

QR 40; K 225 803-149

Stutzing Moment in $x = 2,34 \text{ m}$;
bij $M_c = -4905 \text{ Kgm}$; $M_D = -1454 \text{ Kgm}$
 $M = -3440 \text{ Kgm}$

$$M_{CD} = 4350 - 3440 = \underline{\underline{910 \text{ Kgm}}}$$

$$M_{DE} = 790 \times 2,07^2 \times 0,125 - \frac{633}{2} = \underline{\underline{107 \text{ Kgm}}}$$

Wapening

Veld A-B

$$M_{A-B} = -870 \text{ Kgm} \quad h = 16,5 \text{ cm}$$

$$\omega = 0,20 \text{ pract.} \quad A = 3,60 \text{ cm}^2$$

$$\text{toegepast } \phi 10-20 \text{ b/d} \quad A = 3,93 \text{ cm}^2$$

Stutzing B

$$M_B = -4528 \text{ Kgm} \quad h = 16,5 \text{ cm} ; \quad b = 90 \text{ cm}$$

$$k = 0,232 ; \quad \omega = 1,001 ; \quad A = 14,80 \text{ cm}^2$$

$$\text{toegepast } 10 \phi 14 \quad A = 15,40 \text{ cm}^2$$

Veld Bc

$$M_{B-c} = 4040 \text{ Kgm} \quad h = 16,5 ; \quad b = 90 \text{ cm}$$

$$k = 0,246 ; \quad \omega = 0,871 ; \quad A = 12,95 \text{ cm}^2$$

$$\text{toegepast } 9 \phi 14 \quad A = 13,86 \text{ cm}^2$$

Stutzing C

$$M_c = -5669 \text{ Kgm} ; \quad h = 16,5 \text{ cm} ; \quad b = 90 \text{ cm}$$

$$\text{voor } k_{\text{toelat.}} = 0,218 ; \quad M = 5234 \text{ Kgm}$$

$$M_{\text{rest}} = 5669 - 5234 = 435 \text{ Kgm}$$

$$h-a = 16,5 - 3,20 = 13,20 \text{ cm}$$

$$N' = \frac{43500}{13,2} = 3290 \text{ Kg} ; \quad A_d = A' = \frac{3290}{2220} = 1,5 \text{ cm}^2$$

$$A_{\text{totaal boven}} = 17,55 + 1,50 = 19,05 \text{ cm}^2$$

$$\text{toegepast } 13 \phi 14 ; \quad A = 20,02 \text{ cm}^2$$