$$M_q := Q \cdot b_x + Q \cdot b_y = \left(7.334 \cdot 10^6\right) \; \boldsymbol{kgf \cdot mm}$$

$$A := \frac{(a+b) \; I_r}{2} = \left(2.142 \cdot 10^4\right) \; \boldsymbol{mm}^2$$

$$\rho := NR + \frac{d_1}{2} = 195.137 \; \boldsymbol{mm}$$

$$\chi := -\frac{1}{A} \int\limits_{-MR}^{NR} \frac{\eta}{\rho + \eta} \left(b + \frac{a-b}{I_r} \; (MR + \eta)\right) \mathrm{d}\eta = 0.137$$

$$\sigma_N := \frac{1}{A} \; \frac{Q}{\frac{\sqrt{2}}{2}} \; \sin\left(\psi + \frac{\boldsymbol{\pi}}{4}\right) - \frac{M_q}{A \cdot \rho} - \frac{M_q}{\chi \cdot A \cdot \rho} \cdot \frac{-NR}{\rho - NR} = 11.364 \; \frac{\boldsymbol{kgf}}{\boldsymbol{mm}^2}$$

$$\sigma_M := \frac{1}{A} \; \frac{Q}{\frac{\sqrt{2}}{2}} \; \sin\left(\psi + \frac{\boldsymbol{\pi}}{4}\right) - \frac{M_q}{A \cdot \rho} - \frac{M_q}{\chi \cdot A \cdot \rho} \cdot \frac{MR}{\rho + MR} = -5.033 \; \frac{\boldsymbol{kgf}}{\boldsymbol{mm}^2}$$