# ES120 Spring 2018 – Section 4 Notes

Matheus Fernandes

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## Problem 1:

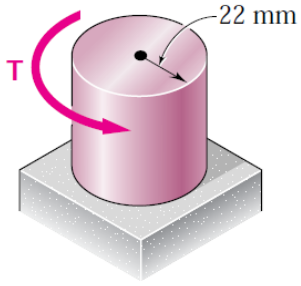


**Figure 1**

For the cylindrical shaft shown, determine the maximum shearing stress caused by a torque of magnitude T=1.5 kN·m.

# Problem 2:

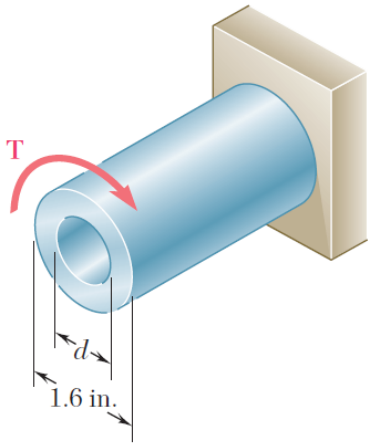


**Figure 2**

Knowing that the internal diameter of the hollow shaft shown is d=0.9 in., determine the maximum shearing stress caused by a torque of magnitude T=9 kip·in.

# Problem 3:

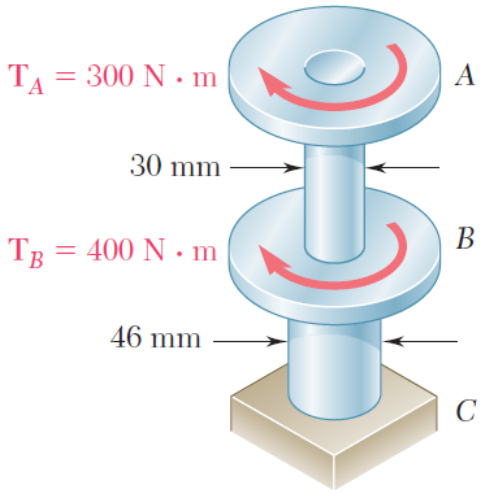


**Figure 3**

The torques shown are exerted on pulleys A and B. Knowing that each shaft is solid, determine the maximum shearing stress (a) in shaft AB, (b) in shaft BC.