

NOTE:-
 DRG. NO. IN ENGLISH MVP 2-000SB REPRESENTS
 DRG. NO. МВН2-000СБ & МВН-2, МВН.000Т in RUSSIAN.

VERIFIED
 24 FEB 2008
 JWM/STD-CELL

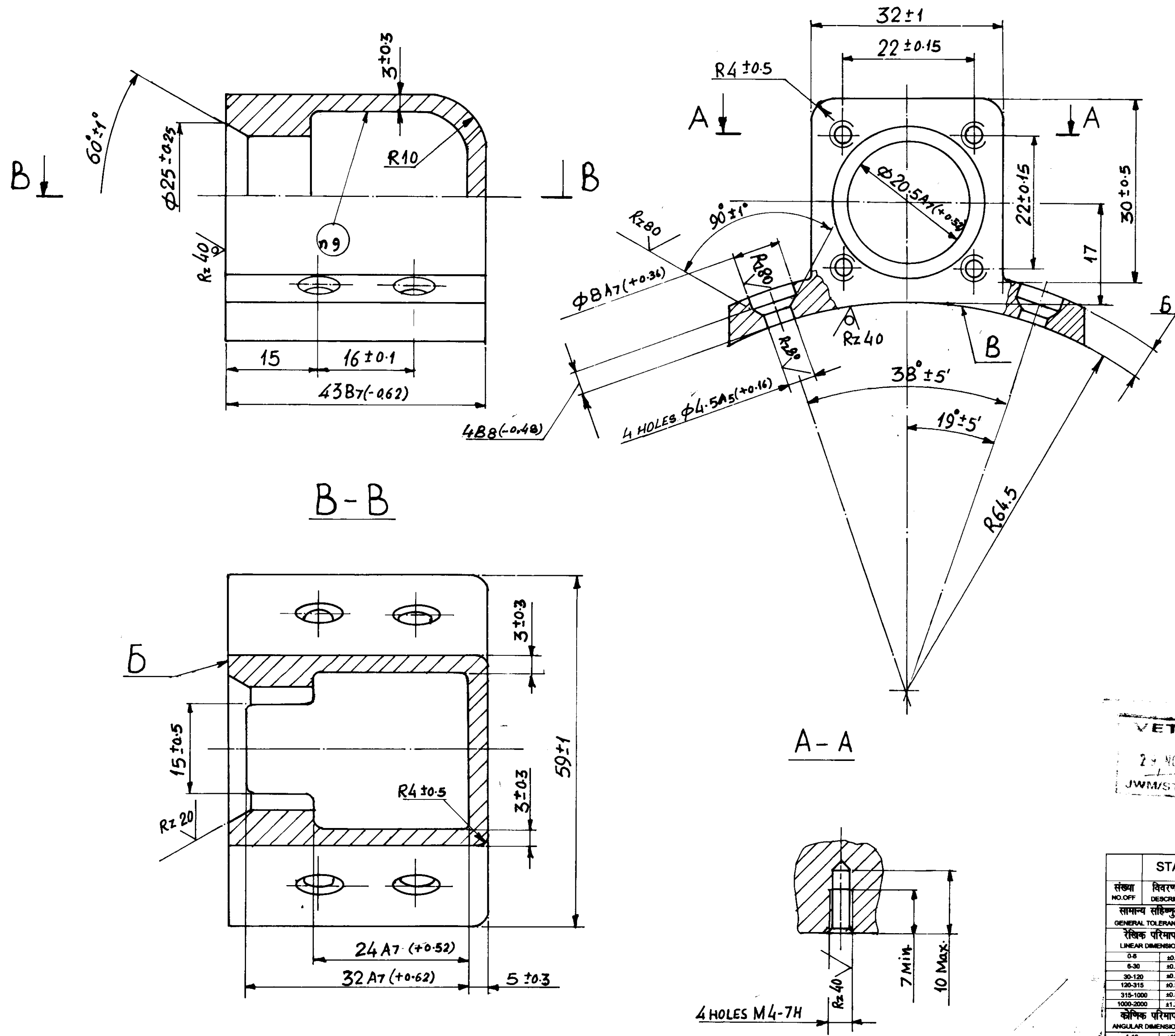
- Secure the unoin Ref.No.11, screws Ref.No.24,25 and screw Ref.No.23 which fasten the cover Ref.No.12 with the sealant Y30M, GOST 13489-79.
- Smear the place of cover seams with sealant Y-30M GOST 13489-79.
- Coat enamel XB-124, grey GOST 10144-74 on the screws Ref.No.23, which fasten brush Ref.No.6 and fastening parts Ref.No. 19, 20, 18, 27, 26.
- Solder the lead Ref.No.7 to the minus terminal 2 of plug connector using tin 03, GOST 860-75.
- After soldering the wires to the plug connector lead terminals, their soldering places and the pins should be insulated each with glass varnished cloth Ref.No.30 tightly upto the textolite washer of plug connector.
- Apply enamel XB-124, grey, GOST 10144-74 as the screw Ref.No.22.
- Coat electric motor with enamel Mп-12, black, GOST 9754-76 except on surfaces A and 5.
- Coat the inscriptions using enamel $\Gamma\phi-115$, white, GOST 6465-76.
- Mark using type 5 no. H0.010.007, with depth not less than 0.5mm.
- Screw the transporting cap Ref.No.21 on the plug connector it is not shown conventionally in drawing.

FIRST ANGLE PROJECTION

इन आरेखों तथा इसके साथ की सम्पूर्ण सामग्री का स्वत्वाधिकार भारत सरकार रक्षा मंत्रालय की भारतीय आयुध निर्माणियों के पास है। भारतीय आयुध निर्माणियों के महानिदेशक की लिखित अनुमति के बिना इनकी नकल या किसी भी रूप में इनके उद्धरण या इनमें समाहित सूचना किसी अनधिकृत व्यक्ति को उपलब्ध नहीं कराई जानी चाहिए।

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संख्या NO.OFF	विवरण DESCRIPTION	पुरा क. PART NO.	पदार्थ MATERIAL	मानक STANDARD	परिमाण DIMENSIONS	9.4 MASS (Kg)
सामान्य सहिष्णुता GENERAL TOLERANCE						
रेखिक परिमाण LINEAR DIMENSION						
0-6						±0.1
6-30						±0.2
30-120						±0.3
120-315						±0.5
315-1000						±0.8
1000-2000						±1.2
कोणिक परिमाण ANGULAR DIMENSION						
1-10						±1'
10-50						±20'
50-100						±25'
>100						±10'
मापक "मि एम" में VALUE IN "mm"						
						>25
▽						8-25
▽▽						1.6-8
▽▽▽						0.025-1.6
▽▽▽▽						<0.025
संख्या NO.OFF	संबंधित पुस्तक आरेखण क्र. DRG. NO. OF ASSOCIATED PART	सूचक INDEX	संशोधन ALTERATION	2003 दिनांक DATE		
ELECTRIC MOTOR MVP-2 ASSEMBLY DRAWING				मापमान SCALE	आरेखित DRAWN	2-1-03 Date
				1:1	जाँचा CHECKED	3-1-03 Date
					अनुमोदित APPROVED	
				द्वारा बदला BY	REPLACED FOR	
मशीनी औजार आदिरूप फैक्टरी, अम्बरनाथ MACHINE TOOL PROTOTYPE FACTORY, AMBERNATH				कार्यालय OFFICE	VMT	
				आरेखण क्र. DRAWING NO.	MVP 2-000SB	



1. Casting radii should not exceed 3mm.
2. Pattern drafts are 2° towards decreasing of dimensions.
3. Unspecified limit deviations of dimensions are $\pm 0.25\text{mm}$ and of angular dimension is $\pm 30'$.
4. Blunt sharp edges by chamfering $\approx 0.3\text{mm} \times 45^\circ$ and with radius $\approx 0.3\text{mm}$
5. Weld joints and traces due to pushers are not allowed on surface B.
6. Impregnation with varnish B-725F, TY6-10-866-75 under vacuum is allowed.
7. Check the water permeability with excess air pressure of 0.3atm.
8. Coating :- Anodically oxidized, chromated or chemically oxidised, fluorinated. Paint enamel Mf-12, black, GOST 9754-76 III ~~✗~~, except on surface B.
9. Varnish paint coating should be done in compliance with OST 3 - 1928 - 73.
10. Number of press mould and socket number are allowed to mark by type 3 as per H0.010.007.

VETTED
24 NOV 2007
JWM/ST/DEL

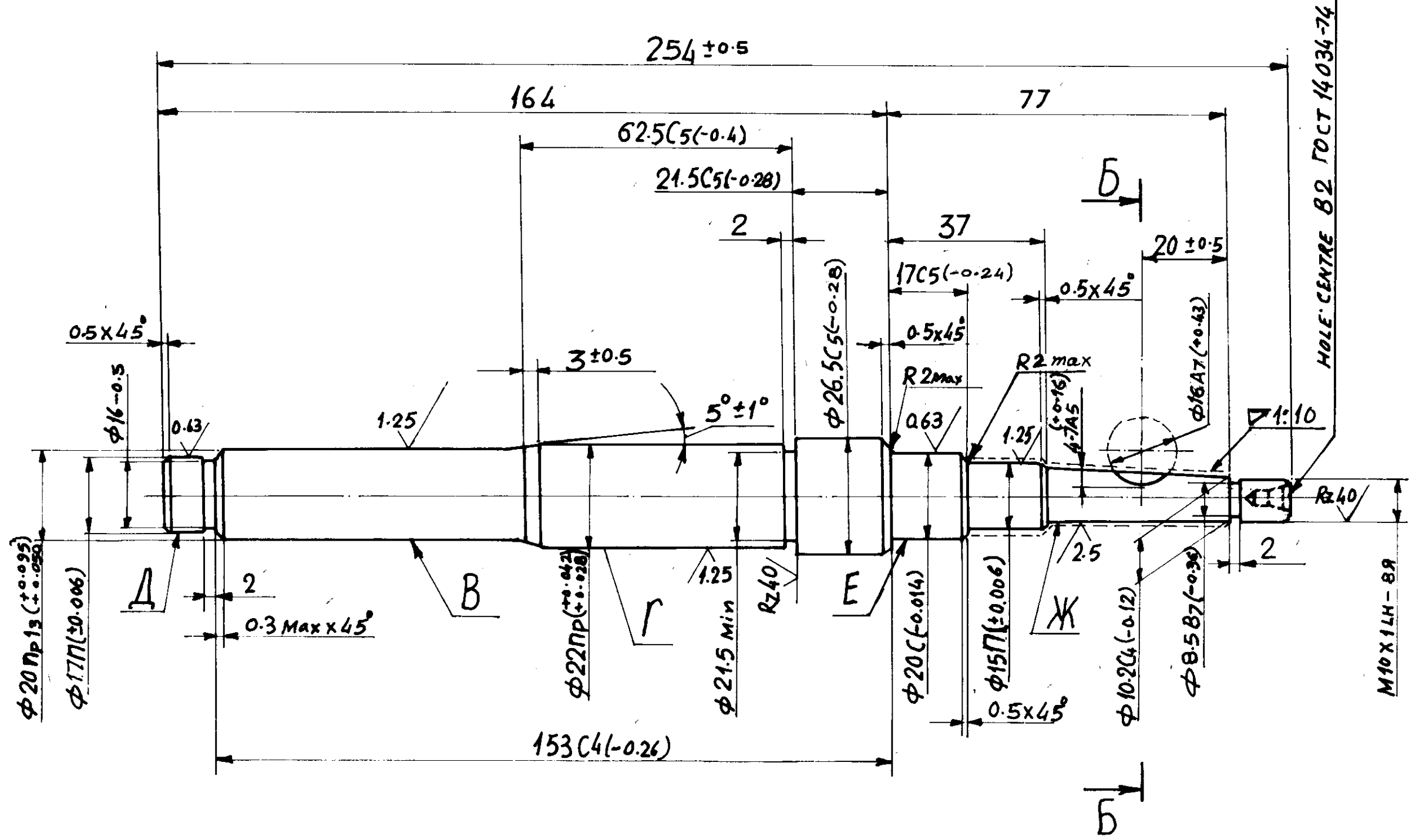
EQ. MATERIAL :- GRADE 4600 to IS : 617-75

FIRST ANGLE PROJECTION

STAND		Alloy A12 GOST - 2685 - 75		65g																																							
संख्या NO.OFF	विवरण DESCRIPTION	पुर्जा क्र. PART NO.	पदार्थ MATERIAL	मानक STANDARD	परिमाण DIMENSIONS																																						
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STAND				मापमान SCALE	आरेखित DRAWN																																						
				2:1	05-04																																						
				जाँचा CHECKED	6/1/03																																						
				अनुमोदित APPROVED																																							
				द्वारा बदला REPLACED BY																																							
				हेतु बदला REPLACED FOR																																							
				आरेखण क्र. DRAWING NO.	MBN 2 - 00 - 02																																						
मशीनी औजार आदि रूप फैक्टरी, अम्बरनाथ MACHINE TOOL PROTOTYPE FACTORY, AMBERNATH				कार्यालय OFFICE	Code-38																																						
				VMT																																							

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Rz 80 (✓)

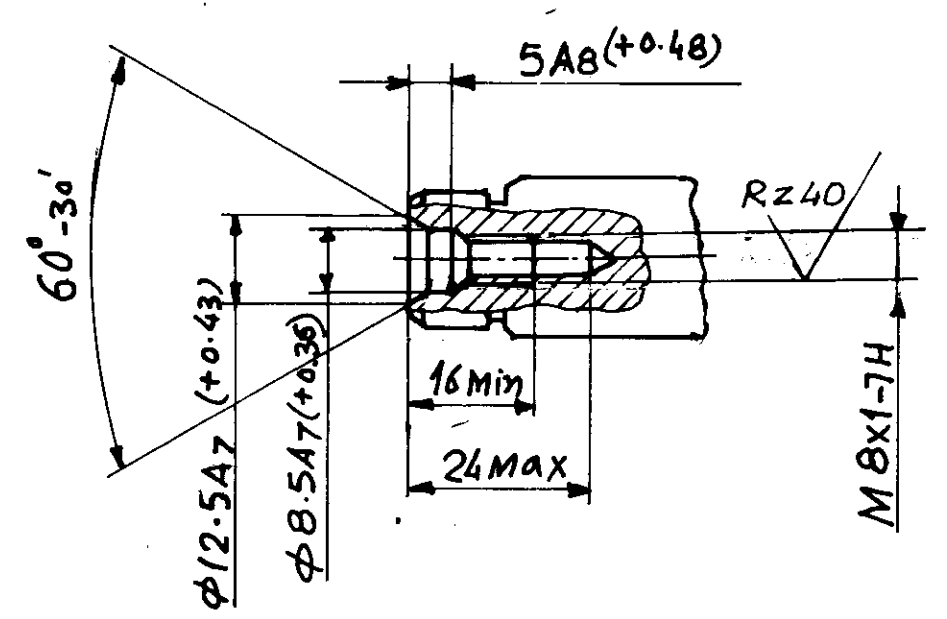
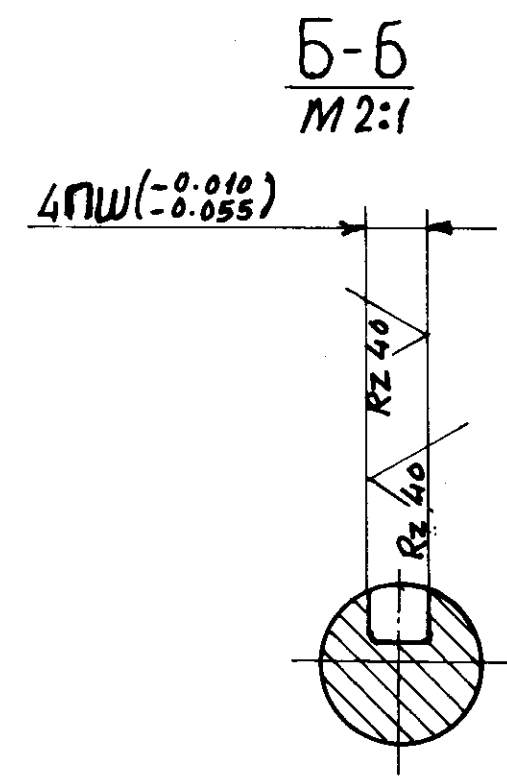


1. Radial play of surface B and surface F with respect to surface A and surface E should not exceed 0.05mm.
2. Blunt sharp edges of key-way on the tapering surface of shaft along the perimeter not exceeding R 0.5mm.
3. Unspecified limit deviations of dimensions are ±0.25mm.
4. Coating :- Chrome-plating, 6 microns thickness on surface *

EQ. MATERIAL :- C40, IS : 2073 - 70 OR EN8, BS : 970.

VETTED
 29 NOV 2007
 JWM/STD-CELL

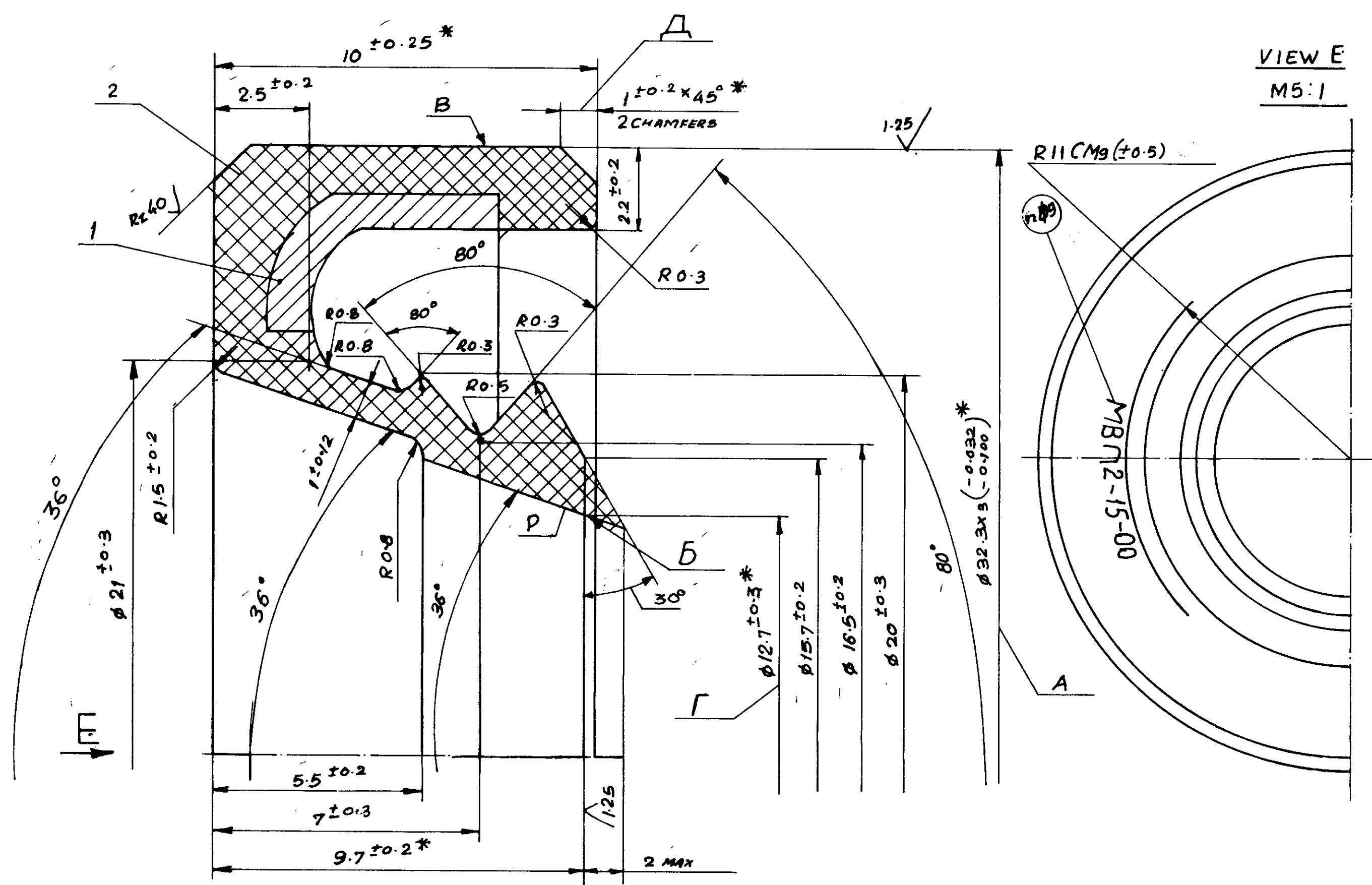
FIRST ANGLE PROJECTION



* STEEL 40, GOST 1050-74

SHAFT		*		0.58		
संख्या NO.OFF	विवरण DESCRIPTION	पुर्जा क्र. PART NO.	पदार्थ MATERIAL	मानक STANDARD	परिमाण DIMENSIONS	MASS (kg)
सामान्य सहिष्णुता GENERAL TOLERANCE						
रेखिक परिमाण LINEAR DIMENSION						
कोणिक परिमाण ANGULAR DIMENSION						
संख्या NO.OFF	संबंधित पुर्जा क्र. DRG. NO. OF ASSOCIATED PART	सूचक INDEX	संशोधन ALTERATION	2003	दिनांक DATE	नाम NAME
1-10	21				13.1	Ronde
10-50	230				14.1.03	lf
50-100	227					
100	217					
मापक 'म्यू एम' में VALUE IN 'μm'						
-						
▽						
▽▽						
▽▽▽						
▽▽▽▽						
SHAFT		Code-38		मापमान SCALE		आरेखित DRAWN
				1:1		जाँचा CHECKED
						अनुमोदित APPROVED
				द्वारा बदला REPLACED BY		
				हेतु बदला REPLACED FOR		
				आरेखण क्र. DRAWING NO.		MB/72-10-02
		मशीनी औजार आदिरूप फैक्टरी, अम्बरनाथ MACHINE TOOL PROTOTYPE FACTORY, AMBERNATH		कार्यालय OFFICE		VMT

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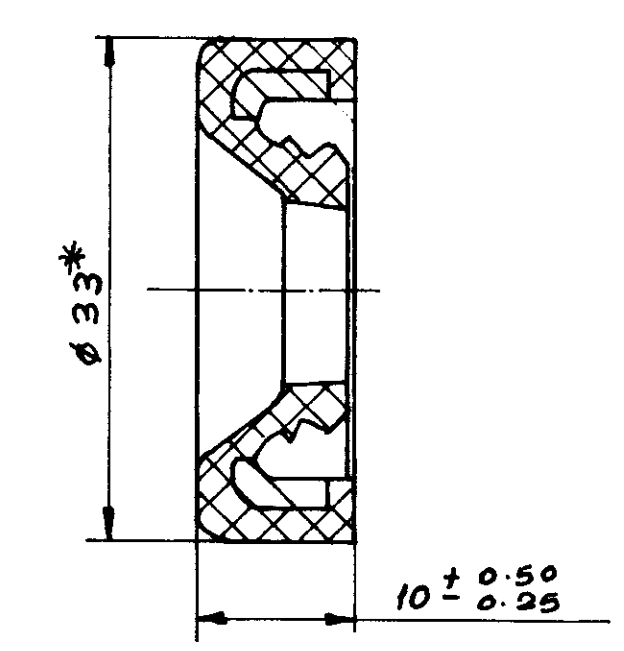


1. Unspecified limit deviations of radii are $\pm 0.1\text{mm}$ and angular dimensions $\pm 1^\circ$.
2. * Dimensions are to be obtained by machining in the customer's factory. Other dimensions are provided with tools.
3. Edge Γ should be sharp and uniform, hollow, tear-out burrs are not allowed. (For customer).
4. Play of surface B with respect to surface P should not exceed 0.05mm. Provide checking of dimension A and play on the mandrel $\phi 15$, $5/11 \begin{matrix} -0.030 \\ -0.050 \end{matrix}$ mm in the factory of the customer.
5. Provide checking of dimensions A and Γ under a load of 50gms. in customer's factory.
6. Part is supplied with allowance not more than 2mm on dimension Γ .
7. Removal of the chamfers Γ and finishing upto dimension Γ and A are carried out in customer's factory.
8. Sag of rubber on the armature surface is allowed.
9. Mark with type print 3 as per H0.010.007.
10. Other technical requirements are as per TY005.216-75.
12. Surface P should be smooth, without burrs and traces of mould joints.
13. Roughness of surfaces should be accepted as per standard piece.

FIRST ANGLE PROJECTION

VETTED
 24 FEB 2008
 JWM/STD-CELL

M2:1



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SEALING (ASSY. DRG.)					10g																													
संख्या NO. OF	विवरण DESCRIPTION	पुर्जा क्र. PART NO.	पदार्थ MATERIAL	मानक STANDARD	परिमाण DIMENSIONS	MASS (Kg)																												
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SEALING RING ASSY. DRG.				मापमान SCALE	आरेखित DRAWN	2.1.08																												
				10:1	जांचा CHECKED	cl/113																												
					अनुमोदित APPROVED																													
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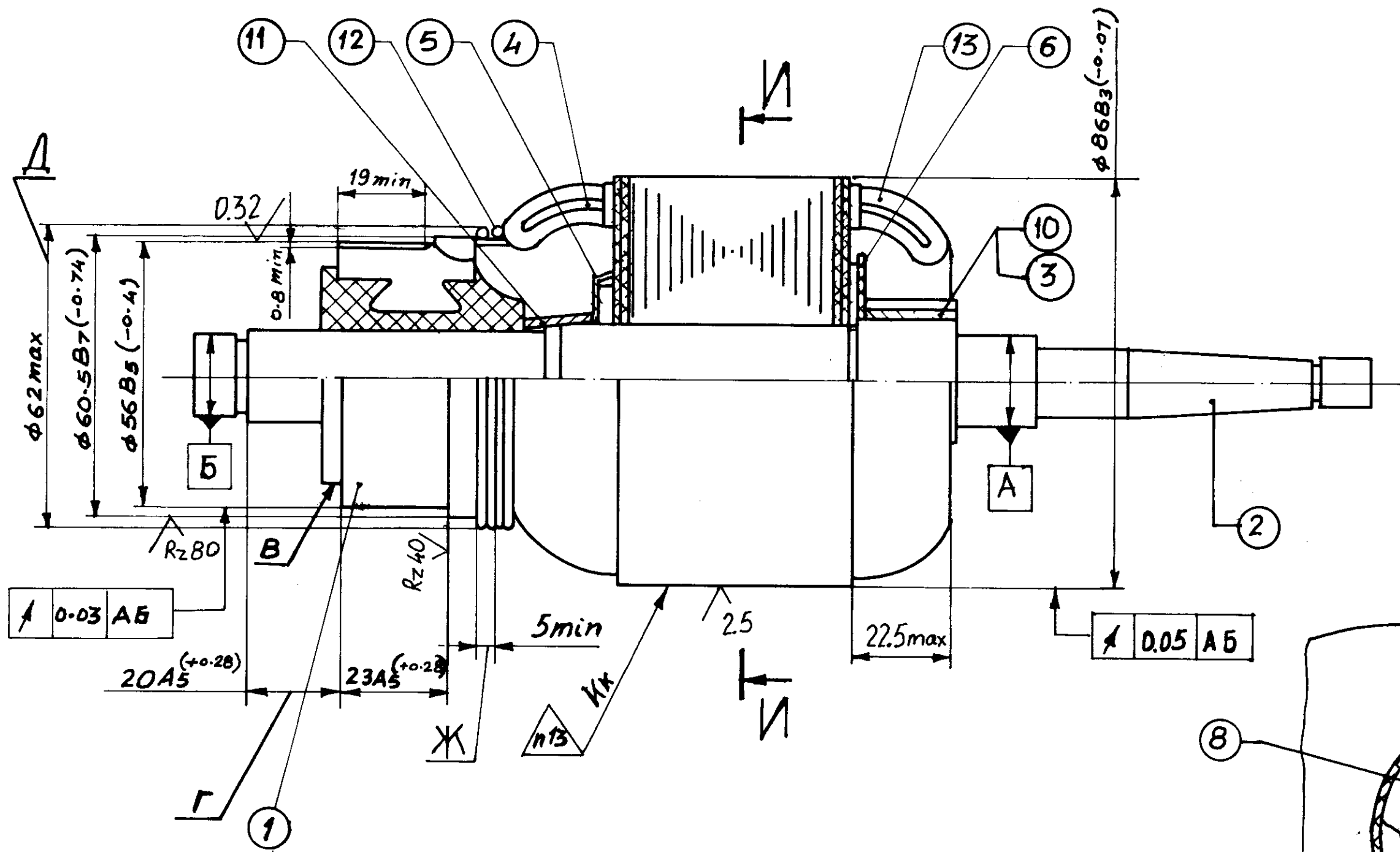
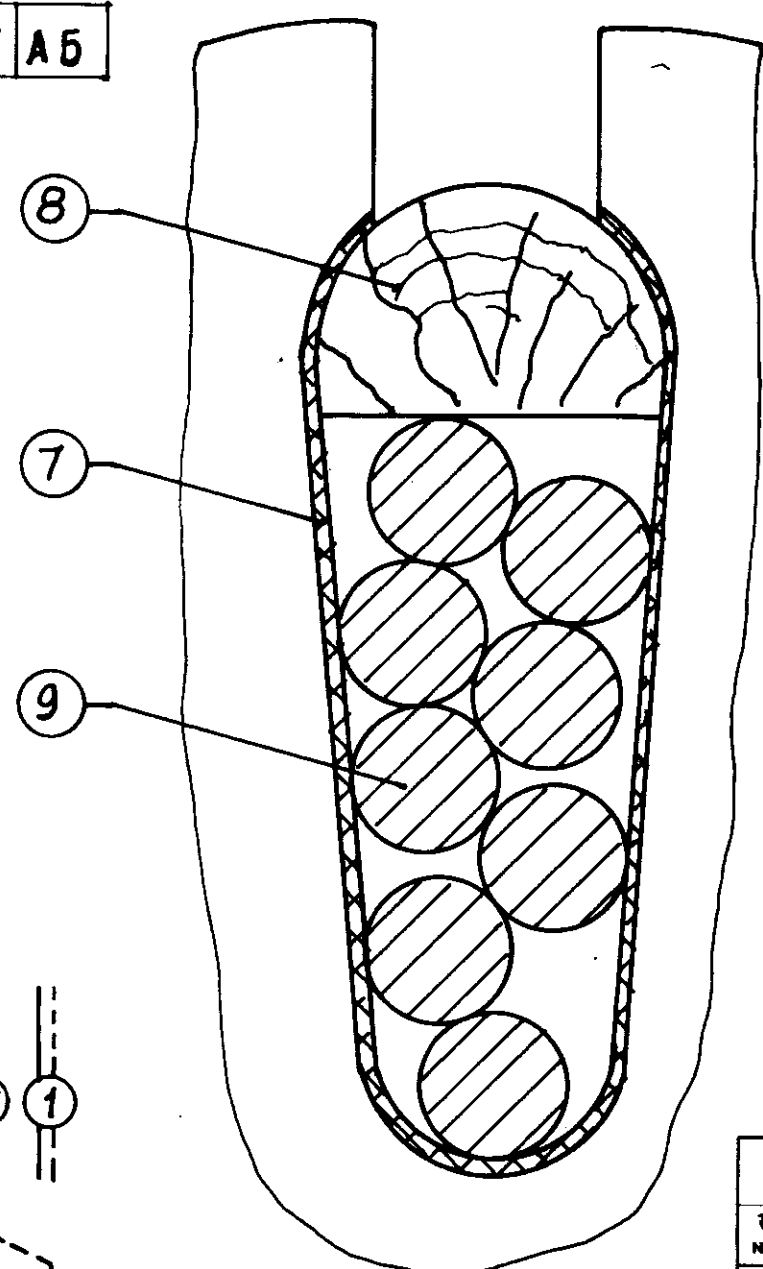


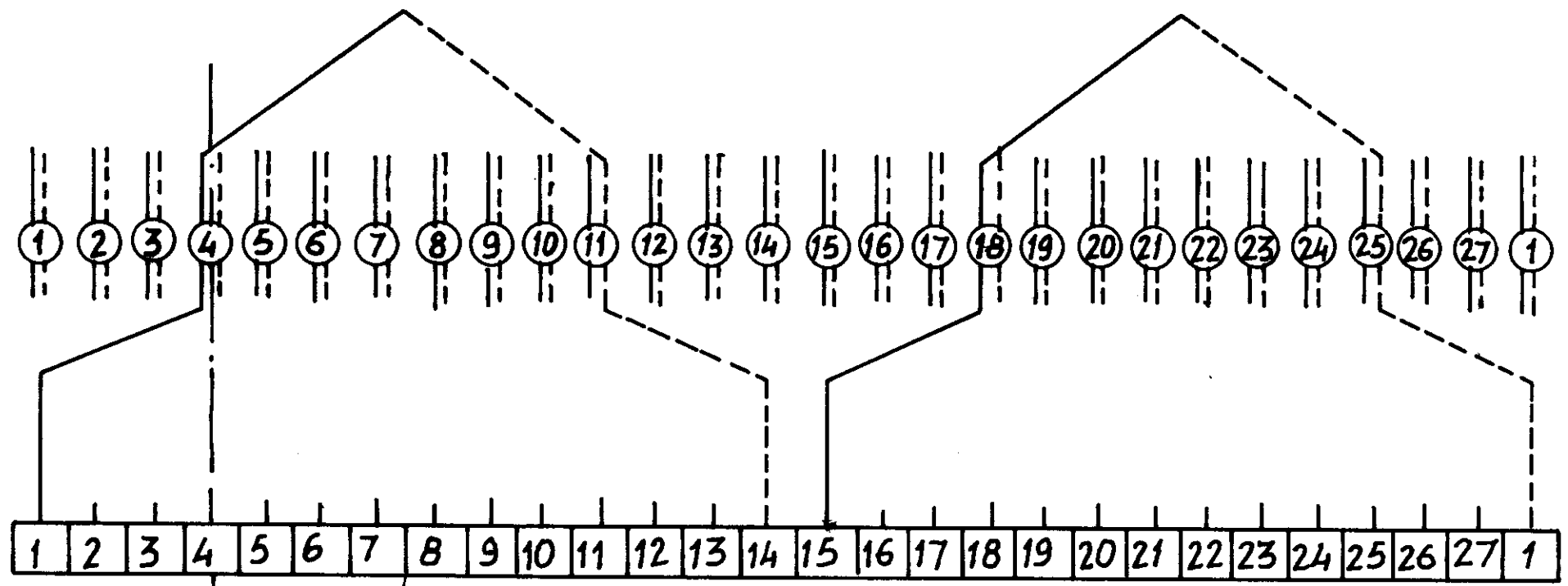
Diagram of electrical connections.

1. Check dimensions r as per the most sunk bar.
2. Turns in section - 4. Winding is wavy. Left or right coiling is allowed.
3. Insulate the lower section from each other with glass varnish cloth of width, 14 ± 0.5 mm, Ref.No.14.
4. Upper sections from each other and lower sections are to be insulated with glass varnish cloth of width, 14 ± 0.5 mm, Ref.No.14.
5. Solder cocks with wire nCP (soldering Ag) Cadmium Mr3, Technical specifications 48 - 1 - 210 - 74.
6. Apply varnish MA - 0121, Technical specifications Ty 6-10-1314-77, made as per insulation U-225-68 on binding, Ref.No. 12.
7. Binding should not project over diameter Δ on length \times from the commutator.
8. Impregnate with varnish E T - 988 GOST 6244-70 twice.
9. Coat the left section of armature iron and surface B using enamel $\Gamma\phi$ - 92 XC, grey, GOST 9151-75, after grinding the armature iron.
10. Test the armature for over speeding at 7000 r.p.m. for 1 minute after which separate plates of commutator should not project more than 0.01mm.
11. Test armature for breakdown for 1 minute with voltage, 550V of A.C. with frequency, 50 Hz.
12. Resistance of insulation should not be less than 50 ohms in cold condition.
13. Mark.
14. Pull the last section towards the shaft with the cold insulation tube, Ref.No. 13.



FIRST ANGLE PROJECTION

VETTED
25 FEB 2008
JWM/STD-CELL

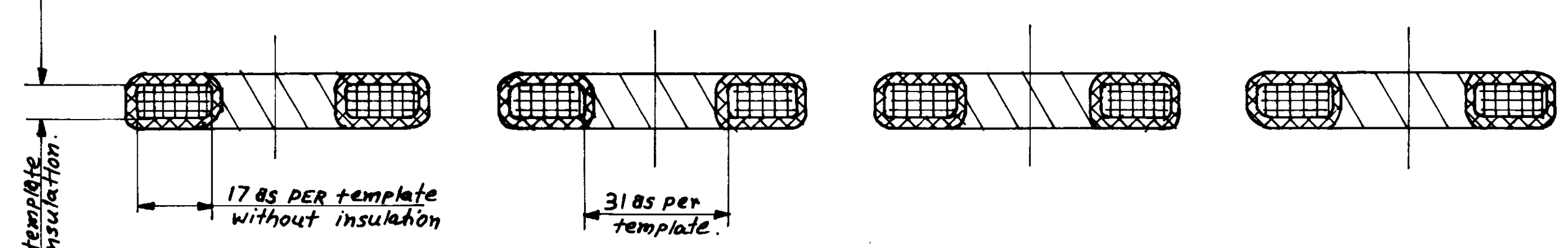


Slot pitch 1-8
Commutator pitch 1-14
No. of slots Z=27
No. of commutator plates K=27

Centre of slot 4 should coincide with the central commutator plate

इन आरेखों तथा इसके साथ की सम्पूर्ण सामग्री का स्वामित्व भारत सरकार रक्षा मंत्रालय की भारतीय आर्युध निर्माणियों के पास है। भारतीय आर्युध निर्माणियों के महानिदेशक की लिखित अनुमति के बिना इनकी नकल या किसी भी रूप में इनके उद्धरण या इनमें समाहित सूचना किसी अनधिकृत व्यक्ति को उपलब्ध नहीं कराई जानी चाहिए।
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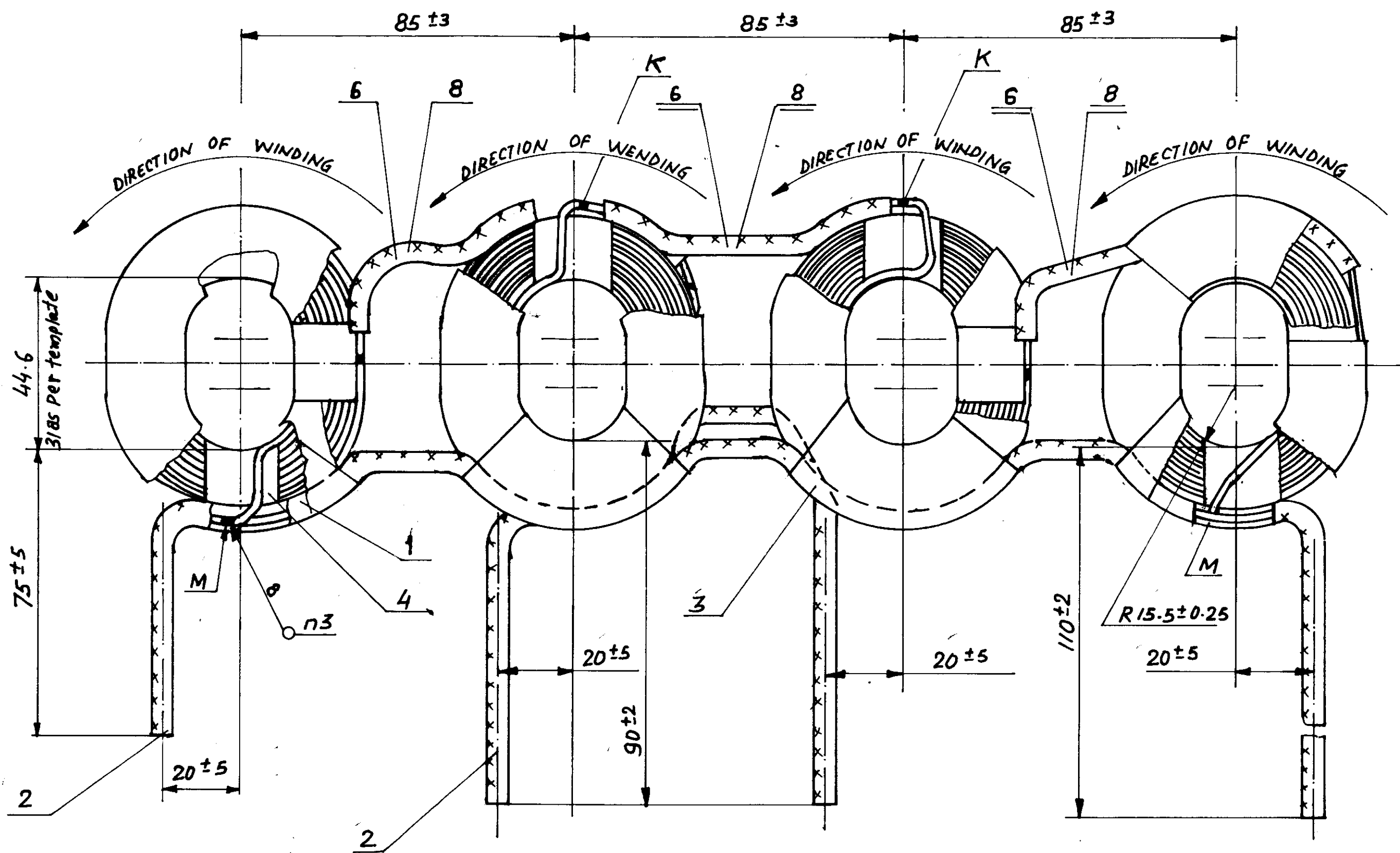
संख्या NO. OFF		विवरण DESCRIPTION		पुर्जा क्र. PART NO.	पदार्थ MATERIAL	मानक STANDARD	परिमाण DIMENSIONS	2.9	MASS (Kg)
ARMATURE (ASSY. DRG.)									
सामान्य सहिष्णुता GENERAL TOLERANCE									
रेखिक परिमाण LINEAR DIMENSION									
0-8	±0.1								
8-30	±0.2								
30-120	±0.3								
120-315	±0.5								
315-1000	±0.8								
1000-2000	±1.2								
कोणिक परिमाण ANGULAR DIMENSION									
1-10	±1'								
10-50	±30'								
50-100	±20'								
>100	±10'								
मापक 'म्यू एम' में VALUE IN 'μm'									
-	±25								
∇	8-25								
▽	1.8-8								
▽▽	0.025-1.8								
▽▽▽	±0.025								
संख्या NO. OFF		संबंधित पुर्जा क्र. DRG. NO. OF ASSOCIATED PART		सूचक INDEX	संशोधन ALTERATION		मापमान SCALE 1:1 आरेखित DRAWN 11/1/08 जाँचा CHECKED 13/1/08 अनुमोदित APPROVED द्वारा बदला REPLACED BY हेतु बदला REPLACED FOR आरेखण क्र. DRAWING NO. MB/12-16-00 C5		
ARMATURE (ASSY. DRG.)							मशीनी औजार आदिरूप फैक्टरी, अम्बरनाथ MACHINE TOOL PROTOTYPE FACTORY, AMBERNATH कार्यालय OFFICE VMT		



1. Windings should have 410 ± 3 turns coiled with wire Ref. No. 1.
2. Use the tape Ref. No. 7, for fastening the coils, in 4 places.
3. Dress the two ends of the coils and twist them with wire Ref. No. 2 and 6. Solder the place of twisting with solder nOCCY-40-2, GOST 21930-76. Insulate the soldering portion M with varnish cloth Ref. No. 4 and cable paper Ref. NO. 9; soldering portion K with tube Ref. No. 8. and varnish cloth Ref. No. 4 and other portions with tube Ref. No. 8 and varnish cloth Ref. No. 5.
4. Insulate the coils by semiover lapping with varnish cloth.
5. 3 to 4 layers of insulation are allowed in some places.
6. Resistance of every coil should be 6.8 ± 0.5 ohms.
7. Common resistances of coils are 26 ± 2 (27.2 ± 2 ohms) at 20°C .
8. Wire n) B-2-0.5, GOST 7262-78 may be used.

EQ. MATERIAL :- Sn 40 sb to IS: 193-82

FIRST ANGLE PROJECTION



VETTED
24 FEB 2006
JWM/STD-CELL

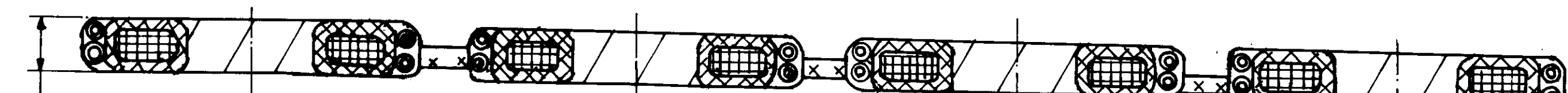
संख्या NO. OFF	विवरण DESCRIPTION	पुर्जा क्र. PART NO.	पदार्थ MATERIAL	मानक STANDARD	परिमाण DIMENSIONS	570g MASS
सामान्य सहिष्णुता GENERAL TOLERANCE						
रेखिक परिमाण LINEAR DIMENSION						
0-6	±0.1					
6-30	±0.2					
30-120	±0.3					
120-315	±0.5					
315-1000	±0.8					
1000-2000	±1.2					
कोणिक परिमाण ANGULAR DIMENSION						
1-10	±1'					
10-80	±30'					
50-100	±20'					
>100	±10'					
मापक 'यू एम' में VALUE IN 'UM'						
-	>25					
∇	8-25					
▽	1.6-8					
▽▽	0.025-1.6					
▽▽▽	<0.025					
संख्या NO. OFF	संबंधित पुर्जा क्र. DRG. NO. OF ASSOCIATED PART	सूचक INDEX	संशोधन ALTERATION	दिनांक DATE	नाम NAME	
SHUNT COILS (ASSEMBLY DRAWING)				मापमान SCALE	आरेखित DRAWN	8/1/03
				जांचा CHECKED	11/1/03	
				अनुमोदित APPROVED		
				द्वारा बदला REPLACED BY		
				हेतु बदला REPLACED FOR		
मशीनी औजार आदिरूप फैक्टरी, अम्बरनाथ MACHINE TOOL PROTOTYPE FACTORY, AMBERNATH				कार्यालय OFFICE		
				आरेखण क्र. DRAWING NO.		
						MBN2 - 020 Cb

इन आरेखों तथा इसके साथ की सम्पूर्ण सामग्री का स्वत्वाधिकार भारत सरकार रक्षा मंत्रालय की भारतीय आयुध निर्माणियों के पास है। भारतीय आयुध निर्माणियों के महानिदेशक की लिखित अनुमति के बिना इनकी नकल या किसी भी रूप में इनके उद्धरण या इनमें समाहित सूचना किसी अनधिकृत व्यक्ति को उपलब्ध नहीं कराई जानी चाहिए।
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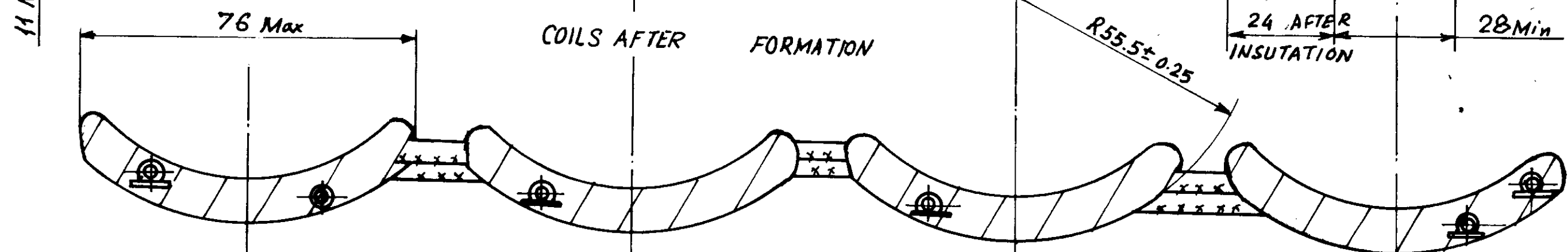
मूलमाप व अन्वयोजन
NOMINAL SIZE & FIT

विकलन
DEVIATION

COILS BEFORE FORMATION

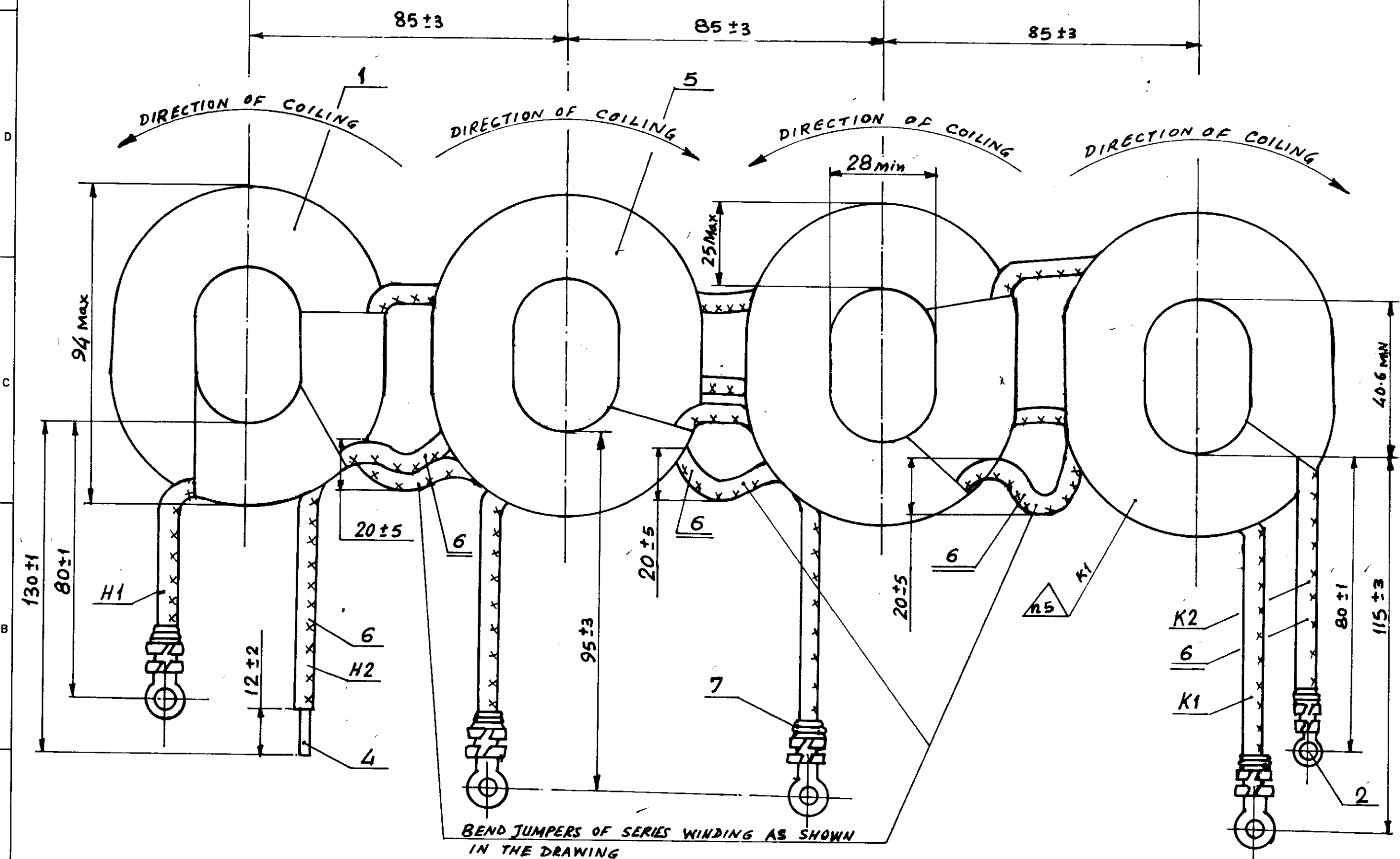


COILS AFTER FORMATION



1. Series coil consists of 2 turns, winding is done with wire Ref. No. 4
2. Insulate the coils and the jumpers between the shunt coils by semi over lapping, using tape, Ref. No. 5.
3. Band the terminal with thread Ref. No. 7.
4. Imprignate ^{H#} Coils with varnish 5T-988, GOST 6244-70, and coat varnish ϕ -95, GOST 8018-70.
5. Marking should be done.
6. Solder the series winding end with tin nOCCY-40-2, GOST 21930-76.
7. Coat the band with varnish HJ - 286 TY 6-10-1290-78.

EQ. MATERIAL :- IS:350 Sn40Sb TO IS: 193-82.



VETTED
25 FEB 2003
JWM/STD-CELL

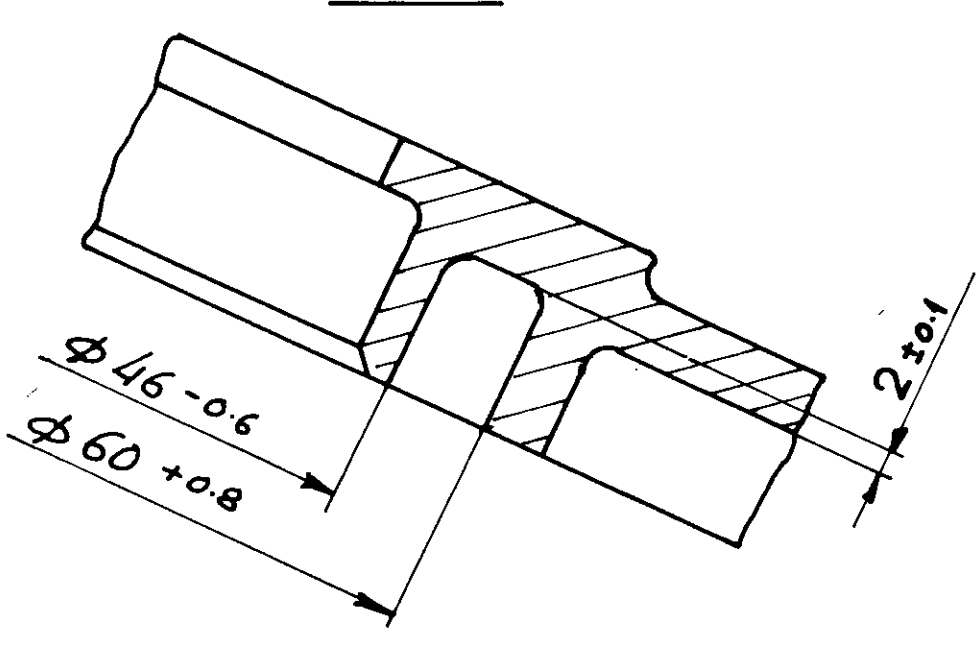
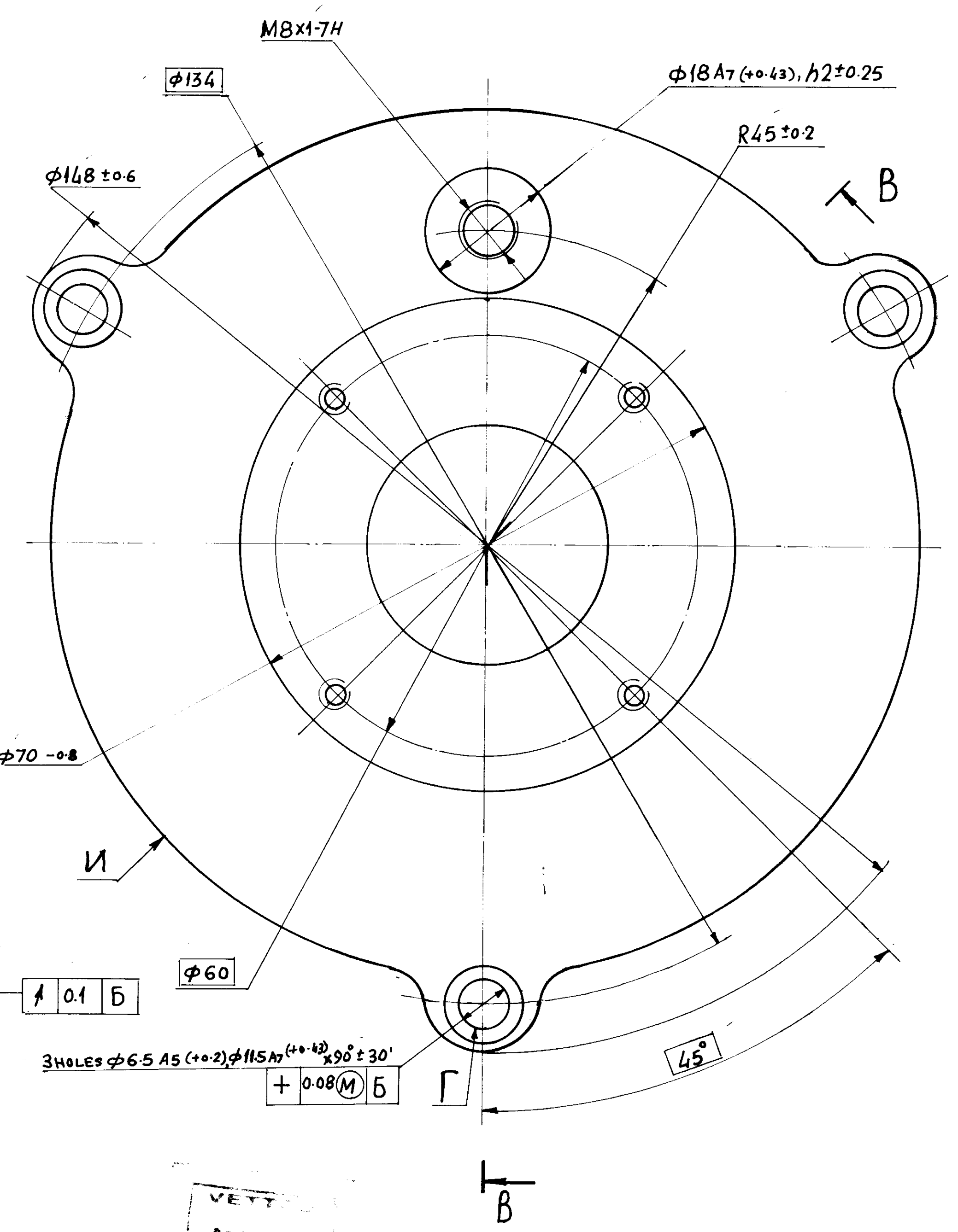
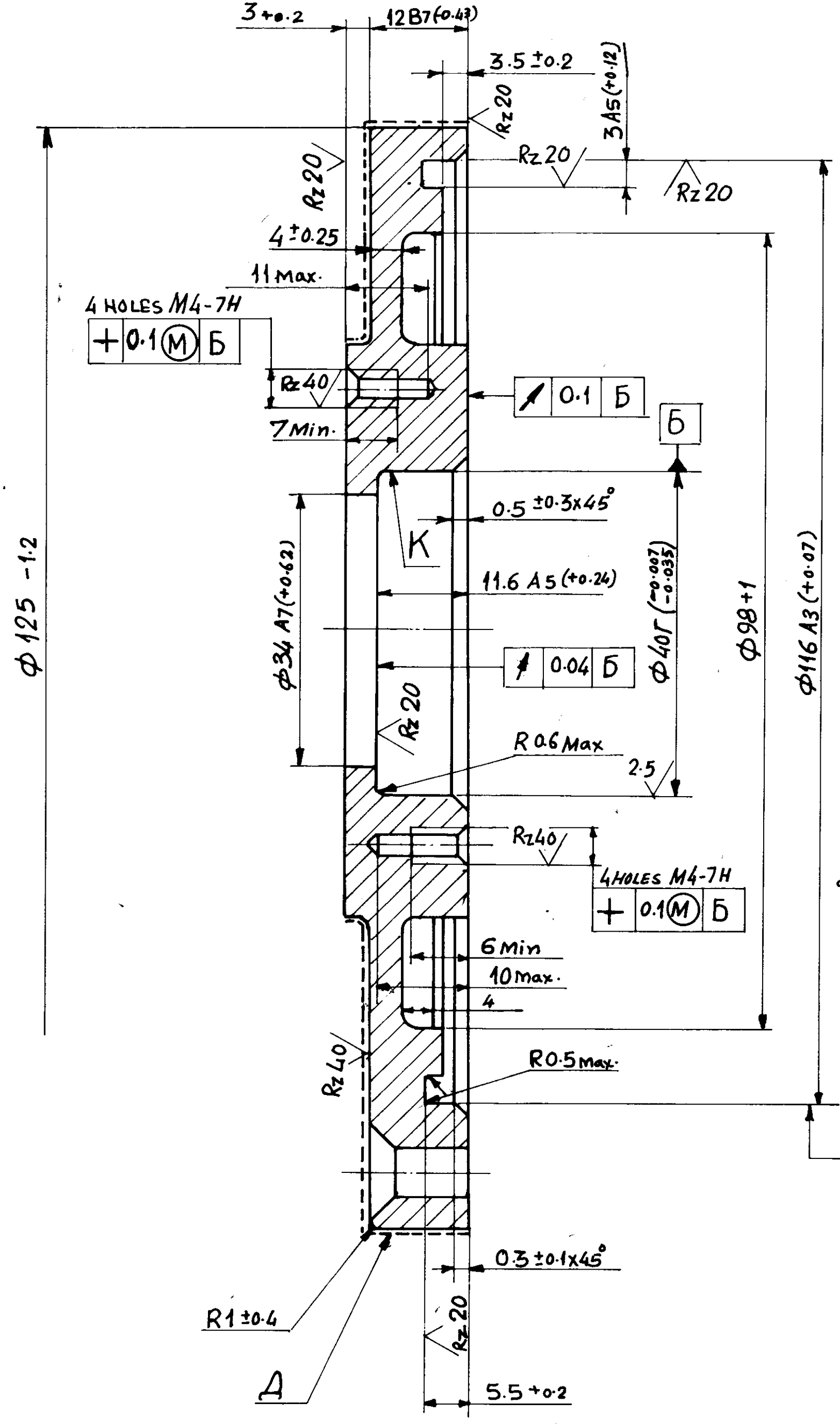
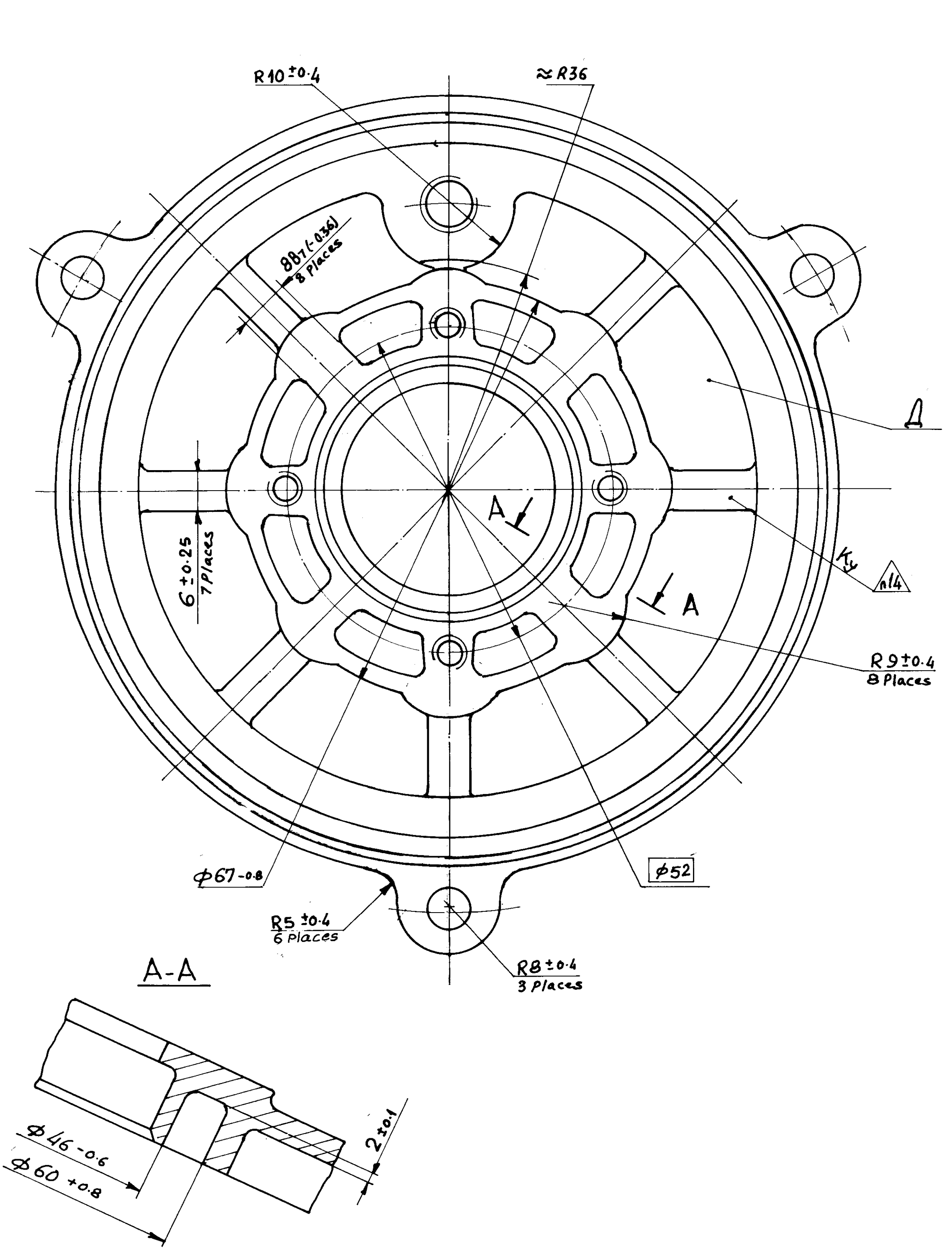
FIRST ANGLE PROJECTION

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संख्या NO. OFF	विवरण DESCRIPTION	पुर्जा क्र. PART NO.	पदार्थ MATERIAL	मानक STANDARD	परिमाण DIMENSIONS	650g MASS																														
<p>सामान्य सहिष्णुता GENERAL TOLERANCE</p> <p>रेखिक परिमाण LINEAR DIMENSION</p> <table border="1"> <tr><td>0-4</td><td>±0.1</td></tr> <tr><td>5-30</td><td>±0.2</td></tr> <tr><td>30-120</td><td>±0.3</td></tr> <tr><td>120-315</td><td>±0.5</td></tr> <tr><td>315-1000</td><td>±0.8</td></tr> <tr><td>1000-2000</td><td>±1.2</td></tr> </table> <p>कोणिक परिमाण ANGULAR DIMENSION</p> <table border="1"> <tr><td>1-10</td><td>±1°</td></tr> <tr><td>10-50</td><td>±30'</td></tr> <tr><td>50-100</td><td>±20'</td></tr> <tr><td>>100</td><td>±10'</td></tr> </table> <p>मापक 'म्यू एम' में VALUE IN 'μm'</p> <table border="1"> <tr><td>-</td><td>>25</td></tr> <tr><td>▽</td><td>8-25</td></tr> <tr><td>∇∇</td><td>1.6-8</td></tr> <tr><td>∇∇∇</td><td>0.025-1.6</td></tr> <tr><td>∇∇∇∇</td><td>-0.025</td></tr> </table>							0-4	±0.1	5-30	±0.2	30-120	±0.3	120-315	±0.5	315-1000	±0.8	1000-2000	±1.2	1-10	±1°	10-50	±30'	50-100	±20'	>100	±10'	-	>25	▽	8-25	∇∇	1.6-8	∇∇∇	0.025-1.6	∇∇∇∇	-0.025
0-4	±0.1																																			
5-30	±0.2																																			
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>100	±10'																																			
-	>25																																			
▽	8-25																																			
∇∇	1.6-8																																			
∇∇∇	0.025-1.6																																			
∇∇∇∇	-0.025																																			
संख्या NO. OFF	संबंधित पुर्जा क्र. DRG. NO. OF ASSOCIATED PART	सूचक INDEX	संशोधन ALTERATION	2003	दिनांक DATE	नाम NAME																														
SHUNT & SERIES COILS (ASSEMBLY DRAWING)			मापमान SCALE	आरेखित DRAWN	8-1	9-1-03																														
मशीनी औजार आदिरूप फैक्टरी, अम्बरनाथ MACHINE TOOL PROTOTYPE FACTORY, AMBERNATH			कार्यालय OFFICE	द्वारा बदला REPLACED BY	द्वारा बदला REPLACED FOR	आरेखन क्र. DRAWING NO.																														
			VMT	MB/7 2 - 030 CB																																

(V V)

B-B



29 NOV 2003
VMT

* CASTING II - OCT 3-4227-79
A19A GOST 2685-75

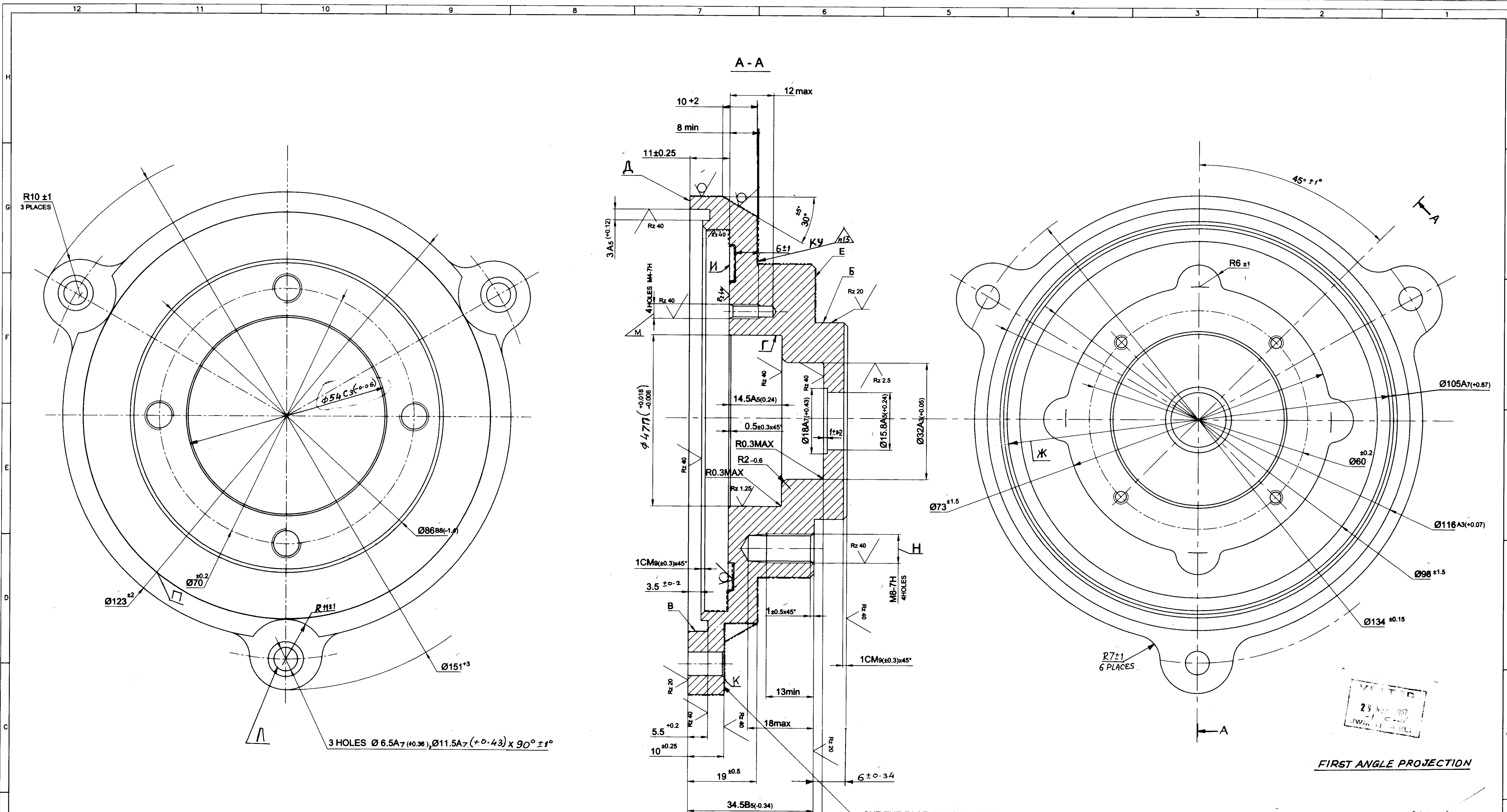
1. Pattern drafts are 2° towards decreasing of dimensions.
2. Alternate material is aluminium alloy A12, GOST 2685-75.
3. Unspecified casting radii should not exceed 3mm.
4. Depression of traces due to pushers should not exceed 0.5mm.
5. Depressed contour of gate should not exceed 0.5mm on surface μ .
6. Check air-tightness by excess air pressure of 0.5mm.
7. Displacement of hole Γ with respect to the contour of lug should not exceed 0.5mm.
8. Limit deviations between holes Γ , are by an angle of $\pm 5^\circ$
9. Ovality and tapering of surface K should not exceed the values as per GOST 3325-55.
10. Vaz um impregnation with varnish B1-725, TY6-10-866-75. is allowed.
11. Coating - Anodically oxidized, chromated, except on surface K / paint enamel M1-12, black, GOST 9754-76 III, \times , on surface Γ .
12. Selection of varnish - paint coating is made in compliance with OST 3-1928-73.
13. Mark.

FIRST ANGLE PROJECTION

इन आरेखों तथा इसके साथ की समूची सामग्री का स्वत्वभारत सरकार तथा नवायन की भारतीय आर्य निगमों के पास है। भारतीय आर्य निगमों के महानिदेशक की लिखित अनुमति के बिना इनसे नकल या किसी भी रूप में इनके उद्धरण या इनमें समाहित सूचना किसी अनधिकृत व्यक्ति को उपलब्ध नहीं कराई जानी चाहिए।
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संख्या NO. OFF	विवरण DESCRIPTION	पुरा. क्र. PART NO.	पद MATERIAL	मानक STANDARD	परिमाण DIMENSIONS	0.25 MASS (Kg)												
<table border="1"> <tr> <th>सामान्य सहिष्णुता GENERAL TOLERANCE</th> <th>रेखिक परिमाण LINEAR DIMENSION</th> </tr> <tr> <td>0-30</td> <td>±0.1</td> </tr> <tr> <td>30-120</td> <td>±0.2</td> </tr> <tr> <td>120-315</td> <td>±0.3</td> </tr> <tr> <td>315-1000</td> <td>±0.5</td> </tr> <tr> <td>1000-2000</td> <td>±1.2</td> </tr> </table>							सामान्य सहिष्णुता GENERAL TOLERANCE	रेखिक परिमाण LINEAR DIMENSION	0-30	±0.1	30-120	±0.2	120-315	±0.3	315-1000	±0.5	1000-2000	±1.2
सामान्य सहिष्णुता GENERAL TOLERANCE	रेखिक परिमाण LINEAR DIMENSION																	
0-30	±0.1																	
30-120	±0.2																	
120-315	±0.3																	
315-1000	±0.5																	
1000-2000	±1.2																	
संख्या NO. OFF	संश्लिष्ट पुराणों का आरेख क्र. ORG. NO. OF ASSOCIATED PART	सूचक INDEX	संशोधन ALTERATION	2003	दिनांक DATE	नाम NAME												
COVER FROM THE SIDE OF COMMUTATOR				मापमान SCALE	आरेखित DRAWN	10-1-2003												
				2:1	जांचा CHECKED	R. S.												
				अनुमोदित APPROVED	द्वारा कक्षा REPLACED													
				द्वारा कक्षा OFFICE	द्वारा कक्षा REPLACED													
				आरेखण क्र. DRAWING NO.	MB7 2-002													

मशीनी औजार आदिसुप फैक्टरी, अम्बरनाथ
MACHINE TOOL PROTOTYPE FACTORY, AMBERNATH



29 Nov 2007
 FIRST ANGLE PROJECTION

** PIG IRON C4 15-32
 GOST-1412-70

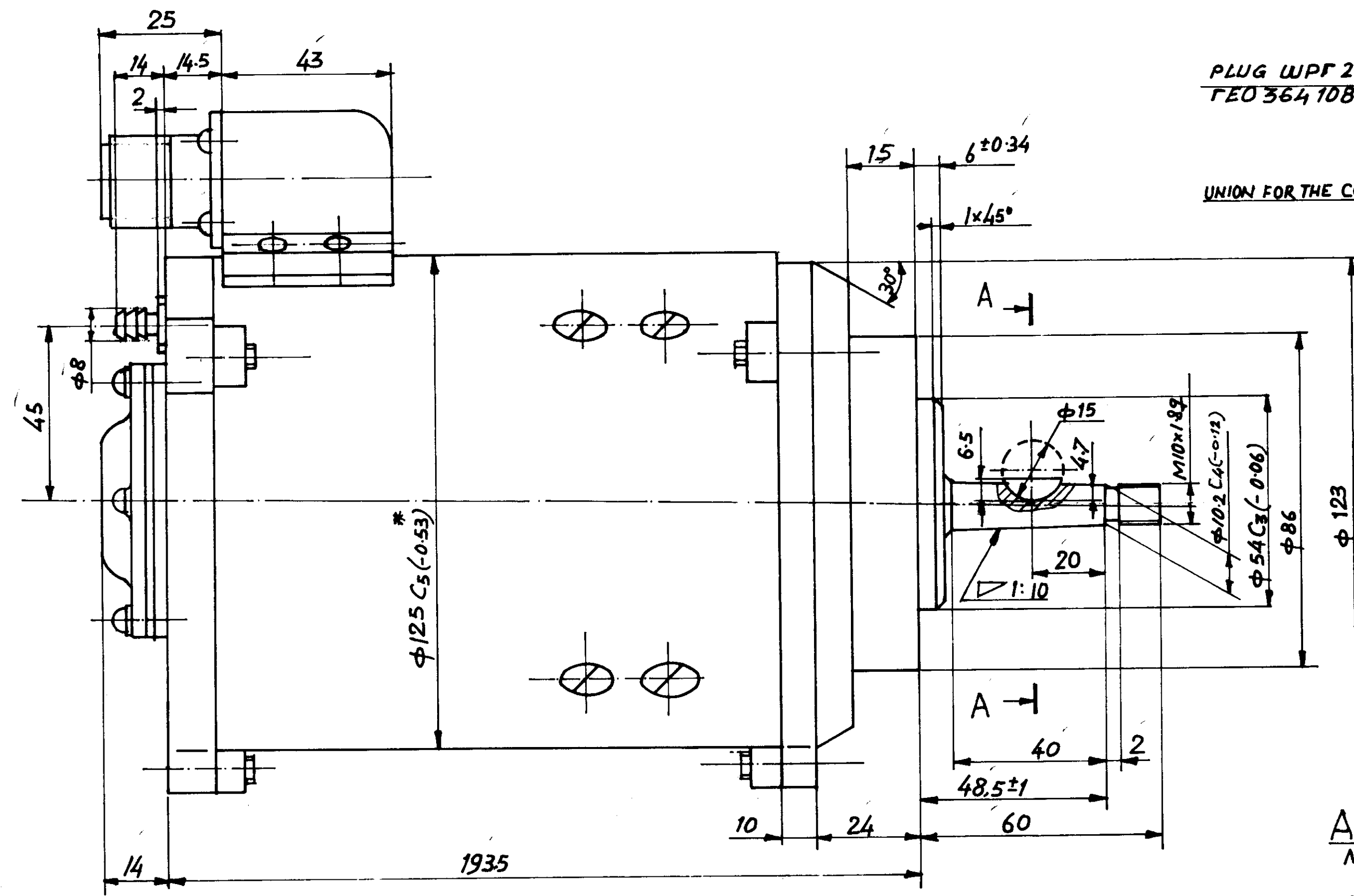
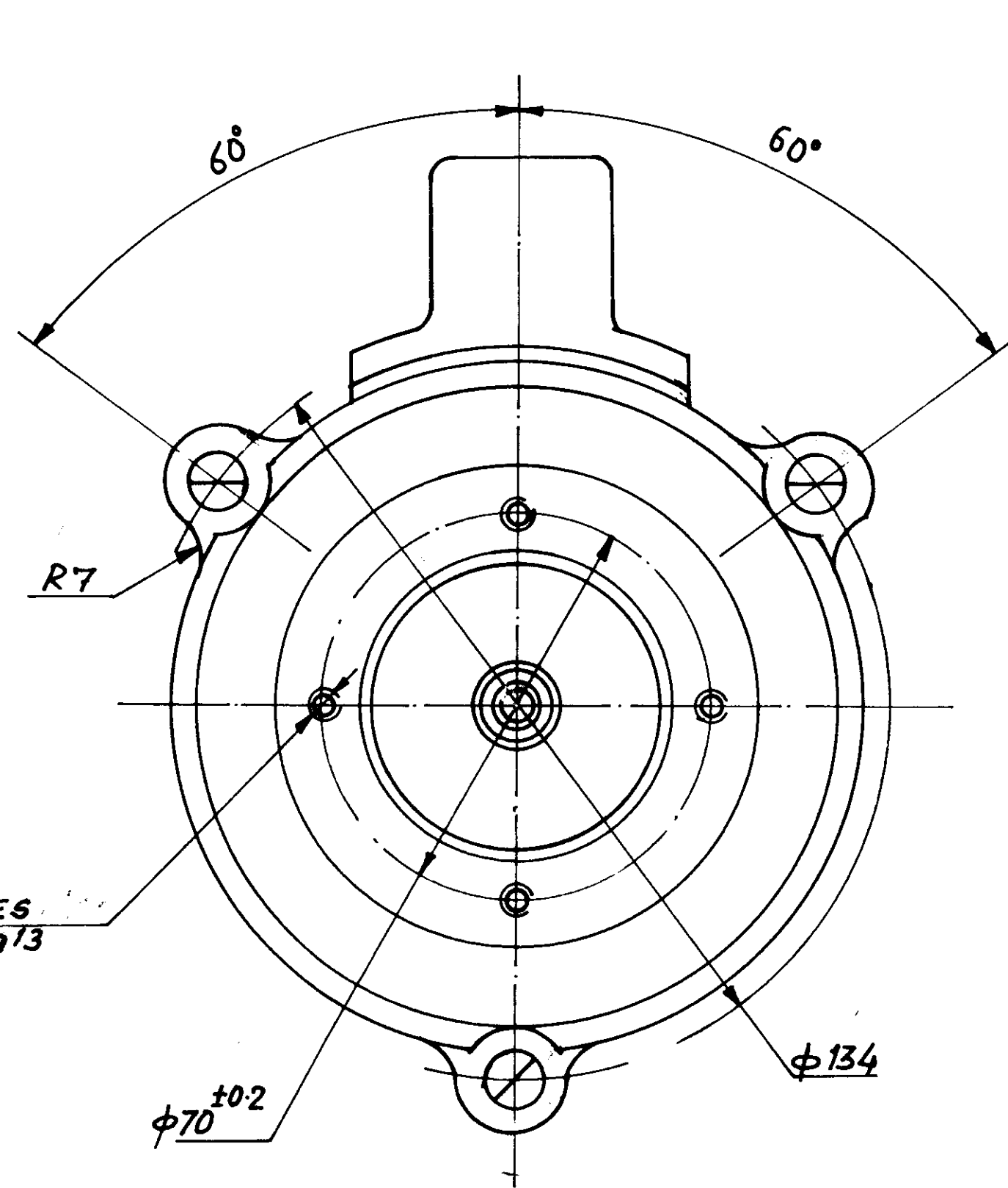
1. ALTERNATE MATERIAL IS PIG IRON C412-28, GOST 1412-70.
2. ALL UNSPECIFIED PATTERN DRAFTS ARE OF 2°
3. UNSPECIFIED CASTING RADII SHOULD NOT EXCEED 3mm.
4. BLUNT SHARP EDGES WITH RADIUS NOT EXCEEDING 0.5mm OR CHAMFERING ≈ 0.5x45°
5. RADIAL PLAY OF SURFACE B AND B WITH RESPECT TO AXIS OF HOLE F SHOULD NOT EXCEED 0.1mm.
6. FACE RUN OUT OF SURFACE A WITH RESPECT TO AXIS HOLE F SHOULD NOT EXCEED 0.1mm.
7. DISPLACEMENT OF HOLES A WITH RESPECT TO CONTOUR OF LUGS SHOULD NOT EXCEED 1mm.
8. WHILE MACHINING THE SURFACE B INCISION OF CUTTING TOOL TO DEPTH AND WIDTH UPTO 1mm ON SURFACE E IS ALLOWED.
9. WHILE MACHINING THE DIAMETER * INCISION OF CUTTING TOOL TO A DEPTH AND WIDTH UPTO 1.5mm ON SURFACE H IS ALLOWED.
10. LIMIT DEVIATIONS BETWEEN ANY HOLES /- BY ANGLE ±5° AND HOLES M, H- BY ANGLE ±10°
11. COATING ON SURFACE K APPLY ENAMEL MA-12, BLACK GOST 9754-76 III *
12. VARNISH- PAINT COATING SHOULD BE DONE IN COMPLIANCE WITH OST 3-1928-73.
13. MARKING SHOULD BE DONE.

इन आरेखों तथा इसके साथ की सम्पूर्ण सामग्री का स्वामित्व भारत सरकार तथा मंत्रालय की भारतीय अनुसंधान संस्थानों के पास है। भारतीय अनुसंधान संस्थानों के मसलिनसक की लिखित अनुमति के बिना इसकी नकल या किसी भी रूप में इसके उद्धार या इनमें समाहित सूचना किसी अनधिकृत व्यक्ति को उपलब्ध नहीं कराई जानी चाहिए।

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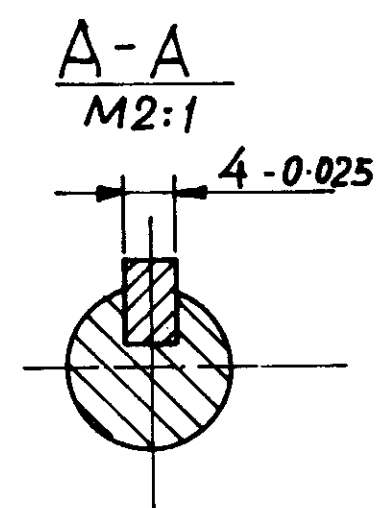
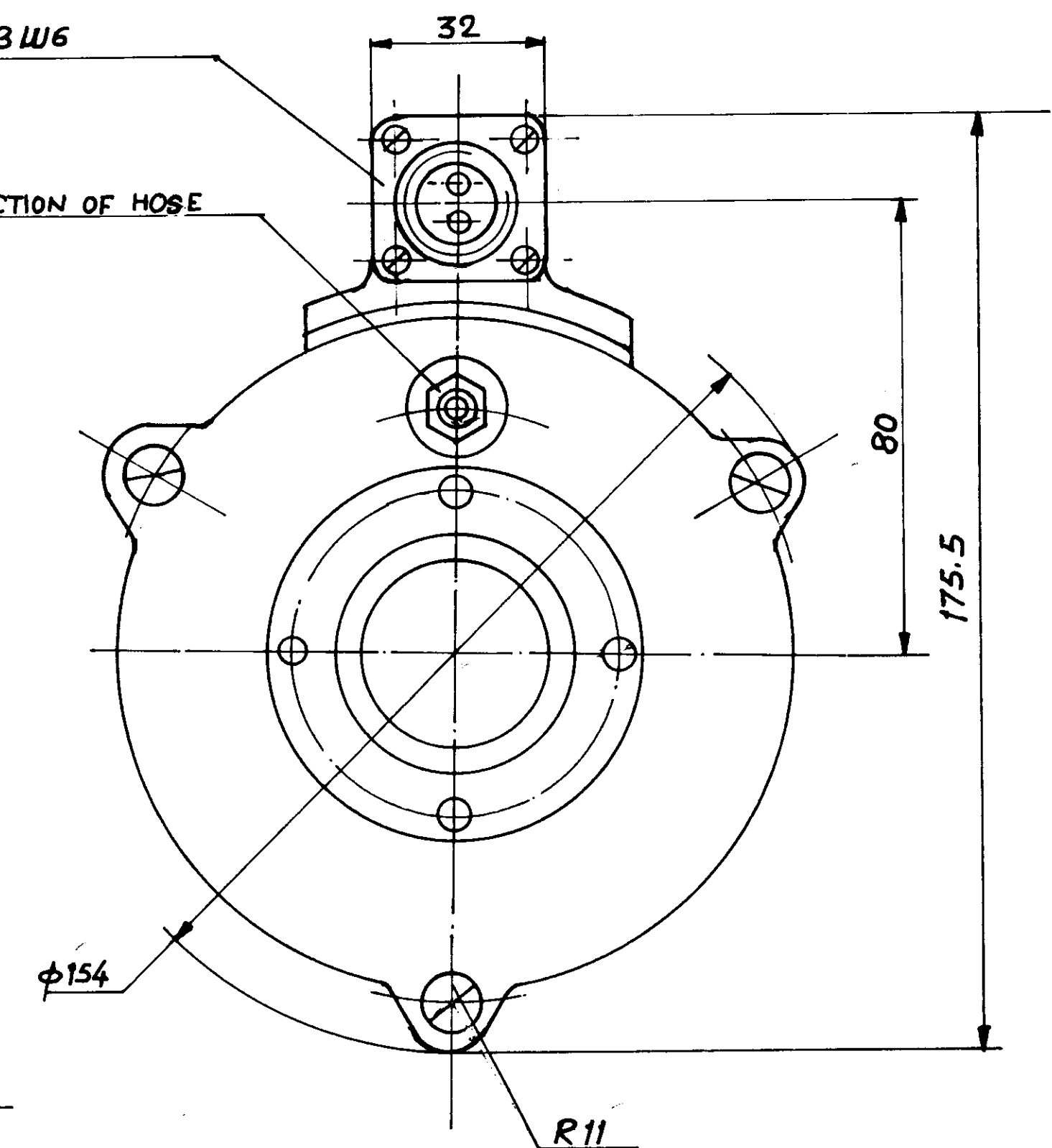
COVER		**		1-3																																																																	
संख्या NO. OFF.	विवरण DESCRIPTION	पुर्जा नं. PART NO.	पदार्थ MATERIAL	मानक STANDARD	परिवर्तन DIMENSIONS	अंशकित REVISION	वजन WEIGHT (Kg)																																																														
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संख्या NO. OFF.	संशोधित पुर्जा नं. और वर्णन MODIFIED PART NO. AND DESCRIPTION	संशोधन INDEX	संशोधन ALTERNATION	2003	दिनांक DATE	नाम NAME	
				2:1	17/11/07	VML	
COVER FROM THE SIDE OF DRIVE				मामलन SCALE 2:1			
मशीनी जौजार आदिरूप फैक्टरी, अम्बरनाथ MACHINE TOOL PROTOTYPE FACTORY, AMBERNATH				ऑफिस OFFICE VMT			
मशीन नं. DRAWING NO. MB II 2-11-01				वजन WEIGHT (Kg) 16.01			



PLUG WPF 20723 W6
TEO 364 10B TY

UNION FOR THE CONNECTION OF HOSE



1. DIRECTION OF ROTATION OF THE SHAFT-RIGHT
AIRTIGHT THE FREE END OF THE HOSE SHOULD BE
2. CONNECTION OF HOSE TO THE UNION SHOULD BE BROUGHT OUT
TO THE PLACE WHERE WATER CAN NOT GET INSIDE OF IT.
3. PLUS IS SUPPLIED TO THE FIRST TERMINAL AND MINUS
IS SUPPLIED TO THE SECOND TERMINAL.
4. END PLAY OF SHAFT, SHOULD NOT EXCEED 0.2 mm. IT IS
ENSURED WITH DESIGN AND IS NOT CHECKED.
5. * DIMENSION IS GIVEN BEFORE COATING WITH ENAMEL.

FIRST ANGLE PROJECTION

VETTED
25 FEB 2002
JVM/STD-CELL

इन आरेखों तथा इसके साथ की सम्पूर्ण सामग्री का प्रकाशिकार भारत सरकार तथा संसद की भारतीय अणु विभागों के पास है। भारतीय अणु विभागों के तकनीक की स्थिति अनुमति के बिना इनकी नकल या किसी भी रूप में इनके उद्धरण या इनमें समझल सुचना किसी अनधिकृत व्यक्ति को उपलब्ध नहीं कराई जानी चाहिए।

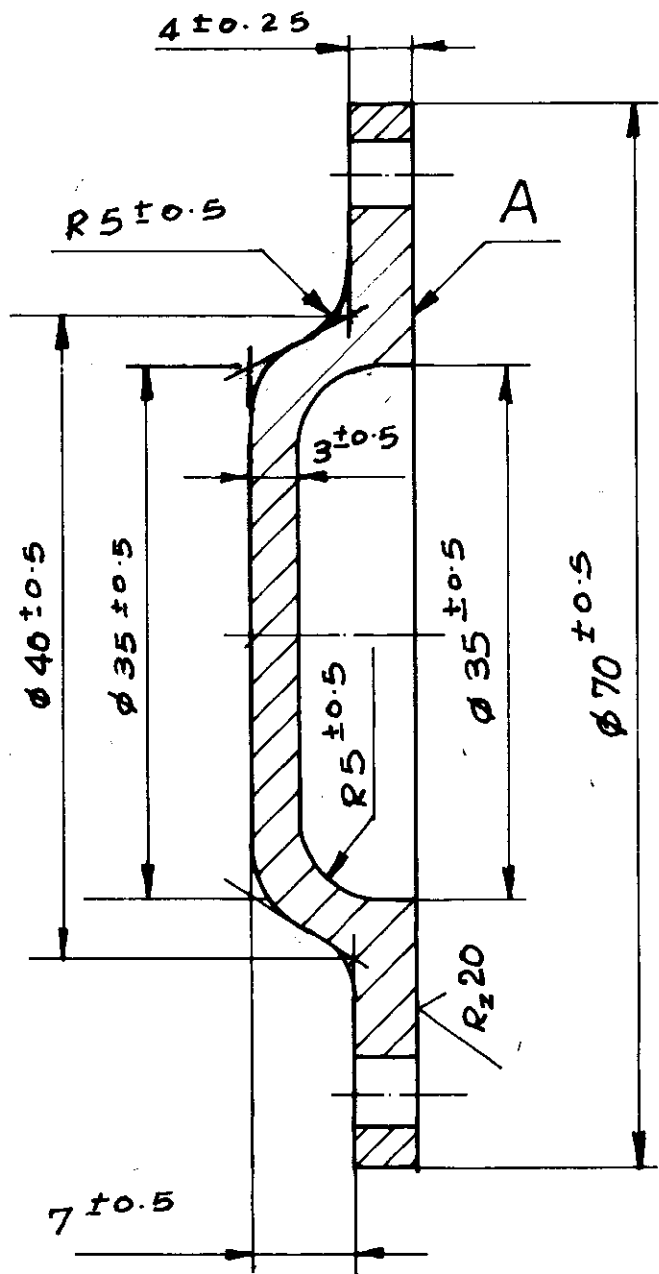
THE COPYRIGHT OF THESE DRAWINGS AND ALL ATTACHMENTS THERE TO BELONGS TO THE INDIAN ORDNANCE FACTORIES, MINISTRY OF DEFENCE, GOVT. OF INDIA THEY SHOULD NOT BE COPIED, REPRODUCED IN ANY WAY OR THE INFORMATION CONTAINED THEREIN MADE AVAILABLE TO UNAUTHORISED PERSONS WITHOUT THE WRITTEN PERMISSION OF THE DIRECTOR OF ORDNANCE FACTORIES.

संख्या NO. OF	विवरण DESCRIPTION	पुर्जा क्र. PART NO.	पदार्थ MATERIAL	मानक STANDARD	परिमाण DIMENSIONS	वजन WEIGHT (kg)
1	ELECTRIC MOTOR MBN-2 OUT LINE DRAWING					

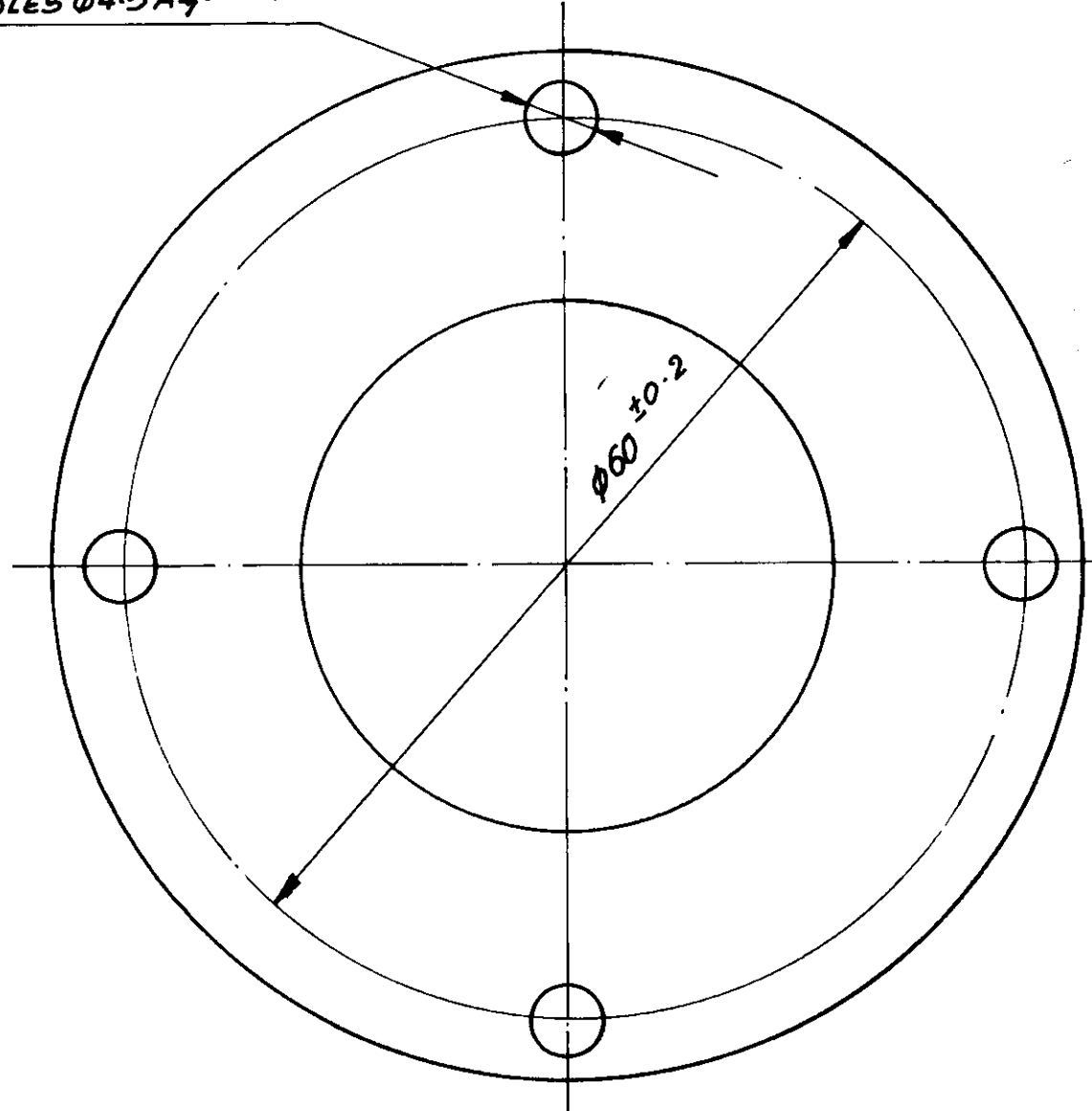
मानक VALUE IN mm	संख्या NO. OF	संश्लेषित पुर्जांक आरेखण क्र. ORIG. NO. OF ASSOCIATED PART	पुर्जांक NO.	संश्लेषण ALTERATION	दिनांक DATE	नाम NAME
1:1	1				2002	30-12-02

मूलमाप व अन्वयोजन NOMINAL SIZE & FIT	विवरण DEVIATION

Traced from CQA(KV) original Dwg.



4 HOLES $\phi 4.5 A_7^{(+0.3)}$



3. Pattern draft is 2° towards the decreasing of dimensions.
4. Marking may not be done by casting process.
6. Pusher traces are not allowed on surface A.
7. Impregnation under vacuum with varnish B π -725F, Technical specification TY6-10-866-75 is allowed.
8. Check water proof ness, with excess air pressure of 0.3 atmos.
9. Limit angle deviation between any holes is $\pm 10'$.
10. Coating :- Anodically oxidised, oiled or chemically oxidised, fluoride plated or chemically oxidised, parkarized / enamel M π -12, black, GOST 9754-76, III, ✕, except on surface A.
11. Varnish - paint coating method is selected in compliance with OST 3-1928-73.

FIRST ANGLE PROJECTION

1. Alternate material is
Cast I - OST 3-4227-79
A π 9KT5 GOCT 2685-75

EQ. MATERIAL :- GRADE 4450 TO IS : 617-75

* Cast I - OST 3-4227-79
A π 2A GOST 2685-75

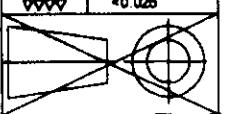
VETTED
29 NOV 2007
JWM/STD-CELL

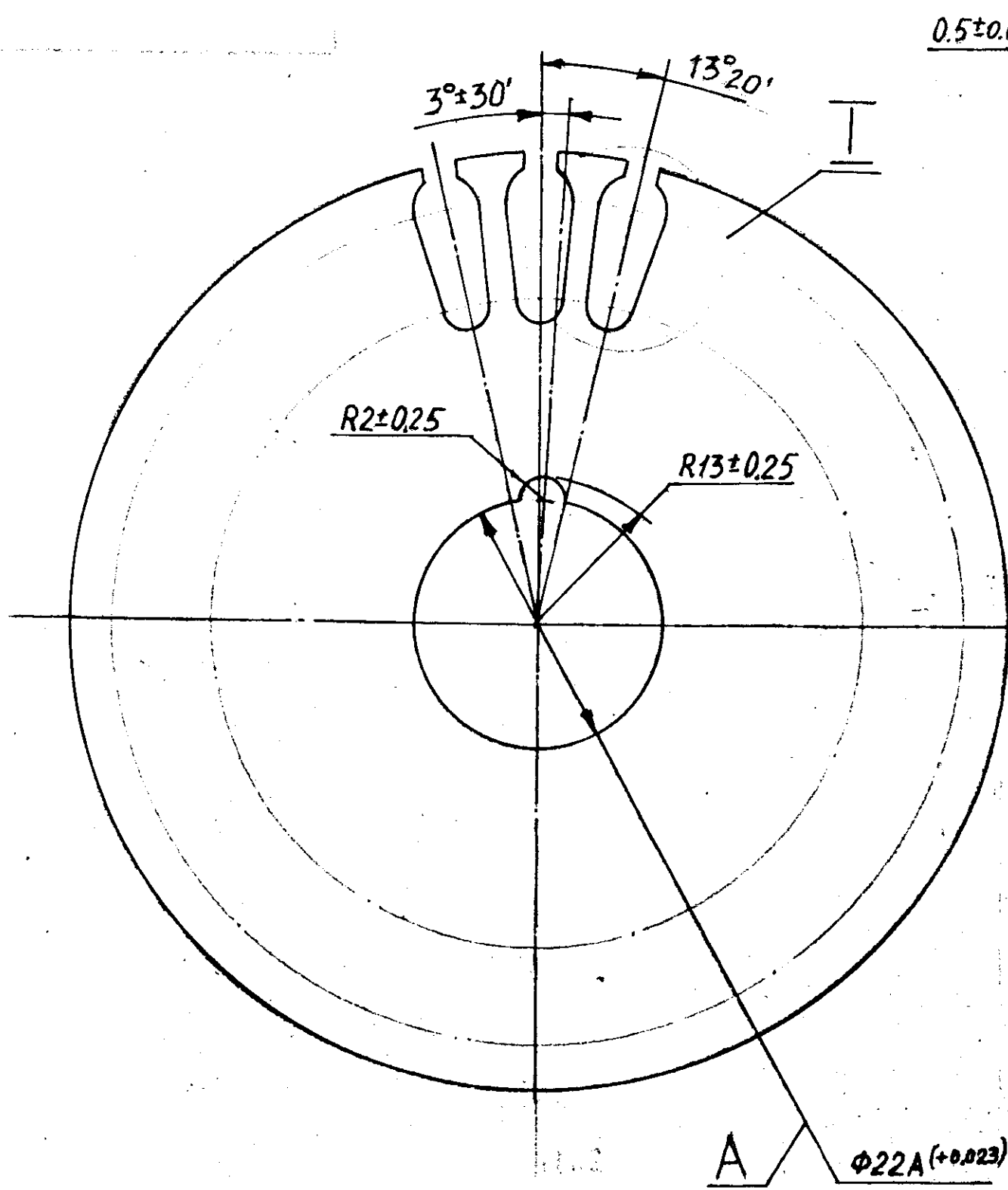
COVER		*		0.045					
संख्या NO. OFF	विवरण DESCRIPTION	पुर्जा क्र. PART NO.	पदार्थ MATERIAL	मानक STANDARD	परिमाण DIMENSIONS	अध्यक्षित REMARKS	WEIGHT (kg)		
सामान्य सहिष्णुता GENERAL TOLERANCE									
रेखिक परिमाण LINEAR DIMENSION									
0-6	±0.1								
6-30	±0.2								
30-120	±0.3								
120-315	±0.5								
315-1000	±0.8								
1000-2000	±1.2								
कोणीय परिमाण ANGULAR DIMENSION		संख्या NO. OFF	संबंधित पुर्जा क्र. DRG. NO. OF ASSOCIATED PART	सूचक INDEX	संशोधन ALTERATION	2003	दिनांक DATE		
1-10	±1'								
10-50	±30'								
50-100	±20'								
>100	±10'								
मापक 'म्यू एम' में VALUE IN "μm"									
-	>25								
∅	8-25								
∅∅	1.6-8								
∅∅∅	0.025-1.6								
∅∅∅∅	<0.025								
COVER						मापमान SCALE	आरेखित DRAWN		
मशीनी औजार आदिरूप फैक्टरी, अम्बरनाथ MACHINE TOOL PROTOTYPE FACTORY, AMBERNATH						2:1	3/1		
						कार्यालय OFFICE		जाँचा CHECKED	6/11/03
						VMT		अनुमोदित APPROVED	
द्वारा बदला REPLACED BY						द्वारा बदला REPLACED FOR			
						आरेखण क्र. DRAWING NO. Ba8 - 040 - 000			

इन आरेखों तथा इसके साथ की सम्पूर्ण सामग्री का स्वत्वाधिकार भारत सरकार रक्षा मंत्रालय की भारतीय आयुध निर्माणियों के पास है। भारतीय आयुध निर्माणियों के मकाननिदेशक की लिखित अनुमति के बिना इनकी नकल या किसी भी रूप में इनके उद्धरण या इनमें सम्प्लित सूचना किसी अनधिकृत व्यक्ति को उपलब्ध नहीं कराई जानी चाहिए।
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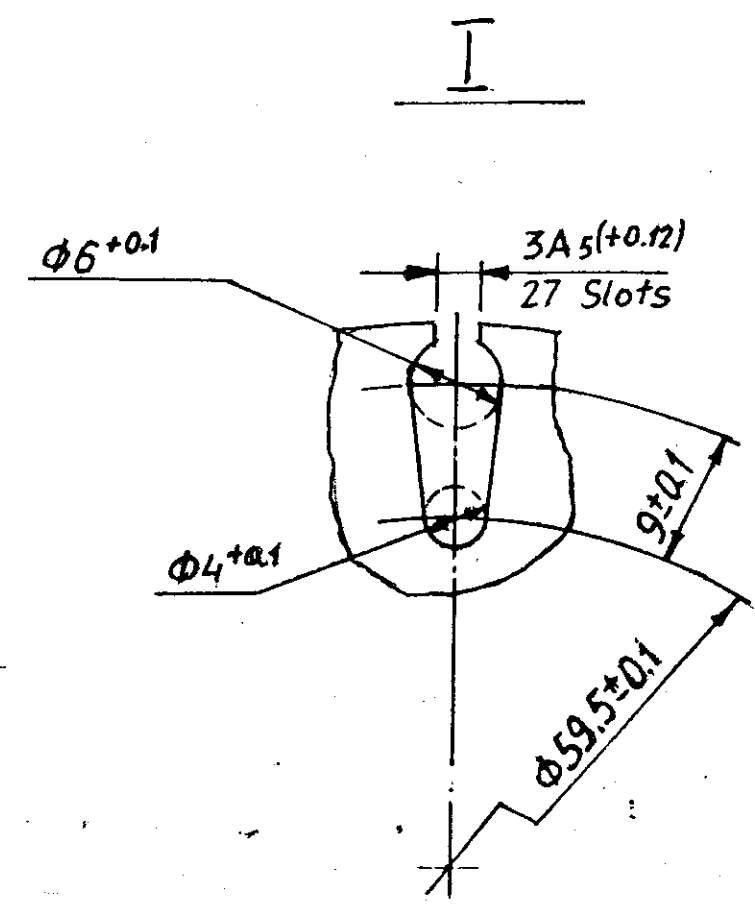
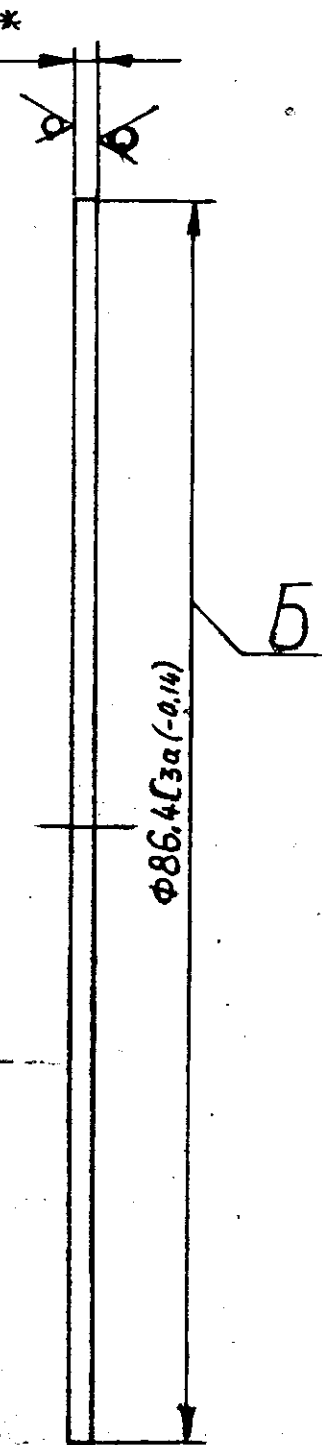
मूलमाप व अन्वयोजन
NOMINAL SIZE & FIT

विचलन
DEVIATION





0.5±0.05*



1. * Dimension is given for references, other dimensions are provided with tools.
2. Angular deviation upto 30' between any two slots placed at a distance, is allowed.
3. Misalignment of diameter A with respect to diameter B not exceeding 0.1mm is allowed.

Ⓐ EQ. MATERIAL: HR NGO GRADE 260/300 TO IS: 648

A Φ22A(+0.023)

I-571

VETTED
29 NOV 2007
JW/JOYD-CELL

MB 60-07-04

00804-101	Ⓐ EQ. MATERIAL ADDED.
DATE	ISSUE NATURE OF AMENDMENT

CONTROLLED BY
INSPECTION

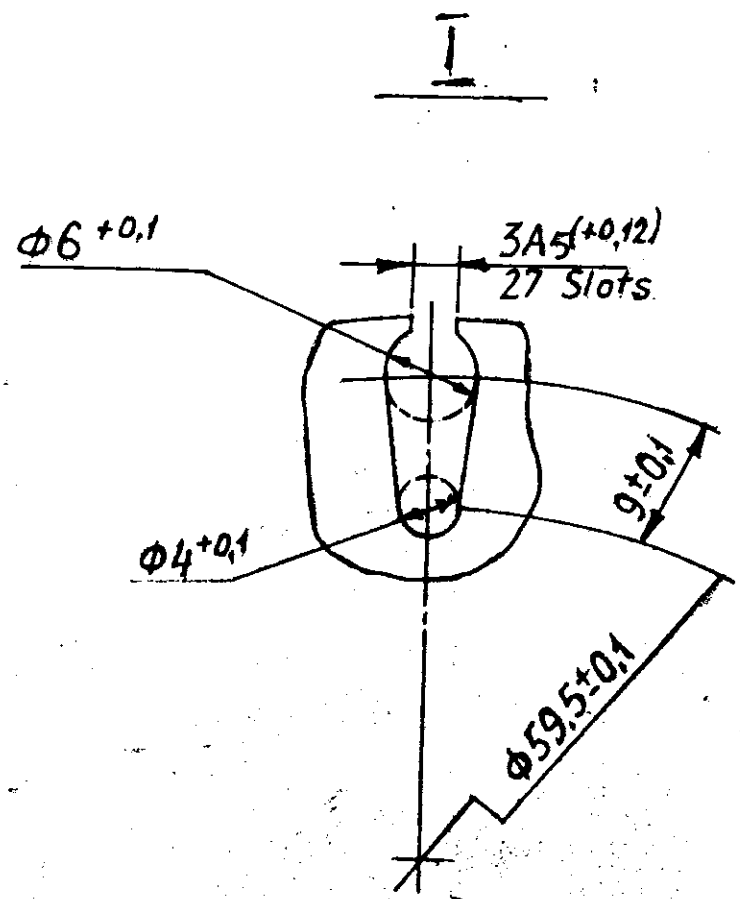
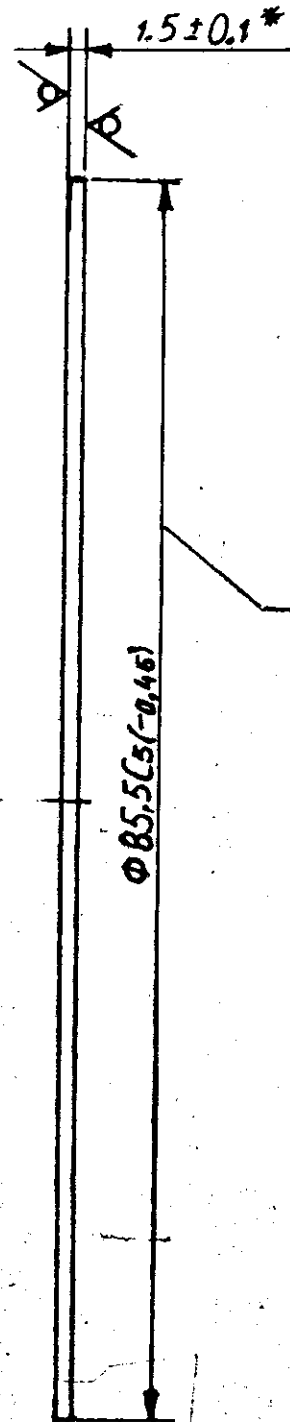
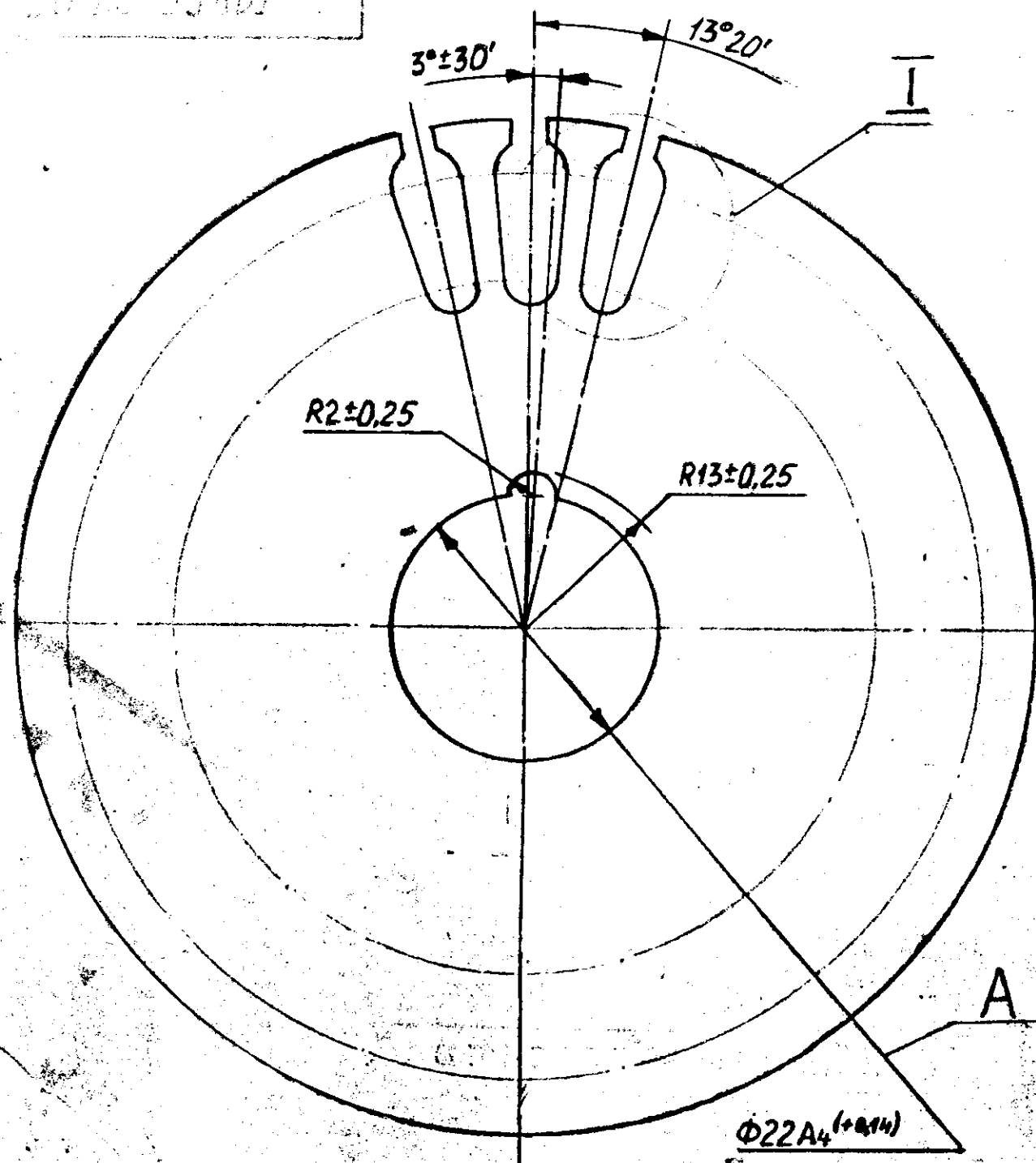
IRON SHEET OF ARMATURE

Sheet 0.5-H-1-HT-1212
GOST 21427 3-75

132 2:1

115/146

2007-07-05



- * Dimension is given for references, other dimensions are provided with tools.
- Angular deviation, between any two slots placed at distance, upto 30' is allowed.
- Misalignment of diameter A with respect to diameter B not exceeding 0.1mm is allowed

VETTED
29 NOV 2007
JVL/STD-CELL

[ECKU]

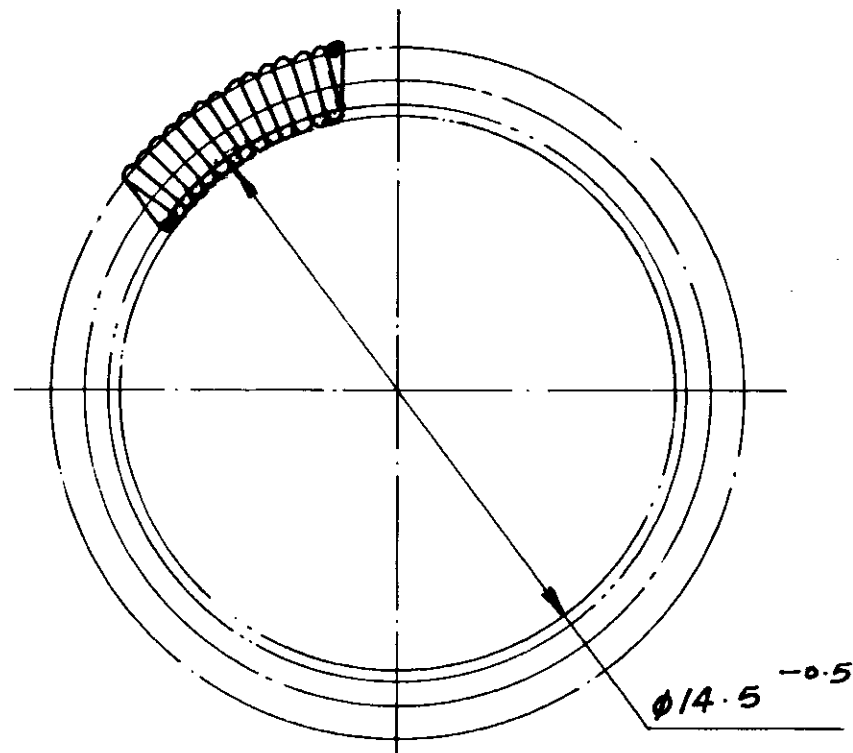
MB60-07-05

CONTROLLED BY
INSPECTION

EXTREME INSULATING SHEET
Card board 3B1.5
FOCT 2824-75

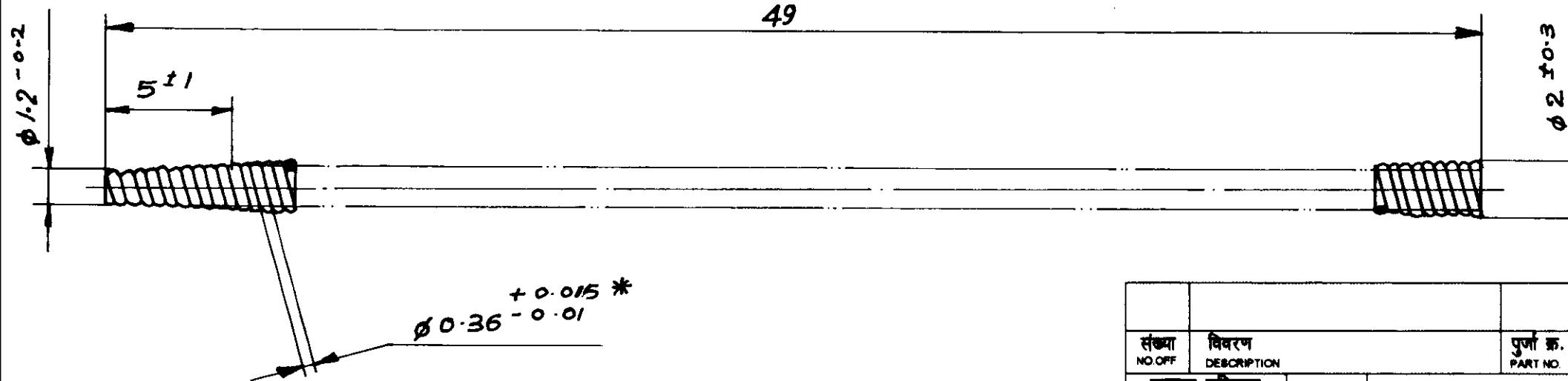
SCALE	2:1
5-5g	
116/146	

D-571



1. Direction of winding - right, smooth, without gaps between the coils.
2. For checking the internal diameter of spring $\phi 14.5$ in its working position, the left tapering end of the spring is screwed in to the right, and not less than 4 turns should be engaged. Checking of $\phi 14.5$ is carried out with bar of diameter $\phi 14.5 - 0.25$ while the spring should be supported on the bar and should not have gaps between the coils on the surface adjoined to the bar.
3. Excess portion of the cylindrical section of the spring is allowed to be removed to give the desired diameter, $\phi 14.5$.
4. The part is made of wire $\phi 0.4 (\pm 0.02)$.
5. Total length of the spring (wire) when developed - 780mm.
6. Coatng :- Cadmium, 10microns thick.
7. * Dimension is given for references.

VETTED
 29 NOV 2007
[Signature]
 JWM/STD-CELL



* Wire I - 0.36
TY 14-4-823-77

FIRST ANGLE PROJECTION

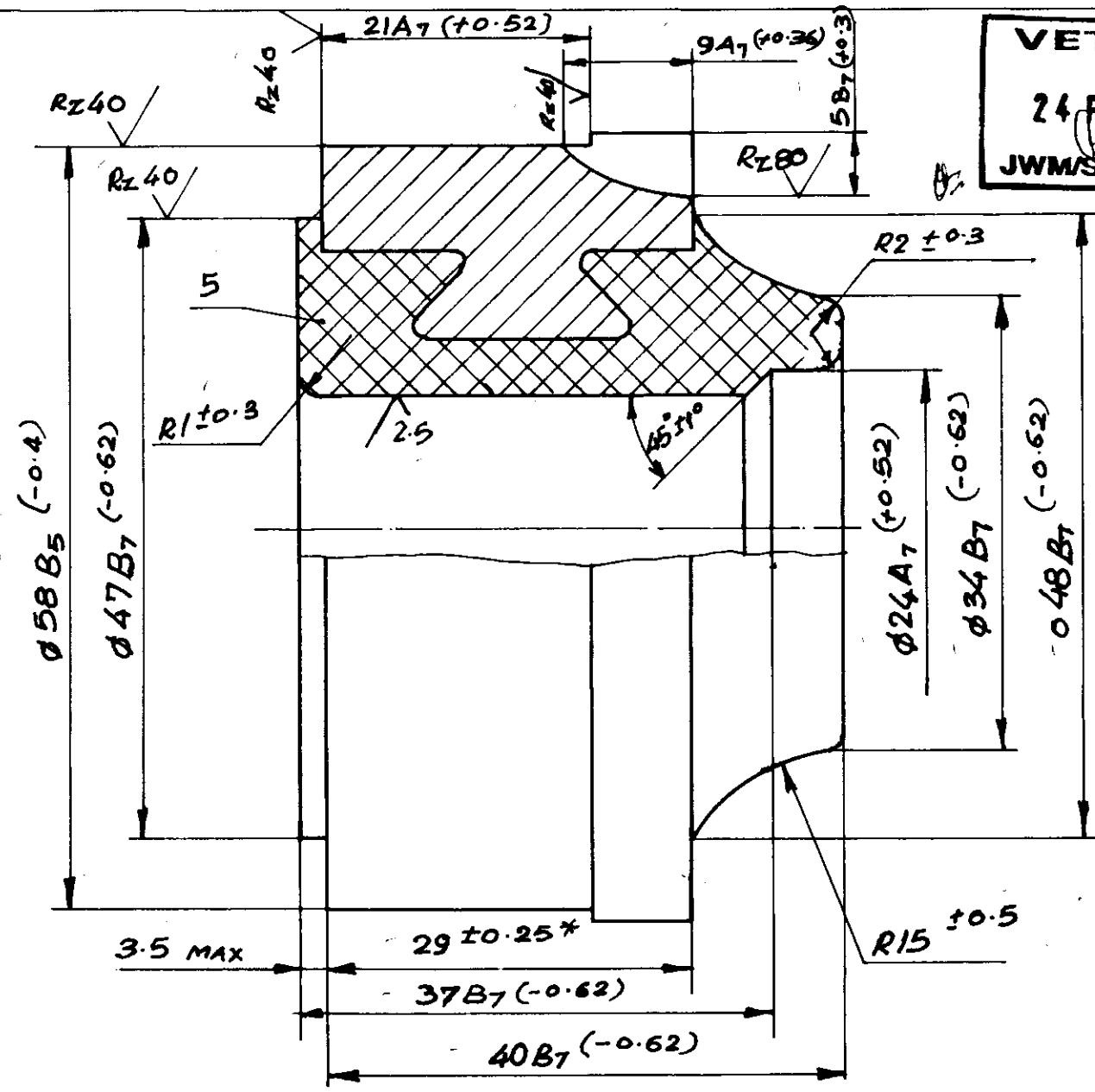
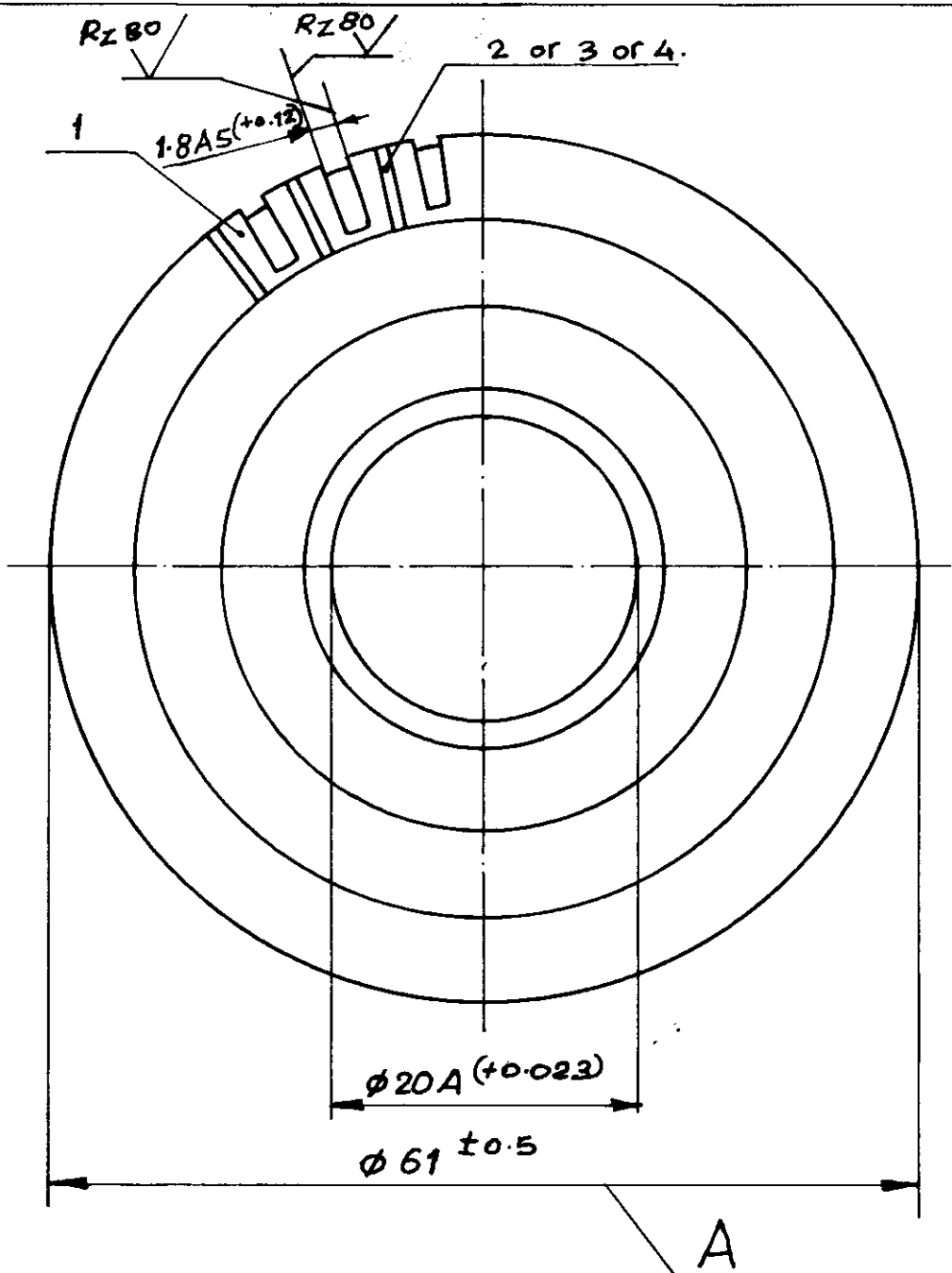
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मूलमाप व अन्वयोजन
NOMINAL SIZE & FIT

विचलन
DEVIATION

संख्या NO. OFF	विवरण DESCRIPTION	पुर्जा क्र. PART NO.	पदार्थ MATERIAL	मानक STANDARD	परिमाण DIMENSIONS	MASS																																			
						0.8g																																			
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<table border="1"> <thead> <tr> <th>मापक 'म्यू एम' में VALUE IN 'μm'</th> <th>मापमान SCALE</th> <th>आरेखित DRAWN</th> <th>जाँचा CHECKED</th> <th>अनुमोदित APPROVED</th> </tr> </thead> <tbody> <tr> <td>-</td> <td>5:1</td> <td>2/1/03</td> <td>6/1/03</td> <td></td> </tr> <tr> <td>∅</td> <td>8-25</td> <td></td> <td></td> <td></td> </tr> <tr> <td>PP</td> <td>1.6-8</td> <td></td> <td></td> <td></td> </tr> <tr> <td>PPV</td> <td>0.025-1.6</td> <td></td> <td></td> <td></td> </tr> <tr> <td>PPVV</td> <td><0.025</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>							मापक 'म्यू एम' में VALUE IN 'μm'	मापमान SCALE	आरेखित DRAWN	जाँचा CHECKED	अनुमोदित APPROVED	-	5:1	2/1/03	6/1/03		∅	8-25				PP	1.6-8				PPV	0.025-1.6				PPVV	<0.025								
मापक 'म्यू एम' में VALUE IN 'μm'	मापमान SCALE	आरेखित DRAWN	जाँचा CHECKED	अनुमोदित APPROVED																																					
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मशीनी औजार आदिरूप फैक्टरी, अम्बरनाथ MACHINE TOOL PROTOTYPE FACTORY, AMBERNATH																																									
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	हेतु बदला REPLACED FOR																																								
आरेखन क्र. DRAWING NO. MB/71-04-05																																									



VETTED
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- * Dimension is given for reference.
- Use insulation plate Ref. No. 2 for assembling while obtained the commutator beyond dimension A, use insulation plate Ref. No. 4 and below dimension A, use insulation plate Ref. - 3.
- Commutator should with hold the test :-
 - Test for running at a speed of 8000 revolution / minute.
 - Test for break down between the bars with A.C. Voltage of 500V with frequency, 50Hz for 1 minute.
- Angle displacement of commutator plate may be within the limits of insulation thickness.

FIRST ANGLE PROJECTION

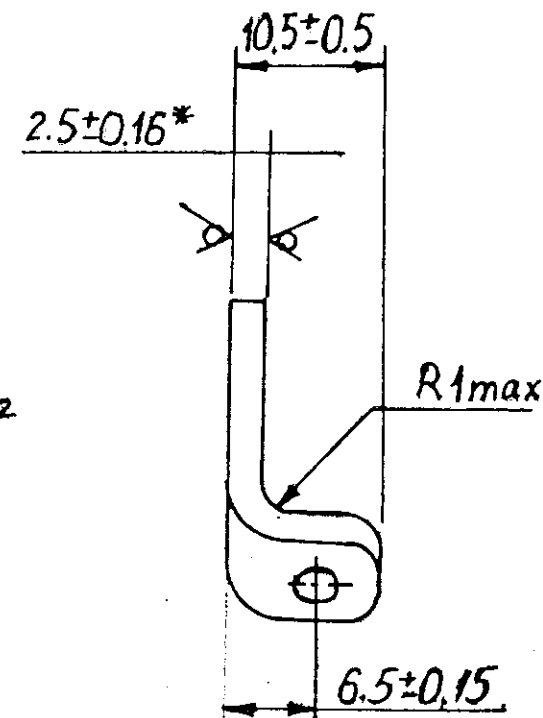
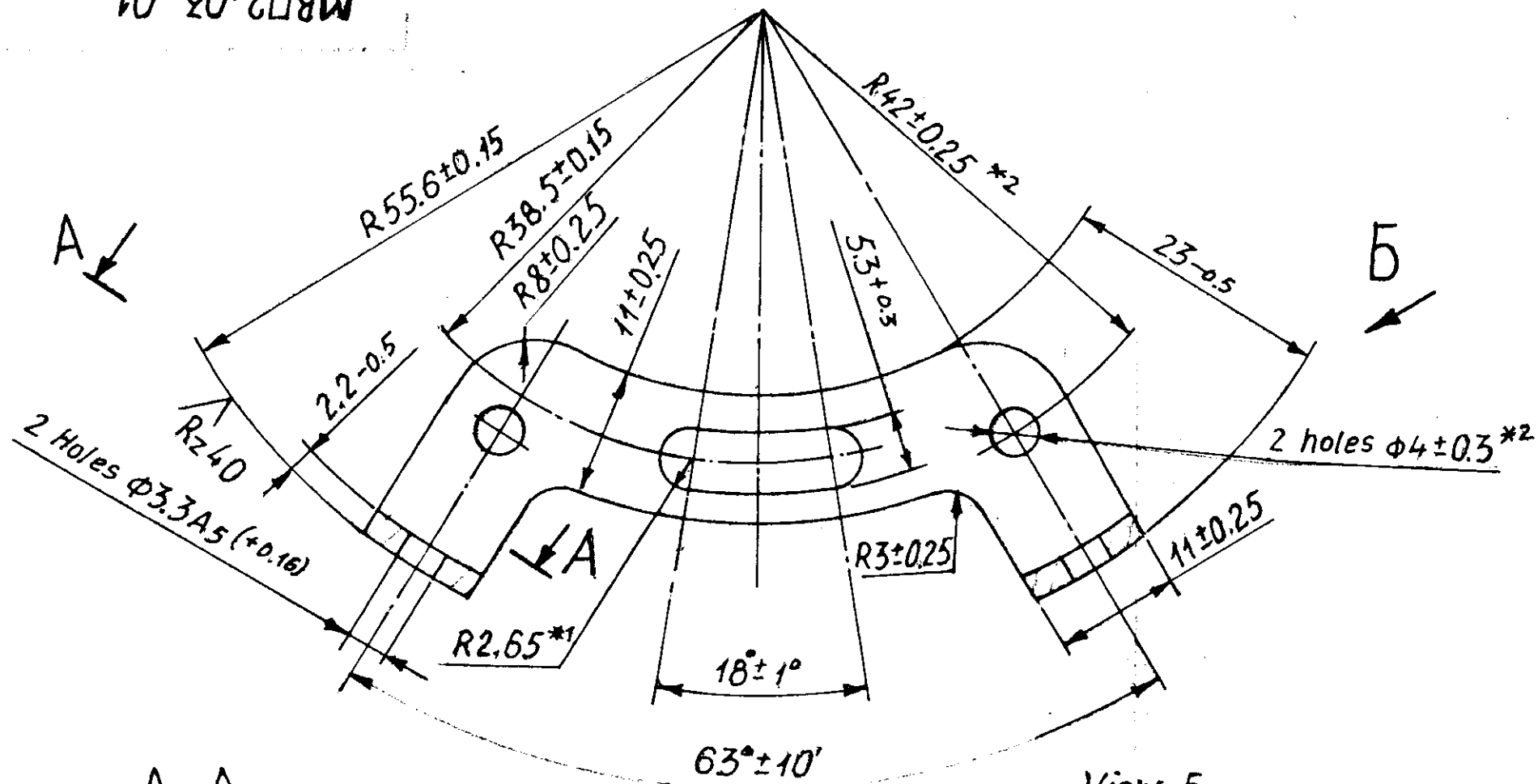
इन आरेखों तथा इसके साथ की सम्पूर्ण सामग्री का स्वतन्त्राधिकार भारत सरकार रक्षा मंत्रालय की भारतीय आयुध निर्माणियों के पास है। भारतीय आयुध निर्माणियों के महानिदेशक की लिखित अनुमति के बिना इनकी नकल या किसी भी रूप में इनके उद्धरण या इनमें सम्मिलित सूचना किसी अनधिकृत व्यक्ति को उपलब्ध नहीं कराई जानी चाहिए।
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मूलमाप व अन्वयोजन NOMINAL SIZE & FIT	विचलन DEVIATION
---	--------------------

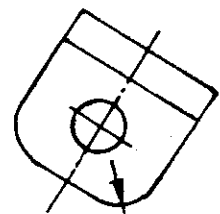
संख्या NO. OFF	विवरण DESCRIPTION	पुर्जा क्र. PART NO.	पदार्थ MATERIAL	मानक STANDARD	परिमाण DIMENSIONS	MASS (Kg)
सामान्य सहिष्णुता GENERAL TOLERANCE						0.4
रेखिक परिमाण LINEAR DIMENSION						
0-8	±0.1					
8-30	±0.2					
30-120	±0.3					
120-315	±0.5					
315-1000	±0.8					
1000-2000	±1.2					
कोणिक परिमाण ANGULAR DIMENSION	संख्या NO. OFF	संबंधित पुर्जा क्र. DRG. NO. OF ASSOCIATED PART	सूचक INDEX	संशोधन ALTERATION	दिनांक DATE	नाम NAME
1-10	±1°				2003	
10-90	±30'					
50-100	±20'					
> 100	±10'					
मापक 'म्यू एम' में VALUE IN 'μm'						
-	> 25					
▽	8-25					
▽▽	1.6-8					
▽▽▽	0.025-1.6					
▽▽▽▽	< 0.025					
COMMUTATOR (ASSEMBLY DRAWING)						मापमान SCALE 2:1
मशीनी औजार आदिरूप फैक्टरी, अम्बरनाथ MACHINE TOOL PROTOTYPE FACTORY, AMBERNATH						आरेखित DRAWN 3/1/03
						जाँचा CHECKED 7/1/03
कार्यालय OFFICE VMT						अनुमोदित APPROVED
						द्वारा बदला REPLACED BY
द्वारा बदला REPLACED FOR						आरेखन क्र. DRAWING NO. MB172 - 010 CB

MBП2-03-01

Rz 80 \checkmark (\checkmark)

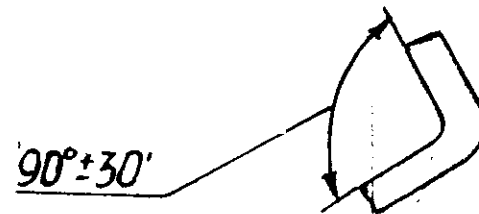


A-A



R3±0.25

View B



90°±30'

1. * Dimension is given for references.
 2. *1 Dimension is provided with tools.
 3. *2 Technological dimensions.
 4. Blunt sharp edges $R \approx 0,3mm$.
 5. Coating: -Zinc-plated, 21 microns thick, chromated.
Chromatization solution is as per V4252-78.
- Ⓐ EQ. MATERIAL: GRADE D: IS: 513-86

VETTED
29 NOV 2007
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D-571

MBП2-03-01

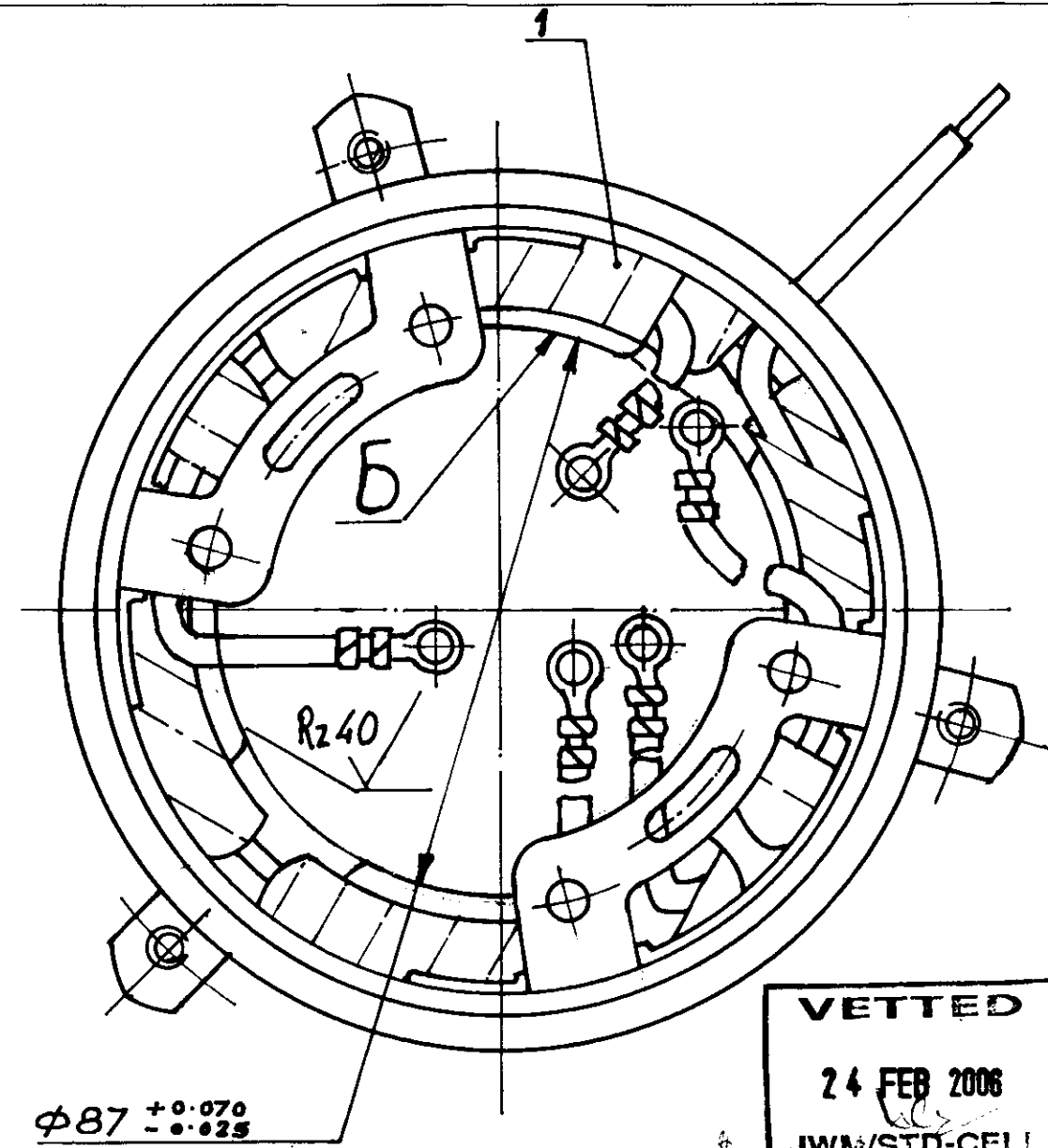
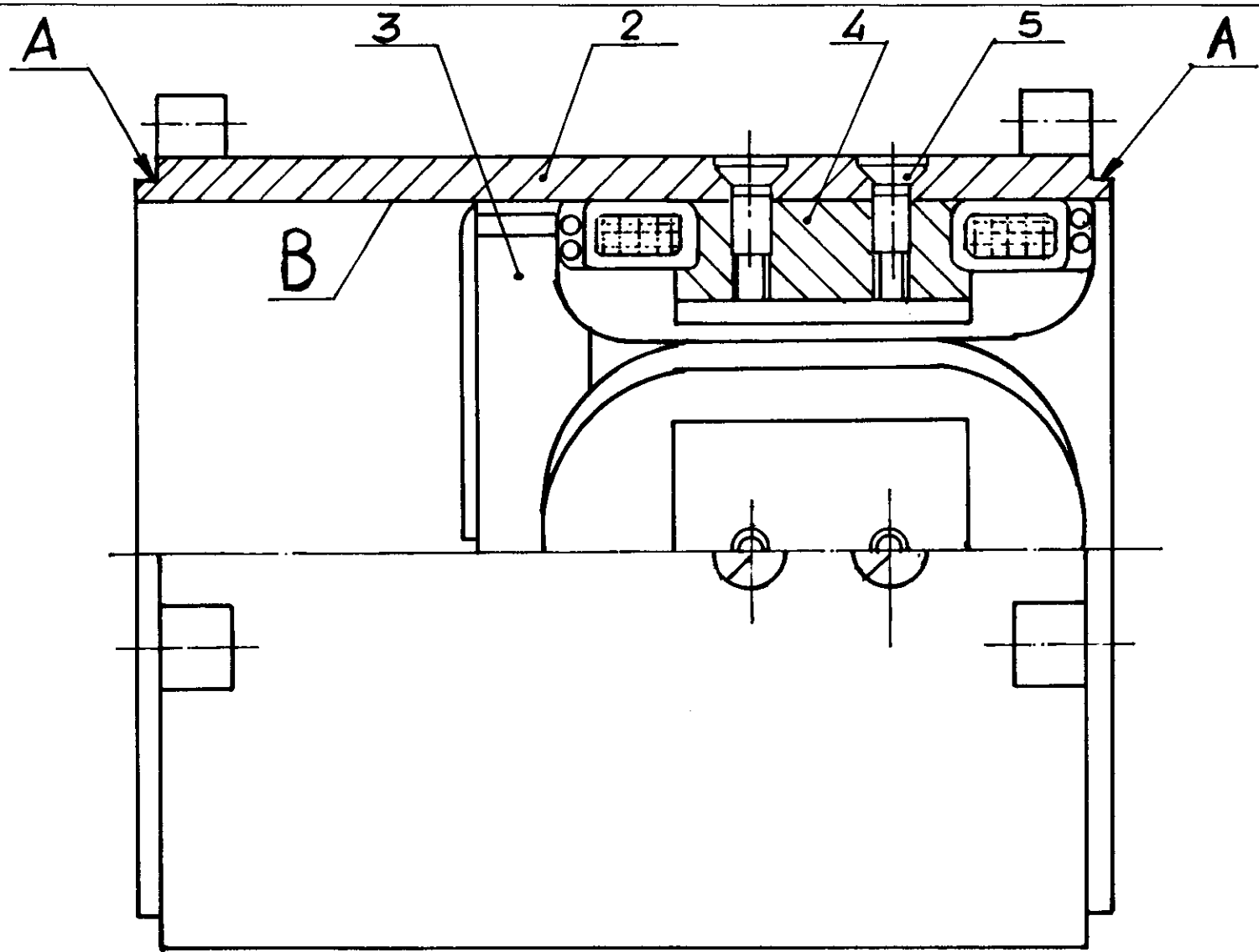
00804-10
EQ. MATERIAL: GRADE D: IS: 513-86
DATE: 10/08/2007
DECLINE: 10/08/2007

ANGLE PIECE

158 2:1

Sheet Б 2.5 ГОСТ 19904-74
II- ВГ-08 КН ГОСТ 9045-70

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24 FEB 2006
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1. Coat the lateral surfaces of the pole with enamel XB - 124, grey GOST 10144-74 before assembling.
2. Secure screw Ref. No. 5 with sealant Y-30, M, GOST 13489-79.
3. Radial play of the surface B with respect to surface A should not exceed 0.15mm.
4. After assembling the body with the poles, surface B should be coated with enamel XB - 124, grey, GOST 10144-74.
5. Presence of enamel paints on the coils of surface B is permissible.

FIRST ANGLE PROJECTION

इन आरेखों तथा इसके साथ की सम्पूर्ण सामग्री का स्वत्व अधिकार भारत सरकार तथा मंत्रालय की भारतीय आयुध निर्माणियों के पास है। भारतीय आयुध निर्माणियों के महानिदेशक की लिखित अनुमति के बिना इनकी नकल या किसी भी रूप में इनके उद्धरण या इनमें समाहित सूचना किसी अनधिकृत व्यक्ति को उपलब्ध नहीं कराई जानी चाहिए।
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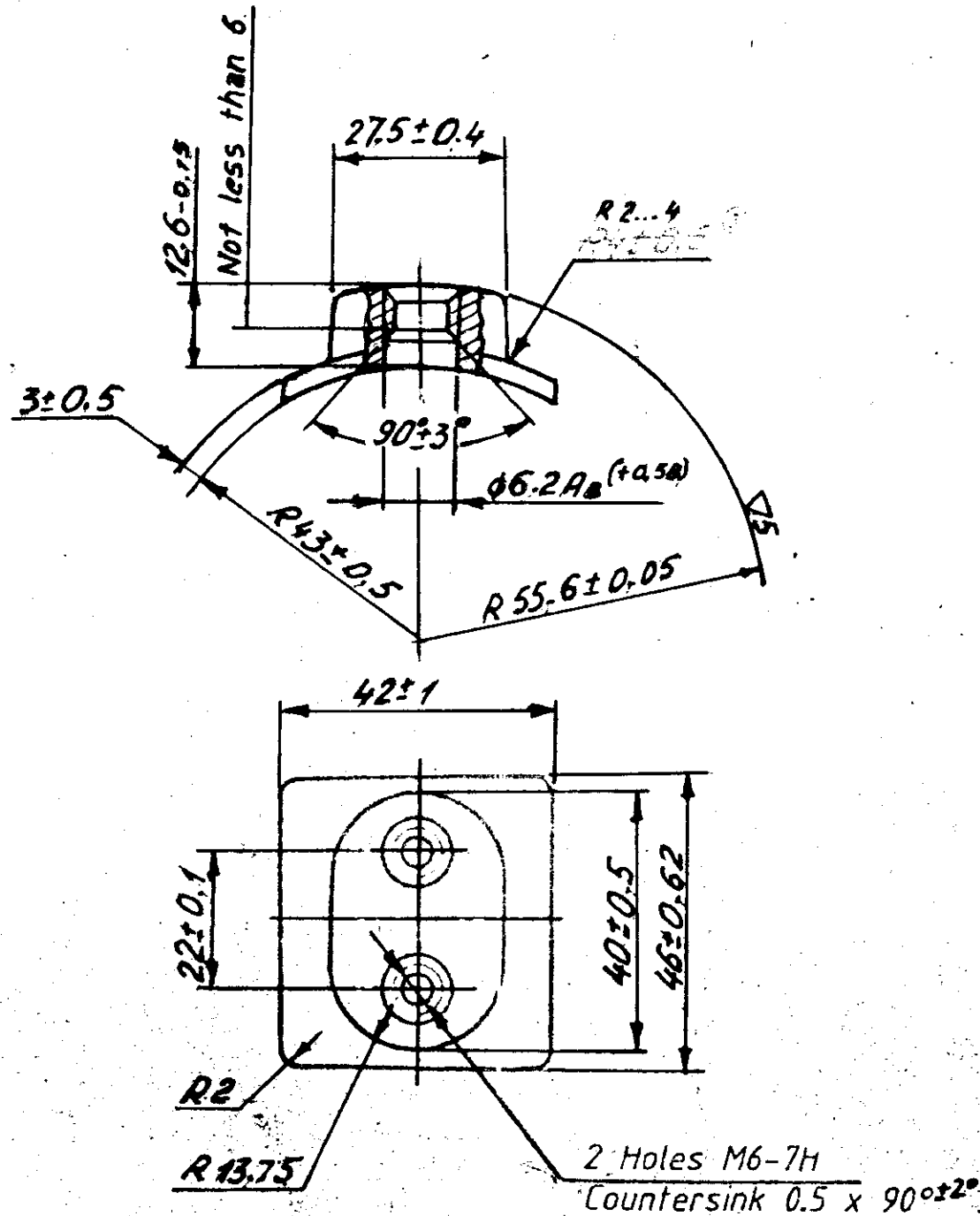
मूलमाप व अन्वयोजन NOMINAL SIZE & FIT	विचलन DEVIATION
---	--------------------

BODY (ASSY. DRG.)						4.1
संख्या NO. OFF	विवरण DESCRIPTION	पुर्जा क्र. PART NO	पदार्थ MATERIAL	मानक STANDARD	परिमाण DIMENSIONS	MASS (Kg)
सामान्य सहिष्णुता GENERAL TOLERANCE						
रेखिक परिमाण LINEAR DIMENSION						
0-6 ±0.1						
6-30 ±0.2						
30-120 ±0.3						
120-316 ±0.5						
315-1000 ±0.8						
1000-2000 ±1.2						
कोणिक परिमाण ANGULAR DIMENSION						
1-10 ±1°						
10-90 ±30'						
90-100 ±20'						
>100 ±10'						
मापोंक 'म्यू एम' में VALUE IN 'μm'						
- >25						
▽ 8-25						
▽▽ 1.0-8						
▽▽▽ 0.025-1.6						
▽▽▽▽ <0.025						
BODY (ASSY. DRG.)						मापमान SCALE 1:1
मशीनी औजार आदिरूप फैक्टरी, अम्बरनाथ MACHINE TOOL PROTOTYPE FACTORY, AMBERNATH						कार्यालय OFFICE VMT
2003						दिनांक DATE
2003						नाम NAME
आरेखित DRAWN 4-1-Romk						
जाँचा CHECKED 6/1/03						
अनुमोदित APPROVED						
द्वारा बदला REPLACED BY						
हेतु बदला REPLACED FOR						
आरेखण क्र. DRAWING NO. MBD 2 - 04 - 00 CB						

10-0-250

2 All 100000

Ворточковая с резьбой



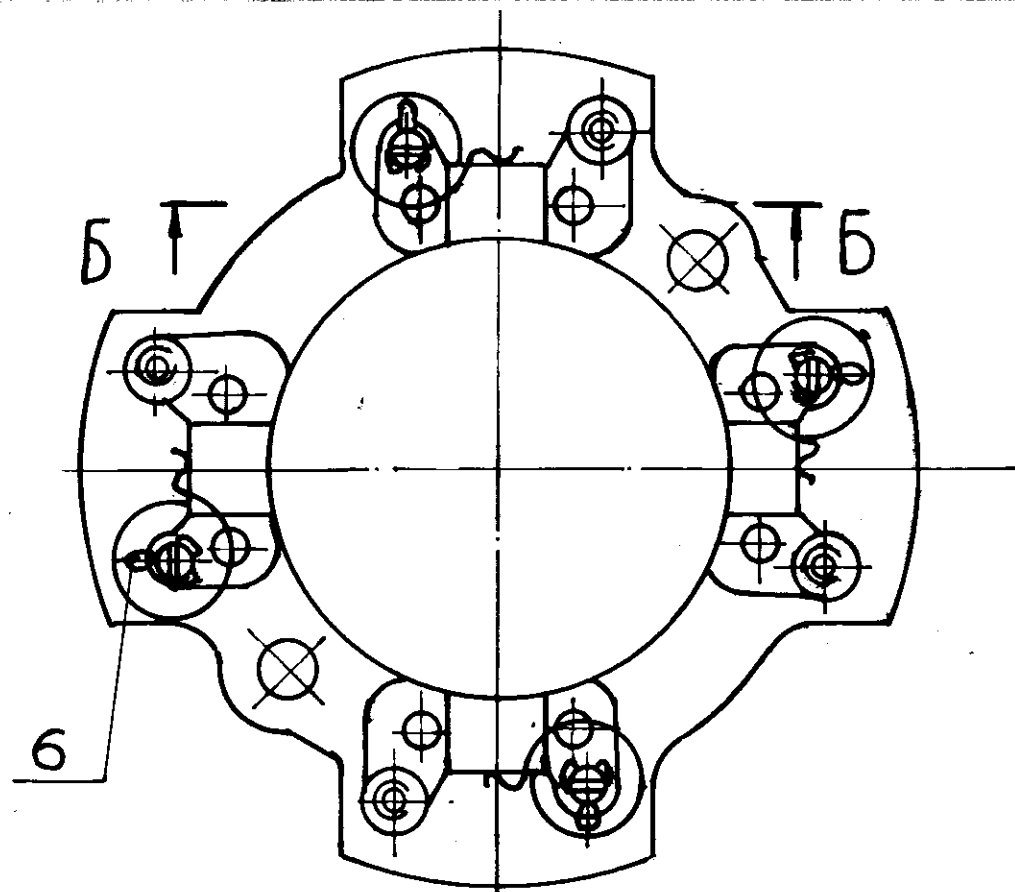
1. Taper should not exceed 3° towards decreasing of dimension.
 2. Rounding off of sharp edges R_1 is allowed.
 3. Permissible displacement of dimension is 27.5 ± 0.4 .
 4. May be made by through cutting of thread M6-7H.
 5. Burrs are not allowed.
- Ⓐ EQ MATERIAL: C10 IS: 2073-70 OR EN 1A EN 18 BS: 970

0108

VETTED
29 NOV 2007
JWW/STD-CELL

00804-14 JWW	Ⓐ EQ MATERIAL ADDED
30.08.2000 DCI NO DATE	ISSUE NATURE OF AMENDMENTS

CONTROLLERATE OF INSPECTION	MB72-04-01	WEIGHT	SCALE
	POLE	125 g	1:1
	Steel 10 ГОСТ 1050-74	110 / 146	

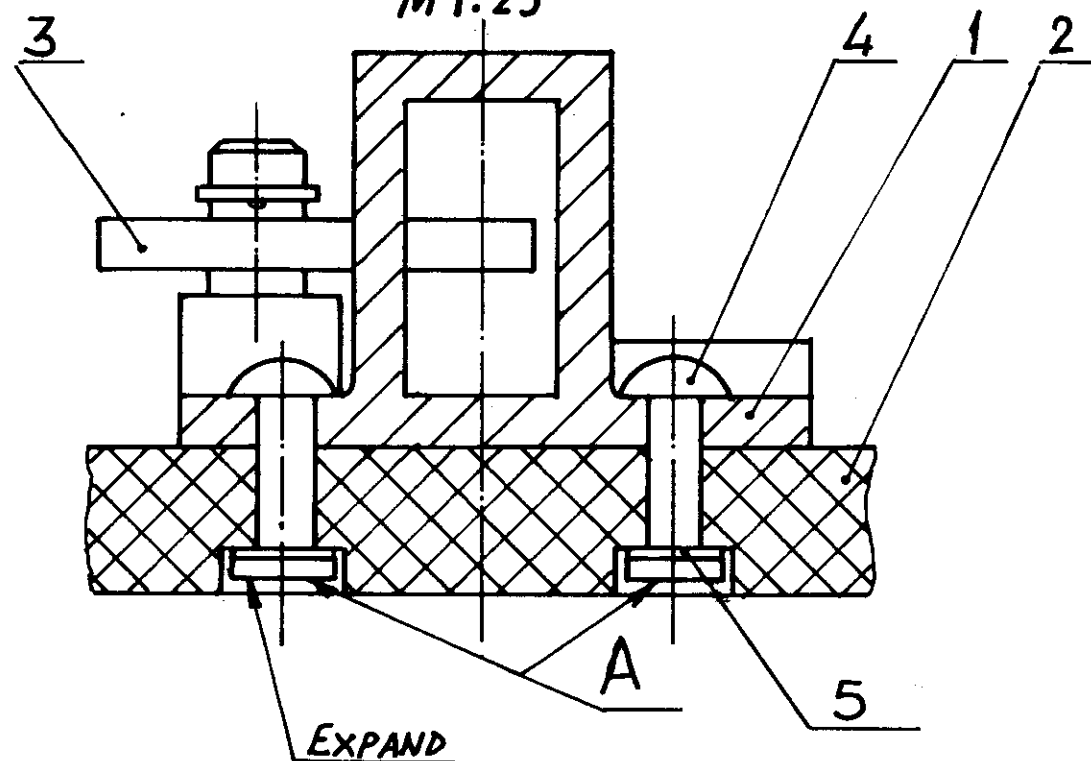


1. DEVIATIONS FROM THE ALIGNMENT OF WINDOW AXIES OF OPPOSITE BRUSH HOLDERS SHOULD NOT EXCEED 0.2 MM.

2. RIVET HEADS, REF. NO. 4 AND SURFACE A SHOULD BE COATED WITH ENAMEL XB-124, GREY. GOST 10144-74.

VETTED
24 FEB 2006
JWM/STD-CELL

B-B
M1:25



FIRST ANGLE PROJECTION

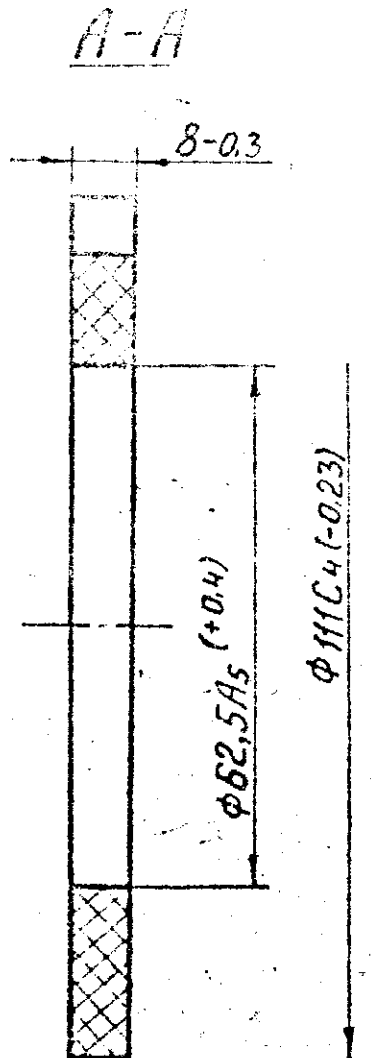
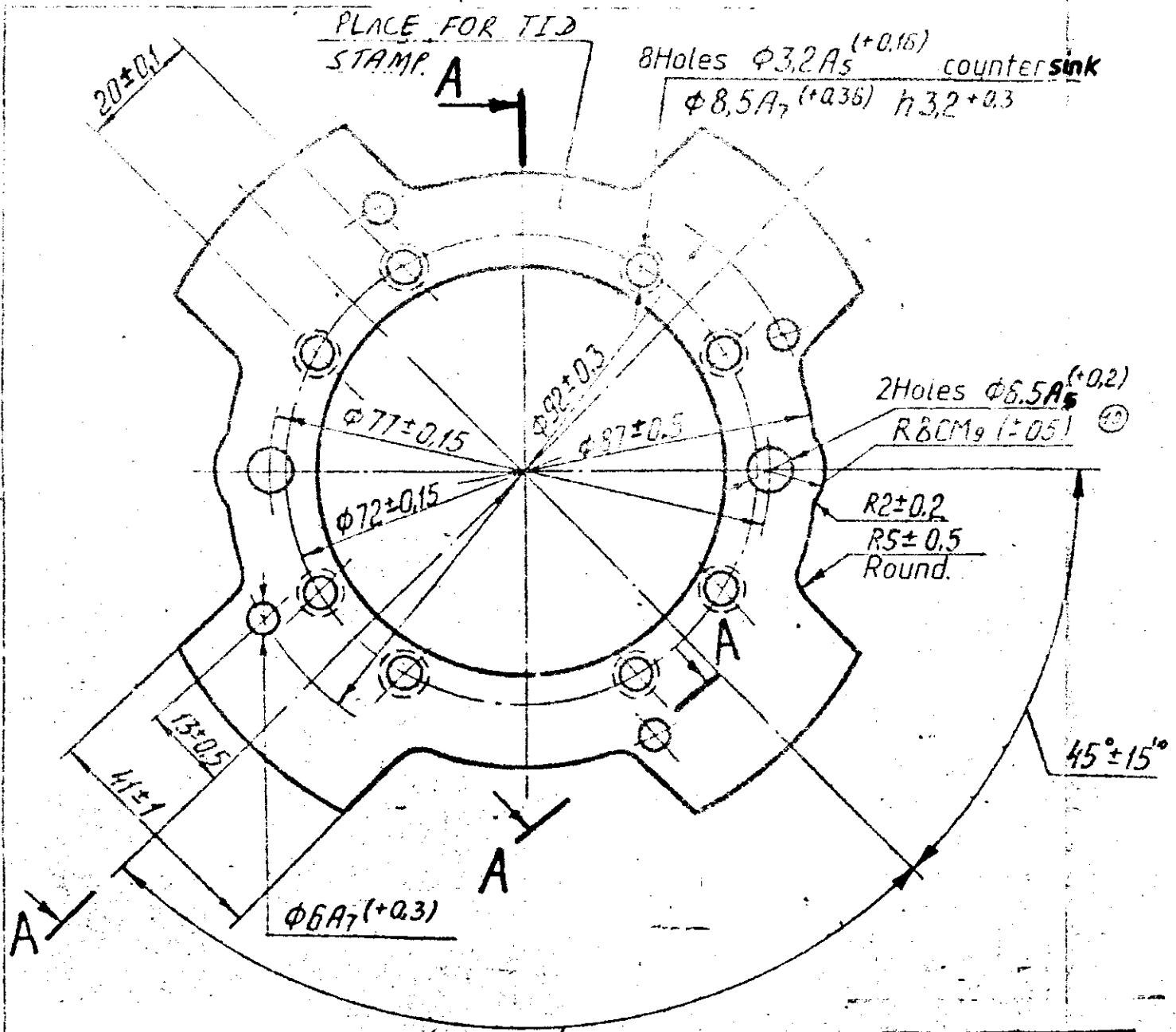
BRUSH ARM (ASSY. DRG)						0.09		
सख्या NO OFF	विवरण DESCRIPTION	पुर्जा क्र. PART NO	पदार्थ MATERIAL	मानक STANDARD	परिमाण DIMENSIONS	अभ्यांकित REMARKS	MASS (kg)	
सामान्य सहिष्णुता GENERAL TOLERANCE								
रेखिक परिमाण LINEAR DIMENSION								
0 - 6 ± 0.1								
6 - 30 ± 0.2								
30 - 120 ± 0.3								
120 - 315 ± 0.5								
315 - 1000 ± 0.8								
1000 - 2000 ± 1.2								
कोणिक परिमाण ANGULAR DIMENSION								
1 - 10 ± 1°								
10 - 50 ± 30'								
50 - 100 ± 20'								
> 100 ± 10'								
मापक 'म्यू.एम.' म VALUE IN 'μm'								
~ > 25								
▽ 8 - 25								
▽▽ 1.6 - 8								
▽▽▽ 0.025 - 1.6								
▽▽▽▽ < 0.025								
सख्या NO OFF		संबंधित पुर्जाका आरेखण क्र. DRG. NO. OF ASSOCIATED PART	सूचक INDEX	मंशोधन ALTERATION	2003			दिनांक DATE
BRUSH ARM (ASSY. DRG.)					मापमान SCALE	आरेखित DRAWN	90-1'	नाम NAME
					1:1	जांचा CHECKED	21-1-03	Rt
						अनुमोदित APPROVED		
					द्वारा बदला REPLACED BY			
					हेतु बदला REPLACED FOR			
					आरेखण क्र. DRAWING NO.			
					VMT MBN 2-05-00C5			
मूलमाप व अन्वायोजन NOMINAL SIZE & FIT		विचलन DEVIATION		मशीनी औजार आदिरूप फैक्टरी, अम्बरनाथ MACHINE TOOL PROTOTYPE FACTORY, AMBARNATH		कार्यालय OFFICE		

इन आरेखणों तथा इसके साथ की सम्पूर्ण सामग्री का स्वत्वाधिकार भारत सरकार, रक्षा मंत्रालय की भारतीय आयुध निर्माणियों के पास है। भारतीय आयुध निर्माणियों के महानिदेशक की लिखित अनुमति के बिना इनकी नकल या किसी भी रूप में इनके उद्धरण या इनमें समाहित सूचना किसी अनधिकृत व्यक्ति को उपलब्ध नहीं कराई जानी चाहिए।
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Traced from CQA (ICV) original drg. Seal No. 2586
Date 30-5-02

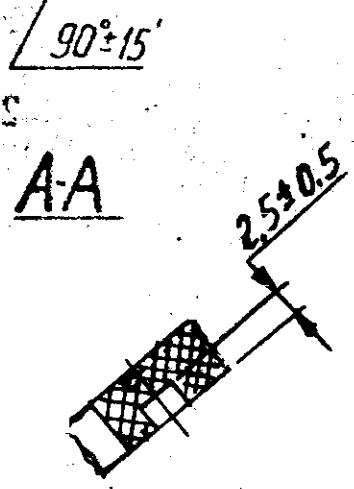
10-50-008W

2



1. Misalignment of diameter $\phi 111C_4(-0.23)$ with respect to $\phi 62.5 A_5(+0.4)$ should not exceed 0.15mm.
2. Machine finish of surfaces of holes should not less than Rz 80 ✓
3. Blunt all the sharp edges of holes.
4. Spot facing opening is allowed.
5. Method of marking should be non -impact.
6. Tapering towards decreasing of body should not exceed 1°.

VETTED
 29 NOV 2007
 JW.MSTD-CELL



MB П 2-05-01

CONTROLLERATE
 OF
 INSPECTION

BRUSH ARM

Press-material AT-4C
 GOST 20437-75

WEIGHT	SCALE
65g	1:1
SHT	HTS

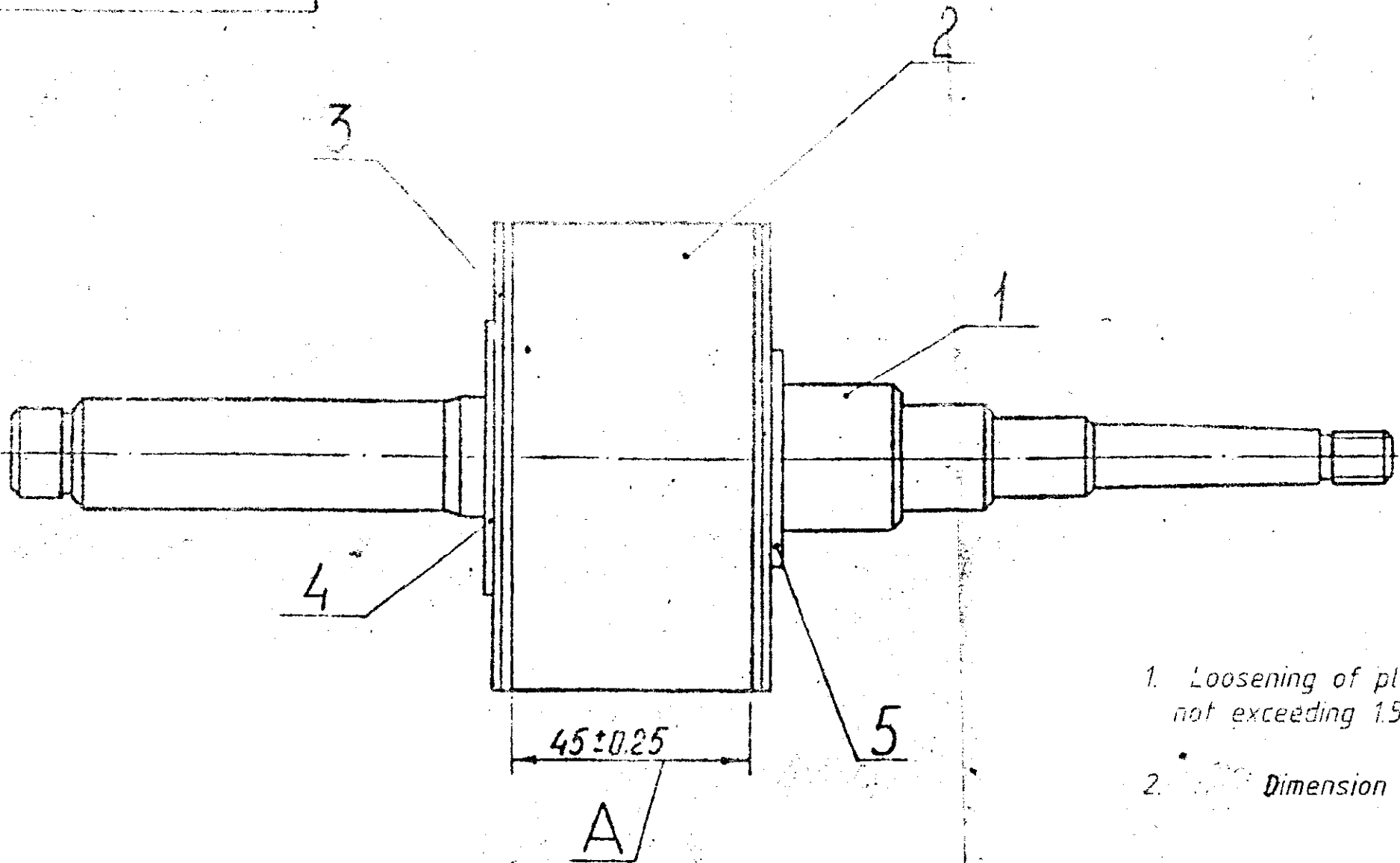
113 / 146

10932 151359

3700-00000

Сipac No MBn2-10-00

7136

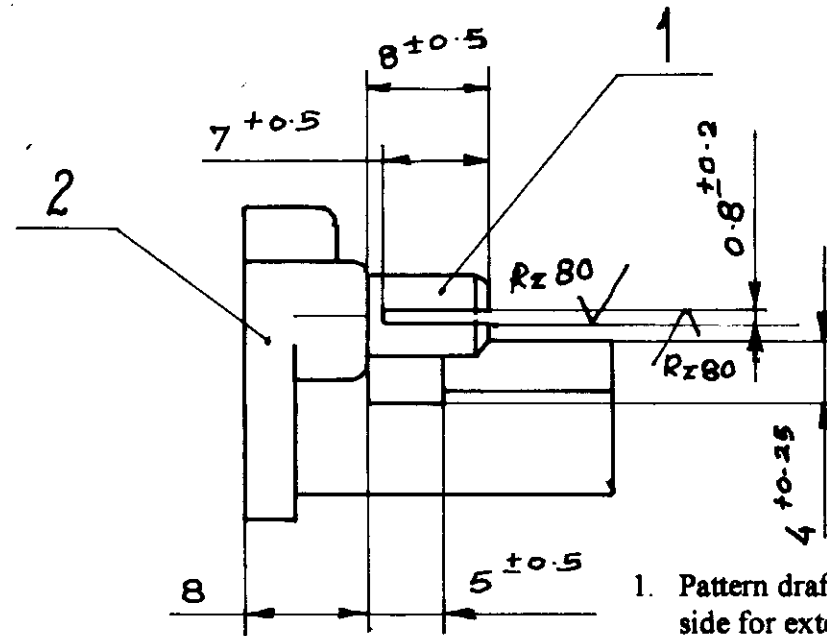
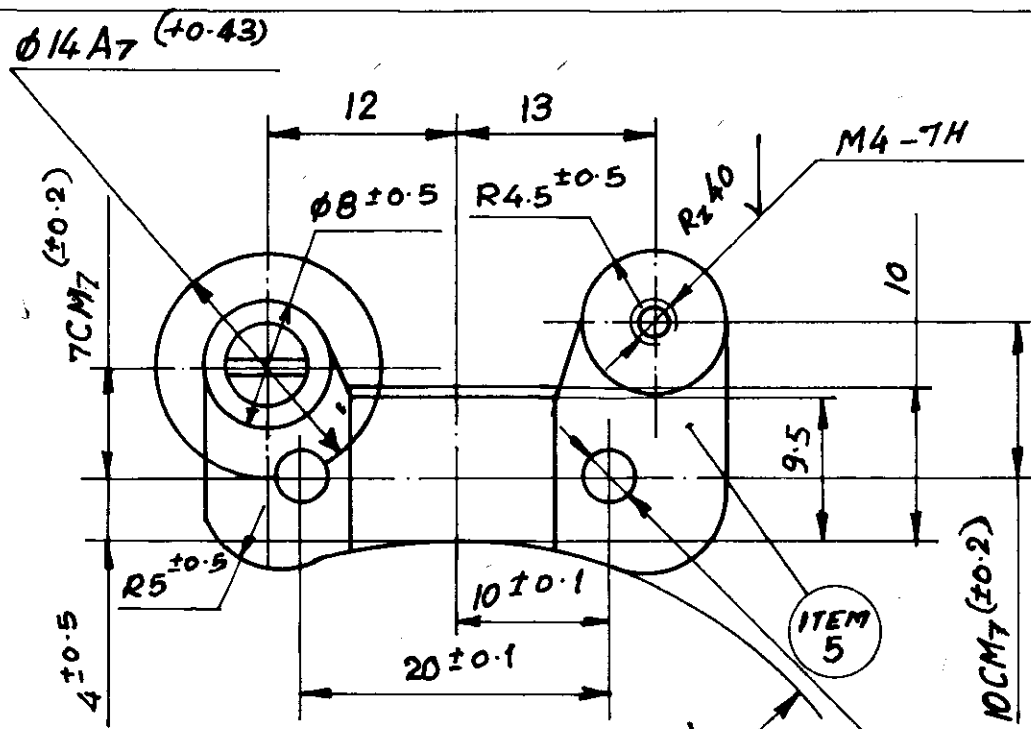


1. Loosening of plates along the external diameter, not exceeding 1.5mm, above dimension A is allowed.
2. Dimension A ^{is obtained by placing the necessary} number of parts Ref. No. 2

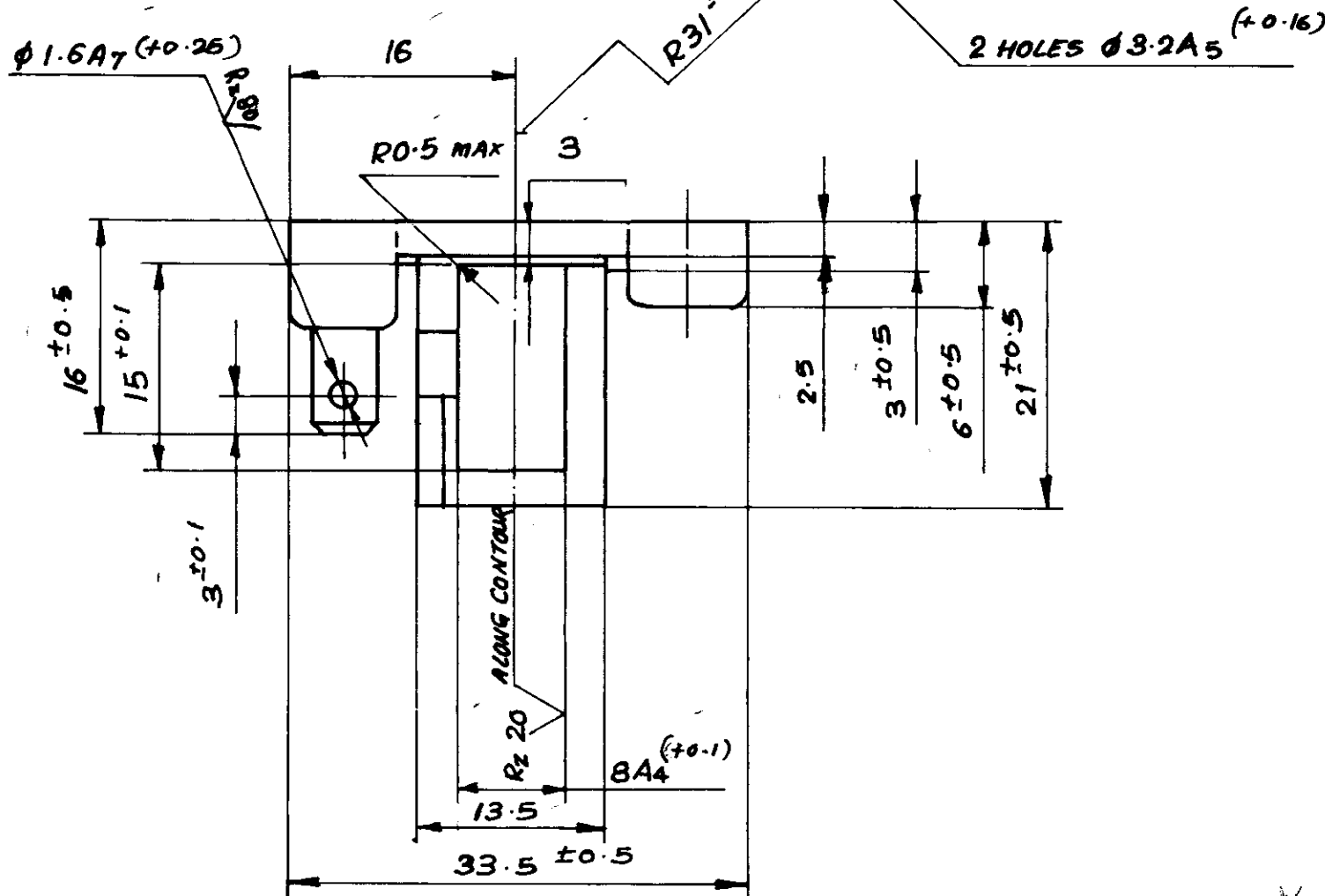
VETTED
 25 FEB 2008
 WINGSD-CELL

D:571 **ECKE**

MBn2-10-00CB			
INSPECTION	SHAFT WITH IRON ARMATURE (Assy Drg)		WEIGHT SCALE
			2.2 2:1
	SHT	SHTS	
77/106			



1. Pattern drafts should ^{not} exceed 2° towards the increased side for external dimensions, for internal dimensions towards decreased side.
2. Unspecified radii should not exceed 2mm.
3. Rolling of axle, Ref. No. 1 is not allowed.
4. Unspecified limit deviations of dimensions ±0.25mm, and of angular dimensions ±30'.
5. Mark the serial number of press mould and the socket number, in type No. H0.010.007.
6. Coating :- Zinc-plated, 6 microns thick, chromated Composition of the solution for chromatisation is as per M -252-78.



VETTED
25 FEB 2008
JWM/STD-CELL

FIRST ANGLE PROJECTION

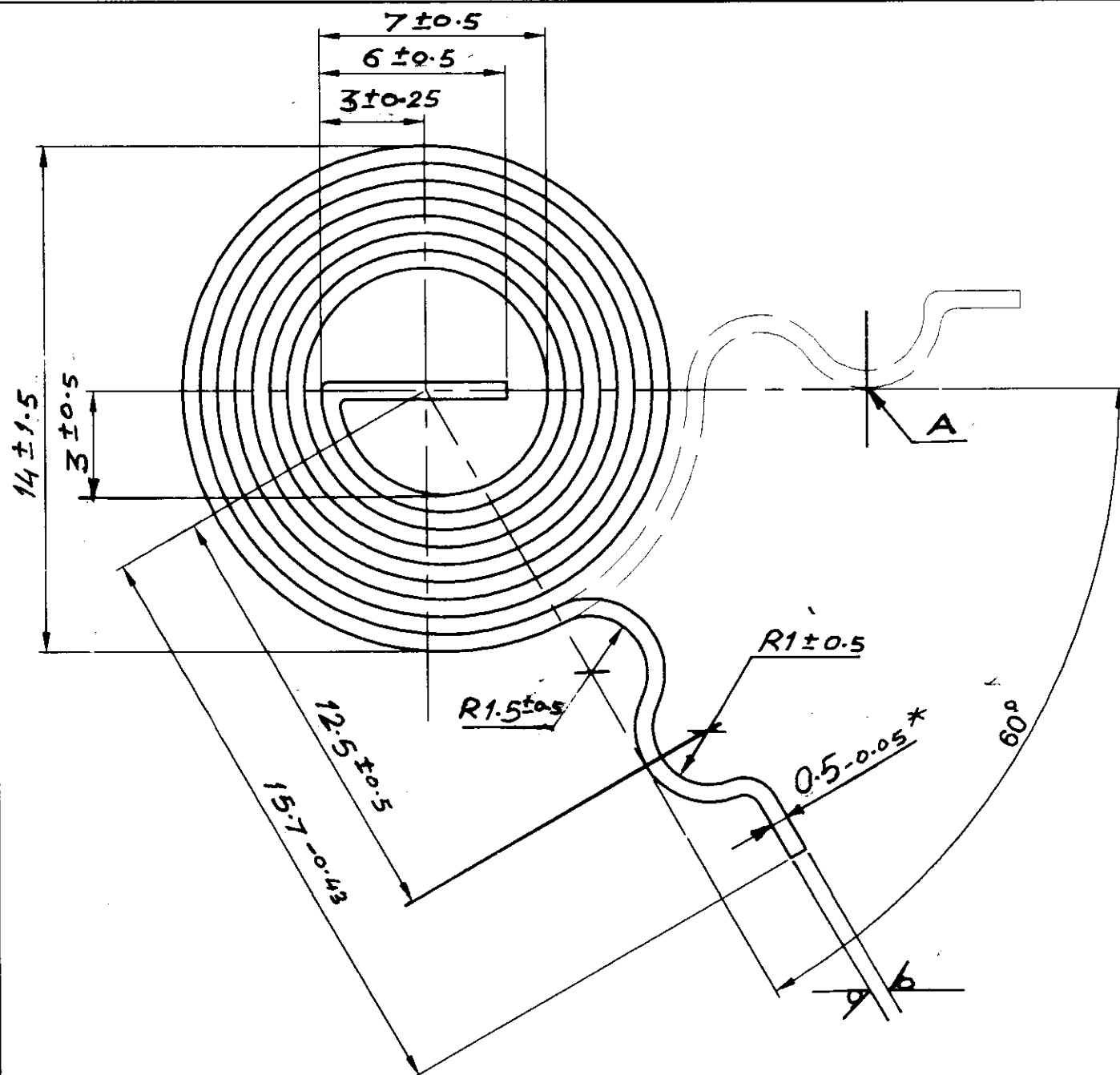
BRUSH HOLDER (Assy. Drg.)						10g
संख्या NO. OFF	विवरण DESCRIPTION	पुर्जा क्र. PART NO.	पदार्थ MATERIAL	मानक STANDARD	परिमाण DIMENSIONS	MASS
सामान्य सहिष्णुता GENERAL TOLERANCE						
रेखिक परिमाण LINEAR DIMENSION						
0-8	±0.1					
8-30	±0.2					
30-120	±0.3					
120-316	±0.5					
316-1000	±0.8					
1000-2000	±1.2					
कोणिक परिमाण ANGULAR DIMENSION		संख्या NO. OFF	संबंधित पुर्जा क्र. DRG. NO. OF ASSOCIATED PART	सूचक INDEX	संशोधन ALTERATION	दिनांक DATE
1-10	±1°					2003
10-60	±30'					
50-100	±20'					
>100	±10'					
मापक 'म्यू एम' में VALUE IN 'μm'						
-	>25					
7	8-25					
7.7	1.6-8					
7.77	0.025-1.6					
7.777	<0.025					
BRUSH HOLDER Assy. Drg.						मापमान SCALE
						2:1
मशीनी औजार आदिरूप फैक्टरी, अम्बरनाथ MACHINE TOOL PROTOTYPE FACTORY, AMBERNATH						आरेखित DRAWN
						5/1/03
कार्यालय OFFICE						जाँचा CHECKED
						7/1/03
द्वारा बदला REPLACED BY						अनुमोदित APPROVED
द्वारा बदला REPLACED FOR						आरेखण क्र. DRAWING NO.
						MB 7 2 - 14 - 00 CB

इन आरेखों तथा इसके साथ की सम्पूर्ण सामग्री का स्वतंत्राधिकार भारत सरकार रक्षा मंत्रालय की भारतीय आयुध निर्माणियों के पास है। भारतीय आयुध निर्माणियों के महानिदेशक की लिखित अनुमति के बिना इनकी नकल या किसी भी रूप में इनके उद्धरण या इनमें समाहित सूचना किसी अनधिकृत व्यक्ति को उपलब्ध नहीं कराई जानी चाहिए।
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मूलमाप व अन्वयोजन
NOMINAL SIZE & FIT

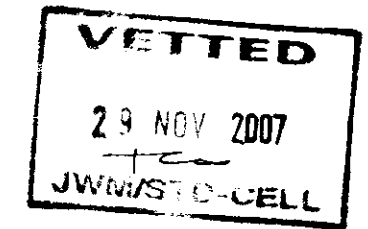
विचलन
DEVIATION





1. H.R.A 72 75.
2. * Dimensions is given for reference.
3. Number of working coils = 4.
4. Spring width may be increased, because of the projection of turns and deviation from the plane of the spring end may be upto 4mm.
5. Angle of twisting may be changed depending on the heat-treatment and the material when the spring is coiled.
6. After heat treatment, contact of coils is not allowed.
7. Pressure of spring in point A should be P 300 +150gf.
8. Coating :- Chemically oxidized / varnished $\Gamma \emptyset - 95$, GOST 8018-70.

FIRST ANGLE PROJECTION



EQ. MATERIAL :- SPRING STEEL STRIP 80C6 ; IS:2507-75.

* Band Y 8A-C-0-5
GOST 2283-79

SPRING		*			23g	
संख्या NO.OFF	विवरण DESCRIPTION	पुर्जा क्र. PART NO.	पदार्थ MATERIAL	मानक STANDARD	परिमाण DIMENSIONS	MASS
सामान्य सहिष्णुता GENERAL TOLERANCE						
रेखिक परिमाण LINEAR DIMENSION						
0-6	±0.1					
6-30	±0.2					
30-120	±0.3					
120-315	±0.5					
315-1000	±0.8					
1000-2000	±1.2					
कोणिक परिमाण ANGULAR DIMENSION	संख्या NO OFF	संबंधित पुर्जा क्र. DRG. NO OF ASSOCIATED PART	सूचक INDEX	संशोधन ALTERATION	2003	दिनांक DATE
1-10	±1'					
10-50	±30'					
50-100	±20'					
> 100	±10'					
मापक 'म्यू एम' में VALUE IN 'μm'						
-	>25					
∇	8-25					
∇∇	1.8-8					
∇∇∇	0.025-1.6					
∇∇∇∇	<0.025					
SPRING					मापमान SCALE	आरेखित DRAWN
					5:1	6/1/03
					जाँचा CHECKED	6/1/03
					अनुमोदित APPROVED	
					द्वारा बदला REPLACED BY	
					हेतु बदला REPLACED FOR	
					आरेखण क्र. DRAWING NO.	
						MH1 - 03 - 03

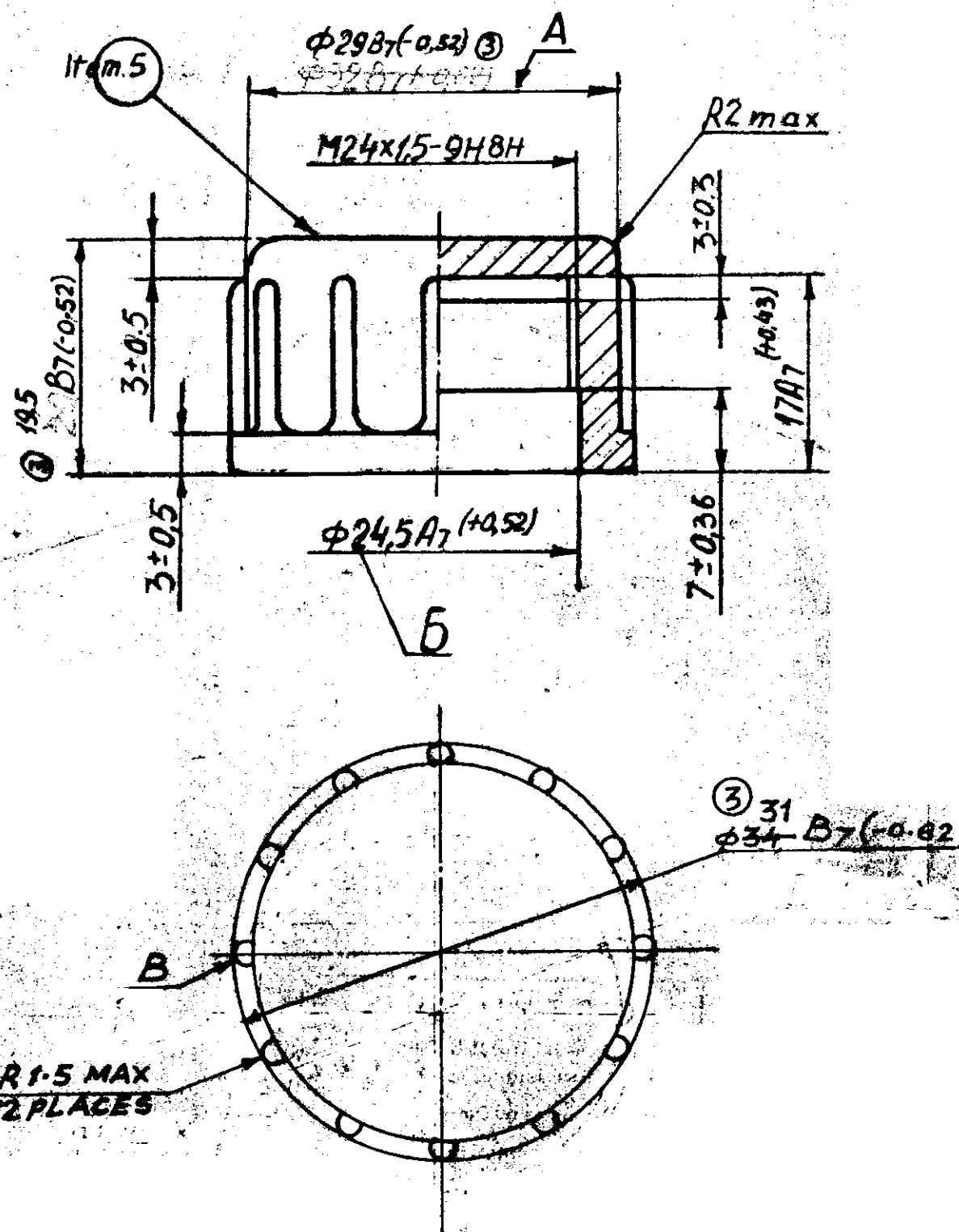
इन आरेखणों तथा इसके साथ की सम्पूर्ण सामग्री का स्वत्वाधिकार भारत सरकार रक्षा मंत्रालय की भारतीय आयुध निर्माणियों के पास है। भारतीय आयुध निर्माणियों के मखनिदेशक की लिखित अनुमति के बिना इनकी नकल या किसी भी रूप में इनके उद्धरण या इनमें सम्मिलित सूचना किसी अनधिकृत व्यक्ति को उपलब्ध नहीं कराई जानी चाहिए।
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मूलमाप व अन्वयोजन
NOMINAL SIZE & FIT

विचलन
DEVIATION

मशीनी औजार आदि रूप फैक्टरी, अम्बरनाथ
MACHINE TOOL PROTOTYPE FACTORY, AMBERNATH

कार्यालय
OFFICE
VMT



1. Alternate material:-Phenoplast Y4-080-02
GOST 5689-73
2. Tapering of 1° towards decreasing of dimension A and 4° towards the increasing dimension B are allowed.
3. Unspecified radii should not exceed 1mm.
4. Angle displacement of ribs B ±1° from the true position is allowed.
5. Mark socket number of mould and the designation of part by embossed type as per HD.010.007.
6. Other requirements are as per OST B-84-1602-78.

VETTED
 29 NOV 2007
 JWM/STD-CELL

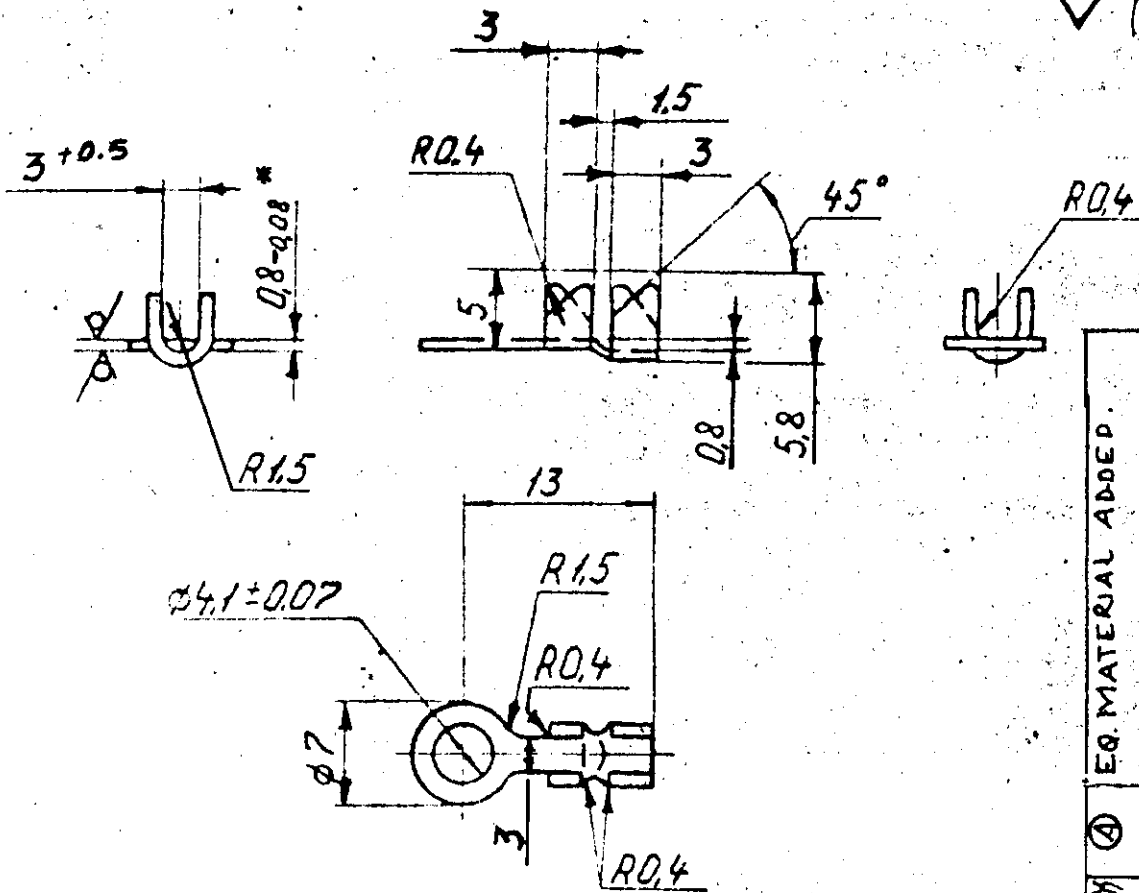
D-571 ECKB

X9-10945

CHECKED CONTROLLERATE OF INSPECTION	TRANSPORTING CAP	WEIGHT 12.89g	SCALE 2:1
	Phenoplast 03-010-02 black GOST 5689-73	SHT 146/146	SHTS

1-УГБ-132

Rz80 ✓ (✓)



1. * Dimension is given for references.
 2. All dimensions have tolerance of ± 0.25 and angular tolerance of $\pm 30'$, if not specified otherwise.
 3. Coating: -Tin-Bismuth (97)9. micron thickness.
- Ⓐ EQ. MATERIAL: BRASS SHEET-CU ZN 37 IS: 4-10-77.

EQ. MATERIAL ADDED.	NATURE OF AMENDMENTS
Ⓐ	
08.04.13	08.08.2000
DATE	DATE

3102

22 11 2004

Signature

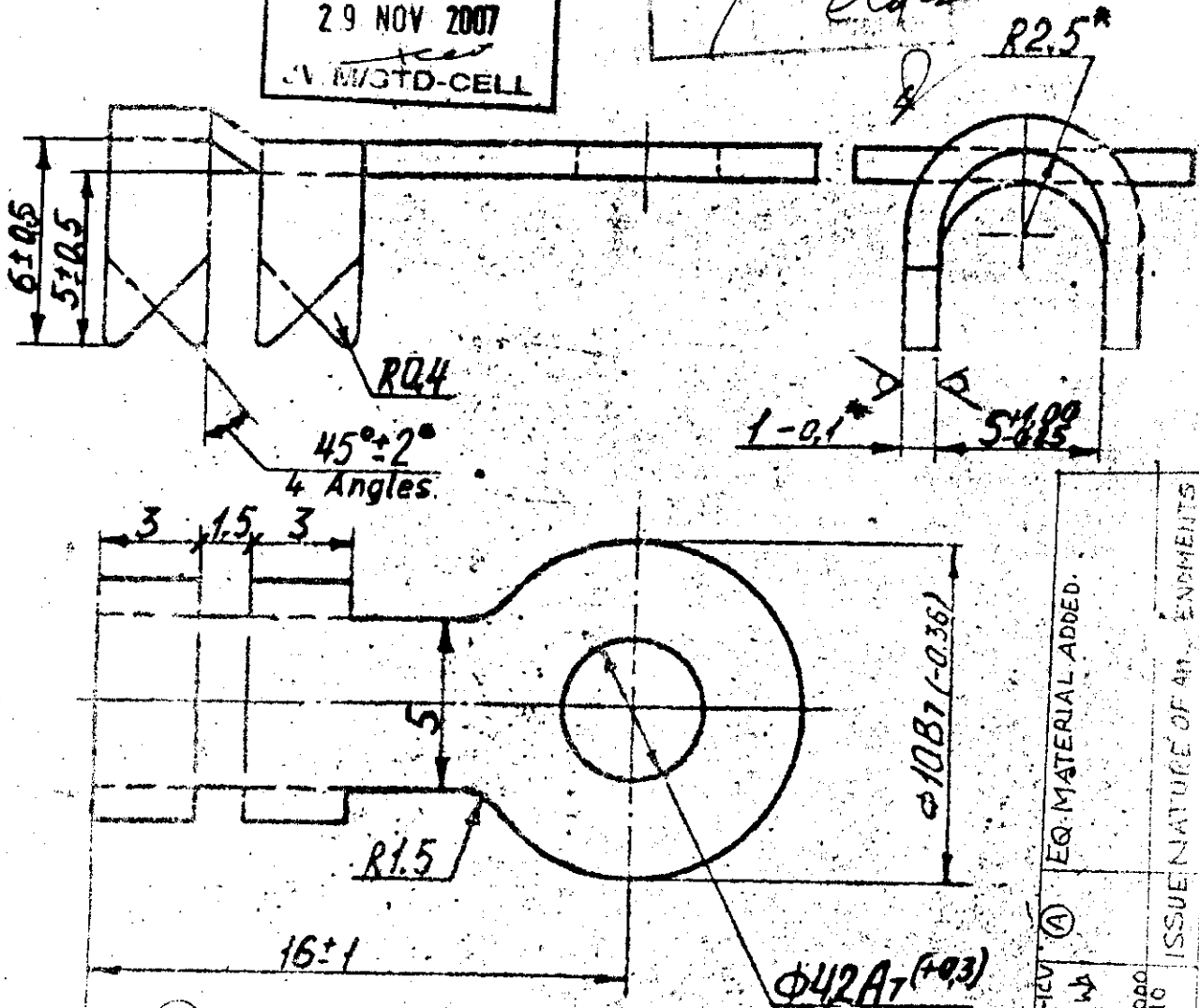
VETTED
 D 571
 29 NOV 2007
 CELL

APPROVED	И. ВАСИ	1-УГБ-132	
CHECKED		WEIGHT	SCALE
CONTROLLER AT F		0.59ms	2:1
INSPECTION	(51)	SHT	SHTC
		Sheet AnPM 0.8 163	105 11/16
		ГОСТ 931-78	

19904-LX

R280

VETTED
29 NOV 2007
CV M/STD-CELL



00804-1CV	EQ. MATERIAL ADDED.	ISSUE NATURE OF AMENDMENTS
(A)		
24-08-2000		
REC'D NO		
DATE		

(A) EQ. MATERIAL: BRASS, CUZ77.37 IS: 410-77

- * Dimensions are given for references.
- Provide unspecified limit deviations of dimensions with tolerance of ±0.25mm.
- Coating: -Tin- bismuth (99.8) 9 microns thickness.

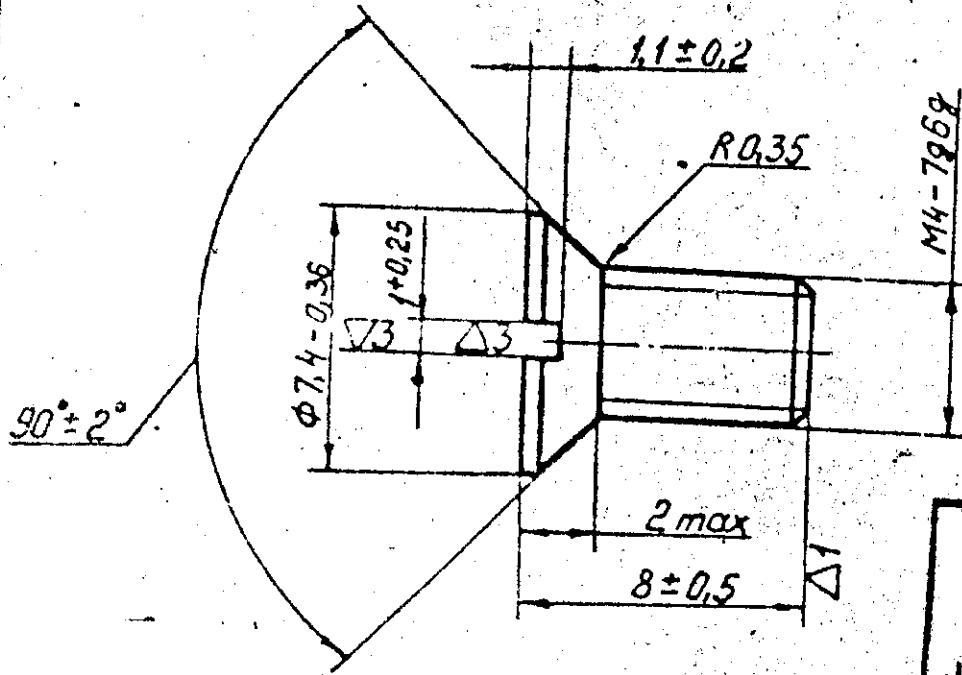
D-571

DESIGNED	M. V. S. U.	X7-10661	
CHECKED	H. M. Shaikh		
CONTROLLERATE OF INSPECTION (ICV)	(90)	LUG	
		WEIGHT	SCALE
		SHT	SHTS
Sheet No PM 10 J 63		1-2 gms	5:1
FOCT 931-78		144/146	

1804-XL

▽4(▽)

MBN-2A



VETTED
29 NOV 2007
JWIWSTD-CELL

DESIGNATION.	*	COATING.
7X-4081	016	Zinc-plated 6 microns thick, chromated. Solution for chromatisation as per V-252-78.

1. Limit deviations from the alignment of axis heads and spline with respect to axis of bar is 0.3mm.

2. Technical requirements are as per GOST 1759-70.

22 NOV 2004

Chiper

Duplicate copy is made with GOST 17475-72.

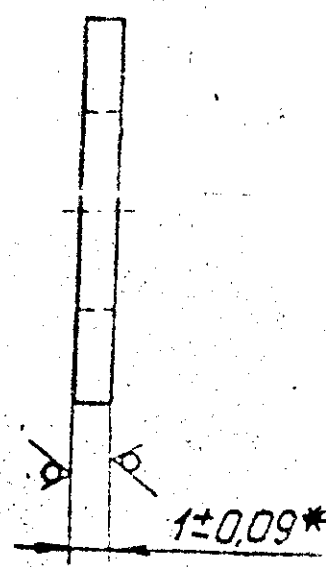
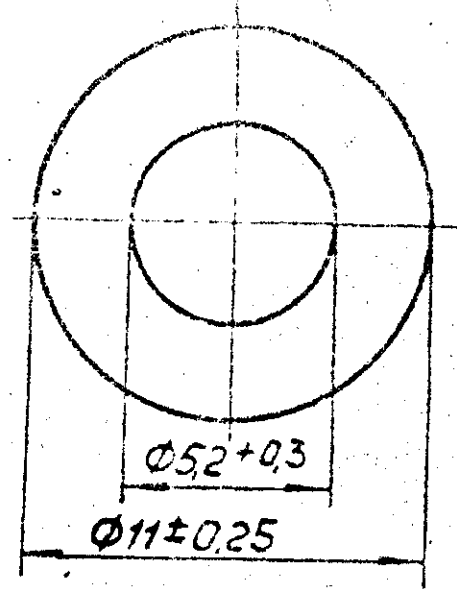
D-571

APPROVED	M. VASL	7X-4081		
CHECKED	<i>M. Vasl</i>			
CONTROLLERATE OF INSPECTION (ICV) (76)	SCREW		WEIGHT	SCALE
	MA-7g6g X 8.36 *		0.84g	5:1
	Gost 17475-72		SHT	SHTS
Steel 10 GOST 1050-74			130/146	

ГОСТ 1904-74
ГОСТ 16523-70

R200
✓

7107-2



DESIGNATION.	COATING.
8X-1497.	Zinc-plated 6 microns thick, Solution for chromatzation is as per VI- 252 - 78.

EQ. MATERIAL ADDED	ISSUE NATURE OF AMENDMENT
④	
DC 804-10V 29.09.2004 DCCU NO. DATE.	

* Dimension is given for references.

④ EQ. MATERIAL: GRADE D' IS: 513-86

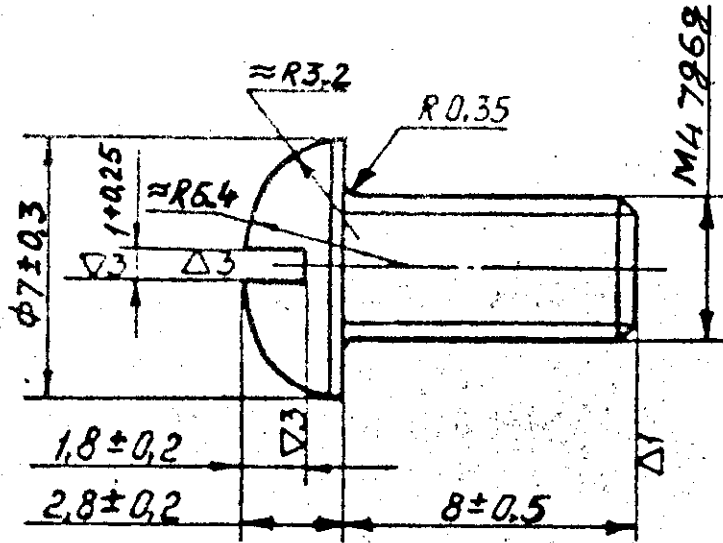
VETTED
29 NOV 2007

22 NOV 2004
Plated 571
JUN/OCT 2004

APPROVED	8X-1497
CHECKED	WASHER
CONTROLLER	0.6g 5:1
INSPECTION	Sheet E10 ГОСТ 19904-74 4-II-10 ГОСТ 16523 70
(77)	131/146

1151-X8

▽4(▽)



DESIGNATION	*	COATING.
8X-1541	016	Zinc-plated, 6 microns thick, chromated. Solution for chromation is as per V-252-78.

1. Limit deviations from the alignment of head axes and spline with respect to axis of bar is 0.3mm.
2. Technical requirements are as per GOST 1759-70.

VETTED
29 NOV 2007
JV/STD-CELL

22 NOV 2004
Elyan

Duplicate copy is made with GOST 17473-72.

D-571



ECKD

8X-1541

SCREW
M4-7969 X 8-36 *
ГОСТ 17473-72

1186

Wire 3.45-10 ГОСТ 5663-79

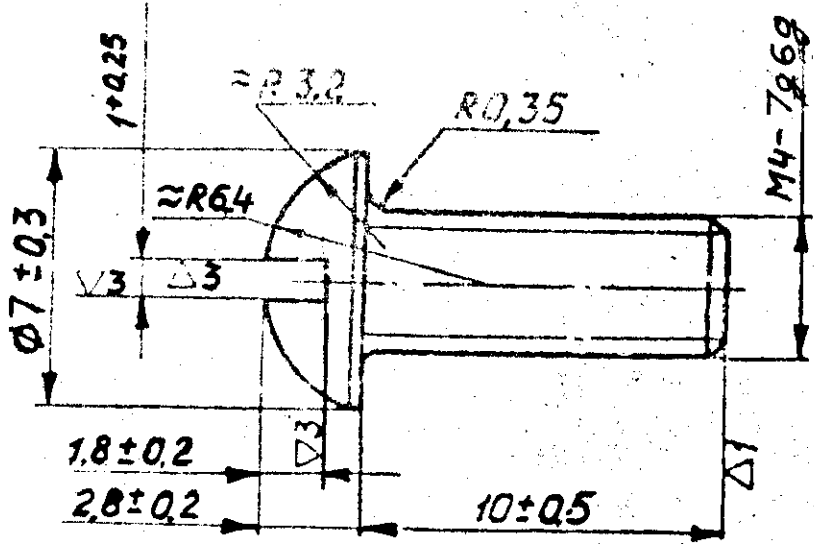
1/32/146

INSPECTION (78)

8X-1548

△4 (△)

РДТ-30



DESIGNATION.	COATING.
8X-1548.	Zinc-plated, 6 microns thick, chromated.

- Limit deviations from the alignment of head axes and spline with respect to the axis of bar is 0.3mm.
- Technical requirements are as per GOST 1759-70.

22.09.2004
 [Signature]

VETTED
 29 NOV 2007
 JWIN/STD-CELL

Duplicate copy is made with GOST 17473-72.

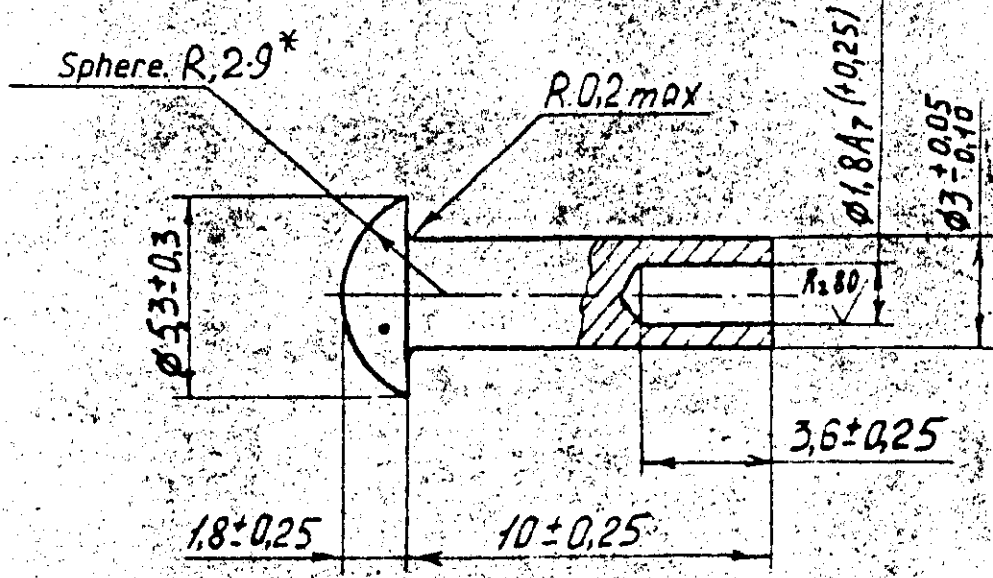
D-571

8X-1548	SCREW	M4-7969 X 10-36 016	ГОСТ 17473-72
Steel 10, ГОСТ 1050-74			

79

133/146

MBN-2



DESIGNATION	COATING
8X - 525	Zinc-plated 6 microns thick, chromated. Solution for chromatisation is as per M - 252 - 78.

- * Dimension is given for references.
- Limit displacement of axis of bar:
 - Axis of head - 0.2mm.
 - Axis of hole - not exceeding 0.1mm.
- Other Technical requirements are as per
GOST 12644-67.

22 NOV 2004
Chirja

D-571

VERIFIED
20 NOV 2004
JWM/STU-CELL

ECHKD

APPROVED **M. VASU**
CHECKED *M. Golth*

8X-525

CONTROLLERATE
OF
INSPECTION
(ICV) **(60)**

RIVET

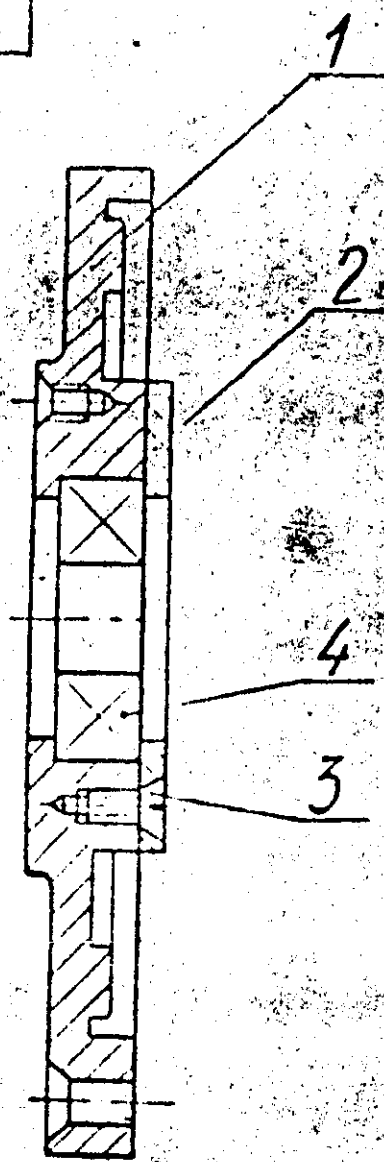
WEIGHT	SCALE
0.6g	5:1

Steel 10, GOST 1050-74

SHT SHTS

114/146

50000027 3E0



VETTED
 25 FEB 2008
 JWM/STD-CELL

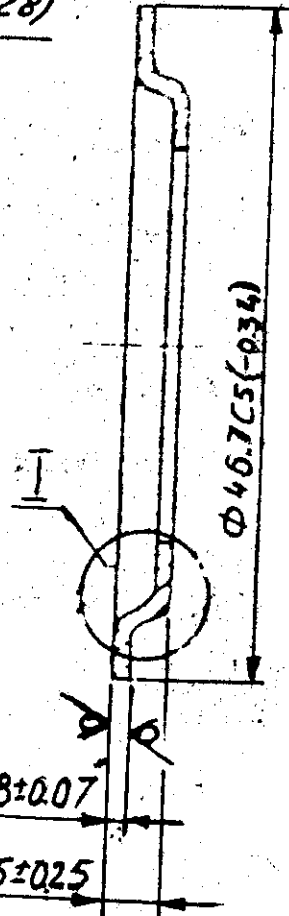
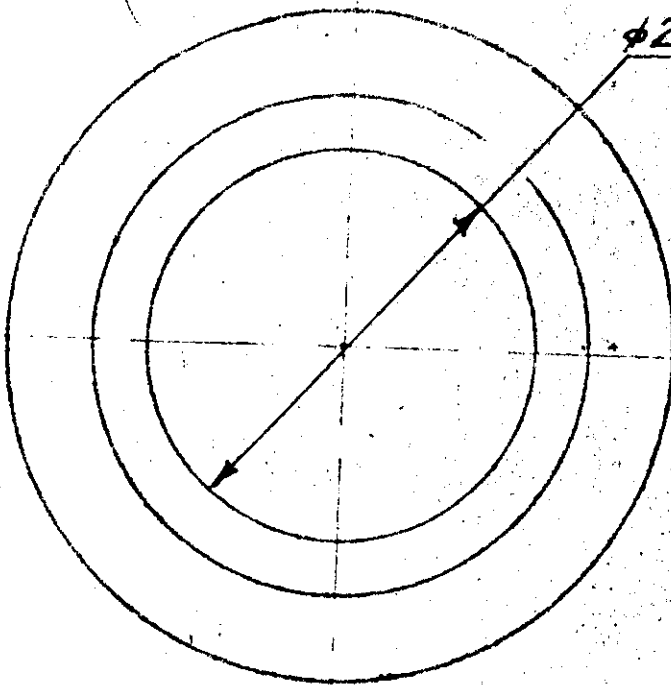
Put screw Ref. No. 3 on enamel XB-124, grey, GOST 10144-74 and paint the screw head with the same enamel.

Handwritten mark

D. 571

APPROVED	<i>M. V. A. S.</i>	B86.170 002 CE	
CHECKED	<i>M. P. S.</i>		
CONTROLLERATE OF INSPECTION (ICV) (36)	COVER FROM THE SIDE OF COMMUTATOR	WEIGHT	SCALE
	ASSEMBLY DRAWING	0.4	1:1
		SHT	SHTS

REVISION



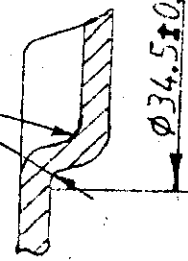
VETTED
 29 NOV 2007
 JW/JSTD-CELL

I
 M5:1

DESIGNATION	EQ. MATERIAL ADDED
DATE	NATURE OF AMENDMENT

22 NOV 2004
Chapman

$R0.5 \pm 0.25$



DESIGNATION	COATING
MB-177-31	Zinc-plated, 21 microns thick chromated. Solution for chromatisation is ^{upper} N-252-78.
-01	Cadmium-21 microns thick, chromated.

* Dimension is given for references.

④ EQ. MATERIAL: GRADE IS: 513-86

D-571

MB-177-31

WASHER OF THE BEARING

Sheet 50-8 GOST 19904-74
 II-BF-08 Kn Gost 9045-70

INSPECTION (NEW)

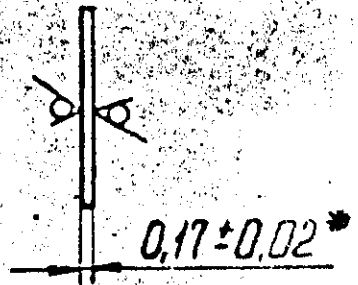
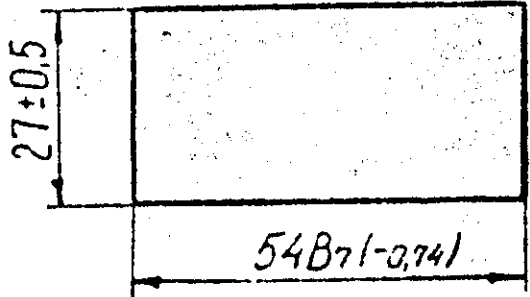
73

127/146

70-10-0000

Material Code
P/N: 7-15-00

Crab No



* Dimension is given for references.

VETTED
 29 NOV 2007
 JWM/STD-CELL

RESERVED

22 NOV 2004
elja

D-571

REC-05

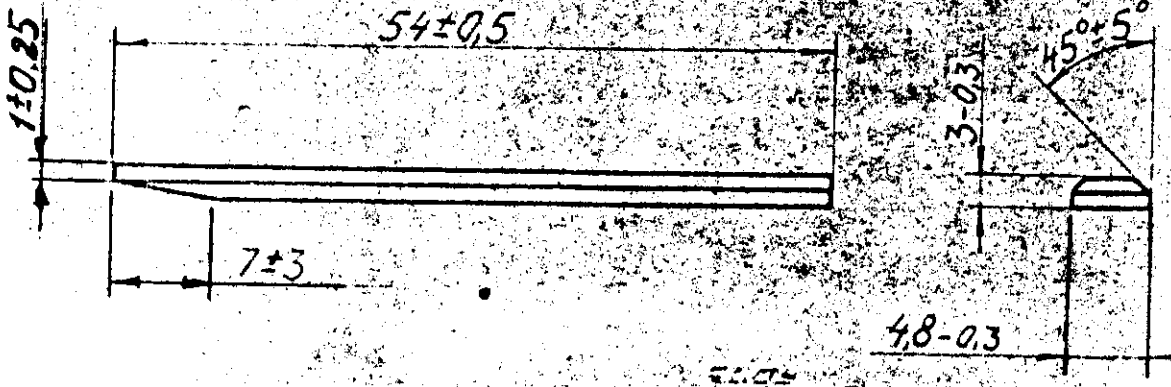
H

MB55-01-02

APPROVED	REVISION		
CHECKED	DATE		
CONTROLLERATE OF INSPECTION (ICV) (46)		INSULATION OF SLOT	
		WEIGHT	SCALE
		0.49ms	1:1
		SHT	SHTS
		100/146	
		Fibreglass cloth ITT-271-03-969-0.17 TY 16-50324-73	

MB55-01-03

90 Δ 26



Moisture contents in wood should not exceed 15%.

VETTED
 29 NOV 2007
 JWM/STO-GELL

22 NOV 2004
[Signature]

D-571

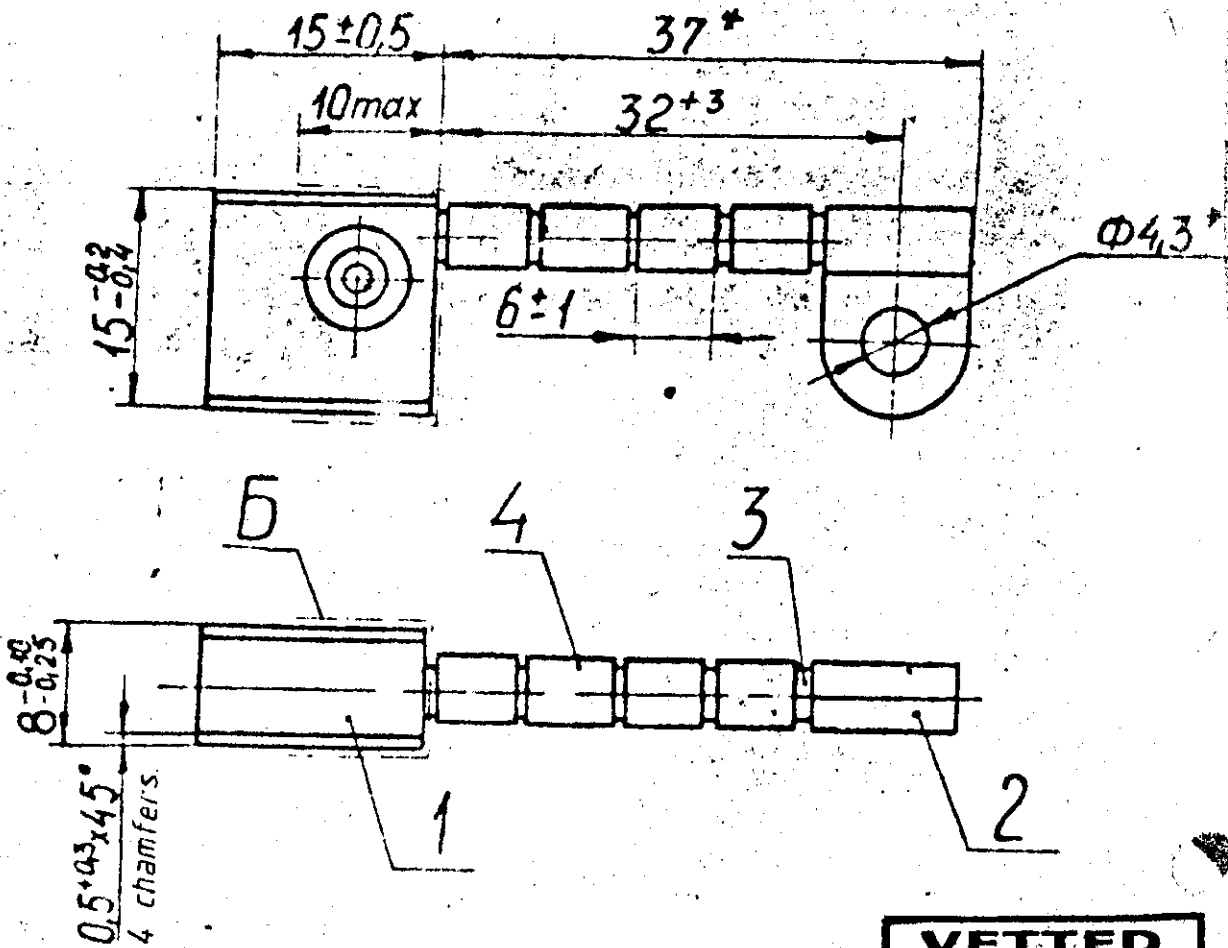
APPROVED	BY NAME	MB 55-01-03		
DATE				
CONTROLLERATE OF INSPECTION (ICV) (48)	WEDGE OF SLOT		WEIGHT	SCALE
	PLY wood, TYPE 2 ГОСТ 2695-71			2:1
			SHT	SHTS
			102/146	

9000 00-000W

Перб номер
M860-05-00

Српоб №

Српоб № 0000/0000/0000



VETTED
24 FEB 2008
JWM/STD-CELL

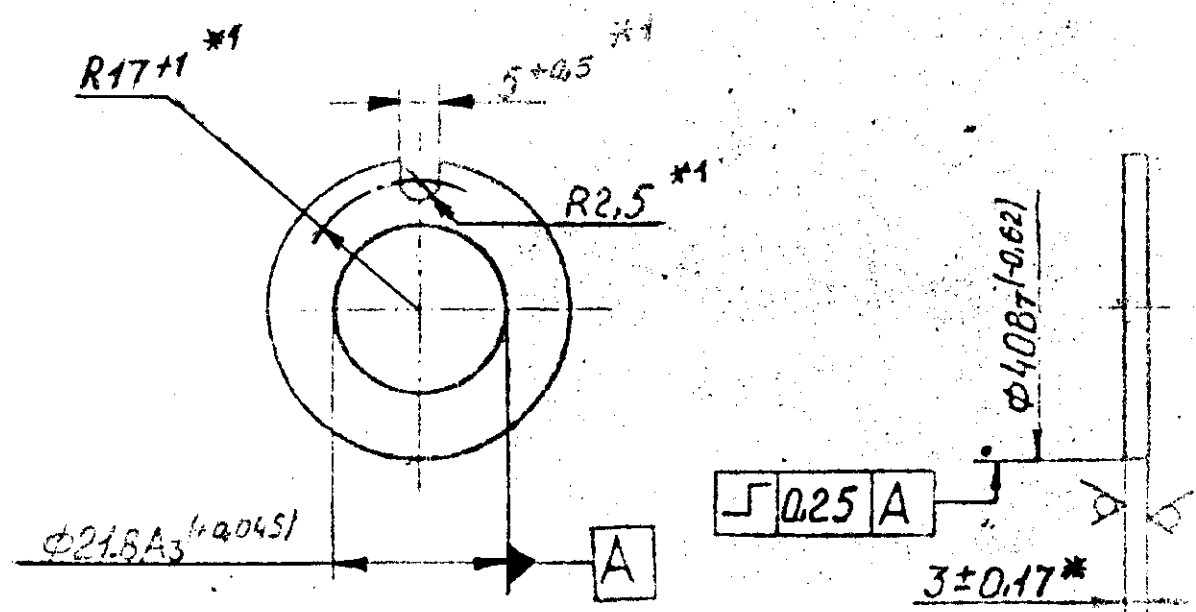
1. * Dimensions are given for references.
2. Fix the wire to brush as in by flaring.
3. Electrical contact resistance between the brush and wire should not exceed 2.5 M. ohms.
4. Solder the 2 Lug with solder ПОС-40, GOST 21930-76.
5. Coating of surface 6 M 1050.
6. Mark as per GOST 2332-75.

APPROVED	<i>[Signature]</i>	MB60-05-00CB	
CHECKED	<i>[Signature]</i>		
CONTROLLERATE OF INSPECTION (ICV) (34)	BRUSH TYPE K1-7 ASSEMBLY DRAWING	WEIGHT	SCALE
		9.5g	2:1
		SHT	SHTS
		88/146	

0.5/1

22.11.01W

Rz80



- * Dimension is given for references.
 - * Dimensions are provided with tools.
- Coating:-
 3. A Zinc-plated, 21 microns thick, chromated.

Solution of chromatisation is as per
 N- 252 - 78.

(A) EQ MATERIAL: GRADE D IS : 513-86

EQ MATERIAL ADDED

00804-100

ISSUE NO.

VETTED
 29 NOV 2007
 JWM/STD-CELL

22.11.01W
 Elyan

D-571
ECK

MB 60-07-06

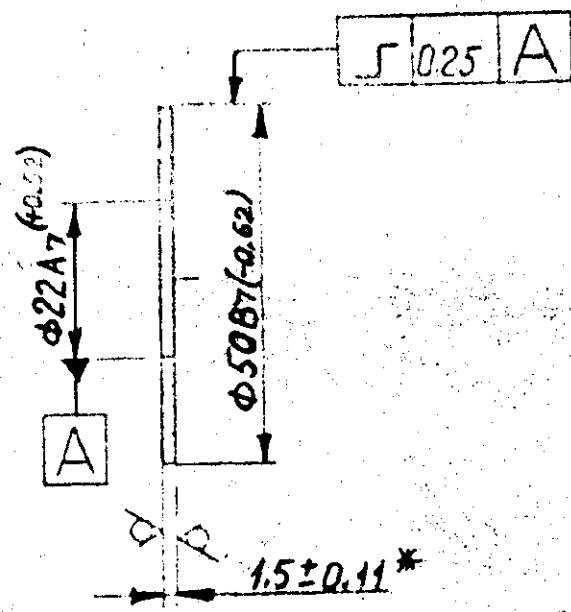
WASHER

WEI	1:1
20g	
SHT	SHTS

Sheet B 3 ГОСТ 19904-74
 4-II-10 ГОСТ 16523-70

117/146

63



0804-1CV	EQ. MATERIAL ADDED	ISSUE NATURE OF CHANGES
0804-1CV	①	
0804-1CV		

- * Dimension is given for references.
- Coating:-Zinc-plated, 21 microns thick, chromatinized.

Solution for chromatinization is as per VI - 252 - 78.

① EQ. MATERIAL : GRADE D IS: 513-66

VETTED
29 NOV 2007
JWM/STD-CELL

22 24
Elip
D-571

MB 60-07-07

WASHER OF
ARMATURE

WEIGHT
169ms 1:1

Sheet Б 1-5 ГОСТ 19904-74
4- II-10 ГОСТ 16523-70

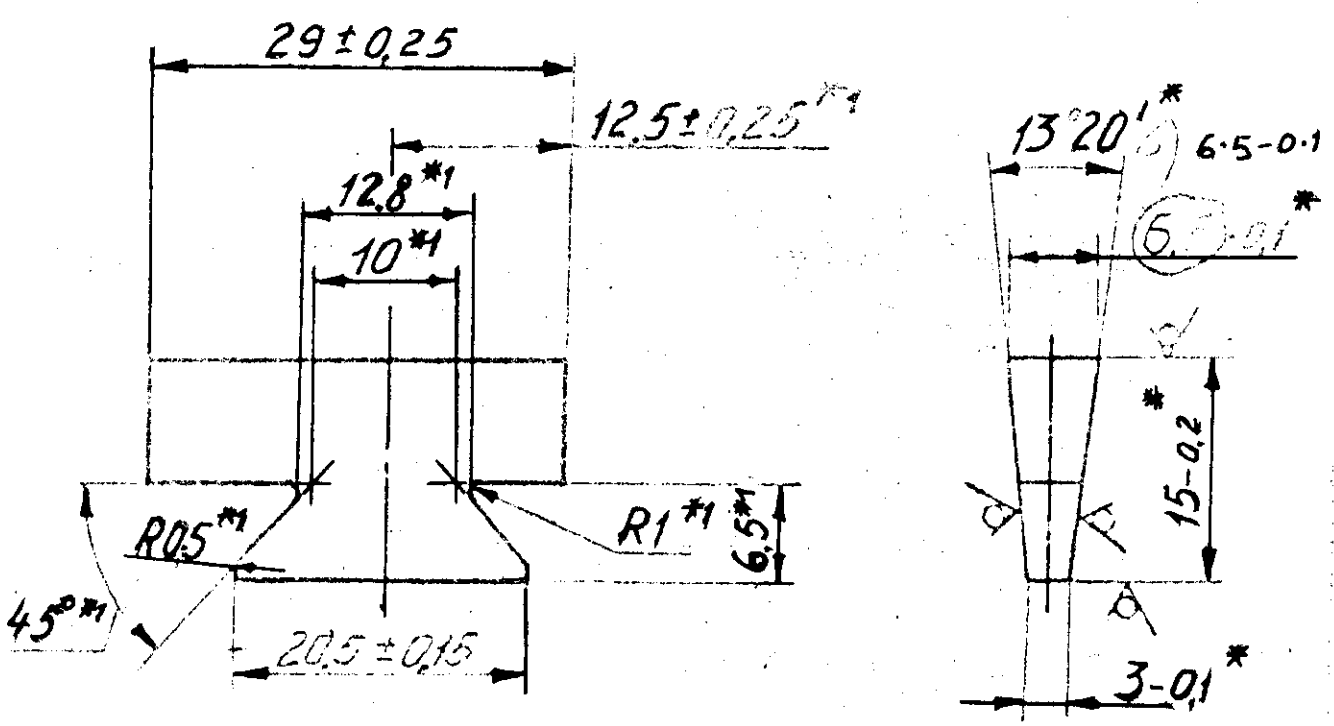
118/146

CONTROL RATE
INSPECTION

64

1-80-0954

Rz160
✓



1. * Dimensions are given for references.
2. #1 Dimensions are provided with tools.
3. Unspecified limit deviations of dimensions — $\pm 0.1\text{mm}$, angular deviations — $\pm 30'$.

VETTED
29 NOV 2007
JWM/STD-CELL

22 NOV 2004
Chispa D-571
b

MB 60-08-01

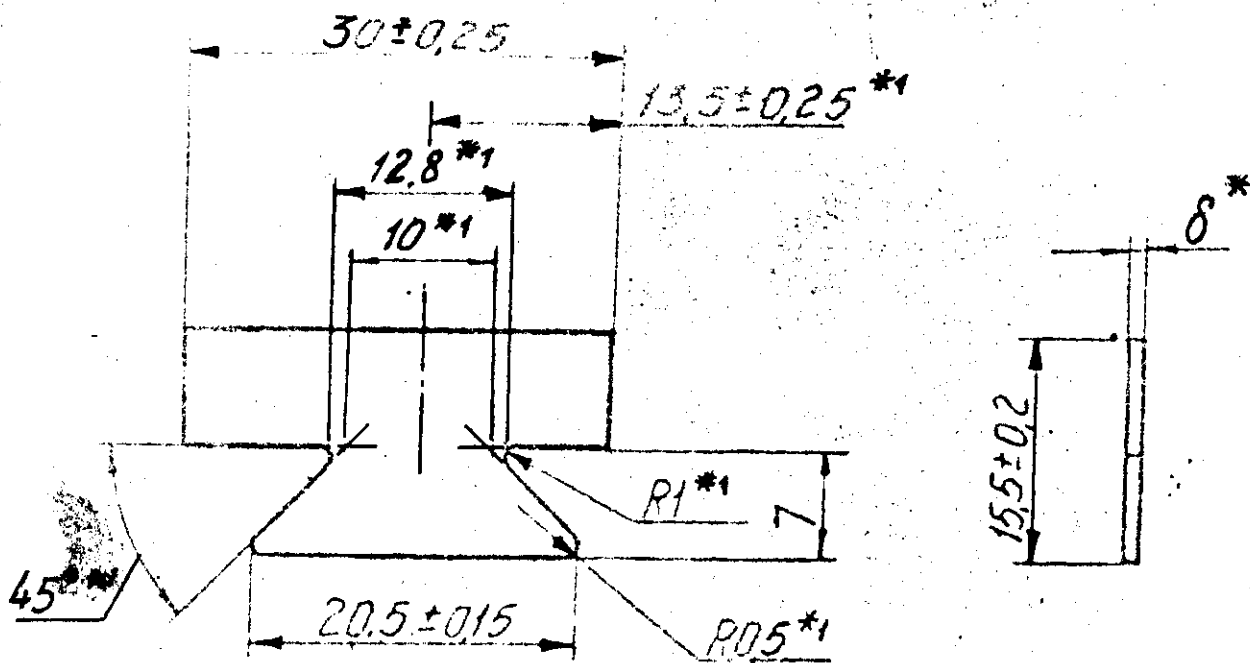
PLATE
COMMUTATOR

commutator profile nkm-
6-5x3x15-H-13° 20'
M1 GOST 3588-70

WEIGHT	15g
SCALE	2:1
SIT	119/116

65

MB60-08-02



DESIGNATION.	DIMENSION δ , MM.	MASS g.
MB 60-08-02	0.7 ± 0.08	0.8
-01	0.8 ± 0.08	0.85
-02	0.6 ± 0.07	0.75

- * Dimension is given for references.
- *¹ Dimensions are provided with tools.
- Unspecified limit deviations of dimensions — ± 0.1 mm, angular deviation — 30° .

22

Elif

VETTED
 29 NOV 2007
 JWM/STD-CELL

MB 60-08-02

INSULATION PLATE

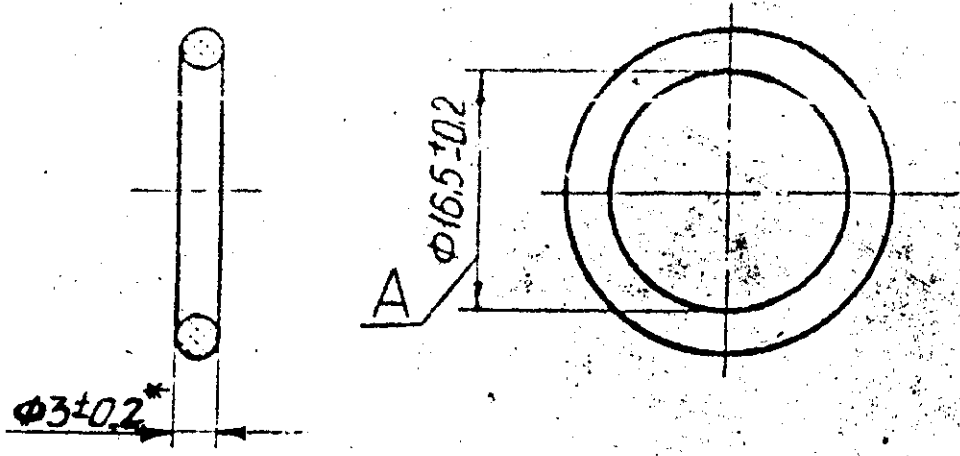
see Table 2:1

Mica nitek ϕ W δ
 GOST 2196-75

120/146

MB63-124

MB. 51-0100



1. * Dimensions are subjected to compulsory checking, but dimension A is provided with tool, and should be checked periodically at least once per 3 months.
 2. Other Technical requirements are as per Technical Specifications, 005 216-75.
 3. Alternate material is rubber H0-68-1 Technical Specifications, 005 216-75.
- ④ EQ. MATERIAL: NITRILE RUBBER BA-70 BS: 2751-82.

82
 1004
Elyse
 24/5

00804-111	④ EQ. MATERIAL ADDED.
DATE: 2006-2000	ISSUE NATURE OF AMENDMENTS:

D-571

VETTED
 29 NOV 2007
 JWIM/STD-CELL

MB63-124

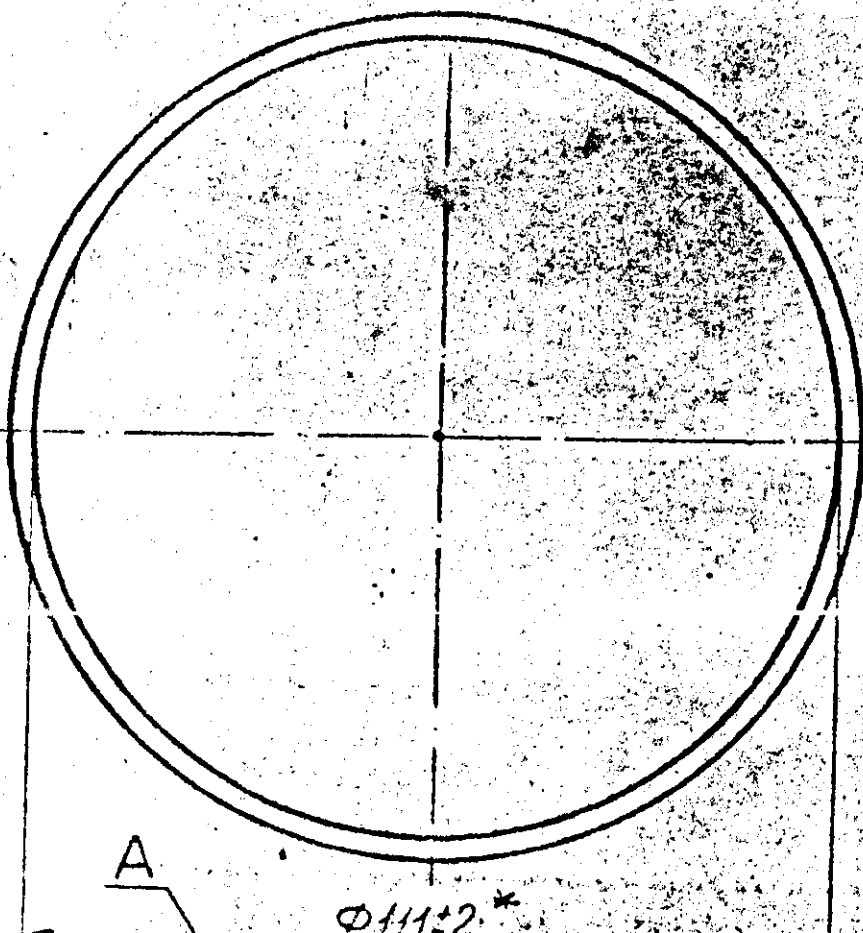
APPROVED	REVISION	RING	WEIGHT	SCALE
CHECKED			0.433g	2:1
CONTROL DATE OF INSPECTION		RUBBER 98-1 TY 005 216-75	SIT	SIT
			106/11/16	

50

ECKA

40 00 1100V

$\Phi 3 \pm 0.5$



00804-15K 20/08/2000 DATE	ISSUE NATURE OF AMENDMENT
④	EQ. MATERIAL ADDED.

MBN-2

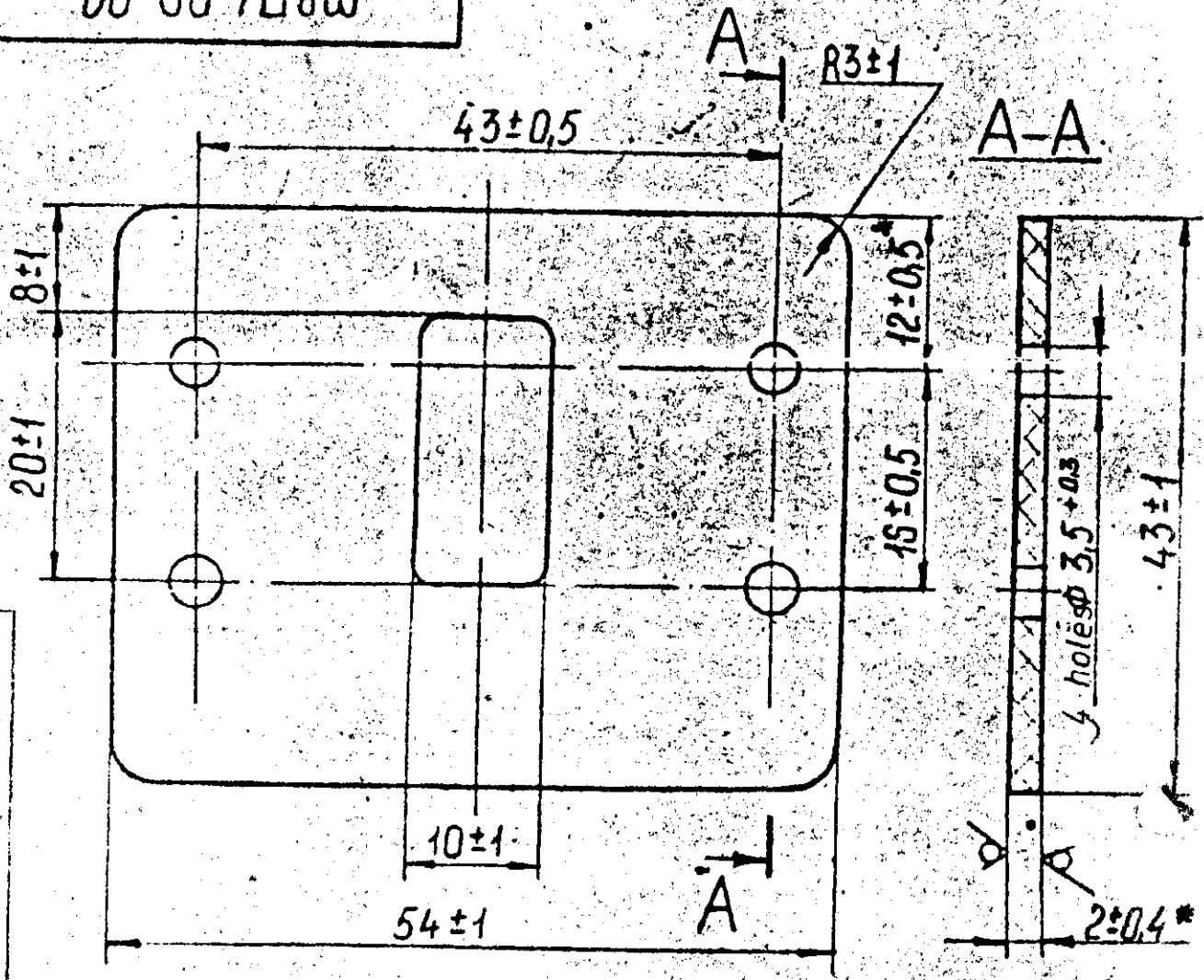
- * Dimension is provided with tools.
 - Alternate material is rubber 633 TY 005 216-75.
 - Other Technical requirements are as per TY 005 216-75.
- ④ EQ. MATERIAL: CHLOROPENE/NITRATE RUBBER C60 BS 2752-82

VERIFIED
20/08/2007
JW/STD-CELL

APPROVED		MBN-00-04	WEIGHT	SCALE
CHECKED			5 gms	1:1
CONTROLLERATE OF INSPECTION (ICV) (40)		RING	SHT	SHTS
		Rubber 640 TY 005 216-75		94/146

60-00-118W

0
118П2.000



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

1. The gasket is made of plates as per Technical specifications TY 38 005 838-70.
2. * Dimension is given for references.
3. Other Technical requirements are as per Technical Specification TY 005 216-75.

22 NOV 2004
Chiz

(A) EQ. MATERIAL: RUBBER No 6 (TYPE B) BS AU-106-65

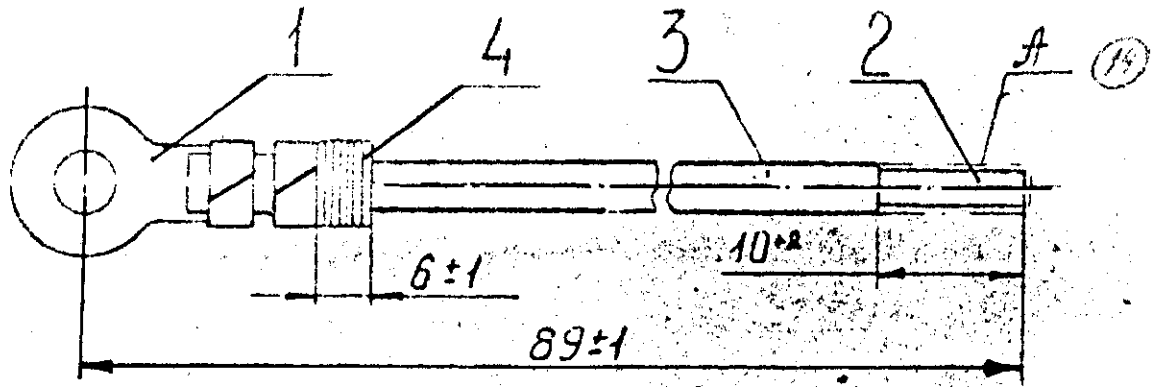
VALUED
 29 NOV 2007
J. Williams
 J. WILLIAMS D-CELL

HECKED

MBП1-00-09

CONTROLLERATE OF INSPECTION (ICV)	GASKET	WEIGHT	SCALE
		88	2:1
		SHT	SMTS
(45)	PLATE 254311-2 RUBBER 4326-1	TY 005 216-75	99/146

MBП1-14-00



Crimp lug Ref. No. 1 and solder it with tin 03 GOST 860-75.

Coat surface A with Hot-plating, 03, GOST 860-75.

VETTED
25 FEB 2008
JWM/STD-CELL

FORMAT	ZONE	REF. NO.	DESIGNATION	DESCRIPTION	QTY.	REMARKS
				<u>PARTS</u>		
11.		1	X7-10661	Lug.		
				<u>MATERIALS</u>		
		2.		Wire ПБД-2.12 GOST 16513-79.	80MM.	
		3.		Tube I ТЭС-3 GOST 10699-72.	65MM.	
		4.		Thread, in 12 folds, of high strength, glossy. GOST 6309-73.	150MM.	D.571

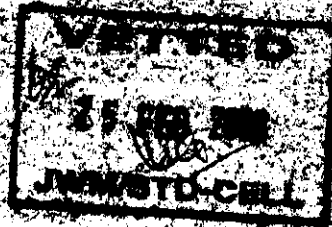
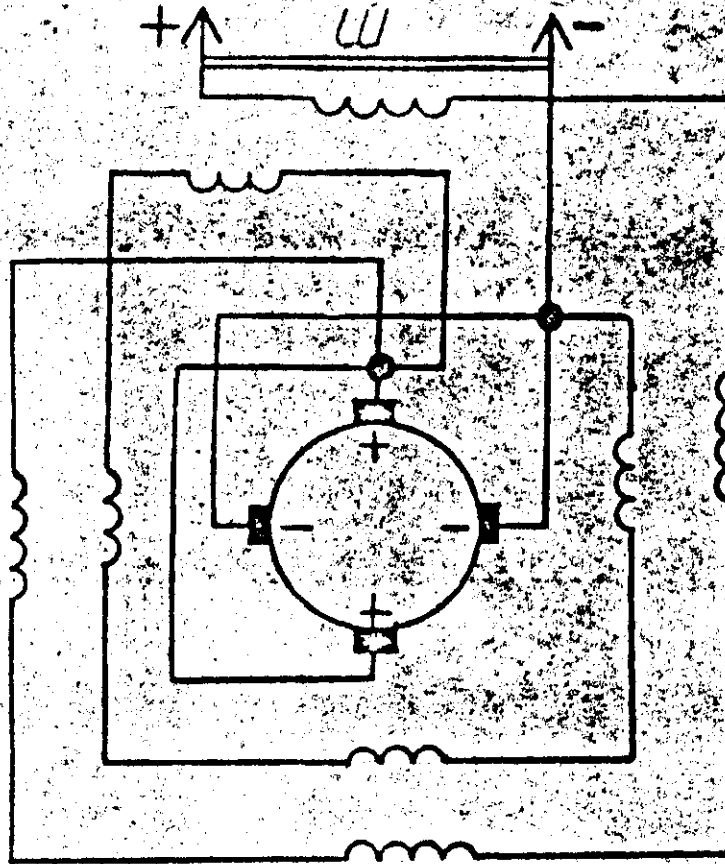
VETTED
29 NOV 2007
JWM/STD-CELL

APPROVED	IS. YAS.	MBП1-14-00	
CHECKED	<i>[Signature]</i>		
CONTROLLERATE OF INSPECTION (ICV)	LEAD	WEIGHT	SCALE
		4.69	2:1
		SHT	SHTS
		59/146	

9

MBN2-00-0133

MBN2-000



Symbol	DESCRIPTION	QTY	REMARKS
W	Plug WPF20n2. W6FE0.364.108 TY	1	
			D.571

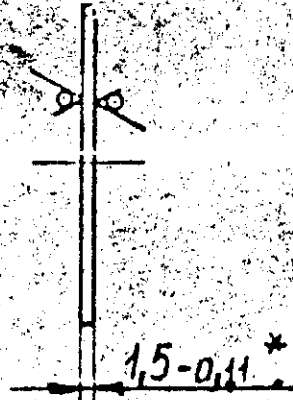
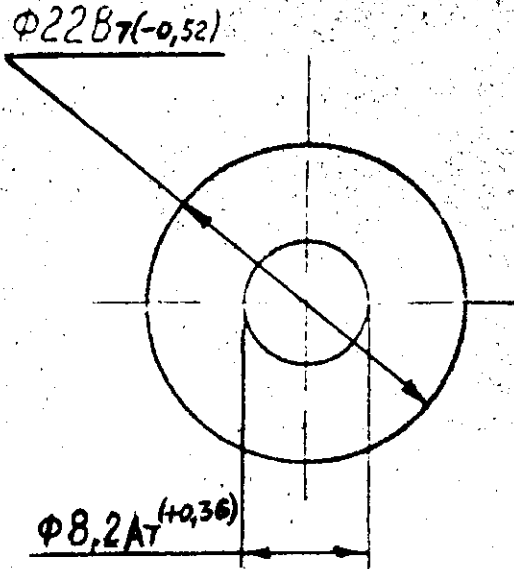
APPROVED	M. VASU	MBN2-00-0133	
CHECKED		ELECTRIC MOTOR MBN-2	WEIGHT SCALE
CONTROLLERATE OF INSPECTION (ICV)		Electric schematic diagram	SHT SHTS
			43/146

(4)

MBN2-00-05

Rz80

V/M



EQ. MATERIAL ADDED	ISSUE	NATURE OF AMENDMENTS
(A)		
00804-ICV	DC C/P No	DATE
	08-2000	

1. HRC 40.....47.
2. * Dimension is given for references.
3. Coating, Chromatized, oxidised, oiled

(A) EQ MATERIAL: 80 C6, IS: 2507-75

22 NOV 2004
Chit...

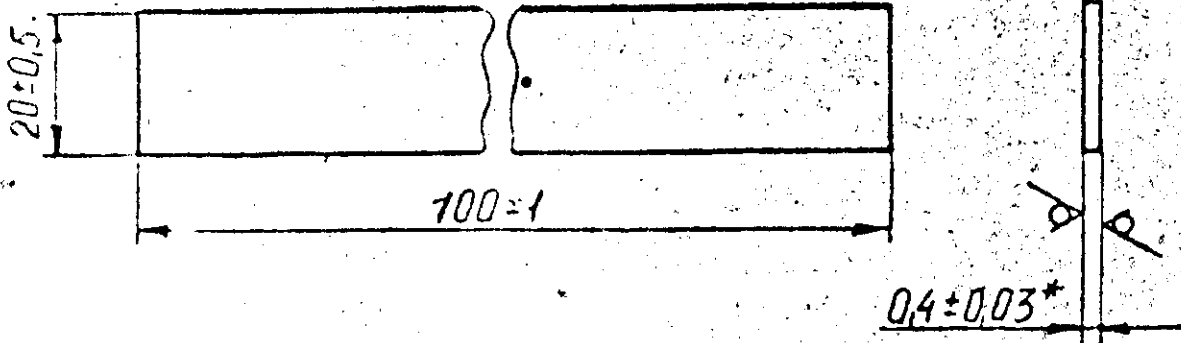
VETTED
 29 NOV 2007
 JWL/S TD-CELL

D-571

APPROVED	M. VAS	MBN 2-00-05	
CHECKED		WEIGHT	SCALE
CONTROLLERATE OF INSPECTION (ICV)	(42)	4.8ms	2:1
		SHT	SHTS
		96/146	
		Band Y8 A-C-1.5	TOCT 2283-79

MBN2 003

MBN2-16-17



* Dimension is given for references.

VETTED
 29 NOV 2007
 SWAISTO-CELL

22 NOV 2004
 [Signature]

3125

58

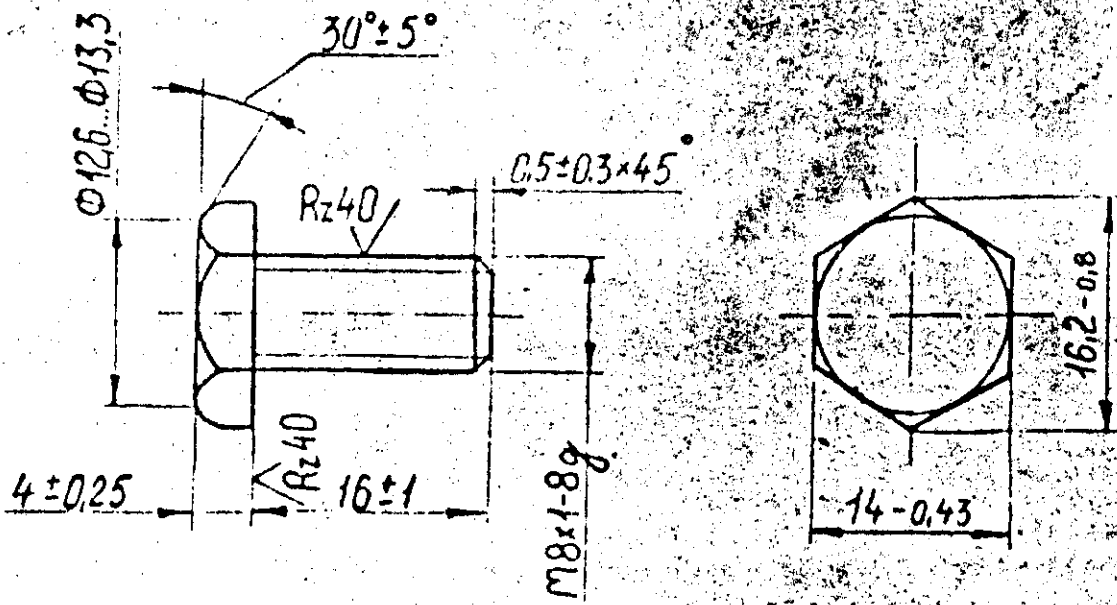
D.571

ЕСКД

APPROVED	M. V. [Signature]	MBN2 003	
CHECKED	[Signature]	GASKET	WEIGHT
CONTROLLERATE OF INSPECTION (ICV) (39)			SCALE
		SHT	SHTS
Card board ЭBC 0.4 ГОСТ 2824-75		72	1:1
		93	146

500-2100

RZCU
✓(✓)



1. Alternate material is steel 10,15 GOST 1050-74.
2. Misalignment of head with respect to the axis of bar should not exceed 0,4mm.
3. Coating:-Zinc-plated 9 microns thick, chromated. Composition of the solution for chromatization is as per V-252-78.
4. Other Technical requirements are as per GOST 1759-70.

Ⓐ EQ. MATERIAL: C10, C14 TO IS: 2073-70, OR EN 1A EN1B BS 970

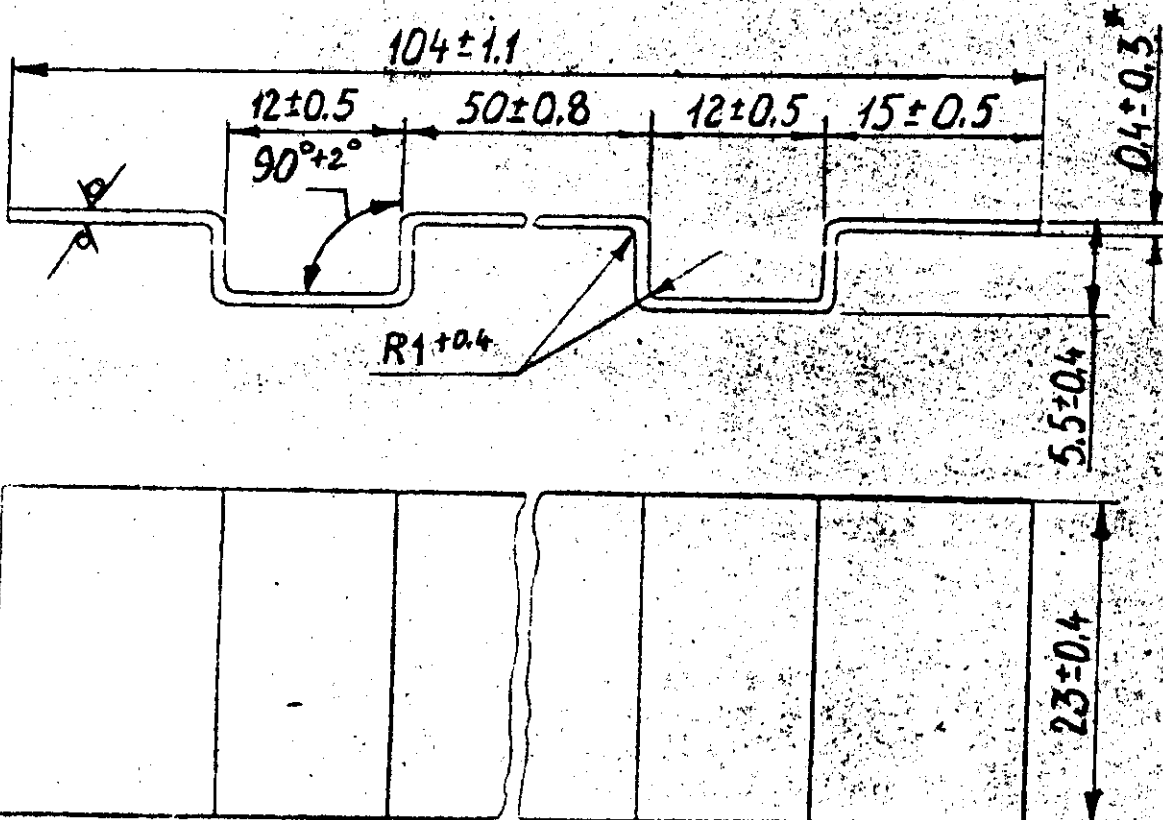
VETTED
29 NOV 2007
JWING D-CELL

DOCS/REV	Ⓐ	EQ. MATERIAL ADDED
DATE		ISSUE NATURE OF AMENDMENTS

D-571

APPROVED		MBП 2-005	
CHECKED			
CONTROLLERATE OF INSPECTION (ICVI) (41)	BOLT	WEIGHT	SCALE
		9.67g	2:1
		SHT	SHTS
	Steel A12 ГОСТ 1414-75	95/11/6	

МБП2.008



* Dimension is given for references.

VETTED
 29 NOV 2007
 JWM/GTD/CBL

22 NOV 2004
 ESKD

D-571
ЕСКД

		МБП2.008	
		GASKET	
		WEIGHT	SCALE
		2 g	2:1
		SPT	SHTG
(44)	card board 3BC 0.4 ГОСТ 2824-75	98/146	

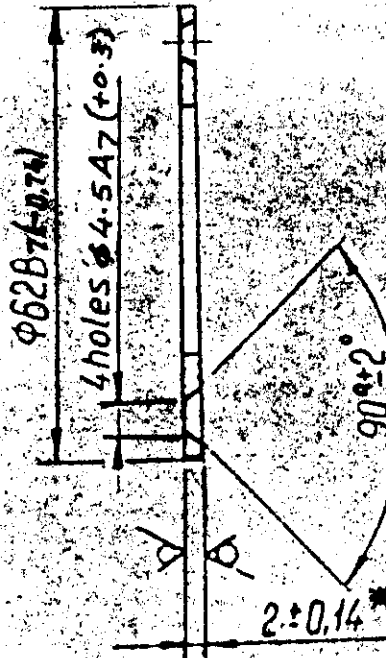
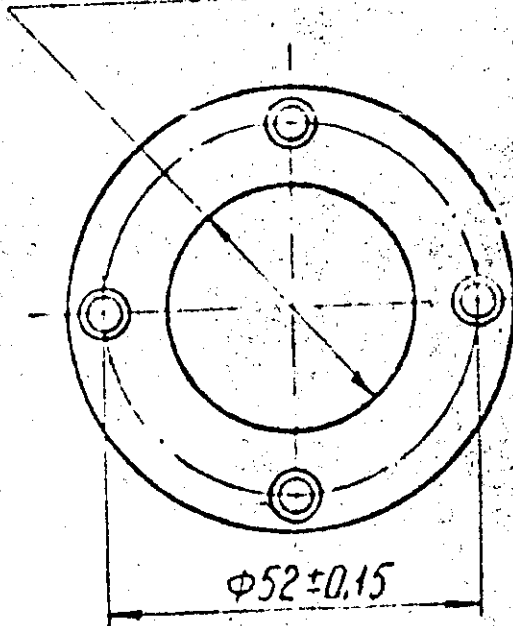
MBП 2-01-03

Rz80

✓

22. 170.002

$\Phi 34A7 (+0.62)$



1. Alternate material A 2 GOST 19904-74
II - BГ-08 Kn GOST9045-70.
 2. * Dimension is given for references.
 3. Coating: -Zinc-plated, 24 microns thick, chromated. Condition of the solution for chromatization, is as pec. V-252-78.
- Ⓐ EQ MATERIAL: GRADE D, IS: 513-86

Handwritten signature and initials: *El...*

00804-10V	Ⓐ	EQ MATERIAL ADDED.
29.08.2007	ISSUE	NATURE OF AMENDMENTS.
DEC. NO. DATE		

D-571

ECKU

VETTED
29 NOV 2007
JWM/STP

MBП 2-01-03

APPROVED
CHECKED

CONTROLLERATE
OF
INSPECTION
(CV)

(47)

WASHER

WEIGHT	1:1
40g	

SHT SHTS

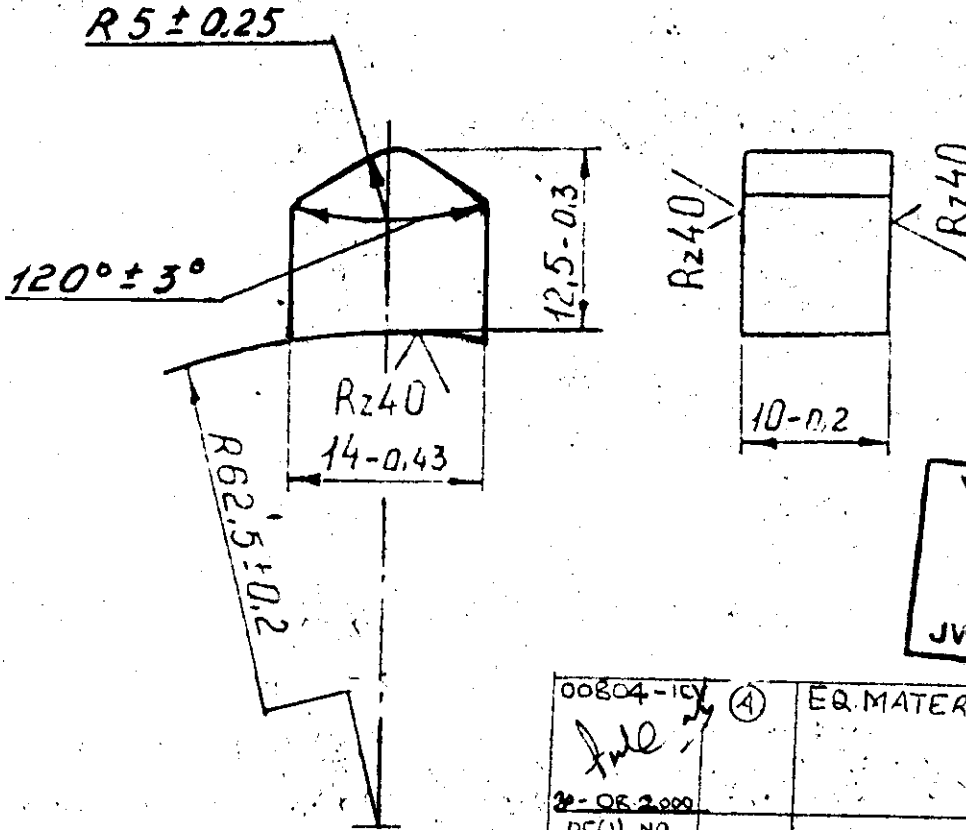
Sheet B2 ГOCT 19904-74
4 II-10 ГOCT 16523-70

101/146

MBN2-02-02

Rz80

✓✓



VETTED
 29 NOV 2007
 JWM/STD-CELL

00804-104	(A)	EQ. MATERIAL ADDED
<i>file</i>		
2-OR-2000		
DC(I) NO	ISSUE	NATURE OF AMENDMENTS
DATE		

Blunt sharp edges with chamfering $\approx 0.5\text{mm} \times 45^\circ$
 or radius $\approx 0.3\text{mm}$.

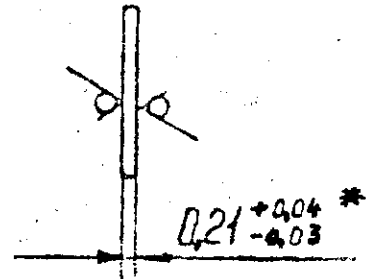
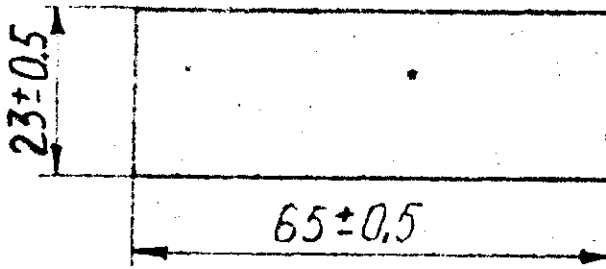
(A) EQ MATERIAL: "C14, C20 TO IS: 2073-70" OR
 "EN 1A, EN 1B - BS - 970"

22 NOV 2004

Clips
D-571
h

APPROVED	BY VAD	MBN2-02-02	
CONTROL RATE		LUG	14 8 2:1
INSPECTION	(52)	Steel 15 OCT 1050-74	106/116

Hand-drawn



* Dimension is given for references.

VETTED
29 NOV 2007
JWM/STD-CELL

~~22 NOV 2004~~
Eliza

D-571

0000

MB 12-09-01

INSULATION
OF FRONT PARTS

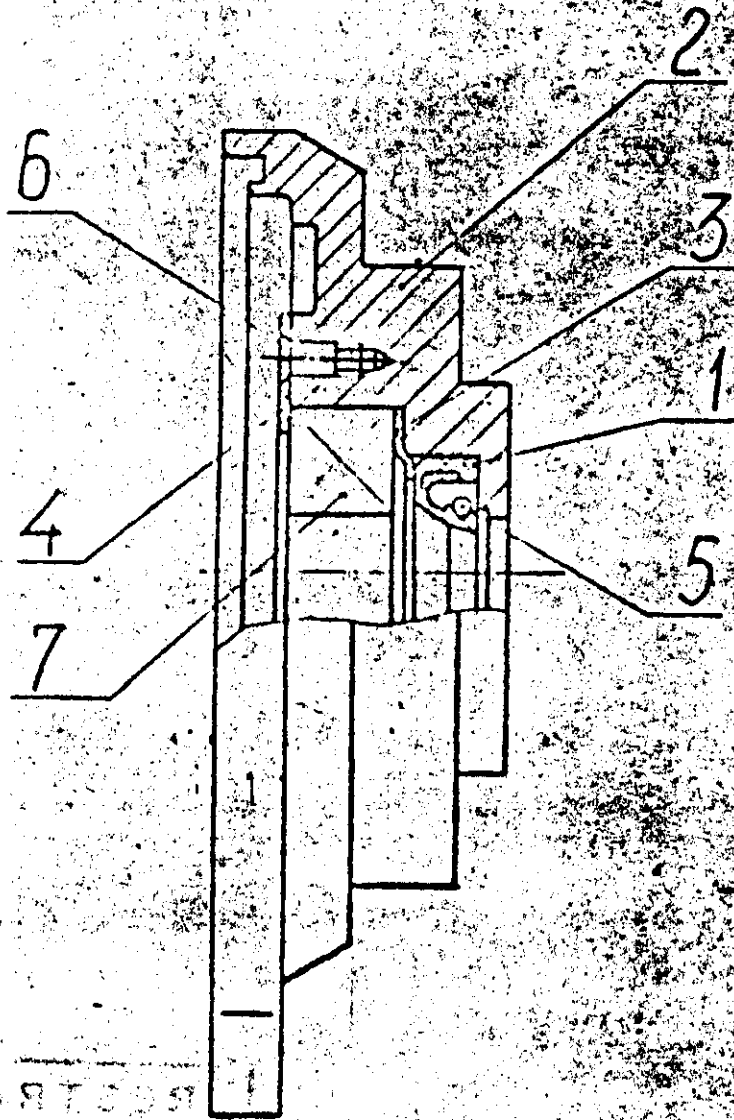
0.65g 1:1

Mica tape $\lambda\phi K-TT-0-21$
GOST 4268-75

121 / 11/16

(67)

MBП2-11-00СБ



VETTED
 75 FEB 78
 AMMTO CELL

43
 12.5.11

1. Secure screws Ref.No.6 with enamel XB-124, grey, GOST 10144-74 and coat the head of the screw with the same enamel.

2. While assembling fill the ^{sealing ring} space with grease UNATIM-201, GOST 6267-74.

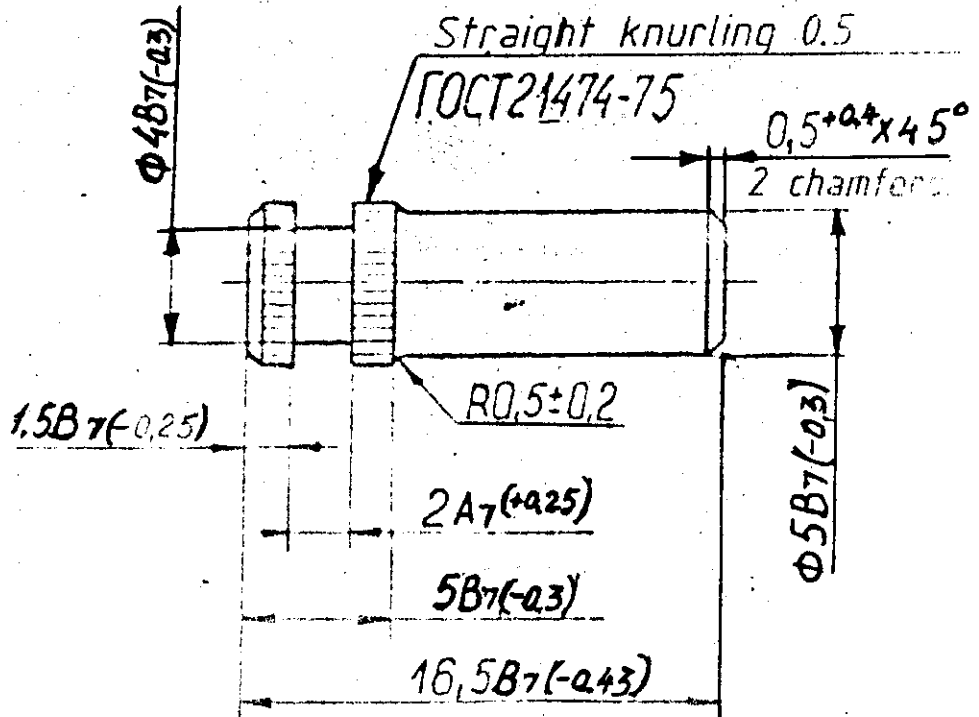
D.571

APPROVED	MBП2-11-00СБ		
CHECKED	<i>MCC</i>	COVER FROM THE SIDE OF DRIVE (Assy DT9)	
CONTROLLERATE OF INSPECTION (ICV) (26)		WEIGHT	SCALE
		14	1:1
		SHT	SHTS
			79/146

MBП2-14-01

R.25

EQ. MATERIAL ADDED	ISSUE NATURE OF AMENDMENT.
Ⓐ	
60504-10 10.04	DATE
08.2008	DATE



Straight knurling 0.8, GOST 21474-75 is allowed.

Ⓐ EQ. MATERIAL: "C10, C-14 TO IS 2073" OR "EN 1A EN 1B BS-970" (2073-70)

22 / 2007
Shif

VETTED
29 NOV 2007
CELL

D-571

MBП2-14-01

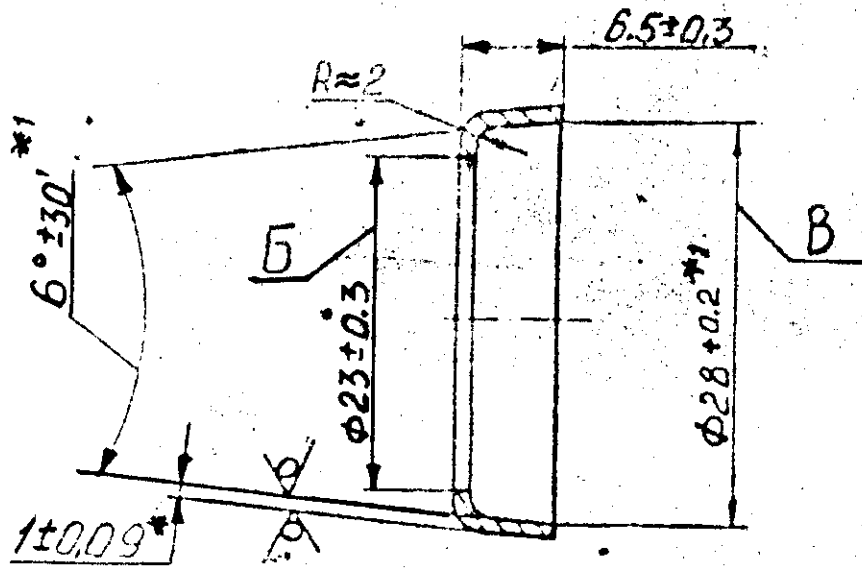
AXLE

258 4:1

70

steel A12, ГOCT 1414-75

124/140



EQ. MATERIAL ADDED	ISSUE NATURE OF AMENDMENT
(A)	
00804701	00804701
2008.09.08	2008.09.08
000000	000000

1. Alternate material is steel A 1 GOST 19904-74.
II - BF-08Kn GOST 9045-70.
2. * Dimension is given for references.
3. *¹ Dimension is provided with tool.
4. Misalignment of hole B with respect to hole B should not exceed 0.25mm.
5. On external surface belt due to die clamping to a depth not exceeding 0.25mm and width not exceeding 3mm is allowed.
6. Other Technical Requirements are as per Technical specification 005 216-75 (Appendix-1).

(A) EQ. MATERIAL: GRADE DD, IS: 513-86

VETTED
29 NOV 2007
JVM/STD-CELL

22.11.2004
D-571
2

MBN2-15-01

REINFORCING RING

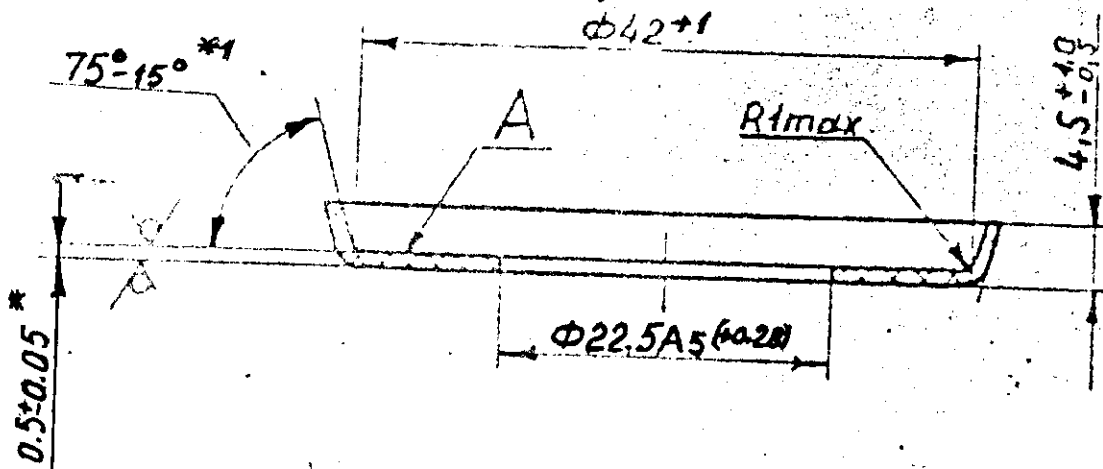
2:1

Sheet B1 GOST 19904-74
4-II-10 GOST 16523-70

125/116

(71)

MBП2-16-01



1. * Dimension is given for references.
2. * Dimension is provided with tool.
3. Breakage is not allowed.
4. Nonflatness of surface A should not exceed 3mm.
5. Foldings on the tapering surface of washer are allowed.

VETTED
 29 NOV 2007
Handwritten signature
 JWM/STB-CELL

22.11.04
Handwritten signature
 D-574

ECK

13

MBП2-16-01		WEIGHT		SCALE	
WASHER		148ms		2:1	
card board AB-10.5		SHT		SHTS	
ГОСТ 2824-75				126/114	

CONTROLERATE
 OF
 INSPECTION

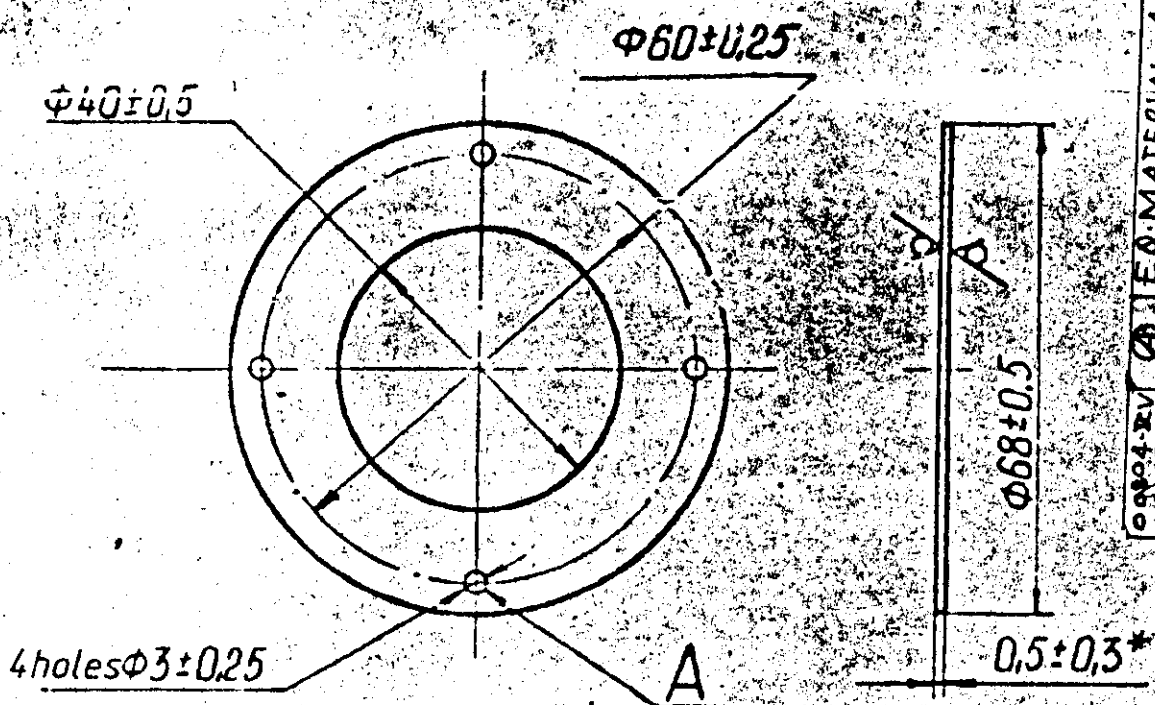
72

МБПЧ.120

Перед. пр. ч. мем
МБПЧ.120

Склад. No

Лично. Лич. No. Дораб. Предн. и дата



EQ. MATERIAL ADDED	ISSUE NATURE OF AMENDMENT
0 0004-REV EQ. MATERIAL ADDED DATE 20.08.2000 DCCJND DATE	

1. Gasket is made of plate as per Technical Specifications Ty 38 005 838-70.

2. * Dimension is given for reference, other dimensions are provided with tools.

3. Limit deviations of hole A in angle are $\pm 10^\circ$.

4. Other Technical requirements are as per Technical Specifications Ty 005 216-75.

Ⓐ EQ. MATERIAL: RUBBER, No. 6 (TYPE B) BS AU 106-65.

22.10.2004
 Eli/2
 J.VI/2004

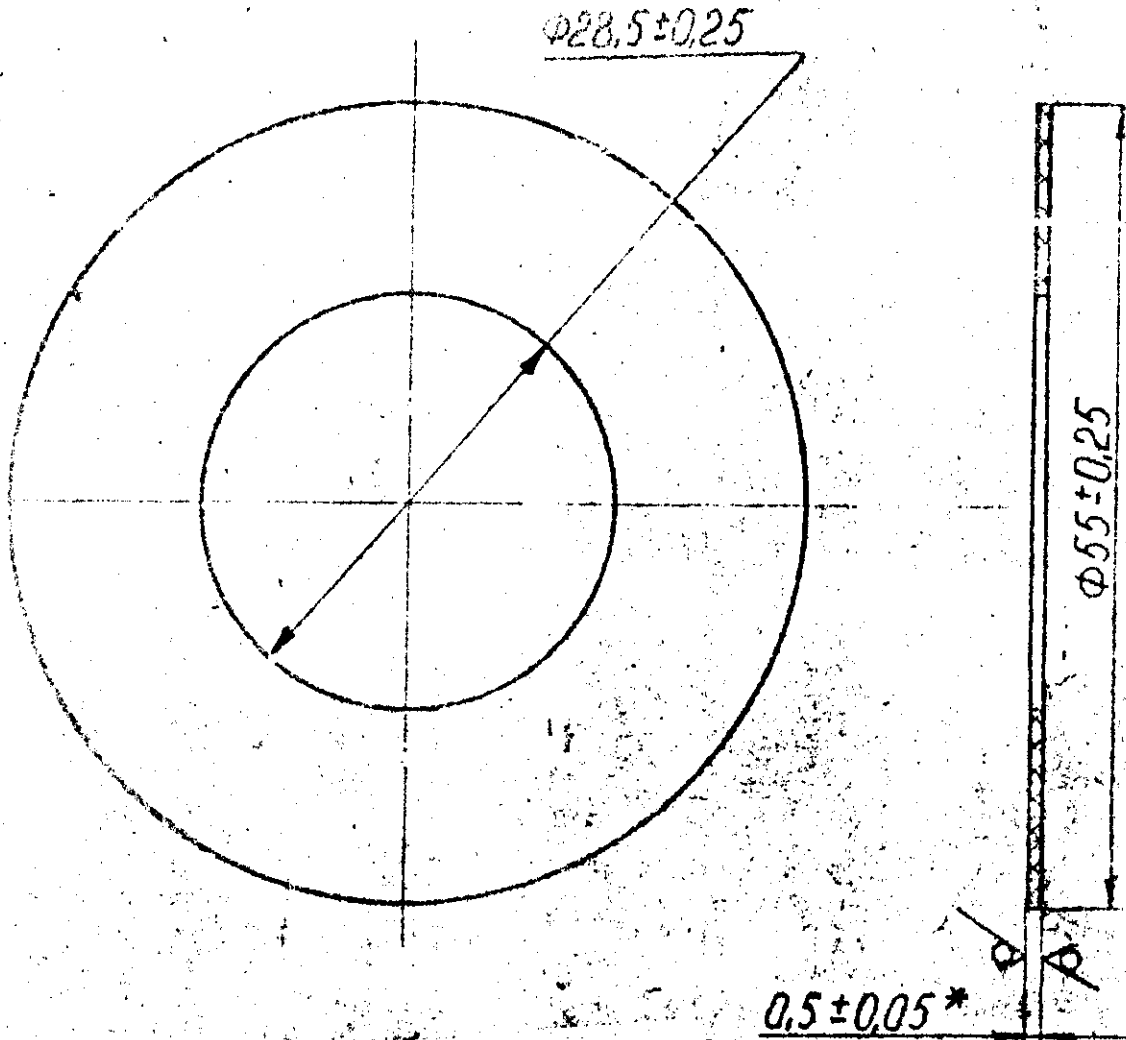
2128

VETTED
 20 NOV 2007
 JWM/STD-CELL

2-571

APPROVED	M VASU	МБПЧ.120	
CHECKED			
CONTROLLERATE OF INSPECTION (ICV)	(49)	GASKET	
		WEIGHT	SCALE
		1.2 g	1:1
PLATE 254311-0.5 RUBBER 4326-1 TY00521675		SMT	SMTS
		103/146	

ГА-10-326



* Dimension is given for reference.

VETTED
29 NOV 2007

22 NOV 2007
[Signature]

101
[Signature]

0-571

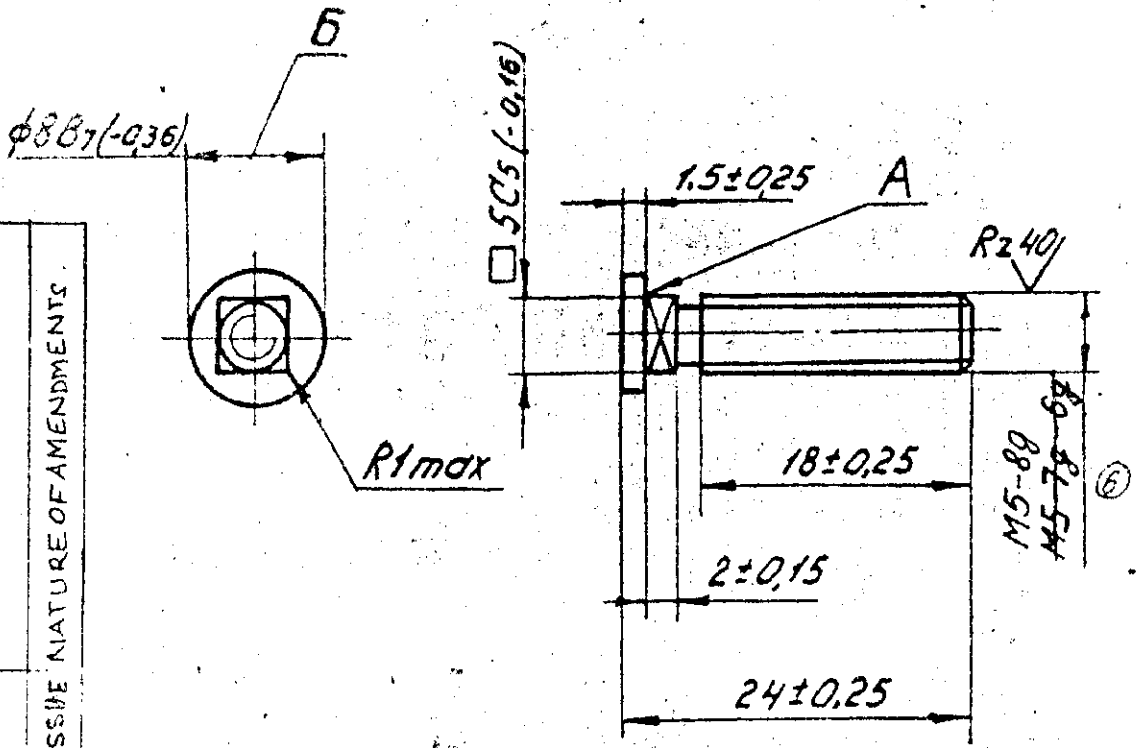
ВКК

APPROVED	- N. VASIL	ГА-10-326		
CHECKED	M. M. et al		WEIGHT	SCALE
CONTROLLERATE OF INSPECTION (ICV) (75)		WASHER	0.7g	2:1
			SHT	SMTS
		Card board 38 0.5 GOST 2824-75	129	146

175001-1X

Rz 80 (V)

MIS-83



0980470	ISSUE NATURE OF AMENDMENTS
09.08.2000	
0000	
DATE	

DESIGNATION.	COATING.
X1 - 10097U,	Zinc-plated, 6 microns thick, chromated.

VETTED
29 NOV 2007
JWM/STD-CELL

1. Excess of metal is allowed on surface A with thickness not exceeding 0.5mm in the limits of diameter B.

2. Other technical requirements are as per GOST 1759-70.

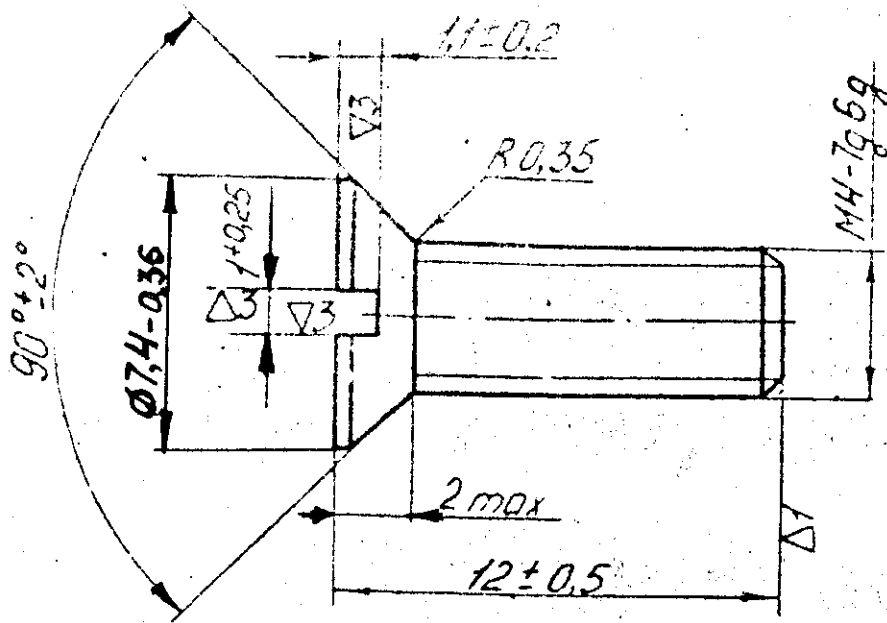
④ EQ. MATERIAL : MILDSTEEL C-10 IS : 2073-70 OR EN 1A EN 18 BS-970

22 NOV 2004

APPROVED	M. VASU	X1-10097U	
CHECKED	M. Githu	BOLT	
CONTROLLERATE OF INSPECTION (ICV) (83)		WEIGHT	SCALE
		3.25	2:1
		SHT	SHTS
	Wire 4 4-10 GOST 5663-79	137 / 146	

99901-1X

△4/△1



DESIGNATION.	*	COATING.
X1 - 10556.	016	Zinc-plated, 6 microns thick, chromatised. Solution for chromatisation is as per И-252-78.

1. Limit deviations from the alignment of head axes and spline with respect to axis of bar is 0.3mm.
2. Technical requirements are as per GOST 1759-70.

22 NOV 2004

Eliza

D-571

Duplicate is made with GOST 17475-72.

VETTED

29 NOV 2007

И-175 D-CEL

X1-10556

SCREW

M4-7g6g x 12.36 *

GOST 17475-72

Steel 10, GOST 1050-74

WEIGHT SCALE

1.15g 5:1

SHT SHTS

138/146

APPROVED

CHECKED

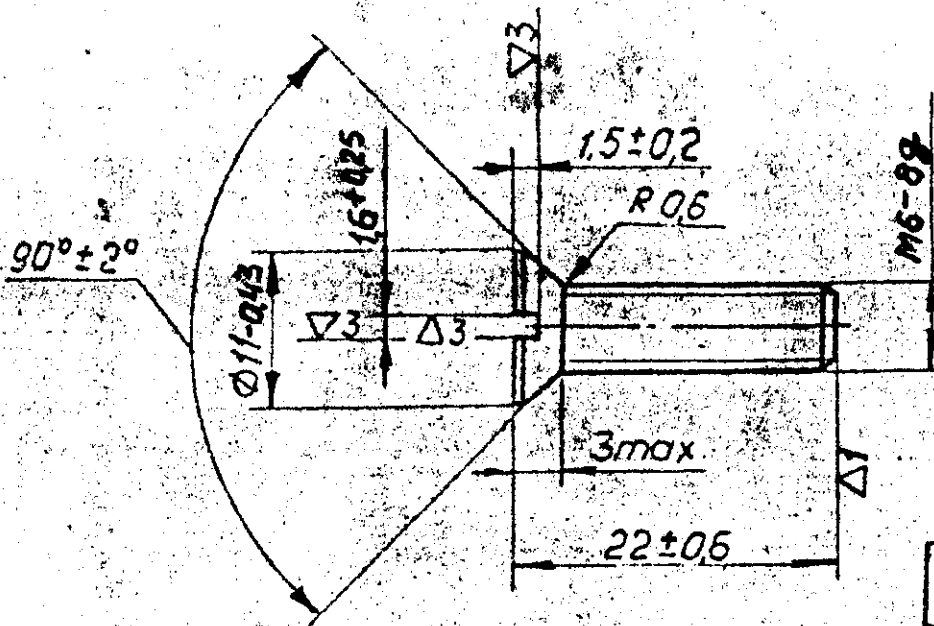
CONTROLLERATE
OF
INSPECTION

(84)

03101-1X

▽4(▽)

MB17-2



ECKD

DESIGNATION.	*	COATING.
X1-10750.	016	Zinc-plated 6 microns thick, chromated. Composition of solution for chromatisation is as per VI-252-78.

1. Limit deviation from the alignment of head axes and spline with respect to the axis of bar is 0.4mm.
2. Technical requirements are as per GOST 1759-70.

22 NOV 2007
[Signature]

VETTED
29 NOV 2007
[Signature]
JWM/STD-CELL

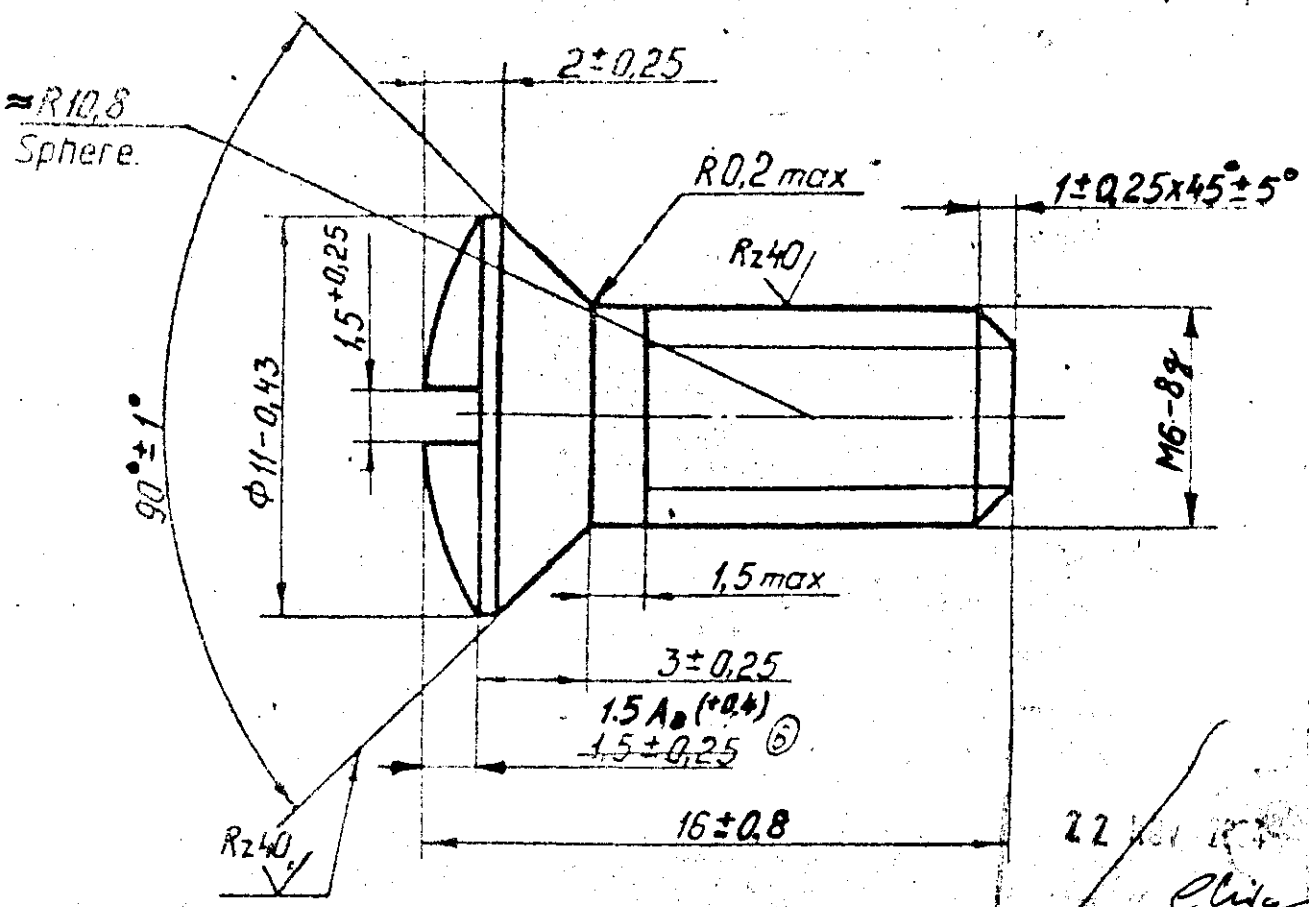
Duplicate copy is made with GOST 17475-72.

APPROVED	<i>[Signature]</i>	X1-10750		
CHECKED	H.M. Shaikh			
CONTROLLERATE OF INSPECTION (ICV) 85	SCREW M6 x 2236*		WEIGHT	SCALE
	ГОСТ 17475-72		4.649	2:1
	Steel 10, ГОСТ 1050-74		SHT	SHTS
			139/146	

59501 IX

K280 ✓(✓)

M67-2



DESIGNATION	COATING
X1-10965.	Zinc-plated, 6 microns thick, chromated. Solution for chromatisation is as per VI-252-78.

VETTED
29 NOV 2007
JVVW/STD-CELL

Limit deviations from the alignment with respect to axis of bar, with head axis is 0.3mm, with the axis of spline is 0.4mm.

2. Curburise h 0.1.....0.3mm. H R C 54.....57.
3. Technical requirements are as per GOST 1759-70.

X1-10965

SCREW

4.5g 5:1

steel 10 GOST 1050-74

140/146

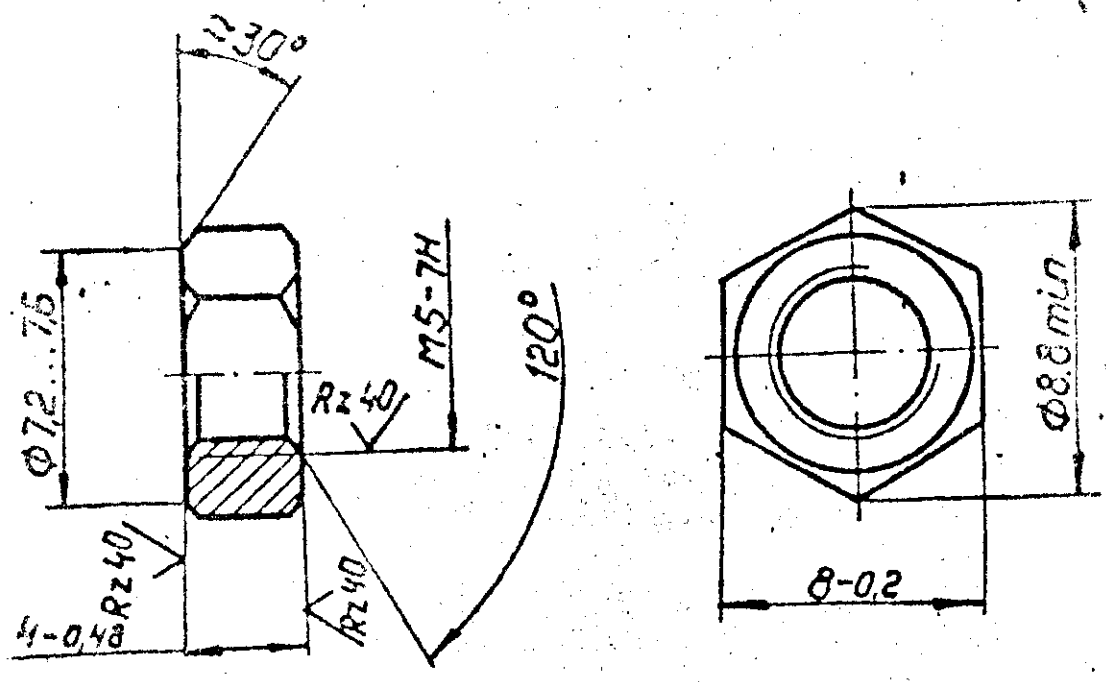
(86)

M. V. V. S. M. G. Y. S. S.

D-57
M. K.

02007 02 R280/ (M)

MTE-53



DESIGNATION.	COATING.
X2-10630.	Zinc-plated 6 microns thick chromitized.

1. Alternate material is steel 10, GOST 1050-74.
2. Limit displacements of axis of hole with respect to faces are 0.25mm.
3. Other Technical requirements are as per GOST 1759-70.

(A) EQ. MATERIAL: C10 C14 IS: 2073 OR ENIA BS. 970

22 OCT 2004

Clayton

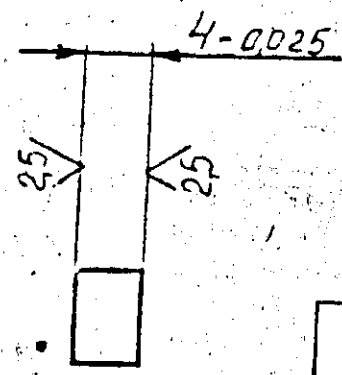
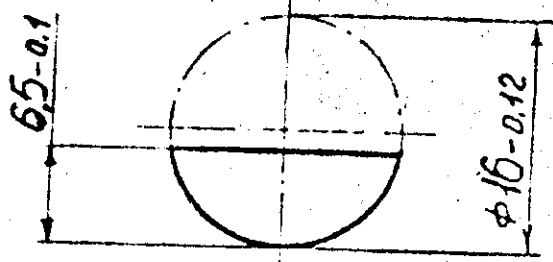
VETTED
29 NOV 2007
JWW/S D. SELL

N D-571

APPROVED	M. V. S. S. S.	X2-10630	
CHECKED	H. M. S. K. I.		
CONTROLLERATE OF INSPECTION (ICV) (87)	NUT	WEIGHT	SCALE
		1.29MS	47
Steel A 12, ГОСТ 1414-75	SHT	SHTS	
		141/146	

11496-A

Kz80 ✓ (✓)



VETTED
 29 NOV 2007
[Signature]
 JWM/STD-CELL

H R C 35.....40.

④ EQ. MATERIAL: CA0 IS: 2073-70 OR ENG BS 970

EQ. MATERIAL ADDED.	ISSUE NATURE OF AMENDMENT
④	
00804-11V <i>[Signature]</i> 2-08-2007	

22 Nov 2004

D-57H

ECK

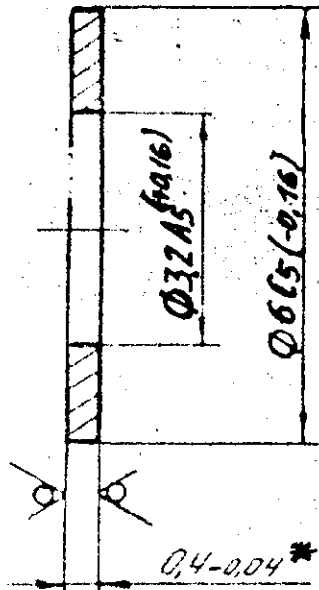
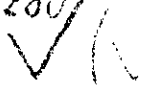
[Handwritten mark]

APPROVED	<i>[Signature]</i>	X-261 U	
CHECKED	<i>[Signature]</i>		
CONTROLLERATE OF INSPECTION (IEV) ⑤③	KEY	WEIGHT	SCALE
		239ms	2.1
		SHT	S4.5
	steel 40 TOCT 1050-74	107/146	

X3-10588



Rz80



EQ MATERIAL ADDED
00804-150/A
2008.2.000
ISSUE NUMBER OF THE DRAWING
DATE

DESIGNATION.	COATING.
X3-10558.	Zinc-plated, 9 microns thick, chromated. Condition of the solution for chromatisation is as per A-252-78.

VETTED
29 NOV 2007
JWM/STD-CELL

- * Dimension is given for references.
- Limit radial play is 0.4mm.
- Other Technical requirements are as per GOST 18123-72.

(A) EQ MATERIAL: GRADE D IS: 513-86

D-571

ECK

8051

Handwritten signature and date: 2007.10.04

X3-10588

HM Sharik
CONTROLLERATE
OF
INSPECTION
(ICV)

WASHER

0,096g 10:1

SHT SMTS

142/146

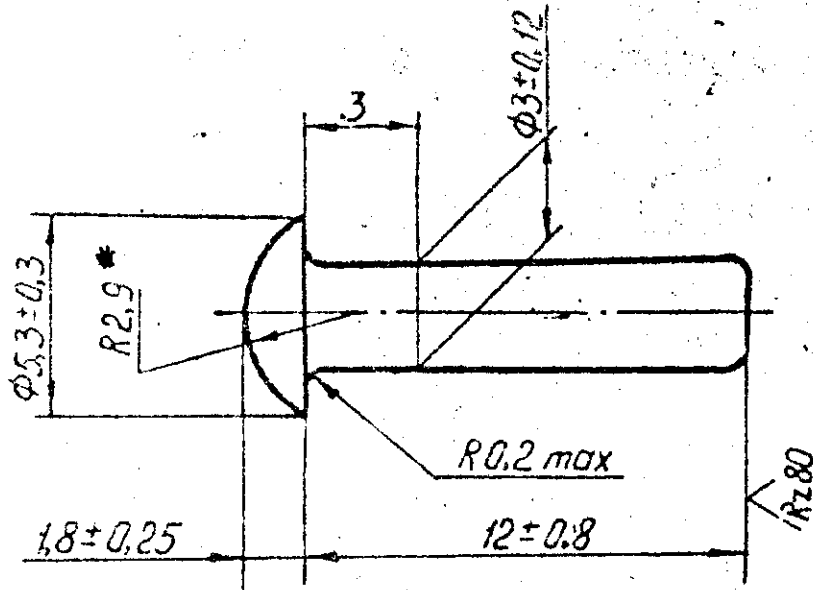
Band 10-M HT-2-0-0.4
ГОСТ 503-71

(88)

06801-9X

Rz40 ✓ (✓)

M67-2



DESIGNATION	*	COATING
X6-10890	016	Zinc-plated, 6 microns thick, chromated. Condition of solution for chromatisation is as per VI-252-78.

- * Dimension is given for references.
- Displacement limit of head axes with respect to the axis of bar is 0.2mm.
- Other Technical requirements are as per GOST 10304-70.

22

Elmer

Duplicate copy is made with GOST 10299-68.

D-571

VETTED
29 NOV 2009
JW/STG-CELL

X6-10890

RIVET 3 x 12.01

GOST 10299-68

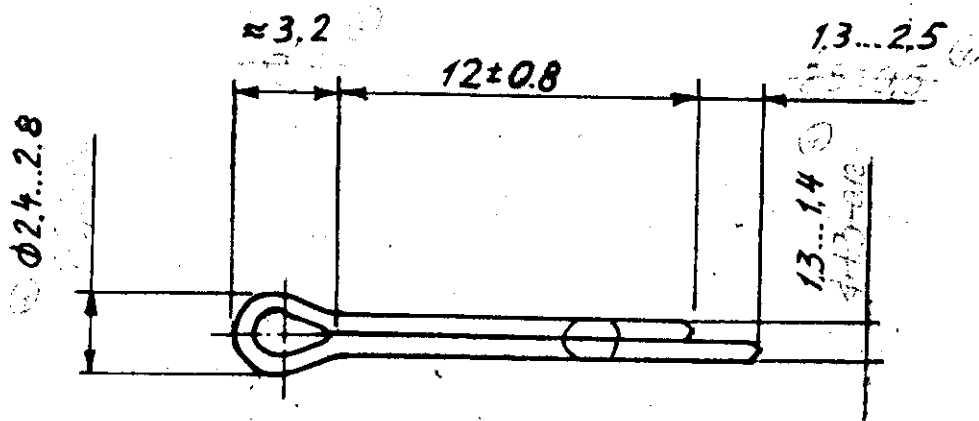
Steel 10, ГОСТ 1050-74

0.485g 5:1

143/146

89

1. 17.17



Coating - Zinc-plated 6 microns thick, chromated.
 Solution for chromatization is as per
 U - 252 = 78.

VETTED
 29 NOV 2007
 JWM/STD-CELL

22 11 2004

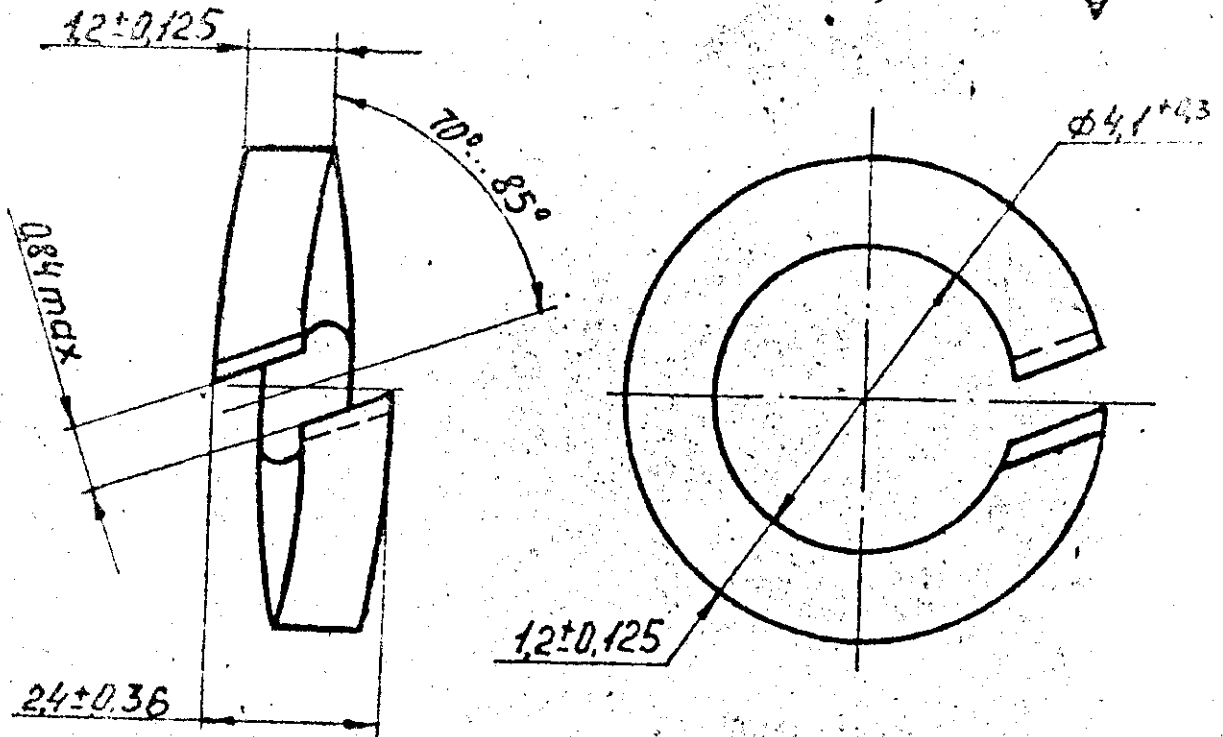
Olga

Duplicate copy is taken from GOST 397-79.

D-571

APPROVED	14 NOV 2007	X9-10-81	
CHECKED	<i>M. K. Gorbunov</i>	SPLIT PIN 1-6x12-016 GOST 397-79	WEIGHT
CONTROLLERATE OF INSPECTION (ILV)			0.185 4:1
	(91)	Steel 10, GOST 1050-74	SHT SHT
			145/146

GFUP-X



DESIGNATION.	- *	COATING.	PERMISSIBLE COATING.
X-1012	06	Chemically parkarized, oiled.	Chemically parkerised, oiled, Zinc-plated 6 microns thick, chromated, cadmium $6 \mu\text{m}$ thick, chromated.

Technical requirements are as per GOST 6402-70.
 Ⓐ EQ. MATERIAL: 75 C6 IS: 2507-75

VETTED
 29 NOV 2007
 JAWWSTB CELL

Handwritten signature: *Elip...*
 Stamp: D-57I
 Stamp: ECKA

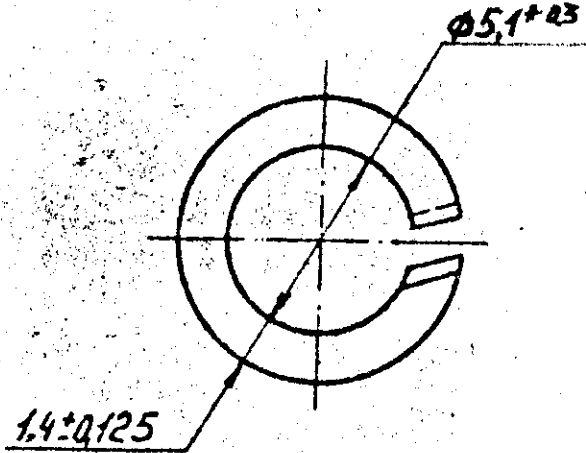
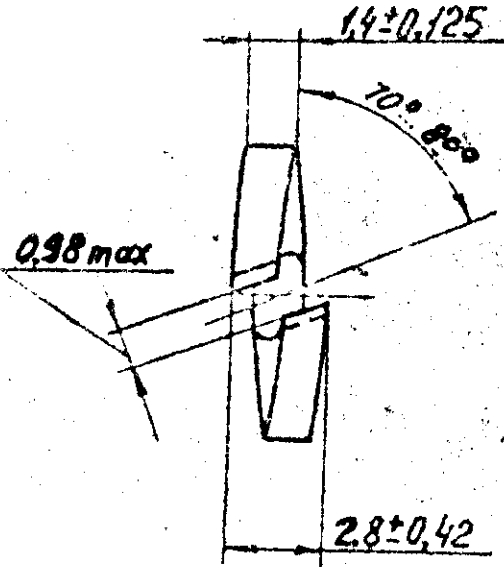
EQ. MATERIAL ADDED	ISSUE NATURE OF AMENDMENTS.
Ⓐ	DATE: 26.08.2008

APPROVED	<i>[Signature]</i>	X-1012	WEIGHT	SCALE
CHECKED	<i>[Signature]</i>		0,189g	10:1
CONTROLLER RATE		WASHER 4.65T *	GOST 6402-70	
(80)		Steel 65T, GOST 1050-74	134/146	

1004-X



1004



DESIGNATION	*	COATING	PERMISSIBLE COATING
X-4001	06	Chemically parkerised oiled.	Chemically parkerised, oiled. Cadmium ^{coat} 6 microns thick, chromated.

VETTED
29 NOV 2007
JWM/STD-CELL

Technical requirements are as per GOST 6402-70.

Ⓐ EQ. MATERIAL: 75C6 IS: 2507-75

22 Nov 2004

00804-1C Ⓐ EQ. MATERIAL ADDED

30 682000

DECLD NO

DATE

ISSUE

NATURE OF AMENDMENTS

D-571

ECK

X-4001

INSPECTION

NOV

91

WASHER 565 Γ *

GOST 6402-70

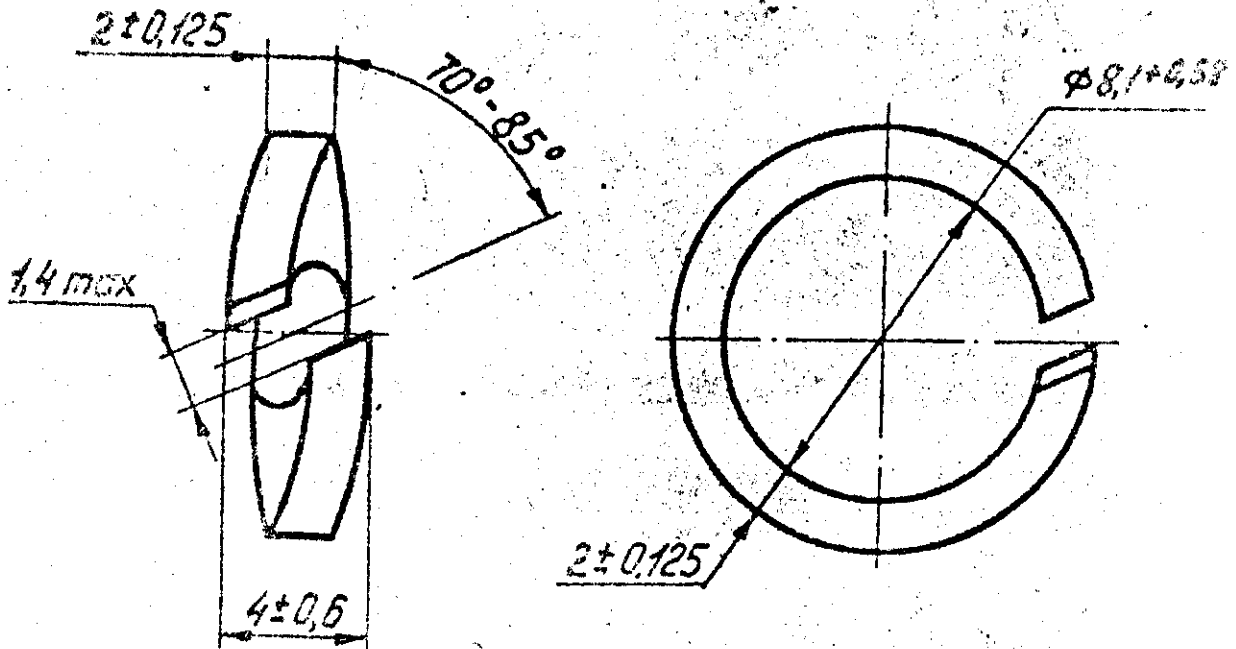
Steel 65 Γ GOST 1050-74

WEIGHT	SCALE
0.315 gm	5:1
135/146	

E004-X

2

57100 (352/1-2)



DESIGNATION	*	COATING	PERMISSIBLE COATING
X-4069	06	Chemically parkerised, oiled.	Chemically oxidised, oiled. Zinc-plated 6 microns thick.

VETTED
29 NOV 2007
JWIA/D-CELL

~~22 NOV 2004~~
Chyfa

Ⓐ EQ. MATERIAL : 75C6 IS: 2507-75
Technical requirements are as per GOST 6402-70.

00504-100 08.2000 DEC NO DATE	Ⓐ EQ. MATERIAL ADDED.
ISSUE	NATURE OF AMENDMENTS

D-571 **ECKA**

X-4069

WASHER 8-65T *
GOST 6402-70

0.998 5:1

INSPECTION

82

Steel 65T GOST 1050-74

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