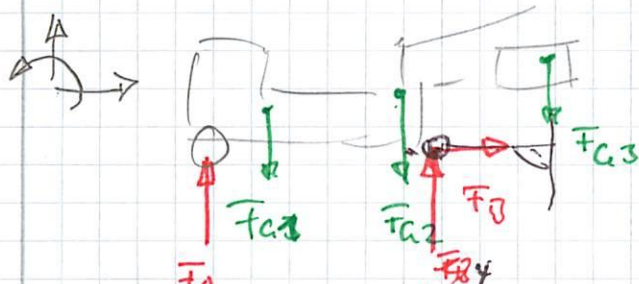


3.1 LS Lkw + Garage



$$\sum \vec{M}_B = 0 = -\bar{F}_{A0} \cdot l_1 + \bar{F}_{A1} \cdot (l_2 + l_3) + \bar{F}_{A2} \cdot l_3 - \bar{F}_{G3} \cdot (l_5 - l_3)$$

$$\bar{F}_A = \frac{\bar{F}_{A1} \cdot (l_2 + l_3) + \bar{F}_{A2} \cdot l_3 - \bar{F}_{G3} \cdot (l_5 - l_3)}{l_1}$$

$$= \frac{100 \text{ kN} \cdot (6,5 + 1) \text{ m} + 10 \text{ kN} \cdot 1 \text{ m} - 120 \text{ kN} \cdot (5,5 - 1) \text{ m}}{9 \text{ m}}$$

$$\bar{F}_A = 24,4 \text{ kN}$$

$$\sum \vec{F}_x = 0 = \bar{F}_{Bx}$$

$$\uparrow \sum \vec{F}_y = 0 = +\bar{F}_A - \bar{F}_{A1} - \bar{F}_{A2} + \bar{F}_{By} - \bar{F}_{G3}$$

$$\bar{F}_B = \bar{F}_{By} = -\bar{F}_A + \bar{F}_{A1} + \bar{F}_{A2} + \bar{F}_{G3}$$

$$= -24,4 \text{ kN} + 100 \text{ kN} + 10 \text{ kN} + 120 \text{ kN}$$

$$\bar{F}_B = 205,6 \text{ kN}$$