.11	8.70	-265.58	24.11	-8.70
245	265.56	-24.06	8.76	2791.79	24.06	-8.79
246	-1734.23	-24.09	9.88	4049.97	24.09	-9.89
247	-4050.04	-24.12	7.49	5875.86	24.12	-7.48
248	-5875.95	-24.15	7.55	7225.57	24.15	-7.57
249	-7225.67	-24.21	6.23	8110.76	24.21	-6.26
250	-8110.83	-24.19	0.21	8536.94	24.19	-0.23
251	-8536.93	-24.18	0.30	8498.11	24.18	-0.29
252	-8498.15	-24.21	-2.24	7977.84	24.21	2.30
253	-7977.70	-24.26	-5.70	6944.73	24.26	5.67
254	-6944.76	-24.27	-8.98	5360.64	24.27	8.97
255	-5360.38	-24.11	-8.91	3183.20	24.11	8.92
256	-3183.17	-24.14	-9.78	373.86	24.14	9.77
257	-373.76	-24.13	-9.97	-3084.73	24.13	9.96
258	3084.78	-24.11	-9.99	-9496.83	24.11	10.01
259	9496.83	-24.12	-2.85	-15611.97	24.12	2.84
260	15611.99	-24.12	-2.85	-18433.45	24.12	2.84
261	18433.38	-171.77	-0.35	-16800.56	171.77	0.35
262	16800.56	-171.77	0.08	-10838.11	171.77	-0.09
263	10838.10	-171.78	4.02	-6976.92	171.78	-4.02
264	6976.93	-171.81	6.66	-3567.48	171.81	-6.64
265	3567.48	-171.79	6.16	-624.27	171.79	-6.18
266	1022.73	-171.79	10.37	1644.74	171.79	-10.36
267	-1644.77	-171.79	10.99	3774.50	171.79	-10.94
268	-3774.48	-171.57	8.58	5533.90	171.57	-8.51
269	-5533.94	-171.60	6.40	6926.23	171.60	-6.46
270	-6926.19	-171.28	6.58	7952.07	171.28	-6.61

HIPOTESIS 1 PRETENSADO INICIAL

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
271	-7952.17	-171.39	6.48	8610.39	171.39	-6.52
272	-8610.24	-171.27	1.20	8942.26	171.27	-1.20
273	-8941.96	-171.15	1.45	8961.81	171.15	-1.40
274	-8961.79	-170.84	-2.18	8633.83	170.84	2.25
275	-8633.85	-171.14	-2.07	8050.93	171.14	2.08
276	-8050.75	-171.09	-4.02	7211.34	171.09	4.07
277	-7211.33	-170.89	-6.75	6113.53	170.89	6.75
278	-6113.56	-170.91	-6.72	4758.57	170.91	6.69
279	-4758.63	-170.93	-9.68	3148.21	170.93	9.70
280	-3148.28	-171.01	-8.92	1341.79	171.01	8.92
281	126.62	-70.35	0.00	0.01	70.35	0.00
282	125.18	-69.56	0.00	0.00	69.56	0.00
283	-120.32	66.84	0.00	0.00	-66.84	0.00
284	-120.89	67.14	0.00	0.00	-67.14	0.00
285	-5.73	3.19	0.00	0.00	-3.19	0.00
286	-6.65	3.69	0.00	0.00	-3.69	0.00
287	1.04	-0.58	0.00	0.00	0.58	0.00
288	2.28	-1.27	0.00	0.00	1.27	0.00
289	-0.43	0.24	0.00	0.00	-0.24	0.00
290	-0.49	0.27	0.00	0.00	-0.27	0.00
291	0.85	-0.48	0.00	0.01	0.48	0.00
292	-0.50	0.28	0.00	0.00	-0.28	0.00
293	0.82	-0.45	0.00	0.00	0.45	0.00
294	-0.99	0.55	0.00	0.00	-0.55	0.00
295	1.22	-0.68	0.00	0.00	0.68	0.00
296	-1.06	0.59	0.00	0.00	-0.59	0.00
297	4.09	-2.27	0.00	0.00	2.27	0.00
298	-4.63	2.57	0.00	0.00	-2.57	0.00
299	3.69	-2.05	0.00	0.00	2.05	0.00
300	-2.41	1.34	0.00	0.00	-1.34	0.00
301	1.15	-0.64	0.00	0.00	0.64	0.00
302	-6.28	3.49	0.00	0.00	-3.49	0.00
303	12.32	-6.84	0.00	-0.01	6.84	0.00
304	4.52	-2.52	0.00	0.00	2.52	0.00
305	-25.48	14.16	0.00	0.00	-14.16	0.00
306	-31.28	17.38	0.00	0.00	-17.38	0.00
307	-130.37	72.44	0.00	0.00	-72.44	0.00
308	-135.40	75.21	0.00	0.00	-75.21	0.00
309	149.41	-83.04	0.00	0.00	83.04	0.00
310	158.36	-87.94	0.00	0.00	87.94	0.00

HIPOTESIS 1 PERDIDAS DIFERIDAS

REACCIONES

Nudo	Flector	Reac_vert	Torsor
282	0.00000	-9.60391	0.00000
283	0.00000	-9.49701	0.00000
284	0.00000	9.77469	0.00000
285	0.00000	9.80783	0.00000
286	0.00000	-0.36903	0.00000
287	0.00000	-0.41998	0.00000
288	0.00000	0.14393	0.00000
289	0.00000	0.21612	0.00000
290	0.00000	-0.07902	0.00000
291	0.00000	-0.06706	0.00000
292	0.00000	-0.00384	0.00000
293	0.00000	0.05308	0.00000
294	0.00000	-0.08242	0.00000
295	0.00000	0.07017	0.00000
296	0.00000	-0.13262	0.00000
297	0.00000	0.12510	0.00000
298	0.00000	-0.14164	0.00000
299	0.00000	0.19256	0.00000
300	0.00000	-0.18166	0.00000
301	0.00000	0.05269	0.00000
302	0.00000	0.08837	0.00000
303	0.00000	0.37051	0.00000
304	0.00000	-0.80806	0.00000
305	0.00000	-0.55453	0.00000
306	0.00000	1.90747	0.00000
307	0.00000	2.15732	0.00000
308	0.00000	10.00007	0.00000
309	0.00000	10.13843	0.00000
310	0.00000	-11.15306	0.00000
311	0.00000	-11.90466	0.00000

SUMA DE REACCIONES

Suma Momentos Flectores	=	0.000
Suma Reacciones Vertic.	=	0.100
Suma Momentos Torsores	=	0.000

HIPOTESIS 1 PERDIDAS DIFERIDAS

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	156.48	-19.10	0.20	-368.39	19.10	-0.20
2	368.40	-19.10	0.20	-559.60	19.10	-0.20
3	559.59	-19.11	0.41	-721.48	19.11	-0.41
4	721.46	-19.09	-0.03	-853.98	19.09	0.03
5	853.98	-19.07	-0.17	-957.58	19.07	0.17
6	957.57	-19.08	0.19	-1033.07	19.08	-0.19
7	1033.10	-19.06	0.20	-1080.95	19.06	-0.19
8	1080.97	-19.03	-0.05	-1101.07	19.03	0.05
9	1101.06	-19.02	-0.22	-1092.40	19.02	0.22
10	1092.39	-19.05	0.19	-1044.79	19.05	-0.19
11	1044.81	-19.03	-0.43	-942.67	19.03	0.43
12	942.70	-19.03	0.13	-784.37	19.03	-0.14
13	784.35	-19.03	-0.35	-570.02	19.03	0.36
14	570.01	-19.05	-0.22	-302.42	19.05	0.22
15	302.42	-19.06	-0.29	14.08	19.06	0.29
16	-14.08	-19.06	-0.29	374.91	19.06	0.29
17	-374.92	-19.05	-0.23	776.87	19.05	0.23
18	-776.88	-19.05	-0.06	1473.06	19.05	0.06
19	-1473.06	-19.05	0.51	1908.90	19.05	-0.51
20	-1908.91	-19.05	-0.23	2050.10	19.05	0.23
21	-2050.09	0.53	-0.30	1954.24	-0.53	0.30
22	-1954.24	0.53	0.02	1056.26	-0.53	-0.02
23	-1056.26	0.53	0.02	537.58	-0.53	-0.02
24	-537.58	0.53	0.02	106.72	-0.53	-0.02
25	-106.72	0.53	0.02	-172.34	-0.53	-0.02
26	172.35	0.53	0.02	-465.04	-0.53	-0.02
27	465.06	0.54	-0.11	-706.39	-0.54	0.11
28	706.41	0.53	0.08	-890.90	-0.53	-0.09
29	890.88	0.54	-0.17	-1018.90	-0.54	0.17
30	1018.90	0.52	0.14	-1088.56	-0.52	-0.13
31	1088.55	0.52	0.13	-1094.77	-0.52	-0.12
32	1094.78	0.52	-0.19	-1029.92	-0.52	0.20
33	1029.90	0.53	-0.20	-884.44	-0.53	0.21
34	884.42	0.52	0.06	-650.79	-0.52	-0.07
35	650.79	0.50	-0.22	-326.59	-0.50	0.23
36	326.61	0.52	-0.08	84.03	-0.52	0.08
37	-84.03	0.51	-0.05	589.57	-0.51	0.05
38	-589.56	0.51	-0.22	1414.05	-0.51	0.22
39	-1414.06	0.52	0.19	2034.83	-0.52	-0.18
40	-2034.83	0.51	-0.40	2236.02	-0.51	0.40
41	-2236.02	-0.27	-0.50	2134.14	0.27	0.50
42	-2134.14	-0.28	0.12	1146.12	0.28	-0.13
43	-1146.12	-0.28	-0.21	559.37	0.28	0.21
44	-559.37	-0.27	-0.21	53.51	0.27	0.20
45	-53.52	-0.28	-0.20	-241.87	0.28	0.19

HIPOTESIS 1 PERDIDAS DIFERIDAS

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
46	241.88	-0.27	-0.12	-532.03	0.27	0.12
47	532.01	-0.27	-0.13	-780.33	0.27	0.13
48	780.32	-0.27	0.00	-965.45	0.27	0.00
49	965.43	-0.27	-0.17	-1088.42	0.27	0.17
50	1088.45	-0.28	-0.14	-1148.49	0.28	0.16
51	1148.52	-0.25	0.17	-1142.15	0.25	-0.16
52	1142.14	-0.26	0.02	-1063.17	0.26	-0.02
53	1063.19	-0.27	0.15	-903.69	0.27	-0.15
54	903.66	-0.27	0.05	-657.98	0.27	-0.05
55	657.98	-0.27	0.23	-324.87	0.27	-0.24
56	324.87	-0.26	0.18	91.15	0.26	-0.18
57	-91.16	-0.26	0.16	599.09	0.26	-0.17
58	-599.10	-0.26	0.17	1426.54	0.26	-0.17
59	-1426.54	-0.26	0.17	2055.45	0.26	-0.17
60	-2055.45	-0.26	-0.43	2265.24	0.26	0.43
61	-2265.24	0.10	0.36	2158.45	-0.10	-0.36
62	-2158.45	0.10	-0.27	1160.17	-0.10	0.27
63	-1160.17	0.10	-0.46	572.96	-0.10	0.46
64	-572.96	0.11	-0.36	69.65	-0.11	0.37
65	-69.66	0.10	-0.40	-222.39	-0.10	0.40
66	222.39	0.11	-0.50	-509.92	-0.11	0.50
67	509.91	0.12	-0.28	-757.09	-0.12	0.28
68	757.10	0.11	-0.26	-942.73	-0.11	0.26
69	942.74	0.10	-0.27	-1067.61	-0.10	0.26
70	1067.59	0.12	-0.26	-1130.78	-0.12	0.27
71	1130.76	0.09	0.06	-1128.15	-0.09	-0.07
72	1128.15	0.11	0.25	-1053.35	-0.11	-0.26
73	1053.32	0.12	0.08	-897.98	-0.12	-0.08
74	897.93	0.10	0.23	-655.79	-0.10	-0.23
75	655.78	0.11	0.41	-325.35	-0.11	-0.41
76	325.36	0.11	0.42	88.85	-0.11	-0.42
77	-88.85	0.11	0.42	595.84	-0.11	-0.41
78	-595.83	0.11	0.41	1422.03	-0.11	-0.42
79	-1422.04	0.11	-0.23	2048.11	-0.11	0.23
80	-2048.11	0.11	0.11	2255.04	-0.11	-0.11
81	-2255.04	-0.04	-0.25	2149.76	0.04	0.25
82	-2149.77	-0.04	-0.24	1154.71	0.04	0.24
83	-1154.70	-0.04	-0.58	567.61	0.04	0.58
84	-567.60	-0.03	-0.58	63.65	0.03	0.58
85	-63.65	-0.03	-0.59	-229.25	0.03	0.59
86	229.24	-0.03	-0.56	-517.51	0.03	0.56
87	517.53	-0.04	-0.47	-764.89	0.04	0.48
88	764.89	-0.04	-0.25	-950.35	0.04	0.25
89	950.35	-0.04	-0.53	-1074.57	0.04	0.52
90	1074.59	-0.03	-0.03	-1136.75	0.03	0.04

HIPOTESIS 1 PERDIDAS DIFERIDAS

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
91	1136.78	-0.03	0.30	-1133.00	0.03	-0.31
92	1133.01	-0.04	0.12	-1056.84	0.04	-0.12
93	1056.83	-0.03	0.28	-900.19	0.03	-0.28
94	900.19	-0.03	0.45	-656.90	0.03	-0.45
95	656.92	-0.05	0.53	-325.45	0.05	-0.52
96	325.47	-0.04	0.58	89.35	0.04	-0.58
97	-89.34	-0.04	0.56	596.79	0.04	-0.56
98	-596.79	-0.04	0.56	1423.51	0.04	-0.56
99	-1423.51	-0.04	0.14	2050.68	0.04	-0.14
100	-2050.67	-0.04	0.40	2258.45	0.04	-0.40
101	-2258.45	0.01	-0.80	2152.71	-0.01	0.80
102	-2152.71	0.01	-0.19	1156.79	-0.01	0.19
103	-1156.79	0.01	-0.52	569.58	-0.01	0.52
104	-569.58	0.01	-0.78	65.86	-0.01	0.78
105	-65.86	0.01	-0.78	-226.87	-0.01	0.78
106	226.84	0.02	-0.78	-514.85	-0.02	0.78
107	514.85	0.01	-0.54	-762.15	-0.01	0.54
108	762.14	0.01	-0.45	-947.68	-0.01	0.44
109	947.69	0.02	-0.28	-1072.15	-0.02	0.28
110	1072.14	0.00	-0.29	-1134.59	0.00	0.29
111	1134.59	0.02	0.25	-1131.18	-0.02	-0.24
112	1131.16	0.01	0.22	-1055.42	-0.01	-0.24
113	1055.41	0.00	0.23	-899.12	0.00	-0.24
114	899.11	0.01	0.74	-656.06	-0.01	-0.75
115	656.07	0.01	0.68	-325.12	-0.01	-0.68
116	325.13	0.04	0.87	89.46	-0.04	-0.86
117	-89.48	0.03	0.89	596.63	-0.03	-0.89
118	-596.64	0.03	0.55	1423.34	-0.03	-0.55
119	-1423.34	0.03	0.72	2049.99	-0.03	-0.72
120	-2049.99	0.03	-0.80	2257.45	-0.03	0.80
121	-2257.45	0.02	-0.13	2151.74	-0.02	0.13
122	-2151.74	0.01	-0.51	1156.03	-0.01	0.51
123	-1156.03	0.02	-0.84	568.80	-0.02	0.84
124	-568.80	0.02	-1.01	64.83	-0.02	1.00
125	-64.83	0.01	-1.01	-228.02	-0.01	1.01
126	228.02	0.01	-1.01	-516.13	-0.01	1.01
127	516.12	0.01	-0.78	-763.45	-0.01	0.78
128	763.45	0.00	-0.56	-948.92	0.00	0.55
129	948.94	-0.01	-0.29	-1073.35	0.01	0.28
130	1073.34	-0.01	-0.29	-1135.70	0.01	0.29
131	1135.69	0.00	-0.11	-1132.12	0.00	0.12
132	1132.13	-0.02	0.23	-1056.21	0.02	-0.22
133	1056.22	-0.01	0.70	-899.80	0.01	-0.70
134	899.79	-0.02	0.97	-656.64	0.02	-0.97
135	656.63	-0.02	0.97	-325.41	0.02	-0.98

HIPOTESIS 1 PERDIDAS DIFERIDAS

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
136	325.43	-0.01	1.04	89.24	0.01	-1.03
137	-89.23	-0.01	0.98	596.62	0.01	-0.97
138	-596.62	0.00	0.98	1423.30	0.00	-0.97
139	-1423.31	-0.01	0.73	2050.06	0.01	-0.73
140	-2050.06	-0.01	-0.79	2257.65	0.01	0.79
141	-2257.65	-0.01	0.69	2152.06	0.01	-0.70
142	-2152.06	-0.01	-0.89	1156.21	0.01	0.88
143	-1156.21	-0.01	-1.09	569.23	0.01	1.09
144	-569.23	-0.02	-1.15	65.36	0.02	1.15
145	-65.37	-0.01	-1.20	-227.34	0.01	1.20
146	227.34	-0.01	-1.24	-515.41	0.01	1.24
147	515.42	-0.01	-1.00	-762.73	0.01	1.00
148	762.73	-0.01	-0.65	-948.16	0.01	0.65
149	948.18	-0.01	-0.37	-1072.52	0.01	0.38
150	1072.51	-0.02	-0.36	-1134.84	0.02	0.35
151	1134.85	-0.02	0.15	-1131.27	0.02	-0.15
152	1131.28	-0.01	0.14	-1055.39	0.01	-0.15
153	1055.40	-0.01	0.93	-899.02	0.01	-0.92
154	899.03	0.00	0.92	-655.97	0.00	-0.92
155	655.96	0.00	1.11	-324.80	0.00	-1.11
156	324.79	0.00	1.18	89.83	0.00	-1.17
157	-89.82	0.00	1.11	597.08	0.00	-1.11
158	-597.08	0.00	1.12	1423.60	0.00	-1.12
159	-1423.59	0.00	0.71	2050.57	0.00	-0.71
160	-2050.57	0.00	0.35	2258.16	0.00	-0.35
161	-2258.16	0.05	-0.33	2152.34	-0.05	0.33
162	-2152.34	0.05	-0.71	1156.45	-0.05	0.71
163	-1156.45	0.05	-1.04	569.13	-0.05	1.04
164	-569.13	0.04	-1.30	65.24	-0.04	1.30
165	-65.23	0.04	-1.29	-227.67	-0.04	1.30
166	227.67	0.04	-1.13	-515.90	-0.04	1.13
167	515.89	0.05	-1.13	-763.44	-0.05	1.13
168	763.43	0.03	-1.13	-949.06	-0.03	1.13
169	949.07	0.03	-0.42	-1073.64	-0.03	0.41
170	1073.66	0.03	-0.23	-1136.18	-0.03	0.24
171	1136.17	0.03	0.41	-1132.79	-0.03	-0.41
172	1132.77	0.03	0.40	-1057.03	-0.03	-0.39
173	1057.03	0.02	0.59	-900.75	-0.02	-0.59
174	900.75	0.03	1.25	-657.72	-0.03	-1.25
175	657.71	0.03	1.13	-326.53	-0.03	-1.14
176	326.54	0.02	1.35	88.12	-0.02	-1.35
177	-88.11	0.02	1.34	595.54	-0.02	-1.34
178	-595.53	0.02	1.12	1421.74	-0.02	-1.12
179	-1421.74	0.03	0.57	2048.56	-0.03	-0.58
180	-2048.56	0.03	0.21	2256.01	-0.03	-0.21

HIPOTESIS 1 PERDIDAS DIFERIDAS

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
181	-2256.01	-0.10	-0.42	2150.81	0.10	0.42
182	-2150.80	-0.10	-0.39	1155.50	0.10	0.39
183	-1155.50	-0.11	-1.27	568.68	0.11	1.27
184	-568.68	-0.10	-1.26	65.21	0.10	1.26
185	-65.21	-0.10	-1.28	-227.27	0.10	1.28
186	227.28	-0.11	-1.24	-514.88	0.11	1.25
187	514.89	-0.10	-0.87	-761.76	0.10	0.87
188	761.76	-0.10	-0.86	-946.79	0.10	0.86
189	946.80	-0.09	-0.59	-1070.79	0.09	0.58
190	1070.81	-0.10	-0.10	-1132.74	0.10	0.09
191	1132.74	-0.08	-0.11	-1128.87	0.08	0.12
192	1128.87	-0.10	0.72	-1052.70	0.10	-0.72
193	1052.72	-0.11	0.73	-896.09	0.11	-0.73
194	896.08	-0.12	0.89	-652.85	0.12	-0.90
195	652.84	-0.12	1.27	-321.55	0.12	-1.27
196	321.56	-0.12	1.33	93.15	0.12	-1.32
197	-93.14	-0.11	1.29	600.54	0.11	-1.30
198	-600.54	-0.11	1.03	1427.43	0.11	-1.03
199	-1427.43	-0.11	0.63	2055.08	0.11	-0.63
200	-2055.08	-0.12	0.62	2263.33	0.12	-0.62
201	-2263.33	0.34	-0.54	2156.31	-0.34	0.54
202	-2156.31	0.34	-0.92	1159.12	-0.34	0.92
203	-1159.12	0.34	-0.92	571.04	-0.34	0.92
204	-571.03	0.34	-1.25	66.11	-0.34	1.25
205	-66.11	0.35	-1.26	-227.87	-0.35	1.26
206	227.87	0.35	-1.15	-517.31	-0.35	1.16
207	517.30	0.36	-1.01	-766.30	-0.36	1.01
208	766.31	0.35	-1.01	-953.53	-0.35	1.01
209	953.52	0.35	-0.31	-1079.67	-0.35	0.31
210	1079.65	0.32	-0.31	-1143.64	-0.32	0.32
211	1143.64	0.31	0.22	-1141.50	-0.31	-0.22
212	1141.52	0.34	0.19	-1066.81	-0.34	-0.19
213	1066.82	0.33	0.99	-911.29	-0.33	-0.99
214	911.28	0.33	1.00	-668.64	-0.33	-1.00
215	668.64	0.32	1.30	-337.64	-0.32	-1.30
216	337.65	0.31	1.31	77.07	-0.31	-1.31
217	-77.06	0.32	1.25	584.25	-0.32	-1.25
218	-584.25	0.32	1.25	1409.65	-0.32	-1.25
219	-1409.65	0.32	0.85	2034.18	-0.32	-0.84
220	-2034.18	0.32	-0.11	2239.86	-0.32	0.11
221	-2239.86	-1.05	-0.02	2138.57	1.05	0.02
222	-2138.57	-1.05	-0.64	1147.52	1.05	0.64
223	-1147.52	-1.05	-0.95	563.40	1.05	0.95
224	-563.40	-1.05	-1.22	62.69	1.05	1.21
225	-62.69	-1.04	-1.22	-226.38	1.04	1.22

HIPOTESIS 1 PERDIDAS DIFERIDAS

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
226	226.38	-1.05	-1.10	-510.08	1.05	1.09
227	510.07	-1.05	-1.09	-752.39	1.05	1.08
228	752.39	-1.05	-0.76	-932.45	1.05	0.75
229	932.44	-1.04	-0.61	-1051.33	1.04	0.59
230	1051.32	-1.05	-0.16	-1108.48	1.05	0.17
231	1108.50	-1.04	0.22	-1100.36	1.04	-0.22
232	1100.39	-1.04	0.22	-1020.87	1.04	-0.23
233	1020.88	-1.03	0.79	-862.01	1.03	-0.79
234	862.01	-1.04	0.96	-617.69	1.04	-0.97
235	617.71	-1.03	1.31	-286.35	1.03	-1.31
236	286.35	-1.03	1.27	127.86	1.03	-1.27
237	-127.87	-1.04	1.20	635.40	1.04	-1.20
238	-635.41	-1.04	0.92	1465.80	1.04	-0.92
239	-1465.80	-1.03	0.90	2100.88	1.03	-0.90
240	-2100.88	-1.04	0.33	2315.22	1.04	-0.33
241	-2315.22	3.03	-0.03	2196.56	-3.03	0.03
242	-2196.56	3.03	-0.92	1185.53	-3.03	0.92
243	-1185.53	3.03	-1.11	589.43	-3.03	1.11
244	-589.43	3.02	-1.39	77.16	-3.02	1.39
245	-77.15	3.02	-1.40	-232.28	-3.02	1.41
246	232.26	3.03	-1.37	-537.34	-3.03	1.36
247	537.33	3.03	-1.04	-802.66	-3.03	1.05
248	802.67	3.03	-1.05	-1006.92	-3.03	1.04
249	1006.92	3.04	-0.85	-1149.52	-3.04	0.86
250	1149.53	3.04	-0.02	-1228.38	-3.04	0.03
251	1228.37	3.03	-0.02	-1238.35	-3.03	0.03
252	1238.37	3.04	0.36	-1172.13	-3.04	-0.35
253	1172.12	3.04	0.84	-1020.92	-3.04	-0.84
254	1020.96	3.05	1.34	-778.47	-3.05	-1.33
255	778.45	3.03	1.33	-444.12	-3.03	-1.33
256	444.12	3.02	1.45	-24.49	-3.02	-1.45
257	24.49	3.03	1.46	485.85	-3.03	-1.46
258	-485.84	3.03	1.46	1305.28	-3.03	-1.46
259	-1305.28	3.03	0.48	2172.19	-3.03	-0.48
260	-2172.19	3.03	0.48	2493.04	-3.03	-0.48
261	-2493.03	23.17	-0.28	2388.71	-23.17	0.28
262	-2388.71	23.17	-0.34	1528.79	-23.17	0.34
263	-1528.78	23.16	-0.89	997.09	-23.16	0.90
264	-997.09	23.17	-1.27	534.00	-23.17	1.27
265	-534.00	23.17	-1.20	149.75	-23.17	1.20
266	-149.74	23.16	-1.30	-209.56	-23.16	1.30
267	209.57	23.17	-1.37	-513.49	-23.17	1.38
268	513.49	23.17	-1.07	-772.14	-23.17	1.07
269	772.09	23.13	-0.77	-979.47	-23.13	0.76
270	979.43	23.10	-0.78	-1130.20	-23.10	0.79

HIPOTESIS 1 PERDIDAS DIFERIDAS

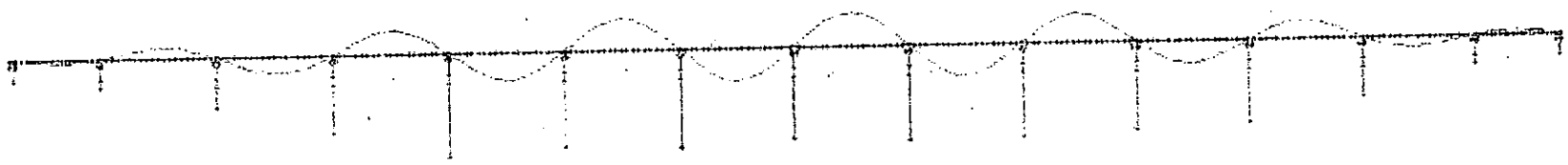
ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
271	1130.22	23.10	-0.76	-1220.83	-23.10	0.76
272	1220.81	23.08	-0.02	-1259.44	-23.08	0.00
273	1259.44	23.08	-0.04	-1251.70	-23.08	0.04
274	1251.72	23.05	0.46	-1193.75	-23.05	-0.45
275	1193.73	23.07	0.45	-1101.25	-23.07	-0.45
276	1101.24	23.07	0.70	-975.54	-23.07	-0.71
277	975.53	23.04	1.07	-817.73	-23.04	-1.07
278	817.74	23.05	1.08	-629.47	-23.05	-1.07
279	629.47	23.05	1.46	-412.23	-23.05	-1.47
280	412.25	23.06	1.37	-175.01	-23.06	-1.37
281	-17.29	9.61	0.00	0.00	-9.61	0.00
282	-17.09	9.50	0.00	0.00	-9.50	0.00
283	17.59	-9.78	0.00	0.00	9.78	0.00
284	17.66	-9.81	0.00	0.00	9.81	0.00
285	-0.66	0.37	0.00	0.00	-0.37	0.00
286	-0.76	0.42	0.00	0.00	-0.42	0.00
287	0.26	-0.14	0.00	0.00	0.14	0.00
288	0.39	-0.22	0.00	0.00	0.22	0.00
289	-0.14	0.08	0.00	0.00	-0.08	0.00
290	-0.12	0.07	0.00	0.00	-0.07	0.00
291	-0.01	0.00	0.00	0.00	0.00	0.00
292	0.10	-0.05	0.00	0.00	0.05	0.00
293	-0.15	0.08	0.00	0.00	-0.08	0.00
294	0.13	-0.07	0.00	0.00	0.07	0.00
295	-0.24	0.13	0.00	0.00	-0.13	0.00
296	0.22	-0.12	0.00	0.00	0.12	0.00
297	-0.25	0.14	0.00	0.00	-0.14	0.00
298	0.35	-0.19	0.00	0.00	0.19	0.00
299	-0.33	0.18	0.00	0.00	-0.18	0.00
300	0.09	-0.05	0.00	0.00	0.05	0.00
301	0.16	-0.09	0.00	0.00	0.09	0.00
302	0.67	-0.37	0.00	0.00	0.37	0.00
303	-1.46	0.81	0.00	0.00	-0.81	0.00
304	-1.00	0.55	0.00	0.00	-0.55	0.00
305	3.43	-1.91	0.00	0.00	1.91	0.00
306	3.88	-2.16	0.00	0.00	2.16	0.00
307	18.00	-10.00	0.00	0.00	10.00	0.00
308	18.25	-10.14	0.00	0.00	10.14	0.00
309	-20.07	11.15	0.00	0.00	-11.15	0.00
310	-21.44	11.90	0.00	0.00	-11.90	0.00

3.3 CÁLCULO DINÁMICO

3.3.1 ANÁLISIS MODAL

Escala	
Factor de escala	350



PROYECTO: L.A.V. St. SADURNÍ D'ANOIA
O.F. : PUENTE SOBRE RÍO AVERNÓ

CÁLCULO DEL COEFICIENTE DE IMPACTO

Frecuencia fundamental	2.02 Hz
Luz del vano intermedio	60 m
Longitud total del tablero	810 m

COEFICIENTE DE IMPACTO SEGÚN IPF-75

v (km/h)* = 200

Para luces iguales o menores de 6 metros
l = 66.0
ϕ = 1.66

Para luces mayores de 6 metros en tramos simplemente apoyados
l = 17.9
ϕ = 1.18

En general para tramos apoyados continuos
μ = 0.229
l = 18.1
ϕ = 1.18

* La validez de las expresiones de la IPF-75 se limita a trenes con velocidades de circulación inferior a 200 km/h

Valores de k en función del número de vanos

	Número de vanos				
	1	2	3	4	5
k	1	1.2	1.3	1.4	1.5

COEFICIENTE DE IMPACTO SEGÚN EUROCÓDIGO 1.

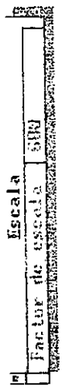
DETERMINACIÓN DE Lϕ

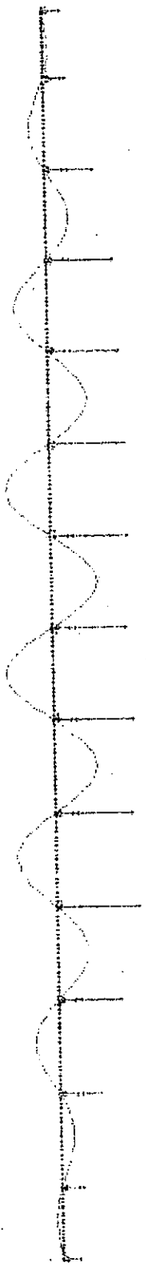
Número de vanos del tablero = 14
k = 1.5
Lm = 57.8571429
Lϕ = 86.79

Vías con grado de mantenimiento bueno
ϕ2 = 0.98

Vías con grado de mantenimiento normal
ϕ3 = 0.97

NOTA: La validez ce aplicación de las fórmulas del eurocódigo se limita a trenes con velocidades de circulación inferiores a 200 km/h.





Dinámica - resultados del análisis modal

Resultados individuales

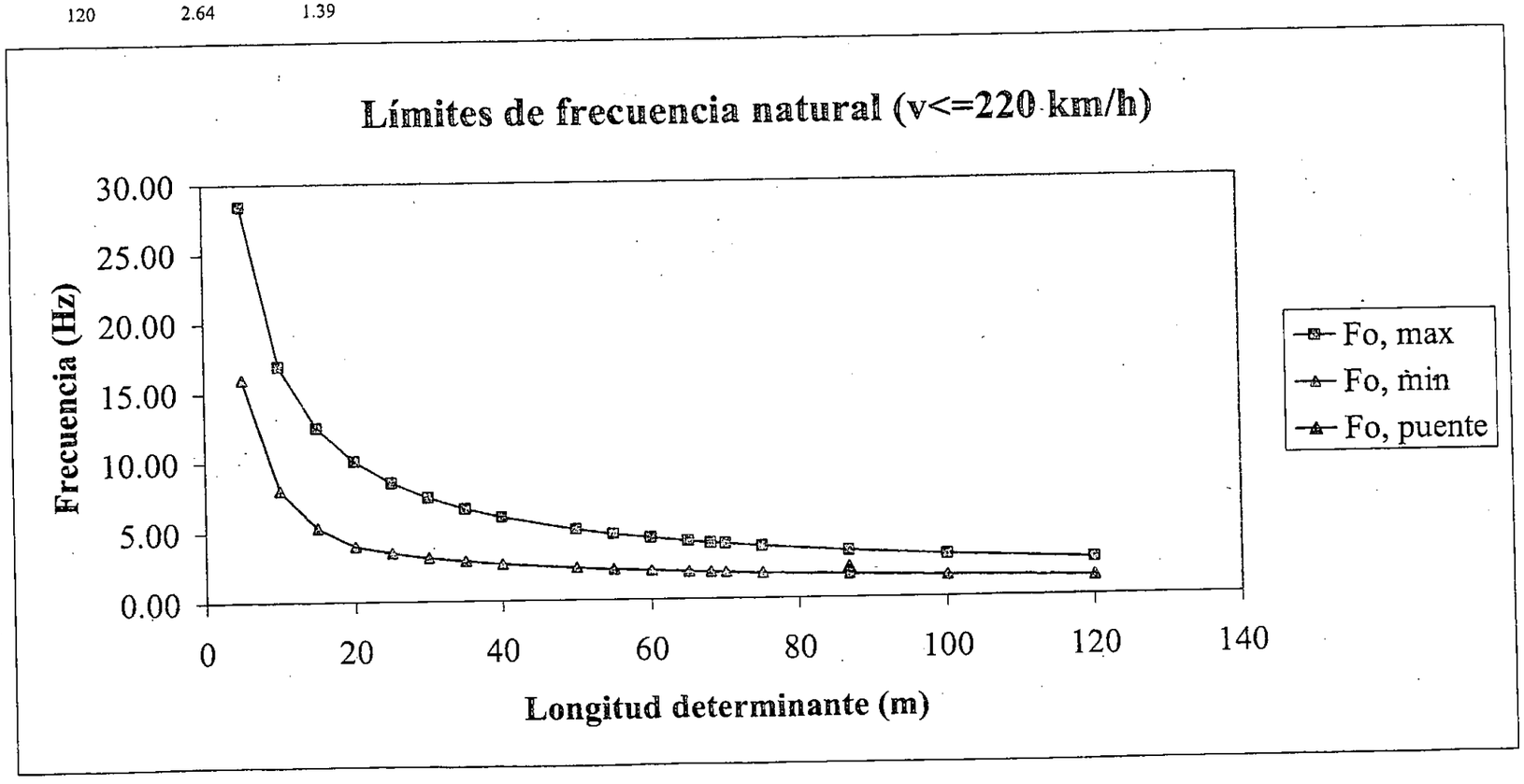
Caso 36
1A3 11A18 21A23 31A36

Modo 1A30
1A30

Caso	Modo	Valor	Pulsación (1/sec)	Frecuencia (Hz)	Periodo (sec)	Precisión
Nombre del.		MODAL				
36	1	8.08322E+00	2.84310E+00	4.52494E-01	2.20998E+00	8.87157E-13
36	2	1.14799E+01	3.38820E+00	5.39248E-01	1.85443E+00	1.26815E-12
36	3	1.88251E+01	4.33879E+00	6.90539E-01	1.44814E+00	6.12393E-15
36	4	2.76745E+01	5.26066E+00	8.37260E-01	1.19437E+00	8.21640E-15
36	5	3.15306E+01	5.61521E+00	8.93689E-01	1.11896E+00	6.95459E-15
36	6	3.41569E+01	5.84439E+00	9.30163E-01	1.07508E+00	3.63831E-15
36	7	4.00743E+01	6.33042E+00	1.00752E+00	9.92538E-01	7.54194E-15
36	8	4.69235E+01	6.85007E+00	1.09022E+00	9.17243E-01	1.75858E-14
36	9	4.79425E+01	6.92405E+00	1.10200E+00	9.07443E-01	6.09289E-15
36	10	4.99389E+01	7.06675E+00	1.12471E+00	8.89120E-01	1.44697E-14
36	11	5.25836E+01	7.25145E+00	1.15410E+00	8.66472E-01	1.57982E-14
36	12	5.36610E+01	7.32536E+00	1.16587E+00	8.57730E-01	1.05802E-14
36	13	6.37000E+01	7.98123E+00	1.27025E+00	7.87245E-01	3.99957E-14
36	14	7.89204E+01	8.88371E+00	1.41389E+00	7.07270E-01	2.56043E-14
36	15	8.25107E+01	9.08354E+00	1.44569E+00	6.91711E-01	2.67023E-14
36	16	1.00560E+02	1.00280E+01	1.59600E+00	6.26566E-01	7.83845E-14
36	17	1.26477E+02	1.12462E+01	1.78989E+00	5.58693E-01	2.45678E-14
36	18	1.73724E+02	1.31805E+01	2.09773E+00	4.76705E-01	8.65676E-14
36	19	1.85870E+02	1.36334E+01	2.16983E+00	4.60867E-01	2.59224E-13
36	20	1.88603E+02	1.37333E+01	2.18572E+00	4.57515E-01	7.04696E-15
36	21	2.12659E+02	1.45828E+01	2.32093E+00	4.30862E-01	3.30980E-14
36	22	2.44130E+02	1.56247E+01	2.48674E+00	4.02132E-01	4.91650E-13
36	23	2.62535E+02	1.62029E+01	2.57877E+00	3.87781E-01	1.72966E-11
36	24	2.64431E+02	1.62613E+01	2.58807E+00	3.86388E-01	8.59809E-12
36	25	2.93952E+02	1.71450E+01	2.72872E+00	3.66473E-01	5.07048E-10
36	26	3.17717E+02	1.78246E+01	2.83687E+00	3.52501E-01	2.70275E-09
36	27	3.45304E+02	1.85824E+01	2.95747E+00	3.38126E-01	6.23222E-08
36	28	3.65380E+02	1.91149E+01	3.04223E+00	3.28706E-01	6.95310E-08
36	29	4.03333E+02	2.00832E+01	3.19633E+00	3.12858E-01	4.04988E-06
36	30	4.68943E+02	2.16551E+01	3.44651E+00	2.90148E-01	5.46074E-05

PUENTE SOBRE RÍO AVERNÓ

Lo	Fo, max	Fo, min	Fo, puente
5	28.43	16.00	
10	16.93	8.00	
15	12.50	5.33	
20	10.08	4.00	
25	8.53	3.51	
30	7.44	3.15	
35	6.63	2.87	
40	6.00	2.66	
50	5.08	2.33	
55	4.73	2.20	
60	4.43	2.09	
65	4.17	1.99	
68	4.04	1.94	
70	3.95	1.91	
75	3.75	1.83	
86.78571	3.36	1.68	2.2
100	3.02	1.54	
120	2.64	1.39	



3.3.2 CÁLCULO DEL COEFICIENTE DE IMPACTO SEGÚN IPF

PROYECTO: L.A.V. St. SADURNÍ D'ANOIA
O.F. : PUENTE SOBRE RÍO AVERNÓ

CÁLCULO DEL COEFICIENTE DE IMPACTO

Frecuencia fundamental	2.2099 Hz
Luz del vano intermedio	60 m
Longitud total del tablero	810 m

COEFICIENTE DE IMPACTO SEGÚN IPF-75

v (km/h)* = 200

Para luces iguales o menores de 6 metros
l = 66.0
ϕ = **1.66**

Para luces mayores de 6 metros en tramos simplemente apoyados
l = 17.9
ϕ = **1.18**

En general para tramos apoyados continuos
μ = 0.209
l = 16.3
ϕ = **1.16**

* La validez de las expresiones de la IPF-75 se limita a trenes con velocidades de circulación inferior a 200 km/h

Valores de k en función del número de vanos

	Número de vanos				
	1	2	3	4	5
k	1	1.2	1.3	1.4	1.5

COEFICIENTE DE IMPACTO SEGÚN EUROCÓDIGO 1.

DETERMINACIÓN DE Lϕ

Número de vanos del tablero = 14
k = 1.5
Lm = 57.8571429
Lϕ = 86.79

Vías con grado de mantenimiento bueno
ϕ2 = **0.98**

Vías con grado de mantenimiento normal
ϕ3 = **0.97**

NOTA: La validez de aplicación de las fórmulas del eurocódigo se limita a trenes con velocidades de circulación inferiores a 200 km/h.

4 PRETENSADO

4.1 TRAZADO

El trazado del pretensado en alzado se define en los planos del proyecto mediante una sucesión de tramos formados por recta y parábolas con continuidad en la pendiente. En planta el trazado puede ser recto o curvo, permitiéndose variaciones del radio de curvatura.

Los 2 extremos del trazado son anclajes de tipo activo. En todas las fases de construcción está previsto el tesado desde un único extremo: el frente de avance o junta de construcción.

A continuación se muestran los esquemas de pretensado contemplados en el cálculo.

PEDELTA, S.L.
INGENIERÍA CIVIL

Fecha:

Hoja:

RESUMEN RESULTADOS 1º Tesado (ET. nº 1)

1

Fase	$\sigma_{p,i}$	nº cables	P_{oi}	Alarg (mm)
1	85	4-28	333,2 T/c	224,7
2 a 12	90	4-31	390,6 T/c	240
13	~~86~~ 85	4-31	~~349,23~~ 369,7 T/c	~~256~~ 240,3
14 (*)	144	16-28	564,48 T/c	239

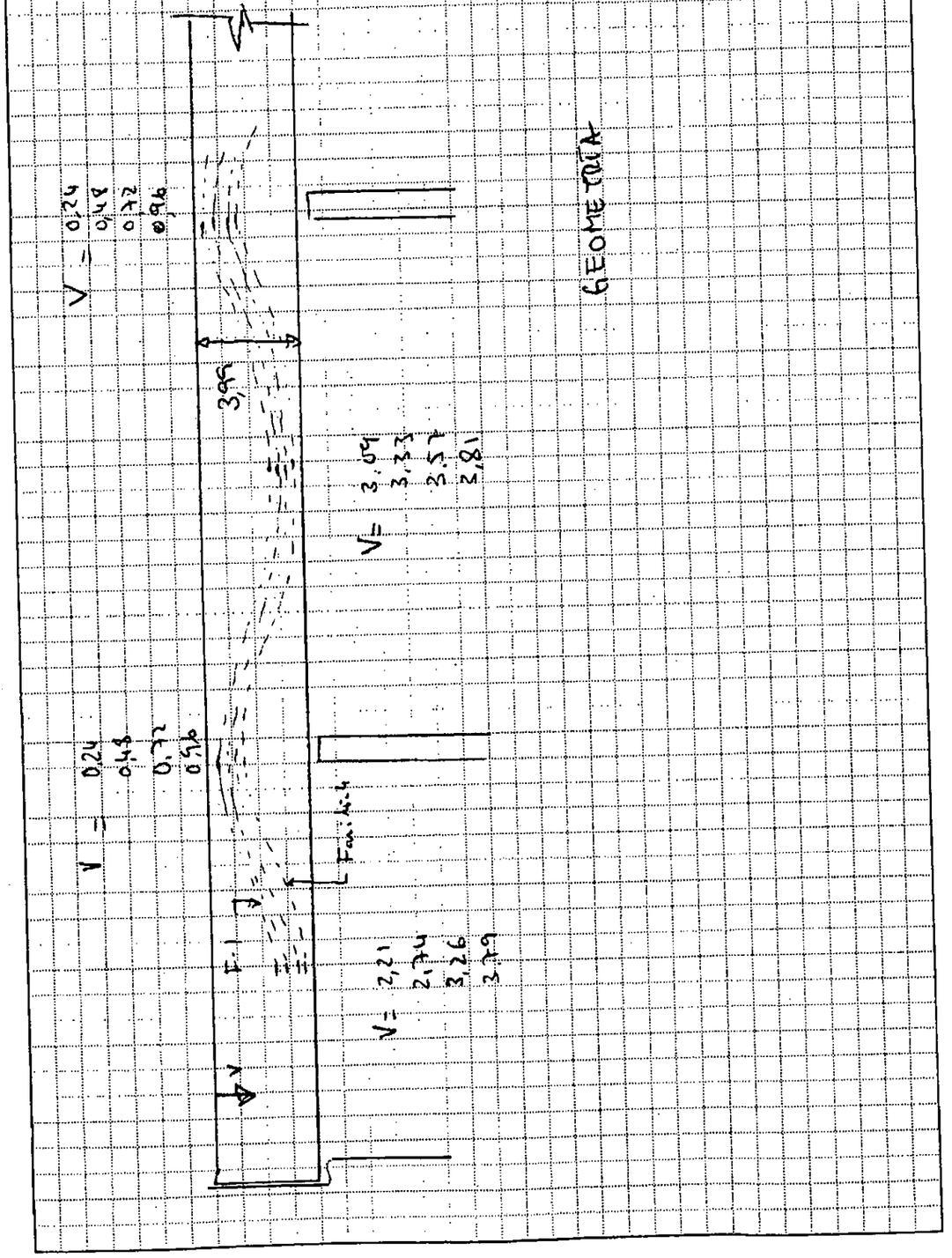
(*) Tesado Inicial = Tesado Total

σ_{poi} [Kp/cm²]

En 2ª Etapa de tesado la fuerza total a aplicar es (≥ 85 %).

Fase	$P_{o\,TOTAL}^{1ER\ ET}$	$P_{o\,TOTAL}$	$\Delta P_{TOTAL}^{2ª\ Etapa}$	σ_{Pot} 144 A_{eq}
1	13327 (15%)	9031,68	8055,04	534,64
2-12	15624 (≥15%)	9838	8275,68	574,7 cm²
13	13888	9838	8449,2	586,75 cm²
14	9031,68 T	9031,68	0	—

$$A_{eq} = \frac{\Delta P_{TOTAL}}{\sigma_{poi}} \quad (\sigma_{poi} = 144)$$



PEDELTA, S.L.
INGENIERÍA CIVIL

Fecha:

Hoja:

Resistencias mínimas del hormigón al

Tesar

1er Tesado

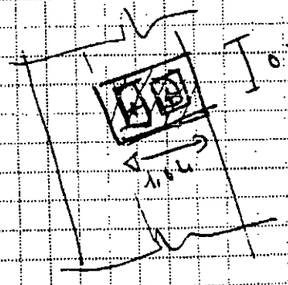
$P_{0\,max} = 390{,}6\ T$

$T_{p0} = \frac{390{,}6}{0{,}4 \cdot 0{,}4} \leq 0{,}8\ f_{c_1}\sqrt{\frac{A_{b'}}{A_b}} - 0{,}2 =$

$f_{c_1}' \geq 256\ Kp/cm^2 \leq 0{,}95\ f_{c_1}$

2º Tesado

$T_{p0} = \frac{624{,}96\ T}{0{,}4 \cdot 0{,}4} \leq 0{,}9\ T\ f_{c_1} \Rightarrow f_{c_1}' \geq 415\ \frac{Kp}{cm^2}$



$A_{b'} = 0{,}3 \cdot 1{,}04$

$A_b = 0{,}4 \cdot 0{,}4$

PEDELTA, S.L.
INGENIERÍA CIVIL

Arreglo

Fecha:

Hoja:

CÁLCULO DE ALARGAMIENTOS PARA CADA FAM.

	Media	Fam 1	Fam 2	Fam 3	Fam 4
Fase 1	390,3	393,4	387,6	388,6	385,5
Fases 2-12	392	391	389,8	391,1	389
Fase 13	366,4	368,2	366,4	365,0	364
Fase 14	238,7	238,2	238,3	238,6	239

Referencia del Proyecto:

VIADUCTO S/RˆO AVERNO Familia 1

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 1

Parametros de la parabola = 1
A = 0.00000 B = -0.13025 C = -0.80000
Origen = 0.00 Final = 1.40
Parametros de la parabola = 2
A = 0.00346 B = -0.13993 C = -0.79323
Origen = 1.40 Final = 20.25
Parametros de la parabola = 4
A = 0.00384 B = -0.15536 C = -0.63702
Origen = 20.25 Final = 41.00
Parametros de la parabola = 5
A = -0.01990 B = 1.79091 C = -40.53545
Origen = 41.00 Final = 45.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 2

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.24000
Origen = 0.00 Final = 6.00
Parametros de la parabola = 2
A = -0.01979 B = 0.23750 C = -0.95250
Origen = 6.00 Final = 12.00
Parametros de la parabola = 3
A = 0.00660 B = -0.39583 C = 2.84750
Origen = 12.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = 0.19846
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -85.74001
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 3

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.24000
Origen = 0.00 Final = 6.00
Parametros de la parabola = 2
A = -0.01979 B = 0.23750 C = -0.95250
Origen = 6.00 Final = 12.00
Parametros de la parabola = 3
A = 0.00660 B = -0.39583 C = 2.84750
Origen = 12.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = 0.19846
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -85.74001
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 4

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.24000
Origen = 0.00 Final = 6.00
Parametros de la parabola = 2
A = -0.01979 B = 0.23750 C = -0.95250
Origen = 6.00 Final = 12.00
Parametros de la parabola = 3
A = 0.00660 B = -0.39583 C = 2.84750
Origen = 12.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = 0.19846
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -85.74001
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 5

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.24000
Origen = 0.00 Final = 6.00
Parametros de la parabola = 2
A = -0.01979 B = 0.23750 C = -0.95250
Origen = 6.00 Final = 12.00
Parametros de la parabola = 3
A = 0.00660 B = -0.39583 C = 2.84750
Origen = 12.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = 0.19846
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -85.74001
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 6

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.24000
Origen = 0.00 Final = 6.00
Parametros de la parabola = 2
A = -0.01979 B = 0.23750 C = -0.95250
Origen = 6.00 Final = 12.00
Parametros de la parabola = 3
A = 0.00660 B = -0.39583 C = 2.84750
Origen = 12.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = 0.19846
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -85.74001
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 7

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.24000
Origen = 0.00 Final = 6.00
Parametros de la parabola = 2
A = -0.01979 B = 0.23750 C = -0.95250
Origen = 6.00 Final = 12.00
Parametros de la parabola = 3
A = 0.00660 B = -0.39583 C = 2.84750
Origen = 12.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = 0.19846
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -85.74001
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 8

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.24000
Origen = 0.00 Final = 6.00
Parametros de la parabola = 2
A = -0.01979 B = 0.23750 C = -0.95250
Origen = 6.00 Final = 12.00
Parametros de la parabola = 3
A = 0.00660 B = -0.39583 C = 2.84750
Origen = 12.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = 0.19846
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -85.74001
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 9

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.24000
Origen = 0.00 Final = 6.00
Parametros de la parabola = 2
A = -0.01979 B = 0.23750 C = -0.95250
Origen = 6.00 Final = 12.00
Parametros de la parabola = 3
A = 0.00660 B = -0.39583 C = 2.84750
Origen = 12.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = 0.19846
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -85.74001
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 10

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.24000
Origen = 0.00 Final = 6.00
Parametros de la parabola = 2
A = -0.01979 B = 0.23750 C = -0.95250
Origen = 6.00 Final = 12.00
Parametros de la parabola = 3
A = 0.00660 B = -0.39583 C = 2.84750
Origen = 12.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = 0.19846
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -85.74001
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 11

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.24000
Origen = 0.00 Final = 6.00
Parametros de la parabola = 2
A = -0.01979 B = 0.23750 C = -0.95250
Origen = 6.00 Final = 12.00
Parametros de la parabola = 3
A = 0.00660 B = -0.39583 C = 2.84750
Origen = 12.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = 0.19846
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -85.74001
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 12

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.24000
Origen = 0.00 Final = 6.00
Parametros de la parabola = 2
A = -0.01979 B = 0.23750 C = -0.95250
Origen = 6.00 Final = 12.00
Parametros de la parabola = 3
A = 0.00660 B = -0.39583 C = 2.84750
Origen = 12.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = 0.19846
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -85.74001
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 13

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.24000
Origen = 0.00 Final = 6.00
Parametros de la parabola = 2
A = -0.01979 B = 0.23750 C = -0.95250
Origen = 6.00 Final = 12.00
Parametros de la parabola = 3
A = 0.00660 B = -0.39583 C = 2.84750
Origen = 12.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = 0.19846
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -85.74001
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 14

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.24000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 2
A = -0.02373 B = 0.18988 C = -0.61976
Origen = 4.00 Final = 8.00
Parametros de la parabola = 3
A = 0.00567 B = -0.28057 C = 1.26203
Origen = 8.00 Final = 24.75
Parametros de la parabola = 5
A = 0.00346 B = -0.17102 C = -0.09359
Origen = 24.75 Final = 43.60
Parametros de la parabola = 6
A = 0.00000 B = 0.13025 C = -6.66143
Origen = 43.60 Final = 45.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
1	0.000	-0.800	3.190	0.734	0.0000	11.2217	0.0000
2	2.250	-1.091	2.899	0.443	0.0059	11.2159	0.0069
3	4.500	-1.353	2.637	0.181	0.0214	11.2003	0.0069
4	6.750	-1.580	2.410	-0.046	0.0370	11.1848	0.0069
5	9.000	-1.773	2.217	-0.239	0.0525	11.1692	0.0069
6	11.250	-1.930	2.060	-0.396	0.0681	11.1537	0.0069
7	13.500	-2.053	1.937	-0.519	0.0836	11.1381	0.0069
8	15.750	-2.140	1.850	-0.606	0.0992	11.1226	0.0069
9	18.000	-2.193	1.797	-0.659	0.1147	11.1070	0.0069
10	20.250	-2.210	1.780	-0.676	0.1303	11.0915	0.0069
11	22.500	-2.191	1.799	-0.657	0.1475	11.0742	0.0077
12	24.750	-2.132	1.858	-0.598	0.1648	11.0570	0.0077
13	27.000	-2.035	1.955	-0.501	0.1821	11.0397	0.0077
14	29.250	-1.899	2.091	-0.365	0.1993	11.0224	0.0077
15	31.500	-1.725	2.265	-0.191	0.2166	11.0052	0.0077
16	33.750	-1.511	2.479	0.023	0.2339	10.9879	0.0077
17	36.000	-1.258	2.732	0.276	0.2511	10.9706	0.0077
18	38.250	-0.967	3.023	0.567	0.2684	10.9534	0.0077
19	40.500	-0.637	3.353	1.164	0.2856	10.9361	0.0077
20	42.750	-0.341	3.649	1.460	0.3592	10.8625	-0.0398
21	45.000	-0.240	3.750	1.561	0.4487	10.7731	0.0000
22	48.000	-0.240	3.750	1.561	0.4487	10.7731	0.0000
23	51.000	-0.240	3.750	1.294	0.4487	10.7731	-0.0396
24	54.000	-0.418	3.572	1.116	0.5674	10.6543	-0.0396
25	57.000	-0.952	3.037	0.581	0.6862	10.5355	-0.0396
26	60.000	-1.606	2.384	-0.072	0.7258	10.4959	0.0132
27	63.000	-2.140	1.850	-0.606	0.7654	10.4564	0.0132
28	66.000	-2.556	1.434	-1.022	0.8049	10.4169	0.0132
29	69.000	-2.853	1.137	-1.319	0.8446	10.3771	0.0132
30	72.000	-3.031	0.959	-1.497	0.8842	10.3376	0.0132
31	75.000	-3.090	0.900	-1.556	0.9238	10.2979	0.0132
32	78.000	-3.057	0.933	-1.523	0.9455	10.2763	0.0073
33	81.000	-2.958	1.032	-1.424	0.9677	10.2541	0.0073
34	84.000	-2.794	1.196	-1.260	0.9895	10.2322	0.0073
35	87.000	-2.564	1.426	-1.030	1.0114	10.2104	0.0073
36	90.000	-2.268	1.722	-0.734	1.0335	10.1882	0.0073
37	93.000	-1.906	2.084	-0.372	1.0554	10.1663	0.0073
38	96.000	-1.479	2.511	0.055	1.0773	10.1445	0.0073
39	99.000	-0.985	3.005	0.816	1.0993	10.1224	0.0073
40	102.000	-0.454	3.536	1.347	1.1610	10.0607	-0.0475
41	105.000	-0.240	3.750	1.561	1.3039	9.9179	0.0000
42	108.000	-0.240	3.750	1.561	1.3039	9.9179	0.0000
43	111.000	-0.240	3.750	1.294	1.3039	9.9178	-0.0396
44	114.000	-0.418	3.572	1.116	1.4227	9.7991	-0.0396
45	117.000	-0.952	3.037	0.581	1.5414	9.6803	-0.0396
46	120.000	-1.606	2.384	-0.072	1.5810	9.6407	0.0132
47	123.000	-2.140	1.850	-0.606	1.6206	9.6011	0.0132
48	126.000	-2.556	1.434	-1.022	1.6601	9.5616	0.0132
49	129.000	-2.853	1.137	-1.319	1.6999	9.5219	0.0132
50	132.000	-3.031	0.959	-1.497	1.7394	9.4823	0.0132
51	135.000	-3.090	0.900	-1.556	1.7791	9.4427	0.0132
52	138.000	-3.057	0.933	-1.523	1.8007	9.4210	0.0073
53	141.000	-2.958	1.032	-1.424	1.8229	9.3988	0.0073
54	144.000	-2.794	1.196	-1.260	1.8448	9.3770	0.0073
55	147.000	-2.564	1.426	-1.030	1.8666	9.3551	0.0073
56	150.000	-2.268	1.722	-0.734	1.8887	9.3330	0.0073
57	153.000	-1.906	2.084	-0.372	1.9106	9.3111	0.0073
58	156.000	-1.479	2.511	0.055	1.9325	9.2892	0.0073
59	159.000	-0.985	3.005	0.816	1.9546	9.2672	0.0073
60	162.000	-0.454	3.536	1.347	2.0163	9.2055	-0.0475
61	165.000	-0.240	3.750	1.561	2.1591	9.0626	0.0000
62	168.000	-0.240	3.750	1.561	2.1591	9.0626	0.0000
63	171.000	-0.240	3.750	1.294	2.1592	9.0626	-0.0396
64	174.000	-0.418	3.572	1.116	2.2779	8.9438	-0.0396
65	177.000	-0.952	3.037	0.581	2.3967	8.8251	-0.0396
66	180.000	-1.606	2.384	-0.072	2.4363	8.7855	0.0132
67	183.000	-2.140	1.850	-0.606	2.4758	8.7459	0.0132
68	186.000	-2.556	1.434	-1.022	2.5154	8.7064	0.0132
69	189.000	-2.853	1.137	-1.319	2.5551	8.6666	0.0132
70	192.000	-3.031	0.959	-1.497	2.5946	8.6271	0.0132
71	195.000	-3.090	0.900	-1.556	2.6343	8.5874	0.0132
72	198.000	-3.057	0.933	-1.523	2.6560	8.5658	0.0073
73	201.000	-2.958	1.032	-1.424	2.6781	8.5436	0.0073
74	204.000	-2.794	1.196	-1.260	2.7000	8.5217	0.0073
75	207.000	-2.564	1.426	-1.030	2.7218	8.4999	0.0073
76	210.000	-2.268	1.722	-0.734	2.7440	8.4778	0.0073
77	213.000	-1.906	2.084	-0.372	2.7659	8.4559	0.0073
78	216.000	-1.479	2.511	0.055	2.7877	8.4340	0.0073
79	219.000	-0.985	3.005	0.816	2.8098	8.4120	0.0073
80	222.000	-0.454	3.536	1.347	2.8715	8.3502	-0.0475
81	225.000	-0.240	3.750	1.561	3.0144	8.2074	0.0000
82	228.000	-0.240	3.750	1.561	3.0144	8.2074	0.0000
83	231.000	-0.240	3.750	1.294	3.0144	8.2073	-0.0396
84	234.000	-0.418	3.572	1.116	3.1332	8.0886	-0.0396
85	237.000	-0.952	3.037	0.581	3.2519	7.9698	-0.0396
86	240.000	-1.606	2.384	-0.072	3.2915	7.9302	0.0132
87	243.000	-2.140	1.850	-0.606	3.3311	7.8907	0.0132
88	246.000	-2.556	1.434	-1.022	3.3706	7.8512	0.0132
89	249.000	-2.853	1.137	-1.319	3.4104	7.8114	0.0132
90	252.000	-3.031	0.959	-1.497	3.4499	7.7719	0.0132
91	255.000	-3.090	0.900	-1.556	3.4895	7.7322	0.0132
92	258.000	-3.057	0.933	-1.523	3.5112	7.7105	0.0073
93	261.000	-2.958	1.032	-1.424	3.5334	7.6884	0.0073
94	264.000	-2.794	1.196	-1.260	3.5553	7.6665	0.0073
95	267.000	-2.564	1.426	-1.030	3.5771	7.6447	0.0073
96	270.000	-2.268	1.722	-0.734	3.5992	7.6225	0.0073
97	273.000	-1.906	2.084	-0.372	3.6211	7.6006	0.0073
98	276.000	-1.479	2.511	0.055	3.6430	7.5788	0.0073
99	279.000	-0.985	3.005	0.816	3.6650	7.5567	0.0073
100	282.000	-0.454	3.536	1.347	3.7267	7.4950	-0.0475
101	285.000	-0.240	3.750	1.561	3.8696	7.3521	0.0000
102	288.000	-0.240	3.750	1.561	3.8696	7.3521	0.0000

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
103	291.000	-0.240	3.750	1.294	3.8696	7.3521	-0.0396
104	294.000	-0.418	3.572	1.116	3.9884	7.2333	-0.0396
105	297.000	-0.952	3.037	0.581	4.1072	7.1146	-0.0396
106	300.000	-1.606	2.384	-0.072	4.1468	7.0750	0.0132
107	303.000	-2.140	1.850	-0.606	4.1863	7.0354	0.0132
108	306.000	-2.556	1.434	-1.022	4.2258	6.9959	0.0132
109	309.000	-2.853	1.137	-1.319	4.2656	6.9562	0.0132
110	312.000	-3.031	0.959	-1.497	4.3051	6.9166	0.0132
111	315.000	-3.090	0.900	-1.556	4.3448	6.8770	0.0132
112	318.000	-3.057	0.933	-1.523	4.3664	6.8553	0.0073
113	321.000	-2.958	1.032	-1.424	4.3886	6.8331	0.0073
114	324.000	-2.794	1.196	-1.260	4.4105	6.8112	0.0073
115	327.000	-2.564	1.426	-1.030	4.4323	6.7894	0.0073
116	330.000	-2.268	1.722	-0.734	4.4545	6.7673	0.0073
117	333.000	-1.906	2.084	-0.372	4.4764	6.7454	0.0073
118	336.000	-1.479	2.511	0.055	4.4982	6.7235	0.0073
119	339.000	-0.985	3.005	0.816	4.5203	6.7015	0.0073
120	342.000	-0.454	3.536	1.347	4.5820	6.6398	-0.0475
121	345.000	-0.240	3.750	1.561	4.7248	6.4969	0.0000
122	348.000	-0.240	3.750	1.561	4.7248	6.4969	0.0000
123	351.000	-0.240	3.750	1.294	4.7249	6.4969	-0.0396
124	354.000	-0.418	3.572	1.116	4.8436	6.3781	-0.0396
125	357.000	-0.952	3.037	0.581	4.9624	6.2593	-0.0396
126	360.000	-1.606	2.384	-0.072	5.0020	6.2198	0.0132
127	363.000	-2.140	1.850	-0.606	5.0416	6.1802	0.0132
128	366.000	-2.556	1.434	-1.022	5.0811	6.1407	0.0132
129	369.000	-2.853	1.137	-1.319	5.1208	6.1009	0.0132
130	372.000	-3.031	0.959	-1.497	5.1603	6.0614	0.0132
131	375.000	-3.090	0.900	-1.556	5.2000	6.0217	0.0132
132	378.000	-3.057	0.933	-1.523	5.2217	6.0001	0.0073
133	381.000	-2.958	1.032	-1.424	5.2438	5.9779	0.0073
134	384.000	-2.794	1.196	-1.260	5.2657	5.9560	0.0073
135	387.000	-2.564	1.426	-1.030	5.2876	5.9342	0.0073
136	390.000	-2.268	1.722	-0.734	5.3097	5.9121	0.0073
137	393.000	-1.906	2.084	-0.372	5.3316	5.8902	0.0073
138	396.000	-1.479	2.511	0.055	5.3534	5.8683	0.0073
139	399.000	-0.985	3.005	0.816	5.3755	5.8462	0.0073
140	402.000	-0.454	3.536	1.347	5.4372	5.7845	-0.0475
141	405.000	-0.240	3.750	1.561	5.5801	5.6417	0.0000
142	408.000	-0.240	3.750	1.561	5.5801	5.6417	0.0000
143	411.000	-0.240	3.750	1.294	5.5801	5.6416	-0.0396
144	414.000	-0.418	3.572	1.116	5.6989	5.5229	-0.0396
145	417.000	-0.952	3.037	0.581	5.8176	5.4041	-0.0396
146	420.000	-1.606	2.384	-0.072	5.8572	5.3645	0.0132
147	423.000	-2.140	1.850	-0.606	5.8968	5.3249	0.0132
148	426.000	-2.556	1.434	-1.022	5.9363	5.2854	0.0132
149	429.000	-2.853	1.137	-1.319	5.9761	5.2457	0.0132
150	432.000	-3.031	0.959	-1.497	6.0156	5.2062	0.0132
151	435.000	-3.090	0.900	-1.556	6.0553	5.1665	0.0132
152	438.000	-3.057	0.933	-1.523	6.0769	5.1448	0.0073
153	441.000	-2.958	1.032	-1.424	6.0991	5.1227	0.0073
154	444.000	-2.794	1.196	-1.260	6.1210	5.1008	0.0073

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
155	447.000	-2.564	1.426	-1.030	6.1428	5.0789	0.0073
156	450.000	-2.268	1.722	-0.734	6.1649	5.0568	0.0073
157	453.000	-1.906	2.084	-0.372	6.1868	5.0349	0.0073
158	456.000	-1.479	2.511	0.055	6.2087	5.0131	0.0073
159	459.000	-0.985	3.005	0.816	6.2307	4.9910	0.0073
160	462.000	-0.454	3.536	1.347	6.2924	4.9293	-0.0475
161	465.000	-0.240	3.750	1.561	6.4353	4.7864	0.0000
162	468.000	-0.240	3.750	1.561	6.4353	4.7864	0.0000
163	471.000	-0.240	3.750	1.294	6.4353	4.7864	-0.0396
164	474.000	-0.418	3.572	1.116	6.5541	4.6676	-0.0396
165	477.000	-0.952	3.037	0.581	6.6729	4.5489	-0.0396
166	480.000	-1.606	2.384	-0.072	6.7125	4.5093	0.0132
167	483.000	-2.140	1.850	-0.606	6.7520	4.4697	0.0132
168	486.000	-2.556	1.434	-1.022	6.7915	4.4302	0.0132
169	489.000	-2.853	1.137	-1.319	6.8313	4.3904	0.0132
170	492.000	-3.031	0.959	-1.497	6.8708	4.3509	0.0132
171	495.000	-3.090	0.900	-1.556	6.9105	4.3113	0.0132
172	498.000	-3.057	0.933	-1.523	6.9322	4.2896	0.0073
173	501.000	-2.958	1.032	-1.424	6.9543	4.2674	0.0073
174	504.000	-2.794	1.196	-1.260	6.9762	4.2455	0.0073
175	507.000	-2.564	1.426	-1.030	6.9980	4.2237	0.0073
176	510.000	-2.268	1.722	-0.734	7.0202	4.2016	0.0073
177	513.000	-1.906	2.084	-0.372	7.0421	4.1797	0.0073
178	516.000	-1.479	2.511	0.055	7.0639	4.1578	0.0073
179	519.000	-0.985	3.005	0.816	7.0860	4.1358	0.0073
180	522.000	-0.454	3.536	1.347	7.1477	4.0741	-0.0475
181	525.000	-0.240	3.750	1.561	7.2906	3.9312	0.0000
182	528.000	-0.240	3.750	1.561	7.2906	3.9312	0.0000
183	531.000	-0.240	3.750	1.294	7.2906	3.9312	-0.0396
184	534.000	-0.418	3.572	1.116	7.4093	3.8124	-0.0396
185	537.000	-0.952	3.037	0.581	7.5281	3.6936	-0.0396
186	540.000	-1.606	2.384	-0.072	7.5677	3.6540	0.0132
187	543.000	-2.140	1.850	-0.606	7.6073	3.6145	0.0132
188	546.000	-2.556	1.434	-1.022	7.6468	3.5750	0.0132
189	549.000	-2.853	1.137	-1.319	7.6865	3.5352	0.0132
190	552.000	-3.031	0.959	-1.497	7.7261	3.4957	0.0132
191	555.000	-3.090	0.900	-1.556	7.7657	3.4560	0.0132
192	558.000	-3.057	0.933	-1.523	7.7874	3.4343	0.0073
193	561.000	-2.958	1.032	-1.424	7.8096	3.4122	0.0073
194	564.000	-2.794	1.196	-1.260	7.8314	3.3903	0.0073
195	567.000	-2.564	1.426	-1.030	7.8533	3.3685	0.0073
196	570.000	-2.268	1.722	-0.734	7.8754	3.3463	0.0073
197	573.000	-1.906	2.084	-0.372	7.8973	3.3244	0.0073
198	576.000	-1.479	2.511	0.055	7.9192	3.3026	0.0073
199	579.000	-0.985	3.005	0.816	7.9412	3.2805	0.0073
200	582.000	-0.454	3.536	1.347	8.0029	3.2188	-0.0475
201	585.000	-0.240	3.750	1.561	8.1458	3.0759	0.0000
202	588.000	-0.240	3.750	1.561	8.1458	3.0759	0.0000
203	591.000	-0.240	3.750	1.294	8.1458	3.0759	-0.0396
204	594.000	-0.418	3.572	1.116	8.2646	2.9572	-0.0396
205	597.000	-0.952	3.037	0.581	8.3834	2.8384	-0.0396
206	600.000	-1.606	2.384	-0.072	8.4229	2.7988	0.0132

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
207	603.000	-2.140	1.850	-0.606	8.4625	2.7592	0.0132
208	606.000	-2.556	1.434	-1.022	8.5020	2.7197	0.0132
209	609.000	-2.853	1.137	-1.319	8.5418	2.6800	0.0132
210	612.000	-3.031	0.959	-1.497	8.5813	2.6404	0.0132
211	615.000	-3.090	0.900	-1.556	8.6210	2.6008	0.0132
212	618.000	-3.057	0.933	-1.523	8.6426	2.5791	0.0073
213	621.000	-2.958	1.032	-1.424	8.6648	2.5569	0.0073
214	624.000	-2.794	1.196	-1.260	8.6867	2.5351	0.0073
215	627.000	-2.564	1.426	-1.030	8.7085	2.5132	0.0073
216	630.000	-2.268	1.722	-0.734	8.7306	2.4911	0.0073
217	633.000	-1.906	2.084	-0.372	8.7525	2.4692	0.0073
218	636.000	-1.479	2.511	0.055	8.7744	2.4473	0.0073
219	639.000	-0.985	3.005	0.816	8.7965	2.4253	0.0073
220	642.000	-0.454	3.536	1.347	8.8582	2.3636	-0.0475
221	645.000	-0.240	3.750	1.561	9.0010	2.2207	0.0000
222	648.000	-0.240	3.750	1.561	9.0010	2.2207	0.0000
223	651.000	-0.240	3.750	1.294	9.0011	2.2207	-0.0396
224	654.000	-0.418	3.572	1.116	9.1198	2.1019	-0.0396
225	657.000	-0.952	3.037	0.581	9.2386	1.9832	-0.0396
226	660.000	-1.606	2.384	-0.072	9.2782	1.9436	0.0132
227	663.000	-2.140	1.850	-0.606	9.3178	1.9040	0.0132
228	666.000	-2.556	1.434	-1.022	9.3573	1.8645	0.0132
229	669.000	-2.853	1.137	-1.319	9.3970	1.8247	0.0132
230	672.000	-3.031	0.959	-1.497	9.4365	1.7852	0.0132
231	675.000	-3.090	0.900	-1.556	9.4762	1.7455	0.0132
232	678.000	-3.057	0.933	-1.523	9.4979	1.7239	0.0073
233	681.000	-2.958	1.032	-1.424	9.5200	1.7017	0.0073
234	684.000	-2.794	1.196	-1.260	9.5419	1.6798	0.0073
235	687.000	-2.564	1.426	-1.030	9.5638	1.6580	0.0073
236	690.000	-2.268	1.722	-0.734	9.5859	1.6359	0.0073
237	693.000	-1.906	2.084	-0.372	9.6078	1.6140	0.0073
238	696.000	-1.479	2.511	0.055	9.6296	1.5921	0.0073
239	699.000	-0.985	3.005	0.816	9.6517	1.5700	0.0073
240	702.000	-0.454	3.536	1.347	9.7134	1.5083	-0.0475
241	705.000	-0.240	3.750	1.561	9.8563	1.3655	0.0000
242	708.000	-0.240	3.750	1.561	9.8563	1.3655	0.0000
243	711.000	-0.240	3.750	1.294	9.8563	1.3654	-0.0396
244	714.000	-0.418	3.572	1.116	9.9751	1.2467	-0.0396
245	717.000	-0.952	3.037	0.581	10.0938	1.1279	-0.0396
246	720.000	-1.606	2.384	-0.072	10.1334	1.0883	0.0132
247	723.000	-2.140	1.850	-0.606	10.1730	1.0488	0.0132
248	726.000	-2.556	1.434	-1.022	10.2125	1.0092	0.0132
249	729.000	-2.853	1.137	-1.319	10.2523	0.9695	0.0132
250	732.000	-3.031	0.959	-1.497	10.2918	0.9300	0.0132
251	735.000	-3.090	0.900	-1.556	10.3314	0.8903	0.0132
252	738.000	-3.057	0.933	-1.523	10.3531	0.8686	0.0073
253	741.000	-2.958	1.032	-1.424	10.3753	0.8465	0.0073
254	744.000	-2.794	1.196	-1.260	10.3972	0.8246	0.0073
255	747.000	-2.564	1.426	-1.030	10.4190	0.8028	0.0073
256	750.000	-2.268	1.722	-0.734	10.4411	0.7806	0.0073
257	753.000	-1.906	2.084	-0.372	10.4630	0.7587	0.0073
258	756.000	-1.479	2.511	0.055	10.4849	0.7369	0.0073
259	759.000	-0.985	3.005	0.816	10.5069	0.7148	0.0073
260	762.000	-0.454	3.536	1.347	10.5686	0.6531	-0.0475
261	765.000	-0.240	3.750	1.561	10.7115	0.5102	0.0000
262	767.250	-0.240	3.750	1.561	10.7115	0.5102	0.0000
263	769.500	-0.246	3.744	1.288	10.7353	0.4865	-0.0475
264	771.750	-0.419	3.571	1.115	10.8421	0.3797	-0.0475
265	774.000	-0.804	3.186	0.730	10.9128	0.3090	0.0113
266	776.250	-1.177	2.813	0.357	10.9383	0.2835	0.0113
267	778.500	-1.493	2.497	0.041	10.9638	0.2580	0.0113
268	780.750	-1.751	2.239	-0.217	10.9893	0.2325	0.0113
269	783.000	-1.952	2.038	-0.418	11.0149	0.2069	0.0113
270	785.250	-2.095	1.895	-0.561	11.0403	0.1814	0.0113
271	787.500	-2.181	1.809	-0.647	11.0659	0.1559	0.0113
272	789.750	-2.210	1.780	-0.676	11.0913	0.1304	0.0113
273	792.000	-2.193	1.797	-0.659	11.1068	0.1150	0.0069
274	794.250	-2.140	1.850	-0.606	11.1224	0.0993	0.0069
275	796.500	-2.053	1.937	-0.519	11.1380	0.0838	0.0069
276	798.750	-1.930	2.060	-0.396	11.1535	0.0683	0.0069
277	801.000	-1.773	2.217	-0.239	11.1692	0.0526	0.0069
278	803.250	-1.580	2.410	-0.046	11.1845	0.0372	0.0069
279	805.500	-1.353	2.637	0.181	11.2001	0.0216	0.0069
280	807.750	-1.091	2.899	0.443	11.2156	0.0061	0.0069
281	810.000	-0.800	3.190	0.734	11.2217	0.0000	0.0000

SECCIONES INICIAL Y FINAL DEL TRAZADO = 1 281
NUMERO DE VANOS INICIAL Y FINAL DEL TRAZADO = 1 14
PENDIENTE INICIAL DEL TRAZADO = -0.13025
PENDIENTE FINAL DEL TRAZADO = 0.13025

Referencia del Proyecto:

VIADUCTO S/R=O AVERNO Familia 2

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 1

Parametros de la parabola = 1
A = 0.00000 B = -0.12379 C = -1.40000
Origen = 0.00 Final = 1.40
Parametros de la parabola = 2
A = 0.00328 B = -0.13298 C = -1.39356
Origen = 1.40 Final = 20.25
Parametros de la parabola = 4
A = 0.00440 B = -0.17823 C = -0.93547
Origen = 20.25 Final = 41.00
Parametros de la parabola = 5
A = -0.02283 B = 2.05455 C = -46.70727
Origen = 41.00 Final = 45.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 2

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.48000
Origen = 0.00 Final = 5.00
Parametros de la parabola = 2
A = -0.02850 B = 0.28500 C = -1.19250
Origen = 5.00 Final = 9.00
Parametros de la parabola = 3
A = 0.00543 B = -0.32571 C = 1.55571
Origen = 9.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.04154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -85.98000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 3

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.48000
Origen = 0.00 Final = 5.00
Parametros de la parabola = 2
A = -0.02850 B = 0.28500 C = -1.19250
Origen = 5.00 Final = 9.00
Parametros de la parabola = 3
A = 0.00543 B = -0.32571 C = 1.55571
Origen = 9.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.04154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -85.98000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 4

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.48000
Origen = 0.00 Final = 5.00
Parametros de la parabola = 2
A = -0.02850 B = 0.28500 C = -1.19250
Origen = 5.00 Final = 9.00
Parametros de la parabola = 3
A = 0.00543 B = -0.32571 C = 1.55571
Origen = 9.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.04154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -85.98000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 5

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.48000
Origen = 0.00 Final = 5.00
Parametros de la parabola = 2
A = -0.02850 B = 0.28500 C = -1.19250
Origen = 5.00 Final = 9.00
Parametros de la parabola = 3
A = 0.00543 B = -0.32571 C = 1.55571
Origen = 9.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.04154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -85.98000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 6

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.48000
Origen = 0.00 Final = 5.00
Parametros de la parabola = 2
A = -0.02850 B = 0.28500 C = -1.19250
Origen = 5.00 Final = 9.00
Parametros de la parabola = 3
A = 0.00543 B = -0.32571 C = 1.55571
Origen = 9.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.04154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -85.98000
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 7

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.48000
Origen = 0.00 Final = 5.00
Parametros de la parabola = 2
A = -0.02850 B = 0.28500 C = -1.19250
Origen = 5.00 Final = 9.00
Parametros de la parabola = 3
A = 0.00543 B = -0.32571 C = 1.55571
Origen = 9.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.04154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -85.98000
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 8

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.48000
Origen = 0.00 Final = 5.00
Parametros de la parabola = 2
A = -0.02850 B = 0.28500 C = -1.19250
Origen = 5.00 Final = 9.00
Parametros de la parabola = 3
A = 0.00543 B = -0.32571 C = 1.55571
Origen = 9.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.04154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -85.98000
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 9

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.48000
Origen = 0.00 Final = 5.00
Parametros de la parabola = 2
A = -0.02850 B = 0.28500 C = -1.19250
Origen = 5.00 Final = 9.00
Parametros de la parabola = 3
A = 0.00543 B = -0.32571 C = 1.55571
Origen = 9.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.04154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -85.98000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 10

Parametros de la parabola = 1

A = 0.00000 B = 0.00000 C = -0.48000
Origen = 0.00 Final = 5.00
Parametros de la parabola = 2
A = -0.02850 B = 0.28500 C = -1.19250
Origen = 5.00 Final = 9.00
Parametros de la parabola = 3
A = 0.00543 B = -0.32571 C = 1.55571
Origen = 9.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.04154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -85.98000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 11

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.48000
Origen = 0.00 Final = 5.00
Parametros de la parabola = 2
A = -0.02850 B = 0.28500 C = -1.19250
Origen = 5.00 Final = 9.00
Parametros de la parabola = 3
A = 0.00543 B = -0.32571 C = 1.55571
Origen = 9.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.04154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -85.98000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 12

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.48000
Origen = 0.00 Final = 5.00
Parametros de la parabola = 2
A = -0.02850 B = 0.28500 C = -1.19250
Origen = 5.00 Final = 9.00
Parametros de la parabola = 3
A = 0.00543 B = -0.32571 C = 1.55571
Origen = 9.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.04154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -85.98000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 13

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.48000
Origen = 0.00 Final = 5.00
Parametros de la parabola = 2
A = -0.02850 B = 0.28500 C = -1.19250
Origen = 5.00 Final = 9.00
Parametros de la parabola = 3
A = 0.00543 B = -0.32571 C = 1.55571
Origen = 9.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.04154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -85.98000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 14

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.48000
Origen = 0.00 Final = 3.00
Parametros de la parabola = 2
A = -0.02598 B = 0.15586 C = -0.71379
Origen = 3.00 Final = 7.00
Parametros de la parabola = 3
A = 0.00585 B = -0.28977 C = 0.84593
Origen = 7.00 Final = 24.75
Parametros de la parabola = 5
A = 0.00328 B = -0.16253 C = -0.72866
Origen = 24.75 Final = 43.60
Parametros de la parabola = 6
A = 0.00000 B = 0.12379 C = -6.97044
Origen = 43.60 Final = 45.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
1	0.000	-1.400	2.590	0.134	0.0000	11.0650	0.0000
2	2.250	-1.676	2.314	-0.142	0.0056	11.0594	0.0066
3	4.500	-1.925	2.065	-0.391	0.0204	11.0447	0.0066
4	6.750	-2.142	1.848	-0.608	0.0351	11.0299	0.0066
5	9.000	-2.324	1.666	-0.790	0.0499	11.0151	0.0066
6	11.250	-2.474	1.516	-0.940	0.0647	11.0003	0.0066
7	13.500	-2.590	1.400	-1.056	0.0795	10.9856	0.0066
8	15.750	-2.674	1.316	-1.140	0.0942	10.9708	0.0066
9	18.000	-2.723	1.267	-1.189	0.1090	10.9560	0.0066
10	20.250	-2.740	1.250	-1.206	0.1238	10.9412	0.0066
11	22.500	-2.718	1.272	-1.184	0.1436	10.9214	0.0088
12	24.750	-2.651	1.339	-1.117	0.1634	10.9016	0.0088
13	27.000	-2.539	1.451	-1.005	0.1832	10.8818	0.0088
14	29.250	-2.384	1.606	-0.850	0.2030	10.8620	0.0088
15	31.500	-2.183	1.807	-0.649	0.2228	10.8422	0.0088
16	33.750	-1.938	2.052	-0.404	0.2426	10.8224	0.0088
17	36.000	-1.648	2.342	-0.114	0.2625	10.8026	0.0088
18	38.250	-1.314	2.676	0.220	0.2822	10.7828	0.0088
19	40.500	-0.935	3.055	0.866	0.3020	10.7630	0.0088
20	42.750	-0.596	3.394	1.205	0.3865	10.6786	-0.0457
21	45.000	-0.480	3.510	1.321	0.4891	10.5759	0.0000
22	48.000	-0.480	3.510	1.321	0.4891	10.5759	0.0000
23	51.000	-0.509	3.481	1.025	0.5461	10.5189	-0.0570
24	54.000	-0.936	3.054	0.598	0.7171	10.3479	-0.0570
25	57.000	-1.571	2.419	-0.037	0.7497	10.3153	0.0109
26	60.000	-2.109	1.881	-0.575	0.7823	10.2827	0.0109
27	63.000	-2.548	1.442	-1.014	0.8149	10.2501	0.0109
28	66.000	-2.890	1.100	-1.356	0.8475	10.2176	0.0109
29	69.000	-3.135	0.855	-1.601	0.8800	10.1850	0.0109
30	72.000	-3.281	0.709	-1.747	0.9126	10.1524	0.0109
31	75.000	-3.330	0.660	-1.796	0.9452	10.1198	0.0109
32	78.000	-3.297	0.693	-1.763	0.9671	10.0980	0.0073
33	81.000	-3.198	0.792	-1.664	0.9891	10.0759	0.0073
34	84.000	-3.034	0.956	-1.500	1.0109	10.0541	0.0073
35	87.000	-2.804	1.186	-1.270	1.0327	10.0323	0.0073
36	90.000	-2.508	1.482	-0.974	1.0550	10.0100	0.0073
37	93.000	-2.146	1.844	-0.612	1.0767	9.9884	0.0073
38	96.000	-1.719	2.271	-0.185	1.0986	9.9665	0.0073
39	99.000	-1.225	2.765	0.576	1.1207	9.9444	0.0073
40	102.000	-0.694	3.296	1.107	1.1826	9.8824	-0.0475
41	105.000	-0.480	3.510	1.321	1.3254	9.7396	0.0000
42	108.000	-0.480	3.510	1.321	1.3254	9.7396	0.0000
43	111.000	-0.509	3.481	1.025	1.3825	9.6826	-0.0570
44	114.000	-0.936	3.054	0.598	1.5535	9.5115	-0.0570
45	117.000	-1.571	2.419	-0.037	1.5861	9.4790	0.0109
46	120.000	-2.109	1.881	-0.575	1.6186	9.4464	0.0109
47	123.000	-2.548	1.442	-1.014	1.6513	9.4137	0.0109
48	126.000	-2.890	1.100	-1.356	1.6838	9.3812	0.0109
49	129.000	-3.135	0.855	-1.601	1.7164	9.3486	0.0109
50	132.000	-3.281	0.709	-1.747	1.7490	9.3160	0.0109
51	135.000	-3.330	0.660	-1.796	1.7816	9.2835	0.0109
52	138.000	-3.297	0.693	-1.763	1.8034	9.2616	0.0073
53	141.000	-3.198	0.792	-1.664	1.8255	9.2395	0.0073
54	144.000	-3.034	0.956	-1.500	1.8473	9.2178	0.0073
55	147.000	-2.804	1.186	-1.270	1.8691	9.1960	0.0073
56	150.000	-2.508	1.482	-0.974	1.8914	9.1736	0.0073
57	153.000	-2.146	1.844	-0.612	1.9130	9.1520	0.0073

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
58	156.000	-1.719	2.271	-0.185	1.9349	9.1301	0.0073
59	159.000	-1.225	2.765	0.576	1.9570	9.1080	0.0073
60	162.000	-0.694	3.296	1.107	2.0190	9.0460	-0.0475
61	165.000	-0.480	3.510	1.321	2.1618	8.9032	0.0000
62	168.000	-0.480	3.510	1.321	2.1618	8.9032	0.0000
63	171.000	-0.509	3.481	1.025	2.2188	8.8462	-0.0570
64	174.000	-0.936	3.054	0.598	2.3898	8.6752	-0.0570
65	177.000	-1.571	2.419	-0.037	2.4224	8.6426	0.0109
66	180.000	-2.109	1.881	-0.575	2.4550	8.6100	0.0109
67	183.000	-2.548	1.442	-1.014	2.4877	8.5774	0.0109
68	186.000	-2.890	1.100	-1.356	2.5202	8.5449	0.0109
69	189.000	-3.135	0.855	-1.601	2.5527	8.5123	0.0109
70	192.000	-3.281	0.709	-1.747	2.5854	8.4797	0.0109
71	195.000	-3.330	0.660	-1.796	2.6179	8.4471	0.0109
72	198.000	-3.297	0.693	-1.763	2.6398	8.4252	0.0073
73	201.000	-3.198	0.792	-1.664	2.6618	8.4032	0.0073
74	204.000	-3.034	0.956	-1.500	2.6836	8.3814	0.0073
75	207.000	-2.804	1.186	-1.270	2.7054	8.3596	0.0073
76	210.000	-2.508	1.482	-0.974	2.7277	8.3373	0.0073
77	213.000	-2.146	1.844	-0.612	2.7494	8.3156	0.0073
78	216.000	-1.719	2.271	-0.185	2.7713	8.2937	0.0073
79	219.000	-1.225	2.765	0.576	2.7934	8.2717	0.0073
80	222.000	-0.694	3.296	1.107	2.8553	8.2097	-0.0475
81	225.000	-0.480	3.510	1.321	2.9981	8.0669	0.0000
82	228.000	-0.480	3.510	1.321	2.9981	8.0669	0.0000
83	231.000	-0.509	3.481	1.025	3.0552	8.0098	-0.0570
84	234.000	-0.936	3.054	0.598	3.2262	7.8388	-0.0570
85	237.000	-1.571	2.419	-0.037	3.2588	7.8062	0.0109
86	240.000	-2.109	1.881	-0.575	3.2914	7.7737	0.0109
87	243.000	-2.548	1.442	-1.014	3.3240	7.7410	0.0109
88	246.000	-2.890	1.100	-1.356	3.3565	7.7085	0.0109
89	249.000	-3.135	0.855	-1.601	3.3891	7.6759	0.0109
90	252.000	-3.281	0.709	-1.747	3.4217	7.6433	0.0109
91	255.000	-3.330	0.660	-1.796	3.4543	7.6107	0.0109
92	258.000	-3.297	0.693	-1.763	3.4761	7.5889	0.0073
93	261.000	-3.198	0.792	-1.664	3.4982	7.5668	0.0073
94	264.000	-3.034	0.956	-1.500	3.5200	7.5450	0.0073
95	267.000	-2.804	1.186	-1.270	3.5418	7.5232	0.0073
96	270.000	-2.508	1.482	-0.974	3.5641	7.5009	0.0073
97	273.000	-2.146	1.844	-0.612	3.5857	7.4793	0.0073
98	276.000	-1.719	2.271	-0.185	3.6076	7.4574	0.0073
99	279.000	-1.225	2.765	0.576	3.6297	7.4353	0.0073
100	282.000	-0.694	3.296	1.107	3.6917	7.3733	-0.0475
101	285.000	-0.480	3.510	1.321	3.8345	7.2305	0.0000
102	288.000	-0.480	3.510	1.321	3.8345	7.2305	0.0000
103	291.000	-0.509	3.481	1.025	3.8915	7.1735	-0.0570
104	294.000	-0.936	3.054	0.598	4.0625	7.0025	-0.0570
105	297.000	-1.571	2.419	-0.037	4.0951	6.9699	0.0109
106	300.000	-2.109	1.881	-0.575	4.1277	6.9373	0.0109
107	303.000	-2.548	1.442	-1.014	4.1604	6.9047	0.0109
108	306.000	-2.890	1.100	-1.356	4.1929	6.8722	0.0109
109	309.000	-3.135	0.855	-1.601	4.2254	6.8396	0.0109
110	312.000	-3.281	0.709	-1.747	4.2581	6.8070	0.0109
111	315.000	-3.330	0.660	-1.796	4.2906	6.7744	0.0109
112	318.000	-3.297	0.693	-1.763	4.3125	6.7525	0.0073
113	321.000	-3.198	0.792	-1.664	4.3345	6.7305	0.0073
114	324.000	-3.034	0.956	-1.500	4.3563	6.7087	0.0073
115	327.000	-2.804	1.186	-1.270	4.3781	6.6869	0.0073

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
116	330.000	-2.508	1.482	-0.974	4.4005	6.6646	0.0073
117	333.000	-2.146	1.844	-0.612	4.4221	6.6429	0.0073
118	336.000	-1.719	2.271	-0.185	4.4440	6.6210	0.0073
119	339.000	-1.225	2.765	0.576	4.4661	6.5990	0.0073
120	342.000	-0.694	3.296	1.107	4.5280	6.5370	-0.0475
121	345.000	-0.480	3.510	1.321	4.6709	6.3942	0.0000
122	348.000	-0.480	3.510	1.321	4.6709	6.3942	0.0000
123	351.000	-0.509	3.481	1.025	4.7279	6.3371	-0.0570
124	354.000	-0.936	3.054	0.598	4.8989	6.1661	-0.0570
125	357.000	-1.571	2.419	-0.037	4.9315	6.1335	0.0109
126	360.000	-2.109	1.881	-0.575	4.9641	6.1010	0.0109
127	363.000	-2.548	1.442	-1.014	4.9967	6.0683	0.0109
128	366.000	-2.890	1.100	-1.356	5.0292	6.0358	0.0109
129	369.000	-3.135	0.855	-1.601	5.0618	6.0032	0.0109
130	372.000	-3.281	0.709	-1.747	5.0944	5.9706	0.0109
131	375.000	-3.330	0.660	-1.796	5.1270	5.9380	0.0109
132	378.000	-3.297	0.693	-1.763	5.1488	5.9162	0.0073
133	381.000	-3.198	0.792	-1.664	5.1709	5.8941	0.0073
134	384.000	-3.034	0.956	-1.500	5.1927	5.8723	0.0073
135	387.000	-2.804	1.186	-1.270	5.2145	5.8505	0.0073
136	390.000	-2.508	1.482	-0.974	5.2368	5.8282	0.0073
137	393.000	-2.146	1.844	-0.612	5.2584	5.8066	0.0073
138	396.000	-1.719	2.271	-0.185	5.2804	5.7847	0.0073
139	399.000	-1.225	2.765	0.576	5.3024	5.7626	0.0073
140	402.000	-0.694	3.296	1.107	5.3644	5.7006	-0.0475
141	405.000	-0.480	3.510	1.321	5.5072	5.5578	0.0000
142	408.000	-0.480	3.510	1.321	5.5072	5.5578	0.0000
143	411.000	-0.509	3.481	1.025	5.5642	5.5008	-0.0570
144	414.000	-0.936	3.054	0.598	5.7353	5.3298	-0.0570
145	417.000	-1.571	2.419	-0.037	5.7678	5.2972	0.0109
146	420.000	-2.109	1.881	-0.575	5.8004	5.2646	0.0109
147	423.000	-2.548	1.442	-1.014	5.8331	5.2320	0.0109
148	426.000	-2.890	1.100	-1.356	5.8656	5.1994	0.0109
149	429.000	-3.135	0.855	-1.601	5.8982	5.1669	0.0109
150	432.000	-3.281	0.709	-1.747	5.9308	5.1343	0.0109
151	435.000	-3.330	0.660	-1.796	5.9633	5.1017	0.0109
152	438.000	-3.297	0.693	-1.763	5.9852	5.0798	0.0073
153	441.000	-3.198	0.792	-1.664	6.0073	5.0578	0.0073
154	444.000	-3.034	0.956	-1.500	6.0291	5.0360	0.0073
155	447.000	-2.804	1.186	-1.270	6.0508	5.0142	0.0073
156	450.000	-2.508	1.482	-0.974	6.0732	4.9919	0.0073
157	453.000	-2.146	1.844	-0.612	6.0948	4.9702	0.0073
158	456.000	-1.719	2.271	-0.185	6.1167	4.9483	0.0073
159	459.000	-1.225	2.765	0.576	6.1388	4.9262	0.0073
160	462.000	-0.694	3.296	1.107	6.2008	4.8643	-0.0475
161	465.000	-0.480	3.510	1.321	6.3436	4.7215	0.0000
162	468.000	-0.480	3.510	1.321	6.3436	4.7215	0.0000
163	471.000	-0.509	3.481	1.025	6.4006	4.6644	-0.0570
164	474.000	-0.936	3.054	0.598	6.5716	4.4934	-0.0570
165	477.000	-1.571	2.419	-0.037	6.6042	4.4608	0.0109
166	480.000	-2.109	1.881	-0.575	6.6368	4.4283	0.0109
167	483.000	-2.548	1.442	-1.014	6.6694	4.3956	0.0109
168	486.000	-2.890	1.100	-1.356	6.7019	4.3631	0.0109
169	489.000	-3.135	0.855	-1.601	6.7345	4.3305	0.0109
170	492.000	-3.281	0.709	-1.747	6.7671	4.2979	0.0109
171	495.000	-3.330	0.660	-1.796	6.7997	4.2653	0.0109
172	498.000	-3.297	0.693	-1.763	6.8216	4.2435	0.0073
173	501.000	-3.198	0.792	-1.664	6.8436	4.2214	0.0073

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
174	504.000	-3.034	0.956	-1.500	6.8654	4.1996	0.0073
175	507.000	-2.804	1.186	-1.270	6.8872	4.1778	0.0073
176	510.000	-2.508	1.482	-0.974	6.9095	4.1555	0.0073
177	513.000	-2.146	1.844	-0.612	6.9312	4.1339	0.0073
178	516.000	-1.719	2.271	-0.185	6.9531	4.1120	0.0073
179	519.000	-1.225	2.765	0.576	6.9751	4.0899	0.0073
180	522.000	-0.694	3.296	1.107	7.0371	4.0279	-0.0475
181	525.000	-0.480	3.510	1.321	7.1799	3.8851	0.0000
182	528.000	-0.480	3.510	1.321	7.1799	3.8851	0.0000
183	531.000	-0.509	3.481	1.025	7.2370	3.8281	-0.0570
184	534.000	-0.936	3.054	0.598	7.4080	3.6571	-0.0570
185	537.000	-1.571	2.419	-0.037	7.4406	3.6245	0.0109
186	540.000	-2.109	1.881	-0.575	7.4731	3.5919	0.0109
187	543.000	-2.548	1.442	-1.014	7.5058	3.5592	0.0109
188	546.000	-2.890	1.100	-1.356	7.5383	3.5267	0.0109
189	549.000	-3.135	0.855	-1.601	7.5709	3.4942	0.0109
190	552.000	-3.281	0.709	-1.747	7.6035	3.4616	0.0109
191	555.000	-3.330	0.660	-1.796	7.6361	3.4290	0.0109
192	558.000	-3.297	0.693	-1.763	7.6579	3.4071	0.0073
193	561.000	-3.198	0.792	-1.664	7.6800	3.3851	0.0073
194	564.000	-3.034	0.956	-1.500	7.7018	3.3633	0.0073
195	567.000	-2.804	1.186	-1.270	7.7236	3.3415	0.0073
196	570.000	-2.508	1.482	-0.974	7.7459	3.3192	0.0073
197	573.000	-2.146	1.844	-0.612	7.7675	3.2975	0.0073
198	576.000	-1.719	2.271	-0.185	7.7894	3.2756	0.0073
199	579.000	-1.225	2.765	0.576	7.8115	3.2535	0.0073
200	582.000	-0.694	3.296	1.107	7.8735	3.1916	-0.0475
201	585.000	-0.480	3.510	1.321	8.0163	3.0488	0.0000
202	588.000	-0.480	3.510	1.321	8.0163	3.0488	0.0000
203	591.000	-0.509	3.481	1.025	8.0733	2.9917	-0.0570
204	594.000	-0.936	3.054	0.598	8.2443	2.8207	-0.0570
205	597.000	-1.571	2.419	-0.037	8.2769	2.7881	0.0109
206	600.000	-2.109	1.881	-0.575	8.3095	2.7555	0.0109
207	603.000	-2.548	1.442	-1.014	8.3421	2.7229	0.0109
208	606.000	-2.890	1.100	-1.356	8.3746	2.6904	0.0109
209	609.000	-3.135	0.855	-1.601	8.4072	2.6578	0.0109
210	612.000	-3.281	0.709	-1.747	8.4398	2.6252	0.0109
211	615.000	-3.330	0.660	-1.796	8.4724	2.5926	0.0109
212	618.000	-3.297	0.693	-1.763	8.4943	2.5708	0.0073
213	621.000	-3.198	0.792	-1.664	8.5163	2.5487	0.0073
214	624.000	-3.034	0.956	-1.500	8.5381	2.5269	0.0073
215	627.000	-2.804	1.186	-1.270	8.5599	2.5051	0.0073
216	630.000	-2.508	1.482	-0.974	8.5822	2.4828	0.0073
217	633.000	-2.146	1.844	-0.612	8.6039	2.4612	0.0073
218	636.000	-1.719	2.271	-0.185	8.6258	2.4393	0.0073
219	639.000	-1.225	2.765	0.576	8.6479	2.4172	0.0073
220	642.000	-0.694	3.296	1.107	8.7098	2.3552	-0.0475
221	645.000	-0.480	3.510	1.321	8.8526	2.2124	0.0000
222	648.000	-0.480	3.510	1.321	8.8526	2.2124	0.0000
223	651.000	-0.509	3.481	1.025	8.9097	2.1554	-0.0570
224	654.000	-0.936	3.054	0.598	9.0807	1.9844	-0.0570
225	657.000	-1.571	2.419	-0.037	9.1133	1.9518	0.0109
226	660.000	-2.109	1.881	-0.575	9.1458	1.9192	0.0109
227	663.000	-2.548	1.442	-1.014	9.1785	1.8865	0.0109
228	666.000	-2.890	1.100	-1.356	9.2110	1.8540	0.0109
229	669.000	-3.135	0.855	-1.601	9.2436	1.8215	0.0109
230	672.000	-3.281	0.709	-1.747	9.2762	1.7888	0.0109
231	675.000	-3.330	0.660	-1.796	9.3088	1.7563	0.0109

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
232	678.000	-3.297	0.693	-1.763	9.3306	1.7344	0.0073
233	681.000	-3.198	0.792	-1.664	9.3527	1.7124	0.0073
234	684.000	-3.034	0.956	-1.500	9.3745	1.6906	0.0073
235	687.000	-2.804	1.186	-1.270	9.3963	1.6688	0.0073
236	690.000	-2.508	1.482	-0.974	9.4186	1.6464	0.0073
237	693.000	-2.146	1.844	-0.612	9.4402	1.6248	0.0073
238	696.000	-1.719	2.271	-0.185	9.4621	1.6029	0.0073
239	699.000	-1.225	2.765	0.576	9.4842	1.5808	0.0073
240	702.000	-0.694	3.296	1.107	9.5462	1.5189	-0.0475
241	705.000	-0.480	3.510	1.321	9.6890	1.3760	0.0000
242	708.000	-0.480	3.510	1.321	9.6890	1.3760	0.0000
243	711.000	-0.509	3.481	1.025	9.7460	1.3190	-0.0570
244	714.000	-0.936	3.054	0.598	9.9170	1.1480	-0.0570
245	717.000	-1.571	2.419	-0.037	9.9496	1.1154	0.0109
246	720.000	-2.109	1.881	-0.575	9.9822	1.0828	0.0109
247	723.000	-2.548	1.442	-1.014	10.0148	1.0502	0.0109
248	726.000	-2.890	1.100	-1.356	10.0474	1.0177	0.0109
249	729.000	-3.135	0.855	-1.601	10.0799	0.9851	0.0109
250	732.000	-3.281	0.709	-1.747	10.1125	0.9525	0.0109
251	735.000	-3.330	0.660	-1.796	10.1451	0.9199	0.0109
252	738.000	-3.297	0.693	-1.763	10.1670	0.8981	0.0073
253	741.000	-3.198	0.792	-1.664	10.1890	0.8760	0.0073
254	744.000	-3.034	0.956	-1.500	10.2108	0.8542	0.0073
255	747.000	-2.804	1.186	-1.270	10.2326	0.8324	0.0073
256	750.000	-2.508	1.482	-0.974	10.2549	0.8101	0.0073
257	753.000	-2.146	1.844	-0.612	10.2766	0.7885	0.0073
258	756.000	-1.719	2.271	-0.185	10.2985	0.7665	0.0073
259	759.000	-1.225	2.765	0.576	10.3206	0.7445	0.0073
260	762.000	-0.694	3.296	1.107	10.3825	0.6825	-0.0475
261	765.000	-0.480	3.510	1.321	10.5253	0.5397	0.0000
262	767.250	-0.480	3.510	1.321	10.5253	0.5397	0.0000
263	769.500	-0.538	3.452	0.996	10.6033	0.4617	-0.0520
264	771.750	-0.845	3.145	0.689	10.7202	0.3448	-0.0520
265	774.000	-1.288	2.702	0.246	10.7566	0.3084	0.0117
266	776.250	-1.673	2.317	-0.139	10.7830	0.2821	0.0117
267	778.500	-1.999	1.991	-0.465	10.8093	0.2557	0.0117
268	780.750	-2.266	1.724	-0.732	10.8356	0.2294	0.0117
269	783.000	-2.473	1.517	-0.939	10.8621	0.2030	0.0117
270	785.250	-2.621	1.369	-1.087	10.8883	0.1767	0.0117
271	787.500	-2.710	1.280	-1.176	10.9147	0.1503	0.0117
272	789.750	-2.740	1.250	-1.206	10.9410	0.1240	0.0117
273	792.000	-2.723	1.267	-1.189	10.9559	0.1091	0.0066
274	794.250	-2.674	1.316	-1.140	10.9704	0.0946	0.0066
275	796.500	-2.590	1.400	-1.056	10.9853	0.0797	0.0066
276	798.750	-2.474	1.516	-0.940	11.0001	0.0649	0.0066
277	801.000	-2.324	1.666	-0.790	11.0150	0.0501	0.0066
278	803.250	-2.142	1.848	-0.608	11.0298	0.0352	0.0066
279	805.500	-1.925	2.065	-0.391	11.0445	0.0205	0.0066
280	807.750	-1.676	2.314	-0.142	11.0592	0.0059	0.0066
281	810.000	-1.400	2.590	0.134	11.0650	0.0000	0.0000

SECCIONES INICIAL Y FINAL DEL TRAZADO = 1 281
NUMERO DE VANOS INICIAL Y FINAL DEL TRAZADO = 1 14
PENDIENTE INICIAL DEL TRAZADO = -0.12379
PENDIENTE FINAL DEL TRAZADO = 0.12379

Referencia del Proyecto:

VIADUCTO S/R=O AVERNO Familia 3

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 1

Parametros de la parabola = 1
A = 0.00000 B = -0.11640 C = -2.00000
Origen = 0.00 Final = 1.40
Parametros de la parabola = 2
A = 0.00309 B = -0.12504 C = -1.99395
Origen = 1.40 Final = 20.25
Parametros de la parabola = 4
A = 0.00495 B = -0.20031 C = -1.23189
Origen = 20.25 Final = 41.00
Parametros de la parabola = 5
A = -0.02566 B = 2.30909 C = -52.67454
Origen = 41.00 Final = 45.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 2

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.72000
Origen = 0.00 Final = 2.00
Parametros de la parabola = 2
A = -0.02545 B = 0.10179 C = -0.82179
Origen = 2.00 Final = 6.00
Parametros de la parabola = 3
A = 0.00424 B = -0.25446 C = 0.24696
Origen = 6.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.28154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.21999
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 3

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.72000
Origen = 0.00 Final = 2.00
Parametros de la parabola = 2
A = -0.02545 B = 0.10179 C = -0.82179
Origen = 2.00 Final = 6.00
Parametros de la parabola = 3
A = 0.00424 B = -0.25446 C = 0.24696
Origen = 6.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.28154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.21999
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 4

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.72000
Origen = 0.00 Final = 2.00
Parametros de la parabola = 2
A = -0.02545 B = 0.10179 C = -0.82179
Origen = 2.00 Final = 6.00
Parametros de la parabola = 3
A = 0.00424 B = -0.25446 C = 0.24696
Origen = 6.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.28154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.21999
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 5

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.72000
Origen = 0.00 Final = 2.00
Parametros de la parabola = 2
A = -0.02545 B = 0.10179 C = -0.82179
Origen = 2.00 Final = 6.00
Parametros de la parabola = 3
A = 0.00424 B = -0.25446 C = 0.24696
Origen = 6.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.28154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.21999
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 6

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.72000
Origen = 0.00 Final = 2.00
Parametros de la parabola = 2
A = -0.02545 B = 0.10179 C = -0.82179
Origen = 2.00 Final = 6.00
Parametros de la parabola = 3
A = 0.00424 B = -0.25446 C = 0.24696
Origen = 6.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.28154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.21999
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 7

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.72000
Origen = 0.00 Final = 2.00
Parametros de la parabola = 2
A = -0.02545 B = 0.10179 C = -0.82179
Origen = 2.00 Final = 6.00
Parametros de la parabola = 3
A = 0.00424 B = -0.25446 C = 0.24696
Origen = 6.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.28154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.21999
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 8

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.72000
Origen = 0.00 Final = 2.00
Parametros de la parabola = 2
A = -0.02545 B = 0.10179 C = -0.82179
Origen = 2.00 Final = 6.00
Parametros de la parabola = 3
A = 0.00424 B = -0.25446 C = 0.24696
Origen = 6.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.28154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.21999
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 9

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.72000
Origen = 0.00 Final = 2.00
Parametros de la parabola = 2
A = -0.02545 B = 0.10179 C = -0.82179
Origen = 2.00 Final = 6.00
Parametros de la parabola = 3
A = 0.00424 B = -0.25446 C = 0.24696
Origen = 6.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.28154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.21999
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 10

Parametros de la parabola = 1

A = 0.00000 B = 0.00000 C = -0.72000
Origen = 0.00 Final = 2.00
Parametros de la parabola = 2
A = -0.02545 B = 0.10179 C = -0.82179
Origen = 2.00 Final = 6.00
Parametros de la parabola = 3
A = 0.00424 B = -0.25446 C = 0.24696
Origen = 6.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.28154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.21999
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 11

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.72000
Origen = 0.00 Final = 2.00
Parametros de la parabola = 2
A = -0.02545 B = 0.10179 C = -0.82179
Origen = 2.00 Final = 6.00
Parametros de la parabola = 3
A = 0.00424 B = -0.25446 C = 0.24696
Origen = 6.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.28154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.21999
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 12

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.72000
Origen = 0.00 Final = 2.00
Parametros de la parabola = 2
A = -0.02545 B = 0.10179 C = -0.82179
Origen = 2.00 Final = 6.00
Parametros de la parabola = 3
A = 0.00424 B = -0.25446 C = 0.24696
Origen = 6.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.28154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.21999
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 13

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.72000
Origen = 0.00 Final = 2.00
Parametros de la parabola = 2
A = -0.02545 B = 0.10179 C = -0.82179
Origen = 2.00 Final = 6.00
Parametros de la parabola = 3
A = 0.00424 B = -0.25446 C = 0.24696
Origen = 6.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.28154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.21999
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 14

Parametros de la parabola = 1
A = 0.00000 B = 0.00000 C = -0.72000
Origen = 0.00 Final = 1.00
Parametros de la parabola = 2
A = -0.02674 B = 0.05347 C = -0.74674
Origen = 1.00 Final = 5.00
Parametros de la parabola = 3
A = 0.00542 B = -0.26805 C = 0.05706
Origen = 5.00 Final = 24.75
Parametros de la parabola = 5
A = 0.00309 B = -0.15283 C = -1.36874
Origen = 24.75 Final = 43.60
Parametros de la parabola = 6
A = 0.00000 B = 0.11640 C = -7.23788
Origen = 43.60 Final = 45.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
1	0.000	-2.000	1.990	-0.466	0.0000	10.5206	0.0000
2	2.250	-2.260	1.730	-0.726	0.0053	10.5153	0.0062
3	4.500	-2.494	1.496	-0.960	0.0191	10.5014	0.0062
4	6.750	-2.697	1.293	-1.163	0.0330	10.4875	0.0062
5	9.000	-2.869	1.121	-1.335	0.0469	10.4736	0.0062
6	11.250	-3.010	0.980	-1.476	0.0608	10.4597	0.0062
7	13.500	-3.119	0.871	-1.585	0.0747	10.4459	0.0062
8	15.750	-3.197	0.793	-1.663	0.0886	10.4320	0.0062
9	18.000	-3.244	0.746	-1.710	0.1025	10.4181	0.0062
10	20.250	-3.260	0.730	-1.726	0.1164	10.4042	0.0062
11	22.500	-3.235	0.755	-1.701	0.1387	10.3819	0.0099
12	24.750	-3.160	0.830	-1.626	0.1609	10.3597	0.0099
13	27.000	-3.035	0.955	-1.501	0.1832	10.3374	0.0099
14	29.250	-2.859	1.131	-1.325	0.2054	10.3151	0.0099
15	31.500	-2.634	1.356	-1.100	0.2277	10.2929	0.0099
16	33.750	-2.359	1.631	-0.825	0.2499	10.2706	0.0099
17	36.000	-2.033	1.957	-0.499	0.2722	10.2484	0.0099
18	38.250	-1.658	2.332	-0.124	0.2945	10.2261	0.0099
19	40.500	-1.232	2.758	0.569	0.3167	10.2039	0.0099
20	42.750	-0.850	3.140	0.951	0.4116	10.1090	-0.0513
21	45.000	-0.720	3.270	1.081	0.5269	9.9936	0.0000
22	48.000	-0.745	3.245	1.056	0.5779	9.9427	-0.0509
23	51.000	-1.127	2.863	0.407	0.7306	9.7900	-0.0509
24	54.000	-1.700	2.290	-0.166	0.7560	9.7646	0.0085
25	57.000	-2.196	1.794	-0.662	0.7815	9.7391	0.0085
26	60.000	-2.616	1.374	-1.082	0.8069	9.7136	0.0085
27	63.000	-2.959	1.031	-1.425	0.8324	9.6882	0.0085
28	66.000	-3.226	0.764	-1.692	0.8577	9.6629	0.0085
29	69.000	-3.417	0.573	-1.883	0.8833	9.6372	0.0085
30	72.000	-3.532	0.458	-1.998	0.9088	9.6118	0.0085
31	75.000	-3.570	0.420	-2.036	0.9343	9.5863	0.0085
32	78.000	-3.537	0.453	-2.003	0.9561	9.5645	0.0073
33	81.000	-3.438	0.552	-1.904	0.9781	9.5425	0.0073
34	84.000	-3.274	0.716	-1.740	0.9999	9.5207	0.0073
35	87.000	-3.044	0.946	-1.510	1.0217	9.4989	0.0073
36	90.000	-2.748	1.242	-1.214	1.0440	9.4766	0.0073
37	93.000	-2.386	1.604	-0.852	1.0659	9.4546	0.0073
38	96.000	-1.959	2.031	-0.425	1.0876	9.4329	0.0073
39	99.000	-1.465	2.525	0.336	1.1096	9.4109	0.0073
40	102.000	-0.934	3.056	0.867	1.1717	9.3488	-0.0475
41	105.000	-0.720	3.270	1.081	1.3144	9.2062	0.0000
42	108.000	-0.745	3.245	1.056	1.3653	9.1553	-0.0509
43	111.000	-1.127	2.863	0.407	1.5180	9.0026	-0.0509
44	114.000	-1.700	2.290	-0.166	1.5434	8.9771	0.0085
45	117.000	-2.196	1.794	-0.662	1.5689	8.9517	0.0085
46	120.000	-2.616	1.374	-1.082	1.5944	8.9262	0.0085
47	123.000	-2.959	1.031	-1.425	1.6198	8.9008	0.0085
48	126.000	-3.226	0.764	-1.692	1.6451	8.8754	0.0085
49	129.000	-3.417	0.573	-1.883	1.6708	8.8498	0.0085
50	132.000	-3.532	0.458	-1.998	1.6962	8.8244	0.0085
51	135.000	-3.570	0.420	-2.036	1.7217	8.7988	0.0085
52	138.000	-3.537	0.453	-2.003	1.7435	8.7771	0.0073
53	141.000	-3.438	0.552	-1.904	1.7655	8.7551	0.0073
54	144.000	-3.274	0.716	-1.740	1.7873	8.7333	0.0073
55	147.000	-3.044	0.946	-1.510	1.8092	8.7114	0.0073
56	150.000	-2.748	1.242	-1.214	1.8314	8.6892	0.0073
57	153.000	-2.386	1.604	-0.852	1.8534	8.6672	0.0073
58	156.000	-1.959	2.031	-0.425	1.8751	8.6455	0.0073

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
59	159.000	-1.465	2.525	0.336	1.8971	8.6235	0.0073
60	162.000	-0.934	3.056	0.867	1.9592	8.5614	-0.0475
61	165.000	-0.720	3.270	1.081	2.1018	8.4188	0.0000
62	168.000	-0.745	3.245	1.056	2.1527	8.3679	-0.0509
63	171.000	-1.127	2.863	0.407	2.3054	8.2152	-0.0509
64	174.000	-1.700	2.290	-0.166	2.3309	8.1897	0.0085
65	177.000	-2.196	1.794	-0.662	2.3563	8.1642	0.0085
66	180.000	-2.616	1.374	-1.082	2.3818	8.1388	0.0085
67	183.000	-2.959	1.031	-1.425	2.4072	8.1133	0.0085
68	186.000	-3.226	0.764	-1.692	2.4326	8.0880	0.0085
69	189.000	-3.417	0.573	-1.883	2.4582	8.0624	0.0085
70	192.000	-3.532	0.458	-1.998	2.4836	8.0369	0.0085
71	195.000	-3.570	0.420	-2.036	2.5092	8.0114	0.0085
72	198.000	-3.537	0.453	-2.003	2.5310	7.9896	0.0073
73	201.000	-3.438	0.552	-1.904	2.5529	7.9676	0.0073
74	204.000	-3.274	0.716	-1.740	2.5747	7.9459	0.0073
75	207.000	-3.044	0.946	-1.510	2.5966	7.9240	0.0073
76	210.000	-2.748	1.242	-1.214	2.6188	7.9018	0.0073
77	213.000	-2.386	1.604	-0.852	2.6408	7.8798	0.0073
78	216.000	-1.959	2.031	-0.425	2.6625	7.8581	0.0073
79	219.000	-1.465	2.525	0.336	2.6845	7.8361	0.0073
80	222.000	-0.934	3.056	0.867	2.7466	7.7740	-0.0475
81	225.000	-0.720	3.270	1.081	2.8892	7.6313	0.0000
82	228.000	-0.745	3.245	1.056	2.9402	7.5804	-0.0509
83	231.000	-1.127	2.863	0.407	3.0929	7.4277	-0.0509
84	234.000	-1.700	2.290	-0.166	3.1183	7.4023	0.0085
85	237.000	-2.196	1.794	-0.662	3.1438	7.3768	0.0085
86	240.000	-2.616	1.374	-1.082	3.1692	7.3514	0.0085
87	243.000	-2.959	1.031	-1.425	3.1947	7.3259	0.0085
88	246.000	-3.226	0.764	-1.692	3.2200	7.3006	0.0085
89	249.000	-3.417	0.573	-1.883	3.2456	7.2749	0.0085
90	252.000	-3.532	0.458	-1.998	3.2711	7.2495	0.0085
91	255.000	-3.570	0.420	-2.036	3.2966	7.2240	0.0085
92	258.000	-3.537	0.453	-2.003	3.3184	7.2022	0.0073
93	261.000	-3.438	0.552	-1.904	3.3404	7.1802	0.0073
94	264.000	-3.274	0.716	-1.740	3.3622	7.1584	0.0073
95	267.000	-3.044	0.946	-1.510	3.3840	7.1366	0.0073
96	270.000	-2.748	1.242	-1.214	3.4062	7.1143	0.0073
97	273.000	-2.386	1.604	-0.852	3.4282	7.0924	0.0073
98	276.000	-1.959	2.031	-0.425	3.4499	7.0706	0.0073
99	279.000	-1.465	2.525	0.336	3.4719	7.0487	0.0073
100	282.000	-0.934	3.056	0.867	3.5340	6.9865	-0.0475
101	285.000	-0.720	3.270	1.081	3.6767	6.8439	0.0000
102	288.000	-0.745	3.245	1.056	3.7276	6.7930	-0.0509
103	291.000	-1.127	2.863	0.407	3.8803	6.6403	-0.0509
104	294.000	-1.700	2.290	-0.166	3.9057	6.6149	0.0085
105	297.000	-2.196	1.794	-0.662	3.9312	6.5894	0.0085
106	300.000	-2.616	1.374	-1.082	3.9567	6.5639	0.0085
107	303.000	-2.959	1.031	-1.425	3.9821	6.5385	0.0085
108	306.000	-3.226	0.764	-1.692	4.0074	6.5131	0.0085
109	309.000	-3.417	0.573	-1.883	4.0331	6.4875	0.0085
110	312.000	-3.532	0.458	-1.998	4.0585	6.4621	0.0085
111	315.000	-3.570	0.420	-2.036	4.0840	6.4366	0.0085
112	318.000	-3.537	0.453	-2.003	4.1058	6.4148	0.0073
113	321.000	-3.438	0.552	-1.904	4.1278	6.3928	0.0073
114	324.000	-3.274	0.716	-1.740	4.1496	6.3710	0.0073
115	327.000	-3.044	0.946	-1.510	4.1714	6.3491	0.0073
116	330.000	-2.748	1.242	-1.214	4.1937	6.3269	0.0073

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
117	333.000	-2.386	1.604	-0.852	4.2157	6.3049	0.0073
118	336.000	-1.959	2.031	-0.425	4.2374	6.2832	0.0073
119	339.000	-1.465	2.525	0.336	4.2594	6.2612	0.0073
120	342.000	-0.934	3.056	0.867	4.3215	6.1991	-0.0475
121	345.000	-0.720	3.270	1.081	4.4641	6.0565	0.0000
122	348.000	-0.745	3.245	1.056	4.5150	6.0056	-0.0509
123	351.000	-1.127	2.863	0.407	4.6677	5.8529	-0.0509
124	354.000	-1.700	2.290	-0.166	4.6932	5.8274	0.0085
125	357.000	-2.196	1.794	-0.662	4.7186	5.8019	0.0085
126	360.000	-2.616	1.374	-1.082	4.7441	5.7765	0.0085
127	363.000	-2.959	1.031	-1.425	4.7695	5.7511	0.0085
128	366.000	-3.226	0.764	-1.692	4.7949	5.7257	0.0085
129	369.000	-3.417	0.573	-1.883	4.8205	5.7001	0.0085
130	372.000	-3.532	0.458	-1.998	4.8459	5.6746	0.0085
131	375.000	-3.570	0.420	-2.036	4.8715	5.6491	0.0085
132	378.000	-3.537	0.453	-2.003	4.8933	5.6273	0.0073
133	381.000	-3.438	0.552	-1.904	4.9152	5.6053	0.0073
134	384.000	-3.274	0.716	-1.740	4.9370	5.5836	0.0073
135	387.000	-3.044	0.946	-1.510	4.9589	5.5617	0.0073
136	390.000	-2.748	1.242	-1.214	4.9811	5.5395	0.0073
137	393.000	-2.386	1.604	-0.852	5.0031	5.5175	0.0073
138	396.000	-1.959	2.031	-0.425	5.0248	5.4958	0.0073
139	399.000	-1.465	2.525	0.336	5.0468	5.4738	0.0073
140	402.000	-0.934	3.056	0.867	5.1089	5.4117	-0.0475
141	405.000	-0.720	3.270	1.081	5.2515	5.2690	0.0000
142	408.000	-0.745	3.245	1.056	5.3024	5.2181	-0.0509
143	411.000	-1.127	2.863	0.407	5.4551	5.0654	-0.0509
144	414.000	-1.700	2.290	-0.166	5.4806	5.0400	0.0085
145	417.000	-2.196	1.794	-0.662	5.5061	5.0145	0.0085
146	420.000	-2.616	1.374	-1.082	5.5315	4.9891	0.0085
147	423.000	-2.959	1.031	-1.425	5.5570	4.9636	0.0085
148	426.000	-3.226	0.764	-1.692	5.5823	4.9383	0.0085
149	429.000	-3.417	0.573	-1.883	5.6079	4.9126	0.0085
150	432.000	-3.532	0.458	-1.998	5.6334	4.8872	0.0085
151	435.000	-3.570	0.420	-2.036	5.6589	4.8617	0.0085
152	438.000	-3.537	0.453	-2.003	5.6807	4.8399	0.0073
153	441.000	-3.438	0.552	-1.904	5.7027	4.8179	0.0073
154	444.000	-3.274	0.716	-1.740	5.7244	4.7961	0.0073
155	447.000	-3.044	0.946	-1.510	5.7463	4.7743	0.0073
156	450.000	-2.748	1.242	-1.214	5.7685	4.7520	0.0073
157	453.000	-2.386	1.604	-0.852	5.7905	4.7301	0.0073
158	456.000	-1.959	2.031	-0.425	5.8122	4.7084	0.0073
159	459.000	-1.465	2.525	0.336	5.8342	4.6864	0.0073
160	462.000	-0.934	3.056	0.867	5.8963	4.6242	-0.0475
161	465.000	-0.720	3.270	1.081	6.0390	4.4816	0.0000
162	468.000	-0.745	3.245	1.056	6.0899	4.4307	-0.0509
163	471.000	-1.127	2.863	0.407	6.2426	4.2780	-0.0509
164	474.000	-1.700	2.290	-0.166	6.2680	4.2526	0.0085
165	477.000	-2.196	1.794	-0.662	6.2935	4.2271	0.0085
166	480.000	-2.616	1.374	-1.082	6.3190	4.2016	0.0085
167	483.000	-2.959	1.031	-1.425	6.3444	4.1762	0.0085
168	486.000	-3.226	0.764	-1.692	6.3697	4.1509	0.0085
169	489.000	-3.417	0.573	-1.883	6.3954	4.1252	0.0085
170	492.000	-3.532	0.458	-1.998	6.4208	4.0998	0.0085
171	495.000	-3.570	0.420	-2.036	6.4463	4.0743	0.0085
172	498.000	-3.537	0.453	-2.003	6.4681	4.0525	0.0073
173	501.000	-3.438	0.552	-1.904	6.4901	4.0305	0.0073
174	504.000	-3.274	0.716	-1.740	6.5119	4.0087	0.0073

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
175	507.000	-3.044	0.946	-1.510	6.5337	3.9868	0.0073
176	510.000	-2.748	1.242	-1.214	6.5560	3.9646	0.0073
177	513.000	-2.386	1.604	-0.852	6.5779	3.9426	0.0073
178	516.000	-1.959	2.031	-0.425	6.5997	3.9209	0.0073
179	519.000	-1.465	2.525	0.336	6.6216	3.8989	0.0073
180	522.000	-0.934	3.056	0.867	6.6838	3.8368	-0.0475
181	525.000	-0.720	3.270	1.081	6.8264	3.6942	0.0000
182	528.000	-0.745	3.245	1.056	6.8773	3.6433	-0.0509
183	531.000	-1.127	2.863	0.407	7.0300	3.4906	-0.0509
184	534.000	-1.700	2.290	-0.166	7.0554	3.4651	0.0085
185	537.000	-2.196	1.794	-0.662	7.0809	3.4396	0.0085
186	540.000	-2.616	1.374	-1.082	7.1064	3.4142	0.0085
187	543.000	-2.959	1.031	-1.425	7.1318	3.3888	0.0085
188	546.000	-3.226	0.764	-1.692	7.1572	3.3634	0.0085
189	549.000	-3.417	0.573	-1.883	7.1828	3.3378	0.0085
190	552.000	-3.532	0.458	-1.998	7.2082	3.3124	0.0085
191	555.000	-3.570	0.420	-2.036	7.2337	3.2868	0.0085
192	558.000	-3.537	0.453	-2.003	7.2555	3.2650	0.0073
193	561.000	-3.438	0.552	-1.904	7.2775	3.2430	0.0073
194	564.000	-3.274	0.716	-1.740	7.2993	3.2213	0.0073
195	567.000	-3.044	0.946	-1.510	7.3212	3.1994	0.0073
196	570.000	-2.748	1.242	-1.214	7.3434	3.1772	0.0073
197	573.000	-2.386	1.604	-0.852	7.3654	3.1552	0.0073
198	576.000	-1.959	2.031	-0.425	7.3871	3.1335	0.0073
199	579.000	-1.465	2.525	0.336	7.4091	3.1115	0.0073
200	582.000	-0.934	3.056	0.867	7.4712	3.0494	-0.0475
201	585.000	-0.720	3.270	1.081	7.6138	2.9068	0.0000
202	588.000	-0.745	3.245	1.056	7.6647	2.8558	-0.0509
203	591.000	-1.127	2.863	0.407	7.8174	2.7031	-0.0509
204	594.000	-1.700	2.290	-0.166	7.8429	2.6777	0.0085
205	597.000	-2.196	1.794	-0.662	7.8684	2.6522	0.0085
206	600.000	-2.616	1.374	-1.082	7.8938	2.6268	0.0085
207	603.000	-2.959	1.031	-1.425	7.9192	2.6013	0.0085
208	606.000	-3.226	0.764	-1.692	7.9446	2.5760	0.0085
209	609.000	-3.417	0.573	-1.883	7.9702	2.5504	0.0085
210	612.000	-3.532	0.458	-1.998	7.9957	2.5249	0.0085
211	615.000	-3.570	0.420	-2.036	8.0212	2.4994	0.0085
212	618.000	-3.537	0.453	-2.003	8.0430	2.4776	0.0073
213	621.000	-3.438	0.552	-1.904	8.0650	2.4556	0.0073
214	624.000	-3.274	0.716	-1.740	8.0867	2.4338	0.0073
215	627.000	-3.044	0.946	-1.510	8.1086	2.4120	0.0073
216	630.000	-2.748	1.242	-1.214	8.1308	2.3897	0.0073
217	633.000	-2.386	1.604	-0.852	8.1528	2.3678	0.0073
218	636.000	-1.959	2.031	-0.425	8.1745	2.3461	0.0073
219	639.000	-1.465	2.525	0.336	8.1965	2.3241	0.0073
220	642.000	-0.934	3.056	0.867	8.2586	2.2620	-0.0475
221	645.000	-0.720	3.270	1.081	8.4013	2.1193	0.0000
222	648.000	-0.745	3.245	1.056	8.4522	2.0684	-0.0509
223	651.000	-1.127	2.863	0.407	8.6049	1.9157	-0.0509
224	654.000	-1.700	2.290	-0.166	8.6303	1.8903	0.0085
225	657.000	-2.196	1.794	-0.662	8.6558	1.8648	0.0085
226	660.000	-2.616	1.374	-1.082	8.6812	1.8393	0.0085
227	663.000	-2.959	1.031	-1.425	8.7067	1.8139	0.0085
228	666.000	-3.226	0.764	-1.692	8.7320	1.7886	0.0085
229	669.000	-3.417	0.573	-1.883	8.7577	1.7629	0.0085
230	672.000	-3.532	0.458	-1.998	8.7831	1.7375	0.0085
231	675.000	-3.570	0.420	-2.036	8.8086	1.7120	0.0085
232	678.000	-3.537	0.453	-2.003	8.8304	1.6902	0.0073

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
233	681.000	-3.438	0.552	-1.904	8.8524	1.6682	0.0073
234	684.000	-3.274	0.716	-1.740	8.8742	1.6464	0.0073
235	687.000	-3.044	0.946	-1.510	8.8960	1.6245	0.0073
236	690.000	-2.748	1.242	-1.214	8.9183	1.6023	0.0073
237	693.000	-2.386	1.604	-0.852	8.9402	1.5803	0.0073
238	696.000	-1.959	2.031	-0.425	8.9619	1.5586	0.0073
239	699.000	-1.465	2.525	0.336	8.9839	1.5366	0.0073
240	702.000	-0.934	3.056	0.867	9.0461	1.4745	-0.0475
241	705.000	-0.720	3.270	1.081	9.1887	1.3319	0.0000
242	708.000	-0.745	3.245	1.056	9.2396	1.2810	-0.0509
243	711.000	-1.127	2.863	0.407	9.3923	1.1283	-0.0509
244	714.000	-1.700	2.290	-0.166	9.4177	1.1028	0.0085
245	717.000	-2.196	1.794	-0.662	9.4432	1.0774	0.0085
246	720.000	-2.616	1.374	-1.082	9.4687	1.0519	0.0085
247	723.000	-2.959	1.031	-1.425	9.4941	1.0265	0.0085
248	726.000	-3.226	0.764	-1.692	9.5194	1.0011	0.0085
249	729.000	-3.417	0.573	-1.883	9.5451	0.9755	0.0085
250	732.000	-3.532	0.458	-1.998	9.5705	0.9501	0.0085
251	735.000	-3.570	0.420	-2.036	9.5960	0.9245	0.0085
252	738.000	-3.537	0.453	-2.003	9.6178	0.9027	0.0073
253	741.000	-3.438	0.552	-1.904	9.6398	0.8808	0.0073
254	744.000	-3.274	0.716	-1.740	9.6616	0.8590	0.0073
255	747.000	-3.044	0.946	-1.510	9.6835	0.8371	0.0073
256	750.000	-2.748	1.242	-1.214	9.7057	0.8149	0.0073
257	753.000	-2.386	1.604	-0.852	9.7277	0.7929	0.0073
258	756.000	-1.959	2.031	-0.425	9.7494	0.7712	0.0073
259	759.000	-1.465	2.525	0.336	9.7714	0.7492	0.0073
260	762.000	-0.934	3.056	0.867	9.8335	0.6871	-0.0475
261	765.000	-0.720	3.270	1.081	9.9761	0.5445	0.0000
262	767.250	-0.762	3.228	1.039	10.0430	0.4776	-0.0535
263	769.500	-1.048	2.942	0.486	10.1633	0.3573	-0.0535
264	771.750	-1.506	2.484	0.028	10.2089	0.3116	0.0108
265	774.000	-1.917	2.073	-0.383	10.2334	0.2872	0.0108
266	776.250	-2.273	1.717	-0.739	10.2577	0.2628	0.0108
267	778.500	-2.575	1.415	-1.041	10.2821	0.2385	0.0108
268	780.750	-2.821	1.169	-1.287	10.3065	0.2141	0.0108
269	783.000	-3.013	0.977	-1.479	10.3309	0.1896	0.0108
270	785.250	-3.150	0.840	-1.616	10.3553	0.1653	0.0108
271	787.500	-3.233	0.757	-1.699	10.3796	0.1410	0.0108
272	789.750	-3.260	0.730	-1.726	10.4039	0.1166	0.0108
273	792.000	-3.244	0.746	-1.710	10.4177	0.1028	0.0062
274	794.250	-3.197	0.793	-1.663	10.4317	0.0889	0.0062
275	796.500	-3.119	0.871	-1.585	10.4456	0.0749	0.0062
276	798.750	-3.010	0.980	-1.476	10.4596	0.0610	0.0062
277	801.000	-2.869	1.121	-1.335	10.4736	0.0469	0.0062
278	803.250	-2.697	1.293	-1.163	10.4872	0.0334	0.0062
279	805.500	-2.494	1.496	-0.960	10.5011	0.0194	0.0062
280	807.750	-2.260	1.730	-0.726	10.5150	0.0056	0.0062
281	810.000	-2.000	1.990	-0.466	10.5206	0.0000	0.0000

SECCIONES INICIAL Y FINAL DEL TRAZADO = 1 281
NUMERO DE VANOS INICIAL Y FINAL DEL TRAZADO = 1 14
PENDIENTE INICIAL DEL TRAZADO = -0.11640
PENDIENTE FINAL DEL TRAZADO = 0.11640

Referencia del Proyecto:

VIADUCTO S/R=O AVERNO Familia 4

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 1

Parametros de la parabola = 1
A = 0.00000 B = -0.10993 C = -2.60000
Origen = 0.00 Final = 1.40
Parametros de la parabola = 2
A = 0.00292 B = -0.11810 C = -2.59428
Origen = 1.40 Final = 20.25
Parametros de la parabola = 4
A = 0.00551 B = -0.22318 C = -1.53034
Origen = 20.25 Final = 41.00
Parametros de la parabola = 5
A = -0.02859 B = 2.57273 C = -58.84636
Origen = 41.00 Final = 45.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 2

Parametros de la parabola = 2
A = -0.03333 B = 0.00000 C = -0.96000
Origen = 0.00 Final = 3.00
Parametros de la parabola = 3
A = 0.00392 B = -0.22353 C = -0.62471
Origen = 3.00 Final = 28.50
Parametros de la parabola = 4
A = 0.00000 B = 0.00000 C = -3.81000
Origen = 28.50 Final = 31.50
Parametros de la parabola = 5
A = 0.00392 B = -0.24706 C = 0.08118
Origen = 31.50 Final = 57.00
Parametros de la parabola = 6
A = -0.03333 B = 4.00000 C = *********
Origen = 57.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 3

Parametros de la parabola = 2
A = -0.03333 B = 0.00000 C = -0.96000
Origen = 0.00 Final = 3.00
Parametros de la parabola = 3
A = 0.00392 B = -0.22353 C = -0.62471
Origen = 3.00 Final = 28.50
Parametros de la parabola = 4
A = 0.00000 B = 0.00000 C = -3.81000
Origen = 28.50 Final = 31.50
Parametros de la parabola = 5
A = 0.00392 B = -0.24706 C = 0.08118
Origen = 31.50 Final = 57.00
Parametros de la parabola = 6
A = -0.03333 B = 4.00000 C = *********
Origen = 57.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 4

Parametros de la parabola = 2
A = -0.03333 B = 0.00000 C = -0.96000
Origen = 0.00 Final = 3.00
Parametros de la parabola = 3
A = 0.00392 B = -0.22353 C = -0.62471
Origen = 3.00 Final = 28.50
Parametros de la parabola = 4
A = 0.00000 B = 0.00000 C = -3.81000
Origen = 28.50 Final = 31.50
Parametros de la parabola = 5
A = 0.00392 B = -0.24706 C = 0.08118
Origen = 31.50 Final = 57.00
Parametros de la parabola = 6
A = -0.03333 B = 4.00000 C = *********
Origen = 57.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 5

Parametros de la parabola = 2
A = -0.03333 B = 0.00000 C = -0.96000
Origen = 0.00 Final = 3.00
Parametros de la parabola = 3
A = 0.00392 B = -0.22353 C = -0.62471
Origen = 3.00 Final = 28.50
Parametros de la parabola = 4
A = 0.00000 B = 0.00000 C = -3.81000
Origen = 28.50 Final = 31.50
Parametros de la parabola = 5
A = 0.00392 B = -0.24706 C = 0.08118
Origen = 31.50 Final = 57.00
Parametros de la parabola = 6
A = -0.03333 B = 4.00000 C = *********
Origen = 57.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 6

Parametros de la parabola = 2
A = -0.03333 B = 0.00000 C = -0.96000
Origen = 0.00 Final = 3.00
Parametros de la parabola = 3
A = 0.00392 B = -0.22353 C = -0.62471
Origen = 3.00 Final = 28.50
Parametros de la parabola = 4
A = 0.00000 B = 0.00000 C = -3.81000
Origen = 28.50 Final = 31.50
Parametros de la parabola = 5
A = 0.00392 B = -0.24706 C = 0.08118
Origen = 31.50 Final = 57.00
Parametros de la parabola = 6
A = -0.03333 B = 4.00000 C = *********
Origen = 57.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 7

Parametros de la parabola = 2
A = -0.03333 B = 0.00000 C = -0.96000
Origen = 0.00 Final = 3.00
Parametros de la parabola = 3
A = 0.00392 B = -0.22353 C = -0.62471
Origen = 3.00 Final = 28.50
Parametros de la parabola = 4
A = 0.00000 B = 0.00000 C = -3.81000
Origen = 28.50 Final = 31.50
Parametros de la parabola = 5
A = 0.00392 B = -0.24706 C = 0.08118
Origen = 31.50 Final = 57.00
Parametros de la parabola = 6
A = -0.03333 B = 4.00000 C = *********
Origen = 57.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 8

Parametros de la parabola = 2
A = -0.03333 B = 0.00000 C = -0.96000
Origen = 0.00 Final = 3.00
Parametros de la parabola = 3
A = 0.00392 B = -0.22353 C = -0.62471
Origen = 3.00 Final = 28.50
Parametros de la parabola = 4
A = 0.00000 B = 0.00000 C = -3.81000
Origen = 28.50 Final = 31.50
Parametros de la parabola = 5
A = 0.00392 B = -0.24706 C = 0.08118
Origen = 31.50 Final = 57.00
Parametros de la parabola = 6
A = -0.03333 B = 4.00000 C = *********
Origen = 57.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 9

Parametros de la parabola = 2
A = -0.03333 B = 0.00000 C = -0.96000
Origen = 0.00 Final = 3.00
Parametros de la parabola = 3
A = 0.00392 B = -0.22353 C = -0.62471
Origen = 3.00 Final = 28.50
Parametros de la parabola = 4
A = 0.00000 B = 0.00000 C = -3.81000
Origen = 28.50 Final = 31.50
Parametros de la parabola = 5
A = 0.00392 B = -0.24706 C = 0.08118
Origen = 31.50 Final = 57.00
Parametros de la parabola = 6
A = -0.03333 B = 4.00000 C = *********
Origen = 57.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 10

Parametros de la parabola = 2
A = -0.03333 B = 0.00000 C = -0.96000
Origen = 0.00 Final = 3.00
Parametros de la parabola = 3
A = 0.00392 B = -0.22353 C = -0.62471
Origen = 3.00 Final = 28.50
Parametros de la parabola = 4
A = 0.00000 B = 0.00000 C = -3.81000
Origen = 28.50 Final = 31.50
Parametros de la parabola = 5
A = 0.00392 B = -0.24706 C = 0.08118
Origen = 31.50 Final = 57.00
Parametros de la parabola = 6
A = -0.03333 B = 4.00000 C = *********
Origen = 57.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 11

Parametros de la parabola = 2
A = -0.03333 B = 0.00000 C = -0.96000
Origen = 0.00 Final = 3.00
Parametros de la parabola = 3
A = 0.00392 B = -0.22353 C = -0.62471
Origen = 3.00 Final = 28.50
Parametros de la parabola = 4
A = 0.00000 B = 0.00000 C = -3.81000
Origen = 28.50 Final = 31.50
Parametros de la parabola = 5
A = 0.00392 B = -0.24706 C = 0.08118
Origen = 31.50 Final = 57.00
Parametros de la parabola = 6
A = -0.03333 B = 4.00000 C = *********
Origen = 57.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 12

Parametros de la parabola = 2
A = -0.03333 B = 0.00000 C = -0.96000
Origen = 0.00 Final = 3.00
Parametros de la parabola = 3
A = 0.00392 B = -0.22353 C = -0.62471
Origen = 3.00 Final = 28.50
Parametros de la parabola = 4
A = 0.00000 B = 0.00000 C = -3.81000
Origen = 28.50 Final = 31.50
Parametros de la parabola = 5
A = 0.00392 B = -0.24706 C = 0.08118
Origen = 31.50 Final = 57.00
Parametros de la parabola = 6
A = -0.03333 B = 4.00000 C = *********
Origen = 57.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 13

Parametros de la parabola = 2
A = -0.03333 B = 0.00000 C = -0.96000
Origen = 0.00 Final = 3.00
Parametros de la parabola = 3
A = 0.00392 B = -0.22353 C = -0.62471
Origen = 3.00 Final = 28.50
Parametros de la parabola = 4
A = 0.00000 B = 0.00000 C = -3.81000
Origen = 28.50 Final = 31.50
Parametros de la parabola = 5
A = 0.00392 B = -0.24706 C = 0.08118
Origen = 31.50 Final = 57.00
Parametros de la parabola = 6
A = -0.03333 B = 4.00000 C = *********
Origen = 57.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 14

Parametros de la parabola = 2
A = -0.02859 B = 0.00000 C = -0.96000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00551 B = -0.27277 C = -0.41446
Origen = 4.00 Final = 24.75
Parametros de la parabola = 5
A = 0.00292 B = -0.14434 C = -2.00381
Origen = 24.75 Final = 43.60
Parametros de la parabola = 6
A = 0.00000 B = 0.10993 C = -7.54688
Origen = 43.60 Final = 45.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
1	0.000	-2.600	1.390	-1.066	0.0000	10.7392	0.0000
2	2.250	-2.845	1.145	-1.311	0.0050	10.7342	0.0058
3	4.500	-3.067	0.923	-1.533	0.0181	10.7211	0.0058
4	6.750	-3.259	0.731	-1.725	0.0312	10.7080	0.0058
5	9.000	-3.421	0.569	-1.887	0.0443	10.6949	0.0058
6	11.250	-3.554	0.436	-2.020	0.0575	10.6818	0.0058
7	13.500	-3.657	0.333	-2.123	0.0706	10.6686	0.0058
8	15.750	-3.731	0.259	-2.197	0.0837	10.6555	0.0058
9	18.000	-3.775	0.215	-2.241	0.0968	10.6424	0.0058
10	20.250	-3.790	0.200	-2.256	0.1099	10.6293	0.0058
11	22.500	-3.762	0.228	-2.228	0.1347	10.6045	0.0110
12	24.750	-3.678	0.312	-2.144	0.1595	10.5797	0.0110
13	27.000	-3.539	0.451	-2.005	0.1843	10.5549	0.0110
14	29.250	-3.344	0.646	-1.810	0.2092	10.5300	0.0110
15	31.500	-3.093	0.897	-1.559	0.2340	10.5052	0.0110
16	33.750	-2.786	1.204	-1.252	0.2587	10.4805	0.0110
17	36.000	-2.423	1.567	-0.889	0.2835	10.4557	0.0110
18	38.250	-2.005	1.985	-0.471	0.3083	10.4309	0.0110
19	40.500	-1.530	2.460	0.271	0.3331	10.4061	0.0110
20	42.750	-1.105	2.885	0.696	0.4388	10.3004	-0.0572
21	45.000	-0.960	3.030	0.841	0.5673	10.1719	-0.0667
22	48.000	-1.260	2.730	0.541	0.7673	9.9719	-0.0667
23	51.000	-1.825	2.165	-0.291	0.7909	9.9483	0.0078
24	54.000	-2.319	1.671	-0.785	0.8144	9.9248	0.0078
25	57.000	-2.742	1.248	-1.208	0.8380	9.9012	0.0078
26	60.000	-3.095	0.895	-1.561	0.8616	9.8776	0.0078
27	63.000	-3.378	0.612	-1.844	0.8851	9.8541	0.0078
28	66.000	-3.589	0.401	-2.055	0.9086	9.8307	0.0078
29	69.000	-3.731	0.259	-2.197	0.9323	9.8069	0.0078
30	72.000	-3.801	0.189	-2.267	0.9559	9.7833	0.0078
31	75.000	-3.810	0.180	-2.276	0.9675	9.7717	0.0000
32	78.000	-3.801	0.189	-2.267	0.9793	9.7599	0.0078
33	81.000	-3.731	0.259	-2.197	1.0029	9.7363	0.0078
34	84.000	-3.589	0.401	-2.055	1.0263	9.7129	0.0078
35	87.000	-3.378	0.612	-1.844	1.0497	9.6895	0.0078
36	90.000	-3.095	0.895	-1.561	1.0736	9.6656	0.0078
37	93.000	-2.742	1.248	-1.208	1.0970	9.6422	0.0078
38	96.000	-2.319	1.671	-0.785	1.1205	9.6187	0.0078
39	99.000	-1.825	2.165	-0.024	1.1442	9.5950	0.0078
40	102.000	-1.260	2.730	0.541	1.1675	9.5717	0.0078
41	105.000	-0.960	3.030	0.841	1.3677	9.3715	-0.0667
42	108.000	-1.260	2.730	0.541	1.5677	9.1715	-0.0667
43	111.000	-1.825	2.165	-0.291	1.5913	9.1479	0.0078
44	114.000	-2.319	1.671	-0.785	1.6148	9.1244	0.0078
45	117.000	-2.742	1.248	-1.208	1.6384	9.1008	0.0078
46	120.000	-3.095	0.895	-1.561	1.6620	9.0773	0.0078
47	123.000	-3.378	0.612	-1.844	1.6855	9.0538	0.0078
48	126.000	-3.589	0.401	-2.055	1.7089	9.0303	0.0078
49	129.000	-3.731	0.259	-2.197	1.7326	9.0066	0.0078
50	132.000	-3.801	0.189	-2.267	1.7562	8.9830	0.0078
51	135.000	-3.810	0.180	-2.276	1.7679	8.9713	0.0000
52	138.000	-3.801	0.189	-2.267	1.7797	8.9595	0.0078
53	141.000	-3.731	0.259	-2.197	1.8033	8.9359	0.0078
54	144.000	-3.589	0.401	-2.055	1.8266	8.9126	0.0078
55	147.000	-3.378	0.612	-1.844	1.8501	8.8891	0.0078
56	150.000	-3.095	0.895	-1.561	1.8739	8.8653	0.0078
57	153.000	-2.742	1.248	-1.208	1.8974	8.8418	0.0078
58	156.000	-2.319	1.671	-0.785	1.9209	8.8183	0.0078

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
59	159.000	-1.825	2.165	-0.024	1.9446	8.7946	0.0078
60	162.000	-1.260	2.730	0.541	1.9679	8.7713	0.0078
61	165.000	-0.960	3.030	0.841	2.1681	8.5711	-0.0667
62	168.000	-1.260	2.730	0.541	2.3681	8.3711	-0.0667
63	171.000	-1.825	2.165	-0.291	2.3916	8.3476	0.0078
64	174.000	-2.319	1.671	-0.785	2.4152	8.3241	0.0078
65	177.000	-2.742	1.248	-1.208	2.4388	8.3005	0.0078
66	180.000	-3.095	0.895	-1.561	2.4623	8.2769	0.0078
67	183.000	-3.378	0.612	-1.844	2.4858	8.2534	0.0078
68	186.000	-3.589	0.401	-2.055	2.5093	8.2299	0.0078
69	189.000	-3.731	0.259	-2.197	2.5330	8.2062	0.0078
70	192.000	-3.801	0.189	-2.267	2.5566	8.1826	0.0078
71	195.000	-3.810	0.180	-2.276	2.5682	8.1710	0.0000
72	198.000	-3.801	0.189	-2.267	2.5800	8.1592	0.0078
73	201.000	-3.731	0.259	-2.197	2.6037	8.1355	0.0078
74	204.000	-3.589	0.401	-2.055	2.6270	8.1122	0.0078
75	207.000	-3.378	0.612	-1.844	2.6504	8.0888	0.0078
76	210.000	-3.095	0.895	-1.561	2.6743	8.0649	0.0078
77	213.000	-2.742	1.248	-1.208	2.6977	8.0415	0.0078
78	216.000	-2.319	1.671	-0.785	2.7212	8.0180	0.0078
79	219.000	-1.825	2.165	-0.024	2.7450	7.9942	0.0078
80	222.000	-1.260	2.730	0.541	2.7683	7.9709	0.0078
81	225.000	-0.960	3.030	0.841	2.9684	7.7708	-0.0667
82	228.000	-1.260	2.730	0.541	3.1684	7.5708	-0.0667
83	231.000	-1.825	2.165	-0.291	3.1920	7.5472	0.0078
84	234.000	-2.319	1.671	-0.785	3.2155	7.5237	0.0078
85	237.000	-2.742	1.248	-1.208	3.2391	7.5001	0.0078
86	240.000	-3.095	0.895	-1.561	3.2627	7.4765	0.0078
87	243.000	-3.378	0.612	-1.844	3.2862	7.4530	0.0078
88	246.000	-3.589	0.401	-2.055	3.3096	7.4296	0.0078
89	249.000	-3.731	0.259	-2.197	3.3333	7.4059	0.0078
90	252.000	-3.801	0.189	-2.267	3.3569	7.3823	0.0078
91	255.000	-3.810	0.180	-2.276	3.3686	7.3706	0.0000
92	258.000	-3.801	0.189	-2.267	3.3804	7.3588	0.0078
93	261.000	-3.731	0.259	-2.197	3.4040	7.3352	0.0078
94	264.000	-3.589	0.401	-2.055	3.4274	7.3118	0.0078
95	267.000	-3.378	0.612	-1.844	3.4508	7.2884	0.0078
96	270.000	-3.095	0.895	-1.561	3.4747	7.2645	0.0078
97	273.000	-2.742	1.248	-1.208	3.4981	7.2411	0.0078
98	276.000	-2.319	1.671	-0.785	3.5216	7.2176	0.0078
99	279.000	-1.825	2.165	-0.024	3.5453	7.1939	0.0078
100	282.000	-1.260	2.730	0.541	3.5686	7.1706	0.0078
101	285.000	-0.960	3.030	0.841	3.7688	6.9704	-0.0667
102	288.000	-1.260	2.730	0.541	3.9688	6.7704	-0.0667
103	291.000	-1.825	2.165	-0.291	3.9924	6.7468	0.0078
104	294.000	-2.319	1.671	-0.785	4.0159	6.7233	0.0078
105	297.000	-2.742	1.248	-1.208	4.0395	6.6997	0.0078
106	300.000	-3.095	0.895	-1.561	4.0630	6.6762	0.0078
107	303.000	-3.378	0.612	-1.844	4.0865	6.6527	0.0078
108	306.000	-3.589	0.401	-2.055	4.1100	6.6292	0.0078
109	309.000	-3.731	0.259	-2.197	4.1337	6.6055	0.0078
110	312.000	-3.801	0.189	-2.267	4.1573	6.5819	0.0078
111	315.000	-3.810	0.180	-2.276	4.1689	6.5703	0.0000
112	318.000	-3.801	0.189	-2.267	4.1808	6.5584	0.0078
113	321.000	-3.731	0.259	-2.197	4.2044	6.5348	0.0078
114	324.000	-3.589	0.401	-2.055	4.2277	6.5115	0.0078
115	327.000	-3.378	0.612	-1.844	4.2512	6.4880	0.0078
116	330.000	-3.095	0.895	-1.561	4.2750	6.4642	0.0078

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
117	333.000	-2.742	1.248	-1.208	4.2984	6.4408	0.0078
118	336.000	-2.319	1.671	-0.785	4.3220	6.4172	0.0078
119	339.000	-1.825	2.165	-0.024	4.3457	6.3935	0.0078
120	342.000	-1.260	2.730	0.541	4.3690	6.3702	0.0078
121	345.000	-0.960	3.030	0.841	4.5691	6.1701	-0.0667
122	348.000	-1.260	2.730	0.541	4.7692	5.9701	-0.0667
123	351.000	-1.825	2.165	-0.291	4.7927	5.9465	0.0078
124	354.000	-2.319	1.671	-0.785	4.8162	5.9230	0.0078
125	357.000	-2.742	1.248	-1.208	4.8398	5.8994	0.0078
126	360.000	-3.095	0.895	-1.561	4.8634	5.8758	0.0078
127	363.000	-3.378	0.612	-1.844	4.8869	5.8523	0.0078
128	366.000	-3.589	0.401	-2.055	4.9104	5.8288	0.0078
129	369.000	-3.731	0.259	-2.197	4.9341	5.8051	0.0078
130	372.000	-3.801	0.189	-2.267	4.9577	5.7815	0.0078
131	375.000	-3.810	0.180	-2.276	4.9693	5.7699	0.0000
132	378.000	-3.801	0.189	-2.267	4.9811	5.7581	0.0078
133	381.000	-3.731	0.259	-2.197	5.0047	5.7345	0.0078
134	384.000	-3.589	0.401	-2.055	5.0281	5.7111	0.0078
135	387.000	-3.378	0.612	-1.844	5.0515	5.6877	0.0078
136	390.000	-3.095	0.895	-1.561	5.0754	5.6638	0.0078
137	393.000	-2.742	1.248	-1.208	5.0988	5.6404	0.0078
138	396.000	-2.319	1.671	-0.785	5.1223	5.6169	0.0078
139	399.000	-1.825	2.165	-0.024	5.1461	5.5932	0.0078
140	402.000	-1.260	2.730	0.541	5.1693	5.5699	0.0078
141	405.000	-0.960	3.030	0.841	5.3695	5.3697	-0.0667
142	408.000	-1.260	2.730	0.541	5.5695	5.1697	-0.0667
143	411.000	-1.825	2.165	-0.291	5.5931	5.1461	0.0078
144	414.000	-2.319	1.671	-0.785	5.6166	5.1226	0.0078
145	417.000	-2.742	1.248	-1.208	5.6402	5.0990	0.0078
146	420.000	-3.095	0.895	-1.561	5.6638	5.0754	0.0078
147	423.000	-3.378	0.612	-1.844	5.6873	5.0520	0.0078
148	426.000	-3.589	0.401	-2.055	5.7107	5.0285	0.0078
149	429.000	-3.731	0.259	-2.197	5.7344	5.0048	0.0078
150	432.000	-3.801	0.189	-2.267	5.7580	4.9812	0.0078
151	435.000	-3.810	0.180	-2.276	5.7697	4.9695	0.0000
152	438.000	-3.801	0.189	-2.267	5.7815	4.9577	0.0078
153	441.000	-3.731	0.259	-2.197	5.8051	4.9341	0.0078
154	444.000	-3.589	0.401	-2.055	5.8284	4.9108	0.0078
155	447.000	-3.378	0.612	-1.844	5.8519	4.8873	0.0078
156	450.000	-3.095	0.895	-1.561	5.8758	4.8635	0.0078
157	453.000	-2.742	1.248	-1.208	5.8992	4.8400	0.0078
158	456.000	-2.319	1.671	-0.785	5.9227	4.8165	0.0078
159	459.000	-1.825	2.165	-0.024	5.9464	4.7928	0.0078
160	462.000	-1.260	2.730	0.541	5.9697	4.7695	0.0078
161	465.000	-0.960	3.030	0.841	6.1699	4.5693	-0.0667
162	468.000	-1.260	2.730	0.541	6.3699	4.3693	-0.0667
163	471.000	-1.825	2.165	-0.291	6.3934	4.3458	0.0078
164	474.000	-2.319	1.671	-0.785	6.4170	4.3222	0.0078
165	477.000	-2.742	1.248	-1.208	6.4406	4.2987	0.0078
166	480.000	-3.095	0.895	-1.561	6.4641	4.2751	0.0078
167	483.000	-3.378	0.612	-1.844	6.4876	4.2516	0.0078
168	486.000	-3.589	0.401	-2.055	6.5111	4.2281	0.0078
169	489.000	-3.731	0.259	-2.197	6.5348	4.2044	0.0078
170	492.000	-3.801	0.189	-2.267	6.5584	4.1808	0.0078
171	495.000	-3.810	0.180	-2.276	6.5700	4.1692	0.0000
172	498.000	-3.801	0.189	-2.267	6.5818	4.1574	0.0078
173	501.000	-3.731	0.259	-2.197	6.6055	4.1337	0.0078
174	504.000	-3.589	0.401	-2.055	6.6288	4.1104	0.0078

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
175	507.000	-3.378	0.612	-1.844	6.6523	4.0870	0.0078
176	510.000	-3.095	0.895	-1.561	6.6761	4.0631	0.0078
177	513.000	-2.742	1.248	-1.208	6.6995	4.0397	0.0078
178	516.000	-2.319	1.671	-0.785	6.7230	4.0162	0.0078
179	519.000	-1.825	2.165	-0.024	6.7468	3.9924	0.0078
180	522.000	-1.260	2.730	0.541	6.7701	3.9691	0.0078
181	525.000	-0.960	3.030	0.841	6.9702	3.7690	-0.0667
182	528.000	-1.260	2.730	0.541	7.1702	3.5690	-0.0667
183	531.000	-1.825	2.165	-0.291	7.1938	3.5454	0.0078
184	534.000	-2.319	1.671	-0.785	7.2173	3.5219	0.0078
185	537.000	-2.742	1.248	-1.208	7.2409	3.4983	0.0078
186	540.000	-3.095	0.895	-1.561	7.2645	3.4747	0.0078
187	543.000	-3.378	0.612	-1.844	7.2880	3.4512	0.0078
188	546.000	-3.589	0.401	-2.055	7.3114	3.4278	0.0078
189	549.000	-3.731	0.259	-2.197	7.3352	3.4041	0.0078
190	552.000	-3.801	0.189	-2.267	7.3587	3.3805	0.0078
191	555.000	-3.810	0.180	-2.276	7.3704	3.3688	0.0000
192	558.000	-3.801	0.189	-2.267	7.3822	3.3570	0.0078
193	561.000	-3.731	0.259	-2.197	7.4058	3.3334	0.0078
194	564.000	-3.589	0.401	-2.055	7.4292	3.3100	0.0078
195	567.000	-3.378	0.612	-1.844	7.4526	3.2866	0.0078
196	570.000	-3.095	0.895	-1.561	7.4765	3.2627	0.0078
197	573.000	-2.742	1.248	-1.208	7.4999	3.2393	0.0078
198	576.000	-2.319	1.671	-0.785	7.5234	3.2158	0.0078
199	579.000	-1.825	2.165	-0.024	7.5471	3.1921	0.0078
200	582.000	-1.260	2.730	0.541	7.5704	3.1688	0.0078
201	585.000	-0.960	3.030	0.841	7.7706	2.9686	-0.0667
202	588.000	-1.260	2.730	0.541	7.9706	2.7686	-0.0667
203	591.000	-1.825	2.165	-0.291	7.9942	2.7450	0.0078
204	594.000	-2.319	1.671	-0.785	8.0177	2.7215	0.0078
205	597.000	-2.742	1.248	-1.208	8.0413	2.6979	0.0078
206	600.000	-3.095	0.895	-1.561	8.0648	2.6744	0.0078
207	603.000	-3.378	0.612	-1.844	8.0883	2.6509	0.0078
208	606.000	-3.589	0.401	-2.055	8.1118	2.6274	0.0078
209	609.000	-3.731	0.259	-2.197	8.1355	2.6037	0.0078
210	612.000	-3.801	0.189	-2.267	8.1591	2.5801	0.0078
211	615.000	-3.810	0.180	-2.276	8.1707	2.5685	0.0000
212	618.000	-3.801	0.189	-2.267	8.1826	2.5566	0.0078
213	621.000	-3.731	0.259	-2.197	8.2062	2.5330	0.0078
214	624.000	-3.589	0.401	-2.055	8.2295	2.5097	0.0078
215	627.000	-3.378	0.612	-1.844	8.2530	2.4862	0.0078
216	630.000	-3.095	0.895	-1.561	8.2768	2.4624	0.0078
217	633.000	-2.742	1.248	-1.208	8.3003	2.4390	0.0078
218	636.000	-2.319	1.671	-0.785	8.3238	2.4154	0.0078
219	639.000	-1.825	2.165	-0.024	8.3475	2.3917	0.0078
220	642.000	-1.260	2.730	0.541	8.3708	2.3684	0.0078
221	645.000	-0.960	3.030	0.841	8.5709	2.1683	-0.0667
222	648.000	-1.260	2.730	0.541	8.7710	1.9682	-0.0667
223	651.000	-1.825	2.165	-0.291	8.7945	1.9447	0.0078
224	654.000	-2.319	1.671	-0.785	8.8180	1.9212	0.0078
225	657.000	-2.742	1.248	-1.208	8.8416	1.8976	0.0078
226	660.000	-3.095	0.895	-1.561	8.8652	1.8740	0.0078
227	663.000	-3.378	0.612	-1.844	8.8887	1.8505	0.0078
228	666.000	-3.589	0.401	-2.055	8.9122	1.8270	0.0078
229	669.000	-3.731	0.259	-2.197	8.9359	1.8033	0.0078
230	672.000	-3.801	0.189	-2.267	8.9595	1.7797	0.0078
231	675.000	-3.810	0.180	-2.276	8.9711	1.7681	0.0000
232	678.000	-3.801	0.189	-2.267	8.9829	1.7563	0.0078

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
233	681.000	-3.731	0.259	-2.197	9.0066	1.7327	0.0078
234	684.000	-3.589	0.401	-2.055	9.0299	1.7093	0.0078
235	687.000	-3.378	0.612	-1.844	9.0533	1.6859	0.0078
236	690.000	-3.095	0.895	-1.561	9.0772	1.6620	0.0078
237	693.000	-2.742	1.248	-1.208	9.1006	1.6386	0.0078
238	696.000	-2.319	1.671	-0.785	9.1241	1.6151	0.0078
239	699.000	-1.825	2.165	-0.024	9.1479	1.5913	0.0078
240	702.000	-1.260	2.730	0.541	9.1711	1.5681	0.0078
241	705.000	-0.960	3.030	0.841	9.3713	1.3679	-0.0667
242	708.000	-1.260	2.730	0.541	9.5713	1.1679	-0.0667
243	711.000	-1.825	2.165	-0.291	9.5949	1.1443	0.0078
244	714.000	-2.319	1.671	-0.785	9.6184	1.1208	0.0078
245	717.000	-2.742	1.248	-1.208	9.6420	1.0972	0.0078
246	720.000	-3.095	0.895	-1.561	9.6656	1.0736	0.0078
247	723.000	-3.378	0.612	-1.844	9.6891	1.0501	0.0078
248	726.000	-3.589	0.401	-2.055	9.7125	1.0267	0.0078
249	729.000	-3.731	0.259	-2.197	9.7362	1.0030	0.0078
250	732.000	-3.801	0.189	-2.267	9.7598	0.9794	0.0078
251	735.000	-3.810	0.180	-2.276	9.7715	0.9677	0.0000
252	738.000	-3.801	0.189	-2.267	9.7833	0.9559	0.0078
253	741.000	-3.731	0.259	-2.197	9.8069	0.9323	0.0078
254	744.000	-3.589	0.401	-2.055	9.8302	0.9090	0.0078
255	747.000	-3.378	0.612	-1.844	9.8537	0.8855	0.0078
256	750.000	-3.095	0.895	-1.561	9.8776	0.8617	0.0078
257	753.000	-2.742	1.248	-1.208	9.9010	0.8382	0.0078
258	756.000	-2.319	1.671	-0.785	9.9245	0.8147	0.0078
259	759.000	-1.825	2.165	-0.024	9.9482	0.7910	0.0078
260	762.000	-1.260	2.730	0.541	9.9715	0.7677	0.0078
261	765.000	-0.960	3.030	0.841	10.1717	0.5675	-0.0572
262	767.250	-1.105	2.885	0.696	10.3003	0.4389	-0.0572
263	769.500	-1.530	2.460	0.004	10.4059	0.3333	0.0110
264	771.750	-2.005	1.985	-0.471	10.4307	0.3085	0.0110
265	774.000	-2.423	1.567	-0.889	10.4555	0.2837	0.0110
266	776.250	-2.786	1.204	-1.252	10.4803	0.2589	0.0110
267	778.500	-3.093	0.897	-1.559	10.5051	0.2341	0.0110
268	780.750	-3.344	0.646	-1.810	10.5299	0.2093	0.0110
269	783.000	-3.539	0.451	-2.005	10.5548	0.1844	0.0110
270	785.250	-3.678	0.312	-2.144	10.5795	0.1597	0.0110
271	787.500	-3.762	0.228	-2.228	10.6045	0.1347	0.0110
272	789.750	-3.790	0.200	-2.256	10.6291	0.1101	0.0110
273	792.000	-3.775	0.215	-2.241	10.6422	0.0970	0.0058
274	794.250	-3.731	0.259	-2.197	10.6554	0.0838	0.0058
275	796.500	-3.657	0.333	-2.123	10.6684	0.0708	0.0058
276	798.750	-3.554	0.436	-2.020	10.6817	0.0575	0.0058
277	801.000	-3.421	0.569	-1.887	10.6948	0.0444	0.0058
278	803.250	-3.259	0.731	-1.725	10.7080	0.0312	0.0058
279	805.500	-3.067	0.923	-1.533	10.7209	0.0183	0.0058
280	807.750	-2.845	1.145	-1.311	10.7344	0.0049	0.0058
281	810.000	-2.600	1.390	-1.066	10.7392	0.0000	0.0000

SECCIONES INICIAL Y FINAL DEL TRAZADO = 1 281
NUMERO DE VANOS INICIAL Y FINAL DEL TRAZADO = 1 14
PENDIENTE INICIAL DEL TRAZADO = -0.10993
PENDIENTE FINAL DEL TRAZADO = 0.10993

4.2 CÁLCULO DEL PRETENSADO

El cálculo de la fuerza de pretensado se realiza con un programa de cálculo automático que considera las pérdidas de tensión instantáneas y diferidas, de acuerdo con la normativa vigente (EHE). El programa calcula, además, un sistema de fuerzas equivalentes a la introducción del pretensado en la estructura, para su consideración en el modelo de análisis estructural del tablero.

El programa permite la determinación de las pérdidas de la fuerza de pretensado asociadas a los siguientes aspectos:

Pérdidas instantáneas

- a.- Pérdidas por rozamiento.
- b.- Pérdidas de penetración de cuña en anclajes.
- c.- Pérdidas por acortamiento elástico del hormigón.

Pérdidas diferidas

- d.- Pérdidas por retracción del hormigón.
- e.- Pérdidas por fluencia del hormigón.
- f.- Pérdidas por relajación del acero de pretensado.

CÁLCULO ESTRUCTURAL

La acción del pretensado sobre la estructura se realiza considerándolo como un sistema de fuerzas equivalentes, constituido por las fuerzas de anclaje y las de interacción (de desviación o repartidas).

Los resultados del programa de cálculo del pretensado son los siguientes:

a. Definición del trazado del pretensado, mediante su excentricidad y cotas respecto a la fibra superior e inferior del elemento.

b. Listados de tensiones en los cables y de las pérdidas instantáneas y diferidas en cada punto.

c. Longitud afectada por la penetración de las cuñas en anclajes.

d. Alargamiento de los cables al tesar.

e. Fuerzas equivalentes del pretensado en los nudos de los elementos por los que pasan los cables del pretensado.

f. Esfuerzos isostáticos de pretensado en los nudos de los elementos atravesados por el trazado.

Al igual que con cualquier estado de cargas introducido en el programa general de análisis estructural, posteriormente se obtienen las reacciones, desplazamientos, esfuerzos y tensiones en todo punto de la estructura.

Referencia del Proyecto:

VIADUCTO S/RÍO AVERNO. (TRAZADO MEDIO)

PROGRAMA DE CALCULO DE PRETENSADO EN NERVIOS DE UN EMPARRILLADO

DATOS GENERALES DE PRETENSADO

NUMERO DE NERVIOS = 1
NUMERO DE VANOS = 2
NUMERO DE SECCIONES POR VANO = 21
NUMERO DE MATERIALES = 3
LUZ DEL VANO = 1 L (m) = 45.00
LUZ DEL VANO = 2 L (m) = 60.00

COEFICIENTE DE ROZAMIENTO EN CURVA = 0.21
COEFICIENTE DE DESV. PARASITAS = 0.0060
RELAJACION = 0.04
RETRACCION mm/m = 0.233
COEF. FLUENCIA = 2.050

ACERO DE PRETENSADO (Kp/mm2)

LIMITE DE PROPORCIONALIDAD AL 0,2% = 170.00
TENSION DE ROTURA = 190.00
MODULO DE DEFORMACION = 19000.00

HORMIGON

MODULO DE DEFORMACION DURANTE TESADO (Kp/cm2) = 263000.00
MODULO DE DEFORMACION A 28 DIAS (Kp/cm2) = 329000.00

CARACTERISTICAS MECANICAS DE LA SECCION 1

AREA DE LA SECCION (m2) = 10.768
INERCIA DE LA SECCION (m2) = 22.5320
V_SUP. DE LA SECCION (m2) = 1.53
V_INF. DE LA SECCION (m2) = 2.46
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 2

AREA DE LA SECCION (m2) = 13.262
INERCIA DE LA SECCION (m2) = 28.5240
V_SUP. DE LA SECCION (m2) = 1.80
V_INF. DE LA SECCION (m2) = 2.19
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 3

AREA DE LA SECCION (m2) = 1.000
INERCIA DE LA SECCION (m2) = 2.0000
V_SUP. DE LA SECCION (m2) = 1.15
V_INF. DE LA SECCION (m2) = 0.55
CANTO DE LA SECCION (m2) = 1.70

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 1

Parametros de la parabola = 1

Origen = 0.00 Final = 1.40
Parametros de la parabola = 2
A = 0.00319 B = -0.12901 C = -1.69376
Origen = 1.40 Final = 20.25
Parametros de la parabola = 4
A = 0.00467 B = -0.18927 C = -1.08368
Origen = 20.25 Final = 41.00
Parametros de la parabola = 5
A = -0.02424 B = 2.18182 C = -49.69091
Origen = 41.00 Final = 45.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 2

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
1	0.000	-1.700	2.290	-0.166	0.0000	0.7784	0.0000
2	2.250	-1.968	2.022	-0.434	0.0054	0.7730	0.0064
3	4.500	-2.210	1.780	-0.676	0.0198	0.7587	0.0064
4	6.750	-2.419	1.571	-0.885	0.0341	0.7443	0.0064
5	9.000	-2.597	1.393	-1.063	0.0484	0.7300	0.0064
6	11.250	-2.742	1.248	-1.208	0.0628	0.7157	0.0064
7	13.500	-2.855	1.135	-1.321	0.0771	0.7013	0.0064
8	15.750	-2.935	1.055	-1.401	0.0914	0.6870	0.0064
9	18.000	-2.984	1.006	-1.450	0.1058	0.6727	0.0064
10	20.250	-3.000	0.990	-1.466	0.1201	0.6583	0.0064
11	22.500	-2.976	1.014	-1.442	0.1411	0.6373	0.0093
12	24.750	-2.905	1.085	-1.371	0.1622	0.6163	0.0093
13	27.000	-2.787	1.203	-1.253	0.1832	0.5952	0.0093
14	29.250	-2.621	1.369	-1.087	0.2043	0.5742	0.0093
15	31.500	-2.409	1.581	-0.875	0.2253	0.5532	0.0093
16	33.750	-2.148	1.842	-0.614	0.2463	0.5322	0.0093
17	36.000	-1.841	2.149	-0.307	0.2673	0.5111	0.0093
18	38.250	-1.486	2.504	0.048	0.2884	0.4901	0.0093
19	40.500	-1.084	2.906	0.717	0.3094	0.4691	0.0093
20	42.750	-0.723	3.267	1.078	0.3990	0.3794	-0.0485
21	45.000	-0.600	3.390	1.201	0.5080	0.2705	-0.0475
22	48.000	-0.814	3.176	0.987	0.6505	0.1279	-0.0475
23	51.000	-1.345	2.645	0.189	0.7126	0.0658	0.0073
24	54.000	-1.839	2.151	-0.305	0.7345	0.0439	0.0073
25	57.000	-2.266	1.724	-0.732	0.7565	0.0219	0.0073
26	60.000	-2.628	1.362	-1.094	0.7784	0.0000	0.0073

SECCIONES INICIAL Y FINAL DEL TRAZADO = 1 26
NUMERO DE VANOS INICIAL Y FINAL DEL TRAZADO = 1 2
PENDIENTE INICIAL DEL TRAZADO = -0.12009
PENDIENTE FINAL DEL TRAZADO = -0.10962

TESADO DEFINITIVO

PRETENSADO EN EL NERVIO = 1

NUMERO DE CABLES = 16

TENSION EN ANCLAJE IZQUIERDO (Kp/mm2) = 144.00
TESAMOS POR LA IZQUIERDA (SI=1) = 0
TENSION EN ANCLAJE DERECHO (Kp/mm2) = 144.00
TESAMOS POR LA DERECHA (SI=1) = 1

PROPORCION DE TESADO EN LA PRIMERA FASE 0.65
AREA DE PRETENSADO (cm2) = 627.20
PENETRACION DE CUNA EN EXTREMO 1 (mm) = 5.000
PENETRACION DE CUNA EN EXTREMO 2 (mm) = 5.000

LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-1 (m) = 0.00
LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-2 (m) = 12.94

TENSION EN LOS CABLES. PERDIDAS INSTANT. (Kp/mm2)

I	X	To	P_ROZ	P_CUNA	P_ELAS	Ti
1	0.00	144.00	30.62	0.00	2.27	111.11
2	2.25	144.00	30.17	0.00	2.45	111.38
3	4.50	144.00	29.50	0.00	2.75	111.75
4	6.75	144.00	28.83	0.00	3.12	112.05
5	9.00	144.00	28.16	0.00	3.52	112.33
6	11.25	144.00	27.48	0.00	3.90	112.62
7	13.50	144.00	26.79	0.00	4.24	112.97
8	15.75	144.00	26.11	0.00	4.51	113.39
9	18.00	144.00	25.41	0.00	4.69	113.90
10	20.25	144.00	24.72	0.00	4.77	114.51
11	22.50	144.00	23.85	0.00	4.73	115.42
12	24.75	144.00	22.98	0.00	4.53	116.49
13	27.00	144.00	22.10	0.00	4.21	117.70
14	29.25	144.00	21.21	0.00	3.79	119.00
15	31.50	144.00	20.32	0.00	3.33	120.35
16	33.75	144.00	19.42	0.00	2.90	121.68
17	36.00	144.00	18.51	0.00	2.59	122.91
18	38.25	144.00	17.59	0.00	2.24	124.17
19	40.50	144.00	16.68	0.00	2.53	124.80
20	42.75	144.00	13.89	0.00	3.21	126.90
21	45.00	144.00	10.50	0.00	3.57	129.93
22	48.00	144.00	5.92	2.87	3.49	131.73
23	51.00	144.00	3.58	7.55	2.67	130.21
24	54.00	144.00	2.40	9.92	2.71	128.98
25	57.00	144.00	1.20	12.30	3.23	127.26
26	60.00	144.00	0.00	14.71	4.01	125.28

ALARGAMIENTO DE LOS CABLES (sobre embolo)= 390.3 mm

PROGRAMA DE CALCULO DE PRETENSADO EN NERVIOS DE UN EMPARRILLADO

DATOS GENERALES DE PRETENSADO

NUMERO DE NERVIOS = 1
NUMERO DE VANOS = 3
NUMERO DE SECCIONES POR VANO = 21
NUMERO DE MATERIALES = 3
LUZ DEL VANO = 1 L (m) = 45.00
LUZ DEL VANO = 2 L (m) = 60.00
LUZ DEL VANO = 3 L (m) = 60.00

COEFICIENTE DE ROZAMIENTO EN CURVA = 0.21
COEFICIENTE DE DESV. PARASITAS = 0.0060
RELAJACION = 0.04
RETRACCION mm/m = 0.233
COEF. FLUENCIA = 2.050

ACERO DE PRETENSADO (Kp/mm2)

LIMITE DE PROPORCIONALIDAD AL 0,2% = 170.00
TENSION DE ROTURA = 190.00
MODULO DE DEFORMACION = 19000.00

HORMIGON

MODULO DE DEFORMACION DURANTE TESADO (Kp/cm2) = 263000.00
MODULO DE DEFORMACION A 28 DIAS (Kp/cm2) = 329000.00

CARACTERISTICAS MECANICAS DE LA SECCION 1

AREA DE LA SECCION (m2) = 10.768
INERCIA DE LA SECCION (m2) = 22.5320
V_SUP. DE LA SECCION (m2) = 1.53
V_INF. DE LA SECCION (m2) = 2.46
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 2

AREA DE LA SECCION (m2) = 13.262
INERCIA DE LA SECCION (m2) = 28.5240
V_SUP. DE LA SECCION (m2) = 1.80
V_INF. DE LA SECCION (m2) = 2.19
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 3

AREA DE LA SECCION (m2) = 1.000
INERCIA DE LA SECCION (m2) = 2.0000
V_SUP. DE LA SECCION (m2) = 1.15
V_INF. DE LA SECCION (m2) = 0.55
CANTO DE LA SECCION (m2) = 1.70

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 1

Parametros de la parabola = 1
A = 0.00000 B = -0.12009 C = -1.70000
Origen = 0.00 Final = 1.40
Parametros de la parabola = 2
A = 0.00319 B = -0.12901 C = -1.69376
Origen = 1.40 Final = 20.25
Parametros de la parabola = 4
A = 0.00467 B = -0.18927 C = -1.08368
Origen = 20.25 Final = 41.00
Parametros de la parabola = 5
A = -0.02424 B = 2.18182 C = -49.69091
Origen = 41.00 Final = 45.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 2

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 3

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
26	60.000	-2.628	1.362	-1.094	0.0000	0.7603	0.0073
27	63.000	-2.924	1.066	-1.390	0.0219	0.7384	0.0073
28	66.000	-3.154	0.836	-1.620	0.0438	0.7165	0.0073
29	69.000	-3.318	0.672	-1.784	0.0658	0.6945	0.0073
30	72.000	-3.417	0.573	-1.883	0.0878	0.6726	0.0073
31	75.000	-3.450	0.540	-1.916	0.1097	0.6507	0.0073
32	78.000	-3.417	0.573	-1.883	0.1315	0.6288	0.0073
33	81.000	-3.318	0.672	-1.784	0.1536	0.6067	0.0073
34	84.000	-3.154	0.836	-1.620	0.1756	0.5848	0.0073
35	87.000	-2.924	1.066	-1.390	0.1974	0.5629	0.0073
36	90.000	-2.628	1.362	-1.094	0.2194	0.5409	0.0073
37	93.000	-2.266	1.724	-0.732	0.2414	0.5189	0.0073
38	96.000	-1.839	2.151	-0.305	0.2630	0.4973	0.0073
39	99.000	-1.345	2.645	0.456	0.2850	0.4753	0.0073
40	102.000	-0.814	3.176	0.987	0.3472	0.4131	-0.0475
41	105.000	-0.600	3.390	1.201	0.4899	0.2705	-0.0475
42	108.000	-0.814	3.176	0.987	0.6324	0.1279	-0.0475
43	111.000	-1.345	2.645	0.189	0.6945	0.0658	0.0073
44	114.000	-1.839	2.151	-0.305	0.7164	0.0439	0.0073
45	117.000	-2.266	1.724	-0.732	0.7384	0.0219	0.0073
46	120.000	-2.628	1.362	-1.094	0.7603	0.0000	0.0073

SECCIONES INICIAL Y FINAL DEL TRAZADO = 26 46
NUMERO DE VANOS INICIAL Y FINAL DEL TRAZADO = 2 3
PENDIENTE INICIAL DEL TRAZADO = -0.10962
PENDIENTE FINAL DEL TRAZADO = -0.10962

TESADO DEFINITIVO

PRETENSADO EN EL NERVIO = 1

NUMERO DE CABLES = 16

TENSION EN ANCLAJE IZQUIERDO (Kp/mm2) = 144.00
TESAMOS POR LA IZQUIERDA (SI=1) = 0
TENSION EN ANCLAJE DERECHO (Kp/mm2) = 144.00
TESAMOS POR LA DERECHA (SI=1) = 1

PROPORCION DE TESADO EN LA PRIMERA FASE 0.65
AREA DE PRETENSADO (cm2) = 683.20
PENETRACION DE CUNA EN EXTREMO 1 (mm) = 5.000
PENETRACION DE CUNA EN EXTREMO 2 (mm) = 5.000

LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-1 (m) = 0.00
LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-2 (m) = 12.94

TENSION EN LOS CABLES. PERDIDAS INSTANT. (Kp/mm2)

I	X	To	P_ROZ	P_CUNA	P_ELAS	Ti
26	60.00	144.00	30.19	0.00	3.84	109.97
27	63.00	144.00	29.23	0.00	4.74	110.03
28	66.00	144.00	28.26	0.00	5.61	110.13
29	69.00	144.00	27.29	0.00	6.32	110.39
30	72.00	144.00	26.31	0.00	6.81	110.88
31	75.00	144.00	25.32	0.00	7.02	111.66
32	78.00	144.00	24.32	0.00	6.93	112.75
33	81.00	144.00	23.31	0.00	6.54	114.16
34	84.00	144.00	22.29	0.00	5.90	115.82
35	87.00	144.00	21.27	0.00	5.07	117.66
36	90.00	144.00	20.23	0.00	4.18	119.59
37	93.00	144.00	19.19	0.00	3.37	121.44
38	96.00	144.00	18.14	0.00	2.53	123.33
39	99.00	144.00	17.08	0.00	2.43	124.49
40	102.00	144.00	14.93	0.00	3.27	125.80
41	105.00	144.00	10.50	0.00	3.89	129.61
42	108.00	144.00	5.92	2.87	3.80	131.42
43	111.00	144.00	3.58	7.55	2.90	129.97
44	114.00	144.00	2.40	9.92	2.95	128.73
45	117.00	144.00	1.20	12.30	3.52	126.97
46	120.00	144.00	0.00	14.71	4.37	124.93

ALARGAMIENTO DE LOS CABLES (sobre embolo)= 392.0 mm

PROGRAMA DE CALCULO DE PRETENSADO EN NERVIOS DE UN EMPARRILLADO

DATOS GENERALES DE PRETENSADO

NUMERO DE NERVIOS = 1
NUMERO DE VANOS = 4
NUMERO DE SECCIONES POR VANO = 21
NUMERO DE MATERIALES = 3
LUZ DEL VANO = 1 L (m) = 45.00
LUZ DEL VANO = 2 L (m) = 60.00
LUZ DEL VANO = 3 L (m) = 60.00
LUZ DEL VANO = 4 L (m) = 60.00

COEFICIENTE DE ROZAMIENTO EN CURVA = 0.21
COEFICIENTE DE DESV. PARASITAS = 0.0060
RELAJACION = 0.04
RETRACCION mm/m = 0.233
COEF. FLUENCIA = 2.050

ACERO DE PRETENSADO (Kp/mm2)

LIMITE DE PROPORCIONALIDAD AL 0,2% = 170.00
TENSION DE ROTURA = 190.00
MODULO DE DEFORMACION = 19000.00

HORMIGON

MODULO DE DEFORMACION DURANTE TESADO (Kp/cm2) = 263000.00
MODULO DE DEFORMACION A 28 DIAS (Kp/cm2) = 329000.00

CARACTERISTICAS MECANICAS DE LA SECCION 1

AREA DE LA SECCION (m2) = 10.768
INERCIA DE LA SECCION (m2) = 22.5320
V_SUP. DE LA SECCION (m2) = 1.53
V_INF. DE LA SECCION (m2) = 2.46
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 2

AREA DE LA SECCION (m2) = 13.262
INERCIA DE LA SECCION (m2) = 28.5240
V_SUP. DE LA SECCION (m2) = 1.80
V_INF. DE LA SECCION (m2) = 2.19
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 3

AREA DE LA SECCION (m2) = 1.000
INERCIA DE LA SECCION (m2) = 2.0000
V_SUP. DE LA SECCION (m2) = 1.15
V_INF. DE LA SECCION (m2) = 0.55
CANTO DE LA SECCION (m2) = 1.70

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 1

Parametros de la parabola = 1
A = 0.00000 B = -0.12009 C = -1.70000
Origen = 0.00 Final = 1.40
Parametros de la parabola = 2
A = 0.00319 B = -0.12901 C = -1.69376
Origen = 1.40 Final = 20.25
Parametros de la parabola = 4
A = 0.00467 B = -0.18927 C = -1.08368
Origen = 20.25 Final = 41.00
Parametros de la parabola = 5
A = -0.02424 B = 2.18182 C = -49.69091
Origen = 41.00 Final = 45.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 2

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 3

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 4

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
46	120.000	-2.628	1.362	-1.094	0.0000	0.7603	0.0073
47	123.000	-2.924	1.066	-1.390	0.0219	0.7384	0.0073
48	126.000	-3.154	0.836	-1.620	0.0438	0.7165	0.0073
49	129.000	-3.318	0.672	-1.784	0.0658	0.6945	0.0073
50	132.000	-3.417	0.573	-1.883	0.0878	0.6726	0.0073
51	135.000	-3.450	0.540	-1.916	0.1097	0.6507	0.0073
52	138.000	-3.417	0.573	-1.883	0.1315	0.6288	0.0073
53	141.000	-3.318	0.672	-1.784	0.1536	0.6067	0.0073
54	144.000	-3.154	0.836	-1.620	0.1756	0.5848	0.0073
55	147.000	-2.924	1.066	-1.390	0.1974	0.5629	0.0073
56	150.000	-2.628	1.362	-1.094	0.2194	0.5409	0.0073
57	153.000	-2.266	1.724	-0.732	0.2414	0.5189	0.0073
58	156.000	-1.839	2.151	-0.305	0.2630	0.4973	0.0073
59	159.000	-1.345	2.645	0.456	0.2850	0.4753	0.0073
60	162.000	-0.814	3.176	0.987	0.3472	0.4131	-0.0475
61	165.000	-0.600	3.390	1.201	0.4899	0.2705	-0.0475
62	168.000	-0.814	3.176	0.987	0.6324	0.1279	-0.0475
63	171.000	-1.345	2.645	0.189	0.6945	0.0658	0.0073
64	174.000	-1.839	2.151	-0.305	0.7164	0.0439	0.0073
65	177.000	-2.266	1.724	-0.732	0.7384	0.0219	0.0073
66	180.000	-2.628	1.362	-1.094	0.7603	0.0000	0.0073

SECCIONES INICIAL Y FINAL DEL TRAZADO = 46 66
NUMERO DE VANOS INICIAL Y FINAL DEL TRAZADO = 3 4
PENDIENTE INICIAL DEL TRAZADO = -0.10962
PENDIENTE FINAL DEL TRAZADO = -0.10962

TESADO DEFINITIVO

PRETENSADO EN EL NERVIO = 1

NUMERO DE CABLES = 16

TENSION EN ANCLAJE IZQUIERDO (Kp/mm2) = 144.00
TESAMOS POR LA IZQUIERDA (SI=1) = 0
TENSION EN ANCLAJE DERECHO (Kp/mm2) = 144.00
TESAMOS POR LA DERECHA (SI=1) = 1

PROPORCION DE TESADO EN LA PRIMERA FASE 0.65
AREA DE PRETENSADO (cm2) = 683.20
PENETRACION DE CUNA EN EXTREMO 1 (mm) = 5.000
PENETRACION DE CUNA EN EXTREMO 2 (mm) = 5.000

LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-1 (m) = 0.00
LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-2 (m) = 12.94

TENSION EN LOS CABLES. PERDIDAS INSTANT. (Kp/mm2)

I	X	To	P_ROZ	P_CUNA	P_ELAS	Ti
46	120.00	144.00	30.19	0.00	3.84	109.97
47	123.00	144.00	29.23	0.00	4.74	110.03
48	126.00	144.00	28.26	0.00	5.61	110.13
49	129.00	144.00	27.29	0.00	6.32	110.39
50	132.00	144.00	26.31	0.00	6.81	110.88
51	135.00	144.00	25.32	0.00	7.02	111.66
52	138.00	144.00	24.32	0.00	6.93	112.75
53	141.00	144.00	23.31	0.00	6.54	114.16
54	144.00	144.00	22.29	0.00	5.90	115.82
55	147.00	144.00	21.27	0.00	5.07	117.66
56	150.00	144.00	20.23	0.00	4.18	119.59
57	153.00	144.00	19.19	0.00	3.37	121.44
58	156.00	144.00	18.14	0.00	2.53	123.33
59	159.00	144.00	17.08	0.00	2.43	124.49
60	162.00	144.00	14.93	0.00	3.27	125.80
61	165.00	144.00	10.50	0.00	3.89	129.61
62	168.00	144.00	5.92	2.87	3.80	131.42
63	171.00	144.00	3.58	7.55	2.90	129.97
64	174.00	144.00	2.40	9.92	2.95	128.73
65	177.00	144.00	1.20	12.30	3.52	126.97
66	180.00	144.00	0.00	14.71	4.37	124.93

ALARGAMIENTO DE LOS CABLES (sobre embolo)= 392.0 mm

PROGRAMA DE CALCULO DE PRETENSADO EN NERVIOS DE UN EMPARRILLADO

DATOS GENERALES DE PRETENSADO

NUMERO DE NERVIOS = 1
NUMERO DE VANOS = 5
NUMERO DE SECCIONES POR VANO = 21
NUMERO DE MATERIALES = 3

LUZ DEL VANO =	1	L (m) =	45.00
LUZ DEL VANO =	2	L (m) =	60.00
LUZ DEL VANO =	3	L (m) =	60.00
LUZ DEL VANO =	4	L (m) =	60.00
LUZ DEL VANO =	5	L (m) =	60.00

COEFICIENTE DE ROZAMIENTO EN CURVA = 0.21
COEFICIENTE DE DESV. PARASITAS = 0.0060
RELAJACION = 0.04
RETRACCION mm/m = 0.233
COEF. FLUENCIA = 2.050

ACERO DE PRETENSADO (Kp/mm2)

LIMITE DE PROPORCIONALIDAD AL 0,2% = 170.00
TENSION DE ROTURA = 190.00
MODULO DE DEFORMACION = 19000.00

HORMIGON

MODULO DE DEFORMACION DURANTE TESADO (Kp/cm2) = 263000.00
MODULO DE DEFORMACION A 28 DIAS (Kp/cm2) = 329000.00

CARACTERISTICAS MECANICAS DE LA SECCION 1

AREA DE LA SECCION (m2) = 10.768
INERCIA DE LA SECCION (m2) = 22.5320
V_SUP. DE LA SECCION (m2) = 1.53
V_INF. DE LA SECCION (m2) = 2.46
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 2

AREA DE LA SECCION (m2) = 13.262
INERCIA DE LA SECCION (m2) = 28.5240
V_SUP. DE LA SECCION (m2) = 1.80
V_INF. DE LA SECCION (m2) = 2.19
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 3

AREA DE LA SECCION (m2) = 1.000
INERCIA DE LA SECCION (m2) = 2.0000
V_SUP. DE LA SECCION (m2) = 1.15
V_INF. DE LA SECCION (m2) = 0.55
CANTO DE LA SECCION (m2) = 1.70

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 1

Parametros de la parabola = 1
A = 0.00000 B = -0.12009 C = -1.70000
Origen = 0.00 Final = 1.40

Parametros de la parabola = 2
A = 0.00319 B = -0.12901 C = -1.69376
Origen = 1.40 Final = 20.25
Parametros de la parabola = 4
A = 0.00467 B = -0.18927 C = -1.08368
Origen = 20.25 Final = 41.00
Parametros de la parabola = 5
A = -0.02424 B = 2.18182 C = -49.69091
Origen = 41.00 Final = 45.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 2

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 3

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 4

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 5

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
66	180.000	-2.628	1.362	-1.094	0.0000	0.7603	0.0073
67	183.000	-2.924	1.066	-1.390	0.0219	0.7384	0.0073
68	186.000	-3.154	0.836	-1.620	0.0438	0.7165	0.0073
69	189.000	-3.318	0.672	-1.784	0.0658	0.6945	0.0073
70	192.000	-3.417	0.573	-1.883	0.0878	0.6726	0.0073
71	195.000	-3.450	0.540	-1.916	0.1097	0.6507	0.0073
72	198.000	-3.417	0.573	-1.883	0.1315	0.6288	0.0073
73	201.000	-3.318	0.672	-1.784	0.1536	0.6067	0.0073
74	204.000	-3.154	0.836	-1.620	0.1756	0.5848	0.0073
75	207.000	-2.924	1.066	-1.390	0.1974	0.5629	0.0073
76	210.000	-2.628	1.362	-1.094	0.2194	0.5409	0.0073
77	213.000	-2.266	1.724	-0.732	0.2414	0.5189	0.0073
78	216.000	-1.839	2.151	-0.305	0.2630	0.4973	0.0073
79	219.000	-1.345	2.645	0.456	0.2850	0.4753	0.0073
80	222.000	-0.814	3.176	0.987	0.3472	0.4131	-0.0475
81	225.000	-0.600	3.390	1.201	0.4899	0.2705	-0.0475
82	228.000	-0.814	3.176	0.987	0.6324	0.1279	-0.0475
83	231.000	-1.345	2.645	0.189	0.6945	0.0658	0.0073
84	234.000	-1.839	2.151	-0.305	0.7164	0.0439	0.0073
85	237.000	-2.266	1.724	-0.732	0.7384	0.0219	0.0073
86	240.000	-2.628	1.362	-1.094	0.7603	0.0000	0.0073

SECCIONES INICIAL Y FINAL DEL TRAZADO = 66 86
NUMERO DE VANOS INICIAL Y FINAL DEL TRAZADO = 4 5
PENDIENTE INICIAL DEL TRAZADO = -0.10962
PENDIENTE FINAL DEL TRAZADO = -0.10962

TESADO DEFINITIVO

PRETENSADO EN EL NERVIO = 1

NUMERO DE CABLES = 16

TENSION EN ANCLAJE IZQUIERDO (Kp/mm2) = 144.00
TESAMOS POR LA IZQUIERDA (SI=1) = 0
TENSION EN ANCLAJE DERECHO (Kp/mm2) = 144.00
TESAMOS POR LA DERECHA (SI=1) = 1

PROPORCION DE TESADO EN LA PRIMERA FASE 0.65
AREA DE PRETENSADO (cm2) = 683.20
PENETRACION DE CUNA EN EXTREMO 1 (mm) = 5.000
PENETRACION DE CUNA EN EXTREMO 2 (mm) = 5.000

LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-1 (m) = 0.00
LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-2 (m) = 12.94

TENSION EN LOS CABLES. PERDIDAS INSTANT. (Kp/mm2)

I	X	To	P_ROZ	P_CUNA	P_ELAS	Ti
66	180.00	144.00	30.19	0.00	3.84	109.97
67	183.00	144.00	29.23	0.00	4.74	110.03
68	186.00	144.00	28.26	0.00	5.61	110.13
69	189.00	144.00	27.29	0.00	6.32	110.39
70	192.00	144.00	26.31	0.00	6.81	110.88
71	195.00	144.00	25.32	0.00	7.02	111.66
72	198.00	144.00	24.32	0.00	6.93	112.75
73	201.00	144.00	23.31	0.00	6.54	114.16
74	204.00	144.00	22.29	0.00	5.90	115.82
75	207.00	144.00	21.27	0.00	5.07	117.66
76	210.00	144.00	20.23	0.00	4.18	119.59
77	213.00	144.00	19.19	0.00	3.37	121.44
78	216.00	144.00	18.14	0.00	2.53	123.33
79	219.00	144.00	17.08	0.00	2.43	124.49
80	222.00	144.00	14.93	0.00	3.27	125.80
81	225.00	144.00	10.50	0.00	3.89	129.61
82	228.00	144.00	5.92	2.87	3.80	131.42
83	231.00	144.00	3.58	7.55	2.90	129.97
84	234.00	144.00	2.40	9.92	2.95	128.73
85	237.00	144.00	1.20	12.30	3.52	126.97
86	240.00	144.00	0.00	14.71	4.37	124.93

ALARGAMIENTO DE LOS CABLES (sobre embolo)= 392.0 mm

PROGRAMA DE CALCULO DE PRETENSADO EN NERVIOS DE UN EMPARRILLADO

DATOS GENERALES DE PRETENSADO

NUMERO DE NERVIOS = 1
NUMERO DE VANOS = 6
NUMERO DE SECCIONES POR VANO = 21
NUMERO DE MATERIALES = 3
LUZ DEL VANO = 1 L (m) = 45.00
LUZ DEL VANO = 2 L (m) = 60.00
LUZ DEL VANO = 3 L (m) = 60.00
LUZ DEL VANO = 4 L (m) = 60.00
LUZ DEL VANO = 5 L (m) = 60.00
LUZ DEL VANO = 6 L (m) = 60.00

COEFICIENTE DE ROZAMIENTO EN CURVA = 0.21
COEFICIENTE DE DESV. PARASITAS = 0.0060
RELAJACION = 0.04
RETRACCION mm/m = 0.233
COEF. FLUENCIA = 2.050

ACERO DE PRETENSADO (Kp/mm2)

LIMITE DE PROPORCIONALIDAD AL 0,2% = 170.00
TENSION DE ROTURA = 190.00
MODULO DE DEFORMACION = 19000.00

HORMIGON

MODULO DE DEFORMACION DURANTE TESADO (Kp/cm2) = 263000.00
MODULO DE DEFORMACION A 28 DIAS (Kp/cm2) = 329000.00

CARACTERISTICAS MECANICAS DE LA SECCION 1

AREA DE LA SECCION (m2) = 10.768
INERCIA DE LA SECCION (m2) = 22.5320
V_SUP. DE LA SECCION (m2) = 1.53
V_INF. DE LA SECCION (m2) = 2.46
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 2

AREA DE LA SECCION (m2) = 13.262
INERCIA DE LA SECCION (m2) = 28.5240
V_SUP. DE LA SECCION (m2) = 1.80
V_INF. DE LA SECCION (m2) = 2.19
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 3

AREA DE LA SECCION (m2) = 1.000
INERCIA DE LA SECCION (m2) = 2.0000
V_SUP. DE LA SECCION (m2) = 1.15
V_INF. DE LA SECCION (m2) = 0.55
CANTO DE LA SECCION (m2) = 1.70

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 1

Parametros de la parabola = 1
A = 0.00000 B = -0.12009 C = -1.70000
Origen = 0.00 Final = 1.40
Parametros de la parabola = 2
A = 0.00319 B = -0.12901 C = -1.69376
Origen = 1.40 Final = 20.25
Parametros de la parabola = 4
A = 0.00467 B = -0.18927 C = -1.08368
Origen = 20.25 Final = 41.00
Parametros de la parabola = 5
A = -0.02424 B = 2.18182 C = -49.69091
Origen = 41.00 Final = 45.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 2

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 3

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 4

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 5

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 6

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
86	240.000	-2.628	1.362	-1.094	0.0000	0.7603	0.0073
87	243.000	-2.924	1.066	-1.390	0.0219	0.7384	0.0073
88	246.000	-3.154	0.836	-1.620	0.0438	0.7165	0.0073
89	249.000	-3.318	0.672	-1.784	0.0658	0.6945	0.0073
90	252.000	-3.417	0.573	-1.883	0.0878	0.6726	0.0073
91	255.000	-3.450	0.540	-1.916	0.1097	0.6507	0.0073
92	258.000	-3.417	0.573	-1.883	0.1315	0.6288	0.0073
93	261.000	-3.318	0.672	-1.784	0.1536	0.6067	0.0073
94	264.000	-3.154	0.836	-1.620	0.1756	0.5848	0.0073
95	267.000	-2.924	1.066	-1.390	0.1974	0.5629	0.0073
96	270.000	-2.628	1.362	-1.094	0.2194	0.5409	0.0073
97	273.000	-2.266	1.724	-0.732	0.2414	0.5189	0.0073
98	276.000	-1.839	2.151	-0.305	0.2630	0.4973	0.0073
99	279.000	-1.345	2.645	0.456	0.2850	0.4753	0.0073
100	282.000	-0.814	3.176	0.987	0.3472	0.4131	-0.0475
101	285.000	-0.600	3.390	1.201	0.4899	0.2705	-0.0475
102	288.000	-0.814	3.176	0.987	0.6324	0.1279	-0.0475
103	291.000	-1.345	2.645	0.189	0.6945	0.0658	0.0073
104	294.000	-1.839	2.151	-0.305	0.7164	0.0439	0.0073
105	297.000	-2.266	1.724	-0.732	0.7384	0.0219	0.0073
106	300.000	-2.628	1.362	-1.094	0.7603	0.0000	0.0073

SECCIONES INICIAL Y FINAL DEL TRAZADO = 86 106
NUMERO DE VANOS INICIAL Y FINAL DEL TRAZADO = 5 6
PENDIENTE INICIAL DEL TRAZADO = -0.10962
PENDIENTE FINAL DEL TRAZADO = -0.10962

TESADO DEFINITIVO

PRETENSADO EN EL NERVIO = 1

NUMERO DE CABLES = 16

TENSION EN ANCLAJE IZQUIERDO (Kp/mm2) = 144.00
TESAMOS POR LA IZQUIERDA (SI=1) = 0
TENSION EN ANCLAJE DERECHO (Kp/mm2) = 144.00
TESAMOS POR LA DERECHA (SI=1) = 1

PROPORCION DE TESADO EN LA PRIMERA FASE 0.65
AREA DE PRETENSADO (cm2) = 683.20
PENETRACION DE CUNA EN EXTREMO 1 (mm) = 5.000
PENETRACION DE CUNA EN EXTREMO 2 (mm) = 5.000

LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-1 (m) = 0.00
LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-2 (m) = 12.94

TENSION EN LOS CABLES. PERDIDAS INSTANT. (Kp/mm2)

I	X	To	P_ROZ	P_CUNA	P_ELAS	Ti
86	240.00	144.00	30.19	0.00	3.84	109.97
87	243.00	144.00	29.23	0.00	4.74	110.03
88	246.00	144.00	28.26	0.00	5.61	110.13
89	249.00	144.00	27.29	0.00	6.32	110.39
90	252.00	144.00	26.31	0.00	6.81	110.88
91	255.00	144.00	25.32	0.00	7.02	111.66
92	258.00	144.00	24.32	0.00	6.93	112.75
93	261.00	144.00	23.31	0.00	6.54	114.16
94	264.00	144.00	22.29	0.00	5.90	115.82
95	267.00	144.00	21.27	0.00	5.07	117.66
96	270.00	144.00	20.23	0.00	4.18	119.59
97	273.00	144.00	19.19	0.00	3.37	121.44
98	276.00	144.00	18.14	0.00	2.53	123.33
99	279.00	144.00	17.08	0.00	2.43	124.49
100	282.00	144.00	14.93	0.00	3.27	125.80
101	285.00	144.00	10.50	0.00	3.89	129.61
102	288.00	144.00	5.92	2.87	3.80	131.42
103	291.00	144.00	3.58	7.55	2.90	129.97
104	294.00	144.00	2.40	9.92	2.95	128.73
105	297.00	144.00	1.20	12.30	3.52	126.97
106	300.00	144.00	0.00	14.71	4.37	124.93

ALARGAMIENTO DE LOS CABLES (sobre embolo)= 392.0 mm

PROGRAMA DE CALCULO DE PRETENSADO EN NERVIOS DE UN EMPARRILLADO

DATOS GENERALES DE PRETENSADO

NUMERO DE NERVIOS = 1
NUMERO DE VANOS = 7
NUMERO DE SECCIONES POR VANO = 21
NUMERO DE MATERIALES = 3

LUZ DEL VANO =	1	L (m) =	45.00
LUZ DEL VANO =	2	L (m) =	60.00
LUZ DEL VANO =	3	L (m) =	60.00
LUZ DEL VANO =	4	L (m) =	60.00
LUZ DEL VANO =	5	L (m) =	60.00
LUZ DEL VANO =	6	L (m) =	60.00
LUZ DEL VANO =	7	L (m) =	60.00

COEFICIENTE DE ROZAMIENTO EN CURVA = 0.21
COEFICIENTE DE DESV. PARASITAS = 0.0060
RELAJACION = 0.04
RETRACCION mm/m = 0.233
COEF. FLUENCIA = 2.050

ACERO DE PRETENSADO (Kp/mm2)

LIMITE DE PROPORCIONALIDAD AL 0,2% = 170.00
TENSION DE ROTURA = 190.00
MODULO DE DEFORMACION = 19000.00

HORMIGON

MODULO DE DEFORMACION DURANTE TESADO (Kp/cm2) = 263000.00
MODULO DE DEFORMACION A 28 DIAS (Kp/cm2) = 329000.00

CARACTERISTICAS MECANICAS DE LA SECCION 1

AREA DE LA SECCION (m2) = 10.768
INERCIA DE LA SECCION (m2) = 22.5320
V_SUP. DE LA SECCION (m2) = 1.53
V_INF. DE LA SECCION (m2) = 2.46
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 2

AREA DE LA SECCION (m2) = 13.262
INERCIA DE LA SECCION (m2) = 28.5240
V_SUP. DE LA SECCION (m2) = 1.80
V_INF. DE LA SECCION (m2) = 2.19
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 3

AREA DE LA SECCION (m2) = 1.000
INERCIA DE LA SECCION (m2) = 2.0000
V_SUP. DE LA SECCION (m2) = 1.15
V_INF. DE LA SECCION (m2) = 0.55
CANTO DE LA SECCION (m2) = 1.70

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 1

Parametros de la parabola = 1
A = 0.00000 B = -0.12009 C = -1.70000
Origen = 0.00 Final = 1.40
Parametros de la parabola = 2
A = 0.00319 B = -0.12901 C = -1.69376
Origen = 1.40 Final = 20.25
Parametros de la parabola = 4
A = 0.00467 B = -0.18927 C = -1.08368
Origen = 20.25 Final = 41.00
Parametros de la parabola = 5
A = -0.02424 B = 2.18182 C = -49.69091
Origen = 41.00 Final = 45.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 2

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 3

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 4

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 5

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 6

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 7

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
106	300.000	-2.628	1.362	-1.094	0.0000	0.7603	0.0073
107	303.000	-2.924	1.066	-1.390	0.0219	0.7384	0.0073
108	306.000	-3.154	0.836	-1.620	0.0438	0.7165	0.0073
109	309.000	-3.318	0.672	-1.784	0.0658	0.6945	0.0073
110	312.000	-3.417	0.573	-1.883	0.0878	0.6726	0.0073
111	315.000	-3.450	0.540	-1.916	0.1097	0.6507	0.0073
112	318.000	-3.417	0.573	-1.883	0.1315	0.6288	0.0073
113	321.000	-3.318	0.672	-1.784	0.1536	0.6067	0.0073
114	324.000	-3.154	0.836	-1.620	0.1756	0.5848	0.0073
115	327.000	-2.924	1.066	-1.390	0.1974	0.5629	0.0073
116	330.000	-2.628	1.362	-1.094	0.2194	0.5409	0.0073
117	333.000	-2.266	1.724	-0.732	0.2414	0.5189	0.0073
118	336.000	-1.839	2.151	-0.305	0.2630	0.4973	0.0073
119	339.000	-1.345	2.645	0.456	0.2850	0.4753	0.0073
120	342.000	-0.814	3.176	0.987	0.3472	0.4131	-0.0475
121	345.000	-0.600	3.390	1.201	0.4899	0.2705	-0.0475
122	348.000	-0.814	3.176	0.987	0.6324	0.1279	-0.0475
123	351.000	-1.345	2.645	0.189	0.6945	0.0658	0.0073
124	354.000	-1.839	2.151	-0.305	0.7164	0.0439	0.0073
125	357.000	-2.266	1.724	-0.732	0.7384	0.0219	0.0073
126	360.000	-2.628	1.362	-1.094	0.7603	0.0000	0.0073

SECCIONES INICIAL Y FINAL DEL TRAZADO = 106 126
NUMERO DE VANOS INICIAL Y FINAL DEL TRAZADO = 6 7
PENDIENTE INICIAL DEL TRAZADO = -0.10962
PENDIENTE FINAL DEL TRAZADO = -0.10962

TESADO DEFINITIVO

PRETENSADO EN EL NERVIO = 1

NUMERO DE CABLES = 16

TENSION EN ANCLAJE IZQUIERDO (Kp/mm2) = 144.00
TESAMOS POR LA IZQUIERDA (SI=1) = 0
TENSION EN ANCLAJE DERECHO (Kp/mm2) = 144.00
TESAMOS POR LA DERECHA (SI=1) = 1

PROPORCION DE TESADO EN LA PRIMERA FASE 0.65
AREA DE PRETENSADO (cm2) = 683.20
PENETRACION DE CUNA EN EXTREMO 1 (mm) = 5.000
PENETRACION DE CUNA EN EXTREMO 2 (mm) = 5.000

LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-1 (m) = 0.00
LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-2 (m) = 12.94

TENSION EN LOS CABLES. PERDIDAS INSTANT. (Kp/mm2)

I	X	To	P_ROZ	P_CUNA	P_ELAS	Ti
106	300.00	144.00	30.19	0.00	3.84	109.97
107	303.00	144.00	29.23	0.00	4.74	110.03
108	306.00	144.00	28.26	0.00	5.61	110.13
109	309.00	144.00	27.29	0.00	6.32	110.39
110	312.00	144.00	26.31	0.00	6.81	110.88
111	315.00	144.00	25.32	0.00	7.02	111.66
112	318.00	144.00	24.32	0.00	6.93	112.75
113	321.00	144.00	23.31	0.00	6.54	114.16
114	324.00	144.00	22.29	0.00	5.90	115.82
115	327.00	144.00	21.27	0.00	5.07	117.66
116	330.00	144.00	20.23	0.00	4.18	119.59
117	333.00	144.00	19.19	0.00	3.37	121.44
118	336.00	144.00	18.14	0.00	2.53	123.33
119	339.00	144.00	17.08	0.00	2.43	124.49
120	342.00	144.00	14.93	0.00	3.27	125.80
121	345.00	144.00	10.50	0.00	3.89	129.61
122	348.00	144.00	5.92	2.87	3.80	131.42
123	351.00	144.00	3.58	7.55	2.90	129.97
124	354.00	144.00	2.40	9.92	2.95	128.73
125	357.00	144.00	1.20	12.30	3.52	126.97
126	360.00	144.00	0.00	14.71	4.37	124.93

ALARGAMIENTO DE LOS CABLES (sobre embolo)= 392.0 mm

PROGRAMA DE CALCULO DE PRETENSADO EN NERVIOS DE UN EMPARRILLADO

DATOS GENERALES DE PRETENSADO

NUMERO DE NERVIOS = 1
NUMERO DE VANOS = 8
NUMERO DE SECCIONES POR VANO = 21
NUMERO DE MATERIALES = 3

LUZ DEL VANO =	1	L (m) =	45.00
LUZ DEL VANO =	2	L (m) =	60.00
LUZ DEL VANO =	3	L (m) =	60.00
LUZ DEL VANO =	4	L (m) =	60.00
LUZ DEL VANO =	5	L (m) =	60.00
LUZ DEL VANO =	6	L (m) =	60.00
LUZ DEL VANO =	7	L (m) =	60.00
LUZ DEL VANO =	8	L (m) =	60.00

COEFICIENTE DE ROZAMIENTO EN CURVA = 0.21
COEFICIENTE DE DESV. PARASITAS = 0.0060
RELAJACION = 0.04
RETRACCION mm/m = 0.233
COEF. FLUENCIA = 2.050

ACERO DE PRETENSADO (Kp/mm2)

LIMITE DE PROPORCIONALIDAD AL 0,2% = 170.00
TENSION DE ROTURA = 190.00
MODULO DE DEFORMACION = 19000.00

HORMIGON

MODULO DE DEFORMACION DURANTE TESADO (Kp/cm2) = 263000.00
MODULO DE DEFORMACION A 28 DIAS (Kp/cm2) = 329000.00

CARACTERISTICAS MECANICAS DE LA SECCION 1

AREA DE LA SECCION (m2) = 10.768
INERCIA DE LA SECCION (m2) = 22.5320
V_SUP. DE LA SECCION (m2) = 1.53
V_INF. DE LA SECCION (m2) = 2.46
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 2

AREA DE LA SECCION (m2) = 13.262
INERCIA DE LA SECCION (m2) = 28.5240
V_SUP. DE LA SECCION (m2) = 1.80
V_INF. DE LA SECCION (m2) = 2.19
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 3

AREA DE LA SECCION (m2) = 1.000
INERCIA DE LA SECCION (m2) = 2.0000
V_SUP. DE LA SECCION (m2) = 1.15
V_INF. DE LA SECCION (m2) = 0.55
CANTO DE LA SECCION (m2) = 1.70

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 1

Parametros de la parabola = 1
A = 0.00000 B = -0.12009 C = -1.70000
Origen = 0.00 Final = 1.40
Parametros de la parabola = 2
A = 0.00319 B = -0.12901 C = -1.69376
Origen = 1.40 Final = 20.25
Parametros de la parabola = 4
A = 0.00467 B = -0.18927 C = -1.08368
Origen = 20.25 Final = 41.00
Parametros de la parabola = 5
A = -0.02424 B = 2.18182 C = -49.69091
Origen = 41.00 Final = 45.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 2

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 3

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00

Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 4

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 5

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 6

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 7

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 8

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
126	360.000	-2.628	1.362	-1.094	0.0000	0.7603	0.0073
127	363.000	-2.924	1.066	-1.390	0.0219	0.7384	0.0073
128	366.000	-3.154	0.836	-1.620	0.0438	0.7165	0.0073
129	369.000	-3.318	0.672	-1.784	0.0658	0.6945	0.0073
130	372.000	-3.417	0.573	-1.883	0.0878	0.6726	0.0073
131	375.000	-3.450	0.540	-1.916	0.1097	0.6507	0.0073
132	378.000	-3.417	0.573	-1.883	0.1315	0.6288	0.0073
133	381.000	-3.318	0.672	-1.784	0.1536	0.6067	0.0073
134	384.000	-3.154	0.836	-1.620	0.1756	0.5848	0.0073
135	387.000	-2.924	1.066	-1.390	0.1974	0.5629	0.0073
136	390.000	-2.628	1.362	-1.094	0.2194	0.5409	0.0073
137	393.000	-2.266	1.724	-0.732	0.2414	0.5189	0.0073
138	396.000	-1.839	2.151	-0.305	0.2630	0.4973	0.0073
139	399.000	-1.345	2.645	0.456	0.2850	0.4753	0.0073
140	402.000	-0.814	3.176	0.987	0.3472	0.4131	-0.0475
141	405.000	-0.600	3.390	1.201	0.4899	0.2705	-0.0475
142	408.000	-0.814	3.176	0.987	0.6324	0.1279	-0.0475
143	411.000	-1.345	2.645	0.189	0.6945	0.0658	0.0073
144	414.000	-1.839	2.151	-0.305	0.7164	0.0439	0.0073
145	417.000	-2.266	1.724	-0.732	0.7384	0.0219	0.0073
146	420.000	-2.628	1.362	-1.094	0.7603	0.0000	0.0073

SECCIONES INICIAL Y FINAL DEL TRAZADO = 126 146
NUMERO DE VANOS INICIAL Y FINAL DEL TRAZADO = 7 8
PENDIENTE INICIAL DEL TRAZADO = -0.10962
PENDIENTE FINAL DEL TRAZADO = -0.10962

TESADO DEFINITIVO

PRETENSADO EN EL NERVIO = 1

NUMERO DE CABLES = 16

TENSION EN ANCLAJE IZQUIERDO (Kp/mm2) = 144.00
TESAMOS POR LA IZQUIERDA (SI=1) = 0
TENSION EN ANCLAJE DERECHO (Kp/mm2) = 144.00
TESAMOS POR LA DERECHA (SI=1) = 1

PROPORCION DE TESADO EN LA PRIMERA FASE 0.65
AREA DE PRETENSADO (cm2) = 683.20
PENETRACION DE CUNA EN EXTREMO 1 (mm) = 5.000
PENETRACION DE CUNA EN EXTREMO 2 (mm) = 5.000

LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-1 (m) = 0.00
LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-2 (m) = 12.94

TENSION EN LOS CABLES. PERDIDAS INSTANT. (Kp/mm2)

I	X	To	P_ROZ	P_CUNA	P_ELAS	Ti
126	360.00	144.00	30.19	0.00	3.84	109.97
127	363.00	144.00	29.23	0.00	4.74	110.03
128	366.00	144.00	28.26	0.00	5.61	110.13
129	369.00	144.00	27.29	0.00	6.32	110.39
130	372.00	144.00	26.31	0.00	6.81	110.88
131	375.00	144.00	25.32	0.00	7.02	111.66
132	378.00	144.00	24.32	0.00	6.93	112.75
133	381.00	144.00	23.31	0.00	6.54	114.16
134	384.00	144.00	22.29	0.00	5.90	115.82
135	387.00	144.00	21.27	0.00	5.07	117.66
136	390.00	144.00	20.23	0.00	4.18	119.59
137	393.00	144.00	19.19	0.00	3.37	121.44
138	396.00	144.00	18.14	0.00	2.53	123.33
139	399.00	144.00	17.08	0.00	2.43	124.49
140	402.00	144.00	14.93	0.00	3.27	125.80
141	405.00	144.00	10.50	0.00	3.89	129.61
142	408.00	144.00	5.92	2.87	3.80	131.42
143	411.00	144.00	3.58	7.55	2.90	129.97
144	414.00	144.00	2.40	9.92	2.95	128.73
145	417.00	144.00	1.20	12.30	3.52	126.97
146	420.00	144.00	0.00	14.71	4.37	124.93

ALARGAMIENTO DE LOS CABLES (sobre embolo)= 392.0 mm

PROGRAMA DE CALCULO DE PRETENSADO EN NERVIOS DE UN EMPARRILLADO

DATOS GENERALES DE PRETENSADO

NUMERO DE NERVIOS = 1
NUMERO DE VANOS = 9
NUMERO DE SECCIONES POR VANO = 21
NUMERO DE MATERIALES = 3
LUZ DEL VANO = 1 L (m) = 45.00
LUZ DEL VANO = 2 L (m) = 60.00

LUZ DEL VANO = 3 L (m) = 60.00
LUZ DEL VANO = 4 L (m) = 60.00
LUZ DEL VANO = 5 L (m) = 60.00
LUZ DEL VANO = 6 L (m) = 60.00
LUZ DEL VANO = 7 L (m) = 60.00
LUZ DEL VANO = 8 L (m) = 60.00
LUZ DEL VANO = 9 L (m) = 60.00

COEFICIENTE DE ROZAMIENTO EN CURVA = 0.21
COEFICIENTE DE DESV. PARASITAS = 0.0060
RELAJACION = 0.04
RETRACCION mm/m = 0.233
COEF. FLUENCIA = 2.050

ACERO DE PRETENSADO (Kp/mm2)

LIMITE DE PROPORCIONALIDAD AL 0,2% = 170.00
TENSION DE ROTURA = 190.00
MODULO DE DEFORMACION = 19000.00

HORMIGON

MODULO DE DEFORMACION DURANTE TESADO (Kp/cm2) = 263000.00
MODULO DE DEFORMACION A 28 DIAS (Kp/cm2) = 329000.00

CARACTERISTICAS MECANICAS DE LA SECCION 1

AREA DE LA SECCION (m2) = 10.768
INERCIA DE LA SECCION (m2) = 22.5320
V_SUP. DE LA SECCION (m2) = 1.53
V_INF. DE LA SECCION (m2) = 2.46
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 2

AREA DE LA SECCION (m2) = 13.262
INERCIA DE LA SECCION (m2) = 28.5240
V_SUP. DE LA SECCION (m2) = 1.80
V_INF. DE LA SECCION (m2) = 2.19
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 3

AREA DE LA SECCION (m2) = 1.000
INERCIA DE LA SECCION (m2) = 2.0000
V_SUP. DE LA SECCION (m2) = 1.15
V_INF. DE LA SECCION (m2) = 0.55
CANTO DE LA SECCION (m2) = 1.70

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 1

Parametros de la parabola = 1
A = 0.00000 B = -0.12009 C = -1.70000
Origen = 0.00 Final = 1.40
Parametros de la parabola = 2
A = 0.00319 B = -0.12901 C = -1.69376
Origen = 1.40 Final = 20.25
Parametros de la parabola = 4
A = 0.00467 B = -0.18927 C = -1.08368
Origen = 20.25 Final = 41.00
Parametros de la parabola = 5
A = -0.02424 B = 2.18182 C = -49.69091
Origen = 41.00 Final = 45.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 2

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 3

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 4

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 5

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 6

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 7

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 8

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 9

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
146	420.000	-2.628	1.362	-1.094	0.0000	0.7603	0.0073
147	423.000	-2.924	1.066	-1.390	0.0219	0.7384	0.0073
148	426.000	-3.154	0.836	-1.620	0.0438	0.7165	0.0073
149	429.000	-3.318	0.672	-1.784	0.0658	0.6945	0.0073
150	432.000	-3.417	0.573	-1.883	0.0878	0.6726	0.0073
151	435.000	-3.450	0.540	-1.916	0.1097	0.6507	0.0073
152	438.000	-3.417	0.573	-1.883	0.1315	0.6288	0.0073
153	441.000	-3.318	0.672	-1.784	0.1536	0.6067	0.0073
154	444.000	-3.154	0.836	-1.620	0.1756	0.5848	0.0073
155	447.000	-2.924	1.066	-1.390	0.1974	0.5629	0.0073
156	450.000	-2.628	1.362	-1.094	0.2194	0.5409	0.0073
157	453.000	-2.266	1.724	-0.732	0.2414	0.5189	0.0073
158	456.000	-1.839	2.151	-0.305	0.2630	0.4973	0.0073
159	459.000	-1.345	2.645	0.456	0.2850	0.4753	0.0073
160	462.000	-0.814	3.176	0.987	0.3472	0.4131	-0.0475
161	465.000	-0.600	3.390	1.201	0.4899	0.2705	-0.0475
162	468.000	-0.814	3.176	0.987	0.6324	0.1279	-0.0475
163	471.000	-1.345	2.645	0.189	0.6945	0.0658	0.0073
164	474.000	-1.839	2.151	-0.305	0.7164	0.0439	0.0073
165	477.000	-2.266	1.724	-0.732	0.7384	0.0219	0.0073
166	480.000	-2.628	1.362	-1.094	0.7603	0.0000	0.0073

SECCIONES INICIAL Y FINAL DEL TRAZADO = 146 166
NUMERO DE VANOS INICIAL Y FINAL DEL TRAZADO = 8 9
PENDIENTE INICIAL DEL TRAZADO = -0.10962
PENDIENTE FINAL DEL TRAZADO = -0.10962

TESADO DEFINITIVO

PRETENSADO EN EL NERVIO = 1

NUMERO DE CABLES = 16

TENSION EN ANCLAJE IZQUIERDO (Kp/mm2) = 144.00
TESAMOS POR LA IZQUIERDA (SI=1) = 0
TENSION EN ANCLAJE DERECHO (Kp/mm2) = 144.00
TESAMOS POR LA DERECHA (SI=1) = 1

PROPORCION DE TESADO EN LA PRIMERA FASE 0.65
AREA DE PRETENSADO (cm2) = 683.20
PENETRACION DE CUNA EN EXTREMO 1 (mm) = 5.000
PENETRACION DE CUNA EN EXTREMO 2 (mm) = 5.000

LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-1 (m) = 0.00
LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-2 (m) = 12.94

TENSION EN LOS CABLES. PERDIDAS INSTANT. (Kp/mm2)

I	X	To	P_ROZ	P_CUNA	P_ELAS	Ti
146	420.00	144.00	30.19	0.00	3.84	109.97
147	423.00	144.00	29.23	0.00	4.74	110.03
148	426.00	144.00	28.26	0.00	5.61	110.13
149	429.00	144.00	27.29	0.00	6.32	110.39
150	432.00	144.00	26.31	0.00	6.81	110.88
151	435.00	144.00	25.32	0.00	7.02	111.66
152	438.00	144.00	24.32	0.00	6.93	112.75
153	441.00	144.00	23.31	0.00	6.54	114.16
154	444.00	144.00	22.29	0.00	5.90	115.82
155	447.00	144.00	21.27	0.00	5.07	117.66
156	450.00	144.00	20.23	0.00	4.18	119.59
157	453.00	144.00	19.19	0.00	3.37	121.44
158	456.00	144.00	18.14	0.00	2.53	123.33
159	459.00	144.00	17.08	0.00	2.43	124.49
160	462.00	144.00	14.93	0.00	3.27	125.80
161	465.00	144.00	10.50	0.00	3.89	129.61
162	468.00	144.00	5.92	2.87	3.80	131.42
163	471.00	144.00	3.58	7.55	2.90	129.97
164	474.00	144.00	2.40	9.92	2.95	128.73
165	477.00	144.00	1.20	12.30	3.52	126.97
166	480.00	144.00	0.00	14.71	4.37	124.93

ALARGAMIENTO DE LOS CABLES (sobre embolo)= 392.0 mm

PROGRAMA DE CALCULO DE PRETENSADO EN NERVIOS DE UN EMPARRILLADO

DATOS GENERALES DE PRETENSADO

NUMERO DE NERVIOS = 1
NUMERO DE VANOS = 10
NUMERO DE SECCIONES POR VANO = 21
NUMERO DE MATERIALES = 3

LUZ DEL VANO =	1	L (m) =	45.00
LUZ DEL VANO =	2	L (m) =	60.00
LUZ DEL VANO =	3	L (m) =	60.00
LUZ DEL VANO =	4	L (m) =	60.00
LUZ DEL VANO =	5	L (m) =	60.00
LUZ DEL VANO =	6	L (m) =	60.00
LUZ DEL VANO =	7	L (m) =	60.00
LUZ DEL VANO =	8	L (m) =	60.00
LUZ DEL VANO =	9	L (m) =	60.00
LUZ DEL VANO =	10	L (m) =	60.00

COEFICIENTE DE ROZAMIENTO EN CURVA = 0.21
COEFICIENTE DE DESV. PARASITAS = 0.0060
RELAJACION = 0.04
RETRACCION mm/m = 0.233
COEF. FLUENCIA = 2.050

ACERO DE PRETENSADO (Kp/mm2)

LIMITE DE PROPORCIONALIDAD AL 0,2% = 170.00
TENSION DE ROTURA = 190.00
MODULO DE DEFORMACION = 19000.00

HORMIGON

MODULO DE DEFORMACION DURANTE TESADO (Kp/cm2) = 263000.00
MODULO DE DEFORMACION A 28 DIAS (Kp/cm2) = 329000.00

CARACTERISTICAS MECANICAS DE LA SECCION 1

AREA DE LA SECCION (m2) = 10.768
INERCIA DE LA SECCION (m2) = 22.5320
V_SUP. DE LA SECCION (m2) = 1.53
V_INF. DE LA SECCION (m2) = 2.46
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 2

AREA DE LA SECCION (m2) = 13.262
INERCIA DE LA SECCION (m2) = 28.5240
V_SUP. DE LA SECCION (m2) = 1.80
V_INF. DE LA SECCION (m2) = 2.19
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 3

AREA DE LA SECCION (m2) = 1.000
INERCIA DE LA SECCION (m2) = 2.0000
V_SUP. DE LA SECCION (m2) = 1.15
V_INF. DE LA SECCION (m2) = 0.55
CANTO DE LA SECCION (m2) = 1.70

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 1

Parametros de la parabola = 1
A = 0.00000 B = -0.12009 C = -1.70000
Origen = 0.00 Final = 1.40
Parametros de la parabola = 2
A = 0.00319 B = -0.12901 C = -1.69376
Origen = 1.40 Final = 20.25
Parametros de la parabola = 4
A = 0.00467 B = -0.18927 C = -1.08368
Origen = 20.25 Final = 41.00
Parametros de la parabola = 5
A = -0.02424 B = 2.18182 C = -49.69091
Origen = 41.00 Final = 45.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 2

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 3

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 4

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 5

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 6

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 7

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 8

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00

Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00
DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 9

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00
(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 10

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00
DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
166	480.000	-2.628	1.362	-1.094	0.0000	0.7603	0.0073
167	483.000	-2.924	1.066	-1.390	0.0219	0.7384	0.0073
168	486.000	-3.154	0.836	-1.620	0.0438	0.7165	0.0073
169	489.000	-3.318	0.672	-1.784	0.0658	0.6945	0.0073
170	492.000	-3.417	0.573	-1.883	0.0878	0.6726	0.0073
171	495.000	-3.450	0.540	-1.916	0.1097	0.6507	0.0073
172	498.000	-3.417	0.573	-1.883	0.1315	0.6288	0.0073
173	501.000	-3.318	0.672	-1.784	0.1536	0.6067	0.0073
174	504.000	-3.154	0.836	-1.620	0.1756	0.5848	0.0073
175	507.000	-2.924	1.066	-1.390	0.1974	0.5629	0.0073
176	510.000	-2.628	1.362	-1.094	0.2194	0.5409	0.0073
177	513.000	-2.266	1.724	-0.732	0.2414	0.5189	0.0073
178	516.000	-1.839	2.151	-0.305	0.2630	0.4973	0.0073
179	519.000	-1.345	2.645	0.456	0.2850	0.4753	0.0073
180	522.000	-0.814	3.176	0.987	0.3472	0.4131	-0.0475
181	525.000	-0.600	3.390	1.201	0.4899	0.2705	-0.0475
182	528.000	-0.814	3.176	0.987	0.6324	0.1279	-0.0475
183	531.000	-1.345	2.645	0.189	0.6945	0.0658	0.0073
184	534.000	-1.839	2.151	-0.305	0.7164	0.0439	0.0073
185	537.000	-2.266	1.724	-0.732	0.7384	0.0219	0.0073
186	540.000	-2.628	1.362	-1.094	0.7603	0.0000	0.0073

SECCIONES INICIAL Y FINAL DEL TRAZADO = 166 186
NUMERO DE VANOS INICIAL Y FINAL DEL TRAZADO = 9 10

PENDIENTE INICIAL DEL TRAZADO = -0.10962
PENDIENTE FINAL DEL TRAZADO = -0.10962

TESADO DEFINITIVO

PRETENSADO EN EL NERVIO = 1

NUMERO DE CABLES = 16

TENSION EN ANCLAJE IZQUIERDO (Kp/mm2) = 144.00
TESAMOS POR LA IZQUIERDA (SI=1) = 0
TENSION EN ANCLAJE DERECHO (Kp/mm2) = 144.00
TESAMOS POR LA DERECHA (SI=1) = 1

PROPORCION DE TESADO EN LA PRIMERA FASE 0.65
AREA DE PRETENSADO (cm2) = 683.20
PENETRACION DE CUNA EN EXTREMO 1 (mm) = 5.000
PENETRACION DE CUNA EN EXTREMO 2 (mm) = 5.000

LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-1 (m) = 0.00
LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-2 (m) = 12.94

TENSION EN LOS CABLES. PERDIDAS INSTANT. (Kp/mm2)

I	X	To	P_ROZ	P_CUNA	P_ELAS	Ti
166	480.00	144.00	30.19	0.00	3.84	109.97
167	483.00	144.00	29.23	0.00	4.74	110.03
168	486.00	144.00	28.26	0.00	5.61	110.13
169	489.00	144.00	27.29	0.00	6.32	110.39
170	492.00	144.00	26.31	0.00	6.81	110.88
171	495.00	144.00	25.32	0.00	7.02	111.66
172	498.00	144.00	24.32	0.00	6.93	112.75
173	501.00	144.00	23.31	0.00	6.54	114.16
174	504.00	144.00	22.29	0.00	5.90	115.82
175	507.00	144.00	21.27	0.00	5.07	117.66
176	510.00	144.00	20.23	0.00	4.18	119.59
177	513.00	144.00	19.19	0.00	3.37	121.44
178	516.00	144.00	18.14	0.00	2.53	123.33
179	519.00	144.00	17.08	0.00	2.43	124.49
180	522.00	144.00	14.93	0.00	3.27	125.80
181	525.00	144.00	10.50	0.00	3.89	129.61
182	528.00	144.00	5.92	2.87	3.80	131.42
183	531.00	144.00	3.58	7.55	2.90	129.97
184	534.00	144.00	2.40	9.92	2.95	128.73
185	537.00	144.00	1.20	12.30	3.52	126.97
186	540.00	144.00	0.00	14.71	4.37	124.93

ALARGAMIENTO DE LOS CABLES (sobre embolo)= 392.0 mm

PROGRAMA DE CALCULO DE PRETENSADO EN NERVIOS DE UN EMPARRILLADO

DATOS GENERALES DE PRETENSADO

NUMERO DE NERVIOS = 1
NUMERO DE VANOS = 11
NUMERO DE SECCIONES POR VANO = 21
NUMERO DE MATERIALES = 3

LUZ DEL VANO =	1	L (m) =	45.00
LUZ DEL VANO =	2	L (m) =	60.00
LUZ DEL VANO =	3	L (m) =	60.00
LUZ DEL VANO =	4	L (m) =	60.00
LUZ DEL VANO =	5	L (m) =	60.00
LUZ DEL VANO =	6	L (m) =	60.00
LUZ DEL VANO =	7	L (m) =	60.00
LUZ DEL VANO =	8	L (m) =	60.00
LUZ DEL VANO =	9	L (m) =	60.00
LUZ DEL VANO =	10	L (m) =	60.00
LUZ DEL VANO =	11	L (m) =	60.00

COEFICIENTE DE ROZAMIENTO EN CURVA = 0.21
COEFICIENTE DE DESV. PARASITAS = 0.0060
RELAJACION = 0.04
RETRACCION mm/m = 0.233
COEF. FLUENCIA = 2.050

ACERO DE PRETENSADO (Kp/mm2)

LIMITE DE PROPORCIONALIDAD AL 0,2% = 170.00
TENSION DE ROTURA = 190.00
MODULO DE DEFORMACION = 19000.00

HORMIGON

MODULO DE DEFORMACION DURANTE TESADO (Kp/cm2) = 263000.00
MODULO DE DEFORMACION A 28 DIAS (Kp/cm2) = 329000.00

CARACTERISTICAS MECANICAS DE LA SECCION 1

AREA DE LA SECCION (m2) = 10.768
INERCIA DE LA SECCION (m2) = 22.5320
V_SUP. DE LA SECCION (m2) = 1.53
V_INF. DE LA SECCION (m2) = 2.46
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 2

AREA DE LA SECCION (m2) = 13.262
INERCIA DE LA SECCION (m2) = 28.5240
V_SUP. DE LA SECCION (m2) = 1.80
V_INF. DE LA SECCION (m2) = 2.19
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 3

AREA DE LA SECCION (m2) = 1.000
INERCIA DE LA SECCION (m2) = 2.0000
V_SUP. DE LA SECCION (m2) = 1.15
V_INF. DE LA SECCION (m2) = 0.55
CANTO DE LA SECCION (m2) = 1.70

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 1

Parametros de la parabola = 1
A = 0.00000 B = -0.12009 C = -1.70000
Origen = 0.00 Final = 1.40
Parametros de la parabola = 2
A = 0.00319 B = -0.12901 C = -1.69376
Origen = 1.40 Final = 20.25
Parametros de la parabola = 4
A = 0.00467 B = -0.18927 C = -1.08368
Origen = 20.25 Final = 41.00
Parametros de la parabola = 5
A = -0.02424 B = 2.18182 C = -49.69091
Origen = 41.00 Final = 45.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 2

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 3

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 4

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 5

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 6

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 7

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 8

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 9

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 10

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 11

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
186	540.000	-2.628	1.362	-1.094	0.0000	0.7603	0.0073
187	543.000	-2.924	1.066	-1.390	0.0219	0.7384	0.0073
188	546.000	-3.154	0.836	-1.620	0.0438	0.7165	0.0073
189	549.000	-3.318	0.672	-1.784	0.0658	0.6945	0.0073
190	552.000	-3.417	0.573	-1.883	0.0878	0.6726	0.0073
191	555.000	-3.450	0.540	-1.916	0.1097	0.6507	0.0073
192	558.000	-3.417	0.573	-1.883	0.1315	0.6288	0.0073
193	561.000	-3.318	0.672	-1.784	0.1536	0.6067	0.0073
194	564.000	-3.154	0.836	-1.620	0.1756	0.5848	0.0073
195	567.000	-2.924	1.066	-1.390	0.1974	0.5629	0.0073
196	570.000	-2.628	1.362	-1.094	0.2194	0.5409	0.0073
197	573.000	-2.266	1.724	-0.732	0.2414	0.5189	0.0073
198	576.000	-1.839	2.151	-0.305	0.2630	0.4973	0.0073
199	579.000	-1.345	2.645	0.456	0.2850	0.4753	0.0073
200	582.000	-0.814	3.176	0.987	0.3472	0.4131	-0.0475
201	585.000	-0.600	3.390	1.201	0.4899	0.2705	-0.0475
202	588.000	-0.814	3.176	0.987	0.6324	0.1279	-0.0475
203	591.000	-1.345	2.645	0.189	0.6945	0.0658	0.0073
204	594.000	-1.839	2.151	-0.305	0.7164	0.0439	0.0073
205	597.000	-2.266	1.724	-0.732	0.7384	0.0219	0.0073
206	600.000	-2.628	1.362	-1.094	0.7603	0.0000	0.0073

SECCIONES INICIAL Y FINAL DEL TRAZADO = 186 206
NUMERO DE VANOS INICIAL Y FINAL DEL TRAZADO = 10 11
PENDIENTE INICIAL DEL TRAZADO = -0.10962
PENDIENTE FINAL DEL TRAZADO = -0.10962

TESADO DEFINITIVO

PRETENSADO EN EL NERVIO = 1

NUMERO DE CABLES = 16

TENSION EN ANCLAJE IZQUIERDO (Kp/mm2) = 144.00
TESAMOS POR LA IZQUIERDA (SI=1) = 0
TENSION EN ANCLAJE DERECHO (Kp/mm2) = 144.00
TESAMOS POR LA DERECHA (SI=1) = 1

PROPORCION DE TESADO EN LA PRIMERA FASE 0.65
AREA DE PRETENSADO (cm2) = 683.20
PENETRACION DE CUNA EN EXTREMO 1 (mm) = 5.000
PENETRACION DE CUNA EN EXTREMO 2 (mm) = 5.000

LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-1 (m) = 0.00
LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-2 (m) = 12.94

TENSION EN LOS CABLES. PERDIDAS INSTANT. (Kp/mm2)

I	X	To	P_ROZ	P_CUNA	P_ELAS	Ti
186	540.00	144.00	30.19	0.00	3.84	109.97
187	543.00	144.00	29.23	0.00	4.74	110.03
188	546.00	144.00	28.26	0.00	5.61	110.13
189	549.00	144.00	27.29	0.00	6.32	110.39
190	552.00	144.00	26.31	0.00	6.81	110.88
191	555.00	144.00	25.32	0.00	7.02	111.66
192	558.00	144.00	24.32	0.00	6.93	112.75
193	561.00	144.00	23.31	0.00	6.54	114.16
194	564.00	144.00	22.29	0.00	5.90	115.82
195	567.00	144.00	21.27	0.00	5.07	117.66
196	570.00	144.00	20.23	0.00	4.18	119.59
197	573.00	144.00	19.19	0.00	3.37	121.44
198	576.00	144.00	18.14	0.00	2.53	123.33
199	579.00	144.00	17.08	0.00	2.43	124.49
200	582.00	144.00	14.93	0.00	3.27	125.80
201	585.00	144.00	10.50	0.00	3.89	129.61
202	588.00	144.00	5.92	2.87	3.80	131.42
203	591.00	144.00	3.58	7.55	2.90	129.97
204	594.00	144.00	2.40	9.92	2.95	128.73
205	597.00	144.00	1.20	12.30	3.52	126.97
206	600.00	144.00	0.00	14.71	4.37	124.93

ALARGAMIENTO DE LOS CABLES (sobre embolo)= 392.0 mm

PROGRAMA DE CALCULO DE PRETENSADO EN NERVIOS DE UN EMPARRILLADO

DATOS GENERALES DE PRETENSADO

NUMERO DE NERVIOS = 1
NUMERO DE VANOS = 12
NUMERO DE SECCIONES POR VANO = 21
NUMERO DE MATERIALES = 3

LUZ DEL VANO =	1	L (m) =	45.00
LUZ DEL VANO =	2	L (m) =	60.00
LUZ DEL VANO =	3	L (m) =	60.00
LUZ DEL VANO =	4	L (m) =	60.00
LUZ DEL VANO =	5	L (m) =	60.00
LUZ DEL VANO =	6	L (m) =	60.00
LUZ DEL VANO =	7	L (m) =	60.00
LUZ DEL VANO =	8	L (m) =	60.00
LUZ DEL VANO =	9	L (m) =	60.00
LUZ DEL VANO =	10	L (m) =	60.00
LUZ DEL VANO =	11	L (m) =	60.00
LUZ DEL VANO =	12	L (m) =	60.00

COEFICIENTE DE ROZAMIENTO EN CURVA = 0.21
COEFICIENTE DE DESV. PARASITAS = 0.0060
RELAJACION = 0.04
RETRACCION mm/m = 0.233
COEF. FLUENCIA = 2.050

ACERO DE PRETENSADO (Kp/mm2)

LIMITE DE PROPORCIONALIDAD AL 0,2% = 170.00
TENSION DE ROTURA = 190.00
MODULO DE DEFORMACION = 19000.00

HORMIGON

MODULO DE DEFORMACION DURANTE TESADO (Kp/cm2) = 263000.00
MODULO DE DEFORMACION A 28 DIAS (Kp/cm2) = 329000.00

CARACTERISTICAS MECANICAS DE LA SECCION 1

AREA DE LA SECCION (m2) = 10.768
INERCIA DE LA SECCION (m2) = 22.5320
V_SUP. DE LA SECCION (m2) = 1.53
V_INF. DE LA SECCION (m2) = 2.46
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 2

AREA DE LA SECCION (m2) = 13.262
INERCIA DE LA SECCION (m2) = 28.5240
V_SUP. DE LA SECCION (m2) = 1.80
V_INF. DE LA SECCION (m2) = 2.19
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 3

AREA DE LA SECCION (m2) = 1.000
INERCIA DE LA SECCION (m2) = 2.0000
V_SUP. DE LA SECCION (m2) = 1.15
V_INF. DE LA SECCION (m2) = 0.55
CANTO DE LA SECCION (m2) = 1.70

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 1

Parametros de la parabola = 1
A = 0.00000 B = -0.12009 C = -1.70000
Origen = 0.00 Final = 1.40
Parametros de la parabola = 2
A = 0.00319 B = -0.12901 C = -1.69376
Origen = 1.40 Final = 20.25
Parametros de la parabola = 4
A = 0.00467 B = -0.18927 C = -1.08368
Origen = 20.25 Final = 41.00
Parametros de la parabola = 5
A = -0.02424 B = 2.18182 C = -49.69091
Origen = 41.00 Final = 45.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 2

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 3

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 4

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 5

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 6

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 7

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 8

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 9

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 10

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 11

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 12

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
206	600.000	-2.628	1.362	-1.094	0.0000	0.7603	0.0073
207	603.000	-2.924	1.066	-1.390	0.0219	0.7384	0.0073
208	606.000	-3.154	0.836	-1.620	0.0438	0.7165	0.0073
209	609.000	-3.318	0.672	-1.784	0.0658	0.6945	0.0073
210	612.000	-3.417	0.573	-1.883	0.0878	0.6726	0.0073
211	615.000	-3.450	0.540	-1.916	0.1097	0.6507	0.0073
212	618.000	-3.417	0.573	-1.883	0.1315	0.6288	0.0073
213	621.000	-3.318	0.672	-1.784	0.1536	0.6067	0.0073
214	624.000	-3.154	0.836	-1.620	0.1756	0.5848	0.0073
215	627.000	-2.924	1.066	-1.390	0.1974	0.5629	0.0073
216	630.000	-2.628	1.362	-1.094	0.2194	0.5409	0.0073
217	633.000	-2.266	1.724	-0.732	0.2414	0.5189	0.0073
218	636.000	-1.839	2.151	-0.305	0.2630	0.4973	0.0073
219	639.000	-1.345	2.645	0.456	0.2850	0.4753	0.0073
220	642.000	-0.814	3.176	0.987	0.3472	0.4131	-0.0475
221	645.000	-0.600	3.390	1.201	0.4899	0.2705	-0.0475
222	648.000	-0.814	3.176	0.987	0.6324	0.1279	-0.0475
223	651.000	-1.345	2.645	0.189	0.6945	0.0658	0.0073
224	654.000	-1.839	2.151	-0.305	0.7164	0.0439	0.0073
225	657.000	-2.266	1.724	-0.732	0.7384	0.0219	0.0073
226	660.000	-2.628	1.362	-1.094	0.7603	0.0000	0.0073

SECCIONES INICIAL Y FINAL DEL TRAZADO = 206 226
NUMERO DE VANOS INICIAL Y FINAL DEL TRAZADO = 11 12
PENDIENTE INICIAL DEL TRAZADO = -0.10962
PENDIENTE FINAL DEL TRAZADO = -0.10962

TESADO DEFINITIVO

PRETENSADO EN EL NERVIO = 1

NUMERO DE CABLES = 16

TENSION EN ANCLAJE IZQUIERDO (Kp/mm2) = 144.00
TESAMOS POR LA IZQUIERDA (SI=1) = 0
TENSION EN ANCLAJE DERECHO (Kp/mm2) = 144.00
TESAMOS POR LA DERECHA (SI=1) = 1

PROPORCION DE TESADO EN LA PRIMERA FASE 0.65
AREA DE PRETENSADO (cm2) = 683.20
PENETRACION DE CUNA EN EXTREMO 1 (mm) = 5.000
PENETRACION DE CUNA EN EXTREMO 2 (mm) = 5.000

LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-1 (m) = 0.00
LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-2 (m) = 12.94

TENSION EN LOS CABLES. PERDIDAS INSTANT. (Kp/mm2)

I	X	To	P_ROZ	P_CUNA	P_ELAS	Ti
206	600.00	144.00	30.19	0.00	3.84	109.97
207	603.00	144.00	29.23	0.00	4.74	110.03
208	606.00	144.00	28.26	0.00	5.61	110.13
209	609.00	144.00	27.29	0.00	6.32	110.39
210	612.00	144.00	26.31	0.00	6.81	110.88
211	615.00	144.00	25.32	0.00	7.02	111.66
212	618.00	144.00	24.32	0.00	6.93	112.75
213	621.00	144.00	23.31	0.00	6.54	114.16
214	624.00	144.00	22.29	0.00	5.90	115.82
215	627.00	144.00	21.27	0.00	5.07	117.66
216	630.00	144.00	20.23	0.00	4.18	119.59
217	633.00	144.00	19.19	0.00	3.37	121.44
218	636.00	144.00	18.14	0.00	2.53	123.33
219	639.00	144.00	17.08	0.00	2.43	124.49
220	642.00	144.00	14.93	0.00	3.27	125.80
221	645.00	144.00	10.50	0.00	3.89	129.61
222	648.00	144.00	5.92	2.87	3.80	131.42
223	651.00	144.00	3.58	7.55	2.90	129.97
224	654.00	144.00	2.40	9.92	2.95	128.73
225	657.00	144.00	1.20	12.30	3.52	126.97
226	660.00	144.00	0.00	14.71	4.37	124.93

ALARGAMIENTO DE LOS CABLES (sobre embolo)= 392.0 mm

PROGRAMA DE CALCULO DE PRETENSADO EN NERVIOS DE UN EMPARRILLADO

DATOS GENERALES DE PRETENSADO

NUMERO DE NERVIOS = 1
NUMERO DE VANOS = 13
NUMERO DE SECCIONES POR VANO = 21
NUMERO DE MATERIALES = 3

LUZ DEL VANO = 1	L (m) =	45.00
LUZ DEL VANO = 2	L (m) =	60.00
LUZ DEL VANO = 3	L (m) =	60.00
LUZ DEL VANO = 4	L (m) =	60.00
LUZ DEL VANO = 5	L (m) =	60.00
LUZ DEL VANO = 6	L (m) =	60.00
LUZ DEL VANO = 7	L (m) =	60.00
LUZ DEL VANO = 8	L (m) =	60.00
LUZ DEL VANO = 9	L (m) =	60.00
LUZ DEL VANO = 10	L (m) =	60.00
LUZ DEL VANO = 11	L (m) =	60.00
LUZ DEL VANO = 12	L (m) =	60.00
LUZ DEL VANO = 13	L (m) =	60.00

COEFICIENTE DE ROZAMIENTO EN CURVA = 0.21
COEFICIENTE DE DESV. PARASITAS = 0.0060
RELAJACION = 0.04
RETRACCION mm/m = 0.233
COEF. FLUENCIA = 2.050

ACERO DE PRETENSADO (Kp/mm2)

LIMITE DE PROPORCIONALIDAD AL 0,2% = 170.00
TENSION DE ROTURA = 190.00
MODULO DE DEFORMACION = 19000.00

HORMIGON

MODULO DE DEFORMACION DURANTE TESADO (Kp/cm2) = 263000.00
MODULO DE DEFORMACION A 28 DIAS (Kp/cm2) = 329000.00

CARACTERISTICAS MECANICAS DE LA SECCION 1

AREA DE LA SECCION (m2) = 10.768
INERCIA DE LA SECCION (m2) = 22.5320
V_SUP. DE LA SECCION (m2) = 1.53
V_INF. DE LA SECCION (m2) = 2.46
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 2

AREA DE LA SECCION (m2) = 13.262
INERCIA DE LA SECCION (m2) = 28.5240
V_SUP. DE LA SECCION (m2) = 1.80
V_INF. DE LA SECCION (m2) = 2.19
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 3

AREA DE LA SECCION (m2) = 1.000
INERCIA DE LA SECCION (m2) = 2.0000
V_SUP. DE LA SECCION (m2) = 1.15
V_INF. DE LA SECCION (m2) = 0.55
CANTO DE LA SECCION (m2) = 1.70

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 1

Parametros de la parabola = 1
A = 0.00000 B = -0.12009 C = -1.70000
Origen = 0.00 Final = 1.40
Parametros de la parabola = 2
A = 0.00319 B = -0.12901 C = -1.69376
Origen = 1.40 Final = 20.25
Parametros de la parabola = 4
A = 0.00467 B = -0.18927 C = -1.08368
Origen = 20.25 Final = 41.00
Parametros de la parabola = 5
A = -0.02424 B = 2.18182 C = -49.69091
Origen = 41.00 Final = 45.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 2

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 3

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 4

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 5

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 6

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 7

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 8

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 9

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 10

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 11

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 12

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 13

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
226	660.000	-2.628	1.362	-1.094	0.0000	0.7603	0.0073
227	663.000	-2.924	1.066	-1.390	0.0219	0.7384	0.0073
228	666.000	-3.154	0.836	-1.620	0.0438	0.7165	0.0073
229	669.000	-3.318	0.672	-1.784	0.0658	0.6945	0.0073
230	672.000	-3.417	0.573	-1.883	0.0878	0.6726	0.0073
231	675.000	-3.450	0.540	-1.916	0.1097	0.6507	0.0073
232	678.000	-3.417	0.573	-1.883	0.1315	0.6288	0.0073
233	681.000	-3.318	0.672	-1.784	0.1536	0.6067	0.0073
234	684.000	-3.154	0.836	-1.620	0.1756	0.5848	0.0073
235	687.000	-2.924	1.066	-1.390	0.1974	0.5629	0.0073
236	690.000	-2.628	1.362	-1.094	0.2194	0.5409	0.0073
237	693.000	-2.266	1.724	-0.732	0.2414	0.5189	0.0073
238	696.000	-1.839	2.151	-0.305	0.2630	0.4973	0.0073
239	699.000	-1.345	2.645	0.456	0.2850	0.4753	0.0073
240	702.000	-0.814	3.176	0.987	0.3472	0.4131	-0.0475
241	705.000	-0.600	3.390	1.201	0.4899	0.2705	-0.0475
242	708.000	-0.814	3.176	0.987	0.6324	0.1279	-0.0475
243	711.000	-1.345	2.645	0.189	0.6945	0.0658	0.0073
244	714.000	-1.839	2.151	-0.305	0.7164	0.0439	0.0073
245	717.000	-2.266	1.724	-0.732	0.7384	0.0219	0.0073
246	720.000	-2.628	1.362	-1.094	0.7603	0.0000	0.0073

SECCIONES INICIAL Y FINAL DEL TRAZADO = 226 246
NUMERO DE VANOS INICIAL Y FINAL DEL TRAZADO = 12 13
PENDIENTE INICIAL DEL TRAZADO = -0.10962
PENDIENTE FINAL DEL TRAZADO = -0.10962

TESADO DEFINITIVO

PRETENSADO EN EL NERVIO = 1

NUMERO DE CABLES = 16

TENSION EN ANCLAJE IZQUIERDO (Kp/mm2) = 144.00
TESAMOS POR LA IZQUIERDA (SI=1) = 0
TENSION EN ANCLAJE DERECHO (Kp/mm2) = 144.00
TESAMOS POR LA DERECHA (SI=1) = 1

PROPORCION DE TESADO EN LA PRIMERA FASE 0.65
AREA DE PRETENSADO (cm2) = 683.20
PENETRACION DE CUNA EN EXTREMO 1 (mm) = 5.000
PENETRACION DE CUNA EN EXTREMO 2 (mm) = 5.000

LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-1 (m) = 0.00
LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-2 (m) = 12.94

TENSION EN LOS CABLES. PERDIDAS INSTANT. (Kp/mm2)

I	X	To	P_ROZ	P_CUNA	P_ELAS	Ti
226	660.00	144.00	30.19	0.00	3.84	109.97
227	663.00	144.00	29.23	0.00	4.74	110.03
228	666.00	144.00	28.26	0.00	5.61	110.13
229	669.00	144.00	27.29	0.00	6.32	110.39
230	672.00	144.00	26.31	0.00	6.81	110.88
231	675.00	144.00	25.32	0.00	7.02	111.66
232	678.00	144.00	24.32	0.00	6.93	112.75
233	681.00	144.00	23.31	0.00	6.54	114.16
234	684.00	144.00	22.29	0.00	5.90	115.82
235	687.00	144.00	21.27	0.00	5.07	117.66
236	690.00	144.00	20.23	0.00	4.18	119.59
237	693.00	144.00	19.19	0.00	3.37	121.44
238	696.00	144.00	18.14	0.00	2.53	123.33
239	699.00	144.00	17.08	0.00	2.43	124.49
240	702.00	144.00	14.93	0.00	3.27	125.80
241	705.00	144.00	10.50	0.00	3.89	129.61
242	708.00	144.00	5.92	2.87	3.80	131.42
243	711.00	144.00	3.58	7.55	2.90	129.97
244	714.00	144.00	2.40	9.92	2.95	128.73
245	717.00	144.00	1.20	12.30	3.52	126.97
246	720.00	144.00	0.00	14.71	4.37	124.93

ALARGAMIENTO DE LOS CABLES (sobre embolo)= 392.0 mm

PROGRAMA DE CALCULO DE PRETENSADO EN NERVIOS DE UN EMPARRILLADO

DATOS GENERALES DE PRETENSADO

NUMERO DE NERVIOS = 1
NUMERO DE VANOS = 14
NUMERO DE SECCIONES POR VANO = 21
NUMERO DE MATERIALES = 3

LUZ DEL VANO =	1	L (m) =	45.00
LUZ DEL VANO =	2	L (m) =	60.00
LUZ DEL VANO =	3	L (m) =	60.00
LUZ DEL VANO =	4	L (m) =	60.00
LUZ DEL VANO =	5	L (m) =	60.00
LUZ DEL VANO =	6	L (m) =	60.00
LUZ DEL VANO =	7	L (m) =	60.00
LUZ DEL VANO =	8	L (m) =	60.00
LUZ DEL VANO =	9	L (m) =	60.00
LUZ DEL VANO =	10	L (m) =	60.00
LUZ DEL VANO =	11	L (m) =	60.00
LUZ DEL VANO =	12	L (m) =	60.00
LUZ DEL VANO =	13	L (m) =	60.00
LUZ DEL VANO =	14	L (m) =	45.00

COEFICIENTE DE ROZAMIENTO EN CURVA = 0.21
COEFICIENTE DE DESV. PARASITAS = 0.0060
RELAJACION = 0.04
RETRACCION mm/m = 0.233
COEF. FLUENCIA = 2.050

ACERO DE PRETENSADO (Kp/mm2)

LIMITE DE PROPORCIONALIDAD AL 0,2% = 170.00
TENSION DE ROTURA = 190.00
MODULO DE DEFORMACION = 19000.00

HORMIGON

MODULO DE DEFORMACION DURANTE TESADO (Kp/cm2) = 263000.00
MODULO DE DEFORMACION A 28 DIAS (Kp/cm2) = 329000.00

CARACTERISTICAS MECANICAS DE LA SECCION 1

AREA DE LA SECCION (m2) = 10.768
INERCIA DE LA SECCION (m2) = 22.5320
V_SUP. DE LA SECCION (m2) = 1.53
V_INF. DE LA SECCION (m2) = 2.46
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 2

AREA DE LA SECCION (m2) = 13.262
INERCIA DE LA SECCION (m2) = 28.5240
V_SUP. DE LA SECCION (m2) = 1.80
V_INF. DE LA SECCION (m2) = 2.19
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 3

AREA DE LA SECCION (m2) = 1.000
INERCIA DE LA SECCION (m2) = 2.0000
V_SUP. DE LA SECCION (m2) = 1.15
V_INF. DE LA SECCION (m2) = 0.55
CANTO DE LA SECCION (m2) = 1.70

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 1

Parametros de la parabola = 1
A = 0.00000 B = -0.12009 C = -1.70000
Origen = 0.00 Final = 1.40
Parametros de la parabola = 2
A = 0.00319 B = -0.12901 C = -1.69376
Origen = 1.40 Final = 20.25
Parametros de la parabola = 4
A = 0.00467 B = -0.18927 C = -1.08368
Origen = 20.25 Final = 41.00
Parametros de la parabola = 5
A = -0.02424 B = 2.18182 C = -49.69091
Origen = 41.00 Final = 45.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 2

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 3

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 4

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 5

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 6

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154

Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 7

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 8

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154

Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00
DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 9

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00

Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00
(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 10

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00
(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 11

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00
(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 12

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00
(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 13

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00
(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 14

Parametros de la parabola = 2
A = -0.02424 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00467 B = -0.23133 C = -0.13735
Origen = 4.00 Final = 24.75
Parametros de la parabola = 5
A = 0.00319 B = -0.15768 C = -1.04870
Origen = 24.75 Final = 43.60
Parametros de la parabola = 6
A = 0.00000 B = 0.12009 C = -7.10416
Origen = 43.60 Final = 45.00
(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
246	720.000	-2.628	1.362	-1.094	0.0000	0.7516	0.0073
247	723.000	-2.924	1.066	-1.390	0.0219	0.7297	0.0073
248	726.000	-3.154	0.836	-1.620	0.0438	0.7078	0.0073
249	729.000	-3.318	0.672	-1.784	0.0658	0.6858	0.0073
250	732.000	-3.417	0.573	-1.883	0.0878	0.6639	0.0073
251	735.000	-3.450	0.540	-1.916	0.1097	0.6420	0.0073
252	738.000	-3.417	0.573	-1.883	0.1315	0.6201	0.0073
253	741.000	-3.318	0.672	-1.784	0.1536	0.5980	0.0073
254	744.000	-3.154	0.836	-1.620	0.1756	0.5760	0.0073
255	747.000	-2.924	1.066	-1.390	0.1974	0.5542	0.0073
256	750.000	-2.628	1.362	-1.094	0.2194	0.5322	0.0073
257	753.000	-2.266	1.724	-0.732	0.2414	0.5102	0.0073
258	756.000	-1.839	2.151	-0.305	0.2630	0.4886	0.0073
259	759.000	-1.345	2.645	0.456	0.2850	0.4666	0.0073
260	762.000	-0.814	3.176	0.987	0.3472	0.4044	-0.0475
261	765.000	-0.600	3.390	1.201	0.4899	0.2618	-0.0485
262	767.250	-0.723	3.267	1.078	0.5990	0.1526	-0.0485
263	769.500	-1.084	2.906	0.450	0.6885	0.0631	0.0093
264	771.750	-1.486	2.504	0.048	0.7095	0.0421	0.0093
265	774.000	-1.841	2.149	-0.307	0.7306	0.0210	0.0093
266	776.250	-2.148	1.842	-0.614	0.7516	0.0000	0.0093

SECCIONES INICIAL Y FINAL DEL TRAZADO = 246 266
NUMERO DE VANOS INICIAL Y FINAL DEL TRAZADO = 13 14
PENDIENTE INICIAL DEL TRAZADO = -0.10962
PENDIENTE FINAL DEL TRAZADO = -0.12618

TESADO DEFINITIVO

PRETENSADO EN EL NERVIO = 1

NUMERO DE CABLES = 16

TENSION EN ANCLAJE IZQUIERDO (Kp/mm2) = 144.00
TESAMOS POR LA IZQUIERDA (SI=1) = 0
TENSION EN ANCLAJE DERECHO (Kp/mm2) = 144.00
TESAMOS POR LA DERECHA (SI=1) = 1

PROPORCION DE TESADO EN LA PRIMERA FASE 0.65
AREA DE PRETENSADO (cm2) = 683.20
PENETRACION DE CUNA EN EXTREMO 1 (mm) = 5.000
PENETRACION DE CUNA EN EXTREMO 2 (mm) = 5.000

LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-1 (m) = 0.00
LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-2 (m) = 10.75

TENSION EN LOS CABLES. PERDIDAS INSTANT. (Kp/mm2)

I	X	To	P_ROZ	P_CUNA	P_ELAS	Ti
246	720.00	144.00	29.44	0.00	3.87	110.69
247	723.00	144.00	28.48	0.00	4.77	110.75
248	726.00	144.00	27.50	0.00	5.64	110.85
249	729.00	144.00	26.52	0.00	6.37	111.11
250	732.00	144.00	25.53	0.00	6.86	111.61
251	735.00	144.00	24.53	0.00	7.07	112.40
252	738.00	144.00	23.53	0.00	6.97	113.49
253	741.00	144.00	22.51	0.00	6.58	114.91
254	744.00	144.00	21.49	0.00	5.93	116.58
255	747.00	144.00	20.46	0.00	5.10	118.44
256	750.00	144.00	19.42	0.00	4.21	120.38
257	753.00	144.00	18.37	0.00	3.39	122.24
258	756.00	144.00	17.32	0.00	2.55	124.14
259	759.00	144.00	16.25	0.00	2.44	125.31
260	762.00	144.00	14.08	0.00	3.29	126.63
261	765.00	144.00	9.62	0.00	3.84	130.54
262	767.25	144.00	6.12	5.46	3.95	128.47
263	769.50	144.00	3.10	11.50	3.05	126.35
264	771.75	144.00	2.07	13.55	2.76	125.62
265	774.00	144.00	1.04	15.61	2.86	124.49
266	776.25	144.00	0.00	17.70	3.20	123.10

ALARGAMIENTO DE LOS CABLES (sobre embolo)= 366.4 mm

PROGRAMA DE CALCULO DE PRETENSADO EN NERVIOS DE UN EMPARRILLADO

DATOS GENERALES DE PRETENSADO

NUMERO DE NERVIOS = 1
NUMERO DE VANOS = 14
NUMERO DE SECCIONES POR VANO = 21
NUMERO DE MATERIALES = 3

LUZ DEL VANO =	1	L (m) =	45.00
LUZ DEL VANO =	2	L (m) =	60.00
LUZ DEL VANO =	3	L (m) =	60.00
LUZ DEL VANO =	4	L (m) =	60.00
LUZ DEL VANO =	5	L (m) =	60.00
LUZ DEL VANO =	6	L (m) =	60.00
LUZ DEL VANO =	7	L (m) =	60.00
LUZ DEL VANO =	8	L (m) =	60.00
LUZ DEL VANO =	9	L (m) =	60.00
LUZ DEL VANO =	10	L (m) =	60.00
LUZ DEL VANO =	11	L (m) =	60.00
LUZ DEL VANO =	12	L (m) =	60.00
LUZ DEL VANO =	13	L (m) =	60.00
LUZ DEL VANO =	14	L (m) =	45.00

COEFICIENTE DE ROZAMIENTO EN CURVA = 0.21
COEFICIENTE DE DESV. PARASITAS = 0.0060
RELAJACION = 0.04
RETRACCION mm/m = 0.233
COEF. FLUENCIA = 2.050

ACERO DE PRETENSADO (Kp/mm2)

LIMITE DE PROPORCIONALIDAD AL 0,2% = 170.00
TENSION DE ROTURA = 190.00
MODULO DE DEFORMACION = 19000.00

HORMIGON

MODULO DE DEFORMACION DURANTE TESADO (Kp/cm2) = 263000.00
MODULO DE DEFORMACION A 28 DIAS (Kp/cm2) = 329000.00

CARACTERISTICAS MECANICAS DE LA SECCION 1

AREA DE LA SECCION (m2) = 10.768
INERCIA DE LA SECCION (m2) = 22.5320
V_SUP. DE LA SECCION (m2) = 1.53
V_INF. DE LA SECCION (m2) = 2.46
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 2

AREA DE LA SECCION (m2) = 13.262
INERCIA DE LA SECCION (m2) = 28.5240
V_SUP. DE LA SECCION (m2) = 1.80
V_INF. DE LA SECCION (m2) = 2.19
CANTO DE LA SECCION (m2) = 3.99

CARACTERISTICAS MECANICAS DE LA SECCION 3

AREA DE LA SECCION (m2) = 1.000
INERCIA DE LA SECCION (m2) = 2.0000
V_SUP. DE LA SECCION (m2) = 1.15
V_INF. DE LA SECCION (m2) = 0.55
CANTO DE LA SECCION (m2) = 1.70

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 1

Parametros de la parabola = 1
A = 0.00000 B = -0.12009 C = -1.70000
Origen = 0.00 Final = 1.40
Parametros de la parabola = 2
A = 0.00319 B = -0.12901 C = -1.69376
Origen = 1.40 Final = 20.25
Parametros de la parabola = 4
A = 0.00467 B = -0.18927 C = -1.08368
Origen = 20.25 Final = 41.00
Parametros de la parabola = 5
A = -0.02424 B = 2.18182 C = -49.69091
Origen = 41.00 Final = 45.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 2

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 3

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 4

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 5

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 6

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 7

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 8

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 9

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 10

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 11

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 12

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 13

Parametros de la parabola = 2
A = -0.02375 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 4.00 Final = 30.00
Parametros de la parabola = 5
A = 0.00365 B = -0.21923 C = -0.16154
Origen = 30.00 Final = 56.00
Parametros de la parabola = 6
A = -0.02375 B = 2.85000 C = -86.10000
Origen = 56.00 Final = 60.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO = 1 VANO = 14

Parametros de la parabola = 2
A = -0.02424 B = 0.00000 C = -0.60000
Origen = 0.00 Final = 4.00
Parametros de la parabola = 3
A = 0.00467 B = -0.23133 C = -0.13735
Origen = 4.00 Final = 24.75
Parametros de la parabola = 5
A = 0.00319 B = -0.15768 C = -1.04870
Origen = 24.75 Final = 43.60
Parametros de la parabola = 6
A = 0.00000 B = 0.12009 C = -7.10416
Origen = 43.60 Final = 45.00

(origen en inicio vano)

DEFINICION DEL TRAZADO DEL NERVIO= 1

I	S	Ysup	Yinf	EXC	ALPHA_IZ	ALPHA_DE	CURV
266	776.250	-2.148	1.842	-0.614	0.0000	0.2465	0.0093
267	778.500	-2.409	1.581	-0.875	0.0210	0.2255	0.0093
268	780.750	-2.621	1.369	-1.087	0.0421	0.2044	0.0093
269	783.000	-2.787	1.203	-1.253	0.0631	0.1834	0.0093
270	785.250	-2.905	1.085	-1.371	0.0841	0.1623	0.0093
271	787.500	-2.976	1.014	-1.442	0.1052	0.1413	0.0093
272	789.750	-3.000	0.990	-1.466	0.1261	0.1203	0.0093
273	792.000	-2.984	1.006	-1.450	0.1406	0.1059	0.0064
274	794.250	-2.935	1.055	-1.401	0.1548	0.0916	0.0064
275	796.500	-2.855	1.135	-1.321	0.1692	0.0773	0.0064
276	798.750	-2.742	1.248	-1.208	0.1836	0.0629	0.0064
277	801.000	-2.597	1.393	-1.063	0.1979	0.0485	0.0064
278	803.250	-2.419	1.571	-0.885	0.2124	0.0341	0.0064
279	805.500	-2.210	1.780	-0.676	0.2265	0.0199	0.0064
280	807.750	-1.968	2.022	-0.434	0.2410	0.0055	0.0064
281	810.000	-1.700	2.290	-0.166	0.2465	0.0000	0.0000

SECCIONES INICIAL Y FINAL DEL TRAZADO = 266 281
NUMERO DE VANOS INICIAL Y FINAL DEL TRAZADO = 14 14
PENDIENTE INICIAL DEL TRAZADO = -0.12618
PENDIENTE FINAL DEL TRAZADO = 0.12009

TESADO DEFINITIVO

PRETENSADO EN EL NERVIO = 1

NUMERO DE CABLES = 16

TENSION EN ANCLAJE IZQUIERDO (Kp/mm2) = 144.00
TESAMOS POR LA IZQUIERDA (SI=1) = 0
TENSION EN ANCLAJE DERECHO (Kp/mm2) = 144.00
TESAMOS POR LA DERECHA (SI=1) = 1

PROPORCION DE TESADO EN LA PRIMERA FASE 0.65
AREA DE PRETENSADO (cm2) = 627.20
PENETRACION DE CUNA EN EXTREMO 1 (mm) = 5.000
PENETRACION DE CUNA EN EXTREMO 2 (mm) = 5.000

LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-1 (m) = 0.00
LONGITUD AFECT. POR PENETRAC. DE CUNA EXTR-2 (m) = 16.47

TENSION EN LOS CABLES. PERDIDAS INSTANT. (Kp/mm2)

I	X	To	P_ROZ	P_CUNA	P_ELAS	Ti
266	776.25	144.00	0.00	17.70	2.64	123.67
267	778.50	144.00	12.00	0.00	3.56	128.44
268	780.75	144.00	11.04	0.00	4.10	128.85
269	783.00	144.00	10.07	0.00	4.62	129.30
270	785.25	144.00	9.10	0.00	5.05	129.85
271	787.50	144.00	8.12	0.00	5.34	130.54
272	789.75	144.00	7.13	0.00	5.47	131.40
273	792.00	144.00	6.32	0.00	5.40	132.28
274	794.25	144.00	5.52	0.52	5.28	132.69
275	796.50	144.00	4.71	2.14	4.96	132.19
276	798.75	144.00	3.89	3.78	4.56	131.77
277	801.00	144.00	3.07	5.42	4.12	131.40
278	803.25	144.00	2.24	7.08	3.65	131.03
279	805.50	144.00	1.41	8.73	3.22	130.64
280	807.75	144.00	0.57	10.41	2.86	130.16
281	810.00	144.00	0.00	11.56	2.65	129.80

ALARGAMIENTO DE LOS CABLES (sobre embolo)= 238.7 mm

PROGRAMA DE CALCULO DE PRETENSADO EN NERVIOS DE UN EMPARRILLADO

DATOS GENERALES DE PRETENSADO

NUMERO DE NERVIOS = 1
NUMERO DE VANOS = 14
NUMERO DE SECCIONES POR VANO = 21
NUMERO DE MATERIALES = 3

LUZ DEL VANO =	1	L (m) =	45.00
LUZ DEL VANO =	2	L (m) =	60.00
LUZ DEL VANO =	3	L (m) =	60.00
LUZ DEL VANO =	4	L (m) =	60.00
LUZ DEL VANO =	5	L (m) =	60.00
LUZ DEL VANO =	6	L (m) =	60.00
LUZ DEL VANO =	7	L (m) =	60.00
LUZ DEL VANO =	8	L (m) =	60.00
LUZ DEL VANO =	9	L (m) =	60.00
LUZ DEL VANO =	10	L (m) =	60.00
LUZ DEL VANO =	11	L (m) =	60.00
LUZ DEL VANO =	12	L (m) =	60.00
LUZ DEL VANO =	13	L (m) =	60.00
LUZ DEL VANO =	14	L (m) =	45.00

COEFICIENTE DE ROZAMIENTO EN CURVA = 0.21
COEFICIENTE DE DESV. PARASITAS = 0.0060
RELAJACION = 0.04
RETRACCION mm/m = 0.230
COEF. FLUENCIA = 2.200

ACERO DE PRETENSADO (Kp/mm2)

LIMITE DE PROPORCIONALIDAD AL 0,2% = 170.00
TENSION DE ROTURA = 190.00
MODULO DE DEFORMACION = 19000.00

HORMIGON

MODULO DE DEFORMACION DURANTE TESADO (Kp/cm2) = 309000.00
MODULO DE DEFORMACION A 28 DIAS (Kp/cm2) = 320000.00

TENSION EN LOS CABLES. PERDIDAS INSTANT. (Kp/mm2)

I	X	To	P_ROZ	P_CUNA	P_ELAS	Ti
1	0.00	144.00	30.62	0.00	2.27	111.11
2	2.25	144.00	30.17	0.00	2.45	111.38
3	4.50	144.00	29.50	0.00	2.75	111.75
4	6.75	144.00	28.83	0.00	3.12	112.05
5	9.00	144.00	28.16	0.00	3.52	112.33
6	11.25	144.00	27.48	0.00	3.90	112.62
7	13.50	144.00	26.79	0.00	4.24	112.97
8	15.75	144.00	26.11	0.00	4.51	113.39
9	18.00	144.00	25.41	0.00	4.69	113.90
10	20.25	144.00	24.72	0.00	4.77	114.51
11	22.50	144.00	23.85	0.00	4.73	115.42
12	24.75	144.00	22.98	0.00	4.53	116.49
13	27.00	144.00	22.10	0.00	4.21	117.70
14	29.25	144.00	21.21	0.00	3.79	119.00
15	31.50	144.00	20.32	0.00	3.33	120.35
16	33.75	144.00	19.42	0.00	2.90	121.68
17	36.00	144.00	18.51	0.00	2.59	122.91
18	38.25	144.00	17.59	0.00	2.24	124.17
19	40.50	144.00	16.68	0.00	2.53	124.80
20	42.75	144.00	13.89	0.00	3.21	126.90
21	45.00	144.00	10.50	0.00	3.57	129.93
22	48.00	144.00	5.92	2.87	3.49	131.73
23	51.00	144.00	3.58	7.55	2.67	130.21
24	54.00	144.00	2.40	9.92	2.71	128.98
25	57.00	144.00	1.20	12.30	3.23	127.26
26	60.00	144.00	30.19	0.00	3.84	109.97
27	63.00	144.00	29.23	0.00	4.74	110.03
28	66.00	144.00	28.26	0.00	5.61	110.13
29	69.00	144.00	27.29	0.00	6.32	110.39
30	72.00	144.00	26.31	0.00	6.81	110.88
31	75.00	144.00	25.32	0.00	7.02	111.66
32	78.00	144.00	24.32	0.00	6.93	112.75
33	81.00	144.00	23.31	0.00	6.54	114.16
34	84.00	144.00	22.29	0.00	5.90	115.82
35	87.00	144.00	21.27	0.00	5.07	117.66
36	90.00	144.00	20.23	0.00	4.18	119.59
37	93.00	144.00	19.19	0.00	3.37	121.44
38	96.00	144.00	18.14	0.00	2.53	123.33
39	99.00	144.00	17.08	0.00	2.43	124.49
40	102.00	144.00	14.93	0.00	3.27	125.80
41	105.00	144.00	10.50	0.00	3.89	129.61
42	108.00	144.00	5.92	2.87	3.80	131.42
43	111.00	144.00	3.58	7.55	2.90	129.97
44	114.00	144.00	2.40	9.92	2.95	128.73
45	117.00	144.00	1.20	12.30	3.52	126.97
46	120.00	144.00	30.19	0.00	3.84	109.97
47	123.00	144.00	29.23	0.00	4.74	110.03
48	126.00	144.00	28.26	0.00	5.61	110.13
49	129.00	144.00	27.29	0.00	6.32	110.39
50	132.00	144.00	26.31	0.00	6.81	110.88
51	135.00	144.00	25.32	0.00	7.02	111.66
52	138.00	144.00	24.32	0.00	6.93	112.75
53	141.00	144.00	23.31	0.00	6.54	114.16
54	144.00	144.00	22.29	0.00	5.90	115.82
55	147.00	144.00	21.27	0.00	5.07	117.66
56	150.00	144.00	20.23	0.00	4.18	119.59

TENSION EN LOS CABLES. PERDIDAS INSTANT. (Kp/mm2)

I	X	To	P_ROZ	P_CUNA	P_ELAS	Ti
57	153.00	144.00	19.19	0.00	3.37	121.44
58	156.00	144.00	18.14	0.00	2.53	123.33
59	159.00	144.00	17.08	0.00	2.43	124.49
60	162.00	144.00	14.93	0.00	3.27	125.80
61	165.00	144.00	10.50	0.00	3.89	129.61
62	168.00	144.00	5.92	2.87	3.80	131.42
63	171.00	144.00	3.58	7.55	2.90	129.97
64	174.00	144.00	2.40	9.92	2.95	128.73
65	177.00	144.00	1.20	12.30	3.52	126.97
66	180.00	144.00	30.19	0.00	3.84	109.97
67	183.00	144.00	29.23	0.00	4.74	110.03
68	186.00	144.00	28.26	0.00	5.61	110.13
69	189.00	144.00	27.29	0.00	6.32	110.39
70	192.00	144.00	26.31	0.00	6.81	110.88
71	195.00	144.00	25.32	0.00	7.02	111.66
72	198.00	144.00	24.32	0.00	6.93	112.75
73	201.00	144.00	23.31	0.00	6.54	114.16
74	204.00	144.00	22.29	0.00	5.90	115.82
75	207.00	144.00	21.27	0.00	5.07	117.66
76	210.00	144.00	20.23	0.00	4.18	119.59
77	213.00	144.00	19.19	0.00	3.37	121.44
78	216.00	144.00	18.14	0.00	2.53	123.33
79	219.00	144.00	17.08	0.00	2.43	124.49
80	222.00	144.00	14.93	0.00	3.27	125.80
81	225.00	144.00	10.50	0.00	3.89	129.61
82	228.00	144.00	5.92	2.87	3.80	131.42
83	231.00	144.00	3.58	7.55	2.90	129.97
84	234.00	144.00	2.40	9.92	2.95	128.73
85	237.00	144.00	1.20	12.30	3.52	126.97
86	240.00	144.00	30.19	0.00	3.84	109.97
87	243.00	144.00	29.23	0.00	4.74	110.03
88	246.00	144.00	28.26	0.00	5.61	110.13
89	249.00	144.00	27.29	0.00	6.32	110.39
90	252.00	144.00	26.31	0.00	6.81	110.88
91	255.00	144.00	25.32	0.00	7.02	111.66
92	258.00	144.00	24.32	0.00	6.93	112.75
93	261.00	144.00	23.31	0.00	6.54	114.16
94	264.00	144.00	22.29	0.00	5.90	115.82
95	267.00	144.00	21.27	0.00	5.07	117.66
96	270.00	144.00	20.23	0.00	4.18	119.59
97	273.00	144.00	19.19	0.00	3.37	121.44
98	276.00	144.00	18.14	0.00	2.53	123.33
99	279.00	144.00	17.08	0.00	2.43	124.49
100	282.00	144.00	14.93	0.00	3.27	125.80
101	285.00	144.00	10.50	0.00	3.89	129.61
102	288.00	144.00	5.92	2.87	3.80	131.42
103	291.00	144.00	3.58	7.55	2.90	129.97
104	294.00	144.00	2.40	9.92	2.95	128.73
105	297.00	144.00	1.20	12.30	3.52	126.97
106	300.00	144.00	30.19	0.00	3.84	109.97
107	303.00	144.00	29.23	0.00	4.74	110.03
108	306.00	144.00	28.26	0.00	5.61	110.13
109	309.00	144.00	27.29	0.00	6.32	110.39
110	312.00	144.00	26.31	0.00	6.81	110.88
111	315.00	144.00	25.32	0.00	7.02	111.66
112	318.00	144.00	24.32	0.00	6.93	112.75
113	321.00	144.00	23.31	0.00	6.54	114.16

114	324.00	144.00	22.29	0.00	5.90	115.82

TENSION EN LOS CABLES. PERDIDAS INSTANT. (Kp/mm2)

I	X	To	P_ROZ	P_CUNA	P_ELAS	Ti
115	327.00	144.00	21.27	0.00	5.07	117.66
116	330.00	144.00	20.23	0.00	4.18	119.59
117	333.00	144.00	19.19	0.00	3.37	121.44
118	336.00	144.00	18.14	0.00	2.53	123.33
119	339.00	144.00	17.08	0.00	2.43	124.49
120	342.00	144.00	14.93	0.00	3.27	125.80
121	345.00	144.00	10.50	0.00	3.89	129.61
122	348.00	144.00	5.92	2.87	3.80	131.42
123	351.00	144.00	3.58	7.55	2.90	129.97
124	354.00	144.00	2.40	9.92	2.95	128.73
125	357.00	144.00	1.20	12.30	3.52	126.97
126	360.00	144.00	30.19	0.00	3.84	109.97
127	363.00	144.00	29.23	0.00	4.74	110.03
128	366.00	144.00	28.26	0.00	5.61	110.13
129	369.00	144.00	27.29	0.00	6.32	110.39
130	372.00	144.00	26.31	0.00	6.81	110.88
131	375.00	144.00	25.32	0.00	7.02	111.66
132	378.00	144.00	24.32	0.00	6.93	112.75
133	381.00	144.00	23.31	0.00	6.54	114.16
134	384.00	144.00	22.29	0.00	5.90	115.82
135	387.00	144.00	21.27	0.00	5.07	117.66
136	390.00	144.00	20.23	0.00	4.18	119.59
137	393.00	144.00	19.19	0.00	3.37	121.44
138	396.00	144.00	18.14	0.00	2.53	123.33
139	399.00	144.00	17.08	0.00	2.43	124.49
140	402.00	144.00	14.93	0.00	3.27	125.80
141	405.00	144.00	10.50	0.00	3.89	129.61
142	408.00	144.00	5.92	2.87	3.80	131.42
143	411.00	144.00	3.58	7.55	2.90	129.97
144	414.00	144.00	2.40	9.92	2.95	128.73
145	417.00	144.00	1.20	12.30	3.52	126.97
146	420.00	144.00	30.19	0.00	3.84	109.97
147	423.00	144.00	29.23	0.00	4.74	110.03
148	426.00	144.00	28.26	0.00	5.61	110.13
149	429.00	144.00	27.29	0.00	6.32	110.39
150	432.00	144.00	26.31	0.00	6.81	110.88
151	435.00	144.00	25.32	0.00	7.02	111.66
152	438.00	144.00	24.32	0.00	6.93	112.75
153	441.00	144.00	23.31	0.00	6.54	114.16
154	444.00	144.00	22.29	0.00	5.90	115.82
155	447.00	144.00	21.27	0.00	5.07	117.66
156	450.00	144.00	20.23	0.00	4.18	119.59
157	453.00	144.00	19.19	0.00	3.37	121.44
158	456.00	144.00	18.14	0.00	2.53	123.33
159	459.00	144.00	17.08	0.00	2.43	124.49
160	462.00	144.00	14.93	0.00	3.27	125.80
161	465.00	144.00	10.50	0.00	3.89	129.61
162	468.00	144.00	5.92	2.87	3.80	131.42
163	471.00	144.00	3.58	7.55	2.90	129.97
164	474.00	144.00	2.40	9.92	2.95	128.73
165	477.00	144.00	1.20	12.30	3.52	126.97
166	480.00	144.00	30.19	0.00	3.84	109.97
167	483.00	144.00	29.23	0.00	4.74	110.03
168	486.00	144.00	28.26	0.00	5.61	110.13
169	489.00	144.00	27.29	0.00	6.32	110.39
170	492.00	144.00	26.31	0.00	6.81	110.88
171	495.00	144.00	25.32	0.00	7.02	111.66

172	498.00	144.00	24.32	0.00	6.93	112.75

TENSION EN LOS CABLES. PERDIDAS INSTANT. (Kp/mm2)

I	X	To	P_ROZ	P_CUNA	P_ELAS	Ti
173	501.00	144.00	23.31	0.00	6.54	114.16
174	504.00	144.00	22.29	0.00	5.90	115.82
175	507.00	144.00	21.27	0.00	5.07	117.66
176	510.00	144.00	20.23	0.00	4.18	119.59
177	513.00	144.00	19.19	0.00	3.37	121.44
178	516.00	144.00	18.14	0.00	2.53	123.33
179	519.00	144.00	17.08	0.00	2.43	124.49
180	522.00	144.00	14.93	0.00	3.27	125.80
181	525.00	144.00	10.50	0.00	3.89	129.61
182	528.00	144.00	5.92	2.87	3.80	131.42
183	531.00	144.00	3.58	7.55	2.90	129.97
184	534.00	144.00	2.40	9.92	2.95	128.73
185	537.00	144.00	1.20	12.30	3.52	126.97
186	540.00	144.00	30.19	0.00	3.84	109.97
187	543.00	144.00	29.23	0.00	4.74	110.03
188	546.00	144.00	28.26	0.00	5.61	110.13
189	549.00	144.00	27.29	0.00	6.32	110.39
190	552.00	144.00	26.31	0.00	6.81	110.88
191	555.00	144.00	25.32	0.00	7.02	111.66
192	558.00	144.00	24.32	0.00	6.93	112.75
193	561.00	144.00	23.31	0.00	6.54	114.16
194	564.00	144.00	22.29	0.00	5.90	115.82
195	567.00	144.00	21.27	0.00	5.07	117.66
196	570.00	144.00	20.23	0.00	4.18	119.59
197	573.00	144.00	19.19	0.00	3.37	121.44
198	576.00	144.00	18.14	0.00	2.53	123.33
199	579.00	144.00	17.08	0.00	2.43	124.49
200	582.00	144.00	14.93	0.00	3.27	125.80
201	585.00	144.00	10.50	0.00	3.89	129.61
202	588.00	144.00	5.92	2.87	3.80	131.42
203	591.00	144.00	3.58	7.55	2.90	129.97
204	594.00	144.00	2.40	9.92	2.95	128.73
205	597.00	144.00	1.20	12.30	3.52	126.97
206	600.00	144.00	30.19	0.00	3.84	109.97
207	603.00	144.00	29.23	0.00	4.74	110.03
208	606.00	144.00	28.26	0.00	5.61	110.13
209	609.00	144.00	27.29	0.00	6.32	110.39
210	612.00	144.00	26.31	0.00	6.81	110.88
211	615.00	144.00	25.32	0.00	7.02	111.66
212	618.00	144.00	24.32	0.00	6.93	112.75
213	621.00	144.00	23.31	0.00	6.54	114.16
214	624.00	144.00	22.29	0.00	5.90	115.82
215	627.00	144.00	21.27	0.00	5.07	117.66
216	630.00	144.00	20.23	0.00	4.18	119.59
217	633.00	144.00	19.19	0.00	3.37	121.44
218	636.00	144.00	18.14	0.00	2.53	123.33
219	639.00	144.00	17.08	0.00	2.43	124.49
220	642.00	144.00	14.93	0.00	3.27	125.80
221	645.00	144.00	10.50	0.00	3.89	129.61
222	648.00	144.00	5.92	2.87	3.80	131.42
223	651.00	144.00	3.58	7.55	2.90	129.97
224	654.00	144.00	2.40	9.92	2.95	128.73
225	657.00	144.00	1.20	12.30	3.52	126.97
226	660.00	144.00	30.19	0.00	3.84	109.97
227	663.00	144.00	29.23	0.00	4.74	110.03
228	666.00	144.00	28.26	0.00	5.61	110.13
229	669.00	144.00	27.29	0.00	6.32	110.39

230	672.00	144.00	26.31	0.00	6.81	110.88

TENSION EN LOS CABLES. PERDIDAS INSTANT. (Kp/mm2)

I	X	To	P_ROZ	P_CUNA	P_ELAS	Ti
231	675.00	144.00	25.32	0.00	7.02	111.66
232	678.00	144.00	24.32	0.00	6.93	112.75
233	681.00	144.00	23.31	0.00	6.54	114.16
234	684.00	144.00	22.29	0.00	5.90	115.82
235	687.00	144.00	21.27	0.00	5.07	117.66
236	690.00	144.00	20.23	0.00	4.18	119.59
237	693.00	144.00	19.19	0.00	3.37	121.44
238	696.00	144.00	18.14	0.00	2.53	123.33
239	699.00	144.00	17.08	0.00	2.43	124.49
240	702.00	144.00	14.93	0.00	3.27	125.80
241	705.00	144.00	10.50	0.00	3.89	129.61
242	708.00	144.00	5.92	2.87	3.80	131.42
243	711.00	144.00	3.58	7.55	2.90	129.97
244	714.00	144.00	2.40	9.92	2.95	128.73
245	717.00	144.00	1.20	12.30	3.52	126.97
246	720.00	144.00	29.44	0.00	3.87	110.69
247	723.00	144.00	28.48	0.00	4.77	110.75
248	726.00	144.00	27.50	0.00	5.64	110.85
249	729.00	144.00	26.52	0.00	6.37	111.11
250	732.00	144.00	25.53	0.00	6.86	111.61
251	735.00	144.00	24.53	0.00	7.07	112.40
252	738.00	144.00	23.53	0.00	6.97	113.49
253	741.00	144.00	22.51	0.00	6.58	114.91
254	744.00	144.00	21.49	0.00	5.93	116.58
255	747.00	144.00	20.46	0.00	5.10	118.44
256	750.00	144.00	19.42	0.00	4.21	120.38
257	753.00	144.00	18.37	0.00	3.39	122.24
258	756.00	144.00	17.32	0.00	2.55	124.14
259	759.00	144.00	16.25	0.00	2.44	125.31
260	762.00	144.00	14.08	0.00	3.29	126.63
261	765.00	144.00	9.62	0.00	3.84	130.54
262	767.25	144.00	6.12	5.46	3.95	128.47
263	769.50	144.00	3.10	11.50	3.05	126.35
264	771.75	144.00	2.07	13.55	2.76	125.62
265	774.00	144.00	1.04	15.61	2.86	124.49
266	776.25	144.00	0.00	17.70	2.64	123.67
267	778.50	144.00	12.00	0.00	3.56	128.44
268	780.75	144.00	11.04	0.00	4.10	128.85
269	783.00	144.00	10.07	0.00	4.62	129.30
270	785.25	144.00	9.10	0.00	5.05	129.85
271	787.50	144.00	8.12	0.00	5.34	130.54
272	789.75	144.00	7.13	0.00	5.47	131.40
273	792.00	144.00	6.32	0.00	5.40	132.28
274	794.25	144.00	5.52	0.52	5.28	132.69
275	796.50	144.00	4.71	2.14	4.96	132.19
276	798.75	144.00	3.89	3.78	4.56	131.77
277	801.00	144.00	3.07	5.42	4.12	131.40
278	803.25	144.00	2.24	7.08	3.65	131.03
279	805.50	144.00	1.41	8.73	3.22	130.64
280	807.75	144.00	0.57	10.41	2.86	130.16
281	810.00	144.00	0.00	11.56	2.65	129.80

ALARGAMIENTO DE LOS CABLES (sobre embolo)= 238.7 mm

PRETENSADO EN EL NERVIO = 1

TENSION EN LOS CABLES. PERDIDAS DIFERIDAS (Kp/mm2)

I	S	Ti	P_RETRA	P_FLUE	P_RELAJ.
1	0.00	111.11	3.98	7.91	3.24
2	2.25	111.38	3.96	7.97	3.23
3	4.50	111.75	3.91	8.14	3.20
4	6.75	112.05	3.86	8.30	3.17
5	9.00	112.33	3.81	8.46	3.13
6	11.25	112.62	3.76	8.63	3.10
7	13.50	112.97	3.72	8.80	3.08
8	15.75	113.39	3.69	8.98	3.06
9	18.00	113.90	3.67	9.17	3.06
10	20.25	114.51	3.66	9.36	3.07
11	22.50	115.42	3.67	9.53	3.10
12	24.75	116.49	3.70	9.60	3.16
13	27.00	117.70	3.74	9.57	3.23
14	29.25	119.00	3.80	9.43	3.31
15	31.50	120.35	3.87	9.21	3.41
16	33.75	121.68	3.93	8.93	3.50
17	36.00	122.91	3.97	8.69	3.58
18	38.25	124.17	4.03	7.79	3.66
19	40.50	124.80	3.99	7.93	3.64
20	42.75	126.90	3.90	8.63	3.63
21	45.00	129.93	3.87	8.26	3.68
22	48.00	131.73	3.89	10.08	3.75
23	51.00	130.21	3.98	9.18	3.80
24	54.00	128.98	3.97	8.83	3.75
25	57.00	127.26	3.90	8.70	3.64
26	60.00	109.97	3.76	8.13	3.02
27	63.00	110.03	3.64	8.23	2.93
28	66.00	110.13	3.54	8.47	2.85
29	69.00	110.39	3.46	8.73	2.80
30	72.00	110.88	3.41	9.01	2.77
31	75.00	111.66	3.40	9.28	2.78
32	78.00	112.75	3.41	9.53	2.82
33	81.00	114.16	3.46	9.73	2.89
34	84.00	115.82	3.54	9.85	3.00
35	87.00	117.66	3.64	9.85	3.14
36	90.00	119.59	3.76	9.72	3.29
37	93.00	121.44	3.87	9.51	3.44
38	96.00	123.33	3.98	8.46	3.60
39	99.00	124.49	4.00	8.17	3.65
40	102.00	125.80	3.89	9.05	3.59
41	105.00	129.61	3.83	8.59	3.63
42	108.00	131.42	3.85	10.46	3.70
43	111.00	129.97	3.95	9.80	3.76
44	114.00	128.73	3.94	9.73	3.72
45	117.00	126.97	3.87	9.90	3.59
46	120.00	109.97	3.76	8.81	3.02
47	123.00	110.03	3.64	8.76	2.93
48	126.00	110.13	3.54	9.01	2.85
49	129.00	110.39	3.46	9.25	2.80
50	132.00	110.88	3.41	9.47	2.77
51	135.00	111.66	3.40	9.68	2.78
52	138.00	112.75	3.41	9.86	2.82

TENSION EN LOS CABLES. PERDIDAS DIFERIDAS (Kp/mm2)

I	S	Ti	P_RETRA	P_FLUE	P_RELAJ.
53	141.00	114.16	3.46	9.98	2.89
54	144.00	115.82	3.54	10.02	3.00
55	147.00	117.66	3.64	9.95	3.14
56	150.00	119.59	3.76	9.76	3.29
57	153.00	121.44	3.87	9.51	3.44
58	156.00	123.33	3.98	8.45	3.60
59	159.00	124.49	4.00	8.20	3.65
60	162.00	125.80	3.89	9.15	3.59
61	165.00	129.61	3.83	8.75	3.63
62	168.00	131.42	3.85	10.60	3.70
63	171.00	129.97	3.95	9.83	3.76
64	174.00	128.73	3.94	9.69	3.72
65	177.00	126.97	3.87	9.81	3.59
66	180.00	109.97	3.76	8.68	3.02
67	183.00	110.03	3.64	8.62	2.93
68	186.00	110.13	3.54	8.87	2.85
69	189.00	110.39	3.46	9.12	2.80
70	192.00	110.88	3.41	9.36	2.77
71	195.00	111.66	3.40	9.58	2.78
72	198.00	112.75	3.41	9.78	2.82
73	201.00	114.16	3.46	9.92	2.89
74	204.00	115.82	3.54	9.98	3.00
75	207.00	117.66	3.64	9.93	3.14
76	210.00	119.59	3.76	9.75	3.29
77	213.00	121.44	3.87	9.51	3.44
78	216.00	123.33	3.98	8.45	3.60
79	219.00	124.49	4.00	8.19	3.65
80	222.00	125.80	3.89	9.12	3.59
81	225.00	129.61	3.83	8.70	3.63
82	228.00	131.42	3.85	10.56	3.70
83	231.00	129.97	3.95	9.82	3.76
84	234.00	128.73	3.94	9.70	3.72
85	237.00	126.97	3.87	9.84	3.59
86	240.00	109.97	3.76	8.72	3.02
87	243.00	110.03	3.64	8.66	2.93
88	246.00	110.13	3.54	8.91	2.85
89	249.00	110.39	3.46	9.16	2.80
90	252.00	110.88	3.41	9.39	2.77
91	255.00	111.66	3.40	9.61	2.78
92	258.00	112.75	3.41	9.80	2.82
93	261.00	114.16	3.46	9.94	2.89
94	264.00	115.82	3.54	9.99	3.00
95	267.00	117.66	3.64	9.93	3.14
96	270.00	119.59	3.76	9.76	3.29
97	273.00	121.44	3.87	9.51	3.44
98	276.00	123.33	3.98	8.45	3.60
99	279.00	124.49	4.00	8.19	3.65
100	282.00	125.80	3.89	9.13	3.59
101	285.00	129.61	3.83	8.72	3.63
102	288.00	131.42	3.85	10.57	3.70
103	291.00	129.97	3.95	9.82	3.76
104	294.00	128.73	3.94	9.70	3.72
105	297.00	126.97	3.87	9.83	3.59
106	300.00	109.97	3.76	8.71	3.02
107	303.00	110.03	3.64	8.65	2.93
108	306.00	110.13	3.54	8.90	2.85
109	309.00	110.39	3.46	9.15	2.80
110	312.00	110.88	3.41	9.38	2.77

TENSION EN LOS CABLES. PERDIDAS DIFERIDAS (Kp/mm2)

I	S	Ti	P_RETRA	P_FLUE	P_RELAJ.
111	315.00	111.66	3.40	9.60	2.78
112	318.00	112.75	3.41	9.79	2.82
113	321.00	114.16	3.46	9.93	2.89
114	324.00	115.82	3.54	9.99	3.00
115	327.00	117.66	3.64	9.93	3.14
116	330.00	119.59	3.76	9.75	3.29
117	333.00	121.44	3.87	9.51	3.44
118	336.00	123.33	3.98	8.45	3.60
119	339.00	124.49	4.00	8.19	3.65
120	342.00	125.80	3.89	9.12	3.59
121	345.00	129.61	3.83	8.71	3.63
122	348.00	131.42	3.85	10.56	3.70
123	351.00	129.97	3.95	9.82	3.76
124	354.00	128.73	3.94	9.70	3.72
125	357.00	126.97	3.87	9.83	3.59
126	360.00	109.97	3.76	8.71	3.02
127	363.00	110.03	3.64	8.65	2.93
128	366.00	110.13	3.54	8.90	2.85
129	369.00	110.39	3.46	9.15	2.80
130	372.00	110.88	3.41	9.39	2.77
131	375.00	111.66	3.40	9.61	2.78
132	378.00	112.75	3.41	9.80	2.82
133	381.00	114.16	3.46	9.94	2.89
134	384.00	115.82	3.54	9.99	3.00
135	387.00	117.66	3.64	9.93	3.14
136	390.00	119.59	3.76	9.76	3.29
137	393.00	121.44	3.87	9.51	3.44
138	396.00	123.33	3.98	8.45	3.60
139	399.00	124.49	4.00	8.19	3.65
140	402.00	125.80	3.89	9.12	3.59
141	405.00	129.61	3.83	8.71	3.63
142	408.00	131.42	3.85	10.56	3.70
143	411.00	129.97	3.95	9.82	3.76
144	414.00	128.73	3.94	9.70	3.72
145	417.00	126.97	3.87	9.83	3.59
146	420.00	109.97	3.76	8.71	3.02
147	423.00	110.03	3.64	8.65	2.93
148	426.00	110.13	3.54	8.90	2.85
149	429.00	110.39	3.46	9.15	2.80
150	432.00	110.88	3.41	9.38	2.77
151	435.00	111.66	3.40	9.60	2.78
152	438.00	112.75	3.41	9.79	2.82
153	441.00	114.16	3.46	9.93	2.89
154	444.00	115.82	3.54	9.99	3.00
155	447.00	117.66	3.64	9.93	3.14
156	450.00	119.59	3.76	9.75	3.29
157	453.00	121.44	3.87	9.51	3.44
158	456.00	123.33	3.98	8.45	3.60
159	459.00	124.49	4.00	8.19	3.65
160	462.00	125.80	3.89	9.12	3.59
161	465.00	129.61	3.83	8.71	3.63
162	468.00	131.42	3.85	10.56	3.70
163	471.00	129.97	3.95	9.82	3.76
164	474.00	128.73	3.94	9.70	3.72
165	477.00	126.97	3.87	9.83	3.59
166	480.00	109.97	3.76	8.71	3.02
167	483.00	110.03	3.64	8.65	2.93
168	486.00	110.13	3.54	8.90	2.85

TENSION EN LOS CABLES. PERDIDAS DIFERIDAS (Kp/mm2)

I	S	Ti	P_RETRA	P_FLUE	P_RELAJ.
169	489.00	110.39	3.46	9.15	2.80
170	492.00	110.88	3.41	9.39	2.77
171	495.00	111.66	3.40	9.61	2.78
172	498.00	112.75	3.41	9.80	2.82
173	501.00	114.16	3.46	9.94	2.89
174	504.00	115.82	3.54	9.99	3.00
175	507.00	117.66	3.64	9.93	3.14
176	510.00	119.59	3.76	9.76	3.29
177	513.00	121.44	3.87	9.51	3.44
178	516.00	123.33	3.98	8.45	3.60
179	519.00	124.49	4.00	8.19	3.65
180	522.00	125.80	3.89	9.12	3.59
181	525.00	129.61	3.83	8.71	3.63
182	528.00	131.42	3.85	10.56	3.70
183	531.00	129.97	3.95	9.82	3.76
184	534.00	128.73	3.94	9.70	3.72
185	537.00	126.97	3.87	9.83	3.59
186	540.00	109.97	3.76	8.71	3.02
187	543.00	110.03	3.64	8.65	2.93
188	546.00	110.13	3.54	8.90	2.85
189	549.00	110.39	3.46	9.15	2.80
190	552.00	110.88	3.41	9.38	2.77
191	555.00	111.66	3.40	9.60	2.78
192	558.00	112.75	3.41	9.79	2.82
193	561.00	114.16	3.46	9.93	2.89
194	564.00	115.82	3.54	9.98	3.00
195	567.00	117.66	3.64	9.92	3.14
196	570.00	119.59	3.76	9.75	3.29
197	573.00	121.44	3.87	9.50	3.44
198	576.00	123.33	3.98	8.45	3.60
199	579.00	124.49	4.00	8.19	3.65
200	582.00	125.80	3.89	9.13	3.59
201	585.00	129.61	3.83	8.72	3.63
202	588.00	131.42	3.85	10.57	3.70
203	591.00	129.97	3.95	9.82	3.76
204	594.00	128.73	3.94	9.70	3.72
205	597.00	126.97	3.87	9.83	3.59
206	600.00	109.97	3.76	8.71	3.02
207	603.00	110.03	3.64	8.66	2.93
208	606.00	110.13	3.54	8.91	2.85
209	609.00	110.39	3.46	9.16	2.80
210	612.00	110.88	3.41	9.40	2.77
211	615.00	111.66	3.40	9.63	2.78
212	618.00	112.75	3.41	9.82	2.82
213	621.00	114.16	3.46	9.96	2.89
214	624.00	115.82	3.54	10.02	3.00
215	627.00	117.66	3.64	9.96	3.14
216	630.00	119.59	3.76	9.78	3.29
217	633.00	121.44	3.87	9.53	3.44
218	636.00	123.33	3.98	8.46	3.60
219	639.00	124.49	4.00	8.18	3.65
220	642.00	125.80	3.89	9.10	3.59
221	645.00	129.61	3.83	8.68	3.63
222	648.00	131.42	3.85	10.54	3.70
223	651.00	129.97	3.95	9.81	3.76
224	654.00	128.73	3.94	9.70	3.72
225	657.00	126.97	3.87	9.84	3.59
226	660.00	109.97	3.76	8.71	3.02

TENSION EN LOS CABLES. PERDIDAS DIFERIDAS (Kp/mm2)

I	S	Ti	P_RETRA	P_FLUE	P_RELAJ.
227	663.00	110.03	3.64	8.63	2.93
228	666.00	110.13	3.54	8.87	2.85
229	669.00	110.39	3.46	9.10	2.80
230	672.00	110.88	3.41	9.32	2.77
231	675.00	111.66	3.40	9.53	2.78
232	678.00	112.75	3.41	9.70	2.82
233	681.00	114.16	3.46	9.83	2.89
234	684.00	115.82	3.54	9.88	3.00
235	687.00	117.66	3.64	9.83	3.14
236	690.00	119.59	3.76	9.66	3.29
237	693.00	121.44	3.87	9.44	3.44
238	696.00	123.33	3.98	8.42	3.60
239	699.00	124.49	4.00	8.23	3.65
240	702.00	125.80	3.89	9.22	3.59
241	705.00	129.61	3.83	8.83	3.63
242	708.00	131.42	3.85	10.65	3.70
243	711.00	129.97	3.95	9.83	3.76
244	714.00	128.73	3.94	9.68	3.72
245	717.00	126.97	3.87	9.82	3.59
246	720.00	110.69	3.76	8.78	3.04
247	723.00	110.75	3.64	8.79	2.95
248	726.00	110.85	3.54	9.10	2.87
249	729.00	111.11	3.46	9.40	2.82
250	732.00	111.61	3.41	9.69	2.79
251	735.00	112.40	3.40	9.96	2.80
252	738.00	113.49	3.41	10.20	2.84
253	741.00	114.91	3.46	10.36	2.91
254	744.00	116.58	3.54	10.43	3.02
255	747.00	118.44	3.64	10.35	3.16
256	750.00	120.38	3.76	10.13	3.31
257	753.00	122.24	3.87	9.80	3.46
258	756.00	124.14	3.98	8.60	3.62
259	759.00	125.31	4.00	8.12	3.67
260	762.00	126.63	3.89	9.52	3.61
261	765.00	130.54	3.83	9.52	3.66
262	767.25	128.47	3.82	10.83	3.59
263	769.50	126.35	3.92	9.86	3.63
264	771.75	125.62	3.96	9.44	3.64
265	774.00	124.49	3.94	9.39	3.59
266	776.25	123.67	3.93	8.89	3.56
267	778.50	128.44	3.87	9.60	3.64
268	780.75	128.85	3.80	10.05	3.59
269	783.00	129.30	3.74	10.48	3.55
270	785.25	129.85	3.70	10.82	3.52
271	787.50	130.54	3.67	11.06	3.51
272	789.75	131.40	3.66	11.18	3.52
273	792.00	132.28	3.67	11.21	3.55
274	794.25	132.69	3.69	11.11	3.58
275	796.50	132.19	3.72	10.86	3.60
276	798.75	131.77	3.76	10.59	3.63
277	801.00	131.40	3.81	10.29	3.67
278	803.25	131.03	3.86	9.98	3.71
279	805.50	130.64	3.91	9.67	3.74
280	807.75	130.16	3.96	9.37	3.77
281	810.00	129.80	3.98	9.16	3.79

PRETENSADO EN EL NERVIO = 1

TENSION EN LOS CABLES (Kp/mm2)

I	S	To	APi	Ti	APf	Tf
1	0.00	144.00	32.89	111.11	15.14	95.98
2	2.25	144.00	32.62	111.38	15.16	96.23
3	4.50	144.00	32.25	111.75	15.26	96.49
4	6.75	144.00	31.95	112.05	15.33	96.71
5	9.00	144.00	31.67	112.33	15.41	96.92
6	11.25	144.00	31.38	112.62	15.49	97.13
7	13.50	144.00	31.03	112.97	15.59	97.37
8	15.75	144.00	30.61	113.39	15.73	97.66
9	18.00	144.00	30.10	113.90	15.90	98.00
10	20.25	144.00	29.49	114.51	16.09	98.42
11	22.50	144.00	28.58	115.42	16.30	99.12
12	24.75	144.00	27.51	116.49	16.46	100.03
13	27.00	144.00	26.30	117.70	16.54	101.15
14	29.25	144.00	25.00	119.00	16.55	102.45
15	31.50	144.00	23.65	120.35	16.48	103.87
16	33.75	144.00	22.32	121.68	16.36	105.32
17	36.00	144.00	21.09	122.91	16.24	106.66
18	38.25	144.00	19.83	124.17	15.48	108.69
19	40.50	144.00	19.20	124.80	15.56	109.24
20	42.75	144.00	17.10	126.90	16.16	110.74
21	45.00	144.00	14.07	129.93	15.82	114.12
22	48.00	144.00	12.27	131.73	17.72	114.01
23	51.00	144.00	13.79	130.21	16.96	113.24
24	54.00	144.00	15.02	128.98	16.56	112.42
25	57.00	144.00	16.74	127.26	16.24	111.02
26	60.00	144.00	34.03	109.97	14.91	95.06
27	63.00	144.00	33.97	110.03	14.80	95.22
28	66.00	144.00	33.87	110.13	14.87	95.26
29	69.00	144.00	33.61	110.39	15.00	95.39
30	72.00	144.00	33.12	110.88	15.19	95.69
31	75.00	144.00	32.34	111.66	15.45	96.21
32	78.00	144.00	31.25	112.75	15.76	96.99
33	81.00	144.00	29.84	114.16	16.09	98.07
34	84.00	144.00	28.18	115.82	16.39	99.43
35	87.00	144.00	26.34	117.66	16.63	101.04
36	90.00	144.00	24.41	119.59	16.77	102.82
37	93.00	144.00	22.56	121.44	16.81	104.63
38	96.00	144.00	20.67	123.33	16.04	107.29
39	99.00	144.00	19.51	124.49	15.81	108.68
40	102.00	144.00	18.20	125.80	16.52	109.28
41	105.00	144.00	14.39	129.61	16.05	113.56
42	108.00	144.00	12.58	131.42	18.01	113.41
43	111.00	144.00	14.03	129.97	17.51	112.46
44	114.00	144.00	15.27	128.73	17.39	111.35
45	117.00	144.00	17.03	126.97	17.36	109.61
46	120.00	144.00	34.03	109.97	15.59	94.38
47	123.00	144.00	33.97	110.03	15.33	94.70
48	126.00	144.00	33.87	110.13	15.40	94.73
49	129.00	144.00	33.61	110.39	15.51	94.88
50	132.00	144.00	33.12	110.88	15.66	95.22
51	135.00	144.00	32.34	111.66	15.86	95.80
52	138.00	144.00	31.25	112.75	16.09	96.66

TENSION EN LOS CABLES (Kp/mm2)

I	S	To	APi	Ti	APf	Tf
53	141.00	144.00	29.84	114.16	16.34	97.82
54	144.00	144.00	28.18	115.82	16.56	99.25
55	147.00	144.00	26.34	117.66	16.73	100.94
56	150.00	144.00	24.41	119.59	16.80	102.78
57	153.00	144.00	22.56	121.44	16.81	104.64
58	156.00	144.00	20.67	123.33	16.02	107.30
59	159.00	144.00	19.51	124.49	15.84	108.65
60	162.00	144.00	18.20	125.80	16.63	109.17
61	165.00	144.00	14.39	129.61	16.21	113.40
62	168.00	144.00	12.58	131.42	18.15	113.27
63	171.00	144.00	14.03	129.97	17.54	112.43
64	174.00	144.00	15.27	128.73	17.34	111.39
65	177.00	144.00	17.03	126.97	17.27	109.70
66	180.00	144.00	34.03	109.97	15.46	94.50
67	183.00	144.00	33.97	110.03	15.20	94.83
68	186.00	144.00	33.87	110.13	15.27	94.86
69	189.00	144.00	33.61	110.39	15.38	95.01
70	192.00	144.00	33.12	110.88	15.54	95.34
71	195.00	144.00	32.34	111.66	15.76	95.91
72	198.00	144.00	31.25	112.75	16.01	96.74
73	201.00	144.00	29.84	114.16	16.28	97.88
74	204.00	144.00	28.18	115.82	16.52	99.29
75	207.00	144.00	26.34	117.66	16.70	100.96
76	210.00	144.00	24.41	119.59	16.80	102.79
77	213.00	144.00	22.56	121.44	16.81	104.63
78	216.00	144.00	20.67	123.33	16.03	107.30
79	219.00	144.00	19.51	124.49	15.83	108.66
80	222.00	144.00	18.20	125.80	16.60	109.20
81	225.00	144.00	14.39	129.61	16.17	113.44
82	228.00	144.00	12.58	131.42	18.10	113.31
83	231.00	144.00	14.03	129.97	17.53	112.44
84	234.00	144.00	15.27	128.73	17.36	111.38
85	237.00	144.00	17.03	126.97	17.30	109.67
86	240.00	144.00	34.03	109.97	15.50	94.47
87	243.00	144.00	33.97	110.03	15.24	94.79
88	246.00	144.00	33.87	110.13	15.31	94.82
89	249.00	144.00	33.61	110.39	15.42	94.97
90	252.00	144.00	33.12	110.88	15.58	95.30
91	255.00	144.00	32.34	111.66	15.79	95.88
92	258.00	144.00	31.25	112.75	16.03	96.72
93	261.00	144.00	29.84	114.16	16.30	97.86
94	264.00	144.00	28.18	115.82	16.54	99.28
95	267.00	144.00	26.34	117.66	16.71	100.95
96	270.00	144.00	24.41	119.59	16.80	102.79
97	273.00	144.00	22.56	121.44	16.81	104.63
98	276.00	144.00	20.67	123.33	16.03	107.30
99	279.00	144.00	19.51	124.49	15.84	108.65
100	282.00	144.00	18.20	125.80	16.60	109.20
101	285.00	144.00	14.39	129.61	16.18	113.43
102	288.00	144.00	12.58	131.42	18.12	113.30
103	291.00	144.00	14.03	129.97	17.53	112.43
104	294.00	144.00	15.27	128.73	17.35	111.38
105	297.00	144.00	17.03	126.97	17.29	109.68
106	300.00	144.00	34.03	109.97	15.49	94.48
107	303.00	144.00	33.97	110.03	15.22	94.80
108	306.00	144.00	33.87	110.13	15.30	94.83
109	309.00	144.00	33.61	110.39	15.41	94.98

TENSION EN LOS CABLES (Kp/mm2)

I	S	To	APi	Ti	APf	Tf
110	312.00	144.00	33.12	110.88	15.57	95.31
111	315.00	144.00	32.34	111.66	15.78	95.88
112	318.00	144.00	31.25	112.75	16.03	96.73
113	321.00	144.00	29.84	114.16	16.29	97.87
114	324.00	144.00	28.18	115.82	16.53	99.29
115	327.00	144.00	26.34	117.66	16.71	100.95
116	330.00	144.00	24.41	119.59	16.80	102.79
117	333.00	144.00	22.56	121.44	16.81	104.63
118	336.00	144.00	20.67	123.33	16.03	107.30
119	339.00	144.00	19.51	124.49	15.84	108.65
120	342.00	144.00	18.20	125.80	16.60	109.20
121	345.00	144.00	14.39	129.61	16.18	113.43
122	348.00	144.00	12.58	131.42	18.11	113.30
123	351.00	144.00	14.03	129.97	17.53	112.44
124	354.00	144.00	15.27	128.73	17.35	111.38
125	357.00	144.00	17.03	126.97	17.29	109.68
126	360.00	144.00	34.03	109.97	15.49	94.47
127	363.00	144.00	33.97	110.03	15.23	94.80
128	366.00	144.00	33.87	110.13	15.30	94.83
129	369.00	144.00	33.61	110.39	15.41	94.98
130	372.00	144.00	33.12	110.88	15.57	95.31
131	375.00	144.00	32.34	111.66	15.78	95.88
132	378.00	144.00	31.25	112.75	16.03	96.72
133	381.00	144.00	29.84	114.16	16.29	97.86
134	384.00	144.00	28.18	115.82	16.53	99.28
135	387.00	144.00	26.34	117.66	16.71	100.95
136	390.00	144.00	24.41	119.59	16.80	102.79
137	393.00	144.00	22.56	121.44	16.81	104.63
138	396.00	144.00	20.67	123.33	16.03	107.30
139	399.00	144.00	19.51	124.49	15.84	108.65
140	402.00	144.00	18.20	125.80	16.60	109.20
141	405.00	144.00	14.39	129.61	16.18	113.43
142	408.00	144.00	12.58	131.42	18.11	113.30
143	411.00	144.00	14.03	129.97	17.53	112.44
144	414.00	144.00	15.27	128.73	17.35	111.38
145	417.00	144.00	17.03	126.97	17.29	109.68
146	420.00	144.00	34.03	109.97	15.49	94.48
147	423.00	144.00	33.97	110.03	15.23	94.80
148	426.00	144.00	33.87	110.13	15.30	94.83
149	429.00	144.00	33.61	110.39	15.41	94.98
150	432.00	144.00	33.12	110.88	15.57	95.31
151	435.00	144.00	32.34	111.66	15.78	95.88
152	438.00	144.00	31.25	112.75	16.03	96.73
153	441.00	144.00	29.84	114.16	16.29	97.86
154	444.00	144.00	28.18	115.82	16.53	99.29
155	447.00	144.00	26.34	117.66	16.71	100.95
156	450.00	144.00	24.41	119.59	16.80	102.79
157	453.00	144.00	22.56	121.44	16.81	104.63
158	456.00	144.00	20.67	123.33	16.03	107.30
159	459.00	144.00	19.51	124.49	15.84	108.65
160	462.00	144.00	18.20	125.80	16.60	109.20
161	465.00	144.00	14.39	129.61	16.18	113.43
162	468.00	144.00	12.58	131.42	18.11	113.30
163	471.00	144.00	14.03	129.97	17.53	112.44
164	474.00	144.00	15.27	128.73	17.35	111.38
165	477.00	144.00	17.03	126.97	17.29	109.68
166	480.00	144.00	34.03	109.97	15.49	94.48

TENSION EN LOS CABLES (Kp/mm2)

I	S	To	APi	Ti	APf	Tf
167	483.00	144.00	33.97	110.03	15.23	94.80
168	486.00	144.00	33.87	110.13	15.30	94.83
169	489.00	144.00	33.61	110.39	15.41	94.98
170	492.00	144.00	33.12	110.88	15.57	95.31
171	495.00	144.00	32.34	111.66	15.78	95.88
172	498.00	144.00	31.25	112.75	16.03	96.72
173	501.00	144.00	29.84	114.16	16.29	97.86
174	504.00	144.00	28.18	115.82	16.54	99.28
175	507.00	144.00	26.34	117.66	16.71	100.95
176	510.00	144.00	24.41	119.59	16.80	102.79
177	513.00	144.00	22.56	121.44	16.81	104.63
178	516.00	144.00	20.67	123.33	16.03	107.30
179	519.00	144.00	19.51	124.49	15.83	108.66
180	522.00	144.00	18.20	125.80	16.60	109.20
181	525.00	144.00	14.39	129.61	16.17	113.44
182	528.00	144.00	12.58	131.42	18.11	113.30
183	531.00	144.00	14.03	129.97	17.53	112.44
184	534.00	144.00	15.27	128.73	17.35	111.38
185	537.00	144.00	17.03	126.97	17.29	109.68
186	540.00	144.00	34.03	109.97	15.49	94.48
187	543.00	144.00	33.97	110.03	15.23	94.80
188	546.00	144.00	33.87	110.13	15.30	94.83
189	549.00	144.00	33.61	110.39	15.41	94.98
190	552.00	144.00	33.12	110.88	15.56	95.32
191	555.00	144.00	32.34	111.66	15.77	95.89
192	558.00	144.00	31.25	112.75	16.02	96.73
193	561.00	144.00	29.84	114.16	16.28	97.87
194	564.00	144.00	28.18	115.82	16.52	99.29
195	567.00	144.00	26.34	117.66	16.70	100.96
196	570.00	144.00	24.41	119.59	16.79	102.80
197	573.00	144.00	22.56	121.44	16.81	104.64
198	576.00	144.00	20.67	123.33	16.03	107.30
199	579.00	144.00	19.51	124.49	15.84	108.65
200	582.00	144.00	18.20	125.80	16.61	109.19
201	585.00	144.00	14.39	129.61	16.19	113.42
202	588.00	144.00	12.58	131.42	18.12	113.30
203	591.00	144.00	14.03	129.97	17.53	112.43
204	594.00	144.00	15.27	128.73	17.35	111.38
205	597.00	144.00	17.03	126.97	17.29	109.68
206	600.00	144.00	34.03	109.97	15.49	94.47
207	603.00	144.00	33.97	110.03	15.23	94.79
208	606.00	144.00	33.87	110.13	15.31	94.82
209	609.00	144.00	33.61	110.39	15.42	94.96
210	612.00	144.00	33.12	110.88	15.59	95.29
211	615.00	144.00	32.34	111.66	15.80	95.86
212	618.00	144.00	31.25	112.75	16.05	96.70
213	621.00	144.00	29.84	114.16	16.32	97.83
214	624.00	144.00	28.18	115.82	16.56	99.25
215	627.00	144.00	26.34	117.66	16.74	100.92
216	630.00	144.00	24.41	119.59	16.83	102.76
217	633.00	144.00	22.56	121.44	16.83	104.61
218	636.00	144.00	20.67	123.33	16.04	107.29
219	639.00	144.00	19.51	124.49	15.82	108.67
220	642.00	144.00	18.20	125.80	16.57	109.23
221	645.00	144.00	14.39	129.61	16.14	113.47
222	648.00	144.00	12.58	131.42	18.09	113.33
223	651.00	144.00	14.03	129.97	17.53	112.44

TENSION EN LOS CABLES (Kp/mm2)

I	S	To	APi	Ti	APf	Tf
224	654.00	144.00	15.27	128.73	17.36	111.38
225	657.00	144.00	17.03	126.97	17.30	109.68
226	660.00	144.00	34.03	109.97	15.49	94.48
227	663.00	144.00	33.97	110.03	15.21	94.82
228	666.00	144.00	33.87	110.13	15.27	94.86
229	669.00	144.00	33.61	110.39	15.36	95.03
230	672.00	144.00	33.12	110.88	15.51	95.37
231	675.00	144.00	32.34	111.66	15.70	95.96
232	678.00	144.00	31.25	112.75	15.94	96.82
233	681.00	144.00	29.84	114.16	16.19	97.96
234	684.00	144.00	28.18	115.82	16.43	99.39
235	687.00	144.00	26.34	117.66	16.61	101.06
236	690.00	144.00	24.41	119.59	16.71	102.88
237	693.00	144.00	22.56	121.44	16.74	104.70
238	696.00	144.00	20.67	123.33	16.00	107.33
239	699.00	144.00	19.51	124.49	15.88	108.61
240	702.00	144.00	18.20	125.80	16.70	109.10
241	705.00	144.00	14.39	129.61	16.30	113.31
242	708.00	144.00	12.58	131.42	18.20	113.21
243	711.00	144.00	14.03	129.97	17.55	112.42
244	714.00	144.00	15.27	128.73	17.34	111.39
245	717.00	144.00	17.03	126.97	17.28	109.70
246	720.00	144.00	33.31	110.69	15.58	95.11
247	723.00	144.00	33.25	110.75	15.38	95.37
248	726.00	144.00	33.15	110.85	15.51	95.34
249	729.00	144.00	32.89	111.11	15.68	95.43
250	732.00	144.00	32.39	111.61	15.90	95.71
251	735.00	144.00	31.60	112.40	16.16	96.24
252	738.00	144.00	30.51	113.49	16.45	97.05
253	741.00	144.00	29.09	114.91	16.74	98.17
254	744.00	144.00	27.42	116.58	16.99	99.59
255	747.00	144.00	25.56	118.44	17.15	101.28
256	750.00	144.00	23.62	120.38	17.20	103.18
257	753.00	144.00	21.76	122.24	17.12	105.12
258	756.00	144.00	19.86	124.14	16.20	107.94
259	759.00	144.00	18.69	125.31	15.79	109.52
260	762.00	144.00	17.37	126.63	17.02	109.60
261	765.00	144.00	13.46	130.54	17.01	113.53
262	767.25	144.00	15.53	128.47	18.24	110.24
263	769.50	144.00	17.65	126.35	17.41	108.95
264	771.75	144.00	18.38	125.62	17.04	108.57
265	774.00	144.00	19.51	124.49	16.93	107.56
266	776.25	144.00	20.33	123.67	16.37	107.30
267	778.50	144.00	15.56	128.44	17.10	111.34
268	780.75	144.00	15.15	128.85	17.44	111.41
269	783.00	144.00	14.70	129.30	17.77	111.54
270	785.25	144.00	14.15	129.85	18.04	111.81
271	787.50	144.00	13.46	130.54	18.24	112.30
272	789.75	144.00	12.60	131.40	18.37	113.03
273	792.00	144.00	11.72	132.28	18.43	113.85
274	794.25	144.00	11.31	132.69	18.38	114.30
275	796.50	144.00	11.81	132.19	18.18	114.01
276	798.75	144.00	12.23	131.77	17.97	113.79
277	801.00	144.00	12.60	131.40	17.76	113.63
278	803.25	144.00	12.97	131.03	17.55	113.48
279	805.50	144.00	13.36	130.64	17.33	113.31
280	807.75	144.00	13.84	130.16	17.10	113.06
281	810.00	144.00	14.20	129.80	16.93	112.87

PRETENSADO EN EL NERVIO = 1

FUERZAS EN LOS CABLES (T, m)

I	S(m)	Pi (T)	Mpi (mT)	Upi (T/m)	Pf (T)	Mpf (mT)	Upf (T/m)
1	0.00	6969.06	1156.9	0.00	6019.67	999.3	0.00
2	2.25	6985.98	3031.3	44.51	6035.33	2618.8	38.45
3	4.50	7008.76	4736.5	44.65	6051.87	4089.9	38.56
4	6.75	7027.57	6222.5	44.77	6065.88	5371.0	38.65
5	9.00	7045.09	7487.8	44.88	6078.87	6460.9	38.73
6	11.25	7063.70	8532.8	45.00	6092.24	7359.3	38.81
7	13.50	7085.32	9358.7	45.14	6107.22	8066.8	38.91
8	15.75	7111.56	9966.8	45.31	6124.98	8584.1	39.02
9	18.00	7143.58	10357.3	45.51	6146.52	8911.7	39.16
10	20.25	7182.14	10529.0	45.76	6172.76	9049.3	39.33
11	22.50	7239.32	10441.6	67.66	6216.69	8966.6	58.10
12	24.75	7306.29	10019.6	68.29	6273.97	8603.9	58.64
13	27.00	7381.84	9250.0	68.99	6344.24	7949.8	59.30
14	29.25	7463.73	8116.6	69.76	6425.80	6987.9	60.06
15	31.50	7548.57	6601.6	70.55	6514.98	5697.6	60.89
16	33.75	7632.02	4688.4	71.33	6605.93	4058.0	61.74
17	36.00	7708.61	2364.6	72.05	6689.89	2052.1	62.53
18	38.25	7787.83	-374.8	72.79	6817.00	-328.1	63.71
19	40.50	7827.31	-5614.7	73.16	6851.51	-4914.7	64.04
20	42.75	7959.32	-8582.3	-385.91	6945.67	-7489.3	-336.76
21	45.00	8149.22	-9787.2	-387.09	7157.30	-8595.9	-339.97
22	48.00	8261.92	-8156.6	-392.44	7150.74	-7059.6	-339.66
23	51.00	8166.49	-1540.3	59.68	7102.52	-1339.6	51.90
24	54.00	8089.38	2464.5	59.11	7050.89	2148.1	51.53
25	57.00	7981.86	5844.0	58.33	6963.45	5098.3	50.89
26	60.00	7513.00	8218.4	54.90	6494.20	7103.9	47.46
27	63.00	7517.06	10447.6	54.93	6505.77	9042.0	47.54
28	66.00	7524.07	12189.3	54.98	6508.47	10544.0	47.56
29	69.00	7541.74	13457.9	55.11	6517.23	11629.7	47.63
30	72.00	7575.36	14265.3	55.36	6537.38	12310.6	47.77
31	75.00	7628.68	14616.6	55.75	6572.98	12593.8	48.03
32	78.00	7703.24	14506.1	56.29	6626.61	12478.7	48.43
33	81.00	7799.08	13917.2	56.99	6700.15	11956.2	48.96
34	84.00	7912.59	12818.7	57.82	6792.91	11004.8	49.64
35	87.00	8038.67	11172.5	58.74	6902.74	9593.8	50.44
36	90.00	8170.30	8937.4	59.71	7024.76	7684.3	51.33
37	93.00	8297.07	6074.7	60.63	7148.48	5233.8	52.24
38	96.00	8425.62	2566.9	61.57	7329.93	2233.1	53.56
39	99.00	8505.16	-3875.1	62.15	7424.91	-3382.9	54.26
40	102.00	8594.67	-8485.1	-408.25	7465.71	-7370.5	-354.62
41	105.00	8855.04	-10634.9	-420.61	7758.22	-9317.6	-368.52
42	108.00	8978.33	-8863.9	-426.47	7748.05	-7649.3	-368.03
43	111.00	8879.38	-1674.8	64.89	7683.09	-1449.1	56.15
44	114.00	8795.09	2679.5	64.27	7607.20	2317.6	55.59
45	117.00	8674.80	6351.3	63.39	7488.51	5482.7	54.72
46	120.00	7513.00	8218.4	54.90	6448.16	7053.5	47.12
47	123.00	7517.06	10447.6	54.93	6469.62	8991.8	47.28
48	126.00	7524.07	12189.3	54.98	6471.68	10484.4	47.29
49	129.00	7541.74	13457.9	55.11	6482.09	11567.0	47.37
50	132.00	7575.36	14265.3	55.36	6505.49	12250.6	47.54
51	135.00	7628.68	14616.6	55.75	6545.39	12541.0	47.83
52	138.00	7703.24	14506.1	56.29	6604.01	12436.1	48.26
53	141.00	7799.08	13917.2	56.99	6682.90	11925.4	48.84

FUERZAS EN LOS CABLES (T, m)

I	S(m)	Pi (T)	Mpi (mT)	Upi (T/m)	Pf (T)	Mpf (mT)	Upf (T/m)
54	144.00	7912.59	12818.7	57.82	6781.05	10985.6	49.55
55	147.00	8038.67	11172.5	58.74	6895.95	9584.3	50.39
56	150.00	8170.30	8937.4	59.71	7022.22	7681.5	51.32
57	153.00	8297.07	6074.7	60.63	7148.78	5234.0	52.24
58	156.00	8425.62	2566.9	61.57	7330.82	2233.4	53.57
59	159.00	8505.16	-3875.1	62.15	7422.68	-3381.9	54.24
60	162.00	8594.67	-8485.1	-408.25	7458.81	-7363.7	-354.29
61	165.00	8855.04	-10634.9	-420.61	7747.32	-9304.5	-368.00
62	168.00	8978.33	-8863.9	-426.47	7738.65	-7640.0	-367.59
63	171.00	8879.38	-1674.8	64.89	7681.14	-1448.8	56.13
64	174.00	8795.09	2679.5	64.27	7610.10	2318.4	55.61
65	177.00	8674.80	6351.3	63.39	7494.80	5487.3	54.77
66	180.00	7513.00	8218.4	54.90	6456.50	7062.7	47.18
67	183.00	7517.06	10447.6	54.93	6478.91	9004.7	47.35
68	186.00	7524.07	12189.3	54.98	6481.08	10499.6	47.36
69	189.00	7541.74	13457.9	55.11	6490.99	11582.9	47.43
70	192.00	7575.36	14265.3	55.36	6513.51	12265.7	47.60
71	195.00	7628.68	14616.6	55.75	6552.27	12554.1	47.88
72	198.00	7703.24	14506.1	56.29	6609.57	12446.6	48.30
73	201.00	7799.08	13917.2	56.99	6687.05	11932.8	48.87
74	204.00	7912.59	12818.7	57.82	6783.79	10990.0	49.57
75	207.00	8038.67	11172.5	58.74	6897.39	9586.3	50.40
76	210.00	8170.30	8937.4	59.71	7022.60	7681.9	51.32
77	213.00	8297.07	6074.7	60.63	7148.49	5233.8	52.24
78	216.00	8425.62	2566.9	61.57	7330.50	2233.3	53.57
79	219.00	8505.16	-3875.1	62.15	7423.38	-3382.2	54.25
80	222.00	8594.67	-8485.1	-408.25	7460.86	-7365.7	-354.39
81	225.00	8855.04	-10634.9	-420.61	7750.49	-9308.3	-368.15
82	228.00	8978.33	-8863.9	-426.47	7741.39	-7642.7	-367.72
83	231.00	8879.38	-1674.8	64.89	7681.71	-1448.9	56.14
84	234.00	8795.09	2679.5	64.27	7609.25	2318.2	55.61
85	237.00	8674.80	6351.3	63.39	7492.95	5486.0	54.76
86	240.00	7513.00	8218.4	54.90	6454.05	7060.0	47.16
87	243.00	7517.06	10447.6	54.93	6476.16	9000.9	47.33
88	246.00	7524.07	12189.3	54.98	6478.30	10495.1	47.34
89	249.00	7541.74	13457.9	55.11	6488.34	11578.2	47.41
90	252.00	7575.36	14265.3	55.36	6511.11	12261.2	47.58
91	255.00	7628.68	14616.6	55.75	6550.18	12550.2	47.87
92	258.00	7703.24	14506.1	56.29	6607.86	12443.4	48.29
93	261.00	7799.08	13917.2	56.99	6685.75	11930.5	48.86
94	264.00	7912.59	12818.7	57.82	6782.90	10988.6	49.57
95	267.00	8038.67	11172.5	58.74	6896.88	9585.6	50.40
96	270.00	8170.31	8937.4	59.71	7022.41	7681.7	51.32
97	273.00	8297.07	6074.7	60.63	7148.52	5233.8	52.24
98	276.00	8425.62	2566.9	61.57	7330.57	2233.3	53.57
99	279.00	8505.16	-3875.1	62.15	7423.20	-3382.1	54.25
100	282.00	8594.67	-8485.1	-408.25	7460.32	-7365.2	-354.37
101	285.00	8855.04	-10634.9	-420.61	7749.63	-9307.3	-368.11
102	288.00	8978.33	-8863.9	-426.47	7740.65	-7642.0	-367.68
103	291.00	8879.38	-1674.8	64.89	7681.55	-1448.9	56.13
104	294.00	8795.09	2679.5	64.27	7609.48	2318.3	55.61
105	297.00	8674.80	6351.3	63.39	7493.47	5486.4	54.76
106	300.00	7513.00	8218.4	54.90	6454.73	7060.7	47.17
107	303.00	7517.06	10447.6	54.93	6476.94	9002.0	47.33
108	306.00	7524.07	12189.3	54.98	6479.10	10496.4	47.35
109	309.00	7541.74	13457.9	55.11	6489.12	11579.6	47.42
110	312.00	7575.36	14265.3	55.36	6511.82	12262.5	47.59

FUERZAS EN LOS CABLES (T, m)

I	S(m)	Pi (T)	Mpi (mT)	Upi (T/m)	Pf (T)	Mpf (mT)	Upf (T/m)
111	315.00	7628.68	14616.6	55.75	6550.81	12551.4	47.87
112	318.00	7703.24	14506.1	56.29	6608.39	12444.4	48.29
113	321.00	7799.08	13917.2	56.99	6686.17	11931.2	48.86
114	324.00	7912.59	12818.7	57.82	6783.22	10989.1	49.57
115	327.00	8038.67	11172.5	58.74	6897.10	9585.9	50.40
116	330.00	8170.30	8937.4	59.71	7022.51	7681.8	51.32
117	333.00	8297.07	6074.7	60.63	7148.55	5233.8	52.24
118	336.00	8425.62	2566.9	61.57	7330.56	2233.3	53.57
119	339.00	8505.16	-3875.1	62.15	7423.22	-3382.1	54.25
120	342.00	8594.67	-8485.1	-408.25	7460.42	-7365.3	-354.37
121	345.00	8855.04	-10634.9	-420.61	7749.83	-9307.6	-368.12
122	348.00	8978.33	-8863.9	-426.47	7740.84	-7642.1	-367.69
123	351.00	8879.38	-1674.8	64.89	7681.59	-1448.9	56.13
124	354.00	8795.10	2679.5	64.27	7609.42	2318.2	55.61
125	357.00	8674.80	6351.3	63.39	7493.32	5486.3	54.76
126	360.00	7513.00	8218.4	54.90	6454.52	7060.5	47.17
127	363.00	7517.06	10447.6	54.93	6476.69	9001.6	47.33
128	366.00	7524.07	12189.3	54.98	6478.83	10496.0	47.35
129	369.00	7541.74	13457.9	55.11	6488.86	11579.1	47.42
130	372.00	7575.36	14265.3	55.36	6511.57	12262.0	47.58
131	375.00	7628.68	14616.6	55.75	6550.59	12550.9	47.87
132	378.00	7703.24	14506.1	56.29	6608.20	12444.0	48.29
133	381.00	7799.08	13917.2	56.99	6686.00	11930.9	48.86
134	384.00	7912.59	12818.7	57.82	6783.08	10988.8	49.57
135	387.00	8038.67	11172.5	58.74	6896.98	9585.7	50.40
136	390.00	8170.30	8937.4	59.71	7022.45	7681.7	51.32
137	393.00	8297.07	6074.7	60.63	7148.51	5233.8	52.24
138	396.00	8425.62	2566.9	61.57	7330.56	2233.3	53.57
139	399.00	8505.16	-3875.1	62.15	7423.23	-3382.1	54.25
140	402.00	8594.67	-8485.1	-408.25	7460.43	-7365.3	-354.37
141	405.00	8855.04	-10634.9	-420.61	7749.81	-9307.5	-368.12
142	408.00	8978.33	-8863.9	-426.47	7740.81	-7642.1	-367.69
143	411.00	8879.38	-1674.8	64.89	7681.59	-1448.9	56.13
144	414.00	8795.09	2679.5	64.27	7609.43	2318.2	55.61
145	417.00	8674.80	6351.3	63.39	7493.35	5486.3	54.76
146	420.00	7513.00	8218.4	54.90	6454.59	7060.6	47.17
147	423.00	7517.06	10447.6	54.93	6476.77	9001.7	47.33
148	426.00	7524.07	12189.3	54.98	6478.94	10496.1	47.35
149	429.00	7541.74	13457.9	55.11	6488.96	11579.3	47.42
150	432.00	7575.36	14265.3	55.36	6511.69	12262.3	47.59
151	435.00	7628.68	14616.6	55.75	6550.71	12551.2	47.87
152	438.00	7703.24	14506.1	56.29	6608.31	12444.2	48.29
153	441.00	7799.08	13917.2	56.99	6686.13	11931.1	48.86
154	444.00	7912.59	12818.7	57.82	6783.19	10989.0	49.57
155	447.00	8038.67	11172.5	58.74	6897.08	9585.9	50.40
156	450.00	8170.31	8937.4	59.71	7022.52	7681.8	51.32
157	453.00	8297.07	6074.7	60.63	7148.57	5233.9	52.24
158	456.00	8425.62	2566.9	61.57	7330.58	2233.3	53.57
159	459.00	8505.16	-3875.1	62.15	7423.22	-3382.1	54.25
160	462.00	8594.67	-8485.1	-408.25	7460.38	-7365.2	-354.37
161	465.00	8855.04	-10634.9	-420.61	7749.76	-9307.5	-368.11
162	468.00	8978.33	-8863.9	-426.47	7740.77	-7642.1	-367.69
163	471.00	8879.38	-1674.8	64.89	7681.58	-1448.9	56.13
164	474.00	8795.09	2679.5	64.27	7609.44	2318.2	55.61
165	477.00	8674.80	6351.3	63.39	7493.35	5486.3	54.76
166	480.00	7513.00	8218.4	54.90	6454.56	7060.5	47.17
167	483.00	7517.06	10447.6	54.93	6476.72	9001.6	47.33

FUERZAS EN LOS CABLES (T, m)

I	S(m)	Pi (T)	Mpi (mT)	Upi (T/m)	Pf (T)	Mpf (mT)	Upf (T/m)
168	486.00	7524.07	12189.3	54.98	6478.84	10496.0	47.35
169	489.00	7541.74	13457.9	55.11	6488.83	11579.1	47.42
170	492.00	7575.36	14265.3	55.36	6511.51	12261.9	47.58
171	495.00	7628.68	14616.6	55.75	6550.50	12550.8	47.87
172	498.00	7703.24	14506.1	56.29	6608.08	12443.8	48.29
173	501.00	7799.08	13917.2	56.99	6685.86	11930.7	48.86
174	504.00	7912.59	12818.7	57.82	6782.92	10988.6	49.57
175	507.00	8038.67	11172.5	58.74	6896.83	9585.5	50.40
176	510.00	8170.31	8937.4	59.71	7022.30	7681.6	51.32
177	513.00	8297.07	6074.7	60.63	7148.40	5233.7	52.24
178	516.00	8425.62	2566.9	61.57	7330.51	2233.3	53.57
179	519.00	8505.16	-3875.1	62.15	7423.32	-3382.2	54.25
180	522.00	8594.67	-8485.1	-408.25	7460.60	-7365.5	-354.38
181	525.00	8855.04	-10634.9	-420.61	7750.01	-9307.8	-368.13
182	528.00	8978.33	-8863.9	-426.47	7740.94	-7642.2	-367.69
183	531.00	8879.38	-1674.8	64.89	7681.61	-1448.9	56.13
184	534.00	8795.09	2679.5	64.27	7609.41	2318.2	55.61
185	537.00	8674.80	6351.3	63.39	7493.34	5486.3	54.76
186	540.00	7513.00	8218.4	54.90	6454.61	7060.6	47.17
187	543.00	7517.06	10447.6	54.93	6476.87	9001.8	47.33
188	546.00	7524.07	12189.3	54.98	6479.10	10496.4	47.35
189	549.00	7541.74	13457.9	55.11	6489.20	11579.7	47.42
190	552.00	7575.36	14265.3	55.36	6511.98	12262.8	47.59
191	555.00	7628.68	14616.6	55.75	6551.08	12551.9	47.87
192	558.00	7703.24	14506.1	56.29	6608.74	12445.0	48.29
193	561.00	7799.08	13917.2	56.99	6686.59	11932.0	48.86
194	564.00	7912.59	12818.7	57.82	6783.68	10989.8	49.57
195	567.00	8038.67	11172.5	58.74	6897.58	9586.6	50.41
196	570.00	8170.31	8937.4	59.71	7022.97	7682.3	51.32
197	573.00	8297.07	6074.7	60.63	7148.91	5234.1	52.24
198	576.00	8425.62	2566.9	61.57	7330.72	2233.3	53.57
199	579.00	8505.16	-3875.1	62.15	7423.01	-3382.0	54.25
200	582.00	8594.67	-8485.1	-408.25	7459.90	-7364.8	-354.35
201	585.00	8855.04	-10634.9	-420.61	7749.14	-9306.7	-368.08
202	588.00	8978.33	-8863.9	-426.47	7740.33	-7641.6	-367.67
203	591.00	8879.38	-1674.8	64.89	7681.51	-1448.8	56.13
204	594.00	8795.09	2679.5	64.27	7609.50	2318.3	55.61
205	597.00	8674.80	6351.3	63.39	7493.39	5486.3	54.76
206	600.00	7513.00	8218.4	54.90	6454.45	7060.4	47.17
207	603.00	7517.06	10447.6	54.93	6476.39	9001.2	47.33
208	606.00	7524.07	12189.3	54.98	6478.24	10495.0	47.34
209	609.00	7541.74	13457.9	55.11	6487.94	11577.5	47.41
210	612.00	7575.36	14265.3	55.36	6510.34	12259.7	47.58
211	615.00	7628.68	14616.6	55.75	6549.06	12548.0	47.86
212	618.00	7703.24	14506.1	56.29	6606.41	12440.6	48.28
213	621.00	7799.08	13917.2	56.99	6684.03	11927.4	48.84
214	624.00	7912.59	12818.7	57.82	6780.99	10985.5	49.55
215	627.00	8038.67	11172.5	58.74	6894.93	9582.9	50.39
216	630.00	8170.31	8937.4	59.71	7020.60	7679.7	51.30
217	633.00	8297.07	6074.7	60.63	7147.12	5232.8	52.23
218	636.00	8425.62	2566.9	61.57	7329.99	2233.1	53.57
219	639.00	8505.16	-3875.1	62.15	7424.06	-3382.5	54.25
220	642.00	8594.67	-8485.1	-408.25	7462.29	-7367.1	-354.46
221	645.00	8855.04	-10634.9	-420.61	7752.17	-9310.4	-368.23
222	648.00	8978.33	-8863.9	-426.47	7742.47	-7643.8	-367.77
223	651.00	8879.38	-1674.8	64.89	7681.85	-1448.9	56.14
224	654.00	8795.09	2679.5	64.27	7609.18	2318.2	55.61

FUERZAS EN LOS CABLES (T, m)

I	S(m)	Pi (T)	Mpi (mT)	Upi (T/m)	Pf (T)	Mpf (mT)	Upf (T/m)
225	657.00	8674.80	6351.3	63.39	7493.18	5486.2	54.76
226	660.00	7513.00	8218.4	54.90	6454.94	7061.0	47.17
227	663.00	7517.06	10447.6	54.93	6477.95	9003.4	47.34
228	666.00	7524.07	12189.3	54.98	6481.11	10499.6	47.36
229	669.00	7541.74	13457.9	55.11	6492.21	11585.1	47.44
230	672.00	7575.36	14265.3	55.36	6516.00	12270.4	47.62
231	675.00	7628.68	14616.6	55.75	6556.03	12561.4	47.91
232	678.00	7703.24	14506.1	56.29	6614.50	12455.9	48.34
233	681.00	7799.08	13917.2	56.99	6692.97	11943.3	48.91
234	684.00	7912.60	12818.7	57.82	6790.37	11000.7	49.62
235	687.00	8038.67	11172.5	58.74	6904.16	9595.7	50.45
236	690.00	8170.31	8937.4	59.71	7028.87	7688.8	51.36
237	693.00	8297.07	6074.7	60.63	7153.35	5237.4	52.27
238	696.00	8425.62	2566.9	61.57	7332.55	2233.9	53.58
239	699.00	8505.16	-3875.1	62.15	7420.36	-3380.8	54.23
240	702.00	8594.67	-8485.1	-408.25	7453.91	-7358.8	-354.06
241	705.00	8855.04	-10634.9	-420.61	7741.47	-9297.5	-367.72
242	708.00	8978.33	-8863.9	-426.47	7734.69	-7636.1	-367.40
243	711.00	8879.38	-1674.8	64.89	7680.58	-1448.7	56.13
244	714.00	8795.09	2679.5	64.27	7610.48	2318.6	55.62
245	717.00	8674.80	6351.3	63.39	7494.51	5487.1	54.77
246	720.00	7562.40	8272.4	55.26	6497.84	7107.9	47.48
247	723.00	7566.49	10516.3	55.29	6515.62	9055.7	47.61
248	726.00	7573.54	12269.4	55.35	6513.86	10552.7	47.60
249	729.00	7591.33	13546.4	55.48	6519.95	11634.6	47.65
250	732.00	7625.17	14359.1	55.72	6539.02	12313.7	47.79
251	735.00	7678.84	14712.7	56.11	6574.94	12597.6	48.05
252	738.00	7753.89	14601.5	56.66	6630.24	12485.5	48.45
253	741.00	7850.36	14008.7	57.37	6706.79	11968.0	49.01
254	744.00	7964.62	12903.0	58.20	6803.95	11022.7	49.72
255	747.00	8091.52	11246.0	59.13	6919.65	9617.3	50.57
256	750.00	8224.03	8996.1	60.10	7049.08	7710.9	51.51
257	753.00	8351.62	6114.7	61.03	7181.68	5258.1	52.48
258	756.00	8481.02	2583.8	61.98	7374.31	2246.6	53.89
259	759.00	8561.08	-3900.6	62.56	7482.64	-3409.2	54.68
260	762.00	8651.18	-8540.9	-410.93	7488.04	-7392.6	-355.68
261	765.00	8918.44	-10711.0	-432.41	7756.30	-9315.3	-376.06
262	767.25	8777.41	-9464.4	-425.57	7531.42	-8120.9	-365.16
263	769.50	8632.52	-3887.4	80.68	7443.21	-3351.8	69.57
264	771.75	8582.25	-413.1	80.21	7417.83	-357.0	69.33
265	774.00	8504.92	2608.8	79.49	7348.33	2254.1	68.68
266	776.25	7756.33	4764.7	72.49	6729.64	4134.0	62.90
267	778.50	8055.84	7045.2	75.29	6983.50	6107.4	65.27
268	780.75	8081.71	8788.6	75.54	6987.76	7599.0	65.31
269	783.00	8109.81	10162.2	75.80	6995.58	8766.0	65.38
270	785.25	8144.12	11168.6	76.12	7012.77	9617.1	65.54
271	787.50	8187.40	11809.0	76.52	7043.22	10158.7	65.83
272	789.75	8241.41	12081.9	77.03	7089.34	10393.0	66.26
273	792.00	8296.35	12028.7	52.86	7140.64	10353.0	45.49
274	794.25	8322.16	11663.5	53.02	7169.11	10047.5	45.67
275	796.50	8290.95	10951.2	52.82	7150.64	9445.0	45.56
276	798.75	8264.54	9983.4	52.65	7137.17	8621.5	45.47
277	801.00	8241.10	8759.0	52.50	7126.92	7574.8	45.41
278	803.25	8218.19	7276.8	52.36	7117.55	6302.2	45.35
279	805.50	8193.72	5537.3	52.20	7106.95	4802.9	45.28
280	807.75	8163.41	3542.2	52.01	7091.02	3076.8	45.18
281	810.00	8140.85	1351.4	0.00	7079.02	1175.1	0.00

FUERZAS HORIZONTALES DE DESVIACION

I	S(m)	R(m)	Ti (T)	Uh(T/m)	Tf(T)	Uh(T/m)
1	0.00	0.0	6969.06	0.00	6019.67	0.00
2	2.25	0.0	6985.98	0.00	6035.33	0.00
3	4.50	0.0	7008.76	0.00	6051.87	0.00
4	6.75	0.0	7027.57	0.00	6065.88	0.00
5	9.00	0.0	7045.09	0.00	6078.87	0.00
6	11.25	0.0	7063.70	0.00	6092.24	0.00
7	13.50	0.0	7085.32	0.00	6107.22	0.00
8	15.75	0.0	7111.56	0.00	6124.98	0.00
9	18.00	0.0	7143.58	0.00	6146.52	0.00
10	20.25	0.0	7182.14	0.00	6172.76	0.00
11	22.50	0.0	7239.32	0.00	6216.69	0.00
12	24.75	0.0	7306.29	0.00	6273.97	0.00
13	27.00	0.0	7381.84	0.00	6344.24	0.00
14	29.25	0.0	7463.73	0.00	6425.80	0.00
15	31.50	0.0	7548.57	0.00	6514.98	0.00
16	33.75	0.0	7632.02	0.00	6605.93	0.00
17	36.00	0.0	7708.61	0.00	6689.89	0.00
18	38.25	0.0	7787.83	0.00	6817.00	0.00
19	40.50	0.0	7827.31	0.00	6851.51	0.00
20	42.75	0.0	7959.32	0.00	6945.67	0.00
21	45.00	0.0	8149.22	0.00	7157.30	0.00
22	48.00	0.0	8261.92	0.00	7150.74	0.00
23	51.00	0.0	8166.49	0.00	7102.52	0.00
24	54.00	0.0	8089.38	0.00	7050.89	0.00
25	57.00	0.0	7981.86	0.00	6963.45	0.00
26	60.00	0.0	7513.00	0.00	6494.20	0.00
27	63.00	0.0	7517.06	0.00	6505.77	0.00
28	66.00	0.0	7524.07	0.00	6508.47	0.00
29	69.00	0.0	7541.74	0.00	6517.23	0.00
30	72.00	0.0	7575.36	0.00	6537.38	0.00
31	75.00	0.0	7628.68	0.00	6572.98	0.00
32	78.00	0.0	7703.24	0.00	6626.61	0.00
33	81.00	0.0	7799.08	0.00	6700.15	0.00
34	84.00	0.0	7912.59	0.00	6792.91	0.00
35	87.00	0.0	8038.67	0.00	6902.74	0.00
36	90.00	0.0	8170.30	0.00	7024.76	0.00
37	93.00	0.0	8297.07	0.00	7148.48	0.00
38	96.00	0.0	8425.62	0.00	7329.93	0.00
39	99.00	0.0	8505.16	0.00	7424.91	0.00
40	102.00	0.0	8594.67	0.00	7465.71	0.00
41	105.00	0.0	8855.04	0.00	7758.22	0.00
42	108.00	0.0	8978.33	0.00	7748.05	0.00
43	111.00	0.0	8879.38	0.00	7683.09	0.00
44	114.00	0.0	8795.09	0.00	7607.20	0.00
45	117.00	0.0	8674.80	0.00	7488.51	0.00
46	120.00	0.0	7513.00	0.00	6448.16	0.00
47	123.00	0.0	7517.06	0.00	6469.62	0.00
48	126.00	0.0	7524.07	0.00	6471.68	0.00
49	129.00	0.0	7541.74	0.00	6482.09	0.00
50	132.00	0.0	7575.36	0.00	6505.49	0.00
51	135.00	0.0	7628.68	0.00	6545.39	0.00
52	138.00	0.0	7703.24	0.00	6604.01	0.00
53	141.00	0.0	7799.08	0.00	6682.90	0.00
54	144.00	0.0	7912.59	0.00	6781.05	0.00
55	147.00	0.0	8038.67	0.00	6895.95	0.00
56	150.00	0.0	8170.30	0.00	7022.22	0.00
57	153.00	0.0	8297.07	0.00	7148.78	0.00
58	156.00	0.0	8425.62	0.00	7330.82	0.00

FUERZAS HORIZONTALES DE DESVIACION

I	S(m)	R(m)	Ti (T)	Uh(T/m)	Tf(T)	Uh(T/m)
59	159.00	0.0	8505.16	0.00	7422.68	0.00
60	162.00	0.0	8594.67	0.00	7458.81	0.00
61	165.00	0.0	8855.04	0.00	7747.32	0.00
62	168.00	0.0	8978.33	0.00	7738.65	0.00
63	171.00	0.0	8879.38	0.00	7681.14	0.00
64	174.00	0.0	8795.09	0.00	7610.10	0.00
65	177.00	0.0	8674.80	0.00	7494.80	0.00
66	180.00	0.0	7513.00	0.00	6456.50	0.00
67	183.00	0.0	7517.06	0.00	6478.91	0.00
68	186.00	0.0	7524.07	0.00	6481.08	0.00
69	189.00	0.0	7541.74	0.00	6490.99	0.00
70	192.00	0.0	7575.36	0.00	6513.51	0.00
71	195.00	0.0	7628.68	0.00	6552.27	0.00
72	198.00	0.0	7703.24	0.00	6609.57	0.00
73	201.00	0.0	7799.08	0.00	6687.05	0.00
74	204.00	0.0	7912.59	0.00	6783.79	0.00
75	207.00	0.0	8038.67	0.00	6897.39	0.00
76	210.00	0.0	8170.30	0.00	7022.60	0.00
77	213.00	0.0	8297.07	0.00	7148.49	0.00
78	216.00	0.0	8425.62	0.00	7330.50	0.00
79	219.00	0.0	8505.16	0.00	7423.38	0.00
80	222.00	0.0	8594.67	0.00	7460.86	0.00
81	225.00	0.0	8855.04	0.00	7750.49	0.00
82	228.00	0.0	8978.33	0.00	7741.39	0.00
83	231.00	0.0	8879.38	0.00	7681.71	0.00
84	234.00	0.0	8795.09	0.00	7609.25	0.00
85	237.00	0.0	8674.80	0.00	7492.95	0.00
86	240.00	0.0	7513.00	0.00	6454.05	0.00
87	243.00	0.0	7517.06	0.00	6476.16	0.00
88	246.00	0.0	7524.07	0.00	6478.30	0.00
89	249.00	0.0	7541.74	0.00	6488.34	0.00
90	252.00	0.0	7575.36	0.00	6511.11	0.00
91	255.00	0.0	7628.68	0.00	6550.18	0.00
92	258.00	0.0	7703.24	0.00	6607.86	0.00
93	261.00	0.0	7799.08	0.00	6685.75	0.00
94	264.00	0.0	7912.59	0.00	6782.90	0.00
95	267.00	0.0	8038.67	0.00	6896.88	0.00
96	270.00	0.0	8170.31	0.00	7022.41	0.00
97	273.00	0.0	8297.07	0.00	7148.52	0.00
98	276.00	0.0	8425.62	0.00	7330.57	0.00
99	279.00	0.0	8505.16	0.00	7423.20	0.00
100	282.00	0.0	8594.67	0.00	7460.32	0.00
101	285.00	0.0	8855.04	0.00	7749.63	0.00
102	288.00	0.0	8978.33	0.00	7740.65	0.00
103	291.00	0.0	8879.38	0.00	7681.55	0.00
104	294.00	0.0	8795.09	0.00	7609.48	0.00
105	297.00	0.0	8674.80	0.00	7493.47	0.00
106	300.00	0.0	7513.00	0.00	6454.73	0.00
107	303.00	0.0	7517.06	0.00	6476.94	0.00
108	306.00	0.0	7524.07	0.00	6479.10	0.00
109	309.00	0.0	7541.74	0.00	6489.12	0.00
110	312.00	0.0	7575.36	0.00	6511.82	0.00
111	315.00	0.0	7628.68	0.00	6550.81	0.00
112	318.00	0.0	7703.24	0.00	6608.39	0.00
113	321.00	0.0	7799.08	0.00	6686.17	0.00
114	324.00	0.0	7912.59	0.00	6783.22	0.00
115	327.00	0.0	8038.67	0.00	6897.10	0.00
116	330.00	0.0	8170.30	0.00	7022.51	0.00

FUERZAS HORIZONTALES DE DESVIACION

I	S(m)	R(m)	Ti (T)	Uh(T/m)	Tf(T)	Uh(T/m)
117	333.00	0.0	8297.07	0.00	7148.55	0.00
118	336.00	0.0	8425.62	0.00	7330.56	0.00
119	339.00	0.0	8505.16	0.00	7423.22	0.00
120	342.00	0.0	8594.67	0.00	7460.42	0.00
121	345.00	0.0	8855.04	0.00	7749.83	0.00
122	348.00	0.0	8978.33	0.00	7740.84	0.00
123	351.00	0.0	8879.38	0.00	7681.59	0.00
124	354.00	0.0	8795.10	0.00	7609.42	0.00
125	357.00	0.0	8674.80	0.00	7493.32	0.00
126	360.00	0.0	7513.00	0.00	6454.52	0.00
127	363.00	0.0	7517.06	0.00	6476.69	0.00
128	366.00	0.0	7524.07	0.00	6478.83	0.00
129	369.00	0.0	7541.74	0.00	6488.86	0.00
130	372.00	0.0	7575.36	0.00	6511.57	0.00
131	375.00	0.0	7628.68	0.00	6550.59	0.00
132	378.00	0.0	7703.24	0.00	6608.20	0.00
133	381.00	0.0	7799.08	0.00	6686.00	0.00
134	384.00	0.0	7912.59	0.00	6783.08	0.00
135	387.00	0.0	8038.67	0.00	6896.98	0.00
136	390.00	0.0	8170.30	0.00	7022.45	0.00
137	393.00	0.0	8297.07	0.00	7148.51	0.00
138	396.00	0.0	8425.62	0.00	7330.56	0.00
139	399.00	0.0	8505.16	0.00	7423.23	0.00
140	402.00	0.0	8594.67	0.00	7460.43	0.00
141	405.00	0.0	8855.04	0.00	7749.81	0.00
142	408.00	0.0	8978.33	0.00	7740.81	0.00
143	411.00	0.0	8879.38	0.00	7681.59	0.00
144	414.00	0.0	8795.09	0.00	7609.43	0.00
145	417.00	0.0	8674.80	0.00	7493.35	0.00
146	420.00	0.0	7513.00	0.00	6454.59	0.00
147	423.00	0.0	7517.06	0.00	6476.77	0.00
148	426.00	0.0	7524.07	0.00	6478.94	0.00
149	429.00	0.0	7541.74	0.00	6488.96	0.00
150	432.00	0.0	7575.36	0.00	6511.69	0.00
151	435.00	0.0	7628.68	0.00	6550.71	0.00
152	438.00	0.0	7703.24	0.00	6608.31	0.00
153	441.00	0.0	7799.08	0.00	6686.13	0.00
154	444.00	0.0	7912.59	0.00	6783.19	0.00
155	447.00	0.0	8038.67	0.00	6897.08	0.00
156	450.00	0.0	8170.31	0.00	7022.52	0.00
157	453.00	0.0	8297.07	0.00	7148.57	0.00
158	456.00	0.0	8425.62	0.00	7330.58	0.00
159	459.00	0.0	8505.16	0.00	7423.22	0.00
160	462.00	0.0	8594.67	0.00	7460.38	0.00
161	465.00	0.0	8855.04	0.00	7749.76	0.00
162	468.00	0.0	8978.33	0.00	7740.77	0.00
163	471.00	0.0	8879.38	0.00	7681.58	0.00
164	474.00	0.0	8795.09	0.00	7609.44	0.00
165	477.00	0.0	8674.80	0.00	7493.35	0.00
166	480.00	0.0	7513.00	0.00	6454.56	0.00
167	483.00	0.0	7517.06	0.00	6476.72	0.00
168	486.00	0.0	7524.07	0.00	6478.84	0.00
169	489.00	0.0	7541.74	0.00	6488.83	0.00
170	492.00	0.0	7575.36	0.00	6511.51	0.00
171	495.00	0.0	7628.68	0.00	6550.50	0.00
172	498.00	0.0	7703.24	0.00	6608.08	0.00
173	501.00	0.0	7799.08	0.00	6685.86	0.00
174	504.00	0.0	7912.59	0.00	6782.92	0.00

FUERZAS HORIZONTALES DE DESVIACION

I	S(m)	R(m)	Ti (T)	Uh(T/m)	Tf(T)	Uh(T/m)
175	507.00	0.0	8038.67	0.00	6896.83	0.00
176	510.00	0.0	8170.31	0.00	7022.30	0.00
177	513.00	0.0	8297.07	0.00	7148.40	0.00
178	516.00	0.0	8425.62	0.00	7330.51	0.00
179	519.00	0.0	8505.16	0.00	7423.32	0.00
180	522.00	0.0	8594.67	0.00	7460.60	0.00
181	525.00	0.0	8855.04	0.00	7750.01	0.00
182	528.00	0.0	8978.33	0.00	7740.94	0.00
183	531.00	0.0	8879.38	0.00	7681.61	0.00
184	534.00	0.0	8795.09	0.00	7609.41	0.00
185	537.00	0.0	8674.80	0.00	7493.34	0.00
186	540.00	0.0	7513.00	0.00	6454.61	0.00
187	543.00	0.0	7517.06	0.00	6476.87	0.00
188	546.00	0.0	7524.07	0.00	6479.10	0.00
189	549.00	0.0	7541.74	0.00	6489.20	0.00
190	552.00	0.0	7575.36	0.00	6511.98	0.00
191	555.00	0.0	7628.68	0.00	6551.08	0.00
192	558.00	0.0	7703.24	0.00	6608.74	0.00
193	561.00	0.0	7799.08	0.00	6686.59	0.00
194	564.00	0.0	7912.59	0.00	6783.68	0.00
195	567.00	0.0	8038.67	0.00	6897.58	0.00
196	570.00	0.0	8170.31	0.00	7022.97	0.00
197	573.00	0.0	8297.07	0.00	7148.91	0.00
198	576.00	0.0	8425.62	0.00	7330.72	0.00
199	579.00	0.0	8505.16	0.00	7423.01	0.00
200	582.00	0.0	8594.67	0.00	7459.90	0.00
201	585.00	0.0	8855.04	0.00	7749.14	0.00
202	588.00	0.0	8978.33	0.00	7740.33	0.00
203	591.00	0.0	8879.38	0.00	7681.51	0.00
204	594.00	0.0	8795.09	0.00	7609.50	0.00
205	597.00	0.0	8674.80	0.00	7493.39	0.00
206	600.00	0.0	7513.00	0.00	6454.45	0.00
207	603.00	0.0	7517.06	0.00	6476.39	0.00
208	606.00	0.0	7524.07	0.00	6478.24	0.00
209	609.00	0.0	7541.74	0.00	6487.94	0.00
210	612.00	0.0	7575.36	0.00	6510.34	0.00
211	615.00	0.0	7628.68	0.00	6549.06	0.00
212	618.00	0.0	7703.24	0.00	6606.41	0.00
213	621.00	0.0	7799.08	0.00	6684.03	0.00
214	624.00	0.0	7912.59	0.00	6780.99	0.00
215	627.00	0.0	8038.67	0.00	6894.93	0.00
216	630.00	0.0	8170.31	0.00	7020.60	0.00
217	633.00	0.0	8297.07	0.00	7147.12	0.00
218	636.00	0.0	8425.62	0.00	7329.99	0.00
219	639.00	0.0	8505.16	0.00	7424.06	0.00
220	642.00	0.0	8594.67	0.00	7462.29	0.00
221	645.00	0.0	8855.04	0.00	7752.17	0.00
222	648.00	0.0	8978.33	0.00	7742.47	0.00
223	651.00	0.0	8879.38	0.00	7681.85	0.00
224	654.00	0.0	8795.09	0.00	7609.18	0.00
225	657.00	0.0	8674.80	0.00	7493.18	0.00
226	660.00	0.0	7513.00	0.00	6454.94	0.00
227	663.00	0.0	7517.06	0.00	6477.95	0.00
228	666.00	0.0	7524.07	0.00	6481.11	0.00
229	669.00	0.0	7541.74	0.00	6492.21	0.00
230	672.00	0.0	7575.36	0.00	6516.00	0.00
231	675.00	0.0	7628.68	0.00	6556.03	0.00
232	678.00	0.0	7703.24	0.00	6614.50	0.00

FUERZAS HORIZONTALES DE DESVIACION

I	S(m)	R(m)	Ti (T)	Uh(T/m)	Tf(T)	Uh(T/m)
233	681.00	0.0	7799.08	0.00	6692.97	0.00
234	684.00	0.0	7912.60	0.00	6790.37	0.00
235	687.00	0.0	8038.67	0.00	6904.16	0.00
236	690.00	0.0	8170.31	0.00	7028.87	0.00
237	693.00	0.0	8297.07	0.00	7153.35	0.00
238	696.00	0.0	8425.62	0.00	7332.55	0.00
239	699.00	0.0	8505.16	0.00	7420.36	0.00
240	702.00	0.0	8594.67	0.00	7453.91	0.00
241	705.00	0.0	8855.04	0.00	7741.47	0.00
242	708.00	0.0	8978.33	0.00	7734.69	0.00
243	711.00	0.0	8879.38	0.00	7680.58	0.00
244	714.00	0.0	8795.09	0.00	7610.48	0.00
245	717.00	0.0	8674.80	0.00	7494.51	0.00
246	720.00	0.0	7562.40	0.00	6497.84	0.00
247	723.00	0.0	7566.49	0.00	6515.62	0.00
248	726.00	0.0	7573.54	0.00	6513.86	0.00
249	729.00	0.0	7591.33	0.00	6519.95	0.00
250	732.00	0.0	7625.17	0.00	6539.02	0.00
251	735.00	0.0	7678.84	0.00	6574.94	0.00
252	738.00	0.0	7753.89	0.00	6630.24	0.00
253	741.00	0.0	7850.36	0.00	6706.79	0.00
254	744.00	0.0	7964.62	0.00	6803.95	0.00
255	747.00	0.0	8091.52	0.00	6919.65	0.00
256	750.00	0.0	8224.03	0.00	7049.08	0.00
257	753.00	0.0	8351.62	0.00	7181.68	0.00
258	756.00	0.0	8481.02	0.00	7374.31	0.00
259	759.00	0.0	8561.08	0.00	7482.64	0.00
260	762.00	0.0	8651.18	0.00	7488.04	0.00
261	765.00	0.0	8918.44	0.00	7756.30	0.00
262	767.25	0.0	8777.41	0.00	7531.42	0.00
263	769.50	0.0	8632.52	0.00	7443.21	0.00
264	771.75	0.0	8582.25	0.00	7417.83	0.00
265	774.00	0.0	8504.92	0.00	7348.33	0.00
266	776.25	0.0	7756.33	0.00	6729.64	0.00
267	778.50	0.0	8055.84	0.00	6983.50	0.00
268	780.75	0.0	8081.71	0.00	6987.76	0.00
269	783.00	0.0	8109.81	0.00	6995.58	0.00
270	785.25	0.0	8144.12	0.00	7012.77	0.00
271	787.50	0.0	8187.40	0.00	7043.22	0.00
272	789.75	0.0	8241.41	0.00	7089.34	0.00
273	792.00	0.0	8296.35	0.00	7140.64	0.00
274	794.25	0.0	8322.16	0.00	7169.11	0.00
275	796.50	0.0	8290.95	0.00	7150.64	0.00
276	798.75	0.0	8264.54	0.00	7137.17	0.00
277	801.00	0.0	8241.10	0.00	7126.92	0.00
278	803.25	0.0	8218.19	0.00	7117.55	0.00
279	805.50	0.0	8193.72	0.00	7106.95	0.00
280	807.75	0.0	8163.41	0.00	7091.02	0.00
281	810.00	0.0	8140.85	0.00	7079.02	0.00

5 VERIFICACIÓN DE LOS ESTADOS LÍMITES DE SERVICIO

5.1 TENSIONES NORMALES (ESTADO LÍMITE DE FISURACIÓN)

Los parámetros mecánicos del hormigón del tablero se han obtenido a partir de los modelos establecidos en la normativa vigente (EHE). Los valores de la resistencia a tracción se pueden determinar a partir de la resistencia característica a compresión f_{ck} como:

La resistencia a tracción se ha calculado como:

Valor medio $f_{ctm} = 0{,}30 \sqrt[3]{f_{ck}^{\,2}}$ (MPa)

Valor característico inferior $f_{ctk} = 0{,}21 \sqrt[3]{f_{ck}^{\,2}}$ (Mpa)

En nuestro caso para f_{ck}=50 MPa, tenemos:

Valor medio $f_{ctm} = 4{,}07$ MPa

Valor característico inferior $f_{ctk} = 2{,}85$ MPa

En el tablero se han comprobado las siguientes condiciones, de acuerdo con la EHE (artículo 49) y el Model Code del CEB de 1990:

a. Hipótesis de carga de construcción:

a.1. Considerando peso propio y el 60 % del pretensado total para el descimbrado del tablero:

$\gamma_{t,\,max} < 0$ Kp/cm^2

$\gamma_{c,max} < 0{,}60\ f_{ck,5} \approx 0{,}30\ fck = 120$ Kp/cm^2

(El hormigón deberá alcanzar una resistencia a compresión antes del 1er tesado superior a 250 Kp/cm^2)

a2. Considerando peso propio y el 100 % del pretensado inicial (con su valor característico superior):

$\sigma_{t,\,max} < f_{ctk} = 28{,}5$ Kp/cm^2

$\sigma_{c,max} < 0{,}60\ f_{ck} = 240$ Kp/cm^2

b. Hipótesis de carga permanente, considerando peso propio, carga permanente y pretensado final (con su valor característico superior e inferior):

$\sigma_{t,\,max} < 0$ Kp/cm^2

$\sigma_{c,max} < 0{,}40\ f_{ck} = 200$ Kp/cm^2

c. Hipótesis de combinación frecuente:

$\sigma_{t,\,max} < f_{ctk} = 28{,}5$ Kp/cm^2

Al tratarse de puentes de ferrocarril se ha procurado que bajo cargas frecuentes las fibras más solicitadas estén siempre comprimidas.

d. Hipótesis de combinación característica:

La normativa EHE exige que se verifique:

$\sigma c,max < 0{,}60\ fck = 300$ Kp/cm^2

Adicionalmente, se debe comprobar el ELS de fisuración , de modo que el máximo ancho de fisura w_{max} verifique:

$w_{max} < w_k = 0{,}2$ mm

Los puentes de ferrocarril están sometidos a un nivel de cargas importante, mucho más agresivo que en el caso de los puentes de carretera. Por este motivo, se ha dimensionado el pretensado de forma más conservadora a la establecida en la EHE, no admitiendo fisuración bajo la combinación característica de cargas.

$\sigma t,\ max < fctm = 40{,}7$ Kp/cm^2

Todas las verificaciones donde aparecen las cargas de uso, se han realizado tanto para las sobrecargas de la normativa IPF como para las definidas en el Eurocódigo 1.

En los siguientes listados se han incluido, además de aquellas combinaciones requeridas por la Normativa, otras combinaciones adicionales con el valor del pretensado característico (sin minorar) para estimar los valores medios en la sección bajo las combinaciones de carga cuasi-permanentes, frecuentes y características.

Los valores representativos de las acciones se han obtenido de acuerdo con las especificaciones de las normativas vigentes, tomándose los siguientes valores de los coeficientes ψ:

Acción	ψ_0	ψ_1	ψ_2
Sobrecargas de uso	0.8	0.8 (a) 0.6 (b) 0.4 (c)	0
Viento	0.6	0.5	0.2
Temperatura	0.6	0.5	0.2

(a) Una vía cargada (b) dos vías cargadas (c) 0.4 tres o más vías cargadas

COMBINACION 3 G1 + PRETII + SCMIN*0.05

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-342.464	-545.909	-291.682	-627.213
2	-292.398	-628.724	-243.555	-706.923
3	-244.933	-708.294	-201.729	-777.466
4	-202.869	-778.592	-165.394	-838.591
5	-166.457	-839.641	-134.716	-890.461
6	-135.865	-891.544	-109.715	-933.410
7	-111.043	-934.679	-90.441	-967.664
8	-92.046	-969.211	-76.970	-993.348
9	-78.891	-995.303	-69.460	-1010.401
10	-71.780	-1012.740	-70.710	-1014.454
11	-74.148	-1017.928	-86.575	-998.033
12	-90.611	-1002.085	-117.425	-959.155
13	-121.977	-963.727	-164.303	-895.961
14	-169.246	-900.907	-228.231	-806.469
15	-233.366	-811.568	-310.210	-688.537
16	-315.267	-693.543	-410.811	-540.572
17	-415.435	-545.196	-529.922	-361.897
18	-534.674	-366.727	-810.097	74.237
19	-698.918	-0.426	-801.155	123.837
20	-807.604	117.340	-787.897	93.388
21	-797.229	84.111	-853.420	152.407
22	-843.121	162.654	-565.616	-174.636
23	-663.623	-168.815	-523.671	-392.885
24	-518.986	-388.308	-404.997	-570.809
25	-398.528	-564.502	-303.160	-717.189
26	-321.231	-669.107	-237.235	-803.588
27	-236.023	-802.367	-168.710	-910.138
28	-169.139	-910.552	-117.556	-993.139
29	-118.624	-994.202	-81.935	-1052.942
30	-83.985	-1054.939	-61.853	-1090.373
31	-65.079	-1093.581	-57.937	-1105.014
32	-62.420	-1109.546	-71.342	-1095.261
33	-77.132	-1101.037	-104.227	-1057.658
34	-111.083	-1064.505	-158.990	-987.804
35	-166.603	-995.407	-238.114	-880.915
36	-246.062	-888.861	-343.800	-732.377
37	-351.438	-740.052	-476.515	-539.799
38	-484.219	-547.649	-792.488	-54.096
39	-680.074	-96.932	-833.077	89.033
40	-837.405	84.574	-816.139	58.727
41	-828.856	45.911	-879.640	107.637
42	-868.490	118.735	-558.305	-258.276
43	-660.675	-281.024	-500.643	-537.241
44	-495.518	-532.246	-365.339	-740.669
45	-358.098	-733.633	-250.547	-905.827
46	-317.820	-776.547	-237.562	-905.044
47	-197.128	-864.639	-133.568	-966.401
48	-133.987	-966.832	-86.139	-1043.440
49	-87.194	-1044.524	-54.250	-1097.269
50	-56.272	-1099.309	-37.835	-1128.827
51	-41.073	-1132.015	-37.580	-1137.608
52	-42.100	-1142.079	-54.682	-1121.935
53	-60.480	-1127.698	-91.293	-1078.364
54	-98.146	-1085.218	-149.763	-1002.576

COMBINACION 3 G1 + PRETII + SCMIN*0.05

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-157.354	-1010.219	-232.560	-889.811
56	-240.495	-897.773	-341.946	-735.345
57	-349.554	-743.068	-478.286	-536.963
58	-485.989	-544.814	-797.863	-45.491
59	-685.052	-90.882	-841.422	99.175
60	-845.755	94.723	-827.853	72.964
61	-840.602	60.188	-890.611	120.971
62	-879.457	132.065	-568.436	-245.961
63	-671.604	-263.527	-510.771	-521.027
64	-505.630	-516.057	-374.616	-725.816
65	-367.385	-718.765	-259.020	-892.262
66	-326.270	-763.019	-245.171	-892.861
67	-204.748	-852.439	-140.285	-955.647
68	-140.742	-956.018	-92.003	-1034.051
69	-93.074	-1035.109	-59.308	-1089.169
70	-61.339	-1091.197	-42.087	-1122.019
71	-45.316	-1125.222	-41.017	-1132.105
72	-45.529	-1136.589	-57.325	-1117.703
73	-63.109	-1123.489	-93.090	-1075.488
74	-99.944	-1082.339	-150.725	-1001.036
75	-158.330	-1008.656	-232.713	-889.565
76	-240.646	-897.532	-341.260	-736.444
77	-348.861	-744.179	-476.759	-539.408
78	-484.467	-547.252	-795.540	-49.210
79	-682.893	-93.507	-838.504	95.629
80	-842.833	91.171	-824.163	68.480
81	-836.914	55.706	-887.134	116.745
82	-875.985	127.845	-565.244	-249.842
83	-668.156	-269.046	-507.534	-526.209
84	-502.399	-521.230	-371.612	-730.626
85	-364.399	-723.545	-256.251	-896.695
86	-323.546	-767.380	-242.644	-896.908
87	-202.230	-856.471	-138.077	-959.183
88	-138.498	-959.610	-90.014	-1037.234
89	-91.099	-1038.271	-57.549	-1091.986
90	-59.586	-1094.002	-40.583	-1124.428
91	-43.803	-1127.645	-39.732	-1134.161
92	-44.245	-1138.644	-56.267	-1119.396
93	-62.058	-1125.172	-92.288	-1076.772
94	-99.127	-1083.647	-150.154	-1001.950
95	-157.744	-1009.594	-232.405	-890.058
96	-240.343	-898.016	-341.171	-736.587
97	-348.781	-744.306	-476.947	-539.107
98	-484.648	-546.962	-795.978	-48.509
99	-683.309	-93.000	-839.171	96.440
100	-843.507	91.991	-825.074	69.587
101	-837.765	56.740	-887.973	117.765
102	-876.823	128.863	-566.047	-248.865
103	-669.029	-267.649	-508.356	-524.893
104	-503.227	-519.905	-372.417	-729.336
105	-365.193	-722.274	-257.003	-895.490
106	-324.275	-766.212	-243.374	-895.738
107	-202.963	-855.297	-138.732	-958.135
108	-139.170	-958.534	-90.641	-1036.231
109	-91.722	-1037.273	-58.104	-1091.098

COMBINACION 3 G1 + PRETII + SCMIN*0.05

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
110	-60.160	-1093.083	-41.100	-1123.600
111	-44.323	-1126.811	-40.232	-1133.361
112	-44.727	-1137.873	-56.714	-1118.681
113	-62.499	-1124.466	-92.700	-1076.112
114	-99.540	-1082.986	-150.543	-1001.327
115	-158.137	-1008.961	-232.676	-889.622
116	-240.635	-897.548	-341.387	-736.241
117	-349.016	-743.931	-477.076	-538.900
118	-484.775	-546.758	-796.109	-48.300
119	-683.414	-92.873	-839.184	96.455
120	-843.504	91.988	-825.003	69.501
121	-837.667	56.622	-887.850	117.615
122	-876.697	128.710	-565.911	-249.031
123	-668.874	-267.896	-508.176	-525.179
124	-503.053	-520.183	-372.172	-729.729
125	-364.965	-722.640	-256.721	-895.943
126	-324.009	-766.639	-243.085	-896.201
127	-202.657	-855.787	-138.473	-958.548
128	-138.877	-959.003	-90.368	-1036.668
129	-91.445	-1037.717	-57.828	-1091.540
130	-59.866	-1093.554	-40.832	-1124.029
131	-44.065	-1127.225	-39.966	-1133.787
132	-44.482	-1138.265	-56.453	-1119.098
133	-62.249	-1124.866	-92.440	-1076.528
134	-99.292	-1083.382	-150.283	-1001.744
135	-157.883	-1009.369	-232.489	-889.922
136	-240.428	-897.881	-341.205	-736.532
137	-348.820	-744.242	-476.917	-539.153
138	-484.637	-546.980	-795.934	-48.580
139	-683.264	-93.055	-839.037	96.277
140	-843.370	91.825	-824.886	69.359
141	-837.585	56.521	-887.804	117.559
142	-876.656	128.660	-565.841	-249.115
143	-668.806	-268.004	-508.195	-525.148
144	-503.074	-520.149	-372.216	-729.658
145	-365.021	-722.550	-256.844	-895.746
146	-324.132	-766.442	-243.220	-895.985
147	-202.788	-855.577	-138.618	-958.316
148	-139.029	-958.760	-90.518	-1036.428
149	-91.590	-1037.484	-58.040	-1091.200
150	-60.073	-1093.223	-41.046	-1123.686
151	-44.276	-1126.887	-40.187	-1133.434
152	-44.690	-1137.932	-56.712	-1118.685
153	-62.497	-1124.469	-92.673	-1076.155
154	-99.542	-1082.982	-150.519	-1001.366
155	-158.138	-1008.963	-232.723	-889.549
156	-240.682	-897.474	-341.474	-736.101
157	-349.082	-743.824	-477.177	-538.739
158	-484.892	-546.571	-796.137	-48.255
159	-683.449	-92.830	-839.299	96.595
160	-843.626	92.136	-825.153	69.683
161	-837.848	56.841	-887.996	117.793
162	-876.846	128.891	-566.017	-248.902
163	-668.997	-267.697	-508.251	-525.058
164	-503.132	-520.057	-372.235	-729.627

COMBINACION 3 G1 + PRETII + SCMIN*0.05

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-365.025	-722.543	-256.778	-895.851
166	-324.042	-766.585	-243.089	-896.195
167	-202.653	-855.794	-138.380	-958.697
168	-138.810	-959.110	-90.257	-1036.846
169	-91.313	-1037.929	-57.680	-1091.777
170	-59.713	-1093.799	-40.609	-1124.386
171	-43.832	-1127.598	-39.705	-1134.205
172	-44.199	-1138.718	-56.141	-1119.598
173	-61.922	-1125.389	-92.049	-1077.155
174	-98.906	-1084.000	-149.819	-1002.487
175	-157.451	-1010.062	-231.982	-890.736
176	-239.938	-898.664	-340.690	-737.357
177	-348.292	-745.090	-476.387	-540.003
178	-484.089	-547.856	-795.209	-49.740
179	-682.594	-93.870	-838.413	95.519
180	-842.740	91.058	-824.210	68.536
181	-836.981	55.787	-887.325	116.977
182	-876.174	128.074	-565.547	-249.473
183	-668.478	-268.529	-507.988	-525.480
184	-502.853	-520.503	-372.191	-729.698
185	-364.986	-722.605	-256.914	-895.634
186	-324.208	-766.320	-243.462	-895.597
187	-203.032	-855.186	-139.002	-957.702
188	-139.427	-958.123	-91.054	-1035.570
189	-92.127	-1036.626	-58.650	-1090.223
190	-60.698	-1092.223	-41.832	-1122.428
191	-45.032	-1125.676	-41.094	-1131.981
192	-45.585	-1136.499	-57.724	-1117.064
193	-63.510	-1122.847	-93.839	-1074.288
194	-100.701	-1081.127	-151.855	-999.227
195	-159.469	-1006.831	-234.214	-887.161
196	-242.177	-895.080	-343.126	-733.457
197	-350.748	-741.158	-479.027	-535.777
198	-486.738	-543.615	-798.145	-45.039
199	-685.326	-90.549	-841.302	99.029
200	-845.646	94.591	-827.336	72.336
201	-840.030	59.493	-889.672	119.830
202	-878.518	130.922	-567.193	-247.473
203	-670.264	-265.670	-509.013	-523.839
204	-503.885	-518.851	-372.433	-729.311
205	-365.220	-722.230	-256.436	-896.399
206	-323.708	-767.120	-242.218	-897.590
207	-201.788	-857.179	-136.964	-960.965
208	-137.381	-961.399	-88.282	-1040.008
209	-89.338	-1041.090	-55.157	-1095.815
210	-57.202	-1097.819	-37.571	-1129.250
211	-40.801	-1132.450	-36.133	-1139.925
212	-40.620	-1144.448	-52.050	-1126.148
213	-57.837	-1131.929	-87.415	-1084.573
214	-94.273	-1091.418	-144.697	-1010.687
215	-152.292	-1018.322	-226.308	-899.820
216	-234.251	-907.770	-334.473	-747.310
217	-342.084	-755.029	-469.624	-550.831
218	-477.327	-558.684	-788.047	-61.206
219	-675.941	-101.955	-831.274	86.841

COMBINACION 3 G1 + PRETII + SCMIN*0.05

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-835.595	82.374	-816.600	59.287
221	-829.398	46.571	-881.455	109.842
222	-870.304	120.940	-561.379	-254.539
223	-663.991	-275.712	-505.324	-529.745
224	-500.191	-524.765	-371.373	-731.009
225	-364.166	-723.918	-258.019	-893.865
226	-325.307	-764.560	-246.425	-890.854
227	-205.999	-850.437	-143.870	-949.908
228	-144.257	-950.389	-97.820	-1024.737
229	-98.885	-1025.806	-67.324	-1076.337
230	-69.367	-1078.344	-52.379	-1105.541
231	-55.619	-1108.727	-53.526	-1112.077
232	-58.070	-1116.510	-72.043	-1094.138
233	-77.864	-1099.865	-110.033	-1048.361
234	-116.914	-1055.168	-169.899	-970.337
235	-177.515	-977.940	-254.127	-855.280
236	-262.081	-863.213	-364.891	-698.609
237	-372.490	-706.347	-502.649	-497.957
238	-510.353	-505.806	-823.623	-4.248
239	-708.977	-61.803	-866.680	129.876
240	-871.006	125.414	-854.405	105.237
241	-867.174	92.484	-911.025	145.783
242	-899.875	156.881	-582.652	-228.684
243	-686.927	-238.992	-519.437	-507.150
244	-514.304	-502.169	-376.671	-722.526
245	-369.460	-715.443	-254.411	-899.640
246	-318.075	-776.139	-229.392	-918.124
247	-191.970	-880.659	-120.144	-995.656
248	-120.603	-996.027	-64.691	-1085.544
249	-65.776	-1086.599	-25.033	-1151.830
250	-27.082	-1153.864	-1.071	-1195.509
251	-4.333	-1198.714	6.529	-1216.105
252	1.982	-1220.608	-3.459	-1211.896
253	-9.302	-1217.687	-33.164	-1179.483
254	-40.064	-1186.376	-84.948	-1114.515
255	-92.617	-1122.161	-161.414	-1012.015
256	-169.416	-1020.009	-264.707	-867.444
257	-272.355	-875.232	-395.212	-678.533
258	-402.977	-686.419	-710.303	-194.377
259	-603.504	-196.071	-852.612	106.704
260	-856.960	102.205	-879.142	129.165
261	-878.967	129.336	-904.396	160.243
262	-892.717	171.900	-634.138	-142.386
263	-738.045	-115.619	-591.884	-349.628
264	-588.767	-346.605	-461.238	-550.784
265	-456.532	-546.234	-345.684	-723.707
266	-367.171	-674.626	-263.057	-841.317
267	-263.961	-842.232	-187.166	-965.184
268	-188.717	-966.761	-127.856	-1064.202
269	-129.536	-1065.926	-84.409	-1138.176
270	-86.464	-1140.272	-57.008	-1187.432
271	-59.608	-1190.065	-45.855	-1212.084
272	-48.745	-1214.933	-47.968	-1216.177
273	-45.268	-1213.473	-56.433	-1195.597
274	-54.174	-1193.334	-79.745	-1152.393

COMBINACION 3 G1 + PRETII + SCMIN*0.05

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-77.831	-1150.501	-111.501	-1096.594
276	-109.886	-1094.958	-151.701	-1028.010
277	-150.269	-1026.537	-200.401	-946.274
278	-198.979	-944.865	-257.366	-851.385
279	-255.849	-849.885	-322.325	-743.454
280	-320.475	-741.588	-391.021	-628.640

COMBINACION 4 G1 + PRETI

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-568.984	-772.430	-523.732	-844.881
2	-525.304	-846.450	-482.285	-915.325
3	-484.401	-917.440	-447.026	-977.279
4	-448.781	-979.014	-417.140	-1029.672
5	-418.769	-1031.295	-392.852	-1072.790
6	-394.597	-1074.491	-374.298	-1106.991
7	-376.320	-1108.976	-361.565	-1132.599
8	-364.005	-1135.031	-354.796	-1149.775
9	-357.757	-1152.768	-354.146	-1158.551
10	-357.720	-1162.142	-362.495	-1154.498
11	-367.800	-1159.816	-386.041	-1130.612
12	-392.282	-1136.797	-424.915	-1084.549
13	-431.939	-1091.553	-480.093	-1014.456
14	-487.693	-1022.069	-552.528	-918.265
15	-560.409	-926.141	-643.102	-793.747
16	-650.855	-801.491	-752.243	-639.164
17	-759.353	-646.282	-879.694	-453.610
18	-887.049	-460.971	-1168.410	-10.499
19	-1003.069	-88.397	-1110.894	42.658
20	-1120.849	32.705	-1106.793	15.620
21	-1121.158	1.356	-1178.620	71.199
22	-1187.119	62.701	-910.951	-272.963
23	-1068.912	-261.267	-930.529	-482.824
24	-923.366	-475.666	-811.059	-655.474
25	-801.073	-645.490	-707.476	-795.343
26	-689.459	-710.935	-607.401	-842.312
27	-607.780	-842.687	-542.417	-947.336
28	-543.067	-947.988	-493.419	-1027.477
29	-495.066	-1029.109	-460.321	-1084.736
30	-463.451	-1087.846	-443.276	-1120.147
31	-448.213	-1125.123	-443.011	-1133.452
32	-449.917	-1140.405	-460.774	-1123.023
33	-469.667	-1131.935	-498.708	-1085.439
34	-509.254	-1095.972	-559.081	-1016.197
35	-570.797	-1027.894	-644.248	-910.297
36	-656.478	-922.510	-756.144	-762.941
37	-767.918	-774.713	-895.001	-571.247
38	-906.939	-583.186	-1217.319	-86.254
39	-1044.608	-151.145	-1199.686	37.342
40	-1206.435	30.593	-1187.357	7.404
41	-1206.989	-12.230	-1257.049	48.616
42	-1266.346	39.319	-955.506	-338.487
43	-1124.911	-343.810	-964.293	-600.967
44	-956.465	-593.142	-825.811	-802.323
45	-814.636	-791.156	-706.744	-963.897
46	-674.502	-734.882	-594.017	-863.741
47	-594.397	-864.114	-530.574	-966.297
48	-531.243	-966.919	-483.172	-1043.883
49	-484.815	-1045.520	-451.633	-1098.646
50	-454.765	-1101.753	-436.122	-1131.602
51	-441.084	-1136.537	-437.396	-1142.440
52	-444.314	-1149.376	-456.721	-1129.511
53	-465.604	-1138.439	-496.217	-1089.426
54	-506.758	-1099.968	-558.136	-1017.711

COMBINACION 4 G1 + PRETI

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-569.842	-1029.424	-644.824	-909.374
56	-657.053	-921.590	-758.291	-759.504
57	-770.064	-771.277	-898.693	-565.337
58	-910.631	-577.274	-1222.519	-77.929
59	-1049.430	-145.285	-1205.946	44.950
60	-1212.696	38.202	-1195.047	16.751
61	-1214.710	-2.845	-1264.277	57.401
62	-1273.573	48.103	-962.181	-330.373
63	-1132.108	-332.288	-971.006	-590.219
64	-963.177	-582.393	-831.993	-792.423
65	-820.821	-781.254	-712.384	-954.867
66	-680.145	-725.847	-599.114	-855.580
67	-599.492	-855.956	-535.159	-958.957
68	-535.816	-959.598	-487.190	-1037.450
69	-488.829	-1039.094	-455.128	-1093.050
70	-458.261	-1096.155	-439.103	-1126.828
71	-444.052	-1131.785	-439.863	-1138.491
72	-446.788	-1145.414	-458.645	-1126.431
73	-467.558	-1135.311	-497.618	-1087.184
74	-508.170	-1097.709	-559.032	-1016.276
75	-570.736	-1027.993	-645.213	-908.752
76	-657.425	-920.996	-758.120	-759.778
77	-769.895	-771.548	-898.011	-566.429
78	-909.952	-578.362	-1221.340	-79.816
79	-1048.339	-146.611	-1204.367	43.032
80	-1211.117	36.283	-1192.981	14.241
81	-1212.644	-5.356	-1262.336	55.041
82	-1271.632	45.744	-960.426	-332.506
83	-1130.217	-335.315	-969.207	-593.099
84	-961.378	-585.275	-830.337	-795.078
85	-819.159	-783.915	-710.882	-957.272
86	-678.643	-728.251	-597.743	-857.775
87	-598.127	-858.141	-533.946	-960.899
88	-534.599	-961.546	-486.113	-1039.174
89	-487.759	-1040.807	-454.195	-1094.545
90	-457.321	-1097.661	-438.299	-1128.116
91	-443.263	-1133.047	-439.187	-1139.574
92	-446.121	-1146.483	-458.132	-1127.252
93	-467.045	-1136.132	-497.240	-1087.789
94	-507.786	-1098.323	-558.766	-1016.701
95	-570.485	-1028.395	-645.100	-908.932
96	-657.326	-921.153	-758.144	-759.739
97	-769.919	-771.510	-898.195	-566.133
98	-910.131	-578.076	-1221.672	-79.285
99	-1048.647	-146.236	-1204.850	43.619
100	-1211.602	36.872	-1193.607	15.001
101	-1213.212	-4.666	-1262.880	55.702
102	-1272.176	46.405	-960.930	-331.894
103	-1130.760	-334.446	-969.712	-592.290
104	-961.883	-584.464	-830.815	-794.310
105	-819.645	-783.138	-711.306	-956.592
106	-679.071	-727.566	-598.165	-857.100
107	-598.543	-857.476	-534.320	-960.299
108	-534.982	-960.933	-486.447	-1038.640
109	-488.088	-1040.281	-454.485	-1094.080

COMBINACION 4 G1 + PRETI

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	Tl_2
110	-457.618	-1097.185	-438.559	-1127.700
111	-443.520	-1132.636	-439.411	-1139.216
112	-446.328	-1146.151	-458.313	-1126.963
113	-467.219	-1135.853	-497.382	-1087.562
114	-507.933	-1098.087	-558.903	-1016.482
115	-570.624	-1028.171	-645.164	-908.830
116	-657.390	-921.051	-758.175	-759.689
117	-769.958	-771.447	-898.161	-566.187
118	-910.097	-578.130	-1221.668	-79.291
119	-1048.637	-146.248	-1204.743	43.489
120	-1211.489	36.735	-1193.451	14.811
121	-1213.031	-4.885	-1262.702	55.487
122	-1271.998	46.190	-960.768	-332.091
123	-1130.585	-334.725	-969.536	-592.573
124	-961.710	-584.744	-830.610	-794.640
125	-819.436	-783.471	-711.099	-956.923
126	-678.861	-727.903	-597.957	-857.432
127	-598.334	-857.811	-534.129	-960.605
128	-534.777	-961.261	-486.295	-1038.883
129	-487.928	-1040.536	-454.334	-1094.322
130	-457.459	-1097.439	-438.439	-1127.892
131	-443.383	-1132.856	-439.302	-1139.389
132	-446.230	-1146.308	-458.212	-1127.124
133	-467.121	-1136.011	-497.308	-1087.680
134	-507.856	-1098.210	-558.840	-1016.583
135	-570.553	-1028.285	-645.141	-908.867
136	-657.368	-921.086	-758.153	-759.725
137	-769.928	-771.494	-898.186	-566.148
138	-910.124	-578.087	-1221.672	-79.285
139	-1048.642	-146.242	-1204.768	43.519
140	-1211.518	36.771	-1193.502	14.873
141	-1213.114	-4.785	-1262.790	55.593
142	-1272.086	46.297	-960.805	-332.045
143	-1130.628	-334.658	-969.636	-592.412
144	-961.813	-584.576	-830.721	-794.461
145	-819.553	-783.285	-711.228	-956.717
146	-678.996	-727.685	-598.083	-857.231
147	-598.452	-857.622	-534.247	-960.416
148	-534.880	-961.095	-486.400	-1038.714
149	-488.029	-1040.375	-454.449	-1094.139
150	-457.570	-1097.262	-438.534	-1127.739
151	-443.479	-1132.702	-439.406	-1139.223
152	-446.319	-1146.165	-458.318	-1126.955
153	-467.212	-1135.865	-497.388	-1087.552
154	-507.936	-1098.082	-558.901	-1016.485
155	-570.617	-1028.183	-645.205	-908.764
156	-657.430	-920.990	-758.221	-759.619
157	-769.987	-771.400	-898.212	-566.106
158	-910.149	-578.046	-1221.632	-79.349
159	-1048.605	-146.287	-1204.773	43.526
160	-1211.522	36.776	-1193.497	14.867
161	-1213.101	-4.801	-1262.764	55.562
162	-1272.062	46.267	-960.816	-332.032
163	-1130.639	-334.640	-969.582	-592.499
164	-961.754	-584.670	-830.678	-794.529

COMBINACION 4 G1 + PRETI

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	Tl_2
165	-819.509	-783.355	-711.178	-956.797
166	-678.934	-727.785	-598.022	-857.329
167	-598.390	-857.721	-534.172	-960.536
168	-534.812	-961.205	-486.305	-1038.867
169	-487.947	-1040.507	-454.351	-1094.294
170	-457.461	-1097.437	-438.431	-1127.905
171	-443.378	-1132.864	-439.281	-1139.423
172	-446.211	-1146.339	-458.179	-1127.176
173	-467.087	-1136.065	-497.257	-1087.762
174	-507.791	-1098.315	-558.770	-1016.695
175	-570.480	-1028.402	-645.062	-908.992
176	-657.293	-921.208	-758.067	-759.865
177	-769.845	-771.627	-898.106	-566.277
178	-910.047	-578.210	-1221.444	-79.650
179	-1048.434	-146.494	-1204.631	43.352
180	-1211.379	36.602	-1193.346	14.684
181	-1213.030	-4.886	-1262.717	55.504
182	-1272.013	46.207	-960.797	-332.055
183	-1130.619	-334.672	-969.613	-592.449
184	-961.789	-584.615	-830.752	-794.412
185	-819.578	-783.245	-711.253	-956.678
186	-679.013	-727.659	-598.140	-857.140
187	-598.511	-857.526	-534.319	-960.300
188	-534.978	-960.939	-486.473	-1038.599
189	-488.127	-1040.218	-454.526	-1094.015
190	-457.662	-1097.115	-438.632	-1127.583
191	-443.581	-1132.539	-439.501	-1139.071
192	-446.420	-1146.003	-458.432	-1126.771
193	-467.314	-1135.702	-497.529	-1087.326
194	-508.061	-1097.883	-559.064	-1016.225
195	-570.762	-1027.951	-645.380	-908.484
196	-657.609	-920.703	-758.419	-759.301
197	-770.191	-771.074	-898.454	-565.718
198	-910.393	-577.655	-1221.894	-78.929
199	-1048.853	-145.986	-1205.042	43.853
200	-1211.792	37.103	-1193.792	15.226
201	-1213.396	-4.442	-1262.997	55.844
202	-1272.293	46.548	-960.991	-331.820
203	-1130.826	-334.340	-969.737	-592.251
204	-961.908	-584.425	-830.737	-794.436
205	-819.562	-783.270	-711.147	-956.847
206	-678.913	-727.820	-597.929	-857.478
207	-598.305	-857.857	-534.005	-960.804
208	-534.647	-961.469	-486.062	-1039.256
209	-487.704	-1040.896	-454.024	-1094.819
210	-457.155	-1097.926	-438.038	-1128.533
211	-442.995	-1133.477	-438.828	-1140.148
212	-445.746	-1147.082	-457.663	-1128.003
213	-466.566	-1136.899	-496.660	-1088.717
214	-507.210	-1099.245	-558.116	-1017.743
215	-569.823	-1029.454	-644.322	-910.178
216	-656.550	-922.399	-757.270	-761.141
217	-769.042	-772.913	-897.213	-567.707
218	-909.148	-579.649	-1220.585	-81.025
219	-1047.637	-147.464	-1203.752	42.285

COMBINACION 4 G1 + PRETI

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-1210.502	35.536	-1192.412	13.549
221	-1212.124	-5.988	-1262.019	54.656
222	-1271.316	45.360	-960.299	-332.661
223	-1130.082	-335.532	-969.281	-592.981
224	-961.452	-585.155	-830.642	-794.586
225	-819.472	-783.415	-711.415	-956.417
226	-679.172	-727.405	-598.527	-856.520
227	-598.889	-856.921	-534.934	-959.317
228	-535.585	-959.968	-487.335	-1037.218
229	-488.975	-1038.861	-455.642	-1092.227
230	-458.774	-1095.334	-439.977	-1125.429
231	-444.935	-1130.370	-441.092	-1136.524
232	-448.017	-1143.446	-460.251	-1123.859
233	-469.155	-1132.755	-499.568	-1084.062
234	-510.120	-1094.588	-561.328	-1012.602
235	-573.041	-1024.302	-647.870	-904.497
236	-660.096	-916.720	-761.128	-754.964
237	-772.895	-766.745	-901.399	-561.004
238	-913.332	-572.951	-1225.091	-73.811
239	-1051.815	-142.386	-1208.196	47.685
240	-1214.946	40.937	-1197.147	19.303
241	-1216.828	-0.271	-1265.989	59.481
242	-1275.285	50.184	-963.450	-328.831
243	-1133.478	-330.094	-971.919	-588.758
244	-964.089	-580.933	-832.519	-791.582
245	-821.343	-780.419	-712.484	-954.706
246	-681.178	-736.125	-598.754	-868.090
247	-599.132	-868.472	-533.599	-973.394
248	-534.252	-974.051	-484.646	-1053.472
249	-486.291	-1055.136	-451.807	-1110.346
250	-454.946	-1113.494	-435.225	-1145.069
251	-440.208	-1150.056	-435.631	-1157.383
252	-442.602	-1164.350	-454.311	-1145.604
253	-463.278	-1154.550	-493.405	-1106.316
254	-504.023	-1116.915	-555.171	-1035.025
255	-566.979	-1046.773	-642.003	-926.657
256	-654.323	-938.939	-755.876	-776.349
257	-767.736	-788.181	-897.003	-581.219
258	-909.024	-593.230	-1222.879	-90.735
259	-1049.208	-154.895	-1304.462	155.349
260	-1311.256	148.556	-1339.702	183.130
261	-1359.896	163.029	-1373.506	179.571
262	-1362.873	190.205	-1092.516	-138.395
263	-1266.053	-58.205	-1107.274	-312.418
264	-1102.607	-307.748	-962.505	-532.056
265	-955.326	-524.871	-832.021	-722.288
266	-789.630	-609.334	-673.051	-795.981
267	-700.862	-823.802	-611.597	-966.719
268	-613.997	-969.127	-540.655	-1086.550
269	-543.254	-1089.176	-485.625	-1181.442
270	-488.814	-1184.625	-446.830	-1251.843
271	-450.845	-1255.870	-424.618	-1297.859
272	-429.640	-1302.865	-416.327	-1324.181
273	-421.449	-1329.251	-420.110	-1331.395
274	-422.508	-1333.790	-435.561	-1312.891

COMBINACION 4 G1 + PRETI

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-432.657	-1310.002	-453.788	-1276.169
276	-451.349	-1273.695	-480.671	-1226.750
277	-478.497	-1224.569	-516.117	-1164.337
278	-513.988	-1162.212	-559.854	-1088.779
279	-557.570	-1086.524	-611.552	-1000.097
280	-608.734	-997.288	-666.760	-904.385

COMBINACION 5 G1 + PRETI + 0.4 TEMP

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-568.983	-772.431	-525.381	-842.240
2	-526.953	-843.810	-485.584	-910.044
3	-487.700	-912.159	-451.975	-969.356
4	-453.729	-971.091	-423.738	-1019.108
5	-425.367	-1020.732	-401.099	-1059.586
6	-402.844	-1061.287	-384.193	-1091.148
7	-386.215	-1093.134	-373.108	-1114.119
8	-375.548	-1116.550	-367.986	-1128.657
9	-370.948	-1131.650	-368.983	-1134.796
10	-372.557	-1138.388	-378.980	-1128.105
11	-384.284	-1133.424	-404.172	-1101.583
12	-410.413	-1107.768	-444.693	-1052.884
13	-451.717	-1059.887	-501.519	-980.153
14	-509.119	-987.765	-575.601	-881.324
15	-583.482	-889.200	-667.823	-754.167
16	-675.576	-761.911	-778.612	-596.945
17	-785.722	-604.063	-907.711	-408.754
18	-915.065	-416.115	-1198.075	36.995
19	-1030.580	-54.959	-1139.934	77.953
20	-1149.889	68.000	-1137.361	52.773
21	-1151.725	38.509	-1208.803	107.884
22	-1217.302	99.386	-940.749	-236.745
23	-1101.042	-209.825	-962.244	-432.047
24	-955.081	-424.889	-842.359	-605.361
25	-832.373	-595.377	-738.362	-745.893
26	-720.344	-661.486	-637.872	-793.527
27	-638.251	-793.902	-572.474	-899.214
28	-573.124	-899.866	-523.060	-980.020
29	-524.708	-981.651	-489.548	-1037.942
30	-492.678	-1041.052	-472.088	-1074.018
31	-477.025	-1078.994	-471.408	-1087.987
32	-478.313	-1094.941	-488.756	-1078.222
33	-497.649	-1087.135	-526.275	-1041.303
34	-536.821	-1051.836	-586.233	-972.726
35	-597.949	-984.423	-670.985	-867.490
36	-683.216	-879.703	-782.466	-720.798
37	-794.240	-732.571	-920.908	-529.769
38	-932.846	-541.707	-1242.811	-45.440
39	-1068.250	-122.410	-1222.943	65.610
40	-1229.692	58.860	-1210.229	35.204
41	-1229.861	15.570	-1280.030	76.547
42	-1289.326	67.251	-978.595	-310.423
43	-1149.807	-303.950	-989.306	-560.920
44	-981.478	-553.095	-850.941	-762.089
45	-839.766	-750.922	-731.991	-923.475
46	-699.749	-694.460	-619.381	-823.132
47	-619.761	-823.505	-556.055	-925.501
48	-556.724	-926.123	-508.770	-1002.899
49	-510.413	-1004.536	-477.349	-1057.475
50	-480.480	-1060.582	-461.954	-1090.243
51	-466.916	-1095.179	-463.346	-1100.895
52	-470.263	-1107.830	-482.787	-1087.778
53	-491.671	-1096.706	-522.401	-1047.506
54	-532.942	-1058.048	-584.436	-975.603

COMBINACION 5 G1 + PRETI + 0.4 TEMP

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-596.142	-987.316	-671.242	-867.079
56	-683.471	-879.295	-784.826	-717.021
57	-796.598	-728.795	-925.344	-522.667
58	-937.283	-534.604	-1249.287	-35.072
59	-1074.255	-115.111	-1230.880	75.256
60	-1237.630	68.508	-1220.089	47.188
61	-1239.752	27.592	-1289.289	87.801
62	-1298.585	78.504	-987.163	-300.010
63	-1159.044	-289.162	-997.909	-547.146
64	-990.080	-539.319	-858.864	-749.403
65	-847.691	-738.234	-739.221	-911.899
66	-706.982	-682.880	-625.918	-812.666
67	-626.296	-813.041	-561.930	-916.095
68	-562.587	-916.736	-513.928	-994.641
69	-515.567	-996.285	-481.833	-1050.294
70	-484.966	-1053.399	-465.775	-1084.125
71	-470.724	-1089.082	-466.502	-1095.841
72	-473.427	-1102.764	-485.251	-1083.834
73	-494.164	-1092.714	-524.191	-1044.639
74	-534.743	-1055.164	-585.572	-973.785
75	-597.276	-985.501	-671.719	-866.313
76	-683.932	-878.557	-784.594	-717.392
77	-796.368	-729.162	-924.451	-524.096
78	-936.393	-536.029	-1247.748	-37.536
79	-1072.830	-116.843	-1228.828	72.763
80	-1235.578	66.014	-1217.411	43.934
81	-1237.074	24.337	-1286.774	84.745
82	-1296.070	75.448	-984.874	-302.792
83	-1156.578	-293.111	-995.577	-550.880
84	-987.748	-543.056	-856.716	-752.843
85	-845.539	-741.680	-737.270	-915.023
86	-705.032	-686.001	-624.141	-815.511
87	-624.525	-815.877	-560.353	-918.619
88	-561.006	-919.267	-512.529	-996.880
89	-514.176	-998.513	-480.621	-1052.236
90	-483.747	-1055.352	-464.734	-1085.792
91	-469.699	-1090.723	-465.631	-1097.235
92	-472.565	-1104.144	-484.586	-1084.898
93	-493.499	-1093.778	-523.703	-1045.420
94	-534.249	-1055.954	-585.239	-974.317
95	-596.957	-986.011	-671.582	-866.534
96	-683.808	-878.754	-784.636	-717.325
97	-796.410	-729.096	-924.696	-523.705
98	-936.631	-535.647	-1248.181	-36.842
99	-1073.233	-116.354	-1229.445	73.512
100	-1236.196	66.765	-1218.211	44.905
101	-1237.815	25.238	-1287.480	85.603
102	-1296.776	76.306	-985.528	-301.996
103	-1157.283	-291.982	-996.233	-549.830
104	-988.404	-542.004	-857.333	-751.854
105	-846.162	-740.682	-737.821	-914.141
106	-705.586	-685.115	-624.677	-814.653
107	-625.055	-815.029	-560.829	-917.857
108	-561.491	-918.490	-512.954	-996.201
109	-514.594	-997.843	-480.989	-1051.646

COMBINACION 5 G1 + PRETI + 0.4 TEMP

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
110	-484.122	-1054.751	-465.060	-1085.270
111	-470.022	-1090.206	-465.909	-1096.790
112	-472.826	-1103.726	-484.809	-1084.542
113	-493.715	-1093.432	-523.875	-1045.145
114	-534.427	-1055.670	-585.394	-974.070
115	-597.115	-985.759	-671.651	-866.422
116	-683.878	-878.643	-784.661	-717.285
117	-796.443	-729.043	-924.644	-523.788
118	-936.579	-535.731	-1248.148	-36.896
119	-1073.195	-116.400	-1229.298	73.334
120	-1236.045	66.581	-1218.004	44.654
121	-1237.585	24.958	-1287.256	85.331
122	-1296.552	76.033	-985.323	-302.246
123	-1157.062	-292.335	-996.013	-550.181
124	-988.188	-542.352	-857.089	-752.247
125	-845.915	-741.078	-737.579	-914.528
126	-705.340	-685.508	-624.438	-815.036
127	-624.814	-815.414	-560.611	-918.207
128	-561.259	-918.863	-512.778	-996.483
129	-514.411	-998.136	-480.818	-1051.920
130	-483.943	-1055.038	-464.923	-1085.489
131	-469.867	-1090.453	-465.788	-1096.985
132	-472.715	-1103.904	-484.699	-1084.718
133	-493.607	-1093.606	-523.795	-1045.273
134	-534.344	-1055.803	-585.328	-974.174
135	-597.041	-985.876	-671.630	-866.457
136	-683.857	-878.676	-784.643	-717.313
137	-796.418	-729.083	-924.677	-523.735
138	-936.615	-535.674	-1248.163	-36.871
139	-1073.211	-116.380	-1229.338	73.382
140	-1236.088	66.634	-1218.073	44.737
141	-1237.684	25.079	-1287.360	85.456
142	-1296.656	76.160	-985.374	-302.183
143	-1157.119	-292.243	-996.127	-549.999
144	-988.304	-542.163	-857.211	-752.050
145	-846.042	-740.874	-737.717	-914.308
146	-705.485	-685.276	-624.571	-814.823
147	-624.940	-815.213	-560.734	-918.009
148	-561.367	-918.689	-512.886	-996.309
149	-514.515	-997.969	-480.934	-1051.735
150	-484.055	-1054.858	-465.018	-1085.337
151	-469.963	-1090.300	-465.889	-1096.822
152	-472.802	-1103.764	-484.800	-1084.556
153	-493.694	-1093.467	-523.869	-1045.155
154	-534.418	-1055.685	-585.381	-974.089
155	-597.097	-985.787	-671.685	-866.369
156	-683.909	-878.595	-784.699	-717.226
157	-796.465	-729.007	-924.690	-523.714
158	-936.627	-535.654	-1248.108	-36.959
159	-1073.160	-116.442	-1229.327	73.369
160	-1236.076	66.619	-1218.050	44.710
161	-1237.654	25.042	-1287.320	85.408
162	-1296.618	76.113	-985.375	-302.183
163	-1157.119	-292.244	-996.065	-550.099
164	-988.237	-542.270	-857.164	-752.125

COMBINACION 5 G1 + PRETI + 0.4 TEMP

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-845.995	-740.950	-737.667	-914.388
166	-705.422	-685.376	-624.513	-814.916
167	-624.881	-815.308	-560.666	-918.119
168	-561.305	-918.788	-512.801	-996.446
169	-514.443	-998.085	-480.850	-1051.868
170	-483.960	-1055.011	-464.933	-1085.474
171	-469.880	-1090.433	-465.785	-1096.989
172	-472.715	-1103.904	-484.687	-1084.737
173	-493.595	-1093.625	-523.766	-1045.319
174	-534.301	-1055.872	-585.283	-974.247
175	-596.992	-985.955	-671.578	-866.540
176	-683.809	-878.756	-784.585	-717.409
177	-796.363	-729.171	-924.626	-523.817
178	-936.567	-535.749	-1247.967	-37.185
179	-1073.033	-116.597	-1229.231	73.253
180	-1235.980	66.503	-1217.949	44.588
181	-1237.633	25.017	-1287.311	85.397
182	-1296.607	76.100	-985.383	-302.173
183	-1157.128	-292.229	-996.114	-550.020
184	-988.290	-542.186	-857.243	-751.998
185	-846.069	-740.832	-737.735	-914.279
186	-705.495	-685.260	-624.612	-814.757
187	-624.984	-815.143	-560.782	-917.932
188	-561.441	-918.571	-512.926	-996.245
189	-514.581	-997.864	-480.970	-1051.676
190	-484.106	-1054.776	-465.067	-1085.259
191	-470.016	-1090.215	-465.927	-1096.762
192	-472.846	-1103.694	-484.849	-1084.477
193	-493.730	-1093.408	-523.937	-1045.047
194	-534.468	-1055.604	-585.461	-973.961
195	-597.159	-985.687	-671.768	-866.235
196	-683.997	-878.454	-784.798	-717.067
197	-796.570	-728.840	-924.824	-523.500
198	-936.763	-535.436	-1248.255	-36.725
199	-1073.300	-116.272	-1229.481	73.556
200	-1236.230	66.806	-1218.221	44.918
201	-1237.826	25.251	-1287.457	85.574
202	-1296.753	76.278	-985.482	-302.053
203	-1157.234	-292.060	-996.177	-549.918
204	-988.348	-542.092	-857.210	-752.050
205	-846.036	-740.884	-737.654	-914.408
206	-705.420	-685.381	-624.469	-814.986
207	-624.845	-815.365	-560.578	-918.259
208	-561.221	-918.924	-512.668	-996.658
209	-514.310	-998.298	-480.663	-1052.168
210	-483.794	-1055.276	-464.711	-1085.829
211	-469.668	-1090.773	-465.534	-1097.391
212	-472.452	-1104.325	-484.401	-1085.194
213	-493.305	-1094.089	-523.432	-1045.855
214	-533.982	-1056.383	-584.920	-974.828
215	-596.628	-986.539	-671.159	-867.210
216	-683.387	-879.431	-784.141	-718.120
217	-795.913	-729.892	-924.116	-524.633
218	-936.052	-536.575	-1247.522	-37.898
219	-1072.618	-117.101	-1228.764	72.685

COMBINACION 5 G1 + PRETI + 0.4 TEMP

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-1235.514	65.936	-1217.455	43.986
221	-1237.167	24.450	-1286.953	84.961
222	-1296.250	75.666	-985.124	-302.487
223	-1156.850	-292.675	-995.932	-550.312
224	-988.103	-542.486	-857.176	-752.104
225	-846.006	-740.933	-737.832	-914.123
226	-705.588	-685.111	-624.827	-814.413
227	-625.189	-814.814	-561.116	-917.398
228	-561.767	-918.048	-513.400	-995.486
229	-515.040	-997.129	-481.591	-1050.683
230	-484.723	-1053.790	-465.808	-1084.072
231	-470.766	-1089.014	-466.806	-1095.355
232	-473.731	-1102.277	-485.848	-1082.877
233	-494.752	-1091.773	-525.048	-1043.267
234	-535.600	-1053.794	-586.691	-971.995
235	-598.404	-983.695	-673.116	-864.077
236	-685.342	-876.301	-786.257	-714.732
237	-798.023	-726.513	-926.410	-520.960
238	-938.343	-532.907	-1249.985	-33.954
239	-1074.902	-114.324	-1231.175	75.615
240	-1237.925	68.867	-1220.017	47.101
241	-1239.698	27.526	-1289.244	87.747
242	-1298.540	78.450	-987.091	-300.097
243	-1158.969	-289.282	-997.825	-547.280
244	-989.995	-539.456	-858.840	-749.440
245	-847.664	-738.277	-739.221	-911.899
246	-707.915	-693.318	-625.906	-824.619
247	-626.285	-825.000	-561.167	-929.257
248	-561.820	-929.914	-512.629	-1008.670
249	-514.274	-1010.334	-480.206	-1064.878
250	-483.345	-1068.026	-464.039	-1098.937
251	-469.022	-1103.923	-464.861	-1110.585
252	-471.832	-1117.552	-483.956	-1098.141
253	-492.924	-1107.086	-523.465	-1058.188
254	-534.084	-1068.786	-585.648	-986.231
255	-597.456	-997.979	-672.894	-877.199
256	-685.215	-889.481	-787.183	-726.226
257	-799.042	-738.058	-928.725	-530.431
258	-940.746	-542.442	-1255.016	-39.281
259	-1079.013	-118.669	-1334.652	192.044
260	-1341.446	185.250	-1370.278	220.293
261	-1390.471	200.191	-1402.552	214.873
262	-1391.918	225.508	-1120.031	-104.953
263	-1295.722	-10.705	-1135.292	-267.560
264	-1130.624	-262.890	-988.873	-489.841
265	-981.693	-482.656	-856.738	-682.714
266	-814.347	-569.760	-696.117	-759.051
267	-723.929	-786.872	-633.014	-932.431
268	-635.413	-934.838	-560.422	-1054.902
269	-563.021	-1057.529	-503.743	-1152.435
270	-506.932	-1155.618	-463.300	-1225.474
271	-467.314	-1229.501	-439.439	-1274.130
272	-444.462	-1279.135	-429.502	-1303.087
273	-434.623	-1308.158	-431.637	-1312.939
274	-434.035	-1315.334	-445.442	-1297.072

COMBINACION 5 G1 + PRETI + 0.4 TEMP

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-442.537	-1294.183	-462.022	-1262.987
276	-459.583	-1260.513	-487.257	-1216.205
277	-485.084	-1214.022	-521.058	-1156.427
278	-518.928	-1154.302	-563.148	-1083.505
279	-560.864	-1081.250	-613.199	-997.460
280	-610.381	-994.650	-666.760	-904.385

COMBINACION 6 G1 + G2 + PRETI + 0.6 TEMP

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-568.974	-772.446	-564.496	-779.615
2	-566.068	-781.185	-558.063	-794.003
3	-560.180	-796.115	-552.064	-809.109
4	-553.814	-810.850	-545.673	-823.885
5	-547.302	-825.509	-539.113	-838.620
6	-540.858	-840.321	-532.538	-853.643
7	-534.557	-855.631	-526.024	-869.293
8	-528.464	-871.726	-519.713	-885.737
9	-522.675	-888.728	-513.767	-902.990
10	-517.343	-906.580	-511.057	-916.644
11	-516.364	-921.959	-517.782	-919.689
12	-524.021	-925.876	-534.080	-909.771
13	-541.101	-916.779	-560.908	-885.068
14	-568.508	-892.681	-599.245	-843.469
15	-607.126	-851.346	-649.947	-782.787
16	-657.700	-790.532	-713.442	-701.286
17	-720.553	-708.402	-789.518	-597.986
18	-796.873	-605.345	-1021.077	-246.386
19	-866.430	-254.473	-915.916	-194.326
20	-925.869	-204.281	-848.117	-298.784
21	-862.507	-313.016	-1008.195	-135.943
22	-1016.692	-144.441	-819.276	-384.388
23	-970.063	-419.528	-906.351	-521.533
24	-899.188	-514.376	-851.309	-591.032
25	-841.324	-581.047	-801.912	-644.147
26	-783.894	-559.741	-745.783	-620.758
27	-746.159	-621.136	-714.499	-671.825
28	-715.146	-672.482	-688.959	-714.410
29	-690.603	-716.045	-669.074	-750.514
30	-672.205	-753.623	-654.999	-781.170
31	-659.932	-786.151	-647.461	-806.118
32	-654.362	-813.079	-647.700	-823.745
33	-656.597	-832.651	-657.883	-830.593
34	-668.432	-841.121	-680.255	-822.193
35	-691.974	-833.884	-717.175	-793.538
36	-729.403	-805.755	-770.580	-739.829
37	-782.355	-751.598	-840.719	-658.155
38	-852.656	-670.096	-1084.062	-299.604
39	-921.025	-301.353	-993.377	-213.413
40	-1000.124	-220.165	-888.807	-355.464
41	-908.440	-375.097	-1049.302	-203.888
42	-1058.596	-213.188	-829.045	-492.192
43	-988.556	-562.121	-905.360	-695.320
44	-897.532	-687.496	-834.060	-789.117
45	-822.882	-777.955	-771.918	-859.550
46	-739.677	-630.533	-705.883	-684.639
47	-706.263	-685.011	-678.896	-728.827
48	-679.562	-729.453	-657.691	-764.471
49	-659.334	-766.108	-642.126	-793.658
50	-645.257	-796.767	-632.349	-817.434
51	-637.311	-822.368	-629.104	-835.509
52	-636.025	-842.438	-633.684	-846.186
53	-642.567	-855.114	-648.177	-846.133
54	-658.716	-856.678	-674.864	-830.824

COMBINACION 6 G1 + G2 + PRETI + 0.6 TEMP

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-686.567	-842.542	-716.073	-795.301
56	-728.305	-807.514	-773.809	-734.659
57	-785.582	-746.432	-848.253	-646.093
58	-860.192	-658.029	-1095.883	-280.678
59	-931.985	-288.031	-1008.338	-195.229
60	-1015.086	-201.979	-907.762	-332.426
61	-927.441	-352.002	-1067.076	-182.284
62	-1076.374	-191.580	-845.566	-472.112
63	-1006.367	-533.605	-921.891	-668.855
64	-914.060	-661.031	-849.281	-764.745
65	-838.112	-753.572	-785.830	-837.277
66	-753.589	-608.259	-718.480	-664.470
67	-718.859	-664.844	-690.201	-710.727
68	-690.858	-711.368	-667.666	-748.500
69	-669.307	-750.141	-650.792	-779.785
70	-653.927	-782.887	-639.715	-805.640
71	-644.667	-810.591	-635.181	-825.779
72	-642.104	-832.705	-638.427	-838.593
73	-647.339	-847.475	-651.615	-840.627
74	-662.167	-851.153	-677.012	-827.385
75	-688.719	-839.097	-716.932	-793.927
76	-729.145	-806.168	-773.335	-735.418
77	-785.112	-747.185	-846.485	-648.923
78	-858.426	-660.858	-1092.828	-285.570
79	-929.150	-291.477	-1004.291	-200.148
80	-1011.042	-206.896	-902.494	-338.828
81	-922.170	-358.409	-1062.133	-188.293
82	-1071.429	-197.590	-841.000	-477.662
83	-1001.447	-541.481	-917.305	-676.196
84	-909.477	-668.372	-845.062	-771.502
85	-833.886	-760.337	-781.973	-843.451
86	-749.736	-614.429	-714.986	-670.065
87	-715.372	-670.428	-687.082	-715.721
88	-687.737	-716.366	-664.906	-752.920
89	-666.551	-754.554	-648.401	-783.612
90	-651.525	-786.732	-637.669	-808.916
91	-642.638	-813.839	-633.495	-828.478
92	-640.429	-835.387	-637.126	-840.675
93	-646.036	-849.560	-650.674	-842.134
94	-661.222	-852.665	-676.413	-828.345
95	-688.132	-840.037	-716.702	-794.294
96	-728.925	-806.520	-773.474	-735.196
97	-785.243	-746.974	-846.996	-648.106
98	-858.931	-660.049	-1093.704	-284.166
99	-929.966	-290.486	-1005.461	-198.725
100	-1012.214	-205.470	-904.051	-336.936
101	-923.642	-356.620	-1063.537	-186.586
102	-1072.831	-195.885	-842.301	-476.080
103	-1002.849	-539.238	-918.604	-674.116
104	-910.779	-666.285	-846.262	-769.579
105	-835.090	-758.409	-783.064	-841.706
106	-750.827	-612.681	-715.986	-668.463
107	-716.371	-668.828	-687.970	-714.299
108	-688.638	-714.923	-665.693	-751.659
109	-667.336	-753.296	-649.082	-782.522

COMBINACION 6 G1 + G2 + PRETI + 0.6 TEMP

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
110	-652.214	-785.629	-638.255	-807.977
111	-643.219	-812.910	-633.973	-827.713
112	-640.891	-834.647	-637.492	-840.089
113	-646.402	-848.974	-650.942	-841.706
114	-661.492	-852.233	-676.592	-828.057
115	-688.313	-839.746	-716.761	-794.200
116	-728.986	-806.423	-773.426	-735.272
117	-785.212	-747.024	-846.841	-648.354
118	-858.771	-660.304	-1093.499	-284.495
119	-929.771	-290.722	-1005.144	-199.110
120	-1011.885	-205.870	-903.615	-337.466
121	-923.171	-357.191	-1063.105	-187.111
122	-1072.402	-196.407	-841.910	-476.555
123	-1002.428	-539.911	-918.211	-674.746
124	-910.386	-666.915	-845.885	-770.185
125	-834.711	-759.015	-782.714	-842.265
126	-750.473	-613.248	-715.660	-668.986
127	-716.041	-669.356	-687.681	-714.762
128	-688.328	-715.420	-665.458	-752.035
129	-667.094	-753.684	-648.864	-782.870
130	-651.992	-785.985	-638.091	-808.240
131	-643.034	-813.206	-633.834	-827.936
132	-640.761	-834.855	-637.378	-840.271
133	-646.288	-849.157	-650.869	-841.822
134	-661.417	-852.354	-676.552	-828.122
135	-688.265	-839.823	-716.759	-794.203
136	-728.985	-806.425	-773.456	-735.225
137	-785.226	-747.002	-846.907	-648.248
138	-858.844	-660.187	-1093.571	-284.379
139	-929.837	-290.642	-1005.242	-198.992
140	-1011.986	-205.748	-903.747	-337.306
141	-923.349	-356.975	-1063.256	-186.927
142	-1072.558	-196.217	-842.014	-476.429
143	-1002.541	-539.730	-918.340	-674.540
144	-910.517	-666.703	-846.006	-769.988
145	-834.842	-758.806	-782.832	-842.076
146	-750.599	-613.047	-715.777	-668.798
147	-716.146	-669.189	-687.788	-714.591
148	-688.419	-715.273	-665.536	-751.911
149	-667.167	-753.567	-648.948	-782.736
150	-652.064	-785.869	-638.144	-808.156
151	-643.089	-813.118	-633.885	-827.853
152	-640.799	-834.795	-637.430	-840.188
153	-646.321	-849.103	-650.886	-841.795
154	-661.437	-852.322	-676.551	-828.123
155	-688.267	-839.820	-716.753	-794.214
156	-728.979	-806.436	-773.439	-735.254
157	-785.204	-747.038	-846.859	-648.325
158	-858.795	-660.267	-1093.468	-284.544
159	-929.740	-290.760	-1005.158	-199.094
160	-1011.905	-205.846	-903.657	-337.414
161	-923.241	-357.107	-1063.175	-187.026
162	-1072.474	-196.320	-841.974	-476.478
163	-1002.498	-539.799	-918.280	-674.636
164	-910.455	-666.804	-845.964	-770.056

COMBINACION 6 G1 + G2 + PRETI + 0.6 TEMP

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-834.794	-758.882	-782.807	-842.117
166	-750.566	-613.100	-715.761	-668.824
167	-716.126	-669.220	-687.775	-714.611
168	-688.412	-715.285	-665.523	-751.932
169	-667.165	-753.571	-648.947	-782.738
170	-652.054	-785.885	-638.164	-808.122
171	-643.106	-813.090	-633.906	-827.821
172	-640.826	-834.750	-637.451	-840.155
173	-646.355	-849.050	-650.934	-841.717
174	-661.466	-852.274	-676.611	-828.027
175	-688.321	-839.734	-716.819	-794.108
176	-729.048	-806.325	-773.510	-735.140
177	-785.289	-746.901	-846.970	-648.147
178	-858.911	-660.081	-1093.528	-284.448
179	-929.800	-290.686	-1005.245	-198.988
180	-1011.993	-205.740	-903.730	-337.325
181	-923.446	-356.858	-1063.314	-186.857
182	-1072.609	-196.155	-842.080	-476.349
183	-1002.616	-539.610	-918.373	-674.486
184	-910.549	-666.652	-846.034	-769.945
185	-834.861	-758.775	-782.826	-842.086
186	-750.586	-613.068	-715.751	-668.840
187	-716.123	-669.225	-687.725	-714.691
188	-688.385	-715.327	-665.440	-752.063
189	-667.095	-753.682	-648.821	-782.941
190	-651.955	-786.044	-638.003	-808.381
191	-642.950	-813.340	-633.703	-828.145
192	-640.629	-835.066	-637.231	-840.507
193	-646.114	-849.435	-650.675	-842.132
194	-661.204	-852.694	-676.318	-828.496
195	-688.011	-840.231	-716.485	-794.642
196	-728.710	-806.867	-773.149	-735.718
197	-784.918	-747.496	-846.560	-648.804
198	-858.496	-660.746	-1093.137	-285.075
199	-929.438	-291.127	-1004.837	-199.484
200	-1011.585	-206.235	-903.293	-337.857
201	-922.883	-357.542	-1062.894	-187.368
202	-1072.192	-196.663	-841.779	-476.714
203	-1002.287	-540.137	-918.176	-674.801
204	-910.351	-666.969	-845.941	-770.093
205	-834.769	-758.924	-782.855	-842.040
206	-750.623	-613.008	-715.900	-668.601
207	-716.275	-668.981	-688.006	-714.241
208	-688.647	-714.909	-665.850	-751.408
209	-667.490	-753.051	-649.353	-782.089
210	-652.483	-785.197	-638.655	-807.337
211	-643.612	-812.280	-634.493	-826.880
212	-641.410	-833.817	-638.136	-839.057
213	-647.037	-847.958	-651.699	-840.493
214	-662.247	-851.025	-677.471	-826.649
215	-689.179	-838.360	-717.760	-792.601
216	-729.989	-804.820	-774.550	-733.476
217	-786.318	-745.254	-848.084	-646.363
218	-860.019	-658.306	-1094.809	-282.398
219	-930.987	-289.245	-1006.503	-197.459

COMBINACION 6 G1 + G2 + PRETI + 0.6 TEMP

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-1013.249	-204.212	-905.070	-335.698
221	-924.822	-355.185	-1064.369	-185.574
222	-1073.669	-194.867	-842.824	-475.445
223	-1003.415	-538.330	-918.832	-673.751
224	-911.007	-665.920	-846.162	-769.739
225	-834.990	-758.569	-782.647	-842.373
226	-750.406	-613.355	-715.247	-669.647
227	-715.608	-670.049	-686.893	-716.024
228	-687.546	-716.672	-664.292	-753.901
229	-665.931	-755.547	-647.353	-785.291
230	-650.486	-788.395	-636.197	-811.272
231	-641.155	-816.214	-631.587	-831.533
232	-638.514	-838.453	-634.786	-844.422
233	-643.690	-853.316	-647.895	-846.584
234	-658.448	-857.108	-673.215	-833.466
235	-684.928	-845.166	-713.061	-800.123
236	-725.287	-812.347	-769.399	-741.722
237	-781.165	-753.504	-842.487	-655.324
238	-854.418	-667.274	-1088.760	-292.082
239	-925.378	-296.062	-1000.461	-204.802
240	-1007.210	-211.553	-898.598	-343.563
241	-918.304	-363.107	-1059.658	-191.301
242	-1068.957	-200.594	-839.871	-479.034
243	-1000.228	-543.433	-917.628	-675.680
244	-909.801	-667.851	-846.937	-768.498
245	-835.763	-757.331	-785.380	-837.997
246	-754.075	-619.415	-719.870	-674.178
247	-720.255	-674.550	-692.717	-718.638
248	-693.370	-719.296	-671.528	-754.266
249	-673.167	-755.940	-656.202	-783.101
250	-659.336	-786.257	-646.886	-806.191
251	-651.867	-811.180	-644.320	-823.263
252	-651.289	-830.234	-649.786	-832.641
253	-658.748	-841.594	-665.422	-830.909
254	-676.041	-841.507	-693.495	-813.562
255	-705.301	-825.314	-736.388	-775.542
256	-748.708	-787.826	-796.070	-711.997
257	-807.929	-723.831	-872.767	-620.022
258	-884.789	-632.031	-1123.976	-249.082
259	-957.478	-266.387	-1133.979	-51.861
260	-1140.773	-58.656	-1080.966	-131.347
261	-1101.184	-151.420	-1178.488	-57.461
262	-1167.854	-46.827	-955.850	-304.504
263	-1118.694	-294.134	-1017.089	-456.808
264	-1012.423	-452.135	-923.744	-594.114
265	-916.565	-586.929	-838.890	-711.290
266	-796.503	-598.330	-719.818	-721.105
267	-747.629	-748.926	-692.482	-837.219
268	-694.885	-839.621	-649.896	-911.649
269	-652.498	-914.272	-617.463	-970.364
270	-620.653	-973.546	-595.496	-1013.822
271	-599.512	-1017.846	-584.353	-1042.116
272	-589.375	-1047.122	-581.360	-1059.956
273	-586.482	-1065.025	-584.682	-1067.908
274	-587.081	-1070.302	-593.903	-1059.379

COMBINACION 6 G1 + G2 + PRETI + 0.6 TEMP

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-591.003	-1056.483	-600.144	-1041.848
276	-597.705	-1039.374	-609.283	-1020.836
277	-607.107	-1018.658	-621.219	-996.065
278	-619.089	-993.941	-635.683	-967.373
279	-633.395	-965.126	-652.354	-934.772
280	-649.536	-931.961	-666.759	-904.386

COMBINACION 7 G1 + 1.1 PRETI + 0.4 TEMP

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-625.881	-849.674	-573.529	-933.492
2	-574.984	-935.659	-525.742	-1014.498
3	-527.558	-1017.644	-485.194	-1085.469
4	-486.421	-1088.503	-451.059	-1145.118
5	-451.983	-1148.295	-423.628	-1193.692
6	-424.519	-1197.211	-403.064	-1231.561
7	-404.190	-1235.503	-389.578	-1258.898
8	-391.140	-1263.369	-383.394	-1275.770
9	-385.478	-1280.943	-384.669	-1282.238
10	-387.342	-1288.203	-396.549	-1273.463
11	-401.316	-1281.023	-426.155	-1241.256
12	-431.794	-1250.021	-473.281	-1183.599
13	-480.116	-1192.730	-539.530	-1097.606
14	-546.949	-1107.486	-625.567	-981.616
15	-633.440	-991.554	-732.574	-832.836
16	-740.318	-842.611	-860.895	-649.562
17	-868.268	-658.107	-1010.588	-430.248
18	-1018.312	-438.930	-1338.664	73.968
19	-1152.695	-37.292	-1282.316	120.253
20	-1293.179	109.199	-1289.788	105.077
21	-1305.668	89.484	-1356.550	151.327
22	-1365.778	141.834	-1051.071	-240.672
23	-1228.270	-203.392	-1065.621	-463.800
24	-1057.090	-456.969	-924.308	-669.559
25	-912.430	-660.007	-802.191	-836.504
26	-781.260	-745.437	-685.705	-898.424
27	-684.821	-900.918	-608.897	-1022.475
28	-608.156	-1025.524	-550.811	-1117.335
29	-551.071	-1121.614	-511.453	-1185.045
30	-513.240	-1191.117	-491.002	-1226.721
31	-494.790	-1234.824	-490.416	-1241.827
32	-496.424	-1252.019	-511.146	-1228.448
33	-519.374	-1240.740	-555.554	-1182.815
34	-565.643	-1196.822	-626.168	-1099.919
35	-637.861	-1114.699	-725.901	-973.744
36	-738.124	-989.148	-856.535	-799.568
37	-868.730	-813.727	-1018.881	-573.329
38	-1031.213	-587.741	-1384.578	-21.989
39	-1191.090	-115.186	-1374.444	107.670
40	-1381.567	99.879	-1375.215	92.159
41	-1397.084	70.894	-1440.009	123.067
42	-1450.098	112.674	-1097.443	-315.955
43	-1286.993	-298.794	-1100.094	-598.027
44	-1090.798	-590.517	-938.046	-835.080
45	-924.822	-824.286	-799.073	-1025.616
46	-762.460	-775.535	-668.851	-925.407
47	-667.935	-927.952	-593.924	-1046.448
48	-593.175	-1049.509	-537.790	-1138.182
49	-538.016	-1142.516	-500.341	-1202.835
50	-502.130	-1208.905	-481.809	-1241.440
51	-485.564	-1249.596	-483.085	-1253.564
52	-489.091	-1263.759	-505.748	-1237.092
53	-513.915	-1249.480	-552.055	-1188.417
54	-562.250	-1202.255	-624.723	-1102.233

COMBINACION 7 G1 + 1.1 PRETI + 0.4 TEMP

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-636.213	-1117.338	-726.162	-973.326
56	-738.564	-988.443	-858.949	-795.703
57	-870.961	-810.155	-1023.042	-566.667
58	-1035.531	-580.829	-1390.794	-12.037
59	-1196.690	-108.379	-1381.841	116.660
60	-1389.123	109.063	-1384.569	103.528
61	-1406.493	82.330	-1448.818	133.774
62	-1458.904	123.378	-1105.583	-306.061
63	-1295.770	-284.742	-1108.279	-584.923
64	-1098.979	-577.417	-945.580	-823.015
65	-932.362	-812.215	-805.951	-1014.604
66	-769.335	-764.529	-675.064	-915.461
67	-674.145	-918.010	-599.510	-1037.504
68	-598.748	-1040.587	-542.692	-1130.335
69	-542.903	-1134.692	-504.597	-1196.022
70	-506.389	-1202.085	-485.444	-1235.619
71	-489.209	-1243.759	-486.124	-1248.699
72	-492.080	-1258.974	-508.069	-1233.375
73	-516.341	-1245.596	-553.819	-1185.593
74	-563.942	-1199.546	-625.787	-1100.529
75	-637.285	-1115.621	-726.617	-972.596
76	-738.950	-987.826	-858.671	-796.148
77	-870.740	-810.509	-1022.197	-568.019
78	-1034.688	-582.177	-1389.343	-14.359
79	-1195.326	-110.036	-1379.883	114.280
80	-1387.188	106.711	-1382.044	100.459
81	-1404.072	79.387	-1446.543	131.009
82	-1456.627	120.609	-1103.522	-308.566
83	-1293.452	-288.454	-1106.076	-588.450
84	-1096.777	-580.945	-943.553	-826.263
85	-930.327	-815.474	-804.110	-1017.552
86	-767.498	-767.469	-673.386	-918.146
87	-672.473	-920.687	-598.024	-1039.884
88	-597.259	-1042.971	-541.374	-1132.445
89	-541.592	-1136.791	-503.453	-1197.853
90	-505.238	-1203.929	-484.458	-1237.198
91	-488.240	-1245.310	-485.295	-1250.026
92	-491.287	-1260.243	-507.469	-1234.336
93	-515.694	-1246.632	-553.335	-1186.368
94	-563.433	-1200.361	-625.420	-1101.117
95	-636.982	-1116.106	-726.487	-972.805
96	-738.816	-988.040	-858.687	-796.122
97	-870.750	-810.492	-1022.401	-567.693
98	-1034.885	-581.862	-1389.725	-13.747
99	-1195.666	-109.624	-1380.433	114.949
100	-1387.758	107.404	-1382.778	101.351
101	-1404.868	80.355	-1447.300	131.929
102	-1457.400	121.549	-1104.239	-307.695
103	-1294.306	-287.086	-1106.870	-587.178
104	-1097.394	-579.954	-944.137	-825.325
105	-930.918	-814.527	-804.629	-1016.721
106	-768.019	-766.635	-673.899	-917.325
107	-672.981	-919.874	-598.482	-1039.151
108	-597.723	-1042.227	-541.781	-1131.794
109	-541.993	-1136.148	-503.809	-1197.283

COMBINACION 7 G1 + 1.1 PRETI + 0.4 TEMP

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
110	-505.601	-1203.347	-484.777	-1236.688
111	-488.559	-1244.800	-485.573	-1249.580
112	-491.543	-1259.833	-507.690	-1233.982
113	-515.922	-1246.267	-553.525	-1186.063
114	-563.565	-1200.150	-625.533	-1100.936
115	-637.152	-1115.833	-726.565	-972.680
116	-738.889	-987.924	-858.719	-796.070
117	-870.803	-810.408	-1022.366	-567.749
118	-1034.801	-581.997	-1389.667	-13.841
119	-1195.652	-109.640	-1380.302	114.789
120	-1387.572	107.178	-1382.536	101.057
121	-1404.674	80.120	-1447.108	131.695
122	-1457.193	121.298	-1104.049	-307.926
123	-1294.105	-287.408	-1106.667	-587.505
124	-1097.347	-580.032	-944.040	-825.483
125	-930.742	-814.809	-804.448	-1017.010
126	-767.835	-766.930	-673.712	-917.625
127	-672.729	-920.277	-598.251	-1039.519
128	-597.480	-1042.617	-541.596	-1132.090
129	-541.800	-1136.459	-503.625	-1197.578
130	-505.408	-1203.657	-484.628	-1236.926
131	-488.397	-1245.059	-485.447	-1249.782
132	-491.418	-1260.034	-507.565	-1234.181
133	-515.707	-1246.612	-553.326	-1186.382
134	-563.467	-1200.307	-625.451	-1101.068
135	-637.044	-1116.007	-726.513	-972.764
136	-738.857	-987.975	-858.686	-796.123
137	-870.717	-810.545	-1022.341	-567.789
138	-1034.828	-581.954	-1389.669	-13.837
139	-1195.643	-109.652	-1380.315	114.805
140	-1387.604	107.216	-1382.595	101.128
141	-1404.774	80.241	-1447.215	131.825
142	-1457.296	121.423	-1104.095	-307.870
143	-1294.166	-287.310	-1106.795	-587.299
144	-1097.503	-579.779	-944.201	-825.222
145	-930.805	-814.708	-804.534	-1016.873
146	-768.043	-766.596	-673.904	-917.318
147	-672.870	-920.053	-598.390	-1039.297
148	-597.605	-1042.417	-541.723	-1131.887
149	-541.923	-1136.261	-503.763	-1197.358
150	-505.543	-1203.441	-484.745	-1236.740
151	-488.513	-1244.874	-485.571	-1249.584
152	-491.536	-1259.846	-507.699	-1233.967
153	-515.846	-1246.390	-553.455	-1186.176
154	-563.610	-1200.077	-625.577	-1100.866
155	-637.120	-1115.886	-726.588	-972.643
156	-738.929	-987.862	-858.765	-796.001
157	-870.787	-810.434	-1022.371	-567.740
158	-1034.858	-581.906	-1389.624	-13.911
159	-1195.592	-109.714	-1380.314	114.804
160	-1387.613	107.227	-1382.593	101.126
161	-1404.759	80.222	-1447.183	131.787
162	-1457.271	121.392	-1104.109	-307.853
163	-1294.178	-287.290	-1106.731	-587.401
164	-1097.417	-579.917	-944.137	-825.325

COMBINACION 7 G1 + 1.1 PRETI + 0.4 TEMP

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-930.919	-814.526	-804.623	-1016.731
166	-767.854	-766.899	-673.727	-917.601
167	-672.794	-920.173	-598.300	-1039.441
168	-597.518	-1042.556	-541.607	-1132.071
169	-541.823	-1136.421	-503.647	-1197.543
170	-505.414	-1203.647	-484.622	-1236.936
171	-488.390	-1245.071	-485.420	-1249.826
172	-491.402	-1260.059	-507.533	-1234.234
173	-515.747	-1246.548	-553.355	-1186.336
174	-563.394	-1200.423	-625.371	-1101.195
175	-636.960	-1116.141	-726.424	-972.906
176	-738.773	-988.113	-858.590	-796.280
177	-870.664	-810.631	-1022.295	-567.863
178	-1034.775	-582.038	-1389.448	-14.192
179	-1195.427	-109.915	-1380.184	114.646
180	-1387.479	107.064	-1382.456	100.959
181	-1404.703	80.155	-1447.152	131.748
182	-1457.235	121.349	-1104.102	-307.861
183	-1294.161	-287.318	-1106.767	-587.343
184	-1097.473	-579.827	-944.229	-825.178
185	-930.983	-814.423	-804.690	-1016.623
186	-768.033	-766.613	-673.935	-917.268
187	-672.927	-919.961	-598.457	-1039.190
188	-597.696	-1042.272	-541.781	-1131.793
189	-542.010	-1136.122	-503.821	-1197.264
190	-505.614	-1203.327	-484.816	-1236.625
191	-488.593	-1244.746	-485.637	-1249.479
192	-491.562	-1259.803	-507.728	-1233.921
193	-515.932	-1246.252	-553.582	-1185.972
194	-563.703	-1199.928	-625.708	-1100.656
195	-637.276	-1115.635	-726.780	-972.336
196	-739.131	-987.538	-858.993	-795.635
197	-871.059	-809.998	-1022.694	-567.224
198	-1035.180	-581.391	-1389.972	-13.353
199	-1195.930	-109.302	-1380.682	115.251
200	-1387.981	107.675	-1383.000	101.620
201	-1405.085	80.619	-1447.441	132.100
202	-1457.520	121.695	-1104.297	-307.624
203	-1294.386	-286.958	-1106.905	-587.123
204	-1097.590	-579.639	-944.203	-825.219
205	-930.969	-814.445	-804.583	-1016.795
206	-767.833	-766.933	-673.629	-917.758
207	-672.707	-920.312	-598.123	-1039.725
208	-597.344	-1042.835	-541.346	-1132.491
209	-541.563	-1136.838	-503.293	-1198.109
210	-505.083	-1204.177	-484.198	-1237.614
211	-487.982	-1245.724	-484.938	-1250.597
212	-490.908	-1260.851	-506.982	-1235.115
213	-515.213	-1247.403	-552.743	-1187.315
214	-562.901	-1201.213	-624.815	-1102.086
215	-636.403	-1117.034	-725.788	-973.923
216	-738.139	-989.128	-857.916	-797.358
217	-869.984	-811.719	-1021.532	-569.084
218	-1034.017	-583.252	-1388.756	-15.299
219	-1194.802	-110.674	-1379.488	113.800

COMBINACION 7 G1 + 1.1 PRETI + 0.4 TEMP

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-1386.788	106.225	-1381.723	100.069
221	-1403.760	79.009	-1446.427	130.867
222	-1456.512	120.470	-1103.585	-308.491
223	-1293.614	-288.194	-1106.428	-587.886
224	-1097.119	-580.395	-944.112	-825.364
225	-930.888	-814.574	-804.878	-1016.322
226	-768.108	-766.492	-674.257	-916.752
227	-673.319	-919.333	-599.095	-1038.169
228	-598.329	-1041.257	-542.683	-1130.350
229	-542.897	-1134.702	-504.993	-1195.388
230	-506.786	-1201.451	-486.235	-1234.354
231	-490.021	-1242.459	-487.315	-1246.792
232	-493.295	-1257.029	-509.700	-1230.763
233	-517.932	-1243.049	-555.795	-1182.429
234	-565.958	-1196.321	-628.184	-1096.694
235	-639.781	-1111.625	-729.513	-967.960
236	-741.864	-983.163	-861.963	-790.879
237	-874.028	-805.245	-1025.925	-562.051
238	-1038.410	-576.219	-1393.486	-7.727
239	-1199.188	-105.343	-1384.147	119.463
240	-1391.448	111.889	-1386.688	106.103
241	-1408.695	85.007	-1450.611	135.953
242	-1460.687	125.545	-1106.912	-304.446
243	-1297.204	-282.446	-1109.247	-583.374
244	-1099.929	-575.896	-946.148	-822.105
245	-932.892	-811.367	-806.063	-1014.426
246	-770.394	-775.959	-674.648	-929.252
247	-673.697	-931.862	-597.805	-1053.368
248	-597.045	-1056.458	-539.976	-1147.828
249	-540.206	-1152.186	-501.108	-1214.785
250	-502.925	-1220.866	-481.431	-1255.279
251	-485.263	-1263.405	-481.830	-1268.902
252	-487.883	-1279.151	-503.796	-1253.675
253	-512.125	-1265.972	-549.759	-1205.718
254	-560.025	-1219.642	-622.277	-1119.973
255	-634.010	-1134.908	-724.049	-990.751
256	-736.535	-1005.969	-857.309	-812.605
257	-869.506	-826.979	-1022.341	-582.283
258	-1034.948	-596.481	-1392.431	-24.136
259	-1197.617	-117.528	-1491.432	239.586
260	-1498.788	231.970	-1544.992	288.127
261	-1567.512	266.389	-1572.152	272.028
262	-1560.363	283.615	-1253.431	-89.442
263	-1448.105	24.746	-1263.913	-270.154
264	-1258.343	-265.715	-1095.635	-526.216
265	-1087.162	-519.234	-944.167	-748.177
266	-896.634	-625.372	-762.009	-840.913
267	-791.890	-872.654	-687.998	-1038.990
268	-689.552	-1043.375	-603.897	-1180.513
269	-605.704	-1185.086	-538.058	-1293.390
270	-540.443	-1298.689	-490.749	-1378.251
271	-493.997	-1384.551	-462.391	-1435.153
272	-466.732	-1442.554	-450.106	-1469.172
273	-454.566	-1476.629	-451.902	-1480.894
274	-453.410	-1485.338	-467.387	-1462.961

COMBINACION 7 G1 + 1.1 PRETI + 0.4 TEMP

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-463.137	-1461.472	-486.825	-1423.546
276	-483.198	-1422.337	-516.738	-1368.638
277	-513.545	-1367.521	-557.079	-1297.822
278	-554.120	-1296.472	-607.602	-1210.844
279	-604.690	-1209.006	-668.000	-1107.643
280	-664.757	-1104.781	-733.437	-994.822

COMBINACION 8 G1 + G2 + 1.1 PRETI + 0.60 TEMP

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-625.874	-849.686	-610.778	-873.856
2	-612.507	-875.583	-595.035	-903.557
3	-597.364	-905.881	-581.273	-931.644
4	-583.198	-933.558	-568.583	-956.959
5	-570.375	-958.745	-557.213	-979.818
6	-559.132	-981.689	-547.327	-1000.590
7	-549.549	-1002.777	-539.012	-1019.647
8	-541.696	-1022.322	-532.423	-1037.168
9	-535.682	-1040.459	-527.740	-1053.175
10	-531.672	-1057.125	-528.119	-1062.813
11	-533.956	-1068.661	-540.381	-1058.375
12	-547.245	-1065.180	-564.677	-1037.270
13	-572.401	-1044.978	-602.061	-997.490
14	-610.422	-1005.863	-653.608	-936.721
15	-662.276	-945.385	-720.262	-852.547
16	-728.790	-861.067	-802.497	-743.060
17	-810.318	-750.888	-900.065	-607.198
18	-908.156	-615.294	-1170.175	-195.790
19	-996.654	-226.951	-1066.857	-141.624
20	-1077.805	-152.574	-1009.644	-235.420
21	-1025.466	-251.084	-1160.965	-86.394
22	-1170.312	-95.742	-931.225	-386.338
23	-1099.440	-409.654	-1008.575	-555.132
24	-1000.696	-547.258	-929.922	-660.571
25	-918.938	-649.587	-860.905	-742.501
26	-841.085	-649.654	-787.911	-734.788
27	-788.324	-735.204	-744.921	-804.696
28	-745.633	-805.418	-710.921	-860.993
29	-712.731	-862.791	-685.818	-905.879
30	-689.262	-909.299	-669.779	-940.491
31	-675.207	-945.968	-663.606	-964.542
32	-671.199	-972.197	-668.663	-976.257
33	-678.450	-986.054	-687.328	-971.839
34	-698.932	-983.422	-722.077	-946.365
35	-734.968	-959.227	-775.504	-894.327
36	-788.955	-907.766	-849.738	-810.449
37	-862.691	-823.396	-945.050	-691.535
38	-958.180	-704.670	-1233.563	-263.770
39	-1051.239	-285.165	-1152.803	-161.721
40	-1160.225	-169.148	-1062.590	-287.817
41	-1084.187	-309.412	-1213.843	-151.823
42	-1224.066	-162.053	-949.107	-496.249
43	-1127.476	-554.187	-1014.611	-734.890
44	-1005.999	-726.284	-917.503	-867.969
45	-905.208	-855.690	-833.901	-969.856
46	-798.436	-717.936	-749.441	-796.379
47	-749.859	-796.788	-710.608	-859.631
48	-711.341	-860.320	-680.811	-909.201
49	-682.619	-911.001	-659.889	-947.393
50	-663.332	-950.813	-648.004	-975.354
51	-653.463	-980.782	-645.982	-992.760
52	-653.595	-1000.381	-655.237	-997.752
53	-665.009	-1007.573	-678.075	-986.653
54	-689.669	-998.252	-716.996	-954.499

COMBINACION 8 G1 + G2 + 1.1 PRETI + 0.60 TEMP

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-729.870	-967.388	-774.567	-895.826
56	-788.021	-909.261	-852.993	-805.238
57	-865.943	-818.189	-952.468	-679.659
58	-965.601	-692.789	-1245.120	-245.266
59	-1061.955	-272.141	-1167.388	-143.994
60	-1174.811	-151.419	-1081.037	-265.396
61	-1102.680	-286.935	-1231.144	-130.796
62	-1241.371	-141.021	-965.177	-476.717
63	-1144.801	-526.449	-1030.698	-709.134
64	-1022.084	-700.528	-932.315	-844.253
65	-920.028	-831.962	-847.436	-948.185
66	-811.972	-696.265	-761.694	-776.762
67	-762.112	-777.172	-721.604	-842.026
68	-722.327	-842.731	-690.507	-893.677
69	-692.312	-895.483	-668.310	-933.910
70	-671.758	-937.323	-655.165	-963.888
71	-660.612	-969.336	-651.890	-983.301
72	-659.506	-990.918	-659.847	-990.372
73	-669.650	-1000.142	-681.416	-981.305
74	-693.022	-992.883	-719.085	-951.155
75	-731.962	-964.040	-775.404	-894.487
76	-788.839	-907.952	-852.528	-805.983
77	-865.482	-818.927	-950.747	-682.414
78	-963.882	-695.541	-1242.152	-250.019
79	-1059.201	-275.488	-1163.455	-148.774
80	-1170.881	-156.196	-1075.920	-271.616
81	-1097.558	-293.160	-1226.340	-136.634
82	-1236.565	-146.861	-960.748	-482.099
83	-1140.030	-534.088	-1026.241	-716.269
84	-1017.630	-707.662	-928.215	-850.819
85	-915.921	-838.537	-843.691	-954.181
86	-808.230	-702.256	-758.298	-782.199
87	-758.722	-782.598	-718.575	-846.876
88	-719.295	-847.585	-687.825	-897.971
89	-689.635	-899.768	-665.989	-937.627
90	-669.425	-941.058	-653.175	-967.076
91	-658.640	-972.492	-650.247	-985.931
92	-657.874	-993.531	-658.581	-992.399
93	-668.382	-1002.173	-680.497	-982.775
94	-692.099	-994.361	-718.493	-952.103
95	-731.383	-964.966	-775.174	-894.855
96	-788.619	-908.304	-852.653	-805.782
97	-865.600	-818.737	-951.236	-681.631
98	-964.365	-694.769	-1242.997	-248.666
99	-1059.987	-274.533	-1164.595	-147.388
100	-1172.023	-154.808	-1077.430	-269.780
101	-1098.984	-291.427	-1227.700	-134.981
102	-1237.924	-145.210	-962.008	-480.568
103	-1141.387	-531.915	-1027.500	-714.253
104	-1018.892	-705.639	-929.381	-848.949
105	-917.093	-836.662	-844.749	-952.487
106	-809.289	-700.560	-759.276	-780.633
107	-759.699	-781.035	-719.444	-845.485
108	-720.178	-846.173	-688.597	-896.735
109	-690.404	-898.538	-666.657	-936.557

COMBINACION 8 G1 + G2 + 1.1 PRETI + 0.60 TEMP

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
110	-670.101	-939.975	-653.753	-966.149
111	-659.214	-971.575	-650.721	-985.171
112	-658.333	-992.797	-658.946	-991.814
113	-668.747	-1001.587	-680.769	-982.341
114	-692.374	-993.920	-718.687	-951.792
115	-731.580	-964.651	-775.244	-894.743
116	-788.691	-908.189	-852.623	-805.831
117	-865.587	-818.760	-951.096	-681.855
118	-964.221	-694.999	-1242.820	-248.950
119	-1059.817	-274.739	-1164.295	-147.754
120	-1171.710	-155.189	-1077.013	-270.287
121	-1098.533	-291.975	-1227.281	-135.490
122	-1237.508	-145.716	-961.629	-481.029
123	-1140.979	-532.569	-1027.114	-714.871
124	-1018.507	-706.257	-929.002	-849.560
125	-916.711	-837.274	-844.392	-953.059
126	-808.927	-701.140	-758.939	-781.173
127	-759.358	-781.581	-719.143	-845.967
128	-719.855	-846.690	-688.351	-897.129
129	-690.150	-898.943	-666.426	-936.927
130	-669.865	-940.353	-653.577	-966.431
131	-659.015	-971.893	-650.571	-985.412
132	-658.190	-993.025	-658.820	-992.016
133	-668.620	-1001.792	-680.683	-982.478
134	-692.285	-994.063	-718.632	-951.880
135	-731.516	-964.753	-775.232	-894.762
136	-788.680	-908.206	-852.639	-805.805
137	-865.587	-818.759	-951.155	-681.760
138	-964.286	-694.894	-1242.880	-248.854
139	-1059.873	-274.672	-1164.382	-147.647
140	-1171.801	-155.078	-1077.136	-270.137
141	-1098.702	-291.769	-1227.431	-135.308
142	-1237.663	-145.528	-961.727	-480.910
143	-1141.085	-532.399	-1027.250	-714.654
144	-1018.646	-706.033	-929.134	-849.345
145	-916.853	-837.046	-844.528	-952.842
146	-809.071	-700.910	-759.073	-780.958
147	-759.479	-781.387	-719.267	-845.769
148	-719.963	-846.517	-688.447	-896.975
149	-690.242	-898.797	-666.530	-936.760
150	-669.958	-940.204	-653.650	-966.315
151	-659.090	-971.773	-650.644	-985.295
152	-658.249	-992.930	-658.895	-991.896
153	-668.676	-1001.702	-680.722	-982.416
154	-692.327	-993.996	-718.650	-951.851
155	-731.538	-964.718	-775.247	-894.738
156	-788.696	-908.184	-852.646	-805.797
157	-865.587	-818.760	-951.125	-681.809
158	-964.254	-694.945	-1242.786	-249.003
159	-1059.784	-274.779	-1164.316	-147.727
160	-1171.738	-155.155	-1077.064	-270.224
161	-1098.612	-291.880	-1227.358	-135.397
162	-1237.586	-145.620	-961.696	-480.947
163	-1141.053	-532.451	-1027.185	-714.758
164	-1018.577	-706.143	-929.087	-849.421

COMBINACION 8 G1 + G2 + 1.1 PRETI + 0.60 TEMP

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-916.800	-837.130	-844.489	-952.903
166	-809.025	-700.983	-759.041	-781.010
167	-759.443	-781.444	-719.233	-845.822
168	-719.934	-846.563	-688.407	-897.039
169	-690.213	-898.842	-666.498	-936.811
170	-669.916	-940.272	-653.635	-966.339
171	-659.072	-971.802	-650.623	-985.329
172	-658.237	-992.950	-658.869	-991.937
173	-668.664	-1001.722	-680.721	-982.417
174	-692.306	-994.029	-718.658	-951.839
175	-731.539	-964.716	-775.257	-894.723
176	-788.709	-908.163	-852.655	-805.782
177	-865.612	-818.718	-951.181	-681.720
178	-964.316	-694.847	-1242.777	-249.018
179	-1059.781	-274.783	-1164.342	-147.697
180	-1171.764	-155.123	-1077.076	-270.210
181	-1098.754	-291.706	-1227.454	-135.280
182	-1237.679	-145.507	-961.775	-480.851
183	-1141.141	-532.309	-1027.269	-714.623
184	-1018.663	-706.006	-929.163	-849.298
185	-916.874	-837.012	-844.528	-952.840
186	-809.064	-700.921	-759.068	-780.966
187	-759.478	-781.389	-719.237	-845.816
188	-719.963	-846.517	-688.393	-897.062
189	-690.212	-898.844	-666.451	-936.887
190	-669.898	-940.301	-653.567	-966.447
191	-659.010	-971.901	-650.527	-985.482
192	-658.145	-993.096	-658.770	-992.096
193	-668.541	-1001.917	-680.597	-982.615
194	-692.179	-994.232	-718.516	-952.067
195	-731.378	-964.974	-775.088	-894.993
196	-788.535	-908.440	-852.477	-806.068
197	-865.422	-819.023	-950.961	-682.071
198	-964.091	-695.206	-1242.603	-249.298
199	-1059.620	-274.979	-1164.144	-147.937
200	-1171.567	-155.363	-1076.865	-270.467
201	-1098.418	-292.115	-1227.206	-135.582
202	-1237.433	-145.807	-961.595	-481.070
203	-1140.942	-532.628	-1027.149	-714.815
204	-1018.541	-706.201	-929.085	-849.424
205	-916.796	-837.137	-844.518	-952.857
206	-809.063	-700.922	-759.122	-780.879
207	-759.535	-781.298	-719.365	-845.612
208	-720.070	-846.346	-688.592	-896.743
209	-690.396	-898.549	-666.720	-936.456
210	-670.164	-939.876	-653.903	-965.909
211	-659.356	-971.347	-650.950	-984.806
212	-658.558	-992.436	-659.254	-991.321
213	-669.044	-1001.112	-681.145	-981.738
214	-692.747	-993.323	-719.140	-951.067
215	-732.018	-963.949	-775.776	-893.892
216	-789.227	-907.333	-853.236	-804.852
217	-866.181	-817.807	-951.791	-680.742
218	-964.920	-693.879	-1243.529	-247.814
219	-1060.477	-273.937	-1165.071	-146.810

COMBINACION 8 G1 + G2 + 1.1 PRETI + 0.60 TEMP

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-1172.492	-154.238	-1077.852	-269.267
221	-1099.568	-290.718	-1228.076	-134.524
222	-1238.305	-144.746	-962.212	-480.320
223	-1141.609	-531.559	-1027.530	-714.205
224	-1018.922	-705.591	-929.232	-849.189
225	-916.943	-836.901	-844.434	-952.991
226	-808.970	-701.072	-758.786	-781.417
227	-759.184	-781.859	-718.764	-846.573
228	-719.482	-847.286	-687.745	-898.099
229	-689.547	-899.909	-665.627	-938.206
230	-669.073	-941.622	-652.545	-968.084
231	-657.998	-973.521	-649.334	-987.392
232	-656.954	-995.004	-657.386	-994.311
233	-667.181	-1004.096	-679.013	-985.151
234	-690.622	-996.728	-716.745	-954.904
235	-729.629	-967.775	-773.132	-898.124
236	-786.581	-911.570	-850.328	-809.507
237	-863.271	-822.467	-948.630	-685.803
238	-961.754	-698.948	-1240.106	-253.294
239	-1057.304	-277.794	-1161.636	-150.985
240	-1169.059	-158.411	-1074.165	-273.749
241	-1095.834	-295.256	-1225.552	-137.591
242	-1235.781	-147.814	-960.834	-481.995
243	-1140.121	-533.943	-1027.384	-714.440
244	-1018.774	-705.828	-930.423	-847.281
245	-918.132	-834.998	-846.934	-948.989
246	-812.498	-708.548	-762.527	-788.554
247	-762.950	-788.964	-722.982	-852.954
248	-723.700	-853.678	-692.670	-903.359
249	-694.473	-905.199	-671.482	-942.007
250	-674.930	-945.479	-659.579	-970.057
251	-665.058	-975.545	-657.776	-987.205
252	-665.442	-994.873	-667.481	-991.608
253	-677.340	-1001.456	-691.047	-979.511
254	-702.726	-991.171	-730.965	-945.959
255	-743.951	-958.887	-789.861	-885.383
256	-803.411	-898.897	-869.900	-792.447
257	-882.944	-805.464	-971.328	-663.958
258	-984.552	-677.168	-1267.392	-224.328
259	-1081.995	-258.059	-1297.106	3.395
260	-1304.579	-4.078	-1262.588	-55.117
261	-1284.820	-77.205	-1351.815	4.222
262	-1340.118	15.920	-1090.467	-287.514
263	-1272.649	-256.166	-1144.757	-460.928
264	-1139.624	-455.788	-1027.733	-634.930
265	-1019.836	-627.026	-922.124	-783.469
266	-875.497	-659.213	-780.652	-811.064
267	-811.244	-841.667	-741.597	-953.174
268	-744.241	-955.816	-687.274	-1047.022
269	-690.136	-1049.907	-645.622	-1121.175
270	-649.131	-1124.674	-616.990	-1176.133
271	-621.408	-1180.560	-601.768	-1212.005
272	-607.292	-1217.511	-597.016	-1233.963
273	-602.651	-1239.539	-600.715	-1242.638
274	-603.354	-1245.272	-612.409	-1230.775

COMBINACION 8 G1 + G2 + 1.1 PRETI + 0.60 TEMP

TENSIONES CON AXIL INICIAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-609.219	-1227.589	-622.329	-1206.599
276	-619.645	-1203.879	-636.939	-1176.191
277	-634.545	-1173.795	-656.130	-1139.236
278	-653.788	-1136.900	-679.607	-1095.562
279	-677.091	-1093.088	-707.013	-1045.181
280	-703.914	-1042.089	-733.436	-994.824

COMBINACION 9 G1 + G2 + PRETD

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-491.460	-667.220	-497.666	-657.285
2	-499.121	-658.738	-500.390	-656.706
3	-501.928	-658.239	-501.090	-659.581
4	-502.393	-660.879	-499.529	-665.464
5	-500.738	-666.666	-495.861	-674.474
6	-497.121	-675.686	-490.195	-686.776
7	-491.602	-688.141	-482.583	-702.582
8	-484.239	-704.219	-473.109	-722.040
9	-475.097	-724.060	-461.864	-745.247
10	-464.294	-747.694	-451.024	-768.940
11	-455.101	-773.024	-445.829	-787.869
12	-451.165	-793.162	-446.707	-800.299
13	-453.233	-806.825	-454.708	-804.464
14	-462.278	-812.045	-471.053	-797.995
15	-479.338	-806.272	-496.867	-778.207
16	-505.320	-786.644	-532.753	-742.723
17	-540.548	-750.523	-578.403	-689.915
18	-590.209	-701.716	-763.273	-424.634
19	-637.375	-369.866	-655.870	-347.386
20	-662.970	-354.486	-572.833	-464.042
21	-588.863	-479.912	-740.790	-295.255
22	-740.294	-294.761	-599.764	-465.566
23	-724.908	-555.026	-696.711	-600.171
24	-691.915	-595.378	-673.570	-624.749
25	-665.449	-616.630	-645.243	-648.981
26	-627.186	-564.542	-609.204	-593.332
27	-610.280	-594.405	-595.250	-618.468
28	-595.500	-618.720	-582.076	-640.212
29	-582.891	-641.023	-570.279	-661.215
30	-572.161	-663.069	-559.897	-682.705
31	-563.190	-686.032	-551.345	-704.996
32	-556.303	-710.012	-545.430	-727.422
33	-552.257	-734.254	-543.841	-747.729
34	-552.462	-756.333	-548.586	-762.539
35	-558.796	-772.722	-562.128	-767.388
36	-573.463	-778.713	-586.889	-757.218
37	-598.384	-768.699	-622.535	-730.031
38	-639.384	-746.886	-814.862	-465.937
39	-684.278	-408.645	-717.626	-368.114
40	-720.699	-371.194	-596.871	-521.699
41	-618.927	-543.756	-766.105	-364.871
42	-765.336	-364.108	-598.051	-567.432
43	-728.414	-689.651	-685.040	-759.096
44	-677.992	-752.048	-648.832	-798.735
45	-637.803	-787.723	-606.822	-837.325
46	-585.860	-619.585	-571.696	-642.263
47	-573.688	-644.258	-563.111	-661.192
48	-563.311	-661.368	-553.918	-676.407
49	-554.883	-677.377	-545.927	-691.716
50	-548.107	-693.878	-539.158	-708.206
51	-542.878	-711.888	-534.106	-725.932
52	-539.551	-731.374	-531.699	-743.946
53	-539.015	-751.288	-533.636	-759.900
54	-542.747	-769.022	-542.048	-770.141

COMBINACION 9 G1 + G2 + PRETD

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-552.709	-780.827	-559.412	-770.095
56	-571.142	-781.815	-588.196	-754.511
57	-599.948	-766.267	-627.914	-721.493
58	-644.819	-738.399	-824.047	-451.447
59	-692.549	-398.221	-729.070	-353.832
60	-731.793	-356.555	-611.103	-503.247
61	-632.904	-524.946	-779.311	-346.998
62	-778.658	-346.343	-610.909	-550.232
63	-742.862	-666.049	-698.392	-737.247
64	-691.790	-730.658	-661.313	-779.453
65	-650.601	-768.751	-618.240	-820.563
66	-597.464	-603.022	-581.965	-627.836
67	-584.047	-629.916	-572.238	-648.822
68	-572.453	-649.003	-561.924	-665.860
69	-562.846	-666.777	-552.868	-682.753
70	-554.969	-684.829	-545.089	-700.648
71	-548.690	-704.245	-539.052	-719.675
72	-544.375	-724.994	-535.641	-738.977
73	-542.843	-746.162	-536.577	-756.194
74	-545.566	-765.170	-543.958	-767.745
75	-554.505	-778.299	-560.252	-769.098
76	-571.870	-780.743	-587.891	-755.091
77	-599.584	-766.780	-626.472	-723.731
78	-643.377	-740.631	-821.562	-455.349
79	-690.321	-401.046	-725.959	-357.729
80	-728.787	-360.554	-607.203	-508.332
81	-629.084	-530.119	-775.683	-351.937
82	-774.997	-351.251	-607.384	-554.974
83	-738.894	-672.540	-694.713	-743.275
84	-687.982	-736.548	-657.868	-784.763
85	-647.064	-773.968	-615.078	-825.179
86	-594.257	-607.564	-579.119	-631.801
87	-581.182	-633.838	-569.726	-652.181
88	-569.927	-652.375	-559.709	-668.735
89	-560.648	-669.656	-550.945	-685.191
90	-553.063	-687.300	-543.430	-702.723
91	-547.075	-706.325	-537.662	-721.396
92	-543.029	-726.735	-534.530	-740.344
93	-541.770	-747.566	-535.738	-757.223
94	-544.763	-766.242	-543.386	-768.445
95	-553.976	-779.023	-559.977	-769.415
96	-571.632	-781.077	-587.927	-754.987
97	-599.637	-766.703	-626.832	-723.162
98	-643.735	-740.074	-822.215	-454.319
99	-690.912	-400.297	-726.795	-356.683
100	-729.599	-359.477	-608.307	-506.899
101	-630.080	-528.765	-776.660	-350.606
102	-775.981	-349.932	-608.339	-553.690
103	-739.968	-670.781	-695.708	-741.643
104	-689.018	-734.946	-658.805	-783.318
105	-648.026	-772.552	-615.937	-823.928
106	-595.126	-606.337	-579.898	-630.718
107	-581.971	-632.764	-570.409	-651.276
108	-570.626	-651.449	-560.319	-667.952
109	-561.255	-668.873	-551.476	-684.531

COMBINACION 9 G1 + G2 + PRETD

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
110	-553.596	-686.619	-543.893	-702.154
111	-547.525	-705.758	-538.054	-720.920
112	-543.395	-726.278	-534.844	-739.969
113	-542.074	-747.181	-535.987	-756.927
114	-545.002	-765.935	-543.567	-768.233
115	-554.150	-778.798	-560.070	-769.319
116	-571.721	-780.959	-587.932	-755.005
117	-599.651	-766.687	-626.754	-723.294
118	-643.648	-740.212	-822.096	-454.508
119	-690.797	-400.440	-726.608	-356.913
120	-729.404	-359.730	-608.037	-507.244
121	-629.783	-529.161	-776.387	-350.973
122	-775.709	-350.294	-608.082	-554.034
123	-739.678	-671.255	-695.435	-742.090
124	-688.737	-735.381	-658.542	-783.725
125	-647.759	-772.944	-615.689	-824.289
126	-594.874	-606.690	-579.669	-631.034
127	-581.730	-633.089	-570.212	-651.530
128	-570.403	-651.741	-560.153	-668.152
129	-561.085	-669.083	-551.319	-684.719
130	-553.433	-686.817	-543.773	-702.283
131	-547.392	-705.916	-537.945	-721.042
132	-543.301	-726.383	-534.745	-740.081
133	-541.981	-747.289	-535.913	-757.004
134	-544.932	-766.013	-543.513	-768.286
135	-554.093	-778.862	-560.040	-769.341
136	-571.691	-780.992	-587.928	-754.996
137	-599.635	-766.703	-626.764	-723.268
138	-643.673	-740.171	-822.113	-454.481
139	-690.816	-400.419	-726.643	-356.873
140	-729.443	-359.684	-608.093	-507.178
141	-629.883	-529.035	-776.463	-350.876
142	-775.791	-350.190	-608.128	-553.973
143	-739.732	-671.169	-695.497	-741.990
144	-688.802	-735.279	-658.597	-783.638
145	-647.826	-772.844	-615.749	-824.201
146	-594.943	-606.596	-579.735	-630.945
147	-581.787	-633.017	-570.275	-651.448
148	-570.458	-651.679	-560.194	-668.114
149	-561.120	-669.050	-551.375	-684.654
150	-553.479	-686.775	-543.806	-702.262
151	-547.428	-705.889	-537.978	-721.018
152	-543.320	-726.379	-534.792	-740.033
153	-542.011	-747.272	-535.931	-757.006
154	-544.957	-766.001	-543.527	-768.290
155	-554.111	-778.855	-560.052	-769.344
156	-571.705	-780.987	-587.939	-754.995
157	-599.639	-766.711	-626.761	-723.287
158	-643.664	-740.189	-822.068	-454.557
159	-690.770	-400.473	-726.607	-356.916
160	-729.406	-359.721	-608.054	-507.217
161	-629.826	-529.096	-776.429	-350.908
162	-775.754	-350.228	-608.122	-553.974
163	-739.729	-671.172	-695.479	-742.017
164	-688.785	-735.308	-658.584	-783.662

COMBINACION 9 G1 + G2 + PRETD

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-647.804	-772.879	-615.743	-824.210
166	-594.925	-606.618	-579.730	-630.947
167	-581.774	-633.026	-570.261	-651.459
168	-570.446	-651.674	-560.180	-668.111
169	-561.108	-669.039	-551.359	-684.648
170	-553.455	-686.770	-543.801	-702.226
171	-547.413	-705.861	-537.972	-720.977
172	-543.312	-726.336	-534.770	-740.013
173	-541.994	-747.234	-535.921	-756.957
174	-544.928	-765.982	-543.508	-768.256
175	-554.091	-778.826	-560.026	-769.324
176	-571.685	-780.966	-587.907	-754.993
177	-599.623	-766.696	-626.746	-723.270
178	-643.661	-740.180	-822.016	-454.627
179	-690.739	-400.528	-726.594	-356.947
180	-729.403	-359.761	-608.029	-507.283
181	-629.934	-529.006	-776.488	-350.879
182	-775.804	-350.195	-608.160	-553.956
183	-739.759	-671.129	-695.516	-741.966
184	-688.812	-735.258	-658.619	-783.599
185	-647.840	-772.819	-615.758	-824.184
186	-594.951	-606.588	-579.739	-630.943
187	-581.801	-633.019	-570.260	-651.497
188	-570.475	-651.691	-560.170	-668.190
189	-561.121	-669.106	-551.329	-684.784
190	-553.459	-686.877	-543.773	-702.384
191	-547.397	-706.027	-537.931	-721.183
192	-543.287	-726.536	-534.744	-740.213
193	-541.963	-747.460	-535.900	-757.168
194	-544.907	-766.200	-543.508	-768.439
195	-554.073	-779.037	-560.034	-769.493
196	-571.682	-781.132	-587.932	-755.116
197	-599.628	-766.811	-626.772	-723.351
198	-643.655	-740.238	-822.046	-454.626
199	-690.728	-400.488	-726.538	-356.964
200	-729.322	-359.743	-607.926	-507.292
201	-629.693	-529.153	-776.310	-350.950
202	-775.646	-350.285	-608.045	-553.993
203	-739.674	-671.242	-695.436	-742.069
204	-688.752	-735.376	-658.555	-783.722
205	-647.771	-772.942	-615.713	-824.269
206	-594.888	-606.650	-579.709	-630.952
207	-581.742	-632.997	-570.260	-651.381
208	-570.423	-651.567	-560.209	-667.920
209	-561.106	-668.827	-551.396	-684.372
210	-553.485	-686.438	-543.850	-701.865
211	-547.453	-705.450	-538.027	-720.540
212	-543.345	-725.879	-534.829	-739.515
213	-542.037	-746.723	-535.948	-756.473
214	-544.957	-765.470	-543.506	-767.792
215	-554.083	-778.380	-559.973	-768.950
216	-571.647	-780.616	-587.813	-754.733
217	-599.561	-766.486	-626.638	-723.134
218	-643.618	-740.122	-822.056	-454.434
219	-690.874	-400.486	-726.814	-356.804

COMBINACION 9 G1 + G2 + PRETD

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-729.692	-359.693	-608.380	-507.139
221	-630.357	-528.852	-776.826	-350.829
222	-776.097	-350.094	-608.351	-553.978
223	-739.863	-671.022	-695.614	-741.866
224	-688.868	-735.114	-658.676	-783.452
225	-647.903	-772.680	-615.809	-824.064
226	-595.045	-606.518	-579.762	-630.987
227	-581.885	-633.146	-570.243	-651.785
228	-570.530	-652.089	-560.108	-668.774
229	-561.136	-669.811	-551.216	-685.693
230	-553.437	-687.883	-543.611	-703.614
231	-547.339	-707.315	-537.776	-722.626
232	-543.220	-728.034	-534.635	-741.779
233	-541.934	-749.047	-535.883	-758.736
234	-544.944	-767.756	-543.643	-769.839
235	-554.216	-780.398	-560.356	-770.567
236	-571.940	-782.144	-588.417	-755.763
237	-599.971	-767.335	-627.307	-723.568
238	-643.942	-740.220	-822.314	-454.639
239	-690.619	-400.179	-726.130	-357.017
240	-728.658	-359.549	-607.039	-507.369
241	-628.795	-528.963	-775.786	-350.306
242	-775.277	-349.790	-608.167	-552.901
243	-740.177	-670.212	-696.157	-740.690
244	-689.648	-734.178	-659.657	-782.196
245	-648.886	-771.428	-617.560	-821.582
246	-597.003	-613.745	-581.562	-638.468
247	-583.221	-640.106	-571.732	-658.500
248	-571.576	-658.325	-561.621	-674.263
249	-562.178	-674.843	-552.914	-689.675
250	-554.679	-691.455	-545.582	-706.020
251	-548.919	-709.353	-540.039	-723.571
252	-545.178	-728.700	-537.156	-741.544
253	-544.271	-748.645	-538.642	-757.656
254	-547.674	-766.665	-546.611	-768.367
255	-557.373	-779.087	-563.699	-768.958
256	-575.729	-780.960	-592.514	-754.086
257	-604.840	-766.381	-632.927	-721.414
258	-650.823	-739.292	-832.213	-448.878
259	-700.893	-398.095	-820.797	-252.360
260	-821.203	-252.768	-739.277	-352.344
261	-759.571	-372.491	-848.285	-264.665
262	-831.329	-247.707	-678.441	-433.532
263	-810.434	-500.390	-750.224	-596.789
264	-747.873	-594.423	-695.927	-677.591
265	-689.474	-671.134	-643.160	-745.285
266	-612.838	-644.386	-565.820	-719.663
267	-589.391	-743.246	-560.140	-790.078
268	-560.534	-790.475	-538.361	-825.975
269	-539.075	-826.722	-523.368	-851.869
270	-524.962	-853.470	-515.284	-868.963
271	-518.109	-871.797	-514.322	-877.859
272	-518.612	-882.132	-518.439	-882.408
273	-523.221	-887.143	-526.102	-882.532
274	-528.749	-885.170	-536.835	-872.225

COMBINACION 9 G1 + G2 + PRETD

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-535.116	-870.516	-543.177	-857.610
276	-541.936	-856.342	-550.163	-843.171
277	-549.213	-842.216	-557.789	-828.484
278	-556.917	-827.617	-565.904	-813.228
279	-564.905	-812.268	-574.279	-797.259
280	-572.801	-795.779	-579.084	-785.719

COMBINACION 10 G1 + G2 + PRETD + TEMP + 0.80 SCMAX-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-491.465	-667.213	-527.533	-609.467
2	-572.072	-541.940	-638.377	-435.784
3	-639.914	-437.318	-696.477	-346.758
4	-697.779	-348.058	-744.333	-273.523
5	-745.542	-274.725	-782.245	-215.961
6	-783.503	-217.177	-810.322	-174.239
7	-811.728	-175.607	-828.562	-148.655
8	-830.220	-150.289	-837.286	-138.977
9	-839.277	-140.992	-836.153	-145.994
10	-838.585	-148.438	-827.776	-165.744
11	-831.858	-169.820	-817.128	-193.403
12	-822.466	-198.694	-804.821	-226.944
13	-811.347	-233.469	-791.692	-264.937
14	-799.259	-272.524	-779.184	-304.665
15	-787.467	-312.944	-768.303	-343.628
16	-776.755	-352.065	-759.864	-379.108
17	-767.667	-386.896	-753.678	-409.292
18	-775.500	-405.058	-920.425	-173.027
19	-790.489	-183.766	-799.158	-173.229
20	-812.466	-172.784	-721.884	-282.881
21	-742.684	-292.952	-876.799	-129.944
22	-881.125	-123.590	-727.119	-310.775
23	-874.095	-316.172	-851.290	-352.684
24	-855.990	-332.687	-868.442	-312.751
25	-872.940	-284.428	-898.475	-243.546
26	-897.123	-132.361	-945.097	-55.553
27	-946.174	-56.624	-984.260	4.354
28	-984.510	4.102	-1010.950	46.434
29	-1011.766	45.624	-1025.647	67.848
30	-1027.532	65.999	-1028.313	67.249
31	-1031.604	63.919	-1019.287	44.198
32	-1024.242	39.178	-999.343	-0.687
33	-1006.171	-7.519	-970.173	-65.152
34	-978.794	-73.756	-933.748	-145.878
35	-943.960	-156.058	-892.553	-238.362
36	-903.889	-249.687	-849.062	-337.468
37	-865.716	-340.688	-825.354	-405.310
38	-853.464	-404.135	-980.242	-201.157
39	-852.731	-203.902	-870.831	-181.902
40	-886.373	-169.828	-763.048	-319.721
41	-794.026	-330.934	-922.868	-174.334
42	-927.413	-167.113	-746.100	-387.487
43	-902.035	-411.676	-860.610	-478.001
44	-865.710	-451.503	-859.685	-461.150
45	-865.205	-423.642	-881.641	-397.327
46	-879.466	-149.509	-929.094	-70.054
47	-931.087	-72.047	-971.364	-7.561
48	-971.561	-7.743	-999.745	37.380
49	-1000.706	36.405	-1015.983	60.865
50	-1018.168	58.710	-1020.011	61.660
51	-1023.732	57.980	-1012.246	39.590
52	-1017.686	34.141	-993.571	-4.469
53	-1000.890	-11.806	-965.656	-68.218
54	-974.762	-77.347	-930.675	-147.932

COMBINACION 10 G1 + G2 + PRETD + TEMP + 0.80 SCMAX-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-941.331	-158.627	-891.106	-239.039
56	-902.834	-250.762	-849.436	-336.255
57	-869.738	-334.322	-839.415	-382.869
58	-868.077	-380.953	-1006.753	-158.927
59	-877.510	-173.412	-905.653	-139.207
60	-921.070	-126.501	-807.817	-264.153
61	-838.590	-274.948	-964.701	-121.669
62	-969.398	-114.511	-785.654	-337.840
63	-945.432	-341.725	-900.780	-413.216
64	-906.580	-386.769	-901.717	-394.555
65	-901.443	-367.143	-914.490	-346.254
66	-912.889	-98.012	-959.157	-23.936
67	-961.237	-26.018	-998.253	33.246
68	-998.469	33.066	-1023.494	73.133
69	-1024.420	72.222	-1036.610	91.739
70	-1038.709	89.659	-1037.550	87.804
71	-1041.155	84.213	-1026.720	61.102
72	-1032.040	55.779	-1004.968	12.435
73	-1012.165	5.242	-973.996	-55.868
74	-982.978	-64.855	-935.912	-140.210
75	-946.462	-150.760	-893.207	-236.023
76	-904.825	-247.666	-848.349	-338.086
77	-869.606	-334.463	-838.705	-383.936
78	-867.398	-381.964	-1005.648	-160.618
79	-876.594	-174.642	-904.402	-140.844
80	-919.940	-128.220	-806.348	-266.283
81	-837.205	-277.161	-963.353	-123.837
82	-968.020	-116.644	-784.258	-339.995
83	-943.770	-344.524	-899.237	-415.823
84	-904.941	-389.187	-900.171	-396.825
85	-899.834	-369.271	-913.088	-348.051
86	-911.477	-99.682	-957.950	-25.276
87	-960.013	-27.315	-997.192	32.212
88	-997.391	32.013	-1022.554	72.300
89	-1023.489	71.372	-1035.788	91.063
90	-1037.902	88.948	-1036.836	87.241
91	-1040.486	83.646	-1026.125	60.655
92	-1031.493	55.316	-1004.487	12.078
93	-1011.725	4.853	-973.622	-56.153
94	-982.649	-65.167	-935.655	-140.407
95	-946.248	-150.978	-893.054	-236.145
96	-904.714	-247.798	-848.344	-338.049
97	-869.905	-333.991	-839.875	-382.070
98	-868.568	-380.106	-1007.695	-157.358
99	-878.484	-172.315	-907.073	-137.567
100	-922.596	-124.900	-809.835	-261.955
101	-840.587	-272.907	-966.558	-119.797
102	-971.233	-112.615	-787.289	-336.188
103	-947.088	-339.173	-902.311	-410.864
104	-908.062	-384.247	-903.011	-392.333
105	-902.704	-364.803	-915.688	-344.015
106	-914.093	-95.658	-960.280	-21.710
107	-962.354	-23.754	-999.268	35.346
108	-999.485	35.173	-1024.387	75.042
109	-1025.329	74.130	-1037.386	93.433

COMBINACION 10 G1 + G2 + PRETD + TEMP + 0.80 SCMAX-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
110	-1039.505	91.342	-1038.184	89.228
111	-1041.815	85.623	-1027.229	62.270
112	-1032.571	56.914	-1005.337	13.312
113	-1012.569	6.102	-974.231	-55.279
114	-983.244	-64.292	-936.004	-139.925
115	-946.586	-150.491	-893.202	-235.961
116	-904.855	-247.597	-848.257	-338.212
117	-869.923	-333.970	-839.877	-382.075
118	-868.554	-380.127	-1007.692	-157.361
119	-878.469	-172.337	-907.031	-137.622
120	-922.534	-124.993	-809.740	-262.087
121	-840.463	-273.092	-966.447	-119.967
122	-971.122	-112.782	-787.182	-336.349
123	-946.953	-339.398	-902.188	-411.069
124	-907.926	-384.449	-902.910	-392.481
125	-902.613	-364.911	-915.636	-344.061
126	-914.074	-95.638	-960.302	-21.625
127	-962.362	-23.681	-999.309	35.473
128	-999.497	35.257	-1024.443	75.195
129	-1025.378	74.271	-1037.432	93.569
130	-1039.543	91.467	-1038.238	89.377
131	-1041.849	85.731	-1027.255	62.365
132	-1032.613	57.027	-1005.349	13.376
133	-1012.583	6.166	-974.251	-55.207
134	-983.268	-64.219	-936.016	-139.872
135	-946.598	-150.445	-893.172	-235.982
136	-904.823	-247.633	-848.223	-338.252
137	-869.897	-334.002	-839.891	-382.043
138	-868.599	-380.055	-1007.785	-157.212
139	-878.576	-172.208	-907.199	-137.419
140	-922.717	-124.772	-809.986	-261.790
141	-840.753	-272.736	-966.708	-119.646
142	-971.389	-112.452	-787.402	-336.076
143	-947.203	-338.998	-902.430	-410.682
144	-908.166	-384.068	-903.103	-392.174
145	-902.801	-364.618	-915.776	-343.844
146	-914.174	-95.494	-960.366	-21.539
147	-962.419	-23.609	-999.358	35.532
148	-999.539	35.297	-1024.441	75.167
149	-1025.373	74.238	-1037.428	93.538
150	-1039.524	91.404	-1038.196	89.279
151	-1041.822	85.658	-1027.199	62.245
152	-1032.541	56.885	-1005.296	13.265
153	-1012.520	6.032	-974.163	-55.378
154	-983.192	-64.367	-935.939	-140.022
155	-946.525	-150.583	-893.084	-236.145
156	-904.742	-247.780	-848.119	-338.436
157	-869.789	-334.189	-839.789	-382.221
158	-868.475	-380.258	-1007.613	-157.493
159	-878.389	-172.434	-907.013	-137.644
160	-922.522	-125.000	-809.778	-262.034
161	-840.528	-273.000	-966.541	-119.839
162	-971.220	-112.651	-787.306	-336.187
163	-947.100	-339.161	-902.357	-410.797
164	-908.107	-384.164	-903.102	-392.178

COMBINACION 10 G1 + G2 + PRETD + TEMP + 0.80 SCMAX-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-902.801	-364.619	-915.856	-343.717
166	-914.234	-95.390	-960.426	-21.436
167	-962.470	-23.515	-999.392	35.599
168	-999.576	35.381	-1024.460	75.222
169	-1025.390	74.297	-1037.418	93.555
170	-1039.520	91.441	-1038.200	89.328
171	-1041.810	85.690	-1027.185	62.274
172	-1032.521	56.908	-1005.250	13.247
173	-1012.475	6.026	-974.105	-55.406
174	-983.109	-64.435	-935.830	-140.131
175	-946.409	-150.709	-892.936	-236.322
176	-904.595	-247.963	-847.921	-338.700
177	-869.601	-334.449	-839.560	-382.546
178	-868.271	-380.571	-1007.362	-157.879
179	-878.184	-172.700	-906.817	-137.898
180	-922.345	-125.253	-809.571	-262.322
181	-840.452	-273.135	-966.467	-119.972
182	-971.137	-112.780	-787.257	-336.275
183	-947.038	-339.267	-902.348	-410.818
184	-908.079	-384.203	-903.115	-392.151
185	-902.801	-364.615	-915.880	-343.675
186	-914.123	-95.581	-960.117	-21.941
187	-962.176	-24.022	-998.903	34.779
188	-999.119	34.586	-1023.821	74.136
189	-1024.779	73.229	-1036.644	92.225
190	-1038.771	90.129	-1037.279	87.739
191	-1040.896	84.085	-1026.125	60.436
192	-1031.483	55.088	-1004.074	11.205
193	-1011.301	3.971	-972.784	-57.697
194	-981.789	-66.732	-934.366	-142.658
195	-944.929	-153.259	-891.317	-239.094
196	-902.966	-250.732	-846.159	-341.684
197	-867.805	-337.447	-837.639	-385.745
198	-866.302	-383.772	-1005.249	-161.310
199	-876.180	-175.084	-904.623	-140.513
200	-920.119	-127.841	-807.181	-265.110
201	-837.931	-276.053	-964.524	-122.188
202	-969.215	-115.014	-785.897	-337.826
203	-945.610	-341.529	-901.487	-412.173
204	-907.239	-385.570	-902.843	-392.608
205	-902.536	-365.052	-916.197	-343.180
206	-913.992	-95.751	-959.854	-22.324
207	-961.883	-24.376	-998.514	34.273
208	-998.678	34.088	-1023.305	73.516
209	-1024.200	72.606	-1035.938	91.399
210	-1038.027	89.333	-1036.366	86.674
211	-1039.967	83.087	-1024.999	59.123
212	-1030.316	53.782	-1002.720	9.600
213	-1009.929	2.392	-971.192	-59.628
214	-980.197	-68.631	-932.539	-144.933
215	-943.117	-155.521	-889.250	-241.763
216	-900.929	-253.421	-843.837	-344.828
217	-865.580	-340.578	-835.157	-389.287
218	-863.949	-387.362	-1002.791	-165.070
219	-874.071	-177.822	-902.478	-143.296

COMBINACION 10 G1 + G2 + PRETD + TEMP + 0.80 SCMAX-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-918.094	-130.702	-805.078	-268.066
221	-836.034	-278.865	-963.069	-124.462
222	-967.700	-117.213	-784.819	-339.493
223	-944.327	-343.666	-900.812	-413.336
224	-906.542	-386.608	-902.746	-392.686
225	-902.464	-365.116	-916.643	-342.415
226	-912.952	-97.536	-956.676	-27.532
227	-958.799	-29.690	-993.214	25.410
228	-993.504	25.111	-1015.861	60.905
229	-1016.890	59.872	-1026.380	75.066
230	-1028.604	72.880	-1024.732	66.681
231	-1028.462	62.982	-1011.358	35.599
232	-1016.804	30.194	-987.154	-17.277
233	-994.449	-24.552	-953.779	-89.666
234	-962.838	-98.690	-913.365	-177.898
235	-923.935	-188.461	-868.351	-277.454
236	-879.930	-289.038	-821.200	-383.069
237	-843.192	-377.927	-811.081	-429.338
238	-839.832	-426.592	-983.299	-196.896
239	-849.849	-206.644	-876.065	-174.781
240	-891.487	-161.641	-776.408	-301.512
241	-807.185	-312.141	-940.941	-149.570
242	-945.828	-142.496	-769.768	-356.486
243	-928.779	-368.252	-892.093	-426.988
244	-898.326	-400.076	-901.168	-395.526
245	-901.012	-367.763	-921.909	-334.306
246	-913.386	-107.203	-954.453	-41.453
247	-956.115	-43.087	-988.206	8.293
248	-988.052	8.471	-1008.383	41.021
249	-1008.939	40.442	-1016.582	52.678
250	-1018.345	50.894	-1012.688	41.837
251	-1016.022	38.499	-997.069	8.154
252	-1002.206	3.021	-970.562	-47.643
253	-977.672	-54.750	-934.887	-123.251
254	-943.922	-132.255	-892.167	-215.117
255	-902.923	-225.846	-845.036	-318.526
256	-857.070	-330.521	-796.166	-428.031
257	-824.705	-414.369	-794.679	-462.441
258	-825.708	-459.292	-973.742	-222.284
259	-844.713	-223.292	-954.182	-90.238
260	-969.580	-72.425	-893.201	-165.259
261	-923.036	-173.810	-1003.581	-75.913
262	-989.987	-54.869	-831.426	-247.589
263	-984.888	-221.082	-928.682	-311.069
264	-936.396	-292.589	-900.403	-350.215
265	-906.013	-324.446	-898.263	-336.853
266	-868.129	-235.652	-858.742	-250.682
267	-882.315	-274.262	-883.103	-273.000
268	-883.499	-273.395	-883.799	-272.914
269	-884.511	-273.664	-883.277	-275.640
270	-884.869	-277.243	-882.051	-281.754
271	-884.878	-284.583	-879.961	-292.457
272	-884.246	-296.735	-875.219	-311.189
273	-880.003	-315.921	-866.038	-338.279
274	-868.688	-340.913	-851.912	-367.773

COMBINACION 10 G1 + G2 + PRETD + TEMP + 0.80 SCMAX-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-850.193	-366.064	-825.612	-405.419
276	-824.372	-404.151	-792.112	-455.800
277	-791.163	-454.844	-751.143	-518.918
278	-750.271	-518.049	-702.670	-594.261
279	-701.671	-593.300	-646.479	-681.665
280	-645.000	-680.184	-579.090	-785.709

COMBINACION 11 G1 + G2 + PRETD + TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-491.459	-667.222	-501.789	-650.684
2	-503.243	-652.138	-508.636	-643.504
3	-510.174	-645.036	-513.461	-639.775
4	-514.764	-641.072	-516.025	-639.054
5	-517.234	-640.256	-516.479	-641.465
6	-517.739	-642.677	-514.933	-647.169
7	-516.340	-648.535	-511.440	-656.380
8	-513.097	-658.017	-506.085	-669.244
9	-508.074	-671.263	-498.956	-685.860
10	-501.387	-688.307	-492.236	-702.959
11	-496.311	-707.045	-491.157	-715.296
12	-496.492	-720.591	-496.153	-721.135
13	-502.679	-727.660	-508.272	-718.705
14	-515.843	-726.285	-528.736	-705.642
15	-537.021	-713.919	-558.670	-679.258
16	-567.123	-687.694	-598.676	-637.176
17	-606.472	-644.976	-648.445	-577.775
18	-660.251	-589.577	-837.435	-305.897
19	-706.154	-286.270	-728.469	-259.147
20	-735.569	-266.247	-649.252	-371.160
21	-665.281	-387.030	-816.247	-203.542
22	-815.751	-203.048	-674.260	-375.022
23	-805.233	-426.423	-776.000	-473.227
24	-771.203	-468.434	-751.822	-499.465
25	-743.700	-491.346	-722.457	-525.357
26	-704.400	-440.919	-685.381	-471.369
27	-686.457	-472.441	-670.391	-498.164
28	-670.641	-498.416	-656.181	-521.567
29	-656.995	-522.379	-643.346	-544.232
30	-645.229	-546.085	-631.927	-567.381
31	-635.220	-570.709	-622.338	-591.334
32	-627.296	-596.350	-615.384	-615.421
33	-622.212	-622.253	-612.758	-637.389
34	-621.380	-645.992	-616.466	-653.859
35	-626.676	-664.042	-628.970	-660.370
36	-640.306	-671.695	-652.694	-651.861
37	-664.189	-663.343	-687.303	-626.336
38	-704.151	-643.191	-878.592	-363.903
39	-743.383	-336.807	-775.768	-297.445
40	-778.842	-300.525	-654.051	-452.200
41	-676.107	-474.257	-823.556	-295.042
42	-822.787	-294.279	-655.773	-497.274
43	-790.654	-590.003	-747.572	-658.978
44	-740.524	-651.931	-711.657	-698.149
45	-700.628	-687.137	-669.939	-736.271
46	-648.978	-518.531	-635.106	-540.740
47	-637.098	-542.736	-626.813	-559.201
48	-627.014	-559.378	-617.913	-573.948
49	-618.878	-574.918	-610.215	-588.788
50	-612.395	-590.950	-603.738	-604.810
51	-607.458	-608.492	-598.979	-622.068
52	-604.424	-627.510	-596.864	-639.613
53	-604.181	-646.955	-599.094	-655.099
54	-608.205	-664.221	-607.799	-664.871

COMBINACION 11 G1 + G2 + PRETD + TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-618.459	-675.558	-625.455	-664.357
56	-637.185	-676.078	-654.532	-648.305
57	-666.283	-660.061	-694.542	-614.818
58	-711.447	-631.725	-890.968	-344.304
59	-754.612	-322.786	-791.405	-278.067
60	-794.128	-280.791	-673.709	-427.153
61	-695.511	-448.852	-841.841	-270.997
62	-841.188	-270.343	-673.362	-474.324
63	-810.202	-558.234	-765.650	-629.564
64	-759.048	-622.975	-728.488	-671.902
65	-717.777	-661.200	-685.333	-713.145
66	-664.556	-495.604	-648.975	-520.550
67	-651.057	-522.630	-639.166	-541.668
68	-639.380	-541.849	-628.769	-558.838
69	-629.692	-559.755	-619.631	-575.863
70	-621.732	-577.939	-611.769	-593.890
71	-615.370	-597.487	-605.649	-613.050
72	-610.972	-618.369	-602.156	-632.484
73	-609.358	-639.669	-603.009	-649.833
74	-611.998	-658.809	-610.308	-661.516
75	-620.855	-672.071	-626.519	-663.002
76	-638.137	-674.646	-654.076	-649.127
77	-665.768	-660.816	-692.574	-617.898
78	-709.479	-634.798	-887.581	-349.649
79	-751.549	-326.627	-787.111	-283.403
80	-789.938	-286.228	-668.278	-434.099
81	-690.159	-455.886	-836.780	-277.678
82	-836.094	-276.992	-668.503	-480.688
83	-804.795	-567.029	-760.638	-637.727
84	-753.907	-631.000	-723.816	-679.177
85	-713.012	-668.383	-681.049	-719.556
86	-660.229	-501.941	-645.114	-526.140
87	-647.177	-528.178	-635.744	-546.483
88	-635.945	-546.677	-625.750	-563.000
89	-626.690	-563.921	-617.010	-579.419
90	-619.128	-581.528	-609.518	-596.913
91	-613.163	-600.515	-603.774	-615.548
92	-609.141	-620.888	-600.665	-634.459
93	-607.905	-641.681	-601.896	-651.301
94	-610.921	-660.320	-609.568	-662.486
95	-620.158	-673.063	-626.182	-663.419
96	-637.837	-675.080	-654.156	-648.953
97	-665.865	-660.669	-693.083	-617.091
98	-709.986	-634.003	-888.490	-348.211
99	-752.377	-325.590	-788.281	-281.951
100	-791.085	-284.744	-669.815	-432.140
101	-691.588	-454.006	-838.161	-275.855
102	-837.482	-275.181	-669.834	-478.946
103	-806.276	-564.619	-762.009	-635.492
104	-755.319	-628.795	-725.099	-677.178
105	-714.321	-666.412	-682.225	-717.800
106	-661.414	-500.208	-646.179	-524.600
107	-648.252	-526.646	-636.682	-545.169
108	-636.900	-545.342	-626.586	-561.855
109	-627.522	-562.776	-617.736	-578.445

COMBINACION 11 G1 + G2 + PRETD + TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
110	-619.856	-580.534	-610.146	-596.080
111	-613.778	-599.683	-604.301	-614.856
112	-609.642	-620.214	-601.084	-633.916
113	-608.314	-641.128	-602.220	-650.885
114	-611.235	-659.893	-609.793	-662.202
115	-620.376	-672.767	-626.289	-663.299
116	-637.940	-674.939	-654.144	-648.995
117	-665.864	-660.677	-692.960	-617.295
118	-709.854	-634.213	-888.295	-348.520
119	-752.192	-325.819	-787.997	-282.299
120	-790.792	-285.117	-669.419	-432.637
121	-691.165	-454.554	-837.772	-276.364
122	-837.094	-275.684	-669.469	-479.421
123	-805.870	-565.280	-761.629	-636.110
124	-754.931	-629.401	-724.738	-677.741
125	-713.956	-666.960	-681.888	-718.302
126	-661.073	-500.703	-645.871	-525.042
127	-647.932	-527.097	-636.416	-545.534
128	-636.607	-545.746	-626.359	-562.153
129	-627.291	-563.083	-617.528	-578.716
130	-619.642	-580.814	-609.984	-596.276
131	-613.604	-599.909	-604.158	-615.032
132	-609.514	-620.373	-600.961	-634.067
133	-608.196	-641.275	-602.131	-650.987
134	-611.150	-659.996	-609.733	-662.264
135	-620.313	-672.841	-626.262	-663.316
136	-637.914	-674.967	-654.153	-648.967
137	-665.860	-660.674	-692.991	-617.235
138	-709.900	-634.139	-888.342	-348.445
139	-752.238	-325.764	-788.068	-282.215
140	-790.868	-285.026	-669.520	-432.517
141	-691.309	-454.374	-837.888	-276.218
142	-837.215	-275.532	-669.550	-479.318
143	-805.961	-565.133	-761.724	-635.958
144	-755.029	-629.247	-724.822	-677.610
145	-714.050	-666.816	-681.971	-718.176
146	-661.165	-500.572	-645.955	-524.924
147	-648.007	-526.997	-636.493	-545.431
148	-636.676	-545.662	-626.408	-562.101
149	-627.335	-563.037	-617.587	-578.644
150	-619.691	-580.766	-610.016	-596.256
151	-613.638	-599.883	-604.186	-615.016
152	-609.528	-620.377	-600.997	-634.035
153	-608.216	-641.274	-602.134	-651.013
154	-611.159	-660.008	-609.727	-662.300
155	-620.311	-672.866	-626.250	-663.358
156	-637.903	-675.001	-654.135	-649.013
157	-665.835	-660.729	-692.955	-617.308
158	-709.858	-634.211	-888.259	-348.582
159	-752.156	-325.861	-787.991	-282.306
160	-790.791	-285.112	-669.436	-432.610
161	-691.208	-454.489	-837.818	-276.294
162	-837.143	-275.613	-669.517	-479.352
163	-805.929	-565.182	-761.686	-636.017
164	-754.992	-629.308	-724.798	-677.651

COMBINACION 11 G1 + G2 + PRETD + TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-714.018	-666.868	-681.964	-718.188
166	-661.146	-500.596	-645.957	-524.914
167	-648.002	-526.993	-636.495	-545.415
168	-636.681	-545.630	-626.421	-562.056
169	-627.349	-562.984	-617.606	-578.582
170	-619.702	-580.705	-610.055	-596.150
171	-613.668	-599.784	-604.233	-614.890
172	-609.573	-620.249	-601.037	-633.915
173	-608.262	-641.136	-602.195	-650.849
174	-611.202	-659.874	-609.789	-662.137
175	-620.372	-672.707	-626.314	-663.194
176	-637.972	-674.836	-654.202	-648.853
177	-665.917	-660.556	-693.047	-617.119
178	-709.962	-634.029	-888.324	-348.465
179	-752.234	-325.784	-788.096	-282.196
180	-790.904	-285.010	-669.537	-432.525
181	-691.442	-454.247	-837.974	-276.147
182	-837.289	-275.463	-669.624	-479.250
183	-806.034	-565.021	-761.766	-635.895
184	-755.063	-629.188	-724.846	-677.566
185	-714.068	-666.786	-681.962	-718.188
186	-661.156	-500.592	-645.920	-524.985
187	-647.982	-527.061	-636.418	-545.576
188	-636.633	-545.770	-626.305	-562.306
189	-627.256	-563.223	-617.440	-578.937
190	-619.570	-581.031	-609.861	-596.575
191	-613.485	-600.218	-603.995	-615.411
192	-609.351	-620.764	-600.785	-634.478
193	-608.004	-641.725	-601.918	-651.470
194	-610.925	-660.502	-609.503	-662.779
195	-620.067	-673.378	-626.005	-663.871
196	-637.653	-675.510	-653.879	-649.531
197	-665.575	-661.226	-692.696	-617.804
198	-709.579	-634.691	-887.947	-349.117
199	-751.846	-326.204	-787.634	-282.706
200	-790.417	-285.485	-669.000	-433.061
201	-690.767	-454.922	-837.461	-276.625
202	-836.797	-275.960	-669.273	-479.575
203	-805.693	-565.543	-761.538	-636.238
204	-754.854	-629.544	-724.740	-677.758
205	-713.956	-666.977	-681.980	-718.172
206	-661.156	-500.553	-646.060	-524.723
207	-648.092	-526.768	-636.693	-545.018
208	-636.856	-545.205	-626.725	-561.425
209	-627.622	-562.333	-617.995	-577.745
210	-620.084	-579.811	-610.531	-595.105
211	-614.134	-598.691	-604.791	-613.649
212	-610.109	-618.987	-601.675	-632.491
213	-608.883	-639.699	-602.876	-649.317
214	-611.886	-658.314	-610.518	-660.504
215	-621.094	-671.092	-627.067	-661.530
216	-638.741	-673.195	-654.990	-647.181
217	-666.737	-658.934	-693.897	-615.450
218	-710.876	-632.438	-889.398	-346.618
219	-753.328	-324.578	-789.344	-280.802

COMBINACION 11 G1 + G2 + PRETD + TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-792.222	-283.692	-670.986	-431.045
221	-692.964	-452.758	-839.161	-275.065
222	-838.432	-274.330	-670.415	-478.544
223	-806.783	-563.879	-762.242	-635.193
224	-755.495	-628.440	-725.011	-677.247
225	-714.238	-666.475	-681.851	-718.328
226	-661.087	-500.782	-645.511	-525.719
227	-647.634	-527.878	-635.699	-546.987
228	-635.986	-547.290	-625.272	-564.444
229	-626.299	-565.481	-616.087	-581.832
230	-618.308	-584.022	-608.190	-600.222
231	-611.917	-603.923	-602.062	-619.702
232	-607.505	-625.111	-598.628	-639.324
233	-605.927	-646.592	-599.583	-656.749
234	-608.644	-665.770	-607.050	-668.322
235	-617.623	-678.880	-623.470	-669.519
236	-635.055	-681.095	-651.239	-655.184
237	-662.792	-666.755	-689.836	-623.457
238	-706.471	-640.109	-884.550	-354.997
239	-748.338	-330.025	-783.578	-287.193
240	-786.106	-289.725	-664.215	-437.876
241	-685.971	-459.470	-833.924	-279.642
242	-833.416	-279.126	-667.269	-481.066
243	-803.904	-568.182	-760.923	-636.997
244	-754.414	-630.486	-725.461	-676.841
245	-714.689	-666.073	-684.402	-714.565
246	-663.846	-506.728	-649.442	-529.789
247	-651.101	-531.427	-640.652	-548.157
248	-640.495	-547.982	-631.580	-562.257
249	-632.136	-562.837	-623.911	-576.005
250	-625.676	-577.786	-617.618	-590.687
251	-620.955	-594.021	-613.113	-606.576
252	-618.253	-611.706	-611.269	-622.887
253	-618.383	-629.987	-613.794	-637.336
254	-622.826	-646.344	-622.801	-646.383
255	-633.563	-657.103	-640.927	-645.313
256	-652.958	-657.314	-670.781	-628.778
257	-683.107	-641.072	-712.232	-594.443
258	-730.128	-612.321	-912.556	-320.245
259	-775.405	-307.530	-896.272	-160.625
260	-896.678	-161.033	-815.716	-259.438
261	-836.009	-279.586	-920.897	-176.410
262	-903.942	-159.451	-747.229	-349.925
263	-884.604	-381.640	-820.269	-484.644
264	-817.917	-482.279	-761.845	-572.053
265	-755.391	-565.598	-704.953	-646.352
266	-674.631	-545.452	-623.485	-627.339
267	-647.057	-650.920	-613.680	-704.357
268	-614.075	-704.754	-587.779	-746.855
269	-588.492	-747.603	-568.663	-779.350
270	-570.257	-780.950	-556.459	-803.041
271	-559.283	-805.875	-551.375	-818.537
272	-555.665	-822.807	-551.377	-829.673
273	-556.157	-834.412	-554.920	-836.393
274	-557.567	-839.031	-561.536	-832.677

COMBINACION 11 G1 + G2 + PRETD + TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-559.818	-830.967	-563.760	-824.654
276	-562.520	-823.386	-566.629	-816.807
277	-565.681	-815.850	-570.141	-808.708
278	-569.269	-807.842	-574.140	-800.043
279	-573.140	-799.083	-578.398	-790.665
280	-576.919	-789.185	-579.084	-785.719

COMBINACION 12 G1 + G2 + PRETD + SCMAX-IPF + 0.6 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-491.467	-667.210	-532.124	-602.116
2	-588.490	-515.654	-669.136	-386.537
3	-670.673	-388.071	-739.573	-277.760
4	-740.874	-279.061	-797.672	-188.125
5	-798.881	-189.326	-843.774	-117.452
6	-845.031	-118.668	-877.985	-65.907
7	-879.391	-67.275	-900.292	-33.812
8	-901.950	-35.446	-911.073	-20.840
9	-913.064	-22.855	-909.881	-27.952
10	-912.314	-30.395	-899.435	-51.015
11	-903.519	-55.088	-884.643	-85.309
12	-889.981	-90.598	-866.162	-128.734
13	-872.688	-135.260	-844.776	-179.948
14	-852.341	-187.537	-821.983	-236.142
15	-830.265	-244.423	-798.759	-294.866
16	-807.210	-303.304	-775.972	-353.317
17	-783.778	-361.101	-753.470	-409.625
18	-777.956	-401.126	-912.741	-185.330
19	-785.321	-190.047	-788.830	-185.782
20	-803.788	-183.331	-710.539	-296.669
21	-732.609	-305.198	-862.647	-147.145
22	-868.255	-139.232	-711.325	-329.971
23	-860.220	-338.386	-839.516	-371.534
24	-846.742	-347.494	-867.841	-313.714
25	-875.694	-280.019	-913.849	-218.930
26	-916.939	-100.635	-982.939	5.033
27	-984.016	3.963	-1036.747	88.388
28	-1036.996	88.135	-1074.597	148.335
29	-1075.413	147.525	-1096.939	181.991
30	-1098.825	180.142	-1103.718	187.976
31	-1107.009	184.646	-1095.252	165.823
32	-1100.207	160.801	-1072.309	116.136
33	-1079.137	109.303	-1036.581	41.169
34	-1045.202	32.565	-990.027	-55.772
35	-1000.239	-65.952	-935.141	-170.176
36	-946.477	-181.501	-874.408	-296.887
37	-892.435	-297.911	-835.867	-388.479
38	-866.970	-382.510	-981.672	-198.868
39	-858.065	-197.419	-872.713	-179.615
40	-891.570	-163.512	-768.979	-312.512
41	-802.329	-320.842	-926.127	-170.374
42	-932.085	-161.435	-746.873	-386.548
43	-906.587	-404.389	-865.496	-470.177
44	-873.827	-438.507	-873.625	-438.832
45	-883.544	-394.280	-912.157	-348.470
46	-914.977	-92.655	-981.167	13.317
47	-983.160	11.325	-1036.594	96.876
48	-1036.790	96.692	-1074.639	157.289
49	-1075.600	156.313	-1097.035	190.632
50	-1099.222	188.480	-1103.691	195.635
51	-1107.412	191.955	-1095.004	172.090
52	-1100.443	166.639	-1071.848	120.855
53	-1079.168	113.520	-1035.883	44.219
54	-1044.989	35.089	-989.297	-54.077

COMBINACION 12 G1 + G2 + PRETD + SCMAX-IPF + 0.6 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-999.951	-64.773	-934.565	-169.459
56	-946.293	-181.183	-874.180	-296.639
57	-896.755	-291.066	-850.995	-364.330
58	-882.782	-357.409	-1010.635	-152.712
59	-885.235	-164.023	-910.918	-132.807
60	-929.711	-115.999	-818.203	-251.530
61	-851.361	-259.426	-972.141	-112.625
62	-978.261	-103.739	-790.331	-332.156
63	-954.236	-327.630	-909.605	-399.085
64	-918.703	-367.359	-920.603	-364.317
65	-923.104	-332.462	-948.044	-292.532
66	-951.542	-36.128	-1014.084	64.005
67	-1016.164	61.922	-1066.048	141.788
68	-1066.263	141.609	-1100.667	196.691
69	-1101.594	195.782	-1119.645	224.681
70	-1121.743	222.600	-1122.911	224.471
71	-1126.517	220.881	-1110.858	195.811
72	-1116.177	190.486	-1084.324	139.487
73	-1091.520	132.292	-1045.007	57.823
74	-1053.987	48.834	-995.017	-45.579
75	-1005.568	-56.128	-936.851	-166.147
76	-948.470	-177.790	-872.987	-298.641
77	-896.786	-290.947	-850.831	-364.523
78	-882.657	-357.533	-1010.499	-152.853
79	-885.226	-164.151	-910.951	-132.883
80	-929.868	-116.152	-818.401	-251.633
81	-851.645	-259.611	-972.355	-112.895
82	-978.445	-103.973	-790.390	-332.542
83	-954.147	-327.910	-909.521	-399.359
84	-918.531	-367.430	-920.383	-364.465
85	-922.829	-332.456	-947.860	-292.380
86	-951.356	-35.834	-1013.992	64.450
87	-1016.054	62.410	-1065.981	142.345
88	-1066.179	142.146	-1100.604	197.261
89	-1101.538	196.331	-1119.582	225.221
90	-1121.695	223.104	-1122.844	224.944
91	-1126.495	221.351	-1110.799	196.222
92	-1116.167	190.883	-1084.265	139.806
93	-1091.503	132.579	-1044.940	58.030
94	-1053.967	49.017	-994.956	-45.463
95	-1005.551	-56.033	-936.772	-166.149
96	-948.434	-177.801	-872.942	-298.667
97	-897.122	-290.415	-852.117	-362.471
98	-883.944	-355.489	-1012.745	-149.273
99	-887.303	-161.596	-913.887	-129.285
100	-932.792	-112.509	-822.232	-246.887
101	-855.371	-254.938	-975.882	-108.465
102	-981.981	-99.552	-793.721	-328.370
103	-957.790	-322.039	-912.895	-393.918
104	-921.954	-362.005	-923.498	-359.534
105	-925.974	-327.546	-950.711	-287.941
106	-954.225	-31.404	-1016.543	68.369
107	-1018.617	66.326	-1068.255	145.798
108	-1068.473	145.626	-1102.612	200.282
109	-1103.555	199.372	-1121.333	227.836

COMBINACION 12 G1 + G2 + PRETD + SCMAX-IPF + 0.6 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
110	-1123.451	225.744	-1124.317	227.130
111	-1127.948	223.525	-1112.002	197.995
112	-1117.345	192.640	-1085.188	141.155
113	-1092.420	133.946	-1045.595	58.977
114	-1054.607	49.963	-995.320	-44.957
115	-1005.902	-55.524	-936.925	-165.958
116	-948.579	-177.593	-872.841	-298.853
117	-897.151	-290.377	-852.169	-362.394
118	-883.979	-355.430	-1012.823	-149.146
119	-887.361	-161.529	-913.948	-129.215
120	-932.829	-112.480	-822.268	-246.860
121	-855.378	-254.965	-975.892	-108.487
122	-981.990	-99.573	-793.727	-328.394
123	-957.774	-322.074	-912.884	-393.945
124	-921.928	-362.031	-923.504	-359.509
125	-925.996	-327.475	-950.771	-287.809
126	-954.327	-31.191	-1016.684	68.646
127	-1018.744	66.589	-1068.407	146.101
128	-1068.594	145.884	-1102.766	200.594
129	-1103.703	199.672	-1121.467	228.112
130	-1123.578	226.009	-1124.445	227.398
131	-1128.054	223.749	-1112.086	198.183
132	-1117.445	192.846	-1085.244	141.292
133	-1092.479	134.082	-1045.649	59.106
134	-1054.667	50.093	-995.354	-44.870
135	-1005.936	-55.442	-936.893	-165.982
136	-948.545	-177.633	-872.791	-298.919
137	-897.114	-290.426	-852.170	-362.383
138	-884.015	-355.372	-1012.916	-148.997
139	-887.473	-161.395	-914.128	-128.998
140	-933.026	-112.242	-822.534	-246.538
141	-855.688	-254.583	-976.175	-108.138
142	-982.280	-99.214	-793.970	-328.094
143	-958.051	-321.631	-913.151	-393.517
144	-922.193	-361.611	-923.716	-359.172
145	-926.197	-327.161	-950.917	-287.582
146	-954.420	-31.058	-1016.736	68.712
147	-1018.790	66.643	-1068.443	146.140
148	-1068.623	145.904	-1102.748	200.539
149	-1103.680	199.612	-1121.444	228.053
150	-1123.538	225.915	-1124.385	227.270
151	-1128.011	223.651	-1112.010	198.032
152	-1117.352	192.671	-1085.172	141.150
153	-1092.397	133.919	-1045.544	58.906
154	-1054.574	49.918	-995.265	-45.038
155	-1005.853	-55.597	-936.795	-166.161
156	-948.454	-177.795	-872.675	-299.120
157	-896.996	-290.630	-852.064	-362.567
158	-883.883	-355.588	-1012.736	-149.291
159	-887.272	-161.637	-913.928	-129.239
160	-932.817	-112.488	-822.311	-246.800
161	-855.449	-254.865	-975.997	-108.346
162	-982.100	-99.427	-793.867	-328.213
163	-957.940	-321.806	-913.077	-393.634
164	-922.136	-361.704	-923.725	-359.160

COMBINACION 12 G1 + G2 + PRETD + SCMAX-IPF + 0.6 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-926.209	-327.141	-951.020	-287.418
166	-954.502	-30.919	-1016.808	68.835
167	-1018.852	66.755	-1068.479	146.209
168	-1068.662	145.991	-1102.758	200.579
169	-1103.688	199.656	-1121.413	228.034
170	-1123.516	225.922	-1124.361	227.275
171	-1127.970	223.636	-1111.958	198.000
172	-1117.293	192.632	-1085.078	141.056
173	-1092.303	133.835	-1045.425	58.780
174	-1054.428	49.750	-995.079	-45.271
175	-1005.657	-55.850	-936.554	-166.487
176	-948.214	-178.127	-872.367	-299.560
177	-896.696	-291.068	-851.707	-363.097
178	-883.554	-356.102	-1012.355	-149.885
179	-886.949	-162.047	-913.606	-129.647
180	-932.516	-112.891	-821.972	-247.249
181	-855.240	-255.161	-975.823	-108.600
182	-981.917	-99.678	-793.749	-328.384
183	-957.805	-322.030	-913.027	-393.720
184	-922.064	-361.813	-923.722	-359.157
185	-926.191	-327.167	-951.058	-287.354
186	-954.365	-31.151	-1016.446	68.244
187	-1018.504	66.161	-1067.911	145.264
188	-1068.127	145.071	-1102.023	199.340
189	-1102.982	198.436	-1120.532	226.533
190	-1122.658	224.436	-1123.313	225.483
191	-1126.928	221.827	-1110.758	195.938
192	-1116.117	190.590	-1083.747	138.765
193	-1090.976	131.534	-1043.929	56.209
194	-1052.934	47.174	-993.417	-48.116
195	-1003.980	-58.717	-934.714	-169.614
196	-946.363	-181.251	-870.361	-302.935
197	-894.653	-294.463	-849.519	-366.724
198	-881.314	-359.736	-1009.943	-153.795
199	-884.666	-164.770	-911.114	-132.624
200	-929.990	-115.844	-819.264	-250.424
201	-852.401	-258.466	-973.634	-111.116
202	-979.749	-102.211	-792.215	-330.146
203	-956.190	-324.591	-912.057	-395.249
204	-921.115	-363.353	-923.424	-359.657
205	-925.902	-327.641	-951.429	-286.772
206	-954.175	-31.417	-1016.008	67.581
207	-1018.036	65.527	-1067.235	144.298
208	-1067.400	144.115	-1101.104	198.077
209	-1101.999	197.166	-1119.295	224.858
210	-1121.384	222.792	-1121.742	223.365
211	-1125.343	219.777	-1108.842	193.359
212	-1114.159	188.018	-1081.475	135.690
213	-1088.684	128.482	-1041.294	52.609
214	-1050.299	43.605	-990.427	-52.252
215	-1001.005	-62.839	-931.367	-174.333
216	-943.047	-185.989	-866.635	-308.327
217	-891.035	-299.823	-845.524	-372.688
218	-877.457	-365.735	-1005.869	-160.142
219	-881.068	-169.318	-907.370	-137.350

COMBINACION 12 G1 + G2 + PRETD + SCMAX-IPF + 0.6 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-926.372	-120.640	-815.460	-255.447
221	-848.803	-263.345	-970.867	-114.985
222	-976.922	-106.004	-790.213	-332.937
223	-953.914	-328.316	-910.805	-397.336
224	-919.852	-365.297	-923.169	-359.988
225	-925.677	-327.952	-952.118	-285.618
226	-952.966	-33.471	-1012.371	61.639
227	-1014.495	59.481	-1061.182	134.229
228	-1061.472	133.931	-1092.609	183.783
229	-1093.639	182.751	-1108.397	206.378
230	-1110.622	204.193	-1108.480	200.765
231	-1112.210	197.068	-1093.294	166.781
232	-1098.740	161.377	-1063.723	105.314
233	-1071.018	98.038	-1021.422	18.634
234	-1030.480	9.609	-968.522	-89.590
235	-979.091	-100.154	-907.462	-214.836
236	-919.040	-226.422	-840.721	-351.814
237	-865.489	-342.228	-818.022	-418.225
238	-849.995	-410.322	-984.524	-194.934
239	-853.626	-202.054	-877.500	-173.037
240	-896.350	-155.731	-783.139	-293.331
241	-816.315	-301.045	-945.925	-143.512
242	-952.246	-134.695	-773.181	-352.338
243	-936.275	-356.250	-900.864	-412.946
244	-910.484	-380.611	-921.263	-363.353
245	-923.929	-331.071	-957.787	-276.864
246	-952.464	-44.638	-1007.664	43.740
247	-1009.326	42.107	-1052.148	110.666
248	-1051.993	110.844	-1079.558	154.977
249	-1080.116	154.398	-1091.476	172.587
250	-1093.239	170.802	-1087.762	162.034
251	-1091.095	158.694	-1068.772	122.954
252	-1073.909	117.820	-1035.337	56.064
253	-1042.445	48.954	-989.176	-36.332
254	-998.212	-45.334	-932.418	-150.674
255	-943.172	-161.406	-867.694	-282.249
256	-879.729	-294.243	-797.693	-425.586
257	-830.542	-405.023	-784.631	-478.528
258	-819.152	-469.790	-957.726	-247.926
259	-833.199	-237.286	-939.201	-108.447
260	-958.584	-85.790	-882.987	-177.674
261	-915.358	-183.142	-996.290	-84.774
262	-983.590	-62.644	-826.080	-254.087
263	-981.649	-226.268	-929.268	-310.132
264	-939.657	-287.367	-910.667	-333.783
265	-919.484	-302.878	-924.642	-294.620
266	-894.558	-193.340	-897.753	-188.225
267	-921.325	-211.804	-932.700	-193.592
268	-933.096	-193.988	-941.993	-179.743
269	-942.705	-180.493	-947.970	-172.062
270	-949.561	-173.667	-951.242	-170.976
271	-954.070	-173.804	-951.557	-177.827
272	-955.841	-182.108	-947.187	-195.964
273	-951.972	-200.694	-936.288	-225.805
274	-938.939	-228.438	-918.341	-261.417

COMBINACION 12 G1 + G2 + PRETD + SCMAX-IPF + 0.6 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-916.622	-259.708	-886.179	-308.448
276	-884.939	-307.180	-844.760	-371.509
277	-843.810	-370.554	-793.745	-450.710
278	-792.873	-449.841	-733.133	-545.488
279	-732.134	-544.527	-662.712	-655.675
280	-661.234	-654.193	-579.092	-785.707

COMBINACION 13 G1 + G2 + PRETD + 0.60 SCMAX-IPF + 0.2 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-491.464	-667.214	-518.218	-624.380
2	-549.725	-577.719	-595.867	-503.843
3	-597.405	-505.377	-635.920	-443.712
4	-637.222	-445.012	-667.931	-395.846
5	-669.140	-397.048	-692.166	-360.182
6	-693.424	-361.397	-708.731	-336.890
7	-710.138	-338.257	-717.640	-326.245
8	-719.298	-327.881	-719.153	-328.112
9	-721.143	-330.130	-713.038	-343.105
10	-715.470	-345.550	-701.798	-367.440
11	-705.879	-371.517	-690.473	-396.183
12	-695.810	-401.474	-679.628	-427.382
13	-686.154	-433.908	-670.155	-459.524
14	-677.722	-467.109	-663.440	-489.976
15	-671.723	-498.255	-660.518	-516.195
16	-668.970	-524.632	-662.153	-535.547
17	-669.954	-543.338	-668.120	-546.275
18	-687.098	-546.594	-837.708	-305.461
19	-711.682	-279.550	-721.180	-268.006
20	-732.725	-269.703	-640.307	-382.032
21	-659.753	-393.749	-799.382	-224.039
22	-802.339	-219.349	-652.616	-401.329
23	-790.392	-450.184	-766.638	-488.215
24	-768.641	-472.536	-773.377	-464.954
25	-774.291	-442.369	-787.864	-420.638
26	-781.768	-317.049	-811.974	-268.689
27	-813.050	-269.760	-836.946	-231.502
28	-837.196	-231.754	-853.126	-206.249
29	-853.942	-207.059	-861.024	-195.721
30	-862.908	-197.572	-860.619	-201.235
31	-863.911	-204.564	-852.272	-223.199
32	-857.228	-228.218	-836.763	-260.984
33	-843.591	-267.816	-815.784	-312.337
34	-824.405	-320.941	-791.314	-373.921
35	-801.525	-384.102	-765.834	-441.244
36	-777.170	-452.569	-741.805	-509.191
37	-756.994	-514.758	-734.941	-550.065
38	-759.852	-554.011	-900.611	-328.650
39	-774.598	-298.868	-797.610	-270.897
40	-809.611	-263.127	-686.726	-412.486
41	-715.170	-426.779	-849.055	-264.050
42	-852.091	-258.663	-674.598	-474.394
43	-820.965	-541.473	-778.809	-608.967
44	-780.460	-587.993	-767.998	-607.944
45	-768.818	-577.962	-772.141	-572.642
46	-764.631	-333.366	-796.425	-282.462
47	-798.418	-284.455	-824.464	-242.754
48	-824.662	-242.934	-842.302	-214.693
49	-843.265	-215.666	-851.700	-202.159
50	-853.884	-204.316	-852.613	-206.350
51	-856.334	-210.031	-845.479	-227.411
52	-850.921	-232.858	-831.191	-264.447
53	-838.510	-271.785	-811.427	-315.145
54	-820.535	-324.272	-788.350	-375.801

COMBINACION 13 G1 + G2 + PRETD + 0.60 SCMAX-IPF + 0.2 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-799.007	-386.493	-764.437	-441.841
56	-776.166	-453.564	-742.171	-507.990
57	-760.045	-509.945	-745.583	-533.100
58	-770.906	-536.529	-920.619	-296.831
59	-793.221	-275.860	-823.714	-238.798
60	-835.526	-230.475	-720.131	-370.730
61	-748.356	-384.622	-880.240	-224.326
62	-883.417	-219.015	-704.224	-436.813
63	-853.611	-488.735	-809.019	-560.128
64	-811.298	-539.320	-799.421	-558.336
65	-796.183	-535.669	-796.878	-534.556
66	-789.832	-295.033	-819.033	-248.280
67	-821.114	-250.362	-844.667	-212.653
68	-844.881	-212.833	-860.129	-188.421
69	-861.054	-189.334	-867.180	-179.526
70	-869.279	-181.604	-865.786	-187.197
71	-869.390	-190.790	-856.369	-211.637
72	-861.689	-216.960	-839.783	-252.032
73	-846.982	-259.223	-817.737	-306.044
74	-826.722	-315.028	-792.337	-370.080
75	-802.886	-380.631	-766.065	-439.582
76	-777.684	-451.226	-741.384	-509.343
77	-759.924	-510.068	-744.933	-534.070
78	-770.278	-537.457	-919.585	-298.409
79	-792.362	-277.021	-822.542	-240.339
80	-834.470	-232.102	-718.758	-372.743
81	-747.066	-386.720	-878.979	-226.387
82	-882.126	-221.042	-702.909	-438.870
83	-852.033	-491.399	-807.555	-562.610
84	-809.728	-541.629	-797.962	-560.466
85	-794.653	-537.672	-795.549	-536.237
86	-788.482	-296.601	-817.879	-249.535
87	-819.942	-251.574	-843.658	-213.604
88	-843.857	-213.801	-859.237	-189.178
89	-860.173	-190.103	-866.402	-180.131
90	-868.517	-182.245	-865.107	-187.705
91	-868.755	-191.302	-855.796	-212.049
92	-861.164	-217.388	-839.318	-252.365
93	-846.557	-259.590	-817.372	-306.316
94	-826.398	-315.332	-792.076	-370.282
95	-802.669	-380.855	-765.910	-439.708
96	-777.569	-451.363	-741.368	-509.322
97	-760.132	-509.743	-745.797	-532.694
98	-771.141	-536.091	-921.106	-295.991
99	-793.763	-275.289	-824.522	-237.903
100	-836.433	-229.627	-721.347	-369.505
101	-749.549	-383.557	-881.346	-223.367
102	-884.500	-218.033	-705.158	-436.012
103	-854.507	-487.399	-809.846	-558.903
104	-812.064	-537.943	-800.085	-557.122
105	-796.804	-534.353	-797.493	-533.249
106	-790.441	-293.629	-819.623	-246.908
107	-821.697	-248.953	-845.207	-211.312
108	-845.425	-211.485	-860.608	-187.176
109	-861.548	-188.091	-867.597	-178.406

COMBINACION 13 G1 + G2 + PRETD + 0.60 SCMAX-IPF + 0.2 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
110	-869.716	-180.497	-866.119	-186.256
111	-869.750	-189.861	-856.629	-210.869
112	-861.971	-216.224	-839.962	-251.462
113	-847.193	-258.672	-817.840	-305.668
114	-826.853	-314.679	-792.354	-369.914
115	-802.936	-380.480	-766.035	-439.561
116	-777.687	-451.198	-741.315	-509.431
117	-760.156	-509.711	-745.799	-532.698
118	-771.129	-536.108	-921.108	-295.985
119	-793.754	-275.302	-824.488	-237.947
120	-836.382	-229.705	-721.267	-369.620
121	-749.441	-383.725	-881.248	-223.521
122	-884.403	-218.184	-705.064	-436.158
123	-854.387	-487.601	-809.736	-559.089
124	-811.942	-538.124	-799.988	-557.263
125	-796.714	-534.461	-797.432	-533.312
126	-790.401	-293.643	-819.614	-246.871
127	-821.675	-248.928	-845.217	-211.235
128	-845.406	-211.450	-860.632	-187.073
129	-861.566	-187.999	-867.612	-178.320
130	-869.724	-180.421	-866.146	-186.151
131	-869.759	-189.793	-856.634	-210.807
132	-861.991	-216.146	-839.955	-251.427
133	-847.190	-258.637	-817.841	-305.625
134	-826.859	-314.636	-792.351	-369.886
135	-802.932	-380.460	-766.003	-439.585
136	-777.654	-451.236	-741.284	-509.467
137	-760.127	-509.749	-745.801	-532.685
138	-771.158	-536.063	-921.165	-295.895
139	-793.822	-275.221	-824.600	-237.812
140	-836.506	-229.556	-721.436	-369.416
141	-749.654	-383.461	-881.436	-223.287
142	-884.597	-217.942	-705.217	-435.968
143	-854.562	-487.320	-809.910	-558.811
144	-812.116	-537.849	-800.128	-557.042
145	-796.852	-534.247	-797.537	-533.151
146	-790.481	-293.532	-819.669	-246.800
147	-821.722	-248.871	-845.263	-211.181
148	-845.444	-211.415	-860.638	-187.090
149	-861.567	-188.021	-867.622	-178.327
150	-869.721	-180.458	-866.125	-186.215
151	-869.750	-189.837	-856.606	-210.881
152	-861.948	-216.242	-839.935	-251.485
153	-847.158	-258.719	-817.791	-305.736
154	-826.820	-314.727	-792.310	-369.978
155	-802.896	-380.540	-765.956	-439.682
156	-777.613	-451.319	-741.227	-509.574
157	-760.066	-509.861	-745.745	-532.789
158	-771.084	-536.184	-921.048	-296.086
159	-793.694	-275.376	-824.477	-237.961
160	-836.377	-229.705	-721.299	-369.574
161	-749.500	-383.640	-881.326	-223.413
162	-884.484	-218.073	-705.159	-436.030
163	-854.502	-487.414	-809.863	-558.884
164	-812.079	-537.910	-800.129	-557.043

COMBINACION 13 G1 + G2 + PRETD + 0.60 SCMAX-IPF + 0.2 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-796.852	-534.248	-797.593	-533.061
166	-790.520	-293.463	-819.707	-246.733
167	-821.752	-248.812	-845.275	-211.150
168	-845.459	-211.367	-860.634	-187.071
169	-861.563	-187.996	-867.593	-178.342
170	-869.693	-180.459	-866.104	-186.205
171	-869.715	-189.843	-856.567	-210.893
172	-861.904	-216.257	-839.864	-251.543
173	-847.089	-258.764	-817.710	-305.801
174	-826.715	-314.829	-792.185	-370.113
175	-802.765	-380.688	-765.797	-439.877
176	-777.455	-451.518	-741.026	-509.844
177	-759.876	-510.124	-745.521	-533.107
178	-770.881	-536.495	-920.794	-296.479
179	-793.482	-275.649	-824.273	-238.225
180	-836.189	-229.970	-721.079	-369.878
181	-749.411	-383.789	-881.239	-223.560
182	-884.389	-218.217	-705.100	-436.131
183	-854.429	-487.539	-809.844	-558.921
184	-812.043	-537.960	-800.140	-557.017
185	-796.855	-534.240	-797.623	-533.011
186	-790.455	-293.577	-819.512	-247.056
187	-821.572	-249.135	-844.964	-211.685
188	-845.179	-211.878	-860.229	-187.783
189	-861.184	-188.693	-867.101	-179.220
190	-869.229	-181.316	-865.522	-187.251
191	-869.141	-190.901	-855.898	-212.104
192	-861.255	-217.454	-839.132	-252.874
193	-846.357	-260.112	-816.891	-307.289
194	-825.896	-316.323	-791.285	-371.737
195	-801.849	-382.337	-764.804	-441.648
196	-776.452	-453.286	-739.950	-511.728
197	-758.771	-512.016	-744.347	-535.109
198	-769.665	-538.491	-919.500	-298.599
199	-792.239	-277.108	-822.896	-239.847
200	-834.781	-231.564	-719.563	-371.604
201	-747.762	-385.648	-879.971	-224.957
202	-883.141	-219.632	-704.216	-437.104
203	-853.514	-488.979	-809.282	-559.797
204	-811.502	-538.849	-799.950	-557.343
205	-796.668	-534.552	-797.804	-532.732
206	-790.312	-293.769	-819.229	-247.472
207	-821.258	-249.522	-844.543	-212.241
208	-844.707	-212.426	-859.673	-188.465
209	-860.569	-189.374	-866.363	-180.097
210	-868.452	-182.163	-864.584	-188.356
211	-868.186	-191.942	-854.758	-213.441
212	-860.075	-218.781	-837.771	-254.491
213	-844.980	-261.699	-815.294	-309.228
214	-824.300	-318.229	-789.451	-374.023
215	-800.029	-384.611	-762.727	-444.333
216	-774.404	-455.993	-737.619	-514.888
217	-756.523	-515.182	-741.843	-538.687
218	-767.280	-542.133	-916.999	-302.426
219	-790.081	-279.906	-820.698	-242.693

COMBINACION 13 G1 + G2 + PRETD + 0.60 SCMAX-IPF + 0.2 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-832.697	-234.497	-717.395	-374.638
221	-745.802	-388.537	-878.465	-227.293
222	-881.574	-221.894	-703.100	-438.817
223	-852.184	-491.191	-808.578	-561.006
224	-810.765	-539.951	-799.838	-557.446
225	-796.577	-534.647	-798.267	-531.941
226	-789.727	-294.824	-817.277	-250.715
227	-819.400	-252.874	-841.246	-217.897
228	-841.535	-218.198	-855.010	-196.624
229	-856.039	-197.658	-860.357	-190.744
230	-862.580	-192.932	-857.268	-201.436
231	-860.997	-205.136	-846.194	-228.836
232	-851.639	-234.242	-828.038	-272.028
233	-835.334	-279.301	-804.469	-328.718
234	-813.528	-337.741	-777.615	-395.239
235	-788.186	-405.801	-749.919	-467.069
236	-761.500	-478.651	-723.823	-538.972
237	-742.851	-538.577	-727.229	-563.589
238	-752.539	-566.352	-905.752	-321.051
239	-775.111	-297.484	-804.217	-262.107
240	-815.977	-253.418	-699.291	-395.243
241	-727.507	-408.986	-864.492	-242.489
242	-867.847	-237.277	-693.800	-448.820
243	-842.790	-505.925	-803.451	-568.908
244	-806.065	-547.790	-799.262	-558.682
245	-796.091	-535.746	-802.119	-526.095
246	-790.179	-304.463	-815.088	-264.582
247	-816.749	-266.217	-836.282	-234.945
248	-836.127	-234.768	-847.590	-216.415
249	-848.147	-216.994	-850.634	-213.012
250	-852.398	-214.795	-845.320	-226.127
251	-848.655	-229.464	-832.027	-256.086
252	-837.165	-261.218	-811.601	-302.146
253	-818.712	-309.252	-785.758	-362.013
254	-794.792	-371.019	-756.619	-432.135
255	-767.377	-442.861	-726.821	-507.793
256	-738.853	-519.791	-699.018	-583.569
257	-722.952	-577.279	-708.348	-600.661
258	-735.647	-603.484	-892.404	-352.509
259	-765.710	-319.314	-877.758	-183.127
260	-888.898	-170.489	-810.559	-265.705
261	-837.685	-277.549	-922.498	-174.464
262	-907.949	-154.581	-752.947	-342.975
263	-897.571	-360.881	-842.329	-449.325
264	-847.184	-435.421	-808.762	-496.936
265	-810.947	-476.651	-794.571	-502.869
266	-764.383	-401.755	-746.804	-429.899
267	-770.376	-453.480	-765.077	-461.964
268	-765.472	-462.361	-761.782	-468.268
269	-762.495	-469.016	-759.478	-473.847
270	-761.070	-475.450	-758.579	-479.438
271	-761.405	-482.269	-759.019	-486.089
272	-763.306	-490.366	-758.945	-497.348
273	-763.729	-502.080	-756.637	-513.435
274	-759.286	-516.070	-751.593	-528.387

COMBINACION 13 G1 + G2 + PRETD + 0.60 SCMAX-IPF + 0.2 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-749.874	-526.678	-736.529	-548.044
276	-735.289	-546.777	-716.432	-576.967
277	-715.481	-576.013	-691.098	-615.051
278	-690.227	-614.183	-660.467	-661.829
279	-659.469	-660.868	-624.319	-717.144
280	-622.841	-715.662	-579.089	-785.711

COMBINACION 14 G1 + G2 + PRETD + SCMIN-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-491.439	-667.254	-497.435	-657.655
2	-480.407	-688.700	-462.961	-716.631
3	-464.499	-718.164	-444.942	-749.476
4	-446.246	-750.772	-424.657	-785.338
5	-425.866	-786.540	-402.271	-824.317
6	-403.533	-825.526	-377.877	-866.603
7	-379.285	-867.966	-351.525	-912.411
8	-353.182	-914.049	-323.300	-961.891
9	-325.286	-963.914	-293.306	-1015.115
10	-295.736	-1017.563	-263.724	-1068.816
11	-267.797	-1072.906	-239.769	-1117.780
12	-245.105	-1123.074	-218.299	-1165.991
13	-224.825	-1172.515	-201.997	-1209.064
14	-209.570	-1216.640	-193.266	-1242.744
15	-201.553	-1251.018	-193.197	-1264.397
16	-201.650	-1272.832	-202.394	-1271.641
17	-210.180	-1279.457	-220.280	-1263.285
18	-219.408	-1295.385	-335.994	-1108.726
19	-231.778	-862.843	-176.022	-930.611
20	-175.264	-947.262	8.900	-1171.101
21	-1.127	-1194.267	-318.466	-808.562
22	-311.867	-815.487	-311.657	-815.742
23	-399.234	-1076.445	-468.702	-965.223
24	-451.884	-979.679	-502.004	-899.434
25	-477.908	-916.891	-493.524	-891.889
26	-454.319	-841.309	-430.432	-879.553
27	-431.507	-880.627	-410.564	-914.158
28	-410.814	-914.411	-391.486	-945.355
29	-392.300	-946.168	-373.788	-975.806
30	-375.670	-977.660	-357.511	-1006.733
31	-360.807	-1010.056	-343.075	-1038.446
32	-348.034	-1043.460	-331.277	-1070.289
33	-338.104	-1077.122	-319.127	-1107.505
34	-327.747	-1116.111	-310.085	-1144.389
35	-320.293	-1154.575	-304.560	-1179.763
36	-315.896	-1191.089	-308.822	-1202.415
37	-313.787	-1224.350	-294.241	-1255.644
38	-296.834	-1295.323	-399.470	-1130.998
39	-279.950	-900.080	-210.389	-984.628
40	-197.679	-1006.892	63.043	-1323.782
41	52.281	-1359.566	-265.667	-973.121
42	-258.172	-980.533	-225.388	-1020.380
43	-308.883	-1361.338	-370.067	-1263.381
44	-347.640	-1280.956	-394.107	-1206.559
45	-362.129	-1229.088	-370.491	-1215.700
46	-325.747	-1036.037	-313.937	-1054.946
47	-315.928	-1056.942	-307.704	-1070.109
48	-307.908	-1070.280	-300.866	-1081.554
49	-301.833	-1082.520	-295.215	-1093.117
50	-297.391	-1095.284	-290.773	-1105.881
51	-294.492	-1109.564	-288.048	-1119.881
52	-293.497	-1125.317	-287.975	-1134.158
53	-295.290	-1141.504	-290.066	-1149.867
54	-299.179	-1158.985	-291.480	-1171.311

COMBINACION 14 G1 + G2 + PRETD + SCMIN-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-302.144	-1181.992	-297.347	-1189.672
56	-309.078	-1201.391	-313.188	-1194.811
57	-314.116	-1223.896	-295.315	-1253.998
58	-297.336	-1294.733	-400.226	-1130.003
59	-279.847	-899.833	-209.981	-984.751
60	-196.636	-1007.004	64.507	-1324.407
61	54.040	-1359.883	-264.129	-973.169
62	-256.702	-980.747	-223.798	-1020.740
63	-307.545	-1363.010	-368.773	-1264.981
64	-346.469	-1283.530	-384.745	-1222.250
65	-360.822	-1232.701	-369.024	-1219.569
66	-323.976	-1040.887	-312.074	-1059.944
67	-314.158	-1062.021	-305.939	-1075.180
68	-306.151	-1075.363	-299.209	-1086.478
69	-300.131	-1087.396	-293.749	-1097.613
70	-295.856	-1099.681	-289.573	-1109.739
71	-293.173	-1113.339	-287.142	-1122.994
72	-292.466	-1128.312	-287.339	-1136.520
73	-294.542	-1143.703	-289.589	-1151.632
74	-298.585	-1160.598	-291.401	-1172.099
75	-301.945	-1182.658	-297.421	-1189.902
76	-309.037	-1201.549	-313.346	-1194.650
77	-312.932	-1225.722	-291.028	-1260.792
78	-293.011	-1301.581	-392.799	-1141.817
79	-272.994	-908.279	-200.325	-996.604
80	-187.062	-1018.985	76.922	-1339.840
81	66.380	-1375.410	-252.523	-987.804
82	-245.061	-995.355	-212.758	-1034.617
83	-295.459	-1382.498	-357.601	-1283.006
84	-335.131	-1301.478	-374.360	-1238.671
85	-350.306	-1249.090	-359.475	-1234.410
86	-314.336	-1055.729	-303.402	-1073.235
87	-305.465	-1075.274	-298.217	-1086.878
88	-298.421	-1087.068	-292.407	-1096.696
89	-293.350	-1097.612	-287.850	-1106.417
90	-289.972	-1108.521	-284.535	-1117.226
91	-288.177	-1120.832	-282.961	-1129.183
92	-288.329	-1134.521	-284.034	-1141.399
93	-291.277	-1148.617	-287.235	-1155.088
94	-296.258	-1164.108	-289.851	-1174.366
95	-300.438	-1184.948	-296.782	-1190.801
96	-308.434	-1202.469	-313.631	-1194.148
97	-312.869	-1225.830	-290.940	-1260.939
98	-292.921	-1301.743	-392.665	-1142.048
99	-272.849	-908.426	-200.070	-996.883
100	-186.773	-1019.247	77.179	-1340.063
101	66.793	-1375.770	-252.208	-988.044
102	-244.751	-995.608	-212.492	-1034.816
103	-295.210	-1382.857	-357.369	-1283.338
104	-334.929	-1301.857	-374.152	-1239.060
105	-350.119	-1249.515	-359.294	-1234.825
106	-314.159	-1056.178	-303.238	-1073.662
107	-305.311	-1075.708	-298.048	-1087.338
108	-298.265	-1087.512	-292.269	-1097.112
109	-293.201	-1098.040	-287.725	-1106.807

COMBINACION 14 G1 + G2 + PRETD + SCMIN-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
110	-289.846	-1108.895	-284.448	-1117.536
111	-288.079	-1121.142	-282.909	-1129.418
112	-288.248	-1134.779	-284.009	-1141.567
113	-291.237	-1148.781	-289.470	-1151.610
114	-298.490	-1160.612	-289.890	-1174.381
115	-300.475	-1184.943	-296.807	-1190.815
116	-308.456	-1202.457	-313.626	-1194.179
117	-312.757	-1226.017	-290.554	-1261.564
118	-292.531	-1302.364	-392.050	-1143.031
119	-272.282	-909.118	-199.322	-997.796
120	-186.029	-1020.167	78.169	-1341.283
121	67.825	-1377.059	-251.279	-989.209
122	-243.825	-996.765	-211.658	-1035.861
123	-294.307	-1384.314	-356.532	-1284.688
124	-334.090	-1303.186	-373.386	-1240.271
125	-349.331	-1250.740	-358.548	-1235.983
126	-313.362	-1057.403	-302.485	-1074.817
127	-304.550	-1076.867	-297.376	-1088.352
128	-297.569	-1088.560	-291.672	-1098.001
129	-292.599	-1098.940	-287.197	-1107.589
130	-289.313	-1109.685	-284.023	-1118.154
131	-287.650	-1121.775	-282.565	-1129.917
132	-287.919	-1135.260	-283.737	-1141.955
133	-290.973	-1149.163	-289.279	-1151.875
134	-298.299	-1160.885	-289.796	-1174.497
135	-300.376	-1185.075	-296.813	-1190.778
136	-308.464	-1202.430	-313.747	-1193.971
137	-312.835	-1225.882	-290.636	-1261.424
138	-292.609	-1302.239	-392.106	-1142.940
139	-272.316	-909.079	-199.336	-997.781
140	-186.038	-1020.158	78.180	-1341.298
141	67.769	-1376.985	-251.262	-989.224
142	-243.812	-996.775	-211.593	-1035.936
143	-294.232	-1384.433	-356.431	-1284.850
144	-333.999	-1303.334	-373.294	-1240.421
145	-349.273	-1250.841	-358.496	-1236.075
146	-313.384	-1057.385	-302.540	-1074.747
147	-304.591	-1076.821	-297.440	-1088.269
148	-297.625	-1088.497	-291.727	-1097.940
149	-292.649	-1098.884	-287.277	-1107.485
150	-289.386	-1109.600	-284.089	-1118.080
151	-287.705	-1121.715	-282.637	-1129.830
152	-287.979	-1135.191	-283.828	-1141.837
153	-291.044	-1149.081	-289.337	-1151.815
154	-298.360	-1160.812	-289.827	-1174.474
155	-300.410	-1185.041	-296.837	-1190.762
156	-308.489	-1202.407	-313.771	-1193.950
157	-312.852	-1225.870	-290.644	-1261.425
158	-292.631	-1302.208	-392.103	-1142.950
159	-272.335	-909.054	-199.334	-997.782
160	-186.043	-1020.144	78.165	-1341.271
161	67.780	-1376.990	-251.296	-989.174
162	-243.843	-996.731	-211.631	-1035.883
163	-294.279	-1384.356	-356.470	-1284.785
164	-334.023	-1303.297	-373.271	-1240.460

COMBINACION 14 G1 + G2 + PRETD + SCMIN-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-349.227	-1250.913	-358.435	-1236.172
166	-313.317	-1057.484	-302.527	-1074.760
167	-304.572	-1076.839	-297.469	-1088.211
168	-297.654	-1088.427	-291.813	-1097.778
169	-292.736	-1098.713	-287.415	-1107.233
170	-289.506	-1109.363	-284.267	-1117.750
171	-287.883	-1121.379	-282.866	-1129.413
172	-288.212	-1134.761	-284.086	-1141.368
173	-291.313	-1148.585	-289.669	-1151.218
174	-298.678	-1160.238	-290.234	-1173.758
175	-300.821	-1184.323	-297.305	-1189.952
176	-308.962	-1201.596	-314.310	-1193.034
177	-313.410	-1224.934	-291.240	-1260.430
178	-293.223	-1301.247	-392.705	-1141.973
179	-272.900	-908.384	-199.931	-997.073
180	-186.638	-1019.457	77.582	-1340.600
181	67.004	-1376.089	-251.818	-988.581
182	-244.355	-996.137	-211.969	-1035.501
183	-294.631	-1383.800	-356.657	-1284.494
184	-334.214	-1302.986	-373.320	-1240.375
185	-349.295	-1250.802	-358.340	-1236.322
186	-313.421	-1057.330	-302.729	-1074.448
187	-304.793	-1076.521	-297.777	-1087.755
188	-297.989	-1087.954	-292.196	-1097.228
189	-293.143	-1098.151	-287.850	-1106.626
190	-289.983	-1108.713	-284.808	-1116.998
191	-288.437	-1120.634	-283.472	-1128.582
192	-288.826	-1133.939	-284.793	-1140.395
193	-292.004	-1147.655	-290.472	-1150.109
194	-299.479	-1159.140	-291.172	-1172.439
195	-301.737	-1183.037	-298.362	-1188.442
196	-310.009	-1200.082	-315.486	-1191.312
197	-314.588	-1223.173	-292.555	-1258.448
198	-294.527	-1299.207	-394.134	-1139.732
199	-274.197	-906.755	-201.300	-995.357
200	-187.992	-1017.695	76.171	-1338.768
201	65.794	-1374.474	-252.791	-987.253
202	-245.348	-994.828	-212.660	-1034.558
203	-295.415	-1382.521	-357.074	-1283.802
204	-334.648	-1302.312	-373.404	-1240.262
205	-349.357	-1250.715	-358.052	-1236.795
206	-313.656	-1056.915	-303.561	-1073.078
207	-305.596	-1075.120	-299.192	-1085.372
208	-299.351	-1085.564	-294.217	-1093.784
209	-295.116	-1094.688	-290.506	-1102.069
210	-292.596	-1104.134	-288.079	-1111.366
211	-291.680	-1114.953	-287.378	-1121.841
212	-292.695	-1127.180	-289.292	-1132.630
213	-296.500	-1139.838	-295.524	-1141.401
214	-304.536	-1150.394	-296.798	-1162.782
215	-307.374	-1173.372	-304.517	-1177.946
216	-316.189	-1189.616	-322.175	-1180.031
217	-321.270	-1212.041	-299.756	-1246.486
218	-301.782	-1287.415	-402.006	-1126.953
219	-281.589	-897.947	-209.342	-985.758

COMBINACION 14 G1 + G2 + PRETD + SCMIN-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-196.094	-1008.246	67.448	-1328.565
221	56.780	-1364.023	-259.714	-979.346
222	-252.201	-986.857	-217.418	-1029.134
223	-300.378	-1374.656	-360.056	-1279.109
224	-337.516	-1297.643	-374.288	-1238.770
225	-350.235	-1249.259	-356.954	-1238.501
226	-314.578	-1055.557	-305.729	-1069.725
227	-307.852	-1071.884	-302.646	-1080.220
228	-302.931	-1080.527	-298.945	-1086.909
229	-299.970	-1087.948	-296.479	-1093.538
230	-298.698	-1095.731	-295.313	-1101.151
231	-299.039	-1104.854	-295.903	-1109.875
232	-301.345	-1115.286	-299.174	-1118.763
233	-306.474	-1126.030	-306.821	-1125.474
234	-315.883	-1134.492	-310.117	-1143.724
235	-320.692	-1154.280	-319.413	-1156.327
236	-331.002	-1167.897	-338.642	-1155.665
237	-336.980	-1188.394	-317.034	-1220.329
238	-318.332	-1261.536	-411.711	-1112.033
239	-297.245	-878.299	-225.769	-965.174
240	-211.975	-987.544	50.725	-1306.839
241	40.353	-1342.270	-272.592	-961.905
242	-265.253	-969.691	-226.415	-1016.896
243	-310.377	-1358.340	-366.260	-1268.870
244	-343.621	-1288.183	-376.826	-1235.019
245	-352.617	-1245.766	-356.804	-1239.063
246	-321.013	-1055.617	-319.296	-1058.366
247	-320.954	-1060.007	-323.184	-1056.436
248	-323.026	-1056.264	-326.793	-1050.233
249	-327.348	-1050.815	-331.789	-1043.705
250	-333.554	-1045.486	-338.173	-1038.091
251	-341.510	-1041.424	-346.345	-1033.684
252	-351.485	-1038.811	-357.183	-1029.690
253	-364.299	-1036.787	-372.378	-1023.852
254	-381.407	-1032.865	-393.181	-1014.016
255	-403.947	-1024.729	-411.221	-1013.082
256	-423.248	-1025.088	-439.554	-998.982
257	-431.358	-1044.134	-415.810	-1069.027
258	-417.080	-1113.524	-520.766	-947.518
259	-396.148	-768.493	-415.574	-744.882
260	-397.005	-768.354	-180.348	-1031.686
261	-188.598	-1066.472	-379.188	-834.823
262	-357.977	-823.036	-290.876	-904.593
263	-380.517	-1188.706	-392.321	-1169.808
264	-377.227	-1187.843	-374.479	-1192.242
265	-352.757	-1210.232	-327.662	-1250.410
266	-297.104	-1149.889	-271.077	-1191.559
267	-294.647	-1215.143	-286.387	-1228.368
268	-286.779	-1228.770	-285.613	-1230.636
269	-286.327	-1231.381	-291.642	-1222.872
270	-293.238	-1224.469	-304.609	-1206.263
271	-307.431	-1209.101	-324.687	-1181.474
272	-328.980	-1185.740	-349.867	-1152.299
273	-354.647	-1157.038	-378.589	-1118.706
274	-381.235	-1121.346	-410.401	-1074.651

COMBINACION 14 G1 + G2 + PRETD + SCMIN-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-408.684	-1072.939	-437.815	-1026.298
276	-436.577	-1025.027	-465.867	-978.132
277	-464.918	-977.175	-494.572	-929.698
278	-493.699	-928.832	-523.764	-880.698
279	-522.764	-879.738	-553.206	-830.999
280	-551.727	-829.519	-579.075	-785.734

COMBINACION 15 G1 + G2 + PRETD + 0.60 SCMIN-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-491.448	-667.240	-495.231	-661.184
2	-488.491	-675.757	-479.130	-690.745
3	-480.668	-692.278	-469.196	-710.644
4	-470.500	-711.941	-457.000	-733.555
5	-458.209	-734.758	-442.699	-759.589
6	-443.961	-760.799	-426.395	-788.922
7	-427.803	-790.287	-408.138	-821.771
8	-409.795	-823.408	-388.013	-858.281
9	-390.000	-860.303	-366.118	-898.539
10	-368.548	-900.987	-344.632	-939.278
11	-348.707	-943.365	-328.782	-975.267
12	-334.117	-980.561	-316.850	-1008.207
13	-323.376	-1014.731	-310.869	-1034.757
14	-318.440	-1042.335	-312.767	-1051.418
15	-321.053	-1059.694	-323.650	-1055.536
16	-332.103	-1063.972	-344.121	-1044.730
17	-351.911	-1052.539	-373.721	-1017.620
18	-378.356	-1040.903	-519.100	-815.565
19	-405.647	-651.517	-381.771	-680.536
20	-384.426	-693.038	-240.708	-867.719
21	-253.342	-887.716	-499.755	-588.217
22	-495.807	-591.920	-435.332	-665.424
23	-539.111	-852.495	-566.273	-809.008
24	-554.677	-815.103	-575.174	-782.286
25	-558.017	-788.633	-558.190	-788.357
26	-528.171	-723.070	-506.966	-757.020
27	-508.041	-758.093	-489.783	-787.325
28	-490.033	-787.578	-473.386	-814.229
29	-474.201	-815.041	-458.368	-840.389
30	-460.250	-842.244	-444.769	-867.030
31	-448.063	-870.355	-433.005	-894.464
32	-437.964	-899.479	-423.879	-922.029
33	-430.707	-928.862	-416.273	-951.971
34	-424.893	-960.575	-413.065	-979.513
35	-423.274	-989.698	-415.486	-1002.167
36	-426.822	-1013.492	-428.267	-1011.179
37	-436.068	-1028.573	-435.069	-1030.173
38	-443.854	-1059.938	-577.647	-845.729
39	-453.485	-689.159	-428.130	-719.977
40	-422.276	-733.908	-220.478	-979.181
41	-236.145	-1009.002	-480.842	-711.589
42	-476.269	-715.450	-385.365	-825.937
43	-489.071	-1072.850	-504.987	-1047.368
44	-489.241	-1054.247	-503.008	-1032.205
45	-480.129	-1040.165	-471.552	-1053.897
46	-437.139	-857.695	-424.456	-878.000
47	-426.448	-879.995	-417.352	-894.557
48	-417.555	-894.731	-409.642	-907.399
49	-410.608	-908.367	-403.125	-920.348
50	-405.303	-922.513	-397.823	-934.490
51	-401.542	-938.173	-394.237	-949.868
52	-399.685	-955.306	-393.301	-965.527
53	-400.616	-972.871	-395.400	-981.222
54	-404.513	-990.341	-399.684	-998.072

COMBINACION 15 G1 + G2 + PRETD + 0.60 SCMIN-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-410.346	-1008.756	-410.220	-1008.958
56	-421.951	-1020.678	-431.309	-1005.695
57	-436.938	-1027.253	-438.028	-1025.508
58	-446.515	-1055.893	-582.091	-838.829
59	-457.044	-684.462	-432.906	-713.800
60	-426.541	-727.570	-225.877	-971.464
61	-241.268	-1000.955	-485.751	-703.801
62	-481.267	-707.804	-390.067	-818.651
63	-494.606	-1063.517	-510.071	-1038.757
64	-494.587	-1046.387	-503.148	-1032.682
65	-484.963	-1033.944	-475.695	-1048.784
66	-441.190	-853.222	-427.875	-874.541
67	-429.958	-876.619	-420.329	-892.035
68	-420.542	-892.218	-412.192	-905.588
69	-413.114	-906.506	-405.319	-918.985
70	-407.423	-921.057	-399.727	-933.378
71	-403.327	-936.977	-395.879	-948.902
72	-401.202	-954.220	-394.658	-964.697
73	-401.860	-971.881	-396.408	-980.611
74	-405.401	-989.581	-400.473	-997.471
75	-411.018	-1008.028	-410.628	-1008.653
76	-422.245	-1020.299	-431.264	-1005.858
77	-436.109	-1028.510	-434.973	-1030.329
78	-443.438	-1060.741	-576.804	-847.216
79	-452.195	-690.473	-426.085	-722.207
80	-419.811	-736.094	-217.150	-982.415
81	-232.618	-1011.998	-477.601	-714.237
82	-473.082	-718.209	-382.280	-828.573
83	-486.034	-1077.378	-502.142	-1051.589
84	-486.509	-1059.115	-495.767	-1044.293
85	-477.468	-1045.497	-468.911	-1059.198
86	-434.335	-863.606	-421.725	-883.795
87	-423.788	-885.833	-414.863	-900.123
88	-415.065	-900.315	-407.375	-912.628
89	-408.317	-913.546	-401.141	-925.034
90	-403.261	-927.140	-396.152	-938.523
91	-399.795	-942.126	-392.906	-953.156
92	-398.274	-958.495	-392.302	-968.055
93	-399.544	-975.276	-394.712	-983.012
94	-403.736	-992.032	-399.347	-999.059
95	-409.935	-1009.639	-410.147	-1009.300
96	-421.800	-1020.965	-431.442	-1005.528
97	-436.097	-1028.537	-435.081	-1030.163
98	-443.544	-1060.589	-577.014	-846.897
99	-452.371	-690.228	-426.307	-721.908
100	-420.003	-735.770	-217.488	-981.914
101	-232.820	-1011.609	-477.850	-713.791
102	-473.337	-717.776	-382.547	-828.125
103	-486.363	-1076.814	-502.446	-1051.064
104	-486.847	-1058.630	-496.058	-1043.882
105	-477.783	-1045.119	-469.184	-1058.887
106	-434.615	-863.323	-421.973	-883.563
107	-424.046	-885.609	-415.065	-899.988
108	-415.282	-900.162	-407.563	-912.520
109	-408.497	-913.445	-401.302	-924.965

COMBINACION 15 G1 + G2 + PRETD + 0.60 SCMIN-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
110	-403.423	-927.053	-396.305	-938.449
111	-399.936	-942.054	-393.048	-953.081
112	-398.388	-958.441	-392.426	-967.986
113	-399.655	-975.200	-396.161	-980.793
114	-405.179	-989.798	-399.447	-998.975
115	-410.031	-1009.538	-410.201	-1009.266
116	-421.851	-1020.907	-431.440	-1005.554
117	-436.039	-1028.636	-434.828	-1030.575
118	-443.285	-1061.001	-576.613	-847.536
119	-451.999	-690.683	-425.801	-722.526
120	-419.497	-736.403	-216.809	-982.756
121	-232.106	-1012.512	-477.205	-714.610
122	-472.694	-718.589	-381.963	-828.866
123	-485.725	-1077.844	-501.853	-1052.023
124	-486.250	-1059.571	-495.511	-1044.745
125	-477.221	-1045.983	-468.653	-1059.700
126	-434.054	-864.170	-421.447	-884.354
127	-423.510	-886.407	-414.599	-900.673
128	-414.791	-900.883	-407.153	-913.111
129	-408.082	-914.046	-400.935	-925.490
130	-403.050	-927.587	-396.012	-938.855
131	-399.635	-942.481	-392.805	-953.417
132	-398.160	-958.759	-392.229	-968.256
133	-399.464	-975.464	-396.021	-980.977
134	-405.040	-989.987	-399.371	-999.064
135	-409.950	-1009.641	-410.192	-1009.254
136	-421.843	-1020.906	-431.508	-1005.431
137	-436.077	-1028.566	-434.879	-1030.484
138	-443.340	-1060.912	-576.653	-847.472
139	-452.027	-690.651	-425.825	-722.499
140	-419.519	-736.376	-216.828	-982.735
141	-232.182	-1012.415	-477.229	-714.576
142	-472.723	-718.549	-381.946	-828.883
143	-485.706	-1077.874	-501.823	-1052.071
144	-486.227	-1059.611	-495.483	-1044.792
145	-477.217	-1045.997	-468.650	-1059.713
146	-434.096	-864.119	-421.507	-884.276
147	-423.558	-886.349	-414.663	-900.590
148	-414.847	-900.819	-407.202	-913.059
149	-408.126	-914.000	-401.004	-925.403
150	-403.111	-927.520	-396.064	-938.804
151	-399.682	-942.436	-392.861	-953.356
152	-398.203	-958.718	-392.301	-968.167
153	-399.518	-975.410	-396.061	-980.944
154	-405.086	-989.940	-399.394	-999.053
155	-409.978	-1009.619	-410.210	-1009.247
156	-421.862	-1020.891	-431.526	-1005.420
157	-436.088	-1028.564	-434.883	-1030.493
158	-443.349	-1060.904	-576.632	-847.511
159	-452.017	-690.661	-425.807	-722.518
160	-419.505	-736.385	-216.819	-982.737
161	-232.150	-1012.445	-477.233	-714.562
162	-472.724	-718.541	-381.965	-828.852
163	-485.732	-1077.832	-501.837	-1052.046
164	-486.233	-1059.603	-495.464	-1044.824

COMBINACION 15 G1 + G2 + PRETD + 0.60 SCMIN-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-477.182	-1046.053	-468.613	-1059.772
166	-434.051	-864.185	-421.497	-884.284
167	-423.541	-886.364	-414.673	-900.563
168	-414.858	-900.778	-407.245	-912.967
169	-408.170	-913.899	-401.075	-925.258
170	-403.169	-927.385	-396.162	-938.602
171	-399.777	-942.234	-392.988	-953.103
172	-398.331	-958.456	-392.437	-967.894
173	-399.663	-975.113	-396.245	-980.585
174	-405.253	-989.607	-399.616	-998.633
175	-410.202	-1009.200	-410.464	-1008.780
176	-422.121	-1020.423	-431.817	-1004.901
177	-436.397	-1028.027	-435.213	-1029.923
178	-443.682	-1060.355	-576.950	-846.988
179	-452.324	-690.305	-426.140	-722.131
180	-419.841	-736.014	-217.138	-982.386
181	-232.637	-1011.895	-477.554	-714.214
182	-473.036	-718.190	-382.172	-828.629
183	-485.944	-1077.499	-501.958	-1051.859
184	-486.352	-1059.405	-495.506	-1044.749
185	-477.236	-1045.964	-468.566	-1059.845
186	-434.121	-864.084	-421.615	-884.106
187	-423.678	-886.180	-414.847	-900.320
188	-415.060	-900.518	-407.457	-912.690
189	-408.406	-913.610	-401.309	-924.974
190	-403.440	-927.063	-396.456	-938.245
191	-400.083	-941.884	-393.313	-952.723
192	-398.667	-958.078	-392.825	-967.431
193	-400.040	-974.685	-396.689	-980.050
194	-405.697	-989.081	-400.147	-997.966
195	-410.712	-1008.565	-411.065	-1007.999
196	-422.712	-1019.639	-432.493	-1003.980
197	-437.065	-1027.081	-435.968	-1028.837
198	-444.417	-1059.227	-577.772	-845.721
199	-453.053	-689.367	-426.890	-721.167
200	-420.572	-735.009	-217.891	-981.354
201	-233.216	-1011.045	-478.027	-713.493
202	-473.529	-717.489	-382.514	-828.112
203	-486.350	-1076.825	-502.160	-1051.513
204	-486.572	-1059.075	-495.526	-1044.739
205	-477.241	-1045.969	-468.383	-1060.150
206	-434.226	-863.877	-422.073	-883.335
207	-424.107	-885.379	-415.647	-898.923
208	-415.808	-899.113	-408.617	-910.625
209	-409.515	-911.531	-402.840	-922.217
210	-404.929	-924.283	-398.339	-934.834
211	-401.941	-938.420	-395.564	-948.631
212	-400.881	-953.970	-395.407	-962.735
213	-402.615	-969.943	-399.568	-974.822
214	-408.579	-983.817	-403.330	-992.220
215	-413.906	-1002.809	-414.522	-1001.824
216	-426.195	-1013.491	-436.227	-997.429
217	-440.818	-1020.640	-439.986	-1021.973
218	-448.507	-1052.502	-582.231	-838.405
219	-457.300	-684.381	-431.561	-715.665

COMBINACION 15 G1 + G2 + PRETD + 0.60 SCMIN-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-425.318	-729.640	-223.026	-975.513
221	-238.607	-1005.000	-482.169	-708.965
222	-477.603	-712.894	-385.337	-825.038
223	-489.239	-1072.282	-503.924	-1048.771
224	-488.244	-1056.321	-496.078	-1043.778
225	-477.794	-1045.031	-467.804	-1061.026
226	-434.816	-863.052	-423.322	-881.453
227	-425.445	-883.612	-417.594	-896.183
228	-417.879	-896.489	-411.248	-907.105
229	-412.275	-908.144	-406.141	-917.964
230	-408.361	-920.156	-402.329	-929.814
231	-406.056	-933.516	-400.278	-942.766
232	-405.721	-948.176	-400.914	-955.872
233	-408.213	-963.140	-405.932	-966.793
234	-414.993	-975.812	-410.943	-982.297
235	-421.517	-992.854	-423.136	-990.261
236	-434.723	-1001.834	-445.828	-984.055
237	-449.906	-1007.594	-450.075	-1007.323
238	-458.036	-1037.864	-587.861	-830.008
239	-466.071	-673.102	-440.584	-704.079
240	-433.880	-717.833	-231.933	-963.287
241	-247.250	-992.707	-489.026	-698.843
242	-484.654	-703.023	-390.341	-817.655
243	-495.026	-1062.710	-507.665	-1042.474
244	-492.033	-1050.569	-497.940	-1041.111
245	-479.568	-1042.513	-468.481	-1060.263
246	-439.308	-866.221	-431.782	-878.271
247	-433.440	-879.911	-429.864	-885.637
248	-429.707	-885.463	-427.666	-888.731
249	-428.222	-889.312	-426.862	-891.489
250	-428.627	-893.269	-427.441	-895.169
251	-430.779	-898.502	-429.808	-900.055
252	-434.948	-905.184	-434.839	-905.359
253	-441.954	-912.458	-444.232	-908.811
254	-453.262	-917.822	-459.582	-907.704
255	-470.347	-918.420	-476.923	-907.891
256	-488.951	-919.895	-505.129	-893.993
257	-505.848	-924.873	-508.869	-920.036
258	-517.360	-952.971	-654.365	-733.620
259	-526.959	-609.501	-589.581	-533.388
260	-579.255	-546.841	-420.628	-739.642
261	-434.109	-768.069	-580.760	-589.824
262	-561.398	-575.791	-457.149	-702.500
263	-565.023	-893.303	-545.670	-924.288
264	-536.111	-933.462	-512.117	-971.877
265	-497.028	-979.249	-462.840	-1033.985
266	-432.384	-933.299	-397.363	-989.369
267	-420.934	-1012.952	-403.680	-1040.577
268	-404.073	-1040.977	-393.906	-1057.254
269	-394.620	-1058.000	-390.928	-1063.911
270	-392.523	-1065.510	-394.876	-1061.743
271	-397.699	-1064.579	-405.938	-1051.386
272	-410.230	-1055.655	-422.094	-1036.661
273	-426.875	-1041.398	-441.793	-1017.514
274	-444.439	-1020.154	-464.573	-987.919

COMBINACION 15 G1 + G2 + PRETD + 0.60 SCMIN-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-462.855	-986.208	-482.959	-954.021
276	-481.719	-952.752	-501.984	-920.306
277	-501.035	-919.350	-521.658	-886.332
278	-520.786	-885.465	-541.819	-851.790
279	-540.820	-850.830	-562.235	-816.543
280	-560.756	-815.063	-579.078	-785.728

COMBINACION 16 G1 + G2 + PRETD + SCMAX-EC1 + 0.6 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-491.465	-667.213	-536.574	-594.992
2	-573.019	-540.425	-639.101	-434.624
3	-640.649	-436.141	-697.049	-345.842
4	-698.337	-347.164	-743.635	-274.640
5	-744.840	-275.849	-779.612	-220.178
6	-780.877	-221.382	-805.194	-182.448
7	-806.601	-183.814	-820.364	-161.779
8	-822.020	-163.418	-825.849	-157.288
9	-827.838	-159.307	-821.210	-169.917
10	-823.643	-172.360	-809.608	-194.831
11	-813.687	-198.912	-795.885	-227.415
12	-801.219	-232.711	-780.228	-266.318
13	-786.759	-272.836	-763.682	-309.782
14	-771.249	-317.369	-747.282	-355.741
15	-755.569	-364.015	-737.955	-392.215
16	-746.408	-400.651	-733.257	-421.707
17	-741.060	-429.494	-732.112	-443.820
18	-753.725	-439.921	-898.913	-207.469
19	-767.045	-212.260	-782.257	-193.772
20	-792.616	-196.910	-704.930	-303.486
21	-723.469	-316.307	-855.497	-155.835
22	-857.537	-152.260	-706.261	-336.127
23	-851.357	-352.576	-836.327	-376.641
24	-840.829	-356.961	-862.977	-321.500
25	-861.492	-302.757	-902.098	-237.745
26	-892.826	-139.241	-939.099	-65.156
27	-940.169	-66.237	-973.686	-12.575
28	-973.939	-12.823	-994.656	20.346
29	-995.468	19.530	-1001.590	29.332
30	-1003.475	27.482	-1001.071	23.634
31	-1004.363	20.305	-994.210	4.049
32	-999.168	-0.967	-974.986	-39.683
33	-981.815	-46.513	-945.061	-105.359
34	-953.679	-113.967	-906.557	-189.411
35	-916.777	-199.578	-861.884	-287.465
36	-873.209	-298.807	-818.610	-386.222
37	-835.154	-389.619	-803.670	-440.027
38	-831.545	-439.227	-960.933	-232.071
39	-834.509	-226.049	-845.899	-212.206
40	-861.181	-200.447	-736.346	-352.176
41	-767.137	-363.615	-894.851	-208.388
42	-899.285	-201.301	-725.604	-412.399
43	-879.643	-447.527	-847.815	-498.486
44	-852.662	-472.393	-854.001	-470.250
45	-852.500	-443.983	-881.609	-397.379
46	-870.532	-163.813	-918.823	-86.497
47	-920.815	-88.492	-956.837	-30.819
48	-957.037	-30.996	-979.956	5.698
49	-980.917	4.722	-988.762	17.283
50	-990.943	15.121	-989.989	13.594
51	-993.709	9.912	-984.881	-4.222
52	-990.324	-9.667	-967.527	-46.166
53	-974.845	-53.507	-939.378	-110.291
54	-948.488	-119.412	-902.779	-192.594

COMBINACION 16 G1 + G2 + PRETD + SCMAX-EC1 + 0.6 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-913.433	-203.292	-860.170	-288.568
56	-871.904	-300.283	-818.732	-385.414
57	-838.857	-383.764	-816.610	-419.382
58	-845.028	-417.856	-983.971	-195.402
59	-856.058	-199.486	-876.183	-175.025
60	-891.336	-162.641	-775.239	-303.749
61	-805.825	-314.772	-932.567	-160.725
62	-937.153	-153.703	-760.137	-368.854
63	-917.623	-386.248	-882.978	-441.717
64	-888.520	-415.684	-886.379	-419.112
65	-885.886	-392.050	-904.739	-361.866
66	-894.036	-128.197	-939.906	-54.758
67	-941.995	-56.825	-975.673	-2.905
68	-975.889	-3.085	-996.587	30.055
69	-997.511	29.139	-1003.196	38.242
70	-1005.296	36.164	-1002.265	31.311
71	-1005.868	27.717	-995.035	10.373
72	-1000.357	5.053	-975.545	-34.672
73	-982.747	-41.857	-945.288	-101.830
74	-954.272	-110.815	-906.527	-187.256
75	-917.071	-197.816	-861.719	-286.437
76	-873.337	-298.080	-817.742	-387.091
77	-838.799	-383.787	-816.173	-420.011
78	-844.619	-418.433	-983.244	-196.488
79	-855.492	-200.291	-875.427	-176.061
80	-890.700	-163.758	-774.408	-305.104
81	-805.078	-316.210	-931.928	-162.032
82	-936.483	-154.975	-759.303	-370.326
83	-916.567	-388.077	-882.002	-443.417
84	-887.446	-417.198	-885.459	-420.380
85	-884.903	-393.178	-902.571	-364.890
86	-891.854	-131.098	-937.985	-57.240
87	-940.052	-59.273	-973.969	-4.970
88	-974.172	-5.161	-995.085	28.321
89	-996.019	27.390	-1001.888	36.787
90	-1004.006	34.678	-1001.134	30.080
91	-1004.782	26.483	-994.099	9.380
92	-999.468	4.042	-974.802	-35.449
93	-982.040	-42.674	-944.725	-102.418
94	-953.748	-111.439	-906.154	-187.638
95	-916.743	-198.218	-861.527	-286.621
96	-873.179	-298.287	-817.713	-387.090
97	-839.069	-383.361	-817.245	-418.302
98	-845.692	-416.732	-985.115	-193.511
99	-857.218	-198.163	-877.869	-173.063
100	-893.127	-160.719	-777.598	-301.136
101	-808.163	-312.316	-934.865	-158.318
102	-939.429	-151.271	-762.077	-366.831
103	-919.608	-383.170	-884.819	-438.869
104	-890.310	-412.668	-888.070	-416.254
105	-887.543	-389.076	-904.354	-362.160
106	-893.647	-128.392	-939.579	-54.853
107	-941.661	-56.885	-975.388	-2.886
108	-975.606	-3.059	-996.333	30.126
109	-997.274	29.212	-1002.972	38.335

COMBINACION 16 G1 + G2 + PRETD + SCMAX-EC1 + 0.6 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
110	-1005.093	36.247	-1002.056	31.385
111	-1005.688	27.781	-994.853	10.435
112	-1000.194	5.077	-975.385	-34.643
113	-982.616	-41.855	-945.138	-101.858
114	-954.145	-110.881	-906.379	-187.356
115	-916.962	-197.920	-861.638	-286.495
116	-873.276	-298.155	-817.639	-387.233
117	-839.095	-383.326	-817.267	-418.275
118	-845.698	-416.721	-985.151	-193.450
119	-857.240	-198.139	-877.880	-173.053
120	-893.118	-160.746	-777.573	-301.184
121	-808.109	-312.417	-934.815	-158.414
122	-939.378	-151.365	-762.024	-366.927
123	-919.531	-383.302	-884.750	-438.988
124	-890.229	-412.784	-888.014	-416.331
125	-887.499	-389.109	-904.255	-362.283
126	-893.564	-128.474	-939.542	-54.861
127	-941.610	-56.906	-975.370	-2.854
128	-975.564	-3.061	-996.342	30.205
129	-997.279	29.282	-1002.979	38.409
130	-1005.093	36.309	-1002.069	31.469
131	-1005.685	27.830	-994.852	10.485
132	-1000.208	5.145	-975.374	-34.615
133	-982.606	-41.829	-945.147	-101.803
134	-954.163	-110.818	-906.387	-187.308
135	-916.968	-197.883	-861.607	-286.518
136	-873.256	-298.174	-817.599	-387.283
137	-839.066	-383.364	-817.277	-418.248
138	-845.737	-416.657	-985.222	-193.336
139	-857.325	-198.037	-878.022	-172.882
140	-893.274	-160.558	-777.784	-300.928
141	-808.364	-312.102	-935.049	-158.124
142	-939.620	-151.066	-762.223	-366.680
143	-919.758	-382.939	-884.967	-438.641
144	-890.444	-412.442	-888.195	-416.042
145	-887.673	-388.838	-904.310	-362.202
146	-893.598	-128.437	-939.556	-54.857
147	-941.617	-56.914	-975.383	-2.853
148	-975.571	-3.077	-996.315	30.135
149	-997.247	29.208	-1002.959	38.353
150	-1005.061	36.227	-1002.031	31.377
151	-1005.655	27.753	-994.810	10.389
152	-1000.151	5.027	-975.345	-34.688
153	-982.560	-41.934	-945.089	-101.927
154	-954.116	-110.919	-906.358	-187.382
155	-916.937	-197.954	-861.575	-286.593
156	-873.225	-298.241	-817.510	-387.443
157	-838.971	-383.531	-817.184	-418.412
158	-845.625	-416.842	-985.075	-193.577
159	-857.164	-198.232	-877.859	-173.078
160	-893.104	-160.757	-777.604	-301.140
161	-808.167	-312.334	-934.902	-158.295
162	-939.469	-151.242	-762.139	-366.775
163	-919.669	-383.080	-884.908	-438.733
164	-890.399	-412.516	-888.195	-416.044

COMBINACION 16 G1 + G2 + PRETD + SCMAX-EC1 + 0.6 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-887.676	-388.834	-904.376	-362.097
166	-893.670	-128.315	-939.625	-54.739
167	-941.669	-56.818	-975.437	-2.754
168	-975.621	-2.972	-996.355	30.224
169	-997.292	29.310	-1002.987	38.428
170	-1005.087	36.312	-1002.069	31.481
171	-1005.680	27.844	-994.837	10.483
172	-1000.174	5.120	-975.350	-34.624
173	-982.573	-41.848	-945.100	-101.843
174	-954.096	-110.886	-906.315	-187.386
175	-916.900	-197.954	-861.513	-286.631
176	-873.158	-298.294	-817.274	-387.768
177	-838.748	-383.846	-816.922	-418.790
178	-845.388	-417.206	-984.780	-194.034
179	-856.917	-198.548	-877.618	-173.387
180	-892.881	-161.064	-777.347	-301.488
181	-808.041	-312.528	-934.792	-158.470
182	-939.351	-151.414	-762.065	-366.894
183	-919.579	-383.230	-884.881	-438.784
184	-890.352	-412.584	-888.206	-416.021
185	-887.676	-388.832	-904.384	-362.081
186	-893.599	-128.441	-939.429	-55.065
187	-941.502	-57.122	-975.137	-3.272
188	-975.353	-3.464	-995.982	29.564
189	-996.939	28.657	-1002.546	37.633
190	-1004.676	35.542	-1001.558	30.548
191	-1005.178	26.900	-994.258	9.416
192	-999.612	4.061	-974.726	-35.783
193	-981.950	-43.021	-944.398	-103.145
194	-953.404	-112.178	-905.555	-188.787
195	-916.109	-199.402	-860.657	-288.183
196	-872.303	-299.826	-815.677	-390.486
197	-837.117	-386.581	-815.180	-421.702
198	-843.596	-420.124	-982.871	-197.139
199	-855.101	-200.704	-875.615	-175.771
200	-890.846	-163.421	-775.168	-304.020
201	-805.730	-315.191	-933.013	-160.488
202	-937.592	-153.450	-760.820	-368.305
203	-918.275	-385.293	-884.090	-440.025
204	-889.583	-413.838	-887.953	-416.447
205	-887.428	-389.241	-904.544	-361.836
206	-893.522	-128.525	-939.312	-55.212
207	-941.349	-57.252	-974.982	-3.404
208	-975.146	-3.588	-995.787	29.459
209	-996.691	28.564	-1002.263	37.484
210	-1004.351	35.416	-1001.165	30.315
211	-1004.767	26.730	-993.742	9.078
212	-999.060	3.740	-974.081	-36.253
213	-981.283	-43.471	-943.602	-103.800
214	-952.610	-112.799	-904.617	-189.639
215	-915.185	-200.240	-859.573	-289.278
216	-871.250	-300.939	-812.944	-394.289
217	-834.478	-390.373	-812.251	-425.961
218	-840.797	-424.429	-979.899	-201.720
219	-852.516	-204.021	-872.858	-179.297

COMBINACION 16 G1 + G2 + PRETD + SCMAX-EC1 + 0.6 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-888.208	-167.027	-772.533	-307.621
221	-803.302	-318.648	-931.148	-163.261
222	-935.667	-156.148	-759.454	-370.323
223	-916.681	-387.929	-883.238	-441.473
224	-888.708	-415.161	-887.804	-416.609
225	-887.304	-389.389	-904.771	-361.423
226	-892.998	-129.482	-937.537	-58.174
227	-939.661	-60.331	-971.961	-8.618
228	-972.254	-8.911	-991.511	21.920
229	-992.540	20.887	-996.764	27.649
230	-998.987	25.462	-994.455	18.205
231	-998.184	14.507	-985.914	-5.138
232	-991.359	-10.545	-965.184	-52.452
233	-972.477	-59.730	-933.731	-121.763
234	-942.789	-130.788	-893.861	-209.124
235	-904.423	-219.700	-847.958	-310.103
236	-859.545	-321.677	-798.508	-419.399
237	-815.541	-422.197	-790.572	-462.174
238	-819.069	-459.835	-962.637	-229.976
239	-830.480	-230.187	-847.504	-209.495
240	-862.656	-196.683	-746.472	-337.897
241	-777.062	-348.755	-911.035	-185.919
242	-915.809	-178.982	-745.863	-385.541
243	-902.704	-409.999	-875.447	-453.639
244	-881.414	-427.153	-886.455	-419.081
245	-886.080	-391.670	-908.069	-356.465
246	-893.843	-138.491	-936.433	-70.303
247	-938.105	-71.921	-968.853	-22.692
248	-968.699	-22.514	-986.670	6.259
249	-987.229	5.682	-990.492	10.907
250	-992.259	9.130	-986.580	0.036
251	-989.916	-3.299	-976.561	-24.681
252	-981.697	-29.815	-954.148	-73.922
253	-961.256	-81.033	-921.062	-145.386
254	-930.090	-154.401	-879.567	-235.291
255	-890.325	-246.016	-832.225	-339.036
256	-844.250	-351.046	-781.724	-451.153
257	-802.575	-449.800	-769.361	-502.976
258	-800.117	-500.265	-945.089	-268.159
259	-817.877	-255.909	-930.444	-119.091
260	-938.745	-109.904	-869.252	-194.368
261	-894.565	-208.415	-976.535	-108.786
262	-961.345	-89.681	-803.667	-281.329
263	-950.449	-276.220	-903.298	-351.711
264	-910.801	-333.567	-884.442	-375.770
265	-889.799	-350.404	-884.316	-359.184
266	-854.177	-257.992	-841.573	-278.171
267	-865.145	-301.751	-863.554	-304.299
268	-863.950	-304.693	-862.230	-307.447
269	-862.943	-308.195	-860.639	-311.883
270	-862.229	-313.491	-858.871	-318.867
271	-861.697	-321.697	-857.085	-329.081
272	-861.372	-333.359	-858.156	-338.507
273	-862.938	-343.243	-855.234	-355.576
274	-857.877	-358.222	-846.267	-376.810

COMBINACION 16 G1 + G2 + PRETD + SCMAX-EC1 + 0.6 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-844.547	-375.103	-823.754	-408.393
276	-822.508	-407.134	-792.837	-454.639
277	-791.879	-453.697	-753.196	-515.630
278	-752.324	-514.763	-704.956	-590.600
279	-703.940	-589.667	-647.860	-679.454
280	-646.389	-677.961	-579.103	-785.689

COMBINACION 17 G1 + G2 + PRETD + TEMP + 0.80 SCMAX-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-491.464	-667.215	-531.093	-603.768
2	-559.695	-561.757	-614.349	-474.254
3	-615.895	-475.773	-662.459	-401.223
4	-663.750	-402.540	-701.103	-342.735
5	-702.309	-343.942	-730.915	-298.143
6	-732.180	-299.348	-752.089	-267.472
7	-753.496	-268.838	-764.620	-251.029
8	-766.276	-252.667	-769.106	-248.135
9	-771.095	-250.154	-765.216	-259.566
10	-767.649	-262.010	-755.915	-280.796
11	-759.993	-284.879	-746.122	-307.088
12	-751.455	-312.384	-736.074	-337.011
13	-742.604	-343.530	-726.817	-368.805
14	-734.385	-376.390	-719.423	-400.344
15	-727.710	-408.618	-719.660	-421.507
16	-728.113	-429.942	-725.691	-433.820
17	-733.493	-441.610	-736.591	-436.649
18	-756.116	-436.093	-909.363	-190.737
19	-775.868	-201.536	-793.900	-179.620
20	-803.528	-183.647	-717.396	-288.335
21	-735.372	-301.839	-871.079	-136.896
22	-872.551	-134.012	-723.067	-315.699
23	-867.005	-327.524	-848.738	-356.770
24	-851.260	-340.260	-864.551	-318.980
25	-861.578	-302.618	-889.073	-258.598
26	-877.832	-163.247	-910.025	-111.705
27	-911.096	-112.784	-933.812	-76.416
28	-934.064	-76.664	-946.998	-55.957
29	-947.810	-56.772	-949.367	-54.279
30	-951.252	-56.129	-946.196	-64.224
31	-949.487	-67.553	-938.452	-85.221
32	-943.410	-90.237	-921.484	-125.341
33	-928.313	-132.172	-896.957	-182.374
34	-905.576	-190.982	-866.972	-252.789
35	-877.190	-262.959	-833.947	-332.193
36	-845.274	-343.532	-804.423	-408.936
37	-819.892	-414.055	-799.597	-446.548
38	-825.123	-449.509	-963.651	-227.720
39	-833.886	-226.807	-849.380	-207.974
40	-862.062	-199.376	-736.942	-351.452
41	-765.873	-365.152	-897.847	-204.746
42	-901.173	-199.006	-729.085	-408.168
43	-880.481	-446.186	-846.464	-500.648
44	-848.779	-478.611	-843.986	-486.284
45	-840.370	-463.404	-857.202	-436.455
46	-843.910	-206.436	-879.219	-149.905
47	-881.211	-151.900	-907.559	-109.716
48	-907.759	-109.893	-923.998	-83.894
49	-924.960	-84.868	-929.365	-77.815
50	-931.545	-79.977	-929.050	-83.972
51	-932.769	-87.655	-924.147	-101.460
52	-929.591	-106.904	-910.115	-138.086
53	-917.432	-145.427	-888.451	-191.826
54	-897.562	-200.948	-861.461	-258.746

COMBINACION 17 G1 + G2 + PRETD + TEMP + 0.80 SCMAX-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-872.116	-269.442	-831.590	-334.326
56	-843.323	-346.042	-805.077	-407.276
57	-823.419	-408.481	-811.907	-426.911
58	-837.873	-429.310	-985.422	-193.079
59	-854.168	-201.783	-877.865	-172.981
60	-890.371	-163.814	-773.446	-305.929
61	-802.161	-319.225	-933.042	-160.149
62	-936.512	-154.483	-761.500	-367.198
63	-916.142	-388.620	-879.478	-447.321
64	-882.433	-425.429	-874.337	-438.391
65	-871.668	-414.813	-879.845	-401.722
66	-866.884	-171.668	-899.814	-118.947
67	-901.902	-121.016	-925.954	-82.509
68	-926.169	-82.688	-940.230	-60.176
69	-941.153	-61.092	-943.451	-57.412
70	-945.551	-59.490	-941.033	-66.724
71	-944.636	-70.319	-934.061	-87.248
72	-939.384	-92.568	-917.945	-126.893
73	-925.146	-134.078	-894.221	-183.591
74	-903.206	-192.574	-865.120	-253.551
75	-875.664	-264.110	-833.101	-332.255
76	-844.719	-343.899	-804.153	-408.847
77	-823.216	-408.736	-810.979	-428.327
78	-836.967	-430.684	-983.845	-195.526
79	-852.807	-203.554	-875.983	-175.385
80	-888.605	-166.305	-771.153	-309.060
81	-799.952	-322.440	-931.011	-163.146
82	-934.450	-157.446	-759.389	-370.222
83	-913.706	-392.657	-877.222	-451.070
84	-880.074	-429.001	-872.232	-441.557
85	-869.493	-417.849	-876.857	-406.060
86	-863.876	-175.893	-897.145	-122.628
87	-899.211	-124.661	-923.583	-85.640
88	-923.786	-85.832	-938.139	-62.851
89	-939.074	-63.780	-941.633	-59.684
90	-943.751	-61.793	-939.468	-68.649
91	-943.115	-72.247	-932.765	-88.818
92	-938.133	-94.157	-916.917	-128.126
93	-924.156	-135.350	-893.450	-184.511
94	-902.473	-193.531	-864.613	-254.147
95	-875.202	-264.726	-832.857	-332.522
96	-844.510	-344.187	-804.162	-408.787
97	-823.463	-408.347	-811.978	-426.734
98	-837.967	-429.101	-985.591	-192.748
99	-854.416	-201.568	-878.259	-172.589
100	-890.865	-163.468	-774.128	-305.354
101	-802.820	-318.810	-933.745	-159.680
102	-937.192	-153.990	-761.973	-366.957
103	-916.543	-388.077	-879.850	-446.824
104	-882.747	-424.777	-874.669	-437.710
105	-871.959	-414.026	-878.602	-403.391
106	-865.631	-173.248	-898.709	-120.288
107	-900.789	-122.323	-924.974	-83.602
108	-925.192	-83.775	-939.365	-61.083
109	-940.305	-61.998	-942.697	-58.167

COMBINACION 17 G1 + G2 + PRETD + TEMP + 0.80 SCMAX-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
110	-944.818	-60.256	-940.375	-67.369
111	-944.007	-70.972	-933.510	-87.778
112	-938.851	-93.136	-917.495	-127.327
113	-924.726	-134.539	-893.866	-183.947
114	-902.874	-192.967	-864.851	-253.844
115	-875.434	-264.408	-832.972	-332.391
116	-844.613	-344.047	-804.096	-408.917
117	-823.479	-408.329	-811.955	-426.779
118	-837.929	-429.159	-985.554	-192.804
119	-854.372	-201.625	-878.176	-172.693
120	-890.764	-163.607	-773.984	-305.546
121	-802.648	-319.054	-933.585	-159.909
122	-937.032	-154.216	-761.820	-367.174
123	-916.359	-388.381	-879.681	-447.104
124	-882.567	-425.051	-874.517	-437.939
125	-871.817	-414.218	-878.424	-403.640
126	-865.464	-173.465	-898.588	-120.430
127	-900.655	-122.477	-924.880	-83.691
128	-925.073	-83.899	-939.303	-61.116
129	-940.239	-62.040	-942.642	-58.194
130	-944.755	-60.293	-940.338	-67.366
131	-943.954	-71.004	-933.467	-87.793
132	-938.824	-93.134	-917.452	-127.350
133	-924.685	-134.562	-893.849	-183.934
134	-902.865	-192.947	-864.843	-253.823
135	-875.424	-264.398	-832.943	-332.411
136	-844.592	-344.066	-804.070	-408.944
137	-823.458	-408.352	-811.976	-426.736
138	-837.976	-429.083	-985.630	-192.683
139	-854.458	-201.522	-878.314	-172.526
140	-890.915	-163.426	-774.186	-305.302
141	-802.894	-318.751	-933.807	-159.634
142	-937.261	-153.933	-762.005	-366.945
143	-916.569	-388.045	-879.883	-446.781
144	-882.767	-424.733	-874.687	-437.670
145	-871.982	-413.960	-878.491	-403.540
146	-865.516	-173.397	-898.622	-120.394
147	-900.681	-122.454	-924.910	-83.662
148	-925.097	-83.888	-939.295	-61.156
149	-940.226	-62.086	-942.640	-58.221
150	-944.741	-60.347	-940.314	-67.436
151	-943.937	-71.060	-933.438	-87.869
152	-938.780	-93.231	-917.434	-127.405
153	-924.650	-134.650	-893.799	-184.044
154	-902.826	-193.037	-864.813	-253.898
155	-875.393	-264.469	-832.908	-332.490
156	-844.558	-344.137	-803.987	-409.094
157	-823.369	-408.510	-811.884	-426.897
158	-837.868	-429.261	-985.484	-192.922
159	-854.302	-201.710	-878.157	-172.716
160	-890.752	-163.615	-774.012	-305.505
161	-802.703	-318.975	-933.665	-159.799
162	-937.116	-154.103	-761.924	-367.037
163	-916.483	-388.181	-879.822	-446.876
164	-882.718	-424.814	-874.679	-437.685

COMBINACION 17 G1 + G2 + PRETD + TEMP + 0.80 SCMAX-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-871.974	-413.973	-878.540	-403.461
166	-865.568	-173.307	-898.679	-120.294
167	-900.724	-122.374	-924.959	-83.572
168	-925.143	-83.789	-939.338	-61.063
169	-940.273	-61.980	-942.677	-58.130
170	-944.776	-60.247	-940.367	-67.308
171	-943.978	-70.944	-933.488	-87.739
172	-938.826	-93.102	-917.468	-127.296
173	-924.691	-134.520	-893.845	-183.905
174	-902.843	-192.944	-864.819	-253.823
175	-875.404	-264.391	-832.902	-332.438
176	-844.551	-344.096	-803.846	-409.265
177	-823.242	-408.671	-811.732	-427.100
178	-837.738	-429.455	-985.303	-193.197
179	-854.159	-201.901	-878.027	-172.891
180	-890.638	-163.791	-773.871	-305.714
181	-802.693	-319.028	-933.642	-159.868
182	-937.085	-154.169	-761.910	-367.083
183	-916.458	-388.227	-879.831	-446.868
184	-882.710	-424.819	-874.701	-437.642
185	-871.989	-413.947	-878.541	-403.457
186	-865.509	-173.413	-898.503	-120.588
187	-900.575	-122.649	-924.684	-84.049
188	-924.900	-84.242	-938.989	-61.685
189	-939.945	-62.594	-942.255	-58.895
190	-944.385	-60.987	-939.875	-68.209
191	-943.496	-71.856	-932.925	-88.781
192	-938.279	-94.136	-916.857	-128.433
193	-924.081	-135.673	-893.159	-185.180
194	-902.165	-194.213	-864.076	-255.195
195	-874.633	-265.807	-832.071	-333.950
196	-843.717	-345.592	-802.411	-411.724
197	-821.777	-411.141	-810.168	-429.728
198	-836.127	-432.082	-983.592	-195.985
199	-852.528	-203.831	-876.224	-175.030
200	-888.804	-165.903	-771.905	-307.986
201	-800.594	-321.434	-932.027	-161.686
202	-935.490	-156.005	-760.780	-368.353
203	-915.279	-390.091	-879.113	-447.994
204	-882.013	-425.957	-874.466	-438.040
205	-871.756	-414.332	-878.689	-403.232
206	-865.470	-173.437	-898.498	-120.559
207	-900.533	-122.599	-924.712	-83.889
208	-924.875	-84.074	-939.051	-61.378
209	-939.953	-62.276	-942.312	-58.500
210	-944.400	-60.568	-939.904	-67.765
211	-943.507	-71.350	-932.919	-88.302
212	-938.237	-93.640	-916.805	-127.954
213	-924.008	-135.170	-893.038	-184.756
214	-902.046	-193.754	-863.890	-254.843
215	-874.461	-265.442	-831.815	-333.719
216	-843.492	-345.381	-800.884	-413.598
217	-820.334	-413.019	-808.538	-431.905
218	-834.621	-434.318	-982.015	-198.333
219	-851.230	-205.585	-874.869	-176.853

COMBINACION 17 G1 + G2 + PRETD + TEMP + 0.80 SCMAX-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	TI_2
220	-887.562	-167.811	-770.737	-309.805
221	-799.634	-323.108	-931.294	-163.083
222	-934.695	-157.328	-760.212	-369.402
223	-914.540	-391.357	-878.758	-448.645
224	-881.626	-426.499	-874.454	-437.983
225	-871.766	-414.265	-878.765	-403.059
226	-864.977	-174.345	-896.808	-123.382
227	-898.932	-125.540	-921.837	-88.867
228	-922.130	-89.163	-934.982	-68.586
229	-936.011	-69.620	-937.074	-67.917
230	-939.297	-70.105	-933.512	-79.367
231	-937.241	-83.066	-925.455	-101.936
232	-930.899	-107.343	-908.322	-143.490
233	-915.616	-150.766	-883.626	-201.983
234	-892.685	-211.007	-853.636	-273.526
235	-864.201	-284.098	-820.748	-353.668
236	-832.334	-365.242	-787.429	-437.137
237	-803.234	-441.902	-789.120	-464.498
238	-815.091	-466.203	-965.789	-224.930
239	-831.332	-229.151	-852.068	-203.947
240	-864.532	-194.403	-747.075	-337.165
241	-775.783	-350.309	-913.029	-183.496
242	-916.678	-177.926	-747.914	-383.048
243	-901.922	-411.251	-871.760	-459.542
244	-875.070	-437.310	-873.322	-440.109
245	-870.732	-416.242	-882.134	-397.987
246	-866.490	-182.286	-897.468	-132.687
247	-899.138	-134.310	-921.571	-98.393
248	-921.416	-98.216	-934.072	-77.953
249	-934.630	-78.531	-935.795	-76.666
250	-937.561	-78.444	-931.742	-87.760
251	-935.079	-91.095	-923.300	-109.954
252	-928.437	-115.087	-905.612	-151.631
253	-912.721	-158.740	-880.396	-210.494
254	-889.424	-219.508	-849.886	-282.810
255	-860.646	-293.534	-816.661	-363.956
256	-828.687	-375.963	-783.390	-448.485
257	-802.331	-450.191	-782.464	-481.999
258	-810.481	-483.672	-963.632	-238.470
259	-832.455	-238.190	-947.177	-98.753
260	-953.708	-91.716	-882.213	-178.614
261	-906.401	-194.028	-987.776	-95.122
262	-972.190	-76.499	-813.495	-269.383
263	-959.928	-261.043	-907.907	-344.332
264	-913.311	-329.549	-879.423	-383.805
265	-882.265	-362.467	-866.003	-388.504
266	-835.825	-287.374	-813.798	-322.640
267	-837.371	-346.219	-827.786	-361.565
268	-828.182	-361.960	-819.989	-375.077
269	-820.701	-375.826	-813.412	-387.496
270	-815.002	-389.102	-808.154	-400.067
271	-810.980	-402.897	-804.383	-413.460
272	-808.671	-417.735	-803.994	-425.223
273	-808.775	-429.960	-801.195	-442.096
274	-803.838	-444.740	-794.252	-460.088

COMBINACION 17 G1 + G2 + PRETD + TEMP + 0.80 SCMAX-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	TI_2
275	-792.533	-458.380	-775.671	-485.376
276	-774.427	-484.114	-750.574	-522.305
277	-749.618	-521.358	-718.704	-570.854
278	-717.831	-569.987	-680.129	-630.351
279	-679.115	-629.412	-634.597	-700.689
280	-633.124	-699.198	-579.099	-785.695

COMBINACION 18 G1 + G2 + PRETD + 0.60 SCMAX-EC1 + 0.2 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-491.463	-667.216	-520.888	-620.105
2	-540.442	-592.581	-577.846	-532.696
3	-579.390	-534.219	-610.406	-484.561
4	-611.700	-485.873	-635.509	-447.755
5	-636.715	-448.961	-653.668	-421.818
6	-654.932	-423.025	-665.057	-406.814
7	-666.464	-408.180	-669.683	-403.026
8	-671.339	-404.664	-668.018	-409.981
9	-670.007	-412.001	-659.836	-428.285
10	-662.268	-430.729	-647.902	-453.729
11	-651.981	-457.811	-637.218	-481.447
12	-642.553	-486.742	-628.068	-509.933
13	-634.597	-516.453	-621.499	-537.425
14	-629.066	-545.009	-618.619	-561.735
15	-626.905	-570.011	-624.036	-574.604
16	-632.489	-583.040	-636.524	-576.581
17	-644.323	-584.374	-655.305	-566.792
18	-672.559	-569.871	-829.411	-318.744
19	-700.717	-292.878	-717.236	-272.800
20	-726.022	-277.851	-636.942	-386.122
21	-654.270	-400.414	-795.092	-229.253
22	-795.908	-227.166	-649.577	-405.022
23	-785.074	-458.698	-764.724	-491.280
24	-765.094	-478.216	-770.459	-469.626
25	-765.770	-456.012	-780.813	-431.927
26	-767.300	-340.213	-785.670	-310.802
27	-786.742	-311.880	-799.110	-292.080
28	-799.361	-292.329	-805.162	-283.042
29	-805.975	-283.857	-803.814	-287.316
30	-805.698	-289.167	-799.031	-299.840
31	-802.324	-303.169	-791.646	-320.263
32	-796.605	-325.280	-778.370	-354.475
33	-785.198	-361.306	-760.872	-400.254
34	-769.491	-408.860	-741.232	-454.104
35	-751.448	-464.278	-721.880	-511.617
36	-733.209	-522.953	-708.326	-562.792
37	-722.625	-569.783	-715.623	-580.994
38	-738.597	-588.041	-888.168	-348.572
39	-760.464	-316.046	-781.522	-290.452
40	-791.378	-285.288	-667.146	-436.285
41	-694.055	-452.443	-830.289	-286.858
42	-832.411	-282.582	-661.836	-489.905
43	-804.799	-567.356	-768.200	-625.953
44	-767.761	-608.325	-756.224	-626.795
45	-750.191	-607.783	-753.812	-601.987
46	-737.964	-376.061	-759.019	-342.350
47	-761.011	-344.345	-776.610	-319.371
48	-776.810	-319.547	-785.492	-305.648
49	-786.455	-306.621	-786.737	-306.169
50	-788.917	-308.331	-784.392	-315.575
51	-788.112	-319.257	-779.405	-333.199
52	-784.849	-338.642	-768.599	-364.659
53	-775.915	-372.001	-753.524	-407.851
54	-762.635	-416.972	-736.440	-458.912

COMBINACION 18 G1 + G2 + PRETD + 0.60 SCMAX-EC1 + 0.2 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-747.096	-469.605	-719.800	-513.307
56	-731.532	-525.024	-708.902	-561.256
57	-725.306	-565.564	-724.951	-566.131
58	-748.253	-572.797	-904.621	-322.445
59	-775.715	-297.138	-802.873	-264.129
60	-812.502	-258.460	-694.353	-402.062
61	-721.035	-417.829	-856.495	-253.186
62	-858.752	-248.994	-686.108	-458.832
63	-831.643	-523.906	-793.043	-585.706
64	-793.187	-568.315	-778.886	-591.213
65	-773.852	-571.422	-770.895	-576.156
66	-755.328	-350.274	-774.526	-319.538
67	-776.613	-321.610	-790.442	-299.469
68	-790.657	-299.649	-797.681	-288.404
69	-798.604	-289.319	-797.311	-291.389
70	-799.411	-293.466	-793.399	-303.093
71	-797.001	-306.688	-786.875	-322.900
72	-792.197	-328.220	-774.516	-356.528
73	-781.718	-363.713	-757.906	-401.837
74	-766.892	-410.817	-739.242	-455.086
75	-749.787	-465.644	-720.986	-511.756
76	-732.604	-523.400	-708.237	-562.413
77	-725.132	-565.772	-724.138	-567.363
78	-747.455	-573.997	-903.232	-324.591
79	-774.521	-298.705	-801.228	-266.245
80	-810.969	-260.666	-692.362	-404.826
81	-719.126	-420.679	-854.723	-255.869
82	-856.949	-251.644	-684.257	-461.540
83	-829.485	-527.499	-791.044	-589.046
84	-791.077	-571.489	-777.008	-594.014
85	-771.897	-574.104	-768.375	-579.743
86	-752.781	-353.760	-772.275	-322.549
87	-774.340	-324.584	-788.451	-301.993
88	-788.653	-302.185	-795.926	-290.541
89	-796.862	-291.468	-795.785	-293.191
90	-797.904	-295.300	-792.081	-304.623
91	-795.727	-308.222	-785.776	-324.154
92	-791.144	-329.493	-773.640	-357.518
93	-780.879	-364.742	-757.243	-402.585
94	-766.266	-411.605	-738.795	-455.587
95	-749.384	-466.166	-720.762	-511.991
96	-732.416	-523.655	-708.232	-562.375
97	-725.300	-565.511	-724.874	-566.192
98	-748.190	-572.837	-904.528	-322.533
99	-775.711	-297.229	-802.911	-264.169
100	-812.634	-258.553	-694.567	-402.055
101	-721.225	-417.984	-856.736	-253.279
102	-858.969	-249.065	-686.172	-459.089
103	-831.598	-524.078	-793.001	-585.873
104	-793.078	-568.341	-778.829	-591.154
105	-773.746	-571.270	-769.679	-577.781
106	-754.094	-351.822	-773.445	-320.841
107	-775.523	-322.880	-789.487	-300.522
108	-789.704	-300.695	-796.841	-289.270
109	-797.780	-290.187	-796.581	-292.107

COMBINACION 18 G1 + G2 + PRETD + 0.60 SCMAX-EC1 + 0.2 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
110	-798.701	-294.195	-792.762	-303.704
111	-796.394	-307.307	-786.340	-323.404
112	-791.680	-328.762	-774.080	-356.941
113	-781.311	-364.152	-757.566	-402.169
114	-766.576	-411.186	-738.989	-455.354
115	-749.573	-465.917	-720.863	-511.884
116	-732.505	-523.536	-708.194	-562.459
117	-725.323	-565.481	-724.857	-566.226
118	-748.161	-572.882	-904.505	-322.568
119	-775.682	-297.268	-802.847	-264.250
120	-812.555	-258.665	-694.450	-402.214
121	-721.079	-418.196	-856.602	-253.477
122	-858.835	-249.259	-686.042	-459.278
123	-831.442	-524.338	-792.856	-586.115
124	-792.922	-568.576	-778.694	-591.356
125	-773.616	-571.442	-769.522	-577.996
126	-753.944	-352.013	-773.329	-320.975
127	-775.394	-323.024	-789.396	-300.608
128	-789.588	-300.817	-796.777	-289.306
129	-797.712	-290.233	-796.519	-292.142
130	-798.633	-294.241	-792.720	-303.708
131	-796.337	-307.345	-786.293	-323.426
132	-791.649	-328.766	-774.032	-356.972
133	-781.266	-364.183	-757.539	-402.170
134	-766.557	-411.183	-738.971	-455.349
135	-749.552	-465.924	-720.831	-511.907
136	-732.481	-523.560	-708.169	-562.486
137	-725.297	-565.512	-724.865	-566.205
138	-748.191	-572.833	-904.548	-322.498
139	-775.734	-297.207	-802.936	-264.143
140	-812.655	-258.546	-694.586	-402.050
141	-721.260	-417.972	-856.761	-253.279
142	-859.001	-249.053	-686.169	-459.119
143	-831.587	-524.105	-792.999	-585.885
144	-793.066	-568.348	-778.816	-591.164
145	-773.738	-571.253	-769.572	-577.923
146	-753.987	-351.960	-773.361	-320.941
147	-775.419	-323.005	-789.427	-300.577
148	-789.613	-300.804	-796.778	-289.332
149	-797.708	-290.264	-796.531	-292.147
150	-798.634	-294.271	-792.713	-303.751
151	-796.336	-307.376	-786.285	-323.467
152	-791.627	-328.829	-774.039	-356.988
153	-781.256	-364.231	-757.518	-402.235
154	-766.545	-411.229	-738.965	-455.385
155	-749.547	-465.954	-720.824	-511.941
156	-732.475	-523.587	-708.128	-562.568
157	-725.251	-565.601	-724.816	-566.297
158	-748.129	-572.937	-904.452	-322.658
159	-775.628	-297.333	-802.835	-264.264
160	-812.549	-258.666	-694.475	-402.178
161	-721.130	-418.121	-856.669	-253.383
162	-858.906	-249.162	-686.123	-459.168
163	-831.539	-524.179	-792.961	-585.943
164	-793.037	-568.397	-778.811	-591.173

COMBINACION 18 G1 + G2 + PRETD + 0.60 SCMAX-EC1 + 0.2 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-773.732	-571.263	-769.606	-577.869
166	-754.020	-351.900	-773.397	-320.877
167	-775.442	-322.956	-789.450	-300.528
168	-789.635	-300.744	-796.793	-289.284
169	-797.725	-290.204	-796.537	-292.106
170	-798.636	-294.225	-792.729	-303.682
171	-796.340	-307.318	-786.294	-323.403
172	-791.633	-328.764	-774.028	-356.950
173	-781.251	-364.173	-757.515	-402.175
174	-766.515	-411.211	-738.927	-455.382
175	-749.511	-465.950	-720.772	-511.964
176	-732.422	-523.618	-707.969	-562.768
177	-725.107	-565.791	-724.650	-566.523
178	-747.982	-573.158	-904.249	-322.967
179	-775.463	-297.550	-802.681	-264.469
180	-812.409	-258.873	-694.304	-402.421
181	-721.092	-418.209	-856.621	-253.482
182	-858.850	-249.258	-686.089	-459.237
183	-831.494	-524.259	-792.956	-585.959
184	-793.017	-568.422	-778.830	-591.135
185	-773.746	-571.239	-769.619	-577.847
186	-753.995	-351.952	-773.302	-321.041
187	-775.371	-323.106	-789.299	-300.806
188	-789.515	-301.000	-796.604	-289.649
189	-797.558	-290.561	-796.310	-292.560
190	-798.440	-294.652	-792.469	-304.211
191	-796.091	-307.857	-785.998	-324.017
192	-791.352	-329.372	-773.720	-357.603
193	-780.941	-364.845	-757.172	-402.901
194	-766.179	-411.934	-738.568	-456.139
195	-749.127	-466.748	-720.369	-512.789
196	-732.016	-524.431	-707.140	-564.259
197	-724.249	-567.287	-723.744	-568.095
198	-747.034	-574.724	-903.256	-324.606
199	-774.500	-298.669	-801.596	-265.735
200	-811.295	-260.110	-693.105	-403.762
201	-719.759	-419.684	-855.598	-254.580
202	-857.847	-250.375	-685.378	-460.000
203	-830.765	-525.401	-792.502	-586.663
204	-792.583	-569.139	-778.668	-591.417
205	-773.583	-571.511	-769.674	-577.771
206	-753.920	-352.034	-773.211	-321.148
207	-775.246	-323.190	-789.191	-300.862
208	-789.354	-301.048	-796.483	-289.635
209	-797.384	-290.536	-796.144	-292.521
210	-798.232	-294.589	-792.238	-304.185
211	-795.841	-307.770	-785.698	-324.009
212	-791.016	-329.348	-773.335	-357.656
213	-780.539	-364.871	-756.678	-403.073
214	-765.687	-412.071	-737.965	-456.455
215	-748.537	-467.052	-719.650	-513.300
216	-731.326	-524.963	-705.404	-566.465
217	-722.589	-569.513	-721.878	-570.650
218	-745.284	-577.350	-901.417	-327.373
219	-772.950	-300.728	-799.991	-267.861

COMBINACION 18 G1 + G2 + PRETD + 0.60 SCMAX-EC1 + 0.2 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-809.798	-262.329	-691.640	-405.942
221	-718.501	-421.719	-854.633	-256.259
222	-856.820	-251.981	-684.645	-461.249
223	-829.844	-526.959	-792.037	-587.488
224	-792.078	-569.870	-778.619	-591.419
225	-773.553	-571.509	-769.859	-577.424
226	-753.746	-352.430	-772.376	-322.603
227	-774.500	-324.761	-787.713	-303.606
228	-788.004	-303.903	-794.351	-293.742
229	-795.379	-294.777	-793.377	-297.982
230	-795.600	-300.171	-788.853	-310.973
231	-792.581	-314.672	-781.767	-331.987
232	-787.210	-337.395	-768.914	-366.688
233	-776.210	-373.962	-751.854	-412.956
234	-760.914	-421.979	-732.819	-466.960
235	-743.386	-477.528	-714.217	-524.229
236	-725.803	-535.804	-698.495	-579.524
237	-712.882	-586.558	-710.759	-589.958
238	-733.984	-596.060	-892.620	-342.076
239	-761.223	-314.364	-786.219	-283.982
240	-795.761	-277.990	-677.291	-421.982
241	-703.955	-437.612	-843.558	-267.933
242	-845.984	-263.850	-677.410	-468.741
243	-822.647	-538.174	-788.201	-593.324
244	-788.623	-575.715	-778.377	-592.120
245	-773.381	-572.105	-772.288	-573.855
246	-755.006	-360.775	-772.350	-333.008
247	-774.016	-334.634	-786.305	-314.959
248	-786.150	-314.783	-791.857	-305.646
249	-792.415	-306.224	-790.044	-310.020
250	-791.810	-311.799	-784.611	-323.325
251	-787.947	-326.659	-776.700	-344.667
252	-781.838	-349.799	-762.888	-380.138
253	-769.998	-387.245	-744.889	-427.446
254	-753.919	-436.459	-724.909	-482.905
255	-735.669	-493.627	-705.540	-541.866
256	-717.566	-553.872	-689.436	-598.910
257	-706.172	-604.145	-699.186	-615.329
258	-724.226	-621.769	-884.822	-364.649
259	-756.517	-330.488	-872.504	-189.513
260	-876.995	-184.957	-802.318	-275.721
261	-825.209	-292.713	-910.644	-188.871
262	-894.602	-170.803	-739.499	-359.320
263	-878.851	-390.852	-826.747	-474.272
264	-829.871	-463.141	-793.027	-522.128
265	-793.136	-505.167	-770.375	-541.608
266	-740.155	-440.546	-713.096	-483.867
267	-736.668	-507.448	-723.589	-528.388
268	-723.984	-528.784	-713.925	-544.890
269	-714.638	-545.638	-707.079	-557.740
270	-708.670	-559.345	-703.156	-568.173
271	-705.982	-571.004	-702.336	-576.841
272	-706.624	-581.116	-705.526	-582.873
273	-710.308	-587.609	-708.005	-591.297
274	-710.649	-593.940	-708.349	-597.624

COMBINACION 18 G1 + G2 + PRETD + 0.60 SCMAX-EC1 + 0.2 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-706.629	-595.915	-699.074	-608.012
276	-697.830	-606.749	-685.278	-626.846
277	-684.323	-625.898	-666.769	-654.003
278	-665.897	-653.136	-643.562	-688.896
279	-642.552	-687.952	-615.408	-731.411
280	-613.934	-729.923	-579.096	-785.701

COMBINACION 19 G1 + G2 + PRETD + SCMIN-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-491.444	-667.246	-515.691	-628.426
2	-482.156	-685.901	-466.457	-711.035
3	-467.996	-712.566	-450.187	-741.078
4	-451.489	-742.378	-431.650	-774.142
5	-432.858	-775.346	-411.011	-810.323
6	-412.273	-811.532	-388.368	-849.806
7	-389.775	-851.171	-363.768	-892.810
8	-365.423	-894.449	-337.291	-939.490
9	-339.278	-941.512	-309.049	-989.910
10	-311.479	-992.357	-281.216	-1040.811
11	-285.289	-1044.900	-259.013	-1086.969
12	-264.351	-1092.260	-242.900	-1126.604
13	-249.424	-1133.132	-233.907	-1157.976
14	-241.479	-1165.554	-233.276	-1178.686
15	-241.561	-1186.963	-242.105	-1186.093
16	-250.559	-1194.528	-261.003	-1177.805
17	-268.794	-1185.613	-289.567	-1152.355
18	-296.109	-1172.584	-440.490	-941.423
19	-334.152	-738.414	-312.028	-765.304
20	-313.050	-779.791	-152.308	-975.164
21	-165.843	-994.065	-438.359	-662.840
22	-433.142	-668.084	-387.375	-723.712
23	-484.279	-940.284	-524.143	-876.459
24	-514.353	-879.662	-530.624	-853.612
25	-515.866	-856.118	-516.716	-854.758
26	-489.873	-784.385	-475.614	-807.216
27	-476.689	-808.290	-459.532	-835.759
28	-459.783	-836.009	-440.962	-866.142
29	-441.776	-866.954	-423.773	-895.778
30	-425.655	-897.633	-405.613	-929.721
31	-408.908	-933.044	-387.576	-967.197
32	-392.535	-972.212	-372.180	-1004.801
33	-379.007	-1011.635	-355.597	-1049.115
34	-364.218	-1057.720	-344.531	-1089.239
35	-354.740	-1099.423	-342.263	-1119.399
36	-353.599	-1130.724	-351.212	-1134.547
37	-359.995	-1150.370	-359.299	-1151.483
38	-370.224	-1177.823	-509.341	-955.090
39	-390.033	-766.281	-352.772	-811.570
40	-343.637	-829.488	-123.944	-1096.512
41	-137.264	-1129.187	-398.355	-811.847
42	-392.384	-817.407	-319.324	-906.207
43	-419.593	-1184.087	-430.412	-1166.766
44	-416.975	-1169.947	-429.052	-1150.612
45	-409.320	-1153.533	-404.507	-1161.240
46	-373.666	-959.317	-370.303	-964.701
47	-372.295	-966.696	-372.518	-966.339
48	-372.720	-966.513	-366.950	-975.751
49	-367.917	-976.718	-359.615	-990.009
50	-361.793	-992.174	-353.335	-1005.716
51	-357.054	-1009.400	-344.428	-1029.614
52	-349.876	-1035.052	-338.172	-1053.791
53	-345.488	-1061.134	-336.267	-1075.897
54	-345.379	-1085.016	-332.905	-1104.988

COMBINACION 19 G1 + G2 + PRETD + SCMIN-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-343.567	-1115.672	-337.657	-1125.134
56	-349.389	-1136.853	-353.823	-1129.753
57	-361.077	-1148.709	-362.970	-1145.679
58	-373.689	-1172.489	-515.155	-945.997
59	-391.350	-764.309	-354.374	-809.250
60	-344.669	-827.081	-125.159	-1093.880
61	-138.194	-1126.234	-398.822	-809.458
62	-392.930	-815.172	-323.657	-899.368
63	-421.072	-1181.248	-435.157	-1158.698
64	-422.031	-1162.552	-430.140	-1149.570
65	-413.946	-1147.646	-408.458	-1156.433
66	-377.598	-955.036	-373.610	-961.422
67	-375.693	-963.500	-375.395	-963.977
68	-375.609	-964.158	-367.060	-977.846
69	-367.980	-978.766	-359.689	-992.040
70	-361.792	-994.114	-353.583	-1007.257
71	-357.181	-1010.859	-344.709	-1030.827
72	-350.033	-1036.144	-338.464	-1054.667
73	-345.668	-1061.848	-336.560	-1076.430
74	-345.553	-1085.399	-333.906	-1104.047
75	-344.451	-1114.604	-338.140	-1124.708
76	-349.758	-1136.353	-353.721	-1130.009
77	-360.382	-1149.752	-360.400	-1149.724
78	-371.104	-1176.552	-509.494	-954.982
79	-385.679	-771.318	-346.389	-819.072
80	-336.771	-837.023	-114.920	-1106.669
81	-128.031	-1139.117	-389.210	-821.671
82	-383.281	-827.356	-316.206	-908.882
83	-411.063	-1197.411	-428.288	-1169.833
84	-415.024	-1173.565	-423.741	-1159.611
85	-407.440	-1157.615	-402.577	-1165.401
86	-371.656	-963.958	-368.289	-969.349
87	-370.353	-971.386	-369.308	-973.058
88	-369.510	-973.252	-361.430	-986.189
89	-362.371	-987.107	-354.805	-999.220
90	-356.926	-1001.324	-349.418	-1013.345
91	-353.061	-1016.950	-341.253	-1035.855
92	-346.620	-1041.195	-335.727	-1058.635
93	-342.969	-1065.855	-334.547	-1079.339
94	-343.571	-1088.359	-332.932	-1105.391
95	-343.522	-1115.969	-337.719	-1125.260
96	-349.373	-1136.923	-353.860	-1129.739
97	-360.386	-1149.754	-360.571	-1149.457
98	-371.268	-1176.305	-509.497	-954.995
99	-385.661	-771.309	-346.329	-819.115
100	-336.679	-837.045	-114.900	-1106.603
101	-127.866	-1139.174	-389.111	-821.647
102	-383.189	-827.345	-316.157	-908.818
103	-411.050	-1197.393	-428.710	-1169.118
104	-415.492	-1172.873	-424.155	-1159.002
105	-407.878	-1157.041	-402.965	-1164.907
106	-372.049	-963.493	-368.636	-968.957
107	-370.709	-971.004	-369.289	-973.276
108	-369.507	-973.449	-361.423	-986.392
109	-362.355	-987.320	-354.797	-999.421

COMBINACION 19 G1 + G2 + PRETD + SCMIN-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
110	-356.917	-1001.511	-349.430	-1013.497
111	-353.062	-1017.101	-341.274	-1035.974
112	-346.616	-1041.329	-335.760	-1058.710
113	-342.991	-1065.922	-334.604	-1079.349
114	-343.623	-1088.352	-333.053	-1105.276
115	-343.636	-1115.840	-337.776	-1125.221
116	-349.426	-1136.862	-353.844	-1129.789
117	-360.330	-1149.849	-360.340	-1149.835
118	-371.023	-1176.695	-509.010	-955.773
119	-385.211	-771.860	-345.724	-819.854
120	-336.076	-837.795	-114.094	-1107.599
121	-127.022	-1140.235	-388.368	-822.586
122	-382.448	-828.277	-315.467	-909.688
123	-410.301	-1198.601	-428.227	-1169.901
124	-415.003	-1173.642	-423.697	-1159.722
125	-407.411	-1157.752	-402.512	-1165.596
126	-371.571	-964.208	-368.184	-969.630
127	-370.245	-971.686	-368.740	-974.095
128	-368.932	-974.305	-360.936	-987.107
129	-361.867	-988.039	-354.361	-1000.056
130	-356.479	-1002.149	-349.084	-1013.988
131	-352.709	-1017.612	-340.997	-1036.364
132	-346.351	-1041.708	-335.538	-1059.019
133	-342.774	-1066.228	-334.446	-1079.561
134	-343.467	-1088.568	-332.989	-1105.344
135	-343.569	-1115.920	-337.779	-1125.191
136	-349.430	-1136.842	-353.922	-1129.649
137	-360.381	-1149.759	-360.417	-1149.701
138	-371.108	-1176.559	-509.054	-955.702
139	-385.238	-771.829	-345.738	-819.839
140	-336.087	-837.783	-114.094	-1107.602
141	-127.082	-1140.157	-388.349	-822.603
142	-382.434	-828.289	-315.426	-909.733
143	-410.253	-1198.679	-428.196	-1169.950
144	-414.977	-1173.685	-423.675	-1159.759
145	-407.415	-1157.752	-402.526	-1165.580
146	-371.623	-964.142	-368.251	-969.540
147	-370.303	-971.612	-368.797	-974.023
148	-368.983	-974.250	-360.986	-987.053
149	-361.909	-987.996	-354.435	-999.963
150	-356.543	-1002.078	-349.137	-1013.935
151	-352.756	-1017.567	-341.054	-1036.302
152	-346.396	-1041.662	-335.612	-1058.929
153	-342.829	-1066.170	-334.490	-1079.522
154	-343.514	-1088.519	-332.991	-1105.368
155	-343.574	-1115.934	-337.765	-1125.235
156	-349.418	-1136.878	-353.904	-1129.696
157	-360.354	-1149.816	-360.377	-1149.780
158	-371.069	-1176.627	-509.040	-955.729
159	-385.242	-771.822	-345.731	-819.846
160	-336.084	-837.778	-114.098	-1107.588
161	-127.063	-1140.172	-388.379	-822.559
162	-382.460	-828.251	-315.454	-909.692
163	-410.289	-1198.619	-428.206	-1169.933
164	-414.989	-1173.668	-423.662	-1159.782

COMBINACION 19 G1 + G2 + PRETD + SCMIN-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-407.386	-1157.799	-402.495	-1165.630
166	-371.583	-964.199	-368.238	-969.553
167	-370.283	-971.633	-368.818	-973.978
168	-369.004	-974.192	-361.050	-986.926
169	-361.975	-987.860	-354.538	-999.767
170	-356.631	-1001.894	-349.278	-1013.666
171	-352.893	-1017.296	-341.233	-1035.965
172	-346.577	-1041.317	-335.811	-1058.554
173	-343.036	-1065.774	-334.747	-1079.045
174	-343.757	-1088.065	-333.146	-1105.054
175	-343.731	-1115.622	-337.953	-1124.873
176	-349.611	-1136.516	-354.127	-1129.285
177	-360.595	-1149.389	-360.640	-1149.318
178	-371.334	-1176.188	-509.493	-954.990
179	-385.671	-771.317	-346.190	-819.304
180	-336.546	-837.254	-114.546	-1107.081
181	-127.689	-1139.452	-388.787	-822.104
182	-382.860	-827.793	-315.725	-909.391
183	-410.569	-1198.177	-428.299	-1169.791
184	-415.066	-1173.538	-423.694	-1159.723
185	-407.427	-1157.730	-402.463	-1165.679
186	-371.640	-964.120	-368.331	-969.417
187	-370.393	-971.492	-369.053	-973.637
188	-369.269	-973.831	-361.342	-986.522
189	-362.291	-987.443	-354.868	-999.327
190	-357.000	-1001.416	-349.688	-1013.123
191	-353.315	-1016.760	-341.692	-1035.369
192	-347.046	-1040.726	-336.349	-1057.851
193	-343.562	-1065.108	-335.362	-1078.237
194	-344.370	-1087.267	-333.526	-1104.629
195	-344.091	-1115.227	-338.388	-1124.358
196	-350.036	-1135.998	-354.621	-1128.656
197	-361.078	-1148.739	-361.195	-1148.552
198	-371.864	-1175.388	-510.604	-953.259
199	-386.669	-770.053	-347.234	-817.984
200	-337.570	-835.892	-115.611	-1105.669
201	-128.568	-1138.238	-389.496	-821.097
202	-383.589	-826.806	-316.235	-908.670
203	-411.156	-1197.214	-428.406	-1169.596
204	-415.205	-1173.337	-423.684	-1159.762
205	-407.404	-1157.780	-402.303	-1165.947
206	-371.689	-964.003	-368.643	-968.879
207	-370.678	-970.921	-370.152	-971.763
208	-370.312	-971.953	-362.919	-983.790
209	-363.816	-984.697	-356.941	-995.704
210	-359.030	-997.770	-352.239	-1008.643
211	-355.843	-1012.225	-344.751	-1029.984
212	-350.070	-1035.321	-339.868	-1051.656
213	-347.077	-1058.862	-339.304	-1071.307
214	-348.315	-1080.301	-336.002	-1100.015
215	-346.579	-1110.604	-341.069	-1119.425
216	-352.742	-1131.093	-357.504	-1123.468
217	-363.989	-1143.647	-364.298	-1143.153
218	-375.051	-1170.109	-515.013	-946.023
219	-392.399	-763.264	-353.495	-810.550

COMBINACION 19 G1 + G2 + PRETD + SCMIN-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-343.899	-828.599	-122.377	-1097.845
221	-135.607	-1130.189	-394.899	-815.036
222	-388.923	-820.679	-319.302	-905.300
223	-415.044	-1191.070	-429.718	-1167.577
224	-416.433	-1171.293	-424.108	-1159.005
225	-407.832	-1157.043	-401.905	-1166.534
226	-372.164	-963.360	-369.600	-967.466
227	-371.722	-969.626	-372.799	-967.901
228	-373.084	-968.208	-366.543	-978.681
229	-367.570	-979.718	-361.507	-989.424
230	-363.728	-991.615	-357.771	-1001.152
231	-361.499	-1004.853	-351.441	-1020.956
232	-356.882	-1026.368	-347.645	-1041.158
233	-354.945	-1048.426	-346.137	-1062.527
234	-355.199	-1071.546	-343.202	-1090.753
235	-353.776	-1101.310	-349.218	-1108.608
236	-360.803	-1120.183	-366.595	-1110.910
237	-372.651	-1131.283	-373.920	-1129.252
238	-384.160	-1156.143	-521.399	-936.417
239	-404.197	-748.306	-365.770	-795.011
240	-355.673	-812.888	-134.179	-1082.100
241	-147.130	-1114.397	-403.962	-802.234
242	-398.169	-808.140	-322.607	-899.981
243	-422.889	-1178.203	-432.419	-1162.947
244	-419.229	-1167.130	-425.699	-1156.772
245	-409.359	-1154.920	-402.998	-1165.104
246	-376.117	-967.394	-376.584	-966.645
247	-378.242	-968.285	-382.655	-961.221
248	-382.497	-961.048	-388.360	-951.662
249	-388.915	-952.245	-389.121	-951.914
250	-390.887	-953.694	-391.268	-953.083
251	-394.607	-956.415	-393.485	-958.210
252	-398.627	-963.336	-395.981	-967.573
253	-403.098	-974.669	-402.840	-975.082
254	-411.870	-984.094	-416.177	-977.197
255	-426.943	-987.910	-438.650	-969.167
256	-450.678	-981.172	-465.498	-957.445
257	-469.287	-983.407	-470.502	-981.463
258	-475.537	-1019.931	-604.798	-812.979
259	-477.683	-669.393	-524.073	-613.008
260	-514.020	-626.129	-324.002	-857.084
261	-339.284	-883.323	-501.677	-685.945
262	-481.431	-672.986	-378.528	-798.058
263	-482.069	-1026.117	-460.079	-1061.323
264	-452.446	-1067.413	-429.240	-1104.568
265	-416.456	-1108.248	-387.250	-1155.008
266	-356.828	-1054.268	-326.829	-1102.297
267	-350.402	-1125.877	-338.172	-1145.458
268	-338.564	-1145.859	-333.424	-1154.089
269	-334.136	-1154.837	-335.477	-1152.690
270	-337.071	-1154.290	-344.461	-1142.459
271	-347.283	-1145.296	-360.561	-1124.038
272	-364.850	-1128.311	-381.754	-1101.247
273	-386.535	-1105.984	-406.494	-1074.030
274	-409.139	-1076.671	-434.320	-1036.356

COMBINACION 19 G1 + G2 + PRETD + SCMIN-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-432.601	-1034.646	-457.745	-994.389
276	-456.504	-993.122	-481.813	-952.602
277	-480.862	-951.648	-506.530	-910.553
278	-505.657	-909.687	-531.736	-867.934
279	-530.735	-866.976	-557.192	-824.618
280	-555.713	-823.136	-579.056	-785.764

COMBINACION 20 G1 + G2 + PRETD + 0.60 SCMIN-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-491.451	-667.235	-506.185	-643.646
2	-489.540	-674.078	-481.227	-687.387
3	-482.765	-688.919	-472.344	-705.605
4	-473.646	-706.904	-461.195	-726.838
5	-462.404	-728.041	-447.944	-751.193
6	-449.205	-752.403	-432.690	-778.844
7	-434.097	-780.209	-415.484	-810.010
8	-417.140	-811.648	-396.408	-844.841
9	-398.396	-846.862	-375.564	-883.416
10	-377.995	-885.863	-355.127	-922.475
11	-359.203	-926.561	-340.328	-956.780
12	-345.665	-962.072	-331.610	-984.574
13	-338.135	-991.101	-330.014	-1004.103
14	-337.585	-1011.683	-336.773	-1012.984
15	-345.058	-1021.261	-352.994	-1008.554
16	-361.448	-1016.989	-379.287	-988.428
17	-387.080	-996.232	-415.292	-951.062
18	-424.376	-967.222	-581.798	-715.184
19	-467.071	-576.860	-463.375	-581.352
20	-467.099	-592.556	-337.432	-750.157
21	-352.172	-767.594	-571.691	-500.784
22	-568.573	-503.478	-480.762	-610.206
23	-590.139	-770.798	-599.538	-755.750
24	-592.158	-755.093	-592.346	-754.792
25	-580.792	-752.169	-572.105	-766.078
26	-549.503	-688.916	-534.074	-713.618
27	-535.150	-714.691	-519.163	-740.285
28	-519.414	-740.537	-503.072	-766.701
29	-503.887	-767.513	-488.359	-792.373
30	-490.241	-794.227	-473.630	-820.823
31	-476.924	-824.148	-459.706	-851.714
32	-464.665	-856.729	-448.421	-882.736
33	-455.248	-889.570	-438.155	-916.936
34	-446.776	-925.540	-433.733	-946.423
35	-443.942	-956.607	-438.108	-965.948
36	-449.444	-977.273	-453.701	-970.458
37	-463.793	-984.185	-474.104	-967.676
38	-487.888	-989.438	-643.569	-740.185
39	-519.535	-608.880	-513.560	-616.142
40	-509.852	-627.465	-332.670	-842.819
41	-349.872	-870.774	-560.455	-614.825
42	-556.796	-617.575	-441.727	-757.434
43	-555.497	-966.499	-541.194	-989.399
44	-530.842	-987.642	-523.974	-998.637
45	-508.444	-994.832	-491.961	-1021.221
46	-465.890	-811.662	-458.276	-823.853
47	-460.268	-825.848	-456.241	-832.295
48	-456.442	-832.470	-449.292	-843.918
49	-450.258	-844.885	-441.765	-858.483
50	-443.944	-860.647	-435.360	-874.391
51	-439.079	-878.074	-428.065	-895.708
52	-433.512	-901.147	-423.419	-917.306
53	-430.735	-924.649	-423.121	-936.840
54	-432.233	-945.960	-424.539	-958.278

COMBINACION 20 G1 + G2 + PRETD + 0.60 SCMIN-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-435.200	-968.964	-434.406	-970.235
56	-446.137	-981.955	-455.690	-966.660
57	-465.115	-982.141	-478.621	-960.517
58	-492.326	-982.546	-651.048	-728.425
59	-523.946	-603.147	-519.542	-608.500
60	-515.360	-619.616	-339.677	-833.148
61	-356.608	-860.766	-566.567	-605.575
62	-563.003	-608.458	-449.983	-745.827
63	-562.723	-954.460	-549.901	-974.988
64	-539.925	-973.800	-530.385	-989.074
65	-516.838	-982.911	-499.356	-1010.902
66	-473.363	-801.712	-464.797	-815.428
67	-466.879	-817.507	-462.003	-825.314
68	-462.217	-825.495	-452.902	-840.409
69	-453.823	-841.328	-444.883	-855.642
70	-446.984	-857.717	-438.133	-871.889
71	-441.732	-875.489	-430.419	-893.601
72	-435.742	-898.919	-425.333	-915.585
73	-432.536	-922.768	-424.590	-935.490
74	-433.582	-944.462	-425.976	-956.640
75	-436.522	-967.195	-435.060	-969.536
76	-446.677	-981.181	-455.489	-967.073
77	-464.579	-982.928	-476.597	-963.688
78	-490.293	-985.724	-646.821	-735.116
79	-519.805	-608.296	-513.724	-615.688
80	-509.637	-626.916	-332.256	-842.512
81	-349.265	-870.222	-559.613	-614.557
82	-556.014	-617.410	-444.349	-753.132
83	-555.397	-966.326	-544.554	-983.686
84	-534.445	-982.368	-525.395	-996.857
85	-511.749	-990.613	-494.772	-1017.793
86	-468.727	-808.543	-460.657	-821.463
87	-462.721	-823.500	-457.517	-831.832
88	-457.719	-832.026	-448.789	-846.323
89	-449.729	-847.242	-441.314	-860.715
90	-443.434	-862.821	-435.082	-876.194
91	-438.726	-879.797	-427.881	-897.159
92	-433.248	-902.499	-423.319	-918.397
93	-430.560	-925.619	-423.100	-937.563
94	-432.123	-946.582	-425.195	-957.674
95	-435.785	-968.252	-434.709	-969.975
96	-446.364	-981.637	-455.579	-966.882
97	-464.607	-982.891	-476.860	-963.274
98	-490.552	-985.326	-647.114	-734.665
99	-520.059	-607.958	-514.062	-615.247
100	-509.947	-626.449	-332.736	-841.838
101	-349.615	-869.652	-559.992	-613.953
102	-556.400	-616.818	-444.746	-752.526
103	-555.867	-965.535	-545.250	-982.532
104	-535.185	-981.239	-526.061	-995.847
105	-512.438	-989.635	-495.386	-1016.936
106	-469.349	-807.712	-461.212	-820.740
107	-463.284	-822.786	-457.810	-831.551
108	-458.028	-831.724	-449.056	-846.088
109	-449.990	-847.013	-441.545	-860.534

COMBINACION 20 G1 + G2 + PRETD + 0.60 SCMIN-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
110	-443.665	-862.623	-435.294	-876.025
111	-438.926	-879.629	-428.067	-897.014
112	-433.409	-902.371	-423.476	-918.273
113	-430.707	-925.485	-423.241	-937.437
114	-432.259	-946.442	-425.345	-957.512
115	-435.928	-968.076	-434.783	-969.910
116	-446.433	-981.550	-455.571	-966.920
117	-464.583	-982.936	-476.699	-963.538
118	-490.380	-985.600	-646.789	-735.182
119	-519.757	-608.329	-513.642	-615.760
120	-509.525	-626.979	-332.167	-842.546
121	-349.014	-870.418	-559.458	-614.636
122	-555.868	-617.496	-444.249	-753.162
123	-555.322	-966.416	-544.871	-983.150
124	-534.797	-981.845	-525.697	-996.415
125	-512.068	-990.191	-495.032	-1017.467
126	-468.979	-808.253	-460.866	-821.243
127	-462.927	-823.298	-457.417	-832.119
128	-457.609	-832.329	-448.712	-846.574
129	-449.643	-847.506	-441.233	-860.971
130	-443.349	-863.066	-435.049	-876.356
131	-438.671	-879.984	-427.865	-897.285
132	-433.219	-902.628	-423.309	-918.494
133	-430.545	-925.703	-423.121	-937.589
134	-432.141	-946.597	-425.287	-957.571
135	-435.867	-968.148	-434.771	-969.902
136	-446.422	-981.553	-455.613	-966.838
137	-464.605	-982.892	-476.748	-963.450
138	-490.439	-985.505	-646.822	-735.129
139	-519.780	-608.302	-513.666	-615.733
140	-509.549	-626.951	-332.192	-842.517
141	-349.092	-870.318	-559.481	-614.603
142	-555.896	-617.457	-444.246	-753.161
143	-555.319	-966.422	-544.882	-983.131
144	-534.814	-981.822	-525.711	-996.394
145	-512.102	-990.143	-495.068	-1017.416
146	-469.040	-808.173	-460.934	-821.151
147	-462.986	-823.224	-457.477	-832.043
148	-457.662	-832.272	-448.758	-846.527
149	-449.682	-847.468	-441.299	-860.889
150	-443.405	-863.008	-435.092	-876.317
151	-438.713	-879.946	-427.911	-897.240
152	-433.253	-902.600	-423.371	-918.422
153	-430.589	-925.663	-423.153	-937.569
154	-432.178	-946.564	-425.292	-957.589
155	-435.876	-968.155	-434.767	-969.931
156	-446.420	-981.574	-455.605	-966.868
157	-464.589	-982.931	-476.722	-963.506
158	-490.411	-985.555	-646.794	-735.179
159	-519.762	-608.322	-513.645	-615.757
160	-509.530	-626.966	-332.177	-842.527
161	-349.056	-870.353	-559.483	-614.593
162	-555.894	-617.453	-444.259	-753.138
163	-555.337	-966.390	-544.879	-983.135
164	-534.813	-981.825	-525.699	-996.417

COMBINACION 20 G1 + G2 + PRETD + 0.60 SCMIN-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-512.077	-990.184	-495.049	-1017.447
166	-469.010	-808.213	-460.924	-821.160
167	-462.968	-823.240	-457.482	-832.023
168	-457.668	-832.237	-448.787	-846.456
169	-449.713	-847.387	-441.349	-860.778
170	-443.443	-862.903	-435.168	-876.152
171	-438.783	-879.783	-428.008	-897.035
172	-433.350	-902.389	-423.472	-918.205
173	-430.696	-925.426	-423.292	-937.282
174	-432.300	-946.304	-425.363	-957.410
175	-435.948	-967.979	-434.852	-969.733
176	-446.511	-981.375	-455.707	-966.651
177	-464.708	-982.700	-476.853	-963.256
178	-490.549	-985.320	-647.022	-734.799
179	-519.987	-608.065	-513.895	-615.469
180	-509.786	-626.692	-332.415	-842.275
181	-349.452	-869.913	-559.736	-614.327
182	-556.138	-617.184	-444.426	-752.963
183	-555.507	-966.126	-544.944	-983.037
184	-534.864	-981.737	-525.731	-996.358
185	-512.115	-990.121	-495.039	-1017.460
186	-469.052	-808.158	-460.976	-821.088
187	-463.039	-823.163	-457.613	-831.850
188	-457.828	-832.044	-448.945	-846.266
189	-449.895	-847.185	-441.520	-860.594
190	-443.651	-862.685	-435.384	-875.920
191	-439.009	-879.560	-428.244	-896.796
192	-433.599	-902.150	-423.759	-917.905
193	-430.975	-925.157	-423.624	-936.926
194	-432.631	-945.957	-425.559	-957.280
195	-436.124	-967.879	-435.080	-969.549
196	-446.728	-981.188	-455.974	-966.386
197	-464.960	-982.421	-477.152	-962.900
198	-490.819	-984.935	-647.653	-733.837
199	-520.537	-607.345	-514.450	-614.743
200	-510.319	-625.927	-332.961	-841.494
201	-349.834	-869.304	-560.050	-613.800
202	-556.473	-616.675	-444.658	-752.579
203	-555.795	-965.641	-544.959	-982.990
204	-534.906	-981.690	-525.694	-996.439
205	-512.069	-990.207	-494.934	-1017.641
206	-469.046	-808.130	-461.122	-820.816
207	-463.156	-822.859	-458.223	-830.758
208	-458.384	-830.946	-449.838	-844.629
209	-450.735	-845.536	-442.701	-858.399
210	-444.790	-860.465	-436.835	-873.200
211	-440.439	-876.784	-429.987	-893.517
212	-435.306	-898.855	-425.752	-914.151
213	-432.961	-921.358	-425.836	-932.766
214	-434.846	-941.761	-426.852	-954.560
215	-437.429	-965.148	-436.453	-966.711
216	-448.126	-978.378	-457.424	-963.491
217	-466.449	-979.603	-478.710	-959.973
218	-492.468	-982.119	-650.035	-729.847
219	-523.786	-603.571	-518.053	-610.540

COMBINACION 20 G1 + G2 + PRETD + 0.60 SCMIN-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-514.001	-621.851	-336.921	-837.081
221	-354.039	-864.699	-563.281	-610.380
222	-559.637	-613.188	-446.468	-750.738
223	-558.039	-962.131	-545.721	-981.851
224	-535.594	-980.511	-525.971	-995.919
225	-512.353	-989.702	-494.774	-1017.846
226	-469.367	-807.733	-461.644	-820.098
227	-463.767	-822.258	-459.685	-828.792
228	-459.972	-829.098	-451.807	-842.169
229	-452.834	-843.206	-445.158	-855.495
230	-447.379	-857.686	-439.804	-869.815
231	-443.532	-873.516	-433.601	-889.415
232	-439.043	-894.825	-429.997	-909.310
233	-437.296	-916.578	-429.521	-929.025
234	-438.583	-938.045	-430.794	-950.514
235	-441.368	-961.072	-441.019	-961.630
236	-452.604	-973.206	-462.600	-957.202
237	-471.309	-973.327	-484.207	-952.677
238	-497.533	-974.628	-653.674	-724.639
239	-530.243	-595.106	-524.585	-601.982
240	-520.099	-613.039	-342.875	-828.443
241	-359.740	-855.983	-567.848	-603.041
242	-564.404	-606.092	-448.056	-747.505
243	-562.533	-954.628	-547.361	-978.919
244	-537.398	-977.937	-527.264	-994.163
245	-513.613	-988.005	-496.198	-1015.887
246	-472.370	-813.288	-466.155	-823.239
247	-467.814	-824.878	-465.547	-828.508
248	-465.390	-828.334	-464.606	-829.588
249	-465.162	-830.169	-461.262	-836.414
250	-463.027	-838.194	-459.298	-844.164
251	-462.636	-847.496	-458.092	-854.771
252	-463.233	-859.898	-458.118	-868.089
253	-465.234	-875.187	-462.509	-879.549
254	-471.540	-888.560	-473.380	-885.613
255	-484.145	-896.329	-493.380	-881.542
256	-505.409	-893.545	-520.695	-869.071
257	-528.605	-888.437	-541.684	-867.498
258	-552.435	-896.815	-704.784	-652.897
259	-575.879	-550.041	-654.681	-454.263
260	-649.464	-461.506	-506.820	-634.880
261	-524.521	-658.180	-654.254	-500.497
262	-635.470	-485.761	-509.740	-638.579
263	-625.954	-795.750	-586.326	-859.197
264	-581.243	-861.204	-544.974	-919.273
265	-535.247	-918.058	-498.592	-976.744
266	-468.218	-875.927	-430.815	-935.812
267	-454.387	-959.393	-434.751	-990.831
268	-435.144	-991.231	-422.593	-1011.326
269	-423.306	-1012.073	-417.229	-1021.802
270	-418.823	-1023.402	-418.787	-1023.461
271	-421.610	-1026.296	-427.463	-1016.925
272	-431.752	-1021.198	-441.226	-1006.030
273	-446.008	-1010.766	-458.536	-990.708
274	-461.182	-993.349	-478.924	-964.942

COMBINACION 20 G1 + G2 + PRETD + 0.60 SCMIN-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-477.206	-963.232	-494.917	-934.876
276	-493.676	-933.608	-511.552	-904.988
277	-510.602	-904.034	-528.833	-874.845
278	-527.961	-873.978	-546.603	-844.131
279	-545.602	-843.173	-564.627	-812.714
280	-563.148	-811.233	-579.067	-785.746

COMBINACION 21 G1 + G2 + 0.9 PRETD

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-442.312	-600.502	-457.820	-575.673
2	-459.129	-576.982	-468.690	-561.673
3	-470.075	-563.053	-476.236	-553.188
4	-477.409	-554.356	-480.244	-549.817
5	-481.332	-550.899	-480.850	-551.671
6	-481.984	-552.762	-478.156	-558.892
7	-479.422	-560.121	-472.207	-571.672
8	-473.698	-573.146	-463.080	-590.146
9	-464.869	-591.964	-450.856	-614.400
10	-453.044	-616.601	-437.492	-641.500
11	-441.162	-645.175	-427.706	-666.719
12	-432.508	-671.483	-421.881	-688.498
13	-427.754	-694.371	-420.961	-705.247
14	-427.773	-712.071	-426.049	-714.832
15	-433.505	-722.281	-438.152	-714.842
16	-445.759	-722.435	-457.811	-703.138
17	-464.827	-710.158	-484.764	-678.238
18	-495.390	-688.859	-635.505	-464.529
19	-525.930	-390.864	-526.578	-390.077
20	-532.968	-396.467	-434.249	-516.454
21	-448.684	-530.727	-610.232	-334.375
22	-609.786	-333.931	-505.297	-460.931
23	-615.227	-559.067	-610.694	-566.325
24	-606.377	-562.012	-608.037	-559.355
25	-600.727	-552.048	-597.284	-557.561
26	-581.032	-481.567	-576.163	-489.362
27	-577.131	-490.328	-572.245	-498.151
28	-572.470	-498.378	-566.356	-508.167
29	-567.089	-508.897	-559.030	-521.800
30	-560.724	-523.468	-550.305	-540.150
31	-553.268	-543.146	-540.552	-563.503
32	-545.013	-568.020	-530.497	-591.262
33	-536.642	-597.410	-521.665	-621.390
34	-529.425	-629.132	-515.858	-650.852
35	-525.047	-660.017	-515.292	-675.635
36	-525.495	-685.827	-522.151	-691.181
37	-532.497	-701.513	-536.137	-695.685
38	-551.300	-710.855	-688.458	-491.260
39	-574.192	-418.414	-582.286	-408.576
40	-585.052	-411.348	-448.850	-576.893
41	-468.701	-596.744	-626.436	-405.027
42	-625.744	-404.340	-497.625	-560.061
43	-611.773	-690.811	-594.070	-719.155
44	-587.726	-712.813	-580.142	-724.956
45	-570.215	-715.047	-557.562	-735.305
46	-538.696	-539.340	-537.752	-540.852
47	-539.544	-542.647	-539.155	-543.270
48	-539.336	-543.429	-537.336	-546.631
49	-538.204	-547.504	-533.927	-554.351
50	-535.890	-556.296	-528.947	-567.412
51	-532.295	-570.726	-522.835	-585.871
52	-527.736	-590.769	-516.434	-608.864
53	-523.019	-615.472	-511.264	-634.291
54	-519.463	-642.501	-509.252	-658.850

COMBINACION 21 G1 + G2 + 0.9 PRETD

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-518.846	-668.469	-512.622	-678.434
56	-523.179	-688.982	-523.593	-688.319
57	-534.170	-698.900	-541.735	-686.787
58	-556.950	-702.003	-697.979	-476.210
59	-582.799	-407.617	-594.206	-393.752
60	-596.658	-396.203	-463.737	-557.761
61	-483.363	-577.284	-640.269	-386.575
62	-639.681	-385.986	-511.016	-542.369
63	-626.737	-666.429	-607.900	-696.589
64	-601.957	-690.659	-593.045	-704.928
65	-583.405	-695.296	-569.367	-717.771
66	-550.668	-521.985	-548.382	-525.645
67	-550.256	-527.517	-548.616	-530.143
68	-548.808	-530.306	-545.647	-535.368
69	-546.477	-536.193	-541.136	-544.745
70	-543.027	-546.612	-535.100	-559.304
71	-538.342	-562.541	-527.960	-579.162
72	-532.750	-583.950	-520.509	-603.549
73	-526.990	-610.016	-514.295	-630.342
74	-522.385	-638.420	-511.209	-656.313
75	-520.702	-665.811	-513.472	-677.386
76	-523.928	-687.866	-523.271	-688.917
77	-533.795	-699.437	-540.245	-689.110
78	-555.459	-704.320	-695.403	-480.264
79	-580.479	-410.542	-590.959	-397.805
80	-593.504	-400.347	-459.642	-563.047
81	-479.340	-582.650	-636.456	-391.686
82	-635.838	-391.069	-507.330	-547.262
83	-622.612	-673.158	-604.080	-702.827
84	-598.023	-696.773	-589.477	-710.455
85	-579.754	-700.740	-566.091	-722.614
86	-547.353	-526.760	-545.434	-529.833
87	-547.291	-531.667	-546.007	-533.722
88	-546.188	-533.897	-543.347	-538.446
89	-544.192	-539.276	-539.140	-547.364
90	-541.045	-549.264	-533.383	-561.531
91	-536.664	-564.771	-526.527	-581.002
92	-531.357	-585.808	-519.367	-605.005
93	-525.883	-611.506	-513.440	-631.428
94	-521.562	-639.544	-510.638	-657.034
95	-520.169	-666.553	-513.205	-677.702
96	-523.696	-688.197	-523.328	-688.785
97	-533.867	-699.329	-540.633	-688.496
98	-555.846	-703.716	-696.095	-479.171
99	-581.108	-409.751	-591.838	-396.709
100	-594.362	-399.223	-460.812	-561.544
101	-480.403	-581.229	-637.495	-390.294
102	-636.883	-389.687	-508.338	-545.926
103	-623.739	-671.318	-605.124	-701.122
104	-599.103	-695.094	-590.453	-708.943
105	-580.752	-699.254	-566.987	-721.292
106	-548.257	-525.460	-546.240	-528.689
107	-548.107	-530.530	-546.714	-532.759
108	-546.911	-532.914	-543.977	-537.612
109	-544.820	-538.439	-539.686	-546.660

COMBINACION 21 G1 + G2 + 0.9 PRETD

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
110	-541.594	-548.539	-533.856	-560.929
111	-537.124	-564.172	-526.922	-580.506
112	-531.729	-585.329	-519.680	-604.619
113	-526.187	-611.110	-513.681	-631.133
114	-521.795	-639.240	-510.801	-656.842
115	-520.326	-666.350	-513.283	-677.625
116	-523.769	-688.101	-523.312	-688.833
117	-533.860	-699.346	-540.535	-688.659
118	-555.738	-703.886	-695.944	-479.411
119	-580.964	-409.929	-591.629	-396.967
120	-594.143	-399.503	-460.513	-561.922
121	-480.077	-581.656	-637.199	-390.685
122	-636.589	-390.073	-508.062	-546.289
123	-623.431	-671.821	-604.837	-701.590
124	-598.809	-695.551	-590.187	-709.355
125	-580.483	-699.652	-566.742	-721.653
126	-548.008	-525.814	-546.017	-529.001
127	-547.872	-530.850	-546.525	-533.008
128	-546.696	-533.199	-543.818	-537.806
129	-544.657	-538.643	-539.539	-546.838
130	-541.442	-548.726	-533.746	-561.048
131	-537.003	-564.318	-526.824	-580.616
132	-531.645	-585.421	-519.593	-604.717
133	-526.107	-611.202	-513.621	-631.192
134	-521.739	-639.299	-510.763	-656.872
135	-520.286	-666.390	-513.265	-677.631
136	-523.752	-688.116	-523.325	-688.800
137	-533.860	-699.337	-540.557	-688.615
138	-555.774	-703.828	-695.977	-479.358
139	-580.997	-409.890	-591.677	-396.909
140	-594.197	-399.439	-460.582	-561.839
141	-480.190	-581.514	-637.282	-390.579
142	-636.678	-389.961	-508.118	-546.217
143	-623.495	-671.718	-604.897	-701.493
144	-598.872	-695.453	-590.237	-709.278
145	-580.543	-699.562	-566.789	-721.584
146	-548.064	-525.739	-546.070	-528.932
147	-547.916	-530.797	-546.574	-532.946
148	-546.738	-533.155	-543.844	-537.790
149	-544.678	-538.633	-539.577	-546.799
150	-541.470	-548.710	-533.761	-561.052
151	-537.020	-564.317	-526.838	-580.620
152	-531.645	-585.445	-519.619	-604.700
153	-526.116	-611.216	-513.619	-631.224
154	-521.742	-639.318	-510.758	-656.905
155	-520.283	-666.414	-513.256	-677.665
156	-523.744	-688.143	-523.311	-688.836
157	-533.841	-699.381	-540.534	-688.665
158	-555.746	-703.878	-695.919	-479.455
159	-580.939	-409.959	-591.621	-396.976
160	-594.140	-399.502	-460.524	-561.903
161	-480.114	-581.600	-637.238	-390.626
162	-636.630	-390.013	-508.100	-546.232
163	-623.479	-671.742	-604.881	-701.517
164	-598.857	-695.479	-590.226	-709.297

COMBINACION 21 G1 + G2 + 0.9 PRETD

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-580.525	-699.592	-566.793	-721.577
166	-548.057	-525.744	-546.079	-528.911
167	-547.918	-530.784	-546.580	-532.926
168	-546.747	-533.120	-543.856	-537.749
169	-544.690	-538.584	-539.591	-546.748
170	-541.478	-548.658	-533.792	-560.964
171	-537.042	-564.236	-526.873	-580.518
172	-531.678	-585.343	-519.643	-604.610
173	-526.145	-611.109	-513.659	-631.100
174	-521.765	-639.223	-510.794	-656.788
175	-520.319	-666.301	-513.290	-677.555
176	-523.783	-688.032	-523.345	-688.735
177	-533.889	-699.267	-540.580	-688.554
178	-555.804	-703.773	-695.940	-479.408
179	-580.975	-409.931	-591.673	-396.928
180	-594.201	-399.461	-460.564	-561.888
181	-480.286	-581.428	-637.341	-390.538
182	-636.725	-389.923	-508.169	-546.175
183	-623.543	-671.645	-604.930	-701.445
184	-598.897	-695.409	-590.257	-709.242
185	-580.556	-699.539	-566.791	-721.579
186	-548.065	-525.742	-546.052	-528.965
187	-547.907	-530.833	-546.525	-533.046
188	-546.719	-533.220	-543.777	-537.931
189	-544.634	-538.755	-539.482	-547.004
190	-541.398	-548.888	-533.667	-561.266
191	-536.927	-564.546	-526.720	-580.889
192	-531.541	-585.705	-519.491	-604.998
193	-525.988	-611.520	-513.494	-631.523
194	-521.600	-639.653	-510.631	-657.214
195	-520.139	-666.753	-513.118	-677.995
196	-523.601	-688.470	-523.169	-689.162
197	-533.696	-699.687	-540.394	-688.963
198	-555.588	-704.162	-695.736	-479.779
199	-580.751	-410.157	-591.396	-397.218
200	-593.901	-399.720	-460.226	-562.193
201	-479.813	-581.872	-636.988	-390.837
202	-636.390	-390.238	-507.929	-546.375
203	-623.318	-671.983	-604.771	-701.679
204	-598.756	-695.654	-590.179	-709.387
205	-580.473	-699.684	-566.788	-721.595
206	-548.046	-525.737	-546.125	-528.812
207	-547.955	-530.653	-546.690	-532.678
208	-546.836	-532.846	-544.040	-537.324
209	-544.846	-538.141	-539.829	-546.174
210	-541.709	-548.034	-534.082	-560.245
211	-537.324	-563.472	-527.212	-579.662
212	-531.998	-584.468	-520.031	-603.626
213	-526.518	-610.114	-514.061	-630.059
214	-522.170	-638.156	-511.213	-655.697
215	-520.733	-665.227	-513.710	-676.470
216	-524.217	-686.968	-523.770	-687.685
217	-534.342	-698.263	-541.040	-687.540
218	-556.321	-702.829	-696.571	-478.283
219	-581.648	-409.224	-592.464	-396.078

COMBINACION 21 G1 + G2 + 0.9 PRETD

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-595.053	-398.679	-461.511	-560.991
221	-481.302	-580.518	-638.133	-389.900
222	-637.478	-389.238	-508.687	-545.776
223	-624.009	-670.952	-605.240	-701.001
224	-599.168	-694.924	-590.375	-709.003
225	-580.679	-699.309	-566.742	-721.621
226	-548.055	-525.830	-545.826	-529.399
227	-547.736	-531.343	-546.109	-533.947
228	-546.367	-534.221	-543.165	-539.348
229	-544.089	-540.282	-538.663	-548.969
230	-540.663	-550.939	-532.648	-563.772
231	-536.003	-567.102	-525.552	-583.834
232	-530.452	-588.701	-518.210	-608.301
233	-524.780	-614.842	-512.144	-635.073
234	-520.299	-643.190	-509.266	-660.854
235	-518.782	-670.356	-511.768	-681.586
236	-522.195	-692.004	-521.817	-692.609
237	-532.215	-703.024	-538.931	-692.271
238	-553.902	-707.258	-693.878	-483.150
239	-578.705	-412.244	-588.942	-399.802
240	-591.217	-402.081	-457.198	-564.973
241	-476.786	-584.399	-634.790	-392.355
242	-634.332	-391.890	-506.828	-546.863
243	-622.466	-673.146	-604.662	-701.651
244	-598.804	-695.790	-590.950	-708.364
245	-581.256	-698.673	-568.777	-718.653
246	-550.277	-531.599	-548.662	-534.185
247	-550.156	-535.657	-549.431	-536.819
248	-549.291	-536.661	-547.273	-539.891
249	-547.773	-540.414	-543.703	-546.931
250	-545.291	-548.534	-538.697	-559.090
251	-541.701	-562.091	-532.627	-576.619
252	-537.253	-581.234	-526.278	-598.806
253	-532.680	-605.197	-521.187	-623.598
254	-529.317	-631.704	-519.258	-647.809
255	-528.944	-657.456	-522.862	-667.194
256	-533.690	-677.994	-534.344	-676.946
257	-545.438	-688.011	-553.592	-674.957
258	-569.698	-691.047	-713.152	-461.371
259	-597.565	-398.685	-684.459	-293.071
260	-684.825	-293.438	-587.238	-412.048
261	-605.510	-430.172	-703.622	-310.924
262	-688.362	-295.661	-567.439	-442.635
263	-682.855	-524.857	-645.040	-585.400
264	-642.924	-583.270	-610.764	-634.760
265	-604.957	-628.948	-575.792	-675.642
266	-548.502	-584.833	-516.926	-635.388
267	-538.140	-656.612	-521.046	-683.980
268	-521.401	-684.338	-509.172	-703.917
269	-509.814	-704.590	-501.901	-717.259
270	-503.335	-718.700	-499.341	-725.094
271	-501.883	-727.643	-501.688	-727.956
272	-505.548	-731.802	-507.099	-729.319
273	-511.403	-733.581	-514.197	-729.107
274	-516.580	-731.482	-522.553	-721.918

COMBINACION 21 G1 + G2 + 0.9 PRETD

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-521.006	-720.380	-525.454	-713.259
276	-524.337	-712.118	-527.431	-707.164
277	-526.576	-706.305	-528.479	-703.258
278	-527.694	-702.478	-528.465	-701.245
279	-527.564	-700.382	-527.180	-700.997
280	-525.849	-699.664	-521.175	-707.148

COMBINACION 22 G1 + G2 + 0.9 PRETD + TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-442.311	-600.504	-461.942	-569.073
2	-463.251	-570.382	-476.936	-548.471
3	-478.321	-549.850	-488.607	-533.382
4	-489.780	-534.550	-496.740	-523.407
5	-497.827	-524.489	-501.467	-518.662
6	-502.601	-519.753	-502.893	-519.285
7	-504.159	-520.515	-501.064	-525.470
8	-502.556	-526.943	-496.056	-537.350
9	-497.846	-539.167	-487.949	-555.013
10	-490.136	-557.214	-478.704	-575.519
11	-482.372	-579.196	-473.034	-594.146
12	-477.835	-598.912	-471.326	-609.333
13	-477.200	-615.206	-474.525	-619.489
14	-481.338	-626.312	-483.732	-622.479
15	-491.188	-629.928	-499.955	-615.893
16	-507.562	-623.485	-523.735	-597.591
17	-530.751	-604.611	-554.806	-566.098
18	-565.432	-576.719	-709.667	-345.793
19	-594.709	-307.268	-599.177	-301.838
20	-605.567	-308.228	-510.668	-423.571
21	-525.102	-437.846	-685.689	-242.662
22	-685.243	-242.218	-579.793	-370.387
23	-695.552	-430.463	-689.982	-439.381
24	-685.665	-435.068	-686.288	-434.071
25	-678.978	-426.765	-674.498	-433.937
26	-658.247	-357.943	-652.341	-367.399
27	-653.309	-368.364	-647.386	-377.847
28	-647.611	-378.074	-640.460	-389.522
29	-641.193	-390.253	-632.097	-404.816
30	-633.792	-406.483	-622.335	-424.826
31	-625.298	-427.822	-611.545	-449.841
32	-616.006	-454.358	-600.452	-479.261
33	-606.597	-485.409	-590.583	-511.049
34	-598.342	-518.791	-583.738	-542.173
35	-592.928	-551.337	-582.135	-568.617
36	-592.337	-578.809	-587.956	-585.824
37	-598.302	-596.156	-600.905	-591.989
38	-616.068	-607.159	-752.188	-389.226
39	-633.297	-346.576	-640.429	-337.907
40	-643.195	-340.680	-506.031	-507.394
41	-525.881	-527.245	-683.888	-335.198
42	-683.195	-334.512	-555.348	-489.902
43	-674.013	-591.162	-656.602	-619.038
44	-650.259	-612.695	-642.967	-624.371
45	-633.040	-614.461	-620.679	-634.251
46	-601.814	-438.286	-601.162	-439.329
47	-602.954	-441.125	-602.858	-441.280
48	-603.038	-441.438	-601.331	-444.172
49	-602.199	-445.045	-598.215	-451.423
50	-600.177	-453.369	-593.527	-464.017
51	-596.875	-467.330	-587.708	-482.007
52	-592.609	-486.904	-581.599	-504.531
53	-588.184	-511.139	-576.722	-529.490
54	-584.921	-537.700	-575.002	-553.581

COMBINACION 22 G1 + G2 + 0.9 PRETD + TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-584.596	-563.200	-578.665	-572.696
56	-589.222	-583.245	-589.929	-582.113
57	-600.505	-592.694	-608.363	-580.113
58	-623.578	-595.329	-764.899	-369.067
59	-644.863	-332.183	-656.541	-317.988
60	-658.993	-320.439	-526.343	-481.667
61	-545.969	-501.190	-702.798	-310.574
62	-702.211	-309.985	-573.469	-466.462
63	-694.078	-558.614	-675.157	-588.906
64	-669.215	-582.977	-660.220	-597.378
65	-650.580	-587.745	-636.460	-610.353
66	-617.761	-414.567	-615.392	-418.359
67	-617.266	-420.231	-615.543	-422.989
68	-615.736	-423.152	-612.492	-428.346
69	-613.323	-429.170	-607.899	-437.855
70	-609.790	-439.722	-601.780	-452.546
71	-605.022	-455.783	-594.558	-472.536
72	-599.347	-477.325	-587.024	-497.055
73	-593.505	-503.523	-580.727	-523.981
74	-588.817	-532.059	-577.558	-550.085
75	-587.052	-559.582	-579.739	-571.290
76	-590.195	-581.770	-589.456	-582.953
77	-599.980	-593.472	-606.347	-583.277
78	-621.562	-598.487	-761.422	-374.564
79	-641.707	-336.124	-652.111	-323.479
80	-654.655	-326.021	-520.717	-488.814
81	-540.415	-508.418	-697.552	-317.427
82	-696.935	-316.810	-568.449	-472.976
83	-688.513	-567.647	-670.005	-597.279
84	-663.948	-591.224	-655.426	-604.869
85	-645.702	-595.154	-632.063	-616.991
86	-613.324	-421.137	-611.429	-424.172
87	-613.285	-426.006	-612.025	-428.024
88	-612.206	-428.199	-609.388	-432.711
89	-610.233	-433.541	-605.205	-441.592
90	-607.110	-443.491	-599.471	-455.721
91	-602.753	-458.961	-592.639	-475.154
92	-597.469	-479.961	-585.502	-499.120
93	-592.018	-505.621	-579.598	-525.506
94	-587.720	-533.622	-576.819	-551.075
95	-586.351	-560.593	-579.410	-571.706
96	-589.901	-582.200	-589.557	-582.751
97	-600.095	-593.295	-606.884	-582.424
98	-622.097	-597.645	-762.370	-373.063
99	-642.573	-335.044	-653.325	-321.976
100	-655.848	-324.490	-522.320	-486.785
101	-541.911	-506.470	-698.996	-315.543
102	-698.385	-314.936	-569.833	-471.182
103	-690.047	-565.157	-671.425	-594.972
104	-665.404	-588.944	-656.747	-602.803
105	-647.047	-593.114	-633.275	-615.163
106	-614.544	-419.331	-612.521	-422.572
107	-614.387	-424.412	-612.988	-426.652
108	-613.185	-426.806	-610.244	-431.515
109	-611.087	-432.343	-605.946	-440.574

COMBINACION 22 G1 + G2 + 0.9 PRETD + TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
110	-607.855	-442.454	-600.109	-454.854
111	-603.378	-458.098	-593.169	-474.442
112	-597.975	-479.265	-585.919	-498.567
113	-592.427	-505.057	-579.914	-525.091
114	-588.028	-533.198	-577.027	-550.811
115	-586.552	-560.319	-579.502	-571.606
116	-589.988	-582.081	-589.525	-582.823
117	-600.073	-593.336	-606.741	-582.660
118	-621.945	-597.887	-762.143	-373.423
119	-642.359	-335.308	-653.017	-322.353
120	-655.532	-324.889	-521.896	-487.315
121	-541.460	-507.050	-698.584	-316.075
122	-697.974	-315.464	-569.450	-471.677
123	-689.622	-565.846	-671.031	-595.610
124	-665.003	-589.572	-656.384	-603.372
125	-646.680	-593.668	-632.941	-615.665
126	-614.207	-419.826	-612.219	-423.010
127	-614.074	-424.859	-612.729	-427.012
128	-612.900	-427.203	-610.025	-431.807
129	-610.864	-432.644	-605.748	-440.835
130	-607.651	-442.723	-599.957	-455.041
131	-603.214	-458.312	-593.037	-474.605
132	-597.858	-479.411	-585.809	-498.702
133	-592.322	-505.188	-579.839	-525.174
134	-587.957	-533.281	-576.984	-550.851
135	-586.506	-560.368	-579.487	-571.606
136	-589.974	-582.091	-589.549	-582.771
137	-600.085	-593.309	-606.784	-582.583
138	-622.002	-597.796	-762.206	-373.322
139	-642.420	-335.235	-653.102	-322.251
140	-655.622	-324.782	-522.009	-487.179
141	-541.617	-506.854	-698.707	-315.921
142	-698.103	-315.303	-569.540	-471.562
143	-689.724	-565.683	-671.124	-595.461
144	-665.099	-589.421	-656.461	-603.250
145	-646.768	-593.534	-633.011	-615.560
146	-614.286	-419.715	-612.290	-422.911
147	-614.136	-424.777	-612.792	-426.929
148	-612.956	-427.139	-610.059	-431.777
149	-610.893	-432.620	-605.790	-440.790
150	-607.682	-442.701	-599.971	-455.047
151	-603.231	-458.311	-593.045	-474.618
152	-597.853	-479.444	-585.824	-498.703
153	-592.321	-505.218	-579.822	-525.230
154	-587.945	-533.325	-576.958	-550.916
155	-586.484	-560.424	-579.454	-571.679
156	-589.942	-582.157	-589.507	-582.854
157	-600.036	-593.399	-606.727	-582.687
158	-621.939	-597.900	-762.110	-373.480
159	-642.326	-335.347	-653.005	-322.367
160	-655.524	-324.892	-521.907	-487.296
161	-541.496	-506.993	-698.627	-316.012
162	-698.019	-315.399	-569.496	-471.610
163	-689.679	-565.753	-671.088	-595.517
164	-665.064	-589.478	-656.440	-603.286

COMBINACION 22 G1 + G2 + 0.9 PRETD + TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-646.738	-593.581	-633.014	-615.555
166	-614.278	-419.721	-612.306	-422.878
167	-614.146	-424.750	-612.814	-426.882
168	-612.981	-427.076	-610.097	-431.694
169	-610.931	-432.529	-605.839	-440.683
170	-607.725	-442.593	-600.046	-454.888
171	-603.297	-458.160	-593.134	-474.431
172	-597.939	-479.256	-585.911	-498.512
173	-592.413	-505.012	-579.934	-524.991
174	-588.040	-533.114	-577.075	-550.669
175	-586.601	-560.182	-579.578	-571.426
176	-590.071	-581.903	-589.639	-582.595
177	-600.183	-593.127	-606.881	-582.403
178	-622.105	-597.622	-762.248	-373.247
179	-642.470	-335.187	-653.174	-322.177
180	-655.702	-324.710	-522.071	-487.130
181	-541.794	-506.670	-698.827	-315.806
182	-698.211	-315.191	-569.633	-471.469
183	-689.817	-565.537	-671.181	-595.374
184	-665.148	-589.338	-656.484	-603.209
185	-646.784	-593.506	-632.995	-615.583
186	-614.269	-419.747	-612.233	-423.006
187	-614.088	-424.875	-612.683	-427.125
188	-612.877	-427.299	-609.911	-432.047
189	-610.768	-432.871	-605.592	-441.158
190	-607.509	-443.041	-599.755	-455.457
191	-603.015	-458.737	-592.784	-475.117
192	-597.606	-479.932	-585.532	-499.263
193	-592.029	-505.785	-579.512	-525.826
194	-587.618	-533.955	-576.626	-551.554
195	-586.133	-561.093	-579.089	-572.373
196	-589.572	-582.847	-589.117	-583.577
197	-599.643	-594.102	-606.318	-583.416
198	-621.512	-598.615	-761.636	-374.270
199	-641.868	-335.873	-652.491	-322.960
200	-654.997	-325.462	-521.300	-487.961
201	-540.887	-507.641	-698.138	-316.512
202	-697.541	-315.913	-569.156	-471.957
203	-689.337	-566.284	-670.873	-595.847
204	-664.858	-589.822	-656.363	-603.422
205	-646.658	-593.719	-633.055	-615.498
206	-614.313	-419.641	-612.475	-422.583
207	-614.305	-424.424	-613.123	-426.316
208	-613.269	-426.484	-610.556	-430.829
209	-611.362	-431.646	-606.428	-439.546
210	-608.308	-441.406	-600.763	-453.486
211	-604.005	-456.712	-593.975	-472.771
212	-598.761	-477.576	-586.877	-496.603
213	-593.365	-503.090	-580.990	-522.903
214	-589.099	-531.000	-578.225	-548.409
215	-587.744	-557.939	-580.804	-569.050
216	-591.311	-579.548	-590.946	-580.133
217	-601.518	-590.711	-608.298	-579.856
218	-623.580	-595.144	-763.912	-370.467
219	-644.101	-333.316	-654.994	-320.077

COMBINACION 22 G1 + G2 + 0.9 PRETD + TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-657.583	-322.678	-524.117	-484.897
221	-543.909	-504.424	-700.468	-314.136
222	-699.813	-313.474	-570.750	-470.342
223	-690.929	-563.810	-671.867	-594.328
224	-665.796	-588.251	-656.709	-602.799
225	-647.013	-593.104	-632.785	-615.885
226	-614.097	-420.094	-611.575	-424.132
227	-613.485	-426.076	-611.566	-429.148
228	-611.824	-429.422	-608.328	-435.018
229	-609.253	-435.952	-603.534	-445.108
230	-605.534	-447.078	-597.226	-460.379
231	-600.581	-463.709	-589.838	-480.910
232	-594.738	-485.777	-582.203	-505.846
233	-588.772	-512.387	-575.843	-533.086
234	-583.999	-541.204	-572.673	-559.337
235	-582.189	-568.839	-574.883	-580.537
236	-585.309	-590.956	-584.639	-592.029
237	-595.036	-602.444	-601.459	-592.160
238	-616.431	-607.147	-756.114	-383.508
239	-636.424	-342.090	-646.390	-329.978
240	-648.665	-332.257	-514.374	-495.479
241	-533.962	-514.905	-692.929	-321.691
242	-692.471	-321.226	-565.930	-475.029
243	-686.193	-571.116	-669.428	-597.958
244	-663.570	-592.097	-656.754	-603.009
245	-647.060	-593.318	-635.619	-611.636
246	-617.119	-424.582	-616.542	-425.505
247	-618.036	-426.978	-618.350	-426.476
248	-618.210	-426.318	-617.231	-427.884
249	-617.731	-428.408	-614.700	-433.261
250	-616.288	-434.865	-610.733	-443.758
251	-613.736	-446.759	-605.701	-459.624
252	-610.327	-464.240	-600.390	-480.149
253	-606.793	-486.540	-596.338	-503.278
254	-604.468	-511.383	-595.449	-525.824
255	-605.135	-535.472	-600.090	-543.548
256	-610.918	-554.347	-612.611	-551.638
257	-623.705	-562.702	-632.896	-547.986
258	-649.003	-564.076	-793.495	-332.738
259	-672.077	-308.121	-759.934	-201.336
260	-760.300	-201.703	-663.677	-319.142
261	-681.947	-337.267	-776.234	-222.668
262	-760.974	-207.405	-636.226	-359.029
263	-757.025	-406.107	-715.085	-473.255
264	-712.968	-471.126	-676.682	-529.222
265	-670.874	-523.412	-637.585	-576.710
266	-610.295	-485.899	-574.591	-543.063
267	-595.805	-564.287	-574.586	-598.260
268	-574.941	-598.617	-558.590	-624.797
269	-559.231	-625.471	-547.195	-644.740
270	-548.630	-646.181	-540.516	-659.171
271	-543.058	-661.721	-538.741	-668.633
272	-542.602	-672.478	-540.036	-676.585
273	-544.339	-680.849	-543.015	-682.968
274	-545.398	-685.343	-547.255	-682.370

COMBINACION 22 G1 + G2 + 0.9 PRETD + TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-545.708	-680.831	-546.037	-680.304
276	-544.922	-679.162	-543.898	-680.800
277	-543.044	-679.939	-540.832	-683.482
278	-540.046	-682.702	-536.700	-688.060
279	-535.799	-687.197	-531.298	-694.403
280	-529.968	-693.071	-521.175	-707.148

COMBINACION 23 G1 + G2 + 0.9 PRETD + SCMAX-IPF + 0.6 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-442.318	-600.492	-492.278	-520.505
2	-548.499	-433.897	-637.436	-291.504
3	-638.819	-292.885	-714.719	-171.367
4	-715.889	-172.539	-778.386	-72.478
5	-779.475	-73.559	-828.762	5.351
6	-829.894	4.257	-865.946	61.977
7	-867.211	60.746	-889.916	97.098
8	-891.409	95.627	-901.044	111.054
9	-902.837	109.241	-898.873	102.895
10	-901.064	100.698	-885.903	76.424
11	-889.580	72.761	-866.520	35.841
12	-871.324	31.080	-841.335	-16.933
13	-847.208	-22.807	-811.029	-80.732
14	-817.836	-87.563	-776.978	-152.979
15	-784.432	-160.432	-740.043	-231.501
16	-747.649	-239.096	-701.031	-313.733
17	-708.057	-320.737	-659.832	-397.948
18	-683.137	-388.269	-784.973	-225.225
19	-673.877	-211.045	-659.538	-228.473
20	-673.786	-225.312	-571.955	-349.081
21	-592.429	-356.014	-732.089	-186.266
22	-737.747	-178.403	-616.858	-325.335
23	-750.539	-342.426	-753.499	-337.687
24	-761.204	-314.127	-802.307	-248.319
25	-810.972	-215.438	-865.890	-127.511
26	-870.786	-17.659	-949.898	109.003
27	-950.867	108.040	-1013.742	208.705
28	-1013.966	208.477	-1058.876	280.380
29	-1059.610	279.651	-1085.690	321.406
30	-1087.388	319.743	-1094.125	330.531
31	-1097.087	327.532	-1084.459	307.315
32	-1088.917	302.793	-1057.376	252.295
33	-1063.522	246.147	-1014.405	167.508
34	-1022.164	159.766	-957.299	55.914
35	-966.491	46.753	-888.306	-78.424
36	-898.509	-88.616	-809.671	-230.849
37	-826.548	-230.725	-749.468	-354.132
38	-778.887	-346.479	-855.267	-224.190
39	-747.979	-207.187	-737.373	-220.078
40	-755.922	-203.666	-620.959	-367.706
41	-652.103	-373.830	-786.458	-210.530
42	-792.493	-201.668	-646.447	-379.176
43	-789.946	-405.548	-774.526	-430.236
44	-783.562	-399.272	-804.934	-365.053
45	-815.957	-321.603	-862.897	-246.450
46	-867.813	-12.409	-947.222	114.728
47	-949.017	112.936	-1012.639	214.797
48	-1012.815	214.631	-1058.057	287.066
49	-1058.921	286.186	-1085.036	327.998
50	-1087.004	326.062	-1093.479	336.429
51	-1096.829	333.118	-1083.734	312.151
52	-1088.628	307.244	-1056.583	255.938
53	-1063.171	249.336	-1013.511	169.828
54	-1021.705	161.609	-956.500	57.214

COMBINACION 23 G1 + G2 + 0.9 PRETD + SCMAX-IPF + 0.6 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-966.088	47.585	-887.775	-77.798
56	-898.330	-88.350	-809.577	-230.447
57	-830.977	-223.699	-764.816	-329.625
58	-794.913	-321.013	-884.566	-177.475
59	-775.485	-173.419	-776.055	-172.727
60	-794.575	-155.648	-670.837	-306.043
61	-701.819	-311.764	-833.099	-152.202
62	-839.284	-143.381	-690.438	-324.294
63	-838.112	-328.009	-819.113	-358.428
64	-828.871	-327.361	-852.336	-289.792
65	-855.908	-259.007	-899.171	-189.741
66	-904.747	44.910	-980.501	166.197
67	-982.373	164.321	-1042.425	260.467
68	-1042.619	260.306	-1084.390	327.184
69	-1085.225	326.366	-1107.913	362.690
70	-1109.801	360.817	-1112.923	365.815
71	-1116.169	362.586	-1099.766	336.324
72	-1104.552	331.530	-1069.191	274.916
73	-1075.666	268.439	-1022.724	183.676
74	-1030.806	175.584	-962.268	65.852
75	-971.765	56.360	-890.071	-74.435
76	-900.528	-84.913	-808.367	-232.467
77	-830.997	-223.603	-764.604	-329.902
78	-794.740	-321.222	-884.340	-177.768
79	-775.384	-173.648	-775.951	-172.959
80	-794.585	-155.945	-670.841	-306.349
81	-701.900	-312.143	-833.127	-152.645
82	-839.286	-143.791	-690.336	-324.830
83	-837.865	-328.528	-818.888	-358.911
84	-828.571	-327.655	-851.992	-290.157
85	-855.519	-259.228	-898.874	-189.814
86	-904.451	44.970	-980.307	166.418
87	-982.163	164.582	-1042.262	260.805
88	-1042.440	260.624	-1084.241	327.549
89	-1085.081	326.711	-1107.777	363.048
90	-1109.677	361.140	-1112.797	366.136
91	-1116.084	362.904	-1099.664	336.615
92	-1104.495	331.811	-1069.102	275.144
93	-1075.615	268.640	-1022.641	183.825
94	-1030.766	175.715	-962.207	65.948
95	-971.744	56.437	-890.001	-74.436
96	-900.497	-84.921	-808.343	-232.465
97	-831.352	-223.042	-765.918	-327.805
98	-796.055	-319.131	-886.625	-174.125
99	-777.499	-171.050	-778.930	-169.311
100	-797.555	-152.255	-674.736	-301.533
101	-705.694	-307.402	-836.717	-148.152
102	-842.883	-139.307	-693.719	-320.606
103	-841.561	-322.577	-822.310	-353.397
104	-832.039	-322.154	-855.146	-285.158
105	-858.700	-254.248	-901.761	-185.304
106	-907.356	49.473	-982.885	170.397
107	-984.753	168.559	-1044.561	264.315
108	-1044.758	264.161	-1086.269	330.622
109	-1087.120	329.806	-1109.544	365.707

COMBINACION 23 G1 + G2 + 0.9 PRETD + SCMAX-IPF + 0.6 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
110	-1111.450	363.824	-1114.280	368.356
111	-1117.548	365.111	-1100.870	338.409
112	-1105.678	333.589	-1070.023	276.505
113	-1076.533	270.017	-1023.289	184.772
114	-1031.399	176.658	-962.554	66.434
115	-972.077	56.924	-890.139	-74.264
116	-900.627	-84.735	-808.221	-232.681
117	-831.360	-223.036	-765.950	-327.759
118	-796.070	-319.105	-886.671	-174.049
119	-777.528	-171.018	-778.968	-169.268
120	-797.569	-152.252	-674.744	-301.538
121	-705.672	-307.460	-836.705	-148.199
122	-842.870	-139.352	-693.707	-320.650
123	-841.526	-322.640	-822.286	-353.445
124	-832.001	-322.202	-855.150	-285.139
125	-858.720	-254.184	-901.824	-185.172
126	-907.461	49.686	-983.031	170.678
127	-984.886	168.827	-1044.719	264.623
128	-1044.887	264.426	-1086.431	330.940
129	-1087.275	330.111	-1109.687	365.993
130	-1111.587	364.101	-1114.418	368.633
131	-1117.665	365.346	-1100.965	338.609
132	-1105.789	333.808	-1070.092	276.656
133	-1076.604	270.169	-1023.357	184.918
134	-1031.473	176.807	-962.604	66.544
135	-972.129	57.030	-890.118	-74.272
136	-900.605	-84.757	-808.187	-232.723
137	-831.339	-223.060	-765.963	-327.730
138	-796.117	-319.030	-886.780	-173.874
139	-777.654	-170.866	-779.162	-169.034
140	-797.780	-151.997	-675.024	-301.199
141	-705.996	-307.062	-836.995	-147.842
142	-843.168	-138.986	-693.960	-320.338
143	-841.813	-322.181	-822.551	-353.020
144	-832.262	-321.785	-855.356	-284.812
145	-858.914	-253.879	-901.957	-184.965
146	-907.541	49.799	-983.071	170.725
147	-984.919	168.863	-1044.742	264.642
148	-1044.903	264.427	-1086.398	330.863
149	-1087.238	330.029	-1109.647	365.907
150	-1111.529	363.979	-1114.340	368.479
151	-1117.604	365.223	-1100.869	338.430
152	-1105.677	333.605	-1069.999	276.483
153	-1076.501	269.976	-1023.232	184.689
154	-1031.360	176.601	-962.496	66.347
155	-972.025	56.844	-889.999	-74.482
156	-900.493	-84.951	-808.047	-232.961
157	-831.197	-223.300	-765.836	-327.946
158	-795.965	-319.277	-886.586	-174.189
159	-777.442	-171.123	-778.942	-169.299
160	-797.551	-152.268	-674.782	-301.487
161	-705.737	-307.370	-836.806	-148.064
162	-842.976	-139.213	-693.845	-320.471
163	-841.690	-322.376	-822.479	-353.134
164	-832.208	-321.874	-855.367	-284.796

COMBINACION 23 G1 + G2 + 0.9 PRETD + SCMAX-IPF + 0.6 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-858.929	-253.854	-902.070	-184.784
166	-907.634	49.955	-983.157	170.870
167	-984.997	168.998	-1044.798	264.743
168	-1044.963	264.545	-1086.433	330.941
169	-1087.271	330.111	-1109.646	365.934
170	-1111.539	364.034	-1114.352	368.538
171	-1117.599	365.260	-1100.859	338.459
172	-1105.658	333.625	-1069.952	276.458
173	-1076.454	269.959	-1023.163	184.638
174	-1031.266	176.510	-962.365	66.197
175	-971.885	56.675	-889.818	-74.718
176	-900.312	-85.194	-807.805	-233.302
177	-830.962	-223.640	-765.541	-328.382
178	-795.696	-319.694	-886.279	-174.667
179	-777.185	-171.450	-778.684	-169.628
180	-797.313	-152.590	-674.506	-301.854
181	-705.592	-307.583	-836.676	-148.259
182	-842.838	-139.405	-693.758	-320.604
183	-841.588	-322.545	-822.442	-353.199
184	-832.149	-321.963	-855.360	-284.800
185	-858.907	-253.887	-902.091	-184.749
186	-907.478	49.695	-982.759	170.222
187	-984.611	168.347	-1044.176	263.714
188	-1044.371	263.542	-1085.630	329.598
189	-1086.495	328.787	-1108.684	364.313
190	-1110.598	362.425	-1113.206	366.601
191	-1116.459	363.309	-1099.547	336.232
192	-1104.371	331.421	-1068.494	273.980
193	-1075.002	267.475	-1021.523	181.854
194	-1029.627	173.721	-960.540	63.109
195	-970.046	53.568	-887.798	-78.115
196	-898.283	-88.589	-805.598	-236.981
197	-828.721	-227.339	-763.141	-332.336
198	-793.247	-323.660	-883.633	-178.948
199	-774.688	-174.438	-775.971	-172.878
200	-794.569	-155.821	-671.564	-305.325
201	-702.521	-311.185	-834.311	-151.002
202	-840.493	-142.164	-692.099	-322.528
203	-839.834	-325.332	-821.392	-354.859
204	-831.119	-323.631	-855.047	-285.321
205	-858.604	-254.384	-902.504	-184.098
206	-907.332	49.495	-982.424	169.721
207	-984.248	167.871	-1043.665	263.000
208	-1043.814	262.836	-1084.935	328.673
209	-1085.740	327.853	-1107.728	363.056
210	-1109.608	361.197	-1111.973	364.984
211	-1115.214	361.755	-1098.026	334.237
212	-1102.811	329.429	-1066.678	271.578
213	-1073.165	265.091	-1019.408	179.023
214	-1027.512	170.919	-958.135	59.843
215	-967.655	50.314	-885.104	-81.853
216	-895.617	-92.342	-802.591	-241.279
217	-825.817	-231.600	-759.926	-337.093
218	-790.161	-328.441	-880.383	-183.991
219	-771.841	-178.056	-773.019	-176.624

COMBINACION 23 G1 + G2 + 0.9 PRETD + SCMAX-IPF + 0.6 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-791.734	-159.626	-668.590	-309.299
221	-699.748	-315.011	-832.174	-154.056
222	-838.303	-145.148	-690.548	-324.734
223	-838.060	-328.247	-820.431	-356.471
224	-830.153	-325.107	-854.867	-285.539
225	-858.452	-254.582	-903.052	-183.175
226	-905.976	47.217	-978.435	163.227
227	-980.346	161.284	-1037.048	252.067
228	-1037.310	251.799	-1075.666	313.209
229	-1076.593	312.280	-1095.844	343.102
230	-1097.848	341.138	-1097.517	340.608
231	-1100.875	337.281	-1081.070	305.573
232	-1085.972	300.711	-1047.298	238.793
233	-1053.863	232.244	-997.683	142.297
234	-1005.835	134.174	-934.145	19.395
235	-943.657	9.887	-858.874	-125.854
236	-869.294	-136.283	-774.121	-288.659
237	-797.733	-277.916	-729.646	-386.928
238	-759.954	-377.360	-856.088	-223.445
239	-741.713	-214.119	-740.312	-215.822
240	-758.909	-198.263	-633.298	-350.935
241	-664.305	-356.481	-804.930	-185.561
242	-811.302	-176.795	-671.841	-346.300
243	-818.564	-359.185	-809.369	-373.906
244	-819.640	-342.223	-852.557	-289.521
245	-856.300	-258.316	-909.004	-173.935
246	-905.737	37.508	-974.764	148.024
247	-976.261	146.556	-1029.846	232.347
248	-1029.708	232.508	-1065.210	289.349
249	-1065.711	288.827	-1082.265	315.331
250	-1083.851	313.724	-1080.877	308.963
251	-1083.876	305.956	-1061.360	269.907
252	-1065.983	265.286	-1024.458	198.802
253	-1030.855	192.402	-971.721	97.726
254	-979.855	89.626	-905.065	-30.116
255	-914.743	-39.775	-826.857	-180.485
256	-837.689	-191.277	-739.523	-348.445
257	-771.140	-326.652	-705.296	-432.072
258	-738.027	-421.545	-838.665	-260.419
259	-729.870	-237.876	-802.864	-149.158
260	-822.206	-126.460	-730.948	-237.379
261	-761.297	-240.823	-851.628	-131.032
262	-840.623	-110.598	-715.078	-263.190
263	-854.070	-250.735	-824.084	-298.743
264	-834.709	-276.215	-825.504	-290.952
265	-834.967	-260.692	-857.274	-224.978
266	-830.222	-133.787	-848.859	-103.949
267	-870.074	-125.171	-893.606	-87.495
268	-893.962	-87.851	-912.804	-57.685
269	-913.444	-58.361	-926.503	-37.453
270	-927.934	-38.897	-935.299	-27.107
271	-937.845	-29.651	-938.923	-27.924
272	-942.778	-31.779	-935.846	-42.876
273	-940.154	-47.132	-924.384	-72.381
274	-926.770	-74.750	-904.060	-111.110

COMBINACION 23 G1 + G2 + 0.9 PRETD + SCMAX-IPF + 0.6 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-902.512	-109.572	-868.456	-164.097
276	-867.340	-162.956	-822.028	-235.502
277	-821.173	-234.643	-764.435	-325.484
278	-763.651	-324.702	-695.693	-433.505
279	-694.793	-432.641	-615.612	-559.413
280	-614.283	-558.079	-521.182	-707.136

COMBINACION 24 G1 + G2 + 0.9 PRETD + TEMP + 0.80 SCMAX-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	TI_2
1	-442.316	-600.495	-487.687	-527.855
2	-532.081	-460.183	-606.677	-340.751
3	-608.060	-342.132	-671.623	-240.365
4	-672.794	-241.536	-725.048	-157.876
5	-726.136	-158.958	-767.233	-93.159
6	-768.366	-94.252	-798.282	-46.355
7	-799.547	-47.586	-818.186	-17.745
8	-819.679	-19.216	-827.257	-7.082
9	-829.049	-8.896	-825.145	-15.147
10	-827.335	-17.345	-814.244	-38.304
11	-817.919	-41.971	-799.005	-72.253
12	-803.808	-77.015	-779.994	-115.142
13	-785.867	-121.016	-757.945	-165.721
14	-764.754	-172.550	-734.179	-221.502
15	-741.634	-228.954	-709.587	-280.262
16	-717.194	-287.856	-684.922	-339.524
17	-691.946	-346.531	-660.039	-397.616
18	-680.681	-392.201	-792.657	-212.922
19	-679.045	-204.764	-669.866	-215.920
20	-682.464	-214.764	-583.300	-335.292
21	-602.505	-343.767	-746.241	-169.065
22	-750.617	-162.760	-632.652	-306.139
23	-764.414	-320.212	-765.272	-318.838
24	-770.452	-299.320	-802.908	-247.357
25	-808.218	-219.847	-850.516	-152.126
26	-850.970	-49.386	-912.056	48.416
27	-913.025	47.453	-961.255	124.671
28	-961.480	124.443	-995.230	178.479
29	-995.964	177.750	-1014.398	207.264
30	-1016.095	205.600	-1018.721	209.804
31	-1021.682	206.806	-1008.494	185.691
32	-1012.952	181.170	-984.410	135.473
33	-990.555	129.324	-947.997	61.187
34	-955.757	53.445	-901.020	-34.191
35	-910.211	-43.353	-845.718	-146.609
36	-855.920	-156.801	-784.324	-271.430
37	-799.829	-273.502	-738.956	-370.963
38	-765.380	-368.103	-853.837	-226.480
39	-742.645	-213.671	-735.492	-222.364
40	-750.726	-209.982	-615.028	-374.915
41	-643.800	-383.922	-783.200	-214.490
42	-787.821	-207.346	-645.675	-380.116
43	-785.395	-412.835	-769.640	-438.060
44	-775.445	-412.267	-790.995	-387.371
45	-797.617	-350.966	-832.381	-295.308
46	-832.302	-69.264	-895.149	31.357
47	-896.943	29.564	-947.409	110.361
48	-947.586	110.197	-983.162	167.156
49	-984.027	166.278	-1003.984	198.230
50	-1005.951	196.292	-1009.800	202.454
51	-1013.149	199.142	-1000.975	179.651
52	-1005.871	174.746	-978.306	130.613
53	-984.894	124.010	-943.284	57.390
54	-951.479	49.174	-897.879	-36.642

COMBINACION 24 G1 + G2 + 0.9 PRETD + TEMP + 0.80 SCMAX-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	TI_2
55	-907.468	-46.269	-844.316	-147.378
56	-854.871	-157.929	-784.833	-270.064
57	-803.959	-266.955	-753.237	-348.164
58	-780.208	-344.557	-880.684	-183.690
59	-767.760	-182.809	-770.789	-179.127
60	-785.935	-166.150	-660.451	-318.666
61	-689.049	-327.286	-825.658	-161.246
62	-830.421	-154.153	-685.762	-329.977
63	-829.308	-342.105	-810.287	-372.558
64	-816.747	-346.771	-833.449	-320.030
65	-834.247	-293.688	-865.617	-243.463
66	-866.094	-16.975	-925.574	78.255
67	-927.446	76.381	-974.630	151.925
68	-974.824	151.764	-1007.217	203.625
69	-1008.051	202.807	-1024.878	229.748
70	-1026.767	227.876	-1027.562	229.148
71	-1030.807	225.917	-1015.628	201.616
72	-1020.415	196.822	-989.835	147.863
73	-996.312	141.388	-951.713	69.984
74	-959.797	61.895	-903.163	-28.778
75	-912.659	-38.271	-846.427	-144.311
76	-856.883	-154.790	-783.730	-271.913
77	-803.817	-267.120	-752.478	-349.315
78	-779.480	-345.653	-879.490	-185.533
79	-766.753	-184.139	-769.401	-180.919
80	-784.656	-168.013	-658.787	-320.999
81	-687.461	-329.693	-824.125	-163.586
82	-828.861	-156.462	-684.204	-332.283
83	-827.488	-345.142	-808.605	-375.375
84	-814.982	-349.412	-831.781	-322.517
85	-832.524	-296.043	-864.102	-245.486
86	-864.572	-18.879	-924.265	76.692
87	-926.121	74.857	-973.474	150.671
88	-973.652	150.492	-1006.192	202.589
89	-1007.033	201.752	-1023.983	228.890
90	-1025.884	226.984	-1026.789	228.433
91	-1030.075	225.200	-1014.990	201.048
92	-1019.821	196.243	-989.324	147.417
93	-995.838	140.913	-951.323	69.642
94	-959.448	61.531	-902.906	-28.996
95	-912.441	-38.508	-846.282	-144.431
96	-856.778	-154.918	-783.745	-271.846
97	-804.135	-266.617	-753.677	-347.403
98	-780.679	-343.749	-881.575	-182.210
99	-768.680	-181.769	-772.117	-177.592
100	-787.360	-164.646	-662.339	-316.601
101	-690.910	-325.371	-827.393	-159.485
102	-832.136	-152.370	-687.287	-328.424
103	-830.859	-339.710	-811.726	-370.343
104	-818.147	-344.395	-834.660	-317.958
105	-835.430	-291.504	-866.738	-241.379
106	-867.224	-14.781	-926.622	80.318
107	-928.489	78.479	-975.573	153.863
108	-975.770	153.708	-1008.045	205.382
109	-1008.894	204.564	-1025.597	231.304

COMBINACION 24 G1 + G2 + 0.9 PRETD + TEMP + 0.80 SCMAX-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
110	-1027.503	229.422	-1028.147	230.453
111	-1031.415	227.208	-1016.097	202.684
112	-1020.905	197.864	-990.173	148.661
113	-996.682	142.173	-951.925	70.515
114	-960.036	62.403	-903.238	-28.534
115	-912.761	-38.044	-846.415	-144.267
116	-856.903	-154.739	-783.638	-272.040
117	-804.132	-266.629	-753.658	-347.440
118	-780.645	-343.801	-881.540	-182.264
119	-768.636	-181.825	-772.051	-177.675
120	-787.273	-164.766	-662.217	-316.764
121	-690.758	-325.588	-827.260	-159.679
122	-832.002	-152.561	-687.163	-328.604
123	-830.706	-339.965	-811.590	-370.569
124	-817.999	-344.620	-834.556	-318.111
125	-835.338	-291.619	-866.689	-241.424
126	-867.208	-14.761	-926.649	80.407
127	-928.504	78.557	-975.622	153.995
128	-975.790	153.799	-1008.108	205.541
129	-1008.951	204.711	-1025.652	231.450
130	-1027.553	229.558	-1028.211	230.612
131	-1031.460	227.328	-1016.134	202.791
132	-1020.957	197.989	-990.197	148.740
133	-996.709	142.253	-951.959	70.606
134	-960.075	62.496	-903.266	-28.458
135	-912.791	-37.973	-846.397	-144.272
136	-856.884	-154.757	-783.620	-272.056
137	-804.122	-266.636	-753.683	-347.391
138	-780.700	-343.712	-881.649	-182.089
139	-768.757	-181.680	-772.233	-177.455
140	-787.470	-164.528	-662.476	-316.451
141	-691.061	-325.215	-827.527	-159.349
142	-832.277	-152.223	-687.393	-328.320
143	-830.966	-339.548	-811.830	-370.186
144	-818.236	-344.242	-834.743	-317.813
145	-835.518	-291.337	-866.816	-241.228
146	-867.295	-14.637	-926.701	80.474
147	-928.548	78.611	-975.657	154.034
148	-975.818	153.820	-1008.091	205.491
149	-1008.930	204.655	-1025.630	231.393
150	-1027.515	229.468	-1028.151	230.488
151	-1031.415	227.230	-1016.058	202.643
152	-1020.866	197.818	-990.123	148.598
153	-996.624	142.089	-951.851	70.405
154	-959.978	62.316	-903.169	-28.637
155	-912.698	-38.141	-846.288	-144.466
156	-856.781	-154.936	-783.491	-272.277
157	-803.991	-266.859	-753.561	-347.600
158	-780.557	-343.947	-881.464	-182.390
159	-768.559	-181.920	-772.027	-177.704
160	-787.256	-164.781	-662.248	-316.720
161	-690.816	-325.504	-827.350	-159.557
162	-832.096	-152.436	-687.284	-328.446
163	-830.850	-339.732	-811.759	-370.297
164	-818.179	-344.335	-834.744	-317.814

COMBINACION 24 G1 + G2 + 0.9 PRETD + TEMP + 0.80 SCMAX-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-835.521	-291.332	-866.906	-241.084
166	-867.366	-14.516	-926.775	80.600
167	-928.615	78.728	-975.712	154.132
168	-975.877	153.935	-1008.136	205.584
169	-1008.973	204.752	-1025.651	231.455
170	-1027.543	229.552	-1028.191	230.591
171	-1031.439	227.314	-1016.086	202.733
172	-1020.886	197.901	-990.124	148.650
173	-996.626	142.151	-951.843	70.452
174	-959.947	62.324	-903.116	-28.663
175	-912.637	-38.184	-846.200	-144.553
176	-856.693	-155.029	-783.358	-272.442
177	-803.867	-267.021	-753.394	-347.830
178	-780.413	-344.164	-881.287	-182.660
179	-768.420	-182.103	-771.895	-177.879
180	-787.143	-164.952	-662.105	-316.927
181	-690.804	-325.557	-827.320	-159.631
182	-832.059	-152.508	-687.266	-328.494
183	-830.822	-339.783	-811.763	-370.297
184	-818.164	-344.353	-834.752	-317.794
185	-835.517	-291.336	-866.913	-241.071
186	-867.236	-14.735	-926.430	80.037
187	-928.283	78.163	-975.168	153.229
188	-975.363	153.056	-1007.428	204.394
189	-1008.291	203.580	-1024.796	230.005
190	-1026.710	228.118	-1027.172	228.857
191	-1030.426	225.567	-1014.914	200.730
192	-1019.738	195.919	-988.821	146.420
193	-995.327	139.911	-950.378	67.947
194	-958.482	59.815	-901.490	-31.433
195	-910.996	-40.974	-844.401	-147.596
196	-854.885	-158.070	-781.396	-275.729
197	-801.873	-270.324	-751.260	-351.357
198	-778.234	-347.695	-878.939	-186.463
199	-766.202	-184.752	-769.481	-180.767
200	-784.698	-167.818	-659.482	-320.010
201	-688.051	-328.773	-825.201	-162.075
202	-829.959	-154.967	-685.781	-330.207
203	-829.255	-342.270	-810.822	-371.782
204	-817.242	-345.848	-834.466	-318.272
205	-835.238	-291.794	-867.272	-240.506
206	-867.150	-14.838	-926.270	79.816
207	-928.095	77.968	-974.944	152.975
208	-975.092	152.810	-1007.136	204.113
209	-1007.941	203.293	-1024.370	229.597
210	-1026.250	227.738	-1026.598	228.294
211	-1029.839	225.065	-1014.184	200.001
212	-1018.968	195.193	-987.923	145.489
213	-994.410	139.001	-949.305	66.786
214	-957.410	58.683	-900.246	-32.839
215	-909.766	-42.368	-842.987	-149.283
216	-853.499	-159.774	-779.793	-277.780
217	-800.361	-272.355	-749.558	-353.693
218	-776.653	-350.069	-877.305	-188.920
219	-764.845	-186.560	-768.128	-182.570

COMBINACION 24 G1 + G2 + 0.9 PRETD + TEMP + 0.80 SCMAX-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-783.455	-169.688	-658.208	-321.917
221	-686.979	-330.531	-824.376	-163.533
222	-829.080	-156.358	-685.154	-331.290
223	-828.472	-343.597	-810.438	-372.471
224	-816.843	-346.418	-834.444	-318.237
225	-835.240	-291.745	-867.577	-239.973
226	-865.962	-16.847	-922.739	74.056
227	-924.650	72.113	-969.081	143.248
228	-969.341	142.979	-998.917	190.330
229	-999.843	189.401	-1013.828	211.790
230	-1015.830	209.825	-1013.768	206.523
231	-1017.125	203.196	-999.134	174.391
232	-1004.036	169.528	-970.729	116.201
233	-977.294	109.654	-930.040	33.997
234	-938.193	25.876	-878.988	-68.914
235	-888.501	-78.420	-819.763	-188.472
236	-830.185	-198.899	-754.599	-319.914
237	-775.436	-313.615	-722.705	-398.041
238	-749.792	-393.631	-854.863	-225.408
239	-737.936	-218.709	-738.877	-217.566
240	-754.046	-204.173	-626.567	-359.116
241	-655.176	-367.577	-799.945	-191.619
242	-804.883	-184.596	-668.429	-350.448
243	-811.068	-371.186	-800.599	-387.948
244	-807.482	-361.688	-832.461	-321.695
245	-833.382	-295.009	-873.126	-231.377
246	-866.659	-25.057	-921.553	62.831
247	-923.050	61.362	-965.905	129.974
248	-965.766	130.135	-994.034	175.394
249	-994.535	174.871	-1007.371	195.422
250	-1008.957	193.816	-1005.804	188.767
251	-1008.804	185.761	-989.657	155.107
252	-994.280	150.487	-959.684	95.096
253	-966.082	88.698	-917.432	10.807
254	-925.565	2.706	-864.814	-94.558
255	-874.494	-104.215	-804.199	-216.762
256	-815.030	-227.555	-737.996	-350.891
257	-765.302	-335.999	-715.344	-415.984
258	-744.584	-411.048	-854.681	-234.777
259	-741.384	-223.882	-817.845	-130.949
260	-833.202	-113.096	-741.163	-224.963
261	-768.975	-231.491	-858.918	-122.171
262	-847.019	-102.823	-720.424	-256.692
263	-857.309	-245.549	-823.498	-299.681
264	-831.447	-281.437	-815.240	-307.384
265	-821.496	-282.260	-830.895	-267.211
266	-803.794	-176.099	-809.848	-166.407
267	-831.063	-187.629	-844.009	-166.902
268	-844.365	-167.258	-854.610	-150.856
269	-855.250	-151.532	-861.809	-141.030
270	-863.242	-142.473	-866.108	-137.885
271	-868.653	-140.430	-867.326	-142.553
272	-871.183	-146.405	-863.878	-158.100
273	-868.184	-162.359	-854.134	-184.854
274	-856.519	-187.225	-837.630	-217.466

COMBINACION 24 G1 + G2 + 0.9 PRETD + TEMP + 0.80 SCMAX-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-836.083	-215.928	-807.889	-261.068
276	-806.773	-259.927	-769.381	-319.793
277	-768.526	-318.933	-721.833	-393.691
278	-721.048	-392.910	-665.230	-482.278
279	-664.330	-481.414	-599.379	-585.403
280	-598.049	-584.069	-521.181	-707.139

COMBINACION 25 G1 + G2 + 0.9 PRETD + 0.60 SCMAX-IPF + 0.2 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-442.316	-600.496	-478.372	-542.768
2	-509.733	-495.962	-564.167	-408.811
3	-565.551	-410.191	-611.066	-337.319
4	-612.238	-338.490	-648.645	-280.199
5	-649.734	-281.281	-677.154	-237.380
6	-678.287	-238.472	-696.692	-209.006
7	-697.957	-210.236	-707.264	-195.335
8	-708.756	-196.808	-709.124	-196.218
9	-710.915	-198.034	-702.031	-212.258
10	-704.220	-214.457	-688.266	-240.000
11	-691.940	-243.668	-672.350	-275.034
12	-677.153	-279.796	-654.802	-315.581
13	-660.675	-321.455	-636.407	-360.308
14	-643.217	-367.136	-618.435	-406.813
15	-625.890	-414.265	-601.803	-452.830
16	-609.409	-460.424	-587.212	-495.963
17	-594.233	-502.974	-574.481	-534.598
18	-592.278	-533.737	-709.940	-345.356
19	-600.238	-300.548	-591.888	-310.697
20	-602.723	-311.684	-501.723	-434.443
21	-519.574	-444.565	-668.825	-263.160
22	-671.831	-258.520	-558.149	-396.693
23	-680.711	-454.225	-680.620	-454.369
24	-683.103	-439.170	-707.843	-399.560
25	-709.569	-377.788	-739.905	-329.218
26	-735.615	-234.073	-778.933	-164.719
27	-779.902	-165.683	-813.941	-111.185
28	-814.166	-111.413	-837.406	-74.204
29	-838.139	-74.934	-849.775	-56.305
30	-851.471	-57.970	-851.027	-58.680
31	-853.989	-61.678	-841.479	-81.706
32	-845.938	-86.226	-821.831	-124.824
33	-827.976	-130.973	-793.608	-185.997
34	-801.367	-193.740	-758.586	-262.234
35	-767.776	-271.397	-718.999	-349.491
36	-729.201	-359.684	-677.067	-443.154
37	-691.107	-447.571	-648.543	-515.718
38	-671.769	-517.979	-774.206	-353.973
39	-664.511	-308.636	-662.271	-311.360
40	-673.964	-303.281	-538.705	-467.680
41	-564.943	-479.767	-709.386	-304.206
42	-712.499	-298.895	-574.172	-467.023
43	-704.325	-542.632	-687.839	-569.027
44	-690.194	-548.757	-699.308	-534.166
45	-701.230	-505.285	-722.881	-470.622
46	-717.467	-253.120	-762.481	-181.051
47	-764.274	-182.845	-800.509	-124.832
48	-800.686	-124.995	-825.719	-84.916
49	-826.585	-85.793	-839.701	-64.794
50	-841.667	-66.734	-842.402	-65.557
51	-845.751	-68.869	-834.208	-87.350
52	-839.105	-92.253	-815.926	-129.364
53	-822.513	-135.969	-789.055	-189.536
54	-797.251	-197.751	-755.554	-264.511

COMBINACION 25 G1 + G2 + 0.9 PRETD + 0.60 SCMAX-IPF + 0.2 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-765.144	-274.135	-717.647	-350.180
56	-728.203	-360.731	-677.568	-441.799
57	-694.267	-442.578	-659.404	-498.394
58	-683.036	-500.133	-794.550	-321.594
59	-683.471	-285.257	-688.850	-278.719
60	-700.390	-270.123	-572.765	-425.243
61	-598.815	-436.960	-741.197	-263.903
62	-744.440	-258.658	-604.332	-428.950
63	-737.487	-489.114	-718.527	-519.470
64	-721.465	-499.322	-731.153	-483.811
65	-728.986	-462.214	-748.005	-431.764
66	-743.036	-213.996	-785.450	-146.089
67	-787.323	-147.963	-821.044	-93.974
68	-821.237	-94.136	-843.852	-57.929
69	-844.685	-58.750	-855.448	-41.517
70	-857.338	-43.387	-855.798	-45.853
71	-859.042	-49.085	-845.277	-71.124
72	-850.064	-75.916	-824.651	-116.604
73	-831.129	-123.077	-795.455	-180.192
74	-803.540	-188.278	-759.588	-258.648
75	-769.083	-268.142	-719.285	-347.870
76	-729.742	-358.349	-676.764	-443.169
77	-694.135	-442.725	-658.706	-499.449
78	-682.360	-501.146	-793.426	-323.325
79	-682.520	-286.518	-687.542	-280.415
80	-699.187	-271.895	-571.197	-427.459
81	-597.321	-439.252	-739.752	-266.137
82	-742.967	-260.860	-602.855	-431.158
83	-735.751	-492.017	-716.923	-522.162
84	-719.768	-501.854	-729.572	-486.158
85	-727.343	-464.443	-746.563	-433.672
86	-741.578	-215.798	-784.194	-147.567
87	-786.050	-149.402	-819.939	-95.145
88	-820.118	-95.323	-842.875	-58.889
89	-843.717	-59.723	-854.597	-42.304
90	-856.499	-44.208	-855.060	-46.513
91	-858.344	-49.748	-844.661	-71.656
92	-849.492	-76.461	-824.155	-117.027
93	-830.669	-123.529	-795.073	-180.521
94	-803.197	-188.634	-759.327	-258.871
95	-768.862	-268.385	-719.138	-347.995
96	-729.632	-358.483	-676.769	-443.119
97	-694.362	-442.369	-659.598	-498.027
98	-683.252	-499.733	-794.986	-320.843
99	-683.959	-284.743	-689.565	-277.928
100	-701.196	-269.373	-573.852	-424.151
101	-599.872	-436.021	-742.181	-263.055
102	-745.403	-257.789	-605.157	-428.249
103	-738.278	-487.937	-719.262	-518.382
104	-722.149	-498.091	-731.734	-482.746
105	-729.530	-461.054	-748.543	-430.613
106	-743.572	-212.753	-785.965	-144.880
107	-787.832	-146.719	-821.513	-92.795
108	-821.710	-92.949	-844.266	-56.836
109	-845.113	-57.657	-855.807	-40.535

COMBINACION 25 G1 + G2 + 0.9 PRETD + 0.60 SCMAX-IPF + 0.2 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	Tl_2
110	-857.714	-42.417	-856.082	-45.031
111	-859.350	-48.275	-845.497	-70.454
112	-850.305	-75.275	-824.798	-116.112
113	-831.306	-122.601	-795.534	-179.873
114	-803.646	-187.984	-759.588	-258.523
115	-769.112	-268.032	-719.248	-347.867
116	-729.735	-358.340	-676.695	-443.259
117	-694.365	-442.370	-659.580	-498.063
118	-683.220	-499.782	-794.956	-320.888
119	-683.921	-284.791	-689.508	-278.001
120	-701.122	-269.478	-573.743	-424.298
121	-599.735	-436.220	-742.061	-263.232
122	-745.283	-257.963	-605.044	-428.414
123	-738.140	-488.167	-719.138	-518.589
124	-722.014	-498.295	-731.634	-482.893
125	-729.438	-461.169	-748.484	-430.675
126	-743.535	-212.766	-785.962	-144.839
127	-787.817	-146.689	-821.530	-92.713
128	-821.699	-92.908	-844.297	-56.727
129	-845.139	-57.560	-855.832	-40.439
130	-857.734	-42.330	-856.118	-44.916
131	-859.370	-48.196	-845.513	-70.381
132	-850.336	-75.184	-824.803	-116.063
133	-831.315	-122.550	-795.549	-179.813
134	-803.666	-187.922	-759.601	-258.472
135	-769.125	-267.987	-719.228	-347.875
136	-729.715	-358.360	-676.680	-443.271
137	-694.352	-442.383	-659.593	-498.033
138	-683.259	-499.720	-795.029	-320.772
139	-684.003	-284.693	-689.634	-277.849
140	-701.260	-269.311	-573.926	-424.078
141	-599.962	-435.940	-742.256	-262.991
142	-745.485	-257.713	-605.207	-428.212
143	-738.325	-487.870	-719.310	-518.314
144	-722.185	-498.023	-731.768	-482.681
145	-729.570	-460.965	-748.576	-430.535
146	-743.601	-212.676	-786.004	-144.787
147	-787.851	-146.651	-821.562	-92.679
148	-821.724	-92.892	-844.288	-56.766
149	-845.125	-57.604	-855.825	-40.472
150	-857.712	-42.393	-856.080	-45.005
151	-859.342	-48.265	-845.465	-70.484
152	-850.273	-75.309	-824.762	-116.152
153	-831.262	-122.663	-795.479	-179.953
154	-803.605	-188.044	-759.540	-258.593
155	-769.068	-268.098	-719.160	-348.003
156	-729.652	-358.476	-676.599	-443.415
157	-694.267	-442.531	-659.517	-498.168
158	-683.166	-499.873	-794.899	-320.984
159	-683.863	-284.862	-689.491	-278.021
160	-701.111	-269.485	-573.769	-424.260
161	-599.788	-436.144	-742.134	-263.131
162	-745.360	-257.858	-605.138	-428.289
163	-738.252	-487.984	-719.265	-518.384
164	-722.151	-498.080	-731.771	-482.678

COMBINACION 25 G1 + G2 + 0.9 PRETD + 0.60 SCMAX-IPF + 0.2 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-729.572	-460.961	-748.643	-430.428
166	-743.652	-212.588	-786.056	-144.697
167	-787.896	-146.569	-821.594	-92.616
168	-821.760	-92.813	-844.310	-56.709
169	-845.146	-57.542	-855.826	-40.442
170	-857.716	-42.347	-856.095	-44.943
171	-859.343	-48.218	-845.467	-70.434
172	-850.269	-75.264	-824.738	-116.140
173	-831.240	-122.639	-795.449	-179.943
174	-803.552	-188.069	-759.471	-258.645
175	-768.994	-268.163	-719.061	-348.108
176	-729.554	-358.584	-676.463	-443.586
177	-694.141	-442.696	-659.355	-498.391
178	-683.024	-500.088	-794.718	-321.260
179	-683.718	-285.053	-689.352	-278.206
180	-700.987	-269.669	-573.614	-424.483
181	-599.763	-436.211	-742.092	-263.220
182	-745.310	-257.944	-605.109	-428.351
183	-738.213	-488.054	-719.259	-518.400
184	-722.129	-498.110	-731.778	-482.660
185	-729.571	-460.961	-748.655	-430.406
186	-743.569	-212.732	-785.825	-145.077
187	-787.678	-146.950	-821.229	-93.234
188	-821.423	-93.408	-843.835	-57.525
189	-844.697	-58.342	-855.253	-41.441
190	-857.168	-43.327	-855.416	-46.133
191	-858.672	-49.420	-844.687	-71.810
192	-849.510	-76.623	-823.879	-117.659
193	-830.382	-124.172	-794.485	-181.644
194	-802.590	-189.776	-758.409	-260.512
195	-767.916	-270.052	-717.888	-350.149
196	-728.372	-360.624	-675.187	-445.774
197	-692.838	-444.893	-657.969	-500.720
198	-681.598	-502.415	-793.189	-323.752
199	-682.261	-286.777	-687.753	-280.102
200	-699.361	-271.540	-571.864	-426.505
201	-597.881	-438.368	-740.648	-264.844
202	-743.885	-259.585	-604.099	-429.486
203	-737.159	-489.720	-718.617	-519.407
204	-721.505	-499.127	-731.573	-483.008
205	-729.370	-461.294	-748.879	-430.058
206	-743.469	-212.856	-785.644	-145.332
207	-787.471	-147.178	-820.973	-93.539
208	-821.121	-93.705	-843.504	-57.868
209	-844.309	-58.688	-854.796	-41.899
210	-856.676	-43.758	-854.816	-46.736
211	-858.057	-49.964	-843.942	-72.563
212	-848.727	-77.369	-822.974	-118.602
213	-829.461	-125.090	-793.407	-182.814
214	-801.513	-190.915	-757.158	-261.929
215	-766.678	-271.458	-716.464	-351.853
216	-726.974	-362.346	-673.575	-447.839
217	-691.305	-446.959	-656.244	-503.092
218	-679.984	-504.840	-791.514	-326.276
219	-680.855	-288.644	-686.348	-281.968

COMBINACION 25 G1 + G2 + 0.9 PRETD + 0.60 SCMAX-IPF + 0.2 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-698.058	-273.483	-570.526	-428.490
221	-596.747	-440.203	-739.772	-266.364
222	-742.954	-261.039	-603.435	-430.615
223	-736.329	-491.122	-718.204	-520.141
224	-721.066	-499.762	-731.536	-482.997
225	-729.352	-461.276	-749.201	-429.498
226	-742.737	-214.135	-783.340	-149.128
227	-785.251	-151.071	-817.112	-100.059
228	-817.372	-100.330	-838.066	-67.198
229	-838.992	-68.129	-847.805	-54.020
230	-849.806	-55.987	-846.304	-61.594
231	-849.661	-64.922	-833.970	-90.044
232	-838.872	-94.908	-811.613	-138.550
233	-818.180	-145.096	-780.730	-205.055
234	-788.883	-213.175	-743.239	-286.254
235	-752.753	-295.759	-701.332	-378.087
236	-711.754	-388.511	-657.223	-475.818
237	-675.095	-474.265	-638.853	-532.292
238	-662.499	-533.390	-777.316	-349.563
239	-663.198	-309.549	-667.029	-304.892
240	-678.536	-295.950	-549.450	-452.846
241	-575.497	-464.421	-723.497	-284.537
242	-726.902	-279.377	-592.461	-442.782
243	-725.078	-508.859	-711.956	-529.868
244	-715.221	-509.402	-730.555	-484.851
245	-728.461	-462.991	-753.336	-423.166
246	-743.452	-222.318	-782.188	-160.298
247	-783.684	-161.769	-813.980	-113.264
248	-813.841	-113.104	-833.242	-82.043
249	-833.742	-82.565	-841.423	-70.268
250	-843.010	-71.873	-838.435	-79.197
251	-841.436	-82.201	-824.615	-109.133
252	-829.239	-113.752	-800.723	-159.408
253	-807.121	-165.805	-768.303	-227.955
254	-776.435	-236.058	-729.266	-311.576
255	-738.948	-321.231	-685.984	-406.029
256	-696.814	-416.824	-640.848	-506.429
257	-663.550	-498.909	-629.013	-554.204
258	-654.522	-555.240	-773.343	-365.003
259	-662.382	-319.904	-741.421	-223.838
260	-752.520	-211.159	-658.521	-325.409
261	-683.624	-335.230	-777.835	-220.723
262	-764.981	-202.535	-641.945	-352.078
263	-769.991	-385.348	-737.145	-437.936
264	-742.236	-424.268	-723.600	-454.105
265	-726.430	-434.465	-727.203	-433.227
266	-700.048	-342.201	-697.910	-345.624
267	-719.125	-366.847	-725.983	-355.867
268	-726.339	-356.224	-732.593	-346.210
269	-733.234	-346.884	-738.010	-339.238
270	-739.443	-340.681	-742.635	-335.569
271	-745.180	-338.115	-746.385	-336.186
272	-750.242	-340.037	-747.604	-344.259
273	-751.911	-348.518	-744.733	-360.010
274	-747.117	-362.382	-737.312	-378.080

COMBINACION 25 G1 + G2 + 0.9 PRETD + 0.60 SCMAX-IPF + 0.2 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-735.765	-376.542	-718.806	-403.694
276	-717.690	-402.553	-693.700	-440.961
277	-692.845	-440.102	-661.788	-489.824
278	-661.004	-489.043	-623.028	-549.845
279	-622.127	-548.982	-577.220	-620.881
280	-575.889	-619.548	-521.180	-707.141

COMBINACION 26 G1 + G2 + 0.9 PRETD + SCMIN-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-442.291	-600.536	-457.588	-576.044
2	-440.416	-606.943	-431.261	-621.599
3	-432.646	-622.978	-420.088	-643.083
4	-421.262	-644.250	-405.372	-669.691
5	-406.460	-670.773	-387.259	-701.514
6	-388.395	-702.602	-365.837	-738.718
7	-367.104	-739.946	-341.149	-781.501
8	-342.640	-782.975	-313.271	-829.996
9	-315.058	-831.818	-282.298	-884.268
10	-284.486	-886.470	-250.192	-941.376
11	-253.858	-945.057	-221.646	-996.630
12	-226.447	-1001.395	-193.472	-1054.189
13	-199.346	-1060.062	-168.250	-1109.848
14	-175.066	-1116.667	-148.262	-1159.581
15	-155.720	-1167.028	-134.481	-1201.032
16	-142.089	-1208.624	-127.453	-1232.057
17	-134.459	-1239.093	-126.642	-1251.608
18	-124.589	-1282.528	-208.226	-1148.621
19	-120.334	-883.841	-46.730	-973.301
20	-45.262	-989.243	147.484	-1223.512
21	139.053	-1245.083	-187.908	-847.683
22	-181.358	-854.658	-217.190	-811.107
23	-289.553	-1080.485	-382.685	-931.376
24	-366.346	-946.313	-436.470	-834.040
25	-413.186	-852.310	-445.565	-800.470
26	-408.166	-758.333	-397.391	-775.584
27	-398.359	-776.550	-387.559	-793.841
28	-387.783	-794.069	-375.766	-813.310
29	-376.497	-814.042	-362.539	-836.390
30	-364.233	-838.059	-347.919	-864.178
31	-350.884	-867.170	-332.282	-896.954
32	-336.744	-901.468	-316.344	-934.129
33	-322.489	-940.279	-296.951	-981.166
34	-304.710	-988.910	-277.357	-1032.703
35	-286.544	-1041.870	-257.725	-1088.011
36	-267.927	-1098.203	-244.084	-1136.377
37	-247.901	-1157.164	-207.843	-1221.297
38	-208.751	-1259.292	-273.065	-1156.321
39	-169.864	-909.848	-75.049	-1025.090
40	-62.031	-1047.046	211.064	-1378.976
41	202.508	-1412.554	-125.998	-1013.277
42	-118.580	-1020.766	-124.962	-1013.008
43	-192.243	-1362.497	-279.097	-1223.440
44	-257.375	-1241.720	-325.417	-1132.781
45	-294.541	-1156.412	-321.231	-1113.681
46	-278.583	-955.792	-279.993	-953.535
47	-281.785	-955.331	-283.749	-952.187
48	-283.932	-952.341	-284.284	-951.778
49	-285.154	-952.648	-283.215	-955.751
50	-285.174	-957.703	-280.562	-965.087
51	-283.909	-968.402	-276.778	-979.820
52	-281.682	-984.712	-272.710	-999.076
53	-279.293	-1005.688	-267.694	-1024.258
54	-275.895	-1032.465	-258.684	-1060.021

COMBINACION 26 G1 + G2 + 0.9 PRETD + SCMIN-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-268.281	-1069.634	-250.557	-1098.012
56	-261.115	-1108.558	-248.585	-1128.619
57	-248.338	-1156.529	-209.136	-1219.293
58	-209.467	-1258.337	-274.157	-1154.766
59	-170.097	-909.230	-75.118	-1024.671
60	-61.500	-1046.653	211.873	-1378.921
61	203.581	-1412.221	-125.086	-1012.746
62	-117.725	-1020.390	-123.906	-1012.878
63	-191.421	-1363.389	-278.281	-1224.323
64	-256.637	-1243.532	-316.477	-1147.725
65	-293.625	-1159.246	-320.151	-1116.778
66	-277.181	-959.850	-278.491	-957.752
67	-280.366	-959.622	-282.316	-956.501
68	-282.507	-956.666	-282.932	-955.986
69	-283.762	-956.812	-282.018	-959.604
70	-283.914	-961.464	-279.585	-968.395
71	-282.825	-971.634	-276.050	-982.481
72	-280.840	-987.268	-272.206	-1001.092
73	-278.689	-1007.557	-267.307	-1025.779
74	-275.403	-1033.848	-258.652	-1060.667
75	-268.142	-1070.170	-250.641	-1098.190
76	-261.095	-1108.673	-248.726	-1128.476
77	-247.143	-1158.379	-204.801	-1226.171
78	-205.094	-1265.270	-266.640	-1166.732
79	-163.153	-917.776	-65.324	-1036.680
80	-51.779	-1058.779	224.482	-1394.556
81	216.124	-1427.942	-113.296	-1027.553
82	-105.902	-1035.173	-112.704	-1026.905
83	-179.177	-1383.116	-266.968	-1242.558
84	-245.172	-1261.703	-305.969	-1164.364
85	-282.996	-1175.861	-310.489	-1131.845
86	-267.432	-974.926	-269.717	-971.267
87	-271.573	-973.102	-274.499	-968.418
88	-274.682	-968.589	-276.045	-966.407
89	-276.894	-967.232	-276.045	-968.591
90	-277.954	-970.485	-274.487	-976.034
91	-277.766	-979.278	-271.826	-988.789
92	-276.658	-993.593	-268.871	-1006.060
93	-275.389	-1012.557	-264.936	-1029.293
94	-273.058	-1037.410	-257.102	-1062.955
95	-266.631	-1072.478	-250.011	-1099.088
96	-260.497	-1109.589	-249.032	-1127.945
97	-247.099	-1158.456	-204.741	-1226.273
98	-205.031	-1265.385	-266.544	-1166.901
99	-163.044	-917.880	-65.114	-1036.909
100	-51.536	-1058.992	224.675	-1394.709
101	216.470	-1428.234	-113.043	-1027.732
102	-105.653	-1035.363	-112.491	-1027.053
103	-178.981	-1383.395	-266.785	-1242.818
104	-245.014	-1262.006	-305.800	-1164.685
105	-282.845	-1176.216	-310.344	-1132.189
106	-267.290	-975.301	-269.580	-971.634
107	-271.446	-973.475	-274.353	-968.821
108	-274.549	-968.976	-275.926	-966.772
109	-276.766	-967.606	-275.935	-968.936

COMBINACION 26 G1 + G2 + 0.9 PRETD + SCMIN-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
110	-277.844	-970.814	-274.411	-976.311
111	-277.678	-979.557	-271.777	-989.004
112	-276.582	-993.830	-268.844	-1006.217
113	-275.350	-1012.710	-267.165	-1025.815
114	-275.283	-1033.917	-257.124	-1062.990
115	-266.650	-1072.495	-250.020	-1099.121
116	-260.504	-1109.599	-249.007	-1128.007
117	-246.966	-1158.675	-204.335	-1226.929
118	-204.622	-1266.038	-265.898	-1167.933
119	-162.449	-918.607	-64.342	-1037.850
120	-50.769	-1059.940	225.693	-1395.961
121	217.531	-1429.554	-112.091	-1028.920
122	-104.705	-1036.544	-111.639	-1028.116
123	-178.059	-1384.880	-265.934	-1244.188
124	-244.162	-1263.357	-305.032	-1165.901
125	-282.056	-1177.448	-309.601	-1133.347
126	-266.496	-976.526	-268.833	-972.784
127	-270.692	-974.628	-273.689	-969.830
128	-273.862	-970.018	-275.337	-967.656
129	-276.172	-968.501	-275.418	-969.708
130	-277.322	-971.593	-273.996	-976.919
131	-277.260	-980.178	-271.444	-989.490
132	-276.263	-994.299	-268.586	-1006.591
133	-275.099	-1013.076	-266.987	-1026.063
134	-275.106	-1034.170	-257.047	-1063.084
135	-266.568	-1072.602	-250.039	-1099.068
136	-260.525	-1109.553	-249.144	-1127.775
137	-247.060	-1158.516	-204.428	-1226.771
138	-204.711	-1265.896	-265.970	-1167.818
139	-162.497	-918.550	-64.370	-1037.817
140	-50.792	-1059.914	225.690	-1395.960
141	217.461	-1429.465	-112.081	-1028.927
142	-104.699	-1036.547	-111.583	-1028.180
143	-177.995	-1384.983	-265.831	-1244.354
144	-244.069	-1263.508	-304.934	-1166.061
145	-281.990	-1177.559	-309.535	-1133.458
146	-266.504	-976.528	-268.874	-972.734
147	-270.720	-974.601	-273.739	-969.767
148	-273.905	-969.973	-275.377	-967.616
149	-276.207	-968.466	-275.480	-969.630
150	-277.377	-971.535	-274.044	-976.870
151	-277.298	-980.144	-271.496	-989.432
152	-276.304	-994.257	-268.655	-1006.504
153	-275.148	-1013.025	-267.024	-1026.032
154	-275.146	-1034.130	-257.058	-1063.090
155	-266.583	-1072.599	-250.041	-1099.083
156	-260.528	-1109.564	-249.143	-1127.791
157	-247.053	-1158.540	-204.416	-1226.803
158	-204.713	-1265.897	-265.954	-1167.848
159	-162.504	-918.540	-64.348	-1037.843
160	-50.777	-1059.925	225.694	-1395.957
161	217.492	-1429.495	-112.105	-1028.891
162	-104.719	-1036.517	-111.610	-1028.141
163	-178.029	-1384.927	-265.872	-1244.285
164	-244.095	-1263.468	-304.914	-1166.095

COMBINACION 26 G1 + G2 + 0.9 PRETD + SCMIN-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-281.948	-1177.627	-309.485	-1133.538
166	-266.449	-976.610	-268.876	-972.725
167	-270.716	-974.597	-273.788	-969.678
168	-273.955	-969.872	-275.488	-967.416
169	-276.319	-968.258	-275.648	-969.333
170	-277.529	-971.251	-274.258	-976.488
171	-277.512	-979.755	-271.767	-988.954
172	-276.578	-993.769	-268.960	-1005.965
173	-275.464	-1012.461	-267.407	-1025.360
174	-275.516	-1033.479	-257.520	-1062.290
175	-267.049	-1071.798	-250.569	-1098.183
176	-261.061	-1108.662	-249.747	-1126.776
177	-247.676	-1157.506	-205.074	-1225.714
178	-205.365	-1264.840	-266.629	-1166.754
179	-163.136	-917.787	-65.009	-1037.054
180	-51.436	-1059.156	225.048	-1395.205
181	216.652	-1428.511	-112.671	-1028.241
182	-105.276	-1035.865	-111.978	-1027.720
183	-178.414	-1384.315	-266.072	-1243.973
184	-244.299	-1263.136	-304.958	-1166.018
185	-282.011	-1177.523	-309.372	-1133.717
186	-266.534	-976.484	-269.042	-972.470
187	-270.900	-974.335	-274.042	-969.304
188	-274.233	-969.483	-275.803	-966.970
189	-276.656	-967.799	-276.002	-968.846
190	-277.922	-970.724	-274.702	-975.880
191	-277.967	-979.152	-272.261	-988.288
192	-277.080	-993.108	-269.540	-1005.180
193	-276.029	-1011.714	-268.066	-1024.464
194	-276.173	-1032.592	-258.296	-1061.214
195	-267.804	-1070.753	-251.445	-1096.943
196	-261.928	-1107.420	-250.724	-1125.358
197	-248.655	-1156.049	-206.177	-1224.059
198	-206.460	-1263.131	-267.824	-1164.884
199	-164.219	-916.424	-66.158	-1035.611
200	-52.571	-1057.672	223.871	-1393.669
201	215.675	-1427.193	-113.469	-1027.140
202	-106.093	-1034.781	-112.544	-1026.940
203	-179.059	-1383.261	-266.409	-1243.411
204	-244.652	-1262.590	-305.027	-1165.926
205	-282.059	-1177.457	-309.127	-1134.121
206	-266.814	-976.002	-269.977	-970.938
207	-271.808	-972.776	-275.622	-966.669
208	-275.765	-966.843	-278.048	-963.187
209	-278.857	-964.001	-278.939	-963.870
210	-280.819	-965.729	-278.310	-969.747
211	-281.552	-972.974	-276.562	-980.963
212	-281.348	-985.769	-274.494	-996.742
213	-280.982	-1003.229	-273.637	-1014.988
214	-281.749	-1023.080	-264.505	-1050.688
215	-274.024	-1060.219	-258.254	-1085.466
216	-268.759	-1095.969	-258.131	-1112.983
217	-256.052	-1143.818	-214.158	-1210.891
218	-214.486	-1250.121	-276.520	-1150.803
219	-172.362	-906.684	-74.991	-1025.033

COMBINACION 26 G1 + G2 + 0.9 PRETD + SCMIN-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-61.456	-1047.232	214.318	-1382.417
221	205.835	-1415.689	-121.021	-1018.417
222	-113.581	-1026.001	-117.753	-1020.931
223	-184.524	-1374.586	-269.682	-1238.245
224	-247.817	-1257.453	-305.986	-1164.321
225	-283.011	-1175.888	-307.888	-1136.059
226	-267.588	-974.869	-271.793	-968.137
227	-273.703	-970.081	-278.512	-962.382
228	-278.768	-962.658	-282.001	-957.483
229	-282.924	-958.419	-283.926	-956.813
230	-285.924	-958.787	-284.349	-961.309
231	-287.703	-964.641	-283.679	-971.083
232	-288.578	-975.952	-282.749	-985.284
233	-289.319	-991.824	-283.082	-1001.810
234	-291.238	-1009.927	-275.740	-1034.739
235	-285.258	-1044.239	-270.826	-1067.345
236	-281.256	-1077.758	-272.042	-1092.510
237	-269.224	-1124.083	-228.657	-1189.032
238	-228.292	-1228.574	-283.275	-1140.544
239	-185.332	-890.364	-88.581	-1007.959
240	-74.534	-1030.076	200.566	-1364.443
241	192.363	-1397.705	-131.597	-1003.954
242	-124.309	-1011.791	-125.076	-1010.859
243	-192.666	-1361.275	-274.765	-1229.830
244	-252.777	-1249.795	-308.120	-1161.188
245	-284.988	-1173.011	-308.021	-1136.134
246	-274.286	-973.471	-286.396	-954.083
247	-287.889	-955.559	-300.883	-934.755
248	-300.741	-934.599	-312.445	-915.861
249	-312.944	-916.386	-322.578	-900.961
250	-324.166	-902.564	-331.288	-891.162
251	-334.291	-894.162	-338.932	-886.732
252	-343.560	-891.345	-346.304	-886.952
253	-352.708	-893.340	-354.923	-889.794
254	-363.050	-897.905	-365.828	-893.457
255	-375.518	-903.098	-370.384	-911.317
256	-381.209	-922.122	-381.384	-921.842
257	-371.956	-965.764	-336.475	-1022.570
258	-335.956	-1065.279	-401.705	-960.011
259	-292.820	-769.083	-279.237	-785.593
260	-260.626	-809.024	-28.309	-1091.391
261	-34.537	-1124.153	-234.525	-881.081
262	-215.010	-870.990	-179.874	-913.696
263	-252.937	-1213.173	-287.137	-1158.419
264	-272.278	-1176.690	-289.317	-1149.411
265	-268.240	-1168.047	-260.294	-1180.768
266	-232.769	-1090.335	-222.183	-1107.283
267	-243.396	-1128.509	-247.293	-1122.271
268	-247.645	-1122.632	-256.424	-1108.578
269	-257.066	-1109.249	-270.174	-1088.262
270	-271.611	-1089.699	-288.666	-1062.394
271	-291.205	-1064.948	-312.053	-1031.570
272	-315.917	-1035.410	-338.527	-999.210
273	-342.828	-1003.476	-366.685	-965.281
274	-369.066	-967.658	-396.120	-924.344

COMBINACION 26 G1 + G2 + 0.9 PRETD + SCMIN-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-394.574	-922.803	-420.092	-881.948
276	-418.978	-880.803	-443.135	-842.126
277	-442.282	-841.264	-465.262	-804.472
278	-464.476	-803.692	-486.324	-768.714
279	-485.423	-767.852	-506.106	-734.737
280	-504.775	-733.405	-521.165	-707.164

COMBINACION 27 G1 + G2 + 0.9 PRETD + 0.60 SCMIN-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-442.300	-600.522	-455.384	-579.573
2	-448.499	-594.000	-447.430	-595.713
3	-448.814	-597.092	-444.343	-604.251
4	-445.516	-605.418	-437.715	-617.909
5	-438.803	-618.991	-427.688	-636.786
6	-428.823	-637.875	-414.356	-661.038
7	-415.623	-662.266	-397.763	-690.861
8	-399.254	-692.334	-377.984	-726.387
9	-379.773	-728.207	-355.111	-767.692
10	-357.298	-769.894	-331.100	-811.838
11	-334.768	-815.516	-310.658	-854.117
12	-315.460	-858.882	-292.023	-896.405
13	-297.897	-902.278	-277.121	-935.540
14	-283.936	-942.361	-267.762	-968.255
15	-275.220	-975.703	-264.934	-992.171
16	-272.542	-999.763	-269.180	-1005.145
17	-276.190	-1012.174	-280.082	-1005.943
18	-283.537	-1028.046	-391.332	-855.461
19	-294.202	-672.515	-252.479	-723.226
20	-254.424	-735.019	-102.124	-920.130
21	-113.163	-938.531	-369.197	-627.338
22	-365.299	-631.090	-340.865	-660.788
23	-429.431	-856.535	-480.256	-775.162
24	-469.139	-781.737	-509.640	-716.892
25	-493.295	-724.052	-510.230	-696.937
26	-482.017	-640.094	-473.925	-653.050
27	-474.892	-654.016	-466.778	-667.008
28	-467.002	-667.236	-457.666	-682.184
29	-458.398	-682.916	-447.119	-700.974
30	-448.813	-702.642	-435.177	-724.475
31	-438.141	-727.469	-422.212	-752.971
32	-426.674	-757.487	-408.946	-785.869
33	-415.091	-792.018	-394.097	-825.631
34	-401.856	-833.374	-380.337	-867.827
35	-389.525	-876.993	-368.651	-910.414
36	-378.853	-920.607	-363.529	-945.141
37	-370.182	-961.386	-348.671	-995.826
38	-355.770	-1023.906	-451.242	-871.052
39	-343.399	-698.928	-292.791	-760.439
40	-286.629	-774.062	-72.457	-1034.375
41	-85.919	-1061.990	-341.173	-751.745
42	-336.677	-755.683	-284.940	-818.566
43	-372.430	-1074.010	-414.017	-1007.427
44	-398.975	-1015.012	-434.317	-958.427
45	-412.541	-967.489	-422.292	-951.878
46	-389.974	-777.449	-390.512	-776.589
47	-392.304	-778.385	-393.397	-776.635
48	-393.579	-776.792	-393.060	-777.623
49	-393.929	-778.494	-391.126	-782.983
50	-393.086	-784.932	-387.611	-793.696
51	-390.959	-797.011	-382.967	-809.806
52	-387.870	-814.701	-378.036	-830.445
53	-384.620	-837.055	-373.028	-855.613
54	-381.229	-863.821	-366.888	-886.782

COMBINACION 27 G1 + G2 + 0.9 PRETD + 0.60 SCMIN-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-376.483	-896.398	-363.430	-917.297
56	-373.988	-927.845	-366.706	-939.503
57	-371.160	-959.885	-351.849	-990.803
58	-358.645	-1019.497	-456.022	-863.593
59	-347.294	-693.858	-298.043	-753.721
60	-291.405	-767.218	-78.511	-1025.978
61	-91.726	-1053.293	-346.709	-743.379
62	-342.290	-747.446	-290.175	-810.788
63	-378.482	-1063.896	-419.578	-998.099
64	-404.755	-1006.389	-434.880	-958.157
65	-417.767	-960.490	-426.822	-945.992
66	-394.395	-772.185	-394.292	-772.350
67	-396.167	-774.221	-396.706	-773.357
68	-396.898	-773.521	-395.914	-775.096
69	-396.745	-775.921	-393.587	-780.977
70	-395.481	-782.840	-389.739	-792.034
71	-392.979	-795.272	-384.787	-808.388
72	-389.577	-813.176	-379.525	-829.269
73	-386.007	-835.735	-374.126	-854.758
74	-382.219	-862.831	-367.724	-886.039
75	-377.215	-895.539	-363.848	-916.941
76	-374.303	-927.422	-366.644	-939.684
77	-370.320	-961.167	-348.746	-995.708
78	-355.521	-1024.430	-450.645	-872.131
79	-342.353	-699.969	-291.085	-762.283
80	-284.528	-775.887	-69.590	-1037.130
81	-82.874	-1064.529	-338.373	-753.986
82	-333.923	-758.027	-282.226	-820.861
83	-369.753	-1077.996	-411.510	-1011.142
84	-396.550	-1019.340	-427.376	-969.986
85	-410.159	-972.269	-419.924	-956.633
86	-387.431	-782.802	-388.040	-781.827
87	-389.897	-783.661	-391.144	-781.664
88	-391.327	-781.837	-391.013	-782.339
89	-391.860	-783.165	-389.336	-787.207
90	-391.243	-789.103	-386.104	-797.331
91	-389.384	-800.573	-381.771	-812.762
92	-386.602	-817.567	-377.140	-832.717
93	-383.657	-839.216	-372.413	-857.217
94	-380.535	-865.334	-366.598	-887.648
95	-376.128	-897.169	-363.375	-917.587
96	-373.863	-928.085	-366.843	-939.325
97	-370.327	-961.163	-348.882	-995.497
98	-355.654	-1024.231	-450.894	-871.749
99	-342.567	-699.682	-291.350	-761.933
100	-284.766	-775.516	-69.992	-1036.560
101	-83.143	-1064.073	-338.685	-753.478
102	-334.239	-757.531	-282.545	-820.362
103	-370.134	-1077.351	-411.861	-1010.544
104	-396.932	-1018.778	-427.707	-969.507
105	-410.509	-971.820	-420.234	-956.250
106	-387.746	-782.446	-388.315	-781.535
107	-390.181	-783.375	-391.371	-781.471
108	-391.567	-781.626	-391.221	-782.180
109	-392.062	-783.011	-389.512	-787.094

COMBINACION 27 G1 + G2 + 0.9 PRETD + 0.60 SCMIN-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
110	-391.421	-788.973	-386.268	-797.223
111	-389.535	-800.468	-381.916	-812.667
112	-386.722	-817.491	-377.261	-832.637
113	-383.768	-839.129	-373.856	-854.999
114	-381.972	-863.103	-366.681	-887.585
115	-376.207	-897.091	-363.414	-917.572
116	-373.899	-928.049	-366.821	-939.382
117	-370.248	-961.295	-348.609	-995.940
118	-355.376	-1024.676	-450.462	-872.439
119	-342.166	-700.172	-290.821	-762.579
120	-284.236	-776.175	-69.286	-1037.434
121	-82.400	-1065.007	-338.017	-754.321
122	-333.574	-758.368	-281.944	-821.122
123	-369.478	-1078.410	-411.255	-1011.523
124	-396.322	-1019.742	-427.156	-970.375
125	-409.945	-972.691	-419.706	-957.063
126	-387.188	-783.294	-387.795	-782.322
127	-389.652	-784.168	-390.912	-782.151
128	-391.084	-782.340	-390.819	-782.766
129	-391.655	-783.607	-389.155	-787.609
130	-391.059	-789.496	-385.985	-797.620
131	-389.246	-800.884	-381.684	-812.991
132	-386.505	-817.797	-377.077	-832.891
133	-383.590	-839.377	-373.729	-855.165
134	-381.847	-863.273	-366.621	-887.650
135	-376.143	-897.168	-363.417	-917.544
136	-373.903	-928.029	-366.904	-939.235
137	-370.302	-961.200	-348.672	-995.831
138	-355.442	-1024.569	-450.517	-872.349
139	-342.208	-700.123	-290.859	-762.534
140	-284.273	-776.132	-69.318	-1037.396
141	-82.489	-1064.894	-338.048	-754.279
142	-333.610	-758.320	-281.936	-821.126
143	-369.469	-1078.424	-411.223	-1011.574
144	-396.297	-1019.785	-427.122	-970.431
145	-409.934	-972.715	-419.690	-957.096
146	-387.217	-783.262	-387.841	-782.263
147	-389.687	-784.129	-390.962	-782.088
148	-391.127	-782.296	-390.852	-782.735
149	-391.684	-783.582	-389.207	-787.548
150	-391.102	-789.455	-386.019	-797.594
151	-389.275	-800.864	-381.720	-812.959
152	-386.528	-817.784	-377.127	-832.834
153	-383.622	-839.354	-373.749	-855.161
154	-381.871	-863.257	-366.625	-887.668
155	-376.150	-897.177	-363.414	-917.568
156	-373.901	-928.048	-366.898	-939.261
157	-370.289	-961.234	-348.655	-995.872
158	-355.430	-1024.592	-450.483	-872.409
159	-342.187	-700.147	-290.821	-762.579
160	-284.239	-776.166	-69.290	-1037.423
161	-82.438	-1064.949	-338.042	-754.279
162	-333.600	-758.326	-281.944	-821.111
163	-369.481	-1078.402	-411.239	-1011.546
164	-396.305	-1019.773	-427.106	-970.459

COMBINACION 27 G1 + G2 + 0.9 PRETD + 0.60 SCMIN-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-409.902	-972.766	-419.663	-957.138
166	-387.183	-783.311	-387.846	-782.249
167	-389.685	-784.121	-390.992	-782.029
168	-391.159	-782.223	-390.920	-782.605
169	-391.753	-783.444	-389.308	-787.358
170	-391.192	-789.273	-386.153	-797.340
171	-389.405	-800.609	-381.888	-812.644
172	-386.697	-817.464	-377.311	-832.491
173	-383.814	-838.988	-373.983	-854.728
174	-382.091	-862.848	-366.902	-887.165
175	-376.430	-896.675	-363.728	-917.011
176	-374.220	-927.489	-367.254	-938.642
177	-370.663	-960.599	-349.047	-995.207
178	-355.825	-1023.948	-450.874	-871.770
179	-342.560	-699.708	-291.218	-762.112
180	-284.639	-775.713	-69.673	-1036.991
181	-82.989	-1064.318	-338.407	-753.873
182	-333.957	-757.918	-282.181	-820.848
183	-369.727	-1078.015	-411.373	-1011.338
184	-396.437	-1019.555	-427.145	-970.392
185	-409.952	-972.685	-419.598	-957.240
186	-387.234	-783.239	-387.928	-782.128
187	-389.785	-783.995	-391.112	-781.870
188	-391.304	-782.047	-391.064	-782.431
189	-391.919	-783.258	-389.461	-787.194
190	-391.380	-789.074	-386.350	-797.127
191	-389.613	-800.403	-382.101	-812.429
192	-386.922	-817.247	-377.572	-832.216
193	-384.065	-838.745	-374.284	-854.405
194	-382.390	-862.534	-367.270	-886.741
195	-376.778	-896.280	-364.149	-916.501
196	-374.632	-926.977	-367.730	-938.026
197	-371.133	-959.957	-349.590	-994.449
198	-356.350	-1023.150	-451.461	-870.873
199	-343.075	-699.036	-291.748	-761.421
200	-285.151	-774.986	-70.192	-1036.254
201	-83.336	-1063.765	-338.705	-753.380
202	-334.273	-757.442	-282.397	-820.494
203	-369.995	-1077.566	-411.495	-1011.122
204	-396.576	-1019.353	-427.150	-970.403
205	-409.942	-972.711	-419.458	-957.476
206	-387.384	-782.964	-388.489	-781.196
207	-390.319	-783.035	-392.077	-780.220
208	-392.221	-780.391	-392.448	-780.029
209	-393.256	-780.844	-391.273	-784.019
210	-393.153	-785.878	-388.571	-793.215
211	-391.812	-796.442	-384.748	-807.753
212	-389.534	-812.558	-380.609	-826.847
213	-387.097	-833.335	-377.682	-848.408
214	-385.791	-856.503	-371.037	-880.126
215	-380.556	-889.656	-368.259	-909.343
216	-378.765	-919.844	-372.183	-930.381
217	-375.599	-952.417	-354.387	-986.378
218	-361.211	-1015.209	-456.745	-862.254
219	-348.074	-693.119	-297.211	-754.939

COMBINACION 27 G1 + G2 + 0.9 PRETD + 0.60 SCMIN-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-290.679	-768.626	-76.156	-1029.364
221	-89.552	-1056.666	-343.476	-748.036
222	-338.984	-752.038	-285.672	-816.835
223	-373.384	-1072.212	-413.549	-1007.906
224	-398.545	-1016.131	-427.777	-969.329
225	-410.570	-971.660	-418.738	-958.583
226	-387.826	-782.364	-389.386	-779.866
227	-391.296	-781.810	-393.460	-778.345
228	-393.717	-778.621	-394.305	-777.680
229	-395.228	-778.615	-393.589	-781.239
230	-395.587	-783.211	-391.365	-789.971
231	-394.720	-793.302	-388.055	-803.974
232	-392.954	-808.842	-384.489	-822.394
233	-391.059	-828.934	-382.193	-843.130
234	-390.348	-851.247	-376.567	-873.312
235	-386.083	-882.812	-374.549	-901.280
236	-384.977	-911.695	-379.228	-920.900
237	-382.150	-943.283	-361.699	-976.026
238	-367.996	-1004.902	-459.425	-858.520
239	-354.158	-685.167	-303.396	-746.865
240	-296.439	-760.364	-82.092	-1020.890
241	-95.241	-1048.142	-348.031	-740.892
242	-343.710	-745.123	-289.002	-811.617
243	-377.314	-1065.645	-416.171	-1003.434
244	-401.189	-1012.181	-429.233	-967.280
245	-411.939	-969.758	-419.699	-957.334
246	-392.581	-784.076	-398.882	-773.988
247	-400.376	-775.462	-407.563	-763.956
248	-407.422	-763.799	-413.318	-754.358
249	-413.818	-754.883	-417.651	-748.745
250	-419.239	-750.348	-420.556	-748.239
251	-423.560	-751.240	-422.396	-753.103
252	-427.023	-757.718	-423.960	-762.620
253	-430.364	-769.010	-426.777	-774.753
254	-434.905	-782.862	-432.229	-787.146
255	-441.918	-796.789	-436.086	-806.127
256	-446.912	-816.929	-446.959	-816.853
257	-446.445	-846.503	-429.533	-873.579
258	-436.236	-904.726	-535.305	-746.113
259	-423.630	-610.092	-453.244	-574.099
260	-442.876	-587.511	-268.589	-799.346
261	-280.048	-825.750	-436.098	-636.082
262	-418.431	-623.745	-346.146	-711.603
263	-437.444	-917.770	-440.486	-912.899
264	-431.163	-922.309	-426.955	-929.046
265	-412.511	-937.063	-395.472	-964.343
266	-368.049	-873.746	-348.470	-905.094
267	-369.683	-926.319	-364.586	-934.479
268	-364.939	-934.840	-364.717	-935.196
269	-365.359	-935.868	-369.460	-929.301
270	-370.896	-930.740	-378.932	-917.874
271	-381.473	-920.425	-393.304	-901.483
272	-397.167	-905.326	-410.754	-883.572
273	-415.056	-887.836	-429.888	-864.089
274	-432.270	-866.465	-450.292	-837.612

COMBINACION 27 G1 + G2 + 0.9 PRETD + 0.60 SCMIN-IPF

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-448.746	-836.072	-465.236	-809.671
276	-464.120	-808.528	-479.253	-784.300
277	-478.399	-783.439	-492.348	-761.105
278	-491.563	-760.326	-504.380	-739.806
279	-503.479	-738.944	-515.135	-720.281
280	-513.805	-718.948	-521.169	-707.157

COMBINACION 28 G1 + G2 + 0.9 PRETD + SCMAX-EC1 + 0.6 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-442.317	-600.495	-496.727	-513.381
2	-533.027	-458.668	-607.401	-339.592
3	-608.796	-340.955	-672.196	-239.448
4	-673.353	-240.641	-724.350	-158.993
5	-725.434	-160.081	-764.600	-97.375
6	-765.740	-98.457	-793.155	-54.564
7	-794.421	-55.794	-809.989	-30.869
8	-811.479	-32.344	-815.820	-25.394
9	-817.610	-27.211	-810.203	-39.070
10	-812.393	-41.267	-796.076	-67.392
11	-799.748	-71.063	-777.761	-106.265
12	-782.561	-111.033	-755.401	-154.517
13	-761.279	-160.382	-729.935	-210.566
14	-736.744	-217.395	-702.277	-272.578
15	-709.736	-280.025	-679.240	-328.850
16	-686.847	-336.442	-658.315	-382.123
17	-665.339	-389.130	-638.474	-432.143
18	-658.906	-427.064	-771.145	-247.364
19	-655.601	-233.258	-652.965	-236.462
20	-662.614	-238.891	-566.346	-355.898
21	-583.290	-367.122	-724.939	-194.956
22	-727.029	-191.430	-611.794	-331.491
23	-741.676	-356.616	-750.309	-342.794
24	-755.291	-323.594	-797.443	-256.106
25	-796.770	-238.175	-854.139	-146.325
26	-846.672	-56.266	-906.058	38.814
27	-907.021	37.840	-950.681	107.742
28	-950.909	107.519	-978.935	152.391
29	-979.666	151.656	-990.341	168.748
30	-992.038	167.083	-991.479	166.189
31	-994.440	163.191	-983.417	145.541
32	-987.878	141.025	-960.053	96.477
33	-966.200	90.331	-922.885	20.981
34	-930.641	13.234	-873.829	-77.725
35	-883.029	-86.873	-815.049	-195.712
36	-825.240	-205.922	-753.872	-320.185
37	-769.268	-322.433	-717.272	-405.680
38	-743.462	-403.196	-834.529	-257.394
39	-724.423	-235.818	-710.559	-252.668
40	-725.534	-240.602	-588.325	-407.370
41	-616.911	-416.604	-755.182	-248.544
42	-759.693	-241.534	-625.178	-405.028
43	-763.003	-448.686	-756.845	-458.545
44	-762.397	-433.158	-785.311	-396.472
45	-784.913	-371.306	-832.348	-295.359
46	-823.368	-83.568	-884.879	14.914
47	-886.672	13.119	-932.882	87.103
48	-933.062	86.943	-963.374	135.474
49	-964.238	134.595	-976.763	154.648
50	-978.726	152.703	-979.778	154.388
51	-983.126	151.074	-973.610	135.839
52	-978.509	130.939	-952.263	88.917
53	-958.848	82.309	-917.005	15.318
54	-925.205	7.108	-869.983	-81.304

COMBINACION 28 G1 + G2 + 0.9 PRETD + SCMAX-EC1 + 0.6 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-879.570	-90.934	-813.380	-196.907
56	-823.941	-207.450	-754.129	-319.222
57	-773.078	-316.397	-730.431	-384.677
58	-757.158	-381.460	-857.902	-220.165
59	-746.308	-208.882	-741.320	-214.945
60	-756.201	-202.289	-627.874	-358.263
61	-656.283	-367.110	-793.525	-200.302
62	-798.176	-193.346	-660.245	-360.992
63	-801.499	-386.628	-792.486	-401.059
64	-798.687	-375.686	-818.111	-344.588
65	-818.690	-318.595	-855.866	-259.075
66	-847.241	-47.160	-906.323	47.433
67	-908.204	45.573	-952.051	115.774
68	-952.245	115.613	-980.310	160.547
69	-981.142	159.724	-991.464	176.251
70	-993.354	174.381	-992.276	172.655
71	-995.520	169.421	-983.943	150.886
72	-988.732	146.097	-960.413	100.756
73	-966.894	94.289	-923.006	24.022
74	-931.090	15.935	-873.778	-75.825
75	-883.268	-85.327	-814.939	-194.725
76	-825.395	-205.204	-753.122	-320.917
77	-773.010	-316.444	-729.946	-385.390
78	-756.702	-382.122	-857.085	-221.404
79	-745.650	-209.787	-740.427	-216.136
80	-755.417	-203.552	-626.848	-359.819
81	-655.334	-368.741	-792.700	-201.781
82	-797.324	-194.793	-659.249	-362.614
83	-800.285	-388.695	-791.370	-402.969
84	-797.487	-377.423	-817.068	-346.072
85	-817.593	-319.949	-853.585	-262.325
86	-844.950	-50.295	-904.300	44.728
87	-906.160	42.899	-950.250	113.489
88	-950.433	113.317	-978.723	158.610
89	-979.562	157.771	-990.082	174.614
90	-991.988	172.715	-991.087	171.272
91	-994.371	168.037	-982.964	149.774
92	-987.796	144.970	-959.639	99.889
93	-966.153	93.386	-922.426	23.377
94	-930.547	15.259	-873.405	-76.228
95	-882.936	-85.748	-814.755	-194.908
96	-825.243	-205.407	-753.114	-320.887
97	-773.299	-315.987	-731.046	-383.635
98	-757.803	-380.374	-858.994	-218.363
99	-747.414	-207.617	-742.912	-213.088
100	-757.890	-200.464	-630.103	-355.782
101	-658.486	-364.780	-795.700	-198.005
102	-800.332	-191.026	-662.075	-359.068
103	-803.379	-383.708	-794.234	-398.348
104	-800.396	-372.816	-819.719	-341.879
105	-820.269	-315.777	-855.404	-259.524
106	-846.778	-47.515	-905.921	47.175
107	-907.796	45.348	-951.694	115.631
108	-951.891	115.477	-979.991	160.466
109	-980.839	159.646	-991.183	176.206

COMBINACION 28 G1 + G2 + 0.9 PRETD + SCMAX-EC1 + 0.6 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
110	-993.091	174.327	-992.019	172.610
111	-995.287	169.366	-983.722	150.850
112	-988.528	146.026	-960.221	100.706
113	-966.729	94.216	-922.833	23.937
114	-930.937	15.814	-873.612	-75.966
115	-883.138	-85.472	-814.852	-194.801
116	-825.325	-205.297	-753.019	-321.061
117	-773.304	-315.985	-731.048	-383.639
118	-757.789	-380.395	-858.999	-218.353
119	-747.407	-207.628	-742.900	-213.106
120	-757.858	-200.519	-630.049	-355.862
121	-658.404	-364.912	-795.627	-198.126
122	-800.258	-191.144	-662.005	-359.182
123	-803.284	-383.869	-794.152	-398.488
124	-800.301	-372.954	-819.659	-341.961
125	-820.224	-315.817	-855.308	-259.646
126	-846.698	-47.598	-905.890	47.171
127	-907.752	45.333	-951.683	115.668
128	-951.857	115.481	-980.007	160.550
129	-980.851	159.721	-991.200	176.290
130	-993.102	174.401	-992.042	172.704
131	-995.295	169.427	-983.730	150.911
132	-988.552	146.107	-960.222	100.749
133	-966.732	94.258	-922.855	24.010
134	-930.969	15.896	-873.638	-75.895
135	-883.161	-85.410	-814.833	-194.808
136	-825.316	-205.298	-752.995	-321.087
137	-773.291	-315.998	-731.070	-383.596
138	-757.839	-380.314	-859.086	-218.213
139	-747.507	-207.509	-743.056	-212.918
140	-758.027	-200.314	-630.274	-355.590
141	-658.672	-364.581	-795.869	-197.827
142	-800.507	-190.837	-662.213	-358.924
143	-803.521	-383.489	-794.367	-398.144
144	-800.513	-372.617	-819.835	-341.682
145	-820.391	-315.556	-855.350	-259.586
146	-846.719	-47.580	-905.890	47.156
147	-907.746	45.306	-951.683	115.650
148	-951.850	115.447	-979.965	160.459
149	-980.805	159.626	-991.162	176.208
150	-993.052	174.292	-991.986	172.586
151	-995.248	169.325	-983.669	150.787
152	-988.476	145.960	-960.172	100.645
153	-966.665	94.123	-922.777	23.856
154	-930.902	15.764	-873.588	-75.998
155	-883.110	-85.513	-814.779	-194.914
156	-825.264	-205.397	-752.882	-321.284
157	-773.172	-316.201	-730.956	-383.791
158	-757.707	-380.531	-858.926	-218.475
159	-747.333	-207.718	-742.873	-213.139
160	-757.837	-200.537	-630.074	-355.826
161	-658.455	-364.838	-795.710	-198.013
162	-800.345	-191.028	-662.118	-359.034
163	-803.418	-383.651	-794.311	-398.233
164	-800.471	-372.686	-819.838	-341.680

COMBINACION 28 G1 + G2 + 0.9 PRETD + SCMAX-EC1 + 0.6 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-820.397	-315.547	-855.426	-259.463
166	-846.802	-47.441	-905.974	47.297
167	-907.814	45.424	-951.757	115.779
168	-951.922	115.583	-980.030	160.586
169	-980.874	159.765	-991.219	176.328
170	-993.110	174.424	-992.060	172.743
171	-995.308	169.468	-983.737	150.942
172	-988.539	146.113	-960.224	100.779
173	-966.724	94.276	-922.839	24.014
174	-930.933	15.873	-873.601	-75.918
175	-883.128	-85.429	-814.777	-194.863
176	-825.257	-205.360	-752.711	-321.509
177	-773.014	-316.418	-730.756	-384.074
178	-757.531	-380.799	-858.705	-218.815
179	-747.154	-207.951	-742.697	-213.368
180	-757.679	-200.763	-629.881	-356.093
181	-658.393	-364.951	-795.645	-198.129
182	-800.272	-191.142	-662.074	-359.113
183	-803.363	-383.746	-794.296	-398.263
184	-800.437	-372.734	-819.844	-341.663
185	-820.392	-315.553	-855.417	-259.476
186	-846.712	-47.595	-905.742	46.914
187	-907.608	45.063	-951.402	115.179
188	-951.597	115.007	-979.589	159.823
189	-980.452	159.008	-990.698	175.413
190	-992.616	173.531	-991.451	171.666
191	-994.709	168.381	-983.047	149.710
192	-987.867	144.892	-959.473	99.433
193	-965.976	92.919	-921.992	22.500
194	-930.097	14.369	-872.678	-77.562
195	-882.175	-87.117	-813.741	-196.684
196	-824.222	-207.163	-750.914	-324.532
197	-771.185	-319.457	-728.802	-387.314
198	-755.529	-384.047	-856.561	-222.292
199	-745.123	-210.373	-740.472	-216.025
200	-755.425	-203.398	-627.468	-358.921
201	-655.850	-367.911	-793.690	-200.375
202	-798.337	-193.403	-660.704	-360.687
203	-801.920	-386.034	-793.425	-399.635
204	-799.586	-374.116	-819.576	-342.112
205	-820.130	-315.983	-855.619	-259.162
206	-846.680	-47.612	-905.728	46.927
207	-907.561	45.092	-951.412	115.299
208	-951.560	115.133	-979.618	160.056
209	-980.432	159.250	-990.695	175.683
210	-992.574	173.821	-991.396	171.935
211	-994.639	168.709	-982.926	149.956
212	-987.712	145.151	-959.284	99.636
213	-965.764	93.137	-921.716	22.613
214	-929.823	14.515	-872.324	-77.544
215	-881.835	-87.086	-813.310	-196.798
216	-823.820	-207.292	-748.900	-327.241
217	-769.259	-322.150	-726.652	-390.366
218	-753.501	-387.136	-854.414	-225.570
219	-743.290	-212.759	-738.508	-218.571

COMBINACION 28 G1 + G2 + 0.9 PRETD + SCMAX-EC1 + 0.6 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-753.569	-206.012	-625.664	-361.473
221	-654.247	-370.314	-792.455	-202.332
222	-797.047	-195.292	-659.789	-362.120
223	-800.826	-387.860	-792.863	-400.608
224	-799.009	-374.971	-819.502	-342.160
225	-820.079	-316.018	-855.705	-258.980
226	-846.008	-48.794	-903.600	43.414
227	-905.512	41.472	-947.827	109.220
228	-948.092	108.957	-974.567	151.345
229	-975.494	150.416	-984.211	164.373
230	-986.213	162.406	-983.491	158.048
231	-986.848	154.721	-973.690	133.654
232	-978.591	128.789	-948.759	81.026
233	-955.323	74.476	-909.992	1.900
234	-918.144	-6.223	-859.484	-100.140
235	-868.990	-109.659	-799.371	-221.121
236	-809.799	-231.538	-731.908	-356.245
237	-747.785	-357.886	-702.195	-430.877
238	-729.029	-426.873	-834.201	-258.487
239	-718.567	-242.252	-710.316	-252.280
240	-725.215	-239.215	-596.631	-395.501
241	-625.052	-404.190	-770.039	-227.968
242	-774.865	-221.082	-644.524	-379.503
243	-784.993	-412.934	-783.952	-414.599
244	-790.570	-388.764	-817.749	-345.250
245	-818.450	-318.915	-859.286	-253.536
246	-847.116	-56.346	-903.534	33.980
247	-905.040	32.527	-946.552	98.989
248	-946.413	99.150	-972.322	140.631
249	-972.824	140.111	-981.281	153.651
250	-982.871	152.051	-979.695	146.966
251	-982.697	143.963	-969.149	122.272
252	-973.772	117.651	-943.270	68.816
253	-949.665	62.414	-903.607	-11.328
254	-911.732	-19.441	-852.214	-114.732
255	-861.897	-124.385	-791.388	-237.272
256	-802.211	-248.080	-723.554	-374.013
257	-743.173	-371.429	-690.026	-456.519
258	-718.993	-452.020	-826.028	-280.652
259	-714.548	-256.500	-794.106	-159.802
260	-802.366	-150.574	-717.213	-254.072
261	-740.504	-266.096	-831.872	-155.044
262	-818.378	-137.636	-692.664	-290.432
263	-822.870	-300.687	-798.114	-340.322
264	-805.853	-322.414	-799.279	-332.939
265	-805.282	-308.218	-816.948	-289.542
266	-789.841	-198.438	-792.679	-193.896
267	-813.894	-215.117	-824.460	-198.202
268	-824.817	-198.556	-833.041	-185.389
269	-833.681	-186.063	-839.172	-177.273
270	-840.602	-178.721	-842.927	-174.998
271	-845.472	-177.543	-844.451	-179.178
272	-848.308	-183.029	-846.815	-185.418
273	-851.119	-189.681	-843.330	-202.152
274	-845.708	-204.534	-831.986	-226.503

COMBINACION 28 G1 + G2 + 0.9 PRETD + SCMAX-EC1 + 0.6 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-830.437	-224.967	-806.031	-264.043
276	-804.909	-262.910	-770.105	-318.633
277	-769.243	-317.786	-723.886	-390.404
278	-723.101	-389.624	-667.516	-478.617
279	-666.599	-477.782	-600.760	-583.192
280	-599.437	-581.847	-521.193	-707.118

COMBINACION 29 G1 + G2 + 0.9 PRETD + TEMP + 0.80 SCMAX-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-442.315	-600.497	-491.246	-522.156
2	-519.703	-480.000	-582.649	-379.222
3	-584.041	-380.588	-637.605	-294.830
4	-638.765	-296.018	-681.818	-227.088
5	-682.903	-228.175	-715.904	-175.340
6	-717.042	-176.424	-740.050	-139.588
7	-741.315	-140.818	-754.244	-120.119
8	-755.735	-121.593	-759.078	-116.241
9	-760.868	-118.058	-754.209	-128.719
10	-756.399	-130.917	-742.383	-153.356
11	-746.054	-157.030	-727.998	-185.938
12	-732.798	-190.706	-711.247	-225.209
13	-717.125	-231.076	-693.070	-269.589
14	-699.880	-276.416	-674.419	-317.181
15	-681.877	-324.628	-660.944	-358.141
16	-668.552	-365.733	-650.750	-394.236
17	-657.772	-401.245	-642.953	-424.972
18	-661.297	-423.236	-781.595	-230.633
19	-664.424	-222.534	-664.608	-222.311
20	-673.526	-225.628	-578.812	-340.746
21	-595.193	-352.654	-740.521	-176.017
22	-742.042	-173.182	-628.600	-311.064
23	-757.324	-331.564	-762.721	-322.923
24	-765.722	-306.894	-799.017	-253.586
25	-796.856	-238.037	-841.114	-167.178
26	-831.679	-80.271	-876.984	-7.735
27	-877.948	-8.708	-910.807	43.901
28	-911.034	43.677	-931.277	76.088
29	-932.008	75.354	-938.118	85.137
30	-939.815	83.472	-936.603	78.331
31	-939.565	75.333	-927.659	56.272
32	-932.120	51.755	-906.552	10.818
33	-912.698	4.671	-874.781	-56.035
34	-882.539	-63.781	-834.244	-141.103
35	-843.441	-150.254	-787.112	-240.440
36	-797.305	-250.646	-739.685	-342.899
37	-754.005	-346.868	-713.199	-412.201
38	-737.040	-413.477	-837.246	-253.043
39	-723.800	-236.575	-714.041	-248.437
40	-726.415	-239.531	-588.921	-406.646
41	-615.647	-418.141	-758.179	-244.902
42	-761.581	-239.239	-628.660	-400.797
43	-763.840	-447.345	-755.494	-460.708
44	-758.513	-439.376	-775.296	-412.506
45	-772.782	-390.728	-807.942	-334.435
46	-796.746	-126.191	-845.275	-48.494
47	-847.067	-50.289	-883.603	8.206
48	-883.783	8.046	-907.416	45.883
49	-908.281	45.005	-917.365	59.550
50	-919.328	57.605	-918.838	56.821
51	-922.187	53.507	-912.876	38.601
52	-917.776	33.702	-894.850	-3.004
53	-901.435	-9.611	-866.079	-66.217
54	-874.279	-74.427	-828.665	-147.456

COMBINACION 29 G1 + G2 + 0.9 PRETD + TEMP + 0.80 SCMAX-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-838.253	-157.084	-784.800	-242.665
56	-795.360	-253.209	-740.474	-341.084
57	-757.641	-341.113	-725.729	-392.206
58	-750.004	-392.915	-859.353	-217.842
59	-744.419	-211.179	-743.001	-212.902
60	-755.235	-203.463	-626.080	-360.442
61	-652.620	-371.563	-793.999	-199.726
62	-797.534	-194.125	-661.607	-359.336
63	-800.018	-389.000	-788.985	-406.663
64	-792.601	-385.431	-806.069	-363.867
65	-804.472	-341.358	-830.972	-298.931
66	-820.089	-90.631	-866.231	-16.755
67	-868.111	-18.618	-902.331	36.170
68	-902.525	36.009	-923.953	70.316
69	-924.784	69.493	-931.719	80.596
70	-933.610	78.727	-931.044	74.620
71	-934.287	71.386	-922.970	53.266
72	-927.759	48.476	-902.812	8.536
73	-909.293	2.068	-871.938	-57.739
74	-880.024	-65.824	-832.371	-142.119
75	-841.861	-151.621	-786.321	-240.543
76	-796.777	-251.022	-739.533	-342.673
77	-757.427	-341.392	-724.752	-393.706
78	-749.050	-394.373	-857.686	-220.442
79	-742.965	-213.051	-740.982	-215.461
80	-753.322	-206.098	-623.593	-363.775
81	-650.207	-374.972	-791.783	-202.896
82	-795.291	-197.264	-659.334	-362.510
83	-797.425	-393.275	-786.590	-410.622
84	-790.115	-389.226	-803.842	-367.249
85	-802.183	-344.620	-827.870	-303.495
86	-816.971	-95.090	-863.460	-20.660
87	-865.319	-22.490	-899.864	32.819
88	-900.047	32.646	-921.777	67.437
89	-922.617	66.600	-929.827	78.143
90	-931.733	76.244	-929.421	72.543
91	-932.705	69.306	-921.630	51.575
92	-926.461	46.771	-901.754	7.213
93	-908.268	0.710	-871.151	-58.716
94	-879.273	-66.834	-831.865	-142.736
95	-841.395	-152.256	-786.086	-240.809
96	-796.574	-251.307	-739.563	-342.584
97	-757.693	-340.973	-725.779	-392.068
98	-750.078	-392.743	-859.470	-217.600
99	-744.612	-211.022	-743.302	-212.614
100	-755.628	-203.214	-626.632	-360.000
101	-653.143	-371.274	-794.580	-199.367
102	-798.094	-193.745	-661.972	-359.193
103	-800.314	-388.615	-789.265	-406.304
104	-792.832	-384.925	-806.318	-363.334
105	-804.685	-340.728	-829.652	-300.754
106	-818.761	-92.371	-865.051	-18.260
107	-866.924	-20.090	-901.279	34.915
108	-901.476	34.761	-923.022	69.257
109	-923.870	68.435	-930.908	79.704

COMBINACION 29 G1 + G2 + 0.9 PRETD + TEMP + 0.80 SCMAX-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
110	-932.816	77.824	-930.338	73.857
111	-933.606	70.613	-922.378	52.636
112	-927.184	47.813	-902.331	8.022
113	-908.839	1.532	-871.560	-58.153
114	-879.667	-66.272	-832.084	-142.454
115	-841.610	-151.960	-786.186	-240.697
116	-796.661	-251.189	-739.476	-342.744
117	-757.688	-340.988	-725.736	-392.144
118	-750.020	-392.833	-859.402	-217.707
119	-744.540	-211.113	-743.196	-212.746
120	-755.504	-203.379	-626.461	-360.224
121	-652.943	-371.549	-794.398	-199.620
122	-797.912	-193.995	-661.801	-359.430
123	-800.112	-388.947	-789.084	-406.603
124	-792.639	-385.221	-806.163	-363.569
125	-804.541	-340.926	-829.476	-301.003
126	-818.598	-92.588	-864.936	-18.398
127	-866.797	-20.238	-901.193	34.831
128	-901.366	34.643	-922.969	69.230
129	-923.812	68.399	-930.862	79.687
130	-932.765	77.798	-930.310	73.868
131	-933.564	70.593	-922.346	52.633
132	-927.168	47.828	-902.301	8.014
133	-908.811	1.524	-871.557	-58.121
134	-879.672	-66.233	-832.093	-142.409
135	-841.617	-151.925	-786.168	-240.701
136	-796.653	-251.189	-739.466	-342.748
137	-757.683	-340.986	-725.769	-392.083
138	-750.078	-392.740	-859.494	-217.560
139	-744.639	-210.993	-743.349	-212.562
140	-755.668	-203.181	-626.676	-359.964
141	-653.202	-371.230	-794.626	-199.338
142	-798.148	-193.704	-661.996	-359.189
143	-800.332	-388.595	-789.283	-406.285
144	-792.837	-384.907	-806.327	-363.309
145	-804.700	-340.679	-829.530	-300.924
146	-818.637	-92.540	-864.956	-18.381
147	-866.810	-20.234	-901.209	34.840
148	-901.377	34.636	-922.945	69.168
149	-923.784	68.332	-930.842	79.633
150	-932.732	77.718	-930.269	73.774
151	-933.530	70.512	-922.298	52.529
152	-927.104	47.703	-902.261	7.927
153	-908.755	1.406	-871.487	-58.261
154	-879.612	-66.354	-832.043	-142.513
155	-841.566	-152.027	-786.112	-240.811
156	-796.597	-251.293	-739.359	-342.935
157	-757.570	-341.180	-725.656	-392.276
158	-749.950	-392.950	-859.335	-217.819
159	-744.472	-211.196	-743.171	-212.776
160	-755.486	-203.396	-626.482	-360.191
161	-652.991	-371.479	-794.473	-199.516
162	-797.992	-193.888	-661.903	-359.296
163	-800.232	-388.751	-789.224	-406.376
164	-792.790	-384.984	-806.321	-363.321

COMBINACION 29 G1 + G2 + 0.9 PRETD + TEMP + 0.80 SCMAX-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-804.695	-340.687	-829.591	-300.827
166	-818.700	-92.432	-865.029	-18.259
167	-866.868	-20.131	-901.278	34.961
168	-901.444	34.765	-923.013	69.299
169	-923.855	68.475	-930.910	79.769
170	-932.799	77.864	-930.357	73.955
171	-933.607	70.680	-922.388	52.719
172	-927.191	47.891	-902.342	8.106
173	-908.842	1.605	-871.584	-58.047
174	-879.681	-66.185	-832.105	-142.355
175	-841.632	-151.866	-786.166	-240.669
176	-796.649	-251.162	-739.284	-343.007
177	-757.508	-341.243	-725.566	-392.384
178	-749.880	-393.048	-859.227	-217.979
179	-744.395	-211.304	-743.105	-212.872
180	-755.435	-203.490	-626.405	-360.319
181	-653.045	-371.451	-794.495	-199.527
182	-798.006	-193.896	-661.918	-359.302
183	-800.242	-388.743	-789.246	-406.347
184	-792.795	-384.969	-806.339	-363.285
185	-804.705	-340.668	-829.574	-300.852
186	-818.623	-92.567	-864.816	-18.609
187	-866.681	-20.464	-900.949	34.401
188	-901.144	34.229	-922.596	68.574
189	-923.457	67.757	-930.407	78.885
190	-932.325	77.002	-929.768	72.909
191	-933.026	69.625	-921.714	51.513
192	-926.534	46.695	-901.605	6.783
193	-908.106	0.267	-870.753	-59.536
194	-878.859	-67.666	-831.200	-143.970
195	-840.699	-153.522	-785.155	-242.451
196	-795.637	-252.929	-737.649	-345.770
197	-755.844	-344.017	-723.789	-395.340
198	-748.060	-396.005	-857.281	-221.138
199	-742.550	-213.500	-741.081	-215.285
200	-753.383	-205.879	-624.205	-362.887
201	-650.714	-374.154	-792.704	-201.573
202	-796.234	-195.958	-660.664	-360.735
203	-798.924	-390.832	-788.448	-407.603
204	-792.016	-386.236	-806.089	-363.704
205	-804.458	-341.074	-829.764	-300.558
206	-818.628	-92.524	-864.914	-18.419
207	-866.746	-20.255	-901.142	34.814
208	-901.289	34.648	-922.882	69.219
209	-923.694	68.411	-930.744	79.698
210	-932.623	77.837	-930.136	73.854
211	-933.378	70.628	-922.103	52.576
212	-926.889	47.771	-902.008	7.935
213	-908.490	1.438	-871.151	-58.342
214	-879.259	-66.440	-831.597	-142.749
215	-841.110	-152.288	-785.552	-241.239
216	-796.062	-251.734	-736.840	-346.550
217	-755.115	-344.796	-722.939	-396.311
218	-747.325	-397.025	-856.530	-222.182
219	-742.003	-214.322	-740.518	-216.127

COMBINACION 29 G1 + G2 + 0.9 PRETD + TEMP + 0.80 SCMAX-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-752.924	-206.797	-623.868	-363.656
221	-650.578	-374.773	-792.601	-202.154
222	-796.076	-196.472	-660.547	-361.199
223	-798.685	-391.287	-788.384	-407.781
224	-791.927	-386.309	-806.152	-363.534
225	-804.542	-340.895	-829.699	-300.617
226	-817.987	-93.656	-862.872	-21.794
227	-864.783	-23.737	-897.704	28.971
228	-897.967	28.706	-918.038	60.840
229	-918.964	59.909	-924.521	68.807
230	-926.523	66.839	-922.548	60.475
231	-925.905	57.147	-913.231	36.856
232	-918.131	31.990	-891.897	-10.012
233	-898.462	-16.561	-859.887	-78.320
234	-868.040	-86.442	-819.260	-164.541
235	-828.767	-174.057	-772.161	-264.686
236	-782.589	-275.103	-720.829	-373.983
237	-735.478	-377.591	-700.744	-433.201
238	-725.051	-433.242	-837.353	-253.441
239	-719.419	-241.216	-714.880	-246.732
240	-727.091	-236.935	-597.234	-394.768
241	-623.774	-405.744	-772.033	-225.544
242	-775.734	-220.026	-646.575	-377.010
243	-784.211	-414.185	-780.265	-420.503
244	-784.226	-398.921	-804.615	-366.278
245	-803.103	-343.488	-833.351	-295.058
246	-819.763	-100.140	-864.569	-28.404
247	-866.073	-29.861	-899.270	23.288
248	-899.131	23.448	-919.724	56.419
249	-920.226	55.898	-926.584	66.078
250	-928.173	64.478	-924.858	59.169
251	-927.860	56.167	-915.888	36.999
252	-920.511	32.379	-894.733	-8.893
253	-901.130	-15.292	-862.940	-76.436
254	-871.067	-84.548	-822.534	-162.252
255	-832.217	-171.903	-775.823	-262.192
256	-786.648	-272.997	-725.221	-371.345
257	-742.929	-371.820	-703.128	-435.542
258	-729.356	-435.428	-844.571	-250.963
259	-729.126	-238.781	-810.839	-139.464
260	-817.330	-132.387	-730.175	-238.318
261	-752.340	-251.710	-843.113	-141.381
262	-829.223	-124.453	-702.493	-278.486
263	-832.349	-285.510	-802.722	-332.944
264	-808.362	-318.396	-794.260	-340.974
265	-797.748	-320.281	-798.635	-318.862
266	-771.490	-227.821	-764.904	-238.364
267	-786.119	-259.586	-788.692	-255.468
268	-789.048	-255.823	-790.800	-253.019
269	-791.440	-253.694	-791.944	-252.886
270	-793.375	-254.332	-792.211	-256.197
271	-794.755	-258.744	-791.748	-263.557
272	-795.607	-267.405	-792.653	-272.134
273	-796.956	-276.398	-789.290	-288.671
274	-791.669	-291.052	-779.971	-309.781

COMBINACION 29 G1 + G2 + 0.9 PRETD + TEMP + 0.80 SCMAX-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-778.423	-308.244	-757.948	-341.025
276	-756.828	-339.890	-727.842	-386.298
277	-726.982	-385.447	-689.394	-445.627
278	-688.609	-444.847	-642.689	-518.367
279	-641.774	-517.527	-587.497	-604.427
280	-586.173	-603.084	-521.190	-707.124

COMBINACION 30 G1 + G2 + 0.9 PRETD + 0.60 SCMAX-EC1 + 0.2 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-442.315	-600.497	-481.042	-538.494
2	-500.450	-510.824	-546.146	-437.663
3	-547.537	-439.033	-585.552	-378.168
4	-586.716	-379.351	-616.223	-332.108
5	-617.309	-333.194	-638.657	-299.016
6	-639.794	-300.101	-653.017	-278.930
7	-654.283	-280.160	-659.308	-272.116
8	-660.798	-273.591	-657.990	-278.087
9	-659.779	-279.905	-648.828	-297.437
10	-651.018	-299.636	-634.370	-326.290
11	-638.042	-329.962	-619.095	-360.297
12	-623.895	-365.063	-603.242	-398.131
13	-609.118	-404.000	-587.751	-438.208
14	-594.562	-445.035	-573.615	-478.572
15	-581.072	-486.020	-565.321	-511.239
16	-572.928	-518.831	-561.583	-536.996
17	-568.603	-544.009	-561.666	-555.115
18	-577.740	-557.014	-701.643	-358.640
19	-589.272	-313.876	-587.944	-315.490
20	-596.020	-319.832	-498.358	-438.534
21	-514.090	-451.230	-664.535	-268.374
22	-665.400	-266.336	-555.110	-400.387
23	-675.393	-462.739	-678.706	-457.433
24	-679.555	-444.850	-704.925	-404.232
25	-701.048	-391.430	-732.854	-340.507
26	-721.147	-257.238	-752.629	-206.833
27	-753.594	-207.803	-776.105	-171.763
28	-776.331	-171.987	-789.441	-150.997
29	-790.172	-151.731	-792.565	-147.900
30	-794.261	-149.566	-789.439	-157.285
31	-792.401	-160.282	-780.853	-178.771
32	-785.315	-183.287	-763.437	-218.315
33	-769.583	-224.462	-738.696	-273.914
34	-746.454	-281.659	-708.504	-342.418
35	-717.699	-351.573	-675.045	-419.865
36	-685.240	-430.068	-643.588	-496.755
37	-656.739	-502.596	-629.225	-546.647
38	-650.514	-552.009	-761.763	-373.895
39	-650.378	-325.815	-646.183	-330.914
40	-655.731	-325.443	-519.125	-491.479
41	-543.828	-505.431	-690.621	-327.014
42	-692.819	-322.815	-561.411	-482.533
43	-688.158	-568.515	-677.230	-586.012
44	-677.495	-569.089	-687.534	-553.017
45	-682.604	-535.107	-704.552	-499.968
46	-690.800	-295.816	-725.075	-240.939
47	-726.867	-242.735	-752.654	-201.449
48	-752.835	-201.608	-768.909	-175.871
49	-769.775	-176.748	-774.737	-168.804
50	-776.699	-170.750	-774.181	-174.781
51	-777.529	-178.095	-768.134	-193.137
52	-773.034	-198.036	-753.334	-229.577
53	-759.919	-236.185	-731.152	-282.242
54	-739.351	-290.452	-703.643	-347.622

COMBINACION 30 G1 + G2 + 0.9 PRETD + 0.60 SCMAX-EC1 + 0.2 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-713.233	-357.247	-673.010	-421.646
56	-683.569	-432.191	-644.299	-495.064
57	-659.527	-498.197	-638.773	-531.426
58	-660.383	-536.401	-778.552	-347.208
59	-665.965	-306.534	-668.009	-304.050
60	-677.366	-298.108	-546.987	-456.575
61	-571.493	-470.167	-717.452	-292.763
62	-719.775	-288.637	-586.216	-450.969
63	-715.519	-524.286	-702.551	-545.049
64	-703.355	-528.317	-710.618	-516.688
65	-706.655	-497.967	-722.022	-473.365
66	-708.533	-269.237	-740.943	-217.347
67	-742.821	-219.212	-766.819	-180.790
68	-767.013	-180.952	-781.404	-157.911
69	-782.235	-158.735	-785.579	-153.381
70	-787.470	-155.249	-783.410	-161.749
71	-786.653	-164.984	-775.783	-182.387
72	-780.572	-187.176	-759.384	-221.100
73	-765.865	-227.567	-735.624	-275.984
74	-743.711	-284.067	-706.493	-343.654
75	-715.985	-353.155	-674.206	-420.044
76	-684.662	-430.523	-643.617	-496.239
77	-659.343	-498.429	-637.911	-532.742
78	-659.537	-537.686	-777.073	-349.506
79	-664.680	-308.202	-666.227	-306.321
80	-675.686	-300.459	-544.801	-459.542
81	-569.381	-473.211	-715.495	-295.618
82	-717.790	-291.461	-584.202	-453.828
83	-713.203	-528.117	-700.411	-548.598
84	-701.118	-531.714	-708.618	-519.706
85	-704.587	-500.876	-719.389	-477.178
86	-705.877	-272.956	-738.590	-220.581
87	-740.449	-222.412	-764.732	-183.534
88	-764.914	-183.707	-779.564	-160.252
89	-780.406	-161.088	-783.980	-155.365
90	-785.886	-157.264	-782.034	-163.431
91	-785.317	-166.669	-774.641	-183.761
92	-779.472	-188.565	-758.477	-222.179
93	-764.992	-228.682	-734.944	-276.790
94	-743.066	-284.907	-706.046	-344.176
95	-715.577	-353.696	-673.991	-420.277
96	-684.479	-430.775	-643.633	-496.173
97	-659.530	-498.137	-638.675	-531.526
98	-660.301	-536.479	-778.407	-347.386
99	-665.907	-306.683	-667.955	-304.195
100	-677.397	-298.299	-547.072	-456.701
101	-571.548	-470.448	-717.571	-292.967
102	-719.872	-288.820	-586.170	-451.326
103	-715.369	-524.615	-702.416	-545.353
104	-703.163	-528.489	-710.477	-516.779
105	-706.472	-497.972	-720.729	-475.145
106	-707.225	-270.946	-739.787	-218.813
107	-741.658	-220.646	-765.792	-182.005
108	-765.989	-182.160	-780.498	-158.930
109	-781.345	-159.753	-784.791	-154.236

COMBINACION 30 G1 + G2 + 0.9 PRETD + 0.60 SCMAX-EC1 + 0.2 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
110	-786.699	-156.115	-782.725	-162.478
111	-785.993	-165.722	-775.208	-182.990
112	-780.014	-187.813	-758.916	-221.592
113	-765.424	-228.082	-735.260	-276.374
114	-743.369	-284.491	-706.223	-343.963
115	-715.749	-353.470	-674.076	-420.190
116	-684.554	-430.677	-643.574	-496.287
117	-659.532	-498.140	-638.638	-531.591
118	-660.252	-536.556	-778.353	-347.470
119	-665.849	-306.757	-667.867	-304.304
120	-677.295	-298.438	-546.926	-456.892
121	-571.374	-470.691	-717.414	-293.189
122	-719.716	-289.038	-586.023	-451.533
123	-715.194	-524.904	-702.258	-545.615
124	-702.995	-528.746	-710.339	-516.987
125	-706.340	-498.150	-720.575	-475.360
126	-707.078	-271.136	-739.677	-218.943
127	-741.537	-220.786	-765.708	-182.086
128	-765.881	-182.274	-780.443	-158.961
129	-781.284	-159.793	-784.740	-154.261
130	-786.643	-156.150	-782.693	-162.473
131	-785.948	-165.747	-775.172	-183.000
132	-779.994	-187.804	-758.881	-221.607
133	-765.392	-228.096	-735.248	-276.358
134	-743.364	-284.469	-706.221	-343.935
135	-715.745	-353.452	-674.057	-420.196
136	-684.542	-430.684	-643.565	-496.290
137	-659.523	-498.146	-638.657	-531.552
138	-660.292	-536.490	-778.412	-347.376
139	-665.915	-306.678	-667.971	-304.179
140	-677.408	-298.302	-547.076	-456.712
141	-571.567	-470.452	-717.580	-292.982
142	-719.888	-288.824	-586.159	-451.363
143	-715.349	-524.655	-702.399	-545.388
144	-703.136	-528.522	-710.455	-516.803
145	-706.456	-497.971	-720.612	-475.307
146	-707.108	-271.103	-739.696	-218.928
147	-741.548	-220.785	-765.726	-182.074
148	-765.893	-182.280	-780.428	-159.008
149	-781.265	-159.846	-784.734	-154.292
150	-786.625	-156.206	-782.668	-162.541
151	-785.928	-165.804	-775.145	-183.069
152	-779.952	-187.895	-758.866	-221.655
153	-765.360	-228.175	-735.206	-276.453
154	-743.331	-284.546	-706.196	-344.000
155	-715.719	-353.513	-674.028	-420.262
156	-684.514	-430.743	-643.500	-496.409
157	-659.452	-498.272	-638.588	-531.676
158	-660.211	-536.625	-778.303	-347.556
159	-665.798	-306.819	-667.849	-304.325
160	-677.283	-298.447	-546.945	-456.864
161	-571.418	-470.625	-717.477	-293.100
162	-719.782	-288.947	-586.102	-451.427
163	-715.289	-524.749	-702.364	-545.444
164	-703.109	-528.568	-710.454	-516.808

COMBINACION 30 G1 + G2 + 0.9 PRETD + 0.60 SCMAX-EC1 + 0.2 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-706.452	-497.977	-720.657	-475.235
166	-707.152	-271.026	-739.746	-218.841
167	-741.586	-220.714	-765.769	-181.994
168	-765.935	-182.190	-780.468	-158.922
169	-781.308	-159.749	-784.770	-154.206
170	-786.659	-156.113	-782.719	-162.420
171	-785.969	-165.694	-775.194	-182.944
172	-779.998	-187.771	-758.901	-221.548
173	-765.402	-228.049	-735.254	-276.318
174	-743.353	-284.451	-706.213	-343.914
175	-715.740	-353.425	-674.036	-420.195
176	-684.521	-430.684	-643.407	-496.510
177	-659.372	-498.363	-638.483	-531.807
178	-660.124	-536.751	-778.174	-347.749
179	-665.699	-306.953	-667.759	-304.450
180	-677.206	-298.573	-546.839	-457.026
181	-571.444	-470.632	-717.474	-293.142
182	-719.771	-288.986	-586.098	-451.456
183	-715.277	-524.775	-702.371	-545.438
184	-703.102	-528.572	-710.469	-516.778
185	-706.462	-497.960	-720.651	-475.242
186	-707.109	-271.106	-739.615	-219.062
187	-741.477	-220.920	-765.564	-182.356
188	-765.759	-182.529	-780.211	-159.390
189	-781.071	-160.209	-784.462	-154.781
190	-786.379	-156.663	-782.363	-163.094
191	-785.622	-166.376	-774.787	-183.723
192	-779.607	-188.541	-758.467	-222.387
193	-764.967	-228.905	-734.767	-277.256
194	-742.872	-285.387	-705.692	-344.914
195	-715.193	-354.463	-673.453	-421.291
196	-683.935	-431.768	-642.377	-498.305
197	-658.317	-500.163	-637.366	-533.707
198	-658.967	-538.647	-776.946	-349.758
199	-664.522	-308.338	-666.454	-305.990
200	-675.874	-300.086	-545.406	-458.662
201	-569.879	-472.403	-716.275	-294.467
202	-718.591	-290.328	-585.262	-452.381
203	-714.410	-526.142	-701.837	-546.272
204	-702.586	-529.417	-710.291	-517.082
205	-706.285	-498.254	-720.748	-475.097
206	-707.078	-271.121	-739.627	-219.008
207	-741.458	-220.846	-765.621	-182.160
208	-765.768	-182.327	-780.314	-159.039
209	-781.125	-159.849	-784.576	-154.323
210	-786.456	-156.184	-782.470	-162.566
211	-785.712	-165.792	-774.882	-183.131
212	-779.668	-187.936	-758.537	-221.768
213	-765.020	-228.262	-734.792	-276.659
214	-742.900	-284.757	-705.672	-344.361
215	-715.186	-353.898	-673.387	-420.820
216	-683.896	-431.316	-641.360	-499.417
217	-657.370	-501.290	-636.280	-535.056
218	-657.988	-540.057	-775.932	-351.223
219	-663.724	-309.466	-665.641	-307.136

COMBINACION 30 G1 + G2 + 0.9 PRETD + 0.60 SCMAX-EC1 + 0.2 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-675.159	-301.315	-544.770	-459.794
221	-569.446	-473.384	-715.941	-295.330
222	-718.201	-291.125	-584.980	-453.046
223	-713.989	-526.890	-701.663	-546.624
224	-702.379	-529.680	-710.317	-516.970
225	-706.328	-498.138	-720.792	-474.981
226	-706.756	-271.742	-738.440	-221.015
227	-740.351	-222.958	-763.580	-185.768
228	-763.842	-186.035	-777.407	-164.316
229	-778.333	-165.248	-780.825	-161.258
230	-782.825	-163.226	-777.889	-171.130
231	-781.245	-174.459	-769.543	-193.195
232	-774.443	-198.061	-752.489	-233.210
233	-759.055	-239.756	-728.115	-289.293
234	-736.268	-297.413	-698.442	-357.975
235	-707.952	-367.487	-665.630	-435.247
236	-676.057	-445.664	-631.895	-516.369
237	-645.126	-522.247	-622.382	-558.661
238	-643.944	-563.098	-764.184	-370.588
239	-649.310	-326.429	-649.031	-326.767
240	-658.320	-320.522	-527.450	-479.586
241	-551.945	-493.047	-702.563	-309.981
242	-705.040	-305.949	-576.070	-462.704
243	-704.935	-541.109	-696.706	-554.284
244	-697.779	-537.327	-709.671	-518.288
245	-705.752	-499.351	-723.505	-470.926
246	-708.279	-278.630	-739.450	-228.725
247	-740.952	-230.186	-764.004	-193.278
248	-763.865	-193.118	-777.509	-171.273
249	-778.010	-171.794	-780.832	-167.276
250	-782.422	-168.877	-777.726	-176.396
251	-780.729	-179.397	-769.288	-197.714
252	-773.912	-202.333	-752.009	-237.400
253	-758.408	-243.797	-727.434	-293.388
254	-735.561	-301.498	-697.556	-362.347
255	-707.240	-371.996	-664.702	-440.101
256	-675.527	-450.906	-631.266	-521.769
257	-646.770	-525.775	-619.851	-568.873
258	-643.102	-573.525	-765.761	-377.142
259	-653.188	-331.079	-736.166	-230.224
260	-740.616	-225.627	-650.280	-335.426
261	-671.148	-350.394	-765.981	-235.130
262	-751.634	-218.757	-628.497	-368.424
263	-751.272	-415.319	-721.563	-462.883
264	-724.922	-451.988	-707.865	-479.297
265	-708.619	-462.981	-703.007	-471.965
266	-675.819	-380.992	-664.202	-399.592
267	-685.417	-420.815	-684.495	-422.291
268	-684.851	-422.647	-684.735	-422.832
269	-685.377	-423.506	-685.611	-423.130
270	-687.043	-424.575	-687.212	-424.304
271	-689.756	-426.851	-689.702	-426.938
272	-693.560	-430.787	-694.186	-429.785
273	-698.490	-434.047	-696.100	-437.873
274	-698.480	-440.252	-694.067	-447.316

COMBINACION 30 G1 + G2 + 0.9 PRETD + 0.60 SCMAX-EC1 + 0.2 TEMP

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-692.520	-445.779	-681.351	-463.661
276	-680.231	-462.525	-662.546	-490.839
277	-661.687	-489.987	-637.459	-528.777
278	-636.674	-527.996	-606.122	-576.912
279	-605.211	-576.066	-568.308	-635.149
280	-566.982	-633.809	-521.186	-707.130

COMBINACION 31 G1 + G2 + 0.9 PRETD + SCMIN-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-442.296	-600.528	-475.845	-546.815
2	-442.164	-604.144	-434.757	-616.003
3	-436.142	-617.380	-425.334	-634.685
4	-426.505	-635.856	-412.365	-658.495
5	-413.452	-659.579	-396.000	-687.520
6	-397.136	-688.608	-376.328	-721.922
7	-377.595	-723.150	-353.392	-761.900
8	-354.882	-763.375	-327.262	-807.596
9	-329.051	-809.415	-298.041	-859.063
10	-300.229	-861.264	-267.684	-913.371
11	-271.350	-917.051	-240.890	-965.819
12	-245.693	-970.581	-218.073	-1014.802
13	-223.945	-1020.678	-200.159	-1058.760
14	-206.974	-1065.580	-188.272	-1095.523
15	-195.728	-1102.973	-183.389	-1122.728
16	-190.998	-1130.319	-186.062	-1138.221
17	-193.073	-1145.249	-195.928	-1140.678
18	-201.290	-1159.727	-312.722	-981.319
19	-222.707	-759.412	-182.736	-807.994
20	-183.048	-821.772	-13.724	-1027.575
21	-25.664	-1044.881	-307.801	-701.960
22	-302.634	-707.255	-292.908	-719.077
23	-374.598	-944.324	-438.126	-842.613
24	-428.815	-846.296	-465.090	-788.218
25	-451.144	-791.537	-468.757	-763.338
26	-443.720	-701.410	-442.573	-703.246
27	-443.540	-704.213	-436.527	-715.441
28	-436.752	-715.667	-425.242	-734.097
29	-425.974	-734.828	-412.524	-756.362
30	-414.217	-758.032	-396.020	-787.166
31	-398.985	-790.158	-376.783	-825.705
32	-381.245	-830.219	-357.248	-868.641
33	-363.392	-874.792	-333.422	-922.775
34	-341.180	-930.519	-311.804	-977.552
35	-320.992	-986.718	-295.428	-1027.646
36	-305.631	-1037.839	-286.474	-1068.509
37	-294.108	-1083.183	-272.901	-1117.136
38	-282.141	-1141.791	-382.936	-980.413
39	-279.947	-776.050	-217.432	-852.032
40	-207.990	-869.643	24.077	-1151.706
41	12.963	-1182.175	-258.686	-852.003
42	-252.792	-857.640	-218.898	-898.835
43	-302.953	-1185.246	-339.442	-1126.826
44	-326.710	-1130.711	-360.362	-1076.833
45	-341.733	-1080.856	-355.246	-1059.220
46	-326.502	-879.071	-336.359	-863.290
47	-338.151	-865.086	-348.562	-848.417
48	-348.745	-848.573	-350.368	-845.975
49	-351.238	-846.845	-347.616	-852.644
50	-349.576	-854.593	-343.124	-864.923
51	-346.471	-868.237	-333.158	-889.553
52	-338.061	-894.446	-322.907	-918.709
53	-329.491	-925.318	-313.895	-950.288
54	-322.096	-958.495	-300.108	-993.698

COMBINACION 31 G1 + G2 + 0.9 PRETD + SCMIN-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-309.704	-1003.314	-290.867	-1033.473
56	-301.425	-1044.020	-289.220	-1063.561
57	-295.299	-1081.342	-276.791	-1110.974
58	-285.820	-1136.094	-389.086	-970.760
59	-281.600	-773.705	-219.511	-849.171
60	-209.533	-866.729	22.207	-1148.393
61	11.347	-1178.572	-259.780	-849.035
62	-253.952	-854.814	-223.765	-891.505
63	-304.948	-1181.627	-344.664	-1118.041
64	-332.199	-1122.554	-361.872	-1075.045
65	-346.750	-1074.191	-359.585	-1053.641
66	-330.803	-873.999	-340.027	-859.231
67	-341.902	-861.101	-351.772	-845.298
68	-351.965	-845.461	-350.783	-847.354
69	-351.611	-848.181	-347.957	-854.032
70	-349.850	-855.897	-343.595	-865.913
71	-346.833	-869.154	-333.617	-890.313
72	-338.408	-895.100	-323.331	-919.238
73	-329.815	-925.701	-314.278	-950.577
74	-322.372	-958.649	-301.157	-992.616
75	-310.649	-1002.115	-291.360	-1032.996
76	-301.816	-1043.477	-289.101	-1063.835
77	-294.593	-1082.409	-274.173	-1115.103
78	-283.186	-1140.241	-383.335	-979.898
79	-275.838	-780.814	-211.389	-859.148
80	-201.488	-876.816	32.640	-1161.385
81	21.714	-1191.649	-249.982	-861.420
82	-244.122	-867.174	-216.152	-901.170
83	-294.781	-1198.029	-337.656	-1129.385
84	-325.065	-1133.790	-355.350	-1085.303
85	-340.130	-1084.387	-353.591	-1062.836
86	-324.751	-883.155	-334.604	-867.381
87	-336.461	-869.214	-345.589	-854.599
88	-345.771	-854.774	-345.067	-855.900
89	-345.915	-856.726	-343.000	-861.393
90	-344.908	-863.287	-339.371	-872.153
91	-342.650	-875.396	-330.118	-895.461
92	-334.948	-900.267	-320.565	-923.296
93	-327.082	-929.795	-312.249	-953.543
94	-320.370	-961.661	-300.184	-993.980
95	-309.715	-1003.499	-290.947	-1033.547
96	-301.437	-1044.043	-289.261	-1063.536
97	-294.616	-1082.380	-274.372	-1114.790
98	-283.379	-1139.948	-383.377	-979.847
99	-275.857	-780.763	-211.372	-859.141
100	-201.443	-876.791	32.595	-1161.249
101	21.811	-1191.638	-249.946	-861.335
102	-244.091	-867.101	-216.156	-901.054
103	-294.821	-1197.930	-338.126	-1128.598
104	-325.577	-1133.021	-355.804	-1084.627
105	-340.604	-1083.742	-354.015	-1062.271
106	-325.180	-882.617	-334.978	-866.929
107	-336.844	-868.770	-345.595	-854.759
108	-345.792	-854.914	-345.081	-856.052
109	-345.920	-856.886	-343.007	-861.550

COMBINACION 31 G1 + G2 + 0.9 PRETD + SCMIN-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
110	-344.915	-863.431	-339.393	-872.272
111	-342.661	-875.516	-330.142	-895.560
112	-334.950	-900.380	-320.596	-923.361
113	-327.104	-929.851	-312.299	-953.555
114	-320.416	-961.657	-300.286	-993.885
115	-309.812	-1003.392	-290.989	-1033.527
116	-301.475	-1044.004	-289.224	-1063.617
117	-294.539	-1082.508	-274.121	-1115.199
118	-283.114	-1140.369	-382.858	-980.675
119	-275.378	-781.349	-210.745	-859.907
120	-200.816	-877.567	33.429	-1162.277
121	22.684	-1192.730	-249.180	-862.297
122	-243.329	-868.056	-215.448	-901.943
123	-294.054	-1199.167	-337.629	-1129.401
124	-325.075	-1133.812	-355.342	-1085.352
125	-340.135	-1084.460	-353.564	-1062.959
126	-324.705	-883.331	-334.532	-867.598
127	-336.387	-869.447	-345.053	-855.573
128	-345.225	-855.762	-344.601	-856.761
129	-345.439	-857.600	-342.582	-862.175
130	-344.488	-864.058	-339.057	-872.754
131	-342.320	-876.015	-329.876	-895.938
132	-334.695	-900.746	-320.387	-923.655
133	-326.899	-930.141	-312.155	-953.748
134	-320.274	-961.854	-300.240	-993.930
135	-309.762	-1003.447	-291.004	-1033.480
136	-301.491	-1043.965	-289.319	-1063.453
137	-294.606	-1082.393	-274.210	-1115.048
138	-283.210	-1140.216	-382.918	-980.580
139	-275.419	-781.301	-210.772	-859.875
140	-200.841	-877.539	33.416	-1162.263
141	22.610	-1192.636	-249.169	-862.307
142	-243.322	-868.060	-215.416	-901.977
143	-294.016	-1199.228	-337.596	-1129.454
144	-325.046	-1133.860	-355.315	-1085.398
145	-340.133	-1084.470	-353.565	-1062.964
146	-324.743	-883.285	-334.586	-867.527
147	-336.432	-869.392	-345.096	-855.521
148	-345.263	-855.727	-344.636	-856.729
149	-345.466	-857.579	-342.637	-862.108
150	-344.534	-864.014	-339.092	-872.726
151	-342.349	-875.995	-329.913	-895.904
152	-334.721	-900.729	-320.439	-923.596
153	-326.934	-930.114	-312.178	-953.740
154	-320.300	-961.836	-300.221	-993.983
155	-309.747	-1003.492	-290.969	-1033.556
156	-301.457	-1044.035	-289.276	-1063.537
157	-294.556	-1082.486	-274.149	-1115.158
158	-283.150	-1140.316	-382.891	-980.627
159	-275.412	-781.308	-210.745	-859.907
160	-200.818	-877.558	33.432	-1162.274
161	22.649	-1192.676	-249.187	-862.277
162	-243.336	-868.037	-215.433	-901.951
163	-294.038	-1199.190	-337.608	-1129.433
164	-325.061	-1133.839	-355.304	-1085.417

COMBINACION 31 G1 + G2 + 0.9 PRETD + SCMIN-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
165	-340.106	-1084.513	-353.545	-1062.996
166	-324.715	-883.324	-334.588	-867.518
167	-336.427	-869.390	-345.138	-855.444
168	-345.305	-855.638	-344.726	-856.564
169	-345.557	-857.405	-342.770	-861.867
170	-344.654	-863.782	-339.269	-872.404
171	-342.522	-875.671	-330.133	-895.506
172	-334.943	-900.324	-320.685	-923.151
173	-327.187	-929.650	-312.486	-953.188
174	-320.594	-961.306	-300.432	-993.586
175	-309.959	-1003.097	-291.217	-1033.105
176	-301.710	-1043.582	-289.564	-1063.027
177	-294.861	-1081.961	-274.473	-1114.602
178	-283.477	-1139.780	-383.417	-979.771
179	-275.908	-780.720	-211.269	-859.285
180	-201.343	-876.954	32.920	-1161.686
181	21.959	-1191.875	-249.640	-861.763
182	-243.781	-867.521	-215.734	-901.610
183	-294.353	-1198.693	-337.714	-1129.270
184	-325.151	-1133.688	-355.332	-1085.366
185	-340.144	-1084.451	-353.495	-1063.074
186	-324.753	-883.274	-334.644	-867.438
187	-336.500	-869.306	-345.318	-855.187
188	-345.513	-855.361	-344.949	-856.264
189	-345.803	-857.092	-343.020	-861.547
190	-344.939	-863.427	-339.582	-872.005
191	-342.846	-875.279	-330.481	-895.075
192	-335.301	-899.895	-321.097	-922.636
193	-327.588	-929.167	-312.957	-952.592
194	-321.063	-960.720	-300.649	-993.404
195	-310.157	-1002.943	-291.472	-1032.859
196	-301.955	-1043.335	-289.859	-1062.701
197	-295.146	-1081.615	-274.817	-1114.164
198	-283.797	-1139.311	-384.293	-978.412
199	-276.691	-779.721	-212.092	-858.238
200	-202.149	-875.869	32.088	-1160.569
201	21.312	-1190.958	-250.174	-860.984
202	-244.333	-866.759	-216.118	-901.052
203	-294.801	-1197.954	-337.741	-1129.206
204	-325.209	-1133.615	-355.307	-1085.426
205	-340.106	-1084.522	-353.378	-1063.273
206	-324.846	-883.090	-335.059	-866.739
207	-336.890	-868.577	-346.582	-853.061
208	-346.726	-853.232	-346.750	-853.193
209	-347.557	-854.010	-345.373	-857.506
210	-347.253	-859.366	-342.470	-867.023
211	-345.715	-870.247	-333.935	-889.106
212	-338.722	-893.910	-325.070	-915.767
213	-331.558	-922.254	-317.418	-944.894
214	-325.528	-952.987	-303.709	-987.921
215	-313.228	-997.450	-294.806	-1026.944
216	-305.312	-1037.446	-293.460	-1056.420
217	-298.770	-1075.424	-278.699	-1107.558
218	-287.754	-1132.816	-389.528	-969.872
219	-283.172	-772.002	-219.144	-849.824

COMBINACION 31 G1 + G2 + 0.9 PRETD + SCMIN-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
220	-209.261	-867.585	24.493	-1151.697
221	13.448	-1181.855	-256.206	-854.107
222	-250.304	-859.824	-219.637	-897.097
223	-299.190	-1191.001	-339.344	-1126.712
224	-326.734	-1131.103	-355.806	-1084.557
225	-340.608	-1083.672	-352.838	-1064.091
226	-325.174	-882.672	-335.663	-865.878
227	-337.573	-867.823	-348.665	-850.063
228	-348.922	-850.340	-349.599	-849.255
229	-350.523	-850.189	-348.955	-852.700
230	-350.954	-854.671	-346.808	-861.310
231	-350.163	-864.640	-339.217	-882.164
232	-344.115	-887.035	-331.220	-907.680
233	-337.790	-914.220	-322.398	-938.864
234	-330.553	-946.981	-308.825	-981.768
235	-318.343	-991.269	-300.631	-1019.626
236	-311.058	-1030.044	-299.995	-1047.756
237	-304.895	-1066.972	-285.543	-1097.955
238	-294.120	-1123.181	-392.963	-964.928
239	-292.284	-760.371	-228.582	-837.797
240	-218.232	-855.420	15.662	-1139.704
241	4.880	-1169.832	-262.966	-844.283
242	-257.225	-850.240	-221.268	-893.943
243	-305.178	-1181.137	-340.924	-1123.907
244	-328.386	-1128.742	-356.993	-1082.940
245	-341.730	-1082.165	-354.216	-1062.175
246	-329.390	-885.249	-343.685	-862.362
247	-345.178	-863.837	-360.353	-839.540
248	-360.212	-839.384	-374.012	-817.290
249	-374.510	-817.815	-379.910	-809.170
250	-381.499	-810.772	-384.383	-806.154
251	-387.388	-809.153	-386.073	-811.258
252	-390.701	-815.870	-385.102	-824.834
253	-391.507	-831.221	-385.384	-841.024
254	-393.512	-849.134	-388.824	-856.639
255	-398.515	-866.279	-397.813	-867.403
256	-408.639	-878.205	-407.328	-880.305
257	-409.885	-905.037	-391.167	-935.006
258	-394.413	-971.686	-485.737	-825.472
259	-374.354	-669.983	-387.736	-653.719
260	-377.642	-666.800	-171.964	-916.788
261	-185.223	-941.004	-357.014	-732.203
262	-338.464	-720.940	-267.525	-807.161
263	-354.489	-1050.584	-354.895	-1049.934
264	-347.498	-1056.261	-344.077	-1061.737
265	-331.939	-1066.062	-319.882	-1085.366
266	-292.493	-994.715	-277.936	-1018.022
267	-299.151	-1039.244	-299.078	-1039.361
268	-299.430	-1039.722	-304.234	-1032.031
269	-304.875	-1032.705	-314.009	-1018.081
270	-315.444	-1019.521	-328.517	-998.590
271	-331.058	-1001.142	-347.927	-974.134
272	-351.786	-977.981	-370.413	-948.159
273	-374.716	-952.422	-394.589	-920.605
274	-396.970	-922.983	-420.038	-886.049

COMBINACION 31 G1 + G2 + 0.9 PRETD + SCMIN-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-418.492	-884.510	-440.022	-850.039
276	-438.906	-848.898	-459.082	-816.595
277	-458.226	-815.737	-477.220	-785.326
278	-476.435	-784.547	-494.296	-755.950
279	-493.394	-755.091	-510.092	-728.356
280	-508.762	-727.022	-521.147	-707.193

COMBINACION 32 G1 + G2 + 0.9 PRETD + 0.60 SCMIN-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
1	-442.303	-600.517	-466.338	-562.035
2	-449.548	-592.321	-449.527	-592.355
3	-450.912	-593.733	-447.490	-599.212
4	-448.662	-600.382	-441.910	-611.191
5	-442.998	-612.274	-432.932	-628.390
6	-434.067	-629.479	-420.650	-650.960
7	-421.917	-652.189	-405.108	-679.100
8	-406.599	-680.575	-386.379	-712.947
9	-388.168	-714.766	-364.556	-752.569
10	-366.744	-754.770	-341.596	-795.035
11	-345.264	-798.712	-322.205	-835.631
12	-327.007	-840.394	-306.784	-872.773
13	-312.656	-878.648	-296.267	-904.887
14	-303.080	-911.710	-291.768	-929.821
15	-299.225	-937.270	-294.279	-945.189
16	-301.887	-952.781	-304.346	-948.844
17	-311.359	-955.868	-321.654	-939.385
18	-329.557	-954.365	-454.030	-755.079
19	-355.627	-597.858	-334.083	-624.042
20	-337.097	-634.536	-198.848	-802.568
21	-211.993	-818.410	-441.133	-539.904
22	-438.064	-542.648	-386.295	-605.570
23	-480.458	-774.838	-513.520	-721.904
24	-506.620	-721.727	-526.812	-689.398
25	-516.070	-687.588	-524.146	-674.658
26	-503.350	-605.940	-501.034	-609.648
27	-502.001	-610.614	-496.159	-619.968
28	-496.384	-620.195	-487.351	-634.656
29	-488.084	-635.387	-477.110	-652.957
30	-478.804	-654.626	-464.037	-678.268
31	-467.001	-681.262	-448.913	-710.222
32	-453.375	-714.737	-433.488	-746.577
33	-439.633	-752.726	-415.979	-790.596
34	-423.739	-798.339	-401.005	-834.737
35	-410.194	-843.902	-391.273	-874.195
36	-401.475	-884.388	-388.963	-904.420
37	-397.906	-916.998	-387.706	-933.330
38	-399.805	-953.406	-517.165	-765.507
39	-409.449	-618.649	-378.221	-656.604
40	-374.205	-667.620	-184.649	-898.013
41	-199.646	-923.763	-420.786	-654.981
42	-417.204	-657.807	-341.301	-750.062
43	-438.856	-967.659	-450.224	-949.458
44	-440.576	-948.406	-455.284	-924.859
45	-440.856	-922.155	-442.701	-919.201
46	-418.726	-731.417	-424.332	-722.441
47	-426.124	-724.237	-432.285	-714.374
48	-432.466	-714.531	-432.710	-714.141
49	-433.579	-715.013	-429.766	-721.118
50	-431.727	-723.066	-425.149	-733.598
51	-428.497	-736.912	-416.795	-755.646
52	-421.697	-760.542	-408.154	-782.224
53	-414.738	-788.833	-400.749	-811.231
54	-408.949	-819.439	-391.742	-846.988

COMBINACION 32 G1 + G2 + 0.9 PRETD + 0.60 SCMIN-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
55	-401.337	-856.606	-387.616	-878.574
56	-398.174	-889.122	-391.086	-900.468
57	-399.337	-914.773	-392.442	-925.812
58	-404.457	-946.151	-524.980	-753.189
59	-414.196	-612.543	-384.678	-648.420
60	-380.225	-659.264	-192.311	-887.661
61	-207.067	-913.104	-427.525	-645.152
62	-424.026	-648.101	-350.090	-737.965
63	-446.598	-954.839	-459.408	-934.330
64	-450.092	-933.802	-462.117	-914.549
65	-449.642	-909.457	-450.483	-908.111
66	-426.568	-720.675	-431.214	-713.237
67	-433.088	-715.108	-438.380	-706.635
68	-438.573	-706.798	-436.625	-709.917
69	-437.454	-710.743	-433.151	-717.633
70	-435.043	-719.500	-428.144	-730.545
71	-431.384	-733.784	-419.327	-753.088
72	-424.117	-757.875	-410.201	-780.157
73	-416.683	-786.622	-402.308	-809.637
74	-410.401	-817.712	-393.226	-845.208
75	-402.719	-854.706	-388.279	-877.825
76	-398.735	-888.305	-390.869	-900.899
77	-398.790	-915.585	-390.370	-929.067
78	-402.376	-949.413	-520.662	-760.031
79	-409.964	-617.793	-378.723	-655.764
80	-374.354	-666.709	-184.695	-897.228
81	-199.520	-922.753	-420.385	-654.306
82	-416.855	-657.228	-344.295	-745.421
83	-439.115	-966.944	-453.922	-943.238
84	-444.486	-942.592	-457.005	-922.549
85	-444.439	-917.384	-445.786	-915.228
86	-421.823	-727.740	-426.972	-719.495
87	-428.829	-721.328	-433.798	-713.373
88	-433.980	-713.548	-432.427	-716.034
89	-433.273	-716.862	-429.509	-722.888
90	-431.416	-724.785	-425.035	-735.002
91	-428.315	-738.244	-416.746	-756.766
92	-421.576	-761.572	-408.156	-783.059
93	-414.672	-789.558	-400.801	-811.768
94	-408.923	-819.884	-392.447	-846.263
95	-401.978	-855.782	-387.937	-878.262
96	-398.427	-888.757	-390.980	-900.680
97	-398.837	-915.517	-390.661	-928.607
98	-402.663	-948.969	-520.993	-759.517
99	-410.255	-617.412	-379.105	-655.273
100	-374.710	-666.195	-185.240	-896.484
101	-199.938	-922.116	-420.827	-653.640
102	-417.302	-656.574	-344.745	-744.763
103	-439.638	-966.073	-454.666	-942.012
104	-445.270	-941.388	-457.709	-921.472
105	-445.164	-916.336	-446.436	-914.300
106	-422.479	-726.836	-427.554	-718.711
107	-429.420	-720.553	-434.116	-713.034
108	-434.312	-713.189	-432.714	-715.748
109	-433.555	-716.579	-429.756	-722.663

COMBINACION 32 G1 + G2 + 0.9 PRETD + 0.60 SCMIN-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	TI_2
110	-431.664	-724.543	-425.257	-734.800
111	-428.525	-738.044	-416.935	-756.600
112	-421.742	-761.421	-408.312	-782.923
113	-414.820	-789.414	-400.936	-811.643
114	-409.052	-819.747	-392.579	-846.121
115	-402.104	-855.629	-387.996	-878.216
116	-398.481	-888.692	-390.951	-900.748
117	-398.792	-915.595	-390.481	-928.902
118	-402.471	-949.274	-520.638	-760.084
119	-409.924	-617.817	-378.663	-655.813
120	-374.264	-666.752	-184.644	-897.224
121	-199.308	-922.913	-420.270	-654.348
122	-416.748	-657.275	-344.229	-745.418
123	-439.075	-966.983	-454.273	-942.650
124	-444.870	-942.015	-457.342	-922.046
125	-444.793	-916.899	-446.084	-914.830
126	-422.113	-727.377	-427.214	-719.210
127	-429.069	-721.060	-433.730	-713.597
128	-433.902	-713.787	-432.377	-716.229
129	-433.216	-717.067	-429.454	-723.090
130	-431.359	-724.974	-425.021	-735.121
131	-428.282	-738.386	-416.743	-756.859
132	-421.564	-761.666	-408.158	-783.130
133	-414.671	-789.616	-400.829	-811.776
134	-408.948	-819.883	-392.537	-846.157
135	-402.060	-855.675	-387.996	-878.192
136	-398.483	-888.677	-391.009	-900.642
137	-398.830	-915.526	-390.541	-928.797
138	-402.541	-949.162	-520.686	-760.007
139	-409.962	-617.773	-378.700	-655.769
140	-374.303	-666.707	-184.682	-897.179
141	-199.400	-922.797	-420.301	-654.307
142	-416.784	-657.228	-344.236	-745.405
143	-439.082	-966.972	-454.282	-942.635
144	-444.883	-941.996	-457.351	-922.034
145	-444.820	-916.862	-446.108	-914.799
146	-422.160	-727.316	-427.268	-719.138
147	-429.115	-721.004	-433.776	-713.540
148	-433.941	-713.748	-432.408	-716.203
149	-433.240	-717.050	-429.502	-723.035
150	-431.396	-724.943	-425.048	-735.107
151	-428.305	-738.374	-416.771	-756.842
152	-421.578	-761.667	-408.198	-783.090
153	-414.694	-789.607	-400.841	-811.786
154	-408.964	-819.881	-392.523	-846.204
155	-402.048	-855.713	-387.971	-878.252
156	-398.459	-888.730	-390.977	-900.709
157	-398.791	-915.601	-390.494	-928.885
158	-402.493	-949.243	-520.645	-760.077
159	-409.931	-617.808	-378.659	-655.817
160	-374.264	-666.746	-184.647	-897.213
161	-199.344	-922.858	-420.291	-654.311
162	-416.770	-657.238	-344.238	-745.397
163	-439.087	-966.960	-454.281	-942.635
164	-444.885	-941.996	-457.341	-922.053

COMBINACION 32 G1 + G2 + 0.9 PRETD + 0.60 SCMIN-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	TI_2
165	-444.797	-916.898	-446.099	-914.813
166	-422.142	-727.339	-427.273	-719.125
167	-429.112	-720.997	-433.802	-713.489
168	-433.969	-713.683	-432.463	-716.094
169	-433.296	-716.932	-429.582	-722.878
170	-431.466	-724.791	-425.159	-734.889
171	-428.411	-738.159	-416.908	-756.576
172	-421.716	-761.397	-408.346	-782.803
173	-414.848	-789.302	-401.030	-811.424
174	-409.138	-819.544	-392.650	-845.942
175	-402.176	-855.454	-388.116	-877.964
176	-398.609	-888.441	-391.144	-900.393
177	-398.974	-915.272	-390.686	-928.540
178	-402.691	-948.912	-520.947	-759.580
179	-410.223	-617.468	-378.974	-655.450
180	-374.583	-666.392	-184.949	-896.880
181	-199.804	-922.336	-420.589	-653.987
182	-417.060	-656.912	-344.435	-745.183
183	-439.290	-966.642	-454.359	-942.516
184	-444.949	-941.887	-457.369	-922.001
185	-444.831	-916.841	-446.072	-914.855
186	-422.165	-727.313	-427.289	-719.109
187	-429.145	-720.977	-433.878	-713.400
188	-434.072	-713.573	-432.552	-716.008
189	-433.407	-716.834	-429.672	-722.814
190	-431.590	-724.696	-425.277	-734.802
191	-428.540	-738.079	-417.033	-756.501
192	-421.854	-761.319	-408.506	-782.689
193	-415.000	-789.216	-401.218	-811.282
194	-409.325	-819.410	-392.682	-846.055
195	-402.190	-855.594	-388.164	-878.050
196	-398.648	-888.526	-391.211	-900.432
197	-399.027	-915.297	-390.774	-928.511
198	-402.752	-948.859	-521.343	-758.990
199	-410.559	-617.014	-379.308	-654.997
200	-374.898	-665.904	-185.262	-896.395
201	-199.954	-922.023	-420.728	-653.687
202	-417.217	-656.629	-344.542	-744.961
203	-439.439	-966.381	-454.294	-942.599
204	-444.910	-941.968	-457.318	-922.103
205	-444.771	-916.949	-446.009	-914.967
206	-422.203	-727.217	-427.538	-718.676
207	-429.368	-720.515	-434.653	-712.055
208	-434.798	-712.225	-433.669	-714.032
209	-434.476	-714.849	-431.133	-720.200
210	-433.013	-722.060	-427.067	-731.581
211	-430.310	-734.806	-419.172	-752.639
212	-423.958	-757.443	-410.955	-778.263
213	-417.443	-784.749	-403.950	-806.352
214	-412.059	-814.447	-394.559	-842.465
215	-404.079	-851.995	-390.190	-874.231
216	-400.696	-884.730	-393.381	-896.443
217	-401.231	-911.380	-393.112	-924.378
218	-405.172	-944.826	-524.550	-753.696
219	-414.559	-612.309	-383.702	-649.814

COMBINACION 32 G1 + G2 + 0.9 PRETD + 0.60 SCMIN-EC1

TENSIONES CON AXIL FINAL

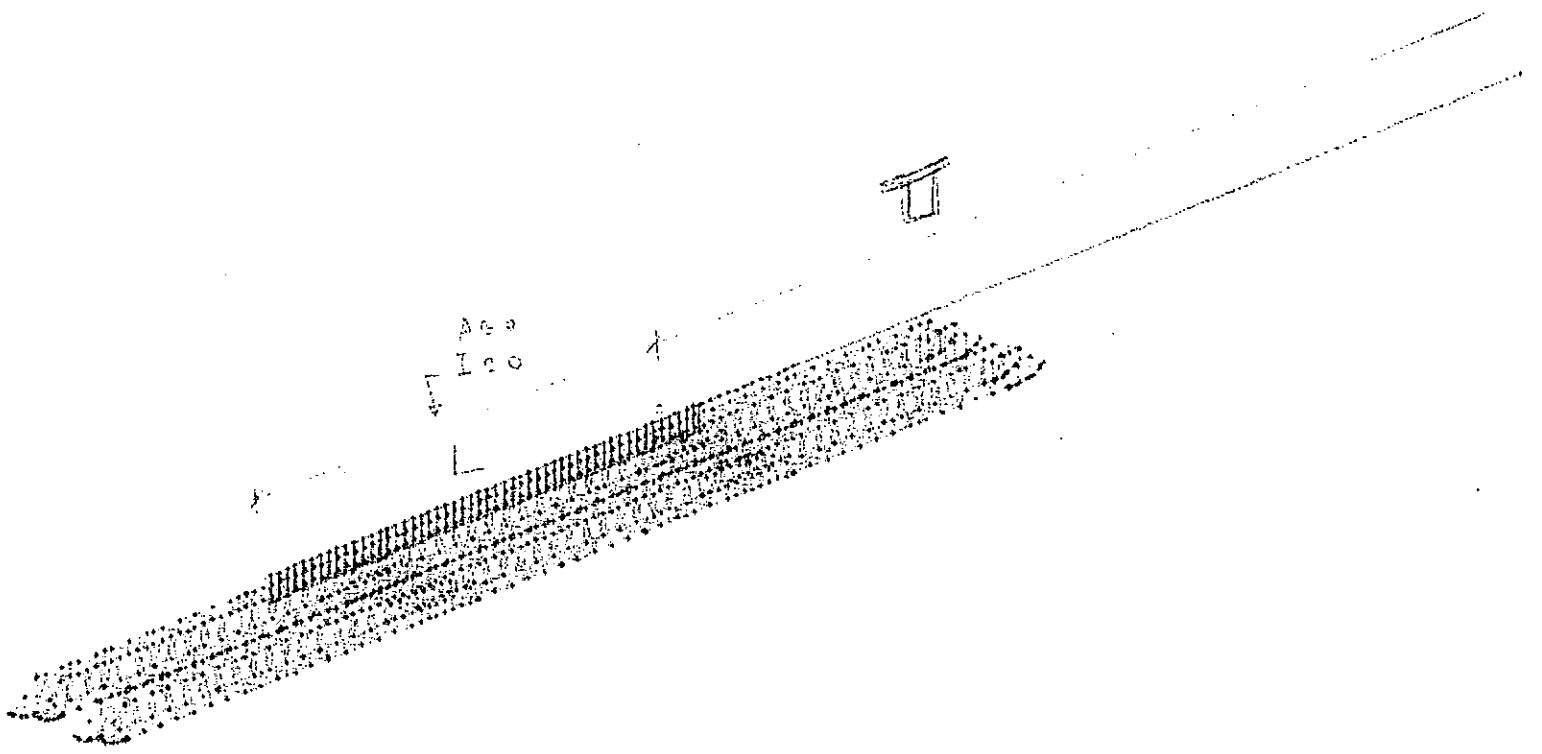
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221	-204.984	-916.365	-424.588	-649.451
222	-421.017	-652.332	-346.803	-742.535
223	-442.184	-962.061	-455.347	-940.987
224	-445.895	-940.322	-457.669	-921.471
225	-445.128	-916.331	-445.708	-915.403
226	-422.377	-727.045	-427.708	-718.510
227	-429.618	-720.455	-435.552	-710.954
228	-435.809	-711.229	-434.864	-712.743
229	-435.788	-713.677	-432.606	-718.771
230	-434.605	-720.742	-428.840	-729.972
231	-432.196	-733.302	-421.377	-750.623
232	-426.276	-755.491	-413.572	-775.831
233	-420.141	-782.372	-405.782	-805.362
234	-413.937	-813.479	-396.418	-841.529
235	-405.934	-851.030	-392.432	-872.648
236	-402.858	-883.067	-396.000	-894.048
237	-403.553	-909.016	-395.831	-921.380
238	-407.493	-941.667	-525.238	-753.150
239	-418.329	-607.171	-387.397	-644.767
240	-382.658	-655.571	-193.034	-886.047
241	-207.730	-911.418	-426.853	-645.089
242	-423.460	-648.192	-346.717	-741.468
243	-444.821	-957.562	-455.866	-939.880
244	-446.554	-939.549	-458.557	-920.331
245	-445.984	-915.250	-447.415	-912.958
246	-425.643	-731.142	-433.255	-718.955
247	-434.749	-720.429	-443.245	-706.827
248	-443.104	-706.669	-450.258	-695.216
249	-450.757	-695.740	-452.051	-693.670
250	-453.639	-695.272	-452.413	-697.235
251	-455.418	-700.234	-450.680	-707.819
252	-455.307	-712.432	-447.239	-725.350
253	-453.643	-731.739	-445.054	-745.491
254	-453.182	-753.599	-446.027	-765.054
255	-455.716	-774.698	-452.543	-779.778
256	-463.370	-790.579	-462.526	-791.931
257	-469.203	-810.067	-462.348	-821.041
258	-471.310	-848.570	-585.723	-665.390
259	-472.551	-550.632	-518.343	-494.974
260	-513.085	-502.177	-354.782	-694.585
261	-370.460	-715.861	-509.591	-546.755
262	-492.503	-533.715	-398.737	-647.682
263	-498.375	-820.217	-481.142	-847.809
264	-476.294	-850.052	-459.811	-876.442
265	-450.730	-875.872	-431.224	-907.101
266	-403.883	-816.374	-381.921	-851.537
267	-403.135	-872.760	-395.657	-884.734
268	-396.010	-885.094	-393.403	-889.267
269	-394.044	-889.941	-395.761	-887.192
270	-397.196	-888.633	-402.843	-879.591
271	-405.384	-882.142	-414.829	-867.021
272	-418.688	-870.868	-429.885	-852.941
273	-434.189	-857.204	-446.631	-837.284
274	-449.012	-839.660	-464.643	-814.635

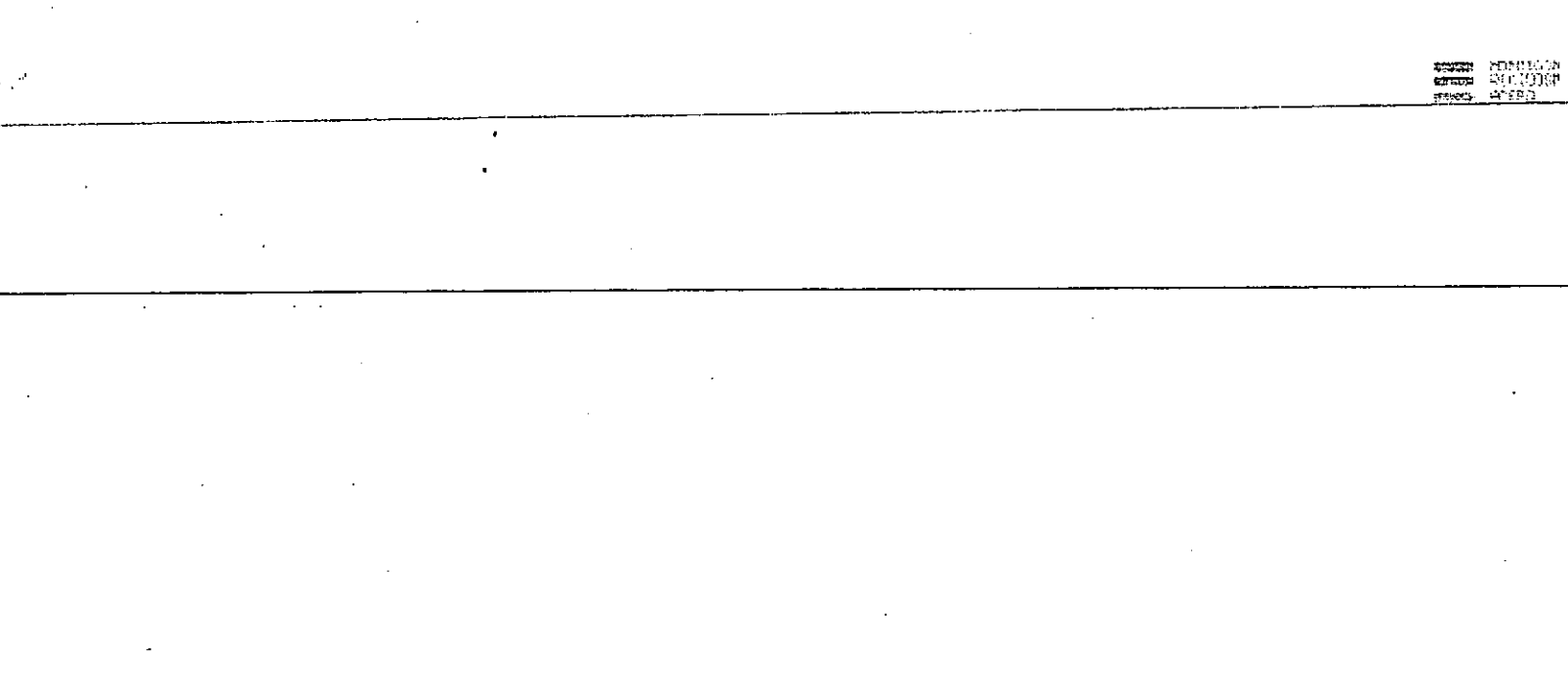
COMBINACION 32 G1 + G2 + 0.9 PRETD + 0.60 SCMIN-EC1

TENSIONES CON AXIL FINAL

Barra	TS_1	TI_1	TS_2	T1_2
275	-463.096	-813.096	-477.194	-790.525
276	-476.077	-789.385	-488.821	-768.981
277	-487.965	-768.123	-499.523	-749.618
278	-498.738	-748.838	-509.163	-732.148
279	-508.261	-731.287	-517.527	-716.452
280	-516.197	-715.119	-521.158	-707.175

5.1.1 INFLUENCIA DEL PROCESO DE CONSTRUCCIÓN EN EL CÁLCULO DE TENSIONES NORMALES

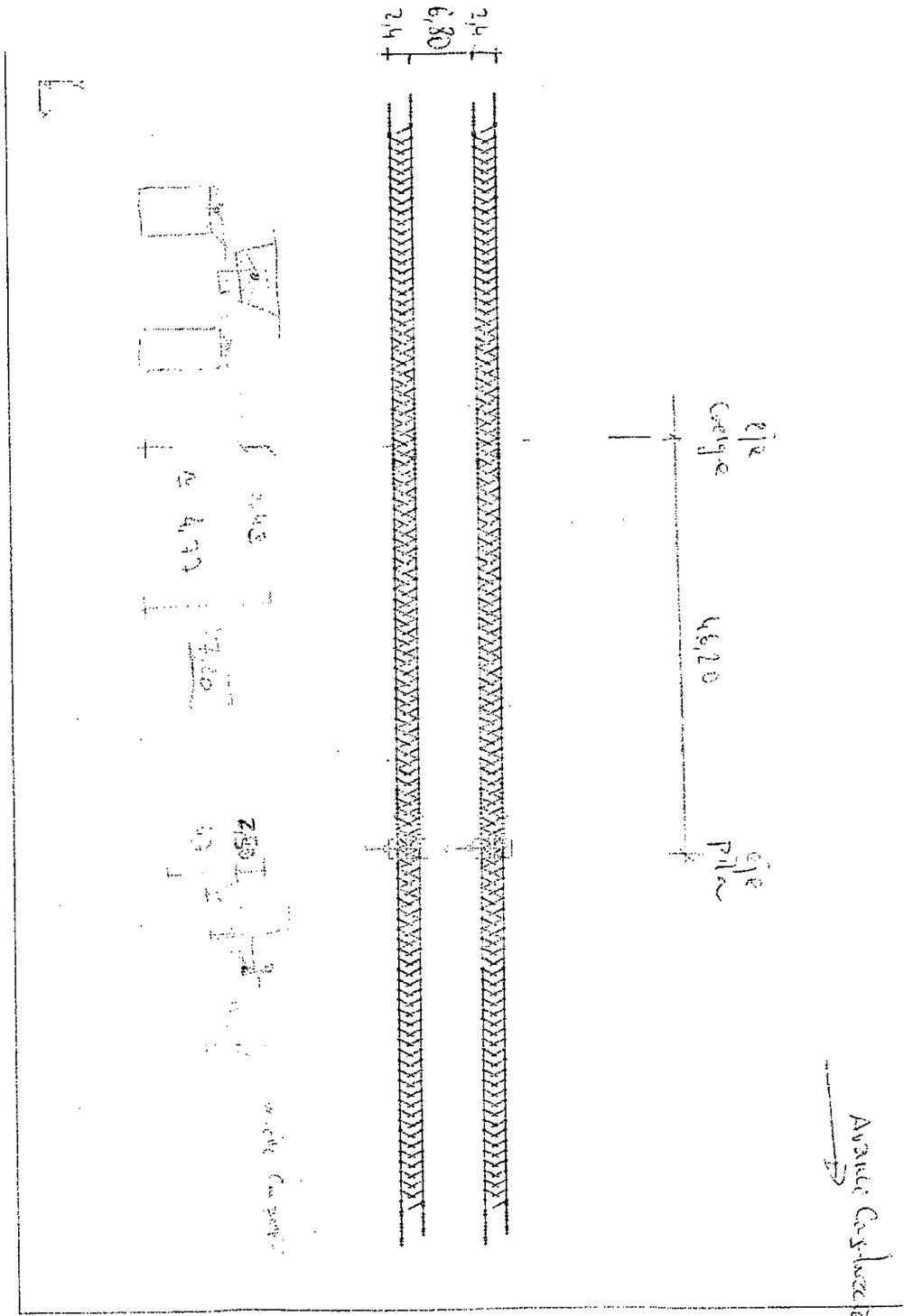

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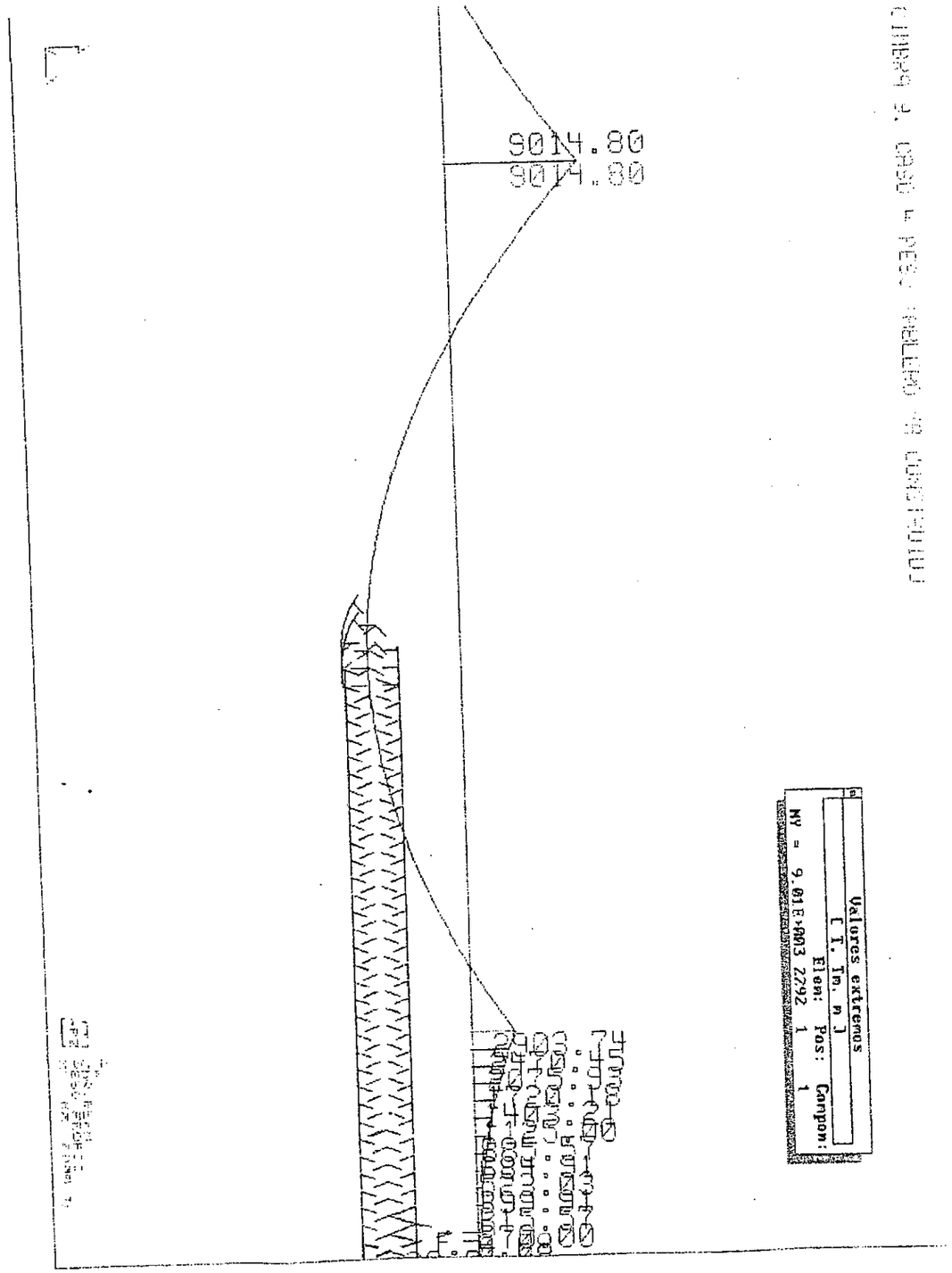


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SX=10.77 IX=37.97 IY=22.526 IZ=111.512 VY=1.54 VPY=2.45 VZ=? VPZ=?

APOyos
' Etiqueta        - móvil
' Ninguna etiqueta - fijo

 40 273 703 UX UY RX RY
 661 UX RX RY
 1122 1163 UX RY RZ
 1166 RY RZ
```





ROBOTV6 v. 4.4
(c) RoboBAT

PEDELTA 2871
C:\ROBOT\OSR\ANOIA\AVERNO\CIMBRA9.DIN

Página: 1293
Fecha:27-01-2003
Hora: 10:00:00

```
CARGamento

CASo # 1 PESO CIMBRA
  PESo propio
   4A39CA7 9A42CA11 38A47CA3 5 8 14 16 22 23 28 29 36 49A51 53A55 PZ MEnos
   58A187CA43 60A63 57 65A68 74A82 90A98 104A112 118A126 134A142 PZ MEnos
   149A152 154A157 160A162 164A166 170A172 176A178 204A218 220A228 PZ MEnos
   231A293 71 87 115 131 146 147 168 174 181 183 185 200 201 295 PZ MEnos
   298A312 314A327 329A341 344A394 396A415 417A446 448A451 454 PZ MEnos
   456A1963 1968A2015 2082A2091 2204A2212 2230A2253 2288A2290 PZ MEnos
   2293A2296 PZ MEnos

CASo # 2 PESO ELEMENTOS AUXILIARES
  ELEmentos
   217 218 220A228 231A291 439A441 592A663 435 436 456 798 799 802A804 PZ=-0.9
   1165A1236 1375A1377 1524A1595 815 1371 1372 1388 1730 1731 1734A1736 PZ=-0.9
   1747 1968A2015 2082A2091 2204A2212 2230A2253 2288 2290 PZ=-0.9

CASo # 3 PESO HORMIGON PRIMERA FASE
  ELEmentos
   2116A2121 2129A2157 2161A2173 2175A2178 PZ=-14.16

CASo # 4 PESO TABLERO CONSTRUIDO
  PESo propio
   2122A2128 2192A2196 2292 2297 PZ MEnos

COMbinación # 6   GCIMBRA
  1 1 2 1

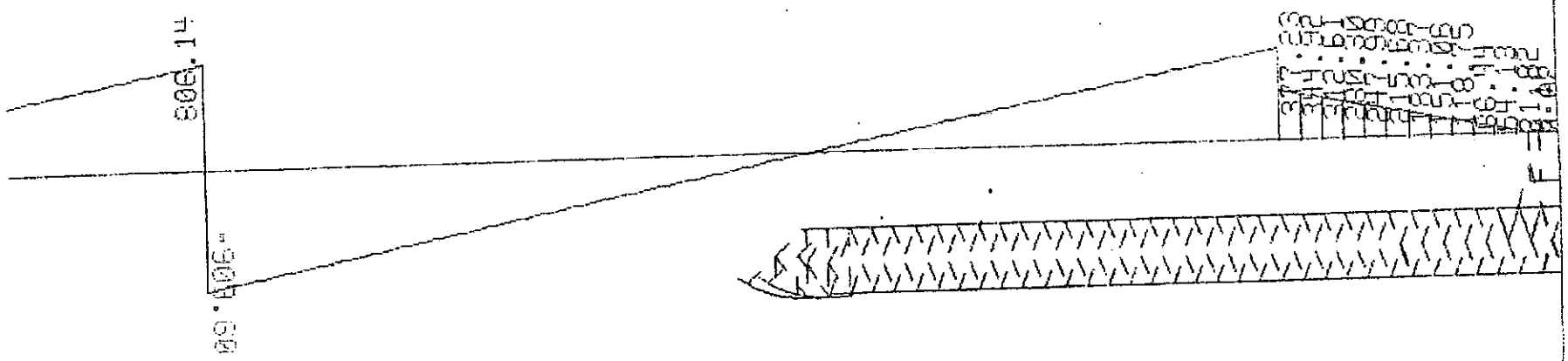
COMbinación # 7   HORMIGON FASE 1
  3 1 4 1

COMbinación # 8   GCIMBRA + HORMIGON FASE 1
  1 1 2 1 3 1 4 1

FIN
```

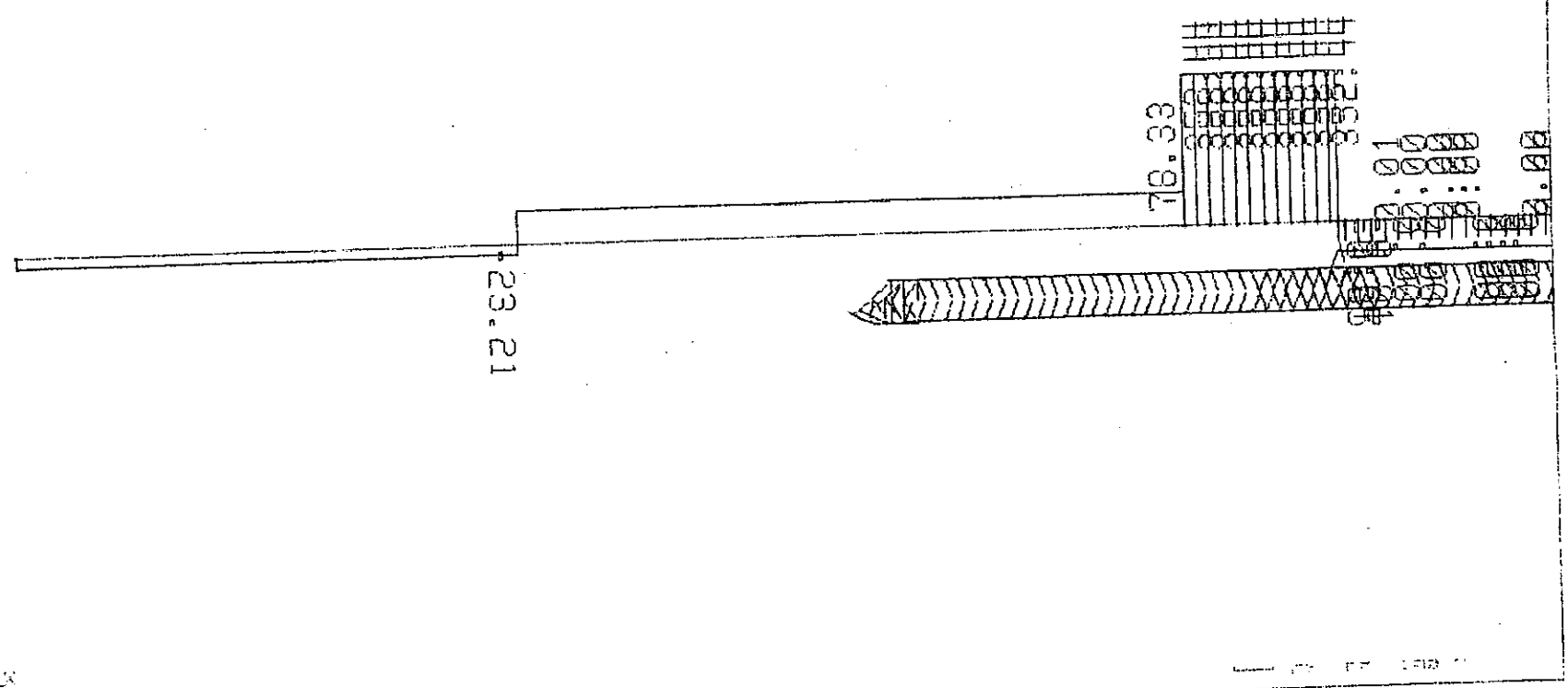
CIMBRA 9. CASO 1 PERF. TERRENO + CONSTRUIDO

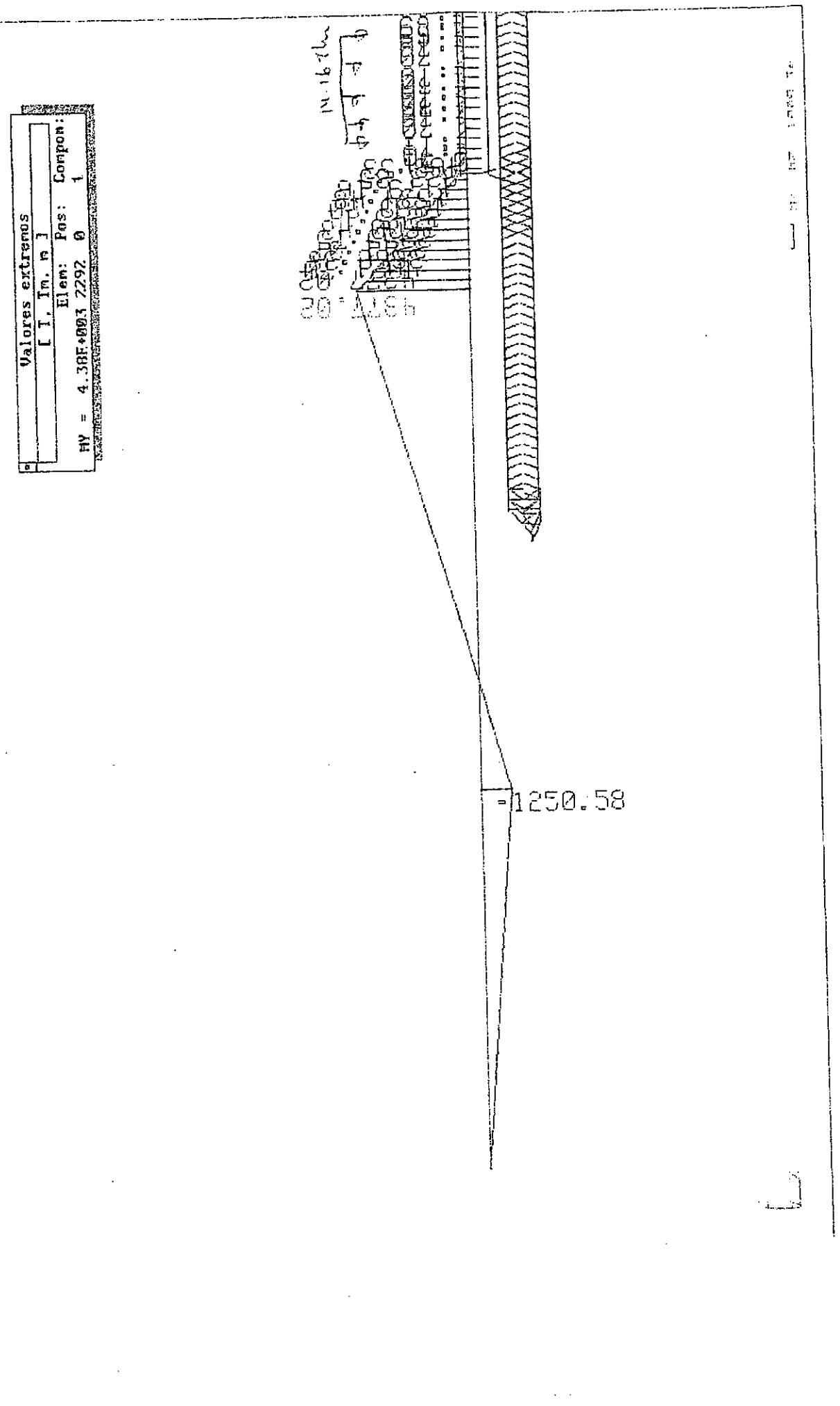
Valores extremos [T, Tm, m]			
	Elem:	Pos:	Compon:
FZ = 918	2292	1	1

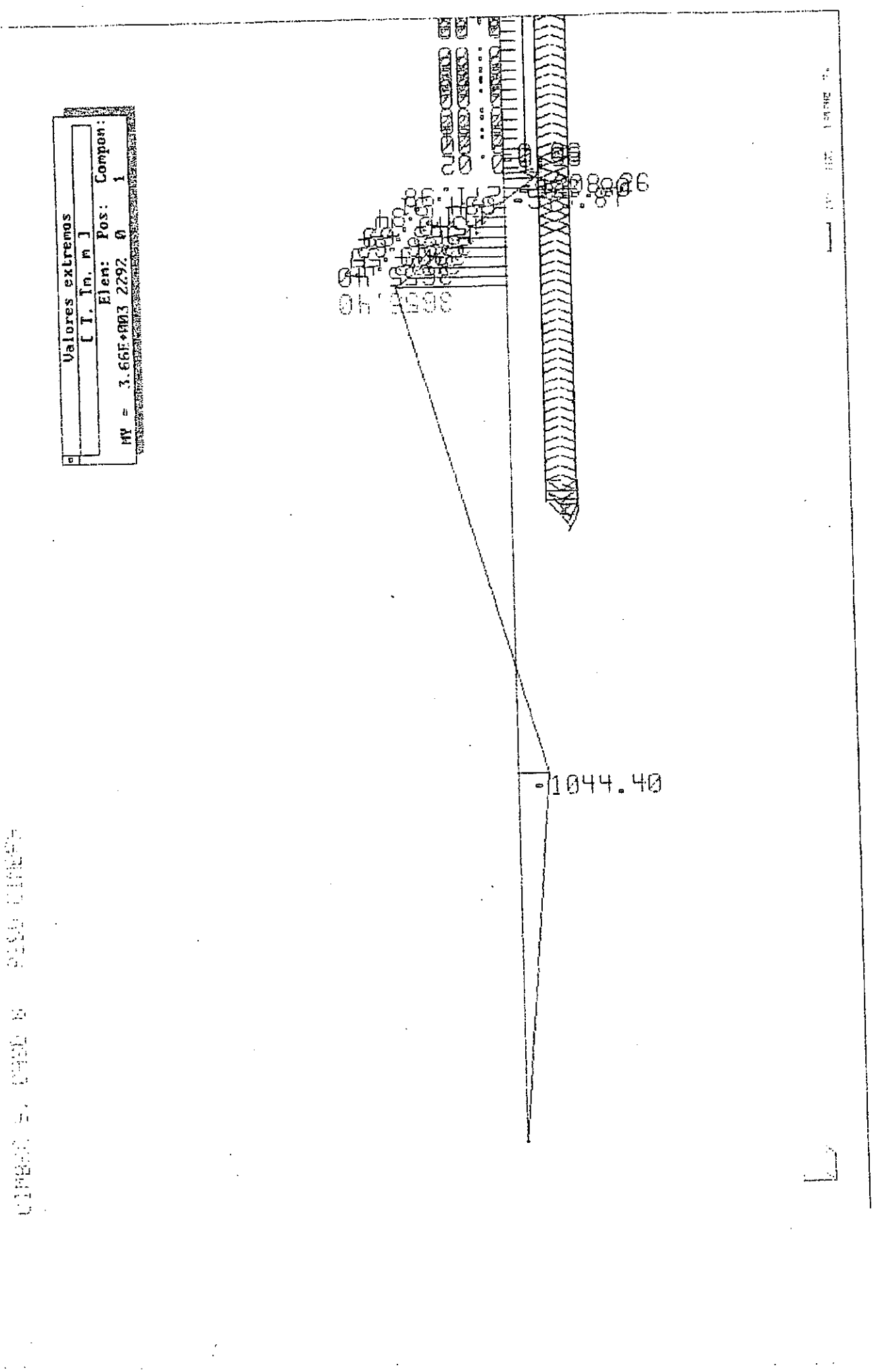


CIMBRA 9. CASO 6 PERF. CIMBRA

Valores extremos [T, Tm, m]			
	Elem:	Pos:	Compon:
FZ = 352	2127	0	1

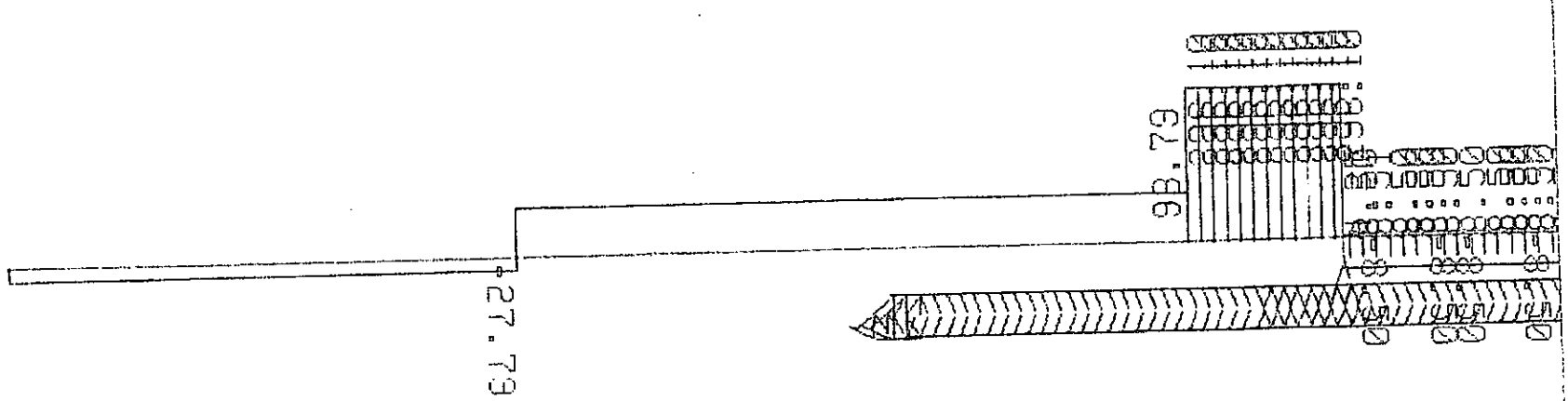



Valores extremos
[T, Tn, m]
Elem: Pos: Compon:
MY = 4.38E+003 2292 0 1
-1250.58


Valores extremos
[T, Tn, m]
Elem: Pos: Compon:
MY = 3.66E+003 2292 0 1
-1044.40

CIMENA S. PESO HORMIGON : HOJA 1

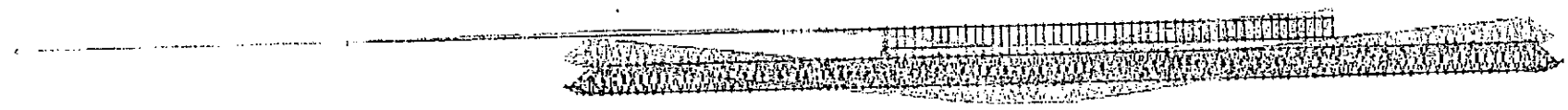
Valores extremos [T, Tn, m]			
		Elem:	Pos: Compon:
FZ = 296		2123	0 1



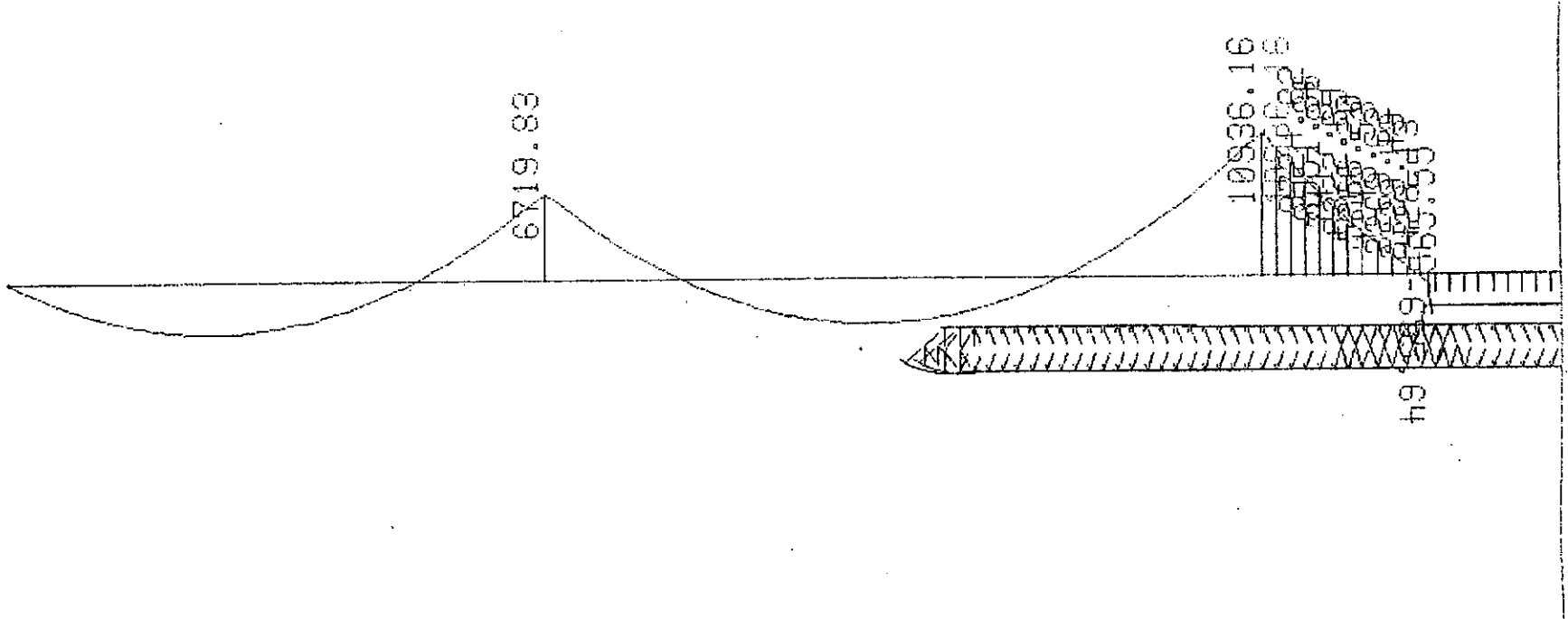
CIMENA S. PESO Y PESO PROPIO : HOJA 1

Escala	
Factor de escala	39

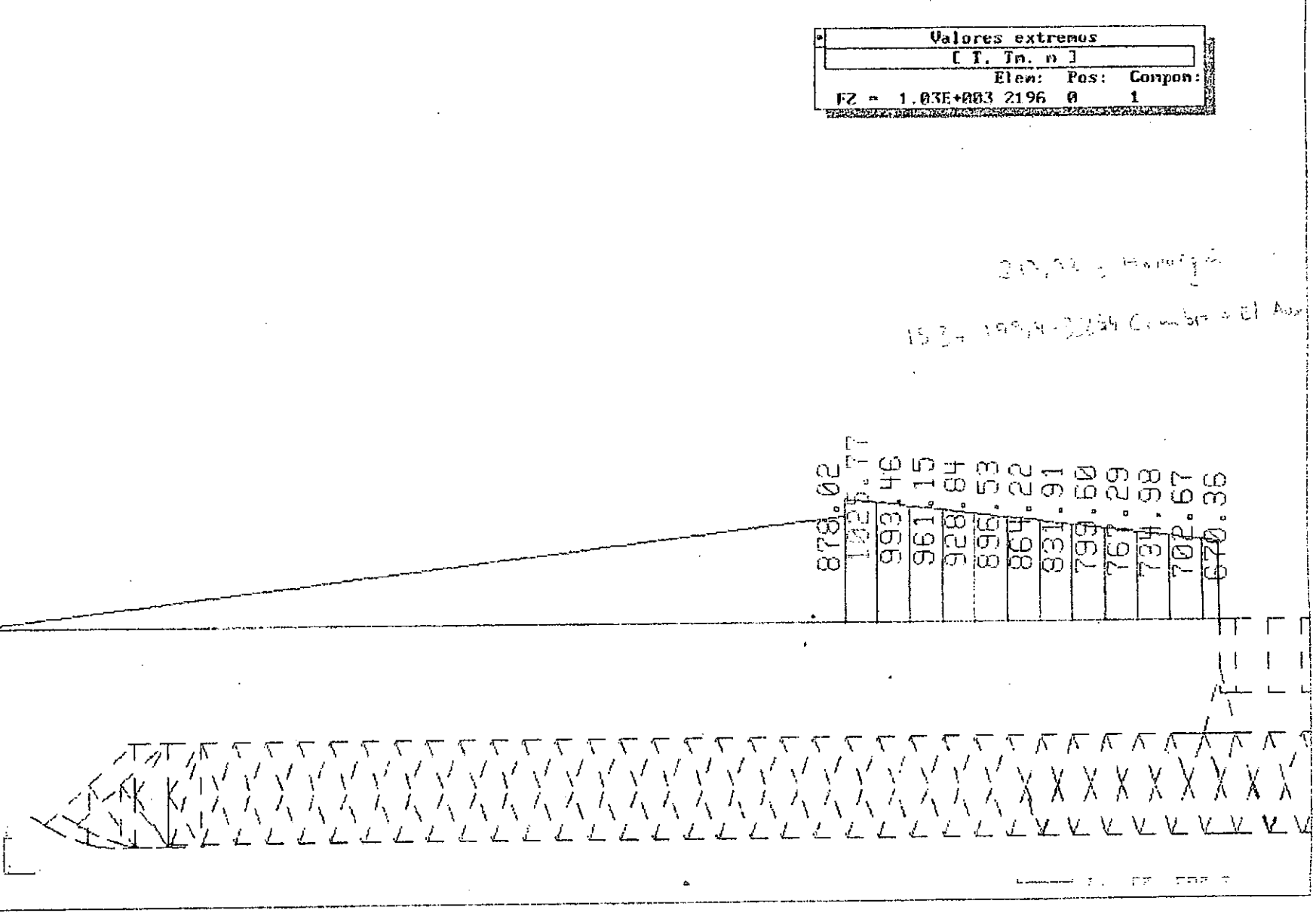
Valores extremos [T, Tn, m]			
		Elem:	Pos: Compon:
Max=	0.102	1225	1 1

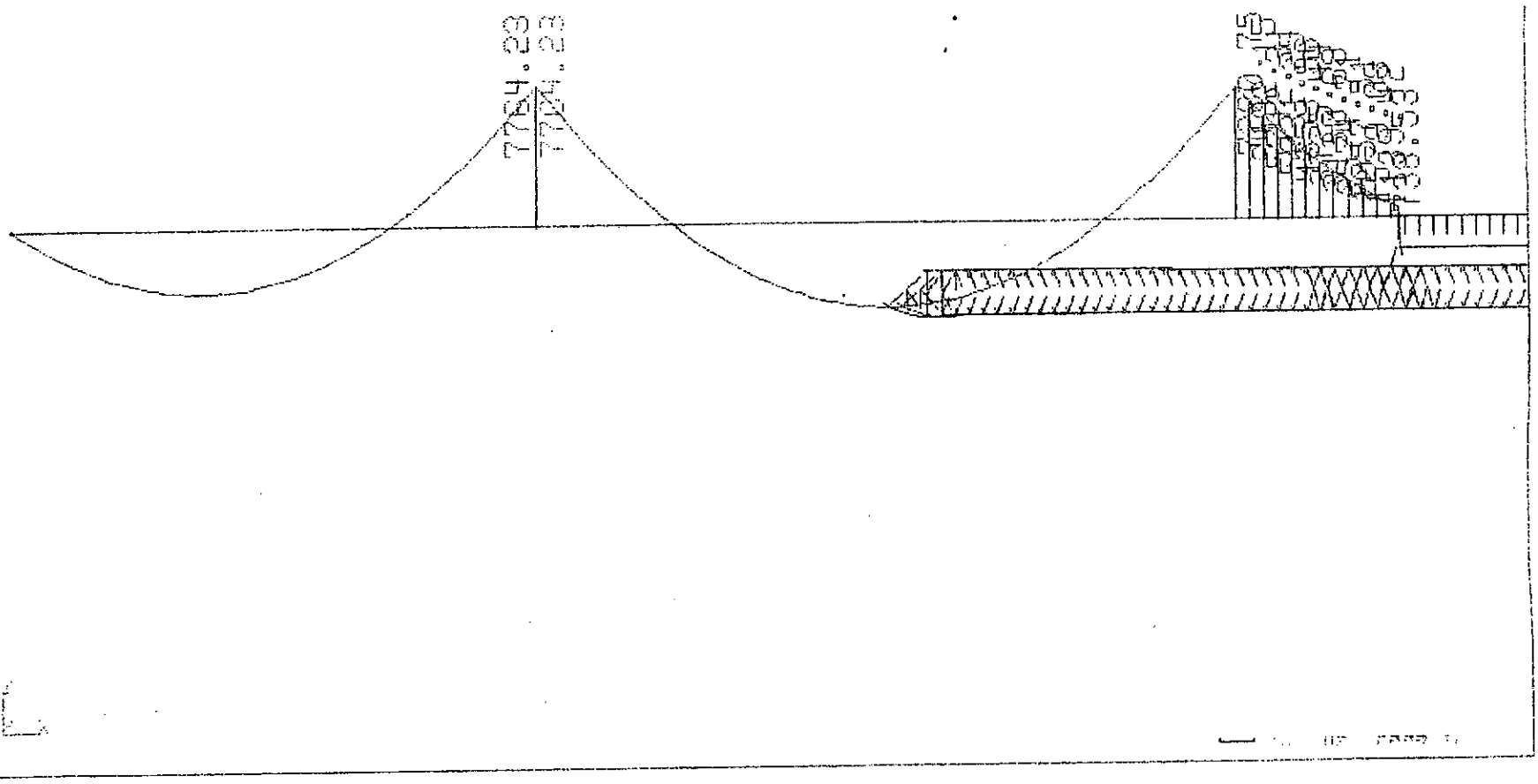


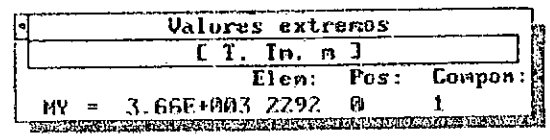
CIMBRA 4 — Cimbra + pilotes anclados + berma (1ª fase + parte 2ª fase anclada) (caso 4)

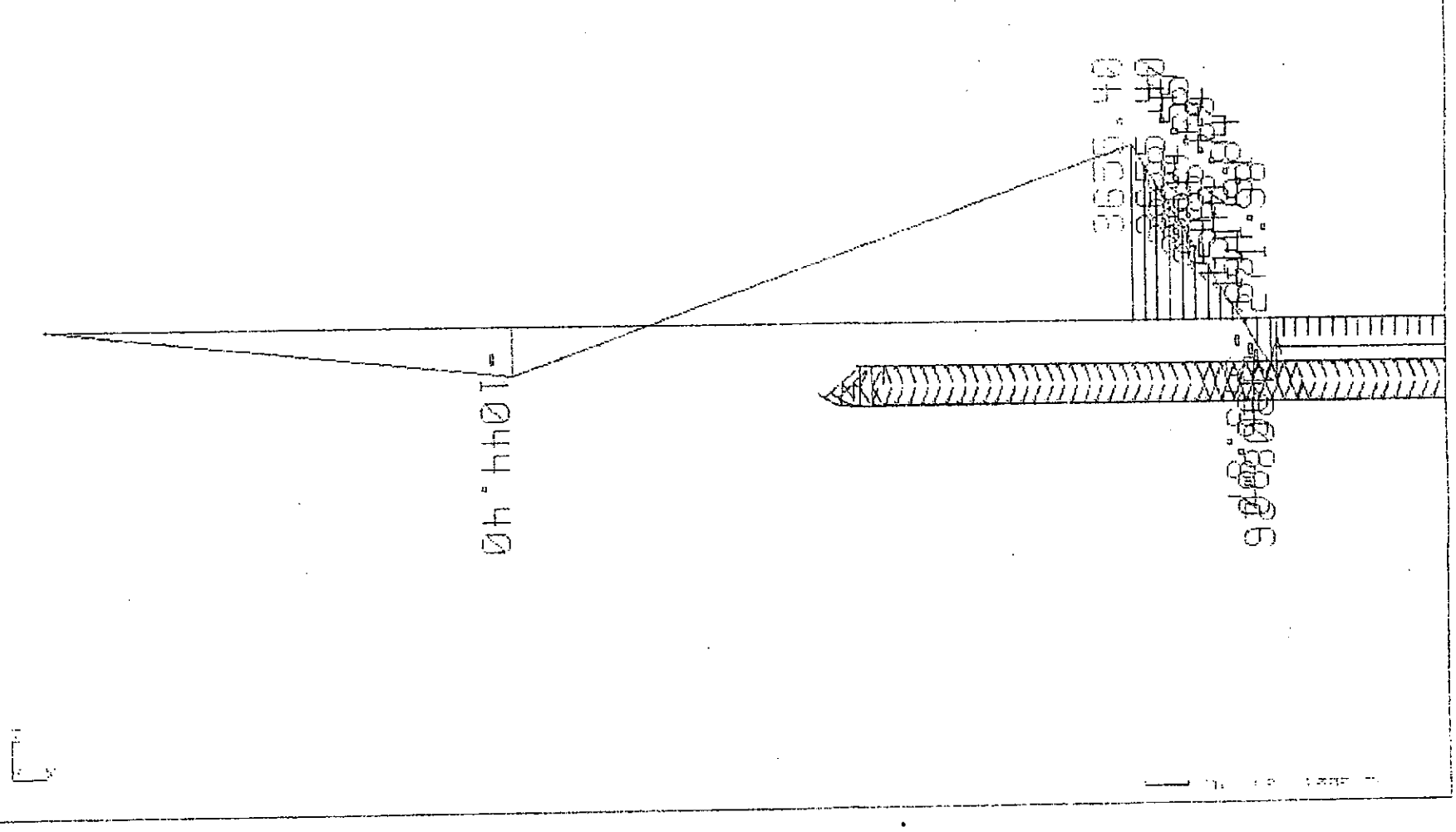


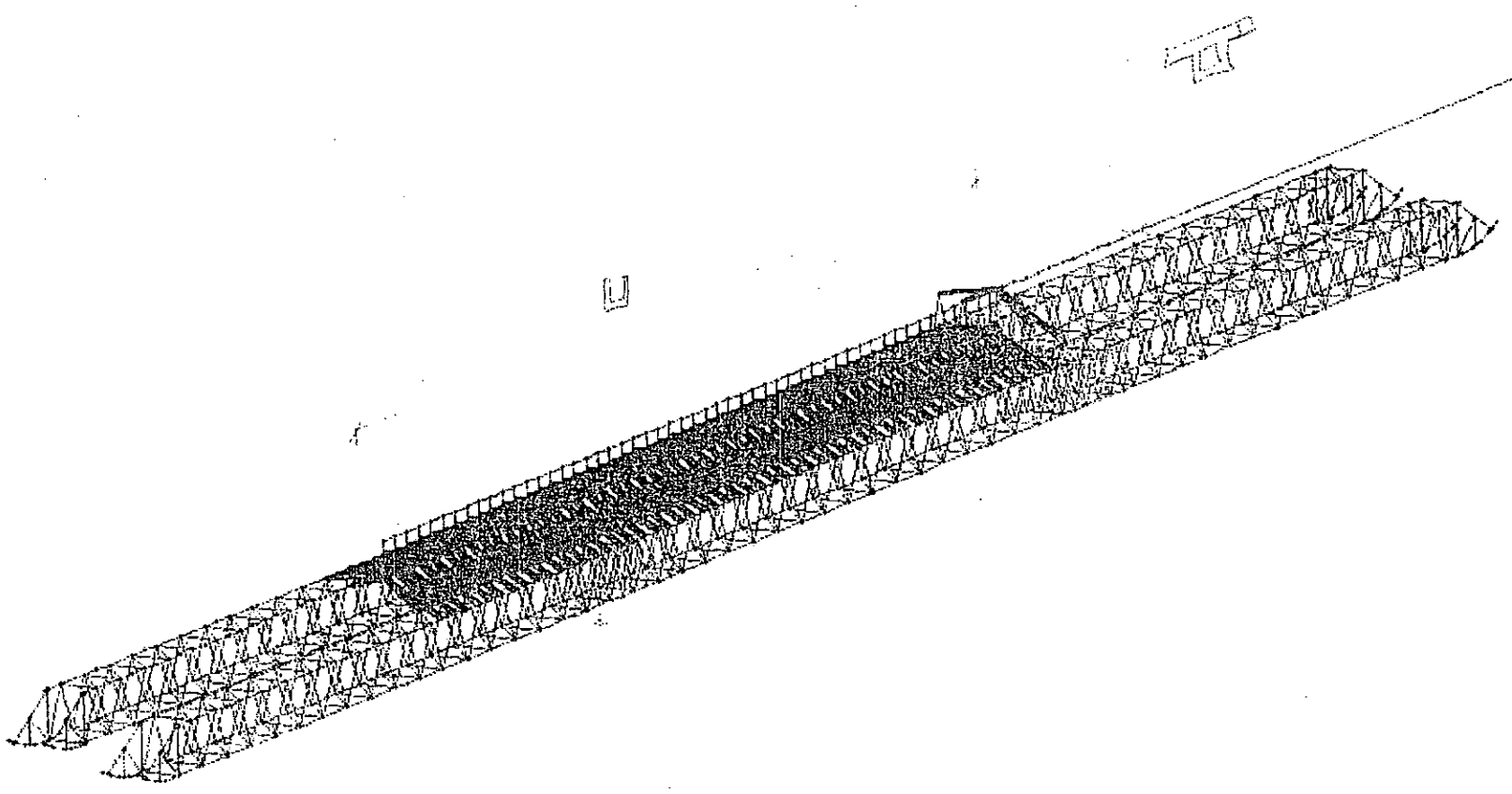
CIMBRA 5 — (caso 5)

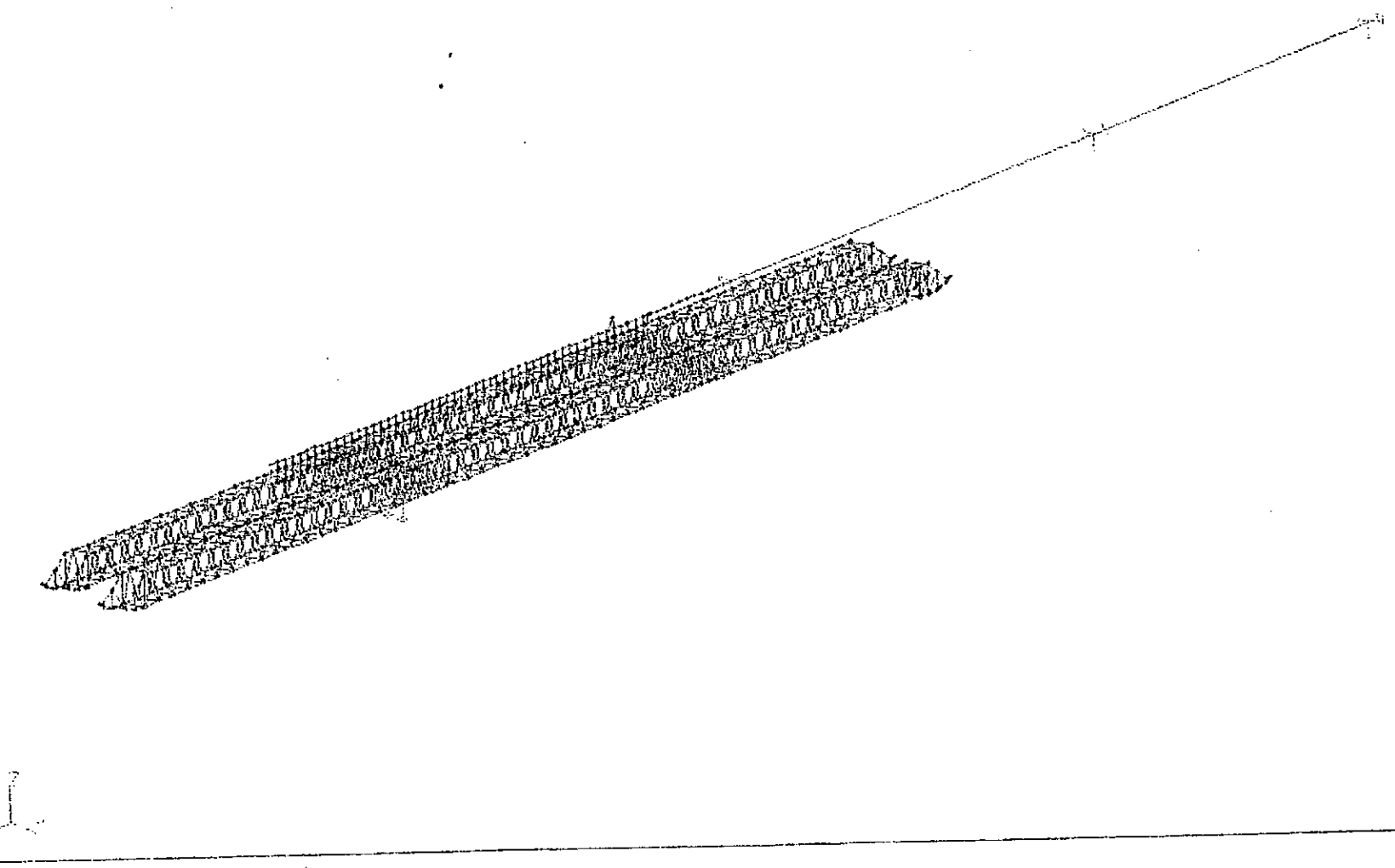





Valores extremos
[T. In. m]
Elem: Pos: Compon:
MY = 3.66E+003 2292 0 1







```
CARGamento

CASo # 1 PESO CIMBRA
  PESo propio
   4A39CA7 9A42CA11 38A47CA3 5 8 14 16 22 23 28 29 36 49A51 53A55 PZ MEnos
   58A187CA43 60A63 57 65A68 74A82 90A98 104A112 118A126 134A142 PZ MEnos
   149A152 154A157 160A162 164A166 170A172 176A178 204A213 220A228 PZ MEnos
   231A293 71 87 115 131 146 147 168 174 181 183 185 200 201 295 PZ MEnos
   298A312 314A327 329A341 344A394 396A415 417A446 448A451 454 PZ MEnos
   456A1963 1968A2015 2082A2091 2204A2212 2230A2253 2288A2290 PZ MEnos
   2293A2296 PZ MEnos

CASo # 2 PESO HORMIGON
  PESo propio
   2116A2121 2129A2157 2161A2173 2175A2178 PZ MEnos

CASo # 3 PESO HORMIGON LOSA SUPERIOR
  ELEmentos
   2116A2121 2129A2157 2161A2173 2175A2178 PZ=-12.76

CASo # 4 PESO TABLERO CONSTRUIDO
  PESo propio
   2122A2128 2192A2196 2292 2297 PZ MEnos

FIN
```



```
CARActerísticas
 ACERO
  4A32CA7 5 8 9 14 16 20 22 23 28 29 31 354A357 360A372CA3 374 HEB220
  394A418CA3 454 459A474 719A722 725A737CA3 739 759 761A779CA3 781 814 HEB220
  1032A1047 1292A1295 1298A1310CA3 1312 1332 1334A1352CA3 1354 1387 HEB220
  1391A1406 1651A1654 1657A1669CA3 1671 1691 1693A1711CA3 1713 1746 HEB220
  36 38 47 181 183 298 300A312 321A327 329A341 419A431 669A681 689A708 HEA360
  782A794 1242A1254 1262A1281 438 442 443 475 476 481 573 574 667 801 HEA360
  805 806 1048 1049 1054 1146 1147 1240 1355A1367 1374 1378 1379 1407 HEA360
  1408 1413 1505 1506 1599 1601A1613 1621A1640 1714A1726 1733 1737 1738 HEA360
  39 41 42 44 185 187 292 293 295 299 432 433 444 445 477A480 575 DCED100 x 12
  576 664A666 668 795 796 807 808 1050A1053 1148 1149 1237A1239 DCED100 x 12
  1241 1368 1369 1380 1381 1409A1412 1507 1508 1596A1598 1600 1727 DCED100 x 12
  1728 1739 1740 DCED100 x 12
  49A51 53A55 60A63 65A68 149A152 154A157 160A162 164A166 170A172 HEB140
  176A178 482A497 549A572 1055A1070 1122A1145 1414A1429 57 58 146 147 HEB140
  168 174 1481A1504 HEB140
  71 74A82 101 104A112 131 134A142 498A507 518A527 538A547 1071A1080 HEB200
  1091A1100 1111A1120 1430A1439 1450A1459 1470A1479 HEB200
  87 90A98 115 118A126 508A517 528A537 1081A1090 1101A1110 1440A1449 HEB240
  1460A1469 HEB240
  144 217 218 220A228 231A239 286A291 353A371CA6 358A373CA3 396A417CA3 HEA260
  398A413CA3 439A441 592A611 658A663 718A736CA6 723A738CA3 362 368 435 HEA280
  436 446 548 760A778CA3 762A780CA3 802A804 1165A1184 1231A1236 727 733 HEA280
  798 799 809 1121 1291A1309CA6 1296A1311CA3 1300 1306 1333A1351CA3 HEA280
  1335A1353CA3 1371 1372 1375A1377 1382 1480 1524A1543 1590A1595 HEA280
  1650A1668CA6 1655A1670CA3 1659 1665 1692A1710CA3 1694A1712CA3 1730 HEA280
  1731 1734A1736 1741 1996 2001A2015 2086A2091 2204 HEA280
  200 201 204A216 314A320 344A352 434 437 448A451 577A591 682A688 HEM360
  709A717 797 800 810A813 1150A1164 1255A1261 1282A1290 1370 1373 HEM360
  1383A1386 1509A1523 1614A1620 1641A1649 1729 1732 1742A1745 HEM360
  240A285 612A657 1185A1230 1544A1589 456 815 1388 1747 1968A1995 HEM280
  1997A2000 2082A2085 2205A2212 2230A2253 2288 2290 HEM280
  375A393 740A758 1313A1331 1672A1690 2289 I BB=0.308 HH=0.345 EA=0.04 EL=0.05
  457 458 816 817 1389 1390 1748 1749 BB=0.5 HH=0.5 EP=0.03
  818A1008 1750A1940 2293A2296 DIAmetro=0.0825 EP=0.0032
  1009A1031 1941A1963 DIAmetro=0.1016 EP=0.005
 RIGIDOSM
' 1967 2213A2229 2254A2287 2291 DIAmetro=0.3 EP=0.15 COMPresión
  1967 2213A2229 2254A2287 2291 DIAmetro=0.3 EP=0.15
  2016A2021 2029A2057 2063A2075 2077A2080 SX=0.001 IX=1 IY=0.001 IZ=0.01
 HORMIGON
  2116A2121 2129A2157 2161A2173 2175A2178
 SX=5.664 IX=1.45 IY=6.676 IZ=35.728 VY=2.116 VPY=1.306 VZ=3.4 VPZ=3.4
  2122A2128 2192A2196 2292 2297
 SX=10.77 IX=37.97 IY=22.526 IZ=111.512 VY=1.54 VPY=2.45 VZ=7 VPZ=7

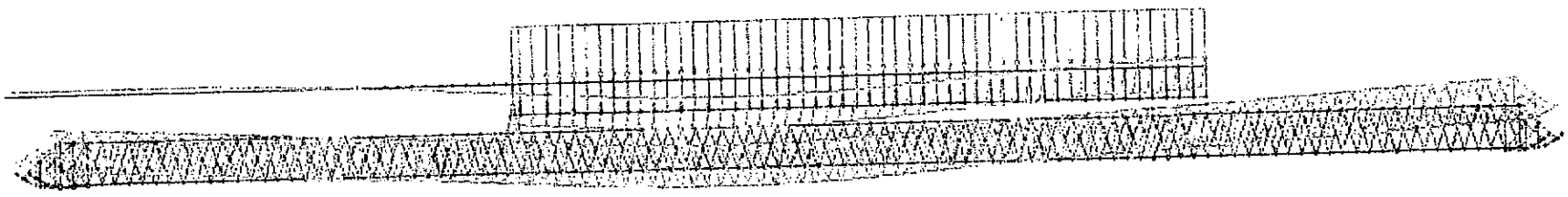
APOyos
' Etiqueta         - móvil
' Ninguna etiqueta - fijo

 661 UX RX RY
 40 273 703 UX UY RX RY
' 890 1039A1049 1092A1096 UX KY=1 UZ HX=0.01 RY RZ
' 957 KX=0.01 KY=0.01 UZ HX=0.01 RY RZ
' 997 KX=1 KY=1 UZ RY RZ
' 1097 KX=1 KY=1 UZ HX=0.1 RY RZ
 1122 1163 UX RY RZ
 1166 RY RZ
```

VIGUETA C. PISO LOSA SUPERIOR

Escala	
Factor de escala	51

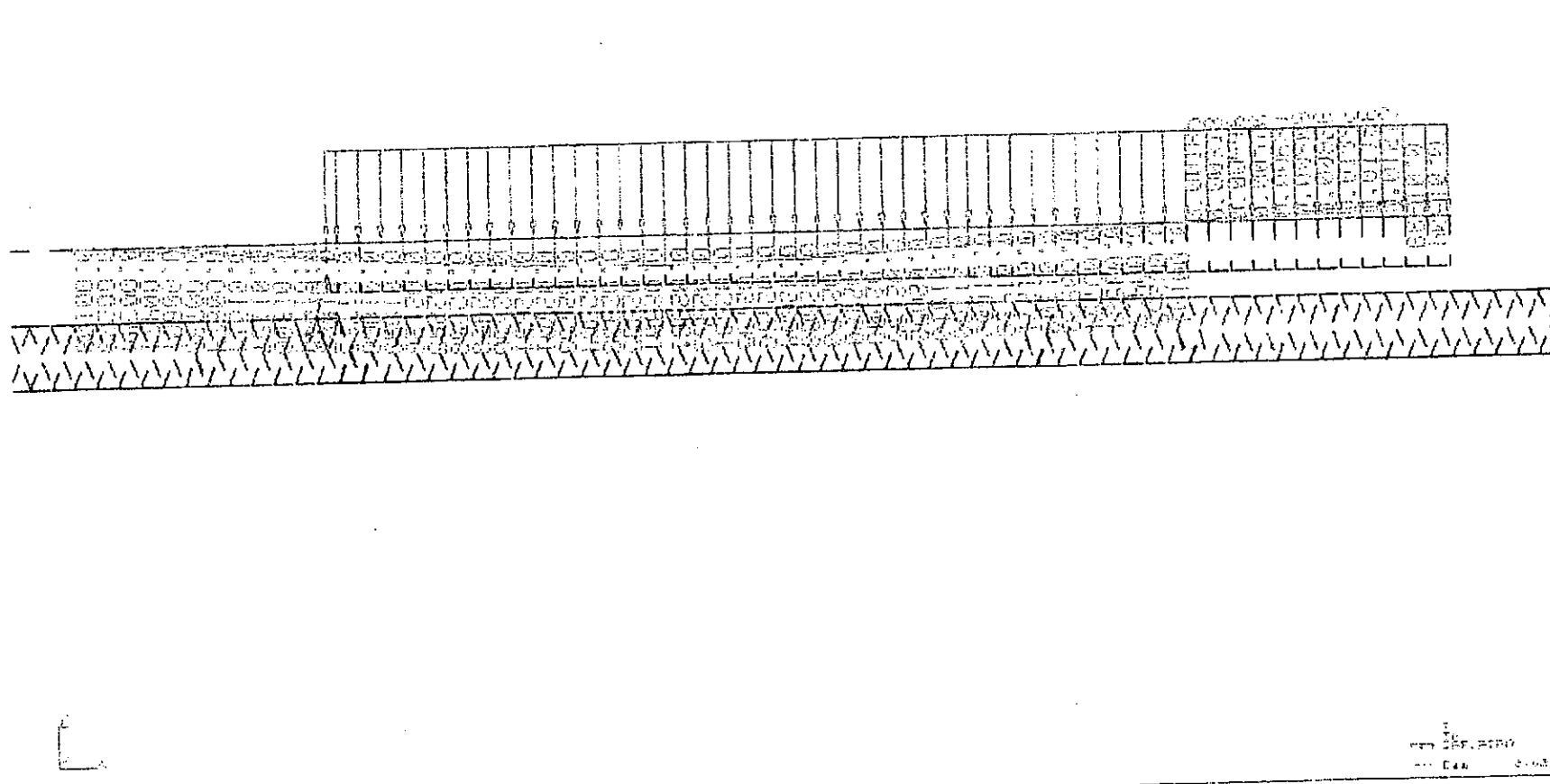
Valores extremos [T, Tn, m]			
		Elem:	Pos:	Compon:
Max=	0.0419	443	1	1



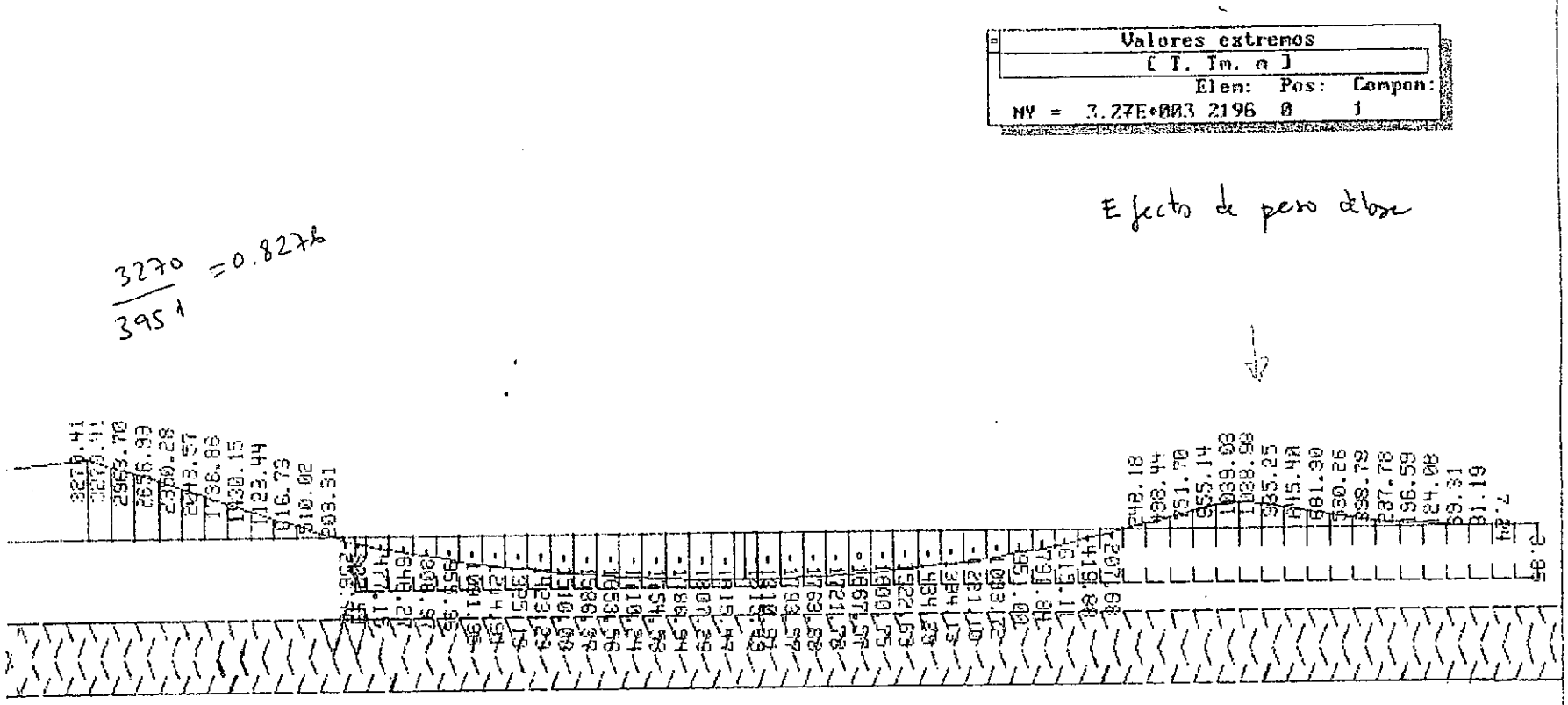
VIGUETA C. PISO LOSA SUPERIOR

Escala	
Factor de escala	52

Valores extremos [T, Tn, m]			
		Elem:	Pos:	Compon:
Max=	0.0285	2139	0	1
Min=	1.25E-005	2139	0.25	1
M12=	0.0352	2169	0.75	1
M1J=	0.0352	2169	0.75	1



CIMBRA 8 Peso los barras



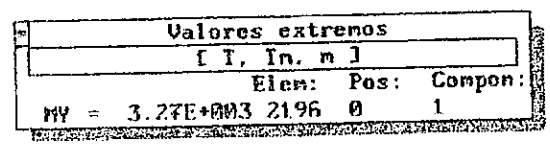
Efecto de peso debe

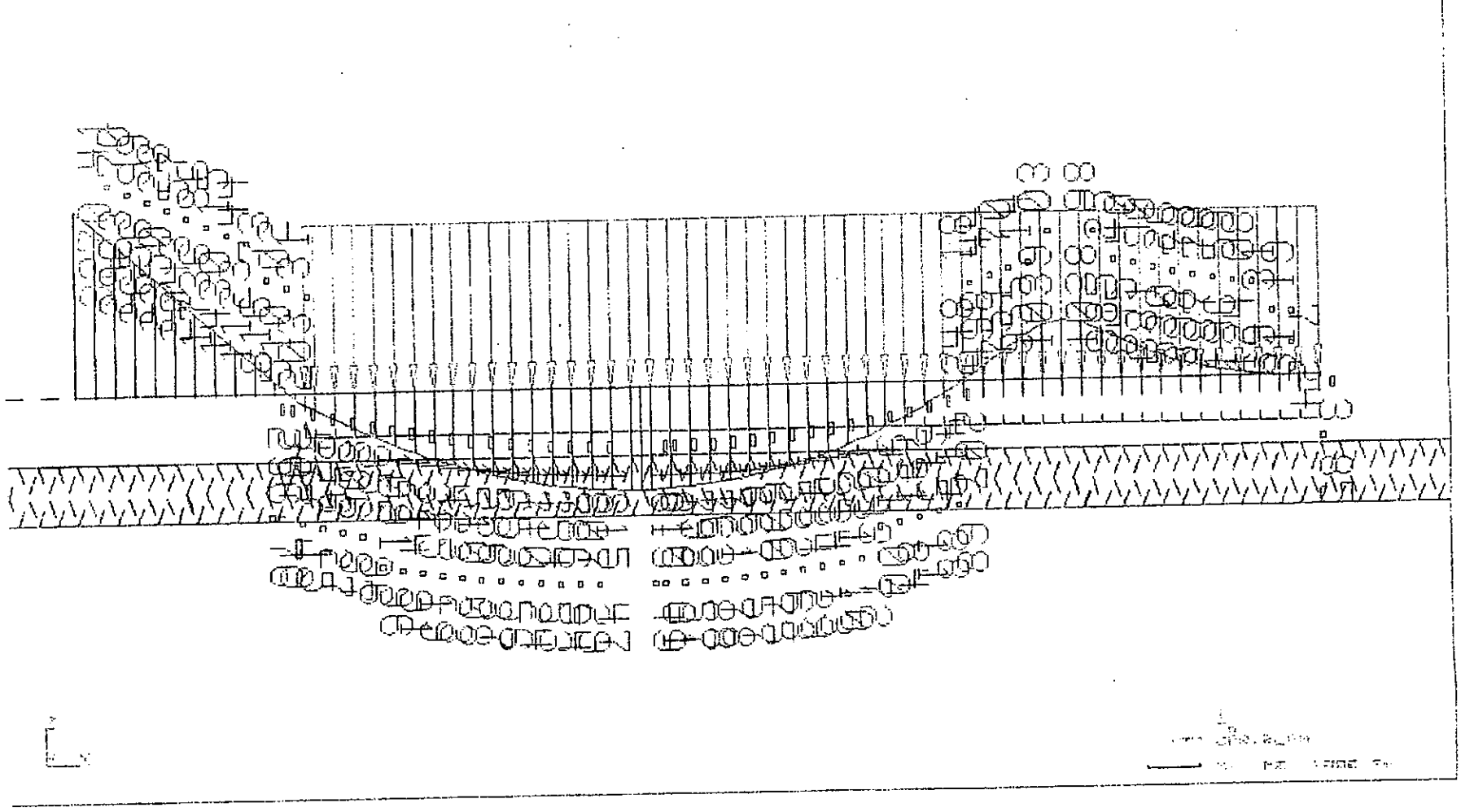
$\frac{3270}{3951} = 0.827 \approx$

$\frac{1815}{2524} = 0,748 \approx 0.75$

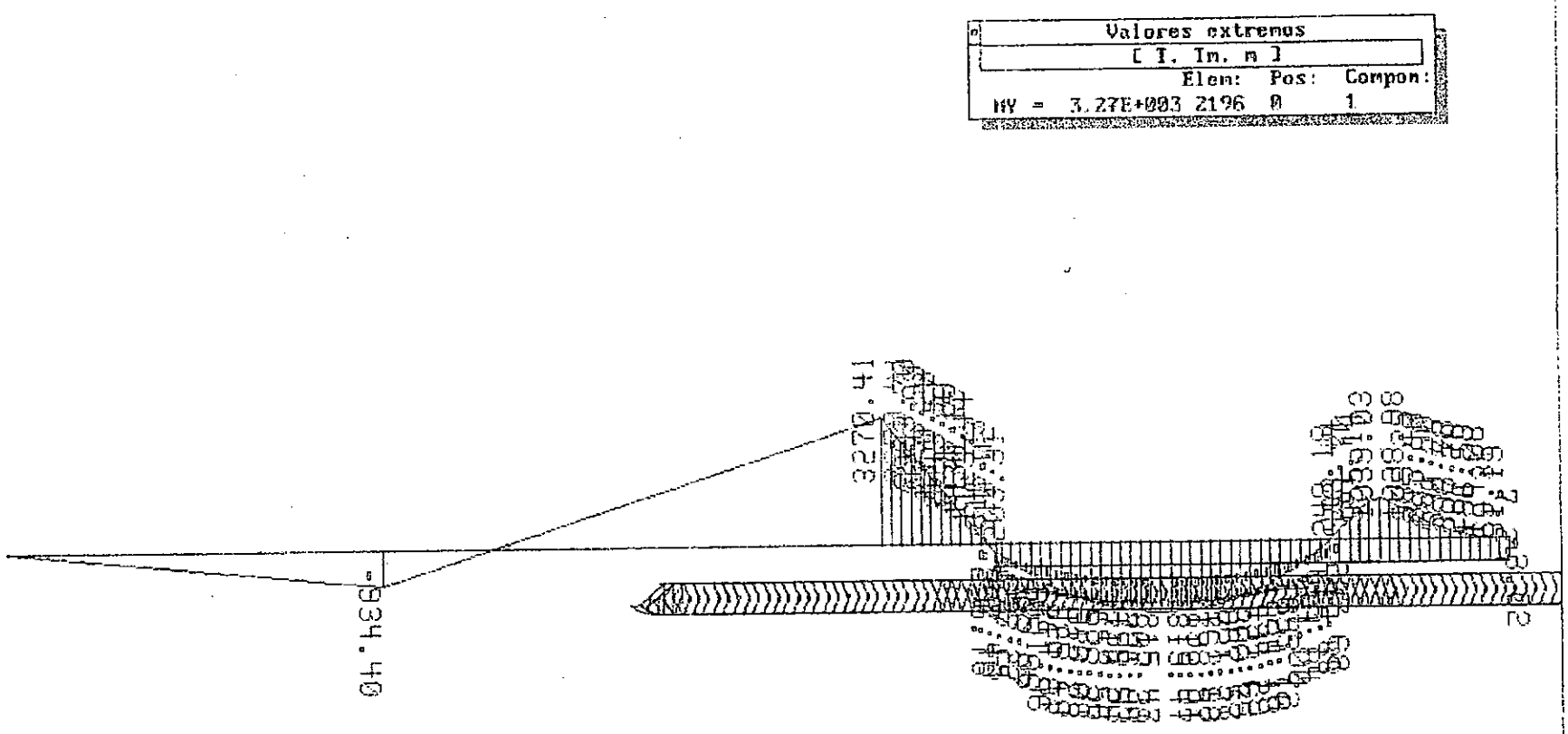
cimbra 8.tin

CIMBRA 8. PESO LOSA SUPERIOR

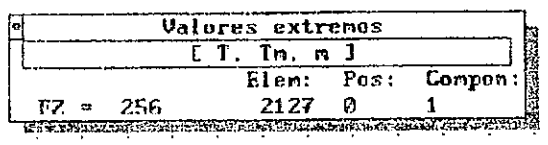


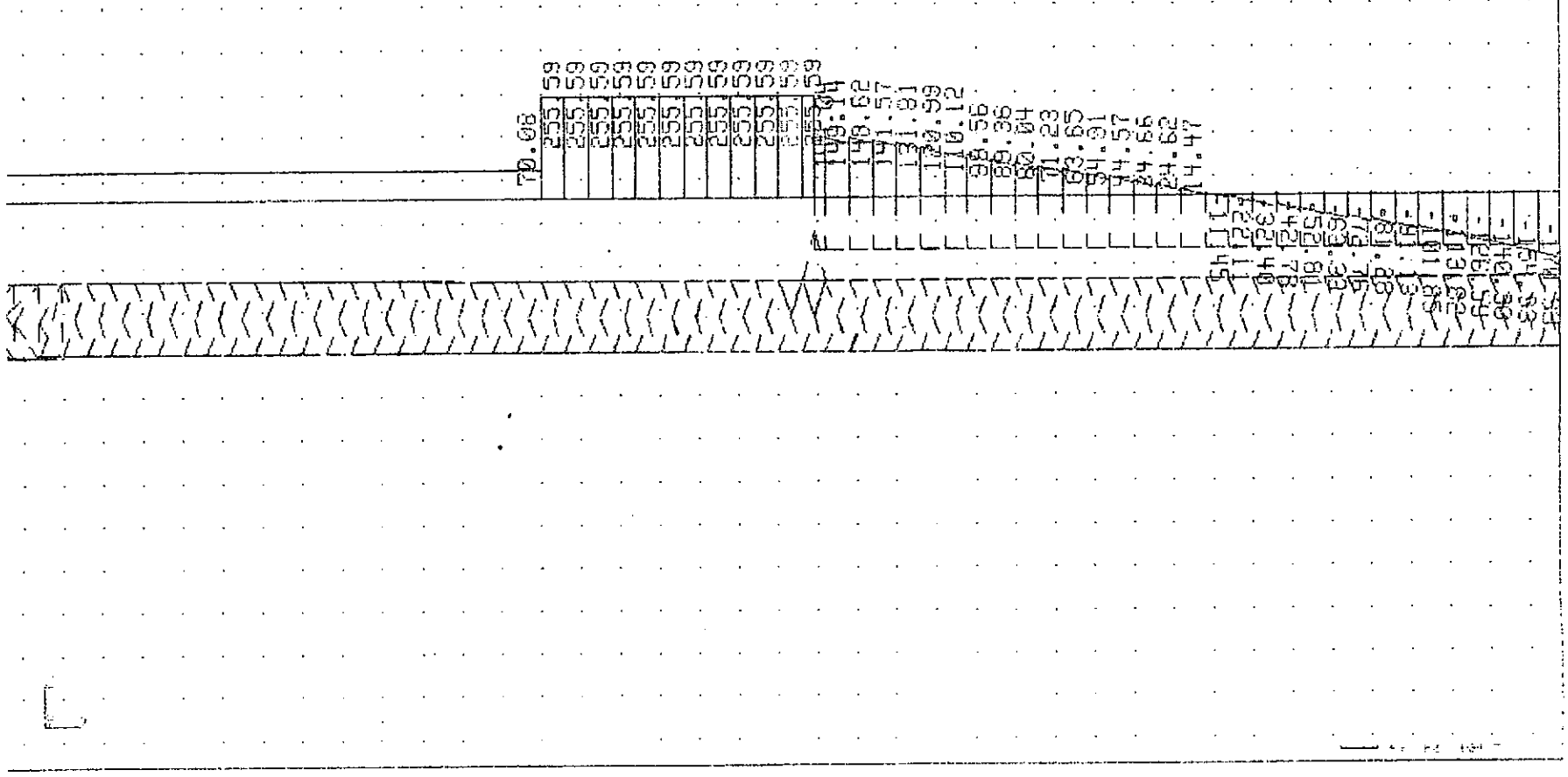


COMBIN C. MEDIO LUCIR SUPERIOR



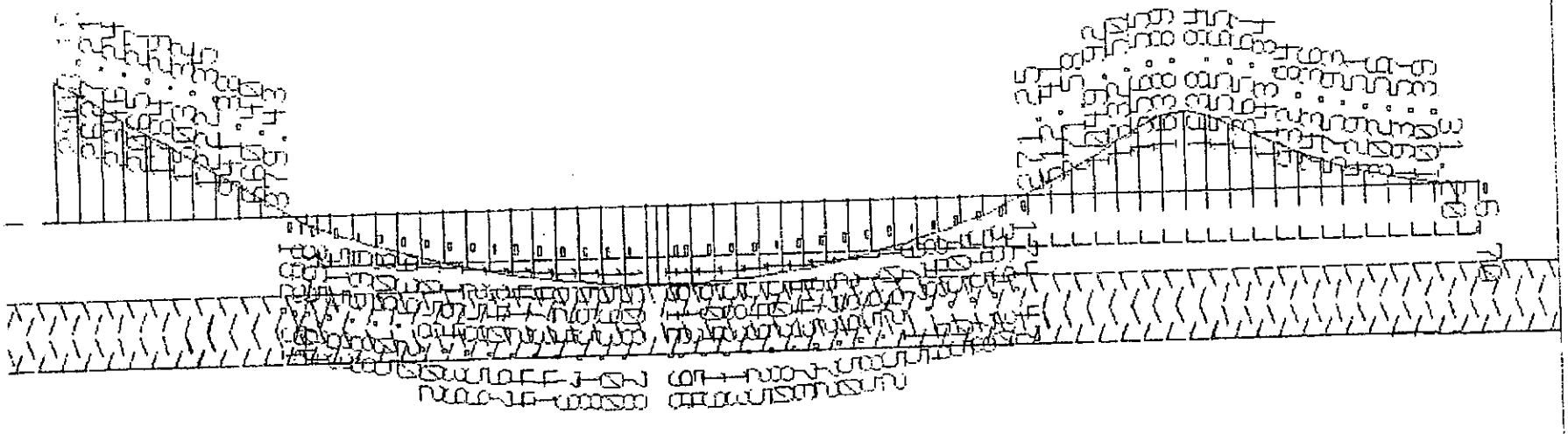
COMBIN C. MEDIO LUCIR SUPERIOR




70.08
255.59
255.59
255.59

CIMBRA S. LADO A CURADELLO CON VIGA Y LOSA ANCLADA

Valores extremos [T, Tn, m]			
		Elem:	Pos:	Compon:
MY =	2.91E+003	2196	0	1

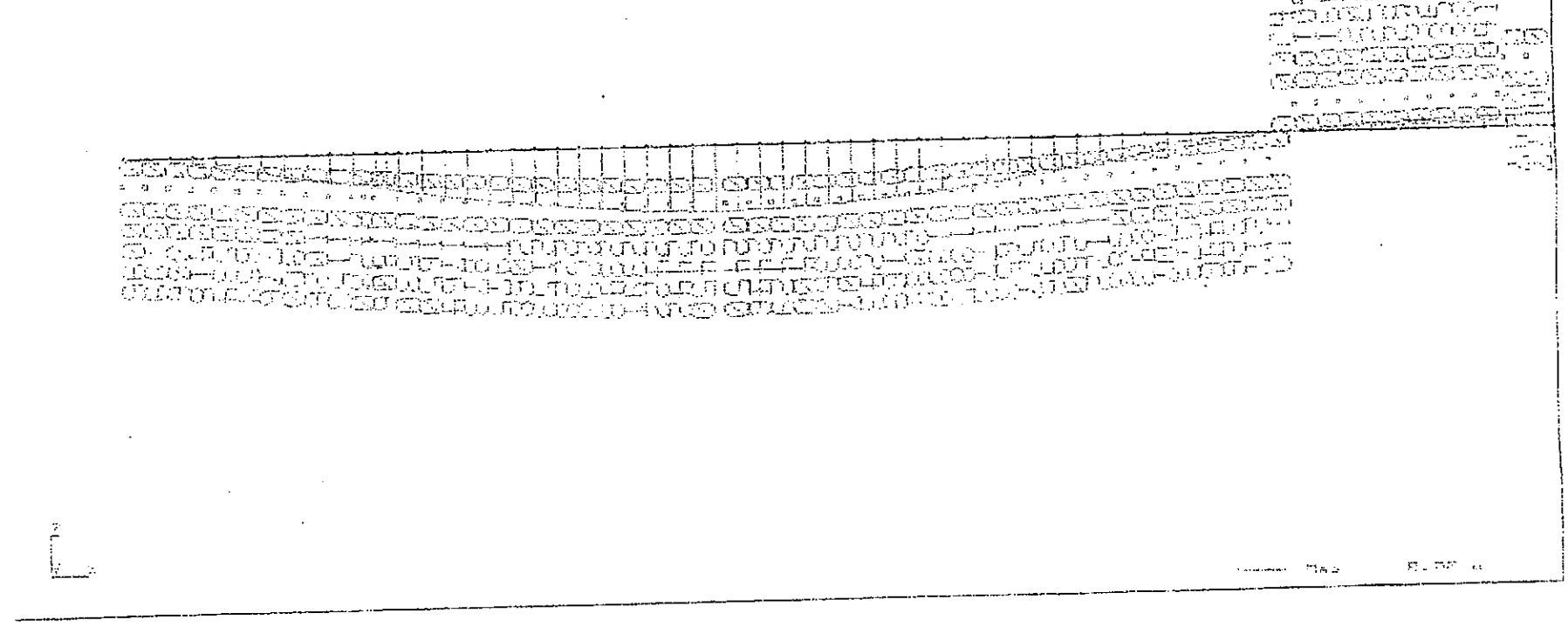


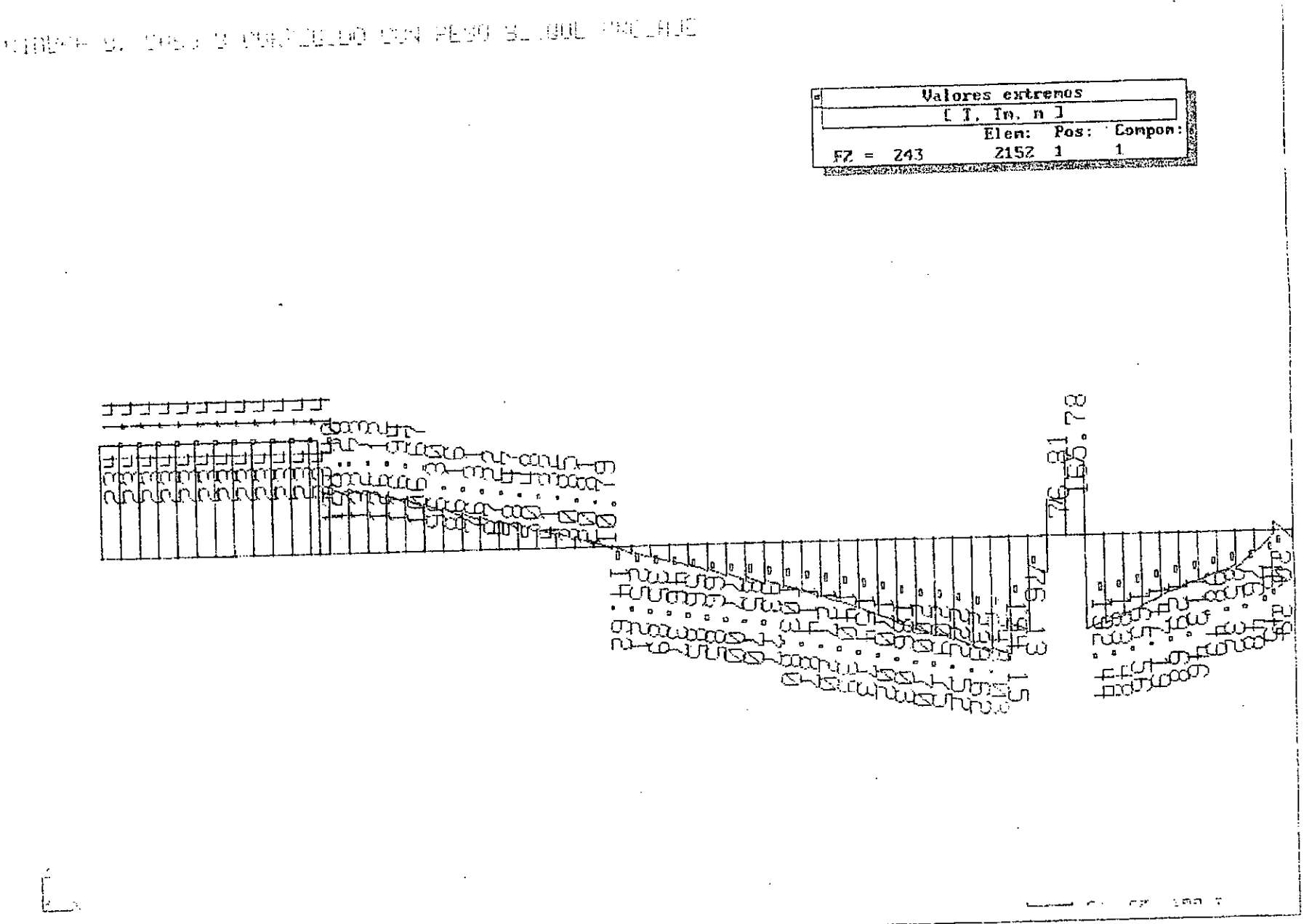
CIMBRA S

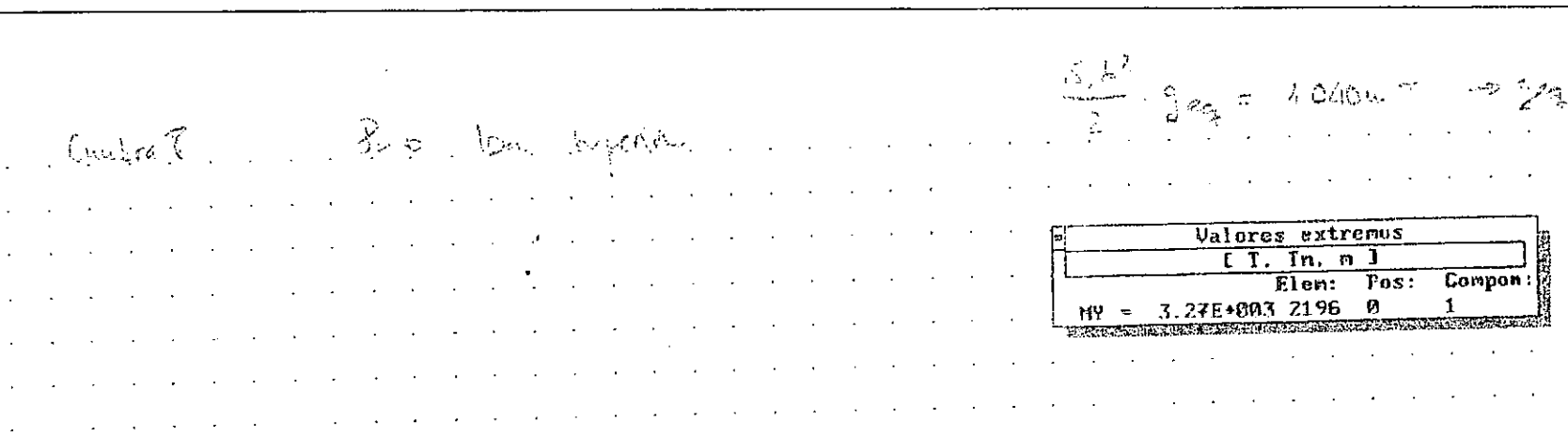
Escala	
Factor de escala	130

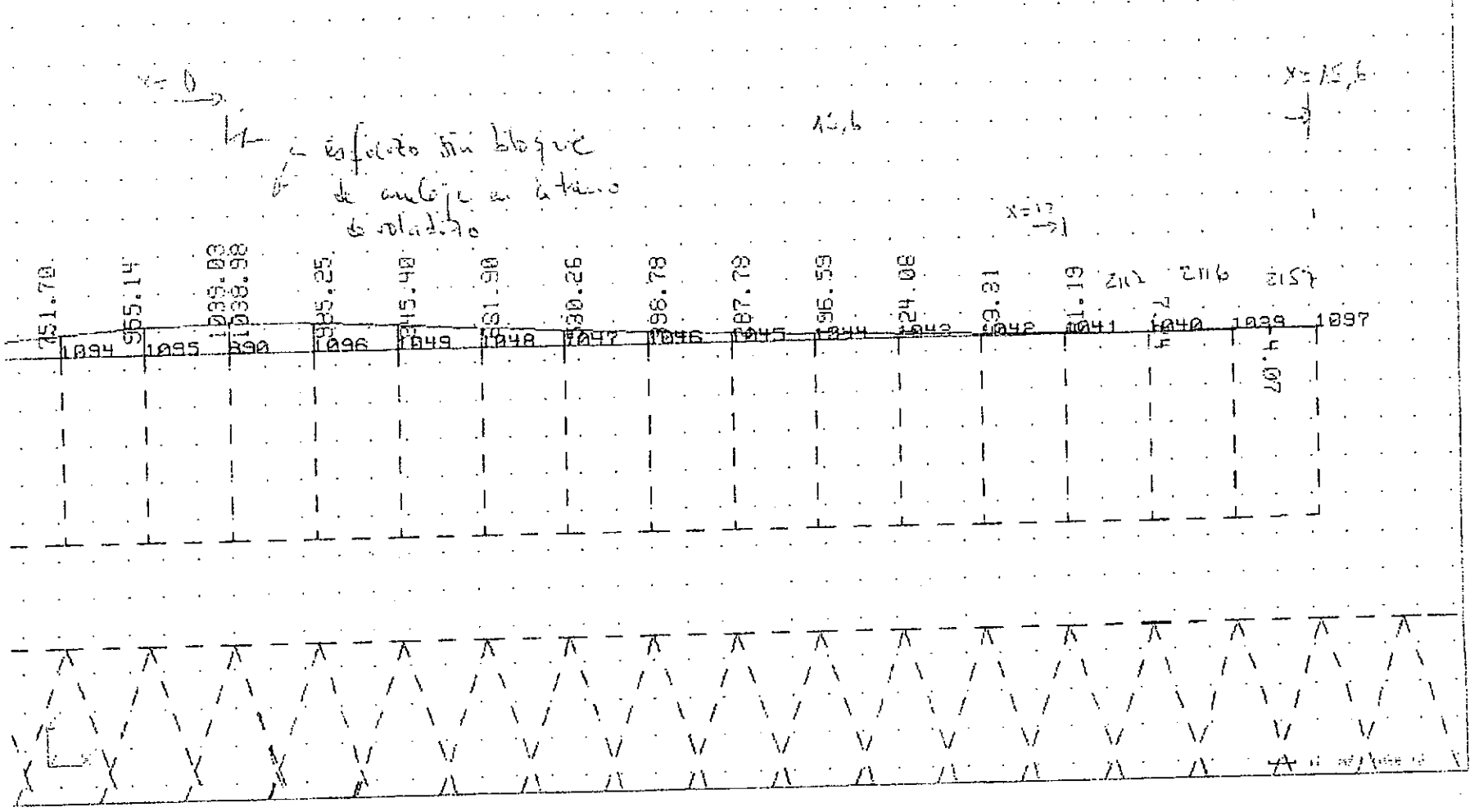
LOSA ANCLAJE

Valores extremos [T, Tn, m]			
		Elem:	Pos:	Compon:
Pos=	0.0245	3169	0.25	1
Neg=	1.52E-005	2130	0	1
M2=	0.0245	2169	0.45	1
M3=	0.0245	2169	0.75	1

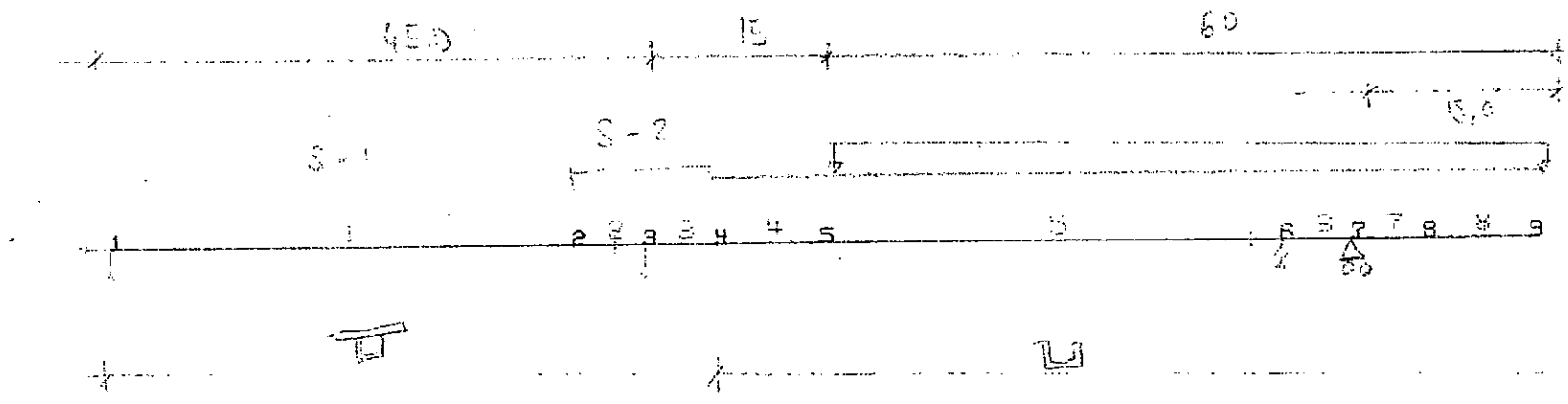



Valores extremos
[T, Tn, m]
Elem: Pos: Compon:
FZ = 243 2152 1 1


Valores extremos
[T, Tn, m]
Elem: Pos: Compon:
MY = 3.27E+003 2196 0 1


251.70
565.14
1036.83
1038.98
565.25
545.40
481.90
430.25
398.78
387.78
396.59
424.08
479.31
561.19
1094
1095
1096
1097

FASE 2 Hormigonado losas y pilas



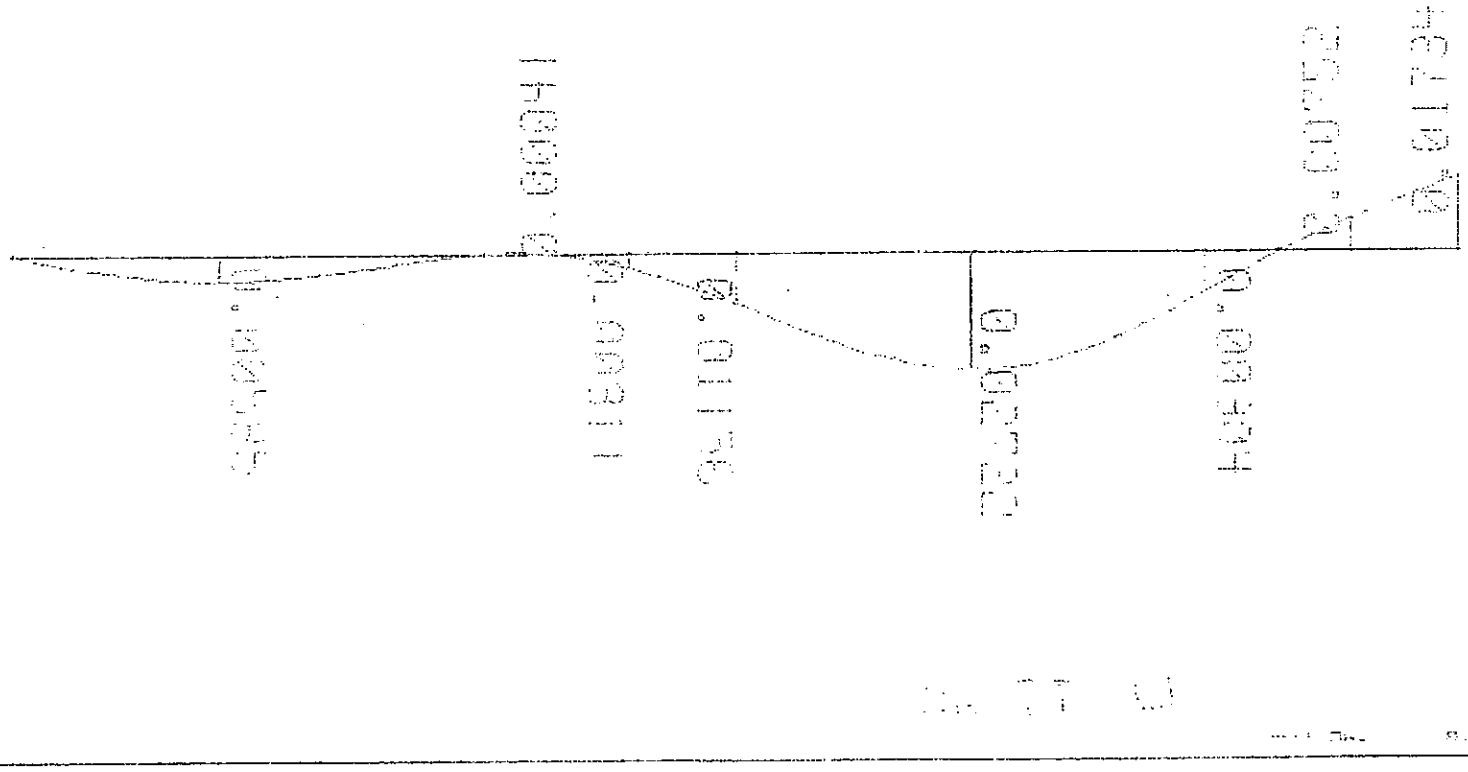
Escala

Factor de escala	330

Valores extremos

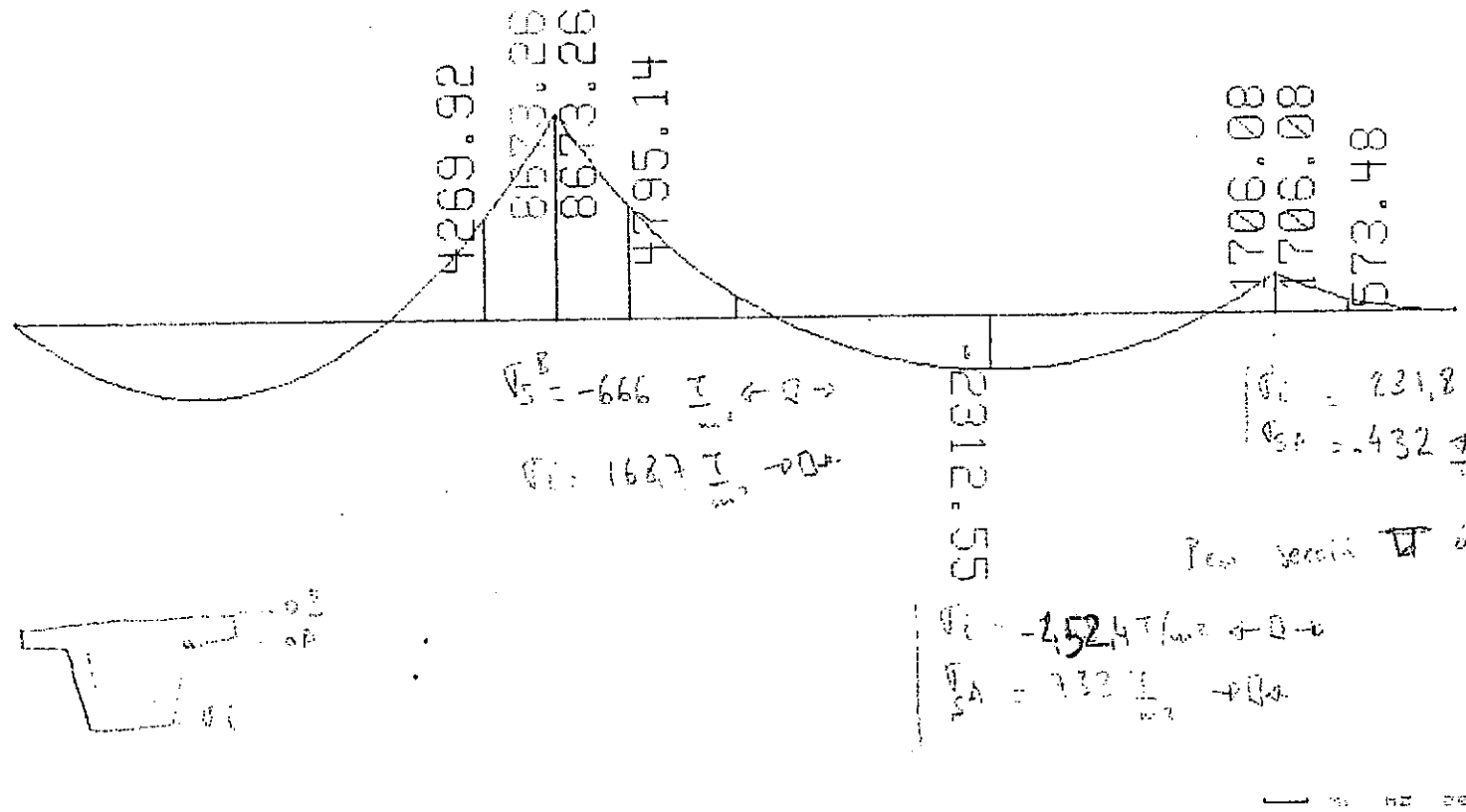
[T, Tn, m]

		Elem:	Pos:	Compon:
Max=	0.0272	5	0.5	1
Min=	0			
M2=	0.0334	5	0.5	1
M3=	0.0397	5	0.5	1



Peso Sección [illegible]

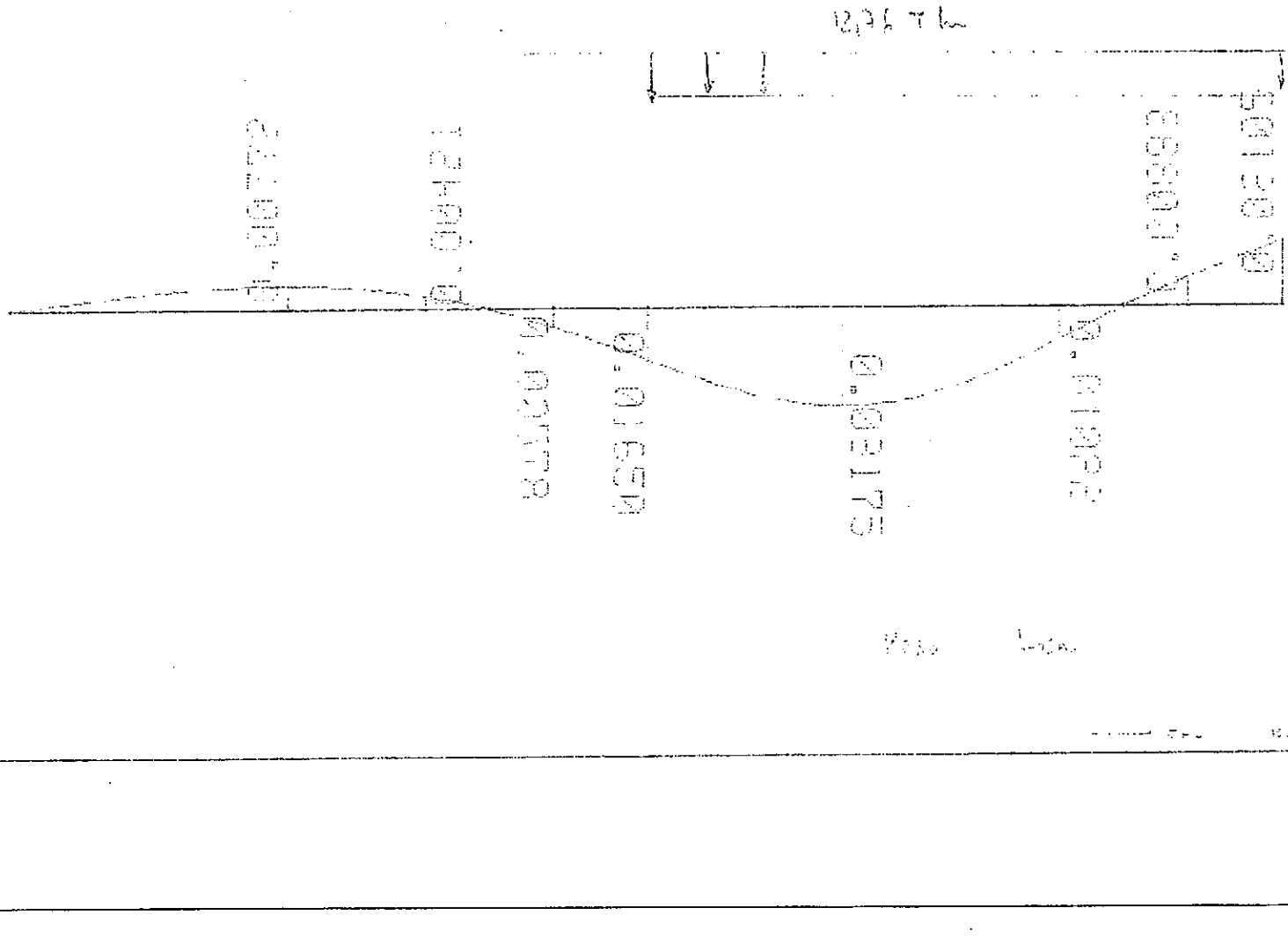
Valores extremos [T, Tn, m]			
	Elem:	Pos:	Compon:
MY = 8.67E+003	2	1	1



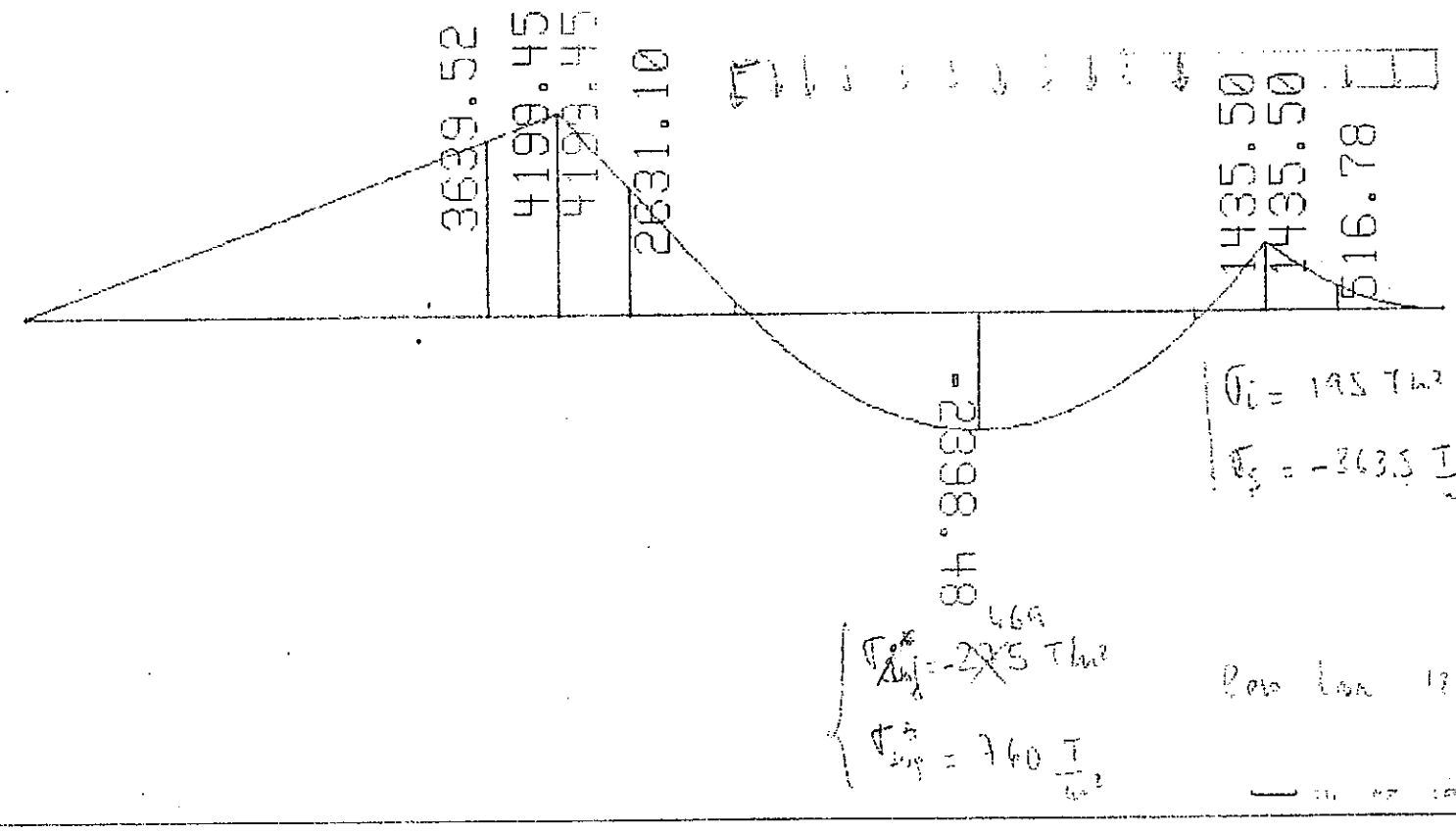
Escala

Factor de escala	240

Valores extremos [T, Tn, m]			
	Elem:	Pos:	Compon:
Max= 8.8318	5	0.47	1
Min= 0			
M2= 9.8456	3	0.5	1
M10= 9.8456	5	0.5	1



Valores extremos [T, Tn, m]			
	Elem:	Pos:	Compon:
MY = 4.26+003	3	0	1



$\sigma_t = 195\ T/m^2$ → Tracción

$\sigma_c = -363.5\ T/m^2$ ← Compresión

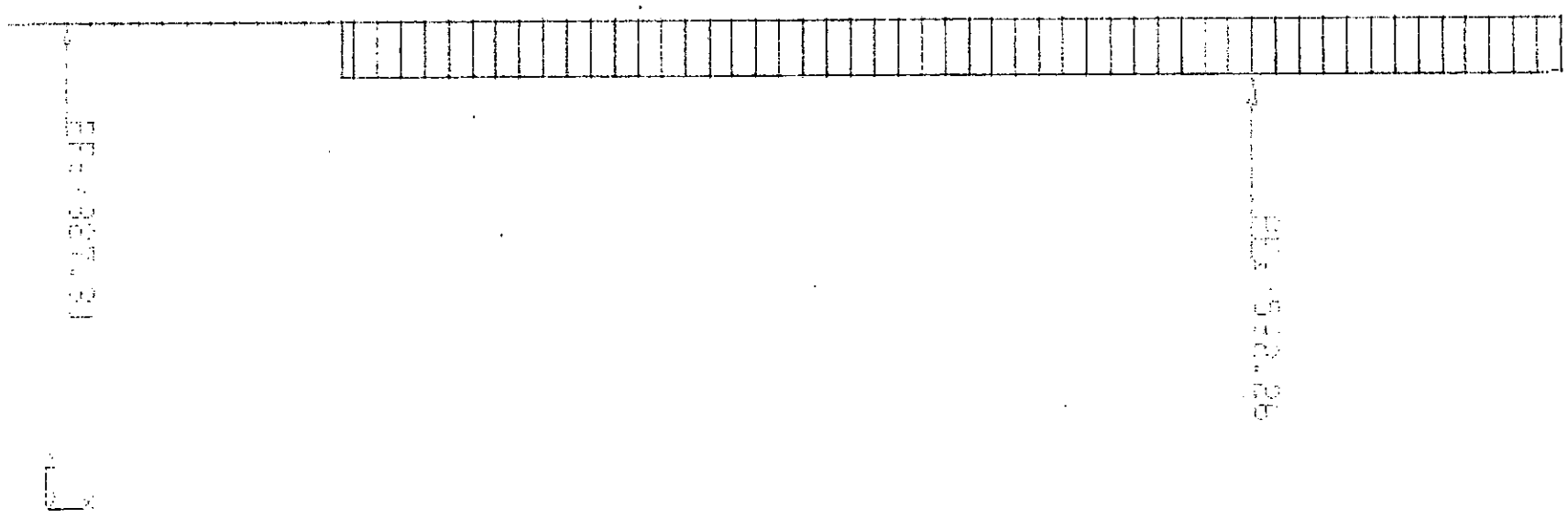
$T^{max}_{Adh} = -225\ T/ml$

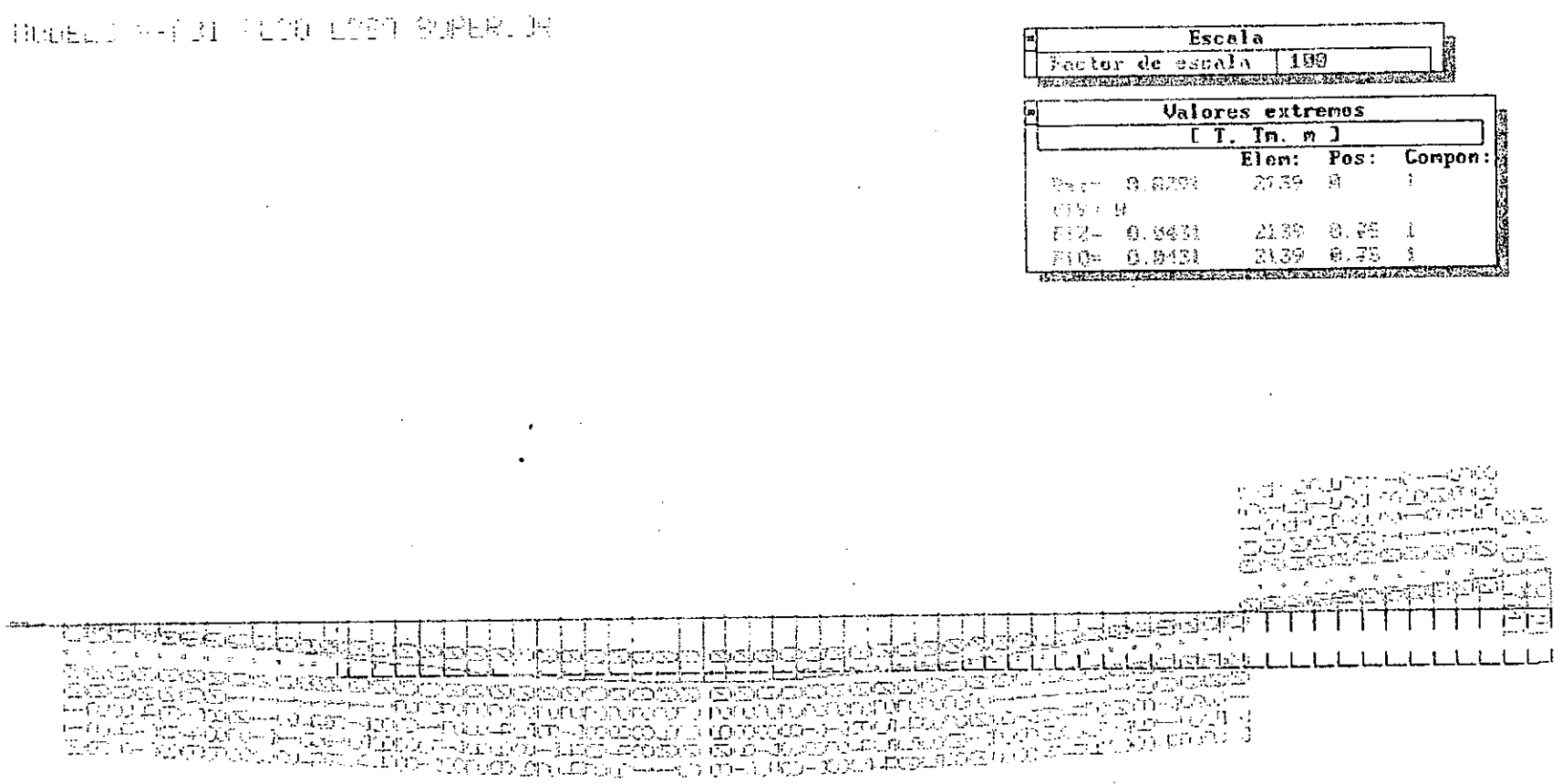
$T^{max}_{Dep} = 760\ T/m^2$

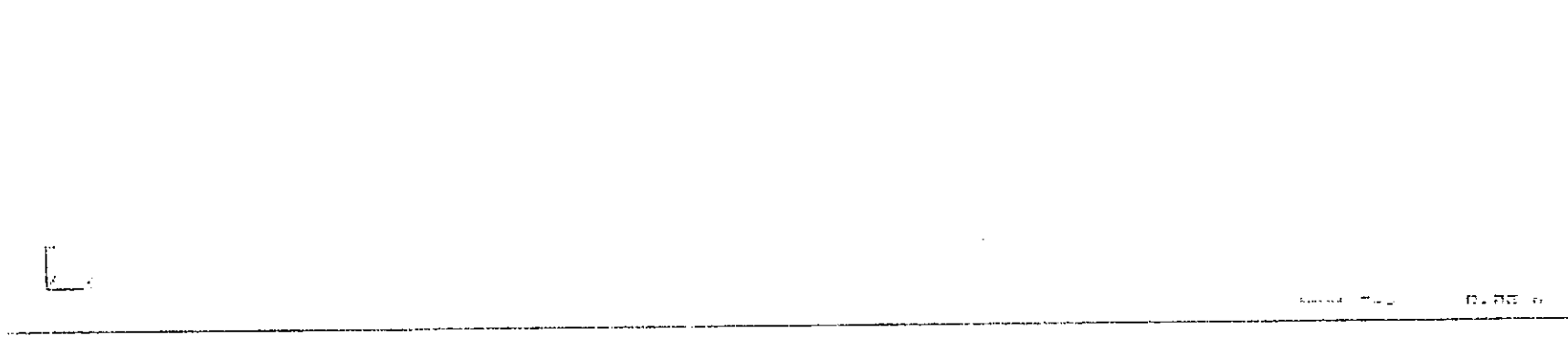
Peso Losa 12.36 T/ml

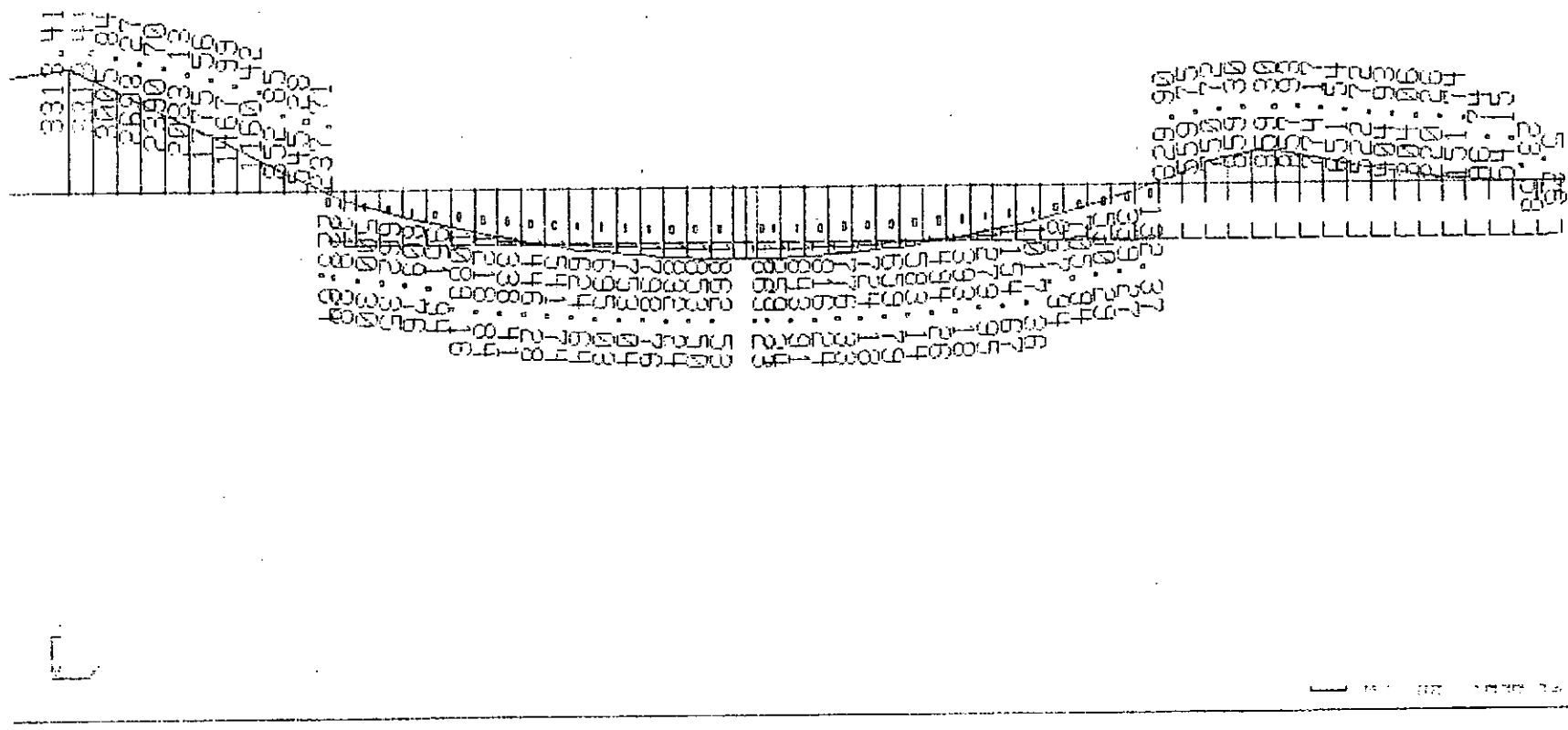
MODELO 4-191 PESO LOSA SUPERIOR

Valores extremos [T, Tn, m]			
	Elem:	Pos:	Compon:
MF = 532	889		1




Escala
Factor de escala 199
Valores extremos
[T. Tn. m]
Elem: Pos: Compon:
Max= 0.8259 2139 0 1
Min= 0
SX= 0.8431 2139 0.25 1
SY= 0.8431 2139 0.75 1


Valores extremos
[T. Tn. m]
Elem: Pos: Compon:
MY = 3.31E+003 2196 0 1



PRETENSADO "4" L = 74.5 m

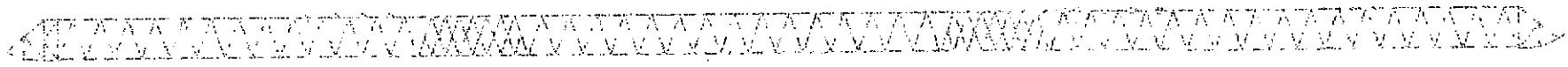
PRETENSADO "3" L = 69.7 m

PRETENSADO "2" L = 64.9 m

PRETENSADO "1" L = 60.1 m

52,4 Tn
54,1 Tn
55,6 Tn
57,0 Tn

52,4 Tn
54,1 Tn
55,6 Tn
57,0 Tn



Patín largo 5.202 | 7.2 A | 12 AT | 12 N | 9.6 R | 12 E | 12 N | 12 E | 9.6 R | 12 N | 12 AT | 7.2 A | 4.8 A | 4.8 A | Patín corto 4.002

VER DETALLE "A"

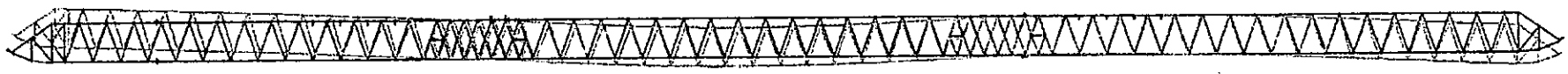
0.295

POSICIÓN DE HORMIGONADO
DEFORMADA A PESO PROPIO

f = 4,3 cm

f = -2,7 cm

f = -3,5 cm

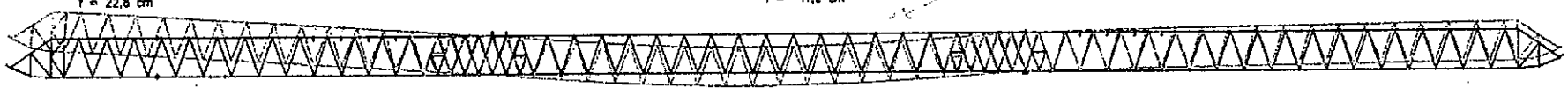


POSICIÓN DE HORMIGONADO
DEFORMADA A PESO PROPIO + HORMIGÓN
CARGA DE HORMIGÓN = 4,875 Tn/m por cordón

f = 22,8 cm

f = -11,2 cm

f = 7,3 cm



GRUPO MECANOTUBO

Peso

Escala
Factor de escala 45

Valores extremos
[T, Tn, m]

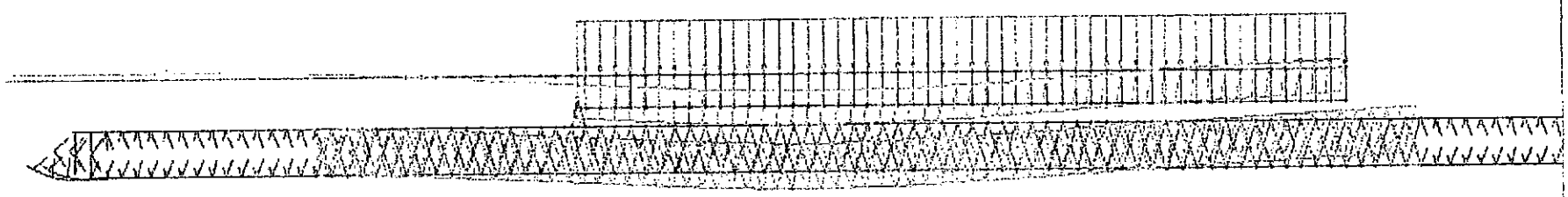
		Elem:	Pos:	Compon:
Qmax=	5.8285	2139	M	1
Mmax=	5.1362-005	2196	M	1
Min=	0.8491	2139	0.75	1
Mmin=	0.8491	2139	0.25	1



cimbra8.dw

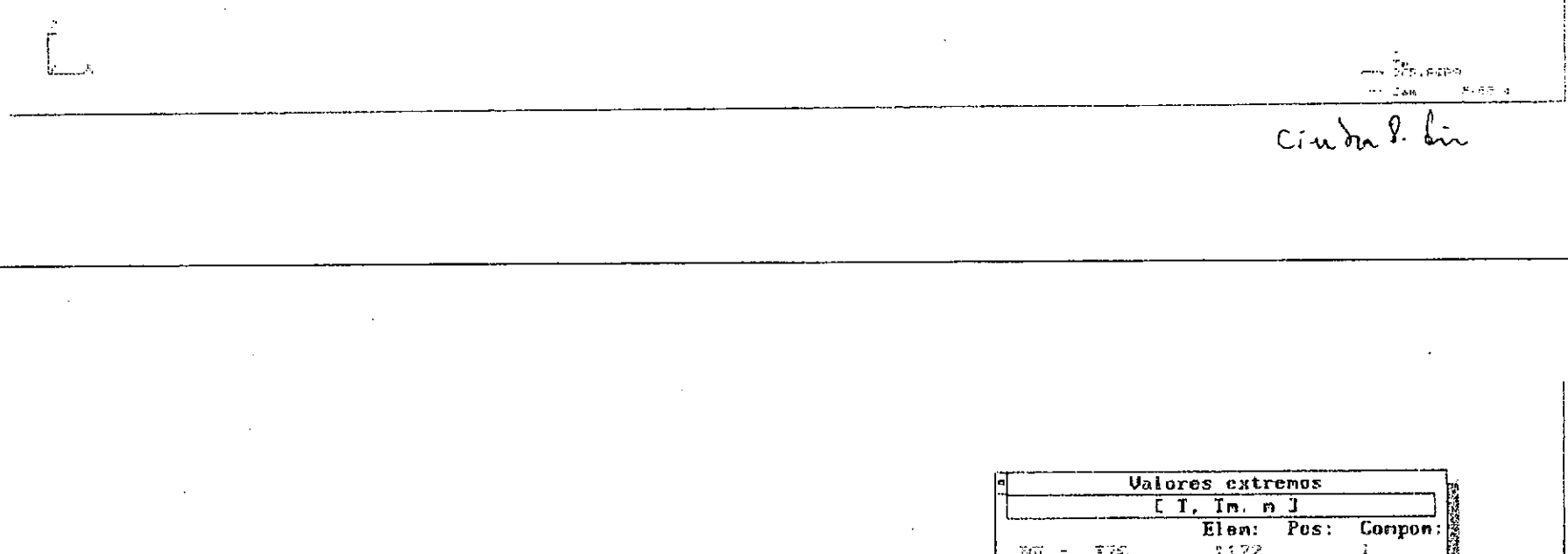
Escala	
Factor de escala	45

Valores extremos			
[T, Tm, m]			
	Elem:	Pos:	Compon:
Max = 0.8233	2236	0.35	1

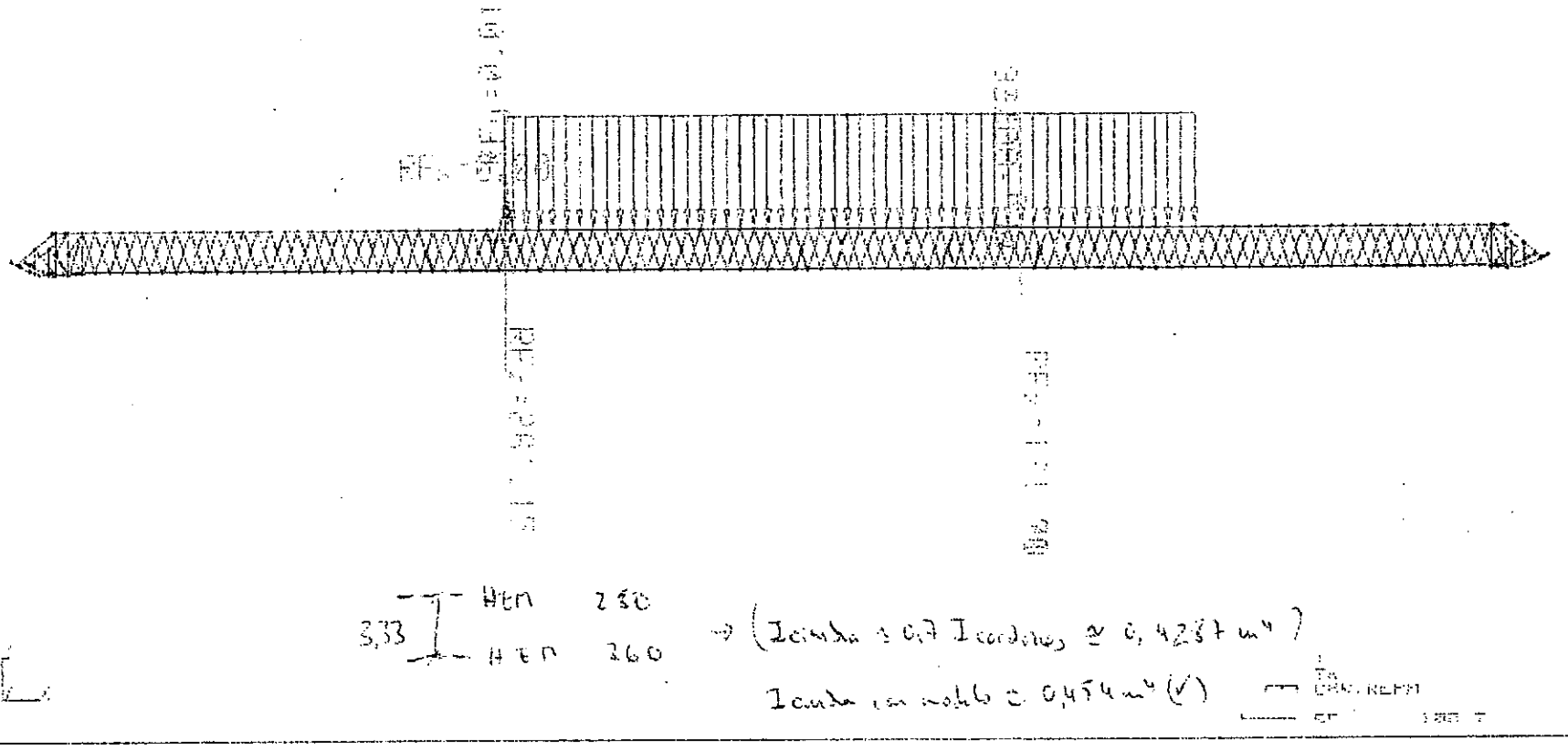


Cimbra 8.dis

Valores extremos			
[T, Tm, m]			
	Elem:	Pos:	Compon:
Min = -.825	1172	1	



Cimbra 8.dis



Hέσ 250
3,33
Hέσ 260

→ (Icimba = 0,7 Icordines ≅ 0,4287 m⁴)

Icimba con nodo = 0,454 m⁴ (✓)

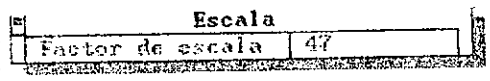
cimba 7. dim

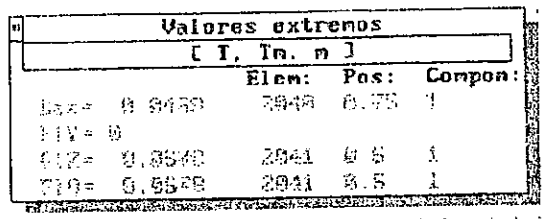
Ief = 0,45427 m⁴

527,42 OK

261,12

vegu. dir



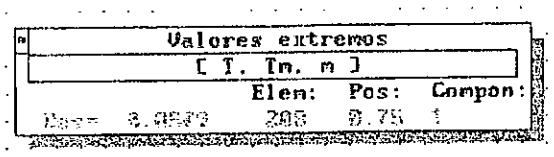


$I_{eq} = 0{,}56152\ m^4$

$0{,}45427\ m^4$

Vegas.lin



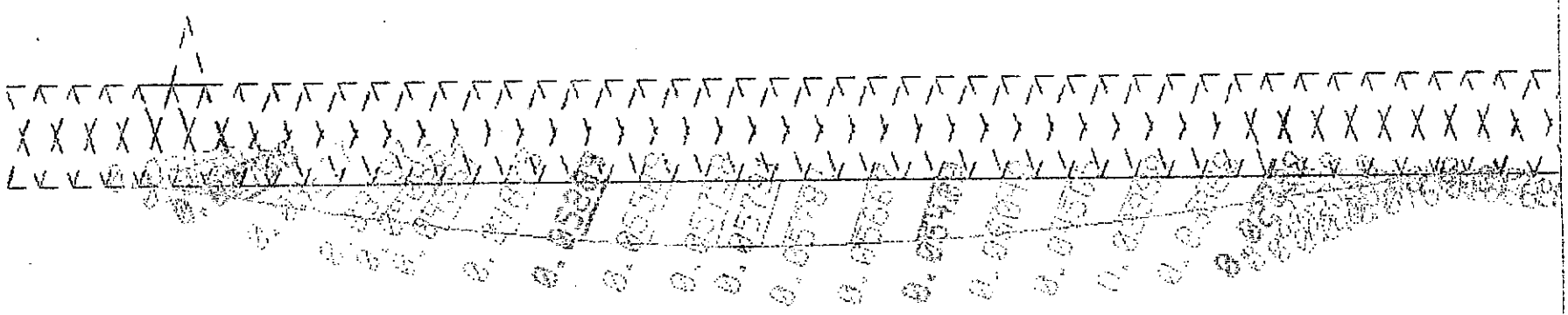




cimbra7.lin

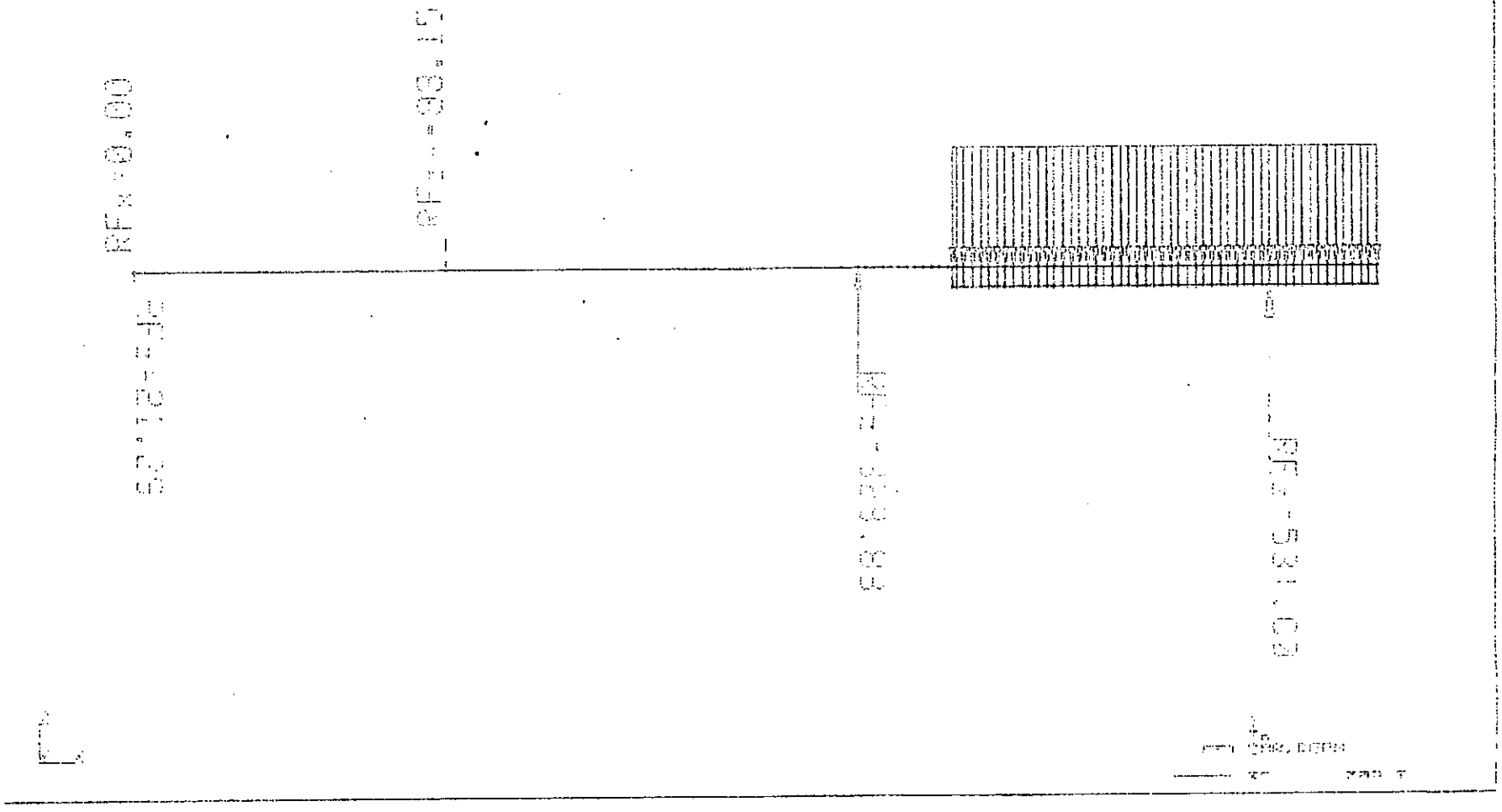
Escala	
Factor de escala	40

Valores extremos [T. In. m]			
	Elem:	Pos:	Compon:
Max= 0.8579	293	0.667	1
Min= 0.8021	289	0.5	1
Max= 0.9555	299	0	1
Min= 0.8555	293	0	1



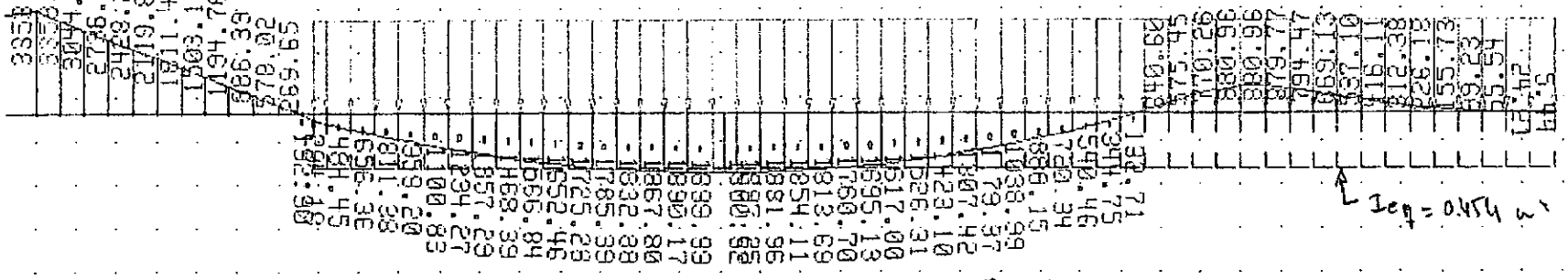
Cumbre 7.dis

Valores extremos [T. In. m]			
	Elem:	Pos:	Compon:
Min = 0.32	5029		1



V-F31.dis

Valores extremos			
[T, Tn, m]			
	Elem:	Pos:	Compon:
MY = 3.35E+003	2196	0	1



1901 m → 75% Peso loa

↑ 538 T ≈ 6 x 132,7

↑ 328 T
328,8 T

V-F31.dim

Escala	
Factor de escala	210

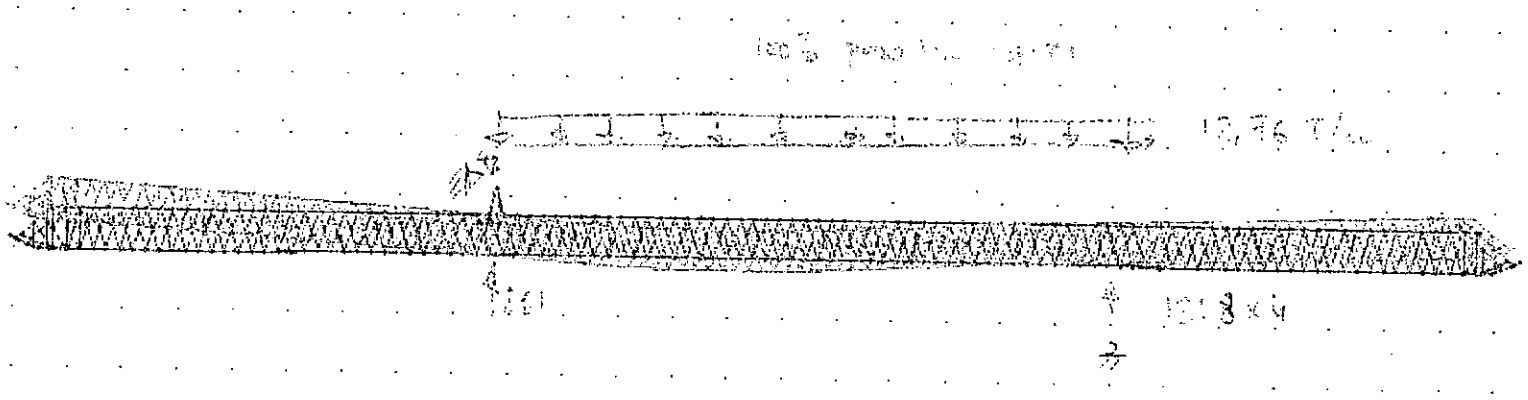
Valores extremos			
[T, Tn, m]			
	Elem:	Pos:	Compon:
Max= 0.8373	2199	0	1
Min= 0			
SUP= 0.6434	2139	0.75	1
INF= 0.6431	2139	0.75	1



V-F31.dim

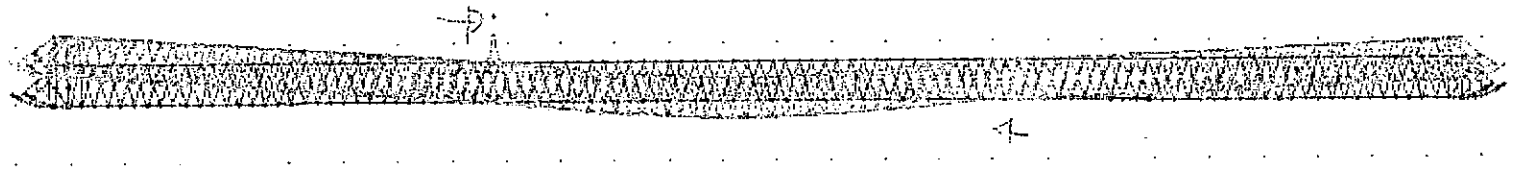
Escala	
Factor de escala	19

Valores extremos [T, Tn, m]			
	Elem:	Pos:	Compon:
Max= 0.145	1325	1	1



Escala	
Factor de escala	30

Valores extremos [T, Tn, m]			
	Elem:	Pos:	Compon:
Max= 0.0944	1325	1	1

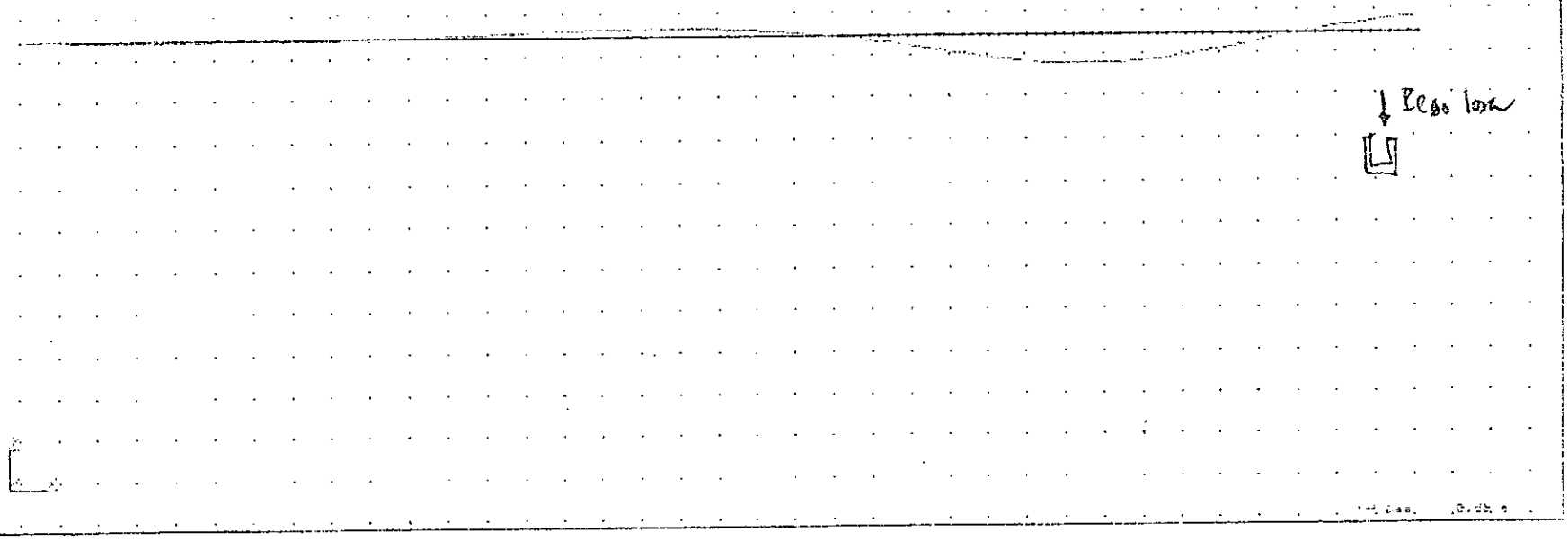


Escala	
Factor de escala	100

Valores extremos [T, Tn, m]			
	Elem:	Pos:	Compon:
Max= 0.0345	2139	0.5	1
Min= 0			
M2= 0.0302	2162	0.25	1
M3= 0.0303	2168	0.25	1

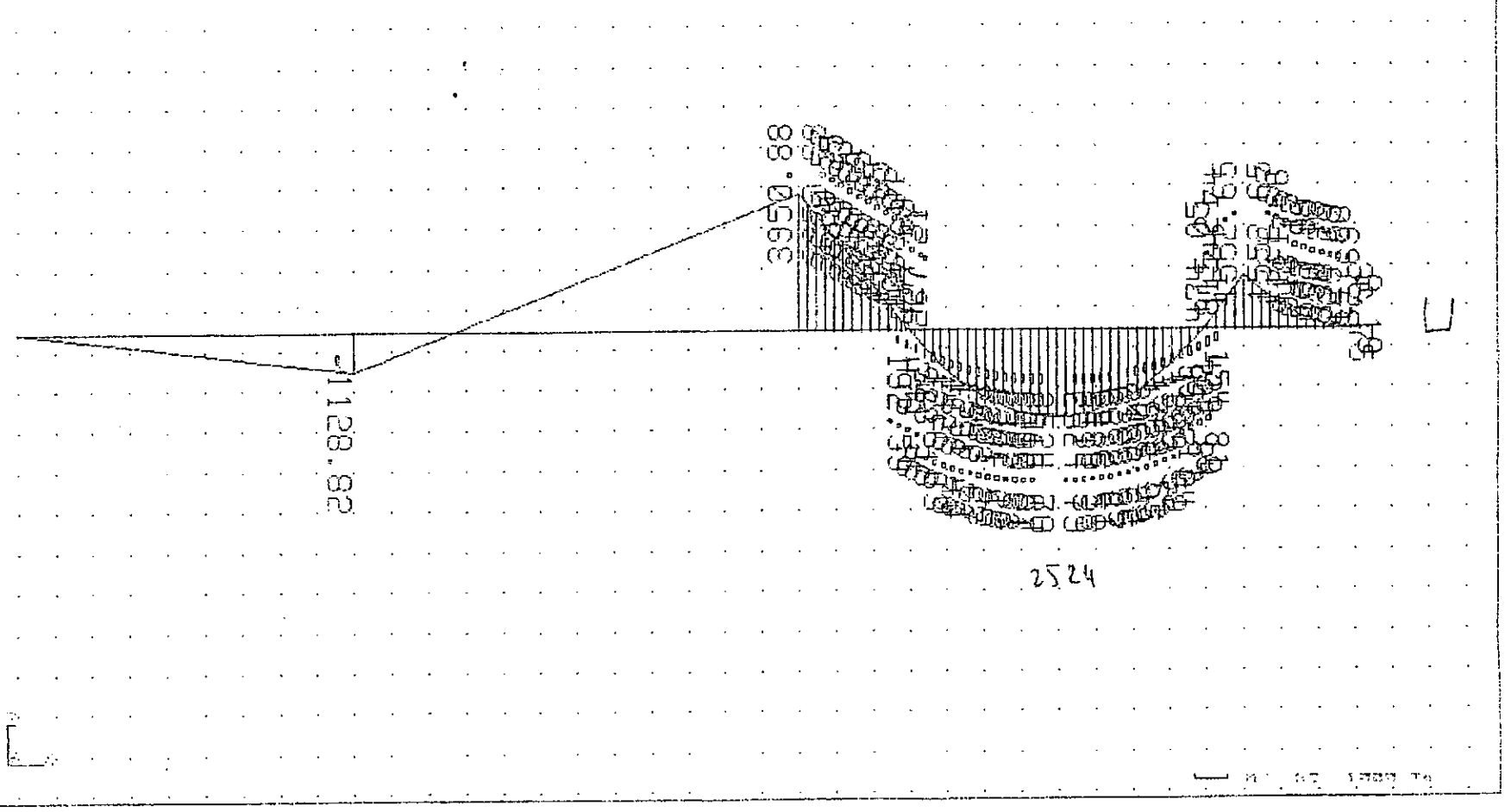
Peso losa

12,76 T/m



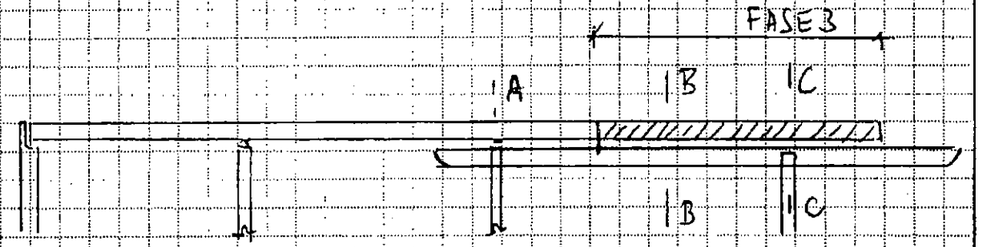
Viga - F31.dim

Valores extremos [T, Tn, m]			
	Elem:	Pos:	Compon:
MY = 3.95E+003	2196	0	1



Viga - F31.dim

ESTUDIO CONSTRUCCIÓN FASE 3



Sección A-A

$M_{max} = M_{cimbra} + M_{Hormigón}$

$= M_{Tablero\ F1-F2} + M_{g\ F3} + M_{cimbra} =$

$= 7280 + 3655 + 3270 = -14205$ mT ✓

$M\ P_i =$

$\sigma_{p_i} = 130$ Kp/cm²

$A_p \geq 649{,}6$ cm² (29 ϕ 0,6")

$1{,}201 \cdot e^{0{,}6\,I}$ ← $P_i = 8445$ T ✓



$A_{Hor} = 13{,}262$ m²

$I = 28{,}524$ m⁴

$V_s = 1{,}8$ m

$V_i = 2{,}19$ m

$M_{max} = -14\,205$ mT

$\sigma_s = -896{,}4$ T/m² ←C→ ✓

$\sigma_i = 1090{,}6$ T/m² →T← ✓ $f_{ck} \geq 2200$ T/m² ($\alpha = 0{,}7$)

$(M_{max} + P_i \cdot 0{,}9)$ γ_p

$\sigma_s = -896{,}4 + 0{,}90 \left[\frac{8445}{13{,}265} + \frac{8445 \cdot 8{,}201}{28.524} \cdot 1{,}8 \right] =$

$= + 0{,}9 \left[636{,}6 + 640 \right] = 252$ T/m² ✓ Comp

TENSIONES EN FIBRA INFERIOR (σ_i)

($\gamma_p = 1{,}0$) $\sigma_i = 1090{,}6 + 1 \left[636 - 779 \right]$

$= 1690{,}6 + 1\,(-143) = 947$ T/m² → $f_{ck} \geq 1900$ T/m²

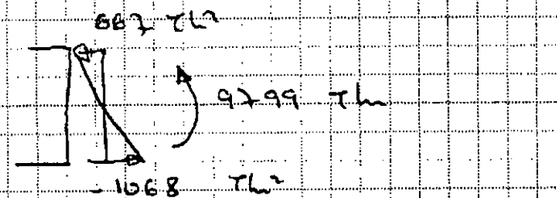
($\gamma_p = 1{,}10$) $\sigma_i = 1090{,}6 - 1{,}1\,143 = 932$ T/m² ✓ (COMP)

Control de tensiones

$t_{\infty} = g_1 + P_{\infty} g_2 + q + 0,6 \nabla T^q$

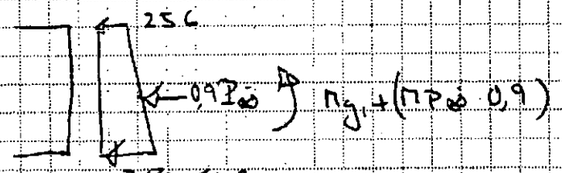
$M_{g_2} + q + 0,6 \nabla T = 2313 + 6917 + 0,6 \cdot 948 = 9799 \text{ T}$

(A)



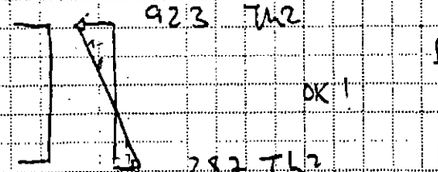
Acumulado (con $\delta_p = 0,90$)

(B)



$n_{g_1} + (n P_{\infty} \cdot 0,9)$

A + B



OK!

$f_{ck} = 28,5 \text{ Kp/cm}^2$

$f_{ctm} = 40,5 \text{ Kp/cm}^2$

$f_{ctk} = 0,21 \sqrt[3]{f_{ck}^2} = 2,85 \text{ MPa}$

$f_{ctm} = 0,3 f_{ck}^{2/3} = 4,07 \text{ MPa}$

Estados de Carga

Para cada una de las fases tenemos:

1º Construcción ⊔ → Peso soportado por cuba

2º Tesado (etapa 1) → actúa sobre sección ⊔ — Su efecto no genera una flecha superior a la ⊔ sin cuba por lo tanto no varía el signo estático

3º Construcción de la losa superior

$12,83 \frac{T}{m}$ = $g_{losa\ superior} \simeq (95)$ T ✓ % → Resistido por ⊔

25 % Resistido por cuba

4º Tesado total ↔ descimbrado

Δg_1

$S_2 = 23,585$

$S_1 = 17,35$ T/m

(*) - El resto del peso del tablero actúa sobre la sección total

- El Pretensado 2ª etapa actúa sobre sección total

(A) ← $P_i^{1T} = -1334\ T$) $M_{P_i}^{1T} = -1489\ mT$

$\sigma_{adm} = 110$

(B) ← 5956,57 $M P_i$

1 F.x | t_i | $M P_i = -7756\ mT$ | $P_i = -7340,5\ T$ | 2ª Fase | $P_i^{\Delta T} = 1384\ T$ | $P_2^{2T} = 5956,57\ T$ (8,112) → $M P_2 = -6293,6\ mT$

t_∞ | $P_\infty = -6333\ T$ | $\Delta P = 1007,5\ T$ | $M P_\infty = -7157\ mT$ | $M_{\Delta P} = 183,5\ mT$ | $M P_\infty = -6155\ mT$ | $M_{\Delta P} = -1184\ mT$) (C) $\Delta P = 1007$

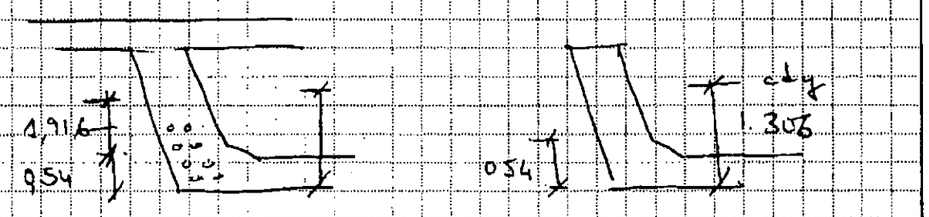
	(A)	(B)	(C)
Secc. Fases: σ_i =	522	+1239 (1761)	-2226 (1538)
$\sigma_{sup,alma}$ =	-90,6		
$\sigma_{sup,losa}$ =	0	+124	-12,9 (111)
Secc. 1 F.x	(+ Comp.)		(C) $\Delta\sigma_i = 1745$

σ_i + 1368 T/m²

σ_s + 100,9 T/m²

t_∞

PEDELTA, S.L.
INGENIERÍA CIVIL
Fecha:
Hoja:



$\times 0,807$

Ca $P_i = -1200\ T$ $M P_i^{\grave{e}sm} = 999\ mT$ $M P^{sk+t} = 742\ T$

$\sigma_i = +212 + \frac{143}{1,15} = 356\ T/m^2$

$\sigma_{s1} = +212$

$P_i = -1500\ T$ $\sigma_i = 4447\ T/m^2$ ✓

↳ 4 cables a $\frac{375}{1,15} = 330 = \sigma_{pi}$ a 105 Kp/mm²

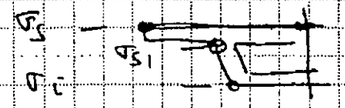
$M_{P_i} = -1419\ mT$

P $\sigma_{pi} = 89,07$ → $P_i = -1384,47\ T$

→ $\sigma_i = 522\ T/m^2$ →

$-522 +$

$M_{\text{Secc fas 3}} = -11353.$



	M/N	σ_s	σ_{s1}	σ_i
(A)	1815	0	575	- 355
(B)	4551	309,8	209	- 496
(C)	- 1236	- 84	- 56,7	+ 134,7
(D)	- 1024	- 69,7	- 47	+ 111,6

$|A+B+C|$ $\sigma_{g_1,i}^{1ªfase} = -716$ T/m² $\sigma_{g_1,s}^{1ªfase} = 226$ T/m²

$|A+B+C+D|$ $\sigma_{g_1,i}^{final} = -604$ T/m² $\sigma_{g_1,sup}^{final} = 156$ T/m²

Construcción en hormigonado con Sección Completa

σ_{inf}: $\sigma_{g_1,inf}^{1ªfase} = -559$ T/m²; $\sigma_{g_1,inf}^{final} = -447$ T/m²

σ_{sup}: $\sigma_{g_1,sup}^{inicial} = 349$ T/m²; $\sigma_{g_1,sup}^{final} = 279$ T/m²

g_1: $M_{ini} = 5130$ mT; $M_{fin} = 4106$ mT

$\sigma_i^{inicial} = -157$ T/m²

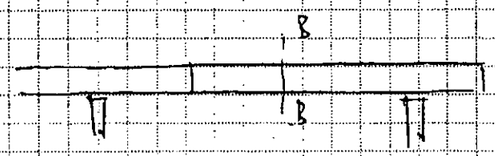
$\sigma_{inferior}^{final} = -157$ T/m²

Influencia Hormigonado en 2 fases

$\sigma_{inferior}$

$\Delta \frac{1815}{I} \cdot V_i = 157$ ✓

Influencia del Pretensado



Para $\Delta p = 649{,}6$ kg/cm²

$P_i = 7340$ T $M_{Pi}^{isos} = -14064$ mT

$P_\infty = 6333$ T $M_{P\infty}^{isos} = -12134$ mT

$M_{Hip,P\infty} = +4976{,}3$ mT ✓ OK

$M_{Hip,Pi} = 5\cancel{76}8$ mT / 6308 mT OK

Fase 3	$M_{Pi} = -11353$ mT	$M_{Hip} = 2711$ mT
Σ Fases	$M_{Pi} = -7756$ mT	$M_{Hip} = 6308$ mT
	$M_{P\infty} = -7157$ mT	$M_{Hip} = 4976$ mT

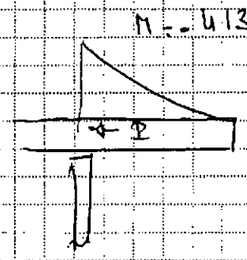
$M_{isost} + M_{Hip}$

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INGENIERÍA CIVIL

Fecha:

Hoja:

Verificación sección A-A en vacío



M_{g1} | $\sigma_s = -261$ Tn/m² ←D→

| $\sigma_i = 318$ Tn/m² →D←

$M_{P_i} + P_{\infty}$ | $\sigma_s = +1276$ Tn/m²

| $\sigma_i = -143$ Tn/m² (Trac.)

$g_1 + P_i =$ | $\sigma_s = 1015$ Tn/m² → $f_{ck} > 201$ kp/cm²

| $\sigma_i = 175$ Tn/m² ✓ OK

Cumple

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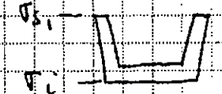
Fecha:

Hoja:

TENSIONES NORMALES EN SECCIÓN ℄ FASES

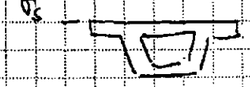
SECC - B - B

(A) 2ª Hormigonado



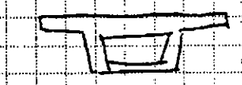
≃ 1815 mT (± 7% peso losa tipo)

(B) Desencofrado



≃ (6366 - 1815) = 4551 mT

(C) Construcción de siguientes fases



[5130 - 6366] = -1236 mT

(D) Δ Flemia (g_1)



[4106 - 5130] = -1024 mT

Análisis comparativo del estudio del peso propio + Pretensado inicial en la fase 5, comparando cálculo en 1 etapa o en dos etapas
Tensiones a tiempo inicial

Conclusiones

Las tensiones de compresión en CL son ligeramente mayores 10-12 Kp/cm2
Las tensiones de compresión en Apoyoso son ligeramente menores 6- 10 Kp/cm2

	calculo en 1 fase				calculo en 1 etapa				Cálculo en dos etapas Cálculo tensiones en etapa 2				Suma etapas 1 y 2				Diferencia			
Barra	TS1	TI1	TS2	TI2	TS-a1	TI1	TS-a2	TI2	TS1	TI1	TS2	TI2	TS-1	TI1	TS-2	TI2	TS-1	TI1	TS-2	TI2
50	-372.3	-1233.8	-352.9	-1264.8	-282.8	-182.2	-292.8	-175.996	-240.0	-1,170.0	-221.2	-1,200.1	-240.0	-1352.2	-221.2	-1376.1	132.3	-118.4	131.7	-111.3
51	-357.9	-1269.7	-353.4	-1276.9	-294.1	-177.3	-283.7	-183.765	-225.5	-1,204.5	-223.2	-1,208.2	-225.5	-1381.8	-223.2	-1391.9	132.4	-112.1	130.2	-115.1
52	-360.4	-1283.8	-372.0	-1265.1	-285.1	-185.2	-271.0	-193.904	-229.0	-1,213.9	-244.0	-1,189.9	-229.0	-1399.1	-244.0	-1383.8	131.4	-115.4	128.1	-118.7
53	-381.0	-1274.0	-410.8	-1226.1	-273.1	-196.1	-260.8	-203.701	-251.1	-1,197.0	-285.2	-1,142.5	-251.1	-1393.1	-285.2	-1346.2	129.8	-119.2	125.6	-120.1
54	-421.4	-1236.7	-472.1	-1155.5	-263.2	-206.1	-253.8	-211.865	-293.5	-1,150.8	-348.6	-1,062.7	-293.5	-1356.9	-348.6	-1274.6	127.8	-120.2	123.5	-119.0
55	-483.7	-1167.3	-558.0	-1048.4	-256.2	-214.3	-250.9	-217.669	-357.7	-1,071.9	-435.8	-946.8	-357.7	-1286.2	-435.8	-1164.5	126.0	-118.9	122.2	-116.1
56	-570.2	-1060.6	-670.8	-899.7	-253.4	-220.1	-253.1	-220.322	-445.3	-956.4	-548.5	-791.1	-445.3	-1176.5	-548.5	-1011.4	124.9	-115.9	122.2	-111.8
57	-682.5	-911.4	-810.4	-706.7	-255.4	-222.6	-260.7	-219.312	-557.8	-800.3	-687.0	-593.4	-557.8	-1023.0	-687.0	-812.7	124.8	-111.5	123.4	-106.1
58	-822.4	-718.6	-1133.5	-220.4	-262.9	-221.5	-308.4	-193.473	-696.3	-602.8	-983.0	-143.7	-696.3	-824.3	-983.0	-337.2	126.1	-105.7	150.5	-116.8
59	-966.9	-245.6	-1122.7	-56.2	-221.5	-134.2	-232.7	-127.935	-840.4	-177.4	-997.6	13.6	-840.4	-311.6	-997.6	-114.3	126.5	-66.0	125.2	-58.1
60	-1129.5	-62.9	-1111.2	-85.2	-233.1	-128.3	-158.3	-170.049	-1,003.8	7.3	-1,016.5	22.8	-1,003.8	-121.0	-1,016.5	-147.3	125.7	-58.1	94.6	-62.1
61	-1130.8	-104.8	-1181.5	-43.2	-165.5	-177.1	-238.9	-136.157	-1,033.5	5.9	-1,049.4	25.2	-1,033.5	-171.3	-1,049.4	-110.9	97.4	-66.5	132.1	-67.7
62	-1190.8	-52.5	-880.4	-429.7	-233.1	-130.3	-187.3	-155.869	-1,057.1	17.5	-770.6	-330.9	-1,057.1	-112.9	-770.6	-486.7	133.6	-60.3	109.9	-57.0
63	-1044.0	-473.4	-884.0	-729.5	-266.0	-224.6	-247.4	-236.106	-910.1	-353.5	-752.1	-606.5	-910.1	-578.1	-752.1	-842.6	133.9	-104.7	132.0	-113.2
64	-876.2	-721.6	-746.2	-929.8	-245.9	-234.6	-232.8	-242.721	-745.5	-600.0	-615.8	-807.8	-745.5	-834.6	-615.8	-1050.5	130.7	-112.9	130.5	-120.7
65	-735.0	-918.6	-627.8	-1090.3	-230.6	-240.5	-223.6	-244.809	-606.8	-798.8	-498.6	-972.2	-606.8	-1039.4	-498.6	-1217.0	128.2	-120.7	129.2	-126.6
66	-595.5	-861.4	-515.7	-989.2	-216.5	-213.7	-219.9	-211.598	-472.1	-779.2	-389.6	-911.3	-472.1	-992.8	-389.6	-1122.9	123.4	-131.5	126.1	-133.7
67	-516.0	-989.6	-452.8	-1090.8	-221.0	-212.7	-222.9	-211.557	-390.6	-912.4	-325.3	-1,017.0	-390.6	-1125.2	-325.3	-1228.5	125.4	-135.6	127.5	-137.8
68	-453.5	-1091.4	-406.0	-1167.4	-224.3	-213.0	-225.3	-212.359	-326.6	-1,018.3	-277.9	-1,096.2	-326.6	-1231.2	-277.9	-1308.6	126.9	-139.9	128.1	-141.2
69	-407.7	-1169.0	-375.2	-1221.1	-226.9	-213.9	-227.4	-213.588	-279.9	-1,098.2	-247.4	-1,150.2	-279.9	-1312.1	-247.4	-1363.8	127.8	-143.1	127.7	-142.7
70	-378.3	-1224.2	-360.3	-1253.0	-229.1	-215.3	-227.2	-216.439	-250.5	-1,153.3	-234.0	-1,179.6	-250.5	-1368.6	-234.0	-1396.0	127.8	-144.4	126.2	-143.0
71	-365.3	-1257.9	-362.2	-1262.8	-228.5	-217.8	-206.3	-231.543	-238.4	-1,183.9	-238.4	-1,183.8	-238.4	-1401.7	-238.4	-1415.4	126.9	-143.8	123.8	-152.5
72	-369.1	-1269.7	-382.2	-1248.8	-207.7	-233.0	-181.7	-249.002	-244.2	-1,189.6	-261.6	-1,161.7	-244.2	-1422.6	-261.6	-1410.7	125.0	-152.8	120.6	-161.8
73	-391.1	-1257.7	-422.3	-1207.7	-183.9	-251.2	-159.6	-266.163	-268.7	-1,168.8	-305.2	-1,110.6	-268.7	-1420.0	-305.2	-1376.7	122.3	-162.3	117.2	-169.0
74	-432.9	-1218.3	-484.9	-1135.0	-162.0	-268.5	-140.7	-281.654	-313.5	-1,118.8	-370.9	-1,027.0	-313.5	-1387.3	-370.9	-1308.7	119.4	-169.1	114.1	-173.7
75	-496.6	-1146.7	-572.2	-1025.6	-143.1	-284.2	-125.9	-294.774	-380.0	-1,036.1	-460.5	-907.3	-380.0	-1320.3	-460.5	-1202.1	116.6	-173.6	111.7	-176.5
76	-584.4	-1037.8	-686.3	-874.7	-128.4	-297.3	-116.2	-304.801	-470.0	-916.8	-575.6	-747.8	-470.0	-1214.1	-575.6	-1052.6	114.4	-176.2	110.7	-177.9
77	-698.1	-886.5	-827.4	-679.5	-118.5	-307.1	-111.9	-311.129	-584.8	-757.0	-716.4	-546.3	-584.8	-1064.1	-716.4	-857.5	113.3	-177.6	111.0	-177.9
78	-839.3	-691.5	-1151.9	-191.0	-114.2	-313.4	-147.8	-292.63	-725.7	-555.7	-1,014.9	-92.8	-725.7	-869.0	-1,014.9	-385.4	113.6	-177.5	137.0	-194.3
79	-983.9	-224.9	-1141.0	-34.0	-94.9	-204.8	-96.8	-203.76	-869.9	-141.5	-1,029.3	52.1	-869.9	-346.3	-1,029.3	-151.6	114.0	-121.4	111.7	-117.6
80	-1147.8	-40.7	-1130.7	-61.5	-97.2	-204.2	-13.0	-251.107	-1,035.5	45.9	-1,050.4	64.0	-1,035.5	-158.3	-1,050.4	-187.1	112.2	-117.6	80.3	-125.7
81	-1150.4	-81.0	-1196.6	-24.9	-20.1	-258.2	-126.6	-198.792	-1,067.4	47.1	-1,075.6	57.1	-1,067.4	-211.1	-1,075.6	-141.7	83.0	-130.0	121.0	-116.8
82	-1205.9	-34.2	-891.2	-416.6	-120.8	-193.0	-108.0	-200.078	-1,083.4	49.3	-789.1	-308.3	-1,083.4	-143.6	-789.1	-508.4	122.5	-109.5	102.1	-91.7
83	-1055.6	-454.8	-890.8	-718.6	-165.4	-286.7	-188.7	-272.305	-930.1	-321.4	-763.8	-587.8	-930.1	-608.1	-763.8	-860.1	125.4	-153.3	127.1	-141.5
84	-883.0	-710.8	-748.2	-926.6	-187.2	-270.8	-216.0	-253.042	-757.2	-581.3	-619.1	-802.4	-757.2	-852.1	-619.1	-1055.4	125.8	-141.3	129.1	-128.8
85	-737.0	-915.4	-625.0	-1094.8	-213.8	-250.9	-248.8	-229.284	-610.2	-793.4	-493.7	-980.0	-610.2	-1044.3	-493.7	-1209.3	126.8	-128.9	131.3	-114.5
86	-592.8	-865.7	-508.1	-1001.3	-241.7	-198.1	-286.9	-170.187	-467.2	-787.0	-376.3	-932.5	-467.2	-985.1	-376.3	-1102.7	125.6	-119.4	131.8	-101.4

Análisis comparativo del estudio del peso propio + Pretensado inicial en la fase 5, comparando cálculo en 1 etapa o en dos etapas
Tensiones a tiempo inicial

Conclusiones

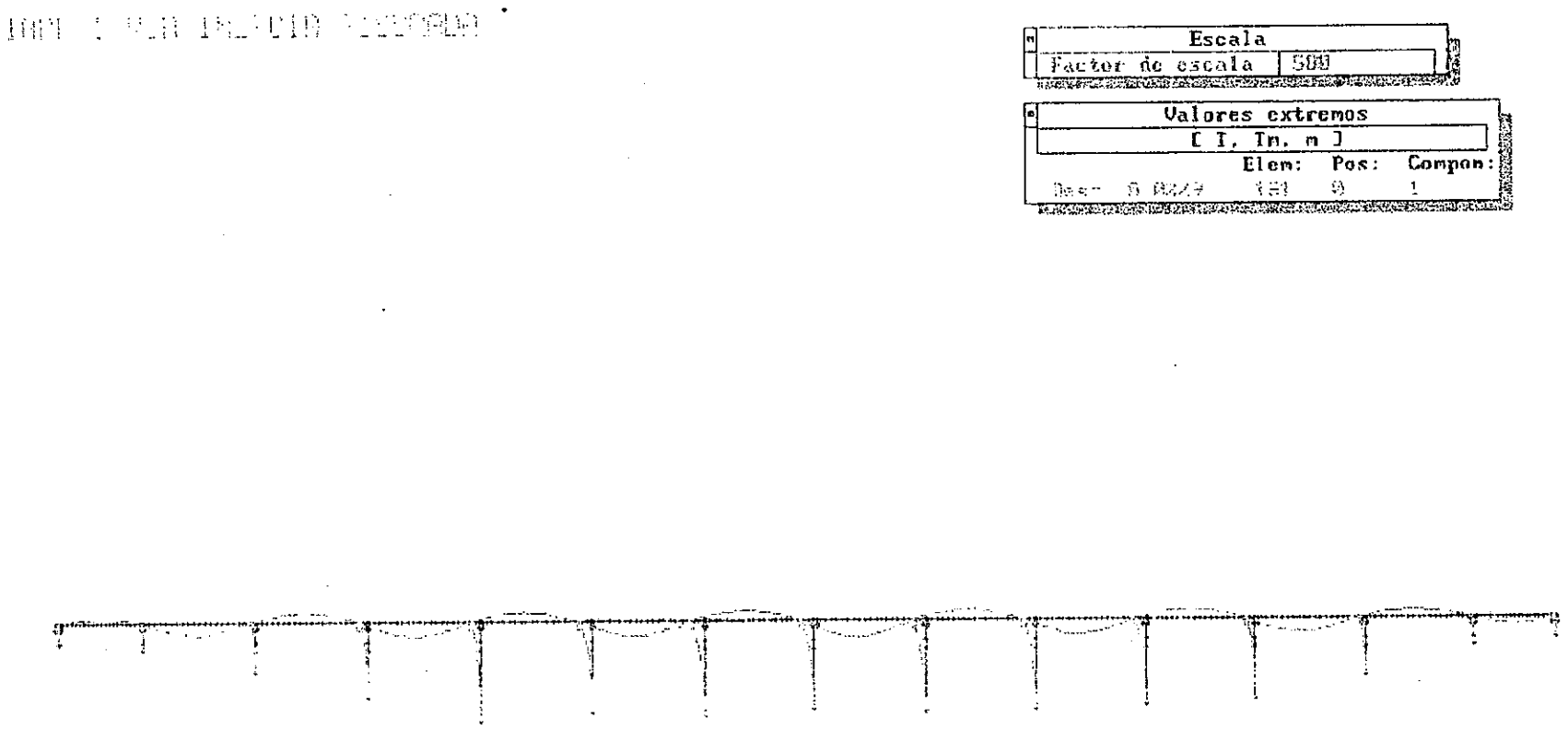
Las tensiones de compresión en CL son ligeramente mayores 10-12 Kp/cm2
Las tensiones de compresión en Apoyoso son ligeramente menores 6- 10 Kp/cm2

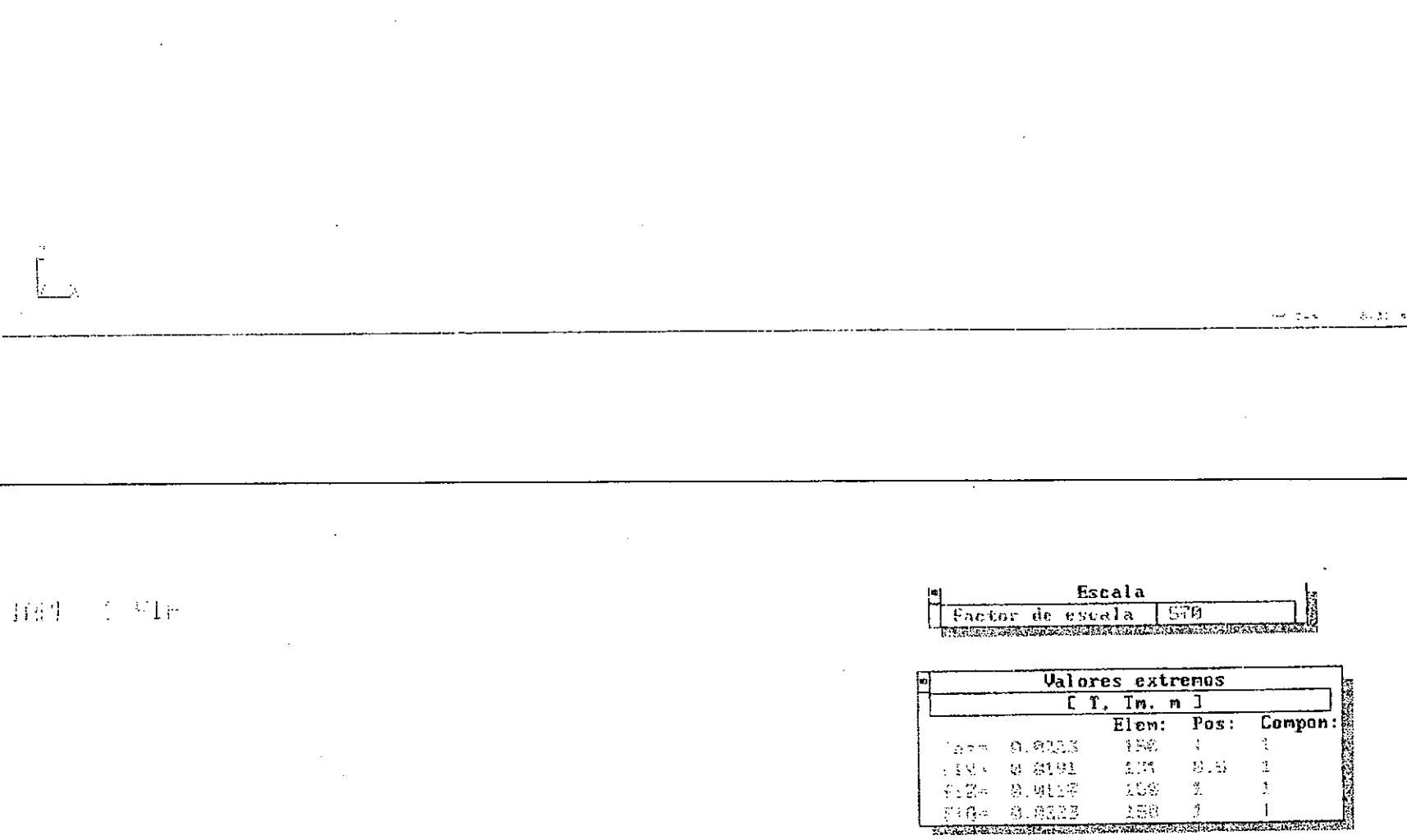
	calculo en 1 fase				calculo en 1 etapa				Cálculo en dos etapas Cálculo tensiones en etapa 2				Suma etapas 1 y 2				Diferencia			
Barra	TS1	TI1	TS2	TI2	TS-a1	TI1	TS-a2	TI2	TS1	TI1	TS2	TI2	TS-1	TI1	TS-2	TI2	TS-1	TI1	TS-2	TI2
1	-569.0	-772.4	-518.9	-852.7	-201.5	-168.1	-224.5	-153.916	-486.5	-660.4	-429.7	-751.3	-486.5	-828.5	-429.7	-905.2	82.5	-56.1	89.2	-52.6
2	-520.4	-854.2	-472.6	-930.9	-225.2	-154.6	-239.9	-145.507	-431.2	-752.8	-378.2	-837.6	-431.2	-907.4	-378.2	-983.1	89.3	-53.1	94.4	-52.2
3	-474.7	-933.0	-432.4	-1000.6	-240.8	-146.4	-249.2	-141.181	-380.2	-839.7	-333.9	-913.8	-380.2	-986.0	-333.9	-1055.0	94.5	-53.0	98.5	-54.4
4	-434.2	-1002.4	-397.7	-1060.8	-250.1	-142.0	-252.4	-140.582	-335.6	-915.6	-296.1	-978.9	-335.6	-1057.6	-296.1	-1119.5	98.5	-55.2	101.6	-58.6
5	-399.3	-1062.5	-368.5	-1111.7	-253.2	-141.4	-249.4	-143.693	-297.8	-980.6	-265.1	-1,033.0	-297.8	-1122.0	-265.1	-1176.7	101.5	-59.5	103.5	-64.9
6	-370.3	-1113.4	-345.1	-1153.7	-250.2	-144.5	-240.5	-150.486	-266.8	-1,034.7	-240.9	-1,076.3	-266.8	-1179.2	-240.9	-1226.7	103.5	-65.8	104.2	-73.0
7	-347.1	-1155.7	-327.5	-1187.1	-241.4	-151.3	-225.8	-160.938	-242.8	-1,078.2	-223.6	-1,109.0	-242.8	-1229.5	-223.6	-1269.9	104.3	-73.8	103.9	-82.8
8	-330.0	-1189.5	-315.8	-1212.1	-226.7	-161.8	-205.3	-174.996	-225.9	-1,111.3	-213.4	-1,131.2	-225.9	-1273.1	-213.4	-1306.2	104.1	-83.5	102.4	-94.1
9	-318.8	-1215.1	-310.3	-1228.7	-206.3	-175.9	-179.2	-192.617	-216.1	-1,133.9	-210.5	-1,142.9	-216.1	-1309.8	-210.5	-1335.5	102.7	-94.7	99.9	-106.8
10	-313.9	-1232.3	-313.8	-1232.4	-180.3	-193.6	-151.2	-211.546	-213.6	-1,145.9	-217.3	-1,140.1	-213.6	-1339.6	-217.3	-1351.6	100.3	-107.3	96.6	-119.2
11	-319.1	-1237.8	-332.5	-1216.3	-152.8	-213.1	-127.6	-228.724	-221.8	-1,144.6	-239.1	-1,116.9	-221.8	-1357.7	-239.1	-1345.6	97.4	-120.0	93.4	-129.2
12	-338.7	-1222.6	-366.5	-1178.1	-129.3	-230.5	-108.3	-243.384	-244.2	-1,122.0	-275.9	-1,071.2	-244.2	-1352.5	-275.9	-1314.6	94.5	-129.9	90.6	-136.6
13	-373.5	-1185.1	-416.8	-1115.8	-110.2	-245.2	-94.4	-254.958	-281.7	-1,077.0	-328.6	-1,001.8	-281.7	-1322.2	-328.6	-1256.8	91.8	-137.1	88.2	-141.0
14	-424.4	-1123.4	-484.4	-1027.4	-96.3	-256.8	-86.3	-263.04	-334.8	-1,008.0	-398.0	-906.8	-334.8	-1264.8	-398.0	-1169.9	89.6	-141.4	86.4	-142.5
15	-492.2	-1035.3	-570.1	-910.7	-88.2	-264.9	-84.5	-267.21	-404.4	-913.2	-484.6	-784.7	-404.4	-1178.1	-484.6	-1052.0	87.9	-142.8	85.4	-141.3
16	-577.8	-918.4	-674.3	-763.9	-86.3	-269.0	-89.2	-267.186	-490.9	-791.0	-589.0	-634.0	-490.9	-1060.0	-589.0	-901.2	86.9	-141.6	85.3	-137.3
17	-681.4	-771.0	-796.9	-586.2	-90.7	-268.7	-100.5	-262.693	-594.8	-639.8	-710.9	-454.0	-594.8	-908.6	-710.9	-716.7	86.6	-137.6	86.0	-130.5
18	-804.3	-593.5	-1080.8	-150.8	-102.0	-264.2	-147.6	-236.08	-716.9	-460.0	-972.6	-50.6	-716.9	-724.2	-972.6	-286.7	87.4	-130.7	108.1	-135.8
19	-921.8	-187.2	-1025.1	-61.6	-97.7	-164.8	-92.8	-167.575	-833.4	-105.0	-941.6	26.5	-833.4	-269.8	-941.6	-141.0	88.4	-82.7	83.5	-79.4
20	-1035.0	-71.6	-1016.5	-94.2	-95.6	-170.4	14.3	-231.653	-950.5	17.7	-955.9	24.3	-950.5	-152.7	-955.9	-207.4	84.5	-81.2	60.5	-113.2
21	-1030.8	-108.4	-1089.3	-37.4	10.1	-235.7	-103.7	-172.279	-968.4	11.9	-988.9	36.8	-968.4	-223.9	-988.9	-135.5	62.4	-115.5	100.4	-98.1
22	-1097.8	-45.9	-822.6	-380.3	-97.7	-166.2	-92.6	-169.056	-996.1	29.6	-733.8	-289.1	-996.1	-136.6	-733.8	-458.2	101.7	-90.7	88.8	-77.9
23	-973.7	-413.8	-836.3	-633.6	-141.4	-242.2	-164.5	-227.922	-864.9	-301.9	-722.0	-530.7	-864.9	-544.1	-722.0	-758.6	108.8	-130.3	114.4	-125.0
24	-829.2	-626.5	-717.9	-804.6	-163.2	-226.6	-186.8	-211.98	-715.9	-524.7	-598.5	-712.6	-715.9	-751.3	-598.5	-924.5	113.3	-124.8	119.4	-120.0
25	-707.9	-794.6	-615.4	-942.7	-184.9	-210.1	-209.6	-194.859	-590.4	-704.4	-491.7	-862.4	-590.4	-914.5	-491.7	-1057.3	117.5	-119.9	123.7	-114.6
26	-597.4	-858.3	-516.4	-988.0	-211.2	-216.9	-223.6	-209.273	-475.4	-773.9	-390.9	-909.2	-475.4	-990.8	-390.9	-1118.5	122.0	-132.5	125.5	-130.5
27	-516.8	-988.4	-452.5	-1091.3	-224.7	-210.4	-235.7	-203.635	-392.0	-910.3	-324.7	-1,018.0	-392.0	-1120.7	-324.7	-1221.6	124.8	-132.3	127.8	-130.3
28	-453.1	-1092.0	-404.6	-1169.7	-237.1	-205.1	-247.3	-198.827	-326.0	-1,019.2	-275.3	-1,100.4	-326.0	-1224.3	-275.3	-1299.2	127.1	-132.3	129.2	-129.5
29	-406.2	-1171.4	-372.5	-1225.3	-248.8	-200.4	-258.4	-194.438	-277.3	-1,102.3	-242.9	-1,157.4	-277.3	-1302.7	-242.9	-1351.9	128.9	-131.3	129.6	-126.6
30	-375.7	-1228.4	-356.5	-1259.0	-260.1	-196.2	-267.3	-191.682	-246.0	-1,160.5	-227.6	-1,189.9	-246.0	-1356.6	-227.6	-1381.6	129.7	-128.3	129.0	-122.6
31	-361.5	-1264.0	-357.4	-1270.6	-268.7	-193.0	-255.6	-201.136	-231.9	-1,194.2	-230.0	-1,197.3	-231.9	-1387.3	-230.0	-1398.4	129.5	-123.3	127.3	-127.8
32	-364.3	-1277.5	-376.2	-1258.5	-257.0	-202.6	-240.1	-212.99	-235.8	-1,203.0	-251.3	-1,178.2	-235.8	-1405.6	-251.3	-1391.2	128.5	-128.1	124.9	-132.8
33	-385.1	-1267.3	-415.2	-1219.1	-242.2	-215.2	-227.2	-224.482	-258.4	-1,185.4	-292.9	-1,130.3	-258.4	-1400.6	-292.9	-1354.7	126.7	-133.3	122.3	-135.6
34	-425.7	-1229.7	-476.6	-1148.2	-229.5	-226.8	-217.3	-234.373	-301.2	-1,138.6	-356.6	-1,049.8	-301.2	-1365.4	-356.6	-1284.2	124.6	-135.7	120.0	-136.0
35	-488.4	-1159.9	-562.9	-1040.6	-219.8	-236.9	-211.7	-241.838	-365.8	-1,059.0	-444.3	-933.2	-365.8	-1295.8	-444.3	-1175.0	122.6	-135.9	118.5	-134.4
36	-575.1	-1052.8	-675.8	-891.5	-214.1	-244.3	-211.1	-246.219	-453.9	-942.7	-557.5	-776.8	-453.9	-1187.1	-557.5	-1023.0	121.2	-134.3	118.4	-131.5
37	-687.6	-903.3	-815.8	-698.1	-213.4	-248.5	-216.0	-246.909	-566.7	-786.0	-696.3	-578.5	-566.7	-1034.5	-696.3	-825.4	120.9	-131.3	119.4	-127.3
38	-827.7	-710.0	-1139.2	-211.4	-218.2	-249.1	-260.9	-222.768	-705.7	-587.8	-992.9	-128.0	-705.7	-836.9	-992.9	-350.7	122.0	-126.9	146.3	-139.3
39	-972.1	-239.2	-1128.2	-49.5	-184.1	-155.1	-193.2	-150	-849.5	-166.3	-1,007.1	25.2	-849.5	-321.4	-1,007.1	-124.8	122.6	-82.1	121.1	-75.3
40	-1134.9	-56.3	-1116.9	-78.3	-193.6	-150.4	-116.6	-193.322	-1,013.3	18.9	-1,026.4	34.8	-1,013.3	-131.5	-1,026.4	-158.5	121.6	-75.2	90.4	-80.2
41	-1136.5	-97.9	-1185.9	-37.9	-123.7	-200.4	-206.5	-154.231	-1,043.4	17.9	-1,057.1	34.6	-1,043.4	-182.5	-1,057.1	-119.6	93.1	-84.6	128.8	-81.8
42	-1195.2	-47.2	-883.7	-425.8	-200.7	-148.4	-164.2	-168.729	-1,064.9	26.8	-776.2	-324.1	-1,064.9	-121.6	-776.2	-492.8	130.3	-74.4	107.5	-67.0
43	-1047.5	-467.8	-886.1	-726.1	-236.7	-242.7	-229.9	-246.855	-916.1	-343.8	-755.7	-600.7	-916.1	-586.5	-755.7	-847.6	131.3	-118.7	130.4	-121.5
44	-878.3	-718.3	-746.9	-928.6	-228.5	-245.4	-227.2	-246.138	-749.2	-594.2	-617.0	-805.7	-749.2	-839.5	-617.0	-1051.9	129.1	-121.3	129.9	-123.2
45	-735.7	-917.5	-627.1	-1091.4	-225.0	-244.0	-229.8	-240.971	-608.1	-796.8	-497.5	-973.9	-608.1	-1040.8	-497.5	-1214.8	127.6	-123.3	129.6	-123.5
46	-594.9	-862.4	-513.7	-992.4	-222.8	-209.8	-238.0	-200.425	-471.0	-780.9	-386.1	-916.8	-471.0	-990.7	-386.1	-1117.3	123.8	-128.3	127.6	-124.9
47	-514.0	-992.8	-449.6	-1096.0	-239.1	-201.6	-252.8	-193.063	-387.2	-917.9	-319.5	-1,026.3	-387.2	-1119.5	-319.5	-1219.3	126.8	-126.7	130.0	-123.3
48	-450.2	-1096.7	-401.4	-1174.8	-254.3	-194.5	-267.2	-186.545	-320.8	-1,027.5	-269.8	-1,109.2	-320.8	-1222.0	-269.8	-1295.8	129.4	-125.4	131.6	-121.0
49	-403.0	-1176.4	-369.2	-1230.7	-268.7	-188.1	-281.0	-180.468	-271.8	-1,111.2	-237.0	-1,167.0	-271.8	-1299.3	-237.0	-1347.5	131.3	-122.9	132.2	-116.8

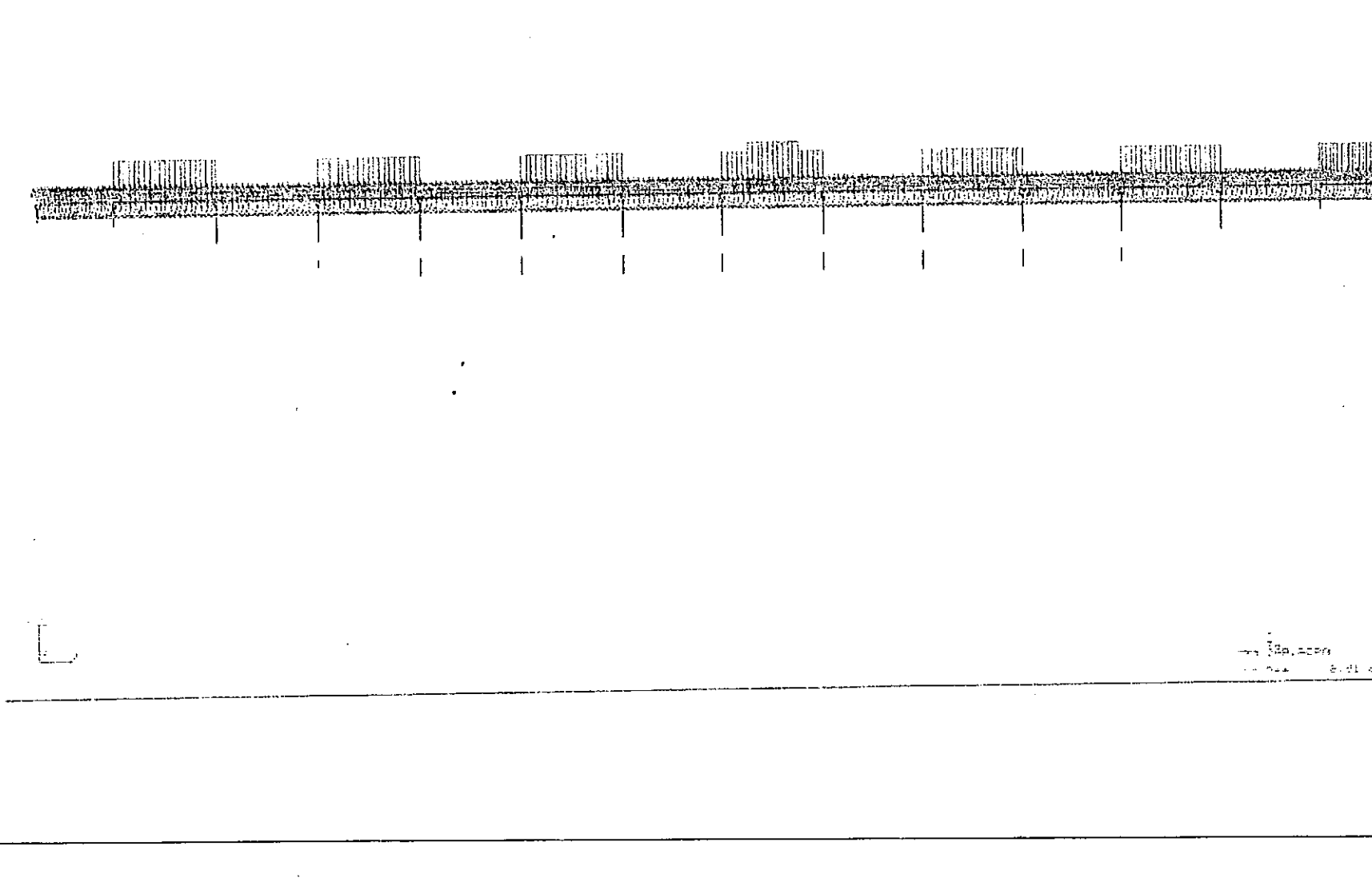
5.2. ESTADO LÍMITE DE DEFORMACIONES

En el presente apartado se calcula el valor de la flecha máxima, comprobándose que la relación flecha/luz se encuentra por debajo del valor 1/2000 para un tren tipo LM-71 definido en el EC-1.

En las hojas siguientes se muestra la deformada para la posición del tren LM-71 más desfavorable.


Escala
Factor de escala 500
Valores extremos
[T, Tm, m]
Elem: Pos: Compon:


Escala
Factor de escala 570
Valores extremos
[T, Tm, m]
Elem: Pos: Compon:



5.3. ESTADO LÍMITE DE VIBRACIONES

En este apartado se comprueba que la primera frecuencia de vibración en el modo de flexión se encuentra dentro del rango de valores admitidos por el EC-1.

De acuerdo con el EC-1 (apartado 4.2.1.2, condiciones de comodidad para los usuarios), la aceleración vertical bv se puede estimar como muy buena (bv< $1 m/s^2$).

Los valores límite de deformación para un nivel de comodidad muy bueno (bv< $1 m/s^2$) el tren LM-71 en el eje de vía se pueden obtener a partir del gráfico 4.3. En el caso de puentes contínuos con 3 o más vanos, los valores L/δ se pueden multiplicar por un coeficiente igual a 0,90. Se puede comprobar que el valor de la relación Luz/flecha límite para una velocidad de 350 km/h y una luz de 60 m es:

$$L/\delta = 2200$$

La flecha máxima obtenida para el tren LM-71 es inferior a δ = 2.0 cm y por tanto se comprueba que L/δ=3000.

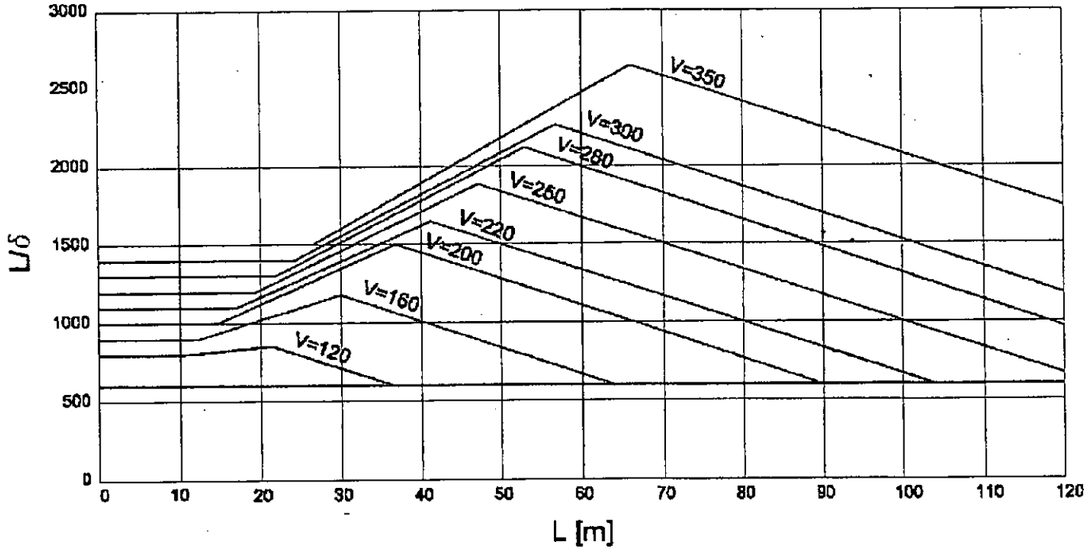


Figura 4.3: *Valores límite para la deformación vertical máxima δ por condiciones de comodidad de los viajeros, en función de la velocidad máxima de proyecto V y la luz del vano L. Estructura de n tramos sucesivos, simplemente apoyados, con* $n \geq 3; b_v = 1{,}0\, m/s^2$.

6 VERIFICACIÓN DEL E.L.U DE ROTURA POR TENSIONES NORMALES

6.1 FLEXIÓN LONGITUDINAL

En este apartado se comprueba el Estado Límite Último de rotura por flexión longitudinal de acuerdo con los criterios de la Normativa española vigente (EHE)

Los cálculos realizados han sido los siguientes:

1. Cálculo de la envolvente de esfuerzos flectores longitudinales para las distintas acciones consideradas en el proyecto del tablero. Los esfuerzos de cálculo se han combinado de acuerdo con los criterios del apartado 2 de este Anejo.

   La envolvente de esfuerzos flectores positivos se muestra en las tablas y gráficos adjuntos con la notación $\mathbf{M_{d,\,pos}}$. La envolvente de flectores negativos se denota como $\mathbf{M_{d,neg}}$.

2. Cálculo del momento último respuesta para cada una de las secciones (nudos de las barras) en las que se ha discretizado el tablero. El momento último respuesta se ha calculado considerando las distintas capas de armado y la posible tensión previa de las mismas. El cálculo se realiza con un programa de cálculo automático que permite obtener el momento último respuesta y los diagramas momento curvatura considerando las curvas tensión-deformación no lineales de los materiales (acero y hormigón).

   Los momentos últimos de respuesta de cada sección se han calculado para un momento positivo ($\mathbf{M_{u,pos}}$) y para un momento negativo ($\mathbf{M_{u,neg}}$). De un modo análogo se calculan los momentos de descompresión y de fisuración de la sección (momentos totales sobre la sección).

   Las unidades de trabajo para los momentos son (mT).

COMBINACION 33 1.35(G1+G2)+1.5(SCMAX-IPF)+ MHIPER-PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	6.755	496.483	968.482	-2932.083	-514.539	-767.372
2	4141.938	1032.499	-122.115	-7758.843	-891.952	109.230
3	7758.850	891.870	-108.137	-10865.221	-747.281	95.572
4	10865.186	747.372	-98.311	-13451.203	-598.274	86.023
5	13451.258	598.340	-86.912	-15520.953	-455.021	74.074
6	15521.186	455.117	-71.541	-17074.801	-312.501	58.564
7	17075.004	312.547	-58.492	-18111.025	-175.526	46.029
8	18111.164	175.775	-47.773	-18636.148	-28.901	35.514
9	18636.031	29.023	-36.696	-18638.119	117.103	23.701
10	18638.121	-117.205	-20.826	-18129.152	210.372	8.218
11	18129.316	-210.266	-12.712	-17101.629	306.367	-0.026
12	17101.920	-306.349	4.152	-15561.248	399.553	-16.855
13	15561.219	-399.584	13.147	-13501.552	494.729	-25.470
14	13501.356	-494.980	26.786	-10928.705	575.923	-39.485
15	10928.685	-575.960	38.519	-7839.553	659.298	-51.318
16	7839.611	-659.222	52.448	-4239.816	740.661	-65.282
17	4240.012	-738.301	64.990	-133.084	755.079	-77.754
18	412.465	-481.741	78.485	3334.145	426.423	-91.321
19	-3112.498	-203.155	91.044	6691.450	950.905	-103.743
20	-6504.761	-750.043	104.343	10142.705	1737.896	-117.117
21	-9997.656	1712.858	-171.735	5185.874	-494.432	154.774
22	-5040.886	588.231	-155.054	703.713	-67.554	138.119
23	-372.802	328.321	-138.040	-3951.120	-283.141	121.082
24	4215.952	497.534	-121.003	-8713.587	-455.752	104.000
25	9065.509	695.482	-103.950	-12831.768	-507.001	86.973
26	13672.547	813.450	-87.284	-17792.238	-661.512	70.477
27	17792.289	661.656	-72.596	-21024.330	-502.229	55.596
28	21024.297	502.124	-53.052	-23357.574	-342.772	36.065
29	23357.596	342.620	-38.960	-24788.367	-183.556	21.965
30	24788.602	183.537	-18.858	-25315.154	-25.253	1.617
31	25314.879	25.267	-1.823	-24935.766	131.244	-14.876
32	24935.297	-131.360	11.852	-23648.512	284.936	-28.480
33	23648.500	-284.866	28.452	-21454.473	434.519	-45.637
34	21454.594	-434.687	48.293	-18352.012	579.538	-65.069
35	18352.227	-579.494	61.916	-14342.081	719.114	-78.812
36	14342.146	-719.130	81.319	-9425.842	854.288	-98.425
37	9569.850	-694.318	97.839	-4228.834	816.590	-114.741
38	4542.862	-613.149	115.563	888.942	537.382	-132.717
39	-435.528	-267.818	132.134	5540.504	799.702	-149.093
40	-5165.607	-541.282	149.674	10403.089	1913.009	-166.601
41	-10134.783	1730.622	-170.898	5293.665	-419.598	154.052
42	-5133.922	513.017	-154.754	769.197	23.634	137.797
43	-379.115	235.645	-137.815	-3893.667	-131.711	120.812
44	4232.494	344.139	-121.202	-8562.753	-399.041	104.597
45	9024.188	665.490	-106.389	-12232.006	-540.464	89.378
46	13867.205	812.173	-86.167	-17970.730	-658.262	69.190
47	17970.754	658.194	-69.171	-21183.824	-497.958	52.110
48	21183.854	498.034	-50.638	-23497.340	-337.898	33.787
49	23497.203	338.069	-35.503	-24909.486	-178.133	18.686
50	24909.730	178.070	-18.532	-25417.564	-19.166	1.325
51	25417.816	19.181	1.777	-25019.691	137.844	-18.913
52	25019.578	-137.741	17.408	-23714.883	291.507	-34.325
53	23714.812	-291.657	35.507	-21501.559	441.373	-52.448
54	21501.365	-441.242	51.405	-18381.705	585.714	-68.493

COMBINACION 1 1.35(G1+G2)+1.5(SCMAX-IPF)+ MHIPER-PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	18381.396	-585.783	70.567	-14354.728	724.950	-87.589
56	14354.745	-724.882	86.734	-9421.523	859.684	-103.653
57	9659.977	-621.746	103.586	-4536.851	743.843	-120.612
58	4864.739	-537.148	120.103	296.160	455.911	-136.618
59	170.453	-184.650	136.127	4683.948	717.136	-153.113
60	-4302.196	-458.047	153.630	9287.201	1833.432	-170.493
61	-9016.432	1711.379	-166.665	4247.261	-397.087	149.794
62	-4086.339	490.514	-149.026	-206.400	47.194	132.017
63	601.040	211.933	-132.211	-4801.706	-107.293	115.244
64	5147.537	378.908	-116.847	-9535.180	-434.796	100.349
65	9826.240	641.724	-100.063	-12965.434	-516.586	83.326
66	14611.404	788.114	-92.797	-18645.883	-634.301	75.867
67	18645.832	634.228	-72.091	-21789.664	-474.227	54.941
68	21789.895	474.294	-54.851	-24034.258	-314.291	37.938
69	24034.406	314.184	-37.898	-25376.352	-154.481	20.906
70	25376.449	154.424	-20.903	-25813.906	4.331	3.770
71	25814.043	-4.246	-0.449	-25345.572	161.111	-16.929
72	25345.457	-161.161	18.778	-23969.873	314.897	-35.733
73	23969.812	-314.848	34.092	-21686.605	464.483	-51.054
74	21686.484	-464.413	52.362	-18496.301	608.979	-69.653
75	18496.387	-609.026	71.723	-14399.254	748.308	-88.878
76	14399.122	-748.193	88.904	-9396.311	883.001	-105.791
77	9663.086	-621.296	103.795	-4541.181	743.429	-120.711
78	4869.968	-536.522	119.394	286.292	454.758	-135.489
79	181.186	-183.273	135.835	4669.371	715.580	-152.821
80	-4287.107	-456.440	151.768	9268.466	1831.981	-168.644
81	-8997.634	1710.760	-169.526	4229.911	-396.251	152.624
82	-4068.921	489.658	-152.860	-222.863	47.697	135.864
83	617.856	211.434	-136.335	-4817.354	-106.950	119.326
84	5164.138	378.603	-121.307	-9547.635	-434.707	105.145
85	9839.527	641.493	-106.655	-12977.184	-516.461	89.716
86	14624.242	788.006	-91.748	-18657.812	-634.101	74.778
87	18657.930	634.038	-73.296	-21800.092	-473.937	56.093
88	21800.057	473.898	-53.186	-24043.053	-313.829	36.291
89	24043.016	313.914	-39.399	-25383.740	-154.166	22.300
90	25383.633	154.203	-17.179	-25820.176	4.504	-0.434
91	25820.578	-4.531	3.697	-25351.158	161.409	-20.805
92	25351.332	-161.445	18.987	-23974.484	315.310	-35.884
93	23974.520	-315.410	37.604	-21690.084	465.042	-54.780
94	21690.219	-464.991	56.428	-18498.941	609.528	-73.569
95	18499.166	-609.642	74.457	-14399.889	748.952	-91.569
96	14400.007	-748.870	92.559	-9396.011	883.593	-109.667
97	9670.741	-614.817	107.832	-4568.167	736.954	-124.830
98	4896.934	-530.053	122.876	239.645	448.277	-138.377
99	228.132	-176.745	137.535	4603.197	709.189	-154.505
100	-4220.600	-450.035	153.060	9180.981	1825.488	-169.991
101	-8911.842	1709.090	-168.733	4148.979	-394.526	151.837
102	-3988.004	487.913	-153.039	-298.199	49.527	136.099
103	693.334	209.636	-136.915	-4887.275	-105.081	119.856
104	5234.342	376.624	-121.048	-9611.676	-432.721	105.113
105	9903.637	639.548	-107.807	-13035.847	-514.426	90.931
106	14683.020	785.886	-95.563	-18710.074	-632.081	78.483
107	18710.289	632.147	-74.614	-21846.801	-472.117	57.357
108	21847.098	471.983	-56.049	-24084.283	-311.863	38.980
109	24084.572	312.009	-37.076	-25419.654	-152.259	20.020

COMBINACION 1 1.35(G1+G2)+1.5(SCMAX-IPF)+ MHIPER-PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	25419.789	152.104	-20.118	-25850.180	6.664	2.802
111	25850.303	-6.480	2.527	-25375.324	163.325	-19.784
112	25375.250	-163.481	19.752	-23992.711	317.259	-36.655
113	23992.861	-317.407	36.626	-21702.586	466.985	-54.090
114	21702.535	-466.763	59.212	-18504.953	611.392	-76.468
115	18505.045	-611.220	75.594	-14401.881	750.390	-92.713
116	14402.016	-750.309	96.055	-9392.806	885.130	-113.175
117	9670.442	-614.538	107.191	-4569.025	736.656	-124.050
118	4897.493	-529.748	122.563	238.290	448.083	-137.556
119	229.143	-176.649	134.636	4601.344	1761.449	-151.698
120	-4219.375	-1502.304	152.484	9179.600	1825.294	-169.476
121	-8911.271	1709.075	-170.083	4148.109	-394.507	153.183
122	-3987.124	487.910	-152.973	-299.243	49.496	135.953
123	694.150	209.671	-136.984	-4888.289	-105.146	119.936
124	5235.214	376.757	-122.252	-9613.531	-432.824	106.558
125	9905.990	639.855	-109.324	-13038.977	-514.766	92.529
126	14687.190	786.250	-98.050	-18714.951	-632.419	81.069
127	18714.984	632.208	-77.274	-21851.750	-472.164	59.892
128	21851.527	472.225	-57.224	-24089.141	-312.169	39.827
129	24089.281	311.880	-36.509	-25424.014	-152.080	19.490
130	25424.051	152.105	-19.455	-25854.242	6.690	2.475
131	25853.926	-6.684	-0.725	-25378.355	163.532	-16.596
132	25378.547	-163.736	19.831	-23995.076	317.538	-37.474
133	23995.266	-317.463	42.043	-21704.855	467.064	-59.569
134	21704.889	-467.020	62.269	-18506.773	611.628	-79.445
135	18506.883	-611.636	79.494	-14401.895	750.904	-96.536
136	14401.925	-750.693	97.424	-9392.420	885.421	-114.630
137	9670.371	-614.256	110.597	-4569.389	736.406	-127.660
138	4898.507	-529.416	124.093	235.851	447.661	-138.365
139	232.131	-176.144	135.634	4596.892	1760.947	-152.726
140	-4214.552	-1501.770	153.138	9173.287	1824.788	-170.045
141	-8903.960	1708.945	-168.910	4141.670	-394.389	151.978
142	-3980.525	487.800	-150.030	-304.991	49.673	132.900
143	700.154	209.416	-134.460	-4893.504	-104.958	117.471
144	5240.306	376.506	-121.011	-9617.408	-432.538	105.519
145	9909.539	639.411	-107.249	-13041.131	-514.350	90.366
146	14688.090	785.839	-100.984	-18715.074	-631.985	84.102
147	18714.980	632.022	-80.289	-21851.596	-471.938	62.682
148	21851.201	471.807	-58.157	-24087.797	-311.787	40.688
149	24087.869	311.901	-37.670	-25422.529	-152.146	20.574
150	25422.141	152.057	-20.402	-25852.004	6.741	3.099
151	25852.070	-6.877	2.029	-25375.729	163.717	-19.297
152	25375.613	-163.700	19.334	-23992.520	317.464	-36.876
153	23992.498	-317.479	44.374	-21701.641	467.107	-62.012
154	21701.936	-467.000	61.938	-18504.025	611.593	-78.961
155	18504.227	-611.603	81.193	-14398.903	750.903	-98.425
156	14399.107	-750.849	99.394	-9388.939	885.626	-116.693
157	9666.895	-614.250	112.163	-4566.378	736.348	-129.381
158	4895.013	-529.412	125.224	239.921	447.633	-139.013
159	227.350	-176.155	136.141	4602.038	1761.042	-153.153
160	-4219.857	-1501.927	151.592	9178.812	1824.917	-168.600
161	-8909.848	1709.360	-174.622	4145.822	-394.784	157.601
162	-3984.757	488.177	-157.498	-302.351	49.242	140.475
163	697.470	209.927	-142.121	-4892.290	-105.388	125.047
164	5239.467	376.917	-127.915	-9617.882	-433.050	112.695

COMBINACION 1 1.35(G1+G2)+1.5(SCMAX-IPF)+ MHIPER-PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	9910.152	640.109	-117.188	-13043.934	-514.997	100.057
166	14690.543	785.760	-96.328	-18717.277	-631.930	79.342
167	18717.049	631.914	-79.355	-21853.148	-471.830	62.541
168	21852.912	471.578	-62.531	-24088.900	-311.512	44.952
169	24088.971	311.573	-36.983	-25422.805	-151.826	19.275
170	25422.789	151.937	-17.479	-25852.588	6.801	-0.156
171	25852.344	-6.855	6.547	-25375.871	163.736	-24.085
172	25375.578	-163.812	23.933	-23991.930	317.664	-41.039
173	23991.936	-317.743	42.844	-21700.637	467.341	-60.582
174	21700.445	-467.336	67.109	-18501.781	611.916	-84.522
175	18501.738	-611.964	83.149	-14395.640	751.257	-100.258
176	14395.782	-751.298	103.769	-9384.455	886.044	-121.013
177	9662.438	-614.479	113.889	-4560.509	736.635	-130.814
178	4889.521	-529.679	127.105	245.917	447.774	-140.876
179	221.730	-176.193	138.139	4608.097	1761.153	-155.171
180	-4225.619	-1502.036	153.525	9185.621	1825.096	-170.568
181	-8913.915	1709.764	-170.268	4149.487	-395.213	153.269
182	-3988.458	488.597	-153.811	-299.939	48.812	136.731
183	695.127	210.321	-137.357	-4891.141	-105.812	120.279
184	5237.947	377.362	-124.259	-9617.395	-433.474	108.993
185	9909.291	640.385	-112.252	-13044.122	-515.194	95.277
186	14686.705	784.087	-100.253	-18708.176	-630.288	83.047
187	18707.986	630.283	-76.762	-21839.090	-470.248	59.426
188	21839.258	470.146	-59.432	-24070.924	-310.113	42.335
189	24071.330	310.331	-39.181	-25401.480	-150.579	21.613
190	25401.639	150.554	-16.574	-25827.217	8.225	-0.748
191	25826.902	-8.209	0.603	-25346.812	165.039	-18.226
192	25346.953	-165.007	26.174	-23959.523	318.819	-43.859
193	23959.598	-319.027	43.930	-21663.943	468.702	-61.025
194	21663.730	-468.864	62.585	-18460.570	613.384	-80.038
195	18460.328	-613.345	84.183	-14349.729	752.624	-101.615
196	14349.801	-752.678	102.675	-9333.954	887.443	-119.765
197	9611.486	-615.893	112.379	-4505.674	738.041	-129.431
198	4834.184	-531.143	125.833	305.937	449.359	-139.422
199	161.550	-177.768	136.158	4672.559	1762.606	-153.134
200	-4290.236	-1503.436	150.876	9254.602	1826.518	-167.993
201	-8985.389	1715.075	-172.793	4204.379	-400.557	155.648
202	-4043.313	493.944	-155.544	-260.968	43.522	138.553
203	656.121	215.616	-140.718	-4867.972	-111.113	123.682
204	5214.868	382.742	-126.248	-9610.666	-438.804	110.954
205	9902.875	645.679	-114.769	-13053.500	-520.592	97.725
206	14684.146	782.644	-98.462	-18701.207	-628.905	81.382
207	18701.004	628.982	-78.917	-21828.283	-468.920	61.946
208	21828.191	468.915	-62.001	-24056.004	-308.870	44.486
209	24055.875	308.631	-36.708	-25380.691	-148.801	19.211
210	25380.822	148.543	-19.290	-25800.342	10.293	2.062
211	25800.418	-10.263	3.082	-25313.836	167.158	-20.362
212	25313.672	-167.047	20.203	-23920.652	320.882	-37.767
213	23920.645	-320.951	45.434	-21619.572	470.633	-62.955
214	21619.549	-470.634	63.047	-18411.270	615.304	-80.246
215	18411.225	-615.377	83.499	-14295.859	754.629	-100.688
216	14296.058	-754.722	100.836	-9274.771	889.475	-118.020
217	9553.502	-617.836	112.772	-4442.644	739.854	-129.963
218	4772.058	-532.811	125.552	371.850	1733.219	-139.213
219	96.590	-1461.634	136.120	4742.322	1764.193	-153.177

COMBINACION 1 1.35(G1+G2)+1.5(SCMAX-IPF)+ MHIPER-PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	-4359.344	-1505.022	152.400	9328.383	1828.107	-169.427
221	-9055.804	1720.680	-173.369	4259.043	-405.918	156.369
222	-4097.815	499.289	-155.957	-223.163	37.961	138.910
223	618.875	221.112	-140.687	-4847.440	-116.635	123.605
224	5195.462	387.987	-126.441	-9606.957	-443.988	111.089
225	9899.549	650.654	-114.954	-13065.007	-525.530	97.831
226	14652.422	763.408	-96.230	-18612.277	-609.459	79.354
227	18612.066	609.492	-79.257	-21681.410	-449.338	62.046
228	21681.377	449.307	-57.791	-23850.811	-289.282	40.429
229	23850.809	289.262	-38.558	-25118.002	-129.605	21.166
230	25118.283	129.528	-16.858	-25480.670	29.256	-0.781
231	25480.895	-29.110	4.707	-24937.926	185.752	-21.922
232	24938.213	-185.647	22.002	-23488.941	339.174	-39.409
233	23489.021	-339.061	44.788	-21132.312	488.569	-62.378
234	21132.488	-488.545	63.944	-17868.883	632.962	-81.434
235	17868.902	-632.932	85.127	-13697.892	772.170	-102.355
236	13697.808	-772.228	101.829	-8621.908	907.040	-118.859
237	8912.948	-635.281	113.073	-3747.218	757.753	-130.260
238	4085.023	-491.329	125.514	928.691	1692.011	-139.231
239	-630.063	-1479.534	136.189	5522.462	1782.047	-153.186
240	-5134.745	-1522.771	151.504	10157.495	1845.979	-168.514
241	-9884.633	1784.710	-170.385	4896.474	-470.991	153.343
242	-4734.144	564.283	-152.842	222.104	-26.064	135.781
243	178.269	284.512	-137.706	-4596.336	-179.658	120.645
244	4951.710	449.141	-123.519	-9548.208	-504.290	108.153
245	9844.248	707.682	-111.405	-13235.160	-577.826	94.451
246	14628.387	737.791	-96.309	-18523.568	-585.093	79.183
247	18523.801	585.178	-74.268	-21529.164	-426.074	57.131
248	21529.346	426.070	-57.226	-23634.801	-266.821	40.101
249	23634.654	267.031	-38.288	-24837.756	-108.012	20.575
250	24837.602	107.881	-12.774	-25135.789	50.389	-4.808
251	25135.707	-50.467	4.820	-24527.695	206.902	-22.020
252	24527.689	-206.892	24.984	-23012.508	360.299	-42.506
253	23012.422	-360.188	46.383	-20590.596	509.352	-64.089
254	20590.855	-509.469	67.941	-17261.986	653.443	-85.225
255	17262.070	-653.501	85.142	-13027.153	791.797	-102.103
256	13027.467	-791.917	103.172	-7887.251	925.242	-120.372
257	8339.611	-618.802	112.989	-3216.255	738.486	-129.927
258	3582.645	-498.736	125.226	1383.689	1703.567	-139.109
259	-1006.012	-1489.139	137.904	4599.429	1791.669	-154.961
260	-4148.629	-1530.942	152.997	8554.545	1854.763	-169.992
261	-8266.171	1644.670	-123.001	4784.357	-655.158	110.244
262	-4683.251	726.213	-110.454	1466.465	68.034	97.660
263	-1201.544	132.813	-98.283	-1977.704	-78.380	85.434
264	2258.519	301.835	-87.071	-5417.044	-204.776	74.370
265	5753.529	478.588	-79.471	-8785.326	-598.093	68.015
266	9189.156	600.352	-61.167	-12184.873	-490.365	48.485
267	12184.824	490.404	-50.340	-14671.027	-405.938	37.490
268	14671.025	405.774	-33.848	-16648.658	-322.983	20.619
269	16648.416	322.728	-17.964	-18105.266	-239.672	4.985
270	18105.168	239.452	-5.182	-19051.832	-157.031	-7.538
271	19051.889	157.023	7.633	-19478.217	-76.086	-20.907
272	19478.158	75.676	25.494	-19390.906	51.442	-38.739
273	19391.273	-51.366	38.598	-18783.828	182.530	-51.601
274	18783.955	-182.600	54.278	-17655.691	309.859	-67.247

COMBINACION 1 1.35(G1+G2)+1.5(SCMAX-IPF)+ MHIPER-PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	17655.621	-309.979	67.406	-16012.338	433.468	-80.244
276	16012.486	-433.413	81.562	-13852.912	566.708	-94.657
277	13852.916	-566.648	96.442	-11169.743	700.518	-109.339
278	11169.741	-700.443	109.427	-7966.363	829.779	-122.345
279	7966.094	-829.768	123.852	-4242.574	960.431	-136.759
280	4242.619	-960.529	136.621	-8.351	1288.297	-522.006

COMBINACION 34 1.35(G1+G2)+1.5(SCMIN-IPF)+ MHIPER-PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	6.141	815.188	-1387.038	-2222.282	-228.734	124.041
2	1815.085	49.884	-124.685	-3325.282	-0.734	111.979
3	3325.323	0.666	-112.225	-4537.278	47.466	99.465
4	4537.316	-47.450	-99.041	-5450.786	94.822	86.316
5	5450.819	-94.912	-86.099	-6066.055	141.593	73.436
6	6066.375	-141.717	-73.856	-6383.136	187.903	61.173
7	6383.389	-188.053	-61.106	-6401.747	233.728	48.411
8	6401.858	-233.601	-47.965	-6121.901	278.761	35.294
9	6121.679	-278.777	-34.921	-5543.727	323.180	22.190
10	5543.646	-323.075	-23.489	-4667.591	324.904	10.653
11	4667.493	-325.058	-8.308	-3492.611	324.676	-4.446
12	3492.823	-324.466	1.524	-1940.797	371.507	-14.175
13	1940.789	-371.516	17.621	-47.566	373.670	-30.336
14	47.554	-373.674	29.044	2161.007	370.545	-41.756
15	-2160.932	-370.624	43.355	4685.536	364.517	-55.993
16	-4685.435	-364.442	52.908	7526.118	358.469	-65.529
17	-7526.360	-360.864	66.948	10688.556	345.469	-79.909
18	-10967.861	-618.853	81.123	15060.984	615.262	-94.290
19	-15282.523	-838.548	97.323	20214.971	1517.934	-109.978
20	-20401.670	-1718.724	105.426	26144.984	2458.211	-117.583
21	-26286.051	3068.975	-173.567	17038.311	-1914.768	156.706
22	-17183.336	1821.008	-155.303	9136.693	-1221.089	138.334
23	-9467.668	960.374	-138.421	3170.716	-941.067	121.483
24	-3435.645	726.575	-121.631	-1687.696	-711.226	104.647
25	1335.700	471.513	-104.734	-4591.649	-395.661	87.765
26	4500.566	89.222	-87.609	-6626.121	-51.789	70.502
27	6626.120	51.786	-69.993	-8221.227	-16.271	53.040
28	8221.197	16.343	-53.586	-9286.494	18.733	36.583
29	9286.473	-18.826	-36.079	-9821.385	53.324	19.110
30	9821.544	-53.204	-19.712	-9826.500	86.645	2.850
31	9826.318	-86.525	-2.909	-9301.827	118.015	-14.144
32	9301.469	-118.098	15.028	-8246.428	146.546	-32.031
33	8246.396	-146.652	32.101	-6558.172	207.789	-48.914
34	6558.267	-207.852	47.710	-4268.469	282.145	-64.609
35	4268.595	-282.039	66.821	-1332.377	306.888	-83.746
36	1332.435	-306.951	81.108	2165.579	327.380	-98.038
37	-2309.333	-487.183	99.539	6848.374	494.837	-116.452
38	-7162.521	-698.303	113.691	12873.882	714.774	-130.689
39	-13327.199	-984.308	132.939	20446.441	1426.204	-149.839
40	-20821.471	-1684.644	146.435	29354.229	2774.316	-162.990
41	-29622.543	3136.291	-174.578	20165.168	-1899.775	157.537
42	-20325.025	1806.353	-154.252	12335.232	-1196.993	136.683
43	-12725.287	937.742	-139.388	6195.280	-934.343	122.621
44	-6534.123	721.845	-122.213	1171.734	-722.405	105.076
45	-1633.424	456.030	-102.644	-1132.083	-453.717	85.621
46	1719.323	182.058	-83.586	-4108.183	-142.771	66.835
47	4108.161	142.684	-66.792	-5966.609	-106.401	49.856
48	5966.800	106.440	-50.400	-7295.108	-70.531	33.481
49	7295.104	70.526	-32.883	-8093.157	-35.140	15.875
50	8093.186	34.961	-15.946	-8360.604	-0.813	-0.885
51	8360.808	0.759	-0.129	-8097.953	31.257	-16.814
52	8098.052	-31.119	17.237	-7305.599	59.800	-34.192
53	7305.392	-59.718	33.652	-5934.590	127.957	-50.634
54	5934.564	-127.955	51.287	-3876.190	199.823	-68.232

COMBINACION 2 1.35(G1+G2)+1.5(SCMIN-IPF)+ MHIPER-PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	3876.086	-199.948	66.739	-1188.219	224.440	-83.620
56	1188.309	-224.478	84.641	2061.653	244.620	-101.570
57	-2300.144	-482.534	101.027	6825.435	490.106	-117.902
58	-7153.358	-696.731	118.424	12860.389	713.702	-135.352
59	-13326.974	-985.052	135.904	20447.441	1427.542	-152.587
60	-20829.174	-1686.612	149.476	29365.180	2776.843	-166.344
61	-29633.461	3138.121	-165.673	20176.074	-1901.449	148.771
62	-20336.973	1808.039	-151.868	12362.385	-1198.063	134.067
63	-12757.025	938.920	-135.231	6225.109	-934.784	118.276
64	-6571.145	663.315	-115.831	1383.150	-663.484	99.047
65	-1674.284	456.512	-100.355	-1095.043	-454.079	83.488
66	1671.445	182.573	-82.437	-4064.617	-143.363	65.461
67	4064.648	143.203	-67.192	-5927.241	-107.122	50.486
68	5927.411	107.159	-50.507	-7259.718	-71.453	33.553
69	7259.750	71.529	-33.555	-8062.302	-36.392	16.565
70	8062.584	36.315	-16.609	-8334.794	-2.361	-0.167
71	8334.793	2.595	-0.885	-8077.359	29.288	-15.938
72	8077.349	-29.390	15.275	-7289.519	58.035	-32.234
73	7289.627	-58.102	32.974	-5921.009	126.055	-50.220
74	5921.216	-125.913	49.356	-3870.931	198.406	-66.326
75	3870.870	-198.476	64.774	-1186.968	223.068	-81.683
76	1186.787	-223.079	81.639	2059.103	243.266	-98.613
77	-2325.799	-505.108	100.724	6918.894	512.702	-117.696
78	-7247.617	-719.589	118.922	13023.069	736.405	-135.538
79	-13490.727	-1007.887	132.767	20679.920	1450.203	-149.554
80	-21062.152	-1709.366	152.104	29667.898	2799.559	-168.887
81	-29936.385	3144.216	-171.622	20459.922	-1907.517	154.980
82	-20620.916	1814.143	-154.737	12628.644	-1204.513	135.964
83	-13023.555	945.339	-137.972	6471.379	-941.385	121.206
84	-6818.174	669.927	-119.283	1610.858	-670.218	102.434
85	-1902.832	463.160	-101.327	-885.643	-460.816	84.542
86	1461.164	189.438	-80.305	-3874.097	-150.185	63.515
87	3874.223	150.217	-64.169	-5756.996	-114.089	47.473
88	5757.087	113.941	-48.623	-7109.432	-78.131	31.657
89	7109.585	78.277	-30.572	-7931.875	-43.074	13.643
90	7931.957	42.954	-15.227	-8223.692	-8.973	-1.453
91	8223.923	9.011	0.141	-7985.707	22.889	-17.111
92	7985.887	-22.866	17.781	-7217.597	51.598	-34.759
93	7217.740	-51.628	34.110	-5870.465	119.740	-51.234
94	5870.509	-119.681	50.345	-3838.551	191.965	-67.378
95	3838.606	-191.868	66.739	-1174.443	216.459	-83.596
96	1174.343	-216.586	82.577	2051.552	236.723	-99.339
97	-2326.369	-505.336	100.278	6920.203	512.926	-117.089
98	-7249.026	-719.916	119.064	13025.507	736.779	-135.816
99	-13493.224	-1008.328	135.113	20684.766	1450.750	-151.963
100	-21067.187	-1709.901	154.526	29671.369	2800.033	-170.990
101	-29942.781	3144.494	-174.917	20464.512	-1907.735	158.346
102	-20625.586	1814.347	-154.830	12633.381	-1204.642	135.283
103	-13028.449	945.487	-136.828	6475.925	-941.473	120.357
104	-6822.871	669.969	-121.604	1615.459	-670.244	104.952
105	-1907.558	463.291	-102.321	-881.684	-460.884	85.340
106	1456.986	189.464	-80.647	-3870.324	-150.270	63.910
107	3870.499	150.225	-65.800	-5753.234	-114.130	49.158
108	5753.513	114.151	-49.543	-7106.343	-78.332	32.774
109	7106.384	78.370	-33.356	-7929.025	-43.163	16.461

COMBINACION 2 1.35(G1+G2)+1.5(SCMIN-IPF)+ MHIPER-PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	7929.229	43.042	-16.485	-8221.526	-9.046	-0.276
111	8221.640	9.102	-1.452	-7984.014	22.757	-15.271
112	7983.855	-22.652	15.419	-7216.319	51.313	-32.403
113	7216.399	-51.371	32.348	-5918.780	75.792	-49.253
114	5918.889	-75.873	46.465	-3837.977	191.951	-63.968
115	3838.136	-191.995	64.619	-1173.805	216.531	-81.346
116	1173.842	-216.680	77.934	2052.835	236.867	-94.810
117	-2329.961	-507.315	101.687	6929.593	514.894	-118.411
118	-7258.427	-721.736	116.283	13040.398	738.632	-132.994
119	-13508.041	-1010.102	136.583	20703.523	2504.918	-152.964
120	-21085.914	-2764.089	145.376	29696.152	2801.725	-161.859
121	-29968.664	3145.164	-172.162	20487.621	-1908.419	155.140
122	-20648.580	1815.042	-156.782	12653.815	-1205.280	136.998
123	-13048.730	946.058	-138.372	6494.531	-942.063	121.773
124	-6841.336	670.430	-121.025	1631.900	-670.679	104.342
125	-1924.327	463.681	-101.899	-865.894	-461.294	85.102
126	1440.196	189.902	-79.406	-3854.467	-150.717	62.675
127	3854.596	150.744	-64.606	-5739.136	-114.665	47.972
128	5739.045	114.838	-49.187	-7093.867	-79.077	32.423
129	7093.792	78.955	-33.377	-7918.150	-43.728	16.679
130	7918.286	43.860	-16.612	-8212.848	-9.825	-0.257
131	8212.914	9.730	-0.238	-7977.150	22.129	-16.578
132	7977.250	-22.144	15.412	-7211.147	50.825	-32.187
133	7211.356	-50.791	30.216	-5915.434	75.215	-46.978
134	5915.516	-75.195	45.622	-3836.915	191.242	-63.367
135	3836.957	-191.275	63.172	-1174.703	215.863	-80.125
136	1174.720	-215.930	79.134	2049.292	236.060	-95.754
137	-2327.345	-507.321	98.066	6927.181	514.928	-114.771
138	-7256.210	-721.810	118.295	13038.387	738.680	-135.121
139	-13506.507	-1010.245	136.941	20702.496	2505.063	-153.119
140	-21085.055	-2764.201	145.923	29695.789	2801.879	-162.652
141	-29966.764	3144.889	-166.696	20487.744	-1908.150	149.847
142	-20648.621	1814.746	-157.835	12654.899	-1205.037	137.674
143	-13049.970	945.859	-137.605	6497.000	-941.907	120.842
144	-6843.628	670.419	-117.915	1634.355	-670.652	101.414
145	-1926.137	463.652	-101.134	-863.967	-461.280	84.447
146	1439.809	190.109	-77.103	-3854.867	-150.874	60.297
147	3854.714	150.886	-62.332	-5739.771	-114.754	45.688
148	5739.490	114.711	-47.476	-7094.240	-78.964	30.830
149	7094.089	79.143	-32.003	-7918.960	-43.935	15.179
150	7918.895	43.884	-15.135	-8213.379	-9.876	-1.645
151	8213.217	9.874	-0.090	-7977.728	21.995	-16.715
152	7977.605	-22.040	16.791	-7212.023	50.713	-33.573
153	7211.812	-50.785	30.366	-5915.604	75.231	-47.210
154	5915.760	-75.337	47.284	-3836.537	191.370	-65.311
155	3836.642	-191.325	63.712	-1174.078	215.924	-80.597
156	1174.110	-215.997	79.534	2050.090	236.144	-96.093
157	-2328.239	-507.415	98.125	6928.115	514.995	-114.786
158	-7256.759	-721.863	118.923	13039.050	738.699	-135.659
159	-13506.583	-1010.241	137.064	20703.523	2505.114	-153.653
160	-21085.842	-2764.269	153.642	29696.287	2801.912	-170.037
161	-29967.852	3144.947	-177.754	20487.355	-1908.191	161.310
162	-20648.336	1814.796	-162.855	12654.570	-1205.036	142.029
163	-13049.574	945.859	-142.774	6495.978	-941.864	126.286
164	-6842.950	670.218	-125.829	1634.713	-670.510	109.163

COMBINACION 2 1.35(G1+G2)+1.5(SCMIN-IPF)+ MHIPER-PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	-1926.934	463.611	-104.705	-863.161	-461.216	88.136
166	1438.979	190.474	-78.035	-3855.308	-151.269	61.514
167	3855.089	151.338	-61.486	-5741.375	-115.218	44.508
168	5741.191	115.198	-44.536	-7097.362	-79.439	27.828
169	7097.271	79.524	-30.667	-7923.427	-44.302	14.037
170	7923.158	44.261	-14.696	-8219.002	-10.287	-2.075
171	8218.905	10.365	-0.098	-7984.758	21.540	-16.788
172	7984.728	-21.756	16.774	-7220.021	50.460	-33.720
173	7220.083	-50.330	32.850	-5925.492	74.744	-49.684
174	5925.432	-74.720	46.068	-3848.426	190.737	-64.069
175	3848.587	-190.824	65.082	-1187.624	215.425	-81.873
176	1187.712	-215.373	78.115	2034.608	235.502	-94.790
177	-2312.485	-506.980	101.589	6911.569	514.606	-118.274
178	-7240.527	-721.594	119.846	13021.866	738.364	-136.306
179	-13489.554	-1009.865	136.981	20686.084	2504.793	-153.495
180	-21068.641	-2763.951	153.519	29679.426	2801.650	-170.096
181	-29946.744	3143.313	-174.197	20473.102	-1906.600	157.448
182	-20634.146	1813.210	-156.810	12645.178	-1203.532	136.329
183	-13040.197	944.335	-142.094	6491.337	-940.364	125.651
184	-6838.105	668.887	-121.652	1633.901	-669.159	104.826
185	-1925.730	462.172	-102.348	-860.190	-459.703	85.607
186	1440.236	190.976	-77.593	-3858.018	-151.780	61.088
187	3857.968	151.808	-64.193	-5745.602	-115.684	47.582
188	5745.689	115.428	-47.580	-7102.598	-79.665	30.732
189	7102.753	79.658	-31.770	-7929.301	-44.442	15.062
190	7929.595	44.610	-16.749	-8226.442	-10.615	-0.086
191	8226.415	10.503	0.097	-7992.906	21.369	-16.932
192	7992.923	-21.215	13.834	-7229.528	49.879	-30.672
193	7229.204	-49.777	30.604	-5936.051	74.199	-47.572
194	5935.900	-74.112	46.694	-3860.724	190.092	-64.729
195	3860.522	-190.129	61.610	-1201.335	214.717	-78.383
196	1201.365	-214.809	77.329	2019.566	234.948	-94.112
197	-2297.058	-506.399	100.521	6894.199	514.010	-117.065
198	-7222.769	-721.028	117.928	13002.630	737.924	-134.417
199	-13470.070	-1009.513	136.182	20664.598	2504.344	-152.922
200	-21046.869	-2763.470	155.078	29656.723	2801.188	-171.537
201	-29928.230	3141.772	-178.314	20457.641	-1905.069	161.961
202	-20618.672	1811.690	-163.515	12634.666	-1201.948	142.511
203	-13029.729	942.781	-140.354	6485.913	-938.793	123.777
204	-6832.680	667.328	-124.295	1632.763	-667.571	107.810
205	-1924.980	460.495	-104.272	-855.883	-458.102	87.637
206	1447.887	196.205	-78.379	-3881.265	-157.040	61.809
207	3881.226	157.036	-62.997	-5784.519	-120.924	46.243
208	5784.306	120.943	-46.173	-7157.502	-85.185	29.478
209	7157.468	85.236	-32.138	-8000.727	-50.022	15.472
210	8000.860	50.065	-15.413	-8314.078	-16.025	-1.328
211	8314.163	16.148	-0.320	-8097.431	15.771	-16.436
212	8097.294	-15.810	16.602	-7350.474	44.536	-33.403
213	7350.465	-44.625	30.326	-6073.083	69.128	-47.083
214	6073.218	-69.063	47.063	-4014.676	185.097	-65.057
215	4014.597	-185.018	62.853	-1371.692	209.592	-79.689
216	1371.699	-209.673	79.527	1833.058	229.804	-96.151
217	-2111.852	-501.314	99.096	6692.911	508.802	-115.758
218	-7022.418	-715.818	120.121	12786.307	2014.923	-136.858
219	-13254.895	-2286.537	138.476	20433.932	2499.077	-154.803

COMBINACION 2 1.35(G1+G2)+1.5(SCMIN-IPF)+ MHIPER-PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	-20817.113	-2758.282	151.388	29411.049	2796.093	-167.896
221	-29677.152	3123.108	-174.093	20265.242	-1886.100	157.380
222	-20426.352	1792.694	-160.177	12499.973	-1183.394	139.318
223	-12895.564	924.320	-139.779	6406.211	-920.390	123.303
224	-6754.136	649.053	-123.036	1609.398	-649.311	106.470
225	-1902.003	442.613	-102.998	-825.042	-440.204	86.410
226	1460.130	202.355	-77.578	-3912.306	-163.069	60.969
227	3912.080	163.142	-61.038	-5834.197	-126.954	44.257
228	5834.052	126.926	-45.932	-7225.749	-91.156	29.185
229	7225.653	91.051	-29.728	-8086.905	-55.944	12.987
230	8087.072	55.999	-14.396	-8418.167	-22.032	-2.357
231	8418.320	21.979	0.978	-8219.170	9.736	-17.785
232	8219.371	-9.837	17.786	-7489.880	38.335	-34.606
233	7490.089	-38.507	32.406	-6229.878	62.808	-49.214
234	6230.139	-62.699	48.220	-4200.732	178.091	-66.137
235	4200.864	-178.122	63.434	-1576.002	202.655	-80.321
236	1576.140	-202.510	80.883	1609.732	222.698	-97.556
237	-1901.020	-494.468	101.329	6464.256	502.399	-117.782
238	-6802.275	-768.886	119.608	12726.524	2068.387	-136.302
239	-13025.161	-2280.875	139.275	20186.645	2493.385	-155.977
240	-20574.436	-2752.655	155.034	29152.449	2791.517	-171.566
241	-29421.332	3106.002	-168.835	20064.000	-1869.025	152.335
242	-20226.197	1775.735	-156.343	12369.062	-1167.695	135.700
243	-12769.445	909.302	-135.233	6326.206	-904.982	118.674
244	-6681.579	635.448	-118.406	1577.243	-635.767	101.912
245	-1873.340	432.372	-99.210	-877.576	-425.373	82.503
246	1599.522	265.383	-77.463	-4254.384	-227.525	60.870
247	4254.514	227.435	-63.097	-6379.290	-192.387	46.473
248	6379.390	192.412	-46.508	-7974.244	-157.548	29.544
249	7974.048	157.574	-30.104	-9038.425	-123.150	13.464
250	9038.320	123.161	-15.441	-9572.676	-89.765	-1.246
251	9572.682	89.678	1.331	-9576.740	-58.285	-18.241
252	9576.837	58.317	17.493	-9050.745	-30.045	-34.249
253	9050.837	29.995	33.178	-7994.396	-6.011	-50.010
254	7994.521	5.926	48.669	-6388.401	101.368	-66.810
255	6388.750	-101.189	66.919	-3990.799	124.821	-83.788
256	3990.954	-124.861	82.895	-1031.169	143.620	-99.681
257	579.195	-449.992	106.122	3861.454	455.262	-122.886
258	-4227.657	-694.897	127.611	9948.945	2000.729	-144.167
259	-10326.833	-2215.112	142.630	15963.308	2427.634	-159.184
260	-16414.133	-2688.349	161.108	24157.436	2730.976	-177.733
261	-24442.125	2749.107	-117.807	18409.723	-1690.087	101.725
262	-18510.781	1619.036	-101.662	13200.691	-900.169	89.222
263	-13465.545	699.334	-91.089	8926.682	-720.306	78.896
264	-9207.332	496.791	-79.222	5525.151	-475.143	66.735
265	-5861.540	201.414	-61.016	3550.803	-247.151	48.702
266	-3157.418	244.784	-49.697	860.098	-224.392	37.218
267	-860.199	224.467	-35.127	-1138.842	-236.509	22.576
268	1138.763	236.703	-25.976	-2840.180	-249.483	13.774
269	2839.989	249.472	-15.688	-4243.435	-262.733	3.086
270	4243.447	263.023	-2.971	-5349.148	-277.109	-9.738
271	5349.059	276.991	9.607	-6156.454	-292.530	-22.134
272	6156.610	292.590	20.003	-6665.828	-262.421	-32.576
273	6666.048	262.541	32.614	-6877.227	-233.122	-45.200
274	6877.251	233.361	44.067	-6791.000	-202.575	-56.583

COMBINACION 2 1.35(G1+G2)+1.5(SCMIN-IPF)+ MHIPER-PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	6790.977	202.218	56.726	-6405.811	-171.000	-69.400
276	6406.017	171.062	68.925	-5722.599	-139.493	-81.534
277	5722.656	139.721	80.934	-4741.480	-107.594	-93.562
278	4741.439	107.642	93.576	-3462.281	-74.745	-106.231
279	3461.990	74.673	105.496	-1884.316	-40.453	-118.173
280	1884.331	40.335	118.462	-7.974	1244.495	244.833

COMBINACION 35 1.35(G1+G2)+1.5(SCMAX-EC1)+ MHIPER-PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	6.722	467.442	726.390	-3030.119	-559.937	-612.386
2	3801.055	887.032	-20.391	-7097.090	-772.732	-14.023
3	7097.349	772.661	14.497	-9928.326	-644.234	12.469
4	9927.998	644.298	-13.762	-12260.635	-505.449	72.303
5	12260.590	505.446	-72.703	-14107.294	-364.874	17.386
6	14107.695	364.877	-16.151	-15471.032	-224.119	-1.649
7	15471.256	224.098	1.725	-16350.015	-114.765	-35.234
8	16350.095	114.985	34.401	-16758.432	21.365	24.001
9	16758.266	-21.309	-24.525	-16684.479	140.402	30.245
10	16684.477	-140.417	-29.042	-16150.045	225.549	-42.363
11	16150.101	-225.550	40.505	-15146.053	291.688	-55.500
12	15146.246	-291.583	57.015	-13667.898	367.395	-36.187
13	13667.984	-367.448	34.998	-11714.848	451.723	23.400
14	11714.679	-451.857	-22.959	-9282.855	495.337	61.119
15	9282.924	-495.405	-61.291	-6499.898	481.531	-52.177
16	6499.993	-481.457	52.861	-3298.679	530.283	-65.673
17	3298.833	-528.441	65.531	337.496	567.470	-78.158
18	-121.399	-356.055	78.851	3638.803	237.993	-579.684
19	-3546.676	-145.255	383.608	6847.604	796.804	-349.383
20	-6770.183	-713.346	166.631	10275.957	1706.758	-289.044
21	-10214.786	1778.269	-187.013	5355.735	-510.198	137.258
22	-5295.523	549.177	-221.507	824.030	-178.144	138.136
23	-568.077	379.852	-138.074	-3880.840	-278.713	121.129
24	4085.674	444.541	-121.075	-8606.430	-610.588	-469.894
25	8752.607	710.178	226.336	-12572.849	-530.479	-196.977
26	13141.262	657.785	103.156	-16826.338	-505.954	-48.509
27	16826.230	506.037	47.384	-19634.939	-366.499	-21.202
28	19634.977	366.451	22.530	-21596.262	-216.441	31.569
29	21596.203	216.331	-33.095	-22687.570	-78.013	55.743
30	22687.789	78.055	-54.132	-23053.584	-30.260	-89.728
31	23053.318	30.317	89.590	-22709.529	113.392	-28.345
32	22709.133	-113.555	26.860	-21504.234	248.446	-9.668
33	21504.254	-248.413	9.675	-19438.047	376.635	16.025
34	19438.105	-376.776	-14.786	-16512.955	526.696	23.746
35	16513.340	-526.610	-25.045	-12728.025	629.389	100.034
36	12727.848	-629.413	-99.171	-8196.458	678.968	-98.529
37	8307.818	-555.236	98.144	-3519.464	603.045	-115.083
38	3762.357	-445.681	115.585	1345.867	537.859	-132.564
39	-995.136	-329.345	132.138	6177.515	770.329	-149.080
40	-5887.545	-570.442	149.462	11178.359	1914.127	-166.458
41	-10970.825	1756.354	-171.046	6036.687	-450.601	154.104
42	-5913.142	522.864	-154.610	1274.483	-86.820	137.761
43	-972.750	287.377	-137.917	-3504.094	-202.030	120.916
44	3766.176	366.324	-121.213	-8130.395	-553.235	-470.116
45	8340.208	486.070	-105.765	-11558.945	-573.490	-116.929
46	12887.963	686.378	60.617	-16597.148	-516.888	-52.340
47	16597.139	516.829	52.354	-19426.570	-376.626	-26.525
48	19426.689	376.661	27.265	-21411.223	-225.875	26.974
49	21411.094	226.011	-27.831	-22523.951	-87.089	50.903
50	22524.070	86.972	-50.824	-22912.422	-38.653	-92.442
51	22912.645	38.657	93.962	-22593.387	105.521	-33.798
52	22593.367	-105.421	33.018	-21416.437	240.753	-16.690
53	21416.297	-240.820	17.219	-19375.291	369.289	8.941
54	19375.211	-369.202	-9.365	-16475.508	518.773	17.760

COMBINACION 3 1.35(G1+G2)+1.5(SCMAX-EC1)+ MHIPER-PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	16475.178	-518.861	-16.926	-12715.621	621.242	91.494
56	12715.760	-621.213	-91.767	-8199.853	678.298	-103.225
57	8384.320	-494.267	103.130	-3779.250	541.853	-120.114
58	4032.902	-381.948	119.708	883.625	474.490	-136.569
59	-522.701	-264.677	136.193	5509.136	706.183	-153.139
60	-5213.845	-505.771	153.486	10307.884	1848.449	-170.473
61	-10098.221	1737.701	-166.432	5187.422	-445.356	149.684
62	-5062.949	517.622	-149.110	510.896	-68.458	132.221
63	-205.638	268.897	-132.429	-4215.041	-182.826	115.543
64	4482.517	392.941	-116.732	-8781.119	-306.161	99.779
65	9006.222	466.218	-99.638	-12011.297	-558.502	-121.918
66	13344.403	671.306	56.544	-17011.531	-501.921	-48.012
67	17011.697	501.825	49.878	-19798.482	-361.888	-24.576
68	19798.707	361.963	24.606	-21741.102	-211.341	29.581
69	21741.174	211.281	-29.562	-22810.682	-72.455	52.122
70	22810.820	72.383	-52.134	-23155.746	-24.265	-90.862
71	23155.832	24.400	92.533	-22793.686	119.688	-33.161
72	22793.641	-119.761	34.018	-21573.195	254.939	-17.702
73	21573.268	-254.936	16.948	-19489.545	383.441	9.204
74	19489.496	-383.337	-8.694	-16546.627	533.029	16.405
75	16546.566	-533.083	-15.581	-12743.896	635.506	89.906
76	12743.762	-635.436	-89.894	-8179.113	697.611	-104.461
77	8385.472	-495.173	102.927	-3777.582	542.782	-119.776
78	4031.890	-382.749	118.755	886.778	475.137	-135.682
79	-525.199	-265.150	135.930	5513.311	706.472	-152.854
80	-5217.619	-506.027	152.061	10313.599	1849.015	-169.041
81	-10103.906	1737.764	-169.247	5190.329	-444.984	152.601
82	-5065.805	517.241	-152.784	515.659	-68.481	135.981
83	-210.121	268.912	-136.459	-4211.047	-183.004	119.548
84	4479.265	393.162	-121.093	-8778.172	-306.499	104.276
85	9003.911	466.429	-105.468	-11979.341	-559.724	-116.494
86	13313.271	672.568	57.158	-16983.187	-503.075	-48.968
87	16983.398	503.057	49.702	-19772.830	-363.105	-24.459
88	19772.900	363.025	25.903	-21718.213	-212.343	28.349
89	21718.158	212.466	-29.898	-22790.623	-73.632	52.120
90	22790.637	73.603	-49.564	-23138.582	-25.399	-94.626
91	23138.932	25.409	96.134	-22779.957	118.660	-35.949
92	22780.141	-118.712	35.083	-21562.736	254.054	-18.786
93	21562.781	-254.101	19.600	-19482.100	382.525	5.825
94	19482.133	-382.449	-5.116	-16542.410	532.106	13.286
95	16542.500	-532.168	-12.899	-12742.032	634.686	87.212
96	12741.949	-634.679	-86.869	-8179.189	697.704	-107.751
97	8391.679	-489.796	106.248	-3799.856	537.404	-123.113
98	4054.148	-377.369	121.594	848.418	469.795	-138.401
99	-486.593	-259.775	137.743	5458.868	701.225	-154.565
100	-5162.907	-500.770	153.469	10241.331	1843.561	-170.474
101	-10033.351	1736.297	-168.522	5123.402	-443.581	151.955
102	-4998.896	515.810	-152.862	453.562	-66.972	136.204
103	-147.915	267.442	-136.939	-4268.688	-181.462	119.952
104	4537.155	391.503	-121.013	-8831.122	-304.829	104.167
105	9056.904	464.829	-106.265	-12014.482	-558.457	-114.965
106	13348.330	671.241	53.939	-17014.367	-501.867	-46.156
107	17014.734	501.916	48.031	-19800.697	-361.988	-22.949
108	19800.992	361.889	23.647	-21742.687	-211.121	29.868
109	21742.930	211.232	-28.894	-22811.857	-72.400	51.193

COMBINACION 3 1.35(G1+G2)+1.5(SCMAX-EC1)+ MHIPER-PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	22812.045	72.244	-51.254	-23156.445	-24.116	-92.058
111	23156.586	24.259	94.672	-22794.242	119.778	-35.083
112	22794.119	-119.820	35.095	-21573.477	255.156	-18.830
113	21573.594	-255.300	18.805	-19489.270	383.766	5.999
114	19489.098	-383.604	-3.778	-16545.338	533.271	11.458
115	16545.479	-533.197	-11.792	-12743.116	635.486	86.109
116	12742.910	-635.477	-84.918	-8176.569	699.007	-110.080
117	8391.338	-489.691	105.550	-3800.035	537.288	-122.286
118	4054.056	-377.242	120.902	847.972	469.733	-137.737
119	-486.436	-259.787	135.487	5458.202	1753.602	-152.327
120	-5162.789	-1553.157	152.806	10241.407	1843.525	-169.815
121	-10034.224	1736.347	-169.402	5123.977	-443.593	152.979
122	-4999.451	515.838	-152.830	453.905	-67.038	136.145
123	-148.437	267.503	-137.057	-4268.433	-181.558	120.126
124	4536.792	391.644	-122.005	-8831.580	-304.923	105.182
125	9057.821	465.043	-107.358	-12014.111	-558.834	-113.359
126	13348.431	671.713	51.980	-17015.324	-502.268	-44.174
127	17015.529	502.118	45.994	-19801.918	-362.072	-21.268
128	19801.840	362.174	22.522	-21744.346	-211.484	30.326
129	21744.484	211.249	-28.584	-22813.432	-72.404	50.707
130	22813.514	72.460	-50.669	-23157.982	-24.200	-91.707
131	23157.807	24.160	92.588	-22795.367	119.821	-33.084
132	22795.518	-119.972	34.648	-21574.348	255.331	-20.282
133	21574.488	-255.266	22.411	-19490.527	383.667	2.110
134	19490.527	-383.611	-0.894	-16546.615	533.312	8.911
135	16546.697	-533.316	-8.941	-12743.150	635.753	83.465
136	12743.114	-635.659	-83.178	-8176.402	699.201	-111.214
137	8391.418	-489.423	107.937	-3800.603	537.055	-124.803
138	4055.147	-376.944	122.037	846.023	469.390	-138.659
139	-484.075	-259.386	136.544	5454.656	1753.205	-153.402
140	-5158.946	-1552.731	153.586	10236.399	1837.134	-163.502
141	-10028.221	1742.182	-174.978	5118.686	-443.486	151.610
142	-4994.012	515.746	-150.162	449.206	-66.879	133.455
143	-143.536	267.265	-134.733	-4272.539	-181.375	117.931
144	4540.797	391.443	-120.711	-8834.800	-304.707	103.857
145	9060.772	464.721	-105.316	-12014.251	-558.531	-114.396
146	13348.017	671.408	49.979	-17014.590	-502.008	-41.914
147	17014.668	502.061	43.688	-19801.254	-362.010	-19.548
148	19801.021	361.888	21.785	-21742.803	-211.206	30.769
149	21742.873	211.335	-29.304	-22811.996	-72.533	51.278
150	22811.770	72.454	-51.161	-23156.246	-24.175	-91.940
151	23156.240	24.114	94.427	-22793.500	119.923	-34.960
152	22793.359	-119.939	34.999	-21572.738	255.160	-20.412
153	21572.514	-255.184	23.890	-19488.359	383.601	0.480
154	19488.588	-383.569	-0.507	-16545.166	533.268	8.728
155	16545.193	-533.255	-7.819	-12741.599	635.733	81.873
156	12741.600	-635.725	-81.557	-8173.497	699.355	-112.821
157	8388.450	-489.458	109.115	-3797.868	537.050	-126.046
158	4052.078	-376.971	122.831	849.357	469.379	-139.408
159	-487.935	-259.397	137.184	5458.927	1753.292	-153.909
160	-5163.320	-1552.869	152.667	10240.926	1843.222	-169.666
161	-10033.115	1736.558	-173.714	5122.124	-443.811	157.407
162	-4997.526	516.048	-157.339	451.390	-67.237	140.784
163	-145.750	267.711	-142.173	-4271.665	-181.749	125.251
164	4540.226	391.764	-127.606	-8835.082	-305.108	110.918

COMBINACION 3 1.35(G1+G2)+1.5(SCMAX-EC1)+ MHIPER-PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	9061.171	465.265	-114.396	-12016.245	-558.910	-106.744
166	13350.244	671.418	53.017	-17016.736	-502.009	-45.429
167	17016.506	502.051	45.427	-19803.199	-362.062	-19.127
168	19802.980	361.881	19.137	-21744.572	-211.181	33.256
169	21744.777	211.228	-29.343	-22813.555	-72.349	49.753
170	22813.490	72.425	-48.893	-23158.178	-24.242	-94.926
171	23157.969	24.254	98.017	-22795.379	119.773	-38.954
172	22795.146	-119.899	38.868	-21574.336	255.303	-22.958
173	21574.295	-255.318	23.771	-19490.230	383.708	0.251
174	19489.861	-383.703	2.588	-16546.084	533.387	4.839
175	16546.199	-533.461	-5.369	-12742.279	635.958	79.658
176	12742.123	-635.950	-78.438	-8170.604	699.670	-116.396
177	8385.683	-489.613	110.858	-3794.097	537.257	-127.552
178	4048.634	-377.179	124.556	853.454	469.489	-141.263
179	-491.725	-259.401	139.125	5463.042	1753.363	-155.851
180	-5167.204	-1552.944	154.544	10245.771	1843.352	-171.535
181	-10035.207	1736.795	-169.416	5124.243	-444.071	153.142
182	-4999.688	516.303	-153.562	452.770	-67.495	136.903
183	-147.077	267.932	-137.689	-4271.006	-182.000	120.805
184	4539.269	392.037	-123.890	-8834.874	-305.368	107.174
185	9060.688	465.406	-109.762	-12015.780	-558.760	-110.556
186	13347.858	670.553	50.223	-17011.279	-501.120	-43.164
187	17011.430	501.095	46.210	-19795.029	-361.187	-21.467
188	19795.211	361.062	21.465	-21734.574	-210.430	32.107
189	21734.934	210.556	-30.521	-22801.949	-71.681	51.359
190	22802.189	71.724	-48.880	-23144.641	-23.561	-94.157
191	23144.434	23.542	94.051	-22780.016	120.505	-35.355
192	22780.049	-120.440	39.098	-21557.508	255.790	-24.764
193	21557.473	-255.903	24.779	-19471.016	384.460	0.960
194	19470.832	-384.539	-0.301	-16524.740	534.158	7.529
195	16524.307	-534.132	-5.880	-12718.051	636.607	79.322
196	12718.050	-636.671	-78.952	-8129.130	700.806	-115.190
197	8343.825	-490.734	109.384	-3749.100	538.362	-126.197
198	4003.168	-378.343	123.246	902.410	470.794	-139.947
199	-540.822	-260.721	137.410	5515.902	1754.571	-154.069
200	-5220.172	-1554.098	152.319	10302.185	1832.568	-168.584
201	-10094.148	1753.092	-172.685	5169.406	-448.459	155.637
202	-5044.817	520.695	-155.572	484.886	-71.834	139.043
203	-179.231	272.273	-140.715	-4251.791	-186.338	123.829
204	4520.133	396.457	-125.985	-8829.151	-309.743	109.221
205	9055.182	469.728	-112.184	-12020.512	-561.650	-108.462
206	13347.809	670.588	51.392	-17011.398	-501.231	-43.950
207	17011.393	501.290	45.139	-19795.705	-361.375	-19.425
208	19795.596	361.369	19.443	-21735.594	-210.652	33.037
209	21735.672	210.528	-29.187	-22802.168	-71.562	50.139
210	22802.266	71.404	-50.185	-23143.711	-23.110	-92.830
211	23143.824	23.165	95.356	-22777.875	120.953	-35.753
212	22777.750	-120.897	35.744	-21554.484	256.208	-21.211
213	21554.322	-256.290	24.815	-19467.156	384.818	-0.417
214	19467.207	-384.794	0.478	-16520.633	534.517	7.445
215	16520.398	-534.534	-6.089	-12714.060	636.974	80.147
216	12714.183	-637.067	-80.103	-8091.812	702.199	-113.963
217	8307.402	-492.072	109.710	-3709.535	539.566	-126.624
218	3964.337	-379.404	123.225	944.025	1754.075	-139.796
219	-581.710	-1543.999	137.390	5562.209	1755.619	-154.154

COMBINACION 3 1.35(G1+G2)+1.5(SCMAX-EC1)+ MHIPER-PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	-5266.016	-1555.160	153.474	10348.168	1833.561	-169.757
221	-10136.753	1756.577	-172.981	5202.640	-451.707	156.007
222	-5077.915	523.926	-155.712	507.573	-75.270	139.145
223	-201.479	275.663	-140.630	-4240.052	-189.756	123.707
224	4509.264	399.660	-126.050	-8827.769	-312.958	109.278
225	9054.097	472.771	-112.281	-12021.826	-561.073	-108.867
226	13331.174	659.944	53.758	-16963.488	-490.417	-45.916
227	16963.287	490.482	45.954	-19715.633	-350.377	-20.756
228	19715.680	350.342	22.835	-21623.344	-199.718	29.976
229	21623.332	199.672	-29.030	-22658.430	-60.948	50.320
230	22658.689	60.924	-48.182	-22968.389	-12.682	-95.747
231	22968.602	12.734	97.624	-22572.082	131.032	-37.881
232	22572.328	-130.986	37.962	-21317.852	265.976	-22.931
233	21317.918	-265.987	25.441	-19200.254	394.298	-1.105
234	19200.428	-394.222	1.724	-16223.917	543.727	5.472
235	16223.777	-543.732	-3.990	-12386.883	646.152	78.008
236	12386.969	-646.124	-78.209	-7691.839	785.905	86.517
237	7812.460	-672.966	-148.470	-3142.408	554.108	-127.105
238	3403.647	-348.031	123.248	1410.917	1723.075	-139.884
239	-1179.944	-1558.734	137.527	6235.079	1758.252	-153.517
240	-5935.188	-1557.700	152.159	11028.574	1848.203	-169.138
241	-10817.160	1809.339	-169.744	5725.353	-505.552	152.750
242	-5599.775	577.713	-152.409	871.086	-127.976	135.823
243	-561.392	327.889	-137.380	-4036.340	-241.538	120.472
244	4311.235	449.975	-122.847	-8781.305	-363.193	106.031
245	9010.321	520.499	-108.577	-12139.740	-584.047	-124.211
246	13336.832	650.528	55.627	-16954.170	-482.506	-48.317
247	16954.613	482.522	50.737	-19693.975	-343.794	-25.463
248	19694.148	343.785	25.395	-21588.230	-193.973	28.364
249	21588.117	194.155	-27.497	-22612.818	-56.294	48.028
250	22612.758	56.187	-44.078	-22906.480	-8.402	-100.209
251	22906.463	8.322	100.256	-22496.029	135.287	-40.387
252	22496.031	-135.254	41.831	-21223.715	270.245	-27.171
253	21223.613	-270.192	29.056	-19089.859	406.241	29.401
254	19089.945	-406.359	-27.591	-16097.543	547.499	0.940
255	16097.725	-547.437	-0.972	-12245.682	649.017	75.707
256	12245.786	-649.148	-75.291	-7535.404	787.460	83.125
257	7723.417	-660.098	-180.083	-2879.824	533.966	-127.249
258	3163.268	-348.500	123.612	1662.124	1729.641	-140.319
259	-1370.022	-1563.776	139.441	4807.475	1620.300	-465.728
260	-4619.953	-1511.989	219.207	8880.840	1813.501	-371.407
261	-8760.151	1692.088	-156.594	5253.691	-666.114	110.728
262	-5211.725	695.636	-172.049	1998.940	19.847	157.343
263	-1888.951	63.586	-340.424	-1405.519	-131.583	84.743
264	1622.746	304.427	-86.070	-4839.237	-251.212	73.743
265	5099.499	463.026	-77.659	-7896.837	-445.046	64.891
266	8299.459	446.772	-58.863	-10947.081	-362.311	46.175
267	10947.037	362.331	-47.550	-13147.541	-309.993	34.859
268	13147.562	309.891	-32.117	-14891.278	-221.404	18.987
269	14891.049	221.188	-16.959	-16181.141	-169.523	4.056
270	16180.998	169.388	-4.214	-17016.648	-118.320	-8.379
271	17016.680	118.247	8.461	-17396.746	-68.427	-21.554
272	17396.742	68.134	25.083	-17429.324	-25.335	-26.405
273	17429.609	25.447	26.324	-16997.998	95.291	30.567
274	16997.945	-95.250	-29.481	-16067.715	224.424	3.506

COMBINACION 3 1.35(G1+G2)+1.5(SCMAX-EC1)+ MHIPER-PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	16067.629	-224.639	-3.345	-14636.946	336.000	29.570
276	14636.974	-335.943	-29.045	-12708.914	458.992	85.736
277	12708.752	-458.879	-85.026	-10276.350	582.554	142.104
278	10276.324	-582.483	-142.052	-7345.560	695.643	168.184
279	7344.900	-695.680	-167.699	-3915.343	810.215	193.945
280	3915.535	-810.319	-193.881	-8.596	1461.187	-1076.156

COMBINACION 36 1.35(G1+G2)+1.5(SCMIN-EC1)+ MHIPER-PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	6.586	375.188	-136.594	-2311.710	-268.485	123.887
2	2205.420	223.386	-124.013	-4105.999	-174.235	111.293
3	4106.033	174.167	-111.276	-5708.444	-126.033	98.532
4	5708.458	126.070	-98.771	-7012.513	-78.701	86.070
5	7012.549	78.663	-86.102	-8018.212	-31.987	73.438
6	8018.498	31.932	-73.170	-8725.934	14.247	60.467
7	8726.159	-14.321	-60.402	-9135.418	59.990	47.735
8	9135.527	-59.826	-47.864	-9246.695	104.984	35.237
9	9246.520	-104.961	-35.277	-9059.586	149.367	22.519
10	9059.523	-149.327	-22.582	-8574.400	151.156	9.788
11	8574.383	-151.210	-9.629	-7790.714	150.827	-3.133
12	7790.937	-150.692	2.650	-6709.283	147.415	-15.312
13	6709.263	-147.440	16.070	-5329.489	140.827	-28.724
14	5329.406	-140.923	28.496	-3651.435	130.773	-41.184
15	3651.469	-130.838	41.627	-1675.188	117.712	-54.370
16	1675.277	-117.640	53.423	599.388	102.889	-66.120
17	-599.427	-103.037	66.556	3172.420	78.866	-79.270
18	-3188.396	-94.548	79.848	6094.700	83.940	-92.564
19	-6107.338	-96.748	93.009	9362.125	769.110	-105.709
20	-9372.822	-780.575	104.963	12994.617	1685.312	-117.674
21	-13001.226	1939.690	-172.211	7494.616	-723.216	155.270
22	-7502.944	717.867	-155.194	2626.036	-297.725	138.248
23	-2645.031	282.805	-138.256	-1619.100	-263.499	121.318
24	1603.887	251.172	-121.356	-5300.911	-235.821	104.373
25	5280.710	222.095	-104.408	-7788.342	-146.241	87.436
26	8136.497	128.682	-87.493	-10380.418	-91.251	70.492
27	10380.430	91.299	-70.853	-12094.084	-55.787	53.910
28	12094.056	55.791	-53.509	-13277.693	-20.713	36.487
29	13277.695	20.610	-36.978	-13930.859	13.896	20.022
30	13931.033	-13.819	-19.544	-14054.125	47.266	2.608
31	14053.891	-47.184	-2.714	-13647.398	78.675	-14.283
32	13647.006	-78.792	13.986	-12709.871	107.242	-30.932
33	12709.865	-107.275	30.965	-11242.580	131.670	-47.862
34	11242.706	-131.784	47.991	-9244.931	151.313	-64.864
35	9245.098	-151.220	65.036	-6717.193	165.540	-82.004
36	6717.256	-165.573	81.572	-3659.179	175.472	-98.513
37	3651.042	-184.553	98.923	-35.578	181.679	-115.879
38	17.526	-193.348	115.184	4163.101	199.288	-132.140
39	-4189.024	-214.719	132.363	8983.966	646.085	-149.309
40	-9005.513	-660.897	148.831	14451.061	1916.105	-165.775
41	-14466.439	1969.179	-171.744	8870.291	-668.378	154.800
42	-8879.504	663.026	-154.448	3914.030	-226.893	137.484
43	-3936.364	212.045	-138.218	-416.429	-208.647	121.257
44	397.009	196.443	-121.232	-4183.078	-197.001	104.265
45	4156.504	181.780	-103.935	-6099.325	-179.463	86.939
46	7180.526	163.926	-84.471	-9514.969	-124.636	67.571
47	9514.952	124.555	-67.543	-11318.991	-88.270	50.562
48	11319.129	88.314	-50.395	-12593.061	-52.412	33.485
49	12593.019	52.480	-33.658	-13336.984	-17.104	16.698
50	13337.091	16.976	-16.690	-13550.572	17.169	-0.231
51	13550.794	-17.196	0.548	-13234.055	49.212	-17.522
52	13234.077	-49.083	17.310	-12387.701	77.771	-34.253
53	12387.539	-77.784	34.290	-11010.750	102.260	-51.220
54	11010.672	-102.211	51.272	-9103.945	121.505	-68.248

COMBINACION 4 1.35(G1+G2)+1.5(SCMIN-EC1)+ MHIPER-PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	9103.781	-121.608	68.131	-6666.708	135.569	-85.030
56	6666.772	-135.555	85.223	-3699.414	145.167	-102.178
57	3685.729	-158.800	101.931	-147.366	155.838	-118.887
58	128.570	-167.642	118.904	3975.513	174.080	-135.831
59	-4002.243	-189.672	135.899	8720.932	621.635	-152.837
60	-8742.797	-636.469	152.452	14112.296	1890.712	-169.401
61	-14126.731	1961.972	-166.408	8552.654	-662.524	149.460
62	-8561.861	657.183	-149.718	3618.230	-220.016	132.797
63	-3640.847	205.162	-133.118	-690.233	-201.032	116.156
64	670.322	185.543	-115.824	-4424.826	-185.712	98.898
65	4408.107	173.833	-99.310	-6329.441	-171.404	82.425
66	7409.951	155.853	-86.116	-9722.948	-116.653	69.164
67	9722.947	116.523	-68.788	-11505.504	-80.447	51.876
68	11505.700	80.504	-51.867	-12758.043	-44.791	34.911
69	12758.087	44.799	-34.902	-13480.447	-9.651	17.901
70	13480.621	9.574	-17.921	-13672.613	24.381	1.070
71	13672.650	-24.213	-0.696	-13334.817	56.093	-16.243
72	13334.788	-56.185	16.400	-12466.567	84.828	-33.364
73	12466.646	-84.841	33.294	-11068.149	109.305	-50.310
74	11068.222	-109.182	50.209	-9139.838	128.546	-67.159
75	9139.845	-128.615	67.012	-6681.314	142.675	-83.962
76	6681.160	-142.633	83.951	-3692.391	152.289	-100.902
77	3677.148	-167.358	101.067	-113.137	164.422	-118.036
78	94.331	-176.267	118.067	4035.336	182.553	-135.006
79	-4062.201	-198.108	134.761	8806.496	629.895	-151.724
80	-8828.373	-644.752	151.988	14223.919	1899.304	-168.929
81	-14238.439	1964.311	-169.853	8657.461	-664.482	152.911
82	-8666.691	659.149	-152.902	3715.721	-222.312	135.959
83	-3738.309	207.440	-136.557	-600.012	-203.490	119.601
84	580.125	188.025	-119.527	-4341.649	-188.312	102.582
85	4324.870	176.329	-102.650	-6253.034	-173.983	85.717
86	7333.654	158.490	-84.479	-9653.748	-119.239	67.551
87	9653.889	119.242	-67.387	-11443.719	-83.113	50.486
88	11443.758	83.002	-50.185	-12703.268	-47.198	33.196
89	12703.352	47.338	-33.538	-13432.830	-12.132	16.568
90	13432.839	12.060	-15.970	-13631.909	21.921	-0.933
91	13632.190	-21.888	1.115	-13301.287	53.779	-18.121
92	13301.441	-53.800	17.982	-12440.320	82.539	-34.950
93	12440.413	-82.583	35.093	-11049.087	107.022	-51.984
94	11049.152	-106.956	52.003	-9127.828	126.280	-68.903
95	9127.938	-126.279	68.870	-6676.351	140.339	-85.809
96	6676.334	-140.392	85.651	-3694.759	149.999	-102.582
97	3678.971	-165.298	102.300	-121.076	162.358	-119.231
98	102.193	-174.262	119.347	4021.478	180.592	-136.305
99	-4048.257	-196.172	136.233	8787.022	628.067	-153.183
100	-8808.852	-642.909	153.408	14197.006	1897.295	-170.352
101	-14213.403	1963.818	-169.917	8633.239	-664.056	152.973
102	-8642.515	658.701	-152.674	3693.218	-221.782	135.732
103	-3715.819	206.940	-136.272	-620.856	-202.924	119.344
104	601.040	187.390	-119.992	-4360.749	-187.663	103.071
105	4343.939	175.763	-102.946	-6270.606	-173.355	85.967
106	7351.129	157.806	-85.683	-9669.496	-118.610	68.715
107	9669.677	118.606	-68.384	-11457.611	-82.509	51.473
108	11457.902	82.474	-51.259	-12715.676	-46.657	34.371
109	12715.809	46.735	-34.114	-13443.548	-11.534	17.160

COMBINACION 4 1.35(G1+G2)+1.5(SCMIN-EC1)+ MHIPER-PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	13443.738	11.392	-17.202	-13641.103	22.607	0.315
111	13641.248	-22.506	0.249	-13308.775	54.367	-17.095
112	13308.654	-54.344	17.158	-12446.061	83.007	-34.141
113	12446.172	-83.106	34.105	-11053.303	107.527	-51.086
114	11053.342	-107.465	51.098	-9130.205	126.883	-68.005
115	9130.320	-126.867	68.077	-6677.137	140.868	-84.958
116	6677.207	-140.921	84.458	-3693.673	150.575	-101.398
117	3678.022	-165.996	102.109	-118.110	163.044	-119.035
118	99.100	-174.873	117.941	4026.040	181.240	-134.891
119	-4052.929	-196.811	135.131	8793.149	1681.097	-152.084
120	-8815.248	-1695.958	151.083	14205.617	1897.907	-168.035
121	-14222.774	1964.064	-169.776	8641.596	-664.259	152.830
122	-8650.809	658.916	-152.980	3700.731	-222.025	136.047
123	-3723.341	207.135	-136.596	-613.987	-203.144	119.649
124	594.187	187.586	-119.974	-4354.758	-187.825	103.024
125	4338.006	175.991	-102.996	-6265.188	-173.596	86.096
126	7345.677	158.098	-85.699	-9664.547	-118.907	68.756
127	9664.607	118.836	-68.484	-11453.408	-82.743	51.531
128	11453.268	82.870	-51.358	-12712.172	-47.102	34.377
129	12712.193	46.914	-33.872	-13440.393	-11.687	17.064
130	13440.498	11.781	-17.016	-13638.785	22.249	0.107
131	13638.699	-22.311	0.111	-13306.816	54.171	-17.030
132	13306.951	-54.258	17.303	-12444.485	82.948	-34.235
133	12444.699	-82.918	34.480	-11052.406	107.342	-51.364
134	11052.495	-107.283	51.447	-9129.960	126.675	-68.408
135	9130.014	-126.708	68.317	-6677.269	140.760	-85.332
136	6677.302	-140.718	85.139	-3694.622	150.316	-102.057
137	3678.658	-165.888	101.574	-119.027	162.966	-118.517
138	100.200	-174.781	118.705	4024.863	181.121	-135.649
139	-4051.752	-196.703	135.729	8791.703	1680.993	-152.680
140	-8813.716	-1695.823	151.687	14203.795	1897.777	-168.630
141	-14219.930	1963.937	-167.797	8639.660	-664.167	150.853
142	-8648.754	658.824	-151.557	3699.312	-221.890	134.604
143	-3721.900	206.995	-134.892	-614.914	-203.046	117.952
144	595.139	187.521	-117.937	-4355.377	-187.753	101.006
145	4338.804	175.832	-101.463	-6265.588	-173.461	84.506
146	7346.274	158.056	-85.551	-9665.184	-118.829	68.603
147	9665.054	118.850	-68.387	-11454.010	-82.722	51.337
148	11453.686	82.645	-50.878	-12712.234	-46.895	33.929
149	12712.171	47.040	-33.677	-13440.697	-11.827	16.745
150	13440.543	11.753	-16.653	-13638.625	22.259	-0.248
151	13638.578	-22.295	0.728	-13306.576	54.169	-17.656
152	13306.455	-54.197	17.706	-12444.441	82.870	-34.602
153	12444.307	-82.902	35.011	-11051.762	107.342	-51.990
154	11051.956	-107.365	51.994	-9129.239	126.743	-68.898
155	9129.359	-126.719	68.779	-6676.414	140.789	-85.768
156	6676.485	-140.815	85.578	-3693.571	150.431	-102.516
157	3677.530	-165.930	101.706	-117.872	162.979	-118.682
158	99.035	-174.800	118.916	4026.379	181.112	-135.854
159	-4053.273	-196.697	135.910	8793.469	1681.042	-152.861
160	-8815.432	-1695.908	152.735	14205.488	1897.847	-169.675
161	-14222.026	1964.056	-174.464	8640.797	-664.257	157.518
162	-8649.978	658.903	-157.657	3699.979	-222.003	140.720
163	-3722.551	207.147	-141.229	-614.742	-203.146	124.283
164	594.960	187.537	-124.819	-4355.217	-187.822	107.874

COMBINACION 4 1.35(G1+G2)+1.5(SCMIN-EC1)+ MHIPER-PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	4338.492	176.054	-107.641	-6265.922	-173.654	90.695
166	7346.454	158.131	-83.928	-9665.780	-118.927	67.010
167	9665.553	118.973	-67.001	-11454.730	-82.846	50.049
168	11454.545	82.730	-50.045	-12713.301	-46.959	33.062
169	12713.297	47.021	-32.254	-13441.970	-11.806	15.303
170	13441.808	11.840	-15.158	-13640.443	22.126	-1.813
171	13640.276	-22.087	2.397	-13308.729	53.998	-19.436
172	13308.568	-54.153	19.375	-12446.628	82.864	-36.351
173	12446.636	-82.835	36.405	-11054.544	107.252	-53.362
174	11054.432	-107.227	53.357	-9132.275	126.591	-70.333
175	9132.355	-126.676	70.429	-6679.701	140.749	-87.377
176	6679.821	-140.715	86.760	-3697.186	150.312	-103.671
177	3681.330	-165.840	103.949	-121.720	162.931	-120.877
178	102.902	-174.805	120.405	4022.790	181.044	-137.346
179	-4049.605	-196.563	137.313	8789.682	1680.961	-154.270
180	-8811.639	-1695.828	154.134	14202.224	1897.809	-171.085
181	-14215.885	1963.631	-170.431	8636.911	-663.863	153.490
182	-8646.146	658.508	-153.456	3697.288	-221.621	136.513
183	-3719.834	206.750	-138.098	-616.269	-202.772	121.158
184	596.415	187.250	-120.938	-4355.746	-187.527	103.952
185	4339.038	175.644	-104.090	-6265.239	-173.182	87.095
186	7346.095	157.845	-85.269	-9664.479	-118.657	68.345
187	9664.385	118.644	-67.820	-11452.536	-82.528	50.864
188	11452.689	82.367	-50.871	-12710.369	-46.609	33.923
189	12710.601	46.686	-33.544	-13438.211	-11.471	16.586
190	13438.427	11.553	-16.071	-13636.076	22.441	-0.902
191	13635.940	-22.498	0.841	-13303.430	54.371	-17.830
192	13303.500	-54.266	18.349	-12440.922	82.948	-35.357
193	12440.758	-82.966	35.339	-11047.994	107.404	-52.330
194	11047.831	-107.419	52.321	-9125.090	126.745	-69.253
195	9124.878	-126.752	68.949	-6671.630	140.806	-85.903
196	6671.682	-140.874	85.747	-3688.303	150.486	-102.703
197	3672.415	-165.995	102.712	-112.314	163.079	-119.647
198	93.450	-174.995	118.981	4032.626	181.360	-135.929
199	-4059.400	-196.912	135.967	8800.127	1681.212	-152.911
200	-8822.008	-1696.046	153.022	14213.447	1898.039	-169.976
201	-14229.852	1964.569	-173.343	8647.236	-664.839	156.395
202	-8656.447	659.490	-156.550	3704.823	-222.542	139.593
203	-3727.425	207.680	-139.470	-611.380	-203.694	122.538
204	591.579	188.208	-123.289	-4353.823	-188.452	106.367
205	4337.072	176.498	-106.246	-6265.978	-174.115	89.290
206	7347.561	159.161	-84.933	-9669.840	-120.005	67.990
207	9669.764	120.035	-67.780	-11462.062	-83.923	50.896
208	11461.924	83.940	-50.853	-12724.104	-48.168	33.894
209	12724.025	48.110	-33.057	-13455.866	-12.878	16.130
210	13455.990	12.798	-16.127	-13657.383	21.243	-0.742
211	13657.490	-21.156	1.273	-13328.842	53.075	-18.145
212	13328.711	-53.048	18.204	-12470.189	81.775	-35.134
213	12470.174	-81.859	35.643	-11081.080	106.357	-52.525
214	11081.162	-106.330	52.558	-9162.086	125.755	-69.449
215	9162.026	-125.717	69.327	-6712.791	139.765	-86.266
216	6712.855	-139.849	86.226	-3733.348	149.449	-103.168
217	3717.334	-164.950	102.491	-161.151	161.910	-119.468
218	142.229	-173.750	119.703	3979.673	1462.328	-136.643
219	-4006.603	-1477.902	136.697	8743.475	1679.912	-153.645

COMBINACION 4 1.35(G1+G2)+1.5(SCMIN-EC1)+ MHIPER-PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	-8765.533	-1694.784	153.115	14153.078	1896.771	-170.066
221	-14165.913	1959.958	-172.448	8598.411	-660.001	155.503
222	-8607.582	654.634	-155.756	3669.786	-217.912	138.817
223	-3692.393	203.063	-139.284	-632.861	-199.132	122.333
224	612.970	183.613	-122.939	-4361.348	-183.868	105.982
225	4344.563	171.982	-105.904	-6259.929	-169.570	88.931
226	7343.902	155.977	-83.770	-9656.926	-116.690	66.872
227	9656.697	116.743	-66.873	-11439.630	-80.558	49.898
228	11439.521	80.529	-49.479	-12692.039	-44.760	32.490
229	12691.978	44.686	-32.232	-13414.187	-9.581	15.307
230	13414.391	9.602	-14.854	-13606.209	24.367	-2.114
231	13606.388	-24.365	2.453	-13268.229	56.075	-19.364
232	13268.455	-56.093	19.402	-12400.252	84.575	-36.321
233	12400.443	-84.647	36.651	-11001.811	108.943	-53.591
234	11002.056	-108.851	53.499	-9073.584	128.055	-70.439
235	9073.686	-128.068	70.187	-6614.833	142.074	-87.160
236	6614.887	-142.008	87.238	-3626.289	151.670	-104.145
237	3609.487	-167.238	103.648	-43.859	164.642	-120.597
238	24.386	-179.937	119.922	4117.176	1468.905	-136.874
239	-4134.291	-1481.088	137.031	8880.547	1683.067	-153.980
240	-8902.805	-1697.919	153.684	14300.246	1899.932	-170.632
241	-14314.173	1972.394	-168.281	8709.865	-673.564	151.337
242	-8719.094	668.213	-151.762	3744.309	-230.550	134.812
243	-3767.236	215.771	-135.080	-595.395	-211.450	118.130
244	575.051	195.996	-118.737	-4361.161	-196.303	101.801
245	4344.172	184.649	-101.810	-6351.871	-177.651	84.856
246	7390.245	168.477	-83.143	-9754.438	-130.628	66.196
247	9754.605	130.600	-65.722	-11588.823	-95.551	48.826
248	11588.955	95.557	-48.878	-12893.201	-60.695	31.843
249	12893.033	60.793	-31.667	-13667.159	-26.374	14.729
250	13667.057	26.325	-13.732	-13910.929	7.067	-3.179
251	13910.936	-7.148	3.243	-13624.521	38.541	-20.215
252	13624.596	-38.515	20.530	-12807.947	66.793	-37.424
253	12807.993	-66.774	37.793	-11461.238	90.760	-54.754
254	11461.418	-90.864	55.011	-9584.179	109.618	-71.939
255	9584.438	-109.514	71.971	-7177.306	122.617	-88.888
256	7177.521	-122.698	88.757	-4240.021	130.926	-105.718
257	4214.309	-148.449	105.684	-694.086	143.189	-122.571
258	673.203	-156.871	122.852	3418.201	1452.172	-139.802
259	-3439.952	-1464.432	139.956	6808.406	1666.421	-156.916
260	-6834.253	-1681.356	157.007	11540.615	1883.346	-173.957
261	-11555.570	1739.577	-119.110	7817.192	-767.039	106.403
262	-7822.960	762.974	-106.375	4438.676	-44.111	93.659
263	-4453.821	32.594	-93.970	1415.257	-53.560	81.263
264	-1431.247	40.734	-81.514	-1224.515	-19.093	68.862
265	1205.270	3.448	-68.399	-3070.726	-49.196	55.723
266	3469.010	49.014	-52.718	-5325.778	-28.623	39.993
267	5325.704	28.663	-39.697	-6884.208	-40.675	27.023
268	6884.184	40.745	-27.523	-8144.714	-53.493	14.823
269	8144.505	53.389	-15.020	-9106.765	-66.620	2.232
270	9106.722	66.719	-2.235	-9770.674	-80.778	-10.482
271	9770.638	80.704	10.443	-10136.410	-96.240	-23.206
272	10136.486	96.134	23.055	-10203.719	-65.952	-35.848
273	10203.984	66.068	35.829	-9973.139	-36.637	-48.518
274	9973.186	36.767	48.385	-9444.512	-5.979	-61.006

COMBINACION 4 1.35(G1+G2)+1.5(SCMIN-EC1)+ MHIPER-PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	9444.458	5.705	61.173	-8617.084	25.513	-73.893
276	8617.246	-25.454	73.828	-7491.755	57.028	-86.538
277	7491.782	-56.860	86.457	-6068.255	88.993	-99.136
278	6068.222	-88.939	99.174	-4346.709	121.830	-111.879
279	4346.424	-121.878	111.597	-2326.596	156.090	-124.313
280	2326.617	-156.199	124.523	-8.190	1096.658	-137.237

RESPUESTA SECCIONAL A FLEXION (mT)

Isec	Sx(is)	Mu,pos	Mu,neg	Mcr,pos	Mcr,neg	Mdec,pos	Mdec,neg
1	0.00	13319.01	-15777.06	8387.62	-10790.24	6133.92	-7200.79
2	2.25	16101.66	-13343.82	10063.26	-9175.82	7800.69	-5593.75
3	4.50	18640.84	-11220.09	11612.88	-7727.76	9339.44	-4147.87
4	6.75	20852.85	-9454.01	12981.38	-6478.24	10696.36	-2896.84
5	9.00	22751.64	-8009.08	14174.02	-5412.63	11877.53	-1827.49
6	11.25	24306.71	-6874.81	15170.50	-4542.04	12863.56	-952.19
7	13.50	25525.14	-5994.30	15970.66	-3860.61	13654.89	-266.06
8	15.75	26392.48	-5393.66	16561.88	-3375.29	14239.49	223.13
9	18.00	26927.81	-5036.30	16953.41	-3075.39	14626.82	525.62
10	20.25	27108.23	-4923.82	17128.35	-2974.99	14800.37	626.91
11	22.50	26861.15	-5106.40	17063.90	-3118.81	14738.01	481.77
12	24.75	26110.93	-5644.60	16695.79	-3556.69	14375.92	40.22
13	27.00	24861.18	-6565.02	16019.21	-4298.59	13708.83	-706.97
14	29.25	23107.08	-7874.54	15020.10	-5364.20	12721.95	-1778.38
15	31.50	20879.07	-9629.14	13703.49	-6757.31	11419.07	-3176.05
16	33.75	18154.83	-11895.28	12037.96	-8515.55	9767.56	-4935.51
17	36.00	14988.03	-14674.78	10034.34	-10637.10	7776.38	-7052.18
18	38.25	11400.48	-18011.22	7722.57	-13235.53	5473.58	-9636.39
19	40.50	8291.32	-27194.96	5153.06	-18336.36	1970.82	-14405.74
20	42.75	4508.29	-31467.60	2459.57	-21499.01	-730.74	-17531.34
21	45.00	3353.45	-32982.41	1479.53	-23098.16	-1715.17	-19115.76
22	48.00	5506.11	-30442.96	3144.78	-21237.69	-42.83	-17280.22
23	51.00	10877.35	-20038.71	7363.37	-15667.13	5116.59	-12058.80
24	54.00	16325.38	-15134.79	11173.41	-11693.42	8914.82	-8109.46
25	57.00	21143.83	-11123.98	14441.47	-8352.76	12162.80	-4774.21
26	60.00	25018.58	-7842.70	15233.68	-5336.77	12930.75	-1751.66
27	63.00	28488.54	-5543.21	17413.65	-3432.59	15085.86	165.38
28	66.00	31204.58	-3879.94	19151.60	-1942.83	16801.38	1669.71
29	69.00	33154.00	-2778.11	20443.31	-870.10	18075.41	2755.26
30	72.00	34339.60	-2152.14	21281.93	-209.70	18902.68	3424.36
31	75.00	34743.59	-1953.31	21649.66	28.13	19266.50	3665.26
32	78.00	34364.53	-2159.79	21539.93	-162.97	19160.67	3471.10
33	81.00	33205.20	-2794.65	20950.56	-792.78	18582.66	2832.58
34	84.00	31284.83	-3907.46	19885.80	-1869.87	17535.58	1742.67
35	87.00	28601.05	-5591.86	18334.09	-3422.50	16006.30	175.47
36	90.00	25173.16	-7918.87	16289.98	-5479.86	13987.04	-1894.75
37	93.00	21023.91	-11033.24	13741.22	-8077.90	11462.55	-4499.34
38	96.00	16226.45	-15038.28	10766.60	-11323.36	8508.01	-7739.40
39	99.00	11142.74	-24148.10	7074.58	-16213.69	3893.72	-12304.16
40	102.00	5414.86	-30367.89	3146.56	-20520.16	-41.05	-16562.70
41	105.00	3343.96	-32973.70	1487.92	-23004.69	-1706.78	-19022.29
42	108.00	5495.36	-30433.54	3145.01	-21146.44	-42.60	-17188.98
43	111.00	10861.49	-20022.12	7327.90	-15583.54	5081.12	-11975.21
44	114.00	16305.24	-15115.37	11088.48	-11616.17	8829.89	-8032.20
45	117.00	21117.91	-11104.52	14286.45	-8291.92	12007.79	-4713.36
46	120.00	25005.57	-7836.04	15142.00	-5324.35	12839.06	-1739.24
47	123.00	28478.03	-5538.25	17329.84	-3433.51	15002.06	164.46
48	126.00	31194.04	-3874.98	19056.54	-1952.28	16706.32	1660.26
49	129.00	33144.05	-2774.73	20345.73	-884.97	17977.83	2740.38
50	132.00	34330.63	-2149.73	21189.68	-226.42	18810.42	3407.65
51	135.00	34735.87	-1951.60	21568.75	12.74	19185.60	3649.87
52	138.00	34358.23	-2158.33	21474.54	-174.81	19095.28	3459.25
53	141.00	33200.41	-2793.32	20902.81	-800.06	18534.91	2825.30
54	144.00	31281.52	-3906.49	19855.12	-1872.92	17504.90	1739.62
55	147.00	28599.19	-5591.02	18318.40	-3422.67	15990.62	175.30
56	150.00	25172.46	-7918.52	16284.95	-5479.18	13982.01	-1894.06
57	153.00	21024.00	-11033.31	13741.76	-8078.11	11463.10	-4499.56
58	156.00	16226.71	-15038.53	10767.63	-11324.30	8509.04	-7740.34
59	159.00	11142.23	-24147.57	7073.43	-16210.07	3892.57	-12300.54
60	162.00	5412.79	-30366.26	3146.60	-20504.86	-41.01	-16547.39
61	165.00	3341.34	-32971.22	1490.31	-22978.05	-1704.39	-18995.65
62	168.00	5492.61	-30431.38	3145.06	-21125.68	-42.55	-17168.22

RESPUESTA SECCIONAL A FLEXION (mT)

Isec	Sx(is)	Mu,pos	Mu,neg	Mcr,pos	Mcr,neg	Mdec,pos	Mdec,neg
63	171.00	10860.93	-20021.53	7326.64	-15580.55	5079.85	-11972.23
64	174.00	16306.03	-15115.85	11091.81	-11619.19	8833.22	-8035.23
65	177.00	21119.61	-11105.80	14296.53	-8295.87	12017.87	-4717.32
66	180.00	25008.07	-7836.98	15158.59	-5326.60	12855.66	-1741.48
67	183.00	28480.75	-5539.54	17351.39	-3433.27	15023.60	164.70
68	186.00	31196.74	-3876.04	19080.87	-1949.86	16730.66	1662.68
69	189.00	33146.58	-2775.60	20370.55	-881.19	18002.65	2744.17
70	192.00	34332.89	-2150.34	21212.79	-222.23	18833.54	3411.84
71	195.00	34737.80	-1952.03	21588.98	16.59	19205.82	3653.72
72	198.00	34359.77	-2158.69	21490.54	-171.91	19111.29	3462.15
73	201.00	33201.55	-2793.64	20914.18	-798.32	18546.28	2827.03
74	204.00	31282.28	-3906.72	19862.17	-1872.22	17511.95	1740.33
75	207.00	28599.58	-5591.13	18321.73	-3422.63	15993.95	175.33
76	210.00	25172.57	-7918.58	16285.76	-5479.29	13982.83	-1894.17
77	213.00	21023.92	-11033.25	13741.33	-8077.94	11462.66	-4499.39
78	216.00	16226.63	-15038.45	10767.31	-11324.01	8508.72	-7740.05
79	219.00	11142.38	-24147.74	7073.79	-16211.20	3892.93	-12301.67
80	222.00	5413.41	-30366.74	3146.58	-20509.41	-41.02	-16551.94
81	225.00	3342.09	-32971.94	1489.61	-22985.76	-1705.08	-19003.36
82	228.00	5493.59	-30432.02	3145.04	-21131.74	-42.56	-17174.28
83	231.00	10861.09	-20021.70	7327.00	-15581.41	5080.21	-11973.08
84	234.00	16305.81	-15115.62	11090.86	-11618.33	8832.27	-8034.37
85	237.00	21119.11	-11105.42	14293.57	-8294.71	12014.91	-4716.16
86	240.00	25007.34	-7836.61	15153.70	-5325.94	12850.76	-1740.82
87	243.00	28479.95	-5539.16	17345.05	-3433.34	15017.27	164.63
88	246.00	31195.94	-3875.73	19073.64	-1950.58	16723.43	1661.96
89	249.00	33145.83	-2775.34	20363.16	-882.32	17995.26	2743.04
90	252.00	34332.21	-2150.16	21205.88	-223.48	18826.62	3410.58
91	255.00	34737.21	-1951.90	21582.77	15.41	19199.62	3652.54
92	258.00	34359.30	-2158.58	21485.60	-172.81	19106.35	3461.26
93	261.00	33201.19	-2793.54	20910.58	-798.87	18542.68	2826.48
94	264.00	31282.03	-3906.64	19859.88	-1872.44	17509.66	1740.10
95	267.00	28599.44	-5591.10	18320.62	-3422.65	15992.84	175.32
96	270.00	25172.51	-7918.55	16285.36	-5479.24	13982.42	-1894.12
97	273.00	21023.92	-11033.25	13741.33	-8077.94	11462.66	-4499.39
98	276.00	16226.64	-15038.48	10767.39	-11324.08	8508.80	-7740.12
99	279.00	11142.34	-24147.70	7073.68	-16210.86	3892.82	-12301.33
100	282.00	5413.24	-30366.62	3146.59	-20508.19	-41.02	-16550.73
101	285.00	3341.88	-32971.73	1489.81	-22983.58	-1704.88	-19001.18
102	288.00	5493.40	-30431.85	3145.05	-21130.07	-42.56	-17172.61
103	291.00	10861.04	-20021.67	7326.91	-15581.19	5080.12	-11972.87
104	294.00	16305.86	-15115.68	11091.10	-11618.55	8832.51	-8034.58
105	297.00	21119.26	-11105.53	14294.45	-8295.06	12015.79	-4716.50
106	300.00	25007.54	-7836.71	15155.06	-5326.12	12852.12	-1741.00
107	303.00	28480.17	-5539.26	17346.79	-3433.32	15019.01	164.65
108	306.00	31196.16	-3875.82	19075.76	-1950.37	16725.54	1662.17
109	309.00	33146.04	-2775.42	20365.25	-882.00	17997.35	2743.36
110	312.00	34332.43	-2150.22	21208.05	-223.09	18828.79	3410.98
111	315.00	34737.38	-1951.94	21584.57	15.75	19201.42	3652.88
112	318.00	34359.45	-2158.61	21487.18	-172.52	19107.92	3461.54
113	321.00	33201.31	-2793.57	20911.72	-798.70	18543.82	2826.66
114	324.00	31282.12	-3906.67	19860.76	-1872.36	17510.54	1740.19
115	327.00	28599.50	-5591.12	18321.10	-3422.64	15993.31	175.33
116	330.00	25172.55	-7918.57	16285.63	-5479.27	13982.69	-1894.16
117	333.00	21023.92	-11033.25	13741.33	-8077.94	11462.66	-4499.39
118	336.00	16226.63	-15038.45	10767.31	-11324.01	8508.72	-7740.05
119	339.00	11142.36	-24147.71	7073.72	-16210.98	3892.86	-12301.45
120	342.00	5413.26	-30366.63	3146.59	-20508.34	-41.02	-16550.88
121	345.00	3341.93	-32971.78	1489.76	-22984.08	-1704.93	-19001.68
122	348.00	5493.45	-30431.89	3145.05	-21130.53	-42.56	-17173.07
123	351.00	10861.07	-20021.68	7326.96	-15581.30	5080.17	-11972.98
124	354.00	16305.84	-15115.66	11091.02	-11618.47	8832.43	-8034.51

RESPUESTA SECCIONAL A FLEXION (mT)

Isec	Sx(is)	Mu,pos	Mu,neg	Mcr,pos	Mcr,neg	Mdec,pos	Mdec,neg
125	357.00	21119.21	-11105.51	14294.23	-8294.97	12015.57	-4716.42
126	360.00	25007.48	-7836.68	15154.65	-5326.07	12851.71	-1740.95
127	363.00	28480.10	-5539.22	17346.16	-3433.33	15018.38	164.64
128	366.00	31196.09	-3875.79	19075.06	-1950.44	16724.84	1662.10
129	369.00	33145.98	-2775.40	20364.68	-882.09	17996.78	2743.27
130	372.00	34332.35	-2150.20	21207.26	-223.23	18828.00	3410.83
131	375.00	34737.32	-1951.93	21583.97	15.64	19200.81	3652.77
132	378.00	34359.40	-2158.60	21486.59	-172.63	19107.33	3461.44
133	381.00	33201.27	-2793.56	20911.34	-798.76	18543.44	2826.60
134	384.00	31282.09	-3906.66	19860.41	-1872.39	17510.19	1740.15
135	387.00	28599.46	-5591.10	18320.78	-3422.64	15993.00	175.32
136	390.00	25172.53	-7918.56	16285.49	-5479.26	13982.55	-1894.14
137	393.00	21023.92	-11033.25	13741.33	-8077.94	11462.66	-4499.39
138	396.00	16226.63	-15038.45	10767.31	-11324.01	8508.72	-7740.05
139	399.00	11142.36	-24147.71	7073.72	-16210.98	3892.86	-12301.45
140	402.00	5413.26	-30366.63	3146.59	-20508.34	-41.02	-16550.88
141	405.00	3341.93	-32971.78	1489.76	-22984.08	-1704.93	-19001.68
142	408.00	5493.43	-30431.88	3145.05	-21130.38	-42.56	-17172.92
143	411.00	10861.04	-20021.67	7326.91	-15581.19	5080.12	-11972.87
144	414.00	16305.84	-15115.66	11091.02	-11618.47	8832.43	-8034.51
145	417.00	21119.21	-11105.51	14294.23	-8294.97	12015.57	-4716.42
146	420.00	25007.51	-7836.69	15154.79	-5326.09	12851.85	-1740.97
147	423.00	28480.13	-5539.24	17346.47	-3433.33	15018.69	164.64
148	426.00	31196.12	-3875.80	19075.23	-1950.42	16725.01	1662.12
149	429.00	33146.00	-2775.40	20364.87	-882.06	17996.96	2743.30
150	432.00	34332.38	-2150.21	21207.65	-223.16	18828.40	3410.91
151	435.00	34737.36	-1951.94	21584.37	15.71	19201.22	3652.84
152	438.00	34359.44	-2158.61	21486.98	-172.56	19107.72	3461.51
153	441.00	33201.31	-2793.57	20911.72	-798.70	18543.82	2826.66
154	444.00	31282.12	-3906.67	19860.76	-1872.36	17510.54	1740.19
155	447.00	28599.50	-5591.12	18321.10	-3422.64	15993.31	175.33
156	450.00	25172.55	-7918.57	16285.63	-5479.27	13982.69	-1894.16
157	453.00	21023.94	-11033.26	13741.44	-8077.98	11462.77	-4499.43
158	456.00	16226.64	-15038.48	10767.39	-11324.08	8508.80	-7740.12
159	459.00	11142.36	-24147.71	7073.72	-16210.98	3892.86	-12301.45
160	462.00	5413.26	-30366.63	3146.59	-20508.34	-41.02	-16550.88
161	465.00	3341.90	-32971.77	1489.78	-22983.91	-1704.91	-19001.51
162	468.00	5493.43	-30431.88	3145.05	-21130.38	-42.56	-17172.92
163	471.00	10861.04	-20021.67	7326.91	-15581.19	5080.12	-11972.87
164	474.00	16305.84	-15115.66	11091.02	-11618.47	8832.43	-8034.51
165	477.00	21119.21	-11105.51	14294.23	-8294.97	12015.57	-4716.42
166	480.00	25007.48	-7836.68	15154.65	-5326.07	12851.71	-1740.95
167	483.00	28480.11	-5539.23	17346.32	-3433.33	15018.53	164.64
168	486.00	31196.09	-3875.79	19075.06	-1950.44	16724.84	1662.10
169	489.00	33145.96	-2775.39	20364.49	-882.11	17996.59	2743.24
170	492.00	34332.32	-2150.19	21207.06	-223.27	18827.80	3410.80
171	495.00	34737.30	-1951.92	21583.77	15.60	19200.62	3652.73
172	498.00	34359.38	-2158.59	21486.39	-172.66	19107.13	3461.40
173	501.00	33201.24	-2793.55	20910.96	-798.82	18543.06	2826.54
174	504.00	31282.05	-3906.65	19860.05	-1872.43	17509.84	1740.12
175	507.00	28599.42	-5591.09	18320.46	-3422.65	15992.68	175.32
176	510.00	25172.47	-7918.53	16285.08	-5479.20	13982.15	-1894.08
177	513.00	21023.89	-11033.22	13741.11	-8077.85	11462.44	-4499.30
178	516.00	16226.63	-15038.45	10767.31	-11324.01	8508.72	-7740.05
179	519.00	11142.37	-24147.73	7073.75	-16211.09	3892.89	-12301.56
180	522.00	5413.32	-30366.67	3146.59	-20508.80	-41.02	-16551.33
181	525.00	3341.98	-32971.83	1489.72	-22984.58	-1704.97	-19002.18
182	528.00	5493.48	-30431.91	3145.04	-21130.68	-42.56	-17173.22
183	531.00	10861.07	-20021.68	7326.96	-15581.30	5080.17	-11972.98
184	534.00	16305.84	-15115.66	11091.02	-11618.47	8832.43	-8034.51
185	537.00	21119.21	-11105.51	14294.23	-8294.97	12015.57	-4716.42
186	540.00	25007.51	-7836.69	15154.79	-5326.09	12851.85	-1740.97

RESPUESTA SECCIONAL A FLEXION (mT)

Isec	Sx(is)	Mu,pos	Mu,neg	Mcr,pos	Mcr,neg	Mdec,pos	Mdec,neg
187	543.00	28480.14	-5539.25	17346.63	-3433.32	15018.85	164.65
188	546.00	31196.16	-3875.82	19075.76	-1950.37	16725.54	1662.17
189	549.00	33146.05	-2775.43	20365.44	-881.97	17997.54	2743.39
190	552.00	34332.47	-2150.23	21208.45	-223.02	18829.19	3411.05
191	555.00	34737.46	-1951.96	21585.37	15.90	19202.22	3653.03
192	558.00	34359.54	-2158.63	21488.17	-172.34	19108.91	3461.72
193	561.00	33201.44	-2793.61	20913.04	-798.50	18545.14	2826.86
194	564.00	31282.26	-3906.71	19862.00	-1872.23	17511.78	1740.31
195	567.00	28599.62	-5591.15	18322.20	-3422.63	15994.42	175.34
196	570.00	25172.67	-7918.63	16286.44	-5479.39	13983.51	-1894.27
197	573.00	21024.04	-11033.34	13741.98	-8078.20	11463.32	-4499.64
198	576.00	16226.69	-15038.51	10767.55	-11324.23	8508.96	-7740.27
199	579.00	11142.30	-24147.66	7073.61	-16210.64	3892.75	-12301.11
200	582.00	5413.11	-30366.51	3146.59	-20507.28	-41.02	-16549.82
201	585.00	3341.76	-32971.62	1489.91	-22982.41	-1704.78	-19000.01
202	588.00	5493.31	-30431.77	3145.05	-21129.32	-42.56	-17171.86
203	591.00	10861.02	-20021.64	7326.86	-15581.09	5080.08	-11972.76
204	594.00	16305.86	-15115.68	11091.10	-11618.55	8832.51	-8034.58
205	597.00	21119.24	-11105.52	14294.34	-8295.01	12015.68	-4716.46
206	600.00	25007.46	-7836.67	15154.51	-5326.05	12851.58	-1740.93
207	603.00	28480.02	-5539.19	17345.53	-3433.34	15017.74	164.63
208	606.00	31195.92	-3875.72	19073.47	-1950.60	16723.25	1661.95
209	609.00	33145.71	-2775.30	20362.03	-882.49	17994.12	2742.87
210	612.00	34332.00	-2150.10	21203.71	-223.88	18824.45	3410.19
211	615.00	34736.90	-1951.83	21579.57	14.80	19196.41	3651.93
212	618.00	34358.90	-2158.48	21481.45	-173.56	19102.20	3460.51
213	621.00	33200.72	-2793.41	20905.84	-799.60	18537.94	2825.76
214	624.00	31281.50	-3906.48	19854.94	-1872.94	17504.72	1739.61
215	627.00	28598.89	-5590.94	18316.03	-3422.70	15988.24	175.27
216	630.00	25172.01	-7918.31	16281.82	-5478.76	13978.88	-1893.64
217	633.00	21023.51	-11033.24	13739.03	-8077.04	11460.36	-4498.48
218	636.00	16226.47	-15038.30	10766.68	-11323.43	8508.09	-7739.47
219	639.00	11142.55	-24147.91	7074.15	-16212.33	3893.29	-12302.80
220	642.00	5413.84	-30367.07	3146.58	-20512.59	-41.03	-16555.12
221	645.00	3342.49	-32972.32	1489.25	-22989.78	-1705.44	-19007.38
222	648.00	5493.89	-30432.27	3145.04	-21134.17	-42.57	-17176.71
223	651.00	10861.13	-20021.74	7327.09	-15581.62	5080.31	-11973.30
224	654.00	16305.78	-15115.61	11090.78	-11618.26	8832.19	-8034.29
225	657.00	21119.19	-11105.48	14294.01	-8294.88	12015.35	-4716.33
226	660.00	25007.61	-7836.75	15155.47	-5326.18	12852.53	-1741.06
227	663.00	28480.47	-5539.40	17349.17	-3433.30	15021.38	164.67
228	666.00	31196.74	-3876.04	19080.87	-1949.86	16730.66	1662.68
229	669.00	33146.91	-2775.72	20373.77	-880.70	18005.87	2744.66
230	672.00	34333.60	-2150.53	21220.10	-220.91	18840.84	3413.16
231	675.00	34738.86	-1952.27	21599.99	18.68	19216.84	3655.81
232	678.00	34361.15	-2159.01	21504.76	-169.34	19125.51	3464.73
233	681.00	33203.20	-2794.10	20930.67	-795.81	18562.77	2829.55
234	684.00	31284.13	-3907.26	19879.28	-1870.52	17529.06	1742.03
235	687.00	28601.46	-5591.97	18337.41	-3422.46	16009.63	175.51
236	690.00	25174.32	-7919.44	16298.28	-5480.99	13995.34	-1895.87
237	693.00	21025.28	-11034.31	13749.11	-8080.99	11470.44	-4502.44
238	696.00	16227.21	-15039.02	10769.61	-11326.10	8511.02	-7742.14
239	699.00	11141.67	-24147.02	7072.21	-16206.22	3891.35	-12296.69
240	702.00	5411.30	-30365.09	3146.62	-20493.95	-40.98	-16536.48
241	705.00	3339.90	-32969.87	1491.60	-22963.64	-1703.10	-18981.24
242	708.00	5491.55	-30430.48	3145.08	-21116.89	-42.53	-17159.42
243	711.00	10860.76	-20021.36	7326.28	-15579.70	5079.49	-11971.38
244	714.00	16306.15	-15115.96	11092.29	-11619.63	8833.70	-8035.67
245	717.00	21119.54	-11105.74	14296.09	-8295.70	12017.43	-4717.15
246	720.00	25019.67	-7843.25	15240.90	-5337.75	12937.96	-1752.63
247	723.00	28491.37	-5544.55	17436.46	-3432.34	15108.68	165.63
248	726.00	31206.10	-3880.51	19165.36	-1941.47	16815.13	1671.08

RESPUESTA SECCIONAL A FLEXION (mT)

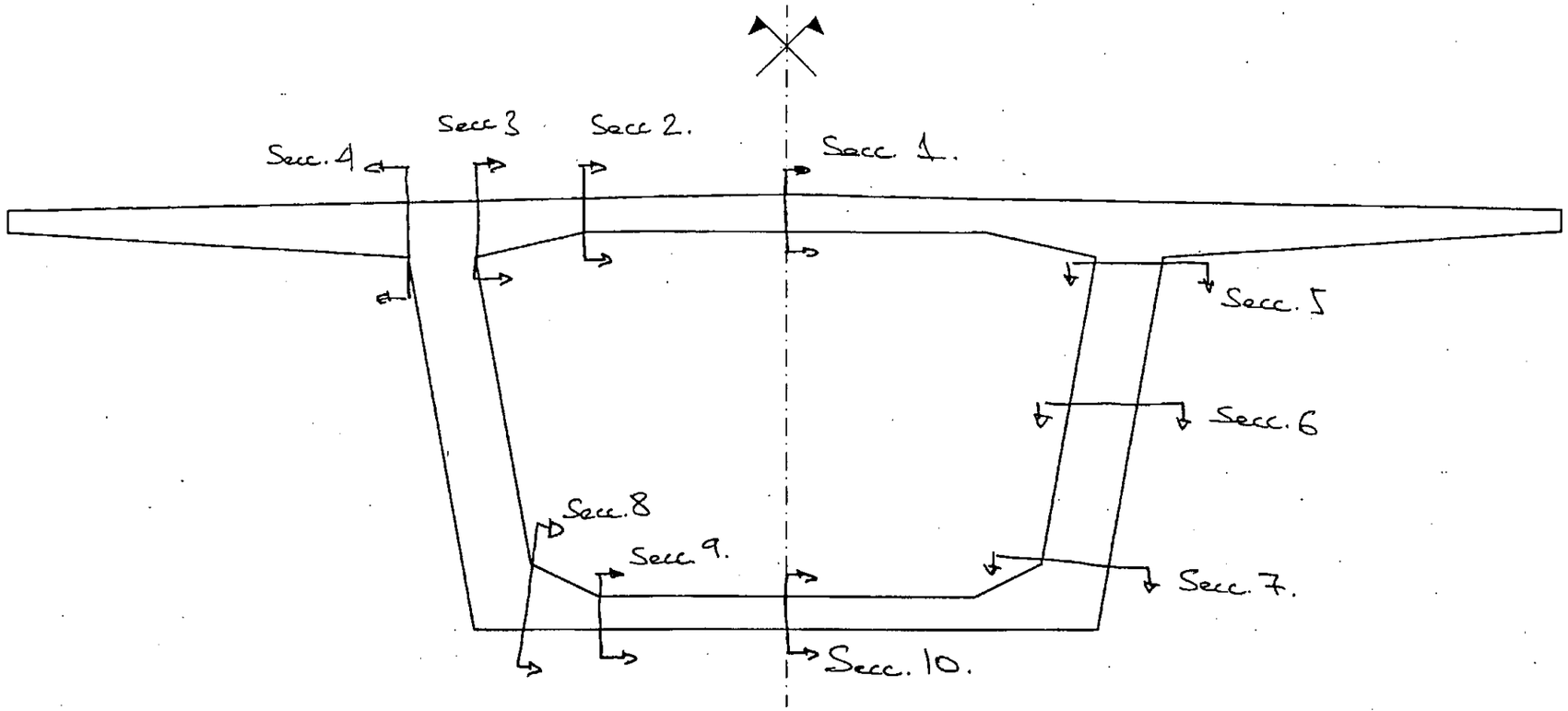
Isec	Sx(is)	Mu,pos	Mu,neg	Mcr,pos	Mcr,neg	Mdec,pos	Mdec,neg
249	729.00	33154.76	-2778.36	20450.71	-868.97	18082.80	2756.39
250	732.00	34340.05	-2152.26	21286.67	-208.85	18907.42	3425.22
251	735.00	34744.12	-1953.42	21655.26	29.20	19272.11	3666.33
252	738.00	34365.54	-2160.02	21550.39	-161.07	19171.14	3473.00
253	741.00	33207.05	-2795.16	20968.94	-789.98	18601.04	2835.38
254	744.00	31287.89	-3908.36	19914.20	-1867.05	17563.98	1745.50
255	747.00	26337.66	-5514.70	17011.81	-3436.38	14690.36	161.48
256	750.00	23194.46	-7825.81	15159.63	-5331.93	12860.99	-1745.90
257	753.00	19389.85	-10863.66	12837.44	-7731.38	10561.10	-4151.39
258	756.00	14990.55	-14714.54	10113.41	-10735.06	7855.52	-7150.09
259	759.00	9999.03	-19362.49	6790.47	-14311.40	4543.44	-10704.02
260	762.00	4834.15	-24498.27	3149.19	-18201.69	901.43	-14549.91
261	765.00	3001.04	-26678.95	1662.00	-20402.95	-589.64	-16727.23
262	767.25	4015.41	-25403.43	2527.40	-18975.22	278.24	-15313.70
263	769.50	7404.92	-21858.13	4982.62	-16129.02	2736.82	-12502.48
264	771.75	11398.29	-18009.17	7716.83	-13225.42	5467.84	-9626.28
265	774.00	15004.30	-14689.85	10099.52	-10696.21	7841.56	-7111.29
266	776.25	18189.57	-11924.90	12220.93	-8608.01	9950.53	-5027.96
267	778.50	21005.61	-9718.74	14524.68	-6985.71	12240.27	-3404.46
268	780.75	23258.44	-7959.76	16132.71	-5519.73	13834.55	-1933.91
269	783.00	25036.22	-6642.08	17426.66	-4371.17	15116.28	-779.55
270	785.25	26309.48	-5741.76	18388.75	-3551.96	16068.88	44.96
271	787.50	27082.56	-5214.26	19023.36	-3054.75	16697.46	545.82
272	789.75	27353.60	-5039.70	19326.04	-2881.90	16998.06	720.00
273	792.00	27193.79	-5163.25	19319.09	-2990.38	16992.50	610.63
274	794.25	26672.26	-5529.04	18989.22	-3337.26	16666.84	261.16
275	796.50	25806.54	-6132.81	18303.58	-3906.07	15987.81	-311.51
276	798.75	24590.14	-7010.54	17376.80	-4705.36	15069.86	-1115.50
277	801.00	23038.47	-8175.24	16221.80	-5727.71	13925.31	-2142.56
278	803.25	21146.17	-9657.91	14835.77	-6980.46	12550.76	-3399.06
279	805.50	18942.10	-11462.08	13241.11	-8450.90	10967.67	-4871.01
280	807.75	16412.37	-13619.30	11427.68	-10154.22	9165.10	-6572.14
281	810.00	13649.92	-16077.26	9467.07	-12057.43	7213.36	-8467.98

6.2. FLEXIÓN TRANSVERSAL

La flexión transversal en el tablero se ha determinado a partir del modelo de cálculo mediante elementos finitos tipo lámina expuesto en el apartado 3.2

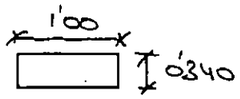
La armadura de flexión calculada debe sumarse a la armadura de rasante del voladizo obtenida a partir del cortante total sobre la sección y de la aplicación de la regla de cosido en el plano de unión del voladizo con el núcleo de la sección transversal.

SECCIONES OBJETO de ESTUDIO

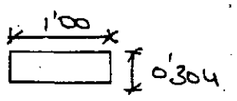


Dimensiones Secciones Tipo.

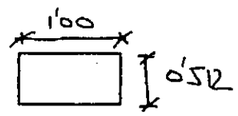
Sección 1



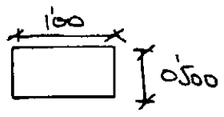
Sección 2



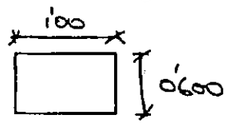
Sección 3



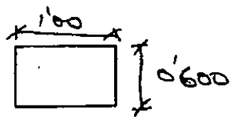
Sección 4



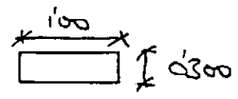
Sección 5, 6 y 7



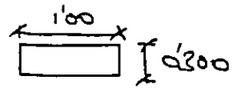
Sección 8



Sección 9



Sección 10



CARGAS a APLICAR en el MODELO

Peso propio.

Considerando una densidad del hormigón de 2'5 T/m³.

Cargas permanentes.

Impostas y barandillas: $g_1 = 0'89$ T/m y por lado.

Impermeabilización: $g_2 = 0'79$ T/m.

Traviesas y carriles: $g_3 = 1'28$ T/m

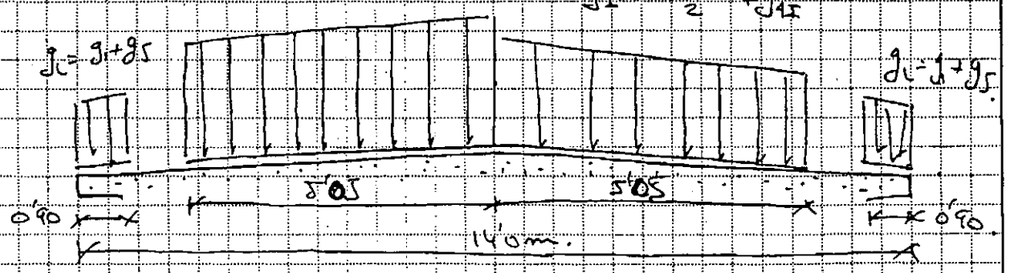
Balasto: Vía exterior: $g_{4E} = 5'048$ T/m

Vía interior: $g_{4I} = 4'395$ T/m.

Paseos: $g_5 = 0'60$ T/m y por lado.

Estas cargas están repartidas del siguiente modo:

$$g_E = \frac{g_2+g_3}{2} + g_{4E} \qquad g_I = \frac{g_2+g_3}{2} + g_{4I}$$



Siendo, las cargas a aplicar:

$$g_L = 0'89 + 0'60 = 1'49 \text{ T/m}$$

$$g_L = \frac{1'49}{0'90} = 1'655 \text{ T/m}^2.$$

$$g_E = \frac{0'79+1'28}{2} + 5'048 = 6'083 \text{ T/m}.$$

$$g_E = \frac{6'083}{5'05} = 1'205 \text{ T/m}^2.$$

$$g_I = \frac{0'79+1'28}{2} + 4'395 = 5'43 \text{ T/m}.$$

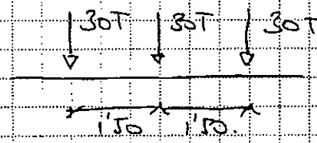
$$g_I = \frac{5'43}{5'05} = 1'075 \text{ T/m}^2.$$

Sobrecargas.

Las sobrecargas que se aplicaran corresponden a los trenes definidos por la IPF y el EC.

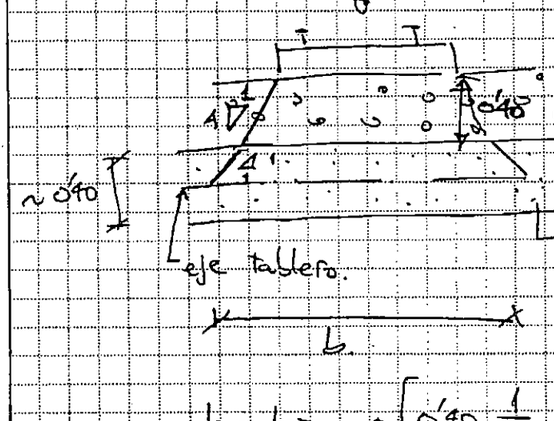
Nos fijaremos sobretodo en el tren tipo A de la IPF al ser este el mas desfavorable en cuanto a flexión Transversal.

El esquema de cargas del tren tipo A es:



Veamos como es el reparto de cargas longitudinal y Transversal de estas cargas.

Transversalmente:

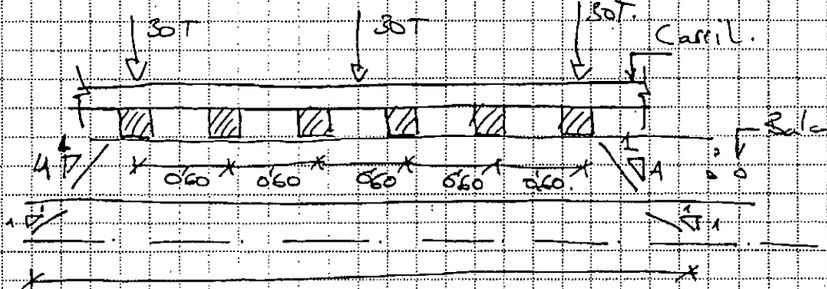


$$b = b_{TTW} + \left[0'40 \cdot \frac{1}{4} + \frac{0'40}{2} \cdot \frac{1}{1}\right] \cdot 2 =$$

$$= 2'60 + [0'10 + 0'20] \cdot 2 = 3'20 \text{ m}.$$

Luego, Transversalmente la carga ocupará un ancho de 3'20 m.

Reparto longitudinal:



$$3'0 + \left[0'40 \cdot \frac{1}{4} + \frac{0'40}{2} \cdot \frac{1}{1}\right] \cdot 2 = 3'60 \text{ m}$$

Luego, la carga debida al tren tipo A de la IPF deberá repartirse en una superficie de 3'20 x 3'60 m.

Esta carga deberá mayorarse por el coeficiente de impacto, coeficiente que tiene en consideración los efectos dinámicos de la carga.

COEF. IMPACTO según EC.1.

$$I_{EC} = \phi_2 = \frac{1'44}{\sqrt{L_\phi} - 0'20} + 0'82.$$

Con $L_\phi = 3 \cdot L_{vg}$ vano losa $= 3 \cdot 5'58 = 16'74$ m

Luego: $\boxed{I_{EC} = 1'19}$.

COEF. IMPACTO según IPF

$$I_{IPF} = 1 + \frac{114\sqrt{L}}{31 - 176\sqrt{L} + L} \cdot \frac{1}{100}$$

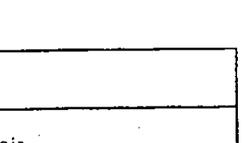
Con L = luz vano losa = luz entre almas

$L = 5'58 m.$

$$I_{IPF} = 1 + \frac{114\sqrt{5'58}}{31 - 176\sqrt{5'58} + 5'58} \cdot \frac{1}{100} = 1'595$$

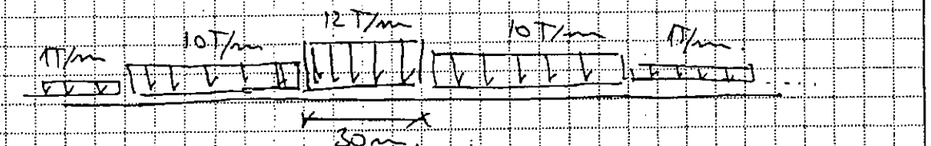
Al Tren Tipo A se le aplicará el coef. de impacto definido por la normativa IPF, luego, este tren pasa a ser una carga:

$$q = \frac{1'595 \cdot 90}{3'20 \cdot 3'60} = 12'46\ T/m^2$$



Esta carga se puede encontrar en diferentes puntos de la sección según el efecto que tengamos en cuenta. (peralte, ripado...)

Otra sobrecarga a aplicar según la IPF es el tren Tipo B:

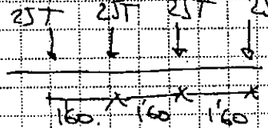


Este tren tendrá un reparto en la sección transversal de modo que ocupe un ancho de 3'20 m.

$$q_B = \frac{12 \cdot 1'595}{3'20} = 5'98\ T/m^2$$

Sobrecargas definidas por EC.

* Tren LM-71:

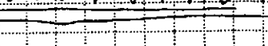


Sobre este se aplicará el coef. de impacto del EC, luego:

$$q_{LM-71} = 119 \cdot \frac{100}{3'20 \cdot 1'40} = 6'89\ T/m^2$$

en una superficie de $3'2 \times 1'40\ m$.

Tren SW-2



Carga que se repartirá en 3'60 m de ancho →

$$q_{SW-2} = \frac{119 \cdot 15}{3'60} = 4'958\ T/m^2.$$

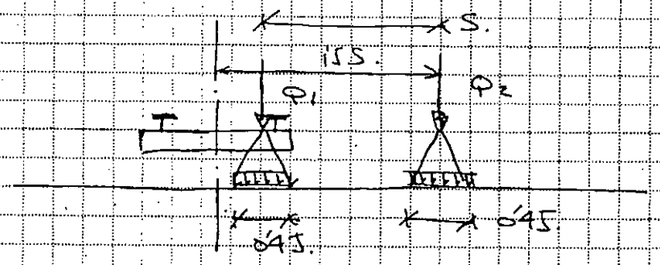
PEDELTA, S.L.
INGENIERÍA CIVIL

Fecha:

Hoja:

Descarrilamiento.

Consiste en una carga de valor 140. UIC 71 aplicada en las siguientes posiciones resp. eje de vía:



S = Sep. vías = 1'435 m.

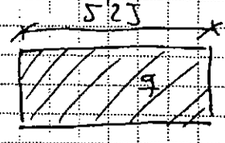
$Q_1 + Q_2 = 140$ UIC 71 = 140·25 T = 35 T.

Esta carga se puede encontrar en el lado interior o exterior del tablero ~~viga~~.

Longitudinalmente, la distribución de la carga es:



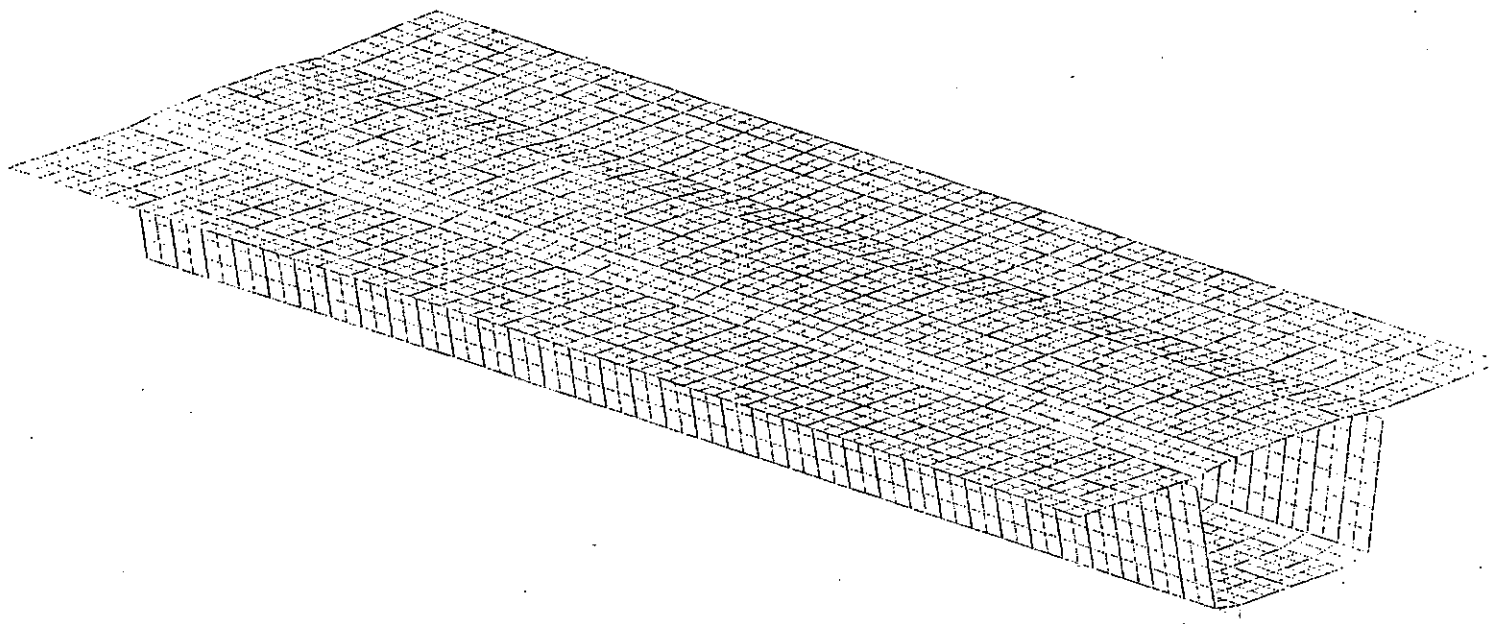
Luego, en planta, la carga que se introducirá en el modelo de cálculo será:



$$q = \frac{1'4 \cdot 4 \cdot 25}{5'25 \cdot 1'90}$$

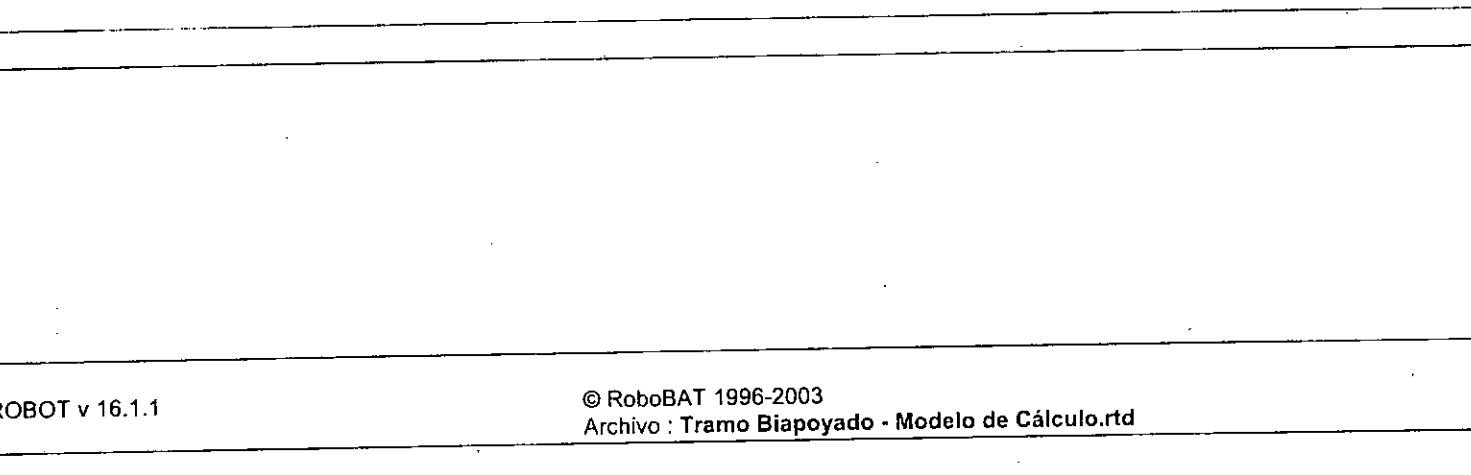
$q = 14'035$ T/m²

Modelo de Cálculo

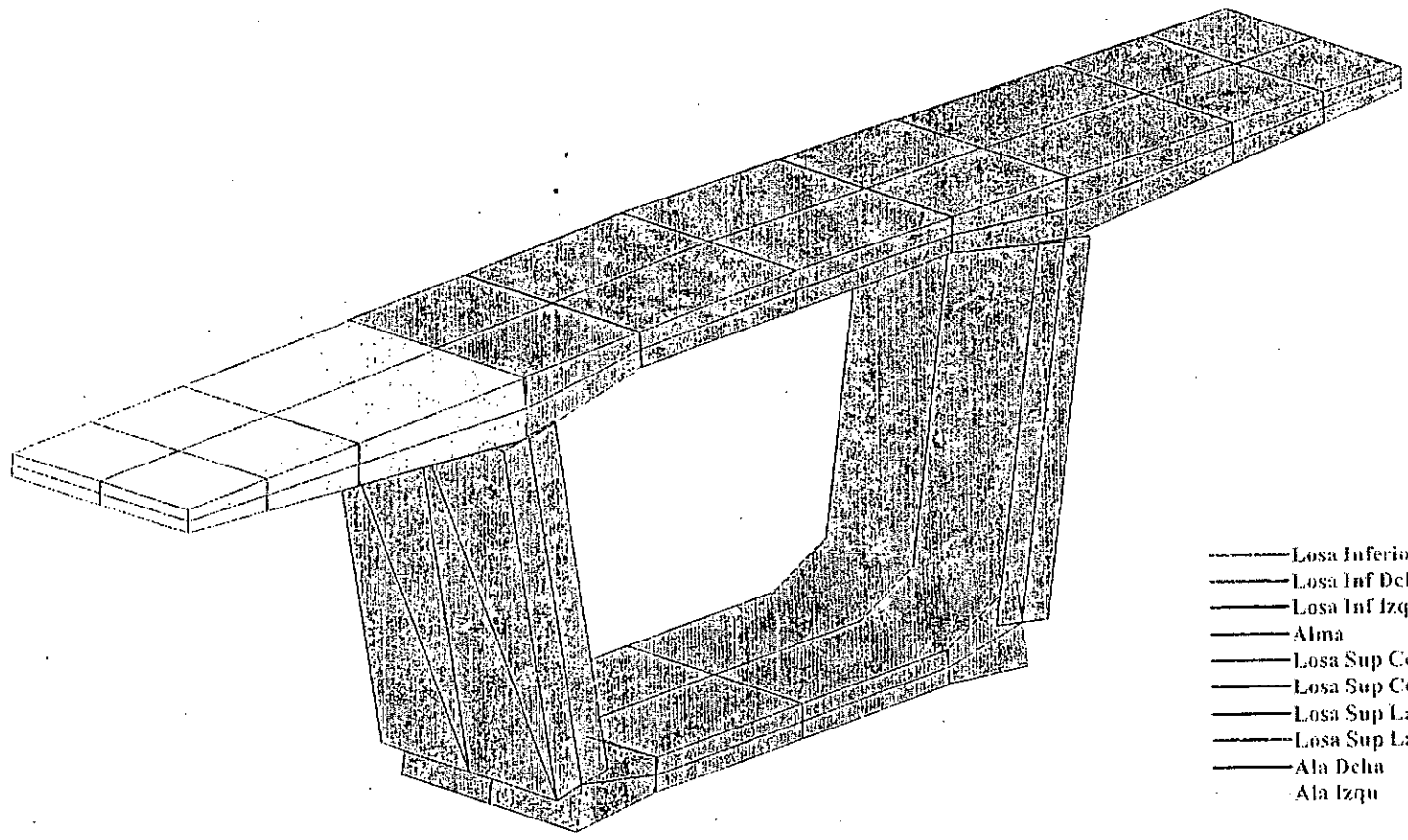


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Autor :
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Archivo : **Tramo Biapoyado - Modelo de Cálculo.rtd**

Modelo de Cálculo. Sección Transversal



Modelo de Cálculo. Paneles que Componen el Modelo



Paneles que Componen el Modelo de Cálculo

Panel	Espesor	Material	Tipo de malla	Superficie (m^2)
101	Ala Izqu	HP - 50	Coons	0.900
102	Ala Dcha	HP - 50	Coons	0.900
103	Ala Izqu	HP - 50	Coons	1.050
104	Ala Dcha	HP - 50	Coons	1.050
105	Ala Izqu	HP - 50	Coons	1.929
106	Ala Dcha	HP - 50	Coons	1.929
107	Losa Sup Lat Izqu	HP - 50	Coons	1.328
108	Losa Sup Lat Dcha	HP - 50	Coons	1.328
109	Losa Sup Centr Izqu	HP - 50	Coons	1.800
110	Losa Sup Centr Dcha	HP - 50	Coons	1.800
111	Alma	HP - 50	Coons	3.170
112	Alma	HP - 50	Coons	3.170
113	Losa Inf Izqu	HP - 50	Coons	0.865
114	Losa Inf Dcha	HP - 50	Coons	0.865
115	Losa Inferior	HP - 50	Coons	1.696
116	Losa Inferior	HP - 50	Coons	1.696
117	Ala Izqu	HP - 50	Coons	0.900
118	Ala Dcha	HP - 50	Coons	0.900
119	Ala Izqu	HP - 50	Coons	1.050
120	Ala Dcha	HP - 50	Coons	1.050
121	Ala Izqu	HP - 50	Coons	1.929
122	Ala Dcha	HP - 50	Coons	1.929
123	Losa Sup Lat Izqu	HP - 50	Coons	1.328
124	Losa Sup Lat Dcha	HP - 50	Coons	1.328
125	Losa Sup Centr Izqu	HP - 50	Coons	1.800
126	Losa Sup Centr Dcha	HP - 50	Coons	1.800
127	Alma	HP - 50	Coons	3.170
128	Alma	HP - 50	Coons	3.170
129	Losa Inf Izqu	HP - 50	Coons	0.865
130	Losa Inf Dcha	HP - 50	Coons	0.865
131	Losa Inferior	HP - 50	Coons	1.696
132	Losa Inferior	HP - 50	Coons	1.696
133	Ala Izqu	HP - 50	Coons	0.900
134	Ala Dcha	HP - 50	Coons	0.900
135	Ala Izqu	HP - 50	Coons	1.050
136	Ala Dcha	HP - 50	Coons	1.050
137	Ala Izqu	HP - 50	Coons	1.929
138	Ala Dcha	HP - 50	Coons	1.929
139	Losa Sup Lat Izqu	HP - 50	Coons	1.328
140	Losa Sup Lat Dcha	HP - 50	Coons	1.328
141	Losa Sup Centr Izqu	HP - 50	Coons	1.800
142	Losa Sup Centr Dcha	HP - 50	Coons	1.800
143	Alma	HP - 50	Coons	3.170
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146	Losa Inf Dcha	HP - 50	Coons	0.865
147	Losa Inferior	HP - 50	Coons	1.696
148	Losa Inferior	HP - 50	Coons	1.696
149	Ala Izqu	HP - 50	Coons	0.900
150	Ala Dcha	HP - 50	Coons	0.900
151	Ala Izqu	HP - 50	Coons	1.050
152	Ala Dcha	HP - 50	Coons	1.050
153	Ala Izqu	HP - 50	Coons	1.929
154	Ala Dcha	HP - 50	Coons	1.929
155	Losa Sup Lat Izqu	HP - 50	Coons	1.328
156	Losa Sup Lat Dcha	HP - 50	Coons	1.328
157	Losa Sup Centr Izqu	HP - 50	Coons	1.800
158	Losa Sup Centr Dcha	HP - 50	Coons	1.800
159	Alma	HP - 50	Coons	3.170
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167	Ala Izqu	HP - 50	Coons	1.050
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170	Ala Dcha	HP - 50	Coons	1.929
171	Losa Sup Lat Izqu	HP - 50	Coons	1.328
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173	Losa Sup Centr Izqu	HP - 50	Coons	1.800
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384	Alma	HP - 50	Coons	3.170
385	Losa Inf Izqu	HP - 50	Coons	0.865
386	Losa Inf Dcha	HP - 50	Coons	0.865
387	Losa Inferior	HP - 50	Coons	1.696
388	Losa Inferior	HP - 50	Coons	1.696
389	Ala Izqu	HP - 50	Coons	0.900
390	Ala Dcha	HP - 50	Coons	0.900
391	Ala Izqu	HP - 50	Coons	1.050
392	Ala Dcha	HP - 50	Coons	1.050
393	Ala Izqu	HP - 50	Coons	1.929
394	Ala Dcha	HP - 50	Coons	1.929
395	Losa Sup Lat Izqu	HP - 50	Coons	1.328
396	Losa Sup Lat Dcha	HP - 50	Coons	1.328
397	Losa Sup Centr Izqu	HP - 50	Coons	1.800
398	Losa Sup Centr Dcha	HP - 50	Coons	1.800
399	Alma	HP - 50	Coons	3.170
400	Alma	HP - 50	Coons	3.170
401	Losa Inf Izqu	HP - 50	Coons	0.865
402	Losa Inf Dcha	HP - 50	Coons	0.865
403	Losa Inferior	HP - 50	Coons	1.696
404	Losa Inferior	HP - 50	Coons	1.696

405	Ala Izqu	HP - 50	Coons	0.900
406	Ala Dcha	HP - 50	Coons	0.900
407	Ala Izqu	HP - 50	Coons	1.050
408	Ala Dcha	HP - 50	Coons	1.050
409	Ala Izqu	HP - 50	Coons	1.929
410	Ala Dcha	HP - 50	Coons	1.929
411	Losa Sup Lat Izqu	HP - 50	Coons	1.328
412	Losa Sup Lat Dcha	HP - 50	Coons	1.328
413	Losa Sup Centr Izqu	HP - 50	Coons	1.800
414	Losa Sup Centr Dcha	HP - 50	Coons	1.800
415	Alma	HP - 50	Coons	3.170
416	Alma	HP - 50	Coons	3.170
417	Losa Inf Izqu	HP - 50	Coons	0.865
418	Losa Inf Dcha	HP - 50	Coons	0.865
419	Losa Inferior	HP - 50	Coons	1.696
420	Losa Inferior	HP - 50	Coons	1.696
421	Ala Izqu	HP - 50	Coons	0.900
422	Ala Dcha	HP - 50	Coons	0.900
423	Ala Izqu	HP - 50	Coons	1.050
424	Ala Dcha	HP - 50	Coons	1.050
425	Ala Izqu	HP - 50	Coons	1.929
426	Ala Dcha	HP - 50	Coons	1.929
427	Losa Sup Lat Izqu	HP - 50	Coons	1.328
428	Losa Sup Lat Dcha	HP - 50	Coons	1.328
429	Losa Sup Centr Izqu	HP - 50	Coons	1.800
430	Losa Sup Centr Dcha	HP - 50	Coons	1.800
431	Alma	HP - 50	Coons	3.170
432	Alma	HP - 50	Coons	3.170
433	Losa Inf Izqu	HP - 50	Coons	0.865
434	Losa Inf Dcha	HP - 50	Coons	0.865
435	Losa Inferior	HP - 50	Coons	1.696
436	Losa Inferior	HP - 50	Coons	1.696
437	Ala Izqu	HP - 50	Coons	0.900
438	Ala Dcha	HP - 50	Coons	0.900
439	Ala Izqu	HP - 50	Coons	1.050
440	Ala Dcha	HP - 50	Coons	1.050
441	Ala Izqu	HP - 50	Coons	1.929
442	Ala Dcha	HP - 50	Coons	1.929
443	Losa Sup Lat Izqu	HP - 50	Coons	1.328
444	Losa Sup Lat Dcha	HP - 50	Coons	1.328
445	Losa Sup Centr Izqu	HP - 50	Coons	1.800
446	Losa Sup Centr Dcha	HP - 50	Coons	1.800
447	Alma	HP - 50	Coons	3.170
448	Alma	HP - 50	Coons	3.170
449	Losa Inf Izqu	HP - 50	Coons	0.865
450	Losa Inf Dcha	HP - 50	Coons	0.865
451	Losa Inferior	HP - 50	Coons	1.696
452	Losa Inferior	HP - 50	Coons	1.696
453	Ala Izqu	HP - 50	Coons	0.900
454	Ala Dcha	HP - 50	Coons	0.900
455	Ala Izqu	HP - 50	Coons	1.050
456	Ala Dcha	HP - 50	Coons	1.050
457	Ala Izqu	HP - 50	Coons	1.929
458	Ala Dcha	HP - 50	Coons	1.929
459	Losa Sup Lat Izqu	HP - 50	Coons	1.328
460	Losa Sup Lat Dcha	HP - 50	Coons	1.328
461	Losa Sup Centr Izqu	HP - 50	Coons	1.800
462	Losa Sup Centr Dcha	HP - 50	Coons	1.800
463	Alma	HP - 50	Coons	3.170
464	Alma	HP - 50	Coons	3.170
465	Losa Inf Izqu	HP - 50	Coons	0.865
466	Losa Inf Dcha	HP - 50	Coons	0.865
467	Losa Inferior	HP - 50	Coons	1.696

468	Losa Inferior	HP - 50	Coons	1.696
469	Ala Izqu	HP - 50	Coons	0.900
470	Ala Dcha	HP - 50	Coons	0.900
471	Ala Izqu	HP - 50	Coons	1.050
472	Ala Dcha	HP - 50	Coons	1.050
473	Ala Izqu	HP - 50	Coons	1.929
474	Ala Dcha	HP - 50	Coons	1.929
475	Losa Sup Lat Izqu	HP - 50	Coons	1.328
476	Losa Sup Lat Dcha	HP - 50	Coons	1.328
477	Losa Sup Centr Izqu	HP - 50	Coons	1.800
478	Losa Sup Centr Dcha	HP - 50	Coons	1.800
479	Alma	HP - 50	Coons	3.170
480	Alma	HP - 50	Coons	3.170
481	Losa Inf Izqu	HP - 50	Coons	0.865
482	Losa Inf Dcha	HP - 50	Coons	0.865
483	Losa Inferior	HP - 50	Coons	1.696
484	Losa Inferior	HP - 50	Coons	1.696
485	Ala Izqu	HP - 50	Coons	0.900
486	Ala Dcha	HP - 50	Coons	0.900
487	Ala Izqu	HP - 50	Coons	1.050
488	Ala Dcha	HP - 50	Coons	1.050
489	Ala Izqu	HP - 50	Coons	1.929
490	Ala Dcha	HP - 50	Coons	1.929
491	Losa Sup Lat Izqu	HP - 50	Coons	1.328
492	Losa Sup Lat Dcha	HP - 50	Coons	1.328
493	Losa Sup Centr Izqu	HP - 50	Coons	1.800
494	Losa Sup Centr Dcha	HP - 50	Coons	1.800
495	Alma	HP - 50	Coons	3.170
496	Alma	HP - 50	Coons	3.170
497	Losa Inf Izqu	HP - 50	Coons	0.865
498	Losa Inf Dcha	HP - 50	Coons	0.865
499	Losa Inferior	HP - 50	Coons	1.696
500	Losa Inferior	HP - 50	Coons	1.696
501	Ala Izqu	HP - 50	Coons	0.900
502	Ala Dcha	HP - 50	Coons	0.900
503	Ala Izqu	HP - 50	Coons	1.050
504	Ala Dcha	HP - 50	Coons	1.050
505	Ala Izqu	HP - 50	Coons	1.929
506	Ala Dcha	HP - 50	Coons	1.929
507	Losa Sup Lat Izqu	HP - 50	Coons	1.328
508	Losa Sup Lat Dcha	HP - 50	Coons	1.328
509	Losa Sup Centr Izqu	HP - 50	Coons	1.800
510	Losa Sup Centr Dcha	HP - 50	Coons	1.800
511	Alma	HP - 50	Coons	3.170
512	Alma	HP - 50	Coons	3.170
513	Losa Inf Izqu	HP - 50	Coons	0.865
514	Losa Inf Dcha	HP - 50	Coons	0.865
515	Losa Inferior	HP - 50	Coons	1.696
516	Losa Inferior	HP - 50	Coons	1.696
517	Ala Izqu	HP - 50	Coons	0.900
518	Ala Dcha	HP - 50	Coons	0.900
519	Ala Izqu	HP - 50	Coons	1.050
520	Ala Dcha	HP - 50	Coons	1.050
521	Ala Izqu	HP - 50	Coons	1.929
522	Ala Dcha	HP - 50	Coons	1.929
523	Losa Sup Lat Izqu	HP - 50	Coons	1.328
524	Losa Sup Lat Dcha	HP - 50	Coons	1.328
525	Losa Sup Centr Izqu	HP - 50	Coons	1.800
526	Losa Sup Centr Dcha	HP - 50	Coons	1.800
527	Alma	HP - 50	Coons	3.170
528	Alma	HP - 50	Coons	3.170
529	Losa Inf Izqu	HP - 50	Coons	0.865
530	Losa Inf Dcha	HP - 50	Coons	0.865

531	Losa Inferior	HP - 50	Coons	1.696
532	Losa Inferior	HP - 50	Coons	1.696
533	Ala Izqu	HP - 50	Coons	0.900
534	Ala Dcha	HP - 50	Coons	0.900
535	Ala Izqu	HP - 50	Coons	1.050
536	Ala Dcha	HP - 50	Coons	1.050
537	Ala Izqu	HP - 50	Coons	1.929
538	Ala Dcha	HP - 50	Coons	1.929
539	Losa Sup Lat Izqu	HP - 50	Coons	1.328
540	Losa Sup Lat Dcha	HP - 50	Coons	1.328
541	Losa Sup Centr Izqu	HP - 50	Coons	1.800
542	Losa Sup Centr Dcha	HP - 50	Coons	1.800
543	Alma	HP - 50	Coons	3.170
544	Alma	HP - 50	Coons	3.170
545	Losa Inf Izqu	HP - 50	Coons	0.865
546	Losa Inf Dcha	HP - 50	Coons	0.865
547	Losa Inferior	HP - 50	Coons	1.696
548	Losa Inferior	HP - 50	Coons	1.696
549	Ala Izqu	HP - 50	Coons	0.900
550	Ala Dcha	HP - 50	Coons	0.900
551	Ala Izqu	HP - 50	Coons	1.050
552	Ala Dcha	HP - 50	Coons	1.050
553	Ala Izqu	HP - 50	Coons	1.929
554	Ala Dcha	HP - 50	Coons	1.929
555	Losa Sup Lat Izqu	HP - 50	Coons	1.328
556	Losa Sup Lat Dcha	HP - 50	Coons	1.328
557	Losa Sup Centr Izqu	HP - 50	Coons	1.800
558	Losa Sup Centr Dcha	HP - 50	Coons	1.800
559	Alma	HP - 50	Coons	3.170
560	Alma	HP - 50	Coons	3.170
561	Losa Inf Izqu	HP - 50	Coons	0.865
562	Losa Inf Dcha	HP - 50	Coons	0.865
563	Losa Inferior	HP - 50	Coons	1.696
564	Losa Inferior	HP - 50	Coons	1.696
565	Ala Izqu	HP - 50	Coons	0.900
566	Ala Dcha	HP - 50	Coons	0.900
567	Ala Izqu	HP - 50	Coons	1.050
568	Ala Dcha	HP - 50	Coons	1.050
569	Ala Izqu	HP - 50	Coons	1.929
570	Ala Dcha	HP - 50	Coons	1.929
571	Losa Sup Lat Izqu	HP - 50	Coons	1.328
572	Losa Sup Lat Dcha	HP - 50	Coons	1.328
573	Losa Sup Centr Izqu	HP - 50	Coons	1.800
574	Losa Sup Centr Dcha	HP - 50	Coons	1.800
575	Alma	HP - 50	Coons	3.170
576	Alma	HP - 50	Coons	3.170
577	Losa Inf Izqu	HP - 50	Coons	0.865
578	Losa Inf Dcha	HP - 50	Coons	0.865
579	Losa Inferior	HP - 50	Coons	1.696
580	Losa Inferior	HP - 50	Coons	1.696
581	Ala Izqu	HP - 50	Coons	0.900
582	Ala Dcha	HP - 50	Coons	0.900
583	Ala Izqu	HP - 50	Coons	1.050
584	Ala Dcha	HP - 50	Coons	1.050
585	Ala Izqu	HP - 50	Coons	1.929
586	Ala Dcha	HP - 50	Coons	1.929
587	Losa Sup Lat Izqu	HP - 50	Coons	1.328
588	Losa Sup Lat Dcha	HP - 50	Coons	1.328
589	Losa Sup Centr Izqu	HP - 50	Coons	1.800
590	Losa Sup Centr Dcha	HP - 50	Coons	1.800
591	Alma	HP - 50	Coons	3.170
592	Alma	HP - 50	Coons	3.170
593	Losa Inf Izqu	HP - 50	Coons	0.865

594	Losa Inf Dcha	HP - 50	Coons	0.865
595	Losa Inferior	HP - 50	Coons	1.696
596	Losa Inferior	HP - 50	Coons	1.696
597	Ala Izqu	HP - 50	Coons	0.900
598	Ala Dcha	HP - 50	Coons	0.900
599	Ala Izqu	HP - 50	Coons	1.050
600	Ala Dcha	HP - 50	Coons	1.050
601	Ala Izqu	HP - 50	Coons	1.929
602	Ala Dcha	HP - 50	Coons	1.929
603	Losa Sup Lat Izqu	HP - 50	Coons	1.328
604	Losa Sup Lat Dcha	HP - 50	Coons	1.328
605	Losa Sup Centr Izqu	HP - 50	Coons	1.800
606	Losa Sup Centr Dcha	HP - 50	Coons	1.800
607	Alma	HP - 50	Coons	3.170
608	Alma	HP - 50	Coons	3.170
609	Losa Inf Izqu	HP - 50	Coons	0.865
610	Losa Inf Dcha	HP - 50	Coons	0.865
611	Losa Inferior	HP - 50	Coons	1.696
612	Losa Inferior	HP - 50	Coons	1.696
613	Ala Izqu	HP - 50	Coons	0.900
614	Ala Dcha	HP - 50	Coons	0.900
615	Ala Izqu	HP - 50	Coons	1.050
616	Ala Dcha	HP - 50	Coons	1.050
617	Ala Izqu	HP - 50	Coons	1.929
618	Ala Dcha	HP - 50	Coons	1.929
619	Losa Sup Lat Izqu	HP - 50	Coons	1.328
620	Losa Sup Lat Dcha	HP - 50	Coons	1.328
621	Losa Sup Centr Izqu	HP - 50	Coons	1.800
622	Losa Sup Centr Dcha	HP - 50	Coons	1.800
623	Alma	HP - 50	Coons	3.170
624	Alma	HP - 50	Coons	3.170
625	Losa Inf Izqu	HP - 50	Coons	0.865
626	Losa Inf Dcha	HP - 50	Coons	0.865
627	Losa Inferior	HP - 50	Coons	1.696
628	Losa Inferior	HP - 50	Coons	1.696
629	Ala Izqu	HP - 50	Coons	0.900
630	Ala Dcha	HP - 50	Coons	0.900
631	Ala Izqu	HP - 50	Coons	1.050
632	Ala Dcha	HP - 50	Coons	1.050
633	Ala Izqu	HP - 50	Coons	1.929
634	Ala Dcha	HP - 50	Coons	1.929
635	Losa Sup Lat Izqu	HP - 50	Coons	1.328
636	Losa Sup Lat Dcha	HP - 50	Coons	1.328
637	Losa Sup Centr Izqu	HP - 50	Coons	1.800
638	Losa Sup Centr Dcha	HP - 50	Coons	1.800
639	Alma	HP - 50	Coons	3.170
640	Alma	HP - 50	Coons	3.170
641	Losa Inf Izqu	HP - 50	Coons	0.865
642	Losa Inf Dcha	HP - 50	Coons	0.865
643	Losa Inferior	HP - 50	Coons	1.696
644	Losa Inferior	HP - 50	Coons	1.696
645	Ala Izqu	HP - 50	Coons	0.900
646	Ala Dcha	HP - 50	Coons	0.900
647	Ala Izqu	HP - 50	Coons	1.050
648	Ala Dcha	HP - 50	Coons	1.050
649	Ala Izqu	HP - 50	Coons	1.929
650	Ala Dcha	HP - 50	Coons	1.929
651	Losa Sup Lat Izqu	HP - 50	Coons	1.328
652	Losa Sup Lat Dcha	HP - 50	Coons	1.328
653	Losa Sup Centr Izqu	HP - 50	Coons	1.800
654	Losa Sup Centr Dcha	HP - 50	Coons	1.800
655	Alma	HP - 50	Coons	3.170
656	Alma	HP - 50	Coons	3.170
657	Losa Inf Izqu	HP - 50	Coons	0.865
658	Losa Inf Dcha	HP - 50	Coons	0.865
659	Losa Inferior	HP - 50	Coons	1.696
660	Losa Inferior	HP - 50	Coons	1.696

Características de los Paneles

Nombre de espesor	Lista de paneles	Material	Tipo de espesor	Espesor (m)	G1 (m)	G2 (m)	G3 (m)
Ala Dcha	102A646CA16 104A648CA16 106A650CA16	HP - 50	variable linealmente	No existe	0.200	0.520	No existe
Ala Izqu	101A645CA16 103A647CA16 105A649CA16	HP - 50	variable linealmente	No existe	0.200	0.520	No existe
Losa Sup Lat Dcha	108A652CA16	HP - 50	variable linealmente	No existe	0.540	0.304	No existe
Losa Sup Lat Izqu	107A651CA16	HP - 50	variable linealmente	No existe	0.540	0.304	No existe
Losa Sup Centr Dcha	110A654CA16	HP - 50	variable linealmente	No existe	0.304	0.340	No existe
Losa Sup Centr Izqu	109A653CA16	HP - 50	variable linealmente	No existe	0.304	0.340	No existe
Alma	111A655CA16 112A656CA16	HP - 50	constante	0.600	No existe	No existe	No existe
Losa Inf Dcha	114A658CA16	HP - 50	variable linealmente	No existe	0.784	0.300	No existe
Losa Inferior	115A659CA16 116A660CA16	HP - 50	constante	0.300	No existe	No existe	No existe
Losa Inf Izqu	113A657CA16	HP - 50	variable linealmente	No existe	0.784	0.300	No existe

Apoyos Aplicados al Modelo de Cálculo

Nombre del apoyo	Lista de nudos	Condiciones de apoyo
Libre	5521 5522 5524 5525	UZ
Libre en X	5516 5517 5519 5520	UY UZ
Fijo	3 205A207	UX UY UZ
Libre en Y	208 213 215 216	UX UZ

Uniones Rígidas Aplicadas al Modelo de Cálculo

Nombre de la unión	Nudo principal	Lista de los nudos secundarios	Condiciones de la unión
Unión Ala-Alma	14	9	UX UY UZ RX RY RZ
Unión Ala-Alma	193	93	UX UY UZ RX RY RZ
Unión Ala-Alma	20	22	UX UY UZ RX RY RZ
Unión Ala-Alma	21	25	UX UY UZ RX RY RZ
Unión Ala-Alma	172	81	UX UY UZ RX RY RZ
Unión Ala-Alma	1	8	UX UY UZ RX RY RZ
Unión Ala-Alma	342	281	UX UY UZ RX RY RZ
Unión Ala-Alma	392	394	UX UY UZ RX RY RZ
Unión Ala-Alma	393	397	UX UY UZ RX RY RZ
Unión Ala-Alma	327	275	UX UY UZ RX RY RZ
Unión Ala-Alma	500	439	UX UY UZ RX RY RZ
Unión Ala-Alma	550	552	UX UY UZ RX RY RZ
Unión Ala-Alma	551	555	UX UY UZ RX RY RZ
Unión Ala-Alma	485	433	UX UY UZ RX RY RZ
Unión Ala-Alma	658	597	UX UY UZ RX RY RZ
Unión Ala-Alma	708	710	UX UY UZ RX RY RZ
Unión Ala-Alma	709	713	UX UY UZ RX RY RZ
Unión Ala-Alma	643	591	UX UY UZ RX RY RZ
Unión Ala-Alma	816	755	UX UY UZ RX RY RZ
Unión Ala-Alma	866	868	UX UY UZ RX RY RZ
Unión Ala-Alma	867	871	UX UY UZ RX RY RZ
Unión Ala-Alma	801	749	UX UY UZ RX RY RZ
Unión Ala-Alma	974	913	UX UY UZ RX RY RZ
Unión Ala-Alma	1126	1060	UX UY UZ RX RY RZ
Unión Ala-Alma	1110	1054	UX UY UZ RX RY RZ
Unión Ala-Alma	959	907	UX UY UZ RX RY RZ
Unión Ala-Alma	1128	1061	UX UY UZ RX RY RZ
Unión Ala-Alma	1602	1604	UX UY UZ RX RY RZ
Unión Ala-Alma	1603	1607	UX UY UZ RX RY RZ
Unión Ala-Alma	1111	1053	UX UY UZ RX RY RZ
Unión Ala-Alma	1272	1211	UX UY UZ RX RY RZ
Unión Ala-Alma	1620	1622	UX UY UZ RX RY RZ
Unión Ala-Alma	1621	1625	UX UY UZ RX RY RZ
Unión Ala-Alma	1257	1205	UX UY UZ RX RY RZ
Unión Ala-Alma	1412	1351	UX UY UZ RX RY RZ
Unión Ala-Alma	1638	1640	UX UY UZ RX RY RZ
Unión Ala-Alma	1639	1643	UX UY UZ RX RY RZ
Unión Ala-Alma	1397	1345	UX UY UZ RX RY RZ
Unión Ala-Alma	1552	1491	UX UY UZ RX RY RZ
Unión Ala-Alma	1656	1658	UX UY UZ RX RY RZ
Unión Ala-Alma	1657	1661	UX UY UZ RX RY RZ
Unión Ala-Alma	1537	1485	UX UY UZ RX RY RZ
Unión Ala-Alma	1764	1703	UX UY UZ RX RY RZ
Unión Ala-Alma	1916	1850	UX UY UZ RX RY RZ
Unión Ala-Alma	1900	1844	UX UY UZ RX RY RZ
Unión Ala-Alma	1749	1697	UX UY UZ RX RY RZ
Unión Ala-Alma	1918	1851	UX UY UZ RX RY RZ
Unión Ala-Alma	2392	2394	UX UY UZ RX RY RZ
Unión Ala-Alma	2393	2397	UX UY UZ RX RY RZ
Unión Ala-Alma	1901	1843	UX UY UZ RX RY RZ
Unión Ala-Alma	2062	2001	UX UY UZ RX RY RZ
Unión Ala-Alma	2410	2412	UX UY UZ RX RY RZ
Unión Ala-Alma	2411	2415	UX UY UZ RX RY RZ
Unión Ala-Alma	2047	1995	UX UY UZ RX RY RZ
Unión Ala-Alma	2202	2141	UX UY UZ RX RY RZ
Unión Ala-Alma	2428	2430	UX UY UZ RX RY RZ
Unión Ala-Alma	2429	2433	UX UY UZ RX RY RZ
Unión Ala-Alma	2187	2135	UX UY UZ RX RY RZ
Unión Ala-Alma	2342	2281	UX UY UZ RX RY RZ
Unión Ala-Alma	2446	2448	UX UY UZ RX RY RZ
Unión Ala-Alma	2447	2451	UX UY UZ RX RY RZ
Unión Ala-Alma	2327	2275	UX UY UZ RX RY RZ
Unión Ala-Alma	2554	2493	UX UY UZ RX RY RZ
Unión Ala-Alma	2706	2640	UX UY UZ RX RY RZ
Unión Ala-Alma	2690	2634	UX UY UZ RX RY RZ
Unión Ala-Alma	2539	2487	UX UY UZ RX RY RZ
Unión Ala-Alma	2708	2641	UX UY UZ RX RY RZ
Unión Ala-Alma	3182	3184	UX UY UZ RX RY RZ
Unión Ala-Alma	3183	3187	UX UY UZ RX RY RZ
Unión Ala-Alma	2691	2633	UX UY UZ RX RY RZ
Unión Ala-Alma	2852	2791	UX UY UZ RX RY RZ
Unión Ala-Alma	3200	3202	UX UY UZ RX RY RZ
Unión Ala-Alma	3201	3205	UX UY UZ RX RY RZ
Unión Ala-Alma	2837	2785	UX UY UZ RX RY RZ
Unión Ala-Alma	2992	2931	UX UY UZ RX RY RZ
Unión Ala-Alma	3218	3220	UX UY UZ RX RY RZ
Unión Ala-Alma	3219	3223	UX UY UZ RX RY RZ
Unión Ala-Alma	2977	2925	UX UY UZ RX RY RZ
Unión Ala-Alma	3132	3071	UX UY UZ RX RY RZ
Unión Ala-Alma	3236	3238	UX UY UZ RX RY RZ
Unión Ala-Alma	3237	3241	UX UY UZ RX RY RZ
Unión Ala-Alma	3117	3065	UX UY UZ RX RY RZ
Unión Ala-Alma	3344	3283	UX UY UZ RX RY RZ
Unión Ala-Alma	3496	3430	UX UY UZ RX RY RZ
Unión Ala-Alma	3480	3424	UX UY UZ RX RY RZ
Unión Ala-Alma	3329	3277	UX UY UZ RX RY RZ
Unión Ala-Alma	3498	3431	UX UY UZ RX RY RZ
Unión Ala-Alma	3972	3974	UX UY UZ RX RY RZ
Unión Ala-Alma	3973	3977	UX UY UZ RX RY RZ
Unión Ala-Alma	3481	3423	UX UY UZ RX RY RZ
Unión Ala-Alma	3642	3581	UX UY UZ RX RY RZ
Unión Ala-Alma	3990	3992	UX UY UZ RX RY RZ
Unión Ala-Alma	3991	3995	UX UY UZ RX RY RZ
Unión Ala-Alma	3627	3575	UX UY UZ RX RY RZ
Unión Ala-Alma	3782	3721	UX UY UZ RX RY RZ
Unión Ala-Alma	4008	4010	UX UY UZ RX RY RZ
Unión Ala-Alma	4009	4013	UX UY UZ RX RY RZ
Unión Ala-Alma	3767	3715	UX UY UZ RX RY RZ
Unión Ala-Alma	3922	3861	UX UY UZ RX RY RZ
Unión Ala-Alma	4026	4028	UX UY UZ RX RY RZ
Unión Ala-Alma	4027	4031	UX UY UZ RX RY RZ
Unión Ala-Alma	3907	3855	UX UY UZ RX RY RZ
Unión Ala-Alma	4134	4073	UX UY UZ RX RY RZ
Unión Ala-Alma	4286	4220	UX UY UZ RX RY RZ
Unión Ala-Alma	4270	4214	UX UY UZ RX RY RZ
Unión Ala-Alma	4119	4067	UX UY UZ RX RY RZ
Unión Ala-Alma	4288	4221	UX UY UZ RX RY RZ
Unión Ala-Alma	4762	4764	UX UY UZ RX RY RZ
Unión Ala-Alma	4763	4767	UX UY UZ RX RY RZ
Unión Ala-Alma	4271	4213	UX UY UZ RX RY RZ
Unión Ala-Alma	4432	4371	UX UY UZ RX RY RZ
Unión Ala-Alma	4780	4782	UX UY UZ RX RY RZ
Unión Ala-Alma	4781	4785	UX UY UZ RX RY RZ
Unión Ala-Alma	4417	4365	UX UY UZ RX RY RZ
Unión Ala-Alma	4572	4511	UX UY UZ RX RY RZ
Unión Ala-Alma	4798	4800	UX UY UZ RX RY RZ
Unión Ala-Alma	4799	4803	UX UY UZ RX RY RZ
Unión Ala-Alma	4557	4505	UX UY UZ RX RY RZ
Unión Ala-Alma	4712	4651	UX UY UZ RX RY RZ
Unión Ala-Alma	4816	4818	UX UY UZ RX RY RZ
Unión Ala-Alma	4817	4821	UX UY UZ RX RY RZ
Unión Ala-Alma	4697	4645	UX UY UZ RX RY RZ
Unión Ala-Alma	4924	4863	UX UY UZ RX RY RZ
Unión Ala-Alma	5076	5010	UX UY UZ RX RY RZ
Unión Ala-Alma	5060	5004	UX UY UZ RX RY RZ
Unión Ala-Alma	4909	4857	UX UY UZ RX RY RZ
Unión Ala-Alma	5078	5011	UX UY UZ RX RY RZ
Unión Ala-Alma	5552	5554	UX UY UZ RX RY RZ
Unión Ala-Alma	5553	5557	UX UY UZ RX RY RZ
Unión Ala-Alma	5061	5003	UX UY UZ RX RY RZ
Unión Ala-Alma	5222	5161	UX UY UZ RX RY RZ
Unión Ala-Alma	5570	5572	UX UY UZ RX RY RZ
Unión Ala-Alma	5571	5575	UX UY UZ RX RY RZ
Unión Ala-Alma	5207	5155	UX UY UZ RX RY RZ
Unión Ala-Alma	5362	5301	UX UY UZ RX RY RZ
Unión Ala-Alma	5588	5590	UX UY UZ RX RY RZ
Unión Ala-Alma	5589	5593	UX UY UZ RX RY RZ
Unión Ala-Alma	5347	5295	UX UY UZ RX RY RZ
Unión Ala-Alma	5502	5441	UX UY UZ RX RY RZ
Unión Ala-Alma	5606	5608	UX UY UZ RX RY RZ
Unión Ala-Alma	5607	5611	UX UY UZ RX RY RZ
Unión Ala-Alma	5487	5435	UX UY UZ RX RY RZ

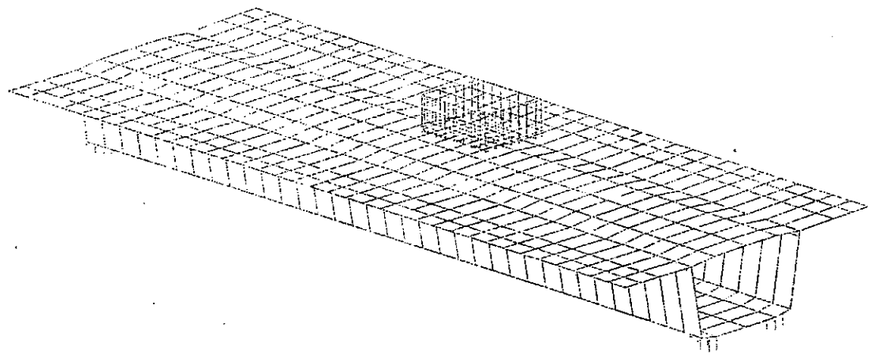
Cargas Aplicadas al Modelo de Cálculo

Caso	Nombre del caso	Tipo de carga	Lista	Valores de carga
1	Peso Propio	peso propio	101A660	PZ Menos
2	Cargas Permanentes	(EF) uniforme	101A645CA16 102A646CA16	PZ=-1.652(T/m^2)
2	Cargas Permanentes	(EF) uniforme	105A649CA16 107A651CA16 109A653CA16	PZ=-1.205(T/m^2)
2	Cargas Permanentes	(EF) uniforme	106A650CA16 108A652CA16 110A654CA16	PZ=-1.075(T/m^2)
3	IPF-A Centrado Vía Dcha	(EF) superficial 3p (contornos)	346A410CA16 348A412CA16 350A414CA16	PZ1=-12.460(T/m^2) P1(15.7, 0.75, 3.8) P2(19.3, 0.75, 3.8) P3(19.3, 3.95, 3.8) P4(15.7, 3.95, 3.8)
4	IPF-A Centrado Vía Izqu	(EF) superficial 3p (contornos)	345A409CA16 347A411CA16 349A413CA16	PZ1=-12.460(T/m^2) P1(15.7, -0.75, 3.8) P2(19.3, -0.75, 3.8) P3(19.3, -3.95, 3.8) P4(15.7, -3.95, 3.8)
5	IPF-A Ripado+ Vía Dcha	(EF) superficial 3p (contornos)	346A410CA16 348A412CA16 350A414CA16	PZ1=-12.460(T/m^2) P1(15.7, 1.12, 3.8) P2(19.3, 1.12, 3.8) P3(19.3, 4.32, 3.8) P4(15.7, 4.32, 3.8)
6	IPF-A Ripado+ Vía Izqu	(EF) superficial 3p (contornos)	345A409CA16 347A411CA16 349A413CA16	PZ1=-12.460(T/m^2) P1(15.7, -0.385, 3.8) P2(19.3, -0.385, 3.8) P3(19.3, -3.59, 3.8) P4(15.7, -3.59, 3.8)
7	IPF-A Ripado- Vía Dcha	(EF) superficial 3p (contornos)	346A410CA16 348A412CA16 350A414CA16	PZ1=-12.460(T/m^2) P1(15.7, 0.435, 3.8) P2(19.3, 0.435, 3.8) P3(19.3, 3.63, 3.8) P4(15.7, 3.63, 3.8)
8	IPF-A Ripado- Vía Izqu	(EF) superficial 3p (contornos)	345A409CA16 347A411CA16 349A413CA16	PZ1=-12.460(T/m^2) P1(15.7, -1.06, 3.8) P2(19.3, -1.06, 3.8) P3(19.3, -4.26, 3.8) P4(15.7, -4.26, 3.8)
9	LM-71 Centrado Vía Dcha	(EF) superficial 3p (contornos)	330A410CA16 332A412CA16 334A414CA16 458 460 462	PZ1=-6.890(T/m^2) P1(14.8, 0.75, 3.8) P2(20.2, 0.75, 3.8) P3(20.2, 3.95, 3.8) P4(14.8, 3.95, 3.8)
10	LM-71 Centrado Vía Izqu	(EF) superficial 3p (contornos)	329A409CA16 331A411CA16 333A413CA16 457 459 461	PZ1=-6.890(T/m^2) P1(14.8, -0.75, 3.8) P2(20.2, -0.75, 3.8) P3(20.2, -3.95, 3.8) P4(14.8, -3.95, 3.8)
11	LM-71 Ripado+ Vía Dcha	(EF) superficial 3p (contornos)	330A410CA16 332A412CA16 334A414CA16 458 460 462	PZ1=-6.890(T/m^2) P1(14.8, 1.19, 3.8) P2(20.2, 1.19, 3.8) P3(20.2, 4.39, 3.8) P4(14.8, 4.39, 3.8)
12	LM-71 Ripado+ Vía Izqu	(EF) superficial 3p (contornos)	329A409CA16 331A411CA16 333A413CA16 457 459 461	PZ1=-6.890(T/m^2) P1(14.8, -0.396, 3.8) P2(14.8, -3.6, 3.8) P3(20.2, -3.6, 3.8) P4(20.2, -0.396, 3.8)
13	LM-71 Ripado- Vía Dcha	(EF) superficial 3p (contornos)	330A410CA16 332A412CA16 334A414CA16 458 460 462	PZ1=-6.890(T/m^2) P1(14.8, 0.345, 3.8) P2(20.2, 0.345, 3.8) P3(20.2, 3.54, 3.8) P4(14.8, 3.54, 3.8)
14	LM-71 Ripado- Vía Izqu	(EF) superficial 3p (contornos)	329A409CA16 331A411CA16 333A413CA16 457 459 461	PZ1=-6.890(T/m^2) P1(14.8, -1.16, 3.8) P2(20.2, -1.16, 3.8) P3(20.2, -4.36, 3.8) P4(14.8, -4.36, 3.8)
15	Descarrilamiento Ext Vía Dcha	(EF) superficial 3p (contornos)	330A410CA16 332A412CA16 458 460	PZ1=-14.035(T/m^2) P1(14.9, 2.6, 3.8) P2(20.1, 2.6, 3.8) P3(20.1, 4.5, 3.8) P4(14.9, 4.5, 3.8)
16	Descarrilamiento Int Vía Dcha	(EF) superficial 3p (contornos)	332A412CA16 334A414CA16 460 462	PZ1=-14.035(T/m^2) P1(14.9, 0.197, 3.8) P2(20.1, 0.197, 3.8) P3(20.1, 2.1, 3.8) P4(14.9, 2.1, 3.8)
17	Descarrilamiento Ext Vía Izqu	(EF) superficial 3p (contornos)	329A409CA16 331A411CA16 457 459	PZ1=-14.035(T/m^2) P1(14.9, -2.6, 3.8) P2(20.1, -2.6, 3.8) P3(20.1, -4.5, 3.8) P4(14.9, -4.5, 3.8)
18	Descarrilamiento Int Vía Izqu	(EF) superficial 3p (contornos)	331A411CA16 333A413CA16 459 461	PZ1=-14.035(T/m^2) P1(14.9, -0.197, 3.8) P2(20.1, -0.197, 3.8) P3(20.1, -2.1, 3.8) P4(14.9, -2.1, 3.8)
19	Sobrecarga Paseo Dcho	(EF) uniforme	102A646CA16	PZ=-0.500(T/m^2)
20	Sobrecarga Paseo Izqu	(EF) uniforme	101A645CA16	PZ=-0.500(T/m^2)
21	Sobrecarga Paseo Dcho Concom	(EF) uniforme	102A646CA16	PZ=-0.250(T/m^2)
22	Sobrecarga Paseo Izqu Concom	(EF) uniforme	101A645CA16	PZ=-0.250(T/m^2)

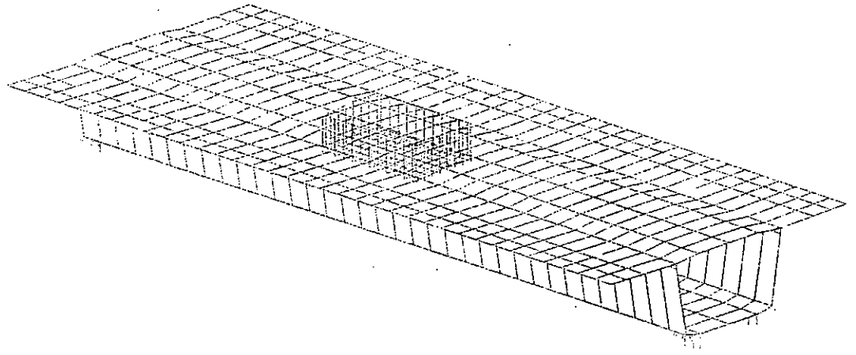
Combinación de Acciones

Combinación	Nombre	Tipo de análisis	Naturaleza de combinación	Naturaleza de caso	Definición
101 (C)	ELU-1	Combinación lineal	ELU	permanente	(1+2)*1.35+20*1.50
102 (C)	ELU-2	Combinación lineal	ELU	permanente	(1+2)*1.35+(19+20)*1.50
103 (C)	ELU-3	Combinación lineal	ELU	permanente	(1+2)*1.35+(4+22)*1.50
104 (C)	ELU-4	Combinación lineal	ELU	permanente	(1+2)*1.35+(3+4+21+22)*1.50
105 (C)	ELU-5	Combinación lineal	ELU	permanente	(1+2)*1.35+(6+22)*1.50
106 (C)	ELU-6	Combinación lineal	ELU	permanente	(1+2)*1.35+(5+6+21+22)*1.50
107 (C)	ELU-7	Combinación lineal	ELU	permanente	(1+2)*1.35+(8+22)*1.50
108 (C)	ELU-8	Combinación lineal	ELU	permanente	(1+2)*1.35+(7+8+21+22)*1.50
109 (C)	ELU-9	Combinación lineal	ELU	permanente	(1+2)*1.35+(10+22)*1.50
110 (C)	ELU-10	Combinación lineal	ELU	permanente	(1+2)*1.35+(9+10+21+22)*1.50
111 (C)	ELU-11	Combinación lineal	ELU	permanente	(1+2)*1.35+(12+22)*1.50
112 (C)	ELU-12	Combinación lineal	ELU	permanente	(1+2)*1.35+(11+12+21+22)*1.50
113 (C)	ELU-13	Combinación lineal	ELU	permanente	(1+2)*1.35+(14+22)*1.50
114 (C)	ELU-14	Combinación lineal	ELU	permanente	(1+2)*1.35+(13+14+21+22)*1.50
151 (C)	ELU-A1	Combinación lineal	AKC	permanente	(1+2+17)*1.00+22*0.50
152 (C)	ELU-A2	Combinación lineal	AKC	permanente	(1+2+17+15)*1.00+(21+22)*0.50
153 (C)	ELU-A3	Combinación lineal	AKC	permanente	(1+2+17+16)*1.00+(21+22)*0.50
154 (C)	ELU-A4	Combinación lineal	AKC	permanente	(1+2+18)*1.00+22*0.50
155 (C)	ELU-A5	Combinación lineal	AKC	permanente	(1+2+18+15)*1.00+(21+22)*0.50
156 (C)	ELU-A6	Combinación lineal	AKC	permanente	(1+2+18+16)*1.00+(21+22)*0.50
201 (C)	ELS-C1	Combinación lineal	ELS	permanente	(1+2+20)*1.00
202 (C)	ELS-C2	Combinación lineal	ELS	permanente	(1+2+19+20)*1.00
203 (C)	ELS-C3	Combinación lineal	ELS	permanente	(1+2+4+22)*1.00
204 (C)	ELS-C4	Combinación lineal	ELS	permanente	(1+2+3+4+21+22)*1.00
205 (C)	ELS-C5	Combinación lineal	ELS	permanente	(1+2+6+22)*1.00
206 (C)	ELS-C6	Combinación lineal	ELS	permanente	(1+2+5+6+21+22)*1.00
207 (C)	ELS-C7	Combinación lineal	ELS	permanente	(1+2+8+22)*1.00
208 (C)	ELS-C8	Combinación lineal	ELS	permanente	(1+2+7+8+21+22)*1.00
209 (C)	ELS-C9	Combinación lineal	ELS	permanente	(1+2+10+22)*1.00
210 (C)	ELS-C10	Combinación lineal	ELS	permanente	(1+2+9+10+21+22)*1.00
211 (C)	ELS-C11	Combinación lineal	ELS	permanente	(1+2+12+22)*1.00
212 (C)	ELS-C12	Combinación lineal	ELS	permanente	(1+2+11+12+21+22)*1.00
213 (C)	ELS-C13	Combinación lineal	ELS	permanente	(1+2+14+22)*1.00
214 (C)	ELS-C14	Combinación lineal	ELS	permanente	(1+2+13+14+21+22)*1.00
251 (C)	ELS-F1	Combinación lineal	ELS	permanente	(1+2)*1.00+20*0.50
252 (C)	ELS-F2	Combinación lineal	ELS	permanente	(1+2)*1.00+(19+20)*0.50
253 (C)	ELS-F3	Combinación lineal	ELS	permanente	(1+2)*1.00+(4+22)*0.50
254 (C)	ELS-F4	Combinación lineal	ELS	permanente	(1+2)*1.00+(3+4+21+22)*0.50
255 (C)	ELS-F5	Combinación lineal	ELS	permanente	(1+2)*1.00+(6+22)*0.50
256 (C)	ELS-F6	Combinación lineal	ELS	permanente	(1+2)*1.00+(5+6+21+22)*0.50
257 (C)	ELS-F7	Combinación lineal	ELS	permanente	(1+2)*1.00+(8+22)*0.50
258 (C)	ELS-F8	Combinación lineal	ELS	permanente	(1+2)*1.00+(7+8+21+22)*0.50
259 (C)	ELS-F9	Combinación lineal	ELS	permanente	(1+2)*1.00+(10+22)*0.50
260 (C)	ELS-F10	Combinación lineal	ELS	permanente	(1+2)*1.00+(9+10+21+22)*0.50
261 (C)	ELS-F11	Combinación lineal	ELS	permanente	(1+2)*1.00+(12+22)*0.50
262 (C)	ELS-F12	Combinación lineal	ELS	permanente	(1+2)*1.00+(11+12+21+22)*0.50
263 (C)	ELS-F13	Combinación lineal	ELS	permanente	(1+2)*1.00+(14+22)*0.50
264 (C)	ELS-F14	Combinación lineal	ELS	permanente	(1+2)*1.00+(13+14+21+22)*0.50

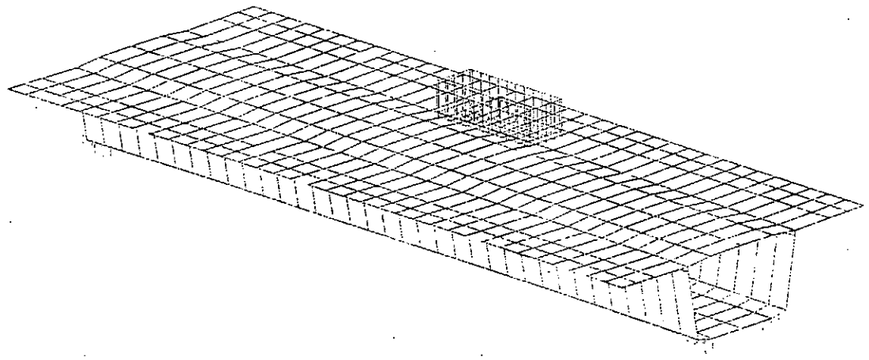
Ejemplo Aplicación de Cargas. Vehículo Tipo A (IPF)



Ejemplo Aplicación de Cargas. Vehículo LM-71 (EC)



Ejemplo Aplicación de Cargas. Descarrilamiento



Ejemplo Aplicación de Cargas. Sobrecarga Paseos

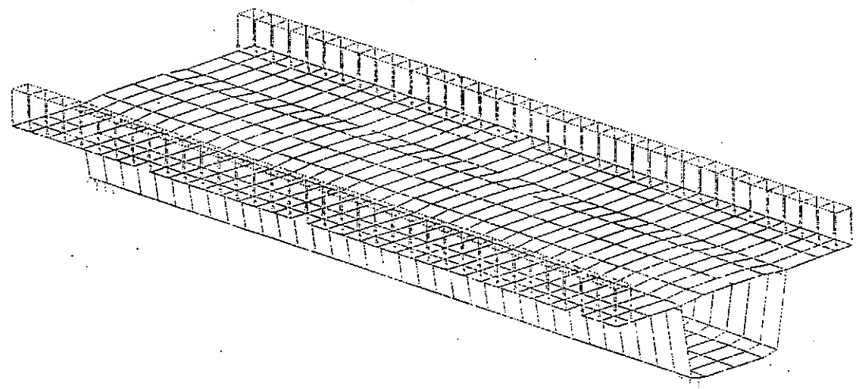


Diagrama Flexión Transversal en ELU. Máximos Momentos Negativos

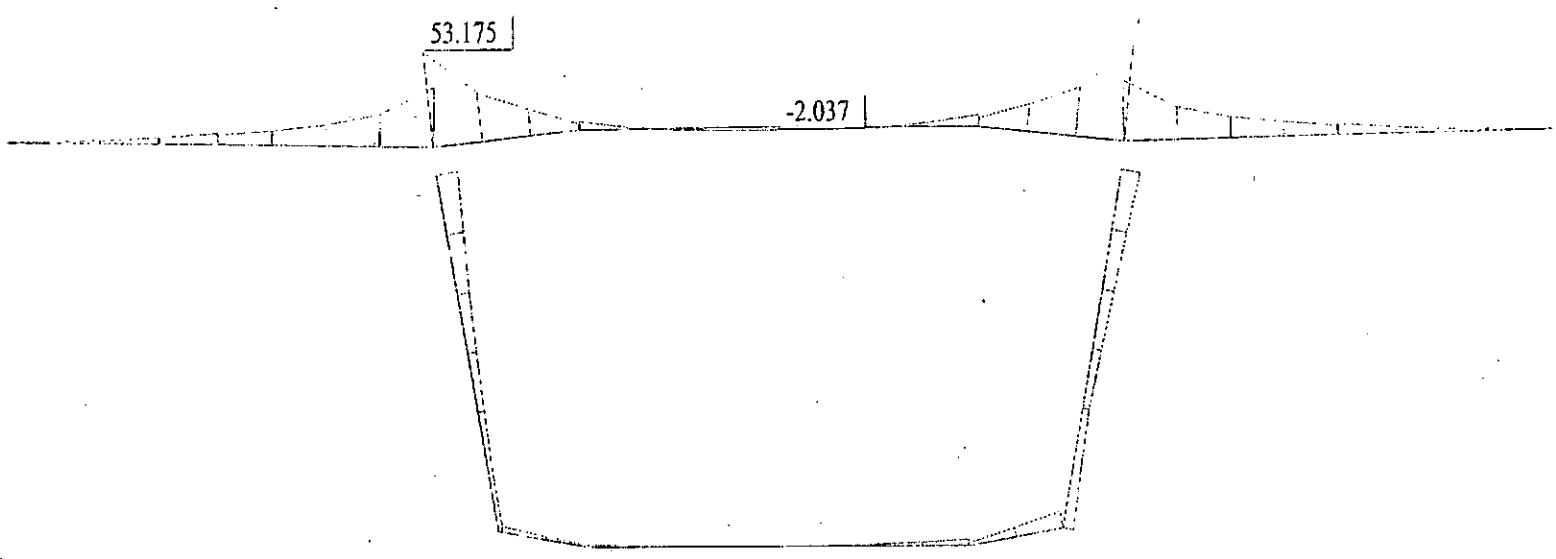


Diagrama Flexión Transversal en ELU. Máximos Momentos Positivos

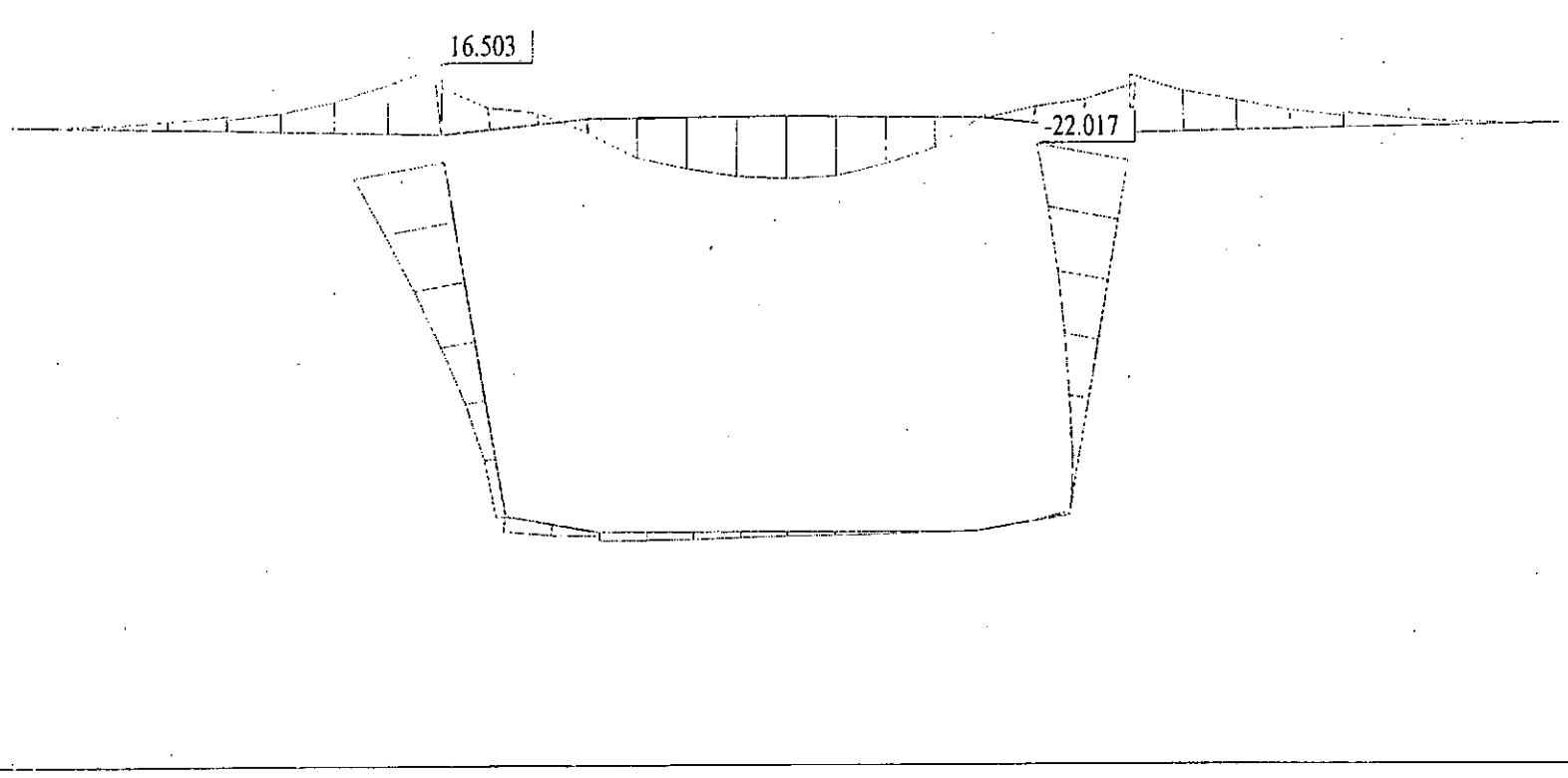
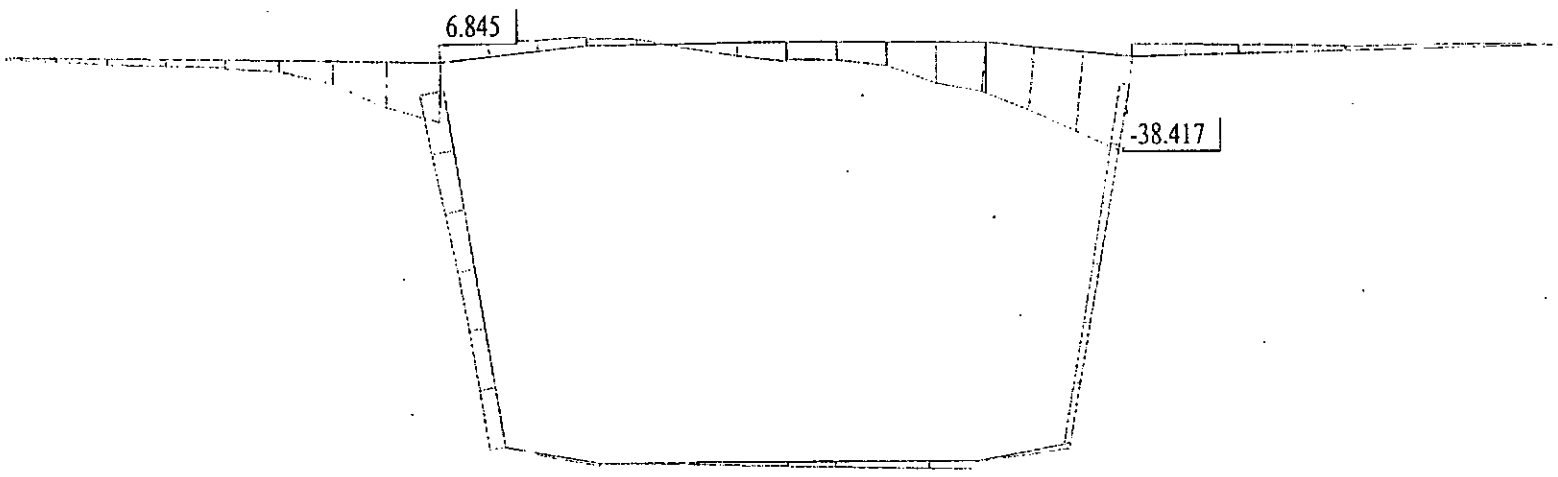
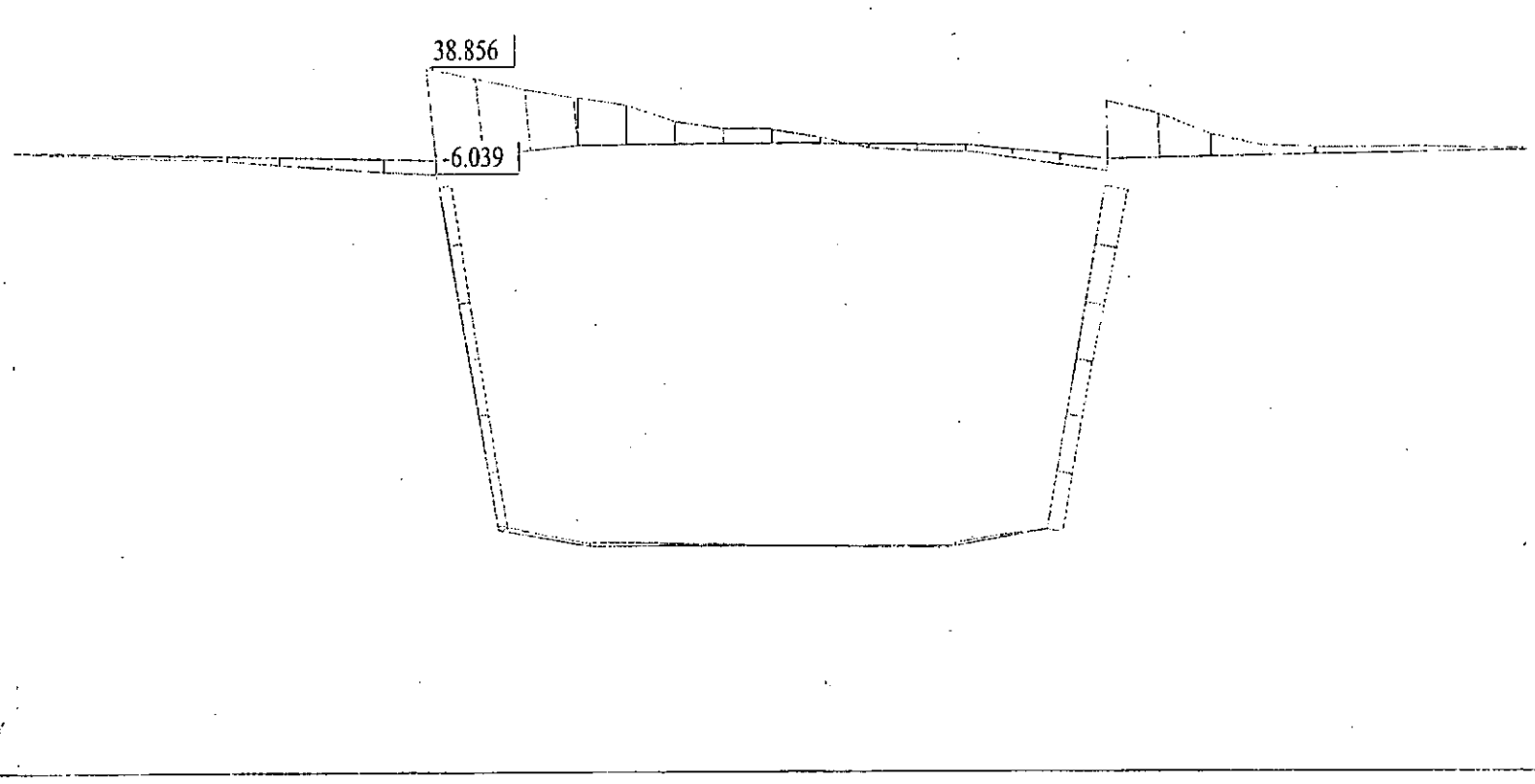


Diagrama Flexión Transversal en ELU. Máximos Cortantes Negativos

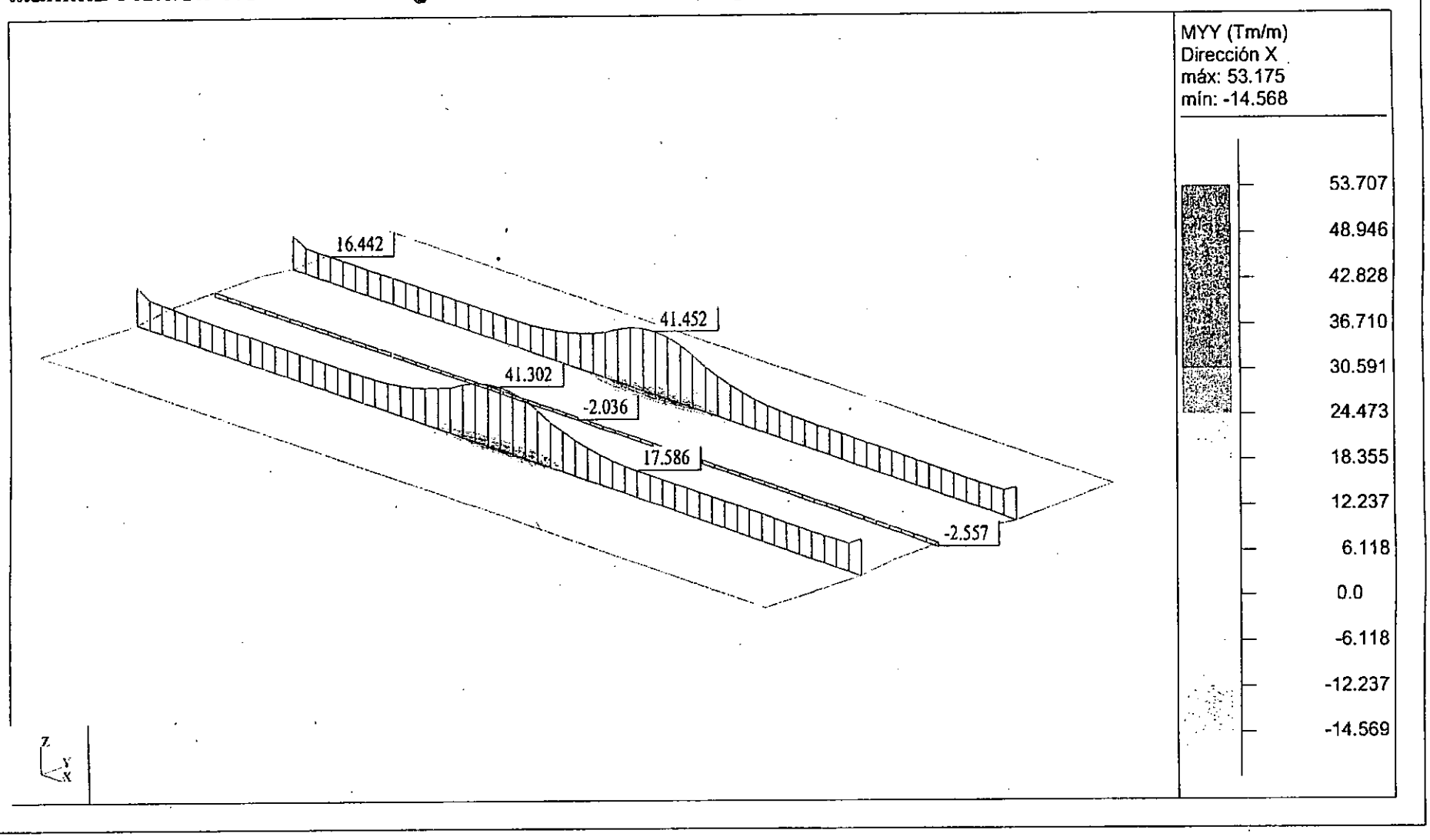


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Diagrama Flexión Transversal en ELU. Máximos Cortantes Positivos

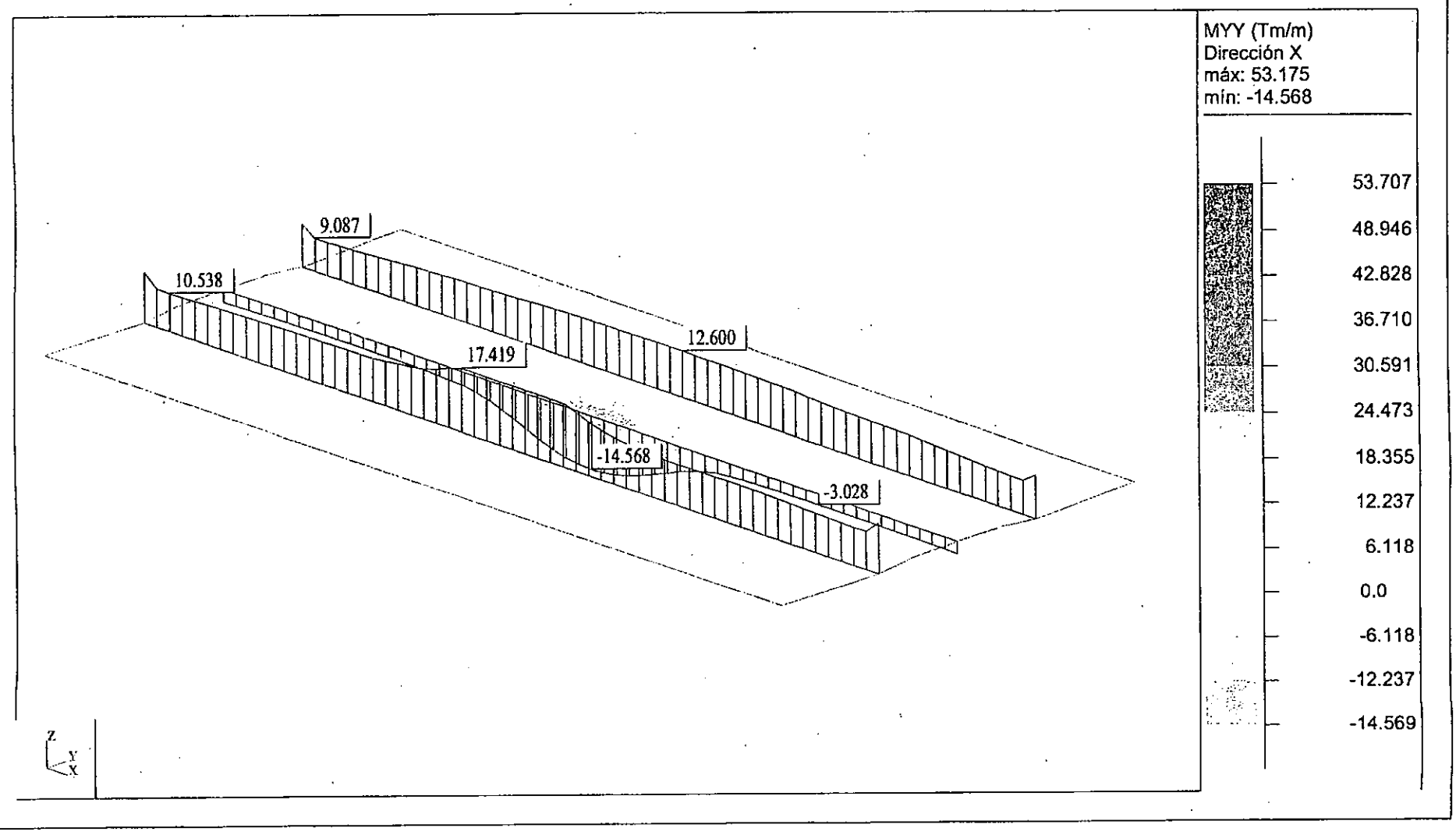


Máxima Flexión Transversal Negativa en Secciones 1, 3 y 4. ELU

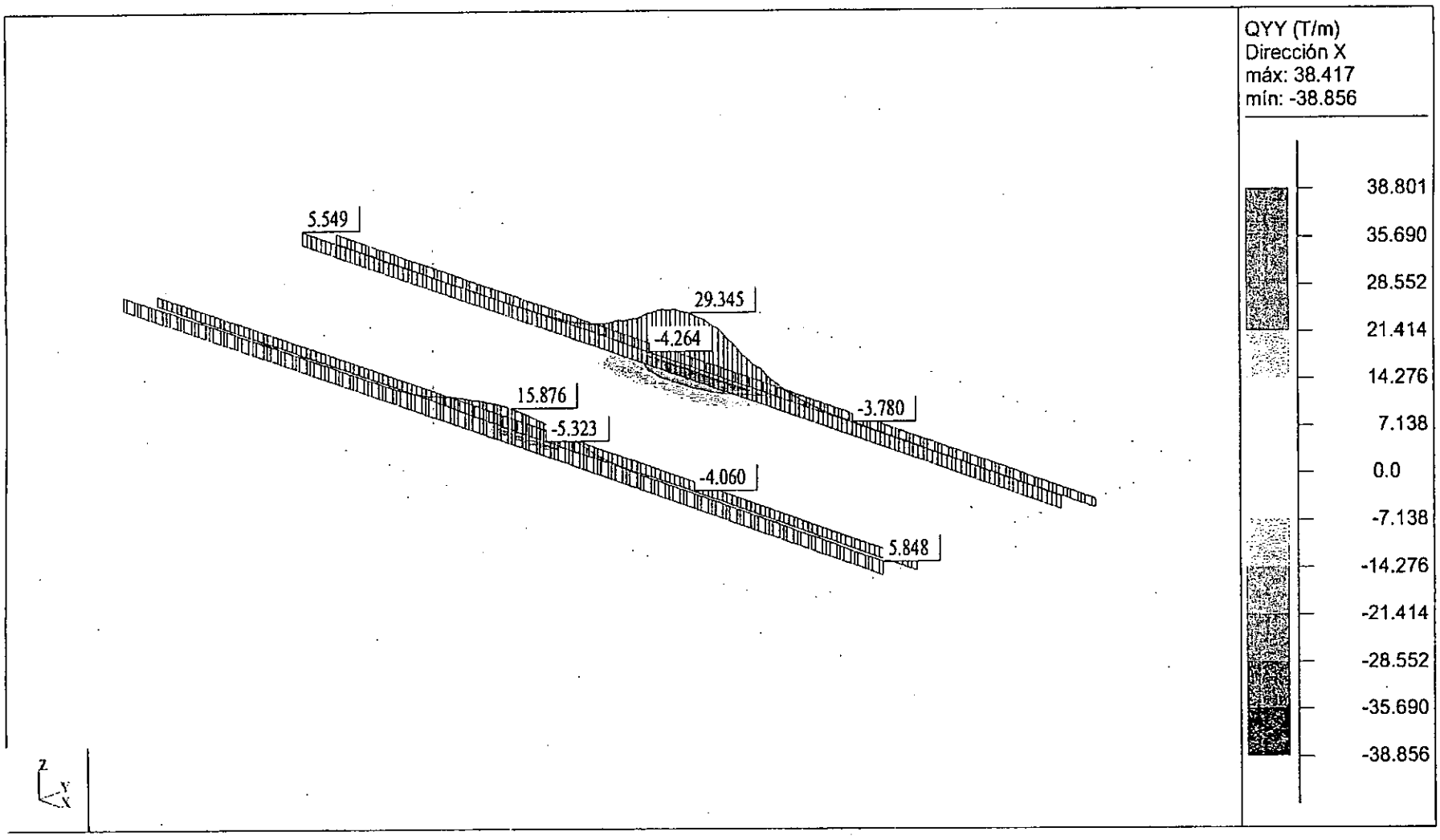


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Máxima Flexión Transversal Positiva en Secciones 1, 3 y 4. ELU

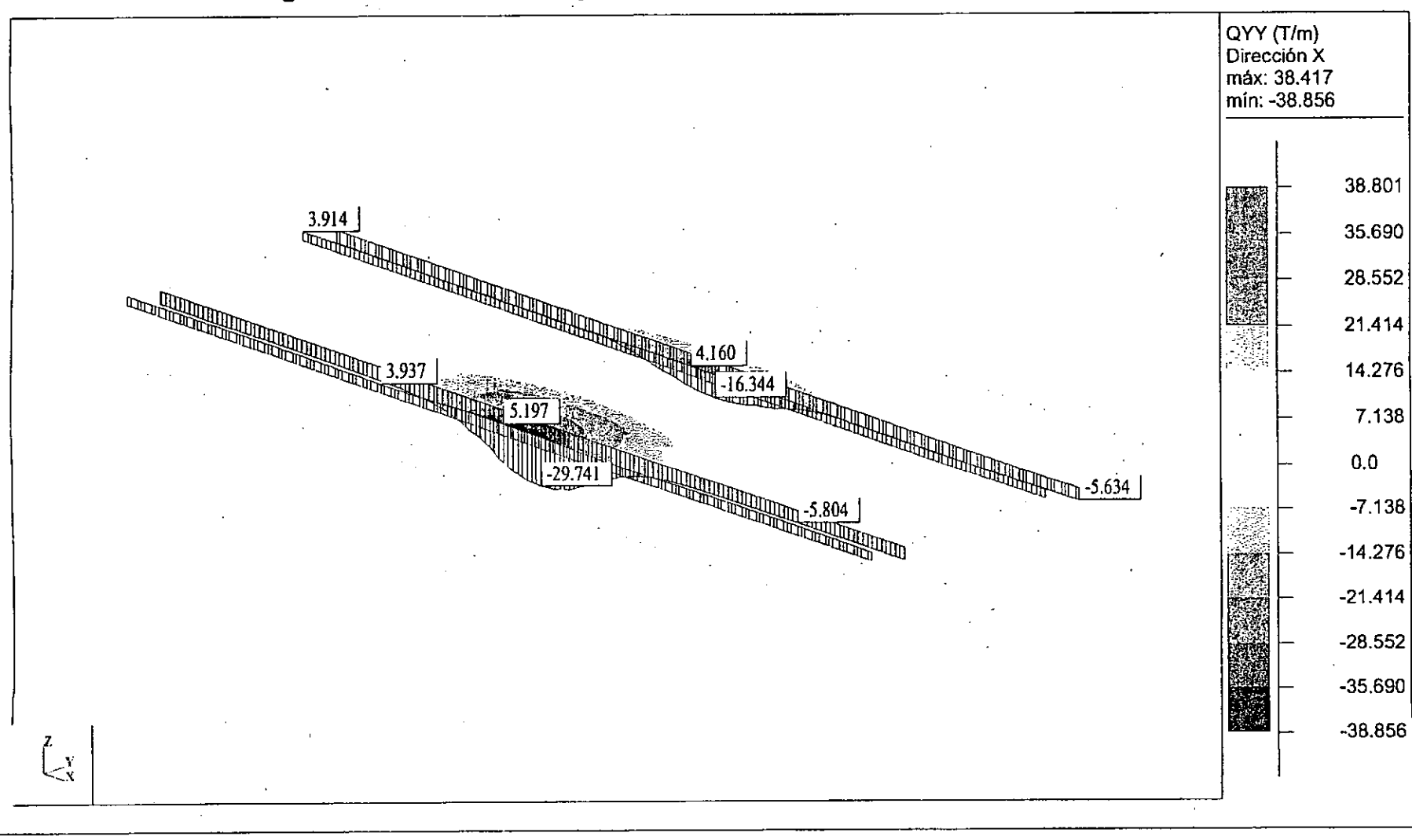


Máximo Cortante Positivo en Secciones 3 y 4. ELU

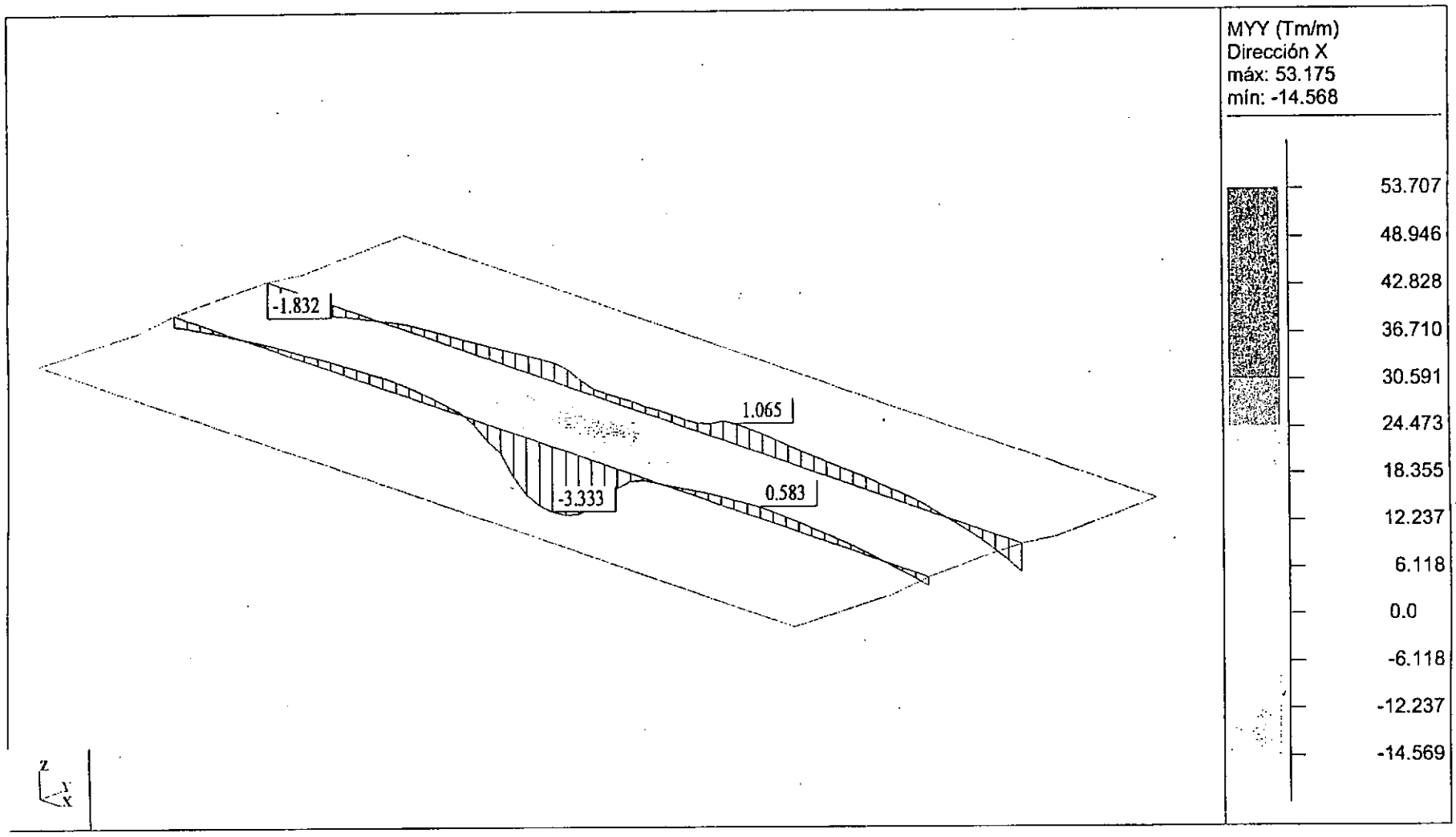


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Máximo Cortante Negativo en Secciones 3 y 4. ELU

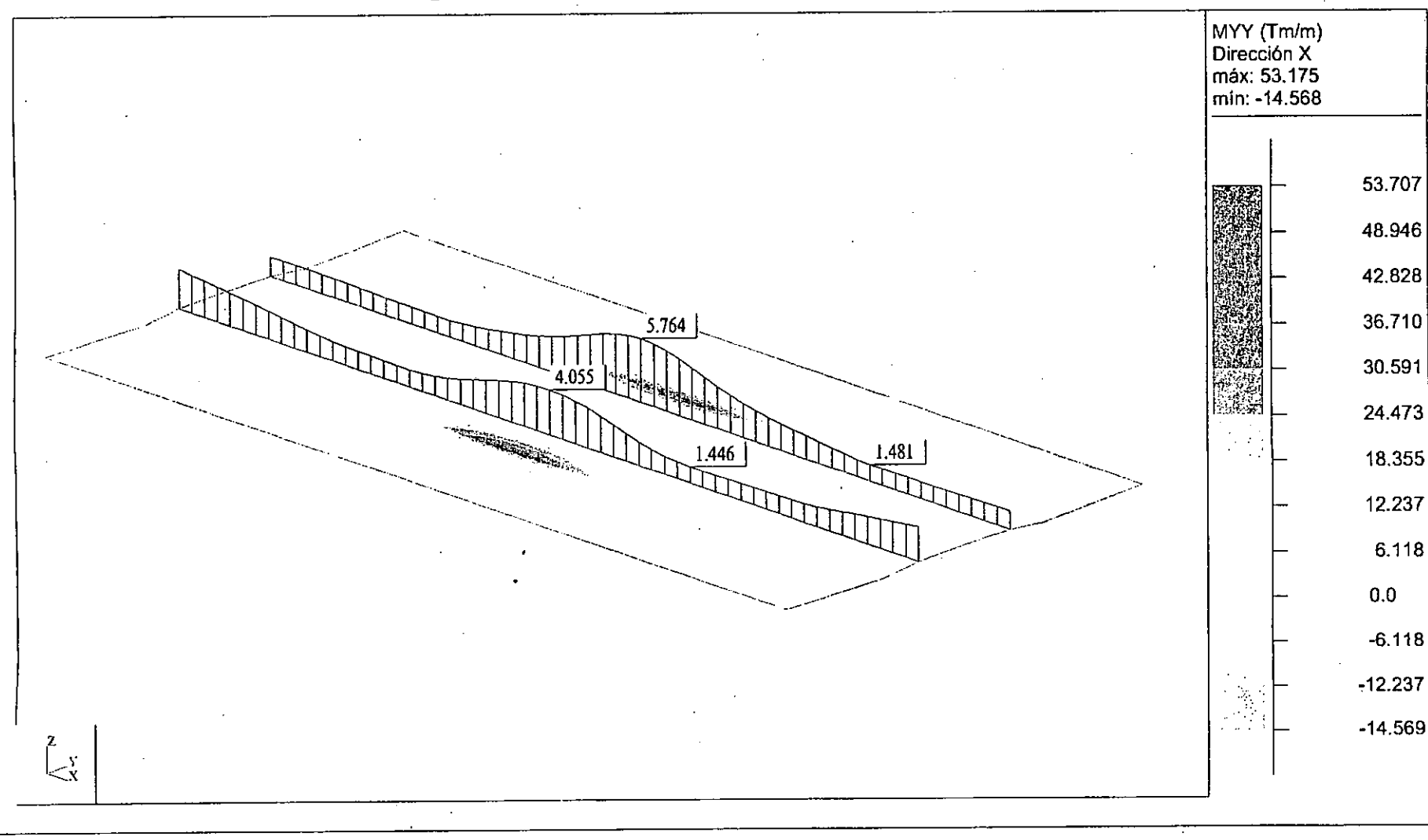


Máxima Flexión Transversal Positiva en Sección 2. ELU

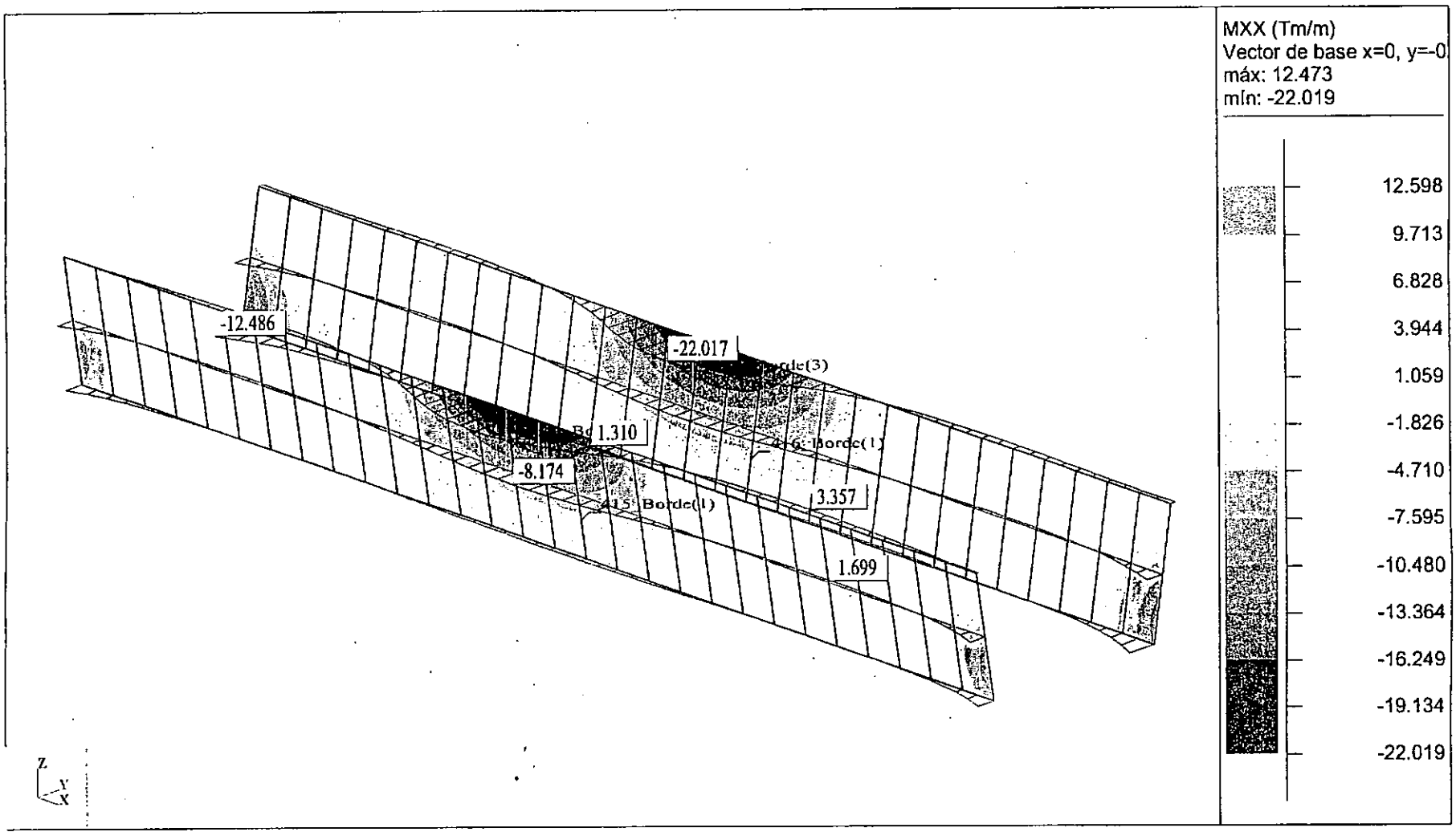


ROBOT v 16.1.1
Autor :
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Archivo : **Tramo Biapoyado - Pantallas.rtd**

Máxima Flexión Transversal Negativa en Sección 2. ELU

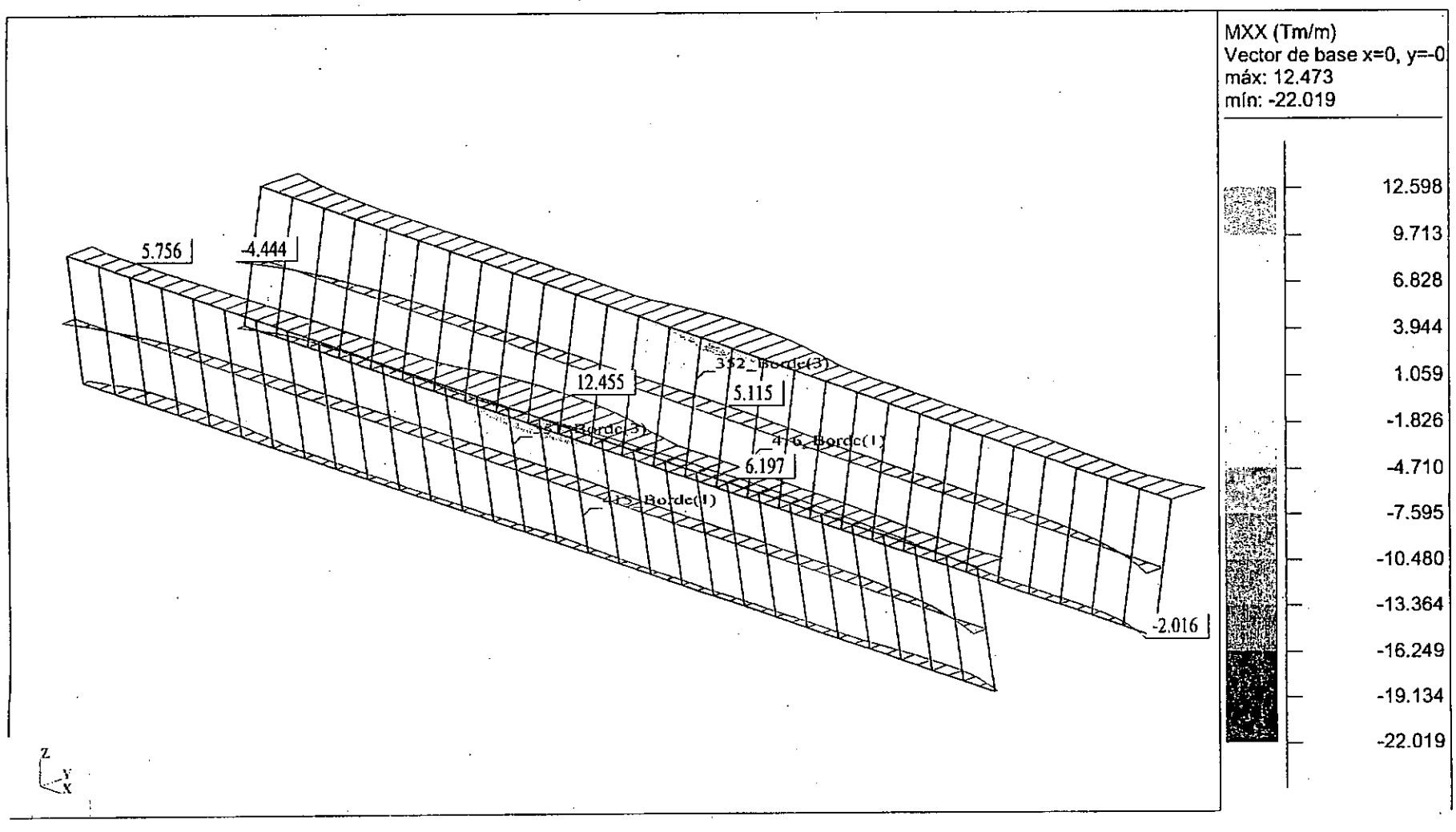


Máxima Flexión Transversal Negativa en Secciones 5, 6 y 7. ELU

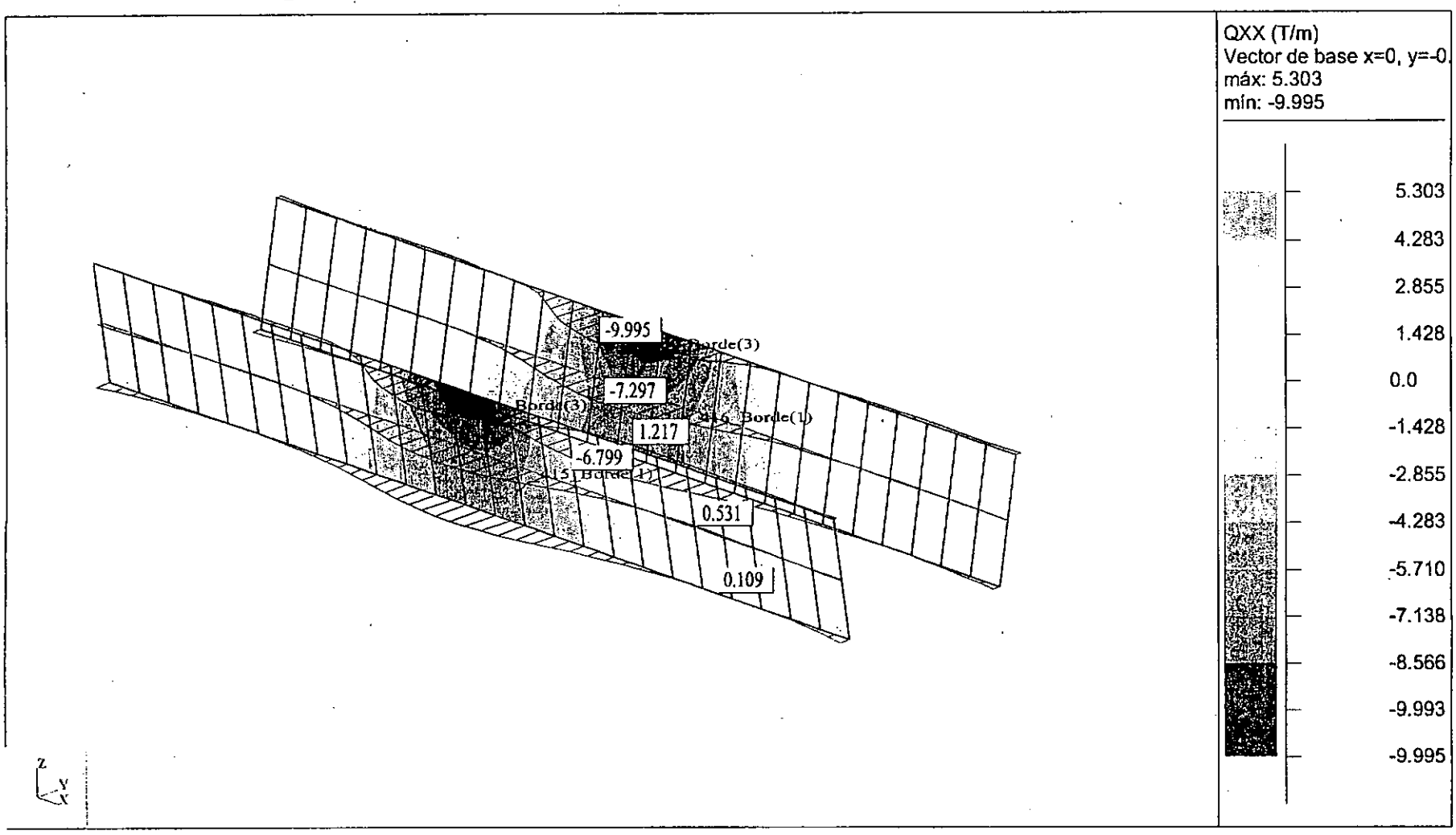


ROBOT v 16.1.1
Autor :
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Archivo : **Tramo Biapoyado - Pantallas Result.rtd**

Máxima Flexión Transversal Positiva en Secciones 5, 6 y 7. ELU

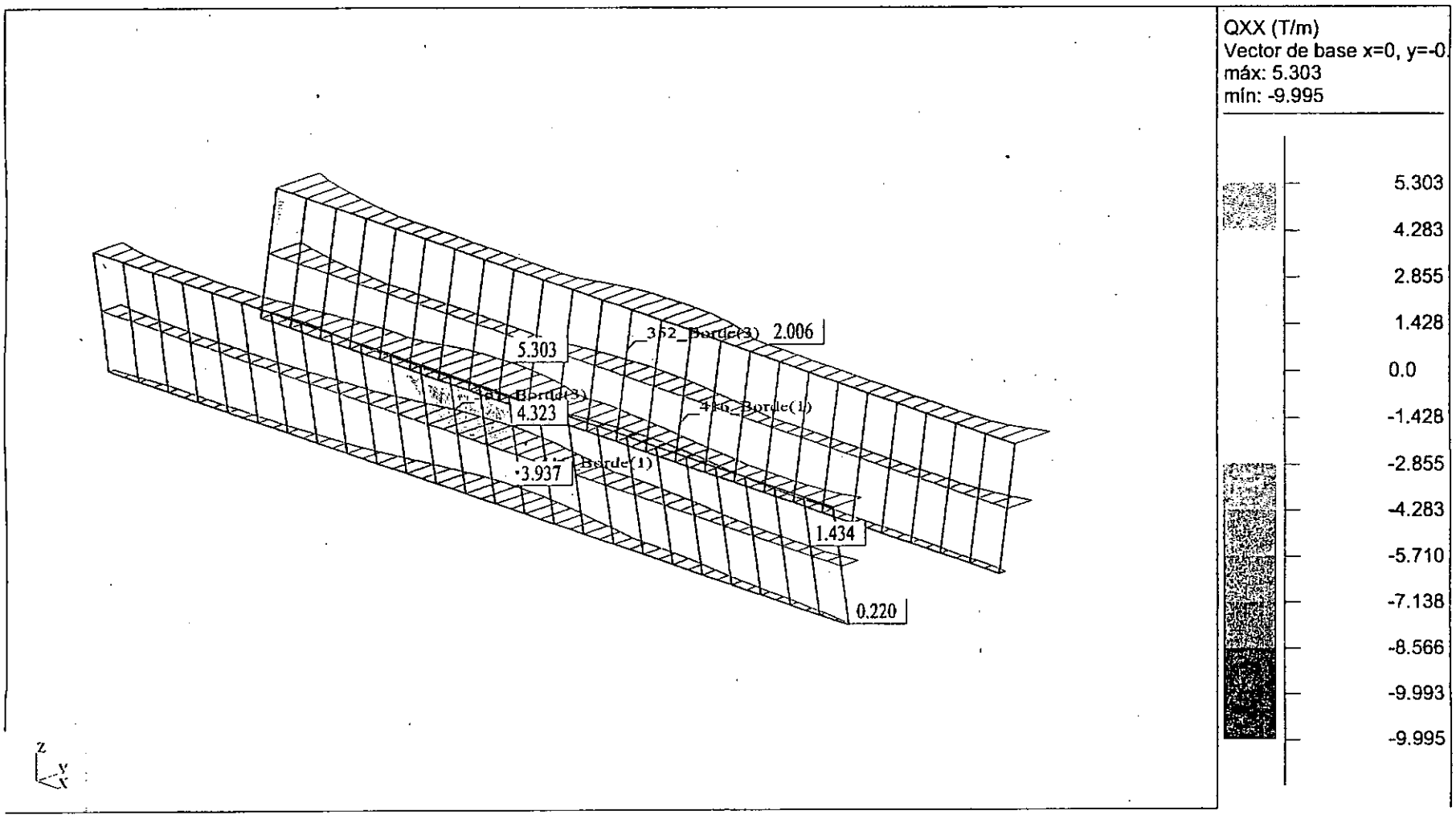


Máximo Cortante Negativo en Secciones 5, 6 y 7. ELU

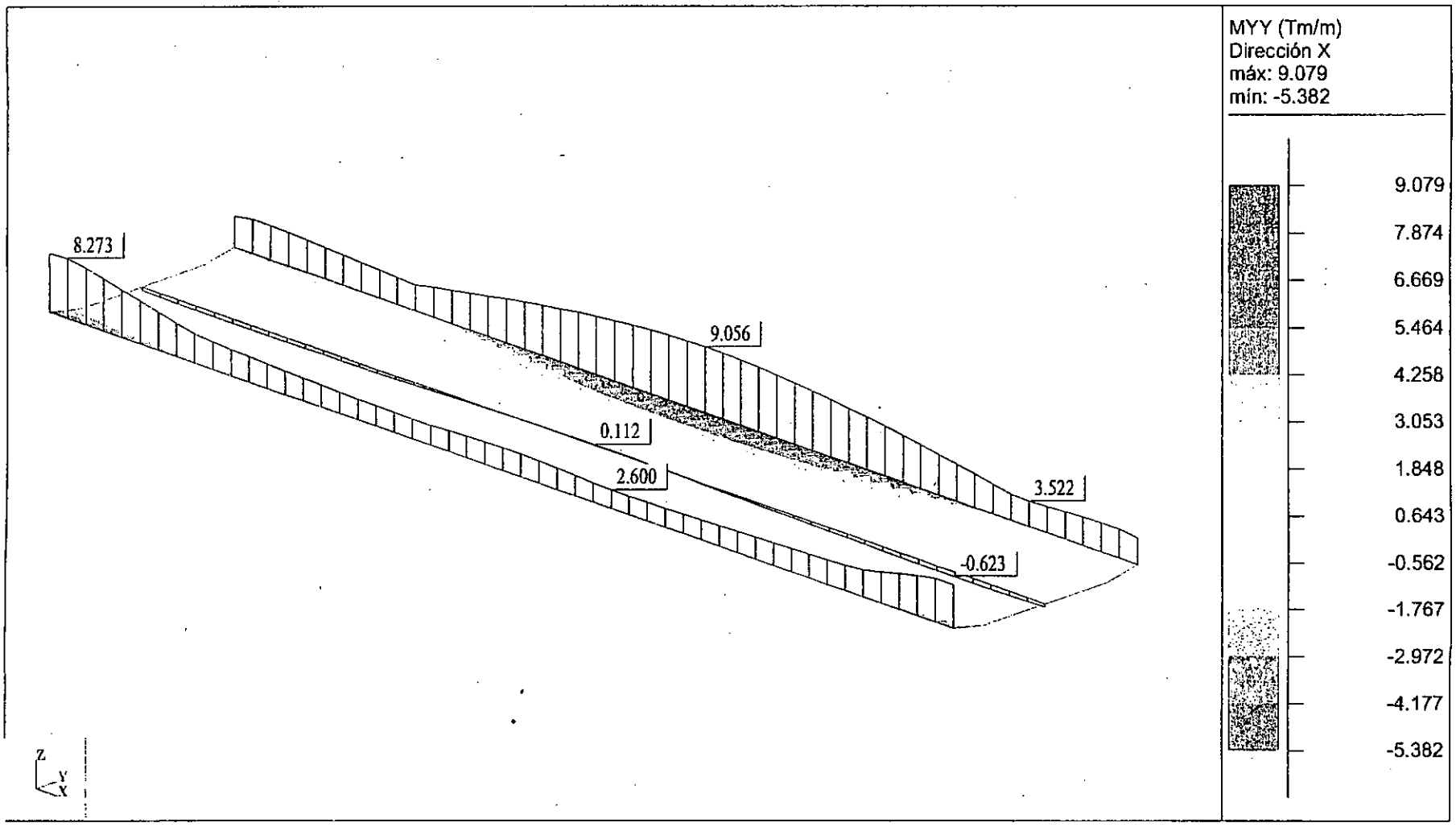


ROBOT v 16.1.1
Autor :
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Archivo : **Tramo Biapoyado - Pantallas Result.rtd**

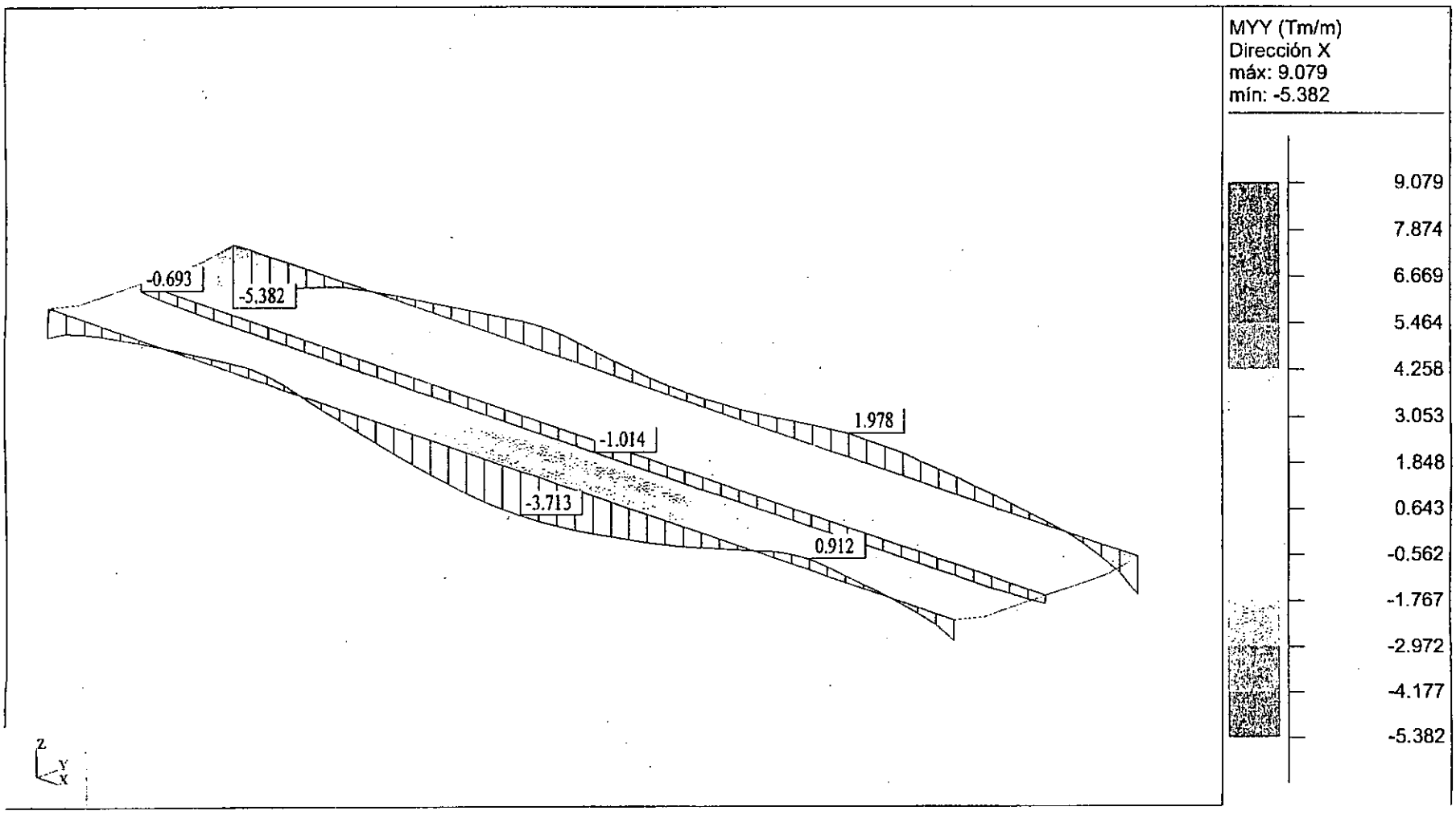
Máximo Cortante Positivo en Secciones 5, 6 y 7. ELU



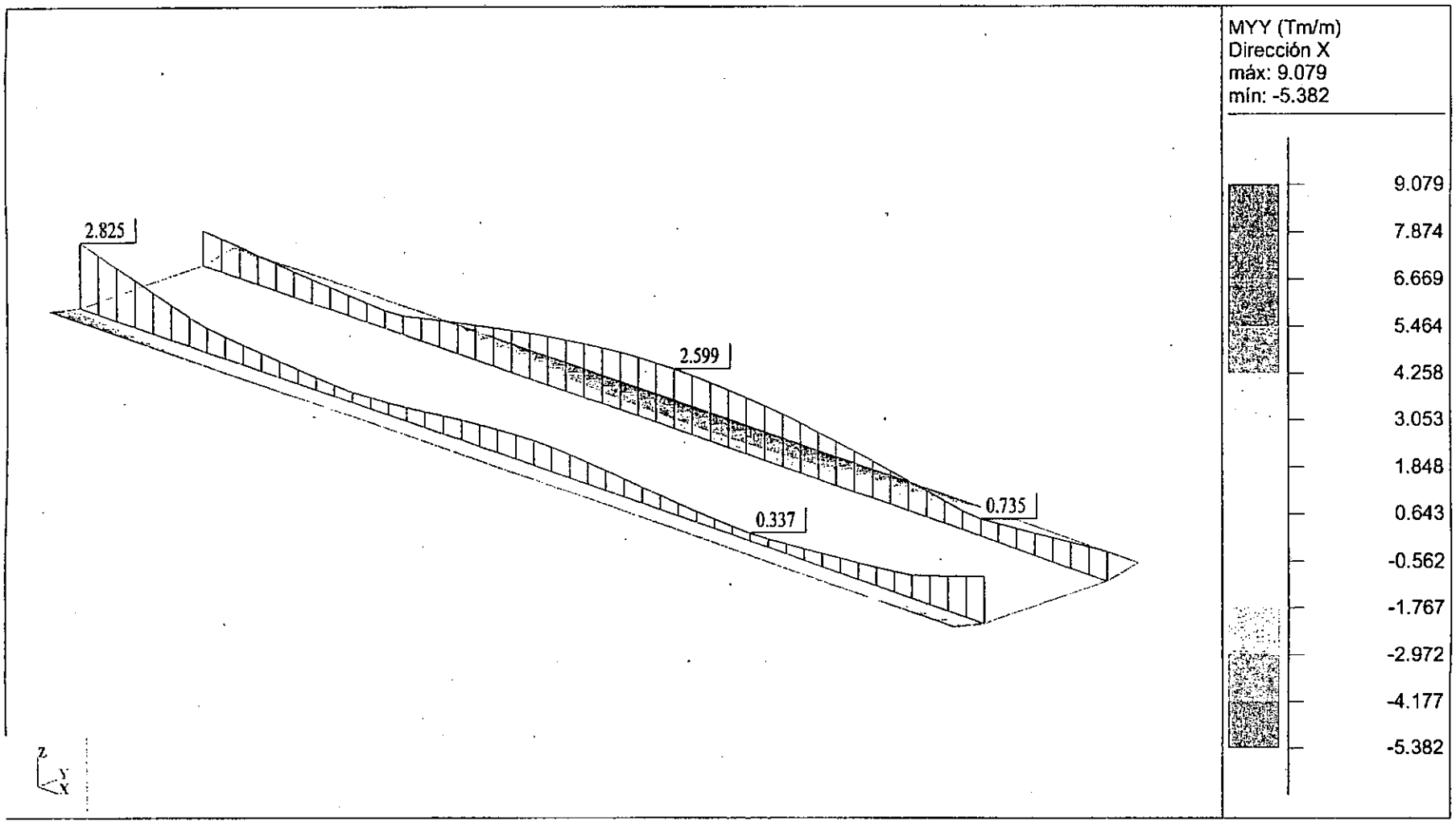
Máximos Momentos Flectores Negativos en Secciones 8 y 10. ELU



Máximos Momentos Flectores Positivos en Secciones 8 y 10. ELU

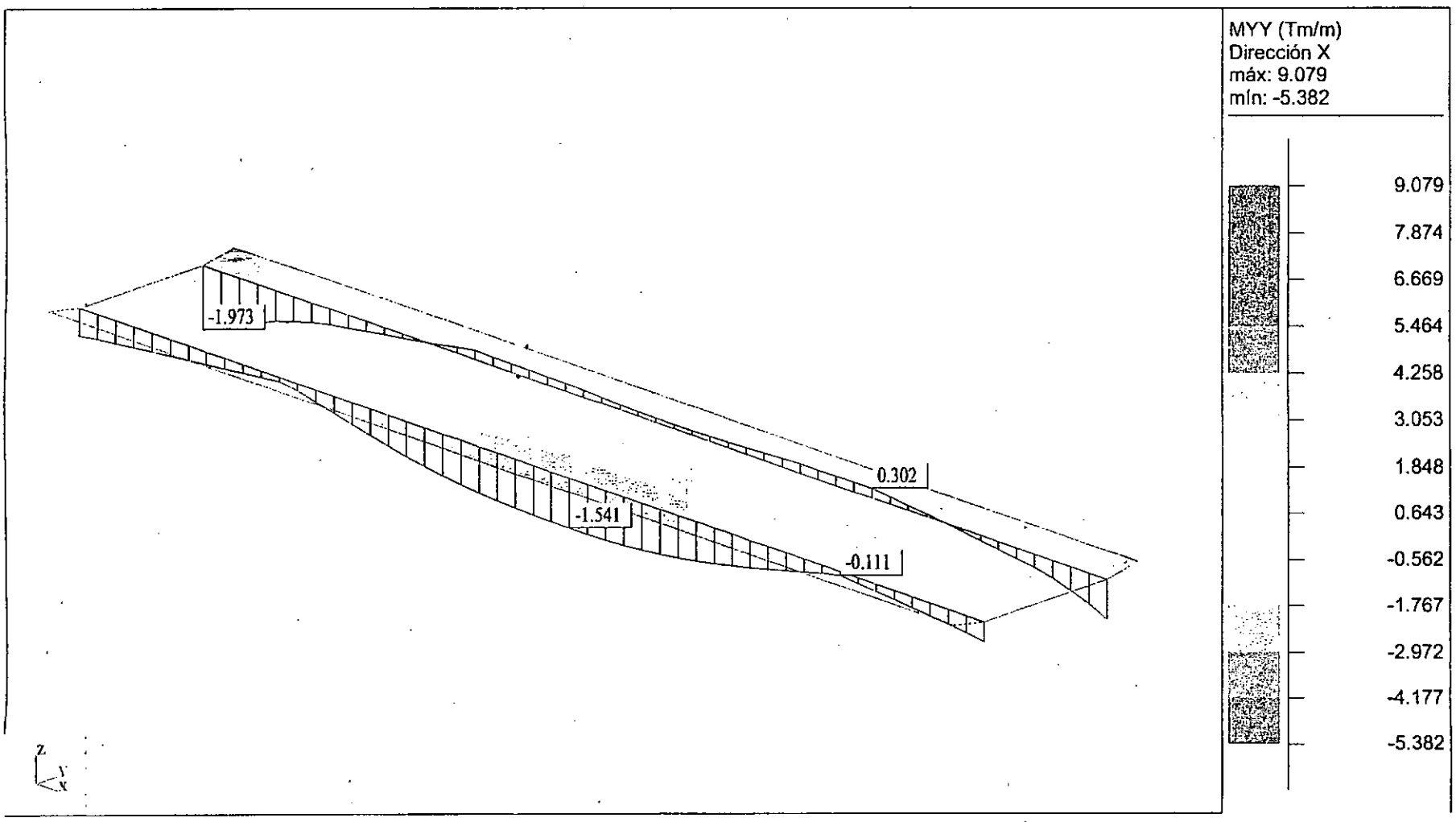


Máximos Momentos Flectores Negativos en Sección 9. ELU



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Autor :
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Archivo : **Tramo Biapoyado - Pantallas Result.rtd**

Máximos Momentos Flectores Positivos en Sección 9. ELU



Obra: Viaducto del Avernó - Flexión Transversal
Flexión Transversal

Cálculo Armadura Necesaria por Flexión Transversal - Sección 1

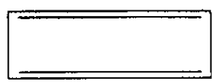
1 Datos

- Materiales

Tipo de hormigón : HA-50
Tipo de acero : B-500-S
fck [MPa] = 40.00
fyk [MPa] = 500.00
γ_c = 1.50
γ_s = 1.15

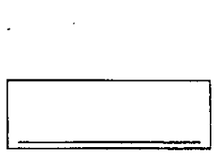
- Sección

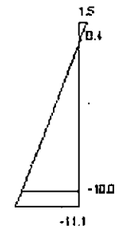
Sección : SECCION-1
b [m] = 1.00
h [m] = 0.34
ri [m] = 0.030
rs [m] = 0.030



2 Dimensionamiento

Md [kN·m] = 145.68









Plano de deformación de agotamiento

x [m] = 0.040
1/r [1/m]·1.E-3 = 36.9
η_s ·1.E-3 = 1.5
η_i ·1.E-3 = -11.1

Deformación y tensión de armaduras

Profundidad [m]	Armadura [cm²]	Deformación ·1.E-3	Tensión [MPa]
0.030	0.0	0.4	0.0
0.310	11.3	-10.0	434.8

At_est [cm²] = 11.3

ϕ [mm]	12	14	16	20	25
n^o_ϕ	11	8	6	4	3
n° capas	1	1	1	1	1
At [cm²]	12.4	12.3	12.1	12.6	14.7
wk [mm]	0.17	0.19	0.23	0.29	0.29

Obra: Viaducto del Avernó - Flexión Transversal
Losa Superior

Cálculo Armadura Necesaria por Flexión Transversal - Sección 2

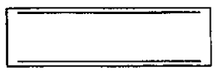
1 Datos

- Materiales

Tipo de hormigón : HA-50
Tipo de acero : B-500-S
fck [MPa] = 40.00
fyk [MPa] = 500.00
φc = 1.50
φs = 1.15

- Sección

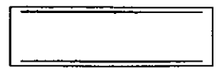
Sección : SECCION-2
b [m] = 1.00
h [m] = 0.30
ri [m] = 0.030
rs [m] = 0.030

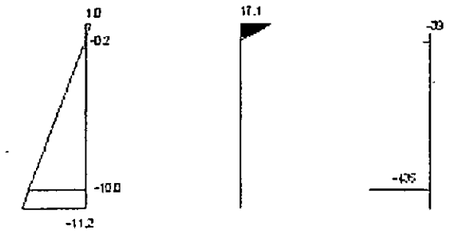


2 Comprobación

At [cm²] = 5.0
Ac [cm²] = 5.0

Mu [kN·m] = 58.1





Plano de deformación de agotamiento

x [m] = 0.025
1/r [1/m]·1.E-3 = 40.1
ηs ·1.E-3 = 1.0
ηi ·1.E-3 = -11.2

Deformación y tensión de armaduras

Profundidad [m]	Armadura [cm²]	Deformación ·1.E-3	Tensión [MPa]
0.030	5.0	-0.2	39.5
0.274	5.0	-10.0	434.8

Obra: Viaducto del Avernó - Flexión Transversal
Losa Superior

Cálculo Armadura Necesaria por Flexión Transversal - Sección 3

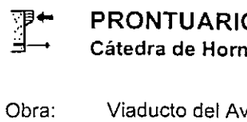
1 Datos

- Materiales

Tipo de hormigón : HA-50
Tipo de acero : B-500-S
fck [MPa] = 50.00
fyk [MPa] = 500.00
γ_c = 1.50
γ_s = 1.15

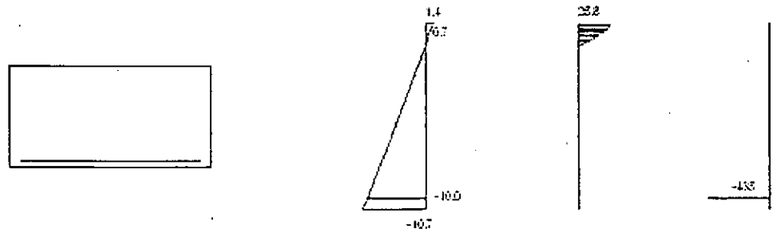
- Sección

Sección : SECCION-3
b [m] = 1.00
h [m] = 0.51
ri [m] = 0.030
rs [m] = 0.030



2 Dimensionamiento

Md [kN·m] = 414.52



Plano de deformación de agotamiento

x [m] = 0.059
1/r [1/m]·1.E-3 = 23.6
η_s ·1.E-3 = 1.4
η_i ·1.E-3 = -10.7

Deformación y tensión de armaduras

Profundidad [m]	Armadura [cm²]	Deformación ·1.E-3	Tensión [MPa]
0.030	0.0	0.7	0.0
0.482	20.7	-10.0	434.8

At_est [cm²] = 20.7

ϕ [mm]	12	14	16	20	25
n°ϕ	19	14	11	7	5
n° capas	1	1	1	1	1
At [cm²]	21.5	21.6	22.1	22.0	24.5
wk [mm]	0.17	0.19	0.20	0.24	0.25

PRONTUARIO INFORMÁTICO DEL HORMIGÓN ESTRUCTURAL 3.0
Cátedra de Hormigón Estructural ETSICCPM - IECA

Obra: Viaducto del Avernó - Flexión Transversal
Losa Superior

Cálculo Armadura Necesaria por Flexión Transversal - Sección 4

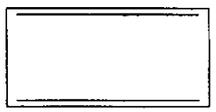
1 Datos

- Materiales

Tipo de hormigón : HA-50
Tipo de acero : B-500-S
fck [MPa] = 50.00
fyk [MPa] = 500.00
φ^c = 1.50
φ^s = 1.15

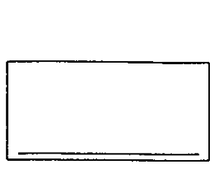
- Sección

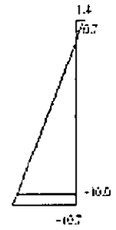
Sección : SECCION-4
b [m] = 1.00
h [m] = 0.50
ri [m] = 0.030
rs [m] = 0.030



2 Dimensionamiento

Md [kN·m] = 414.52







Plano de deformación de agotamiento

x [m] = 0.060
1/r [1/m]·1.E-3 = 24.3
η^s ·1.E-3 = 1.4
η^i ·1.E-3 = -10.7

Deformación y tensión de armaduras

Profundidad [m]	Armadura [cm²]	Deformación ·1.E-3	Tensión [MPa]
0.030	0.0	0.7	0.0
0.470	21.3	-10.0	434.8

At_est [cm²] = 21.3

ι [mm]	12	14	16	20	25
n°ι	19	14	11	7	5
n° capas	1	1	1	1	1
At [cm²]	21.5	21.6	22.1	22.0	24.5
wk [mm]	0.18	0.20	0.21	0.25	0.26

Obra: Viaducto del Avernó - Flexión Transversal
Hastiales

Cálculo Armadura Necesaria por Flexión Transversal Negativa - Sección 5

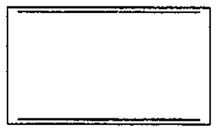
1 Datos

- Materiales

Tipo de hormigón : HA-50
Tipo de acero : B-500-S
fck [MPa] = 40.00
fyk [MPa] = 500.00
φc = 1.50
φs = 1.15

- Sección

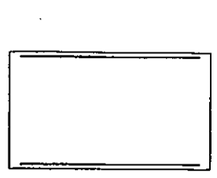
Sección : SECCION-5-6-7
b [m] = 1.00
h [m] = 0.60
ri [m] = 0.030
rs [m] = 0.030

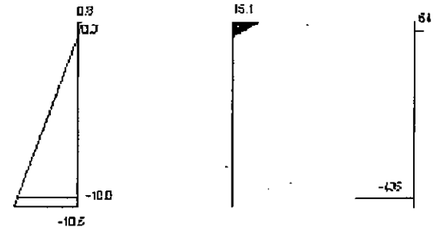


2 Comprobación

At [cm²] = 9.5
Ac [cm²] = 9.5

Mu [kN·m] = 228.3





Plano de deformación de agotamiento

x [m] = 0.044
1/r [1/m]·1.E-3 = 19.0
ηs ·1.E-3 = 0.8
ηi ·1.E-3 = -10.6

Deformación y tensión de armaduras

Profundidad [m]	Armadura [cm²]	Deformación ·1.E-3	Tensión [MPa]
0.030	9.5	0.3	-54.3
0.570	9.5	-10.0	434.8

PRONTUARIO INFORMÁTICO DEL HORMIGÓN ESTRUCTURAL 3.0
Cátedra de Hormigón Estructural ETSICCPM - IECA

Obra: Viaducto del Avernó - Flexión Transversal
Hastiales

Cálculo Armadura Necesaria por Flexión Transversal Positiva - Sección 5

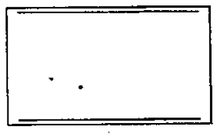
1 Datos

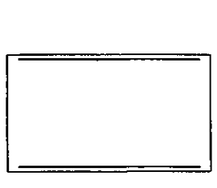
- Materiales

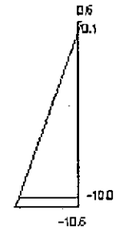
Tipo de hormigón : HA-50
Tipo de acero : B-500-S
fck [MPa] = 40.00
fyk [MPa] = 500.00
φc = 1.50
φs = 1.15

- Sección

Sección : SECCION-5-6-7
b [m] = 1.00
h [m] = 0.60
ri [m] = 0.030
rs [m] = 0.030











Plano de deformación de agotamiento

x [m] = 0.034
1/r [1/m]·1.E-3 = 18.7
ηs ·1.E-3 = 0.6
ηi ·1.E-3 = -10.6

Deformación y tensión de armaduras

Profundidad [m]	Armadura [cm²]	Deformación ·1.E-3	Tensión [MPa]
0.030	5.3	0.1	-16.3
0.570	5.3	-10.0	434.8

2 Comprobación

At [cm²] = 5.3
Ac [cm²] = 5.3

Mu [kN·m] = 128.5

PRONTUARIO INFORMÁTICO DEL HORMIGÓN ESTRUCTURAL 3.0
Cátedra de Hormigón Estructural ETSICCPM - IECA

Obra: Viaducto del Avernó - Flexión Transversal
Hastiales

Cálculo Armadura Necesaria por Flexión Transversal - Secciones 6 y 7

1 Datos

- Materiales

Tipo de hormigón : HA-50
Tipo de acero : B-500-S
fck [MPa] = 40.00
fyk [MPa] = 500.00
φ^c = 1.50
φ^s = 1.15

- Sección

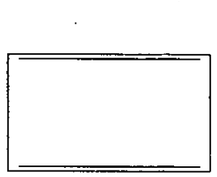
Sección : SECCION-S-6-7
b [m] = 1.00
h [m] = 0.60
ri [m] = 0.030
rs [m] = 0.030

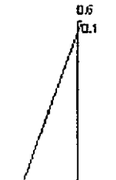


2 Comprobación

At [cm²] = 5.0
Ac [cm²] = 5.0

Mu [kN·m] = 121.3







Plano de deformación de agotamiento

x [m] = 0.033
1/r [1/m]·1.E-3 = 18.6
η^s ·1.E-3 = 0.6
η^i ·1.E-3 = -10.6

Deformación y tensión de armaduras

Profundidad [m]	Armadura [cm²]	Deformación ·1.E-3·	Tensión [MPa]
0.030	5.0	0.1	-13.0
0.570	5.0	-10.0	434.8

Obra: Viaducto del Avernó - Flexión Transversal
Losa Inferior

Cálculo Armadura Necesaria por Flexión Transversal - Sección 8

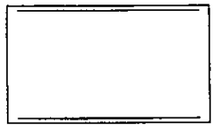
1 Datos

- Materiales

Tipo de hormigón : HA-50
Tipo de acero : B-500-S
fck [MPa] = 40.00
fyk [MPa] = 500.00
φc = 1.50
φs = 1.15

- Sección

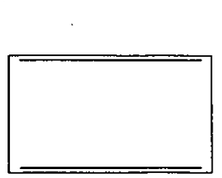
Sección : SECCION-8
b [m] = 1.00
h [m] = 0.60
ri [m] = 0.030
rs [m] = 0.030

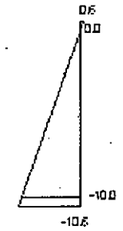


2 Comprobación

At [cm²] = 4.5
Ac [cm²] = 4.5

Mu [kN·m] = 109.3









Plano de deformación de agotamiento

x [m] = 0.032
1/r [1/m]·1.E-3 = 18.6
ηs ·1.E-3 = 0.6
ηi ·1.E-3 = -10.6

Deformación y tensión de armaduras

Profundidad [m]	Armadura [cm²]	Deformación ·1.E-3	Tensión [MPa]
0.030	4.5	0.0	-7.2
0.570	4.5	-10.0	434.8

Obra: Viaducto del Avernó - Flexión Transversal
Losa Inferior

Cálculo Armadura Necesaria por Flexión Transversal - Secciones 9 y 10

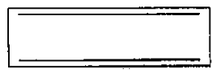
1 Datos

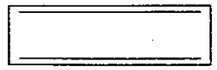
- Materiales

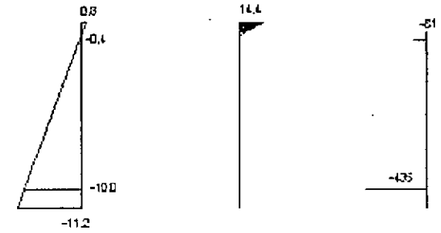
Tipo de hormigón : HA-50
Tipo de acero : B-500-S
fck [MPa] = 40.00
fyk [MPa] = 500.00
φc = 1.50
φs = 1.15

- Sección

Sección : SECCION-9-10
b [m] = 1.00
h [m] = 0.30
ri [m] = 0.030
rs [m] = 0.030







Plano de deformación de agotamiento

x [m] = 0.020
1/r [1/m]·1.E-3 = 40.0
ηs ·1.E-3 = 0.8
ηi ·1.E-3 = -11.2

Deformación y tensión de armaduras

Profundidad [m]	Armadura [cm²]	Deformación ·1.E-3	Tensión [MPa]
0.030	3.0	-0.4	80.8
0.270	3.0	-10.0	434.8

2 Comprobación

At [cm²] = 3.0
Ac [cm²] = 3.0

Mu [kN·m] = 34.9

Estructura: Viaducto del Avernó
Elemento: Cortante en Modelo Flexión Transversal

Sección 3

D(mm)	482	
fck(N/mm2)	50	
Sigma_s(N/mm2)	435	Limitación de tensión en armadura de cortante (art. 40.2 EHE)
Bo(mm)	1000	
As(cm2)	30	
Vrd(Tn)	29.74	
N(Tn)	0	*N<0 para compresión.

VERIFICACIÓN DE LA NECESIDAD DE ARMADURA DE CORTANTE	
PSI	1.644
Roele	0.0062
Sigmaprima (N/mm2)	0.00
Vu2 (N)	299125.1

No necesita armadura de cortante

Sección 4

D(mm)	470	
fck(N/mm2)	50	
Sigma_s(N/mm2)	435	Limitación de tensión en armadura de cortante (art. 40.2 EHE)
Bo(mm)	1000	
As(cm2)	30	
Vrd(Tn)	16.34	
N(Tn)	0	*N<0 para compresión.

VERIFICACIÓN DE LA NECESIDAD DE ARMADURA DE CORTANTE	
PSI	1.652
Roele	0.0064
Sigmaprima (N/mm2)	0.00
Vu2 (N)	295601.4

No necesita armadura de cortante

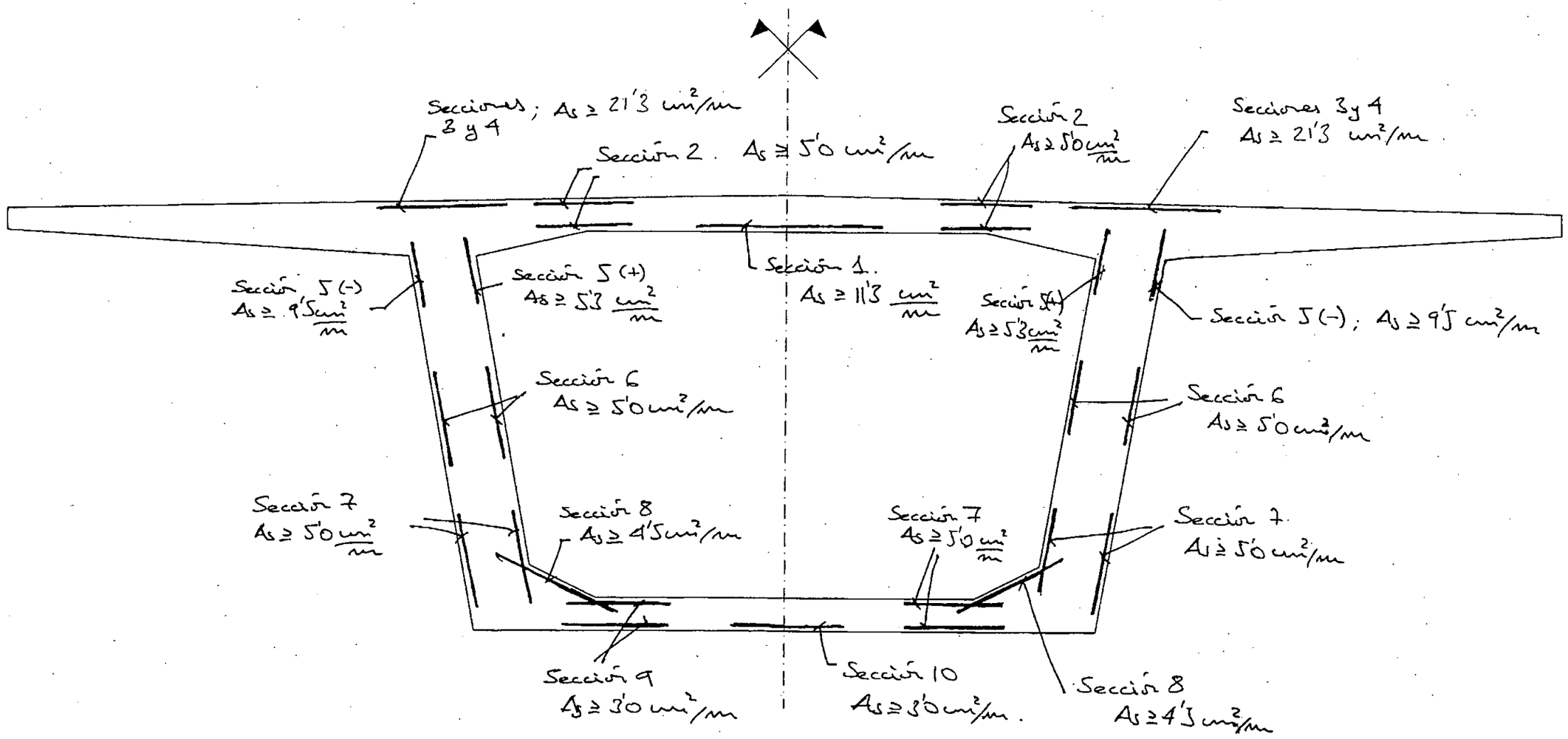
Sección 5

D(mm)	570	
fck(N/mm2)	50	
Sigma_s(N/mm2)	435	Limitación de tensión en armadura de cortante (art. 40.2 EHE)
Bo(mm)	1000	
As(cm2)	10	
Vrd(Tn)	10.00	
N(Tn)	0	*N<0 para compresión.

VERIFICACIÓN DE LA NECESIDAD DE ARMADURA DE CORTANTE	
PSI	1.592
Roele	0.0018
Sigmaprima (N/mm2)	0.00
Vu2 (N)	224625.7

No necesita armadura de cortante

ARMADURA a DISPONER POR FLEXIÓN TRANSVERSAL.



ARMADURA TRANSVERSAL EN TABLERO

Alpha=26,5°

Luz vano		
1	45.0	m
2	60.0	m
3	60.0	m
4	60.0	m
5	60.0	m
6	60.0	m
7	60.0	m
8	60.0	m
9	60.0	m
10	60.0	m
11	60.0	m
12	60.0	m
13	60.0	m
14	45.0	m

Armadura de Rasante (cm2/m)

SEC	X	1 inf	1 sup	2 inf	2 sup	3 inf	3 sup	4 inf	4 sup	5 int	5 ext	6 int	6 ext	7 int	7 ext	8 inf	8 sup	9 inf	9 sup	10 inf	10 sup
1	0.75	13.6	1.9	20.6	19.6	28.3	48.1	35.9	55.6	61.3	62.6	31.6	28.5	51.3	48.9	33.2	36.0	24.7	23.4	5.4	1.9
2	3.00	13.3	1.6	19.7	18.9	27.1	47.2	34.5	54.5	58.8	60.5	29.0	26.3	49.3	47.3	31.8	34.8	23.6	22.5	5.0	1.6
3	5.25	13.0	1.4	19.1	18.4	26.2	46.5	33.5	53.7	57.0	59.1	27.1	24.8	47.9	46.2	30.7	33.9	22.8	21.8	4.7	1.4
4	7.50	12.8	1.2	18.6	17.9	25.5	45.9	32.7	52.9	55.4	57.7	25.3	23.4	13.1	11.6	6.2	9.5	7.6	6.8	4.5	1.2
5	9.75	12.5	1.0	8.0	7.4	4.1	24.6	4.7	25.1	13.7	16.4	14.0	12.4	11.7	10.5	5.1	8.7	6.8	6.1	4.2	1.0
6	12.00	12.3	0.8	7.4	7.0	3.4	24.0	3.8	24.4	12.1	15.1	12.3	11.0	10.4	9.5	4.2	7.9	6.1	5.5	4.0	0.8
7	14.25	12.1	0.6	6.9	6.5	2.6	23.5	3.0	23.8	10.7	13.9	10.8	9.7	9.3	8.5	3.3	7.2	5.4	5.0	3.8	0.6
8	16.50	11.9	0.5	6.5	6.2	2.0	23.0	2.3	23.2	9.5	12.9	9.5	8.7	8.4	7.7	2.5	6.6	4.9	4.5	3.6	0.5
9	18.75	12.1	0.6	6.9	6.5	2.6	23.5	3.0	23.8	10.7	13.9	10.8	9.7	9.3	8.5	3.3	7.2	5.4	5.0	3.8	0.6
10	21.00	12.3	0.8	7.4	6.9	3.3	24.0	3.8	24.4	12.1	15.0	12.3	10.9	10.4	9.4	4.1	7.9	6.1	5.5	4.0	0.8
11	23.25	12.4	0.9	7.6	7.2	3.7	24.3	4.2	24.7	12.8	15.6	13.0	11.6	11.0	9.9	4.6	8.2	6.4	5.8	4.1	0.9
12	25.50	12.5	1.0	7.9	7.4	4.0	24.6	4.6	25.1	13.6	16.3	13.9	12.3	11.6	10.4	5.1	8.6	6.7	6.1	4.2	1.0
13	27.75	12.6	1.1	8.2	7.6	4.4	24.9	5.1	25.4	14.4	16.9	14.7	13.0	12.3	10.9	5.6	9.0	7.1	6.4	4.3	1.1
14	30.00	12.7	1.2	8.5	7.8	4.8	25.3	5.6	25.8	15.2	17.6	15.7	13.7	12.9	11.5	6.1	9.5	7.5	6.7	4.4	1.2
15	32.25	12.8	1.3	8.7	8.1	5.2	25.6	6.0	26.2	16.0	18.3	16.5	14.4	13.6	12.0	6.5	9.9	7.8	7.0	4.5	1.3
16	34.50	13.0	1.4	9.1	8.3	5.7	25.9	6.5	26.6	16.9	19.0	17.4	15.2	14.2	12.6	7.1	10.3	8.3	7.3	4.7	1.4
17	36.75	13.1	1.5	9.3	8.6	6.1	26.3	6.9	27.0	17.7	19.6	18.3	15.9	14.9	13.1	7.6	10.7	8.7	7.6	4.8	1.5
18	39.00	13.2	1.6	9.6	8.8	6.4	26.6	7.4	27.3	18.4	20.3	19.1	16.6	15.5	13.6	8.0	11.1	9.0	7.9	4.9	1.6
19	41.25	13.7	1.9	10.3	9.4	6.9	27.0	8.4	28.1	20.0	21.5	21.6	18.5	18.9	16.4	11.1	13.6	14.1	12.1	5.4	1.9
20	43.50	15.3	3.2	13.9	12.2	11.6	30.8	13.9	32.7	29.7	29.5	32.5	27.5	28.1	23.9	18.4	19.6	21.4	18.1	7.0	3.3
21	45.75	17.6	5.2	19.2	16.6	18.5	36.5	22.3	39.6	44.5	41.5	49.2	41.1	42.1	35.4	29.6	28.8	32.6	27.3	9.4	5.2
22	48.75	15.3	3.3	14.0	12.4	11.8	30.9	14.1	32.9	30.1	29.8	32.9	27.9	28.5	24.2	18.8	19.8	21.8	18.3	7.1	3.3
23	51.75	13.8	2.1	21.1	20.0	29.0	48.7	36.7	56.2	62.6	63.7	33.1	29.7	18.9	16.3	10.6	13.2	10.9	9.4	5.6	2.1
24	54.75	13.6	1.9	20.6	19.5	28.2	48.1	35.9	55.5	61.1	62.4	31.5	28.4	51.2	48.9	33.2	35.9	24.7	23.3	5.4	1.9
25	57.75	13.4	1.7	20.1	19.1	27.5	47.5	35.0	54.9	59.7	61.2	29.9	27.1	50.0	47.9	32.3	35.2	24.0	22.8	5.1	1.7
26	60.75	13.1	1.5	19.4	18.6	26.6	46.8	34.0	54.0	57.8	59.7	27.9	25.5	48.5	46.6	31.1	34.3	23.1	22.1	4.8	1.5
27	63.75	12.9	1.3	8.8	8.1	5.3	25.6	6.1	26.3	16.1	18.3	16.6	14.5	13.6	12.1	6.6	9.9	7.9	7.0	4.6	1.3
28	66.75	12.6	1.1	8.2	7.6	4.5	24.9	5.1	25.5	14.4	17.0	14.8	13.0	12.3	11.0	5.6	9.1	7.1	6.4	4.3	1.1
29	69.75	12.4	0.9	7.7	7.2	3.7	24.3	4.2	24.8	12.9	15.7	13.1	11.7	11.1	10.0	4.6	8.3	6.5	5.8	4.1	0.9
30	72.75	12.2	0.7	7.1	6.8	3.0	23.7	3.4	24.1	11.4	14.5	11.6	10.4	9.9	9.0	3.7	7.6	5.8	5.3	3.9	0.7
31	75.75	12.1	0.6	6.9	6.5	2.6	23.5	3.0	23.8	10.7	14.0	10.8	9.8	9.3	8.6	3.3	7.2	5.5	5.0	3.8	0.6
32	78.75	12.3	0.8	7.4	6.9	3.3	24.0	3.8	24.4	12.1	15.0	12.3	10.9	10.4	9.4	4.1	7.9	6.1	5.5	4.0	0.8
33	81.75	12.5	1.0	7.9	7.3	4.0	24.5	4.6	25.0	13.4	16.2	13.7	12.2	11.5	10.3	5.0	8.6	6.7	6.1	4.2	1.0
34	84.75	12.7	1.1	8.4	7.7	4.6	25.1	5.3	25.6	14.8	17.2	15.2	13.3	12.6	11.2	5.8	9.2	7.3	6.5	4.4	1.1
35	87.75	12.9	1.3	8.9	8.2	5.3	25.6	6.1	26.3	16.1	18.4	16.7	14.5	13.7	12.1	6.7	9.9	8.0	7.1	4.6	1.3
36	90.75	13.1	1.4	9.3	8.5	5.9	26.2	6.8	26.9	17.5	19.4	18.1	15.7	14.7	13.0	7.4	10.6	8.6	7.5	4.8	1.4
37	93.75	13.3	1.6	9.8	8.9	6.6	26.7	7.6	27.5	18.8	20.6	19.5	16.9	15.8	13.9	8.3	11.3	9.2	8.0	5.0	1.6
38	96.75	13.4	1.8	10.2	9.2	7.2	27.2	8.3	28.1	20.0	21.6	20.8	18.0	16.8	14.6	9.0	11.9	9.7	8.5	5.1	1.8
39	99.75	14.1	2.3	11.2	10.0	8.0	27.9	9.6	29.2	22.2	23.3	24.0	20.6	21.0	18.1	12.8	14.9	15.8	13.4	5.8	2.3
40	102.75	15.2	3.2	13.6	12.1	11.2	30.5	13.5	32.4	29.1	28.9	31.8	26.9	27.5	23.4	18.0	19.2	21.0	17.7	6.9	3.2
41	105.75	17.6	5.2	19.1	16.6	18.5	36.4	22.2	39.5	44.3	41.4	48.9	40.9	41.9	35.2	29.5	28.6	32.5	27.1	9.4	5.2
42	108.75	15.2	3.2	13.7	12.1	11.4	30.6	13.7	32.5	29.3	29.1	32.0	27.1	27.7	23.6	18.2	19.4	21.2	17.9	7.0	3.2
43	111.75	13.7	2.0	20.8	19.8	28.5	48.4	36.2	55.9	61.8	63.0	32.2	29.0	18.2	15.8	10.1	12.8	10.5	9.2	5.5	2.0
44	114.75	13.5	1.8	20.3	19.4	27.9	47.8	35.5	55.2	60.5	61.9	30.8	27.8	50.7	48.4	32.8	35.6	24.3	23.1	5.2	1.8
45	117.75	13.3	1.7	20.0	19.1	27.3	47.4	34.8	54.7	59.3	61.0	29.6	26.8	49.7	47.7	32.1	35.0	23.8	22.7	5.0	1.7

ARMADURA TRANSVERSAL EN TABLERO

Alpha=26,5°

Luz vano		
1	45.0	m
2	60.0	m
3	60.0	m
4	60.0	m
5	60.0	m
6	60.0	m
7	60.0	m
8	60.0	m
9	60.0	m
10	60.0	m
11	60.0	m
12	60.0	m
13	60.0	m
14	45.0	m

Armadura de Rasante (cm2/m)

SEC	X	1 inf	1 sup	2 inf	2 sup	3 inf	3 sup	4 inf	4 sup	5 int	5 ext	6 int	6 ext	7 int	7 ext	8 inf	8 sup	9 inf	9 sup	10 inf	10 sup
46	120.75	13.3	1.6	19.8	18.9	27.1	47.2	34.5	54.5	58.8	60.5	29.0	26.3	49.3	47.3	31.8	34.8	23.6	22.5	5.0	1.6
47	123.75	13.0	1.4	9.1	8.4	5.7	26.0	6.5	26.7	17.0	19.1	17.6	15.3	14.4	12.7	7.2	10.4	8.3	7.4	4.7	1.4
48	126.75	12.8	1.2	8.6	7.9	5.0	25.4	5.7	25.9	15.4	17.8	15.9	13.9	13.1	11.6	6.2	9.6	7.6	6.8	4.5	1.2
49	129.75	12.6	1.0	8.0	7.5	4.2	24.7	4.8	25.2	13.9	16.5	14.2	12.6	11.9	10.6	5.3	8.8	6.9	6.2	4.3	1.0
50	132.75	12.3	0.9	7.5	7.1	3.5	24.1	4.0	24.5	12.4	15.3	12.6	11.3	10.7	9.6	4.3	8.1	6.2	5.7	4.0	0.9
51	135.75	12.1	0.7	7.0	6.6	2.8	23.6	3.2	23.9	11.0	14.2	11.2	10.0	9.6	8.7	3.5	7.3	5.6	5.1	3.8	0.7
52	138.75	12.3	0.8	7.4	6.9	3.3	24.0	3.8	24.4	12.1	15.0	12.3	11.0	10.4	9.5	4.2	7.9	6.1	5.5	4.0	0.8
53	141.75	12.5	1.0	7.9	7.4	4.0	24.6	4.6	25.0	13.4	16.2	13.7	12.2	11.5	10.4	5.0	8.6	6.7	6.1	4.2	1.0
54	144.75	12.7	1.1	8.4	7.7	4.6	25.1	5.3	25.7	14.8	17.3	15.2	13.4	12.6	11.2	5.8	9.3	7.3	6.5	4.4	1.1
55	147.75	12.9	1.3	8.9	8.2	5.3	25.7	6.1	26.3	16.2	18.4	16.7	14.6	13.7	12.1	6.7	9.9	8.0	7.1	4.6	1.3
56	150.75	13.1	1.4	9.3	8.5	5.9	26.2	6.8	26.9	17.5	19.5	18.1	15.8	14.7	13.0	7.5	10.6	8.6	7.5	4.8	1.4
57	153.75	13.3	1.6	9.8	8.9	6.6	26.7	7.6	27.5	18.9	20.6	19.6	16.9	15.8	13.9	8.3	11.3	9.2	8.0	5.0	1.6
58	156.75	13.4	1.8	10.2	9.2	7.2	27.2	8.3	28.1	20.1	21.6	20.9	18.0	16.8	14.7	9.0	11.9	9.7	8.5	5.1	1.8
59	159.75	14.1	2.3	11.2	10.0	8.0	27.9	9.7	29.2	22.2	23.4	24.1	20.6	21.1	18.1	12.8	15.0	15.8	13.5	5.8	2.3
60	162.75	15.2	3.2	13.6	12.1	11.3	30.5	13.6	32.4	29.1	29.0	31.8	27.0	27.6	23.5	18.0	19.2	21.0	17.7	6.9	3.2
61	165.75	17.6	5.2	19.1	16.6	18.5	36.4	22.2	39.5	44.3	41.4	48.9	41.0	42.0	35.2	29.5	28.6	32.5	27.1	9.4	5.2
62	168.75	15.2	3.2	13.7	12.2	11.4	30.6	13.7	32.5	29.3	29.2	32.1	27.1	27.8	23.6	18.2	19.4	21.2	17.9	7.0	3.2
63	171.75	13.7	2.0	20.8	19.8	28.5	48.4	36.2	55.9	61.8	63.0	32.2	29.0	18.2	15.8	10.1	12.8	10.5	9.2	5.5	2.0
64	174.75	13.5	1.8	20.3	19.4	27.9	47.8	35.5	55.2	60.5	61.9	30.8	27.8	50.7	48.4	32.8	35.6	24.3	23.1	5.2	1.8
65	177.75	13.3	1.7	19.9	19.0	27.3	47.4	34.8	54.7	59.3	60.9	29.5	26.8	49.7	47.6	32.1	35.0	23.8	22.7	5.0	1.7
66	180.75	13.3	1.6	19.7	18.9	27.1	47.2	34.5	54.5	58.8	60.5	29.0	26.3	49.3	47.3	31.8	34.8	23.6	22.5	5.0	1.6
67	183.75	13.0	1.4	9.1	8.4	5.7	26.0	6.5	26.7	17.0	19.1	17.6	15.3	14.4	12.7	7.2	10.4	8.3	7.4	4.7	1.4
68	186.75	12.8	1.2	8.6	7.9	5.0	25.4	5.7	25.9	15.4	17.8	15.9	13.9	13.1	11.6	6.2	9.6	7.6	6.8	4.5	1.2
69	189.75	12.6	1.0	8.0	7.5	4.2	24.7	4.8	25.2	13.9	16.5	14.2	12.6	11.9	10.6	5.3	8.8	6.9	6.2	4.3	1.0
70	192.75	12.3	0.9	7.5	7.1	3.5	24.1	4.0	24.5	12.4	15.3	12.6	11.3	10.7	9.6	4.3	8.1	6.2	5.7	4.0	0.9
71	195.75	12.1	0.7	7.0	6.7	2.8	23.6	3.2	23.9	11.0	14.2	11.2	10.0	9.6	8.7	3.5	7.4	5.6	5.1	3.8	0.7
72	198.75	12.3	0.9	7.5	7.1	3.5	24.1	4.0	24.5	12.4	15.3	12.6	11.2	10.7	9.6	4.3	8.1	6.2	5.7	4.0	0.9
73	201.75	12.5	1.0	8.0	7.4	4.1	24.6	4.7	25.1	13.7	16.4	14.0	12.4	11.7	10.5	5.1	8.7	6.8	6.1	4.2	1.0
74	204.75	12.7	1.2	8.5	7.8	4.8	25.2	5.5	25.8	15.1	17.5	15.6	13.6	12.9	11.4	6.0	9.4	7.5	6.6	4.4	1.2
75	207.75	13.0	1.4	9.0	8.2	5.4	25.8	6.3	26.4	16.5	18.6	17.0	14.8	14.0	12.3	6.9	10.1	8.1	7.2	4.7	1.4
76	210.75	13.1	1.5	9.4	8.6	6.1	26.3	7.0	27.0	17.8	19.7	18.4	16.0	15.0	13.2	7.6	10.8	8.7	7.6	4.8	1.5
77	213.75	13.3	1.7	9.9	9.0	6.8	26.8	7.8	27.6	19.2	20.8	19.9	17.2	16.1	14.1	8.5	11.4	9.3	8.2	5.0	1.7
78	216.75	13.5	1.8	10.3	9.3	7.4	27.3	8.4	28.2	20.4	21.8	21.2	18.2	17.0	14.9	9.2	12.1	9.9	8.6	5.2	1.8
79	219.75	14.1	2.3	11.3	10.1	8.1	28.0	9.8	29.4	22.5	23.6	24.4	20.9	21.3	18.4	13.0	15.2	16.0	13.7	5.9	2.3
80	222.75	15.2	3.2	13.7	12.2	11.4	30.6	13.8	32.6	29.4	29.2	32.2	27.2	27.8	23.7	18.2	19.4	21.2	17.9	7.0	3.2
81	225.75	17.6	5.2	19.2	16.6	18.5	36.4	22.3	39.5	44.4	41.5	49.0	41.0	42.0	35.3	29.5	28.7	32.5	27.2	9.4	5.2
82	228.75	15.2	3.2	13.7	12.2	11.4	30.6	13.8	32.6	29.4	29.2	32.1	27.2	27.8	23.7	18.2	19.4	21.2	17.9	7.0	3.2
83	231.75	13.7	2.0	20.8	19.8	28.6	48.4	36.2	55.9	61.9	63.0	32.3	29.1	18.3	15.8	10.1	12.8	10.5	9.2	5.5	2.0
84	234.75	13.6	1.8	20.4	19.4	28.0	47.9	35.6	55.3	60.6	62.0	30.9	28.0	50.8	48.5	32.9	35.7	24.4	23.2	5.3	1.8
85	237.75	13.3	1.7	20.0	19.1	27.4	47.4	34.9	54.7	59.4	61.0	29.6	26.9	49.7	47.7	32.1	35.0	23.8	22.7	5.0	1.7
86	240.75	13.3	1.6	19.8	18.9	27.1	47.2	34.6	54.5	58.8	60.6	29.1	26.4	49.3	47.4	31.8	34.8	23.6	22.5	5.0	1.6
87	243.75	13.0	1.4	9.1	8.4	5.7	26.0	6.6	26.7	17.1	19.1	17.7	15.4	14.4	12.7	7.2	10.4	8.3	7.4	4.7	1.4
88	246.75	12.8	1.2	8.6	7.9	5.0	25.4	5.7	26.0	15.5	17.8	15.9	14.0	13.1	11.7	6.2	9.6	7.6	6.8	4.5	1.2
89	249.75	12.6	1.0	8.0	7.5	4.2	24.8	4.8	25.3	13.9	16.6	14.3	12.6	11.9	10.7	5.3	8.8	7.0	6.2	4.3	1.0
90	252.75	12.3	0.9	7.5	7.1	3.5	24.2	4.0	24.6	12.5	15.4	12.7	11.3	10.7	9.7	4.4	8.1	6.2	5.7	4.0	0.9

ARMADURA TRANSVERSAL EN TABLERO

Alpha=26,5°

Luz vano		
1	45.0	m
2	60.0	m
3	60.0	m
4	60.0	m
5	60.0	m
6	60.0	m
7	60.0	m
8	60.0	m
9	60.0	m
10	60.0	m
11	60.0	m
12	60.0	m
13	60.0	m
14	45.0	m

Armadura de Rasante (cm2/m)

SEC	X	1 inf	1 sup	2 inf	2 sup	3 inf	3 sup	4 inf	4 sup	5 int	5 ext	6 int	6 ext	7 int	7 ext	8 inf	8 sup	9 inf	9 sup	10 inf	10 sup
91	255.75	12.1	0.7	7.0	6.7	2.8	23.6	3.2	24.0	11.1	14.2	11.2	10.1	9.6	8.8	3.5	7.4	5.6	5.2	3.8	0.7
92	258.75	12.3	0.9	7.5	7.1	3.5	24.1	4.0	24.5	12.4	15.3	12.6	11.2	10.7	9.6	4.3	8.1	6.2	5.7	4.0	0.9
93	261.75	12.5	1.0	8.0	7.4	4.1	24.6	4.7	25.1	13.7	16.4	14.0	12.4	11.7	10.5	5.1	8.7	6.8	6.1	4.2	1.0
94	264.75	12.7	1.2	8.5	7.8	4.8	25.2	5.5	25.8	15.1	17.5	15.6	13.6	12.9	11.4	6.0	9.4	7.5	6.6	4.4	1.2
95	267.75	13.0	1.4	9.0	8.2	5.4	25.8	6.3	26.4	16.5	18.6	17.0	14.8	14.0	12.3	6.9	10.1	8.1	7.2	4.7	1.4
96	270.75	13.1	1.5	9.4	8.6	6.1	26.3	7.0	27.0	17.8	19.8	18.5	16.0	15.0	13.2	7.6	10.8	8.7	7.6	4.8	1.5
97	273.75	13.3	1.7	9.9	9.0	6.8	26.8	7.8	27.6	19.2	20.8	19.9	17.2	16.1	14.1	8.5	11.4	9.3	8.2	5.0	1.7
98	276.75	13.5	1.8	10.3	9.3	7.4	27.3	8.4	28.2	20.4	21.8	21.2	18.2	17.0	14.9	9.2	12.1	9.9	8.6	5.2	1.8
99	279.75	14.1	2.3	11.3	10.1	8.1	28.0	9.8	29.4	22.5	23.6	24.4	20.9	21.3	18.4	13.0	15.2	16.0	13.7	5.9	2.3
100	282.75	15.2	3.2	13.7	12.2	11.4	30.6	13.8	32.6	29.4	29.2	32.2	27.2	27.8	23.7	18.2	19.4	21.2	17.9	7.0	3.2
101	285.75	17.6	5.2	19.2	16.6	18.5	36.4	22.3	39.5	44.4	41.5	49.0	41.0	42.0	35.3	29.5	28.7	32.5	27.2	9.4	5.2
102	288.75	15.2	3.2	13.7	12.2	11.4	30.6	13.8	32.6	29.4	29.2	32.1	27.2	27.8	23.7	18.2	19.4	21.2	17.9	7.0	3.2
103	291.75	13.7	2.0	20.8	19.8	28.6	48.4	36.2	55.9	61.9	63.0	32.3	29.1	18.3	15.8	10.1	12.8	10.5	9.2	5.5	2.0
104	294.75	13.6	1.8	20.4	19.4	28.0	47.9	35.6	55.3	60.6	62.0	30.9	28.0	50.8	48.5	32.9	35.7	24.4	23.2	5.3	1.8
105	297.75	13.3	1.7	20.0	19.1	27.4	47.4	34.9	54.7	59.4	61.0	29.6	26.9	49.7	47.7	32.1	35.0	23.8	22.7	5.0	1.7
106	300.75	13.3	1.6	19.8	18.9	27.1	47.2	34.6	54.5	58.8	60.6	29.1	26.4	49.3	47.4	31.8	34.8	23.6	22.5	5.0	1.6
107	303.75	13.0	1.4	9.1	8.4	5.7	26.0	6.6	26.7	17.1	19.1	17.7	15.4	14.4	12.7	7.2	10.4	8.3	7.4	4.7	1.4
108	306.75	12.8	1.2	8.6	7.9	5.0	25.4	5.7	26.0	15.5	17.8	15.9	14.0	13.1	11.7	6.2	9.6	7.6	6.8	4.5	1.2
109	309.75	12.6	1.0	8.0	7.5	4.2	24.8	4.8	25.3	13.9	16.6	14.3	12.6	11.9	10.7	5.3	8.8	7.0	6.2	4.3	1.0
110	312.75	12.3	0.9	7.5	7.1	3.5	24.2	4.0	24.6	12.5	15.4	12.7	11.3	10.7	9.7	4.4	8.1	6.2	5.7	4.0	0.9
111	315.75	12.1	0.7	7.0	6.7	2.8	23.6	3.2	24.0	11.1	14.2	11.2	10.1	9.6	8.8	3.5	7.4	5.6	5.2	3.8	0.7
112	318.75	12.3	0.9	7.5	7.1	3.5	24.1	4.0	24.5	12.4	15.3	12.6	11.3	10.7	9.6	4.3	8.1	6.2	5.7	4.0	0.9
113	321.75	12.5	1.0	8.0	7.4	4.1	24.7	4.7	25.2	13.7	16.4	14.1	12.4	11.8	10.5	5.2	8.7	6.8	6.1	4.2	1.0
114	324.75	12.7	1.2	8.5	7.8	4.8	25.2	5.5	25.8	15.1	17.6	15.6	13.6	12.9	11.4	6.0	9.4	7.5	6.6	4.4	1.2
115	327.75	13.0	1.4	9.0	8.2	5.5	25.8	6.3	26.4	16.5	18.7	17.0	14.9	14.0	12.3	6.9	10.1	8.1	7.2	4.7	1.4
116	330.75	13.1	1.5	9.4	8.6	6.1	26.3	7.0	27.0	17.8	19.8	18.5	16.0	15.0	13.2	7.6	10.8	8.7	7.6	4.8	1.5
117	333.75	13.3	1.7	9.9	9.0	6.8	26.8	7.8	27.6	19.2	20.8	19.9	17.2	16.1	14.1	8.5	11.5	9.3	8.2	5.0	1.7
118	336.75	13.5	1.8	10.3	9.4	7.4	27.3	8.4	28.2	20.4	21.8	21.2	18.3	17.0	14.9	9.2	12.1	9.9	8.6	5.2	1.8
119	339.75	14.1	2.3	11.3	10.1	8.2	28.0	9.8	29.4	22.6	23.6	24.4	20.9	21.3	18.4	13.0	15.2	16.0	13.7	5.9	2.3
120	342.75	17.4	5.0	18.5	16.1	17.7	35.7	21.2	38.7	42.5	40.0	47.0	39.3	40.3	33.8	28.2	27.5	31.2	26.0	9.1	5.0
121	345.75	17.6	5.2	19.2	16.6	18.5	36.4	22.3	39.5	44.4	41.5	49.0	41.0	42.0	35.3	29.5	28.7	32.5	27.2	9.4	5.2
122	348.75	15.2	3.2	13.7	12.2	11.4	30.6	13.8	32.6	29.4	29.2	32.1	27.2	27.8	23.7	18.2	19.4	21.2	17.9	7.0	3.2
123	351.75	13.7	2.0	20.8	19.8	28.6	48.4	36.3	55.9	61.9	63.0	32.3	29.1	18.3	15.8	10.1	12.8	10.5	9.2	5.5	2.0
124	354.75	13.6	1.8	20.4	19.4	28.0	47.9	35.6	55.3	60.6	62.0	30.9	28.0	50.8	48.5	32.9	35.7	24.4	23.2	5.3	1.8
125	357.75	13.3	1.7	20.0	19.1	27.4	47.4	34.9	54.7	59.4	61.0	29.6	26.9	49.8	47.7	32.1	35.0	23.8	22.7	5.0	1.7
126	360.75	13.3	1.6	19.8	18.9	27.1	47.2	34.6	54.5	58.9	60.6	29.1	26.4	49.3	47.4	31.8	34.8	23.6	22.5	5.0	1.6
127	363.75	13.0	1.4	9.1	8.4	5.8	26.0	6.6	26.7	17.1	19.2	17.7	15.4	14.5	12.7	7.2	10.4	8.3	7.4	4.7	1.4
128	366.75	12.8	1.2	8.6	7.9	5.0	25.4	5.7	26.0	15.5	17.9	15.9	14.0	13.1	11.7	6.2	9.6	7.6	6.8	4.5	1.2
129	369.75	12.6	1.0	8.0	7.5	4.2	24.8	4.8	25.3	13.9	16.6	14.3	12.6	11.9	10.7	5.3	8.8	7.0	6.2	4.3	1.0
130	372.75	12.3	0.9	7.5	7.1	3.5	24.2	4.0	24.6	12.5	15.4	12.7	11.3	10.8	9.7	4.4	8.1	6.2	5.7	4.0	0.9
131	375.75	12.1	0.7	7.0	6.7	2.8	23.6	3.2	24.0	11.1	14.2	11.2	10.1	9.6	8.8	3.5	7.4	5.6	5.2	3.8	0.7
132	378.75	12.3	0.9	7.5	7.1	3.5	24.1	4.0	24.5	12.4	15.3	12.6	11.3	10.7	9.6	4.3	8.1	6.2	5.7	4.0	0.9
133	381.75	12.5	1.0	8.0	7.4	4.1	24.7	4.7	25.2	13.7	16.4	14.1	12.4	11.8	10.5	5.2	8.7	6.8	6.1	4.2	1.0
134	384.75	12.7	1.2	8.5	7.8	4.8	25.2	5.5	25.8	15.1	17.6	15.6	13.6	12.9	11.4	6.0	9.4	7.5	6.6	4.4	1.2
135	387.75	13.0	1.4	9.0	8.2	5.5	25.8	6.3	26.4	16.5	18.7	17.0	14.9	14.0	12.3	6.9	10.1	8.1	7.2	4.7	1.4

ARMADURA TRANSVERSAL EN TABLERO

Alpha=26,5°

Luz vano		
1	45.0	m
2	60.0	m
3	60.0	m
4	60.0	m
5	60.0	m
6	60.0	m
7	60.0	m
8	60.0	m
9	60.0	m
10	60.0	m
11	60.0	m
12	60.0	m
13	60.0	m
14	45.0	m

Armadura de Rasante (cm2/m)

SEC	X	1 inf	1 sup	2 inf	2 sup	3 inf	3 sup	4 inf	4 sup	5 int	5 ext	6 int	6 ext	7 int	7 ext	8 inf	8 sup	9 inf	9 sup	10 inf	10 sup
136	390.75	13.1	1.5	9.4	8.6	6.1	26.3	7.0	27.0	17.8	19.8	18.5	16.0	15.0	13.2	7.6	10.8	8.7	7.6	4.8	1.5
137	393.75	13.3	1.7	9.9	9.0	6.8	26.8	7.8	27.6	19.2	20.8	19.9	17.2	16.1	14.1	8.5	11.5	9.3	8.2	5.0	1.7
138	396.75	13.5	1.8	10.3	9.4	7.4	27.3	8.4	28.2	20.4	21.8	21.2	18.3	17.0	14.9	9.2	12.1	9.9	8.6	5.2	1.8
139	399.75	14.1	2.3	11.3	10.1	8.2	28.0	9.8	29.4	22.6	23.6	24.4	20.9	21.3	18.4	13.0	15.2	16.0	13.7	5.9	2.3
140	402.75	17.4	5.0	18.5	16.1	17.7	35.7	21.2	38.7	42.5	40.0	47.0	39.3	40.3	33.9	28.2	27.5	31.2	26.0	9.1	5.0
141	405.75	17.6	5.2	19.2	16.6	18.5	36.4	22.3	39.5	44.4	41.5	49.0	41.0	42.0	35.3	29.5	28.7	32.5	27.2	9.4	5.2
142	408.75	15.2	3.2	13.7	12.2	11.4	30.6	13.8	32.6	29.4	29.2	32.1	27.2	27.8	23.7	18.2	19.4	21.2	17.9	7.0	3.2
143	411.75	13.7	2.0	20.8	19.8	28.6	48.4	36.3	55.9	61.9	63.0	32.3	29.1	18.3	15.8	10.1	12.8	10.5	9.2	5.5	2.0
144	414.75	13.6	1.8	20.4	19.4	28.0	47.9	35.6	55.3	60.6	62.0	30.9	28.0	50.8	48.5	32.9	35.7	24.4	23.2	5.3	1.8
145	417.75	13.3	1.7	20.0	19.1	27.4	47.4	34.9	54.7	59.4	61.0	29.6	26.9	49.7	47.7	32.1	35.0	23.8	22.7	5.0	1.7
146	420.75	13.3	1.6	19.8	18.9	27.1	47.2	34.6	54.5	58.9	60.6	29.1	26.4	49.3	47.4	31.8	34.8	23.6	22.5	5.0	1.6
147	423.75	13.0	1.4	9.1	8.4	5.8	26.0	6.6	26.7	17.1	19.2	17.7	15.4	14.5	12.7	7.2	10.4	8.3	7.4	4.7	1.4
148	426.75	12.8	1.2	8.6	7.9	5.0	25.4	5.7	26.0	15.5	17.8	15.9	14.0	13.1	11.7	6.2	9.6	7.6	6.8	4.5	1.2
149	429.75	12.6	1.0	8.0	7.5	4.2	24.8	4.8	25.3	14.0	16.6	14.3	12.6	11.9	10.7	5.3	8.8	7.0	6.2	4.3	1.0
150	432.75	12.3	0.9	7.5	7.1	3.5	24.2	4.0	24.6	12.5	15.4	12.7	11.3	10.8	9.7	4.4	8.1	6.2	5.7	4.0	0.9
151	435.75	12.1	0.7	7.0	6.7	2.8	23.6	3.2	24.0	11.1	14.2	11.2	10.1	9.6	8.8	3.5	7.4	5.6	5.2	3.8	0.7
152	438.75	12.3	0.9	7.5	7.1	3.5	24.1	4.0	24.5	12.4	15.3	12.6	11.3	10.7	9.6	4.3	8.1	6.2	5.7	4.0	0.9
153	441.75	12.5	1.0	8.0	7.4	4.1	24.7	4.7	25.2	13.7	16.4	14.1	12.4	11.8	10.5	5.2	8.7	6.8	6.1	4.2	1.0
154	444.75	12.7	1.2	8.5	7.8	4.8	25.2	5.5	25.8	15.1	17.6	15.6	13.6	12.9	11.4	6.0	9.4	7.5	6.6	4.4	1.2
155	447.75	13.0	1.4	9.0	8.2	5.5	25.8	6.3	26.4	16.5	18.7	17.0	14.9	14.0	12.3	6.9	10.1	8.1	7.2	4.7	1.4
156	450.75	13.1	1.5	9.4	8.6	6.1	26.3	7.0	27.0	17.8	19.8	18.5	16.0	15.0	13.2	7.6	10.8	8.7	7.6	4.8	1.5
157	453.75	13.3	1.7	9.9	9.0	6.8	26.8	7.8	27.6	19.2	20.8	19.9	17.2	16.1	14.1	8.5	11.5	9.3	8.2	5.0	1.7
158	456.75	13.5	1.8	10.3	9.4	7.4	27.3	8.4	28.2	20.4	21.8	21.2	18.3	17.0	14.9	9.2	12.1	9.9	8.6	5.2	1.8
159	459.75	14.1	2.3	11.3	10.1	8.2	28.0	9.8	29.4	22.6	23.6	24.4	20.9	21.3	18.4	13.0	15.2	16.0	13.7	5.9	2.3
160	462.75	17.4	5.0	18.5	16.1	17.7	35.7	21.2	38.7	42.5	40.0	47.0	39.3	40.3	33.9	28.2	27.5	31.2	26.0	9.1	5.0
161	465.75	17.6	5.2	19.2	16.6	18.5	36.4	22.3	39.5	44.4	41.5	49.0	41.0	42.0	35.3	29.5	28.7	32.5	27.2	9.4	5.2
162	468.75	15.2	3.2	13.7	12.2	11.4	30.6	13.8	32.6	29.4	29.2	32.1	27.2	27.8	23.7	18.2	19.4	21.2	17.9	7.0	3.2
163	471.75	13.7	2.0	20.8	19.8	28.6	48.4	36.3	55.9	61.9	63.0	32.3	29.1	18.3	15.8	10.1	12.8	10.5	9.2	5.5	2.0
164	474.75	13.6	1.8	20.4	19.4	28.0	47.9	35.6	55.3	60.6	62.0	30.9	28.0	50.8	48.5	32.9	35.7	24.4	23.2	5.3	1.8
165	477.75	13.3	1.7	20.0	19.1	27.4	47.4	34.9	54.7	59.4	61.0	29.6	26.9	49.7	47.7	32.1	35.0	23.8	22.7	5.0	1.7
166	480.75	13.3	1.6	19.8	18.9	27.1	47.2	34.6	54.5	58.9	60.6	29.1	26.4	49.3	47.4	31.8	34.8	23.6	22.5	5.0	1.6
167	483.75	13.0	1.4	9.1	8.4	5.7	26.0	6.6	26.7	17.1	19.2	17.7	15.4	14.5	12.7	7.2	10.4	8.3	7.4	4.7	1.4
168	486.75	12.8	1.2	8.6	7.9	5.0	25.4	5.7	26.0	15.5	17.8	15.9	14.0	13.1	11.7	6.2	9.6	7.6	6.8	4.5	1.2
169	489.75	12.6	1.0	8.0	7.5	4.2	24.8	4.8	25.3	13.9	16.6	14.3	12.6	11.9	10.7	5.3	8.8	7.0	6.2	4.3	1.0
170	492.75	12.3	0.9	7.5	7.1	3.5	24.2	4.0	24.6	12.5	15.4	12.7	11.3	10.7	9.7	4.4	8.1	6.2	5.7	4.0	0.9
171	495.75	12.1	0.7	7.0	6.7	2.8	23.6	3.2	24.0	11.1	14.2	11.2	10.1	9.6	8.8	3.5	7.4	5.6	5.2	3.8	0.7
172	498.75	12.3	0.9	7.5	7.1	3.5	24.1	4.0	24.5	12.4	15.3	12.6	11.3	10.7	9.6	4.3	8.1	6.2	5.7	4.0	0.9
173	501.75	12.5	1.0	8.0	7.4	4.1	24.7	4.7	25.2	13.7	16.4	14.1	12.4	11.7	10.5	5.2	8.7	6.8	6.1	4.2	1.0
174	504.75	12.7	1.2	8.5	7.8	4.8	25.2	5.5	25.8	15.1	17.6	15.6	13.6	12.9	11.4	6.0	9.4	7.5	6.6	4.4	1.2
175	507.75	13.0	1.4	9.0	8.2	5.5	25.8	6.3	26.4	16.5	18.7	17.0	14.9	14.0	12.3	6.9	10.1	8.1	7.2	4.7	1.4
176	510.75	13.1	1.5	9.4	8.6	6.1	26.3	7.0	27.0	17.8	19.8	18.5	16.0	15.0	13.2	7.6	10.8	8.7	7.6	4.8	1.5
177	513.75	13.3	1.7	9.9	9.0	6.8	26.8	7.8	27.6	19.2	20.8	19.9	17.2	16.1	14.1	8.5	11.5	9.3	8.2	5.0	1.7
178	516.75	13.5	1.8	10.3	9.4	7.4	27.3	8.4	28.2	20.4	21.8	21.2	18.3	17.0	14.9	9.2	12.1	9.9	8.6	5.2	1.8
179	519.75	14.1	2.3	11.3	10.1	8.2	28.0	9.8	29.4	22.6	23.6	24.4	20.9	21.3	18.4	13.0	15.2	16.0	13.7	5.9	2.3
180	522.75	17.4	5.0	18.5	16.1	17.7	35.7	21.2	38.7	42.5	40.0	47.0	39.3	40.3	33.8	28.2	27.5	31.2	26.0	9.1	5.0

ARMADURA TRANSVERSAL EN TABLERO

Alpha=26,5º

Luz vano		
1	45.0	m
2	60.0	m
3	60.0	m
4	60.0	m
5	60.0	m
6	60.0	m
7	60.0	m
8	60.0	m
9	60.0	m
10	60.0	m
11	60.0	m
12	60.0	m
13	60.0	m
14	45.0	m

Armadura de Rasante (cm2/m)

SEC	X	1 inf	1 sup	2 inf	2 sup	3 inf	3 sup	4 inf	4 sup	5 int	5 ext	6 int	6 ext	7 int	7 ext	8 inf	8 sup	9 inf	9 sup	10 inf	10 sup
181	525.75	17.6	5.2	19.2	16.6	18.5	36.4	22.3	39.5	44.4	41.5	49.0	41.0	42.0	35.3	29.5	28.7	32.5	27.2	9.4	5.2
182	528.75	15.2	3.2	13.7	12.2	11.4	30.6	13.8	32.6	29.4	29.2	32.1	27.2	27.8	23.7	18.2	19.4	21.2	17.9	7.0	3.2
183	531.75	13.7	2.0	20.8	19.8	28.6	48.4	36.2	55.9	61.9	63.0	32.3	29.0	18.3	15.8	10.1	12.8	10.5	9.2	5.5	2.0
184	534.75	13.5	1.8	20.3	19.4	27.9	47.9	35.5	55.3	60.5	62.0	30.9	27.9	50.7	48.4	32.8	35.6	24.4	23.1	5.2	1.8
185	537.75	13.3	1.7	20.0	19.1	27.3	47.4	34.9	54.7	59.3	61.0	29.6	26.9	49.7	47.7	32.1	35.0	23.8	22.7	5.0	1.7
186	540.75	13.3	1.6	19.8	18.9	27.1	47.2	34.6	54.5	58.8	60.6	29.1	26.4	49.3	47.4	31.8	34.8	23.6	22.5	5.0	1.6
187	543.75	13.0	1.4	9.1	8.4	5.7	26.0	6.6	26.7	17.1	19.1	17.7	15.4	14.4	12.7	7.2	10.4	8.3	7.4	4.7	1.4
188	546.75	12.8	1.2	8.6	7.9	5.0	25.4	5.7	26.0	15.5	17.8	15.9	14.0	13.1	11.7	6.2	9.6	7.6	6.8	4.5	1.2
189	549.75	12.6	1.0	8.0	7.5	4.2	24.8	4.8	25.3	13.9	16.6	14.3	12.6	11.9	10.7	5.3	8.8	7.0	6.2	4.3	1.0
190	552.75	12.3	0.9	7.5	7.1	3.5	24.2	4.0	24.6	12.5	15.4	12.7	11.3	10.7	9.7	4.4	8.1	6.2	5.7	4.0	0.9
191	555.75	12.1	0.7	7.0	6.7	2.8	23.6	3.2	24.0	11.1	14.2	11.2	10.1	9.6	8.8	3.5	7.4	5.6	5.2	3.8	0.7
192	558.75	12.3	0.9	7.5	7.1	3.5	24.1	4.0	24.5	12.4	15.3	12.6	11.3	10.7	9.6	4.3	8.1	6.2	5.7	4.0	0.9
193	561.75	12.5	1.0	8.0	7.4	4.1	24.7	4.7	25.1	13.7	16.4	14.1	12.4	11.7	10.5	5.2	8.7	6.8	6.1	4.2	1.0
194	564.75	12.7	1.2	8.5	7.8	4.8	25.2	5.5	25.8	15.1	17.6	15.6	13.6	12.9	11.4	6.0	9.4	7.5	6.6	4.4	1.2
195	567.75	13.0	1.4	9.0	8.2	5.4	25.8	6.3	26.4	16.5	18.7	17.0	14.9	14.0	12.3	6.9	10.1	8.1	7.2	4.7	1.4
196	570.75	13.1	1.5	9.4	8.6	6.1	26.3	7.0	27.0	17.8	19.8	18.5	16.0	15.0	13.2	7.6	10.8	8.7	7.6	4.8	1.5
197	573.75	13.3	1.7	9.9	9.0	6.8	26.8	7.8	27.6	19.2	20.8	19.9	17.2	16.1	14.1	8.5	11.4	9.3	8.2	5.0	1.7
198	576.75	13.5	1.8	10.3	9.4	7.4	27.3	8.4	28.2	20.4	21.8	21.2	18.3	17.0	14.9	9.2	12.1	9.9	8.6	5.2	1.8
199	579.75	14.1	2.3	11.3	10.1	8.2	28.0	9.8	29.4	22.6	23.6	24.4	20.9	21.3	18.4	13.0	15.2	16.0	13.7	5.9	2.3
200	582.75	17.3	4.9	18.5	16.0	17.6	35.7	21.2	38.6	42.5	39.9	46.9	39.3	40.2	33.8	28.1	27.5	31.1	26.0	9.1	5.0
201	585.75	17.6	5.2	19.1	16.6	18.5	36.4	22.3	39.5	44.4	41.5	49.0	41.0	42.0	35.2	29.5	28.7	32.5	27.2	9.4	5.2
202	588.75	15.2	3.2	13.7	12.2	11.4	30.6	13.7	32.5	29.3	29.2	32.1	27.2	27.8	23.6	18.2	19.4	21.2	17.9	7.0	3.2
203	591.75	13.7	2.0	20.8	19.8	28.6	48.4	36.2	55.9	61.9	63.0	32.3	29.0	18.2	15.8	10.1	12.8	10.5	9.2	5.5	2.0
204	594.75	13.5	1.8	20.3	19.4	27.9	47.9	35.5	55.3	60.5	62.0	30.8	27.9	50.7	48.4	32.8	35.6	24.4	23.1	5.2	1.8
205	597.75	13.3	1.7	20.0	19.1	27.3	47.4	34.9	54.7	59.3	61.0	29.6	26.8	49.7	47.7	32.1	35.0	23.8	22.7	5.0	1.7
206	600.75	13.3	1.6	19.8	18.9	27.1	47.2	34.6	54.5	58.8	60.6	29.0	26.4	49.3	47.4	31.8	34.8	23.6	22.5	5.0	1.6
207	603.75	13.0	1.4	9.1	8.4	5.7	26.0	6.6	26.7	17.1	19.1	17.7	15.4	14.4	12.7	7.2	10.4	8.3	7.4	4.7	1.4
208	606.75	12.8	1.2	8.6	7.9	5.0	25.4	5.7	25.9	15.5	17.8	15.9	14.0	13.1	11.7	6.2	9.6	7.6	6.8	4.5	1.2
209	609.75	12.6	1.0	8.0	7.5	4.2	24.8	4.8	25.3	13.9	16.6	14.3	12.6	11.9	10.6	5.3	8.8	6.9	6.2	4.3	1.0
210	612.75	12.3	0.9	7.5	7.1	3.5	24.1	4.0	24.6	12.5	15.4	12.7	11.3	10.7	9.7	4.4	8.1	6.2	5.7	4.0	0.9
211	615.75	12.1	0.7	7.0	6.7	2.8	23.6	3.2	23.9	11.1	14.2	11.2	10.0	9.6	8.8	3.5	7.4	5.6	5.1	3.8	0.7
212	618.75	12.3	0.9	7.5	7.0	3.5	24.1	4.0	24.5	12.3	15.3	12.6	11.2	10.7	9.6	4.3	8.1	6.2	5.6	4.0	0.9
213	621.75	12.5	1.0	7.9	7.4	4.1	24.6	4.7	25.1	13.7	16.3	14.0	12.4	11.7	10.5	5.1	8.7	6.8	6.1	4.2	1.0
214	624.75	12.7	1.2	8.5	7.8	4.8	25.2	5.4	25.8	15.1	17.5	15.5	13.6	12.8	11.4	6.0	9.4	7.5	6.6	4.4	1.2
215	627.75	12.9	1.3	8.9	8.2	5.4	25.7	6.2	26.4	16.4	18.6	16.9	14.8	13.9	12.2	6.8	10.0	8.0	7.1	4.6	1.3
216	630.75	13.1	1.5	9.4	8.6	6.1	26.3	7.0	27.0	17.8	19.7	18.4	16.0	15.0	13.1	7.6	10.8	8.7	7.6	4.8	1.5
217	633.75	13.3	1.7	9.9	9.0	6.8	26.8	7.8	27.6	19.1	20.8	19.9	17.2	16.1	14.0	8.5	11.4	9.3	8.2	5.0	1.7
218	636.75	13.5	1.8	10.3	9.3	7.3	27.3	8.4	28.2	20.3	21.8	21.2	18.2	17.0	14.9	9.2	12.0	9.8	8.6	5.2	1.8
219	639.75	16.7	4.4	17.0	14.9	15.7	34.2	18.9	36.8	38.5	36.6	42.4	35.6	36.4	30.7	25.1	25.0	28.1	23.5	8.4	4.5
220	642.75	17.3	4.9	18.5	16.0	17.5	35.7	21.2	38.6	42.4	39.9	46.9	39.2	40.1	33.8	28.1	27.5	31.1	26.0	9.1	5.0
221	645.75	17.6	5.1	19.1	16.5	18.4	36.3	22.1	39.4	44.1	41.2	48.7	40.8	41.7	35.1	29.3	28.5	32.3	27.0	9.3	5.2
222	648.75	15.2	3.2	13.6	12.1	11.3	30.5	13.6	32.4	29.1	29.0	31.8	27.0	27.6	23.5	18.0	19.2	21.0	17.7	6.9	3.2
223	651.75	13.7	1.9	20.7	19.7	28.4	48.3	36.1	55.8	61.6	62.8	32.0	28.8	18.0	15.7	10.0	12.6	10.4	9.1	5.4	2.0
224	654.75	13.5	1.8	20.3	19.3	27.8	47.8	35.4	55.2	60.3	61.8	30.7	27.7	50.5	48.4	32.7	35.5	24.3	23.0	5.2	1.8
225	657.75	13.3	1.7	19.9	19.0	27.3	47.3	34.8	54.6	59.2	60.8	29.4	26.7	49.6	47.5	32.0	34.9	23.8	22.6	5.0	1.7

ARMADURA TRANSVERSAL EN TABLERO

Alpha=26,5°

Luz vano		
1	45.0	m
2	60.0	m
3	60.0	m
4	60.0	m
5	60.0	m
6	60.0	m
7	60.0	m
8	60.0	m
9	60.0	m
10	60.0	m
11	60.0	m
12	60.0	m
13	60.0	m
14	45.0	m

Armadura de Rasante (cm2/m)

SEC	X	1 inf	1 sup	2 inf	2 sup	3 inf	3 sup	4 inf	4 sup	5 int	5 ext	6 int	6 ext	7 int	7 ext	8 inf	8 sup	9 inf	9 sup	10 inf	10 sup
226	660.75	13.2	1.6	19.7	18.8	27.0	47.1	34.4	54.4	58.6	60.3	28.7	26.2	49.1	47.2	31.6	34.7	23.5	22.4	4.9	1.6
227	663.75	13.0	1.4	9.1	8.3	5.7	25.9	6.5	26.6	16.9	19.0	17.4	15.2	14.2	12.6	7.1	10.3	8.3	7.3	4.7	1.4
228	666.75	12.7	1.2	8.5	7.8	4.8	25.3	5.6	25.8	15.2	17.6	15.7	13.7	12.9	11.5	6.1	9.5	7.5	6.7	4.4	1.2
229	669.75	12.5	1.0	7.9	7.4	4.1	24.6	4.7	25.1	13.7	16.3	14.0	12.4	11.7	10.5	5.1	8.7	6.8	6.1	4.2	1.0
230	672.75	12.3	0.8	7.4	7.0	3.4	24.0	3.9	24.5	12.2	15.1	12.4	11.1	10.5	9.5	4.2	8.0	6.1	5.6	4.0	0.8
231	675.75	12.1	0.7	7.0	6.6	2.8	23.6	3.1	23.9	10.9	14.1	11.1	10.0	9.5	8.7	3.5	7.3	5.6	5.1	3.8	0.7
232	678.75	12.3	0.8	7.4	7.0	3.4	24.0	3.9	24.5	12.2	15.2	12.4	11.1	10.6	9.5	4.2	8.0	6.1	5.6	4.0	0.8
233	681.75	12.5	1.0	7.9	7.4	4.1	24.6	4.6	25.1	13.6	16.3	13.9	12.3	11.7	10.4	5.1	8.6	6.8	6.1	4.2	1.0
234	684.75	12.7	1.2	8.4	7.8	4.7	25.2	5.4	25.8	15.0	17.4	15.5	13.6	12.8	11.3	5.9	9.4	7.4	6.6	4.4	1.2
235	687.75	12.9	1.3	8.9	8.2	5.4	25.7	6.2	26.3	16.3	18.5	16.8	14.7	13.8	12.2	6.7	10.0	8.0	7.1	4.6	1.3
236	690.75	13.1	1.5	9.3	8.6	6.1	26.3	6.9	27.0	17.7	19.7	18.3	15.9	14.9	13.1	7.6	10.7	8.7	7.6	4.8	1.5
237	693.75	13.3	1.6	9.8	8.9	6.7	26.7	7.6	27.6	19.0	20.7	19.7	17.1	15.9	14.0	8.4	11.3	9.2	8.1	5.0	1.6
238	696.75	13.5	1.8	10.3	9.3	7.3	27.3	8.4	28.1	20.3	21.7	21.1	18.1	17.0	14.8	9.2	12.0	9.8	8.6	5.2	1.8
239	699.75	16.6	4.4	17.0	14.8	15.6	34.1	18.9	36.7	38.4	36.5	42.3	35.5	36.4	30.7	25.0	25.0	28.0	23.5	8.4	4.4
240	702.75	17.3	4.9	18.4	16.0	17.5	35.7	21.1	38.6	42.4	39.8	46.8	39.2	40.1	33.8	28.1	27.5	31.1	26.0	9.1	5.0
241	705.75	17.6	5.1	19.0	16.5	18.3	36.3	22.1	39.3	43.9	41.1	48.5	40.6	41.6	34.9	29.2	28.4	32.2	26.9	9.3	5.2
242	708.75	15.1	3.1	13.5	12.0	11.2	30.4	13.4	32.3	28.9	28.8	31.6	26.7	27.3	23.3	17.8	19.1	20.8	17.6	6.9	3.2
243	711.75	13.7	1.9	20.7	19.6	28.4	48.2	36.0	55.7	61.4	62.7	31.8	28.7	17.9	15.5	9.8	12.6	10.3	9.0	5.4	2.0
244	714.75	13.4	1.8	20.2	19.2	27.7	47.7	35.3	55.1	60.1	61.6	30.4	27.5	50.3	48.2	32.5	35.4	24.2	22.9	5.1	1.8
245	717.75	13.3	1.6	19.8	18.9	27.2	47.2	34.6	54.5	58.9	60.6	29.1	26.5	49.4	47.4	31.8	34.8	23.6	22.5	5.0	1.6
246	720.75	13.2	1.5	19.6	18.7	26.8	47.0	34.2	54.2	58.2	60.1	28.4	25.9	48.8	47.0	31.4	34.5	23.3	22.3	4.9	1.5
247	723.75	13.0	1.4	9.0	8.2	5.5	25.8	6.3	26.5	16.6	18.7	17.1	14.9	14.0	12.4	6.9	10.1	8.1	7.2	4.7	1.4
248	726.75	12.7	1.2	8.4	7.8	4.7	25.2	5.4	25.8	15.0	17.4	15.4	13.5	12.8	11.3	5.9	9.4	7.4	6.6	4.4	1.2
249	729.75	12.5	1.0	7.9	7.4	4.0	24.6	4.6	25.0	13.5	16.2	13.8	12.2	11.5	10.4	5.0	8.6	6.7	6.1	4.2	1.0
250	732.75	12.3	0.8	7.4	6.9	3.3	24.0	3.7	24.4	12.0	15.0	12.2	10.9	10.4	9.4	4.1	7.9	6.1	5.5	4.0	0.8
251	735.75	12.1	0.6	6.9	6.5	2.6	23.4	3.0	23.7	10.6	13.9	10.7	9.7	9.3	8.5	3.2	7.2	5.4	5.0	3.8	0.6
252	738.75	12.2	0.7	7.1	6.8	3.0	23.8	3.5	24.1	11.5	14.5	11.7	10.4	10.0	9.1	3.8	7.6	5.8	5.3	3.9	0.7
253	741.75	12.4	0.9	7.6	7.2	3.7	24.3	4.2	24.8	12.9	15.7	13.1	11.7	11.1	10.0	4.6	8.3	6.5	5.8	4.1	0.9
254	744.75	12.6	1.1	8.2	7.6	4.4	24.9	5.0	25.4	14.3	16.8	14.6	12.9	12.2	10.9	5.5	9.0	7.1	6.3	4.3	1.1
255	747.75	12.8	1.2	8.6	8.0	5.0	25.4	5.8	26.0	15.6	17.9	16.1	14.0	13.3	11.8	6.3	9.6	7.7	6.8	4.5	1.2
256	750.75	13.0	1.4	9.1	8.4	5.7	26.0	6.5	26.7	17.0	19.0	17.5	15.3	14.4	12.7	7.2	10.4	8.3	7.4	4.7	1.4
257	753.75	13.2	1.5	9.6	8.7	6.3	26.5	7.3	27.2	18.3	20.1	18.9	16.4	15.4	13.5	7.9	11.0	8.9	7.8	4.9	1.5
258	756.75	13.4	1.7	10.0	9.1	6.9	27.0	8.0	27.8	19.5	21.1	20.3	17.5	16.4	14.3	8.7	11.6	9.5	8.3	5.1	1.7
259	759.75	16.5	4.3	16.7	14.6	15.3	33.8	18.4	36.4	37.6	36.0	41.4	34.8	35.6	30.1	24.4	24.5	27.4	23.0	8.3	4.3
260	762.75	17.2	4.8	18.2	15.8	17.2	35.4	20.7	38.3	41.7	39.2	46.0	38.5	39.4	33.2	27.5	27.0	30.5	25.5	8.9	4.9
261	765.75	16.8	4.5	17.3	15.1	16.1	34.5	19.4	37.2	39.3	37.4	43.4	36.4	37.3	31.4	25.7	25.6	28.7	24.1	8.6	4.5
262	768.00	15.1	3.1	13.5	12.0	11.1	30.4	13.4	32.3	28.8	28.8	31.5	26.7	27.3	23.2	17.8	19.0	20.8	17.5	6.9	3.2
263	770.25	13.2	1.5	19.6	18.7	26.8	47.0	34.3	54.2	58.3	60.1	28.4	25.9	15.3	13.5	7.9	11.0	8.9	7.8	4.9	1.5
264	772.50	13.1	1.4	19.3	18.5	26.4	46.7	33.8	53.9	57.5	59.5	27.6	25.3	48.2	46.5	31.0	34.1	23.0	22.0	4.8	1.4
265	774.75	12.9	1.3	18.9	18.2	25.8	46.2	33.2	53.3	56.3	58.5	26.3	24.2	47.3	45.7	30.2	33.5	22.5	21.5	4.6	1.3
266	777.00	12.9	1.3	18.9	18.2	25.8	46.2	33.1	53.3	56.2	58.4	26.2	24.1	47.2	45.6	30.2	33.4	22.4	21.5	4.6	1.3
267	779.25	12.7	1.1	8.4	7.7	4.6	25.1	5.3	25.7	14.8	17.3	15.2	13.4	12.6	11.2	5.8	9.3	7.3	6.6	4.4	1.1
268	781.50	12.6	1.0	8.1	7.5	4.2	24.8	4.8	25.3	14.0	16.6	14.4	12.7	12.0	10.7	5.3	8.9	7.0	6.2	4.3	1.0
269	783.75	12.5	0.9	7.8	7.3	3.9	24.5	4.4	24.9	13.2	15.9	13.5	11.9	11.3	10.2	4.8	8.5	6.6	5.9	4.2	0.9
270	786.00	12.3	0.9	7.5	7.1	3.5	24.1	4.0	24.5	12.4	15.3	12.6	11.3	10.7	9.6	4.3	8.1	6.2	5.7	4.0	0.9

ARMADURA TRANSVERSAL EN TABLERO

Alpha=26,5°

Luz vano		
1	45.0	m
2	60.0	m
3	60.0	m
4	60.0	m
5	60.0	m
6	60.0	m
7	60.0	m
8	60.0	m
9	60.0	m
10	60.0	m
11	60.0	m
12	60.0	m
13	60.0	m
14	45.0	m

Armadura de Rasante (cm2/m)

SEC	X	1 inf	1 sup	2 inf	2 sup	3 inf	3 sup	4 inf	4 sup	5 int	5 ext	6 int	6 ext	7 int	7 ext	8 inf	8 sup	9 inf	9 sup	10 inf	10 sup
271	788.25	12.2	0.8	7.3	6.9	3.2	23.9	3.6	24.3	11.8	14.9	12.0	10.8	10.2	9.3	4.0	7.7	6.0	5.4	3.9	0.8
272	790.50	12.2	0.7	7.1	6.8	3.0	23.7	3.4	24.1	11.4	14.5	11.5	10.3	9.8	9.0	3.7	7.5	5.8	5.3	3.9	0.7
273	792.75	12.0	0.6	6.8	6.4	2.4	23.3	2.8	23.6	10.3	13.6	10.4	9.4	9.0	8.3	3.1	7.0	5.3	4.8	3.7	0.6
274	795.00	11.9	0.5	6.5	6.2	2.0	23.0	2.4	23.2	9.5	13.0	9.6	8.7	8.4	7.7	2.6	6.6	4.9	4.6	3.6	0.5
275	797.25	12.0	0.6	6.7	6.4	2.4	23.2	2.8	23.6	10.2	13.5	10.2	9.3	8.9	8.2	3.0	6.9	5.2	4.8	3.7	0.6
276	799.50	12.2	0.7	7.1	6.8	3.0	23.7	3.4	24.1	11.4	14.5	11.5	10.4	9.8	9.0	3.7	7.6	5.8	5.3	3.9	0.7
277	801.75	12.4	0.9	7.6	7.2	3.6	24.3	4.1	24.7	12.7	15.5	12.9	11.5	10.9	9.9	4.5	8.2	6.4	5.7	4.1	0.9
278	804.00	12.6	1.0	8.1	7.5	4.3	24.8	4.9	25.3	14.0	16.7	14.4	12.7	12.0	10.7	5.3	8.9	7.0	6.2	4.3	1.0
279	806.25	12.8	1.2	18.6	17.9	25.5	45.9	32.7	53.0	55.5	57.9	25.5	23.5	13.2	11.7	6.3	9.6	7.6	6.8	4.5	1.2
280	808.50	13.0	1.4	19.1	18.4	26.2	46.5	33.5	53.7	57.1	59.1	27.1	24.8	47.9	46.2	30.7	33.9	22.8	21.8	4.7	1.4
281	810.75	14.8	2.9	23.5	22.0	32.3	51.5	40.5	59.4	69.5	69.3	40.5	35.8	57.9	54.3	38.3	40.1	28.5	26.5	6.6	2.9
282	812.25	11.3	0.0	15.0	15.0	20.5	41.8	27.0	48.3	45.3	49.5	14.5	14.5	38.5	38.5	23.5	28.0	17.5	17.5	3.0	0.0

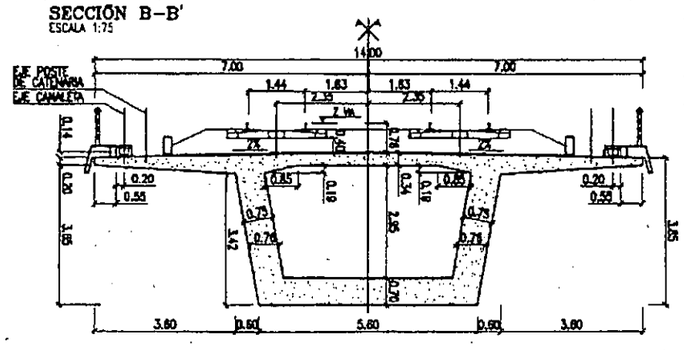
6.3. TRAVIESAS DE APOYO

En este apartado se incluyen los resultados del cálculo de la flexión transversal que se produce en las traviesas de apoyo en estribos y pilas.

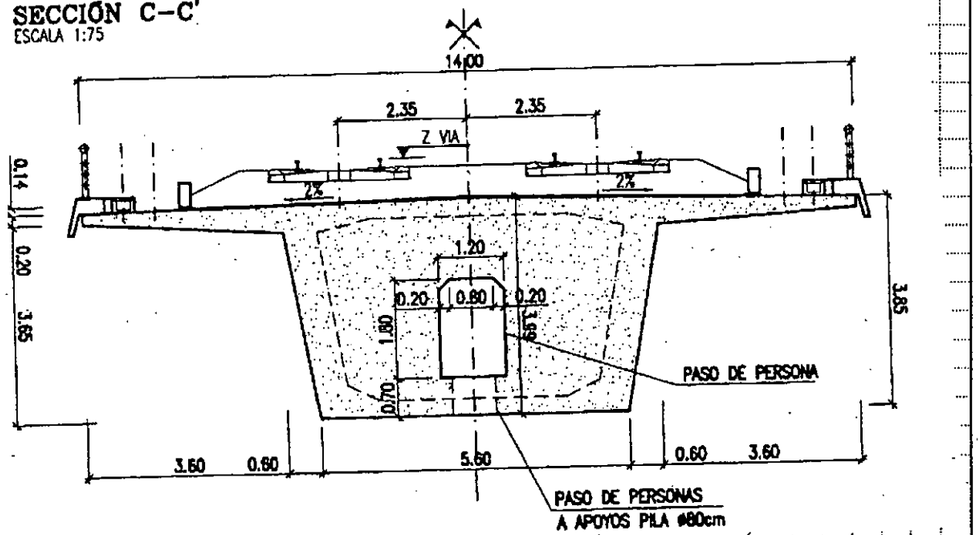
La determinación de los esfuerzos de flexión y cortante se realizan a partir de las reacciones que se han calculado en el apartado 3 de este anejo.

TRAVIESAS SOBRE PILAS

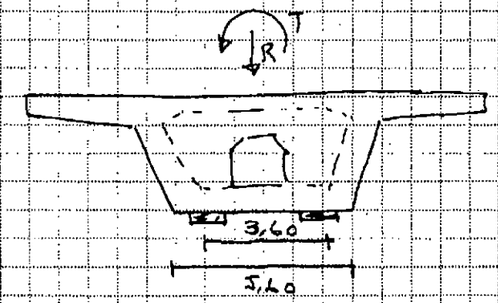
SECCIÓN B–B'
ESCALA 1:75

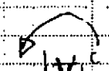


SECCIÓN C–C'
ESCALA 1:75



Análisis de la Traviesa de apoyos en pila





$T_d = 2 \times 1442$ $\quad T = 322$ mT

$V_d = 3127 + 3170 = V_d^2$ $\quad R = 6344$ T

ELU 1 | $V_{d\,max}$

ELU 2 | $T_{d\,max}$

$\begin{cases} T_d^1 = 1600 + 1392 - V_d^3 \\ V_d = 2315 + 2350 = V_d^2 \end{cases}$

$\begin{cases} T_d = 2784 \text{ T} \\ R_d = 4768 \text{ T} \end{cases}$

R Appuis

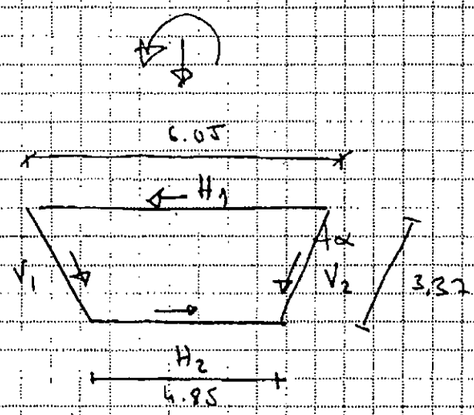
ELU 1 | $R_{max} = 6344/2 \pm 322/6$ → 3338 T
R_{min} = → 3006 T

ELU 2 | $R_{o\,max} = \frac{4768}{2} \pm \frac{2784}{36}$ → 3123 T
→ 1537 T

PEDELTA, S.L.
INGENIERÍA CIVIL

Fecha:

Hoja:



$\frac{1}{\cos\alpha} = 1.021$

$A_m = 18,823\,m^2$

$v = 17,1075\,m$

$V_{\frac{1}{2}} = 1,02\frac{pd}{2} \pm \frac{T_d}{2A_m}\,3,37$

$H_1 = \frac{T_d}{2A_m}\,.\,6.05$

$H_2 = \frac{T_d}{2A_m}\,4.95$

ESTADO 1 $V_{d\,max}$, T_d

$R_d = 624\,T$

$T_d = 322\,T.m$

$V_1 = 326\,T \leftrightarrow 968,52\,T/m$

$V_2 = 320\,T \leftrightarrow 951,3\,T/m$

$H_1 = 51,7\,T \leftrightarrow 8,54\,T/m$

$H_2 = 41,5\,T \leftrightarrow 8,56\,T/m$

ESTADO 2 $T_{d\,max}$, V_d

$R_d = 470,0\,T$

$T_d = 278\,T.m$

$V_1 = 266,2\,T \leftrightarrow 785,2\,T/m$

$V_2 = 214\,T \leftrightarrow 637,3\,T/m$

$H_1 = 44\,T \leftrightarrow 7,3\,T/m$

$H_2 = 35\,T \leftrightarrow 7,39\,T/m$

ROBOTV6 v. 4.4
(c) RoboBAT
Proyecto:

PEDELTA 2871
c:\robot\usr\anoia\averno\trav-1.dim
modificación de carga: 29-05-2003

Página: 1317
Fecha:27-01-2003
Hora: 10:00:00

Especificación de reacciones

Resultados individuales

Caso 1 2
1 2

Nudo 11A16 35A38
1A828

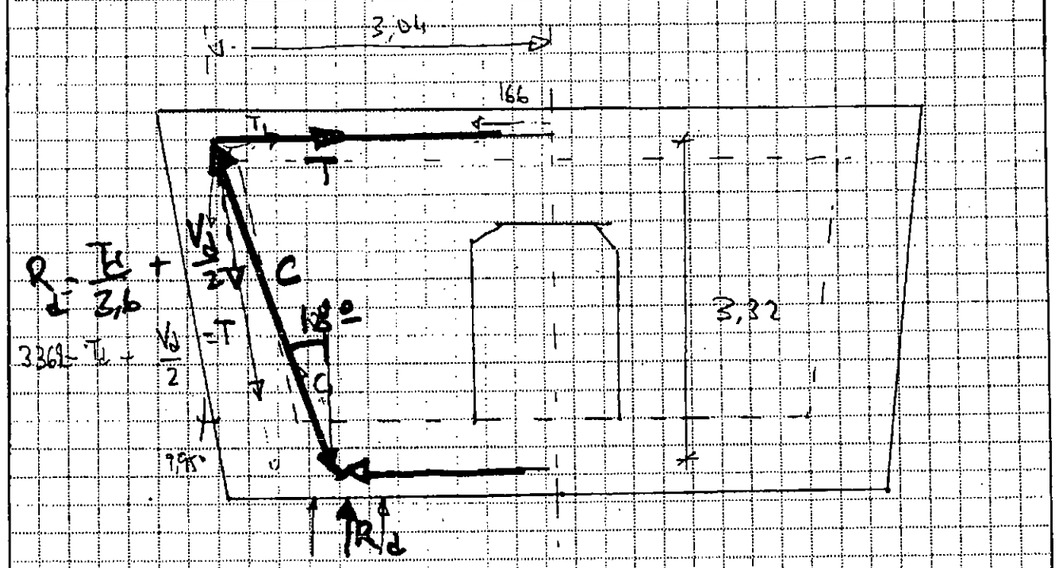
Caso	Nudo	FX (T)	FY (T)
Nombre del c.		BLU 1	
1	11	0.02	654.28
1	12	0.02	620.23
1	13	0.02	658.12
1	14	0.02	650.49
1	15	0.02	624.01
1	16	0.02	616.50
1	35	0.02	656.19
1	36	0.02	652.38
1	37	0.02	622.12
1	38	0.02	618.36
Suma de val.		0.18	6372.68
Suma de reac.		0.18	6372.68
Suma de fuer.		-0.18	-6372.68
Val. verif.		0.00	0.00
Nombre del c.		BLU 2	
2	11	0.17	619.00
2	12	0.17	325.20
2	13	0.17	651.70
2	14	0.17	586.34
2	15	0.17	357.86
2	16	0.18	292.58
2	35	0.17	635.34
2	36	0.17	602.66
2	37	0.17	341.53
2	38	0.18	308.89
Suma de val.		1.74	4721.10
Suma de reac.		1.74	4721.10
Suma de fuer.		-1.74	-4721.10
Val. verif.		0.00	0.00

3271,46 T ✓
3101,2 T

→ 3094 T
~~3268~~ T
1626 T

↓ b ✓

ESQUEMA BIELAS TIRANTES



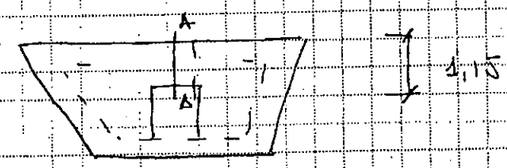
$$C = 3368 \cdot \frac{1}{\sin 18} = 3541\ T$$

$$T = 3541 \cdot \sin 18 = 1094\ T \rightarrow A_s = 274\ cm^2$$

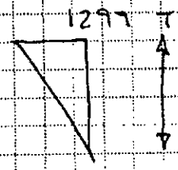
Equilibrio momentos en C.T. Kmn

$$F = \frac{3368 \cdot (3{,}04 - 1{,}80)}{2{,}32} = 1257\ T \rightarrow 314\ cm^2$$

Armado en modelo E.F.



Sec A-A



$\rightarrow |V_{T\,max} = 700\ T$

$A_s \geq 175\ cm^2$

$\sigma_s = 4{,}0$

Cm $\sigma_{m\,x} = 1370 \rightarrow$ $T = 747\ T \rightarrow 187\ cm^2$

$\sigma_s = 4{,}0$

Para $\sigma_s = \frac{2{,}2}{\delta_f} = 3{,}08 \rightarrow A_s \geq 242\ cm^2$

Armadura suspensión vertic.!

$A_s \geq \frac{V_1}{\sigma_{Rd}} = \frac{3368}{4} = 842\ cm^2 \leftrightarrow 443\ cm^2/m \rightarrow$ C. Cortante

Armado Cortante

$\tau_{d\,max} = 1101\ T/m^2 \times \frac{1}{1,5} = 734\ T/m^2$ (T/m)

$\tau_{cu} = 0,30\ f_{cd} = 1000\ T/m^2 > \tau_{d\,max}$ ✓ OK

Armado

$\tau_{Rd} = 0,44\ N/mm^2 \equiv 48\ T/m^2$

$\rightarrow V_c = 1,5 \cdot 3,6 \cdot 48 \rightarrow \tau_{Rd} \cdot 1,5 = 72\ T/L$

En $\tau_{d\,max}$:

$A_{st} \geq \frac{1101 - 72}{4,0} = 257\ cm^2$

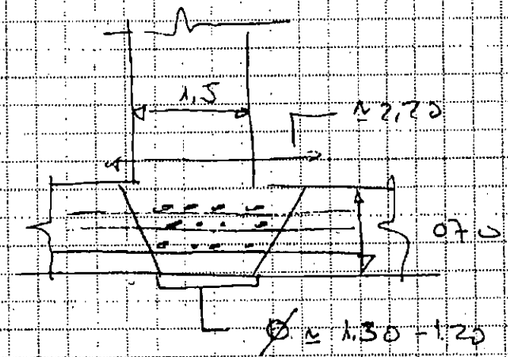
$\rightarrow$ 3 c ϕ 25/10

En Promedio valores máximos $\tau_d = 631 \div 650\ T/L$

$A_{st} \geq \frac{650}{4,0} = 163\ cm^2$

$\rightarrow$ 8 ud ϕ25 por m $\rightarrow$ ✓

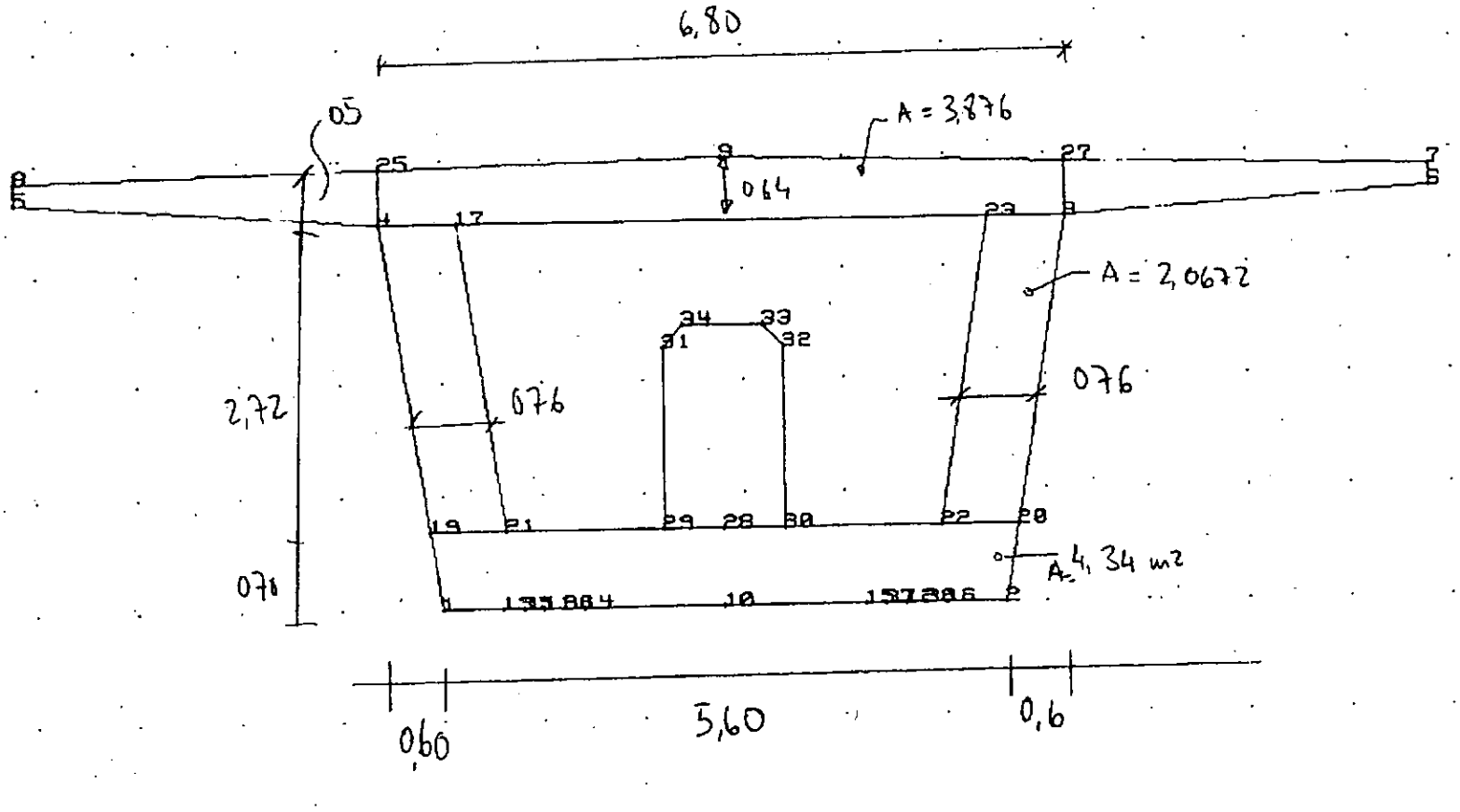
Introducción de la Reacción



$A_s \geq 1,40 \frac{250}{4} \cdot 0,20 = 175\ cm^2$

$175\ cm^2 \Leftrightarrow$ 3 # 8 + 8 ϕ 32

$L \geq 1,3 + 2 \times 1,4 = 4,10$



ELU

$P_i = \frac{F_i}{A_i}$

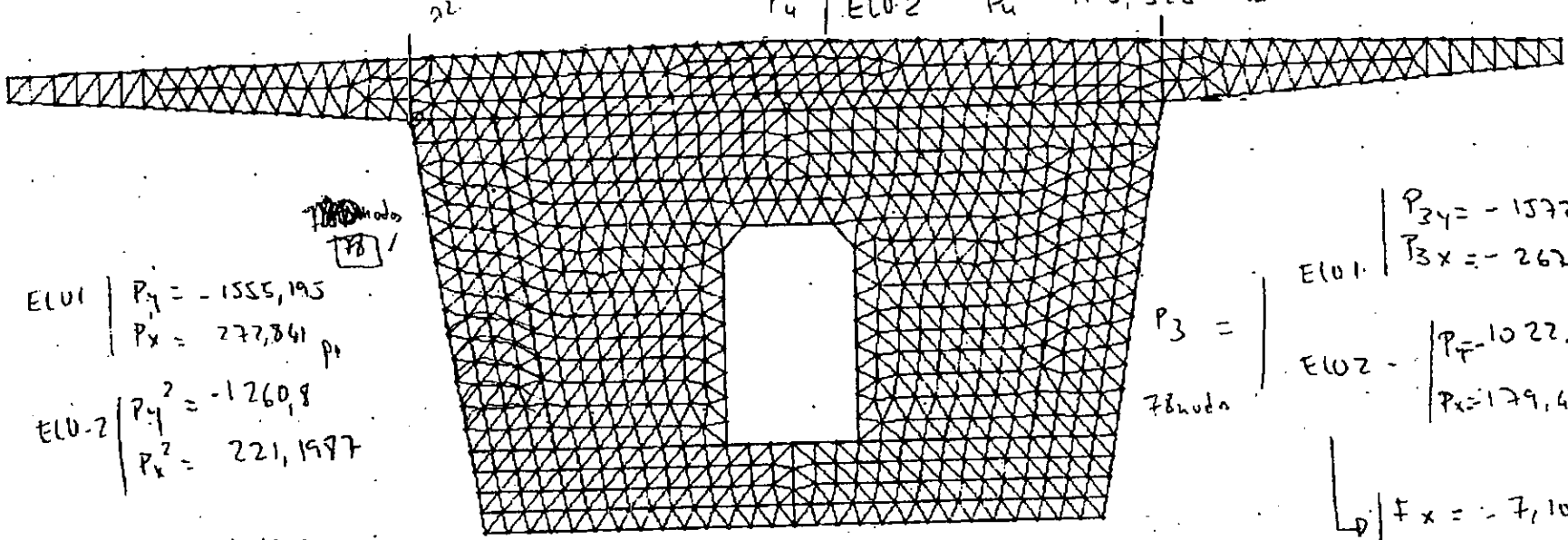
ELU2 - Fx = -2,940789

ELU1 Fx = -0,3401

152

P_4 | ELU1 $\overleftarrow{P_4}$ = 13,238 T/m2

ELU2 $\overleftarrow{P_4}$ 115,325 T/m2



ELU1 | P_y = -1555,195
P_x = 277,841 P_1

ELU2 | P_y^2 = -1260,8
P_x^2 = 221,1987

ELU 1 | $\bar{F}_y$ = -41,2167
F_x = 7,23099

ELU2 | F_y = -33,4153
F_x 5,8623

P_2 | ELU1 $\vec{P_2}x$ = 9,5622

ELU2 = F_x = 2,3464 | 153 nodos

P_3 =

ELU1 | P_{3y} = -1572,56
P_{3x} = -262,993

ELU2 - | $P_{\bar{y}}$ = 1022,979
P_x = 179,4730

| F_x = -7,1025
ELU1 | F_y = -40,48626

ELU2 = | $\bar{F}x$ = 4,75641
F_y = 27,1157

```
CARActerísticas
 HORMIGON
  46A1495 EP=1

APOyos
' Etiqueta         - móvil
' Ninguna etiqueta - fijo

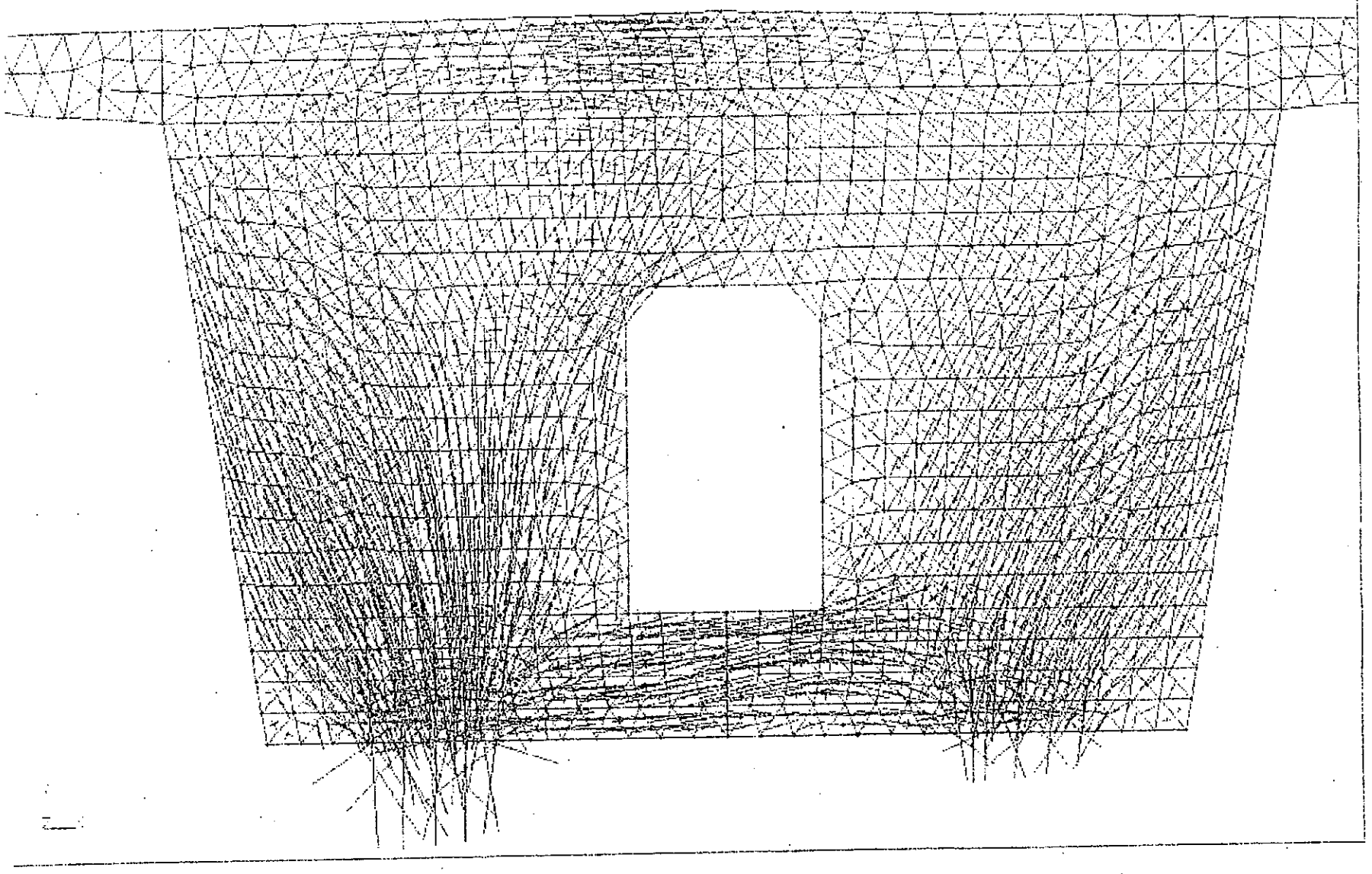
 11A16 35A38 KX=1 KY=100

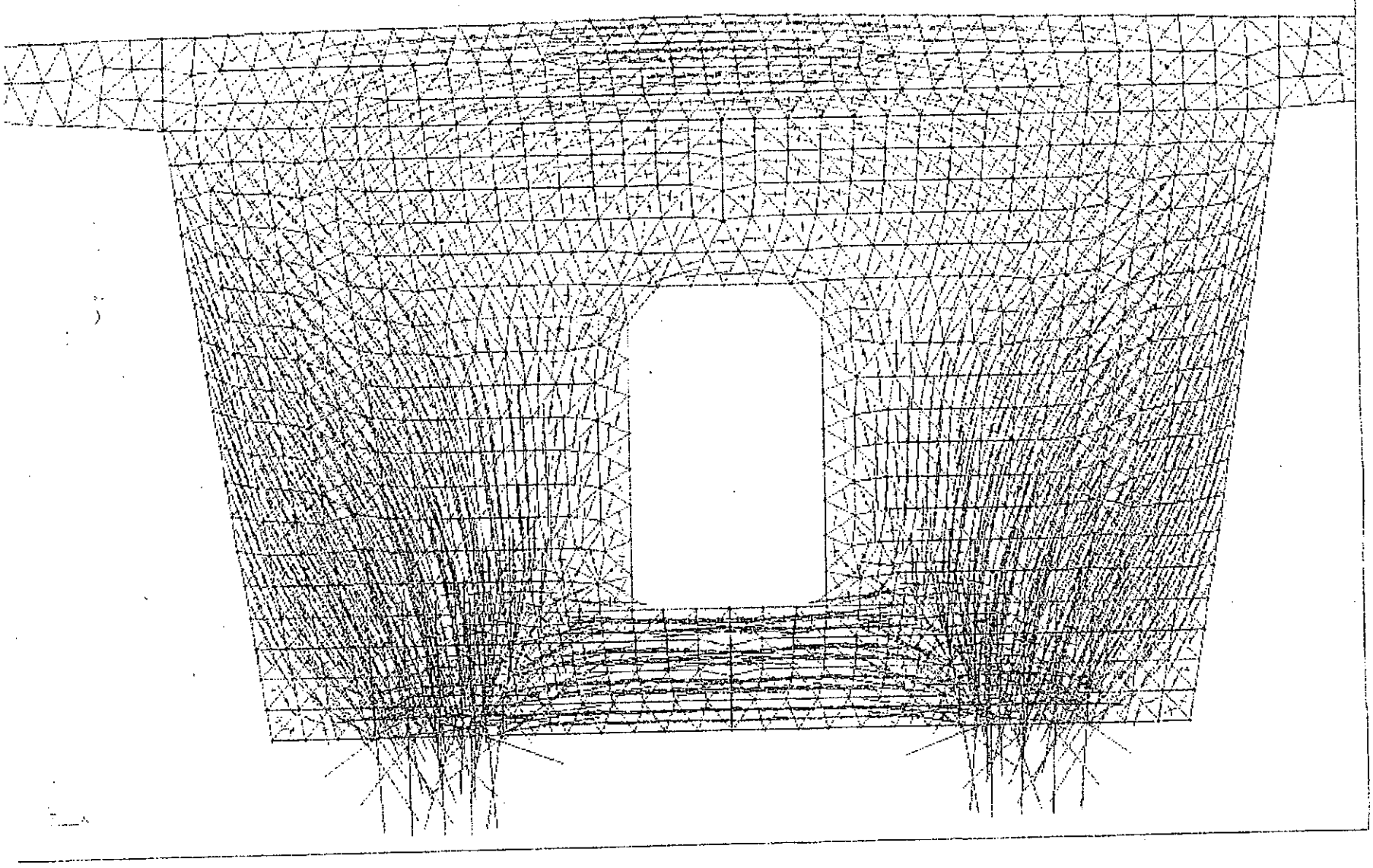
CARGamento

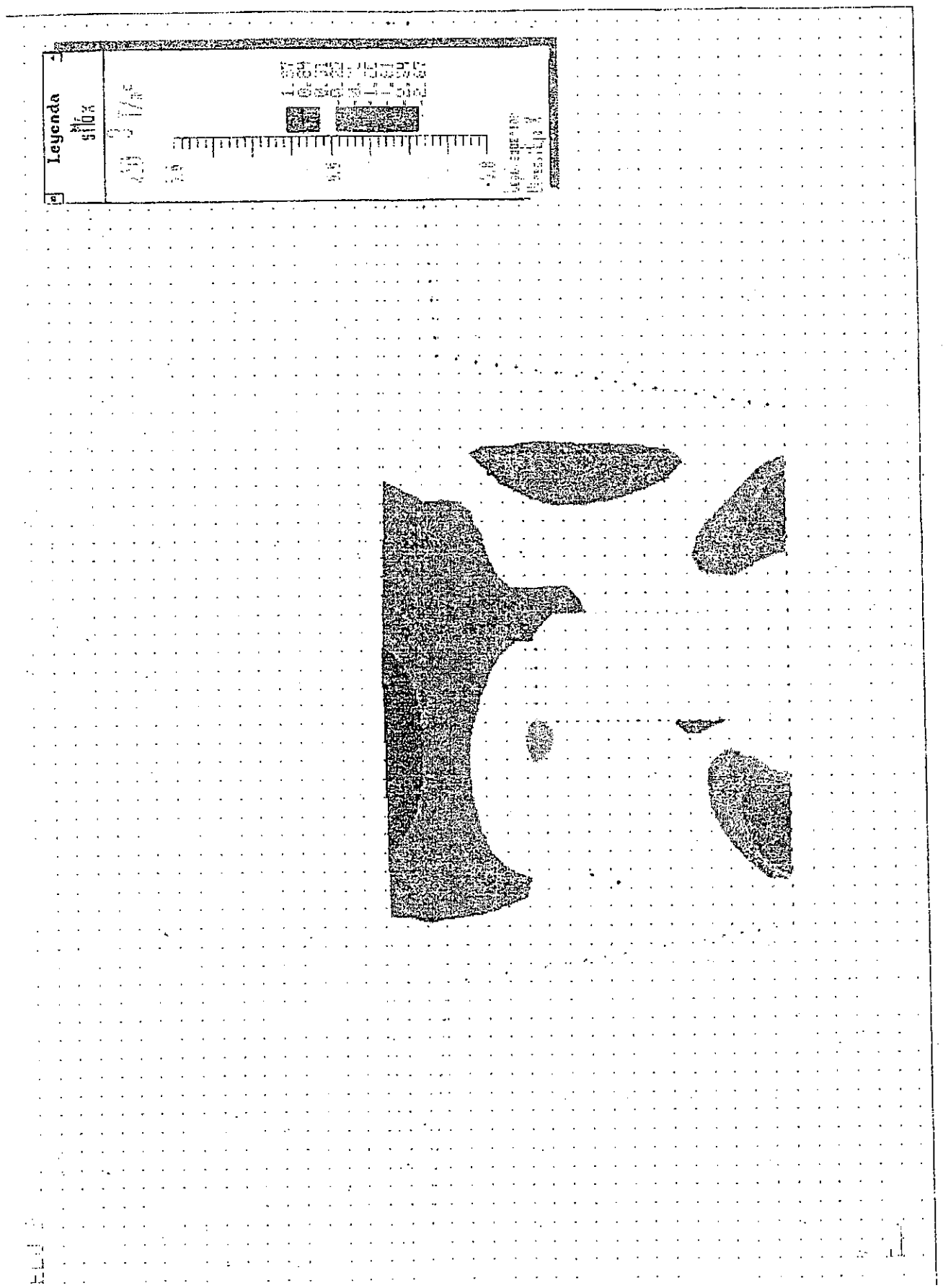
CASo # 1 HLU 1
   4 17 19 21 57A59 210A212 317A384 FX=7.23099 FY=-41.2167
   3 20 22 23 85A87 189A191 385A452 FX=-7.1025 FY=-40.4843
   1 2 10A16 19A22 28A30 35A38 184A316 FX=0.27124
   3 4 9 17 23 25 27 39A183 FX=-0.34013

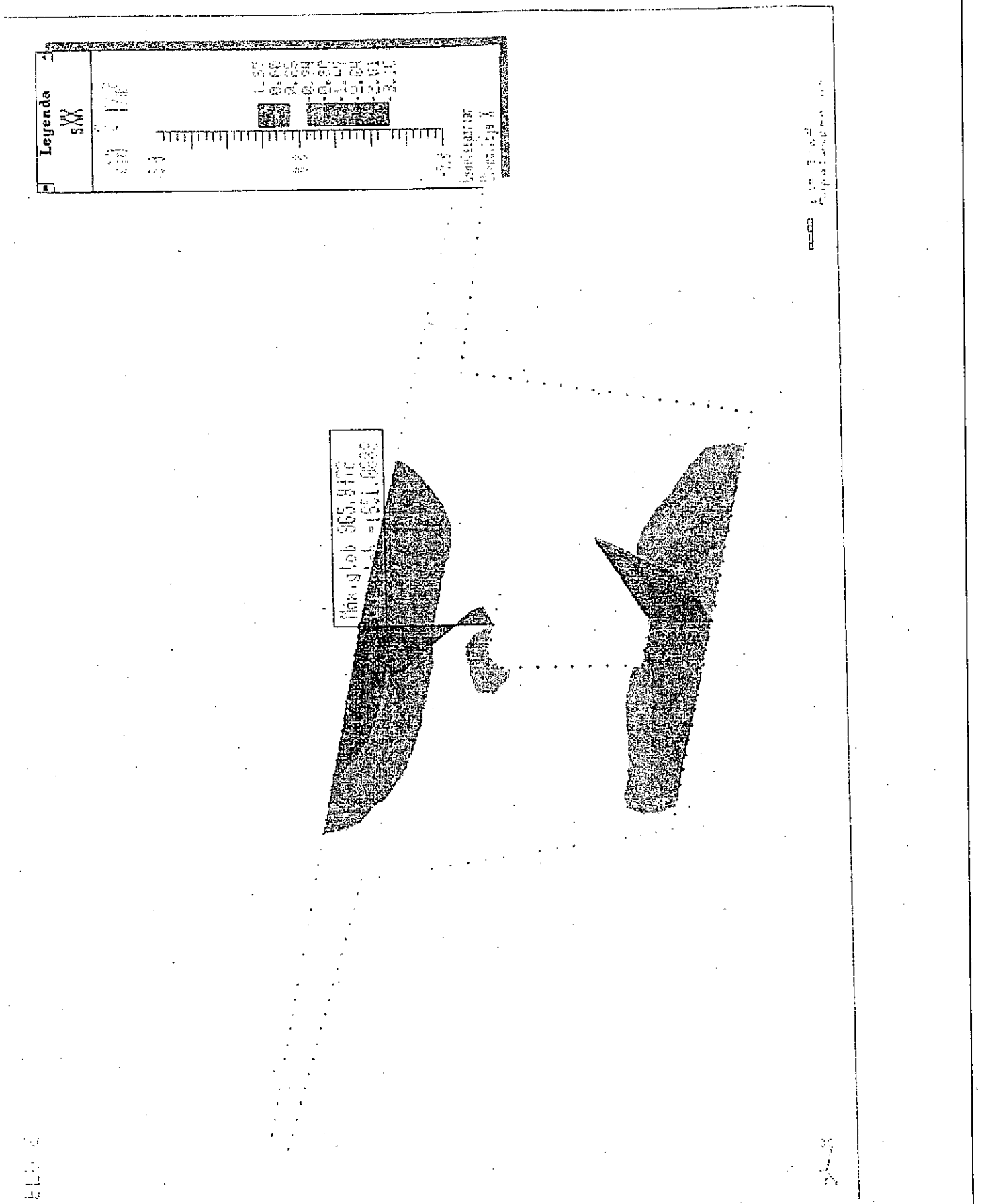
CASo # 2 HLU 2
   4 17 19 21 57A59 210A212 317A384 FX=5.8623 FY=-33.4153
   3 20 22 23 85A87 189A191 385A452 FX=-4.75641 FY=-27.11157
   1 2 10A16 19A22 28A30 35A38 184A316 FX=2.3464
   3 4 9 17 23 25 27 39A183 FX=-2.940789

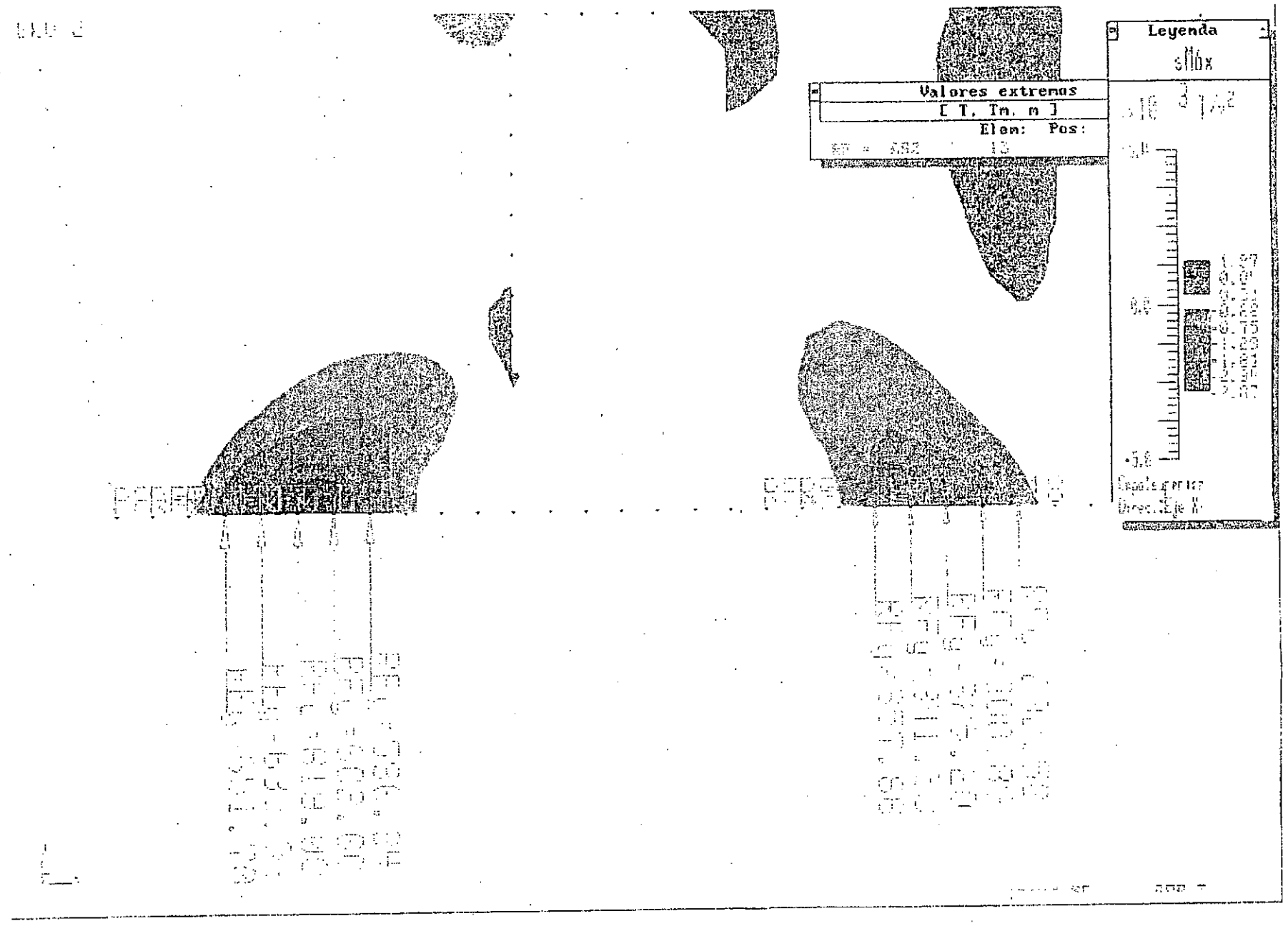

FIN
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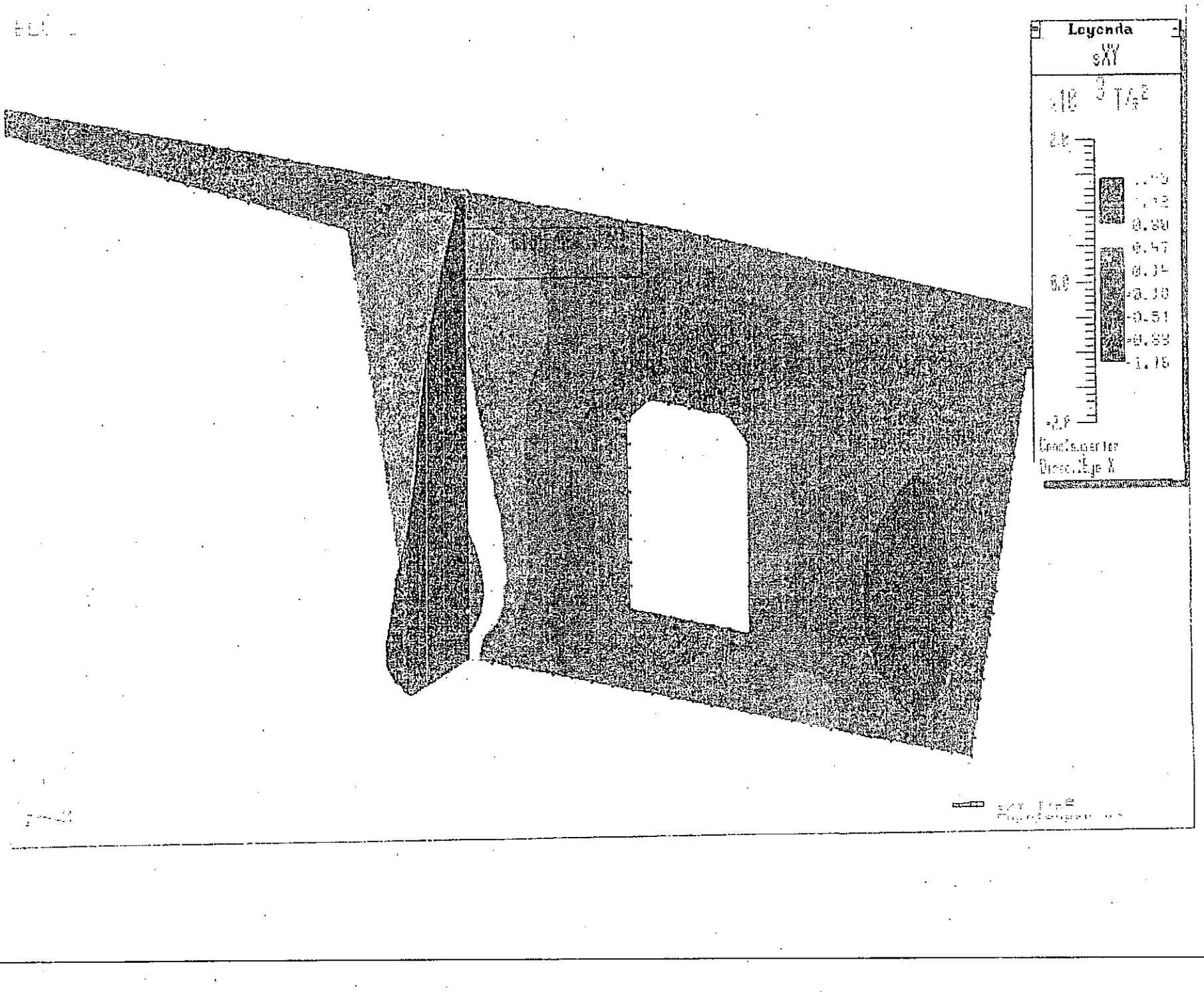


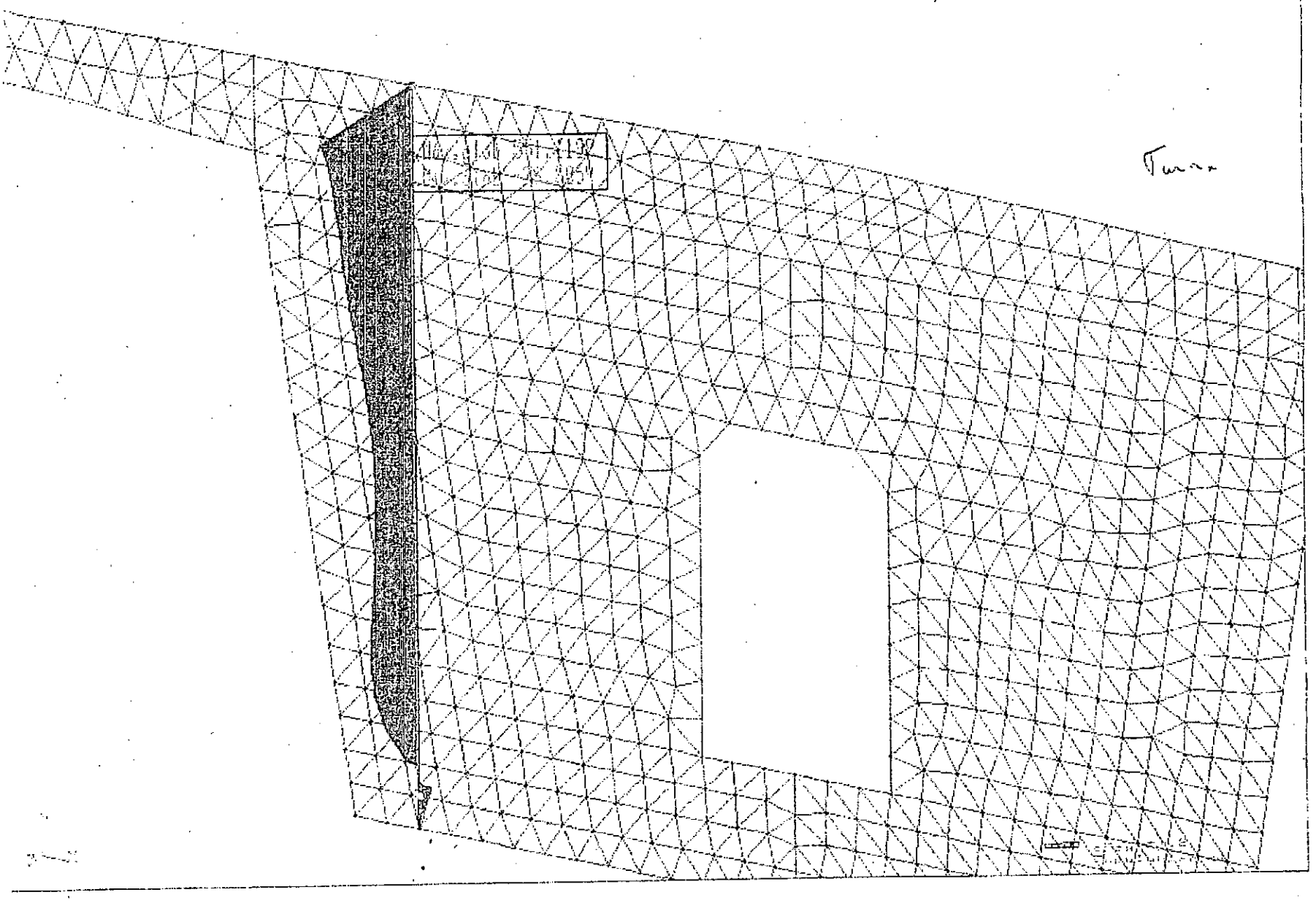


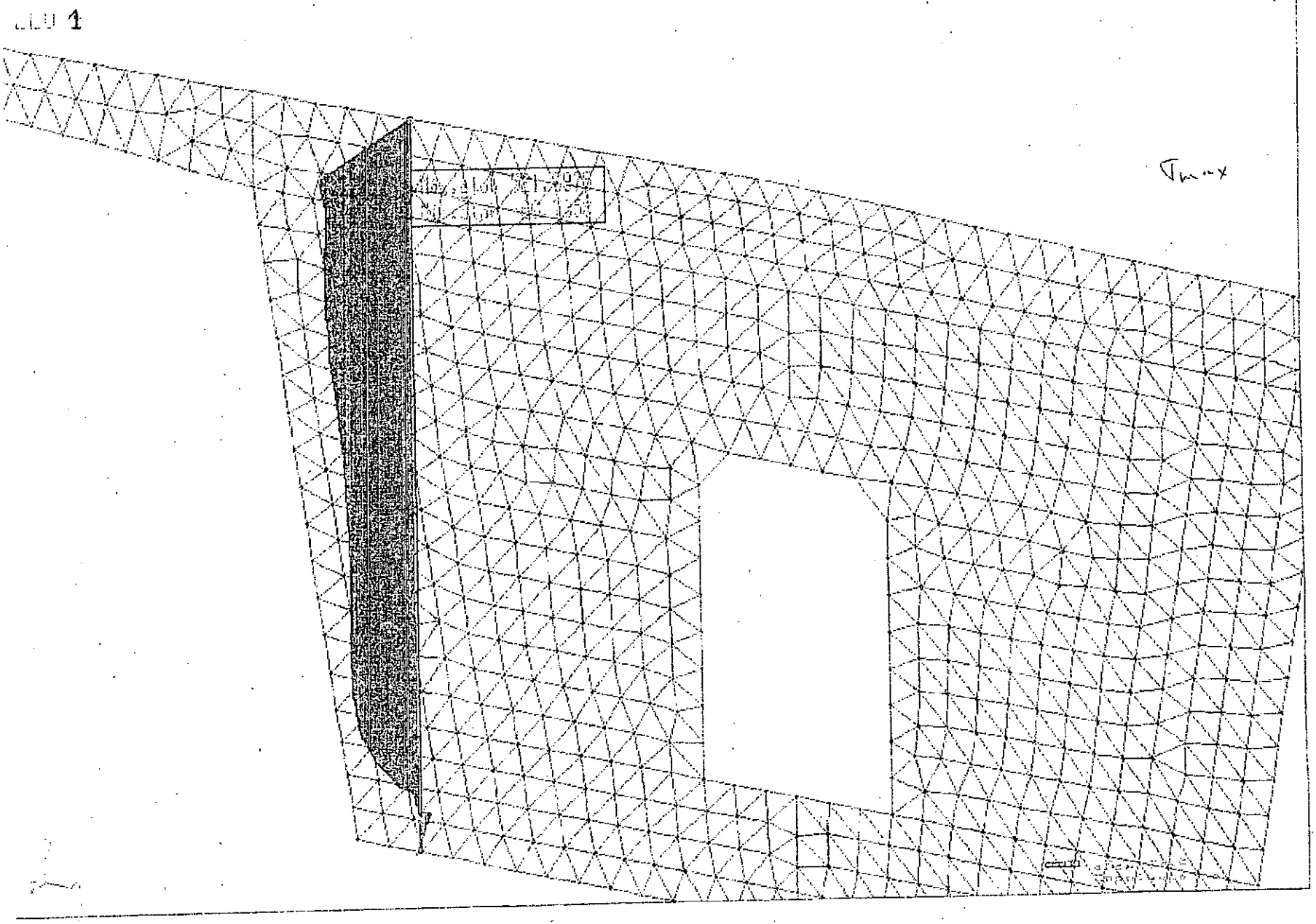

Legenda

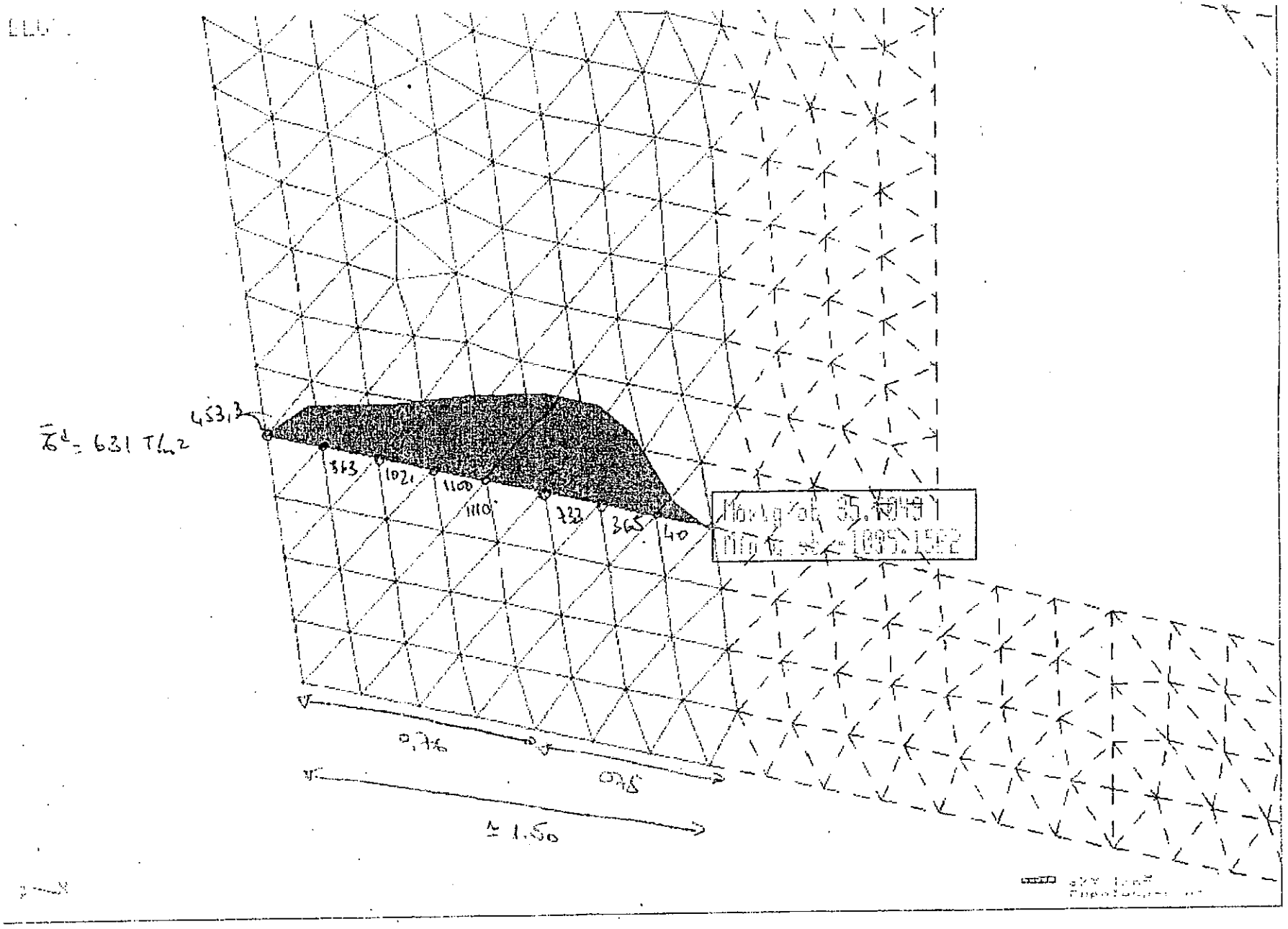

Legenda

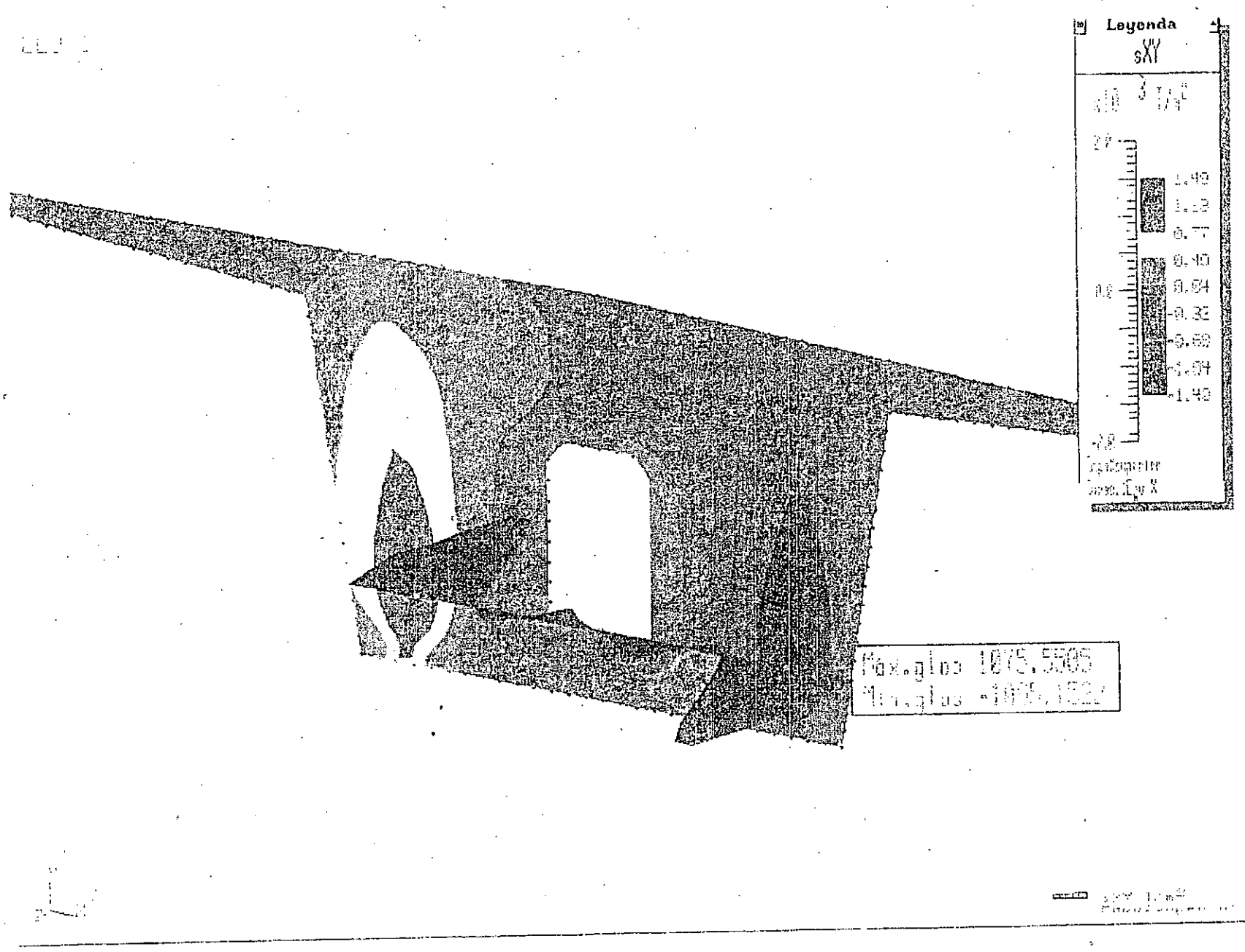

Valores extremos
[T, Tm, m]
Elem: Pos:
Leyenda
sMOx

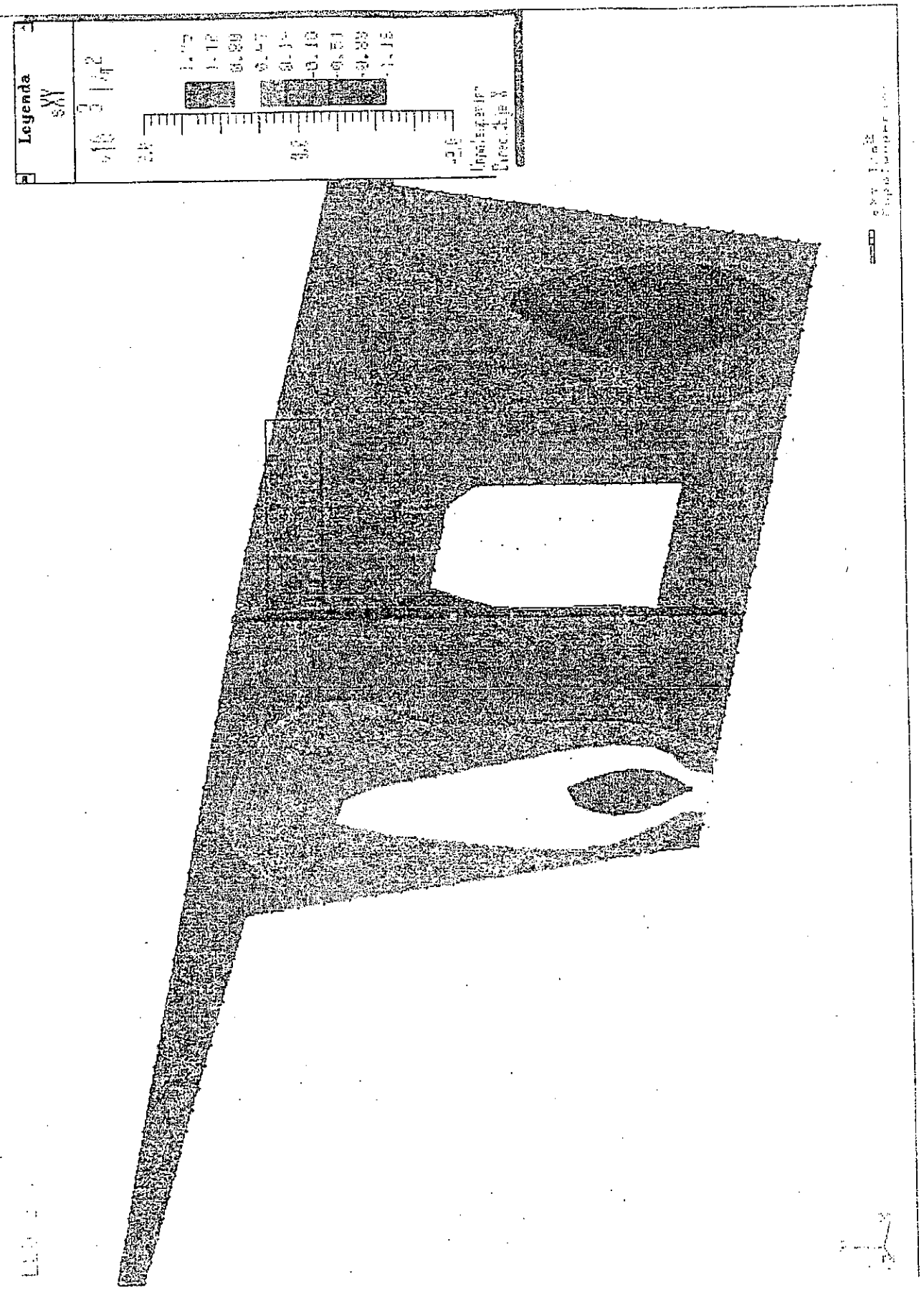

Leyenda
sXY
0.80
0.47
0.14
-0.19
-0.51
-0.83
-1.16

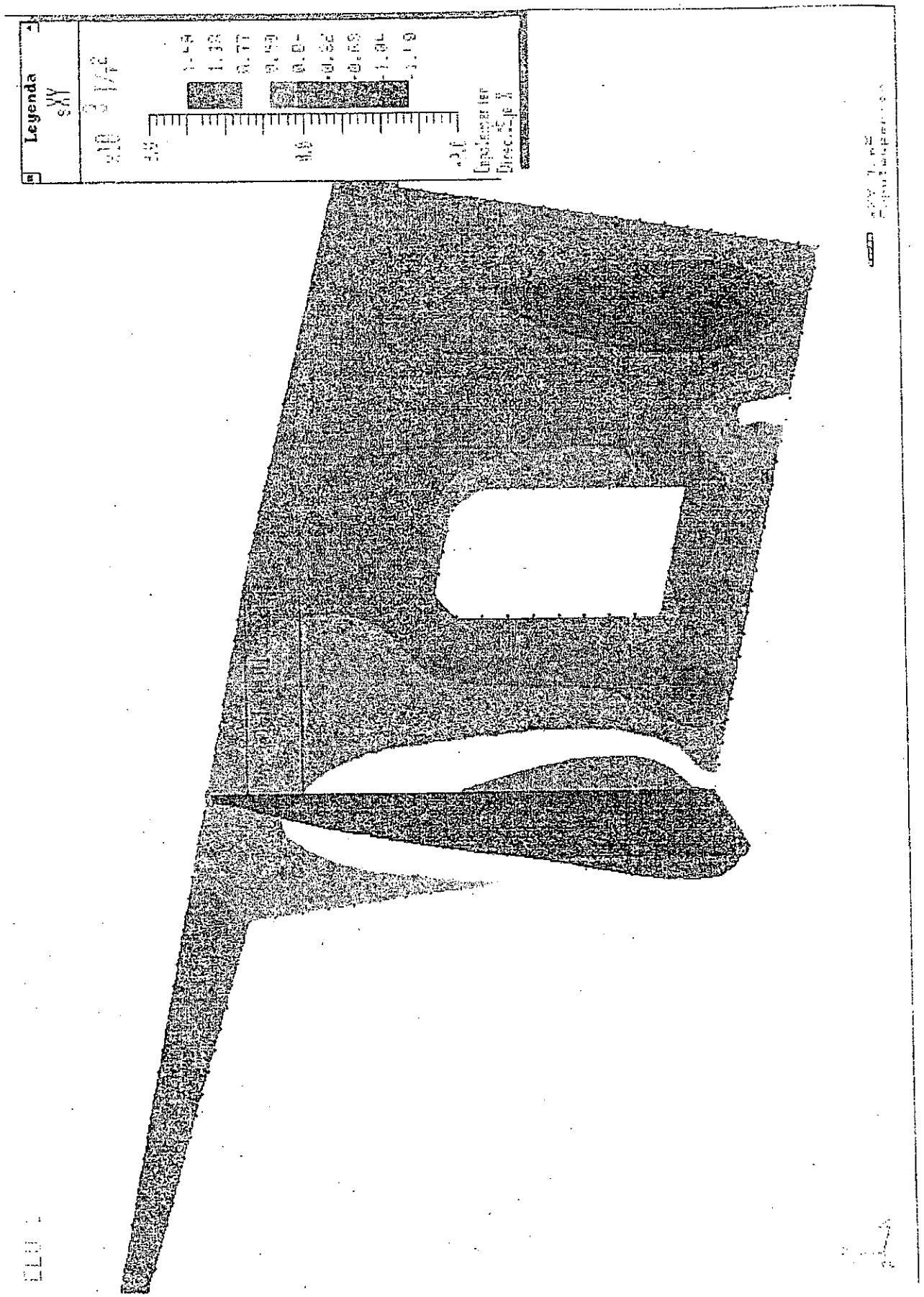


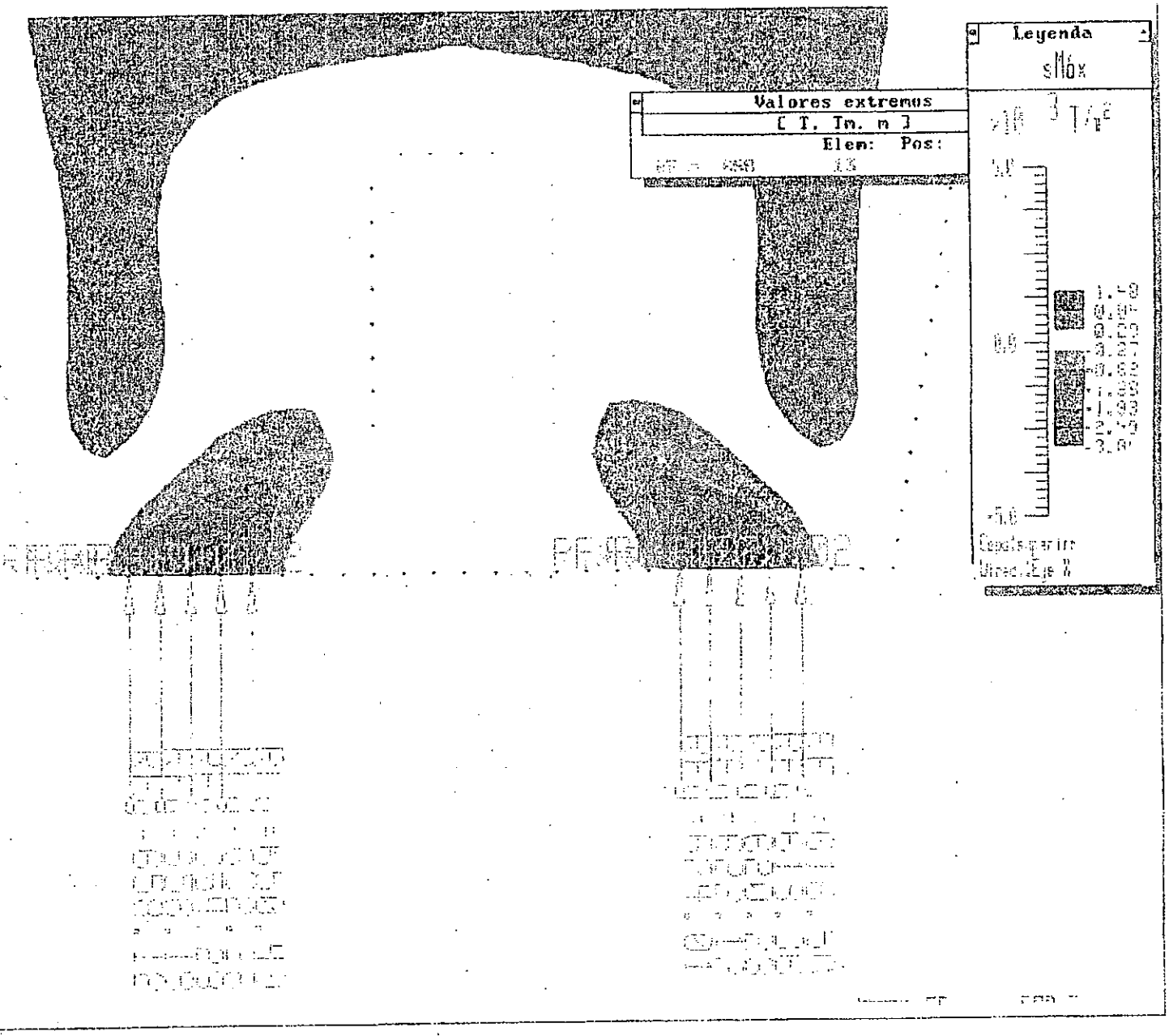


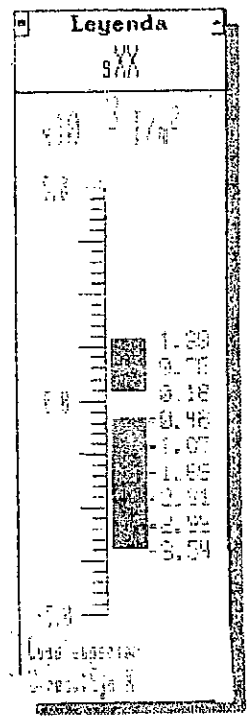

453,3
343
1021
1100
1110
733
365
40
0,76
0,25
≈ 1,50

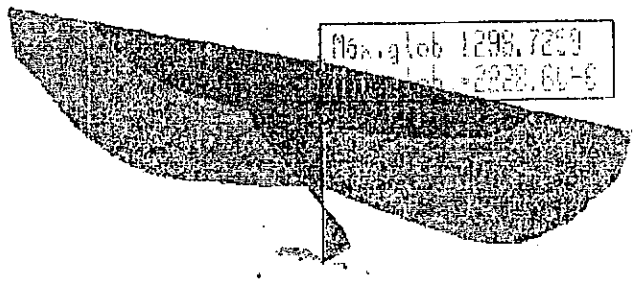

Leyenda
1,49
1,13
0,77
0,40
0,04
-0,32
-0,69
-1,05
-1,42

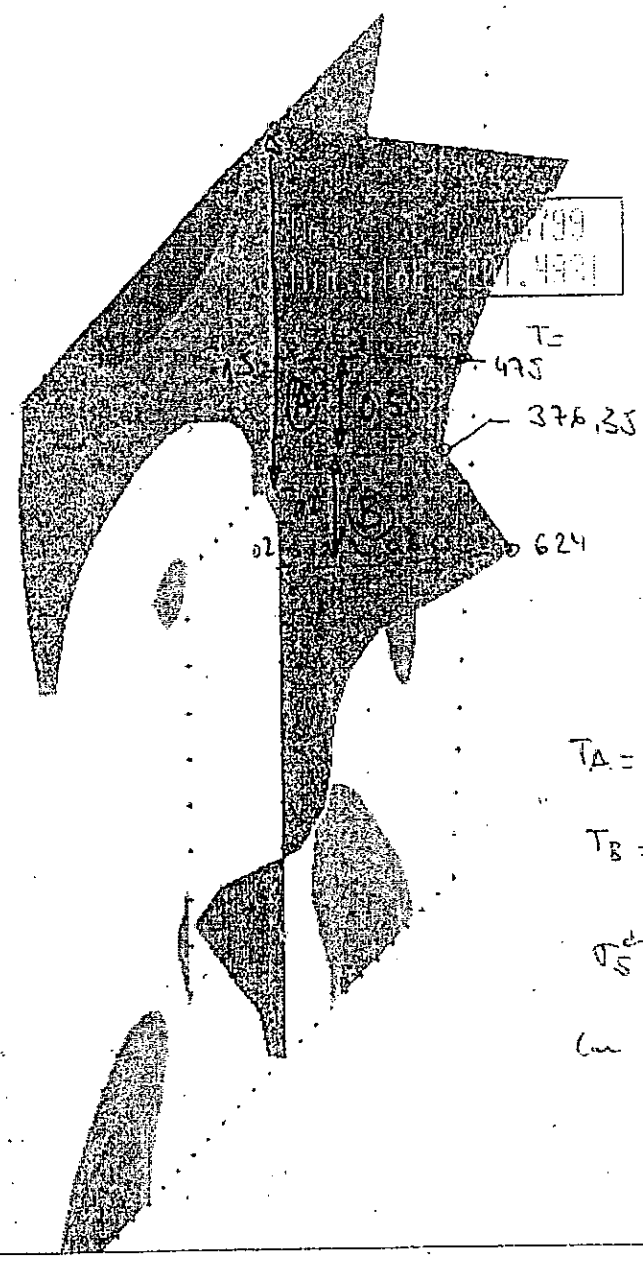

Leyenda
sXY
sXY 1.7
1.12
0.53
0.17
-0.19
-0.53
-0.89
-1.25

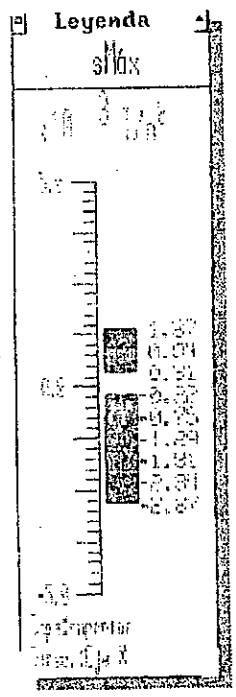

Leyenda
sXY
1.5
1.23
0.77
0.29
-0.16
-0.62
-0.69
-1.15


Leyenda
Valores extremos
[T, Tn, m]
Elem: Pos:


Leyenda


Máx.glob 1298.7259





$T_A = 0,5 \cdot \frac{475+371}{2} = 213\,T \rightarrow A_s^A \geq 7\,cm^2$

$T_B = 0,6 \cdot \frac{376+624}{2} = 300\,T \rightarrow A_s^B \geq 10\,cm^2$

$\sigma_s^{ad} = 3.000\,T/m^2$

$cm\ \sigma_s^{ad} = 4 \cdot 10^4\,T/m^2 \rightarrow A_s^A = 5\,cm^2$

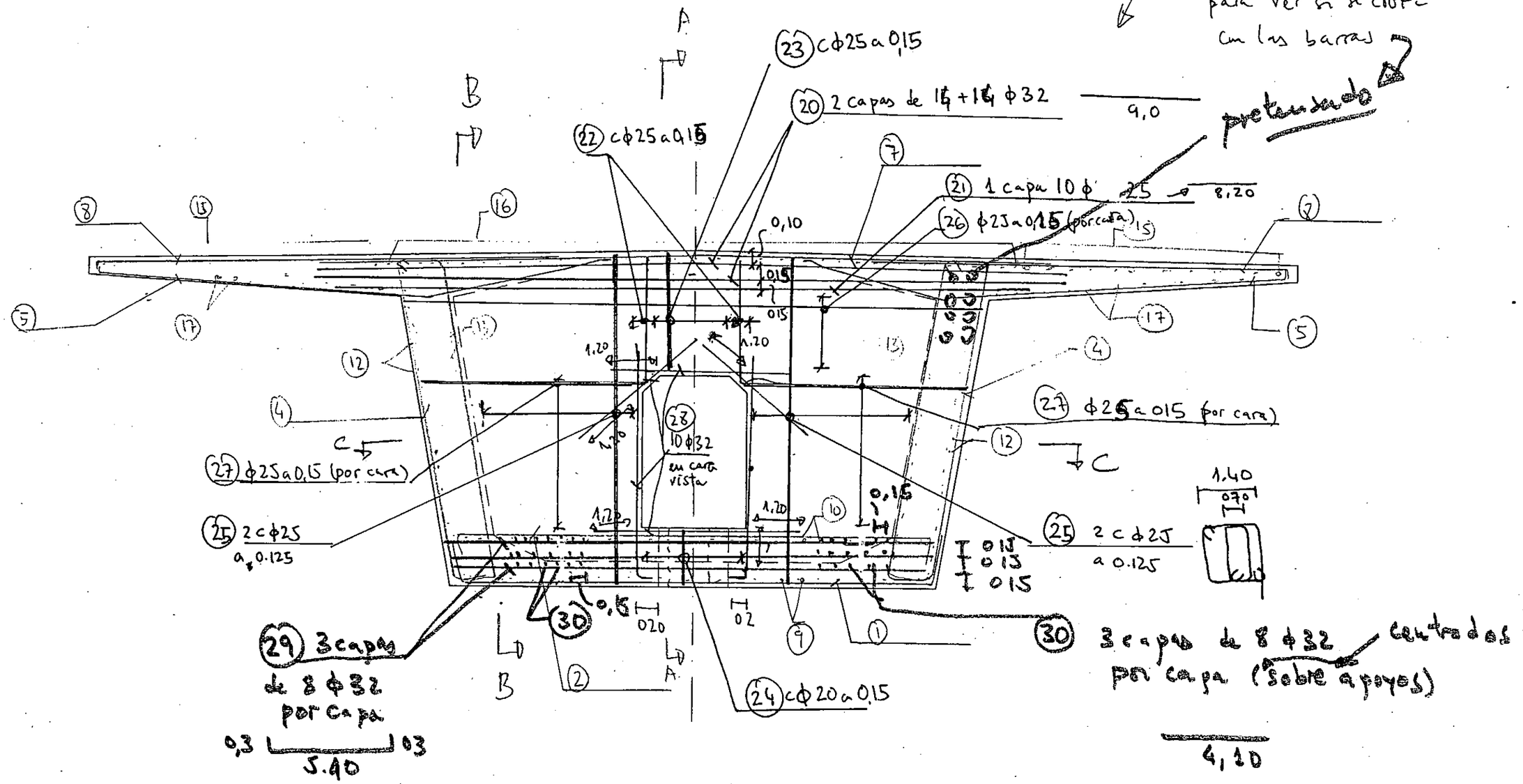
$A_s^B = 7\,cm^2$

TRAVIESA SOBRE PILA

AVETRNO

armado Travesa sobre pila → 1 o 2 planos

incluir el pretensado para ver si se corta con las barras pretensado



6.4. INTRODUCCIÓN DEL PRETENSADO

La regularización de las tensiones normales en el tablero inducidas por el pretensado produce tracciones en la zona de anclajes, cuyo efecto se puede estudiar a partir de dos análisis independientes:

- Estudio de la la introducción de una fuerza puntual en el anclaje, que permite el cálculo de los refuerzos de armadura en la zona inmediatamente detrás de la placa de anclaje.

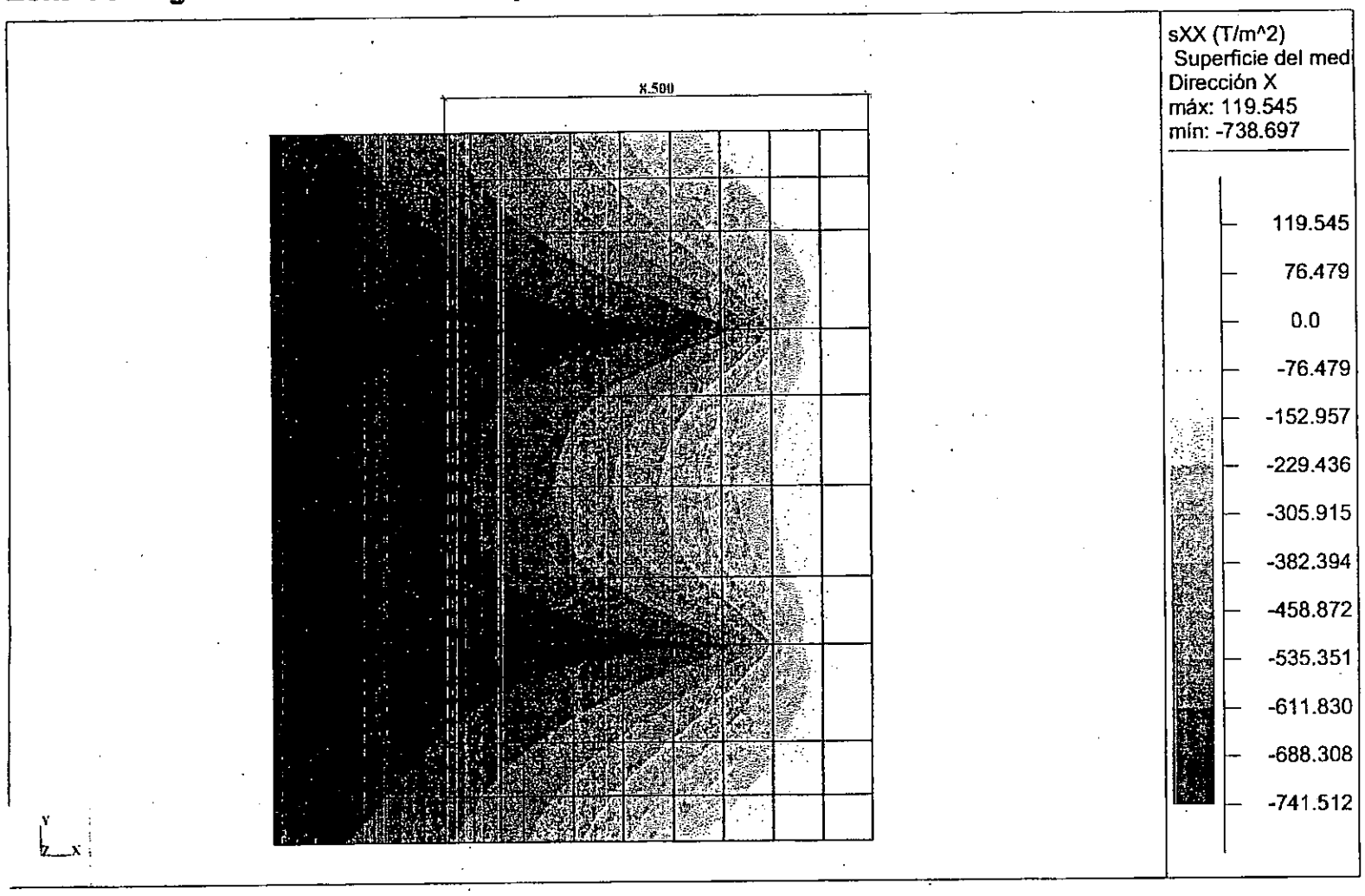
- En las zonas de estribos la fuerza rasante se incrementa por el efecto de introducción de pretensado, cuyo valor total se reparte en planta, a efectos de cálculo, con un ángulo de aproximadamente 35 °. El efecto de esta regularización de tensiones se puede abordar a partir del método de bielas y tirantes, cuyo modelo sería análogo al que se emplea para el cálculo de vigas de gran canto. El cálculo adicional se incluye en el apartado 7.3 (armadura de rasante)

En las hojas siguientes se detallan los cálculos de las armaduras a colocar en la zona de introducción de la fuerza de pretensado.

ARMADURA BAJO PLACA DE ANCLAJE

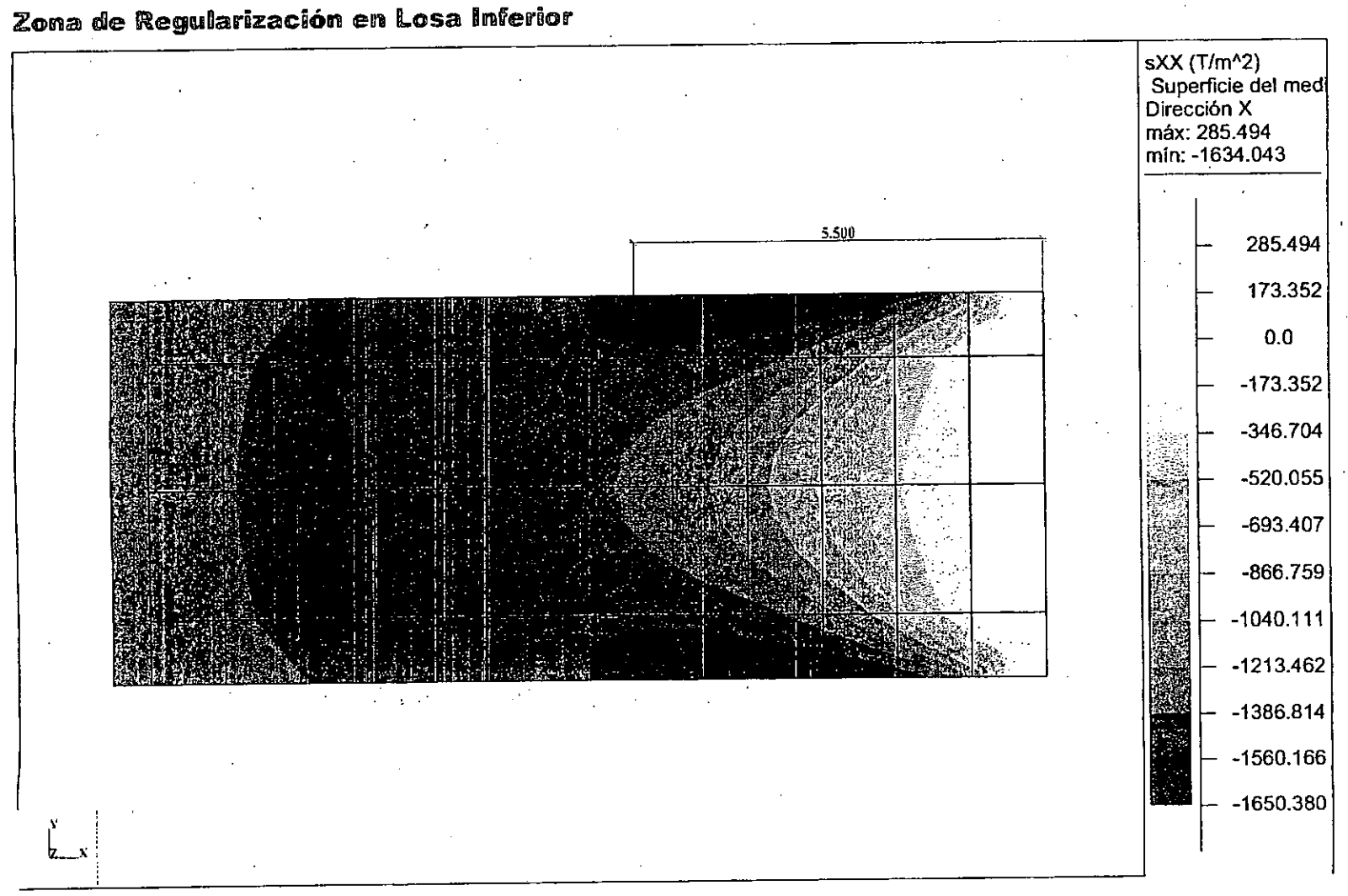
ARMADURA DE REGULARIZACIÓN DEL PRETENSADO

Zona de Regularización en Losa Superior

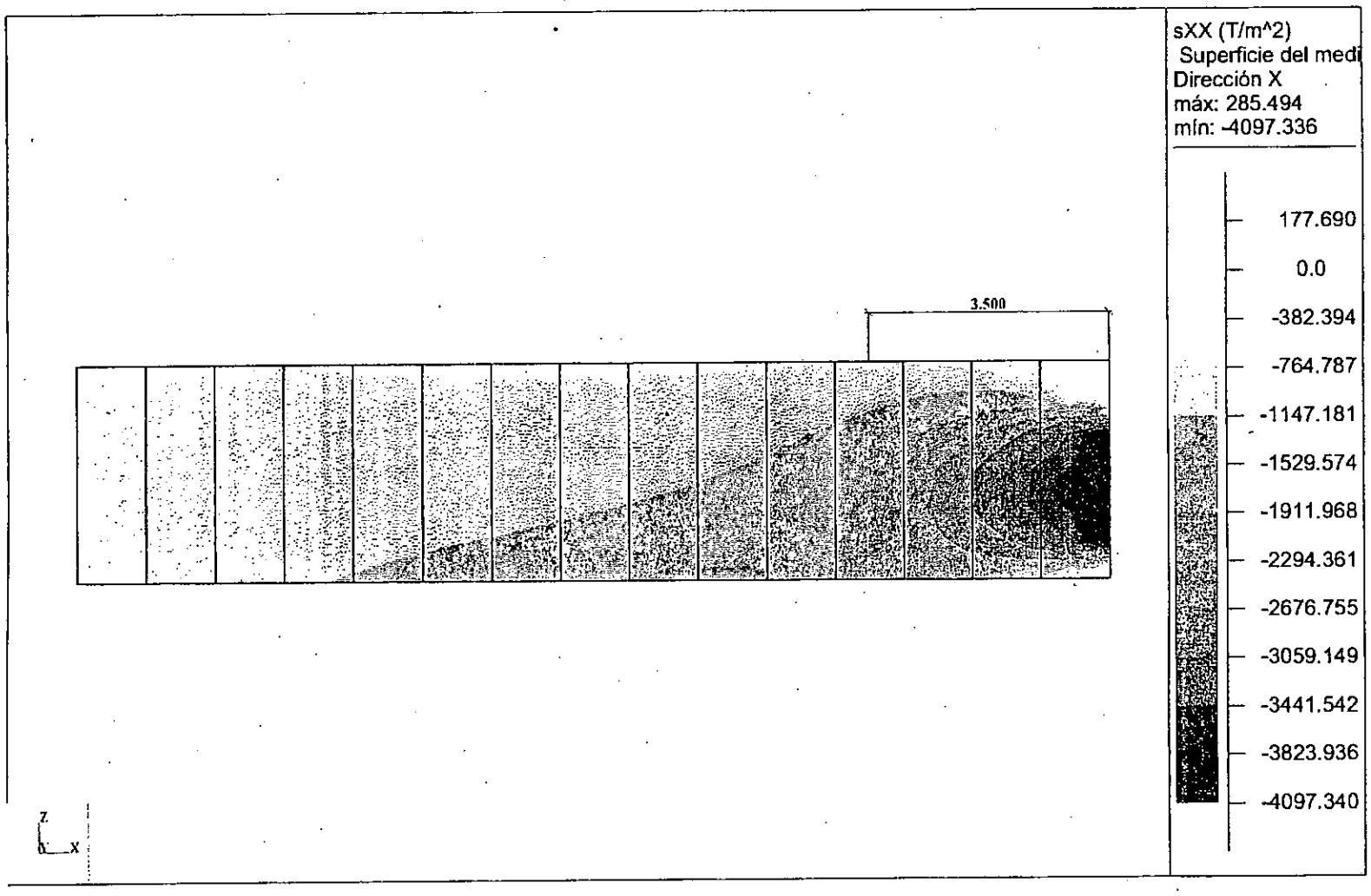


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Zona de Regularización en Losa Inferior



Zona de Regularización en Almas



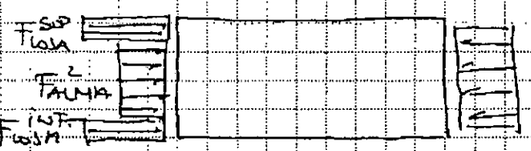
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Fecha:

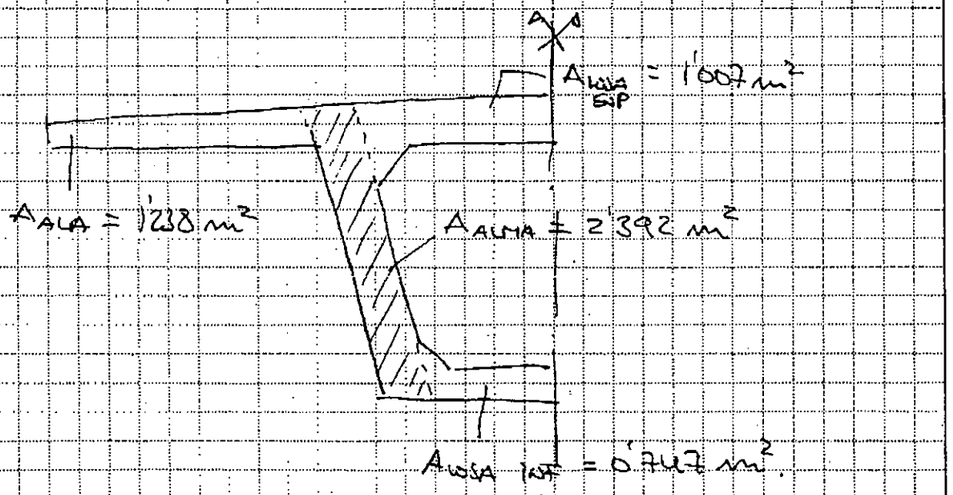
Hoja:

CÁLCULO de ARMADURA NECESARIA

La armadura necesaria se calculará a partir de la diferencia de fuerzas axiles entre diferentes secciones:



Para obtener cada una de estas fuerzas, es necesario conocer las áreas de cada elemento. Estas son:



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Fecha:

Hoja:

La fuerza aplicada en cada una de las almas es:

$$F_{1\,ALMA} = \frac{595\ T}{cordón} \cdot 8\ cordones = 4760\ T$$

El área en que debe dividirse este esfuerzo rasante la obtenemos del modelo de elementos finitos realizado.

De este modo, podemos obtener las siguientes áreas de acero necesarias:

LOSA SUPERIOR

Alas: $\Delta T_{alas} = 4760 \cdot \frac{1'238}{5'384} = 1094'52\ T$.

$A_s \cdot f_{yd\,ast} \geq \Delta t_{alas}$ →

$f_{yd\,ast} = 2'6\ T/cm^2$

→ $A_s^{alas} \geq \frac{1094'52}{2'6} = 420'97\ cm^2$

Esta armadura debe distribuirse en una distancia de 8'50 m por lo que:

$$A_s^{ALAS} \geq 49'5\ \frac{cm^2}{m}$$

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Fecha:

Hoja:

Losa Sup.

$$\Delta T_{\text{losa sup}} = 4760 \cdot \frac{1'007}{5'384} = 890'29 \text{ T}$$

$$A_s^{\text{losa sup}} \geq \frac{890'29}{2'6} = 342'42 \text{ cm}^2.$$

$$\boxed{A_s^{\text{losa sup}} \geq 40'28 \frac{\text{cm}^2}{\text{m.}}}$$

Losa inferior

operamos del mismo modo:

$$\Delta T \text{ losa inf} = 4760 \cdot \frac{0'747}{5'384} = 660'42 \text{ T}$$

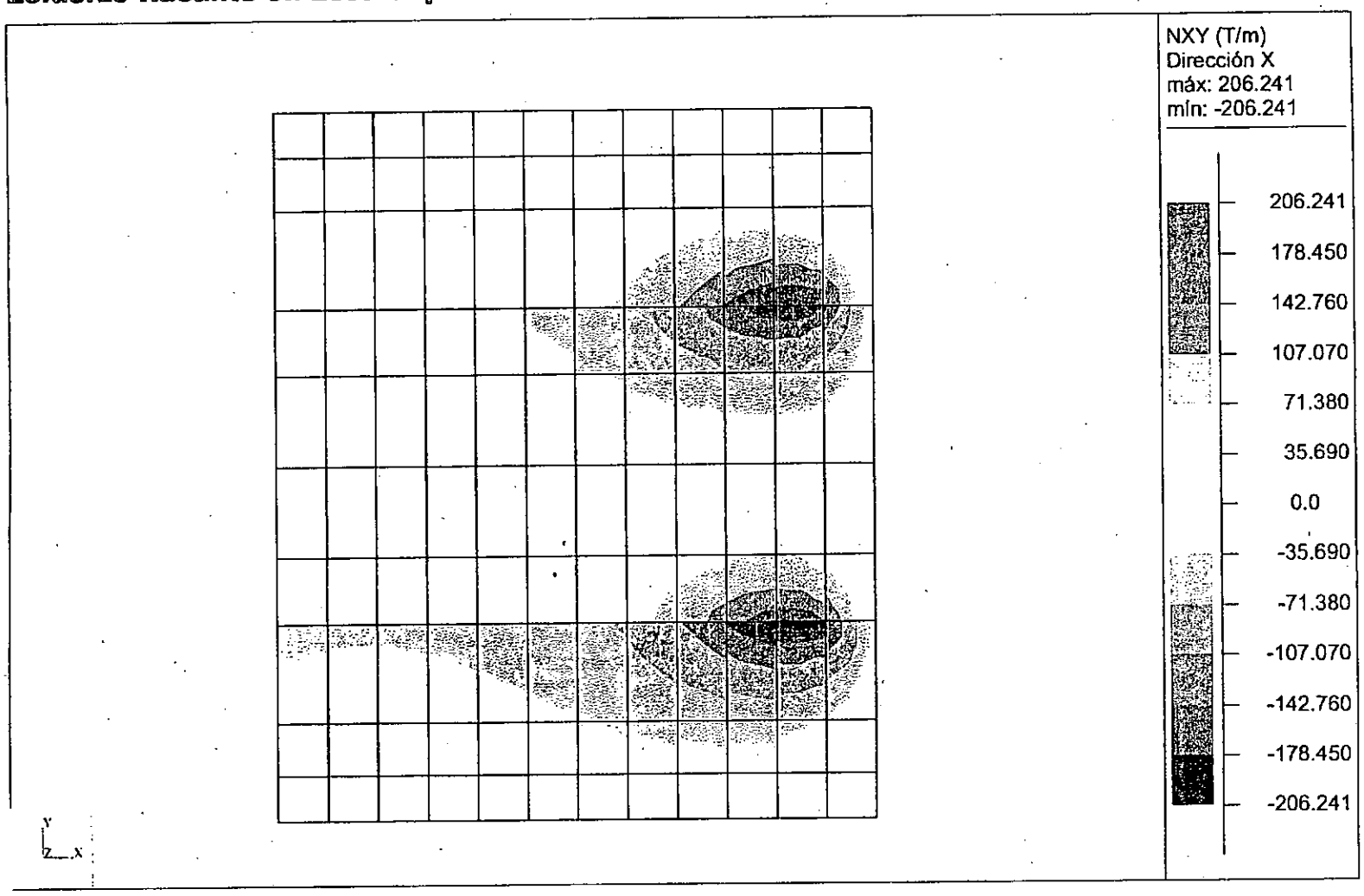
$$A_s \geq \frac{660'42}{2'6} = 254'01 \text{ cm}^2.$$

$$A_s^{\text{losa inf}} \geq \frac{254'01}{5'50} = 46'18 \frac{\text{cm}^2}{\text{m}}.$$

$$\boxed{A_s^{\text{losa inf}} \geq 46'18 \frac{\text{cm}^2}{\text{m.}}}$$

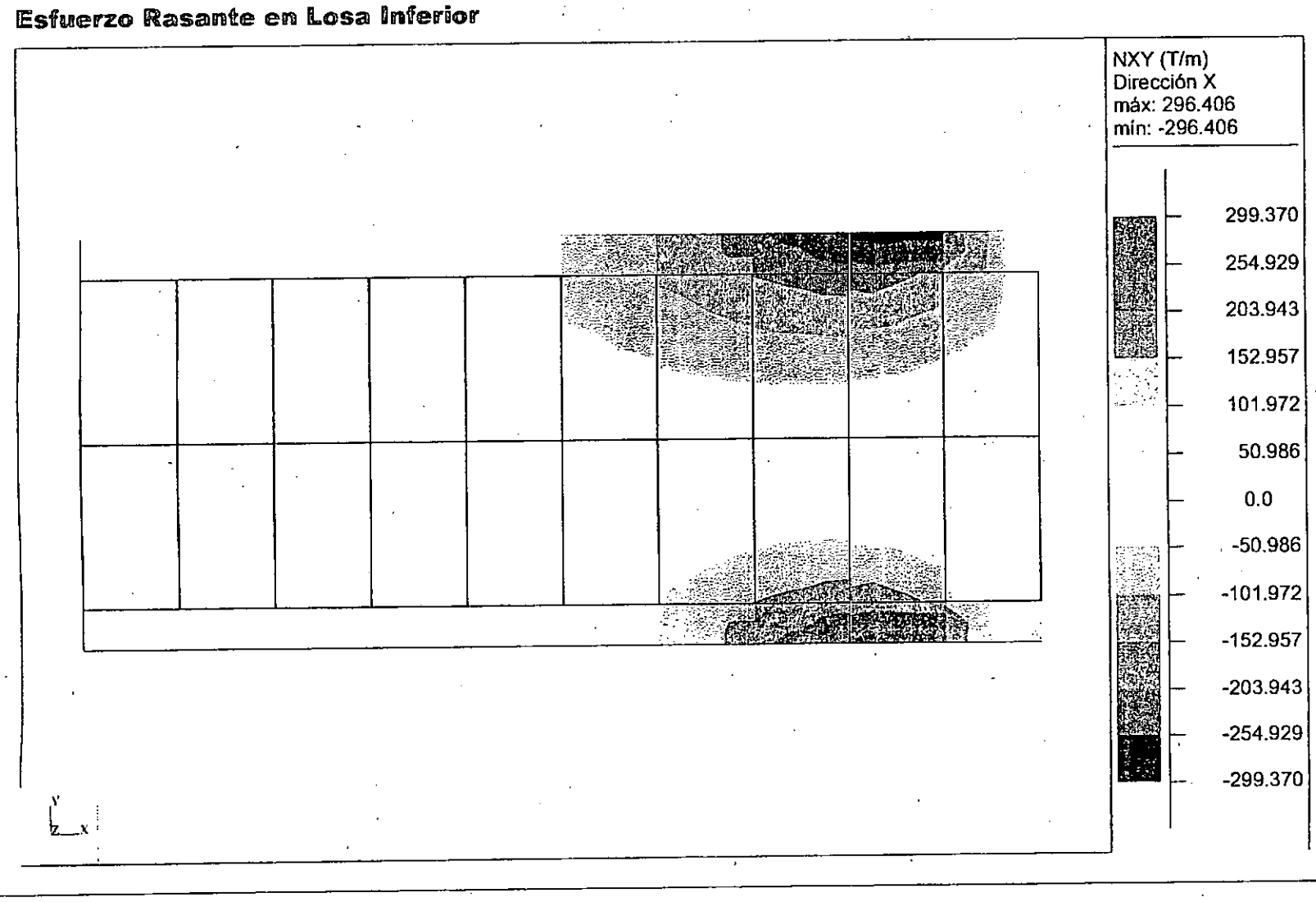
Nota: Todas las áreas de armadura obtenidas deben dividirse entre armadura superior e inferior.

Esfuerzo Rasante en Losa Superior



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Esfuerzo Rasante en Losa Inferior



CÁLCULO ARMADURA RASANTE MEDIANTE LOS RESULTADOS OBTENIDOS CON EL MEF

Losa Superior, ALAS

$R_{MAX} = 206'24$ T/m
$R_{MIN} = 71'38$ T/m.

La armadura se dispondría para el valor de rasante medio:

$$R_{MED} = \frac{206'24 + 71'38}{2} = 138'81 \text{ T/m}$$

Luego; $A_s^{ALAS} \geq \frac{138'81}{26} = 53'4 \text{ cm}^2/\text{m}$.

Losa Inferior

$R_{MAX} = 254'93$ T/m → $R_{MED} = 152'96$ T/m
$R_{MIN} = 50'98$ T/m

Luego; $A_s \geq \frac{152'96}{26} = 58'8 \text{ cm}^2/\text{m}$.

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Fecha:
Hoja:

Losa Superior, entre almas:

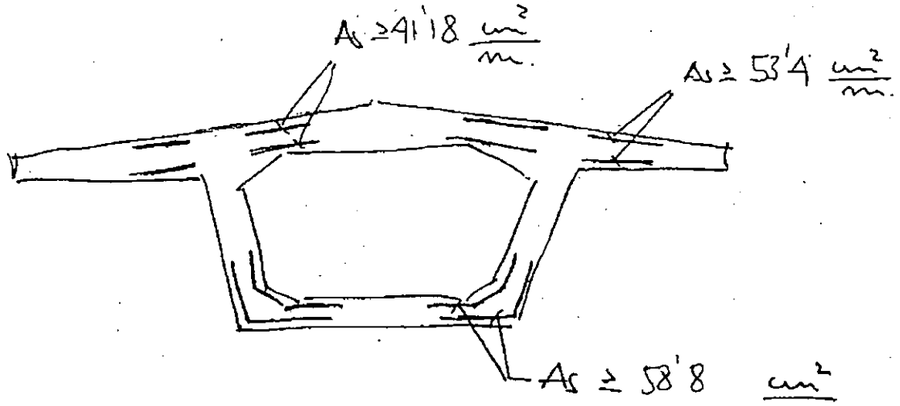
$R_{MAX} = 178'45$ T/m
$R_{MIN} = 35'69$ T/m → $R_{MED} = 107'07$ T/m.

Luego;

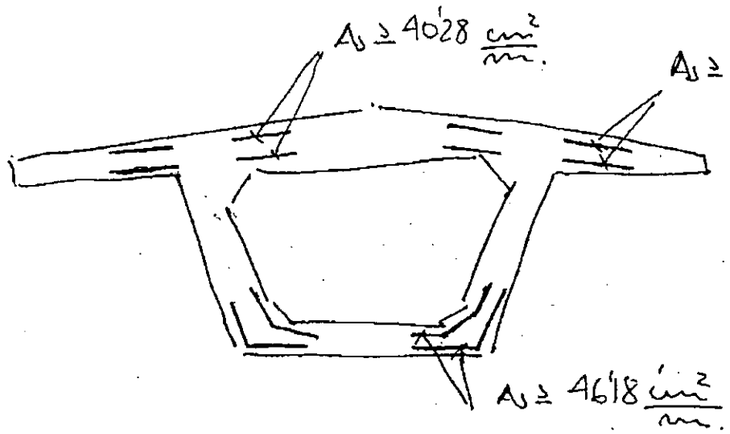
$$A_s^{LOSA\ SUP} \geq \frac{107'07}{26} = 41'18 \text{ cm}^2/\text{m}.$$

ARMADURA de RASANTE POR INTRODUCCIÓN PRETENSADO.

Obtenida mediante M.E.F.



Obtenida mediante "bielas y Tirantes"



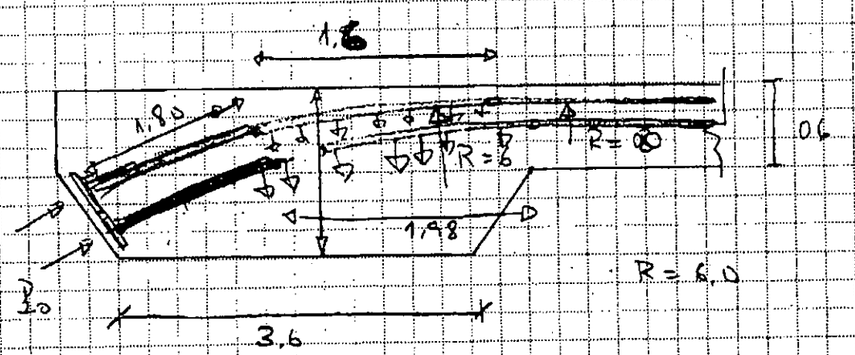
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Fecha:

Hoja:

BLOQUE DE ANCLAJE (PRETENSADO)

Armado del Bloque de anclaje



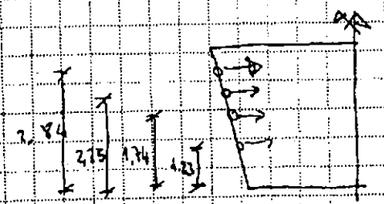
P_o, anclaje = 625 T / cable

$$\rightarrow A_s = \frac{625 \cdot 0.25}{2.6} = 60\ cm^2 \rightarrow 12\ \phi 25$$

6 c ϕ 25 por cable

Fuerzas de desviación

$$u = \frac{P_o}{R} = 104\ T/m,\ cable \times \frac{140}{144} = 1.01$$



$M_k = 468\ m\cdot T \times \frac{2 \times 1.8}{4.0} \approx 460\ \frac{m\cdot T}{m}$

$\rightarrow A_s = 108\ \frac{cm^2}{m} \rightarrow$ 2 cuadros ϕ32/15 ✓ (13 ϕ32 p.m.)

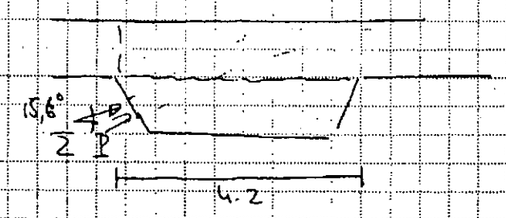
$H = 1.65$ d ≥ 1.60 ✓

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Fecha:

Hoja:

Rasante en bloque de hormigón



Tesado inicial

$$\Sigma P = 6d\left[4 \times 625 + 4 \times 605\right] = 4920\ T \cdot \cos 15.6 \approx 4740\ T$$

$$R_k = \frac{4740}{4.2} = 1128\ T/m \quad H = 3.50\ m \rightarrow 334\ T/m^2 \leq 10\%\ f_{ck}$$

$1128\ T/m \rightarrow 4740\ T \rightarrow A_s \geq \frac{4920\ \gamma_f}{f_{yd}} = 1599\ cm^2 \approx 16\ \phi 32$

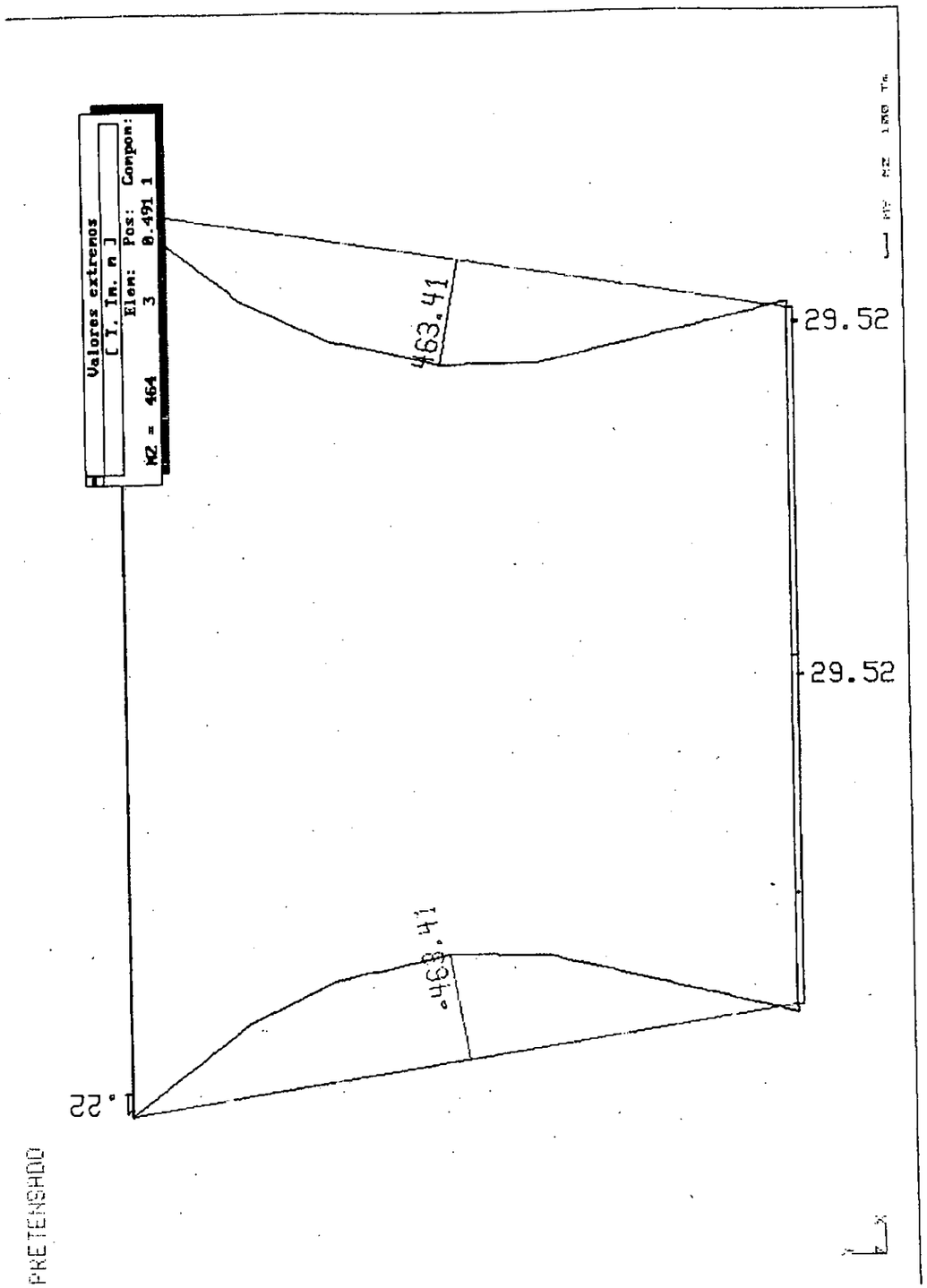
$\gamma_f = 1.35$

$f_{yd} = 4.0$

Prolongando cargas de tendones pretensados

$2 \times 6 \times 4 \times 2 = 96\ \phi 25 \equiv 470\ cm^2 \rightarrow A_s^{rec} \geq 1130\ cm^2$

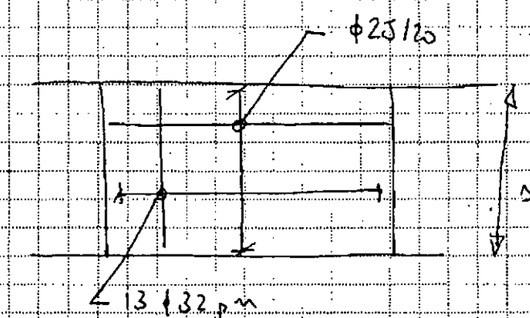
$\rightarrow \frac{1130\ cm^2}{4.2} \rightarrow 270\ cm^2 \rightarrow 8\ \phi 20$



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Fecha:

Hoja:



φ25/15 → 2 x 3,0 x 6,6 x 4,9 = 194 cm²

13 φ32 p.m → 13 x 2 x 8 x 4,0 = 832 cm²

Necesitamos acero auxiliar:

832 + 194 - 1130 → 104 cm²

4 x cercos φ16

Cortes → 13 φ32 ✓

7. VERIFICACIÓN DEL E.L.U DE ROTURA POR TENSIONES TANGENCIALES

7.1 EVALUACIÓN DEL E.L.U. DE CORTANTE

En este apartado se comprueba el Estado Límite Último de rotura por cortante de acuerdo con los criterios de la Normativa española vigente (EHE, artículo 44)

Los cálculos realizados han sido los siguientes:

- Cálculo de la envolvente de esfuerzos cortantes para las distintas acciones consideradas en el proyecto del tablero. Los esfuerzos de cálculo se han combinado de acuerdo con los criterios del apartado 2 de este Anejo.

  La envolvente de esfuerzos flectores positivos se muestra en los listados adjuntos con la notación V_{rd} , conjuntamente con el esfuerzo flector y torsor concomitantes.

  Donde

  $$V_{rd} = V_d + V_{pd} + V_{cd}$$

  donde,

  V_{rd} = Valor del esfuerzo cortante efectivo calculado como:
  V_d = Valor de cálculo del esfuerzo cortante producido por las acciones exteriores
  V_{pd} = Valor de cálculo del esfuerzo cortante producido por el pretensado.
  V_{cd} = Valor de cálculo del la componente paralela a la sección de las tensiones normales en piezas de sección variable

- Comprobación del agotamiento por compresión oblicua en el alma.

  $$V_{rd} \leq V_{u1}$$

  V_{u1} = Esfuerzo cortante de agotamiento por compresión oblicua del alma.

- Comprobación del agotamiento por tracción en el alma.

  $$V_{rd} \leq V_{u2}$$

  V_{u2} = Esfuerzo cortante de agotamiento por tracción en el alma.

- El cálculo de todos los parámetros resistentes se ha realizado de forma automática. Posteriormente se ha determinado la armadura de cortante necesaria A_{sc} por criterios resistentes y se comprueba que verifica los criterios de armadura mínima a cortante (el máximo de los dos valores es el que aparece en los listados).

COMBINACION 37 1.35 (G1 + G2) + 1.5 (SCVMAX-IPF) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-993.053	1241.503	-134.801	-1535.121	-1046.648	122.078
2	1454.545	1049.039	-122.091	-3608.148	-907.389	109.213
3	3382.298	914.465	-108.248	-5214.056	-773.842	95.686
4	4864.107	785.828	-98.264	-6386.358	-640.762	85.938
5	5933.396	657.427	-86.630	-7154.182	-513.236	73.791
6	6619.286	534.543	-71.665	-7553.875	-396.220	58.729
7	6956.498	422.066	-58.761	-7615.857	-284.441	46.297
8	6975.428	314.989	-47.647	-7234.081	-175.316	35.312
9	6568.757	210.141	-36.049	-6701.289	-72.737	23.093
10	6029.740	111.725	-21.255	-5954.617	-18.996	8.611
11	5293.005	62.253	-11.288	-4073.396	26.216	-1.560
12	3437.293	21.141	3.861	-3310.309	52.057	-16.523
13	2713.703	-0.904	14.732	-686.691	65.839	-28.157
14	1995.232	-16.018	28.165	-63.221	69.004	-40.807
15	1322.117	-23.894	40.590	535.893	68.197	-54.093
16	732.839	-25.317	53.728	1086.400	64.648	-66.211
17	259.525	-22.024	66.364	1573.247	50.745	-79.131
18	-76.366	-6.394	79.118	115.402	48.384	-92.241
19	1567.463	-1.596	91.307	692.129	721.169	-105.177
20	958.926	-677.235	104.397	4104.572	1491.412	-117.741
21	-17591.758	3103.924	-173.587	9830.043	-1963.281	156.684
22	-9902.237	1964.952	-155.256	7269.465	-1424.247	138.212
23	-7481.774	1429.487	-138.228	3604.410	-1290.713	121.298
24	-3954.061	1299.849	-121.355	319.052	-1162.640	104.382
25	-800.872	1176.324	-104.400	-2220.883	-978.820	87.451
26	1991.450	997.409	-87.575	-4635.579	-837.238	70.758
27	3923.142	861.160	-71.592	-6068.470	-702.657	54.581
28	5266.115	731.982	-53.295	-7103.928	-573.714	36.314
29	6232.831	608.778	-37.785	-7547.187	-450.836	20.761
30	6631.459	492.021	-19.080	-7676.226	-335.387	1.938
31	6740.257	382.691	-2.181	-7270.009	-228.170	-14.581
32	6340.332	281.430	13.086	-5003.356	-140.129	-30.217
33	4106.920	199.597	30.419	-4358.622	-73.244	-47.288
34	3520.428	138.605	48.611	-3591.901	-17.100	-65.477
35	2835.843	88.560	64.063	-2783.869	27.749	-81.044
36	2131.697	49.273	82.305	-2015.718	62.600	-99.232
37	1486.550	19.937	98.699	-1332.260	79.147	-115.667
38	940.951	8.343	115.954	-2828.448	99.573	-132.897
39	2585.809	-7.376	132.155	-2247.496	540.701	-149.112
40	2159.513	-444.326	149.694	4632.996	1712.605	-165.887
41	-20249.352	3171.762	-174.529	12402.174	-1949.097	157.522
42	-12478.320	1950.840	-154.264	10112.187	-1394.077	137.207
43	-10334.738	1399.550	-139.983	6521.334	-1276.582	123.169
44	-6885.661	1286.141	-123.134	3252.650	-1164.824	106.228
45	-3751.913	1179.028	-105.141	731.816	-1055.056	88.095
46	-243.196	1074.231	-85.736	-2615.305	-912.223	68.750
47	1884.658	936.616	-68.655	-4254.375	-777.428	51.610
48	3434.923	807.566	-51.170	-5493.380	-648.570	34.302
49	4607.182	684.541	-34.888	-6138.816	-525.888	18.007
50	5209.859	567.600	-17.823	-6470.834	-410.366	0.666
51	5524.705	458.225	0.613	-6268.361	-303.363	-17.697
52	5330.767	357.456	16.961	-4148.194	-221.808	-33.823
53	3245.811	281.821	34.246	-3734.898	-155.354	-51.161
54	2892.443	221.428	50.757	-3204.770	-100.183	-67.723

COMBINACION 37 1.35 (G1 + G2) + 1.5 (SCVMAX-IPF) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	2446.604	171.875	68.538	-2639.825	-55.950	-85.414
56	1987.198	133.377	84.934	-2121.274	-21.770	-101.891
57	1592.314	104.524	102.102	-1691.594	-5.521	-119.061
58	1301.319	93.284	118.949	-3442.273	15.119	-135.874
59	3200.732	77.153	135.856	-3111.322	456.773	-152.843
60	3024.316	-360.289	153.588	4234.656	1681.830	-169.380
61	-20280.246	3173.685	-165.541	12428.456	-1950.907	148.617
62	-12504.815	1952.661	-151.833	10127.601	-1394.841	135.190
63	-10350.984	1400.314	-136.721	6537.417	-1276.628	119.894
64	-6902.890	1286.331	-118.689	3271.689	-1164.618	101.690
65	-3772.167	1178.809	-103.353	754.666	-1054.738	86.626
66	-267.467	1073.962	-89.879	-2589.350	-912.065	72.853
67	1857.196	936.487	-72.093	-4226.511	-777.508	54.961
68	3405.823	807.652	-54.844	-5466.022	-648.821	37.916
69	4578.495	684.700	-37.767	-6112.437	-526.266	20.728
70	5182.418	568.096	-20.595	-6447.241	-411.059	3.483
71	5500.034	459.156	-2.105	-6248.781	-304.436	-15.171
72	5310.402	358.401	15.775	-4129.172	-223.186	-32.467
73	3226.344	283.241	31.723	-3722.013	-156.794	-48.748
74	2879.428	222.949	49.161	-3198.098	-101.630	-66.068
75	2439.840	173.400	66.727	-2638.817	-57.363	-83.672
76	1985.848	134.851	83.400	-2124.711	-23.222	-100.350
77	1595.884	105.920	100.205	-1699.298	-6.884	-117.173
78	1309.052	94.648	117.001	-3454.657	13.610	-133.993
79	3213.079	78.730	135.256	-3129.803	455.017	-152.244
80	3042.879	-358.542	151.640	2012.734	1681.582	-168.253
81	-20582.254	3179.837	-171.482	12712.264	-1957.031	154.860
82	-12788.657	1958.803	-154.788	10394.850	-1401.333	137.988
83	-10618.210	1406.791	-140.728	6783.725	-1283.269	123.979
84	-7149.263	1292.995	-123.794	3497.542	-1171.398	106.869
85	-3998.164	1185.482	-107.311	960.498	-1061.521	90.372
86	-473.309	1080.815	-89.239	-2404.682	-918.825	72.157
87	1672.399	943.320	-71.685	-4061.804	-784.296	54.504
88	3240.853	814.324	-53.659	-5321.184	-655.394	36.708
89	4433.407	691.440	-37.508	-5986.766	-532.967	20.341
90	5056.494	574.806	-18.253	-6340.366	-417.763	0.759
91	5393.477	465.686	0.229	-6160.856	-310.970	-17.288
92	5222.775	365.003	16.437	-4060.309	-229.661	-33.133
93	3157.078	289.687	33.744	-3671.558	-163.289	-50.581
94	2829.049	229.403	51.015	-3166.603	-108.142	-67.888
95	2408.467	179.963	68.011	-2626.638	-63.916	-84.939
96	1973.687	141.349	85.076	-2132.192	-29.780	-102.008
97	1603.304	112.625	102.189	-1726.768	-13.589	-119.121
98	1336.447	101.298	118.785	-3501.943	7.007	-135.776
99	3260.479	85.315	136.477	-3196.375	448.570	-153.443
100	3109.557	-352.046	152.879	1925.764	1675.009	-169.308
101	-20590.252	3180.123	-174.741	12718.100	-1957.267	158.238
102	-12794.552	1959.027	-154.925	10399.669	-1401.468	137.953
103	-10623.071	1406.943	-140.508	6788.276	-1283.336	123.802
104	-7153.818	1292.981	-126.658	3502.675	-1171.367	109.815
105	-4003.300	1185.511	-109.619	965.137	-1061.472	92.708
106	-478.093	1080.713	-92.312	-2398.895	-918.822	75.103
107	1666.916	943.355	-74.318	-4056.112	-784.379	57.097
108	3235.537	814.421	-56.546	-5316.301	-655.442	39.456
109	4428.549	691.481	-38.686	-5982.271	-533.010	21.605

COMBINACION 37 1.35 (G1 + G2) + 1.5 (SCVMAX-IPF) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	5052.132	574.776	-21.562	-6336.567	-417.694	4.283
111	5389.341	465.756	-2.265	-6157.320	-311.092	-14.891
112	5219.106	365.096	14.749	-4057.078	-229.888	-31.266
113	3154.299	289.863	31.122	-3669.489	-163.482	-48.024
114	2827.076	229.597	49.771	-3165.536	-108.174	-66.608
115	2407.181	180.085	65.843	-2625.842	-64.127	-82.720
116	1973.237	141.502	83.762	-2132.044	-29.865	-100.681
117	1603.360	112.697	99.652	-1727.107	-13.686	-116.604
118	1336.658	101.455	117.046	-3503.109	6.911	-134.022
119	3261.462	85.434	133.308	-3198.075	1500.806	-150.368
120	3110.912	-1404.345	152.269	1924.407	1674.832	-168.397
121	-20616.004	3180.797	-171.833	12741.173	-1957.944	154.914
122	-12817.549	1959.715	-156.838	10420.827	-1402.203	140.206
123	-10644.240	1407.668	-142.789	6807.296	-1284.103	126.118
124	-7172.816	1293.683	-127.808	3518.405	-1172.019	110.919
125	-4019.084	1186.235	-111.204	978.904	-1062.201	94.373
126	-491.922	1081.426	-93.849	-2386.815	-919.521	76.685
127	1654.608	943.928	-75.868	-4045.553	-784.932	58.508
128	3224.377	815.175	-57.718	-5306.701	-656.262	40.316
129	4418.816	691.968	-39.085	-5974.210	-533.487	22.090
130	5043.664	575.439	-21.992	-6329.823	-418.282	4.949
131	5382.069	466.224	-4.169	-6151.285	-311.565	-13.115
132	5213.199	365.479	14.340	-4051.973	-230.244	-30.962
133	3149.062	290.380	32.438	-3665.722	-163.995	-49.208
134	2823.259	230.073	49.747	-3163.024	-108.703	-66.681
135	2404.646	180.553	66.054	-2624.786	-64.519	-83.050
136	1971.991	142.034	82.943	-2132.420	-30.477	-99.870
137	1603.644	113.194	100.448	-1728.893	-14.130	-117.407
138	1338.671	101.934	116.836	-3506.307	6.390	-133.808
139	3264.784	85.943	133.966	-3202.887	1500.300	-151.054
140	3115.883	-1403.799	152.864	1917.820	1674.331	-169.104
141	-20614.258	3180.524	-166.301	12741.415	-1957.680	149.518
142	-12817.671	1959.437	-157.886	10421.346	-1401.845	141.563
143	-10644.773	1407.278	-143.056	6809.981	-1283.785	126.395
144	-7175.358	1293.443	-126.761	3521.770	-1171.773	109.828
145	-4022.231	1185.926	-111.966	983.237	-1061.933	95.075
146	-495.910	1081.312	-95.925	-2383.187	-919.375	78.811
147	1650.779	943.924	-77.897	-4042.362	-784.891	60.314
148	3220.994	814.904	-58.880	-5302.667	-656.042	41.431
149	4414.995	692.122	-40.430	-5970.598	-533.628	23.280
150	5039.948	575.446	-23.069	-6326.045	-418.333	5.784
151	5378.582	466.207	-3.847	-6147.728	-311.516	-13.414
152	5209.431	365.539	13.359	-4048.875	-230.331	-29.808
153	3145.781	290.383	32.429	-3662.255	-163.967	-49.284
154	2819.891	229.993	48.724	-3159.414	-108.640	-65.594
155	2401.134	180.517	65.952	-2621.083	-64.457	-82.913
156	1968.227	141.889	82.747	-2128.386	-30.311	-99.692
157	1599.427	113.118	100.361	-1724.491	-14.104	-117.349
158	1334.184	101.879	116.653	-3501.244	6.395	-133.620
159	3259.602	85.906	134.070	-3197.445	1500.421	-151.084
160	3110.445	-1403.931	151.255	1923.542	1674.422	-167.705
161	-20615.305	3180.575	-177.412	12740.988	-1957.712	161.083
162	-12817.353	1959.465	-163.003	10421.240	-1401.935	146.382
163	-10644.619	1407.409	-148.858	6808.496	-1283.829	132.221
164	-7174.002	1293.376	-134.893	3521.565	-1171.784	118.068

COMBINACION 37 1.35 (G1 + G2) + 1.5 (SCVMAX-IPF) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	-4022.125	1186.062	-117.556	982.410	-1062.015	100.392
166	-495.453	1081.233	-94.432	-2383.248	-919.307	77.309
167	1650.730	943.826	-76.898	-4041.912	-784.803	59.931
168	3220.569	814.795	-59.423	-5302.165	-655.879	41.825
169	4414.255	691.868	-38.960	-5969.364	-533.365	21.308
170	5038.734	575.291	-20.638	-6324.433	-418.267	3.054
171	5376.935	466.226	-0.831	-6146.163	-311.504	-16.551
172	5207.503	365.399	16.143	-4046.277	-230.108	-32.318
173	3143.042	290.230	32.703	-3659.132	-163.861	-49.530
174	2816.446	229.910	51.515	-3155.740	-108.587	-68.420
175	2397.410	180.355	67.243	-2616.913	-64.294	-84.192
176	1964.076	141.782	85.070	-2123.727	-30.232	-101.961
177	1595.005	113.024	101.451	-1719.634	-13.935	-118.409
178	1329.341	101.690	118.303	-3495.489	6.487	-135.313
179	3254.033	85.869	135.987	-3191.749	1500.532	-153.020
180	3104.810	-1404.025	153.152	1929.972	1674.596	-169.503
181	-20593.615	3178.930	-173.836	12726.340	-1956.112	157.247
182	-12802.756	1957.870	-156.974	10411.495	-1400.335	140.363
183	-10634.861	1405.766	-147.534	6803.940	-1282.219	131.072
184	-7169.473	1291.880	-130.645	3521.458	-1170.289	113.671
185	-4021.928	1184.462	-114.388	986.498	-1060.344	97.367
186	-499.462	1079.654	-95.623	-2374.033	-917.776	78.265
187	1641.770	942.317	-77.127	-4028.001	-783.312	59.809
188	3207.173	813.251	-59.577	-5283.934	-654.400	42.416
189	4396.512	690.425	-41.111	-5947.100	-531.933	23.558
190	5016.837	573.878	-21.734	-6298.060	-416.790	4.441
191	5350.423	464.682	-4.561	-6115.069	-309.988	-13.001
192	5176.745	364.095	15.725	-4010.902	-228.809	-31.820
193	3107.487	288.835	31.322	-3619.406	-162.436	-48.288
194	2776.431	228.465	48.402	-3111.472	-107.192	-65.272
195	2352.848	179.033	66.292	-2568.313	-62.992	-83.184
196	1915.356	140.389	82.871	-2070.947	-28.821	-99.829
197	1542.070	111.630	99.638	-1662.667	-12.575	-116.610
198	1272.299	100.271	116.609	-3434.388	8.053	-133.613
199	3192.896	84.300	133.865	-3125.626	1501.978	-150.843
200	3038.699	-1405.460	150.487	2000.926	1676.055	-167.043
201	-20575.721	3177.348	-177.953	12711.131	-1954.540	161.693
202	-12787.526	1956.303	-163.589	10400.660	-1398.720	146.877
203	-10624.043	1404.183	-146.582	6798.352	-1280.647	129.866
204	-7163.789	1290.361	-133.335	3519.567	-1168.709	116.498
205	-4020.246	1182.821	-116.583	990.003	-1058.808	99.522
206	-502.911	1078.095	-95.681	-2366.269	-916.256	78.432
207	1633.972	940.812	-77.743	-4016.589	-781.804	60.726
208	3195.322	811.923	-60.286	-5268.704	-652.995	42.716
209	4380.700	688.796	-40.022	-5927.136	-530.270	22.613
210	4996.701	572.054	-22.581	-6273.360	-414.907	5.322
211	5325.884	462.928	-3.406	-6085.622	-308.203	-13.796
212	5147.171	362.291	13.647	-3976.847	-227.039	-30.039
213	3073.768	287.043	32.720	-3580.406	-160.565	-49.479
214	2737.844	226.643	48.960	-3067.327	-105.250	-65.822
215	2308.861	177.150	66.539	-2518.393	-61.145	-83.434
216	1865.723	138.507	82.850	-2015.207	-26.945	-99.805
217	1486.418	109.787	100.403	-1601.159	-10.860	-117.393
218	1210.961	98.644	116.699	-3368.919	1291.904	-133.671
219	3127.469	-1199.568	134.056	-3057.350	1503.567	-151.115

COMBINACION 37 1.35 (G1 + G2) + 1.5 (SCVMAX-IPF) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	2970.444	-1407.070	152.053	2071.684	1677.699	-168.399
221	-20319.045	3158.494	-173.709	12515.077	-1935.422	157.130
222	-12591.458	1937.158	-160.323	10262.979	-1379.781	143.769
223	-10486.444	1385.276	-146.026	6716.098	-1261.731	129.384
224	-7081.762	1271.355	-132.165	3495.190	-1149.735	115.291
225	-3995.835	1163.995	-115.467	1023.169	-1039.932	98.319
226	-536.009	1059.146	-93.736	-2275.546	-897.123	76.669
227	1543.164	921.744	-76.231	-3866.727	-762.648	58.975
228	3045.806	792.797	-57.604	-5059.424	-633.908	40.221
229	4172.105	669.819	-39.311	-5658.800	-511.485	21.912
230	4729.646	553.413	-20.325	-5948.243	-396.306	2.732
231	5001.728	444.362	-1.467	-5704.182	-289.911	-15.681
232	4767.600	343.986	15.555	-3545.430	-209.128	-31.976
233	2644.110	269.188	33.659	-3096.827	-142.901	-50.470
234	2255.914	209.084	50.433	-2533.164	-87.925	-67.314
235	1776.592	159.809	67.975	-1935.495	-43.813	-84.917
236	1284.284	121.376	84.015	-1384.213	-9.772	-100.925
237	857.021	92.578	100.952	-921.421	6.804	-117.942
238	532.607	80.983	117.528	-2635.590	1309.958	-134.512
239	2395.459	-1217.596	133.960	-2264.755	1521.549	-150.956
240	2178.727	-1425.022	151.141	4496.698	1691.087	-169.559
241	-20079.297	3141.196	-168.469	12323.582	-1918.548	152.074
242	-12400.208	1920.341	-156.463	10116.558	-1361.867	139.936
243	-10340.777	1367.470	-141.212	6624.266	-1243.322	124.530
244	-6990.548	1253.081	-127.238	3459.124	-1131.393	110.357
245	-3959.931	1145.856	-110.953	1032.864	-1017.013	93.966
246	-598.934	1036.536	-92.227	-2152.079	-875.945	74.914
247	1422.157	900.870	-73.983	-3691.567	-742.804	56.824
248	2874.357	773.414	-56.555	-4840.268	-615.432	39.375
249	3958.153	652.019	-38.489	-5402.096	-494.387	20.777
250	4480.150	536.815	-18.170	-5658.577	-380.432	0.729
251	4722.303	428.948	-0.828	-5389.642	-274.979	-16.361
252	4465.365	329.710	17.244	-3250.760	-197.060	-33.503
253	2364.192	257.881	34.502	-2783.837	-131.925	-51.346
254	1960.290	198.607	51.980	-2203.854	-77.893	-68.867
255	1466.425	150.573	68.203	-1592.917	-35.513	-85.118
256	962.032	113.565	84.898	-1033.187	-3.355	-101.868
257	526.165	86.785	101.538	-570.158	9.924	-118.442
258	200.304	78.420	117.856	-2317.641	1318.852	-134.896
259	2093.194	-1226.069	135.916	-3270.229	1530.040	-152.976
260	3195.217	-1433.265	152.587	1872.165	1678.698	-172.628
261	-15153.253	2775.226	-117.518	10089.149	-1895.111	105.326
262	-10135.303	1896.183	-105.478	9067.393	-1086.818	92.904
263	-9202.248	1090.165	-95.766	6933.628	-1020.492	83.300
264	-7155.407	1026.212	-85.613	5114.358	-909.911	73.079
265	-5420.710	918.430	-71.946	3550.740	-869.729	59.105
266	-3538.587	881.110	-58.013	1968.641	-767.332	45.236
267	-2429.358	782.000	-43.882	779.935	-696.448	31.041
268	-1306.303	714.455	-31.940	-185.149	-624.382	18.702
269	-397.067	645.815	-19.006	-439.167	-557.433	5.802
270	-187.109	582.826	-5.675	-936.059	-509.646	-6.997
271	278.779	538.768	7.092	-1266.264	-466.603	-20.167
272	592.740	499.780	20.179	251.357	-377.513	-32.681
273	-925.176	415.075	32.520	151.291	-309.183	-45.110
274	-808.945	351.114	44.836	113.827	-243.839	-57.359

COMBINACION 37 1.35 (G1 + G2) + 1.5 (SCVMAX-IPF) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	-737.269	289.680	57.219	188.212	-181.973	-69.887
276	-758.196	232.721	69.559	342.141	-124.691	-82.162
277	-839.333	180.148	81.675	543.047	-71.541	-94.301
278	-947.467	131.505	93.957	759.668	-22.129	-106.612
279	-1050.677	86.661	105.808	961.340	24.030	-118.484
280	-1117.333	45.176	118.469	1166.909	971.782	-131.190

COMBINACION 38 1.35 (G1 + G2) + 1.5 (SCVMIN-IPF) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-992.617	223.905	-137.382	728.569	-45.048	124.678
2	-572.645	114.363	-124.656	474.506	11.261	111.949
3	-183.837	53.262	-111.900	220.730	71.363	99.139
4	183.598	-11.444	-99.126	-2.185	135.320	86.400
5	499.141	-80.189	-86.478	-706.647	206.471	73.824
6	1276.624	-155.910	-73.586	-920.636	285.176	60.778
7	1543.627	-239.151	-60.589	-1006.122	369.023	47.957
8	1663.531	-327.112	-48.064	-1117.214	462.225	35.592
9	1790.310	-424.768	-35.773	-837.491	561.835	22.919
10	1510.354	-528.550	-22.870	-352.073	618.823	10.164
11	1008.728	-589.698	-10.072	310.927	678.760	-2.630
12	315.035	-653.309	1.979	1168.238	740.439	-14.690
13	-586.492	-718.906	15.825	2078.187	808.819	-28.165
14	-1552.389	-790.921	27.551	3370.823	873.236	-40.238
15	-2910.389	-858.684	41.025	4876.402	938.066	-53.768
16	-4489.744	-926.532	51.607	6592.031	1009.554	-64.423
17	-6285.865	-1001.081	65.572	8522.006	1074.578	-78.240
18	-8300.085	-1068.790	80.097	8841.179	1150.506	-92.837
19	-8706.215	-1147.182	96.082	11793.998	1911.708	-108.683
20	-11747.820	-1910.609	104.373	16863.141	2775.034	-117.127
21	-2741.403	1706.869	-172.099	-1970.092	-490.526	154.757
22	2044.979	587.325	-155.053	-657.354	-65.208	138.118
23	881.540	157.998	-138.101	-1130.543	-36.716	121.160
24	1500.338	124.986	-121.164	-1715.594	-7.659	104.179
25	2222.585	91.072	-104.184	-2178.589	86.759	87.204
26	3184.425	-8.625	-87.221	-2925.347	148.033	70.208
27	3662.908	-75.405	-71.221	-3910.082	217.975	54.340
28	4733.746	-151.161	-53.354	-4230.243	301.127	36.339
29	5116.684	-240.444	-37.552	-4553.114	389.741	20.634
30	5477.787	-334.942	-19.505	-4382.061	485.583	2.388
31	5318.237	-436.901	-2.403	-4082.345	586.692	-14.452
32	5003.836	-544.298	13.502	-3201.463	691.547	-30.229
33	4083.238	-655.102	30.075	-2097.352	800.692	-47.108
34	2914.870	-770.200	47.523	-390.166	909.846	-64.355
35	1120.804	-884.848	64.456	1595.410	1022.589	-81.312
36	-971.677	-1003.107	80.271	4151.189	1133.991	-97.353
37	-3650.245	-1119.448	98.633	7038.654	1241.315	-115.513
38	-6672.437	-1231.535	113.410	8445.143	1358.919	-130.465
39	-8220.976	-1353.331	132.809	12472.358	1909.864	-149.677
40	-12395.700	-1908.088	146.287	19753.107	3142.735	-163.285
41	-2586.238	1707.547	-171.071	-2281.084	-410.696	153.966
42	2367.033	507.200	-154.678	-512.035	30.891	137.723
43	752.190	61.498	-137.633	-733.625	43.876	120.661
44	1122.295	43.895	-120.689	-1132.540	57.523	103.725
45	1659.533	25.324	-104.368	-1409.306	78.952	87.377
46	3171.685	-1.422	-84.313	-2918.858	142.687	67.417
47	3675.620	-70.856	-67.470	-3895.110	212.644	50.518
48	4736.089	-146.519	-49.892	-4245.264	297.400	32.984
49	5146.857	-237.196	-33.702	-4592.539	387.736	16.865
50	5529.746	-333.767	-16.970	-4430.728	485.250	-0.066
51	5377.531	-437.256	1.167	-4132.998	587.796	-18.301
52	5062.333	-545.726	17.791	-3246.635	693.293	-34.707
53	4133.881	-657.386	35.034	-2131.561	803.210	-51.996
54	2951.915	-772.987	51.879	-412.309	912.354	-68.912

COMBINACION 38 1.35 (G1 + G2) + 1.5 (SCVMIN-IPF) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	1144.024	-887.889	68.904	1585.356	1025.247	-85.952
56	-961.059	-1005.995	86.453	4152.043	1136.583	-103.378
57	-3651.559	-1122.323	102.628	7048.504	1244.003	-119.657
58	-6682.982	-1234.322	119.749	8464.455	1362.111	-136.665
59	-8240.955	-1356.666	136.712	12505.722	1913.669	-153.531
60	-12429.280	-1911.903	150.159	19800.682	3146.247	-167.340
61	-1551.223	1685.923	-166.102	-3237.571	-390.026	149.554
62	3324.428	486.545	-148.732	-1411.905	52.602	131.787
63	1653.226	39.710	-131.630	-1567.935	66.371	114.661
64	1957.960	21.463	-115.156	-1898.289	80.349	98.225
65	2426.921	2.401	-97.373	-2105.711	101.996	80.481
66	3869.569	-24.540	-86.029	-3546.353	165.722	69.081
67	4304.583	-93.991	-67.476	-4470.744	236.152	50.731
68	5313.377	-170.040	-50.815	-4753.227	320.764	33.870
69	5656.241	-260.674	-34.030	-5034.395	411.015	17.081
70	5972.723	-357.074	-17.292	-4806.809	508.384	0.312
71	5754.321	-460.266	0.846	-4443.801	610.684	-18.073
72	5373.881	-568.885	18.791	-3491.163	716.408	-35.792
73	4378.986	-680.466	35.418	-2310.100	826.283	-52.415
74	3130.987	-796.066	52.551	-523.651	935.521	-69.748
75	1255.864	-911.039	69.800	1542.038	1048.502	-86.976
76	-917.996	-1029.238	87.167	4177.604	1159.847	-104.125
77	-3676.999	-1145.697	104.330	7144.404	1267.414	-121.298
78	-6778.791	-1257.777	121.328	8630.354	1385.422	-138.211
79	-8407.014	-1379.938	134.551	12739.961	1936.747	-151.532
80	-12663.539	-1935.010	153.538	20103.965	3169.245	-170.606
81	-1532.024	1685.115	-168.441	-3262.414	-389.082	152.236
82	3349.320	485.581	-152.423	-1432.906	53.218	135.467
83	1674.400	39.112	-135.250	-1587.660	66.815	118.283
84	1977.891	21.041	-118.630	-1917.656	80.650	101.683
85	2446.372	1.956	-101.652	-2124.678	102.338	84.719
86	3888.951	-24.796	-83.651	-3565.161	166.041	66.731
87	4323.679	-94.196	-66.311	-4484.894	236.252	49.660
88	5327.582	-170.298	-48.538	-4766.396	321.124	31.587
89	5669.438	-260.933	-33.167	-5046.248	411.332	16.231
90	5984.312	-357.349	-14.354	-4816.925	508.659	-2.930
91	5764.613	-460.691	4.153	-4452.246	611.110	-21.301
92	5382.999	-569.230	20.764	-3497.540	716.878	-37.690
93	4385.412	-681.014	38.259	-2314.669	826.802	-55.395
94	3135.584	-796.659	55.832	-526.569	936.076	-72.924
95	1259.104	-911.558	73.077	1541.292	1049.047	-90.221
96	-917.097	-1029.857	90.097	4177.852	1160.393	-107.205
97	-3677.284	-1146.102	106.194	7146.055	1267.829	-123.255
98	-6780.486	-1258.241	123.503	8633.610	1385.932	-140.420
99	-8410.090	-1380.446	138.123	12746.354	1937.371	-155.064
100	-12669.890	-1935.628	156.625	20109.074	3169.759	-173.387
101	-1446.964	1683.424	-167.381	-3618.941	-389.945	151.883
102	3705.823	486.424	-153.040	-1792.298	52.456	136.100
103	2033.836	39.905	-136.002	-1949.261	66.090	118.942
104	2339.594	21.680	-118.466	-2281.127	80.013	101.460
105	2809.930	2.693	-101.831	-2490.082	101.681	84.855
106	4254.129	-24.227	-85.308	-3970.775	166.287	68.378
107	4729.257	-94.433	-66.903	-4531.063	238.151	49.973
108	5374.122	-172.145	-49.571	-4806.960	323.002	32.640
109	5710.137	-262.830	-31.996	-5081.232	413.230	15.012

COMBINACION 38 1.35 (G1 + G2) + 1.5 (SCVMIN-IPF) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	6019.637	-359.355	-15.261	-4846.294	510.696	-1.838
111	5793.659	-462.630	3.843	-4476.063	613.027	-21.019
112	5406.131	-571.182	21.183	-3515.912	718.754	-38.157
113	4403.648	-682.941	38.134	-2327.628	828.663	-55.475
114	3148.780	-798.463	56.526	-532.917	938.009	-73.794
115	1265.035	-913.393	74.121	1539.509	1050.744	-91.245
116	-915.154	-1031.552	90.436	4181.981	1162.166	-107.631
117	-3681.158	-1147.867	109.255	7154.737	1269.557	-126.157
118	-6789.262	-1259.883	122.202	8647.796	1387.649	-139.263
119	-8424.484	-1382.187	140.466	12764.072	2991.472	-157.080
120	-12687.879	-2989.730	148.234	20132.824	3171.438	-165.146
121	-1445.504	1683.429	-168.370	-3620.113	-389.925	153.276
122	3707.014	486.418	-152.969	-1793.469	52.428	135.948
123	2034.918	39.884	-135.883	-1950.407	66.082	118.833
124	2340.809	21.714	-118.754	-2282.607	80.040	101.730
125	2811.524	2.757	-101.822	-2491.870	101.601	84.892
126	4256.036	-24.094	-85.386	-3972.933	166.149	68.471
127	4731.436	-94.387	-67.180	-4533.774	238.102	50.223
128	5376.345	-171.957	-49.408	-4810.155	322.738	32.279
129	5713.542	-262.857	-30.958	-5084.500	413.297	14.057
130	6023.153	-359.158	-14.162	-4849.909	510.558	-2.801
131	5797.134	-462.695	3.335	-4479.472	613.082	-20.489
132	5410.063	-571.314	21.549	-3519.034	718.917	-38.959
133	4406.951	-682.928	40.424	-2330.920	828.667	-57.886
134	3152.050	-798.537	58.832	-536.294	938.050	-76.063
135	1268.645	-913.553	76.414	1537.329	1051.005	-93.571
136	-913.250	-1031.708	93.555	4179.472	1162.234	-110.736
137	-3678.951	-1148.078	108.596	7153.907	1269.826	-125.765
138	-6788.290	-1260.130	126.101	8647.259	1387.833	-142.983
139	-8423.942	-1382.380	141.769	12764.187	2991.680	-158.349
140	-12687.917	-2989.910	149.568	20133.611	3171.593	-166.654
141	-1438.850	1683.275	-166.427	-3626.582	-389.805	152.119
142	3713.641	486.308	-150.003	-1799.272	52.605	132.873
143	2040.774	39.674	-133.044	-1955.741	66.224	116.054
144	2346.135	21.574	-116.468	-2287.335	80.189	99.417
145	2816.285	2.509	-98.556	-2495.991	101.815	81.524
146	4260.248	-24.211	-84.254	-3976.614	166.316	67.359
147	4734.879	-94.435	-66.282	-4536.890	238.194	49.225
148	5379.047	-172.241	-47.627	-4812.304	322.991	30.499
149	5715.346	-262.765	-29.495	-5086.427	413.191	12.496
150	6024.524	-359.227	-12.613	-4851.066	510.595	-4.500
151	5798.344	-462.726	6.319	-4480.168	613.136	-23.508
152	5410.296	-571.269	23.547	-3519.835	718.824	-40.885
153	4407.458	-682.956	43.170	-2330.917	828.709	-60.753
154	3152.176	-798.572	61.152	-536.618	938.086	-78.262
155	1269.135	-913.538	78.632	1537.121	1051.002	-95.917
156	-912.818	-1031.796	95.948	4179.511	1162.349	-113.214
157	-3679.019	-1148.080	110.280	7153.273	1269.784	-127.596
158	-6787.681	-1260.113	128.043	8646.179	1387.780	-144.946
159	-8422.814	-1382.333	142.875	12764.411	2991.730	-159.638
160	-12688.099	-2990.002	157.674	20133.504	3171.682	-174.338
161	-1444.487	1683.694	-171.850	-3622.318	-390.205	157.726
162	3709.285	486.688	-157.490	-1796.560	52.170	140.467
163	2038.113	40.177	-140.562	-1954.383	65.802	123.488
164	2344.768	21.909	-123.259	-2287.182	79.775	106.237

COMBINACION 38 1.35 (G1 + G2) + 1.5 (SCVMIN-IPF) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	2816.110	3.083	-106.991	-2497.443	101.284	89.935
166	4261.585	-23.821	-81.710	-3979.509	165.894	64.806
167	4737.777	-93.986	-65.364	-4541.112	237.753	48.621
168	5383.593	-171.868	-49.308	-4817.928	322.659	32.221
169	5721.161	-262.486	-29.338	-5093.384	412.888	12.092
170	6031.415	-358.836	-11.579	-4859.884	510.141	-5.766
171	5807.347	-462.203	8.248	-4490.365	612.667	-25.723
172	5420.763	-570.918	25.828	-3531.019	718.533	-42.954
173	4418.797	-682.594	43.545	-2343.847	828.329	-61.153
174	3164.741	-798.204	62.636	-550.544	937.690	-80.091
175	1282.985	-913.212	80.579	1522.271	1050.694	-97.758
176	-898.049	-1031.522	96.915	4163.753	1162.064	-114.229
177	-3663.036	-1147.793	114.267	7137.708	1269.568	-131.330
178	-6772.225	-1259.950	129.223	8629.562	1387.499	-146.138
179	-8406.078	-1381.981	143.249	12747.337	2991.429	-160.001
180	-12671.008	-2989.701	157.996	20116.959	3171.427	-174.546
181	-1448.823	1684.092	-167.532	-3618.751	-390.644	153.380
182	3705.679	487.119	-153.809	-1794.110	51.729	136.729
183	2035.688	40.590	-136.000	-1953.249	65.359	118.922
184	2343.516	22.433	-119.537	-2287.403	79.258	102.511
185	2816.334	3.491	-102.612	-2498.672	100.954	85.554
186	4262.721	-23.451	-84.342	-3981.593	165.492	67.429
187	4739.818	-93.646	-64.925	-4543.910	237.397	47.961
188	5386.565	-171.535	-48.345	-4821.785	322.288	31.383
189	5725.208	-262.083	-30.418	-5098.347	412.495	13.242
190	6036.908	-358.379	-11.360	-4866.099	509.722	-5.849
191	5813.383	-461.813	5.694	-4497.983	612.210	-23.097
192	5428.595	-570.216	25.874	-3540.703	717.812	-43.447
193	4428.595	-681.945	43.811	-2354.990	827.749	-61.016
194	3175.796	-797.704	61.596	-563.554	937.133	-78.979
195	1295.772	-912.612	79.306	1507.590	1050.080	-96.791
196	-883.309	-1030.959	97.045	4147.349	1161.510	-114.237
197	-3646.673	-1147.245	113.409	7118.630	1268.982	-130.526
198	-6753.052	-1259.420	127.747	8609.591	1387.147	-144.736
199	-8386.058	-1381.681	142.792	12725.713	2991.009	-159.614
200	-12649.262	-2989.227	159.617	20094.725	3170.954	-176.069
201	-1522.262	1689.475	-169.883	-3562.606	-396.047	155.751
202	3649.570	492.526	-155.526	-1754.648	46.379	138.535
203	1996.152	45.938	-139.080	-1929.766	60.005	122.046
204	2320.154	27.844	-121.654	-2280.123	73.903	104.609
205	2809.004	8.770	-104.920	-2507.688	95.576	87.873
206	4271.808	-18.064	-83.047	-4007.244	160.067	66.123
207	4765.602	-88.175	-65.448	-4586.826	231.919	48.684
208	5429.381	-165.862	-49.282	-4882.142	316.654	32.193
209	5785.340	-256.649	-29.166	-5175.661	407.086	11.990
210	6114.268	-353.166	-12.191	-4959.854	504.572	-4.877
211	5907.400	-456.568	6.819	-4608.027	607.028	-23.998
212	5538.255	-565.121	24.002	-3666.446	712.731	-41.368
213	4554.278	-676.884	43.903	-2495.964	822.720	-61.400
214	3317.052	-792.571	61.837	-719.362	932.131	-79.022
215	1451.458	-907.649	79.554	1336.713	1045.115	-96.861
216	-712.455	-1026.008	97.272	3962.360	1156.562	-114.472
217	-3461.893	-1142.293	111.788	6919.218	1263.900	-129.084
218	-6553.789	-1254.277	129.498	8394.459	2664.213	-146.378
219	-8171.127	-2658.752	144.360	12493.709	2985.808	-160.979

COMBINACION 38 1.35 (G1 + G2) + 1.5 (SCVMIN-IPF) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	-12417.476	-2984.073	155.624	19845.801	3165.753	-172.407
221	-1591.792	1695.183	-170.534	-3508.690	-401.541	156.507
222	3595.791	498.006	-155.953	-1715.923	40.684	138.906
223	1957.633	51.648	-139.081	-1908.490	54.269	121.999
224	2298.955	33.497	-121.817	-2276.027	68.221	104.750
225	2804.859	14.447	-105.084	-2520.073	89.912	87.998
226	4284.233	-12.461	-81.918	-4034.919	154.626	65.016
227	4793.044	-82.758	-65.587	-4628.294	226.605	48.730
228	5470.483	-160.661	-47.256	-4936.301	311.456	30.154
229	5838.539	-251.490	-29.700	-5241.981	401.781	12.646
230	6179.995	-347.818	-11.044	-5038.254	499.189	-6.324
231	5984.596	-451.254	7.861	-4699.185	601.494	-25.032
232	5628.294	-559.658	25.105	-3771.660	707.005	-42.376
233	4658.259	-671.116	44.292	-2616.060	816.769	-61.835
234	3435.649	-786.656	62.475	-856.446	925.968	-79.860
235	1587.320	-901.478	80.481	1182.312	1038.921	-97.850
236	-559.769	-1019.738	98.524	3788.835	1150.361	-115.590
237	-3289.798	-1136.209	113.681	6728.428	1258.296	-130.913
238	-6364.211	-1248.741	128.352	8190.395	2659.073	-145.366
239	-7967.824	-2653.613	145.606	12280.541	2980.605	-162.344
240	-12204.496	-2978.862	159.308	19622.607	3160.294	-175.951
241	-4364.570	1754.393	-167.849	-2856.525	-467.301	153.499
242	2944.489	563.714	-152.851	-1265.271	-24.054	135.790
243	1507.992	116.257	-136.175	-1651.897	-9.963	119.114
244	2043.162	97.443	-119.043	-2212.153	4.209	101.984
245	2741.395	78.234	-101.976	-2656.090	30.742	84.952
246	4365.652	46.267	-83.566	-4301.103	94.424	66.636
247	5057.436	-23.038	-64.545	-5079.626	165.912	47.691
248	5918.146	-100.398	-48.244	-5573.673	250.403	31.247
249	6469.833	-190.811	-30.838	-6061.479	340.673	13.649
250	6990.431	-287.365	-9.792	-6037.506	438.241	-7.541
251	6973.024	-391.081	7.591	-5869.576	541.281	-24.769
252	6785.677	-500.079	26.287	-5108.020	647.388	-43.639
253	5979.065	-612.130	45.730	-4109.034	757.693	-63.360
254	4911.660	-728.404	65.516	-2501.660	867.401	-82.853
255	3214.325	-843.570	83.360	-609.034	980.276	-100.468
256	1213.772	-961.790	100.880	1850.193	1091.068	-118.106
257	-1368.109	-1077.344	117.554	4635.754	1196.813	-134.601
258	-4285.993	-1187.546	134.999	5906.939	2604.232	-151.822
259	-5694.677	-2599.000	148.004	8508.350	2925.953	-164.780
260	-8436.145	-2924.286	164.881	15061.428	3103.442	-181.640
261	-1793.775	1533.849	-118.911	-3412.064	-653.392	110.362
262	1489.257	703.551	-107.470	-1915.664	68.783	97.707
263	-24.763	-15.726	-94.849	-1953.174	53.611	84.587
264	42.768	1.456	-82.346	-2092.056	83.728	71.578
265	342.785	-29.999	-69.880	-2268.030	49.353	59.477
266	1364.844	-5.747	-54.221	-2789.183	84.403	41.711
267	1510.328	-38.688	-41.418	-3128.022	90.302	30.405
268	1810.273	-40.189	-29.044	-3547.314	100.545	16.261
269	4144.153	-49.513	-15.026	-4087.228	118.798	2.205
270	4723.990	-71.567	-2.490	-4597.093	140.583	-10.188
271	5259.471	-97.392	9.998	-5086.242	167.332	-22.919
272	5758.512	-128.607	25.783	-5662.117	251.538	-38.867
273	6328.039	-216.739	38.844	-5856.594	339.840	-51.764
274	6498.013	-309.542	53.809	-5877.739	429.522	-66.725

COMBINACION 38 1.35 (G1 + G2) + 1.5 (SCVMIN-IPF) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	6475.845	-403.854	67.091	-5615.407	524.997	-79.974
276	6151.075	-503.728	81.229	-5038.010	625.950	-94.298
277	5491.152	-609.309	96.084	-4208.734	737.861	-109.049
278	4558.768	-725.914	109.383	-2869.253	851.523	-122.293
279	3094.935	-844.365	123.926	-1106.720	971.915	-136.802
280	1187.447	-969.620	136.761	1167.082	1997.107	-149.439

COMBINACION 39 1.35 (G1 + G2) + 1.5 (SCVMAX-IPF) + V_Pd

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	6.213	1241.503	-134.801	-4153.892	-1046.648	122.078
2	4073.316	1049.039	-122.091	-7698.020	-907.389	109.213
3	7472.169	914.465	-108.248	-10585.076	-773.842	95.686
4	10235.128	785.828	-98.264	-12847.216	-640.762	85.938
5	12394.254	657.427	-86.630	-14513.467	-513.236	73.791
6	13978.572	534.543	-71.665	-15620.676	-396.220	58.729
7	15023.299	422.066	-58.761	-16199.987	-284.441	46.297
8	15559.558	314.989	-47.647	-16145.764	-175.316	35.312
9	15480.439	210.141	-36.049	-15750.561	-72.737	23.093
10	15079.012	111.725	-21.255	-14921.208	-18.996	8.611
11	14259.597	62.253	-11.288	-12677.309	26.216	-1.560
12	12041.206	21.141	3.861	-11260.121	52.057	-16.523
13	10663.516	-0.904	14.732	-7674.543	65.839	-28.157
14	8983.084	-16.018	28.165	-5760.855	69.004	-40.807
15	7019.752	-23.894	40.590	-3522.147	68.197	-54.093
16	4790.880	-25.317	53.728	-965.692	64.648	-66.211
17	2311.617	-22.024	66.364	1901.341	50.745	-79.131
18	-404.460	-6.394	79.118	5030.124	48.384	-92.241
19	-3347.259	-1.596	91.307	8181.431	721.169	-105.177
20	-6530.377	-677.235	104.397	12700.486	1491.412	-117.741
21	-26187.668	3103.924	-173.587	16889.607	-1963.281	156.684
22	-16961.803	1964.952	-155.256	8609.107	-1424.247	138.212
23	-8821.416	1429.487	-138.228	1456.330	-1290.713	121.298
24	-1805.981	1299.849	-121.355	-4779.267	-1162.640	104.382
25	4297.446	1176.324	-104.400	-9324.792	-978.821	87.451
26	9095.359	997.409	-87.575	-13677.601	-837.238	70.758
27	12965.163	861.160	-71.592	-16612.449	-702.657	54.581
28	15810.094	731.982	-53.295	-18733.676	-573.714	36.314
29	17862.582	608.778	-37.785	-19857.836	-450.836	20.761
30	18942.109	492.021	-19.080	-20270.051	-335.387	1.938
31	19334.082	382.691	-2.181	-19748.687	-228.170	-14.581
32	18819.008	281.430	13.086	-16959.512	-140.129	-30.217
33	16063.075	199.597	30.419	-15363.390	-73.244	-47.288
34	14525.196	138.605	48.611	-13185.652	-17.100	-65.477
35	12429.595	88.560	64.063	-10468.143	27.749	-81.044
36	9815.971	49.273	82.305	-7249.507	62.600	-99.232
37	6720.340	19.937	98.699	-3565.351	79.147	-115.667
38	3174.042	8.343	115.954	554.457	99.573	-132.897
39	-797.095	-7.376	132.155	5123.001	540.701	-149.112
40	-5210.984	-444.326	149.694	13950.613	1712.605	-165.887
41	-29566.969	3171.762	-174.529	20051.443	-1949.097	157.522
42	-20127.588	1950.840	-154.264	11561.334	-1394.077	137.207
43	-11783.885	1399.550	-139.983	4203.771	-1276.582	123.169
44	-4568.099	1286.141	-123.134	-2230.090	-1164.824	106.228
45	1730.827	1179.028	-105.141	-6321.731	-1055.056	88.095
46	6810.352	1074.231	-85.736	-11607.088	-912.223	68.750
47	10876.441	936.616	-68.655	-14738.750	-777.428	51.610
48	13919.297	807.566	-51.170	-17060.414	-648.570	34.302
49	16174.215	684.541	-34.888	-18389.406	-525.887	18.007
50	17460.449	567.600	-17.823	-19011.807	-410.366	0.666
51	18065.678	458.225	0.613	-18704.473	-303.363	-17.697
52	17766.879	357.456	16.961	-16073.568	-221.808	-33.823
53	15171.187	281.821	34.246	-14720.465	-155.354	-51.161
54	13878.010	221.428	50.757	-12789.086	-100.183	-67.723

COMBINACION 39 1.35 (G1 + G2) + 1.5 (SCVMAX-IPF) + V_Pd

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	12030.919	171.875	68.538	-10321.320	-55.950	-85.414
56	9668.693	133.377	84.934	-7355.286	-21.770	-101.891
57	6826.325	104.524	102.102	-3924.957	-5.521	-119.061
58	3534.681	93.284	118.949	-60.387	15.119	-135.874
59	-181.154	77.153	135.856	4252.363	456.773	-152.843
60	-4339.369	-360.289	153.588	13539.188	1681.830	-169.380
61	-29584.777	3173.685	-165.541	20068.434	-1950.907	148.617
62	-20144.795	1952.661	-151.833	11576.381	-1394.840	135.190
63	-11799.764	1400.315	-136.721	4218.971	-1276.629	119.894
64	-4584.444	1286.331	-118.689	-2215.655	-1164.618	101.690
65	1715.177	1178.809	-103.353	-6307.999	-1054.738	86.626
66	6795.198	1073.962	-89.879	-11594.033	-912.065	72.853
67	10861.879	936.487	-72.093	-14726.103	-777.508	54.961
68	13905.416	807.652	-54.844	-17048.945	-648.821	37.916
69	16161.420	684.700	-37.767	-18378.137	-526.266	20.728
70	17448.119	568.096	-20.595	-19001.383	-411.059	3.483
71	18054.176	459.156	-2.105	-18695.363	-304.436	-15.171
72	17756.984	358.401	15.775	-16061.957	-223.186	-32.467
73	15159.128	283.241	31.723	-14712.020	-156.794	-48.748
74	13869.434	222.949	49.161	-12784.414	-101.630	-66.068
75	12026.156	173.400	66.727	-10320.728	-57.363	-83.672
76	9667.758	134.851	83.400	-7358.509	-23.222	-100.350
77	6829.682	105.920	100.205	-3932.564	-6.884	-117.173
78	3542.317	94.648	117.001	-72.451	13.610	-133.993
79	-169.127	78.730	135.256	4235.913	455.017	-152.244
80	-4322.838	-358.542	151.640	11321.071	1681.582	-168.253
81	-29890.592	3179.837	-171.482	20354.955	-1957.031	154.860
82	-20431.348	1958.803	-154.788	11843.735	-1401.333	137.988
83	-12067.096	1406.791	-140.728	4465.538	-1283.269	123.979
84	-4831.077	1292.995	-123.794	-1988.452	-1171.398	106.869
85	1487.831	1185.482	-107.311	-6099.486	-1061.520	90.372
86	6586.676	1080.815	-89.239	-11405.551	-918.825	72.157
87	10673.268	943.320	-71.685	-14556.902	-784.296	54.504
88	13735.951	814.324	-53.659	-16899.383	-655.394	36.708
89	16011.607	691.440	-37.508	-18247.939	-532.967	20.341
90	17317.668	574.806	-18.253	-18890.520	-417.763	0.759
91	17943.631	465.686	0.229	-18604.219	-310.970	-17.288
92	17666.137	365.003	16.437	-15990.770	-229.661	-33.133
93	15087.539	289.687	33.744	-14660.117	-163.289	-50.581
94	13817.607	229.403	51.015	-12752.201	-108.142	-67.888
95	11994.064	179.963	68.011	-10308.346	-63.916	-84.939
96	9655.395	141.349	85.076	-7366.008	-29.781	-102.008
97	6837.120	112.625	102.189	-3960.055	-13.589	-119.121
98	3569.733	101.298	118.785	-119.818	7.007	-135.776
99	-121.646	85.315	136.477	4168.802	448.570	-153.443
100	-4255.619	-352.046	152.879	11233.072	1675.009	-169.308
101	-29897.559	3180.123	-174.741	20360.057	-1957.267	158.238
102	-20436.508	1959.027	-154.925	11848.525	-1401.468	137.953
103	-12071.928	1406.943	-140.508	4470.019	-1283.336	123.802
104	-4835.560	1292.981	-126.658	-1983.696	-1171.367	109.815
105	1483.071	1185.511	-109.619	-6095.597	-1061.472	92.708
106	6582.641	1080.713	-92.312	-11400.853	-918.822	75.103
107	10668.873	943.355	-74.318	-14552.505	-784.379	57.097
108	13731.930	814.421	-56.546	-16895.887	-655.442	39.456
109	16008.135	691.481	-38.686	-18244.785	-533.010	21.605

COMBINACION 39 1.35 (G1 + G2) + 1.5 (SCVMAX-IPF) + V_Pd

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	17314.645	574.776	-21.562	-18887.930	-417.694	4.283
111	17940.703	465.756	-2.265	-18601.684	-311.092	-14.891
112	17663.469	365.096	14.749	-15988.293	-229.888	-31.266
113	15085.514	289.863	31.122	-14658.568	-163.482	-48.024
114	13816.155	229.597	49.771	-12751.439	-108.174	-66.608
115	11993.084	180.085	65.843	-10307.660	-64.127	-82.720
116	9655.057	141.502	83.762	-7365.881	-29.865	-100.681
117	6837.197	112.697	99.652	-3960.393	-13.686	-116.604
118	3569.943	101.455	117.046	-120.973	6.911	-134.022
119	-120.674	85.434	133.308	4167.207	1500.806	-150.368
120	-4254.370	-1404.345	152.269	11231.957	1674.832	-168.397
121	-29923.555	3180.797	-171.833	20383.316	-1957.944	154.914
122	-20459.691	1959.715	-156.838	11869.692	-1402.203	140.206
123	-12093.105	1407.668	-142.789	4489.056	-1284.103	126.118
124	-4854.576	1293.683	-127.808	-1967.858	-1172.019	110.919
125	1467.179	1186.235	-111.204	-6081.597	-1062.201	94.373
126	6568.579	1081.426	-93.849	-11388.416	-919.521	76.685
127	10656.209	943.928	-75.868	-14541.514	-784.932	58.508
128	13720.337	815.175	-57.718	-16885.828	-656.262	40.316
129	15997.942	691.968	-39.085	-18236.240	-533.487	22.090
130	17305.693	575.439	-21.992	-18880.746	-418.282	4.949
131	17932.992	466.224	-4.169	-18595.281	-311.565	-13.115
132	17657.195	365.479	14.340	-15982.879	-230.244	-30.962
133	15079.968	290.380	32.438	-14654.568	-163.995	-49.208
134	13812.105	230.073	49.747	-12748.771	-108.703	-66.681
135	11990.393	180.553	66.054	-10306.537	-64.519	-83.050
136	9653.741	142.034	82.943	-7366.233	-30.477	-99.870
137	6837.456	113.194	100.448	-3962.176	-14.130	-117.407
138	3571.953	101.934	116.836	-124.167	6.390	-133.808
139	-117.355	85.943	133.966	4162.399	1500.300	-151.054
140	-4249.404	-1403.799	152.864	11225.345	1674.331	-169.104
141	-29921.783	3180.524	-166.301	20383.527	-1957.680	149.518
142	-20459.781	1959.436	-157.886	11870.210	-1401.845	141.563
143	-12093.638	1407.279	-143.056	4491.738	-1283.785	126.395
144	-4857.115	1293.443	-126.761	-1964.518	-1171.773	109.828
145	1464.056	1185.926	-111.966	-6077.338	-1061.933	95.075
146	6564.665	1081.312	-95.925	-11384.908	-919.375	78.811
147	10652.500	943.924	-77.897	-14538.486	-784.891	60.314
148	13717.119	814.904	-58.880	-16881.971	-656.042	41.431
149	15994.299	692.122	-40.430	-18232.865	-533.628	23.280
150	17302.217	575.446	-23.069	-18877.211	-418.333	5.784
151	17929.748	466.207	-3.847	-18591.947	-311.516	-13.414
152	17653.652	365.539	13.359	-15980.017	-230.331	-29.808
153	15076.922	290.383	32.429	-14651.280	-163.967	-49.284
154	13808.916	229.993	48.724	-12745.297	-108.640	-65.594
155	11987.018	180.517	65.952	-10302.914	-64.457	-82.913
156	9650.059	141.889	82.747	-7362.238	-30.311	-99.692
157	6833.279	113.118	100.361	-3957.780	-14.104	-117.349
158	3567.473	101.879	116.653	-119.111	6.395	-133.620
159	-122.530	85.906	134.070	4167.794	1500.421	-151.084
160	-4254.793	-1403.931	151.255	11230.999	1674.422	-167.705
161	-29922.762	3180.575	-177.412	20383.061	-1957.712	161.083
162	-20459.426	1959.465	-163.003	11870.102	-1401.935	146.382
163	-12093.480	1407.409	-148.858	4490.252	-1283.829	132.221
164	-4855.758	1293.376	-134.893	-1964.719	-1171.784	118.068

COMBINACION 39 1.35 (G1 + G2) + 1.5 (SCVMAX-IPF) + V_Pd

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	1464.159	1186.062	-117.556	-6078.133	-1062.015	100.392
166	6565.089	1081.233	-94.432	-11384.894	-919.307	77.309
167	10652.377	943.826	-76.898	-14537.877	-784.803	59.931
168	13716.533	814.795	-59.423	-16881.234	-655.879	41.825
169	15993.326	691.868	-38.960	-18231.297	-533.365	21.308
170	17300.668	575.291	-20.638	-18875.197	-418.267	3.054
171	17927.699	466.226	-0.831	-18589.945	-311.504	-16.551
172	17651.289	365.399	16.143	-15976.945	-230.108	-32.318
173	15073.711	290.230	32.703	-14647.724	-163.861	-49.530
174	13805.037	229.910	51.515	-12741.268	-108.587	-68.420
175	11982.937	180.355	67.243	-10298.500	-64.294	-84.192
176	9645.662	141.782	85.070	-7357.459	-30.232	-101.961
177	6828.737	113.024	101.451	-3952.905	-13.935	-118.409
178	3562.611	101.690	118.303	-113.311	6.487	-135.313
179	-128.146	85.869	135.987	4173.708	1500.532	-153.020
180	-4260.647	-1404.025	153.152	11237.736	1674.596	-169.503
181	-29901.381	3178.930	-173.836	20368.582	-1956.112	157.247
182	-20444.998	1957.870	-156.974	11860.361	-1400.335	140.363
183	-12083.729	1405.766	-147.534	4485.703	-1282.219	131.072
184	-4851.235	1291.880	-130.645	-1964.824	-1170.289	113.671
185	1464.354	1184.462	-114.388	-6074.103	-1060.344	97.367
186	6561.140	1079.654	-95.623	-11375.881	-917.776	78.265
187	10643.618	942.317	-77.127	-14524.395	-783.312	59.809
188	13703.566	813.251	-59.577	-16863.662	-654.400	42.416
189	15976.240	690.425	-41.111	-18209.916	-531.933	23.558
190	17279.652	573.878	-21.734	-18849.934	-416.790	4.441
191	17902.297	464.682	-4.561	-18560.084	-309.988	-13.001
192	17621.760	364.095	15.725	-15942.860	-228.809	-31.820
193	15039.446	288.835	31.322	-14609.225	-162.436	-48.288
194	13766.249	228.465	48.402	-12698.040	-107.192	-65.272
195	11939.416	179.033	66.292	-10250.635	-62.992	-83.184
196	9597.678	140.389	82.871	-7305.051	-28.821	-99.829
197	6776.173	111.630	99.638	-3896.000	-12.575	-116.610
198	3505.632	100.271	116.609	-52.353	8.053	-133.613
199	-189.141	84.300	133.865	4239.138	1501.978	-150.843
200	-4326.066	-1405.460	150.487	11307.645	1676.055	-167.043
201	-29882.437	3177.348	-177.953	20352.777	-1954.540	161.693
202	-20429.172	1956.303	-163.589	11849.510	-1398.720	146.877
203	-12072.892	1404.183	-146.582	4480.088	-1280.647	129.866
204	-4845.524	1290.361	-133.335	-1966.745	-1168.709	116.498
205	1466.066	1182.821	-116.583	-6070.425	-1058.808	99.522
206	6557.518	1078.095	-95.681	-11367.459	-916.256	78.432
207	10635.162	940.812	-77.743	-14511.581	-781.804	60.726
208	13690.314	811.923	-60.286	-16846.187	-652.995	42.716
209	15958.184	688.796	-40.022	-18186.859	-530.270	22.613
210	17256.426	572.054	-22.581	-18821.365	-414.907	5.322
211	17873.891	462.928	-3.406	-18526.248	-308.203	-13.796
212	17587.797	362.291	13.647	-15904.236	-227.039	-30.039
213	15001.158	287.043	32.720	-14565.867	-160.565	-49.479
214	13723.305	226.643	48.960	-12650.217	-105.250	-65.822
215	11891.751	177.150	66.539	-10198.121	-61.145	-83.434
216	9545.451	138.507	82.850	-7248.002	-26.945	-99.805
217	6719.214	109.787	100.403	-3834.268	-10.860	-117.393
218	3444.070	98.644	116.699	13.600	1291.904	-133.671
219	-255.050	-1199.568	134.056	4309.778	1503.567	-151.115

COMBINACION 39 1.35 (G1 + G2) + 1.5 (SCVMAX-IPF) + V_Pd

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	-4396.685	-1407.070	152.053	11382.035	1677.699	-168.399
221	-29629.395	3158.494	-173.709	20158.836	-1935.422	157.130
222	-20235.215	1937.158	-160.323	11711.893	-1379.781	143.769
223	-11935.357	1385.276	-146.026	4397.931	-1261.731	129.384
224	-4763.595	1271.355	-132.165	-1990.970	-1149.735	115.291
225	1490.325	1163.995	-115.467	-6037.789	-1039.932	98.319
226	6524.950	1059.146	-93.736	-11278.899	-897.123	76.669
227	10546.518	921.744	-76.231	-14366.368	-762.648	58.975
228	13545.447	792.797	-57.604	-16644.520	-633.908	40.221
229	15757.201	669.819	-39.311	-17929.180	-511.485	21.912
230	17000.025	553.413	-20.325	-18509.598	-396.306	2.732
231	17563.082	444.362	-1.467	-18160.055	-289.911	-15.681
232	17223.473	343.986	15.555	-15488.773	-209.128	-31.976
233	14587.453	269.188	33.659	-14097.491	-142.901	-50.470
234	13256.578	209.084	50.433	-12128.885	-87.925	-67.314
235	11372.312	159.809	67.975	-9624.268	-43.813	-84.917
236	8973.057	121.376	84.015	-6621.567	-9.772	-100.925
237	6094.375	92.578	100.952	-3155.310	6.804	-117.942
238	2766.496	80.983	117.528	745.240	1309.958	-134.512
239	-985.372	-1217.596	133.960	5094.096	1521.549	-150.956
240	-5180.124	-1425.022	151.141	13794.201	1691.087	-169.559
241	-29376.801	3141.196	-168.469	19959.648	-1918.548	152.074
242	-20036.275	1920.341	-156.463	11565.230	-1361.867	139.936
243	-11789.451	1367.470	-141.212	4305.703	-1243.322	124.530
244	-4671.985	1253.081	-127.238	-2028.008	-1131.393	110.357
245	1527.201	1145.856	-110.953	-6075.023	-1017.013	93.966
246	6508.954	1036.536	-92.227	-11207.792	-875.945	74.914
247	10477.869	900.870	-73.983	-14244.277	-742.804	56.824
248	13427.066	773.414	-56.555	-16474.859	-615.432	39.375
249	15592.744	652.019	-38.489	-17715.822	-494.387	20.777
250	16793.877	536.815	-18.170	-18256.164	-380.432	0.729
251	17319.891	428.948	-0.828	-17875.143	-274.979	-16.361
252	16950.865	329.710	17.244	-15218.769	-197.060	-33.503
253	14332.201	257.881	34.502	-13806.499	-131.925	-51.346
254	12982.952	198.607	51.980	-11821.109	-77.893	-68.867
255	11083.680	150.573	68.203	-9303.797	-35.513	-85.118
256	8672.912	113.565	84.898	-6291.278	-3.355	-101.868
257	5784.256	86.785	101.538	-2816.771	9.924	-118.442
258	2446.917	78.420	117.856	1091.567	1318.852	-134.896
259	-1316.015	-1226.069	135.916	4122.321	1530.040	-152.976
260	-4197.334	-1433.265	152.587	11187.480	1678.698	-172.628
261	-24468.566	2775.226	-117.518	18210.074	-1895.111	105.326
262	-18256.227	1896.183	-105.478	12419.219	-1086.818	92.904
263	-12554.074	1090.164	-95.766	7290.643	-1020.492	83.300
264	-7512.421	1026.211	-85.613	2860.296	-909.911	73.079
265	-3166.648	918.430	-71.946	-583.296	-869.729	59.105
266	595.449	881.110	-58.013	-4138.730	-767.332	45.236
267	3678.013	782.000	-43.882	-6819.031	-696.448	31.041
268	6292.662	714.455	-31.940	-8951.143	-624.382	18.702
269	8368.927	645.815	-19.006	-10056.246	-557.433	5.802
270	9429.971	582.826	-5.675	-11094.793	-509.646	-6.997
271	10437.514	538.768	7.092	-11659.233	-466.603	-20.167
272	10985.711	499.780	20.179	-10101.670	-377.513	-32.681
273	9427.852	415.075	32.520	-9896.174	-309.183	-45.110
274	9238.520	351.114	44.836	-9331.182	-243.839	-57.359

COMBINACION 39 1.35 (G1 + G2) + 1.5 (SCVMAX-IPF) + V_Pd

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	8707.740	289.680	57.219	-8433.324	-181.973	-69.887
276	7863.341	232.721	69.559	-7232.622	-124.691	-82.162
277	6735.430	180.148	81.675	-5759.170	-71.541	-94.301
278	5354.751	131.505	93.957	-4043.236	-22.129	-106.612
279	3752.227	86.661	105.808	-2115.501	24.030	-118.484
280	1959.508	45.176	118.469	-8.209	971.782	-131.190

COMBINACION 40 1.35 (G1 + G2) + 1.5 (SCVMIN-IPF) + V_Pd

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	6.649	223.905	-137.382	-1890.202	-45.048	124.678
2	2046.125	114.363	-124.656	-3615.365	11.261	111.949
3	3906.034	53.262	-111.900	-5150.292	71.363	99.139
4	5554.619	-11.444	-99.126	-6463.042	135.320	86.400
5	6959.999	-80.189	-86.478	-8065.933	206.471	73.824
6	8635.908	-155.910	-73.586	-8987.438	285.176	60.778
7	9610.428	-239.151	-60.589	-9590.252	369.023	47.957
8	10247.662	-327.112	-48.064	-10028.895	462.225	35.592
9	10701.992	-424.768	-35.773	-9886.762	561.835	22.919
10	10559.625	-528.550	-22.870	-9318.665	618.823	10.164
11	9975.319	-589.698	-10.072	-8292.986	678.760	-2.630
12	8918.947	-653.308	1.979	-6781.575	740.439	-14.690
13	7363.321	-718.906	15.825	-4909.665	808.819	-28.165
14	5435.463	-790.921	27.551	-2326.812	873.236	-40.238
15	2787.246	-858.684	41.025	818.361	938.066	-53.768
16	-431.703	-926.532	51.607	4539.938	1009.554	-64.423
17	-4233.773	-1001.081	65.572	8850.100	1074.578	-78.240
18	-8628.179	-1068.790	80.097	13755.900	1150.506	-92.837
19	-13620.937	-1147.182	96.082	19283.303	1911.708	-108.683
20	-19237.123	-1910.609	104.373	25459.055	2775.034	-117.127
21	-11337.317	1706.869	-172.099	5089.473	-490.526	154.757
22	-5014.586	587.325	-155.053	682.288	-65.208	138.118
23	-458.103	157.998	-138.101	-3278.624	-36.716	121.160
24	3648.418	124.986	-121.164	-6813.912	-7.659	104.179
25	7320.903	91.072	-104.184	-9282.498	86.759	87.204
26	10288.334	-8.625	-87.221	-11967.369	148.033	70.208
27	12704.930	-75.405	-71.221	-14454.061	217.975	54.340
28	15277.725	-151.161	-53.354	-15859.991	301.127	36.339
29	16746.434	-240.444	-37.552	-16863.764	389.741	20.634
30	17788.437	-334.942	-19.505	-16975.885	485.583	2.388
31	17912.062	-436.901	-2.403	-16561.023	586.692	-14.452
32	17482.516	-544.298	13.502	-15157.618	691.547	-30.229
33	16039.394	-655.102	30.075	-13102.121	800.692	-47.108
34	13919.639	-770.200	47.523	-9983.916	909.846	-64.355
35	10714.555	-884.848	64.456	-6088.864	1022.589	-81.312
36	6712.597	-1003.107	80.271	-1082.601	1133.991	-97.353
37	1583.545	-1119.448	98.633	4805.562	1241.315	-115.513
38	-4439.346	-1231.535	113.410	11828.046	1358.919	-130.465
39	-11603.879	-1353.331	132.809	19842.855	1909.863	-149.677
40	-19766.197	-1908.088	146.287	29070.725	3142.735	-163.285
41	-11903.857	1707.547	-171.071	5368.184	-410.696	153.966
42	-5282.235	507.200	-154.678	937.111	30.891	137.723
43	-696.956	61.498	-137.633	-3051.187	43.876	120.661
44	3439.857	43.895	-120.689	-6615.280	57.523	103.725
45	7142.273	25.324	-104.368	-8462.854	78.952	87.377
46	10225.232	-1.422	-84.313	-11910.642	142.687	67.417
47	12667.403	-70.856	-67.470	-14379.484	212.644	50.518
48	15220.463	-146.519	-49.892	-15812.297	297.400	32.984
49	16713.891	-237.196	-33.702	-16843.129	387.736	16.865
50	17780.338	-333.767	-16.970	-16971.699	485.250	-0.066
51	17918.504	-437.256	1.167	-16569.109	587.796	-18.301
52	17498.445	-545.726	17.791	-15172.010	693.293	-34.707
53	16059.256	-657.386	35.034	-13117.127	803.210	-51.996
54	13937.480	-772.987	51.879	-9996.624	912.354	-68.912

COMBINACION 40 1.35 (G1 + G2) + 1.5 (SCVMIN-IPF) + V_Pd

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	10728.340	-887.889	68.904	-6096.139	1025.247	-85.952
56	6720.437	-1005.995	86.453	-1081.969	1136.583	-103.378
57	1582.452	-1122.323	102.628	4815.143	1244.003	-119.657
58	-4449.620	-1234.322	119.749	11846.342	1362.111	-136.665
59	-11622.841	-1356.666	136.712	19869.408	1913.669	-153.531
60	-19792.967	-1911.903	150.159	29105.215	3146.247	-167.340
61	-10855.755	1685.923	-166.102	4402.408	-390.026	149.554
62	-4315.551	486.545	-148.732	36.875	52.602	131.787
63	204.446	39.710	-131.630	-3886.382	66.371	114.661
64	4276.406	21.463	-115.156	-7385.633	80.349	98.225
65	7914.265	2.401	-97.373	-9168.376	101.996	80.481
66	10932.234	-24.540	-86.029	-12551.037	165.722	69.081
67	13309.268	-93.991	-67.476	-14970.336	236.152	50.731
68	15812.969	-170.040	-50.815	-16336.152	320.764	33.870
69	17239.166	-260.674	-34.030	-17300.094	411.015	17.081
70	18238.422	-357.074	-17.292	-17360.951	508.384	0.312
71	18308.465	-460.266	0.846	-16890.383	610.684	-18.073
72	17820.461	-568.885	18.791	-15423.947	716.408	-35.792
73	16311.771	-680.466	35.418	-13300.106	826.283	-52.415
74	14120.993	-796.066	52.551	-10109.967	935.521	-69.748
75	10842.180	-911.039	69.800	-6139.872	1048.503	-86.976
76	6763.915	-1029.238	87.167	-1056.194	1159.847	-104.125
77	1556.800	-1145.697	104.330	4911.138	1267.414	-121.298
78	-4545.525	-1257.777	121.328	12012.560	1385.422	-138.211
79	-11789.219	-1379.938	134.551	20105.678	1936.747	-151.532
80	-20029.254	-1935.010	153.538	29412.305	3169.245	-170.606
81	-10840.363	1685.115	-168.441	4380.276	-389.082	152.236
82	-4293.371	485.581	-152.423	15.980	53.218	135.467
83	225.515	39.112	-135.250	-3905.847	66.815	118.283
84	4296.078	21.041	-118.630	-7403.651	80.650	101.683
85	7932.366	1.956	-101.652	-9184.662	102.338	84.719
86	10948.935	-24.796	-83.651	-12566.030	166.041	66.731
87	13324.548	-94.196	-66.311	-14979.992	236.252	49.660
88	15822.681	-170.298	-48.538	-16344.596	321.124	31.587
89	17247.639	-260.933	-33.167	-17307.422	411.332	16.231
90	18245.486	-357.349	-14.354	-17367.078	508.659	-2.930
91	18314.766	-460.691	4.153	-16895.607	611.110	-21.301
92	17826.361	-569.230	20.764	-15428.000	716.878	-37.690
93	16315.872	-681.014	38.259	-13303.228	826.802	-55.395
94	14124.143	-796.659	55.832	-10112.167	936.076	-72.924
95	10844.701	-911.558	73.077	-6140.415	1049.047	-90.221
96	6764.609	-1029.857	90.097	-1055.964	1160.393	-107.205
97	1556.532	-1146.102	106.194	4912.768	1267.829	-123.255
98	-4547.199	-1258.241	123.503	12015.735	1385.932	-140.420
99	-11792.216	-1380.447	138.123	20111.531	1937.371	-155.064
100	-20035.066	-1935.628	156.625	29416.381	3169.760	-173.387
101	-10754.272	1683.424	-167.381	4023.017	-389.945	151.883
102	-3936.135	486.424	-153.040	-343.441	52.456	136.100
103	584.979	39.905	-136.002	-4267.519	66.090	118.942
104	4657.853	21.680	-118.466	-7767.498	80.013	101.460
105	8296.302	2.693	-101.831	-9550.815	101.681	84.855
106	11314.863	-24.227	-85.308	-12972.733	166.287	68.378
107	13731.215	-94.433	-66.903	-15027.455	238.151	49.973
108	15870.514	-172.145	-49.571	-16386.547	323.002	32.640
109	17289.723	-262.830	-31.996	-17343.744	413.230	15.012

COMBINACION 40 1.35 (G1 + G2) + 1.5 (SCVMIN-IPF) + V_Pd

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	18282.148	-359.355	-15.261	-17397.656	510.696	-1.838
111	18345.021	-462.630	3.843	-16920.426	613.027	-21.019
112	17850.494	-571.182	21.183	-15447.127	718.754	-38.157
113	16334.863	-682.941	38.134	-13316.707	828.663	-55.475
114	14137.859	-798.463	56.526	-10118.818	938.009	-73.794
115	10850.937	-913.393	74.121	-6142.310	1050.744	-91.245
116	6766.665	-1031.552	90.436	-1051.856	1162.166	-107.631
117	1552.678	-1147.867	109.255	4921.452	1269.557	-126.157
118	-4555.978	-1259.883	122.202	12029.932	1387.649	-139.263
119	-11806.619	-1382.187	140.466	20129.354	2991.472	-157.080
120	-20053.160	-2989.731	148.234	29440.375	3171.438	-165.146
121	-10753.056	1683.429	-168.370	4022.030	-389.925	153.276
122	-3935.129	486.418	-152.969	-344.604	52.428	135.948
123	586.053	39.884	-135.883	-4268.646	66.082	118.833
124	4659.049	21.714	-118.754	-7768.870	80.040	101.730
125	8297.787	2.757	-101.822	-9552.371	101.601	84.892
126	11316.537	-24.094	-85.386	-12974.534	166.149	68.471
127	13733.037	-94.387	-67.180	-15029.734	238.102	50.223
128	15872.305	-171.957	-49.408	-16389.281	322.738	32.279
129	17292.670	-262.857	-30.958	-17346.529	413.297	14.057
130	18285.184	-359.158	-14.162	-17400.832	510.558	-2.801
131	18348.059	-462.695	3.335	-16923.467	613.082	-20.489
132	17854.061	-571.314	21.549	-15449.940	718.917	-38.959
133	16337.857	-682.928	40.424	-13319.767	828.667	-57.886
134	14140.896	-798.537	58.832	-10122.041	938.050	-76.063
135	10854.393	-913.553	76.414	-6144.421	1051.005	-93.571
136	6768.500	-1031.708	93.555	-1054.341	1162.234	-110.736
137	1554.861	-1148.078	108.596	4920.625	1269.826	-125.765
138	-4555.007	-1260.130	126.101	12029.398	1387.833	-142.983
139	-11806.081	-1382.380	141.769	20129.477	2991.680	-158.349
140	-20053.205	-2989.910	149.568	29441.137	3171.593	-166.654
141	-10746.374	1683.275	-166.427	4015.529	-389.805	152.119
142	-3928.470	486.308	-150.003	-350.408	52.605	132.873
143	591.911	39.674	-133.044	-4273.984	66.224	116.054
144	4664.378	21.574	-116.468	-7773.623	80.189	99.417
145	8302.572	2.509	-98.556	-9556.566	101.815	81.524
146	11320.823	-24.211	-84.254	-12978.334	166.316	67.359
147	13736.599	-94.435	-66.282	-15033.014	238.194	49.225
148	15875.172	-172.241	-47.627	-16391.607	322.991	30.499
149	17294.650	-262.765	-29.495	-17348.695	413.191	12.496
150	18286.793	-359.227	-12.613	-17402.234	510.595	-4.500
151	18349.512	-462.726	6.319	-16924.387	613.136	-23.508
152	17854.516	-571.269	23.547	-15450.977	718.824	-40.885
153	16338.600	-682.956	43.170	-13319.943	828.709	-60.753
154	14141.201	-798.572	61.152	-10122.501	938.086	-78.262
155	10855.018	-913.538	78.632	-6144.711	1051.002	-95.917
156	6769.015	-1031.796	95.948	-1054.341	1162.349	-113.214
157	1554.833	-1148.080	110.280	4919.985	1269.784	-127.596
158	-4554.391	-1260.113	128.043	12028.312	1387.780	-144.946
159	-11804.948	-1382.333	142.875	20129.648	2991.730	-159.638
160	-20053.336	-2990.002	157.674	29440.963	3171.682	-174.338
161	-10751.942	1683.694	-171.850	4019.756	-390.205	157.726
162	-3932.788	486.688	-157.490	-347.699	52.170	140.467
163	589.251	40.177	-140.562	-4272.627	65.802	123.488
164	4663.012	21.909	-123.259	-7773.466	79.775	106.237

COMBINACION 40 1.35 (G1 + G2) + 1.5 (SCVMIN-IPF) + V_Pd

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	8302.395	3.083	-106.991	-9557.986	101.284	89.935
166	11322.127	-23.821	-81.710	-12981.155	165.894	64.806
167	13739.424	-93.986	-65.364	-15037.076	237.753	48.621
168	15879.557	-171.868	-49.308	-16396.998	322.659	32.221
169	17300.230	-262.486	-29.338	-17355.316	412.888	12.092
170	18293.348	-358.836	-11.579	-17410.648	510.141	-5.766
171	18358.109	-462.203	8.248	-16934.148	612.667	-25.723
172	17864.547	-570.918	25.828	-15461.687	718.533	-42.954
173	16349.465	-682.594	43.545	-13332.438	828.329	-61.153
174	14153.333	-798.204	62.636	-10136.071	937.690	-80.091
175	10868.512	-913.212	80.579	-6159.316	1050.694	-97.758
176	6783.538	-1031.522	96.915	-1069.978	1162.064	-114.229
177	1570.696	-1147.793	114.267	4904.437	1269.568	-131.330
178	-4538.955	-1259.950	129.223	12011.739	1387.499	-146.138
179	-11788.257	-1381.981	143.249	20112.793	2991.429	-160.001
180	-20036.465	-2989.701	157.996	29424.723	3171.427	-174.546
181	-10756.587	1684.092	-167.532	4023.491	-390.644	153.380
182	-3936.563	487.119	-153.809	-345.243	51.729	136.729
183	586.821	40.590	-136.000	-4271.487	65.359	118.922
184	4661.753	22.433	-119.537	-7773.686	79.258	102.511
185	8302.617	3.491	-102.612	-9559.272	100.955	85.554
186	11323.322	-23.451	-84.342	-12983.441	165.492	67.429
187	13741.666	-93.646	-64.925	-15040.304	237.397	47.961
188	15882.958	-171.535	-48.345	-16401.514	322.288	31.383
189	17304.937	-262.083	-30.418	-17361.164	412.495	13.242
190	18299.725	-358.379	-11.360	-17417.973	509.722	-5.849
191	18365.256	-461.813	5.694	-16942.998	612.210	-23.097
192	17873.609	-570.216	25.874	-15472.662	717.812	-43.447
193	16360.554	-681.945	43.811	-13344.809	827.749	-61.016
194	14165.614	-797.704	61.596	-10150.123	937.133	-78.979
195	10882.341	-912.612	79.306	-6174.732	1050.080	-96.791
196	6799.013	-1030.959	97.045	-1086.755	1161.511	-114.237
197	1587.431	-1147.245	113.409	4885.296	1268.982	-130.526
198	-4519.719	-1259.420	127.747	11991.628	1387.147	-144.736
199	-11768.094	-1381.681	142.792	20090.477	2991.009	-159.614
200	-20014.025	-2989.227	159.617	29401.441	3170.954	-176.069
201	-10828.980	1689.475	-169.883	4079.041	-396.047	155.751
202	-3992.076	492.526	-155.526	-305.799	46.379	138.535
203	547.302	45.938	-139.080	-4248.030	60.005	122.046
204	4638.418	27.844	-121.654	-7766.435	73.903	104.609
205	8295.315	8.770	-104.920	-9568.116	95.576	87.873
206	11332.236	-18.064	-83.047	-13008.434	160.067	66.123
207	13766.791	-88.175	-65.448	-15081.818	231.919	48.684
208	15924.373	-165.862	-49.282	-16459.625	316.654	32.193
209	17362.824	-256.649	-29.166	-17435.385	407.086	11.990
210	18373.992	-353.166	-12.191	-17507.859	504.572	-4.877
211	18455.406	-456.568	6.819	-17048.652	607.028	-23.998
212	17978.883	-565.121	24.002	-15593.836	712.731	-41.368
213	16481.668	-676.884	43.903	-13481.424	822.720	-61.400
214	14302.512	-792.571	61.837	-10302.252	932.131	-79.022
215	11034.348	-907.649	79.554	-6343.015	1045.115	-96.861
216	6967.272	-1026.008	97.272	-1270.435	1156.562	-114.472
217	1770.902	-1142.293	111.788	4686.108	1263.899	-129.084
218	-4320.680	-1254.277	129.498	11776.979	2664.213	-146.378
219	-11553.645	-2658.752	144.360	19860.838	2985.808	-160.979

COMBINACION 40 1.35 (G1 + G2) + 1.5 (SCVMIN-IPF) + V_Pd

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	-19784.602	-2984.073	155.624	29156.150	3165.754	-172.407
221	-10902.142	1695.183	-170.534	4135.066	-401.541	156.507
222	-4047.966	498.006	-155.953	-267.011	40.684	138.906
223	508.721	51.648	-139.081	-4226.657	54.269	121.999
224	4617.122	33.497	-121.817	-7762.187	68.221	104.750
225	8291.020	14.447	-105.084	-9581.031	89.912	87.998
226	11345.191	-12.461	-81.918	-13038.273	154.626	65.016
227	13796.397	-82.758	-65.587	-15127.936	226.605	48.730
228	15970.125	-160.661	-47.256	-16521.396	311.456	30.154
229	17423.635	-251.490	-29.700	-17512.361	401.781	12.646
230	18450.375	-347.818	-11.044	-17599.607	499.189	-6.324
231	18545.949	-451.254	7.861	-17155.059	601.494	-25.032
232	18084.168	-559.658	25.105	-15715.004	707.005	-42.376
233	16601.602	-671.116	44.292	-13616.724	816.769	-61.835
234	14436.313	-786.656	62.475	-10452.166	925.968	-79.860
235	11183.040	-901.478	80.481	-6506.460	1038.921	-97.850
236	7129.003	-1019.738	98.524	-1448.519	1150.361	-115.590
237	1947.556	-1136.209	113.681	4494.539	1258.296	-130.913
238	-4130.322	-1248.741	128.352	11571.226	2659.073	-145.366
239	-11348.655	-2653.613	145.606	19639.391	2980.605	-162.344
240	-19563.346	-2978.862	159.308	28920.109	3160.294	-175.951
241	-13662.071	1754.393	-167.849	4779.543	-467.301	153.499
242	-4691.579	563.714	-152.851	183.403	-24.054	135.790
243	59.318	116.257	-136.175	-3970.460	-9.963	119.114
244	4361.724	97.443	-119.043	-7699.285	4.209	101.984
245	8228.527	78.234	-101.976	-9763.978	30.742	84.952
246	11473.539	46.267	-83.566	-13356.816	94.424	66.636
247	14113.148	-23.038	-64.545	-15632.334	165.912	47.691
248	16470.855	-100.398	-48.244	-17208.266	250.403	31.247
249	18104.426	-190.811	-30.838	-18375.207	340.673	13.649
250	19304.158	-287.365	-9.792	-18635.094	438.241	-7.541
251	19570.611	-391.081	7.591	-18355.076	541.281	-24.769
252	19271.176	-500.079	26.287	-17076.029	647.388	-43.639
253	17947.074	-612.130	45.730	-15131.696	757.693	-63.360
254	15934.321	-728.404	65.516	-12118.914	867.401	-82.853
255	12831.580	-843.570	83.360	-8319.914	980.276	-100.468
256	8924.651	-961.790	100.880	-3407.898	1091.068	-118.106
257	3889.982	-1077.344	117.554	2389.141	1196.812	-134.601
258	-2039.380	-1187.546	134.999	9316.148	2604.232	-151.822
259	-9103.886	-2599.000	148.004	15900.901	2925.953	-164.780
260	-15828.695	-2924.285	164.881	24376.742	3103.442	-181.640
261	-11109.088	1533.849	-118.911	4708.860	-653.392	110.362
262	-6631.668	703.551	-107.470	1436.163	68.783	97.707
263	-3376.589	-15.726	-94.849	-1596.159	53.611	84.587
264	-314.247	1.456	-82.346	-4346.119	83.728	71.578
265	2596.847	-29.999	-69.880	-6402.066	49.353	59.477
266	5498.880	-5.747	-54.221	-8896.555	84.403	41.711
267	7617.699	-38.688	-41.418	-10726.988	90.302	30.405
268	9409.238	-40.189	-29.044	-12313.308	100.545	16.261
269	12910.146	-49.513	-15.026	-13704.308	118.798	2.205
270	14341.069	-71.567	-2.490	-14755.828	140.583	-10.188
271	15418.205	-97.392	9.998	-15479.212	167.332	-22.919
272	16151.480	-128.607	25.783	-16015.145	251.539	-38.867
273	16681.066	-216.739	38.844	-15904.060	339.840	-51.764
274	16545.479	-309.542	53.809	-15322.748	429.522	-66.725

COMBINACION 40 1.35 (G1 + G2) + 1.5 (SCVMIN-IPF) + V_Pd

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	15920.854	-403.854	67.091	-14236.943	524.997	-79.974
276	14772.611	-503.728	81.229	-12612.772	625.950	-94.298
277	13065.914	-609.309	96.084	-10510.952	737.861	-109.049
278	10860.986	-725.914	109.383	-7672.157	851.523	-122.293
279	7897.839	-844.365	123.926	-4183.562	971.915	-136.802
280	4264.288	-969.620	136.761	-8.036	1997.107	-149.439

COMBINACION 41 1.35 (G1 + G2) + 1.5 (SCVMAX-EC1) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-992.957	1079.931	6.170	-1170.476	-911.271	-40.256
2	1136.357	912.277	33.577	-2929.550	-797.452	-67.980
3	2834.141	800.412	58.351	-4308.597	-687.326	-91.968
4	4160.001	692.432	77.273	-5343.776	-569.072	-70.138
5	5151.824	576.098	52.970	-6048.487	-448.035	-50.372
6	5822.230	457.027	31.231	-6510.993	-343.039	-46.815
7	6258.060	353.953	23.231	-6699.347	-239.115	-32.817
8	5474.687	253.045	-47.718	-5768.117	-141.389	35.304
9	5251.308	168.443	-35.894	-5335.799	-57.773	22.952
10	4814.198	88.049	-21.512	-4729.327	-20.172	8.884
11	4215.453	53.765	-10.956	-4030.349	11.652	-1.852
12	3536.344	25.159	3.566	-3271.700	37.130	-16.228
13	2808.312	2.584	14.968	-2327.250	61.634	-27.505
14	1904.443	-19.116	28.081	-796.587	71.751	40.440
15	1185.859	-28.233	40.696	-325.855	68.767	-6.574
16	531.715	-31.281	53.634	64.348	62.425	-49.505
17	-26.474	-29.975	66.419	358.697	45.189	-88.814
18	-460.072	-16.425	28.272	-1332.135	38.901	-141.839
19	1269.115	-8.967	77.509	-749.977	713.720	-166.781
20	726.064	-682.691	99.210	6781.506	1363.782	-930.715
21	-13230.160	2846.901	-173.228	5869.920	-1715.038	-249.407
22	-5900.671	1715.765	243.078	4045.297	-1190.706	-213.643
23	-4135.257	1192.927	202.598	1136.789	-1074.752	-220.625
24	-1284.928	1078.601	205.122	-643.939	-965.579	22.830
25	439.787	971.387	-43.063	-2937.535	-798.503	6.123
26	3056.381	806.377	-31.164	-5222.881	-679.911	5.397
27	4920.910	690.075	-35.674	-5166.422	-555.156	54.456
28	4543.222	577.937	-53.347	-5962.905	-457.881	36.346
29	5286.307	485.106	-37.611	-6267.218	-359.724	20.591
30	5555.991	391.726	-19.153	-6353.324	-273.218	2.046
31	5626.314	309.971	-2.255	-5991.978	-187.666	-14.519
32	5269.833	228.981	13.275	-5505.034	-115.652	-30.082
33	4808.802	161.840	30.240	-4660.856	-47.221	-47.326
34	4009.901	97.954	48.407	-3829.344	6.077	-65.191
35	3242.164	49.459	64.092	-2775.370	54.057	-81.112
36	2268.834	5.763	82.024	-482.529	77.685	-63.452
37	1480.753	-23.865	98.682	312.023	85.550	-149.124
38	292.354	-37.345	115.784	-1327.322	97.632	-186.137
39	1888.498	-50.876	132.180	-820.848	533.125	-218.364
40	1385.497	-486.579	149.517	6755.636	1562.307	-1033.009
41	-15388.563	2906.826	-173.610	7124.135	-1670.791	-260.695
42	-7156.684	1671.526	255.171	5661.289	-1130.466	-225.878
43	-5755.327	1132.791	213.247	2921.444	-1030.717	-231.316
44	-3075.807	1034.752	215.811	1393.532	-942.051	15.423
45	-1605.314	948.093	-35.108	-871.118	-846.907	-2.908
46	1718.730	855.043	-19.645	-2410.248	-726.008	68.401
47	1842.729	744.971	-68.329	-3656.953	-618.212	51.284
48	3020.521	641.588	-50.898	-4626.267	-520.760	34.042
49	3937.914	548.745	-34.567	-5101.424	-422.550	17.706
50	4379.865	454.898	-17.553	-5356.947	-335.742	0.421
51	4622.101	372.936	0.646	-5164.957	-250.202	-17.685
52	4436.686	292.235	17.061	-4850.734	-178.732	-33.980
53	4149.820	225.313	34.339	-4181.948	-110.704	-51.233
54	3527.637	162.043	50.917	-3531.491	-58.357	-67.972

COMBINACION 41 1.35 (G1 + G2) + 1.5 (SCVMAX-EC1) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	2942.588	114.022	68.599	-953.457	-21.027	-6.947
56	2157.623	71.154	85.153	-578.271	1.274	-59.963
57	1563.681	42.031	102.202	-20.325	7.280	-145.825
58	588.385	32.331	118.965	-1894.005	19.717	-182.955
59	1791.681	19.350	96.400	-1617.015	455.808	-215.561
60	1580.150	-414.927	124.761	6105.976	1513.265	-1048.560
61	-15357.184	2905.980	-165.565	6941.648	-1667.803	-266.875
62	-6973.729	1668.557	258.464	5482.311	-1126.468	-228.553
63	-5576.813	1128.777	216.649	2757.617	-1025.977	-234.652
64	-2912.618	1030.131	219.760	1256.798	-937.334	10.612
65	-1468.583	943.343	-31.794	-995.286	-842.000	-5.490
66	1841.818	850.129	-23.170	-2424.287	-724.426	71.807
67	1855.667	743.357	-71.093	-3665.219	-616.815	54.037
68	3027.889	640.266	-53.968	-4631.106	-519.596	37.053
69	3941.741	547.475	-36.954	-5103.381	-421.501	20.014
70	4381.045	453.946	-19.911	-5357.703	-334.987	2.880
71	4622.002	372.376	-1.703	-5165.644	-249.800	-15.475
72	4436.824	291.685	15.965	-4851.739	-178.226	-32.875
73	4150.552	224.865	32.276	-4183.635	-110.290	-49.249
74	3529.234	161.711	49.562	-3533.780	-57.939	-66.719
75	2944.869	113.676	67.205	-959.435	-18.563	-5.422
76	2159.712	70.775	83.969	-577.154	3.707	-58.365
77	1565.129	41.566	100.764	-12.137	9.682	-144.175
78	589.283	32.063	117.295	-1879.116	21.983	-181.412
79	2393.629	18.295	135.222	-1596.815	457.843	-214.435
80	1560.022	-416.975	123.263	6148.071	1516.933	-1046.759
81	-15607.635	2911.379	-170.810	7110.641	-1671.328	-261.053
82	-7143.003	1672.098	254.081	5642.579	-1130.363	-224.420
83	-5736.938	1132.655	211.863	2904.980	-1030.016	-229.976
84	-3059.862	1034.189	214.506	1392.096	-941.520	15.679
85	-1604.110	947.416	-36.204	-872.359	-846.104	-1.461
86	1719.345	854.290	-22.427	-2271.375	-730.061	70.833
87	1702.685	749.100	-70.431	-3529.256	-622.497	53.374
88	2891.580	645.801	-52.630	-4511.543	-525.050	35.728
89	3821.969	553.080	-36.459	-4999.723	-427.068	19.391
90	4277.189	459.561	-17.630	-5269.528	-340.571	0.286
91	4534.141	377.805	0.549	-5093.075	-255.232	-17.505
92	4364.500	297.163	16.806	-4795.245	-183.571	-33.727
93	4093.711	230.213	34.243	-4142.245	-115.667	-51.246
94	3487.871	167.017	51.605	-3507.924	-63.298	-68.605
95	2919.113	119.075	68.710	-951.676	-22.569	-6.949
96	2149.674	76.105	85.737	-581.417	-0.264	-60.045
97	1571.190	47.096	102.821	-28.808	5.531	-145.647
98	611.902	37.578	118.992	-1908.005	17.928	-182.818
99	2432.839	23.748	136.506	-1637.331	453.926	-215.619
100	2150.746	-412.393	153.043	6095.483	1512.893	-1047.024
101	-15609.735	2911.436	-173.131	7098.896	-1671.188	-258.634
102	-7131.554	1671.925	253.096	5631.075	-1130.099	-223.734
103	-5725.453	1132.429	211.277	2894.660	-1029.699	-229.639
104	-3049.165	1033.797	212.552	1383.369	-941.092	17.680
105	-1595.510	947.068	-37.875	-880.434	-845.697	0.374
106	1727.207	853.832	-25.193	-2269.520	-729.955	73.278
107	1700.994	749.038	-72.576	-3527.056	-622.483	55.501
108	2889.749	645.800	-55.004	-4509.611	-525.012	37.998
109	3820.089	553.021	-37.341	-4997.844	-426.996	20.403

COMBINACION 41 1.35 (G1 + G2) + 1.5 (SCVMAX-EC1) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	4275.453	459.365	-20.370	-5267.949	-340.354	3.215
111	4532.311	377.724	-1.511	-5091.455	-255.191	-15.467
112	4362.682	297.168	15.357	-4793.494	-183.663	-32.272
113	4092.300	230.196	32.166	-4140.997	-115.702	-49.373
114	3486.725	167.096	50.745	-3507.223	-63.253	-67.783
115	2918.208	119.094	67.220	-951.864	-22.361	-5.081
116	2149.356	76.158	84.860	-580.872	0.042	-58.382
117	1571.057	47.087	101.058	-27.562	5.835	-143.797
118	611.605	37.619	117.410	-1906.346	18.222	-180.708
119	2432.953	23.748	133.827	-1635.103	1506.587	-213.150
120	2150.942	-1464.809	152.183	6099.703	1513.107	-1044.111
121	-15630.899	2912.019	-170.613	7113.916	-1671.705	-259.345
122	-7146.095	1672.446	251.498	5644.537	-1130.669	-221.674
123	-5738.918	1132.967	209.190	2906.382	-1030.310	-227.474
124	-3060.973	1034.373	211.017	1392.506	-941.537	18.688
125	-1604.510	947.573	-39.155	-872.734	-846.230	1.825
126	26.370	854.436	-91.537	-2259.451	-730.578	74.432
127	1690.671	749.500	-73.717	-3518.263	-622.938	56.531
128	2880.414	646.435	-55.840	-4501.727	-525.718	38.603
129	3812.159	553.395	-37.486	-4991.189	-427.337	20.679
130	4268.478	459.976	-20.619	-5262.577	-340.915	3.687
131	4526.412	378.114	-3.007	-5086.619	-255.577	-14.076
132	4358.035	297.425	15.092	-4789.589	-183.907	-32.402
133	4088.365	230.634	33.651	-4138.234	-116.113	-50.764
134	3483.945	167.465	51.240	-3505.426	-63.655	-68.227
135	2916.406	119.454	67.722	-951.495	-22.597	-5.231
136	2148.459	76.567	84.474	-581.435	-0.360	-58.229
137	1571.338	47.465	101.827	-28.931	5.577	-143.678
138	613.358	38.008	117.435	-1908.559	17.894	-180.693
139	2435.715	24.161	134.511	-1638.271	1506.278	-213.568
140	2155.035	-1464.364	152.801	6093.811	1512.834	-1044.126
141	-15629.199	2911.778	-165.988	7112.524	-1671.416	-261.892
142	-7144.074	1672.167	251.195	5643.417	-1130.292	-220.827
143	-5737.896	1132.566	208.919	2907.212	-1029.933	-227.156
144	-3061.882	1034.041	211.383	1394.265	-941.284	17.629
145	-1605.810	947.245	-39.088	-870.255	-845.947	1.846
146	23.552	854.312	-92.961	-2256.734	-730.417	75.936
147	1687.855	749.510	-75.168	-3515.890	-622.906	57.802
148	2877.836	646.207	-56.556	-4498.661	-525.514	39.286
149	3809.177	553.543	-38.415	-4988.397	-427.505	21.521
150	4265.570	459.949	-21.325	-5259.446	-340.906	4.202
151	4523.550	378.134	-2.587	-5083.737	-255.590	-14.426
152	4354.895	297.510	14.402	-4786.908	-184.009	-31.682
153	4085.456	230.656	33.866	-4135.266	-116.126	-50.998
154	3481.045	167.407	50.570	-3502.436	-63.612	-67.498
155	2913.485	119.434	67.762	-949.434	-22.524	-5.223
156	2145.386	76.452	84.559	-579.192	-0.227	-58.248
157	1567.930	47.393	101.996	-26.303	5.604	-143.463
158	609.638	37.950	117.369	-1905.338	17.898	-180.447
159	2431.377	24.135	134.663	-1634.774	1506.354	-213.287
160	2150.450	-1464.482	151.749	6098.222	1512.847	-1043.842
161	-15630.375	2911.845	-176.048	7113.600	-1671.619	-252.573
162	-7145.742	1672.357	244.724	5644.387	-1130.538	-214.885
163	-5738.727	1132.855	202.457	2906.695	-1030.144	-220.801
164	-3061.131	1034.150	203.806	1393.823	-941.394	25.583

COMBINACION 41 1.35 (G1 + G2) + 1.5 (SCVMAX-EC1) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	-1605.869	947.500	-45.650	-871.081	-846.143	7.741
166	1718.233	854.270	-26.425	-2256.900	-730.387	74.290
167	1687.876	749.458	-73.960	-3515.695	-622.858	57.279
168	2877.723	646.106	-56.842	-4498.406	-525.351	39.458
169	3808.792	553.325	-37.020	-4987.719	-427.299	19.680
170	4264.859	459.878	-19.119	-5258.645	-340.927	1.753
171	4522.681	378.187	0.150	-5082.977	-255.571	-17.291
172	4353.877	297.403	16.957	-4785.682	-183.857	-33.959
173	4084.133	230.541	34.284	-4133.693	-116.044	-51.567
174	3479.171	167.355	53.152	-3500.347	-63.578	-70.251
175	2911.381	119.291	69.348	-949.148	-22.464	-6.646
176	2142.870	76.374	86.820	-578.828	-0.242	-59.822
177	1565.158	47.329	103.401	-26.091	5.649	-145.033
178	606.567	37.803	119.003	-1904.591	17.903	-181.979
179	2427.676	24.131	136.486	-1634.333	1506.363	-214.959
180	2146.757	-1464.543	153.552	6098.476	1512.939	-1045.234
181	-15612.361	2910.489	-172.292	7104.849	-1670.654	-256.842
182	-7137.221	1671.391	249.959	5638.944	-1129.585	-220.253
183	-5732.898	1131.881	205.334	2904.102	-1029.214	-223.291
184	-3058.968	1033.312	207.950	1393.960	-940.586	21.366
185	-1605.797	946.585	-42.089	-868.781	-845.135	4.549
186	1715.680	853.370	-27.980	-2249.481	-729.151	75.416
187	1680.696	748.152	-74.352	-3504.206	-621.569	57.264
188	2866.779	644.822	-57.070	-4483.371	-524.127	40.055
189	3794.156	552.139	-38.950	-4969.273	-426.113	21.719
190	4246.771	458.695	-20.140	-5236.792	-339.676	3.000
191	4500.718	376.862	-3.118	-5057.156	-254.297	-14.197
192	4328.391	296.342	16.483	-4756.621	-182.825	-33.800
193	4054.890	229.448	33.398	-4101.077	-114.883	-50.268
194	3446.303	166.147	50.380	-3464.024	-62.425	-67.579
195	2874.761	118.228	68.340	-922.689	-21.862	-5.223
196	2102.908	75.235	85.046	-550.210	0.481	-58.107
197	1521.799	46.199	101.772	4.630	6.322	-143.306
198	559.775	36.649	117.397	-1871.857	18.756	-180.223
199	2377.586	22.820	134.559	-1598.716	1507.129	-212.863
200	2092.514	-1465.716	151.242	6136.797	1513.705	-1043.458
201	-15602.269	2909.504	-176.137	7105.629	-1670.636	-252.811
202	-7137.813	1671.379	244.967	5638.899	-1129.521	-215.206
203	-5733.500	1131.829	204.226	2905.054	-1029.169	-222.745
204	-3059.417	1033.322	205.317	1394.264	-940.579	23.953
205	-1606.272	946.492	-44.298	-868.012	-845.162	6.603
206	1715.162	853.371	-27.625	-2244.438	-728.178	75.376
207	1675.674	747.289	-74.796	-3497.412	-620.712	58.009
208	2859.520	644.092	-57.620	-4474.597	-523.345	40.290
209	3784.886	551.155	-37.955	-4957.729	-425.093	20.803
210	4235.071	457.498	-20.774	-5222.362	-338.438	3.706
211	4486.514	375.766	-2.071	-5039.921	-253.161	-14.863
212	4311.027	295.167	14.798	-4736.212	-181.617	-32.094
213	4034.802	228.205	34.321	-4077.424	-113.606	-51.368
214	3423.027	164.943	50.977	-3436.984	-61.097	-67.976
215	2847.865	116.944	68.538	-922.422	-21.558	-5.570
216	2072.103	73.929	84.929	-548.641	0.792	-58.491
217	1486.699	44.920	102.257	7.251	6.486	-143.716
218	521.002	35.599	117.599	-1869.799	1301.051	-180.702
219	2336.426	-1260.458	134.843	-1598.433	1507.153	-213.628

COMBINACION 41 1.35 (G1 + G2) + 1.5 (SCVMAX-EC1) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	1561.545	-1466.284	122.812	6130.552	1513.920	-1044.073
221	-15391.170	2894.046	-172.659	6994.102	-1659.842	-255.927
222	-7026.129	1660.567	247.517	5561.104	-1118.929	-217.561
223	-5655.502	1121.242	205.233	2857.954	-1018.621	-223.694
224	-3012.468	1022.723	206.609	1379.623	-930.141	22.541
225	-1591.621	936.140	-42.936	-850.556	-834.717	5.141
226	1697.742	842.877	-25.354	-3978.997	-713.658	-1.485
227	1601.478	731.696	-73.452	-3374.534	-605.017	56.429
228	2736.863	628.419	-55.243	-4302.480	-507.692	38.017
229	3613.286	535.556	-37.248	-4736.482	-409.648	20.136
230	4014.865	442.215	-18.762	-4953.911	-323.207	1.410
231	4218.824	360.543	-0.336	-4724.671	-238.171	-16.606
232	3997.262	280.157	16.518	-4376.097	-166.882	-33.690
233	3676.131	213.527	35.091	-3674.479	-99.122	-52.246
234	3021.403	150.540	52.217	-2992.736	-46.934	-69.417
235	2405.129	102.767	69.905	-605.542	-12.607	-7.507
236	1589.672	59.979	86.060	-207.956	9.613	-60.218
237	965.654	30.882	102.839	371.243	15.773	-145.403
238	-536.034	21.398	62.904	-1476.326	1310.779	-182.042
239	1374.614	-1271.655	95.227	-1169.906	1516.836	-214.404
240	1133.447	-1475.939	123.341	6537.424	1525.342	-1044.530
241	-15254.575	2884.008	-167.828	6949.984	-1657.338	-262.424
242	-6982.028	1658.088	253.443	5520.150	-1115.534	-223.343
243	-5614.981	1117.921	211.511	2829.853	-1015.252	-229.674
244	-2984.664	1019.388	212.606	1364.045	-928.398	15.723
245	-1576.058	934.502	-36.338	-868.804	-827.817	-1.059
246	1662.314	836.098	-22.351	-3929.376	-708.052	-4.965
247	3620.508	718.595	-24.020	-3259.629	-592.912	54.471
248	2624.968	616.692	-54.291	-4165.300	-496.811	37.226
249	3480.125	525.286	-36.513	-4581.349	-399.991	19.145
250	3865.254	432.890	-16.837	-4784.438	-314.453	-0.394
251	4057.269	352.118	0.335	-4544.109	-230.014	-17.317
252	3826.262	272.546	18.077	-4186.251	-159.433	-35.312
253	3497.672	206.700	36.176	-3477.513	-92.663	-53.422
254	2837.879	144.412	54.005	-1209.708	-49.537	52.966
255	2217.081	97.751	70.502	-737.779	-19.246	-10.868
256	1401.943	56.348	87.073	-365.398	1.417	-63.897
257	150.728	33.955	-13.651	165.190	4.170	-148.749
258	-321.790	33.288	66.615	-1748.314	1305.219	-185.917
259	1653.155	-1265.891	99.858	-2798.910	1511.085	-219.185
260	2767.158	-1470.084	127.944	2559.589	1588.976	-749.334
261	-11041.467	2551.585	-117.485	6850.223	-1661.768	-32.681
262	-6869.718	1662.224	26.442	6355.172	-881.751	-57.116
263	-6412.057	883.153	46.662	4556.650	-840.221	-76.679
264	-4650.343	842.634	63.271	2848.609	-744.290	-86.157
265	-2978.439	747.928	71.040	1389.529	-723.314	-95.173
266	-1154.367	728.098	78.433	-166.867	-635.220	-98.144
267	-28.480	641.436	76.381	-1296.326	-578.908	-91.929
268	1073.504	586.589	65.507	-209.217	-511.559	17.568
269	-243.027	528.189	-17.808	-625.354	-468.194	5.004
270	138.868	487.941	-4.930	-1011.216	-435.390	-7.721
271	500.676	457.971	7.806	-1270.723	-406.718	-20.901
272	747.618	432.465	20.905	-1387.253	-335.332	-33.931
273	863.945	364.535	33.793	-1371.264	-268.021	-46.629
274	860.470	300.604	46.412	-1273.372	-202.626	-59.122

COMBINACION 41 1.35 (G1 + G2) + 1.5 (SCVMAX-EC1) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	789.105	238.205	59.054	404.590	-145.699	22.863
276	594.716	179.105	71.523	438.252	-99.300	-21.247
277	302.045	123.287	83.964	875.496	-54.693	-101.060
278	-1046.904	80.121	41.205	925.104	-14.824	-130.336
279	-1048.627	42.134	66.724	1009.888	24.492	-155.893
280	-1075.965	4.768	89.500	1166.885	968.101	-178.830

COMBINACION 42 1.35 (G1 + G2) + 1.5 (SCVMIN-EC1) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-992.614	199.727	-184.807	732.175	-66.023	95.533
2	-668.325	94.406	-162.038	564.301	-13.939	72.831
3	-445.217	40.324	-135.925	460.397	39.144	46.482
4	-294.849	-14.586	-106.393	41.779	95.448	-27.749
5	161.721	-72.885	-28.644	-1184.675	165.986	73.767
6	227.816	-134.219	15.982	-1380.930	239.877	60.619
7	1856.065	-204.784	-60.458	-1423.326	316.581	47.861
8	1924.656	-284.568	-47.984	-1290.597	395.777	35.535
9	1803.852	-367.224	-35.682	-1105.094	484.965	22.814
10	1618.175	-459.563	-22.772	-581.311	526.980	10.063
11	1082.044	-504.780	-9.997	82.624	569.788	-2.743
12	394.718	-550.358	2.158	890.568	612.308	-14.894
13	1433.521	-598.957	-32.108	61.810	676.898	48.522
14	153.411	-669.615	-74.716	1489.523	730.729	54.779
15	-1300.871	-724.808	-76.684	3058.911	780.791	52.150
16	-2900.653	-776.032	-72.585	4743.909	828.289	43.572
17	-4618.462	-824.818	-58.540	6509.202	874.166	16.935
18	-6418.193	-871.811	-28.142	6514.164	921.499	-8.417
19	-6458.611	-920.151	0.792	8985.700	1650.510	-36.781
20	-8967.024	-1650.032	28.524	13084.712	2489.774	-117.470
21	-5236.358	1593.693	-871.216	-1733.385	-509.519	130.321
22	1764.032	549.177	-221.507	-352.294	-87.272	102.534
23	444.082	125.281	-189.170	-685.254	-64.210	70.127
24	836.675	100.337	-152.047	-1068.315	-43.225	32.964
25	1275.922	77.391	-110.143	-2513.114	45.609	87.231
26	2246.552	-9.722	-15.621	-3504.705	110.718	70.351
27	2521.795	-63.886	47.993	-3866.750	173.677	54.299
28	4494.856	-122.742	-53.430	-4222.118	246.315	36.385
29	4898.108	-200.044	-37.448	-4227.418	317.878	20.505
30	4932.568	-276.065	-19.523	-4126.915	398.743	2.380
31	4840.710	-361.597	-2.407	-3610.957	476.682	-14.447
32	4313.543	-444.430	13.626	-2913.379	562.329	-30.360
33	3585.821	-534.519	30.243	-1778.351	642.489	-47.280
34	2401.794	-619.290	47.666	-436.139	728.053	-64.547
35	2662.167	-712.247	25.928	-954.255	820.021	216.496
36	1209.477	-812.067	-242.120	892.832	915.652	202.443
37	-687.456	-909.653	-221.994	3393.063	1009.385	241.409
38	-3243.332	-1005.389	-258.144	4015.300	1108.483	240.048
39	-3923.229	-1106.181	-250.142	7418.160	1641.098	279.907
40	-7387.056	-1640.380	-288.478	15239.202	2821.068	-164.009
41	-6769.105	1582.482	-1060.318	-1399.280	-444.417	127.519
42	1434.420	483.940	-218.692	400.052	-6.051	99.680
43	-301.680	43.890	-186.587	-219.117	1.729	120.752
44	-123.568	34.646	-149.285	-625.957	12.018	103.808
45	164.989	27.408	-107.465	-1587.000	32.898	87.460
46	1737.021	13.108	-10.150	-3355.895	100.477	67.558
47	3932.976	-45.714	-67.595	-3762.456	164.902	50.554
48	4403.763	-114.479	-50.016	-4153.099	238.902	33.115
49	4840.630	-192.972	-33.725	-4183.712	311.686	16.886
50	4898.437	-270.556	-16.970	-4099.741	393.905	-0.084
51	4821.828	-357.302	1.038	-3593.904	472.890	-18.131
52	4302.613	-440.809	17.688	-2902.561	558.883	-34.597
53	3579.125	-531.468	34.849	-1770.320	639.491	-51.769
54	2395.860	-616.445	51.685	-431.259	724.838	-68.713

COMBINACION 42 1.35 (G1 + G2) + 1.5 (SCVMIN-EC1) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	989.236	-706.222	68.694	-939.003	808.690	211.043
56	1194.814	-800.796	-235.766	877.647	904.957	195.868
57	-672.796	-899.119	-216.565	3348.089	999.015	235.342
58	-3198.405	-995.020	-250.837	3942.044	1098.844	232.746
59	-3850.520	-1096.644	-243.806	7321.815	1632.188	273.588
60	-7290.768	-1631.459	-282.102	15205.514	2817.658	-167.599
61	-6204.242	1567.313	-1053.750	-2477.933	-432.009	149.485
62	2017.116	471.833	-212.347	-725.182	9.321	131.924
63	249.603	30.706	-179.793	-924.295	20.801	114.898
64	387.253	20.825	-142.659	-1272.559	31.403	98.302
65	632.472	13.102	-100.586	-2176.540	52.585	81.158
66	2161.166	-1.395	-10.687	-3886.694	120.127	69.500
67	4464.892	-65.461	-68.160	-4235.684	184.436	51.044
68	4878.305	-133.997	-51.123	-4570.226	258.247	34.219
69	5258.823	-212.432	-34.330	-4545.814	330.935	17.361
70	5261.341	-289.790	-17.535	-4407.725	412.952	0.592
71	5130.238	-376.247	0.442	-3848.217	491.693	-17.656
72	4557.502	-459.837	18.245	-3102.650	577.848	-35.188
73	3779.737	-550.463	34.855	-1916.524	658.470	-51.824
74	2542.491	-635.365	51.888	-522.680	743.822	-69.003
75	1081.021	-725.183	69.045	-965.872	822.753	209.655
76	1221.365	-814.829	-234.577	892.262	919.055	194.608
77	-687.238	-913.289	-214.750	3405.535	1013.220	233.670
78	-3255.796	-1009.284	-249.195	4041.951	1113.030	231.176
79	-3950.875	-1110.791	-243.828	7463.260	1646.176	273.198
80	-7431.788	-1645.461	-279.305	15453.303	2836.854	-169.679
81	-6254.671	1568.144	-1055.755	-2475.088	-431.695	152.288
82	1972.781	472.462	-215.402	-720.374	9.300	135.471
83	206.210	31.662	-183.077	-920.088	20.610	118.454
84	347.199	21.991	-145.938	-1269.845	31.067	101.780
85	596.620	14.282	-104.028	-2175.616	52.260	85.374
86	2129.914	-0.074	-8.582	-3887.405	119.838	67.388
87	4465.876	-65.034	-67.037	-4237.710	184.058	49.971
88	4880.302	-133.802	-49.026	-4572.603	258.155	32.107
89	5261.245	-212.198	-33.422	-4548.293	330.750	16.446
90	5263.631	-289.629	-14.838	-4409.748	412.796	-2.463
91	5132.531	-376.209	3.451	-3850.002	491.657	-20.545
92	4559.843	-459.735	20.102	-3103.737	577.872	-36.952
93	3780.875	-550.535	37.413	-1917.178	658.518	-54.454
94	2543.215	-635.462	54.759	-523.069	743.874	-71.736
95	1081.660	-725.187	71.882	1284.776	822.537	-88.924
96	1219.240	-814.004	-231.925	891.181	918.217	191.426
97	-686.392	-912.310	-212.312	3401.752	1012.260	230.960
98	-3252.077	-1008.360	-246.385	4035.595	1112.125	228.305
99	-3944.291	-1109.901	-240.370	7455.588	1645.369	269.774
100	-7424.105	-1644.650	-276.086	15452.112	2836.771	-171.962
101	-6205.272	1567.081	-1054.781	-2541.051	-430.295	151.578
102	2019.997	471.461	-215.084	-782.387	10.811	135.503
103	250.809	30.616	-182.914	-977.501	22.157	118.575
104	388.575	20.797	-145.711	-1322.341	32.699	101.422
105	634.299	13.163	-103.876	-2223.276	53.884	85.388
106	2163.909	-1.321	-9.669	-3929.978	121.442	68.777
107	4508.411	-66.630	-67.544	-4275.309	185.619	50.414
108	4918.239	-135.316	-50.051	-4605.554	259.697	33.117
109	5294.343	-213.781	-32.563	-4576.659	332.329	15.566

COMBINACION 42 1.35 (G1 + G2) + 1.5 (SCVMIN-EC1) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	5292.313	-291.278	-15.751	-4433.661	414.481	-1.277
111	5156.160	-377.825	3.003	-3869.331	493.245	-20.099
112	4578.608	-461.322	20.225	-3118.695	579.366	-37.100
113	3795.729	-552.090	37.075	-1927.767	660.033	-54.273
114	2553.960	-636.932	55.100	-528.295	745.454	-72.202
115	1086.592	-726.722	72.465	1283.260	823.971	-89.436
116	1219.999	-814.913	-231.508	894.007	919.187	190.768
117	-688.590	-913.304	-210.148	3406.535	1013.218	229.190
118	-3257.371	-1009.240	-246.941	4043.788	1113.108	228.388
119	-3952.298	-1110.880	-238.979	7464.502	2698.705	269.242
120	-7434.103	-2698.003	-280.215	15471.844	2838.179	-165.107
121	-6207.411	1567.220	-1054.531	-2540.718	-430.299	152.535
122	2016.644	471.527	-214.993	-782.139	10.763	135.347
123	247.611	30.660	-182.658	-977.299	22.127	118.442
124	385.621	20.873	-145.523	-1322.510	32.707	101.513
125	631.854	13.277	-103.596	-2223.927	53.777	85.502
126	2161.893	-1.114	-9.512	-3931.134	121.264	68.978
127	4509.550	-66.569	-67.894	-4276.927	185.559	50.681
128	4919.441	-135.068	-50.010	-4607.756	259.382	32.850
129	5296.679	-213.771	-31.686	-4578.863	332.357	14.766
130	5294.720	-291.074	-14.843	-4436.191	414.321	-1.989
131	5158.513	-377.813	2.461	-3871.791	493.222	-19.568
132	4581.494	-461.435	20.481	-3120.898	579.520	-37.732
133	3798.111	-552.076	38.935	-1930.128	660.019	-56.205
134	2556.406	-637.000	56.953	-530.791	745.495	-73.936
135	1089.300	-726.790	74.197	1281.581	824.126	-91.164
136	1220.728	-815.027	-229.030	892.581	919.230	188.280
137	-687.997	-913.433	-209.814	3406.707	1013.359	228.150
138	-3257.002	-1009.374	-243.543	4043.813	1113.183	225.393
139	-3952.557	-1110.975	-236.995	7465.010	2698.829	267.325
140	-7434.517	-2698.092	-278.283	15471.738	2838.258	-165.999
141	-6203.998	1567.070	-1051.235	-2545.882	-430.203	150.997
142	2020.466	471.477	-212.129	-786.731	10.899	132.420
143	250.827	30.540	-179.510	-981.498	22.241	115.674
144	388.602	20.830	-142.542	-1326.246	32.813	99.086
145	634.617	13.112	-100.459	-2226.956	53.976	82.557
146	2164.242	-1.197	-8.269	-3933.841	121.427	68.226
147	4512.071	-66.595	-67.326	-4279.269	185.626	49.970
148	4921.432	-135.364	-48.594	-4609.220	259.647	31.421
149	5297.890	-213.680	-30.569	-4580.261	332.253	13.545
150	5295.607	-291.128	-13.618	-4436.927	414.345	-3.359
151	5159.308	-377.841	4.895	-3872.179	493.291	-22.039
152	4581.460	-461.395	22.085	-3121.405	579.436	-39.209
153	3798.292	-552.054	41.094	-1929.978	660.021	-58.456
154	2556.276	-637.045	58.750	-530.857	745.523	-75.583
155	1089.481	-726.794	75.862	1281.653	824.146	-92.937
156	1220.428	-815.076	-227.303	892.853	919.259	186.272
157	-688.438	-913.390	-208.314	3406.451	1013.308	226.407
158	-3256.744	-1009.337	-241.732	4043.114	1113.143	223.554
159	-3951.925	-1110.933	-235.527	7465.771	2698.849	265.285
160	-7434.708	-2698.153	-273.166	15472.322	2838.338	-171.853
161	-6206.608	1567.279	-1056.783	-2542.427	-430.516	156.811
162	2018.007	471.639	-218.943	-784.541	10.562	139.677
163	249.352	30.802	-186.667	-980.413	21.900	122.889
164	387.732	20.936	-149.540	-1326.051	32.496	105.900

COMBINACION 42 1.35 (G1 + G2) + 1.5 (SCVMIN-EC1) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	634.157	13.459	-107.848	-2228.291	53.514	90.526
166	2164.688	-1.016	-6.456	-3936.310	121.086	65.709
167	4514.512	-66.236	-66.135	-4282.735	185.274	49.305
168	4925.169	-135.046	-49.836	-4613.859	259.375	32.722
169	5302.665	-213.512	-30.267	-4585.889	332.078	12.858
170	5301.223	-290.842	-12.406	-4444.123	413.996	-4.859
171	5166.620	-377.396	6.899	-3880.487	492.863	-24.240
172	4589.930	-461.056	24.313	-3130.549	579.161	-41.186
173	3807.500	-551.775	41.672	-1940.485	659.722	-59.030
174	2566.459	-636.740	60.209	-542.133	745.205	-77.363
175	1100.729	-726.582	77.761	1269.721	823.937	-94.731
176	1228.350	-815.040	-225.671	884.979	919.232	184.531
177	-679.920	-913.364	-204.848	3398.770	1013.267	223.544
178	-3249.313	-1009.344	-240.268	4035.148	1113.022	222.064
179	-3943.950	-1110.738	-234.400	7457.792	2698.721	264.129
180	-7426.737	-2698.019	-272.045	15458.786	2838.130	-172.390
181	-6205.936	1567.239	-1052.702	-2540.437	-430.784	152.546
182	2018.572	471.656	-215.048	-783.166	10.285	135.889
183	249.897	30.812	-182.852	-979.860	21.628	118.661
184	388.251	21.049	-145.683	-1326.359	32.156	102.145
185	634.921	13.438	-103.918	-2228.961	53.372	86.360
186	2165.170	-1.036	-8.330	-3937.410	120.847	68.089
187	4515.597	-66.079	-65.990	-4284.079	185.092	48.771
188	4926.722	-134.890	-49.067	-4615.774	259.176	32.171
189	5304.743	-213.247	-31.322	-4588.479	331.812	14.049
190	5304.228	-290.520	-12.466	-4447.440	413.709	-4.631
191	5169.789	-377.184	4.484	-3884.608	492.624	-21.779
192	4594.289	-460.603	24.076	-3136.028	578.689	-41.450
193	3813.123	-551.363	41.731	-1946.802	659.347	-58.726
194	2572.798	-636.429	59.156	-549.783	744.855	-76.215
195	1108.170	-726.152	76.460	1260.956	823.495	-93.689
196	1228.950	-814.889	-225.867	884.033	919.107	185.121
197	-679.164	-913.229	-205.941	3396.794	1013.178	224.354
198	-3247.468	-1009.303	-241.462	4033.569	1113.150	223.073
199	-3942.281	-1110.903	-235.015	7456.261	2698.769	264.572
200	-7424.979	-2698.041	-271.573	15445.257	2837.837	-173.184
201	-6246.110	1570.087	-1055.062	-1951.309	-435.141	126.196
202	1986.921	474.656	-217.128	-750.858	5.933	137.880
203	227.569	33.751	-184.801	-960.521	17.274	121.343
204	374.810	24.035	-147.839	-1320.240	27.794	104.287
205	630.258	16.296	-105.960	-2236.148	49.007	88.599
206	2169.605	1.895	-7.414	-3958.212	116.437	66.966
207	4536.503	-61.605	-66.382	-4319.084	180.623	49.464
208	4961.580	-130.243	-49.907	-4665.100	254.566	32.810
209	5353.830	-208.812	-30.256	-4651.673	327.407	12.964
210	5367.432	-286.326	-13.115	-4523.921	409.593	-3.834
211	5246.575	-372.959	5.489	-3974.430	488.417	-22.552
212	4683.809	-456.469	22.588	-3238.637	574.594	-39.743
213	3915.688	-547.260	41.828	-2061.789	655.285	-59.096
214	2687.976	-632.307	59.465	-676.620	740.848	-76.362
215	1234.875	-722.144	76.758	-1063.764	820.212	201.083
216	1319.459	-812.449	-225.928	786.772	916.677	185.135
217	-582.290	-910.799	-207.025	3292.944	1010.614	225.157
218	-3143.307	-1006.652	-240.510	3921.385	2392.717	222.360
219	-3830.207	-2390.485	-234.321	7334.302	2696.081	264.378

COMBINACION 42 1.35 (G1 + G2) + 1.5 (SCVMIN-EC1) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	-7303.592	-2695.392	-273.781	15242.395	2833.635	-170.506
221	-6243.098	1570.203	-1054.790	-1939.628	-436.460	126.202
222	1975.314	475.958	-217.025	-119.622	2.522	97.786
223	218.628	35.291	-184.724	-947.578	13.560	121.260
224	370.656	25.557	-147.658	-1318.383	24.133	104.302
225	630.789	17.884	-105.811	-2244.381	45.586	88.595
226	2174.066	3.299	-6.248	-3974.929	113.252	65.900
227	4552.983	-58.445	-66.337	-4342.957	177.551	49.277
228	4985.138	-127.251	-48.035	-4695.114	251.572	30.924
229	5383.110	-205.885	-30.508	-4687.611	324.329	13.364
230	5402.936	-283.163	-12.011	-4565.798	406.361	-5.270
231	5287.486	-369.807	6.547	-4023.206	485.055	-23.610
232	4731.762	-453.151	23.700	-3295.419	571.009	-40.743
233	3971.616	-543.699	42.332	-2127.816	651.523	-59.627
234	2752.921	-628.511	60.093	-753.828	736.797	-77.224
235	1311.264	-718.132	77.679	-1044.380	819.561	199.751
236	1299.447	-811.655	-224.451	803.577	915.944	183.997
237	-599.647	-910.154	-205.487	3307.905	1010.474	223.651
238	-3159.146	-1006.574	-240.714	3939.380	2393.011	222.257
239	-3848.262	-2390.780	-233.277	7359.334	2696.322	263.063
240	-7328.482	-2695.607	-271.461	15112.060	2830.458	-173.209
241	-6717.622	1605.647	-1038.479	-1897.361	-495.762	152.231
242	1240.351	549.919	-233.143	-338.278	-53.840	134.801
243	-290.524	108.264	-200.850	-727.284	-42.074	118.194
244	79.942	98.006	-163.906	-1819.842	-27.999	102.243
245	835.050	88.657	-81.173	-2358.930	-1.556	85.324
246	3913.717	60.297	-83.910	-4183.330	65.103	66.934
247	4760.144	-10.680	-65.183	-4701.868	128.716	48.108
248	5341.357	-78.754	-48.542	-5205.493	202.302	31.640
249	5888.849	-156.821	-31.290	-5349.355	274.641	13.969
250	6057.713	-234.019	-10.723	-5375.663	356.720	-6.511
251	6089.081	-320.769	6.572	-4977.544	435.769	-23.620
252	5676.163	-404.357	24.880	-4388.039	522.090	-42.028
253	5052.325	-495.199	43.742	-3354.628	602.734	-61.119
254	3966.790	-580.425	62.854	-3332.892	690.364	-84.529
255	3624.928	-680.510	55.059	-1931.853	789.275	185.749
256	2179.477	-781.788	-210.554	-145.249	885.105	169.770
257	342.502	-879.462	-190.457	2282.176	977.232	209.066
258	-2138.875	-973.402	-224.362	2803.415	2366.310	206.592
259	-2717.195	-2364.157	-219.037	4814.554	2669.691	248.793
260	-4785.022	-2669.007	-255.700	10951.682	2783.983	-178.427
261	-4695.911	1407.009	-935.836	-2886.073	-665.674	104.570
262	2909.151	695.636	-172.049	-1337.626	54.541	82.562
263	1398.586	-25.595	-146.871	-1276.187	35.943	57.192
264	1374.321	-8.097	-118.128	-1480.260	66.785	71.013
265	1476.351	-36.282	-57.393	-1911.798	38.831	59.002
266	2057.251	-1.115	-2.262	-2508.083	75.505	41.719
267	2069.884	-31.384	44.187	-2900.928	82.593	30.109
268	3316.079	-40.696	-29.107	-3315.878	92.007	16.051
269	3770.965	-53.114	-15.140	-3726.241	104.256	2.232
270	4211.801	-68.226	-2.450	-4106.694	118.814	-10.176
271	4611.801	-85.898	10.030	-4435.681	135.257	-23.051
272	4948.360	-105.727	25.222	-4657.980	201.025	-38.297
273	5165.835	-174.446	38.255	-4857.534	276.394	-51.034
274	5346.617	-253.260	52.598	-4801.611	349.767	-65.399

COMBINACION 42 1.35 (G1 + G2) + 1.5 (SCVMIN-EC1) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	5257.658	-330.265	65.713	-4516.798	427.323	-78.438
276	4925.260	-411.088	79.394	-3982.405	508.654	-92.292
277	4434.705	-500.210	-137.038	-3457.086	615.898	147.550
278	3600.463	-610.962	-160.848	-2316.795	718.046	145.017
279	2408.677	-715.158	-154.550	-800.960	825.485	143.473
280	834.230	-824.608	-150.040	1167.193	1822.922	114.775

COMBINACION 43 1.35 (G1 + G2) + 1.5 (SCVMAX-EC1) + V_Pd

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	6.314	1069.769	6.149	-3767.603	-902.189	-40.234
2	3734.622	903.162	33.556	-6979.621	-789.416	-67.959
3	6887.401	792.276	58.316	-9625.912	-680.270	-91.933
4	9482.258	685.207	77.270	-11740.824	-562.927	-70.135
5	11555.270	569.718	52.977	-13337.223	-442.735	-50.378
6	13118.523	451.425	31.212	-14503.414	-338.517	-46.796
7	14258.919	349.066	23.213	-15207.752	-235.308	-32.799
8	13992.138	248.807	-47.718	-14604.797	-138.231	35.305
9	14097.381	164.794	-35.886	-14312.471	-55.204	22.943
10	13800.352	84.930	-21.529	-13626.999	-18.133	8.901
11	13122.467	51.114	-10.935	-12569.937	13.222	-1.873
12	12084.917	22.921	3.550	-11162.354	38.287	-16.212
13	10707.391	0.704	14.985	-9261.353	62.434	-27.522
14	8846.231	-20.691	28.085	-6445.831	72.246	40.436
15	6841.886	-29.554	40.709	-4340.531	69.008	-6.587
16	4552.142	-32.395	53.631	-1948.837	62.459	-49.501
17	1991.319	-30.928	66.422	722.019	45.062	-88.817
18	-820.014	-17.258	28.281	3615.094	38.654	-141.848
19	-3676.012	-9.718	77.528	6770.206	713.391	-166.801
20	-6793.321	-683.395	99.217	15407.871	1363.406	-930.722
21	-21656.598	2830.467	-173.208	12807.143	-1700.043	-249.427
22	-12836.875	1700.747	243.079	5304.474	-1177.128	-213.644
23	-5391.437	1179.275	202.599	-1055.957	-1062.541	-220.625
24	912.754	1066.260	205.123	-5756.995	-954.678	22.829
25	5559.646	960.293	-43.062	-10031.861	-788.849	6.122
26	10159.240	796.461	-31.162	-14236.263	-671.434	5.395
27	13944.353	681.261	-35.667	-15667.543	-547.782	54.448
28	15055.674	570.150	-53.351	-17539.922	-451.533	36.350
29	16875.625	478.261	-37.602	-18519.066	-354.320	20.582
30	17820.773	385.740	-19.160	-18885.486	-268.673	2.053
31	18171.689	304.759	-2.260	-18408.727	-183.894	-14.513
32	17699.707	224.456	13.285	-17400.969	-112.566	-30.092
33	16717.395	157.913	30.248	-15608.444	-44.734	-47.334
34	14969.328	94.543	48.400	-13369.681	8.047	-65.184
35	12793.180	46.481	64.105	-10410.132	55.596	-81.125
36	9912.807	3.136	82.015	-5670.298	78.872	-63.443
37	6675.996	-26.216	98.685	-1877.629	86.461	-149.128
38	2487.531	-39.492	115.776	2097.776	98.339	-186.128
39	-1533.174	-52.885	132.184	6592.281	533.694	-218.368
40	-6026.392	-488.509	149.508	16118.275	1562.796	-1032.999
41	-24508.770	2889.796	-173.574	14624.924	-1655.202	-260.731
42	-14656.396	1655.912	255.164	7005.560	-1116.291	-225.870
43	-7096.455	1118.539	213.270	536.461	-1017.905	-231.339
44	-685.679	1021.805	215.834	-4125.089	-930.543	15.401
45	3920.357	936.387	-35.098	-7934.637	-836.640	-2.918
46	8791.042	844.505	-19.633	-11391.342	-716.911	68.388
47	10834.142	735.528	-68.317	-14114.785	-610.209	51.272
48	13489.928	633.159	-50.889	-16155.213	-513.771	34.034
49	15479.373	541.249	-34.554	-17306.117	-416.495	17.693
50	16597.676	448.252	-17.541	-17847.359	-330.536	0.410
51	17125.879	367.054	0.645	-17548.383	-245.760	-17.684
52	16833.355	287.030	17.066	-16723.215	-174.967	-33.985
53	16035.042	220.701	34.340	-15115.684	-107.533	-51.233
54	14473.270	157.939	50.923	-13065.723	-55.692	-67.978

COMBINACION 43 1.35 (G1 + G2) + 1.5 (SCVMAX-EC1) + V_Pd

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	12487.522	110.344	68.593	-8586.697	-18.788	-6.941
56	9800.080	67.823	85.157	-5765.409	3.165	-59.966
57	6758.287	38.971	102.199	-2207.263	8.900	-145.822
58	2780.833	29.473	118.963	1535.211	21.135	-182.954
59	-1634.124	16.627	96.399	5796.595	457.091	-215.560
60	-5832.232	-417.572	124.747	15464.981	1514.470	-1048.546
61	-24458.500	2888.826	-165.583	14427.711	-1652.089	-266.856
62	-14458.713	1652.818	258.490	6821.156	-1112.169	-228.579
63	-6912.505	1114.401	216.692	367.044	-1013.040	-234.696
64	-516.886	1017.059	219.790	-4270.771	-925.701	10.582
65	4066.053	931.509	-31.746	-8071.905	-831.607	-5.538
66	8927.248	839.464	-23.132	-11421.900	-715.201	71.770
67	10863.617	733.786	-71.059	-14141.525	-608.684	54.002
68	13515.787	631.709	-53.935	-16178.829	-512.480	37.020
69	15501.999	539.851	-36.923	-17325.703	-415.318	19.982
70	16616.506	447.172	-19.882	-17863.445	-329.653	2.852
71	17141.121	366.365	-1.688	-17561.324	-245.228	-15.491
72	16845.754	286.350	15.975	-16733.031	-174.330	-32.885
73	16044.594	220.123	32.295	-15122.828	-106.987	-49.268
74	14480.327	157.475	49.575	-13070.638	-55.143	-66.732
75	12492.435	109.866	67.207	-8593.325	-16.193	-5.424
76	9802.821	67.311	83.975	-5763.919	5.731	-58.371
77	6759.362	38.373	100.773	-2198.420	11.434	-144.184
78	2781.079	29.071	117.306	1551.376	23.534	-181.423
79	-1033.453	15.439	135.213	5820.184	459.259	-214.426
80	-5855.749	-419.753	123.266	15512.640	1518.271	-1046.761
81	-24709.959	2894.165	-170.794	14596.797	-1655.554	-261.070
82	-14628.080	1656.298	254.097	6979.086	-1116.003	-224.435
83	-7070.289	1118.219	211.910	512.412	-1017.019	-230.023
84	-662.131	1021.056	214.550	-4136.202	-929.827	15.635
85	3931.258	935.522	-36.155	-7948.203	-835.651	-1.510
86	8804.003	843.565	-22.380	-11266.895	-720.776	70.787
87	10708.548	739.470	-70.388	-14002.619	-614.307	53.330
88	13376.536	637.185	-52.593	-16055.910	-517.874	35.691
89	15378.875	545.397	-36.416	-17218.713	-420.824	19.349
90	16509.316	452.726	-17.607	-17772.293	-335.176	0.263
91	17050.281	371.733	0.562	-17486.365	-250.600	-17.518
92	16771.043	291.768	16.829	-16674.857	-179.617	-33.750
93	15986.079	225.410	34.259	-15080.461	-112.304	-51.263
94	14437.985	162.721	51.616	-13044.354	-60.442	-68.617
95	12466.249	115.205	68.719	-8585.469	-20.139	-6.959
96	9792.688	72.581	85.743	-5768.127	1.820	-60.051
97	6765.368	43.843	102.820	-2214.857	7.344	-145.645
98	2803.463	34.525	118.996	1522.843	19.541	-182.821
99	-994.601	20.832	136.499	5779.750	455.403	-215.612
100	-5265.108	-415.232	153.046	15459.824	1514.293	-1047.026
101	-24710.520	2894.211	-173.071	14583.850	-1655.403	-258.695
102	-14615.429	1656.115	253.111	6967.115	-1115.730	-223.749
103	-7058.336	1117.982	211.321	501.614	-1016.693	-229.683
104	-650.955	1020.654	212.628	-4145.686	-929.389	17.605
105	3940.615	935.164	-37.803	-7957.371	-835.234	0.302
106	8812.960	843.097	-25.126	-11266.453	-720.660	73.211
107	10708.266	739.397	-72.513	-14002.003	-614.282	55.438
108	13376.287	637.173	-54.946	-16055.617	-517.826	37.939
109	15378.633	545.327	-37.288	-17218.395	-420.743	20.351

COMBINACION 43 1.35 (G1 + G2) + 1.5 (SCVMAX-EC1) + V_Pd

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	16509.139	452.519	-20.319	-17772.109	-334.949	3.164
111	17049.848	371.641	-1.479	-17485.906	-250.549	-15.499
112	16770.383	291.762	15.393	-16673.990	-179.697	-32.308
113	15985.547	225.382	32.202	-15079.826	-112.327	-49.409
114	14437.452	162.789	50.760	-13044.010	-60.386	-67.799
115	12465.707	115.212	67.246	-8585.795	-19.919	-5.107
116	9792.504	72.623	84.867	-5767.592	2.137	-58.389
117	6765.246	43.823	101.084	-2213.568	7.659	-143.823
118	2803.123	34.556	117.416	1524.588	19.844	-180.714
119	-994.570	20.821	133.843	5782.187	1508.074	-213.166
120	-5265.119	-1467.658	152.163	15464.420	1514.517	-1044.092
121	-24731.691	2894.788	-170.602	14598.842	-1655.914	-259.357
122	-14629.941	1656.630	251.536	6980.390	-1116.293	-221.712
123	-7071.615	1118.513	209.257	513.178	-1017.296	-227.542
124	-662.607	1021.223	211.102	-4136.587	-929.828	18.603
125	3931.654	935.664	-39.067	-7949.569	-835.761	1.736
126	7112.021	843.696	-91.454	-11256.144	-721.277	74.350
127	10697.705	739.854	-73.640	-13992.883	-614.731	56.454
128	13366.627	637.804	-55.772	-16047.375	-518.526	38.534
129	15370.345	545.697	-37.426	-17211.338	-421.079	20.619
130	16501.770	453.126	-20.560	-17766.371	-335.505	3.628
131	17043.590	372.027	-2.955	-17480.768	-250.930	-14.127
132	16765.434	292.014	15.131	-16669.828	-179.936	-32.442
133	15981.356	225.815	33.675	-15076.871	-112.735	-50.788
134	14434.480	163.154	51.259	-13042.086	-60.784	-68.246
135	12463.777	115.568	67.748	-8585.369	-20.150	-5.258
136	9791.552	73.027	84.500	-5768.131	1.741	-58.255
137	6765.500	44.196	101.835	-2214.917	7.405	-143.686
138	2804.855	34.940	117.451	1522.412	19.522	-180.710
139	-991.845	21.228	134.525	5779.073	1507.770	-213.582
140	-5261.082	-1467.219	152.781	15458.570	1514.249	-1044.105
141	-24729.943	2894.549	-166.029	14597.383	-1655.627	-261.851
142	-14627.852	1656.352	251.268	6979.235	-1115.917	-220.900
143	-7070.559	1118.115	209.008	513.954	-1016.921	-227.246
144	-663.463	1020.894	211.475	-4134.908	-929.577	17.536
145	3930.432	935.337	-38.972	-7947.225	-835.479	1.730
146	7109.336	843.572	-92.855	-11253.599	-721.117	75.830
147	10695.061	739.864	-75.070	-13990.721	-614.700	57.704
148	13364.262	637.575	-56.470	-16044.535	-518.323	39.200
149	15367.586	545.845	-38.338	-17208.832	-421.247	21.444
150	16499.145	453.099	-21.250	-17763.527	-335.496	4.126
151	17041.012	372.047	-2.530	-17478.152	-250.943	-14.483
152	16762.557	292.100	14.461	-16667.422	-180.038	-31.740
153	15978.721	225.837	33.897	-15074.119	-112.747	-51.028
154	14431.797	163.095	50.609	-13039.271	-60.741	-67.537
155	12461.029	115.548	67.795	-8583.429	-20.079	-5.256
156	9788.602	72.912	84.592	-5765.968	1.873	-58.282
157	6762.174	44.124	102.006	-2212.340	7.433	-143.473
158	2801.187	34.882	117.389	1525.578	19.526	-180.467
159	-996.128	21.203	134.676	5782.473	1507.845	-213.300
160	-5265.569	-1467.336	151.758	15462.859	1514.262	-1043.851
161	-24731.070	2894.617	-176.022	14598.443	-1655.831	-252.599
162	-14629.507	1656.544	244.776	6980.215	-1116.165	-214.937
163	-7071.401	1118.405	202.537	513.456	-1017.134	-220.881
164	-662.729	1021.005	203.915	-4135.344	-929.688	25.474

COMBINACION 43 1.35 (G1 + G2) + 1.5 (SCVMAX-EC1) + V_Pd

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	3930.367	935.594	-45.549	-7948.019	-835.677	7.639
166	8803.986	843.532	-26.314	-11253.703	-721.089	74.180
167	10695.021	739.814	-73.855	-13990.387	-614.655	57.174
168	13364.010	637.478	-56.745	-16044.076	-518.163	39.361
169	15367.000	545.628	-36.949	-17207.859	-421.043	19.608
170	16498.139	453.030	-19.054	-17762.377	-335.519	1.688
171	17039.789	372.102	0.193	-17477.012	-250.926	-17.335
172	16761.166	291.995	17.006	-16665.789	-179.890	-34.008
173	15976.996	225.725	34.329	-15072.194	-112.667	-51.612
174	14429.571	163.046	53.172	-13036.917	-60.709	-70.271
175	12458.661	115.408	69.386	-8582.997	-20.020	-6.684
176	9785.939	72.837	86.839	-5765.592	1.855	-59.841
177	6759.391	44.063	103.425	-2212.221	7.475	-145.058
178	2798.209	34.738	119.020	1526.250	19.529	-181.996
179	-999.754	21.202	136.493	5783.006	1507.852	-214.966
180	-5269.354	-1467.395	153.554	15463.290	1514.351	-1045.237
181	-24713.590	2893.279	-172.261	14590.021	-1654.884	-256.873
182	-14621.314	1655.597	249.987	6974.885	-1115.230	-220.280
183	-7065.684	1117.449	205.444	510.919	-1016.222	-223.400
184	-660.623	1020.184	208.054	-4135.204	-928.898	21.262
185	3930.435	934.696	-41.979	-7945.820	-834.686	4.439
186	8801.535	842.650	-27.875	-11246.586	-719.871	75.311
187	10688.140	738.525	-74.252	-13979.477	-613.382	57.164
188	13353.642	636.209	-56.973	-16029.893	-516.955	39.959
189	15353.213	544.459	-38.866	-17190.537	-419.873	21.635
190	16481.174	451.863	-20.072	-17741.918	-334.285	2.932
191	17019.223	370.793	-3.049	-17452.758	-249.669	-14.266
192	16737.244	290.951	16.524	-16638.406	-178.874	-33.841
193	15949.431	224.649	33.446	-15041.238	-111.524	-50.316
194	14398.368	161.856	50.426	-13002.127	-59.573	-67.625
195	12423.574	114.361	68.371	-8557.814	-19.435	-5.254
196	9747.255	71.715	85.079	-5737.939	2.561	-58.140
197	6716.998	42.950	101.803	-2182.210	8.131	-143.337
198	2752.128	33.601	117.417	1558.145	20.365	-180.243
199	-1049.005	19.908	134.574	5817.180	1508.601	-212.879
200	-5322.155	-1468.551	151.262	15499.768	1515.100	-1043.479
201	-24702.945	2892.332	-176.087	14590.600	-1654.904	-252.861
202	-14621.703	1655.622	245.043	6975.098	-1115.204	-215.282
203	-7066.544	1117.434	204.298	512.004	-1016.214	-222.816
204	-661.206	1020.231	205.427	-4134.876	-928.928	23.843
205	3929.938	934.641	-44.189	-7944.947	-834.751	6.494
206	8800.912	842.688	-27.512	-11241.066	-718.935	75.264
207	10682.640	737.700	-74.689	-13971.574	-612.563	57.902
208	13345.275	635.517	-57.519	-16019.283	-516.211	40.189
209	15342.109	543.514	-37.878	-17176.430	-418.893	20.726
210	16466.910	450.706	-20.697	-17724.266	-333.087	3.629
211	17001.801	369.737	-2.012	-17431.900	-248.572	-14.922
212	16716.258	289.815	14.860	-16614.309	-177.704	-32.155
213	15925.650	223.444	34.355	-15014.221	-110.285	-51.402
214	14371.723	160.689	51.019	-12972.507	-58.283	-68.018
215	12394.098	113.115	68.570	-8556.169	-19.170	-5.602
216	9715.066	70.447	84.969	-5736.385	2.835	-58.531
217	6681.910	41.709	102.276	-2180.800	8.257	-143.735
218	2714.562	32.588	117.627	1559.142	1302.622	-180.731
219	-1089.106	-1263.333	134.865	5818.174	1508.588	-213.651

COMBINACION 43 1.35 (G1 + G2) + 1.5 (SCVMAX-EC1) + V_Pd

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	-5853.836	-1469.082	122.816	15495.391	1515.278	-1044.078
221	-24498.293	2877.087	-172.661	14483.337	-1644.322	-255.925
222	-14514.287	1645.022	247.559	6898.890	-1104.824	-217.603
223	-6990.130	1107.059	205.300	465.897	-1005.879	-223.761
224	-615.247	1009.844	206.707	-4149.117	-918.703	22.444
225	3944.189	924.500	-42.838	-7928.413	-824.517	5.043
226	8784.411	832.407	-25.251	-12978.807	-704.627	-1.588
227	10611.627	722.318	-73.355	-13854.995	-597.079	56.332
228	13228.916	620.055	-55.158	-15857.057	-500.769	37.932
229	15180.391	528.125	-37.171	-16968.742	-403.656	20.060
230	16260.248	435.631	-18.700	-17472.670	-318.064	1.348
231	16750.953	354.721	-0.285	-17136.016	-233.788	-16.657
232	16421.836	275.011	16.571	-16274.865	-163.176	-33.742
233	15587.629	208.972	35.127	-14631.790	-96.007	-52.282
234	13990.593	146.491	52.253	-12546.996	-44.325	-69.452
235	11970.075	99.143	69.930	-8254.825	-10.423	-7.533
236	9248.152	56.701	86.098	-5407.345	11.452	-60.256
237	6172.486	27.874	102.867	-1825.260	17.341	-145.431
238	1665.958	18.591	62.926	1942.665	1312.147	-182.064
239	-2040.986	-1274.328	95.256	6229.570	1518.068	-214.434
240	-6264.816	-1478.534	123.364	15879.965	1526.497	-1044.553
241	-24354.664	2867.488	-167.842	14436.023	-1642.257	-262.410
242	-14466.984	1642.983	253.488	6860.879	-1101.870	-223.388
243	-6952.544	1104.177	211.569	439.250	-1002.948	-229.733
244	-588.890	1006.946	212.693	-4165.139	-917.396	15.636
245	3960.196	923.296	-36.245	-7994.354	-818.051	-1.152
246	8796.670	826.056	-22.261	-12983.597	-699.449	-5.055
247	12685.038	709.641	-23.934	-13796.449	-585.397	54.385
248	13173.330	608.745	-54.210	-15773.862	-490.304	37.144
249	15101.143	518.264	-36.441	-16862.596	-394.409	19.073
250	16159.520	426.709	-16.785	-17346.180	-309.711	-0.445
251	16632.232	346.690	0.388	-16992.863	-226.026	-17.370
252	16288.068	267.785	18.124	-16118.443	-156.112	-35.359
253	15442.386	202.521	36.215	-14466.501	-89.924	-53.461
254	13838.500	140.729	54.040	-10796.035	-47.294	52.931
255	11813.826	94.484	70.546	-8420.508	-17.419	-10.913
256	9093.583	53.417	87.120	-5597.616	2.908	-63.944
257	5390.109	31.287	-13.606	-2056.868	5.398	-148.794
258	1905.492	30.813	66.668	1685.491	1306.254	-185.970
259	-1777.482	-1268.236	99.901	4619.944	1511.991	-219.228
260	-4650.638	-1472.356	127.992	11904.803	1589.808	-749.382
261	-20187.301	2537.017	-117.522	14833.226	-1648.280	-32.644
262	-14852.069	1648.721	26.408	9597.586	-869.328	-57.081
263	-9652.565	870.682	46.665	4829.192	-828.831	-76.681
264	-4919.752	831.162	63.302	531.544	-733.899	-86.189
265	-657.047	737.416	71.058	-2789.409	-713.882	-95.191
266	3030.027	718.505	78.481	-6304.225	-626.708	-98.192
267	6115.381	632.718	76.412	-8913.384	-571.270	-91.960
268	8697.992	578.697	65.547	-8984.193	-504.746	17.528
269	8540.168	521.072	-17.766	-10244.838	-462.157	4.962
270	9767.195	481.546	-4.890	-11168.025	-430.076	-7.763
271	10666.768	452.244	7.845	-11659.378	-402.071	-20.940
272	11145.787	427.349	20.944	-11735.184	-331.296	-33.969
273	11221.395	359.970	33.834	-11414.094	-264.536	-46.670
274	10912.588	296.528	46.456	-10715.077	-199.630	-59.166

COMBINACION 43 1.35 (G1 + G2) + 1.5 (SCVMAX-EC1) + V_Pd

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	10239.614	234.558	59.101	-8215.455	-143.132	22.816
276	9222.812	175.822	71.575	-7136.900	-97.096	-21.299
277	7884.219	120.303	84.022	-5428.635	-52.789	-101.118
278	5262.937	77.371	41.268	-3880.451	-13.154	-130.400
279	3761.034	39.552	66.795	-2069.117	25.994	-155.964
280	2005.243	2.287	89.574	-8.233	969.501	-178.904

COMBINACION 44 1.35 (G1 + G2) + 1.5 (SCVMIN-EC1) + V_Pd

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	6.652	199.727	-184.807	-1886.596	-66.023	95.533
2	1950.446	94.406	-162.038	-3525.570	-13.939	72.831
3	3644.654	40.324	-135.925	-4910.624	39.145	46.482
4	5076.171	-14.586	-106.393	-6419.078	95.448	-27.749
5	6622.580	-72.885	-28.644	-8543.960	165.986	73.767
6	7587.102	-134.219	15.982	-9447.730	239.877	60.619
7	9922.865	-204.784	-60.458	-10007.455	316.581	47.861
8	10508.785	-284.568	-47.984	-10202.278	395.777	35.535
9	10715.533	-367.224	-35.682	-10154.365	484.965	22.814
10	10667.447	-459.563	-22.772	-9547.902	526.980	10.063
11	10048.636	-504.780	-9.997	-8521.289	569.788	-2.743
12	8998.631	-550.358	2.158	-7059.245	612.308	-14.894
13	9383.334	-598.957	-32.108	-6926.042	676.898	48.522
14	7141.264	-669.615	-74.716	-4208.112	730.729	54.779
15	4396.764	-724.808	-76.684	-999.130	780.791	52.150
16	1157.388	-776.032	-72.585	2691.817	828.289	43.572
17	-2566.370	-824.818	-58.540	6837.297	874.166	16.935
18	-6746.287	-871.811	-28.142	11428.885	921.499	-8.417
19	-11373.334	-920.151	0.792	16475.004	1650.510	-36.781
20	-16456.328	-1650.032	28.524	21680.625	2489.774	-117.470
21	-13832.271	1593.693	-871.216	5326.179	-509.519	130.321
22	-5295.533	549.177	-221.507	987.348	-87.272	102.534
23	-895.560	125.281	-189.170	-2833.334	-64.210	70.127
24	2984.755	100.337	-152.047	-6166.633	-43.225	32.964
25	6374.240	77.391	-110.143	-9617.023	45.609	87.231
26	9350.462	-9.722	-15.621	-12546.727	110.718	70.351
27	11563.816	-63.886	47.993	-14410.729	173.677	54.299
28	15038.834	-122.742	-53.430	-15851.867	246.315	36.385
29	16527.859	-200.044	-37.448	-16538.066	317.878	20.505
30	17243.219	-276.065	-19.523	-16720.740	398.743	2.380
31	17434.535	-361.597	-2.407	-16089.635	476.682	-14.447
32	16792.221	-444.430	13.626	-14869.535	562.329	-30.360
33	15541.977	-534.519	30.243	-12783.119	642.489	-47.280
34	13406.562	-619.290	47.666	-10029.891	728.053	-64.547
35	12255.918	-712.247	25.928	-8638.529	820.021	216.496
36	8893.751	-812.067	-242.120	-4340.958	915.652	202.443
37	4546.334	-909.653	-221.994	1159.972	1009.385	241.409
38	-1010.240	-1005.389	-258.144	7398.205	1108.483	240.048
39	-7306.133	-1106.181	-250.142	14788.658	1641.098	279.907
40	-14757.553	-1640.380	-288.478	24556.820	2821.068	-164.009
41	-16086.723	1582.482	-1060.318	6249.988	-444.417	127.519
42	-6214.848	483.940	-218.692	1849.198	-6.051	99.680
43	-1750.826	43.890	-186.587	-2536.680	1.729	120.752
44	2193.994	34.646	-149.285	-6108.697	12.018	103.808
45	5647.729	27.408	-107.465	-8640.547	32.898	87.460
46	8790.567	13.108	-10.150	-12347.678	100.477	67.558
47	12924.760	-45.714	-67.595	-14246.830	164.902	50.554
48	14888.137	-114.479	-50.016	-15720.131	238.902	33.115
49	16407.662	-192.972	-33.725	-16434.305	311.686	16.886
50	17149.027	-270.556	-16.970	-16640.715	393.905	-0.084
51	17362.801	-357.302	1.038	-16030.017	472.890	-18.131
52	16738.727	-440.809	17.688	-14827.936	558.883	-34.597
53	15504.500	-531.468	34.849	-12755.886	639.491	-51.769
54	13381.426	-616.445	51.685	-10015.574	724.838	-68.713

COMBINACION 44 1.35 (G1 + G2) + 1.5 (SCVMIN-EC1) + V_Pd

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	10573.553	-706.222	68.694	-8620.499	808.690	211.043
56	8876.309	-800.796	-235.766	-4356.365	904.957	195.868
57	4561.215	-899.119	-216.565	1114.728	999.015	235.342
58	-965.043	-995.020	-250.837	7323.931	1098.844	232.746
59	-7232.407	-1096.644	-243.806	14685.502	1632.188	273.588
60	-14654.453	-1631.459	-282.102	24510.047	2817.658	-167.599
61	-15508.774	1567.313	-1053.750	5162.046	-432.009	149.485
62	-5622.863	471.833	-212.347	723.598	9.321	131.924
63	-1199.177	30.706	-179.793	-3242.741	20.801	114.898
64	2705.699	20.825	-142.659	-6759.903	31.403	98.302
65	6119.815	13.102	-100.586	-9239.205	52.585	81.158
66	9223.831	-1.395	-10.687	-12891.378	120.127	69.500
67	13469.574	-65.461	-68.160	-14735.275	184.436	51.044
68	15377.896	-133.997	-51.123	-16153.150	258.247	34.219
69	16841.748	-212.432	-34.330	-16811.516	330.935	17.361
70	17527.043	-289.790	-17.535	-16961.867	412.952	0.592
71	17684.381	-376.247	0.442	-16294.799	491.693	-17.656
72	17004.084	-459.837	18.245	-15035.434	577.848	-35.188
73	15712.521	-550.463	34.855	-12906.529	658.470	-51.824
74	13532.498	-635.365	51.888	-10108.995	743.822	-69.003
75	10667.336	-725.184	69.045	-8647.782	822.753	209.655
76	8903.275	-814.829	-234.577	-4341.536	919.055	194.608
77	4546.560	-913.289	-214.750	1172.269	1013.219	233.670
78	-1022.530	-1009.284	-249.195	7424.156	1113.030	231.176
79	-7333.081	-1110.791	-243.828	14828.977	1646.176	273.198
80	-14797.505	-1645.461	-279.305	24761.641	2836.854	-169.679
81	-15563.010	1568.144	-1055.755	5167.602	-431.695	152.288
82	-5669.911	472.462	-215.402	728.512	9.300	135.471
83	-1242.675	31.662	-183.077	-3238.275	20.610	118.454
84	2665.386	21.991	-145.938	-6755.840	31.067	101.780
85	6082.615	14.282	-104.028	-9235.600	52.260	85.374
86	9189.898	-0.074	-8.582	-12888.274	119.838	67.388
87	13466.746	-65.034	-67.037	-14732.809	184.058	49.971
88	15375.400	-133.802	-49.026	-16150.803	258.155	32.107
89	16839.445	-212.198	-33.422	-16809.469	330.750	16.446
90	17524.807	-289.629	-14.838	-16959.902	412.796	-2.463
91	17682.684	-376.209	3.451	-16293.365	491.657	-20.545
92	17003.205	-459.735	20.102	-15034.197	577.872	-36.952
93	15711.336	-550.535	37.413	-12905.736	658.518	-54.454
94	13531.774	-635.462	54.759	-10108.666	743.874	-71.736
95	10667.258	-725.187	71.882	-6396.931	822.537	-88.924
96	8900.947	-814.004	-231.925	-4342.635	918.217	191.426
97	4547.423	-912.310	-212.312	1168.465	1012.260	230.960
98	-1018.790	-1008.360	-246.385	7417.721	1112.125	228.305
99	-7326.416	-1109.902	-240.370	14820.765	1645.369	269.774
100	-14789.282	-1644.651	-276.086	24759.420	2836.772	-171.962
101	-15512.579	1567.081	-1054.781	5100.906	-430.295	151.578
102	-5621.961	471.461	-215.084	666.470	10.811	135.503
103	-1198.047	30.616	-182.914	-3295.759	22.157	118.575
104	2706.833	20.797	-145.711	-6808.711	32.699	101.422
105	6120.670	13.163	-103.876	-9284.011	53.884	85.388
106	9224.643	-1.321	-9.669	-12931.937	121.442	68.777
107	13510.368	-66.630	-67.544	-14771.701	185.619	50.414
108	15414.633	-135.316	-50.051	-16185.139	259.697	33.117
109	16873.928	-213.781	-32.563	-16839.172	332.329	15.566

COMBINACION 44 1.35 (G1 + G2) + 1.5 (SCVMIN-EC1) + V_Pd

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	17554.826	-291.278	-15.751	-16985.021	414.481	-1.277
111	17707.521	-377.825	3.003	-16313.693	493.245	-20.099
112	17022.971	-461.322	20.225	-15049.910	579.366	-37.100
113	15726.943	-552.090	37.075	-12916.846	660.033	-54.273
114	13543.039	-636.932	55.100	-10114.197	745.454	-72.202
115	10672.494	-726.722	72.465	-6398.558	823.971	-89.436
116	8901.818	-814.913	-231.508	-4339.830	919.187	190.768
117	4545.247	-913.304	-210.148	1173.250	1013.219	229.191
118	-1024.086	-1009.240	-246.941	7425.923	1113.108	228.388
119	-7334.434	-1110.880	-238.979	14829.783	2698.705	269.242
120	-14799.385	-2698.003	-280.215	24779.395	2838.179	-165.107
121	-15514.962	1567.220	-1054.531	5101.425	-430.299	152.535
122	-5625.499	471.527	-214.993	666.726	10.763	135.347
123	-1201.253	30.660	-182.658	-3295.539	22.127	118.442
124	2703.862	20.873	-145.523	-6808.773	32.707	101.513
125	6118.118	13.277	-103.596	-9284.428	53.777	85.502
126	9222.394	-1.114	-9.512	-12932.734	121.264	68.978
127	13511.150	-66.570	-67.894	-14772.887	185.559	50.681
128	15415.400	-135.068	-50.010	-16186.883	259.382	32.850
129	16875.805	-213.771	-31.686	-16840.893	332.357	14.766
130	17556.750	-291.074	-14.843	-16987.115	414.321	-1.989
131	17709.436	-377.813	2.461	-16315.787	493.222	-19.568
132	17025.490	-461.435	20.481	-15051.805	579.520	-37.732
133	15729.017	-552.076	38.935	-12918.975	660.019	-56.205
134	13545.252	-637.000	56.953	-10116.539	745.496	-73.936
135	10675.047	-726.790	74.197	-6400.169	824.126	-91.164
136	8902.479	-815.027	-229.030	-4341.231	919.230	188.280
137	4545.815	-913.433	-209.814	1173.425	1013.359	228.150
138	-1023.720	-1009.374	-243.543	7425.953	1113.183	225.393
139	-7334.696	-1110.975	-236.995	14830.298	2698.829	267.325
140	-14799.805	-2698.092	-278.283	24779.264	2838.258	-165.999
141	-15511.523	1567.070	-1051.235	5096.229	-430.203	150.997
142	-5621.644	471.477	-212.129	662.132	10.899	132.420
143	-1198.037	30.540	-179.510	-3299.741	22.241	115.674
144	2706.845	20.830	-142.542	-6812.533	32.813	99.086
145	6120.904	13.112	-100.459	-9287.531	53.976	82.557
146	9224.817	-1.197	-8.269	-12935.562	121.427	68.226
147	13513.791	-66.595	-67.326	-14775.393	185.626	49.970
148	15417.557	-135.364	-48.594	-16188.523	259.647	31.421
149	16877.193	-213.680	-30.569	-16842.529	332.253	13.545
150	17557.875	-291.128	-13.618	-16988.094	414.345	-3.359
151	17710.475	-377.841	4.895	-16316.398	493.291	-22.039
152	17025.680	-461.395	22.085	-15052.547	579.436	-39.209
153	15729.434	-552.054	41.094	-12919.004	660.021	-58.456
154	13545.301	-637.045	58.750	-10116.740	745.523	-75.583
155	10675.363	-726.794	75.862	-6400.179	824.146	-92.937
156	8902.260	-815.076	-227.303	-4340.999	919.259	186.272
157	4545.414	-913.390	-208.314	1173.163	1013.308	226.407
158	-1023.455	-1009.337	-241.732	7425.246	1113.143	223.554
159	-7334.058	-1110.933	-235.527	14831.010	2698.849	265.285
160	-14799.945	-2698.153	-273.166	24779.777	2838.338	-171.853
161	-15514.063	1567.279	-1056.783	5099.646	-430.516	156.811
162	-5624.066	471.639	-218.943	664.321	10.562	139.677
163	-1199.510	30.802	-186.667	-3298.657	21.900	122.889
164	2705.976	20.936	-149.540	-6812.335	32.496	105.900

COMBINACION 44 1.35 (G1 + G2) + 1.5 (SCVMIN-EC1) + V_Pd

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	6120.441	13.459	-107.848	-9288.834	53.514	90.526
166	9225.230	-1.016	-6.456	-12937.956	121.086	65.709
167	13516.159	-66.236	-66.135	-14778.699	185.274	49.305
168	15421.133	-135.046	-49.836	-16192.930	259.375	32.722
169	16881.734	-213.512	-30.267	-16847.822	332.078	12.858
170	17563.156	-290.842	-12.406	-16994.887	413.996	-4.859
171	17717.383	-377.396	6.899	-16324.271	492.863	-24.240
172	17033.715	-461.056	24.313	-15061.217	579.161	-41.186
173	15738.168	-551.775	41.672	-12929.076	659.722	-59.030
174	13555.051	-636.740	60.209	-10127.660	745.205	-77.363
175	10686.257	-726.582	77.761	-6411.866	823.937	-94.731
176	8909.938	-815.040	-225.671	-4348.753	919.232	184.531
177	4553.812	-913.364	-204.848	1165.500	1013.267	223.544
178	-1016.043	-1009.344	-240.268	7417.327	1113.022	222.064
179	-7326.129	-1110.739	-234.400	14823.248	2698.721	264.129
180	-14792.194	-2698.019	-272.046	24766.551	2838.130	-172.390
181	-15513.701	1567.239	-1052.702	5101.805	-430.784	152.546
182	-5623.670	471.656	-215.048	665.701	10.285	135.889
183	-1198.970	30.812	-182.852	-3298.097	21.628	118.661
184	2706.488	21.049	-145.682	-6812.641	32.156	102.145
185	6121.204	13.438	-103.918	-9289.562	53.372	86.360
186	9225.771	-1.036	-8.330	-12939.258	120.847	68.089
187	13517.445	-66.079	-65.990	-14780.473	185.092	48.771
188	15423.116	-134.890	-49.067	-16195.502	259.176	32.171
189	16884.473	-213.247	-31.322	-16851.295	331.812	14.049
190	17567.043	-290.520	-12.466	-16999.312	413.709	-4.631
191	17721.660	-377.184	4.484	-16329.623	492.624	-21.779
192	17039.305	-460.603	24.076	-15067.987	578.689	-41.450
193	15745.082	-551.363	41.731	-12936.621	659.347	-58.726
194	13562.616	-636.429	59.156	-10136.352	744.855	-76.215
195	10694.738	-726.152	76.460	-6421.366	823.495	-93.689
196	8911.271	-814.889	-225.867	-4350.071	919.107	185.121
197	4554.939	-913.229	-205.941	1163.460	1013.178	224.354
198	-1014.135	-1009.303	-241.462	7415.605	1113.150	223.073
199	-7324.317	-1110.903	-235.015	14821.025	2698.769	264.572
200	-14789.742	-2698.041	-271.573	24751.975	2837.837	-173.184
201	-15552.828	1570.087	-1055.062	5690.337	-435.141	126.196
202	-5654.725	474.656	-217.128	697.991	5.933	137.880
203	-1221.281	33.751	-184.801	-3278.785	17.274	121.343
204	2693.074	24.035	-147.839	-6806.552	27.794	104.287
205	6116.570	16.296	-105.960	-9296.576	49.007	88.599
206	9230.034	1.895	-7.414	-12959.401	116.437	66.966
207	13537.692	-61.605	-66.382	-14814.076	180.623	49.464
208	15456.572	-130.243	-49.907	-16242.582	254.566	32.810
209	16931.312	-208.812	-30.256	-16911.396	327.407	12.964
210	17627.154	-286.326	-13.115	-17071.926	409.593	-3.834
211	17794.580	-372.959	5.489	-16415.057	488.417	-22.552
212	17124.437	-456.469	22.588	-15166.026	574.594	-39.743
213	15843.078	-547.260	41.828	-13047.249	655.285	-59.096
214	13673.436	-632.307	59.465	-10259.510	740.848	-76.362
215	10817.764	-722.144	76.758	-8743.492	820.212	201.083
216	8999.187	-812.448	-225.928	-4446.023	916.677	185.135
217	4650.505	-910.799	-207.025	1059.835	1010.614	225.157
218	-910.198	-1006.652	-240.510	7303.904	2392.717	222.360
219	-7212.726	-2390.485	-234.321	14701.432	2696.081	264.378

COMBINACION 44 1.35 (G1 + G2) + 1.5 (SCVMIN-EC1) + V_Pd

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	-14670.720	-2695.392	-273.781	24552.744	2833.635	-170.506
221	-15553.448	1570.203	-1054.790	5704.129	-436.460	126.202
222	-5668.443	475.958	-217.025	1329.290	2.522	97.786
223	-1230.284	35.291	-184.724	-3265.745	13.560	121.260
224	2688.823	25.557	-147.658	-6804.543	24.133	104.302
225	6116.949	17.884	-105.811	-9305.339	45.586	88.595
226	9235.024	3.299	-6.248	-12978.283	113.252	65.900
227	13556.338	-58.445	-66.337	-14842.598	177.551	49.277
228	15484.779	-127.251	-48.035	-16280.209	251.572	30.924
229	16968.205	-205.885	-30.508	-16957.992	324.329	13.364
230	17673.314	-283.163	-12.011	-17127.152	406.361	-5.270
231	17848.840	-369.807	6.547	-16479.080	485.055	-23.610
232	17187.637	-453.151	23.700	-15238.764	571.009	-40.743
233	15914.959	-543.699	42.332	-13128.480	651.523	-59.627
234	13753.586	-628.511	60.093	-10349.548	736.797	-77.224
235	10906.984	-718.132	77.679	-8733.152	819.561	199.751
236	8988.219	-811.655	-224.451	-4433.778	915.944	183.997
237	4637.707	-910.154	-205.487	1074.016	1010.474	223.651
238	-925.257	-1006.574	-240.714	7320.210	2393.011	222.257
239	-7229.092	-2390.781	-233.277	14718.184	2696.322	263.063
240	-14687.334	-2695.607	-271.461	24409.561	2830.458	-173.209
241	-16015.124	1605.647	-1038.479	5738.707	-495.762	152.231
242	-6395.717	549.919	-233.143	1110.396	-53.840	134.801
243	-1739.198	108.264	-200.850	-3045.847	-42.074	118.194
244	2398.505	98.006	-163.906	-7306.974	-27.999	102.243
245	6322.182	88.657	-81.173	-9466.817	-1.556	85.324
246	11021.604	60.297	-83.910	-13239.043	65.103	66.934
247	13815.856	-10.680	-65.183	-15254.576	128.716	48.108
248	15894.066	-78.754	-48.542	-16840.086	202.302	31.640
249	17523.441	-156.821	-31.290	-17663.082	274.641	13.969
250	18371.439	-234.019	-10.723	-17973.250	356.720	-6.511
251	18686.668	-320.769	6.572	-17463.045	435.769	-23.620
252	18161.662	-404.358	24.880	-16356.048	522.090	-42.028
253	17020.336	-495.199	43.742	-14377.291	602.734	-61.119
254	14989.452	-580.425	62.854	-12950.146	690.364	-84.529
255	13242.184	-680.510	55.059	-9642.732	789.276	185.749
256	9890.355	-781.788	-210.554	-5403.340	885.105	169.770
257	5600.593	-879.462	-190.457	35.563	977.232	209.066
258	107.738	-973.401	-224.362	6212.624	2366.309	206.592
259	-6126.403	-2364.157	-219.037	12207.104	2669.691	248.793
260	-12177.572	-2669.007	-255.700	20266.996	2783.983	-178.427
261	-14011.227	1407.009	-935.836	5234.852	-665.674	104.570
262	-5211.772	695.636	-172.049	2014.200	54.541	82.562
263	-1953.240	-25.595	-146.871	-919.172	35.943	57.192
264	1017.306	-8.097	-118.128	-3734.323	66.785	71.013
265	3730.413	-36.282	-57.393	-6045.834	38.831	59.002
266	6191.287	-1.115	-2.262	-8615.454	75.505	41.719
267	8177.255	-31.384	44.187	-10499.895	82.593	30.109
268	10915.045	-40.696	-29.107	-12081.872	92.007	16.051
269	12536.959	-53.114	-15.140	-13343.320	104.256	2.232
270	13828.880	-68.226	-2.450	-14265.429	118.814	-10.176
271	14770.535	-85.898	10.030	-14828.651	135.257	-23.051
272	15341.330	-105.727	25.222	-15011.007	201.025	-38.297
273	15518.862	-174.446	38.255	-14904.999	276.394	-51.034
274	15394.082	-253.260	52.598	-14246.620	349.767	-65.399

COMBINACION 44 1.35 (G1 + G2) + 1.5 (SCVMIN-EC1) + V_Pd

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	14702.666	-330.265	65.713	-13138.334	427.323	-78.438
276	13546.797	-411.088	79.394	-11557.167	508.654	-92.292
277	12009.467	-500.210	-137.038	-9759.304	615.898	147.550
278	9902.682	-610.962	-160.848	-7119.699	718.046	145.017
279	7211.581	-715.158	-154.550	-3877.802	825.485	143.473
280	3911.071	-824.608	-150.040	-7.925	1822.922	114.775

DIMENSIONAMIENTO A CORTANTE SEGUN NORMATIVA EHE

SEC	Vd (T)	Nd (T)	Vu1 (T)	Vcu (T)	Vsu (T)	Asc (cm2/m)	Dec (m)	th	the	rho	psi	d (m)
1	1242.	6020.	3012.	362.	880.	31.7	2.7	26.6	26.6	0.02	1.23	3.85
2	1049.	6035.	3012.	363.	686.	24.8	2.4	26.6	26.6	0.02	1.23	3.85
3	914.	6052.	3012.	364.	551.	19.9	2.8	26.6	26.6	0.02	1.23	3.85
4	786.	6066.	3012.	364.	452.	16.3	3.1	26.6	26.6	0.02	1.23	3.85
5	657.	6079.	3012.	365.	452.	16.3	3.1	26.6	26.6	0.02	1.23	3.85
6	535.	6092.	3012.	366.	452.	16.3	2.8	26.6	26.6	0.02	1.23	3.85
7	422.	6107.	3012.	367.	452.	16.3	2.4	26.6	26.6	0.02	1.23	3.85
8	327.	6125.	3012.	367.	452.	16.3	1.6	26.6	26.6	0.02	1.23	3.85
9	425.	6147.	3012.	369.	452.	16.3	2.5	26.6	26.6	0.02	1.23	3.85
10	529.	6173.	3012.	370.	452.	16.3	3.1	26.6	26.6	0.02	1.23	3.85
11	590.	6217.	3012.	372.	452.	16.3	3.3	26.6	26.6	0.02	1.23	3.85
12	653.	6274.	3012.	375.	452.	16.3	3.4	26.6	26.6	0.02	1.23	3.85
13	719.	6344.	3012.	379.	452.	16.3	1.5	26.6	26.6	0.02	1.23	3.85
14	791.	6426.	3012.	383.	452.	16.3	1.8	26.6	26.6	0.02	1.23	3.85
15	859.	6515.	3012.	388.	471.	17.0	2.1	26.6	26.6	0.02	1.23	3.85
16	927.	6606.	3012.	393.	534.	19.3	2.4	26.6	26.6	0.02	1.23	3.85
17	1001.	6690.	3012.	397.	604.	21.8	2.7	26.6	26.6	0.02	1.23	3.85
18	1069.	6817.	3012.	404.	665.	24.0	3.1	26.6	26.6	0.02	1.23	3.85
19	1147.	6852.	3950.	443.	704.	25.4	3.6	26.6	26.6	0.02	1.23	3.85
20	1911.	6946.	3950.	449.	1462.	52.7	3.6	26.6	26.6	0.02	1.23	3.85
21	3104.	7157.	3950.	460.	2644.	95.4	3.5	26.6	26.6	0.02	1.23	3.85
22	1965.	7151.	3950.	460.	1505.	54.3	3.5	26.6	26.6	0.02	1.23	3.85
23	1429.	7103.	3012.	419.	1011.	36.5	3.1	26.6	26.6	0.02	1.23	3.85
24	1300.	7051.	3012.	416.	884.	31.9	2.6	26.6	26.6	0.02	1.23	3.85
25	1176.	6963.	3012.	411.	765.	27.6	2.1	26.6	26.6	0.02	1.23	3.85
26	997.	6494.	3012.	387.	611.	22.0	3.3	26.6	26.6	0.02	1.23	3.85
27	861.	6506.	3012.	387.	474.	17.1	3.8	26.6	26.6	0.02	1.23	3.85
28	732.	6508.	3012.	388.	452.	16.3	3.9	26.6	26.6	0.02	1.23	3.85
29	609.	6517.	3012.	388.	452.	16.3	3.8	26.6	26.6	0.02	1.23	3.85
30	492.	6537.	3012.	389.	452.	16.3	3.3	26.6	26.6	0.02	1.23	3.85
31	437.	6573.	3012.	391.	452.	16.3	3.0	26.6	26.6	0.02	1.23	3.85
32	544.	6627.	3012.	394.	452.	16.3	3.6	26.6	26.6	0.02	1.23	3.85
33	655.	6700.	3012.	398.	452.	16.3	3.9	26.6	26.6	0.02	1.23	3.85
34	770.	6793.	3012.	403.	452.	16.3	4.0	26.6	26.6	0.02	1.23	3.85
35	885.	6903.	3012.	408.	477.	17.2	3.8	26.6	26.6	0.02	1.23	3.85
36	1003.	7025.	3012.	415.	588.	21.2	1.7	26.6	26.6	0.02	1.23	3.85
37	1119.	7148.	3012.	421.	698.	25.2	2.1	26.6	26.6	0.02	1.23	3.85
38	1232.	7330.	3012.	431.	801.	28.9	2.6	26.6	26.6	0.02	1.23	3.85
39	1353.	7425.	3950.	475.	878.	31.7	3.2	26.6	26.6	0.02	1.23	3.85
40	1908.	7466.	3950.	478.	1431.	51.6	3.6	26.6	26.6	0.02	1.23	3.85
41	3172.	7758.	3950.	494.	2678.	96.6	3.5	26.6	26.6	0.02	1.23	3.85
42	1951.	7748.	3950.	493.	1458.	52.6	3.6	26.6	26.6	0.02	1.23	3.85
43	1400.	7683.	3012.	449.	950.	34.3	3.1	26.6	26.6	0.02	1.23	3.85
44	1286.	7607.	3012.	445.	841.	30.3	2.6	26.6	26.6	0.02	1.23	3.85
45	1179.	7489.	3012.	439.	740.	26.7	2.1	26.6	26.6	0.02	1.23	3.85
46	1074.	6448.	3012.	384.	690.	24.9	1.7	26.6	26.6	0.02	1.23	3.85
47	937.	6470.	3012.	386.	551.	19.9	3.7	26.6	26.6	0.02	1.23	3.85
48	808.	6472.	3012.	386.	452.	16.3	4.1	26.6	26.6	0.02	1.23	3.85
49	685.	6482.	3012.	386.	452.	16.3	4.0	26.6	26.6	0.02	1.23	3.85
50	568.	6505.	3012.	387.	452.	16.3	3.7	26.6	26.6	0.02	1.23	3.85
51	458.	6545.	3012.	390.	452.	16.3	3.1	26.6	26.6	0.02	1.23	3.85
52	546.	6604.	3012.	393.	452.	16.3	3.6	26.6	26.6	0.02	1.23	3.85
53	657.	6683.	3012.	397.	452.	16.3	3.9	26.6	26.6	0.02	1.23	3.85
54	773.	6781.	3012.	402.	452.	16.3	4.0	26.6	26.6	0.02	1.23	3.85
55	888.	6896.	3012.	408.	480.	17.3	3.8	26.6	26.6	0.02	1.23	3.85
56	1006.	7022.	3012.	415.	591.	21.3	1.7	26.6	26.6	0.02	1.23	3.85
57	1122.	7149.	3012.	421.	701.	25.3	2.1	26.6	26.6	0.02	1.23	3.85
58	1234.	7331.	3012.	431.	804.	29.0	2.6	26.6	26.6	0.02	1.23	3.85
59	1357.	7423.	3950.	475.	882.	31.8	3.2	26.6	26.6	0.02	1.23	3.85
60	1912.	7459.	3950.	477.	1435.	51.8	3.6	26.6	26.6	0.02	1.23	3.85

DIMENSIONAMIENTO A CORTANTE SEGUN NORMATIVA EHE

SEC	Vd (T)	Nd (T)	Vu1 (T)	Vcu (T)	Vsu (T)	Asc (cm2/m)	Dec (m)	th	the	rho	psi	d (m)
61	3174.	7747.	3950.	493.	2680.	96.7	3.5	26.6	26.6	0.02	1.23	3.85
62	1953.	7739.	3950.	493.	1460.	52.7	3.6	26.6	26.6	0.02	1.23	3.85
63	1400.	7681.	3012.	449.	951.	34.3	3.1	26.6	26.6	0.02	1.23	3.85
64	1286.	7610.	3012.	445.	841.	30.3	2.6	26.6	26.6	0.02	1.23	3.85
65	1179.	7495.	3012.	439.	739.	26.7	2.1	26.6	26.6	0.02	1.23	3.85
66	1074.	6456.	3012.	385.	689.	24.9	1.7	26.6	26.6	0.02	1.23	3.85
67	936.	6479.	3012.	386.	550.	19.9	3.7	26.6	26.6	0.02	1.23	3.85
68	808.	6481.	3012.	386.	452.	16.3	4.1	26.6	26.6	0.02	1.23	3.85
69	685.	6491.	3012.	387.	452.	16.3	4.0	26.6	26.6	0.02	1.23	3.85
70	568.	6514.	3012.	388.	452.	16.3	3.7	26.6	26.6	0.02	1.23	3.85
71	460.	6552.	3012.	390.	452.	16.3	3.2	26.6	26.6	0.02	1.23	3.85
72	569.	6610.	3012.	393.	452.	16.3	3.7	26.6	26.6	0.02	1.23	3.85
73	680.	6687.	3012.	397.	452.	16.3	4.0	26.6	26.6	0.02	1.23	3.85
74	796.	6784.	3012.	402.	452.	16.3	4.1	26.6	26.6	0.02	1.23	3.85
75	911.	6897.	3012.	408.	503.	18.1	3.8	26.6	26.6	0.02	1.23	3.85
76	1029.	7023.	3012.	415.	615.	22.2	1.7	26.6	26.6	0.02	1.23	3.85
77	1146.	7148.	3012.	421.	725.	26.1	2.1	26.6	26.6	0.02	1.23	3.85
78	1258.	7330.	3012.	431.	827.	29.8	2.6	26.6	26.6	0.02	1.23	3.85
79	1380.	7423.	3950.	475.	905.	32.6	3.2	26.6	26.6	0.02	1.23	3.85
80	1935.	7461.	3950.	477.	1458.	52.6	3.6	26.6	26.6	0.02	1.23	3.85
81	3180.	7750.	3950.	493.	2686.	96.9	3.5	26.6	26.6	0.02	1.23	3.85
82	1959.	7741.	3950.	493.	1466.	52.9	3.6	26.6	26.6	0.02	1.23	3.85
83	1407.	7682.	3012.	449.	958.	34.5	3.1	26.6	26.6	0.02	1.23	3.85
84	1293.	7609.	3012.	445.	848.	30.6	2.6	26.6	26.6	0.02	1.23	3.85
85	1185.	7493.	3012.	439.	746.	26.9	2.1	26.6	26.6	0.02	1.23	3.85
86	1081.	6454.	3012.	385.	696.	25.1	1.7	26.6	26.6	0.02	1.23	3.85
87	943.	6476.	3012.	386.	557.	20.1	3.7	26.6	26.6	0.02	1.23	3.85
88	814.	6478.	3012.	386.	452.	16.3	4.1	26.6	26.6	0.02	1.23	3.85
89	691.	6488.	3012.	387.	452.	16.3	4.0	26.6	26.6	0.02	1.23	3.85
90	575.	6511.	3012.	388.	452.	16.3	3.7	26.6	26.6	0.02	1.23	3.85
91	466.	6550.	3012.	390.	452.	16.3	3.2	26.6	26.6	0.02	1.23	3.85
92	569.	6608.	3012.	393.	452.	16.3	3.7	26.6	26.6	0.02	1.23	3.85
93	681.	6686.	3012.	397.	452.	16.3	4.0	26.6	26.6	0.02	1.23	3.85
94	797.	6783.	3012.	402.	452.	16.3	4.1	26.6	26.6	0.02	1.23	3.85
95	912.	6897.	3012.	408.	504.	18.2	3.8	26.6	26.6	0.02	1.23	3.85
96	1030.	7022.	3012.	415.	615.	22.2	1.7	26.6	26.6	0.02	1.23	3.85
97	1146.	7149.	3012.	421.	725.	26.2	2.1	26.6	26.6	0.02	1.23	3.85
98	1258.	7331.	3012.	431.	828.	29.9	2.6	26.6	26.6	0.02	1.23	3.85
99	1380.	7423.	3950.	475.	905.	32.7	3.2	26.6	26.6	0.02	1.23	3.85
100	1936.	7460.	3950.	477.	1458.	52.6	3.6	26.6	26.6	0.02	1.23	3.85
101	3180.	7750.	3950.	493.	2687.	96.9	3.5	26.6	26.6	0.02	1.23	3.85
102	1959.	7741.	3950.	493.	1466.	52.9	3.6	26.6	26.6	0.02	1.23	3.85
103	1407.	7682.	3012.	449.	958.	34.6	3.1	26.6	26.6	0.02	1.23	3.85
104	1293.	7609.	3012.	445.	848.	30.6	2.6	26.6	26.6	0.02	1.23	3.85
105	1186.	7493.	3012.	439.	746.	26.9	2.1	26.6	26.6	0.02	1.23	3.85
106	1081.	6455.	3012.	385.	696.	25.1	1.7	26.6	26.6	0.02	1.23	3.85
107	943.	6477.	3012.	386.	557.	20.1	3.7	26.6	26.6	0.02	1.23	3.85
108	814.	6479.	3012.	386.	452.	16.3	4.1	26.6	26.6	0.02	1.23	3.85
109	691.	6489.	3012.	387.	452.	16.3	4.0	26.6	26.6	0.02	1.23	3.85
110	575.	6512.	3012.	388.	452.	16.3	3.7	26.6	26.6	0.02	1.23	3.85
111	466.	6551.	3012.	390.	452.	16.3	3.2	26.6	26.6	0.02	1.23	3.85
112	571.	6608.	3012.	393.	452.	16.3	3.7	26.6	26.6	0.02	1.23	3.85
113	683.	6686.	3012.	397.	452.	16.3	4.0	26.6	26.6	0.02	1.23	3.85
114	798.	6783.	3012.	402.	452.	16.3	4.1	26.6	26.6	0.02	1.23	3.85
115	913.	6897.	3012.	408.	505.	18.2	3.8	26.6	26.6	0.02	1.23	3.85
116	1032.	7023.	3012.	415.	617.	22.3	1.7	26.6	26.6	0.02	1.23	3.85
117	1148.	7149.	3012.	421.	727.	26.2	2.1	26.6	26.6	0.02	1.23	3.85
118	1260.	7331.	3012.	431.	829.	29.9	2.6	26.6	26.6	0.02	1.23	3.85
119	1382.	7423.	3950.	475.	907.	32.7	3.2	26.6	26.6	0.02	1.23	3.85
120	2990.	7460.	3950.	477.	2512.	90.6	3.3	26.6	26.6	0.02	1.23	3.85

DIMENSIONAMIENTO A CORTANTE SEGUN NORMATIVA EHE

SEC	Vd (T)	Nd (T)	Vul (T)	Vcu (T)	Vsu (T)	Asc (cm2/m)	Dec (m)	th	the	rho	psi	d (m)
121	3181.	7750.	3950.	493.	2687.	96.9	3.5	26.6	26.6	0.02	1.23	3.85
122	1960.	7741.	3950.	493.	1467.	52.9	3.6	26.6	26.6	0.02	1.23	3.85
123	1408.	7682.	3012.	449.	959.	34.6	3.1	26.6	26.6	0.02	1.23	3.85
124	1294.	7609.	3012.	445.	848.	30.6	2.6	26.6	26.6	0.02	1.23	3.85
125	1186.	7493.	3012.	439.	747.	26.9	2.1	26.6	26.6	0.02	1.23	3.85
126	1081.	6455.	3012.	385.	697.	25.1	1.7	26.6	26.6	0.02	1.23	3.85
127	944.	6477.	3012.	386.	558.	20.1	3.7	26.6	26.6	0.02	1.23	3.85
128	815.	6479.	3012.	386.	452.	16.3	4.1	26.6	26.6	0.02	1.23	3.85
129	692.	6489.	3012.	387.	452.	16.3	4.0	26.6	26.6	0.02	1.23	3.85
130	575.	6512.	3012.	388.	452.	16.3	3.7	26.6	26.6	0.02	1.23	3.85
131	466.	6551.	3012.	390.	452.	16.3	3.2	26.6	26.6	0.02	1.23	3.85
132	571.	6608.	3012.	393.	452.	16.3	3.7	26.6	26.6	0.02	1.23	3.85
133	683.	6686.	3012.	397.	452.	16.3	4.0	26.6	26.6	0.02	1.23	3.85
134	799.	6783.	3012.	402.	452.	16.3	4.1	26.6	26.6	0.02	1.23	3.85
135	914.	6897.	3012.	408.	506.	18.2	3.8	26.6	26.6	0.02	1.23	3.85
136	1032.	7022.	3012.	415.	617.	22.3	1.7	26.6	26.6	0.02	1.23	3.85
137	1148.	7149.	3012.	421.	727.	26.2	2.1	26.6	26.6	0.02	1.23	3.85
138	1260.	7331.	3012.	431.	829.	29.9	2.6	26.6	26.6	0.02	1.23	3.85
139	1382.	7423.	3950.	475.	907.	32.7	3.2	26.6	26.6	0.02	1.23	3.85
140	2990.	7460.	3950.	477.	2513.	90.6	3.3	26.6	26.6	0.02	1.23	3.85
141	3181.	7750.	3950.	493.	2687.	96.9	3.5	26.6	26.6	0.02	1.23	3.85
142	1959.	7741.	3950.	493.	1467.	52.9	3.6	26.6	26.6	0.02	1.23	3.85
143	1407.	7682.	3012.	449.	958.	34.6	3.1	26.6	26.6	0.02	1.23	3.85
144	1293.	7609.	3012.	445.	848.	30.6	2.6	26.6	26.6	0.02	1.23	3.85
145	1186.	7493.	3012.	439.	747.	26.9	2.1	26.6	26.6	0.02	1.23	3.85
146	1081.	6455.	3012.	385.	697.	25.1	1.7	26.6	26.6	0.02	1.23	3.85
147	944.	6477.	3012.	386.	558.	20.1	3.7	26.6	26.6	0.02	1.23	3.85
148	815.	6479.	3012.	386.	452.	16.3	4.1	26.6	26.6	0.02	1.23	3.85
149	692.	6489.	3012.	387.	452.	16.3	4.0	26.6	26.6	0.02	1.23	3.85
150	575.	6512.	3012.	388.	452.	16.3	3.7	26.6	26.6	0.02	1.23	3.85
151	466.	6551.	3012.	390.	452.	16.3	3.2	26.6	26.6	0.02	1.23	3.85
152	571.	6608.	3012.	393.	452.	16.3	3.7	26.6	26.6	0.02	1.23	3.85
153	683.	6686.	3012.	397.	452.	16.3	4.0	26.6	26.6	0.02	1.23	3.85
154	799.	6783.	3012.	402.	452.	16.3	4.1	26.6	26.6	0.02	1.23	3.85
155	914.	6897.	3012.	408.	506.	18.2	3.8	26.6	26.6	0.02	1.23	3.85
156	1032.	7023.	3012.	415.	617.	22.3	1.7	26.6	26.6	0.02	1.23	3.85
157	1148.	7149.	3012.	421.	727.	26.2	2.1	26.6	26.6	0.02	1.23	3.85
158	1260.	7331.	3012.	431.	829.	29.9	2.6	26.6	26.6	0.02	1.23	3.85
159	1382.	7423.	3950.	475.	907.	32.7	3.2	26.6	26.6	0.02	1.23	3.85
160	2990.	7460.	3950.	477.	2513.	90.6	3.3	26.6	26.6	0.02	1.23	3.85
161	3181.	7750.	3950.	493.	2687.	96.9	3.5	26.6	26.6	0.02	1.23	3.85
162	1959.	7741.	3950.	493.	1467.	52.9	3.6	26.6	26.6	0.02	1.23	3.85
163	1407.	7682.	3012.	449.	958.	34.6	3.1	26.6	26.6	0.02	1.23	3.85
164	1293.	7609.	3012.	445.	848.	30.6	2.6	26.6	26.6	0.02	1.23	3.85
165	1186.	7493.	3012.	439.	747.	26.9	2.1	26.6	26.6	0.02	1.23	3.85
166	1081.	6455.	3012.	385.	696.	25.1	1.7	26.6	26.6	0.02	1.23	3.85
167	944.	6477.	3012.	386.	558.	20.1	3.7	26.6	26.6	0.02	1.23	3.85
168	815.	6479.	3012.	386.	452.	16.3	4.1	26.6	26.6	0.02	1.23	3.85
169	692.	6489.	3012.	387.	452.	16.3	4.0	26.6	26.6	0.02	1.23	3.85
170	575.	6512.	3012.	388.	452.	16.3	3.7	26.6	26.6	0.02	1.23	3.85
171	466.	6550.	3012.	390.	452.	16.3	3.2	26.6	26.6	0.02	1.23	3.85
172	571.	6608.	3012.	393.	452.	16.3	3.7	26.6	26.6	0.02	1.23	3.85
173	683.	6686.	3012.	397.	452.	16.3	4.0	26.6	26.6	0.02	1.23	3.85
174	798.	6783.	3012.	402.	452.	16.3	4.1	26.6	26.6	0.02	1.23	3.85
175	913.	6897.	3012.	408.	505.	18.2	3.8	26.6	26.6	0.02	1.23	3.85
176	1032.	7022.	3012.	415.	617.	22.3	1.7	26.6	26.6	0.02	1.23	3.85
177	1148.	7148.	3012.	421.	727.	26.2	2.1	26.6	26.6	0.02	1.23	3.85
178	1260.	7331.	3012.	431.	829.	29.9	2.6	26.6	26.6	0.02	1.23	3.85
179	1382.	7423.	3950.	475.	907.	32.7	3.2	26.6	26.6	0.02	1.23	3.85
180	2990.	7461.	3950.	477.	2512.	90.6	3.3	26.6	26.6	0.02	1.23	3.85
181	3179.	7750.	3950.	493.	2685.	96.9	3.5	26.6	26.6	0.02	1.23	3.85

DIMENSIONAMIENTO A CORTANTE SEGUN NORMATIVA EHE

SEC	Vd (T)	Nd (T)	Vul (T)	Vcu (T)	Vsu (T)	Asc (cm2/m)	Dec (m)	th	the	rho	psi	d (m)
182	1958.	7741.	3950.	493.	1465.	52.8	3.6	26.6	26.6	0.02	1.23	3.85
183	1406.	7682.	3012.	449.	957.	34.5	3.1	26.6	26.6	0.02	1.23	3.85
184	1292.	7609.	3012.	445.	847.	30.5	2.6	26.6	26.6	0.02	1.23	3.85
185	1184.	7493.	3012.	439.	745.	26.9	2.1	26.6	26.6	0.02	1.23	3.85
186	1080.	6455.	3012.	385.	695.	25.1	1.7	26.6	26.6	0.02	1.23	3.85
187	942.	6477.	3012.	386.	556.	20.1	3.7	26.6	26.6	0.02	1.23	3.85
188	813.	6479.	3012.	386.	452.	16.3	4.1	26.6	26.6	0.02	1.23	3.85
189	690.	6489.	3012.	387.	452.	16.3	4.0	26.6	26.6	0.02	1.23	3.85
190	574.	6512.	3012.	388.	452.	16.3	3.7	26.6	26.6	0.02	1.23	3.85
191	465.	6551.	3012.	390.	452.	16.3	3.2	26.6	26.6	0.02	1.23	3.85
192	570.	6609.	3012.	393.	452.	16.3	3.7	26.6	26.6	0.02	1.23	3.85
193	682.	6687.	3012.	397.	452.	16.3	4.0	26.6	26.6	0.02	1.23	3.85
194	798.	6784.	3012.	402.	452.	16.3	4.1	26.6	26.6	0.02	1.23	3.85
195	913.	6898.	3012.	408.	505.	18.2	3.8	26.6	26.6	0.02	1.23	3.85
196	1031.	7023.	3012.	415.	616.	22.2	1.7	26.6	26.6	0.02	1.23	3.85
197	1147.	7149.	3012.	421.	726.	26.2	2.1	26.6	26.6	0.02	1.23	3.85
198	1259.	7331.	3012.	431.	829.	29.9	2.6	26.6	26.6	0.02	1.23	3.85
199	1382.	7423.	3950.	475.	906.	32.7	3.2	26.6	26.6	0.02	1.23	3.85
200	2989.	7460.	3950.	477.	2512.	90.6	3.3	26.6	26.6	0.02	1.23	3.85
201	3177.	7749.	3950.	493.	2684.	96.8	3.5	26.6	26.6	0.02	1.23	3.85
202	1956.	7740.	3950.	493.	1463.	52.8	3.6	26.6	26.6	0.02	1.23	3.85
203	1404.	7682.	3012.	449.	955.	34.5	3.1	26.6	26.6	0.02	1.23	3.85
204	1290.	7610.	3012.	445.	845.	30.5	2.6	26.6	26.6	0.02	1.23	3.85
205	1183.	7493.	3012.	439.	744.	26.8	2.1	26.6	26.6	0.02	1.23	3.85
206	1078.	6454.	3012.	385.	693.	25.0	1.7	26.6	26.6	0.02	1.23	3.85
207	941.	6476.	3012.	386.	555.	20.0	3.7	26.6	26.6	0.02	1.23	3.85
208	812.	6478.	3012.	386.	452.	16.3	4.1	26.6	26.6	0.02	1.23	3.85
209	689.	6488.	3012.	387.	452.	16.3	4.0	26.6	26.6	0.02	1.23	3.85
210	572.	6510.	3012.	388.	452.	16.3	3.7	26.6	26.6	0.02	1.23	3.85
211	463.	6549.	3012.	390.	452.	16.3	3.2	26.6	26.6	0.02	1.23	3.85
212	565.	6606.	3012.	393.	452.	16.3	3.7	26.6	26.6	0.02	1.23	3.85
213	677.	6684.	3012.	397.	452.	16.3	4.0	26.6	26.6	0.02	1.23	3.85
214	793.	6781.	3012.	402.	452.	16.3	4.1	26.6	26.6	0.02	1.23	3.85
215	908.	6895.	3012.	408.	500.	18.0	3.8	26.6	26.6	0.02	1.23	3.85
216	1026.	7021.	3012.	414.	612.	22.1	1.7	26.6	26.6	0.02	1.23	3.85
217	1142.	7147.	3012.	421.	721.	26.0	2.1	26.6	26.6	0.02	1.23	3.85
218	1254.	7330.	3012.	431.	824.	29.7	2.6	26.6	26.6	0.02	1.23	3.85
219	2659.	7424.	3950.	475.	2184.	78.8	2.8	26.6	26.6	0.02	1.23	3.85
220	2984.	7462.	3950.	477.	2507.	90.4	3.3	26.6	26.6	0.02	1.23	3.85
221	3158.	7752.	3950.	494.	2665.	96.1	3.5	26.6	26.6	0.02	1.23	3.85
222	1937.	7742.	3950.	493.	1444.	52.1	3.6	26.6	26.6	0.02	1.23	3.85
223	1385.	7682.	3012.	449.	936.	33.8	3.2	26.6	26.6	0.02	1.23	3.85
224	1271.	7609.	3012.	445.	826.	29.8	2.6	26.6	26.6	0.02	1.23	3.85
225	1164.	7493.	3012.	439.	725.	26.1	2.1	26.6	26.6	0.02	1.23	3.85
226	1059.	6455.	3012.	385.	674.	24.3	1.7	26.6	26.6	0.02	1.23	3.85
227	922.	6478.	3012.	386.	536.	19.3	3.7	26.6	26.6	0.02	1.23	3.85
228	793.	6481.	3012.	386.	452.	16.3	4.1	26.6	26.6	0.02	1.23	3.85
229	670.	6492.	3012.	387.	452.	16.3	4.0	26.6	26.6	0.02	1.23	3.85
230	553.	6516.	3012.	388.	452.	16.3	3.6	26.6	26.6	0.02	1.23	3.85
231	451.	6556.	3012.	390.	452.	16.3	3.1	26.6	26.6	0.02	1.23	3.85
232	560.	6614.	3012.	393.	452.	16.3	3.7	26.6	26.6	0.02	1.23	3.85
233	671.	6693.	3012.	397.	452.	16.3	4.0	26.6	26.6	0.02	1.23	3.85
234	787.	6790.	3012.	402.	452.	16.3	4.0	26.6	26.6	0.02	1.23	3.85
235	901.	6904.	3012.	408.	493.	17.8	3.8	26.6	26.6	0.02	1.23	3.85
236	1020.	7029.	3012.	415.	605.	21.8	1.7	26.6	26.6	0.02	1.23	3.85
237	1136.	7153.	3012.	421.	715.	25.8	2.1	26.6	26.6	0.02	1.23	3.85
238	1249.	7333.	3012.	431.	818.	29.5	2.6	26.6	26.6	0.02	1.23	3.85
239	2654.	7420.	3950.	475.	2179.	78.6	2.8	26.6	26.6	0.02	1.23	3.85
240	2979.	7454.	3950.	477.	2502.	90.3	3.3	26.6	26.6	0.02	1.23	3.85
241	3141.	7741.	3950.	493.	2648.	95.5	3.5	26.6	26.6	0.02	1.23	3.85
242	1920.	7735.	3950.	493.	1428.	51.5	3.6	26.6	26.6	0.02	1.23	3.85

DIMENSIONAMIENTO A CORTANTE SEGUN NORMATIVA EHE

SEC	Vd (T)	Nd (T)	Vu1 (T)	Vcu (T)	Vsu (T)	Asc (cm2/m)	Dec (m)	th	the	rho	psi	d (m)
243	1367.	7681.	3012.	449.	918.	33.1	3.2	26.6	26.6	0.02	1.23	3.85
244	1253.	7610.	3012.	445.	808.	29.1	2.6	26.6	26.6	0.02	1.23	3.85
245	1146.	7495.	3012.	439.	707.	25.5	2.1	26.6	26.6	0.02	1.23	3.85
246	1037.	6498.	3012.	387.	649.	23.4	1.7	26.6	26.6	0.02	1.23	3.85
247	901.	6516.	3012.	388.	513.	18.5	3.8	26.6	26.6	0.02	1.23	3.85
248	773.	6514.	3012.	388.	452.	16.3	4.0	26.6	26.6	0.02	1.23	3.85
249	652.	6520.	3012.	388.	452.	16.3	3.9	26.6	26.6	0.02	1.23	3.85
250	537.	6539.	3012.	389.	452.	16.3	3.6	26.6	26.6	0.02	1.23	3.85
251	429.	6575.	3012.	391.	452.	16.3	2.9	26.6	26.6	0.02	1.23	3.85
252	500.	6630.	3012.	394.	452.	16.3	3.4	26.6	26.6	0.02	1.23	3.85
253	612.	6707.	3012.	398.	452.	16.3	3.8	26.6	26.6	0.02	1.23	3.85
254	728.	6804.	3012.	403.	452.	16.3	3.9	26.6	26.6	0.02	1.23	3.85
255	844.	6920.	3012.	409.	452.	16.3	3.9	26.6	26.6	0.02	1.23	3.85
256	962.	7049.	3012.	416.	546.	19.7	3.4	26.6	26.6	0.02	1.23	3.85
257	1077.	7182.	3012.	423.	654.	23.6	2.2	26.6	26.6	0.02	1.23	3.85
258	1188.	7374.	3012.	433.	755.	27.2	2.6	26.6	26.6	0.02	1.23	3.85
259	2599.	7483.	3950.	479.	2120.	76.5	2.8	26.6	26.6	0.02	1.23	3.85
260	2924.	7488.	3950.	479.	2445.	88.2	3.3	26.6	26.6	0.02	1.23	3.85
261	2775.	7756.	3950.	494.	2281.	82.3	3.6	26.6	26.6	0.02	1.23	3.85
262	1896.	7531.	3950.	481.	1415.	51.0	3.7	26.6	26.6	0.02	1.23	3.85
263	1090.	7443.	3012.	437.	654.	23.6	3.7	26.6	26.6	0.02	1.23	3.85
264	1026.	7418.	3012.	435.	591.	21.3	3.2	26.6	26.6	0.02	1.23	3.85
265	918.	7348.	3012.	432.	487.	17.6	2.8	26.6	26.6	0.02	1.23	3.85
266	881.	6730.	3012.	399.	482.	17.4	2.4	26.6	26.6	0.02	1.23	3.85
267	782.	6984.	3012.	413.	452.	16.3	2.0	26.6	26.6	0.02	1.23	3.85
268	714.	6988.	3012.	413.	452.	16.3	1.7	26.6	26.6	0.02	1.23	3.85
269	646.	6996.	3012.	413.	452.	16.3	1.4	26.6	26.6	0.02	1.23	3.85
270	583.	7013.	3012.	414.	452.	16.3	1.2	26.6	26.6	0.02	1.23	3.85
271	539.	7043.	3012.	416.	452.	16.3	3.1	26.6	26.6	0.02	1.23	3.85
272	500.	7089.	3012.	418.	452.	16.3	3.0	26.6	26.6	0.02	1.23	3.85
273	415.	7141.	3012.	421.	452.	16.3	0.8	26.6	26.6	0.02	1.23	3.85
274	351.	7169.	3012.	422.	452.	16.3	0.7	26.6	26.6	0.02	1.23	3.85
275	404.	7151.	3012.	421.	452.	16.3	2.3	26.6	26.6	0.02	1.23	3.85
276	504.	7137.	3012.	421.	452.	16.3	2.7	26.6	26.6	0.02	1.23	3.85
277	609.	7127.	3012.	420.	452.	16.3	2.9	26.6	26.6	0.02	1.23	3.85
278	726.	7118.	3012.	420.	452.	16.3	3.0	26.6	26.6	0.02	1.23	3.85
279	844.	7107.	3012.	419.	452.	16.3	2.9	26.6	26.6	0.02	1.23	3.85
280	970.	7091.	3012.	418.	551.	19.9	2.6	26.6	26.6	0.02	1.23	3.85
281	1997.	7091.	3012.	418.	1579.	57.0	1.9	26.6	26.6	0.02	1.23	3.85

7.2 EVALUACIÓN DEL E.L.U. DE TORSIÓN

En este apartado se comprueba el Estado Límite Último de rotura por esfuerzo torsor de acuerdo con los criterios de la Normativa española vigente (EHE artículo 45)

Los cálculos realizados han sido los siguientes:

- Cálculo de la envolvente de esfuerzos cortantes para las distintas acciones consideradas en el proyecto del tablero. Los esfuerzos de cálculo se han combinado de acuerdo con los criterios del apartado 2 de este Anejo.

- La envolvente de esfuerzos flectores positivos se muestra en los listados adjuntos con la notación $\mathbf{T_d}$, conjuntamente con el esfuerzo flector y cortante concomitantes.

- Cálculo de $\mathbf{T_{u1}}$ (esfuerzo torsor de agotamiento que pueden resistir las bielas comprimidas).

- Dimensionamiento de las armaduras transversal $\mathbf{A_{st}}$ y longitudinal $\mathbf{A_{sl}}$ requeridas para resistir el esfuerzo torsor $\mathbf{T_d}$, a partir del cálculo de $\mathbf{T_{u2}}$ (esfuerzo torsor que pueden resistir las armaduras transversales) y $\mathbf{T_{u3}}$ (esfuerzo torsor que pueden resistir las armaduras longitudinales).

- Comprobación de la interacción torsor-cortante (artículo 45.3.2.2) en cada una de las secciones en que se ha discretizado el tablero para el máximo esfuerzo cortante y el torsor concomitante y viceversa.

COMBINACION 45 1.35 (G1 + G2) + 1.5 (SCTMAX-IPF) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-992.548	683.125	1192.834	-338.063	-537.205	-1089.569
2	302.876	538.245	1099.229	-1376.981	-445.547	-995.665
3	1278.080	448.593	1010.592	-2142.227	-356.916	-906.477
4	1990.009	362.166	924.953	-2650.269	-268.642	-813.052
5	2452.629	275.851	837.242	-2912.322	-183.120	-725.269
6	2678.833	192.384	755.408	-2944.674	-102.833	-650.421
7	2684.074	114.044	684.673	-2760.643	-25.094	-579.213
8	2481.194	38.498	617.916	-2304.916	51.220	-509.884
9	2009.680	-36.289	553.785	-1716.793	124.487	-447.643
10	1428.956	-107.154	496.891	-994.402	151.741	-393.709
11	663.769	-134.792	447.406	-147.735	177.002	-344.964
12	-83.718	-154.362	403.506	1159.186	190.226	-299.951
13	-1472.786	-169.873	364.442	2035.393	199.847	-274.338
14	-2226.425	-174.384	342.733	2752.943	200.509	-254.460
15	-3012.699	-176.636	328.629	3513.121	199.667	-240.734
16	-3624.138	-170.614	317.885	4069.632	191.901	-230.301
17	-4227.432	-163.965	314.362	2104.859	75.666	-228.608
18	-4774.996	-147.599	316.554	555.923	71.353	-236.548
19	-3334.690	-142.087	324.282	1350.120	749.722	-247.891
20	-4182.716	-818.062	334.176	4110.874	1584.597	-451.550
21	-7373.970	2334.318	1321.314	2060.580	-1162.240	-1388.661
22	-2098.109	1163.559	1398.953	1731.389	-686.735	-1261.245
23	-1824.073	689.030	1277.238	-6.845	-613.590	-1143.371
24	-145.792	617.559	1165.742	-1576.632	-544.878	-1027.065
25	1366.314	550.849	1056.330	-2688.518	-417.772	-920.690
26	2799.625	425.877	956.749	-3868.524	-330.678	-817.104
27	3556.619	340.875	859.272	-4334.510	-247.469	-721.883
28	3986.264	260.569	772.763	-4559.524	-167.498	-632.318
29	4171.212	181.930	688.061	-4421.671	-89.303	-549.047
30	4032.676	108.139	613.728	-4087.482	-16.695	-472.676
31	3678.852	37.377	543.047	-3412.327	52.026	-403.938
32	2976.135	-30.398	480.662	-1895.438	123.193	-354.834
33	1504.171	-97.281	439.206	-881.552	170.689	-320.522
34	555.501	-140.635	411.936	160.169	209.482	-292.526
35	-542.966	-180.116	390.724	-265.968	144.923	-278.270
36	-1598.104	-207.197	378.187	624.581	167.078	-279.948
37	-2733.328	-231.341	372.516	1352.380	171.045	-297.005
38	-3683.521	-236.404	374.718	181.352	187.737	-302.859
39	-2645.938	-251.767	384.594	1067.629	625.369	-324.703
40	-3606.621	-686.879	400.965	4760.185	1811.266	-540.959
41	-7909.428	2357.503	1298.999	2651.147	-1102.249	-1387.477
42	-2698.638	1104.438	1398.215	2734.911	-611.592	-1260.551
43	-2824.906	612.950	1275.919	1198.376	-553.365	-1142.008
44	-1357.877	557.640	1164.532	-223.521	-500.862	-1025.808
45	5.657	507.209	1055.133	-1187.570	-447.667	-919.584
46	2027.540	456.458	958.798	-3172.361	-359.405	-819.173
47	2852.756	369.865	862.330	-3716.566	-275.730	-724.956
48	3362.884	289.422	775.434	-4017.735	-195.565	-634.915
49	3621.180	210.394	691.239	-3948.265	-116.990	-552.140
50	3544.695	135.248	615.938	-3670.995	-43.159	-474.906
51	3271.457	64.843	546.269	-3075.629	24.996	-407.302
52	2666.152	-1.327	484.351	-1669.866	95.038	-360.644
53	1276.248	-68.836	445.073	-729.132	142.306	-326.365
54	361.029	-113.459	417.542	280.601	182.042	-298.258

COMBINACION 45 1.35 (G1 + G2) + 1.5 (SCTMAX-IPF) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	-611.054	-150.792	396.160	-223.278	117.876	-284.232
56	-1641.701	-179.167	384.370	588.048	139.560	-286.247
57	-2636.957	-201.254	377.613	1233.651	143.454	-302.776
58	-3560.009	-207.797	380.772	-19.990	160.478	-309.122
59	-2368.926	-221.940	389.971	788.934	598.715	-330.873
60	-3311.446	-659.156	406.384	4401.307	1783.540	-547.138
61	-7584.529	2350.913	1303.238	2344.909	-1096.278	-1392.713
62	-2319.985	1095.635	1402.384	2377.742	-601.740	-1264.461
63	-2474.845	604.044	1280.249	876.693	-543.736	-1146.380
64	-1036.133	548.029	1169.055	-513.857	-490.855	-1030.353
65	294.956	497.028	1059.867	-1444.293	-437.383	-924.093
66	2283.517	445.789	955.765	-3395.384	-348.842	-816.196
67	3075.859	359.502	860.656	-3908.705	-265.565	-723.316
68	3550.651	278.752	773.346	-4174.720	-185.074	-632.846
69	3787.426	200.746	689.758	-4087.606	-107.560	-550.780
70	3681.817	125.774	614.537	-3782.228	-33.880	-473.457
71	3374.292	55.301	544.904	-3152.355	34.397	-406.036
72	2770.847	-9.472	483.815	-1749.286	102.812	-360.226
73	1322.933	-78.036	444.249	-750.585	151.489	-325.647
74	419.531	-121.139	416.805	243.412	189.794	-297.481
75	-573.831	-158.469	395.297	-238.905	125.726	-283.540
76	-1626.559	-186.899	383.213	595.695	147.415	-285.329
77	-2644.553	-209.092	376.851	1265.020	151.398	-302.078
78	-3591.208	-215.669	379.990	34.702	168.285	-308.442
79	-2265.067	-225.714	388.130	862.588	606.227	-330.042
80	-3387.291	-666.650	405.893	4499.950	1791.444	-546.638
81	-7812.891	2355.540	1298.725	2560.019	-1100.698	-1388.104
82	-2593.394	1101.494	1398.265	2634.934	-607.940	-1260.460
83	-2568.749	606.297	1275.955	963.024	-546.166	-1142.007
84	-1122.585	550.462	1164.556	-435.356	-493.402	-1025.832
85	216.646	499.467	1055.335	-1373.751	-439.917	-919.720
86	2212.616	448.374	957.290	-3332.607	-351.360	-817.706
87	3012.965	362.056	861.422	-3853.173	-268.072	-724.086
88	3495.119	281.105	775.033	-4126.157	-187.345	-634.539
89	3738.597	203.152	690.532	-4045.258	-109.915	-551.611
90	3640.695	128.188	616.860	-3747.402	-36.266	-476.018
91	3366.413	57.689	547.191	-3150.808	32.011	-408.259
92	2715.151	-9.186	485.259	-1694.266	102.729	-361.651
93	1331.233	-75.617	446.253	-765.688	149.037	-327.542
94	410.014	-119.795	418.753	249.242	188.405	-299.403
95	-579.960	-157.042	397.280	-234.586	123.585	-285.432
96	-1626.562	-185.538	384.953	593.486	145.314	-287.261
97	-2582.122	-205.846	377.764	1254.039	149.075	-303.612
98	-3519.170	-212.472	380.805	17.109	166.060	-309.913
99	-2234.421	-223.726	389.307	841.071	604.174	-331.526
100	-3209.329	-661.577	406.911	4470.220	1789.199	-548.021
101	-7782.222	2354.939	1297.669	2530.164	-1100.107	-1386.967
102	-2599.758	1101.741	1397.700	2640.115	-608.104	-1259.976
103	-2720.369	610.025	1275.523	1103.672	-549.814	-1141.537
104	-1108.114	549.916	1163.682	-447.825	-492.844	-1024.912
105	229.303	498.985	1054.375	-1385.011	-439.357	-918.733
106	2223.811	447.764	955.165	-3341.801	-350.826	-815.706
107	3030.618	361.299	860.179	-3868.353	-267.362	-722.888
108	3510.817	280.422	773.387	-4139.694	-186.629	-632.901
109	3774.364	201.445	690.410	-4076.036	-108.208	-551.437

COMBINACION 45 1.35 (G1 + G2) + 1.5 (SCTMAX-IPF) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	3672.369	126.232	615.146	-3773.711	-34.290	-474.159
111	3372.711	55.383	546.065	-3150.719	34.279	-407.112
112	2738.967	-10.813	484.526	-2358.248	97.207	-344.546
113	1964.662	-71.056	428.770	-762.783	151.162	-299.324
114	436.578	-120.674	390.718	194.033	187.504	-276.997
115	-526.514	-156.168	374.947	-235.330	124.170	-284.879
116	-1412.695	-180.444	365.257	592.290	145.871	-286.372
117	-2482.205	-204.606	363.837	1258.946	149.763	-303.379
118	-3223.974	-206.030	366.780	20.366	166.641	-308.623
119	-2018.946	-219.876	378.747	846.609	1657.173	-330.313
120	-2911.723	-1708.409	394.776	4477.417	1789.757	-545.917
121	-7853.704	2356.626	1297.380	2596.258	-1101.774	-1386.876
122	-2629.287	1102.497	1396.723	2667.555	-608.894	-1258.831
123	-2737.360	610.582	1274.359	1118.909	-550.408	-1140.368
124	-1219.267	553.019	1162.673	-346.595	-495.911	-1023.914
125	218.724	499.521	1053.488	-1375.940	-439.902	-917.791
126	2214.710	448.309	954.304	-3334.042	-351.366	-814.828
127	3017.627	361.857	859.272	-3857.193	-267.914	-722.075
128	3507.659	280.824	772.894	-4137.478	-187.079	-632.645
129	3779.341	201.323	690.637	-4080.690	-108.067	-551.515
130	3676.401	126.347	615.305	-3777.742	-34.351	-474.186
131	3364.116	55.236	545.287	-3141.563	34.418	-406.451
132	2739.201	-10.733	484.530	-2358.517	97.167	-344.786
133	2000.915	-69.432	429.641	-803.898	149.551	-299.957
134	438.401	-120.602	391.132	192.064	187.383	-277.499
135	-523.025	-156.045	375.220	-235.474	124.098	-285.363
136	-1514.197	-183.580	366.092	592.684	145.693	-287.151
137	-2319.948	-199.896	362.740	1255.096	149.609	-303.239
138	-3222.498	-206.013	367.478	19.097	166.512	-309.369
139	-1989.531	-219.146	378.862	844.921	1657.048	-330.970
140	-2909.906	-1708.303	394.856	4475.372	1789.615	-546.467
141	-7861.745	2356.651	1299.531	2605.042	-1101.817	-1388.984
142	-2626.658	1102.301	1397.717	2665.644	-608.637	-1259.654
143	-2750.395	610.658	1275.442	1132.064	-550.540	-1141.481
144	-1291.616	554.780	1164.013	-279.368	-497.662	-1025.260
145	218.861	499.258	1054.896	-1375.182	-439.676	-919.250
146	2163.984	449.804	953.881	-3288.103	-352.824	-814.358
147	3014.457	361.939	858.834	-3854.517	-267.953	-721.761
148	3507.384	280.556	773.295	-4136.662	-186.859	-633.063
149	3780.701	201.297	690.790	-4081.785	-108.042	-551.822
150	3675.193	126.275	615.693	-3776.197	-34.304	-474.702
151	3366.291	55.052	546.533	-3143.075	34.625	-407.668
152	2733.588	-11.071	485.105	-2352.179	97.467	-345.332
153	2000.259	-69.494	430.612	-802.896	149.645	-300.989
154	435.393	-120.837	391.931	195.678	187.601	-278.229
155	-526.466	-156.210	375.964	-234.530	124.117	-285.891
156	-1519.013	-183.872	366.773	594.923	145.837	-287.740
157	-2323.435	-200.058	362.880	1256.211	149.611	-303.574
158	-3226.317	-206.153	367.608	20.735	166.501	-309.656
159	-1993.938	-219.238	378.731	846.793	1657.096	-331.211
160	-2916.179	-1708.613	396.368	4477.297	1789.686	-547.245
161	-7867.812	2357.041	1291.861	2608.956	-1102.184	-1381.055
162	-2641.680	1102.930	1390.916	2678.575	-609.316	-1253.016
163	-2766.004	611.441	1268.579	1145.057	-551.251	-1134.569
164	-1276.249	554.626	1156.757	-293.986	-497.571	-1018.002

COMBINACION 45 1.35 (G1 + G2) + 1.5 (SCTMAX-IPF) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	75.535	503.857	1047.580	-1245.745	-444.235	-912.060
166	2216.106	448.443	956.109	-3336.223	-351.480	-816.571
167	3016.300	362.224	859.852	-3857.225	-268.253	-722.427
168	3498.762	281.258	772.636	-4130.218	-187.513	-632.482
169	3781.102	201.572	691.835	-4083.261	-108.311	-553.137
170	3680.425	126.465	617.329	-3782.320	-34.581	-476.559
171	3375.421	55.574	548.599	-3153.605	34.153	-409.850
172	2743.885	-10.733	487.091	-2363.466	97.190	-347.158
173	1994.661	-69.815	431.570	-796.326	149.928	-302.006
174	437.779	-120.718	393.324	192.852	187.463	-279.724
175	-523.760	-156.185	377.543	-237.540	124.119	-287.672
176	-1384.485	-179.660	367.706	589.303	145.687	-289.112
177	-2335.804	-200.431	365.268	1253.261	149.593	-305.656
178	-3214.330	-205.939	368.897	17.895	166.452	-311.227
179	-1983.519	-218.939	379.772	843.570	1657.027	-332.707
180	-2916.713	-1708.643	397.382	4474.623	1789.666	-548.718
181	-7865.050	2356.918	1296.008	2608.071	-1102.098	-1385.368
182	-2641.430	1102.859	1395.588	2678.670	-609.249	-1257.684
183	-2738.131	610.648	1272.111	1119.673	-550.481	-1138.026
184	-1279.185	554.719	1160.685	-291.363	-497.665	-1022.009
185	122.865	502.393	1051.567	-1288.834	-442.704	-915.968
186	2215.126	448.427	954.122	-3334.867	-351.500	-814.725
187	3028.496	361.725	859.999	-3867.516	-267.768	-722.758
188	3509.241	280.760	772.835	-4139.041	-187.046	-632.439
189	3780.953	201.535	690.386	-4082.827	-108.281	-551.628
190	3682.657	126.376	616.769	-3783.959	-34.439	-475.834
191	3370.322	55.305	546.332	-3147.838	34.375	-407.638
192	2756.410	-9.857	486.489	-2378.181	96.288	-346.778
193	1983.851	-70.099	430.865	-784.348	150.255	-301.142
194	416.703	-121.456	392.214	215.899	188.162	-278.581
195	-538.098	-156.495	376.080	-227.465	124.225	-286.417
196	-1442.648	-181.373	366.821	601.659	145.959	-288.096
197	-2354.372	-200.842	363.988	1265.532	149.823	-304.471
198	-3247.850	-206.746	367.286	30.973	166.849	-309.856
199	-2019.570	-219.917	378.334	858.097	1657.359	-331.319
200	-2955.645	-1709.475	396.412	4490.528	1789.972	-547.504
201	-7904.139	2359.669	1292.821	2637.389	-1104.873	-1381.993
202	-2659.990	1105.396	1391.840	2689.182	-611.728	-1254.003
203	-2786.665	614.096	1270.247	1158.025	-553.935	-1136.296
204	-1289.172	557.474	1158.343	-289.814	-500.374	-1019.542
205	85.802	506.063	1049.167	-1262.928	-446.469	-913.599
206	2219.509	451.208	954.753	-3347.974	-354.307	-815.321
207	3030.854	364.956	859.388	-3880.426	-270.995	-721.960
208	3521.963	284.143	772.134	-4162.476	-190.400	-631.946
209	3816.366	204.149	691.268	-4126.779	-110.863	-552.428
210	3720.499	129.057	616.154	-3830.661	-37.066	-475.130
211	3419.032	57.962	547.007	-3204.879	31.763	-408.082
212	2795.263	-8.138	485.485	-2422.827	94.594	-345.741
213	2029.024	-68.515	431.157	-834.612	148.713	-301.440
214	466.954	-119.858	392.402	161.197	186.675	-278.704
215	-492.304	-155.295	376.415	-263.177	123.443	-286.570
216	-1482.956	-183.004	367.348	564.931	145.205	-288.432
217	-2353.636	-201.104	363.512	1227.713	148.956	-304.338
218	-3259.985	-207.115	368.235	-10.354	1448.116	-310.408
219	-2034.547	-1502.565	379.326	812.050	1656.356	-331.948

COMBINACION 45 1.35 (G1 + G2) + 1.5 (SCTMAX-IPF) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	-2961.668	-1709.669	396.089	4440.056	1789.000	-547.708
221	-7812.412	2353.267	1292.884	2568.021	-1098.224	-1382.260
222	-2600.843	1098.951	1391.883	2650.621	-605.503	-1253.940
223	-2738.203	607.640	1269.545	1128.268	-547.503	-1135.532
224	-1275.771	551.391	1157.690	-284.758	-494.301	-1018.952
225	95.509	499.661	1048.536	-1252.645	-440.030	-913.047
226	2209.417	444.708	955.209	-3317.246	-347.646	-815.636
227	2997.708	358.399	858.963	-3825.666	-264.369	-721.679
228	3478.843	277.058	773.161	-4095.721	-183.335	-632.922
229	3708.789	198.956	690.504	-4001.207	-105.833	-551.694
230	3624.003	122.707	616.658	-3712.497	-30.762	-475.823
231	3301.374	51.621	547.325	-3066.683	37.852	-408.411
232	2658.084	-14.262	485.799	-2266.242	100.466	-346.014
233	1873.351	-74.331	431.016	-662.599	154.282	-301.356
234	295.725	-125.355	392.328	348.363	191.937	-278.698
235	-678.635	-160.573	376.185	-136.153	126.335	-287.562
236	-1683.325	-188.088	367.305	697.823	148.015	-289.359
237	-2660.063	-208.968	363.674	1367.718	152.256	-305.458
238	-3588.411	-215.466	366.807	140.941	1451.837	-310.729
239	-2397.763	-1511.521	378.410	980.220	1660.031	-332.270
240	-3366.032	-1718.753	395.616	4622.652	1792.713	-548.149
241	-8101.240	2375.637	1277.654	2785.563	-1121.369	-1366.898
242	-2807.616	1121.865	1376.208	2784.117	-627.398	-1238.204
243	-2882.082	629.866	1254.017	1206.034	-569.231	-1120.023
244	-1337.526	572.701	1142.157	-286.851	-515.610	-1003.417
245	121.051	520.361	1033.071	-1348.735	-456.047	-897.421
246	2216.900	461.916	935.671	-3384.222	-366.296	-796.270
247	3078.364	376.728	841.229	-3969.943	-283.774	-703.828
248	3613.373	297.125	753.915	-4300.751	-204.295	-613.549
249	3916.323	220.289	671.174	-4282.911	-127.862	-532.497
250	3910.503	144.771	598.758	-4074.759	-53.496	-457.850
251	3666.180	74.618	528.456	-3509.273	14.464	-389.541
252	3106.501	9.402	467.723	-2791.113	76.542	-327.866
253	2404.136	-49.989	412.909	-1284.719	128.948	-283.576
254	925.331	-99.923	375.112	-1155.126	90.602	-274.157
255	33.598	-134.287	359.293	-549.025	110.911	-288.935
256	-887.844	-160.750	350.149	238.404	131.117	-290.744
257	-1779.115	-179.946	347.286	855.948	132.556	-306.947
258	-2614.796	-183.485	352.081	-464.605	1438.092	-313.150
259	-1299.391	-1485.651	362.909	-1007.093	1646.091	-334.952
260	-852.057	-1692.792	381.110	1948.697	1778.806	-545.314
261	-4773.311	2121.012	946.954	1238.385	-1199.537	-1045.025
262	-1258.568	1200.011	1054.010	1732.740	-438.534	-950.245
263	-1777.525	439.636	963.058	892.667	-417.624	-858.851
264	-954.236	419.234	876.498	136.785	-353.387	-769.498
265	-286.596	357.580	792.453	-411.635	-358.806	-685.271
266	796.346	359.150	717.018	-1287.684	-294.760	-611.818
267	1052.840	302.245	644.231	-1682.098	-268.177	-530.029
268	1485.703	274.877	568.295	-2050.061	-238.920	-447.061
269	1808.389	247.692	490.081	-2055.820	-212.814	-374.770
270	1782.402	223.855	422.051	-2181.114	-196.995	-323.672
271	1894.432	209.697	375.938	-2231.855	-184.069	-277.400
272	1972.410	196.688	335.532	-1308.876	-120.947	-254.062
273	1868.996	138.139	291.507	-1337.441	-82.383	-256.783
274	1284.509	74.852	269.197	-1326.675	-42.187	-259.915

COMBINACION 45 1.35 (G1 + G2) + 1.5 (SCTMAX-IPF) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	1344.237	40.616	268.550	-1198.179	-0.974	-263.871
276	1214.431	-0.400	272.892	-714.932	49.162	-250.769
277	728.975	-50.557	260.365	-334.888	91.379	-255.565
278	346.285	-93.017	265.810	366.929	141.648	-218.951
279	-211.399	-140.807	251.133	701.516	177.730	-242.224
280	-655.731	-180.407	262.397	1166.868	1120.256	-266.495

COMBINACION 46 1.35 (G1 + G2) + 1.5 (SCTMIN-IPF) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-992.689	348.840	-275.065	238.097	-242.801	279.190
2	-242.489	240.838	-267.846	-456.685	-184.393	279.135
3	448.518	182.492	-268.313	-1045.465	-125.643	272.965
4	1034.214	124.022	-263.084	-1481.719	-67.985	268.066
5	1467.837	66.404	-258.508	-1729.017	-12.527	272.614
6	1750.615	9.625	-253.831	-2015.314	50.783	288.840
7	1883.953	-46.437	-249.800	-2183.647	115.783	311.747
8	1869.257	-101.453	-246.919	-2315.293	184.431	346.001
9	2609.167	-168.034	-284.312	-2191.359	256.073	389.705
10	2476.214	-242.009	-331.933	-1916.976	285.356	431.287
11	2241.605	-270.924	-380.108	-1598.278	312.562	480.639
12	1828.228	-303.182	-432.620	-1098.178	342.408	534.309
13	1404.977	-331.056	-492.403	-683.037	370.009	599.027
14	869.733	-363.776	-561.417	0.559	397.158	664.691
15	246.386	-389.378	-632.125	664.767	419.805	735.765
16	-550.269	-416.338	-708.515	1494.717	447.779	819.797
17	-1355.698	-443.922	-796.820	2323.914	465.880	908.486
18	-2166.695	-461.794	-890.168	1324.389	494.654	994.956
19	-1257.976	-493.014	-981.291	2848.800	1208.757	1086.447
20	-2836.667	-1208.430	-1078.455	6340.184	2090.308	1043.647
21	-4049.991	1822.281	-548.075	2337.067	-738.800	398.894
22	-63.545	684.164	-329.965	2949.151	-311.574	384.823
23	-735.232	254.596	-317.329	1884.482	-283.972	376.326
24	94.284	228.865	-298.612	701.218	-255.962	380.724
25	1070.198	202.414	-295.110	-238.536	-166.757	388.545
26	888.779	200.862	-283.600	-1510.419	-110.284	411.864
27	1832.282	142.015	-314.216	-2317.580	-54.653	438.713
28	2677.050	83.799	-346.898	-2879.353	5.351	478.076
29	3266.334	21.092	-394.544	-3369.052	67.211	524.186
30	3772.409	-43.296	-445.803	-3543.199	131.743	579.553
31	3951.783	-110.448	-509.001	-3588.372	197.484	643.137
32	3994.279	-178.846	-580.294	-3289.235	263.097	715.723
33	3686.685	-246.614	-658.904	-2844.872	328.003	795.145
34	3181.912	-315.565	-744.373	-2037.848	391.555	880.758
35	2398.068	-379.138	-838.379	-1152.934	451.561	976.505
36	1370.255	-444.832	-939.880	99.362	511.631	1077.008
37	164.805	-503.907	-1047.570	1387.137	559.802	1187.444
38	-1278.841	-556.935	-1165.389	975.570	619.998	1303.424
39	-815.623	-615.993	-1287.089	2835.549	1106.339	1428.594
40	-2869.672	-1107.156	-1419.159	7760.108	2348.485	1387.900
41	-4685.812	1849.143	-552.580	3661.120	-696.277	419.333
42	-739.839	626.798	-329.535	4604.961	-252.455	404.654
43	-1796.124	180.879	-317.497	3681.110	-240.382	397.439
44	-1160.420	170.917	-298.691	2568.944	-227.665	401.753
45	-311.935	160.177	-295.118	1709.482	-211.602	409.075
46	-314.017	245.460	-301.938	-435.355	-152.699	430.223
47	765.627	183.997	-332.172	-1383.690	-95.582	456.544
48	1750.802	124.463	-365.157	-2073.473	-34.392	496.377
49	2466.988	60.730	-412.419	-2684.727	28.626	542.080
50	3093.734	-5.142	-464.670	-2970.943	94.360	598.460
51	3383.851	-73.477	-527.096	-3122.396	161.152	661.133
52	3528.512	-142.690	-597.883	-2922.253	227.219	733.189
53	3308.848	-211.591	-676.032	-2562.683	293.141	812.334
54	2921.320	-279.899	-762.570	-1877.173	355.637	898.777

COMBINACION 46 1.35 (G1 + G2) + 1.5 (SCTMIN-IPF) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	2184.141	-345.438	-855.198	-1035.664	417.493	993.229
56	1320.941	-408.662	-957.027	42.622	475.160	1094.238
57	161.807	-469.347	-1064.926	1286.492	525.106	1204.729
58	-1126.961	-520.846	-1182.182	716.365	584.359	1320.280
59	-618.794	-582.007	-1304.134	2540.734	1072.892	1445.664
60	-2508.872	-1072.164	-1436.132	7297.368	2312.857	1403.735
61	-4336.492	1841.409	-547.387	3159.544	-686.888	413.721
62	-409.472	620.467	-324.694	4194.478	-243.917	400.865
63	-1479.062	173.465	-312.387	3297.144	-231.097	393.010
64	-866.879	162.861	-293.465	2213.774	-218.035	397.061
65	-44.306	151.643	-290.359	1384.339	-201.761	405.909
66	11.603	235.580	-304.771	-730.950	-142.886	433.021
67	1061.745	174.062	-334.668	-1650.818	-85.843	459.107
68	2018.619	114.712	-367.961	-2313.410	-24.811	499.168
69	2707.453	51.041	-414.924	-2898.652	38.103	544.514
70	3308.262	-14.601	-467.175	-3159.899	103.629	601.024
71	3550.790	-83.889	-529.615	-3260.896	171.446	663.597
72	3666.514	-153.275	-599.370	-3031.054	237.750	734.643
73	3421.042	-221.950	-678.193	-2646.306	303.496	814.415
74	3001.756	-290.356	-764.203	-1927.921	366.166	900.341
75	2235.378	-355.946	-856.752	-1056.428	428.109	994.696
76	1328.708	-419.668	-958.371	67.217	486.198	1095.556
77	151.283	-480.059	-1066.059	1329.362	535.852	1205.899
78	-1169.784	-531.638	-1183.389	791.032	595.000	1321.509
79	-824.624	-595.847	-1305.675	2786.583	1086.544	1447.105
80	-2613.891	-1082.609	-1436.557	7433.212	2323.405	1404.181
81	-4431.462	1843.465	-550.744	3184.993	-687.329	416.758
82	-499.366	622.152	-327.967	4148.436	-242.733	403.142
83	-1566.483	175.498	-315.978	3409.599	-234.222	395.896
84	-947.520	165.103	-297.290	2303.704	-220.964	400.502
85	-117.548	153.897	-294.075	1476.187	-205.026	408.892
86	-79.855	238.901	-303.135	-649.856	-146.147	431.455
87	980.995	177.496	-333.367	-1580.202	-89.225	457.830
88	1946.690	117.858	-366.260	-2250.812	-27.859	497.462
89	2646.515	54.316	-413.886	-2846.861	34.884	543.498
90	3245.642	-11.328	-464.948	-3106.280	100.381	598.589
91	3491.355	-80.206	-527.281	-3211.771	167.759	661.253
92	3638.207	-148.566	-597.952	-3015.775	233.151	733.316
93	3380.322	-218.455	-675.987	-2615.683	299.963	812.180
94	2972.833	-286.736	-761.764	-1909.593	362.510	897.951
95	2218.889	-352.191	-854.561	-1050.515	424.366	992.549
96	1320.909	-416.079	-956.074	63.818	482.555	1093.167
97	117.328	-477.346	-1063.749	1355.216	533.134	1203.560
98	-1178.094	-528.512	-1180.943	790.114	591.924	1319.040
99	-836.504	-593.106	-1303.087	2791.349	1083.918	1444.576
100	-2739.034	-1082.691	-1434.115	7556.639	2323.354	1401.835
101	-4403.576	1842.893	-550.673	3134.330	-686.343	416.766
102	-472.145	621.617	-327.793	4085.060	-241.255	402.432
103	-1539.164	174.881	-315.859	3208.941	-228.913	395.311
104	-924.943	164.417	-297.722	2278.548	-220.166	401.267
105	-97.323	153.283	-294.350	1442.307	-203.880	409.311
106	-46.148	237.686	-304.600	-679.856	-144.998	432.866
107	1010.904	176.344	-334.626	-1606.458	-88.107	459.061
108	1969.480	117.099	-367.677	-2271.088	-27.082	498.959
109	2636.098	54.643	-414.309	-2837.511	34.562	543.895

COMBINACION 46 1.35 (G1 + G2) + 1.5 (SCTMIN-IPF) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	3247.146	-11.112	-466.600	-3108.776	100.177	600.380
111	3500.815	-80.065	-528.463	-3222.142	167.592	662.503
112	3634.236	-149.008	-598.697	-3010.990	233.529	733.973
113	3397.250	-218.006	-677.175	-2634.331	299.476	813.207
114	2963.088	-287.356	-761.914	-1897.558	363.242	898.071
115	2218.656	-352.420	-855.019	-1050.340	424.490	993.008
116	1219.651	-419.386	-956.095	175.510	485.921	1093.166
117	153.812	-476.451	-1063.605	1315.811	532.216	1203.485
118	-1328.545	-532.550	-1181.726	952.564	596.017	1319.785
119	-837.181	-593.207	-1303.496	2791.253	2136.393	1445.112
120	-2802.516	-2136.703	-1436.737	7625.229	2324.936	1404.384
121	-4411.335	1843.108	-550.631	3103.838	-685.610	415.524
122	-479.393	621.808	-328.027	4074.312	-241.029	402.488
123	-1545.827	175.061	-316.149	3211.084	-228.957	395.345
124	-928.560	164.542	-297.819	2182.815	-217.397	400.859
125	-101.272	153.484	-294.572	1443.554	-204.009	409.325
126	-47.321	237.874	-304.607	-679.064	-145.197	432.917
127	1007.813	176.515	-334.801	-1604.185	-88.282	459.203
128	1966.167	117.447	-367.848	-2268.880	-27.493	498.954
129	2627.834	55.058	-413.918	-2830.493	34.179	543.645
130	3240.175	-10.499	-466.202	-3103.294	99.616	600.055
131	3513.392	-78.800	-529.096	-3238.562	166.317	663.079
132	3625.222	-149.127	-598.551	-3001.412	233.674	733.665
133	3369.915	-218.732	-675.560	-2604.758	300.221	811.584
134	2961.401	-287.113	-760.711	-1896.679	362.958	896.864
135	2216.362	-352.269	-853.639	-1047.999	424.421	991.569
136	1320.451	-415.978	-955.091	63.921	482.441	1092.143
137	-3.314	-480.817	-1062.741	1486.326	536.631	1202.510
138	-1326.720	-532.385	-1179.867	950.296	595.800	1318.003
139	-865.543	-593.739	-1301.957	2821.206	2136.935	1443.586
140	-2799.997	-2136.489	-1435.215	7622.237	2324.714	1402.786
141	-4408.311	1842.980	-548.788	3088.604	-685.269	412.232
142	-477.159	621.721	-326.484	4071.245	-240.919	400.713
143	-1544.021	174.905	-314.437	3194.303	-228.527	393.174
144	-926.903	164.441	-295.973	2117.772	-215.489	398.355
145	-101.603	153.333	-293.117	1442.402	-203.846	407.688
146	25.361	235.547	-304.490	-744.833	-142.823	432.839
147	1008.273	176.548	-334.825	-1604.761	-88.273	459.165
148	1953.774	117.716	-367.474	-2257.541	-27.783	498.574
149	2625.816	55.278	-413.829	-2828.976	33.943	543.435
150	3238.261	-10.429	-465.992	-3101.505	99.511	599.770
151	3512.450	-78.694	-527.990	-3237.649	166.235	661.979
152	3643.511	-147.985	-598.214	-3023.464	232.498	733.360
153	3377.309	-218.324	-674.489	-2613.067	299.831	810.413
154	2971.566	-286.690	-760.266	-1908.287	362.530	896.493
155	2215.945	-352.237	-852.741	-1047.578	424.404	990.635
156	1319.920	-416.028	-954.110	64.604	482.508	1091.125
157	-3.931	-480.799	-1061.859	1486.541	536.579	1201.507
158	-1326.980	-532.351	-1178.814	950.499	595.737	1316.915
159	-865.736	-593.709	-1300.899	2822.125	2136.979	1442.472
160	-2799.376	-2136.473	-1432.697	7621.129	2324.688	1400.477
161	-4410.555	1843.104	-555.286	3087.732	-685.208	419.362
162	-478.306	621.802	-332.722	4059.421	-240.605	406.397
163	-1544.630	175.072	-320.945	3181.274	-228.150	399.370
164	-927.233	164.488	-302.849	2130.040	-215.801	405.448

COMBINACION 46 1.35 (G1 + G2) + 1.5 (SCTMIN-IPF) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	-99.103	153.497	-299.620	1306.343	-199.666	413.761
166	-47.395	237.780	-303.013	-679.040	-145.085	431.362
167	1010.117	176.492	-333.555	-1606.405	-88.216	458.078
168	1973.965	116.927	-367.214	-2275.414	-26.962	498.340
169	2628.002	55.011	-412.692	-2830.718	34.194	542.164
170	3238.444	-10.500	-464.447	-3101.880	99.541	598.025
171	3509.571	-78.855	-525.857	-3234.152	166.439	659.677
172	3640.072	-148.294	-595.957	-3018.974	232.854	731.189
173	3380.950	-218.280	-673.880	-2617.149	299.754	809.786
174	2967.745	-286.907	-758.084	-1903.899	362.735	894.090
175	2223.641	-352.087	-851.037	-1055.748	424.257	989.001
176	1197.928	-419.989	-952.109	198.560	486.463	1089.093
177	18.155	-480.275	-1059.526	1463.544	536.108	1199.358
178	-1329.512	-532.602	-1177.196	953.645	595.896	1315.259
179	-866.035	-593.719	-1299.331	2822.720	2137.038	1440.933
180	-2790.093	-2136.304	-1431.166	7612.393	2324.562	1399.023
181	-4404.612	1842.722	-551.214	3079.563	-684.373	415.484
182	-474.690	621.445	-328.594	4053.874	-239.777	402.133
183	-1542.306	174.709	-317.618	3204.216	-228.008	396.731
184	-925.856	164.225	-298.924	2129.408	-215.034	401.470
185	-98.982	153.124	-295.948	1339.963	-199.702	410.270
186	-45.777	236.763	-304.347	-677.365	-144.086	432.683
187	1000.600	175.718	-334.289	-1594.264	-87.458	458.693
188	1964.647	116.011	-367.697	-2263.146	-26.074	498.895
189	2617.635	54.137	-414.096	-2817.427	35.075	543.602
190	3224.263	-11.320	-465.107	-3084.816	100.387	598.783
191	3498.176	-79.501	-528.323	-3221.059	167.044	662.168
192	3609.694	-149.554	-596.442	-2984.519	234.086	731.439
193	3371.909	-218.451	-674.428	-2607.231	299.974	810.555
194	2965.190	-286.893	-760.094	-1901.688	362.665	896.132
195	2221.409	-351.957	-851.995	-1053.910	424.123	989.800
196	1227.628	-418.921	-953.163	165.602	485.401	1090.205
197	7.045	-480.471	-1060.737	1474.644	536.278	1200.509
198	-1326.451	-532.472	-1178.454	950.406	595.916	1316.504
199	-862.438	-593.764	-1300.476	2819.195	2136.978	1442.017
200	-2785.780	-2136.189	-1431.846	7608.413	2324.454	1399.759
201	-4422.247	1843.857	-554.071	3083.077	-684.648	418.540
202	-487.722	622.630	-331.526	4067.023	-240.259	405.479
203	-1551.223	175.836	-319.220	3180.092	-227.528	397.459
204	-931.615	165.386	-301.334	2130.359	-215.245	403.948
205	-101.037	154.180	-298.107	1323.400	-199.393	412.428
206	-47.903	237.049	-304.060	-676.512	-144.409	432.357
207	1004.882	175.892	-334.313	-1599.820	-87.636	458.863
208	1967.423	116.473	-367.913	-2267.951	-26.510	499.031
209	2620.100	54.527	-413.338	-2821.876	34.700	542.873
210	3231.550	-11.220	-465.504	-3093.218	100.352	599.312
211	3506.183	-79.305	-527.480	-3229.962	166.889	661.513
212	3635.828	-148.570	-597.772	-3014.229	233.140	732.888
213	3402.118	-217.545	-673.877	-2640.327	299.113	809.890
214	2998.669	-285.931	-759.711	-1937.581	361.828	895.904
215	2257.362	-351.132	-851.853	-1092.311	423.277	989.726
216	1364.784	-414.986	-953.286	17.184	481.466	1090.327
217	108.526	-477.895	-1060.944	1365.726	533.579	1200.605
218	-1206.254	-529.365	-1177.941	820.341	1875.021	1316.058
219	-730.909	-1872.854	-1300.028	2676.306	2133.786	1441.680

COMBINACION 46 1.35 (G1 + G2) + 1.5 (SCTMIN-IPF) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	-2650.782	-2133.235	-1432.547	7462.982	2321.473	1400.293
221	-4363.843	1839.936	-553.202	3040.079	-680.574	416.811
222	-443.567	618.458	-330.710	4026.588	-236.133	404.158
223	-1520.847	171.891	-318.916	3161.568	-223.723	397.084
224	-912.698	161.441	-300.879	2110.621	-211.021	403.285
225	-93.829	150.283	-297.698	1315.696	-195.141	411.817
226	-53.199	233.189	-302.576	-658.289	-140.395	430.961
227	988.616	171.802	-333.163	-1569.207	-83.451	457.637
228	1934.826	112.303	-366.026	-2220.348	-22.343	497.152
229	2590.241	49.512	-412.624	-2774.438	39.589	542.158
230	3168.139	-15.217	-463.818	-3014.962	104.282	597.477
231	3427.450	-83.304	-525.993	-3137.201	170.678	659.962
232	3542.792	-152.441	-596.219	-2908.281	236.756	731.375
233	3295.588	-221.117	-672.996	-2522.333	302.495	808.965
234	2880.280	-289.294	-758.531	-1809.674	364.948	894.577
235	2129.133	-354.258	-850.408	-955.427	426.380	988.267
236	1227.035	-417.998	-951.922	162.110	484.540	1089.032
237	56.200	-478.364	-1059.640	1418.531	534.509	1199.363
238	-1259.125	-530.351	-1177.294	878.209	1876.400	1315.340
239	-781.037	-1874.014	-1299.125	2736.055	2134.897	1440.695
240	-2702.501	-2134.134	-1431.130	7522.588	2322.262	1398.970
241	-4555.623	1854.655	-546.521	3191.770	-697.361	410.367
242	-586.034	634.307	-324.154	4134.567	-252.182	398.049
243	-1611.310	186.716	-312.176	3211.837	-239.052	390.612
244	-959.448	175.780	-294.172	2127.768	-226.593	396.841
245	-97.832	164.590	-291.017	1309.757	-207.042	405.541
246	-56.370	243.480	-299.577	-693.742	-152.047	427.877
247	1020.339	183.315	-329.573	-1643.605	-95.993	454.103
248	2009.604	124.582	-363.207	-2341.510	-35.462	494.385
249	2714.513	62.337	-409.993	-2945.198	26.206	539.494
250	3329.384	-1.835	-460.277	-3224.365	90.362	593.919
251	3632.619	-69.845	-523.331	-3386.921	157.044	657.325
252	3786.852	-139.031	-592.798	-3194.723	223.231	727.984
253	3575.143	-207.834	-669.895	-2839.740	288.999	805.827
254	3190.457	-276.273	-754.508	-2155.014	351.556	890.600
255	2466.184	-341.098	-847.338	-1324.876	412.397	985.340
256	1589.177	-404.379	-948.717	-233.969	469.533	1085.780
257	444.946	-463.516	-1056.281	989.666	517.019	1196.131
258	-836.969	-512.945	-1173.558	381.922	1865.335	1311.713
259	-288.424	-1863.039	-1295.697	876.258	2123.912	1437.277
260	-844.703	-2123.175	-1427.191	5004.726	2310.153	1397.336
261	-1867.889	1628.671	-456.248	2075.327	-802.040	344.770
262	-2050.665	833.959	-247.122	3267.430	-78.373	334.874
263	-3216.569	109.576	-242.750	2982.161	-93.500	331.577
264	-2912.712	124.042	-244.336	2654.842	-65.022	334.189
265	-2494.135	92.942	-250.684	2189.269	-98.496	348.277
266	-1771.897	130.165	-267.651	1654.990	-71.353	360.713
267	-1387.384	95.117	-286.848	1115.631	-68.342	381.003
268	-934.793	94.336	-313.274	662.343	-67.918	408.439
269	-434.714	91.377	-345.000	178.366	-65.044	441.181
270	112.117	85.300	-382.450	-335.586	-59.404	479.821
271	613.477	78.666	-426.073	-797.829	-53.843	524.399
272	1074.079	71.620	-475.065	-1280.158	2.243	582.578
273	1570.930	13.003	-538.507	-1574.362	60.558	647.440
274	1853.607	-47.153	-607.870	-1784.227	119.828	710.566

COMBINACION 46 1.35 (G1 + G2) + 1.5 (SCTMIN-IPF) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	2045.162	-108.830	-676.068	-1819.091	182.319	779.213
276	2053.086	-172.990	-749.534	-1666.327	247.187	853.023
277	1864.303	-239.797	-828.063	-1360.544	317.445	936.755
278	1513.238	-312.211	-917.097	-774.759	388.758	1021.841
279	873.500	-385.645	-1006.874	45.118	463.823	1111.998
280	-10.152	-462.891	-1102.195	1167.659	1444.163	1201.982

COMBINACION 47 1.35 (G1 + G2) + 1.5 (SCTMAX-EC1) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-992.580	705.853	1071.685	-391.679	-561.147	-992.927
2	393.963	561.074	994.059	-1445.758	-471.418	-920.188
3	1452.167	471.148	921.941	-2226.095	-384.423	-852.092
4	2235.995	384.125	854.103	-2456.080	-287.825	-777.637
5	2468.911	287.320	780.459	-2677.331	-207.987	-724.743
6	2692.722	207.336	728.516	-2672.906	-130.489	-676.858
7	2690.008	129.692	680.957	-2455.438	-55.405	-631.665
8	2473.643	54.716	636.097	-2037.988	28.206	-555.786
9	2056.605	-29.161	560.896	-982.065	109.035	-483.255
10	1000.956	-110.105	489.062	-231.809	132.170	-444.973
11	250.511	-133.435	451.290	580.488	151.243	-411.932
12	-562.319	-152.450	418.571	1430.957	165.371	-383.781
13	-1414.098	-166.843	391.822	2292.292	174.466	-361.810
14	-2277.023	-176.120	369.742	3133.105	178.320	-344.302
15	-3119.492	-180.037	353.309	3921.952	177.437	-332.373
16	-3910.391	-179.111	340.814	4887.002	180.168	-300.016
17	-4877.799	-182.017	310.205	5457.646	163.331	-303.804
18	-5450.835	-165.270	314.732	4090.924	158.629	-313.295
19	-4086.618	-160.639	324.561	5021.592	835.620	-326.206
20	-5020.044	-837.644	337.172	7722.346	1409.137	-1085.730
21	-5909.856	2233.733	1012.464	2300.795	-1200.287	-1318.270
22	-2298.775	1200.264	1319.467	1975.873	-717.197	-1185.004
23	-1969.911	717.068	1186.885	94.834	-649.835	-1086.666
24	-84.997	649.537	1089.274	-1377.408	-573.737	-975.892
25	1390.979	573.359	979.307	-2637.073	-451.533	-890.063
26	3028.992	451.008	894.253	-3612.283	-358.248	-802.417
27	3632.426	357.625	807.073	-4234.824	-279.286	-728.864
28	4257.446	278.457	735.195	-4160.680	-195.267	-665.399
29	4185.300	194.168	671.525	-4199.721	-120.824	-603.578
30	4225.751	119.737	611.622	-3504.580	-47.001	-560.377
31	3530.769	45.745	568.572	-3013.808	19.861	-506.102
32	3039.674	-21.486	514.821	-1832.886	79.399	-467.840
33	1858.199	-81.107	477.785	-939.987	134.569	-419.498
34	963.767	-136.536	430.461	506.195	175.356	-400.782
35	-484.626	-177.281	412.328	1947.067	215.507	-366.350
36	-1928.631	-217.714	378.432	3023.159	237.118	-369.249
37	-3008.070	-239.368	382.733	4327.270	250.884	-358.533
38	-4316.313	-253.367	371.931	3263.234	264.349	-373.806
39	-3256.287	-266.937	388.688	4481.892	704.356	-385.048
40	-4479.520	-707.085	400.248	8172.146	1634.728	-1165.352
41	-6454.821	2258.694	1012.700	2813.778	-1139.172	-1319.297
42	-2811.683	1139.122	1320.707	2905.805	-640.228	-1186.464
43	-2899.509	640.082	1187.706	1239.231	-588.916	-1087.469
44	-1228.947	588.612	1090.121	-74.971	-529.152	-976.635
45	88.948	528.797	980.318	-1184.142	-480.699	-891.344
46	2312.941	480.187	898.081	-2952.180	-386.173	-806.904
47	2972.799	385.403	812.004	-3650.708	-306.566	-733.984
48	3673.981	305.757	740.074	-3640.883	-222.418	-670.259
49	3665.875	221.481	676.727	-3748.905	-147.592	-608.574
50	3775.256	146.284	616.083	-3114.618	-73.467	-565.072
51	3141.557	72.089	573.792	-2689.196	-6.273	-511.706
52	2715.706	4.876	520.567	-1571.982	52.741	-473.663
53	1597.301	-54.454	483.669	-747.646	107.749	-425.295
54	771.365	-109.560	436.036	627.123	147.711	-406.412

COMBINACION 47 1.35 (G1 + G2) + 1.5 (SCTMAX-EC1) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	-605.913	-149.839	417.942	1991.224	187.337	-371.753
56	-1972.715	-189.510	384.240	2984.793	208.504	-375.125
57	-2969.894	-210.841	388.066	4202.750	222.076	-363.657
58	-4191.736	-224.518	377.613	3052.806	235.905	-379.401
59	-3045.980	-238.558	394.215	4190.229	676.487	-390.083
60	-4185.742	-679.154	405.372	7797.608	1606.606	-1170.981
61	-6132.001	2251.383	1018.024	2462.060	-1132.318	-1323.950
62	-2459.894	1132.280	1325.019	2570.447	-632.365	-1190.191
63	-2564.145	632.204	1191.794	929.679	-580.317	-1091.559
64	-919.448	580.114	1094.424	-355.123	-520.305	-981.543
65	369.207	519.882	984.600	-1435.101	-471.744	-895.172
66	2563.885	471.206	895.484	-3174.192	-377.321	-804.401
67	3194.854	376.500	809.957	-3845.687	-297.906	-732.145
68	3869.071	297.116	738.036	-3810.188	-213.983	-668.455
69	3835.307	212.970	675.151	-3894.334	-139.313	-607.284
70	3920.780	138.056	614.758	-3237.114	-65.488	-563.726
71	3263.894	64.298	572.509	-2790.331	1.399	-510.688
72	2816.790	-3.014	520.026	-1651.412	60.527	-473.099
73	1676.997	-62.235	482.893	-806.304	115.496	-424.613
74	830.155	-117.240	435.308	589.928	155.423	-405.592
75	-568.524	-157.521	417.097	1975.864	195.091	-370.774
76	-1957.576	-197.233	383.124	2992.359	216.254	-373.964
77	-2977.381	-218.660	387.175	4233.771	229.908	-362.891
78	-4222.716	-232.378	376.822	3106.840	243.584	-377.964
79	-3097.334	-246.123	392.642	4262.707	683.849	-388.526
80	-4261.164	-686.605	404.194	7894.763	1614.439	-1169.723
81	-6327.190	2255.507	1013.900	2556.514	-1134.138	-1319.270
82	-2554.362	1134.105	1320.459	2660.791	-634.535	-1185.944
83	-2654.448	634.357	1187.286	1012.791	-582.641	-1087.103
84	-1002.485	582.462	1089.710	-279.732	-522.760	-976.743
85	293.815	522.233	980.040	-1366.967	-474.169	-891.182
86	2495.955	473.686	896.488	-3113.849	-379.685	-805.587
87	3134.669	378.996	810.861	-3792.613	-300.368	-733.232
88	3816.259	299.390	739.495	-3764.290	-216.209	-669.871
89	3789.131	215.348	676.128	-3854.550	-141.675	-608.537
90	3881.357	140.396	616.777	-3203.577	-67.784	-566.177
91	3230.802	66.452	574.775	-2762.904	-0.754	-512.673
92	2789.518	-0.791	521.592	-1629.902	58.404	-474.696
93	1655.530	-60.151	484.828	-790.537	113.378	-426.489
94	814.411	-115.180	437.316	599.865	153.314	-407.478
95	-578.347	-155.349	419.035	1979.762	192.912	-372.680
96	-1961.352	-195.146	384.948	2989.675	214.125	-375.363
97	-2972.768	-216.310	388.189	4222.129	227.523	-363.421
98	-4211.150	-230.049	377.401	3088.369	241.318	-378.740
99	-3080.774	-243.924	393.481	4240.399	681.760	-389.456
100	-4238.111	-684.489	405.088	7864.530	1612.172	-1170.095
101	-6298.509	2254.899	1013.219	2530.778	-1133.681	-1318.204
102	-2528.667	1133.626	1319.540	2635.907	-633.936	-1185.381
103	-2629.566	633.789	1186.754	990.098	-582.018	-1086.706
104	-979.615	581.768	1088.686	-299.928	-522.056	-975.666
105	313.987	521.609	979.089	-1385.345	-473.452	-890.092
106	2514.205	472.911	894.364	-3129.583	-379.019	-803.877
107	3151.703	378.280	809.391	-3807.294	-299.682	-731.810
108	3831.266	298.774	737.935	-3777.217	-215.527	-668.712
109	3802.751	214.578	675.712	-3866.167	-140.960	-607.943

COMBINACION 47 1.35 (G1 + G2) + 1.5 (SCTMAX-EC1) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	3892.559	139.638	615.395	-3213.038	-67.013	-564.561
111	3240.033	65.760	573.596	-2770.397	-0.068	-511.623
112	2796.774	-1.444	520.803	-1635.695	58.963	-473.892
113	1661.311	-60.763	483.785	-794.742	113.972	-425.583
114	818.540	-115.767	436.553	597.530	154.013	-406.604
115	-575.982	-156.021	418.187	1978.982	193.544	-371.529
116	-1958.333	-195.707	383.609	2988.652	214.746	-374.143
117	-2975.851	-217.073	387.637	4227.421	228.278	-362.766
118	-4213.615	-230.652	375.725	3092.346	241.959	-376.839
119	-3085.708	-244.589	391.666	4246.697	1734.828	-386.801
120	-4244.057	-1737.551	401.676	7872.609	1612.710	-1166.547
121	-6354.811	2256.239	1013.134	2539.694	-1134.016	-1317.549
122	-2537.441	1133.971	1318.656	2644.098	-634.328	-1184.057
123	-2637.552	634.128	1185.410	996.869	-582.415	-1085.348
124	-985.902	582.133	1087.564	-295.262	-522.296	-974.735
125	309.405	521.923	978.050	-1381.652	-473.816	-889.071
126	2510.539	473.329	893.399	-3126.652	-379.398	-802.946
127	3147.736	378.618	808.395	-3804.235	-299.897	-731.154
128	3828.688	299.115	737.281	-3775.379	-215.994	-668.479
129	3800.804	214.773	675.766	-3864.592	-141.087	-607.978
130	3890.988	139.994	615.524	-3212.221	-67.331	-564.413
131	3238.943	65.916	572.990	-2769.750	-0.256	-511.184
132	2796.408	-1.364	520.682	-1635.106	58.911	-474.132
133	1660.798	-60.577	484.482	-794.633	113.791	-426.110
134	818.493	-115.597	437.054	597.054	153.797	-406.982
135	-575.577	-155.857	418.455	1978.190	193.436	-372.026
136	-1958.637	-195.541	384.260	2988.146	214.507	-374.353
137	-2971.571	-216.826	386.905	4222.396	228.054	-361.674
138	-4211.350	-230.491	375.643	3089.696	241.759	-377.069
139	-3082.978	-244.390	391.828	4243.448	1734.645	-386.489
140	-4240.960	-1737.345	401.352	7868.615	1612.601	-1166.600
141	-6360.443	2256.237	1015.183	2536.521	-1133.786	-1318.668
142	-2534.082	1133.744	1319.494	2641.840	-634.043	-1184.375
143	-2635.379	633.837	1185.931	995.922	-582.118	-1085.910
144	-985.513	581.879	1088.374	-294.856	-522.140	-975.927
145	309.781	521.655	978.813	-1381.076	-473.567	-890.028
146	2510.077	473.162	892.738	-3126.373	-379.241	-802.320
147	3147.125	378.567	807.713	-3803.837	-299.952	-730.898
148	3828.385	298.955	737.362	-3774.708	-215.797	-668.812
149	3799.918	214.917	675.839	-3864.032	-141.218	-608.220
150	3890.152	139.961	615.810	-3211.260	-67.334	-565.059
151	3238.050	65.933	574.008	-2768.791	-0.245	-512.179
152	2795.169	-1.306	521.346	-1634.411	58.843	-474.776
153	1659.752	-60.574	485.398	-793.402	113.802	-427.116
154	817.402	-115.684	437.867	598.303	153.879	-407.776
155	-576.785	-155.886	419.328	1979.714	193.487	-372.747
156	-1961.216	-195.698	384.990	2991.152	214.666	-374.917
157	-2973.473	-216.875	387.154	4224.459	228.090	-361.681
158	-4213.444	-230.534	375.661	3092.218	241.750	-376.871
159	-3085.475	-244.385	391.628	4246.236	1734.680	-386.996
160	-4243.754	-1737.421	402.388	7871.614	1612.611	-1167.283
161	-6364.936	2256.548	1007.802	2538.075	-1134.013	-1311.343
162	-2535.841	1133.961	1312.455	2642.521	-634.311	-1177.885
163	-2636.072	634.148	1179.240	995.590	-582.355	-1079.256
164	-984.894	582.029	1081.246	-295.540	-522.270	-968.480

COMBINACION 47 1.35 (G1 + G2) + 1.5 (SCTMAX-EC1) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	309.637	521.961	971.898	-1381.723	-473.842	-883.734
166	2511.260	473.267	894.502	-3127.665	-379.383	-804.119
167	3148.004	378.739	809.191	-3805.474	-300.050	-731.154
168	3828.593	299.075	737.027	-3775.222	-215.921	-668.867
169	3801.976	214.893	676.583	-3865.987	-141.187	-609.738
170	3892.172	140.038	617.436	-3213.680	-67.453	-566.920
171	3240.276	66.135	576.012	-2771.482	-0.435	-514.248
172	2797.822	-1.245	523.312	-1637.198	58.836	-476.422
173	1662.707	-60.509	486.480	-796.671	113.715	-428.254
174	820.305	-115.558	439.280	595.082	153.734	-409.170
175	-573.568	-155.847	420.752	1976.353	193.426	-373.994
176	-1955.417	-195.506	385.986	2984.902	214.456	-376.023
177	-2969.829	-216.761	389.087	4220.799	228.023	-363.849
178	-4209.571	-230.512	377.248	3088.509	241.686	-377.858
179	-3081.649	-244.249	392.559	4242.171	1734.611	-387.717
180	-4239.792	-1737.357	403.101	7868.178	1612.634	-1168.481
181	-6362.059	2256.378	1011.960	2534.457	-1133.598	-1315.773
182	-2532.311	1133.543	1316.963	2640.479	-633.891	-1182.475
183	-2633.738	633.707	1182.936	994.747	-581.976	-1082.594
184	-984.406	581.740	1085.223	-295.377	-521.978	-972.643
185	310.062	521.534	975.762	-1381.325	-473.408	-887.185
186	2510.252	472.932	892.876	-3125.162	-379.066	-803.005
187	3147.662	378.292	808.781	-3803.177	-299.662	-731.485
188	3826.363	298.660	737.352	-3771.819	-215.492	-668.340
189	3797.589	214.539	675.490	-3860.583	-140.858	-608.487
190	3887.175	139.746	616.650	-3207.562	-67.102	-565.823
191	3234.188	65.696	574.066	-2764.247	-0.042	-512.547
192	2790.808	-1.381	522.461	-1629.185	58.948	-475.795
193	1654.549	-60.675	485.722	-787.879	113.912	-427.303
194	811.508	-115.799	438.107	604.481	153.931	-408.028
195	-583.326	-155.965	419.501	1986.593	193.525	-372.607
196	-1967.316	-195.756	384.891	2997.492	214.723	-375.167
197	-2981.871	-216.991	387.980	4233.236	228.235	-362.419
198	-4222.074	-230.767	375.657	3101.672	242.038	-376.239
199	-3094.793	-244.635	390.955	4256.554	1734.885	-386.546
200	-4254.084	-1737.596	402.072	7883.977	1612.929	-1167.233
201	-6395.778	2258.729	1008.850	2546.841	-1134.717	-1312.267
202	-2544.672	1134.668	1313.364	2648.732	-634.967	-1178.915
203	-2642.389	634.799	1180.800	1000.151	-583.064	-1080.978
204	-989.413	582.856	1082.783	-293.667	-523.096	-970.158
205	308.060	522.590	973.500	-1382.478	-474.504	-885.130
206	2511.719	474.009	893.409	-3130.475	-380.164	-803.193
207	3151.346	379.494	808.539	-3811.605	-300.850	-730.725
208	3834.664	300.014	736.638	-3784.753	-216.876	-668.328
209	3811.379	215.725	676.066	-3878.563	-141.986	-608.922
210	3904.975	140.715	616.421	-3229.172	-68.056	-565.585
211	3256.062	66.783	574.585	-2789.795	-1.088	-512.650
212	2816.171	-0.408	521.820	-1658.453	57.997	-475.268
213	1683.910	-59.779	485.990	-820.195	113.060	-427.610
214	844.074	-114.901	438.397	568.997	153.120	-408.230
215	-547.673	-155.117	419.830	1948.022	192.631	-373.124
216	-1929.513	-194.904	385.461	2957.474	213.862	-375.519
217	-2942.668	-216.140	387.835	4191.295	227.235	-362.372
218	-4180.320	-229.694	376.341	3055.802	1523.193	-377.577
219	-3049.115	-1525.814	392.317	4205.402	1733.756	-387.195

COMBINACION 47 1.35 (G1 + G2) + 1.5 (SCTMAX-EC1) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	-4203.124	-1736.502	402.345	7827.547	1612.083	-1167.329
221	-6313.144	2252.979	1009.069	2499.809	-1130.298	-1313.308
222	-2497.562	1130.232	1314.359	2616.623	-630.774	-1179.684
223	-2610.219	630.614	1181.068	980.057	-578.921	-1081.156
224	-969.402	578.667	1083.082	-300.865	-519.009	-970.456
225	315.172	518.558	973.755	-1376.671	-470.479	-885.523
226	2505.948	469.961	894.674	-3111.837	-376.059	-804.164
227	3132.293	375.416	809.228	-3778.753	-296.806	-731.819
228	3803.157	295.876	738.231	-3739.757	-212.828	-669.678
229	3765.168	211.721	676.671	-3819.034	-138.230	-609.460
230	3845.715	137.051	617.532	-3159.229	-64.652	-567.079
231	3186.177	63.301	575.857	-2709.501	2.112	-513.889
232	2736.197	-3.651	523.048	-1571.772	60.809	-476.389
233	1597.385	-62.572	486.846	-727.261	115.566	-428.558
234	751.261	-117.346	439.286	663.503	155.185	-409.157
235	-642.083	-157.227	420.660	2042.329	194.569	-373.938
236	-2023.872	-196.698	386.351	3052.590	215.628	-376.594
237	-3037.893	-217.963	389.039	4285.965	229.375	-363.220
238	-4275.162	-231.885	376.390	3157.168	1525.722	-377.407
239	-3150.399	-1528.339	392.184	4317.858	1736.213	-387.783
240	-4315.502	-1738.934	403.044	7951.995	1617.420	-1167.719
241	-6581.137	2273.511	998.009	2592.110	-1141.151	-1316.610
242	-2589.812	1141.094	1317.537	2673.758	-640.928	-1182.563
243	-2667.381	640.796	1184.119	1008.590	-588.953	-1084.049
244	-997.982	588.658	1085.974	-301.077	-529.733	-972.840
245	315.732	529.311	976.087	-1419.100	-477.114	-887.112
246	2494.316	476.552	892.865	-3134.597	-385.537	-801.962
247	3156.527	384.769	807.643	-3846.654	-308.102	-729.612
248	3869.876	307.239	735.437	-3873.343	-227.203	-665.266
249	3898.823	226.243	672.175	-4022.335	-154.599	-604.823
250	4048.522	153.333	613.524	-3465.623	-84.199	-561.453
251	3492.076	82.746	569.833	-3111.068	-19.218	-507.145
252	3137.231	17.696	516.674	-2118.188	35.866	-468.626
253	2143.261	-37.561	479.060	-1396.676	88.395	-420.170
254	1420.088	-90.387	431.325	-197.575	123.822	-399.588
255	218.662	-125.774	411.183	954.809	157.897	-362.776
256	-936.794	-160.189	375.082	1167.432	157.767	-338.295
257	-1239.992	-163.810	359.343	2225.074	168.702	-331.337
258	-2124.379	-169.861	357.350	908.358	1471.723	-348.574
259	-799.853	-1472.801	367.015	638.274	1683.644	-362.272
260	-426.513	-1682.506	379.897	3534.376	1671.498	-868.755
261	-3491.784	2027.081	763.875	2832.563	-1194.152	-847.844
262	-2831.239	1194.126	848.920	3283.182	-448.422	-794.975
263	-3279.274	448.320	796.256	2317.099	-440.335	-741.563
264	-2310.594	440.144	743.356	1329.656	-376.916	-681.542
265	-1321.021	376.720	684.370	481.162	-387.367	-623.727
266	-70.678	386.967	630.146	-570.658	-329.504	-565.114
267	583.149	329.148	569.149	-1296.001	-302.176	-499.925
268	1311.630	301.704	503.965	-1542.804	-201.682	-401.932
269	1363.193	208.177	436.612	-1670.157	-187.501	-356.498
270	1466.616	195.752	394.674	-1783.430	-179.198	-322.628
271	1570.107	188.604	364.828	-1842.277	-173.449	-293.005
272	1649.609	182.810	339.888	-1842.728	-121.862	-268.072
273	1624.126	134.137	318.062	-1735.563	-73.860	-246.093
274	1522.218	87.503	300.419	-1585.924	-25.818	-228.340

COMBINACION 47 1.35 (G1 + G2) + 1.5 (SCTMAX-EC1) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	1383.439	40.568	286.446	-1325.573	21.587	-214.425
276	1140.981	-5.110	276.463	-967.125	67.663	-204.509
277	805.706	-49.566	270.484	101.352	108.627	-196.032
278	129.558	-102.299	236.611	360.223	143.139	-218.985
279	-247.793	-141.255	246.404	698.163	179.220	-242.260
280	-666.123	-180.054	260.510	1166.868	1121.746	-266.530

COMBINACION 48 1.35 (G1 + G2) + 1.5 (SCTMIN-EC1) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
1	-992.692	348.846	-269.506	292.313	-244.186	268.626
2	-302.603	242.621	-257.164	-331.793	-188.110	262.852
3	299.839	187.201	-250.164	-902.141	-130.155	263.340
4	840.429	130.601	-248.990	-1383.349	-71.566	266.017
5	1304.698	72.348	-253.276	-1747.592	-11.822	272.272
6	1676.940	12.414	-262.441	-1959.387	47.893	285.627
7	1942.027	-49.264	-277.105	-2102.400	111.458	305.520
8	2084.534	-112.431	-297.813	-2514.207	186.311	351.156
9	2495.214	-187.332	-343.925	-2363.864	266.396	417.610
10	2343.653	-267.358	-410.868	-2067.539	294.710	458.737
11	2050.428	-295.518	-452.562	-1676.669	322.838	505.349
12	1657.261	-323.501	-500.131	-1185.285	349.995	553.589
13	1170.976	-350.550	-547.979	-890.406	380.561	600.843
14	875.239	-381.178	-596.607	-171.521	399.642	647.294
15	158.800	-400.111	-643.068	597.210	415.463	702.956
16	-609.697	-415.762	-700.555	1396.960	442.400	796.229
17	-1404.147	-442.612	-793.159	2227.211	461.412	894.022
18	-2233.038	-461.584	-891.356	1261.912	484.204	965.955
19	-1265.595	-484.311	-964.056	2745.364	1191.282	1043.474
20	-2746.862	-1191.277	-1042.989	5426.409	1974.762	767.323
21	-6157.993	1674.717	-987.448	2106.350	-733.534	391.608
22	-2108.446	730.818	-376.055	2708.157	-305.668	380.691
23	-2714.523	303.067	-365.908	1729.805	-279.873	364.946
24	-1740.288	277.339	-351.000	531.430	-251.076	377.494
25	-545.786	248.729	-364.359	-272.439	-165.591	374.406
26	629.469	163.383	-362.116	-1624.366	-106.305	409.914
27	1603.549	104.312	-398.802	-2580.541	-53.425	430.108
28	2557.178	51.526	-418.883	-3002.610	10.768	477.870
29	2977.748	-12.572	-468.512	-3676.964	73.024	520.722
30	3650.610	-74.530	-511.036	-3694.119	140.501	576.783
31	3667.556	-141.787	-568.582	-3919.092	209.641	626.160
32	3893.233	-210.929	-619.033	-3442.818	276.909	688.611
33	3417.906	-277.968	-681.880	-3117.721	348.171	753.232
34	3093.622	-349.197	-747.139	-2143.286	410.628	826.053
35	2124.303	-411.186	-820.905	-1273.942	479.214	913.408
36	1254.296	-479.865	-909.464	110.201	535.081	998.717
37	-122.195	-535.351	-994.888	1462.481	592.017	1108.897
38	-1475.346	-592.372	-1106.847	1163.461	645.901	1206.979
39	-1166.910	-645.974	-1204.947	3153.941	1139.982	1339.848
40	-3159.213	-1140.108	-1338.993	6551.997	2223.644	1002.511
41	-8112.005	1672.703	-1181.587	4022.060	-704.515	408.782
42	-4024.475	701.778	-393.055	4887.330	-259.388	396.671
43	-4894.138	256.798	-382.516	3980.769	-248.310	381.079
44	-3991.751	245.798	-367.107	2714.038	-231.817	391.026
45	-2729.086	229.522	-377.679	1905.391	-217.664	386.745
46	-812.538	215.498	-371.874	-446.712	-152.277	418.183
47	425.319	150.168	-406.611	-1640.477	-94.583	436.192
48	1616.824	92.752	-425.237	-2223.084	-27.823	483.596
49	2197.685	26.213	-473.903	-3071.950	38.478	524.850
50	3045.519	-40.139	-515.715	-3208.668	108.289	580.886
51	3181.595	-109.702	-572.165	-3556.155	180.798	627.881
52	3530.479	-181.826	-620.639	-3170.025	249.221	689.195
53	3144.161	-250.284	-682.430	-2932.579	322.581	752.779
54	2910.053	-323.351	-746.880	-2034.072	385.314	825.037

COMBINACION 48 1.35 (G1 + G2) + 1.5 (SCTMIN-EC1) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
55	2011.679	-386.162	-820.011	-1234.176	455.185	911.207
56	1217.423	-455.688	-906.788	77.938	511.119	996.041
57	-92.992	-511.547	-992.829	1364.952	568.826	1105.929
58	-1375.283	-569.063	-1103.294	995.995	623.273	1203.463
59	-1002.301	-623.474	-1201.531	2928.393	1118.265	1336.344
60	-2930.845	-1118.311	-1335.409	6122.897	2190.220	1013.412
61	-7820.454	1663.423	-1175.409	3745.866	-699.415	402.583
62	-3748.257	696.701	-387.158	4618.908	-253.197	391.604
63	-4625.727	250.586	-377.103	3730.664	-241.304	375.309
64	-3741.795	238.895	-361.137	2482.786	-224.435	385.730
65	-2497.705	222.074	-372.904	1696.264	-209.999	382.155
66	-603.598	207.817	-373.807	-636.147	-144.503	419.978
67	614.753	142.343	-407.888	-1811.205	-86.811	437.670
68	1787.609	85.005	-426.923	-2373.802	-20.185	485.277
69	2348.348	18.490	-475.339	-3205.149	46.160	526.176
70	3178.822	-47.762	-517.074	-3323.161	115.821	582.332
71	3296.308	-117.020	-573.543	-3653.885	188.149	628.984
72	3627.228	-189.440	-621.276	-3247.232	256.802	689.739
73	3222.747	-257.804	-683.169	-2992.085	330.232	753.435
74	2968.376	-330.984	-747.609	-2071.494	393.177	825.348
75	2049.462	-393.988	-820.352	-1250.097	463.112	911.231
76	1232.314	-463.608	-906.980	86.027	519.088	996.122
77	-100.129	-519.559	-992.623	1396.693	576.899	1105.804
78	-1406.989	-577.161	-1103.200	1051.540	631.286	1203.491
79	-1058.287	-631.449	-1201.747	3007.109	1126.094	1336.142
80	-3009.153	-1126.150	-1334.800	6246.307	2200.005	1014.018
81	-7920.100	1665.319	-1177.746	3839.821	-701.177	405.078
82	-3842.276	698.469	-389.550	4708.575	-255.276	393.780
83	-4716.910	252.684	-379.514	3814.800	-243.576	378.173
84	-3825.837	241.192	-364.234	2558.885	-226.834	388.849
85	-2573.850	224.369	-375.815	1764.540	-212.376	385.260
86	-671.652	210.249	-371.834	-576.247	-146.898	418.278
87	554.980	144.871	-406.501	-1759.220	-89.269	436.353
88	1735.476	87.293	-425.197	-2328.562	-22.374	483.542
89	2303.117	20.816	-474.062	-3166.481	43.912	524.930
90	3139.976	-45.507	-515.049	-3290.428	113.585	579.805
91	3263.823	-114.918	-571.211	-3627.071	186.058	626.806
92	3601.025	-187.258	-619.501	-3226.527	254.724	688.043
93	3201.308	-255.794	-681.163	-2976.383	328.203	751.078
94	2952.378	-329.022	-745.131	-2061.255	391.153	822.994
95	2040.096	-391.870	-817.925	-1246.193	461.048	908.889
96	1228.248	-461.648	-904.746	83.626	517.105	993.535
97	-97.898	-517.414	-990.466	1388.049	574.794	1103.325
98	-1398.417	-575.114	-1100.679	1036.953	629.228	1200.908
99	-1043.869	-629.420	-1199.090	2987.812	1124.165	1333.473
100	-2989.474	-1124.198	-1332.178	6315.714	2199.071	1011.991
101	-7892.476	1664.721	-1177.127	3813.256	-700.664	404.701
102	-3815.491	697.925	-389.042	4683.027	-254.664	392.876
103	-4690.050	252.070	-378.575	3789.860	-242.908	377.888
104	-3803.648	240.530	-364.513	2538.812	-226.139	389.524
105	-2553.827	223.754	-376.383	1746.505	-211.724	385.598
106	-653.713	209.540	-373.218	-592.036	-146.227	419.757
107	570.842	144.196	-407.700	-1772.840	-88.624	437.579
108	1749.312	86.718	-426.577	-2340.487	-21.783	484.934
109	2315.130	20.167	-474.681	-3176.647	44.548	525.435

COMBINACION 48 1.35 (G1 + G2) + 1.5 (SCTMIN-EC1) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
110	3150.333	-46.218	-516.357	-3298.910	114.343	581.427
111	3272.200	-115.598	-572.394	-3634.005	186.686	627.809
112	3607.607	-187.854	-620.254	-3231.745	255.286	688.730
113	3206.782	-256.403	-682.074	-2980.426	328.822	751.583
114	2955.356	-329.677	-745.533	-2061.922	391.778	823.038
115	2041.634	-392.441	-817.930	-1246.793	461.509	908.753
116	1228.856	-462.110	-904.860	85.054	517.649	993.432
117	-98.862	-517.968	-989.620	1390.252	575.278	1102.777
118	-1401.552	-575.548	-1101.232	1041.222	629.724	1201.066
119	-1047.435	-629.891	-1199.125	2991.449	2177.036	1334.254
120	-2994.246	-2177.108	-1333.770	6388.241	2200.803	1014.475
121	-7898.375	1664.949	-1176.437	3819.065	-700.769	403.690
122	-3821.475	698.050	-388.230	4688.642	-254.809	392.865
123	-4695.640	252.171	-378.583	3795.233	-243.006	377.691
124	-3806.565	240.540	-364.095	2541.299	-226.162	389.133
125	-2557.419	223.885	-376.070	1749.716	-211.869	385.553
126	-656.903	209.734	-373.112	-589.334	-146.454	419.786
127	567.020	144.382	-407.788	-1770.027	-88.826	437.741
128	1746.100	87.083	-426.717	-2338.493	-22.201	484.916
129	2312.999	20.311	-474.365	-3175.016	44.441	525.139
130	3148.609	-45.877	-515.970	-3297.881	114.040	581.270
131	3271.034	-115.453	-572.688	-3633.311	186.548	628.206
132	3607.035	-187.828	-620.335	-3231.311	255.300	687.961
133	3204.977	-256.348	-680.892	-2978.875	328.764	749.963
134	2955.527	-329.565	-743.927	-2062.519	391.692	821.568
135	2041.890	-392.416	-816.592	-1246.587	461.563	907.432
136	1228.909	-462.061	-903.330	84.071	517.499	991.897
137	-98.875	-517.950	-989.155	1390.551	575.320	1101.681
138	-1400.846	-575.550	-1099.058	1040.788	629.705	1199.193
139	-1047.219	-629.884	-1197.352	2991.028	2177.027	1332.528
140	-2993.488	-2177.063	-1332.058	6385.486	2200.596	1013.328
141	-7896.471	1664.806	-1173.003	3817.688	-700.744	400.705
142	-3820.064	698.033	-385.483	4687.587	-254.766	390.890
143	-4694.398	252.111	-376.419	3794.190	-243.013	375.202
144	-3805.107	240.566	-361.374	2539.995	-226.116	386.831
145	-2557.644	223.800	-374.126	1750.229	-211.799	383.819
146	-655.446	209.694	-373.017	-590.562	-146.339	419.683
147	567.358	144.391	-407.730	-1770.340	-88.799	437.704
148	1746.254	86.852	-426.323	-2338.184	-21.982	484.524
149	2312.621	20.427	-474.229	-3174.734	44.294	524.947
150	3148.064	-45.894	-515.730	-3297.231	114.029	580.782
151	3270.411	-115.426	-571.829	-3632.347	186.545	627.249
152	3605.945	-187.752	-619.701	-3230.746	255.189	687.392
153	3204.380	-256.289	-680.072	-2978.153	328.664	749.011
154	2955.159	-329.532	-743.136	-2062.336	391.654	820.967
155	2040.912	-392.352	-815.944	-1245.681	461.552	906.391
156	1228.039	-462.123	-902.285	84.895	517.587	990.685
157	-99.765	-517.961	-988.293	1390.920	575.272	1100.522
158	-1401.250	-575.510	-1097.889	1041.060	629.670	1197.989
159	-1047.666	-629.856	-1196.165	2992.440	2177.047	1330.778
160	-2994.655	-2177.114	-1329.746	6385.246	2200.590	1011.485
161	-7897.706	1664.897	-1178.918	3817.539	-700.747	407.271
162	-3819.915	698.022	-391.801	4687.186	-254.795	396.531
163	-4694.019	252.182	-382.241	3793.519	-243.027	381.626
164	-3804.691	240.508	-368.228	2539.754	-226.164	393.487

COMBINACION 48 1.35 (G1 + G2) + 1.5 (SCTMIN-EC1) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
165	-2554.669	223.916	-380.331	1746.833	-211.874	390.259
166	-656.460	209.754	-371.268	-590.158	-146.464	418.131
167	568.504	144.479	-406.566	-1771.627	-88.876	436.658
168	1747.640	86.890	-425.899	-2339.772	-22.001	484.201
169	2314.297	20.362	-473.174	-3176.749	44.367	523.592
170	3150.101	-45.854	-514.264	-3299.940	113.941	578.950
171	3272.936	-115.262	-569.861	-3635.361	186.379	624.883
172	3608.904	-187.715	-617.453	-3233.542	255.195	685.619
173	3208.160	-256.199	-678.822	-2982.502	328.612	747.732
174	2957.575	-329.502	-741.659	-2065.024	391.624	818.850
175	2044.408	-392.401	-813.741	-1249.139	461.644	904.351
176	1231.564	-462.157	-900.570	81.709	517.585	988.813
177	-95.776	-517.958	-985.497	1387.621	575.291	1098.270
178	-1398.084	-575.584	-1096.268	1037.859	629.676	1196.339
179	-1044.479	-629.798	-1194.580	2989.267	2177.006	1329.218
180	-2991.528	-2177.076	-1328.197	6377.665	2200.487	1010.016
181	-7892.835	1664.523	-1174.972	3814.913	-700.477	403.216
182	-3817.374	697.747	-387.680	4685.494	-254.528	392.774
183	-4692.462	251.905	-379.331	3792.858	-242.786	378.764
184	-3803.866	240.343	-364.790	2539.567	-225.934	389.738
185	-2554.843	223.580	-376.838	1748.112	-211.485	386.520
186	-655.935	209.386	-372.689	-589.233	-146.079	419.629
187	566.424	144.082	-407.265	-1768.077	-88.499	437.224
188	1744.431	86.478	-426.487	-2335.000	-21.609	484.860
189	2309.746	19.996	-474.434	-3170.736	44.712	524.907
190	3144.408	-46.168	-515.105	-3292.733	114.290	580.010
191	3265.867	-115.694	-571.765	-3627.361	186.773	626.838
192	3600.435	-187.891	-618.578	-3224.469	255.359	685.873
193	3199.232	-256.400	-679.205	-2972.512	328.875	748.892
194	2948.896	-329.756	-742.980	-2055.976	391.858	820.245
195	2034.945	-392.550	-815.339	-1239.509	461.697	905.313
196	1221.936	-462.306	-901.178	91.936	517.804	989.739
197	-106.059	-518.157	-986.702	1397.792	575.507	1099.221
198	-1408.200	-575.844	-1097.393	1048.843	630.054	1197.362
199	-1055.136	-630.199	-1195.580	3001.241	2177.338	1329.968
200	-3003.370	-2177.372	-1328.792	6377.967	2200.467	1010.910
201	-7910.425	1665.654	-1177.516	3827.793	-701.659	406.579
202	-3830.318	698.938	-391.125	4694.599	-255.650	395.398
203	-4701.375	253.027	-380.607	3798.500	-243.862	379.796
204	-3809.690	241.466	-366.561	2541.887	-227.061	392.128
205	-2557.003	224.634	-379.031	1746.764	-212.608	388.831
206	-656.123	210.549	-372.371	-592.974	-147.284	419.216
207	571.496	145.288	-407.338	-1777.533	-89.712	437.442
208	1753.593	87.861	-426.651	-2349.084	-22.979	484.925
209	2323.542	21.217	-473.882	-3189.046	43.537	524.356
210	3162.654	-45.152	-515.235	-3314.859	113.326	580.300
211	3288.223	-114.596	-571.302	-3653.141	185.746	626.736
212	3626.725	-186.899	-619.184	-3254.273	254.392	686.834
213	3229.210	-255.491	-679.414	-3005.414	327.949	748.380
214	2982.298	-328.772	-742.475	-2091.628	391.021	820.088
215	2070.901	-391.678	-815.039	-1277.702	460.868	905.419
216	1260.141	-461.495	-901.199	51.685	516.980	989.780
217	-65.847	-517.321	-987.298	1355.565	574.549	1099.559
218	-1365.928	-574.799	-1096.938	1003.265	1911.239	1197.052
219	-1009.655	-1911.405	-1195.241	2950.562	2176.258	1330.159

COMBINACION 48 1.35 (G1 + G2) + 1.5 (SCTMIN-EC1) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
220	-2952.818	-2176.328	-1329.386	6253.364	2197.928	1011.226
221	-7853.971	1661.733	-1176.742	3785.264	-697.616	404.759
222	-3787.647	694.875	-389.340	4665.178	-251.802	394.239
223	-4672.007	249.193	-379.919	3780.223	-240.102	379.339
224	-3791.358	237.655	-365.997	2534.940	-223.235	391.447
225	-2549.960	220.860	-378.392	1751.809	-208.770	388.271
226	-661.415	206.696	-370.920	-574.724	-143.286	417.748
227	553.078	141.309	-406.185	-1744.863	-85.598	436.211
228	1721.005	83.706	-424.877	-2301.253	-18.794	483.139
229	2275.718	17.026	-472.883	-3125.458	47.660	523.554
230	3099.199	-49.165	-513.836	-3236.151	117.284	578.530
231	3209.621	-118.629	-569.761	-3559.560	189.598	625.215
232	3533.548	-190.792	-617.678	-3147.557	258.025	685.556
233	3122.726	-259.106	-678.383	-2886.329	331.382	747.424
234	2863.431	-332.141	-741.595	-1962.684	394.124	818.814
235	1942.159	-394.827	-813.879	-1139.037	464.052	904.138
236	1121.502	-464.531	-899.829	198.326	520.107	988.608
237	-212.532	-520.500	-985.971	1511.685	578.203	1098.351
238	-1522.076	-578.503	-1096.593	1172.848	1915.322	1196.445
239	-1179.135	-1915.484	-1194.574	3139.161	2180.290	1329.206
240	-3141.343	-2180.335	-1328.310	6342.470	2199.505	1010.140
241	-8060.893	1676.940	-1169.815	3939.555	-714.662	398.509
242	-3942.063	711.937	-383.206	4763.996	-267.832	388.118
243	-4770.812	265.255	-373.647	3831.390	-255.697	372.895
244	-3842.677	253.220	-359.564	2539.329	-238.620	385.125
245	-2554.789	236.306	-372.109	1702.160	-219.517	381.825
246	-664.285	217.376	-367.937	-610.123	-154.989	414.807
247	588.384	152.973	-402.563	-1820.508	-97.958	432.664
248	1796.956	96.110	-421.975	-2421.800	-31.854	480.364
249	2396.330	30.280	-470.193	-3288.002	34.237	520.749
250	3261.698	-35.797	-510.400	-3442.827	103.631	575.136
251	3416.402	-105.047	-566.773	-3801.576	176.340	622.358
252	3775.783	-177.480	-614.472	-3426.205	244.861	682.143
253	3401.655	-245.832	-675.000	-3190.334	318.395	743.901
254	3167.864	-319.331	-737.686	-2294.492	381.218	815.125
255	2274.621	-381.791	-810.047	-1488.791	450.652	900.897
256	1471.942	-451.260	-896.751	-177.710	505.665	985.268
257	164.304	-506.019	-982.294	1109.315	561.434	1095.076
258	-1119.082	-561.643	-1092.436	702.651	1904.917	1192.897
259	-708.742	-1905.039	-1190.840	1309.974	2169.992	1325.585
260	-1312.024	-2170.036	-1324.425	3756.468	2186.844	1006.865
261	-5575.401	1451.998	-1088.662	2849.382	-820.120	332.951
262	-2850.942	818.059	-321.413	3998.378	-96.378	320.602
263	-4002.506	94.375	-309.847	3658.688	-111.113	313.632
264	-3665.571	109.179	-303.468	3260.976	-81.833	311.125
265	-3270.167	80.036	-301.162	2559.827	-109.440	342.934
266	-2175.698	107.731	-330.389	1819.020	-76.547	351.882
267	-1830.497	74.863	-343.055	1288.569	-74.243	369.004
268	-1305.977	72.819	-361.184	745.914	-71.022	391.894
269	-762.976	69.465	-384.446	205.677	-66.173	419.257
270	-223.721	64.917	-412.340	-312.090	-60.432	451.819
271	293.347	59.138	-445.499	-793.563	-54.082	489.387
272	774.657	52.863	-483.603	-1638.465	13.491	565.871
273	1619.927	-14.358	-560.710	-1911.812	81.967	644.368
274	1893.747	-82.702	-639.812	-2090.080	142.465	692.903

COMBINACION 48 1.35 (G1 + G2) + 1.5 (SCTMIN-EC1) + PRETD

ESFUERZOS EN EXTREMO DE BARRA

Barra	Momento1	Cortante1	Torsor1	Momento2	Cortante2	Torsor2
275	2073.121	-143.462	-688.711	-2083.035	205.758	741.935
276	2068.062	-206.300	-738.519	-1880.792	270.990	794.356
277	1867.974	-271.288	-791.533	-1704.835	353.142	866.862
278	1694.924	-353.426	-864.534	-1008.318	425.242	933.448
279	1001.601	-425.479	-931.991	-71.855	500.513	1005.627
280	69.597	-500.692	-1004.285	1167.599	1463.667	1053.656

DIMENSIONAMIENTO A TORSION SEGUN NORMATIVA EHE

SECC	Td (mT)	Tul (mT)	T-V	Asl (cm2/m)	Ast (cm2/m)	theta	thetae
1	1192.83	19419.30	0.53	14.74	3.69	26.57	26.57
2	1099.23	19419.30	0.46	13.59	3.40	26.57	26.57
3	1010.59	19419.30	0.42	12.49	3.12	26.57	26.57
4	924.95	19419.30	0.37	11.43	2.86	26.57	26.57
5	837.24	19419.30	0.32	10.35	2.59	26.57	26.57
6	755.41	19419.30	0.28	9.34	2.33	26.57	26.57
7	684.67	19419.30	0.23	8.46	2.12	26.57	26.57
8	636.31	19419.30	0.28	7.86	1.97	26.57	26.57
9	560.19	19419.30	0.23	6.92	1.73	26.57	26.57
10	496.89	19419.30	0.27	6.14	1.54	26.57	26.57
11	452.56	19419.30	0.29	5.59	1.40	26.57	26.57
12	500.13	19419.30	0.31	6.18	1.55	26.57	26.57
13	547.98	19419.30	0.33	6.77	1.69	26.57	26.57
14	596.61	19419.30	0.36	7.37	1.84	26.57	26.57
15	643.07	19419.30	0.39	7.95	1.99	26.57	26.57
16	708.52	19419.30	0.41	8.76	2.19	26.57	26.57
17	796.82	19419.30	0.44	9.85	2.46	26.57	26.57
18	891.36	19419.30	0.46	11.02	2.75	26.57	26.57
19	981.29	22587.49	0.37	13.03	3.26	26.57	26.57
20	1078.45	22587.49	0.56	14.32	3.58	26.57	26.57
21	1321.31	22587.49	0.84	17.55	4.39	26.57	26.57
22	1398.95	22587.49	0.58	18.58	4.65	26.57	26.57
23	1277.24	19419.30	0.58	15.79	3.95	26.57	26.57
24	1165.74	19419.30	0.54	14.41	3.60	26.57	26.57
25	1056.33	19419.30	0.50	13.06	3.26	26.57	26.57
26	956.75	19419.30	0.44	11.82	2.96	26.57	26.57
27	859.27	19419.30	0.39	10.62	2.65	26.57	26.57
28	772.76	19419.30	0.35	9.55	2.39	26.57	26.57
29	688.06	19419.30	0.30	8.50	2.13	26.57	26.57
30	613.73	19419.30	0.25	7.58	1.90	26.57	26.57
31	569.07	19419.30	0.29	7.03	1.76	26.57	26.57
32	619.03	19419.30	0.27	7.65	1.91	26.57	26.57
33	681.88	19419.30	0.31	8.43	2.11	26.57	26.57
34	747.14	19419.30	0.36	9.23	2.31	26.57	26.57
35	838.38	19419.30	0.40	10.36	2.59	26.57	26.57
36	939.88	19419.30	0.44	11.62	2.90	26.57	26.57
37	1047.57	19419.30	0.48	12.95	3.24	26.57	26.57
38	1165.39	19419.30	0.52	14.40	3.60	26.57	26.57
39	1287.09	22587.49	0.42	17.09	4.27	26.57	26.57
40	1419.16	22587.49	0.56	18.85	4.71	26.57	26.57
41	1299.00	22587.49	0.85	17.25	4.31	26.57	26.57
42	1398.21	22587.49	0.57	18.57	4.64	26.57	26.57
43	1275.92	19419.30	0.58	15.77	3.94	26.57	26.57
44	1164.53	19419.30	0.54	14.39	3.60	26.57	26.57
45	1055.13	19419.30	0.50	13.04	3.26	26.57	26.57
46	958.80	19419.30	0.47	11.85	2.96	26.57	26.57
47	862.33	19419.30	0.42	10.66	2.66	26.57	26.57
48	775.43	19419.30	0.37	9.58	2.40	26.57	26.57
49	691.24	19419.30	0.33	8.54	2.14	26.57	26.57
50	615.94	19419.30	0.28	7.61	1.90	26.57	26.57
51	573.81	19419.30	0.32	7.09	1.77	26.57	26.57
52	620.64	19419.30	0.27	7.67	1.92	26.57	26.57
53	682.43	19419.30	0.32	8.43	2.11	26.57	26.57
54	762.57	19419.30	0.36	9.42	2.36	26.57	26.57
55	855.20	19419.30	0.40	10.57	2.64	26.57	26.57
56	957.03	19419.30	0.44	11.83	2.96	26.57	26.57
57	1064.93	19419.30	0.48	13.16	3.29	26.57	26.57
58	1182.18	19419.30	0.52	14.61	3.65	26.57	26.57
59	1304.13	22587.49	0.43	17.32	4.33	26.57	26.57

DIMENSIONAMIENTO A TORSION SEGUN NORMATIVA EHE

SECC	Td (mT)	Tul (mT)	T-V	Asl (cm2/m)	Ast (cm2/m)	theta	thetae
60	1436.13	22587.49	0.56	19.07	4.77	26.57	26.57
61	1303.24	22587.49	0.85	17.31	4.33	26.57	26.57
62	1402.38	22587.49	0.57	18.63	4.66	26.57	26.57
63	1280.25	19419.30	0.57	15.82	3.96	26.57	26.57
64	1169.05	19419.30	0.54	14.45	3.61	26.57	26.57
65	1059.87	19419.30	0.50	13.10	3.27	26.57	26.57
66	955.77	19419.30	0.47	11.81	2.95	26.57	26.57
67	860.66	19419.30	0.42	10.64	2.66	26.57	26.57
68	773.35	19419.30	0.37	9.56	2.39	26.57	26.57
69	689.76	19419.30	0.33	8.52	2.13	26.57	26.57
70	614.54	19419.30	0.28	7.59	1.90	26.57	26.57
71	573.54	19419.30	0.23	7.09	1.77	26.57	26.57
72	621.28	19419.30	0.28	7.68	1.92	26.57	26.57
73	683.17	19419.30	0.32	8.44	2.11	26.57	26.57
74	764.20	19419.30	0.37	9.44	2.36	26.57	26.57
75	856.75	19419.30	0.41	10.59	2.65	26.57	26.57
76	958.37	19419.30	0.45	11.84	2.96	26.57	26.57
77	1066.06	19419.30	0.49	13.18	3.29	26.57	26.57
78	1183.39	19419.30	0.53	14.63	3.66	26.57	26.57
79	1305.68	22587.49	0.43	17.34	4.34	26.57	26.57
80	1436.56	22587.49	0.57	19.08	4.77	26.57	26.57
81	1298.73	22587.49	0.85	17.25	4.31	26.57	26.57
82	1398.27	22587.49	0.57	18.57	4.64	26.57	26.57
83	1275.96	19419.30	0.58	15.77	3.94	26.57	26.57
84	1164.56	19419.30	0.54	14.39	3.60	26.57	26.57
85	1055.33	19419.30	0.50	13.04	3.26	26.57	26.57
86	957.29	19419.30	0.47	11.83	2.96	26.57	26.57
87	861.42	19419.30	0.42	10.65	2.66	26.57	26.57
88	775.03	19419.30	0.37	9.58	2.39	26.57	26.57
89	690.53	19419.30	0.33	8.53	2.13	26.57	26.57
90	616.86	19419.30	0.28	7.62	1.91	26.57	26.57
91	573.91	19419.30	0.32	7.09	1.77	26.57	26.57
92	619.50	19419.30	0.28	7.66	1.91	26.57	26.57
93	681.16	19419.30	0.32	8.42	2.10	26.57	26.57
94	761.76	19419.30	0.37	9.41	2.35	26.57	26.57
95	854.56	19419.30	0.41	10.56	2.64	26.57	26.57
96	956.07	19419.30	0.45	11.82	2.95	26.57	26.57
97	1063.75	19419.30	0.49	13.15	3.29	26.57	26.57
98	1180.94	19419.30	0.53	14.60	3.65	26.57	26.57
99	1303.09	22587.49	0.43	17.31	4.33	26.57	26.57
100	1434.12	22587.49	0.57	19.05	4.76	26.57	26.57
101	1297.67	22587.49	0.85	17.24	4.31	26.57	26.57
102	1397.70	22587.49	0.57	18.56	4.64	26.57	26.57
103	1275.52	19419.30	0.58	15.76	3.94	26.57	26.57
104	1163.68	19419.30	0.54	14.38	3.60	26.57	26.57
105	1054.38	19419.30	0.50	13.03	3.26	26.57	26.57
106	955.16	19419.30	0.47	11.80	2.95	26.57	26.57
107	860.18	19419.30	0.42	10.63	2.66	26.57	26.57
108	773.39	19419.30	0.37	9.56	2.39	26.57	26.57
109	690.41	19419.30	0.33	8.53	2.13	26.57	26.57
110	615.15	19419.30	0.28	7.60	1.90	26.57	26.57
111	572.39	19419.30	0.24	7.07	1.77	26.57	26.57
112	620.25	19419.30	0.28	7.67	1.92	26.57	26.57
113	682.07	19419.30	0.33	8.43	2.11	26.57	26.57
114	761.91	19419.30	0.37	9.42	2.35	26.57	26.57
115	855.02	19419.30	0.41	10.57	2.64	26.57	26.57
116	956.09	19419.30	0.45	11.82	2.95	26.57	26.57
117	1063.60	19419.30	0.49	13.14	3.29	26.57	26.57
118	1181.73	19419.30	0.53	14.60	3.65	26.57	26.57

DIMENSIONAMIENTO A TORSION SEGUN NORMATIVA EHE

SECC	Td (mT)	Tu1 (mT)	T-V	Asl (cm2/m)	Ast (cm2/m)	theta	thetae
119	1303.50	22587.49	0.43	17.31	4.33	26.57	26.57
120	1436.74	22587.49	0.81	19.08	4.77	26.57	26.57
121	1297.38	22587.49	0.85	17.23	4.31	26.57	26.57
122	1396.72	22587.49	0.57	18.55	4.64	26.57	26.57
123	1274.36	19419.30	0.58	15.75	3.94	26.57	26.57
124	1162.67	19419.30	0.54	14.37	3.59	26.57	26.57
125	1053.49	19419.30	0.51	13.02	3.25	26.57	26.57
126	954.30	19419.30	0.47	11.79	2.95	26.57	26.57
127	859.27	19419.30	0.42	10.62	2.65	26.57	26.57
128	772.89	19419.30	0.38	9.55	2.39	26.57	26.57
129	690.64	19419.30	0.33	8.54	2.13	26.57	26.57
130	615.31	19419.30	0.28	7.60	1.90	26.57	26.57
131	572.69	19419.30	0.24	7.08	1.77	26.57	26.57
132	620.34	19419.30	0.28	7.67	1.92	26.57	26.57
133	680.89	19419.30	0.33	8.42	2.10	26.57	26.57
134	760.71	19419.30	0.37	9.40	2.35	26.57	26.57
135	853.64	19419.30	0.41	10.55	2.64	26.57	26.57
136	955.09	19419.30	0.45	11.80	2.95	26.57	26.57
137	1062.74	19419.30	0.49	13.13	3.28	26.57	26.57
138	1179.87	19419.30	0.53	14.58	3.65	26.57	26.57
139	1301.96	22587.49	0.43	17.29	4.32	26.57	26.57
140	1435.21	22587.49	0.81	19.06	4.77	26.57	26.57
141	1299.53	22587.49	0.85	17.26	4.31	26.57	26.57
142	1397.72	22587.49	0.57	18.56	4.64	26.57	26.57
143	1275.44	19419.30	0.58	15.76	3.94	26.57	26.57
144	1164.01	19419.30	0.54	14.39	3.60	26.57	26.57
145	1054.90	19419.30	0.51	13.04	3.26	26.57	26.57
146	953.88	19419.30	0.47	11.79	2.95	26.57	26.57
147	858.83	19419.30	0.42	10.61	2.65	26.57	26.57
148	773.30	19419.30	0.38	9.56	2.39	26.57	26.57
149	690.79	19419.30	0.33	8.54	2.13	26.57	26.57
150	615.69	19419.30	0.28	7.61	1.90	26.57	26.57
151	571.83	19419.30	0.24	7.07	1.77	26.57	26.57
152	619.70	19419.30	0.28	7.66	1.91	26.57	26.57
153	680.07	19419.30	0.33	8.40	2.10	26.57	26.57
154	760.27	19419.30	0.37	9.40	2.35	26.57	26.57
155	852.74	19419.30	0.41	10.54	2.63	26.57	26.57
156	954.11	19419.30	0.45	11.79	2.95	26.57	26.57
157	1061.86	19419.30	0.49	13.12	3.28	26.57	26.57
158	1178.81	19419.30	0.53	14.57	3.64	26.57	26.57
159	1300.90	22587.49	0.43	17.28	4.32	26.57	26.57
160	1432.70	22587.49	0.81	19.03	4.76	26.57	26.57
161	1291.86	22587.49	0.85	17.16	4.29	26.57	26.57
162	1390.92	22587.49	0.58	18.47	4.62	26.57	26.57
163	1268.58	19419.30	0.58	15.68	3.92	26.57	26.57
164	1156.76	19419.30	0.54	14.30	3.57	26.57	26.57
165	1047.58	19419.30	0.51	12.95	3.24	26.57	26.57
166	956.11	19419.30	0.47	11.82	2.95	26.57	26.57
167	859.85	19419.30	0.42	10.63	2.66	26.57	26.57
168	772.64	19419.30	0.38	9.55	2.39	26.57	26.57
169	691.84	19419.30	0.33	8.55	2.14	26.57	26.57
170	617.33	19419.30	0.28	7.63	1.91	26.57	26.57
171	572.88	19419.30	0.32	7.08	1.77	26.57	26.57
172	617.45	19419.30	0.28	7.63	1.91	26.57	26.57
173	678.82	19419.30	0.33	8.39	2.10	26.57	26.57
174	758.08	19419.30	0.37	9.37	2.34	26.57	26.57
175	851.04	19419.30	0.41	10.52	2.63	26.57	26.57
176	952.11	19419.30	0.45	11.77	2.94	26.57	26.57
177	1059.53	19419.30	0.49	13.09	3.27	26.57	26.57

DIMENSIONAMIENTO A TORSION SEGUN NORMATIVA EHE

SECC	Td (mT)	Tu1 (mT)	T-V	Asl (cm2/m)	Ast (cm2/m)	theta	thetae
178	1177.20	19419.30	0.53	14.55	3.64	26.57	26.57
179	1299.33	22587.49	0.43	17.26	4.31	26.57	26.57
180	1431.17	22587.49	0.81	19.01	4.75	26.57	26.57
181	1296.01	22587.49	0.85	17.21	4.30	26.57	26.57
182	1395.59	22587.49	0.57	18.54	4.63	26.57	26.57
183	1272.11	19419.30	0.58	15.72	3.93	26.57	26.57
184	1160.68	19419.30	0.54	14.34	3.59	26.57	26.57
185	1051.57	19419.30	0.50	13.00	3.25	26.57	26.57
186	954.12	19419.30	0.47	11.79	2.95	26.57	26.57
187	860.00	19419.30	0.42	10.63	2.66	26.57	26.57
188	772.83	19419.30	0.37	9.55	2.39	26.57	26.57
189	690.39	19419.30	0.33	8.53	2.13	26.57	26.57
190	616.77	19419.30	0.28	7.62	1.91	26.57	26.57
191	571.76	19419.30	0.24	7.07	1.77	26.57	26.57
192	618.58	19419.30	0.28	7.64	1.91	26.57	26.57
193	679.21	19419.30	0.33	8.39	2.10	26.57	26.57
194	760.09	19419.30	0.37	9.39	2.35	26.57	26.57
195	851.99	19419.30	0.41	10.53	2.63	26.57	26.57
196	953.16	19419.30	0.45	11.78	2.94	26.57	26.57
197	1060.74	19419.30	0.49	13.11	3.28	26.57	26.57
198	1178.45	19419.30	0.53	14.56	3.64	26.57	26.57
199	1300.48	22587.49	0.43	17.27	4.32	26.57	26.57
200	1431.85	22587.49	0.81	19.02	4.75	26.57	26.57
201	1292.82	22587.49	0.85	17.17	4.29	26.57	26.57
202	1391.84	22587.49	0.57	18.49	4.62	26.57	26.57
203	1270.25	19419.30	0.58	15.70	3.92	26.57	26.57
204	1158.34	19419.30	0.54	14.32	3.58	26.57	26.57
205	1049.17	19419.30	0.50	12.97	3.24	26.57	26.57
206	954.75	19419.30	0.47	11.80	2.95	26.57	26.57
207	859.39	19419.30	0.42	10.62	2.66	26.57	26.57
208	772.13	19419.30	0.37	9.54	2.39	26.57	26.57
209	691.27	19419.30	0.33	8.54	2.14	26.57	26.57
210	616.15	19419.30	0.28	7.61	1.90	26.57	26.57
211	571.30	19419.30	0.24	7.06	1.77	26.57	26.57
212	619.18	19419.30	0.28	7.65	1.91	26.57	26.57
213	679.41	19419.30	0.32	8.40	2.10	26.57	26.57
214	759.71	19419.30	0.37	9.39	2.35	26.57	26.57
215	851.85	19419.30	0.41	10.53	2.63	26.57	26.57
216	953.29	19419.30	0.45	11.78	2.95	26.57	26.57
217	1060.94	19419.30	0.49	13.11	3.28	26.57	26.57
218	1177.94	19419.30	0.53	14.56	3.64	26.57	26.57
219	1300.03	22587.49	0.73	17.27	4.32	26.57	26.57
220	1432.55	22587.49	0.81	19.03	4.76	26.57	26.57
221	1292.88	22587.49	0.85	17.17	4.29	26.57	26.57
222	1391.88	22587.49	0.57	18.49	4.62	26.57	26.57
223	1269.54	19419.30	0.57	15.69	3.92	26.57	26.57
224	1157.69	19419.30	0.53	14.31	3.58	26.57	26.57
225	1048.54	19419.30	0.50	12.96	3.24	26.57	26.57
226	955.21	19419.30	0.46	11.81	2.95	26.57	26.57
227	858.96	19419.30	0.41	10.62	2.65	26.57	26.57
228	773.16	19419.30	0.37	9.56	2.39	26.57	26.57
229	690.50	19419.30	0.32	8.53	2.13	26.57	26.57
230	616.66	19419.30	0.27	7.62	1.91	26.57	26.57
231	572.13	19419.30	0.32	7.07	1.77	26.57	26.57
232	617.68	19419.30	0.28	7.63	1.91	26.57	26.57
233	678.38	19419.30	0.32	8.38	2.10	26.57	26.57
234	758.53	19419.30	0.37	9.37	2.34	26.57	26.57
235	850.41	19419.30	0.41	10.51	2.63	26.57	26.57
236	951.92	19419.30	0.45	11.76	2.94	26.57	26.57

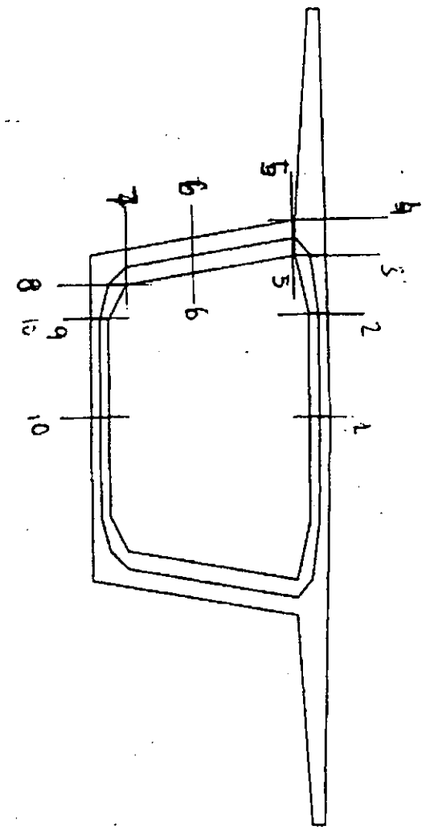
DIMENSIONAMIENTO A TORSION SEGUN NORMATIVA EHE

SECC	Td (mT)	Tu1 (mT)	T-V	Asl (cm2/m)	Ast (cm2/m)	theta	thetae
237	1059.64	19419.30	0.49	13.10	3.27	26.57	26.57
238	1177.29	19419.30	0.53	14.55	3.64	26.57	26.57
239	1299.12	22587.49	0.73	17.25	4.31	26.57	26.57
240	1431.13	22587.49	0.81	19.01	4.75	26.57	26.57
241	1277.65	22587.49	0.84	16.97	4.24	26.57	26.57
242	1376.21	22587.49	0.57	18.28	4.57	26.57	26.57
243	1254.02	19419.30	0.57	15.50	3.87	26.57	26.57
244	1142.16	19419.30	0.53	14.12	3.53	26.57	26.57
245	1033.07	19419.30	0.49	12.77	3.19	26.57	26.57
246	935.67	19419.30	0.45	11.56	2.89	26.57	26.57
247	841.23	19419.30	0.41	10.40	2.60	26.57	26.57
248	753.91	19419.30	0.36	9.32	2.33	26.57	26.57
249	671.17	19419.30	0.31	8.29	2.07	26.57	26.57
250	609.26	19419.30	0.37	7.53	1.88	26.57	26.57
251	566.77	19419.30	0.22	7.00	1.75	26.57	26.57
252	614.47	19419.30	0.26	7.59	1.90	26.57	26.57
253	675.00	19419.30	0.30	8.34	2.09	26.57	26.57
254	754.51	19419.30	0.35	9.32	2.33	26.57	26.57
255	847.34	19419.30	0.39	10.47	2.62	26.57	26.57
256	948.72	19419.30	0.43	11.73	2.93	26.57	26.57
257	1056.28	19419.30	0.47	13.05	3.26	26.57	26.57
258	1173.56	19419.30	0.51	14.50	3.63	26.57	26.57
259	1295.70	22587.49	0.72	17.21	4.30	26.57	26.57
260	1427.19	22587.49	0.80	18.96	4.74	26.57	26.57
261	1088.66	22587.49	0.76	14.46	3.61	26.57	26.57
262	1054.01	22587.49	0.56	14.00	3.50	26.57	26.57
263	963.06	19419.30	0.47	11.90	2.98	26.57	26.57
264	876.50	19419.30	0.45	10.83	2.71	26.57	26.57
265	792.45	19419.30	0.41	9.79	2.45	26.57	26.57
266	717.02	19419.30	0.40	8.86	2.22	26.57	26.57
267	644.23	19419.30	0.36	7.96	1.99	26.57	26.57
268	568.29	19419.30	0.34	7.02	1.76	26.57	26.57
269	490.08	19419.30	0.31	6.06	1.51	26.57	26.57
270	422.05	19419.30	0.28	5.22	1.30	26.57	26.57
271	445.50	19419.30	0.27	5.51	1.38	26.57	26.57
272	483.60	19419.30	0.25	5.98	1.49	26.57	26.57
273	560.71	19419.30	0.22	6.93	1.73	26.57	26.57
274	639.81	19419.30	0.20	7.91	1.98	26.57	26.57
275	688.71	19419.30	0.22	8.51	2.13	26.57	26.57
276	749.53	19419.30	0.27	9.26	2.32	26.57	26.57
277	828.06	19419.30	0.31	10.23	2.56	26.57	26.57
278	917.10	19419.30	0.35	11.33	2.83	26.57	26.57
279	1006.87	19419.30	0.39	12.44	3.11	26.57	26.57
280	1102.20	19419.30	0.44	13.62	3.41	26.57	26.57
281	1053.66	19419.30	0.75	13.02	3.26	26.57	26.57

7.3. EVALUACIÓN DEL E.L.U. DE RASANTE

SEC - Pilas

SECCIONES CRITICAS PARA VERIFICAR ELU Rotura (rasante)




```
Area =   13.2617099166553
Yg   =   2.18737671628230
Estx =  0.000000000000000E+000
Ainx =   28.5171438482091
Area =   13.2650246354516
xg   =   6.99745994183792
EstY =  0.000000000000000E+000
AinY =   119.104795680357

Am =     18.8229137895600
Perimetro =    17.1075160860957
Integral perimetro/espesor =    32.3170720743566
Ainercia torsion =    43.8532405057008
```

Corte	Espesor	Rasante V	Tension V
1	0.340	0.000	0.000
2	0.304	0.033	0.109
3	0.304	0.033	0.109
4	0.485	0.051	0.106
5	0.500	0.067	0.134
6	0.500	0.067	0.134
7	0.757	0.138	0.182
8	0.757	0.138	0.182
9	0.761	0.159	0.208
10	0.761	0.129	0.170
11	0.700	0.098	0.140
12	0.700	0.098	0.140
13	0.700	0.098	0.140
14	0.700	0.000	0.000

Corte	Espesor	Rasante T	Tension T
1	0.340	0.078	0.027
2	0.304	0.087	0.027
3	0.304	0.087	0.027
4	0.485	0.055	0.027
5	0.500	0.053	0.027
6	0.500	0.053	0.027
7	0.757	0.035	0.027
8	0.757	0.035	0.027
9	0.761	0.035	0.027
10	0.761	0.035	0.027
11	0.700	0.038	0.027
12	0.700	0.038	0.027
13	0.700	0.038	0.027
14	0.700	0.038	0.027

Sec Tipo

SECCION TIPO

Corte	Espesor	Rasante V	Tension V
1	0.340	0.000	0.000
2	0.304	0.035	0.114
3	0.304	0.035	0.114
4	0.512	0.058	0.113
5	0.500	0.070	0.140
6	0.500	0.070	0.140
7	0.609	0.145	0.237
8	0.609	0.145	0.237
9	0.609	0.157	0.258
10	0.609	0.111	0.182
11	0.600	0.079	0.131
12	0.600	0.079	0.131
13	0.300	0.052	0.174
14	0.300	0.000	0.001

Corte	Espesor	Rasante T	Tension T
1	0.340	0.073	0.025
2	0.304	0.081	0.025
3	0.304	0.081	0.025
4	0.512	0.048	0.025
5	0.500	0.049	0.025
6	0.500	0.049	0.025
7	0.609	0.041	0.025
8	0.609	0.041	0.025
9	0.609	0.041	0.025
10	0.609	0.041	0.025
11	0.600	0.041	0.025
12	0.600	0.041	0.025
13	0.300	0.082	0.025
14	0.300	0.082	0.025

α β

Tensiones (Th2)

$$\sigma_V^{\perp} = \alpha_V \cdot V_d$$
$$\sigma_T = \alpha_T \cdot T_{\perp}$$

Rasantes (Th)

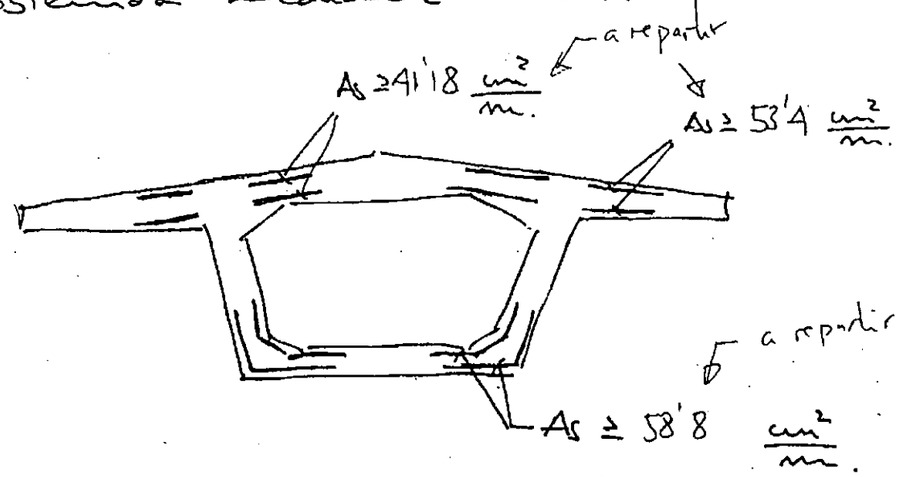
$$R_V^d = \alpha_V \cdot V_{\perp}$$
$$R_T^d = \alpha_T \cdot T_d$$

Sec-Tipo

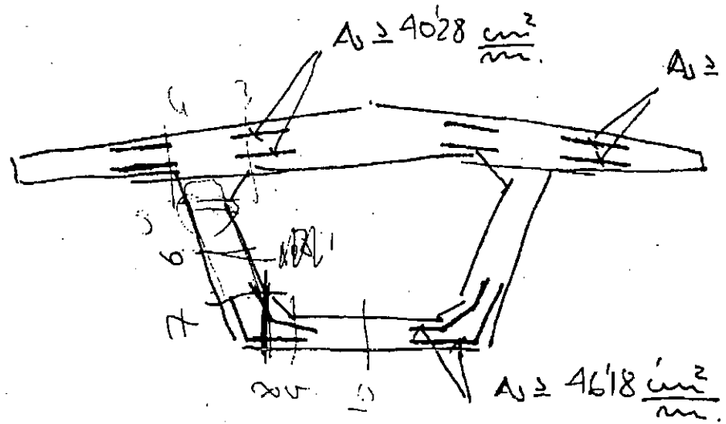
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Area =   10.7668267582257
Yg   =   2.45476397893497
Estx =  0.000000000000000E+000
Ainx =   22.5264833280605
Area =   10.7704867585187
xg   =   6.99708119644787
EstY =  0.000000000000000E+000
AinY =   111.512548742495
Am =    20.2284402146328
Perimetro =   17.5956197452250
Integral perimetro/espesor =   43.1057422810353
Ainercia torsion =   37.9707919978910
```

ARMADURA de RASANTE POR INTRODUCCIÓN PRETENSADO.

obtenida mediante M.E.F.



Obtenida mediante "bielas y Tirantes".

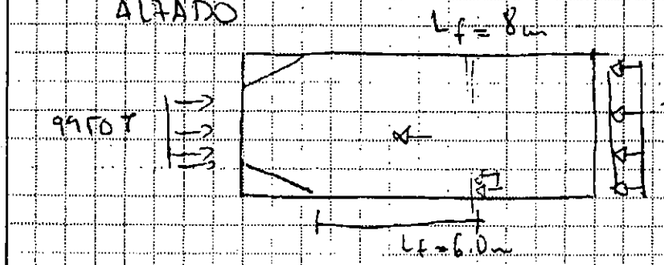


PEDELTA, S.L.
INGENIERÍA CIVIL

Fecha:

Hoja:

ALZADO



$\bar{\sigma} = 923$ T/m²

Fracción rotulada sup $A_{rd} = 1,26$ m²

$A_R = \frac{923}{8} \frac{1,26}{2,67} = 54$ cm²

$A_R^2 = \frac{923 \cdot 6,78}{8} \frac{1}{2,7} = 41,8$ cm²

$A_R^2 = 41,8 \frac{0,48}{0,58} = 20$ cm²

$A_R^1 = 0$ (hormigón)

$A_R^5 = \frac{920 \cdot 5,08}{2,8} \frac{1}{2,7} = 108$ cm² (por m/m)

$\bar{\sigma}_R = 473$ T/m² ≈ $f_{ck} \geq 315$ kg/cm²

$A_{R6} = \frac{(920 \cdot 632 - 473)}{2,8} \frac{1}{2,7} = 19$ cm²

$A_{R7} = \frac{2,37 \cdot 923}{6,2} \frac{1}{2,7} = 62$ cm²

$A_{R8} = \frac{165 \cdot 923}{12} \frac{1}{2,7} = 47$ cm²

$A_{R9} = \frac{151 \cdot 923}{12} \frac{1}{2,7} = 285$ cm²

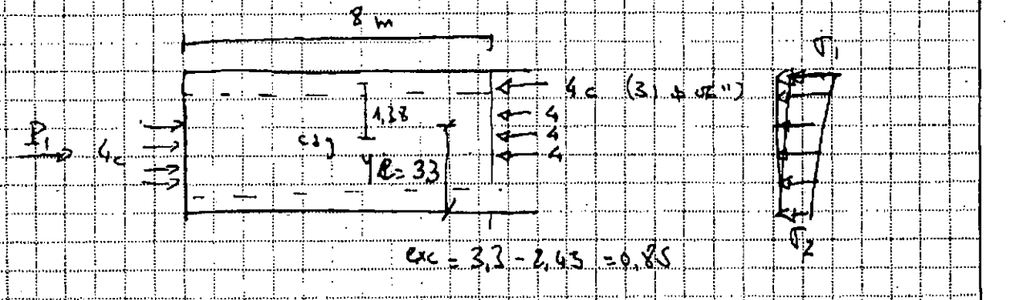
PEDELTA, S.L.
INGENIERÍA CIVIL

Fecha:

Hoja:

Rasante en la Unión Ala- Alma, por introducción del pretensado

Junta de Construcción 1 a 13



$P_i = 16 \cdot 30,5 \cdot 130 \times 1,4 \cdot 10^{-1} = 8881,6\ T \sim 8882\ T$

$\sigma_1 = \frac{P_i}{A} + \frac{P_i \cdot e}{I} y_{max} = 924 + 462 = 1287\ T/m^2$

$A = 10,77\ m^2$

$I = 22,532$

$y_{inf} = 2,456 \quad y_{sup} = 1,534$

Rasante $= 1287 \cdot 5084 = 6543\ T$

→ $R_d = 1,35 \cdot \frac{6543}{8 \cdot 2} = 552\ \frac{T}{m}$ (alma)

L = 8 ; 2 almas

$R_d = R_c + R_{Asf}$

$R_c = \sigma_{rd} \cdot 2,5 \cdot h_f = 48 \cdot 2,5 \cdot 0,61 = 73\ T/m$

$R_{Asf} \geq 479\ \frac{T}{m}$

↳ 114 $\frac{cm^2}{m, alma}$

↕ 57 cm^2/m, cara

PEDELTA, S.L.
INGENIERÍA CIVIL

Fecha:

Hoja:

Rasante en ala - alma por introducir el pretensado. SIEC-1

$R_d = \frac{920 \cdot 5,08}{2 \cdot 8} \times 1,35 = 394\ T/m$ (alma)

$\sigma_{rd} = \frac{R_d}{0,61} = 646\ T/m^2$

SIEC-1

$S_{ud} = 2,5\ \sigma_{rd} \cdot h_f + \frac{A_{sf}}{s_t} f_{yd}$

$f_{ck} = 50 \rightarrow \sigma_{rd} = 0,48\ MPa \leftrightarrow 48\ T/m^2$

Cont. Horq. $\rightarrow S_{ud} = 73,2\ T/m = 48 \cdot 2,5 \cdot 0,61$

→ $\frac{A_{sf}}{s_t} \geq \left[(646 \times 0,61) - 73\right] \frac{1}{f_{yd}} = 75\ \frac{cm^2/m}{m}$ (394)

↕ 40 cm^2/m, cara

7.3. EVALUACIÓN DEL E.L.U. DE RASANTE

Se comprueban las secciones críticas de la sección trasversal a rasante según el artículo 47º de la EHE.

Seccion = 1

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1241.503 Td (mT) = 1192.834

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	846.18	1269.26	0.00	86.72	0.00	0.00
2	846.18	1269.26	78.42	10.96	0.03	5.98
3	846.18	1269.26	77.19	6.51	0.03	9.92
4	846.18	1269.26	95.57	6.66	0.04	11.99
5	846.18	1269.26	162.17	5.47	0.12	24.77
6	846.18	1269.26	176.31	5.47	0.14	26.93
7	846.18	1269.26	124.19	5.47	0.07	18.97
8	846.18	1269.26	89.83	5.55	0.04	13.52
9	846.18	1269.26	119.00	11.11	0.07	8.96
10	846.18	1269.26	0.61	98.29	0.01	0.05

Seccion = 2

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1049.039 Td (mT) = 1099.229

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	845.77	1268.65	0.00	79.91	0.00	0.00
2	845.77	1268.65	61.79	9.93	0.02	5.05
3	845.77	1268.65	60.82	5.90	0.02	8.37
4	845.77	1268.65	75.30	6.03	0.03	10.12
5	845.77	1268.65	127.78	4.96	0.09	20.91
6	845.77	1268.65	138.92	4.96	0.10	22.74
7	845.77	1268.65	97.85	4.96	0.05	16.01
8	845.77	1268.65	70.78	5.03	0.03	11.41
9	845.77	1268.65	93.76	10.06	0.05	7.56
10	845.77	1268.65	0.48	90.58	0.01	0.04

Seccion = 3

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 914.465 Td (mT) = 1010.592

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	845.34	1268.01	0.00	73.47	0.00	0.00
2	845.34	1268.01	51.50	8.80	0.02	4.40
3	845.34	1268.01	50.69	5.23	0.01	7.29
4	845.34	1268.01	62.76	5.35	0.02	8.82
5	845.34	1268.01	106.50	4.39	0.07	18.21
6	845.34	1268.01	115.78	4.39	0.08	19.80
7	845.34	1268.01	81.55	4.39	0.04	13.94
8	845.34	1268.01	58.99	4.46	0.02	9.94
9	845.34	1268.01	78.14	8.92	0.04	6.59
10	845.34	1268.01	0.40	83.27	0.00	0.04

Seccion = 4

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 785.828 Td (mT) = 924.953

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	844.97	1267.46	0.00	67.24	0.00	0.00
2	844.97	1267.46	41.58	7.99	0.01	3.77
3	844.97	1267.46	40.92	4.75	0.01	6.26
4	844.97	1267.46	50.67	4.85	0.02	7.57
5	844.97	1267.46	85.98	3.99	0.05	15.64
6	844.97	1267.46	93.47	3.99	0.06	17.00
7	844.97	1267.46	65.84	3.99	0.03	11.97
8	844.97	1267.46	47.62	4.05	0.01	8.53
9	844.97	1267.46	63.09	8.10	0.03	5.66
10	844.97	1267.46	0.33	76.22	0.00	0.03

Seccion = 5

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 657.427 Td (mT) = 837.242

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	844.64	1266.96	0.00	60.87	0.00	0.00
2	844.64	1266.96	31.67	7.04	0.01	3.16
3	844.64	1266.96	31.17	4.18	0.01	5.24
4	844.64	1266.96	38.59	4.28	0.01	6.33
5	844.64	1266.96	65.49	3.52	0.03	13.07
6	844.64	1266.96	71.20	3.52	0.04	14.21
7	844.64	1266.96	50.15	3.52	0.02	10.01
8	844.64	1266.96	36.27	3.57	0.01	7.13
9	844.64	1266.96	48.05	7.14	0.02	4.73
10	844.64	1266.96	0.25	68.99	0.00	0.03

Seccion = 6

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 534.543 Td (mT) = 755.408

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	844.29	1266.44	0.00	54.92	0.00	0.00
2	844.29	1266.44	22.09	5.83	0.01	2.56
3	844.29	1266.44	21.74	3.46	0.01	4.25
4	844.29	1266.44	26.91	3.54	0.01	5.14
5	844.29	1266.44	45.67	2.91	0.02	10.62
6	844.29	1266.44	49.65	2.91	0.03	11.55
7	844.29	1266.44	34.98	2.91	0.01	8.13
8	844.29	1266.44	25.30	2.95	0.01	5.80
9	844.29	1266.44	33.51	5.91	0.01	3.84
10	844.29	1266.44	0.17	62.25	0.00	0.02

Seccion = 7

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 422.066 Td (mT) = 684.673

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	843.90	1265.85	0.00	49.78	0.00	0.00
2	843.90	1265.85	13.09	4.78	0.00	2.02
3	843.90	1265.85	12.89	2.84	0.00	3.36
4	843.90	1265.85	15.95	2.90	0.00	4.06
5	843.90	1265.85	27.07	2.39	0.01	8.38
6	843.90	1265.85	29.43	2.39	0.02	9.11
7	843.90	1265.85	20.73	2.39	0.01	6.42
8	843.90	1265.85	15.00	2.42	0.00	4.57
9	843.90	1265.85	19.87	4.84	0.01	3.03
10	843.90	1265.85	0.10	56.42	0.00	0.02

Seccion = 8

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 327.112 Td (mT) = 636.306

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	843.44	1265.17	0.00	46.26	0.00	0.00
2	843.44	1265.17	45.75	51.73	0.00	1.57
3	843.44	1265.17	45.04	30.73	0.00	2.60
4	843.44	1265.17	55.76	31.43	0.00	3.14
5	843.44	1265.17	94.62	25.83	0.01	6.49
6	843.44	1265.17	102.87	25.83	0.02	7.05
7	843.44	1265.17	72.46	25.83	0.01	4.97
8	843.44	1265.17	52.41	26.22	0.00	3.54
9	843.44	1265.17	69.43	52.43	0.01	2.35
10	843.44	1265.17	0.36	52.43	0.00	0.01

Seccion = 9

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 424.768 Td (mT) = 560.189

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	842.89	1264.33	0.00	40.73	0.00	0.00
2	842.89	1264.33	29.61	2.91	0.00	2.03
3	842.89	1264.33	29.14	1.73	0.00	3.37
4	842.89	1264.33	36.08	1.77	0.00	4.07
5	842.89	1264.33	61.23	1.45	0.01	8.41
6	842.89	1264.33	66.57	1.45	0.02	9.15
7	842.89	1264.33	46.89	1.45	0.01	6.44
8	842.89	1264.33	33.92	1.47	0.00	4.59
9	842.89	1264.33	44.93	2.95	0.01	3.04
10	842.89	1264.33	0.23	46.16	0.00	0.02

Seccion = 10

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 528.550 Td (mT) = 496.891

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	842.21	1263.32	0.00	36.12	0.00	0.00
2	842.21	1263.32	12.30	1.86	0.01	2.52
3	842.21	1263.32	12.11	1.10	0.01	4.19
4	842.21	1263.32	14.99	1.13	0.01	5.06
5	842.21	1263.32	25.44	0.93	0.02	10.46
6	842.21	1263.32	27.66	0.93	0.03	11.37
7	842.21	1263.32	19.48	0.93	0.01	8.00
8	842.21	1263.32	14.09	0.94	0.01	5.70
9	842.21	1263.32	18.67	1.88	0.01	3.78
10	842.21	1263.32	0.10	40.94	0.00	0.02

Seccion = 11

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 589.698 Td (mT) = 452.562

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	841.08	1261.62	0.00	32.90	0.00	0.00
2	841.08	1261.62	33.93	0.82	0.01	2.81
3	841.08	1261.62	33.39	0.49	0.01	4.66
4	841.08	1261.62	41.34	0.50	0.01	5.63
5	841.08	1261.62	70.16	0.41	0.03	11.64
6	841.08	1261.62	76.27	0.41	0.03	12.65
7	841.08	1261.62	53.73	0.41	0.02	8.91
8	841.08	1261.62	38.86	0.41	0.01	6.35
9	841.08	1261.62	51.48	0.83	0.01	4.21
10	841.08	1261.62	0.27	37.29	0.00	0.02

Seccion = 12

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 653.309 Td (mT) = 500.131

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	839.61	1259.42	0.00	36.36	0.00	0.00
2	839.61	1259.42	37.14	0.16	0.01	3.10
3	839.61	1259.42	36.56	0.10	0.01	5.15
4	839.61	1259.42	45.26	0.10	0.01	6.22
5	839.61	1259.42	76.80	0.08	0.03	12.85
6	839.61	1259.42	83.50	0.08	0.04	13.97
7	839.61	1259.42	58.81	0.08	0.02	9.84
8	839.61	1259.42	42.54	0.08	0.01	7.01
9	839.61	1259.42	56.35	0.16	0.02	4.65
10	839.61	1259.42	0.29	41.21	0.00	0.03

Seccion = 13

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 718.906 Td (mT) = 547.979

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	837.82	1256.73	0.00	39.84	0.00	0.00
2	837.82	1256.73	40.24	1.29	0.01	3.40
3	837.82	1256.73	39.61	0.76	0.01	5.64
4	837.82	1256.73	49.04	0.78	0.01	6.82
5	837.82	1256.73	83.22	0.64	0.04	14.08
6	837.82	1256.73	90.48	0.64	0.05	15.31
7	837.82	1256.73	63.73	0.64	0.02	10.78
8	837.82	1256.73	46.10	0.65	0.01	7.68
9	837.82	1256.73	61.07	1.30	0.02	5.09
10	837.82	1256.73	0.32	45.15	0.00	0.03

Seccion = 14

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 790.921 Td (mT) = 596.607

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	835.75	1253.62	0.00	43.37	0.00	0.00
2	835.75	1253.62	43.76	2.24	0.01	3.72
3	835.75	1253.62	43.07	1.33	0.01	6.18
4	835.75	1253.62	53.33	1.36	0.02	7.47
5	835.75	1253.62	90.49	1.12	0.05	15.43
6	835.75	1253.62	98.38	1.12	0.06	16.77
7	835.75	1253.62	69.30	1.12	0.03	11.81
8	835.75	1253.62	50.12	1.14	0.02	8.42
9	835.75	1253.62	66.40	2.27	0.03	5.58
10	835.75	1253.62	0.34	49.16	0.00	0.03

Seccion = 15

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 858.684 Td (mT) = 643.068

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	833.50	1250.25	0.00	46.75	0.00	0.00
2	833.50	1250.25	45.93	3.34	0.01	4.02
3	833.50	1250.25	45.21	1.98	0.01	6.67
4	833.50	1250.25	55.98	2.03	0.02	8.07
5	833.50	1250.25	94.99	1.67	0.06	16.67
6	833.50	1250.25	103.27	1.67	0.07	18.12
7	833.50	1250.25	72.74	1.67	0.04	12.76
8	833.50	1250.25	52.61	1.69	0.02	9.09
9	833.50	1250.25	69.70	3.38	0.03	6.03
10	833.50	1250.25	0.36	52.99	0.00	0.03

Seccion = 16

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 926.532 Td (mT) = 708.515

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	831.22	1246.82	0.00	51.51	0.00	0.00
2	831.22	1246.82	47.80	4.20	0.02	4.32
3	831.22	1246.82	47.05	2.49	0.02	7.16
4	831.22	1246.82	58.25	2.55	0.02	8.66
5	831.22	1246.82	98.84	2.10	0.07	17.89
6	831.22	1246.82	107.46	2.10	0.08	19.45
7	831.22	1246.82	75.69	2.10	0.04	13.70
8	831.22	1246.82	54.75	2.13	0.02	9.76
9	831.22	1246.82	72.53	4.25	0.04	6.47
10	831.22	1246.82	0.37	58.38	0.00	0.04

Seccion = 17

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos

Vd (T) = 1001.081 Td (mT) = 796.820

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	829.12	1243.69	0.00	57.93	0.00	0.00
2	829.12	1243.69	50.96	5.33	0.02	4.65
3	829.12	1243.69	50.16	3.17	0.02	7.71
4	829.12	1243.69	62.10	3.24	0.03	9.32
5	829.12	1243.69	105.39	2.66	0.08	19.25
6	829.12	1243.69	114.58	2.66	0.10	20.92
7	829.12	1243.69	80.70	2.66	0.05	14.73
8	829.12	1243.69	58.38	2.70	0.03	10.50
9	829.12	1243.69	77.33	5.40	0.04	6.96
10	829.12	1243.69	0.40	65.66	0.00	0.04

Seccion = 18

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos

Vd (T) = 1068.790 Td (mT) = 891.356

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	825.98	1238.97	0.00	64.80	0.00	0.00
2	825.98	1238.97	52.99	6.51	0.02	4.93
3	825.98	1238.97	52.16	3.87	0.02	8.17
4	825.98	1238.97	64.58	3.96	0.03	9.88
5	825.98	1238.97	109.58	3.25	0.09	20.41
6	825.98	1238.97	119.13	3.25	0.11	22.19
7	825.98	1238.97	83.92	3.25	0.06	15.62
8	825.98	1238.97	60.70	3.30	0.03	11.14
9	825.98	1238.97	80.41	6.60	0.05	7.38
10	825.98	1238.97	0.42	73.45	0.00	0.04

Seccion = 19

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1147.182 Td (mT) = 981.291

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	858.25	1287.38	0.00	76.64	0.00	0.00
2	858.25	1287.38	53.54	8.40	0.02	5.37
3	858.25	1287.38	52.01	5.27	0.02	8.33
4	858.25	1287.38	66.11	5.10	0.03	10.91
5	858.25	1287.38	89.78	3.37	0.06	22.41
6	858.25	1287.38	102.69	3.35	0.08	25.80
7	858.25	1287.38	83.57	3.35	0.05	21.00
8	858.25	1287.38	68.78	3.64	0.03	15.89
9	858.25	1287.38	68.78	3.64	0.03	15.89
10	858.25	1287.38	0.20	37.19	0.00	0.05

Seccion = 20

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1910.609 Td (mT) = 1078.455

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	856.21	1284.31	0.00	84.23	0.00	0.00
2	856.21	1284.31	131.24	9.12	0.06	8.90
3	856.21	1284.31	127.49	5.72	0.06	13.81
4	856.21	1284.31	162.05	5.54	0.09	18.09
5	856.21	1284.31	220.06	3.66	0.17	37.16
6	856.21	1284.31	251.72	3.64	0.22	42.77
7	856.21	1284.31	204.83	3.64	0.14	34.81
8	856.21	1284.31	168.58	3.96	0.10	26.35
9	856.21	1284.31	168.58	3.96	0.10	26.35
10	856.21	1284.31	0.48	40.87	0.00	0.08

Seccion = 21

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 3103.924 Td (mT) = 1321.314

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	851.64	1277.46	0.00	103.19	0.01	0.00
2	851.64	1277.46	253.51	15.17	0.16	14.31
3	851.64	1277.46	246.27	9.51	0.15	22.20
4	851.64	1277.46	313.03	9.22	0.24	29.09
5	851.64	1277.46	425.08	6.09	0.44	59.75
6	851.64	1277.46	486.24	6.06	0.58	68.77
7	851.64	1277.46	395.67	6.06	0.38	55.98
8	851.64	1277.46	325.64	6.58	0.26	42.36
9	851.64	1277.46	325.64	6.58	0.26	42.36
10	851.64	1277.46	0.93	50.08	0.00	0.13

Seccion = 22

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1964.952 Td (mT) = 1398.953

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	851.78	1277.67	0.00	109.26	0.01	0.00
2	851.78	1277.67	126.36	13.57	0.06	9.06
3	851.78	1277.67	122.76	8.51	0.06	14.06
4	851.78	1277.67	156.03	8.24	0.10	18.42
5	851.78	1277.67	211.88	5.45	0.18	37.84
6	851.78	1277.67	242.37	5.42	0.23	43.55
7	851.78	1277.67	197.22	5.42	0.15	35.45
8	851.78	1277.67	162.32	5.88	0.10	26.83
9	851.78	1277.67	162.32	5.88	0.10	26.83
10	851.78	1277.67	0.47	53.02	0.00	0.08

Seccion = 23

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1429.487 Td (mT) = 1277.238

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	819.02	1228.53	0.00	92.86	0.01	0.00
2	819.02	1228.53	79.10	11.24	0.04	6.49
3	819.02	1228.53	77.86	6.68	0.04	10.77
4	819.02	1228.53	96.40	6.83	0.06	13.02
5	819.02	1228.53	163.58	5.61	0.17	26.89
6	819.02	1228.53	177.84	5.61	0.20	29.24
7	819.02	1228.53	125.27	5.61	0.10	20.59
8	819.02	1228.53	90.61	5.69	0.05	14.67
9	819.02	1228.53	120.03	11.39	0.09	9.73
10	819.02	1228.53	0.62	105.24	0.01	0.06

Seccion = 24

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1299.849 Td (mT) = 1165.742

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	820.27	1230.40	0.00	84.75	0.00	0.00
2	820.27	1230.40	70.90	9.87	0.03	5.92
3	820.27	1230.40	69.78	5.86	0.03	9.82
4	820.27	1230.40	86.40	5.99	0.05	11.87
5	820.27	1230.40	146.61	4.93	0.14	24.52
6	820.27	1230.40	159.39	4.93	0.17	26.66
7	820.27	1230.40	112.27	4.93	0.08	18.77
8	820.27	1230.40	81.21	5.00	0.04	13.38
9	820.27	1230.40	107.58	10.00	0.08	8.87
10	820.27	1230.40	0.56	96.06	0.01	0.05

Seccion = 25

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1176.324 Td (mT) = 1056.330

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	822.39	1233.59	0.00	76.80	0.00	0.00
2	822.39	1233.59	63.24	8.49	0.03	5.38
3	822.39	1233.59	62.25	5.04	0.03	8.93
4	822.39	1233.59	77.06	5.16	0.04	10.79
5	822.39	1233.59	130.77	4.24	0.12	22.29
6	822.39	1233.59	142.17	4.24	0.14	24.23
7	822.39	1233.59	100.14	4.24	0.07	17.06
8	822.39	1233.59	72.44	4.30	0.04	12.16
9	822.39	1233.59	95.96	8.60	0.06	8.06
10	822.39	1233.59	0.50	87.04	0.00	0.05

Seccion = 26

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 997.409 Td (mT) = 956.749

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.02	1251.03	0.00	69.56	0.00	0.00
2	834.02	1251.03	48.89	7.12	0.02	4.68
3	834.02	1251.03	48.12	4.23	0.02	7.76
4	834.02	1251.03	59.58	4.33	0.03	9.38
5	834.02	1251.03	101.10	3.56	0.08	19.38
6	834.02	1251.03	109.92	3.56	0.10	21.07
7	834.02	1251.03	77.42	3.56	0.05	14.84
8	834.02	1251.03	56.00	3.61	0.02	10.57
9	834.02	1251.03	74.19	7.22	0.04	7.01
10	834.02	1251.03	0.38	78.84	0.00	0.04

Seccion = 27

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 861.160 Td (mT) = 859.272

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	833.73	1250.59	0.00	62.47	0.00	0.00
2	833.73	1250.59	39.13	5.82	0.01	4.04
3	833.73	1250.59	38.52	3.46	0.01	6.70
4	833.73	1250.59	47.69	3.54	0.02	8.09
5	833.73	1250.59	80.92	2.91	0.06	16.72
6	833.73	1250.59	87.98	2.91	0.07	18.18
7	833.73	1250.59	61.97	2.91	0.04	12.80
8	833.73	1250.59	44.83	2.95	0.02	9.12
9	833.73	1250.59	59.38	5.90	0.03	6.05
10	833.73	1250.59	0.31	70.80	0.00	0.03

Seccion = 28

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 731.982 Td (mT) = 772.763

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	833.66	1250.49	0.00	56.18	0.00	0.00
2	833.66	1250.49	29.91	4.33	0.01	3.43
3	833.66	1250.49	29.44	2.57	0.01	5.69
4	833.66	1250.49	36.45	2.63	0.02	6.88
5	833.66	1250.49	61.86	2.16	0.04	14.21
6	833.66	1250.49	67.25	2.16	0.05	15.45
7	833.66	1250.49	47.37	2.16	0.03	10.88
8	833.66	1250.49	34.26	2.20	0.01	7.75
9	833.66	1250.49	45.39	4.39	0.02	5.14
10	833.66	1250.49	0.23	63.68	0.00	0.03

Seccion = 29

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 608.778 Td (mT) = 688.061

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	833.44	1250.16	0.00	50.02	0.00	0.00
2	833.44	1250.16	20.89	3.07	0.01	2.85
3	833.44	1250.16	20.56	1.83	0.01	4.73
4	833.44	1250.16	25.45	1.87	0.01	5.72
5	833.44	1250.16	43.19	1.53	0.03	11.81
6	833.44	1250.16	46.96	1.53	0.04	12.84
7	833.44	1250.16	33.07	1.53	0.02	9.04
8	833.44	1250.16	23.92	1.56	0.01	6.45
9	833.44	1250.16	31.69	3.11	0.02	4.27
10	833.44	1250.16	0.16	56.70	0.00	0.02

Seccion = 30

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 492.021 Td (mT) = 613.728

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	832.93	1249.40	0.00	44.62	0.00	0.00
2	832.93	1249.40	12.41	1.55	0.00	2.30
3	832.93	1249.40	12.22	0.92	0.00	3.82
4	832.93	1249.40	15.13	0.94	0.01	4.62
5	832.93	1249.40	25.67	0.77	0.02	9.54
6	832.93	1249.40	27.91	0.77	0.02	10.37
7	832.93	1249.40	19.66	0.77	0.01	7.30
8	832.93	1249.40	14.22	0.79	0.01	5.20
9	832.93	1249.40	18.84	1.57	0.01	3.45
10	832.93	1249.40	0.10	50.57	0.00	0.02

Seccion = 31

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 436.901 Td (mT) = 569.069

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	832.04	1248.06	0.00	41.37	0.00	0.00
2	832.04	1248.06	51.16	46.27	0.01	2.04
3	832.04	1248.06	50.36	27.49	0.00	3.38
4	832.04	1248.06	62.35	28.11	0.01	4.09
5	832.04	1248.06	105.80	23.10	0.02	8.45
6	832.04	1248.06	115.02	23.10	0.02	9.19
7	832.04	1248.06	81.02	23.10	0.01	6.47
8	832.04	1248.06	58.60	23.45	0.01	4.61
9	832.04	1248.06	77.63	46.89	0.01	3.06
10	832.04	1248.06	0.40	46.89	0.00	0.02

Seccion = 32

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 544.298 Td (mT) = 619.033

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	830.70	1246.05	0.00	45.00	0.00	0.00
2	830.70	1246.05	24.21	1.10	0.01	2.53
3	830.70	1246.05	23.83	0.65	0.01	4.20
4	830.70	1246.05	29.51	0.67	0.01	5.08
5	830.70	1246.05	50.07	0.55	0.02	10.50
6	830.70	1246.05	54.44	0.55	0.03	11.41
7	830.70	1246.05	38.35	0.55	0.01	8.04
8	830.70	1246.05	27.74	0.56	0.01	5.73
9	830.70	1246.05	36.74	1.11	0.01	3.80
10	830.70	1246.05	0.19	51.01	0.00	0.02

Seccion = 33

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 655.102 Td (mT) = 681.880

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	828.87	1243.30	0.00	49.57	0.00	0.00
2	828.87	1243.30	31.91	2.45	0.01	3.04
3	828.87	1243.30	31.41	1.45	0.01	5.04
4	828.87	1243.30	38.89	1.49	0.01	6.09
5	828.87	1243.30	65.99	1.22	0.04	12.59
6	828.87	1243.30	71.74	1.22	0.04	13.68
7	828.87	1243.30	50.53	1.22	0.02	9.64
8	828.87	1243.30	36.55	1.24	0.01	6.87
9	828.87	1243.30	48.42	2.48	0.02	4.55
10	828.87	1243.30	0.25	56.19	0.00	0.03

Seccion = 34

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 770.200 Td (mT) = 747.139

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	826.57	1239.86	0.00	54.32	0.00	0.00
2	826.57	1239.86	40.09	3.86	0.01	3.55
3	826.57	1239.86	39.46	2.30	0.01	5.90
4	826.57	1239.86	48.85	2.35	0.02	7.13
5	826.57	1239.86	82.90	1.93	0.05	14.73
6	826.57	1239.86	90.13	1.93	0.06	16.01
7	826.57	1239.86	63.48	1.93	0.03	11.27
8	826.57	1239.86	45.92	1.96	0.02	8.04
9	826.57	1239.86	60.83	3.92	0.03	5.33
10	826.57	1239.86	0.31	61.56	0.00	0.03

Seccion = 35

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 884.848 Td (mT) = 838.379

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	823.88	1235.81	0.00	60.95	0.00	0.00
2	823.88	1235.81	43.52	5.24	0.02	4.06
3	823.88	1235.81	42.84	3.11	0.01	6.74
4	823.88	1235.81	53.04	3.18	0.02	8.14
5	823.88	1235.81	90.01	2.62	0.07	16.82
6	823.88	1235.81	97.86	2.62	0.08	18.29
7	823.88	1235.81	68.93	2.62	0.04	12.88
8	823.88	1235.81	49.86	2.66	0.02	9.18
9	823.88	1235.81	66.05	5.31	0.04	6.08
10	823.88	1235.81	0.34	69.08	0.00	0.03

Seccion = 36

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1003.107 Td (mT) = 939.880

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	820.90	1231.35	0.00	68.33	0.00	0.00
2	820.90	1231.35	51.07	6.53	0.02	4.57
3	820.90	1231.35	50.27	3.88	0.02	7.59
4	820.90	1231.35	62.23	3.97	0.03	9.17
5	820.90	1231.35	105.60	3.26	0.08	18.95
6	820.90	1231.35	114.81	3.26	0.10	20.60
7	820.90	1231.35	80.87	3.26	0.05	14.51
8	820.90	1231.35	58.50	3.31	0.03	10.34
9	820.90	1231.35	77.49	6.61	0.05	6.85
10	820.90	1231.35	0.40	77.45	0.00	0.04

Seccion = 37

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1119.448 Td (mT) = 1047.570

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	817.91	1226.87	0.00	76.16	0.00	0.00
2	817.91	1226.87	57.85	8.02	0.02	5.07
3	817.91	1226.87	56.94	4.76	0.02	8.41
4	817.91	1226.87	70.50	4.87	0.04	10.17
5	817.91	1226.87	119.63	4.00	0.11	21.01
6	817.91	1226.87	130.06	4.00	0.12	22.84
7	817.91	1226.87	91.61	4.00	0.06	16.09
8	817.91	1226.87	66.26	4.06	0.03	11.46
9	817.91	1226.87	87.78	8.13	0.06	7.60
10	817.91	1226.87	0.45	86.32	0.00	0.04

Seccion = 38

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1231.535 Td (mT) = 1165.389

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	813.58	1220.37	0.00	84.72	0.00	0.00
2	813.58	1220.37	63.94	9.22	0.03	5.53
3	813.58	1220.37	62.93	5.48	0.03	9.17
4	813.58	1220.37	77.92	5.60	0.04	11.09
5	813.58	1220.37	132.22	4.60	0.13	22.90
6	813.58	1220.37	143.74	4.60	0.15	24.90
7	813.58	1220.37	101.25	4.60	0.08	17.53
8	813.58	1220.37	73.24	4.67	0.04	12.50
9	813.58	1220.37	97.02	9.34	0.07	8.28
10	813.58	1220.37	0.50	96.03	0.01	0.05

Seccion = 39

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1353.331 Td (mT) = 1287.089

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	845.94	1268.92	0.00	100.52	0.01	0.00
2	845.94	1268.92	66.90	11.61	0.03	6.16
3	845.94	1268.92	64.99	7.28	0.03	9.56
4	845.94	1268.92	82.60	7.05	0.05	12.53
5	845.94	1268.92	112.17	4.66	0.08	25.72
6	845.94	1268.92	128.31	4.64	0.11	29.61
7	845.94	1268.92	104.41	4.64	0.07	24.10
8	845.94	1268.92	85.93	5.03	0.05	18.24
9	845.94	1268.92	85.93	5.03	0.05	18.24
10	845.94	1268.92	0.25	48.78	0.00	0.06

Seccion = 40

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1908.088 Td (mT) = 1419.159

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	845.08	1267.62	0.00	110.84	0.01	0.00
2	845.08	1267.62	120.24	12.79	0.06	8.67
3	845.08	1267.62	116.80	8.02	0.06	13.45
4	845.08	1267.62	148.47	7.77	0.09	17.63
5	845.08	1267.62	201.61	5.13	0.17	36.20
6	845.08	1267.62	230.62	5.11	0.22	41.66
7	845.08	1267.62	187.66	5.11	0.15	33.91
8	845.08	1267.62	154.45	5.54	0.10	25.66
9	845.08	1267.62	154.45	5.54	0.10	25.66
10	845.08	1267.62	0.44	53.79	0.00	0.08

Seccion = 41

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 3171.762 Td (mT) = 1298.999

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	838.97	1258.45	0.00	101.45	0.01	0.00
2	838.97	1258.45	256.02	15.25	0.17	14.22
3	838.97	1258.45	248.72	9.56	0.16	22.06
4	838.97	1258.45	316.14	9.27	0.26	28.91
5	838.97	1258.45	429.30	6.13	0.47	59.37
6	838.97	1258.45	491.07	6.09	0.62	68.33
7	838.97	1258.45	399.60	6.09	0.41	55.62
8	838.97	1258.45	328.87	6.61	0.28	42.09
9	838.97	1258.45	328.87	6.61	0.28	42.09
10	838.97	1258.45	0.94	49.23	0.00	0.13

Seccion = 42

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1950.840 Td (mT) = 1398.215

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	839.18	1258.76	0.00	109.20	0.01	0.00
2	839.18	1258.76	119.94	13.48	0.06	8.75
3	839.18	1258.76	116.52	8.45	0.06	13.57
4	839.18	1258.76	148.11	8.19	0.10	17.79
5	839.18	1258.76	201.12	5.41	0.18	36.53
6	839.18	1258.76	230.05	5.38	0.23	42.04
7	839.18	1258.76	187.20	5.38	0.16	34.22
8	839.18	1258.76	154.07	5.85	0.11	25.90
9	839.18	1258.76	154.07	5.85	0.11	25.90
10	839.18	1258.76	0.44	52.99	0.00	0.08

Seccion = 43

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1399.550 Td (mT) = 1275.919

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	805.31	1207.96	0.00	92.76	0.01	0.00
2	805.31	1207.96	70.37	11.38	0.04	6.17
3	805.31	1207.96	69.26	6.76	0.04	10.24
4	805.31	1207.96	85.75	6.92	0.06	12.38
5	805.31	1207.96	145.51	5.68	0.17	25.58
6	805.31	1207.96	158.20	5.68	0.20	27.81
7	805.31	1207.96	111.43	5.68	0.10	19.58
8	805.31	1207.96	80.60	5.77	0.05	13.96
9	805.31	1207.96	106.78	11.53	0.09	9.25
10	805.31	1207.96	0.55	105.14	0.01	0.05

Seccion = 44

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1286.141 Td (mT) = 1164.532

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	807.07	1210.60	0.00	84.66	0.00	0.00
2	807.07	1210.60	64.02	10.01	0.03	5.69
3	807.07	1210.60	63.01	5.95	0.03	9.45
4	807.07	1210.60	78.01	6.08	0.05	11.42
5	807.07	1210.60	132.38	5.00	0.14	23.59
6	807.07	1210.60	143.93	5.00	0.17	25.65
7	807.07	1210.60	101.38	5.00	0.08	18.06
8	807.07	1210.60	73.33	5.07	0.04	12.87
9	807.07	1210.60	97.14	10.15	0.08	8.53
10	807.07	1210.60	0.50	95.96	0.01	0.05

Seccion = 45

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1179.028 Td (mT) = 1055.133

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	809.84	1214.76	0.00	76.71	0.00	0.00
2	809.84	1214.76	58.23	8.55	0.03	5.25
3	809.84	1214.76	57.31	5.08	0.03	8.71
4	809.84	1214.76	70.96	5.19	0.04	10.53
5	809.84	1214.76	120.41	4.27	0.12	21.75
6	809.84	1214.76	130.91	4.27	0.14	23.65
7	809.84	1214.76	92.21	4.27	0.07	16.65
8	809.84	1214.76	66.70	4.33	0.04	11.87
9	809.84	1214.76	88.36	8.66	0.06	7.87
10	809.84	1214.76	0.46	86.94	0.01	0.05

Seccion = 46

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1074.231 Td (mT) = 958.798

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	835.18	1252.77	0.00	69.70	0.00	0.00
2	835.18	1252.77	52.40	6.97	0.02	5.05
3	835.18	1252.77	51.58	4.14	0.02	8.38
4	835.18	1252.77	63.86	4.24	0.03	10.13
5	835.18	1252.77	108.36	3.48	0.09	20.92
6	835.18	1252.77	117.81	3.48	0.11	22.75
7	835.18	1252.77	82.98	3.48	0.05	16.02
8	835.18	1252.77	60.02	3.53	0.03	11.42
9	835.18	1252.77	79.51	7.06	0.05	7.57
10	835.18	1252.77	0.41	79.00	0.00	0.04

Seccion = 47

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 936.616 Td (mT) = 862.330

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.64	1251.96	0.00	62.69	0.00	0.00
2	834.64	1251.96	42.46	5.58	0.02	4.40
3	834.64	1251.96	41.79	3.32	0.02	7.30
4	834.64	1251.96	51.74	3.39	0.02	8.82
5	834.64	1251.96	87.81	2.79	0.07	18.22
6	834.64	1251.96	95.46	2.79	0.08	19.81
7	834.64	1251.96	67.24	2.79	0.04	13.95
8	834.64	1251.96	48.64	2.83	0.02	9.94
9	834.64	1251.96	64.43	5.66	0.04	6.59
10	834.64	1251.96	0.33	71.06	0.00	0.04

Seccion = 48

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 807.566 Td (mT) = 775.434

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.59	1251.88	0.00	56.37	0.00	0.00
2	834.59	1251.88	33.23	4.16	0.01	3.79
3	834.59	1251.88	32.70	2.47	0.01	6.29
4	834.59	1251.88	40.49	2.53	0.02	7.61
5	834.59	1251.88	68.71	2.08	0.05	15.71
6	834.59	1251.88	74.70	2.08	0.06	17.08
7	834.59	1251.88	52.62	2.08	0.03	12.03
8	834.59	1251.88	38.06	2.11	0.02	8.57
9	834.59	1251.88	50.42	4.22	0.03	5.68
10	834.59	1251.88	0.26	63.90	0.00	0.03

Seccion = 49

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 684.541 Td (mT) = 691.239

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.33	1251.49	0.00	50.25	0.00	0.00
2	834.33	1251.49	24.15	2.84	0.01	3.21
3	834.33	1251.49	23.77	1.69	0.01	5.33
4	834.33	1251.49	29.43	1.72	0.01	6.44
5	834.33	1251.49	49.95	1.42	0.04	13.31
6	834.33	1251.49	54.30	1.42	0.04	14.47
7	834.33	1251.49	38.25	1.42	0.02	10.19
8	834.33	1251.49	27.67	1.44	0.01	7.26
9	834.33	1251.49	36.65	2.87	0.02	4.81
10	834.33	1251.49	0.19	56.96	0.00	0.03

Seccion = 50

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 567.600 Td (mT) = 615.938

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	833.74	1250.60	0.00	44.78	0.00	0.00
2	833.74	1250.60	15.53	1.45	0.01	2.66
3	833.74	1250.60	15.28	0.86	0.01	4.41
4	833.74	1250.60	18.92	0.88	0.01	5.34
5	833.74	1250.60	32.11	0.72	0.03	11.02
6	833.74	1250.60	34.91	0.72	0.03	11.98
7	833.74	1250.60	24.59	0.72	0.02	8.44
8	833.74	1250.60	17.79	0.73	0.01	6.01
9	833.74	1250.60	23.56	1.47	0.01	3.99
10	833.74	1250.60	0.12	50.75	0.00	0.02

Seccion = 51

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 458.225 Td (mT) = 573.812

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	832.73	1249.10	0.00	41.72	0.00	0.00
2	832.73	1249.10	59.38	46.65	0.01	2.14
3	832.73	1249.10	58.45	27.72	0.01	3.56
4	832.73	1249.10	72.36	28.35	0.01	4.30
5	832.73	1249.10	122.79	23.30	0.02	8.88
6	832.73	1249.10	133.50	23.30	0.03	9.65
7	832.73	1249.10	94.03	23.30	0.01	6.80
8	832.73	1249.10	68.02	23.64	0.01	4.84
9	832.73	1249.10	90.10	47.28	0.01	3.21
10	832.73	1249.10	0.47	47.28	0.00	0.02

Seccion = 52

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 545.726 Td (mT) = 620.639

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	831.26	1246.90	0.00	45.12	0.00	0.00
2	831.26	1246.90	20.87	1.45	0.01	2.54
3	831.26	1246.90	20.55	0.86	0.01	4.22
4	831.26	1246.90	25.44	0.88	0.01	5.10
5	831.26	1246.90	43.17	0.72	0.02	10.54
6	831.26	1246.90	46.93	0.72	0.03	11.46
7	831.26	1246.90	33.06	0.72	0.01	8.07
8	831.26	1246.90	23.91	0.73	0.01	5.75
9	831.26	1246.90	31.67	1.47	0.01	3.81
10	831.26	1246.90	0.16	51.14	0.00	0.02

Seccion = 53

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 657.386 Td (mT) = 682.430

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	829.30	1243.95	0.00	49.61	0.00	0.00
2	829.30	1243.95	28.73	2.85	0.01	3.05
3	829.30	1243.95	28.28	1.69	0.01	5.06
4	829.30	1243.95	35.01	1.73	0.01	6.12
5	829.30	1243.95	59.42	1.42	0.04	12.64
6	829.30	1243.95	64.60	1.42	0.04	13.74
7	829.30	1243.95	45.50	1.42	0.02	9.68
8	829.30	1243.95	32.91	1.44	0.01	6.90
9	829.30	1243.95	43.60	2.89	0.02	4.57
10	829.30	1243.95	0.23	56.23	0.00	0.03

Seccion = 54

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 772.987 Td (mT) = 762.570

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	826.87	1240.30	0.00	55.44	0.00	0.00
2	826.87	1240.30	32.13	4.22	0.01	3.57
3	826.87	1240.30	31.63	2.51	0.01	5.92
4	826.87	1240.30	39.16	2.56	0.02	7.16
5	826.87	1240.30	66.45	2.11	0.05	14.79
6	826.87	1240.30	72.24	2.11	0.06	16.08
7	826.87	1240.30	50.89	2.11	0.03	11.32
8	826.87	1240.30	36.81	2.14	0.02	8.07
9	826.87	1240.30	48.76	4.27	0.03	5.35
10	826.87	1240.30	0.25	62.84	0.00	0.03

Seccion = 55

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 887.889 Td (mT) = 855.198

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	824.04	1236.06	0.00	62.17	0.00	0.00
2	824.04	1236.06	39.66	5.60	0.02	4.08
3	824.04	1236.06	39.03	3.33	0.01	6.76
4	824.04	1236.06	48.33	3.40	0.02	8.17
5	824.04	1236.06	82.01	2.80	0.07	16.88
6	824.04	1236.06	89.16	2.80	0.08	18.36
7	824.04	1236.06	62.80	2.80	0.04	12.93
8	824.04	1236.06	45.43	2.84	0.02	9.21
9	824.04	1236.06	60.18	5.68	0.04	6.11
10	824.04	1236.06	0.31	70.47	0.00	0.04

Seccion = 56

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1005.995 Td (mT) = 957.027

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	820.96	1231.45	0.00	69.58	0.00	0.00
2	820.96	1231.45	46.91	7.03	0.02	4.59
3	820.96	1231.45	46.18	4.18	0.02	7.61
4	820.96	1231.45	57.17	4.27	0.03	9.20
5	820.96	1231.45	97.02	3.51	0.08	19.00
6	820.96	1231.45	105.48	3.51	0.10	20.66
7	820.96	1231.45	74.29	3.51	0.05	14.55
8	820.96	1231.45	53.74	3.56	0.03	10.37
9	820.96	1231.45	71.19	7.12	0.05	6.87
10	820.96	1231.45	0.37	78.86	0.00	0.04

Seccion = 57

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1122.323 Td (mT) = 1064.926

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	817.91	1226.86	0.00	77.42	0.00	0.00
2	817.91	1226.86	53.88	8.34	0.02	5.08
3	817.91	1226.86	53.04	4.96	0.02	8.43
4	817.91	1226.86	65.66	5.07	0.04	10.20
5	817.91	1226.86	111.42	4.17	0.11	21.06
6	817.91	1226.86	121.14	4.17	0.13	22.90
7	817.91	1226.86	85.33	4.17	0.06	16.13
8	817.91	1226.86	61.72	4.23	0.03	11.49
9	817.91	1226.86	81.76	8.46	0.06	7.62
10	817.91	1226.86	0.42	87.75	0.01	0.04

Seccion = 58

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1234.322 Td (mT) = 1182.182

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	813.56	1220.34	0.00	85.94	0.00	0.00
2	813.56	1220.34	59.79	9.74	0.03	5.54
3	813.56	1220.34	58.86	5.78	0.03	9.19
4	813.56	1220.34	72.87	5.92	0.05	11.11
5	813.56	1220.34	123.65	4.86	0.13	22.95
6	813.56	1220.34	134.43	4.86	0.15	24.95
7	813.56	1220.34	94.69	4.86	0.08	17.57
8	813.56	1220.34	68.49	4.93	0.04	12.52
9	813.56	1220.34	90.73	9.87	0.07	8.30
10	813.56	1220.34	0.47	97.41	0.01	0.05

Seccion = 59

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1356.666 Td (mT) = 1304.134

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	845.99	1268.99	0.00	101.85	0.01	0.00
2	845.99	1268.99	63.21	11.95	0.03	6.18
3	845.99	1268.99	61.40	7.49	0.03	9.58
4	845.99	1268.99	78.05	7.26	0.05	12.56
5	845.99	1268.99	105.98	4.80	0.09	25.79
6	845.99	1268.99	121.23	4.77	0.11	29.68
7	845.99	1268.99	98.65	4.77	0.07	24.16
8	845.99	1268.99	81.19	5.18	0.05	18.28
9	845.99	1268.99	81.19	5.18	0.05	18.28
10	845.99	1268.99	0.23	49.43	0.00	0.06

Seccion = 60

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1911.903 Td (mT) = 1436.132

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	845.23	1267.84	0.00	112.16	0.01	0.00
2	845.23	1267.84	116.44	13.12	0.06	8.69
3	845.23	1267.84	113.11	8.23	0.06	13.48
4	845.23	1267.84	143.78	7.97	0.09	17.67
5	845.23	1267.84	195.24	5.27	0.17	36.28
6	845.23	1267.84	223.33	5.24	0.22	41.76
7	845.23	1267.84	181.73	5.24	0.15	33.99
8	845.23	1267.84	149.57	5.69	0.10	25.72
9	845.23	1267.84	149.57	5.69	0.10	25.72
10	845.23	1267.84	0.43	54.43	0.00	0.08

Seccion = 61

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 3173.685 Td (mT) = 1303.238

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	839.19	1258.79	0.00	101.78	0.01	0.00
2	839.19	1258.79	255.31	14.47	0.17	14.23
3	839.19	1258.79	248.02	9.07	0.16	22.08
4	839.19	1258.79	315.26	8.79	0.26	28.94
5	839.19	1258.79	428.10	5.81	0.47	59.43
6	839.19	1258.79	489.70	5.78	0.62	68.40
7	839.19	1258.79	398.48	5.78	0.41	55.68
8	839.19	1258.79	327.95	6.27	0.28	42.14
9	839.19	1258.79	327.95	6.27	0.28	42.14
10	839.19	1258.79	0.94	49.39	0.00	0.13

Seccion = 62

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1952.661 Td (mT) = 1402.384

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	839.37	1259.06	0.00	109.53	0.01	0.00
2	839.37	1259.06	118.99	13.27	0.06	8.76
3	839.37	1259.06	115.59	8.32	0.06	13.59
4	839.37	1259.06	146.92	8.06	0.10	17.81
5	839.37	1259.06	199.52	5.33	0.18	36.58
6	839.37	1259.06	228.22	5.30	0.23	42.10
7	839.37	1259.06	185.71	5.30	0.16	34.27
8	839.37	1259.06	152.84	5.75	0.11	25.94
9	839.37	1259.06	152.84	5.75	0.11	25.94
10	839.37	1259.06	0.44	53.15	0.00	0.08

Seccion = 63

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1400.314 Td (mT) = 1280.249

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	805.35	1208.03	0.00	93.07	0.01	0.00
2	805.35	1208.03	69.34	11.12	0.04	6.18
3	805.35	1208.03	68.26	6.60	0.04	10.25
4	805.35	1208.03	84.51	6.75	0.06	12.39
5	805.35	1208.03	143.40	5.55	0.17	25.60
6	805.35	1208.03	155.90	5.55	0.20	27.83
7	805.35	1208.03	109.82	5.55	0.10	19.59
8	805.35	1208.03	79.43	5.63	0.05	13.97
9	805.35	1208.03	105.22	11.27	0.09	9.26
10	805.35	1208.03	0.54	105.49	0.01	0.05

Seccion = 64

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1286.331 Td (mT) = 1169.055

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	807.00	1210.50	0.00	84.99	0.00	0.00
2	807.00	1210.50	62.91	9.65	0.03	5.69
3	807.00	1210.50	61.93	5.73	0.03	9.45
4	807.00	1210.50	76.67	5.86	0.05	11.42
5	807.00	1210.50	130.10	4.82	0.14	23.59
6	807.00	1210.50	141.45	4.82	0.17	25.65
7	807.00	1210.50	99.63	4.82	0.08	18.06
8	807.00	1210.50	72.07	4.89	0.04	12.87
9	807.00	1210.50	95.47	9.78	0.08	8.53
10	807.00	1210.50	0.49	96.33	0.01	0.05

Seccion = 65

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1178.809 Td (mT) = 1059.867

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	809.69	1214.54	0.00	77.05	0.00	0.00
2	809.69	1214.54	57.06	8.40	0.03	5.25
3	809.69	1214.54	56.16	4.99	0.03	8.71
4	809.69	1214.54	69.53	5.11	0.04	10.53
5	809.69	1214.54	117.99	4.20	0.12	21.74
6	809.69	1214.54	128.28	4.20	0.14	23.64
7	809.69	1214.54	90.36	4.20	0.07	16.65
8	809.69	1214.54	65.36	4.26	0.04	11.86
9	809.69	1214.54	86.58	8.52	0.06	7.86
10	809.69	1214.54	0.45	87.33	0.01	0.05

Seccion = 66

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1073.962 Td (mT) = 955.765

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.97	1252.46	0.00	69.48	0.00	0.00
2	834.97	1252.46	51.18	7.31	0.02	5.05
3	834.97	1252.46	50.37	4.34	0.02	8.37
4	834.97	1252.46	62.37	4.44	0.03	10.12
5	834.97	1252.46	105.83	3.65	0.09	20.91
6	834.97	1252.46	115.06	3.65	0.11	22.73
7	834.97	1252.46	81.04	3.65	0.05	16.01
8	834.97	1252.46	58.62	3.70	0.03	11.41
9	834.97	1252.46	77.66	7.41	0.05	7.56
10	834.97	1252.46	0.40	78.76	0.00	0.04

Seccion = 67

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 936.487 Td (mT) = 860.656

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.41	1251.61	0.00	62.57	0.00	0.00
2	834.41	1251.61	41.27	5.86	0.02	4.40
3	834.41	1251.61	40.62	3.48	0.02	7.29
4	834.41	1251.61	50.29	3.56	0.02	8.82
5	834.41	1251.61	85.35	2.93	0.07	18.21
6	834.41	1251.61	92.79	2.93	0.08	19.80
7	834.41	1251.61	65.36	2.93	0.04	13.94
8	834.41	1251.61	47.27	2.97	0.02	9.94
9	834.41	1251.61	62.63	5.94	0.04	6.59
10	834.41	1251.61	0.32	70.92	0.00	0.04

Seccion = 68

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 807.652 Td (mT) = 773.346

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.35	1251.53	0.00	56.22	0.00	0.00
2	834.35	1251.53	32.00	4.46	0.01	3.79
3	834.35	1251.53	31.50	2.65	0.01	6.29
4	834.35	1251.53	39.00	2.71	0.02	7.60
5	834.35	1251.53	66.18	2.23	0.05	15.70
6	834.35	1251.53	71.95	2.23	0.06	17.07
7	834.35	1251.53	50.68	2.23	0.03	12.02
8	834.35	1251.53	36.66	2.26	0.02	8.57
9	834.35	1251.53	48.56	4.52	0.03	5.68
10	834.35	1251.53	0.25	63.72	0.00	0.03

Seccion = 69

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 684.700 Td (mT) = 689.758

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.10	1251.15	0.00	50.15	0.00	0.00
2	834.10	1251.15	23.05	3.07	0.01	3.21
3	834.10	1251.15	22.68	1.82	0.01	5.33
4	834.10	1251.15	28.08	1.87	0.01	6.44
5	834.10	1251.15	47.66	1.53	0.04	13.31
6	834.10	1251.15	51.81	1.53	0.04	14.47
7	834.10	1251.15	36.50	1.53	0.02	10.19
8	834.10	1251.15	26.40	1.56	0.01	7.26
9	834.10	1251.15	34.97	3.11	0.02	4.81
10	834.10	1251.15	0.18	56.84	0.00	0.03

Seccion = 70

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 568.096 Td (mT) = 614.537

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	833.53	1250.30	0.00	44.68	0.00	0.00
2	833.53	1250.30	14.44	1.67	0.01	2.66
3	833.53	1250.30	14.21	0.99	0.01	4.42
4	833.53	1250.30	17.60	1.02	0.01	5.34
5	833.53	1250.30	29.86	0.84	0.03	11.03
6	833.53	1250.30	32.46	0.84	0.03	11.99
7	833.53	1250.30	22.87	0.84	0.02	8.44
8	833.53	1250.30	16.54	0.85	0.01	6.02
9	833.53	1250.30	21.91	1.70	0.01	3.99
10	833.53	1250.30	0.11	50.64	0.00	0.02

Seccion = 71

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 460.266 Td (mT) = 573.543

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	832.56	1248.84	0.00	41.70	0.00	0.00
2	832.56	1248.84	13.43	0.07	0.00	2.15
3	832.56	1248.84	13.22	0.04	0.00	3.57
4	832.56	1248.84	16.37	0.04	0.01	4.32
5	832.56	1248.84	27.78	0.03	0.02	8.91
6	832.56	1248.84	30.20	0.03	0.02	9.69
7	832.56	1248.84	21.27	0.03	0.01	6.82
8	832.56	1248.84	15.39	0.03	0.01	4.86
9	832.56	1248.84	20.38	0.07	0.01	3.22
10	832.56	1248.84	0.11	47.26	0.00	0.02

Seccion = 72

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 568.885 Td (mT) = 621.276

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	831.13	1246.69	0.00	45.17	0.00	0.00
2	831.13	1246.69	21.75	1.53	0.01	2.65
3	831.13	1246.69	21.41	0.91	0.01	4.40
4	831.13	1246.69	26.50	0.93	0.01	5.32
5	831.13	1246.69	44.97	0.76	0.03	10.98
6	831.13	1246.69	48.89	0.76	0.03	11.94
7	831.13	1246.69	34.44	0.76	0.02	8.41
8	831.13	1246.69	24.91	0.77	0.01	5.99
9	831.13	1246.69	33.00	1.55	0.01	3.97
10	831.13	1246.69	0.17	51.19	0.00	0.02

Seccion = 73

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 680.466 Td (mT) = 683.169

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	829.19	1243.79	0.00	49.67	0.00	0.00
2	829.19	1243.79	29.60	2.88	0.01	3.16
3	829.19	1243.79	29.13	1.71	0.01	5.24
4	829.19	1243.79	36.07	1.75	0.01	6.33
5	829.19	1243.79	61.20	1.44	0.04	13.08
6	829.19	1243.79	66.54	1.44	0.04	14.22
7	829.19	1243.79	46.87	1.44	0.02	10.02
8	829.19	1243.79	33.90	1.46	0.01	7.14
9	829.19	1243.79	44.91	2.92	0.02	4.73
10	829.19	1243.79	0.23	56.29	0.00	0.03

Seccion = 74

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 796.066 Td (mT) = 764.203

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	826.80	1240.20	0.00	55.56	0.00	0.00
2	826.80	1240.20	33.33	4.27	0.01	3.68
3	826.80	1240.20	32.81	2.54	0.01	6.10
4	826.80	1240.20	40.62	2.60	0.02	7.37
5	826.80	1240.20	68.93	2.13	0.05	15.23
6	826.80	1240.20	74.94	2.13	0.06	16.55
7	826.80	1240.20	52.79	2.13	0.03	11.66
8	826.80	1240.20	38.18	2.17	0.02	8.31
9	826.80	1240.20	50.58	4.33	0.03	5.51
10	826.80	1240.20	0.26	62.97	0.00	0.03

Seccion = 75

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 911.039 Td (mT) = 856.752

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	824.01	1236.01	0.00	62.29	0.00	0.00
2	824.01	1236.01	40.86	5.67	0.02	4.18
3	824.01	1236.01	40.22	3.37	0.02	6.94
4	824.01	1236.01	49.80	3.45	0.02	8.39
5	824.01	1236.01	84.50	2.83	0.07	17.32
6	824.01	1236.01	91.87	2.83	0.08	18.83
7	824.01	1236.01	64.71	2.83	0.04	13.26
8	824.01	1236.01	46.81	2.88	0.02	9.45
9	824.01	1236.01	62.01	5.75	0.04	6.27
10	824.01	1236.01	0.32	70.60	0.00	0.04

Seccion = 76

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1029.238 Td (mT) = 958.371

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	820.95	1231.43	0.00	69.67	0.00	0.00
2	820.95	1231.43	48.18	7.09	0.02	4.69
3	820.95	1231.43	47.42	4.21	0.02	7.79
4	820.95	1231.43	58.71	4.31	0.03	9.41
5	820.95	1231.43	99.63	3.54	0.09	19.44
6	820.95	1231.43	108.32	3.54	0.10	21.14
7	820.95	1231.43	76.30	3.54	0.05	14.88
8	820.95	1231.43	55.19	3.59	0.03	10.61
9	820.95	1231.43	73.11	7.18	0.05	7.03
10	820.95	1231.43	0.38	78.97	0.00	0.04

Seccion = 77

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1145.697 Td (mT) = 1066.059

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	817.91	1226.87	0.00	77.50	0.00	0.00
2	817.91	1226.87	55.11	8.48	0.03	5.19
3	817.91	1226.87	54.25	5.04	0.03	8.61
4	817.91	1226.87	67.16	5.15	0.04	10.41
5	817.91	1226.87	113.97	4.24	0.11	21.50
6	817.91	1226.87	123.90	4.24	0.13	23.38
7	817.91	1226.87	87.27	4.24	0.06	16.46
8	817.91	1226.87	63.13	4.30	0.03	11.73
9	817.91	1226.87	83.63	8.60	0.06	7.78
10	817.91	1226.87	0.43	87.84	0.01	0.04

Seccion = 78

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1257.777 Td (mT) = 1183.389

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	813.57	1220.35	0.00	86.03	0.00	0.00
2	813.57	1220.35	61.03	9.86	0.03	5.65
3	813.57	1220.35	60.08	5.86	0.03	9.37
4	813.57	1220.35	74.38	5.99	0.05	11.32
5	813.57	1220.35	126.21	4.93	0.13	23.39
6	813.57	1220.35	137.22	4.93	0.16	25.43
7	813.57	1220.35	96.65	4.93	0.08	17.91
8	813.57	1220.35	69.91	5.00	0.04	12.76
9	813.57	1220.35	92.61	10.00	0.07	8.46
10	813.57	1220.35	0.48	97.51	0.01	0.05

Seccion = 79

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1379.938 Td (mT) = 1305.675

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	845.98	1268.96	0.00	101.97	0.01	0.00
2	845.98	1268.96	64.71	11.76	0.03	6.28
3	845.98	1268.96	62.86	7.37	0.03	9.75
4	845.98	1268.96	79.90	7.14	0.05	12.77
5	845.98	1268.96	108.50	4.72	0.09	26.23
6	845.98	1268.96	124.11	4.70	0.12	30.19
7	845.98	1268.96	101.00	4.70	0.08	24.57
8	845.98	1268.96	83.12	5.10	0.05	18.60
9	845.98	1268.96	83.12	5.10	0.05	18.60
10	845.98	1268.96	0.24	49.49	0.00	0.06

Seccion = 80

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1935.010 Td (mT) = 1436.557

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	845.18	1267.78	0.00	112.20	0.01	0.00
2	845.18	1267.78	117.57	13.42	0.06	8.79
3	845.18	1267.78	114.22	8.41	0.06	13.64
4	845.18	1267.78	145.18	8.15	0.09	17.88
5	845.18	1267.78	197.14	5.39	0.17	36.72
6	845.18	1267.78	225.51	5.36	0.23	42.26
7	845.18	1267.78	183.50	5.36	0.15	34.40
8	845.18	1267.78	151.02	5.82	0.10	26.03
9	845.18	1267.78	151.02	5.82	0.10	26.03
10	845.18	1267.78	0.43	54.45	0.00	0.08

Seccion = 81

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos

Vd (T) = 3179.837 Td (mT) = 1298.725

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	839.13	1258.69	0.00	101.43	0.01	0.00
2	839.13	1258.69	255.81	14.99	0.17	14.26
3	839.13	1258.69	248.51	9.40	0.16	22.12
4	839.13	1258.69	315.88	9.11	0.26	28.99
5	839.13	1258.69	428.94	6.02	0.48	59.54
6	839.13	1258.69	490.66	5.98	0.62	68.52
7	839.13	1258.69	399.26	5.98	0.41	55.78
8	839.13	1258.69	328.60	6.50	0.28	42.21
9	839.13	1258.69	328.60	6.50	0.28	42.21
10	839.13	1258.69	0.94	49.22	0.00	0.13

Seccion = 82

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1958.803 Td (mT) = 1398.265

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	839.31	1258.97	0.00	109.20	0.01	0.00
2	839.31	1258.97	119.62	13.53	0.06	8.79
3	839.31	1258.97	116.21	8.48	0.06	13.63
4	839.31	1258.97	147.71	8.22	0.10	17.87
5	839.31	1258.97	200.58	5.43	0.18	36.69
6	839.31	1258.97	229.44	5.40	0.24	42.23
7	839.31	1258.97	186.70	5.40	0.16	34.37
8	839.31	1258.97	153.66	5.87	0.11	26.01
9	839.31	1258.97	153.66	5.87	0.11	26.01
10	839.31	1258.97	0.44	52.99	0.00	0.08

Seccion = 83

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1406.791 Td (mT) = 1275.955

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	805.34	1208.01	0.00	92.76	0.01	0.00
2	805.34	1208.01	69.60	11.44	0.04	6.21
3	805.34	1208.01	68.51	6.80	0.04	10.30
4	805.34	1208.01	84.82	6.95	0.06	12.45
5	805.34	1208.01	143.93	5.71	0.17	25.71
6	805.34	1208.01	156.49	5.71	0.20	27.95
7	805.34	1208.01	110.22	5.71	0.10	19.68
8	805.34	1208.01	79.73	5.80	0.05	14.03
9	805.34	1208.01	105.62	11.60	0.09	9.30
10	805.34	1208.01	0.55	105.14	0.01	0.05

Seccion = 84

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1292.995 Td (mT) = 1164.556

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	807.02	1210.53	0.00	84.66	0.00	0.00
2	807.02	1210.53	63.19	10.06	0.03	5.72
3	807.02	1210.53	62.20	5.98	0.03	9.50
4	807.02	1210.53	77.01	6.12	0.05	11.48
5	807.02	1210.53	130.68	5.03	0.14	23.72
6	807.02	1210.53	142.07	5.03	0.17	25.78
7	807.02	1210.53	100.07	5.03	0.08	18.16
8	807.02	1210.53	72.39	5.10	0.04	12.94
9	807.02	1210.53	95.89	10.20	0.08	8.58
10	807.02	1210.53	0.50	95.96	0.01	0.05

Seccion = 85

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1185.482 Td (mT) = 1055.335

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	809.74	1214.60	0.00	76.72	0.00	0.00
2	809.74	1214.60	57.34	8.72	0.03	5.28
3	809.74	1214.60	56.44	5.18	0.03	8.76
4	809.74	1214.60	69.88	5.30	0.04	10.59
5	809.74	1214.60	118.57	4.36	0.12	21.87
6	809.74	1214.60	128.91	4.36	0.14	23.77
7	809.74	1214.60	90.80	4.36	0.07	16.74
8	809.74	1214.60	65.68	4.42	0.04	11.93
9	809.74	1214.60	87.01	8.84	0.07	7.91
10	809.74	1214.60	0.45	86.96	0.01	0.05

Seccion = 86

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1080.815 Td (mT) = 957.290

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	835.03	1252.55	0.00	69.59	0.00	0.00
2	835.03	1252.55	51.47	7.26	0.02	5.08
3	835.03	1252.55	50.67	4.31	0.02	8.43
4	835.03	1252.55	62.73	4.41	0.03	10.19
5	835.03	1252.55	106.44	3.62	0.09	21.05
6	835.03	1252.55	115.73	3.62	0.11	22.88
7	835.03	1252.55	81.51	3.62	0.06	16.11
8	835.03	1252.55	58.96	3.68	0.03	11.48
9	835.03	1252.55	78.11	7.35	0.05	7.61
10	835.03	1252.55	0.40	78.88	0.00	0.04

Seccion = 87

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 943.320 Td (mT) = 861.422

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.47	1251.71	0.00	62.63	0.00	0.00
2	834.47	1251.71	41.56	5.83	0.02	4.43
3	834.47	1251.71	40.91	3.46	0.02	7.35
4	834.47	1251.71	50.65	3.54	0.03	8.88
5	834.47	1251.71	85.95	2.91	0.07	18.35
6	834.47	1251.71	93.45	2.91	0.09	19.95
7	834.47	1251.71	65.82	2.91	0.04	14.05
8	834.47	1251.71	47.61	2.95	0.02	10.01
9	834.47	1251.71	63.07	5.91	0.04	6.64
10	834.47	1251.71	0.33	70.98	0.00	0.04

Seccion = 88

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 814.324 Td (mT) = 775.033

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.42	1251.63	0.00	56.34	0.00	0.00
2	834.42	1251.63	32.27	4.36	0.01	3.82
3	834.42	1251.63	31.76	2.59	0.01	6.34
4	834.42	1251.63	39.33	2.65	0.02	7.67
5	834.42	1251.63	66.73	2.18	0.05	15.84
6	834.42	1251.63	72.55	2.18	0.06	17.22
7	834.42	1251.63	51.10	2.18	0.03	12.12
8	834.42	1251.63	36.97	2.21	0.02	8.64
9	834.42	1251.63	48.97	4.42	0.03	5.73
10	834.42	1251.63	0.25	63.86	0.00	0.03

Seccion = 89

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 691.440 Td (mT) = 690.532

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.17	1251.25	0.00	50.20	0.00	0.00
2	834.17	1251.25	23.32	3.05	0.01	3.24
3	834.17	1251.25	22.96	1.81	0.01	5.38
4	834.17	1251.25	28.42	1.85	0.01	6.51
5	834.17	1251.25	48.23	1.52	0.04	13.44
6	834.17	1251.25	52.43	1.52	0.05	14.61
7	834.17	1251.25	36.93	1.52	0.02	10.29
8	834.17	1251.25	26.71	1.55	0.01	7.33
9	834.17	1251.25	35.39	3.09	0.02	4.86
10	834.17	1251.25	0.18	56.90	0.00	0.03

Seccion = 90

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 574.806 Td (mT) = 616.860

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	833.59	1250.39	0.00	44.85	0.00	0.00
2	833.59	1250.39	14.72	1.48	0.01	2.69
3	833.59	1250.39	14.49	0.88	0.01	4.47
4	833.59	1250.39	17.93	0.90	0.01	5.40
5	833.59	1250.39	30.43	0.74	0.03	11.16
6	833.59	1250.39	33.09	0.74	0.03	12.13
7	833.59	1250.39	23.30	0.74	0.02	8.54
8	833.59	1250.39	16.86	0.75	0.01	6.09
9	833.59	1250.39	22.33	1.50	0.01	4.04
10	833.59	1250.39	0.12	50.83	0.00	0.02

Seccion = 91

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 465.686 Td (mT) = 573.906

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	832.61	1248.92	0.00	41.72	0.00	0.00
2	832.61	1248.92	60.11	46.66	0.01	2.18
3	832.61	1248.92	59.17	27.72	0.01	3.61
4	832.61	1248.92	73.25	28.35	0.01	4.37
5	832.61	1248.92	124.30	23.30	0.02	9.02
6	832.61	1248.92	135.14	23.30	0.03	9.81
7	832.61	1248.92	95.19	23.30	0.01	6.91
8	832.61	1248.92	68.85	23.64	0.01	4.92
9	832.61	1248.92	91.21	47.29	0.01	3.26
10	832.61	1248.92	0.47	47.29	0.00	0.02

Seccion = 92

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 569.230 Td (mT) = 619.501

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	831.17	1246.75	0.00	45.04	0.00	0.00
2	831.17	1246.75	21.50	1.69	0.01	2.65
3	831.17	1246.75	21.16	1.00	0.01	4.40
4	831.17	1246.75	26.20	1.03	0.01	5.32
5	831.17	1246.75	44.46	0.84	0.03	10.99
6	831.17	1246.75	48.33	0.84	0.03	11.95
7	831.17	1246.75	34.04	0.84	0.02	8.41
8	831.17	1246.75	24.62	0.86	0.01	6.00
9	831.17	1246.75	32.62	1.71	0.01	3.98
10	831.17	1246.75	0.17	51.05	0.00	0.02

Seccion = 93

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 681.014 Td (mT) = 681.163

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	829.23	1243.84	0.00	49.52	0.00	0.00
2	829.23	1243.84	29.37	3.11	0.01	3.16
3	829.23	1243.84	28.90	1.85	0.01	5.24
4	829.23	1243.84	35.79	1.89	0.01	6.34
5	829.23	1243.84	60.73	1.55	0.04	13.10
6	829.23	1243.84	66.02	1.55	0.04	14.24
7	829.23	1243.84	46.50	1.55	0.02	10.03
8	829.23	1243.84	33.64	1.58	0.01	7.15
9	829.23	1243.84	44.56	3.15	0.02	4.74
10	829.23	1243.84	0.23	56.13	0.00	0.03

Seccion = 94

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 796.659 Td (mT) = 761.764

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	826.82	1240.23	0.00	55.38	0.00	0.00
2	826.82	1240.23	32.92	4.54	0.01	3.68
3	826.82	1240.23	32.40	2.70	0.01	6.10
4	826.82	1240.23	40.11	2.76	0.02	7.38
5	826.82	1240.23	68.07	2.27	0.05	15.24
6	826.82	1240.23	74.01	2.27	0.06	16.57
7	826.82	1240.23	52.13	2.27	0.03	11.67
8	826.82	1240.23	37.71	2.30	0.02	8.32
9	826.82	1240.23	49.95	4.60	0.03	5.51
10	826.82	1240.23	0.26	62.77	0.00	0.03

Seccion = 95

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 911.558 Td (mT) = 854.561

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	824.02	1236.03	0.00	62.13	0.00	0.00
2	824.02	1236.03	40.43	5.94	0.02	4.18
3	824.02	1236.03	39.80	3.53	0.02	6.94
4	824.02	1236.03	49.27	3.61	0.02	8.39
5	824.02	1236.03	83.61	2.97	0.07	17.33
6	824.02	1236.03	90.90	2.97	0.08	18.84
7	824.02	1236.03	64.03	2.97	0.04	13.27
8	824.02	1236.03	46.31	3.01	0.02	9.46
9	824.02	1236.03	61.35	6.02	0.04	6.27
10	824.02	1236.03	0.32	70.42	0.00	0.04

Seccion = 96

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1029.857 Td (mT) = 956.074

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	820.96	1231.44	0.00	69.51	0.00	0.00
2	820.96	1231.44	47.77	7.32	0.02	4.70
3	820.96	1231.44	47.02	4.35	0.02	7.79
4	820.96	1231.44	58.21	4.45	0.03	9.42
5	820.96	1231.44	98.78	3.66	0.09	19.46
6	820.96	1231.44	107.39	3.66	0.10	21.15
7	820.96	1231.44	75.64	3.66	0.05	14.89
8	820.96	1231.44	54.71	3.71	0.03	10.62
9	820.96	1231.44	72.48	7.42	0.05	7.04
10	820.96	1231.44	0.37	78.78	0.00	0.04

Seccion = 97

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1146.102 Td (mT) = 1063.749

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	817.91	1226.87	0.00	77.33	0.00	0.00
2	817.91	1226.87	54.80	8.63	0.03	5.19
3	817.91	1226.87	53.94	5.13	0.03	8.61
4	817.91	1226.87	66.78	5.25	0.04	10.41
5	817.91	1226.87	113.32	4.31	0.11	21.51
6	817.91	1226.87	123.20	4.31	0.13	23.39
7	817.91	1226.87	86.78	4.31	0.06	16.47
8	817.91	1226.87	62.77	4.38	0.03	11.74
9	817.91	1226.87	83.15	8.75	0.06	7.78
10	817.91	1226.87	0.43	87.65	0.01	0.04

Seccion = 98

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1258.241 Td (mT) = 1180.943

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	813.57	1220.35	0.00	85.85	0.00	0.00
2	813.57	1220.35	60.67	10.04	0.03	5.65
3	813.57	1220.35	59.72	5.97	0.03	9.37
4	813.57	1220.35	73.94	6.10	0.05	11.33
5	813.57	1220.35	125.47	5.01	0.13	23.40
6	813.57	1220.35	136.41	5.01	0.16	25.44
7	813.57	1220.35	96.08	5.01	0.08	17.91
8	813.57	1220.35	69.50	5.09	0.04	12.77
9	813.57	1220.35	92.07	10.18	0.07	8.46
10	813.57	1220.35	0.48	97.31	0.01	0.05

Seccion = 99

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1380.446 Td (mT) = 1303.087

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	845.98	1268.97	0.00	101.77	0.01	0.00
2	845.98	1268.97	64.41	12.07	0.03	6.28
3	845.98	1268.97	62.57	7.57	0.03	9.75
4	845.98	1268.97	79.54	7.33	0.05	12.78
5	845.98	1268.97	108.00	4.85	0.09	26.24
6	845.98	1268.97	123.54	4.82	0.12	30.20
7	845.98	1268.97	100.53	4.82	0.08	24.58
8	845.98	1268.97	82.74	5.23	0.05	18.60
9	845.98	1268.97	82.74	5.23	0.05	18.60
10	845.98	1268.97	0.24	49.39	0.00	0.06

Seccion = 100

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1935.628 Td (mT) = 1434.115

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	845.20	1267.79	0.00	112.00	0.01	0.00
2	845.20	1267.79	117.58	13.69	0.06	8.80
3	845.20	1267.79	114.22	8.58	0.06	13.65
4	845.20	1267.79	145.19	8.32	0.09	17.88
5	845.20	1267.79	197.16	5.50	0.17	36.73
6	845.20	1267.79	225.52	5.47	0.23	42.27
7	845.20	1267.79	183.52	5.47	0.15	34.41
8	845.20	1267.79	151.04	5.94	0.10	26.04
9	845.20	1267.79	151.04	5.94	0.10	26.04
10	845.20	1267.79	0.43	54.35	0.00	0.08

Seccion = 101

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 3180.123 Td (mT) = 1297.669

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	839.14	1258.72	0.00	101.35	0.01	0.00
2	839.14	1258.72	255.75	15.27	0.17	14.26
3	839.14	1258.72	248.45	9.58	0.16	22.12
4	839.14	1258.72	315.80	9.28	0.26	28.99
5	839.14	1258.72	428.83	6.13	0.48	59.55
6	839.14	1258.72	490.53	6.10	0.62	68.53
7	839.14	1258.72	399.16	6.10	0.41	55.79
8	839.14	1258.72	328.51	6.62	0.28	42.22
9	839.14	1258.72	328.51	6.62	0.28	42.22
10	839.14	1258.72	0.94	49.18	0.00	0.13

Seccion = 102

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1959.027 Td (mT) = 1397.700

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	839.33	1259.00	0.00	109.16	0.01	0.00
2	839.33	1259.00	119.65	13.54	0.06	8.79
3	839.33	1259.00	116.23	8.49	0.06	13.63
4	839.33	1259.00	147.74	8.23	0.10	17.87
5	839.33	1259.00	200.63	5.44	0.18	36.70
6	839.33	1259.00	229.49	5.41	0.24	42.24
7	839.33	1259.00	186.75	5.41	0.16	34.38
8	839.33	1259.00	153.69	5.87	0.11	26.02
9	839.33	1259.00	153.69	5.87	0.11	26.02
10	839.33	1259.00	0.44	52.97	0.00	0.08

Seccion = 103

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1406.943 Td (mT) = 1275.523

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	805.34	1208.01	0.00	92.73	0.01	0.00
2	805.34	1208.01	70.03	11.42	0.04	6.21
3	805.34	1208.01	68.93	6.79	0.04	10.30
4	805.34	1208.01	85.34	6.94	0.06	12.45
5	805.34	1208.01	144.82	5.70	0.17	25.72
6	805.34	1208.01	157.45	5.70	0.20	27.96
7	805.34	1208.01	110.90	5.70	0.10	19.69
8	805.34	1208.01	80.22	5.79	0.05	14.03
9	805.34	1208.01	106.27	11.58	0.09	9.30
10	805.34	1208.01	0.55	105.10	0.01	0.05

Seccion = 104

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1292.981 Td (mT) = 1163.682

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	807.01	1210.52	0.00	84.60	0.00	0.00
2	807.01	1210.52	63.13	10.30	0.03	5.72
3	807.01	1210.52	62.14	6.12	0.03	9.50
4	807.01	1210.52	76.93	6.26	0.05	11.48
5	807.01	1210.52	130.55	5.14	0.14	23.72
6	807.01	1210.52	141.93	5.14	0.17	25.78
7	807.01	1210.52	99.97	5.14	0.08	18.16
8	807.01	1210.52	72.31	5.22	0.04	12.94
9	807.01	1210.52	95.80	10.44	0.08	8.58
10	807.01	1210.52	0.49	95.89	0.01	0.05

Seccion = 105

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1185.511 Td (mT) = 1054.375

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	809.72	1214.58	0.00	76.65	0.00	0.00
2	809.72	1214.58	57.28	8.91	0.03	5.28
3	809.72	1214.58	56.39	5.29	0.03	8.76
4	809.72	1214.58	69.81	5.42	0.04	10.59
5	809.72	1214.58	118.46	4.45	0.12	21.87
6	809.72	1214.58	128.79	4.45	0.14	23.77
7	809.72	1214.58	90.72	4.45	0.07	16.74
8	809.72	1214.58	65.62	4.52	0.04	11.93
9	809.72	1214.58	86.92	9.03	0.07	7.91
10	809.72	1214.58	0.45	86.88	0.01	0.05

Seccion = 106

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1080.713 Td (mT) = 955.165

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	835.02	1252.52	0.00	69.44	0.00	0.00
2	835.02	1252.52	51.40	7.50	0.02	5.08
3	835.02	1252.52	50.60	4.46	0.02	8.43
4	835.02	1252.52	62.64	4.56	0.03	10.19
5	835.02	1252.52	106.30	3.75	0.09	21.04
6	835.02	1252.52	115.57	3.75	0.11	22.88
7	835.02	1252.52	81.40	3.75	0.06	16.11
8	835.02	1252.52	58.88	3.80	0.03	11.48
9	835.02	1252.52	78.00	7.61	0.05	7.61
10	835.02	1252.52	0.40	78.71	0.00	0.04

Seccion = 107

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 943.355 Td (mT) = 860.179

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.46	1251.68	0.00	62.53	0.00	0.00
2	834.46	1251.68	41.48	6.04	0.02	4.43
3	834.46	1251.68	40.83	3.59	0.02	7.35
4	834.46	1251.68	50.55	3.67	0.03	8.88
5	834.46	1251.68	85.77	3.02	0.07	18.35
6	834.46	1251.68	93.25	3.02	0.09	19.95
7	834.46	1251.68	65.68	3.02	0.04	14.05
8	834.46	1251.68	47.51	3.06	0.02	10.01
9	834.46	1251.68	62.94	6.12	0.04	6.64
10	834.46	1251.68	0.33	70.88	0.00	0.04

Seccion = 108

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 814.421 Td (mT) = 773.387

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.40	1251.60	0.00	56.23	0.00	0.00
2	834.40	1251.60	32.19	4.60	0.01	3.82
3	834.40	1251.60	31.69	2.73	0.01	6.34
4	834.40	1251.60	39.23	2.79	0.02	7.67
5	834.40	1251.60	66.57	2.30	0.05	15.84
6	834.40	1251.60	72.38	2.30	0.06	17.22
7	834.40	1251.60	50.98	2.30	0.03	12.12
8	834.40	1251.60	36.88	2.33	0.02	8.64
9	834.40	1251.60	48.85	4.66	0.03	5.73
10	834.40	1251.60	0.25	63.73	0.00	0.03

Seccion = 109

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 691.481 Td (mT) = 690.410

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.15	1251.22	0.00	50.19	0.00	0.00
2	834.15	1251.22	23.13	3.15	0.01	3.24
3	834.15	1251.22	22.76	1.87	0.01	5.38
4	834.15	1251.22	28.18	1.91	0.01	6.51
5	834.15	1251.22	47.82	1.57	0.04	13.44
6	834.15	1251.22	51.99	1.57	0.05	14.61
7	834.15	1251.22	36.62	1.57	0.02	10.29
8	834.15	1251.22	26.49	1.59	0.01	7.33
9	834.15	1251.22	35.09	3.19	0.02	4.86
10	834.15	1251.22	0.18	56.89	0.00	0.03

Seccion = 110

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 574.776 Td (mT) = 615.146

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	833.58	1250.36	0.00	44.72	0.00	0.00
2	833.58	1250.36	14.49	1.75	0.01	2.69
3	833.58	1250.36	14.26	1.04	0.01	4.47
4	833.58	1250.36	17.66	1.07	0.01	5.40
5	833.58	1250.36	29.97	0.88	0.03	11.16
6	833.58	1250.36	32.58	0.88	0.03	12.13
7	833.58	1250.36	22.95	0.88	0.02	8.54
8	833.58	1250.36	16.60	0.89	0.01	6.09
9	833.58	1250.36	21.99	1.78	0.01	4.04
10	833.58	1250.36	0.11	50.69	0.00	0.02

Seccion = 111

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 465.756 Td (mT) = 572.394

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	832.60	1248.89	0.00	41.61	0.00	0.00
2	832.60	1248.89	13.27	0.18	0.00	2.18
3	832.60	1248.89	13.06	0.11	0.00	3.61
4	832.60	1248.89	16.17	0.11	0.01	4.37
5	832.60	1248.89	27.44	0.09	0.02	9.02
6	832.60	1248.89	29.84	0.09	0.02	9.81
7	832.60	1248.89	21.02	0.09	0.01	6.91
8	832.60	1248.89	15.20	0.09	0.01	4.92
9	832.60	1248.89	20.14	0.19	0.01	3.26
10	832.60	1248.89	0.10	47.17	0.00	0.02

Seccion = 112

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 571.182 Td (mT) = 620.254

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	831.15	1246.73	0.00	45.09	0.00	0.00
2	831.15	1246.73	21.57	1.72	0.01	2.66
3	831.15	1246.73	21.23	1.02	0.01	4.42
4	831.15	1246.73	26.28	1.05	0.01	5.34
5	831.15	1246.73	44.60	0.86	0.03	11.03
6	831.15	1246.73	48.49	0.86	0.03	11.99
7	831.15	1246.73	34.15	0.86	0.02	8.44
8	831.15	1246.73	24.70	0.87	0.01	6.02
9	831.15	1246.73	32.72	1.75	0.01	3.99
10	831.15	1246.73	0.17	51.11	0.00	0.02

Seccion = 113

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 682.941 Td (mT) = 682.074

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	829.22	1243.82	0.00	49.59	0.00	0.00
2	829.22	1243.82	29.44	3.10	0.01	3.17
3	829.22	1243.82	28.97	1.84	0.01	5.26
4	829.22	1243.82	35.87	1.88	0.01	6.36
5	829.22	1243.82	60.87	1.55	0.04	13.13
6	829.22	1243.82	66.18	1.55	0.05	14.28
7	829.22	1243.82	46.61	1.55	0.02	10.05
8	829.22	1243.82	33.72	1.57	0.01	7.17
9	829.22	1243.82	44.67	3.14	0.02	4.75
10	829.22	1243.82	0.23	56.20	0.00	0.03

Seccion = 114

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 798.463 Td (mT) = 761.914

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	826.81	1240.22	0.00	55.39	0.00	0.00
2	826.81	1240.22	32.99	4.60	0.01	3.69
3	826.81	1240.22	32.47	2.73	0.01	6.12
4	826.81	1240.22	40.20	2.79	0.02	7.39
5	826.81	1240.22	68.22	2.29	0.05	15.27
6	826.81	1240.22	74.17	2.29	0.06	16.61
7	826.81	1240.22	52.24	2.29	0.03	11.69
8	826.81	1240.22	37.79	2.33	0.02	8.33
9	826.81	1240.22	50.06	4.66	0.03	5.52
10	826.81	1240.22	0.26	62.78	0.00	0.03

Seccion = 115

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 913.393 Td (mT) = 855.019

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	824.01	1236.02	0.00	62.16	0.00	0.00
2	824.01	1236.02	40.46	6.03	0.02	4.19
3	824.01	1236.02	39.82	3.58	0.02	6.95
4	824.01	1236.02	49.30	3.66	0.02	8.41
5	824.01	1236.02	83.66	3.01	0.07	17.37
6	824.01	1236.02	90.96	3.01	0.08	18.88
7	824.01	1236.02	64.07	3.01	0.04	13.30
8	824.01	1236.02	46.34	3.05	0.02	9.48
9	824.01	1236.02	61.39	6.11	0.04	6.28
10	824.01	1236.02	0.32	70.45	0.00	0.04

Seccion = 116

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1031.552 Td (mT) = 956.095

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	820.96	1231.44	0.00	69.51	0.00	0.00
2	820.96	1231.44	48.15	7.35	0.02	4.70
3	820.96	1231.44	47.39	4.37	0.02	7.80
4	820.96	1231.44	58.67	4.47	0.03	9.43
5	820.96	1231.44	99.56	3.67	0.09	19.49
6	820.96	1231.44	108.24	3.67	0.11	21.19
7	820.96	1231.44	76.24	3.67	0.05	14.92
8	820.96	1231.44	55.15	3.73	0.03	10.63
9	820.96	1231.44	73.06	7.45	0.05	7.05
10	820.96	1231.44	0.38	78.78	0.00	0.04

Seccion = 117

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1147.867 Td (mT) = 1063.605

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	817.91	1226.87	0.00	77.32	0.00	0.00
2	817.91	1226.87	54.70	8.88	0.03	5.20
3	817.91	1226.87	53.84	5.28	0.03	8.63
4	817.91	1226.87	66.66	5.40	0.04	10.43
5	817.91	1226.87	113.11	4.44	0.11	21.54
6	817.91	1226.87	122.97	4.44	0.13	23.42
7	817.91	1226.87	86.62	4.44	0.07	16.49
8	817.91	1226.87	62.65	4.50	0.03	11.76
9	817.91	1226.87	83.00	9.00	0.06	7.79
10	817.91	1226.87	0.43	87.64	0.01	0.04

Seccion = 118

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1259.883 Td (mT) = 1181.726

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	813.57	1220.35	0.00	85.91	0.00	0.00
2	813.57	1220.35	61.14	9.93	0.03	5.65
3	813.57	1220.35	60.18	5.90	0.03	9.38
4	813.57	1220.35	74.50	6.04	0.05	11.34
5	813.57	1220.35	126.43	4.96	0.14	23.43
6	813.57	1220.35	137.45	4.96	0.16	25.47
7	813.57	1220.35	96.82	4.96	0.08	17.94
8	813.57	1220.35	70.03	5.03	0.04	12.78
9	813.57	1220.35	92.77	10.07	0.07	8.47
10	813.57	1220.35	0.48	97.37	0.01	0.05

Seccion = 119

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1382.187 Td (mT) = 1303.496

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	845.98	1268.97	0.00	101.80	0.01	0.00
2	845.98	1268.97	64.42	12.28	0.03	6.29
3	845.98	1268.97	62.58	7.70	0.03	9.76
4	845.98	1268.97	79.55	7.46	0.05	12.79
5	845.98	1268.97	108.02	4.93	0.09	26.27
6	845.98	1268.97	123.57	4.90	0.12	30.24
7	845.98	1268.97	100.55	4.90	0.08	24.61
8	845.98	1268.97	82.75	5.32	0.05	18.63
9	845.98	1268.97	82.75	5.32	0.05	18.63
10	845.98	1268.97	0.24	49.40	0.00	0.06

Seccion = 120

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 2989.730 Td (mT) = 1436.737

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	845.19	1267.79	0.00	112.21	0.01	0.00
2	845.19	1267.79	232.05	12.96	0.15	13.59
3	845.19	1267.79	225.42	8.12	0.14	21.08
4	845.19	1267.79	286.53	7.87	0.23	27.62
5	845.19	1267.79	389.09	5.20	0.41	56.73
6	845.19	1267.79	445.08	5.17	0.54	65.29
7	845.19	1267.79	362.17	5.17	0.36	53.15
8	845.19	1267.79	298.07	5.62	0.24	40.22
9	845.19	1267.79	298.07	5.62	0.24	40.22
10	845.19	1267.79	0.85	54.45	0.00	0.12

Seccion = 121

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 3180.797 Td (mT) = 1297.380

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	839.14	1258.71	0.00	101.33	0.01	0.00
2	839.14	1258.71	255.93	15.02	0.17	14.26
3	839.14	1258.71	248.62	9.42	0.16	22.13
4	839.14	1258.71	316.02	9.12	0.26	29.00
5	839.14	1258.71	429.14	6.03	0.48	59.56
6	839.14	1258.71	490.89	6.00	0.62	68.55
7	839.14	1258.71	399.45	6.00	0.41	55.80
8	839.14	1258.71	328.75	6.51	0.28	42.23
9	839.14	1258.71	328.75	6.51	0.28	42.23
10	839.14	1258.71	0.94	49.17	0.00	0.13

Seccion = 122

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1959.715 Td (mT) = 1396.723

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	839.33	1258.99	0.00	109.08	0.01	0.00
2	839.33	1258.99	119.73	13.71	0.06	8.79
3	839.33	1258.99	116.31	8.59	0.06	13.64
4	839.33	1258.99	147.84	8.33	0.10	17.87
5	839.33	1258.99	200.76	5.50	0.18	36.71
6	839.33	1258.99	229.65	5.47	0.24	42.25
7	839.33	1258.99	186.87	5.47	0.16	34.39
8	839.33	1258.99	153.80	5.94	0.11	26.03
9	839.33	1258.99	153.80	5.94	0.11	26.03
10	839.33	1258.99	0.44	52.94	0.00	0.08

Seccion = 123

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1407.668 Td (mT) = 1274.359

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	805.34	1208.01	0.00	92.65	0.01	0.00
2	805.34	1208.01	70.09	11.61	0.04	6.21
3	805.34	1208.01	69.00	6.90	0.04	10.30
4	805.34	1208.01	85.42	7.05	0.06	12.46
5	805.34	1208.01	144.95	5.80	0.17	25.73
6	805.34	1208.01	157.59	5.80	0.20	27.97
7	805.34	1208.01	111.00	5.80	0.10	19.70
8	805.34	1208.01	80.29	5.88	0.05	14.04
9	805.34	1208.01	106.36	11.77	0.09	9.31
10	805.34	1208.01	0.55	105.01	0.01	0.05

Seccion = 124

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1293.683 Td (mT) = 1162.673

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	807.02	1210.52	0.00	84.53	0.00	0.00
2	807.02	1210.52	63.49	10.39	0.03	5.73
3	807.02	1210.52	62.49	6.17	0.03	9.50
4	807.02	1210.52	77.37	6.31	0.05	11.49
5	807.02	1210.52	131.29	5.19	0.14	23.73
6	807.02	1210.52	142.73	5.19	0.17	25.80
7	807.02	1210.52	100.54	5.19	0.08	18.17
8	807.02	1210.52	72.72	5.27	0.04	12.95
9	807.02	1210.52	96.34	10.53	0.08	8.58
10	807.02	1210.52	0.50	95.80	0.01	0.05

Seccion = 125

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1186.235 Td (mT) = 1053.488

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	809.73	1214.59	0.00	76.59	0.00	0.00
2	809.73	1214.59	57.34	9.04	0.03	5.28
3	809.73	1214.59	56.45	5.37	0.03	8.76
4	809.73	1214.59	69.88	5.49	0.04	10.59
5	809.73	1214.59	118.59	4.51	0.12	21.88
6	809.73	1214.59	128.93	4.51	0.14	23.79
7	809.73	1214.59	90.81	4.51	0.07	16.75
8	809.73	1214.59	65.69	4.58	0.04	11.94
9	809.73	1214.59	87.02	9.16	0.07	7.91
10	809.73	1214.59	0.45	86.81	0.01	0.05

Seccion = 126

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1081.426 Td (mT) = 954.304

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	835.02	1252.53	0.00	69.38	0.00	0.00
2	835.02	1252.53	51.47	7.63	0.02	5.08
3	835.02	1252.53	50.66	4.53	0.02	8.43
4	835.02	1252.53	62.72	4.64	0.03	10.19
5	835.02	1252.53	106.43	3.81	0.09	21.06
6	835.02	1252.53	115.71	3.81	0.11	22.89
7	835.02	1252.53	81.50	3.81	0.06	16.12
8	835.02	1252.53	58.95	3.87	0.03	11.49
9	835.02	1252.53	78.10	7.73	0.05	7.62
10	835.02	1252.53	0.40	78.63	0.00	0.04

Seccion = 127

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 943.928 Td (mT) = 859.272

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.46	1251.69	0.00	62.47	0.00	0.00
2	834.46	1251.69	41.54	6.17	0.02	4.43
3	834.46	1251.69	40.89	3.66	0.02	7.35
4	834.46	1251.69	50.62	3.75	0.03	8.89
5	834.46	1251.69	85.90	3.08	0.07	18.36
6	834.46	1251.69	93.40	3.08	0.09	19.96
7	834.46	1251.69	65.79	3.08	0.04	14.05
8	834.46	1251.69	47.58	3.13	0.02	10.02
9	834.46	1251.69	63.04	6.25	0.04	6.64
10	834.46	1251.69	0.33	70.80	0.00	0.04

Seccion = 128

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 815.175 Td (mT) = 772.894

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.41	1251.61	0.00	56.19	0.00	0.00
2	834.41	1251.61	32.24	4.69	0.01	3.83
3	834.41	1251.61	31.73	2.79	0.01	6.35
4	834.41	1251.61	39.29	2.85	0.02	7.67
5	834.41	1251.61	66.67	2.34	0.05	15.85
6	834.41	1251.61	72.48	2.34	0.06	17.23
7	834.41	1251.61	51.05	2.34	0.03	12.14
8	834.41	1251.61	36.93	2.38	0.02	8.65
9	834.41	1251.61	48.92	4.76	0.03	5.73
10	834.41	1251.61	0.25	63.69	0.00	0.03

Seccion = 129

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 691.968 Td (mT) = 690.637

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.15	1251.23	0.00	50.21	0.00	0.00
2	834.15	1251.23	23.11	3.18	0.01	3.25
3	834.15	1251.23	22.75	1.89	0.01	5.39
4	834.15	1251.23	28.17	1.93	0.01	6.51
5	834.15	1251.23	47.79	1.59	0.04	13.45
6	834.15	1251.23	51.96	1.59	0.05	14.62
7	834.15	1251.23	36.60	1.59	0.02	10.30
8	834.15	1251.23	26.47	1.61	0.01	7.34
9	834.15	1251.23	35.07	3.22	0.02	4.86
10	834.15	1251.23	0.18	56.91	0.00	0.03

Seccion = 130

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 575.439 Td (mT) = 615.305

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	833.58	1250.37	0.00	44.73	0.00	0.00
2	833.58	1250.37	14.50	1.79	0.01	2.70
3	833.58	1250.37	14.28	1.06	0.01	4.47
4	833.58	1250.37	17.68	1.09	0.01	5.41
5	833.58	1250.37	29.99	0.89	0.03	11.17
6	833.58	1250.37	32.61	0.89	0.03	12.14
7	833.58	1250.37	22.97	0.89	0.02	8.55
8	833.58	1250.37	16.61	0.91	0.01	6.09
9	833.58	1250.37	22.01	1.81	0.01	4.04
10	833.58	1250.37	0.11	50.70	0.00	0.02

Seccion = 131

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 466.224 Td (mT) = 572.688

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	832.60	1248.90	0.00	41.63	0.00	0.00
2	832.60	1248.90	13.25	0.34	0.00	2.18
3	832.60	1248.90	13.05	0.20	0.00	3.62
4	832.60	1248.90	16.15	0.21	0.01	4.37
5	832.60	1248.90	27.41	0.17	0.02	9.03
6	832.60	1248.90	29.80	0.17	0.02	9.82
7	832.60	1248.90	20.99	0.17	0.01	6.91
8	832.60	1248.90	15.18	0.17	0.01	4.93
9	832.60	1248.90	20.11	0.34	0.01	3.27
10	832.60	1248.90	0.10	47.19	0.00	0.02

Seccion = 132

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 571.314 Td (mT) = 620.335

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	831.16	1246.74	0.00	45.10	0.00	0.00
2	831.16	1246.74	21.56	1.75	0.01	2.66
3	831.16	1246.74	21.22	1.04	0.01	4.42
4	831.16	1246.74	26.28	1.06	0.01	5.34
5	831.16	1246.74	44.59	0.87	0.03	11.03
6	831.16	1246.74	48.48	0.87	0.03	11.99
7	831.16	1246.74	34.15	0.87	0.02	8.45
8	831.16	1246.74	24.70	0.89	0.01	6.02
9	831.16	1246.74	32.72	1.78	0.01	3.99
10	831.16	1246.74	0.17	51.12	0.00	0.02

Seccion = 133

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 682.928 Td (mT) = 680.892

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	829.22	1243.83	0.00	49.50	0.00	0.00
2	829.22	1243.83	29.43	3.29	0.01	3.17
3	829.22	1243.83	28.97	1.95	0.01	5.26
4	829.22	1243.83	35.86	2.00	0.01	6.36
5	829.22	1243.83	60.86	1.64	0.04	13.13
6	829.22	1243.83	66.16	1.64	0.05	14.28
7	829.22	1243.83	46.60	1.64	0.02	10.05
8	829.22	1243.83	33.71	1.67	0.01	7.17
9	829.22	1243.83	44.66	3.33	0.02	4.75
10	829.22	1243.83	0.23	56.11	0.00	0.03

Seccion = 134

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 798.537 Td (mT) = 760.711

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	826.82	1240.22	0.00	55.30	0.00	0.00
2	826.82	1240.22	32.96	4.78	0.01	3.69
3	826.82	1240.22	32.44	2.84	0.01	6.12
4	826.82	1240.22	40.17	2.91	0.02	7.39
5	826.82	1240.22	68.16	2.39	0.05	15.28
6	826.82	1240.22	74.10	2.39	0.06	16.61
7	826.82	1240.22	52.20	2.39	0.03	11.69
8	826.82	1240.22	37.76	2.42	0.02	8.34
9	826.82	1240.22	50.02	4.85	0.03	5.53
10	826.82	1240.22	0.26	62.68	0.00	0.03

Seccion = 135

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 913.553 Td (mT) = 853.639

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	824.02	1236.02	0.00	62.06	0.00	0.00
2	824.02	1236.02	40.44	6.21	0.02	4.19
3	824.02	1236.02	39.81	3.69	0.02	6.96
4	824.02	1236.02	49.28	3.77	0.02	8.41
5	824.02	1236.02	83.63	3.10	0.07	17.37
6	824.02	1236.02	90.92	3.10	0.08	18.88
7	824.02	1236.02	64.04	3.10	0.04	13.30
8	824.02	1236.02	46.32	3.15	0.02	9.48
9	824.02	1236.02	61.37	6.30	0.04	6.28
10	824.02	1236.02	0.32	70.34	0.00	0.04

Seccion = 136

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1031.708 Td (mT) = 955.091

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	820.96	1231.44	0.00	69.44	0.00	0.00
2	820.96	1231.44	47.75	7.61	0.02	4.70
3	820.96	1231.44	47.01	4.52	0.02	7.80
4	820.96	1231.44	58.20	4.62	0.03	9.44
5	820.96	1231.44	98.75	3.80	0.09	19.49
6	820.96	1231.44	107.36	3.80	0.11	21.19
7	820.96	1231.44	75.62	3.80	0.05	14.92
8	820.96	1231.44	54.70	3.85	0.03	10.63
9	820.96	1231.44	72.46	7.71	0.05	7.05
10	820.96	1231.44	0.37	78.70	0.00	0.04

Seccion = 137

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1148.078 Td (mT) = 1062.741

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	817.91	1226.87	0.00	77.26	0.00	0.00
2	817.91	1226.87	55.20	8.83	0.03	5.20
3	817.91	1226.87	54.33	5.25	0.03	8.63
4	817.91	1226.87	67.27	5.36	0.04	10.43
5	817.91	1226.87	114.15	4.41	0.11	21.55
6	817.91	1226.87	124.10	4.41	0.13	23.43
7	817.91	1226.87	87.41	4.41	0.07	16.50
8	817.91	1226.87	63.23	4.47	0.03	11.76
9	817.91	1226.87	83.76	8.95	0.06	7.79
10	817.91	1226.87	0.43	87.57	0.01	0.04

Seccion = 138

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1260.130 Td (mT) = 1179.867

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	813.57	1220.35	0.00	85.78	0.00	0.00
2	813.57	1220.35	61.12	10.25	0.03	5.66
3	813.57	1220.35	60.16	6.09	0.03	9.38
4	813.57	1220.35	74.48	6.23	0.05	11.34
5	813.57	1220.35	126.39	5.12	0.14	23.43
6	813.57	1220.35	137.41	5.12	0.16	25.48
7	813.57	1220.35	96.79	5.12	0.08	17.94
8	813.57	1220.35	70.01	5.20	0.04	12.79
9	813.57	1220.35	92.74	10.39	0.07	8.48
10	813.57	1220.35	0.48	97.22	0.01	0.05

Seccion = 139

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1382.380 Td (mT) = 1301.957

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	845.98	1268.97	0.00	101.68	0.01	0.00
2	845.98	1268.97	64.48	12.39	0.03	6.29
3	845.98	1268.97	62.64	7.77	0.03	9.76
4	845.98	1268.97	79.62	7.53	0.05	12.80
5	845.98	1268.97	108.12	4.98	0.09	26.28
6	845.98	1268.97	123.68	4.95	0.12	30.24
7	845.98	1268.97	100.64	4.95	0.08	24.62
8	845.98	1268.97	82.83	5.37	0.05	18.63
9	845.98	1268.97	82.83	5.37	0.05	18.63
10	845.98	1268.97	0.24	49.34	0.00	0.06

Seccion = 140

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 2989.910 Td (mT) = 1435.215

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	845.19	1267.79	0.00	112.09	0.01	0.00
2	845.19	1267.79	232.02	13.07	0.15	13.59
3	845.19	1267.79	225.40	8.20	0.14	21.08
4	845.19	1267.79	286.50	7.94	0.23	27.63
5	845.19	1267.79	389.05	5.25	0.41	56.73
6	845.19	1267.79	445.03	5.22	0.54	65.30
7	845.19	1267.79	362.13	5.22	0.36	53.15
8	845.19	1267.79	298.04	5.67	0.24	40.22
9	845.19	1267.79	298.04	5.67	0.24	40.22
10	845.19	1267.79	0.85	54.39	0.00	0.12

Seccion = 141

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 3180.524 Td (mT) = 1299.531

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	839.14	1258.71	0.00	101.49	0.01	0.00
2	839.14	1258.71	255.93	14.53	0.17	14.26
3	839.14	1258.71	248.63	9.11	0.16	22.13
4	839.14	1258.71	316.03	8.83	0.26	29.00
5	839.14	1258.71	429.15	5.84	0.48	59.55
6	839.14	1258.71	490.89	5.80	0.62	68.54
7	839.14	1258.71	399.45	5.80	0.41	55.79
8	839.14	1258.71	328.75	6.30	0.28	42.22
9	839.14	1258.71	328.75	6.30	0.28	42.22
10	839.14	1258.71	0.94	49.25	0.00	0.13

Seccion = 142

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1959.437 Td (mT) = 1397.717

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	839.33	1258.99	0.00	109.16	0.01	0.00
2	839.33	1258.99	119.71	13.80	0.06	8.79
3	839.33	1258.99	116.29	8.65	0.06	13.64
4	839.33	1258.99	147.82	8.38	0.10	17.87
5	839.33	1258.99	200.73	5.54	0.18	36.70
6	839.33	1258.99	229.61	5.51	0.24	42.24
7	839.33	1258.99	186.84	5.51	0.16	34.39
8	839.33	1258.99	153.77	5.98	0.11	26.02
9	839.33	1258.99	153.77	5.98	0.11	26.02
10	839.33	1258.99	0.44	52.97	0.00	0.08

Seccion = 143

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1407.278 Td (mT) = 1275.442

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	805.34	1208.01	0.00	92.72	0.01	0.00
2	805.34	1208.01	70.10	11.63	0.04	6.21
3	805.34	1208.01	69.00	6.91	0.04	10.30
4	805.34	1208.01	85.43	7.07	0.06	12.45
5	805.34	1208.01	144.97	5.81	0.17	25.72
6	805.34	1208.01	157.61	5.81	0.20	27.96
7	805.34	1208.01	111.02	5.81	0.10	19.69
8	805.34	1208.01	80.30	5.89	0.05	14.04
9	805.34	1208.01	106.38	11.79	0.09	9.30
10	805.34	1208.01	0.55	105.10	0.01	0.05

Seccion = 144

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1293.443 Td (mT) = 1164.013

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	807.02	1210.52	0.00	84.62	0.00	0.00
2	807.02	1210.52	63.69	10.31	0.03	5.73
3	807.02	1210.52	62.69	6.12	0.03	9.50
4	807.02	1210.52	77.61	6.26	0.05	11.48
5	807.02	1210.52	131.70	5.15	0.14	23.72
6	807.02	1210.52	143.19	5.15	0.17	25.79
7	807.02	1210.52	100.86	5.15	0.08	18.16
8	807.02	1210.52	72.95	5.22	0.04	12.95
9	807.02	1210.52	96.64	10.45	0.08	8.58
10	807.02	1210.52	0.50	95.91	0.01	0.05

Seccion = 145

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos

Vd (T) = 1185.926 Td (mT) = 1054.896

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	809.73	1214.59	0.00	76.69	0.00	0.00
2	809.73	1214.59	57.31	9.10	0.03	5.28
3	809.73	1214.59	56.42	5.41	0.03	8.76
4	809.73	1214.59	69.85	5.53	0.04	10.59
5	809.73	1214.59	118.52	4.55	0.12	21.88
6	809.73	1214.59	128.86	4.55	0.14	23.78
7	809.73	1214.59	90.77	4.55	0.07	16.75
8	809.73	1214.59	65.65	4.61	0.04	11.94
9	809.73	1214.59	86.97	9.23	0.07	7.91
10	809.73	1214.59	0.45	86.92	0.01	0.05

Seccion = 146

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos

Vd (T) = 1081.312 Td (mT) = 953.881

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	835.02	1252.53	0.00	69.35	0.00	0.00
2	835.02	1252.53	51.64	7.80	0.02	5.08
3	835.02	1252.53	50.83	4.63	0.02	8.43
4	835.02	1252.53	62.93	4.74	0.03	10.19
5	835.02	1252.53	106.78	3.89	0.09	21.06
6	835.02	1252.53	116.09	3.89	0.11	22.89
7	835.02	1252.53	81.77	3.89	0.06	16.12
8	835.02	1252.53	59.15	3.95	0.03	11.49
9	835.02	1252.53	78.36	7.90	0.05	7.62
10	835.02	1252.53	0.40	78.60	0.00	0.04

Seccion = 147

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 943.924 Td (mT) = 858.834

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.46	1251.69	0.00	62.44	0.00	0.00
2	834.46	1251.69	41.55	6.33	0.02	4.43
3	834.46	1251.69	40.90	3.76	0.02	7.35
4	834.46	1251.69	50.64	3.85	0.03	8.89
5	834.46	1251.69	85.92	3.16	0.07	18.36
6	834.46	1251.69	93.42	3.16	0.09	19.96
7	834.46	1251.69	65.80	3.16	0.04	14.05
8	834.46	1251.69	47.60	3.21	0.02	10.02
9	834.46	1251.69	63.05	6.42	0.04	6.64
10	834.46	1251.69	0.33	70.77	0.00	0.04

Seccion = 148

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 814.904 Td (mT) = 773.295

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.40	1251.61	0.00	56.22	0.00	0.00
2	834.40	1251.61	32.21	4.79	0.01	3.82
3	834.40	1251.61	31.70	2.84	0.01	6.35
4	834.40	1251.61	39.25	2.91	0.02	7.67
5	834.40	1251.61	66.60	2.39	0.05	15.85
6	834.40	1251.61	72.41	2.39	0.06	17.23
7	834.40	1251.61	51.01	2.39	0.03	12.13
8	834.40	1251.61	36.89	2.43	0.02	8.65
9	834.40	1251.61	48.87	4.85	0.03	5.73
10	834.40	1251.61	0.25	63.72	0.00	0.03

Seccion = 149

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 692.122 Td (mT) = 690.790

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.15	1251.23	0.00	50.22	0.00	0.00
2	834.15	1251.23	23.11	3.29	0.01	3.25
3	834.15	1251.23	22.75	1.95	0.01	5.39
4	834.15	1251.23	28.16	2.00	0.01	6.51
5	834.15	1251.23	47.79	1.64	0.04	13.45
6	834.15	1251.23	51.95	1.64	0.05	14.62
7	834.15	1251.23	36.60	1.64	0.02	10.30
8	834.15	1251.23	26.47	1.67	0.01	7.34
9	834.15	1251.23	35.07	3.33	0.02	4.87
10	834.15	1251.23	0.18	56.92	0.00	0.03

Seccion = 150

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 575.446 Td (mT) = 615.693

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	833.58	1250.37	0.00	44.76	0.00	0.00
2	833.58	1250.37	14.50	1.88	0.01	2.70
3	833.58	1250.37	14.27	1.11	0.01	4.47
4	833.58	1250.37	17.67	1.14	0.01	5.41
5	833.58	1250.37	29.98	0.94	0.03	11.17
6	833.58	1250.37	32.59	0.94	0.03	12.14
7	833.58	1250.37	22.96	0.94	0.02	8.55
8	833.58	1250.37	16.61	0.95	0.01	6.09
9	833.58	1250.37	22.00	1.90	0.01	4.04
10	833.58	1250.37	0.11	50.73	0.00	0.02

Seccion = 151

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 466.207 Td (mT) = 571.829

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	832.60	1248.90	0.00	41.57	0.00	0.00
2	832.60	1248.90	13.25	0.31	0.00	2.18
3	832.60	1248.90	13.04	0.19	0.00	3.62
4	832.60	1248.90	16.15	0.19	0.01	4.37
5	832.60	1248.90	27.40	0.16	0.02	9.03
6	832.60	1248.90	29.79	0.16	0.02	9.82
7	832.60	1248.90	20.98	0.16	0.01	6.91
8	832.60	1248.90	15.18	0.16	0.01	4.93
9	832.60	1248.90	20.11	0.32	0.01	3.27
10	832.60	1248.90	0.10	47.12	0.00	0.02

Seccion = 152

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 571.269 Td (mT) = 619.701

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	831.16	1246.73	0.00	45.05	0.00	0.00
2	831.16	1246.73	21.55	1.91	0.01	2.66
3	831.16	1246.73	21.22	1.14	0.01	4.42
4	831.16	1246.73	26.27	1.16	0.01	5.34
5	831.16	1246.73	44.57	0.96	0.03	11.03
6	831.16	1246.73	48.46	0.96	0.03	11.99
7	831.16	1246.73	34.13	0.96	0.02	8.44
8	831.16	1246.73	24.69	0.97	0.01	6.02
9	831.16	1246.73	32.71	1.94	0.01	3.99
10	831.16	1246.73	0.17	51.06	0.00	0.02

Seccion = 153

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 682.956 Td (mT) = 680.072

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	829.22	1243.83	0.00	49.44	0.00	0.00
2	829.22	1243.83	29.42	3.51	0.01	3.17
3	829.22	1243.83	28.96	2.09	0.01	5.26
4	829.22	1243.83	35.85	2.13	0.01	6.36
5	829.22	1243.83	60.84	1.75	0.04	13.13
6	829.22	1243.83	66.15	1.75	0.05	14.28
7	829.22	1243.83	46.59	1.75	0.02	10.05
8	829.22	1243.83	33.70	1.78	0.01	7.17
9	829.22	1243.83	44.65	3.56	0.02	4.75
10	829.22	1243.83	0.23	56.04	0.00	0.03

Seccion = 154

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 798.572 Td (mT) = 760.266

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	826.81	1240.22	0.00	55.27	0.00	0.00
2	826.81	1240.22	32.91	4.97	0.01	3.69
3	826.81	1240.22	32.40	2.95	0.01	6.12
4	826.81	1240.22	40.11	3.02	0.02	7.40
5	826.81	1240.22	68.06	2.48	0.05	15.28
6	826.81	1240.22	73.99	2.48	0.06	16.61
7	826.81	1240.22	52.12	2.48	0.03	11.69
8	826.81	1240.22	37.70	2.52	0.02	8.34
9	826.81	1240.22	49.94	5.04	0.03	5.53
10	826.81	1240.22	0.26	62.65	0.00	0.03

Seccion = 155

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 913.538 Td (mT) = 852.741

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	824.01	1236.02	0.00	61.99	0.00	0.00
2	824.01	1236.02	40.44	6.39	0.02	4.19
3	824.01	1236.02	39.80	3.80	0.02	6.96
4	824.01	1236.02	49.28	3.88	0.02	8.41
5	824.01	1236.02	83.62	3.19	0.07	17.37
6	824.01	1236.02	90.91	3.19	0.08	18.88
7	824.01	1236.02	64.04	3.19	0.04	13.30
8	824.01	1236.02	46.32	3.24	0.02	9.48
9	824.01	1236.02	61.36	6.48	0.04	6.28
10	824.01	1236.02	0.32	70.27	0.00	0.04

Seccion = 156

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1031.796 Td (mT) = 954.110

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	820.96	1231.44	0.00	69.36	0.00	0.00
2	820.96	1231.44	47.76	7.80	0.02	4.70
3	820.96	1231.44	47.01	4.63	0.02	7.80
4	820.96	1231.44	58.20	4.74	0.03	9.44
5	820.96	1231.44	98.77	3.90	0.09	19.49
6	820.96	1231.44	107.38	3.90	0.11	21.19
7	820.96	1231.44	75.63	3.90	0.05	14.92
8	820.96	1231.44	54.71	3.95	0.03	10.64
9	820.96	1231.44	72.47	7.91	0.05	7.05
10	820.96	1231.44	0.37	78.62	0.00	0.04

Seccion = 157

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1148.080 Td (mT) = 1061.859

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	817.91	1226.87	0.00	77.20	0.00	0.00
2	817.91	1226.87	55.20	8.97	0.03	5.20
3	817.91	1226.87	54.33	5.33	0.03	8.63
4	817.91	1226.87	67.26	5.45	0.04	10.43
5	817.91	1226.87	114.14	4.48	0.11	21.55
6	817.91	1226.87	124.09	4.48	0.13	23.43
7	817.91	1226.87	87.41	4.48	0.07	16.50
8	817.91	1226.87	63.23	4.54	0.03	11.76
9	817.91	1226.87	83.76	9.09	0.06	7.79
10	817.91	1226.87	0.43	87.50	0.01	0.04

Seccion = 158

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1260.113 Td (mT) = 1178.814

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	813.57	1220.35	0.00	85.70	0.00	0.00
2	813.57	1220.35	61.11	10.41	0.03	5.66
3	813.57	1220.35	60.16	6.18	0.03	9.38
4	813.57	1220.35	74.48	6.33	0.05	11.34
5	813.57	1220.35	126.38	5.20	0.14	23.43
6	813.57	1220.35	137.40	5.20	0.16	25.48
7	813.57	1220.35	96.78	5.20	0.08	17.94
8	813.57	1220.35	70.00	5.28	0.04	12.79
9	813.57	1220.35	92.74	10.55	0.07	8.48
10	813.57	1220.35	0.48	97.13	0.01	0.05

Seccion = 159

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1382.333 Td (mT) = 1300.899

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	845.98	1268.97	0.00	101.60	0.01	0.00
2	845.98	1268.97	64.48	12.49	0.03	6.29
3	845.98	1268.97	62.64	7.83	0.03	9.76
4	845.98	1268.97	79.62	7.59	0.05	12.79
5	845.98	1268.97	108.11	5.01	0.09	26.28
6	845.98	1268.97	123.67	4.99	0.12	30.24
7	845.98	1268.97	100.63	4.99	0.08	24.62
8	845.98	1268.97	82.82	5.41	0.05	18.63
9	845.98	1268.97	82.82	5.41	0.05	18.63
10	845.98	1268.97	0.24	49.30	0.00	0.06

Seccion = 160

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 2990.002 Td (mT) = 1432.697

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	845.19	1267.79	0.00	111.89	0.01	0.00
2	845.19	1267.79	232.02	13.78	0.15	13.59
3	845.19	1267.79	225.40	8.64	0.14	21.08
4	845.19	1267.79	286.50	8.37	0.23	27.63
5	845.19	1267.79	389.05	5.53	0.42	56.74
6	845.19	1267.79	445.03	5.50	0.54	65.30
7	845.19	1267.79	362.13	5.50	0.36	53.15
8	845.19	1267.79	298.04	5.98	0.24	40.23
9	845.19	1267.79	298.04	5.98	0.24	40.23
10	845.19	1267.79	0.85	54.30	0.00	0.12

Seccion = 161

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 3180.575 Td (mT) = 1291.861

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	839.14	1258.71	0.00	100.89	0.01	0.00
2	839.14	1258.71	255.97	15.51	0.17	14.26
3	839.14	1258.71	248.67	9.72	0.16	22.13
4	839.14	1258.71	316.08	9.42	0.26	29.00
5	839.14	1258.71	429.22	6.23	0.48	59.55
6	839.14	1258.71	490.97	6.19	0.62	68.54
7	839.14	1258.71	399.52	6.19	0.41	55.79
8	839.14	1258.71	328.81	6.72	0.28	42.22
9	839.14	1258.71	328.81	6.72	0.28	42.22
10	839.14	1258.71	0.94	48.96	0.00	0.13

Seccion = 162

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1959.465 Td (mT) = 1390.916

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	839.33	1258.99	0.00	108.63	0.01	0.00
2	839.33	1258.99	119.78	14.25	0.06	8.79
3	839.33	1258.99	116.36	8.93	0.06	13.64
4	839.33	1258.99	147.90	8.66	0.10	17.87
5	839.33	1258.99	200.84	5.72	0.18	36.70
6	839.33	1258.99	229.74	5.69	0.24	42.24
7	839.33	1258.99	186.95	5.69	0.16	34.39
8	839.33	1258.99	153.86	6.18	0.11	26.02
9	839.33	1258.99	153.86	6.18	0.11	26.02
10	839.33	1258.99	0.44	52.72	0.00	0.08

Seccion = 163

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1407.409 Td (mT) = 1268.579

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	805.34	1208.01	0.00	92.23	0.01	0.00
2	805.34	1208.01	70.19	12.10	0.04	6.21
3	805.34	1208.01	69.09	7.19	0.04	10.30
4	805.34	1208.01	85.54	7.35	0.06	12.45
5	805.34	1208.01	145.16	6.04	0.17	25.72
6	805.34	1208.01	157.81	6.04	0.20	27.97
7	805.34	1208.01	111.16	6.04	0.10	19.69
8	805.34	1208.01	80.40	6.13	0.05	14.04
9	805.34	1208.01	106.51	12.27	0.09	9.30
10	805.34	1208.01	0.55	104.53	0.01	0.05

Seccion = 164

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1293.376 Td (mT) = 1156.757

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	807.02	1210.52	0.00	84.10	0.00	0.00
2	807.02	1210.52	63.67	10.97	0.03	5.73
3	807.02	1210.52	62.67	6.52	0.03	9.50
4	807.02	1210.52	77.59	6.66	0.05	11.48
5	807.02	1210.52	131.67	5.48	0.14	23.72
6	807.02	1210.52	143.15	5.48	0.17	25.79
7	807.02	1210.52	100.83	5.48	0.08	18.16
8	807.02	1210.52	72.93	5.56	0.04	12.94
9	807.02	1210.52	96.62	11.12	0.08	8.58
10	807.02	1210.52	0.50	95.32	0.01	0.05

Seccion = 165

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1186.062 Td (mT) = 1047.580

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	809.73	1214.59	0.00	76.16	0.00	0.00
2	809.73	1214.59	57.84	9.56	0.03	5.28
3	809.73	1214.59	56.94	5.68	0.03	8.76
4	809.73	1214.59	70.49	5.81	0.04	10.59
5	809.73	1214.59	119.62	4.77	0.12	21.88
6	809.73	1214.59	130.05	4.77	0.14	23.79
7	809.73	1214.59	91.60	4.77	0.07	16.75
8	809.73	1214.59	66.26	4.84	0.04	11.94
9	809.73	1214.59	87.77	9.69	0.07	7.91
10	809.73	1214.59	0.45	86.32	0.01	0.05

Seccion = 166

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1081.233 Td (mT) = 956.109

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	835.02	1252.53	0.00	69.51	0.00	0.00
2	835.02	1252.53	51.48	7.68	0.02	5.08
3	835.02	1252.53	50.67	4.56	0.02	8.43
4	835.02	1252.53	62.74	4.66	0.03	10.19
5	835.02	1252.53	106.46	3.83	0.09	21.05
6	835.02	1252.53	115.74	3.83	0.11	22.89
7	835.02	1252.53	81.53	3.83	0.06	16.12
8	835.02	1252.53	58.97	3.89	0.03	11.49
9	835.02	1252.53	78.12	7.78	0.05	7.61
10	835.02	1252.53	0.40	78.78	0.00	0.04

Seccion = 167

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 943.826 Td (mT) = 859.852

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.46	1251.69	0.00	62.51	0.00	0.00
2	834.46	1251.69	41.58	6.25	0.02	4.43
3	834.46	1251.69	40.93	3.71	0.02	7.35
4	834.46	1251.69	50.68	3.80	0.03	8.89
5	834.46	1251.69	85.99	3.12	0.07	18.36
6	834.46	1251.69	93.49	3.12	0.09	19.96
7	834.46	1251.69	65.85	3.12	0.04	14.05
8	834.46	1251.69	47.63	3.17	0.02	10.02
9	834.46	1251.69	63.10	6.34	0.04	6.64
10	834.46	1251.69	0.33	70.85	0.00	0.04

Seccion = 168

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 814.795 Td (mT) = 772.636

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.41	1251.61	0.00	56.17	0.00	0.00
2	834.41	1251.61	32.29	4.83	0.01	3.82
3	834.41	1251.61	31.78	2.87	0.01	6.34
4	834.41	1251.61	39.35	2.94	0.02	7.67
5	834.41	1251.61	66.77	2.41	0.05	15.84
6	834.41	1251.61	72.59	2.41	0.06	17.23
7	834.41	1251.61	51.13	2.41	0.03	12.13
8	834.41	1251.61	36.99	2.45	0.02	8.65
9	834.41	1251.61	49.00	4.90	0.03	5.73
10	834.41	1251.61	0.25	63.67	0.00	0.03

Seccion = 169

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 691.868 Td (mT) = 691.835

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.16	1251.23	0.00	50.30	0.00	0.00
2	834.16	1251.23	23.14	3.17	0.01	3.25
3	834.16	1251.23	22.78	1.88	0.01	5.38
4	834.16	1251.23	28.20	1.92	0.01	6.51
5	834.16	1251.23	47.85	1.58	0.04	13.45
6	834.16	1251.23	52.03	1.58	0.05	14.62
7	834.16	1251.23	36.65	1.58	0.02	10.29
8	834.16	1251.23	26.51	1.61	0.01	7.34
9	834.16	1251.23	35.11	3.21	0.02	4.86
10	834.16	1251.23	0.18	57.01	0.00	0.03

Seccion = 170

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 575.291 Td (mT) = 617.329

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	833.58	1250.38	0.00	44.88	0.00	0.00
2	833.58	1250.38	14.52	1.68	0.01	2.70
3	833.58	1250.38	14.29	1.00	0.01	4.47
4	833.58	1250.38	17.69	1.02	0.01	5.41
5	833.58	1250.38	30.02	0.84	0.03	11.17
6	833.58	1250.38	32.64	0.84	0.03	12.14
7	833.58	1250.38	22.99	0.84	0.02	8.55
8	833.58	1250.38	16.63	0.85	0.01	6.09
9	833.58	1250.38	22.03	1.70	0.01	4.04
10	833.58	1250.38	0.11	50.87	0.00	0.02

Seccion = 171

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 466.226 Td (mT) = 572.882

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	832.60	1248.91	0.00	41.65	0.00	0.00
2	832.60	1248.91	60.16	46.58	0.01	2.18
3	832.60	1248.91	59.22	27.67	0.01	3.62
4	832.60	1248.91	73.31	28.30	0.01	4.37
5	832.60	1248.91	124.41	23.26	0.02	9.03
6	832.60	1248.91	135.26	23.26	0.03	9.82
7	832.60	1248.91	95.27	23.26	0.01	6.91
8	832.60	1248.91	68.91	23.60	0.01	4.93
9	832.60	1248.91	91.29	47.21	0.01	3.27
10	832.60	1248.91	0.47	47.21	0.00	0.02

Seccion = 172

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 570.918 Td (mT) = 617.453

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	831.16	1246.74	0.00	44.89	0.00	0.00
2	831.16	1246.74	21.55	2.10	0.01	2.66
3	831.16	1246.74	21.21	1.25	0.01	4.41
4	831.16	1246.74	26.26	1.28	0.01	5.34
5	831.16	1246.74	44.56	1.05	0.03	11.02
6	831.16	1246.74	48.45	1.05	0.03	11.98
7	831.16	1246.74	34.13	1.05	0.02	8.44
8	831.16	1246.74	24.68	1.06	0.01	6.02
9	831.16	1246.74	32.70	2.13	0.01	3.99
10	831.16	1246.74	0.17	50.88	0.00	0.02

Seccion = 173

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 682.594 Td (mT) = 678.822

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	829.22	1243.84	0.00	49.35	0.00	0.00
2	829.22	1243.84	29.41	3.54	0.01	3.17
3	829.22	1243.84	28.95	2.10	0.01	5.26
4	829.22	1243.84	35.84	2.15	0.01	6.35
5	829.22	1243.84	60.82	1.77	0.04	13.13
6	829.22	1243.84	66.12	1.77	0.05	14.27
7	829.22	1243.84	46.58	1.77	0.02	10.05
8	829.22	1243.84	33.69	1.79	0.01	7.16
9	829.22	1243.84	44.63	3.59	0.02	4.75
10	829.22	1243.84	0.23	55.93	0.00	0.03

Seccion = 174

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 798.204 Td (mT) = 758.084

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	826.82	1240.23	0.00	55.11	0.00	0.00
2	826.82	1240.23	32.94	5.09	0.01	3.69
3	826.82	1240.23	32.42	3.03	0.01	6.11
4	826.82	1240.23	40.14	3.09	0.02	7.39
5	826.82	1240.23	68.11	2.54	0.05	15.27
6	826.82	1240.23	74.05	2.54	0.06	16.60
7	826.82	1240.23	52.16	2.54	0.03	11.69
8	826.82	1240.23	37.73	2.58	0.02	8.33
9	826.82	1240.23	49.98	5.16	0.03	5.52
10	826.82	1240.23	0.26	62.47	0.00	0.03

Seccion = 175

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 913.212 Td (mT) = 851.037

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	824.02	1236.03	0.00	61.87	0.00	0.00
2	824.02	1236.03	40.42	6.55	0.02	4.19
3	824.02	1236.03	39.79	3.89	0.02	6.95
4	824.02	1236.03	49.26	3.98	0.02	8.41
5	824.02	1236.03	83.59	3.27	0.07	17.36
6	824.02	1236.03	90.87	3.27	0.08	18.88
7	824.02	1236.03	64.01	3.27	0.04	13.29
8	824.02	1236.03	46.30	3.32	0.02	9.47
9	824.02	1236.03	61.33	6.64	0.04	6.28
10	824.02	1236.03	0.32	70.13	0.00	0.04

Seccion = 176

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1031.522 Td (mT) = 952.109

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	820.96	1231.44	0.00	69.22	0.00	0.00
2	820.96	1231.44	48.21	7.88	0.02	4.70
3	820.96	1231.44	47.46	4.68	0.02	7.80
4	820.96	1231.44	58.76	4.79	0.03	9.43
5	820.96	1231.44	99.71	3.93	0.09	19.49
6	820.96	1231.44	108.40	3.93	0.11	21.18
7	820.96	1231.44	76.35	3.93	0.05	14.92
8	820.96	1231.44	55.23	3.99	0.03	10.63
9	820.96	1231.44	73.16	7.99	0.05	7.05
10	820.96	1231.44	0.38	78.45	0.00	0.04

Seccion = 177

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1147.793 Td (mT) = 1059.526

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	817.92	1226.87	0.00	77.03	0.00	0.00
2	817.92	1226.87	55.14	9.29	0.03	5.20
3	817.92	1226.87	54.27	5.52	0.03	8.63
4	817.92	1226.87	67.19	5.64	0.04	10.43
5	817.92	1226.87	114.02	4.64	0.11	21.54
6	817.92	1226.87	123.96	4.64	0.13	23.42
7	817.92	1226.87	87.31	4.64	0.07	16.49
8	817.92	1226.87	63.16	4.71	0.03	11.75
9	817.92	1226.87	83.66	9.42	0.06	7.79
10	817.92	1226.87	0.43	87.30	0.01	0.04

Seccion = 178

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1259.950 Td (mT) = 1177.196

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	813.57	1220.35	0.00	85.58	0.00	0.00
2	813.57	1220.35	61.14	10.51	0.03	5.66
3	813.57	1220.35	60.18	6.24	0.03	9.38
4	813.57	1220.35	74.51	6.38	0.05	11.34
5	813.57	1220.35	126.44	5.25	0.14	23.43
6	813.57	1220.35	137.46	5.25	0.16	25.47
7	813.57	1220.35	96.83	5.25	0.08	17.94
8	813.57	1220.35	70.04	5.32	0.04	12.79
9	813.57	1220.35	92.78	10.65	0.07	8.47
10	813.57	1220.35	0.48	97.00	0.01	0.05

Seccion = 179

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1381.981 Td (mT) = 1299.331

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	845.98	1268.97	0.00	101.48	0.01	0.00
2	845.98	1268.97	64.48	12.52	0.03	6.29
3	845.98	1268.97	62.64	7.85	0.03	9.76
4	845.98	1268.97	79.62	7.61	0.05	12.79
5	845.98	1268.97	108.12	5.03	0.09	26.27
6	845.98	1268.97	123.67	5.00	0.12	30.23
7	845.98	1268.97	100.64	5.00	0.08	24.61
8	845.98	1268.97	82.82	5.43	0.05	18.62
9	845.98	1268.97	82.82	5.43	0.05	18.62
10	845.98	1268.97	0.24	49.24	0.00	0.06

Seccion = 180

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 2989.701 Td (mT) = 1431.166

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	845.19	1267.79	0.00	111.77	0.01	0.00
2	845.19	1267.79	232.00	13.81	0.15	13.59
3	845.19	1267.79	225.38	8.66	0.14	21.08
4	845.19	1267.79	286.48	8.39	0.23	27.62
5	845.19	1267.79	389.02	5.55	0.41	56.73
6	845.19	1267.79	444.99	5.51	0.54	65.29
7	845.19	1267.79	362.10	5.51	0.36	53.15
8	845.19	1267.79	298.01	5.99	0.24	40.22
9	845.19	1267.79	298.01	5.99	0.24	40.22
10	845.19	1267.79	0.85	54.24	0.00	0.12

Seccion = 181

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 3178.930 Td (mT) = 1296.008

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	839.14	1258.70	0.00	101.22	0.01	0.00
2	839.14	1258.70	255.96	15.19	0.17	14.25
3	839.14	1258.70	248.65	9.53	0.16	22.12
4	839.14	1258.70	316.06	9.23	0.26	28.98
5	839.14	1258.70	429.19	6.10	0.48	59.52
6	839.14	1258.70	490.95	6.07	0.62	68.51
7	839.14	1258.70	399.50	6.07	0.41	55.76
8	839.14	1258.70	328.79	6.59	0.28	42.20
9	839.14	1258.70	328.79	6.59	0.28	42.20
10	839.14	1258.70	0.94	49.12	0.00	0.13

Seccion = 182

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1957.870 Td (mT) = 1395.588

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	839.32	1258.99	0.00	109.00	0.01	0.00
2	839.32	1258.99	119.77	13.72	0.06	8.78
3	839.32	1258.99	116.35	8.60	0.06	13.63
4	839.32	1258.99	147.89	8.34	0.10	17.86
5	839.32	1258.99	200.83	5.51	0.18	36.67
6	839.32	1258.99	229.73	5.48	0.24	42.21
7	839.32	1258.99	186.93	5.48	0.16	34.36
8	839.32	1258.99	153.85	5.95	0.11	26.00
9	839.32	1258.99	153.85	5.95	0.11	26.00
10	839.32	1258.99	0.44	52.89	0.00	0.08

Seccion = 183

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1405.766 Td (mT) = 1272.111

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	805.34	1208.01	0.00	92.48	0.01	0.00
2	805.34	1208.01	70.10	11.99	0.04	6.20
3	805.34	1208.01	69.00	7.13	0.04	10.29
4	805.34	1208.01	85.43	7.29	0.06	12.44
5	805.34	1208.01	144.97	5.99	0.17	25.69
6	805.34	1208.01	157.61	5.99	0.20	27.93
7	805.34	1208.01	111.02	5.99	0.10	19.67
8	805.34	1208.01	80.30	6.08	0.05	14.02
9	805.34	1208.01	106.37	12.16	0.09	9.29
10	805.34	1208.01	0.55	104.82	0.01	0.05

Seccion = 184

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1291.880 Td (mT) = 1160.685

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	807.02	1210.52	0.00	84.38	0.00	0.00
2	807.02	1210.52	63.68	10.62	0.03	5.72
3	807.02	1210.52	62.68	6.31	0.03	9.49
4	807.02	1210.52	77.61	6.45	0.05	11.47
5	807.02	1210.52	131.69	5.30	0.14	23.70
6	807.02	1210.52	143.17	5.30	0.17	25.76
7	807.02	1210.52	100.85	5.30	0.08	18.14
8	807.02	1210.52	72.95	5.38	0.04	12.93
9	807.02	1210.52	96.63	10.77	0.08	8.57
10	807.02	1210.52	0.50	95.64	0.01	0.05

Seccion = 185

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1184.462 Td (mT) = 1051.567

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	809.73	1214.59	0.00	76.45	0.00	0.00
2	809.73	1214.59	57.67	9.30	0.03	5.27
3	809.73	1214.59	56.77	5.52	0.03	8.75
4	809.73	1214.59	70.28	5.65	0.04	10.58
5	809.73	1214.59	119.27	4.64	0.12	21.85
6	809.73	1214.59	129.67	4.64	0.14	23.75
7	809.73	1214.59	91.33	4.64	0.07	16.73
8	809.73	1214.59	66.06	4.71	0.04	11.92
9	809.73	1214.59	87.52	9.43	0.06	7.90
10	809.73	1214.59	0.45	86.65	0.01	0.05

Seccion = 186

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1079.654 Td (mT) = 954.122

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	835.02	1252.53	0.00	69.36	0.00	0.00
2	835.02	1252.53	51.48	7.77	0.02	5.07
3	835.02	1252.53	50.67	4.62	0.02	8.42
4	835.02	1252.53	62.74	4.72	0.03	10.18
5	835.02	1252.53	106.46	3.88	0.09	21.02
6	835.02	1252.53	115.74	3.88	0.11	22.85
7	835.02	1252.53	81.52	3.88	0.06	16.09
8	835.02	1252.53	58.97	3.94	0.03	11.47
9	835.02	1252.53	78.12	7.88	0.05	7.60
10	835.02	1252.53	0.40	78.62	0.00	0.04

Seccion = 187

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 942.317 Td (mT) = 859.999

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.46	1251.69	0.00	62.52	0.00	0.00
2	834.46	1251.69	41.53	6.27	0.02	4.42
3	834.46	1251.69	40.87	3.73	0.02	7.34
4	834.46	1251.69	50.61	3.81	0.02	8.87
5	834.46	1251.69	85.87	3.13	0.07	18.33
6	834.46	1251.69	93.36	3.13	0.08	19.92
7	834.46	1251.69	65.76	3.13	0.04	14.03
8	834.46	1251.69	47.57	3.18	0.02	10.00
9	834.46	1251.69	63.01	6.36	0.04	6.63
10	834.46	1251.69	0.33	70.86	0.00	0.04

Seccion = 188

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 813.251 Td (mT) = 772.835

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.40	1251.60	0.00	56.19	0.00	0.00
2	834.40	1251.60	32.23	4.84	0.01	3.82
3	834.40	1251.60	31.73	2.88	0.01	6.33
4	834.40	1251.60	39.28	2.94	0.02	7.66
5	834.40	1251.60	66.65	2.42	0.05	15.81
6	834.40	1251.60	72.46	2.42	0.06	17.19
7	834.40	1251.60	51.04	2.42	0.03	12.11
8	834.40	1251.60	36.92	2.45	0.02	8.63
9	834.40	1251.60	48.91	4.91	0.03	5.72
10	834.40	1251.60	0.25	63.68	0.00	0.03

Seccion = 189

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 690.425 Td (mT) = 690.386

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.15	1251.22	0.00	50.19	0.00	0.00
2	834.15	1251.22	23.14	3.34	0.01	3.24
3	834.15	1251.22	22.77	1.99	0.01	5.37
4	834.15	1251.22	28.19	2.03	0.01	6.50
5	834.15	1251.22	47.84	1.67	0.04	13.42
6	834.15	1251.22	52.02	1.67	0.05	14.59
7	834.15	1251.22	36.64	1.67	0.02	10.27
8	834.15	1251.22	26.50	1.69	0.01	7.32
9	834.15	1251.22	35.11	3.39	0.02	4.85
10	834.15	1251.22	0.18	56.89	0.00	0.03

Seccion = 190

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 573.878 Td (mT) = 616.769

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	833.57	1250.36	0.00	44.84	0.00	0.00
2	833.57	1250.36	14.51	1.77	0.01	2.69
3	833.57	1250.36	14.28	1.05	0.01	4.46
4	833.57	1250.36	17.68	1.07	0.01	5.39
5	833.57	1250.36	30.00	0.88	0.03	11.14
6	833.57	1250.36	32.62	0.88	0.03	12.11
7	833.57	1250.36	22.98	0.88	0.02	8.53
8	833.57	1250.36	16.62	0.90	0.01	6.08
9	833.57	1250.36	22.01	1.79	0.01	4.03
10	833.57	1250.36	0.11	50.82	0.00	0.02

Seccion = 191

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 464.682 Td (mT) = 571.765

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	832.59	1248.88	0.00	41.57	0.00	0.00
2	832.59	1248.88	13.28	0.37	0.00	2.17
3	832.59	1248.88	13.07	0.22	0.00	3.60
4	832.59	1248.88	16.19	0.23	0.01	4.36
5	832.59	1248.88	27.47	0.19	0.02	9.00
6	832.59	1248.88	29.86	0.19	0.02	9.78
7	832.59	1248.88	21.03	0.19	0.01	6.89
8	832.59	1248.88	15.21	0.19	0.01	4.91
9	832.59	1248.88	20.15	0.38	0.01	3.26
10	832.59	1248.88	0.10	47.11	0.00	0.02

Seccion = 192

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 570.216 Td (mT) = 618.578

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	831.15	1246.72	0.00	44.97	0.00	0.00
2	831.15	1246.72	21.57	2.10	0.01	2.66
3	831.15	1246.72	21.23	1.25	0.01	4.41
4	831.15	1246.72	26.29	1.28	0.01	5.33
5	831.15	1246.72	44.61	1.05	0.03	11.01
6	831.15	1246.72	48.49	1.05	0.03	11.97
7	831.15	1246.72	34.16	1.05	0.02	8.43
8	831.15	1246.72	24.71	1.07	0.01	6.01
9	831.15	1246.72	32.73	2.13	0.01	3.98
10	831.15	1246.72	0.17	50.97	0.00	0.02

Seccion = 193

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 681.945 Td (mT) = 679.205

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	829.21	1243.81	0.00	49.38	0.00	0.00
2	829.21	1243.81	29.43	3.56	0.01	3.16
3	829.21	1243.81	28.97	2.12	0.01	5.25
4	829.21	1243.81	35.87	2.16	0.01	6.35
5	829.21	1243.81	60.87	1.78	0.04	13.11
6	829.21	1243.81	66.18	1.78	0.05	14.26
7	829.21	1243.81	46.61	1.78	0.02	10.04
8	829.21	1243.81	33.72	1.81	0.01	7.15
9	829.21	1243.81	44.66	3.61	0.02	4.74
10	829.21	1243.81	0.23	55.97	0.00	0.03

Seccion = 194

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 797.704 Td (mT) = 760.094

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	826.80	1240.20	0.00	55.26	0.00	0.00
2	826.80	1240.20	32.94	5.01	0.01	3.68
3	826.80	1240.20	32.42	2.98	0.01	6.11
4	826.80	1240.20	40.14	3.04	0.02	7.39
5	826.80	1240.20	68.11	2.50	0.05	15.26
6	826.80	1240.20	74.05	2.50	0.06	16.59
7	826.80	1240.20	52.16	2.50	0.03	11.68
8	826.80	1240.20	37.73	2.54	0.02	8.33
9	826.80	1240.20	49.98	5.08	0.03	5.52
10	826.80	1240.20	0.26	62.63	0.00	0.03

Seccion = 195

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 912.612 Td (mT) = 851.995

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	824.00	1236.00	0.00	61.94	0.00	0.00
2	824.00	1236.00	40.40	6.45	0.02	4.19
3	824.00	1236.00	39.77	3.83	0.02	6.95
4	824.00	1236.00	49.24	3.92	0.02	8.40
5	824.00	1236.00	83.55	3.22	0.07	17.35
6	824.00	1236.00	90.84	3.22	0.08	18.86
7	824.00	1236.00	63.99	3.22	0.04	13.28
8	824.00	1236.00	46.28	3.27	0.02	9.47
9	824.00	1236.00	61.31	6.53	0.04	6.28
10	824.00	1236.00	0.32	70.20	0.00	0.04

Seccion = 196

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1030.959 Td (mT) = 953.163

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	820.95	1231.42	0.00	69.29	0.00	0.00
2	820.95	1231.42	48.09	7.89	0.02	4.70
3	820.95	1231.42	47.34	4.69	0.02	7.80
4	820.95	1231.42	58.61	4.79	0.03	9.43
5	820.95	1231.42	99.45	3.94	0.09	19.48
6	820.95	1231.42	108.12	3.94	0.11	21.17
7	820.95	1231.42	76.16	3.94	0.05	14.91
8	820.95	1231.42	55.09	4.00	0.03	10.63
9	820.95	1231.42	72.98	8.00	0.05	7.04
10	820.95	1231.42	0.38	78.54	0.00	0.04

Seccion = 197

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1147.245 Td (mT) = 1060.737

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	817.90	1226.86	0.00	77.12	0.00	0.00
2	817.90	1226.86	55.16	9.22	0.03	5.20
3	817.90	1226.86	54.29	5.48	0.03	8.62
4	817.90	1226.86	67.22	5.60	0.04	10.42
5	817.90	1226.86	114.06	4.60	0.11	21.53
6	817.90	1226.86	124.01	4.60	0.13	23.41
7	817.90	1226.86	87.35	4.60	0.07	16.48
8	817.90	1226.86	63.18	4.67	0.03	11.75
9	817.90	1226.86	83.70	9.34	0.06	7.79
10	817.90	1226.86	0.43	87.40	0.01	0.04

Seccion = 198

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1259.420 Td (mT) = 1178.454

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	813.56	1220.34	0.00	85.67	0.00	0.00
2	813.56	1220.34	61.13	10.39	0.03	5.65
3	813.56	1220.34	60.17	6.17	0.03	9.38
4	813.56	1220.34	74.49	6.31	0.05	11.34
5	813.56	1220.34	126.41	5.19	0.14	23.42
6	813.56	1220.34	137.43	5.19	0.16	25.46
7	813.56	1220.34	96.80	5.19	0.08	17.93
8	813.56	1220.34	70.02	5.26	0.04	12.78
9	813.56	1220.34	92.76	10.53	0.07	8.47
10	813.56	1220.34	0.48	97.10	0.01	0.05

Seccion = 199

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1381.681 Td (mT) = 1300.476

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	845.98	1268.98	0.00	101.57	0.01	0.00
2	845.98	1268.98	64.48	12.48	0.03	6.29
3	845.98	1268.98	62.64	7.83	0.03	9.76
4	845.98	1268.98	79.62	7.58	0.05	12.79
5	845.98	1268.98	108.12	5.01	0.09	26.26
6	845.98	1268.98	123.68	4.98	0.12	30.23
7	845.98	1268.98	100.64	4.98	0.08	24.61
8	845.98	1268.98	82.83	5.41	0.05	18.62
9	845.98	1268.98	82.83	5.41	0.05	18.62
10	845.98	1268.98	0.24	49.29	0.00	0.06

Seccion = 200

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 2989.227 Td (mT) = 1431.846

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	845.20	1267.81	0.00	111.83	0.01	0.00
2	845.20	1267.81	231.99	13.95	0.15	13.58
3	845.20	1267.81	225.37	8.75	0.14	21.08
4	845.20	1267.81	286.46	8.48	0.22	27.62
5	845.20	1267.81	389.00	5.60	0.41	56.72
6	845.20	1267.81	444.97	5.57	0.54	65.28
7	845.20	1267.81	362.08	5.57	0.36	53.14
8	845.20	1267.81	298.00	6.05	0.24	40.22
9	845.20	1267.81	298.00	6.05	0.24	40.22
10	845.20	1267.81	0.85	54.27	0.00	0.12

Seccion = 201

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 3177.348 Td (mT) = 1292.821

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	839.15	1258.73	0.00	100.97	0.01	0.00
2	839.15	1258.73	256.26	15.55	0.17	14.25
3	839.15	1258.73	248.95	9.75	0.16	22.11
4	839.15	1258.73	316.43	9.45	0.26	28.97
5	839.15	1258.73	429.70	6.25	0.48	59.49
6	839.15	1258.73	491.52	6.21	0.62	68.48
7	839.15	1258.73	399.96	6.21	0.41	55.74
8	839.15	1258.73	329.17	6.74	0.28	42.18
9	839.15	1258.73	329.17	6.74	0.28	42.18
10	839.15	1258.73	0.94	49.00	0.00	0.13

Seccion = 202

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1956.303 Td (mT) = 1391.840

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	839.34	1259.01	0.00	108.70	0.01	0.00
2	839.34	1259.01	120.05	14.30	0.06	8.78
3	839.34	1259.01	116.62	8.96	0.06	13.62
4	839.34	1259.01	148.23	8.69	0.10	17.84
5	839.34	1259.01	201.29	5.74	0.18	36.65
6	839.34	1259.01	230.25	5.71	0.24	42.18
7	839.34	1259.01	187.36	5.71	0.16	34.33
8	839.34	1259.01	154.20	6.20	0.11	25.98
9	839.34	1259.01	154.20	6.20	0.11	25.98
10	839.34	1259.01	0.44	52.75	0.00	0.08

Seccion = 203

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1404.183 Td (mT) = 1270.247

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	805.34	1208.02	0.00	92.35	0.01	0.00
2	805.34	1208.02	70.50	11.92	0.04	6.19
3	805.34	1208.02	69.39	7.08	0.04	10.28
4	805.34	1208.02	85.91	7.24	0.06	12.42
5	805.34	1208.02	145.79	5.95	0.17	25.67
6	805.34	1208.02	158.50	5.95	0.20	27.90
7	805.34	1208.02	111.64	5.95	0.10	19.65
8	805.34	1208.02	80.75	6.04	0.05	14.00
9	805.34	1208.02	106.98	12.08	0.09	9.28
10	805.34	1208.02	0.55	104.67	0.01	0.05

Seccion = 204

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1290.361 Td (mT) = 1158.343

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	807.01	1210.52	0.00	84.21	0.00	0.00
2	807.01	1210.52	64.00	10.84	0.03	5.71
3	807.01	1210.52	62.99	6.44	0.03	9.48
4	807.01	1210.52	77.99	6.59	0.05	11.46
5	807.01	1210.52	132.34	5.41	0.14	23.67
6	807.01	1210.52	143.88	5.41	0.17	25.73
7	807.01	1210.52	101.35	5.41	0.08	18.12
8	807.01	1210.52	73.31	5.49	0.04	12.91
9	807.01	1210.52	97.11	10.99	0.08	8.56
10	807.01	1210.52	0.50	95.45	0.01	0.05

Seccion = 205

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1182.821 Td (mT) = 1049.167

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	809.72	1214.59	0.00	76.27	0.00	0.00
2	809.72	1214.59	58.10	9.48	0.03	5.27
3	809.72	1214.59	57.19	5.63	0.03	8.74
4	809.72	1214.59	70.80	5.76	0.04	10.56
5	809.72	1214.59	120.14	4.73	0.12	21.82
6	809.72	1214.59	130.61	4.73	0.14	23.72
7	809.72	1214.59	92.00	4.73	0.07	16.70
8	809.72	1214.59	66.55	4.80	0.04	11.91
9	809.72	1214.59	88.16	9.61	0.06	7.89
10	809.72	1214.59	0.46	86.45	0.01	0.05

Seccion = 206

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1078.095 Td (mT) = 954.753

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	835.02	1252.53	0.00	69.41	0.00	0.00
2	835.02	1252.53	51.80	7.78	0.02	5.07
3	835.02	1252.53	50.99	4.62	0.02	8.41
4	835.02	1252.53	63.12	4.73	0.03	10.16
5	835.02	1252.53	107.12	3.88	0.09	20.99
6	835.02	1252.53	116.46	3.88	0.11	22.82
7	835.02	1252.53	82.03	3.88	0.06	16.07
8	835.02	1252.53	59.33	3.94	0.03	11.45
9	835.02	1252.53	78.60	7.88	0.05	7.59
10	835.02	1252.53	0.41	78.67	0.00	0.04

Seccion = 207

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 940.812 Td (mT) = 859.388

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.47	1251.70	0.00	62.48	0.00	0.00
2	834.47	1251.70	41.90	6.32	0.02	4.42
3	834.47	1251.70	41.24	3.75	0.02	7.33
4	834.47	1251.70	51.06	3.84	0.02	8.86
5	834.47	1251.70	86.64	3.16	0.07	18.30
6	834.47	1251.70	94.20	3.16	0.08	19.89
7	834.47	1251.70	66.35	3.16	0.04	14.01
8	834.47	1251.70	47.99	3.20	0.02	9.98
9	834.47	1251.70	63.58	6.41	0.04	6.62
10	834.47	1251.70	0.33	70.81	0.00	0.04

Seccion = 208

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 811.923 Td (mT) = 772.134

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.42	1251.63	0.00	56.13	0.00	0.00
2	834.42	1251.63	32.62	4.90	0.01	3.81
3	834.42	1251.63	32.11	2.91	0.01	6.32
4	834.42	1251.63	39.75	2.98	0.02	7.64
5	834.42	1251.63	67.46	2.45	0.05	15.79
6	834.42	1251.63	73.34	2.45	0.06	17.17
7	834.42	1251.63	51.66	2.45	0.03	12.09
8	834.42	1251.63	37.36	2.48	0.02	8.62
9	834.42	1251.63	49.50	4.97	0.03	5.71
10	834.42	1251.63	0.26	63.62	0.00	0.03

Seccion = 209

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos

Vd (T) = 688.796 Td (mT) = 691.268

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.18	1251.27	0.00	50.26	0.00	0.00
2	834.18	1251.27	23.44	3.25	0.01	3.23
3	834.18	1251.27	23.07	1.93	0.01	5.36
4	834.18	1251.27	28.56	1.98	0.01	6.48
5	834.18	1251.27	48.46	1.62	0.04	13.39
6	834.18	1251.27	52.69	1.62	0.05	14.55
7	834.18	1251.27	37.11	1.62	0.02	10.25
8	834.18	1251.27	26.85	1.65	0.01	7.30
9	834.18	1251.27	35.56	3.30	0.02	4.84
10	834.18	1251.27	0.18	56.96	0.00	0.03

Seccion = 210

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 572.054 Td (mT) = 616.154

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	833.61	1250.42	0.00	44.79	0.00	0.00
2	833.61	1250.42	14.82	1.84	0.01	2.68
3	833.61	1250.42	14.58	1.09	0.01	4.45
4	833.61	1250.42	18.06	1.12	0.01	5.38
5	833.61	1250.42	30.64	0.92	0.03	11.11
6	833.61	1250.42	33.31	0.92	0.03	12.07
7	833.61	1250.42	23.46	0.92	0.02	8.50
8	833.61	1250.42	16.97	0.93	0.01	6.06
9	833.61	1250.42	22.48	1.86	0.01	4.02
10	833.61	1250.42	0.12	50.77	0.00	0.02

Seccion = 211

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 462.928 Td (mT) = 571.302

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	832.64	1248.96	0.00	41.53	0.00	0.00
2	832.64	1248.96	13.16	0.28	0.00	2.16
3	832.64	1248.96	12.95	0.16	0.00	3.59
4	832.64	1248.96	16.03	0.17	0.01	4.34
5	832.64	1248.96	27.21	0.14	0.02	8.97
6	832.64	1248.96	29.58	0.14	0.02	9.75
7	832.64	1248.96	20.83	0.14	0.01	6.87
8	832.64	1248.96	15.07	0.14	0.01	4.89
9	832.64	1248.96	19.96	0.28	0.01	3.24
10	832.64	1248.96	0.10	47.08	0.00	0.02

Seccion = 212

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 565.121 Td (mT) = 619.184

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	831.20	1246.81	0.00	45.01	0.00	0.00
2	831.20	1246.81	21.46	1.95	0.01	2.63
3	831.20	1246.81	21.12	1.16	0.01	4.37
4	831.20	1246.81	26.15	1.19	0.01	5.28
5	831.20	1246.81	44.37	0.97	0.03	10.91
6	831.20	1246.81	48.24	0.97	0.03	11.86
7	831.20	1246.81	33.98	0.97	0.02	8.35
8	831.20	1246.81	24.58	0.99	0.01	5.95
9	831.20	1246.81	32.56	1.98	0.01	3.95
10	831.20	1246.81	0.17	51.02	0.00	0.02

Seccion = 213

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 676.884 Td (mT) = 679.414

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	829.27	1243.90	0.00	49.39	0.00	0.00
2	829.27	1243.90	29.33	3.57	0.01	3.14
3	829.27	1243.90	28.87	2.12	0.01	5.21
4	829.27	1243.90	35.74	2.17	0.01	6.30
5	829.27	1243.90	60.65	1.78	0.04	13.02
6	829.27	1243.90	65.94	1.78	0.04	14.15
7	829.27	1243.90	46.45	1.78	0.02	9.97
8	829.27	1243.90	33.60	1.81	0.01	7.10
9	829.27	1243.90	44.51	3.62	0.02	4.71
10	829.27	1243.90	0.23	55.98	0.00	0.03

Seccion = 214

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 792.571 Td (mT) = 759.711

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	826.87	1240.30	0.00	55.23	0.00	0.00
2	826.87	1240.30	32.82	5.03	0.01	3.66
3	826.87	1240.30	32.31	2.99	0.01	6.07
4	826.87	1240.30	40.00	3.05	0.02	7.34
5	826.87	1240.30	67.88	2.51	0.05	15.16
6	826.87	1240.30	73.80	2.51	0.06	16.48
7	826.87	1240.30	51.98	2.51	0.03	11.61
8	826.87	1240.30	37.60	2.55	0.02	8.27
9	826.87	1240.30	49.81	5.10	0.03	5.48
10	826.87	1240.30	0.26	62.60	0.00	0.03

Seccion = 215

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 907.649 Td (mT) = 851.853

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	824.07	1236.10	0.00	61.93	0.00	0.00
2	824.07	1236.10	40.31	6.47	0.02	4.17
3	824.07	1236.10	39.68	3.84	0.02	6.91
4	824.07	1236.10	49.12	3.93	0.02	8.36
5	824.07	1236.10	83.36	3.23	0.07	17.26
6	824.07	1236.10	90.63	3.23	0.08	18.76
7	824.07	1236.10	63.84	3.23	0.04	13.21
8	824.07	1236.10	46.17	3.28	0.02	9.42
9	824.07	1236.10	61.17	6.56	0.04	6.24
10	824.07	1236.10	0.32	70.19	0.00	0.04

Seccion = 216

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1026.008 Td (mT) = 953.286

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	821.00	1231.50	0.00	69.30	0.00	0.00
2	821.00	1231.50	47.64	7.91	0.02	4.68
3	821.00	1231.50	46.89	4.70	0.02	7.76
4	821.00	1231.50	58.06	4.81	0.03	9.38
5	821.00	1231.50	98.52	3.95	0.09	19.38
6	821.00	1231.50	107.11	3.95	0.10	21.07
7	821.00	1231.50	75.44	3.95	0.05	14.84
8	821.00	1231.50	54.57	4.01	0.03	10.58
9	821.00	1231.50	72.29	8.02	0.05	7.01
10	821.00	1231.50	0.37	78.55	0.00	0.04

Seccion = 217

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1142.293 Td (mT) = 1060.944

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	817.95	1226.92	0.00	77.13	0.00	0.00
2	817.95	1226.92	54.86	9.09	0.03	5.17
3	817.95	1226.92	54.00	5.40	0.02	8.59
4	817.95	1226.92	66.86	5.52	0.04	10.38
5	817.95	1226.92	113.45	4.54	0.11	21.44
6	817.95	1226.92	123.34	4.54	0.13	23.31
7	817.95	1226.92	86.88	4.54	0.06	16.41
8	817.95	1226.92	62.84	4.61	0.03	11.70
9	817.95	1226.92	83.25	9.21	0.06	7.76
10	817.95	1226.92	0.43	87.42	0.01	0.04

Seccion = 218

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1254.277 Td (mT) = 1177.941

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	813.58	1220.37	0.00	85.64	0.00	0.00
2	813.58	1220.37	60.77	10.53	0.03	5.63
3	813.58	1220.37	59.82	6.25	0.03	9.34
4	813.58	1220.37	74.06	6.40	0.05	11.29
5	813.58	1220.37	125.67	5.26	0.13	23.33
6	813.58	1220.37	136.63	5.26	0.16	25.36
7	813.58	1220.37	96.24	5.26	0.08	17.86
8	813.58	1220.37	69.61	5.34	0.04	12.73
9	813.58	1220.37	92.22	10.67	0.07	8.44
10	813.58	1220.37	0.48	97.06	0.01	0.05

Seccion = 219

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 2658.752 Td (mT) = 1300.028

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	845.96	1268.94	0.00	101.53	0.01	0.00
2	845.96	1268.94	203.39	12.62	0.12	12.10
3	845.96	1268.94	197.59	7.91	0.11	18.78
4	845.96	1268.94	251.15	7.67	0.18	24.61
5	845.96	1268.94	341.05	5.07	0.33	50.54
6	845.96	1268.94	390.12	5.04	0.43	58.16
7	845.96	1268.94	317.45	5.04	0.28	47.35
8	845.96	1268.94	261.26	5.47	0.19	35.83
9	845.96	1268.94	261.26	5.47	0.19	35.83
10	845.96	1268.94	0.75	49.27	0.00	0.11

Seccion = 220

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 2984.073 Td (mT) = 1432.547

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	845.15	1267.73	0.00	111.88	0.01	0.00
2	845.15	1267.73	231.67	13.60	0.15	13.56
3	845.15	1267.73	225.06	8.53	0.14	21.04
4	845.15	1267.73	286.07	8.26	0.22	27.57
5	845.15	1267.73	388.46	5.46	0.41	56.62
6	845.15	1267.73	444.35	5.43	0.54	65.17
7	845.15	1267.73	361.58	5.43	0.36	53.04
8	845.15	1267.73	297.59	5.90	0.24	40.14
9	845.15	1267.73	297.59	5.90	0.24	40.14
10	845.15	1267.73	0.85	54.29	0.00	0.12

Seccion = 221

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 3158.494 Td (mT) = 1292.884

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	839.09	1258.64	0.00	100.97	0.01	0.00
2	839.09	1258.64	255.56	15.18	0.17	14.16
3	839.09	1258.64	248.27	9.52	0.16	21.97
4	839.09	1258.64	315.57	9.22	0.25	28.79
5	839.09	1258.64	428.53	6.10	0.47	59.13
6	839.09	1258.64	490.19	6.06	0.61	68.06
7	839.09	1258.64	398.88	6.06	0.41	55.40
8	839.09	1258.64	328.28	6.58	0.28	41.93
9	839.09	1258.64	328.28	6.58	0.28	41.93
10	839.09	1258.64	0.94	49.00	0.00	0.13

Seccion = 222

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1937.158 Td (mT) = 1391.883

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	839.29	1258.94	0.00	108.71	0.01	0.00
2	839.29	1258.94	119.35	14.01	0.06	8.69
3	839.29	1258.94	115.94	8.79	0.06	13.48
4	839.29	1258.94	147.37	8.51	0.10	17.67
5	839.29	1258.94	200.12	5.63	0.18	36.28
6	839.29	1258.94	228.91	5.60	0.23	41.76
7	839.29	1258.94	186.27	5.60	0.15	33.99
8	839.29	1258.94	153.30	6.08	0.10	25.73
9	839.29	1258.94	153.30	6.08	0.10	25.73
10	839.29	1258.94	0.44	52.75	0.00	0.08

Seccion = 223

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1385.276 Td (mT) = 1269.545

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	805.34	1208.00	0.00	92.30	0.01	0.00
2	805.34	1208.00	69.76	11.87	0.04	6.11
3	805.34	1208.00	68.66	7.05	0.04	10.14
4	805.34	1208.00	85.01	7.21	0.06	12.26
5	805.34	1208.00	144.25	5.93	0.17	25.32
6	805.34	1208.00	156.83	5.93	0.20	27.53
7	805.34	1208.00	110.47	5.93	0.10	19.38
8	805.34	1208.00	79.90	6.02	0.05	13.82
9	805.34	1208.00	105.85	12.03	0.09	9.16
10	805.34	1208.00	0.55	104.61	0.01	0.05

Seccion = 224

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1271.355 Td (mT) = 1157.690

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	807.02	1210.53	0.00	84.16	0.00	0.00
2	807.02	1210.53	63.30	10.75	0.03	5.63
3	807.02	1210.53	62.31	6.38	0.03	9.34
4	807.02	1210.53	77.14	6.53	0.05	11.29
5	807.02	1210.53	130.90	5.37	0.14	23.32
6	807.02	1210.53	142.31	5.37	0.17	25.35
7	807.02	1210.53	100.24	5.37	0.08	17.85
8	807.02	1210.53	72.51	5.45	0.04	12.72
9	807.02	1210.53	96.05	10.89	0.08	8.43
10	807.02	1210.53	0.50	95.39	0.01	0.05

Seccion = 225

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1163.995 Td (mT) = 1048.536

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	809.73	1214.59	0.00	76.23	0.00	0.00
2	809.73	1214.59	57.36	9.39	0.03	5.18
3	809.73	1214.59	56.46	5.58	0.03	8.60
4	809.73	1214.59	69.90	5.70	0.04	10.39
5	809.73	1214.59	118.62	4.69	0.12	21.47
6	809.73	1214.59	128.96	4.69	0.14	23.34
7	809.73	1214.59	90.84	4.69	0.07	16.44
8	809.73	1214.59	65.71	4.76	0.04	11.72
9	809.73	1214.59	87.04	9.51	0.06	7.77
10	809.73	1214.59	0.45	86.40	0.01	0.04

Seccion = 226

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1059.146 Td (mT) = 955.209

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	835.01	1252.52	0.00	69.44	0.00	0.00
2	835.01	1252.52	51.05	7.62	0.02	4.98
3	835.01	1252.52	50.25	4.53	0.02	8.26
4	835.01	1252.52	62.21	4.63	0.03	9.98
5	835.01	1252.52	105.57	3.81	0.09	20.62
6	835.01	1252.52	114.78	3.81	0.11	22.42
7	835.01	1252.52	80.85	3.81	0.05	15.79
8	835.01	1252.52	58.48	3.86	0.03	11.25
9	835.01	1252.52	77.47	7.72	0.05	7.46
10	835.01	1252.52	0.40	78.71	0.00	0.04

Seccion = 227

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 921.744 Td (mT) = 858.963

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.43	1251.64	0.00	62.45	0.00	0.00
2	834.43	1251.64	41.14	6.20	0.02	4.33
3	834.43	1251.64	40.50	3.68	0.02	7.18
4	834.43	1251.64	50.14	3.77	0.02	8.68
5	834.43	1251.64	85.08	3.09	0.07	17.93
6	834.43	1251.64	92.50	3.09	0.08	19.49
7	834.43	1251.64	65.16	3.09	0.04	13.72
8	834.43	1251.64	47.13	3.14	0.02	9.78
9	834.43	1251.64	62.43	6.28	0.04	6.48
10	834.43	1251.64	0.32	70.78	0.00	0.04

Seccion = 228

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 792.797 Td (mT) = 773.161

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.35	1251.52	0.00	56.21	0.00	0.00
2	834.35	1251.52	31.81	4.68	0.01	3.72
3	834.35	1251.52	31.31	2.78	0.01	6.17
4	834.35	1251.52	38.76	2.85	0.02	7.46
5	834.35	1251.52	65.77	2.34	0.05	15.41
6	834.35	1251.52	71.51	2.34	0.06	16.76
7	834.35	1251.52	50.37	2.34	0.03	11.80
8	834.35	1251.52	36.43	2.37	0.02	8.41
9	834.35	1251.52	48.26	4.75	0.03	5.58
10	834.35	1251.52	0.25	63.71	0.00	0.03

Seccion = 229

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 669.819 Td (mT) = 690.504

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	834.07	1251.11	0.00	50.20	0.00	0.00
2	834.07	1251.11	22.84	3.20	0.01	3.14
3	834.07	1251.11	22.48	1.90	0.01	5.21
4	834.07	1251.11	27.83	1.94	0.01	6.30
5	834.07	1251.11	47.23	1.60	0.04	13.02
6	834.07	1251.11	51.35	1.60	0.04	14.15
7	834.07	1251.11	36.17	1.60	0.02	9.96
8	834.07	1251.11	26.16	1.62	0.01	7.10
9	834.07	1251.11	34.66	3.24	0.02	4.71
10	834.07	1251.11	0.18	56.90	0.00	0.03

Seccion = 230

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 553.413 Td (mT) = 616.658

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	833.47	1250.21	0.00	44.83	0.00	0.00
2	833.47	1250.21	14.09	1.65	0.01	2.59
3	833.47	1250.21	13.87	0.98	0.01	4.30
4	833.47	1250.21	17.17	1.00	0.01	5.20
5	833.47	1250.21	29.13	0.83	0.02	10.74
6	833.47	1250.21	31.67	0.83	0.03	11.68
7	833.47	1250.21	22.31	0.83	0.01	8.22
8	833.47	1250.21	16.14	0.84	0.01	5.86
9	833.47	1250.21	21.38	1.67	0.01	3.88
10	833.47	1250.21	0.11	50.81	0.00	0.02

Seccion = 231

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 451.254 Td (mT) = 572.129

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	832.47	1248.70	0.00	41.59	0.00	0.00
2	832.47	1248.70	57.83	46.51	0.01	2.11
3	832.47	1248.70	56.93	27.63	0.01	3.50
4	832.47	1248.70	70.48	28.26	0.01	4.23
5	832.47	1248.70	119.60	23.23	0.02	8.74
6	832.47	1248.70	130.03	23.23	0.02	9.50
7	832.47	1248.70	91.59	23.23	0.01	6.69
8	832.47	1248.70	66.25	23.57	0.01	4.77
9	832.47	1248.70	87.76	47.14	0.01	3.16
10	832.47	1248.70	0.45	47.14	0.00	0.02

Seccion = 232

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 559.658 Td (mT) = 617.678

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	831.00	1246.50	0.00	44.91	0.00	0.00
2	831.00	1246.50	21.90	2.04	0.01	2.61
3	831.00	1246.50	21.56	1.21	0.01	4.33
4	831.00	1246.50	26.69	1.24	0.01	5.23
5	831.00	1246.50	45.29	1.02	0.03	10.80
6	831.00	1246.50	49.24	1.02	0.03	11.74
7	831.00	1246.50	34.69	1.02	0.01	8.27
8	831.00	1246.50	25.09	1.03	0.01	5.89
9	831.00	1246.50	33.24	2.07	0.01	3.91
10	831.00	1246.50	0.17	50.90	0.00	0.02

Seccion = 233

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 671.116 Td (mT) = 678.383

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	829.05	1243.57	0.00	49.32	0.00	0.00
2	829.05	1243.57	29.75	3.60	0.01	3.11
3	829.05	1243.57	29.28	2.14	0.01	5.17
4	829.05	1243.57	36.25	2.19	0.01	6.24
5	829.05	1243.57	61.51	1.80	0.04	12.90
6	829.05	1243.57	66.88	1.80	0.04	14.02
7	829.05	1243.57	47.11	1.80	0.02	9.88
8	829.05	1243.57	34.07	1.82	0.01	7.04
9	829.05	1243.57	45.14	3.65	0.02	4.67
10	829.05	1243.57	0.23	55.90	0.00	0.03

Seccion = 234

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 786.656 Td (mT) = 758.531

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	826.64	1239.95	0.00	55.15	0.00	0.00
2	826.64	1239.95	33.21	5.08	0.01	3.63
3	826.64	1239.95	32.69	3.02	0.01	6.02
4	826.64	1239.95	40.47	3.09	0.02	7.28
5	826.64	1239.95	68.68	2.54	0.05	15.04
6	826.64	1239.95	74.67	2.54	0.06	16.35
7	826.64	1239.95	52.59	2.54	0.03	11.52
8	826.64	1239.95	38.04	2.57	0.02	8.21
9	826.64	1239.95	50.39	5.15	0.03	5.44
10	826.64	1239.95	0.26	62.50	0.00	0.03

Seccion = 235

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 901.478 Td (mT) = 850.408

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	823.84	1235.76	0.00	61.82	0.00	0.00
2	823.84	1235.76	40.67	6.54	0.02	4.14
3	823.84	1235.76	40.03	3.89	0.02	6.86
4	823.84	1235.76	49.56	3.98	0.02	8.30
5	823.84	1235.76	84.10	3.27	0.07	17.14
6	823.84	1235.76	91.43	3.27	0.08	18.63
7	823.84	1235.76	64.40	3.27	0.04	13.12
8	823.84	1235.76	46.58	3.32	0.02	9.35
9	823.84	1235.76	61.71	6.63	0.04	6.20
10	823.84	1235.76	0.32	70.07	0.00	0.04

Seccion = 236

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1019.738 Td (mT) = 951.922

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	820.80	1231.20	0.00	69.20	0.00	0.00
2	820.80	1231.20	47.99	8.01	0.02	4.65
3	820.80	1231.20	47.23	4.76	0.02	7.71
4	820.80	1231.20	58.48	4.87	0.03	9.32
5	820.80	1231.20	99.23	4.00	0.09	19.26
6	820.80	1231.20	107.89	4.00	0.10	20.94
7	820.80	1231.20	75.99	4.00	0.05	14.74
8	820.80	1231.20	54.97	4.06	0.03	10.51
9	820.80	1231.20	72.82	8.12	0.05	6.97
10	820.80	1231.20	0.38	78.44	0.00	0.04

Seccion = 237

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1136.209 Td (mT) = 1059.640

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	817.80	1226.70	0.00	77.04	0.00	0.00
2	817.80	1226.70	54.92	9.24	0.03	5.15
3	817.80	1226.70	54.06	5.49	0.02	8.54
4	817.80	1226.70	66.92	5.62	0.04	10.32
5	817.80	1226.70	113.56	4.62	0.11	21.32
6	817.80	1226.70	123.47	4.62	0.13	23.18
7	817.80	1226.70	86.97	4.62	0.06	16.32
8	817.80	1226.70	62.90	4.68	0.03	11.63
9	817.80	1226.70	83.33	9.37	0.06	7.71
10	817.80	1226.70	0.43	87.31	0.01	0.04

Seccion = 238

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1248.741 Td (mT) = 1177.294

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	813.52	1220.28	0.00	85.59	0.00	0.00
2	813.52	1220.28	60.88	10.43	0.03	5.60
3	813.52	1220.28	59.93	6.20	0.03	9.30
4	813.52	1220.28	74.20	6.34	0.05	11.24
5	813.52	1220.28	125.91	5.21	0.13	23.22
6	813.52	1220.28	136.88	5.21	0.16	25.24
7	813.52	1220.28	96.42	5.21	0.08	17.78
8	813.52	1220.28	69.74	5.29	0.04	12.67
9	813.52	1220.28	92.39	10.58	0.07	8.40
10	813.52	1220.28	0.48	97.01	0.01	0.05

Seccion = 239

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 2653.613 Td (mT) = 1299.125

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	846.04	1269.06	0.00	101.46	0.01	0.00
2	846.04	1269.06	203.52	12.73	0.12	12.08
3	846.04	1269.06	197.71	7.98	0.11	18.74
4	846.04	1269.06	251.31	7.73	0.18	24.56
5	846.04	1269.06	341.26	5.11	0.33	50.45
6	846.04	1269.06	390.36	5.08	0.43	58.06
7	846.04	1269.06	317.65	5.08	0.28	47.26
8	846.04	1269.06	261.42	5.52	0.19	35.77
9	846.04	1269.06	261.42	5.52	0.19	35.77
10	846.04	1269.06	0.75	49.24	0.00	0.11

Seccion = 240

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 2978.862 Td (mT) = 1431.130

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	845.33	1268.00	0.00	111.77	0.01	0.00
2	845.33	1268.00	231.77	13.92	0.15	13.54
3	845.33	1268.00	225.15	8.73	0.14	21.01
4	845.33	1268.00	286.19	8.46	0.22	27.53
5	845.33	1268.00	388.63	5.59	0.41	56.54
6	845.33	1268.00	444.54	5.56	0.54	65.08
7	845.33	1268.00	361.74	5.56	0.36	52.97
8	845.33	1268.00	297.71	6.04	0.24	40.09
9	845.33	1268.00	297.71	6.04	0.24	40.09
10	845.33	1268.00	0.85	54.24	0.00	0.12

Seccion = 241

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 3141.196 Td (mT) = 1277.654

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	839.31	1258.97	0.00	99.78	0.01	0.00
2	839.31	1258.97	257.99	14.72	0.17	14.09
3	839.31	1258.97	250.63	9.23	0.16	21.86
4	839.31	1258.97	318.57	8.95	0.25	28.65
5	839.31	1258.97	432.60	5.91	0.46	58.84
6	839.31	1258.97	494.85	5.88	0.61	67.72
7	839.31	1258.97	402.67	5.88	0.40	55.12
8	839.31	1258.97	331.40	6.38	0.27	41.72
9	839.31	1258.97	331.40	6.38	0.27	41.72
10	839.31	1258.97	0.95	48.42	0.00	0.13

Seccion = 242

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1920.341 Td (mT) = 1376.208

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	839.45	1259.18	0.00	107.48	0.01	0.00
2	839.45	1259.18	121.83	13.67	0.06	8.62
3	839.45	1259.18	118.36	8.57	0.06	13.37
4	839.45	1259.18	150.44	8.31	0.09	17.52
5	839.45	1259.18	204.29	5.49	0.17	35.98
6	839.45	1259.18	233.68	5.46	0.23	41.41
7	839.45	1259.18	190.16	5.46	0.15	33.71
8	839.45	1259.18	156.50	5.93	0.10	25.51
9	839.45	1259.18	156.50	5.93	0.10	25.51
10	839.45	1259.18	0.45	52.16	0.00	0.08

Seccion = 243

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1367.470 Td (mT) = 1254.017

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	805.37	1208.05	0.00	91.17	0.01	0.00
2	805.37	1208.05	72.31	11.48	0.04	6.03
3	805.37	1208.05	71.17	6.82	0.04	10.01
4	805.37	1208.05	88.12	6.98	0.06	12.10
5	805.37	1208.05	149.53	5.73	0.16	25.00
6	805.37	1208.05	162.57	5.73	0.19	27.17
7	805.37	1208.05	114.51	5.73	0.10	19.14
8	805.37	1208.05	82.83	5.82	0.05	13.64
9	805.37	1208.05	109.72	11.64	0.09	9.04
10	805.37	1208.05	0.57	103.33	0.01	0.05

Seccion = 244

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1253.081 Td (mT) = 1142.157

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	806.99	1210.49	0.00	83.03	0.00	0.00
2	806.99	1210.49	65.75	10.34	0.03	5.55
3	806.99	1210.49	64.72	6.15	0.03	9.20
4	806.99	1210.49	80.12	6.29	0.05	11.13
5	806.99	1210.49	135.96	5.17	0.14	22.98
6	806.99	1210.49	147.81	5.17	0.16	24.99
7	806.99	1210.49	104.12	5.17	0.08	17.59
8	806.99	1210.49	75.31	5.24	0.04	12.54
9	806.99	1210.49	99.76	10.48	0.07	8.31
10	806.99	1210.49	0.52	94.11	0.01	0.05

Seccion = 245

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1145.856 Td (mT) = 1033.071

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	809.70	1214.55	0.00	75.10	0.00	0.00
2	809.70	1214.55	59.74	9.02	0.03	5.10
3	809.70	1214.55	58.80	5.36	0.03	8.46
4	809.70	1214.55	72.80	5.48	0.04	10.23
5	809.70	1214.55	123.53	4.50	0.11	21.14
6	809.70	1214.55	134.31	4.50	0.13	22.98
7	809.70	1214.55	94.60	4.50	0.07	16.18
8	809.70	1214.55	68.43	4.57	0.03	11.53
9	809.70	1214.55	90.65	9.14	0.06	7.64
10	809.70	1214.55	0.47	85.13	0.00	0.04

Seccion = 246

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1036.536 Td (mT) = 935.671

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	833.93	1250.89	0.00	68.02	0.00	0.00
2	833.93	1250.89	53.03	7.50	0.02	4.86
3	833.93	1250.89	52.20	4.45	0.02	8.06
4	833.93	1250.89	64.62	4.56	0.03	9.75
5	833.93	1250.89	109.66	3.74	0.09	20.14
6	833.93	1250.89	119.22	3.74	0.10	21.89
7	833.93	1250.89	83.98	3.74	0.05	15.42
8	833.93	1250.89	60.74	3.80	0.03	10.99
9	833.93	1250.89	80.47	7.60	0.05	7.28
10	833.93	1250.89	0.42	77.10	0.00	0.04

Seccion = 247

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 900.870 Td (mT) = 841.229

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	833.48	1250.22	0.00	61.16	0.00	0.00
2	833.48	1250.22	43.25	6.01	0.02	4.22
3	833.48	1250.22	42.57	3.57	0.01	7.00
4	833.48	1250.22	52.70	3.65	0.02	8.46
5	833.48	1250.22	89.44	3.00	0.07	17.48
6	833.48	1250.22	97.23	3.00	0.08	19.01
7	833.48	1250.22	68.49	3.00	0.04	13.38
8	833.48	1250.22	49.54	3.05	0.02	9.54
9	833.48	1250.22	65.63	6.10	0.04	6.32
10	833.48	1250.22	0.34	69.32	0.00	0.04

Seccion = 248

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 773.414 Td (mT) = 753.915

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	833.52	1250.29	0.00	54.81	0.00	0.00
2	833.52	1250.29	34.11	4.60	0.01	3.62
3	833.52	1250.29	33.58	2.73	0.01	6.01
4	833.52	1250.29	41.57	2.79	0.02	7.27
5	833.52	1250.29	70.54	2.30	0.05	15.01
6	833.52	1250.29	76.69	2.30	0.06	16.32
7	833.52	1250.29	54.02	2.30	0.03	11.49
8	833.52	1250.29	39.07	2.33	0.01	8.19
9	833.52	1250.29	51.76	4.66	0.03	5.43
10	833.52	1250.29	0.27	62.12	0.00	0.03

Seccion = 249

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 652.019 Td (mT) = 671.174

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	833.37	1250.06	0.00	48.79	0.00	0.00
2	833.37	1250.06	25.29	3.13	0.01	3.05
3	833.37	1250.06	24.89	1.86	0.01	5.07
4	833.37	1250.06	30.82	1.90	0.01	6.12
5	833.37	1250.06	52.30	1.56	0.03	12.65
6	833.37	1250.06	56.86	1.56	0.04	13.75
7	833.37	1250.06	40.05	1.56	0.02	9.68
8	833.37	1250.06	28.97	1.59	0.01	6.90
9	833.37	1250.06	38.37	3.17	0.02	4.58
10	833.37	1250.06	0.20	55.30	0.00	0.03

Seccion = 250

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 536.815 Td (mT) = 609.261

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	832.89	1249.34	0.00	44.29	0.00	0.00
2	832.89	1249.34	73.11	49.53	0.01	2.51
3	832.89	1249.34	71.96	29.43	0.01	4.17
4	832.89	1249.34	89.09	30.10	0.01	5.04
5	832.89	1249.34	151.18	24.74	0.03	10.40
6	832.89	1249.34	164.36	24.74	0.04	11.31
7	832.89	1249.34	115.77	24.74	0.02	7.97
8	832.89	1249.34	83.74	25.10	0.01	5.68
9	832.89	1249.34	110.93	50.20	0.02	3.76
10	832.89	1249.34	0.57	50.20	0.00	0.02

Seccion = 251

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 428.948 Td (mT) = 566.773

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	831.99	1247.99	0.00	41.20	0.00	0.00
2	831.99	1247.99	12.06	0.07	0.00	2.00
3	831.99	1247.99	11.87	0.04	0.00	3.32
4	831.99	1247.99	14.70	0.04	0.01	4.02
5	831.99	1247.99	24.94	0.03	0.01	8.30
6	831.99	1247.99	27.11	0.03	0.02	9.02
7	831.99	1247.99	19.10	0.03	0.01	6.35
8	831.99	1247.99	13.81	0.03	0.00	4.53
9	831.99	1247.99	18.30	0.07	0.01	3.00
10	831.99	1247.99	0.09	46.70	0.00	0.02

Seccion = 252

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 500.079 Td (mT) = 614.472

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	830.61	1245.91	0.00	44.67	0.00	0.00
2	830.61	1245.91	20.37	2.14	0.00	2.33
3	830.61	1245.91	20.06	1.27	0.00	3.86
4	830.61	1245.91	24.83	1.30	0.01	4.67
5	830.61	1245.91	42.13	1.07	0.02	9.64
6	830.61	1245.91	45.81	1.07	0.02	10.49
7	830.61	1245.91	32.27	1.07	0.01	7.38
8	830.61	1245.91	23.34	1.08	0.01	5.26
9	830.61	1245.91	30.92	2.17	0.01	3.49
10	830.61	1245.91	0.16	50.63	0.00	0.02

Seccion = 253

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 612.130 Td (mT) = 675.000

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	828.70	1243.06	0.00	49.07	0.00	0.00
2	828.70	1243.06	28.22	3.72	0.01	2.84
3	828.70	1243.06	27.78	2.21	0.01	4.71
4	828.70	1243.06	34.39	2.26	0.01	5.69
5	828.70	1243.06	58.36	1.86	0.03	11.76
6	828.70	1243.06	63.45	1.86	0.04	12.78
7	828.70	1243.06	44.69	1.86	0.02	9.00
8	828.70	1243.06	32.33	1.88	0.01	6.42
9	828.70	1243.06	42.82	3.77	0.02	4.25
10	828.70	1243.06	0.22	55.62	0.00	0.02

Seccion = 254

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 728.404 Td (mT) = 754.508

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	826.30	1239.45	0.00	54.85	0.00	0.00
2	826.30	1239.45	31.72	5.33	0.01	3.36
3	826.30	1239.45	31.22	3.16	0.01	5.57
4	826.30	1239.45	38.65	3.24	0.02	6.74
5	826.30	1239.45	65.59	2.66	0.04	13.92
6	826.30	1239.45	71.31	2.66	0.05	15.13
7	826.30	1239.45	50.23	2.66	0.03	10.66
8	826.30	1239.45	36.33	2.70	0.01	7.59
9	826.30	1239.45	48.13	5.40	0.02	5.03
10	826.30	1239.45	0.25	62.17	0.00	0.03

Seccion = 255

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 843.570 Td (mT) = 847.338

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	823.46	1235.19	0.00	61.60	0.00	0.00
2	823.46	1235.19	39.16	6.78	0.01	3.87
3	823.46	1235.19	38.54	4.03	0.01	6.42
4	823.46	1235.19	47.72	4.12	0.02	7.76
5	823.46	1235.19	80.98	3.38	0.06	16.02
6	823.46	1235.19	88.04	3.38	0.07	17.42
7	823.46	1235.19	62.01	3.38	0.03	12.27
8	823.46	1235.19	44.85	3.43	0.02	8.74
9	823.46	1235.19	59.42	6.87	0.03	5.79
10	823.46	1235.19	0.31	69.82	0.00	0.03

Seccion = 256

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 961.790 Td (mT) = 948.717

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	820.31	1230.47	0.00	68.97	0.00	0.00
2	820.31	1230.47	46.42	8.20	0.02	4.38
3	820.31	1230.47	45.69	4.87	0.02	7.27
4	820.31	1230.47	56.57	4.98	0.03	8.78
5	820.31	1230.47	96.00	4.10	0.08	18.14
6	820.31	1230.47	104.37	4.10	0.09	19.73
7	820.31	1230.47	73.52	4.10	0.05	13.89
8	820.31	1230.47	53.18	4.16	0.02	9.90
9	820.31	1230.47	70.44	8.31	0.04	6.56
10	820.31	1230.47	0.36	78.17	0.00	0.04

Seccion = 257

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1077.344 Td (mT) = 1056.281

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	817.12	1225.68	0.00	76.79	0.00	0.00
2	817.12	1225.68	53.21	9.56	0.02	4.87
3	817.12	1225.68	52.38	5.68	0.02	8.08
4	817.12	1225.68	64.85	5.81	0.03	9.77
5	817.12	1225.68	110.04	4.77	0.10	20.19
6	817.12	1225.68	119.63	4.77	0.12	21.95
7	817.12	1225.68	84.27	4.77	0.06	15.45
8	817.12	1225.68	60.95	4.84	0.03	11.01
9	817.12	1225.68	80.74	9.69	0.05	7.30
10	817.12	1225.68	0.42	87.04	0.01	0.04

Seccion = 258

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1187.546 Td (mT) = 1173.558

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	812.53	1218.79	0.00	85.32	0.00	0.00
2	812.53	1218.79	58.89	10.98	0.03	5.32
3	812.53	1218.79	57.96	6.52	0.03	8.82
4	812.53	1218.79	71.76	6.67	0.04	10.67
5	812.53	1218.79	121.77	5.48	0.12	22.04
6	812.53	1218.79	132.39	5.48	0.14	23.96
7	812.53	1218.79	93.25	5.48	0.07	16.87
8	812.53	1218.79	67.45	5.56	0.04	12.02
9	812.53	1218.79	89.36	11.12	0.06	7.97
10	812.53	1218.79	0.46	96.70	0.01	0.05

Seccion = 259

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 2599.000 Td (mT) = 1295.697

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	844.73	1267.09	0.00	101.19	0.01	0.00
2	844.73	1267.09	202.33	12.94	0.11	11.80
3	844.73	1267.09	196.55	8.11	0.11	18.30
4	844.73	1267.09	249.83	7.86	0.17	23.99
5	844.73	1267.09	339.26	5.19	0.31	49.27
6	844.73	1267.09	388.07	5.17	0.41	56.70
7	844.73	1267.09	315.79	5.17	0.27	46.16
8	844.73	1267.09	259.89	5.61	0.18	34.93
9	844.73	1267.09	259.89	5.61	0.18	34.93
10	844.73	1267.09	0.75	49.11	0.00	0.11

Seccion = 260

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 2924.286 Td (mT) = 1427.191

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	844.61	1266.92	0.00	111.46	0.01	0.00
2	844.61	1266.92	230.58	14.41	0.14	13.27
3	844.61	1266.92	223.99	9.04	0.13	20.59
4	844.61	1266.92	284.72	8.76	0.22	26.99
5	844.61	1266.92	386.63	5.79	0.40	55.42
6	844.61	1266.92	442.26	5.75	0.52	63.78
7	844.61	1266.92	359.88	5.75	0.34	51.92
8	844.61	1266.92	296.18	6.25	0.23	39.29
9	844.61	1266.92	296.18	6.25	0.23	39.29
10	844.61	1266.92	0.85	54.09	0.00	0.12

Seccion = 261

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 2775.226 Td (mT) = 1088.662

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	839.01	1258.51	0.00	85.02	0.00	0.00
2	839.01	1258.51	157.69	10.27	0.13	12.44
3	839.01	1258.51	153.19	6.44	0.12	19.30
4	839.01	1258.51	194.71	6.24	0.20	25.30
5	839.01	1258.51	264.41	4.12	0.36	51.95
6	839.01	1258.51	302.45	4.10	0.47	59.79
7	839.01	1258.51	246.11	4.10	0.31	48.67
8	839.01	1258.51	202.55	4.45	0.21	36.83
9	839.01	1258.51	202.55	4.45	0.21	36.83
10	839.01	1258.51	0.58	41.26	0.00	0.11

Seccion = 262

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1896.183 Td (mT) = 1054.010

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	843.70	1265.55	0.00	82.32	0.00	0.00
2	843.70	1265.55	130.32	9.22	0.06	8.59
3	843.70	1265.55	126.60	5.78	0.06	13.32
4	843.70	1265.55	160.92	5.60	0.09	17.46
5	843.70	1265.55	218.52	3.70	0.17	35.86
6	843.70	1265.55	249.96	3.68	0.22	41.28
7	843.70	1265.55	203.40	3.68	0.15	33.60
8	843.70	1265.55	167.40	4.00	0.10	25.43
9	843.70	1265.55	167.40	4.00	0.10	25.43
10	843.70	1265.55	0.48	39.95	0.00	0.08

Seccion = 263

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1090.165 Td (mT) = 963.058

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	810.90	1216.36	0.00	70.01	0.00	0.00
2	810.90	1216.36	50.47	7.79	0.02	4.87
3	810.90	1216.36	49.68	4.63	0.02	8.07
4	810.90	1216.36	61.51	4.73	0.04	9.76
5	810.90	1216.36	104.37	3.89	0.10	20.16
6	810.90	1216.36	113.47	3.89	0.12	21.92
7	810.90	1216.36	79.93	3.89	0.06	15.43
8	810.90	1216.36	57.81	3.95	0.03	11.00
9	810.90	1216.36	76.58	7.89	0.05	7.29
10	810.90	1216.36	0.40	79.36	0.00	0.04

Seccion = 264

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1026.212 Td (mT) = 876.498

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	811.50	1217.25	0.00	63.72	0.00	0.00
2	811.50	1217.25	48.13	6.96	0.02	4.59
3	811.50	1217.25	47.37	4.14	0.02	7.61
4	811.50	1217.25	58.65	4.23	0.03	9.20
5	811.50	1217.25	99.53	3.48	0.09	19.00
6	811.50	1217.25	108.20	3.48	0.11	20.66
7	811.50	1217.25	76.22	3.48	0.05	14.55
8	811.50	1217.25	55.13	3.53	0.03	10.37
9	811.50	1217.25	73.03	7.05	0.05	6.87
10	811.50	1217.25	0.38	72.22	0.00	0.04

Seccion = 265

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 918.430 Td (mT) = 792.453

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	813.14	1219.72	0.00	57.61	0.00	0.00
2	813.14	1219.72	41.05	5.85	0.02	4.12
3	813.14	1219.72	40.41	3.47	0.02	6.83
4	813.14	1219.72	50.03	3.55	0.02	8.26
5	813.14	1219.72	84.89	2.92	0.07	17.06
6	813.14	1219.72	92.29	2.92	0.08	18.55
7	813.14	1219.72	65.01	2.92	0.04	13.06
8	813.14	1219.72	47.02	2.96	0.02	9.31
9	813.14	1219.72	62.29	5.93	0.04	6.17
10	813.14	1219.72	0.32	65.30	0.00	0.04

Seccion = 266

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 881.110 Td (mT) = 717.018

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	828.14	1242.21	0.00	52.13	0.00	0.00
2	828.14	1242.21	41.23	4.72	0.01	4.08
3	828.14	1242.21	40.58	2.80	0.01	6.77
4	828.14	1242.21	50.25	2.87	0.02	8.18
5	828.14	1242.21	85.26	2.36	0.06	16.90
6	828.14	1242.21	92.70	2.36	0.08	18.38
7	828.14	1242.21	65.29	2.36	0.04	12.94
8	828.14	1242.21	47.23	2.39	0.02	9.22
9	828.14	1242.21	62.56	4.78	0.03	6.11
10	828.14	1242.21	0.32	59.08	0.00	0.04

Seccion = 267

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 782.000 Td (mT) = 644.231

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	821.90	1232.86	0.00	46.84	0.00	0.00
2	821.90	1232.86	34.70	3.57	0.01	3.57
3	821.90	1232.86	34.15	2.12	0.01	5.93
4	821.90	1232.86	42.28	2.17	0.02	7.17
5	821.90	1232.86	71.75	1.78	0.05	14.80
6	821.90	1232.86	78.01	1.78	0.06	16.09
7	821.90	1232.86	54.95	1.78	0.03	11.33
8	821.90	1232.86	39.75	1.81	0.02	8.08
9	821.90	1232.86	52.65	3.62	0.03	5.35
10	821.90	1232.86	0.27	53.08	0.00	0.03

Seccion = 268

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 714.455 Td (mT) = 568.295

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	821.80	1232.70	0.00	41.32	0.00	0.00
2	821.80	1232.70	31.56	2.60	0.01	3.26
3	821.80	1232.70	31.06	1.54	0.01	5.41
4	821.80	1232.70	38.46	1.58	0.01	6.55
5	821.80	1232.70	65.26	1.30	0.04	13.52
6	821.80	1232.70	70.95	1.30	0.05	14.70
7	821.80	1232.70	49.97	1.30	0.02	10.35
8	821.80	1232.70	36.15	1.32	0.01	7.38
9	821.80	1232.70	47.88	2.63	0.02	4.89
10	821.80	1232.70	0.25	46.83	0.00	0.03

Seccion = 269

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 645.815 Td (mT) = 490.081

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	821.61	1232.42	0.00	35.63	0.00	0.00
2	821.61	1232.42	28.44	1.55	0.01	2.95
3	821.61	1232.42	27.99	0.92	0.01	4.89
4	821.61	1232.42	34.65	0.94	0.01	5.91
5	821.61	1232.42	58.80	0.77	0.03	12.22
6	821.61	1232.42	63.93	0.77	0.04	13.28
7	821.61	1232.42	45.03	0.77	0.02	9.35
8	821.61	1232.42	32.57	0.78	0.01	6.67
9	821.61	1232.42	43.15	1.57	0.02	4.42
10	821.61	1232.42	0.22	40.38	0.00	0.03

Seccion = 270

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 582.826 Td (mT) = 422.051

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	821.19	1231.79	0.00	30.68	0.00	0.00
2	821.19	1231.79	25.70	0.46	0.01	2.66
3	821.19	1231.79	25.30	0.27	0.01	4.41
4	821.19	1231.79	31.32	0.28	0.01	5.33
5	821.19	1231.79	53.14	0.23	0.03	11.02
6	821.19	1231.79	57.78	0.23	0.03	11.98
7	821.19	1231.79	40.70	0.23	0.02	8.43
8	821.19	1231.79	29.44	0.23	0.01	6.01
9	821.19	1231.79	39.00	0.47	0.02	3.98
10	821.19	1231.79	0.20	34.78	0.00	0.02

Seccion = 271

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 538.768 Td (mT) = 445.499

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	820.45	1230.68	0.00	32.39	0.00	0.00
2	820.45	1230.68	6.79	0.58	0.01	2.45
3	820.45	1230.68	6.68	0.34	0.01	4.07
4	820.45	1230.68	8.27	0.35	0.01	4.92
5	820.45	1230.68	14.04	0.29	0.02	10.17
6	820.45	1230.68	15.26	0.29	0.03	11.05
7	820.45	1230.68	10.75	0.29	0.01	7.78
8	820.45	1230.68	7.78	0.29	0.01	5.55
9	820.45	1230.68	10.30	0.58	0.01	3.68
10	820.45	1230.68	0.05	36.71	0.00	0.02

Seccion = 272

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 499.780 Td (mT) = 483.603

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	819.34	1229.01	0.00	35.16	0.00	0.00
2	819.34	1229.01	6.07	1.64	0.00	2.27
3	819.34	1229.01	5.97	0.97	0.00	3.77
4	819.34	1229.01	7.40	1.00	0.01	4.55
5	819.34	1229.01	12.55	0.82	0.02	9.41
6	819.34	1229.01	13.64	0.82	0.02	10.23
7	819.34	1229.01	9.61	0.82	0.01	7.20
8	819.34	1229.01	6.95	0.83	0.01	5.13
9	819.34	1229.01	9.21	1.66	0.01	3.40
10	819.34	1229.01	0.05	39.85	0.00	0.02

Seccion = 273

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos

Vd (T) = 415.075 Td (mT) = 560.710

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	818.10	1227.15	0.00	40.76	0.00	0.00
2	818.10	1227.15	1.65	2.64	0.00	1.88
3	818.10	1227.15	1.62	1.57	0.00	3.12
4	818.10	1227.15	2.01	1.61	0.01	3.77
5	818.10	1227.15	3.41	1.32	0.01	7.79
6	818.10	1227.15	3.71	1.32	0.02	8.47
7	818.10	1227.15	2.61	1.32	0.01	5.97
8	818.10	1227.15	1.89	1.34	0.00	4.25
9	818.10	1227.15	2.50	2.68	0.01	2.82
10	818.10	1227.15	0.01	46.20	0.00	0.02

Seccion = 274

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos

Vd (T) = 351.114 Td (mT) = 639.812

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	817.42	1226.13	0.00	46.51	0.00	0.00
2	817.42	1226.13	9.49	3.65	0.00	1.59
3	817.42	1226.13	9.35	2.17	0.00	2.64
4	817.42	1226.13	11.57	2.21	0.00	3.19
5	817.42	1226.13	19.63	1.82	0.01	6.58
6	817.42	1226.13	21.35	1.82	0.01	7.16
7	817.42	1226.13	15.04	1.82	0.01	5.04
8	817.42	1226.13	10.88	1.85	0.00	3.59
9	817.42	1226.13	14.41	3.69	0.01	2.38
10	817.42	1226.13	0.07	52.72	0.00	0.01

Seccion = 275

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 403.854 Td (mT) = 688.711

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	817.86	1226.79	0.00	50.07	0.00	0.00
2	817.86	1226.79	16.47	5.45	0.00	1.83
3	817.86	1226.79	16.21	3.24	0.00	3.03
4	817.86	1226.79	20.07	3.31	0.00	3.67
5	817.86	1226.79	34.06	2.72	0.01	7.58
6	817.86	1226.79	37.03	2.72	0.02	8.24
7	817.86	1226.79	26.08	2.72	0.01	5.80
8	817.86	1226.79	18.87	2.76	0.00	4.14
9	817.86	1226.79	24.99	5.53	0.01	2.74
10	817.86	1226.79	0.13	56.75	0.00	0.02

Seccion = 276

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 503.728 Td (mT) = 749.534

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	818.19	1227.28	0.00	54.49	0.00	0.00
2	818.19	1227.28	19.86	6.60	0.01	2.28
3	818.19	1227.28	19.55	3.92	0.00	3.79
4	818.19	1227.28	24.20	4.01	0.01	4.58
5	818.19	1227.28	41.07	3.30	0.02	9.46
6	818.19	1227.28	44.65	3.30	0.03	10.28
7	818.19	1227.28	31.45	3.30	0.01	7.24
8	818.19	1227.28	22.75	3.35	0.01	5.16
9	818.19	1227.28	30.13	6.69	0.01	3.42
10	818.19	1227.28	0.16	61.76	0.00	0.02

Seccion = 277

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 609.309 Td (mT) = 828.063

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	818.43	1227.65	0.00	60.20	0.00	0.00
2	818.43	1227.65	27.53	7.81	0.01	2.76
3	818.43	1227.65	27.10	4.64	0.01	4.58
4	818.43	1227.65	33.55	4.75	0.01	5.54
5	818.43	1227.65	56.93	3.90	0.03	11.45
6	818.43	1227.65	61.89	3.90	0.04	12.45
7	818.43	1227.65	43.60	3.90	0.02	8.76
8	818.43	1227.65	31.53	3.96	0.01	6.25
9	818.43	1227.65	41.77	7.92	0.02	4.14
10	818.43	1227.65	0.22	68.23	0.00	0.02

Seccion = 278

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 725.914 Td (mT) = 917.097

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	818.66	1227.99	0.00	66.67	0.00	0.00
2	818.66	1227.99	35.84	8.89	0.01	3.29
3	818.66	1227.99	35.28	5.28	0.01	5.46
4	818.66	1227.99	43.68	5.40	0.02	6.61
5	818.66	1227.99	74.12	4.44	0.04	13.65
6	818.66	1227.99	80.58	4.44	0.05	14.84
7	818.66	1227.99	56.76	4.44	0.03	10.45
8	818.66	1227.99	41.06	4.51	0.01	7.45
9	818.66	1227.99	54.39	9.01	0.02	4.94
10	818.66	1227.99	0.28	75.57	0.00	0.03

Seccion = 279

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 844.365 Td (mT) = 1006.874

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	818.91	1228.37	0.00	73.20	0.00	0.00
2	818.91	1228.37	44.27	10.08	0.01	3.83
3	818.91	1228.37	43.58	5.99	0.01	6.36
4	818.91	1228.37	53.95	6.12	0.02	7.69
5	818.91	1228.37	91.55	5.03	0.06	15.88
6	818.91	1228.37	99.53	5.03	0.07	17.27
7	818.91	1228.37	70.11	5.03	0.04	12.16
8	818.91	1228.37	50.71	5.11	0.02	8.67
9	818.91	1228.37	67.18	10.21	0.03	5.74
10	818.91	1228.37	0.35	82.97	0.00	0.03

Seccion = 280

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 969.620 Td (mT) = 1102.195

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	819.30	1228.95	0.00	80.13	0.00	0.00
2	819.30	1228.95	53.14	11.12	0.02	4.41
3	819.30	1228.95	52.31	6.61	0.02	7.31
4	819.30	1228.95	64.76	6.76	0.03	8.84
5	819.30	1228.95	109.89	5.55	0.08	18.25
6	819.30	1228.95	119.47	5.55	0.09	19.84
7	819.30	1228.95	84.15	5.55	0.05	13.97
8	819.30	1228.95	60.87	5.63	0.02	9.96
9	819.30	1228.95	80.64	11.27	0.04	6.60
10	819.30	1228.95	0.42	90.82	0.01	0.04

Seccion = 281

Angulo de la biela comprimida (sex) = 27.51

Valores maximos de los esfuerzos
Vd (T) = 1997.107 Td (mT) = 1053.656

Corte	tau_Vu (T/m2)	tau_Tu (T/m2)	tau_Vd (T/m2)	tau_Td (T/m2)	T-V	As,ras (cm2/m)
1	819.30	1228.95	0.00	76.60	0.00	0.00
2	819.30	1228.95	168.03	12.15	0.08	9.07
3	819.30	1228.95	165.39	7.22	0.08	15.05
4	819.30	1228.95	204.77	7.38	0.12	18.20
5	819.30	1228.95	347.47	6.07	0.33	37.59
6	819.30	1228.95	377.77	6.07	0.40	40.87
7	819.30	1228.95	266.09	6.07	0.20	28.78
8	819.30	1228.95	192.47	6.16	0.10	20.51
9	819.30	1228.95	254.97	12.31	0.18	13.60
10	819.30	1228.95	1.32	86.82	0.00	0.08

ARMADURA TRANSVERSAL EN TABLERO

Alpha=26,5°

Luz vano		
1	45.0	m
2	60.0	m
3	60.0	m
4	60.0	m
5	60.0	m
6	60.0	m
7	60.0	m
8	60.0	m
9	60.0	m
10	60.0	m
11	60.0	m
12	60.0	m
13	60.0	m
14	45.0	m

		Cortante	Torsión		Armadura de Rasante (cm2/m)																			
					1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10
SEC	X	Asc	Asl	Ast	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td
	m	(cm2/m)	(cm2/m)	(cm2/m)																				
1	0.75	31.7	14.74	3.69	0	4.2	6	4.2	9.9	4.2	12	4.2	24.8	4.2	26.9	4.2	19	4.2	13.5	4.2	9	4.2	0.1	4.2
2	3.00	24.8	13.59	3.4	0	3.6	5	3.6	8.4	3.6	10.1	3.6	20.9	3.6	22.7	3.6	16	3.6	11.4	3.6	7.6	3.6	0	3.6
3	5.25	19.9	12.49	3.12	0	3.1	4.4	3.1	7.3	3.1	8.8	3.1	18.2	3.1	19.8	3.1	13.9	3.1	9.9	3.1	6.6	3.1	0	3.1
4	7.50	16.3	11.43	2.86	0	2.7	3.8	2.7	6.3	2.7	7.6	2.7	15.6	2.7	17	2.7	12	2.7	8.5	2.7	5.7	2.7	0	2.7
5	9.75	16.30	10.35	2.59	0	2.2	3.2	2.2	5.2	2.2	6.3	2.2	13.1	2.2	14.2	2.2	10	2.2	7.1	2.2	4.7	2.2	0	2.2
6	12.00	16.30	9.34	2.33	0	1.8	2.6	1.8	4.3	1.8	5.1	1.8	10.6	1.8	11.5	1.8	8.1	1.8	5.8	1.8	3.8	1.8	0	1.8
7	14.25	16.30	8.46	2.12	0	1.4	2	1.4	3.4	1.4	4.1	1.4	8.4	1.4	9.1	1.4	6.4	1.4	4.6	1.4	3	1.4	0	1.4
8	16.50	16.30	7.86	1.97	0	1.1	1.6	1.1	2.6	1.1	3.1	1.1	6.5	1.1	7.1	1.1	5	1.1	3.5	1.1	2.3	1.1	0	1.1
9	18.75	16.30	6.92	1.73	0	1.4	2	1.4	3.4	1.4	4.1	1.4	8.4	1.4	9.1	1.4	6.4	1.4	4.6	1.4	3	1.4	0	1.4
10	21.00	16.30	6.14	1.54	0	1.8	2.5	1.8	4.2	1.8	5.1	1.8	10.5	1.8	11.4	1.8	8	1.8	5.7	1.8	3.8	1.8	0	1.8
11	23.25	16.30	5.59	1.40	0	2	2.8	2	4.7	2	5.6	2	11.6	2	12.6	2.0	8.9	2	6.3	2	4.2	2	0	2
12	25.50	16.30	6.18	1.55	0	2.2	3.1	2.2	5.1	2.2	6.2	2.2	12.8	2.2	14	2.2	9.8	2.2	7	2.2	4.6	2.2	0	2.2
13	27.75	16.30	6.77	1.69	0	2.4	3.4	2.4	5.6	2.4	6.8	2.4	14.1	2.4	15.3	2.4	10.8	2.4	7.7	2.4	5.1	2.4	0	2.4
14	30.00	16.30	7.37	1.84	0	2.6	3.7	2.6	6.2	2.6	7.5	2.6	15.4	2.6	16.8	2.6	11.8	2.6	8.4	2.6	5.6	2.6	0	2.6
15	32.25	17.00	7.95	1.99	0	2.8	4	2.8	6.7	2.8	8.1	2.8	16.7	2.8	18.1	2.8	12.8	2.8	9.1	2.8	6	2.8	0	2.8
16	34.50	19.30	8.76	2.19	0	3.1	4.3	3.1	7.2	3.1	8.7	3.1	17.9	3.1	19.5	3.1	13.7	3.1	9.8	3.1	6.5	3.1	0	3.1
17	36.75	21.80	9.85	2.46	0	3.3	4.6	3.3	7.7	3.3	9.3	3.3	19.2	3.3	20.9	3.3	14.7	3.3	10.5	3.3	7	3.3	0	3.3
18	39.00	24.00	11.02	2.75	0	3.5	4.9	3.5	8.2	3.5	9.9	3.5	20.4	3.5	22.2	3.5	15.6	3.5	11.1	3.5	7.4	3.5	0	3.5
19	41.25	25.40	13.03	3.26	0	4.3	5.4	4.3	8.3	4.3	10.9	4.3	22.4	4.3	25.8	4.3	21	4.3	15.9	4.3	15.9	4.3	0	4.3
20	43.50	52.70	14.32	3.58	0	7.2	8.9	7.2	13.8	7.2	18.1	7.2	37.2	7.2	42.8	7.2	34.8	7.2	26.3	7.2	26.3	7.2	0.1	7.2
21	45.75	95.40	17.55	4.39	0	11.5	14.3	11.5	22.2	11.5	29.1	11.5	59.7	11.5	68.8	11.5	56	11.5	42.4	11.5	42.4	11.5	0.1	11.5
22	48.75	54.30	18.58	4.65	0	7.3	9.1	7.3	14.1	7.3	18.4	7.3	37.8	7.3	43.5	7.3	35.4	7.3	26.8	7.3	26.8	7.3	0.1	7.3
23	51.75	36.50	15.79	3.95	0	4.6	6.5	4.6	10.8	4.6	13	4.6	26.9	4.6	29.2	4.6	20.6	4.6	14.7	4.6	9.7	4.6	0.1	4.6
24	54.75	31.90	14.41	3.60	0	4.2	5.9	4.2	9.8	4.2	11.9	4.2	24.5	4.2	26.7	4.2	18.8	4.2	13.4	4.2	8.9	4.2	0.1	4.2
25	57.75	27.60	13.06	3.26	0	3.8	5.4	3.8	8.9	3.8	10.8	3.8	22.3	3.8	24.2	3.8	17.1	3.8	12.2	3.8	8.1	3.8	0	3.8
26	60.75	22.00	11.82	2.96	0	3.3	4.7	3.3	7.8	3.3	9.4	3.3	19.4	3.3	21.1	3.3	14.8	3.3	10.6	3.3	7	3.3	0	3.3
27	63.75	17.10	10.62	2.65	0	2.9	4	2.9	6.7	2.9	8.1	2.9	16.7	2.9	18.2	2.9	12.8	2.9	9.1	2.9	6	2.9	0	2.9
28	66.75	16.30	9.55	2.39	0	2.4	3.4	2.4	5.7	2.4	6.9	2.4	14.2	2.4	15.4	2.4	10.9	2.4	7.8	2.4	5.1	2.4	0	2.4
29	69.75	16.30	8.50	2.13	0	2	2.9	2	4.7	2	5.7	2	11.8	2	12.8	2.0	9	2	6.4	2	4.3	2	0	2
30	72.75	16.30	7.58	1.90	0	1.6	2.3	1.6	3.8	1.6	4.6	1.6	9.5	1.6	10.4	1.6	7.3	1.6	5.2	1.6	3.4	1.6	0	1.6
31	75.75	16.30	7.03	1.76	0	1.4	2	1.4	3.4	1.4	4.1	1.4	8.5	1.4	9.2	1.4	6.5	1.4	4.6	1.4	3.1	1.4	0	1.4
32	78.75	16.30	7.65	1.91	0	1.8	2.5	1.8	4.2	1.8	5.1	1.8	10.5	1.8	11.4	1.8	8	1.8	5.7	1.8	3.8	1.8	0	1.8
33	81.75	16.30	8.43	2.11	0	2.2	3	2.2	5	2.2	6.1	2.2	12.6	2.2	13.7	2.2	9.6	2.2	6.9	2.2	4.6	2.2	0	2.2
34	84.75	16.30	9.23	2.31	0	2.5	3.6	2.5	5.9	2.5	7.1	2.5	14.7	2.5	16	2.5	11.3	2.5	8	2.5	5.3	2.5	0	2.5
35	87.75	17.20	10.36	2.59	0	2.9	4.1	2.9	6.7	2.9	8.1	2.9	16.8	2.9	18.3	2.9	12.9	2.9	9.2	2.9	6.1	2.9	0	2.9
36	90.75	21.20	11.62	2.90	0	3.2	4.6	3.2	7.6	3.2	9.2	3.2	18.9	3.2	20.6	3.2	14.5	3.2	10.3	3.2	6.9	3.2	0	3.2
37	93.75	25.20	12.95	3.24	0	3.6	5.1	3.6	8.4	3.6	10.2	3.6	21	3.6	22.8	3.6	16.1	3.6	11.5	3.6	7.6	3.6	0	3.6
38	96.75	28.90	14.40	3.60	0	3.9	5.5	3.9	9.2	3.9	11.1	3.9	22.9	3.9	24.9	3.9	17.5	3.9	12.5	3.9	8.3	3.9	0	3.9
39	99.75	31.70	17.09	4.27	0	5	6.2	5	9.6	5	12.5	5	25.7	5	29.6	5.0	24.1	5	18.2	5	18.2	5	0.1	5
40	102.75	51.60	18.85	4.71	0	7	8.7	7	13.4	7	17.6	7	36.2	7	41.7	7.0	33.9	7	25.7	7	25.7	7	0.1	7
41	105.75	96.60	17.25	4.31	0	11.5	14.2	11.5	22.1	11.5	28.9	11.5	59.4	11.5	68.3	11.5	55.6	11.5	42.1	11.5	42.1	11.5	0.1	11.5
42	108.75	52.60	18.57	4.64	0	7.1	8.7	7.1	13.6	7.1	17.8	7.1	36.5	7.1	42	7.1	34.2	7.1	25.9	7.1	25.9	7.1	0.1	7.1
43	111.75	34.30	15.77	3.94	0	4.4	6.2	4.4	10.2	4.4	12.4	4.4	25.6	4.4	27.8	4.4	19.6	4.4	14	4.4	9.3	4.4	0.1	4.4
44	114.75	30.30	14.39	3.60	0	4	5.7	4	9.4	4	11.4	4	23.6	4	25.6	4.0	18.1	4	12.9	4	8.5	4	0	4
45	117.75	26.70	13.04	3.26	0	3.7	5.3	3.7	8.7	3.7	10.5	3.7	21.8	3.7	23.7	3.7	16.7	3.7	11.9	3.7	7.9	3.7	0	3.7
46	120.75	24.90	11.85	2.96	0	3.6	5.1	3.6	8.4	3.6	10.1	3.6	20.9	3.6	22.7	3.6	16	3.6	11.4	3.6	7.6	3.6	0	3.6
47	123.75	19.90	10.66	2.66	0	3.1	4.4	3.1	7.3	3.1	8.8	3.1	18.2	3.1	19.8	3.1	14	3.1	9.9	3.1	6.6	3.1	0	3.1
48	126.75	16.30	9.58	2.40	0	2.7	3.8	2.7	6.3	2.7	7.6	2.7	15.7	2.7	17.1	2.7	12	2.7	8.6	2.7	5.7	2.7	0	2.7
49	129.75	16.30	8.54	2.14	0	2.3	3.2	2.3	5.3	2.3	6.4	2.3	13.3	2.3	14.5	2.3	10.2	2.3	7.3	2.3	4.8	2.3	0	2.3
50	132.75	16.30	7.61	1.90	0	1.9	2.7	1.9	4.4	1.9	5.3	1.9	11	1.9	12	1.9	8.4	1.9	6	1.9	4	1.9	0	1.9
51	135.75	16.30	7.09	1.77	0	1.5	2.1	1.5	3.6	1.5	4.3	1.5	8.9	1.5	9.7	1.5	6.8	1.5	4.8	1.5	3.2	1.5	0	1.5
52	138.75	16.30	7.67	1.92	0	1.8	2.5	1.8	4.2	1.8	5.1	1.8	10.5	1.8	11.5	1.8	8.1	1.8	5.8	1.8	3.8	1.8	0	1.8
53	141.75	16.30	8.43	2.11	0	2.2	3.1	2.2	5.1	2.2	6.1	2.2	12.6	2.2	13.7	2.2	9.7	2.2	6.9	2.2	4.6	2.2	0	2.2
54	144.75	16.30	9.42	2.36	0	2.5	3.6	2.5	5.9	2.5	7.2	2.5	14.8	2.5	16.1	2.5	11.3	2.5	8.1	2.5	5.3	2.5	0	2.5
55	147.75	17.30	10.57	2.64	0	2.9	4.1	2.9	6.8	2.9	8.2	2.9	16.9	2.9	18.4	2.9	12.9	2.9	9.2	2.9	6.1	2.9	0	2.9
56	150.75	21.30	11.83	2.96	0	3.2	4.6	3.2	7.6	3.2	9.2	3.2	19	3.2	20.7	3.2	14.5	3.2	10.4	3.2	6.9	3.2	0	3.2
57	153.75	25.30	13.16	3.29	0	3.6	5.1	3.6	8.4	3.6	10.2	3.6	21.1	3.6	22.9	3.6	16.1	3.6	11.5	3.6	7.6	3.6	0	3.6
58	156.75	29.00	14.61	3.65	0	3.9	5.5	3.9	9.2	3.9	11.1	3.9	23	3.9	25	3.9	17.6	3.9	12.5	3.9	8.3	3.9	0	3.9
59	159.75	31.80	17.32	4.33	0	5	6.2	5	9.6	5	12.6	5	25.8	5	29.7	5.0	24.2	5	18.3	5	18.3	5	0.1	5
60	162.75	51.80	19.07	4.77	0	7	8.7	7	13.5	7	17.7	7	36.3	7	41.8	7.0	34	7	25.7	7	25.7	7	0.1	7
61	165.75	96.70	17.31	4.33	0	11.5	14.2	11.5	22.1	11.5	28.9	11.5	59.4	11.5	68.4	11.5	55.7	11.5	42.1	11.5	42.1	11.5	0.1	11.5

ARMADURA TRANSVERSAL EN TABLERO

Alpha=26,5°

Luz vano		
1	45.0	m
2	60.0	m
3	60.0	m
4	60.0	m
5	60.0	m
6	60.0	m
7	60.0	m
8	60.0	m
9	60.0	m
10	60.0	m
11	60.0	m
12	60.0	m
13	60.0	m
14	45.0	m

		Cortante	Torsión		Armadura de Rasante (cm2/m)																	
					1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10
SEC	X	Asc	Asl	Ast	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td
	m	(cm2/m)	(cm2/m)	(cm2/m)																				
62	168.75	52.70	18.63	4.66	0	7.1	8.8	7.1	13.6	7.1	17.8	7.1	36.6	7.1	42.1	7.1	34.3	7.1	25.9	7.1	25.9	7.1	0.1	7.1
63	171.75	34.30	15.82	3.96	0	4.4	6.2	4.4	10.2	4.4	12.4	4.4	25.6	4.4	27.8	4.4	19.6	4.4	14	4.4	9.3	4.4	0.1	4.4
64	174.75	30.30	14.45	3.61	0	4	5.7	4	9.4	4	11.4	4	23.6	4	25.6	4.0	18.1	4	12.9	4	8.5	4	0	4
65	177.75	26.70	13.10	3.27	0	3.7	5.2	3.7	8.7	3.7	10.5	3.7	21.7	3.7	23.6	3.7	16.6	3.7	11.9	3.7	7.9	3.7	0	3.7
66	180.75	24.90	11.81	2.95	0	3.6	5	3.6	8.4	3.6	10.1	3.6	20.9	3.6	22.7	3.6	16	3.6	11.4	3.6	7.6	3.6	0	3.6
67	183.75	19.90	10.54	2.66	0	3.1	4.4	3.1	7.3	3.1	8.8	3.1	18.2	3.1	19.8	3.1	13.9	3.1	9.9	3.1	6.6	3.1	0	3.1
68	186.75	16.30	9.56	2.39	0	2.7	3.8	2.7	6.3	2.7	7.6	2.7	15.7	2.7	17.1	2.7	12	2.7	8.6	2.7	5.7	2.7	0	2.7
69	189.75	16.30	8.52	2.13	0	2.3	3.2	2.3	5.3	2.3	6.4	2.3	13.3	2.3	14.5	2.3	10.2	2.3	7.3	2.3	4.8	2.3	0	2.3
70	192.75	16.30	7.59	1.90	0	1.9	2.7	1.9	4.4	1.9	5.3	1.9	11	1.9	12	1.9	8.4	1.9	6	1.9	4	1.9	0	1.9
71	195.75	16.30	7.09	1.77	0	1.5	2.2	1.5	3.6	1.5	4.3	1.5	8.9	1.5	9.7	1.5	6.8	1.5	4.9	1.5	3.2	1.5	0	1.5
72	198.75	16.30	7.68	1.92	0	1.9	2.7	1.9	4.4	1.9	5.3	1.9	11	1.9	11.9	1.9	8.4	1.9	6	1.9	4	1.9	0	1.9
73	201.75	16.30	8.44	2.11	0	2.2	3.2	2.2	5.2	2.2	6.3	2.2	13.1	2.2	14.2	2.2	10	2.2	7.1	2.2	4.7	2.2	0	2.2
74	204.75	16.30	9.44	2.36	0	2.6	3.7	2.6	6.1	2.6	7.4	2.6	15.2	2.6	16.6	2.6	11.7	2.6	8.3	2.6	5.5	2.6	0	2.6
75	207.75	18.10	10.59	2.65	0	3	4.2	3	6.9	3	8.4	3	17.3	3	18.8	3.0	13.3	3	9.5	3	6.3	3	0	3
76	210.75	22.20	11.84	2.96	0	3.3	4.7	3.3	7.8	3.3	9.4	3.3	19.4	3.3	21.1	3.3	14.9	3.3	10.6	3.3	7	3.3	0	3.3
77	213.75	26.10	13.18	3.29	0	3.7	5.2	3.7	8.6	3.7	10.4	3.7	21.5	3.7	23.4	3.7	16.5	3.7	11.7	3.7	7.8	3.7	0	3.7
78	216.75	29.80	14.63	3.66	0	4	5.6	4	9.4	4	11.3	4	23.4	4	25.4	4.0	17.9	4	12.8	4	8.5	4	0	4
79	219.75	32.60	17.34	4.34	0	5.1	6.3	5.1	9.7	5.1	12.8	5.1	26.2	5.1	30.2	5.1	24.6	5.1	18.6	5.1	18.6	5.1	0.1	5.1
80	222.75	52.60	19.08	4.77	0	7.1	8.8	7.1	13.6	7.1	17.9	7.1	36.7	7.1	42.3	7.1	34.4	7.1	26	7.1	26	7.1	0.1	7.1
81	225.75	96.90	17.25	4.31	0	11.5	14.3	11.5	22.1	11.5	29	11.5	59.5	11.5	68.5	11.5	55.8	11.5	42.2	11.5	42.2	11.5	0.1	11.5
82	228.75	52.90	18.57	4.64	0	7.1	8.8	7.1	13.6	7.1	17.9	7.1	36.7	7.1	42.2	7.1	34.4	7.1	26	7.1	26	7.1	0.1	7.1
83	231.75	34.50	15.77	3.94	0	4.4	6.2	4.4	10.3	4.4	12.4	4.4	25.7	4.4	28	4.4	19.7	4.4	14	4.4	9.3	4.4	0.1	4.4
84	234.75	30.60	14.39	3.60	0	4.1	5.7	4.1	9.5	4.1	11.5	4.1	23.7	4.1	25.8	4.1	18.2	4.1	12.9	4.1	8.6	4.1	0	4.1
85	237.75	26.90	13.04	3.26	0	3.7	5.3	3.7	8.8	3.7	10.6	3.7	21.9	3.7	23.8	3.7	16.7	3.7	11.9	3.7	7.9	3.7	0	3.7
86	240.75	25.10	11.83	2.96	0	3.6	5.1	3.6	8.4	3.6	10.2	3.6	21	3.6	22.9	3.6	16.1	3.6	11.5	3.6	7.6	3.6	0	3.6
87	243.75	20.10	10.65	2.66	0	3.1	4.4	3.1	7.3	3.1	8.9	3.1	18.3	3.1	19.9	3.1	14	3.1	10	3.1	6.6	3.1	0	3.1
88	246.75	16.30	9.58	2.39	0	2.7	3.8	2.7	6.3	2.7	7.7	2.7	15.8	2.7	17.2	2.7	12.1	2.7	8.6	2.7	5.7	2.7	0	2.7
89	249.75	16.30	8.53	2.13	0	2.3	3.2	2.3	5.4	2.3	6.5	2.3	13.4	2.3	14.6	2.3	10.3	2.3	7.3	2.3	4.9	2.3	0	2.3
90	252.75	16.30	7.62	1.91	0	1.9	2.7	1.9	4.5	1.9	5.4	1.9	11.2	1.9	12.1	1.9	8.5	1.9	6.1	1.9	4	1.9	0	1.9
91	255.75	16.30	7.09	1.77	0	1.5	2.2	1.5	3.6	1.5	4.4	1.5	9	1.5	9.8	1.5	6.9	1.5	4.9	1.5	3.3	1.5	0	1.5
92	258.75	16.30	7.66	1.91	0	1.9	2.7	1.9	4.4	1.9	5.3	1.9	11	1.9	11.9	1.9	8.4	1.9	6	1.9	4	1.9	0	1.9
93	261.75	16.30	8.42	2.10	0	2.2	3.2	2.2	5.2	2.2	6.3	2.2	13.1	2.2	14.2	2.2	10	2.2	7.1	2.2	4.7	2.2	0	2.2
94	264.75	16.30	9.41	2.35	0	2.6	3.7	2.6	6.1	2.6	7.4	2.6	15.2	2.6	16.6	2.6	11.7	2.6	8.3	2.6	5.5	2.6	0	2.6
95	267.75	18.20	10.56	2.64	0	3	4.2	3	6.9	3	8.4	3	17.3	3	18.8	3.0	13.3	3	9.5	3	6.3	3	0	3
96	270.75	22.20	11.82	2.95	0	3.3	4.7	3.3	7.8	3.3	9.4	3.3	19.5	3.3	21.2	3.3	14.9	3.3	10.6	3.3	7	3.3	0	3.3
97	273.75	26.20	13.15	3.29	0	3.7	5.2	3.7	8.6	3.7	10.4	3.7	21.5	3.7	23.4	3.7	16.5	3.7	11.7	3.7	7.8	3.7	0	3.7
98	276.75	29.90	14.60	3.65	0	4	5.6	4	9.4	4	11.3	4	23.4	4	25.4	4.0	17.9	4	12.8	4	8.5	4	0	4
99	279.75	32.70	17.31	4.33	0	5.1	6.3	5.1	9.7	5.1	12.8	5.1	26.2	5.1	30.2	5.1	24.6	5.1	18.6	5.1	18.6	5.1	0.1	5.1
100	282.75	52.60	19.05	4.76	0	7.1	8.8	7.1	13.6	7.1	17.9	7.1	36.7	7.1	42.3	7.1	34.4	7.1	26	7.1	26	7.1	0.1	7.1
101	285.75	96.90	17.24	4.31	0	11.5	14.3	11.5	22.1	11.5	29	11.5	59.5	11.5	68.5	11.5	55.8	11.5	42.2	11.5	42.2	11.5	0.1	11.5
102	288.75	52.90	18.56	4.64	0	7.1	8.8	7.1	13.6	7.1	17.9	7.1	36.7	7.1	42.2	7.1	34.4	7.1	26	7.1	26	7.1	0.1	7.1
103	291.75	34.60	15.76	3.94	0	4.4	6.2	4.4	10.3	4.4	12.4	4.4	25.7	4.4	28	4.4	19.7	4.4	14	4.4	9.3	4.4	0.1	4.4
104	294.75	30.60	14.38	3.60	0	4.1	5.7	4.1	9.5	4.1	11.5	4.1	23.7	4.1	25.8	4.1	18.2	4.1	12.9	4.1	8.6	4.1	0	4.1
105	297.75	26.90	13.03	3.26	0	3.7	5.3	3.7	8.8	3.7	10.6	3.7	21.9	3.7	23.8	3.7	16.7	3.7	11.9	3.7	7.9	3.7	0	3.7
106	300.75	25.10	11.80	2.95	0	3.6	5.1	3.6	8.4	3.6	10.2	3.6	21	3.6	22.9	3.6	16.1	3.6	11.5	3.6	7.6	3.6	0	3.6
107	303.75	20.10	10.63	2.66	0	3.1	4.4	3.1	7.3	3.1	8.9	3.1	18.3	3.1	19.9	3.1	14	3.1	10	3.1	6.6	3.1	0	3.1
108	306.75	16.30	9.56	2.39	0	2.7	3.8	2.7	6.3	2.7	7.7	2.7	15.8	2.7	17.2	2.7	12.1	2.7	8.6	2.7	5.7	2.7	0	2.7
109	309.75	16.30	8.53	2.13	0	2.3	3.2	2.3	5.4	2.3	6.5	2.3	13.4	2.3	14.6	2.3	10.3	2.3	7.3	2.3	4.9	2.3	0	2.3
110	312.75	16.30	7.60	1.90	0	1.9	2.7	1.9	4.5	1.9	5.4	1.9	11.2	1.9	12.1	1.9	8.5	1.9	6.1	1.9	4	1.9	0	1.9
111	315.75	16.30	7.07	1.77	0	1.5	2.2	1.5	3.6	1.5	4.4	1.5	9	1.5	9.8	1.5	6.9	1.5	4.9	1.5	3.3	1.5	0	1.5
112	318.75	16.30	7.67	1.92	0	1.9	2.7	1.9	4.4	1.9	5.3	1.9	11	1.9	12	1.9	8.4	1.9	6	1.9	4	1.9	0	1.9
113	321.75	16.30	8.43	2.11	0	2.2	3.2	2.2	5.3	2.2	6.4	2.2	13.1	2.2	14.3	2.2	10.1	2.2	7.2	2.2	4.7	2.2	0	2.2
114	324.75	16.30	9.42	2.35	0	2.6	3.7	2.6	6.1	2.6	7.4	2.6	15.3	2.6	16.6	2.6	11.7	2.6	8.3	2.6	5.5	2.6	0	2.6
115	327.75	18.20	10.57	2.64	0	3	4.2	3	7	3	8.4	3	17.4	3	18.9	3.0	13.3	3	9.5	3	6.3	3	0	3
116	330.75	22.30	11.82	2.95	0	3.3	4.7	3.3	7.8	3.3	9.4	3.3	19.5	3.3	21.2	3.3	14.9	3.3	10.6	3.3	7	3.3	0	3.3
117	333.75	26.20	13.14	3.29	0	3.7	5.2	3.7	8.6	3.7	10.4	3.7	21.5	3.7	23.4	3.7	16.5	3.7	11.8	3.7	7.8	3.7	0	3.7
118	336.75	29.90	14.60	3.65	0	4	5.7	4	9.4	4	11.3	4	23.4	4	25.5	4.0	17.9	4	12.8	4	8.5	4	0	4
119	339.75	32.70	17.31	4.33	0	5.1	6.3	5.1	9.8	5.1	12.8	5.1	26.3	5.1	30.2	5.1	24.6	5.1	18.6	5.1	18.6	5.1	0.1	5.1
120	342.75	90.60	19.08	4.77	0	11	13.6	11	21.1	11	27.6	11	56.7	11	65.3	11.0	53.1	11	40.2	11	40.2	11	0.1	11
121	345.75	96.90	17.23	4.31	0	11.5	14.3	11.5	22.1	11.5	29	11.5	59.6	11.5	68.5	11.5	55.8	11.5	42.2	11.5	42.2	11.5	0.1	11.5
122	348.75	52.90	18.55	4.64	0	7.1	8.8	7.1	13.6	7.1	17.9	7.1	36.7	7.1	42.2	7.1	34.4	7.1	26	7.1	26	7.1	0.1	7.1

ARMADURA TRANSVERSAL EN TABLERO

Alpha=26,5°

Luz vano		
1	45.0	m
2	60.0	m
3	60.0	m
4	60.0	m
5	60.0	m
6	60.0	m
7	60.0	m
8	60.0	m
9	60.0	m
10	60.0	m
11	60.0	m
12	60.0	m
13	60.0	m
14	45.0	m

		Cortante	Torsión		Armadura de Rasante (cm2/m)																	
					1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10
SEC	X	Asc	Asl	Ast	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td
	m	(cm2/m)	(cm2/m)	(cm2/m)																				
123	351.75	34.60	15.75	3.94	0	4.4	6.2	4.4	10.3	4.4	12.5	4.4	25.7	4.4	28	4.4	19.7	4.4	14	4.4	9.3	4.4	0.1	4.4
124	354.75	30.60	14.37	3.59	0	4.1	5.7	4.1	9.5	4.1	11.5	4.1	23.7	4.1	25.8	4.1	18.2	4.1	12.9	4.1	8.6	4.1	0	4.1
125	357.75	26.90	13.02	3.25	0	3.7	5.3	3.7	8.8	3.7	10.6	3.7	21.9	3.7	23.8	3.7	16.8	3.7	11.9	3.7	7.9	3.7	0	3.7
126	360.75	25.10	11.79	2.95	0	3.6	5.1	3.6	8.4	3.6	10.2	3.6	21.1	3.6	22.9	3.6	16.1	3.6	11.5	3.6	7.6	3.6	0	3.6
127	363.75	20.10	10.62	2.65	0	3.1	4.4	3.1	7.4	3.1	8.9	3.1	18.4	3.1	20	3.1	14.1	3.1	10	3.1	6.6	3.1	0	3.1
128	366.75	16.30	9.55	2.39	0	2.7	3.8	2.7	6.3	2.7	7.7	2.7	15.9	2.7	17.2	2.7	12.1	2.7	8.6	2.7	5.7	2.7	0	2.7
129	369.75	16.30	8.54	2.13	0	2.3	3.2	2.3	5.4	2.3	6.5	2.3	13.4	2.3	14.6	2.3	10.3	2.3	7.3	2.3	4.9	2.3	0	2.3
130	372.75	16.30	7.60	1.90	0	1.9	2.7	1.9	4.5	1.9	5.4	1.9	11.2	1.9	12.1	1.9	8.6	1.9	6.1	1.9	4	1.9	0	1.9
131	375.75	16.30	7.08	1.77	0	1.5	2.2	1.5	3.6	1.5	4.4	1.5	9	1.5	9.8	1.5	6.9	1.5	4.9	1.5	3.3	1.5	0	1.5
132	378.75	16.30	7.67	1.92	0	1.9	2.7	1.9	4.4	1.9	5.3	1.9	11	1.9	12	1.9	8.4	1.9	6	1.9	4	1.9	0	1.9
133	381.75	16.30	8.42	2.10	0	2.2	3.2	2.2	5.3	2.2	6.4	2.2	13.1	2.2	14.3	2.2	10.1	2.2	7.2	2.2	4.7	2.2	0	2.2
134	384.75	16.30	9.40	2.35	0	2.6	3.7	2.6	6.1	2.6	7.4	2.6	15.3	2.6	16.6	2.6	11.7	2.6	8.3	2.6	5.5	2.6	0	2.6
135	387.75	18.20	10.55	2.64	0	3	4.2	3	7	3	8.4	3	17.4	3	18.9	3.0	13.3	3	9.5	3	6.3	3	0	3
136	390.75	22.30	11.80	2.95	0	3.3	4.7	3.3	7.8	3.3	9.4	3.3	19.5	3.3	21.2	3.3	14.9	3.3	10.6	3.3	7	3.3	0	3.3
137	393.75	26.20	13.13	3.28	0	3.7	5.2	3.7	8.6	3.7	10.4	3.7	21.5	3.7	23.4	3.7	16.5	3.7	11.8	3.7	7.8	3.7	0	3.7
138	396.75	29.90	14.58	3.65	0	4	5.7	4	9.4	4	11.3	4	23.4	4	25.5	4.0	17.9	4	12.8	4	8.5	4	0	4
139	399.75	32.70	17.29	4.32	0	5.1	6.3	5.1	9.8	5.1	12.8	5.1	26.3	5.1	30.2	5.1	24.6	5.1	18.6	5.1	18.6	5.1	0.1	5.1
140	402.75	90.60	19.06	4.77	0	11	13.6	11	21.1	11	27.6	11	56.7	11	65.3	11.0	53.2	11	40.2	11	40.2	11	0.1	11
141	405.75	96.90	17.26	4.31	0	11.5	14.3	11.5	22.1	11.5	29	11.5	59.6	11.5	68.5	11.5	55.8	11.5	42.2	11.5	42.2	11.5	0.1	11.5
142	408.75	52.90	18.56	4.64	0	7.1	8.8	7.1	13.6	7.1	17.9	7.1	36.7	7.1	42.2	7.1	34.4	7.1	26	7.1	26	7.1	0.1	7.1
143	411.75	34.60	15.76	3.94	0	4.4	6.2	4.4	10.3	4.4	12.5	4.4	25.7	4.4	28	4.4	19.7	4.4	14	4.4	9.3	4.4	0.1	4.4
144	414.75	30.60	14.39	3.60	0	4.1	5.7	4.1	9.5	4.1	11.5	4.1	23.7	4.1	25.8	4.1	18.2	4.1	12.9	4.1	8.6	4.1	0	4.1
145	417.75	26.90	13.04	3.26	0	3.7	5.3	3.7	8.8	3.7	10.6	3.7	21.9	3.7	23.8	3.7	16.7	3.7	11.9	3.7	7.9	3.7	0	3.7
146	420.75	25.10	11.79	2.95	0	3.6	5.1	3.6	8.4	3.6	10.2	3.6	21.1	3.6	22.9	3.6	16.1	3.6	11.5	3.6	7.6	3.6	0	3.6
147	423.75	20.10	10.61	2.65	0	3.1	4.4	3.1	7.4	3.1	8.9	3.1	18.4	3.1	20	3.1	14.1	3.1	10	3.1	6.6	3.1	0	3.1
148	426.75	16.30	9.56	2.39	0	2.7	3.8	2.7	6.3	2.7	7.7	2.7	15.8	2.7	17.2	2.7	12.1	2.7	8.6	2.7	5.7	2.7	0	2.7
149	429.75	16.30	8.54	2.13	0	2.3	3.2	2.3	5.4	2.3	6.5	2.3	13.5	2.3	14.6	2.3	10.3	2.3	7.3	2.3	4.9	2.3	0	2.3
150	432.75	16.30	7.61	1.90	0	1.9	2.7	1.9	4.5	1.9	5.4	1.9	11.2	1.9	12.1	1.9	8.6	1.9	6.1	1.9	4	1.9	0	1.9
151	435.75	16.30	7.07	1.77	0	1.5	2.2	1.5	3.6	1.5	4.4	1.5	9	1.5	9.8	1.5	6.9	1.5	4.9	1.5	3.3	1.5	0	1.5
152	438.75	16.30	7.66	1.91	0	1.9	2.7	1.9	4.4	1.9	5.3	1.9	11	1.9	12	1.9	8.4	1.9	6	1.9	4	1.9	0	1.9
153	441.75	16.30	8.40	2.10	0	2.2	3.2	2.2	5.3	2.2	6.4	2.2	13.1	2.2	14.3	2.2	10.1	2.2	7.2	2.2	4.7	2.2	0	2.2
154	444.75	16.30	9.40	2.35	0	2.6	3.7	2.6	6.1	2.6	7.4	2.6	15.3	2.6	16.6	2.6	11.7	2.6	8.3	2.6	5.5	2.6	0	2.6
155	447.75	18.20	10.54	2.63	0	3	4.2	3	7	3	8.4	3	17.4	3	18.9	3.0	13.3	3	9.5	3	6.3	3	0	3
156	450.75	22.30	11.79	2.95	0	3.3	4.7	3.3	7.8	3.3	9.4	3.3	19.5	3.3	21.2	3.3	14.9	3.3	10.6	3.3	7	3.3	0	3.3
157	453.75	26.20	13.12	3.28	0	3.7	5.2	3.7	8.6	3.7	10.4	3.7	21.5	3.7	23.4	3.7	16.5	3.7	11.8	3.7	7.8	3.7	0	3.7
158	456.75	29.90	14.57	3.64	0	4	5.7	4	9.4	4	11.3	4	23.4	4	25.5	4.0	17.9	4	12.8	4	8.5	4	0	4
159	459.75	32.70	17.28	4.32	0	5.1	6.3	5.1	9.8	5.1	12.8	5.1	26.3	5.1	30.2	5.1	24.6	5.1	18.6	5.1	18.6	5.1	0.1	5.1
160	462.75	90.60	19.03	4.76	0	11	13.6	11	21.1	11	27.6	11	56.7	11	65.3	11.0	53.2	11	40.2	11	40.2	11	0.1	11
161	465.75	96.90	17.16	4.29	0	11.5	14.3	11.5	22.1	11.5	29	11.5	59.6	11.5	68.5	11.5	55.8	11.5	42.2	11.5	42.2	11.5	0.1	11.5
162	468.75	52.90	18.47	4.62	0	7.1	8.8	7.1	13.6	7.1	17.9	7.1	36.7	7.1	42.2	7.1	34.4	7.1	26	7.1	26	7.1	0.1	7.1
163	471.75	34.60	15.68	3.92	0	4.4	6.2	4.4	10.3	4.4	12.5	4.4	25.7	4.4	28	4.4	19.7	4.4	14	4.4	9.3	4.4	0.1	4.4
164	474.75	30.60	14.30	3.57	0	4.1	5.7	4.1	9.5	4.1	11.5	4.1	23.7	4.1	25.8	4.1	18.2	4.1	12.9	4.1	8.6	4.1	0	4.1
165	477.75	26.90	12.95	3.24	0	3.7	5.3	3.7	8.8	3.7	10.6	3.7	21.9	3.7	23.8	3.7	16.7	3.7	11.9	3.7	7.9	3.7	0	3.7
166	480.75	25.10	11.82	2.95	0	3.6	5.1	3.6	8.4	3.6	10.2	3.6	21.1	3.6	22.9	3.6	16.1	3.6	11.5	3.6	7.6	3.6	0	3.6
167	483.75	20.10	10.63	2.66	0	3.1	4.4	3.1	7.3	3.1	8.9	3.1	18.4	3.1	20	3.1	14.1	3.1	10	3.1	6.6	3.1	0	3.1
168	486.75	16.30	9.55	2.39	0	2.7	3.8	2.7	6.3	2.7	7.7	2.7	15.8	2.7	17.2	2.7	12.1	2.7	8.6	2.7	5.7	2.7	0	2.7
169	489.75	16.30	8.55	2.14	0	2.3	3.2	2.3	5.4	2.3	6.5	2.3	13.4	2.3	14.6	2.3	10.3	2.3	7.3	2.3	4.9	2.3	0	2.3
170	492.75	16.30	7.63	1.91	0	1.9	2.7	1.9	4.5	1.9	5.4	1.9	11.2	1.9	12.1	1.9	8.5	1.9	6.1	1.9	4	1.9	0	1.9
171	495.75	16.30	7.08	1.77	0	1.5	2.2	1.5	3.6	1.5	4.4	1.5	9	1.5	9.8	1.5	6.9	1.5	4.9	1.5	3.3	1.5	0	1.5
172	498.75	16.30	7.63	1.91	0	1.9	2.7	1.9	4.4	1.9	5.3	1.9	11	1.9	12	1.9	8.4	1.9	6	1.9	4	1.9	0	1.9
173	501.75	16.30	8.39	2.10	0	2.2	3.2	2.2	5.3	2.2	6.4	2.2	13.1	2.2	14.3	2.2	10	2.2	7.2	2.2	4.7	2.2	0	2.2
174	504.75	16.30	9.37	2.34	0	2.6	3.7	2.6	6.1	2.6	7.4	2.6	15.3	2.6	16.6	2.6	11.7	2.6	8.3	2.6	5.5	2.6	0	2.6
175	507.75	18.20	10.52	2.63	0	3	4.2	3	7	3	8.4	3	17.4	3	18.9	3.0	13.3	3	9.5	3	6.3	3	0	3
176	510.75	22.30	11.77	2.94	0	3.3	4.7	3.3	7.8	3.3	9.4	3.3	19.5	3.3	21.2	3.3	14.9	3.3	10.6	3.3	7	3.3	0	3.3
177	513.75	26.20	13.09	3.27	0	3.7	5.2	3.7	8.6	3.7	10.4	3.7	21.5	3.7	23.4	3.7	16.5	3.7	11.8	3.7	7.8	3.7	0	3.7
178	516.75	29.90	14.55	3.64	0	4	5.7	4	9.4	4	11.3	4	23.4	4	25.5	4.0	17.9	4	12.8	4	8.5	4	0	4
179	519.75	32.70	17.26	4.31	0	5.1	6.3	5.1	9.8	5.1	12.8	5.1	26.3	5.1	30.2	5.1	24.6	5.1	18.6	5.1	18.6	5.1	0.1	5.1
180	522.75	90.60	19.01	4.75	0	11	13.6	11	21.1	11	27.6	11	56.7	11	65.3	11.0	53.1	11	40.2	11	40.2	11	0.1	11
181	525.75	96.90	17.21	4.30	0	11.5	14.3	11.5	22.1	11.5	29	11.5	59.5	11.5	68.5	11.5	55.8	11.5	42.2	11.5	42.2	11.5	0.1	11.5
182	528.75	52.80	18.54	4.63	0	7.1	8.8	7.1	13.6	7.1	17.9	7.1	36.7	7.1	42.2	7.1	34.4	7.1	26	7.1	26	7.1	0.1	7.1
183	531.75	34.50	15.72	3.93	0	4.4	6.2	4.4	10.3	4.4	12.4	4.4	25.7	4.4	27.9	4.4	19.7	4.4	14	4.4	9.3	4.4	0.1	4.4

ARMADURA TRANSVERSAL EN TABLERO

Alpha=26,5°

Luz vano		
1	45.0	m
2	60.0	m
3	60.0	m
4	60.0	m
5	60.0	m
6	60.0	m
7	60.0	m
8	60.0	m
9	60.0	m
10	60.0	m
11	60.0	m
12	60.0	m
13	60.0	m
14	45.0	m

		Cortante	Torsión		Armadura de Rasante (cm2/m)																	
					1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10
SEC	X	Asc	Asl	Ast	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td
	m	(cm2/m)	(cm2/m)	(cm2/m)																				
184	534.75	30.50	14.34	3.59	0	4	5.7	4	9.5	4	11.5	4	23.7	4	25.8	4.0	18.1	4	12.9	4	8.6	4	0	4
185	537.75	26.90	13.00	3.25	0	3.7	5.3	3.7	8.7	3.7	10.6	3.7	21.8	3.7	23.8	3.7	16.7	3.7	11.9	3.7	7.9	3.7	0	3.7
186	540.75	25.10	11.79	2.95	0	3.6	5.1	3.6	8.4	3.6	10.2	3.6	21	3.6	22.9	3.6	16.1	3.6	11.5	3.6	7.6	3.6	0	3.6
187	543.75	20.10	10.63	2.66	0	3.1	4.4	3.1	7.3	3.1	8.9	3.1	18.3	3.1	19.9	3.1	14	3.1	10	3.1	6.6	3.1	0	3.1
188	546.75	16.30	9.55	2.39	0	2.7	3.8	2.7	6.3	2.7	7.7	2.7	15.8	2.7	17.2	2.7	12.1	2.7	8.6	2.7	5.7	2.7	0	2.7
189	549.75	16.30	8.53	2.13	0	2.3	3.2	2.3	5.4	2.3	6.5	2.3	13.4	2.3	14.6	2.3	10.3	2.3	7.3	2.3	4.9	2.3	0	2.3
190	552.75	16.30	7.62	1.91	0	1.9	2.7	1.9	4.5	1.9	5.4	1.9	11.1	1.9	12.1	1.9	8.5	1.9	6.1	1.9	4	1.9	0	1.9
191	555.75	16.30	7.07	1.77	0	1.5	2.2	1.5	3.6	1.5	4.4	1.5	9	1.5	9.8	1.5	6.9	1.5	4.9	1.5	3.3	1.5	0	1.5
192	558.75	16.30	7.64	1.91	0	1.9	2.7	1.9	4.4	1.9	5.3	1.9	11	1.9	12	1.9	8.4	1.9	6	1.9	4	1.9	0	1.9
193	561.75	16.30	8.39	2.10	0	2.2	3.2	2.2	5.3	2.2	6.3	2.2	13.1	2.2	14.3	2.2	10	2.2	7.2	2.2	4.7	2.2	0	2.2
194	564.75	16.30	9.39	2.35	0	2.6	3.7	2.6	6.1	2.6	7.4	2.6	15.3	2.6	16.6	2.6	11.7	2.6	8.3	2.6	5.5	2.6	0	2.6
195	567.75	18.20	10.53	2.63	0	3	4.2	3	6.9	3	8.4	3	17.4	3	18.9	3.0	13.3	3	9.5	3	6.3	3	0	3
196	570.75	22.20	11.78	2.94	0	3.3	4.7	3.3	7.8	3.3	9.4	3.3	19.5	3.3	21.2	3.3	14.9	3.3	10.6	3.3	7	3.3	0	3.3
197	573.75	26.20	13.11	3.28	0	3.7	5.2	3.7	8.6	3.7	10.4	3.7	21.5	3.7	23.4	3.7	16.5	3.7	11.7	3.7	7.8	3.7	0	3.7
198	576.75	29.90	14.56	3.64	0	4	5.7	4	9.4	4	11.3	4	23.4	4	25.5	4.0	17.9	4	12.8	4	8.5	4	0	4
199	579.75	32.70	17.27	4.32	0	5.1	6.3	5.1	9.8	5.1	12.8	5.1	26.3	5.1	30.2	5.1	24.6	5.1	18.6	5.1	18.6	5.1	0.1	5.1
200	582.75	90.60	19.02	4.75	0	10.9	13.6	10.9	21.1	10.9	27.6	10.9	56.7	10.9	65.3	10.9	53.1	10.9	40.2	10.9	40.2	10.9	0.1	10.9
201	585.75	96.80	17.17	4.29	0	11.5	14.2	11.5	22.1	11.5	29	11.5	59.5	11.5	68.5	11.5	55.7	11.5	42.2	11.5	42.2	11.5	0.1	11.5
202	588.75	52.80	18.49	4.62	0	7.1	8.8	7.1	13.6	7.1	17.8	7.1	36.6	7.1	42.2	7.1	34.3	7.1	26	7.1	26	7.1	0.1	7.1
203	591.75	34.50	15.70	3.92	0	4.4	6.2	4.4	10.3	4.4	12.4	4.4	25.7	4.4	27.9	4.4	19.6	4.4	14	4.4	9.3	4.4	0.1	4.4
204	594.75	30.50	14.32	3.58	0	4	5.7	4	9.5	4	11.5	4	23.7	4	25.7	4.0	18.1	4	12.9	4	8.6	4	0	4
205	597.75	26.80	12.97	3.24	0	3.7	5.3	3.7	8.7	3.7	10.6	3.7	21.8	3.7	23.7	3.7	16.7	3.7	11.9	3.7	7.9	3.7	0	3.7
206	600.75	25.00	11.80	2.95	0	3.6	5.1	3.6	8.4	3.6	10.2	3.6	21	3.6	22.8	3.6	16.1	3.6	11.5	3.6	7.6	3.6	0	3.6
207	603.75	20.00	10.62	2.66	0	3.1	4.4	3.1	7.3	3.1	8.9	3.1	18.3	3.1	19.9	3.1	14	3.1	10	3.1	6.6	3.1	0	3.1
208	606.75	16.30	9.54	2.39	0	2.7	3.8	2.7	6.3	2.7	7.6	2.7	15.8	2.7	17.2	2.7	12.1	2.7	8.6	2.7	5.7	2.7	0	2.7
209	609.75	16.30	8.54	2.14	0	2.3	3.2	2.3	5.4	2.3	6.5	2.3	13.4	2.3	14.6	2.3	10.2	2.3	7.3	2.3	4.8	2.3	0	2.3
210	612.75	16.30	7.61	1.90	0	1.9	2.7	1.9	4.4	1.9	5.4	1.9	11.1	1.9	12.1	1.9	8.5	1.9	6.1	1.9	4	1.9	0	1.9
211	615.75	16.30	7.06	1.77	0	1.5	2.2	1.5	3.6	1.5	4.3	1.5	9	1.5	9.7	1.5	6.9	1.5	4.9	1.5	3.2	1.5	0	1.5
212	618.75	16.30	7.65	1.91	0	1.9	2.6	1.9	4.4	1.9	5.3	1.9	10.9	1.9	11.9	1.9	8.4	1.9	6	1.9	3.9	1.9	0	1.9
213	621.75	16.30	8.40	2.10	0	2.2	3.1	2.2	5.2	2.2	6.3	2.2	13	2.2	14.2	2.2	10	2.2	7.1	2.2	4.7	2.2	0	2.2
214	624.75	16.30	9.39	2.35	0	2.6	3.7	2.6	6.1	2.6	7.3	2.6	15.2	2.6	16.5	2.6	11.6	2.6	8.3	2.6	5.5	2.6	0	2.6
215	627.75	18.00	10.53	2.63	0	2.9	4.2	2.9	6.9	2.9	8.4	2.9	17.3	2.9	18.8	2.9	13.2	2.9	9.4	2.9	6.2	2.9	0	2.9
216	630.75	22.10	11.78	2.95	0	3.3	4.7	3.3	7.8	3.3	9.4	3.3	19.4	3.3	21.1	3.3	14.8	3.3	10.6	3.3	7	3.3	0	3.3
217	633.75	26.00	13.11	3.28	0	3.7	5.2	3.7	8.6	3.7	10.4	3.7	21.4	3.7	23.3	3.7	16.4	3.7	11.7	3.7	7.8	3.7	0	3.7
218	636.75	29.70	14.56	3.64	0	4	5.6	4	9.3	4	11.3	4	23.3	4	25.4	4.0	17.9	4	12.7	4	8.4	4	0	4
219	639.75	78.80	17.27	4.32	0	9.8	12.1	9.8	18.8	9.8	24.6	9.8	50.5	9.8	58.2	9.8	47.3	9.8	35.8	9.8	35.8	9.8	0.1	9.8
220	642.75	90.40	19.03	4.76	0	10.9	13.6	10.9	21	10.9	27.6	10.9	56.6	10.9	65.2	10.9	53	10.9	40.1	10.9	40.1	10.9	0.1	10.9
221	645.75	96.10	17.17	4.29	0	11.4	14.2	11.4	22	11.4	28.8	11.4	59.1	11.4	68.1	11.4	55.4	11.4	41.9	11.4	41.9	11.4	0.1	11.4
222	648.75	52.10	18.49	4.62	0	7	8.7	7	13.5	7	17.7	7	36.3	7	41.8	7.0	34	7	25.7	7	25.7	7	0.1	7
223	651.75	33.80	15.69	3.92	0	4.3	6.1	4.3	10.1	4.3	12.3	4.3	25.3	4.3	27.5	4.3	19.4	4.3	13.8	4.3	9.2	4.3	0.1	4.3
224	654.75	29.80	14.31	3.58	0	4	5.6	4	9.3	4	11.3	4	23.3	4	25.4	4.0	17.9	4	12.7	4	8.4	4	0	4
225	657.75	26.10	12.96	3.24	0	3.7	5.2	3.7	8.6	3.7	10.4	3.7	21.5	3.7	23.3	3.7	16.4	3.7	11.7	3.7	7.8	3.7	0	3.7
226	660.75	24.30	11.81	2.95	0	3.5	5	3.5	8.3	3.5	10	3.5	20.6	3.5	22.4	3.5	15.8	3.5	11.3	3.5	7.5	3.5	0	3.5
227	663.75	19.30	10.62	2.65	0	3.1	4.3	3.1	7.2	3.1	8.7	3.1	17.9	3.1	19.5	3.1	13.7	3.1	9.8	3.1	6.5	3.1	0	3.1
228	666.75	16.30	9.56	2.39	0	2.6	3.7	2.6	6.2	2.6	7.5	2.6	15.4	2.6	16.8	2.6	11.8	2.6	8.4	2.6	5.6	2.6	0	2.6
229	669.75	16.30	8.53	2.13	0	2.2	3.1	2.2	5.2	2.2	6.3	2.2	13	2.2	14.2	2.2	10	2.2	7.1	2.2	4.7	2.2	0	2.2
230	672.75	16.30	7.62	1.91	0	1.8	2.6	1.8	4.3	1.8	5.2	1.8	10.7	1.8	11.7	1.8	8.2	1.8	5.9	1.8	3.9	1.8	0	1.8
231	675.75	16.30	7.07	1.77	0	1.5	2.1	1.5	3.5	1.5	4.2	1.5	8.7	1.5	9.5	1.5	6.7	1.5	4.8	1.5	3.2	1.5	0	1.5
232	678.75	16.30	7.63	1.91	0	1.8	2.6	1.8	4.3	1.8	5.2	1.8	10.8	1.8	11.7	1.8	8.3	1.8	5.9	1.8	3.9	1.8	0	1.8
233	681.75	16.30	8.38	2.10	0	2.2	3.1	2.2	5.2	2.2	6.2	2.2	12.9	2.2	14	2.2	9.9	2.2	7	2.2	4.7	2.2	0	2.2
234	684.75	16.30	9.37	2.34	0	2.6	3.6	2.6	6	2.6	7.3	2.6	15	2.6	16.4	2.6	11.5	2.6	8.2	2.6	5.4	2.6	0	2.6
235	687.75	17.80	10.51	2.63	0	2.9	4.1	2.9	6.9	2.9	8.3	2.9	17.1	2.9	18.6	2.9	13.1	2.9	9.3	2.9	6.2	2.9	0	2.9
236	690.75	21.80	11.76	2.94	0	3.3	4.6	3.3	7.7	3.3	9.3	3.3	19.3	3.3	20.9	3.3	14.7	3.3	10.5	3.3	7	3.3	0	3.3
237	693.75	25.80	13.10	3.27	0	3.6	5.1	3.6	8.5	3.6	10.3	3.6	21.3	3.6	23.2	3.6	16.3	3.6	11.6	3.6	7.7	3.6	0	3.6
238	696.75	29.50	14.55	3.64	0	4	5.6	4	9.3	4	11.2	4	23.2	4	25.2	4.0	17.8	4	12.7	4	8.4	4	0	4
239	699.75	78.60	17.25	4.31	0	9.7	12.1	9.7	18.7	9.7	24.6	9.7	50.4	9.7	58.1	9.7	47.3	9.7	35.8	9.7	35.8	9.7	0.1	9.7
240	702.75	90.30	19.01	4.75	0	10.9	13.5	10.9	21	10.9	27.5	10.9	56.5	10.9	65.1	10.9	53	10.9	40.1	10.9	40.1	10.9	0.1	10.9
241	705.75	95.50	16.97	4.24	0	11.4	14.1	11.4	21.9	11.4	28.7	11.4	58.8	11.4	67.7	11.4	55.1	11.4	41.7	11.4	41.7	11.4	0.1	11.4
242	708.75	51.50	18.28	4.57	0	6.9	8.6	6.9	13.4	6.9	17.5	6.9	36	6.9	41.4	6.9	33.7	6.9	25.5	6.9	25.5	6.9	0.1	6.9
243	711.75	33.10	15.50	3.87	0	4.3	6	4.3	10	4.3	12.1	4.3	25	4.3	27.2	4.3	19.1	4.3	13.6	4.3	9	4.3	0.1	4.3
244	714.75	29.10	14.12	3.53	0	3.9	5.5	3.9	9.2	3.9	11.1	3.9	23	3.9	25	3.9	17.6	3.9	12.5	3.9	8.3	3.9	0	3.9

ARMADURA TRANSVERSAL EN TABLERO

Alpha=26,5°

Luz vano		
1	45.0	m
2	60.0	m
3	60.0	m
4	60.0	m
5	60.0	m
6	60.0	m
7	60.0	m
8	60.0	m
9	60.0	m
10	60.0	m
11	60.0	m
12	60.0	m
13	60.0	m
14	45.0	m

		Cortante	Torsión		Armadura de Rasante (cm2/m)																	
					1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10
SEC	X	Asc	Asl	Ast	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td	Vd	Td
	m	(cm2/m)	(cm2/m)	(cm2/m)																				
245	717.75	25.50	12.77	3.19	0	3.6	5.1	3.6	8.5	3.6	10.2	3.6	21.1	3.6	23	3.6	16.2	3.6	11.5	3.6	7.6	3.6	0	3.6
246	720.75	23.40	11.56	2.89	0	3.4	4.9	3.4	8.1	3.4	9.7	3.4	20.1	3.4	21.9	3.4	15.4	3.4	11	3.4	7.3	3.4	0	3.4
247	723.75	18.50	10.40	2.60	0	3	4.2	3	7	3	8.5	3	17.5	3	19	3.0	13.4	3	9.5	3	6.3	3	0	3
248	726.75	16.30	9.32	2.33	0	2.6	3.6	2.6	6	2.6	7.3	2.6	15	2.6	16.3	2.6	11.5	2.6	8.2	2.6	5.4	2.6	0	2.6
249	729.75	16.30	8.29	2.07	0	2.2	3.1	2.2	5.1	2.2	6.1	2.2	12.7	2.2	13.6	2.2	9.7	2.2	6.9	2.2	4.6	2.2	0	2.2
250	732.75	16.30	7.53	1.88	0	1.8	2.5	1.8	4.2	1.8	5	1.8	10.4	1.8	11.3	1.8	8	1.8	5.7	1.8	3.8	1.8	0	1.8
251	735.75	16.30	7.00	1.75	0	1.4	2	1.4	3.3	1.4	4	1.4	8.3	1.4	9	1.4	6.4	1.4	4.5	1.4	3	1.4	0	1.4
252	738.75	16.30	7.59	1.90	0	1.6	2.3	1.6	3.9	1.6	4.7	1.6	9.6	1.6	10.5	1.6	7.4	1.6	5.3	1.6	3.5	1.6	0	1.6
253	741.75	16.30	8.34	2.09	0	2	2.8	2	4.7	2	5.7	2	11.8	2	12.8	2.0	9	2	6.4	2	4.3	2	0	2
254	744.75	16.30	9.32	2.33	0	2.4	3.4	2.4	5.6	2.4	6.7	2.4	13.9	2.4	15.1	2.4	10.7	2.4	7.6	2.4	5	2.4	0	2.4
255	747.75	16.30	10.47	2.62	0	2.7	3.9	2.7	6.4	2.7	7.8	2.7	16	2.7	17.4	2.7	12.3	2.7	8.7	2.7	5.8	2.7	0	2.7
256	750.75	19.70	11.73	2.93	0	3.1	4.4	3.1	7.3	3.1	8.8	3.1	18.1	3.1	19.7	3.1	13.9	3.1	9.9	3.1	6.6	3.1	0	3.1
257	753.75	23.60	13.05	3.26	0	3.4	4.9	3.4	8.1	3.4	9.8	3.4	20.2	3.4	21.9	3.4	15.5	3.4	11	3.4	7.3	3.4	0	3.4
258	756.75	27.20	14.50	3.63	0	3.8	5.3	3.8	8.8	3.8	10.7	3.8	22	3.8	24	3.8	16.9	3.8	12	3.8	8	3.8	0	3.8
259	759.75	76.50	17.21	4.30	0	9.5	11.8	9.5	18.3	9.5	24	9.5	49.3	9.5	56.7	9.5	46.2	9.5	34.9	9.5	34.9	9.5	0.1	9.5
260	762.75	88.20	18.96	4.74	0	10.7	13.3	10.7	20.6	10.7	27	10.7	55.4	10.7	63.8	10.7	51.9	10.7	39.3	10.7	39.3	10.7	0.1	10.7
261	765.75	82.30	14.46	3.61	0	10	12.4	10	19.3	10	25.3	10	51.9	10	59.8	10.0	48.7	10	36.8	10	36.8	10	0.1	10
262	768.00	51.00	14.00	3.50	0	6.9	8.6	6.9	13.3	6.9	17.5	6.9	35.9	6.9	41.3	6.9	33.6	6.9	25.4	6.9	25.4	6.9	0.1	6.9
263	770.25	23.60	11.90	2.98	0	3.4	4.9	3.4	8.1	3.4	9.8	3.4	20.2	3.4	21.9	3.4	15.4	3.4	11	3.4	7.3	3.4	0	3.4
264	772.50	21.30	10.83	2.71	0	3.2	4.6	3.2	7.6	3.2	9.2	3.2	19	3.2	20.7	3.2	14.5	3.2	10.4	3.2	6.9	3.2	0	3.2
265	774.75	17.60	9.79	2.45	0	2.9	4.1	2.9	6.8	2.9	8.3	2.9	17.1	2.9	18.6	2.9	13.1	2.9	9.3	2.9	6.2	2.9	0	2.9
266	777.00	17.40	8.86	2.22	0	2.9	4.1	2.9	6.8	2.9	8.2	2.9	16.9	2.9	18.4	2.9	12.9	2.9	9.2	2.9	6.1	2.9	0	2.9
267	779.25	16.30	7.96	1.99	0	2.5	3.6	2.5	5.9	2.5	7.2	2.5	14.8	2.5	16.1	2.5	11.3	2.5	8.1	2.5	5.4	2.5	0	2.5
268	781.50	16.30	7.02	1.76	0	2.3	3.3	2.3	5.4	2.3	6.5	2.3	13.5	2.3	14.7	2.3	10.4	2.3	7.4	2.3	4.9	2.3	0	2.3
269	783.75	16.30	6.06	1.51	0	2.1	2.9	2.1	4.9	2.1	5.9	2.1	12.2	2.1	13.3	2.1	9.4	2.1	6.7	2.1	4.4	2.1	0	2.1
270	786.00	16.30	5.22	1.30	0	1.9	2.7	1.9	4.4	1.9	5.3	1.9	11	1.9	12	1.9	8.4	1.9	6	1.9	4	1.9	0	1.9
271	788.25	16.30	5.51	1.38	0	1.7	2.5	1.7	4.1	1.7	4.9	1.7	10.2	1.7	11.1	1.7	7.8	1.7	5.5	1.7	3.7	1.7	0	1.7
272	790.50	16.30	5.98	1.49	0	1.6	2.3	1.6	3.8	1.6	4.6	1.6	9.4	1.6	10.2	1.6	7.2	1.6	5.1	1.6	3.4	1.6	0	1.6
273	792.75	16.30	6.93	1.73	0	1.3	1.9	1.3	3.1	1.3	3.8	1.3	7.8	1.3	8.5	1.3	6	1.3	4.3	1.3	2.8	1.3	0	1.3
274	795.00	16.30	7.91	1.98	0	1.1	1.6	1.1	2.6	1.1	3.2	1.1	6.6	1.1	7.2	1.1	5	1.1	3.6	1.1	2.4	1.1	0	1.1
275	797.25	16.30	8.51	2.13	0	1.3	1.8	1.3	3	1.3	3.7	1.3	7.6	1.3	8.2	1.3	5.8	1.3	4.1	1.3	2.7	1.3	0	1.3
276	799.50	16.30	9.26	2.32	0	1.6	2.3	1.6	3.8	1.6	4.6	1.6	9.5	1.6	10.3	1.6	7.2	1.6	5.2	1.6	3.4	1.6	0	1.6
277	801.75	16.30	10.23	2.56	0	2	2.8	2	4.6	2	5.5	2	11.4	2	12.4	2.0	8.8	2	6.2	2	4.1	2	0	2
278	804.00	16.30	11.33	2.83	0	2.3	3.3	2.3	5.5	2.3	6.6	2.3	13.6	2.3	14.8	2.3	10.4	2.3	7.4	2.3	4.9	2.3	0	2.3
279	806.25	16.30	12.44	3.11	0	2.7	3.8	2.7	6.4	2.7	7.7	2.7	15.9	2.7	17.3	2.7	12.2	2.7	8.7	2.7	5.7	2.7	0	2.7
280	808.50	19.90	13.62	3.41	0	3.1	4.4	3.1	7.3	3.1	8.8	3.1	18.3	3.1	19.8	3.1	14	3.1	10	3.1	6.6	3.1	0	3.1
281	810.75	57.00	13.02	3.26	0	6.4	9.1	6.4	15.1	6.4	18.2	6.4	37.6	6.4	40.9	6.4	28.8	6.4	20.5	6.4	13.6	6.4	0.1	6.4

ARMADURA TRANSVERSAL EN TABLERO

Alpha=26,5°

Luz vano				
1	45.0	m	% As sup	0.45
2	60.0	m	% As inf	0.55
3	60.0	m		
4	60.0	m		
5	60.0	m		
6	60.0	m		
7	60.0	m		
8	60.0	m		
9	60.0	m		
10	60.0	m		
11	60.0	m		
12	60.0	m		
13	60.0	m		
14	45.0	m		

		Armadura de Rasante (cm2/m)																			
		1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10
SEC	X	inf	sup	inf	sup	inf	sup	inf	sup	Int	ext	Int	ext	Int	ext	inf	sup	inf	sup	inf	sup
	m																				
1	0.75	2.3	1.9	5.6	4.6	7.8	6.3	8.9	7.3	16.0	13.1	17.1	14.0	12.8	10.4	9.7	8.0	7.3	5.9	2.4	1.9
2	3.00	2.0	1.6	4.7	3.9	6.6	5.4	7.5	6.2	13.5	11.0	14.5	11.8	10.8	8.8	8.3	6.8	6.2	5.0	2.0	1.6
3	5.25	1.7	1.4	4.1	3.4	5.7	4.7	6.5	5.4	11.7	9.6	12.6	10.3	9.4	7.7	7.2	5.9	5.3	4.4	1.7	1.4
4	7.50	1.5	1.2	3.6	2.9	5.0	4.1	5.7	4.6	10.1	8.2	10.8	8.9	8.1	6.6	6.2	5.0	4.6	3.8	1.5	1.2
5	9.75	1.2	1.0	3.0	2.4	4.1	3.3	4.7	3.8	8.4	6.9	9.0	7.4	6.7	5.5	5.1	4.2	3.8	3.1	1.2	1.0
6	12.00	1.0	0.8	2.4	2.0	3.4	2.7	3.8	3.1	6.8	5.6	7.3	6.0	5.4	4.5	4.2	3.4	3.1	2.5	1.0	0.8
7	14.25	0.8	0.6	1.9	1.5	2.6	2.2	3.0	2.5	5.4	4.4	5.8	4.7	4.3	3.5	3.3	2.7	2.4	2.0	0.8	0.6
8	16.50	0.6	0.5	1.5	1.2	2.0	1.7	2.3	1.9	4.2	3.4	4.5	3.7	3.4	2.7	2.5	2.1	1.9	1.5	0.6	0.5
9	18.75	0.8	0.6	1.9	1.5	2.6	2.2	3.0	2.5	5.4	4.4	5.8	4.7	4.3	3.5	3.3	2.7	2.4	2.0	0.8	0.6
10	21.00	1.0	0.8	2.4	1.9	3.3	2.7	3.8	3.1	6.8	5.5	7.3	5.9	5.4	4.4	4.1	3.4	3.1	2.5	1.0	0.8
11	23.25	1.1	0.9	2.6	2.2	3.7	3.0	4.2	3.4	7.5	6.1	8.0	6.6	6.0	4.9	4.6	3.7	3.4	2.8	1.1	0.9
12	25.50	1.2	1.0	2.9	2.4	4.0	3.3	4.6	3.8	8.3	6.8	8.9	7.3	6.6	5.4	5.1	4.1	3.7	3.1	1.2	1.0
13	27.75	1.3	1.1	3.2	2.6	4.4	3.6	5.1	4.1	9.1	7.4	9.7	8.0	7.3	5.9	5.6	4.5	4.1	3.4	1.3	1.1
14	30.00	1.4	1.2	3.5	2.8	4.8	4.0	5.6	4.5	9.9	8.1	10.7	8.7	7.9	6.5	6.1	5.0	4.5	3.7	1.4	1.2
15	32.25	1.5	1.3	3.7	3.1	5.2	4.3	6.0	4.9	10.7	8.8	11.5	9.4	8.6	7.0	6.5	5.4	4.8	4.0	1.5	1.3
16	34.50	1.7	1.4	4.1	3.3	5.7	4.6	6.5	5.3	11.6	9.5	12.4	10.2	9.2	7.6	7.1	5.8	5.3	4.3	1.7	1.4
17	36.75	1.8	1.5	4.3	3.6	6.1	5.0	6.9	5.7	12.4	10.1	13.3	10.9	9.9	8.1	7.6	6.2	5.7	4.6	1.8	1.5
18	39.00	1.9	1.6	4.6	3.8	6.4	5.3	7.4	6.0	13.1	10.8	14.1	11.6	10.5	8.6	8.0	6.6	6.0	4.9	1.9	1.6
19	41.25	2.4	1.9	5.3	4.4	6.9	5.7	8.4	6.8	14.7	12.0	16.6	13.5	13.9	11.4	11.1	9.1	11.1	9.1	2.4	1.9
20	43.50	4.0	3.2	8.9	7.2	11.6	9.5	13.9	11.4	24.4	20.0	27.5	22.5	23.1	18.9	18.4	15.1	18.4	15.1	4.0	3.3
21	45.75	6.3	5.2	14.2	11.6	18.5	15.2	22.3	18.3	39.2	32.0	44.2	36.1	37.1	30.4	29.6	24.3	29.6	24.3	6.4	5.2
22	48.75	4.0	3.3	9.0	7.4	11.8	9.6	14.1	11.6	24.8	20.3	27.9	22.9	23.5	19.2	18.8	15.3	18.8	15.3	4.1	3.3
23	51.75	2.5	2.1	6.1	5.0	8.5	6.9	9.7	7.9	17.3	14.2	18.6	15.2	13.9	11.3	10.6	8.7	7.9	6.4	2.6	2.1
24	54.75	2.3	1.9	5.6	4.5	7.7	6.3	8.9	7.2	15.8	12.9	17.0	13.9	12.7	10.4	9.7	7.9	7.2	5.9	2.4	1.9
25	57.75	2.1	1.7	5.1	4.1	7.0	5.7	8.0	6.6	14.4	11.7	15.4	12.6	11.5	9.4	8.8	7.2	6.5	5.4	2.1	1.7
26	60.75	1.8	1.5	4.4	3.6	6.1	5.0	7.0	5.7	12.5	10.2	13.4	11.0	10.0	8.1	7.6	6.3	5.7	4.6	1.8	1.5
27	63.75	1.6	1.3	3.8	3.1	5.3	4.3	6.1	5.0	10.8	8.8	11.6	9.5	8.6	7.1	6.6	5.4	4.9	4.0	1.6	1.3
28	66.75	1.3	1.1	3.2	2.6	4.5	3.6	5.1	4.2	9.1	7.5	9.8	8.0	7.3	6.0	5.6	4.6	4.1	3.4	1.3	1.1
29	69.75	1.1	0.9	2.7	2.2	3.7	3.0	4.2	3.5	7.6	6.2	8.1	6.7	6.1	5.0	4.6	3.8	3.5	2.8	1.1	0.9
30	72.75	0.9	0.7	2.1	1.8	3.0	2.4	3.4	2.8	6.1	5.0	6.6	5.4	4.9	4.0	3.7	3.1	2.8	2.3	0.9	0.7
31	75.75	0.8	0.6	1.9	1.5	2.6	2.2	3.0	2.5	5.4	4.5	5.8	4.8	4.3	3.6	3.3	2.7	2.5	2.0	0.8	0.6
32	78.75	1.0	0.8	2.4	1.9	3.3	2.7	3.8	3.1	6.8	5.5	7.3	5.9	5.4	4.4	4.1	3.4	3.1	2.5	1.0	0.8
33	81.75	1.2	1.0	2.9	2.3	4.0	3.2	4.6	3.7	8.1	6.7	8.7	7.2	6.5	5.3	5.0	4.1	3.7	3.1	1.2	1.0
34	84.75	1.4	1.1	3.4	2.7	4.6	3.8	5.3	4.3	9.5	7.7	10.2	8.3	7.6	6.2	5.8	4.7	4.3	3.5	1.4	1.1
35	87.75	1.6	1.3	3.9	3.2	5.3	4.3	6.1	5.0	10.8	8.9	11.7	9.5	8.7	7.1	6.7	5.4	5.0	4.1	1.6	1.3
36	90.75	1.8	1.4	4.3	3.5	5.9	4.9	6.8	5.6	12.2	9.9	13.1	10.7	9.7	8.0	7.4	6.1	5.6	4.5	1.8	1.4
37	93.75	2.0	1.6	4.8	3.9	6.6	5.4	7.6	6.2	13.5	11.1	14.5	11.9	10.8	8.9	8.3	6.8	6.2	5.0	2.0	1.6
38	96.75	2.1	1.8	5.2	4.2	7.2	5.9	8.3	6.8	14.7	12.1	15.8	13.0	11.8	9.6	9.0	7.4	6.7	5.5	2.1	1.8
39	99.75	2.8	2.3	6.2	5.0	8.0	6.6	9.6	7.9	16.9	13.8	19.0	15.6	16.0	13.1	12.8	10.4	12.8	10.4	2.8	2.3
40	102.75	3.9	3.2	8.6	7.1	11.2	9.2	13.5	11.1	23.8	19.4	26.8	21.9	22.5	18.4	18.0	14.7	18.0	14.7	3.9	3.2
41	105.75	6.3	5.2	14.1	11.6	18.5	15.1	22.2	18.2	39.0	31.9	43.9	35.9	36.9	30.2	29.5	24.1	29.5	24.1	6.4	5.2
42	108.75	3.9	3.2	8.7	7.1	11.4	9.3	13.7	11.2	24.0	19.6	27.0	22.1	22.7	18.6	18.2	14.9	18.2	14.9	4.0	3.2
43	111.75	2.4	2.0	5.8	4.8	8.0	6.6	9.2	7.6	16.5	13.5	17.7	14.5	13.2	10.8	10.1	8.3	7.5	6.2	2.5	2.0
44	114.75	2.2	1.8	5.3	4.4	7.4	6.0	8.5	6.9	15.2	12.4	16.3	13.3	12.2	9.9	9.3	7.6	6.9	5.6	2.2	1.8
45	117.75	2.0	1.7	5.0	4.1	6.8	5.6	7.8	6.4	14.0	11.5	15.1	12.3	11.2	9.2	8.6	7.0	6.4	5.2	2.0	1.7
46	120.75	2.0	1.6	4.8	3.9	6.6	5.4	7.5	6.2	13.5	11.0	14.5	11.8	10.8	8.8	8.3	6.8	6.2	5.0	2.0	1.6
47	123.75	1.7	1.4	4.1	3.4	5.7	4.7	6.5	5.4	11.7	9.6	12.6	10.3	9.4	7.7	7.2	5.9	5.3	4.4	1.7	1.4
48	126.75	1.5	1.2	3.6	2.9	5.0	4.1	5.7	4.6	10.1	8.3	10.9	8.9	8.1	6.6	6.2	5.1	4.6	3.8	1.5	1.2
49	129.75	1.3	1.0	3.0	2.5	4.2	3.4	4.8	3.9	8.6	7.0	9.2	7.6	6.9	5.6	5.3	4.3	3.9	3.2	1.3	1.0
50	132.75	1.0	0.9	2.5	2.1	3.5	2.8	4.0	3.2	7.1	5.8	7.6	6.3	5.7	4.6	4.3	3.6	3.2	2.7	1.0	0.9
51	135.75	0.8	0.7	2.0	1.6	2.8	2.3	3.2	2.6	5.7	4.7	6.2	5.0	4.6	3.7	3.5	2.8	2.6	2.1	0.8	0.7

ARMADURA TRANSVERSAL EN TABLERO

Alpha=26,5°

Luz vano		
1	45.0	m
2	60.0	m
3	60.0	m
4	60.0	m
5	60.0	m
6	60.0	m
7	60.0	m
8	60.0	m
9	60.0	m
10	60.0	m
11	60.0	m
12	60.0	m
13	60.0	m
14	45.0	m

% As sup 0.45
% As inf 0.55

Armadura de Rasante (cm2/m)

SEC	X m	1 inf	1 sup	2 inf	2 sup	3 inf	3 sup	4 inf	4 sup	5 int	5 ext	6 int	6 ext	7 int	7 ext	8 inf	8 sup	9 inf	9 sup	10 inf	10 sup
52	138.75	1.0	0.8	2.4	1.9	3.3	2.7	3.8	3.1	6.8	5.5	7.3	6.0	5.4	4.5	4.2	3.4	3.1	2.5	1.0	0.8
53	141.75	1.2	1.0	2.9	2.4	4.0	3.3	4.6	3.7	8.1	6.7	8.7	7.2	6.5	5.4	5.0	4.1	3.7	3.1	1.2	1.0
54	144.75	1.4	1.1	3.4	2.7	4.6	3.8	5.3	4.4	9.5	7.8	10.2	8.4	7.6	6.2	5.8	4.8	4.3	3.5	1.4	1.1
55	147.75	1.6	1.3	3.9	3.2	5.3	4.4	6.1	5.0	10.9	8.9	11.7	9.6	8.7	7.1	6.7	5.4	5.0	4.1	1.6	1.3
56	150.75	1.8	1.4	4.3	3.5	5.9	4.9	6.8	5.6	12.2	10.0	13.1	10.8	9.7	8.0	7.5	6.1	5.6	4.5	1.8	1.4
57	153.75	2.0	1.6	4.8	3.9	6.6	5.4	7.6	6.2	13.6	11.1	14.6	11.9	10.8	8.9	8.3	6.8	6.2	5.0	2.0	1.6
58	156.75	2.1	1.8	5.2	4.2	7.2	5.9	8.3	6.8	14.8	12.1	15.9	13.0	11.8	9.7	9.0	7.4	6.7	5.5	2.1	1.8
59	159.75	2.8	2.3	6.2	5.0	8.0	6.6	9.7	7.9	16.9	13.9	19.1	15.6	16.1	13.1	12.8	10.5	12.8	10.5	2.8	2.3
60	162.75	3.9	3.2	8.6	7.1	11.3	9.2	13.6	11.1	23.8	19.5	26.8	22.0	22.6	18.5	18.0	14.7	18.0	14.7	3.9	3.2
61	165.75	6.3	5.2	14.1	11.6	18.5	15.1	22.2	18.2	39.0	31.9	43.9	36.0	37.0	30.2	29.5	24.1	29.5	24.1	6.4	5.2
62	168.75	3.9	3.2	8.7	7.2	11.4	9.3	13.7	11.2	24.0	19.7	27.1	22.1	22.8	18.6	18.2	14.9	18.2	14.9	4.0	3.2
63	171.75	2.4	2.0	5.8	4.8	8.0	6.6	9.2	7.6	16.5	13.5	17.7	14.5	13.2	10.8	10.1	8.3	7.5	6.2	2.5	2.0
64	174.75	2.2	1.8	5.3	4.4	7.4	6.0	8.5	6.9	15.2	12.4	16.3	13.3	12.2	9.9	9.3	7.6	6.9	5.6	2.2	1.8
65	177.75	2.0	1.7	4.9	4.0	6.8	5.6	7.8	6.4	14.0	11.4	15.0	12.3	11.2	9.1	8.6	7.0	6.4	5.2	2.0	1.7
66	180.75	2.0	1.6	4.7	3.9	6.6	5.4	7.5	6.2	13.5	11.0	14.5	11.8	10.8	8.8	8.3	6.8	6.2	5.0	2.0	1.6
67	183.75	1.7	1.4	4.1	3.4	5.7	4.7	6.5	5.4	11.7	9.6	12.6	10.3	9.4	7.7	7.2	5.9	5.3	4.4	1.7	1.4
68	186.75	1.5	1.2	3.6	2.9	5.0	4.1	5.7	4.6	10.1	8.3	10.9	8.9	8.1	6.6	6.2	5.1	4.6	3.8	1.5	1.2
69	189.75	1.3	1.0	3.0	2.5	4.2	3.4	4.8	3.9	8.6	7.0	9.2	7.6	6.9	5.6	5.3	4.3	3.9	3.2	1.3	1.0
70	192.75	1.0	0.9	2.5	2.1	3.5	2.8	4.0	3.2	7.1	5.8	7.6	6.3	5.7	4.6	4.3	3.6	3.2	2.7	1.0	0.9
71	195.75	0.8	0.7	2.0	1.7	2.8	2.3	3.2	2.6	5.7	4.7	6.2	5.0	4.6	3.7	3.5	2.9	2.6	2.1	0.8	0.7
72	198.75	1.0	0.9	2.5	2.1	3.5	2.8	4.0	3.2	7.1	5.8	7.6	6.2	5.7	4.6	4.3	3.6	3.2	2.7	1.0	0.9
73	201.75	1.2	1.0	3.0	2.4	4.1	3.3	4.7	3.8	8.4	6.9	9.0	7.4	6.7	5.5	5.1	4.2	3.8	3.1	1.2	1.0
74	204.75	1.4	1.2	3.5	2.8	4.8	3.9	5.5	4.5	9.8	8.0	10.6	8.6	7.9	6.4	6.0	4.9	4.5	3.6	1.4	1.2
75	207.75	1.7	1.4	4.0	3.2	5.4	4.5	6.3	5.1	11.2	9.1	12.0	9.8	9.0	7.3	6.9	5.6	5.1	4.2	1.7	1.4
76	210.75	1.8	1.5	4.4	3.6	6.1	5.0	7.0	5.7	12.5	10.2	13.4	11.0	10.0	8.2	7.6	6.3	5.7	4.6	1.8	1.5
77	213.75	2.0	1.7	4.9	4.0	6.8	5.5	7.8	6.3	13.9	11.3	14.9	12.2	11.1	9.1	8.5	6.9	6.3	5.2	2.0	1.7
78	216.75	2.2	1.8	5.3	4.3	7.4	6.0	8.4	6.9	15.1	12.3	16.2	13.2	12.0	9.9	9.2	7.6	6.9	5.6	2.2	1.8
79	219.75	2.8	2.3	6.3	5.1	8.1	6.7	9.8	8.1	17.2	14.1	19.4	15.9	16.3	13.4	13.0	10.7	13.0	10.7	2.9	2.3
80	222.75	3.9	3.2	8.7	7.2	11.4	9.3	13.8	11.3	24.1	19.7	27.2	22.2	22.8	18.7	18.2	14.9	18.2	14.9	4.0	3.2
81	225.75	6.3	5.2	14.2	11.6	18.5	15.1	22.3	18.2	39.1	32.0	44.0	36.0	37.0	30.3	29.5	24.2	29.5	24.2	6.4	5.2
82	228.75	3.9	3.2	8.7	7.2	11.4	9.3	13.8	11.3	24.1	19.7	27.1	22.2	22.8	18.7	18.2	14.9	18.2	14.9	4.0	3.2
83	231.75	2.4	2.0	5.8	4.8	8.1	6.6	9.2	7.6	16.6	13.5	17.8	14.6	13.3	10.8	10.1	8.3	7.5	6.2	2.5	2.0
84	234.75	2.3	1.8	5.4	4.4	7.5	6.1	8.6	7.0	15.3	12.5	16.4	13.5	12.3	10.0	9.4	7.7	7.0	5.7	2.3	1.8
85	237.75	2.0	1.7	5.0	4.1	6.9	5.6	7.9	6.4	14.1	11.5	15.1	12.4	11.2	9.2	8.6	7.0	6.4	5.2	2.0	1.7
86	240.75	2.0	1.6	4.8	3.9	6.6	5.4	7.6	6.2	13.5	11.1	14.6	11.9	10.8	8.9	8.3	6.8	6.2	5.0	2.0	1.6
87	243.75	1.7	1.4	4.1	3.4	5.7	4.7	6.6	5.4	11.8	9.6	12.7	10.4	9.4	7.7	7.2	5.9	5.3	4.4	1.7	1.4
88	246.75	1.5	1.2	3.6	2.9	5.0	4.1	5.7	4.7	10.2	8.3	10.9	9.0	8.1	6.7	6.2	5.1	4.6	3.8	1.5	1.2
89	249.75	1.3	1.0	3.0	2.5	4.2	3.5	4.8	4.0	8.6	7.1	9.3	7.6	6.9	5.7	5.3	4.3	4.0	3.2	1.3	1.0
90	252.75	1.0	0.9	2.5	2.1	3.5	2.9	4.0	3.3	7.2	5.9	7.7	6.3	5.7	4.7	4.4	3.6	3.2	2.7	1.0	0.9
91	255.75	0.8	0.7	2.0	1.7	2.8	2.3	3.2	2.7	5.8	4.7	6.2	5.1	4.6	3.8	3.5	2.9	2.6	2.2	0.8	0.7
92	258.75	1.0	0.9	2.5	2.1	3.5	2.8	4.0	3.2	7.1	5.8	7.6	6.2	5.7	4.6	4.3	3.6	3.2	2.7	1.0	0.9
93	261.75	1.2	1.0	3.0	2.4	4.1	3.3	4.7	3.8	8.4	6.9	9.0	7.4	6.7	5.5	5.1	4.2	3.8	3.1	1.2	1.0
94	264.75	1.4	1.2	3.5	2.8	4.8	3.9	5.5	4.5	9.8	8.0	10.6	8.6	7.9	6.4	6.0	4.9	4.5	3.6	1.4	1.2
95	267.75	1.7	1.4	4.0	3.2	5.4	4.5	6.3	5.1	11.2	9.1	12.0	9.8	9.0	7.3	6.9	5.6	5.1	4.2	1.7	1.4
96	270.75	1.8	1.5	4.4	3.6	6.1	5.0	7.0	5.7	12.5	10.3	13.5	11.0	10.0	8.2	7.6	6.3	5.7	4.6	1.8	1.5
97	273.75	2.0	1.7	4.9	4.0	6.8	5.5	7.8	6.3	13.9	11.3	14.9	12.2	11.1	9.1	8.5	6.9	6.3	5.2	2.0	1.7
98	276.75	2.2	1.8	5.3	4.3	7.4	6.0	8.4	6.9	15.1	12.3	16.2	13.2	12.0	9.9	9.2	7.6	6.9	5.6	2.2	1.8
99	279.75	2.8	2.3	6.3	5.1	8.1	6.7	9.8	8.1	17.2	14.1	19.4	15.9	16.3	13.4	13.0	10.7	13.0	10.7	2.9	2.3
100	282.75	3.9	3.2	8.7	7.2	11.4	9.3	13.8	11.3	24.1	19.7	27.2	22.2	22.8	18.7	18.2	14.9	18.2	14.9	4.0	3.2
101	285.75	6.3	5.2	14.2	11.6	18.5	15.1	22.3	18.2	39.1	32.0	44.0	36.0	37.0	30.3	29.5	24.2	29.5	24.2	6.4	5.2
102	288.75	3.9	3.2	8.7	7.2	11.4	9.3	13.8	11.3	24.1	19.7	27.1	22.2	22.8	18.7	18.2	14.9	18.2	14.9	4.0	3.2

ARMADURA TRANSVERSAL EN TABLERO

Alpha=26,5°

Luz vano

1	45.0	m
2	60.0	m
3	60.0	m
4	60.0	m
5	60.0	m
6	60.0	m
7	60.0	m
8	60.0	m
9	60.0	m
10	60.0	m
11	60.0	m
12	60.0	m
13	60.0	m
14	45.0	m

% As sup 0.45

% As inf 0.55

Armadura de Rasante (cm2/m)

SEC	X m	1 inf	1 sup	2 inf	2 sup	3 inf	3 sup	4 inf	4 sup	5 int	5 ext	6 int	6 ext	7 int	7 ext	8 inf	8 sup	9 inf	9 sup	10 inf	10 sup
103	291.75	2.4	2.0	5.8	4.8	8.1	6.6	9.2	7.6	16.6	13.5	17.8	14.6	13.3	10.8	10.1	8.3	7.5	6.2	2.5	2.0
104	294.75	2.3	1.8	5.4	4.4	7.5	6.1	8.6	7.0	15.3	12.5	16.4	13.5	12.3	10.0	9.4	7.7	7.0	5.7	2.3	1.8
105	297.75	2.0	1.7	5.0	4.1	6.9	5.6	7.9	6.4	14.1	11.5	15.1	12.4	11.2	9.2	8.6	7.0	6.4	5.2	2.0	1.7
106	300.75	2.0	1.6	4.8	3.9	6.6	5.4	7.6	6.2	13.5	11.1	14.6	11.9	10.8	8.9	8.3	6.8	6.2	5.0	2.0	1.6
107	303.75	1.7	1.4	4.1	3.4	5.7	4.7	6.6	5.4	11.8	9.6	12.7	10.4	9.4	7.7	7.2	5.9	5.3	4.4	1.7	1.4
108	306.75	1.5	1.2	3.6	2.9	5.0	4.1	5.7	4.7	10.2	8.3	10.9	9.0	8.1	6.7	6.2	5.1	4.6	3.8	1.5	1.2
109	309.75	1.3	1.0	3.0	2.5	4.2	3.5	4.8	4.0	8.6	7.1	9.3	7.6	6.9	5.7	5.3	4.3	4.0	3.2	1.3	1.0
110	312.75	1.0	0.9	2.5	2.1	3.5	2.9	4.0	3.3	7.2	5.9	7.7	6.3	5.7	4.7	4.4	3.6	3.2	2.7	1.0	0.9
111	315.75	0.8	0.7	2.0	1.7	2.8	2.3	3.2	2.7	5.8	4.7	6.2	5.1	4.6	3.8	3.5	2.9	2.6	2.2	0.8	0.7
112	318.75	1.0	0.9	2.5	2.1	3.5	2.8	4.0	3.2	7.1	5.8	7.6	6.3	5.7	4.6	4.3	3.6	3.2	2.7	1.0	0.9
113	321.75	1.2	1.0	3.0	2.4	4.1	3.4	4.7	3.9	8.4	6.9	9.1	7.4	6.8	5.5	5.2	4.2	3.8	3.1	1.2	1.0
114	324.75	1.4	1.2	3.5	2.8	4.8	3.9	5.5	4.5	9.8	8.1	10.6	8.6	7.9	6.4	6.0	4.9	4.5	3.6	1.4	1.2
115	327.75	1.7	1.4	4.0	3.2	5.5	4.5	6.3	5.1	11.2	9.2	12.0	9.9	9.0	7.3	6.9	5.6	5.1	4.2	1.7	1.4
116	330.75	1.8	1.5	4.4	3.6	6.1	5.0	7.0	5.7	12.5	10.3	13.5	11.0	10.0	8.2	7.6	6.3	5.7	4.6	1.8	1.5
117	333.75	2.0	1.7	4.9	4.0	6.8	5.5	7.8	6.3	13.9	11.3	14.9	12.2	11.1	9.1	8.5	7.0	6.3	5.2	2.0	1.7
118	336.75	2.2	1.8	5.3	4.4	7.4	6.0	8.4	6.9	15.1	12.3	16.2	13.3	12.0	9.9	9.2	7.6	6.9	5.6	2.2	1.8
119	339.75	2.8	2.3	6.3	5.1	8.2	6.7	9.8	8.1	17.3	14.1	19.4	15.9	16.3	13.4	13.0	10.7	13.0	10.7	2.9	2.3
120	342.75	6.1	5.0	13.5	11.1	17.7	14.4	21.2	17.4	37.2	30.5	42.0	34.3	35.3	28.8	28.2	23.0	28.2	23.0	6.1	5.0
121	345.75	6.3	5.2	14.2	11.6	18.5	15.1	22.3	18.2	39.1	32.0	44.0	36.0	37.0	30.3	29.5	24.2	29.5	24.2	6.4	5.2
122	348.75	3.9	3.2	8.7	7.2	11.4	9.3	13.8	11.3	24.1	19.7	27.1	22.2	22.8	18.7	18.2	14.9	18.2	14.9	4.0	3.2
123	351.75	2.4	2.0	5.8	4.8	8.1	6.6	9.3	7.6	16.6	13.5	17.8	14.6	13.3	10.8	10.1	8.3	7.5	6.2	2.5	2.0
124	354.75	2.3	1.8	5.4	4.4	7.5	6.1	8.6	7.0	15.3	12.5	16.4	13.5	12.3	10.0	9.4	7.7	7.0	5.7	2.3	1.8
125	357.75	2.0	1.7	5.0	4.1	6.9	5.6	7.9	6.4	14.1	11.5	15.1	12.4	11.3	9.2	8.6	7.0	6.4	5.2	2.0	1.7
126	360.75	2.0	1.6	4.8	3.9	6.6	5.4	7.6	6.2	13.6	11.1	14.6	11.9	10.8	8.9	8.3	6.8	6.2	5.0	2.0	1.6
127	363.75	1.7	1.4	4.1	3.4	5.8	4.7	6.6	5.4	11.8	9.7	12.7	10.4	9.5	7.7	7.2	5.9	5.3	4.4	1.7	1.4
128	366.75	1.5	1.2	3.6	2.9	5.0	4.1	5.7	4.7	10.2	8.4	10.9	9.0	8.1	6.7	6.2	5.1	4.6	3.8	1.5	1.2
129	369.75	1.3	1.0	3.0	2.5	4.2	3.5	4.8	4.0	8.6	7.1	9.3	7.6	6.9	5.7	5.3	4.3	4.0	3.2	1.3	1.0
130	372.75	1.0	0.9	2.5	2.1	3.5	2.9	4.0	3.3	7.2	5.9	7.7	6.3	5.8	4.7	4.4	3.6	3.2	2.7	1.0	0.9
131	375.75	0.8	0.7	2.0	1.7	2.8	2.3	3.2	2.7	5.8	4.7	6.2	5.1	4.6	3.8	3.5	2.9	2.6	2.2	0.8	0.7
132	378.75	1.0	0.9	2.5	2.1	3.5	2.8	4.0	3.2	7.1	5.8	7.6	6.3	5.7	4.6	4.3	3.6	3.2	2.7	1.0	0.9
133	381.75	1.2	1.0	3.0	2.4	4.1	3.4	4.7	3.9	8.4	6.9	9.1	7.4	6.8	5.5	5.2	4.2	3.8	3.1	1.2	1.0
134	384.75	1.4	1.2	3.5	2.8	4.8	3.9	5.5	4.5	9.8	8.1	10.6	8.6	7.9	6.4	6.0	4.9	4.5	3.6	1.4	1.2
135	387.75	1.7	1.4	4.0	3.2	5.5	4.5	6.3	5.1	11.2	9.2	12.0	9.9	9.0	7.3	6.9	5.6	5.1	4.2	1.7	1.4
136	390.75	1.8	1.5	4.4	3.6	6.1	5.0	7.0	5.7	12.5	10.3	13.5	11.0	10.0	8.2	7.6	6.3	5.7	4.6	1.8	1.5
137	393.75	2.0	1.7	4.9	4.0	6.8	5.5	7.8	6.3	13.9	11.3	14.9	12.2	11.1	9.1	8.5	7.0	6.3	5.2	2.0	1.7
138	396.75	2.2	1.8	5.3	4.4	7.4	6.0	8.4	6.9	15.1	12.3	16.2	13.3	12.0	9.9	9.2	7.6	6.9	5.6	2.2	1.8
139	399.75	2.8	2.3	6.3	5.1	8.2	6.7	9.8	8.1	17.3	14.1	19.4	15.9	16.3	13.4	13.0	10.7	13.0	10.7	2.9	2.3
140	402.75	6.1	5.0	13.5	11.1	17.7	14.4	21.2	17.4	37.2	30.5	42.0	34.3	35.3	28.9	28.2	23.0	28.2	23.0	6.1	5.0
141	405.75	6.3	5.2	14.2	11.6	18.5	15.1	22.3	18.2	39.1	32.0	44.0	36.0	37.0	30.3	29.5	24.2	29.5	24.2	6.4	5.2
142	408.75	3.9	3.2	8.7	7.2	11.4	9.3	13.8	11.3	24.1	19.7	27.1	22.2	22.8	18.7	18.2	14.9	18.2	14.9	4.0	3.2
143	411.75	2.4	2.0	5.8	4.8	8.1	6.6	9.3	7.6	16.6	13.5	17.8	14.6	13.3	10.8	10.1	8.3	7.5	6.2	2.5	2.0
144	414.75	2.3	1.8	5.4	4.4	7.5	6.1	8.6	7.0	15.3	12.5	16.4	13.5	12.3	10.0	9.4	7.7	7.0	5.7	2.3	1.8
145	417.75	2.0	1.7	5.0	4.1	6.9	5.6	7.9	6.4	14.1	11.5	15.1	12.4	11.2	9.2	8.6	7.0	6.4	5.2	2.0	1.7
146	420.75	2.0	1.6	4.8	3.9	6.6	5.4	7.6	6.2	13.6	11.1	14.6	11.9	10.8	8.9	8.3	6.8	6.2	5.0	2.0	1.6
147	423.75	1.7	1.4	4.1	3.4	5.8	4.7	6.6	5.4	11.8	9.7	12.7	10.4	9.5	7.7	7.2	5.9	5.3	4.4	1.7	1.4
148	426.75	1.5	1.2	3.6	2.9	5.0	4.1	5.7	4.7	10.2	8.3	10.9	9.0	8.1	6.7	6.2	5.1	4.6	3.8	1.5	1.2
149	429.75	1.3	1.0	3.0	2.5	4.2	3.5	4.8	4.0	8.7	7.1	9.3	7.6	6.9	5.7	5.3	4.3	4.0	3.2	1.3	1.0
150	432.75	1.0	0.9	2.5	2.1	3.5	2.9	4.0	3.3	7.2	5.9	7.7	6.3	5.8	4.7	4.4	3.6	3.2	2.7	1.0	0.9
151	435.75	0.8	0.7	2.0	1.7	2.8	2.3	3.2	2.7	5.8	4.7	6.2	5.1	4.6	3.8	3.5	2.9	2.6	2.2	0.8	0.7
152	438.75	1.0	0.9	2.5	2.1	3.5	2.8	4.0	3.2	7.1	5.8	7.6	6.3	5.7	4.6	4.3	3.6	3.2	2.7	1.0	0.9
153	441.75	1.2	1.0	3.0	2.4	4.1	3.4	4.7	3.9	8.4	6.9	9.1	7.4	6.8	5.5	5.2	4.2	3.8	3.1	1.2	1.0

ARMADURA TRANSVERSAL EN TABLERO

Alpha=26,5°

Luz vano

1	45.0	m
2	60.0	m
3	60.0	m
4	60.0	m
5	60.0	m
6	60.0	m
7	60.0	m
8	60.0	m
9	60.0	m
10	60.0	m
11	60.0	m
12	60.0	m
13	60.0	m
14	45.0	m

% As sup 0.45
% As inf 0.55

Armadura de Rasante (cm2/m)

SEC	X m	1 inf	1 sup	2 inf	2 sup	3 inf	3 sup	4 inf	4 sup	5 int	5 ext	6 Int	6 ext	7 int	7 ext	8 inf	8 sup	9 inf	9 sup	10 inf	10 sup
154	444.75	1.4	1.2	3.5	2.8	4.8	3.9	5.5	4.5	9.8	8.1	10.6	8.6	7.9	6.4	6.0	4.9	4.5	3.6	1.4	1.2
155	447.75	1.7	1.4	4.0	3.2	5.5	4.5	6.3	5.1	11.2	9.2	12.0	9.9	9.0	7.3	6.9	5.6	5.1	4.2	1.7	1.4
156	450.75	1.8	1.5	4.4	3.6	6.1	5.0	7.0	5.7	12.5	10.3	13.5	11.0	10.0	8.2	7.6	6.3	5.7	4.6	1.8	1.5
157	453.75	2.0	1.7	4.9	4.0	6.8	5.5	7.8	6.3	13.9	11.3	14.9	12.2	11.1	9.1	8.5	7.0	6.3	5.2	2.0	1.7
158	456.75	2.2	1.8	5.3	4.4	7.4	6.0	8.4	6.9	15.1	12.3	16.2	13.3	12.0	9.9	9.2	7.6	6.9	5.6	2.2	1.8
159	459.75	2.8	2.3	6.3	5.1	8.2	6.7	9.8	8.1	17.3	14.1	19.4	15.9	16.3	13.4	13.0	10.7	13.0	10.7	2.9	2.3
160	462.75	6.1	5.0	13.5	11.1	17.7	14.4	21.2	17.4	37.2	30.5	42.0	34.3	35.3	28.9	28.2	23.0	28.2	23.0	6.1	5.0
161	465.75	6.3	5.2	14.2	11.6	18.5	15.1	22.3	18.2	39.1	32.0	44.0	36.0	37.0	30.3	29.5	24.2	29.5	24.2	6.4	5.2
162	468.75	3.9	3.2	8.7	7.2	11.4	9.3	13.8	11.3	24.1	19.7	27.1	22.2	22.8	18.7	18.2	14.9	18.2	14.9	4.0	3.2
163	471.75	2.4	2.0	5.8	4.8	8.1	6.6	9.3	7.6	16.6	13.5	17.8	14.6	13.3	10.8	10.1	8.3	7.5	6.2	2.5	2.0
164	474.75	2.3	1.8	5.4	4.4	7.5	6.1	8.6	7.0	15.3	12.5	16.4	13.5	12.3	10.0	9.4	7.7	7.0	5.7	2.3	1.8
165	477.75	2.0	1.7	5.0	4.1	6.9	5.6	7.9	6.4	14.1	11.5	15.1	12.4	11.2	9.2	8.6	7.0	6.4	5.2	2.0	1.7
166	480.75	2.0	1.6	4.8	3.9	6.6	5.4	7.6	6.2	13.6	11.1	14.6	11.9	10.8	8.9	8.3	6.8	6.2	5.0	2.0	1.6
167	483.75	1.7	1.4	4.1	3.4	5.7	4.7	6.6	5.4	11.8	9.7	12.7	10.4	9.5	7.7	7.2	5.9	5.3	4.4	1.7	1.4
168	486.75	1.5	1.2	3.6	2.9	5.0	4.1	5.7	4.7	10.2	8.3	10.9	9.0	8.1	6.7	6.2	5.1	4.6	3.8	1.5	1.2
169	489.75	1.3	1.0	3.0	2.5	4.2	3.5	4.8	4.0	8.6	7.1	9.3	7.6	6.9	5.7	5.3	4.3	4.0	3.2	1.3	1.0
170	492.75	1.0	0.9	2.5	2.1	3.5	2.9	4.0	3.3	7.2	5.9	7.7	6.3	5.7	4.7	4.4	3.6	3.2	2.7	1.0	0.9
171	495.75	0.8	0.7	2.0	1.7	2.8	2.3	3.2	2.7	5.8	4.7	6.2	5.1	4.6	3.8	3.5	2.9	2.6	2.2	0.8	0.7
172	498.75	1.0	0.9	2.5	2.1	3.5	2.8	4.0	3.2	7.1	5.8	7.6	6.3	5.7	4.6	4.3	3.6	3.2	2.7	1.0	0.9
173	501.75	1.2	1.0	3.0	2.4	4.1	3.4	4.7	3.9	8.4	6.9	9.1	7.4	6.7	5.5	5.2	4.2	3.8	3.1	1.2	1.0
174	504.75	1.4	1.2	3.5	2.8	4.8	3.9	5.5	4.5	9.8	8.1	10.6	8.6	7.9	6.4	6.0	4.9	4.5	3.6	1.4	1.2
175	507.75	1.7	1.4	4.0	3.2	5.5	4.5	6.3	5.1	11.2	9.2	12.0	9.9	9.0	7.3	6.9	5.6	5.1	4.2	1.7	1.4
176	510.75	1.8	1.5	4.4	3.6	6.1	5.0	7.0	5.7	12.5	10.3	13.5	11.0	10.0	8.2	7.6	6.3	5.7	4.6	1.8	1.5
177	513.75	2.0	1.7	4.9	4.0	6.8	5.5	7.8	6.3	13.9	11.3	14.9	12.2	11.1	9.1	8.5	7.0	6.3	5.2	2.0	1.7
178	516.75	2.2	1.8	5.3	4.4	7.4	6.0	8.4	6.9	15.1	12.3	16.2	13.3	12.0	9.9	9.2	7.6	6.9	5.6	2.2	1.8
179	519.75	2.8	2.3	6.3	5.1	8.2	6.7	9.8	8.1	17.3	14.1	19.4	15.9	16.3	13.4	13.0	10.7	13.0	10.7	2.9	2.3
180	522.75	6.1	5.0	13.5	11.1	17.7	14.4	21.2	17.4	37.2	30.5	42.0	34.3	35.3	28.8	28.2	23.0	28.2	23.0	6.1	5.0
181	525.75	6.3	5.2	14.2	11.6	18.5	15.1	22.3	18.2	39.1	32.0	44.0	36.0	37.0	30.3	29.5	24.2	29.5	24.2	6.4	5.2
182	528.75	3.9	3.2	8.7	7.2	11.4	9.3	13.8	11.3	24.1	19.7	27.1	22.2	22.8	18.7	18.2	14.9	18.2	14.9	4.0	3.2
183	531.75	2.4	2.0	5.8	4.8	8.1	6.6	9.2	7.6	16.6	13.5	17.8	14.5	13.3	10.8	10.1	8.3	7.5	6.2	2.5	2.0
184	534.75	2.2	1.8	5.3	4.4	7.4	6.1	8.5	7.0	15.2	12.5	16.4	13.4	12.2	9.9	9.3	7.6	6.9	5.7	2.2	1.8
185	537.75	2.0	1.7	5.0	4.1	6.8	5.6	7.9	6.4	14.0	11.5	15.1	12.4	11.2	9.2	8.6	7.0	6.4	5.2	2.0	1.7
186	540.75	2.0	1.6	4.8	3.9	6.6	5.4	7.6	6.2	13.5	11.1	14.6	11.9	10.8	8.9	8.3	6.8	6.2	5.0	2.0	1.6
187	543.75	1.7	1.4	4.1	3.4	5.7	4.7	6.6	5.4	11.8	9.6	12.7	10.4	9.4	7.7	7.2	5.9	5.3	4.4	1.7	1.4
188	546.75	1.5	1.2	3.6	2.9	5.0	4.1	5.7	4.7	10.2	8.3	10.9	9.0	8.1	6.7	6.2	5.1	4.6	3.8	1.5	1.2
189	549.75	1.3	1.0	3.0	2.5	4.2	3.5	4.8	4.0	8.6	7.1	9.3	7.6	6.9	5.7	5.3	4.3	4.0	3.2	1.3	1.0
190	552.75	1.0	0.9	2.5	2.1	3.5	2.9	4.0	3.3	7.2	5.9	7.7	6.3	5.7	4.7	4.4	3.6	3.2	2.7	1.0	0.9
191	555.75	0.8	0.7	2.0	1.7	2.8	2.3	3.2	2.7	5.8	4.7	6.2	5.1	4.6	3.8	3.5	2.9	2.6	2.2	0.8	0.7
192	558.75	1.0	0.9	2.5	2.1	3.5	2.8	4.0	3.2	7.1	5.8	7.6	6.3	5.7	4.6	4.3	3.6	3.2	2.7	1.0	0.9
193	561.75	1.2	1.0	3.0	2.4	4.1	3.4	4.7	3.8	8.4	6.9	9.1	7.4	6.7	5.5	5.2	4.2	3.8	3.1	1.2	1.0
194	564.75	1.4	1.2	3.5	2.8	4.8	3.9	5.5	4.5	9.8	8.1	10.6	8.6	7.9	6.4	6.0	4.9	4.5	3.6	1.4	1.2
195	567.75	1.7	1.4	4.0	3.2	5.4	4.5	6.3	5.1	11.2	9.2	12.0	9.9	9.0	7.3	6.9	5.6	5.1	4.2	1.7	1.4
196	570.75	1.8	1.5	4.4	3.6	6.1	5.0	7.0	5.7	12.5	10.3	13.5	11.0	10.0	8.2	7.6	6.3	5.7	4.6	1.8	1.5
197	573.75	2.0	1.7	4.9	4.0	6.8	5.5	7.8	6.3	13.9	11.3	14.9	12.2	11.1	9.1	8.5	6.9	6.3	5.2	2.0	1.7
198	576.75	2.2	1.8	5.3	4.4	7.4	6.0	8.4	6.9	15.1	12.3	16.2	13.3	12.0	9.9	9.2	7.6	6.9	5.6	2.2	1.8
199	579.75	2.8	2.3	6.3	5.1	8.2	6.7	9.8	8.1	17.3	14.1	19.4	15.9	16.3	13.4	13.0	10.7	13.0	10.7	2.9	2.3
200	582.75	6.0	4.9	13.5	11.0	17.6	14.4	21.2	17.3	37.2	30.4	41.9	34.3	35.2	28.8	28.1	23.0	28.1	23.0	6.1	5.0
201	585.75	6.3	5.2	14.1	11.6	18.5	15.1	22.3	18.2	39.1	32.0	44.0	36.0	37.0	30.2	29.5	24.2	29.5	24.2	6.4	5.2
202	588.75	3.9	3.2	8.7	7.2	11.4	9.3	13.7	11.2	24.0	19.7	27.1	22.2	22.8	18.6	18.2	14.9	18.2	14.9	4.0	3.2
203	591.75	2.4	2.0	5.8	4.8	8.1	6.6	9.2	7.6	16.6	13.5	17.8	14.5	13.2	10.8	10.1	8.3	7.5	6.2	2.5	2.0
204	594.75	2.2	1.8	5.3	4.4	7.4	6.1	8.5	7.0	15.2	12.5	16.3	13.4	12.2	9.9	9.3	7.6	6.9	5.7	2.2	1.8

ARMADURA TRANSVERSAL EN TABLERO

Alpha=26,5°

Luz vano		
1	45.0	m
2	60.0	m
3	60.0	m
4	60.0	m
5	60.0	m
6	60.0	m
7	60.0	m
8	60.0	m
9	60.0	m
10	60.0	m
11	60.0	m
12	60.0	m
13	60.0	m
14	45.0	m

		% As sup	0.45
		% As inf	0.55

Armadura de Rasante (cm2/m)

SEC	X	1 inf	1 sup	2 inf	2 sup	3 inf	3 sup	4 inf	4 sup	5 Int	5 ext	6 int	6 ext	7 Int	7 ext	8 inf	8 sup	9 Inf	9 sup	10 inf	10 sup
	m																				
205	597.75	2.0	1.7	5.0	4.1	6.8	5.6	7.9	6.4	14.0	11.5	15.1	12.3	11.2	9.2	8.6	7.0	6.4	5.2	2.0	1.7
206	600.75	2.0	1.6	4.8	3.9	6.6	5.4	7.6	6.2	13.5	11.1	14.5	11.9	10.8	8.9	8.3	6.8	6.2	5.0	2.0	1.6
207	603.75	1.7	1.4	4.1	3.4	5.7	4.7	6.6	5.4	11.8	9.6	12.7	10.4	9.4	7.7	7.2	5.9	5.3	4.4	1.7	1.4
208	606.75	1.5	1.2	3.6	2.9	5.0	4.1	5.7	4.6	10.2	8.3	10.9	9.0	8.1	6.7	6.2	5.1	4.6	3.8	1.5	1.2
209	609.75	1.3	1.0	3.0	2.5	4.2	3.5	4.8	4.0	8.6	7.1	9.3	7.6	6.9	5.6	5.3	4.3	3.9	3.2	1.3	1.0
210	612.75	1.0	0.9	2.5	2.1	3.5	2.8	4.0	3.3	7.2	5.9	7.7	6.3	5.7	4.7	4.4	3.6	3.2	2.7	1.0	0.9
211	615.75	0.8	0.7	2.0	1.7	2.8	2.3	3.2	2.6	5.8	4.7	6.2	5.0	4.6	3.8	3.5	2.9	2.6	2.1	0.8	0.7
212	618.75	1.0	0.9	2.5	2.0	3.5	2.8	4.0	3.2	7.0	5.8	7.6	6.2	5.7	4.6	4.3	3.6	3.2	2.6	1.0	0.9
213	621.75	1.2	1.0	2.9	2.4	4.1	3.3	4.7	3.8	8.4	6.8	9.0	7.4	6.7	5.5	5.1	4.2	3.8	3.1	1.2	1.0
214	624.75	1.4	1.2	3.5	2.8	4.8	3.9	5.4	4.5	9.8	8.0	10.5	8.6	7.8	6.4	6.0	4.9	4.5	3.6	1.4	1.2
215	627.75	1.6	1.3	3.9	3.2	5.4	4.4	6.2	5.1	11.1	9.1	11.9	9.8	8.9	7.2	6.8	5.5	5.0	4.1	1.6	1.3
216	630.75	1.8	1.5	4.4	3.6	6.1	5.0	7.0	5.7	12.5	10.2	13.4	11.0	10.0	8.1	7.6	6.3	5.7	4.6	1.8	1.5
217	633.75	2.0	1.7	4.9	4.0	6.8	5.5	7.8	6.3	13.8	11.3	14.9	12.2	11.1	9.0	8.5	6.9	6.3	5.2	2.0	1.7
218	636.75	2.2	1.8	5.3	4.3	7.3	6.0	8.4	6.9	15.0	12.3	16.2	13.2	12.0	9.9	9.2	7.5	6.8	5.6	2.2	1.8
219	639.75	5.4	4.4	12.0	9.9	15.7	12.9	18.9	15.5	33.2	27.1	37.4	30.6	31.4	25.7	25.1	20.5	25.1	20.5	5.4	4.5
220	642.75	6.0	4.9	13.5	11.0	17.5	14.4	21.2	17.3	37.1	30.4	41.9	34.2	35.1	28.8	28.1	23.0	28.1	23.0	6.1	5.0
221	645.75	6.3	5.1	14.1	11.5	18.4	15.0	22.1	18.1	38.8	31.7	43.7	35.8	36.7	30.1	29.3	24.0	29.3	24.0	6.3	5.2
222	648.75	3.9	3.2	8.6	7.1	11.3	9.2	13.6	11.1	23.8	19.5	26.8	22.0	22.6	18.5	18.0	14.7	18.0	14.7	3.9	3.2
223	651.75	2.4	1.9	5.7	4.7	7.9	6.5	9.1	7.5	16.3	13.3	17.5	14.3	13.0	10.7	10.0	8.1	7.4	6.1	2.4	2.0
224	654.75	2.2	1.8	5.3	4.3	7.3	6.0	8.4	6.9	15.0	12.3	16.2	13.2	12.0	9.9	9.2	7.5	6.8	5.6	2.2	1.8
225	657.75	2.0	1.7	4.9	4.0	6.8	5.5	7.8	6.3	13.9	11.3	14.9	12.2	11.1	9.0	8.5	6.9	6.3	5.2	2.0	1.7
226	660.75	1.9	1.6	4.7	3.8	6.5	5.3	7.4	6.1	13.3	10.8	14.2	11.7	10.6	8.7	8.1	6.7	6.1	5.0	1.9	1.6
227	663.75	1.7	1.4	4.1	3.3	5.7	4.6	6.5	5.3	11.6	9.5	12.4	10.2	9.2	7.6	7.1	5.8	5.3	4.3	1.7	1.4
228	666.75	1.4	1.2	3.5	2.8	4.8	4.0	5.6	4.5	9.9	8.1	10.7	8.7	7.9	6.5	6.1	5.0	4.5	3.7	1.4	1.2
229	669.75	1.2	1.0	2.9	2.4	4.1	3.3	4.7	3.8	8.4	6.8	9.0	7.4	6.7	5.5	5.1	4.2	3.8	3.1	1.2	1.0
230	672.75	1.0	0.8	2.4	2.0	3.4	2.7	3.9	3.2	6.9	5.6	7.4	6.1	5.5	4.5	4.2	3.5	3.1	2.6	1.0	0.8
231	675.75	0.8	0.7	2.0	1.6	2.8	2.3	3.1	2.6	5.6	4.6	6.1	5.0	4.5	3.7	3.5	2.8	2.6	2.1	0.8	0.7
232	678.75	1.0	0.8	2.4	2.0	3.4	2.7	3.9	3.2	6.9	5.7	7.4	6.1	5.6	4.5	4.2	3.5	3.1	2.6	1.0	0.8
233	681.75	1.2	1.0	2.9	2.4	4.1	3.3	4.6	3.8	8.3	6.8	8.9	7.3	6.7	5.4	5.1	4.1	3.8	3.1	1.2	1.0
234	684.75	1.4	1.2	3.4	2.8	4.7	3.9	5.4	4.5	9.7	7.9	10.5	8.6	7.8	6.3	5.9	4.9	4.4	3.6	1.4	1.2
235	687.75	1.6	1.3	3.9	3.2	5.4	4.4	6.2	5.0	11.0	9.0	11.8	9.7	8.8	7.2	6.7	5.5	5.0	4.1	1.6	1.3
236	690.75	1.8	1.5	4.3	3.6	6.1	5.0	6.9	5.7	12.4	10.2	13.3	10.9	9.9	8.1	7.6	6.2	5.7	4.6	1.8	1.5
237	693.75	2.0	1.6	4.8	3.9	6.7	5.4	7.6	6.3	13.7	11.2	14.7	12.1	10.9	9.0	8.4	6.8	6.2	5.1	2.0	1.6
238	696.75	2.2	1.8	5.3	4.3	7.3	6.0	8.4	6.8	15.0	12.2	16.1	13.1	12.0	9.8	9.2	7.5	6.8	5.6	2.2	1.8
239	699.75	5.3	4.4	12.0	9.8	15.6	12.8	18.9	15.4	33.1	27.0	37.3	30.5	31.4	25.7	25.0	20.5	25.0	20.5	5.4	4.4
240	702.75	6.0	4.9	13.4	11.0	17.5	14.4	21.1	17.3	37.1	30.3	41.8	34.2	35.1	28.8	28.1	23.0	28.1	23.0	6.1	5.0
241	705.75	6.3	5.1	14.0	11.5	18.3	15.0	22.1	18.0	38.6	31.6	43.5	35.6	36.6	29.9	29.2	23.9	29.2	23.9	6.3	5.2
242	708.75	3.8	3.1	8.5	7.0	11.2	9.1	13.4	11.0	23.6	19.3	26.6	21.7	22.3	18.3	17.8	14.6	17.8	14.6	3.9	3.2
243	711.75	2.4	1.9	5.7	4.6	7.9	6.4	9.0	7.4	16.1	13.2	17.3	14.2	12.9	10.5	9.8	8.1	7.3	6.0	2.4	2.0
244	714.75	2.1	1.8	5.2	4.2	7.2	5.9	8.3	6.8	14.8	12.1	15.9	13.0	11.8	9.7	9.0	7.4	6.7	5.5	2.1	1.8
245	717.75	2.0	1.6	4.8	3.9	6.7	5.4	7.6	6.2	13.6	11.1	14.6	12.0	10.9	8.9	8.3	6.8	6.2	5.0	2.0	1.6
246	720.75	1.9	1.5	4.6	3.7	6.3	5.2	7.2	5.9	12.9	10.6	13.9	11.4	10.3	8.5	7.9	6.5	5.9	4.8	1.9	1.5
247	723.75	1.7	1.4	4.0	3.2	5.5	4.5	6.3	5.2	11.3	9.2	12.1	9.9	9.0	7.4	6.9	5.6	5.1	4.2	1.7	1.4
248	726.75	1.4	1.2	3.4	2.8	4.7	3.9	5.4	4.5	9.7	7.9	10.4	8.5	7.8	6.3	5.9	4.9	4.4	3.6	1.4	1.2
249	729.75	1.2	1.0	2.9	2.4	4.0	3.3	4.6	3.7	8.2	6.7	8.8	7.2	6.5	5.4	5.0	4.1	3.7	3.1	1.2	1.0
250	732.75	1.0	0.8	2.4	1.9	3.3	2.7	3.7	3.1	6.7	5.5	7.2	5.9	5.4	4.4	4.1	3.4	3.1	2.5	1.0	0.8
251	735.75	0.8	0.6	1.9	1.5	2.6	2.1	3.0	2.4	5.3	4.4	5.7	4.7	4.3	3.5	3.2	2.7	2.4	2.0	0.8	0.6
252	738.75	0.9	0.7	2.1	1.8	3.0	2.5	3.5	2.8	6.2	5.0	6.7	5.4	5.0	4.1	3.8	3.1	2.8	2.3	0.9	0.7
253	741.75	1.1	0.9	2.6	2.2	3.7	3.0	4.2	3.5	7.6	6.2	8.1	6.7	6.1	5.0	4.6	3.8	3.5	2.8	1.1	0.9
254	744.75	1.3	1.1	3.2	2.6	4.4	3.6	5.0	4.1	9.0	7.3	9.6	7.9	7.2	5.9	5.5	4.5	4.1	3.3	1.3	1.1
255	747.75	1.5	1.2	3.6	3.0	5.0	4.1	5.8	4.7	10.3	8.4	11.1	9.0	8.3	6.8	6.3	5.1	4.7	3.8	1.5	1.2

ARMADURA TRANSVERSAL EN TABLERO

Alpha=26,5°

Luz vano

1	45.0	m
2	60.0	m
3	60.0	m
4	60.0	m
5	60.0	m
6	60.0	m
7	60.0	m
8	60.0	m
9	60.0	m
10	60.0	m
11	60.0	m
12	60.0	m
13	60.0	m
14	45.0	m

% As sup 0.45
% As inf 0.55

		Armadura de Rasante (cm2/m)																			
SEC	X m	1 inf	1 sup	2 inf	2 sup	3 inf	3 sup	4 inf	4 sup	5 int	5 ext	6 int	6 ext	7 int	7 ext	8 inf	8 sup	9 inf	9 sup	10 inf	10 sup
256	750.75	1.7	1.4	4.1	3.4	5.7	4.7	6.5	5.4	11.7	9.5	12.5	10.3	9.4	7.7	7.2	5.9	5.3	4.4	1.7	1.4
257	753.75	1.9	1.5	4.6	3.7	6.3	5.2	7.3	5.9	13.0	10.6	13.9	11.4	10.4	8.5	7.9	6.5	5.9	4.8	1.9	1.5
258	756.75	2.1	1.7	5.0	4.1	6.9	5.7	8.0	6.5	14.2	11.6	15.3	12.5	11.4	9.3	8.7	7.1	6.5	5.3	2.1	1.7
259	759.75	5.2	4.3	11.7	9.6	15.3	12.5	18.4	15.1	32.3	26.5	36.4	29.8	30.6	25.1	24.4	20.0	24.4	20.0	5.3	4.3
260	762.75	5.9	4.8	13.2	10.8	17.2	14.1	20.7	17.0	36.4	29.7	41.0	33.5	34.4	28.2	27.5	22.5	27.5	22.5	5.9	4.9
261	765.75	5.5	4.5	12.3	10.1	16.1	13.2	19.4	15.9	34.0	27.9	38.4	31.4	32.3	26.4	25.7	21.1	25.7	21.1	5.6	4.5
262	768.00	3.8	3.1	8.5	7.0	11.1	9.1	13.4	11.0	23.5	19.3	26.5	21.7	22.3	18.2	17.8	14.5	17.8	14.5	3.9	3.2
263	770.25	1.9	1.5	4.6	3.7	6.3	5.2	7.3	5.9	13.0	10.6	13.9	11.4	10.3	8.5	7.9	6.5	5.9	4.8	1.9	1.5
264	772.50	1.8	1.4	4.3	3.5	5.9	4.9	6.8	5.6	12.2	10.0	13.1	10.8	9.7	8.0	7.5	6.1	5.6	4.5	1.8	1.4
265	774.75	1.6	1.3	3.9	3.2	5.3	4.4	6.2	5.0	11.0	9.0	11.8	9.7	8.8	7.2	6.7	5.5	5.0	4.1	1.6	1.3
266	777.00	1.6	1.3	3.9	3.2	5.3	4.4	6.1	5.0	10.9	8.9	11.7	9.6	8.7	7.1	6.7	5.4	5.0	4.1	1.6	1.3
267	779.25	1.4	1.1	3.4	2.7	4.6	3.8	5.3	4.4	9.5	7.8	10.2	8.4	7.6	6.2	5.8	4.8	4.3	3.6	1.4	1.1
268	781.50	1.3	1.0	3.1	2.5	4.2	3.5	4.8	4.0	8.7	7.1	9.4	7.7	7.0	5.7	5.3	4.4	4.0	3.2	1.3	1.0
269	783.75	1.2	0.9	2.8	2.3	3.9	3.2	4.4	3.6	7.9	6.4	8.5	6.9	6.3	5.2	4.8	4.0	3.6	2.9	1.2	0.9
270	786.00	1.0	0.9	2.5	2.1	3.5	2.8	4.0	3.2	7.1	5.8	7.6	6.3	5.7	4.6	4.3	3.6	3.2	2.7	1.0	0.9
271	788.25	0.9	0.8	2.3	1.9	3.2	2.6	3.6	3.0	6.5	5.4	7.0	5.8	5.2	4.3	4.0	3.2	3.0	2.4	0.9	0.8
272	790.50	0.9	0.7	2.1	1.8	3.0	2.4	3.4	2.8	6.1	5.0	6.5	5.3	4.8	4.0	3.7	3.0	2.8	2.3	0.9	0.7
273	792.75	0.7	0.6	1.8	1.4	2.4	2.0	2.8	2.3	5.0	4.1	5.4	4.4	4.0	3.3	3.1	2.5	2.3	1.8	0.7	0.6
274	795.00	0.6	0.5	1.5	1.2	2.0	1.7	2.4	1.9	4.2	3.5	4.6	3.7	3.4	2.7	2.6	2.1	1.9	1.6	0.6	0.5
275	797.25	0.7	0.6	1.7	1.4	2.4	1.9	2.8	2.3	4.9	4.0	5.2	4.3	3.9	3.2	3.0	2.4	2.2	1.8	0.7	0.6
276	799.50	0.9	0.7	2.1	1.8	3.0	2.4	3.4	2.8	6.1	5.0	6.5	5.4	4.8	4.0	3.7	3.1	2.8	2.3	0.9	0.7
277	801.75	1.1	0.9	2.6	2.2	3.6	3.0	4.1	3.4	7.4	6.0	7.9	6.5	5.9	4.9	4.5	3.7	3.4	2.7	1.1	0.9
278	804.00	1.3	1.0	3.1	2.5	4.3	3.5	4.9	4.0	8.7	7.2	9.4	7.7	7.0	5.7	5.3	4.4	4.0	3.2	1.3	1.0
279	806.25	1.5	1.2	3.6	2.9	5.0	4.1	5.7	4.7	10.2	8.4	11.0	9.0	8.2	6.7	6.3	5.1	4.6	3.8	1.5	1.2
280	808.50	1.7	1.4	4.1	3.4	5.7	4.7	6.5	5.4	11.8	9.6	12.6	10.3	9.4	7.7	7.2	5.9	5.3	4.4	1.7	1.4
281	810.75	3.5	2.9	8.5	7.0	11.8	9.7	13.5	11.1	24.2	19.8	26.0	21.3	19.4	15.8	14.8	12.1	11.0	9.0	3.6	2.9
282	812.25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0