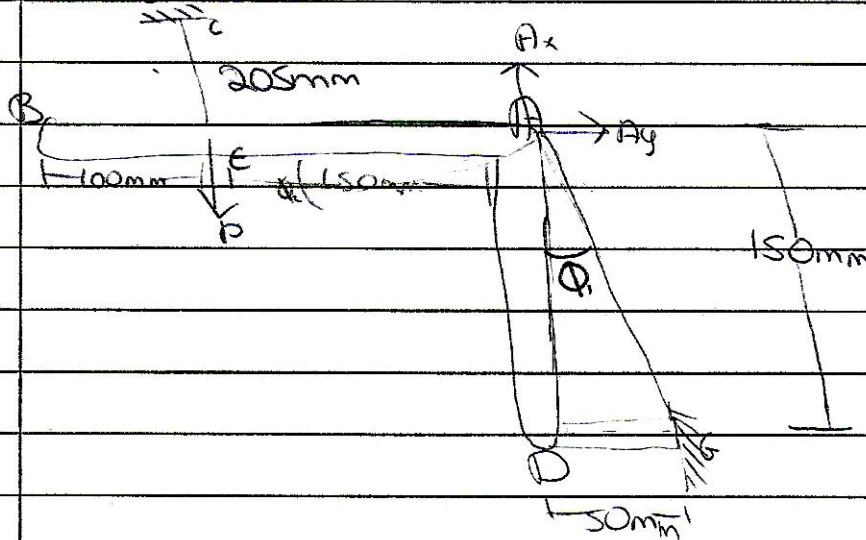


Project 4
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$$\phi_1 = \phi_2$$

$$\tan \phi = \frac{150}{50} \Rightarrow \hat{\phi} = 71,57^\circ$$

$$A_{CE} = 22,5 \text{ mm}^2 \quad P = 450 \text{ kW} + 15 \text{ kW} \quad \epsilon_3 = 15$$

$$A_{DG} = 40 \text{ mm}^2 \quad E_{ox} = 200 \text{ GPa} \quad \epsilon_2 = 5$$

$$E_{cy} = 70 \text{ GPa}$$

$$EA \cdot \tan \phi = \delta_{ce}$$

$$150 \cdot \tan 71,57 = \frac{P_{ce} \cdot L_{ce}}{A_{ce} \cdot E_{ox}}$$

$$150 \cdot 3 = \frac{P_{ce} \cdot 205}{22,5 \cdot 200}$$

$$P_{ce} = 9,88 \text{ kW}$$

$$AD \tan \phi = \delta_{dg}$$

$$150 \cdot 3 = \frac{P_{dg} \cdot L_{dg}}{A_{dg} \cdot E_{cy}}$$

$$150 \cdot 3 = \frac{P_{dg} \cdot 50}{40 \cdot 70}$$

$$P_{dg} = 25,2 \text{ kW}$$