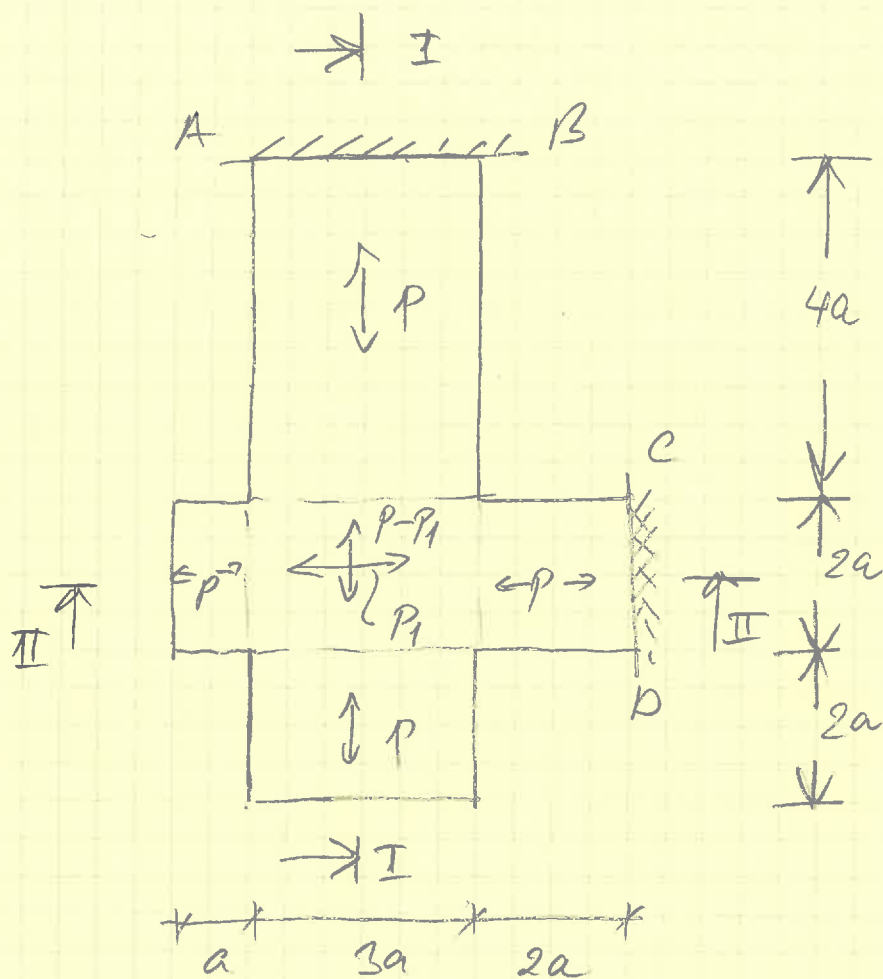
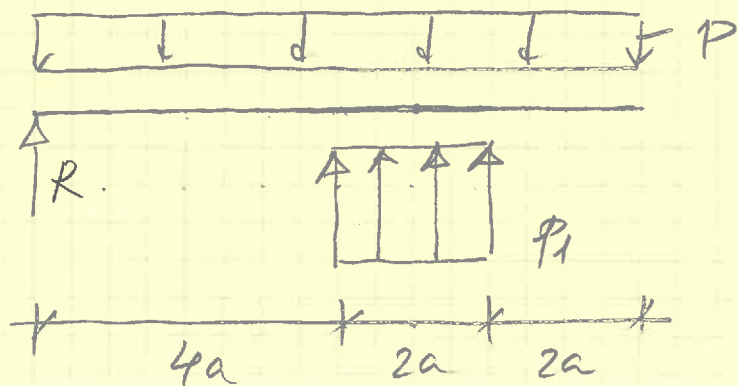




Sum I - I



Moment om P_1 's resultant:

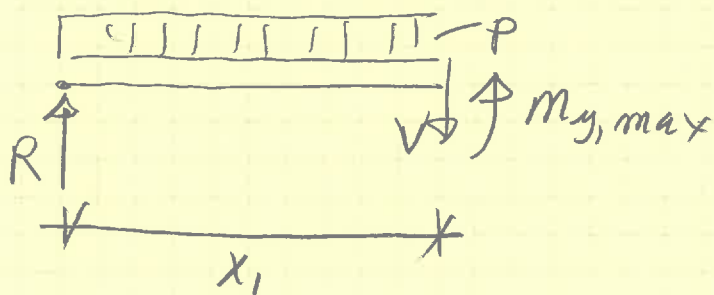
$$R \cdot 5a = 8pa \cdot a \Rightarrow R = \frac{8}{5}pa$$

Moment om R 's angrebspunkt:

$$P_1 \cdot 2a \cdot 5a = 8pa \cdot 4a \rightarrow P_1 = \frac{16}{5}p$$

$$\text{Kontrol: } \frac{8}{5}pa + \frac{16}{5}p \cdot 2a = \frac{40}{5}pa = \underline{8pa} \quad \checkmark$$

Positionen af stiel med max moment er x_1 :

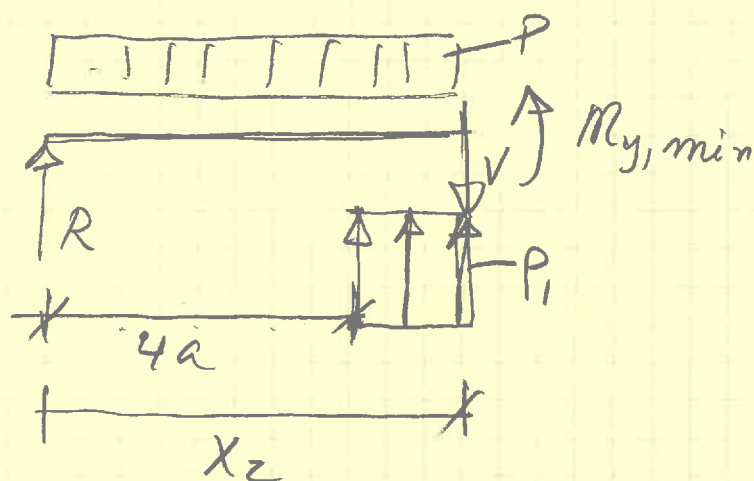


$$V = R - px_1 = 0 \rightarrow x_1 = \frac{8}{5}a < 4a, \text{ ok.}$$

$$\begin{aligned} M_{y,\max} &= R \cdot x_1 - \frac{1}{2}px_1^2 \\ &= \frac{8}{5}pa \cdot \frac{8}{5}a - \frac{1}{2}p \cdot \left(\frac{8}{5}\right)^2 a^2 \\ &= \frac{1}{2} \left(\frac{8}{5}\right)^2 pa^2 = 1,28 pa^2 \end{aligned}$$

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Positionen af snit med mindst moment
, $M_{y,min}$, beskrives ved x_2 :



$$V = R + p_1(x_2 - 4a) - p \cdot x_2 = 0 \Rightarrow$$

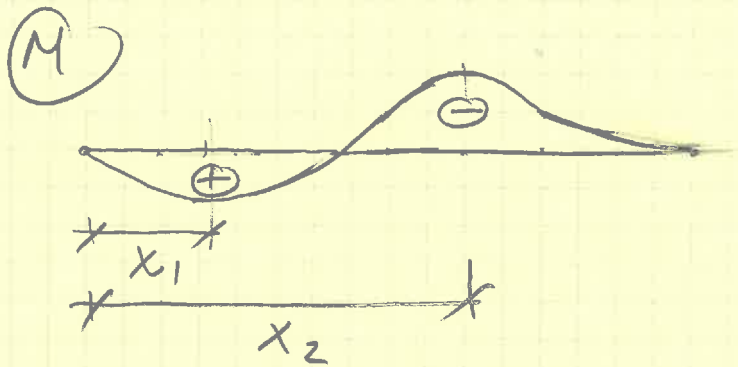
$$\frac{8}{5}pa + \frac{16}{5}p \cdot x_2 - \frac{64}{5}pa - \frac{5}{5}px_2 = 0 \Rightarrow$$

$$x_2 = 5,1a < 6a, \text{ ok.}$$

$$M_{y,min} = R \cdot x_2 + p_1 \cdot \frac{(x_2 - 4a)^2}{2} - p \frac{x_2^2}{2}$$

$$= \frac{8}{5}pa \cdot 5,1a + \frac{16}{5}p \frac{(5,1 - 4)^2 a^2}{2} - p \frac{5,1^2 a^2}{2}$$

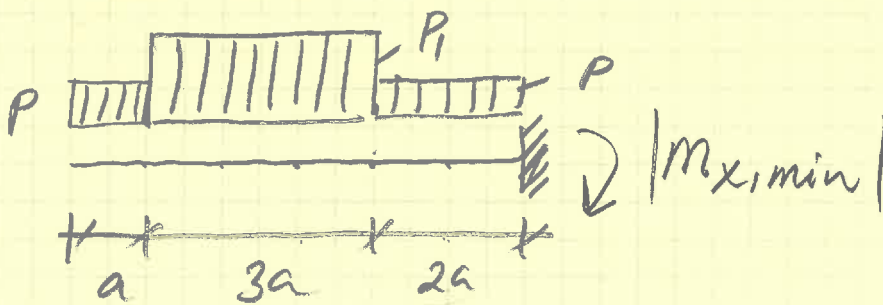
$$= \underline{\underline{-2,91 pa^2}}$$



$$\left. \begin{aligned} M_{y, \max} &\leq M_{uy} = M_u \\ |M_{y, \min}| &\leq M'_{uy} = M_u \end{aligned} \right\} \Rightarrow$$

$$p \leq \frac{M_u}{2,91 a^2} = 0,344 \frac{M_u}{a^2}$$

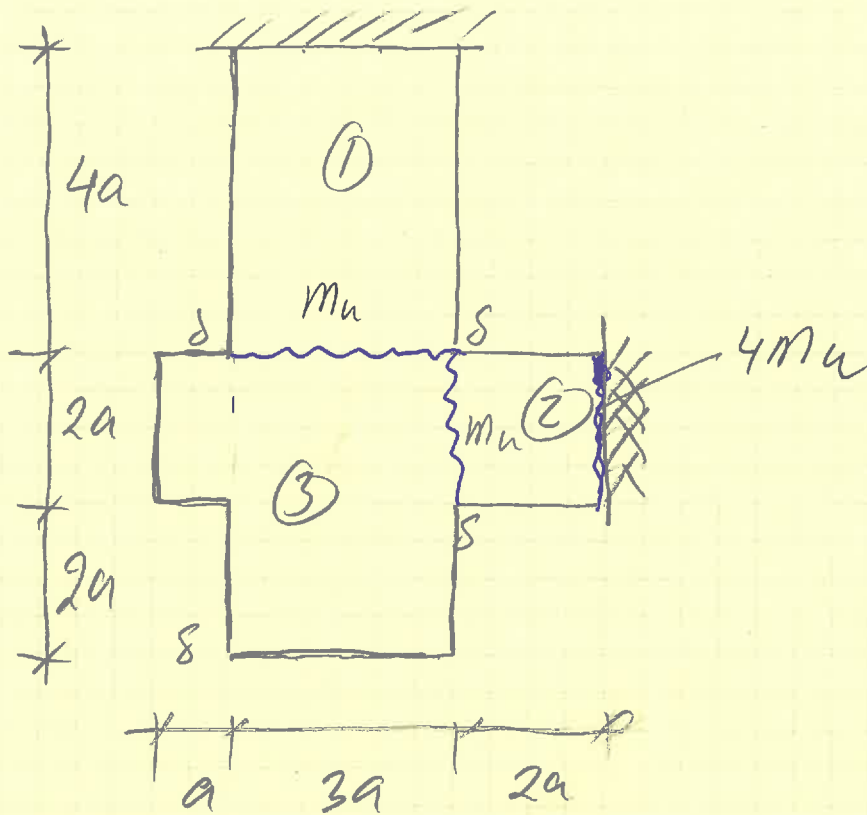
Snit II-II :



$$\begin{aligned} |M_{x, \min}| &= p a \cdot 5,5a + p \cdot 3a \cdot 3,5a + p \cdot a \cdot a \\ &= 41,1 p a^2 \leq M'_{xu} = 4 M_u \Rightarrow \end{aligned}$$

$$p \leq \frac{4}{41,1} \frac{M_u}{a^2} = 0,097 \frac{M_u}{a^2}$$

Nederve di



Plade del ①

$$A_i = m_u \cdot 3a \cdot \frac{\delta}{4a}$$

$$A_y = p \cdot 4a \cdot 3a \cdot \frac{1}{2} \delta$$

Plade del ②

$$A_i = (m_u + 4m_u) \cdot 2a \cdot \frac{\delta}{2a}$$

$$A_y = p \cdot 2a \cdot 2a \cdot \frac{1}{2} \delta$$

Plade del ③

$$A_i = 0$$

$$A_y = p \cdot (3a \cdot 4a + a \cdot 2a)$$

$$\left. \begin{aligned} \sum A_i &= \sum A_y \downarrow \\ (3/4 + 5 + 0) m_u \delta &= \\ (6 + 2 + 14) p a^2 \delta &\Rightarrow \\ p^{(+)} &= 0,261 \frac{m_u}{a^2} \end{aligned} \right\}$$