FORMAT	ZONE	REF. NO.	DESIGNATION.	DESCRIPTION.	Q.TY	REMARKS
		1		Factory documents.		
		2		Technological instructions		
		3		on preparation and		
		4	И-252-78.	correction of solution for chromatization with additive "PLEKON"-15.		
		5	И-109-78.	Technical instructions on preparation of paste and sealing compounds.		
		6				
		7		Departmental documents.		
		8	OST3-1928-73.	Varnish coating.		
		9		Classification, sampling and purpose.		
		10	OST92-1111-71.	Standard technical process and solder fo		
		11	Ty 6-10-1012-78.	for soldering of articles. Enamel MC-17.		
		12		T-Specifications.		
		13	Ty 6-10-1291-77.	Varnish H4-134		
		14	OST4 ГО.033.00	Fluxes and solder for soldering.		
		15		Compositions. properties. field of applicatio		
		16		State documents.		
		17				
		18	GOST 792-67	Low carbon quality wire.		
		19		Brass sheets and strips		
		20	GOST 931-78.	Technical specifications.		
		21	GOST 1050-74	Design carbon quality steel.		
		22	GOST 1051-73	Quality calibrated steel.		
		23				
		24				
		25				
		26				

APPROVED	M VASU	PM6-1C.000BA	
CHECKED			WEIGHT / SCALE
CONTROLLERATE OF INSPECTION (ICV)		TRACTION RELAY List of reference documents	SHT 1 SHTS 3 6 OF 80

POSITION	ZONE	REF. NO.	DESIGNATION.	DESCRIPTION.	QTY	REMARKS
		27	GOST21930-76	Soldering lead tin at the pigs.		
		28		Technical specifications.		
		29	GOST1908-77.	Capacitor paper.		
		30		Technical specifications.		
		31	GOST2208-75.	Brass tapes in genral purpose.		
		32				
		33	GOST2214-78.	Varnished cambric cloth.		
		34		Technical specifications.		
		35	GOST2773-78	Copper wire, insulated by varnish on		
		36		oil basis. Technical specifications.		
		37				
		38	GOST2824-75	Electrical insulating board.		
		39	GOST6309-73.	Cotton swing thread.		
		40	GOST6402-70.	Spring washers.		
		41	GOST7417-75.	Calibrated round steel assortment.		
		42				
		43	GOST 9045-70	Coldrolled, low carbon quality.		
		44		steel sheet for cold stamping.		
		45				
		46	GOST9151-75	Enamel grade ГФ-92.		
		47	GOST 9754-76	Enamel МЛ-12 Technical specifications.		
		48	GOST10144-74	Different colours of enamel ХВ-124.		
		49	GOST11025-78	Fine wool felt for electric equipments		
		50		and parts from its.		
		51		Technical specifications.		
		52	GOST12172-74.	Adhesive of phenol polyvinyl acetal.		
		53		Technical specifications.		
		54	GOST18251-72.	Adhesive strip on the paper base.		
		55	GOST 19904-74	Cold rolled steel sheet [illegible]		

APPROVED	H VASU	PM6-1C.000BA	
CHECKED		TRACTION RELAY	WEIGHT / SCALE
CONTROLLERATE OF INSPECTION (I.C.V.)		List of Reference Documents	SHT 2 SHTS 3
			17 OF 80

FORMAT	ZONE	REF. NO.	DESIGNATION.	DESCRIPTION.	QTY	REMARKS
		1	GOST9125-74	Copper wire for brushes of electric		
		2		machine.		
		3				
		4				
		5	GOST9614-75	Varnished cotton		
		6		fabric tube for		
		7		insulation.		
		8				
		9	GOST21930-76	Lead-tin solder as base. Technical		
		10		specifications. Rubber tip ends for		
		11	Ty 105431-77.	the type of parts CT109-86, CA18-66,		
		12		CMC18-18 Technical specifications.		
		13				
		14				
		15	OST B 84-1602-78	Part and assembly unit made of plastic. General		
		16		Technical specifications.		
		17				
		18				
		19	.H0.010.007	Letters and symbols for inscription		
		20		on the articles. Sketch, Dimensions, Tolerance		
		21	GOST20437-75.	Press meterial AF-4. Technical specification,		
		22				
		23				
		24				
		25				
		26				
		27				
		28				

APPROVED

CHECKED

CONTROLLERATE OF INSPECTION (V)

PM6-1C.0008-4

TRACTION RELAY

List of Reference Documents

WEIGHT	SCALE

SHT 3 SHTS 3

5 OF 80

FORMAT	ZONE	REF. NO.	DESIGNATION.	DESCRIPTION.	QTY	REMARKS
				Documents.		
22			PM6-1C.000Г6	Assembly drawing.		
22			PM6-1C.000Г4	Out line drawing.		
12			PM6-1C.000ВС	Specifications list.		
11			PM6-1C.000ВД	list of reference documents		
11			PM6-1C.000ТУ	Specifications		Separate album.
32			PM6-1C.000ПС-Г	Certificate to relay batches.		Ditto.

APPROVED	M VACU	PM6-1C.000	
CHECKED			WEIGHT SCALE
CONTROLLERATE OF INSPECTION (ICM)		TRACTION RELAY	SHT 1 SHTS 3
			84 44 OF 80

FORMAT	ZONE.	REF. NO.	DESIGNATION.	DESCRIPTION. .	Q.TY	REMARKS
*			PM6-1C.000IIC	Certificate		*11,32 seperate album.
				Assembly units.		
11		1	PM6-1C 020	Coil	1	
11		2	PM6-1C 030	Casing with core.	1	
11		3	PM6-1C. 040	Cover.	1	
				Parts.		
12		4	PM6-1C 005	Armature.	1	
11		5	X1-9895	Screw	4	
11		6	X2 - 10630	Nut	4	
12		10	CA-18-66	Cap Rubber.	2	

APPROVED	M VASU	PM6-1C.000	
CHECKED			WEIGHT / SCALE
CONTROLLERATE OF INSPECTION (ICV)		TRACTION RELAY	SH 2 SHTS 5
			84 0 45 OF 80

FORMAT	ZONE.	REF. NO.	DESIGNATION.	DESCRIPTION.	Q.TY	REMARKS.
				Standard items.		
		7		Ring T330-20-2		X5-11062
				GOST11025-78	1	Maximum quantity 20pieces.
		8	EQ MATERIAL-GRADE 50Cr1 V23-15-1570 OR EN-47- BS-970.	Washer465 Г 06		DC(I) NO: 00839-ICV
				GOST6402-70	4	X-1012
		9	EQ MATERIAL: GRADE 50Cr1 V23-15-1570 OR EN-47- BS 970.	Washer565 Г 06		DC(I) NO: 00839-ICV
				GOST6402-70	2	X-4001.
				Material.		
		11	EQ MATERIAL:-MILDSTEEL WIRE GALVANIZED, SOFT DRAWN OR 1/4 HARD TO IS: 280-78 with UTS:- 37 kg/mm² min.	Wire KO 0.8		DC(I) NO: 00839-ICV
				GOST792-67.	0.2M	
11			9 -728-30.	Sets.		
				Traction relay.		
				PM6-1C		Separate
				Packaging.	1	album.

APPROVED — G. VASU

CONTROLLERATE OF INSPECTION (ICV)

PM6-1C.000

TRACTION RELAY

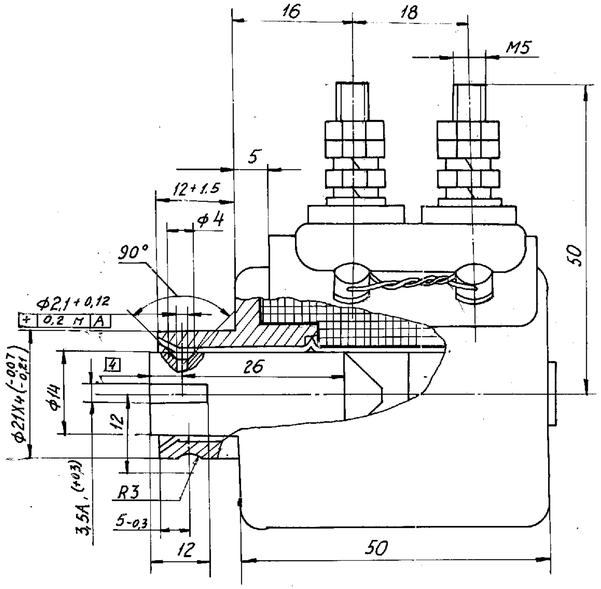
WEIGHT	SCALE

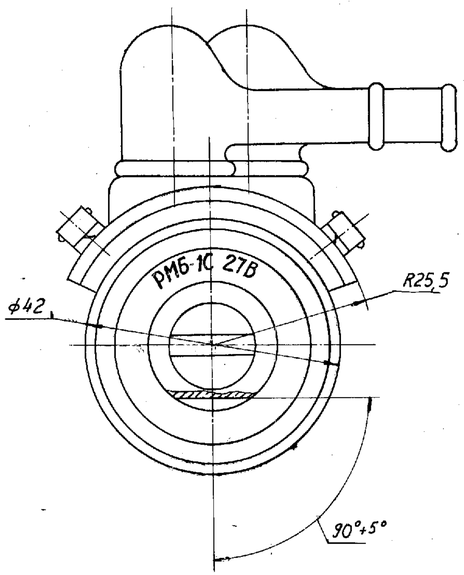
SHT 3 SHTS 3

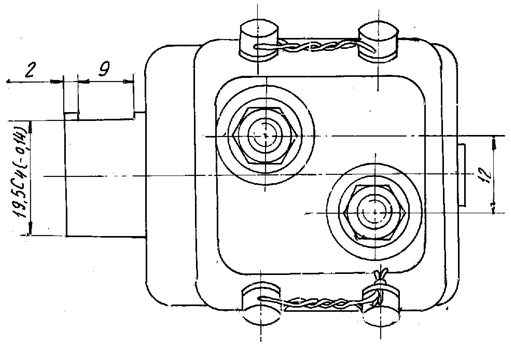
46 OF 80

РМ6-1С 000Г4

Rubber end pieces are not shown.







During installation and operation of relay on article on article, consumer should provide the following.

a). Protection from falling of dust and sprinkles of water in the place of outlet of armature.

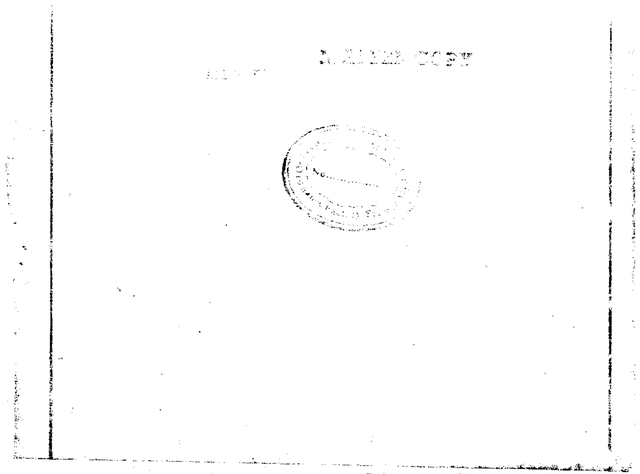
b) Setting of armature travel;

c) absence of armature specimens.

d). absence of armature movement in axial direction when relay is deenergized and it is under the effect of vibro-impacts loads.

-601
РМ6-1С-000 ТУ
л. 29/29

APPROVED		РМ6-1С-000Г4	
CHECKED			
CONTROLLERATE OF INSPECTION (ICV)	TRACTION RELAY OUTLINE DRAWING	VERSION 0.5	SCALE 2:1
		SHEET 4 OF 80	



CONTROLLERATE OF INSPECTION
(INFANTRY COMBAT VEHICLES)
SECUNDERABAD

Album No.56.

Technical papers for article

84/C646711-03- 400007"

Certificate.

[redacted] NUMBER PM5-10.000 C

SHEET 1 OF 2

I-599

REMAT PM5-10

Certificate

PM5-10.000 C.

(26)

39 OF 80

[redacted]

NUMBER PM-6-10-00077CT
SHEET 4 OF 7

I-599

Relay PMS-10

Certificate No.

a) Front side

(Certificate is folded along bending line).

(51)

40 OF 80.

S-579

1. Main Technical Data and Characteristics

1.1. Rated voltage - 27V. DC.

1.2. Relay force in normal climatic conditions, practically in cold condition at a voltage 21V and with clearance of 1mm between armature and core.

-1.5 kgf, min

at voltage 26v and with a clearance between armature and core

or voltage 24 v and with clearance 1.5 mm (fitting gauge) between armature and core } 5.5 kgf, min / 10 kgf, min

1.3. Coil resistance at 20°C. 5.9 to 6.9 Ohms.

1.4. Design	dust-proof and splash-proof with exceptional armature outlet place dust and splash-proofness of which is provided by consumer.
1.5. Mode of operation	intermittent (7 trippings lasting 10s each and intervals lasting 5 each.
1.6. Connection diagram	double-wire.
1.7. Working position	arbitrary.
1.8. Mass	0.5kg max.

Bending line

41 OF 80

I-599

2. Delivery set

2.1. Relay РМБ-1С - 1 piece.

2.2. Certificate - 1 piece

3. Acceptance Certificate

Relay corresponds to technical requirements РМБ-1С.000ТУ and found fit for service.

TID _____

Customer's representative _____

4. Guarantee

Guarantee period of relay is 500 operating hours of main engine for 6000 or 8000km of run in accordance with the guarantee for vehicle.

Storage period of relay. Preserved as per ОСТ В3-2381-74 should not exceed 5 years when stored in warehouses of customer or 8 years when packed in airtight covers as per ОСТ В3-2381-74.

Notes: 1. Relay is not to be sealed.

2. Relay is installed instead of relays. РП -1 and РМ-6.

Note: Corrections in certificates published by printing method, are to be agreed with customer's representative.

(39)

42 OF 80

I-599

Back Side

5. **Preservation**

Relay РМб-10 is preserved with oil K-17 GOST 10877-76 for interplant transportation; oil K-17 for storage in warehouses; in air-tight cover for long-time storage in ware-houses:

(Cross out useless record).

Preservation period: [illegible] (cross out useless data).

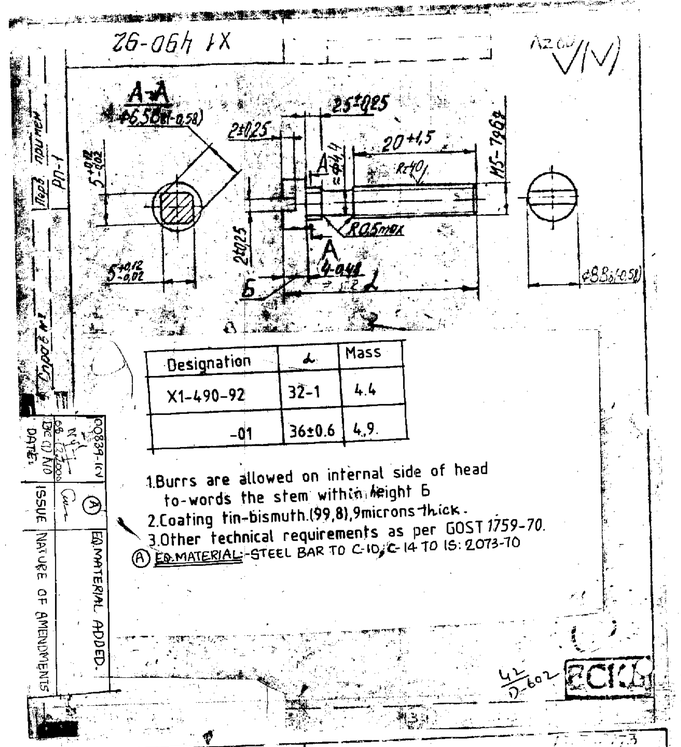
Date of preservation ____________________.

ТЮ ____.

S.No	Designation Обозначение	Nomenclature Наименование	Куда входит Incorporated In	Кол. Qty	Общее кол. Total Qty	Remarks Примечание
1		Armature				
2	5ТБ612006	Якорь	5ТБ 612005	1	1	
3	07	Якорь	5ТБ612005	1	4	
4		Stop				
5	5ТБ 638002	Стоп	5ТБ730005	1	1	
6		Frame				
7	5ТБ 730004	Каркас	5ТБ 520062	1	1	
8	5ТБ 730005	Каркас	5ТБ 730004	1	1	
9						
10	[redacted]	[redacted]	[redacted]	[redacted]		
11						
12	[redacted]	[redacted]	[redacted]	[redacted]		
13						
14	[redacted]	[redacted]	[redacted]	[redacted]		
15						
16	[redacted]	[redacted]	[redacted]			[redacted]
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						

DC(1)NO DATE	ISSUE	NATURE OF AMENDMENTS	DC(1) NO DATE	ISSUE	NATURE OF AMENDMENTS
DRN		3ТБ 013 011 ВС			DATE:- 21-8-97
TCD					USED ON
CHD	BBB.	ELECTRIC TRIGGER PARTS LIST			SHEET 21 SHEETS 2
APPD					34 OF 137

CONTROLLERATE OF QUALITY ASSURANCE (ICV)



Designation	d	Mass
X1-490-92	32-1	4.4
-01	36±0.6	4.9

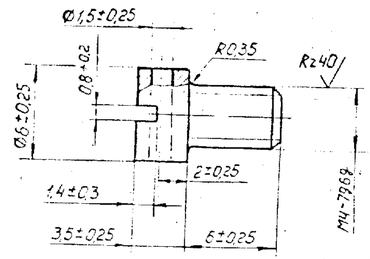
1. Burrs are allowed on internal side of head to-words the stem within height Б
2. Coating tin-bismuth.(99,8),9microns thick.
3. Other technical requirements as per GOST 1759-70.

(A) ED. MATERIAL:- STEEL BAR TO C-10, C-14 TO IS: 2073-70

APPROVED	M VASU	X1-490-92	WEIGHT	SCALE
CHECKED			SEE TABLE	2:1
CONTROLLERATE OF INSPECTION (I.E.V)		TERMINAL BOLT	SHT	SHTS
		STEEL IO GOST 1050-74	72 OF 80	

X1-9895

Rz 80 √(√)

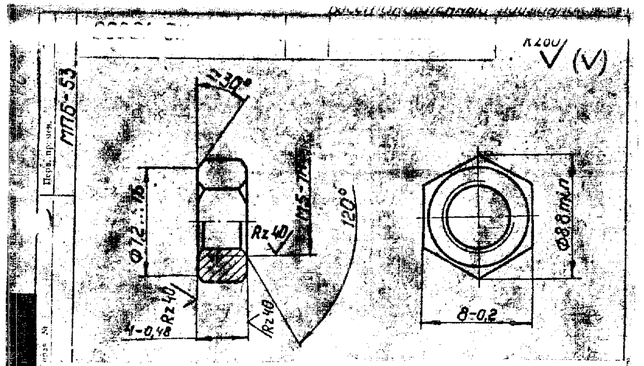


ЕСКД

Designation	Coating.
X1-9895.	Zinc plated, 6microns thick chromatized composition of solution for chromatizing as per И-25Д-78.

1. Alternate material is steel A12, GOST 1414-54.
2. Limit deviation from alignment of axes of head and slot with respect to axis of stem is 0,15mm.
3. Technical requirements as per GOST 1759-70.

CONTROLLERATE OF INSPECTION (ICV)	X1-9895		
	SCREW	1:25	5:1
	Wire 3.46-10 GOST 5663-79		75 OF 80



Designation	Coating
X2-10630	Zinc plated, 6 microns, chromatized

1. Alternate material is steel 10, GOST 1050-74
2. Limit displacement of axis of hole with respect to flats is 0,75 max.
3. Other technical requirements as per GOST 1759-70.

(K) EQ MATERIAL :- (i) STEEL BAR TO C-14 TO IS:2073-70
(ii) STEEL BAR TO C-10 TO IS:2073-70

DC/UNO DATE	ISSUE NATURE OF AMENDMENTS
(K)	EQ MATERIAL ADDED

ЕСКД

APPROVED	M VASU
CHECKED	
CONTROLLERATE OF INSPECTION (ICV)	

X2-10630

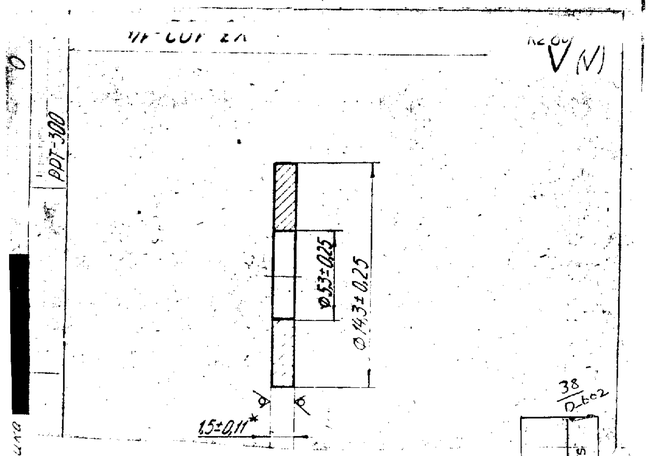
NUT

WEIGHT	SCALE
1·2g	4:1

Steel A12 GOST 1414-75

SHT SHTS

73 OF 80



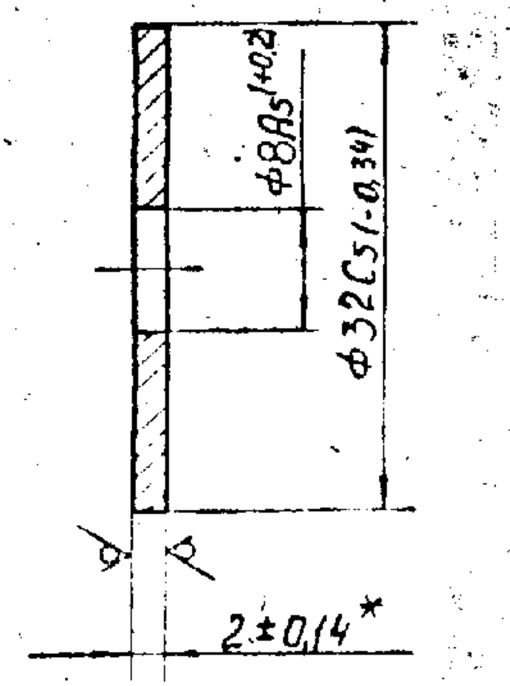
* Dimension is given for referance.

Ⓐ EQ MATERIAL: COLD ROLLED SHEET STEEL GRADE 'D' annealed TO IS:4030-73.

Designation	Coating.
X3-102-14	zinc-plated 6 microns, chromatized. Composition of solution for chromatizing as per M.252-78.

NATURE OF AMENDMENTS	ISSUE	DATE
Ⓐ EQ MATERIAL ADDED.	Ⓐ	

APPROVED	M VASU	X3 -102-14	
CHECKED			
CONTROLLERATE OF INSPECTION (IC V)		WASHER	WEIGHT 1.6g, SCALE 5:1
		steel 5 1-5 GOST 19904-74 / 4-21-10 GOST 16523-70	SHT SHTS 78 OF 80



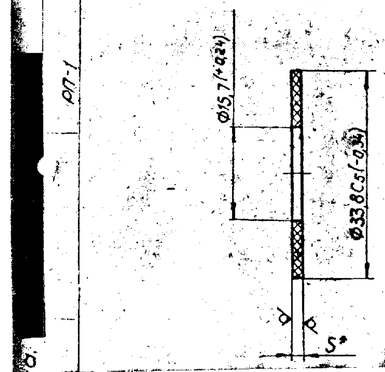
1. Alternate meterial sheet $\frac{Б2\ GOST19904\text{-}74}{4 Ш\ 10\ GOST16523\text{-}70}$
2. * Dimension.. is given for refrence.
3. Coating (zinc plated, 21 microns thick, chromatized) composition of solution for chromatizing as per U-252-78

(A) EQ.MATERIAL: COLD ROLLED SHEET STEEL GRADE 'D' ANNEALED TO IS: 4030-73.

ISSUE	NATURE OF AMENDMENT	DATE
(A)	EQ.MATERIAL ADDED	

APPROVED		X3-9660		
CHECKED		WASHER	WEIGHT 12g	SCALE 2:1
CONTROLLERATE OF INSPECTION (ICV)		Sheet $\frac{Б2\ GOST\ 19904\text{-}74}{4\text{-}II\ 10\ GOST16523\text{-}70}$	SHT 68	SHTS OF 80

Rz 80
V (V)



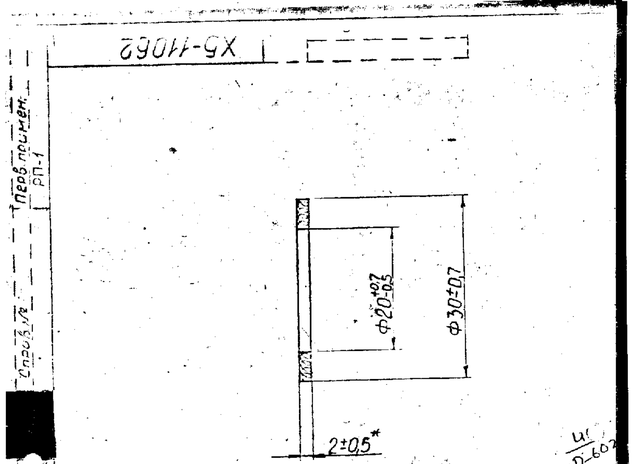
3Z
D-602

ЕСКД

Designation	Material	S*	Alternate Material	Coating.	Allowed coating.
X5-9960	Textolite A-1 GOST2910-74.	1±0.15	Textolite Б-1, GOST2910-74.	Varnish ПФ-95 GOST8018-76	Varnish МЛ.92(1) GOST15865

**Dimension is given for refrence.

APPROVED		X5-9960	
CHECKED			
CONTROLLERATE OF INSPECTION (ICV)	WASHER	WEIGHT: 1g	SCALE: 2:1
	See table	SHT: 62	SHTS: 80



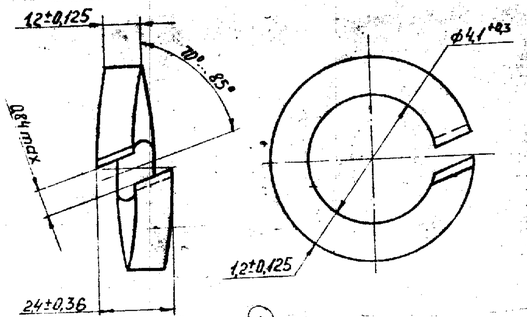
* Dimensions is given for refrence.

Duplicated from GOST11025-78.

APPROVED	M VASH	X5 - 11062	
CHECKED			
CONTROLLERATE OF INSPECTION (ICV)		RING T 30-20-2. GOST 11025-78	WEIGHT 0-23 / SCALE 2:1
		FELT T 02 GOST 11025-78	SHT 78 / SHTS 78 OF 80

Восстановленный подлинник №1

Спец -Х



Designation.	*	Coating	Coating is allowed
X-1012	06	Chemically, parkerized, oiled.	Chemically oxidised, oiled, zinc plated 6 microns chromatized, cadmium plated 6 microns chromatized.

(A) EQ MATERIAL :- (i) GRADE 50 Cr 1 V 23 TO IS:1570
(ii) EN47 TO BS:970

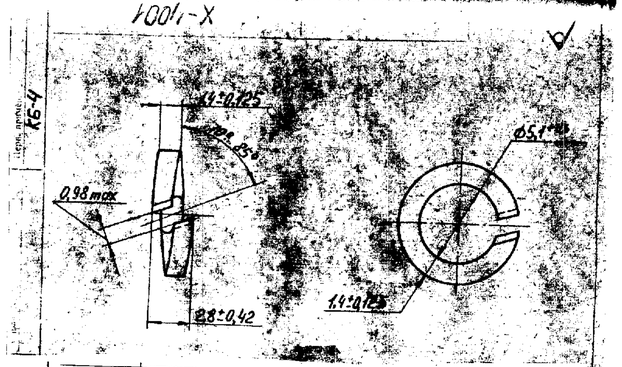
Technical requirements as per GOST6402-70.

DCO/ND	ISSUE	NATURE OF AMENDMENTS
00837-CV	(A)	EQ MATERIAL ADDED.

Взам. инв. № | Подпись и дата | Инв. № подл.

APPROVED	M VASU	X-1012	
CHECKED			WEIGHT: 0.189 g; SCALE: 10:1
CONTROLLERATE OF INSPECTION (ICV)		WASHER 465 * GOST 6402-70	SHT SHTS
		Steel 65Г GOST 1050-74	79 OF 80

X-4001



Designation	*	Coating	Allowed coating
X-4001	06	Chemically Parkirized. oiled.	Chemically, oxidised. oiled, cadmiumplated, 6microns chromatized.

Ⓐ EQ.MATERIAL: (i) GRADE 50 Cn 1 V 23 TO IS:1570
(ii) EN 47 TO BS-970

Technical requirements as per GOST 6402-70.

000839 -IC V	Ⓐ	EQ.MATERIAL ADDED.	
4-12-2003			
DRAWING DATE	ISSUE	NATURE OF AMENDMENTS	

APPROVED	M. VASU	X-4001		
CHECKED				
CONTROLLERATE OF INSPECTION (ICV)	WASHER 565Γ GOST 6402-70		WEIGHT 0.315g	SCALE 5:1
	Steel 65Γ GOST 1050-74		SHT	SHTS
		80 OF 80		

DESIGNATION	DESCRIPTION	PARENT UNIT	REMARKS
	DOCUMENTS		
PM6-1C-000Г4	OUT LINE DRAWING	PM6-1C-000	
PM6-1C-000 BC	LIST OF SPECIFICATIONS	PM6-1C-000	
PM6-1C-000 B/4	LIST OF REFERENCE	PM6-1C-000	
	DOCUMENTS		
PM6-1C-000 TY	SPECIFICATIONS	PM6-1C-000	
PM6-1C-000ПСГ	CERTIFICATE TO RELAY	PMC-1C-000	
	ASSY. UNITS		
PM6-1C-000 СБ	TRACTION RELAY	675-84-СБ2	
PM6-1C-020 СБ	COIL	PM6-1C-000 СБ	
PM6-1C-030 СБ	CASE WITH CORE	PM6-1C-000 СБ	
PM6-1C-040 СБ	COVER	PM6-1C-000 СБ	
PM6-1C-050 СБ	FRAME	PM6-1C-020 СБ	
ПП-511-79 СБ	CASING WITH COVER PLATE	PM6-1C-030 СБ	
	PARTS		
PM6-1C-003	WASHER	PM6-1C-050 СБ	
PM6-1C-009	BUSHING	PM6-1C-050 СБ	
PM5-1C-011	BUSHING	PM6-1C-050 СБ	
X5-9960	WASHER	PM6-1C-050 СБ	
PM6-1C-006	GASKET	PM6-1C-020 СБ	
PM6-1C-007	GASKET	PM6-1C-020 СБ	
ПП-511-67	CASING	ПП-511-79 СБ	
ПП-511-80	COVER PLATE	ПП-511-79 СБ	

APPROVED

CHECKED

CONTROLLERATE OF QUALITY ASSURANCE (ICV)

PM6-1C-000 cn

TRACTION RELAY

SHT 1 SHTS 3

1 OF 80

DESIGNATION	DESCRIPTION	PARENT UNIT	REMARKS
PM6-1C-004	CORE	PM6-1C-030СБ	
X3-9660	WASHER	PM6-1C-030СБ	
PM6-1C-008	COVER	PM6-1C-040СБ	
РП1-003	BUSHING	PM6-1C-040СБ	
РП-161-68	TERMINAL PANEL	PM6-1C-040СБ	
X1-490-92	TERMINAL BOLT	PM6-1C-040СБ	
X2-10630	NUT M5	PM6-1C-040СБ	
		PM6-1C-000СБ	
PM6-1C-005	ARMATURE	PM6-1C-000СБ	
X1-9895	SCREW	PM6-1C-000СБ	
X3-10214	WASHER	PM6-1C-040СБ	
CA-18-66	CAP RUBBER	PM6-1C-000СБ	
X5-11062	RING ТЭ-30-20-2	PM6-1C-000СБ	
X-1012	WASHER-465Г06	PM6-1C-000СБ	
X-4001	WASHER-565Г06	PM6-1C-000СБ	
		PM6-1C-040СБ	
	MATERIAL		
	WIRE-K0-0.8	PM6-1C-000СБ	
	GOST-792-67		
	WIRE-ПЭЛ 0.5	PM6-1C-020СБ	
	GOST-2773-78		
	PAPER-KOH2-22	PM6-1C-020СБ	
	GOST-1908-77		
	VARNISHED CLOTH-ЛШМ	PM6-1C-020СБ	
	-1050-1 GOST-2214-78		
	THREAD "EXTRA STRONG	PM6-1C-020СБ	
	NO: 00 AT 12 ADDITION POLISH Gde-1 GOST-6349-75		

APPROVED	[signature]	PM6-1C-000сп	
CHECKED	[signature]		
CONTROLLERATE OF QUALITY ASSURANCE (ICV)		TRACTION RELAY	SHT 2 SHTS 3
			2 OF 80

DESIGNATION	DESCRIPTION	PARENT UNIT	REMARKS
	WIRE-ПВ-0.5	PM6-1C-020C6	
	GOST-9125-74		
	PIPE-TAB15	PM6-1C-020C6	
	GOST-3614-75		

APPROVED	
CHECKED	ABB Bryansk

CONTROLLERATE OF QUALITY ASSURANCE (ICV)

PM6-1C-000 cn

TRACTION RELAY

SHT 3 SHTS 3

3 OF 80

LIST

OF CONTENTS OF ALBUM NO. 58 CONVENTIONAL DESIGNATION "84/084871 -03-15-40007".

Sl. No.	No. of drgs, assemblies, articles.	Description of technical papers.	No. of drgs	No. of sheets	latest amendment No.	Remarks
1	2	3	4	5	6	7
1	Technical specifications.	Relay PM 6-1C.	PM6-1C.000 Ty	27		
			Sheet 1		AMM2556 1/9-79	
			" 2		AMM2299 4/8-79	
			" 3		-	
			" 4		-	
			" 5		-	
			" 5a		AMM2299 4/8-79	
			" 6		-	
			" 7		-	
			" 8		-	
			" 9		-	
			" 10		-	
			" 11		-	
			" 12		AMM1529 3/7-80	
			" 13		-	
			" 14		-	
			" 15		AMM1181-81	
			" 16		-	
			" 17		-	
			" 18		-	
			" 19		-	
			" 20		-	
			" 21		-	
			" 22		AMM1181-81	
			" 23		AMM1317 1/3-79	
			" 24		-	
			" 25		-	
			" 26		AMM1181-81	

1.	2	3	4	5	6	7

2.	Appendix	Outline drawing	PM6-1C.000	4	1	A 1025-11-79
		Total number of sheets		28		

Present technical specifications refer to tractive D.C relay PM6-1C, here~~and~~in after-referred to as relay, intended for operation in automatic system.

Designation of relay for order is as follows:
Relay PM6-1C PM 6-1C.000Ty.

1. TECHNICAL REQUIREMENTS.

Relay should correspond to requirements of present technical specifications, set of technical specifications, set of technic l papers as per specification PM6-1C.000 and OST B3-1164-72.

All completing articles and materials shich are used in manufacture of relay, should correspond to valid-standards and technical specifications for them.

1,1. MAIN PARAMETERS AND DIMENSIONS.

1.1.1. Relay has the following main parameters:

a)	Rated voltage	27V D.C;
b)	Force of relay in normal climatical conditions, practically in cold condition.	
	at voltage of 24V and 10-mm clearance between armature and core.	4.5 kgf, Minimum
	at voltage of 26 V and 4,5-mm clearance between armature and core.	5.5 kgf, Minimum
	at voltage of 24 V and 0-mm clearnace between armature and core (holding force).	10 kgf, Minimum.

13 OF 80

c)	Coil resistance at 20°C	5.9 to 6.9 Ohms.
d)	20°C Mode of operation.	Intermittent 7 trippings with duration of 10 sec, and intervals of 5 sec. between them)
e)	Circuit connections	two - wire.
f)	design	Dust proof and splash proof with exception of armature outlet place. dust proofness and splash proofness of which are provided by consumer.
g)	Operating position	arbitrary
h)	Mass	0.5 kg, Maximum.

1.1.2. Overall dimensions of relay are as per drawing PM6-1C. 000 Ty.

1.2. CHARACTERISTICS.

1.2.1. As per overall and mounting dimensions and appearance relay should correspond to drawings PM6-1C.000.

1.2.2. Relay should:

a) develop the force; in normal climatic conditions and practically in cold condition;

at voltage of 24 Vand 10-mm clearance between armature and core - 1.5 kgf, min;

at voltage of 26 V and 4.5-mm clearance between armature and core - 5.5 kgf, min at voltage of 24 V and 0-mm clearance between armature and core (holding force) - 10 kgf, min

b) Consume the current of not more than 4.2 A, in normal climatic conditions and cold condition at a voltage of 24V.

c) Develop a force of 1.2 kgf, min, at relay temperature + 135°C and voltage of 24V when clearance between armature and stop is 10 MM and a force (holding force) of 10 kgf, min, when clearance between armature and stop is 0 mm.

d) have coil overheating of 115°C, max, when voltage of 26V is supplied for 2 minutes.

e) have coil overheating of 85°C, max at a voltage of 24V after 7 trippings for 10 each with intervals of 53 between trippings.

1.2.3. Insulation resistance between coil and body should be:

a) at least 20 megohms - in normal climatic conditions practically in cold conditions.

b) at least 5 megohms in conditions of elevated temperature.

c) at least 1 megohm - in conditions of high humidity.

1.2.4. In normal climatic conditions insulation between coil and body should with stand test voltage of 500 V (effective value) 50 Hz without break down or surface flashover.

1.2.5. Relay armature should move in the coil without any jammings.

1.2.6. Parts and assembly units of articles of one series should be interchangable. Relay should be serviceable in operation and maintain its parameters in conditions, given in OST B 3 - 1164-72.

1.2.7. Design of relay should be dust and splash-proof of with an exception of out-let place of armature, protection of which is provided by consumer.

1.2.9. Relay should with stand 10000 trippings in providing guarantee operating time during bench tests.

1.2.10. guaranted life of relay should be 20000 trippings.

1.3. COMPLETE SET:

1.3.1. The set contains:

a) Relay PM6-1C;

b) Certificate.

1.4. MARKING.

1.4.1. Marking of relay should be carried out in compliance with the set of technical papers as per specification PM6-1C.000.

1.5 PACKING.

1.5.1. Packing of relay should be carried out in compliance with requirements specified in OST 83-1164-72 and effective drawing of packing effective.

1.5.2. Preservation should be carried out with regard to requirements set forth in OST 83-2381-74.

2. ACCEPTANCE RULES.

2.1. Main technical papers for manufacture, test and acceptance of relay are present technical specifications, OST B3-1164-72 and set of technical papers as per specification PM6-1C.000.

2.2. All commercial articles and materials, which are used for manufacturing relay should be checked by technical inspection department of external acceptance. Scope and procedure of incoming check is set by agreement with customer representative.

2.3. Tests of relay are devided into approval, periodic and type tests.

2.4. Each relay is subjected to approval tests in scope and procedure as per Table 1 of present technical specifications. Relays are accepted by batches containing 56 to 74 pcs.

2.5. Periodic tests are carried out twice a year on two samples in scope and procedure as per Table I of present technical specifications.

2.6. Type tests are carried out when it is necessary to check the relay for compliance with requirements of present technical specifications; in case of radial changes of design or technology of manufacture of relay which can affect operating properties; when it is necessary to chec the service life and to take measures, used for elimination of faults of relay as well as for initial batch of full-scale production.

Necessity of conducting of type tests, including service life test is determined and agreed by manufacturing factory and customer representative in scope required for checking effectiveness of measures or service life as per the agreed programme of tests guiding by types of tests given in Table I.

TABLE I.

Types of tests and checkings.	Number of items		Category of tests.		
	Requirements.	Procedure	Approval tests.	Periodic tests.	Type tests.
1. Checking of set and compliance with drawings.	1.2.1	3.2	+	+	+
2. Checking of armature for jamming.	1.2.5	3.3	+	+	+
3. Checking of parameters of relay:					
a) developed forces and consumed current in cold condition	1.2.2a 1.2.2b	3.4a	+	+	+
b) Developed forces in hot condition.coil [illegible]	1.2.2a	3.4b	-	+	+
c) toCoil overheating temperature.	1.2.2a 1.2.2c	3.5	-	+	+
4. Insulation resistance test:					
a) in normal climatic conditions	1.2.3a	3.6	+	+	+
b) in conditions of elevated temperature.	1.2.3b	3.6	-	+	+
c) in conditions of high humidity.	1.2.3c	3.6	-	+	+
5. Electrical insulation strength test.	1.2.4	3.7	+	+	+
6. Checking of interchangeability.	1.2.6	3.8	+	+	+
7. Moisture resistant test.	1.2.7	3.9	-	+	+

Conti of table 1/--

Types of tests and checkings.	Number of items. Requirements.	Number of items. Procedure.	Category of tests. Approval tests.	Periodic tests.	type tests.
8. Cold resistance test.	1.2.7	3.10 ~~3.10~~	-	+	+
9. Heat-resistance test.	1.2.7	3.11	-	-	+
10. Test for resistance effect of hearfrost and dew.	1.2.7	3.12	-	+	+
11. Test for effect of sea (salt) fog.	1.2.7	3.13	-	+	+
12. Thermal cycling test.	1.2.7	3.14	-	+	+
13. Vibration-survival test.	1.2.7	3.15	-	+	+
14. Impact strength test.	1.2.7	3.16	-	+	+
15. Lowered ambient air pressure test:					
a) down to 460MM Hg	1.2.7		-	-	+
b) down to 170MM Hg	1.2.7	3.17	-	-	+
16. Guaranteed life test.	1.2.9	3.16	-	+	+
17. Service life test.	1.2.10	3.19	-	-	+
18. Dust proofness test .	1.2.8	3.20	-	+	+
19. Splash proofness test.	1.2.8	3.21	-	+	+
20. Single impact test with high accelerations.	1.2.7	3.23	-	-	+
21. Test for effect of vapours of anti-freeze and fuels and lubricants.	1.2.7	3.23	-	-	+
22. Test for effect of [illegible]-and [illegible]-hum.	1.2.7	3.24	-	-	+

DESIGNATIONS: " + " test is carried out

" - " test is not carried out.

NOTES:

1. Test sequence may be changed by agreement with customer representative.

2. Vibration - survival test and impact - strength test sequence is determined by tests procedure.

3. TEST METHODS.

3.1. All tests are carried out in normal climatic conditions, except thosem where climatic conditions are metioned specially. normal climatic conditions are as follows:

a) ambinet air temperature plus 25±10°C;

b) relative air humidityn 45 to 80%.

e) atmospheric pressure is 630 to 800 MM Hg.

NOTE: Relative humidity should not exceed 40% at temperature above 30°C.

Test equipment should have accuracy class of not worse than 0.5.

3.2. Set, compliance with requirements of drawings, quality of assembly, external finishing 1,0 soldering quality, absence of loosenings are checked during the visual inspection; mounting and over all dimensions are checked with the help of inspection- measuring tools.

3.3. Checking of relay armature for absence of jamming should be carried out manually. Relay armature should enter the coil for full travel and fall from it under gravity.

3.4. Checking of force developed by relay and current consumption is carried out on special bench as per the following procedure:

a) In cold condition

Set 10mm clearance between armature and core and apply the load of 1.5 kgf to armature, trip relay at voltage of 24 V 3 times total time during which the relay is energized should not exceed 10 s,

Set 4.5mm clearance, apply the load of 5.5 kgf to armature trip the relay at voltage of 26 V 3 times, total time ~~drind~~ during which the relay is energized should not exceed 10s,

set 0-mm clearance, apply the load of 10 kgf and trip the relay at a voltage of 24 V, the time during which the relay is energized should not exceed 10 s.

Checking of current, consumed by relay is carried out when relay force is checked at clearance of 0 MM.

Relay is considered to have passed the test, if it raises a load of 1.5 kgf when clearance is 10 MM, a load of 5.5 kgf when clearance is 4.5 mm holds a load of 10 kgf when clearance is 0 MM and current consumption is not more than 4.2 A;

Checking of force in hot conditon is carried out as per the procedure of item 3.4 a of present technical specifications after keeping relay for 2 hours in heat chamber at temperature + 135°C.

Relay is considered to have passed the checking, if it complies with requirements of item 1.2.20 of present technical specifications.

3.5. Checking of coil overheating is carried out by the method of resistance. Current of relay coils are measured in the beginning and end of test.

Overheating is calculated as per the following formula:

$$\Theta = \frac{I_x - I_r}{I_r}(235 + t_{ox}) + t_{ox} - t_{or}, \ ^\circ C$$

where

I_x - is coil current in cold condition, A

I_r - is coil current in heat conditon, A

t_{ox} - is ambient air temperature when I_x is measured, °C,

t_{or} - is ambient air temperature when I_r is measured, °C.

Relay is considered to have passed the test, if ~~calculated~~ calculated value of overheating does not exceed values specified in items 1.2.2 or 1.2.2 - e of present technical specifications.

3.6. Insulation resistance test is carried out by 500-v D.C megohm-meter. Insulation resistance is measured between any terminal bolt and body of relay.

Relay is considered to have passed the test, if the measured values of insulation resistance correspond to requirements of item 1.2.3 of present technical specifications (for corresponding conditions of tests).

3.7. Checking of electric insulation strength is carried out in special high-voltage installation with power of not less than 0.5 KVA by supplying full test voltage for 1 minute. Test voltage is applied between the body and any terminal bolt.

Relay is considered to have passed the test, if there is not any puncture or surface flashover while checking.

NOTES:

1. Time required for keeping the insulation under the voltage may be reduced to 1$ by simultaneously test voltage should be increased upto 625 V (effective value).

2. In the following checkings of relay before installing it on vehicle, test voltage is set at a rate of 80% of that specified by requirements of present technical specifications.

3.8. On request of customer's representative, dismantling ~~dismounting~~ of one sample from accepted batch is carried out to check the relay for compliance with drawings and interchangeability. In this case parts and assembly units are checked for complaince with requirements of design technical papers.

Interchangeability is checked by replacing armatures of relays.

Relay is considered to have passed the checking for interchangeability if parts and assembly units are corresponding to drawings and after their replacement relay corresponds to items of approval tests of present technical specifications.

3.9. Deenergized relay sealed by any method from the side of out-let of armature is placed in constant humidity cabinet relative with air humidity of 93 to 97% and temperature of + 20 to 25°C and held in it for 5 days during moisture resistance test. It is allowed to increase the humidity (for a short time) upto 98% and temperature upto + 35°C, as a result of vibrations of ambient air temperature and by the modes of operation of test equipment. With a lapse of not more than 3 minutes after removing the relay from constant humidity cabinet check the following:

a) insulation resistance as per procedure of item 3.6 of present technical specifications;

b) developed force and current consumption as per procedure set forth in item 3.4 a of present technical specifications;

c) absence of corrosion;

d) preservation of paint- and-varnish coatings after keeping relays in normal climatic conditions for 30 hours, insulation resistance and electric insulation strength are checked as per procedure of items 3.6, 3.7 or present technical specifications.

Relay is considered to have passed the test, if it m meets the requirements of item 8 1.2.2a, 1.2.2.b; 1.2.2c of present technical requirements, is free from scaling of paint-and-varnish coatings and traces of corrosion, and if after holding in normal climatic conditions electric strength and insulation resistance meet requirements of items 1.2.3a, 1.2.4 of present technical specifications.

During the cold resistance test deenergized relay is placed in cold chamber, where the temperature is decreased down to minus 50°C and maintained with accuracy of ± 3°C when the above mentioned temperature is obtained relay is kept in chamber for 4 hours, this done, the relay is removed from the chamber and with the lapse of not more than 3 min.

checking of delay force is carried out as per the procedure of item 3.4 a of present technical specifications. In this case current consumption is not checked.

Relay is considered to have passed the test, if the force meets requirement of item 1.2.2a of present technical specifications.

NOTE: Relay may be placed in cold chamber whose temperature is brought to minus 50°C beforehand.
In this case relay is held in chamber for 6 hours.

3.11. Temperature of +70°C with accuracy of ± 3°C is set in the heat chamber during the heat resistance test, Deenergized relay is held in heat chamber for 4 hours. After finishing the test, relay is removed from the chamber and with the lapse of not more than 3 minutes check ng of force and insulation resistance is carried out as per the procedure of items 3.4a, 3.6 of present technical specifications.

Relay is considered to have passed the test, if it remains efficient, force and insulation reisstance comply with requirements of items 1.2.a, 1.2.3b of present technical specifications.

3.12. To perform test for resistance to frost and dew deenergized relay in is placed in cold chamber and kept im it at a temperature of minus 20^{+5}°C for two hours. After this relay is removed from the chamber and placed in normal climatic conditions within 3 hours in conditions of hoar frost and dew immediately after remaoval and every 30 minutes relay force is chacked as per procedure of item 3.4a of present technical specifications. In this case current is not checked.

Relay is considered to have passed th test, if in time of being in normal climatic conditions after removing from the cold chamber its force complies with requirements of item 1.2.2a of present technical specifications.

3.13. While testing for the effects of sea (salt) fog relay, sealed from the side of outlet of armature, is placed in chamber, where the temperature of + 27 to 30°C is set and subjected to the effect of salt fog. Visual inspection of

relay for absence of damaged coatings is carried out before placing it in the chamber.

Relay is placed in th chamber so that sprinkles of sloution, and also the drops from ceiling, walls and suspension system do not fall on it during the test process.

Fog is formed by spraying salt solution, which is prepared by dissolving sodium chloride in distilled water as per GOST 4233-77 in quantity of 33±3 with the help of rotary arosal device or sprayer, should possess dispersion of 1 to 10 (95% drops) and water content of 2 to 3 g/L , spraying of solution is carried out for 15 minutes every 45 minutes. Duration of test is counted from the moment of first spraying of solution.

After finishing the test relay is cleaned with wab, wetted in distilled water, and after this it is dried for one hour at temperature 55±2°C, cooled and subject to visual inspection.

Relay is considered to have passed the test, if it is free from traces of corrosion and damaged paint-and-varnish coatings.

3.14. When performing thermal cycling test, deenergized relay, is subject to effect, of 3 thermal cycles which follow each other continuously.

Each cycle is carried out in following sequence.

Relay is placed in cold chamber, where the temperature is brought to minus 50°C beforehand and it is kept at the same temperature for 4 hours.

Relay is immediatly transferred from cold chamber to heat chamber, where the temperature is + 65°C and kept in it at the same temperature for 4 hours.

Time for keeping relay in heat and cold chambers is counted off from the moment of obtaining the preset air temperature in the chamber after loading relay.

Relay is removed from the heat chamber and kept in normal climatic conditions for 4 hours after finishing the last cycle.

of test. After this visual inspection of relay is carried-out, and force is checked as per the procedure of item 3.4a of present technical specifications.

Relay is considered to have passed the test, if it meets requirements of items 1.2.2a of present technical specifications.

NOTE: Thermal cycling test may be carried out in one chamber, where the rate of temperature change is at least 0.5°C per minute.

3.15. Vibration-survival test, is carried out when relay is deenergized. Visual inspection of relay is carried out before the test.

Relay is rigidly installed on stand with single-component horizontal or vertical vibration in two mutually perpendicular positions, in one of which armature axis is perpendicular to stand plane and in the other it is parallel, to it. Relay is subject to test in each position by the method of fixed frequency as per norms given in Table 2.

In this case relay armature is fixed rigidly with respect to body by any method.

TABLE 2/--

Fixed frequency, Hz.	amplitude value: Acceleration, g	amplitude value: displacement, MM	Total duration of tests, h
10	1.0	2.0	3.0
20	2.0	1.0	9.0
30	3.0	0.8	6.0
40		0.6	
50		0.4	4.5
60	4.0	0.3	
80		to be corresponded to acceleration.	1.5
100			
120			

NOTE: Check is carried out by one of the methods; as per acceleration of displacment.

28 of 80

Vibration survival test is carried out simultaneously with the test for guarantee life as per the following mlde:

1/4 of total time of vibration in first position of relay before tests for guarantee life, 1/2 of total time of vibration in second position of relay in the middle of test for guarantee life and 1/4 of total time of vibration in first position of relay after test for guarantee life.

Visual inspection, checking of force and current as per procedure specified in item 3.4 a of present technical specifications are carried out after the test.

Relay is considered to have passed the test, if mechanical damage is not detected during visual inspection and relay meets requirements of items 1.2.2a, 1.2.2b of present technical specifications.

3.16. Impact strength test is carried in the middle of test guaranteed life. When relay is deenergized. Visual inspection of relay is carried out before test. Relay is rigidly installed on stand, in turn, in two mutually perpendicular positions, given in item 3.15 of present technical specifications and subject to the effect of impacts in each position as per norms, given in Table 3.

In this case relay armature is fixed rigidly with respect to body by any method.

TABLE 3/--

Acceleration, g	Pulse duration, ms	Total number of impacts.	Number of impacts per minute.
15	from 10 to 15	2000	Upto 100

Total number of impacts is equally divided for all different positions of relay. Visual inspection and checking of force and current as per the procedure of item 3.4a of present technical specifications are carried out after test.

Relay is considered to have passed the test, if mechanical damages is not detected during visual inspection and parameters (items 1.2.2a, 1.2.2b of present technical specifications. " are corresponding to requirements 9)

3.17. Test for effect of low ambient air pressure is not carried out.

Compliance with requirements of the given item is provided by design of relay.

3.18. Test of relay for guarantee life is carried out in special device as per the following procedure:

a) Clearance of 4.5 MM is set between armature and core, load of 5.5kgf is suspended from armature 20 cycles of trippings should be carried out, number of trippings:

at voltage 22V - 2 cycles

at voltage 27V - 16 cycles.

at voltage 29V - 2 cycles.

Each cycle consists of 15 trippings. Duration of each tripping is 20 seconds, interval between trippings is 3 minutes, internal after 3 trippings is minimum 1 hour, after 15 trippings internal should be upto complete cooling; forced air cooling is allowed.

b) Clearance of 10MM is set between armature and core, load of 1.5 kgf is suspended from relay.

Number of trippings :

at voltage 22 V - 2500 trippings.
at voltage 27 V - 5000 trippings.
at voltage 29 V - 2500 trippings.

Trippings are carried out by series each containing 7 trippings.

Duration of one tripping is 10 sec, interval between trippings is 5 s, interval after 7 trippings should be upto complete cooling; forced air cooling is allowed.

After completion of test, 100 more trippings are carried out additionally at voltage 27 V and relay force and current are checked as per the procedure of item 3.4a of present technical specifications.

Relay is considered to have passed the test, if there have been no failures during the test and it meets the requiremtns of items 1.2.2a; 1.2.2b of present technical specifications.

3.19. Service life test of relay is carried out as per procedure of item 3.18 of present technical specifications. Number of trippings carried out during guarantee life are taken into account during the service life test.

Relay is considered to have passed the test, if additionnal operations have not been required during the test, and it remains efficient during additional 50 trippings as per mode specified in item 3.18b of present technical specifications.

3.20. Dust-proofness test is carried out using fine cement powder, which is charged in the chamber with dimensions of 1x1x1 M in quantity of 4 kg.

Relay, which is protected from dust falling in place of out-let of armature, is placed in chamber and subject to test for 5 hours, and every 15 minutes cement powder is disturbed by air blast at a speed of 10 to 15 M/S.

Relay is considered to have passed the test, if dust visible to the naked eye, does not penetrate inside the coil of relay,

3.21. When performing splash proofness test, deenergized relay protected by any method from splash falling in the place of out-let of armature, is placed in sprinkling chamber at an angle of 45° and subjecte to effect of water stream directed down wards with intensity of 2 to 2.5 MM/min, equally sprayed With compressed air at a pressure of 3 to 3.5 kg/cm^2. Stream should be sprayed above the relay at the

height of not less than 100mm. During the test relay should be rotated gradually through 360° around the vertical axis. Duration of test is 5 min. After finishing the test, external surface of relay should be wiped dry and relay is opened for inspection.

Relay is considered to have passed the test, if there is not water in coil of relay.

3.22. Compliance of relay and its installation with requirements for resistance to destroying effect of single impacts with greate accelerations is checked by full-scale test performed on vehicle.

3.23. Before development of the procedure of bench tests for resistance to effect of vapours of antifreeze and fuels and lubricants compliance of relay with this requirement is certified during full. Scale tests and its operation on vehicle.

3.24. Test for the effect of V and V-hum should not be carried out compliance it with requirements specified in given item is provided by design of relay.

4. TRANSPORTATION AND STORAGE.

4.1. Packed relays may be transported by any type of transport providing that they are protected from the effects of precipitation and mechanical damage.

4.2. Storage of relay should be carried out in compliance with requirements of OST B3-1164-72 and OST B3-2381-74.

5. OPERATING INSTRUCTIONS.

5.1. Relay should be operated in conditions and modes co responding to requirements of present technical specifications.

5.2. During installation and operation of relay on article, consumer should provide the followings

a) protection from falling of dust and water sprinkles in place of out let of relay armature;

b) setting of armature travel;

c) absence of armature skewness;

d) absence of armature movement in axial direction when relay is deenergized and it is under the effect of vibro-impacts loads.

5.3. Relay should be used in compliance with GOST 2.117-71

5.4. Maintenance of relay should be performed in compliance with requirements of operating instructions of vehicle.

E-399

Back Side

5. Preservation

Relay PM5-1C is preserved with Oil K-17 GOST 10577-16 for interplant transportation; oil K-17 for storage in warehouses; in air-tight cover for long-time storage in ware-houses:

(Cross out useless record).

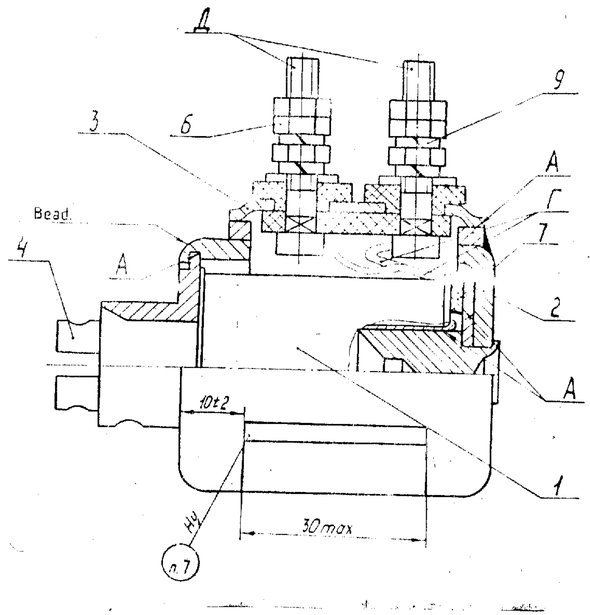
Preservation period: 0.5;1; 2 years
(cross out useless data).

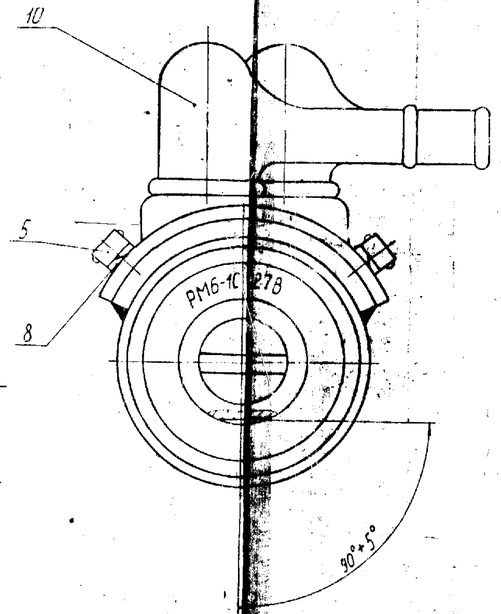
Date of preservation _____.

TTD = _____.

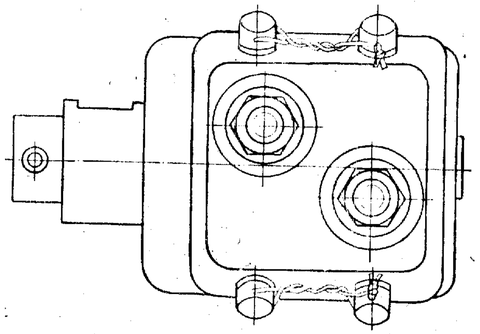
Восстановленный лист

Rubber cups are not shown.





Rubber cups are not shown.



1. Before beading, punch casing with core, Ref 2., at places of bushing grooves of coil. Ref. 1. After punching through slots are not allowed.
2. Braze tap Г in-to slots of bolts A with solder ПОСС Y40-2. GOST 21930-76 WITH flux 9КСп, OST4. ГО.033.000. Tap ends should not come out the limits of bolt head diameter.
3. Apply compound prepared as per instructions Ч-109-78 to places A.
4. Bind screws, Ref, 5. with wire, Ref 11, from each side.
5. Coat beaded places of painted parts with black enamel M17 TY6-10-1012-78.
6. Coat screw heads ref 5 with gray enamel XB-124, GOST 10144-74.
7. Mark without type 3 : as per N0,010.007 to a depth of 0,5mm apply marking, prior to relay Assembly. Coat marking with varnish НЦ-134 TY6-10-1291-77.
8. Traction relay should match PM6-1C.000 TY.
9. Coil should not have axial displacement, adjust by mounting a required number of rings, Ref, 7.

APPROVED	M VASU	PM6-1C-000сБ	
CHECKED		TRACTION RELAY	WEIGHT: 0.5 SCALE: 2:1
CONTROLLERATE OF INSPECTION (ICV)			SHT SHTS 4-7 OF 80

SECRET/CLASSIFIED

- 601

NJNEER PM6-1C-00007Y

SHEET 1 OF 28 29

CONTROLLER

(TY-244)

T - 601

ALBUM NO. 58

TECHNICAL PAPERS ON

ARTICLE 84/0848711

-03-PM-40007

TECHNICAL

SPECIFICATIONS.

RELAY PM6-10

PM6-1C-00007Y

CONTROLLERATE OF INSPECTION
(INFANTRY COMBAT VEHICLES)
SECUNDERABAD

T-80

APPENDIX 1/

LIST OF TECHNICAL PAPERS TO WHICH
REFERENCE IS GIVEN IN PRESENT
TECHNICAL SPECIFICATIONS.

Description of technical papers.	Designation of technical papers.	Nos of pages at which reference to technical papers is given.
1. Coordination of application of commercial articles.	GOST 2.117-71	22
2. Sodium chloride.	GOST 4233-77	15
3. Electrical equipment of special transport vehicles. General technical specifications.	OCT B3-1164-72	2,4,5,5a,22
5. Assembly units and parts of track laying machines. Methods and means of preservation.	OCT B3-2381-74	5,22,23.

Appendix 1

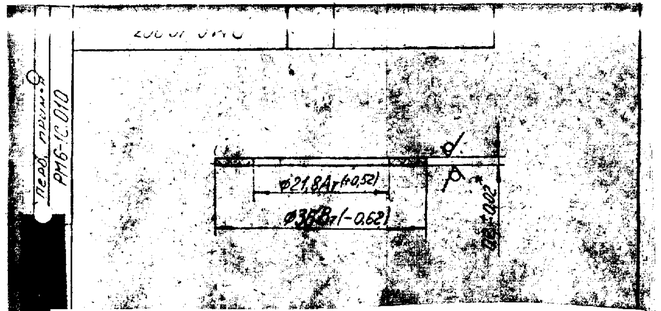
List of technical papers to which reference is given in present technical specifications

Description of technical papers	Designation of technical papers	Nos of pages at which reference to technical papers
Coo dination of application of commercial articles	GOST 2.117-71	22
Sodium chloride	GOST 4233-77	15
Electrical equipment o special transport vehicles General technical specifications	OST B3-1164-72	2.4.5.5a22
Assembly units and parts of track-laying machines. Methods and means of presefvation	OST B3-2381-74	

No. of lines	Designation.	Description.	Incorporated in Designation	Qty	Total Qty.	Remarks.
1	PM6-1C.000	Tie rod relay.			1	
2	PM6-1C.050	Frame works.	PM6-1C.020	1	1	
3	PM6-1C.020	Coil	PM6-1C.000.	1	1	
4	PM6-1C.030	Case with core	PM6-1C.000.	1	1	
5	PM6-1C.040.	Cover	PM6-1C.000	1	1	
6	PП-511-79	Case with cover plate	PM6-1C.030	1	1	
7	У-728-30.	Rod relay PM6-1C Packaging	PM6-1C.000			

5

APPROVED	M VASU	PM6-1C.000BC
CHECKED		
CONTROLLERATE OF INSPECTION (ICV)	RELAY TIE ROD	WEIGHT / SCALE
	List of Specifications	SHT 1 SHTS
		5 OF 80

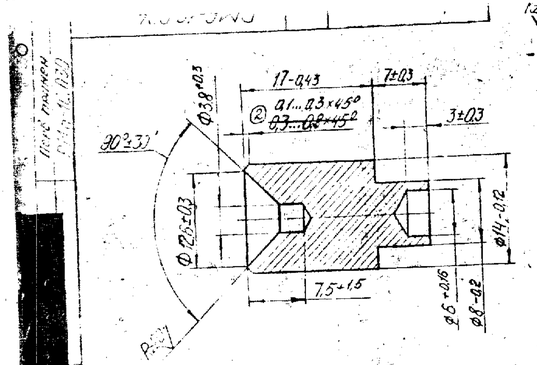


1,* Dimension is given for reference.
2. Bending of parts along roll are allowed.

Designation	Coating
PM6-1C.003.	

ECKU

APPROVED	M VASU	PM6-1C-003	
CHECKED			WEIGHT: 0.2 / SCALE: 2:1
CONTROLLERATE OF INSPECTION (ICV)		WASHER	SHT / SHTS
		Paper board 3B-0.2 GOST 2824-75	59 OF 80



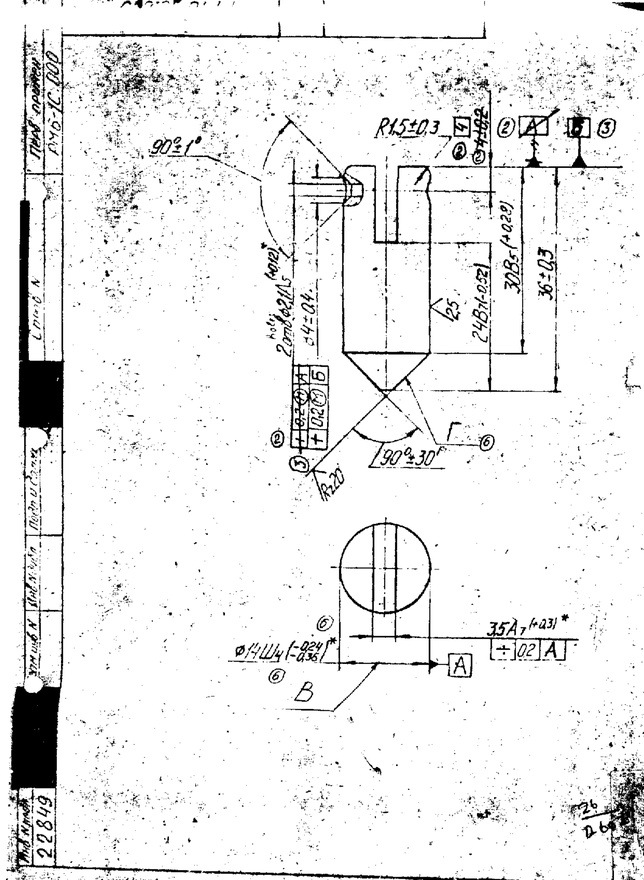
1. Anneal for improving magnetic properties.

A EQ. MATERIAL:- (i) STEEL BAR C-14 TO IS:2073-70
(ii) STEEL BAR C-10 TO IS:2073-70.

Designation	Coating
PM6-1C.004	Zinc plated, 6 microns, chromatized composition of solutions for chromatizing as per H-252-74

A EQ. MATERIAL ADDED.

APPROVED	M VASU	PM6-1C.004		
CHECKED			WEIGHT	SCALE
CONTROLLERATE OF INSPECTION (I.C.V)		CORE	224g	25:1
		Steel 10 GOST 1050-74	SHT	SHTS
			67 OF 80	



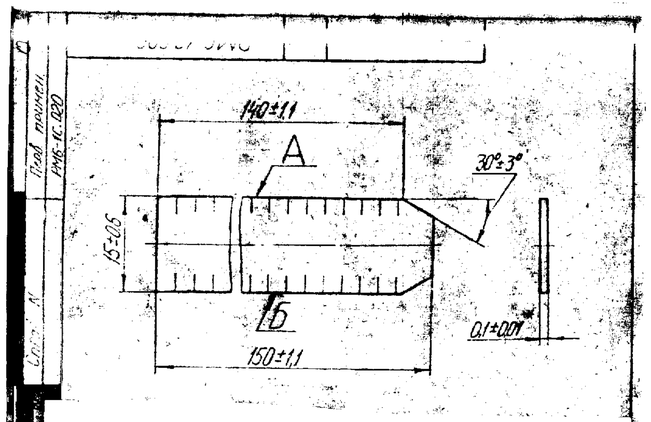
1. Annel for improvement of magnetic properties.
3. * Dimensions after coating.
4. Stamping KK on packing seal.

(A) EQ. MATERIAL: (i) STEEL BAR C-14 TO IS: 2073-70
(ii) STEEL BAR C-10 TO IS: 2073-70

Designation.	Coating.
PM6-1C.005.	(Zinc 21 microne) composition of solution for chromatizing. along H.252-78.

00839-(K)	(A)	EQ. MATERIAL ADDED.
DCN NO. DATE	ISSUE	NATURE OF AMENDMENT

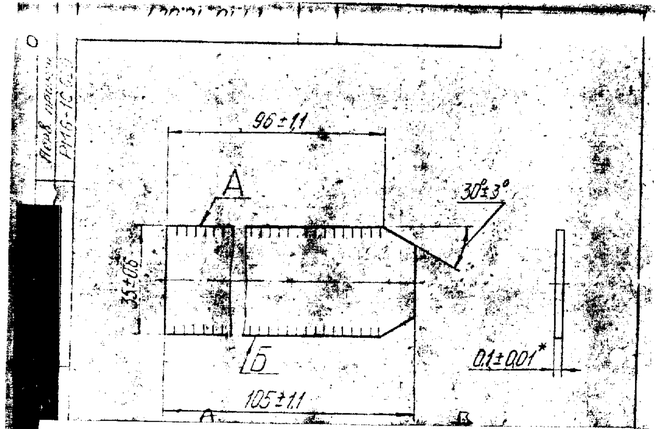
APPROVED	M VASU	PM6-1C-005	
CHECKED		ARMATURE	WEIGHT: 38g; SCALE: 2:1
CONTROLLERATE OF INSPECTION (ICV)		Steel to GOST 1050-74	SHT: 74 OF 80



1. * Dimension.. is given for reference.
2. Make 35 cuts to a depth of 3mm equally spaced on surfaces, A and Б
3.

Designation	Material
PM6-1C.006	Varnished fabric ЛШМ105-0,1 GOST2214-78.

APPROVED	M. VASU	PM6-1C-006		
CHECKED				
CONTROLLERATE OF INSPECTION (ICV)		GASKET	WEIGHT 1g	SCALE 2:1
		See table	SHT 63	SHTS OF 80



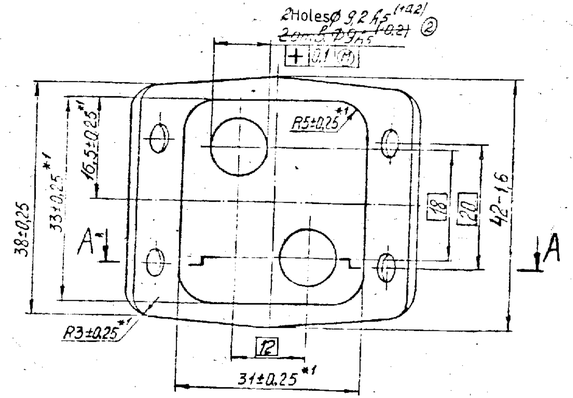
Designation	Material.
PM6-1C.007.	Varnished fabric M.105-01 GOST2214-78.

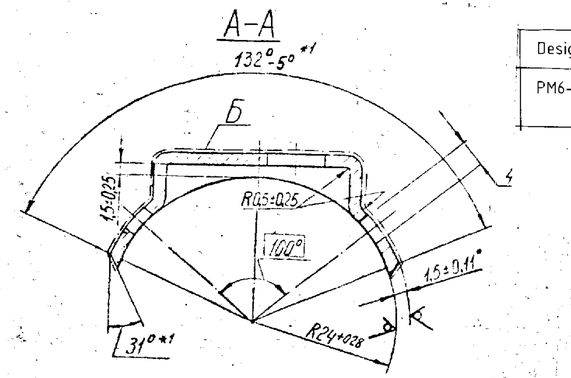
*Dimension is given for reference.

1. Make 32 cuts to a depth of 3mm equally spaced on surfaces A and Б.

APPROVED	M VASU	PM6-1C.007	
CHECKED			
CONTROLLERATE OF INSPECTION (ICV)	GASKET	WEIGHT: 19	SCALE: 1:1
		SHT	SHTS
		64 OF 80	

R2100 V(M)





1.* Dimension is given for referance.
2. Dimensions are provided with tool, checked at least once in a quarter.
3. Deviation from symmetrical arrangement of dimensions with respect to axes should not exceed 0.5mm.
4. Coating of surface Б with black enamel MA-12, GOST 9754-76 IX X1
5. Select the process of applying varnish and plain coating in accordence with OST B-1928-73.

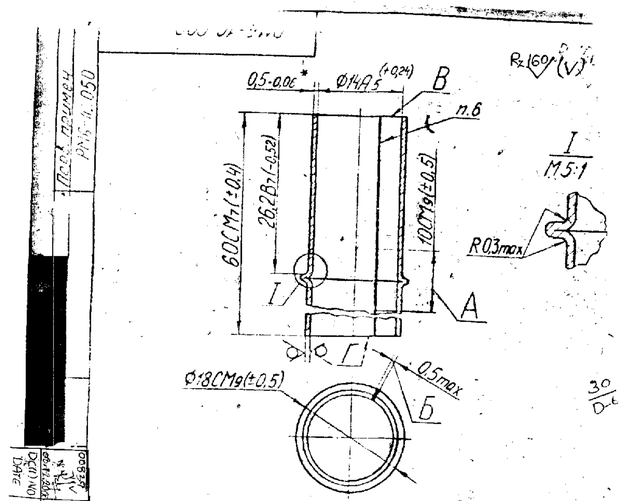
Ⓐ EQ. MATERIAL: COLD ROLLED CARBON STEEL STRIP TO GRADE EDD, RIMMED STEEL TO IS: 4030-73.

Designation	Coating.
PM6-1C.008	Zinc-plated, 24 microns chromatized) composition of solution for chromatizing as per 4252-78

80839-KV	Ⓐ	EQ. MATERIAL ADDED.
DC/IND		ISSUE/NATURE OF AMENDMENTS
DATE		

APPROVED	M VASU	PM6-1C.008		
CHECKED				
CONTROLLERATE OF INSPECTION (1C V)		COVER	WEIGHT 27.5g	SCALE 2:1
			SHT	SHTS
			1C 69	OF 80

84



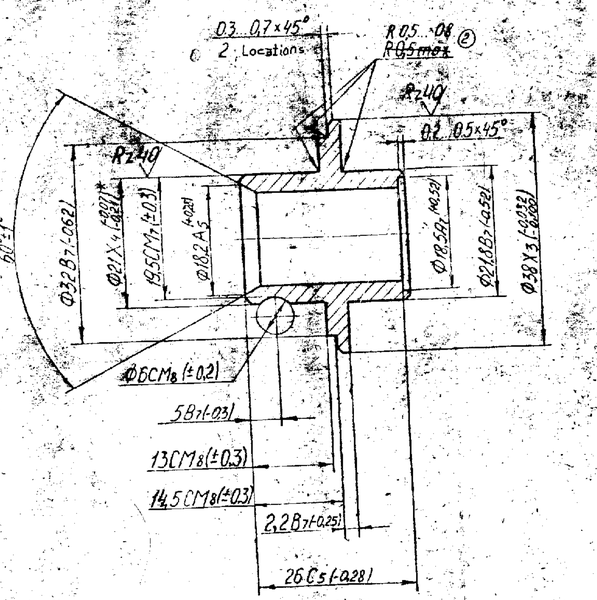
1. Alternate material-band АПРНМ0,5 А 63 GOST2208-75.
2. It is allowed to increase dimensions Б by 1mm maximum at collar place over the length of A.
3. Non parallelism of surfaces В and Г should not exceed 0,6mm
4. * Dimension is given for refrence.
5. Solder ПОССУ 40-2 GOST21930-76. Flux ФКСп OST4 CO.033.000. Dress after soldering.
6. Coating: Chemically, passivated.

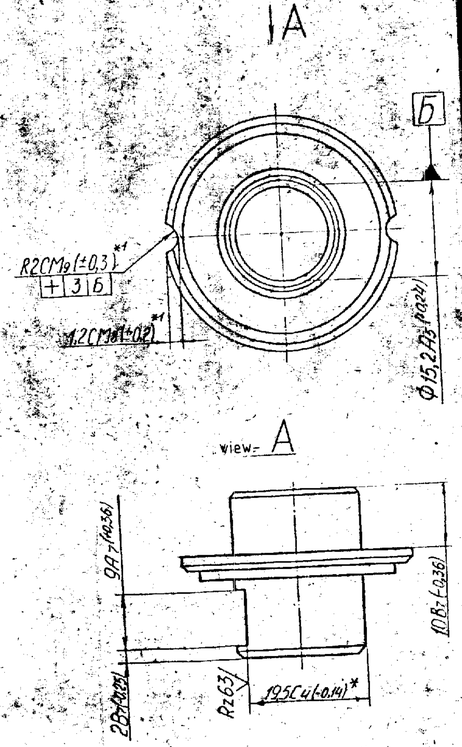
Ⓐ EQ MATERIAL - BRASS SHEET Cu Zn 37 TO 15:410-77.

APPROVED	M VASU	PM6-1C.009	
CHECKED		BUSHING	WEIGHT 0.012 / SCALE 2:1
CONTROLLERATE OF INSPECTION (ICV)			SHT / SHTS 60 OF 80

DCN NO. / ISSUE / NATURE OF AMENDMENT / DATE / BY

Ⓐ EQ MATERIAL ADDED





1.* Dimensions after coating.
2.Dimensions provided with tool, checked at least once per quarter
3.Coating :Cadmium plated, 24microns thick, chromatized.
Ⓐ EQ.MATERIAL:STEEL BAR C-14 TO IS:2073-70
Ⓑ STEEL BAR C-10 TO IS:2073-70

	Ⓐ	EQ.MATERIAL ADOPTED	
6-12-2004			
DCO/NO. DATE	ISSUE	NATURE OF AMENDMENTS	
	Ⓑ	ECK 1	

APPROVED	M. VASU	PM6-1C-011	
CHECKED		BUSHING	WEIGHT 0-057 / SCALE 2:1
CONTROLLERATE OF INSPECTION (ICV)		Steel 10 GOST 1050-75	SHT 61 / SHTS OF 80

84

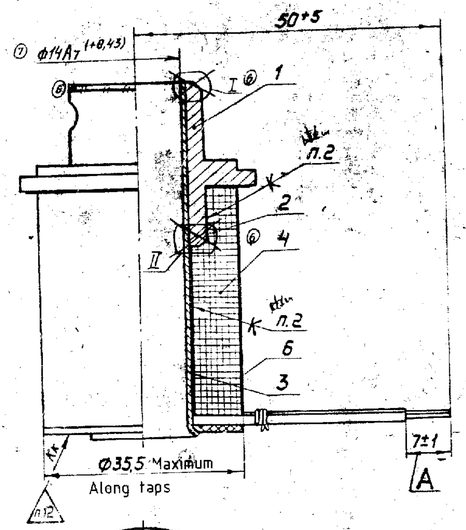
FORMAT	ZONE	REF. NO.	DESIGNATION.	DESCRIPTION.	QTY	REMARKS
				Technical papers		
13			PM6-1C.020CB	Assembly drawing.		
				Assembly units.		
11	1		PM6-1C.050	Frame	1	
				Parts.		
11	2		PM6-1C.006	Gasket	1	
11	3		PM6-1C.007	Gasket	1	
				Materials		
		4		Wire ПЭЛО-5		
				GOST 2773-78.	0.15	kg
				Paper(sheet) КОН2-22		
		5		GOST 1908-77.	0.002	kg
				Varnished cloth ЛШМ 1050.1		
		6		GOST 2214-78	0.01	m.
		8		Thread :"Extra strong"		
				No:00 at 12 addition polish		
				Grade 1, GOST 6309-73.	0.15	m

APPROVED	M VASU	PM6-1C.020	
CHECKED			WEIGHT / SCALE
CONTROLLERATE OF INSPECTION (ICV)		COIL	SHT 1 SHTS 2
			48 OF 80

84

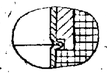
FORMAT	ZONE	REF. NO.	DESIGNATION.	DESCRIPTION.	Q.TY	REMARKS
		9		Wire ⌀W-0.5		
				GOST9125-74	0.2 m	
		10		Pipe T/1B1.5		
				GOST9614-75	0.15 m	

APPROVED	M VASU	PM6-IC. 020	
CHECKED			
CONTROLLERATE OF INSPECTION (IC V)		COIL	WEIGHT / SCALE:
			SHT 2 SHTS 2
			49 OF 80



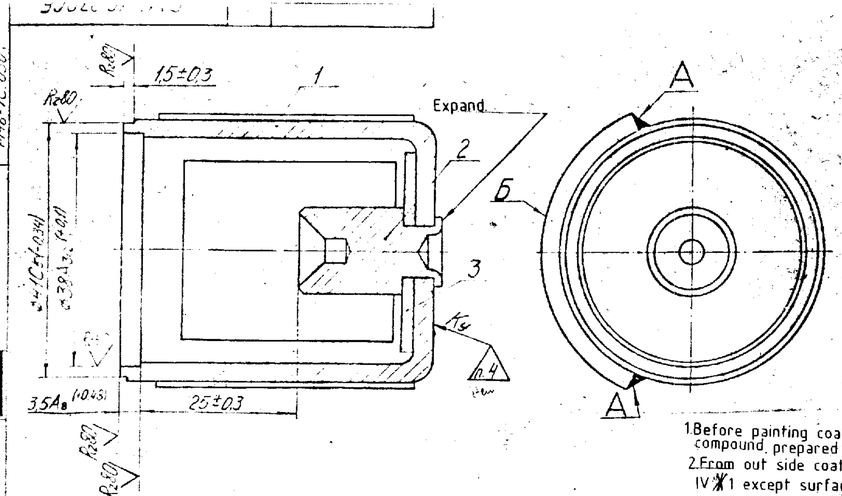
I ⑥
Instead of striken out

II ⑥
Instead of striken out.



1. Layer by layer winding.
2. Wind frame, RefNo,1., with gaskets of varnished fabric RefNo,2,and3. Bend gasket ends with glue БФ-4GOST12172-74.
3. Carry out winding with wire RefNo,4,Number of coils970-40 resistance of coils at 20°C is 5,9,to6,9ohm
4. Braze to the begining of winding with solderПОССУ-40-2. GOST21930-76;A piece of wire RefNo,9,120cm±1,7mm in length tap put pipe,Ref,No10, of a length of100±1,7mm.
5. Wrap one layer of paper, Ref,No5. after layers6,10,14 of winding,Fillup depressions with same papers.
6. Braze to end of winding with solder ПОССУ40-2. GOST21930-76. Wire, Ref No,9, of length 80±1,5mm over tap, put pipe, refNo,10, of length 50±1,2mm.
7. Secure the end of winding with varnished fabric, Ref No6 having dimensions(16x40)mm^2
8. Insulate the coil from out side with varnished fabric, Ref.No.6, having dimensions(18±0,5x500±3)mm^2, over lapin g by1/2 width of taps,paste the last turns of varnished fabric with adhesiveБФ-4,GOST12172-74.
9. Bind the begining and the end of winding with thread, Ref No,8.
10. Dress and coat ends of wire over length A with hot solderПОССУ40-2.GOST21930-76
11. Check winding for turn-to-turn short circuiting and electrical strength by 500V 50Hzfor one minute,minimum power of source..0,5KVA.
12. Apply marking.
14. Deviation of taps 6 from axial line should not exceed 20° to-wards any side.

APPROVED		PM6-IC.020 C8	
CHECKED			WEIGHT SCALE
CONTROLLERATE OF INSPECTION (ICV)		COIL	2:1
			SHT SHTS
			50 OF 80



1. Before painting coat places A if necessery with compound prepared as per instructions 4-109-78
2. From out side coat with black enamel МЛ-12 GOST 9754-76 IV ✗ 1 except surface Б.
3. Select the process of applying paint and varnish in accordance with OST3-1928-73.
4. Apply stamping.

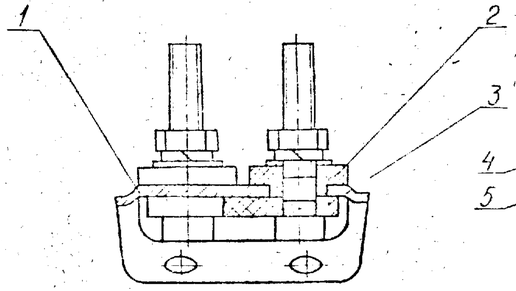
APPROVED		PM6-IC.030 СБ	
CHECKED		CASE WITH CORE	WEIGHT 0.186 2:1
CONTROLLERATE OF INSPECTION (ICV)			SHT 52 SHTS 80

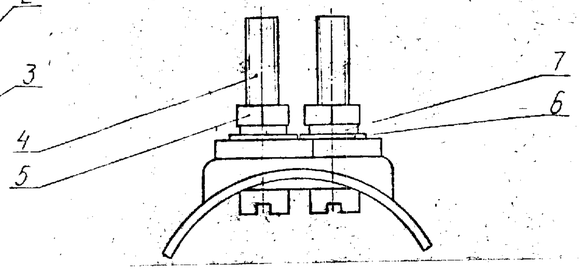
FORMAT	ZONE	REF. NO.	DESIGNATION.	DESCRIPTION.	Q.TY	REMARKS
				Technical papers.		
12			PM6-1C.030CB	Assembly drawing.		
				Assembly units.		
11	1		PM-511-79	Casing with cover.	1	
				Plate.		
				Parts.		
11	2		Pm6-1c.004	Core,	1	
11	3		X3-9660.	Washer.	1	

APPROVED	M.VASU	PM6-1C.030	
CHECKED			
CONTROLLERATE OF INSPECTION (I&V)		CASE WITH CORE	WEIGHT / SCALE
			SHT / SHTS
			51 OF 80

FORMAT	ZONE	REF. NO.	DESIGNATION.	DESCRIPTION.	Q.TY	REMARKS
				Technical papers		
12			PM6-1C.040CB	Assembly drawing		
				parts		
12		1	PM6-1C.008	Cover	1	
11		2	PM1 003	Bushing.	2	
11		3	PM -161-68	Terminal panel	1	
11		4	X1-490-92	Terminal bolt	2	
11		5	X2-10630	Nut M5	2	
11		6	X3-102-14	Washer	2	
				Standard items.		
		7	EQ.MATERIAL:-GRADE 80CV1 V2370 IS:1570 OR EN-4770 BS:970	Washer 565F06		OCU Ad. 00837-ICV
				GOST6402-70	2	X-4001

APPROVED	M VASU	PM6-1C.040	
CHECKED			
CONTROLLERATE OF INSPECTION (ICV)		COVER	WEIGHT / SCALE
			SHT / SHTS
			53 OF 80



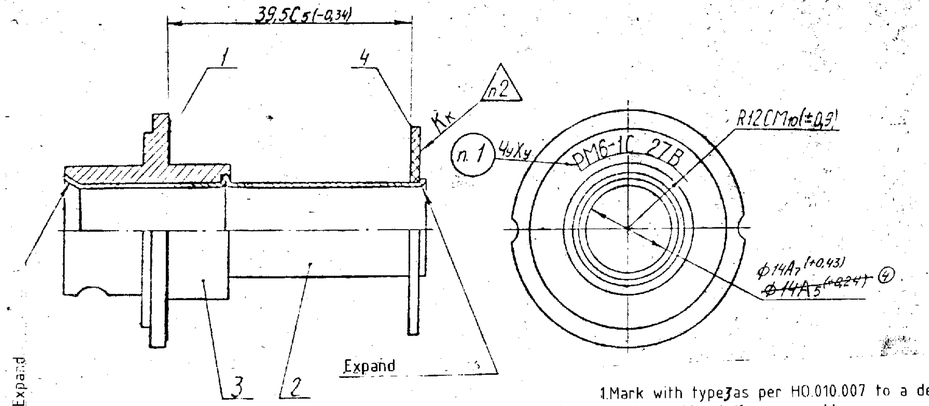


Punch nuts, Ref,No5, is three places.

APPROVED	M YASU	PM6-1C.040C6	
CHECKED			WEIGHT: 42.5 SCALE: 2:1
CONTROLLERATE OF INSPECTION (ICV)		COVER	SHT 54 OF 80

18
12-602

84



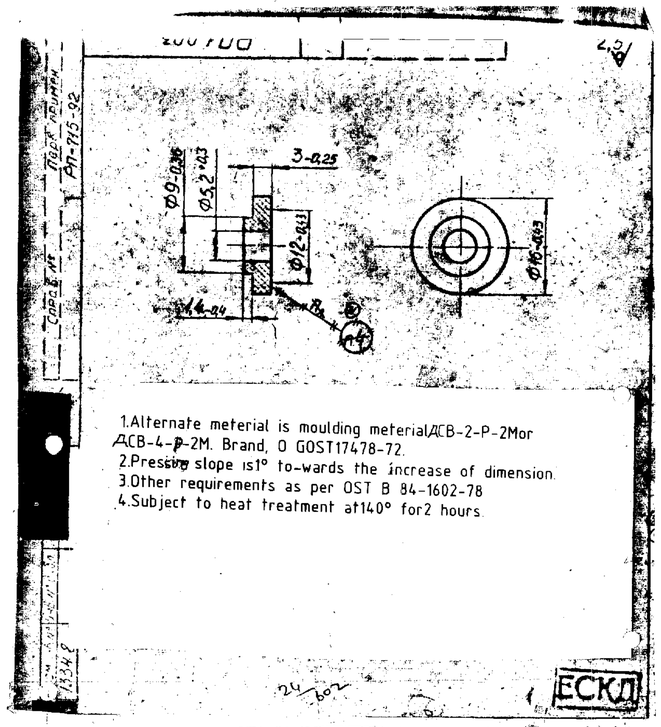
1.Mark with type as per HO.010.007 to a depth of0,5mm apply marking before assembly
2.Stamp.
3.While flo-ring out the bushing,Ref.2.Breakage of soldering over a length not exceeding 10mm is allowed from each end.

APPROVED	M VASU	PM6-1C.050C5	
CHECKED		FRAME	WEIGHT 0.07 / SCALE 2:1
CONTROLLERATE OF INSPECTION (I.C.V)			SHT 56 OF 80

84

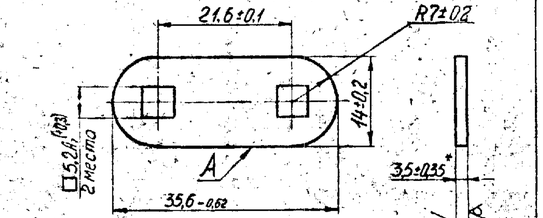
FORMAT	ZONE	REF. NO.	DESIGNATION.	DESCRIPTION.	QTY	REMARKS
				Technical papers		
12			PM6-1C.050CG.	Assembly drawing		
				Parts,		
					1	
11		1	PM6-1C.003	Washer.		
					1	
11		2	PM6-1C.009	Bushing.		
					1	
13		3	PM6-1C.011	Bushing.		
					1	
11		4	X5-9960.	Washer.		

ROVED	M.VASU	PM6-1C.050.
SIGNED		
CONTROLLERATE OF INSPECTION (I.C.V.)	FRAME	SCALE
		SHT SHTS
		55 OF 80



1. Alternate meterial is moulding meterial АСВ-2-Р-2Мor АСВ-4-Р-2М. Brand, О GOST17478-72.
2. Pressing slope is1° to-wards the increase of dimension.
3. Other requirements as per OST B 84-1602-78
4. Subject to heat treatment at140° for2 hours.

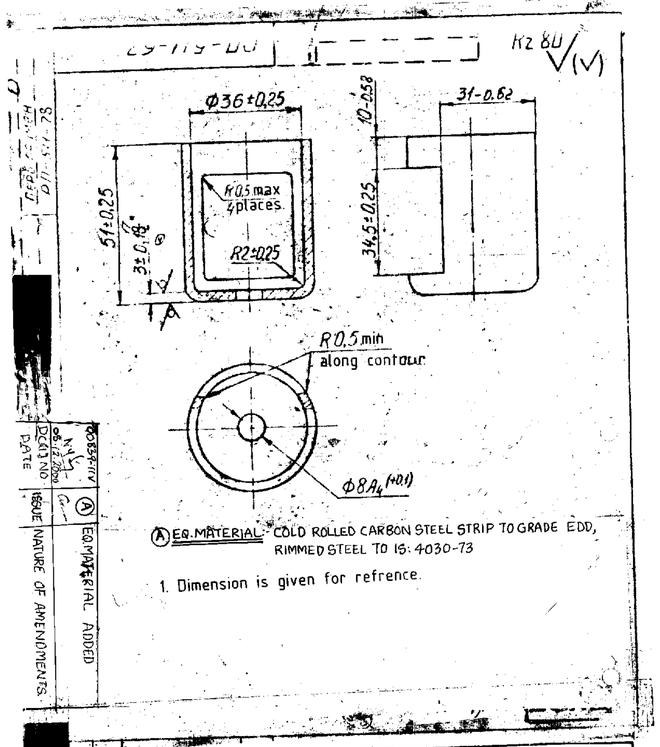
APPROVED	M.YASU	РП 1.003	
CHECKED		BUSHING	WEIGHT 0.001 / SCALE 2:1
CONTROLLERATE OF INSPECTION (ICV)		Moulding Material AT-48 GOST 20437-75	SHT / SHTS 700F80



1. Alternate meterial is textolite brand Б, GOST2910-74.
2. *Dimensions given for refrence.
3. Coating: impregnating with varnish ГФ-95, GOST8018-70.
4. Local spalling of core on surface A to ... depth not exceeding 1.5mm is allowed, total length of local spalling should not exceed 30 % of the whole contour.

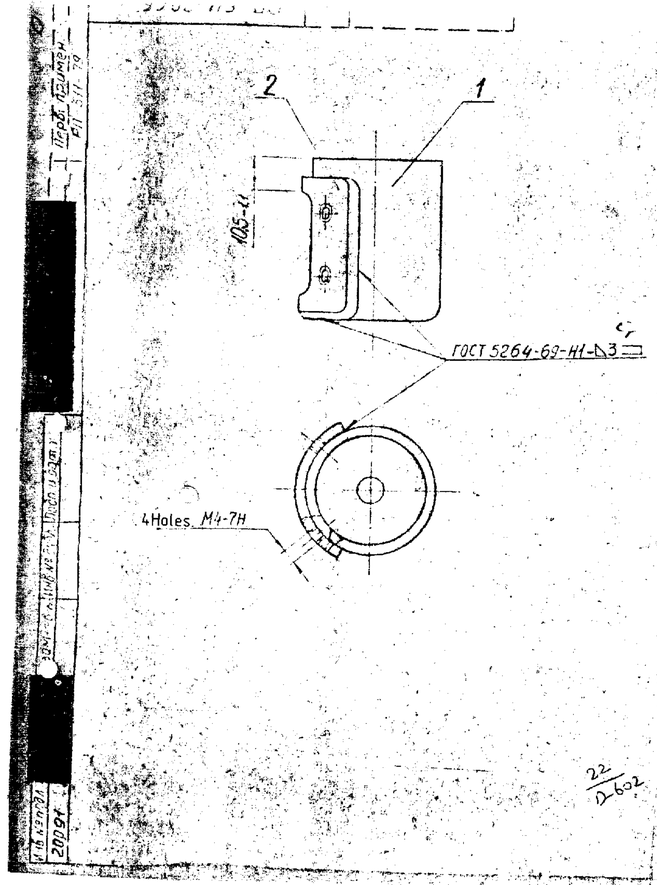
APPROVED	M. VASIL	РП-161-68	
CHECKED			
CONTROLLERATE OF INSPECTION (ICV)		TERMINAL PANEL	WEIGHT 1.8g, SCALE 2:1
		Textolite A-3.5 GOST 2910-74	SHT SHTS 71 OF 80

41 D-602 ГСКД


Kz 80
V(V)
Φ36±0.25
31-0.62
10-0.58
R0.5 max
4places
R2±0.25
51±0.025
34.5±0.025
3±0.1
R0.5 min
along contour
Φ8A4(+0.1)
A EQ.MATERIAL- COLD ROLLED CARBON STEEL STRIP TO GRADE EDD, RIMMED STEEL TO IS: 4030-73
1. Dimension is given for refrence.
EQ.MATERIAL ADDED
ISSUE NATURE OF AMENDMENTS
DCAN NO
DATE
05.12.2000
APPROVED
M VASU
CHECKED
CONTROLLERATE OF INSPECTION (I.C.V.)
РП-511-67
CASING
WEIGHT
SCALE
120g
SHT
SHTS
6.5-FEB
70

FORMAT	ZONE	REF. NO.	DESIGNATION.	DESCRIPTION.	QTY	REMARKS
				Technical papers.		
12			PП-511-79C6	Assembly drawing.		
				Parts.		
11	1		PП-511-67	Casing	1	
12	2		PП-311-80	Cover plate.	1	

M VASU	PП-511-79	
CONTROLLERATE OF INSPECTION (ICV)	CASE WITH COVER PLATE	WEIGHT / SCALE
		SHT / SHTS
	8	57 OF 80

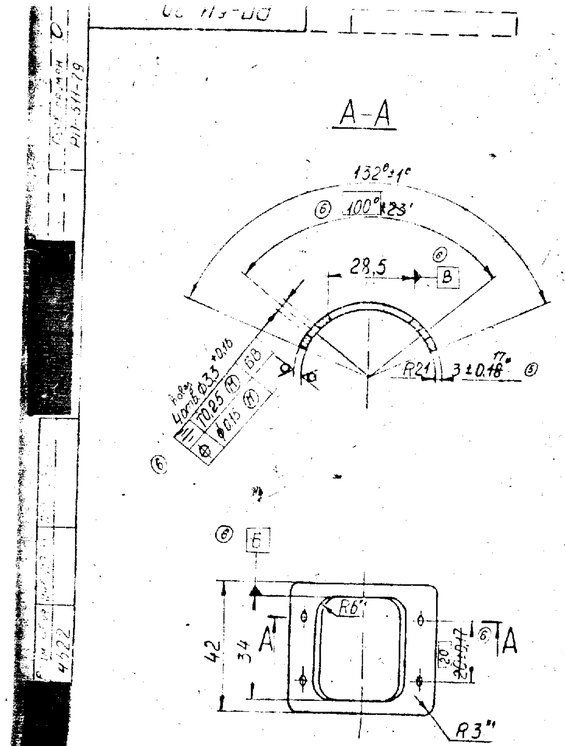


1.Eccentricity of opening in part, Ref.No2. with respect to opening in parts Ref.1. should not exceed0,25mm.
2.Coating: Zinc plated, 9 microns thick, Chromized) composition of solution for chromotizing as per И-252.78.
3.Insted of welding, brazing with copper is allowed, before brazing with copper .tack welding by spot welding at3to4 points is allowed.

ЕСКД

APPROVED	M VASU	РП-511-79 СБ	
CHECKED		CASING WITH COVER PLATE	WEIGHT / SCALE
CONTROLLERATE OF INSPECTION (ICV)			SHT / SHTS 1
		94	58 of 80

Rz 160 V(√)



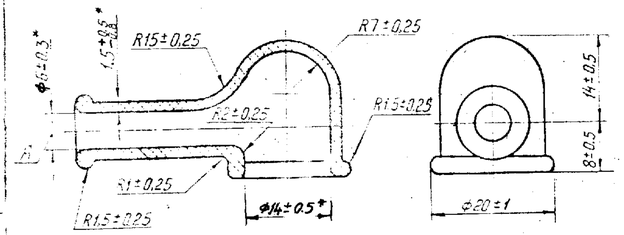
1. Alternate meterial: Sheet A3.0 GOST19904-74
   4-Ш-10GOST16523-70.
2. * Dimension.. is given for refrence
3. Un-specified limit deviations of dimensions ±0,25mm.
4. * Dimensions are provided with tool.
5. Assymetry of dimension arrangements with respect to axes is with-in tolerence limits.

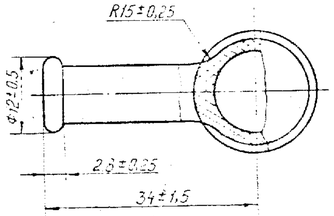
Ⓐ EQ.MATERIAL: COLD ROLLED CARBON STEEL STRIP TO GRADE EDD, RIMMED STEEL TO IS: 4030-73.

DC(I) NO DATE	ISSUE	NATURE OF AMENDMENTS
00839-KY 19-12-2006	Ⓐ	EQ.MATERIAL ADDED.

APPROVED		РП-511-80	
CHECKED		COVER PLATE	WEIGHT 27g / SCALE 1:1
CONTROLLERATE OF INSPECTION (IC Y)		Sheet	SHT / SHTS 66 OF 80

CA-18-66





1. Provide all dimensions, except dimensions having symbol * with tool, checked periodically once per quarter.
2. At the place of intersection of diameter A with Φ14±0.5, it is allowed: sharp corner with burr up to 1mm, swelling at places of crossing of diameters, and tear outs to a depth not exceeding 1mm, with total length up to 1/3 of circumference.
3. Other technical requirements as per TU 105 431-77.

Traction Relay
33 D.602 ECK II

APPROVED	H. VASL	CA-18-66
CHECKED		
CONTROLLERATE OF INSPECTION (ICV)	RUBBER CAP	WEIGHT 4.5g SCALE 2:1
	Soft rubber	SHT 77 OF 80

84

6. SUPPLIER'S GUARANTEE.

6.1. Relay should be accepted by technical inspection department of manufacturing factory.

Supplier guarantees the ~~complaince~~ compliance of relay with requirements of present technical specifications and no- failure operation provided that customer observes the conditions of operation, transportation and storage set forth in technical specifications.

Grarantee life is set for 500 operating hours of main eng ne within the run of 6000 or 8000 km in ~~complaince~~ compliance with guarantee for vehicle.

Storage life of relays, preserved with regard to OST B3-2381-74 in store houses of consumer should not exceed 5yrs or 8 yrs when packed in sealed bags as per OST B3-2381-74.

LIST OF APPENDICES.

1. List of technical papers to which reference is given in present Technical Specifications.

2. Relay PM6-C. out line drawing PM6-1C.000 Ty