

QR 40; K 225 803-154

$$M_B = - \frac{860 \times 7,94^2}{8} - \frac{440 \times 4,0^2}{8 \times 7,94^2} (2 \times 7,94^2 - 4,0^2) - \\ - \frac{440 \times 1,89^2}{8 \times 7,94^2} (2 \times 7,94 - 1,89)^2 = - \underline{8910 \text{ Kgm}}$$

$$R_A = 860 \times 7,94 \times \frac{1}{2} + \frac{440 \times 5,74 \times 4,0}{7,94} + \\ + \frac{440 \times 1,89^2}{2 \times 7,94} = \underline{4790 \text{ Kg}}$$

$$4790 - 1300 \times X = 0 \quad X = 3,69 \text{ m}$$

$$M_{\max} = 4790 \times 3,69 - 1300 \times 3,69^2 \times \frac{1}{2} = 8850 \text{ kgm}$$

$$M_{\text{Stekup. in } X = 3,69 \text{ m}} = 4620 \text{ kgm}$$

$$M_{\max AB} = 8850 - 4620 = \underline{4230 \text{ kgm}}$$

Wapening

$$h_{\text{Plaat}} = 20 \text{ cm} \quad \delta = 1,72; \quad \delta_{\text{berok}} = 2,15$$

$$\frac{\delta}{\delta_{\text{berok}}} = \frac{2,15}{1,72} = 1,25$$

Veld AB

$$h = 18 \text{ cm} \quad b = 1,00 \text{ m}$$

$$M = 4230 \text{ kgm}$$

$$k = 0,254; \quad \omega = 0,765 \times 1,25 = 0,955, \quad A = 17,20 \text{ cm}^2$$

$$\text{toegepast } \Phi 16 - 11,5 \quad A = 17,48 \text{ cm}^2$$