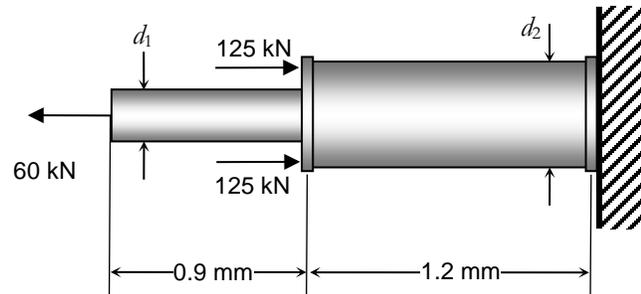
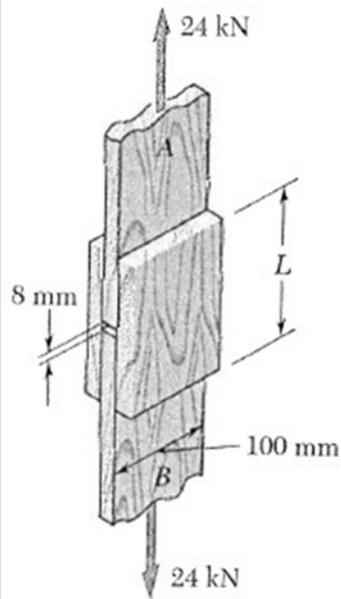

Example

The figure shows two solid cylindrical rods welded together at B . The average normal stress in either rod is not to exceed 150 MPa. For the loading shown, find the smallest allowable diameters for each rod.



Example

Two pieces of wood are to be joined via gluing splice plates to them as shown in the figure. The clearance between the members is to be 8 mm. If the maximum allowable stress in the glue is not to exceed 800 kPa, what is the smallest allowable length, L ?



Example

Link AB is used to support the end of a beam. The dimensions of the link are $b = 2''$ and $t = \frac{1}{4}''$. The average **normal stress** in the link is -20 ksi and the average **shearing stress** in the two pins is 12 ksi. What is the diameter of the two pins?

