



$$z_{T_1} = 0,325 - \frac{4}{3} \frac{0,325}{\pi} = 0,187 \text{ m}$$

$$A_{N_1} = \frac{\pi \cdot 1,3 \cdot 0,325}{4} = 0,332 \text{ m}^2$$

$$z_{T_2} = 0,325 + \frac{2a}{3} = 0,325 + 0,65 = 0,975 \text{ m} \quad A_{N_2} = 2a \cdot 2a = (1,3)^2 = 1,69 \text{ m}^2$$

$$P_{N_1} = \rho \cdot A_{N_1} = \rho \cdot g \cdot (H_0 - z_{T_1}) \cdot A_{N_1} = 1000 \cdot 9,81 \cdot (1,625 - 0,187) \cdot 0,332 = 4,683 \text{ kN}$$

$$P_{N_2} = \rho \cdot A_{N_2} = \rho \cdot g \cdot (H_0 - z_{T_2}) \cdot A_{N_2} = 1000 \cdot 9,81 \cdot (1,625 - 0,975) \cdot 1,69 = 10,736 \text{ kN}$$

$$P_N = P_{N_1} + P_{N_2} = 15,419 \text{ kN}$$

$$e = - \frac{\rho \cdot g \cdot I_{yy}}{P_N}$$

✓

$$I_{yy_1} = \frac{\pi \cdot b \cdot L^3}{12} = \frac{\pi \cdot 1,3 \cdot (0,325)^3}{12} = 0,004 \text{ m}^4$$

$$I_{yy_2} = \frac{b^3 \cdot L}{12} = \frac{(1,3)^3 \cdot 1,3}{12} = 0,238 \text{ m}^4$$

$$e_{N_1} = - \frac{1000 \cdot 9,81 \cdot 0,004}{4,683 \cdot 10^3} = -0,002 \text{ m}$$

$$\sum_{N,T} = \frac{P_{N_1} \cdot z_{N_1} + P_{N_2} \cdot z_{N_2}}{P_{N_1} + P_{N_2}}$$

$$e_{N_2} = - \frac{1000 \cdot 9,81 \cdot 0,238}{10,736 \cdot 10^3} = -0,217 \text{ m}$$

$$\sum_{N,T} = \frac{4,683 \cdot 10^3 \cdot 0,185 + 10,736 \cdot 10^3 \cdot 0,238}{15,419 \cdot 10^3}$$

$$\sum_{N,T_1} = z_{T_1} - |e_{N_1}| = 0,187 - 0,002 = 0,185 \text{ m}$$

$$\sum_{N,T} = 0,584 \text{ m}$$

$$\sum_{N,T_2} = z_{T_2} - |e_{N_2}| = 0,975 - |0,217| = 0,758 \text{ m}$$