

DESIGNATION	DESCRIPTION	PARENT UNIT	REMARKS
MЭ301Б-3730010СБ	ELECTRIC SPEEDOMET- ER SENDING UNIT 24V MODEL MЭ301Б	675-82-СБ4	
MЭ301Б-3730010Г4	OUTLINE DRAWING	MЭ301Б-3730010СБ	
MЭ300 - 100 СБ	COMMUTATOR ASSY	MЭ301Б-3730010СБ	
MЭ300 - 220СБ	HOLDER ASSY	MЭ301Б - 200СБ	
MЭ300 - 230 СБ	MIDDLE HOLDER ASSY	MЭ301Б - 200 СБ	
MЭ300 - 300 СБ	BRUSH ASSY	MЭ301Б-3730010СБ	
MЭ300-400СБ	CASING ASSY	MЭ301Б-3730010СБ	
MЭ300-500АСБ	COVER ASSY	MЭ301Б-3730010СБ	
MЭ301Б-200СБ	BRUSH SUPPORT ASSY	MЭ301Б-3730010СБ	
MЭ301Б-210 СБ	COVER ASSY	MЭ301Б-200 СБ	
ФЭ3596-1023СБ	BRUSH ASSY	MЭ300-300СБ	

PARTS

MЭ300-001	GASKET	MЭ301Б-3730010СБ	
MЭ300-002	GASKET	MЭ301Б-3730010СБ	
MЭ300-101Б	SHAFT	MЭ300-100 СБ	
MЭ300-103	INSULATOR	MЭ300-100СБ	W/D GOST 9359-73
MЭ300-201Б	HOLDER	MЭ301Б-200СБ	
MЭ300-203	POST	MЭ301Б-200СБ	
MЭ300-204	POST	MЭ301Б-200СБ	
MЭ300-221Т	HOLDER	MЭ300 - 220 СБ MЭ300 - 230 СБ	
MЭ300-222Т	BRUSH HOLDER	MЭ300 - 220 СБ MЭ300 - 230 СБ	
MЭ300-301	SPRING	MЭ300-300СБ	
MЭ300-302	CONTACT	MЭ300-300СБ	
MЭ300-303	SLIP RING	MЭ300-100 СБ	

APPROVED *[Signature]*
 CHECKED *[Signature]*

MЭ301Б-3730010СБ

**ELECTRIC SPEEDOMETER
 SENDING UNIT, 24V**

**CONTROLLERATE OF
 QUALITY ASSURANCE
 (ICV)**

SHT 1 SHTS 2
 1 OF 47

DESIGNATION	DESCRIPTION	PARENT UNIT	REMARKS
MЭ 300-401	CASING	MЭ 300-400CB	
MЭ 300-402	GLAND	MЭ 300-400CB	
MЭ 300-501	COVER	MЭ 300-500ACB	
MЭ 300-502T	GASKET	MЭ 300-500ACB	
MЭ 301B-211A	COVER	MЭ 301B-210CB	
MЭ 302-202	POST	MЭ 301B-200CB	
MЭ 29-104 Э	BEARING WASHER	MЭ 300-400CB	
MЭ 29-105	LOCK RING	MЭ 301B-210CB	
		MЭ 300-400CB	
MЭ 29-113	CONTACT SCREW	MЭ 301B-200CB	
MЭ 29-115	WASHER	MЭ 301B-200CB	
ФЭ 7654-1023	BRUSH ЭГ13	ФЭ 3596-1023CB	GOST 12919-79
ФЭ 7760-1023	WIRE ПШ 0.16	ФЭ 3596-1023CB	W/D, GOST 9125-74
СП17-380-2016	BUSH	MЭ 301B-200CB	
<u>STANDARD ITEMS</u>			
	WASHER 4 65Г 026	MЭ 301B-3730 010CB	
	GOST 6402-70	MЭ 301B-200CB	
	SCREW		
	M4-6x10.H6.H21.29-13	MЭ 301B-3730 010CB	
	SCREW		
	M4-6x12.H6.H21.29-14	MЭ 301B-3730 010CB	
	RIVET Ф2x4-M23-23	MЭ 300-220CB	
	RIVET Ф2x4-M23-23-03	MЭ 300-230CB	
	BALL BEARING	MЭ 300-400CB	
	G-600S.S, GOST 7242-70	MЭ 301B-210CB	

APPROVED *[Signature]*
 CHECKED *[Signature]* 10-7-97

MЭ 301B 37300 10 cm
 ELECTRIC SPEEDOMETER
 SENDING UNIT 24V, MODEL 301B
 SH1 2 SH1S 3
 2 OF 47

CONTROLLERATE OF
 QUALITY ASSURANCE
 (ICV)

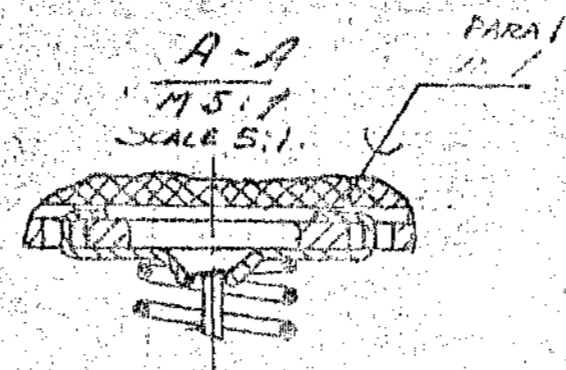
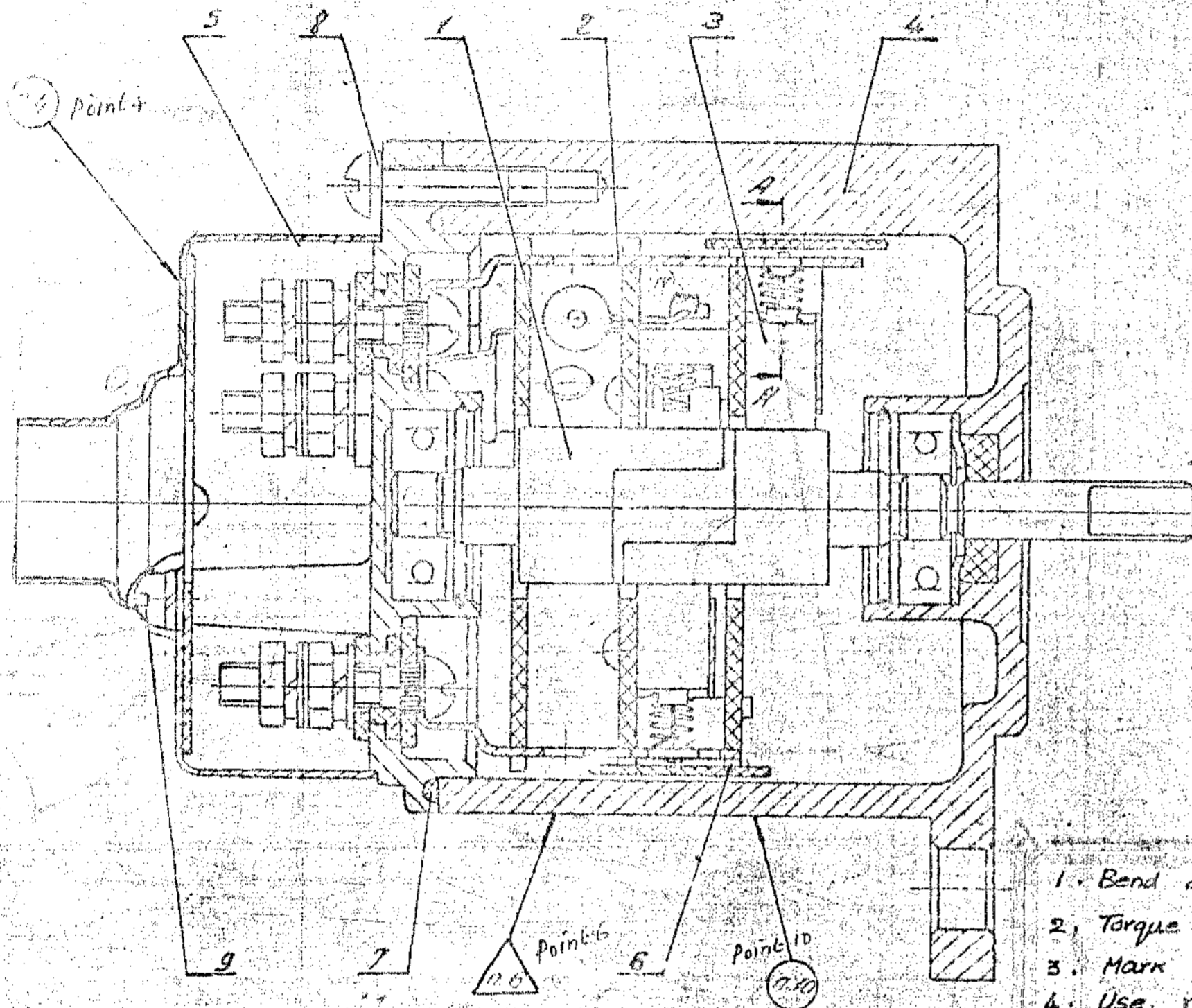
USED ON

DRAWING RELATES TO DESIGN

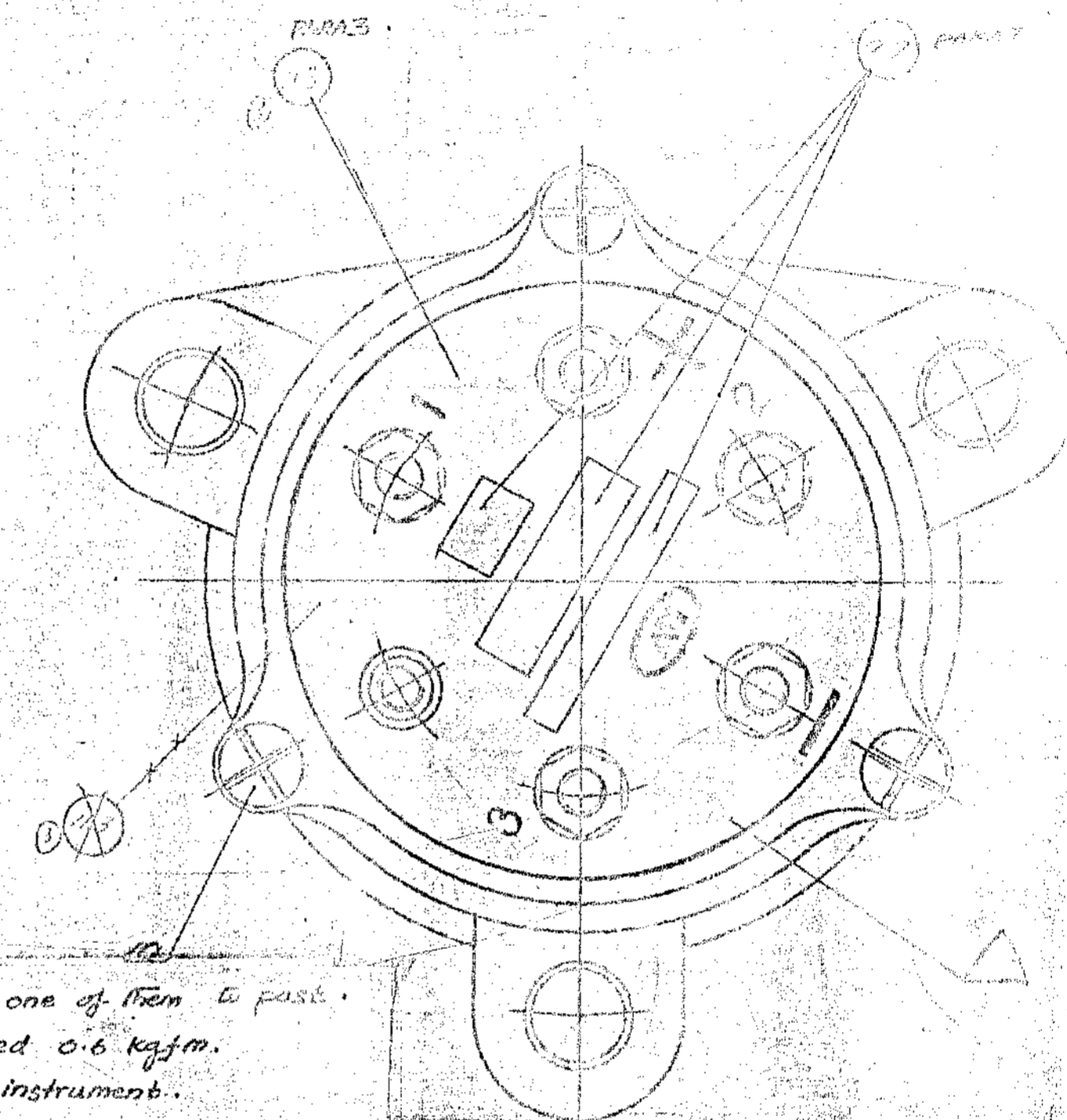
ITEM	DRAWING NUMBER	D S CAT NUMBER	DESCRIPTION	No. OFF	REMARKS
	M3 3015-3730010CB		ELECTRIC SPEEDOMETER		
			SENDING UNIT ASSY. 24V.		
			MODEL M3 3015.		
	M3 30153730010CB		ELECTRIC SPEEDOMETER		
			SENDING UNIT OUT LINE DRG		
			24V. MODEL M3 3015.		
1	M3 300 100 CB		COMMUTATOR ASSY.	1	
2	M3 3015 200 CB		BRUSH SUPPORT ASSY	1	
3	M3 300 300 CB		BRUSH ASSY	5	
4	M3 300 400 CB		CASING ASSY	1	
5	M3 300 500 ACB		COVER ASSY	1	
6	M3 300 001		GASKET	5	
7	M3 300 002		GASKET	1	
8	-N. D.-		WASHER 4.65x10.626	4	BOSS 6402-70.
9	-N. D.-		SCREW M4.6x10 HH2129-13	1	
10	-N. D.-		SCREW M4.6x12.H6.H2129-14	3	

DATE	ISSUE	NATURE OF AMENDMENTS	DATE	ISSUE	NATURE OF AMENDMENTS
DRN.	<i>S. Ponnus</i>	ELECTRIC SPEEDOMETER			WEIGHT
TCR.	<i>S. Ponnus</i>	SENDING UNIT ASSY. 24V.			SCALE
CHD.	<i>[Signature]</i>	MODEL M3 3015			SHEET
APPD.	<i>[Signature]</i>	M3 3015 3730 010 CB			SHEETS
					1 OF 1

CONTROLLERATE OF QUALITY ASSURANCE
(INFANTRY COMBAT VEHICLES) 4 OF 47



VIEW WITHOUT COVER IN ASSEMBLY (OPTIONAL)
See Section 1.1 of Drawing No. 172 44 001



1. Bend contact tabs and solder one of them to post.
2. Torque value should not exceed 0.6 kgfm.
3. Mark date of manufacture of instrument.
4. Use rubber stamp to mark instrument's type. Lettering and numerals 110-4 Gost 2930-62.
7. Place for marking of voltage, instrument's type and Gost 12986-67.
8. Instrument should comply with Gost 12986-67.
12. Place of soldering of contact to post of terminal (6) should not be insulated with gasket 6 for instruments M3300 and M3301.
13. Gasket 7 may project over, provided that instrument remains air-tight.
14. EXTERNAL VIEW AS PER TEMPLATE,

THIS IS MANUFACTURING DRAWING
RELATES TO DESIGN DRAWING No.
172 44 001

ADDITIONAL REQUIREMENTS

1. Solder with 110C-40 solder GOST 21931-76.	
2. Coat screw heads 10 with white enamel Kp-248, TY6-10-637-79.	
1. Solder with tin Gost 860-75.	Coat place of marking of instrument with manufacturing date, by adhesive. Ep-2 of yellowish colour Gost 12112-74.
9. Coat screw heads 10 with white enamel AK-1102-TY6-10-1408-78.	
10. Mark letter "T" with 110-4 Gost 2930-62.	
11. Instrument should comply with OST 37-003-008-72.	
1. Solder with solder 110C-40 GOST 21931-76.	Coat place of instrument manufacturing date mark by yellowish adhesive. Ep-2; GOST 12112-74.
9. Coat screw heads 10 with white enamel Kp-248, TY6-10-637-79.	
10. Mark letter "T" by 110-4 Gost 2930-62.	
11. Instrument should comply with OST 37-003-008-72.	

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

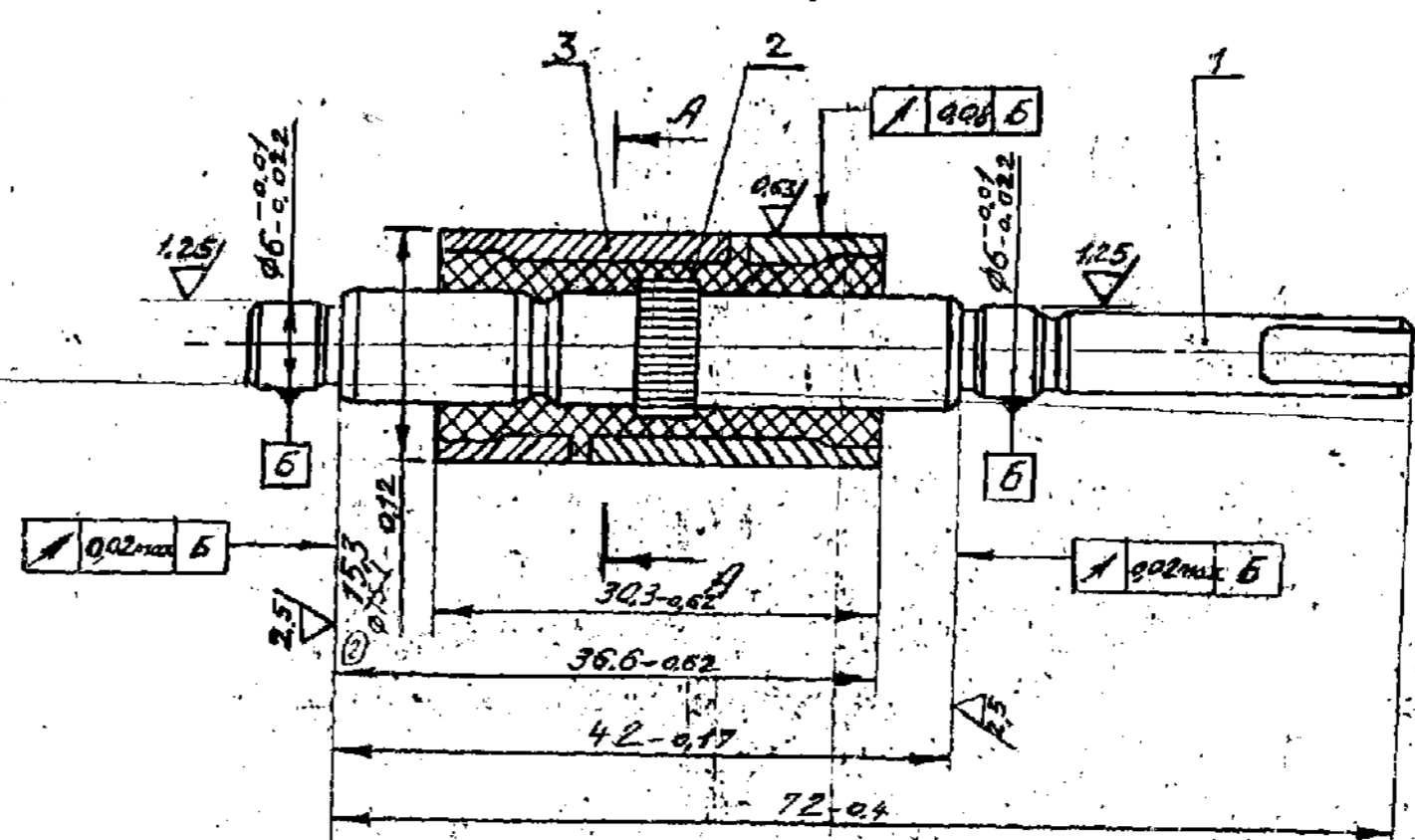
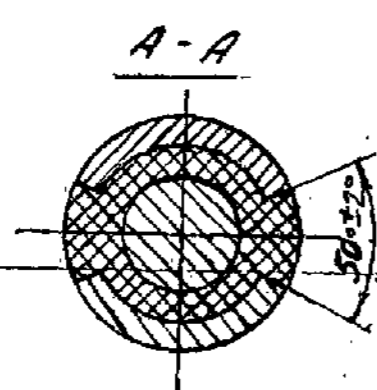
EST. MASS 550g	TO BE STAMPED OR MARKED WHERE INDICATED THUS # (LETTERS)
ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE	

MATERIAL	
ALL SHARP EDGES & CORNERS TO BE ROUNDED	
ORG. NO. OF REVISIONS	DATE
SCALE: 2:1	DATE: 92-7-92
DATE: 92-7-92	DRN: S. Bonnus
TC: S. Bonnus	550g
CHK: M. M.	
ELECTRIC SPEEDOMETER SENDING UNIT- ASSY. 24 V MODEL M3 3015	
M3 3015 3730010C5	

DRAWING NUMBER

M9 300 - 100CB

7 6 5 4 3 2 1



1. Quality and conicity of surfaces B should not exceed 0.006 mm
2. Subject to stabilizing at temperature 150 to 160°C for 8 hours.
3. Appearance - according to standard piece.

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

EST. MASS 37.6 TO BE STAMPED OR MARKED WHERE INDICATED THUS # (LETTERS)

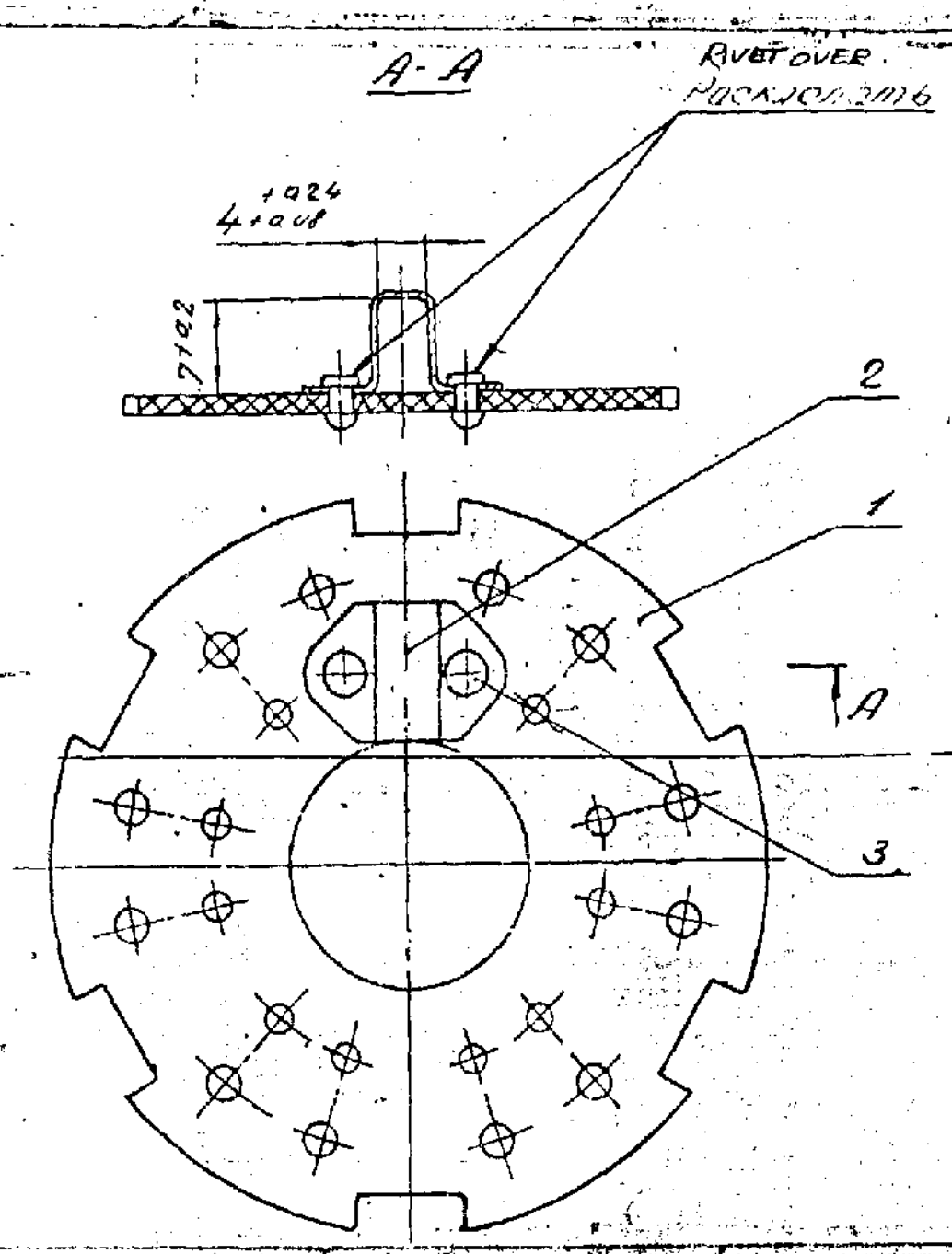
ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE

MATERIAL : —		STAMP DETON, UNIT NO.
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF	ALL THREADS TO CONFORM TO SPECIFICATION	MANUFACTURERS NAME & YEAR
ORG. NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	M9 3015 3730 010 CB
SCALE : 2:1	DATE : 21-7-92	COMMUTATOR ASSY. M9 300-100CB
DRN. S. P. ...	WT. (kg) 37.6	
YCD. S. P. ...		
CHB. ...		
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)		
		8 OF 47

8 7 6

DRAWING NUMBER

M3 300 220 C6



DESIGNATION	ADDITIONAL TECHNICAL REQUIREMENTS
M3 300 220-T	COAT HEADS OF RIVETS AND PLACES OF RIVETTING WHITE ENAMEL K-1102 TY6-10-1408-7B.

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

EST. MASS. TO BE STAMPED OR MARKED WHERE INDICATED THIS # (LETTERS)

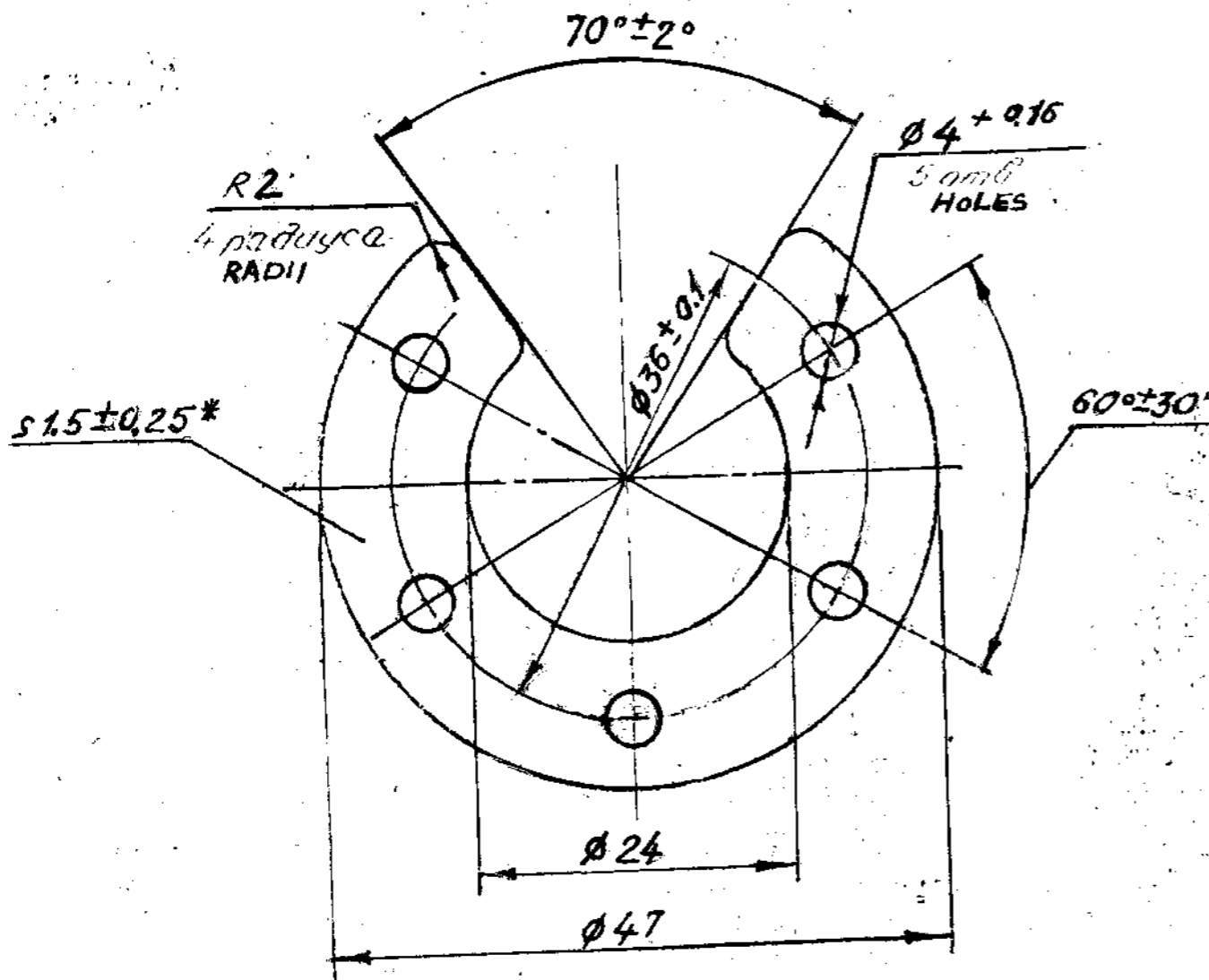
47

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

MATERIAL : —		STAMP OR ETCH PART NO. MANUFACTURERS NAME & YEAR	
ALL SHARP EDGES & CORNERS TO BE BURRED OFF	ALL THREADS TO CONFORM TO SPECIFICATION	DATE: 22-7-82	
DRG. NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	M3 3015 200 C6	
SCALE: 2:1	DATE: 22-7-82	HOLDER ASSY.	
DRN. [Signature]	WT. (KG) 4.7	M3 300 220 C6	
TCO. [Signature]	[Symbol]	CONTROL RATE OF QUALITY ASSURANCE	
CHD. [Signature]	[Symbol]	(INFANTRY COMBAT VEHICLES)	
APD. [Signature]	[Symbol]	10 OF 47	

DRAWING NUMBER

M3 300 2015



EXPLANATORY NOTE:-

2. REFERENCE MATERIAL QUOTED: ELECTRICAL INSULATION GLASS TEXTOLITE SHEET GRADE CT3-I TO GOST 12652-75.

PARAMETERS

DENSITY g/cm ³	1.50 TO 1.70
RESISTANCE TO SHORT DURATION HEATING	200°C (MIN)
RESISTANCE ACTION OF OIL (TRANSFORMER OIL)	4 HRS 130°C (MIN)
WATER ABSORPTION	1% (MAX)
SURFACE RESISTIVITY ohms 1×10^3 (MIN) OF RELATIVE HUMIDITY 45 TO 75% AND TEMPERATURE 15 TO 35°C.	
1×10^{12} AFTER SOAKING FOR 24 HOURS IN A HUMIDITY CHAMBER AT RELATIVE HUMIDITY OF 95±2% AND 20±2°C.	
VOLUME RESISTIVITY ohm cm (MIN)	
1×10^3 AT A RELATIVE HUMIDITY OF 45 TO 75% AND 15 TO 35°C.	
1×10^{12} AFTER SOAKING FOR 24 HOURS IN A HUMIDITY CHAMBER AT RELATIVE HUMIDITY 95±2% AND 20±2°C.	
DISSIPATION FACTOR AT 50HZ RELATIVE HUMIDITY 45 TO 75% AND 15 TO 35°C MAX. 0.03.	
DIELECTRIC STRENGTH PERPENDICULAR TO THE LAYERS AT 50HZ IN TRANSFORMER OIL AT 90±2°C (MIN) 27 KV. eff/mm.	

1. * DIMENSION FOR REFERENCE.

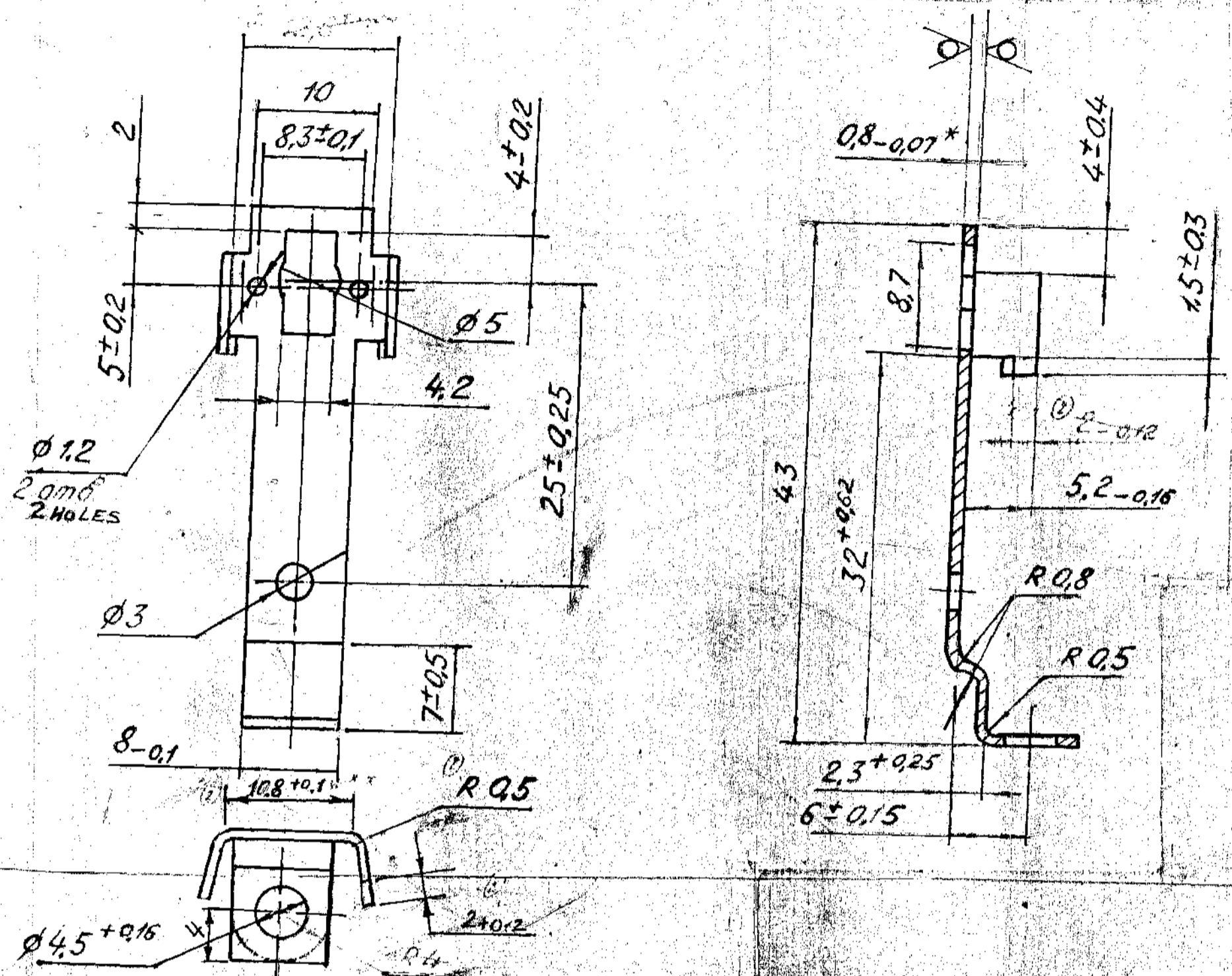
2. UNSPECIFIED LIMIT DEVIATIONS FOR HOLES ARE ACCORDING TO A7 -FOR SHAFTS B7 -FOR OTHERS CM7.

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

EST. MASS. 1.8g	TO BE STAMPED OR MARKED WHERE INDICATED THIS * LETTERS)
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ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUT-SIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.

MATERIAL :- GLASS CLOTH BASE LAMINATE CT3-I-1.5 GOST 12652-74		
ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED	ALL THREADS TO CONFORM TO SPECIFICATION	STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFG.
DRG. NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON: M3 3015.200 CB
SCALE :- 2:1	DATE :- 12-7-92	HOLDER M3 300 2015
DRN. S. Komus	WT :- (Kg) 1.8g	
TCO S. Komus	CHD. S. Komus	
APD. S. Komus		
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)		
		28 OF 47



EXPLANATORY NOTE:-

4. REFERENCE MATERIAL QUOTED:- COLD ROLLED, SOFT CONDITION
NORMAL ACCURACY, 0.8 THICK BRASS STD. GRADE M3
GOST 2208-75, MANUFACTURED AS PER GOST 15527-70.
a) CHEMICAL COMPOSITION:- AS PER GOST 15527-70.

Gde. OF BRASS	BASIC ELEMENTS		ADDEX					TOTAL
	Cu	Zn	Pb	Fe	Sb	Bi	P	
M63	62.0 65.0	REMAINING	0.07	0.2	0.005	0.002	0.01	0.5

b) MECHANICAL PROPERTIES:- AS PER GOST 2208-75.

Gde. OF BRASS	MATERIAL CONDITION	TENSILE STRENGTH Kgf/mm ²	ELONGATION % (MIN)
M63	SOFT	30-42	30

CODE K00	DESIGNATION	COATING ПОКРЫТИЕ
4573923809	M300-203	CHEMICAL PASSIVATION ХИМ. ПРЦ
4573923811	M300-203-T	0.12

1. Unspecified limit deviations of dimensions for holes - A7, for shafts - B7, for others - CH7.
2. * Dimension for reference.
3. * * Dimension is ensured by tool.

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

EST. MASS 2.9 g	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 OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE	

ISSUE	DATE	NATURE OF AMENDMENTS

MATERIAL :- BAND ДНПМ 0.8 НМ63 GOST 2208-75

ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF

ALL THREADS TO CONFORM TO SPECIFICATION

STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR

DRG. NOT TO BE SCALED

SCALE : 2.5 : 1

DATE : 22.7.92

DRN : S. Borovik

TCD : S. Borovik

CHG : S. Borovik

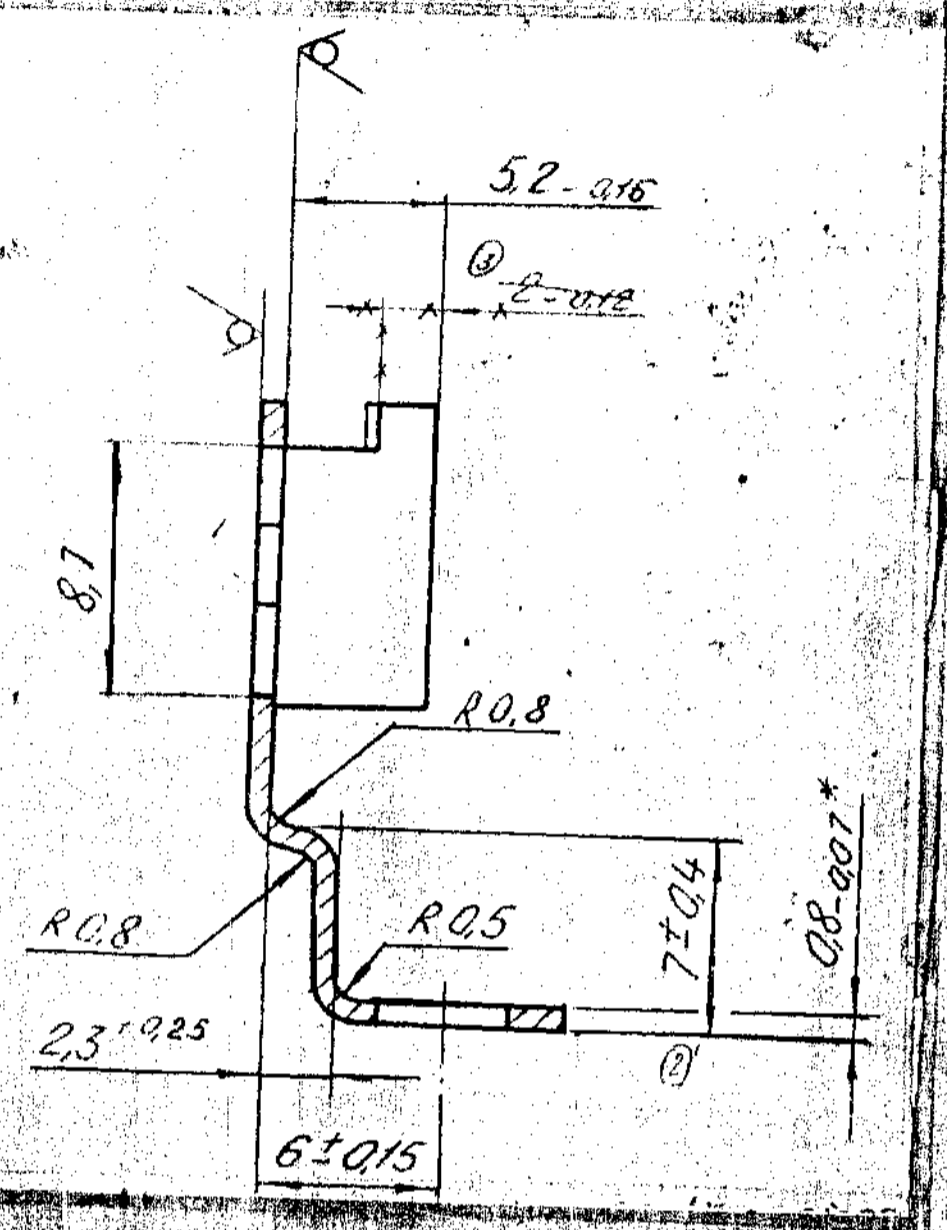
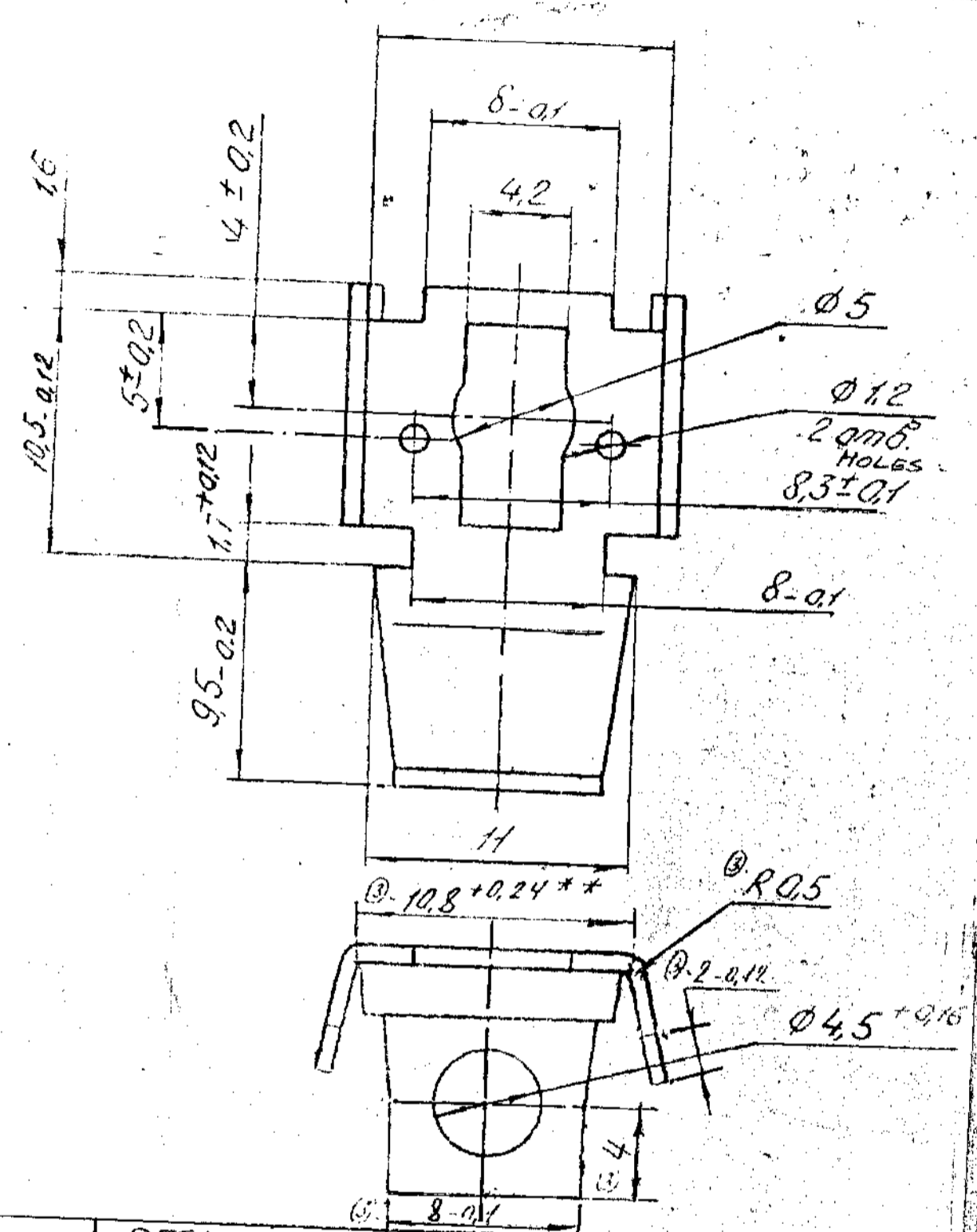
APD : S. Borovik

Wt. (kg) 2.9 g

POST M300-203

CONTROL RATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 29 OF 47

DRAWING NUMBER
M3 300 204



1. UNSPECIFIED LIMIT DIVIATIONS OF DIMENSIONS FOR HOLES A7 FOR SHAFTS -B7 FOR OTHERS CM7.
2. * DIMENSION FOR REFERENCE.
3. ** DIMENSION IS ENSURED BY TOOL.

CODE	DESIGNATION	COATING
K00	0003H04EHLIE	ПОКРЫТИЕ
45 7392 3812	M3300-204	CHEMICAL PASSIVATION
45 7392 3813	M3300-204-T	X.L.M. П.О.С.
		0.12

EXPLANATORY NOTE:-

4. REFERENCE MATERIAL QUOTED:- COLD ROLLED, SOFT CONDITION, NORMAL ACCURACY, 0.8 THICK BRASS STRIP GRADE 163, GOST 2208-75, MANUFACTURED FROM GOST 15527-70.
a) CHEMICAL COMPOSITION:- AS PER GOST 15527-70.

Gda. OF BRASS	BASIC ELEMENTS		ADMIX					TOTAL
	Cu	Zn	Pb	Fe	Sb	Bi	P	
163	62.0 65.0	REMAINING	0.07	0.2	0.005	0.002	0.01	0.5

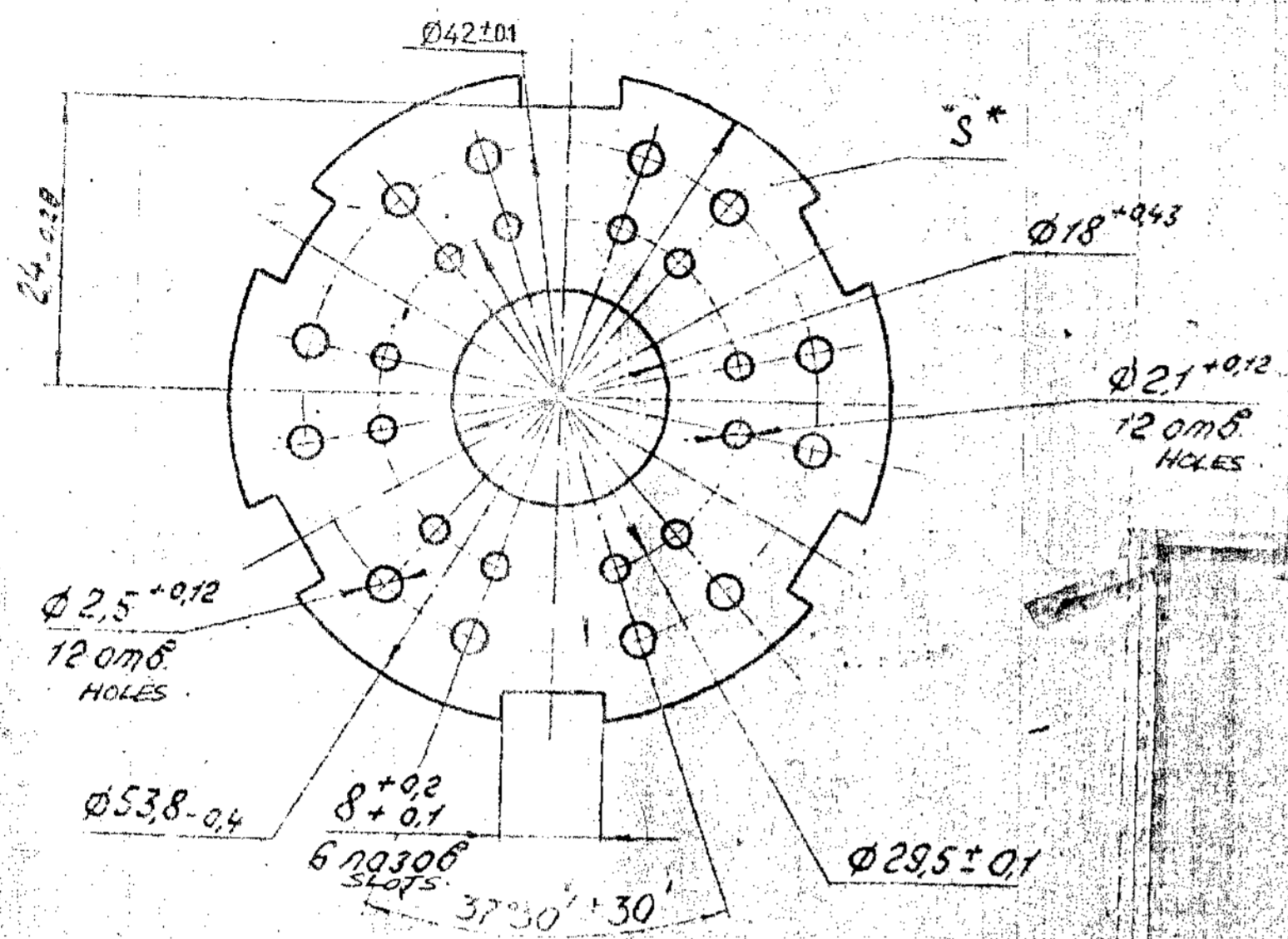
b) MECHANICAL PROPERTIES:- AS PER GOST 2208-75

Gda. OF BRASS	MATERIAL CONDITION	TENSILE STRENGTH Kgf/mm ²	ELONGATION % (MIN)
163	SOFT	30-62	38

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

EST. MASS. 2.92g	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 OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.	

MATERIAL :- BAND ППРМ 0.8НЛ163 GOST 2208-75	
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF	STAMP OR ETCH, PART NO.
DRG. NO. TO	DATE
SCALE: 4:1	DATE: 22-7-92
DRN: 2.92g	DRN: 2.92g
CHD: 2.92g	CHD: 2.92g
APD: 2.92g	APD: 2.92g
POST	
M3 300 204	
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 30 OF 47	



EXPLANATORY NOTE

2. REFERENCE MATERIAL QUOTED: ELECTRICAL INSULATION GLASS JEXYOLITE SHEET GRADE CT3-1 TO GOST 12652-75.

PARAMETERS

- DENSITY g/cm³ ----- 1.60 TO 1.70
- RESISTANCE TO SHORT DURATION HEATING ----- 200°C (MIN)
- RESISTANCE ACTION OF OIL (TRANSFORMER OIL) ----- 6 Hrs 130°C (MIN)
- WATER ABSORPTION ----- 1% (MAX)
- SURFACE RESISTIVITY ohm x 10¹¹ (MIN) OF RELATIVE HUMIDITY 45 TO 75% AND TEMPERATURE 15 TO 35°C
- 1 X 10¹² AFTER SOAKING FOR 24 HOURS IN A HUMIDITY CHAMBER AT RELATIVE HUMIDITY OF 95±2% AND 20±2°C.
- VOLUME RESISTIVITY ohm cm (MIN)
- 1 X 10¹² AT A RELATIVE HUMIDITY OF 45 TO 75% AND 15 TO 35°C.
- 1 X 10¹² AFTER SOAKING FOR 24 HOURS IN A HUMIDITY CHAMBER AT RELATIVE HUMIDITY 95±2% AND 20±2°C.
- DISSIPATION FACTOR AT 50HZ RELATIVE HUMIDITY 45 TO 75% AND 15 TO 35°C MAX. 0.03.
- DIELECTRIC STRENGTH PERPENDICULAR TO THE LAYERS AT 50HZ IN TRANSFORMER OIL AT 90±2°C (MIN) 27 KV eff/mm.

CODE KOC	DESIGNATION	MATERIAL	S* mm	WEIGHT G
457392 3801	M9300-221	FABRIC-BASED ТЕКСТОЛЮМ ПТ-1.5 I LAMINATE ПТ-1.5 OF GRADE 1.5±0.15 ГОСТ 5-78.	15±0.15	4
457392 3802	M9300-221-T	Стеклотекстолит GLASS-CLOTH-BASE LAMINATE CT3Ф-1-1.5 ГОСТ 12652-74 ГОСТ	15±0.25	4.8

* DIMENSIONS FOR REFERENCE.

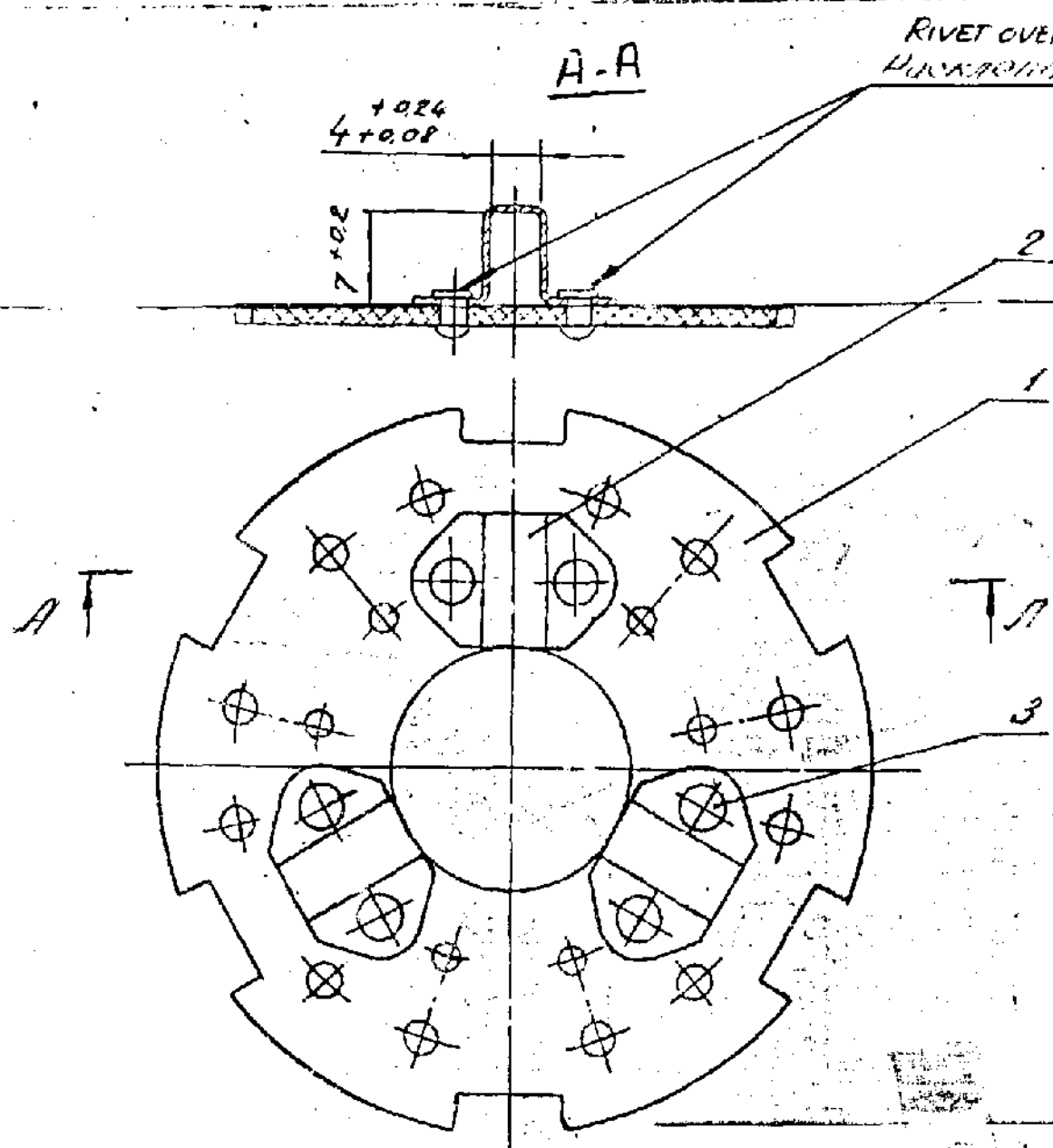
PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.

EST. MASS. SEE TABLE	TO BE STAMPED OR MARKED WHERE INDICATED THIS # (LETTERS)
ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE.	

MATERIAL: - SEE TABLE		START OR TECH. PART NO.
ALL SHARP EDGES & CORNERS TO BE CHAMFERED	ALL THREADS TO CONFORM TO SPECIFICATION	MANUFACTURER'S MARK YEAR
DRG. NOT TO BE SEALD	SCALE: 2:1	ISSUE NO. M9 300 220 CB
DATE: 12-7-92	DATE: 12-7-92	M9 300 230 CB
DRN: S. Romus	TCO: S. Romus	HOLDER
CHK: M. Romus	APP: M. Romus	M9 300 221 T
CONTROLLER OF QUALITY ASSURANCE		(INFANTRY COMBAT VEHICLES) 31 OF 47

DRAWING NUMBER

M3 300 230CB



DESIGNATION	ADDITIONAL TECHNICAL REQUIREMENTS
M3 300 230 -T	COAT HEADS OF RIVETS AND PLACES OF RIVETTING WITH WHITE ENAMEL AK 1102, TY6-10-1408-78.

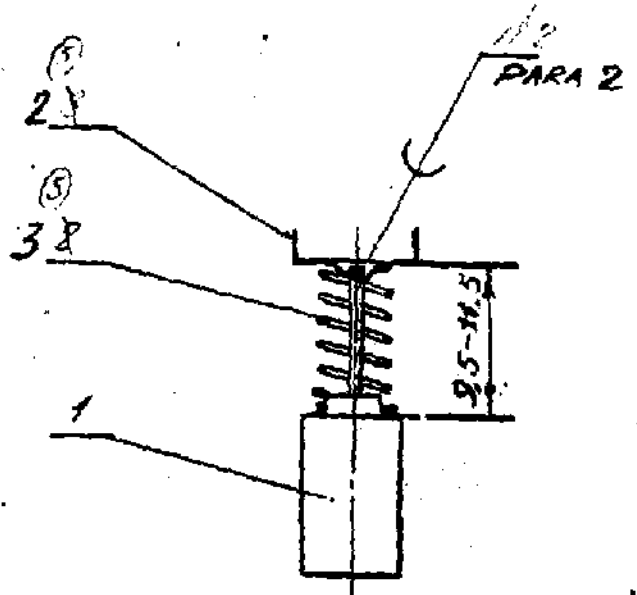
PILOT SAMPLE SHOULD BE APPROVED BY A.H.S.P BEFORE BULK PRODUCTION.

EST. MASS.	TO BE STAMPED OR MARKED WHERE INDICATED THUS: (LETTERS).
6.1	

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

DCI No	ISSUE	NATURE OF AMENDMENTS	DCI No	ISSUE	NATURE OF AMENDMENTS
DRN.	<i>S. Romm</i>	MIDDLE HOLDER ASSY	WEIGHT	SCALE	
TCD.	<i>S. Romm</i>		61	2:1	
CHD.	<i>S. Romm</i>	M3 300 230CB	SHEET	SHEETS	
APPD.	<i>S. Romm</i>			OF	
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 12 OF 47					

DRAWING NUMBER
MЭ 300-300CБ



DESIGNATIONS	ADDITIONAL REQUIREMENTS
MЭ 300-300	2. SOLDER WITH SOLDER П DC-40 GOST 21931-76
MЭ 300-300-T	2. SOLDER WITH TIN GOST 860-75 COAT SOLDERED PLACES WITH RED ENAMEL XB-124, GOST 10144-62.

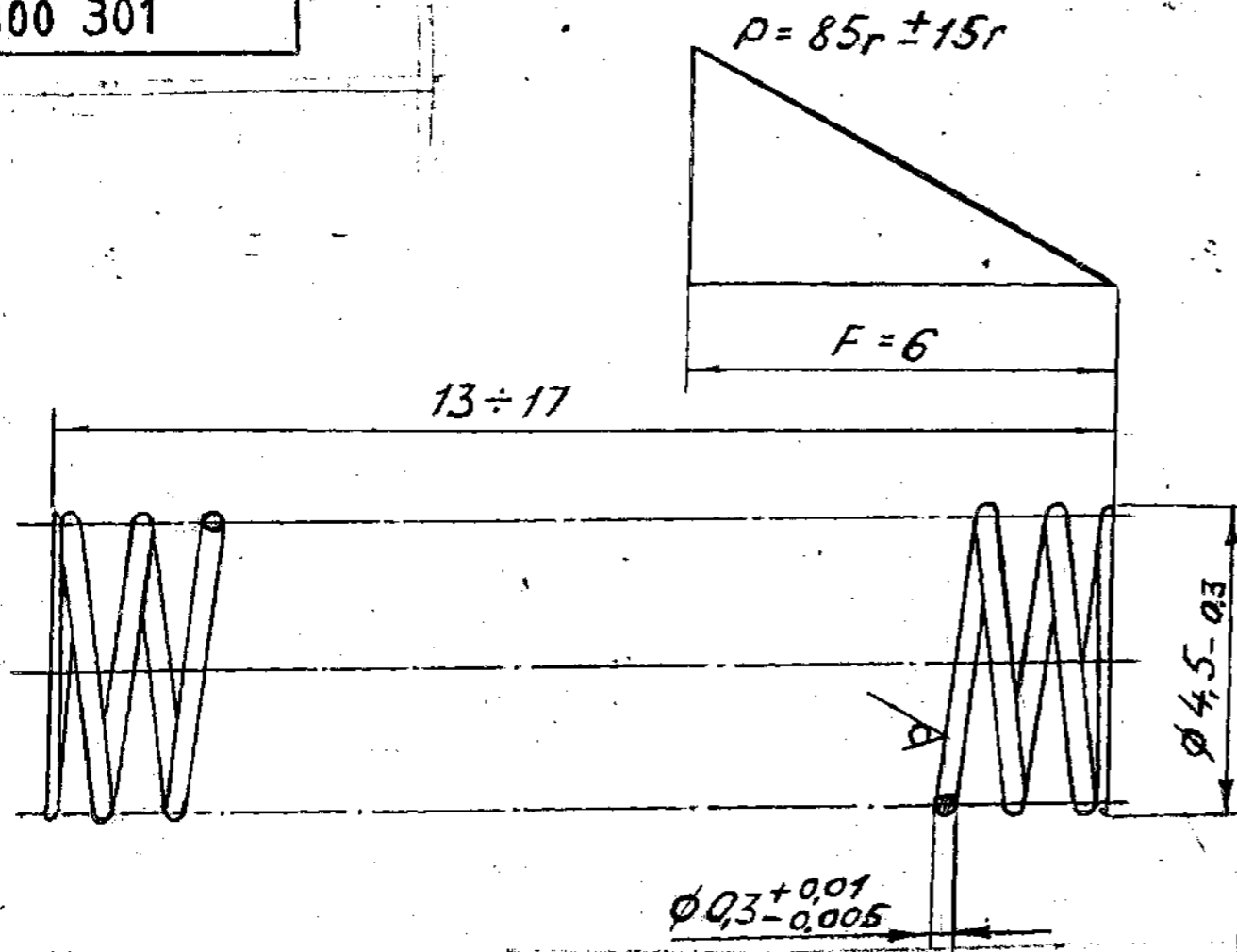
1. AFTER WIRE OF BRUSH HAS BEEN SOLDERED TO CONTACT 3, WIRE SURPLUS SHOULD BE CUT OFF.

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

MATERIAL :-		STAMP OR STCH. PART NO.	
ALL SHARP EDGES & CORNERS TO BE ROUNDED	ALL THREADS TO CONFORM TO SPECIFICATION	MANUFACTURERS NAME & YEAR OF MFG.	
DRG. NOT TO BE SCALED	TOLERANCE ON DIMENSIONS (MM) ±0.15 OTHERWISE SPECIFIED	USED ON:-	
SCALE :- 2:1		MЭ 3015 3730010CБ	
DATE :- 22-7-92	BRUSH ASSY MЭ 300-300CБ		
DRN. D. Ponomarev			
TCO. S. Ponomarev			
CHD. A. Ponomarev			
APD. S. Ponomarev	WT :- (Kg) 0.7 g		

CONTROLLERATE OF QUALITY ASSURANCE
(INFANTRY COMBAT VEHICLES)

DRAWING NUMBER
M3 300 301



1. Direction of spring winding is arbitrary.
2. Total number of coils. - 13 ± 1.5 .
3. Bend or ground (square to spring axis) extreme coils.
4. Subject to normalizing.
5. Chemical oxidizing with inhibition.

Coating: colourless varnish AX 113φ
GOST 23832-79 IV-T2.

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

EST. MASS 0.1g 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 OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE

EXPLANATORY NOTE:-

7. REFERENCE MATERIAL QUOTED: COLD DRAWN CARBON STEEL HIGH PRECISION WIRE $\phi 0.3^{+0.010}_{-0.005}$ mm TO TY 14-4-122-73.

a) CHEMICAL COMPOSITION AS PER TY 14-4-122-73:-

C	Mn	Si	S	P	S + P	Cr	Ni	Cu
0.70 - 1.00	0.30 - 0.60	0.35	0.035	0.035	0.06	0.10	0.12	0.20

b) MECHANICAL PROPERTIES AS PER TY 14-4-122-73:-

WIRE DIA mm	ULTIMATE RUPTURE STRENGTH Kgf/mm ²	ONE SIDED TWISTING		
		TENSILE LOAD, Kg	SPECIMEN LENGTH	No. OF TWISTS (MIN)
0.3	265 - 295	1	200φ DIAMETERS	40

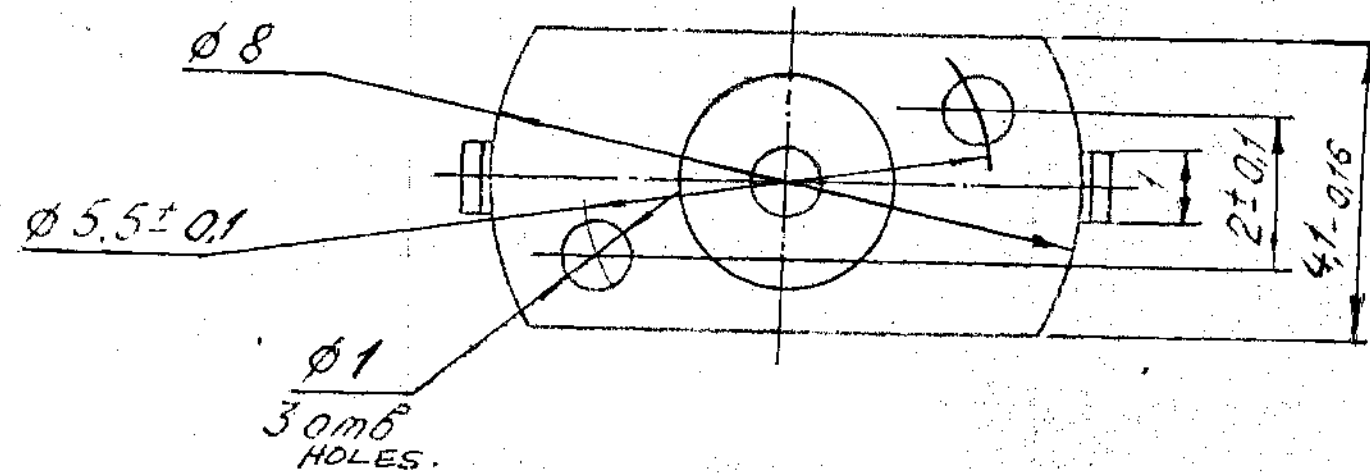
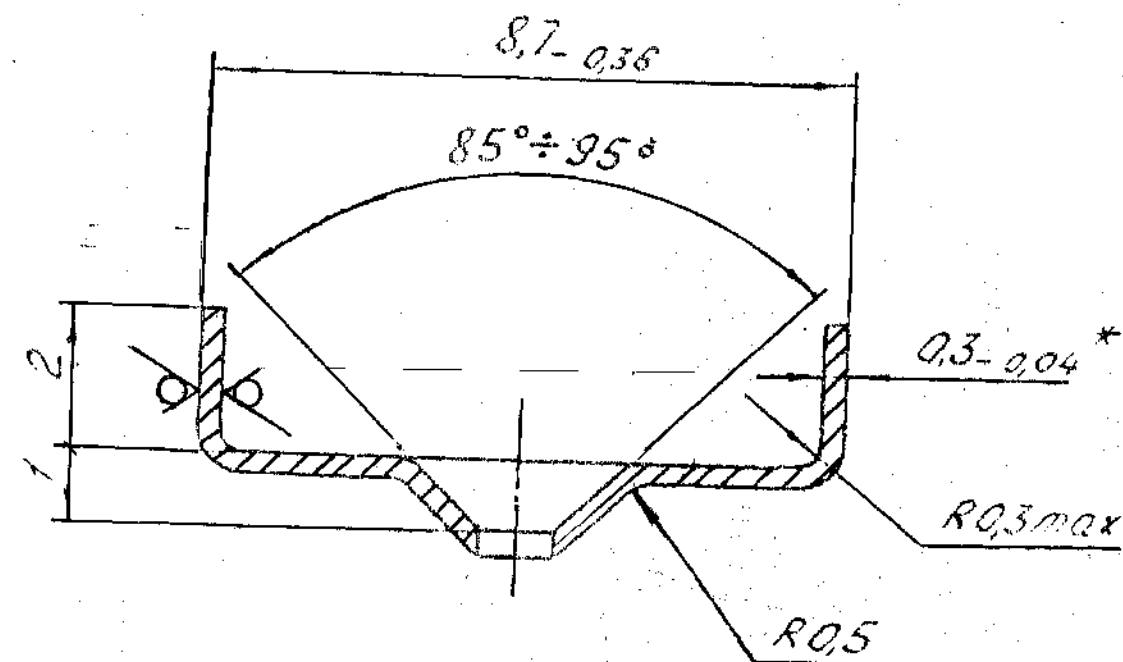
MATERIAL :- WIRE I-0.3 TY 14-4-122-73

ALL SHARP EDGES & CORNERS TO BE REMOVED OR	ALL THREADS TO CONFORM TO SPECIFICATION	STAMP OR ETCH PART NO. MANUFACTURER'S NAME & YEAR OF MFG.
DRG. NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON: M3 300 300c5
SCALE :- 10 : 1		
DATE :- 22-7-92		
DRN. S. Gannus	WT :- (Kg) 0.18	
TCD. S. Gannus		
CHD. S. Gannus		
APP. S. Gannus		

SPRING

M3 300 301

CONTROLLERATE OF QUALITY ASSURANCE
(INFANTRY COMPAT VEHICLES)



CODE K00	DESIGNATION 0003HQ4EHUE	COATING ПОКРЫТИЕ
45 7392 3818	M300-302	CHEMICAL PASSIVATION ХИМ. ПОС.
45 7392 3819	M300-302-T	0.12

- * DIMENSION FOR REFERENCE.
- UNSPECIFIED LIMIT DEVIATIONS OF DIMENSIONS ARE - FOR HOLES - ACCORDING TO A7. FOR SHAFTS -B7 FOR OTHERS CM7.
- SUBJECT TO ANNEALING AT TEMPERATURE 400°C.

EXPLANATORY NOTE:-

4. REFERENCE MATERIAL QUOTED:- COLD ROLLED, SOFT CONDITION NORMAL ACCURACY, 0.3 THICK BRASS STRIP GRADE L63, GOST 2208-75. MANUFACTURED AS PER GOST 15527-70.

a) CHEMICAL COMPOSITION:- AS PER GOST 15527-70.

Gde. OF BRASS	BASIC ELEMENTS		ADMIX					TOTAL
	Cu	Zn	Ph	Fe	Sh	Bi	P	
L63	62.0 65.0	REMANING	0.07	0.2	0.005	0.002	0.01	0.5

b) MECHANICAL PROPERTIES:- AS PER GOST 2208-75.

Gde. OF BRASS	MATERIAL CONDITION	TENSILE STRENGTH Kgf/mm ²	ELONGATION % (MIN)
L63	SOFT	30-42	30

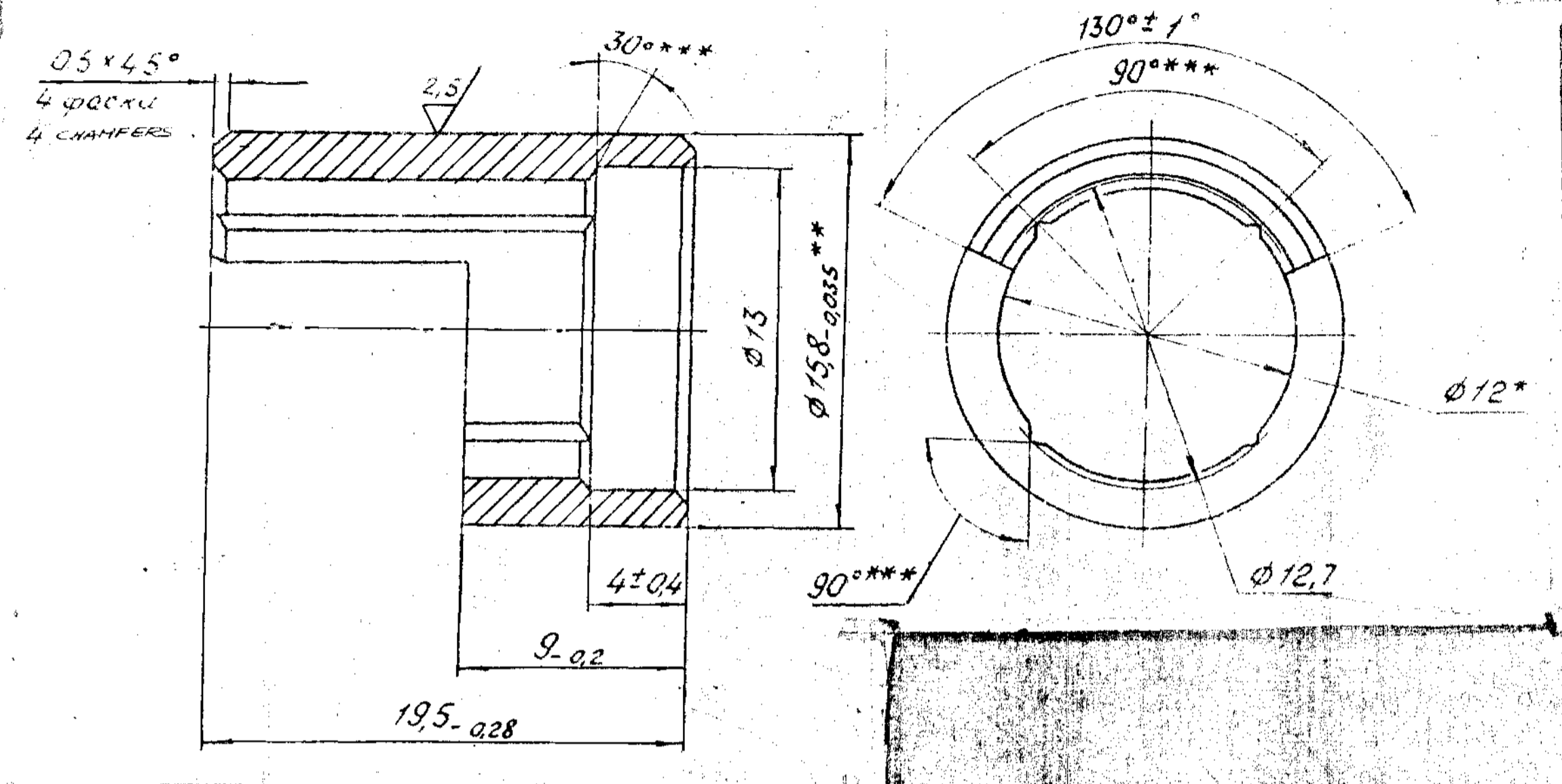
PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.

EST. MASS 0.05g	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.

MATERIAL :- BAND АЛРМ 0.3 НВ Л 63 GOST 2208-75		
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF	TO CONFORM TO	STAMP OR ETCH PART NO.
DRG. NO. TO BE STAMPED	TO CONFORM TO	MANUFACTURE DATE & YEAR
SCALE :- 10:1	GENERALLY ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON: M300 300CB
DATE :- 22-7-92	DRN. <i>B. Bonnik</i>	<p>CONTACT M300 302</p> <p>CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 34 OF 47</p>
TCD. <i>B. Bonnik</i>	0.05g	
CHD. <i>B. Bonnik</i>		
APD. <i>B. Bonnik</i>		
ISSUE	DATE	NATURE OF AMENDMENTS

R230
▽ (▽)



EXPLANATORY NOTE:-

6. REFERENCE MATERIAL QUOTED: COLD ROLLED OR EXTRUDED ROUND COPPER HARD CONDITION DIA. 16X2mm GRADE M1 OF GOST 617-72 (COPPER GRADE M1 PRODUCED FROM GOST 859-66).

a) CHEMICAL COMPOSITION AS PER GOST 859-66:-

GRADE OF COPPER	Cu	IMPURITIES (MAXIMUM)								
		Bi	Sb	As	Fe	Ni	Pb	Ti	S	Zn
M1	99.9	0.001	0.002	0.002	0.005	0.002	0.005	0.002	0.004	0.004

b) MECHANICAL PROPERTIES:- AS PER GOST 617-72

GRADE OF COPPER	MATERIAL CONDITION	TENSILE STRENGTH Kgf/mm ²	ELONGATION %
M1	HARD	29 (MIN)	2 (MIN)

1. * Deformation of material after broaching of grooves may be upto 11.8mm.
2. ** Technological dimension.
- 3.*** Dimensions are ensured by tool.
4. Unspecified limit deviations of hole dimensions are according to A7.
5. Unspecified limit deviations of angular dimensions are according to 10 degree of accuracy Gost 8908-58.

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

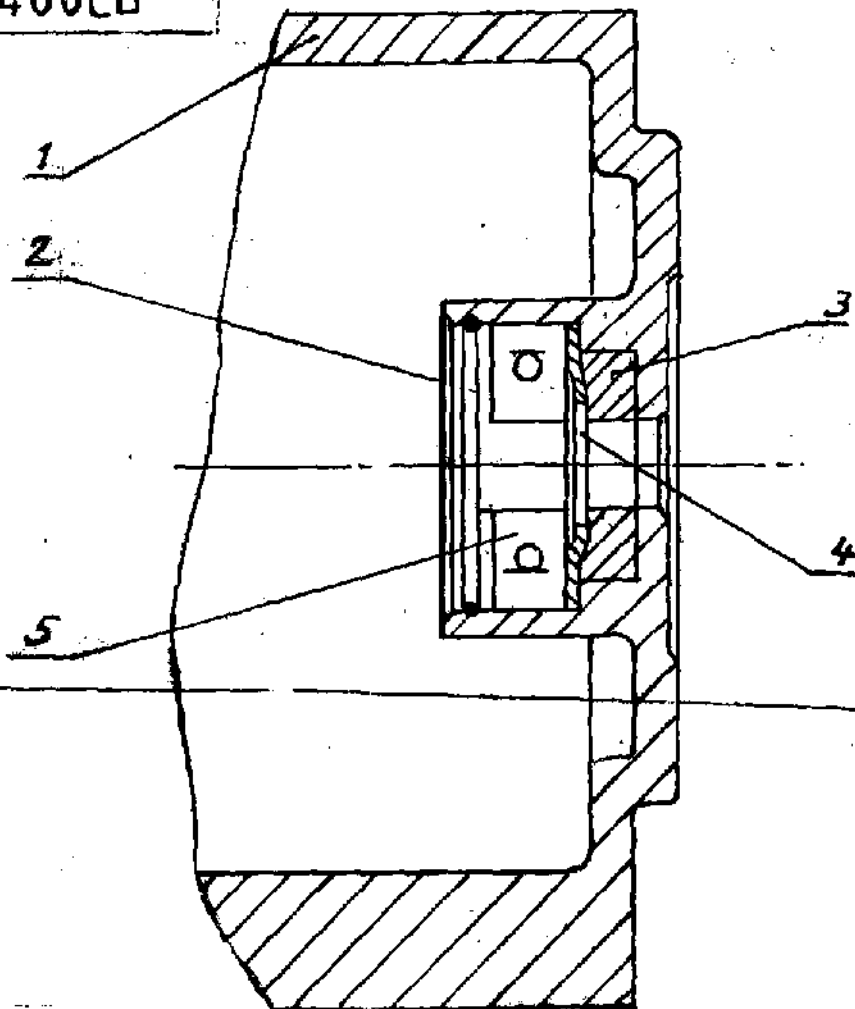
EST. MASS 8g	TO BE STAMPED OR MARKED WHERE INDICATED THUS * (LETTERS)
ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE	

MATERIAL :- TUBE MI-T-16X2 GOST 617-72		STAMP OR ETCH PART NO.
DRG. NO. TO 2		DATE
SCALE :- 5:1		DRN. <i>S. Gannur</i>
DATE :- 27-7-92		TEC. <i>S. Gannur</i>
CHD. <i>S. Gannur</i>		APD. <i>S. Gannur</i>
M3 300100 CB		SLIP RING
M3 300 303		CONTROL DATE OF VALIDITY (INDUSTRY COMBAT VEHICLES)
ISSUE	DATE	NATURE OF AMENDMENTS

DRAWING NUMBER

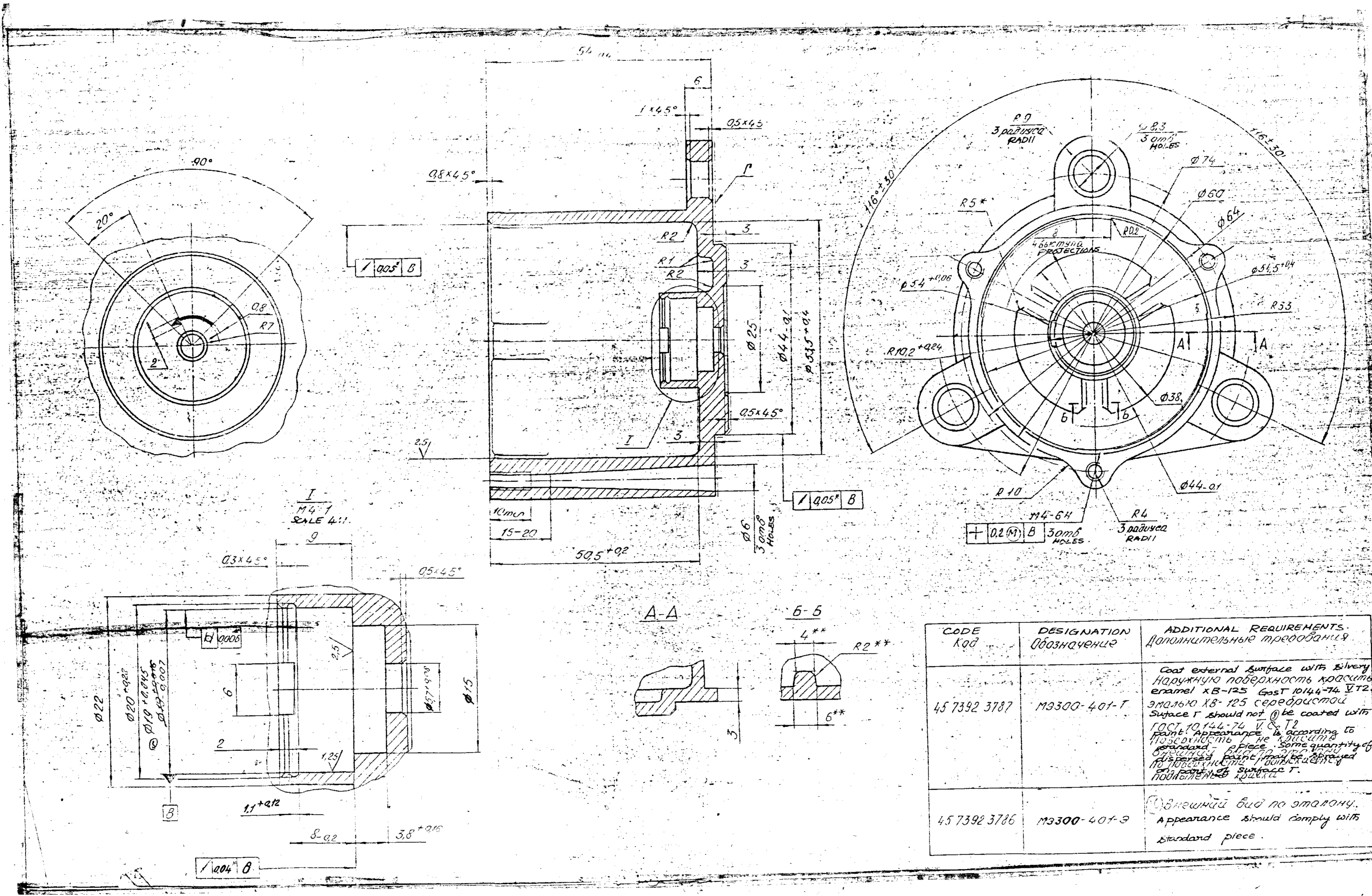
MЭ 300 400CB

D
C
B
A



MЭ 300 400	STUFF BALL BEARING 5 WITH GREASE TDU-84n GOST 3276-74 OF WEIGHT 0.1 TO 0.15g
MЭ 300 400-T	STUFF BALL BEARING 5 WITH 0.1 TO 0.15g OF GREASE U, UATUM-221 GOST 9433-80 OR OKB-122-7 GOST 18179-72.

MATERIAL		ALL SHARP EDGES & CORNERS TO BE BOUNDED OFF		ALL THREADS TO CONFORM TO SPECIFICATION		STAMP OR STCH. PART NO. MANUFACTURERS NAME & YEAR OF MFR.	
DRG. NOT TO BE SCALED		SCALE 1: 2: 1		TOLERANCE ON DIMENSIONS UNLE -SS OTHERWISE SPECIFIED		USED ON:-	
DATE 22-7-92		DRN. D. Ponomarev		WT 1- (kg) 346 g.		MЭ 3016 3730010CB	
TCD. D. Ponomarev		CHD. W. L. W.		APD. S. K. S.		CASING ASSY	
						MЭ 300 400CB	
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)						16 OF 47	



CODE Код	DESIGNATION Обозначение	ADDITIONAL REQUIREMENTS Дополнительные требования
45 7392 3787	M3300-401-T	Coat external surface with silver enamel XB-125 Gost 10144-74 VT2 эмалью XB-125 серого цвета ГОСТ 10144-74 VT2. Surface T should not be coated with paint. Appearance is according to standard. A piece some quantity of this type must be approved by the customer. Поверхность T не покрывать краской. Внешний вид по эталону. Аппаранс должен соответствовать стандарту.
45 7392 3786	M3300-401-3	Внешний вид по эталону. Appearance should comply with standard piece.

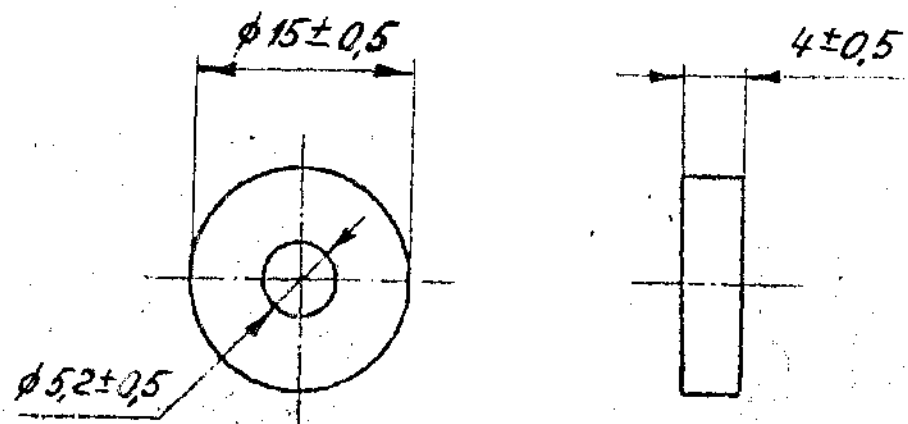
- ALTERNATE MATERIAL IS ALLOY U AM4-1 GOST 19424-74.
- 1. * LIMIT DEVIATIONS ARE ENSURED BY TOOL.
- 2. ** DIMENSIONS ARE ENSURED BY TOOL.
- 3. UNSPECIFIED LIMIT DEVIATIONS OF DIMENSIONS ARE FOR HOLES - ACCORDING TO A7, FOR SHAFTS-B7, FOR OTHERS CM7.
- 4. UNSPECIFIED LIMIT DEVIATIONS OF ANGULAR DIMENSIONS ARE ACCORDING TO 10 DEGREE OF ACCURACY GOST 8908-56.
- 5. HEIGHT OF RAISED PORTER ON RIGHT VIEW IS 0.3mm MAX.
- 6. COATING: CHROMOTIZING.

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

EST. MASS 330g TO BE STAMPED OR MARKED WHERE INDICATED THIS * LETTERS)
ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINER CORNERS TO HAVE R. OUTSIDE R. FROM BLANK UNLESS OTHERWISE PERMITTED.

MATERIAL: ALLOY U.A.4 GOST 19424-74	
DRG. NO. 2-31	DATE 22-7-92
TO: 3308	CH: 3308
M3 300 400 CB	
CASING M3 300 401	
CONTROLLERATE OF QUALITY ASS	
INVENT: LOMBAT VILLELS	
ISSUE	DATE
NATURE OF CHANGES	

DRAWING NUMBER
MЭ 300 402



KOD CODE	DESIGNATION ОБОЗНАЧЕНИЕ	MATERIAL МАТЕРИАЛ	WEIGHT МАССА
	MЭ300-402	FELT. ВОУЛОК TC-T4 ГОСТ 288-72	0,212 г.
	MЭ300-402-T	FELT. ВОУЛОК TC-4 ГОСТ 288-72-ГОСТ 15159-76 пропитанный хромом impregnated with chromates.	0,232 г.

EXPLANATORY NOTE:-

1. REFERENCE MATERIAL QUOTED: FINE WOOL GLAND PACKING TAPE (CT) RETAINING LUBRICATING OIL IN FRICTION PARTS AND SEALING OF WASHER AND DUST, TO GOST 288-72

PARAMETERS:- FOR GLAND PACKING

- a) STANDARD MOISTURE CONTENT % ---- 13
- b) DENSITY g/cm³ ----- 0.44 ± 0.02
- c) ULTIMATE STRENGTH AT RUPTURE
(FOR 5mm FELT THICKNESS)
Kgf/cm² (MINIMUM) } ---- 35
- d) ELONGATION AT RUPTURE % (MAX) ---- 135
- e) VEGETABLE IMPURITIES CONTENT % } ---- 0.5
(MAXIMUM)
- f) NON WOOLLEN FIBRE CONTENT % (MAXI- 0.5
- g) MINERAL IMPURITIES CONTENT % } ---- 0.12
(TOGETHER WITH ASH FROM
VEGETABLE IMPURITIES) MAXIMUM.

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

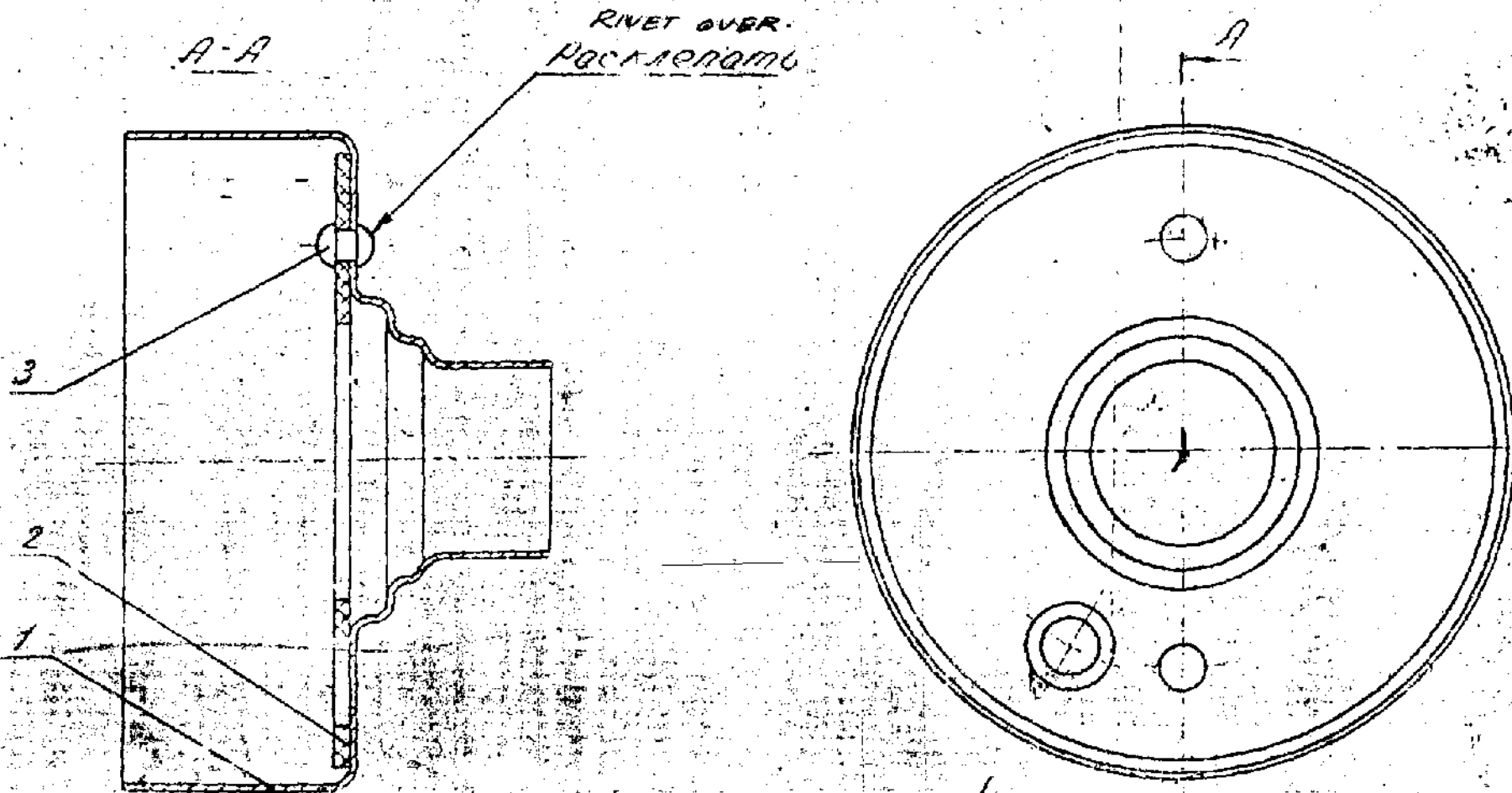
EST. MASS TO BE STAMPED OR MARKED WHERE INDICATED THUS # (LETTERS)

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

MATERIAL :- SEE TABLE		
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF	ALL THREADS TO CONFORM TO SPECIFICATION	STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFG.
DRG. NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED UNIT: MЭ 300 400 CB
SCALE :- 2:1	DATE :- 21-7-82	<p>GLAND</p> <p>MЭ 300 402</p> <p>CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)</p> <p style="text-align: right;">37 OF 47</p>
DRN. <i>S. Gonnur</i>	WT :- (Kg) SEE TABLE	
TCD. <i>S. Gonnur</i>		
CHD. <i>S. Gonnur</i>		
APP. <i>S. Gonnur</i>		

DRAWING NUMBER

MЭ 300 500ACБ



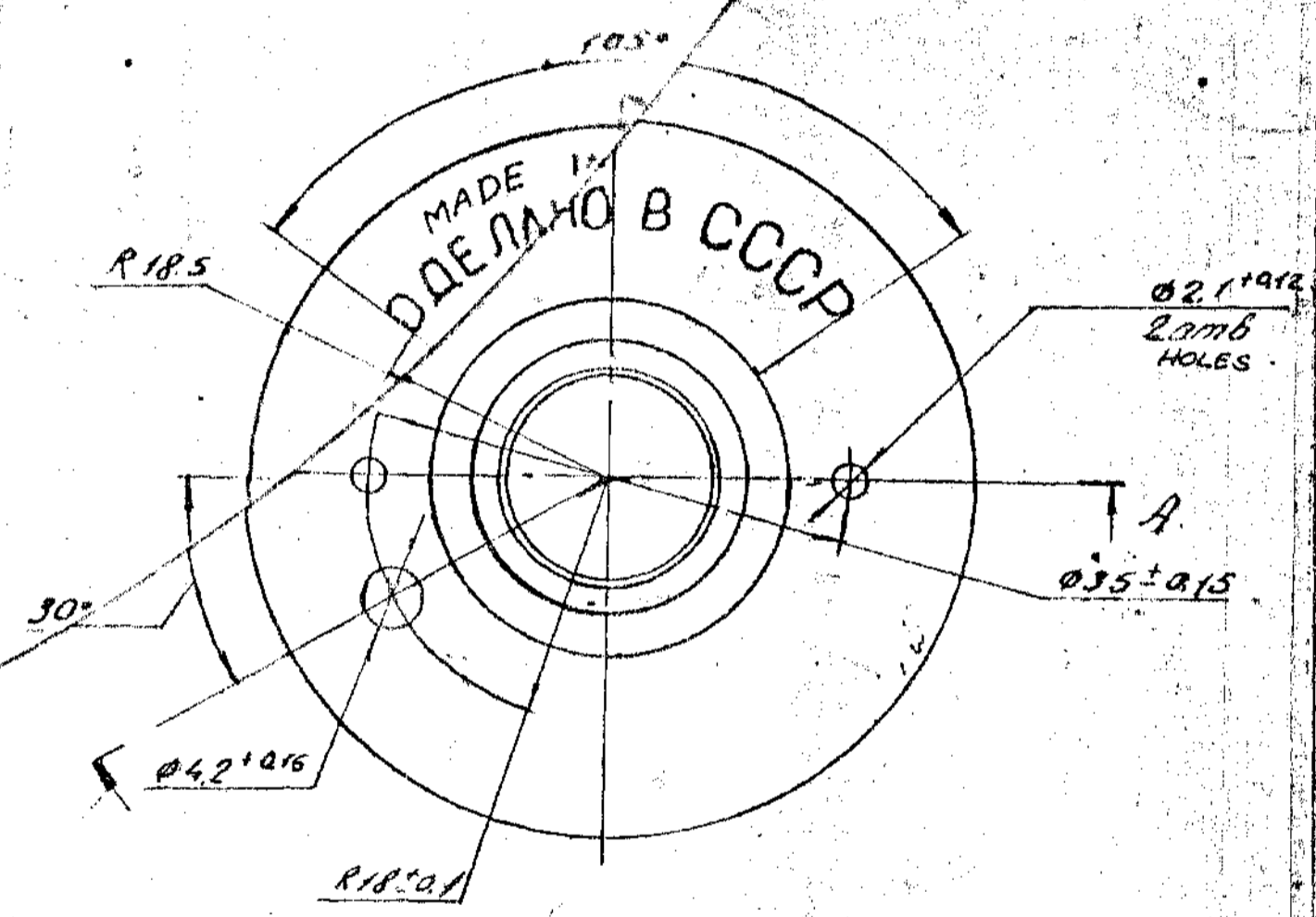
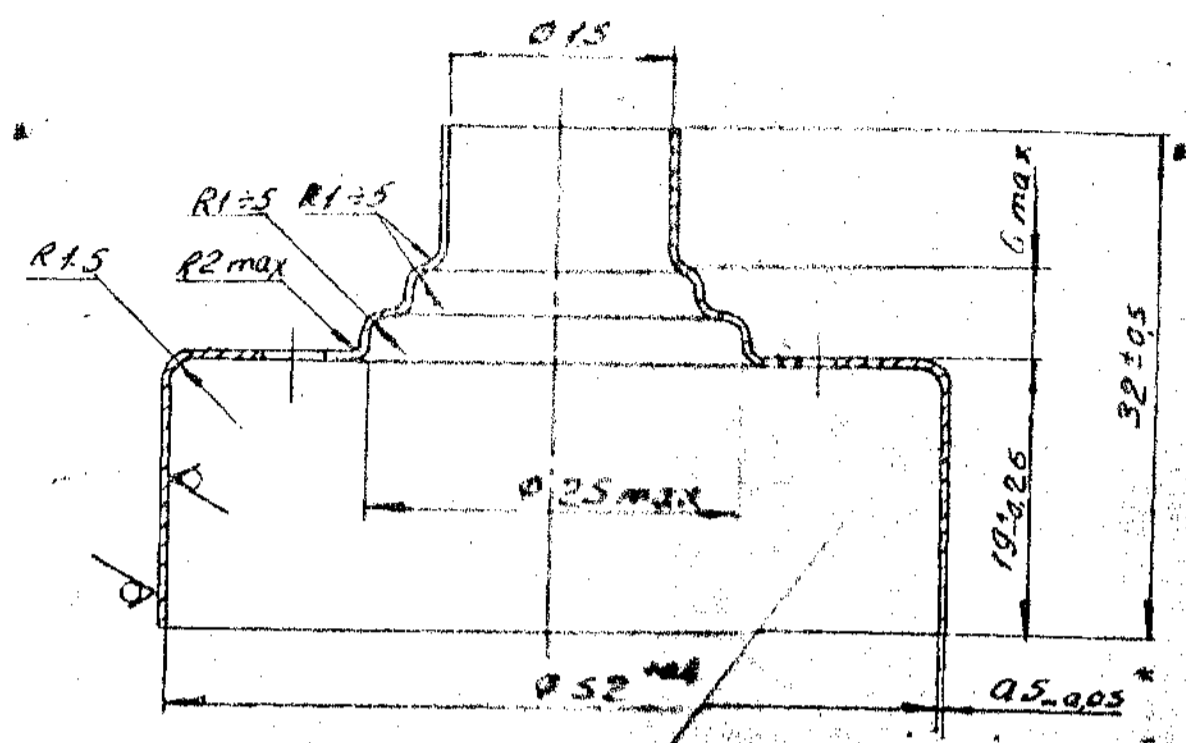
DESIGNATION	COATING
MЭ 300 - 500A.T	COAT RIVETTED PLACES AND RIVET HEADS WITH WHITE ENAMEL AK1102 TY6 - 10 - 1498-78.

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

EST. MASS 38 g	TO BE STAMPED OR MARKED WHERE INDICATED THUS # LETTERS) 1
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ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUT-SIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE

MATERIAL		STAMP OR ETCH, PART NO.
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF	ALL THREADS TO CONFORM TO SPECIFICATION	MANUFACTURERS NAME & YEAR OF MFR.
WRE. NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON...
SCALE - 2:1	DATE: 02-7-82	MЭ 301Б 3730010 СБ
DRN: [Signature]	WT. (Kg) 38.9	COVER ASSY
TRD: [Signature]	[Symbol]	MЭ 300 500ACБ
QSD: [Signature]		
APB: [Signature]		
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)		
		18 OF 47



1. * DIMENSION FOR REFERENCE.
2. UNSPECIFIED LIMIT DEVIATIONS OF DIMENSIONS ARE FOR HOLES ACCORDING TO A7, FOR SHAFTS B7, FOR OTHERS CM7.
3. INSCRIPTION "MADE IN" SHOULD BE POSITIONED SYMMETRICALLY TO AXIS. "MADE IN" SHOULD BE CARRIED OUT BY H3 AS PER CТН 37. 453.009 LETTER DEPTH IS 0.2mm.

EXPLANATORY NOTE:-

4. REFERENCE MATERIAL QUOTED: COLD ROLLED LOW CARBON STEEL, EXTRA SOFT, SECOND GROUP, NORMAL ACCURACY STEEL STRIP 0.5-0.05mm THICK GRADE 08Kn TO GOST 503-71.
- a) CHEMICAL COMPOSITION AS PER GOST 1050-74:-

GRADE OF STEEL	CONTENT OF ELEMENTS %						
	C	Si	Mn	Cr	Ni	S	P
08Kn	0.05 - 0.11	0.03 (MAX)	0.25 - 0.50	0.10	0.25	0.04	0.035

- b) MECHANICAL PROPERTIES AS PER GOST 503-71:-

GRADE OF STEEL	CONDITION OF MATERIAL	U T S Kgf/mm ²
08Kn	0M (EXTRA SOFT)	25 TO 40

DESIGNATION	COATING AND ADDITIONAL TECHNICAL REQUIREMENTS
МЭ 300 501	Zn 15 CHROMOTIZING.
МЭ 300 501-T	Cd 21 CHROMOTIZING. APPEARANCE- ACCORDING TO STANDARD PIECE.
МЭ 300 501-Э	Zn 15 CHROMOTIZING. APPEARANCE- ACCORDING TO STANDARD PIECE.

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

EST. MASS	TO BE STAMPED OR MARKED WHERE INDICATED THUS #:
35g	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

MATERIAL :- BAND 08Kn-0M-HT-2-0-0.5 GOST 503-71

DRG. NO. 2:1

DATE: 22-7-72

DR: [Signature]

TE: [Signature]

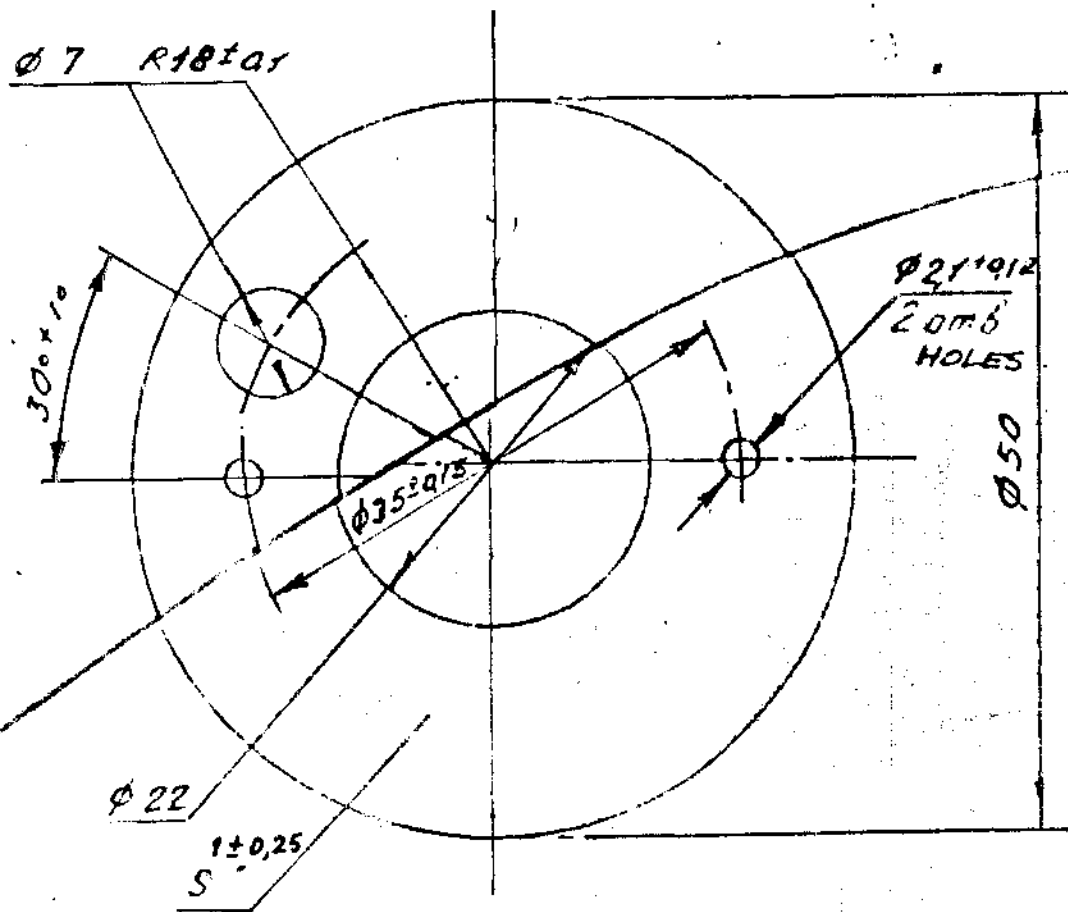
CP: [Signature]

ISSUE DATE NATURE OF AMENDMENTS

COVER
МЭ 300 501

CONTROLLERATE OF QUALITY ASSURANCE
(INFANTRY COMBAT VEHICLES) 38 OF 47

DRAWING NUMBER
M) 300 502T



1. UNSPECIFIED LIMIT DEVIATIONS OF DIMENSIONS ARE FOR HOLES -A7, FOR SHAFTS -B7.
2. * DIMENSION FOR REFERENCE.

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

EST. MASS. 2.9g	TO BE STAMPED OR MARKED WHERE INDICATED THUS -H- (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.

EXPLANATORY NOTE:-

3. REFERENCE MATERIAL QUOTED: ELECTRICAL INSULATION GLASS TEXTOLITE SHEET GRADE CT9Φ -J- TO GOST 12652-75.

PARAMETERS

- DENSITY g/cm³ ----- 1.60 TO 1.70
- RESISTANCE TO SHORT DURATION HEATING --- 200°C (MIN)
- RESISTANCE ACTION OF OIL (TRANSFORMER OIL) --- 4 Hrs 130°C (P/W)
- WATER ABSORPTION ----- 1% (MAX)
- SURFACE RESISTIVITY ohms 1 X 10⁹ (MIN) OF RELATIVE HUMIDITY 45 TO 75% AND TEMPERATURE 15 TO 35°C.
- 1 X 10¹² AFTER SOAKING FOR 24 HOURS IN A HUMIDITY CHAMBER AT RELATIVE HUMIDITY OF 95±2% AND 20±2°C.
- VOLUME RESISTIVITY ohm cm (MIN).
- 1 X 10¹³ AT A RELATIVE HUMIDITY OF 45 TO 75% AND 15 TO 35°C.
- 1 X 10¹² AFTER SOAKING FOR 24 HOURS IN A HUMIDITY CHAMBER AT RELATIVE HUMIDITY 95±2% AND 20±2°C.
- DISSIPATION FACTOR AT 50HZ RELATIVE HUMIDITY 45 TO 75% AND 15 TO 35°C MAX. 0.03.
- DIELECTRIC STRENGTH PERPENDICULAR TO THE LAYERS AT 50HZ IN TRANSFORMER OIL AT 90±2°C (MIN) 27 KV_{eff}/mm.

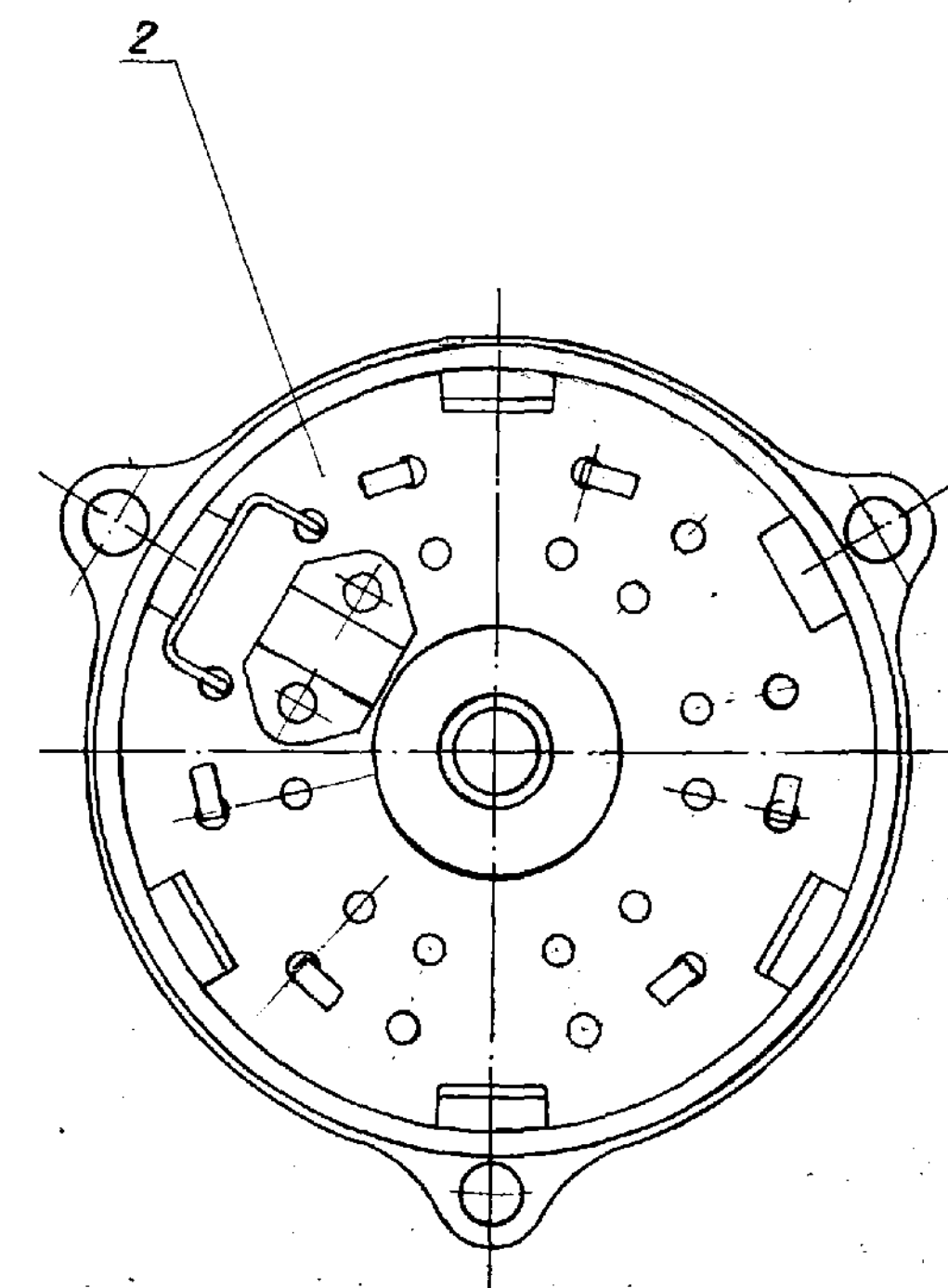
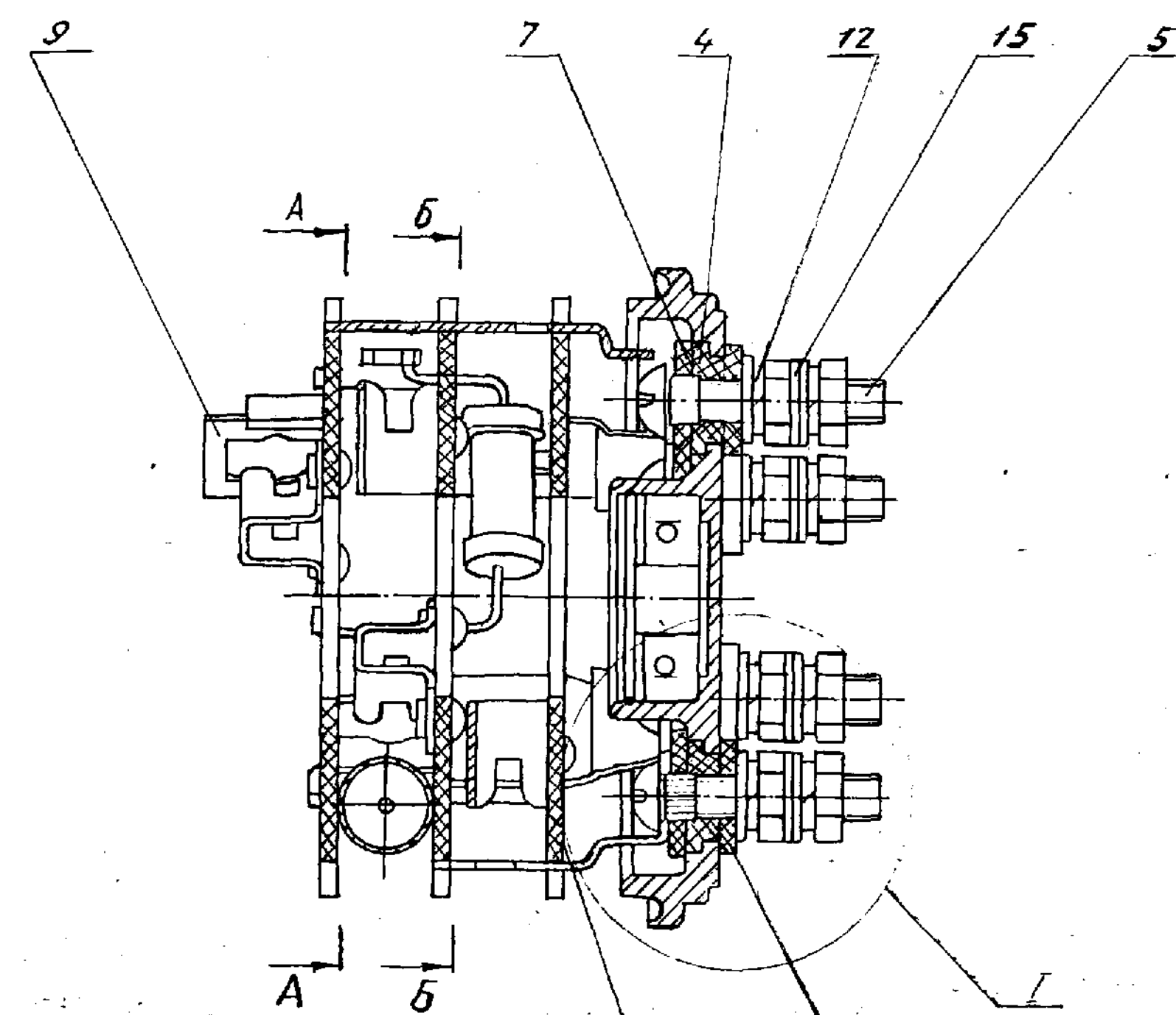
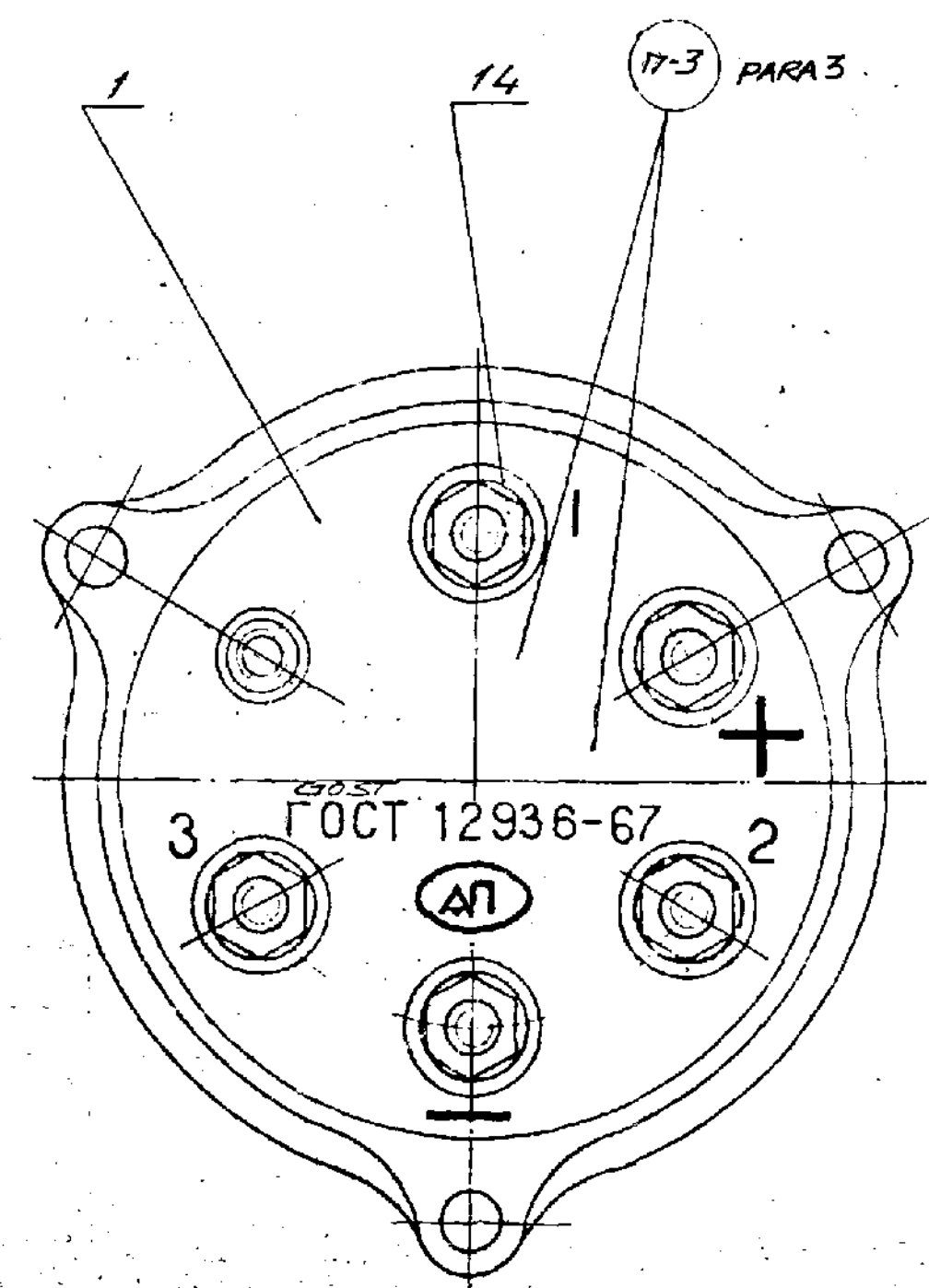
MATERIAL :- GLASS CLOTH BASE LAMINATE CT9Φ-1-1.0 GOST 12652-75	
ALL SHARP EDGES & CORNERS TO BE REMOVED UNLESS OTHERWISE STATED	ALL DIMENSIONS TO CONFORM TO SPECIFICATION
DRG. NOT TO BE SCALED	STAMP OR ETCH, PART NO. MANUFACTURER'S NAME & YEAR OF MFG.
SCALE :- 2:1	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED
DATE :- 22-7-92	USED ON: M) 300 500ACE
DRN. S. Bonnus	
TCD. S. Bonnus	
CHD. S. Bonnus	
APP. S. Bonnus	
	GASKET M) 300 502T
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)	
	39 OF 47

USED ON
M3E10E -
37300100E

ITEM	DRAWING NUMBER	D. S. CAT NUMBER	DESCRIPTION	No. OFF	REMARKS
	M3 301 201 CE		BRUSH SUPPORT ASSY		
1	M3 301 210 CE		COVER ASSY	1	
2	M3 300 220 CE		HOLDER ASSY	2	
3	M3 300 230 CE		MIDDLE HOLDER ASSY	1	
4	EN 12 3 1200		BUSH	5	
5	M3 29 115		CONTACT SCREW	5	
6	M3 29 115		WASHER	4	
7	M3 300 201 E		HOLDER	1	
8	M3 302 202		POST	3	
9	M3 300 203		POST	1	
10	M3 300 204		POST	1	
12	-N. D-		WASHER 4 65F 026	10	GOST 6402-70
13	-N. D-		RESISTOR MNT-20-430	3	GOST 7113-77
			OHM ± 5% - B		
14	-N. D-		NUT M4 6H M6 H22-16-02.	10	
15	-N. D-		WASHER 4.5x8H6.H24-02-03.	15	

DCI] No DATE	ISSUE	NATURE OF AMENDMENTS	DCI] No DATE	ISSUE	NATURE OF AMENDMENTS	WEIGHT	SCALE
	<i>S. Bonnius</i>	BRUSH SUPPORT ASSY.					
DRN.	<i>S. Bonnius</i>					SHEET	SHEETS
TCD.	<i>S. Bonnius</i>					1	OF 1
CHD	<i>S. Bonnius</i>	M3 3015 200 CB					
APPD	<i>S. Bonnius</i>						

CONTROLLERATE OF QUALITY ASSURANCE
(INFANTRY COMBAT VEHICLES) 19 OF 47



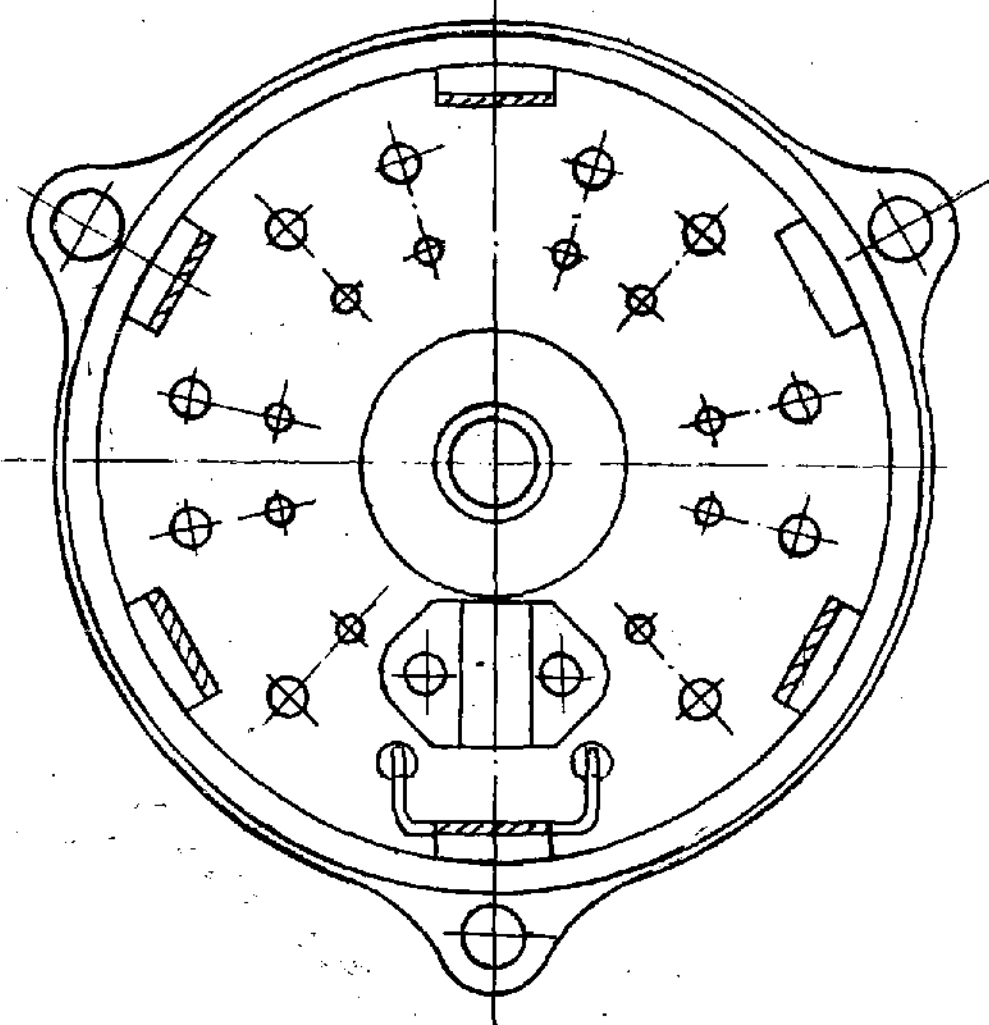
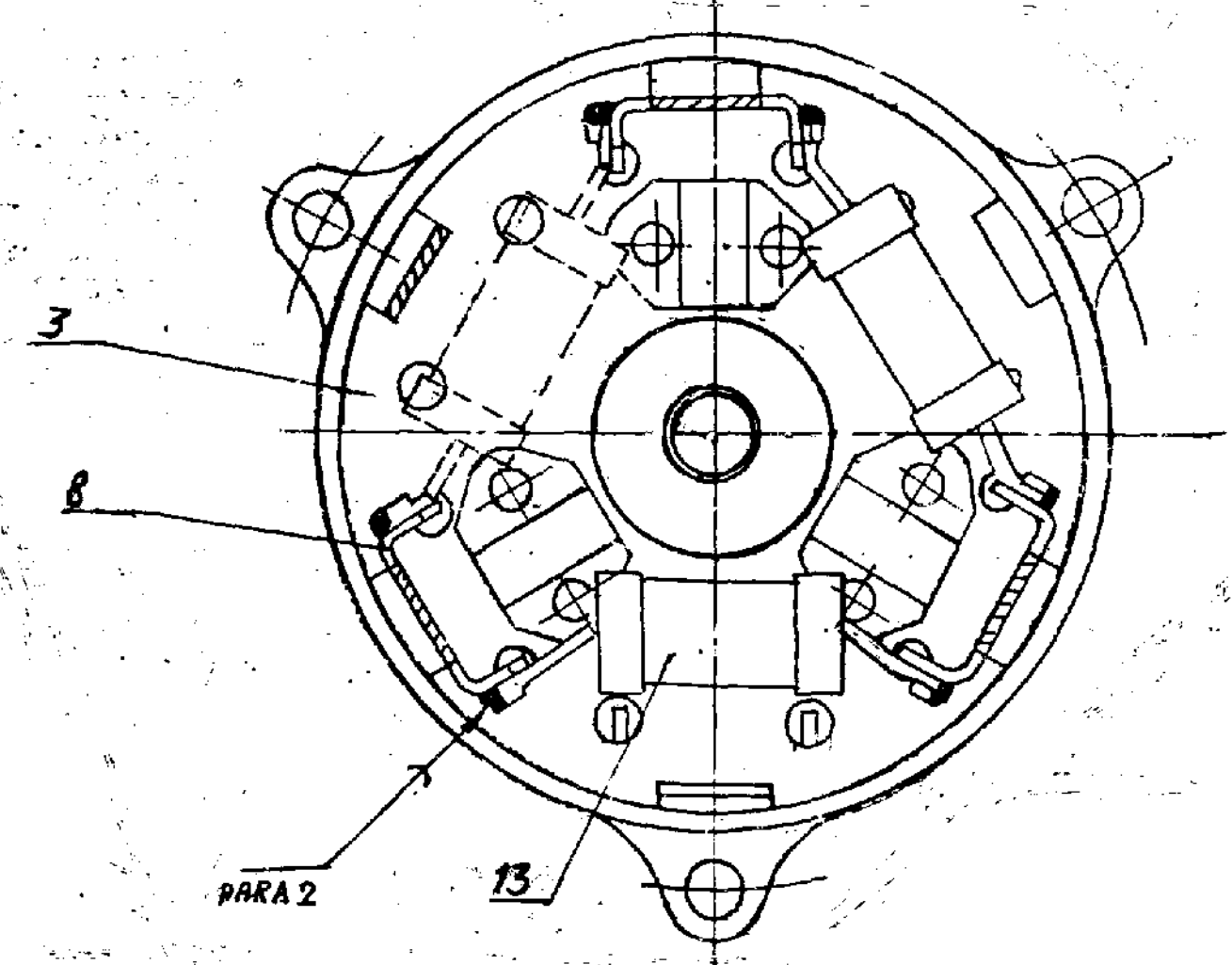
1. Bend tools of Post 8 to holder 3. Post should be tightly pressed to holder.
2. Resistors 13 should be fixed by bending of post lugs and soldering. Projecting part of lead should be cut-off.
3. Place for marking voltage and type of instrument.
4. While mounting resistors 13, prevent their contact with conductor posts 9, 10.
5. Appearance - according to standard piece.

CODE	DESIGNATION	ADDITIONAL REQUIREMENTS
45 7392 3729	M3.3015-200-T	TIN GOST 860-75

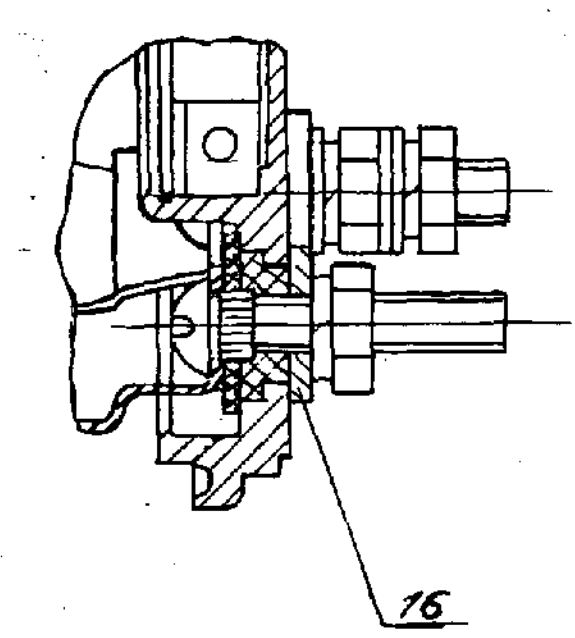
FOR 6 AND
DIA M33005-200 U M33016 200

A-A

B-B



FOR 1 AND
DIA M3300-200 U M3301-200



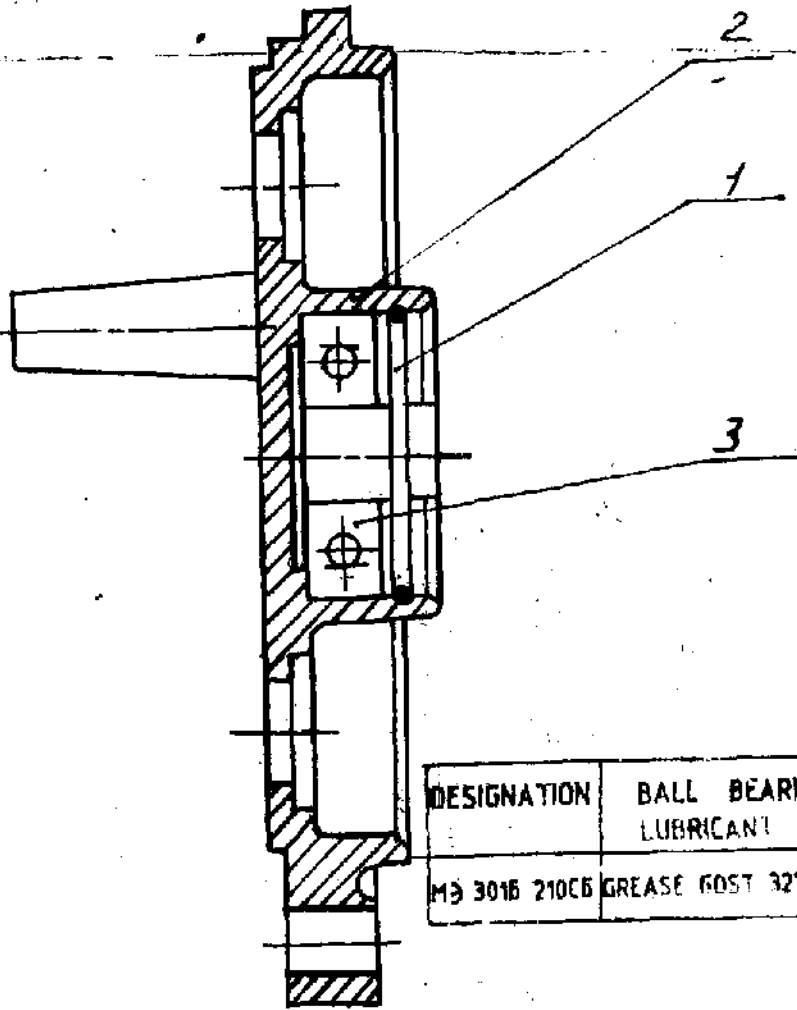
PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.

EST. MASS 110	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 OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE	

MATERIAL		MATERIAL	
DATE	2:1	DATE	2:1
SCALE	1:1	SCALE	1:1
DESIGNER	110 kg	DESIGNER	110 kg
DATE		DATE	
BRUSH SUPPORT ASSY.		BRUSH SUPPORT ASSY.	
M3 3015 200C6		M3 3015 200C6	
CONTROL CENTER OF QUALITY ASSURANCE		CONTROL CENTER OF QUALITY ASSURANCE	
INTEGRITY COMPANY		INTEGRITY COMPANY	
ISSUE	DATE	ISSUE	DATE

DRAWING NUMBER

M3 3015 210 CB

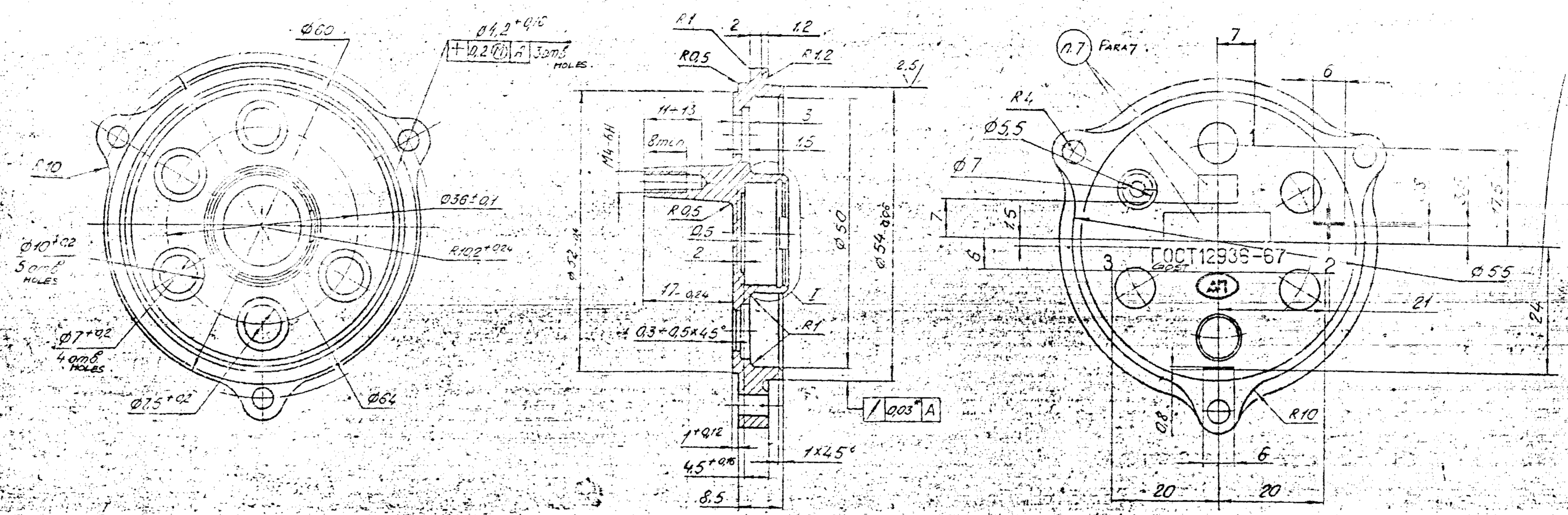


DESIGNATION	BALL BEARING LUBRICANT	LUBRICANT WEIGHT
M3 3015 210CB	GREASE GOST 3276-79	0.1

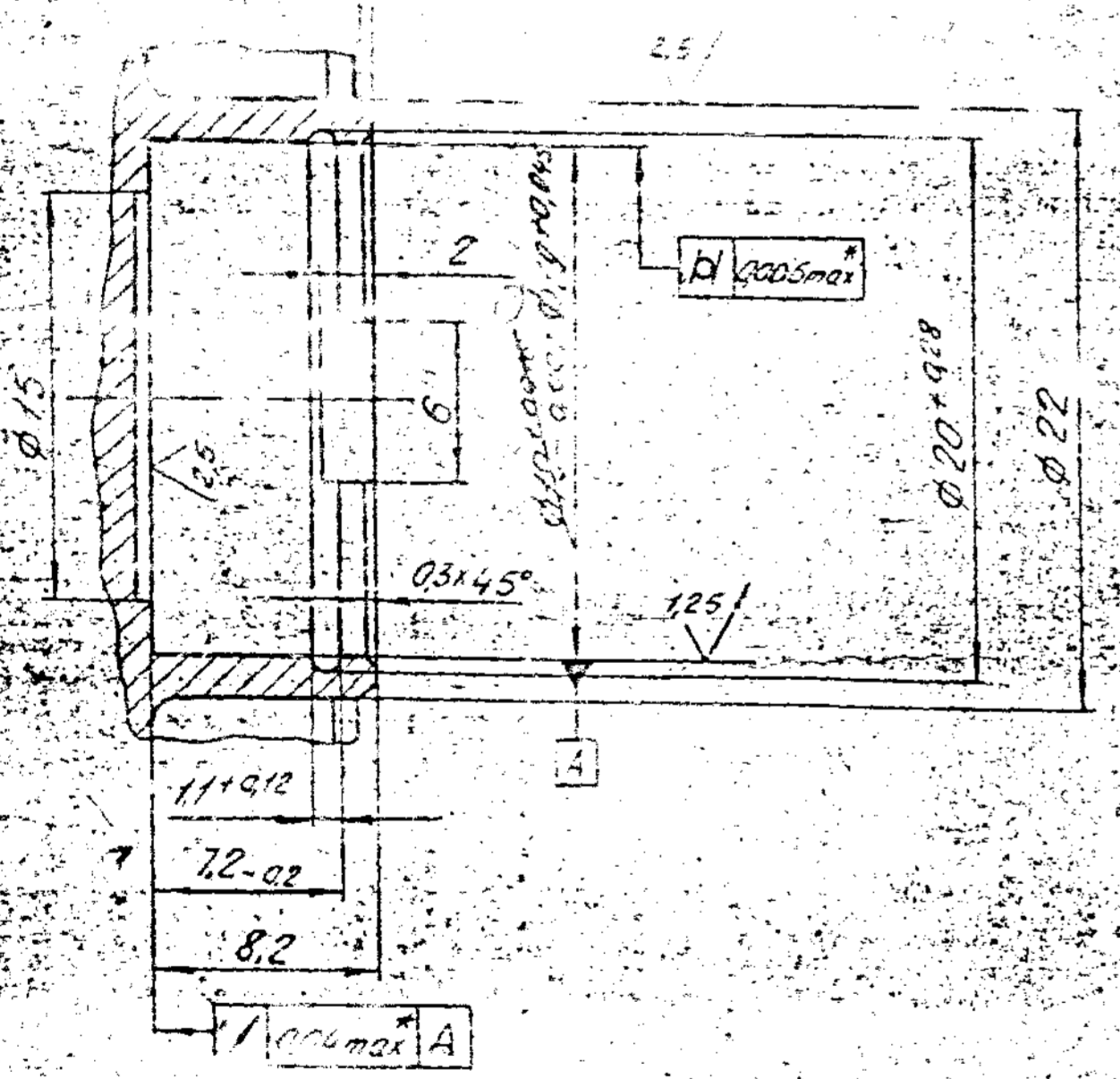
PILOT SAMPLE SHOULD BE APPROVED BY A H S P BEFORE BULK PRODUCTION.

MATERIAL		STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFG.	
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF	ALL THREADS TO CONFORM TO SPECIFICATION	USED ON:-	
ORG. NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	M3 3015 200 CB	
SCALE :- 2:1		COVER ASSY M3 3015 210CB	
DATE :- 22-7-92			
DRN. <i>S. Kumar</i>	WT :- (Kg) 85g		
TCD. <i>S. Kumar</i>			
CHD. <i>S. Kumar</i>			
APD. <i>S. Kumar</i>			

CONTROLLERATE OF QUALITY ASSURANCE
(INFANTRY COMBAT VEHICLES)



M4-1
SCALE 4:1
±45°



1. * LIMIT DEVIATIONS ARE ENSURED BY TOOL.
2. UNSPECIFIED LIMIT DEVIATIONS FOR DIMENSIONS OF HOLES ACCORDING TO A7, SHAFTS -B7, OTHER CM.
3. UNSPECIFIED LIMIT DEVIATIONS OF ANGULAR DIMENSIONS ACCORDING TO 10 DEGREE OF ACCURACY GOST 8908-58.
4. ALL INSCRIPTIONS SHOULD BE POSITIONED SYMMETRICALLY TO AXIAL ONE, DIGITS LETTERS AND SIGNS ARE RAISED, HEIGHT IS 0.3mm.
5. TYPE DO-3 GOST 2930-62 IS USED FOR DIGITS 1,2,3.
6. TYPE NO-3 GOST 2930-62 IS USED TO MARK GOST 12936-67.
7. MARK VOLTAGE AND TYPE OF INSTRUMENT (SEE TABLE 2) TYPE OF INSCRIPTIONS "12V" AND "24V" IS DO-5 GOST 2930-62 THAT FOR LETTER "B" IS DO-3 GOST 2930-62.
8. TYPE OF LETTERS AND DIGITS OF INSTRUMENTS TYPE INSCRIPTIONS IS NO-5 GOST 2930-62.
9. FACTORY TRADE MARK IS H 2.5, 3802226 AT.
10. COATING: CHROMOTIZING.
11. ALTERNATE MATERIAL IS ALLOY UAM4-1 GOST 19424-74.

DESIGNATION	ADDITIONAL REQUIREMENTS
MЭ 301B - 211-T	PAINT EXTERNAL SURFACE WITH SILVERY ENAMEL X13-125 GOST 10144-74. APPEARANCE IS ACCORDING TO STANDARD PIECE.

CODE	DESIGNATION	MARKING
45 7392 3761	MЭ 301B - 211A-T	24V MЭ 301E

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

EST. MASS 65	TO BE STAMPED OR MARKED WHERE INDICATED THUS #
ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED. MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS AND RADIUS.	

MATERIAL - ALLOY UAM4 GOST 19424-74

DRG. NOT TO BE SCALE

SCALE 2:1

DATE 22-7-92

DRY 8. Ponomarev

TC 8. Ponomarev 658

CHD

APD

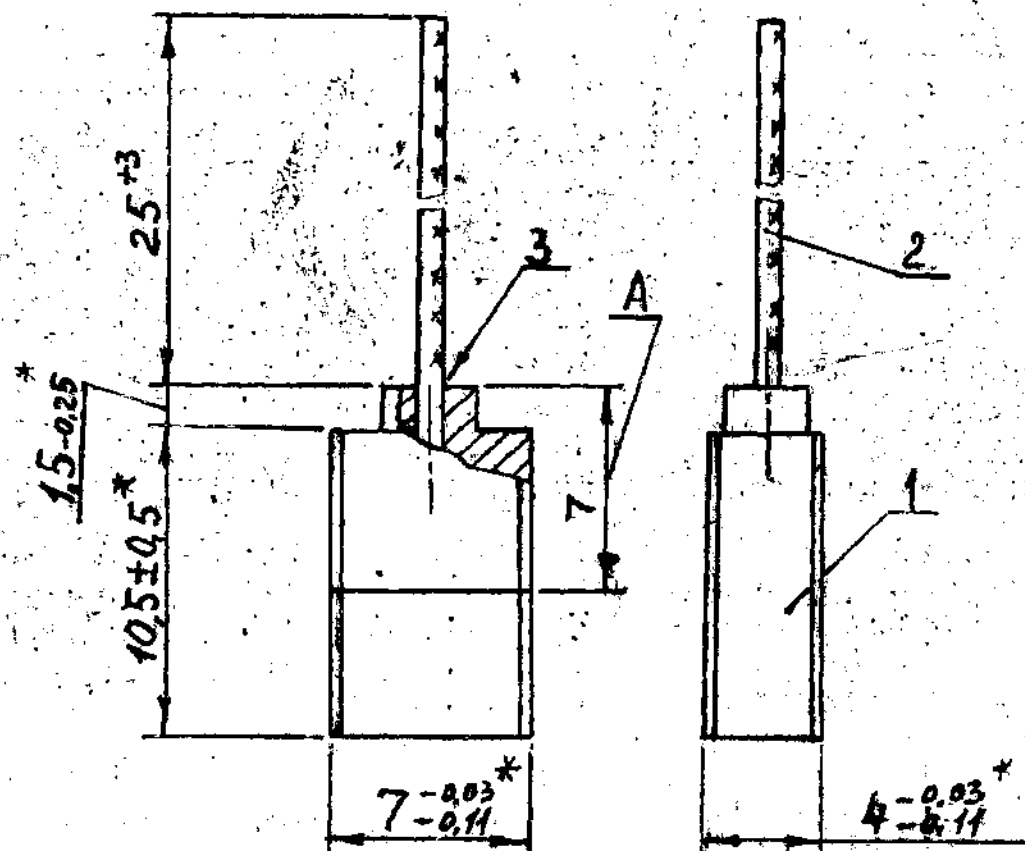
COVER
MЭ 301B 211A

CONTROL CENTER OF QUALITY ASSURANCE
FEDERATION ADMINISTRATION

40 OF 47

DRAWING NUMBER

Ø33 596 1023 CB



DESIGNATION	WEIGHT g
Ø93 596 102	0.46
-01	0.42

- * DIMENSIONS FOR REFERENCE
- CALK WIRE IN BRUSH.
- CONTACT RESISTANCE BETWEEN BRUSH AND WIRE SHOULD NOT EXCEED 8M OHM.
- WIRE CLAMPING FORCE IS AT LEAST 1.5 da N(Kgf).
- A IS THE MINIMAL DIMENSION AFTER BRUSH IS WORN OUT.

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

EST. MASS TO BE STAMPED OR MARKED WHERE INDICATED THUS # (LETTERS)

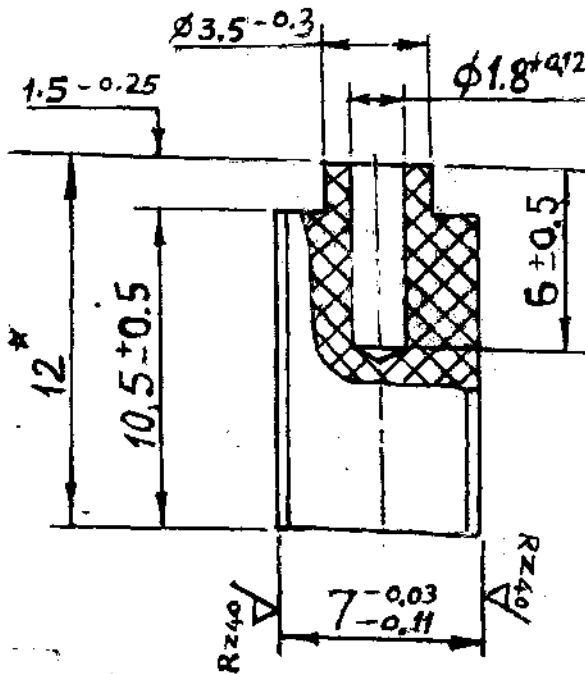
ALL SHARP EDGES AND CORNERS TO BE REMOVED UNLESS OTHERWISE STATED MACHINED CORNERS TO HAVE R OUTSIDE R INSIDE EQUIVALENT CHAMFERS ARE PERMISSIBLE

ALL SHARP EDGES & CORNERS TO BE REMOVED UNLESS OTHERWISE STATED	ALL THREADS TO CONFORM TO SPECIFICATION	STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFG.
DO NOT BE SEALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:- M3300 300CB
SCALE: 1:1	DATE: 22-7-72	<p>BRUSH ASSY</p> <p>Ø33 596 1023 CB</p>
DR: [Signature]	WT: (Kg) SEE TABLE	
CHK: [Signature]	[Signature]	
APP: [Signature]	[Signature]	
<p>CONTROLLERATE OF QUALITY ASSURANCE</p> <p>(INFANTRY COMBAT VEHICLES)</p>		
		24 OF 47

DRAWING NUMBER

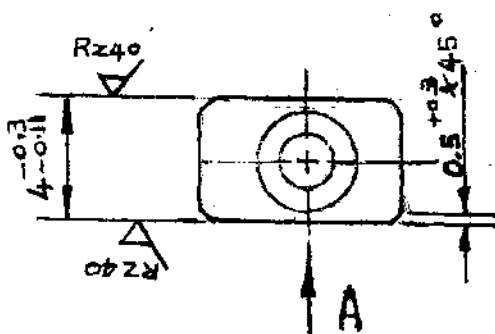
Ø 37 654 1023

Rz 80 ✓(✓)



NOTE:-

1. DIMENSION FOR REFERENCE
2. POSITION TOLERANCE OF HOLE AXIS OF ϕ 0.3mm.
3. MARKING

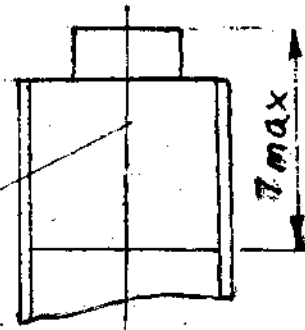


4 CHAMFERS

VIEW A



PARA 3



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

MATERIAL :
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF

ALL THREADS TO CONFORM TO SPECIFICATION

STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFR.

DRG. NOT TO BE SCALED

SCALE :- 4 : 1

TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED

USED ON:- Ø 3596 1023 C5

DATE :- 22-7-92

DRN. *S. Romulus* WT :- (Kg)

TCO. *S. Romulus* 0.34 g

CHD. *S. Romulus*

APR. *S. Romulus*

BRUSA

Ø 37 654 1023

CONTROLLERATE OF QUALITY ASSURANCE
(INFANTRY COMBAT VEHICLES)

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