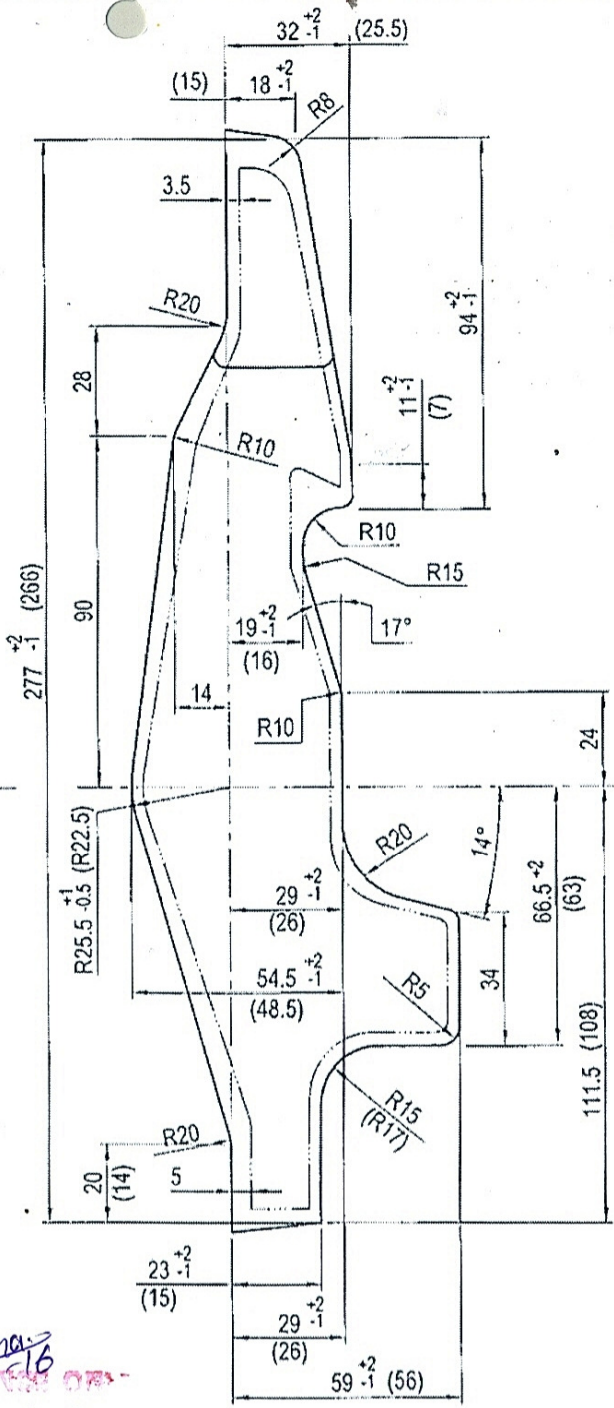
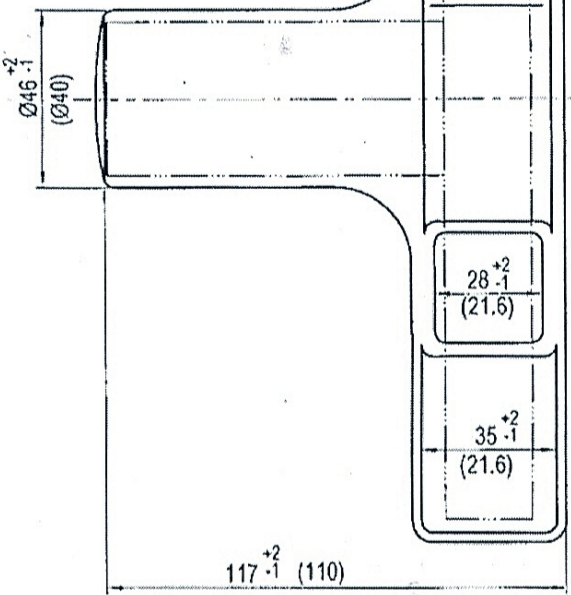


DRG.No: COT.F - 1087

Heat Treatment Schedule					
Operation	Furnace Setting	Temp.	time (hrs)	Cooling cond.	Total time (hrs)
Normalising	900°C	900-920°C	1 - 1.5	Air - 3.5 hrs	7 - 9
Hardening	860°C	850-870°C	1 - 1.5	Oil T ≤ 70°C	6 - 8
Tempering	520-600°C	520-610°C	2, before 1 test	Water	7 - 9



MATERIAL : AS STATED	GEN. TOL : I.S. 2102 (MED)
HARDNESS : AS STATED	CONDITION : AS STATED
	FINISH : ∞ (∞∞)

**NOTES:**

- Skewness (Shift of dies) up to 1 mm is allowed.
- Surface defects (Cracks, Hair line cracks, Rattails) are to be removed by stopping rough grinding. Depth of grinding pits left from scale after flushing off. Denting up to 0.5 mm of all allowance for machining are permitted.
- Flash left from fin after trimming should not be checked.
- Draft angle 6°
- Non specified edge radii up to R3 mm
- Curvature & Buckling up to 1 mm are allowed, scale is not permitted.
- Dimensions of the part without tolerance should not be checked.
- Finish dimensions are given in brackets.
- Basic Material to be Micro-tested as per ASTM E 381-84, acceptance standard C2, R2, & S2 and Microscopic determination of NMR as per IS:4163-2004, Type A, B, C, D & DS to limit these series 2, 2, 2, 3 & 0.5 respectively.
- Heat Treatment group IV, KT-115, Specn. OST 3-1686-80  
(The portion of the component indicated by dash in the store drg. shall be induction hardened to hardness 47-53 HRC to a depth of 2-6 mm.)
- Forging & finish component shall be subjected to MF. Forging / Component shall be free from cracks & other harmful defects.

**MATERIAL:** STEEL, 45XH2MΦA, TY 14-1-596-73  
**ALT. MATERIAL :** IS:5517 -1993, Gde 40Ni6Cr4Mo3,  
 (For Chemical composition only)  
 Mech. properties as per Album No. 45 to be achieved through suitable Heat Treatment.)

**Mechanical Properties :** (As per Album 45, Steel grade KT-115, group-IV)  
 Yield Point = ≥ 115 kg/mm<sup>2</sup>  
 Impact Strength = ≥ 4 kgcm/cm<sup>2</sup>  
 Reduction of area = ≥ 35  
 Elongation = 4 % FOR FLAT & 5 % FOR ROUND BAR  
 Hardness = 388 - 429 HB  
 (For further detail see Album 45 & OST 3 - 1686-80)

(Drg. based on Tech. document Album No. 43 sketch No. 36584 acc. to now amended drg.)

*Handwritten signature and date: 17-6-2016*

		STORE DETAILS		ORDNANCE FY. KANPUR DESIGN OFFICE		
		2A26.02.81 T-72		DIE FORGING FOR EXTRACTOR LOWER		
		PREPD	<i>[Signature]</i>			
		CHD				
JWMDO	<i>[Signature]</i>	THIRD ANGLE PROJECTION		DRG.No: COT.F - 1087		
JWM/SHOP		APPROVED		SCALE: 1:1	DATE: 12-05-2016	
UA & DATE	DETAIL	INTL	<i>[Signature]</i>	SHT 1 OF 1	REVISION	A
REVISIONS			DO/DO	DIR/DC	DIMNS. IN mm	