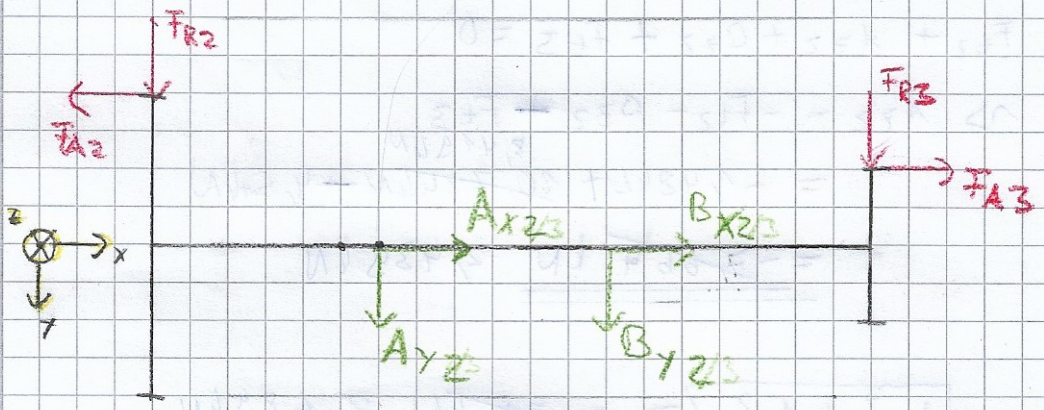
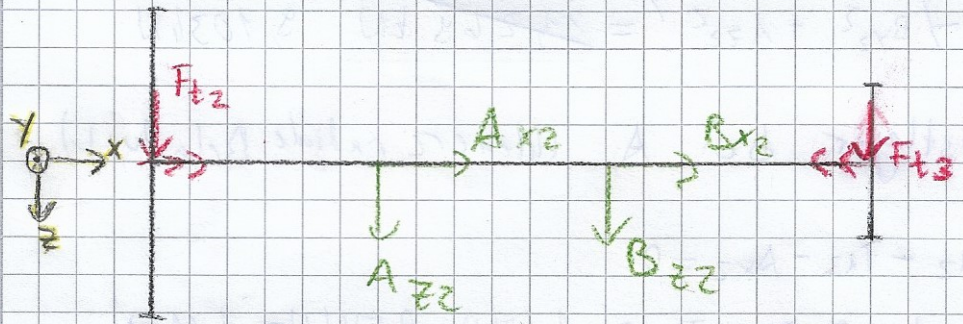
$d_2 = 226{,}67\,mm$ $\quad$ $d_3 = 74{,}49\,mm$





$\circlearrowleft A_z$: $B_{y2} \cdot 34 - F_{R2} \cdot 25{,}5 - F_{A2} \frac{d_2}{2} + F_{R3} \cdot 72 + F_{A3} \cdot \frac{d_3}{2} = 0$

$\Rightarrow B_{y2} = \frac{F_{R2} \cdot 25{,}5 + F_{A2} \cdot \frac{d_2}{2} - F_{R3} \cdot 72 - F_{A3} \cdot \frac{d_3}{2}}{34}$

$= \frac{0{,}54\,kN \cdot 25{,}5 + 0{,}5\,kN \cdot \frac{226{,}67}{2} - 1{,}76\,kN \cdot 72 - 1{,}65\,kN \cdot \frac{74{,}49}{2}}{34}$

$= \underline{-3{,}463\,kN}$

$\uparrow$: $F_{R2} + A_{y2} + B_{y2} + F_{R3} = 0$

$\Rightarrow A_{y2} = +F_{R2} - B_{y2} - F_{R3}$

$= -0{,}54\,kN + 3{,}463\,kN - 1{,}76\,kN - 1{,}133\,kN$

$= \frac{1,486\,kN \cdot 25,5 + 4,5\,kN \cdot 72}{34} = \underline{10,724\,kN}$

↑: $F_{t2} + A_{z2} + B_{z2} + F_{t3} = 0$

$\Rightarrow A_{z2} = -F_{t2} - B_{z2} + F_{t3}$ (3,419 kN)

$= -1,486\,kN + 10,724\,kN + 4,5\,kN$

$= \underline{13,638\,kN}$ 3,439 kN

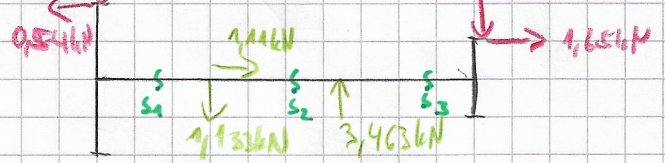
$A_{r2} = \sqrt{A_{y2}^2 + A_{z2}^2} = \underline{13,775\,kN}$ 2,689 kN

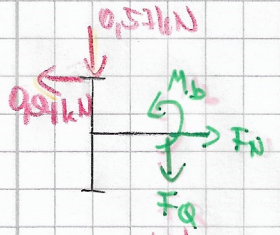
$B_{r2} = \sqrt{B_{y2}^2 + A_{z2}^2} = \underline{11,269\,kN}$ 9,103 kN

$\Rightarrow$ Festlager bei A (kleinere radiale Belastung)

→: $F_{A2} - F_{A3} - A_{x2} = 0$

$\Rightarrow A_{x2} = F_{A3} - F_{A2} = 1,65\,kN - 0,54\,kN = \underline{1,11\,kN}$

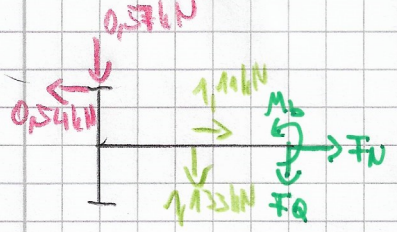




→: $F_N = 0,546kN$

↑: $F_Q = -0,57kN$

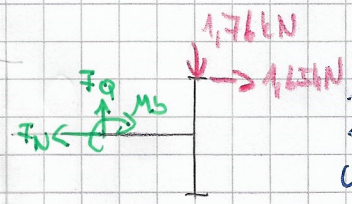
↺: $M_{b_z}(S_1) = -0,57kN \cdot S_1 - 0,54 \cdot \frac{226,67}{2}$



→: $F_N = 0,546kN - 1,114kN = -0,57kN$

↑: $F_Q = -0,57kN - 1,133kN = -1,70kN$

↺: $M_{b_z}(S_2) = 0,57kN \cdot (S_2 + 25,5) - 1,133kN \cdot S_2 - 0,54kN \cdot \frac{226,67}{2}$

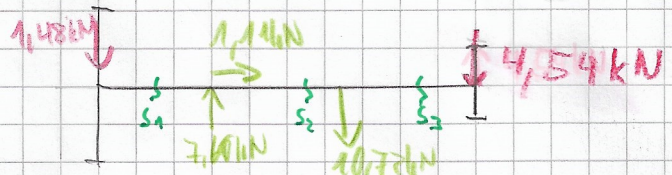


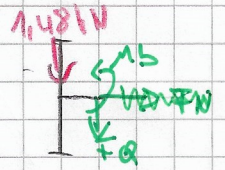
→: $F_N = 1,654kN$

↑: $F_Q = 1,76kN$

↺: $-1,76 \cdot S_3 - 1,65kN \cdot \frac{24,45}{2}$

M_{b_y} - Verläufe

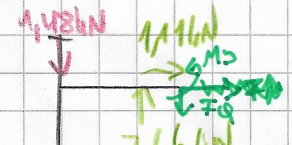




↑: $F_Q = -1,481kN$

→: ~~$F_N = 0$~~

↺: $M_{b_y}(S_1) = -1,48 \cdot S_1$



↑: $F_Q = 7,66kN$

→: ~~$F_N = -1,114kN$~~

↺: $M_{b_y}(S_2) = -1,48 \cdot (25,5 + S_2) + 7,66 \cdot S_2$