

**Remarks:** See §4.4, pages 168 till 170

See §4.5, pages 171 till 184

See §4.6, pages 184 till 186

**Answers:**

The indices A and B indicate, respectively, the wide and narrow flange

c.  $\sigma_A = -36 \text{ N/mm}^2$  and  $\sigma_B = +9 \text{ N/mm}^2$

Distance of the neutral axis from NC: 280 mm

d.  $\sigma_A = -13,5 \text{ N/mm}^2$  and  $\sigma_B = -36 \text{ N/mm}^2$

Distance of the neutral axis from NC: 560 mm

**Explanation:**

c.  $N = -315 \text{ kN}$  and  $M_z = -63 \text{ kNm}$

$$\sigma^{(N)} = -21 \text{ N/mm}^2; \sigma_A^{(M)} = -15 \text{ N/mm}^2; \sigma_B^{(M)} = +30 \text{ N/mm}^2;$$

d.  $N = -315 \text{ kN}$  and  $M_z = +31,5 \text{ kNm}$

$$\sigma^{(N)} = -21 \text{ N/mm}^2; \sigma_A^{(M)} = +7,5 \text{ N/mm}^2; \sigma_B^{(M)} = -15 \text{ N/mm}^2;$$