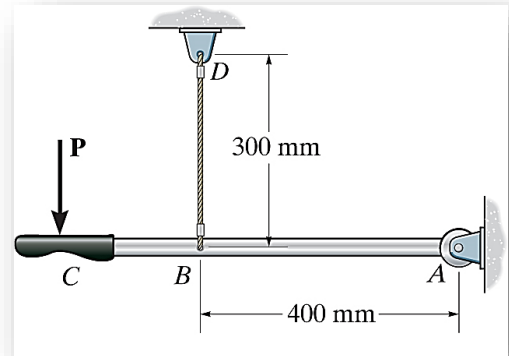
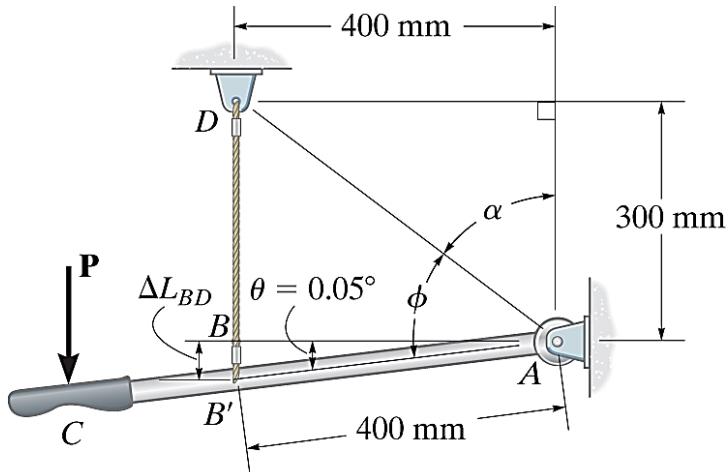


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Chapter 2- Examples

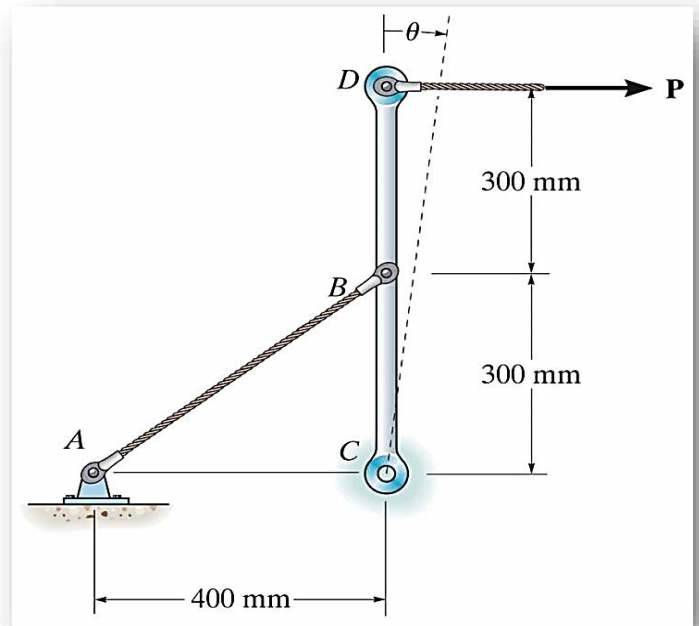
Exp. 1

When force P is applied to the rigid lever arm ABC in the figure, the arm rotates counterclockwise about pin A through an angle of 0.05° . Determine the normal strain developed in wire BD .



Exp. 2

Part of a control linkage for an airplane consists of a rigid member CBD and a flexible cable AB . If a force is applied to the end D of the member and causes a normal strain in the cable of 0.0035 mm/mm, determine the displacement of point D . Originally the cable is unstretched.



Exp.3

The plate shown in the Figure is fixed connected along AB and held in the horizontal guides at its top and bottom, AD and BC . If its right side CD is given a uniform horizontal displacement of 2 mm, determine (a) the average normal strain along the diagonal AC , and (b) the shear strain at E relative to the x, y axes.

