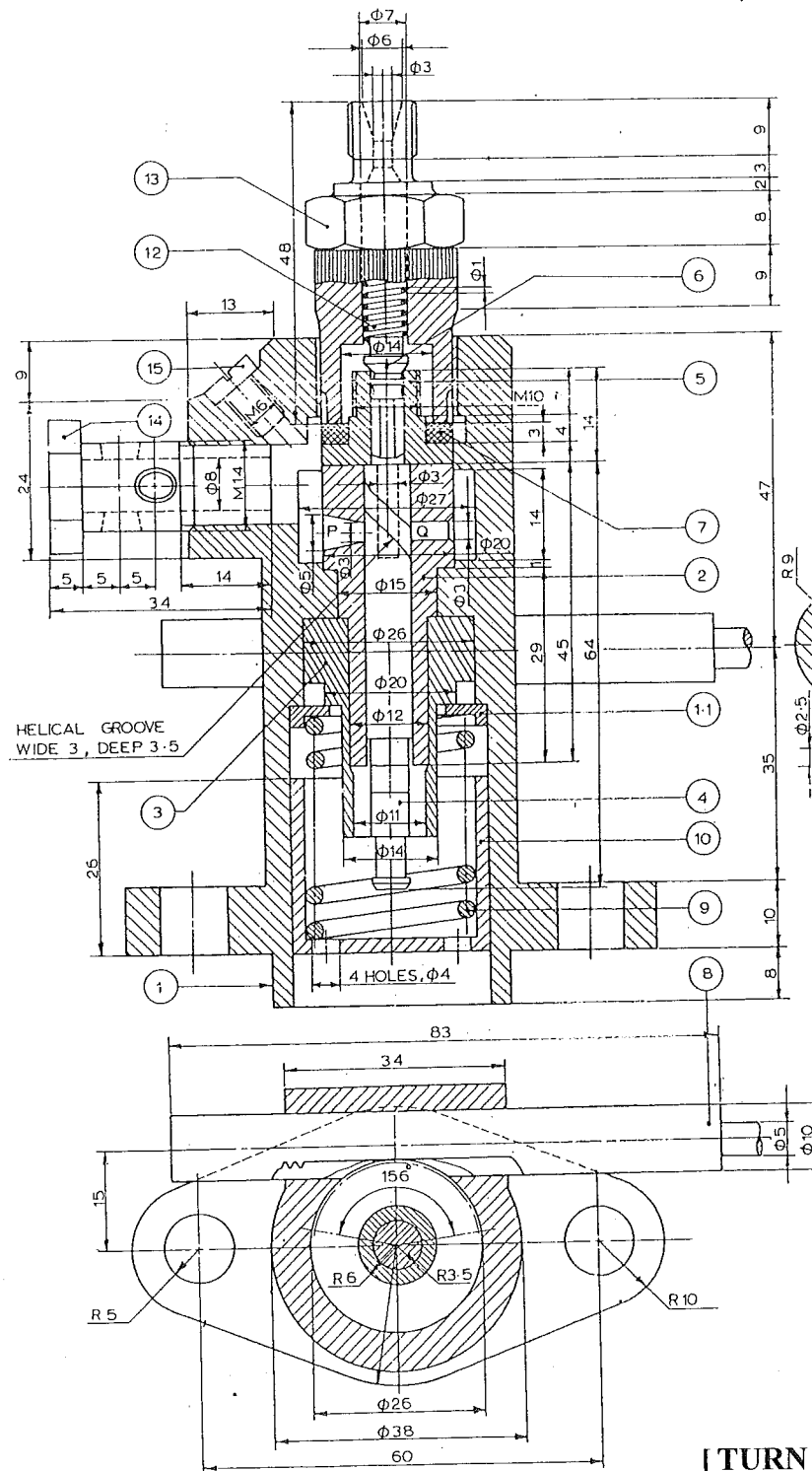


- N.B. :(1) Question No. 1 is **compulsory**.  
 (2) Attempt any **four** questions from **remaining**.  
 (3) Assume **suitable** dimension wherever **necessary**.  
 (4) Use **drawing sheet** only.

1

Figure shows assembly of Fuel Injection Pump. Draw the following in Two Views.

- |                        |    |
|------------------------|----|
| a) Housing             | 08 |
| b) Barrel              | 06 |
| c) Oil Injectionn Pump | 06 |



[ TURN OVER

2

a.

A vertical cone of base diameter 90 mm and 100 mm height is having a vertical square hole. Side of the square hole is 30 mm. Axis of the square hole is 5 mm away from the axis of cone and away from the observer. Draw front view, top view, showing curves of intersection.

10

b.

A Vertical pentagon of 40 mm base side & 80 mm height is resting on V. P. is penetrated by a horizontal square prism of 40 mm diameter. The axis of square prism is in front of observer and 4 mm away from axis of pentagon and at an height of 45 mm. Draw front view, top view, showing curves of intersection.

10

3

Figure shows assembly of Expansion Joint.

Draw the following in Two views

- Pipe A 07
- Pipe B 07
- Pipe c 06

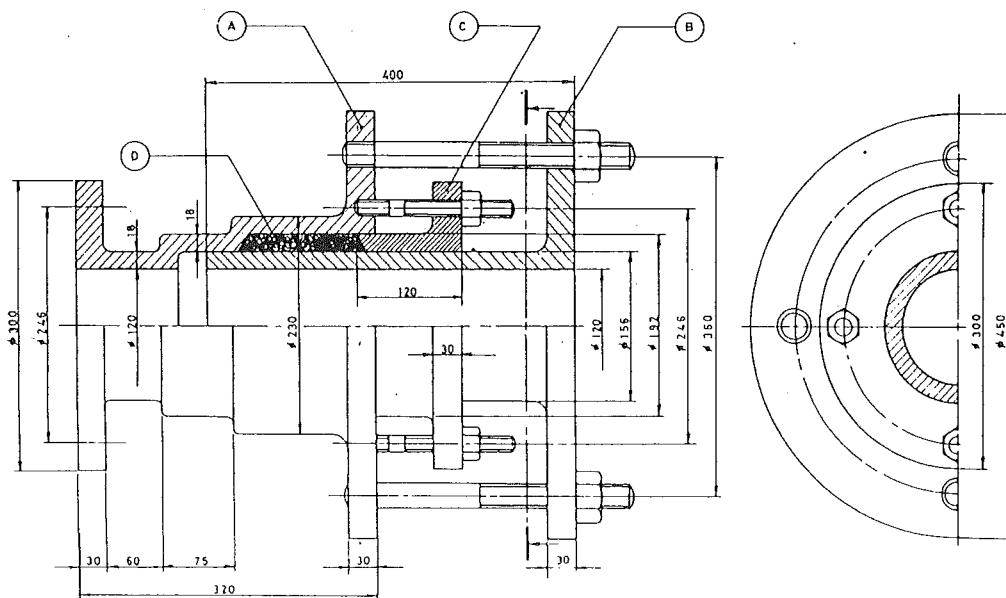
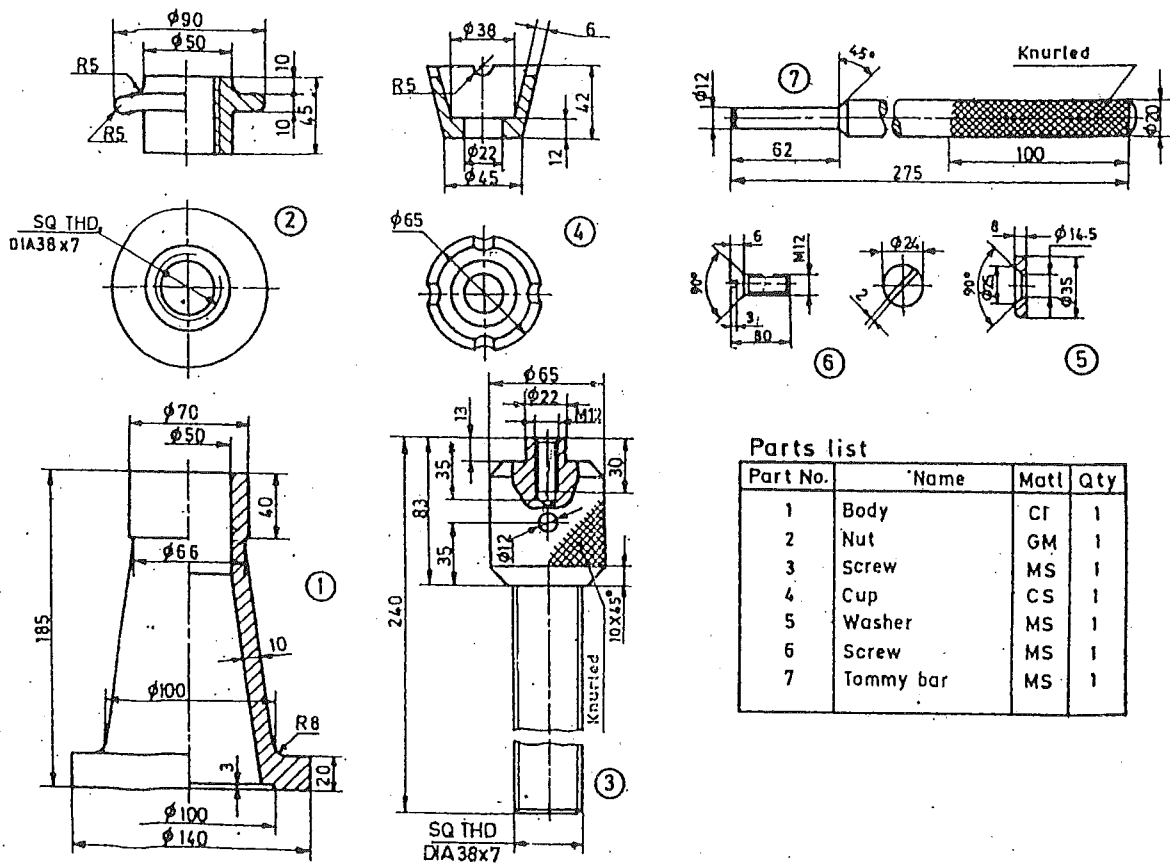


FIG. 15.9 Expansion joint

4

Figure shows details of Screw Jack. Draw the Assembly as follows.

- Left Half Sectional F. V 11
- Left Hand Side View 09



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	Tammy bar	MS	1

5.

a) A pulley is to be fixed on shaft internal diameter of hole is  $50 \begin{matrix} +0.03 \\ -0.02 \end{matrix}$  Shaft diameters is  $50 \begin{matrix} +0.04 \\ +0.02 \end{matrix}$ . Determine the type of fit. Explain with neat sketch

08

b) Define the type of fit. Explain with neat sketch.

i) Zero Line

03

ii) Tolerance

03

iii) Upper Deviation

03

iv) Lower Deviation

03

6.

Figure Shows Assembly of sensitive drill press. Draw details of the following in two views.

i) Spindle Bracket

08

ii) Column

06

iii) Table

06

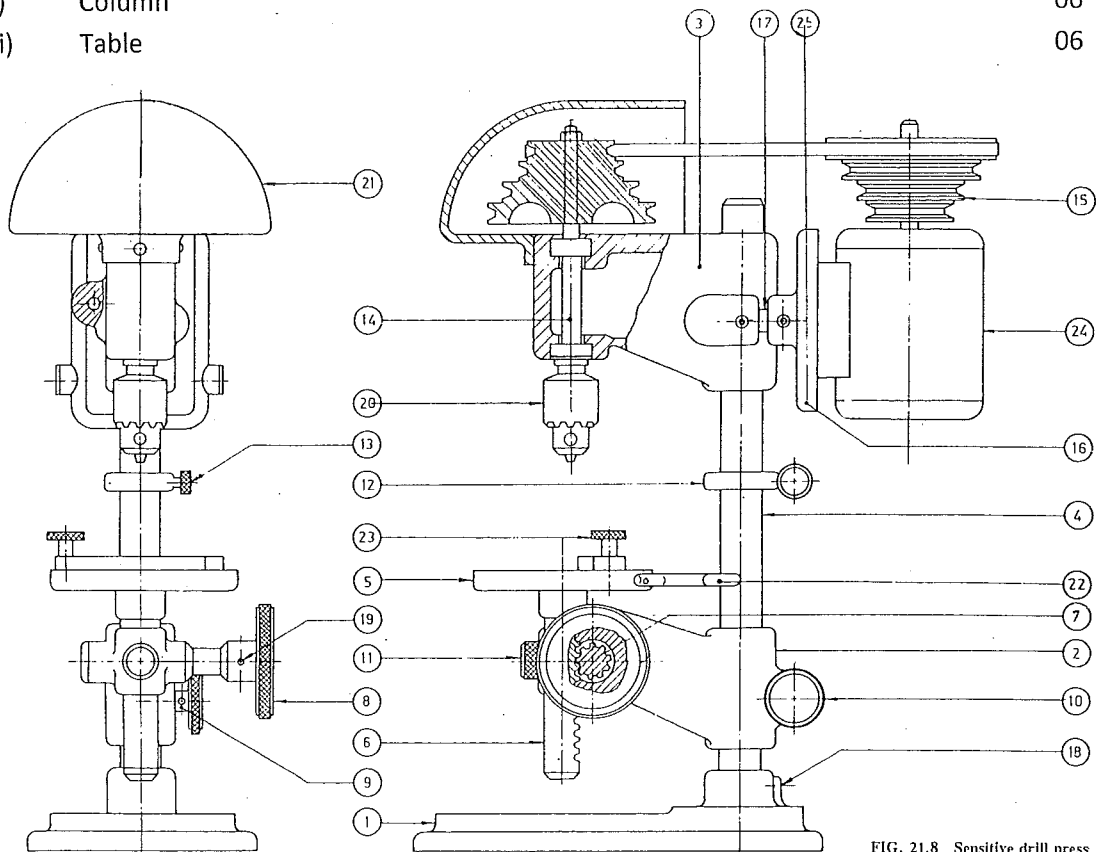


FIG. 21.8 Sensitive drill press

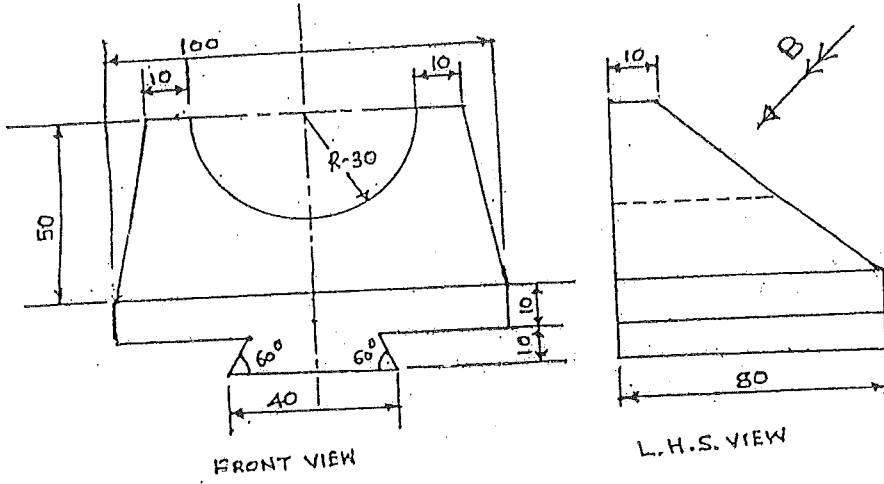
Part List

Part No.	Name	Material	Quantity			
1	Base	M.S.	1	11	Rack binding screw	M.S.
2	Table support	C.I.	1	12	Table stop	M.S.
3	Spindle bracket	C.I.	1	13	Table stop binding screw	M.S.
4	Column	M.S.	1	14	Spindle	M.S.
5	Table	C.I.	1	15	Pulley	Aluminium
6	Table rack	M.S.	1	16	Motor support	C.I.
7	Pinion	C.S.	1	17	Adjusting pin	M.S.
8	Pinion knob	M.S.	1	18	Allen set screw	M.S.
9	Table clamping screw	M.S.	1	19	Taper pin	M.S.
10	Table clamping knob	M.S.	1	20	Spindle chuck	High carbon steel
				21	Pulley guard	M.S.
				22	Table guide	M.S.
				23	Lock screw	M.S.
				24	Motor	Standard par
				25	Belt	Fabric rubber

7

Figurer shows Front view and lefthand side view of an object. Draw the following.

a.



- |      |                                  |    |
|------|----------------------------------|----|
| i)   | F.V. and L.H.S. V.               | 04 |
| ii)  | Top view                         | 02 |
| iii) | Auxilliary view from direction B | 06 |

b. Draw free hand sketches of the following in two views.

- |    |                     |    |
|----|---------------------|----|
| i) | Split muff coupling | 04 |
| i) | Oldham's coupling   | 04 |

