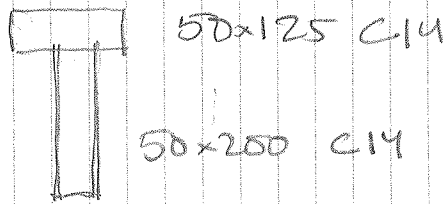


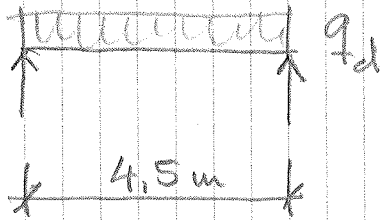
ROBERT RIBON

BER. GÖLVBJÄLKE



NÄRDEH EML. SEKTIONS DATA.

LASTER



EG. V. BJLG 0,6 kN/m²

EG. V. INNERV. 0,5

NYTT. LAST 2,0

BROTTLASTFALL:

$$q_d = ((0,6 + 0,5) \cdot 1,2 + 2 \cdot 1,5) \cdot 0,6 = 2,6 \text{ kN/m}$$

$$M_d = q l^2 / 8 = 2,6 \cdot 4,5^2 / 8 = 6,6 \text{ kNm}$$

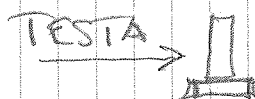
BRUKSLASTFALL:

$$q_d = (0,6 + 0,5 + 2,0) \cdot 0,6 = 1,86 \text{ kN/m}$$

$$M_d = 1,86 \cdot 4,5^2 / 8 = 4,7 \text{ kNm}$$

$$f_d = \frac{k_{mod} \cdot f_k}{\gamma_m} = \frac{0,8 \cdot 14}{1,3} = 8,6 \text{ MPa (KLIMATKL. I)}$$

$$M_{Rd} = 8,6 \cdot 639,7 \cdot 10^3 = 5,5 \text{ kNm} < 6,6 \quad \underline{\text{GÄR EJ}}$$



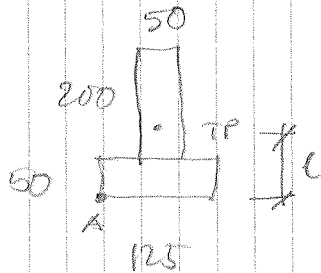
$$M_{Rd} = 8,6 \cdot 929,4 \cdot 10^3 = 8,0 \text{ kNm} > 6,6 \Rightarrow \text{OK?}$$

NEDBÖJNING:

$$y = \frac{5 \cdot q \cdot l^4}{384 \cdot E \cdot I} = \frac{5 \cdot 1,86 \cdot 4500^4}{384 \cdot \frac{7000}{1+0,6} \cdot 289,8 \cdot 10^4} = 7,8 \text{ mm} \Rightarrow l/577 < l/300$$

BER. SKJUVFLÖDE I SKARV

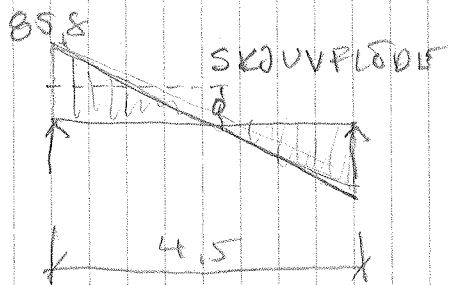
$$A_{\bar{y}} = 50 \cdot 125 (92,7 - 25) = 423125 \text{ mm}^3$$



$$V_{\max} = 2,6 \cdot 4,5 / 2 = 5,85 \text{ kN} \left(\frac{9 \text{ k}}{2} \right)$$

$$\begin{aligned} \bar{A}^y &= 50 \cdot 125 \cdot 25 + 50 \cdot 200 \cdot 150 - (50 \cdot 125 + 50 \cdot 200) \cdot l = 0 \\ l &= 92,7 \text{ mm} \end{aligned}$$

$$v = \frac{V \cdot A_{\bar{y}}}{I} = \frac{5,85 \cdot 10^3 \cdot 4,23125 \cdot 10^{-4}}{289,8 \cdot 10^8 \cdot 10^{-12}} = 85,8 \text{ kN}$$



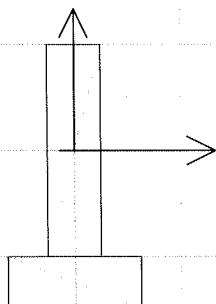
$$\begin{aligned} \text{SNITTSKJUVFLÖDE} &= 85,8 / 2 = 42,9 \\ \tau &= 42,9 \cdot 10^3 / 50 \cdot 2250 = 0,38 \text{ MPa} \end{aligned}$$

TILLÄGEN PÅKÄNNING I TRÄ
FÖR LÅNGSKEJVNING:

$$f_{vd} = \frac{f_{vk} \cdot k_{mod}}{f_m} = \frac{3 \cdot 0,6}{1,3} = 1,38 > 0,38 \quad \text{OK!}$$

BALKAR LIMMAS (LIMFÖR STARKARE ÄN TRÄ)
SAMT SPIKAS C/C ~ 150

Sectional data



A	= 16250 mm ²
P	= 750.0 mm
(Yg	= 0.0000 mm)
(Zg	= 0.0000 mm)
Ys	= 0.0000 mm
Zs	= -46.60 mm
Iy	= 94731571 mm ⁴
Iz	= 10221354 mm ⁴
It	= 13281063 mm ⁴
Wt	= 115237 mm ³
Iw	= 28978264779 mm ⁶
Iyz	= 0.0000 mm ⁴
α 1	= 0.0000 °
I1	= 94731571 mm ⁴
W1 min	= 639746 mm ³
W1 max	= 929442 mm ³
e2 min	= 101.9 mm
i1	= 76.35 mm
S1	= 548143 mm ³
So1	= 543016 mm ³
c1	= 1.698
ρ 1	= 0.5271
α 2	= 90.00 °
I2	= 10221354 mm ⁴
W2 min	= 163542 mm ³
W2 max	= 163542 mm ³
e1 min	= 62.50 mm
i2	= 25.08 mm
S2	= 160296 mm ³
So2	= 160296 mm ³
c2	= 1.960
ρ 2	= 0.6564

Project		Scale	1 : 6.71
Description		File name	
Designer		Date/Time	01/21/26 11:18:42
Signature		Comments	
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