moment of inertia gross without shear lag: 131997495506.10445

Buckling Proof according to EC 1993 Part 1-5

3.2 Effective width for elastic shear lag

Shear lag reduction for flange 1

Shear Lag is not neglectable

alpha_0: 1.7

Beta: 0.31395004434548573

Shear lag reduction for flange 3

Shear Lag is not neglectable

alpha_0: 1.3

Beta: 0.44121107679637916

4.4 Plate elements without longitudinal stiffeners

Iteratively changing the widths until M_Rd_el_eff converges to a limit of 0.02

moment of inertia gross with shear lag: 60364468595.56615
moment of inertia eff without shear lag: 114100942203.74236
moment of inertia eff with shear lag: 54037465137.15008

4.5 Stiffened plate elements with longitudinal stiffeners
Side 2

4.5.2 Plate type behaviour

sigma_cr = 1970.4272484151215

Lambda: 0.3422187680746343

Rho_Global: 1.0

4.5.3 Column type buckling behaviour

Column number 9

A_sl=13548.45, A_sl_eff=13190.5, I_sl=27291618.43

sigma_cr_c=665.72

e1=72.7, e2=59.95

All tension =False

Buckling Values 9

beta_A_c =0.9735800820732999

lambda_c_bar =0.5862351201416552

Phi_c =0.7482247121240821

Chi_c =0.8242908170231383

Critical buckling values

Chi_c: 0.8242908170231383

sigma_cr_c: 665.7265499312396

4.5.4 Interaction between plate and column buckling

all_tension: False

rho_c = 1.0

Side 3

4.5.2 Plate type behaviour

sigma_cr = 542.2013129095844

Lambda: 0.5953854930112594

Rho_Global: 1.0

4.5.3 Column type buckling behaviour

Column number 10

A_sl=16998.1, A_sl_eff=13902.39, I_sl=27320365.52

sigma_cr_c=208.2

e1=84.87, e2=47.78

All tension =False

Buckling Values 10

beta_A_c =0.8178792681216397

lambda_c_bar =0.960806674379394

Phi_c =1.10708338313521

Chi_c =0.6034751810906328

Column number 11

A_sl=16998.1, A_sl_eff=13902.39, I_sl=27320365.52

sigma_cr_c=208.2

e1=84.87, e2=47.78

All tension =False

Buckling Values 11

beta_A_c =0.8178792681216398

lambda_c_bar =0.960806674379394

Phi_c =1.10708338313521

Chi_c =0.6034751810906328

Critical buckling values

Chi_c: 0.6034751810906328

sigma_cr_c: 208.20206822935626

4.5.4 Interaction between plate and column buckling

all_tension: False

rho_c = 1.0

Side 4

4.5.2 Plate type behaviour

sigma_cr = 1970.4272484151215

Lambda: 0.3422187680746343

Rho_Global: 1.0

4.5.3 Column type buckling behaviour

Column number 12

$A\_sl=13548.45$, $A\_sl\_eff=13190.5$, $I\_sl=27291618.43$

$sigma\_cr\_c=665.72$

$e1=72.7$, $e2=59.95$

All tension =False

Buckling Values 12

$beta\_A\_c =0.9735800820732999$

$lambda\_c\_bar =0.5862351201416554$

$Phi\_c =0.7482247121240823$

$Chi\_c =0.8242908170231382$

Critical buckling values

Chi_c: 0.8242908170231382

$sigma\_cr\_c$: 665.7265499312393

4.5.4 Interaction between plate and column buckling

all_tension: False

$rho\_c = 1.0$

<div style="background-color:red; padding:8px;">

Resistance to shear and interaction shear force and bending moment for side 1

</div>

5. Resistance to shear

$lambda\_w\_bar\_loc$ of the trapezoid line nr. 1: 0.19

$lambda\_w\_bar\_loc$ of the trapezoid line nr. 2: 0.19

$lambda\_w\_bar\_loc$ of the trapezoid line nr. 3: 0.19

$lambda\_w\_bar\_loc$ of the trapezoid line nr. 4: 0.19

lambda_w_bar_loc of the trapezoid line nr. 5: 0.19

lambda_w_bar_loc of the trapezoid line nr. 6: 0.19

lambda_w_bar_loc of the trapezoid line nr. 7: 0.19

lambda_w_bar_loc of the trapezoid line nr. 8: 0.19

lambda_w_bar_loc of the trapezoid line nr. 9: 0.19

lambda_w_bar_loc of the trapezoid line nr. 10: 0.19

lambda_w_bar_loc of the trapezoid line nr. 11: 0.19

lambda_w_bar_loc of the trapezoid line nr. 12: 0.19

lambda_w_bar_loc of the trapezoid line nr. 13: 0.19

lambda_w_bar_loc of the trapezoid line nr. 14: 0.19

lambda_w_bar_loc of the trapezoid line nr. 15: 0.19

lambda_w_bar_loc of the trapezoid line nr. 16: 0.19

lambda_w_bar_loc of the trapezoid line nr. 17: 0.19

stiffened plate; EBPlate

k_tau: 1571.0214527033982

V_Ed_plate: 1823910.23

V_Rd: 7236123.37

eta_3: 0.25205626496949346

7.1 Interaction between shear force, bending moment and axial force

Flange -> (7.1), comment (5)

eta_3 <= 0.5; no interaction needed

utilisation: -1

Proofing Resistance to shear for each subpanel

5. Resistance to shear

lambda_w_bar_loc of the trapezoid line nr. 1: 0.19

unstiffened plate; (A.5)

k_tau: 5.353840830449827

V_Ed_plate: 66841.19

V_Rd: 425654.31

eta_3: 0.15703164083436558

eta_3_panel < 1: pass subpanel

5. Resistance to shear

lambda_w_bar_loc of the trapezoid line nr. 2: 0.19

unstiffened plate; (A.5)

k_tau: 5.353840830449827

V_Ed_plate: 59536.46

V_Rd: 425654.31

eta_3: 0.13987046328644648

eta_3_panel < 1: pass subpanel

5. Resistance to shear

lambda_w_bar_loc of the trapezoid line nr. 3: 0.19

unstiffened plate; (A.5)

k_tau: 5.353840830449827

V_Ed_plate: 52231.73

V_Rd: 425654.31

eta_3: 0.12270928573852742

eta_3_panel < 1: pass subpanel

5. Resistance to shear

lambda_w_bar_loc of the trapezoid line nr. 4: 0.19

unstiffened plate; (A.5)

k_tau: 5.353840830449827

V_Ed_plate: 44927.0

V_Rd: 425654.31

eta_3: 0.10554810819060838

eta_3_panel < 1: pass subpanel

5. Resistance to shear

lambda_w_bar_loc of the trapezoid line nr. 5: 0.19

unstiffened plate; (A.5)

k_tau: 5.353840830449827

V_Ed_plate: 37622.27

V_Rd: 425654.31

eta_3: 0.0883869306426893

eta_3_panel < 1: pass subpanel

5. Resistance to shear

lambda_w_bar_loc of the trapezoid line nr. 6: 0.19

unstiffened plate; (A.5)

k_tau: 5.353840830449827

V_Ed_plate: 30317.54

V_Rd: 425654.31

eta_3: 0.07122575309477024

eta_3_panel < 1: pass subpanel

5. Resistance to shear

lambda_w_bar_loc of the trapezoid line nr. 7: 0.19

unstiffened plate; (A.5)

k_tau: 5.353840830449827

V_Ed_plate: 23012.81

V_Rd: 425654.31

eta_3: 0.05406457554685117

eta_3_panel < 1: pass subpanel

5. Resistance to shear

lambda_w_bar_loc of the trapezoid line nr. 8: 0.19

unstiffened plate; (A.5)

k_tau: 5.353840830449827

V_Ed_plate: 15708.09

V_Rd: 425654.31

eta_3: 0.03690339799893212

eta_3_panel < 1: pass subpanel

5. Resistance to shear

lambda_w_bar_loc of the trapezoid line nr. 9: 0.19

unstiffened plate; (A.5)

k_tau: 5.353840830449827

V_Ed_plate: 8403.36

V_Rd: 425654.31

eta_3: 0.01974222045101305

eta_3_panel < 1: pass subpanel

5. Resistance to shear

lambda_w_bar_loc of the trapezoid line nr. 10: 0.19

unstiffened plate; (A.5)

k_tau: 5.353840830449827

V_Ed_plate: 15708.09

V_Rd: 425654.31

eta_3: 0.03690339799893209

eta_3_panel < 1: pass subpanel

5. Resistance to shear

lambda_w_bar_loc of the trapezoid line nr. 11: 0.19

unstiffened plate; (A.5)

k_tau: 5.353840830449827

V_Ed_plate: 23012.81

V_Rd: 425654.31

eta_3: 0.05406457554685115

eta_3_panel < 1: pass subpanel

5. Resistance to shear

lambda_w_bar_loc of the trapezoid line nr. 12: 0.19

unstiffened plate; (A.5)

k_tau: 5.353840830449827

V_Ed_plate: 30317.54

V_Rd: 425654.31

eta_3: 0.07122575309477021

eta_3_panel < 1: pass subpanel

5. Resistance to shear

lambda_w_bar_loc of the trapezoid line nr. 13: 0.19

unstiffened plate; (A.5)

k_tau: 5.353840830449827

V_Ed_plate: 37622.27

V_Rd: 425654.31

eta_3: 0.08838693064268928

eta_3_panel < 1: pass subpanel

5. Resistance to shear

lambda_w_bar_loc of the trapezoid line nr. 14: 0.19

unstiffened plate; (A.5)

k_tau: 5.353840830449827

V_Ed_plate: 44927.0

V_Rd: 425654.31

eta_3: 0.10554810819060838

eta_3_panel < 1: pass subpanel

5. Resistance to shear

lambda_w_bar_loc of the trapezoid line nr. 15: 0.19

unstiffened plate; (A.5)

k_tau: 5.353840830449827

V_Ed_plate: 52231.73

V_Rd: 425654.31

eta_3: 0.12270928573852743

eta_3_panel < 1: pass subpanel

5. Resistance to shear

lambda_w_bar_loc of the trapezoid line nr. 16: 0.19

unstiffened plate; (A.5)

k_tau: 5.353840830449827

V_Ed_plate: 59536.46

V_Rd: 425654.31

eta_3: 0.13987046328644648

eta_3_panel < 1: pass subpanel

5. Resistance to shear

lambda_w_bar_loc of the trapezoid line nr. 17: 0.19

unstiffened plate; (A.5)

k_tau: 5.353840830449827

V_Ed_plate: 66841.19

V_Rd: 425654.31

eta_3: 0.15703164083436558

eta_3_panel < 1: pass subpanel

Resistance to shear and interaction shear force and bending moment for side 2

5. Resistance to shear

lambda_w_bar_loc of the trapezoid line nr. 18: 1.33

lambda_w_bar_loc of the trapezoid line nr. 19: 0.34

lambda_w_bar_loc of the trapezoid line nr. 20: 0.65

stiffened plate; EBPlate

k_tau: 21.01369360902256

(5.3) lambda_w_bar_1= 1.2

(5.6) lambda_w_bar_2= 1.2

(5.7) lambda_w_bar_3= 1.33 max single plate slenderness

chosen lambda_w_bar= 1.33

V_Ed_plate: 957149.52

V_Rd: 1658141.64

eta_3: 0.5772423151566441

7.1 Interaction between shear force, bending moment and axial force

Web -> (7.1) without iterating

eta_3 > 0.5; interaction needed

utilisation: 0.6145459880467096

<div style="background-color:red">

Resistance to shear and interaction shear force and bending moment for side 3

</div>

5. Resistance to shear

lambda_w_bar_loc of the trapezoid line nr. 21: 0.93

lambda_w_bar_loc of the trapezoid line nr. 22: 0.34

lambda_w_bar_loc of the trapezoid line nr. 23: 0.85

lambda_w_bar_loc of the trapezoid line nr. 24: 0.34

lambda_w_bar_loc of the trapezoid line nr. 25: 0.93

stiffened plate; EBPlate

k_tau: 94.90997656054232

V_Ed_plate: 922663.04

V_Rd: 3876494.66

eta_3: 0.23801478429570364

7.1 Interaction between shear force, bending moment and axial force

Flange -> (7.1), comment (5)

   eta_3 <= 0.5; no interaction needed

   utilisation: -1

Proofing Resistance to shear for each subpanel

5. Resistance to shear

   lambda_w_bar_loc of the trapezoid line nr. 21: 0.93

   unstiffened plate; (A.5)

   k_tau: 5.51015625

      (5.3) lambda_w_bar_1= 0.93

      (5.6) lambda_w_bar_2= 0.93

      (5.7) lambda_w_bar_3= 0.93 max single plate slenderness

      chosen lambda_w_bar= 0.93

   V_Ed_plate: 172941.13

   V_Rd: 941563.44

   eta_3: 0.18367443224609442

   eta_3_panel < 1: pass subpanel

5. Resistance to shear

   lambda_w_bar_loc of the trapezoid line nr. 22: 0.34

   unstiffened plate; (A.5)

   k_tau: 5.3625

   V_Ed_plate: 35901.44

   V_Rd: 387649.46

   eta_3: 0.09261316350554184

   eta_3_panel < 1: pass subpanel

5. Resistance to shear

   lambda_w_bar_loc of the trapezoid line nr. 23: 0.85

 unstiffened plate; (A.5)

 k_tau: 5.480625

   (5.3) lambda_w_bar_1= 0.85

   (5.6) lambda_w_bar_2= 0.85

   (5.7) lambda_w_bar_3= 0.85 max single plate slenderness

   chosen lambda_w_bar= 0.85

 V_Ed_plate: 49274.24

 V_Rd: 939036.93

 eta_3: 0.0524731734960991

 eta_3_panel < 1: pass subpanel

5. Resistance to shear

   lambda_w_bar_loc of the trapezoid line nr. 24: 0.34

 unstiffened plate; (A.5)

 k_tau: 5.3625

 V_Ed_plate: 35901.44

 V_Rd: 387649.46

 eta_3: 0.09261316350554184

 eta_3_panel < 1: pass subpanel

5. Resistance to shear

   lambda_w_bar_loc of the trapezoid line nr. 25: 0.93

 unstiffened plate; (A.5)

 k_tau: 5.51015625

(5.3) lambda_w_bar_1= 0.93

(5.6) lambda_w_bar_2= 0.93

(5.7) lambda_w_bar_3= 0.93 max single plate slenderness

chosen lambda_w_bar= 0.93

V_Ed_plate: 172941.13

V_Rd: 941563.44

eta_3: 0.18367443224609442

eta_3_panel < 1: pass subpanel

<div style="background-color:red; text-align:center;">Resistance to shear and interaction shear force and bending moment for side 4</div>

5. Resistance to shear

lambda_w_bar_loc of the trapezoid line nr. 26: 0.65

lambda_w_bar_loc of the trapezoid line nr. 27: 0.34

lambda_w_bar_loc of the trapezoid line nr. 28: 1.33

stiffened plate; EBPlate

k_tau: 21.01353383458647

(5.3) lambda_w_bar_1= 1.2

(5.6) lambda_w_bar_2= 1.2

(5.7) lambda_w_bar_3= 1.33 max single plate slenderness

chosen lambda_w_bar= 1.33

V_Ed_plate: 1104403.29

V_Rd: 1658141.64

eta_3: 0.6660488251807434

7.1 Interaction between shear force, bending moment and axial force

Web -> (7.1) without iterating

eta_3 > 0.5; interaction needed

utilisation: 0.6590458276836744

cross-section with b_sup=4000, b_inf=3000, h=2000

trapezoid plate on side 1   with the number 1

a=(2000, 0)   p1=(1882, 0)   p2=(1882, 0)   b=(1764, 0)t=14.0length_tot=235

sigma_a_red=-125.65   sigma_b_red=-125.65

trapezoid plate on side 1   with the number 2

a=(1764, 0)   p1=(1647, 0)   p2=(1647, 0)   b=(1529, 0)t=14.0length_tot=235

sigma_a_red=-125.65   sigma_b_red=-125.65

trapezoid plate on side 1   with the number 3

a=(1529, 0)   p1=(1411, 0)   p2=(1411, 0)   b=(1294, 0)t=14.0length_tot=235

sigma_a_red=-125.65   sigma_b_red=-125.65

trapezoid plate on side 1   with the number 4

a=(1294, 0)   p1=(1176, 0)   p2=(1176, 0)   b=(1058, 0)t=14.0length_tot=235

sigma_a_red=-125.65   sigma_b_red=-125.65

trapezoid plate on side 1   with the number 5

a=(1058, 0)   p1=(941, 0)   p2=(941, 0)   b=(823, 0)t=14.0length_tot=235

sigma_a_red=-125.65   sigma_b_red=-125.65

trapezoid plate on side 1   with the number 6

a=(823, 0)   p1=(705, 0)   p2=(705, 0)   b=(588, 0)t=14.0length_tot=235

sigma_a_red=-125.65   sigma_b_red=-125.65

trapezoid plate on side 1   with the number 7

a=(588, 0)   p1=(470, 0)   p2=(470, 0)   b=(352, 0)t=14.0length_tot=235

sigma_a_red=-125.65   sigma_b_red=-125.65

trapezoid plate on side 1   with the number 8

a=(352, 0)   p1=(235, 0)   p2=(235, 0)   b=(117, 0)t=14.0length_tot=235

sigma_a_red=-125.65   sigma_b_red=-125.65

trapezoid plate on side 1   with the number 9

a=(117, 0)   p1=(0, 0)   p2=(0, 0)   b=(-117, 0)t=14.0length_tot=235

sigma_a_red=-125.65   sigma_b_red=-125.65

trapezoid plate on side 1   with the number 10

a=(-117, 0)   p1=(-235, 0)   p2=(-235, 0)   b=(-352, 0)t=14.0length_tot=235

sigma_a_red=-125.65   sigma_b_red=-125.65

trapezoid plate on side 1   with the number 11

a=(-352, 0)   p1=(-470, 0)   p2=(-470, 0)   b=(-588, 0)t=14.0length_tot=235

sigma_a_red=-125.65   sigma_b_red=-125.65

trapezoid plate on side 1   with the number 12

a=(-588, 0)   p1=(-705, 0)   p2=(-705, 0)   b=(-823, 0)t=14.0length_tot=235

sigma_a_red=-125.65   sigma_b_red=-125.65

trapezoid plate on side 1   with the number 13

a=(-823, 0)   p1=(-941, 0)   p2=(-941, 0)   b=(-1058, 0)t=14.0length_tot=235

sigma_a_red=-125.65   sigma_b_red=-125.65

trapezoid plate on side 1   with the number 14

a=(-1058, 0)   p1=(-1176, 0)   p2=(-1176, 0)   b=(-1294, 0)t=14.0length_tot=235

sigma_a_red=-125.65   sigma_b_red=-125.65

trapezoid plate on side 1   with the number 15

a=(-1294, 0)   p1=(-1411, 0)   p2=(-1411, 0)   b=(-1529, 0)t=14.0length_tot=235

sigma_a_red=-125.65   sigma_b_red=-125.65

trapezoid plate on side 1   with the number 16

a=(-1529, 0)   p1=(-1647, 0)   p2=(-1647, 0)   b=(-1764, 0)t=14.0length_tot=235

sigma_a_red=-125.65   sigma_b_red=-125.65

trapezoid plate on side 1   with the number 17

a=(-1764, 0)   p1=(-1882, 0)   p2=(-1882, 0)   b=(-2000, 0)t=14.0length_tot=235

sigma_a_red=-125.65   sigma_b_red=-125.65

trapezoid plate on side 2   with the number 18

a=(-2000, 0)   p1=(-1741, 1032)   p2=(-1741, 1032)   b=(-1711, 1154)t=10.0length_tot=1190

sigma_a_red=-125.65   sigma_b_red=45.26

trapezoid plate on side 2   with the number 19

a=(-1711, 1154)   p1=(-1671, 1315)   p2=(-1671, 1315)   b=(-1638, 1445)t=10.0length_tot=300

sigma_a_red=45.26   sigma_b_red=88.34

trapezoid plate on side 2   with the number 20

a=(-1638, 1445)   p1=(-1570, 1717)   p2=(-1554, 1780)   b=(-1500, 2000)t=10.0length_tot=571

sigma_a_red=88.34   sigma_b_red=170.43

trapezoid plate on side 3   with the number 21

a=(-1500, 2000)   p1=(-1258, 2000)   p2=(-916, 2000)   b=(-675, 2000)t=10.0length_tot=825

sigma_a_red=170.43   sigma_b_red=170.43

trapezoid plate on side 3   with the number 22

a=(-675, 2000)   p1=(-525, 2000)   p2=(-525, 2000)   b=(-375, 2000)t=10.0length_tot=300

sigma_a_red=170.43   sigma_b_red=170.43

trapezoid plate on side 3   with the number 23

a=(-375, 2000)   p1=(-138, 2000)   p2=(138, 2000)   b=(375, 2000)t=10.0length_tot=750

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sigma_a_red=170.43   sigma_b_red=170.43

trapezoid plate on side 3   with the number 24

a=(375, 2000)   p1=(525, 2000)   p2=(525, 2000)   b=(675, 2000)t=10.0length_tot=300

sigma_a_red=170.43   sigma_b_red=170.43

trapezoid plate on side 3   with the number 25

a=(675, 2000)   p1=(916, 2000)   p2=(1258, 2000)   b=(1500, 2000)t=10.0length_tot=825

sigma_a_red=170.43   sigma_b_red=170.43

trapezoid plate on side 4   with the number 26

a=(1500, 2000)   p1=(1554, 1780)   p2=(1570, 1717)   b=(1638, 1445)t=10.0length_tot=571

sigma_a_red=170.43   sigma_b_red=88.34

trapezoid plate on side 4   with the number 27

a=(1638, 1445)   p1=(1671, 1315)   p2=(1671, 1315)   b=(1711, 1154)t=10.0length_tot=300

sigma_a_red=88.34   sigma_b_red=45.26

trapezoid plate on side 4   with the number 28

a=(1711, 1154)   p1=(1741, 1032)   p2=(1741, 1032)   b=(2000, 0)t=10.0length_tot=1190

sigma_a_red=45.26   sigma_b_red=-125.65

stiffener plate on side 1   of stiffener nr 1   on stiffener plate position 2

a=(1529, 0)   p1=(1564, 130)   p2=(1564, 130)   b=(1599, 260)t=10.0length_tot=269

sigma_a_red=-125.65   sigma_b_red=-87.16

stiffener plate on side 1   of stiffener nr 1   on stiffener plate position 3

a=(1599, 260)   p1=(1647, 260)   p2=(1647, 260)   b=(1695, 260)t=10.0length_tot=95

sigma_a_red=-87.16   sigma_b_red=-87.16

stiffener plate on side 1   of stiffener nr 1   on stiffener plate position 4

a=(1695, 260)   p1=(1729, 130)   p2=(1729, 130)   b=(1764, 0)t=10.0length_tot=269

sigma_a_red=-87.16   sigma_b_red=-125.65

stiffener plate on side 1 of stiffener nr 2   on stiffener plate position 2

a=(1058, 0)   p1=(1093, 130)   p2=(1093, 130)   b=(1128, 260)t=10.0length_tot=269

sigma_a_red=-125.65   sigma_b_red=-87.16

stiffener plate on side 1 of stiffener nr 2   on stiffener plate position 3

a=(1128, 260)   p1=(1176, 260)   p2=(1176, 260)   b=(1224, 260)t=10.0length_tot=95

sigma_a_red=-87.16   sigma_b_red=-87.16

stiffener plate on side 1 of stiffener nr 2   on stiffener plate position 4

a=(1224, 260)   p1=(1259, 130)   p2=(1259, 130)   b=(1294, 0)t=10.0length_tot=269

sigma_a_red=-87.16   sigma_b_red=-125.65

stiffener plate on side 1 of stiffener nr 3   on stiffener plate position 2

a=(588, 0)   p1=(623, 130)   p2=(623, 130)   b=(657, 260)t=10.0length_tot=269

sigma_a_red=-125.65   sigma_b_red=-87.16

stiffener plate on side 1 of stiffener nr 3   on stiffener plate position 3

a=(657, 260)   p1=(705, 260)   p2=(705, 260)   b=(753, 260)t=10.0length_tot=95

sigma_a_red=-87.16   sigma_b_red=-87.16

stiffener plate on side 1 of stiffener nr 3   on stiffener plate position 4

a=(753, 260)   p1=(788, 130)   p2=(788, 130)   b=(823, 0)t=10.0length_tot=269

sigma_a_red=-87.16   sigma_b_red=-125.65

stiffener plate on side 1 of stiffener nr 4   on stiffener plate position 2

a=(117, 0)   p1=(152, 130)   p2=(152, 130)   b=(187, 260)t=10.0length_tot=269

sigma_a_red=-125.65   sigma_b_red=-87.16

stiffener plate on side 1 of stiffener nr 4   on stiffener plate position 3

a=(187, 260)   p1=(235, 260)   p2=(235, 260)   b=(283, 260)t=10.0length_tot=95

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sigma_a_red=-87.16   sigma_b_red=-87.16

stiffener plate on side 1   of stiffener nr 4   on stiffener plate position 4

a=(283, 260)   p1=(318, 130)   p2=(318, 130)   b=(352, 0)t=10.0length_tot=269

sigma_a_red=-87.16   sigma_b_red=-125.65

stiffener plate on side 1   of stiffener nr 5   on stiffener plate position 2

a=(-352, 0)   p1=(-318, 130)   p2=(-318, 130)   b=(-283, 260)t=10.0length_tot=269

sigma_a_red=-125.65   sigma_b_red=-87.16

stiffener plate on side 1   of stiffener nr 5   on stiffener plate position 3

a=(-283, 260)   p1=(-235, 260)   p2=(-235, 260)   b=(-187, 260)t=10.0length_tot=95

sigma_a_red=-87.16   sigma_b_red=-87.16

stiffener plate on side 1   of stiffener nr 5   on stiffener plate position 4

a=(-187, 260)   p1=(-152, 130)   p2=(-152, 130)   b=(-117, 0)t=10.0length_tot=269

sigma_a_red=-87.16   sigma_b_red=-125.65

stiffener plate on side 1   of stiffener nr 6   on stiffener plate position 2

a=(-823, 0)   p1=(-788, 130)   p2=(-788, 130)   b=(-753, 260)t=10.0length_tot=269

sigma_a_red=-125.65   sigma_b_red=-87.16

stiffener plate on side 1   of stiffener nr 6   on stiffener plate position 3

a=(-753, 260)   p1=(-705, 260)   p2=(-705, 260)   b=(-657, 260)t=10.0length_tot=95

sigma_a_red=-87.16   sigma_b_red=-87.16

stiffener plate on side 1   of stiffener nr 6   on stiffener plate position 4

a=(-657, 260)   p1=(-623, 130)   p2=(-623, 130)   b=(-588, 0)t=10.0length_tot=269

sigma_a_red=-87.16   sigma_b_red=-125.65

stiffener plate on side 1   of stiffener nr 7   on stiffener plate position 2

a=(-1294, 0)   p1=(-1259, 130)   p2=(-1259, 130)   b=(-1224, 260)t=10.0length_tot=269

sigma_a_red=-125.65   sigma_b_red=-87.16

stiffener plate on side 1   of stiffener nr 7   on stiffener plate position 3

   a=(-1224, 260)   p1=(-1176, 260)   p2=(-1176, 260)   b=(-1128, 260)t=10.0length_tot=95

   sigma_a_red=-87.16   sigma_b_red=-87.16

stiffener plate on side 1   of stiffener nr 7   on stiffener plate position 4

   a=(-1128, 260)   p1=(-1093, 130)   p2=(-1093, 130)   b=(-1058, 0)t=10.0length_tot=269

   sigma_a_red=-87.16   sigma_b_red=-125.65

stiffener plate on side 1   of stiffener nr 8   on stiffener plate position 2

   a=(-1764, 0)   p1=(-1729, 130)   p2=(-1729, 130)   b=(-1695, 260)t=10.0length_tot=269

   sigma_a_red=-125.65   sigma_b_red=-87.16

stiffener plate on side 1   of stiffener nr 8   on stiffener plate position 3

   a=(-1695, 260)   p1=(-1647, 260)   p2=(-1647, 260)   b=(-1599, 260)t=10.0length_tot=95

   sigma_a_red=-87.16   sigma_b_red=-87.16

stiffener plate on side 1   of stiffener nr 8   on stiffener plate position 4

   a=(-1599, 260)   p1=(-1564, 130)   p2=(-1564, 130)   b=(-1529, 0)t=10.0length_tot=269

   sigma_a_red=-87.16   sigma_b_red=-125.65

stiffener plate on side 2   of stiffener nr 9   on stiffener plate position 2

   a=(-1638, 1445)   p1=(-1551, 1398)   p2=(-1551, 1398)   b=(-1456, 1348)t=10.0length_tot=206

   sigma_a_red=88.34   sigma_b_red=73.98

stiffener plate on side 2   of stiffener nr 9   on stiffener plate position 3

   a=(-1456, 1348)   p1=(-1478, 1260)   p2=(-1478, 1260)   b=(-1505, 1154)t=10.0length_tot=200

   sigma_a_red=73.98   sigma_b_red=45.26

stiffener plate on side 2   of stiffener nr 9   on stiffener plate position 4

   a=(-1505, 1154)   p1=(-1608, 1154)   p2=(-1608, 1154)   b=(-1711, 1154)t=10.0length_tot=206

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sigma_a_red=45.26   sigma_b_red=45.26

stiffener plate on side 3   of stiffener nr 10   on stiffener plate position 2

a=(-375, 2000)   p1=(-398, 1904)   p2=(-398, 1904)   b=(-425, 1800)t=10.0length_tot=206

sigma_a_red=170.43   sigma_b_red=140.82

stiffener plate on side 3   of stiffener nr 10   on stiffener plate position 3

a=(-425, 1800)   p1=(-525, 1800)   p2=(-525, 1800)   b=(-625, 1800)t=10.0length_tot=199

sigma_a_red=140.82   sigma_b_red=140.82

stiffener plate on side 3   of stiffener nr 10   on stiffener plate position 4

a=(-625, 1800)   p1=(-651, 1904)   p2=(-651, 1904)   b=(-675, 2000)t=10.0length_tot=206

sigma_a_red=140.82   sigma_b_red=170.43

stiffener plate on side 3   of stiffener nr 11   on stiffener plate position 2

a=(675, 2000)   p1=(651, 1904)   p2=(651, 1904)   b=(625, 1800)t=10.0length_tot=206

sigma_a_red=170.43   sigma_b_red=140.82

stiffener plate on side 3   of stiffener nr 11   on stiffener plate position 3

a=(625, 1800)   p1=(525, 1800)   p2=(525, 1800)   b=(425, 1800)t=10.0length_tot=200

sigma_a_red=140.82   sigma_b_red=140.82

stiffener plate on side 3   of stiffener nr 11   on stiffener plate position 4

a=(425, 1800)   p1=(398, 1904)   p2=(398, 1904)   b=(375, 2000)t=10.0length_tot=206

sigma_a_red=140.82   sigma_b_red=170.43

stiffener plate on side 4   of stiffener nr 12   on stiffener plate position 2

a=(1711, 1154)   p1=(1608, 1154)   p2=(1608, 1154)   b=(1505, 1154)t=10.0length_tot=206

sigma_a_red=45.26   sigma_b_red=45.26

stiffener plate on side 4   of stiffener nr 12   on stiffener plate position 3

a=(1505, 1154)   p1=(1478, 1260)   p2=(1478, 1260)   b=(1456, 1348)t=10.0length_tot=200

sigma_a_red=45.26   sigma_b_red=73.98

stiffener plate on side 4   of stiffener nr 12   on stiffener plate position 4

a=(1456, 1348)   p1=(1551, 1398)   p2=(1551, 1398)   b=(1638, 1445)t=10.0length_tot=206

sigma_a_red=73.98   sigma_b_red=88.34

moment of inertia including all reductions: 54037465137.15008