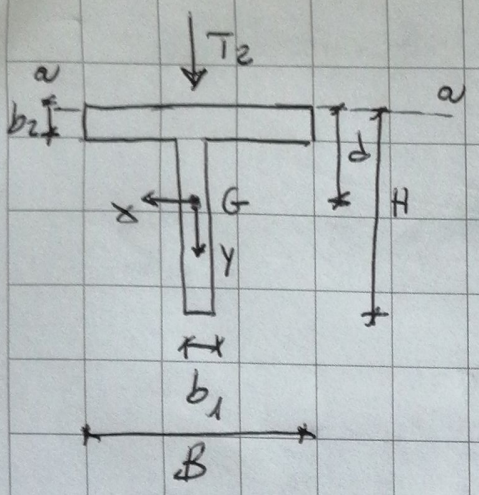
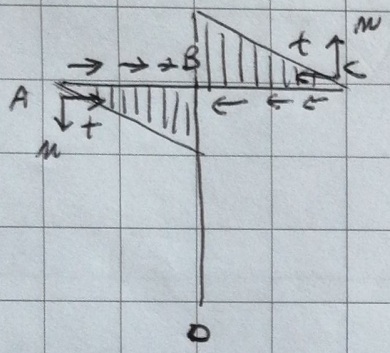
Es. 1

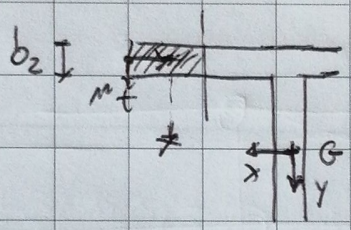


$$d = \frac{S_{aa}}{A} = \frac{b_2 B \cdot \frac{b_2}{2} + b_1 (H-b_2) \cdot \left[\frac{H-b_2}{2} + b_2\right]}{b_2 \cdot B + b_1 (H-b_2)}$$

$$\tau_{t3} = -\frac{T_2 S'_x}{I_x b}$$

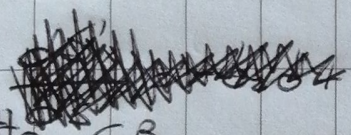


Tratto AB



$$S'_x = b_2 \cdot s \left(d - b_2/2\right) \qquad S'_x \leq 0 \qquad \text{per } 0 < s \leq B/2$$

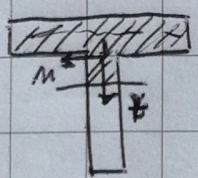
$$\tau_{t3} = \frac{-T_2 \cdot S_x}{I_x \cdot b_2} \geq 0 \qquad \text{per } 0 \leq s \leq B/2$$



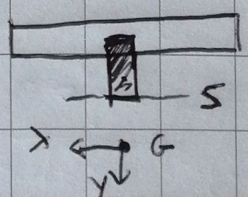
tratto CB

$$S'_x = -b \cdot s \cdot \left(d - \frac{b_2}{2}\right) \Rightarrow S'_x \leq 0 \Rightarrow \tau_{t3} \geq 0 \qquad \text{per } 0 \leq s \leq B/2$$

tratto BA

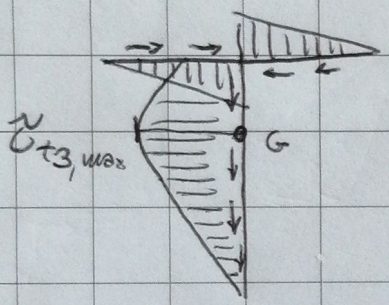


S'_x



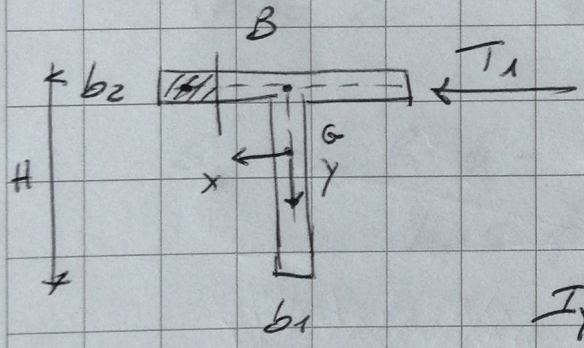
$$S'_x = -b_2 \cdot B \cdot \left(d - \frac{b_2}{2}\right) - b_1 \cdot s \cdot \left(d - \frac{s}{2}\right) \leq 0 \qquad \text{per } 0 \leq s \leq H$$

$$\frac{d'S_x}{ds} = -b_1 d + b_1 s \Rightarrow \frac{d'S_x}{ds} = 0 \qquad \text{per } d = s$$



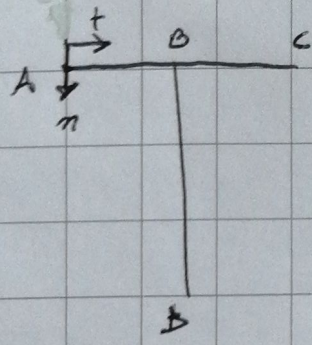
$$I_x = \frac{B \cdot b_2^3}{12} + B \cdot b_2 \cdot \left(d - \frac{b_2}{2}\right)^2 + \frac{b_1 \cdot (H - b_2)^3}{12} + b_1 \cdot (H - b_2)\left(\frac{H - b_2}{2} + b_2 - d\right)$$

Es 2



$$\tau_{t3} = -\frac{T_1 \cdot S'_y}{I_y \cdot b}$$

$$I_y = \frac{b_2 \cdot B^3}{12} + \frac{(H - b_2) \cdot b_1^3}{12}$$

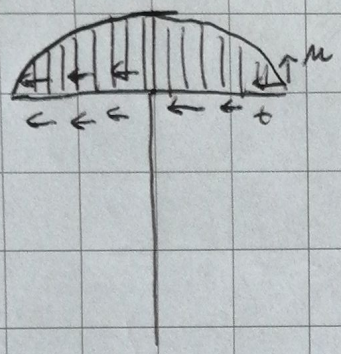


Tratto AB

$$S'_y = b_2 \cdot s \cdot \left(\frac{B}{2} - \frac{s}{2}\right) \geq 0 \qquad \text{per } 0 \leq s \leq \frac{B}{2}$$

$$\tau_{t3} = -\frac{T_1 S'_y}{I_y b_2} \leq 0 \qquad \text{per } 0 < s \leq \frac{B}{2}$$

$$\frac{d^2 S_y}{ds} = b_2 \frac{B}{2} - b_2 s \quad \Rightarrow \quad \frac{d^2 S_y}{ds} = 0 \quad \text{per} \quad s = \frac{B}{2}$$



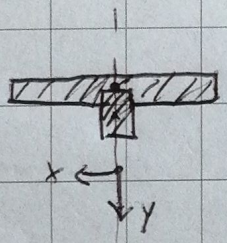
Tratto BC

$$S'_y = -b_2 \cdot s \cdot \left(\frac{B}{2} - \frac{s}{2}\right) \leq 0$$

$$\frac{d^2 S_y}{ds} = 0 \quad \text{in} \quad s = \frac{B}{2}$$

$$\tau_{t3} = -\frac{T_1 S'_y}{I_y b} \geq 0 \quad \text{per} \quad 0 \leq s \leq \frac{B}{2}$$

Tratto BC



$$S'_y = -b_2 \cdot B \cdot \phi - b_1 \cdot s \cdot \phi = 0 \quad \Rightarrow \quad \tau_{t3} = -\frac{T_1 S'_y}{I_y b_1} = 0 \quad \text{per BC}$$