



SIDDHARTH GROUP OF INSTITUTIONS :: PUTTUR
Siddharth Nagar, Narayanavanam Road – 517583
(Autonomous)

QUESTION BANK

Subject with Code : Machine Drawing (16ME305) **Regulation:** R16

Course & Branch: B.Tech - ME **Year &Sem:** II-B.Tech&I-Sem

Part –A

4 Marks

S.No	Question
1	Sketch the conventional representation of the following materials: (a).Metals,(b).Glass
2	Sketch the conventional representation of the following materials (a).Liquids,(b).Wood
3	Show the conventional representation of the following materials i. Internal Screw Threads ii. Bearing on shafts
4	Sketch the conventional representation of the following: (a) Splined shafts (b) Interrupted
5	Sketch the conventional representation of the following: (a) Cylindrical tension spring (b) Worm
6	Show the conventional representation of the following materials i. Wood ii. Lead iii. Straight Knurling
7	Give the shape identification symbols for the following i. Diameter ii. Radius iii. Square iv. Arrow
8	Sketch the conventional representation of the following: (a). Spur gear and (b) helical gear
9	Sketch the Aligned and uni – directional system of dimensioning
10	Sketch the Worm thread profiles for a pitch 30mm
11	Sketch the Buttress thread profiles for a pitch 30mm
12	Sketch the ACME thread profiles for a pitch 30mm.
13	Give the proportions of a hexagonal nut, in terms of the nominal diameter of the bolt of 20 mm.
14	Draw the three views of a hexagonal headed bolt of nominal diameter 25mm and length 100mm; with a hexagonal nut and washer.
15	Draw the triple start square threads with D as 30 mm.
16	Draw Buttress thread profiles with pitch=20mm.
17	Sketch the ACME Thread form with pitch=20mm.
18	Sketch a feather key with proportions.

- 19 Sketch B.S.W. thread form.
- 20 Sketch a sunk key with proportions
- 21 Sketch a buttress thread form.
- 22 Sketch a metric thread form

Part- B

8 Marks

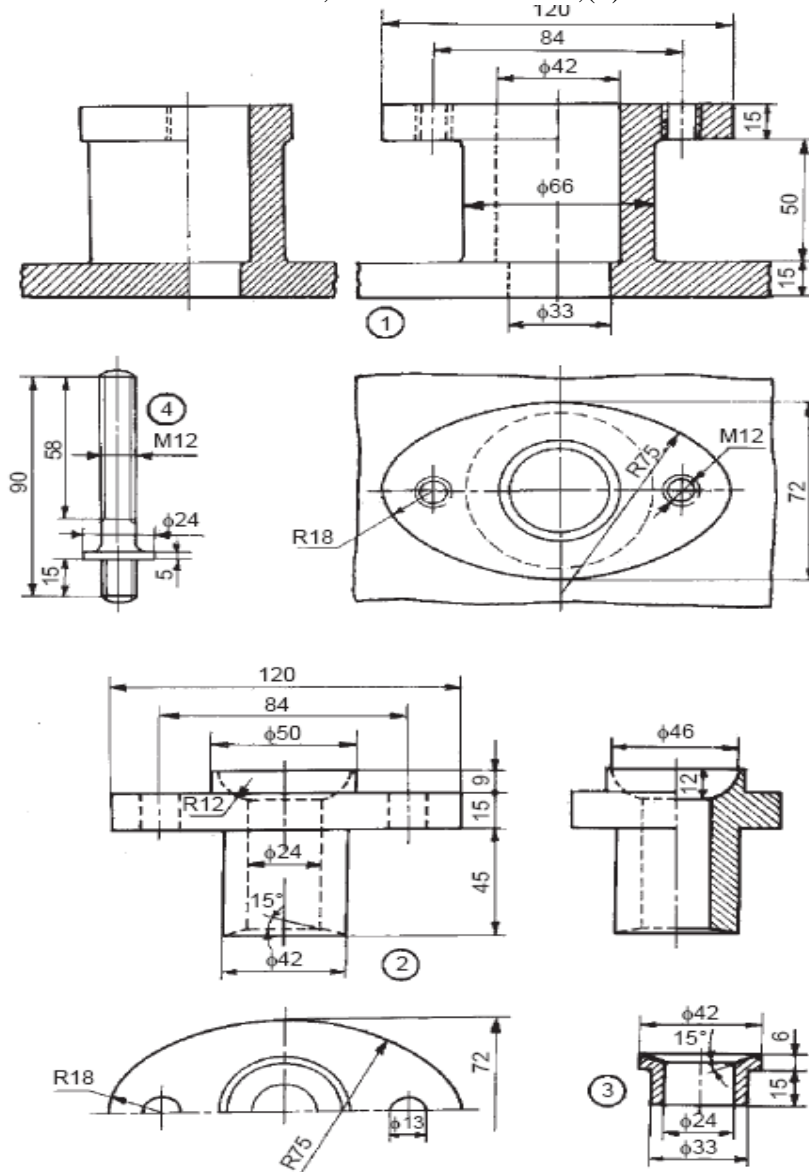
- 1 Draw half sectional view from the front, side of a flanged coupling to connect two shafts, each of diameter 30 mm
- 2 Sketch any four forms of commonly used rivet heads, choosing the rivet diameter as 10 mm.
- 3 Draw the sectional view from the front, and view from the side of a cotter joint with sleeve used to connect two rods of 30 mm diameter each.
- 4 Draw the half sectional view from the front and side view of a cotter joint with socket and spigot ends, to connect two rods of 30 mm diameter each.
- 5 Draw the half sectional view from the front, with top view knuckle joint, to connect two rods of 30 mm diameter each
- 6 Draw the Flange coupling to connect to shafts of 20 mm diameter.
- 7 Double riveted chain type lap joint to connect to plates of 15 mm thick.
- 8 Double riveted butt joint to join two plates of 15 mm thick.
- 9 Sketch a cotter joint with proportions.
- 10 Sketch a lap joint of double riveted type.
- 11 Sketch a protected type flange coupling.
- 12 Sketch one view of knuckle joint.
- 13 Sketch a socket and spigot cotter joint
- 14 Draw the Rag foundation bolt of diameter 20 mm:
- 15 Draw the eye foundation bolt of diameter 20 mm.
- 16 Draw the Bent foundation bolt of diameter 25 mm.
- 17 Draw the Lewis foundation bolt of diameter 25 mm

Part – C
Assembly and Part Drawing

28 Marks

Assembly Drawing

1. Assemble all parts of the stuffing box for a vertical steam engine, shown in Fig. and draw it, (i) half sectional view from the front, with left half in section, (ii) view from above.



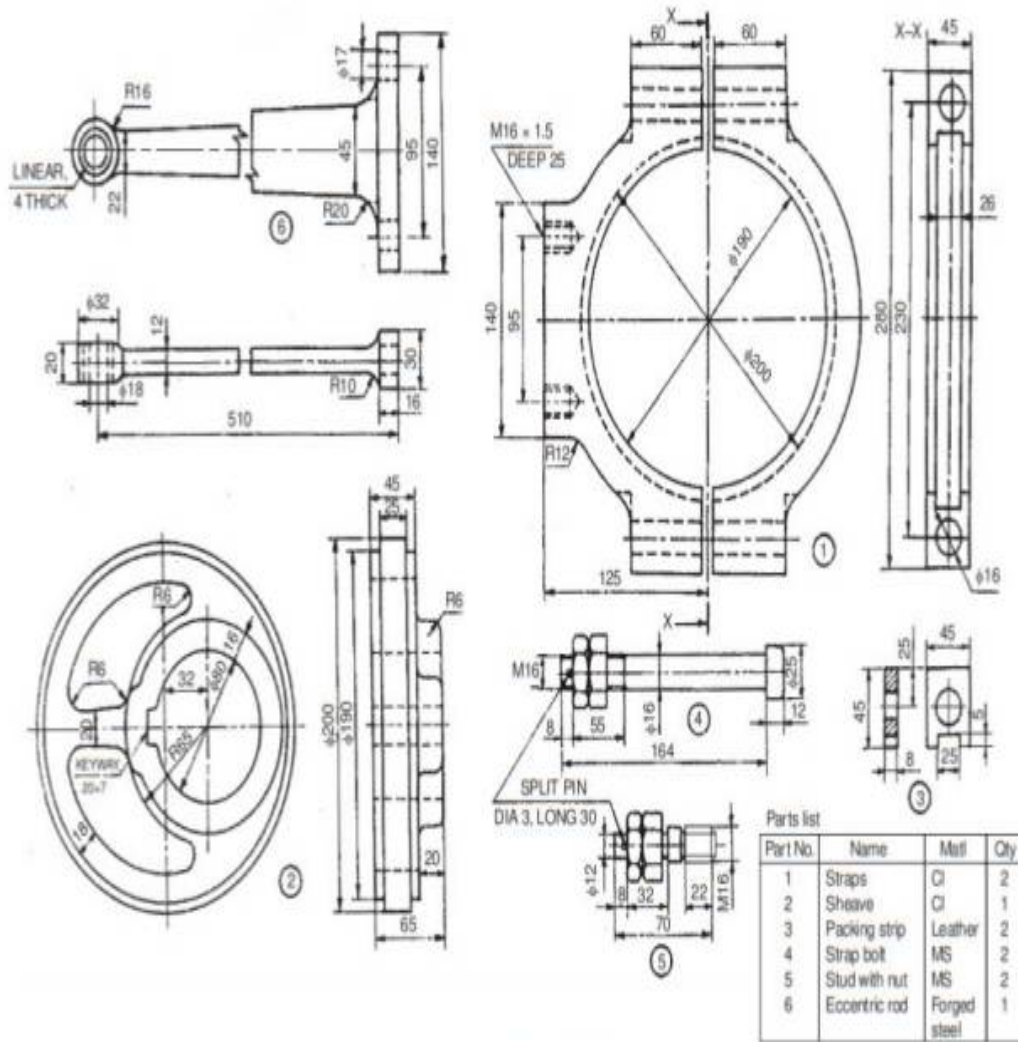
Parts list

Part No.	Name	Matl	Qty
1	Body	CI	1
2	Gland	Brass	1
3	Bush	Brass	1
4	Stud	MS	2
5	Nut, M12	MS	2

1. Stuffing box

2. The details of an eccentric are shown in Fig. 4. Assemble the parts and draw, (i) half section

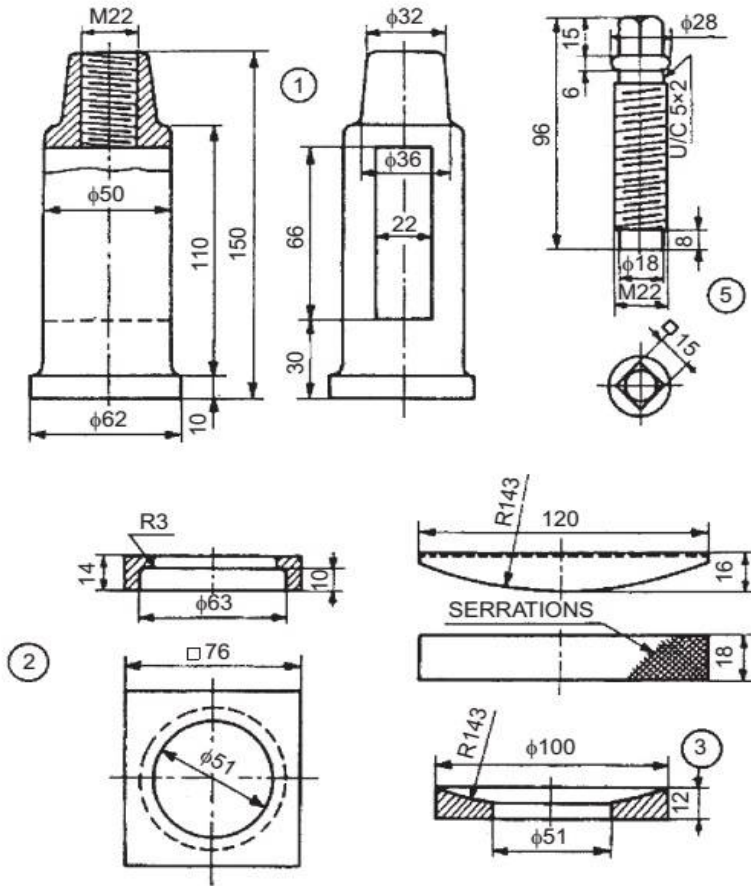
al view from the front, with top half in section, (ii) view from the right.



Details of an eccentric

3. Assemble the parts of a lathe single tool post, shown in Fig. and draw (i) half sectional view of

from the front and (ii) view from the right.

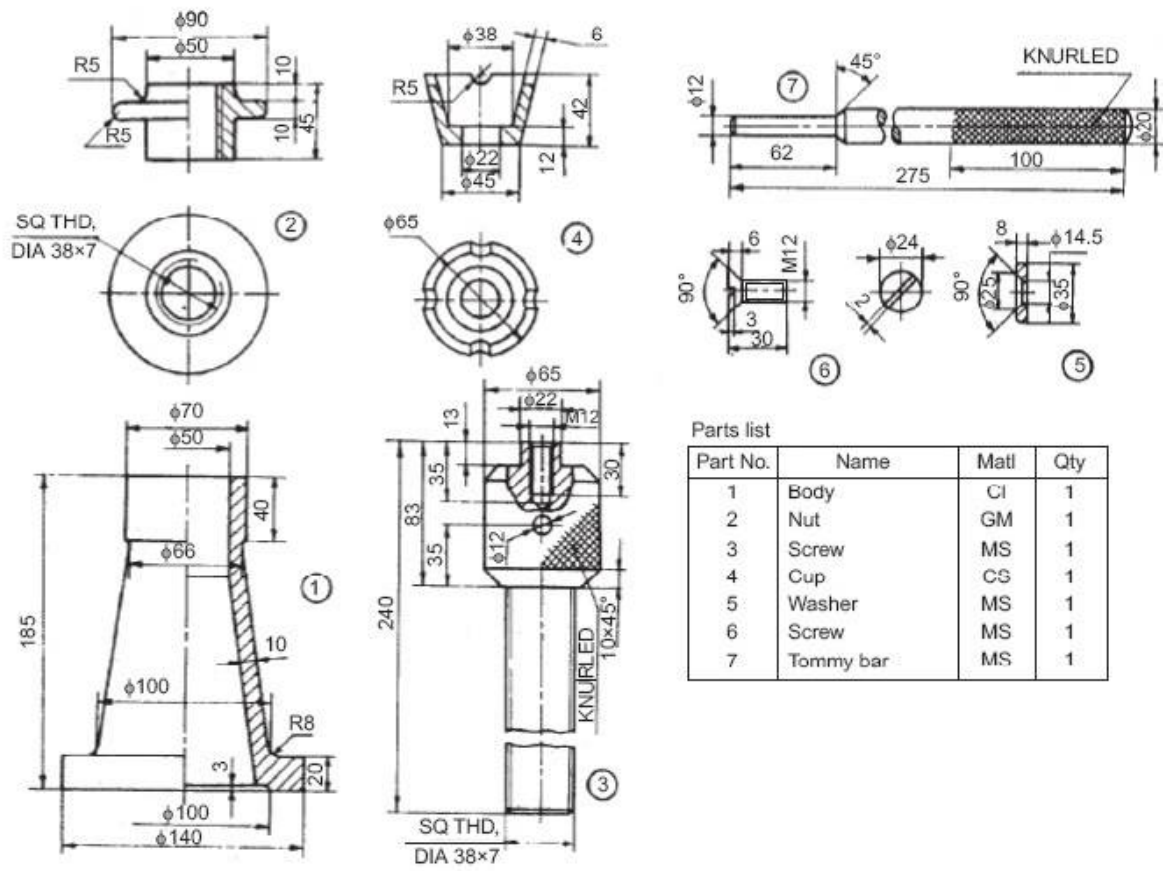


Parts list

No.	Name	Matl	Qty
1	Pillar	MCS	1
2	Block	MCS	1
3	Ring	MS	1
4	Wedge	MCS	1
5	Screw	TS	1

SINGLE TOOL POST

4. Assemble all parts of the screw jack, shown in Fig. and draw the following views: (i) Half sectional view from the front, and (ii) View from above.

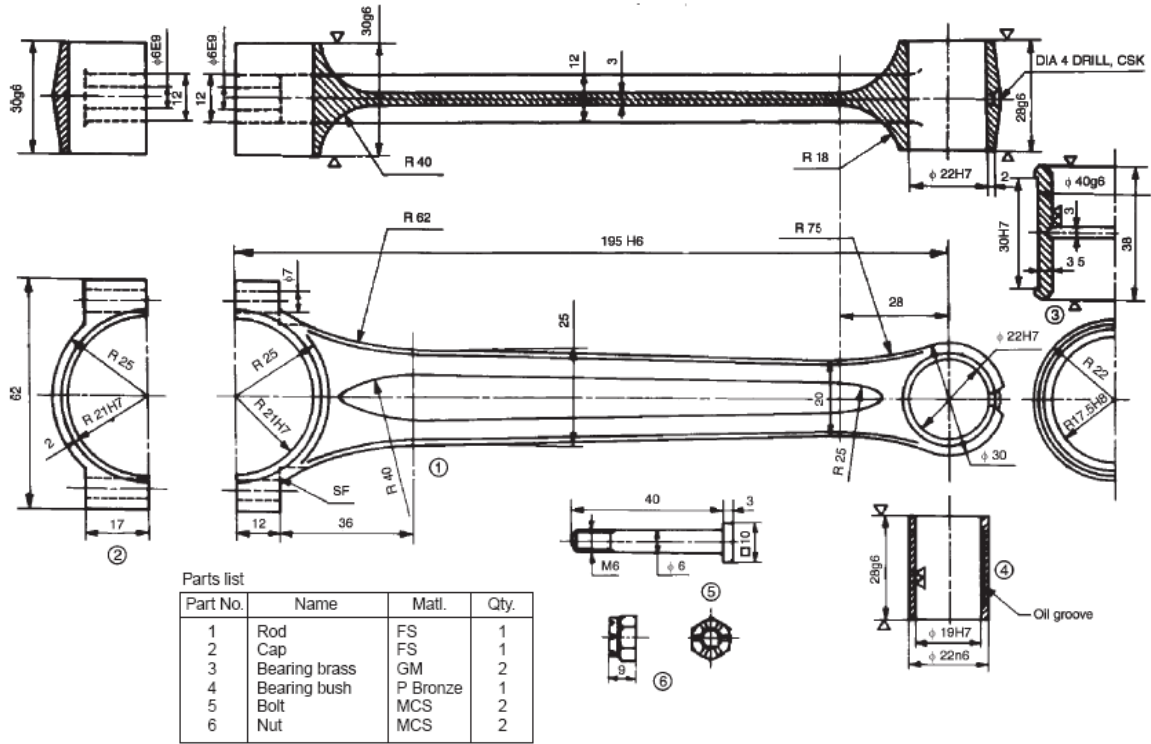


Parts list

Part No.	Name	Matl	Qty
1	Body	CI	1
2	Nut	GM	1
3	Screw	MS	1
4	Cup	CS	1
5	Washer	MS	1
6	Screw	MS	1
7	Tommy bar	MS	1

Screw jack

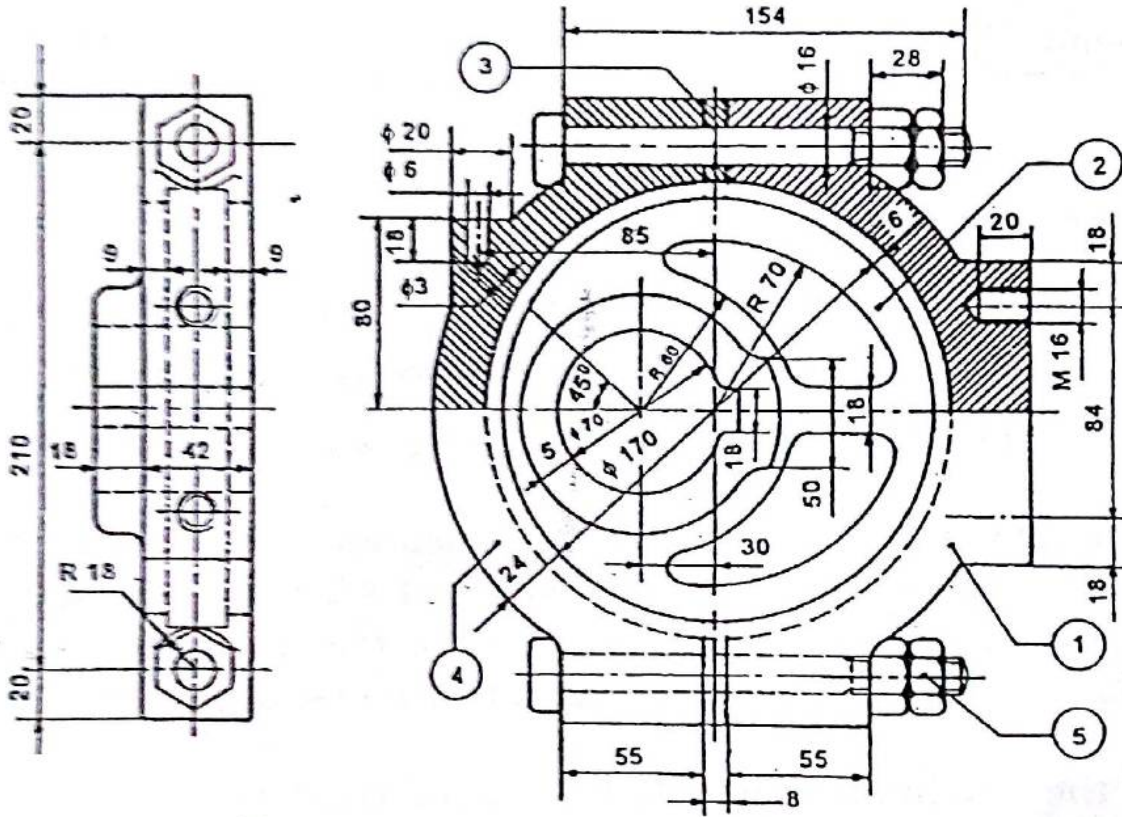
5. Assemble all parts of the connecting rod shown in Fig. and draw the following views: (i) Half sectional view from the front, and (ii) View from above.



Details of petrol engine connecting rod

Part Drawing

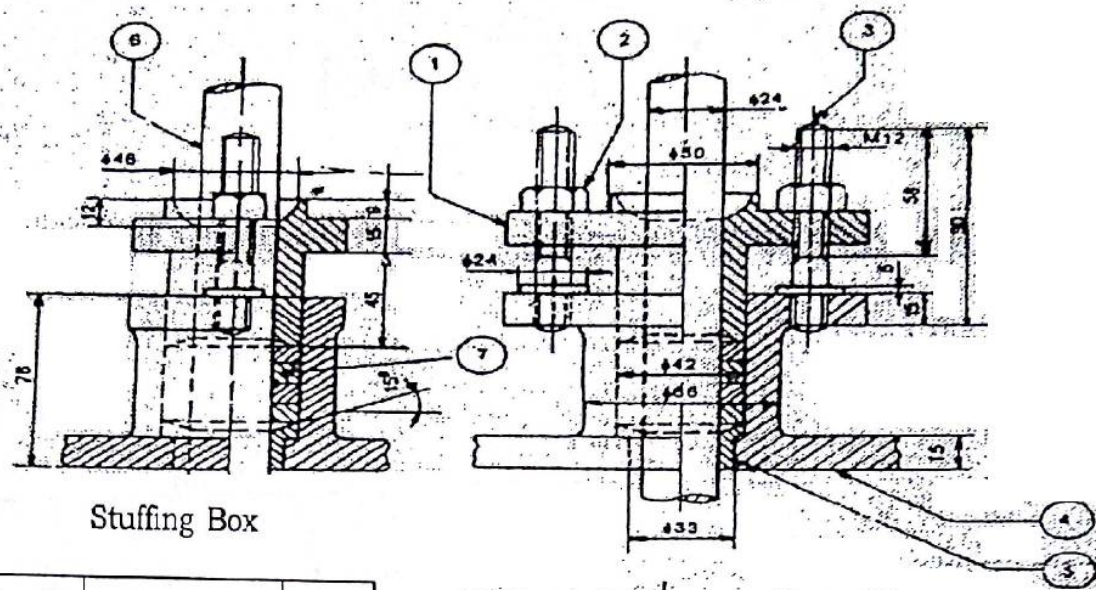
6. Draw the part drawings of **Eccentric** shown in figure.



Parts List

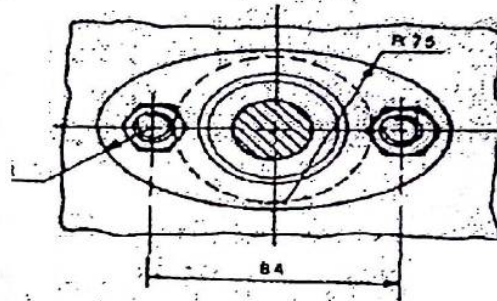
Part No.	Name	Qty.
1	Strap	1
2	Sheave	1
3	Shim	2
4	Strap	1
5	Bolt with nut	2

9. Draw the part drawings of **Stiffing Box** shown in figure.

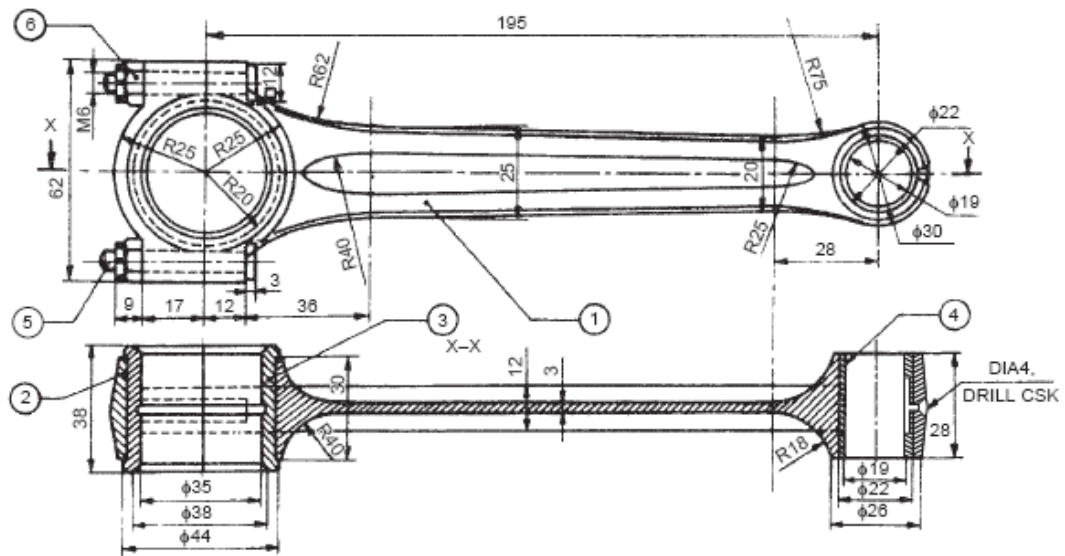


Stiffing Box

Part No.	Name	Qty.
1	Gland	1
2	Nut	2
3	Stud	2
4	Body	1
5	Bush	1
6	Shaft	1



10. Draw the part drawings of **Petrol Engine Connecting Rod** shown in figure.



Parts list

Part No.	Name	Matl.	Qty.
1	Rod	FS	1
2	Cap	FS	1
3	Bearing brass	GM	2
4	Bearing bush	P Bronze	1
5	Bolt	MCS	2
6	Nut	MCS	2

Petrol engine connecting rod