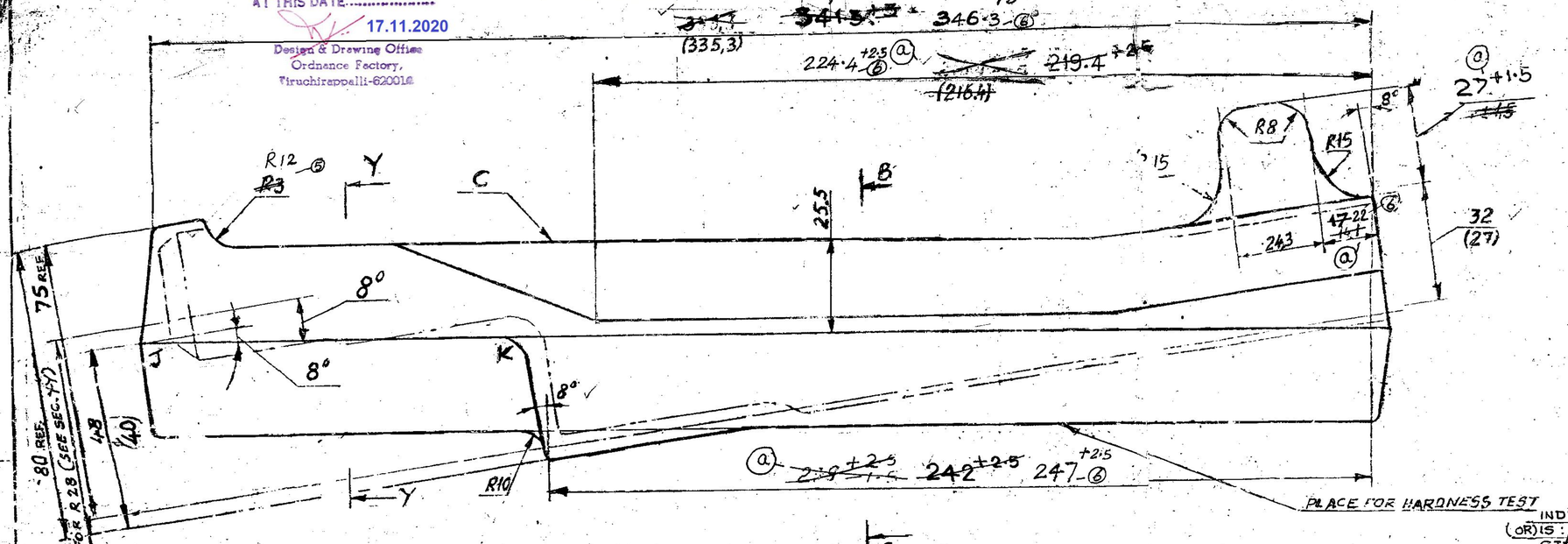
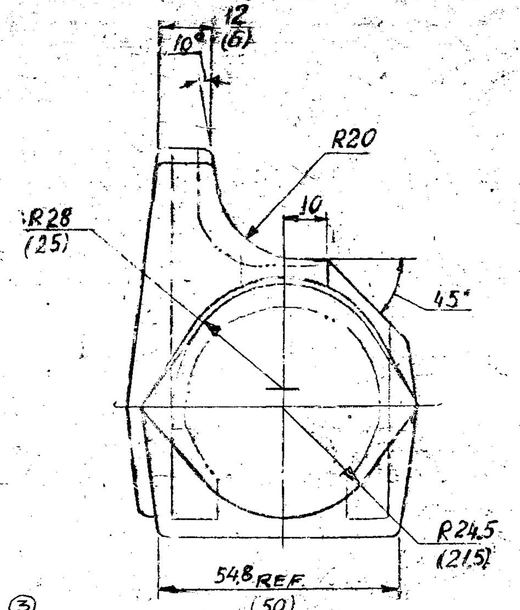
CERTIFIED CORRECT COPY
OF APPROVED DRAWINGS
AT THIS DATE.....
17.11.2020
Design & Drawing Office
Ordnance Factory,
Tiruchirappalli-620016

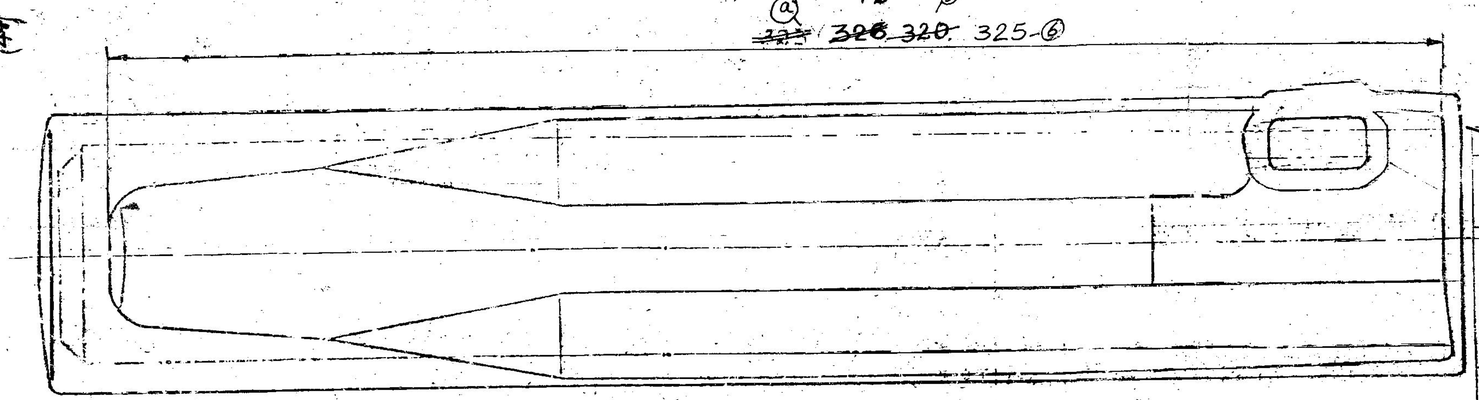
UN CONTROLLED COPY

FORGING DRAWING





(3) INDIGENOUS MATERIAL: BS:970 Pt-1/83 Gde 817 M40 OR IS:1570 (Pt-II)-1979 Gde 30Ni2Cr1Mo28 (TENSILE STRENGTH 1500 MPa Min)



(4) CHEMICAL COMPOSITION OF THE MATERIAL 30XPA

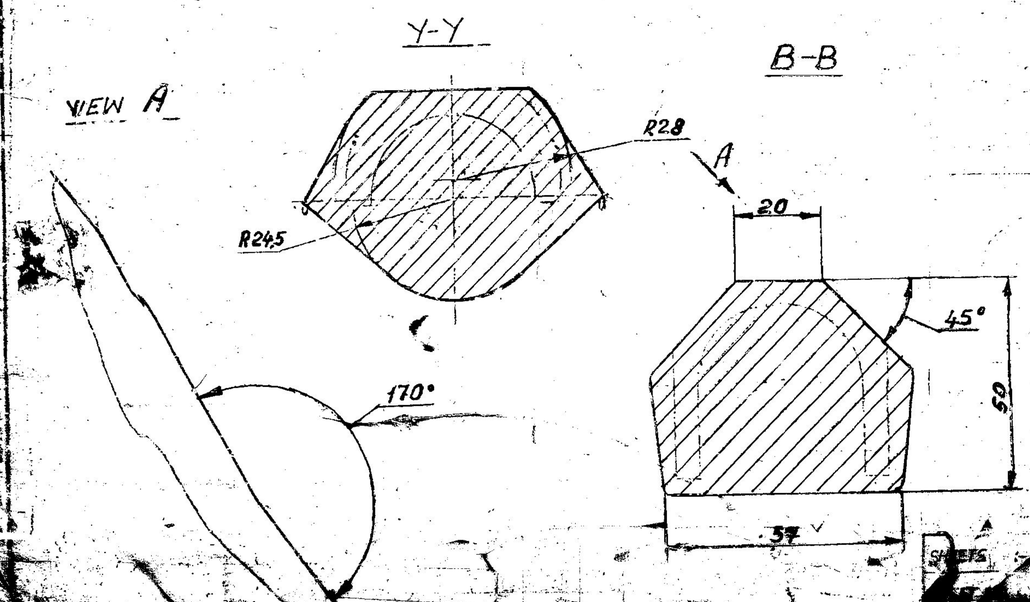
C	0.28	0.34	0.27 – 0.33
Si	0.90	1.20	0.9 – 1.2
Mn	0.50	0.80	0.7 – 1.0
Ni	0.25	0.50	0.425 max.
S	0.025	Max.	0.025 max.
P	0.025	Max.	0.025 max.

HEAT-TREATMENT PROCESS CHART

NOMENCLATURE AND IDT. NO.	STEEL GRADE	TYPE OF OPERATION	EQUIPMENT	TEMP IN °C	TIME	COOLING MEDIA	TEXTURE	HARDNESS
TRAY C 5116	30XPA	NORMALIZING & HEATING	CHAMBER ELECTRIC FURNACE OR FURNACE WITH A PUSHER	850-870	3 HOURS PUSHER PERIOD IS 15 MINUTES	AIR	75% FROM THE SURFACE BUT NOT LESS THAN 2 PCS.	HRC 41.5 TO 51.5

SCRAPING BRIGHT FOR HARDNESS TEST, HARDNESS TEST

FOR COMPONENT NO. (1)
2A42-05-116 TRAY



NOTES :-

1. DIMENSIONS ARE IN MM
2. SCALE :- NOT TO SCALE
3. FIRST ANGLE PROJECTION
4. HEAT TREATMENT :- NORMALIZING HARDNESS HB 217 MAX.
5. CLEANING FROM SCALING - SHOT BLASTING OR PICKLING
6. DISPLACEMENT OF PARTING LINES :- NOT MORE THAN 1.0mm
7. REMAINDER OF BURR ON THE PARTING PLANE SHOULD NOT EXCEED 1.4mm. 'Y' PORTIONS MARKED "JK" NOT TO BE CHECKED!
8. CURVATURE SHOULD NOT EXCEED 1.2mm ON PLANE "C"
9. SURFACE DEFECTS NOT MORE THAN 0.5mm DEEP
10. UN-SPECIFIED DRAFT ANGLE 7°
11. UN-SPECIFIED RADII 2mm
12. ALLOWANCES AS PER CLASS II GOST 7505-74 M1
13. TOLERANCES AS PER CLASS II GOST 7505-74 C3
    i) HORIZONTAL +1.9 / -1.0 EXCEPT SPECIFIED
    ii) VERTICAL +1.9 / -1.0
14. DIMENSIONS WITHIN BRACKETS ARE FOR MACHINING
15. MATERIAL :- 30XPA, OST 3-98-80
16. RAW MATERIAL SIZE :- 65ø x 395 LONG
17. WEIGHT OF THE FORGING :- 6.0 Kgs.
18. QUALITY OF FORGED SURFACE AS PER GOST 8479-70

(3) THE FINISHED COMPONENT SHOULD ATTAIN A HARDNESS RANGE OF HRC3 41.5 TO 51.5 AFTER FINAL HEAT TREATMENT

(4) INDIGENOUS MATERIAL: IS 4367-91, 25 Cr 13 Mo6 M' OR IS 5517, 25 Cr 13 Mo6 M' TEST SAMPLE SHALL BE HEAT TREATED AND TESTED TO LRS 63 mm
AUTHORITY: CQA(N.S.) CHAPUR LY. NO. MQA-3/TS/8 Dt. 2-5-97

TESTED FOR MATERIAL (4)
LETTER No
MQA-3/TS/8 dt. 2.5.97

H (6)	DA-No. 007/18 Dt. 29.10.18	Dimn. Amended					
G (5)	DA-No. 02/02 Dt. 23.3.02	[illegible]	23.5.02				
F (4)	DANO. 048/97 Dt. 7.8.97	[illegible]	7/8/97	UPDATED	DA No. 022/97. Dt. 23-3-97		
				E (3)	DA-NO. 058/96 Dated 27/6/96	(1)	STORE DRG. NO ADDED
				D (2)	DANO. 038/96 Dt. 18/4/96	B	Drawing updated. New Negative prepared
				C (1)	DA NO. 039/95 Dt. 13.4.95	AMEND-MENTS	DESCRIPTIONS/DETAILS

DRAWN	CHECKED	APPROVED	PROJECT	WM/PROJECT
[illegible] 11-8-89				

ORDNANCE FACTORY TIRUCHIRAPALLI-16

DRG. NO. 64C 5116 200 H2