

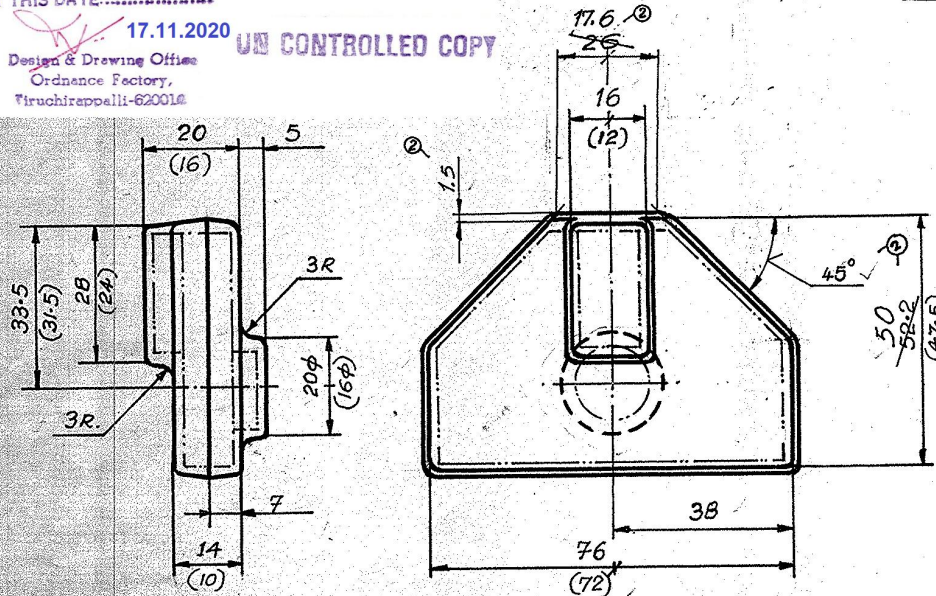
CERTIFIED CORRECT COPY
OF APPROVED DRAWINGS
AT THIS DATE.....

17.11.2020

Design & Drawing Office
Ordnance Factory,
Tiruchirappalli-620016

UN CONTROLLED COPY

FORGING DRAWING



CHEMICAL COMPOSITION OF THE MATERIAL:- 30XPA

C	0.28 - 0.33	Si	0.17 - 0.37
Mn	0.50 - 0.80	Cr	1.0 - 1.3
Ni	0.25 - 0.50	S	0.025 MAX.
P	0.025 MAX.	Cu	0.2 MAX.

FOR COMPONENT NO
2A42-01-005 -STRIP

INDIGENOUS MATERIAL: IS 4367-91, 25CY 13 MO 6'M OR IS 5517-93, 25CY 13 MO 6 M. TEST SAMPLES SHALL BE HEAT TREATED AND TESTED TO LRS 63 mm. COMPONENTS SHALL BE HEAT TREATED TO HARDNESS SHOWN IN THE DRAWING. AUTHORITY: CQA (METALS), ICHAPUR LY. NO. MQA-3/TS/B Dd. 21-6-1997

HEAT-TREATMENT PROCESS CHART

NOMENCLATURE AND IDT. NO:	STEEL GRADE	TYPE OF OPERATION	EQUIPMENTS	TEMP. IN °C	TIME	COOLING MEDIUM	FIXTURE	HARDNESS INSPN. %
STRIP C 1005	30XPA	NORMALIZATION HEATING	ELECTRIC CHAMBER FURNACE OR PUSHER TYRE FURNACE	850-870	3 HRS. PUSHING DURATION 15 MIN.	AIR	ON TRAY ON TRAY	3% BUT NOT LESS THAN 3 PIECES.

1. DRESS THE PLACE FOR CHECKING HARDNESS
2. CHECKING HARDNESS

- 1 DIMENSIONS ARE IN mm
- 2 SCALE :- 1:1
- 3 FIRST ANGLE PROJECTION
- 4 HEAT-TREATMENT :- NORMALIZING. HARDNESS HB 217 MAXIMUM
- 5 DE-SCALING :- PICKLING
- 6 DISPLACEMENT IN PARTING LINE SHOULD NOT BE MORE THAN 0.4 mm
- 7 REMAINDER FLASH ALONG DIE-PARTING LINE SHOULD NOT EXCEED 0.5 mm
- 8 CURVATURE OF ROD SHOULD NOT EXCEED 0.6mm.
- 9 SURFACE DEFECTS :- SHOULD NOT EXCEED 0.8 mm IN DEPTH.
- 10 UN-SPECIFIED DRAFT ANGLE 7°
- 11 UN-SPECIFIED RADII 1.5mm
- 12 ALLOWANCES ARE AS PER II CLASS GOST 7505-74 M1
- 13 TOLERANCES ARE AS PER II CLASS GOST 7505-74 C2 AND AS FOLLOWS
VERTICAL $\begin{matrix} +0.8 \\ -0.4 \end{matrix}$
HORIZONTAL $\begin{matrix} +0.9 \\ -0.5 \end{matrix}$
DIE FORGING BY HAMMER
- 14 NUMBER OF PARTS OBTAINED FROM ONE DIE FORGING : 1PIECE
- 15 DIMENSIONS BETWEEN BRACKETS ARE FOR MACHINING
- 16 STAMPING OF CONVENTIONAL STAMP OF BLACK SMITH LETTERING II 0 5 GOST 2930-62
- 17 WEIGHT OF THE FORGING 0.400 Kgs.
- 18 RAW MATERIAL SIZE :- 45φ $\begin{matrix} +0.4 \\ -0.7 \end{matrix}$ x 51 LONG (HOT ROLLED)
- 19 MATERIAL :- STEEL 30XPA OST 3-98-80

INDIGENOUS MATL. STEEL TO BS 970 Pt. I 1993 Gr. B7 IN "X" CONDITION

THE FINISHED COMPONENT SHOULD ATTAIN A HARDNESS RANGE OF HRC3 43.5 TO 51.5 AFTER FINAL HEAT TREATMENT

VTTED FOR MATERIAL ONLY AS PER LAST DO (1) N/ Letter NO: N MQA-3/TS/B Dd: 21-6-97

UPDATED	DA No. 008/97 Dt. 4-2-97.	4/2/97
	DA No. 51/92, Dt. 26-12-92	
C ②	DIM. 50 WAS 52.2 DIM. 17.6 & 15 ADDED, DIM. 26 DELETED	
①	STORE DRG. NO. ADD: ①	
B	DIM. 272 DELETED, DIM. 25x198 DELETED, DIM. 28 ADD. IN RANGE REV ADDED	
D ②	DA NO. 022/95 Dt. 12-4-95	
AMENDMENTS	DESCRIPTIONS/DETAILS	SIG & DATE

Sadhvi 20/06/88	Hsethwanan	6/88	23/0/88	ORDNANCE FACTORY TIRUCHIRAPALLI-16	DRG NO : 64 C 1005 200 F. 3
REDRAWN	CHECKED	APPROVED	V/C. PROJ	WM/PROJ	ALB. NO. 353, SHT. NO. 5