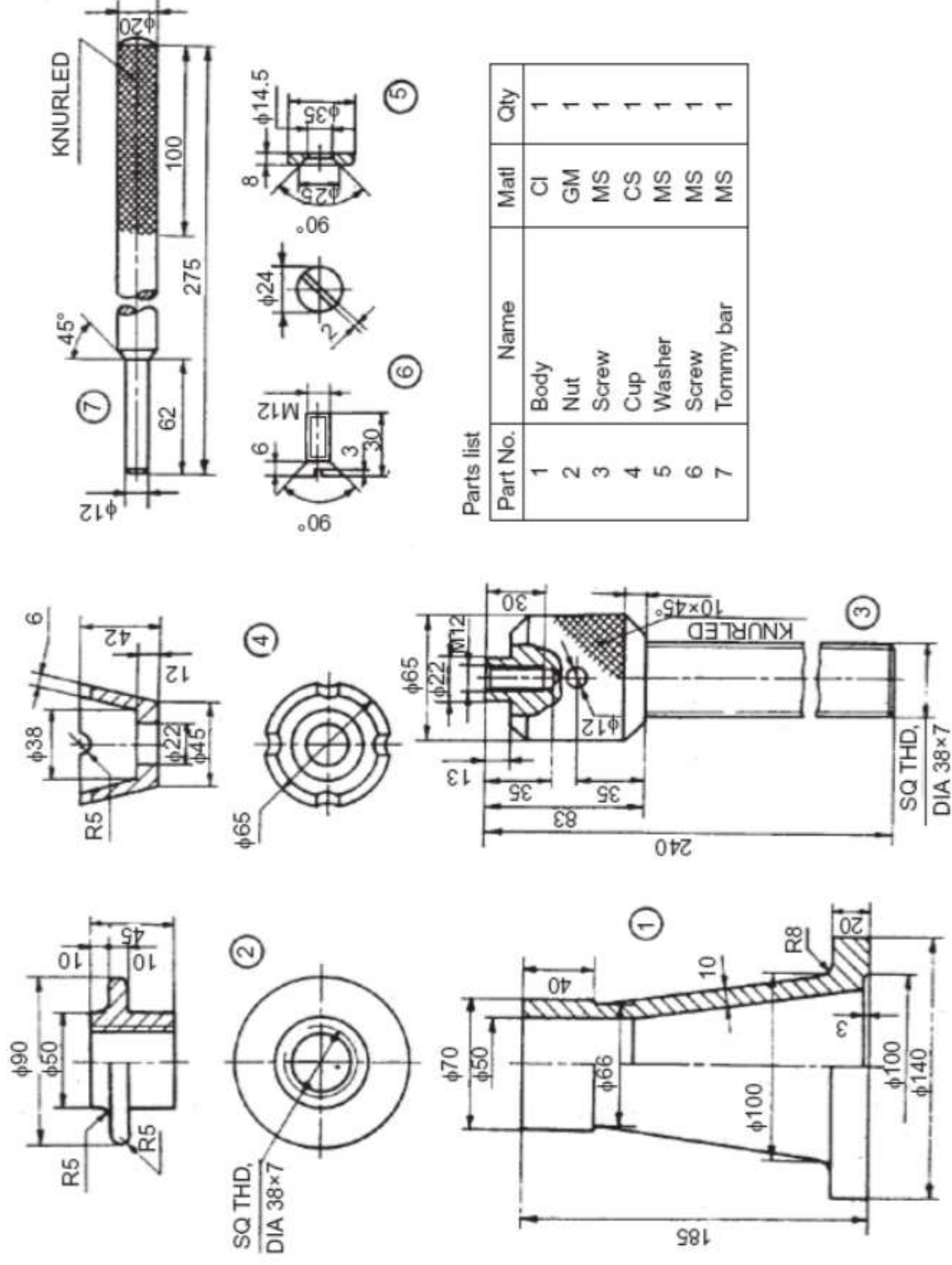


2. Screw Jack

Aim : To make the part model, Assembly and Drawing of the Screw jack using Solidworks.



Procedure

Part modelling

1. Body : Select the work plane in the front view. Draw the sketch for the body with given dimensions and revolve it using revolve feature to get body of screw jack.
2. Nut : Select the work plane in the front view. Draw the sketch for the nut with given dimensions and revolve it using revolve feature.
3. Screw : Select the work plane in the front view. Draw the sketch for the screw with given dimensions and revolve it using revolve feature. Select the work plane in the side view and make a through hole using extruded cut feature. Make a M12 tapped hole at the top of screw using hole feature.
4. Cup : Select the work plane in the front view. Draw the sketch for the cup with given dimensions and revolve it using revolve feature. Create a work plane in the side view and draw a hole and make a semi circular cut using the extruded cut option. Repeat the same procedure in the front work plane.
5. Washer : Select the work plane in the front view. Draw the sketch for the washer with given dimensions and revolve it using revolve feature.
6. Screw : Select the work plane in the front view. Draw the sketch for the washer with given dimensions and revolve it using revolve feature.
7. Tommybar : Select the work plane in the front view. Draw the sketch for the tommy bar with given dimensions and revolve it using revolve feature.

Assembly

Create a sub assembly with Cup, washer and screw. Insert the Body as main part. Use proper mates to assemble remaining parts sub assembly.

Drawing

Insert the assembly into a new drawing file and project the front view and top view. Create the sectional front view to get the details of screw and washer in the drawing. Mark the dimensions for the entire drawing using smart dimensing.

Precautions

1. Select the Work plane properly based on the views required in the drawing.
2. Use the constraineds properly while drawing sketches.
3. Select the correct mates between the parts.

Result : Parts, Assembly and Drawing of the Screw Jack prepared using Solid Works.