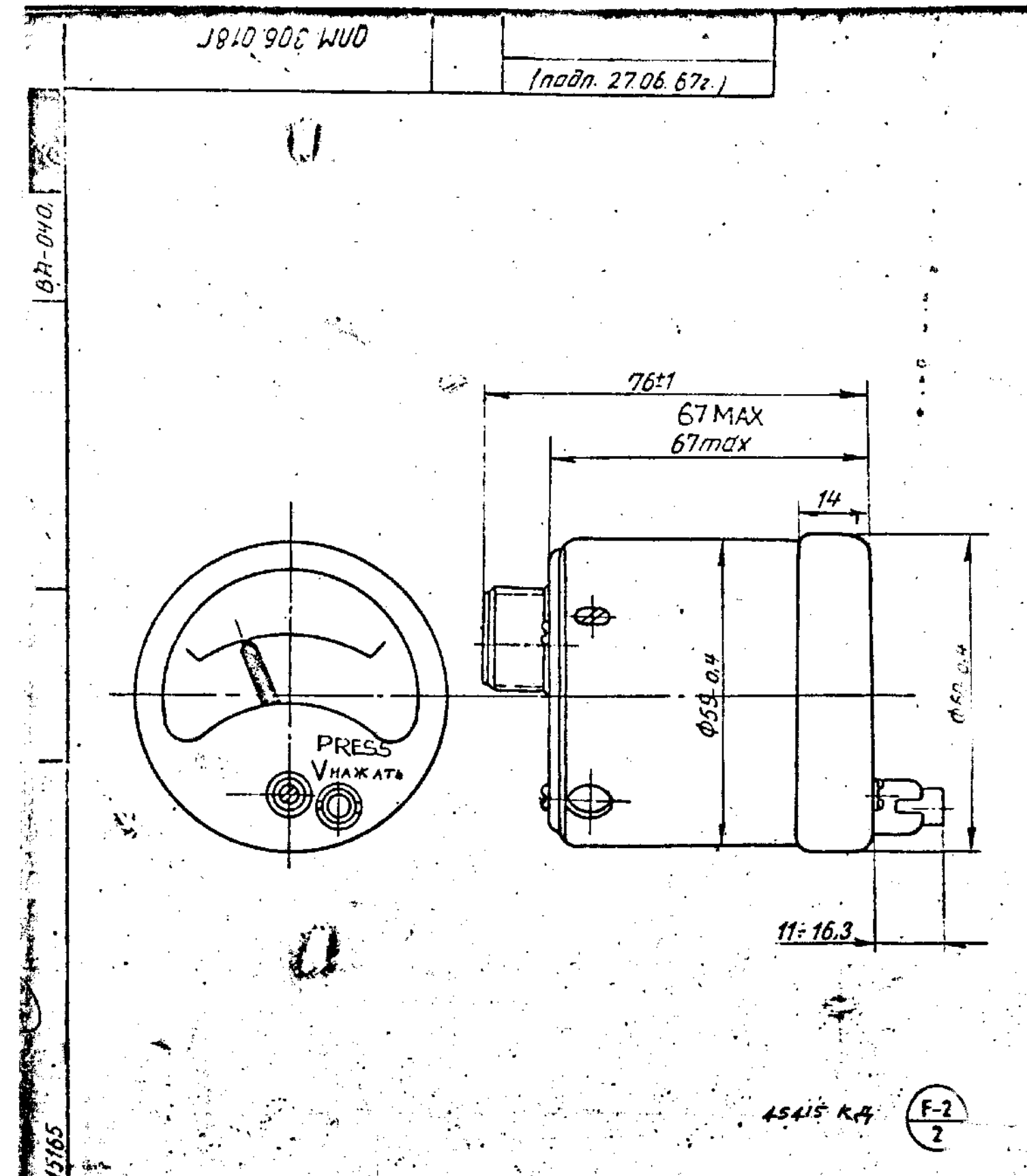
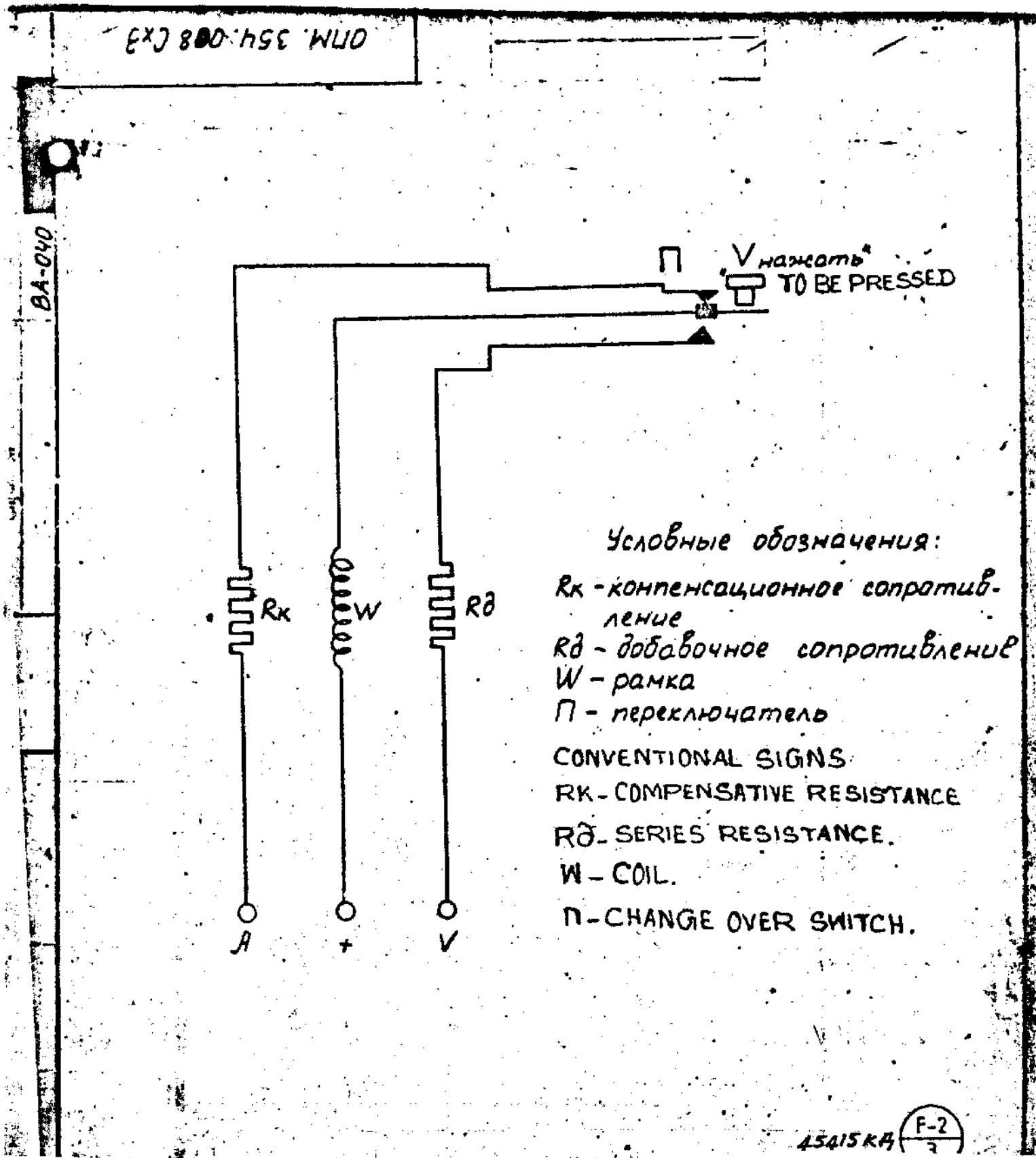
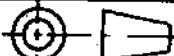
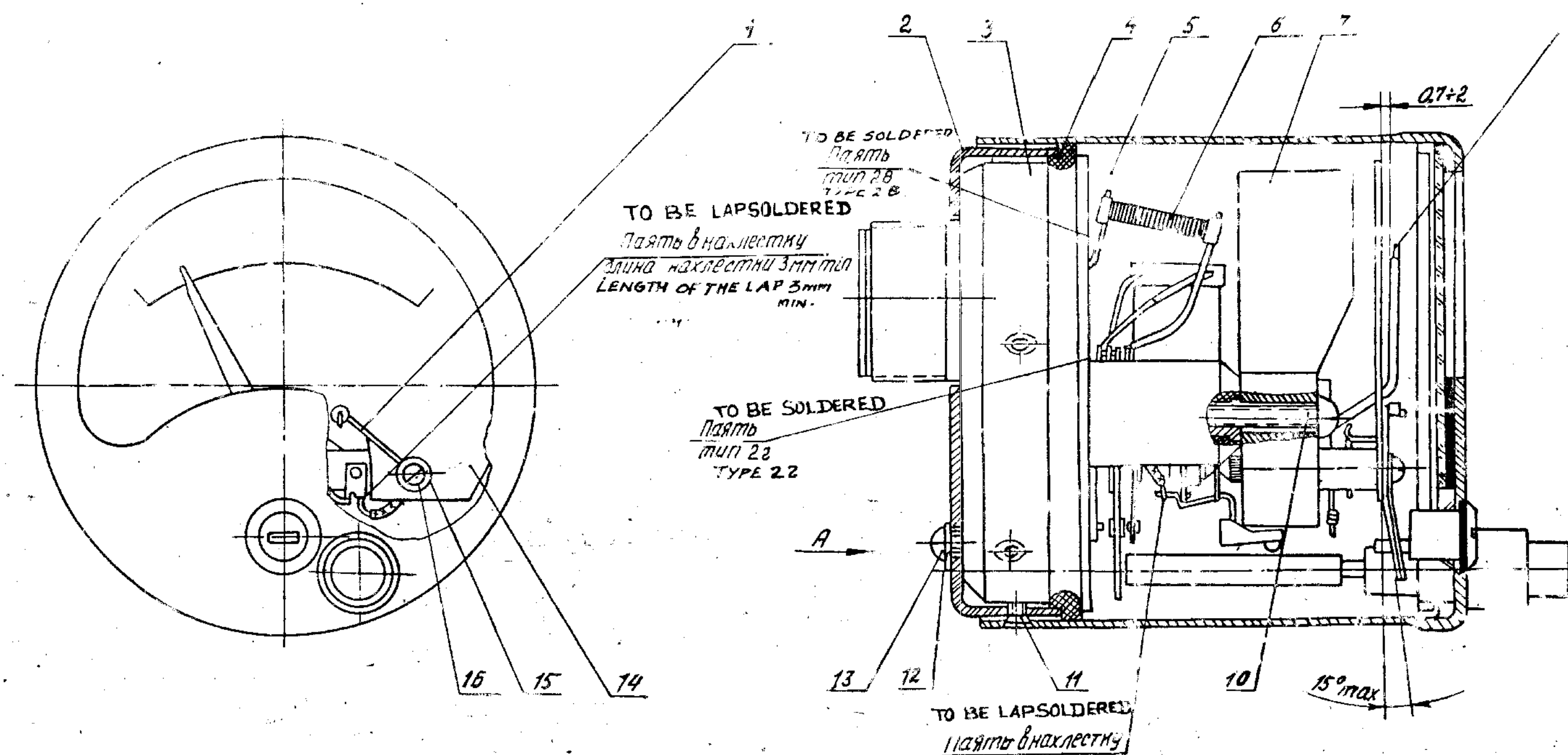




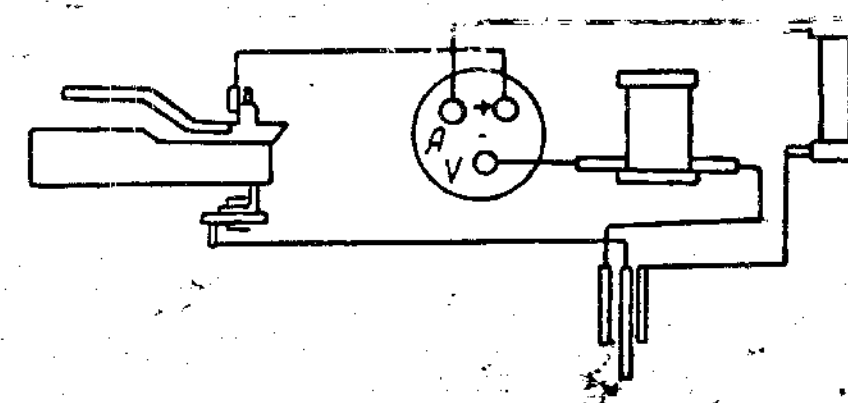
MATERIAL		ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF		ALL THREADS TO CONFORM TO SPECIFICATION		STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFG.	
DRG. NOT TO BE SCALED		SCALE :- 1:1		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED ON:-	
DATE :- 23-7-97		WT :- (Kg)		07M 306 0187			
DRW. TCD. CHD. APD.		OUT LINE DRAWING		CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)		41/136	



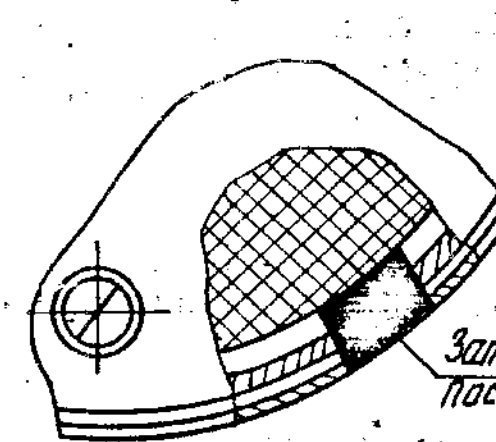
MATERIAL : —		ALL THREADS TO CONFORM TO SPECIFICATION	STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFR.
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF			
DRG. NOT TO BE SCALED		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:—
SCALE :—			
DATE :— 23-7-97.		ОПМ 354 008 СХД	
DRN.	WT :— (Kg)		
TCO. <i>W04</i>			
CHD.			
APD. <i>38</i>			
		SCHEMATIC CIRCUIT DIAGRAM	
CONTROLLERATE OF QUALITY ASSURANCE .			
(INFANTRY COMBAT VEHICLES) 44/136			



WIRING DIAGRAM.
СХЕМА ПОДКЛЮЧЕНИЯ



VIEW A
В.В.А.



PART NO. Обозначение	ITEM 2 Поз. 2	ITEM 3 Поз. 3	ITEM 5 Поз. 5	ITEM 7 Поз. 7	ITEM 12 Поз. 12	ITEM 14 Поз. 14	REMARKS Примечание
3ПМ.328.002-1						8ПМ.440.010-1	8А-140
3ПМ.328.002-3						8ПМ.440.010-3	8А-180
3ПМ.328.002-5						8ПМ.440.010-5	8А-240
3ПМ.328.002-7						8ПМ.440.010-7	8А-340
3ПМ.328.002-9	8ПМ.365.008-1	5ПМ.024.032-1	5ПМ.004.004			8ПМ.440.010-9	8А-440
3ПМ.328.002-11						8ПМ.440.010-1	8А-540
3ПМ.328.002-13						8ПМ.440.045-1	8А-140
3ПМ.328.002-15						8ПМ.440.045-3	8А-180
3ПМ.328.002-17						8ПМ.440.045-5	8А-240
3ПМ.328.002-19						8ПМ.440.045-7	8А-340
3ПМ.328.002-21						8ПМ.440.045-9	8А-440
3ПМ.328.002-23						8ПМ.440.045-1	8А-540
3ПМ.328.002-2						8ПМ.440.010-2	8А-140
3ПМ.328.002-4						8ПМ.440.010-4	8А-180
3ПМ.328.002-6						8ПМ.440.010-6	8А-240
3ПМ.328.002-8	8ПМ.365.008-2	5ПМ.024.032-2	5ПМ.004.028-2			8ПМ.440.010-8	8А-340
3ПМ.328.002-10						8ПМ.440.010-10	8А-440
3ПМ.328.002-12						8ПМ.440.011-2	8А-540
3ПМ.328.002-14						8ПМ.440.045-2	8А-140
3ПМ.328.002-16						8ПМ.440.045-4	8А-180
3ПМ.328.002-18						8ПМ.440.045-6	8А-240
3ПМ.328.002-20						8ПМ.440.045-8	8А-340
3ПМ.328.002-22						8ПМ.440.045-10	8А-440
3ПМ.328.002-24						8ПМ.440.045-12	8А-540

- To be soldered as per TY 07M.000.001
- The position of limiters should ensure the pointer deviation beyond the extreme divisions of dial by at least 1.5 mm. Bending of limiter is allowed.
- Screw 10, 11 and 16 are to be screwed in with the use of nitrocellulose glue AK-20 coloured according to type 2 TY 07M.000.004
- After the final assembly the devices are subjected to ageing at a temperature of 60 ± 5°C for 8 - 10 hours.
- Push button should have a free motion. While pressing the button with an effort of 200 gf.cm the circuit should not be opened.
- The device is to be adjusted as per consumption current (at the limit of measurement of 30V) by demagnetizing the magnet of the mechanism.
- The adjustment of the device as per the voltage drop (75 mV) is to be done by changing the resistance of 0.1 Ω.
- Ribraz mastic, TY 00M.000.001
- The stamp of 07M.000.001, representative, month and year of manufacture of the devices are to be applied with red printing ink N/715 TY 29.02-772-77 in a free place of the screen.
- The device should conform to TY 25 - 04.021 - 72 E. For ensuring normal operation of scale divisions the printer coating of red A is allowed.
- At extreme positions of the moving element the frame contact with the case is not allowed.
- The indicating end of the pointer should overlap 1/4 to 3/4 of the length of the shortest mark of the scale.

16	SCREW M2.6x5.32 036605T12473-80	2	
15	WASHER 3.32.039605T10450-78	2	
14	SEE TABLE	1	
13	8ПМ.906.017-5	3	
12	WASHER 3.32.039605T10450-73	2	
11	8ПМ.904.033	3	
10	SCREW M3x10	1	
9	SCREW M3x10 32.036605T12473-80	2	
8	SEE TABLE	1	
7	MECHANISM	1	
6	5ПМ.520.192	1	
5	SEE TABLE	1	
4	8ПМ.370.046	1	
3	SEE TABLE	1	
2	SEE TABLE	1	
1	5ПМ.270.006	1	

MATERIAL: ALL SHARP EDGES & CORNERS TO BE ROUNDED
 ORG. NOT TO BE SCALED
 SCALE: 2:1
 DATE: 23-7-97
 DRN: *ABG*
 TCD: *ABG*
 CHD: *ABG*
 APD: *ABG*

ALL THREADS TO CONFORM TO SPECIFICATION
 TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED
 STAMP OR ETCH, PART NO. MANUFACTURER'S NAME & YEAR OF MFR. USED ON:

3ПМ-328-002-00
 MOVING COIL VOLTMETER

CONTROLLERATE OF QUALITY ASSURANCE
 (INFANTRY COMBAT VEHICLES) 45 136

CERTIFICATE

for Switch board volt ammeter BA _____

No. _____

with shunt for _____ A, 75 mV

1. General Information

The volt ammeter is meant for measuring current and voltage in DC circuits within temperature from minus 50 to plus 50° C.

2. Basic technical data and characteristics

2.1. The allowable basic error limit of volt ammeter is $\pm 2\%$ of the sum of finite values of the scale and that of the shunt is $\pm$ _____ %

2.2. Measuring limits _____ A
0 - 30 V

2.3. Mass of volt ammeter should not be more than 0.4 kg.

2.4. Overall dimensions 60 x 60 x 93.5 mm.

3. Delivery Set

- | | | |
|------|----------------|---------|
| 3.1. | Voltammeter | 1 pc. |
| 3.2. | Shunt | 1 pc. |
| 3.3. | Plug | 1 pc. |
| 3.4. | Fastening ring | 1 pc. |
| 3.5. | Certificate | 1 copy. |

DC(1) NO DATE	ISSUE	NATURE OF AMENDMENTS	DC(1) NO DATE	ISSUE	NATURE OF AMENDMENTS
DRN	ABB	3PM328-002-02 ПС	DATE:-		
ICD	ABB		USED ON		
CHD			SHEET 1 / SHEETS 2		
APPD	48	SWITCH BOARD VOLT AMMETER CERTIFICATE	42 OF 136		
CONTROLLERATE OF QUALITY ASSURANCE (ICV)					

4. ACCEPTANCE STATEMENT

The voltammeter is manufactured in accordance with the existing specifications, checked, accepted by QID and found fit for use.

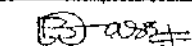
Date of manufacture _____

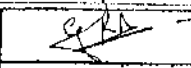
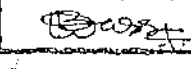
Representative of QID _____

1. Certificate size 107 x 140 mm.
2. Writing paper white No. 1

DC(1) NO DATE	ISSUE	NATURE OF AMENDMENTS	DC(1) NO DATE	ISSUE	NATURE OF AMENDMENTS
DRN		3PM 328-002.02 PC SWITCH BOARD VOLTMETER CERTIFICATE			DATE:- 23-7-97.
TCD					USED ON
CHD					SHEET 21 SHEETS 2
APPD					43 OF 136
CONTROLLERATE OF QUALITY ASSURANCE (ILV)					

DESIGNATION	DESCRIPTION	PARENT UNIT	REMARKS
DOCUMENTS			
OPM.306.018F	OUTLINE DRG		
TY2S-04-23-78E	SPECIFICATION		
SPM.328.002.001	CERTIFICATE		
OPM.354.008CX3	SCHEMATIC CIRCUIT		
	DIAGRAM		
ASSY UNITS			
3PM.328.002.000	MOVING COIL		
	VOLTMETER		
5PM.270.006CB	LIMITER	3PM.328.002CB-9	
5PM.024.032CB-1	BASE	3PM.328.002CB-9	
5PM.004.004CB	HOUSING	3PM.328.002CB-9	
5PM.520.132CB	COIL	3PM.328.002CB-9	
6PM.700.010.0	MECHANISM	3PM.328.002CB-9	
5PM.557.000CB	CONTACT PLATE	5PM.024.032CB-1	
5PM.557.001CB	CONTACT PLATE	5PM.024.032CB-1	
5PM.557.002CB	CONTACT PLATE	5PM.024.032CB-1	
5PM.024.192.0	BASE	5PM.024.032CB-1	
5PM.004.005.145	HOUSING	5PM.004.004CB	
5PM.235.002.0	ROD	5PM.004.005CB-1	
5PM.235.004.0	ROD	5PM.235.002CB-1	
5PM.235.003.0	ROD	5PM.235.004CB-1	
5PM.732.043CB	FRAME	5PM.520.132CB	
5PM.610.000.01CB	PERMANENT MAGNET	6PM.700.010CB-1	
5PM.147.007.0	CASING	6PM.700.010CB-1	
5PM.147.006.0	CASING	5PM.147.007CB-1	
APPROVED	<i>[Signature]</i>	3PM.328.002CP	
CHECKED	<i>[Signature]</i>	MOVING COIL	
CONTROLLERATE OF QUALITY ASSURANCE (ICV)		VOLTMETER. BA-440	
		SHT 1 SHTS 6	
		1 OF 136	

DESIGNATION	DESCRIPTION	PARENT UNIT	REMARKS
5PM.147.005CB	CASING	5PM.147.006CB-1	
5PM.100.001-1-2	HOLDER	5PM.147.006CB-1	
5PM.443.001-0	MOVABLE ELEMENT	5PM.147.007CB-1	
5PM.528.0001-10	FRAME	5PM.443.001CB-1	
5PM.441.000-0	POINTER	5PM.443.001CB-1	
5PM.441.021-0	POINTER	5PM.441.000CB-1	
5PM.211.001CB	BUSH	5PM.441.000CB-1	
5PM.262.000CB	REST	5PM.147.006CB	
5PM.551.002-0CB	CONTACT	5PM.024.192CB-1	
5PM.114.000	SPRING HOLDER	5PM.441.000CB-1	
	COMPONENTS		
8PM.365.008-0	SCREW	3PM.328.002CB-9	
8PM.370.046	SEALING RING	3PM.328.002CB-9	
8PM.440.011-0	DIAL	3PM.328.002CB-9	
8PM.904.033	SCREW M3x10	3PM.328.002CB-9	
8PM.906.027-0	SCREW	3PM.328.002CB-9	
8PM.100.012	HOLDER	5PM.270.006CB	
8PM.557.010	CONTACT PLATE	5PM.557.000CB	
8PM.550.000	CONTACT	5PM.557.000CB	
		5PM.557.001CB	
8PM.557.013	CONTACT PLATE	5PM.557.001CB	
8PM.550.001	CONTACT	5PM.557.002CB	
8PM.557.009	CONTACT PLATE	5PM.557.002CB	
8PM.285.005-14	FLAT SPRING	5PM.024.032CB-1	
8PM.285.005-3	FLAT SPRING	5PM.024.032CB-1	
APPROVED 	3PM.328.002 CB		
CHECKED 			
CONTROLLERATE OF QUALITY ASSURANCE (ICV)	MOVING COIL VOLTMETER BA-440		
			SHT 2 SHTS 6
			2 OF 136

DESIGNATION	DESCRIPTION	PARENT UNIT	REMARKS
8ПМ.215.013-2	THREADED BUSH	5ПМ.024.192СБ-1	
8ПМ.215.012-	THREADED BUSH	5ПМ.024.192СБ-1	
8ПМ.551.006-1	CONTACT	5ПМ.551.002СБ-1	
8ПМ.150.011-1	PLATE	5ПМ.024.032СБ-1	
8ПМ.760.011-1	INSULATING GASKET	5ПМ.024.032СБ-1	
8ПМ.770.009	INSULATING SLEEVE	5ПМ.024.032СБ-1	
8ПМ.114.003	SPRING HOLDER	5ПМ.114.000СБ	
8ПМ.118.001	COUNTERWEIGHT NIB	5ПМ.114.000СБ	
8ПМ.215.000-1	THREADED BUSH	5ПМ.024.192СБ-1	
8ПМ.004.002-1	BODY	5ПМ.004.005СБ-1	
8ПМ.402.004	GLASS	5ПМ.004.005СБ-1	
8ПМ.217.000-1	RING	5ПМ.004.005СБ-1	
8ПМ.370.003-8	WASHER	5ПМ.004.005СБ-1	
8ПМ.233.002-1	ECCENTRIC	5ПМ.004.005СБ-1	
8ПМ.951.000-2	LOCK WASHER	5ПМ.004.005СБ-1	
8ПМ.946.003	NUT-M5	5ПМ.004.004СБ-1	
8ПМ.370.003-7	WASHER	5ПМ.004.004СБ-1	
8ПМ.174.001	ROD	5ПМ.235.003СБ-1	
8ПМ.322.000	ROD	5ПМ.235.004СБ-1	
8ПМ.371.027	GASKET	5ПМ.235.002СБ-1	
8ПМ.211.001-1	BUSHING	5ПМ.235.002СБ-1	
8ПМ.235.000	ROD	5ПМ.235.002СБ-1	
8ПМ.588.023-01	CONDUCTOR	5ПМ.732.043СБ-1	NA
8ПМ.01.20.194	MAGNET	5ПМ.610.000СБ-1	
8ПМ.630.000	PERMANENT MAGNET	5ПМ.610.000СБ-1	
8ПМ.636.002	CORE	5ПМ.147.005СБ	
8ПМ.572.000	LUG	5ПМ.147.006СБ-1	
APPROVED		3ПМ.328.002СП	
CHECKED			
CONTROLLERATE OF QUALITY ASSURANCE (ICV)		MOVING COIL	
		VOLTMETER, BA 140	SHT 3 SHTS 6
			3 OF 136

DESIGNATION	DESCRIPTION	PARENT UNIT	REMARKS
8ПМ.946.036-1	NUT	5ПМ.147.006сБ-1	
8ПМ.100.004-1	HOLDER	5ПМ.100.001сБ-1	
8ПМ.114.002	SPRING HOLDER	5ПМ.100.001сБ-1	
8ПМ.959.000	WASHER	5ПМ.147.006сБ-1	
8ПМ.946.009-1	NUT	5ПМ.147.006сБ-1	
8ПМ.953.000-1	SPRING WASHER	5ПМ.147.006сБ-1	
8ПМ.233.025-1	ADJUSTER	5ПМ.147.006сБ-1	
8ПМ.588.001	LEAD	5ПМ.147.007сБ-1	
8ПМ.080.000	FRAME	5ПМ.528.001сБ-1	
8ПМ.540.007-1	ROD	5ПМ.441.021сБ-1	
8ПМ.441.001-1	POINTER	5ПМ.441.021сБ-1	
8ПМ.211.002-1	BUSH	5ПМ.211.001сБ-1	
8ПМ.211.002-2	BUSH	5ПМ.211.001сБ-1	
8ПМ.290.001	COUNTER WEIGHT	5ПМ.147.007сБ-1	
8ПМ.140.041-1	CLAMP	6ПМ.700.010сБ-1	
8ПМ.907.000	SCREW	5ПМ.262.000-17сБ	
8ПМ.540.025	PIN	5ПМ.551.002сБ-01	
	STANDARD ITEMS		
	SCREW M3.6x14.	3ПМ.328.002сБ-9	
	32.036		
	GOST 17473-80		
	WASHER 3.32.039	3ПМ.328.002сБ-9	
	GOST 10450-78		
	WASHER 2.32.039	3ПМ.328.002сБ-9	
	GOST 10450-78		
APPROVED	<i>gls</i>	3ПМ.328.002 сП	
CHECKED	<i>Bozyl</i>		
CONTROLLERATE OF QUALITY ASSURANCE (ICV)		MOVING COIL VOLT METER BA-440	
			SHT 4 SHTS 6
			4 OF 136

DESIGNATION	DESCRIPTION	PARENT UNIT	REMARKS
	SCREW M2.6gx5.32	3ПМ.328.002СБ-9	
	.036		
	GOST. 17473-80		
	WIRE HB-0,21500	5ПМ.024.032СБ	
	GOST 17515-72		
	SCREW A1 M2.6gx	5ПМ.024.032СБ	
	12.32.036		
	GOST 17473-80		
	PHENOLIC PLASTIC	5ПМ.024.192СБ-1	
	03-010-02		
	GOST 5688-79		
	WIRE WINDING	5ПМ.520.132СБ	
	ПЭВММ-20,		
	GOST 8598-89		
	PHENOLIC PLASTIC	5ПМ.732.043СБ	
	Э10-342-63		
	GOST 5689-79		
	SCREW A1 M2.6gx	6ПМ.700.010СБ-1	
	5.32.036		
	GOST 17473-80		
	ALUMINIUM ALLOY	5ПМ.147.005СБ	
	АВ2, GOST 2685-75		
	REST ПЭВМ 1.5x0.15	5ПМ.262.000СБ	
	GOST 8898-78		
	SPIRAL SPRING	5ПМ.443.001СБ	
	A4x28СП		
	GOST 9233-79		
APPROVED		3ПМ.328.002СП	
CHECKED			
CONTROLLERATE OF QUALITY ASSURANCE (ICV)		MOVING COIL	
		VOLT METER	
		BA-440	SHT 5 SHTS 6
			5 OF 136

[illegible]

Ordnance Factory Project Hyderabad	NUMBER TY 25-04.023-78 E
	SHEET 2 OF 8

1323

The present technical specifications refer to ammeter A-040, voltmeter B-040 (herein after referred to as devices) intended respectively for measuring current strength and voltage in d.c. circuits at a temperature interval from minus 50 to plus 50°C and relative humidity upto 80%, manufactured for operation in the country and for supply for export.

The devices are suitable for export supply in compliance with the patent log in countries with moderate climate.

The question of supplying the devices to a country where they are considered to be infringing ones is decided in each specific case, by the foreign trade organisation issued zakaz-nariad.

List of documents, referred to in the Technical Specifications are given in appendix 1.

Designation of the devices while ordering them and in documentation of other products, in which they can be used, should have: description and designation of the device, range of the instrument and designation of the Technical Specifications.

Example. Ammeter A-140, 30A TY 25-04.023-78 E,
Voltammeter BA-240, 60A 30 B TY 25-04.023-78 E,
voltameeter BA - 240 , 60A 30 B TY 25-04.023-78 E.

I. TECHNICAL REQUIREMENTS

1.1 The devices should be in compliance with the requirements of the Technical Specifications and the set of documents as per 3 M. 320.024, M. 324.028.
3 MM. 328.002 approved in the set order.

Contd...3/-

Ordnance Factory Project Hyderabad.		1. 1323		NUMBER... 14 OF 56	
1	2	3	4	5	6
12. Checking of the effect of ferro-magnetic panel and a similar device placed near by.	1.3.7	3.14 3.15	-	+	+
13. Checking of the damping period.	1.3.8	3.16	-	+	+
14. Checking of stability to overload	1.3.11	3.17	-	+	+
15. Checking of the cyclic effect of temperature	1.3.13	3.19	+	+	+
17. Checking of cold resistance	1.3.14: 1.3.5	3.20	-	+	+
18. Checking of resistance to the effect of frost and dew.	1.3.15	3.21	-	-	+
19. Checking of heat resistance	1.3.16 1.3.5 1.3.90	3.22	-	+	+
20. Checking of moisture resistance	1.3.17 1.3.9B	3.23	-	+	+
21. Checking of the operation at reduced atmospheric pressure	1.3.18	3.24	-	-	+
22. Checking of the vibration resistance	1.3.20	3.26	-	+	+
23. Checking of vibration strength.	1.3.21	3.25	-	+	+
24. Checking of impact resistance	1.3.22	3.27	-	+	+

Contd...15/-

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Ordnance Factory Project Hyderabad.	1.1324	NUMBER... SHEET 121 OF ...
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The devices are checked in a set with calibrated wires separately from the shunts.

3.6 Hysteretic error (item 1.3.2) should be determined as the difference of actual values of the measurable quantity at one and the same readings of the device under test by observing conditions of item 3.5.

Hysteretic error is determined when the indicator is smoothly brought to the digital scale mark of the indicator, at first when decreasing the measurable quantity at unchangable current direction and without vibration of the device.

The reate of change of the measurable quantity should ensure the maintenance of operiodic motion of the indicator during the test.

3.7 Residual displacement of the indicator from zero mark (item 1.3.3) is determined while observing the condition of item 3.5 without vibration of the device.

The rate of change of the measuarable quantity should ensure the maintenance of a periodic motion of the indicator during the test.

3.8 Inclination effect (item 1.3.4) should be determined with exception of hydteretic error and all effects, but for the one being all effects, determined.

Checking is done when connecting the device into the ~~done~~ operating circuit on special installation, enabling to inclive it in any direction by 45° from the operating position (item 1.2.2) on any scale mark.

3.9 The intensity of luminous substance glow (item 1.3.27) is checked visually during illumination with ultraviolet rays or ~~incandescent~~ ^{incandescent} lamp of 100 W from a distance of 0.5 m. In this case, the devices should be in a dark room for such a period until the observer, adapted to the darkness before hand, does not notice its glowing.

Contd.. 22/-

Ordnance Factory Project Hyderabad	D-1323	NUMBER.TY.25.04.021.75 B SHEET 22 OF 38
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The dial-plates of the test device and the device under test are simultaneously illuminated for 10 min. The afterglow brightness 5 and 15 min after stopping excitation should not be less than ~~100%~~ of the brightness of the test specimen.

The test specimen is approved by the customer's representative and chief engineer of the manufacturing factory and it is changed twice a year.

3.10 Electrical insulation resistance (item 1.3.9a) is checked with the help of a megohmmeter with rated voltage of 500 by applying the voltage between current carrying parts, connected together, and the body with an error not exceeding $\pm 20\%$.
Reading as per the megohmmeter is taken 1 min. after applying voltage to the device under test.

3.11 Electrical strength of insulation of the device (item 1.3.10) and plug should be checked on special installations with a power of 0.5 kw.
Test voltage should be applied between all the current carrying parts connected together and the body of the device.
Test should be started at voltage near zero, then it is to be gradually increased upto 500 V.
1min after the effect of maximum test voltage, the latter is slowly reduced and the supply line is switched off.
The device is considered to have passed the test if during the test there are not breakdown or sparkover.

3.12 The effects of external magnetic field, ferro magnetic panel and near-by placed similar device (item 1.3.6 to 1.3.7) should be checked with exception of hysteretic-error and all effects

Ordnance Factory Project Hyderabad.	1.1323	NUMBER... SHEET...23... OF ...34...
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but for the one being checked, by observing the condition of item 3.5.

The devices should be checked on two scale marks, one of which is near the geometric centre and the other near the full scale value mark.

For devices with double sided scale, all the effects are to be checked near the full value marks of the right and left part of the scale.

3.13. The effect of external magnetic field (item 1.3.6) is checked when the device under test is placed in the centre of the coil creating uniform magnetic field. After switching on the device being tested and test specimen into the circuit of current source it is necessary to take readings of the device before and after ~~switching~~ ^{energizing} the coils with direct current creating a field of intensity of 400 A/m, and by turning the device and coil, maximum effect of external magnetic field is to be found. Test is carried out by observing the conditions of item 3.12

3.14 The effect of ferromagnetic panel (item 1.3.7) is determined as the difference of the readings of the devices under test on non-ferromagnetic panel and on ferromagnetic panel. Test is carried out by observing the conditions of item 3.12.

3.15 The effect of the near by placed devices (item 1.3.7) is checked at any mutual arrangement of the devices, but on condition that both the devices are in the one plane and in an operating position. The device, affecting the device under test, should be under rated, load. Test is carried out by observing the conditions of item 3.12.

3.16 Time of dampening (item 1.3.8) is checked: for devices with single- sided scale- while switching on the measureable quantity, enabling the indicator deflection

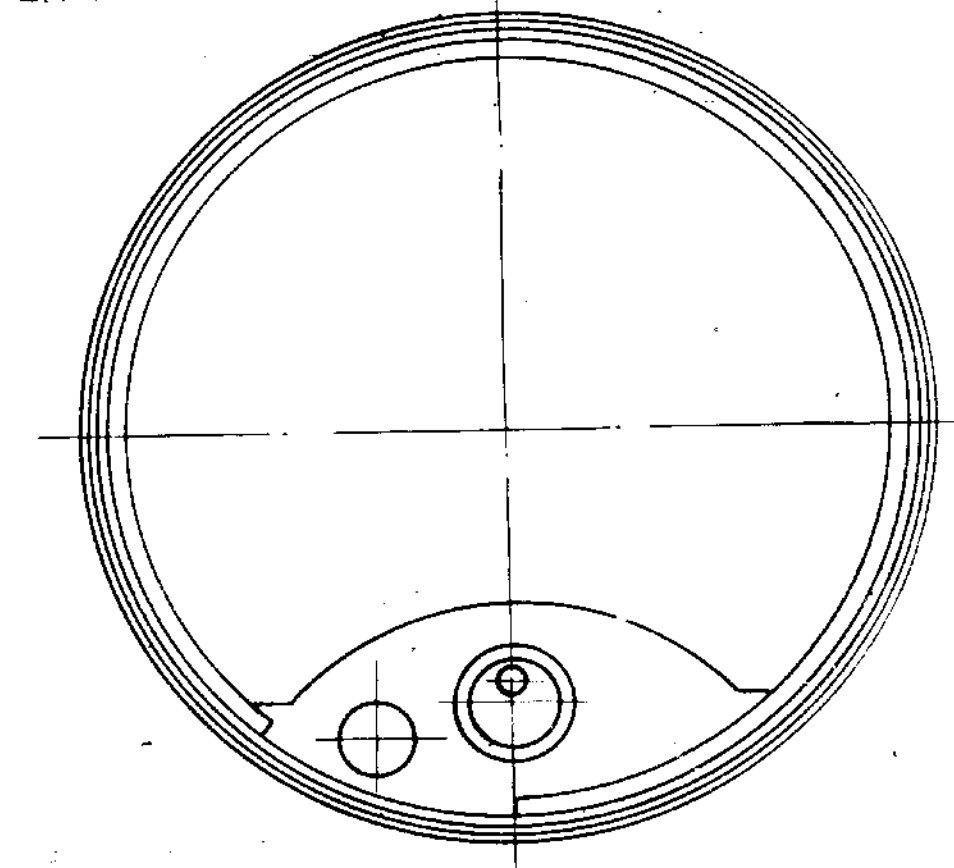
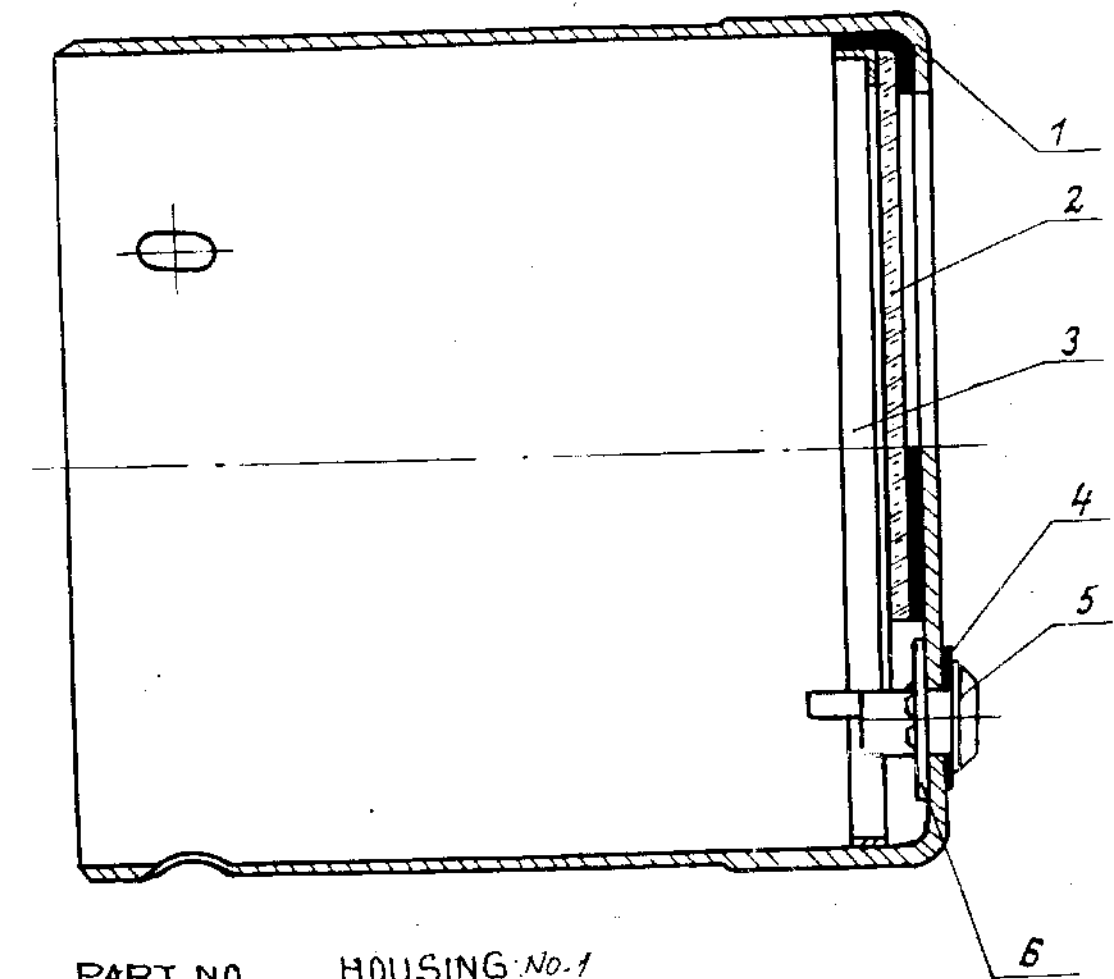
Contd....24/- 29/136

5-1 500 400 WUS

поверхности

1. Стекло поз. 2 ставится на герметик БУТЭФ-1Т-38 105 1291-79.
Пустоты между стеклом поз. 2 и корпусом поз. 1 герметизируются.
2. Недопустимо выступание замазки за окно корпуса поз. 1.
3. Эксцентрик поз. 5 должен проворачиваться без заедания.

1. GLASS 2 IS TO BE SECURED WITH SEALANT BUTЭФ-1Т-38 105 1291-79.
GAPS ARE NOT ALLOWED BETWEEN THE GLASS 2 AND HOUSING 1.
2. PROTRUSION OF PUTTY BEYOND THE WINDOW OF HOUSING 1 IS NOT ALLOWED.
3. ECCENTRIC 5 SHOULD BE TURNED THROUGH WITHOUT JAMMING.



5415 КД F2 19

PART NO.	HOUSING No. 1
Обозначение	Корпус поз. 1
* 5ПМ.004.005.1	8ПМ.004.002.1
5ПМ.004.005.3	8ПМ.004.002.3

2	8ПМ.402.004	Стекло GLASS	1	
1	см. таблицу	Корпус HOUSING	1	
№	Обозначение	Наименование	Кол.	Примечание
ПМ				
ITEM	PART NO.	NOMENCLATURE	QTY.	REMARKS
NO				

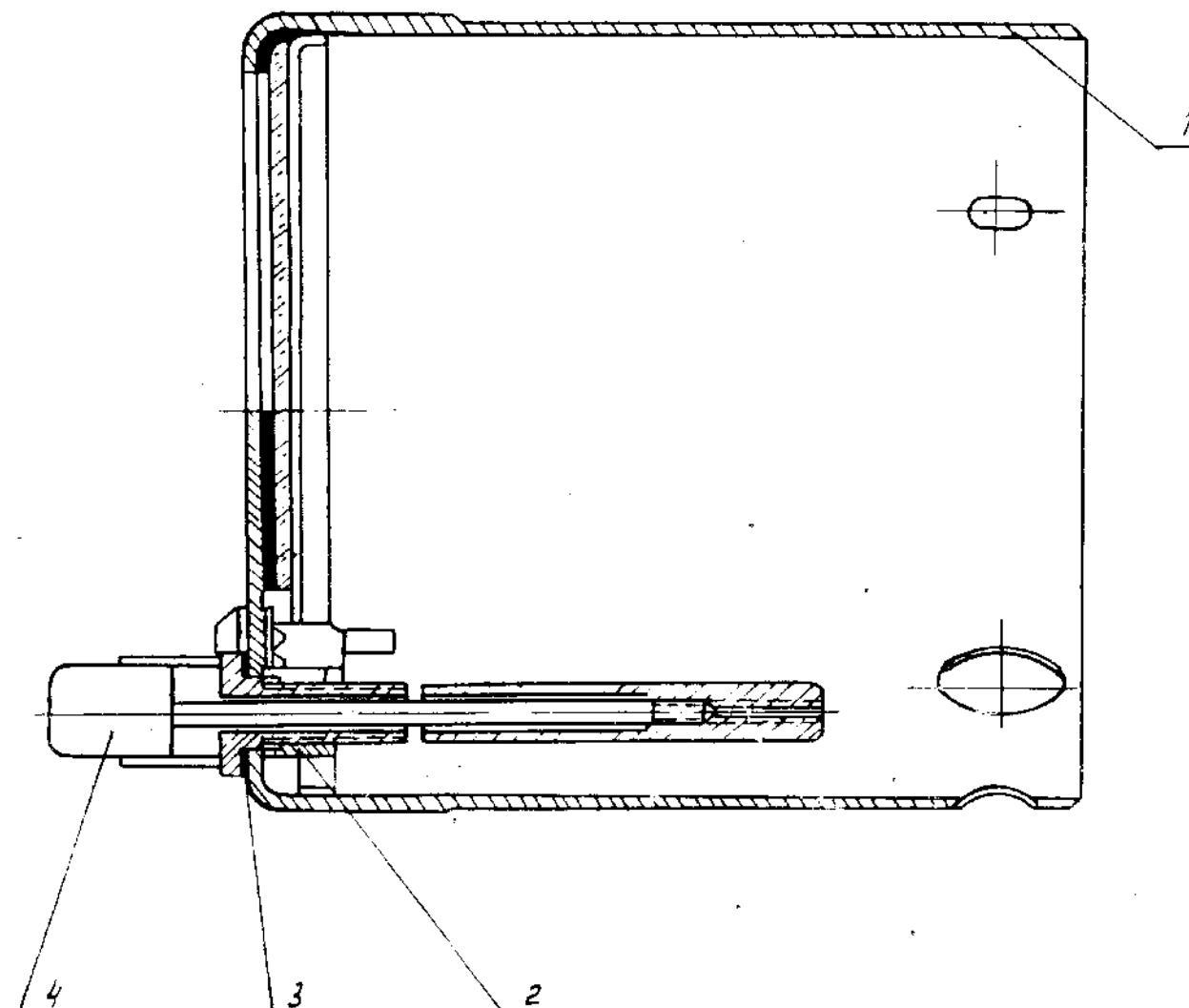
LOCK WASHER				
6	8ПМ.951.000.2	Шайба стопорная	1	
5	8ПМ.233.002.1	Эксцентрик ECCENTRIC	1	
4	8ПМ.370.003.8	Шайба WASHER	1	
3	8ПМ.217.000.1	Кольцо RING	1	

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		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED ON: 5ПМ-004-004	
SCALE: 2:1		DATE: 23-7-97		5ПМ-004-005-1÷5	
DRN		WT: (kg)		HOUSING	
TCD		APD		CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)	
CHD		APD		57/136	

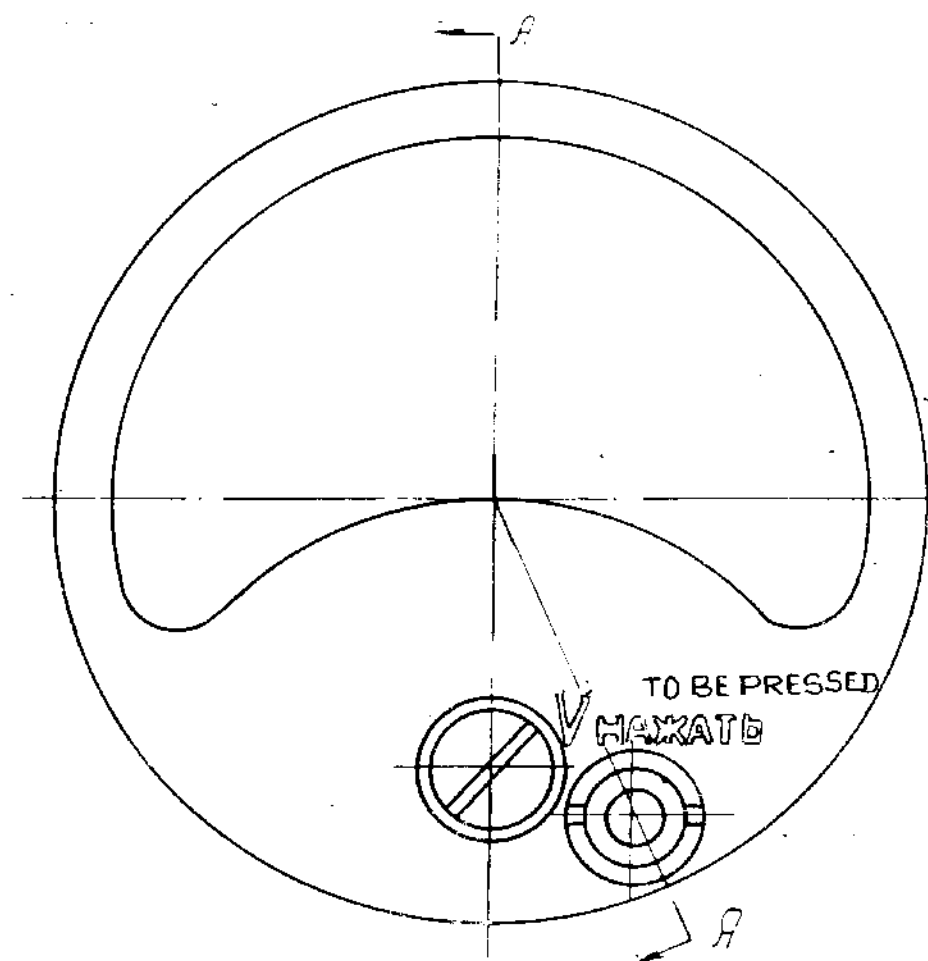
700 700 WUS

15.05.73

A-A



NUT 2 IS TO BE INSTALLED ACCORDING TO TYPE 2 OF TY 0PM 599-016 WITH THE USE OF COLOURED GLUE



15.05.73 F2 18

4	5PM 235.002-1	Штифт ROD	1	
3	8PM 370.003-7	Шайба WASHER	1	
2	8PM 946.003	Гайка M5 NUT M5	1	
1	5PM 004.005-1	Корпус HOUSING	1	
№	003404005	НАИМЕНОВАНИЕ	МЕР	ПРЕДУПРЕЖДЕНИЕ
ITEM NO.	PART NO.	NOMENCLATURE	QTY	REMARKS

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 -- 2:1		DATE -- 23-7-97		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	
DRN ABB		TCD ABB		CHD		APD	
WT -- (kg)		5PM-004-004		HOUSING			

CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 50/136

SIZE	ZONE	REF. No	PART No	NOMENCLATURE	Qty	REMARKS
				<u>DOCUMENTS</u>		
			5PM.024.032 C5	ASSEMBLY DRAWING.		
				<u>ASSEMBLY UNITS</u>		
		✓1	5PM.557.000	CONTACT PLATE	1	
		✓2	5PM.557.001	CONTACT PLATE	1	
		✓3	5PM.557.002	CONTACT PLATE	1	
				<u>COMPONENTS</u>		
		✓4	8PM.285.005-1	FLAT SPRING	1	
		✓5	8PM.285.005-3	FLAT SPRING	2	
				WIRE HB-0 21500 GOST17515-72		STRIP INSULATION
				60MM	1	ON LENGTH
				60MM	1	4.075MM
				<u>STANDARD ITEMS</u>		
				SCREW M2.6x12.052.036	2	454545
				GOST 17473-80		(12) (22)

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 :-		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED ON:- 3PM-328-002-11/23	
DATE :- 23-7-97		DRN ABB		WT :- (Kg)		5PM-024-032C5	
TCD. 000		CHD		APD		BASE 1 OF 2	
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 47/136							

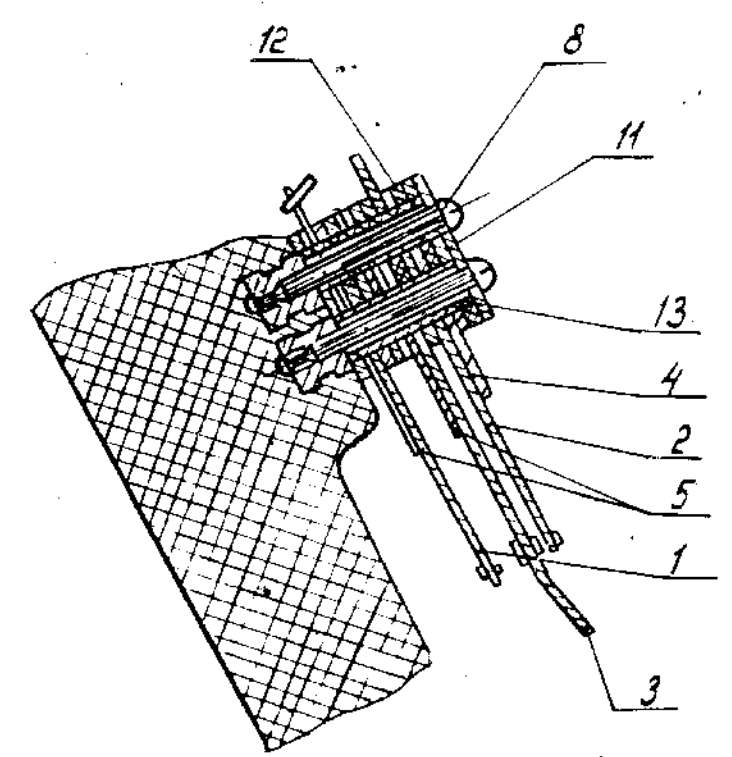
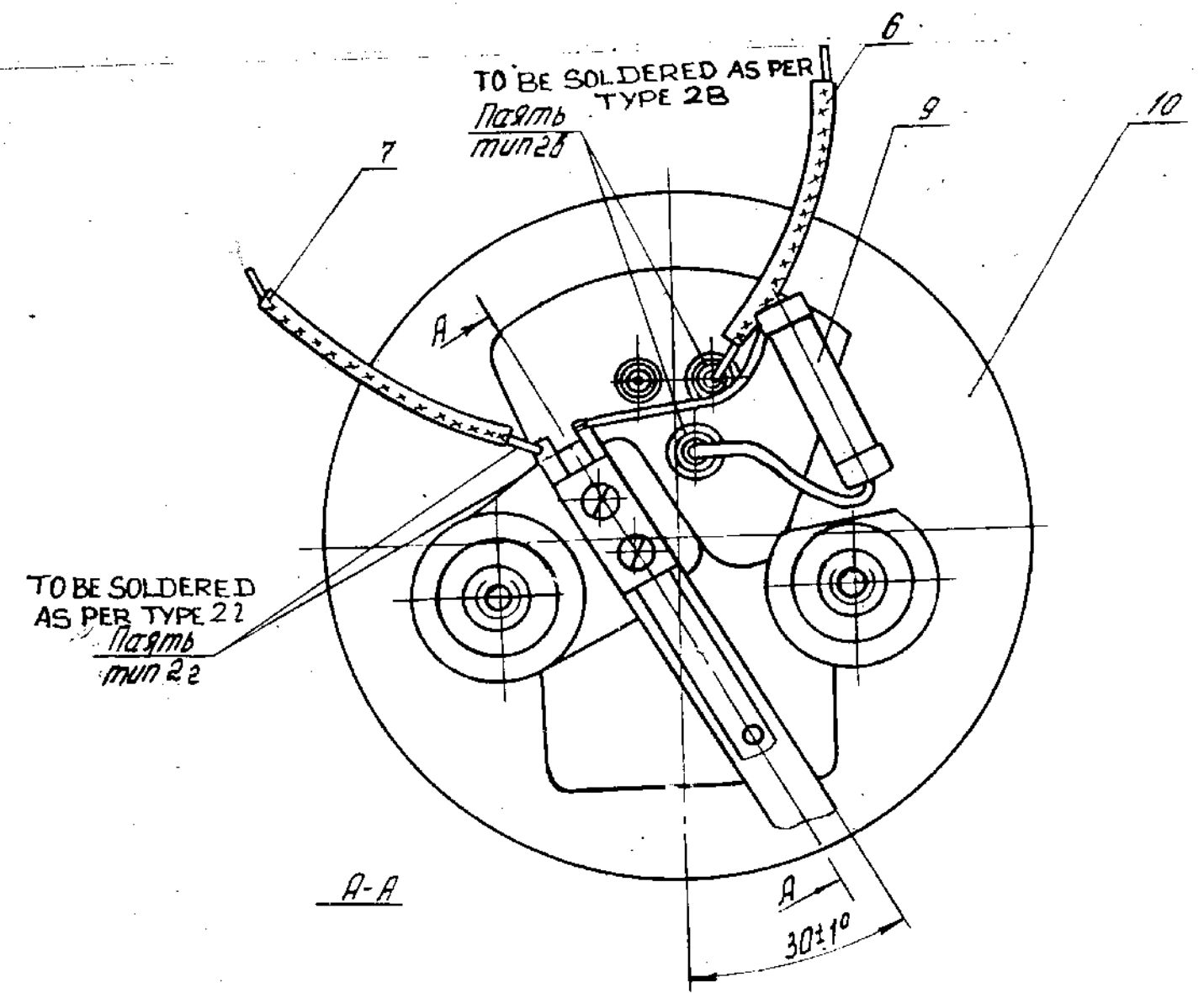
SIZE	ZONE	REF. NO.	PART No.	NOMENCLATURE	Qty	REMARKS
		9		RESISTER C2-14-0.5-4.02 K OHMS		
				±0.5%-E 0X0.467036TY	1	
				VARIABLE DATA FOR MAKES		
				5PM.024.032 C8		
				ASSEMBLY UNITS		
		10	5PM.024.192-2	BASE	1	
				COMPONENTS		
		11	8PM.150.011-2	STRIP	1	
		12	8PM.760.011-2	INSULATING GASKET	7	
		13	8PM.770.009-2	INSULATING SLEEVE	2	
				* 5PM.024.032-01 C8		
				ASSEMBLY UNITS		
		✓10	5PM.024.192-1	BASE	1	
				COMPONENTS		
		✓11	8PM.150.011-1	PLATE	1	1
		12	8PM.760.011-1	INSULATING GASKET	7	
		✓13	8PM.770.009-1	INSULATING SLEEVE	2	F2

DATE	ISSUE	NATURE OF AMENDMENTS	DATE	ISSUE	NATURE OF AMENDMENTS
DRN	ADD	5PM-024-032 C5	DATE:-	23-7-97	
TCD	ADD		USED ON:-		
CHD		BASE	SHEET 21	SHEETS 2	
APPD	ADD		48 OF 136		

CONTROLLERATE OF QUALITY ASSURANCE (ICV)

5711.024.032 8.8-040

5711.024.032C5



1. Screws 8 are to be screwed up according to type 2 with the use of nitrocellulose glue AK - 20 coloured as per TY OPM 599.004.
2. To be soldered as per TY OPM 550.001
3. One lead of resistor 9 should be soldered to plate 1, and the other to the rod with designation „V”
4. The contacts of plates 2 and 3 should get opened at a load applied to the end of plate 3 of not more than 200 gf cm. In this case there should be no simultaneous closing of contacts of plates 1,2 and 3
5. At the moment of circuit breaking of ammeter the clearance between the contacts of plates 1 and 3 should not be less than 0.5 mm. For obtaining this clearance, in case of need, bending of contact plate 1 is allowed.
6. The tightness of stack is to be ensured by placing of required number of insulating gaskets 12. The seventh insulating gasket 12 is to be placed under the strip 11.

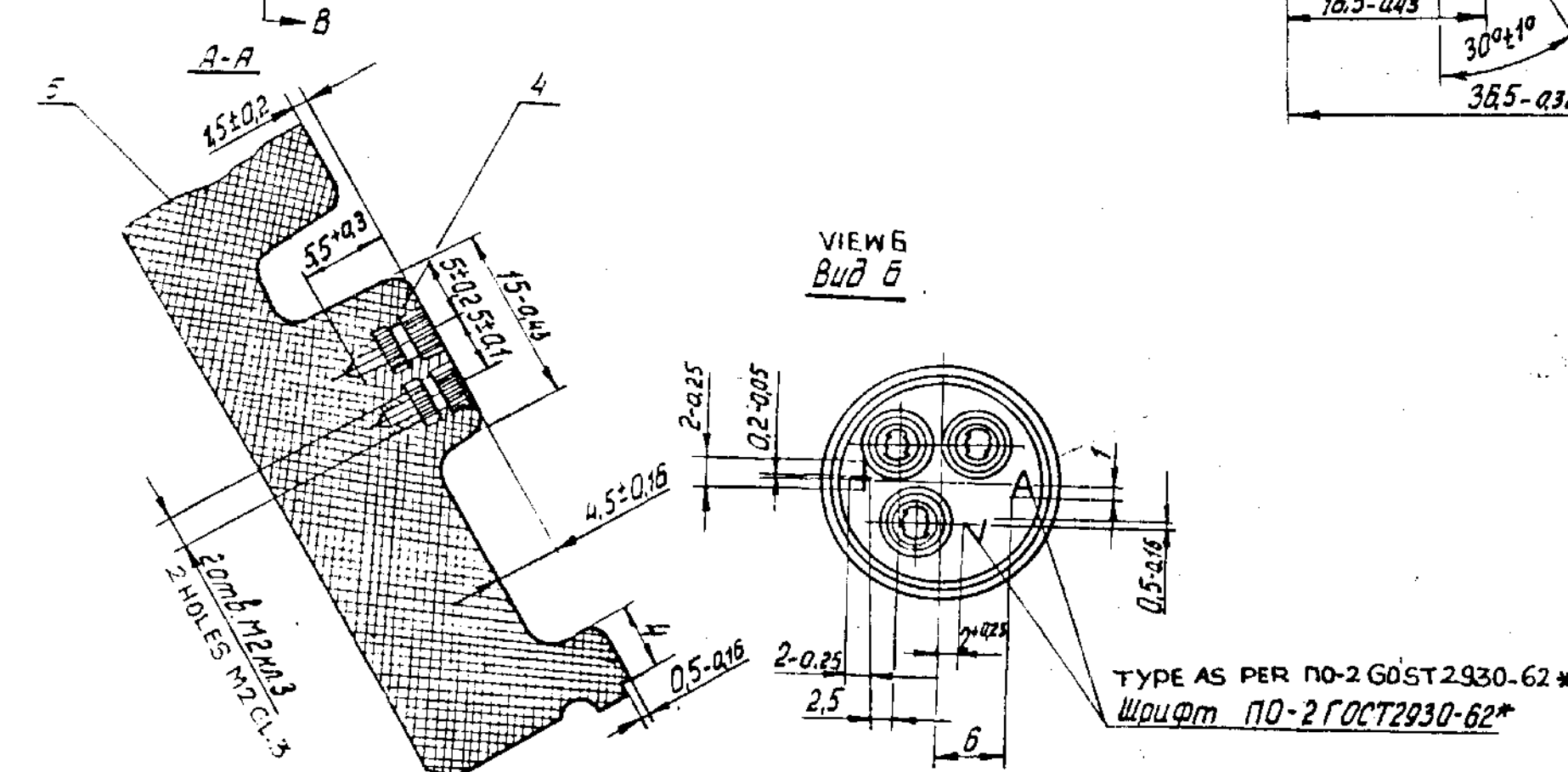
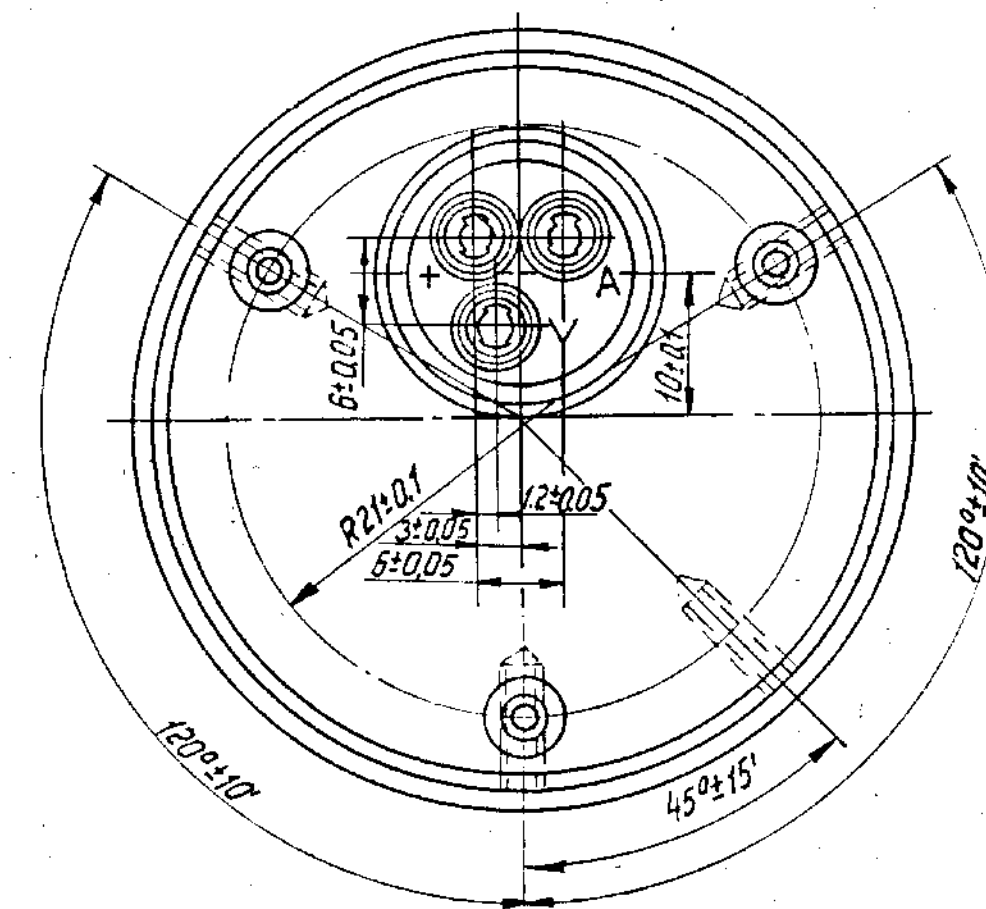
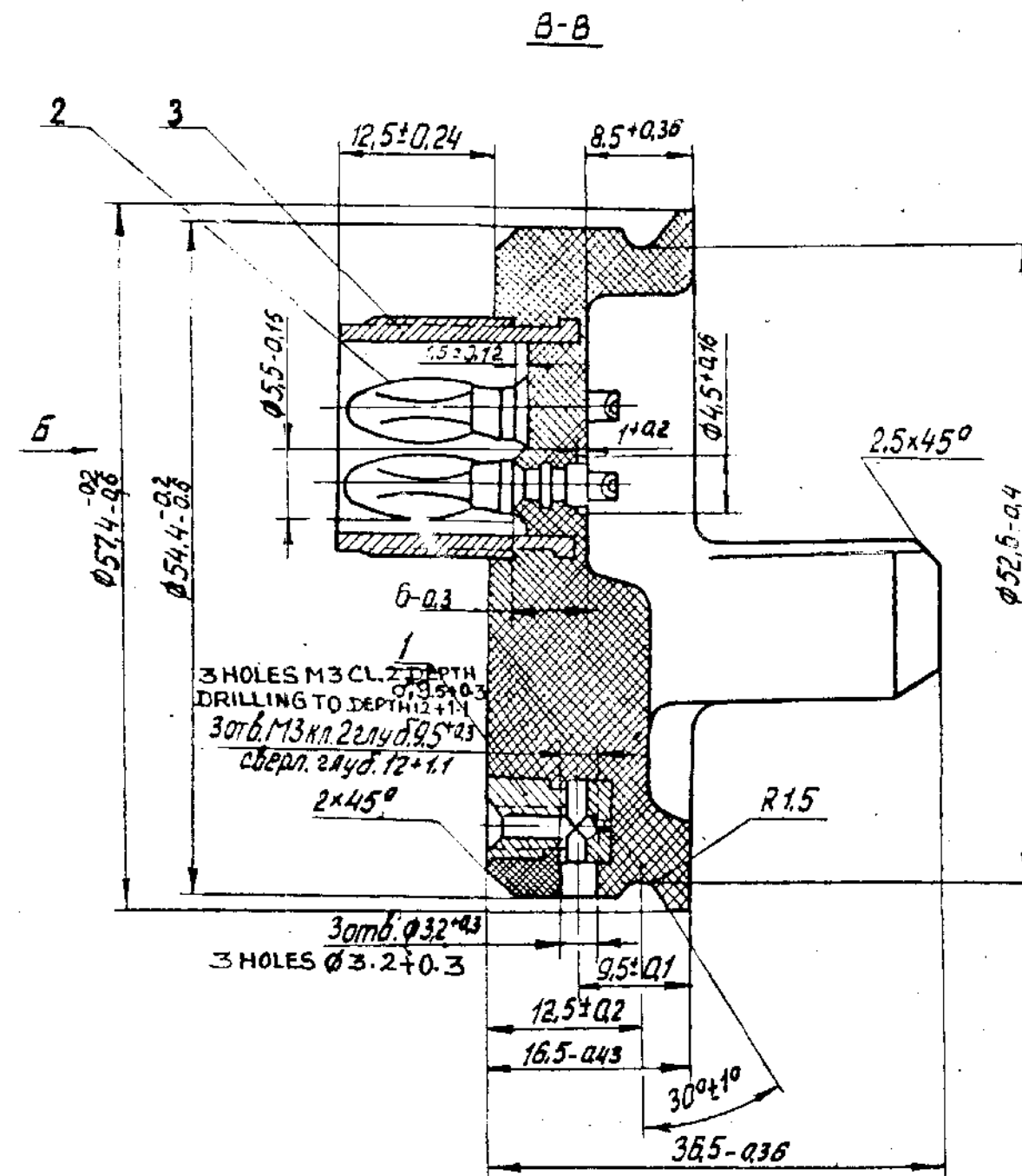
45415 K.4 F-2 24

MATERIAL		STAMP OR ETCH, PART NO.
ALL SHARP EDGES & CORNERS TO BE ROUNDED	ALL THREADS TO CONFORM TO SPECIFICATION	MANUFACTURERS NAME & YEAR OF MFR.
DRG. NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:- 3711-320-002-11/23
SCALE :- 2:1	DATE :- 23-7-97	5711-024-032C5
DRN ABB.	WT :- (Kg)	BASE
TCO ABB.		
CHD		
APD		
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 49/136		

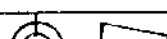
5711.024.032C5

(подп. 27.05.68)

1. LETTERS AND MARK "4" ARE TO BE RAISED. THE HEIGHT OVER THE SURFACE SHOULD BE 0.15 MM.
2. SURFACE SLOPES NOT SPECIFIED IN THE DRAWING SHOULD BE 1°
3. 3 HOLES (* *) ARE TECHNOLOGICAL
4. UNTOLERANCED DIMENSIONS TO BE ACCORDING TO CLASS 9 OF ISO 1101
5. AT THE PLACES OF REMOVED FLASH A CHAMFER OF 0.5X45° SURFACE SHOULD BE MADE. SURFACE TO BE FINISHED TO $\nabla 4$
6. SPECIFIED RADII SHOULD BE 1 MM.
7. PROJECTION OF ITEM 2 BEYOND ITEM 3 IS NOT ALLOWED.
9. THE MUTUAL POSITION OF CUT OFF ROD ENDS OF CONTACTS 2, SHOWN IN THE DRAWING, IS OBLIGATORY. ALLOWED DEVIATION IS $\pm 15^\circ$
10. A TRACE LEFT BY PUSHER AROUND BUSH 3 IS ALLOWED TO THE DEPTH OF NOT MORE THAN 0.5 MM.



5		PHENOLIC PLASTIC SEE TABLE		
		GOST 5689-79	SEE TABLE	
4	SEE TABLE	THREADED BUSH	2	
3	8mm. 215.012	THREADED BUSH	1	
2	SEE TABLE	CONTACT	3	
1	SEE TABLE	THREADED BUSH	5	
ITEM NO.	PART NO.	NOMENCLATURE	QTY	REMARKS

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 :- 2:1 DATE :- 23-7-97		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED ON:-	
DRN ABB				57M-024-192-0			
CCD ABB							
CHD							
APD ☒		WT :- (Kg)		BASE			
							

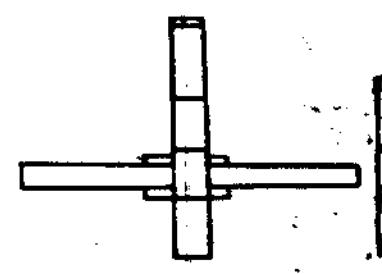
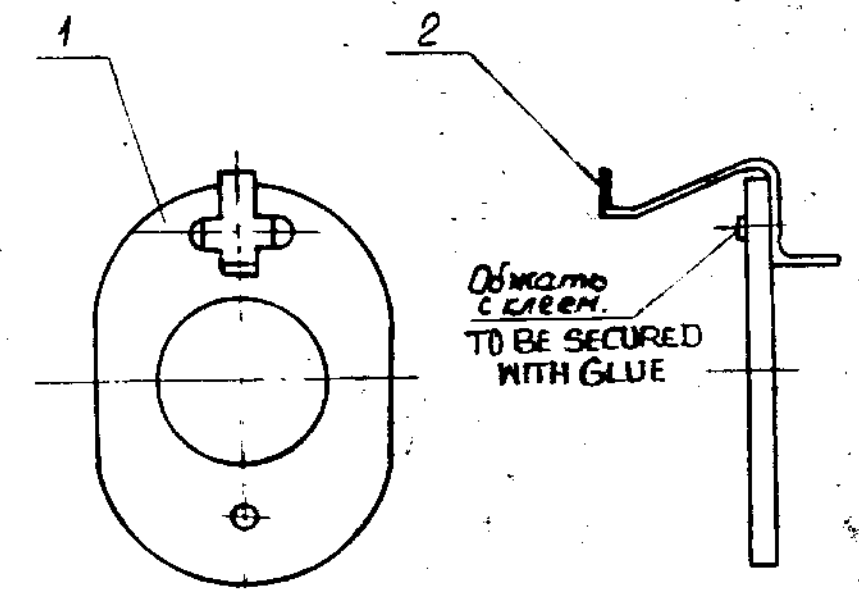
CONTROLLERATE OF QUALITY ASSURANCE 56/136
(INFANTRY COMBAT VEHICLES)

84-040,
425

5NM 100 001 1-2

122 05 67/

Клей БФ-2 ГОСТ 12172-74
GLUE БФ-2 GOST 12172-74



PART NO.	ITEM 1	USED ON
5NM.100.001.1	8NM.100.004.1	5NM.147.006-1
5NM.100.001.2	8NM.100.004.2	

15415 K. F-2 26

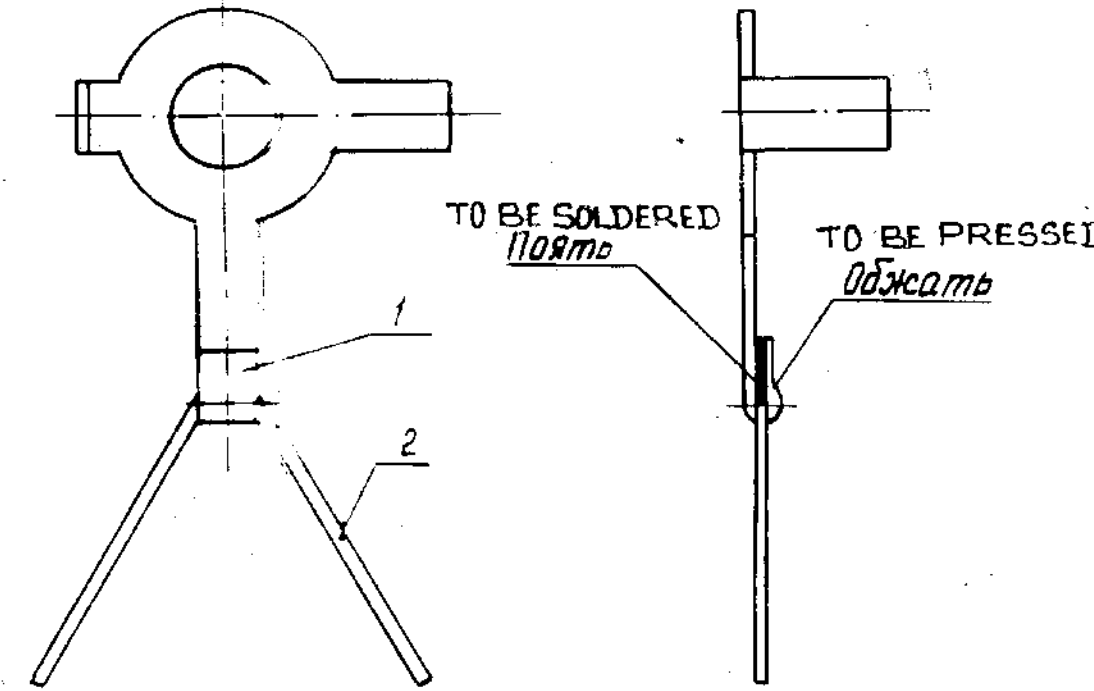
ITEM NO.	PART NO.	NOMENCLATURE	QTY	REMARKS
2	8NM.114.002	SPRING HOLDER	1	
1	SEE TABLE	HOLDER	1	

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 :- 5:1		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED ON:-	
DATE :- 23-7-97.		DRN. <i>[Signature]</i>		WT :- (Kg)		5NM 100 001 1-2	
TCD. <i>[Signature]</i>		CHD. <i>[Signature]</i>		APD. <i>[Signature]</i>		HOLDER	
CONTROLLERATE OF QUALITY ASSURANCE 69/136 (INFANTRY COMBAT VEHICLES)							

060 411 WUE

(подл. 28. 06.68)

Припой ПРЗ ПОС-61 ГОСТ 21931-76
SOLDER ПРЗ ПОС-61 GOST 21931-76



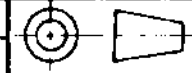
45415 KJ (F-2/27)

2	8ПМ.118.001	COUNTER WEIGHT NIB	1	
1	8ПМ.114.003	SPRING HOLDER	1	
ITEM NO.	PART NO.	NOMENCLATURE	QTY	REMARKS
2	8ПМ.118.001	штырь пружинный	1	
1	8ПМ.114.003	пружинный держатель	1	
ПОЗ.	Обозначение	Наименование	Кол.	Примечание

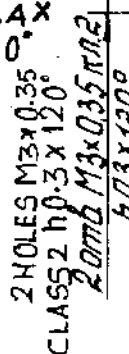
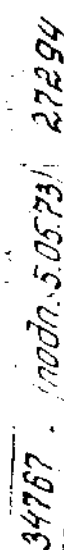
MATERIAL		ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF		ALL THREADS TO CONFORM TO SPECIFICATION		STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFR.	
DRG. NOT TO BE SCALED		SCALE -- 10:1		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED ON:-	
DATE -- 23-7-97.		DRN		WT -- (Kg)		5ПМ 114 000	
CHD		APD		SPRING HOLDER			
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 82/136							

SIZE	ZONE	REF No	PART No	NOMENCLATURE	Qty	REMARKS
				DOCUMENTS		
		12	5mm.147.005 C5	ASSEMBLY DRAWING		
				MATERIAL		
		2		ALLUMINIUM ALLOY		
				AA2 G05T 2685-75	3.6	
				COMPONENTS		
		1	8mm.636.002	CORE	1	

SIGNATURE AND DATE

MATERIAL : - - -		ALL THREADS TO CONFORM TO SPECIFICATION		STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFR.	
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED ON:- 5mm-147-005-1	
ORG. NOT TO BE SCALED		WT :- (Kg)		5mm-147-005C5	
SCALE :-				CASING	
DATE :- 23-7-97					
DRN ABB					
TCD ABB					
CHD					
APD					
					
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 67/136					

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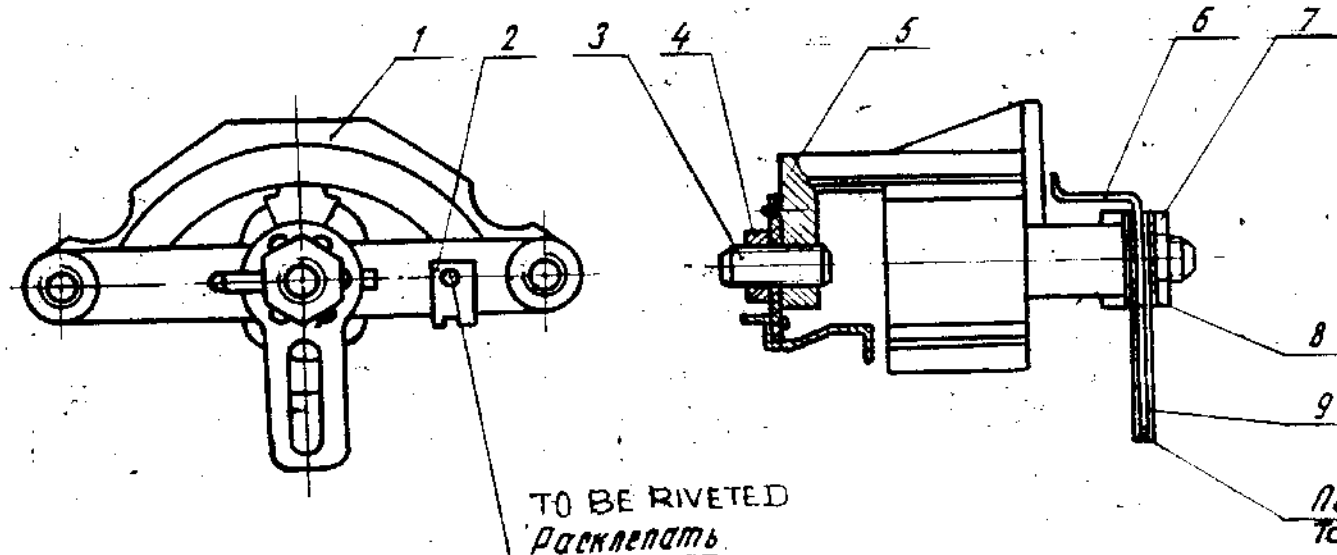


3. COATING Cd 6 CHROMATIZING.

CONTROL RATE OF QUALITY ASSURANCE
(INFANTRY COMBAT VEHICLES) 68/136

00000 ZH1 WUS

(подпись) 27.05.68г.



1. Припой пр-3 по ГОСТ 21931-76.
 2. Место пайки покрыть лаком окрасочным ТУ 00М.504.017.
 3. Место риветки покрыть см. таблицу.
1. SOLDER PR.3 ПОС-61 ГОСТ 21931-76
2. PLACE OF SOLDERING TO BE COATED WITH COLOURED VARNISH ТУ.00М.504.017.
3. PLACE OF RIVETING TO BE COATED AS PER THE TABLE.

PART NO. Обозначение	ITEM NO. 3 поз. 3	ITEM NO. 4 поз. 4	ITEM NO. 5 поз. 5	ITEM NO. 7 поз. 7	ITEM NO. 8 поз. 8	ITEM NO. 9 поз. 9	POINT 3 OF TECHNICAL REQUIREMENTS п.3 техн.ч. требований
* 50M.147.006-1	50M.262.000-17	80M.946.036-1	50M.100.001-1	80M.946.009-1	80M.953.000-1	80M.233.025-1	
50M.147.006-2	50M.262.013-12	80M.946.036-2	50M.100.001-2	80M.946.009-2	80M.953.000-2	80M.233.025-2	3м. 8А-725 ТУ6-10-866-75
50M.147.006-3	50M.262.013-12						
04 50M.262.013-18							

45415 KR



9	SEE TABLE	ADJUSTER	2	
8	SEE TABLE	SPRING WASHER	1	
7	SEE TABLE	NUT	1	
6	80M.959.000	WASHER	1	
5	SEE TABLE	HOLDER	1	
4	SEE TABLE	NUT	1	
3	SEE TABLE	THRUST BEARING	2	
2	80M.572.000	LUG	1	
1	50M.147.005	CASING	1	
ITEM NO.	PART NO.	NOMENCLATURE	QTY	REMARKS

MATERIAL :—		STAMP OR ETCH, PART NO.	
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF		MANUFACTURERS NAME & YEAR	
DRG. NOT TO BE SCALED		OF MFB.	
SCALE :— 2:1		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	
DATE :— 23-7-97		USED ON:— 50M-147-007-1/5	
DRN. ABB	WT :— (Kg)	50M-147-006-0	
ICD. ABB		CASING	
CHD.			
APD.			

CONTROLLERATE OF QUALITY ASSURANCE
(INFANTRY COMBAT VEHICLES)

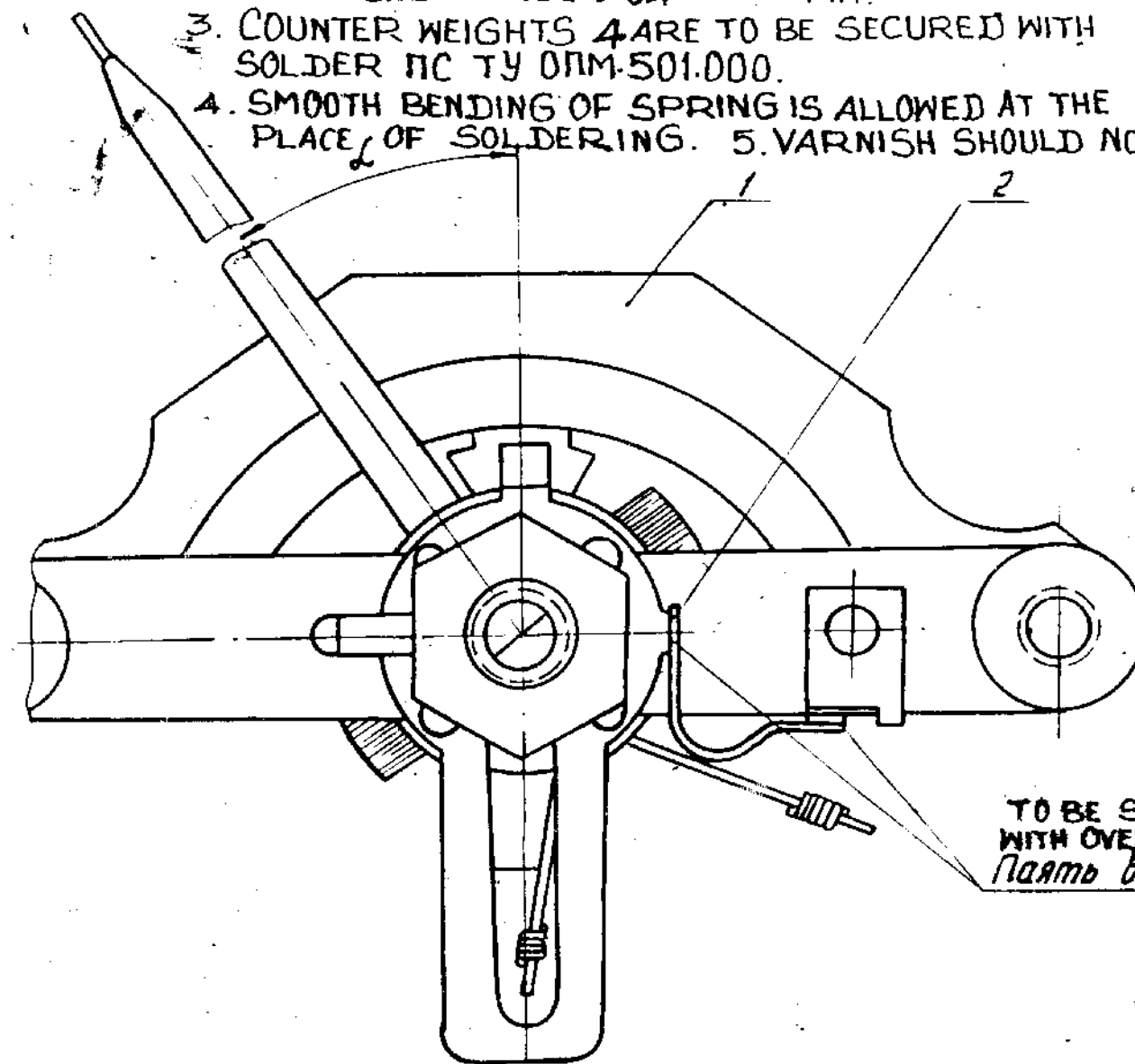
66/136

Восстановлен с подлинника. Верно: ПИДЖЕ

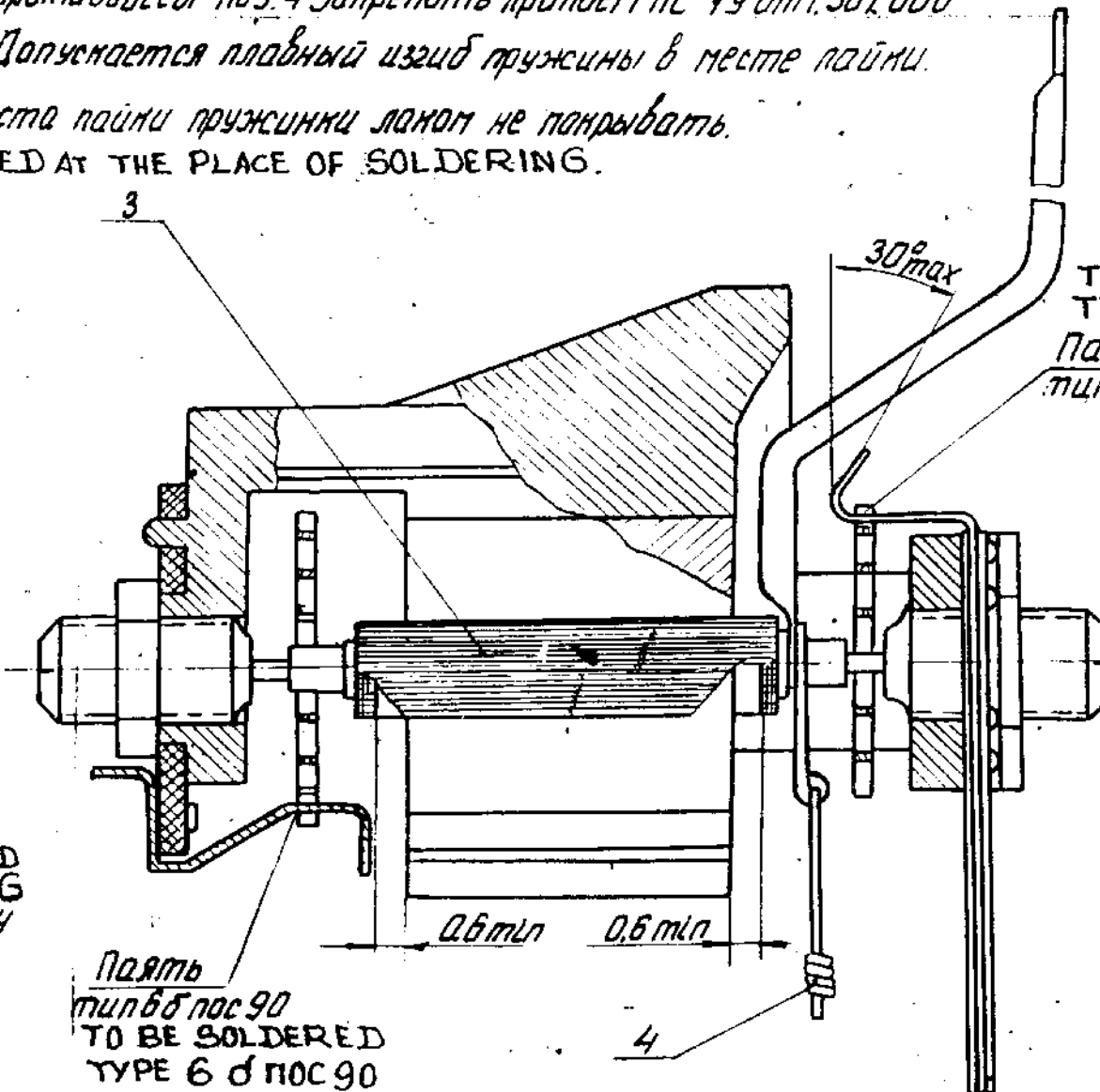
28.5.02 (подпись) 5.05.73. 1968

0-200 244 WUS

1. TO BE SOLDERED ACCORDING TO TY OPM. 550.001
2. AXIAL CLEARANCE 0.04^{+0.005} MM
3. COUNTER WEIGHTS 4 ARE TO BE SECURED WITH SOLDER PC TY OPM. 501.000.
4. SMOOTH BENDING OF SPRING IS ALLOWED AT THE PLACE OF SOLDERING.
5. VARNISH SHOULD NOT BE USED AT THE PLACE OF SOLDERING.



1. Паять по ТУ ОПМ. 550.001
2. Осевая зазор 0.04^{+0.005} мм
3. Противобесы паз 4 закрепить припоем по ТУ ОПМ. 501.000
4. Допускается плавный изгиб пружины в месте пайки.
5. Места пайки пружинки лаком не покрывать.



TO BE SOLDERED
TYPE 60 ПОС 90
Паять
тип 60 ПОС 90

45415 К.Д

F-2
32

PART NO	ITEM 1 ПОЗ. 1	ITEM 3 ПОЗ. 3	ITEM 4 ПОЗ. 4	ANGLE УГОЛ	USED ON
50034042H28					
50M.147.007-1	50M.147.006-1	50M.443.001-1	80M.290.001	20°	60M 700 010-1
50M.147.007-3		50M.443.001-3		40°	
50M.147.007-5		50M.443.001-5	80M.290.008	20°	60M 700 010-5
50M.147.007-7	50M.147.006-2	50M.443.001-7		40°	
50M.147.007-2		50M.443.042-2	80M.290.001	20°	
50M.147.007-4		50M.443.042-4		40°	
50M.147.007-6		50M.443.042-6	80M.290.008	20°	
50M.147.007-8		50M.443.042-8		40°	

4	SEE TABLE	COUNTER WEIGHT	2	
3	SEE TABLE	MOVABLE ELEMENT	1	
2	80M.588.001	LEAD	1	
1	SEE TABLE	CASING	1	
ITEM NO.	PART NO.	NOMENCLATURE		REMARKS

MATERIAL		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		SCALE: 5:1		DATE: 23-7-97		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	
DRM ABB.		WT: (kg)		50M-147-007-0			
ICD ABB.				CASING			
CND							
APD							

CONTROLLERATE OF QUALITY ASSURANCE
(INFANTRY COMBAT VEHICLES)

65/136

37628 (mod 23 03742)
SIRE
ZONE
REF NO
PART NUMBER

NOMENCLATURE
ДОКУМЕНТАЦИЯ
DOCUMENTS

QTY USED IN MGS
01 02 03 04 05 06 07 08 09

51M241C6

ОБОЗНАЧЕНИЕ
ASSEMBLY DRAWING

X X X X X

Детали
COMPONENTS

Втулка BUSH
Втулка BUSH

1 1 1

1 81M 241 002-01
-02

-33-

MATERIAL		ALL THREADS TO CONFORM TO SPECIFICATION		STAMP OR ETCH, PART NO. OF MFR.
ALL SHARP EDGES & CORNERS TO BE ROUNDED		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED ON:-
DRG. NOT TO BE SCALED		DATE :- 23-7-97		
SCALE :-		WT :- (kg)		
DRN 002		51M-24-001C6		
TOL. 002		BUSH		Sheet 1 of 2
ADD 002		CONTROL RATE OF QUALITY ASSURANCE		
		(INFANTRY COMBAT VEHICLES)		74/136

F-2
95

45415 24

37628 modn 250974

SIZE
ZONE
REF NO

PART NUMBER

NOMENCLATURE

QTY. USED ON ASY:

SNM 211.001

01 02 03 04 05 06 07 08 09

01 (материалы и изделия)

STANDARD ITEMS

PIVOT GOST 8913-76

8913-76

805x3x0.05

805x3x0.05

805x3x0.035

COBALT TUNG-
TON ALLOY

805x3x0.05

805x3x0.035

805x3x0.035

45415 4-4

F2
34

SNM 211.001.06

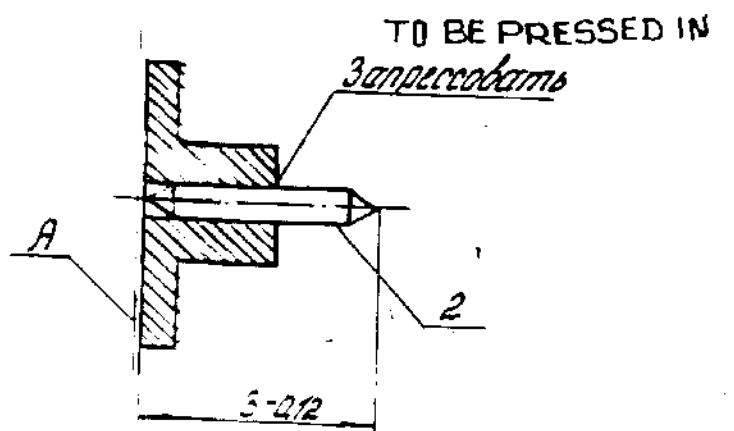
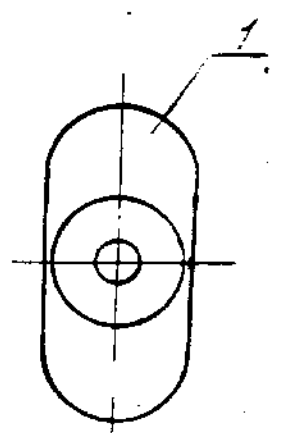
TS 136

2

DATE
REVISION
DATE

5PM 211 001C5

BA-040



PROTRUSION OF PIVOT 2 BEYOND SURFACE 1 IS NOT ALLOWED.
Выступ пингвиона поз. 2 за поверхность 1 не допускается.

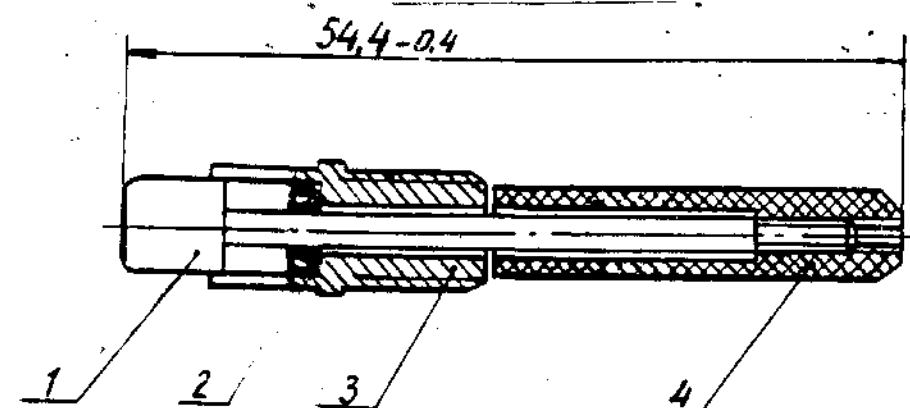
45415 K.A. (F-2 35)

3875

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.	
ORG. NOT TO BE SCALED		SCALE: 10:1		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED ON: 5PM-441-000-1, 5PM-211-004-1	
DATE: 23-7-97		DRN: ABB		WT: (Kg)		5PM-211-001C5	
TCD: ABB		CHD:		APD:		BUSH	
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 76/136							

11/14/71

ROD 1 WITH ROD 2 ARE TO BE SECURED
WITH GWEБФ 2 ГОСТ 12172-74.
Шток поз.1 со штоком поз.4 ставить
на палец БФ-2 ГОСТ 12172-74



BASED ON	PART NO.	ITEM 1	ITEM 3/NO.3
SNM 004 004	000354444444	SNM. 235 004-1	SNM. 211. 001-1
	SNM. 235. 002-2	SNM. 235 004-2	SNM. 211. 001-2
	SNM. 235. 002-3	SNM. 235 004-3	SNM. 211. 001-2

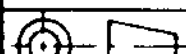
45415 КД

F-3

(3)

4	ВНП 235.000	Шток ROD	1
3	ср. таблицу SEE TABLE	Штулка BUSHING	1
2	ВНП 371.027	Прокладка GASKET	1
1	ср. таблицу SEE TABLE	Шток ROD	1

ITEM NO. Поз.	PART NO. Обозначение	NOMENCLATURE Наименование	QTY кол	REMARKS Примечание
------------------	-------------------------	------------------------------	------------	-----------------------

MATERIAL :—			
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF	ALL THREADS TO CONFORM TO SPECIFICATION	STAMP OR ETCH, PART NO.	
DRG. NOT TO BE SCALED		MANUFACTURERS NAME & YEAR OF MFR.	
SCALE :- 2:1	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:-	
DATE :- 23-7-97			
DRN <u>ABB</u>	WT :- (Kg)	5MM-235-002-0	
FO <u>ABB</u>			
CHD			
APD <u>84</u>			
		ROD	

CONTROLLERATE OF QUALITY ASSURANCE
(INFANTRY COMBAT VEHICLES) 58/136

2

DRAWING NUMBER
5NM 235 003-0

41±0.2

1

2

4.5±0.5

1.5±0.12

7±0.2

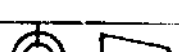
USED ON	PART NO	PART NO OF ITEM 2	MASS.
5NM 235 004-1	5NM.235.003-1	PHENOLIC PLASTIC 03-010-02 GOST 5689-79	0.28
	5NM.235.003-2	PHENOLIC PLASTIC 310 342-63 GOST 5689-79	0.33

ITEM NO	PART NUMBER	NOMENCLATURE	QTY	REMARKS
1	00M 174 001	ROD	1	
2		SEE TABLE	SEE TABLE	

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

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

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 :-		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 :- 2:1	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:-
DATE :- 23-7-97		DRN. <i>ABB</i>	5PM-235-003-0	ROD
TCD <i>ABB</i>		WT :- (Kg)		
CHD.				
APD. <i>48</i>				
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)				

Черт. № 68-040
 Подпись и дата
 15/51

0-400 532 WUS

(подп. 22.06.87)

1. Углубление под заглушку поз.2 за-
полнить см. таблицу.

2. Заглушку поз.2 приклеить к дета-
ли поз.1 клеем БФ-4 ГОСТ 12172-74.

1. THE HOLE PLUG 2 SHOULD BE FILLED
AS PER THE TABLE

2. PLUG 2 IS TO BE GLUED TO ROD 1
WITH GLUE БФ.4 GOST 12172-74

Г. PART NO. Обозначение	ПОЗ.1 ITEM.1	Заполнение углубления	FILLING OF HOLE
5ПМ.235.004-1	5ПМ.235.003-1	LUMINOUS MASS OF TEMPORARY ACTION GRADE ФКП-03K	
5ПМ.235.004-2	5ПМ.235.003-2	ACCORDING TO ТУ ОПМ. 599.011	

45415 КД. (F-2 39)

2	8ПМ. 322. 000	Заглушка PLUG	1
1	см. таблицу TABLE	ШТОК ROD	1
ПОЗ.1	Обозначение PART NO.	Наименование NAME	Примечание REMARKS

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.
DRG. NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:- 5ПМ-235-002-1
SCALE :- 2:1		
DATE :- 23-7-97		
DRN. PAB.	WT :- (Kg)	
TCO. PAB.		
CHD.		
APD. GAB.		

5ПМ-235-004-0
 ROD

CONTROLLERATE OF QUALITY ASSURANCE
 (INFANTRY COMBAT VEHICLES)

59/136

69-000 292 WUS		ММММММММ
5PM 262 000		20. 12. 1972
PART No.	DESCRIPTION OF REST	REMARKS
Описание детали	Описание детали	Замечания
5PM 262 000.1	ПОДПЯТЫЙ	3PM 907 000
5PM 262 000.3	ПАК 1,5x0,1	3PM 907 000
5PM 262 000.5	ГОСТ 8893-73	3PM 907 000
5PM 262 000.7	ПОДПЯТЫЙ	3PM 907 000
5PM 262 000.9	ПАК 1,5x0,15	3PM 907 000
5PM 262 000.11	ГОСТ 8893-73	3PM 907 000
5PM 262 000.13	ПОДПЯТЫЙ	3PM 907 000
5PM 262 000.15	ПАК 1,5x0,15	3PM 907 000
5PM 262 000.17	ГОСТ 8893-73	3PM 907 000
5PM 262 000.19	ПОДПЯТЫЙ	3PM 907 000
5PM 262 000.21	ПАК 1,5x0,2	3PM 907 000
5PM 262 000.23	ПОДПЯТЫЙ	3PM 907 000
5PM 262 000.25	ПОДПЯТЫЙ	3PM 907 000

MATERIAL		STAMP OR ETCH, PART NO.	
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF	ALL THREADS TO CONFORM TO SPECIFICATION	MANUFACTURER'S NAME & YEAR OF MFG	
DRG. NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USEL ON - 6PM-700-065-0CB	
SCALE :-		5PM-147-006-1	
DATE :- 23-7-97		5PM-262-000	
DRN ABB	WT :- 1KG	REST	
TCD ABB		shot-20F2	
CHD			
APD			
CONTROLLER OF QUALITY ASSURANCE			
(INFANTRY COMBAT VEHICLES) 80/136			

Item No.	Description	Quantity	Unit Price	Total Price
1	STANDARD LITERATURE	1	10.00	10.00
2	SCREEN	1	1.00	1.00
3	COMPONENTS	1	1.00	1.00
4	ADDITIONAL	1	1.00	1.00
5	ADDITIONAL	1	1.00	1.00
6	ADDITIONAL	1	1.00	1.00
7	ADDITIONAL	1	1.00	1.00
8	ADDITIONAL	1	1.00	1.00
9	ADDITIONAL	1	1.00	1.00
10	ADDITIONAL	1	1.00	1.00
11	ADDITIONAL	1	1.00	1.00
12	ADDITIONAL	1	1.00	1.00
13	ADDITIONAL	1	1.00	1.00
14	ADDITIONAL	1	1.00	1.00
15	ADDITIONAL	1	1.00	1.00
16	ADDITIONAL	1	1.00	1.00
17	ADDITIONAL	1	1.00	1.00
18	ADDITIONAL	1	1.00	1.00
19	ADDITIONAL	1	1.00	1.00
20	ADDITIONAL	1	1.00	1.00
21	ADDITIONAL	1	1.00	1.00
22	ADDITIONAL	1	1.00	1.00
23	ADDITIONAL	1	1.00	1.00
24	ADDITIONAL	1	1.00	1.00
25	ADDITIONAL	1	1.00	1.00
26	ADDITIONAL	1	1.00	1.00
27	ADDITIONAL	1	1.00	1.00
28	ADDITIONAL	1	1.00	1.00
29	ADDITIONAL	1	1.00	1.00
30	ADDITIONAL	1	1.00	1.00
31	ADDITIONAL	1	1.00	1.00
32	ADDITIONAL	1	1.00	1.00
33	ADDITIONAL	1	1.00	1.00
34	ADDITIONAL	1	1.00	1.00
35	ADDITIONAL	1	1.00	1.00
36	ADDITIONAL	1	1.00	1.00
37	ADDITIONAL	1	1.00	1.00
38	ADDITIONAL	1	1.00	1.00
39	ADDITIONAL	1	1.00	1.00
40	ADDITIONAL	1	1.00	1.00
41	ADDITIONAL	1	1.00	1.00
42	ADDITIONAL	1	1.00	1.00
43	ADDITIONAL	1	1.00	1.00
44	ADDITIONAL	1	1.00	1.00
45	ADDITIONAL	1	1.00	1.00
46	ADDITIONAL	1	1.00	1.00
47	ADDITIONAL	1	1.00	1.00
48	ADDITIONAL	1	1.00	1.00
49	ADDITIONAL	1	1.00	1.00
50	ADDITIONAL	1	1.00	1.00
51	ADDITIONAL	1	1.00	1.00
52	ADDITIONAL	1	1.00	1.00
53	ADDITIONAL	1	1.00	1.00
54	ADDITIONAL	1	1.00	1.00
55	ADDITIONAL	1	1.00	1.00
56	ADDITIONAL	1	1.00	1.00
57	ADDITIONAL	1	1.00	1.00
58	ADDITIONAL	1	1.00	1.00
59	ADDITIONAL	1	1.00	1.00
60	ADDITIONAL	1	1.00	1.00
61	ADDITIONAL	1	1.00	1.00
62	ADDITIONAL	1	1.00	1.00
63	ADDITIONAL	1	1.00	1.00
64	ADDITIONAL	1	1.00	1.00
65	ADDITIONAL	1	1.00	1.00
66	ADDITIONAL	1	1.00	1.00
67	ADDITIONAL	1	1.00	1.00
68	ADDITIONAL	1	1.00	1.00
69	ADDITIONAL	1	1.00	1.00
70	ADDITIONAL	1	1.00	1.00
71	ADDITIONAL	1	1.00	1.00
72	ADDITIONAL	1	1.00	1.00
73	ADDITIONAL	1	1.00	1.00
74	ADDITIONAL	1	1.00	1.00
75	ADDITIONAL	1	1.00	1.00
76	ADDITIONAL	1	1.00	1.00
77	ADDITIONAL	1	1.00	1.00
78	ADDITIONAL	1	1.00	1.00
79	ADDITIONAL	1	1.00	1.00
80	ADDITIONAL	1	1.00	1.00
81	ADDITIONAL	1	1.00	1.00
82	ADDITIONAL	1	1.00	1.00
83	ADDITIONAL	1	1.00	1.00
84	ADDITIONAL	1	1.00	1.00
85	ADDITIONAL	1	1.00	1.00
86	ADDITIONAL	1	1.00	1.00
87	ADDITIONAL	1	1.00	1.00
88	ADDITIONAL	1	1.00	1.00
89	ADDITIONAL	1	1.00	1.00
90	ADDITIONAL	1	1.00	1.00

78/136
77/136

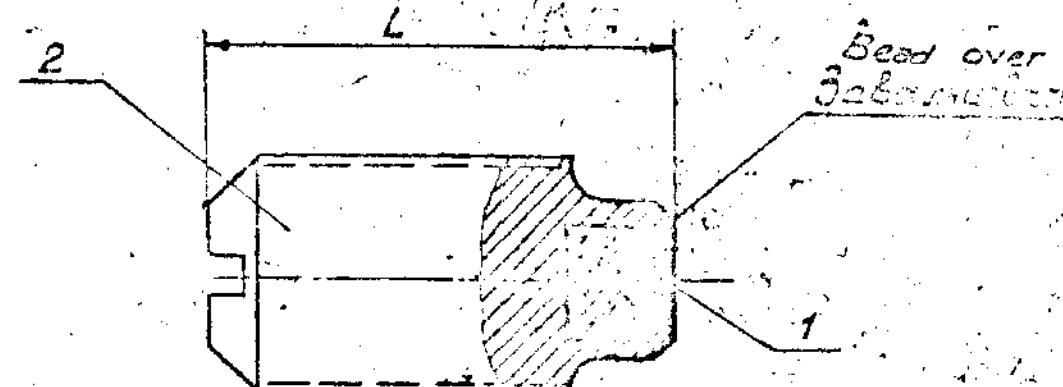
[illegible]

68-000232WU5

УКВ-В
21.12.75

After Beading make sure
rest 1 is not loose or
damaged. Bead should not
have cracks or burrs and
should not project beyond
the diameter of the rest
crater.

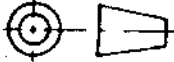
После заделывания поддона
не должен иметь кача и по-
вреждений. Заваленная не должна
иметь трещин и заусениц и
не должна заходить за край
ший диаметр кратера под-
платника.



2	BEAD OVER	SERIAL	1
1	REST	DATE	

MATERIAL :-		ALL SHARP EDGES & CORNERS TO BE ROUNDED		ALL THREADS TO CONFORM TO SPECIFICATION		STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFR.	
DRG. NOT TO BE SCALED		SCALE :- 10:1		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED ON:-	
DATE :- 23-7-97		DRN ABB		WT :- (Kg)		5PM-262-000C5	
FCD ABB		CHD		APD		REST	
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 79/136							

N 4118 N 12112 Način u domaću	Crteži iz 04-0001	500 270 006	500 270 006	
PART NO 04001 21112		ITEM 2 100.2		500 270 006
500 270 006		500 270 006		
PART NO 04001 21112		ITEM 2 100.2		500 270 006
500 270 006		500 270 006		

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 :- 10 : 1		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED ON:- 30M 320.002 11/23	
DATE :- 23-7-97		DRN		W.T. :- (Kg)		50M 270 006	
ICD <i>my</i>		CHD		APD <i>my</i>		LIMITER	
							
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 46/136							

0-000 1474 WUE

(подпись)

Изм. № 1
88-040

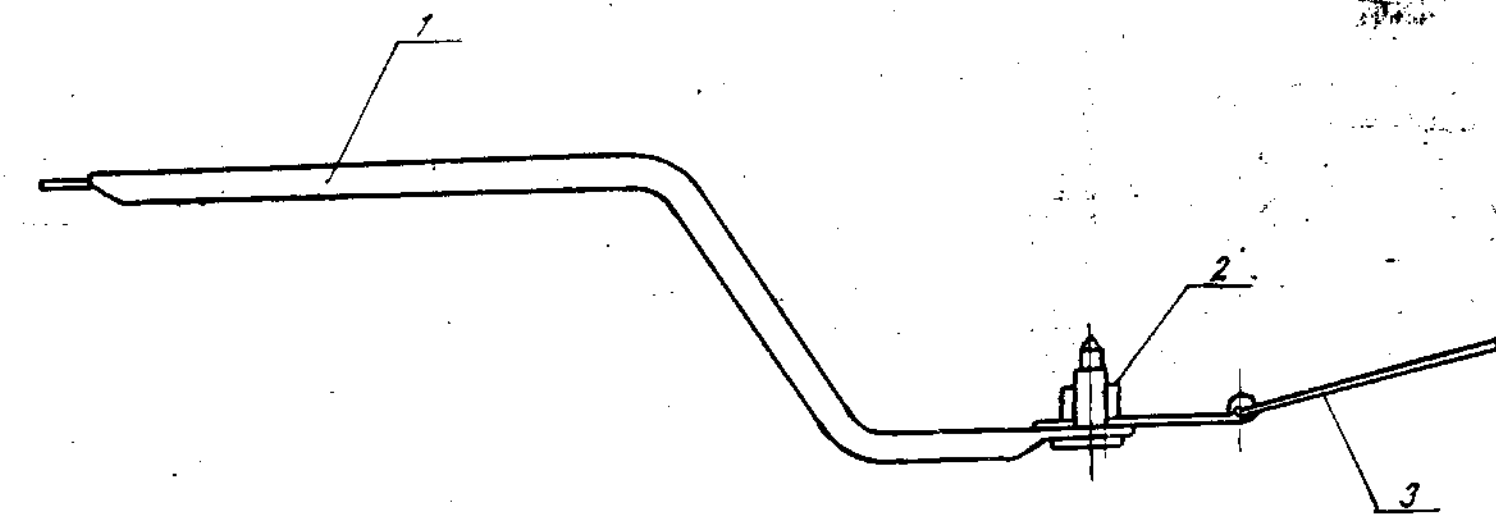
Стор. №

Получен в 1993

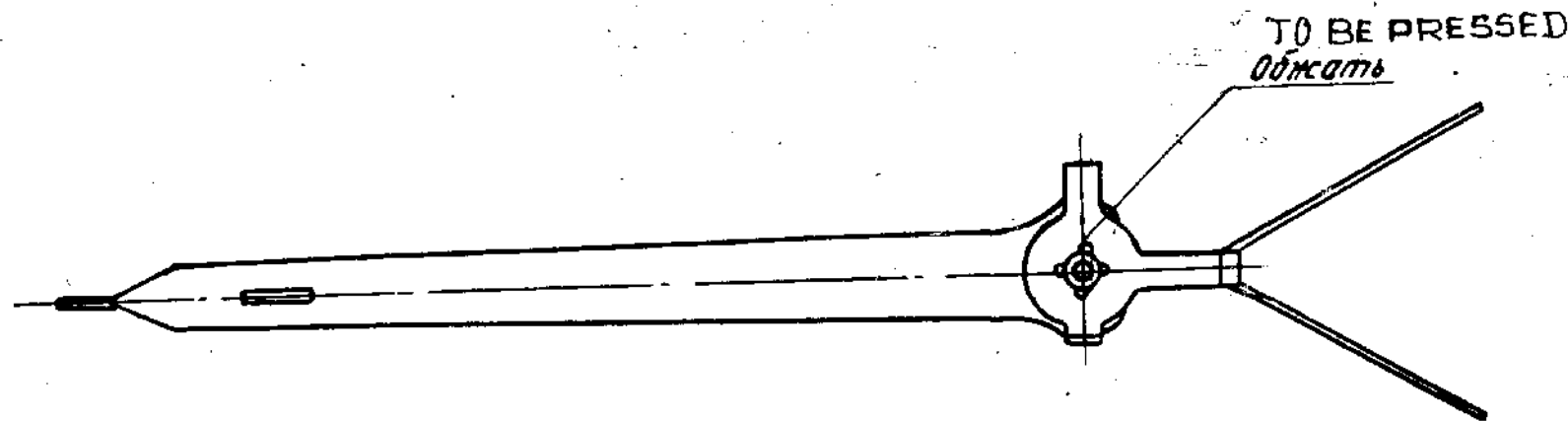
Изм. № 1
15093

Изм. № 1
15093

Изм. № 1
20735



Места подрезания покрытия (в местах
однажды) покрытие лаком см. таблицу.
THE PLACES WITH DAMAGED COATING AS
A RESULT OF PRESSINGS ARE TO BE
COATED WITH VARNISH. (SEE TABLE)



TO BE PRESSED.
однажды

F-2
46

PART NO.	ITEM.1	ITEM.2	POINT 3 OF TECHNICAL REQUIRE- MENTS	USED ON
Обозначение	поз.1	поз.2	п.3 техн. требований	
5ПМ.441.000-1	5ПМ.441.021-1	5ПМ.211.001-1		5ПМ 443 001-1
5ПМ.441.000-2	5ПМ.441.021-2	5ПМ.211.001-03	ВК 113 ГОСТ 23832-79	

3	5ПМ.114.000	Пружинный держатель	SPRING HOLDER	1	
2	см. таблицу	Втулка	BUSH	1	
1	см. таблицу	Стрелка	POINTER	1	
ITEM NO.	Обозначение	НАИМЕНОВАНИЕ	NOMENCLATURE	QTY кол.	REMARKS Примечание

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 :- 5:1		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED ON:- SEE TABLE	
DATE :- 23-7-97		DRN.		WT :- (Kg)		5ПМ 441 000-0	
TCD.		CHD.		APD.		POINTER	
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 72/136							

0-120 441 WUS

(подп. 08.06.68г.)

перв. примен.

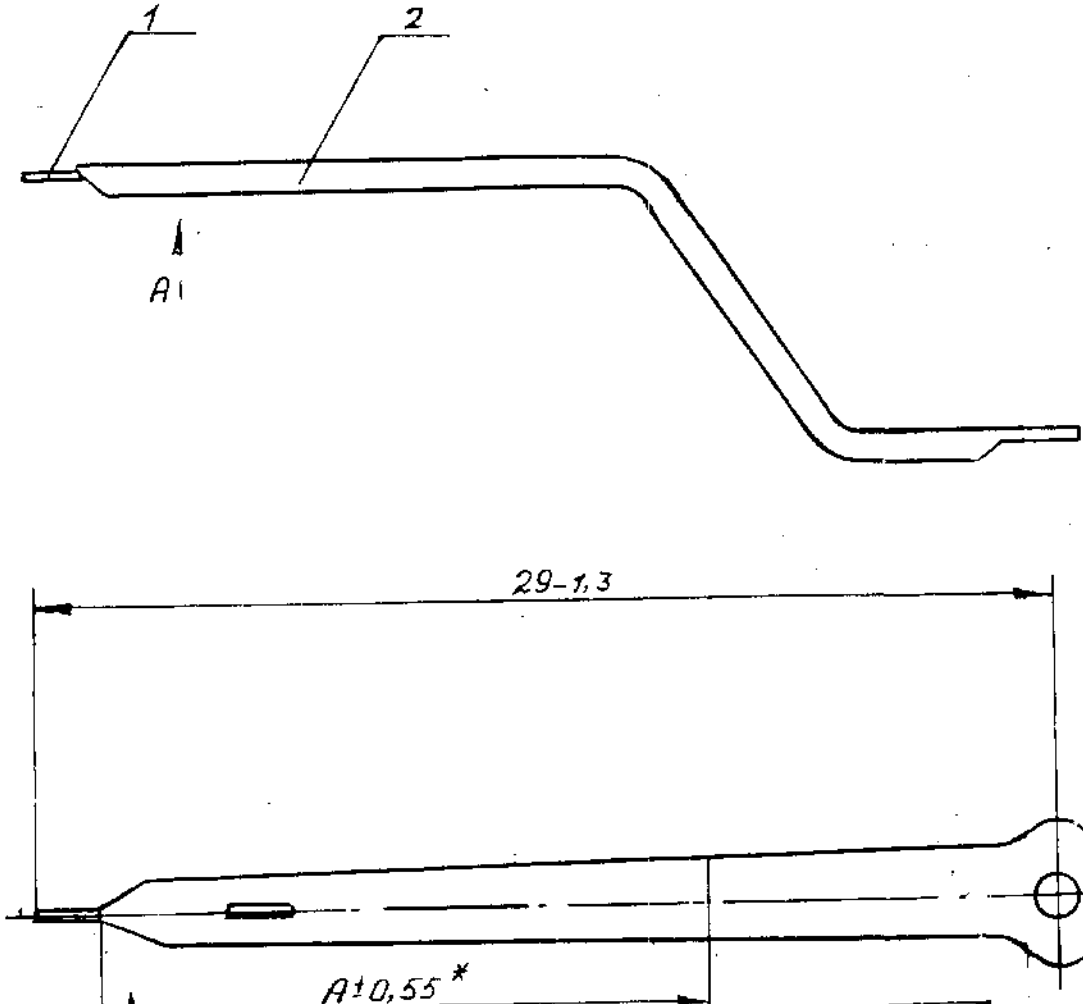
ВА-040

Справ. №

разработан с подлинником. Серийный номер изделия и дата

изм. № подл. подл. и дата (подп. 05.03.73г.)

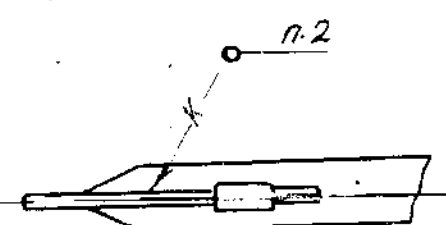
PART NO.	DESIGNATION OF ITEM.1	DESIGNATION OF ITEM.2	POINT 2 OF TECHNICAL REQUIREMENTS	A mm	POINT 4 OF TECHNICAL REQUIREMENTS
Обозначение	Обозначение поз.1	Обозначение поз.2	NITRO CELLULOSE GLUE		NITRO CELLULOSE ENAMEL H4-25
5ПМ 441.021.1	8ПМ.540.007.1	8ПМ.441.001.1	AK-20 TY6-10	12	WHITE GOST 5406-73
5ПМ.441.021.3	8ПМ.540.007.3	8ПМ.441.001.3	-1293-78		
5ПМ.441.021.2	8ПМ.540.007-2	8ПМ.441.001-2	GLUE БФ-2	12	ENAMEL AK-1102 TY-6-10-1408-78
5ПМ.441.021-4	8ПМ.540.007-3	8ПМ.441.001-3	GOST 12172-74		



1. Непараллельность стержня поз.1 с осью ребра жесткости стрелки поз.2 не более 0,2 мм.
2. Стержень поз.1 ставить на см. табл.
3. Клей в окне недопустим.
4. Лицевую поверхность стрелки поз.2, ограниченную размером *, покрыть светящейся массой временного действия марки ФКП-03К по ТУ ОПМ.599.011 с подслоем см. таблицу. Толщина покрытия должна быть равномерной, не более 0,35 мм.

1. NON PARALLELISM OF BAR 1 WITH THE STIFFENING RIB AXLE OF POINTER 2 SHOULD NOT BE MORE THAN 0.2 mm.
2. BAR 1 IS TO BE SECURED ACCORDING TO THE TABLE

Вид А VIEW A 3. NO GLUE IN THE SLIT IS ALLOWED.



4. THE FACE SURFACE OF POINTER 2 WITH IN DIMENSION IS TO BE COATED WITH LUMINOUS MASS OF TEMPORARY ACTION GRADE ФКП-03К AS PER TY ОПМ.599.011 WITH PRECOAT (SEE TABLE) THICKNESS OF COAT SHOULD BE UNIFORM, NOT MORE THAN 0.35 mm

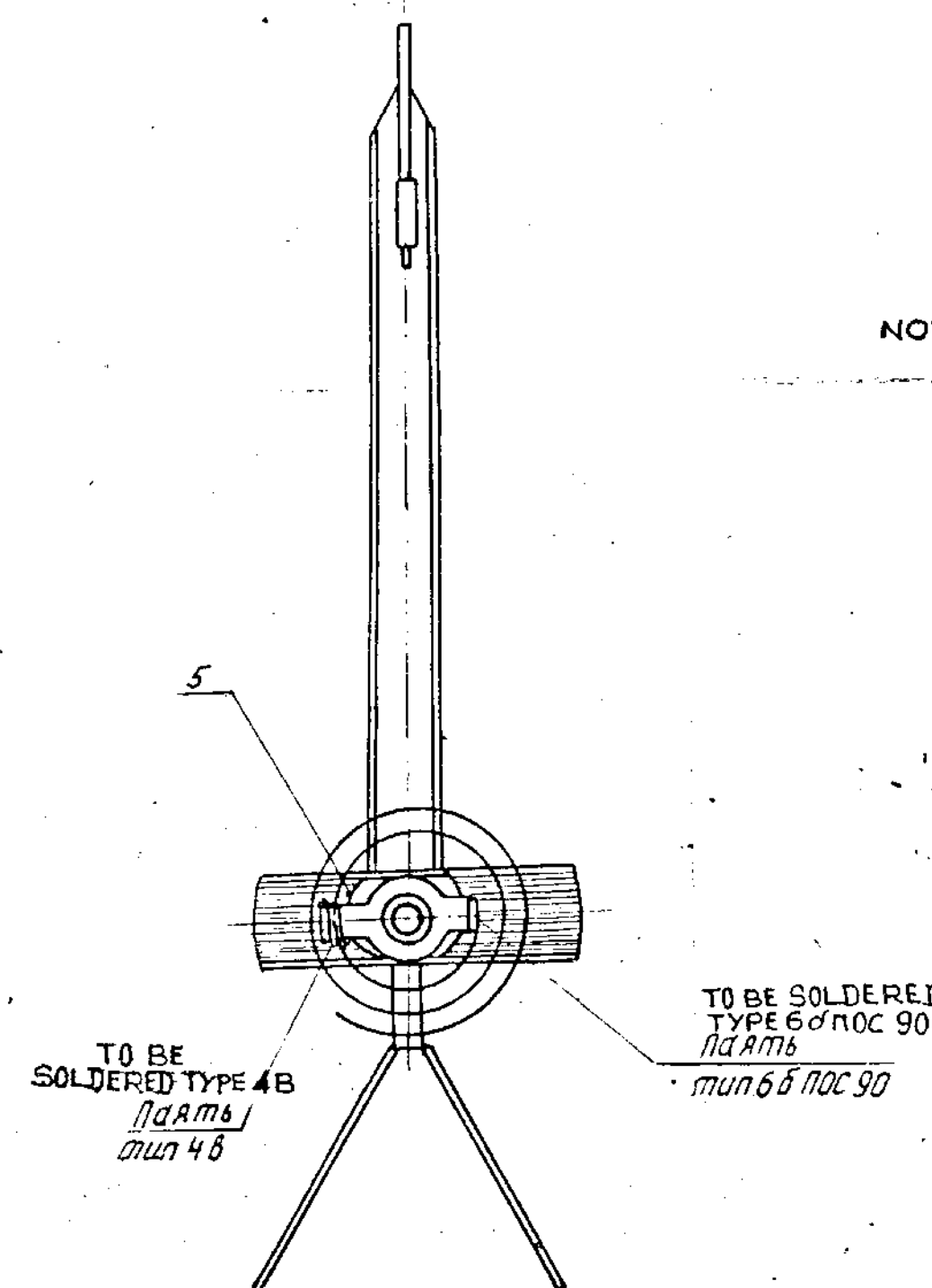
45415 K 4

F-2
67

ITEM NO.	SEE TABLE	СТРЕЛКА POINTER	1	
NOZ.	SEE TABLE	СТЕРЖЕНЬ BAR	1	
NOZ.	SEE TABLE	НАИМЕНОВАНИЕ NOMENCLATURE	QTY	REMARKS
				ПРИМЕЧАНИЕ

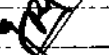
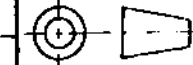
MATERIAL		ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF		ALL THREADS TO CONFORM TO SPECIFICATION		STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFR.	
DRG. NOT TO BE SCALED		SCALE :- 5:1		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED ON:- 5ПМ 441-000-1	
DATE :- 23-7-97		DRN: ABB		WT :- (Kg)		5ПМ-441-021-0	
TCD: BBE		CHD: [Symbol]		APD: [Symbol]		POINTER	

CONTROLLERATE OF QUALITY ASSURANCE
(INFANTRY COMBAT VEHICLES) 73/136



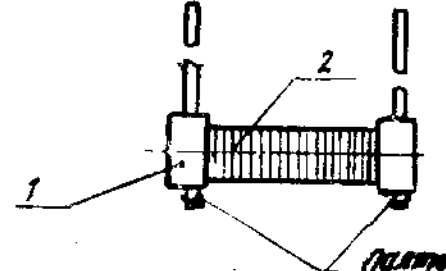
1. Втулки поз. 5 и стрелку поз. 2 клеить к корпусу из целлюлоидным клеем ТУ ОПМ-599-006.
2. Несовпадение концов по отношению к оси должно быть 0,05 мм.
3. Начало и конец обмотки рамки поз. 1 привязать к лапкам держателям стрелки поз. 2 и втулки поз. 5 соответственно. Концы отводов лапкодержателей отогнуть к обмотке на расстоянии 0,1-0,2 мм.
4. Пятую по ТУ ОПМ-550-001 часть рамки поз. 1 лаком не покрывать.
5. BUSH 5 AND POINTER 2 ARE TO BE GLEED TO FRAME WITH CELLULOID GLUE TY OPM-599-006.
6. MISALIGNMENT OF PIVOTS RELATIVE TO FRAME SHOULD NOT BE MORE THAN 0.05 mm.

5	5NM.211.004.1.	BUSH	1	
4		SPIRAL SPRING A4 X 28		
		CN GOST 9233-79	1	
3		SPIRAL SPRING A4 X 22		
		CN GOST 9233-79	1	
2	SEE TABLE	POINTER	1	
1	SEE TABLE	FRAME	1	
ITEM NO.	PART NO.	NOMENCLATURE	QTY	REMARKS

MATERIAL		ALL THREADS TO CONFORM TO SPECIFICATION	STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFR.
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF			
DRG. NOT TO BE SCALED		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:-
SCALE :- 5:1			
DATE :- 23-7-97	WT :- (Kg)	57M-443-001-0 MOVABLE ELEMENT	
DRN <i>ABB</i>			
TEC <i>ABB</i>			
CHD			
APD			
 		CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)	
		70/136	

5ПМ 520 132
 (подпись) И.О. И.

2. Сопротивление катушки в зависимости от регулировк.: 5.5-6.5 ом.
 3. паять тип 4В ТУОПМ.550.001.
 4. Обмотку пропитывать лаком МЛ-92 ГОСТ 15865-78.
 2. COIL RESISTANCE DEPENDING ON ADJUSTMENT IS TO BE 5.5-6.5 OHMS.
 3. TO BE SOLDERED BY TYPE 4B ТУОПМ.550.001.
 4. WINDING IS TO BE IMPREGNATED WITH VARNISH МЛ-92 ГОСТ 15865-78



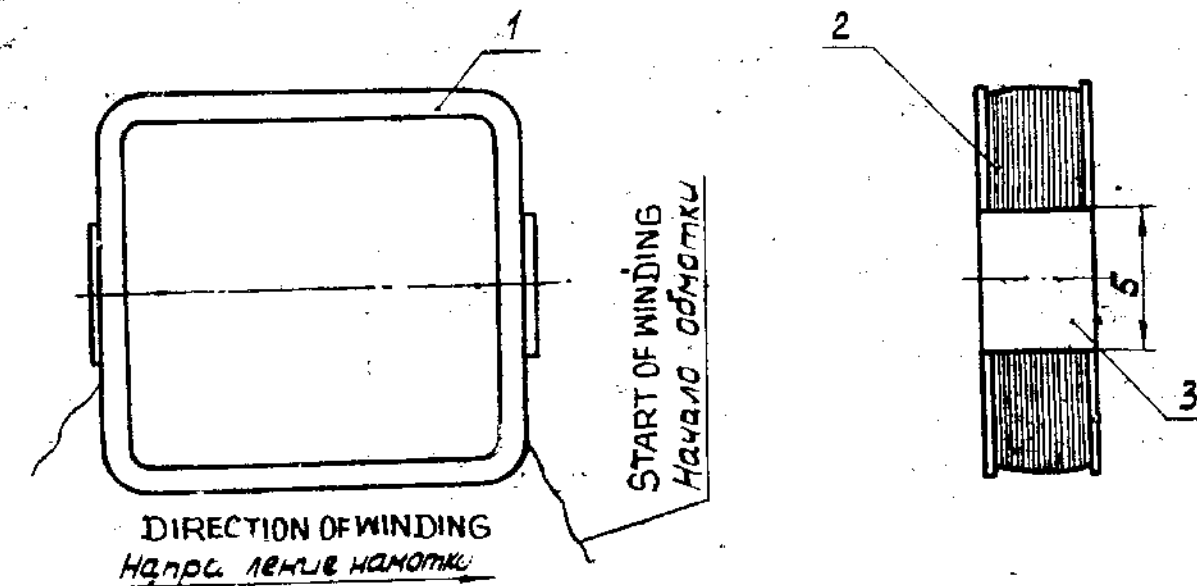
Паять по чертежу

2	Обмотка провода	WIRE WINDING	0.125	
1	5ПМ 520 132	МЛ-92	0.125	
ИТН	ПАРТ. NO	МЛ-92	0.125	REMARKS
ИТН	ПОДПИСАНИЕ	ПОДПИСАНИЕ	ИТН	ПОДПИСАНИЕ

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.	
ORG. NOT TO BE SCALED		SCALE :- 2:1		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED ON:-	
DATE :- 23-7-97.		DRN. TCD. CHD. APD.		WT :- (Kg)		5ПМ 520 132	
						COIL	
CONTRÖLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 51/136							

01-1 000 825 WLS

(Подпись)

TABLE
Таблица

PART NO. Обозначение	WIRE Диаметр DIA	NUMBER OF Витков TURNS	WGT Вес g	CONDUCTOR Сечение mm ²	GRADE OF WIRE Марка провода
5ПМ.528.000.1	0,112	38,5	0,164	3,4-2,5	А278-7
5ПМ.528.000.3	0,08	51,5	0,1	—	А278-7

1. При намотке каждый слой обмотки смазывать клеем БФ-2 ГОСТ 12172-74.
2. Начало обмотки отметить.
3. Свободные концы 30 ± 10 мм.
4. Бумагу папиросную поз. 3 клеить клеем БФ-2 ГОСТ 12172-74.

1. WHILE WINDING EVERY LAYER SHOULD BE SMEARED WITH GLUE БФ-2 GOST 12172-74

2. THE BEGINING OF WINDING IS TO BE MARKED.

3. FREE ENDS TO BE 30 ± 10 MM.

4. THE CIGARETTE PAPER 3 IS TO BE GLUED WITH A GLUE БФ-2 GOST 12172-74

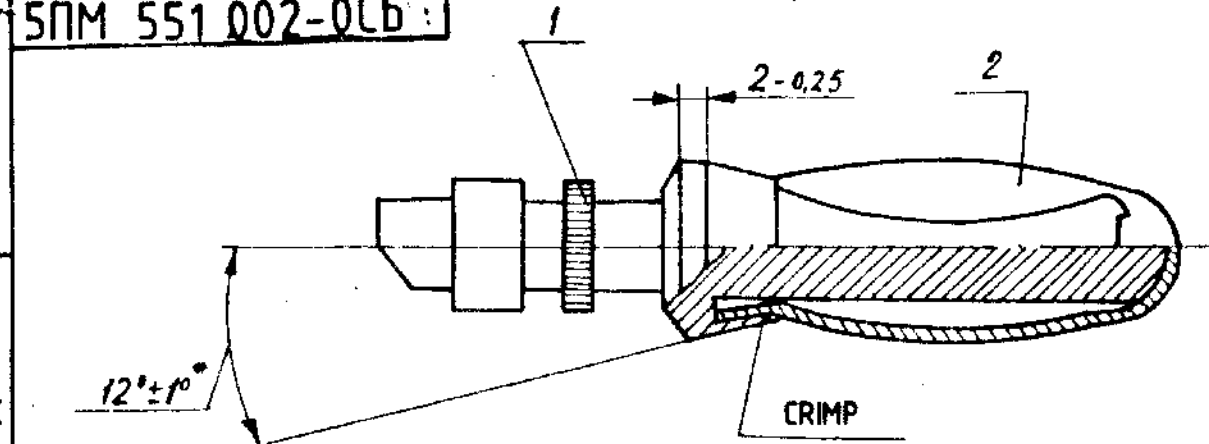
45415 K4
F-2
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3		CIGARETTE PAPER 5X2.8	2	
		GOST 3479-75		
2	SEE TABLE	WINDING		
1	8ПМ.080.000	FRAME	1	
ITEM NO.	PART NO.	NOMENCLATURE	QTY	REMARKS

MATERIAL		STAMP OR ETCH, PART NO.	
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF		MANUFACTURERS NAME & YEAR	
ORG. NOT TO BE SCALED		OF MFR	
SCALE :- 5:1		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	
DATE :- 23-7-97		USED ON :- 5ПМ 443-001-1/5	
DRN. RBB	WT :- (kg)	5ПМ-528-0001-10	
TCD. RBB		FRAME	
CHD.			
APD. RBB			

CONTROLLERATE OF QUALITY ASSURANCE
(INFANTRY COMBAT VEHICLES) 71/136

5PM 551 002-005

DRAWING NUMBER																
5PM 551 002-005																
																
1. TAPER SHOULD BE CRIMPED SMOOTHLY, WITHOUT ANY TOOL MARKS. 2. CONTACT 2 SECURED IN TAPER OF PIN 1 SHOULD WITHSTAND A PULLING FORCE OF ATLEAST 10Kgf. 3. FIRST LUG OF THE CONTACT NO 2 IS TO BE SOLDERED WITH PIN NO 1 WITH SOLDER ПР 3 ПОС 61, ГОСТ 21931-76. 4. DAMAGE ON CRIMPED PAPER IS PERMITTED. DAMAGED POINTS ARE TO BE COATED: AS PER TABLE. 5* DIMENSION TO BE ENSURED BY TOOL.																
<table border="1"><thead><tr><th>PART NO</th><th>PARA 4 OF TR</th><th>REF. NO. 2</th></tr></thead><tbody><tr><td>5PM 551 002-1CB</td><td></td><td>8PM 551 006 -1</td></tr><tr><td>5PM 551 002-2</td><td>DAMAGED PLACES ARE TO BE COATED WITH COLOURED VARNISH AS PER TY. 0PM 504. 017</td><td>8PM 551 006-2</td></tr></tbody></table>		PART NO	PARA 4 OF TR	REF. NO. 2	5PM 551 002-1CB		8PM 551 006 -1	5PM 551 002-2	DAMAGED PLACES ARE TO BE COATED WITH COLOURED VARNISH AS PER TY. 0PM 504. 017	8PM 551 006-2						
PART NO	PARA 4 OF TR	REF. NO. 2														
5PM 551 002-1CB		8PM 551 006 -1														
5PM 551 002-2	DAMAGED PLACES ARE TO BE COATED WITH COLOURED VARNISH AS PER TY. 0PM 504. 017	8PM 551 006-2														
<table border="1"><thead><tr><th>ITEM NO</th><th>PART NO</th><th>NOMENCLATURE</th><th>QTY</th><th>REMARKS</th></tr></thead><tbody><tr><td>1</td><td>8PM 540. 025</td><td>PIN</td><td>1</td><td></td></tr><tr><td>2</td><td>SEE TABLE</td><td>CONTACT</td><td>1</td><td></td></tr></tbody></table>		ITEM NO	PART NO	NOMENCLATURE	QTY	REMARKS	1	8PM 540. 025	PIN	1		2	SEE TABLE	CONTACT	1	
ITEM NO	PART NO	NOMENCLATURE	QTY	REMARKS												
1	8PM 540. 025	PIN	1													
2	SEE TABLE	CONTACT	1													
F-2 65 45415KA																
NEAREST EQVT MATERIAL																
ORGL MATERIAL																
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF. DRG. NOT TO BE SCALED																
ALL THREADS TO CONFORM TO SPECIFICATION.																
STAMP OR ETCH, PART NO. MANUFACTURER'S NAME & YEAR OF MFR.																
SCALE:- 5:1																
TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED																
USED ON:- 5PM-551-003CB 5PM-024-192-1																
DATE :- 23-7-97																
DRN. ABB																
WT :- (K3)																
CONTACT																
TCD. ABB																
CHD.																
DRAWING NO																
5PM-551-002-005																
PART NO																
APD. 8/11																
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 81/136																

000255 WUS
 (mod. 22.06.67)

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 F-2
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2

2	БПМ.550.000	CONTACT	4	
1	БПМ.557.010	CONTACT PLATE	1	
ITEM NO.	PART NO.	NOMENCLATURE	QTY	REMARKS

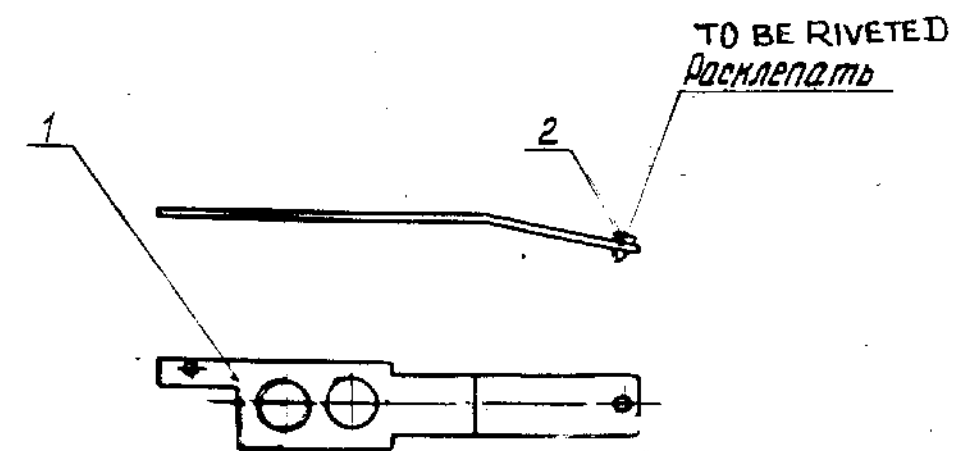
MATERIAL

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	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:-
SCALE :- 2:1		
DATE :- 23-7-97.		
DRN. <i>[Signature]</i>	WT :- (Kg)	
TCD. <i>[Signature]</i>	5PM 557 000	
CHD. <i>[Signature]</i>	CONTACT PLATE	
APD. <i>[Signature]</i>		

CONTROLLERATE OF QUALITY ASSURANCE
 (INFANTRY COMBAT VEHICLES)

53/136

(modn. 22.06.67)



4.5475 K.D.

F-2
P-5

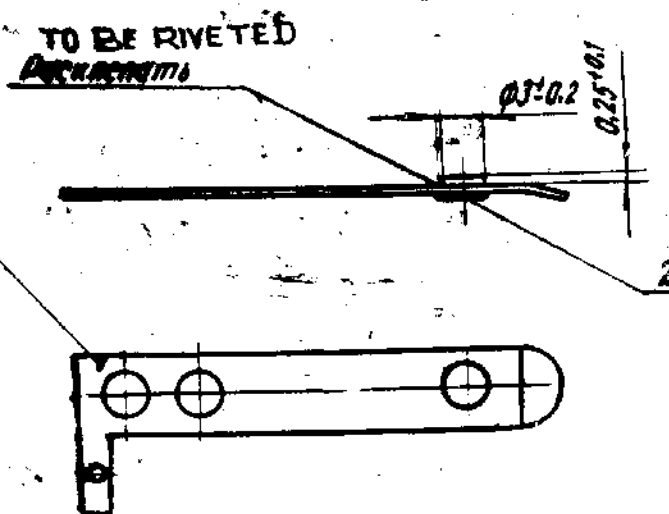
2	8PM.550.000	CONTACT	1	
1	8PM.557.013	CONTACT PLATE	1	
ITEM NO.	PART NO.	NOMENCLATURE	QTY	REMARKS

MATERIAL		ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF	ALL THREADS TO CONFORM TO SPECIFICATION	STAMP OR ETCH, PART NO.
DRG. NOT TO BE SCALED				MANUFACTURERS NAME & YEAR
SCALE :- 2:1		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		OF MFR
DATE :- 23-7-97.				USED ON :-
DRN.	WT :- (Kg)	50M 557 001		
TCO.		CONTACT PLATE		
CHD.				
APP.				

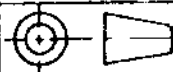
CONTROLLERATE OF QUALITY ASSURANCE
(INFANTRY COMBAT VEHICLES) 54/136

(Подпись) 27.07.67г.

DISPLACEMENT OF CONTACT LEADS SHOULD
NOT BE MORE THAN 0.3 mm



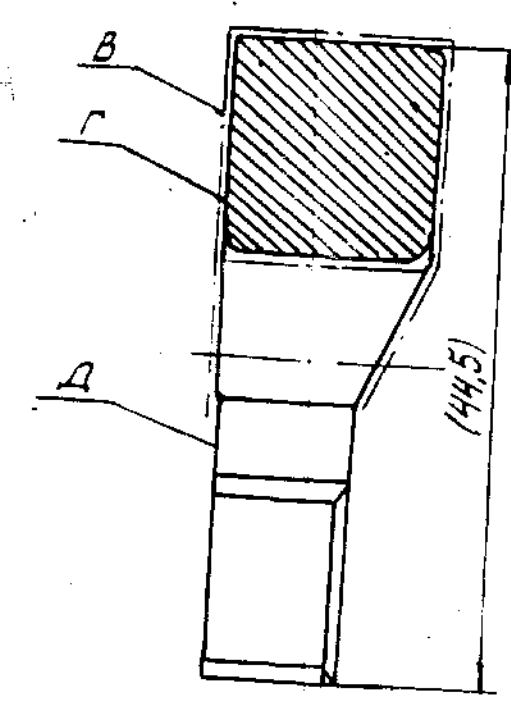
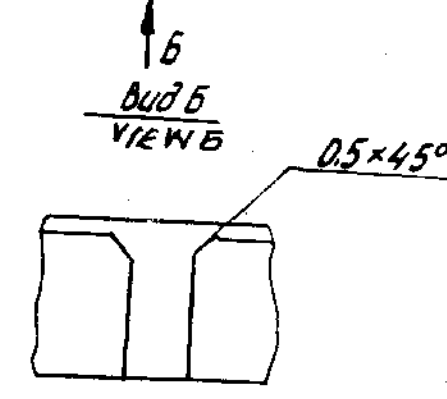
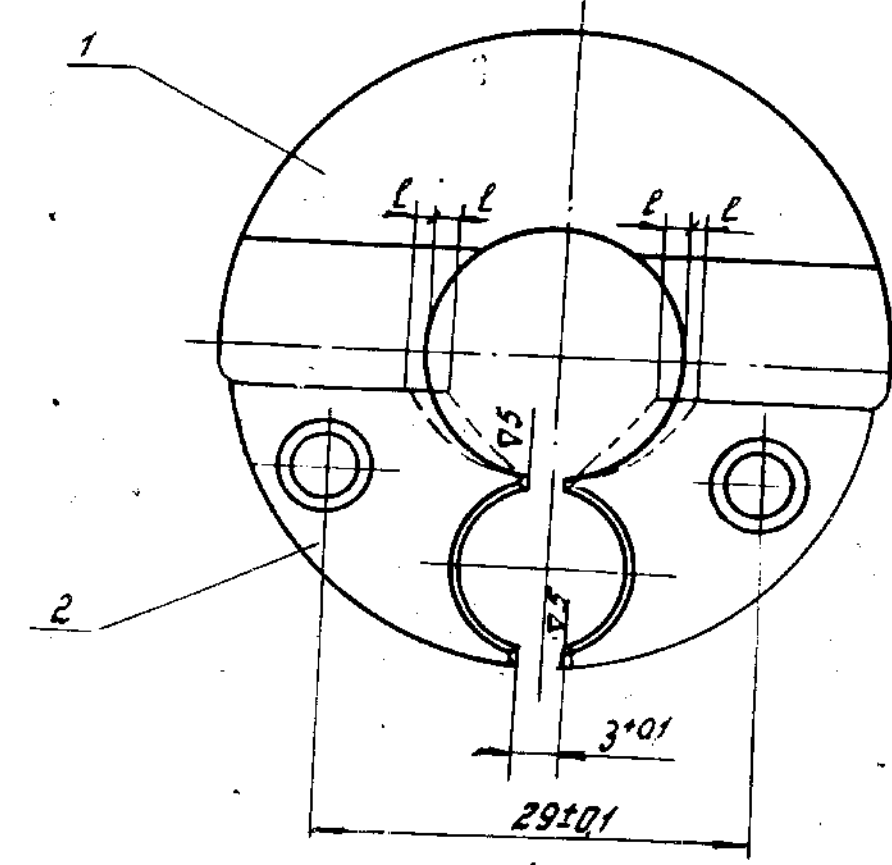
2	8PM.550.001	CONTACT	1	
1	8PM.557.009	CONTACT PLATE	1	
ITEM NO.	PART NO.	NOMENCLATURE	QTY	REMARKS

MATERIAL		ALL SHARP EDGES & CORNERS TO BE ROUNDOFF	ALL THREADS TO CONFORM TO SPECIFICATION	STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFR.
DRG. NOT TO BE SCALED			TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:-
SCALE :- 2:1				
DATE :- 23-7-97.				
DRN	WT :- (Kg)	5PM 557 002		
ICD. <i>KOH</i>		CONTACT PLATE		
CHD.				
APP. <i>gld</i>				
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 55/136				

5PM.610.000.019.015

(ГОСТУС)

5PM.610.000.019.015



1. Component 1 is to be soldered to component 2 with solder as per the table. The soldering should stand a static load of 30 Kgf.
2. Bulging of surface, Г " over surface, Д " should not be more than 0.3 mm.
3. Electrochemical plating of poles 2 and painting of surface В " are to be carried out as per the table.
4. On the magnet 1 electrochemical plating is allowed, varnish coating up to 2 mm on poles 2 is allowed.
5. In places, 2 " displacement up to 0.6 mm is allowed.
6. Protrusion of pole 2 beyond the limits of external diameter of magnet 1 is not allowed.
7. The pits with depth not exceeding 1 mm, and a total area of 0.2 cm² may not be filled with putty.

45410 KA F-2 62

PART NO.	POINT 3 OF TECHNICAL REQUIREMENTS	POINT 10 OF TECHNICAL REQUIREMENTS
6PM.610.000	Cd 21, CHROMATIZING	ПСП-45 ГОСТ 19738-74
-02	ГРВЛ-02 ГОСТ 5-1414-72	
-04	ГРФЛ-03K ГОСТ 9109-76 IV AT	ПОС-Л
-06		ТУ 001.501.002
-01*	Zn 15, CHROMATIZING	
-03*	PUTTY ПП-002 ГОСТ 10277-76	
	ГРЭФ.083 ГОСТ 20468-80	

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: 2:1		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED ON: 6PM-760-010 1/5	
DATE: 23-7-97		DRN: ABB		WT: (Kg)		5PM-610-000-01C5	
CD: ABB		CHD		APD		PERMANENT MAGNET	
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 64 OF 136							

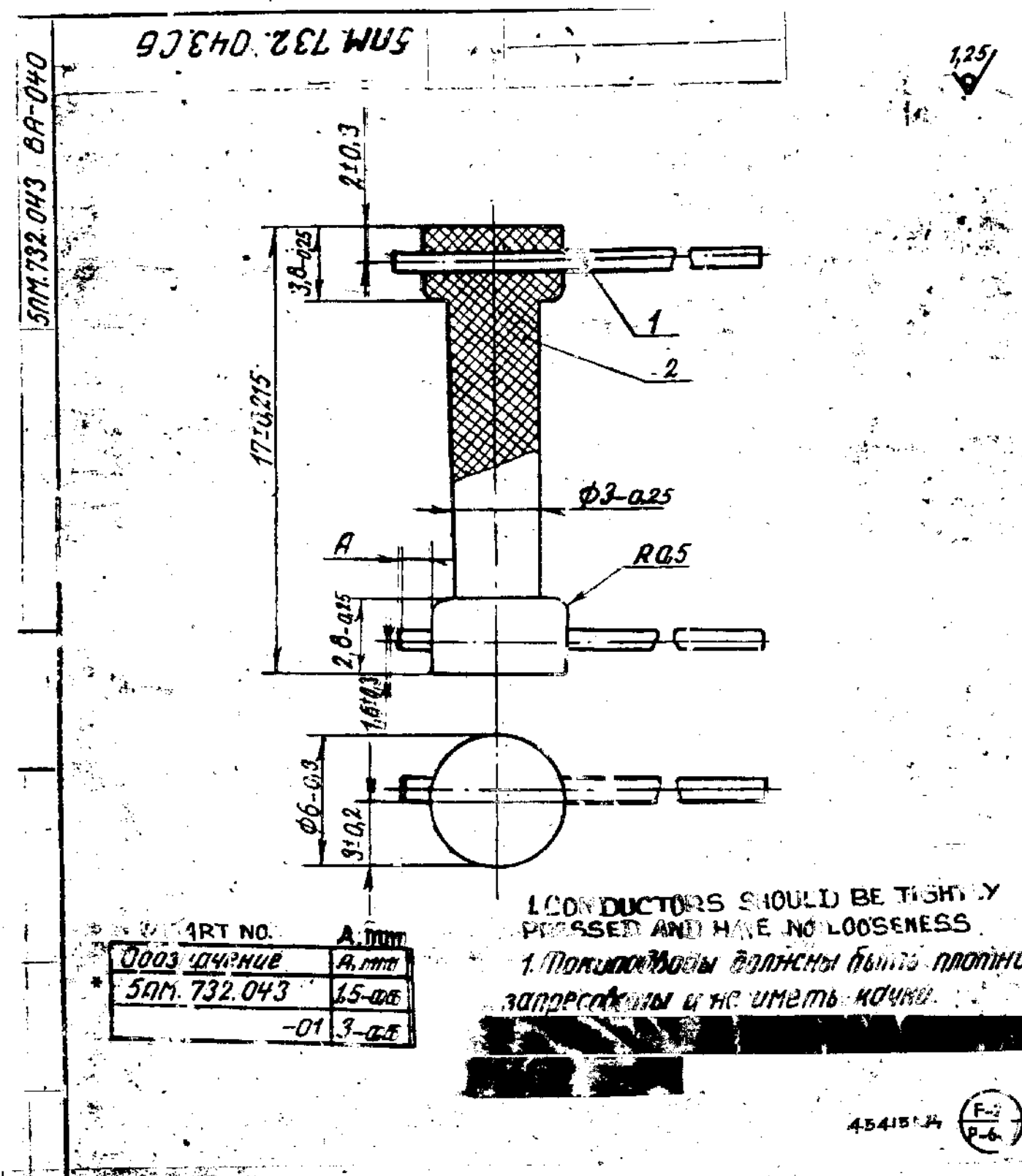
37634		modr. 25.09.74/											
ITEM NO.	PART NO.	NOMENCLATURE	Kod. iz bezdeli									IT. no. bezdeli	
			01	02	03	04	05	06	07	08	09		
1		DOCUMENTS											
		Документация											
12.	51M 610 000 05	ASSEMBLY DRAWING	X	X	X	X		X					
		Сборочный чертеж											
		COMPONENTS											
		Детали											
11	1 DMC5 01.20.194	МАГНИТ	1	1									
		PERMANENT MAGNET											
11	1 80M 610 030	Постоянный магнет						1					
		PERMANENT MAGNET						1					
11	1 80M 610 024	Постоянный магнет			1	1							
		PERMANENT MAGNET			1	1							
11	2 80M 630 000	Полосы	1	1	1	1		1					
		POLES											

MATERIAL		ALL THREADS TO CONFORM TO SPECIFICATION		STAMP OR ETCH, PART NO. OF MFR.	
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF		ALL THREADS TO CONFORM TO SPECIFICATION		MANUFACTURERS NAME & YEAR	
DRG. NOT TO BE SCALED		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED ON: 51M-700-010-1/5	
SCALE :-		DATE :- 23-7-97		WT :- (kg)	
DIN 882		TOL. 0.008		51M-610-00005	
CHD		APD		PERMANENT MAGNET	
		CONTROL RATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 63/136			

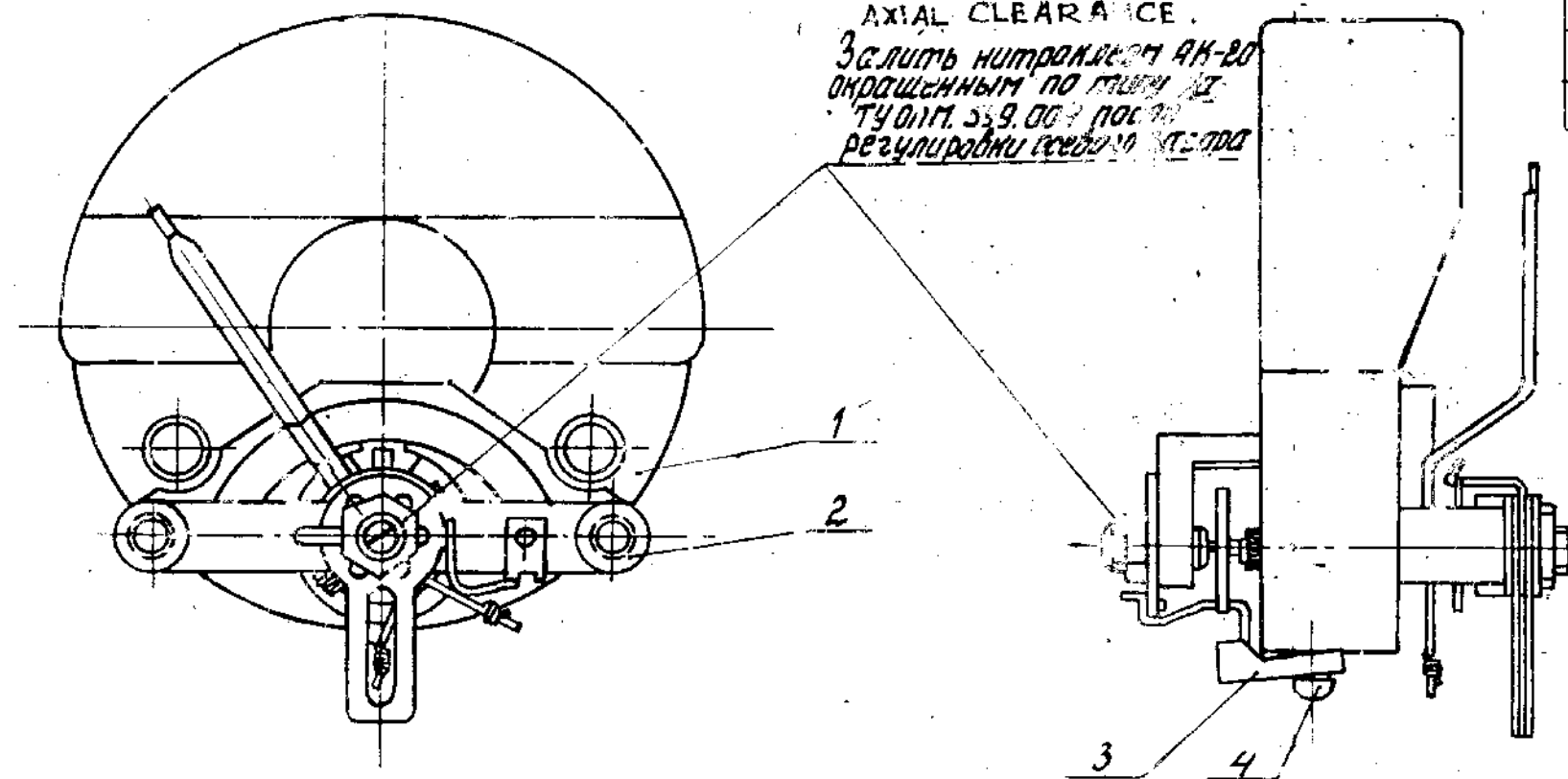
F-2
P-61
45415 R4

SIZE	ZONE	REF No	PART No	NOMENCLATURE	Qty	REMARKS
				<u>DOCUMENTS</u>		
			5PM.732.043 C6	<u>ASSEMBLY DRAWING</u>		
				<u>MATERIALS</u>		
		2		PHENOLIC PLASTIC		
				Э10-342-63 GOST 5689-79	0.4	
				<u>VARIABLE DATA FOR MAKES</u>		
				<u>5PM.732.043</u>		
				<u>COMPONENTS</u>		
		1	5PM.588.023-01	CONDUCTOR	2	
				<u>5PM.732.043.01</u>		
				<u>COMPONENTS</u>		
		1	8PM.588.023-01	CONDUCTOR	2	

DC(1) NO DATE	ISSUE	NATURE OF AMENDMENTS	DC(1) NO DATE	ISSUE	NATURE OF AMENDMENTS
DRN		5PM 732 043 C6			DATE:- 23-7-97
TCD					USED ON
CHD		FRAME			SHEET 1 SHEETS
APPD					61 OF 136
CONTROLLERATE OF QUALITY ASSURANCE (ILV					



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 :- 5:1		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED ON:-	
DATE :- 23-7-97.		DRN. TCD. CHD. APD.		WT :- (Kg) 0.69		50M 732 043 CB	
						FRAME	
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 62/136							



TO BE FILLED WITH NITROCELLULOSE GLUE AS PER TYPE 1.1 TY OIM.599.004 AFTER THE ADJUSTMENT OF AXIAL CLEARANCE.

Заполнить нитроцеллюлозным клеем АН-20 окрасленным по типу 1.1 ТУ ОИМ.599.004 после регулировки осевой зазора.

1. Magnet 1 should be magnetized upto saturation.
2. No clearance should be visible between casing 2 and end surfaces of pole end pieces.
3. The springs should be arranged in the plate, perpendicular to axis of rotation of movable element.
4. Screw 4 is to be screwed with nitrocellulose glue 1.1-20 coloured according to type 2 of TY OIM.599.004
5. *Depending on the magnetism of the magnet installation of clamp 8 П М.140.006 - 2 in place of clamp 1 is permissible.
6. The magnetic induction in air gap before demagnetization should not be less than 0.18 T (calculated) magnetic parameters may be checked according to current consumption.
7. The clearance between frame and magnet pole and pieces should not be less than 0.4 mm.

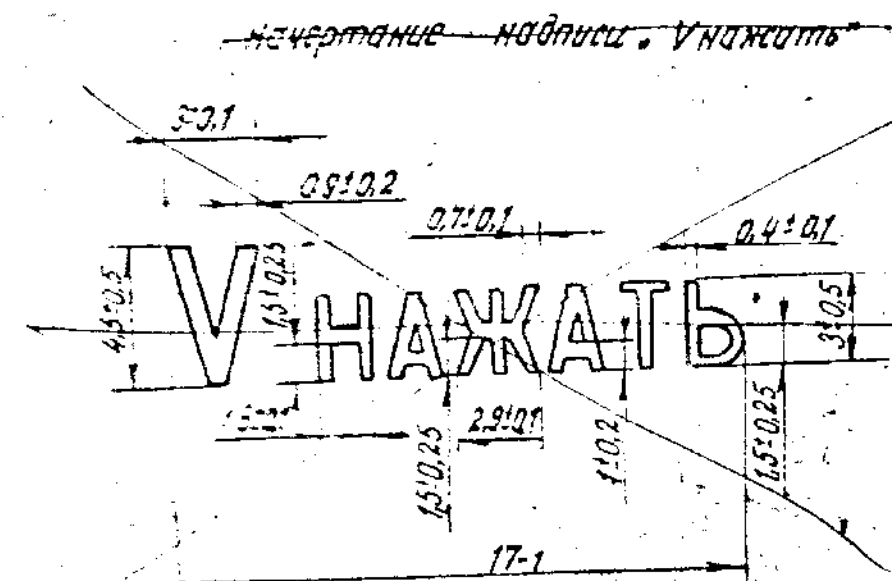
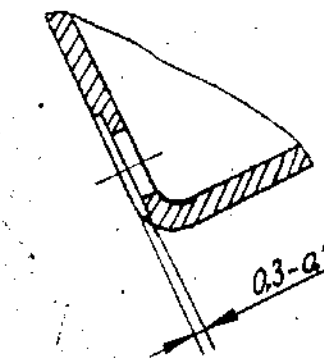
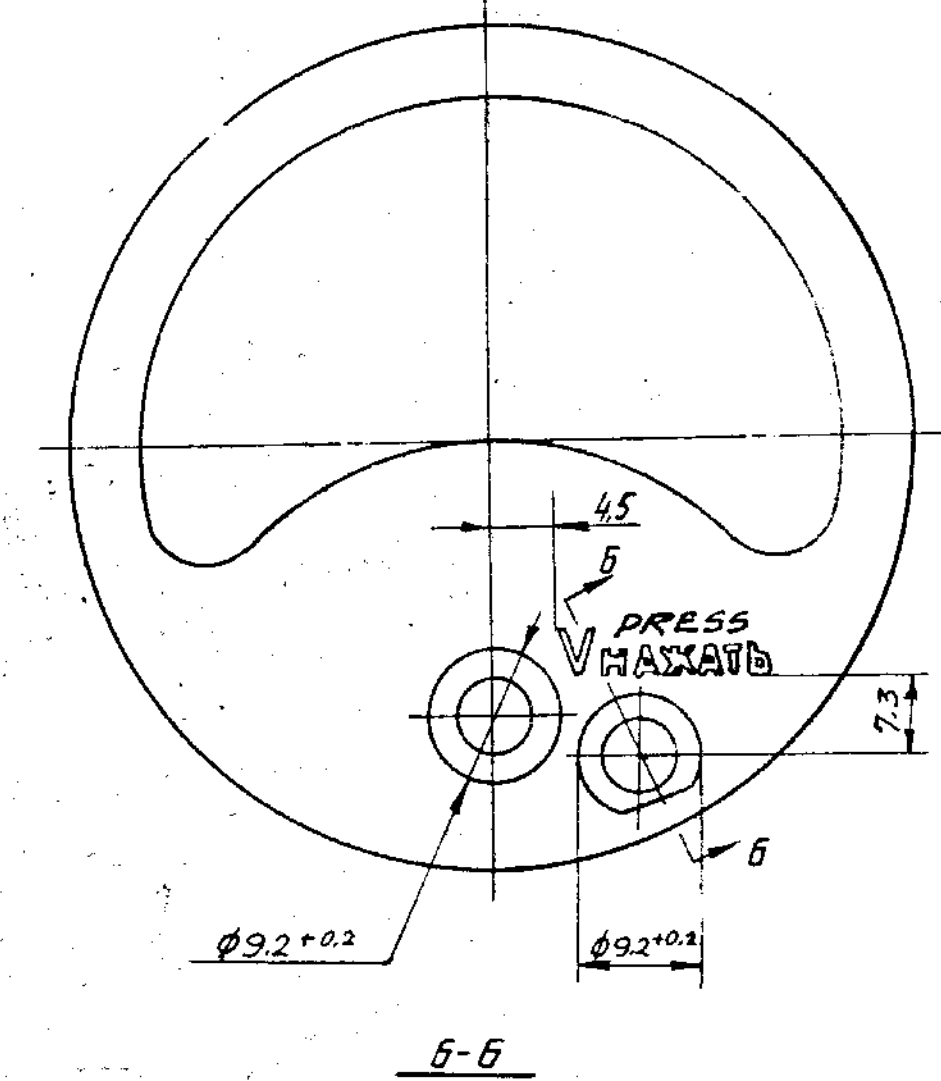
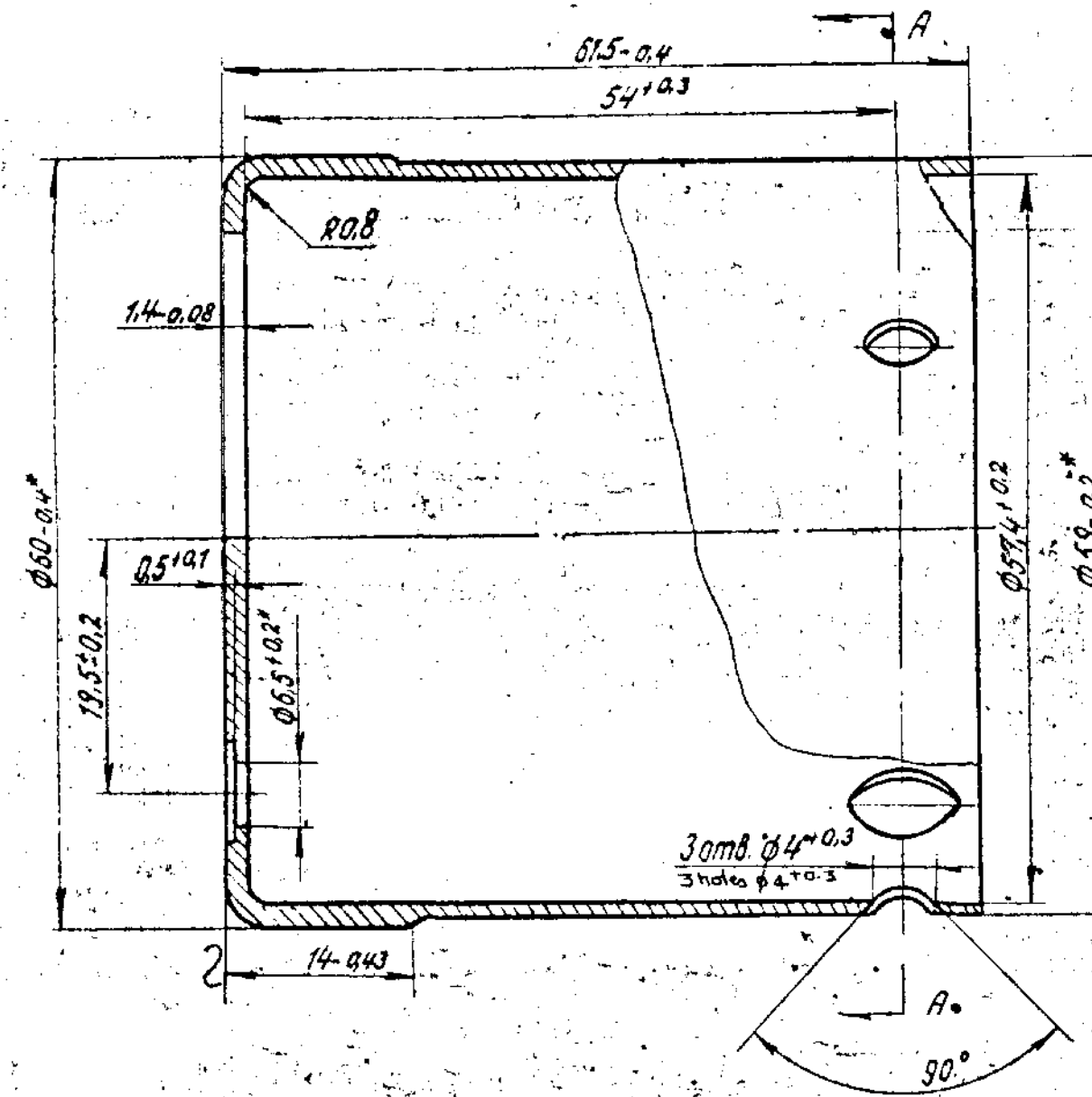
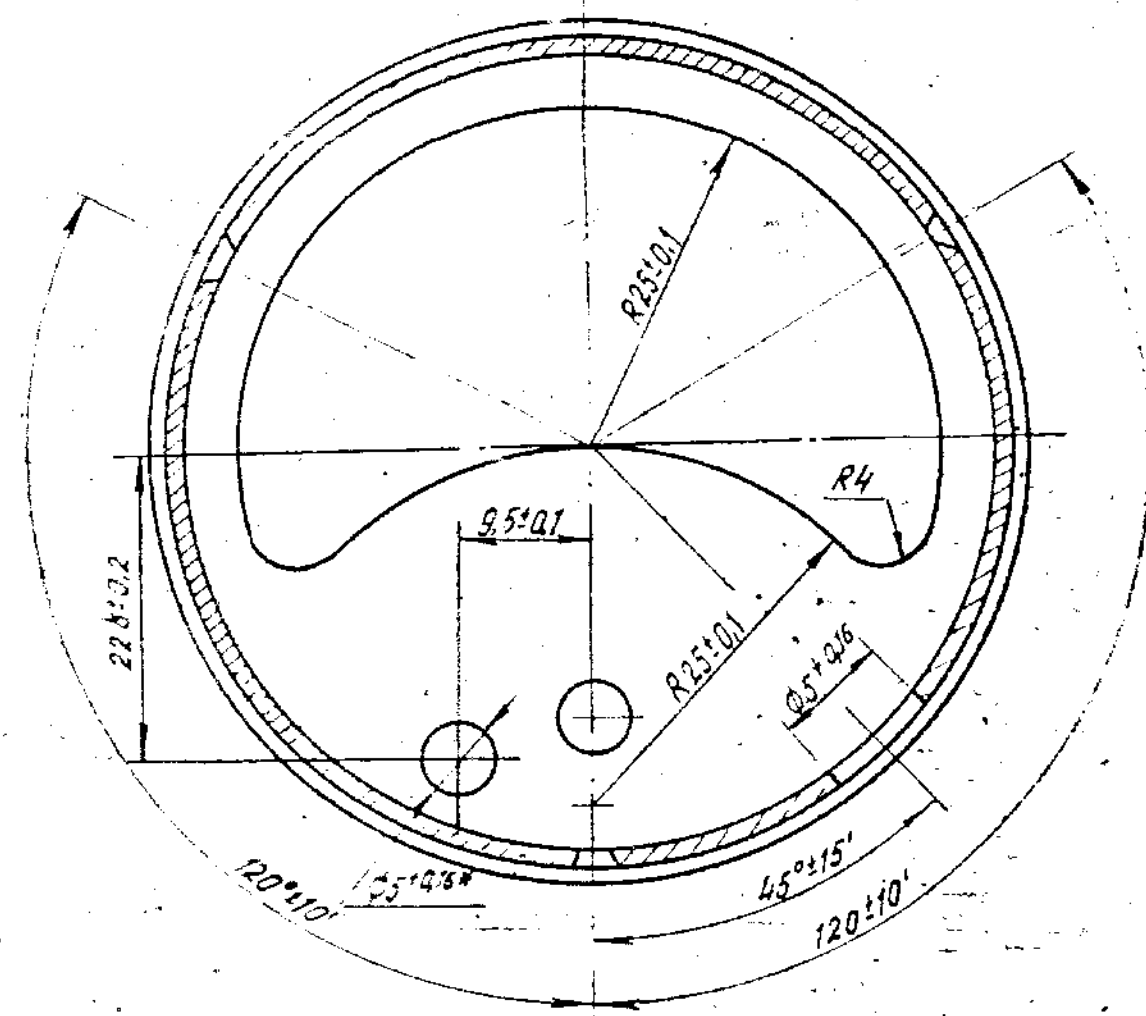
PART NO.	ITEM 1	ITEM 2	ITEM 3
ПОДЗАЧЕПКА	Поз. 1	Поз. 2	Поз. 3
* 6ПМ.700.010-1		5ПМ.147.007-1	
6ПМ.700.010-3	5ПМ.610.000-1	5ПМ.147.007-3	8ПМ.140.041-1*
6ПМ.700.010-5		5ПМ.147.007-5	
6ПМ.700.010-7		5ПМ.147.007-7	
6ПМ.700.010-2		5ПМ.147.007-2	
6ПМ.700.010-4	5ПМ.610.000-2	5ПМ.147.007-4	8ПМ.140.041-2*
6ПМ.700.010-6		5ПМ.147.007-6	
6ПМ.700.010-8		5ПМ.147.007-8	

USED 1.1
* 3ПМ.328.002-1
3ПМ.328.002-23

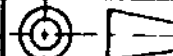
4	SCREW M2-6x40-32016		
	GOST 17473-80		
3	SEE TABLE	CLAMP*	1
2	SEE TABLE	CASING	1
1	SEE TABLE	PERMANENT MAGNET	1
ITEM NO.	PART NO.	NOMENCLATURE	REMARKS

MATERIAL		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 :-		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED 0.1	
DATE :- 23-7-97		DRM. ABB.		WT :- (kg)		6ПМ-700-010-0	
TCD. ABB.		CHD.		APD.		MECHANISM	

A-A



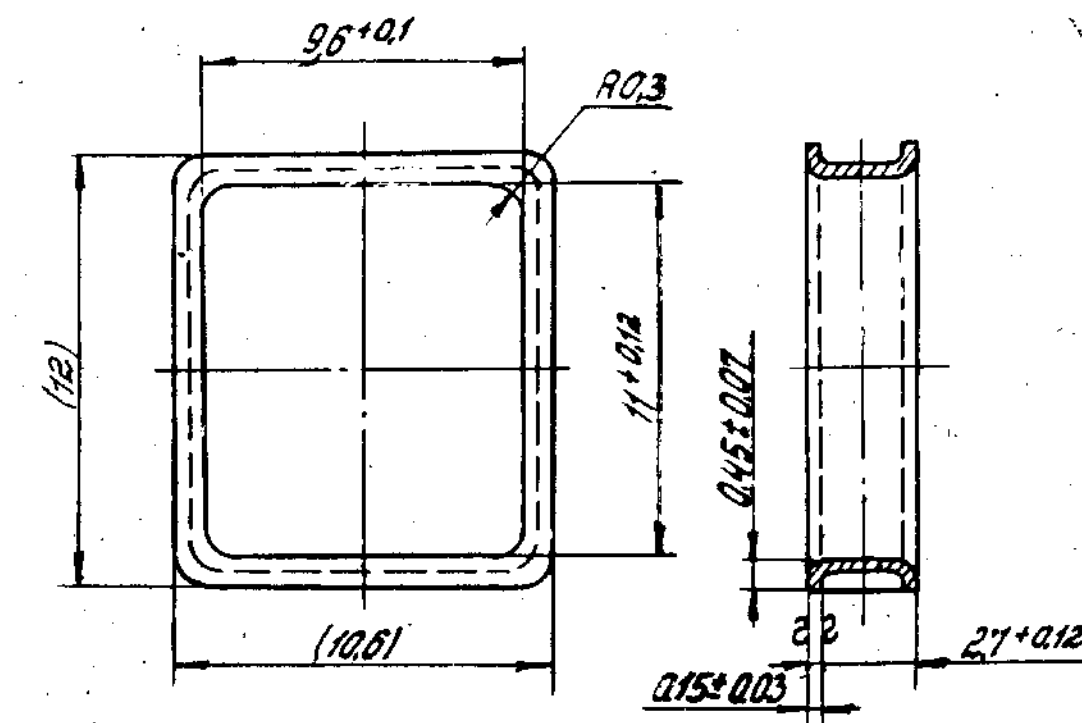
DESIGNATION	MATERIAL	WEIGHT	COATING
* 81TM.004.002-1	STRIP08K17-PA-I-		ZINC IS CHROMATIZING THE OUTER SURFACE PRIMER 7P-083
81TM.004.002-3	5-4	79.58	GOST 20468-75 AND GREY ENAMEL MLT-165 GOST 12034-77 N.A.
81TM.004.002-2	GOST 19851-74		COAT THE OUTER SURFACE WITH PRIMER B.L-02 GOST 12707-77 WITH ENAMEL B.L-715
81TM.004.002-4			46-10-866-75 AND WITH GREY ENAMEL MLT-165 GOST 12034-77 IV AT.

MATERIAL :-		ALL SHARP EDGES & CORNERS TO BE ROUNDOFF		ALL THREADS TO CONFORM TO SPECIFICATION		STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFR.	
DRG. NOT TO BE SCALED		SCALE :- 2:1		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED ON:- 511M-004-005-	
DATE :- 23-7-97		DRN. ABB.		WT :- (Kg)		811M-004-002-0	
TCD. ABB.		CHD		APD		BODY	
		 					
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)							
104/136							

000 080 000

②

подпись 23.07.97

UNLESS OTHERWISE SPECIFIED
ED 03
▽3 остальное

454/15 K-4 (F-3/3)

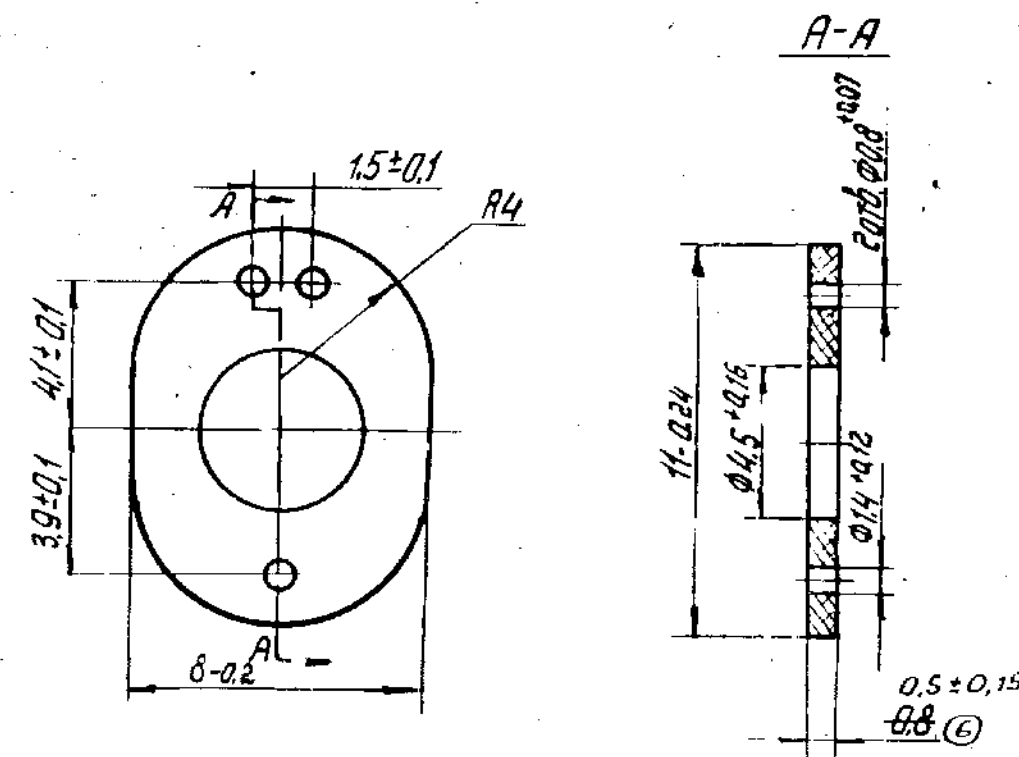
MATERIAL :- ALUMINIUM AA1 GOST 13726-78		STAMP OR ETCH, PART NO.	
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF		MANUFACTURERS NAME & YEAR	
DRG. NOT TO BE SCALED		ALL THREADS TO CONFORM TO SPECIFICATION	
SCALE :- 5:1		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED.	
DATE :- 23-7-97.		USED ON:-	
DRN.	WT :- (Kg)	8PM 080 000	
TCD.	0.06g	FRAME	
CHD.			
APD.			
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 129/136			

0-000'001'WU9

(mod. 22.07.87)

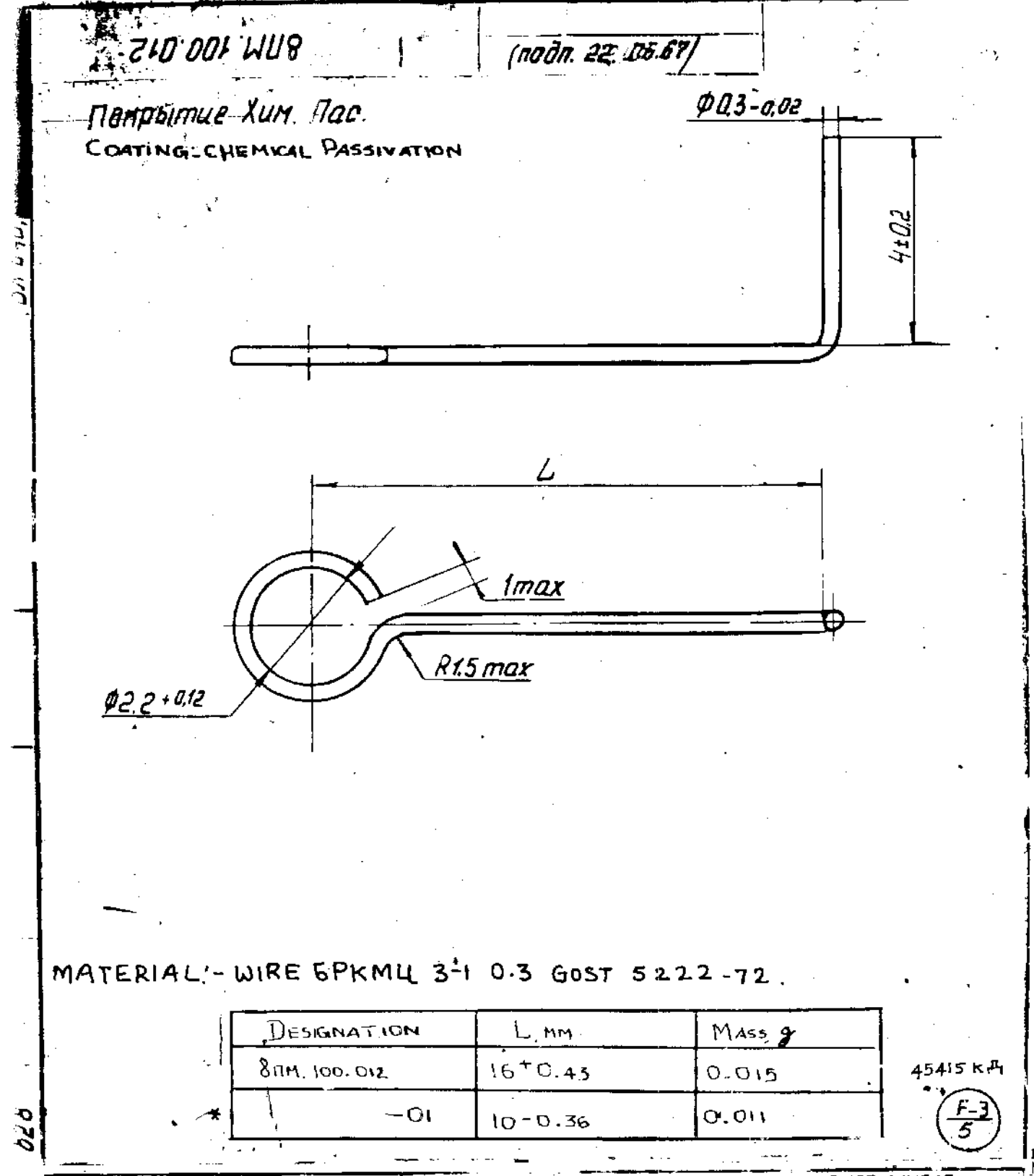
2

TO BE IMPREGNATED (SEE TABLE)
Пропитать см. таблицу

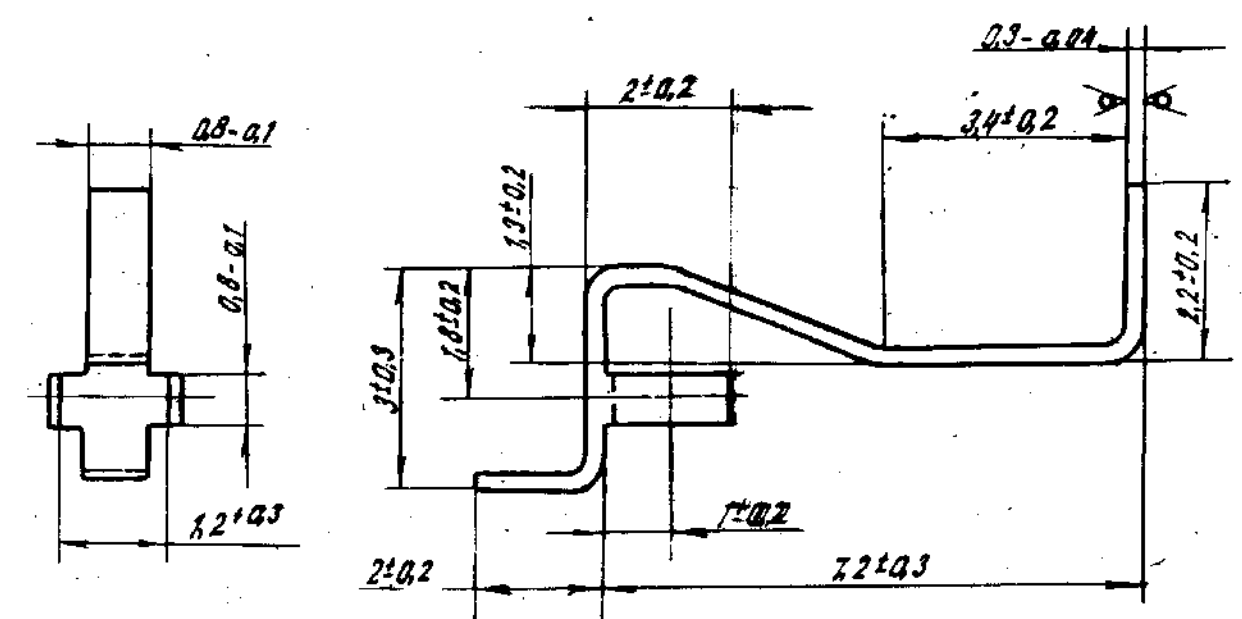


USED ON	DESIGNATION	TECHNICAL REQUIREMENT
8PM 100 001-1	8PM 100.004 -1	
	8PM 100.004 -2	PHENOL-FORMALDEHYDE LACQUER "ЛБС-1" GOST 901-78

MATERIAL : - GLASS-CLOTH-BASE LAMINATE CT50-1-0.5 GOST 12652-74		
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	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON: SEE TABLE
SCALE :- 5 : 1		
DATE :- 23-7-97		
DRN.	WT :- (Kg)	8PM 100 004-0
FCD. MA	0.063	
CHD		HOLDER
APP		
CONTROLLERATE OF QUALITY ASSURANCE 122/136 (INFANTRY COMBAT VEHICLES)		



MATERIAL		STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFR
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF		
DRG. NOT TO BE SCALED		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED
SCALE :- 10 : 1		
DATE :- 23-7-97		USED ON:-
DRN.	WT :- (Kg)	
TCO.		8 ПМ 100 Q12
CHD.		
APD.		HOLDER
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 88/136		

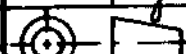


UN-SPECIFIED RADIUS OF BEND MAXIMUM 0.5MM
Неуказанные радиусы закругления не более 0,5мм.

2. Покрытие 0-8 и 9.

COATING: Zn-Bi. 9
MATERIAL: STRIP ANPHN 0.30x300 HAA63 GOST 2298-75

45415 KA 

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.	
DRG. NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:-	
SCALE :- 10 : 1			
DATE :- 23-7-97			
DRN.	WT :- (Kg)	87M 114 002	
TCO. <i>MOON</i>	0.04 g		
CHD.		SPRING HOLDER	
APD. <i>SPD</i>			
CONTROLLERATE OF QUALITY ASSURANCE			
(INFANTRY COMBAT VEHICLES) 123/136			

100 811 WU8

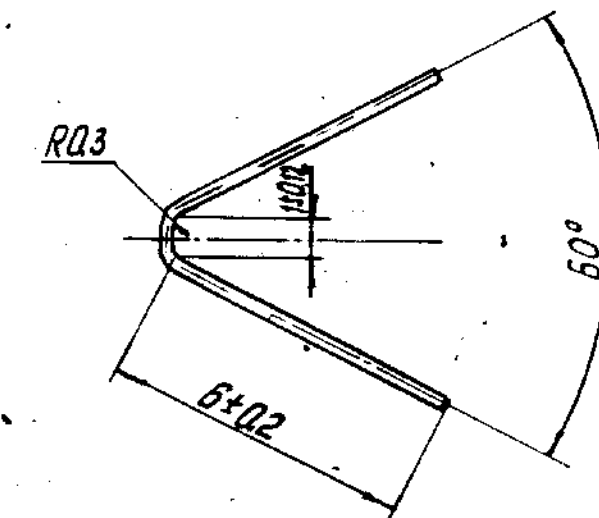
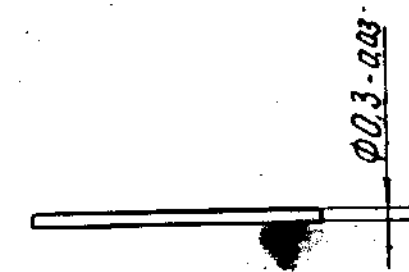
Изд. 27.07.67

2

1. Материал твердый.
2. Покрытие 0-Вн.6.

1. HARD MATERIAL

2. COATING: SN-B16



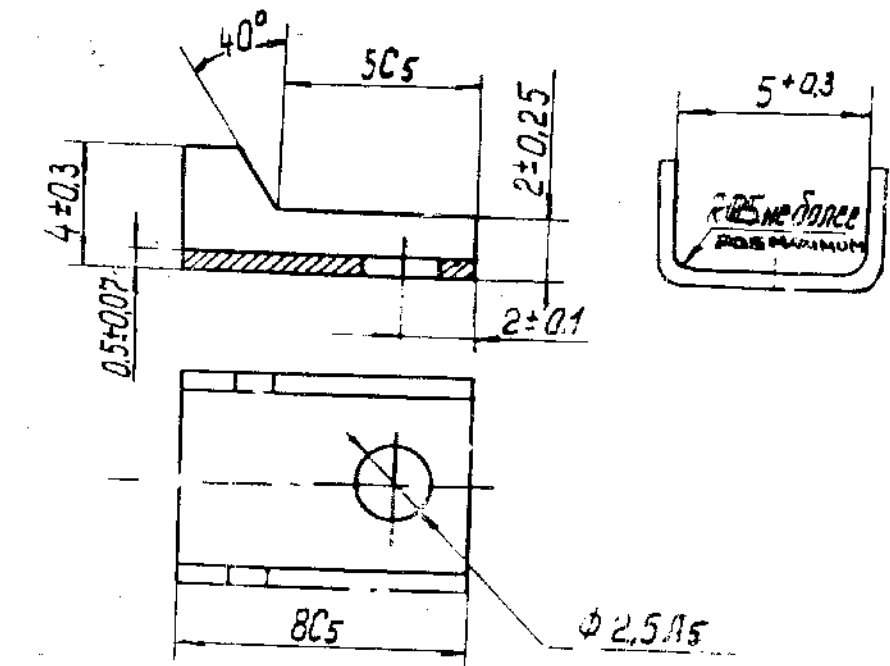
45415 K4 F-3 9

MATERIAL: BRASS 163 GOST 15527-70		STAMP OR ETCH, PART NO.	
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF		MANUFACTURERS NAME & YEAR OF MFG.	
ORG. NOT TO BE SCALED		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	
SCALE: 5:1		USED ON: -	
DATE: 23-7-97			
DRN.	WT: 1kg	811 118 001	
TCO.	0.0078g		
CHD.		COUNTER WEIGH N18	
APD.			
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 102/136			

8PM 140 041 1-2

(подп. 13.04.73г.)

Покрывтие ст.таблицы.
COATING, SEE TABLE



DESIGNATION	COATING	REMARKS
8PM.140.041-1	ZN 15, CHROMATIZING	8PM 700 010-V5
8PM.140.041-2	CD 21, CHROMATIZING	

45415AA

MATERIAL - STEEL 20880 GOST 3836-73.		
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	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:-
SCALE:- 5:1	8PM 140 041 1-2	
DATE:- 23-7-97	CLAMP	
DRN. [Signature]	WT:- (kg) 0.58g	
TCO [Signature]		
CHD [Signature]		
APD [Signature]		
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 134/136		

0-110'051 WUB

(подп. 27.03.73)

▽ 5остальное

1. COATING: SEE TABLE.

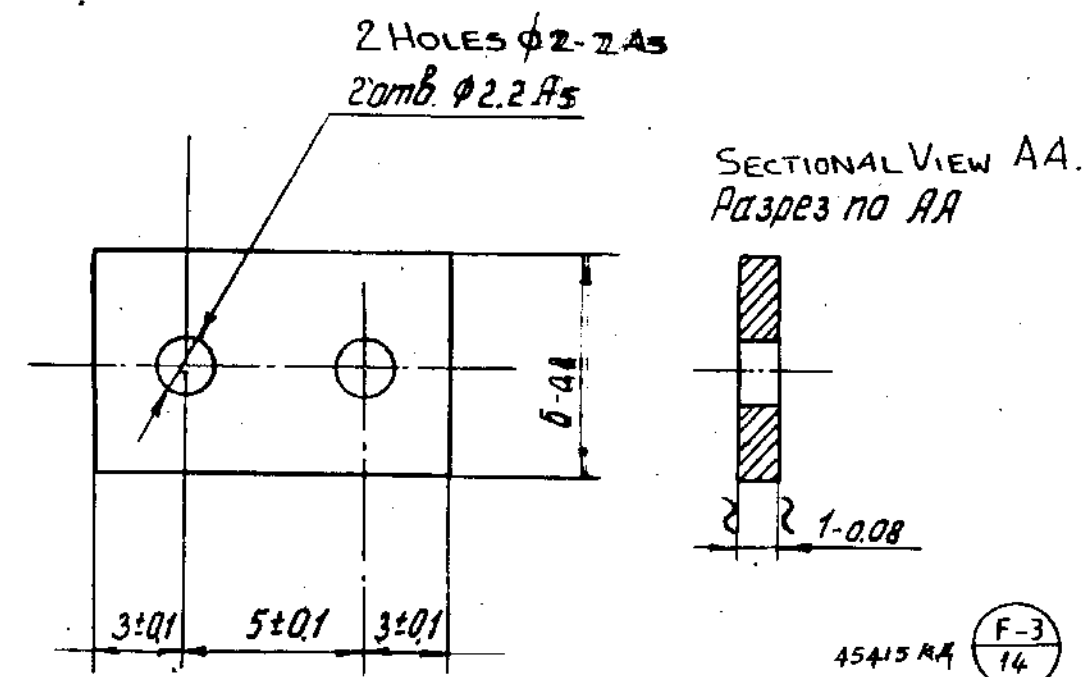
2. BURRS ARE PROHIBITED.

3. MEDIUM HARD MATERIAL.

1. Покрытие см. таблицу.

2. Заусеницы недопустимы.

3. Материал полутвердый.



DESIGNATION	COATING	USED ON
8ПМ.150.011-1	CHEMICAL PASSIVATION	5ПМ.024 032-01 С6
8ПМ.150.011-2	NI6	

MATERIAL: - BRASS 163 GOST 15527-70		STAMP OR ETCH, PART NO.	
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF		MANUFACTURERS NAME & YEAR OF MFR.	
DRG. NOT TO BE SCALED	ALL THREADS TO CONFORM TO SPECIFICATION	USED ON:-	
SCALE :- 5:1	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		
DATE :- 23-7-97.			
DRM.	WT :- (Kg)	8ПМ 150 011-0	
TCO. <i>HKW</i>	0.44g		
CHD.		PLATE	
APD. <i>HKW</i>			
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 98/136			

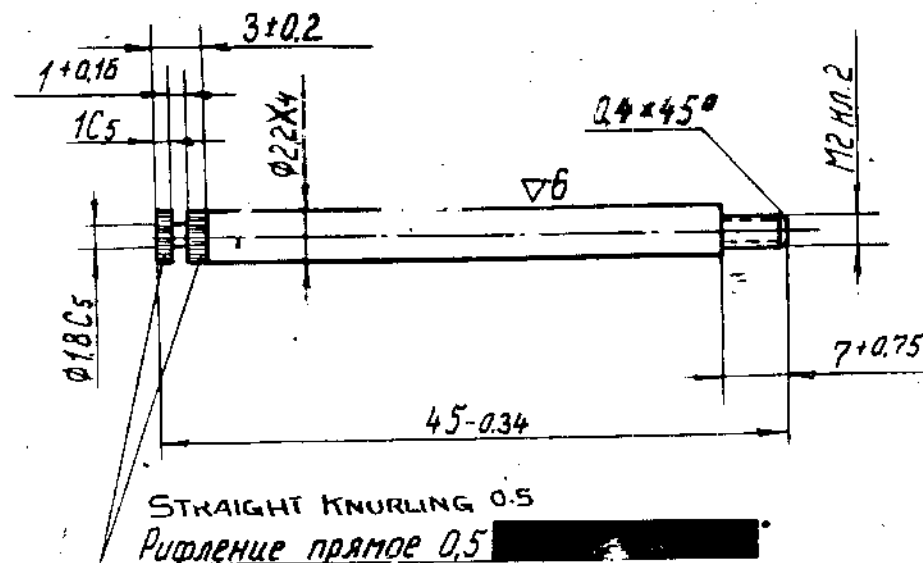
100 741 WUB

(подп. 22.06.67г)

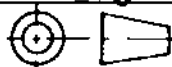
▽ 4 остальное

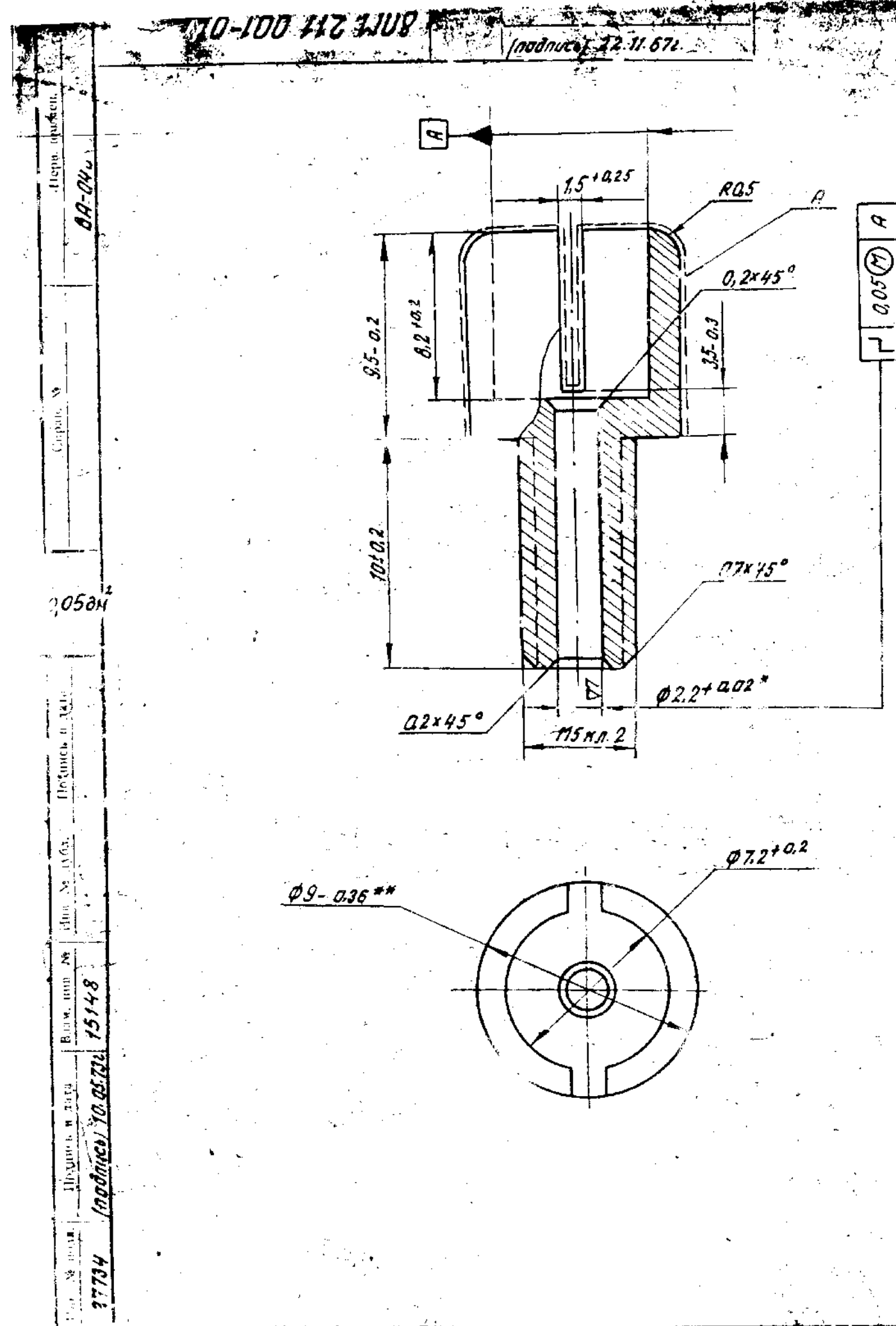
UNLESS OTHERWISE SPECIFIED

1. COATING: NI 6
 2. AFTER COATING DIMENSION IS 2.2x4
 3. USE OF HARD BRASS ЛС59-1 GOST 15527-70 IS ALLOWED.
1. Покрытие Ni 6
 2. Размер 2.2x4 после покрытия
 3. Допускается применять латунь ЛС59-1 ГОСТ 15527-70 твердую



45415 KA 15

MATERIAL :- WIRE AKPHT 2.5 ЛС 59-1 GOST 1066-80			
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		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:-
SCALE :- 2 : 1			5PM 235 003-1
DATE :- 23-7-97			
DRN	WT :- (Kg)	8PM 174 001	
ECO <i>mm</i>	1.3g		
CHD			
APD <i>gms</i>			
			
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 112/136			



UNLESS OTHERWISE SPECIFIED V4
1. ** Чистота поверхности ст. таблицы
2. Недорез не более 2.2 мм.
3. Покрытие ст. таблицы

1. ** FOR SURFACE FINISH, SEE TABLE
2. UNDER CUT SHOULD NOT EXCEED 2.2 MM
3. COATING: SEE TABLE.

DESIGNATION	SURFACE FINISH	COATING	MATERIAL	REMARKS
8PM.211.001-1	V4	Ni6 COAT SURFACE A WITH PRIMER ЭФ-082 ГОСТ 20468-80 AND GREY ENAMEL MJ-165 ГОСТ 12034-77	BRASS 11C50-1 ГОСТ 15521-70	
8PM.211.001-2	V4	Ni6, CHROMITIZING		ABSENCE OF CHROMIUM IS ALLOWED

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 MFR.
DRG NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:- 5PM 235 002-1
SCALE:- 5:1	DATE:- 23-7-97	
DRN	WT:- (Kg)	8PM 211 001-0
ECO	2.32	BUSHING
CHD		
APP		

CONTROLLERATE OF QUALITY ASSURANCE
(INFANTRY COMBAT VEHICLES) 115/136

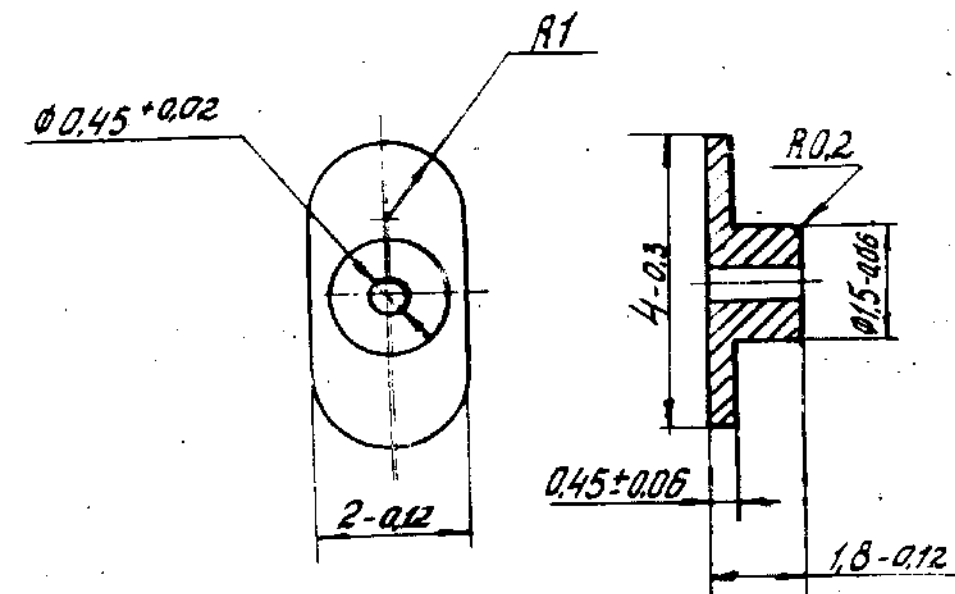
0-200 112 1108

(подп. 06.01.72)

75

Полностью от модели.

1. COATING - SEE TABLE
2. UNLESS OTHERWISE SPECIFIED 75.



MATERIAL:- ALUMINIUM A5 GOST 11069-74.

DESIGNATION	COATING	USED ON
8PM.211.002-1	TO BE DEGREASED	5PM 211 001-1 CB
8PM.211.002-2	CHEMICAL PHOSPHATING.	

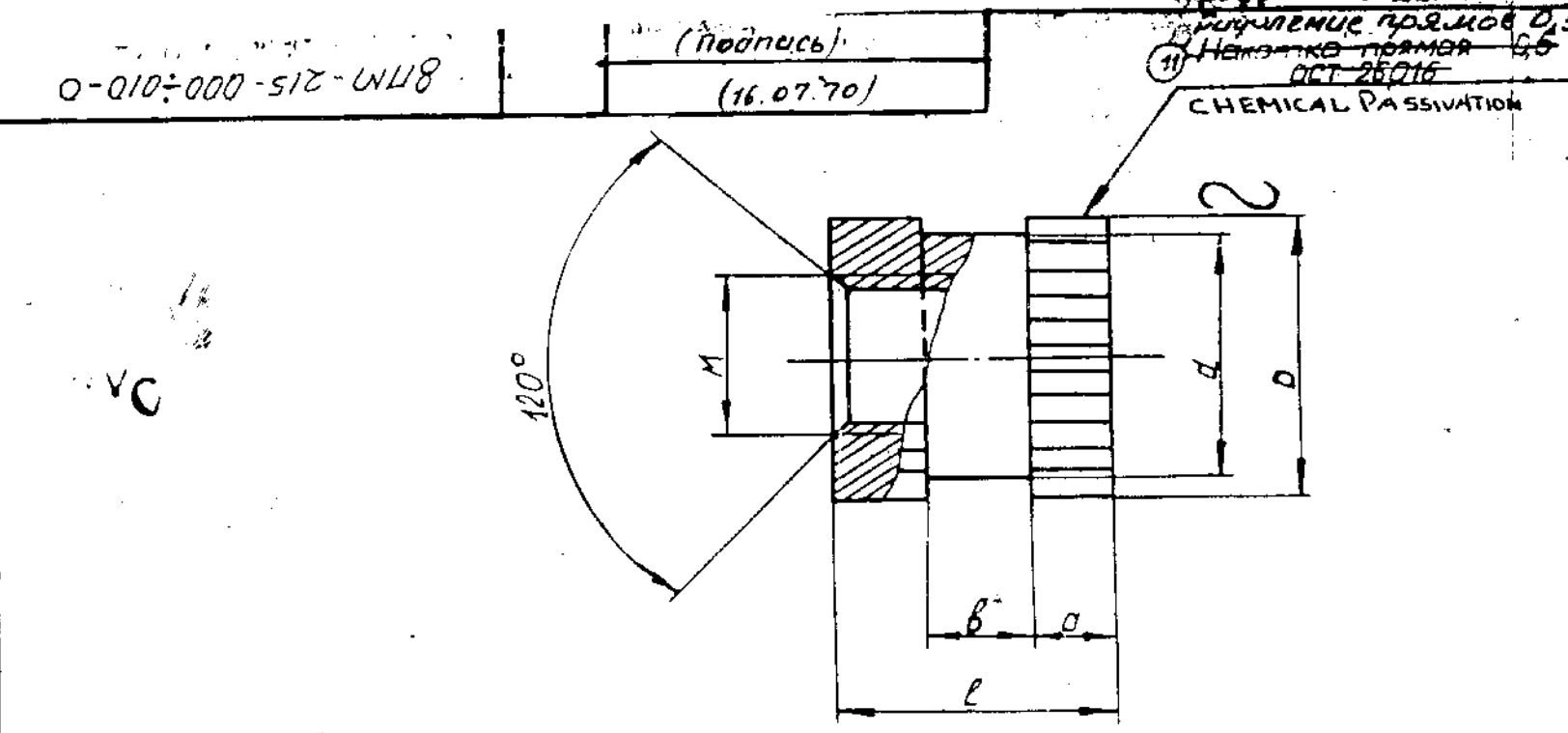
45415 K4

F.3
17

C2

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 :- 10:1		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED ON:-	
DATE :- 23-7-97.		DRN. <i>[Signature]</i>		WT :- (Kg) 0.02 g		8PM 211 002-0	
TCD. <i>[Signature]</i>		CHD. <i>[Signature]</i>		APD. <i>[Signature]</i>		BUSH	
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 132/136							

Восстановлен с погрешностью в 3%
Учт. погр. подл. и дата 15.06.12 15096
31543
Справ. №
Пред. примен.



SYMBOL	MM						MASS	COATING
	M	D	L	a	b	d		
* 8ПМ.215.000-1	M2кл.2	4-0,16	4-0,3	1,25±0,125	1,5±0,25	3,5-0,3	0,28	Chemical Passivation
8ПМ.215.000-2								Ni6
8ПМ.215.001-1	M2,5кл.2	6-0,16	5-0,3	1,5±0,125	2±0,25	4,5-0,3	0,9	Chemical Passivation
8ПМ.215.001-2								Ni6
8ПМ.215.002-1	M3кл.2	6-0,16	5-0,3	1,5±0,125	2±0,25	5-0,3	0,58	Chemical Passivation
8ПМ.215.002-2								Ni6
8ПМ.215.003-1	M3кл.2	6-0,16	11-0,43	4±0,15	5±0,3	5-0,3	1,28	Chemical Passivation
8ПМ.215.003-2								Ni6
8ПМ.215.004-1	M3кл.2	6-0,16	7-0,36	2±0,125	3±0,25	5-0,3	0,81	Chemical Passivation
8ПМ.215.004-2								Ni6
8ПМ.215.005-1	M2кл.2	4-0,16	6-0,3	2,25±0,125	1,5±0,25	3,5-0,3	0,42	Chemical Passivation
8ПМ.215.005-2								Ni6
8ПМ.215.006-1	M5кл.2	10-0,2	8-0,36	2,5±0,125	3±0,25	8-0,36	3,55	Chemical Passivation
8ПМ.215.006-2								Ni6
8ПМ.215.007-1	M3,5кл.2	6-0,16	7-0,36	2±0,125	3±0,25	5-0,3	1,0	Chemical Passivation
8ПМ.215.007-2								Ni6
8ПМ.215.008-1	M4кл.2	6-0,16	7-0,36	2±0,125	3±0,25	5-0,3	0,8	Chemical Passivation
8ПМ.215.008-2								Ni6
8ПМ.215.009-1	M6±0,5 кл.2	10-0,2	6-0,3	2±0,125	2±0,25	8,5-0,36	0,78	Chemical Passivation
8ПМ.215.009-2								Ni6

COATING: SEE TABLE
Покрывтне см. таблицу.

4.5415 кг

F-3
19

MATERIAL BRASS ЛС.59-1 GOST 15527-70		
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	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:- 5ПМ 024192-1
SCALE:- 10:1	DATE:- 23-7-97	
DRN	WT:- (Kg)	8ПМ 215 000÷010-0
TCD	SEE TABLE	
CHD		THREADED BUSH
APP		
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 103/136		

8ПМ 215 012

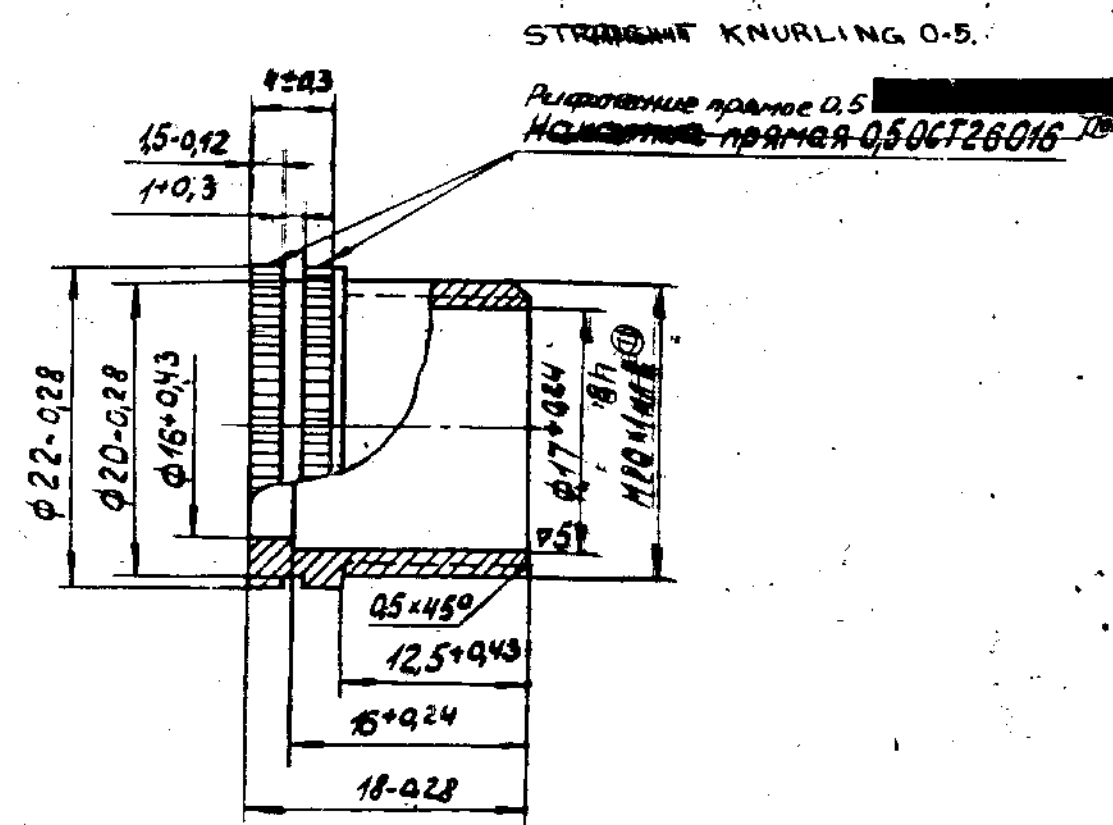
UNLESS OTHERWISE SPEC-
IFIED 74.

4qcmabnoe

Пас. Хр. 0111599.02074

Покрытие АН.Окс.Хр. ③
АН.Окс.Хр.

Сматривать: Anodic OXIDATION CHRO-
MATIZING



45415 K.A. F-3 20

MATERIAL: TUBE 22 X 3.5 A16 T GOST 18475-73		STAMP OR ETCH, PART NO.	
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF		MANUFACTURERS NAME & YEAR OF MFR.	
ORG. NOT TO BE SCALED		USED ON:-	
SCALE :- 2:1			
DATE :- 23-7-97			
DRN.:	WT :- (Kg)	8ПМ 215 012	
TCD. <i>KOD</i>	4.1 g		
CMD.		THREADED BUSH	
APD. <i>SV</i>			
CONTROLLERATE OF QUALITY ASSURANCE			
(INFANTRY COMBAT VEHICLES) 96/136			

800 217 000

Rz 80

Puc. 1

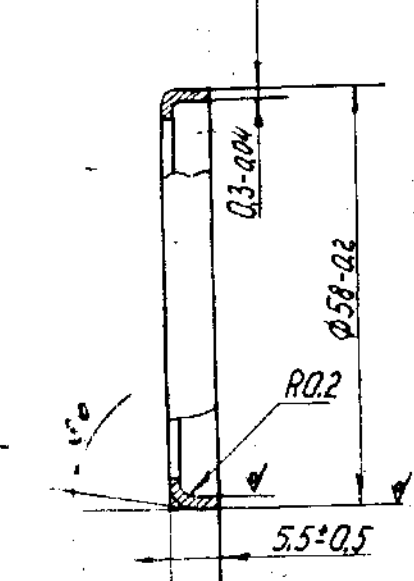
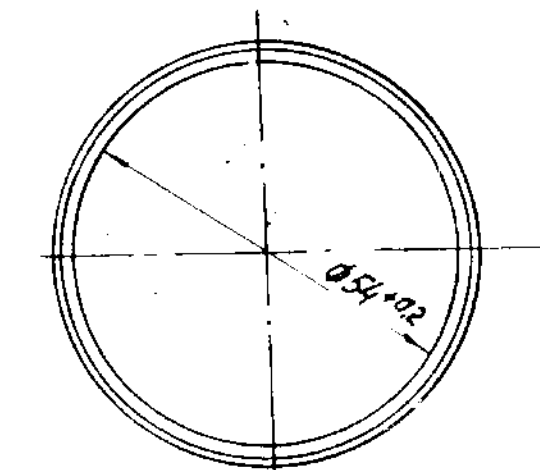
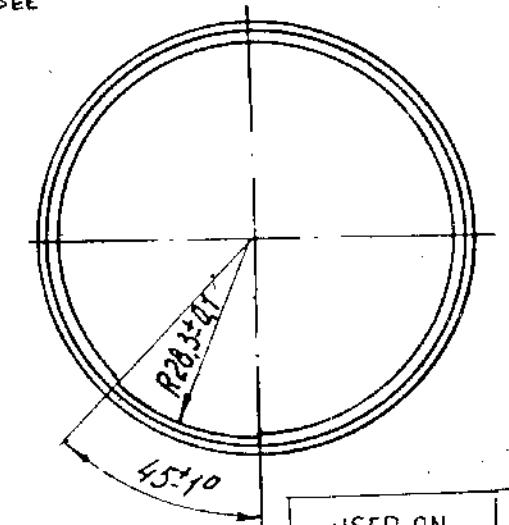


FIG. 2

Puc. 2

FOR THE REST OF DIMENSION SEE FIGURE 1.

ОСТАВШЕЕ СМ. PUC. 1



COATING: SEE TABLE
Покрытие см. таблицу

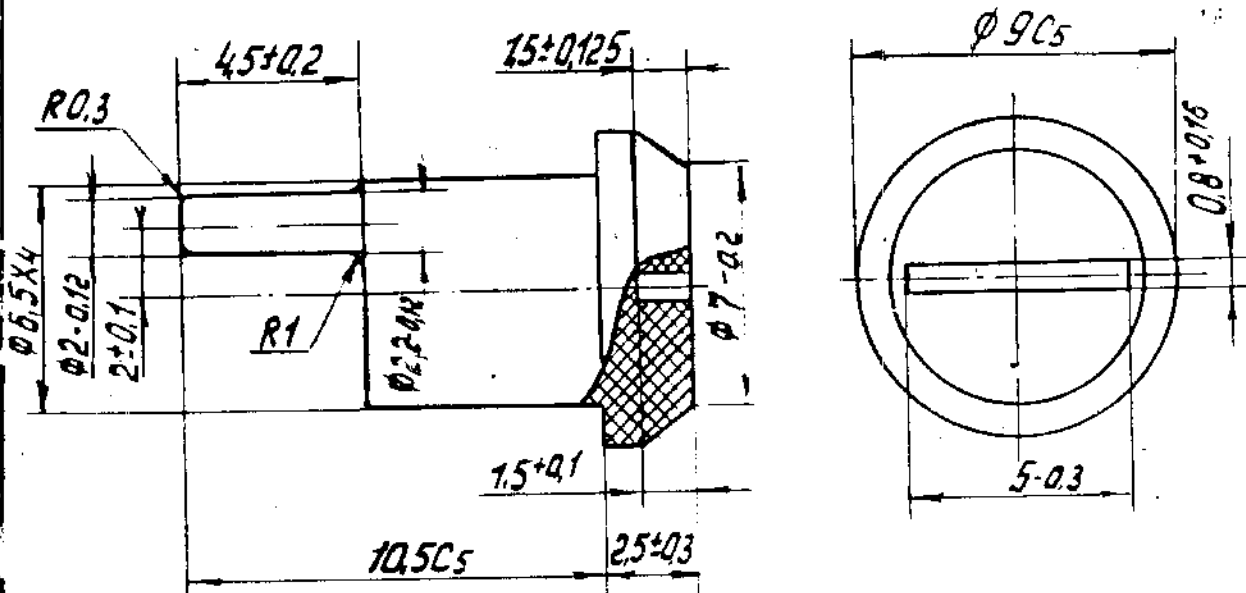
USED ON	SYMBOL	FIG. 1	COATING
800.217.000		1	Kg. 21XP
500.004.005-1	-01	2	LL. 15XP
	-02		Kg. 21XP
	-03	1	LL. 15XP

45415 KPa

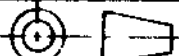
F-3
22

MATERIAL: STRIP 10-ПН ПШ 1-0-0.3 GOST-503-81		
ALL SHARP EDGES & CORNERS TO BE ROUNDED	ALL THREADS TO CONFORM TO SPECIFICATION	STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFR.
DRG. NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:-
SCALE: 1:1		
DATE: 23-7-97		
DRN: [Signature]	WT: (kg) 2.5g	
TCD: [Signature]		
CHD: [Signature]		
APD: [Signature]		
RING		
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)		106/136

2



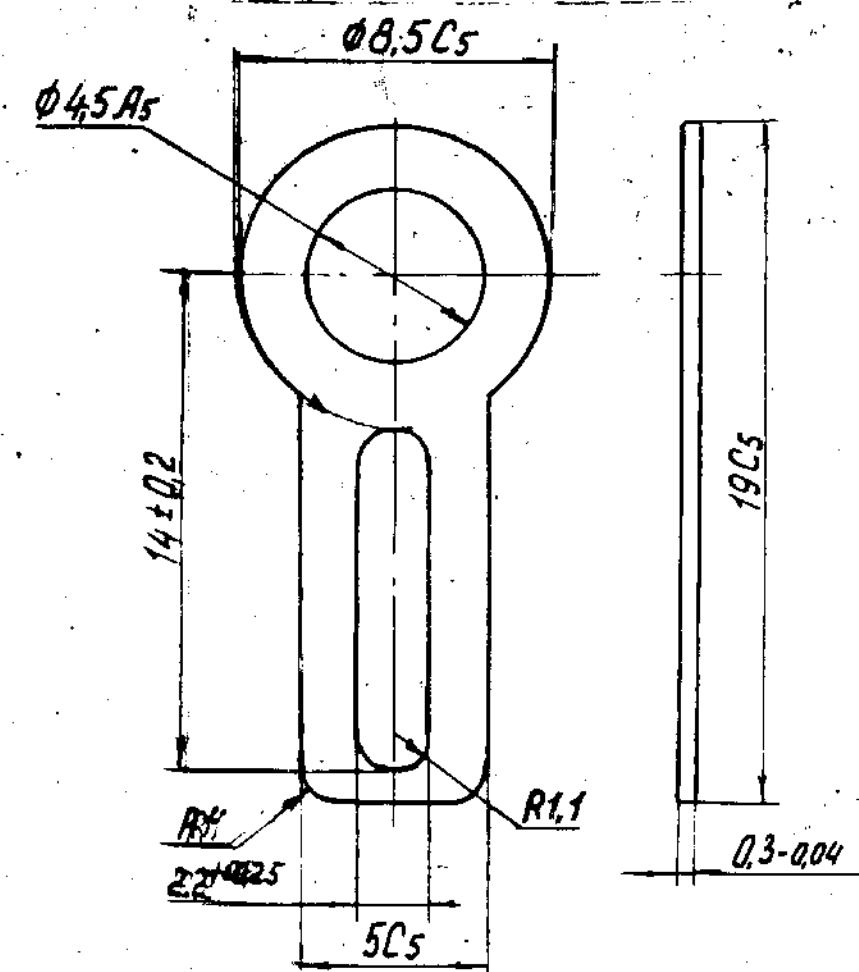
DESIGNATION	MATERIAL	Mass g	USED ON
8PM.233.002-1	PHENOLIC PLASTIC 03-010-02 GOST 5689-79	0.5	5PM 004 005-
8PM.233.002-2	PHENOLIC PLASTIC 210-342-63 GOST 5689-79	0.66	

MATERIAL		ALL THREADS TO CONFORM TO SPECIFICATION		STAMP OR ETCH, PART NO.	
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF				MANUFACTURERS NAME & YEAR	
ORG. NOT TO BE SCALED				OF MFR	
SCALE -- 5:1		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED ON --	
DATE -- 23-7-97.					
DRN.		WT -- (KG)		8PM 233 002-0	
TCD. <i>Handwritten</i>					
CHD.				ECCENTRIC	
APD. <i>Handwritten</i>					
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 108/136					

0-520-882 1108

(подл. 20.06.97)

Покрывание см. таблицы
COATING: SEE TABLE.



DESIGNATION	COATING	USED ON
8ПМ.233.025-1	CHEMICAL PASSIVATION	SPM 147 006-1
8ПМ.233.025-2	Ni12	

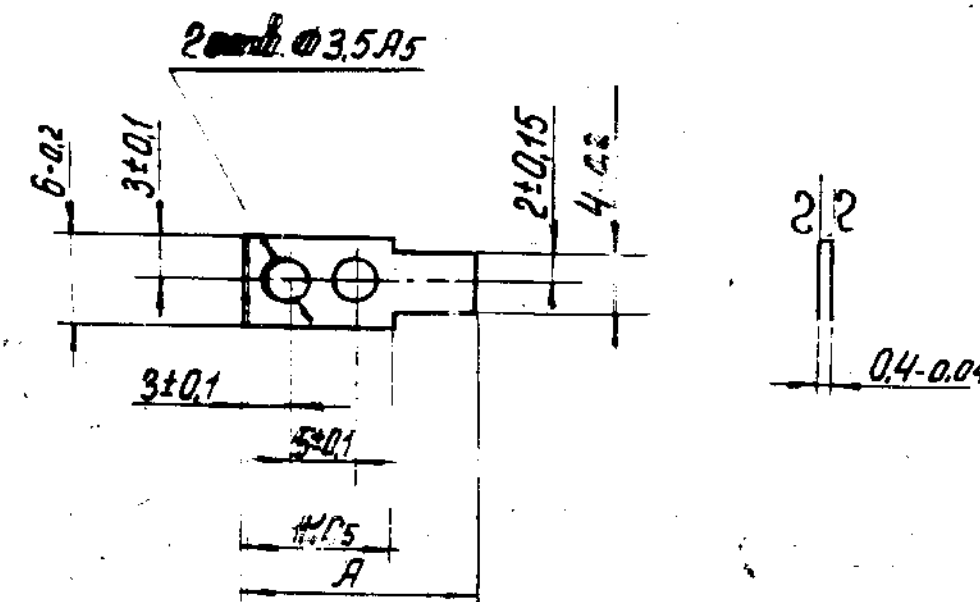
Всички размери са в мм.
Изв. № 2334
2334

MATERIAL - BRASS A63 GOST-15527-70		
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF	ALL THREADS TO CONFORM TO SPECIFICATION	STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFR.
ORG. NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:-
SCALE :- 5:1		
DATE :- 23-7-97		
DRN. <i>BBB</i>	WT :- (kg)	8ПМ-233-025-0
TCD. <i>BBB</i>	0.165g	
CHD. <i>BBB</i>		ADJUSTER
APD. <i>BBB</i>		
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 127/136		

(no. 2206.67)

UNLESS OTHERWISE
SPECIFIED ▽3.

1. COATING: SEE TABLE. 1. Покрытие см. таблицу.
2. BURRS ARE PROHIBITED. 2. Заусенцы не допускаются.



DESIGNATION	COATING	MASS, G.	DIMENSIONS, MM.
* 8PM.285.005.1	CHEMICAL PASSIVATION	0.22	16.23
8PM.285.005.2	SN-P-4		
* 8PM.285.005.3	CHEMICAL PASSIVATION	0.27	22.05
8PM.285.005.4	SN-BI-9		

MATERIAL: - STRIP AP40 0.40 1+R5P0 ϕ 6.5-0.15 GOST 1761-79

ALL SHARP EDGES & CORNERS TO BE ROUNDED

ALL THREADS TO CONFORM TO SPECIFICATION

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

SCALE :- 2 : 1

TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED

USED ON:-
5PM 024.032CB

DR

WT :- (Kg)
SEE TABLE

8PM 285 005.1-4

CHE

FLAT SPRING

CONTROLLERATE OF QUALITY ASSURANCE
(INFANTRY COMBAT VEHICLES) 94/136

100'062'WU8

(подл. 13.04.73)

2

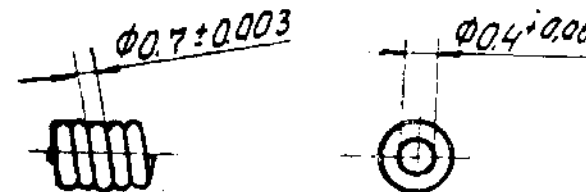
1. Покрытие 0.8и-9
2. Невида на плотная
3. 3-5 витков в зависимости от балансировки
4. Допускается отсутствие гальванического покрытия на торцах противовесов

1. COATING : SN. BI-9.

2. TIGHT COILING.

3. 3-5 TURNS, DEPENDING ON THE BALANCE WEIGHT REQUIRED.

4. ABSENCE OF ELECTROCHEMICAL PLATING ON THE FACES OF BALANCE WEIGHT IS ALLOWED.



MATERIAL:- WIRE MM 0.7 GOST 2112-79.

454 29

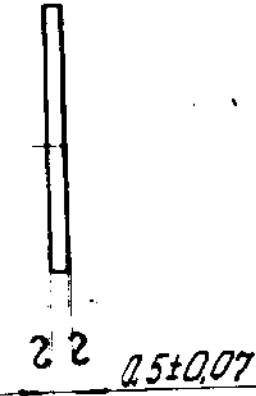
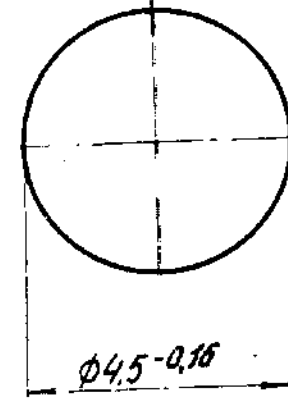
MATERIAL :-		STAMP OR ETCH, PART NO.	
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF	ALL THREADS TO CONFORM TO SPECIFICATION	MANUFACTURERS NAME & YEAR OF MFR.	
DRG. NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:-	
SCALE :- 10:1			
DATE :- 23-7-97			
DRN.	WT :- (Kg)		
TCO. <i>[Signature]</i>	0.034-0.05650	8PM 290 001	
CHD.		COUNTER WEIGH	
APD. <i>[Signature]</i>			
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 133/136			

8ПМ 322 000

(номер 220767)

▽ 1 основное

UNLESS OTHERWISE
SPECIFIED ∇1.



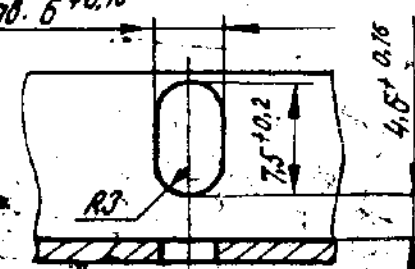
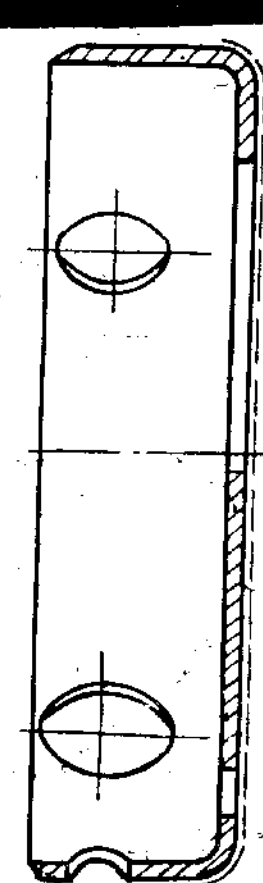
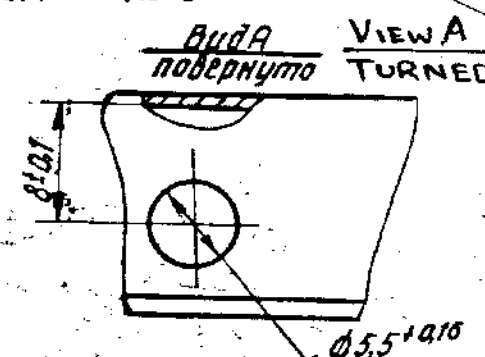
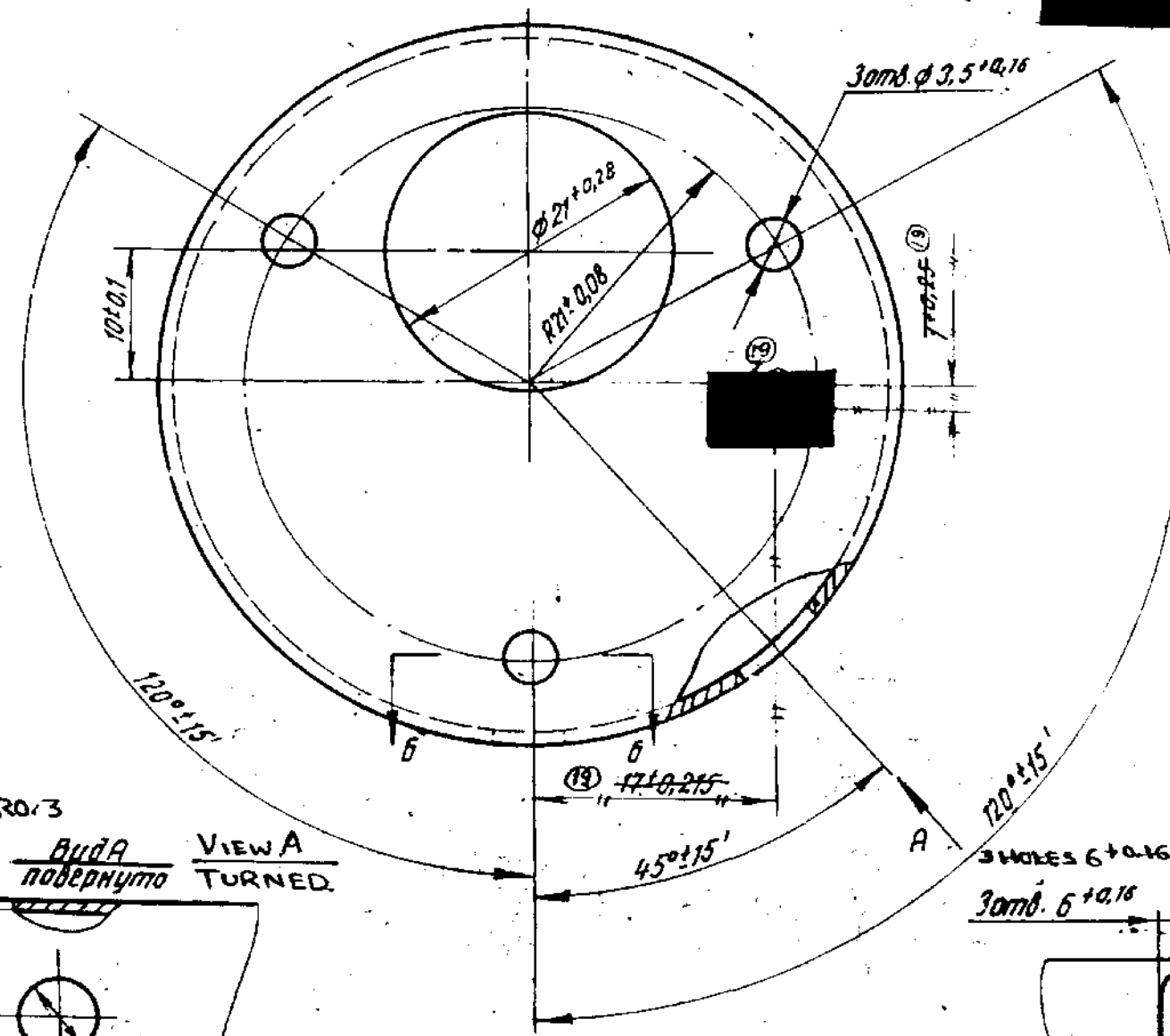
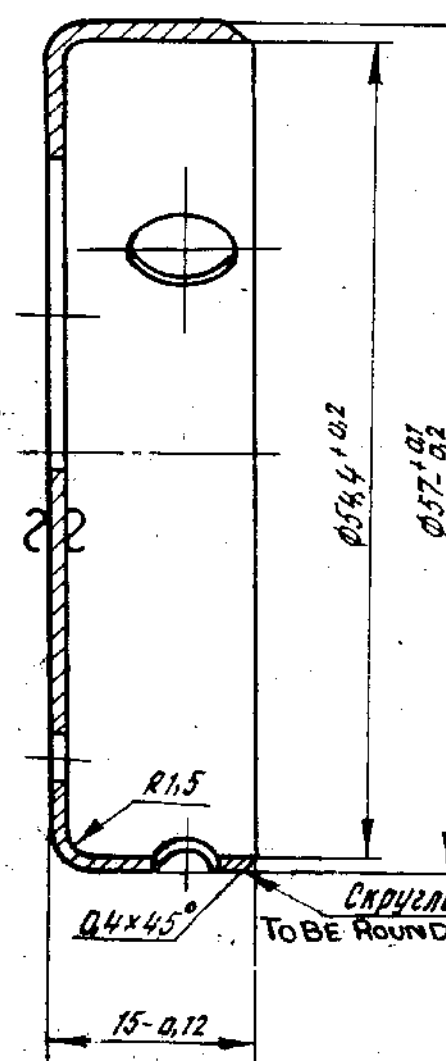
MATERIAL -- CELLULOID 6П 2.0.5 TRANSPARENT GOST 21228-75			
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF		ALL THREADS TO CONFORM TO SPECIFICATION	
ORG. NOT TO BE SCALED		STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFR.	
SCALE :- 5 : 1		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	
DATE :- 23-7-97		USED ON:-	
DRN.	WT :- (kg)	8ПМ 322 000	
ECO. <i>DM</i>	0.0158		
CHD.		PLUG	
APD. <i>DM</i>			
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 113/136			

0-800-59E-WL18

(подпись) 8.12.87г.

UNLESS OTHERWISE SPECIFIED
4 оеманное

2. Покрытие ст. металла

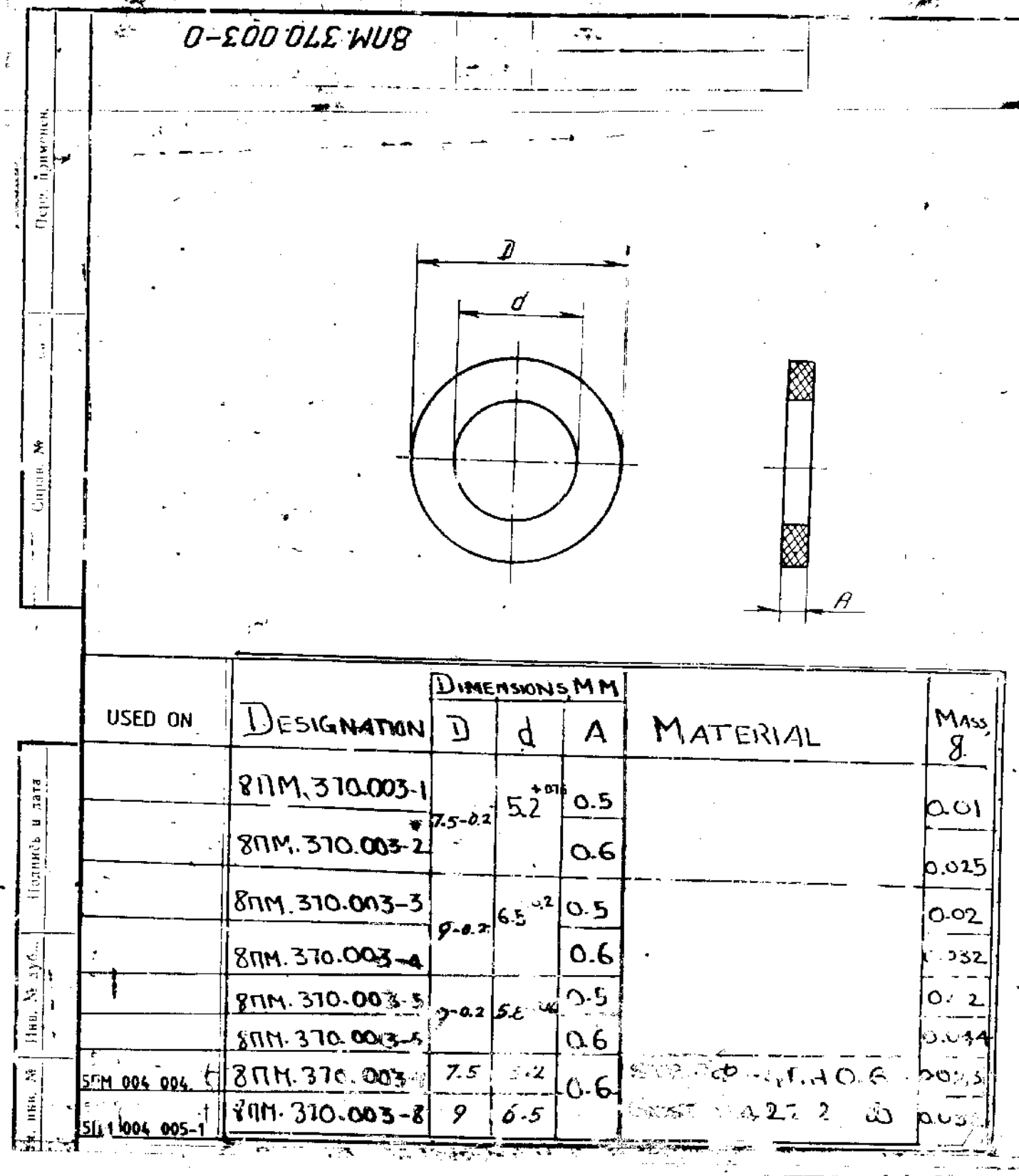


DESIGNATION.	MATERIAL.	WEIGHT	COATING.
* 8ПМ.365.008-1	СТРИП 08КП-М-Т-Ш-2-0-1.4.	29g	ZINC 15CHROMATIZING.
8ПМ.365.008-2.	GOST 503-71.		CADMIUM 21 CHROMATIZING. COAT SURFACE. 6" WITH PRIMER БЛ-02 GOST 12701-71 AND ENAMEL БЛ-725МР ТУ-10- 366-75 AND WITH GREY ENAMEL МЛ-16Б MM GOST-12034-77 II

MATERIAL: — SEE TABLE		STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFR.
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF		USED ON: 3ПМ 328 002 11/23
DRG. NOT TO BE SCALED	ALL THREADS TO CONFORM TO SPECIFICATION	
SCALE: 2:1	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	
DATE: 23-7-97		
DRN	WT: (kg) SEE TABLE	8ПМ 365 008-0
TCO		SCREEN
CHD		
APD		

CONTRROLLERATE OF QUALITY ASSURANCE
(INFANTRY COMBAT VEHICLES) 83/136

Одобрено с подписями: 27705 26627 27706



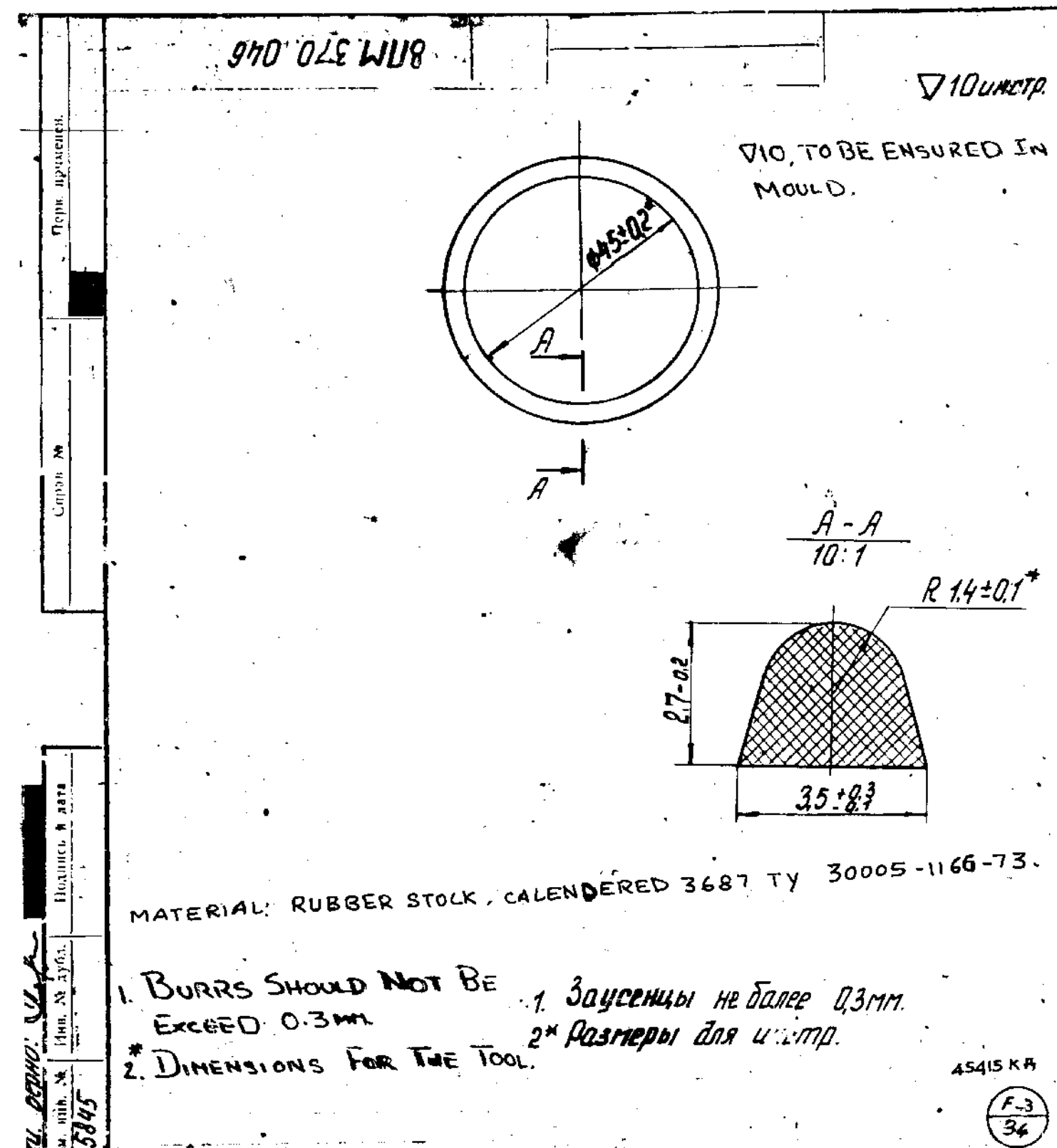
MATERIAL		
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF	ALL THREADS TO CONFORM TO SPECIFICATION	STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFR.
DRG. NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:-
SCALE :- 2:1		
DATE :- 23-7-97		
DRN. ABB.	WT :- (Kg)	
TCD. ABB.		
CHD.		
APD.		
8PM-370-003-0 WASHER		
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 107/136		

8PM.370.003-0

USED ON	DESIGNATION	DIMENSIONS IN MM			MATERIAL
		D	d	A	
	8PM.370.003-1		5.2 ^{+0.0}	0.5	
	8PM.370.003-2	7.5-0.2		0.6	
	8PM.370.003-3		6.5 ^{+0.2}	0.5	
	8PM.370.003-4	9-0.2		0.6	
	8PM.370.003-5		5.8 ^{+0.1}	0.5	
	8PM.370.003-6	9-0.2		0.6	
8PM.004.004.5	8PM.370.003-7	7.5	5.2	0.6	STRIP-4PH0.6 GOST 24222-80
8PM.004.005-1	8PM.370.003-8	9	6.5		

MATERIAL : — SEE TABLE		ALL THREADS TO CONFORM TO SPECIFICATION		STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFR.
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED ON: — SEE TABLE
DRG. NOT TO BE SCALED		SCALE : — 3 : 1		
DATE : — 23-7-97		WT : — (Kg) SEE TABLE		
DRN.	TCD.	8PM 370 003 - 0 WASHER		
CHD.	APD.			
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)				

111/136



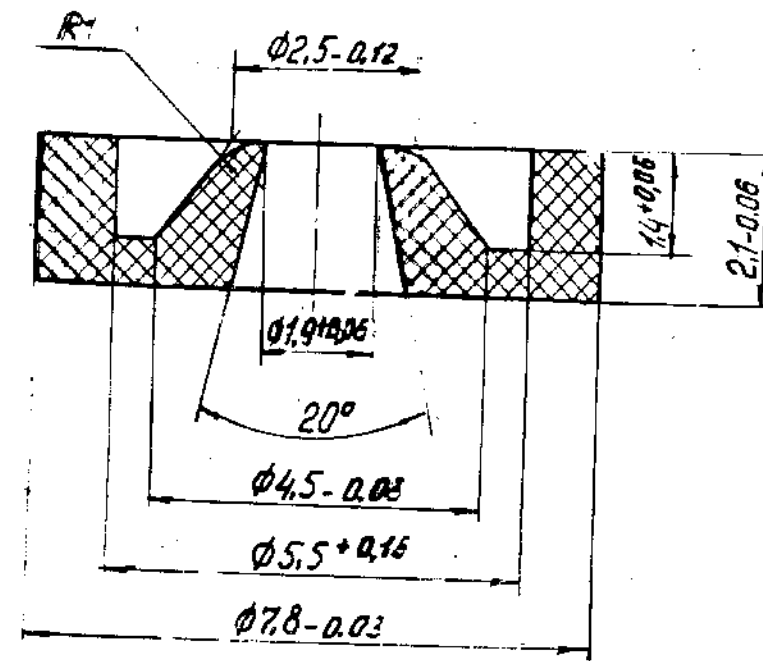
ALL DIMENSIONS TO BE TO SPECIFICATION		STAMP OF EACH PART NO. MANUFACTURER'S NAME & YEAR	
DRG. NOT TO BE SCALED		U*EL C- 3ПМ-328-002-11/23	
SCALE: 2:1		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	
DATE: 23-7-97		8ПМ-370-046	
DRN: ABB	WT: (KG) 1.28g	SEALING RING	
TCL: ABB			
CHD:			
APD: ABB			
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 84/136			

Л20 128 1008

(подп. 02.10.70)

▽9унсип

▽9. TO BE ENSURED BY
MOULD.

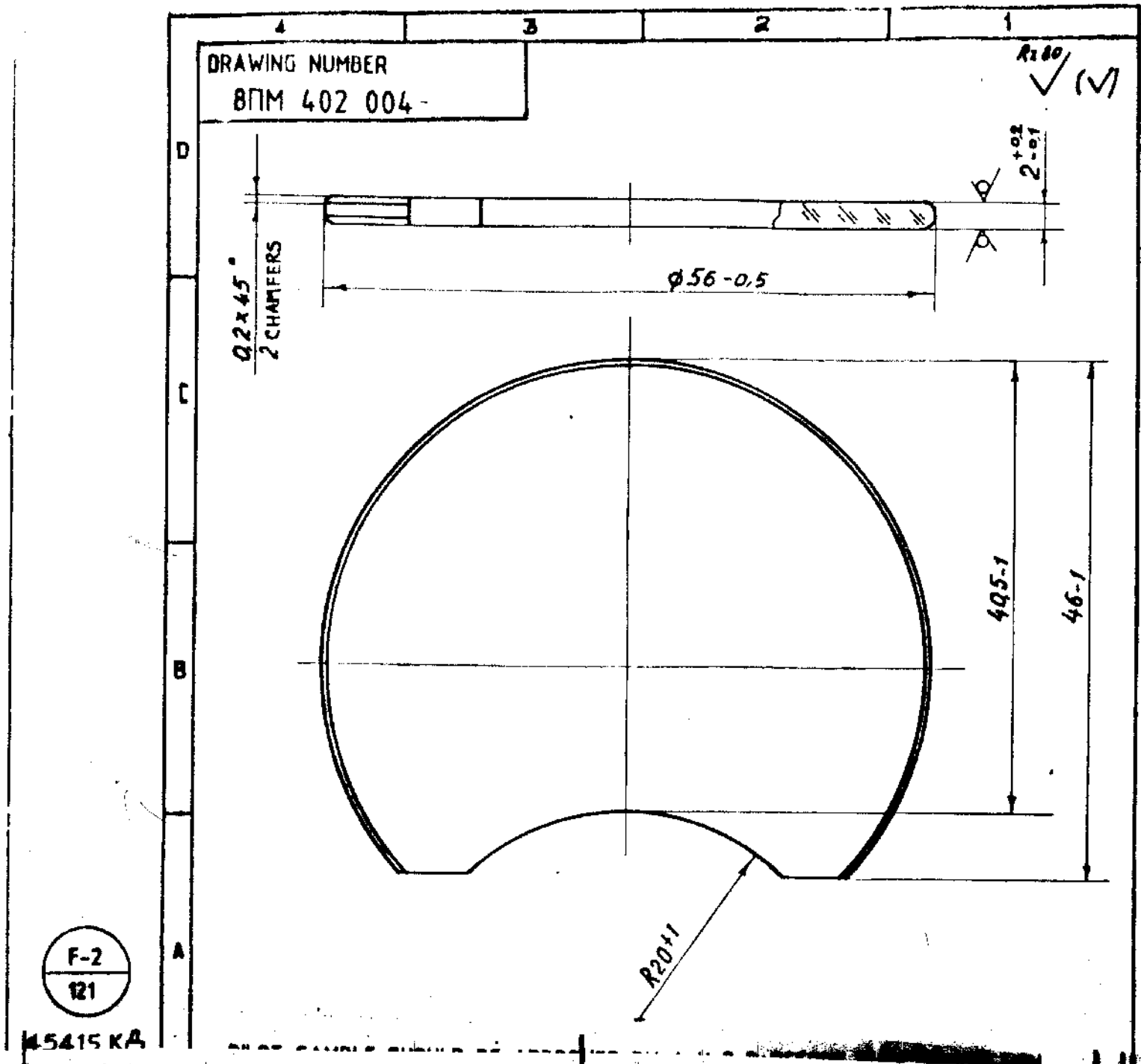


1. Размеры для изготовления
2. Зазоры не более 0.2 мм.

1. DIMENSION FOR THE TOOL.
2. GAPS SHOULD NOT EXCEED 0.2 MM.

154.5 KPa (F-3 3%)

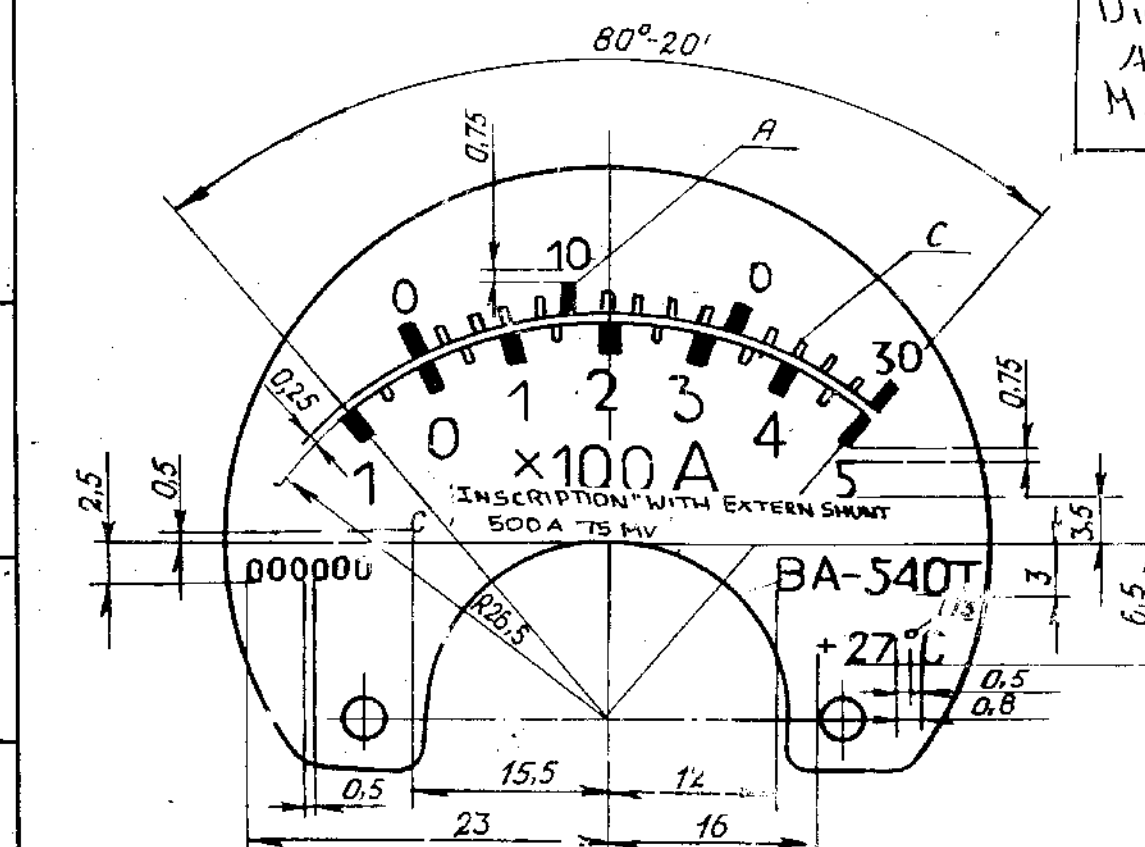
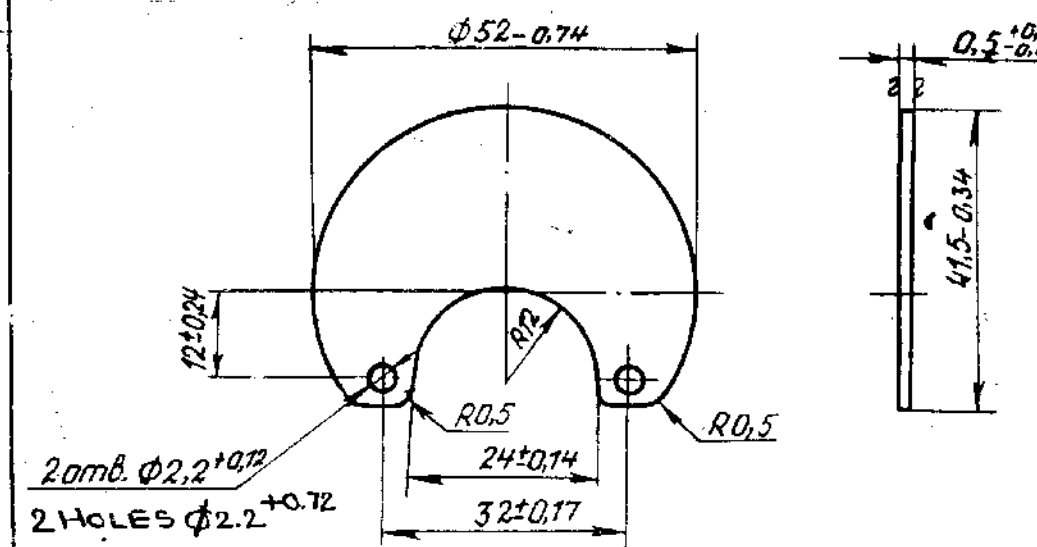
MATERIAL :-		ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF	
DRG. NOT TO BE SCALED		ALL THREADS TO CONFORM TO SPECIFICATION	
SCALE :- 10:1		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	
DATE :- 23-7-97		STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFG.	
DRN. ABB		USED ON:- 5ПМ-235-002-1	
TCD. ABB		8ПМ-371-027	
CHD.		GASKET	
APD.		CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)	
WT :- (Kg) 0.12		114/136	



NEAREST EQVT MATERIAL			
DRGL MATERIAL GLASS GROUPS I TY 21-PC CP-224-79		DC(11) No 4 DATE	ISSUE
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF.		ALL THREADS TO CONFORM TO SPECIFICATION.	
DRG. NOT TO BE SCALED		STAMP OR ETCH, PART NO. MANUFACTURER'S NAME & YEAR OF MFR.	
SCALE:- 2:1		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	
DATE :- 23-7-97.		USED ON:-	
DRN.	WT :-(Kg)	GLASS	
TCD. <i>Koull</i>	11 g		
CHD.			
APD. <i>CS</i>		DRAWING NO 8PM 402 004	PART NO
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 105/136			

0-110 044 WUB

0-040 (15) You must understand the contour of DIA



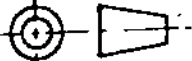
TYPE OF SIGN OR INSCRIPTION		AS PER GOST 2930-62*		
		SIGNS	LETTERS	DIGITS
X 10 A		M-3	NO-3	NO-3
000 000		-	-	NO-2
W. EXT. SH 500A 50M.		M-15	NO-1.5 C-2. NO-2	NO-2
PA-540T		M-2.5	NO-2.5	NO-2.5
+ 27°C		M.2	NO-2	NO-2.
MARKS		WIDTH MM		HEIGHT MM
		A	1	2.5
		C	0.4	1.75
DIGITS AT MARK		SMALLER		BIGGER
		HEIGHT, MM		2
		WIDTH MM		1.2
MARK		THICKNESS OF INSCRIPTION		0.2
				0.5

~~14. H020225Z,,C NAR. W. EXT. SH. 1A75MV"~~
~~HA 0020-23,,W. EXT. SH. 1A75MV."~~

2/25/94

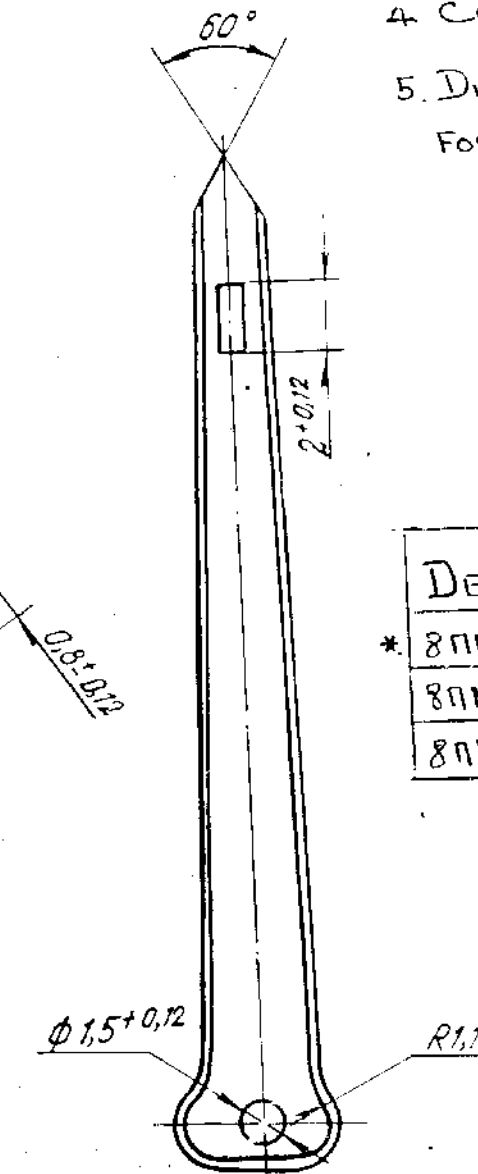
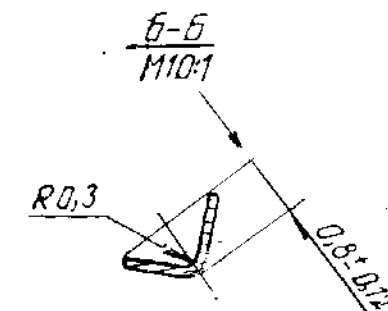
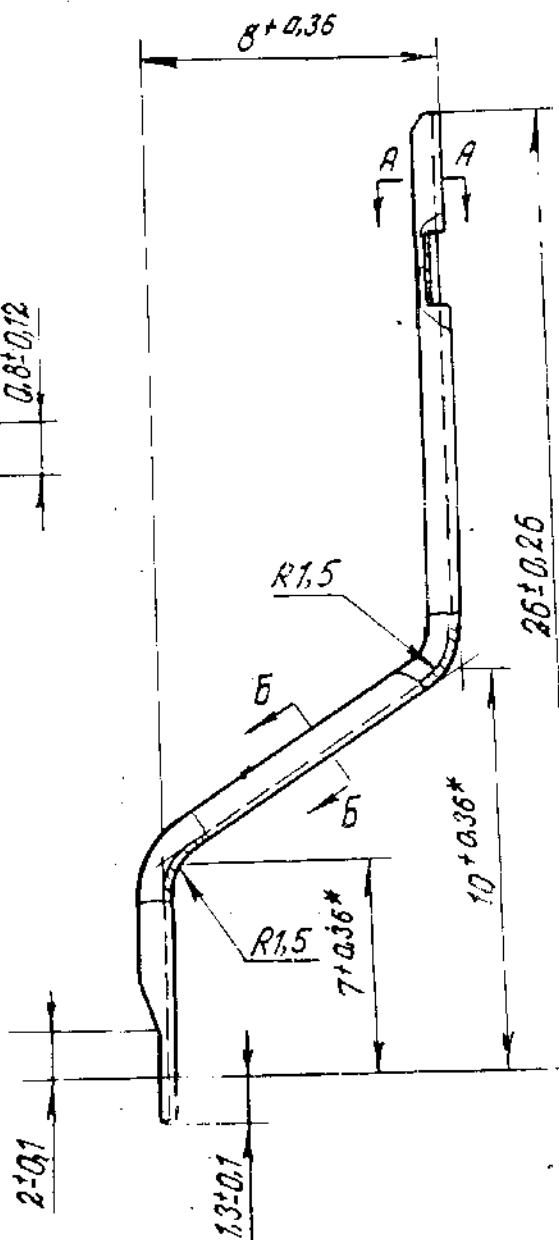
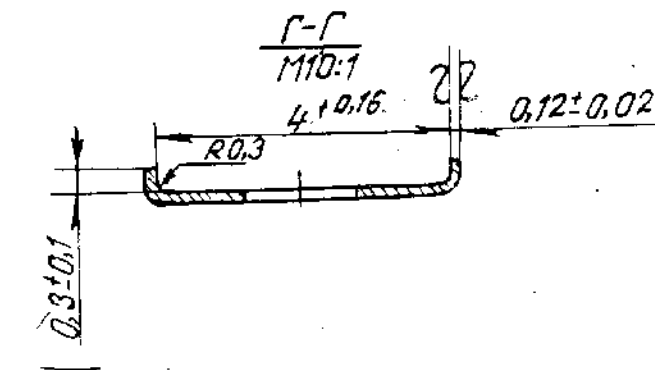
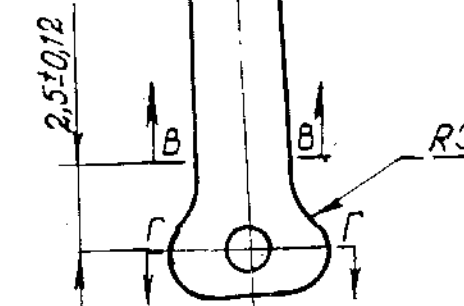
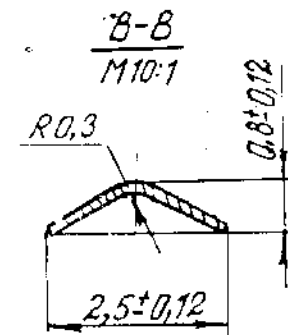
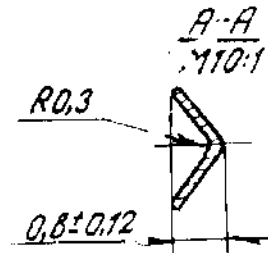
1. Material:- cold hardened.
2. Graduate the scale by dividing the scale sector into equal parts. (Scale calibration ~~for~~ is ± 10 (for tool).
3. Marks and inscriptions are as per table 1.
4. Marks, signs, digits and letters may be both raised (height $0.08 \pm 0.2\text{mm}$) and intagliis (depth 0.3 ± 0.1 variator in depth 0.0mm). Digits against the marks are to be made according to GOST 29030-62.
5. ** Inscription " $\pm 0.7^{\circ}\text{C}$ " and the letter "T" in designation of type of the device is to be carried not only for make, designated by asterisk.
6. After punching the symbols and serial number the dial is to be straightened.
7. During manufacturing the scale by stamping convexity of upto 0.4mm on the back side of dial is allowed.
8. Dimensions with unspecified tolerances are to be made with an accuracy of $\pm 0.2\text{mm}$.
9. Coating: chromite passivation O TM.599.020 TY.
10. Coat the front surface in compliance with paint coating on the faces of the dial is allowed. Striping of coating is not allowed.
11. Coat the marks with white enamel $\text{H}\phi - 223$ GOST 14923-78. *width is 1mm.*
12. Coat the smaller digits 0, 10, 20, 30 with yellow enamel $\text{H}\phi - 223$, GOST 14923-75.
13. Inscription "X100A", bigger digits, digital marks are to be coated with luminous compound $\text{H}\phi - 03\text{K}$ as per TY O TM.599.011 c of temporary effect with precoating with white enamel $\text{H}\phi - 223$, GOST 14923-

DESIGNATION	COATING	USED ON
8PM.440.011-1	ЭМ.М4 - 240 МТ 46-10-1701--79 LACQUER HLL-134 Т 46-10-1291-77 LACQUER HLL-134 Т 46-10-1291-77 П С	3PM 325 002-11
8PM.440.011-2**	PRIMER Ф 1 - 03 МС ГОСТ 9109-81, ENAK - ХС 1107 М Т 46-10-1042-78. LACQUER AK 113 ГОСТ 23832-79 П А Г	

MATERIAL :- ALUMINIUM AS GOST 11069-74		STAMP OR ETCH, PART NO.	
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF		MANUFACTURERS NAME & YEAR OF MFR.	
DRG. NOT TO BE SCALED		USED ON:- SEE TABLE	
SCALE :- 2 : 1		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	
DATE :- 23-7-97		8PM 440 011-0	
DRN.	WT :- (Kg)	DIAL	
TCD. <i>My</i>	2,62		
CHD.			
APD. <i>QSD</i>			
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)			
85/136			

(нодн. 27.07.67.)

▽Зостальное

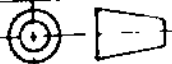


1. DISSYMMETRY OF STIFFENING RIB SHOULD NOT EXCEED 0.2MM.
2. BENDING RADII ARE GIVEN FOR THE TOOLS.
3. OVALITY OF HOLE ϕ 1.5 TO 1.2 UP TO ϕ 15 TO 25 AFTER BENDING ALONG THE HORIZONTAL AXIS IS ALLOWED.
4. COATING: SEE TABLE.
5. DIMENSION DESIGNATED BY ASTERISK FOR THE TOOLS.

DESIGNATION	COATING.
* 8PM.441.001-1	CHEMICAL OXIDIZING, PHOSPHATING.
8PM.441.001-2	ANODIC OXIDATION
8PM.441.001-3	BLACK NICKEL PLATING AFTER THOMP. BOQ. 07.

454.5 КД

$\frac{A-3}{38}$

MATERIAL :-- SHEET 16AT-05 GOST 21631-76		STAMP OR ETCH, PART NO.	
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF		MANUFACTURERS NAME & YEAR OF MFG.	
DRG. NOT TO BE SCALED		USED ON:-	
SCALE :-- 5:1		5mm 441 021-1	
DATE :-- 23-7-97		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	
DRN	WT :-- (Kg)	8mm 441 001-0	
TCD	0.03g	POINTER	
CHD		CONTROLLERATE OF QUALITY ASSURANCE	
APD		(INFANTRY COMBAT VEHICLES)	
		131/136	

Подпись:
 Дата:
 Подпись:
 Дата:

000.055.110.0

(Подпись) 27.07.67. ~

Эксцентрисичность головки относительно оси стержня не более 0.15 мм.

1. ECCENTRICITY OF HEAD RELATION TO AXIS OF ROD SHOULD NOT EXCEED 0.15 MM.

MATERIAL: - WIRE KPSP 999-9 1,2T GOST 7222-75.

45415 КД F-3
41

MATERIAL		STAMP OR ETCH, PART NO.	
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF		MANUFACTURERS NAME & YEAR	
ORG. NOT TO BE SCALED		USE MFR	
SCALE: - 10:1		USED ON: -	
DATE: - 23-7-97			
DRN.	WT: - (Kg)	8ПМ 550 000 CONTACT	
ICD.	0.018g		
CHD.			
APD.			
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 90/136			

89-040, 89-0407.
15139

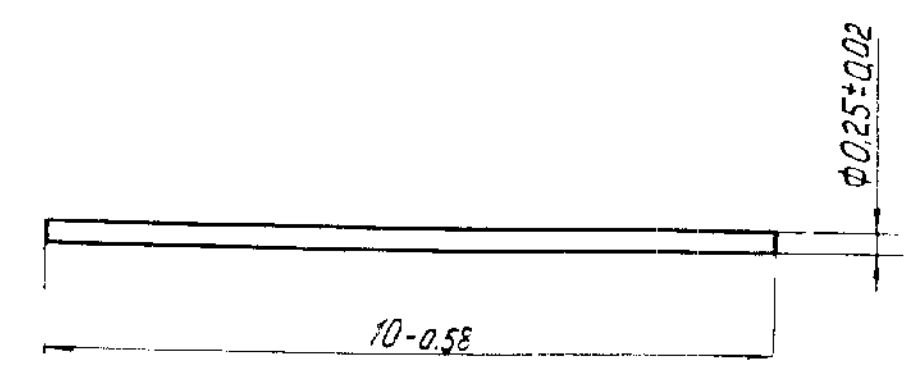
0-LOO 045 WUB

(подл. 22.06.67г.)

2

- 1. COATING: SEE TABLE.
- 2. FACES MAY NOT HAVE COATING.

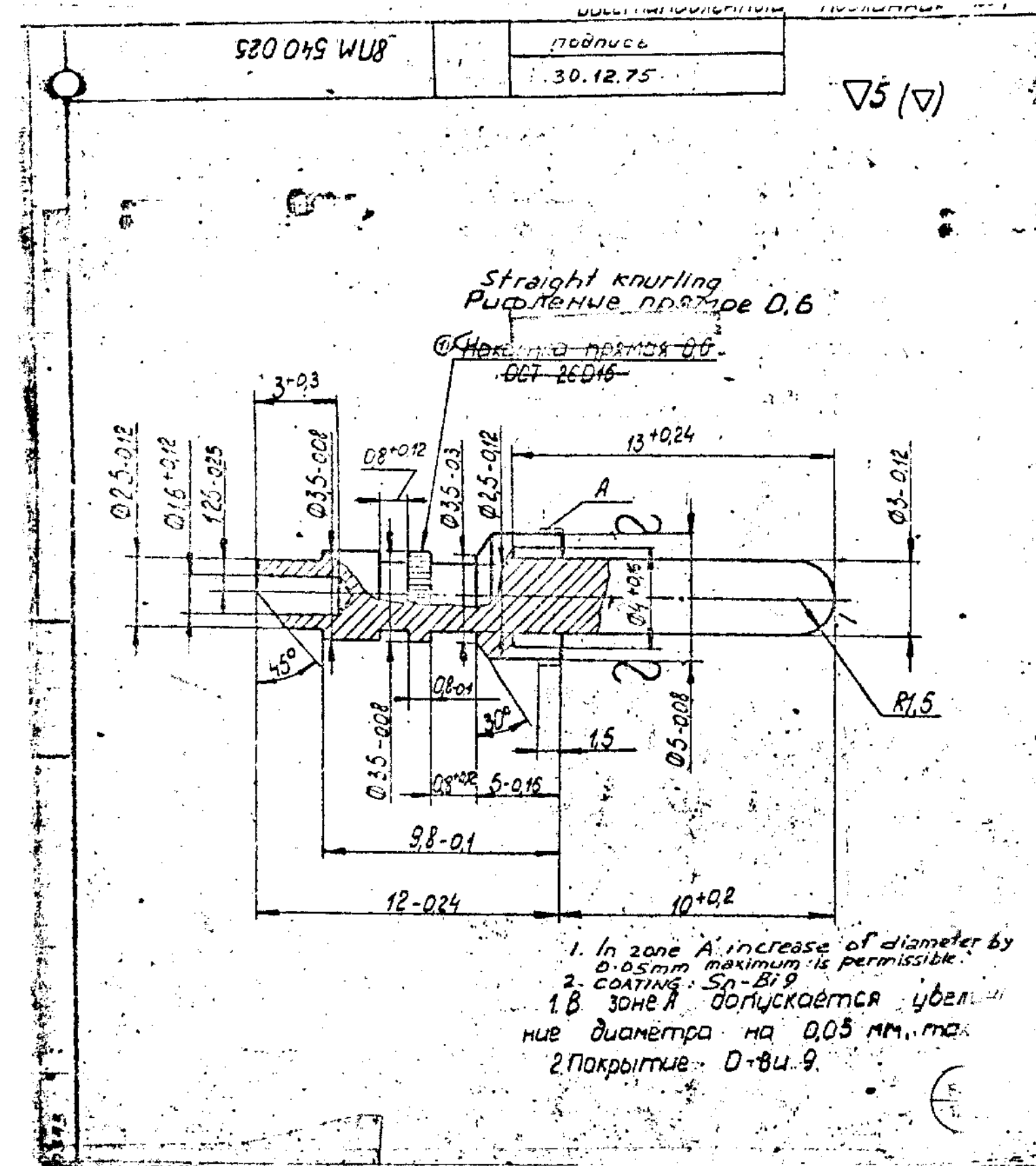
- 1. Покрытие см. таблицу.
- 2. Допускается отсутствие покрытия на торцах.



DESIGNATION	COATING	USED ON
8PM.540.007-1	TO BE DEGREASED	5PM 447 021-1
8PM.540.007-2	COLOURLESS ANODIC OXIDATION	
8PM.540.007-3	BLACK NICKEL PLATING	

454/5 K4

MATERIAL WIRE A 16 PD.25 GOST 14-838-78.		
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	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:-
SCALE:- 10:1		
DATE:- 23-7-97.		
DRN	WT:- (Kg) 0.0013g	8PM 540 007-0
CO		ROD
CHD		
APP		
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 130/136		



MATERIAL: BRASS TC 59-1 GOST 15527-70		STAMP OR ETCH, PART NO.	
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF		ALL THREADS TO CONFORM TO SPECIFICATION	
ORG. NOT TO BE SCALED		MANUFACTURER'S NAME & YEAR OF MFG	
SCALE: 5:1		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	
DATE: 23-7-97		USED ON:	
DRN	WT: 1.2 g	8ПМ 540 025	
TCD	1.2 g	PIN	
CHD	1.2 g	CONTROLLERATE OF QUALITY ASSURANCE	
APD	1.2 g	(INFANTRY COMBAT VEHICLES) 136/136	

100 055 1409

(ГОСТ) 22.06.67

2

Перв. привнес

Стор. №

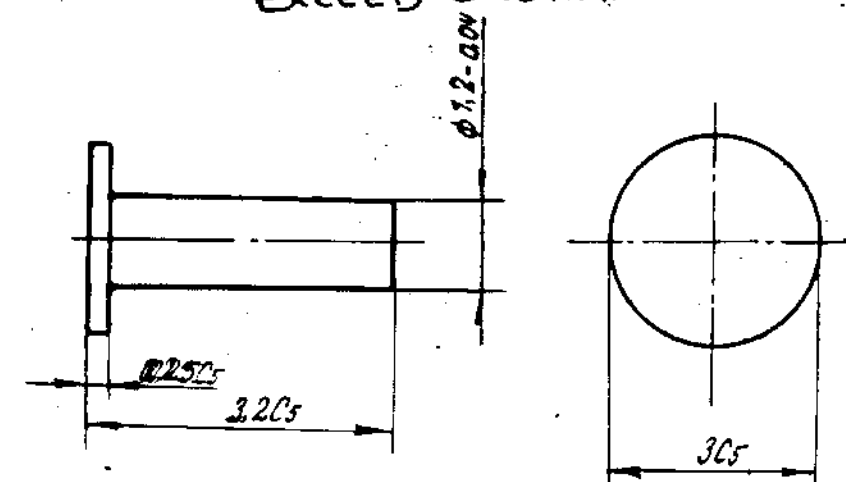
Полном. и 10%

Чис. № 1903

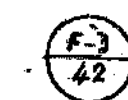
№ 1

Эксцентриситет головки относительно оси стержня не более 0.15 мм.

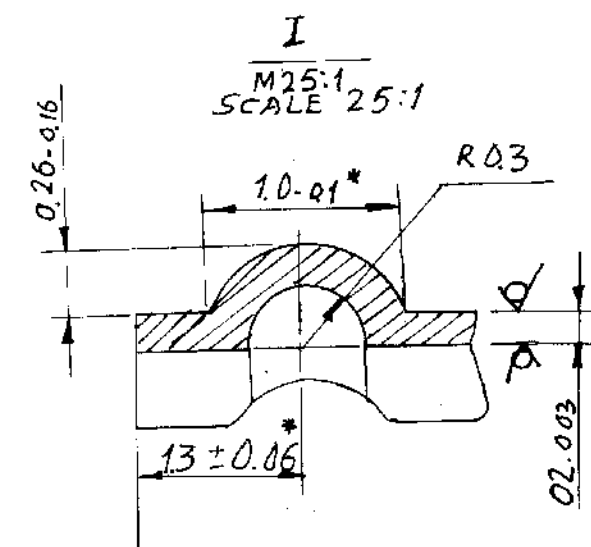
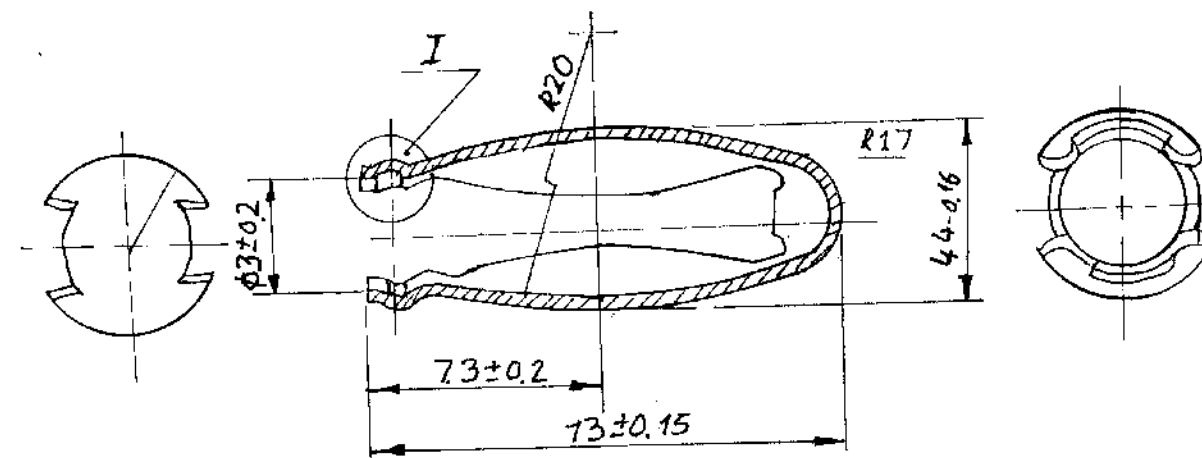
1. ECCENTRICITY OF HEAD RELATIVE TO AXIS OF ROD SHOULD NOT EXCEED 0.15 MM.



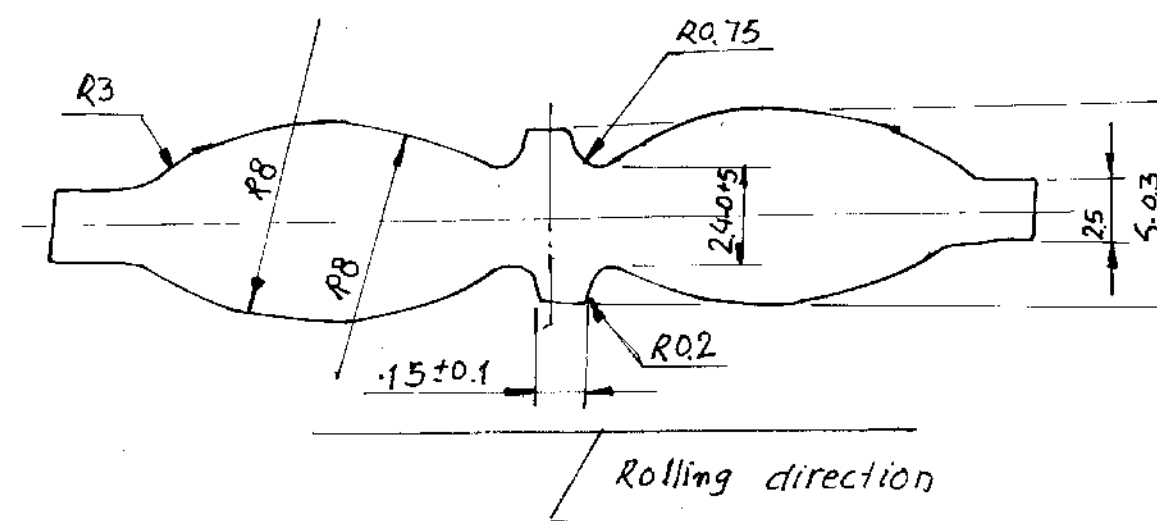
MATERIAL: WIRE KPCP 999-9-1.2T GOST 7222-75



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 :- 10 : 1		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED ON:-	
DATE :- 23-7-97		DRN.		WT :- (kg)		8PM 550 001	
TCD. KOZ		CHD.		0.0492g		CONTACT	
APD. GHO		APD.		CONTACT		CONTACT	
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 92/36							



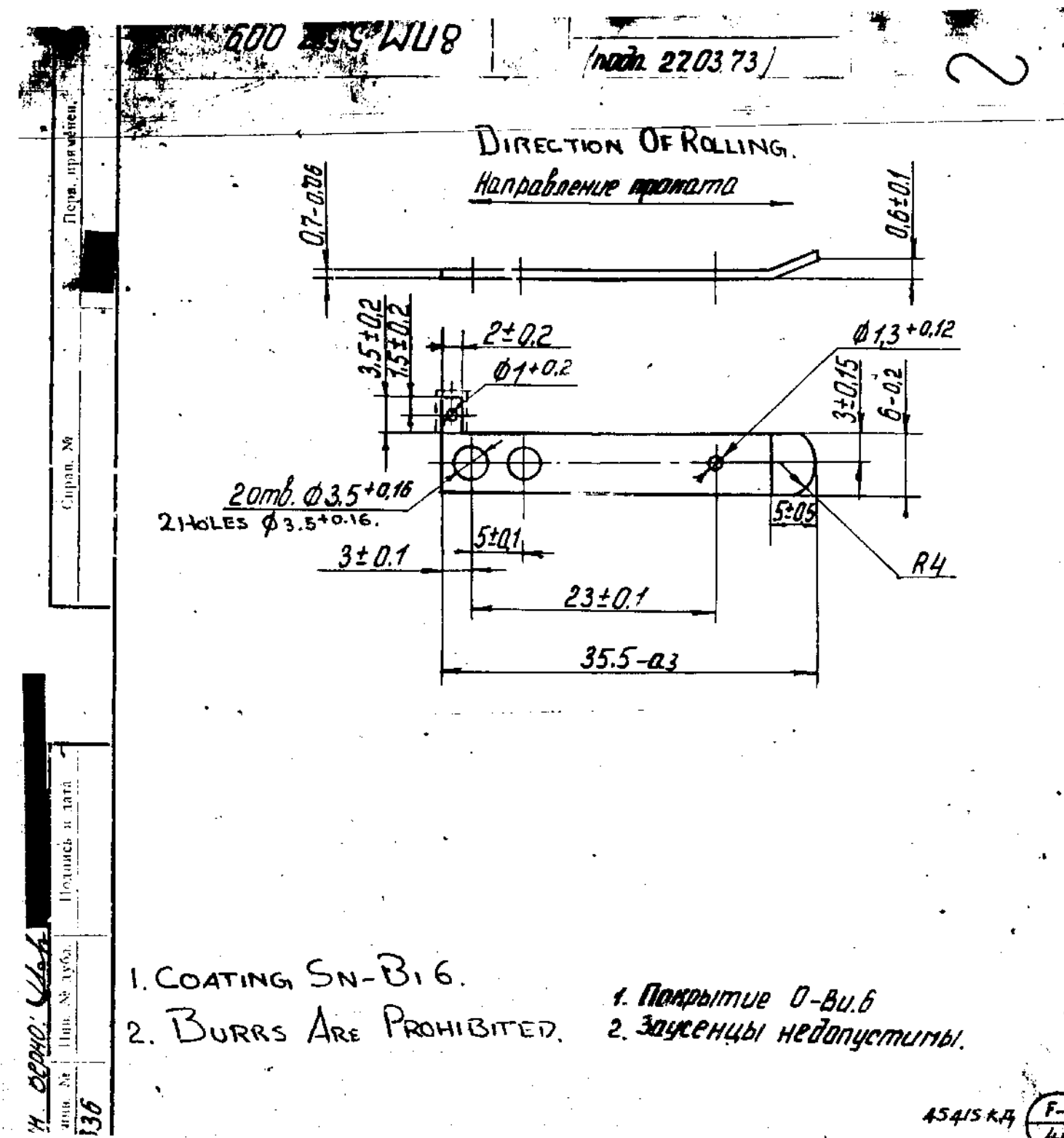
VIEW BEFORE BENDING



RART No	P. 2 OF TR 0.2 TT
8PM.551.006	CU3 Ag-Sb9
-01	CU3 Ag-Sb9

1* Dimensions to be ensured by tool.
2 COATING See table.
*

MAIL TAG		STRIP A П PHT EP 0+6.5-015-T-D.2 GOST 1761-79.	
ALL DIMENSIONS TO BE IN MILLIMETERS		ALL DIMENSIONS TO BE IN MILLIMETERS	
DO NOT TO BE SEALED		SPECIFICATION	
SCALE: 5:1		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	
DATE: 23-7-97		8PM 551 006	
DRN: [Signature]		CONTACT	
THU: [Signature]		CONTROLLERATE OF QUALITY ASSURANCE	
AC: [Signature]		(INFANTRY COMBAT VEHICLES)	
		97/136	



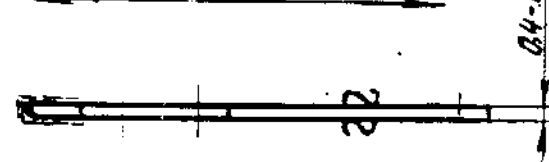
MATERIAL SHEET APPRO 1.0 НА БРОФ 6.5-0.15 GOST 1761-77	
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF	ALL THREADS TO CONFORM TO SPECIFICATION
DRG. NOT TO BE SCALED	STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFR.
SCALE :- 2:1	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED
DATE :- 23-7-97	USED ON:-
DRN.	WT :- (Kg) 1.2 g
TCD.	8PM 557 009
CHD.	CONTACT PLATE
APD.	
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 93/136	

ВЗ ОСТАЛОНД

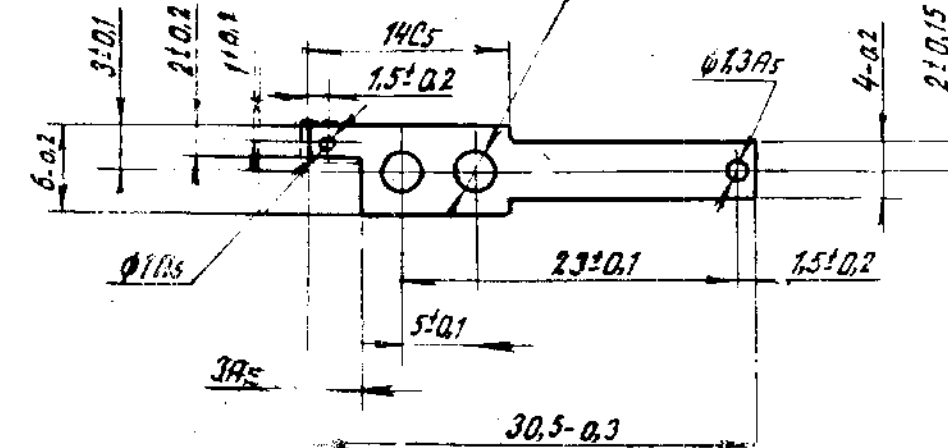
1. Покрытие 0-846.

2. Заценцы недопустимы.

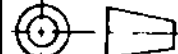
Направление проката

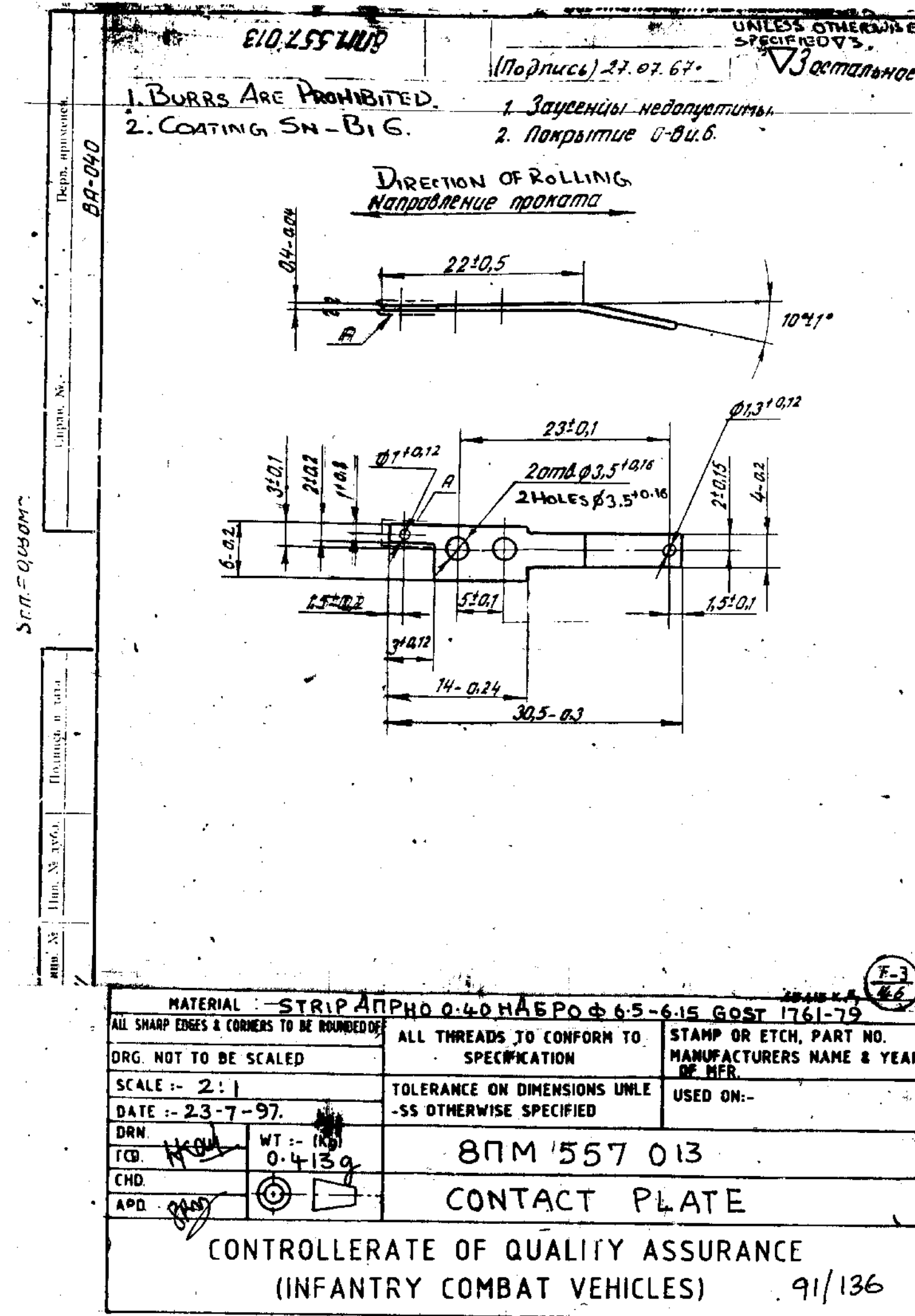


20mb-03.5A5



454.15 KPa

MATERIAL :- STRIP APPHO 0.40 H46PO4 6.5 - 915 GOST 1761-79		ALL THREADS TO CONFORM TO SPECIFICATION		STAMP OR ETCH, PART NO.
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF				MANUFACTURERS NAME & YEAR OF MFR.
DRG. NOT TO BE SCALED		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED ON:-
SCALE :- 2 : 1				5NM. 557. 000
DATE :- 23-7-97				
DRN.	WT :- (Kg)	8NM 557 010		
FCD 	0.370g			
CHD		CONTACT PLATE		
APD 				
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)				
89/136				



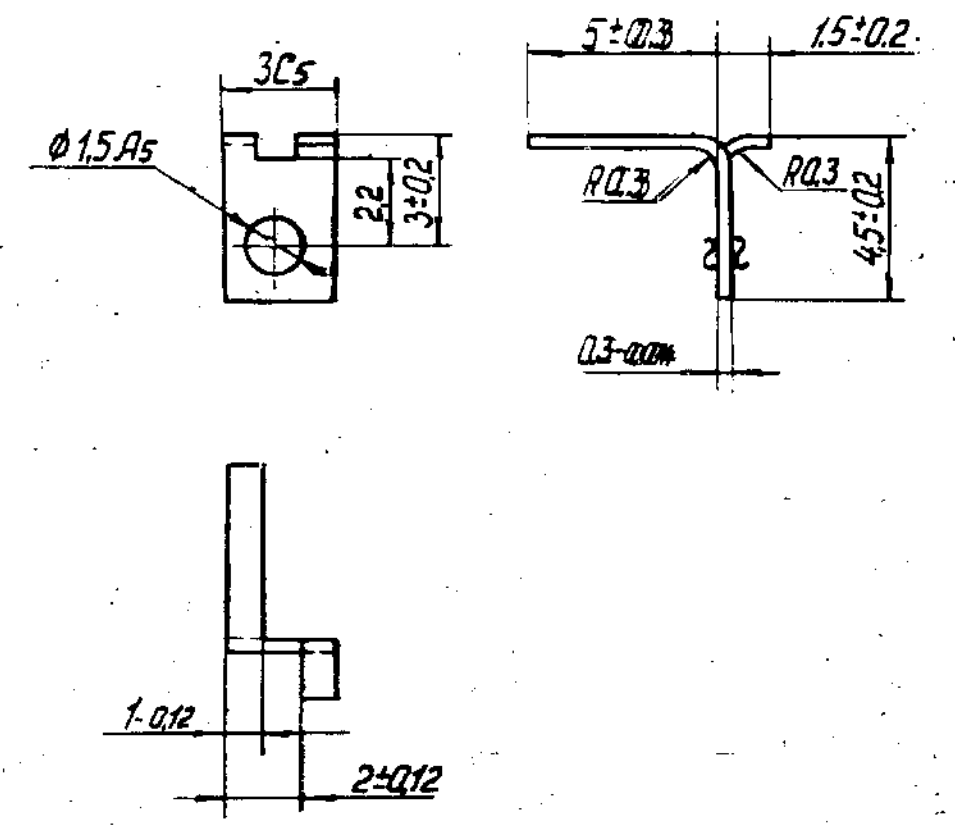
000 275 WUB

(подп. 22.06.87)

▽3 остальное

1. DIMENSIONS WITH UNSPECIFIED TOLERANCES AS PER ACCURACY CLASS 7 OF OST 100
2. COATING: SN-BI6.

1. Размеры без допусков по 7 кл. точности ОСТ 100.
2. Покрытие О-Вн.6



45415 КМ

F-3
50

MATERIAL: BRASS Л63 ГОСТ-15527-70		
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	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON: 5ПМ-147-006-1
SCALE: 5:1		
DATE: 23-7-97		
DRN: <i>ABB</i>	WT: (Kg) 0.052	8ПМ-572-000
TCO: <i>ABB</i>		LUG
CHD: <i>ABB</i>		
APD: <i>ABB</i>		
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 120/136		

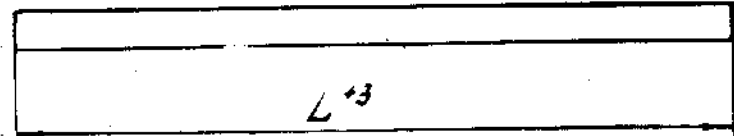
100 885 4008

(подпись 22.06.97)

1. Для производства толкательных
использовать отходы моментных
пружин и пружинные моментные
пружинные (размеры 0,032 и 0,53 ± 0,05 -
срабатывающие)

2. Обрезанные

1. FOR MANUFACTURE OF LEADS THE
TORQUE SPRING WASTE AND REJECTED
TORQUE SPRINGS (DIMENSIONS
0.032 AND 0.53 ± 0.05 - REFERENCE)
ARE TO BE USED.
2. TO BE DECREASED.



0.53 ± 0.05

0.032

USED ON	DESIGNATION	L	Mass, g
8PM 147 007-0	8PM.588.001	10	0.003
	-01	20	0.006

45415 К.Д

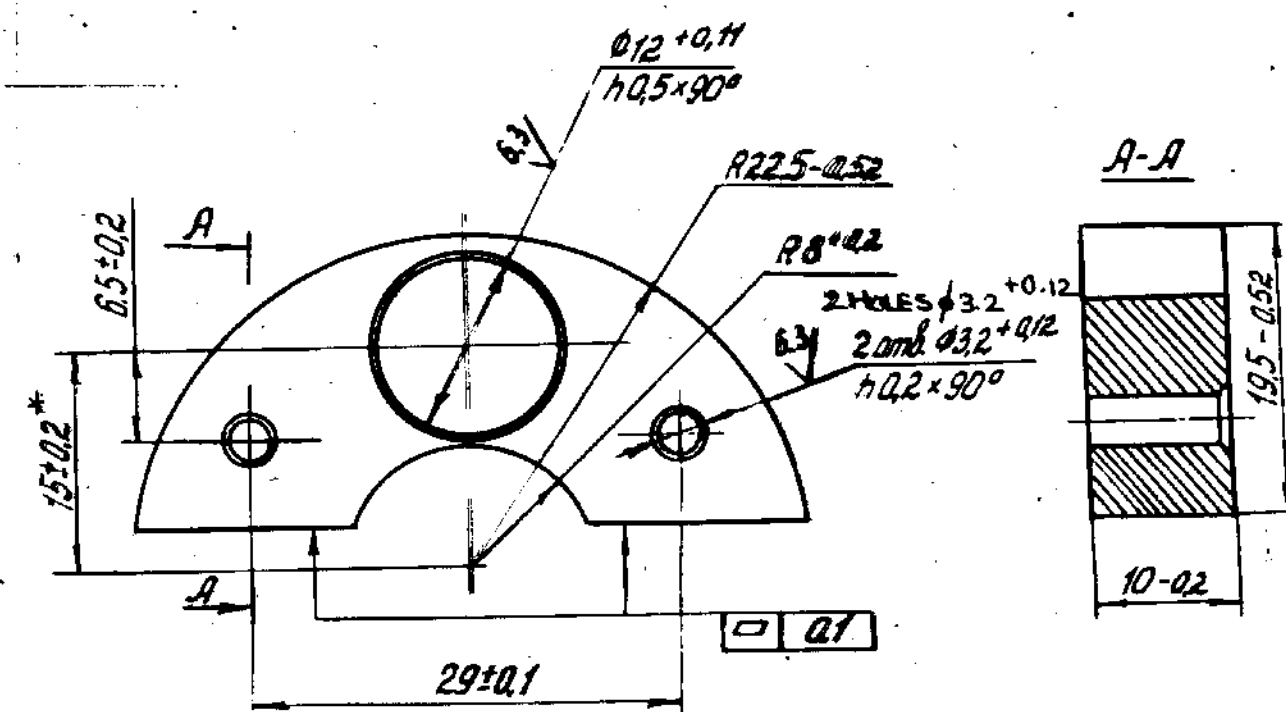
F-3
-52

MATERIAL :- BRONZE БР04-3. GOST-5017-74		
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF	ALL THREADS TO CONFORM TO SPECIFICATION	STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFR.
ORG. NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:-
SCALE :- 10:1		
DATE :- 23-7-97		
DRN. ABB.	WT :- (Kg)	8PM-588-001
TCD. ABB.		LEAD
CHD. KOUH		
APD. 017		
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 128/136		

000'039 WUP

(modn 15.02.02)

63/ (✓)



2* Размер объекту. Умолч.
* DIMENSION TO BE PROVIDED BY TOOL.

F-3
59

MATERIAL: IRON POWDER ПЖ4 М2 GOST-9849-74		STAMP OR ETCH, PART NO.	
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF		MANUFACTURERS NAME & YEAR OF MFR.	
ORG. NOT TO BE SCALED		USED ON: 5ПМ610-000-01С6	
SCALE: 2:1		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	
DATE: 23-7-97		8ПМ-630-000	
DRN: ABB	WT: (KG) 33g	POLE	
TCO: ABB			
CMO:			
APD:			
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 118/136			

80M 636 002

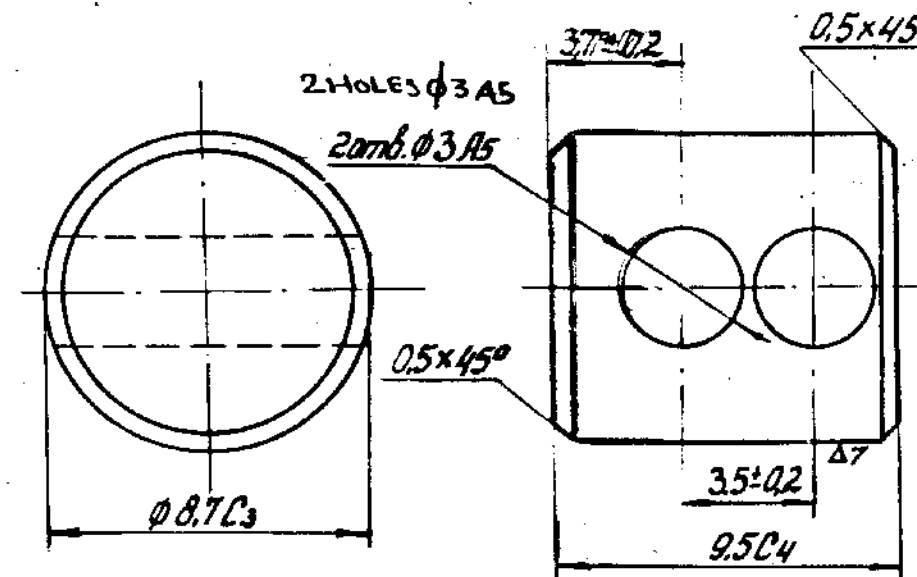
(подл. 22.06.57)

UNLESS OTHERWISE SPECIFIED ∇6

∇6 остальное

1. Расстояние от отверстий $\phi 3.45$ относительно оси цилиндра не должно превышать 0.2 мм.

1. MISALIGNMENT OF HOLES $\phi 3.45$ RELATIVE TO AXIS OF CYLINDER SHOULD NOT EXCEED 0.2 MM.



45415 KPA

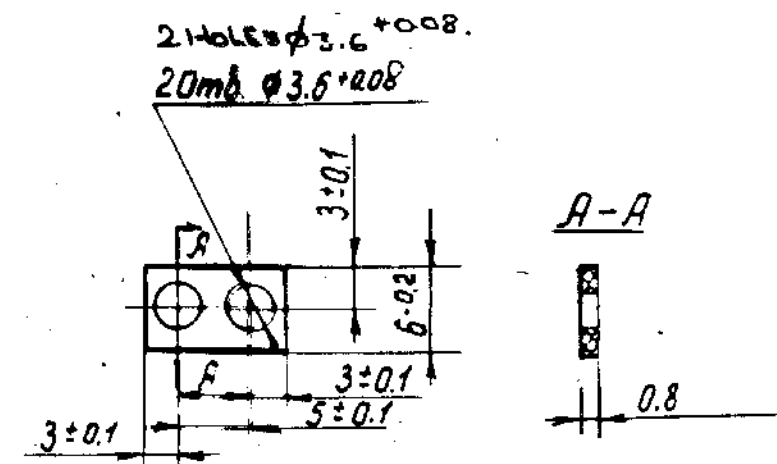
F-3

MATERIAL: -- ROD M-9 GOST-7417-79. 10-1-6-GOST-1050-74		STAMP OR ETCH, PART NO.	
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF		MANUFACTURERS NAME & YEAR OF MFR.	
DRG. NOT TO BE SCALED		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	
SCALE: -- 5:1		USED ON: -- 511M-147-005C6	
DATE: -- 23-7-97		80M-636-002	
DRN: 008	WT: -- (kg)	CORE	
TCO: 000	3.5g		
CHD:			
APD:			
CONTROLLER OF QUALITY ASSURANCE			
(INFANTRY COMBAT VEHICLES) 119/136			

2-1 110 092 WUB

(подпись 22.06.67)

TO BE IMPREGNATED WITH LACQUER ФЛ-582
ТУ 6-10-1236-77
Пропитать лаком ФЛ-582 ТУ 6-10-1236-77



DESIGNATION	MATERIAL	USED ON
8PM.760.011-1	FABRIC-BASED LAMINATED A-0.8 ГОСТ 2810-74	5PM 024 032.01.05
8PM.760.011-2	GLASS-CLOTH-LASE LAMINATE CT-1-0.8 ГОСТ 12652-74	

45415 K4

F-3
55

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	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:-
SCALE :- 2:1		
DATE :- 23-7-97.		
DRN.	WT :- (kg)	
TCD. <i>K001</i>	0.04g	
CHD.		
APD.		
8PM 760 011 1-2		
INSULATING GASKET		
CONTROLLER OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 99/136		

0-600044 WU8

1. DRAFTS SHOULD NOT EXCEED 15'

2. EBONITE, GRADE "Б", GOST 2748-77

(подпись 27.07.97.)

1. Уклоны не более 15'

2. Допускается эбонит марки "Б" ГОСТ 2748-77

③

DESIGNATION	MATERIAL	MASS	USED ON
8PM-770 009-1	03-010-02	0.00	5PM 024 032.0100
8PM-770 010-2	010-342-63	0.063	

MATERIAL: PHENOLIC PLASTIC GOST 5609-79

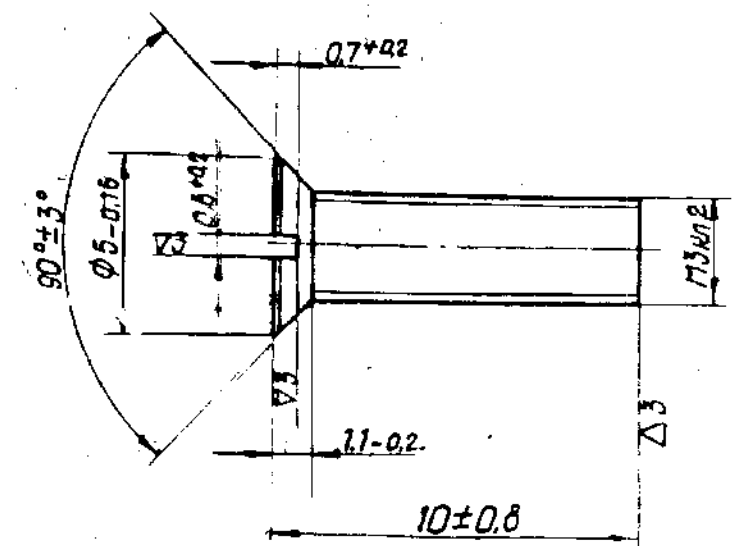
C2

MATERIAL		STAMP OR ETCH, PART NO.	
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF		MANUFACTURERS NAME & YEAR OF MFR.	
ORG. NOT TO BE SCALED		USED ON:-	
SCALE :- 5:1			
DATE :- 23-7-97.			
TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED			
DRW.	WT :- (Kg)	8PM 770 009-0	
TCO. <i>[Signature]</i>		INSULATING SLEEVE	
CHD. <i>[Signature]</i>			
APD. <i>[Signature]</i>			
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 100/136			

8PM 904 033

▽4(7)

0.0165



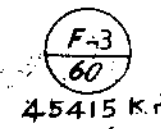
1 SHIF OF 0.2MM RELATIVE TO
AXIS OF THE ROD HEAD AND
SLOT IS ALLOWED.

1 Допускается смещение отно-
сительно оси стержня головки

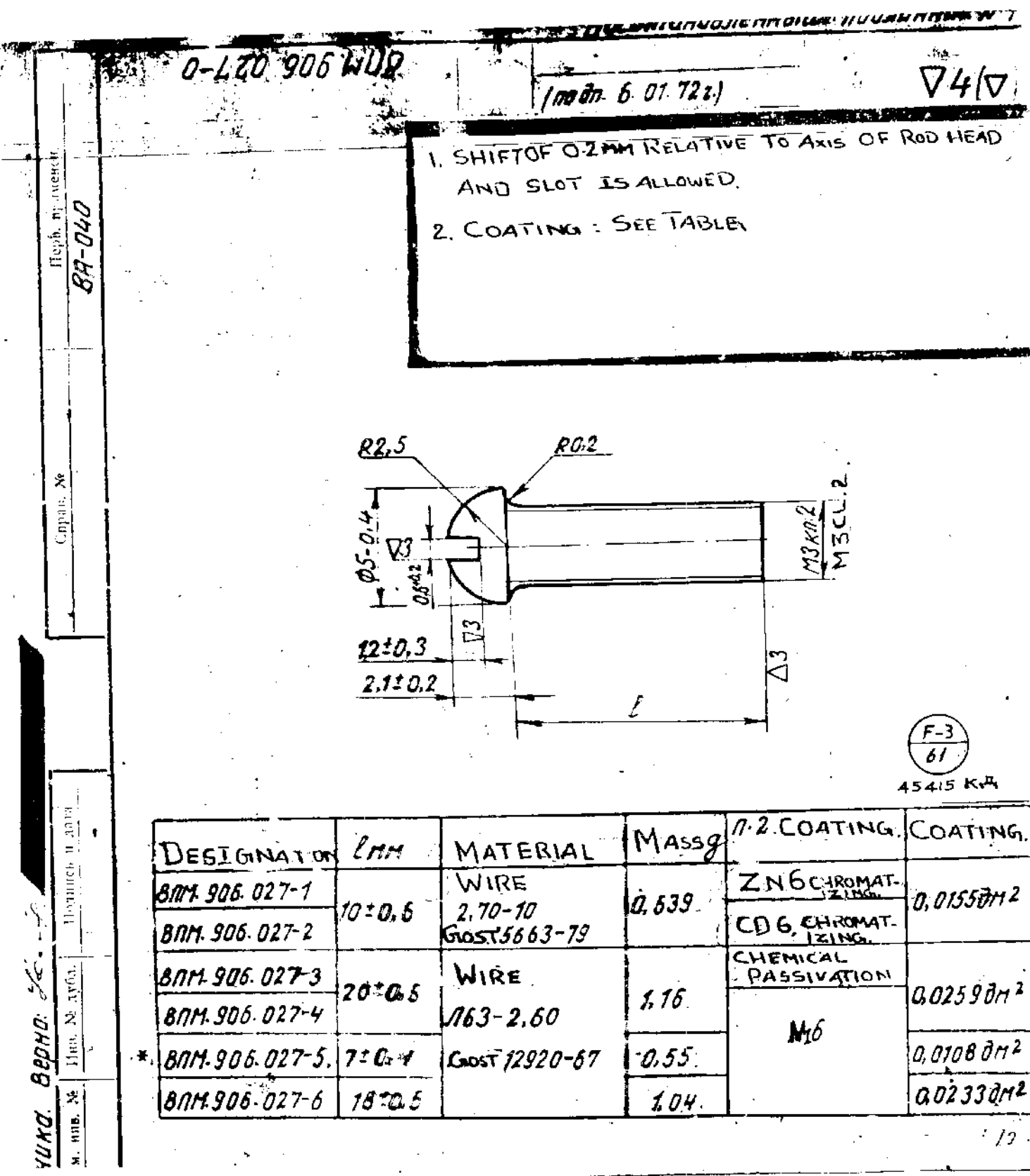
2 COATING N16

и шлица 0.2 мм

2 Покрытие Н.6



MATERIAL - BRASS 163 GOST 15527-70		
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	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:-
SCALE:- 5:1	8PM 904 033	
DATE:- 23-7-97	SCREW M3 X 10	
DRN.	WT:- (Kg) 0.53g	
TCD. <i>Kozh</i>		
CHD.		
APD. <i>[Signature]</i>		
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 86/136		



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 :— 5:1

TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED

USED ON:—

DATE :— 23-7-97

DRN.

WT :— (Kg)

BNM 906 027-0

SCREW

CONTRROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 87/136

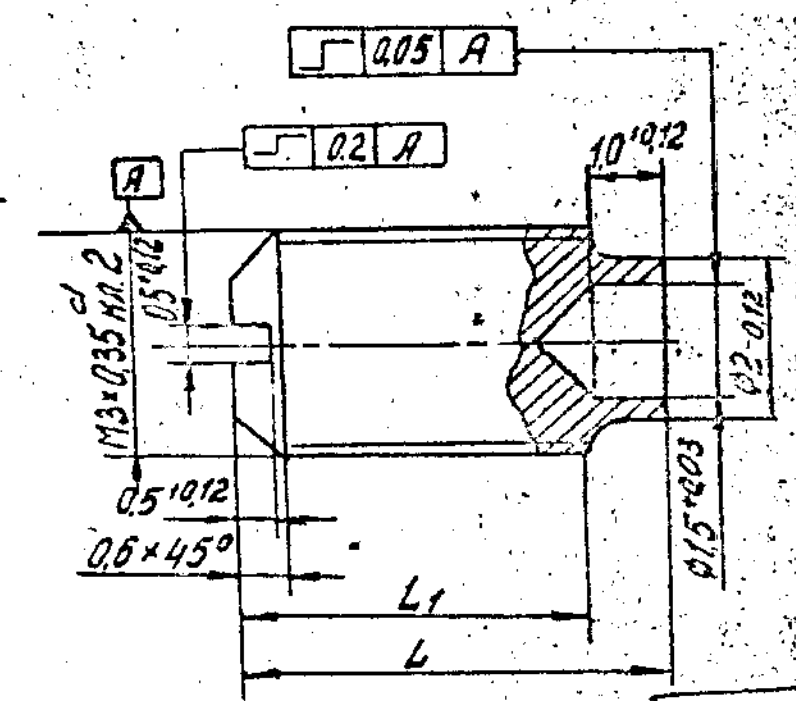
8.9-040

8.9-040

000206 WU9

30.12.752

▽6

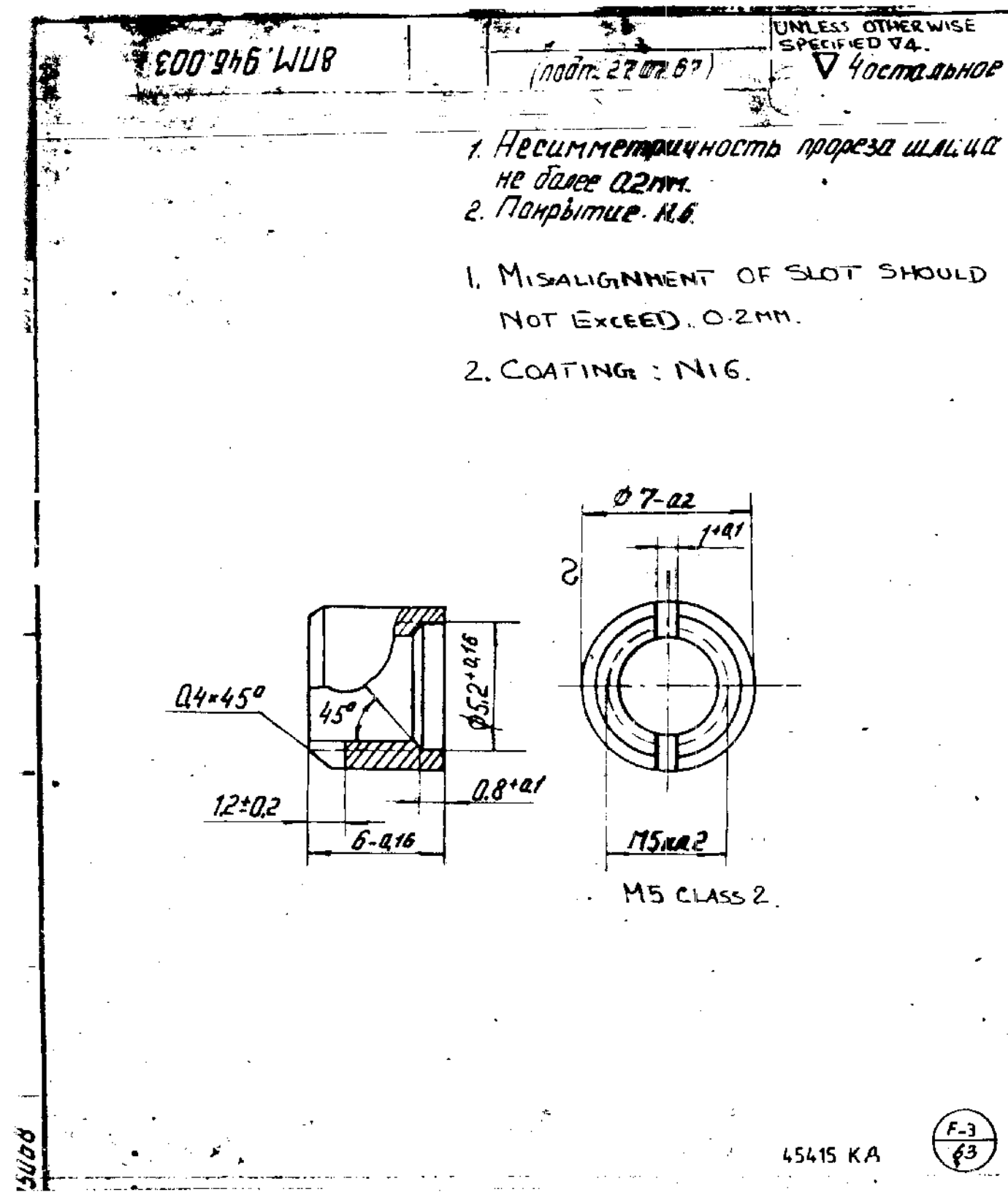


PART No.	L mm	L1 mm	MASS, g	COATING
0003H4CHH2				Покрывается
80M. 907.000	5-0.16	4-0.16	0.24	0-610
-01	6.5-0.16	5.5-0.2	0.256	Хим. пассивация
-02				Хим. пассивация
-03	7-0.2	6-0.2	0.288	Хим. пассивация
-04				Хим. пассивация
-05	8-0.2	7-0.2	0.350	Хим. пассивация
-06				Хим. пассивация
-07	11-0.24	10-0.2	0.46	Хим. пассивация
-08				Хим. пассивация
-09	5-0.16	4-0.16	0.24	Хим. пассивация

COATING: See Table
Покрывается см. таблицу

F-2
145

MATERIAL :- WIRE AKPH ПЗ 1C 59-1 GOST 1066-75		
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF	ALL THREADS TO CONFORM TO SPECIFICATION	STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFR.
ORG. NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:-
SCALE :- 10:1		
DATE :- 23-7-97		
DRN. H. K. H.	WT :- (Kg)	
ICD. H. K. H.		
CHD. H. K. H.		
APD. H. K. H.		
80M 907 000		
SCREW		
CONTROLLERATE OF QUALITY ASSURANCE 135/136 (INFANTRY COMBAT VEHICLES)		



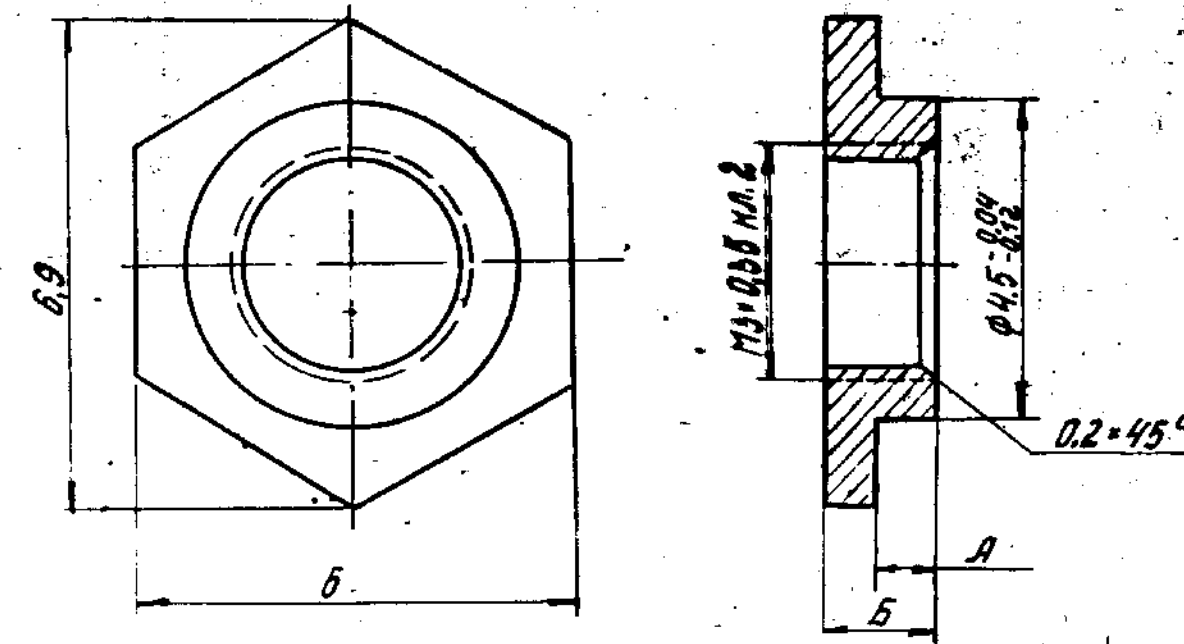
MATERIAL: -- ROD JC 59-1 m KP.Hm-7 GOST 2060-73		
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF	ALL THREADS TO CONFORM TO SPECIFICATION	STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFR.
ORG. NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON: 5ПМ.004.004
SCALE: -- 5:1		
DATE: -- 23-7-97		
DRN.		
TCD.		
CHD.		
APD.		
WT: -- (Kg) 0.8g 8ПМ 946 003 NUT M5		
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 116/136		

0-600 946 1118

110012 21.07.87

5

ПОКРЫТИЕ СТЕПАНОВИЧ.
COATING: SEE TABLE.



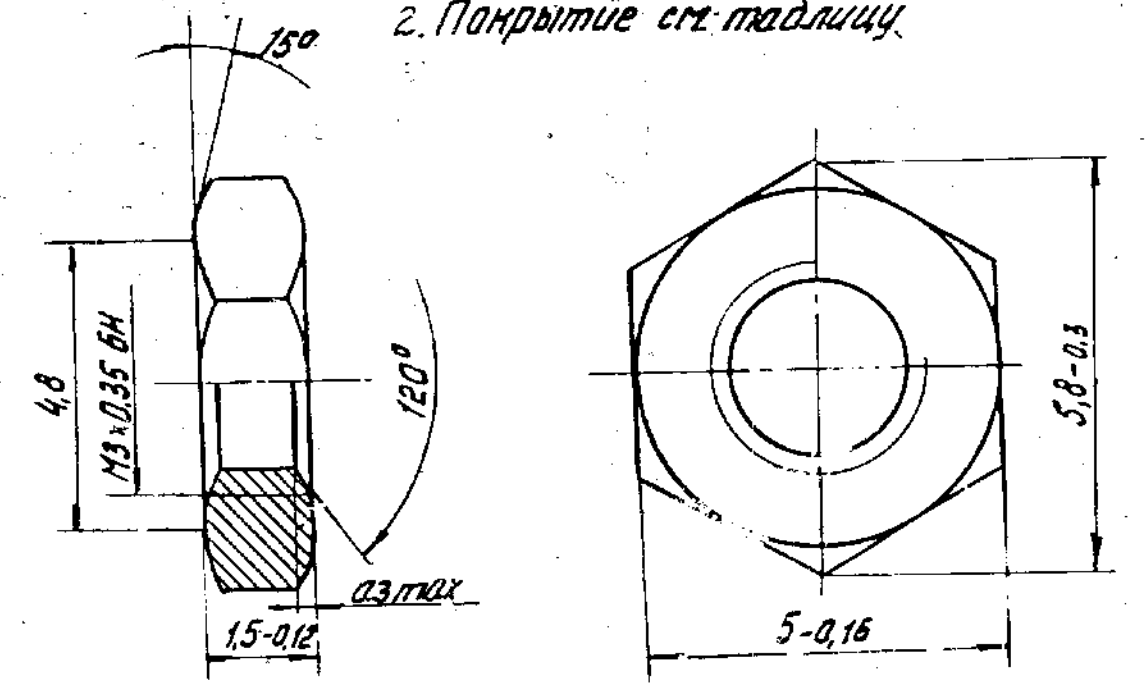
DESIGNATION	COATING	A	B	MASS
* 87M. 946. 009-1	CHEMICAL PASSIVATION	1.3-0.12	2-0.12	0.198
87M. 946. 009-2	Ni6			
87M. 946. 009-3	CHEMICAL PASSIVATION	1.7-0.12	2.4-0.12	0.21
87M. 946. 009-4	Ni6			
87M. 946. 009-5	CHEMICAL PASSIVATION	0.25-0.12	1.5-0.12	0.15
87M. 946. 009-6	Ni6			

С 2.4

45415 KPA

MATERIAL: - 800.10.59-1MUL HBT-6 GOST 2060-73		STAMP OR ETCH, PART NO.	
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF		MANUFACTURERS NAME & YEAR OF MFR.	
DRG. NOT TO BE SCALED		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	
SCALE: - 10:1		USED ON: - 57M 147.006-1	
DATE: - 23-7-97			
DRN.	WT: - (kg)	87M 946 009-0	
ICD. M4	SEE TABLE		
CHD.			
APD.			
NUT			
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 125/136			

1. PERMISSABLE DISPLACEMENT OF AXIS OF HOLE IS 0.3 MM.
2. COATING: SEE TABLE.
1. Допустимое смещение оси отверстия 0.3 мм.
2. Покрытие см. таблицу.



DESIGNATION	COATING	USED ON
8ПМ.946.036-1	CHEMICAL PASSIVATION	5П. 147 006-1
8ПМ.946.036-2	Ni6.	

4.5.415.1.2

F-3
60

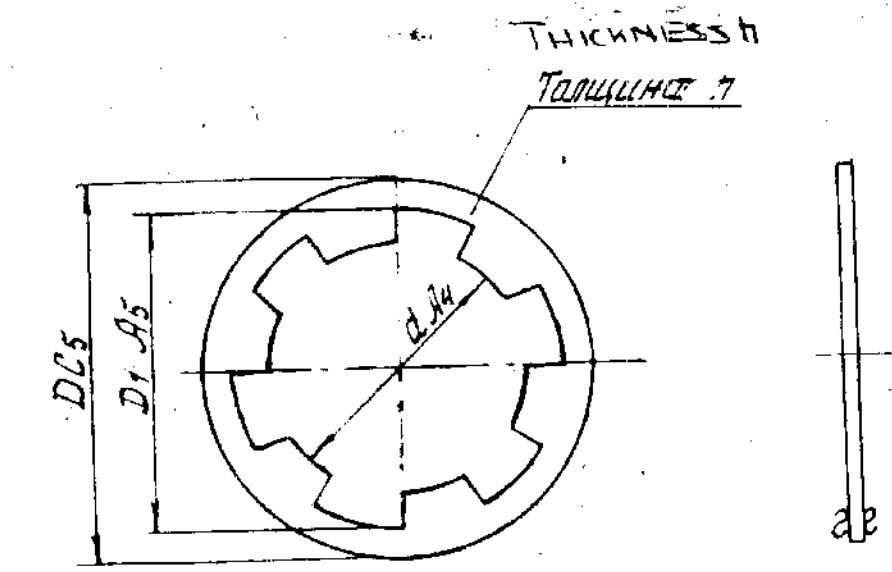
MATERIAL — BRASS AC 59-1. GOST-15527-70.
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF
DRG. NOT TO BE SCALED
SCALE :- 10:1
DATE :- 23-7-97
DRN *BBB*
TCD *BBB*
CHD *BBB*
APD *BBB*

ALL THREADS TO CONFORM TO SPECIFICATION
TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED
WT :- (Kg)
0.16g

STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFR.
USED ON:-
8ПМ 946-036-0
NUT
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 121/136

COATING: SEE TABLE.

покрытие см. таблицу.



DESIGNATION	DIMENSIONS MM				COATING	COATING DM ²	MASS g
	D	D ₁	d	h			
8ПМ.951.000-1	12	8,5	6,2	0,3-0,34	CHEMICAL PASSIVATION	0,017	0,115
8ПМ.951.000-2				0,3-0,34	SN-BI 6		
8ПМ.951.000-3	10,5	7,5	5,3	0,3-0,34	CHEMICAL PASSIVATION	0,013	0,12
8ПМ.951.000-4				0,3-0,34	SN-BI 9		
8ПМ.951.000-5	16,5	13,5	5,3	0,3-0,34	CHEMICAL PASSIVATION	0,03	0,102
8ПМ.951.000-6				0,3-0,34	SN-BI 9		
8ПМ.951.000-07	9,2	7,1	4,2	0,3-0,34	CHEMICAL PASSIVATION	0,011	0,1
8ПМ.951.000-08				0,3-0,34	SN-BI 9		

MATERIAL

BAND БР.КПЦЗ-1-0П-0-30-Н GOST 4748-70

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 :-

DATE :- 23-7-97

DRN

ICD

CHD

APD

TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED

USED ON:-

WT :- (Kg)

8ПМ 951 000-0

LOCK WASHER

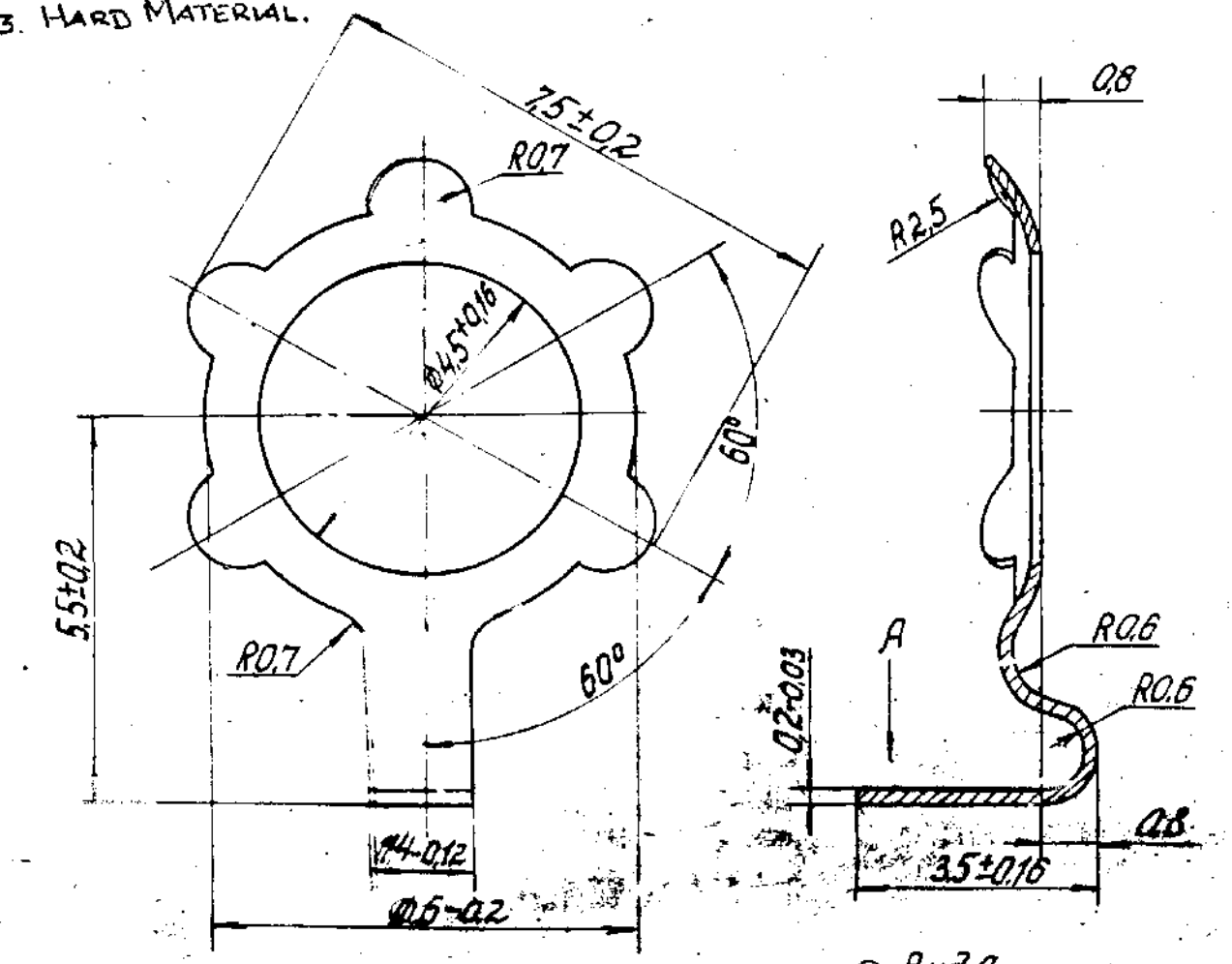
CONTROLLERATE OF QUALITY ASSURANCE

(INFANTRY COMBAT VEHICLES)

109/136

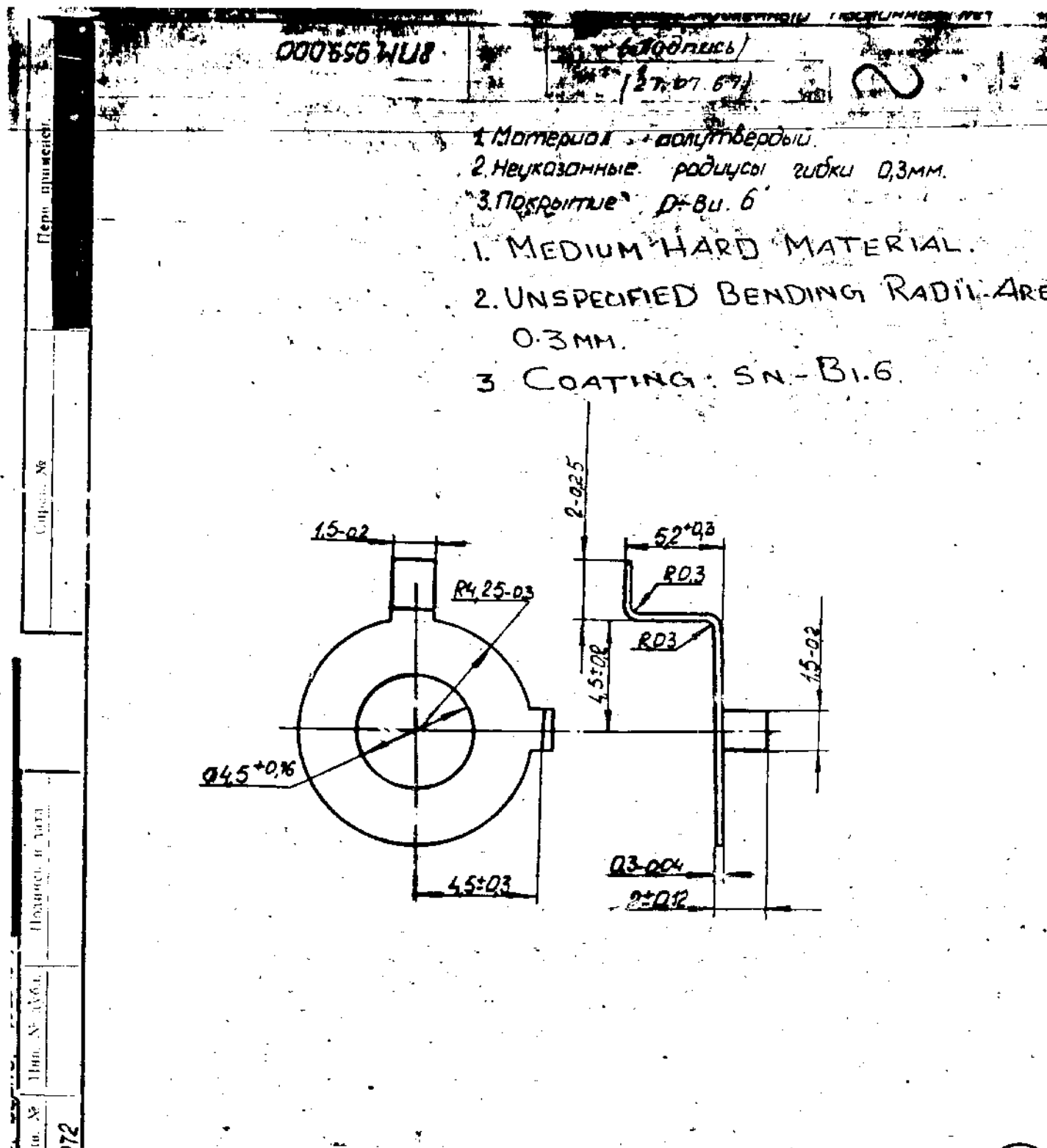
УИД: 00040: 044
5071

1. COATING: SEE TABLE. 1. Покрытие см. таблицы
2. DIMENSIONS WITH UNSPECIFIED TOLERANCES ARE AS PER 7th CLASS. 2. Размеры без допусков по Тгл. ОСТ 1010
3. HARD MATERIAL. 3. Материал твердый

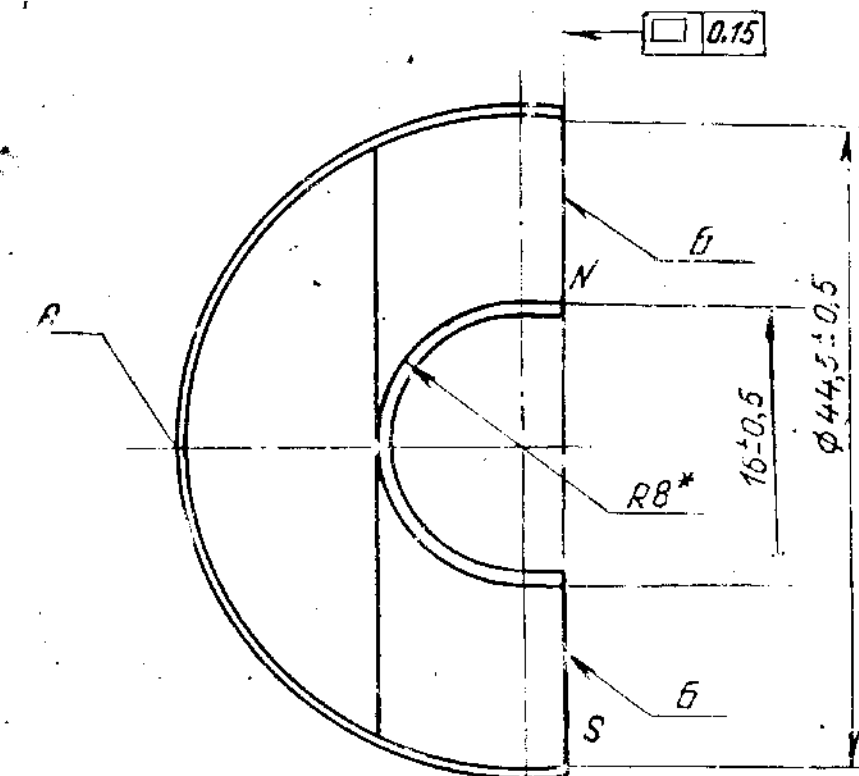
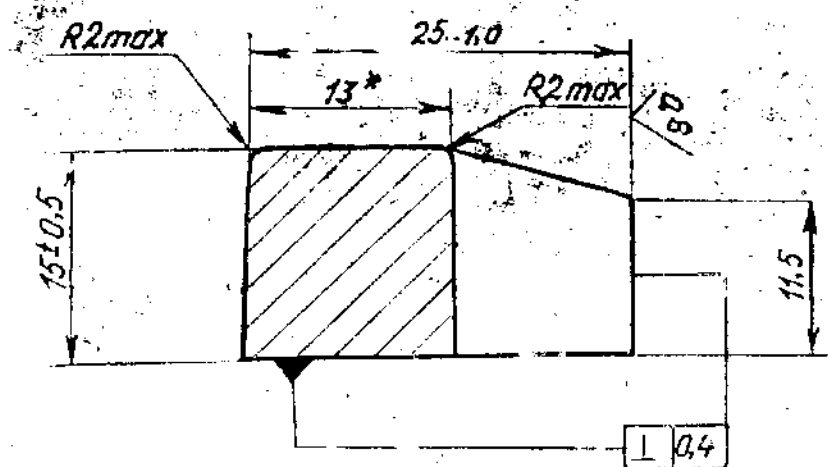


DESIGNATION	COATING
8PM.953.000-1	CHEMICAL PASSIVATION
8PM.953.000-2	SN-BI-4

MATERIAL :- BAND EPK MU3-1-T-0.30 GOST-4748-70		
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	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	USED ON:- 5PM-147-006-1
SCALE :- 10:1		
DATE :- 23-7-97		
DRN. <i>[Signature]</i>	WT :- (Kg) 0.04g	8PM-953-000-0
TCO. <i>[Signature]</i>		SPRING WASHER
CHD. <i>[Signature]</i>		
APD. <i>[Signature]</i>		
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)		126/136



MATERIAL: - BRASS A63 GOST-15527-70		STAMP OR ETCH, PART NO.	
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF		MANUFACTURERS NAME & YEAR OF MFR.	
ORG. NOT TO BE SCALED		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	
SCALE: - 5:1		USED ON: - 5ПМ-147-006-1	
DATE: - 23-7-97		8ПМ-959-000	
DRN. ABB	WT: - (kg)	WASHER	
TCO. ABB	0.1g		
CHD. <i>WAW</i>			
APD. <i>SP</i>			
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)			
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1. Magnetic parameters of magnet should be minimum;
 - a) Conventional residual induction B_r - 0.5 T.O;
 - b) Conventional coercive force for magnetization H_{C3} - 40KA/M
2. Draft should not exceed $1^\circ 30'$;
3. *Dimensions to be ensured by tool.
4. Flat on surface A is allowed.
5. Surface B should be free from:
 - a) Chippings of sharp edges of more than 1.5mm deep and more than 3mm long, and total length of not more 10mm.
 - b) Non-metallic inclusions and cavities of total area exceeding 8mm^2 on each surface B.
 - c) Non-ground surfaces of total area exceeding 8mm^2 on each of the surfaces B.
6. Remaining surfaces of the magnet should be perform:
 - a) under filling, scars, crack;
 - b) non-metallic inclusions and cavities total area exceeding 130mm^2 .
 - c) Mechanical damages of total area 20mm^2 .
7. Presence of waviness on unmachined surface of magnet is not a reason for rejection.
8. Container is to be marked with caution signs "care fragile!" "Keep dry!"

43415 K3 (P-3) 72

MATERIAL - ALLOY 10N0.4 GOST-17809-72		STAMP OR ETCH, PART NO. MANUFACTURERS NAME & YEAR OF MFR.	
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF		ALL THREADS TO CONFORM TO SPECIFICATION	
DRG NOT TO BE SCALED		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	
SCALE - 2:1		USED ON: 511M610-000-01C6	
DATE - 23-7-97			
DRN ABB.	WT - (Kg)	A Ж Е 012 0194	
ECO ABB.	0.070 Kg	PERMANENT MAGNET CAST	
CHD			
APD			
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES) 117/136			

SECRET / UNCLASSIFIED		NUMBER <u>TS-25-P/1-023-78</u>	
		SHEET <u>1</u> OF <u>3</u>	
SUPERSEDES			
I 1323			
<u>I N D E X :</u> B4/3848711 - 03- B1-401 KD ALBUM NO: 1 AMMETERS A -040, VOLTMETERS B-040 TECHNICAL SPECIFICATIONS TY 25-04.023-78B			
TRANSLATED	Prasanna		Ordnance Factory Project Hyderabad.
AUTHENTICATED	K Viatovitch		
TYPED	L. Devi	27/2-80	
EDITED	Srinivasan	18/3/80	APPROVER
	NAME	SIGN.	DATE

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		SHEET 3 OF 36

1.1323

Acceptability of manufacturer's drawings for full-scale production is confirmed yearly by the manufacturer.

As per the appearance, the devices should be in compliance with the specimen approved by the customer's representative, chief engineer and the TID head of the manufacturing factory.

Specimens should be approved when re-drawing up the Technical Specifications.

One set of specimens is with the customer's representative and another with the TID of the manufacturing factory.

1.2. Basic parameters and dimensions.

1.2.1 Ranges of measurement, value of division and method of connecting the devices should correspond to those specified in table - 1

Table - 1

Type of device	Designation of the device.	Ranges of measurement	Value of scale division	Method of connecting.
A-040	A-140	10-0-30 A	2 A	With shunt. UA -140
A-040	A-240	20-0-60 A	5 A	With shunt. UA -240
A-040	A-340	40-0-120 A	10 A	With shunt. UA -340
B-040	B-140	0-30 V	2 V	Directly
BA-040	BA-140	10-0-30 A	2 A	With shunt. UA -140
		0-30 B	2 V	Directly
BA-040	BA-240	20-0-60 A	5 A	With shunt UA -240
		0-30 V	2,5 V	Directly
BA-040	BA-340	40-0-120 A	10 A	With shunt UA -340
		0-30 V	2,5 V	Directly
BA-040	BA-180	60-0-180 A	15 A	With shunt UA -180
		0-30 V	2,5 V	Directly
BA-040	BA-440	100-0-300A	20 A	With shunt UA -440
		0-30 V	2 V	Directly
BA-040	BA-540	100-0-500A	50 A	With shunt UA -540
		0-30 V	2 V	Directly

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	1.3.5 Limit of permissible complementary error (variation in readings) caused by change in ambient temperature from ($20 \pm 5^{\circ}\text{C}$ (or from those defined on the device) to any temperature from minus 50 to plus 50°C per every 10°C of temperature change should be equal to: $\pm 0.7\%$ for voltmeters and voltmeter circuits of the voltameeters; $\pm 1.0\%$ for ammeters; $\pm 1.5\%$ for ammeters circuits of the voltmeters. 1.3.6 Limit/permissible complementary error of the devices (variation in readings) casued by the effect of external static magneatic field of an intensity of 400 A/m should be equal to $\pm 2\%$ 1.3.7 Limit of permissible complementary error (variation in readings) of devices due to installation of devices on ferromagnetic panel of a thickness of (3 ± 0.5) mm or due to near-by located similar device which was earlier at a distance of not less than 1 m. should be equal to $\pm 1\%$ 1.3.8 Time of dampening of the devices should not exceed 3 1.3.9 Electrical insulation resistance of electrical of the circuits of device and a plug (each one seperately) relative to the body should not be less than: a) 20 Megohm at a temperature of $20 \pm 5^{\circ}\text{C}$ and relative humidity from 30 to 80%; b) 5 Megohm - at a temperature of 50°C c) 1 Megohm at a relative humidity of $95 \pm 3\%$ and temperature of 20 to 35°C (as for tropical version: - at a temperature of $40 \pm 2^{\circ}\text{C}$ - for prolonged condition and at $55 \pm 2^{\circ}\text{C}$ - at for accelerated condition).	1-1323 11 OF 134 Contd...6/-

1.1323

- 1.2.2 Vertical position of the dial plate is the normal position of the devices.
- 1.2.3 Overall dimensions should not exceed :
ammeters and voltmeters- $\varnothing$ 60x79.5 mm;
Voltammeters - $\varnothing$ 60x93.5 mm
overall dimensions are given in appendix-2
- 1.2.4 Mass should not exceed 400 g.
- 1.3 Characteristics.
- 1.3.1 Limit of permissible basic error % of the range of the devices should be equal to $\pm 2\%$ of the full value of the measurement range- for device with zero mark on the edge of the measurement range; of the sum of absolute full values of the measurement range- for devices with zero mark within the measurement range.
- Error of the voltammeters when they operate as voltmeters is determined similarly as for devices with zero mark within the measurement range.
- 1.3.2 Limit of permissible hysteretic error of the devices, should be equal to a double value of permissible basic error limit.
- 1.3.3 Residual displacement of the device's indicator from the zero mark (non-return of the indicator to the zero mark) should be equal to the limit of permissible basic error.
- 1.3.4 Limit of permissible complementary error (variation in readings) of the devices, caused by their position change (inclination) from the normal position in any direction by 45° , should be equal to 0.5 mm (1.3%)

Contd....5/-

Electrical insulation: between all the insulated electrical circuits and the body of the device and the plug (each one separately) should withstand for a minute, the effect of a.c test voltage of 50 Hz, effective value of which is equal to 500 V.

Amimeters and ammeter circuits of the voltmeters should ^{with stand} a series of short-term over loads without damages in the following sequence: Current impacts, exceeding 2.5 times the rated one with duration upto 3 ms in every 3 min for an hour; ten impacts by rated current of reverse polarity, with a duration upto 1 min. Intervals between the impacts should not be less than 1 min.

Voltmeters and voltmeter circuits of the voltammeter should withstand without damages the following overloads: Impacts by voltage pulse of 70 V, with a duration upto 3 ms, after every 3 min for an hour;

ten connections under reverse polarity voltage of 30 V, with a duration upto 1 min. Intervals between the impacts should not be less than 1 min

The devices are considered to have passed the test: if displacements of the indicator from the mechanical zero mark is not exceed 0.4 mH; If after cooling and setting the indicator on the mechanical zero mark, the devices comply with the requirements of items 1.3.1, 1.3.4. 6

Tests of the devices are carried out without shunts.

Contd...7/-

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		1.1.2.3 1.3.13 The devices should be resistant to three successive cyclic effects (minus 50°C for 4 hours and plus 65°C for 4 hours) 1.3.14 The devices should be cold resistant to a temperature of mins 50° ± 3°c . 1.3.15 The devices should be service able in conditions of possible formation of frost and dew. 1.3.16 The devices should be heat resistant to a temperature of 50 ± 3°C . 1.3.17 The devices should be moisture resistant to a relative humidity upto 98% at a temperature upto 35°C. 1.3.18 The devices should be serviceable and preserve it s parameters during the effect of reduced ambient air pressure down to 61.2 kPa (450 mm Hg) and also after the effect, of reduced ambient air pressure down to 22.6 kpa (170 mm Hg). Contd...8/-

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1.3.20 The devices should be vibration resistant to the effect of vibration loads in compliance with the norms indicated in *Table 3*.

Table- 3

Sub-ranges of frequencies Hz	Amplitude value		
	Acceleration, g	Displacement, mm	
From 10 to 20	1.0-2.0	2.0	
Above 20 to 30	2.0-4.0	1.2	
Above 30 to 40	4.0	0.6	
Above 40 to 50	4.0-6.0		
Above 50 to 60	6.0		
Above 60 to 80			
Above 80 to 100			
Above 1000 to 120	Corresponds to the acceleration.		

Remark: Checking is done by one of the methods: as per acceleration or displacement.
 In this case one-sided deflection of the indicator should not exceed 1.5 mm, and oscillation - ± 1.5 mm along scale arc.

1.3.21 The devices should be vibration strong during the effect of vibration load in compliance with the norms indicated in table 4.

TABLE -4

Frequency, Hz	Amplitude value		Duration of the tests, h			
	Acceleration, g	Displacement, mm	Periodical	Type		
10	1.0	2.0	3.0	6.0		
20	2.0	1.0	9.0	18.0		
30	3.0	0.8	6.0	12.0		
40	4.0	0.6	4.5	9.0		
50		0.4	1.5	3.0		
60		0.3				
80		Corresponds to the acceleration				
100						
120						

Contd...9/-

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Remark: Checking is done by one of the methods:

As per acceleration or displacement .
After testing the devices, the basic error should be in compliance with the requirements of item 1.3.1 and the effect of inclination should not exceed ± 0.75 mm.

1.3.22 Devices should be impact resistant during the effect of impact loads with an acceleration of 15 g at pulse duration of 10 to 15 ms and impact frequency of not more than 80 per minute.

Number of impacts in each of the three mutually perpendicular planes are not less than 20

In this case one sided deflection of the indicator should not exceed 2,5 mm and oscillation - $\pm 2,5$ mm along the scale arc.

1.3.23 The devices should withstand 2000 impacts at an acceleration of 15 g and pulse duration of 10 to 15 ms with a frequency upto 100 impacts per minute.

After testing the devices, the basic error should meet the requirements of item 1.3.1 and the inclination effect should not exceed ± 0.75 mm .

1.3.24 The devices should not have design elements and assembly units with resonance frequency upto 40 Hz as per the norms in table 5

Frequency, Hz.	Amplitude value	
	Acceleration g,	Displacement, mm
From 5 to 10	0,05-0,30	
Above 10 to 20	0,30-1,00	0,5-0,8
Above 20 to 25	1,00-2,00	
Above 25 to 40	2,0	0,3

Contd...10/-

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Remark: Checking is done by one of the methods: as per acceleration or displacement.		
1.3.25	The devices should be dust proof from all sides.	
1.3.26	The devices should be splash-proof from the glass side	
1.3.27	Marks, dialplate, figures indicator which are coated with luminous substance of temporary action should be legible at a distance of 0.6 mm at an illuminance of 60 to 70 lx at day time and 5 to 7 lx at night or when exposed in the dark with ultraviolet rays. The composition of the luminous substance should ensure durability of the coated signs, and there should not be peelings, cracks and drips. As per the customers request the devices can have the following design: Background of the dial plate- luminous substance of temporary action, pointer, figures, marks, signs and inscriptions on the dialplate are of black colour.	
1.3.29	Zero adjuster should move the indicator to each side from the mechanical zero mark by a value of not less than 1.2 mm In this case a ratio of indicator displacements in each side from the zero mark should not exceed 2:1	
1.3.30	The change-over switch of the voltmeter should work without jamming. The ammeter circuit should not open when static load is less than 200 g. during which there should not be simultaneous closing of the ammeter and voltmeter circuits of the device.	
1.3.31	Wires connecting the device with the electric circuit and shunt should be calibrated, of the rated section of 0.75 mm².	
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1.3.32	Parts of the device and the plug should not have traces of corrosion and peeling of coatings after all types of tests.	
1.4	<u>Set</u>	
1.4.1	The delivery set should have:	
	<u>Set I</u>	
	Measuring instrument	1 piece
	Plug with wires	1 piece
	Fastening ring	1 piece
	Certificate	1 copy
1.4.2	Ammeters and voltmeters should come complete with external shunts as per TY 25-04-235-75.	
1.4.3	Additional delivery of separate components of the device is determined by the agreement between the customer and the manufacturer.	
1.4.4	The delivery set of devices for export should be in compliance with the requirements of the present Technical Specifications, if there are no special indications in the zakaz- nariad.	
1.5	<u>Marking</u>	
	The devices should be marked as per the approved drawings of the manufacturing factory.	
1.6	<u>Packing</u>	
1.6.1	The devices should be packed, and the package should be marked as per the drawings of the manufacturing factory.	
1.6.3	Technical and shipping documents for export should be in the Russian language and (or) in the language specified in the zakaz- nariad. (Production order)	
Contd...12/-		

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2.5 The scope and sequence of all types of tests are specified in table 6					
Table-6					
Description of the tests and checks	Items numbers		Types of tests		
	Technical requirements	Tests methods	Acceptance	Periodic	Types
1. External inspection	2 1.1; 1.2.1; 1.2.3; 1.4-1.6	3 3.1	4 +	5 +	6 +
2. Checking of the zero adjuster operation	1.3.29	3.2	+	+	+
3. Checking of the change-over switch operation	1.3.30	3.3	+	+	+
4. Checking of basic error	1.3.1	3.4 3.5	+	+	+
5. Checking of hysteresis error	1.3.2	3.6	+	+	+
6. Checking of residual displacement of the indicator from zero mark.	1.3.3	3.7	+	+	+
7. Checking of the inclination effect	1.3.4	3.8	+	+	+
8. Checking of the glow intensity	1.3.27	3.9	+	+	+
9. Checking of the electrical insulation resistance	1.3.9a	3.10	+	+	+
10. Checking of the electrical insulation strength	1.3.10	3.11	+	+	+
11. Checking of the effect of external magnetic field	1.3.6	3.12 3.13	-	+	+
12. Checking of the effect of ferrimagnetic material and a similar					

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2. ACCEPTANCE RULES

2.1 Acceptance rules and tests of devices are determined in compliance with the requirements of the Technical Specifications.

2.2 The following types of tests are carried out to check if the devices meet the requirements of the present Technical Specifications:
Acceptance tests;
Periodic tests;
Type tests.

2.3 During the acceptance tests, the devices for export are checked for compliance with the requirements of the Technical Specifications. In this case the limit of the basic error, % of the range and inclination effect should not exceed 0.75 values specified in the present Technical Specifications.

2.4 During the acceptance tests, before packing, all devices for export should be accepted by the TID representative responsible for inspection and quality of the export product, and also by the export committee, appointed by the order of the director of the manufacturing factory.

After the export committee accepts the devices, they are presented for checking and acceptance by the customer's representative.

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1	2	3	4	5	6
25. Checking of impact strength	1.3.23	3.25	-	+	+
26. Checking for the absence of resonance of the design elements	1.3.24	3.28	-	-	+
27. Checking of dust-proof capacity	1.3.25	3.29	-	+	+
28. Checking of the splash proof capacity	1.3.26	3.30	-	+	+
29. Checking of the resistance of connecting wires	1.3.31	3.31	-	+	+
30. Checking of the mass	1.2.4	3.32	-	+	+
31. Checking for durability and quality of coating and for compliance of the design	1.3.32 1.1	3.33	-	+	+

Remark: The sign "+" means that the test is to be carried out.
The sign "-" means that the test is not carried out.

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2.7	The acceptance tests are carried out by the TID of the manufacturing factory while delivering the devices from production. 100% of all the delivered devices are subjected to these tests. 20% of the devices from a batch are subjected to test during acceptance of by the customer's representative The devices are submitted for acceptance in batches of not less than 10 and not more than 100 sets in each batch. The specified quantity in individual cases can be changed on agreement with the customer's representative. After passing the acceptance tests, the devices should have the TID stamp. During the acceptance tests, if the devices do not meet even one of the requirements of items, enumerated in table 6 and item 2.3, then those devices are considered not to have passed the tests and are returned to the shop for identifying the causes for rejection and eliminating it, then they are again presented to the TID, export committee (in case of export version) and to the customer's representative. Re-test are carried out in full scope of the acceptance tests and their results are final.	
2.8	Periodic tests are carried out by the TID of the manufacturing factory along with customer's representative twice a year to confirm if the delivered devices meet the specified requirements. Their dates are determined by the schedule approved by the customer's representative and the chief engineer of the manufacturing factory.	Contd... 17/- 22/136

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Three devices from the produced batch accepted by the TID and the customer's representative are subjected to these tests. During the periodical test, if the devices do not meet the requirements of even one of the items, enumerated in Table 6 and 7, then acceptance and shipment of the devices are stopped until the reasons of the rejection and defects in production and process stock are eliminated. After eliminating the detected defects, re-tests are carried out on a double quantity of specimens in full scope or, as per the agreement with the customer's representative on the items of table 6. non-compliance. During the re-tests if the devices do not meet the requirements even on one of the items of table 6 and 7, then the tests should be stopped. The possibility of further production, acceptance and carrying out periodic tests are decided by the management of the manufacturing factory together with the head of the customer's representation. Acceptance and shipment of devices are resumed if positive results of the re-tests are obtained. 2.9 Type tests are carried out by the manufacturing factory with the customer's representative participation in all cases, when changes in design, material or manufacturing process are introduced, affecting the metrological and technical characteristics or the serviceability of the devices. Not less than three devices are subjected to these tests. During the type tests, if the devices do not meet the requirements of even one of the items, enumerated in table 6 and 7, then the test is stopped and changes are not introduced. 23/126		

Devices, manufactured with regard to changes, are subjected to disassembly.

On agreement with the customers representative, type tests are permitted to be carried out as per those items of table 6 and 7 on which the introduced changes in design, materials and production process of the devices can effect.

2.10

Test equipment used for testing the devices should ensure conduct of these tests as per the requirement of the Technical specifications and should have certificate of the laboratory of standards with the dates of their checks. Standard devices for determining basic error should be checked at least once a month other devices and installations should be checked regularly in compliance the with the set schedule of the checks.

List of equipments, necessary for checking the devices are given in appendix-3

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3. TESTS METHODS 3.1 Requirements as per items 1.1; 1.2.1; 1.2.3; 1.4 to 1.6 of the present Technical Specifications should be checked by external inspection by comparing with the approved specimen and by means of random measurement of basic dimensions with the universal measuring tool with an error of not more than ± 0.1 mm. In this case the following are checked: absence of defects on the body and other parts deteriorating the external appearance; absence of foreign particles inside the device; correctness of marking and sealing; compliance with of the basic overall dimensions with the drawing. The given inspection is carried out after the preliminary five -minute vibration with an acceleration of 0.3 to 1.0g. During the vibration, the devices should be placed with the glass down wards. 3.2 Operation of the zero adjuster (item 1.3.20) is checked by rotating it with a screw driver. 3.3 Operation of the change over switch (item 1.3.20) is checked by pressing the button of the change over switch followed by releasing it. Change of positions of the button should be smooth without jumps and jamming. The absence of simultaneous closing of ammeter and voltmeter circuits and also determination of load on change change over switch when opening the ammeter circuit are checked simultaneously. For this, the device is connected into the electric circuits, and the pointer is set on an arbitrary scale contd. 2/-		

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mark. Then the button is pressed. Pressing force is checked by the dynamometer or weight the change over switch is considered to be suitable if there are no simultaneous readings on the test devices connected to different circuits. 3.4 Checking of basic error, hysteresis error, the influence of various factors, and also checking of the devices after the test for overload are carried out by comparing the readings of the devices, under test with the readings of the standard devices with accuracy rating of not less than 0,5 . The maximum (as per the absolute value) difference between the readings of the device and the actual value of the measurable quantity, received from. The measurement results at gradual increase and decrease of measurable quantity is the basic error of the device under test (item 1.3.1) 3.5 While checking the basic error, hysteresis error and non-return of the pointer to the mechanical zero mark, the following conditions should be observed: The devices are checked in an operating condition (item 1.2.2) differing from the vertical by not more than $\pm 2^\circ$; the ambient temperature can differ from the specified on the device by not more than $\pm 5^\circ\text{C}$. If the there is no indication, the temperature should be $20^\circ \pm 5^\circ\text{C}$; Atmospheric pressure 96 to 103 kpa (720 to 780 mm Hg); relative humidity 30 to 80%; constant operating vibration with an acceleration of 0.1 to 0.3 g. and frequency of 40 to 50 Hz or buzzing; Before taking the readings, the indicator of the device should be adjusted on zero scale mark by zero adjuster; Contd...21/- 26/136		

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approximately on the geometric centre of the scale; for devices with double-sided scale- while switching on the measurable quantity, conforming to the indicator deflection approximately on half the length of the scale. Time of dampening is determined from the moment of change of the measurable quantity until the moment when difference between device readings and its steady readings does not exceed 1% of the length of the scale.		
3.17	Test of devices for short-time overload (item 1.3.1)) is carried out by observing conditions of item 3.5 in an operating position. Test is carried out in practically a noninductive circuit and without shunts.	
3.19	When checking for resistance to cyclic change of temperature (item 1.3.13) the device, in a switched- off condition, is subjected to the effect of three temperature cycles, following in succession. Each cycle is carried out in the following sequence: the device is placed in the cold chamber where the temperature is set to minus $50 \pm 3^{\circ}\text{C}$ before hand and is held at that temperature for 4 hours. From the cold chamber, the devices are shifted over to the heat chamber with the temperature of $65 \pm 3^{\circ}\text{C}$ and are held at that temperature for 4 hours. The holding period in the heat and cold chambers is calculated from the moment of obtaining the given temperature in the chamber, after loading the devices. The shifting time of the devices from the chamber to another should not exceed 5 min. On completion of the last cycle, the devices are removed from the heat chamber and are held under normal enviromental conditions for not less than 4 hours	
Contd..25/- 30/136		

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3.20	Then the devices are subjected visual inspection and checking for compliance with items 1.3.1; 1.3.4. When checking for cold resistance (item 1.3.14) the devices, in a switched-off condition, are held in the cold chamber at a temperature of minus $50 \pm 5^{\circ}\text{C}$ for 4 hours. After holding in the specified conditions the devices are checked as per item 1.3.5. Checking should be carried out on any three scale marks with the exception of hysteretic error and other effects, but for the one being checked, by observing conditions of item 3.5. Checking may be done directly inside the chamber or outside. If error is checked outside the chamber, the devices are held in the chamber in heat insulated containers. In that case, temperature of the fast device to be tested should not be above minus 47°C. On completion of the test, the devices are held under normal conditions for not less than 4 hours, after which they are checked as per items 1.3.4, 1.3.1 When testing for resistance to the effect of frost and dew (item 1.3.15). the devices are placed in the cold chamber with a temperature of minus $20 \pm 5^{\circ}\text{C}$ and are held there for 2 hours in a switched- off condition. Then the devices are removed from the chamber, placed in normal climatic conditions and are switched- on. The devices are kept in a switched- on condition for 3 hours. In this case, immediately after switching on and after every 60 min the devices are checked for serviceability in conditions of frost and dew formation. The devices are considered to have passed the test, if, during the stay in normal climatic conditions, after removing from the cold chamber, they are serviceable and 3 hours after being held in normal climatic conditions, the basic error of the devices is as per item 1.3.1	
	Contd. 26/- 34/136	

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T. 13.13		
3.22.	When checking for heat resistance (item 1.3.16) the devices are held in the heat chamber at a temperature of $50 \pm 3^{\circ}\text{C}$ in a switched-on condition for 4 hours. After holding in the specified conditions, the devices are checked as per item 1.3.5. Checking should be done on any three scale marks with exception of hysteretic error and all effects, but for the one being checked by observing item 3.5. Checking may be done directly inside the chamber and also outside. In the latter case, the temperature of the last device to be tested should not be lower than $+ 47^{\circ}\text{C}$. Not later than 3 min after removing the devices from the chamber, they are to be checked for insulation resistance (item 1.5.9) as per the method in item 3.10. On completion of the test, the devices are held in normal climatic conditions for not less than 4 hours, after which they are checked as per items 1.3.11 and 1.3.4.	
3.23	Checking for resistance to moisture (item 1.3.17) is done in the heat and humidity chamber at a relative air humidity of $95 \pm 3\%$ and temperature of 20 to 35°C. The devices in a switched- off condition are tested in this conditions for 5 days. Not later than 3 min. after removing the devices from the chamber, they are to be checked for electrical insulation resistance (item 1.3.9c) as per the method of item 3.10.	
Contd....27/-		
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	T. 1322 After holding in normal climatic conditions for not less than 6 hours, the devices are checked for compliance with item 1.3.1, 1.3.9a, 1.3.10 and for the absence of corrosion. 3.24 Test for the effect of reduced atmospheric pressure (item 1.3.18) is carried out at normal temperature, The devices are connected in to the circuit and are placed in a chamber, where the pressure is 460 Mm Hg. At this pressure the pointer should move along the scale when the device is energized. After that the pressure in the chamber is lowered to 170 mm HG. On attaining that pressure, it is slowly increased upto normal, after which the devices are removed from the chamber, they are examined and checked as per item 1.3.1. Duration of the tests is determined by the time required for checking the above mentioned parameters of the devices or the time for attaining the given condition. 3.25 Test for the effect of vibration and impact loads (item 1.3.20 to 1.3.23) should be carried out on vibration and impact stands. The devices should be fastened on panel in an operating position. The devices should be tested in a switched- on condition when applying voltage which changes, within the devices scale. Test should be carried out in three mutually perpendicular directions ^{relative} to the devices. The values of the testing modes should be maintained in fastening places of the devices to the panel, fastened on the stand platform with an error not exceeding (during direct measurement): as per 33/186.	

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T-1323 amplitude of vibration displacement $\pm 15\%$; as per vibration frequency of ± 2 Hz. at a frequency upto 50 Hz and ± 5 Hz. at a frequency above 50 Hz. as per acceleration (of vibration or impact) $\pm 20\%$. Remark. The test as permitted ^{is} to be carried out on a single- component stands. Acceleration effect created by the single- component stand should be in turns for 1/3 of the total test period) directed along each of the three mutuall perpendicular axes of the device. 3.26 Test for vibration resistance (item 1.3 20) is to be carried out as per the requirements of item 3.25. Test is carried out under gradual change of frequency in each sub-frequency range in one direction from lower frequency to upper or conversely, during which the devices are checked for the one-sided drift of the pointer and its oscillation along the arc. The passing time of each sub-range should be sufficient for determining the value of oscillation and drift of the pointer, but not less than 2 mins. 3.27 Test for impact resistance (item 1.3.22) is carried out as per the requirements of item 3.25 for a period necessary for determining the value of the pointer oscillation. 3.28 Test for absence of resonance (item 1.3.24) is carried out after inspecting the devices visually. The devices in a non-operating condition, in a special case, enabling to observe the torque springs are fastened to the vibration stand platform. Contd....29/2 34/134		

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1.1323		
Test is carried out in three mutually perpendicular directions in turns as per the norms in Table 5 at smooth change of vibration frequency in each sub-range. The passing time of each sub-range should be sufficient for revealing the resonance, but not less than 2 min. The device is considered to have passed the test, if there is no resonance of design elements and assembly units in the range of the specified frequencies . Test is carried out on separate specimens.		
* 3.29	Testing of devices for dust proofness (item 1.3.25) is carried out in the following manner: The devices, in an operating condition, is placed in a cubical box (edge length of 0.9 m), containing 4 kg of fine cement powder, which is stirred every 15 min with a jet of compressed air. Duration of the test is 5 hours. After the test, the device is dismantled and checked. There should not be cement powder inside the device.	
3.30	Devices are tested for splash proofness (item 1.3.26) under the action of artificial rain with an intensity of (5 + 2) mm/ min, at an angle of 45° towards the glass of the device for 5 min. The temperature of water in this case should be lower than the device temperature by 5 to 10°C. The devices are installed in an operating condition and are turned their glass facing the jet, and their back sides are protected from water splashes. After the test, the devices are wiped and opened in order to check the absence of water inside the device. Contd...30/- 35/121	

T.13.22

3-34

- 3.31 Resistance of connecting wires (item 1.3.3d) is measured by a double bridge or other method, ensuring five-fold accuracy margin with reference to the permissible deviation.

- 3.32 Mass is determined (item 1.2.4) by weighing on counter
balance with an accuracy of ± 5 g.

- 3.33 After conducting all the tests, the devices are opened up and checked as per items 1.1, 1.3.32 by random inspecting the quality of electroplating and paint coating for compliance with the standards and drawings; as well as geometric dimensions of the most important parts and assembly units.

Parts and assembly units, subjected to check, are checked in each case by the customers representative.

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T. 1323		
4. <u>TRANSPORTATION AND STORAGE</u>		
4.1	The devices can be transported by any means of transportation (in case of air transportation in airtight compartments) to any distance in shipping and market containers at a temperature from minus 50 to plus 50°C	
4.2	The devices should be stored at a temperature from 1 to 40°C and relative humidity upto 80%.	
5. <u>SUPPLIER'S GUARANTEE</u>		
5.3	The manufacturing factory guarantees the quality of the devices, supplied for export, and their compliance with the requirements of the present Technical Specifications for 12 months from the date they have crossed the USSR border, if the customer observes the rules, for mounting and putting into operation in compliance with the technical description operating instruction.	
The manufacturing factory is responsible for hidden defects of the devices irrespective of the guarantee period.		
Contd..32		
37/121		

T. 1323

Appendix-1

L I S T
OF
DOCUMENTS REFERRED TO IN TECHNICAL SPECIFICATIONS.

TY 25-04-235-75

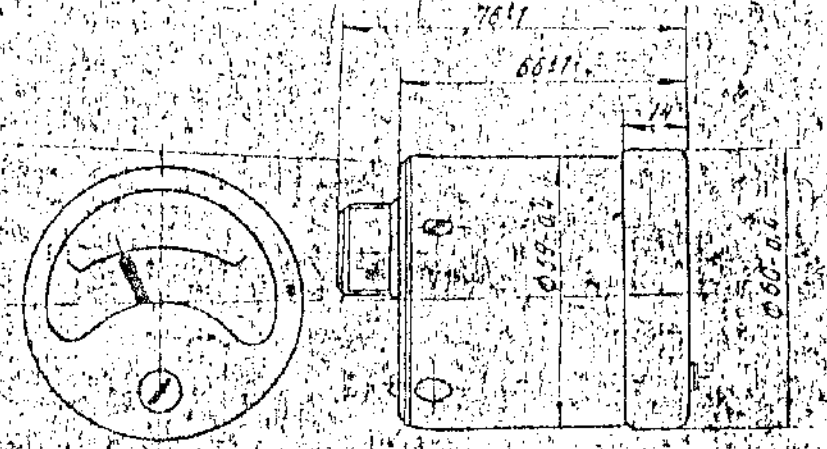
Shunts of types : WLA-140, WLA-240,
WLA-340, WLA-180,
WLA-440, WLA-540

Contd...33/-

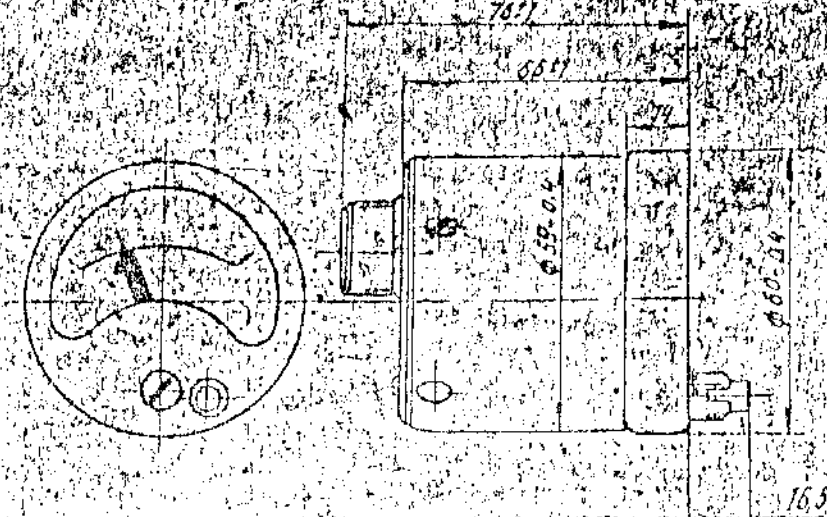
APPENDIX 2

7-25-04-03-78E
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Overall dimensions of the
ammeter B-040000 the
Vollmer B-040



Overall dimensions
of the Vollmer B-040



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Appendix- 3

L I S T
OF
EQUIPMENT NECESSARY FOR CHECKING AND CONTROL OF
THE DEVICES.

1. Universal measuring tool, for example, vernier caliper.
2. Test unit for checking electrical insulation strength, for example ----- 1 M.
3. Megohmmeter of 500V, for example M 1101 M.
4. Vibration testing machine, for example B3P ---100.
5. Testing machine, for testing devices for the effect of shaking while transporting, for example impact stand C2-1M.
6. Source of adjustable voltage, for example G5 -7
7. D.C Voltmeter, for example M2017.
8. Counter balance with an error of upto 0.005 kg.
9. Stopwatch, for example COC HP - 2B
10. Chamber of high and low temperatures, for example KHT - 2M
11. Heat and humidity chamber for example KTB-0,16 -165.
12. Rain chamber, for example YB-1
13. Dust chamber, for example, KMR -1
14. Ohmmeter, for example LU 34.

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