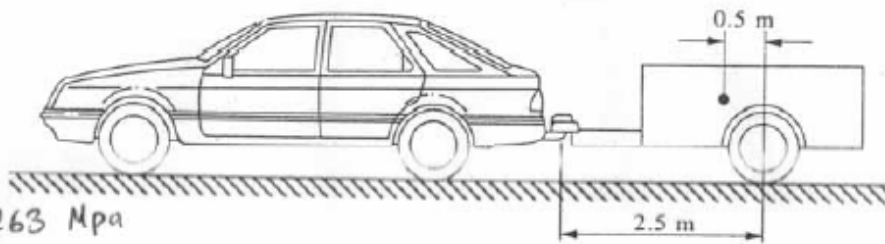


- 6.11 A small trailer has a suspension system as shown in Fig. 6.52. If the weight of the trailer is 4 kN and its centre of gravity is 0.5 m forward of the wheels, calculate the bending moments and torques in sections AB and BC. Calculate also the maximum bending and shear stresses in these sections. Ignore any effects at corners or changes in section.

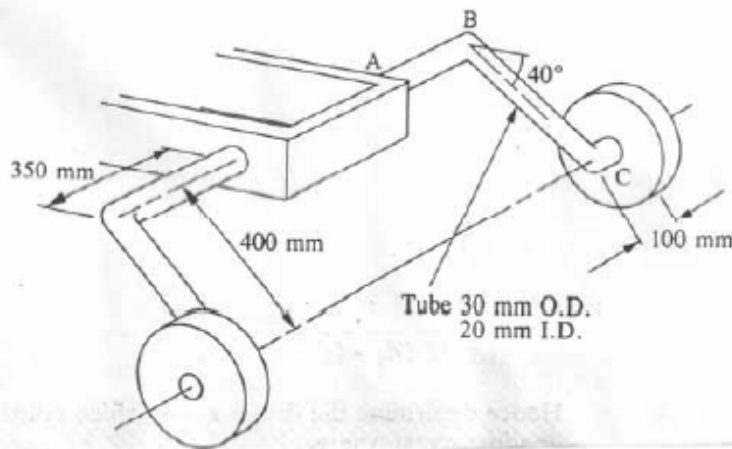
Fig. 6.52



Ans:

$$M_{AB} = 263 \text{ Mpa}$$

$$\tau_{AB} = 115 \text{ Mpa}$$



- 11.60. [11.7] Find the maximum tensile stress  $\tau_{xx}$  and the extreme vertical and horizontal shear stresses on the cross section at the midspan of the beam shown in Fig. P11.60 supported at the end with ball joints.

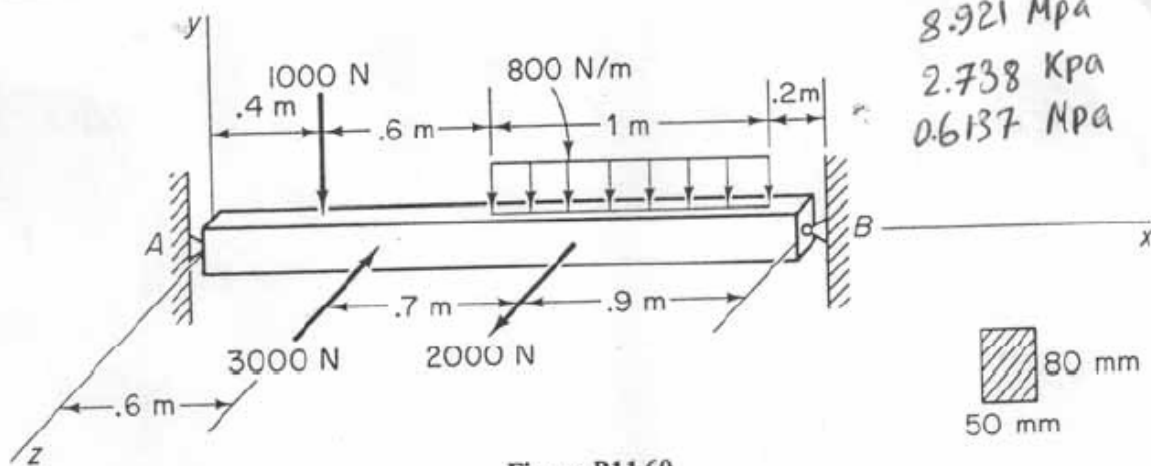


Figure P11.60