
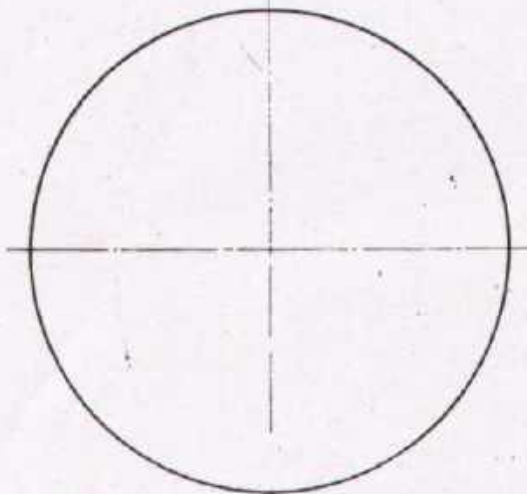
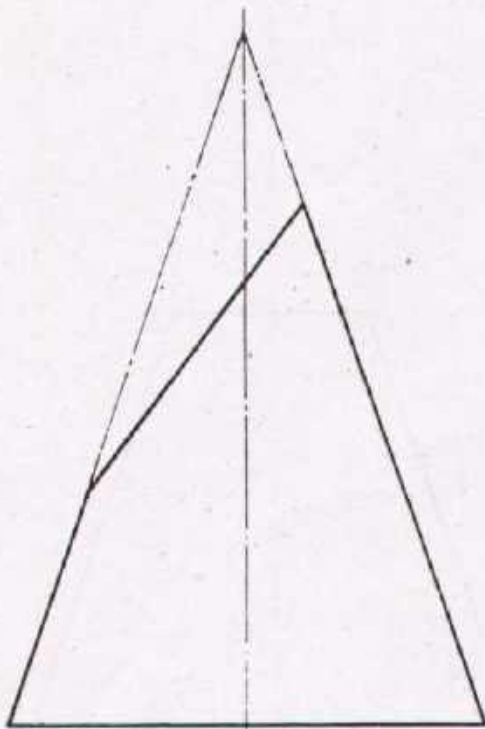


Task:


Draw the side and plan views
Dimensions are not required

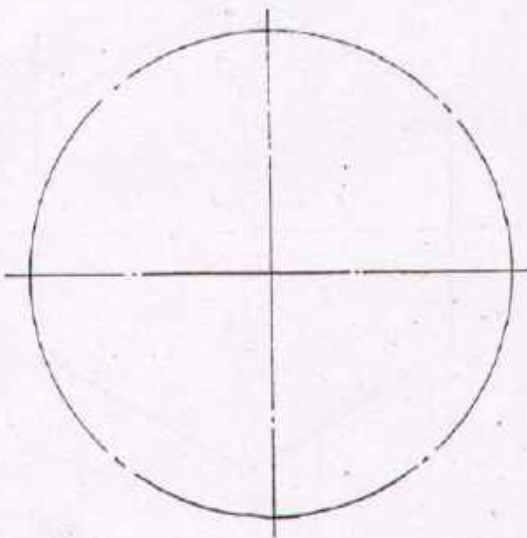
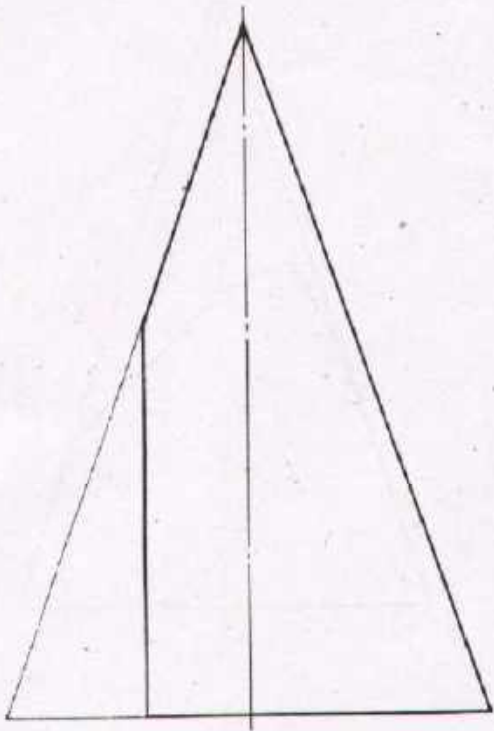
Scale 1:1	CUTS ON CONES		ANGULAR CUTS
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
 DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING			Trade Practice 1 No 101
PAK GERMAN TECHNICAL TRAINING PROGRAMME			



Task:


Complete the plan view and draw the side view.
Dimensions are not required.

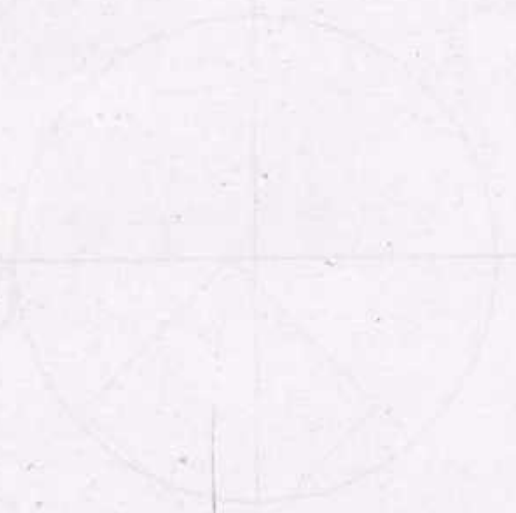
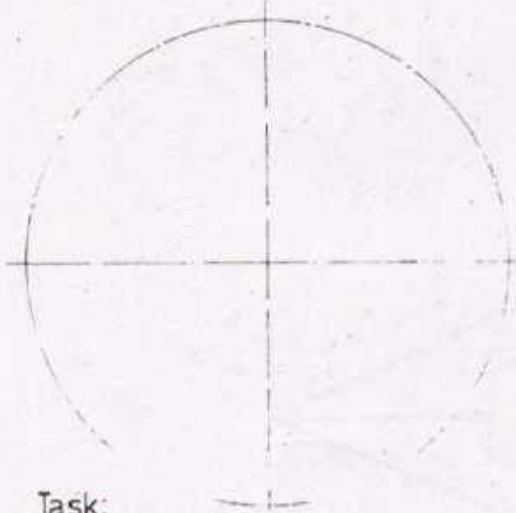
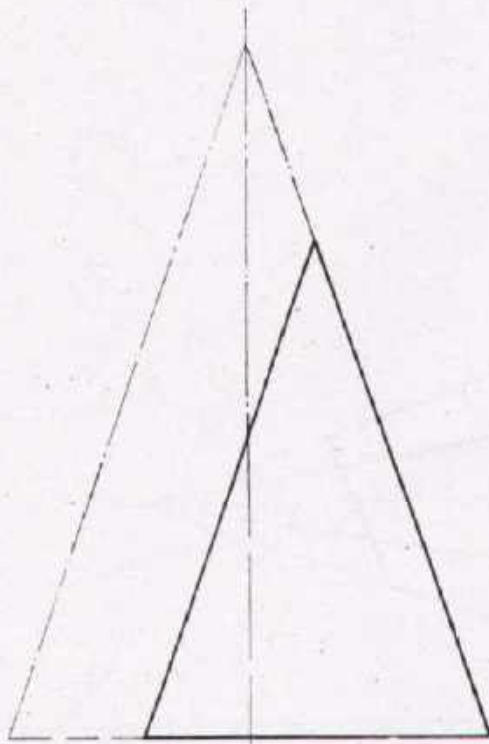
Scale 1:1	CUTS ON CONES		ANGULAR CUTS
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
	DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING		Trade Practice 1 No.102
	PAK-GERMAN TECHNICAL TRAINING PROGRAMME		



Task:


Draw the side and plan views.
Dimensions are not required.

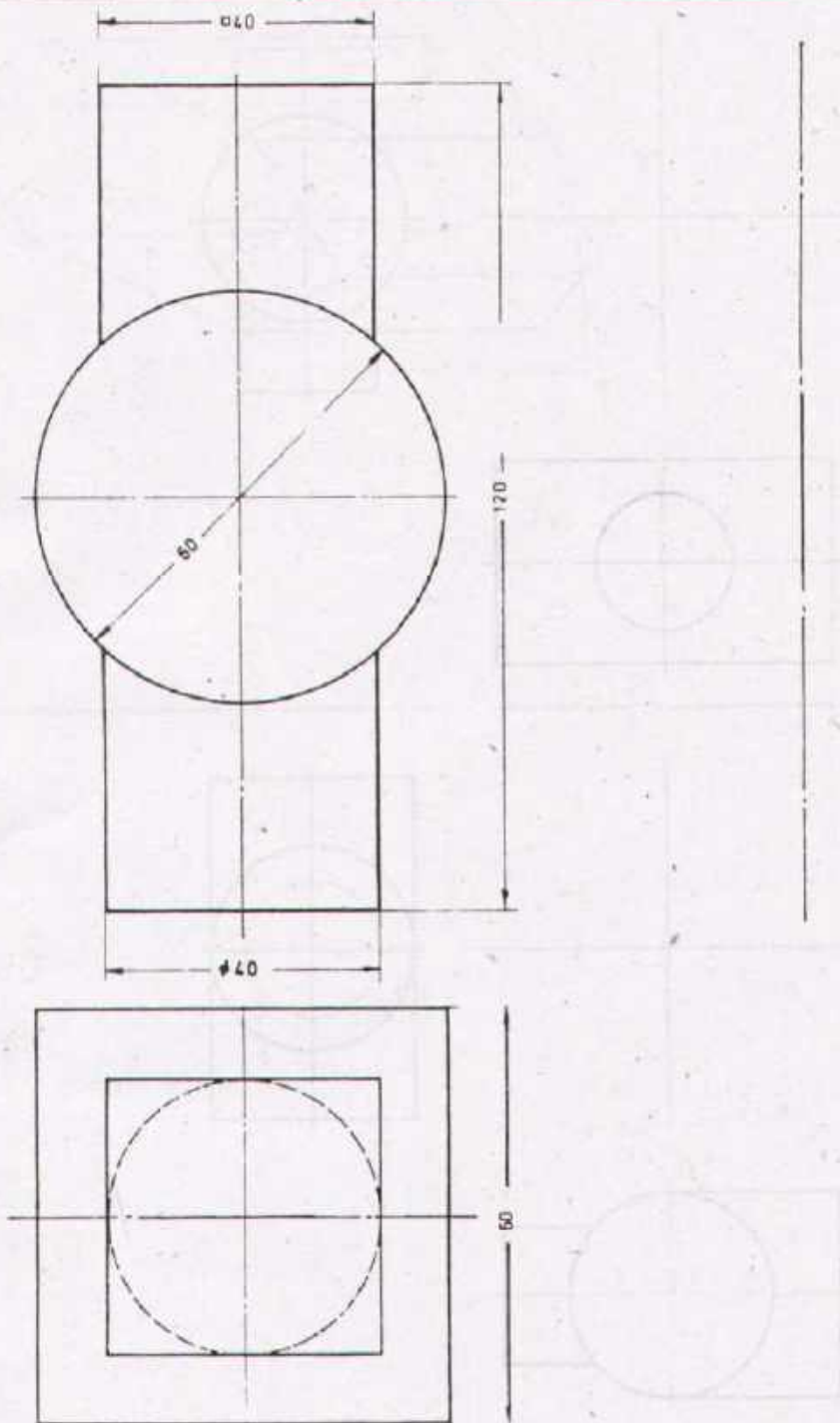
Scale	CUTS ON CONES		PARAXIAL CUT
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
 DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING PAK-GERMAN TECHNICAL TRAINING PROGRAMME			Trade Practice 1 - No.103



Task:

Draw the side view and complete the plan view.
Enter all necessary dimensions.

Scale 1:1	CUTS ON CONES		ANGULAR CUT
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
 DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING <small>PAK GERMAN TECHNICAL TRAINING PROGRAMME</small>			Trade Practice 1 No. 104



Task:

Draw the side view


Scale 1:1	INTERPENETRATIONS		PRISM, CYLINDERS
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
 DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING PAK-GERMAN TECHNICAL TRAINING PROGRAMME			Trade Practice 1 No 105

Fig 1

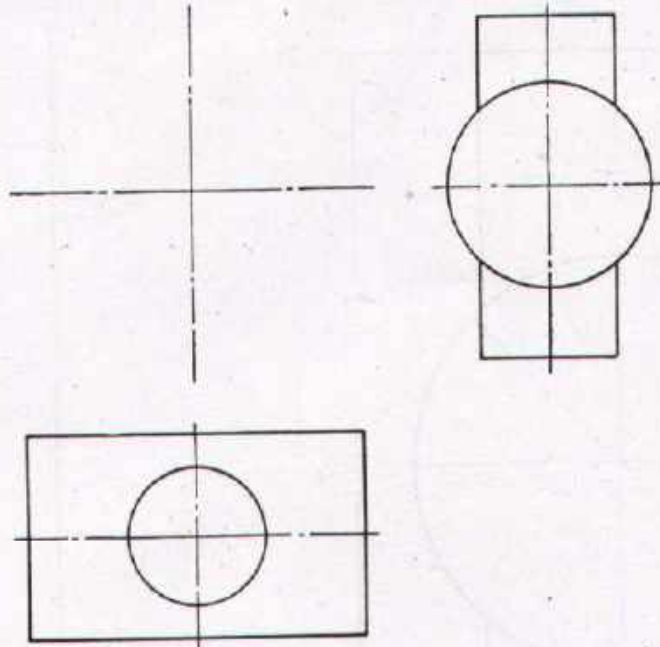
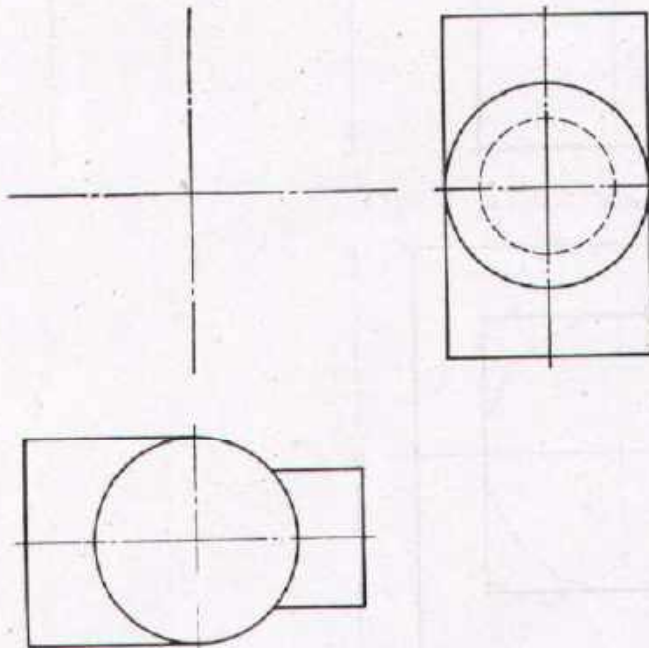


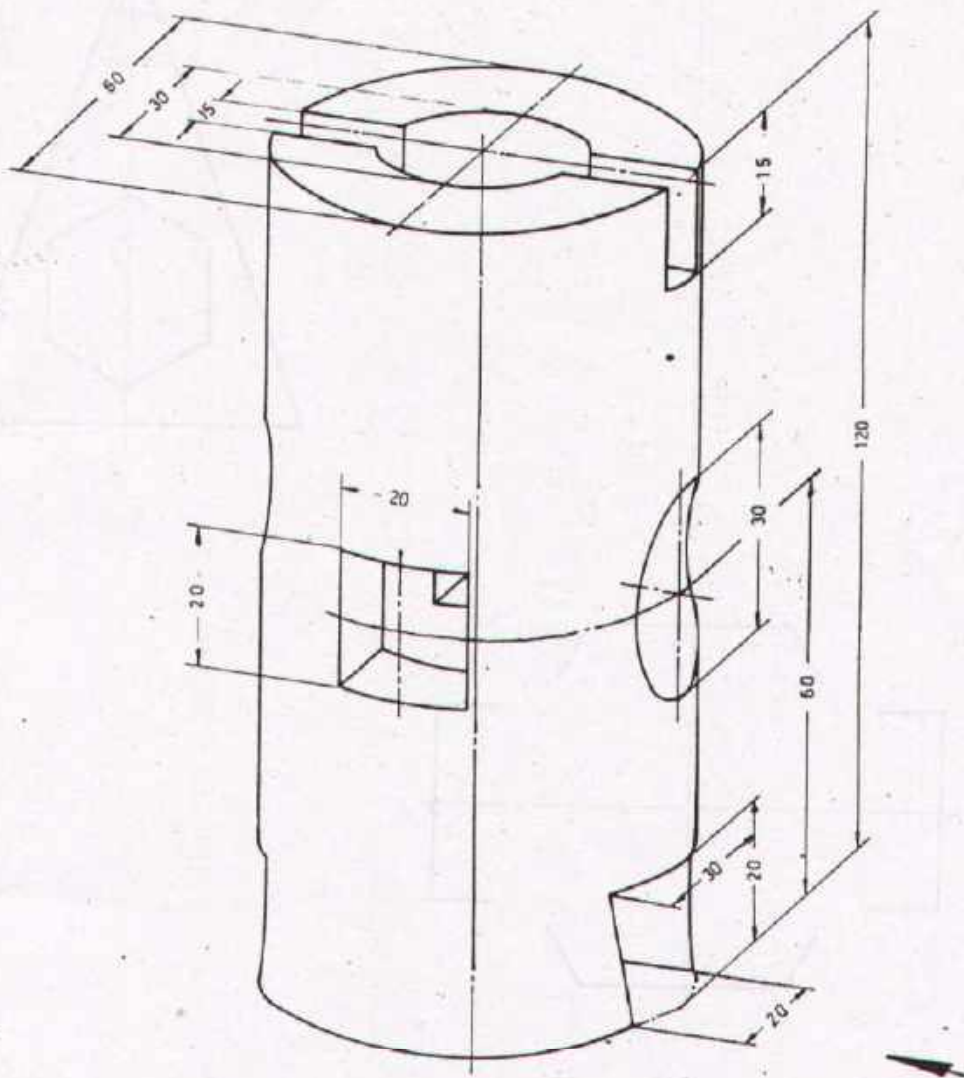
Fig. 2



Task:


Draw the missing views of both the figures and enter the necessary dimensions.

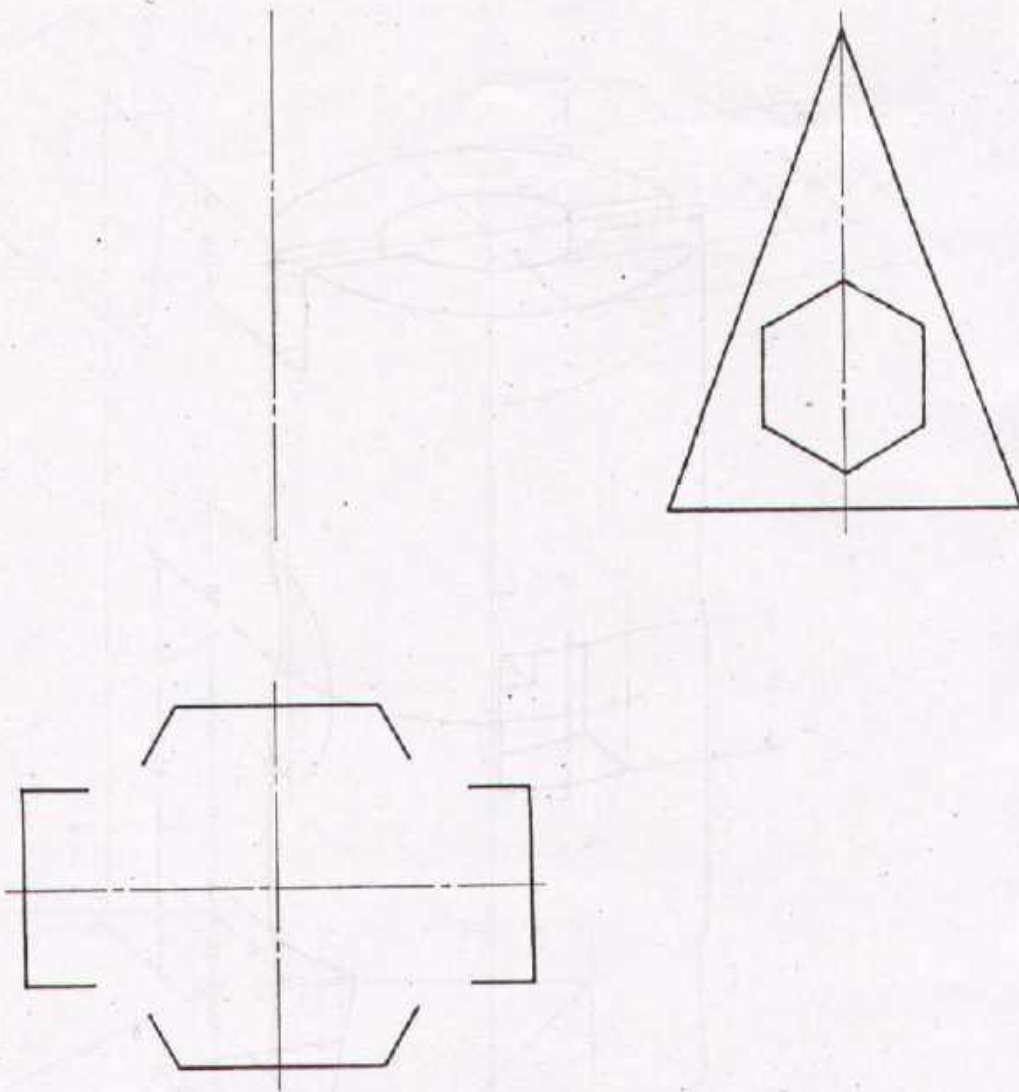
Scale 1:1	INTERPENETRATIONS		CYLINDERS
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
 DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING PAK GERMAN TECHNICAL TRAINING PROGRAMME			Trade Practice 1 No.106



Task:


Draw the three views the elevation indicated by the arrow's direction.
Enter the necessary dimensions.

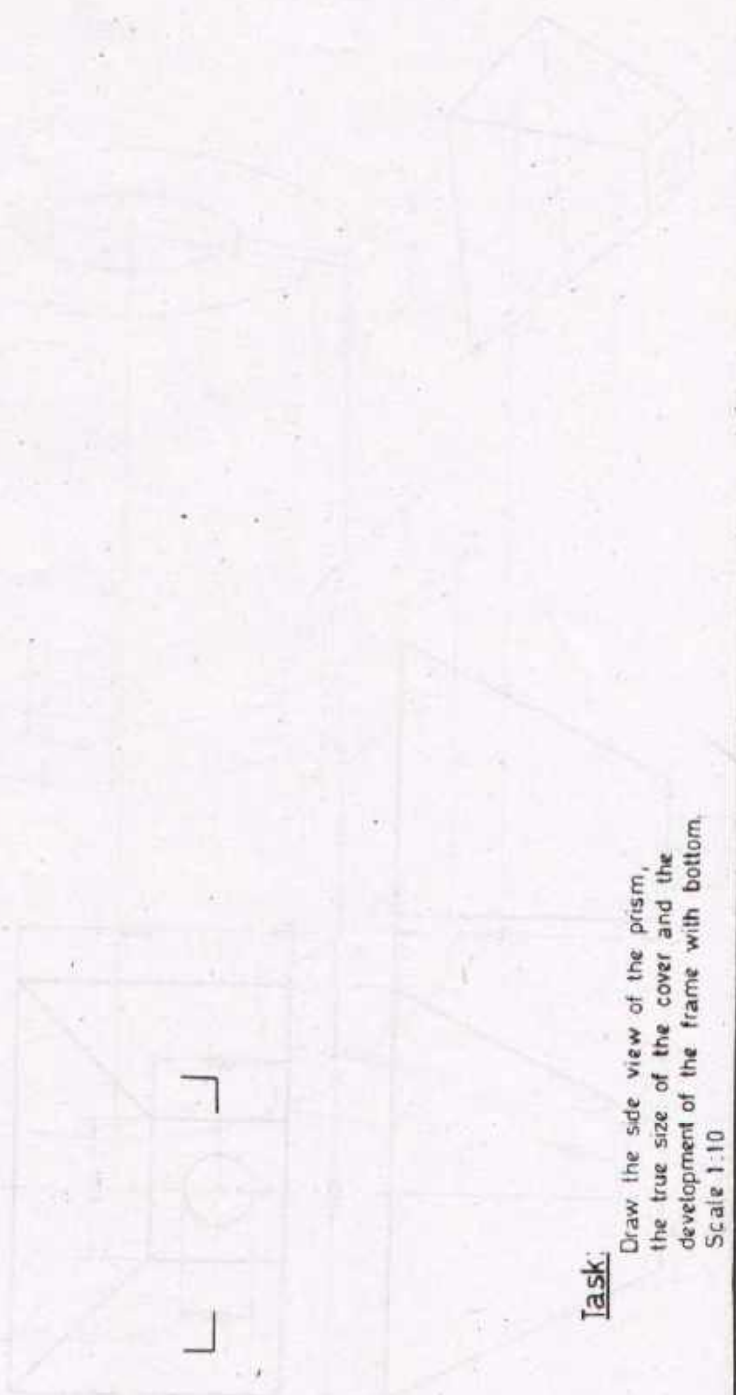
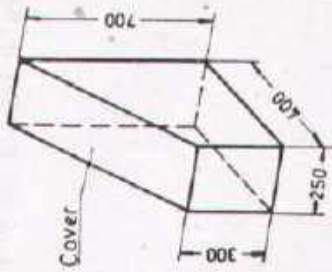
Scale 1:1	INTERPENETRATIONS		CYLINDER HOLES
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
 DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING PAK-GERMAN TECHNICAL TRAINING PROGRAMME			Trade Practice 1 No. 107



Task:

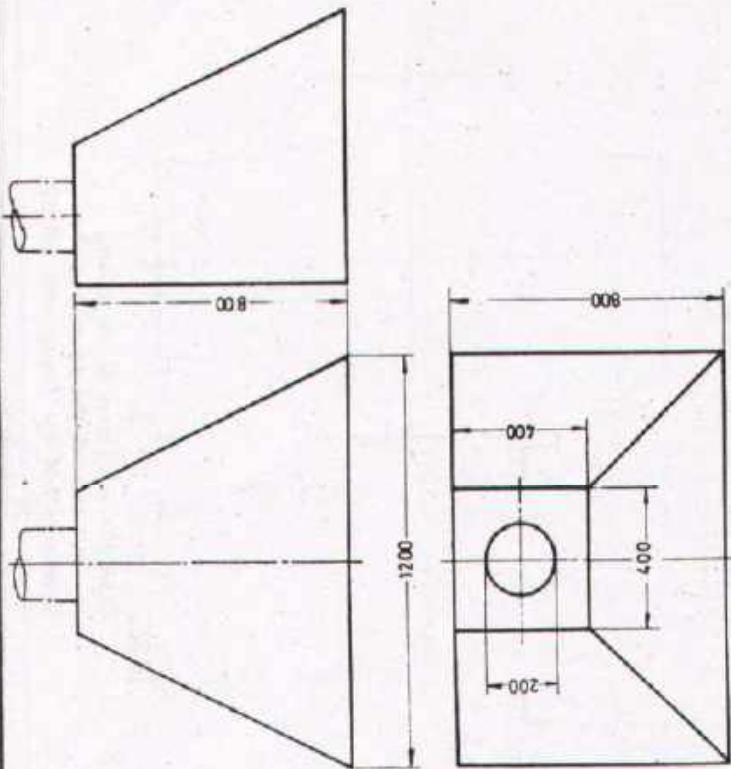
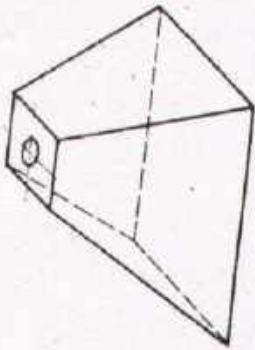
Draw the missing and complete the given view

Scale 1:1	INTERPENETRATIONS		Pyramid Prism	
Drawn	Name	Checked	Name	
	Date		Date	
 DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING PAK DEWAN TECHNICAL TRAINING PROGRAMME			Trade- Practice 1 No.108	



Task: Draw the side view of the prism, the true size of the cover and the development of the frame with bottom.
Scale 1:10

Scale	DEVELOPMENTS		PRISM
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
 DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING		Trade 1 Practice 1 No.109	
PAK-GERMAN TECHNICAL TRAINING PROGRAMME			



Task

Draw the development of the pyramid in scale 1:20 without bottom.

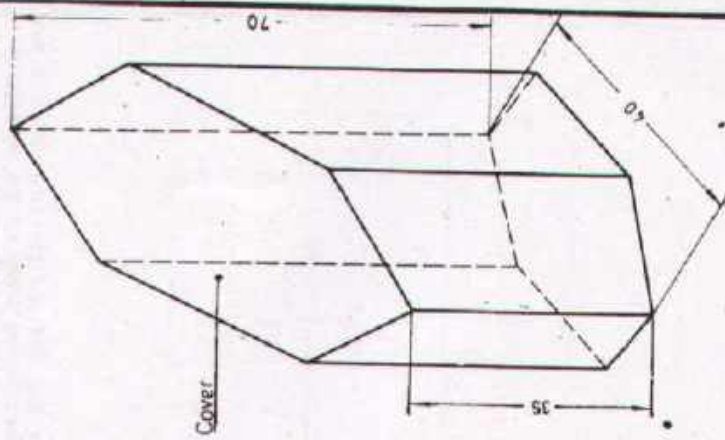
Scale 1:20 **DEVELOPMENTS** PYRAMIDS

Drawn	Name _____ Date _____	Checked	Name _____ Date _____
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DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING
PAK-GERMAN TECHNICAL TRAINING PROGRAMME

Trade **1**
Practice
No. 110



Task:

Draw the side view, the true size of the cover and the development of the frame without bottom
Scale 1:1

Scale 1:1

DEVELOPMENTS

HEXAGON PRISM

Drawn

Name _____
Date _____

Checked

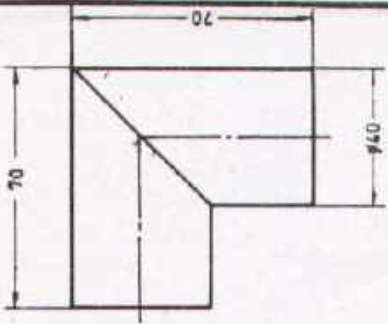
Name _____
Date _____



DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING

PAK-GERMAN TECHNICAL TRAINING PROGRAMME

Trade Practice **1**
No.111



Task: Draw the side and top views, the true size of the sloping area and the development of the frame. Scale 1:1

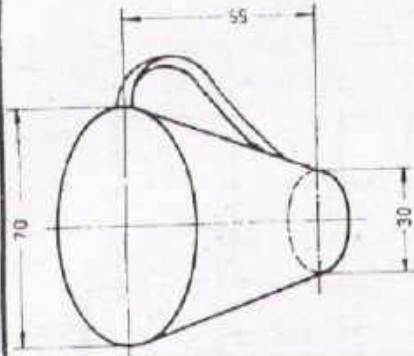
Scale 1:1 **DEVELOPMENTS** KNEE

Drawn	Name _____ Date _____	Checked	Name _____ Date _____
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DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING
PAK-GERMAN TECHNICAL TRAINING PROGRAMME

Trade **1**
Practice
No.112



Task
 Draw the development of the jacket.
 Scale 1:1

Scale _____ **DEVELOPMENTS** _____ CONE

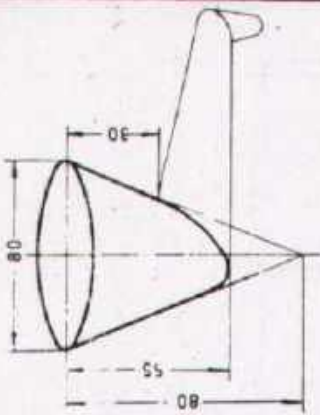
Drawn	Name _____	Checked _____	Name _____
	Date _____		Date _____



DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING

PAK-GERMAN TECHNICAL TRAINING PROGRAMME

Trade Practice **1**
 No.113



Task: Draw the plan and side views and the development. Scale 1:1.

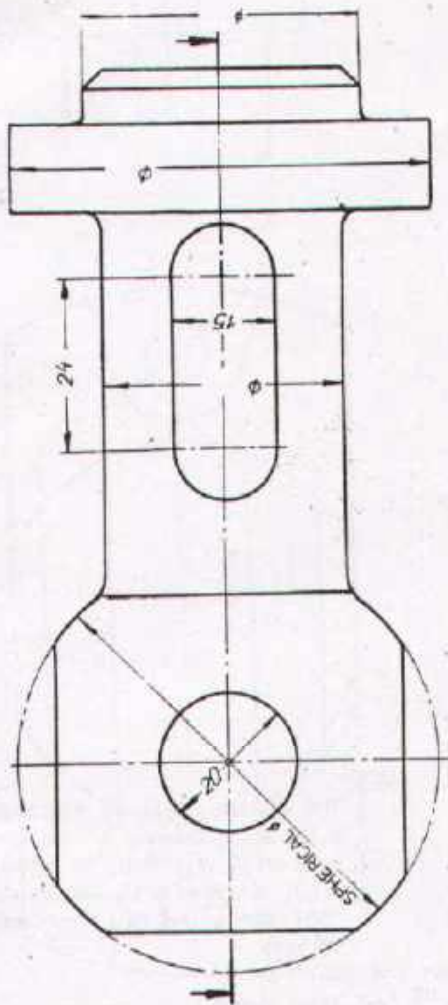
Scale	DEVELOPMENTS		CONE
Drawn	Name _____ Date _____	Checked	Name _____ Date _____



DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING


PAK-GERMAN TECHNICAL TRAINING PROGRAMME

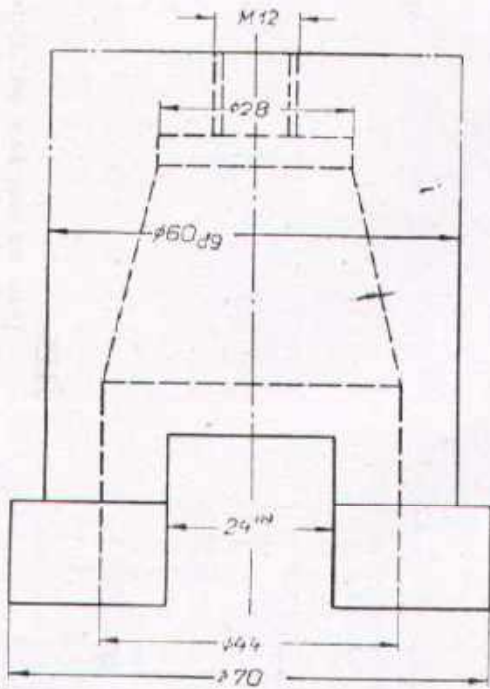
Trade **1**
Practice
No.114



Task:

Draw the side view and sectional plan view.
Complete the dimensions

Scale 1:1	SPHERICAL HEAD		Material St. 42
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
 DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING PAK GERMAN TECHNICAL TRAINING PROGRAMME			Trade Practice 1 No.115



Note:

The adapter sleeve as indicated in the above drawing is machined in such a way that the cylinder ($\phi 60$) is given a square on the top (width across flats 50 mm, depth 20 mm).

Task:

Complete the elevation, draw the side view in section and plan view. Enter all dimensions and surface symbols $\phi 60_{dg}$, 24^{H9} fine, taper smooth, all other surfaces rough. Prepare the table with off-sizes for the fits.

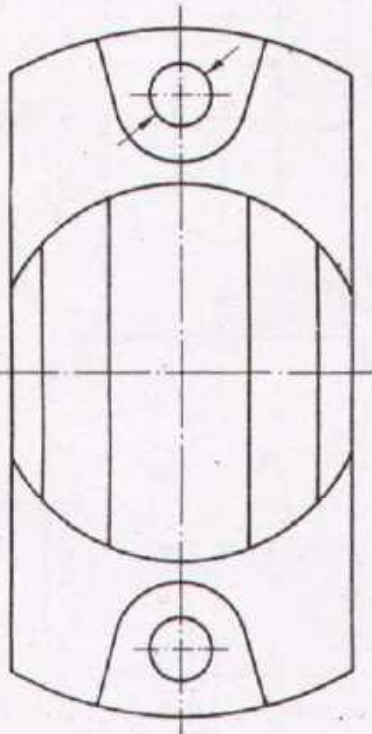
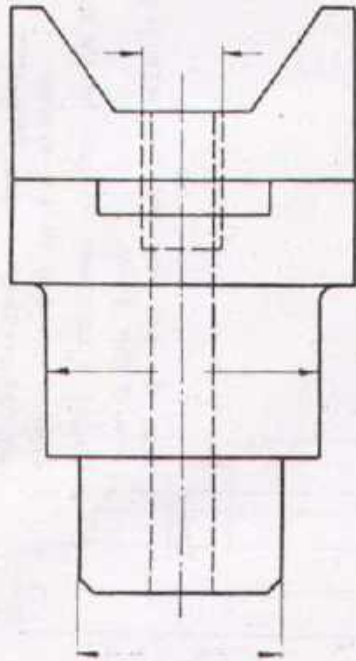
Scale 1:1	ADAPTER SLEEVE		Material St 60
Drawn	Name _____ Date _____	Checked	Name _____ Date _____



DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING

PAK-GERMAN TECHNICAL TRAINING PROGRAMME

Trade 1
Practice 1
No. 116



Task:

1. Enter the following dimensions in the 4. give dimension lines from top to bottom
 - a) Metric thread $\phi 12$
 - b) $\phi 40$ upper off-size -0.02 lower off-size -0.04
 - c) Metric fine thread $\phi 30$ pitch 1.5
 - d) $\phi 10$ basic hole system quality 7
2. Complete the elevation and side view
3. Draw the plan view in section.

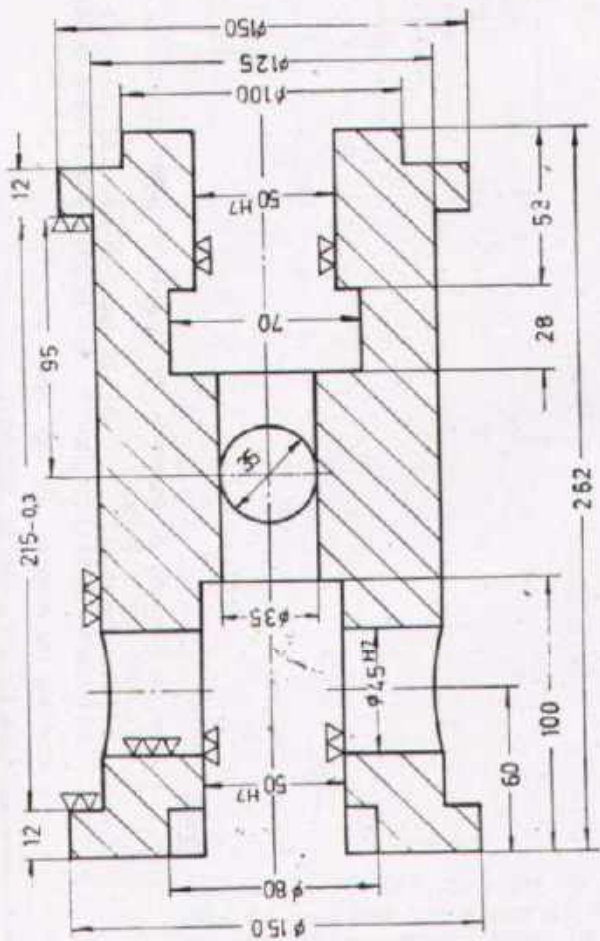
Scale 1:1 **BRACKET** Material St. 50

Drawn _____ Name _____ Checked _____ Name _____
 Date _____ Date _____



DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING
 PAK-GERMAN TECHNICAL TRAINING PROGRAMME

Trade **1**
 Practice **1**
 No.117



Task:

1. Draw the side view and the sectional plan view of this piston.
2. Prepare a table with off-sizes for the fits.
3. Enter the missing surface symbols. All surfaces roughed unless ∇ or $\nabla\nabla$ are indicated.



Scale 1:2.5 **PISTON** Material Cu-Sn 10

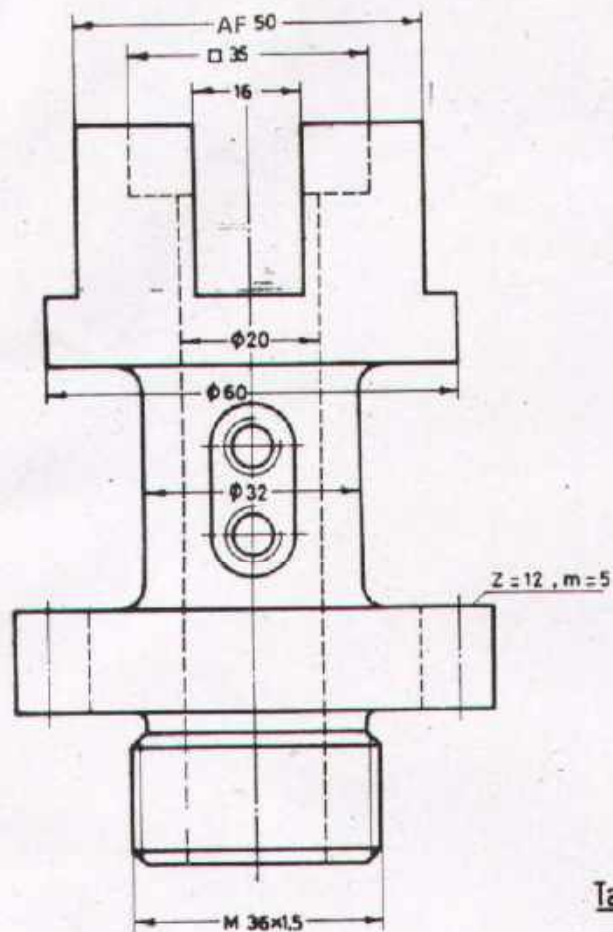
Drawn _____ Name _____ Date _____ Checked _____ Name _____ Date _____



DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING

PAK-GERMAN TECHNICAL TRAINING PROGRAMME

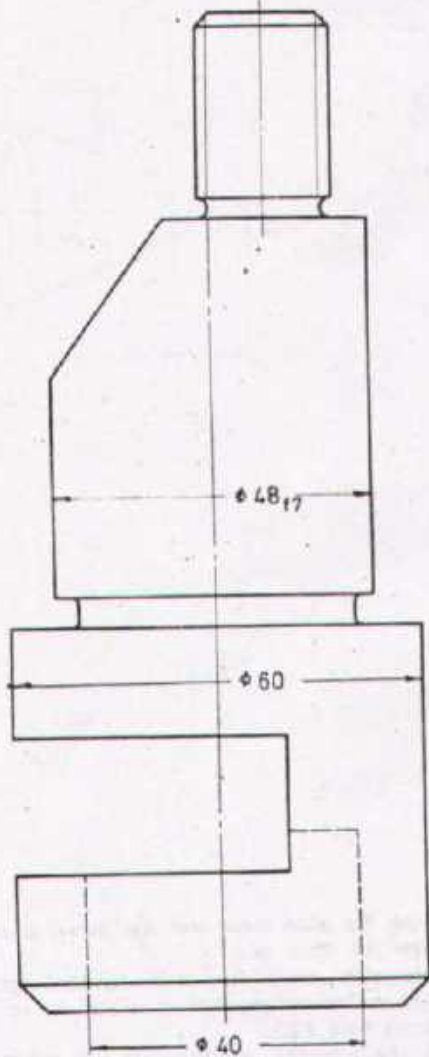
Trade Practice **1**
No. 118



Task:

1. Draw the plan view and the sectional side view of this gear.
Internal square 35 mm with rounded corners ($r=5\text{mm}$). The oblong hole is milled up to the centre hole $\phi 20$.
On the opposite side there are two M8 thread holes.
2. Enter all dimensions and surface symbols.
Hole 20 fine finished H7
Slot 16 fine finished H7
Shaft 32 finished a11
Teeth finished
Remaining surfaces roughed.

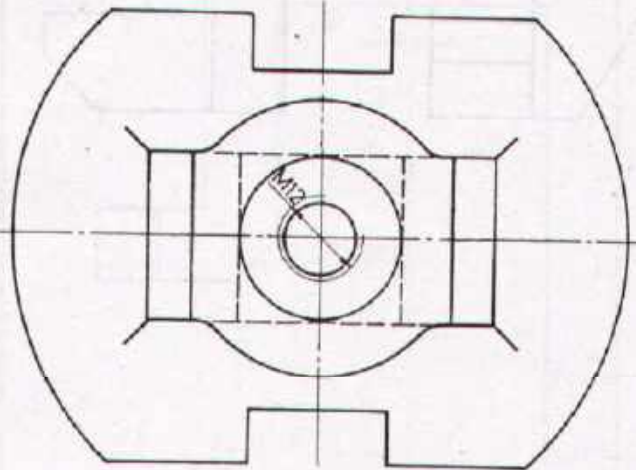
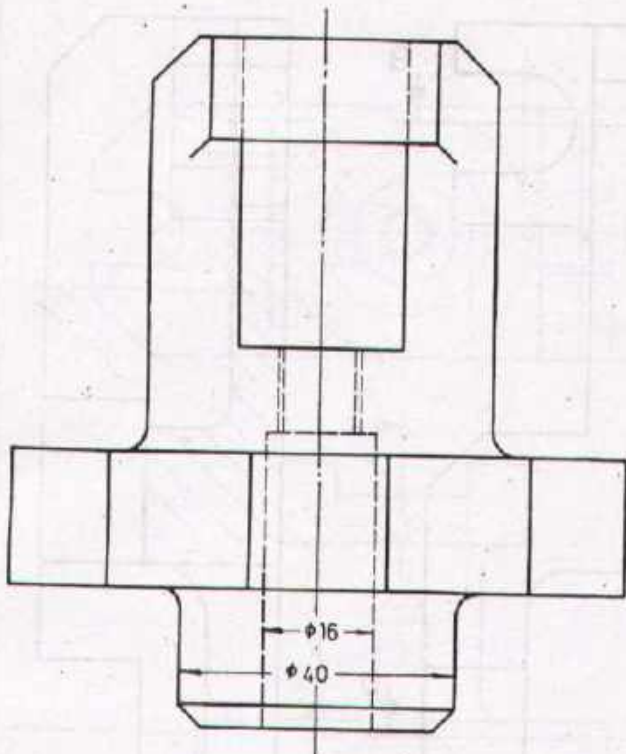
Scale 1:1	GEAR		Material St-60
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING			Trade Practice 1 No.119
PAK-GERMAN TECHNICAL TRAINING PROGRAMME			



Task:


1. Draw the side and plan views
2. Enter all dimensions. The thread is a metric fine thread 20 with 1,5mm pitch.
3. Enter the surface symbols
 $\phi 48_{f7}$ fine finished
 $\phi 60$ finished
 Remaining surfaces roughed
4. Prepare a table with off-sizes for the fits.

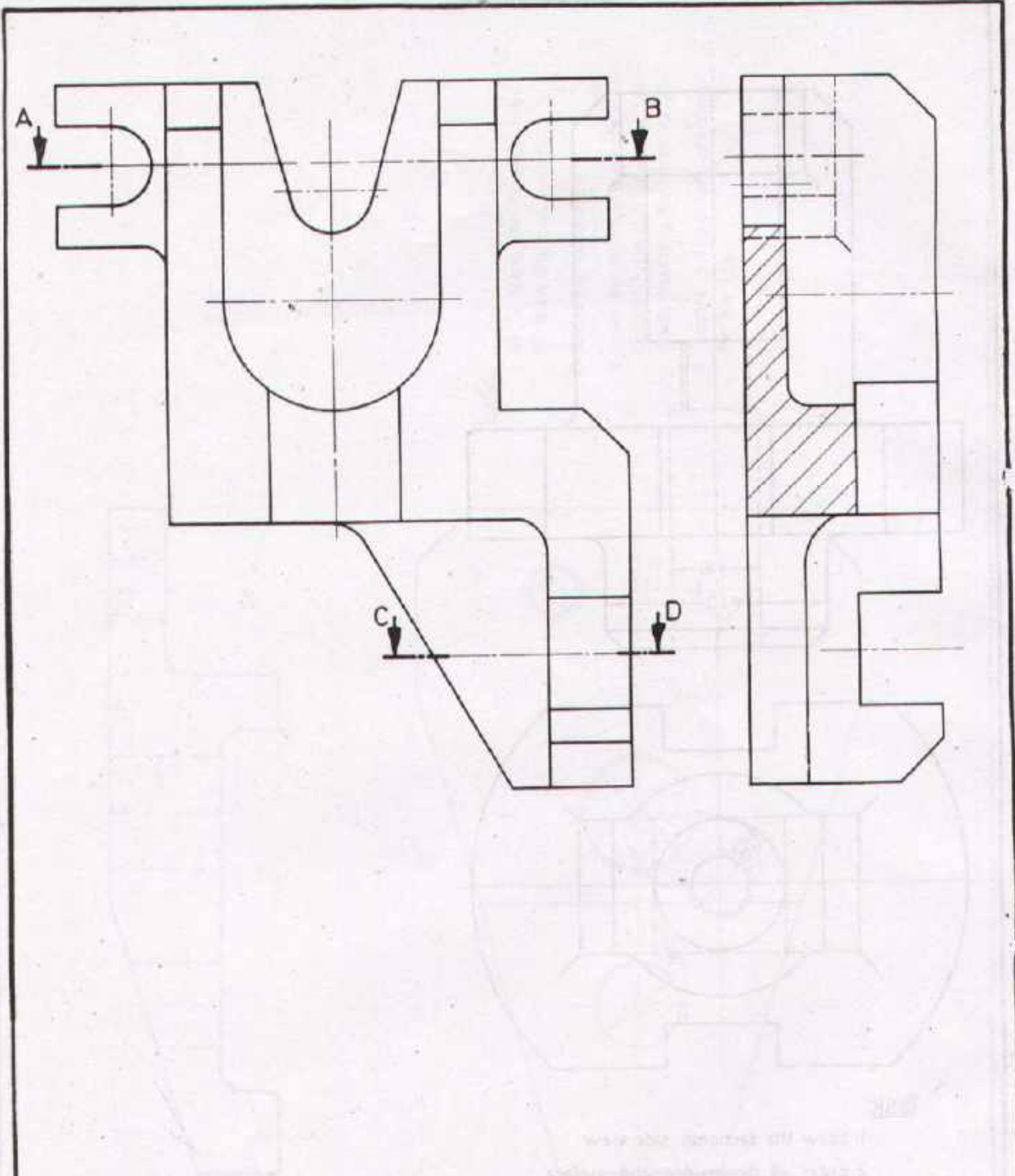
Scale 1:1	GRIP HEAD		Material St 50
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
 DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING PAK GERMAN TECHNICAL TRAINING PROGRAMME			Trade Practice 1 No.120




Task:

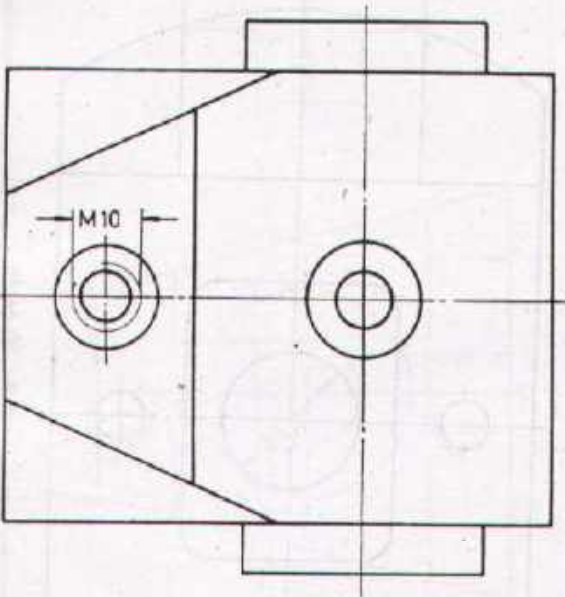
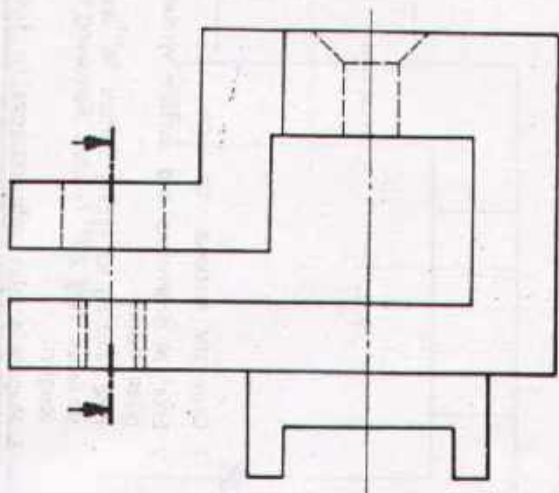
1. Draw the sectional side view.
2. Enter all dimensions and surface symbols
All surfaces roughed

Scale 1:1	RAM HEAD		Material St.50
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
 DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING PAK-GERMAN TECHNICAL TRAINING PROGRAMME			Trade Practice 1 No.121



Task:
 Draw the sections AB and CD.

Scale 1:1	CLAMPING BRACKET		Material St 37
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
 DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING PAK-GERMAN TECHNICAL TRAINING PROGRAMME			Trade Practice 1 No.122



Task:

1. Draw the side view according to the given section.
 2. Enter all dimensions and surface symbols.
- All surfaces roughed

Scale 1:1

ADJUSTING SLIDE

Material G-Ms 64

Drawn

Name _____
Date _____

Checked

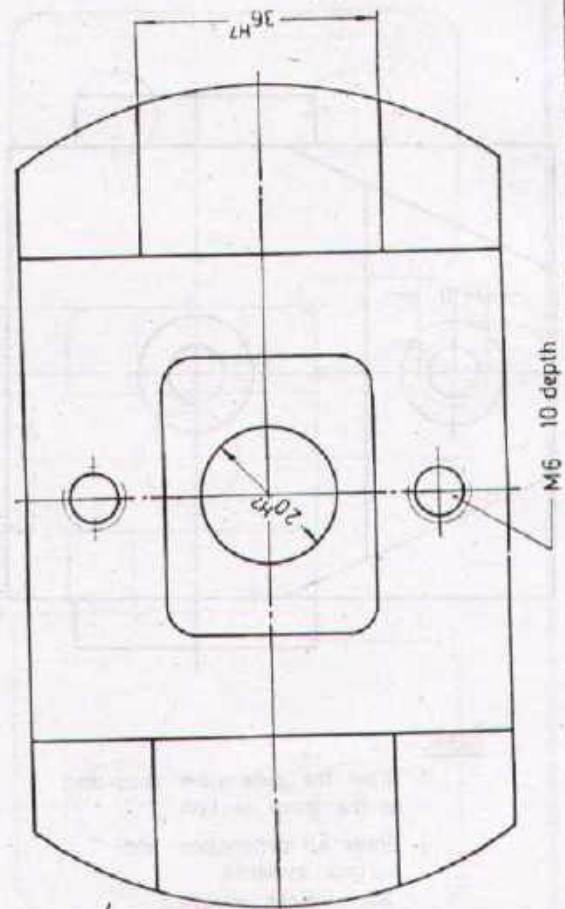
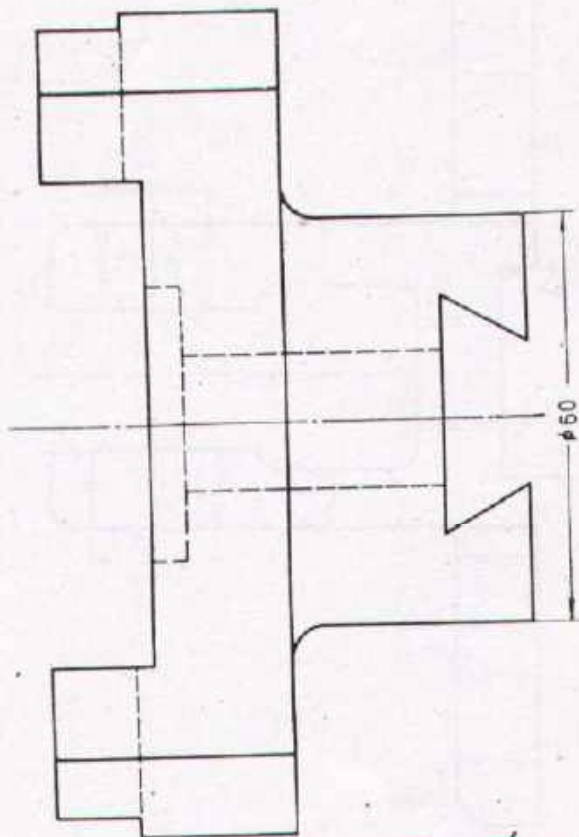
Name _____
Date _____



DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING


PAK-GERMAN TECHNICAL TRAINING PROGRAMME

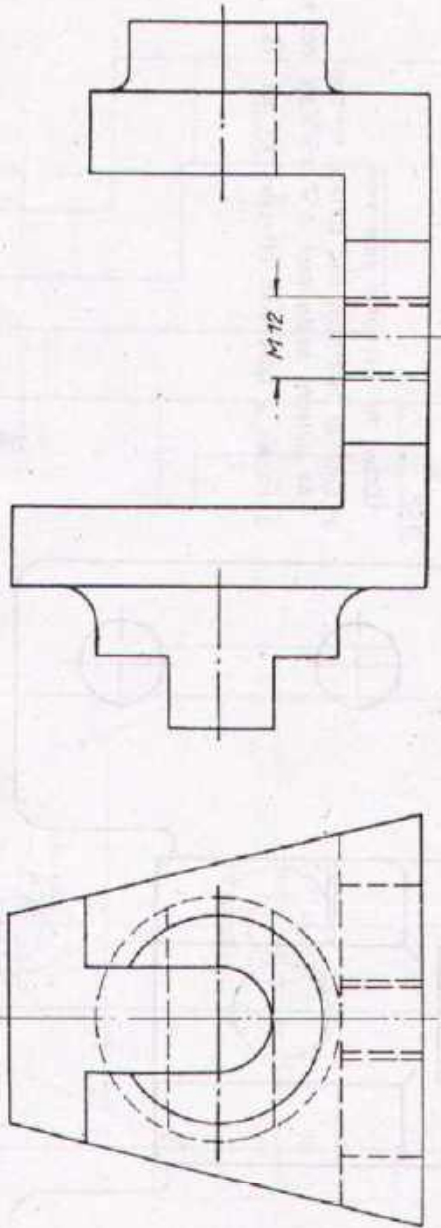
Trade **1**
Practice
No 123



Task:


1. Draw the sectional side view.
2. Enter all dimensions and surface symbols as given below:
 Fine finishing for sliding surface 36H7 and dovetail surfaces. Hole 20H7 finished. Remaining surfaces roughed.
3. Prepare a table with off-sizes for fits.

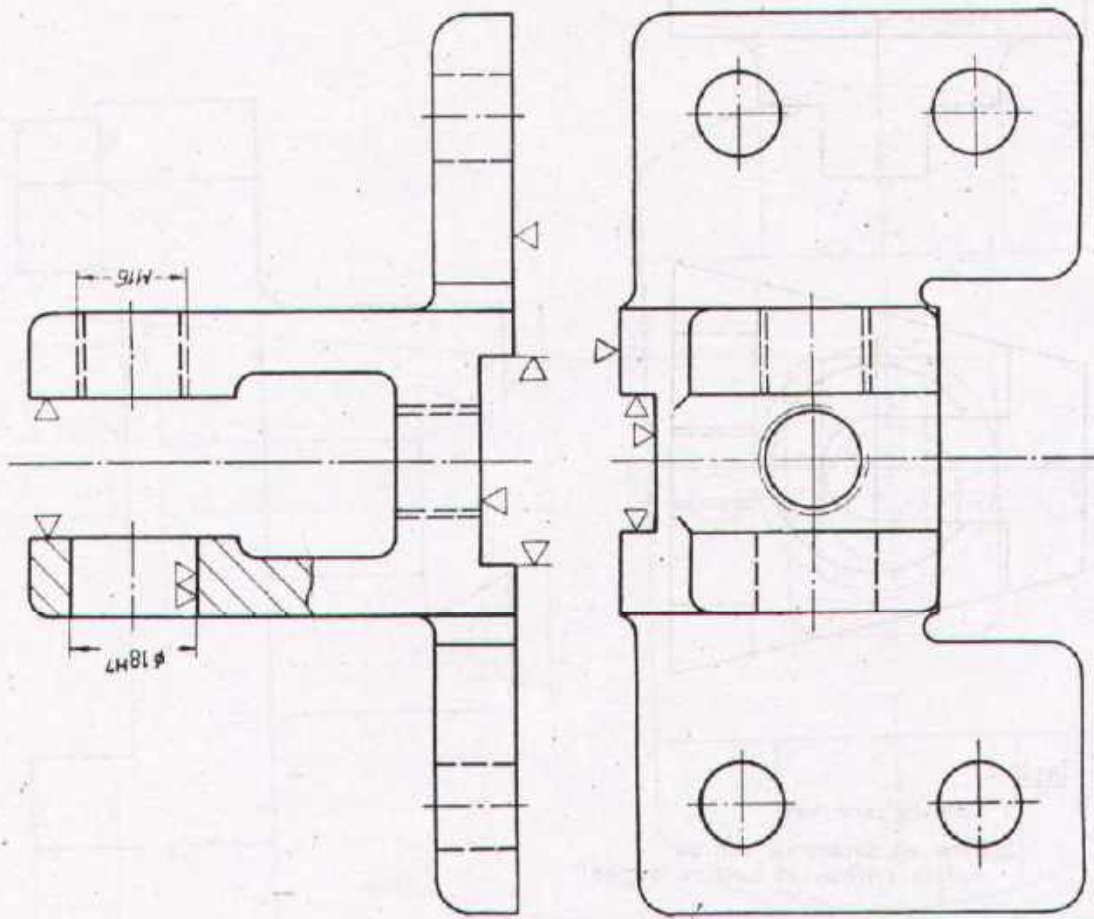
Scale 1:1	LEVELLING GUIDE		Material St. 50
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
 DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING PAK-GERMAN TECHNICAL TRAINING PROGRAMME			Trade Practice 1 No. 124



Task:

1. Draw the side view
2. Enter all dimensions and the surface symbols (all surfaces roughed!)

Scale 1:1	CROSS HEAD		Material St 37
Drawn _____	Name _____ Date _____	Checked _____	Name _____ Date _____
 DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING PAK GERMAN TECHNICAL TRAINING PROGRAMME			Trade 1 Practice No. 125



Task

- 1 Draw the sectional side view
- 2 Enter all dimensions and surface symbols
- 3 All surfaces neatly cast if ∇ or $\nabla\nabla$ are not indicated
- 4 Prepare a table with off-sizes for the fits

Scale 1:1 **SUPPORT** Material: GG-15

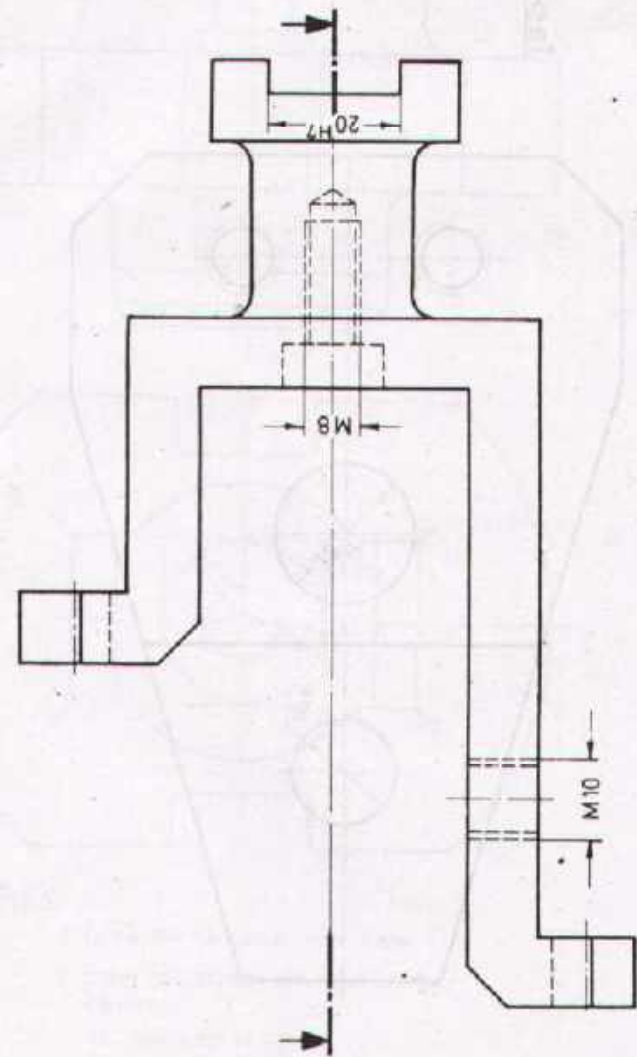
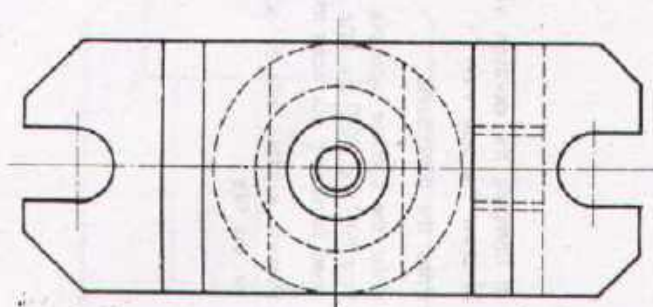
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
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DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING

PAK-GERMAN TECHNICAL TRAINING PROGRAMME

Trade **1**
Practice
No. 126



Task:

- 1 Draw the sectional plan view according to the given section.
- 2 Enter all dimension and surface symbols. 20H7 finished, remaining surfaces roughed.
- 3 Prepare a table with off-sizes for the fits.

Scale 1:1	RAIL CRAMP	Material St. 37
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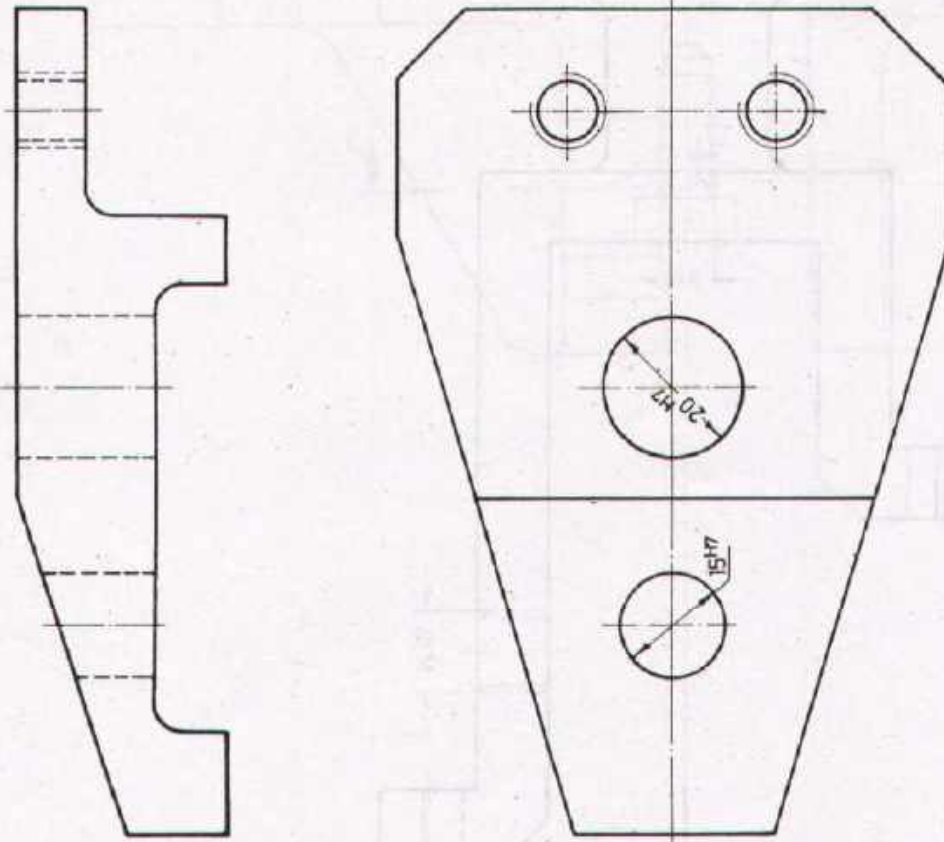
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
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DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING

PAK-GERMAN TECHNICAL TRAINING PROGRAMME

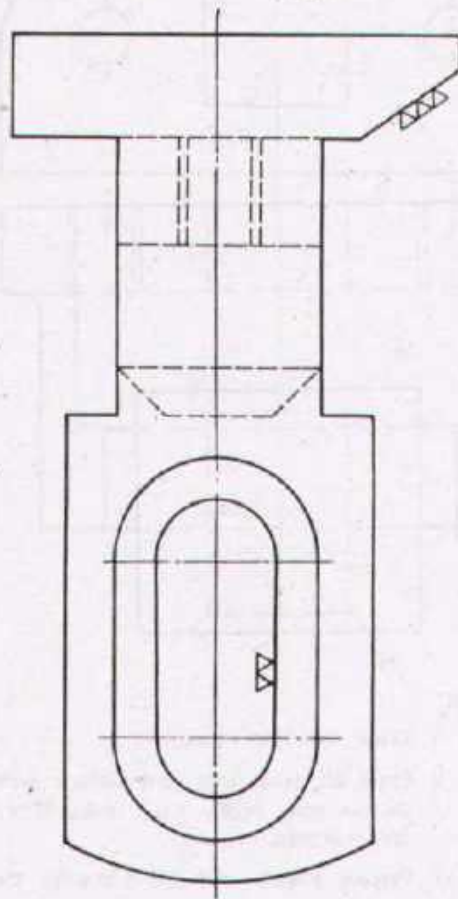
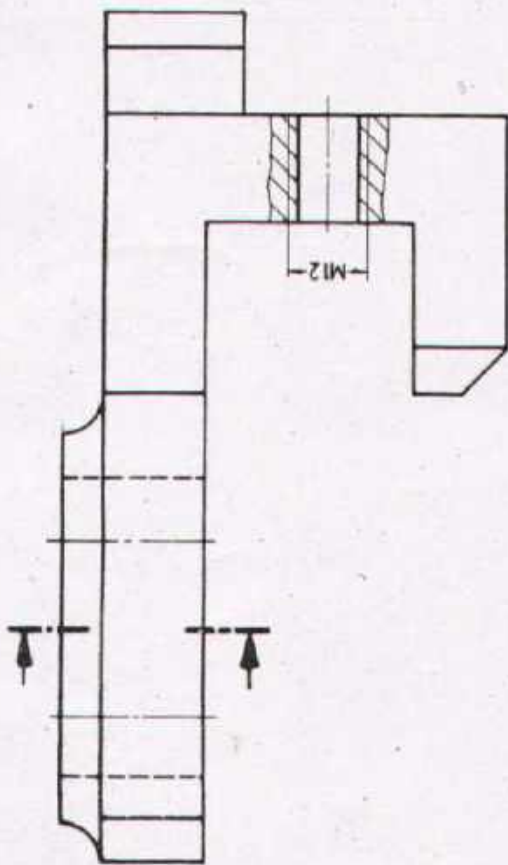
Trade Practice **1**
No.127



Task:

- 1 a) Complete the elevation view
b) draw the side view.
2. Enter the dimensions
3. Enter the surface symbols. hole 15H7 and 20H7 are fine finished, remaining surfaces roughed
4. Prepare a table with off-sizes for the fits

Scale 1:1	FIXING PLATE		Material St 50
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING PAK-GERMAN TECHNICAL TRAINING PROGRAMME			Trade Practice 1 No.128



Task:

1. Draw the sectional side view according to the given section.
2. Enter all dimensions and surface symbols. All surfaces roughed if ∇ or $\nabla\nabla$ are not indicated. Stopper surface ($\nabla\nabla\nabla$) case hardened.

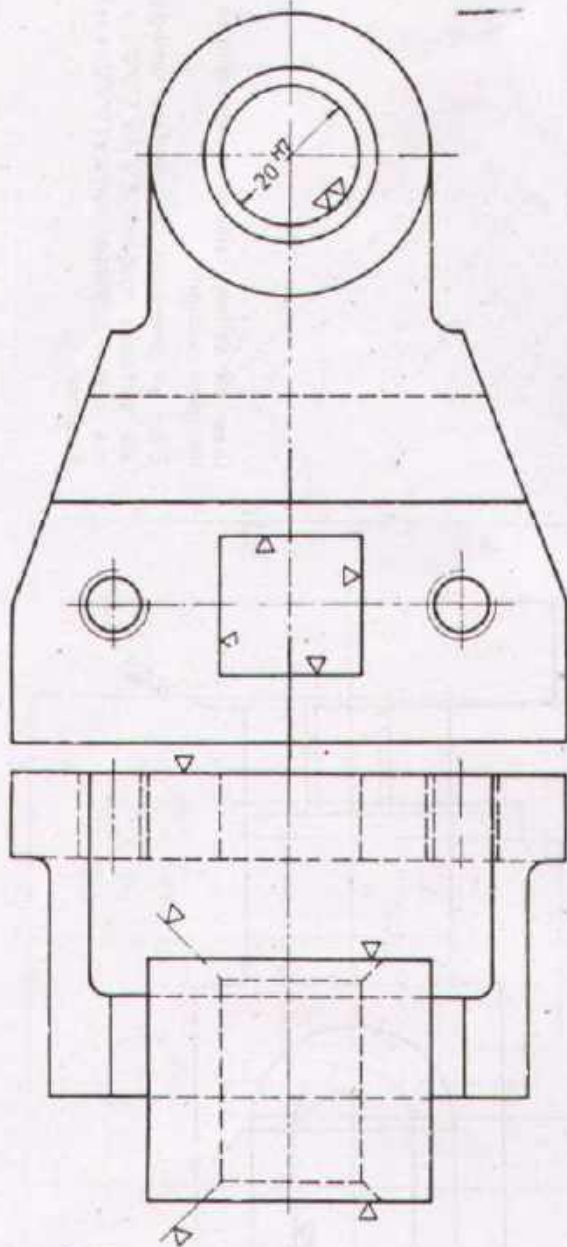
Scale 1:1	ADJUSTABLE STOP		Material C 15
Drawn	Name _____ Date _____	Checked	Name _____ Date _____



DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING


PAK-GERMAN TECHNICAL TRAINING PROGRAMME

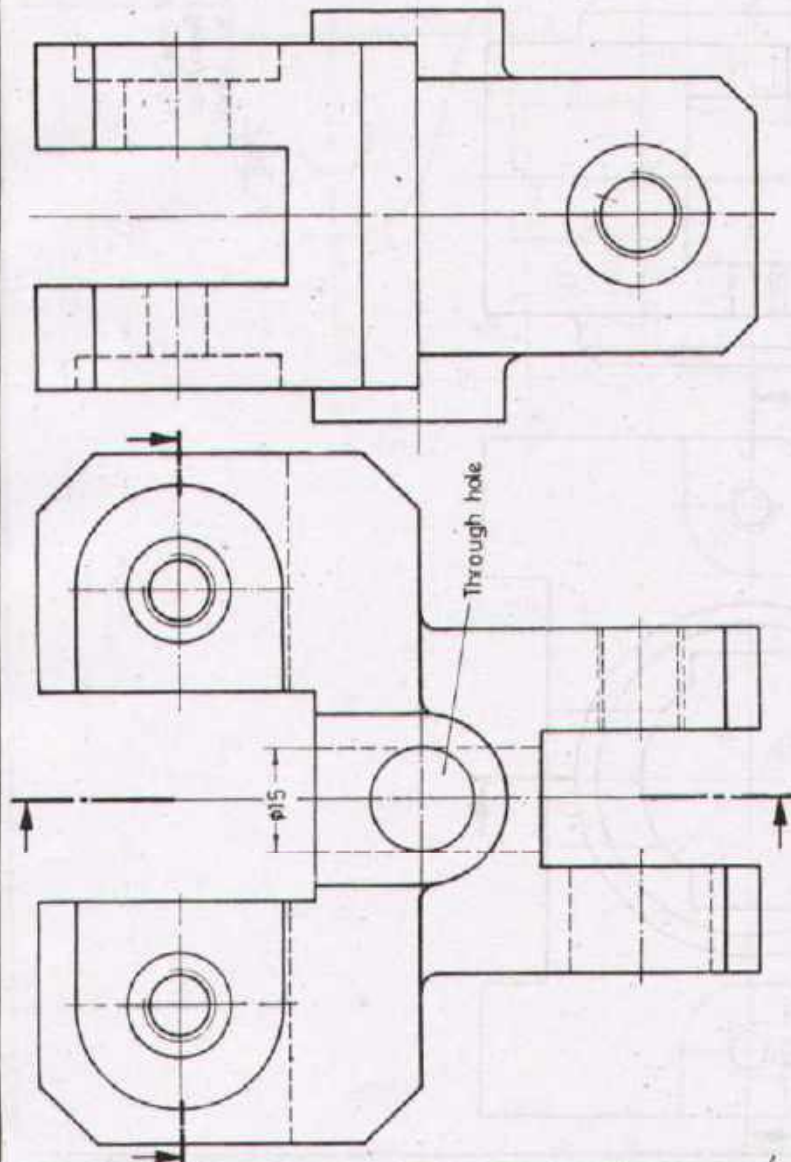
Trade **1**
Practice
No.129



Task:

1. Draw the side views.
2. Enter all dimensions and surface symbols
All surfaces neatly cast unless ∇ or $\nabla\nabla$ are indicated
3. Prepare a table with off sizes for the fits.

Scale 1:1	ANGULAR SUPPORT		Material GG-20
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
 DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING PAK GERMAN TECHNICAL TRAINING PROGRAMME			Trade 1 Practice No.130



Task:

Draw the sectional side view and the sectional plan view according to the given sections.

Scale 1:1	FORK HEAD		Material St. 37
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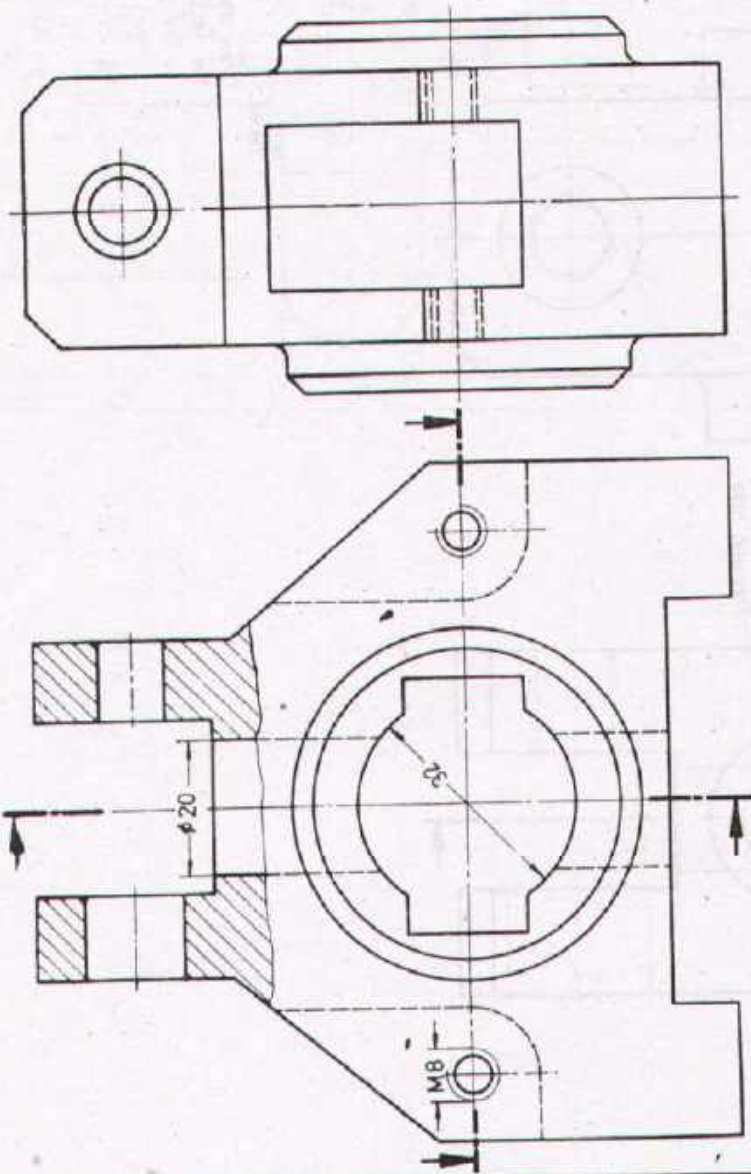
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
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DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING

PAK-GERMAN TECHNICAL TRAINING PROGRAMME

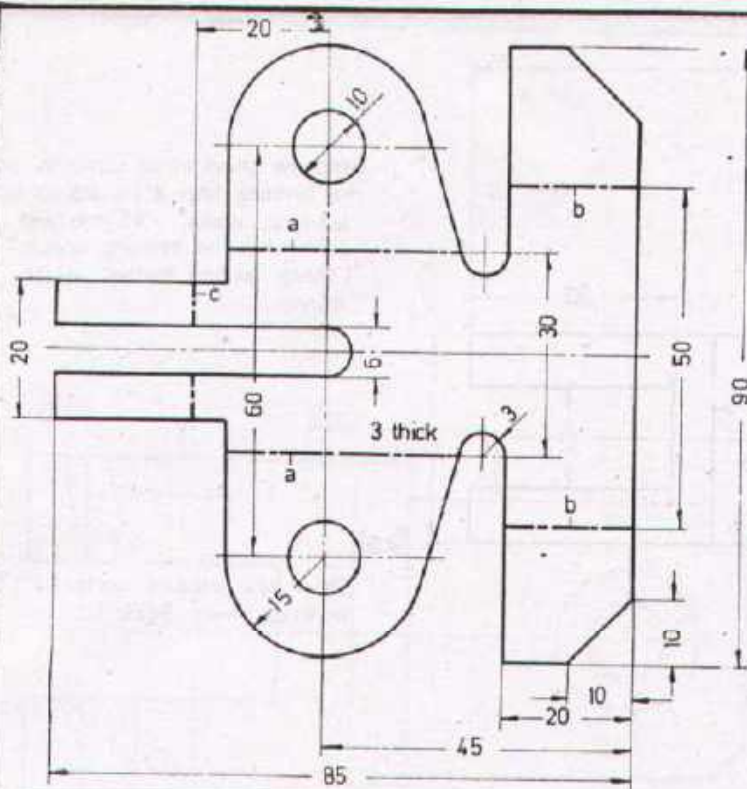
Trade **1**
Practice
No.131



Task: Draw the sectional side and plan views according to the given sections. Hole $\phi 32$ is throughout.

Scale 1:1 **AXLE STIRRUP** Material St. 60

Drawn	Name _____ Date _____	Checked	Name _____ Date _____
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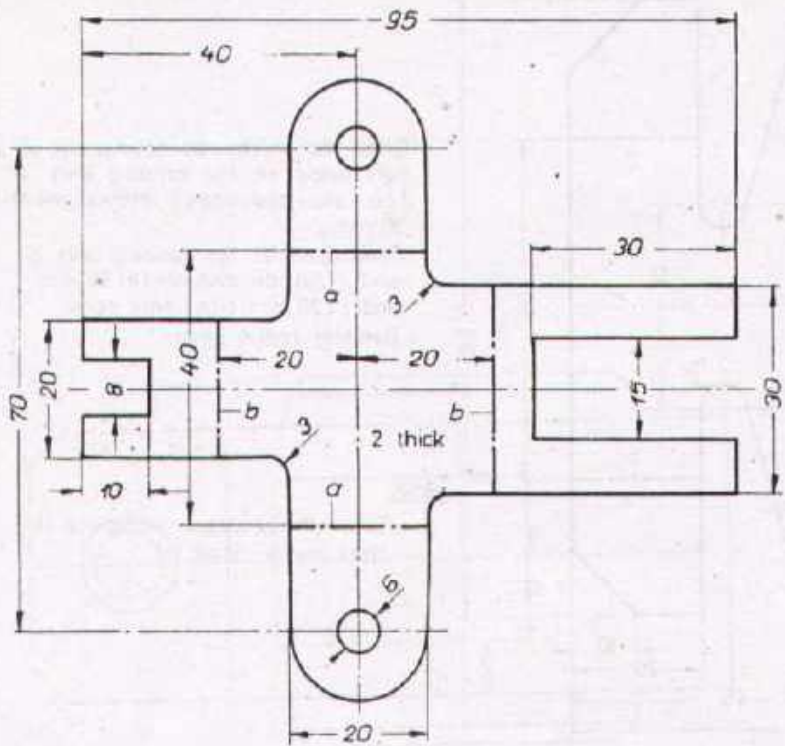
Bend the sheetmetal downwards at a right angle on the bending lines „a“ (dot-and-dash-lines) Internal width 30 mm.
 Bend upwards on bending lines „b“ and „c“, inside distance (b) 50 mm and (c) 20 mm from hole center.
 Bending radius 3mm.

Task:

Draw the resultant workpiece in three views. Scale 1:1

Scale 1:1	SUPPORT		Material St.1 23
Drawn	Name _____ Date _____	Checked	Name _____ Date _____


	DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING	Trade Practice 1 No.133
	PAK-GERMAN TECHNICAL TRAINING PROGRAMME	

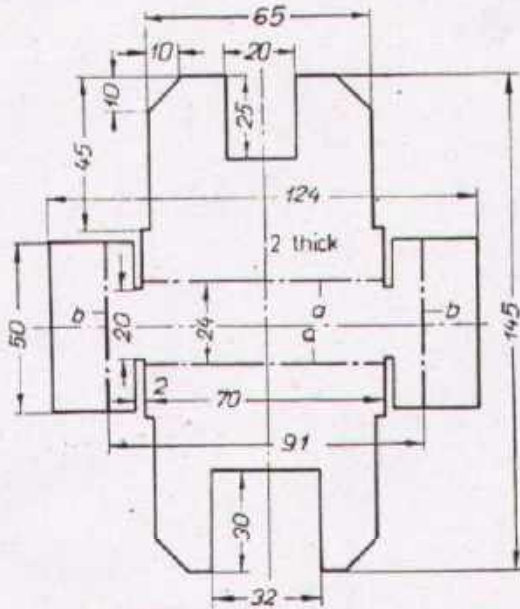


Bend the sheet metal upwards on the bending lines „a“ (sharp corner) internal width 40 mm and downwards on bending lines „b“ (sharp corner) internal width 40 mm

Task

Draw the resultant workpiece in three views. Scale 1:1.

Scale 1:1	SHEET METAL STRAP		Material St.VII 23
Drawn	Name _____ Date _____	Checked _____	Name _____ Date _____
 DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING PAK-GERMAN TECHNICAL TRAINING PROGRAMME			Trade Practice 1 No.134



Bend the sheet metal upwards on the bending line „a“ at a right angle, inside distance 24 mm and downwards on bending lines „b“, internal width 41 mm
 Bending radius 2 mm

Task:

Draw the resultant workpiece in three views to scale 1:1.

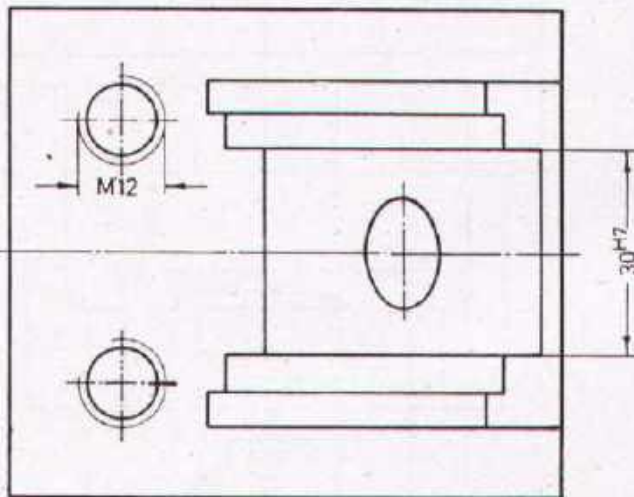
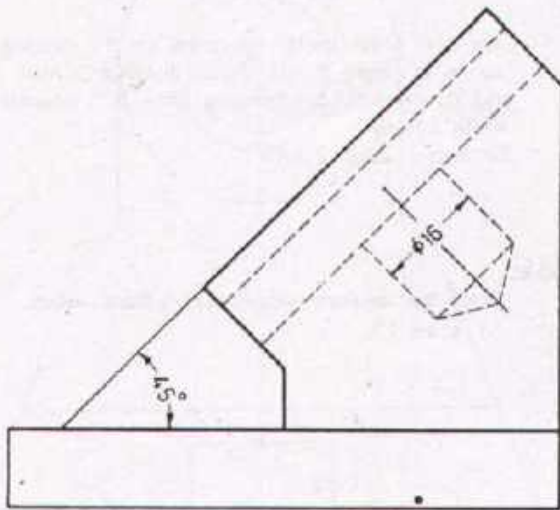
Scale	SHEET METAL STAND		Material St. VIII 23K
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Drawn	Name _____ Date _____	Checked	Name _____ Date _____
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DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING
 PAK-GERMAN TECHNICAL TRAINING PROGRAMME

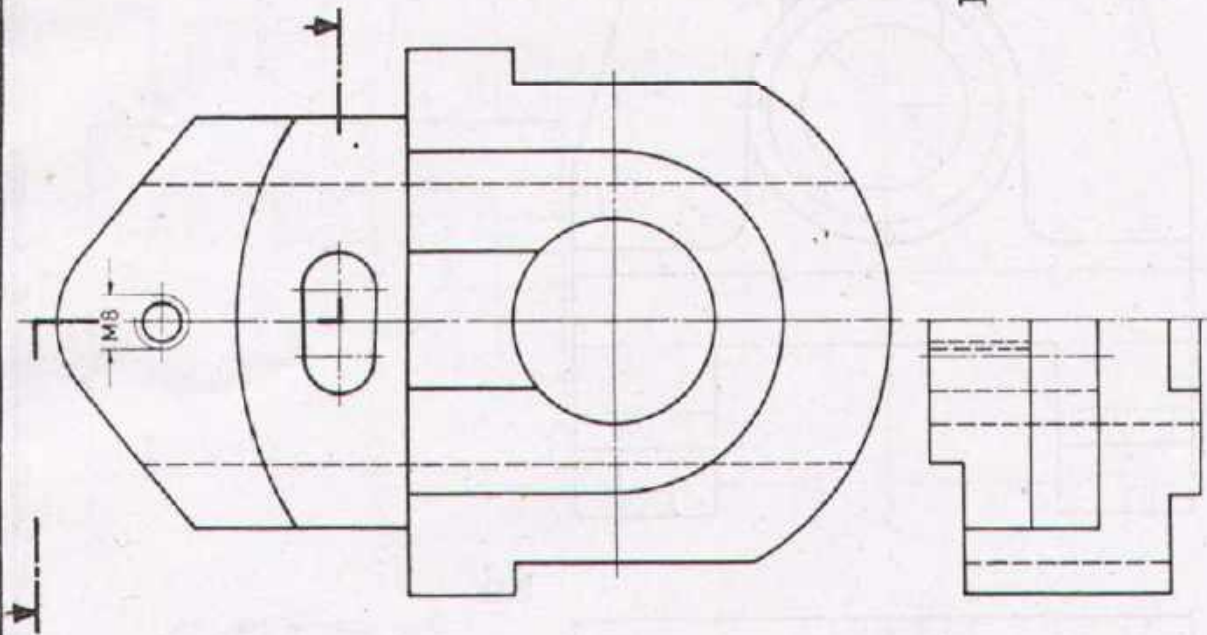
Trade **1**
 Practice
 No. 135



Task:

- 1 Draw the sectional side view
(section through the thread M12)
- 2 Enter the dimensions and surface symbols
Sliding surface 30^{H7} fine finished
Supporting surface finished
Remaining surfaces roughed.

Scale 1:1	MEASURING BLOCK		Material St. 50
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
 DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING PAK-GERMAN TECHNICAL TRAINING PROGRAMME			Trade Practice 1 No.136



Task:

- Complete the plan view according to the section
- Draw the sectional side view from left
- Draw the side view from right.

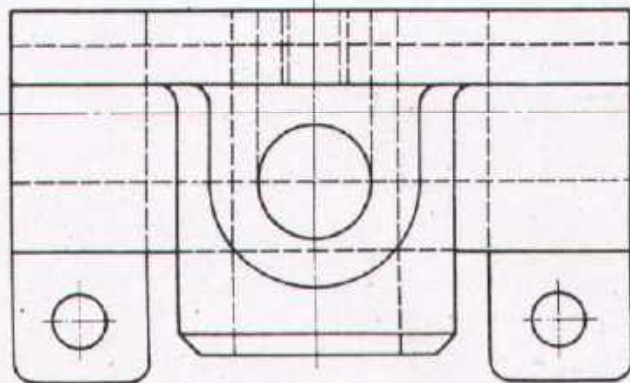
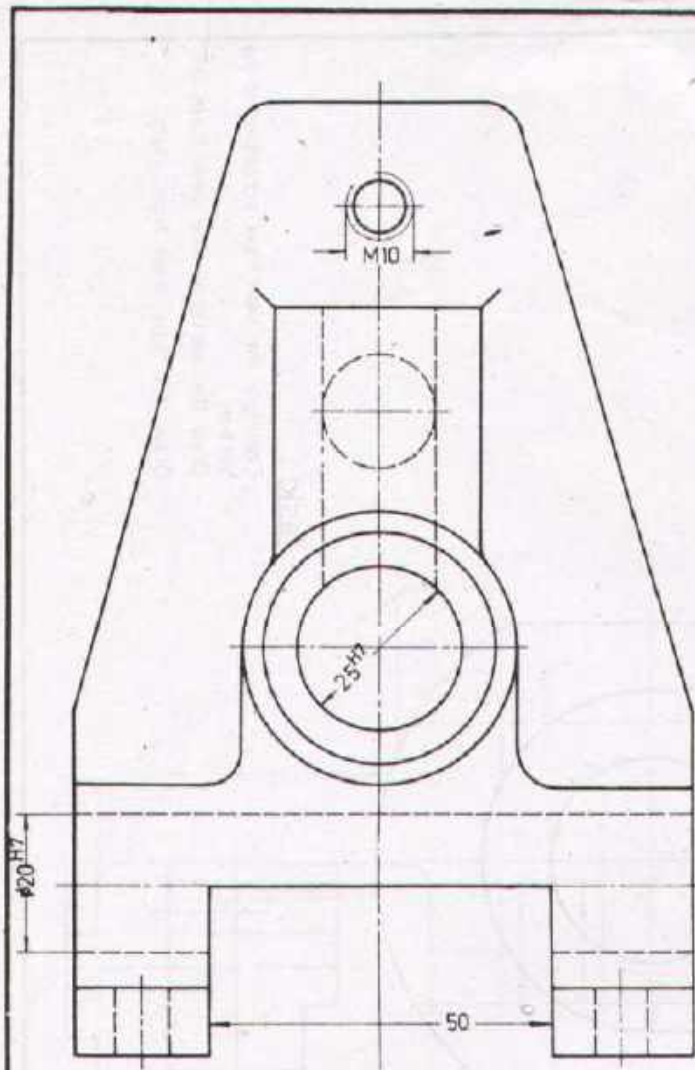
Scale 1:1 **BRACKET** Material St 37 K

Drawn	Name _____ Date _____	Checked	Name _____ Date _____
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DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING
PAK-GERMAN TECHNICAL TRAINING PROGRAMME

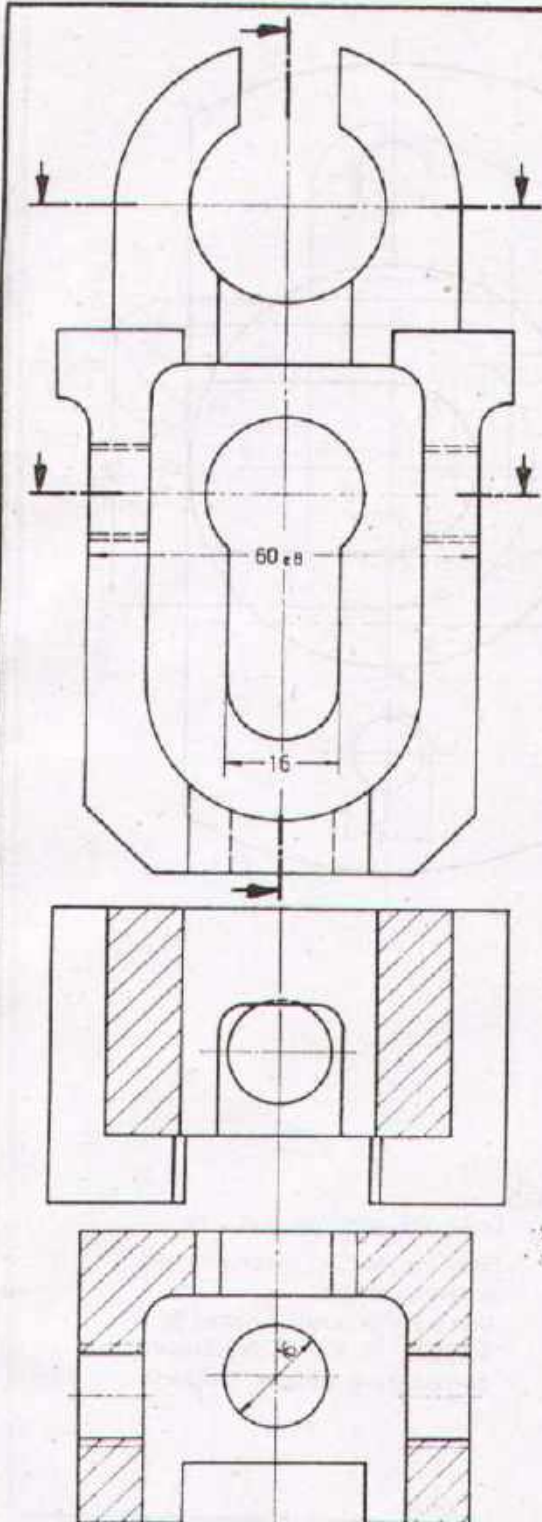
Trade Practice **1**
No.137



Task:


1. Draw sectional side view.
2. Enter the missing dimensions and surface symbols.
 Fine finished: Hole 20H7 and 25H7
 Roughed: All remaining holes, surfaces to size 50, face surface and chamfer of hub, base and rear side (seen from elevation view).
 Remaining surfaces neatly cast.

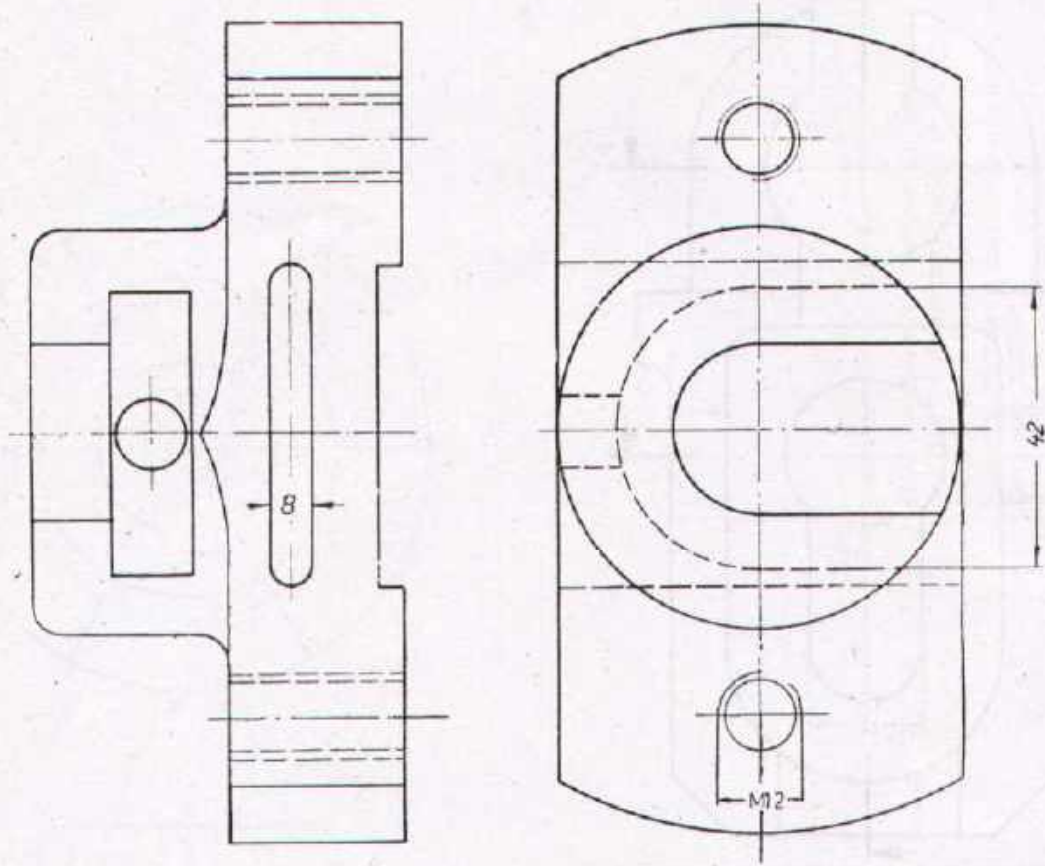
Scale 1:1	STAND		Material GG-20
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
 DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING PAK-GERMAN TECHNICAL TRAINING PROGRAMME			Trade Practice 1 No.138



Task


1. Draw the sectional side view according to the given section.
2. Enter the missing dimensions and surface symbols. Hole 60 and slot 16 are fine finished surfaces 60 and 16 are finished, remaining surfaces roughed.

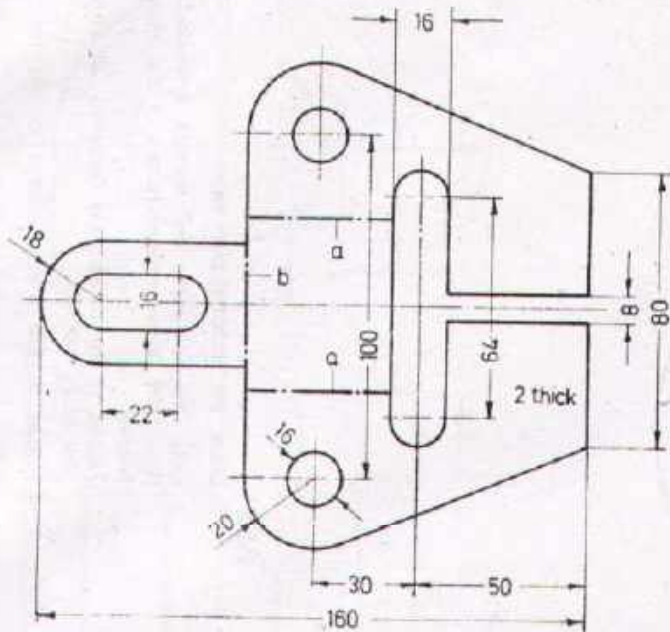
Scale 1:1	ADJUSTING GRIP		Material C 45
Drawn _____	Name _____ Date _____	Checked _____	Name _____ Date _____
 DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING PAK GERMAN TECHNICAL TRAINING PROGRAMME			Trade Practice 1 No. 139



Task

- Draw the sectional plan view.
- Enter the missing dimensions and surface symbols.
- Surfaces to size 8: finished.
- Surfaces to size 42: fine finished.
- All remaining surfaces: roughed.

Scale 1:1	SLIDE		Material St 50
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
 DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING PAK GERMAN TECHNICAL TRAINING PROGRAMME			Trade Practice 1 No.140



Task:

Bend the sheet metal on the bending lines „a“ upwards at right angle internal width 50 mm.

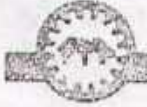
Bend on the bending line „b“ downwards at an angle of 45°.

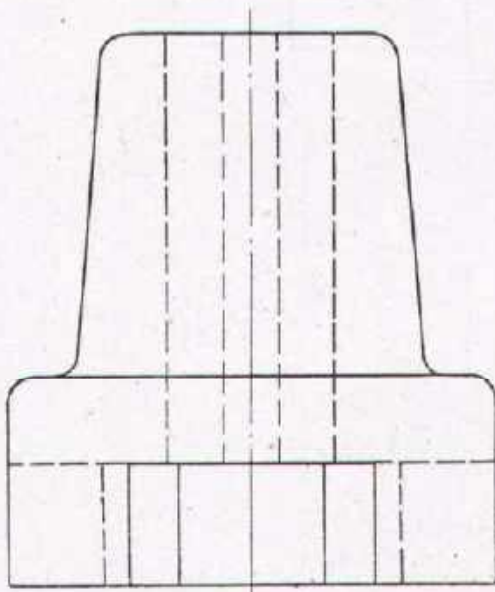
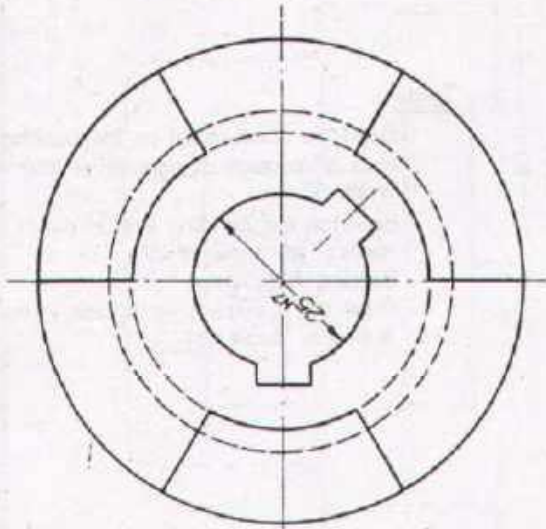
Bending radii 4 mm.

Draw the resultant workpiece in the 3 views. Scale 1:1.

Scale 1:2	SHEET METAL CHEEK		Material St. V 23
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Drawn	Name _____ Date _____	Checked	Name _____ Date _____
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	DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING		Trade 1 Practice No 141
	P&V GERMAN TECHNICAL TRAINING PROGRAMME		



Task:

1. Draw the sectional plan view
2. Enter the dimensions and surface symbols
Hole 25H7, keyways and flanks of the claws fine finished
Flanks of the claws case hardened, all remaining jaw faces roughed.
3. Prepare a table with off-sizes for the fits.

Scale 1:1	CLAW CLUTCH HALF	Material C 15
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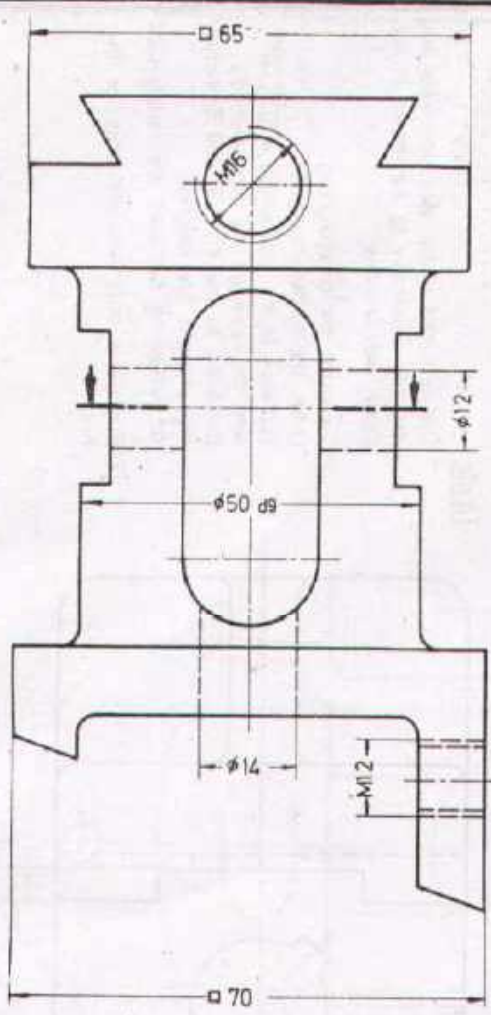
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
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DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING


PAK-GERMAN TECHNICAL TRAINING PROGRAMME

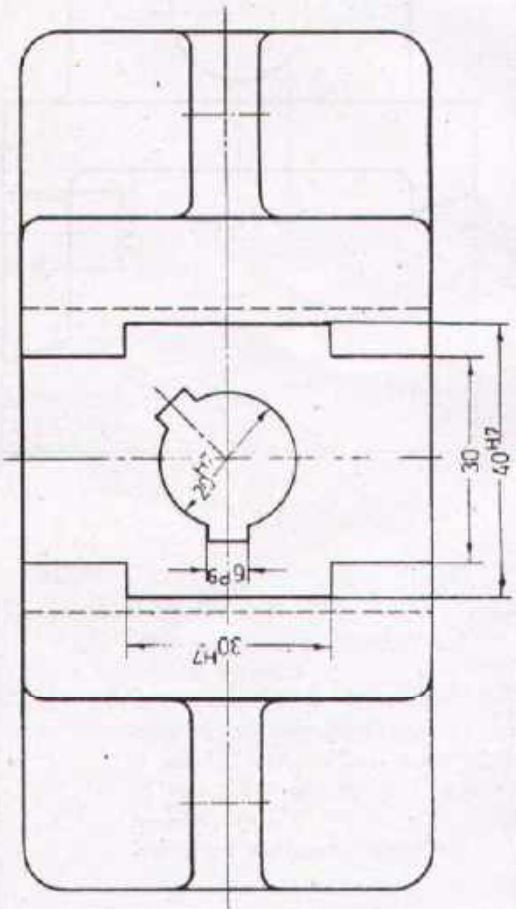
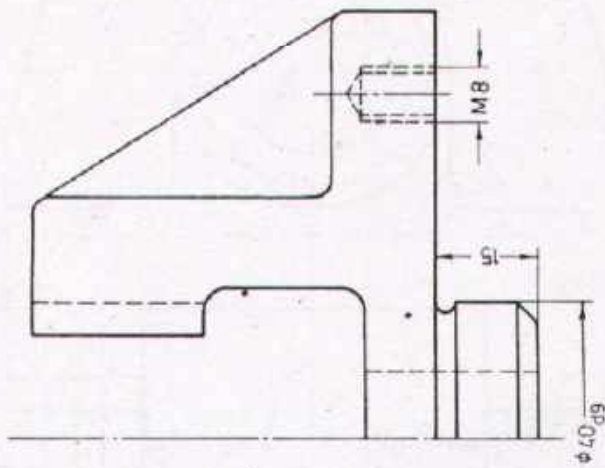
Trade **1**
Practice
No. 142



Task:

1. Draw the sectional plan view (according to the given section) and the side view (not sectional)
 2. Enter the missing dimensions and surface symbols.
- Turned surfaces ($\phi 50$ dg) and dovetail surfaces fine finished. All remaining surfaces roughed.

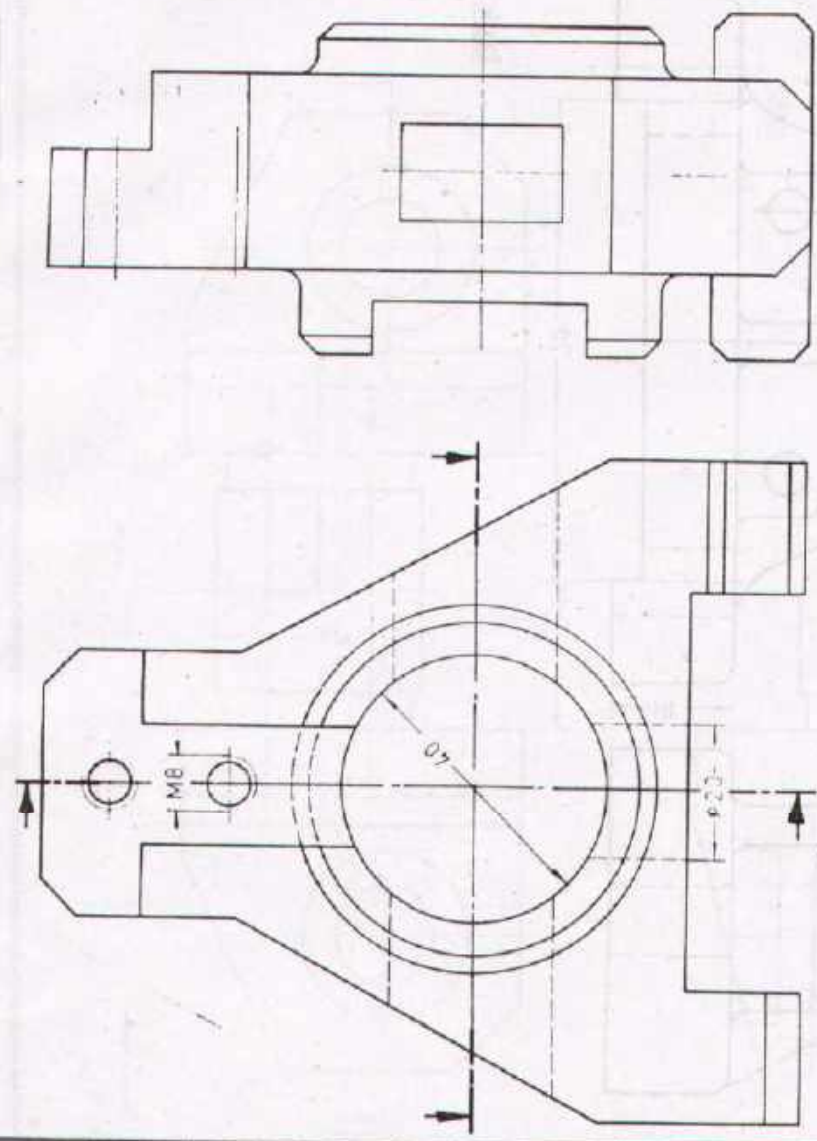
Scale 1:1	ADJUSTING SLIDE		Material St. 50 K
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
 DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING PAK-GERMAN TECHNICAL TRAINING PROGRAMME			Trade 1 Practice No. 143



Task:

1. The left half of the elevation view and the side view have to be drawn in sectional representation.
2. Complete the dimensioning. Enter the surface symbols. Surfaces to the size $\phi 40_{d9}$, $\phi 20_{H7}$, 40_{H7} and the keyways are finefinished. Surfaces to the size 30 and 15 including chamfer are roughed. All remaining surfaces are neatly cast.
3. Prepare a table with off-sizes for the fits.

Scale 1:1	GUIDE		Material GG-20
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
			Trade Practice 1 No 144
DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING			
PAK-GERMAN TECHNICAL TRAINING PROGRAMME			



Task:

Draw the sectional side view and the plan view according to the given sections
 Directions: Hole $\phi 40$ and thread hole M8 are throughout

Scale 1:1 **AXLE SUPPORT** Material St. 50

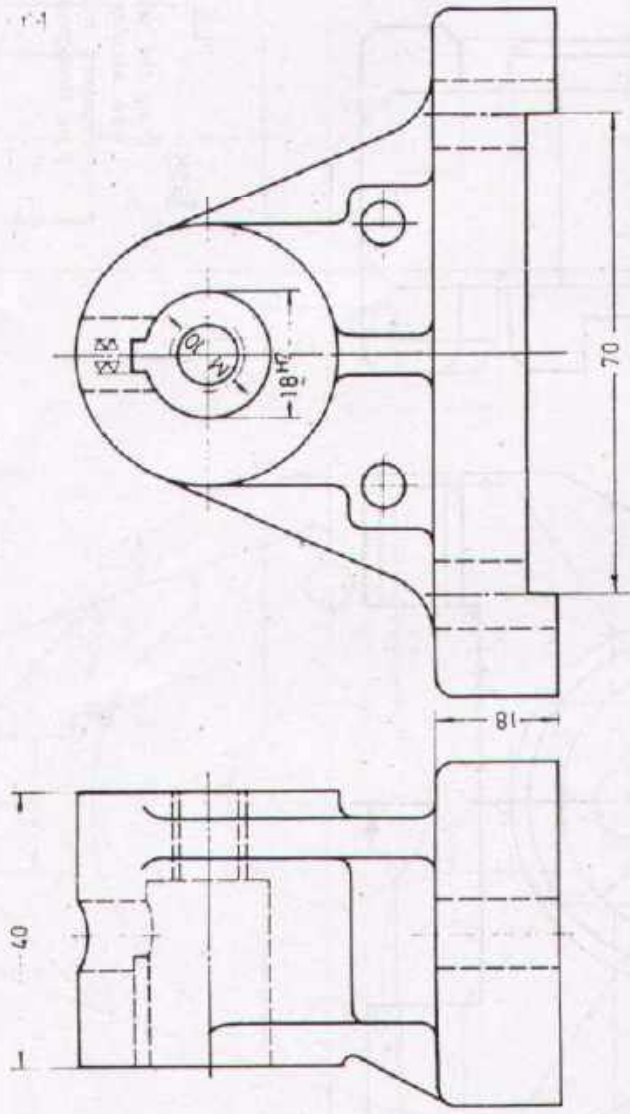
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
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DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING

PAK GERMAN TECHNICAL TRAINING PROGRAMME

Trade **1**
 Practice
 No 145



Task:

- 1 Draw the sectional side view (from left)
- 2 Draw the plan view.
- 3 Enter the surface symbols.
 Hole $\phi 18$ H7 fine finished.
 Surfaces to the size 40 finished
 Surfaces to the size 90 all sides roughed, all remaining surfaces neatly cast.

Scale 1:1 **PEDESTAL BEARING** Material GG-15

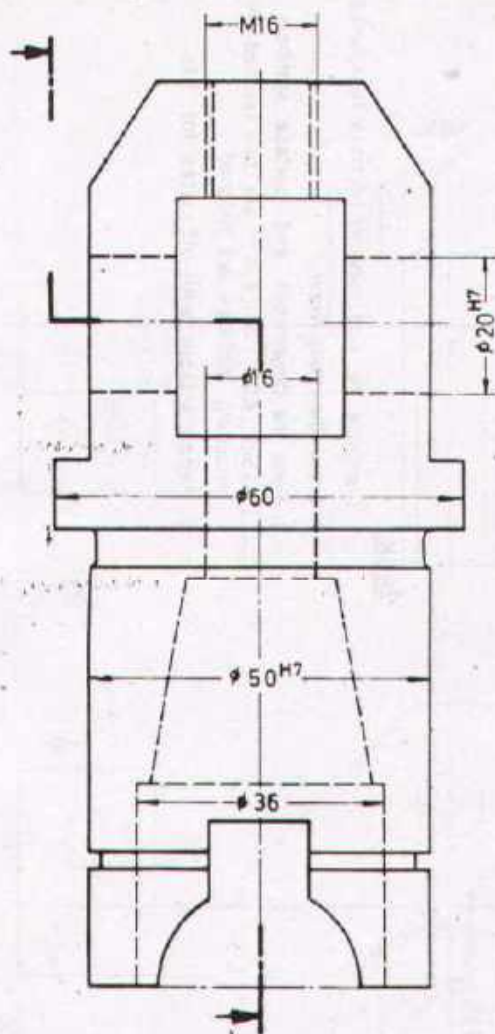
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
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DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING

PAK-GERMAN TECHNICAL TRAINING PROGRAMME

Trade
Practice **1**
No. 145



Task:


Draw the sectional side view (according to the given section) and the plan view.

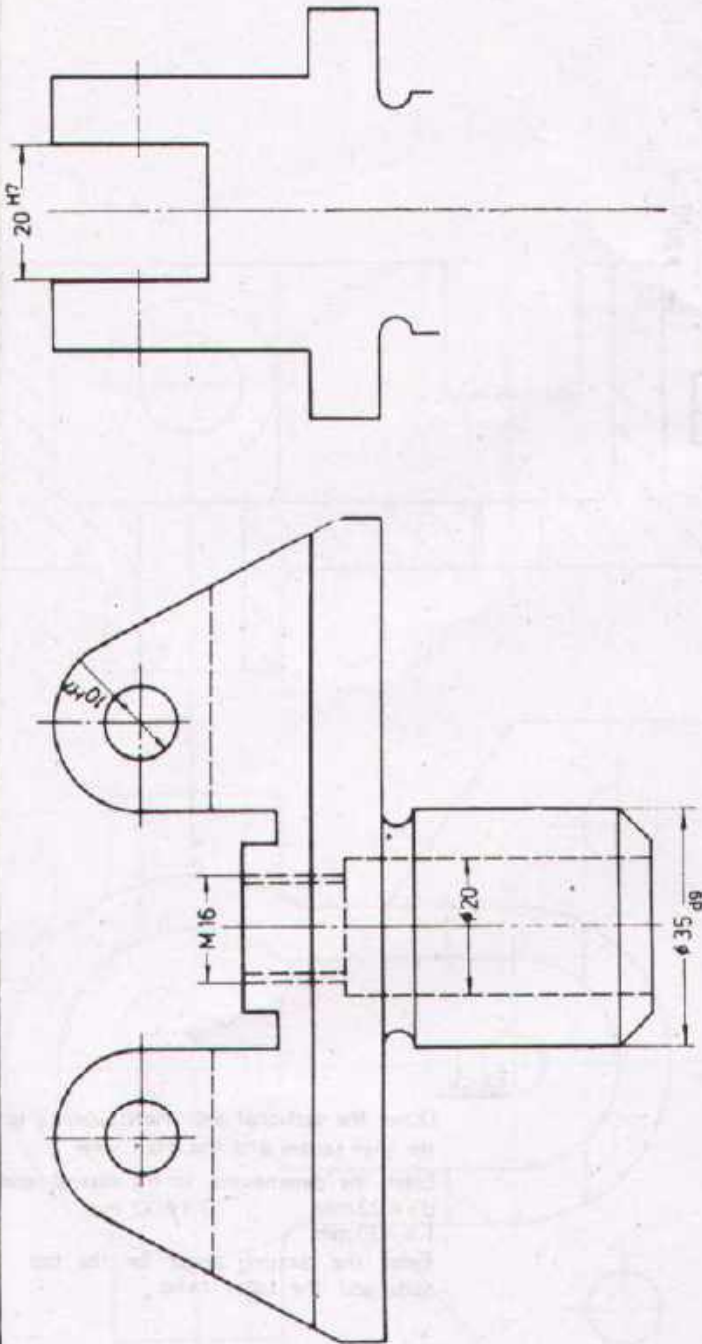
Enter the dimensions for the internal taper:

$d = \phi 22 \text{ mm}$ $D = \phi 32 \text{ mm}$

$l = 30 \text{ mm}$

Enter the setting angle for the top slide and the taper ratio.

Scale 1:1	LINKAGE		Material St 50 K
Drawn	Name Date	Checked	Name Date
 DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING PAK GERMAN TECHNICAL TRAINING PROGRAMME			Trade Practice 1 No. 147



Task:

1. Complete the side view in sectional representation
2. Draw the plan view.
3. Enter the dimensions and surface symbols.
 $\phi 35$ H7, $\phi 20$ H7 and $\phi 10$ H7 are fine finished. All remaining surfaces are roughed
4. Prepare a table with off-sizes for fits.

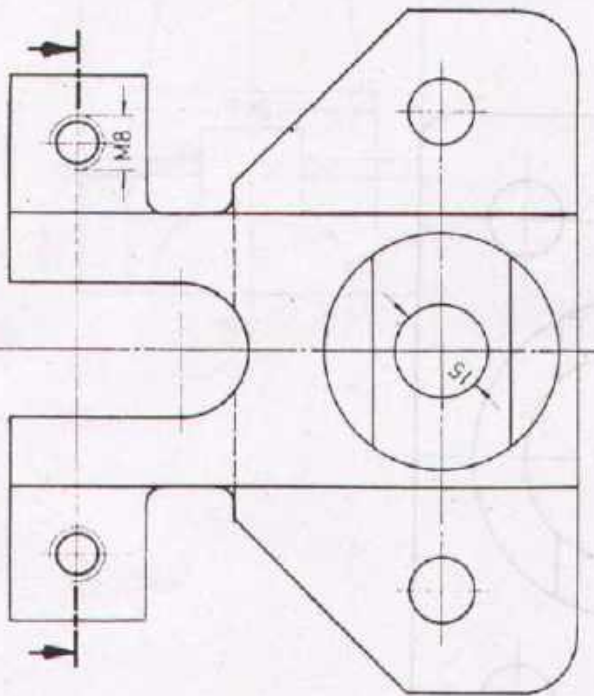
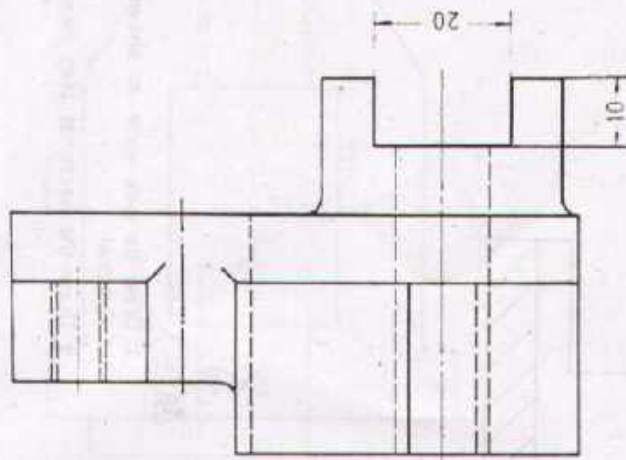
Scale 1:1	COMPENSATING LEVER		Material C 22
Drawn	Name _____ Date _____	Checked	Name _____ Date _____



DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING

PAK-GERMAN TECHNICAL TRAINING PROGRAMME

Trade Practice **1**
No. 148



Task:

- 1 Draw the sectional plan view according to the given section.
- 2 Enter the missing dimensions, and the required surface symbols.
Hole $\phi 15$ H7 fine finished
Slot 20 H7 finished
All remaining surfaces roughed.

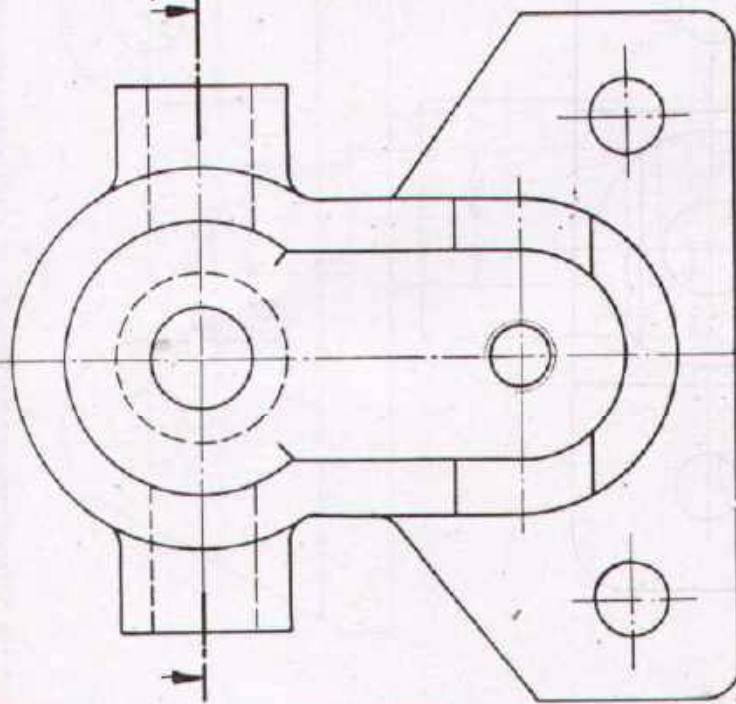
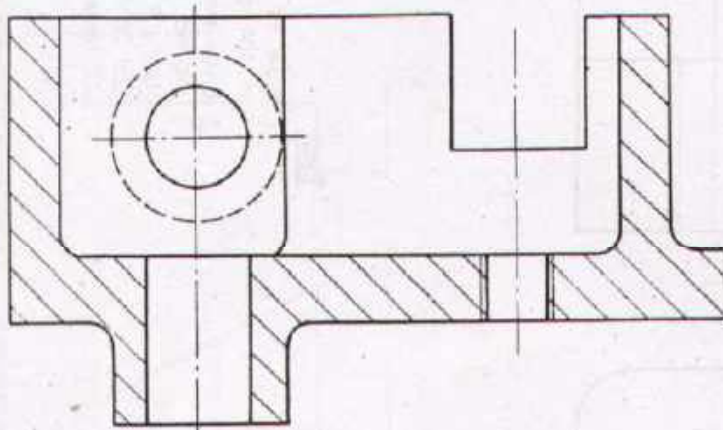
Scale 1:1	HANGING BEARING		Material GG-20
Drawn	Name _____ Date _____	Checked	Name _____ Date _____



DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING

PAK-GERMAN TECHNICAL TRAINING PROGRAMME

Trade Practice **1**
No. 149



Task:

1. Draw the side view as shown but not sectional.
2. Draw the sectional plan view.

Scale 1:1

LUG

Material GG-15

Drawn

Name _____
Date _____

Checked

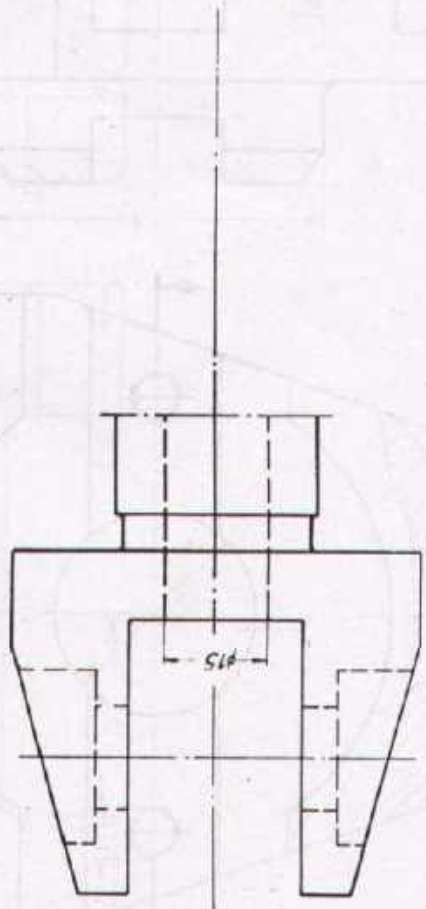
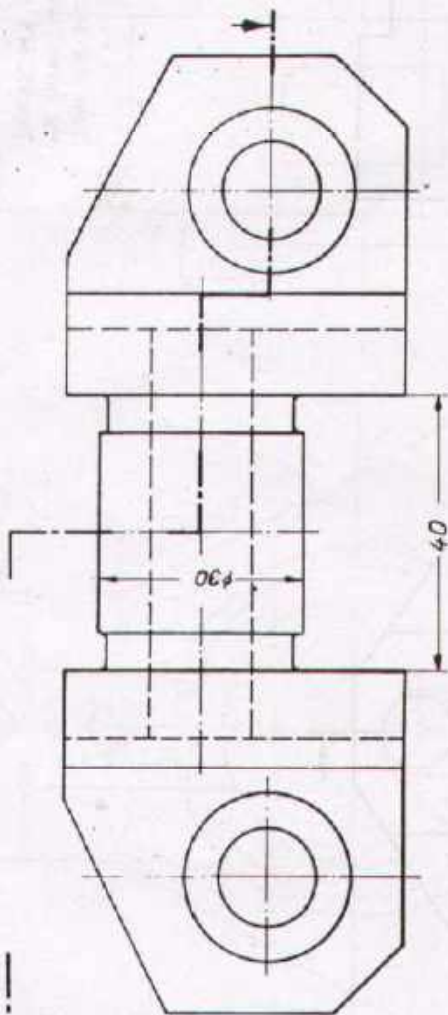
Name _____
Date _____



DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING

PAK-GERMAN TECHNICAL TRAINING PROGRAMME

Trade Practice **1**
No. 150



Task:

1. Complete the sectional plan view according to the given section.
2. Draw the side view.
3. Enter the dimensions and surface symbols.
 Shaft $\phi 30$ ground, hole $\phi 15$ H7 fine finished, distance 40 H7 fine finished, slot 25 finished.
 Remaining surfaces roughed

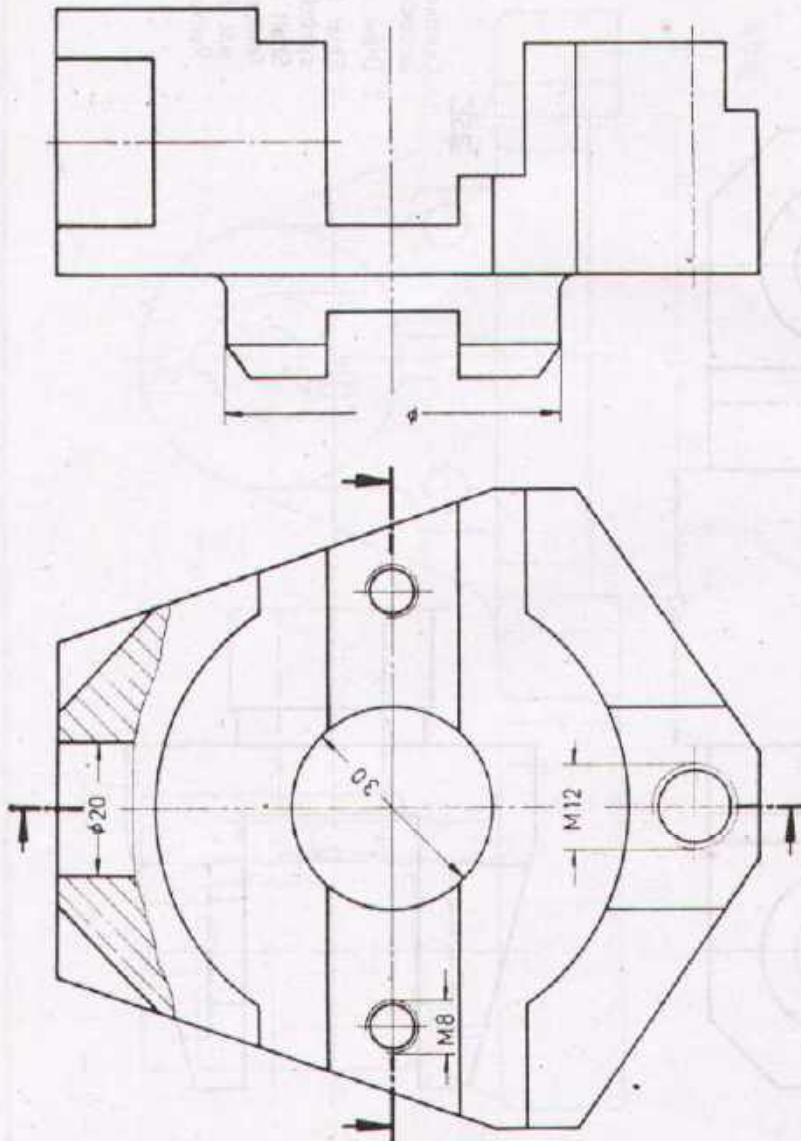
Scale 1:1 JOINT Material C 45

Drawn _____ Name _____ Date _____
 Checked _____ Name _____ Date _____




DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING
 PAK-GERMAN TECHNICAL TRAINING PROGRAMME

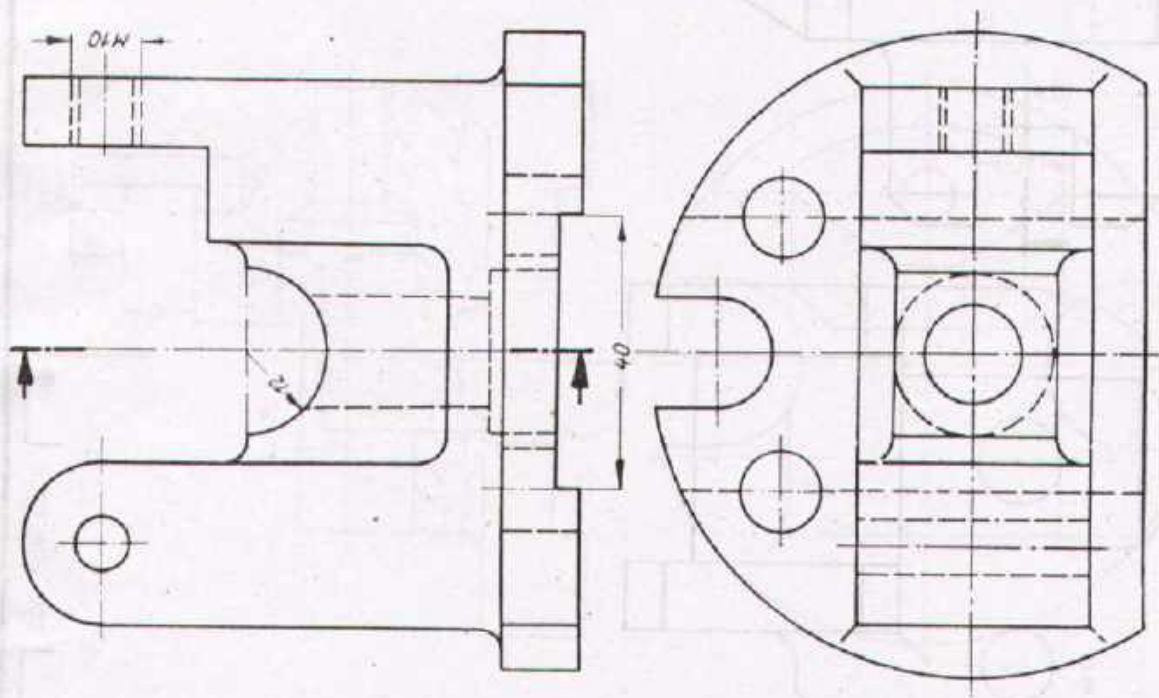
Trade **1**
 Practice
 No.151



Task:

Draw the sectional side and plan views according to the given sections
 Threads M8 and M12, hole $\phi 20$ and $\phi 30$ are throughout

Scale 1:1	CLAMPING PLATE		Material St. 50
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
 DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING PAK-GERMAN TECHNICAL TRAINING PROGRAMME			Trade Practice 1 No.152



Task:

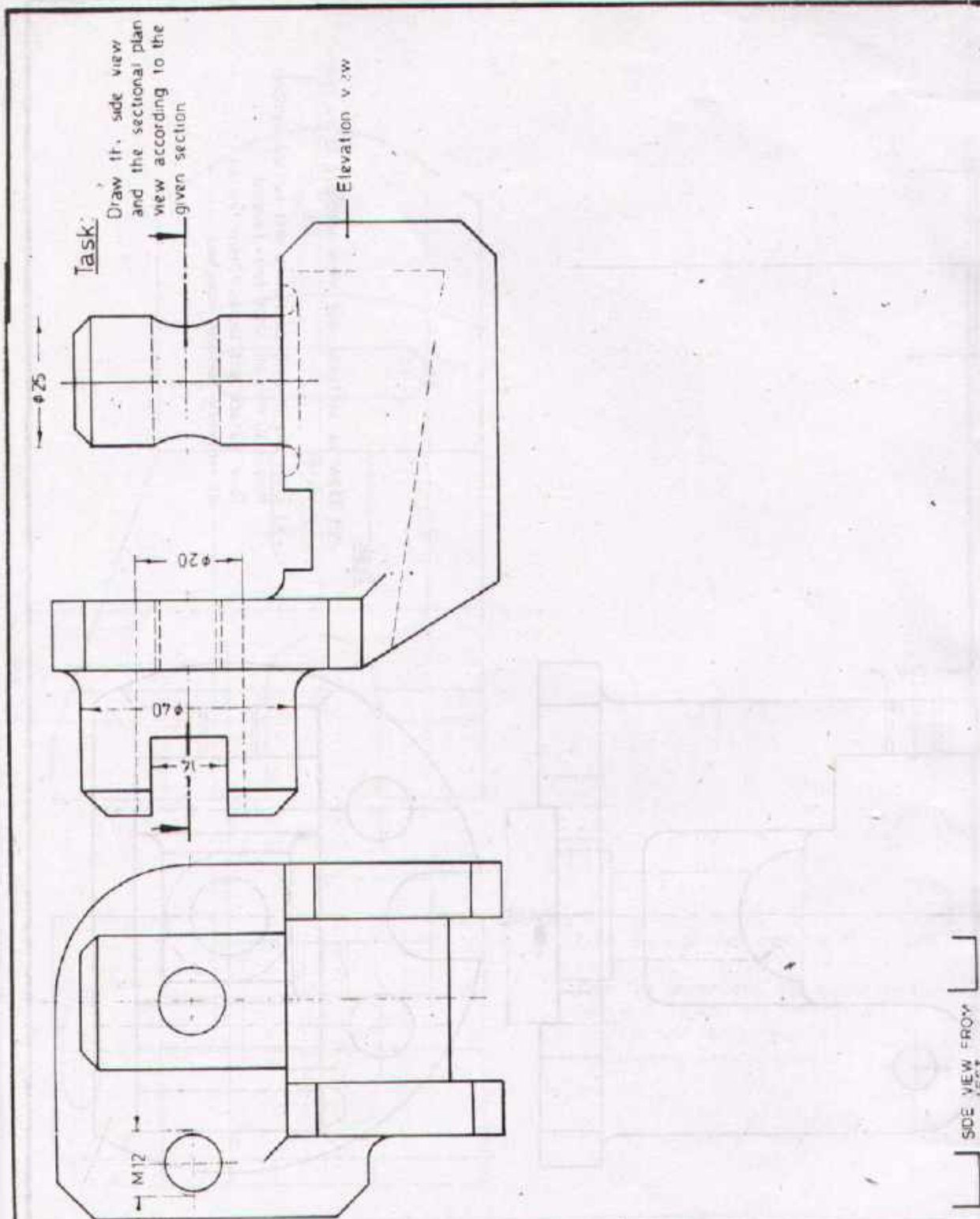
- a) Draw the sectional side view according to the given section
- b) Enter the missing dimensions and surface symbols.
 Recess: 40 mm all sides fine-finished.
 Base surface and radius 12mm finished.
 All remaining surfaces roughed.

Scale 1:1	VALVE CASING		Material GG-20
Drawn	Name _____ Date _____	Checked	Name _____ Date _____

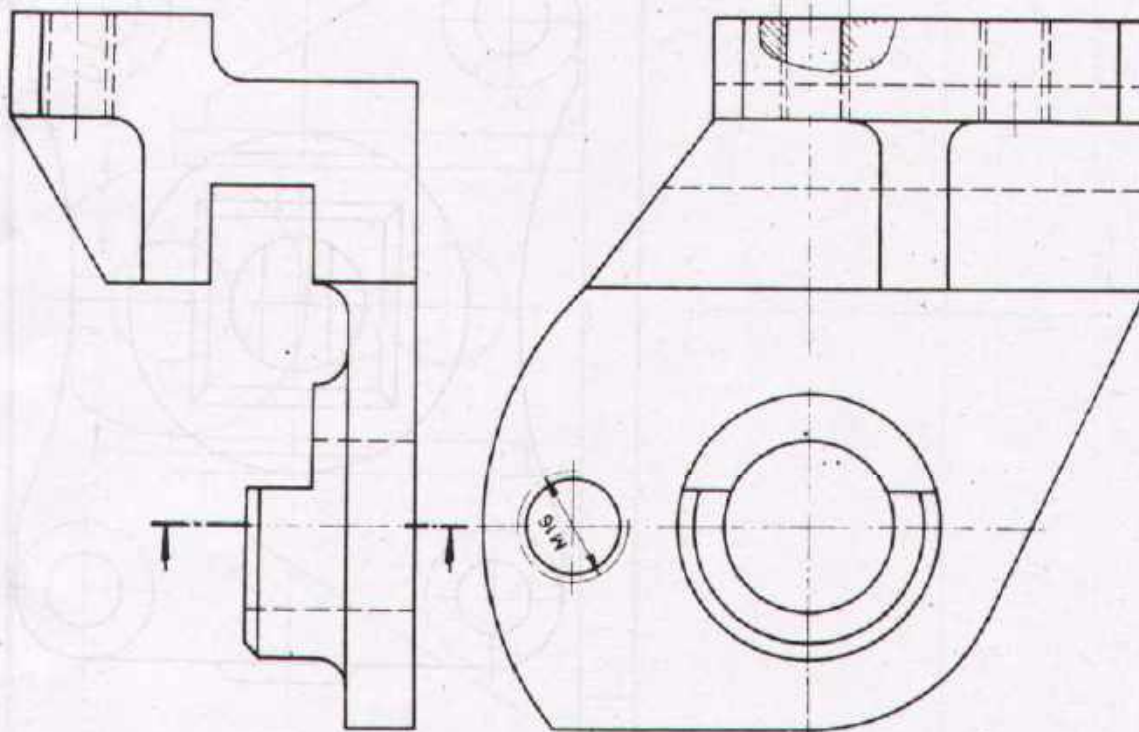


DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING
 PAK-GERMAN TECHNICAL TRAINING PROGRAMME

Trade Practice **1**
 No.153



Scale	SADDLE PIECE		Material St 37
Drawn	Name _____ Date _____	Checked	Name _____ Date _____



Task

Draw the sectional side view according to the given section.

Scale 1:1

STAND

Material St 33

Drawn

Name _____

Date _____

Checked

Name _____

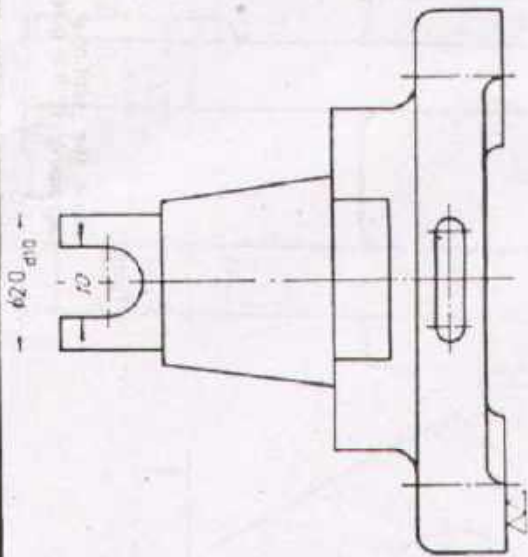
Date _____



DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING

PAK-GERMAN TECHNICAL TRAINING PROGRAMME

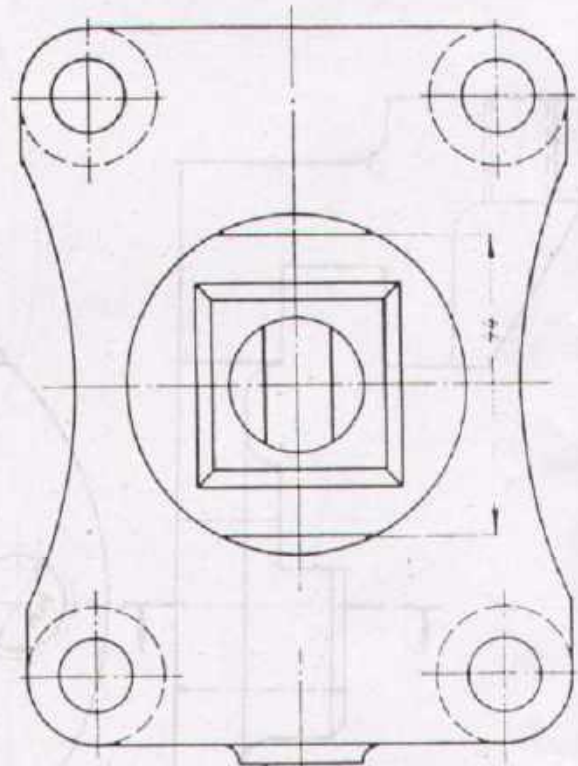
Trade **1**
Practice
No.155



Task

1. Draw the elevation view
2. Enter the missing dimensions and surface symbols

Finished: The surfaces corresponding to the sizes 4.4, $\phi 20$, 10 and the surfaces of the truncated pyramid.
All remaining surfaces are neatly cast



Scale 1:1	SUPPORT		Material GG-20
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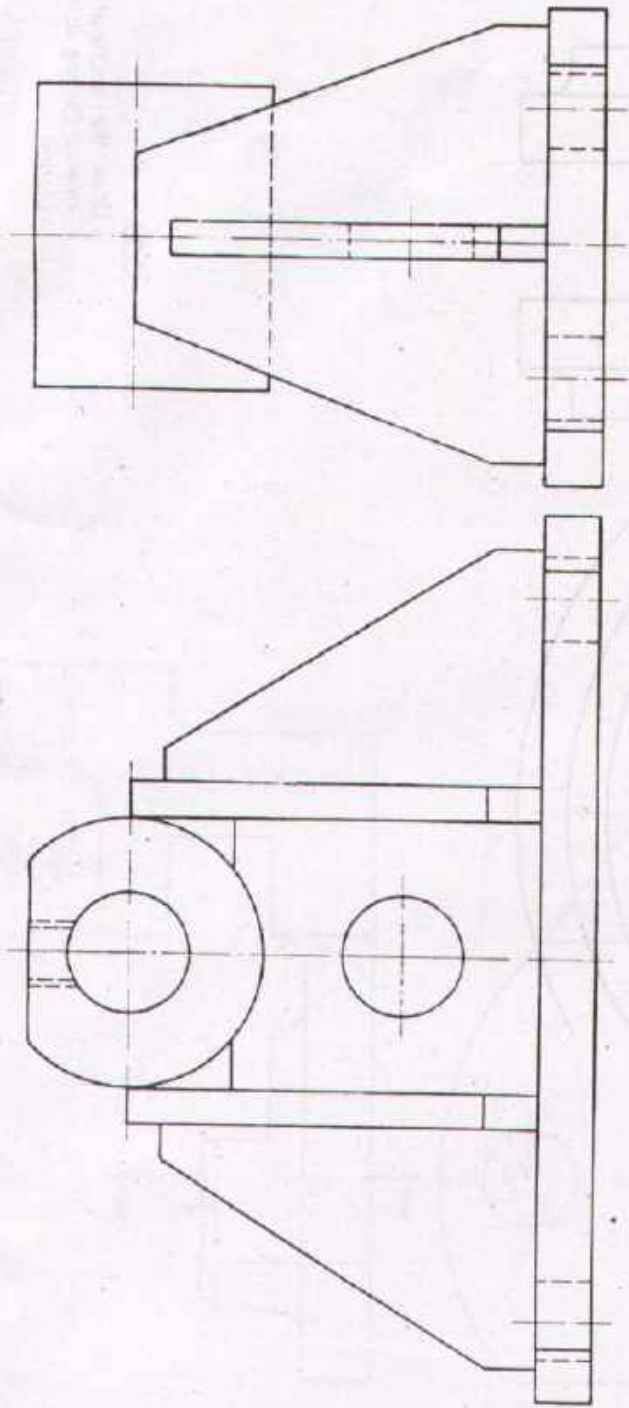
Drawn	Name Date	Checked	Name Date
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DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING

PAK GERMAN TECHNICAL TRAINING PROGRAMME

Trade **1**
Practice
No 156



Task:

1. The plummer block is a welded structure (construction)
2. Enter the dimensions, surface symbols and welding symbols.
 Bearing hole : fine finished
 Faces of hub : finished
 Top surfaces and base : roughed
 Thread M10x1 for grease nipple

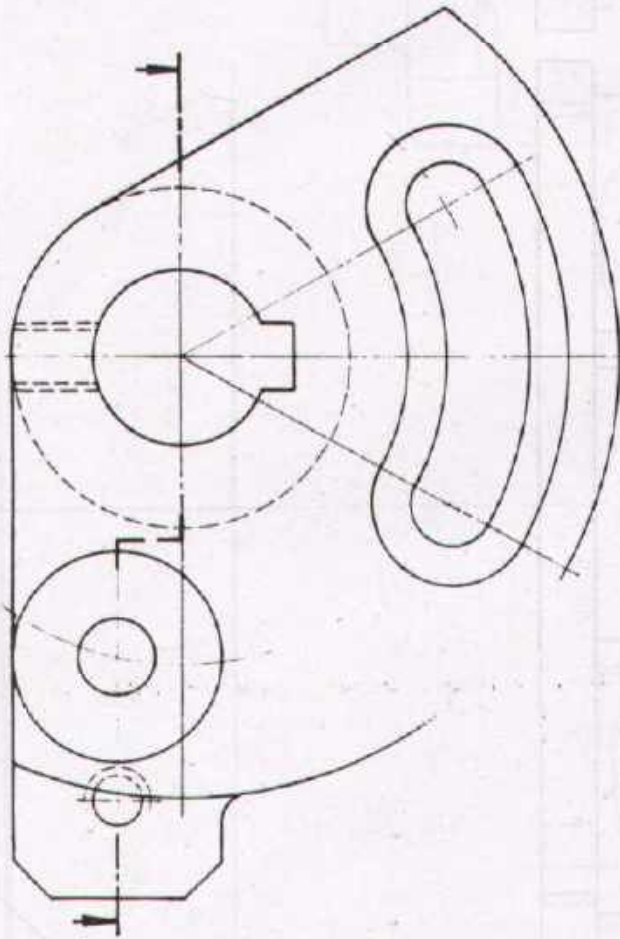
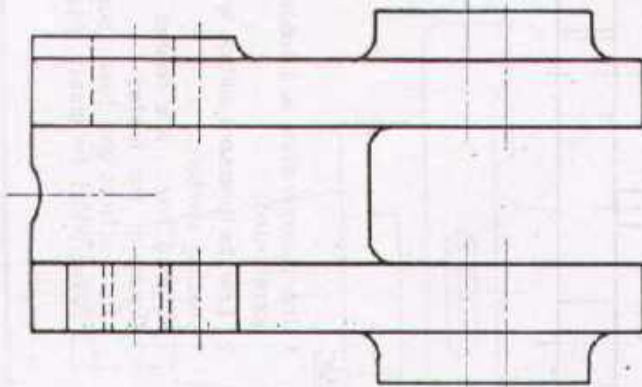
Scale 1:1	PLUMMER BLOCK		Material GG-20
Drawn	Name _____ Date _____	Checked	Name _____ Date _____



DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING

PAK-GERMAN TECHNICAL TRAINING PROGRAMME

Trade **1**
Practice
No.157



Task:

Draw the sectional plan view according to the given section.

Scale 1:1 **SWIVELLING LEVER** Material GG-1

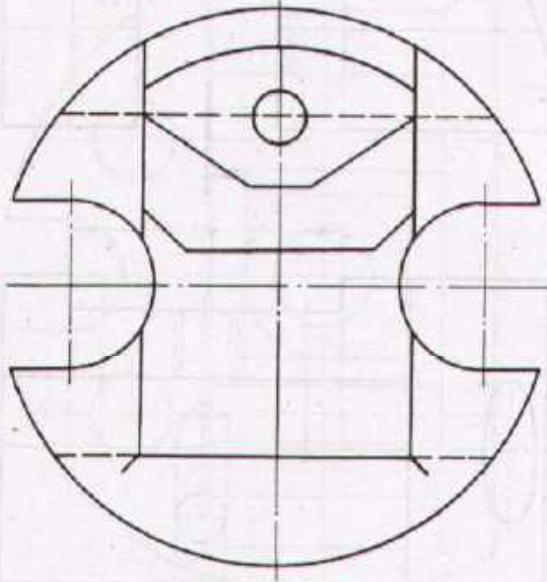
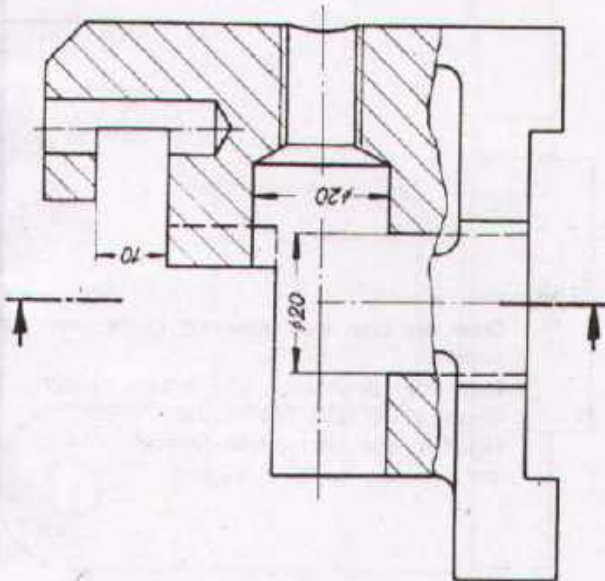
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
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DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING

PAV GERMAN TECHNICAL TRAINING PROGRAMME

Trade Practice **1**
No.158



Task:

Complete the elevation and plan views (only visible lines).
Draw the side view according to the given section.

Scale 1:1

CLAMPING PIECE

Material St. 37

Drawn

Name _____
Date _____

Checked

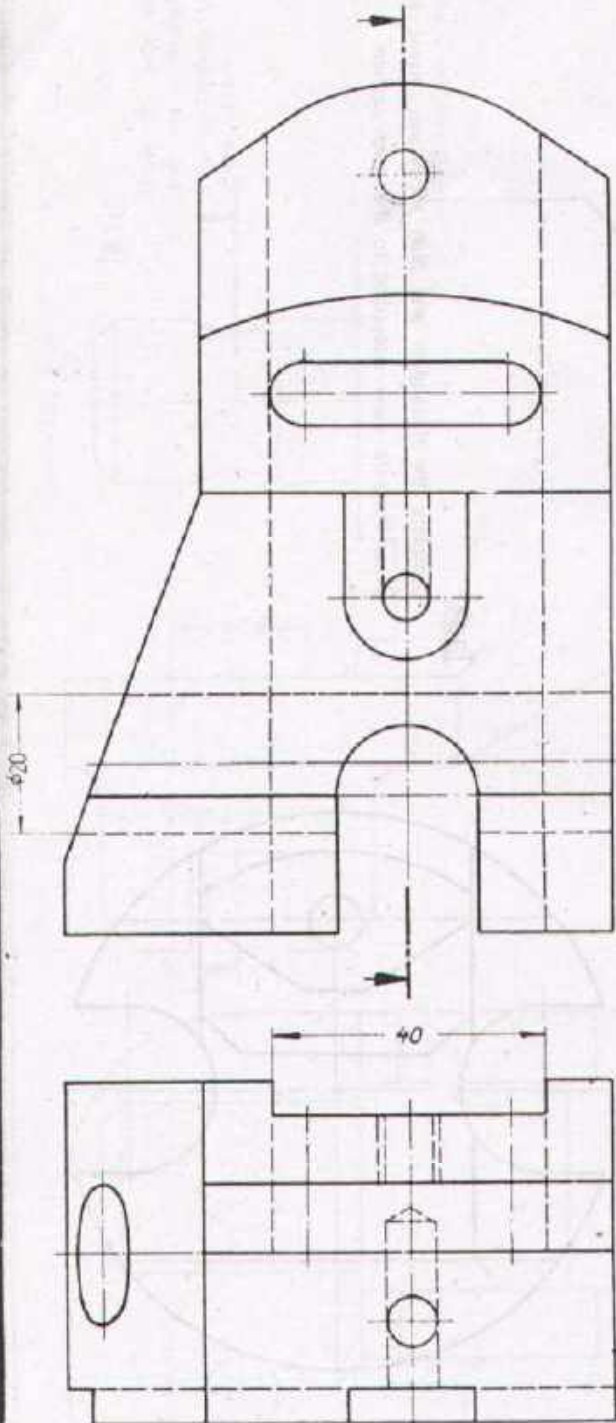
Name _____
Date _____



DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING

PAK-GERMAN TECHNICAL TRAINING PROGRAMME

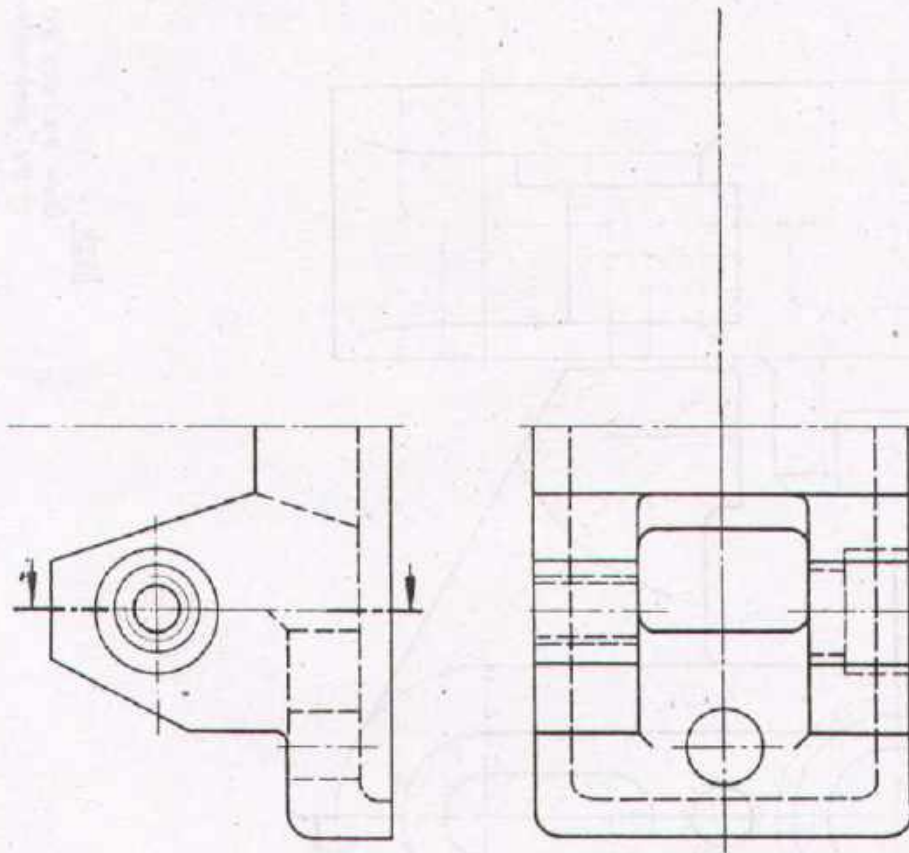
Trade **1**
Practice
No. 159



Task:

- 1 Draw the side view according to the given section.
- 2 Enter the dimensions and surface symbols
 Recess 40: all sides fine finished
 Hole φ20 and oblong hole: finished
 All remaining surfaces: roughed.

Scale 1:1	TRAP		Material St 50
Drawn	Name _____ Date _____	Checked	Name _____ Date _____



Task:

1. Complete the sectional right side of the elevation view of the symmetrical support.
2. Complete the plan view the left (without section).
3. Draw the side view from left (without section)
4. Draw the side view from the right according to the given section.

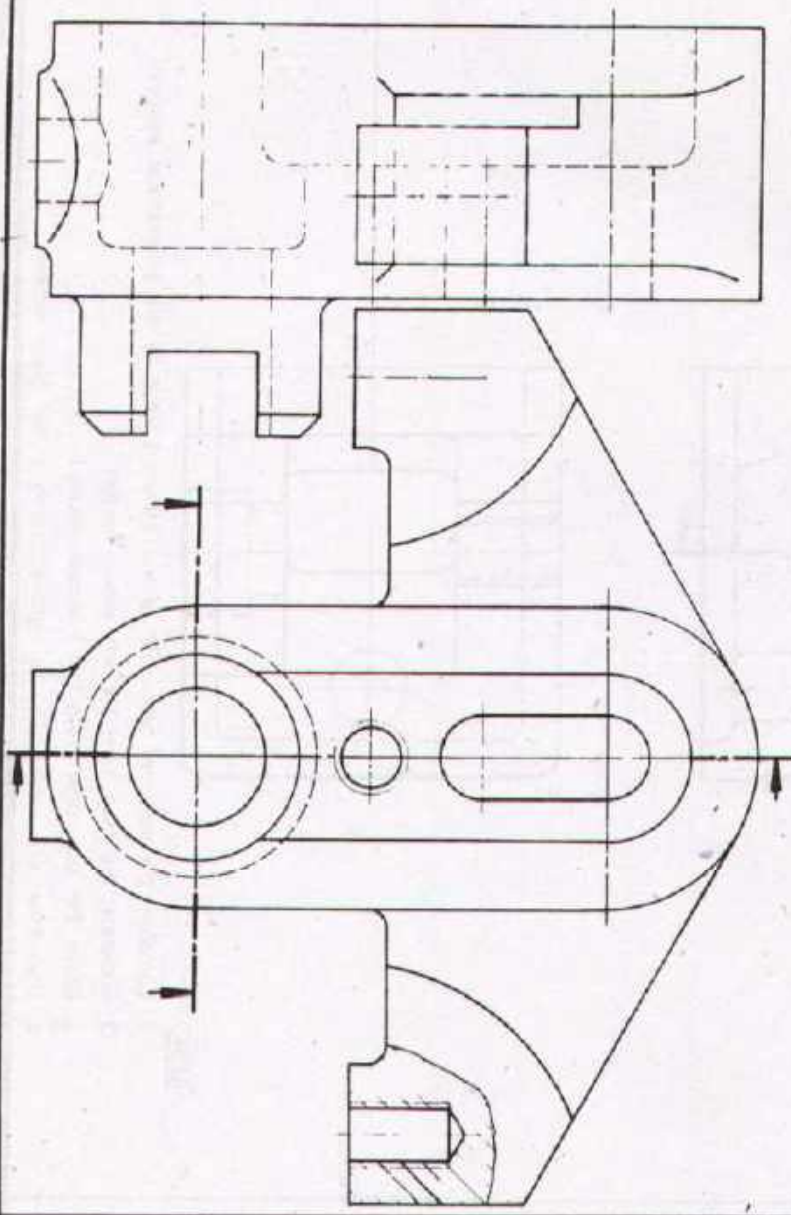
Scale 1:1	SUPPORT		Material GG-20
Drawn	Name _____ Date _____	Checked	Name _____ Date _____



DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING

PAK-GERMAN TECHNICAL TRAINING PROGRAMME

Trade **1**
Practice
No. 161



Task: Draw the side and plan views according to the given sections

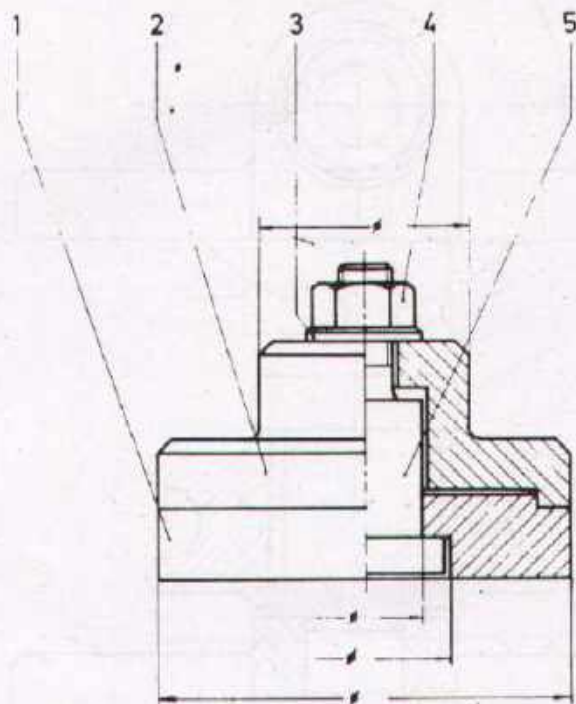
Scale 1:1	EXTENSION ARM		Material GG-15
Drawn	Name _____ Date _____	Checked	Name _____ Date _____



DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING

PAK-GERMAN TECHNICAL TRAINING PROGRAMME

Trade **1**
Practice
No. 162



Task:

Draw the workshop drawing of all parts.
Scale 1:1

[Sizes for detail drawing should be measured
from the assembly drawing]

1	Bolt	5	St 42	
1	Hexagon Nut M8	4	8	DIN 555
1	Washer 8,4	3	St 37	DIN 125
1	Top Plate	2	St 37	
1	Ground Plate	1	St 37	
No REQD	DESCRIPTION	PART No	MATERIAL	STANDARD

Scale 1:1

CONCENTRIC FASTENING

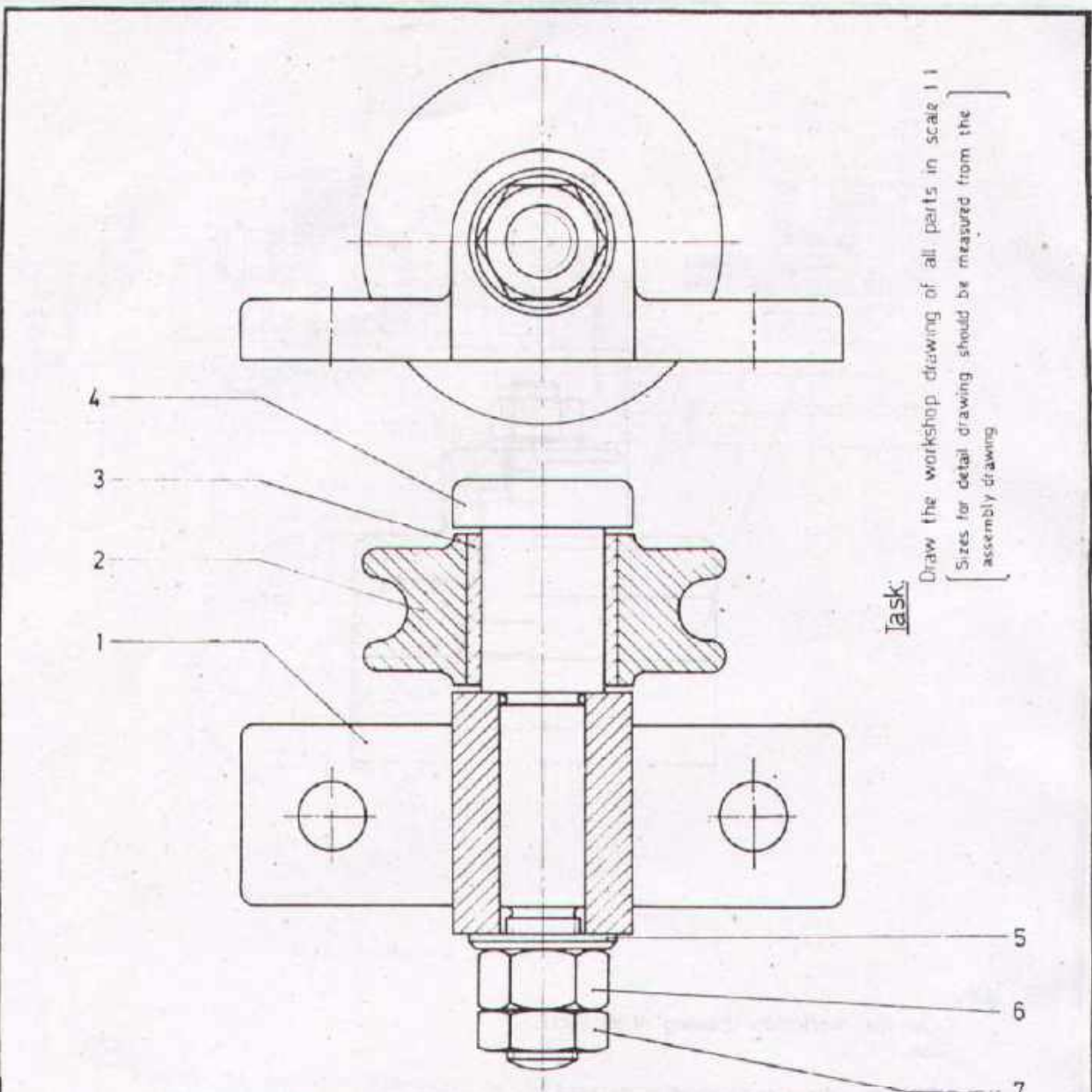
Drawn	Name _____ Date _____	Checked	Name _____ Date _____
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DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING

PAK GERMAN TECHNICAL TRAINING PROGRAMME

Trade
Practice **1**
No. 163



Task: Draw the workshop drawing of all parts in scale 1:1
 [Sizes for detail drawing should be measured from the assembly drawing]

1	Check Nut	M 12	7	4,6	DIN 936
1	Hexagon Nut	M 12	6	8	DIN 934
1	Washer		5	St 37	DIN 125
1	Bolt		4	St 50	
1	Bush		3	Brass	
1	Rope Wheel		2	Cast Iron	
1	Body		1	Cast Iron	
No REQD	DESCRIPTION		PART No	MATERIAL	STANDARD

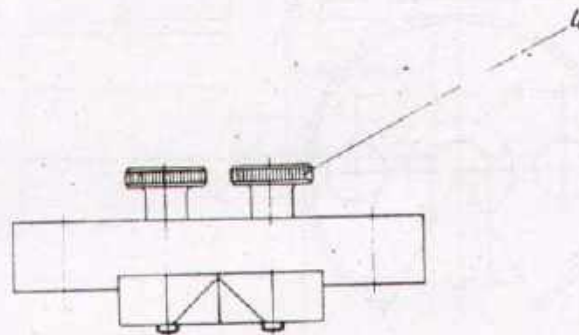
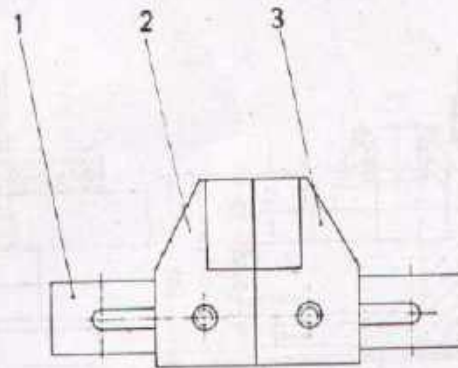
Scale 1:1	ROPE DRIVE		
Drawn	Name _____ Date _____	Checked	Name _____ Date _____



DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING

PAK-GERMAN TECHNICAL TRAINING PROGRAMME

Trade Practice **1**
No. 164



Task:

Draw the workshop drawing of all parts in scale 2:1

[Sizes for the detail drawing should be measured from the given assembly drawing]

1	Knurled Screw	M 3 x 15	4	5.8	DIN 464
1	Right Jaw		3	St. 37	
1	Left Jaw		2	St. 37	
1	Guide		1	St. 37	
No REQD	DESCRIPTION		PART No	MATERIAL	STANDARD

Scale 1:1

ADJUSTABLE GAUGE
(FOR SHEETS)

Drawn

Name _____
Date _____

Checked

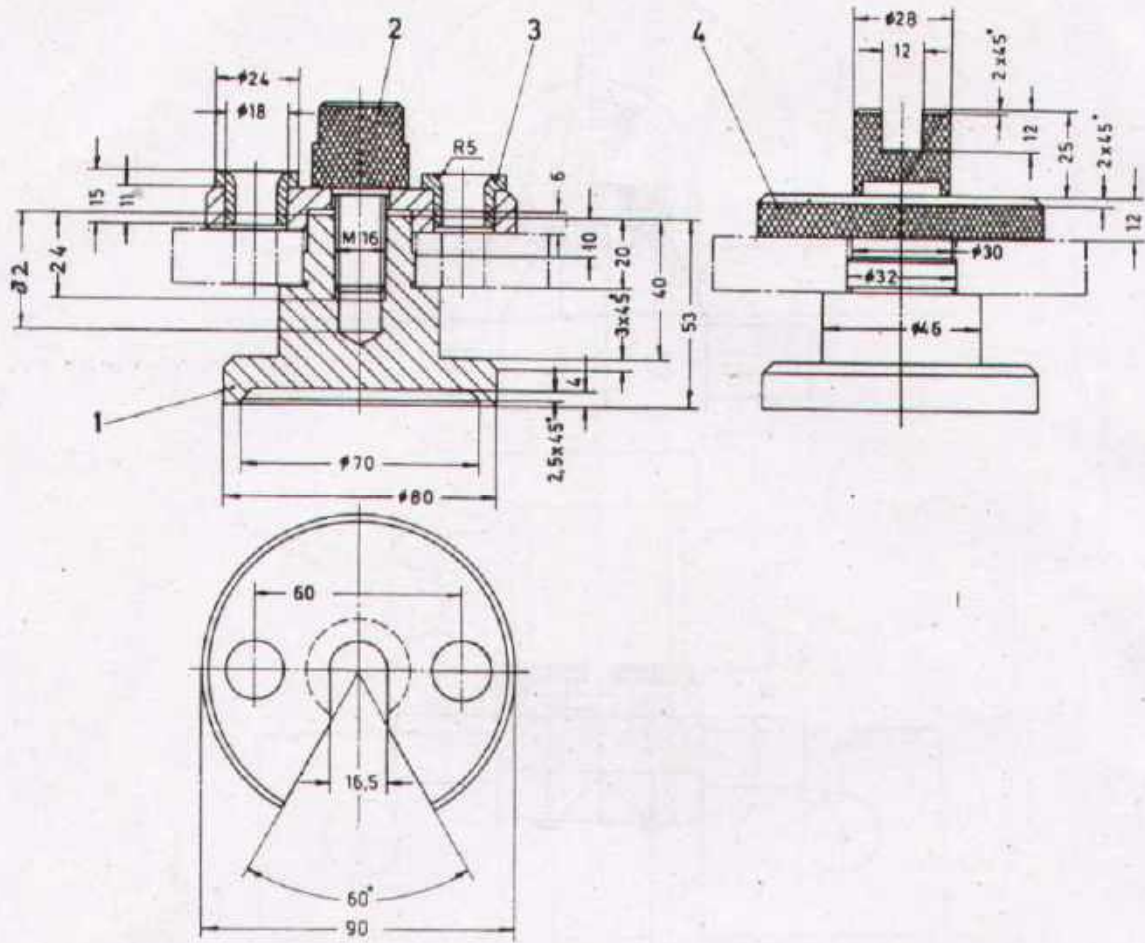
Name _____
Date _____



DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING

PAK-GERMAN TECHNICAL TRAINING PROGRAMME

Trade Practice **1**
No. 155



Complete the list of parts.

Task:

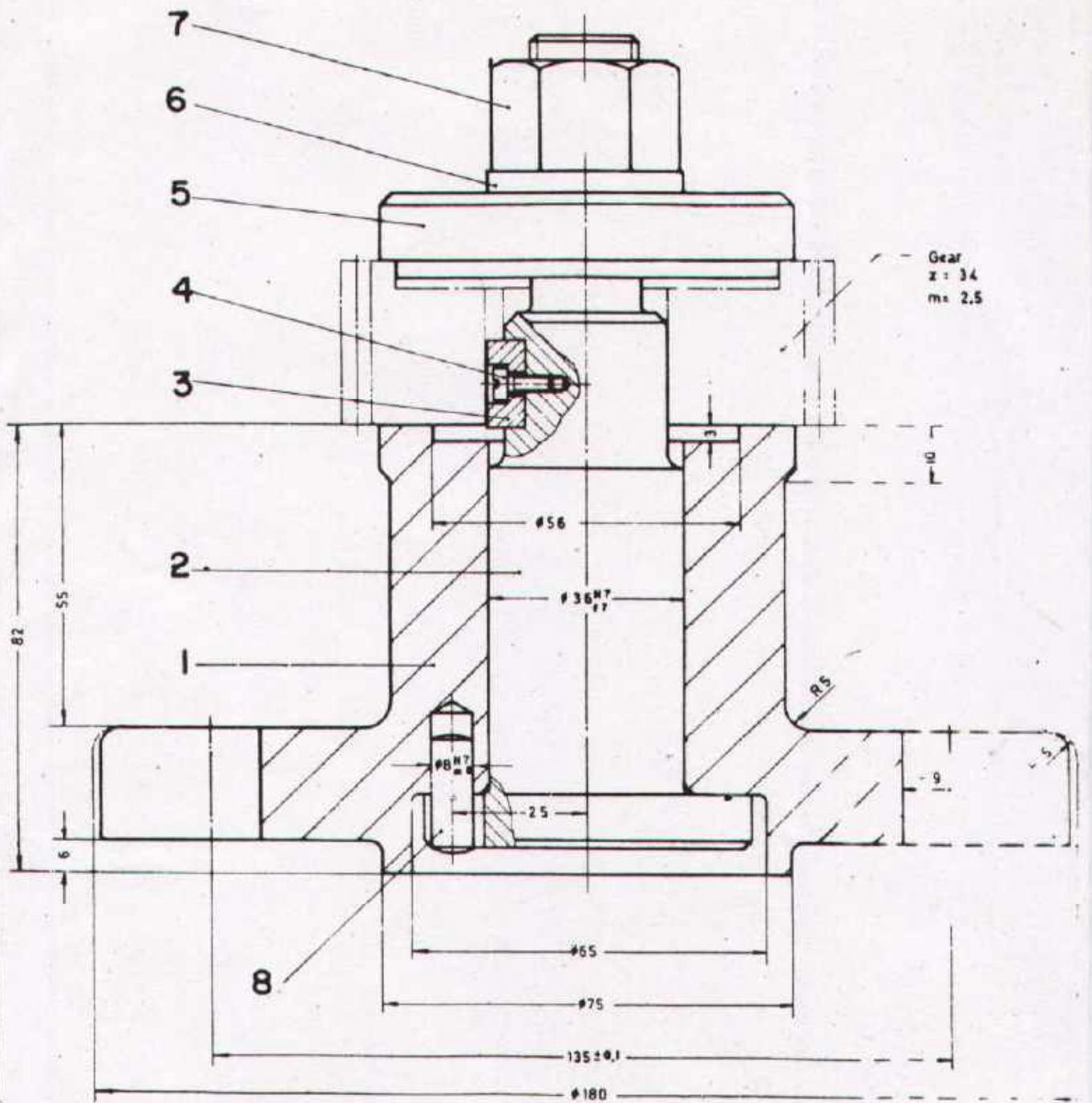
Prepare the workshop drawing of all parts of the Boring Jig in Scale 1:1.

Give all dimensions and surface symbols necessary for production.

No REQD.	DESCRIPTION	PART No.	MATERIAL	STANDARD

Scale 1:2 BORING JIG

Drawn	Name _____ Date _____	Checked	Name _____ Date _____
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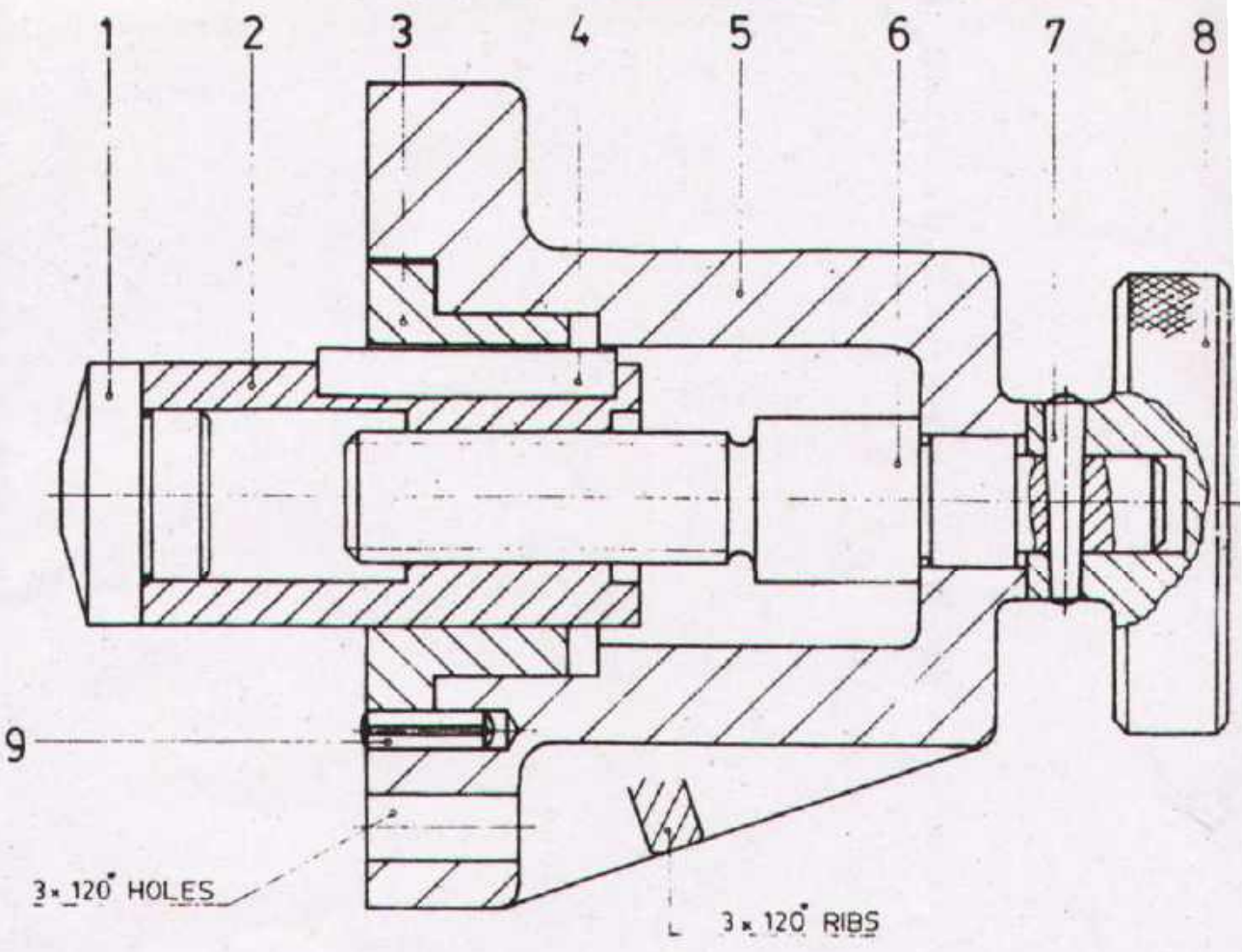
Task:

1. Read the function of the given device
2. Draw the detail drawings of part nos 1, 2 and 5 (part 1 in two views, Scale 1:2.5, part 2 & 5 Scale 1:1).
3. Give dimensions acc to standards.
4. Enter the finishing symbols and tolerances.

1	Wash	St 50	DIN 7
1	Wash	8.8	
1	Wash	St 37	DIN 125
1	Wash	St 42	
1	Wash	4.5	DIN 84
1	Wash	St 50	DIN 6885
1	Wash	St 42	
1	Wash	Cast Iron	
1	Wash	MATERIAL	STANDARD

Name _____
 Date _____
 Checked _____
 Name _____
 Date _____

	DEPARTMENT OF TECHNICAL LABOUR TRAINING POLYTECHNIC TRAINING PROGRAMME	Trade Practice 1 No 167
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Task:

1. Read the function of the drawing
2. Draw the detail drawings of part nos 1,2,3,5,6&8
3. Enter the dimensions.
4. Enter the tolerances and finishing symbols.

1	Grooved Dowel Pin $\phi 6 \times 16$	9		DIN 913
1	Hand Wheel	8	Cast Al.	
1	Taper Pin $\phi 4 \times 30$	7	St. 50	DIN 914
1	Spindle	6	St. 42	
1	Body	5	Cast Iron	
1	Parallel Key A 12x8x45	4	St. 50	DIN 6885
1	Guide Bush	3	Cast Iron	
1	Guide	2	St. 37	
1	Stop	1	St. 37	
No-REQD	DESCRIPTION	PART No.	MATERIAL	STANDARD

Scale 1:1

ADJUSTABLE STOP

Drawn

Name _____
Date _____

Checked

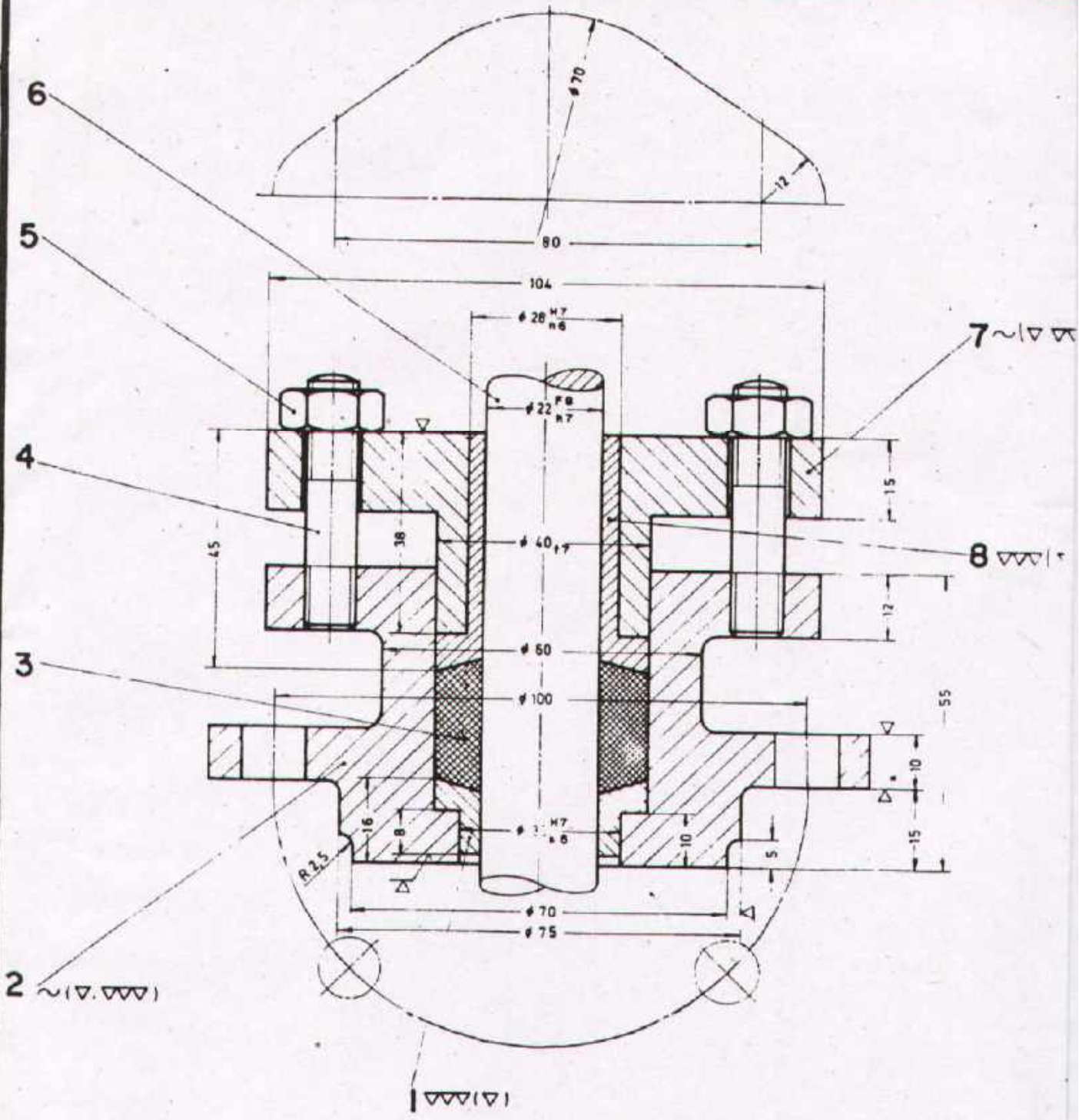
Name _____
Date _____



DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING

PAK-GERMAN TECHNICAL TRAINING PROGRAMME

Trade Practice **1**
No. 168



6

5

4

3

2 $\sim(\nabla.\nabla.\nabla)$

7 $\sim\nabla$

8 $\nabla\nabla\nabla$


$\nabla\nabla\nabla$

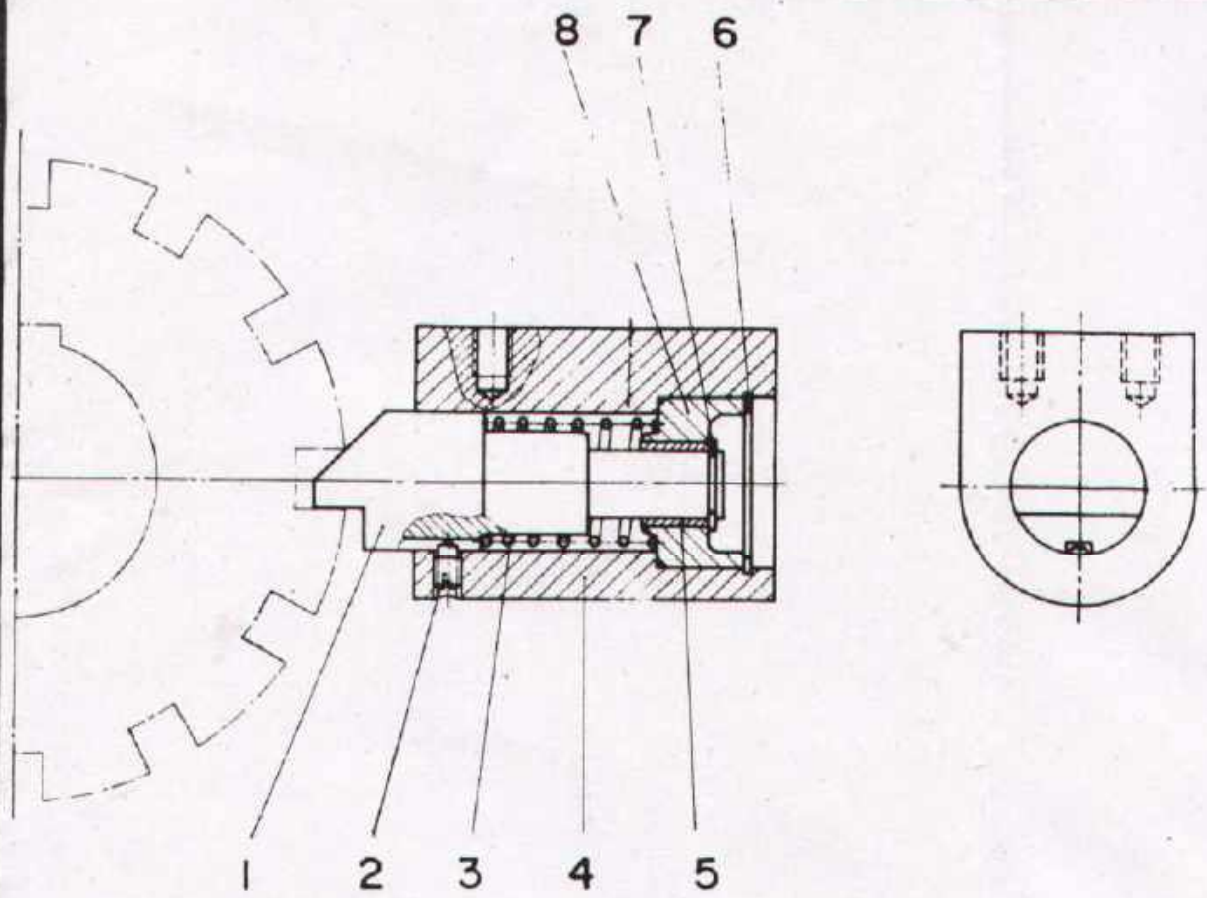
71

Task:

- 1. Write down function of the „STUFFING BOX“
- 2. Draw the detail drawings of part nos 1,2,3,7 & 8. Scale 1:1
- 3. Fill in the list of parts and select a suitable material for each part.

Scale 1:1	STUFFING BOX		
Drawn	Name _____ Date _____	Checked	Name _____ Date _____


	DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING		Trade 1 Practice No. 169
	PAK-GERMAN TECHNICAL TRAINING PROGRAMME		



Task

- 1 Write down the function of the given, RATCHET
- 2 Draw the detail drawings of part nos 1, 2, 3, 4, 5 & 8
- 3 Fill the list of parts acc to standard.

JOB TITLE		PART No.	MATERIAL	STANDARD
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
RATCHET				
Name	Date		Checked	

	DEVELOPMENT CELL FOR SKILLED LABOUR TRAINING		Trade Practice 1 No. 170
	<small>PAK-GERMAN TECHNICAL TRAINING PROGRAMME</small>		

