



**CERTIFIED CORRECT COPY
OF APPROVED DRAWINGS
AT THIS DATE.....**
23.03.2021

Designer & Drawing Officer
Ordnance Factory,
Truichirappalli-620016

UN CONTROLLED COPY

SUITABLE INGATE POSITION MAY BE SELECTED BY MANUFACTURER
MAX. PERMISSIBLE TRACE HEIGHT IS 0.5
SHARP EDGES TO BE BLUNT R3

DIMENSIONS ARE IN MM.
UNTOLERATED DIMS. AS PER IS : 11166-1984
CLASS - I OF INVESTMENT CASTING.

MATERIAL
~~IS:10343 GR 4 E WITH C 0.45 P 0.50~~

COMPOSITION OF MATERIAL		C%		Si%		Mn%		Cr%		Ni%		Cu%		S%		P%	
MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
0.15	0.25	0.3	0.5	0.8	0.8	0.4	1.2	0.1	0.3	0.035	0.035						
0.55	0.8	10	12	0.1	0.1	0.3	0.35										

MATL:- IS: 10343-99, GRADE 19 Q

- 1) CASTING SHOULD BE FREE FROM DEFECTS LIKE CRACKS, HOT TEARS, COLD SHUTS, ETC., AND SURFACE FINISH SHOULD BE SMOOTH. VISUAL EXAMINATION SHOULD CONFORM TO CLAUSE 8.1 & 8.2 OF SPECN. IS:10343-1982 & A.Q.L. 1.5 OF IS:2500 PT.1 INSPECTION LEVEL IV
- 2) MAX. PERMISSIBLE LIMIT FOR BEND IS 0.1 IN TOTAL LENGTH.
- 3) CASTINGS ARE TO BE SUPPLIED IN ANNEALED CONDITION ALONG WITH THE TEST SAMPLES TO BE TESTED FOR HARDNESS AT ANNEALED CONDITION AND ALSO FOR FINAL HEAT TREATMENT.
- 4) TEST PIECES SHOULD BE TESTED IN ACCORDANCE WITH CLAUSE 1.1.10 METHOD (1) OF BS 3146 PT.1.1974 AND TEST SAMPLES SHOULD BE CAST FROM THE SAME MELT USED FOR MANUFACTURING OF THE CASTING & SHOULD BE MADE TO SATISFY THE SPECN. IS:10343-1982
- 5) SHARP EDGES & BURRS IF ANY TO BE REMOVED
- 6) 100% MAGNETIC TEST FOR CRACK DETECTION TO BE CARRIEDOUT IN SAMPLES AS PER INSPECTION LEVEL IV AT AQL 0.65 AS PER IS:2500 PT.1.1985
- 7) RADIOGRAPHIC ACCEPTANCE STANDARD SHALL BE AS PER ASTM-E 192
 - a) CASTINGS SHOULD BE SUBJECTED TO RADIOGRAPHY BY USING X-RAYS & GAMMA RAYS SHALL NOT BE PERMITTED AT ALL UP TO THE THICKNESS RANGE OF 25mm.
 - b) UNLESS OTHERWISE STATED THE RADIOGRAPHY ACCEPTANCE STANDARD OF THE CASTING SHOULD BE AS FOLLOWS.
GAS HOLES LEVEL - 3
FOREIGN MATL. LEVEL - 3
SHRINKAGE CALL TYPE - 2
 - c) 100% OF THE ADVANCE SAMPLES SHALL BE SUBJECTED TO RADIOGRAPHIC TEST

② DDA No. 00219 Dt. 30.03.19

DA No: 9
Ch/108
Dt. 8.1.202

APPROVED	DATE	APPROVED	DATE
<i>[Signature]</i>	06/2005	<i>[Signature]</i>	06/2005

PART NO.	DESCRIPTIONS	NO. OF	MATERIAL	TREATMENT	REMARKS
TRACED	SIGNATURE & DATE				
DRAWN	R. J. U. R.				
CHECKED	<i>[Signature]</i>				
ORG. DES. REF. NO.	FOR 20mm CAST MUZZLE BRAKE				
OR. NO.	OF: 14.5/20mm AMR				
ORG. NO.	TEND 1791 *2				
OPERATION NO.	44P 14001				
SHEETS	1				
SHEET NO.:	1				

ORDNANCE FACTORY
TRUICHIRAPPALLI-16.