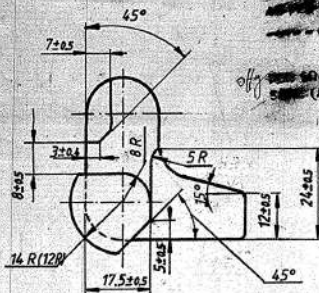
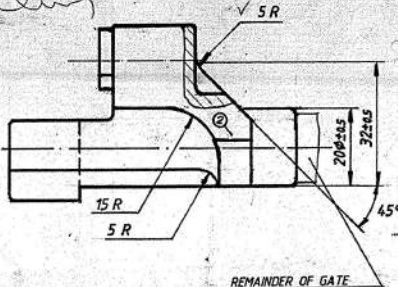


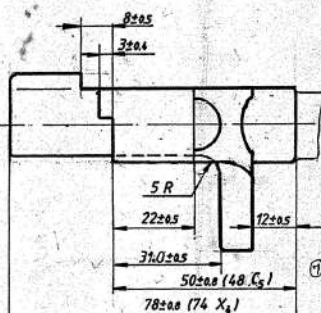
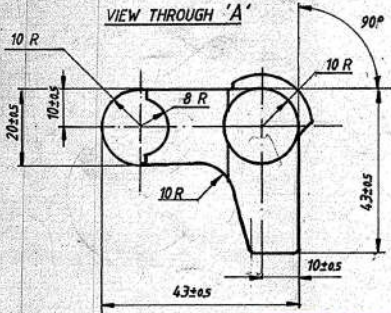
VIEW THROUGH 'S'



CASTING DRAWING



VIEW THROUGH 'A'



CERTIFIED CORRECT COPY OF APPROVED DRAWINGS AT THIS DATE 17.11.2020

Design & Drawing Office
Ordnance Factory,
Tiruchirappalli-620016

1. DIMENSIONS ARE IN mm.
2. SCALE - 1:1
3. FIRST ANGLE PROJECTION
4. HARDNESS AFTER PRELIMINARY HEAT-TREATMENT HB 269 MAX.
5. UN-SPECIFIED CASTING RADII 1.5 mm.
6. CASTING DEFECTS ON NON MACHINED SURFACES ARE PERMITTED AS PER GOST OST 3-4365-79
7. IMPACT STRENGTH SHOULD BE CONTROLLED ON THE SPECIMENS IN ACCORDANCE WITH PARA 3.5 AND 3.6 GOST 977-75
8. CORRECTION OF CASTING DEFECTS ARE ALLOWED
9. CASTING DRAFT ANGLE UP TO 1°.

10. TECHNICAL REQUIREMENTS OF CASTING BLANKS AS PER OST 3-4365-79
11. WEIGHT OF THE CASTING 0.30 Kgs.
12. MATERIAL - 30X1CA; OST 3-4365-79. R_z 80
13. SURFACE FINISH √ MAX.
14. SPECIAL TEST - MAGNETIC FLAW DETECTION.
15. CLEANING - SAND BLASTING.
16. CASTING BELONGS TO GROUP II, OST 3-4365-79 (STRENGTH CATEGORY KT 55)

IND. MATL. AND RADIOGRAPHIC TEST ADDED IN SHEET NO.2

SHEETS: 1/2

CHEMICAL COMPOSITION OF THE MATERIAL 30X1CA		MECHANICAL PROPERTIES OF THE MATERIAL 30X1CA	
C	0.25 - 0.35	ULTIMATE STRENGTH	75 Kgf/mm ²
Si	0.90 - 1.20	YIELD STRENGTH	55 Kgf/mm ²
Mn	0.80 - 1.10	RELATIVE ELONGATION	10%
Cr	0.80 - 1.10	IMPACT STRENGTH	3 Kgf/cm ²
Ni	0.40 Max.		
S	0.040 Max.		
P	0.040 Max.		

FOR COMPONENT NO. 2442-05-014-CARRIER

LETTER NO. MIRA-B/T-3-B/1-A-6/11/6-97

1. ACCEPTANCE OF CASTING IS CARRIED OUT AS PER GOST 977-75, PARAGRAPH TWO AND THREE, BUT WHILE MANUFACTURING CASTING AS PER SMELTED MODEL AS PER OST 3-4365-79
2. MECHANICAL PROPERTIES OF STEEL IS DETERMINED ON THE SPECIMENS, CUT FROM THE TEST BARS AS PER GOST 977-75 AFTER CARRYING OUT COMPLETE HEAT-TREATMENT PROCESS
3. TENSILE TEST IS CARRIED OUT AS PER GOST 1497-73 ON CYLINDRICAL SPECIMEN WITH DIAMETER 10 mm WITH LENGTH 50 mm. (1 SAMPLES) IN 5 mm DIAMETER WITH 25 mm LENGTH IS PERMITTED
4. DETERMINATION OF IMPACT STRENGTH IS CARRIED OUT AS PER GOST 9454-78 ON THE SPECIMAN OF TYPE I AT NORMAL TEMPERATURE AND AS PER 9454-78 AT LOW TEMPERATURE

GUIDELINES FOR PROCUREMENT AND INSPECTION OF INVESTMENT CASTING REF.: CONTROLLED COPY OF QUALITY ASSURANCE (METALS) ICHAPUR LETTER NO. MIRA-11821/12 DL 05 MAY '84

HEAT-TREATMENT PROCESS CHART

NOMENCLATURE AND IDT. NO.	STEEL GRADE	TYPE OF OPERATION	EQUIPMENT	CONDITION		% OF INSP.
				TEMP. IN °C	HEATING TIME / COOLING	
CARRIER 5014	30X1CA	NORMALIZING OF COMPONENTS, AND REFERENCE SAMPLES.				3%, BUT NOT LESS THAN 3 PIECES
		HEATING	ELECTRIC FURNACE	800-920	TWO HOURS FROM THE TIME FURNACE REACHES 800°C MINIMUM	

CLEANING OF PLACES FOR HARDNESS TEST CHECK HARDNESS

FINAL HEAT-TREATMENT CARRIER PARTS ONLY. HARDNESS AT TEMPERATURE 870-890°C. SOAKING TIME 10 MINUTES. COOLING IN SALT PETER. SURFACE AT TEMPERATURE AT 180-200°C. SOAKING TIME 30 MINUTES THEN COOLING IN WATER OR AIR. TEMPERING AT TEMP. 450°C. SOAKING TIME 30 MINUTES. COOLING IN WATER OR AIR.

①	DA. NO. 007/95, Dt. 9-2-95.	
②	VIEW CORRECTED	
③	STORE DRG. NO. ADDED	
B	DIMENSION 31±0.5 WAS 30.5±0.5	
AMENDMENTS:	DESCRIPTIONS/DETAILS	DATE

Sadhu 14/8/88 REDRAWN	A. S. Thangaraj CHECKED	08-'88 APPROVED	Chin L E/M. PROJ	J. K. A/M/PROJ	ORDNANCE FACTORY TIRUCHIRAPALLI-16	DRG. NO.: 64 C 5014 250 I 3
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⑨
INDIGENOUS MATERIAL: IS: 10343-1999, GR 18Q WITH THE FOLLOWING CHEMICAL COMPOSITION:-

CY.	Si%	Mn%	CY.	MO%	S%	P%
0.22	0.30	0.50	0.90	0.15	0.035	0.035
0.29	0.60	0.80	1.20	0.25	Max.	Max.

AND MECHANICAL PROPERTIES AS PER THE SPECIFICATION

~~IS 10343 Gde 4B AUTHORITY: CQA (METALS) ICHAPUR LR NO.~~

~~MQA-3/T/S/B/Z Dt. 01-6-97~~

⑧ ~~IS 10343 Gde 4B~~

AUTHORITY: CQA (WEAPONS) JABALPUR, LR. NO.: 2B1/301/CQAW/BMPH/OFT

RADIOGRAPHIC TEST

dt. 21-04-03.

(a) RADIOGRAPHIC ACCEPTANCE STANDARD OF THE CASTING SHOULD BE AS PER RSTM-E-192

(b) 100% OF THE ADVANCE SAMPLE (NOT LESS THAN 5) WILL BE SUBJECTED TO RADIOGRAPHIC TEST.

(c) RADIOGRAPHIC TEST OF ADVANCE SAMPLE WILL BE CARRIED OUT BY CQA(MET) ICHAPUR.

OR

④ THE AREA QUALITY ASSURANCE OFFICER CONCERNED WOULD GET THE RADIOGRAPHIC TEST DONE IN HIS PRESENCE AND FORWARD THE PLATES TO TO CQA (MET) ICHAPUR FOR SENTENCE AND APPROVAL OF THE MOULD.

(d) BULK PRODUCTION WOULD COMMENCE ONLY AFTER MOULD AND MATERIAL HAS BEEN APPROVED BY CQA(MET) ICHAPUR.

(e) 5% OF THE CASTING SELECTED AT RANDOM FROM ^{THE} BULK WOULD BE SUBJECTED TO RADIOGRAPHIC TEST. THIS MAY BE DONE UNDER THE ARRANGEMENT OF THE AREA QUALITY ASSURANCE OFFICER AND SENTENCE MAY BE AWARDED BY HIM BASED ON THE STANDARD OF THE ADVANCE SAMPLES CLEARED BY CQA(MET) ICHAPUR.

REF. :- CONTROLLERATE OF QUALITY ASSU(W) JABALPUR LETTER NO. 50431/CQAW/QA-11

DATED 14 MARCH 95.

CONTROLLERATE OF QUALITY ASSU (M) ICHAPUR
LETTER NO. MQA-3/LIW/3/W Dt. 03 MAY 1995

⑥

INDIGENOUS MATERIAL: IS: 10343 G/ 4A OR BS 3146 Pt-I 74

⑦

~~TYPE/CLA 3, SEPERATELY CAST TEST BAR SHALL MEET THE SPECIFIED MECHANICAL PROPERTIES INCLUDING IZOD IMPACT VALUE~~

⑨ I	DA.No.001/16 DC.No.19446-W14.09.16	PP 1.1.16
⑧ H	DA.No. 02/03 Dt. 24-05-03	24/5/03
G 7	DA.No.052/97 Dt. 11-8-97	11-8/97
UPDATED.	DA.No.022/97 Dt. 23-3-97	23/3/97
F ⑥	DA.No.058/96 Dt. 27-6-96	27/6/96
E ⑤	DA.No.71/95 Dt. 8-8-95	8/8/95
D ④	DA.No.020/95 Dt. 4-4-95	4/4/95
AMENDMENTS	DESCRIPTIONS	SIG. & DATE

CERTIFIED CORRECT COPY
OF APPROVED DRAWINGS
AT THIS DATE.....

17.11.2020

Design & Drawing Office
Ordnance Factory,
Tiruchirappalli-620016

UN CONTROLLED COPY

SHEETS 2/2	APPROVED	<i>[Signature]</i> 12-4-95	ORDNANCE FACTORY	COMPONENT NO. 2A42-05-014 CARRIER
<i>[Signature]</i> DRAWN	CHECKED	<i>[Signature]</i> 12-4-95	TIRUCHIRAPALLI	DRG. NO. 64C 5014 250 I3

⑨