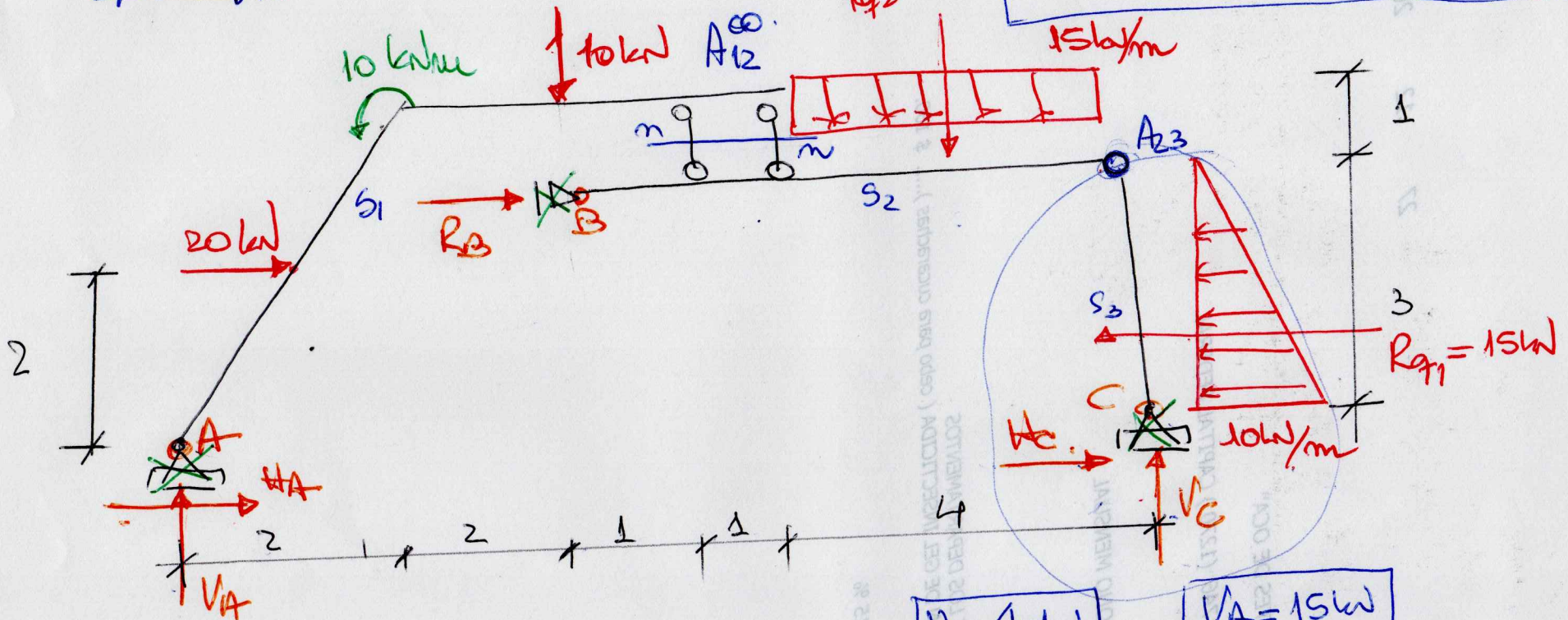


3 EEA  $\begin{cases} \sum F_v = 0 \\ \sum F_H = 0 \\ \sum M^o = 0 \end{cases}$

2 EER  $\begin{cases} \sum M_{A23}^{A23} = 0 & \sum M_{S1yS2}^{A23} = 0 \\ \sum \text{Proj}_{S1}^{m-m} = 0 & \sum \text{Proj}_{S2yS3}^{m-m} = 0 \end{cases} \quad (1)$



$$\sum M_{S3}^{A23} = H_C \cdot 3m - 15kN \cdot 2m = 0 \Rightarrow$$

$$\sum \text{Proj}_{S2yS3}^{m-m} = H_C - 15kN + R_B = 0$$

$$\sum \text{Proj}_{S1}^{m-m} = H_A + 20kN = 0$$

$$\sum M_{S1yS2}^{A23} = 60kN \cdot 2m + 10kN \cdot 6m + 10kNm + 20kN \cdot 1m + \frac{-20}{-60} \cdot 3m - V_A \cdot 10m = 0$$

$$\sum F_v = V_A - 10kN - 60kN + V_C = 0 \rightarrow V_C$$

$$H_C = 10kN$$

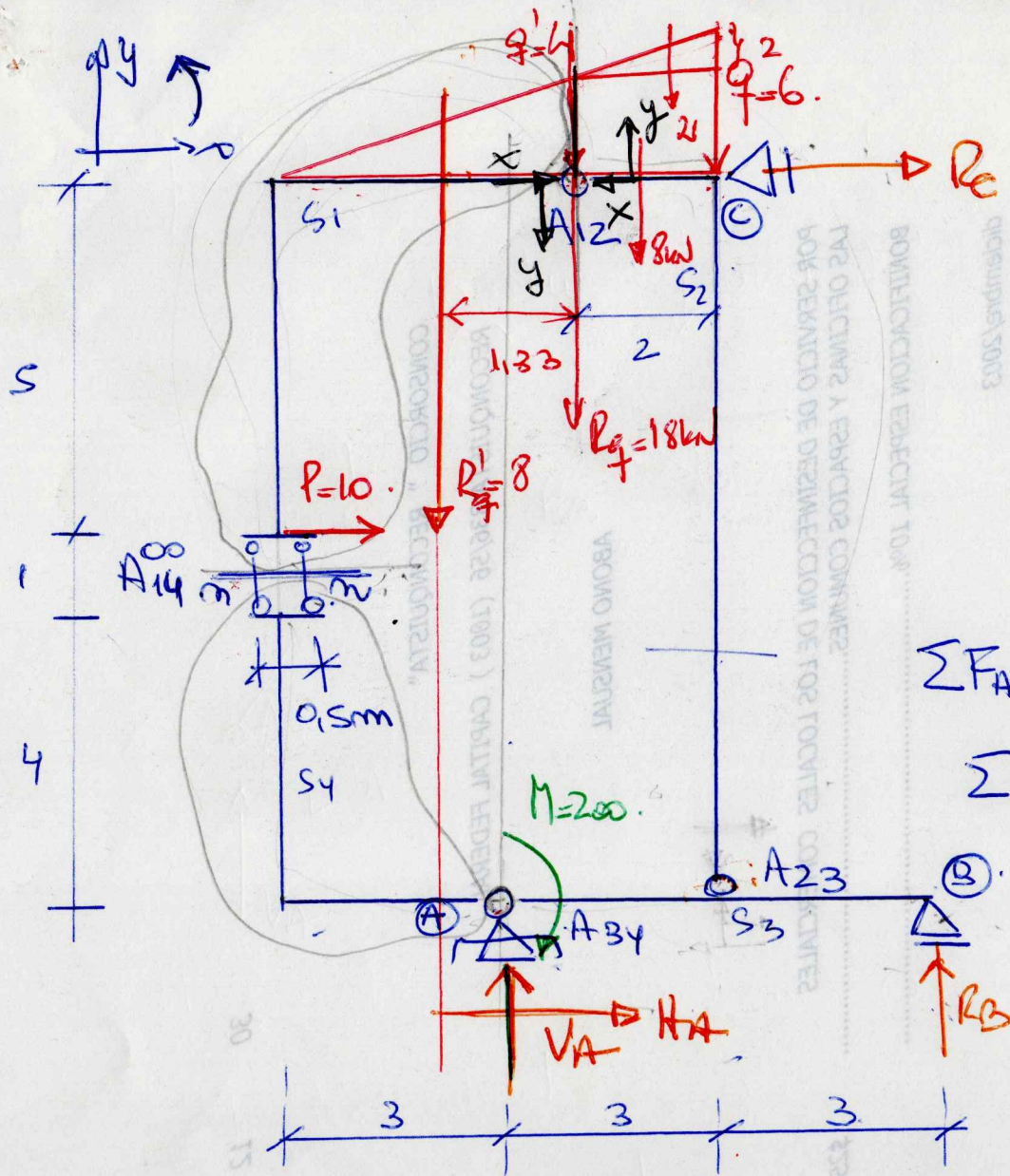
$$R_B = 5kN$$

$$H_A = -20kN$$

$$V_A = 15kN$$

$$V_C = 55kN$$

13/05/2020  
ESTABELECIDA II



$$\sum \text{Proy}_{S_1} = X + 10 = 0 \Rightarrow \boxed{X = 10 \text{ kN}} \quad (2)$$

$$\sum M_{A_{34}}^{S_1, S_4} = -X \cdot 10 \text{ m} - y \cdot 1 \text{ m} + 8 \text{ kN} \cdot 0,33 \text{ m} - 10 \text{ kN} \cdot 5 \text{ m} = 0 \Rightarrow \boxed{y = 52,64 \text{ kN}}$$

$$\sum M_{S_2}^{A_{23}} = X \cdot 10 \text{ m} - y \cdot 2 \text{ m} - R_c \cdot 10 \text{ m} - 8 \text{ kN} \cdot 1 \text{ m} + 2 \text{ kN} \cdot \frac{2}{3} \text{ m} = 0$$

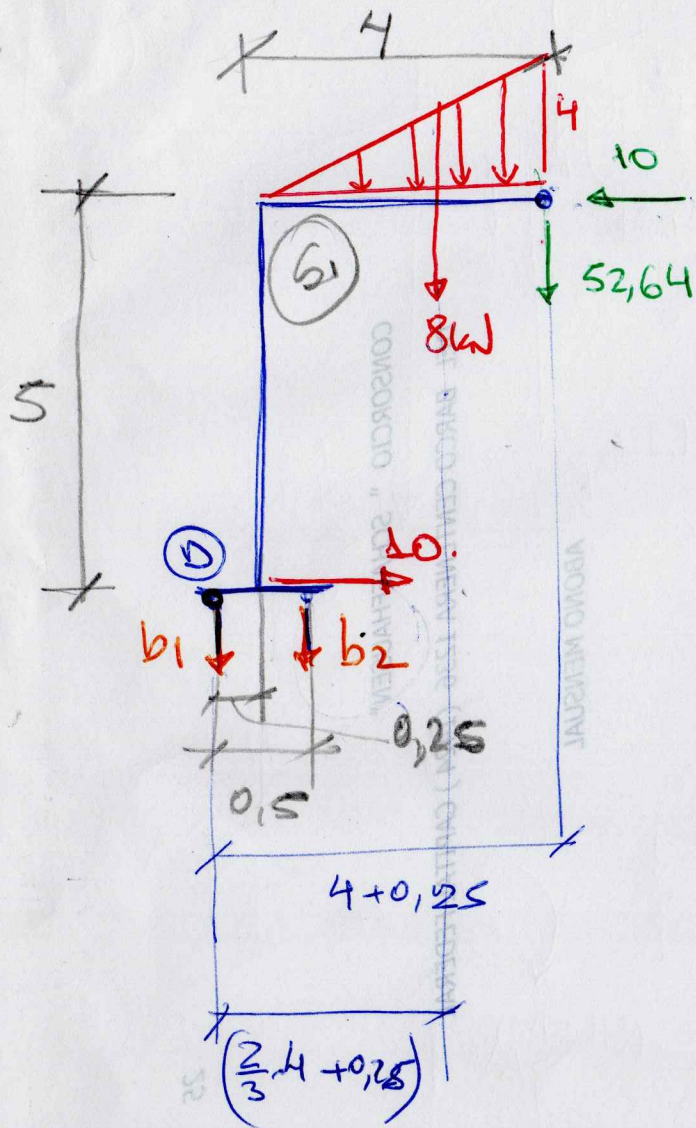
$$\boxed{R_c = -19,6 \text{ kN}}$$

$$\sum F_A = H_A + 10 \text{ kN} + R_c = 0 \Rightarrow \boxed{H_A = 9,6 \text{ kN}}$$

$$\sum M^{\oplus} = -200 + R_B \cdot 6 \text{ m} - R_c \cdot 10 \text{ m} - 10 \text{ kN} \cdot 5 \text{ m} - 18 \text{ kN} \cdot 1 \text{ m} = 0 \Rightarrow \boxed{R_B = 12 \text{ kN}}$$

$$\sum F_v = V_A + R_B - R_g = 0 \Rightarrow \boxed{V_A = 6 \text{ kN}}$$

Realizar Despiece de la chapa  $S_1$



$$10kN \cdot 5m - 52,64kN(4m + 0,25m) - \frac{2}{3} \cdot 8kN(4m \cdot \frac{2}{3} + 0,25m) = 0$$

$$\sum M^D = 10 \cdot 5m - 52,64(4 + 0,25)m - 8kN(\frac{2}{3} \cdot 4 + 0,25)m - b_2 \cdot 0,5m = 0 \quad \boxed{b_2 = -394,11kN}$$

$$\sum F_v = 8kN + 52,64kN + \frac{b_1}{?} + b_2 = 0$$

$$\boxed{b_1 = +333,5kN}$$

