$$\sigma_{eq} = \sqrt{\sigma_N^2 + 3\tau^2}$$

$$\sigma_{eq} = \left[\left(\frac{M_{fy}}{\frac{\pi D^4}{64}} \cdot \frac{D}{2} + \frac{M_{fz}}{\frac{\pi D^4}{64}} \cdot D/2\right)^2 + 3.\left(\frac{M_t}{\frac{\pi D^4}{64}}\right)^2\right]^{1/2} < \sigma_{ad} = Re$$

Avec M_{fy} = 652,21 N ; M_{fz} = 167,85 N ; M_t =-29,36 N ; σ_{ad} = 430MPa