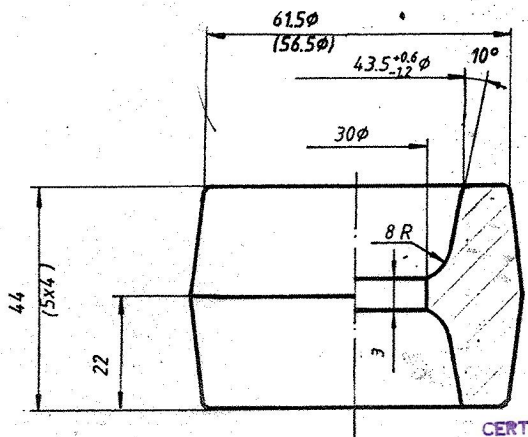


FORGING DRAWING

CHEMICAL COMPOSITION OF THE MATERIAL STEEL 65C2BA-w			
C	0.61 - 0.69	Si	1.50 - 2.00
Mn	0.70 - 1.00	Cr	0.30 Max.
Ni	0.25 MAX.	S	0.010 Max.
P	0.020 Max.	Cu	0.25 Max.
W	0.80 - 1.2		



INDIGENOUS MATERIAL: BS 970 Pt 2 86 Gdr 92BA60 WITH C: 0.60 TO 0.63, S: 1.50 AND P: 0.015 MAX. EACH (ESR QUALITY STEEL). MACROSTRUCTURE: BETTER THAN OR EQUIVALENT TO C1R1S1 FOR PLATE I AND NIL FOR PLATE II TO IS 13015. NMR: 1.5 THIN SERIES MAX FOR INCLUSIONS A, B, C, D AND NIL FOR THICK SERIES, FIG 2 TO IS 4162. AUTHORITY: CQA (METALS) ICHAPUR, LY. NO. MGA-3/TS/BIL Dt: 6/11-6-97

UN CONTROLLED COPY

CERTIFIED CORRECT COPY OF APPROVED DRAWINGS AT THIS DATE..... 17.11.2020
Design & Drawing Office
Ordnance Factory,
Tiruchirappalli-620018

- DIMENSIONS ARE IN mm.
- SCALE :- 1:1
- FIRST ANGLE PROJECTION.
- HEAT-TREATMENT :- ANNEALING WITH HARDNESS HB 269 MAX.
- REMOVAL FROM SCALES :- PICKLING OR SHOT BLASTING.
- SURFACE DEFECTS SHOULD NOT BE MORE THAN 0.4 IN DEPTH
- SHIFT IN THE PARTING LINE. SHOULD NOT BE MORE THAN 0.4 mm.
- THE REMAINDER OF THE BURR ON THE LINE OF DIE JOINT SHOULD NOT EXCEED 0.6 mm.
- ECCENTRICITY OF BROADENED HOLE SHOULD NOT EXCEED 1.0 mm.
- NON-SPECIFIED DRAFT ANGLE NOT MORE THAN 7°
- NON-SPECIFIED RADII 1.5 mm.
- ALLOWANCES AS PER II CLASS GOST 7505-74.
- TOLERANCES AS PER II CLASS GOST 7505-74 M2;C2.
VERTICAL ± 0.13
HORIZONTAL ± 0.17
DIE STAMPING BY THE HAMMER
- NUMBER OF PARTS OBTAINED FROM 1 FORGING 4 PIECES.
- DIMENSIONS IN BRACKETS ARE FOR MACHINING.
- WEIGHT OF THE FORGING 0.48 Kgs.
- RAW MATERIAL SIZE $\sim 34\phi \pm 0.4 \times 110 \pm 1.0$ LONG
- MATERIAL :- STEEL 65C2BA-W - GOST-14959-79 OST 3 98-80.
- STAMP CONVENTIONAL SEAL OF BLACK SMITH
- INDIGENOUS MATERIAL :- STEEL IS 2507-1975 DESIG. 55S17 G-9 WITH SRR 0.01 87.015 RESPECTIVELY. (ESR QUALITY).

NOMENCLATURE AND DT NO:	STEEL GRADE	TYPE OF OPERATION	EQUIPMENT	TEMP. IN °C	TIME	COOLING MEDIUM	FIXTURE	HARDNESS INSPN. %
SEMI RING C 2007	65C2BA-W	ANNEALING HEATING	ELECTRIC CHAMBER FURNACE	790-810	3 Hours	WITH FURNACE UPTO 500°C THEN IN AIR	ON TRAY	3%; BUT NOT LESS THAN 3 PIECES.
DRESSING OF PLACES FOR CHECKING HARDNESS								
CHECKING OF HARDNESS								

21. MACRO STRUCTURE : FREE FROM ALL HARMFUL DEFECTS. EQUIVALENT OR BETTER THAN C1R1S1 TO ASTM E-381 OR IS: 13 015-1991
INCLUSION RATING CONTENT A, B, C & D 1.5 THIN SERIES TO IS: 4163

VETTED FOR MATERIAL ONLY
AS PER LAST DC (I) No. LETTER NO.
MRA-3/TS/B/L dt: 6/11-6-97

M. Srinivasan
28/11/97
Sr. Scientific Officer
Sr. Quality Assurance Mtr (Asmts)
Tel: 0431-251915

E 5	DA NO. 005/16, Dt. 26.05.16
D 4	DA NO. 052/97 Dt. 11/8/97
C 3	DA NO. 22/97 Dt. 23/3/97
B 2	DA NO. 86/94 Dt. 15-3-94
A 1	DA NO. 18/93, Dt. 5-4-93
①	STORE DRG. NO ADDED
SL. NO	AMENDMENTS
	SIG & DATE

FOR COMPONENT NO 2A42-02-007 - SEMI RING

Sadhvi 22-3-91 REDRAWN	<i>A. Srinivasan</i> 22-3-91 CHECKED	3-91 APPROVED	FM/ PROJ	<i>A. Srinivasan</i> 28/8/91 DGM II/PROJ	ORDNANCE FACTORY TIRUCHIRAPALLI-16	DRG NO: 64 C 2007 200 # 3
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Alt. No. 347, SHT. 24