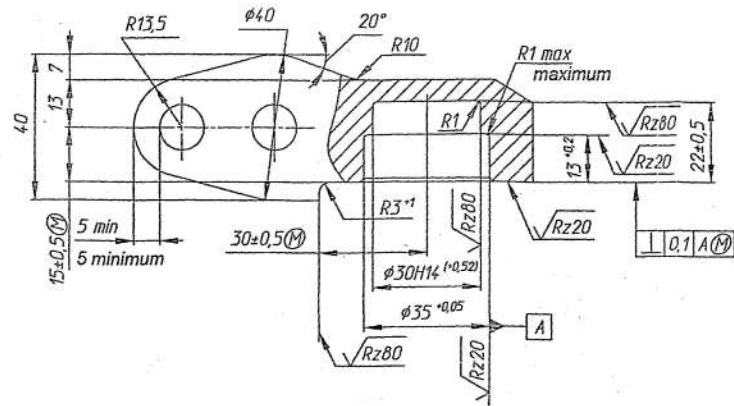
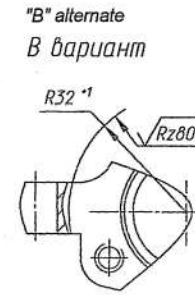
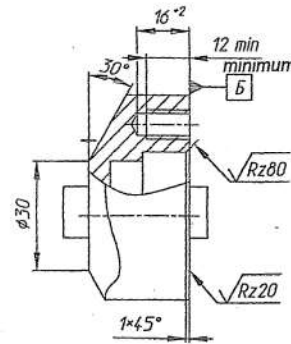
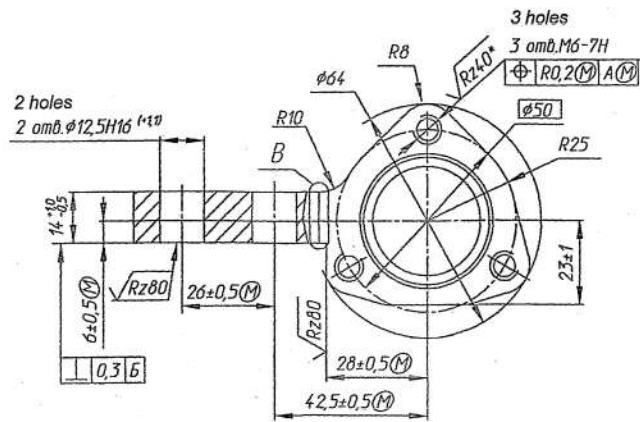




DRAWING NUMBER  
175.64.008-1

SHEET No. 1 OF 1

✓(✓)



- 255...302BHN.
- Alternate material: Steel 45XJ OST 3-4365-79.
- Casting 1<sup>st</sup> group GOST 977-88.
- Requirements for casting as per 172.TY 10.
- Accuracy of casting 9-0-0-8 GOST 26645-85.
- \*Surface finishing to be ensured by tool.
- Coating of unmachined surface with:  
Primer ФJI-03K  
Enamel ПФ-223 dark grey or ПФ-115 dark grey 894.  
Requirements as per 520.TY5.
- Other requirements as per 520.TY1.

PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.

EST. WT. (Kg)	TO BE STAMPED OR MARKED WHERE OTHERWISE STATED
0.44	INDICATED THUS # ( LETTERS)

ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.

DRN	9.0000	MATERIAL :-	USED ON :-
CHD	9.0000	STEEL 40XJ	175.64.007cb-1Cb
APPD	9.0000	GOST 977-88	
DATE	04-10-05	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES)	
SCALE:-	1 : 1	AVADI	
DIMENSIONS IN mm		TITLE :-	
TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS : 2102 - 69		SUPPORT	
ALL THREADS TO CONFORM TO		D S CAT NUMBER	DRAWING NUMBER
ISSUE	DATE		175.64.008-1
NATURE OF AMENDMENTS			

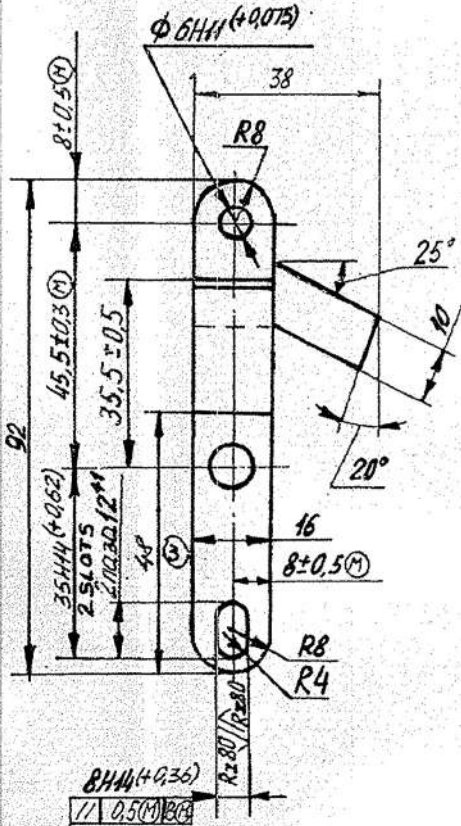
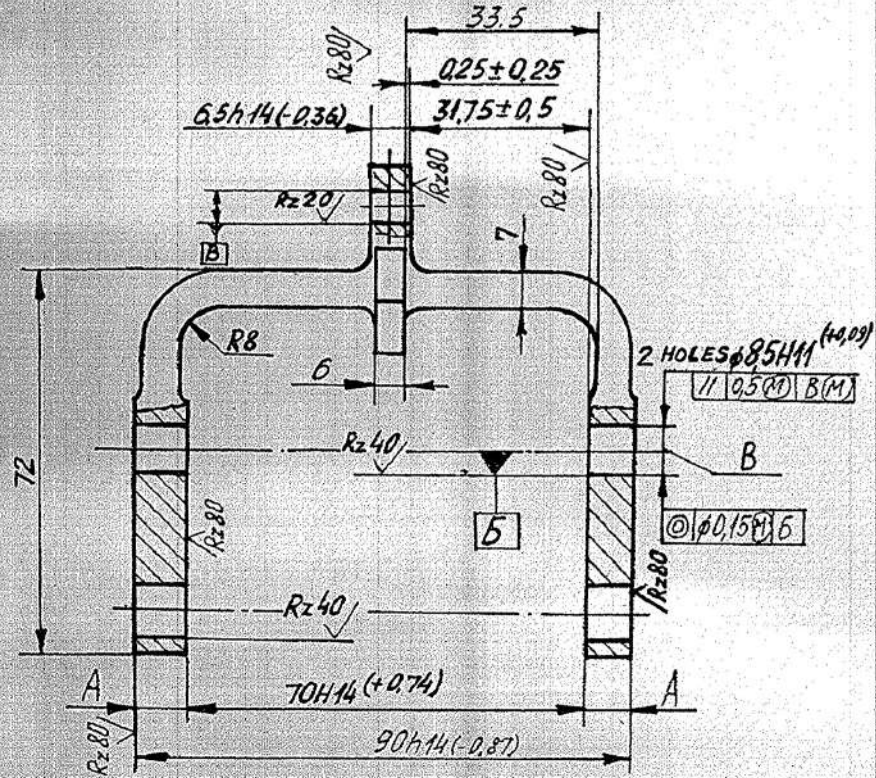
DRG. INDIANISED BASED ON RUSSIAN ORIGINAL ISSUE - NIL  
COMMON TO T-72 & BLT

356  
SUPPLY CODE  
U-01-1-2  
D90213

F-107  
106a

SIZE A2

DS CAT No.  
1010-013340



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मुद्रित रेखाचित्र की  
SEALER DRAWING AS ON  
*[Signature]*  
कृते नियंत्रक गुणता  
FOR CONTROLLER OF QUALITY  
आश्वासन (क वा अ) आवडि बन्ने 54  
ASSURANCE (AVA) AVADI CHENNA. 54

1. Alternate-material: Steel 40Л, 45Л GOST 977-88.
2. Casting of 1<sup>st</sup> group GOST 977-88.
3. Accuracy of casting 10-0-0-9 GOST 26645-85.
4. Requirements for casting as per 172.TY10.
5. Check deviation for coaxiality of holes B by smooth passing of roller Ø8.5b11.
6. Difference in dimensions A 1mm.
7. Coating: Zinc plated 6 microns thick, chromated. Quality of coating in holes is not to be checked.
8. Other requirements are as per specification 520.TY1.

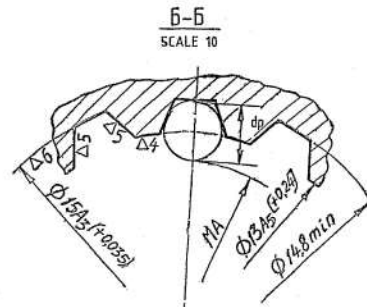
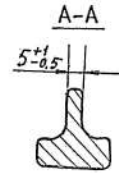
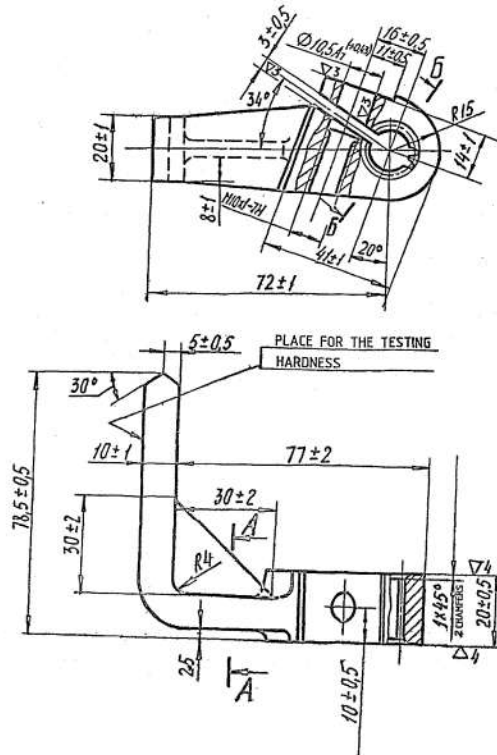
IND.EQUIV.MATL:-BS:3100-1976 STEEL GRADE BT 1

23-6-14 0119-AVA				IND. EQUIV. MATL. ADDED				DRAWN:-		CHD:- <i>[Signature]</i>		ASSY DRG:-		CQA(AVA), AVADI	
29-2-12 0086-AVA				DS CAT No. ADDED				SCANNED:- J.L.C		CHD:- <i>[Signature]</i>		DATE:-			
03-05-07				SCANNED & PRINTED WITHOUT CHANGE				C/D/MAN <i>[Signature]</i>		DO <i>[Signature]</i>		SCALE:- 1:1			
DATE				AUTHORITY				MATERIAL:- STEEL 40XЛ GOST 977-88				ESTD mass:- 0.195 kg			
AMENDMENTS				SIG AHSP				PROTECTIVE FINISH:-				DESIGN No.			
DRG SEALED (PROV)				DC No. :- 0018-AVA				<h1 style="text-align: center;">LEVER</h1>				PART No.			
DT 12-3-08				DO CQA(AVA)								185.18.048			
												DS CAT No.			
												1010-013340			

DRAWING NUMBER  
175.02.220-1

SHEET No. 1 OF 1

~ (∇)



CONVENTIONAL DESIGNATION OF HOLES AS PER GOST 6033 - 51		38.15 x 1 x 14 A3S3a	
MODULE	<i>m</i>	1	
NUMBER OF TEETH	<i>z</i>	14	
DIAMETER OF PINS	<i>d<sub>p</sub></i>	Ø 1.732 ± 0.001	
DISTANCE OVER PINS	<i>M<sub>A</sub></i>	Ø 11.44 <sup>+0.155</sup> / <sub>+0.068</sub>	
WIDTH OF TOOTH SPACE ALONG CHORD REFERENCE CIRCLE	<i>S<sub>d</sub></i>	Ø 1.571 <sup>+0.07</sup> / <sub>+0.03</sub>	
REFERENCE CIRCLE DIAMETER	<i>d<sub>d</sub></i>	14	

- BHN 285 - 229 (DIA OF IND. 3.6 - 4.0)
- EXTERNAL DRAFT 1 : 50
- UNSPECIFIED DRAFT RADII ARE TO BE MADE FOR R3.
- THE COMPONENT SHOULD CORRESPOND TO 172 TY - 10 FOR THE ACCEPTANCE OF COMPONENTS CAST AS PER INVESTMENT PATTERN.
- SPLINES ARE TO BE CHECKED WITH SPLINE PLUG GAUGE MADE AS PER MAXIMUM DIMENSIONS OF THE MATING PART BEFORE MILLING THE SLOT 3±0.5.
- SPLINES ARE TO BE POSITIONED IN SO THAT PLANE OF SYMMETRY OF TOOTH SPACE SHOULD COINCIDE WITH AXIS OF SLOT 3±0.5 PERMISSIBLE DEVIATION ± 0.5 mm.
- DISTENSION SHOULD NOT EXCEED 1.5 mm
- DIMENSIONS FOR TOOL IS 3±0.5

Approved -  
 (B. JAYAVELUJOTID)  
 26 MAR 08

COMMON TO T-90 & BLT  
 DRG. RE INDIANISED BASED ON RUSSIAN ORIGINAL ISSUE - 10

F-14  
11

SIZE A2

PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.

EST. WT. (kg) 0.48	TO BE STAMPED OR MARKED WHERE INDICATED THUS # ( LETTERS)
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ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.

DRN	Sd / =	MATERIAL :- STEEL 40J-I GOST 977 - 75	USED ON :- 175.02.118cb-1Cb
CHD	Sd / =	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES) AVADI	
APPD	Sd / =		
DATE	16 - 02 - 87	TITLE :- <b>LEVER</b>	
SCALE:- 1 : 1			
DIMENSIONS IN mm		D S CAT NUMBER	
TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS : 2102 - 69			
ALL THREADS TO CONFORM TO IS : 4218 Pt. IV		DRAWING NUMBER 175.02.220-1	
ISSUE	DATE	NATURE OF AMENDMENTS	

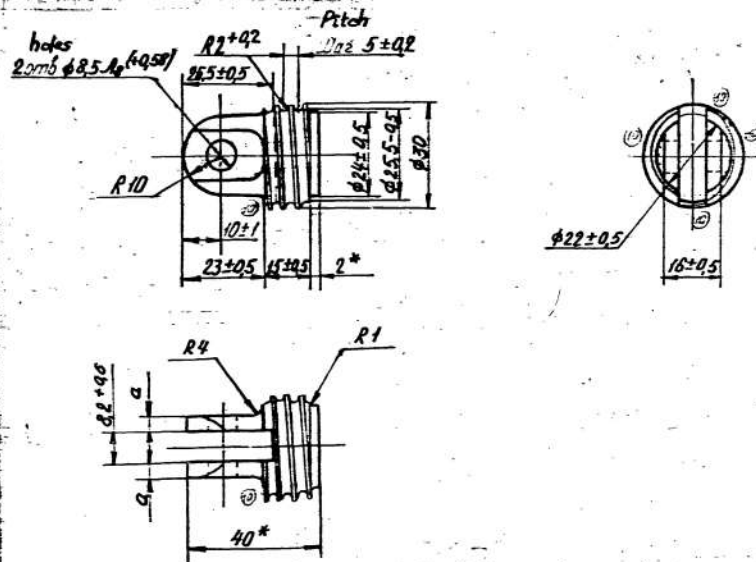












- 1) It is allowed to manufacture from Steel grades, 45 A I 45 A II, GOST 977-75.
- 2) Component should correspond to 172Ty-10 on acceptance of component made by investment casting.
- 3) External drafts 1:120
- 4) Un-specified tolerances on dimensions should be as per Class III of GOST 2009-55.
- 5) Un-specified radii should not exceed R2.
- 6) Variation in measurements of dimension "a" should not exceed 0.5 mm.
- 7) Shift of axes of holes and slot relative to axis of  $\phi 25.5$  should not exceed 1 mm.
- 8) Coating: Zn 21, chromotizing, presence of zinc in the holes and slot need not be checked.
- 9) Dimensions for reference
- 10) Position of the spiral groove re-lative to the slot should be as indicated in the drawing. The slot should be positioned at the start of the coil.
- 11) On the crest of thread, local depressions of 0.5 mm. max. are allowed, over a length of 10 mm max. on each thread.

PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.

EST. WT. 0.075 Kg	TO BE STAMPED OR MARKED WHERE INDICATED THUS # (LETTERS)
ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUT-SIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.	

DRN	<i>[Signature]</i>	MATERIAL :- STEEL 40 A I GOST 977-65	USED ON :- 175 63 043 CB
CHD	<i>[Signature]</i>	CONTROLLERATE OF QUALITY ASSURANCE (HEAVY VEHICLES)	
TCO	<i>[Signature]</i>	A V A D I	
APPD	<i>[Signature]</i>	TITLE SCREW CAP	
DATE	20-12-88	D S CAT NUMBER	
SCALE	1:1	DRAWING NUMBER 175 63 053	
DIMENSIONS IN mm.		TOLERANCE ON DIMNS UNLESS OTHERWISE STATED IS 2102-69	
ALL THREADS TO CONFORM TO		ISSUE DATE NATURE OF AMENDMENTS	

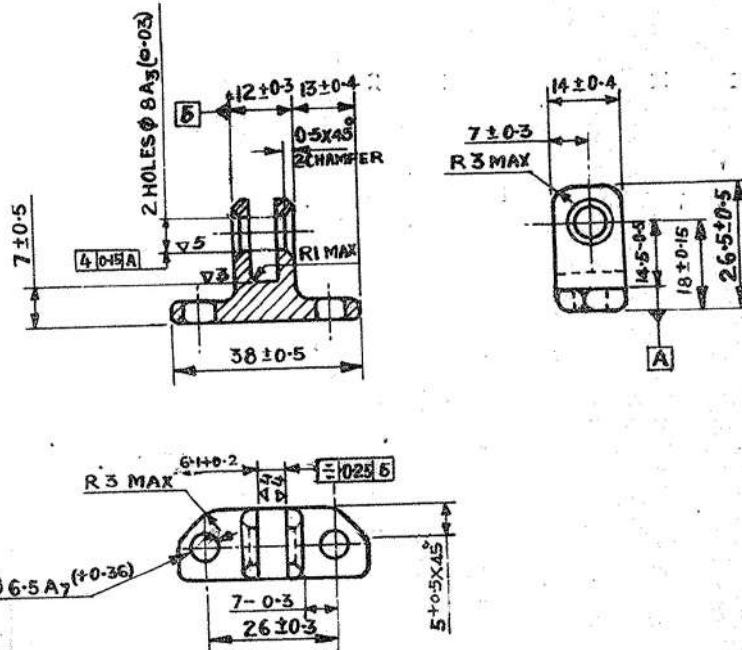
COMMON TO BLT



PART No

172.28.030-1A

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 11/3/12  
 FOR CONTINUOUS QUALITY  
 आश्वासन (AVA) अवधि कर्म 54  
 ASSURANCE (AVA) AVADI CHENNA. 34



- 1- IT IS ALLOWED TO MANUFACTURE FROM STEEL 45 A-I, 50 A-I GOST 997-75.
- 2- BHN 285-229 (IND. DIA 3.8-4.2) HARDNESS IS TO BE CHECKED ON TEST PIECE.
- 3- FOR CASTING REQUIREMENTS, 172 Ty-10 ON ACCEPTANCE OF INVESTMENT-CAST COMPONENTS IS TO BE REFERRED TO.
- 4- UN SPECIFIED RADDI SHOULD NOT EXCEED R1.5 mm
- 5- DRAFTS 1:50
- 6- COATING:- Zn 21, CHROMATIZING, PRESENCE OF ZINC IN THE HOLES Ø IS NOT ALLOWED PRESENCE OF ZINC IN THE HOLES Ø 6.5 NEED NOT BE CHECKED.

ALT. MATL:- STEEL, BS 3100-1976, Gr A W2  
 COATING:- ZINC PLATING TO Fe Zn 21 TO SPECN IS: 1573-70, FOLLOWED BY CHROMATE PASSIVATION TO SPECN IS: 1340-73

INSPECTION NOTE:- FOR LIST OF GAUGES AND FIXTURES REFER GAUGE SHT. No. GS(W)-10103, SHT. 1.

29-3-09	0042-AVA	DS CAT No. ADDED	
18-11-14	22-10-03	HINDI Nomen ADDED	
18-12-02	18729-W	INSPECTION NOTE ADDED.	
18-3-94	17931-W	ALT. MATL. COATING NOTE 5 DIM 6-14-0-2	
25.3.89	16752-W	PART 45 A-I, 50 A-I GOST WAS 4 A-I GOST	
30-3-88		RETRACED WITHOUT CHANGE	
DATE	AUTHORITY	ZONE	NATURE

DRG SEALED:- D C (I) No 16577-W  
 DATE 11-9-87  
 DO CQA(W)

DRAWN:-	CHD:-	ASSY DRG:-
TRACED:- N S C	CHD:- RNS	DATE:-
CID MAN	DO	SCALE:- 1:1
		ESTD MASS:- 0.082

MATL:- STEEL 40 A I GOST 977-75  
 PROT FINISH:-

**BRACKET**

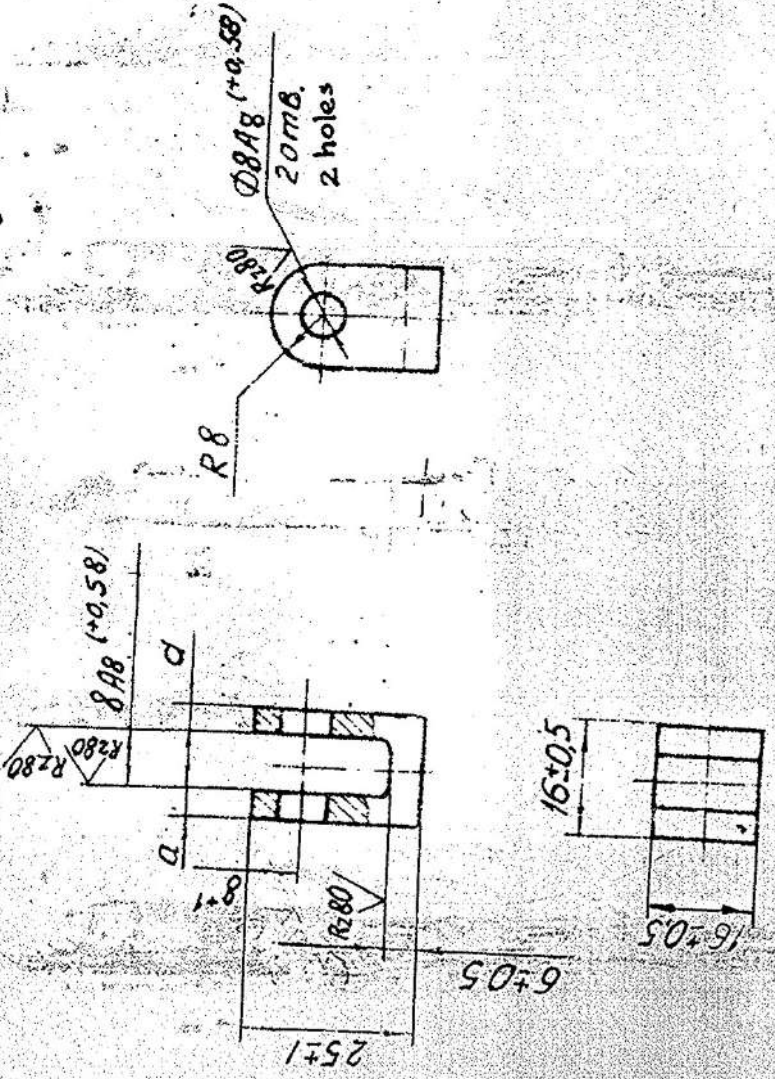
ब्रकेट

CQA(AVA) AVADI  
 DESIGN No  
 PART No  
**172.28.030-1A**  
 DS CAT No  
 5340-176854

F 128  
43

53

ISOMETRIC ANGLE PROJECTION



- 1) It may be manufactured from Steel 45J-I GOST977-
- 2) Casting requirements should be in compliance with general part 172Iy-10.
- 3) Drafts should be upto 1 : 50 in body.
- 4) Castings radii upto 2 mm
- 5) Difference in dimensions 'a' should not exceed 0.8mm

ALT MATT:- GRADE AW 2 TO BS:3100-1976 OR GRADE 23-45 TO IS:1030-74

F116

DS CAT No.  
**1015-003562**

172M

172, 18.0095

F116  
10

SHEET	MASS	SCALE
	0.028	1:1

BOSS  
अत्रय

ISSUE	DATE	REFERENCE	MATERIAL
10088-W	23-10-85	DRG SEALED	Steel 40J-I
APPROVED			GOST 977.75
CHECKED			
DRAWN			

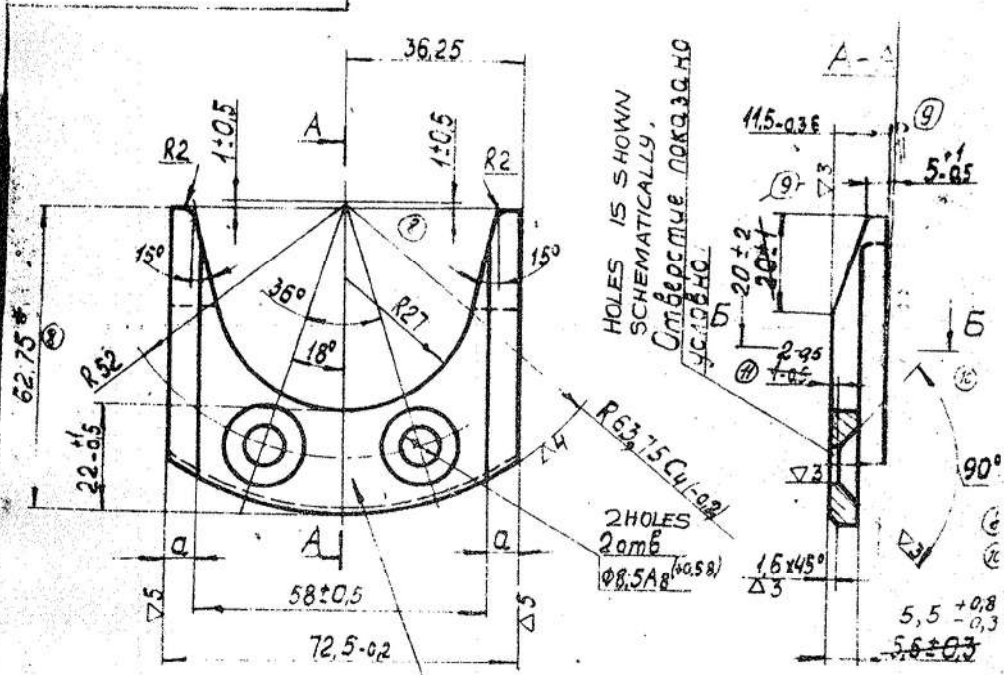
CQA (AVA)  
AVADI

9	2	172M81	2230
10088-W	23-10-03	HINDI NOMEN. ADDED.	OK
17870-W	31-1-94	ALT MATT. ADDED.	MS/MS
17088-W	4.7.91	DS CAT NO ADDED	END
16478-W	23-10-85	DRG SEALED	
APPROVED			24.7.85
CHECKED			19.7.85
DRAWN			29/6/85





FIRST ANGLE PROJECTION.



1. TO BE HEAT-TREATED TO EHN 341-285 (IND. DIA. 3.3 - 3.6)
2. EXTERNAL DRAFT ANGLES SHOULD NOT EXCEED 1:20.  
UNSPECIFIED RADII SHOULD NOT EXCEED 2mm.
3. FOR CASTING REQUIREMENTS, 172. TY-10 ON ACCEPTANCE OF INVESTMENT-CASI COMPONENTS IS TO BE REFERRED TO.
4. SHIFT OF HOLES Ø 8.5 A<sub>8</sub> FROM TRUE POSITION SHOULD NOT EXCEED 0.2mm.
5. COATING Zn 21 CHROMATIZING. PRESENCE OF COATING IN THE HOLES NEED NOT BE CHECKED.
6. THICKNESS OF RIBS (DIMENSION "a") SHOULD BE 6mm, min.
7. \* DIMENSION FOR REFERENCE.
8. ALTERNATE MATERIAL ▽ STEEL 45 x AI, OST 3-4365-79.

Место проверки твердости  
PLACE FOR TESTING HARDNESS.



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FOR CONTROLLER OF QUALITY  
आस्थासन (क वा आ) आनंदे चिन्ने 54  
ASSURANCE (AVA) AVADI CHENNA. 54

174  
174

- NOTE:**
1. IT IS ALLOWED TO MANUFACTURE THE COMPONENT FROM STEEL 38 x C, GOST 4543-61 BY MACHINING.
  2. ON MANUFACTURING THE COMPONENT BY MACHINING, A SHOULDER OF 0.5 mm, max. IS ALLOWED AT THE TRANSITION OF RADIUS R 27 TO THE STRAIGHT SECTION.

ALT. MATL:- STEEL, BS 3100 A3:1976

D'S CAT No.  
**1015-002946**

18914-W 22-10-03	HINDI NOMEN. ADDED	17/7	172.28.022-2	40001KD	F-128	
17931-W 18-3-94	ALT. MATL ADDED	16/10/04				
17088-W 4.7.91	D'S CAT No. ADDED	1/10	STOP स्टॉप	SHEET	MASS	SCALE
16476-W 22-10-86	DRG SEALED.			10F1	0.084	1:1
ISSUE	DATE	REFERENCE	MATERIAL: STEEL 40X J GOST 977-75.			
APPROVED	13.8.85		C.G.A (AVA) AVADI			
CHECKED	12/8/85					
DRAWN	7.8.85					