ME251A Engineering Design and Graphics - Laboratory Exercise 6

Tuesday, September 13, 2022

Draw the half sectioned (left half) front view of the assembled screw jack for which the part drawings are shown in Fig. 1. The parts are 1) body made of cast iron with internal threads, 2) lead screw M36 x 6 (RH) made of steel, 3) cup made of steel, 4) washer, 5) screw and 6) Tommy bar all three made of steel. Show the entire length of the Tommy bar in front view. The lower portion of the body is a hollow conical frustum having semi cone angle of 10° and wall thickness of 10 mm. Chose appropriate fillet radius for the three fillets F1, F2 and F3. **Use scale of 1:1.** (*Please note that the assembly will fit in the sheet if you calculate the total assembled height and plan carefully*).

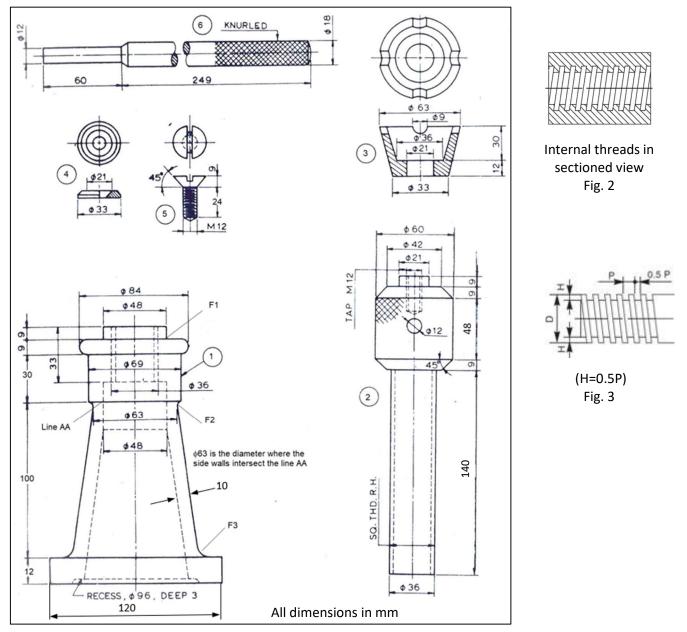


Fig. 1

In the assembled view, three full threads of the screw will be visible outside the nut and should be shown in detail as shown in Fig. 3. In the sectioned portion of body, the internal threads should be shown in detail (refer Fig. 2). Show hidden lines only for the portion of the Tommy bar which is inside the screw. Dimension the total height of the assembly. Include bill of materials.