

Green Book errata 5th February 2014

Please make the following corrections, noting that black line on left denotes "new" with respect to the errata sheet dated 26 March 2013:

Page 71: At end of paragraph below figure, add as follows: ...we can say, for a single vertical line of bolts:

Page 76 and 77: Use ϕ_{br} rather than ϕ_b in equation for B_{r1} and value of ϕ_{br} should be 0,67 rather than 0,8 in calculations of B_{r2} , B_{r3} , and B_{r4} , with corresponding changes in the answers, yielding a resistance of ~~306~~303 kN.

Page 83: The right side of the equation should read: $0,9 \frac{90 \cdot 10,9^2 \cdot 355}{4} = 854095 \text{ N.mm}$

Page 84: The calculations were done for a 120x120x8 angle, but the sketch shows a 100x100x8 one. Change the dimensions in the sketch: the size of the angle, 120 wide, and R equal to 13 mm.

Page 85: Add to the right of the sketch: "Plate 12 mm thick"

Page 141: In paragraph starting "Check this ...", swop positions of $N_1 = 10^6$ and $N = 2 \cdot 10^6$

Page ~~163~~167: Second expression below sketch should read: $T_{rh} + V_{rh} = 0,9[35 + 2 \cdot 70 - 2,5 \cdot 24]10...$ and sketch should be drawn with T_u acting through centre bolt.

Page 208: Equation in 4th line should be: $h - h_{nt} - t_f - r_1 = 406,4 - 35 - 14,3 - 10,2 = 347 > 280$ and $Z_{bg} = 233 \text{ mm}^3$

Pages 214 and 215: Under Check 3 replace V_u by V_r and f_u by f_y , under Check 6 replace f_u by f_y in expression for V_{u1} .

Page 221: Replace reference to Equation 7.63 with 7.60 and remove square sign behind t_f and 10 in the following two lines.

Page 250 to 252: Change column size to 533x210x82

Equations at the top of page 251 should read:

$$F_{ufb} = \frac{210}{0,4536} + \frac{90}{2} = 508 \text{ kN}$$

$$F_{ufr} = \frac{210}{0,4536} - \frac{90}{2} = 418 \text{ kN}$$

The second line below "Equation 6.18": replace 521 at the end with 418.

Fix the following line: "Resistance required per mm = $f = \frac{418}{380} = 1,10 \text{ kN/mm}$ "

Second line below "Equations 6.16 and 6.17": replace <521 at the end with >418.

Line starting "this confirms tension ...": replace with: Thus tension stiffeners not required for web tension.

Last equation on page: replace 431 at the end with 508.

Second equation on page 252 should read: $B_r = 1,45 \cdot 0,8 \cdot 9,6^2 \sqrt{355 \cdot 200000} = 901 \text{ kN}$.

The equation below that should read: $V_u = \frac{M_u}{h_b} = \frac{210}{0,4536} = 463 \text{ kN}$

At the end of the last equation, replace 476 with 463.

Page 290: Equation 10.49 should read: $\epsilon = \left(\beta - \sqrt{\beta^2 - 4\alpha\delta} \right) / 2\alpha$

Page 295: Equation above line should read: $T_{r1} = ... = 793 \text{ kN} > 516 \text{ kN}$ OK

Page 360: Equation 12.29: x should have a bar above it (the bar shifted to be on the level of Eq 12.28).

Pages 354, 362, 364 and 367: In figures, replace \boxtimes with ℓ .