

$$M = F \times 1.545 = 949 \times 1.545 = 1466 \text{ N.m}$$

$$W = \pi r^3 + 3r^2 + 3r$$

$$r$$

$$W = \pi r^3 + 3r^2 + 3r$$

$$= \pi \times 3^3 + 3 \times 3^2 + 3 \times 3 = 88.768 \text{ mm}^3$$

$$= 88.768 \times 10^{-6} \text{ m}^3$$

$$\sigma = M/W$$

$$= 1466 / (88.768 \times 10^{-6}) = 16.5 \times 10^6 \text{ pa} = 16.5 \text{ Mpa} \ll 215 \text{ Mpa}$$

$$215 \text{ Mpa} > 16.5 \text{ Mpa}$$

$$\sigma < \sigma_{\text{allow}}$$

