

GUN & SHELL FACTORY COSSIPORE KOLKATA-700 002



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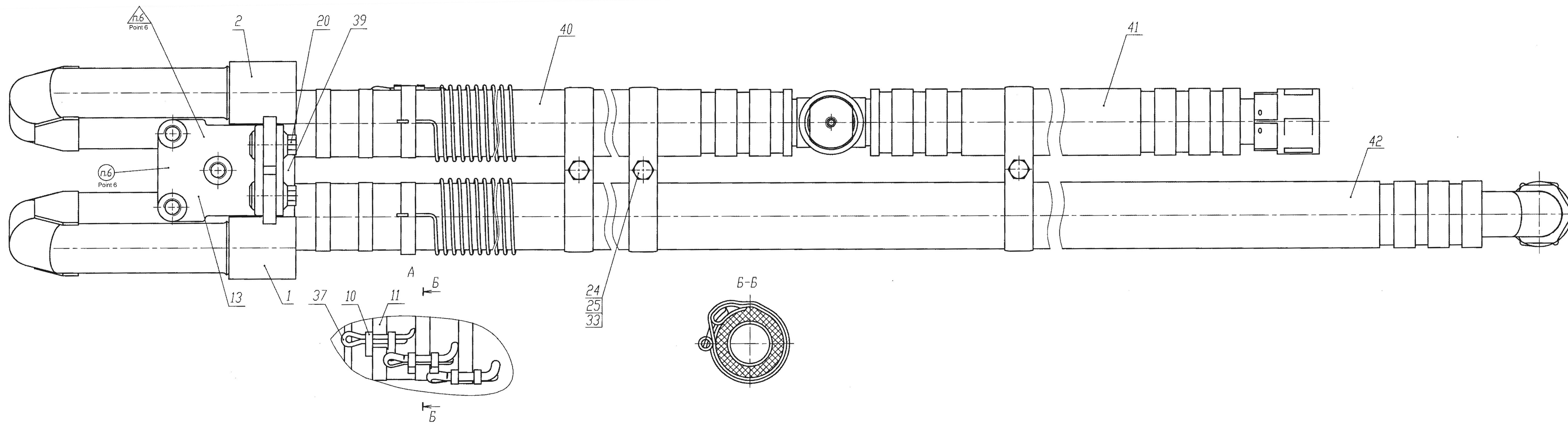
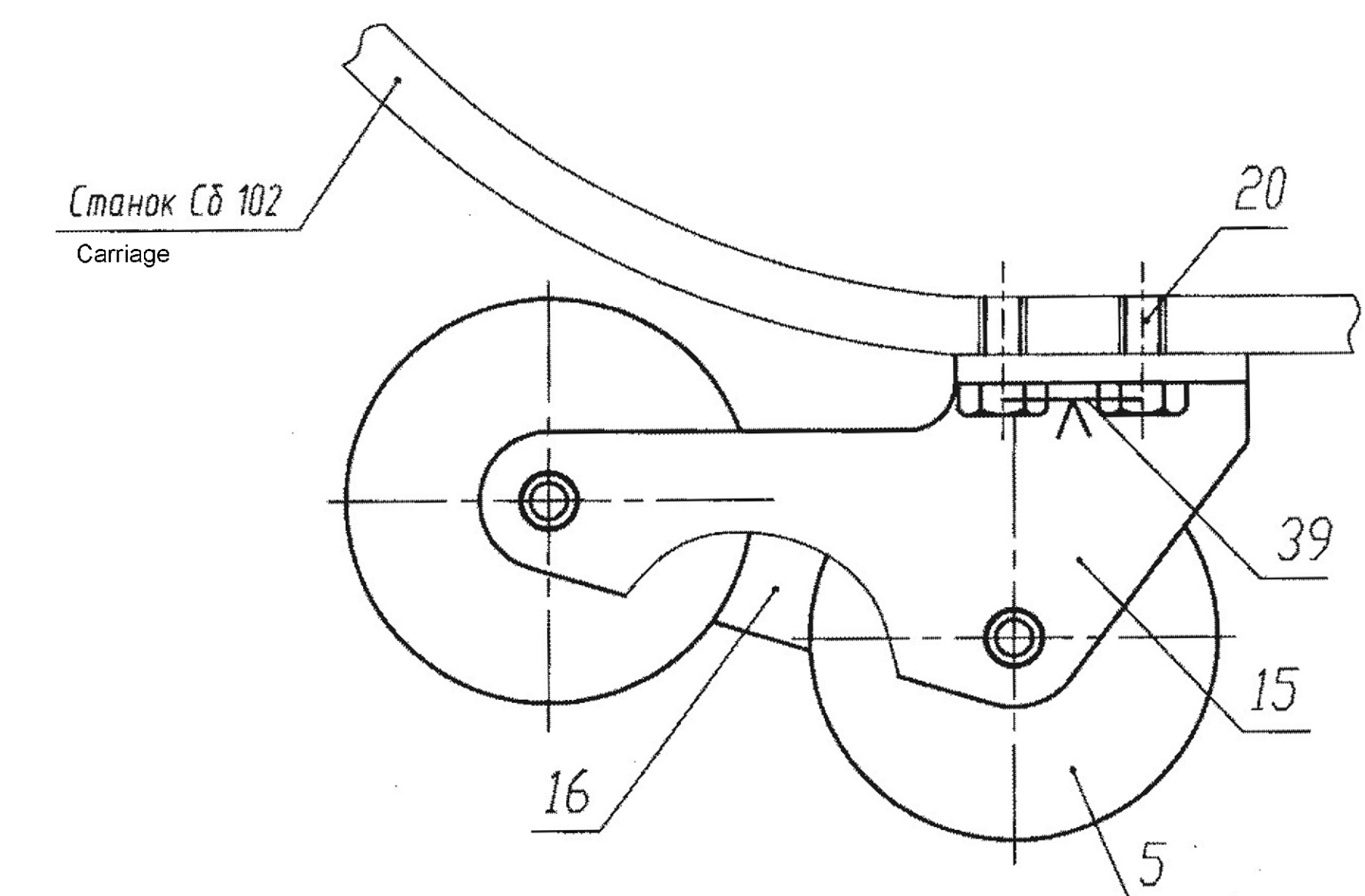
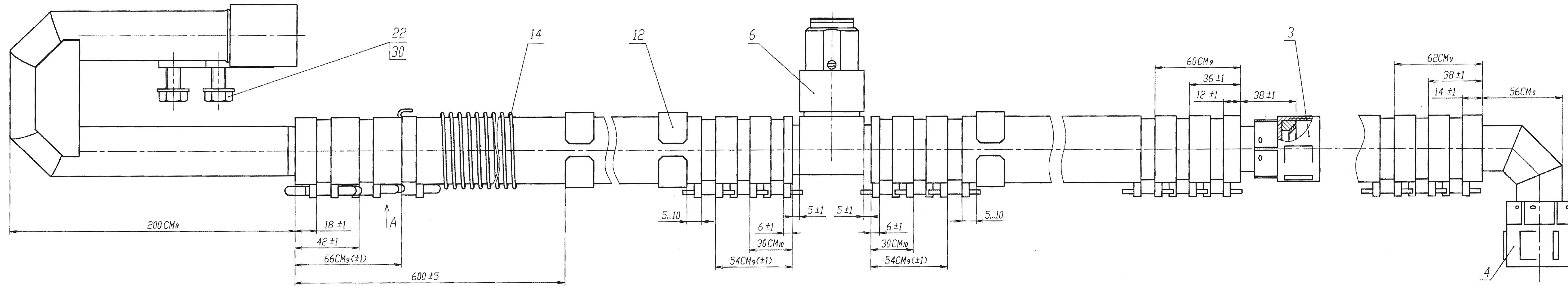
◆ THE CD SHOULD BE RETURNED TO THE GENERAL MANAGER GUN AND SHELL FACTORY AFTER USE

MANIFOLD



First use	Format	Zone	Position	Designation	Nomenclature	Qty.	Remarks	
						<u>Documents</u>		
Reference No.	*)			AK-630 Sb 108 SB	Assembly drawing		*)A2x4	
					<u>Assembly units</u>			
	A4		1	AK-630 Sb 108-1	Left tube	1		
	A4		2	AK-630 Sb 108-2	Right tube	1		
	A4		3	AK-630 Sb 108-3	End cap	1		
	A4		4	AK-630 Sb 108-4	Angular end cap	1		
	A4		5	AK-630 Sb 108-5	Roller	2		
	A4		6	AK-630 Sb 108-6	Valve	1		
					<u>Components</u>			
	A4		8	AK-630 108-1	Clamp	10	*1)	
	A3		9	AK-630 108-2	Angle piece	9	*1)	
	A4		10	AK-630 108-3	Loop	18		
	A4		11	AK-630 108-4	Strip	18		
	A4		12	AK-630 108-5	Clamp	6		
	A3		13	AK-630 108-6	Post	1		
Sign and Date	AK-630. Sb 108							
	Amend.	Sheet	Doc. No.	Sign	Date			
Orig. Inv. No.	Developed by					Type	Sheet	Sheets
	Checked by					A	1	3
	Head of Q.C.D					Manifold		
	Approved by							

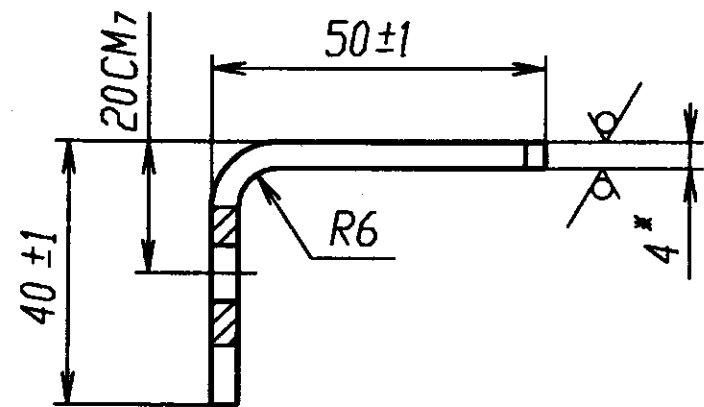
Format	Zone	Position	Designation	Nomenclature	Qty.	Remarks
A3		14	AK-630 108-7	Wire armoured hose	2	
A3		15	AK-630 108-41	Left post	1	
A3		16	AK-630 108-40	Right post	1	
				<u>Standard articles</u>		
		18		Bolt 2M8-8gx20.109.40X.029	18	31...40.5 HRC _E
				GOST 7798-70		*1)
		19		Bolt 2M8-8gx25.109.40X.029	20	31...40.5 HRC _E
				GOST 7798-70		*1)
		20		Bolt 3M8-8gx25.109.40X.029	6	31...40.5 HRC _E
				GOST 7798-70		*1)
		22		Bolt 3M10-8gx30.109.40X.029	3	31...40.5 HRC _E
				GOST 7798-70		
		24		Bolt 2M6-8gx20.109.40X.029	3	65.5...70 HRA
				GOST 7805-70		
		25		Nut M6 -6G.10.40X .029	3	65.5...70 HRA
				GOST 5919 - 73		
		26		Nut M8 -6G.10.40X .029	38	31...40.5 HRC _E
				GOST 5919 - 73		*1)
		29		Washer A8x1.5.25.029	76	*1)
				GOST 11371 - 78		
		30		Washer A10.25.029	3	
				GOST 11371 - 78		
		33		Cotter pin 1.6 x 16.029	3	
				GOST 397 - 79		
Orig. Inv. No.						
Amend.	Sheet	Doc. No.	Sign	Date	AK-630. Sb 108	



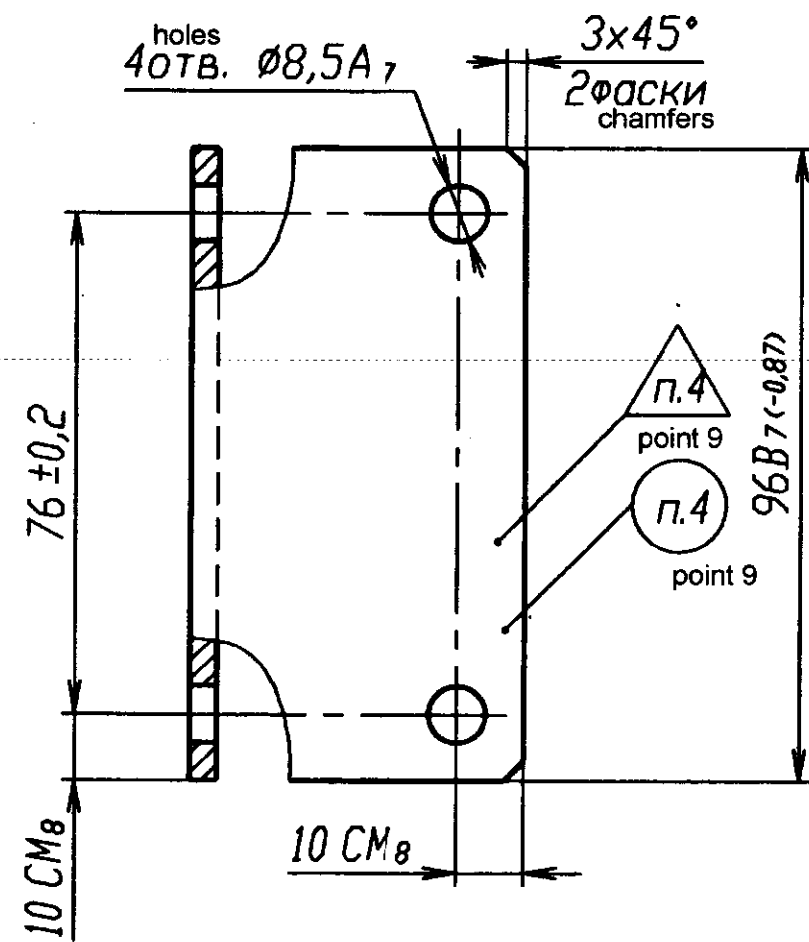
- Slip on armored hose AK-630 111-42 on hose Pos. 41 and 42 before setting end piece pos. 3 and 4 as per drawing AK-630 Sb 111 Sb.
- Belt end Pos. 11 bending loop pos. 10 should be split in opposite directions for not less than 1/4 of circumference and second end of turned belt should have not less than two turns around cotter pin Pos. 37.
- Check strength of hose joints with tubes pos. 1 and 2 with valve pos. 6 and end piece pos. 3 and 4 with water with pressure 1.2 Mpa (12 kgf/cm²) for 5 minutes with two twisted tapes on each joint. Seepage of water is not permissible.
- Tighten three tapes on each joint and spit ends of all cotter pins after carrying out test as per point 3.
- Tighten bolts pos. 20 such that right tube and left tube with influence of its own weight displaces in any direction.
- Mark H, Ш, 4, Ha and stamp K as per Ak630, AK - 630M TU I, Ha- technological aggregate assembly number.
- Stop assembly pos. 1 and Pos. 2 with stop plug AK-630-YO 16, slip on polyethylene packets on hose pos. 41 and pos. 42 by binding before placing in transportation box.

AK-630 SB 108 SB				Type	Weight	Scale
Amend/Sheet	Doc. No.	Sign	Date	Manifold Assembly drawing	A	27 1:1
Developed by						
Checked by						
Technician						
Head of bureau						
Head of OCD				Sheet	Sheets	1
Approved by						

Rz80



1. * Reference dimension.
3. Blunt sharp edges ~0.4 mm.
3. Coating Anodic Oxi.Cr.
4. Mark Ш,Ч and stamp K as per AK-630, AK-630M TU I.



Comment:

					AK-630 108-2			
Amend.	Sheet	Doc.No.	Sign	Date	Angle piece	Type	Weight	Scale
Developed by						A	0.075	1:1
Checked by						Sheet	Sheets	1
Head of Q.C.D					Sheet AMg6 BM-4 GOST 21631-76			
Approved by								

First use
 Reference No.
 Duplicate Inv. No (Sign and Date)
 Inv. No
 Alter
 Sign and Date
 Orig. inv. no.

First use

Reference No.

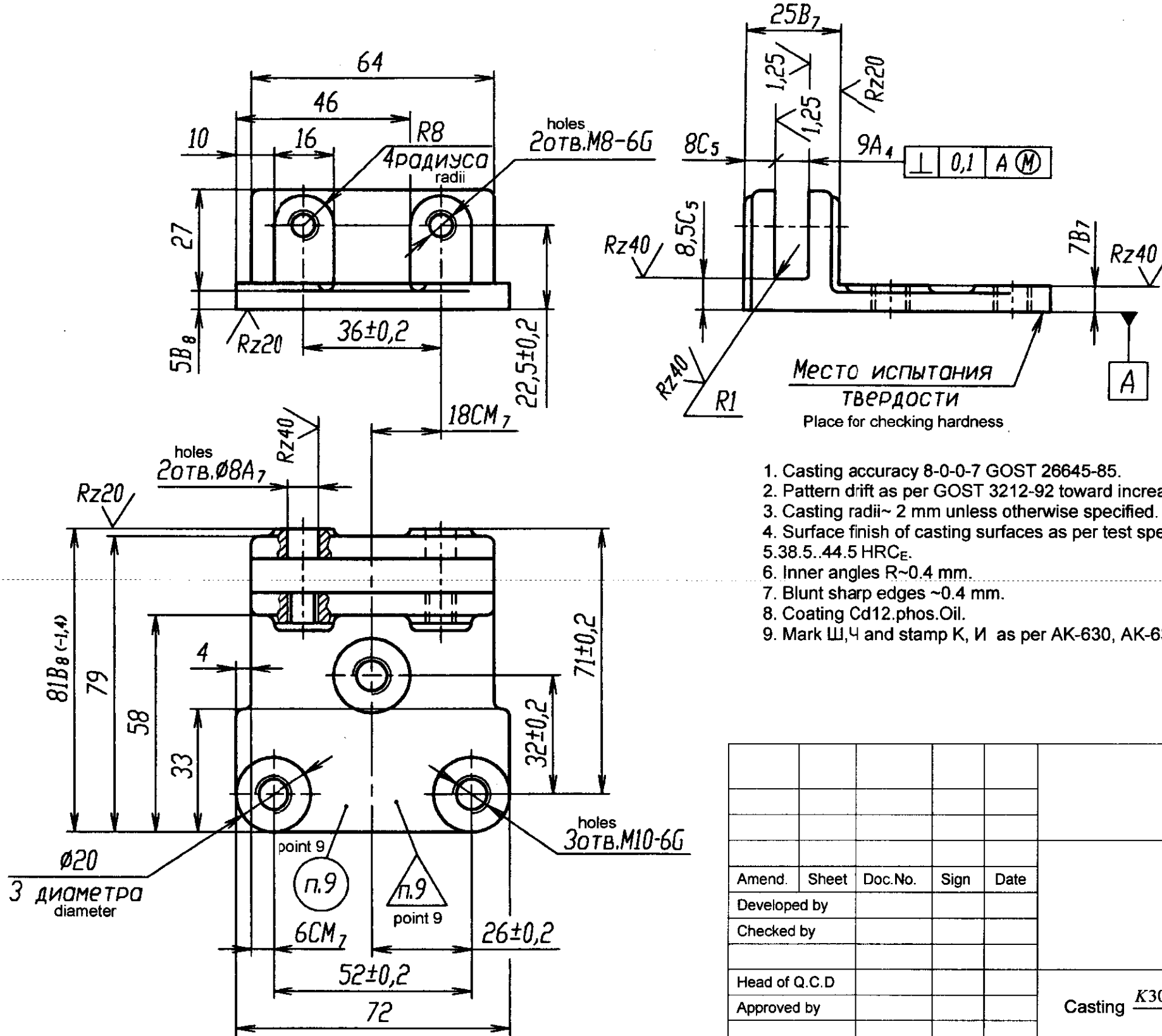
Sign and Date

Duplicate Inv. No

Alter , Inv. No

Sign and Date

Orig. inv. no.



✓ (✓)

1. Casting accuracy 8-0-0-7 GOST 26645-85.
2. Pattern drift as per GOST 3212-92 toward increase of casting dimension.
3. Casting radii~ 2 mm unless otherwise specified.
4. Surface finish of casting surfaces as per test specimen.
- 5.38.5..44.5 HRC_E.
6. Inner angles R~0.4 mm.
7. Blunt sharp edges ~0.4 mm.
8. Coating Cd12.phos.Oil.
9. Mark Ш,Ч and stamp К, И as per AK-630, AK-630M TU I.

Comment:

					AK-630 108-6			
Amend.	Sheet	Doc.No.	Sign	Date	Support	Type	Weight	Scale
Developed by						A	0.385	1:1
Checked by						Sheet	Sheets	1
Head of Q.C.D					Casting	K30 – ИОСТ3 – 4365 – 79 50LGOST977 – 88		
Approved by								

First use

Reference No.

Sign and Date

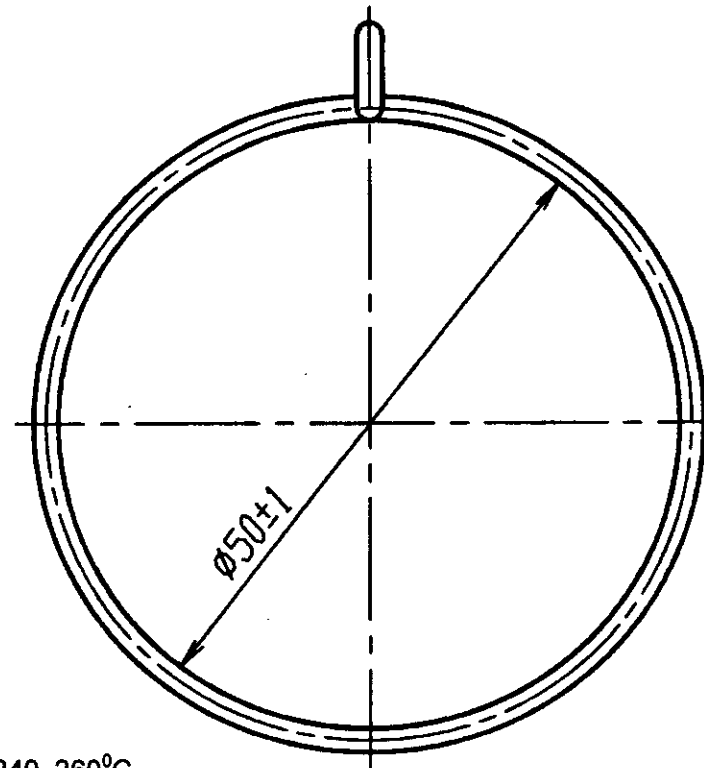
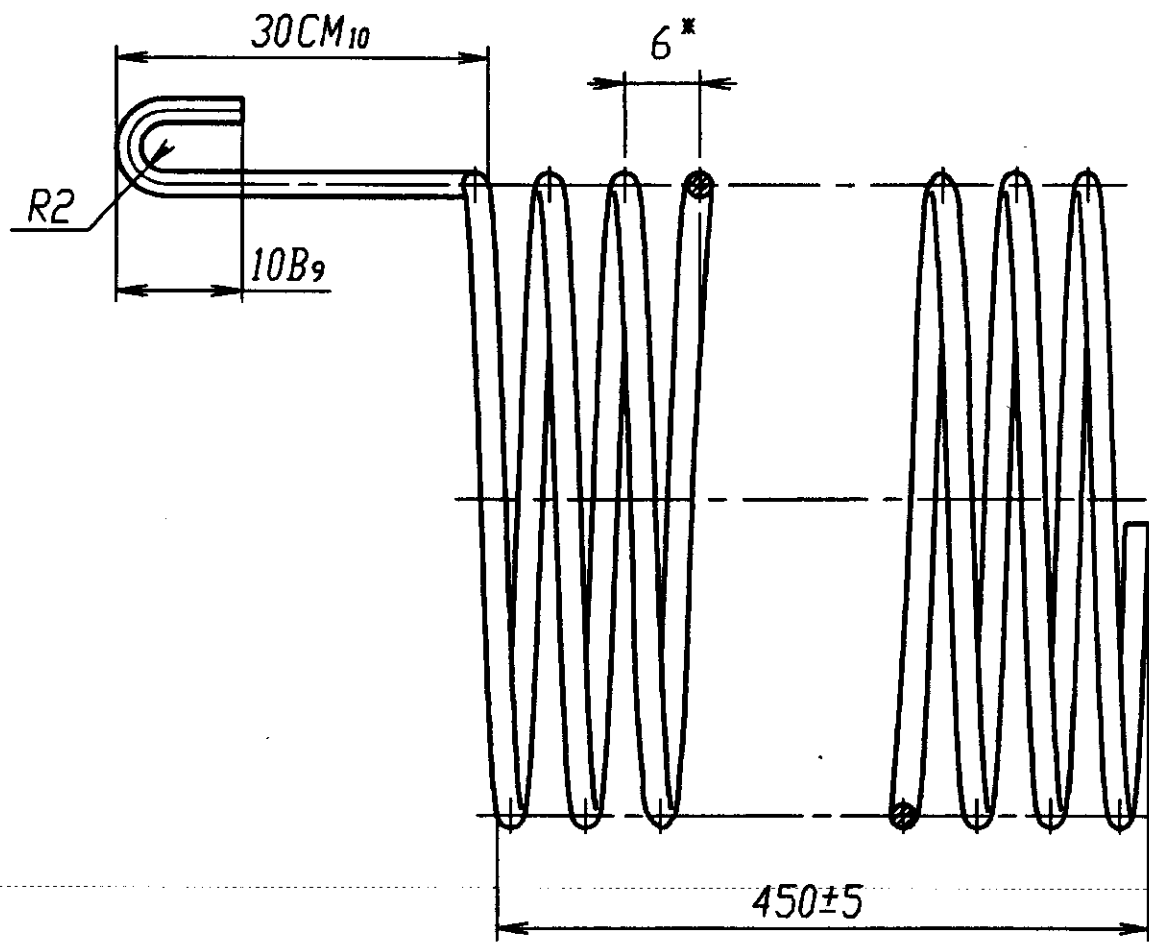
Duplicate Inv. No

Inv. No

Alterr

Sign and Date

Orig. inv. no.



1. Heat treatment tempering 240..260°C.
2. Uncoiled length L = 12730 mm.
3. Coiling direction -right.
4. Blunt ends.
- 5.* Reference dimensions.
6. Coating Cd.9 phos. accel. Lacquer BF-4 with Nigrozene 2 layers. preparation as per OST3-4123-78, IV, OMG.
7. Mark Ш,Ч and stamp K on tag.
8. Change of dimension 450 ± 5 up to 420 mm is permissible after plating.

Comment:

					AK-630 108-7		
					Armoured hose		
					Wire V-1-2 GOST 9389-75		
					Type	Weight	Scale
					A	0.270	2:1
					Sheet	Sheets	1
Amend.	Sheet	Doc.No.	Sign	Date			
Developed by							
Checked by							
Head of Q.C.D							
Approved by							

First use

Reference No.

Sign and Date

Duplicate Inv. No

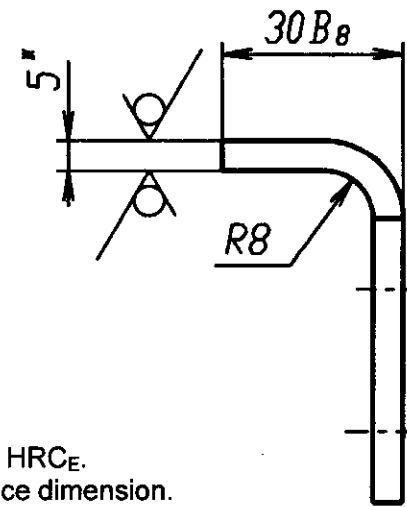
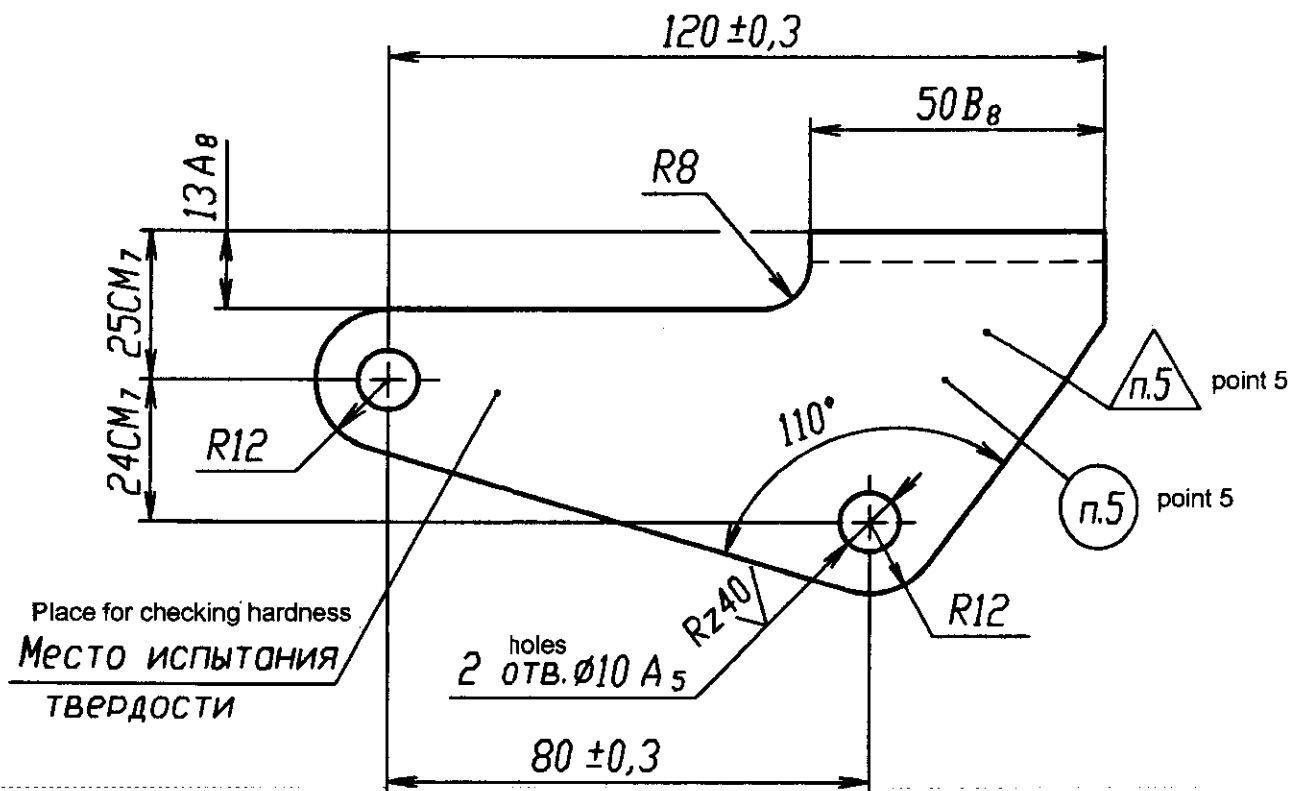
Inv. No

Alterr.

Sign and Date

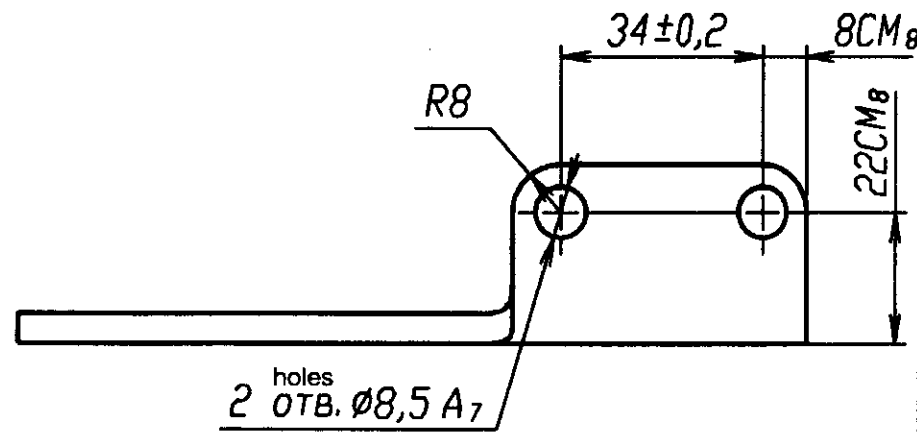
Orig. inv. no.

Rz320
✓(✓)



1. 34..39.5 HRC_E.
- 2.* Reference dimension.
3. Blunt sharp edges ~0.4 mm.
4. Coating Cd12.phos.
5. Mark Ш,Ч and stamp К,И as per AK-630, AK-630M TU I

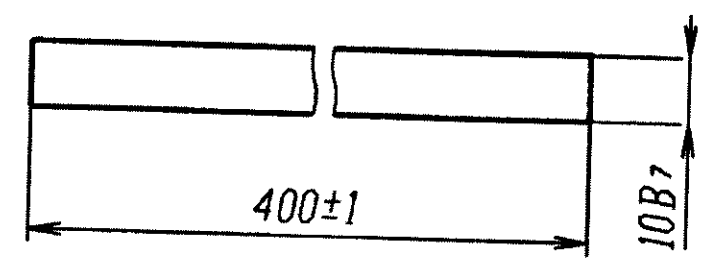
Comment:



					AK-630 108-40			
Amend.	Sheet	Doc.No.	Sign	Date	Right support	Type	Weight	Scale
Developed by						A	0.198	1:1
Checked by						Sheet	Sheets	1
Head of Q.C.D					Sheet $\frac{BT - PN - 5GOST19903 - 74}{40 - 2 - TOGOST1577 - 93}$			
Approved by								

AK-630 108-4

Approved OGMet	Orig. Inv. No.	Approved TOsb	Dupl. Inv. No.	Sign and Date	Approved KTONI	Approved by shop	Reference No.	First use
	Alternate Inv. No.							



Rz80

- 1.* Reference dimension.
2. Blunt sharp edges ≈ 0.2 mm.
3. Coating Cd12.phos.
4. Mark Ш, Ч and stamp K on tag.

Amend.	Sheet	Doc. No.	Sign	Date
Developed by				
Checked by				
Head of Q.C.D				
Head of Q.C.D				
Approved by				

AK-630 108-4

Band

Type	Weight	Scale
A	0.013	1:1
Sheet	Sheets 1	

Sheet $\frac{BT - PN - 0.5 GOST 19904 - 90}{II - Sh - VG - 08kp GOST 9045 - 93}$

Copied by

Format A4

AK-630 108-5

Approved OGMet	Sign and Date	Approved TOsb	Approved KTONI	Approved by shop	First use												
Orig. Inv. No.	Sign and Date	Alternate Inv. No.	Dupl. Inv. No.	Reference No.													
<p>1.38.5...44.5 HRC_E. 2.* Reference dimension. 3.Blunt sharp edges ≈ 0.4 mm. 4.Coating Cd12.Phos. 5.Mark Ш, Ч and stamp К, И on tag.</p>																	
AK-630 108-5																	
				<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width: 20%;"></td> <td style="width: 20%;">Type</td> <td style="width: 20%;">Weight</td> <td style="width: 20%;">Scale</td> </tr> <tr> <td style="text-align: center;">Clamp</td> <td style="text-align: center;">A</td> <td style="text-align: center;">0.053</td> <td style="text-align: center;">1:1</td> </tr> <tr> <td colspan="2" style="text-align: center;">Sheet</td> <td colspan="2" style="text-align: center;">Sheets 1</td> </tr> </table>			Type	Weight	Scale	Clamp	A	0.053	1:1	Sheet		Sheets 1	
	Type	Weight	Scale														
Clamp	A	0.053	1:1														
Sheet		Sheets 1															
				Sheet <u>BT - PN - 02 GOST 19904 - 90</u> <u>K 490V4 - III - 50 GOST 16523 - 97</u>													
Copied by				Format A4													

First use		Format	Zone	Position	Designation	Nomenclature	Qty.	Remarks	
Reference No.		<u>Documents</u>							
		A3	/		AK-630Sb 108-1 SB	Assembly drawing			
Reference No.		<u>Assembly units</u>							
		A4	/	1	AK-630 Sb 108-7	Left branch pipe	1		
Reference No.		<u>Components</u>							
		A3	/	3	AK-630 108-11	Pipe	1		
Reference No.		A4	/	4	AK-630 108-12	Pipe bend	1		
		A4	/	5	AK-630 108-13	Pipe bend	2		
Reference No.		A4	/	6	AK-630 108-16	Ring	2		
		A4	/	7	AK-630 108-18	Cover plate	2		
Sign and Date									
Dupl. Inv. No.									
Alternate Inv. No.									
Sign and Date									
Orig. Inv. No.									
Sign and Date									
Amend.									
Sheet									
Doc. No.									
Sign									
Date									
Developed by									
Checked by									
Head of Q.C.D									
Approved by									
		AK-630 Sb108-1							
		Left tube					Type	Sheet	Sheets
							A		1

First use

Reference No.

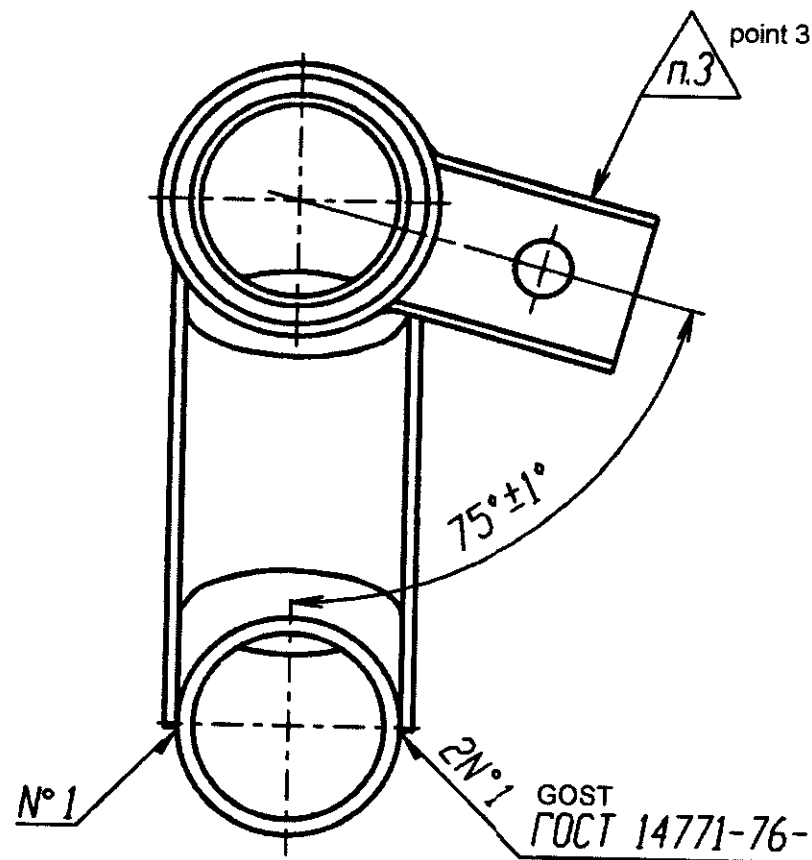
Sign and Date

Duplicate Inv. No

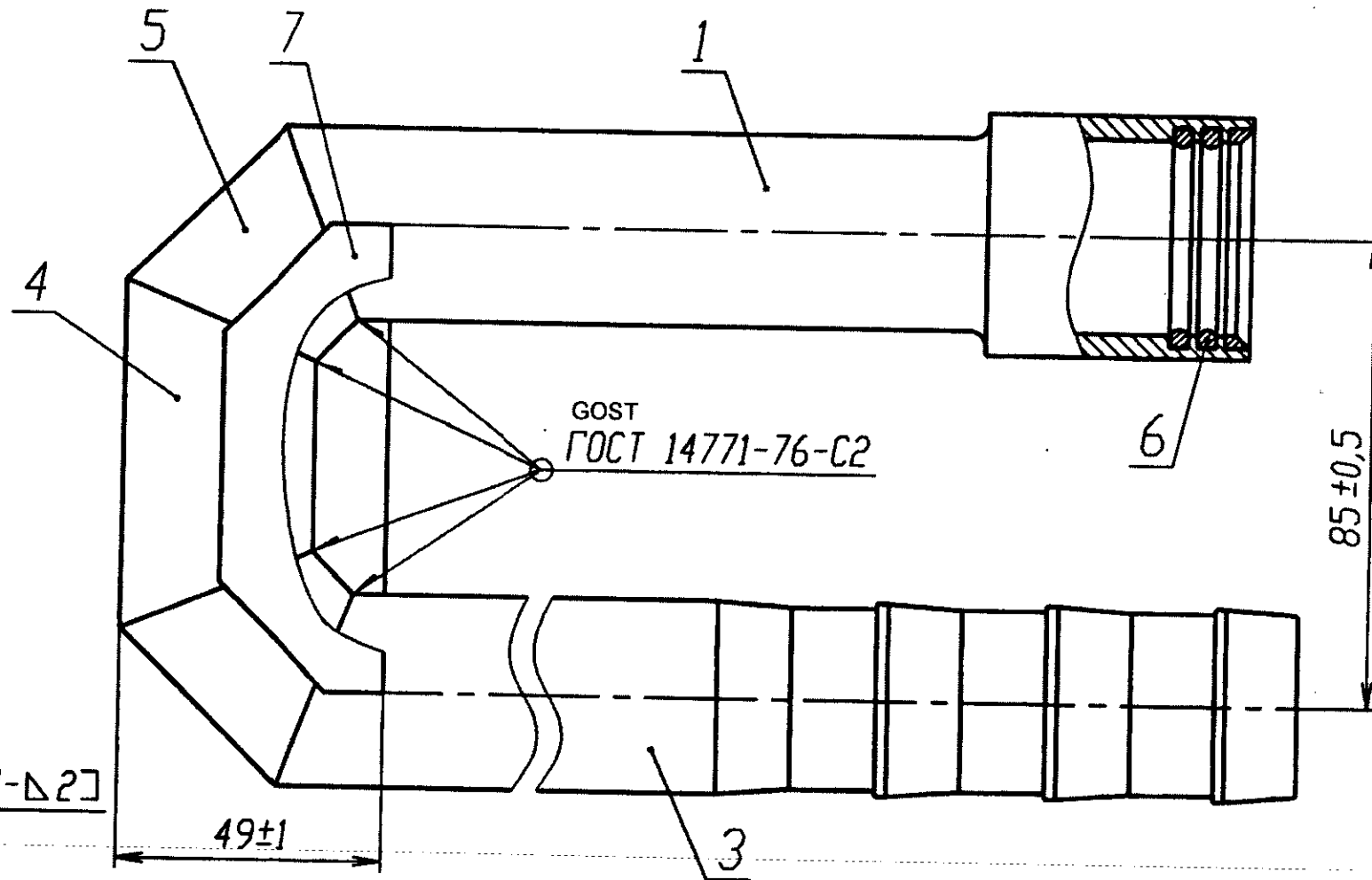
Alter Inv. No

Sign and Date

Orig. inv. no.



GOST
ГОСТ 14771-76-T1-Δ2



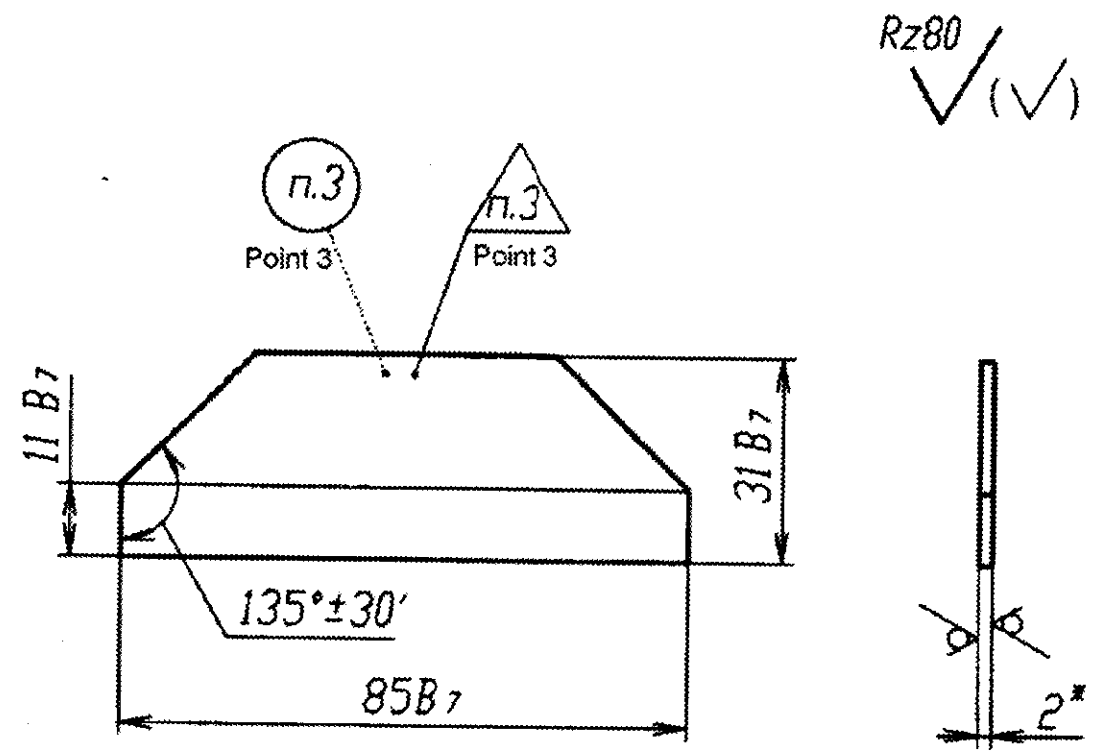
1. Argon-arc welding by using filling wire 2 sv-06Cr19Ni9Ti GOST 2246-70.
2. Check welding seam for air tightness with water at pressure $P = 1 \text{ MPa}$ (10 kgf/cm^2) for two minutes. Seepage of water is not permissible.
3. Stamp K as per AK-630, AK-630M TU I.
4. Mark Ш, Ч on tag.

Comment:

					AK-630 Sb 108-1SB			
Amend.	Sheet	Doc.No.	Sign	Date	Left tube Assembly drawing	Type	Weight	Scale
						A	1.010	1:1
						Sheet	Sheets	1
Developed by								
Checked by								
Head of Q.C.D								
Approved by								

AK-630 108-18

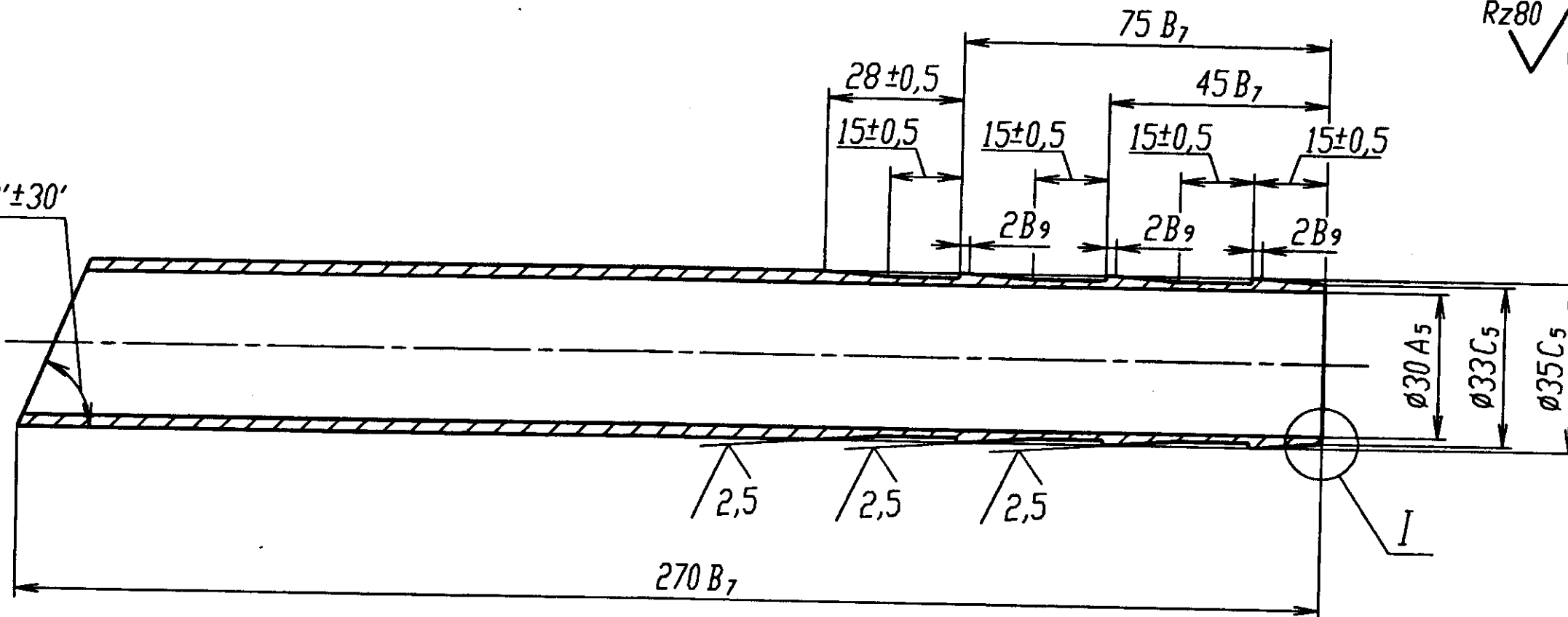
Approved OGMet
 Orig. Inv. No.
 Sign and Date
 Approved TOsb
 Alternate Inv. No. Dupl. Inv. No.
 Sign and Date
 Approved KTONI
 Reference No.
 Approved by shop
 First use



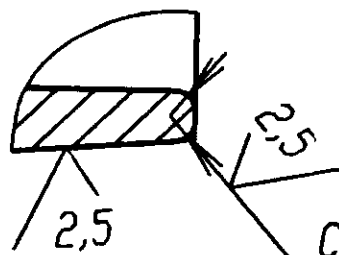
- 1.* Reference dimension.
- 2. Blunt sharp edges ≈ 0.4 mm.
- 3. Mark Ш, Ч and stamp K as per AK-630, AK-630M TU I.

AK-630 108-18							
Amend.	Sheet	Doc. No.	Sign	Date	Cover plate Sheet <u>BT - O - PN - 2GOST19904 - 90</u> <u>12Cr18Ni10Ti - M3aGOST5582 - 75</u>		
Developed by							
Checked by							
Head of Q.C.D							
Head of Q.C.D					Type	Weight	Scale
Approved by					A	0.035	1:1
					Sheet	Sheets 1	

67°30'±30'



I(5:1)



Round off
СКРУГЛИТЬ R0,6

1. Inner angles R~0.4 mm.
2. Blunt sharp edges ~ 0.4 mm.
3. Mark Ш, Ч and stamp K on tag.

Comment:

					AK-630 108-11			
Amend.	Sheet	Doc.No.	Sign	Date	Pipe	Type	Weight	Scale
Developed by						A	0.380	1:1
Checked by						Sheet	Sheets	1
Head of Q.C.D					Tube 38x6-12Cr18Ni10Ti GOST 9941-81			
Approved by								

AK-630 108-12

Blank No. 406

Approved by shop
Reference No.

Approved KTONI

Sign and Date

Approved TOsb

Alternate Inv. No.

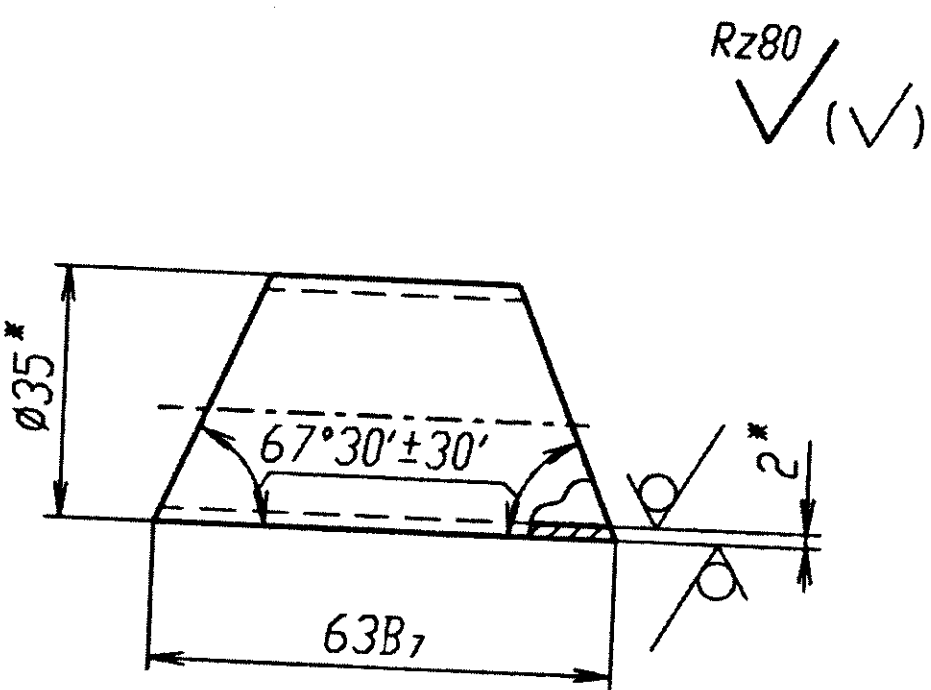
Dupl. Inv. No.

Sign and Date

Approved OGMet

Orig. Inv. No.

First use



- 1.* Reference dimension.
- 2. Blunt sharp edges ≈ 0.4 mm.
- 3. Mark Ш, Ч and stamp K on tag.

Amend.	Sheet	Doc. No.	Sign	Date

AK-630 108-12

Pipe bend

Pipe 35x2-12Cr18Ni10Ti
GOST 9941-81

Type	Weight	Scale
A	0.058	1:1

Sheet Sheets 1

Copied by

Format A4

AK-630 108-13											
Approved OGMet	Approved TOsb	Approved KTONI	Approved by shop	First use							
Orig. Inv. No.	Alternate Inv. No.	Dupl. Inv. No.	Reference No.								
Sign and Date	Sign and Date										
			<p>1.* Reference dimension. 2. Blunt sharp edges ≈ 0.4 mm. 3. Mark Ш, Ч and stamp K on tag.</p>								
			AK-630 108-13								
			Pipe bend								
			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Type</td> <td style="width: 20%;">Weight</td> <td style="width: 20%;">Scale</td> </tr> <tr> <td style="text-align: center;">A</td> <td style="text-align: center;">0.040</td> <td style="text-align: center;">1:1</td> </tr> </table>			Type	Weight	Scale	A	0.040	1:1
Type	Weight	Scale									
A	0.040	1:1									
			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Sheet</td> <td style="width: 50%;">Sheets 1</td> </tr> </table>			Sheet	Sheets 1				
Sheet	Sheets 1										
			Pipe 35x2-12Cr18Ni10Ti GOST 9941-81								

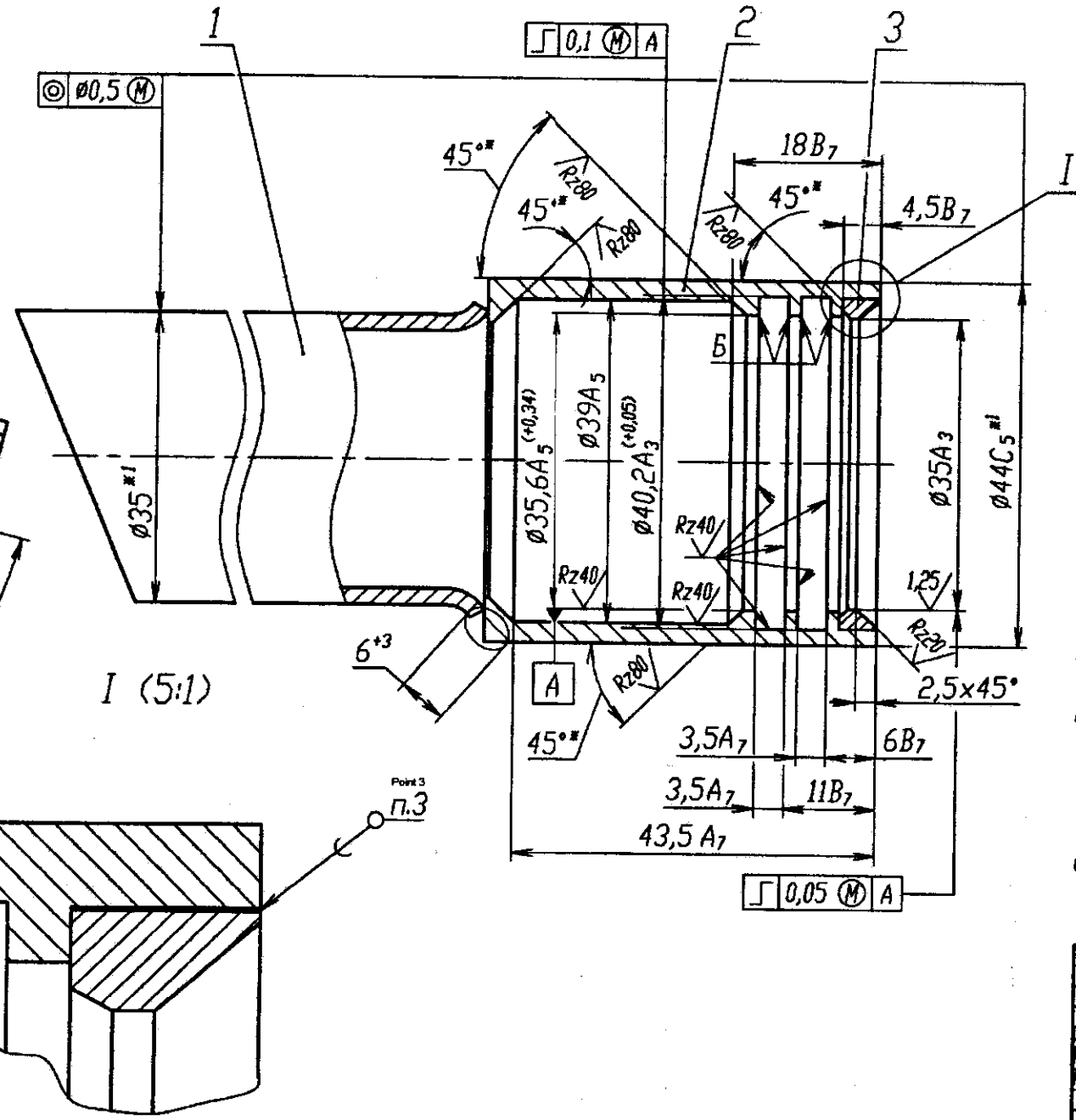
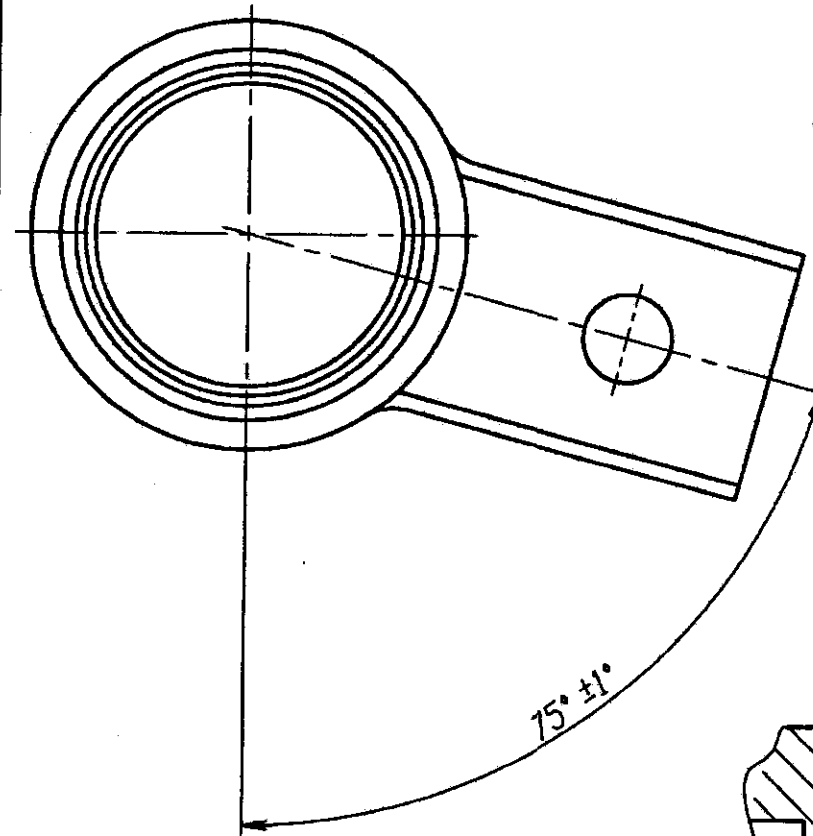
Copied by

Format A4

AK-630 СБ108-7СБ

Листов. принята
 Сторона
 Подп. и дата
 Провер. и дата
 Расчет. и дата
 УТВ. и дата

AK-630 СБ108-7СБ



1. Argon arc welding with the use of filler electrode 2 Sw-06Kh19NiTi GOST 2246-70.
2. Check the welded joint for airtightness with water under the pressure of P=1 MPa (10 Kgs/cm²) for 2 minutes. Leakage of water is not permitted.
3. Solder the ring pos.3 to the body pos. 2 with filler rod PSr 40 - 1.6 GOST 19746-74. After the soldering, finish the joint abutted.
4. * - Dimensions to be ensured by tool.
5. *1 - Dimensions for reference.
6. Internal angles R=0.4 mm.
7. Blunt the sharp edges B with R 0.4 mm as per the standard, and blunt the remaining ones with ~0.4 mm.
8. Mark Ш, Ч and stamp K on the tag.

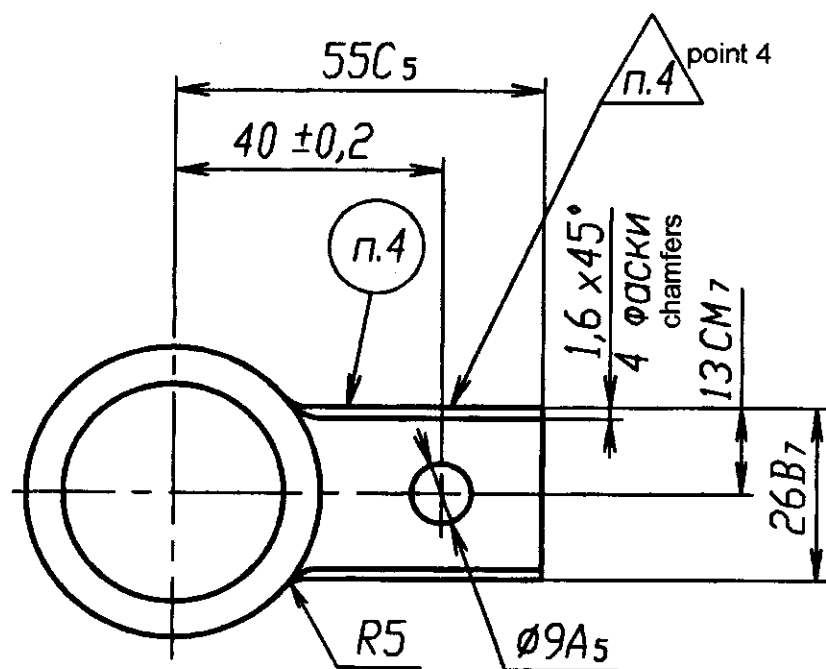
1. Сварка аргоно-дуговая с применением присадочной проволоки 2 Св-06Х19НТ ГОСТ 2246-70.
2. Сварные швы проверить на герметичность водой под давлением P=1 МПа (10 кгс/см²) в течение двух минут. Просачивание воды не допускается.
3. Кольцо поз. 3 к корпусу поз. 2 паять проволокой ПСр40-1,6 ГОСТ 19746-74. Шов после пайки зачистить заподлицо.
4. * Размеры обеспечиваются инструментом.
5. *1 Размеры для справок.
6. Внутренние углы R ~ 0,4 мм.
7. Острые ребра B притупить R 0,4 мм по эталону, остальные притупить ~ 0,4 мм.
8. Маркировать Ш, Ч и клеймить K на бирке.

AK-630 СБ108-7СБ

AK-630		СБ108-7СБ	
Изм./Лист	№ док-м.	Подп.	Дата
Разраб.			
Пров.			
Т.контр.			
И.контр.			
УТВ.			
Лит.		Масса	Масштаб
А		0,460	2:1
Лист		Листов 1	
Sheet		Total Sheets	
Left side pipeline Assembly drawing			

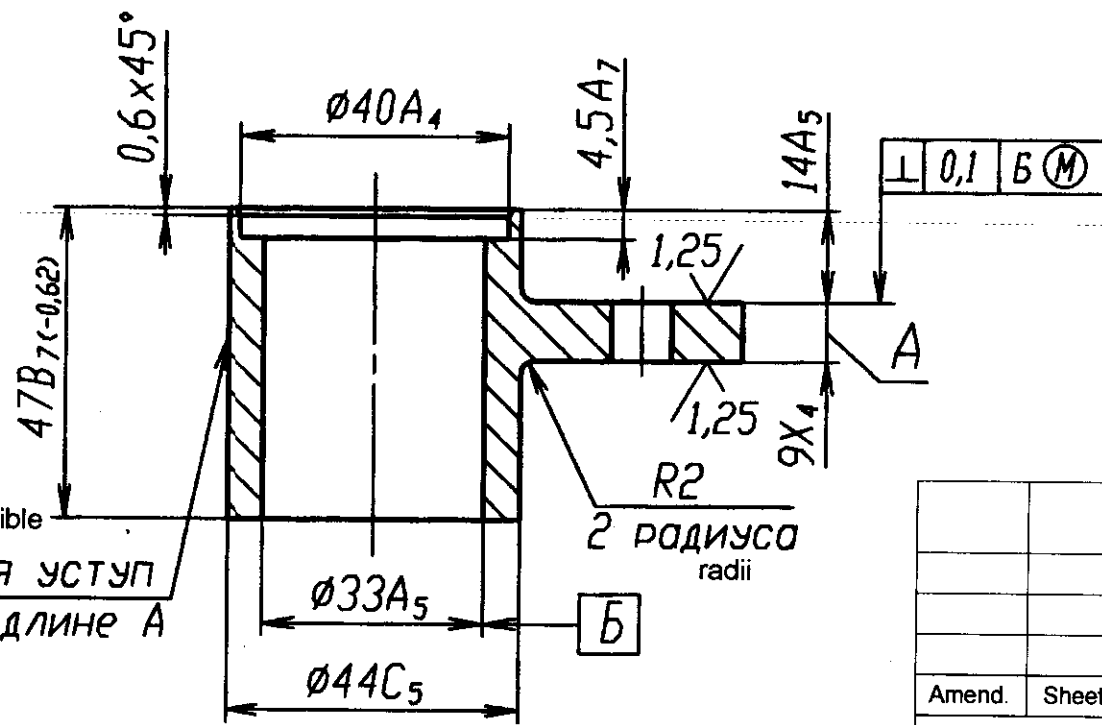
Формат А4х3

First use
Reference No.
Duplicate Inv. No
Sign and Date
ate Inv. No
Sign and Date
Orig. inv. no.



Rz40
✓ (✓)

1. It is permissible to obtain blanks by forging.
2. Inner angles R~0.4 mm.
3. Blunt sharp edges ~0.4 mm.
4. Mark Ш,Ч and stamp K as per AK-630, AK-630M TU I.



Shoulder upto 0.3mm on length A is permissible

Допускается уступ до 0,3мм на длине А

Amend.	Sheet	Doc.No.	Sign	Date
Developed by				
Checked by				
Head of Q.C.D				
Approved by				

AK-630 108-15

Body

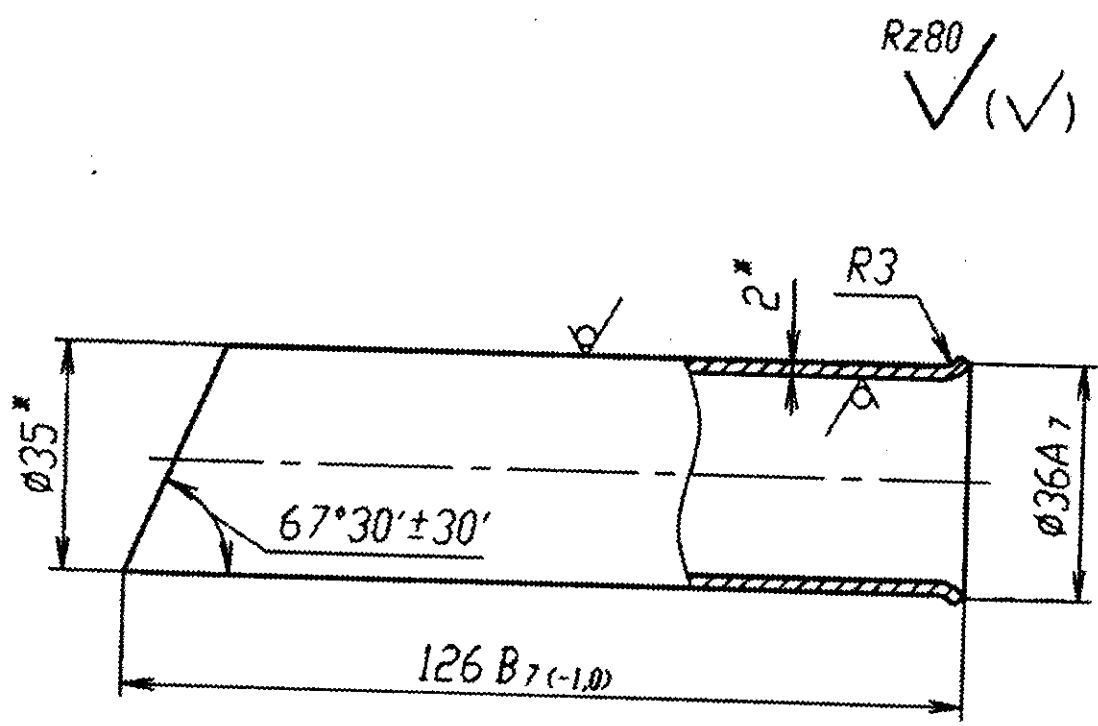
Steel 12Cr18Ni9Ti
GOST 5632-72

Type	Weight	Scale
A	0.270	1:1
Sheet	Sheets	1

Comment:

AK-630 108-14

Approved OGMet	Sign and Date	Approved TOSb	Approved KTONI	Approved by shop	First use
Orig. Inv. No.	Alternate Inv. No.	Dupl. Inv. No.	Sign and Date	Reference No.	
Amend.	Sheet	Doc. No.	Sign	Date	
Developed by					
Checked by					
Head of Q.C.D					
Head of Q.C.D					
Approved by					



- 1.* Reference dimensions.
- 2.Blunt sharp edges ≈ 0.4 mm.
- 3.Mark Ш, Ч and stamp K on tag.

AK-630 108-14

Pipe bend

Pipe 35x2-12Cr18Ni10Ti
GOST 9941-81

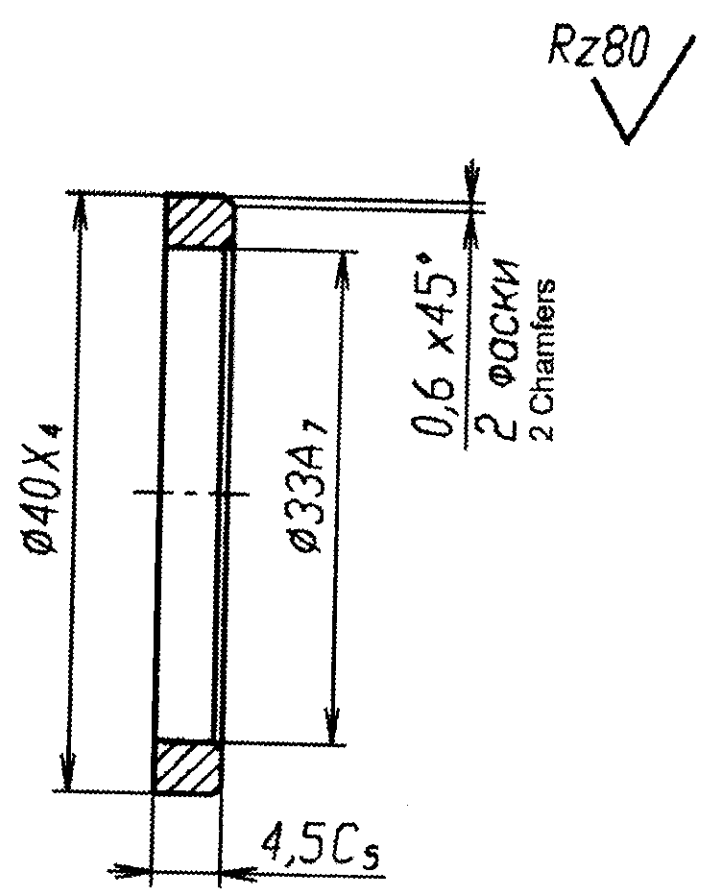
Type	Weight	Scale
A	0.170	1:1
Sheet		Sheets 1

Copied by

Format A4

AK-630 108-17

Approved OGMet
 Orig. Inv. No.
 Sign and Date
 Alternate Inv. No.
 Approved TOsb
 Dupl. Inv. No.
 Sign and Date
 Approved KTONI
 Reference No.
 Approved by shop
 First use



1. Substitute material bar DKRNP 42.0 ND BrAZhMts 10-3-1.5 GOST 1628-78.
2. Blunt sharp edges ≈ 0.4 mm.
3. Mark Ш, Ч and stamp K on tag.

Amend.	Sheet	Doc. No.	Sign	Date

AK-630 108-17			
Ring	Type	Weight	Scale
	A	0.012	2:1
	Sheet		Sheets 1
Br AZh9-4 GOST 18175-78			

Copied by

Format A4

First use

Reference No.

Sign and Date

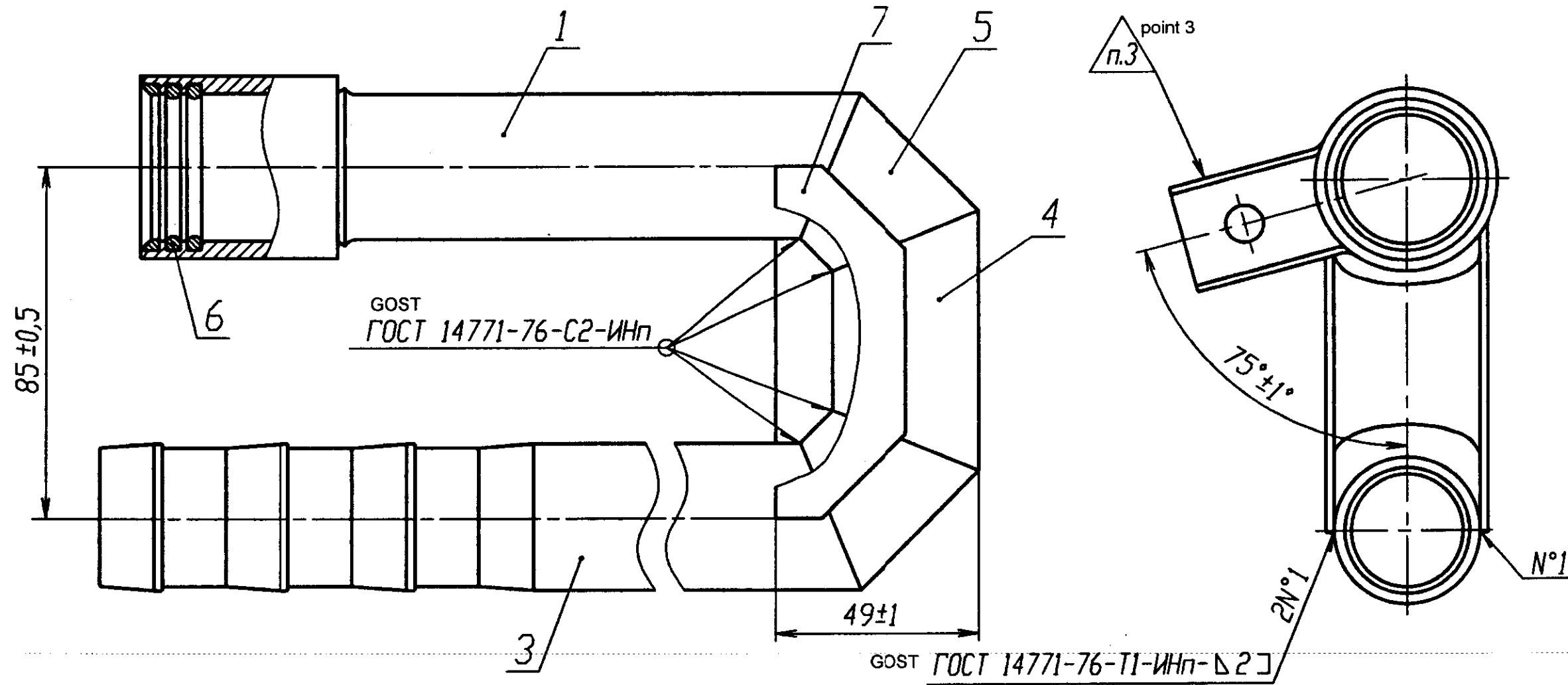
Duplicate Inv. No

Inv. No

Alterr

Sign and Date

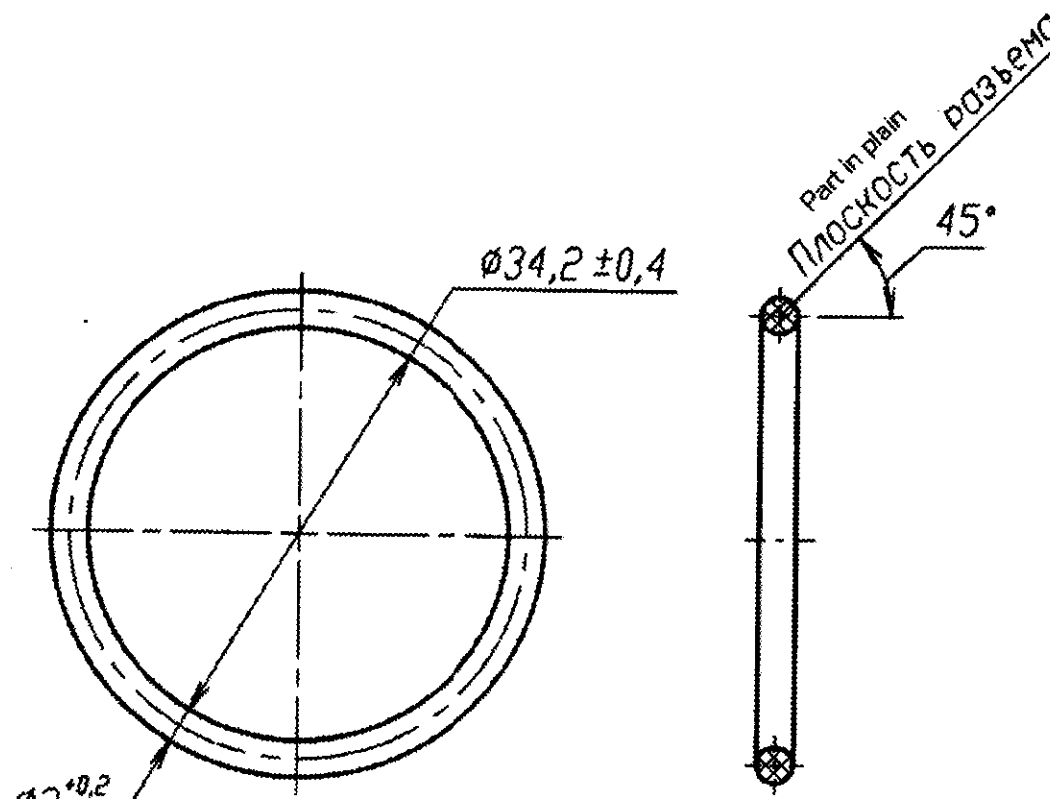
Orig. inv. no.



Comment:

1. Argon-arc welding by using filling wire 2 sv-06Cr19Ni9Ti GOST 2246-70.
2. Check welding seam for air tightness with water at pressure $P = 1 \text{ M Pa}$ (10 kgf/cm^2) for two minutes. Seepage of water is not permissible.
3. Stamp K as per AK-630, AK-630M TU I.
4. Mark Ш, Ч on tag.

AK-630 Sb 108-2SB							
Amend.	Sheet	Doc.No.	Sign	Date			
Right tube Assembly drawing					Type	Weight	Scale
					A	1.010	1:1
Developed by					Sheet	Sheets	1
Checked by							
Head of Q.C.D							
Approved by							

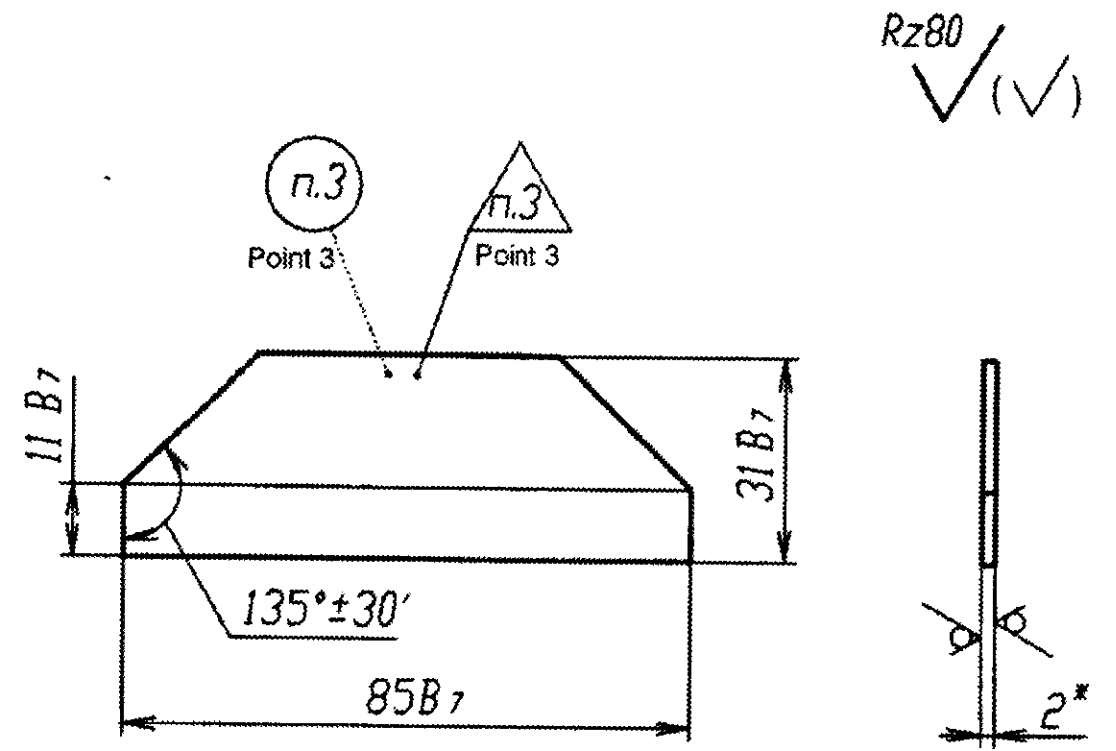
AK-630 108-16					
Approved by shop	Reference No.				
Approved KTONI	Sign and Date				
Approved TOSb	Dupl. Inv. No.	<ol style="list-style-type: none"> 1. Substitute material- Rubber stock NO-68-1 NTA TU 38.005.1166-98 2. Dimensions ensured by tool 3. Surface of ring should be smooth, glossy. 4. Fin should be removed and cleaned. 5. Surface finish of moulding surfaces of press mould 6. Other specifications as per OST 3-1397-87. 7. Mark Ш, Ч and stamp K on tag. 			
Approved OGMet	Orig. Inv. No.				
Sign and Date	Sign and Date			AK-630 108-16	
Amend.	Sheet	Doc. No.	Sign	Date	Ring
Developed by					
Checked by					Type A
Head of Q.C.D					Weight 0.001
					Scale 2:1
Head of Q.C.D					Sheet
Approved by					Sheets 1
					Rubber stock V-14 NTA TU 38.005.1166-98

Copied by

Format A4

AK-630 108-18

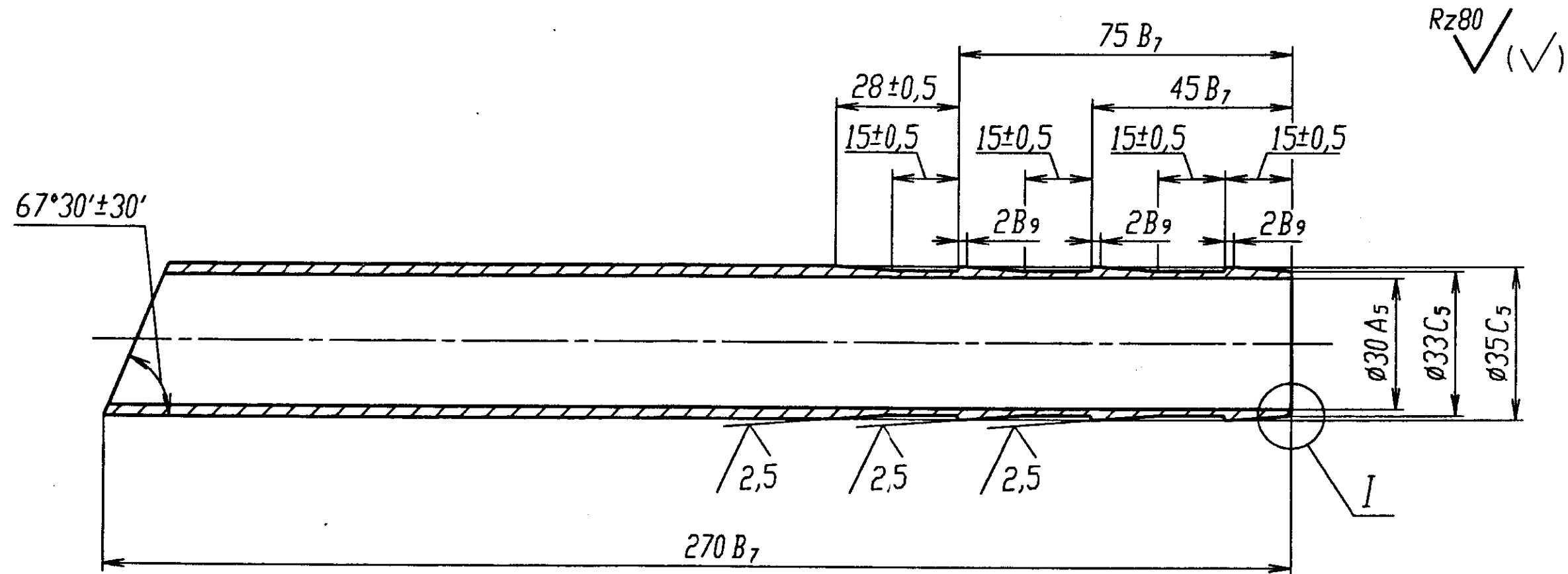
Approved OGMet	Approved KTONI	Approved by shop	First use
Orig. Inv. No.	Sign and Date	Reference No.	
Head of Q.C.D	Sign and Date		
Checked by	Sign and Date		
Developed by	Sign and Date		
Amend.	Sign and Date		
Sheet	Sign and Date		
Doc. No.	Sign and Date		
Sign	Sign and Date		
Date	Sign and Date		
Head of Q.C.D	Sign and Date		
Approved by	Sign and Date		
Approved TOSb	Sign and Date		
Alternate Inv. No.	Sign and Date		
Dupl. Inv. No.	Sign and Date		



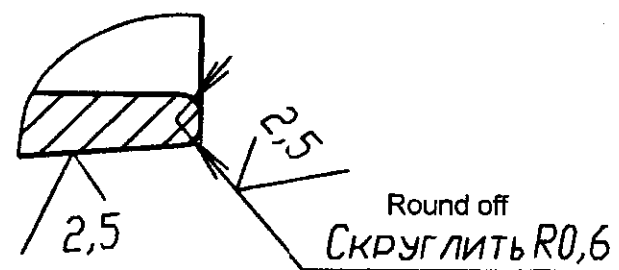
- 1.* Reference dimension.
- 2. Blunt sharp edges = 0.4 mm.
- 3. Mark Ш, Ч and stamp K as per AK-630, AK-630M TU I.

					AK-630 108-18			
					Cover plate	Type	Weight	Scale
						A	0.035	1:1
					Sheet	Sheets 1		
					Sheet <i>BT - O - PN - 2GOST19904 - 90</i>			
					12Cr18Ni10Ti - M3aGOST5582 - 75			

First use
Reference No.
Sign and Date
Duplicate Inv. No.
v. No.
Sign and Date
Orig. inv. no.



1(5:1)



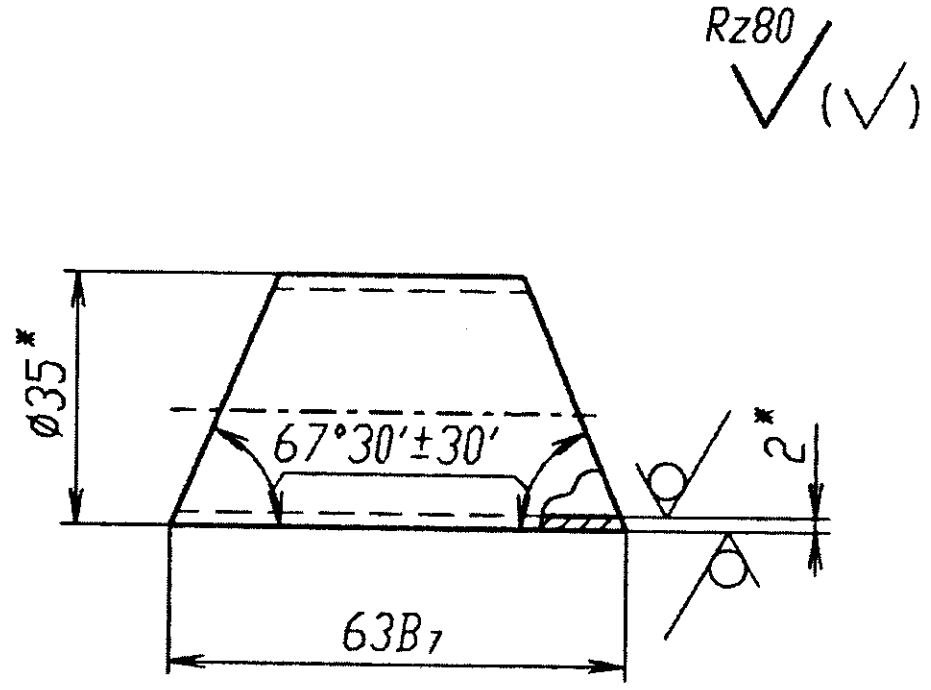
1. Inner angles R~0.4 mm.
2. Blunt sharp edges ~ 0.4 mm.
3. Mark Ш,Ч and stamp K on tag.

Comment:

					AK-630 108-11			
Amend.	Sheet	Doc.No.	Sign	Date	Pipe	Type	Weight	Scale
Developed by						A	0.380	1:1
Checked by						Sheet	Sheets	1
Head of Q.C.D					Tube 38x6-12Cr18Ni10Ti			
Approved by					GOST 9941-81			

AK-630 108-12

Approved OGMet	Orig. Inv. No.	Sign and Date	Alternate Inv. No.	Approved TOsb	Dupl. Inv. No.	Sign and Date	Approved KTONI	Approved by shop	Reference No.	First use

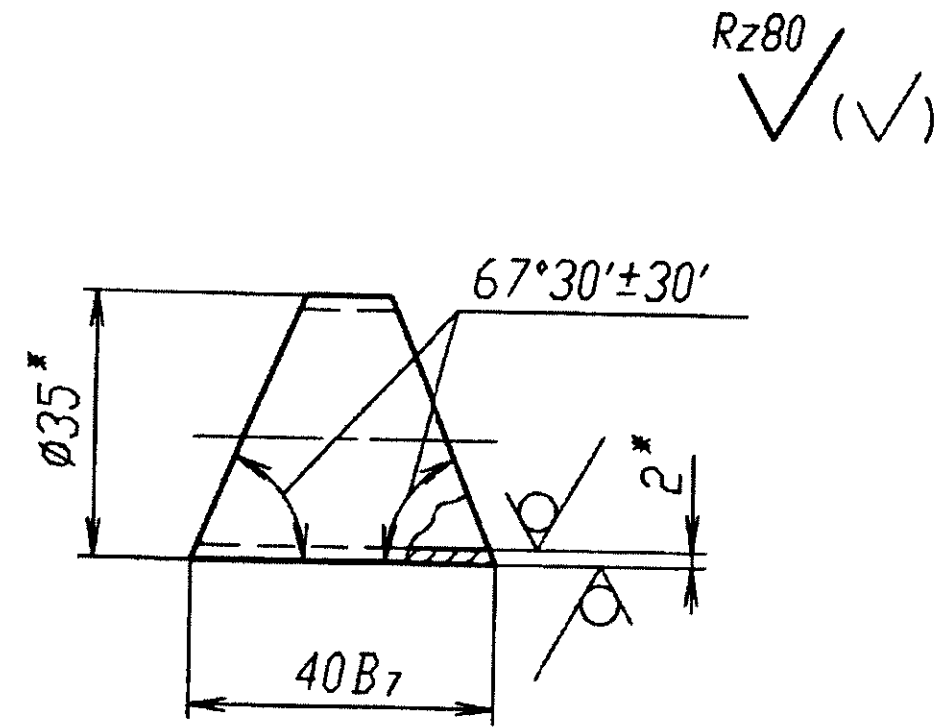


- 1.* Reference dimension.
- 2.Blunt sharp edges ≈ 0.4 mm.
- 3.Mark Ш, Ч and stamp K on tag.

					AK-630 108-12			
Amend.	Sheet	Doc. No.	Sign	Date	Pipe bend	Type	Weight	Scale
Developed by						A	0.058	1:1
Checked by						Sheet	Sheets 1	
Head of Q.C.D								
Head of Q.C.D					Pipe 35x2-12Cr18Ni10Ti GOST 9941-81			
Approved by								

AK-630 108-13

Approved OCMet	Orig. Inv. No.	Approved TOsb	Dupl. Inv. No.	Sign and Date	Approved KTONI	Approved by shop	Reference No.	First use
	Altermate Inv. No.							



- 1.* Reference dimension.
- 2.Blunt sharp edges ≈ 0.4 mm.
- 3.Mark III, Ч and stamp K on tag.

					AK-630 108-13		
					Pipe bend		
					Type	Weight	Scale
					A	0.040	1:1
					Sheet Sheets 1		
					Pipe 35x2-12Cr18Ni10Ti GOST 9941-81		

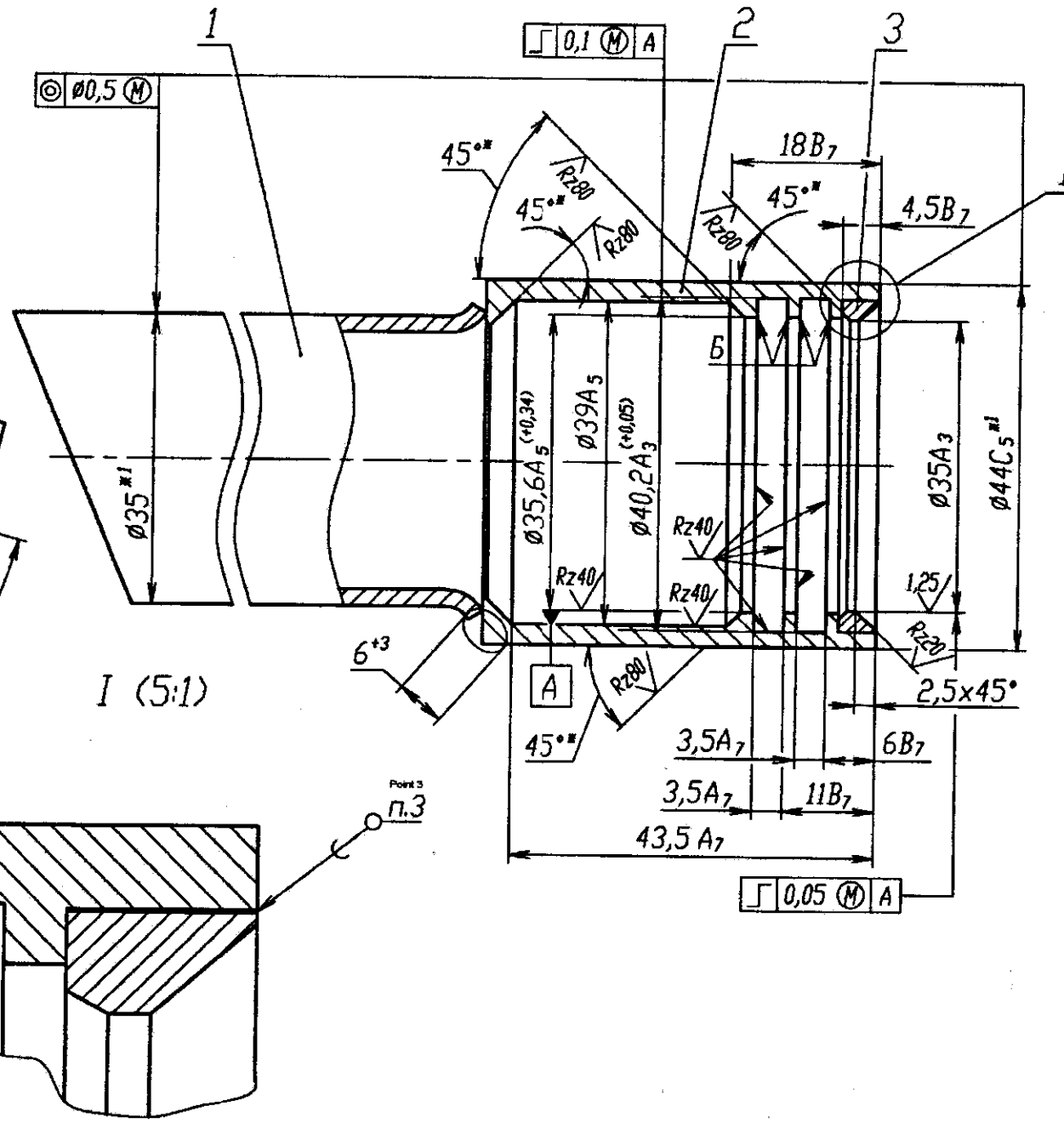
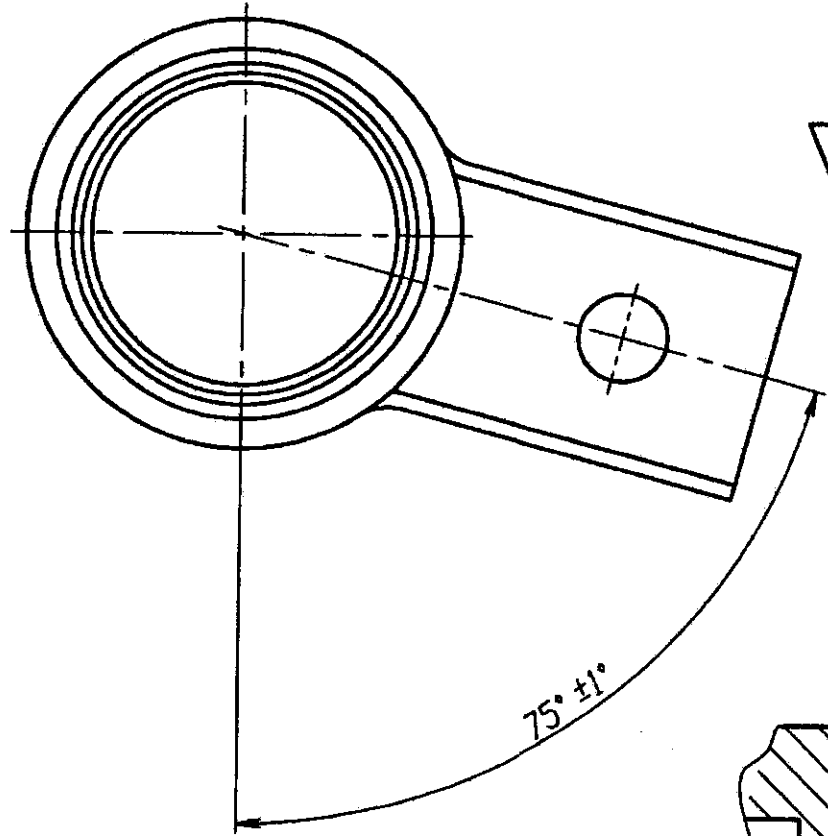
Copied by Format A4

First use	Format	Zone	Position	Designation	Nomenclature	Qty.	Remarks	
					<u>Documents</u>			
	*)	/		AK-630 Sb 108-7 SB	Assembly drawing		*) A4 x 3	
Reference No.					<u>Components</u>			
	A4	/	1	AK-630 108-14	Pipe	1		
	A3	/	2	AK-630 108-15	Body	1		
	A4	/	3	AK-630 108-17	Ring	1		
Sign and Date								
Dupl. Inv. No.								
Alternate Inv. No.								
Sign and Date					AK-630 Sb108-7			
	Amend.	Sheet	Doc. No.	Sign	Date			
	Developed by					Type	Sheet	Sheets
	Checked by					A		1
	Head of Q.C.D					Left branch pipe		
	Approved by							

AK-630 СБ108-7СБ

95.2.01.05 009.00

Пров. ЛЕВЫЙ
Сборочный чертёж
Изм. Лист
Подп. Дата
Изм. Лист
Подп. Дата
Изм. Лист
Подп. Дата



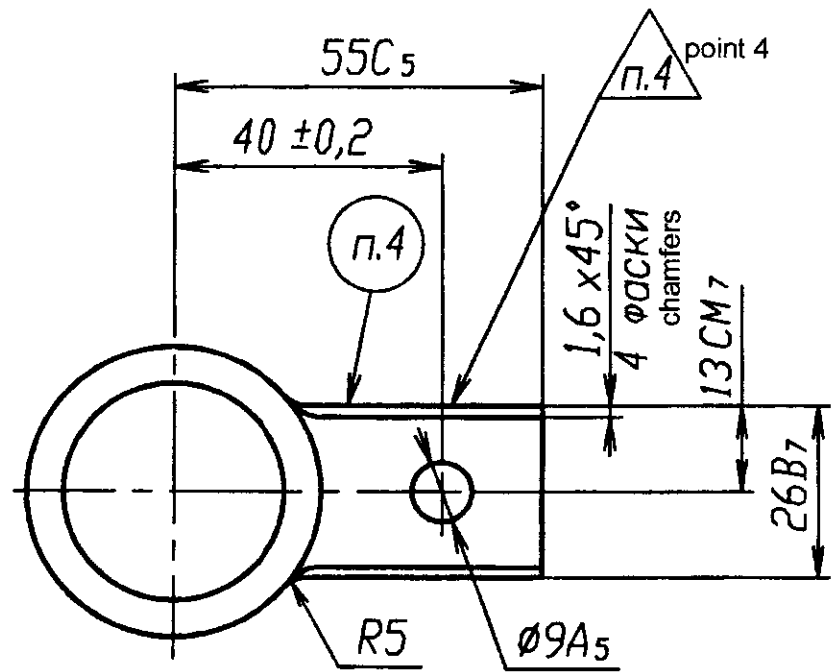
1. Argon arc welding with the use of filler electrode 2 Sv-06Kh19Ni7 ГОСТ 2246-70.
 2. Check the welded joint for airtightness with water under the pressure of P=1 MPa (10 Kgs/cm²) for 2 minutes. Leakage of water is not permitted.
 3. Solder the ring pos. 3 to the body pos. 2 with filler rod PSr 40 - 1.6 GOST 19746-74. After the soldering, finish the joint abraded.
 4. * Dimensions to be ensured by tool.
 5. *1. Dimensions for reference.
 6. Internal angles R~0.4 mm.
 7. Blunt the sharp edges B with R 0.4 mm as per the standard, and blunt the remaining ones with ~0.4 mm.
 8. Mark Ш, Ч and stamp K on the tag.
1. Сварка аргоно-дуговая с применением присадочной проволоки 2 Св-06Х19Н7 ГОСТ 2246-70.
 2. Сварные швы проверить на герметичность водой под давлением P=1 МПа (10 кгс/см²) в течение двух минут. Просачивание воды не допускается.
 3. Кольцо поз. 3 к корпусу поз. 2 паять проволокой ПСр40-1,6 ГОСТ 19746-74. Шов после пайки зачистить зоподлицо.
 4. * Размеры обеспечиваются инструментом.
 5. *1 Размеры для справок.
 6. Внутренние углы R ~ 0,4 мм.
 7. Острые ребра Б притупить R 0,4 мм по эталону, остальные притупить ~ 0,4 мм.
 8. Маркировать Ш, Ч и клеймить К на бирке.

AK-630 Sh 108 - 7 SB

				AK-630 СБ108-7СБ		
				Type	Mass	Scale
Изм/Лист	Н док.м.	Подп.	Дата	Лит.	Масса	Масштаб
Разроб.				А	0,460	2:1
Пров.				Лист Листов 1		
Т.контр.				Sheet Total Sheets		
И.контр.				Left side pipeline Assembly drawing		
УТВ.						

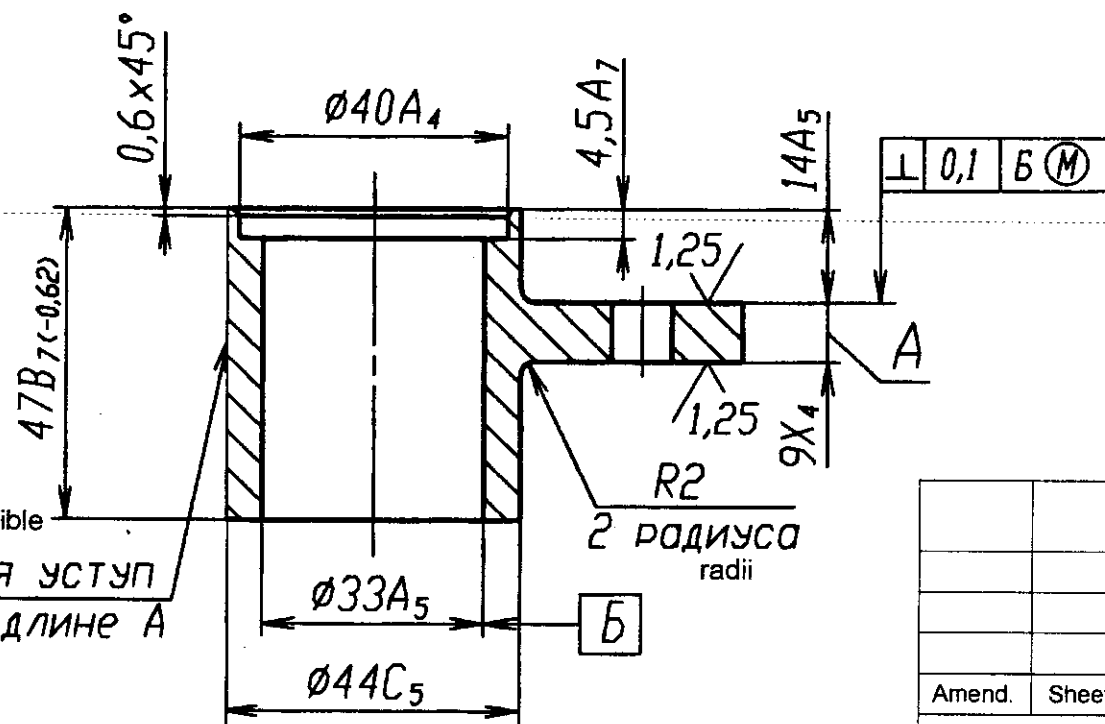
Формат А4х3

First use
Reference No.
Sign and Date
Duplicate Inv. No
Sign and Date
Sign and Date
Orig. inv. no.



Rz40
✓ (✓)

1. It is permissible to obtain blanks by forging.
2. Inner angles R~0.4 mm.
3. Blunt sharp edges ~0.4 mm.
4. Mark Ш,Ч and stamp K as per AK-630, AK-630M TU I.



Shoulder upto 0.3mm on length A is permissible

Допускается уступ до 0,3мм на длине А

Comment:

					AK-630 108-15			
Amend.	Sheet	Doc.No.	Sign	Date	Body	Type	Weight	Scale
Developed by						A	0.270	1:1
Checked by						Sheet	Sheets 1	
Head of Q.C.D					Steel 12Cr18Ni9Ti GOST 5632-72			
Approved by								

First use

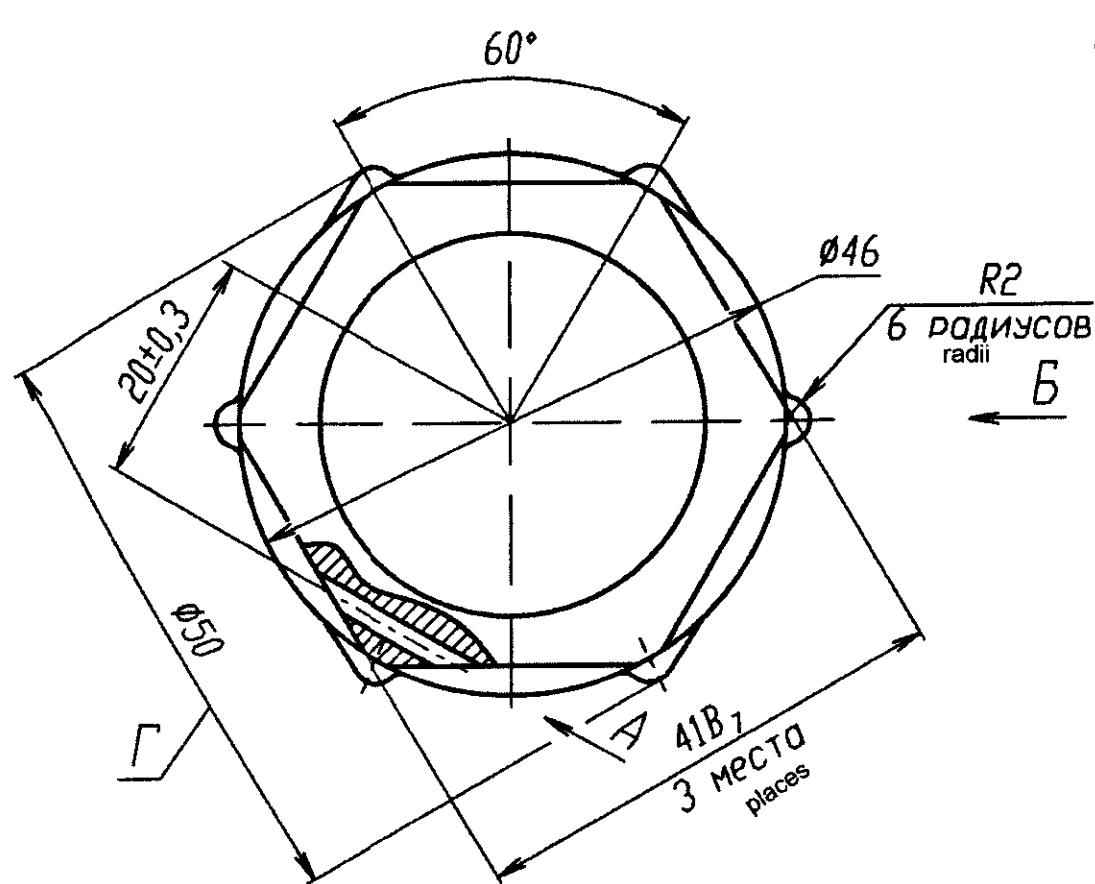
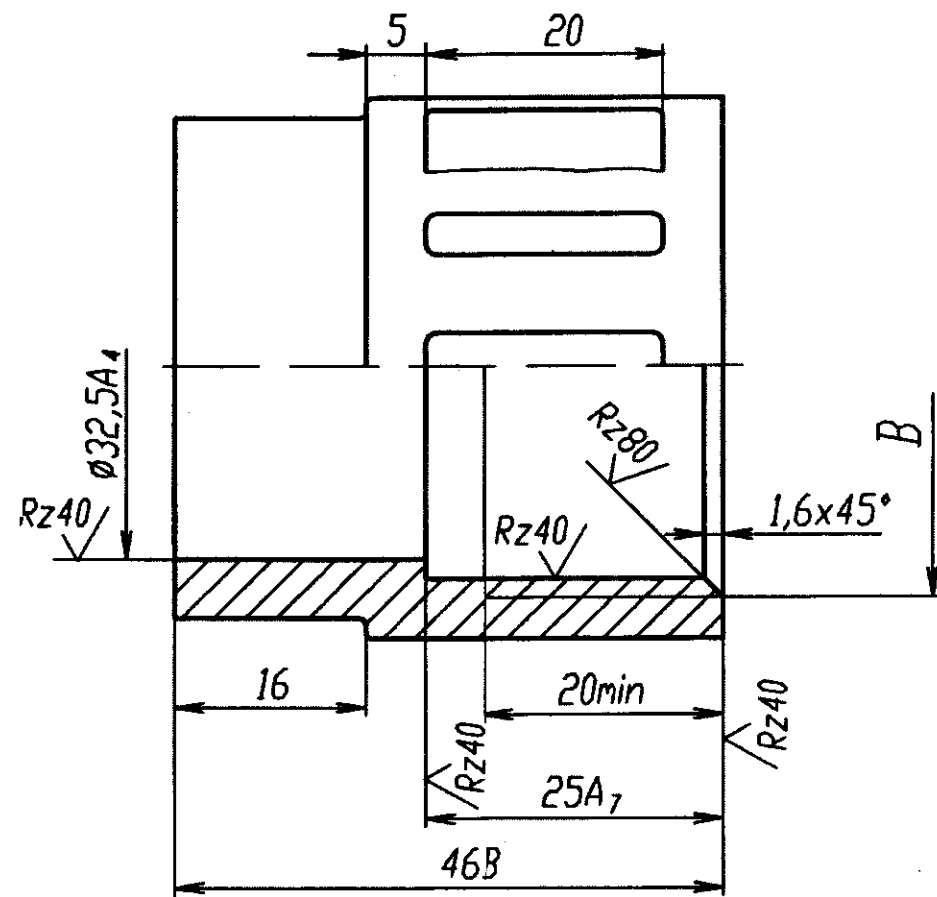
Reference No.

Duplicate Inv. No / Sign and Date

mate Inv. No

Sign and Date

Orig. inv. no.

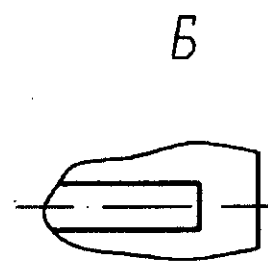
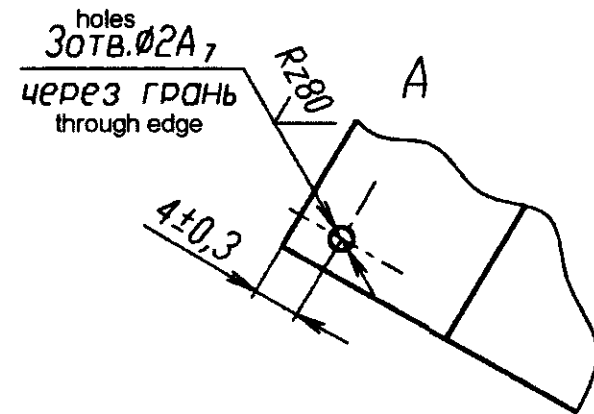


✓ (✓)

1. Casting accuracy 8-0-0-7 GOST 26645-85.
2. Casting radii~ 1 mm unless otherwise specified.
3. Pattern drift as per GOST 3212-92 toward increase of dimension.
4. Surface finish of casting surfaces as per test specimen.
5. Casting drift on hexagon not permissible.
6. Machining of surface Γ to minimum diameter Ø 49 mm is permissible.
7. Inner angles R~0.4 mm.
8. Blunt sharp edges ~0.6 mm.
9. Mark Ш, Ч, П and stamp K on tag.

Comment:

Component No.	Dimension V
108-22	M39x2-6G
108-27	M42x2-6G



Amend.	Sheet	Doc.No.	Sign	Date
Developed by				
Checked by				
Head of Q.C.D				
Approved by				

AK-630 108-22; 108-27

Type		Weight	Scale
Nut		0.13	2:1
Sheet		Sheets 1	
Casting		IOST3 - 4365 - 79 12C718Ni9TiLGOST977 - 88	

AK-630 108-23

Approved OGMet	Sign and Date	Approved TOSb	Sign and Date	Approved KTONI	Reference No.	Approved by shop	First use
Orig. Inv. No.	Alternate Inv. No.	Dupl. Inv. No.	Inv. No.	Sign and Date	Reference No.	Approved by shop	First use

1. Inner angles $R \approx 0.4$ mm.
 2. Blunt sharp edges ≈ 0.4 mm.
 3. Mark Ш, Ч and stamp K on tag.

AK-630 108-23											
Amend.	Sheet	Doc. No.	Sign	Date	Type		Weight	Scale			
Developed by					A		0.080	2:1			
Checked by					Sheet		Sheets		1		
Head of Q.C.D											
Head of Q.C.D											
Approved by					Steel 12Cr18Ni9Ti GOST 5632-72						

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Format A4

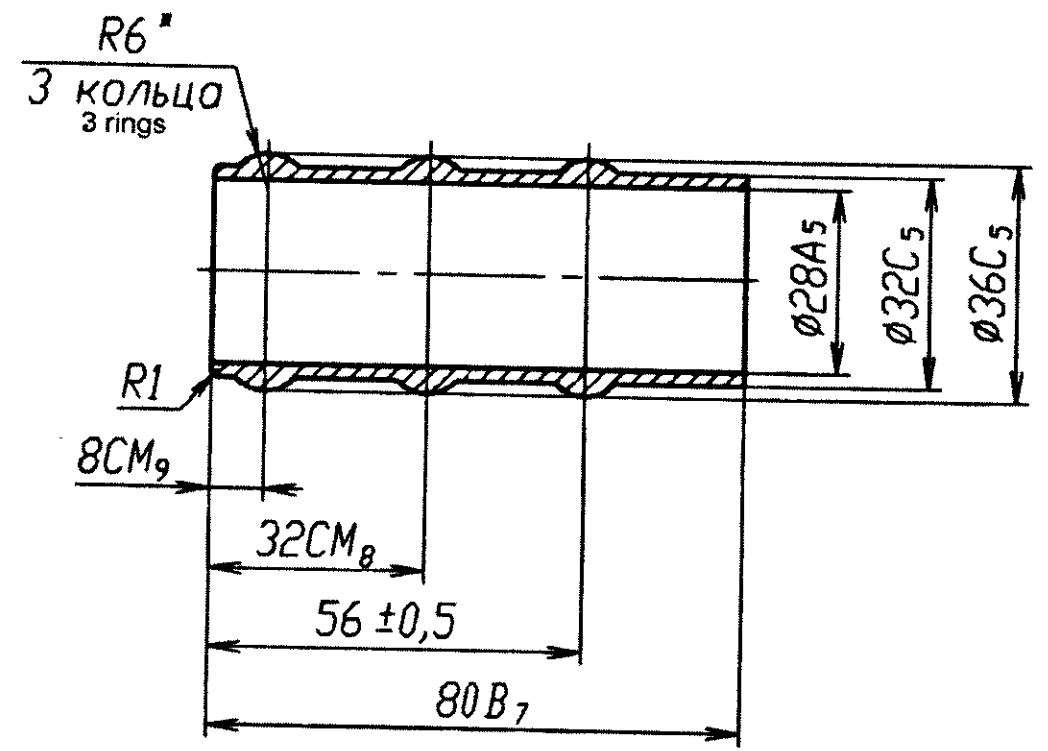
AK-630 108-24

Blank No. 406

Approved by shop Reference No.
 Approved KTONI Sign and Date
 Approved TOSb Dupl. Inv. No.
 Alternate Inv. No. Sign and Date
 Approved OGMet Orig. Inv. No.

First use

Rz40 ✓



- 1.*Dimensions ensured by tool.
- 2.Inner angles R ≈ 0.4 mm.
- 3.Blunt sharp edges ≈ 0.4 mm.
- 4.Mark Ш, Ч and stamp K on tag.

Amend.	Sheet	Doc. No.	Sign	Date

AK-630 108-24

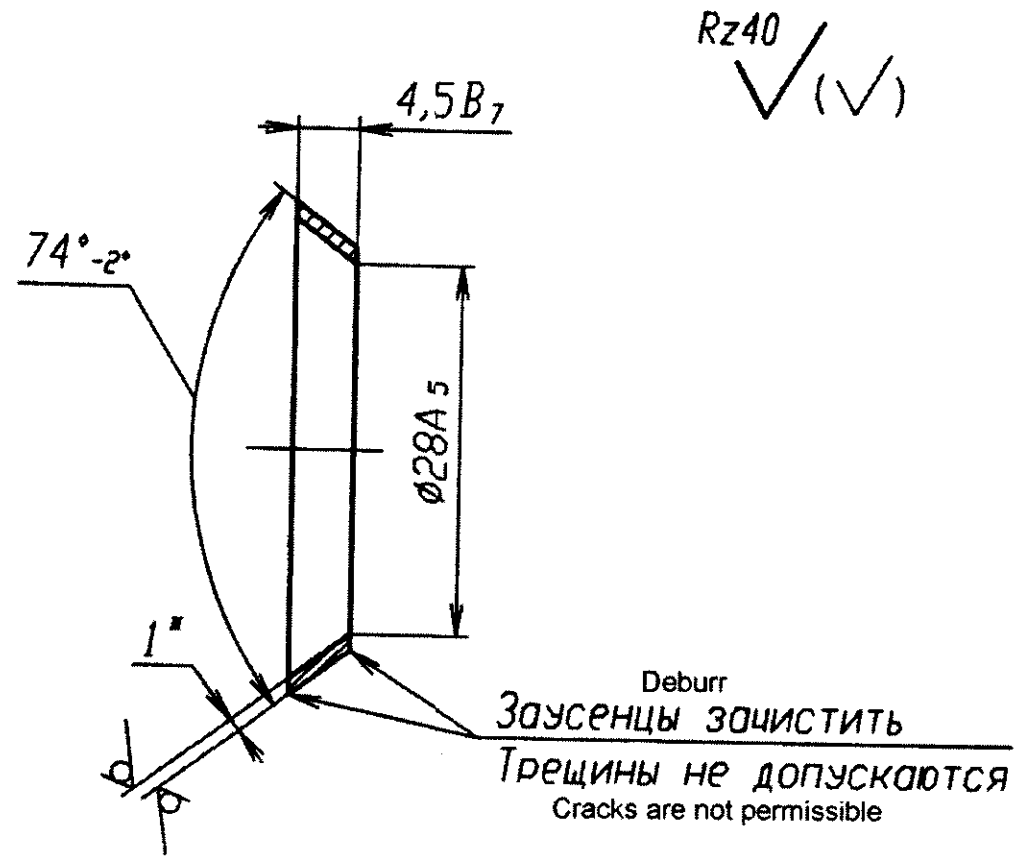
Pipe	Type	Weight	Scale
	A	0.040	1:1
	Sheet	Sheets 1	
Steel 12Cr18Ni9Ti GOST 5632-72			

Copied by

Format A4

AK-630 108-25

Approved OGMet
 Orig. Inv. No.
 Sign and Date
 Approved TOsb
 Alternate Inv. No.
 Dupl. Inv. No.
 Sign and Date
 Approved KTONI
 Sign and Date
 Approved by shop
 Reference No.
 First use



1. Anneal. Remove scales.
2. * Reference dimension
3. Coating 0.15
4. Mark Ш, Ч and stamp K on tag.

					AK-630 108-25		
					Gasket		
					Type	Weight	Scale
					A	0.010	2:1
					Sheet		Sheets 1
					Sheet DPRNM 1.0 M2 GOST 495-92		
Amend.	Sheet	Doc. No.	Sign	Date			
Developed by							
Checked by							
Head of Q.C.D							
Head of Q.C.D							
Approved by							

Copied by

Format A4

First use	Format	Zone	Position	Designation	Nomenclature	Qty.	Remarks
Reference No.	<u>Documents</u>						
	A4			AK-630 Sb 108-4 SB	Assembly drawing		
	<u>Components</u>						
	A3		1	AK-630 108-22	Nut	1	
	A4		2	AK-630 108-25	Gasket	1	
	A4		3	AK-630 108-28	Pipe bend	1	
A4		4	AK-630 108-29	Nipple	1		
A4		5	AK-630 108-30	Pipe	1		
Sign and Date							
Dupl. Inv. No.							
Alternate Inv. No.							
Sign and Date	AK-630 Sb108-4						
	Amend.	Sheet	Doc. No.	Sign	Date		
Orig. Inv. No.	Developed by				Type	Sheet	Sheets
	Checked by				A		1
	Head of Q.C.D				Angular end cap		
	Approved by						

AK-630 Sb 108-4SB

First use

Approved by shop
Reference No.

Approved KTONI

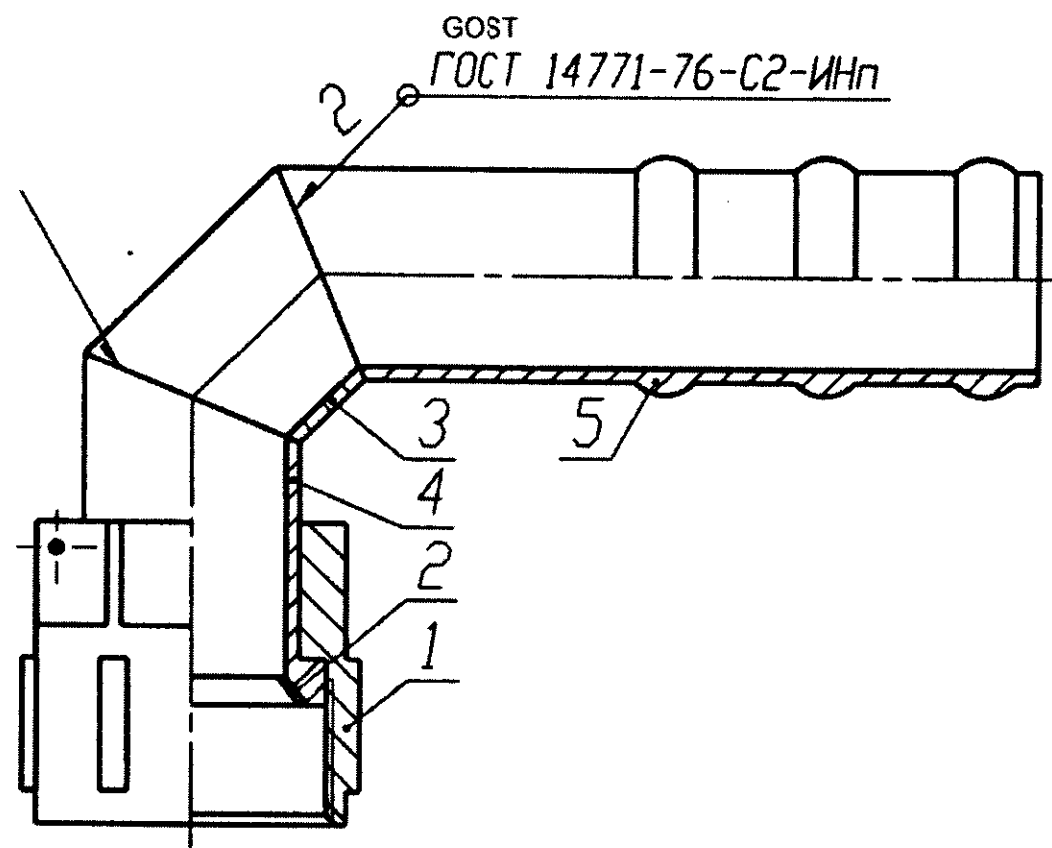
Sign and Date

Approved TOSb

Alternate Inv. No. Dupl. Inv. No.

Sign and Date

Approved OGMet
Orig. Inv. No.



- 1. Argon-arc welding by using filler wire 2 sv -06Cr19Ni9Ti GOST 2246-70.
- 2. Mark Ш, Ч and stamp K on tag.

AK-630 Sb 108-4SB

Amend.	Sheet	Doc. No.	Sign	Date

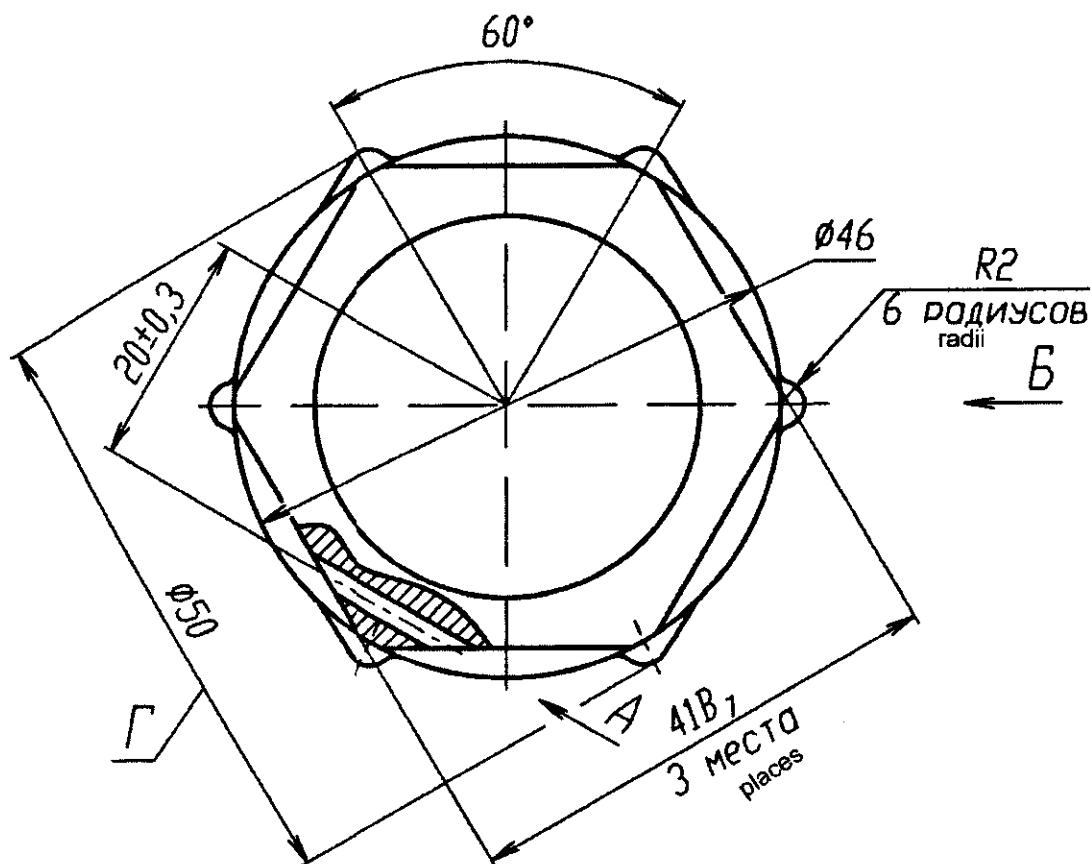
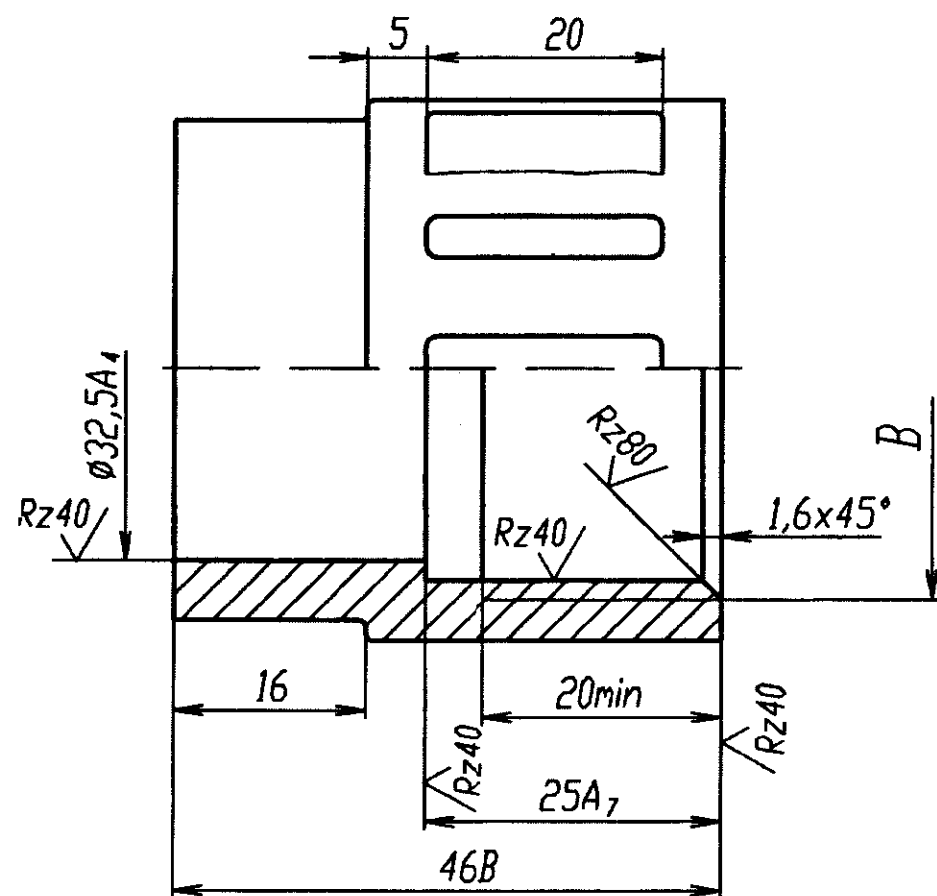
Angular end cap
Assembly drawing

Type	Weight	Scale
A	0.450	1:1
Sheet		Sheets 1

Copied by

Format A4

First use
Reference No.
Sign and Date
Duplicate Inv. No
Sign and Date
Sign and Date
Orig. inv. no.

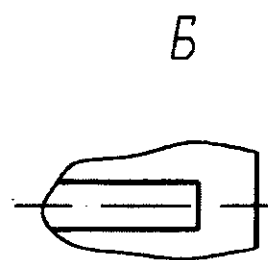
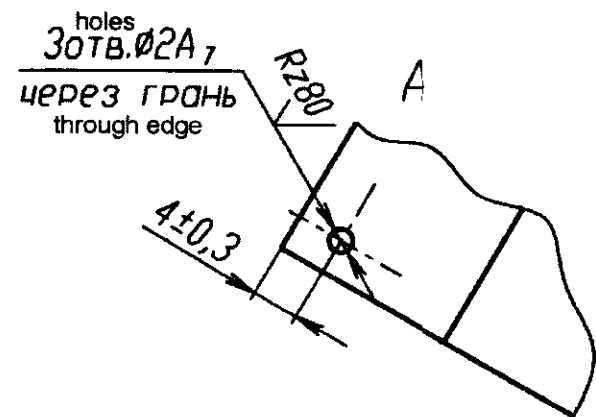


✓ (✓)

1. Casting accuracy 8-0-0-7 GOST 26645-85.
2. Casting radii ~ 1 mm unless otherwise specified.
3. Pattern drift as per GOST 3212-92 toward increase of dimension.
4. Surface finish of casting surfaces as per test specimen.
5. Casting drift on hexagon not permissible.
6. Machining of surface Γ to minimum diameter $\varnothing 49$ mm is permissible.
7. Inner angles $R \sim 0.4$ mm.
8. Blunt sharp edges ~ 0.6 mm.
9. Mark Ш, Ч, П and stamp K on tag.

Comment:

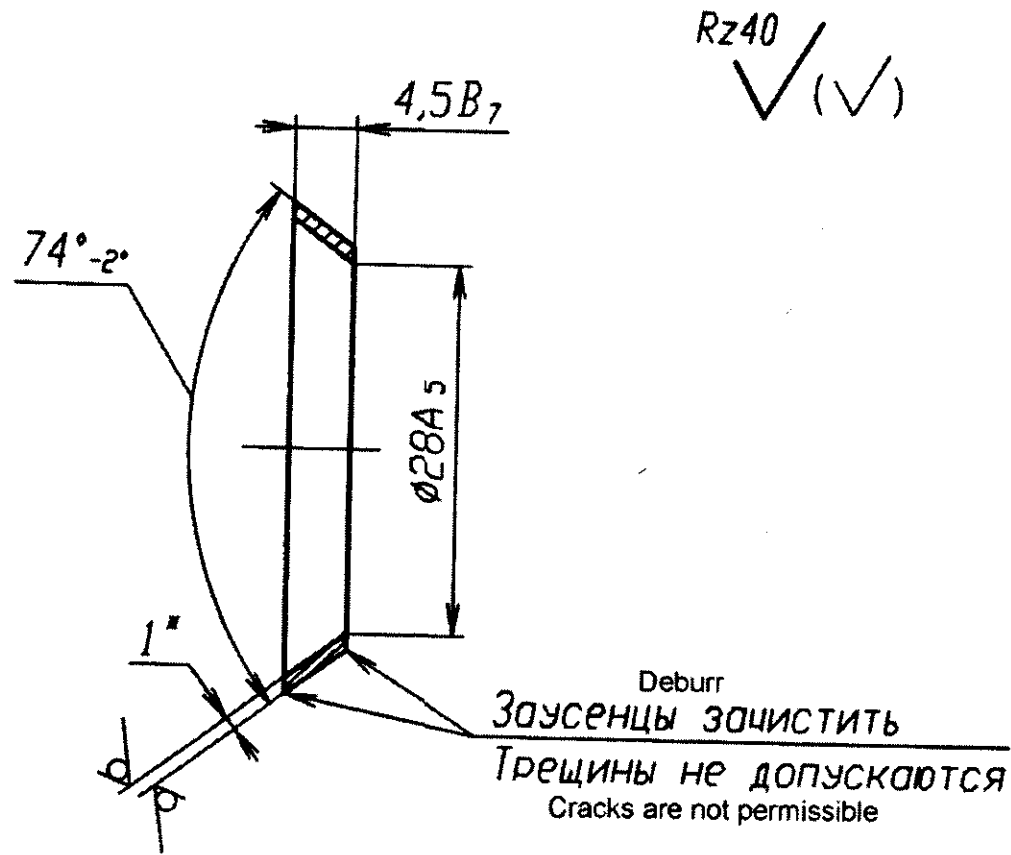
Component No.	Dimension V
108-22	M39x2-6G
108-27	M42x2-6G



AK-630 108-22; 108-27					Type	Weight	Scale	
Amend.	Sheet	Doc.No.	Sign	Date	Nut	A	0.13	2:1
Developed by	Checked by	Head of Q.C.D	Approved by	Sheet				
Casting					IOST3 - 4365 - 79 12Cr18Ni9TiLGOST977 - 88			

AK-630 108-25

Approved OGMet
 Orig. Inv. No.
 Sign and Date
 Approved TOsb
 Alternate Inv. No. Dupl. Inv. No.
 Sign and Date
 Approved KTONI
 Sign and Date
 Approved by shop
 Reference No.
 First use



1. Anneal. Remove scales.
2. * Reference dimension
3. Coating 0.15
4. Mark Ш, Ч and stamp K on tag.

Sign and Date					AK-630 108-25		
Amend.	Sheet	Doc. No.	Sign	Date	Type	Weight	Scale
					Gasket	A	0.010 2:1
						Sheet	Sheets 1
Developed by					Sheet DPRNM 1.0 M2 GOST 495-92		
Checked by							
Head of Q.C.D							
Head of Q.C.D							
Approved by							

Copied by

Format A4

First use

Reference No.

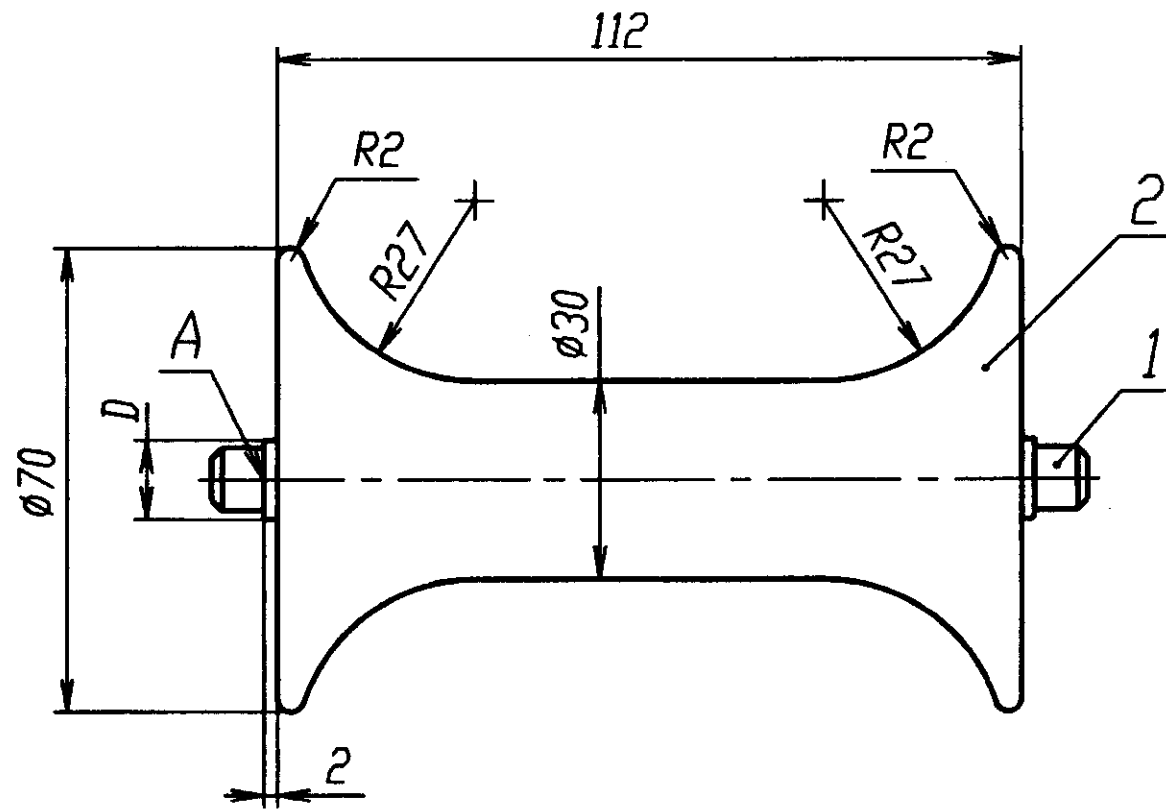
Duplicate Inv. No

late Inv. No

A

Sign and Date

Orig. inv. no.



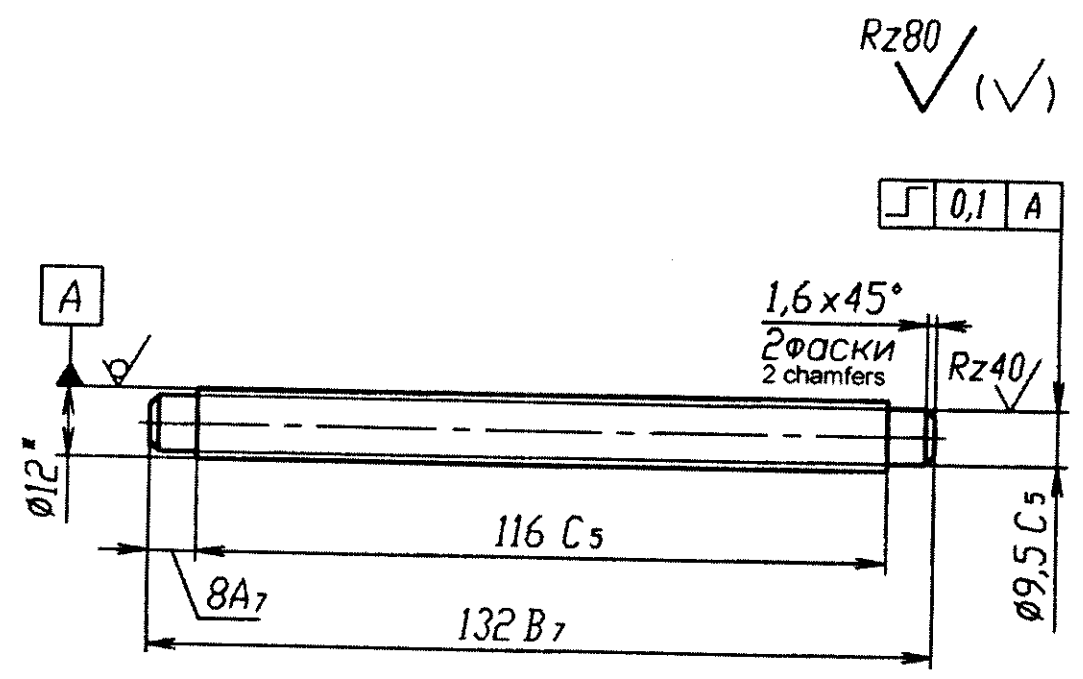
1. Surface finish of form shaping surfaces of press mould $0.32\sqrt{\text{ }}$.
2. Deposits of phenol plastic on diameter D up to 0.3 mm are permissible.
3. Marks of phenol plastic on surface A not permissible.
4. Other technical requirements as per OST 4.GO.005.051.
5. Mark Ш, Ч and stamp K on tag as per AK-630, AK-630M TU I.

Comment:

					AK-630 Sb 108-5 SB				
					Roller Assembly drawing		Type	Weight	Scale
Amend.	Sheet	Doc.No.	Sign	Date			A	0.250	1:1
Developed by							Sheet	Sheets	1
Checked by									
Head of Q.C.D									
Approved by									

AK-630 108-39

Approved by shop Reference No.
 Approved KTONI Sign and Date
 Approved TOSB Dupl. Inv. No.
 Alternate Inv. No.
 Approved OGMet Orig. Inv. No.
 Sign and Date



1. 38..44.5 HRC_E. Check hardness on 3-5% of the batch.
2. * Reference dimension
3. Blunt sharp edges ≈ 0.4 mm.
4. Coating Cd12.Phos.Oil.
5. Mark Ш, Ч and stamp K, И on tag.

Amend.	Sheet	Doc. No.	Sign	Date

AK-630 108-39			
Pin	Type	Weight	Scale
	A	0.085	1:1
	Sheet	Sheets 1	
Round bar $12 - 5GOST7417 - 75$			
40Kh - T - V GOST1051 - 73			

First use

Reference No.

Sign and Date

Duplicate Inv. No

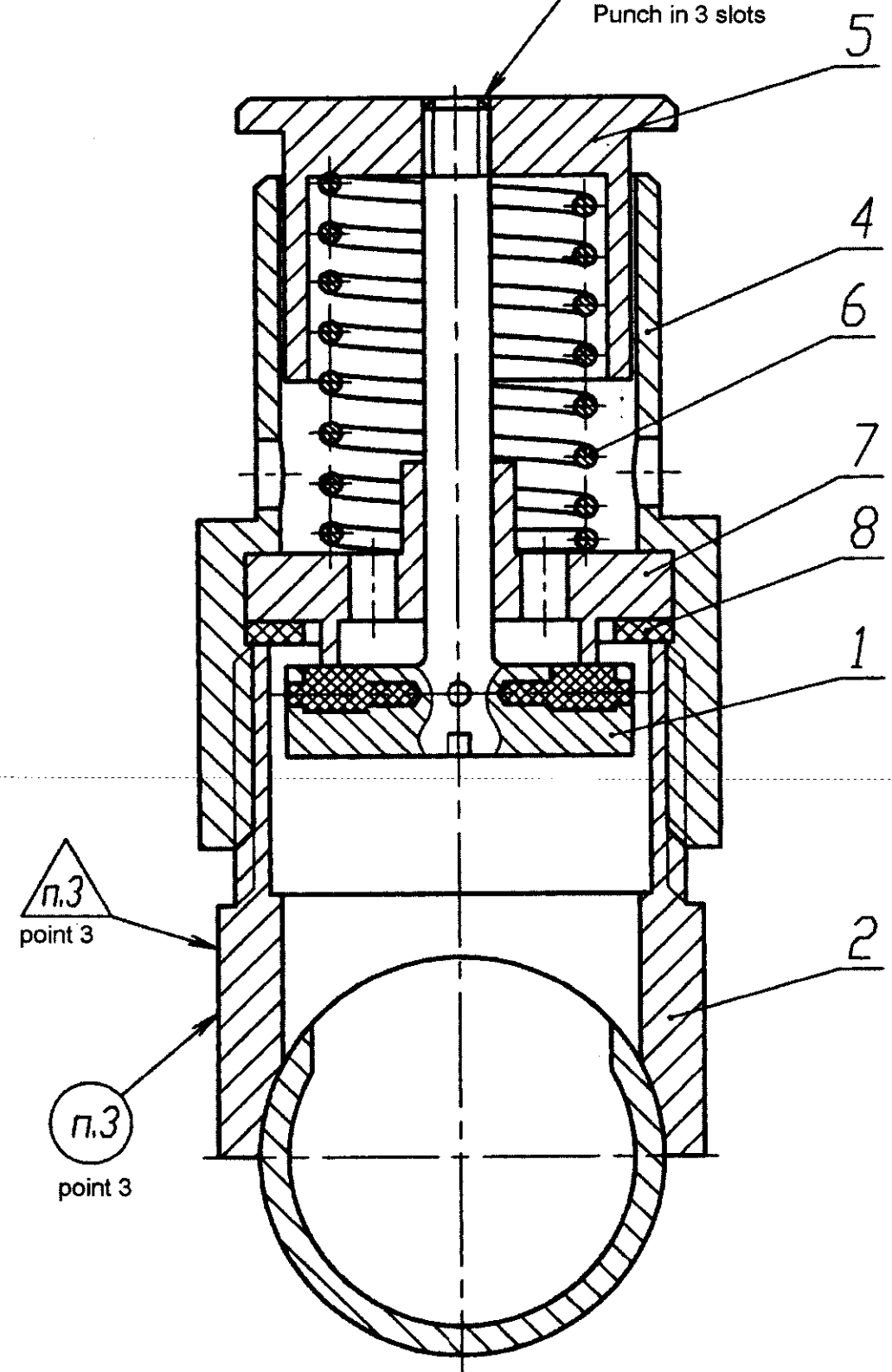
mate Inv. No

Sign and Date

Org. inv. no.

КЕРНИТЬ В 3-Х ТОЧКАХ

Punch in 3 slots

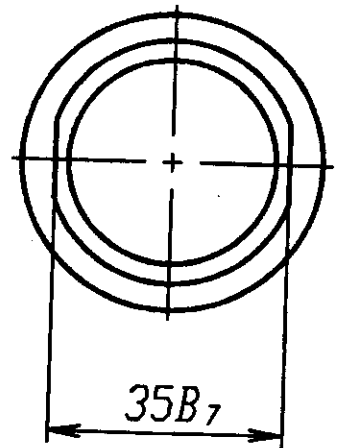
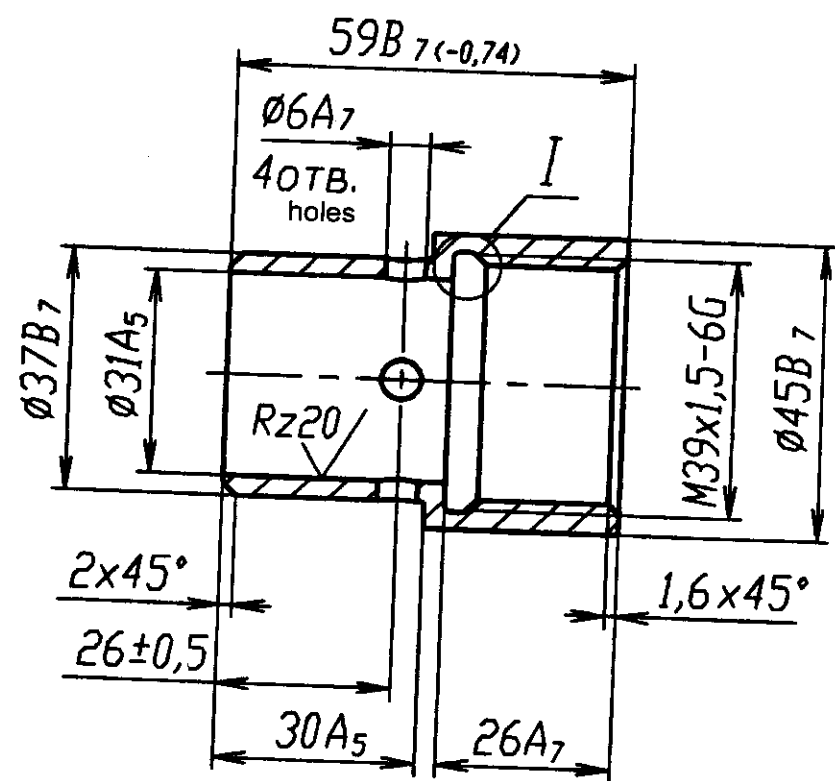


1. Check valve at positive pressure $P = 0.6 \text{ MPa}$ (6 kgf/cm^2) for five minutes. Leakage of cooling liquid is not permissible.
2. Lubricate all friction parts with lubricant MS-70, GOST 9762-76.
3. Mark Ш, Ч and stamp K as per AK-630, AK-630M TU I.

Comment:

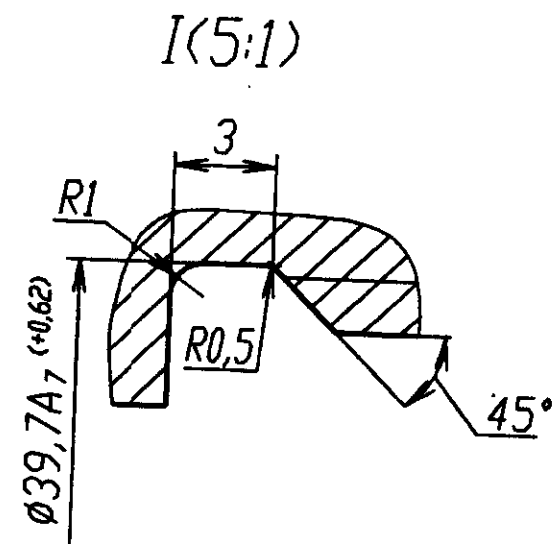
					AK-630 Sb 108-6 SB		
					Valve Assembly drawing		
Amend.	Sheet	Doc.No.	Sign	Date	Type	Weight	Scale
					A	0.680	2:1
Developed by							
Checked by							
					Sheet	Sheets	1
Head of Q.C.D							
Approved by							

Rz80
✓ (✓)



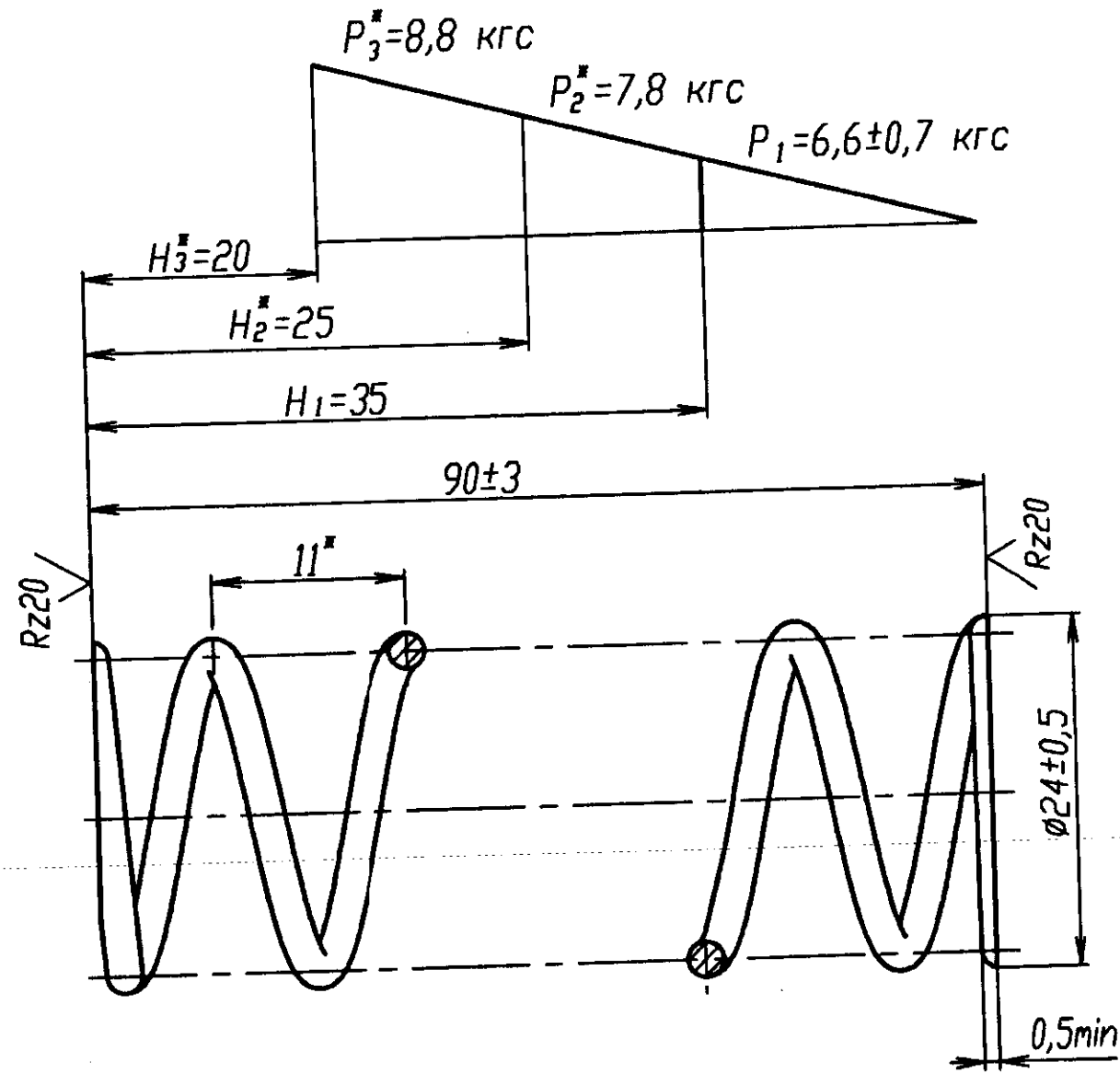
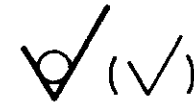
1. Inner angles R~0.4 mm.
2. Blunt sharp edges ~0.4 mm.
3. Coating Anodic Passivation.B.
4. Mark Ш,Ч and stamp K on tag.

Comment:



					AK-630 108-43			
Amend.	Sheet	Doc.No.	Sign	Date	Valve body	Type	Weight	Scale
Developed by						A	0.160	1:1
Checked by						Sheet	Sheets	1
Head of Q.C.D					Steel 12Cr18Ni9Ti GOST 5632-72			
Approved by								

Orig. inv. no. / Sign and Date / Date Inv. No / Duplicate Inv. No / Sign and Date / Reference No. / First use



1. Group I.
2. $G^* = 8000 \text{ khf/mm}^2$; $\tau_3^* = 94 \text{ kgf/mm}^2$.
3. Length of uncoiled spring $L^* = 735 \text{ mm}$.
5. Coiling direction- left.
6. $n = 8$.
7. $n_1 = 10 \pm 0.5$.
8. Heat treatment- tempering $240^\circ\text{-}260^\circ\text{C}$.
9. $D_s = 19C_5$.
10. Pre deformation time (at N_2) 24 hours.
11. Coating Chem.phos.accel Cr.. Lacquer BF-4 with Nigrozene two coats, made as per OST3-4123-78, IV, OMG.
12. Mark Ш, Ч and stamp K on tag.
13. Other technical requirements as per GOST 16118-70.

Comment:

First use
Reference No.
Sign and Date
Duplicate Inv. No.
Date Inv. No.
Sign and Date
Orig. inv. no.

					AK-630 108-45			
Amend.	Sheet	Doc.No.	Sign	Date	Spring	Type	Weight	Scale
Developed by						A	0.017	2:1
Checked by						Sheet	Sheets	1
Head of Q.C.D					Wire V-1-1.8 GOST 9389-75			
Approved by								

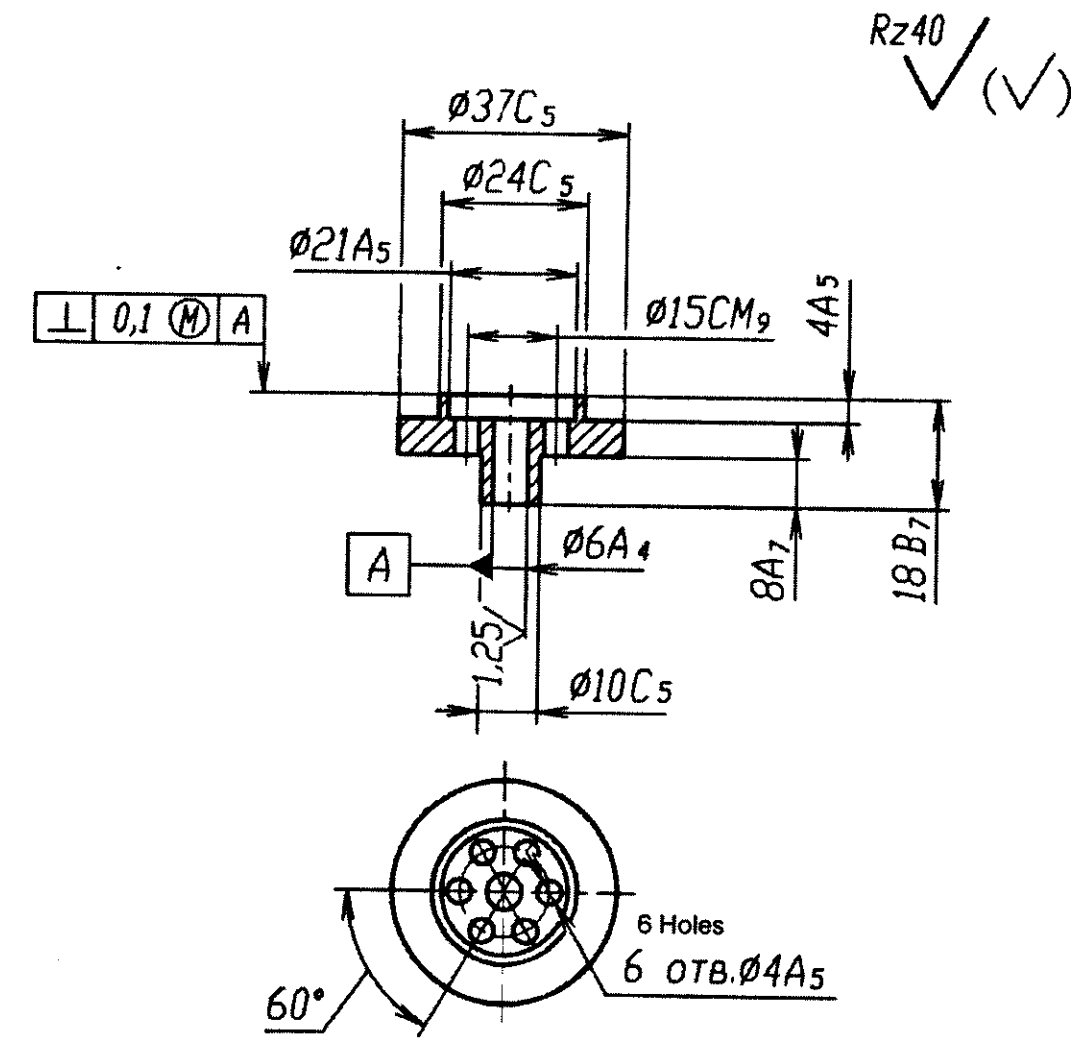
AK-630 108-44					
Approved by shop	Reference No.				
Approved KTONI	Sign and Date				
Approved TOsb	Alternate Inv. No.	Dupl. Inv. No.	<p>1.* Reference dimension 2.Inner angles R ≈ 0.4 mm. 3.Blunt sharp edges ≈ 0.2 mm. 4. Coating Anodic Oxi Cr. Lacquer BF-4 with Nigrosine 2 coats, made as per OST 3-4123-78, IV, OM2, except thread. 5. Mark Ш, Ч and stamp K as per AK-630, AK-630M TU I.</p>		
Sign and Date	Sign and Date	Sign and Date			
Approved OGMet	Orig. Inv. No.	Head of Q.C.D	AK-630 108-44		
Head of Q.C.D	Amend.	Sheet	Doc. No.	Sign	Date
Approved by	Cap		Type	Weight	Scale
Head of Q.C.D			A	0.028	1:1
Head of Q.C.D			Sheet	Sheets 1	
Approved by	Bar D16T KR 38				
Approved by	GOST 21488-97				

Copied by

Format A4

AK-630 108-46

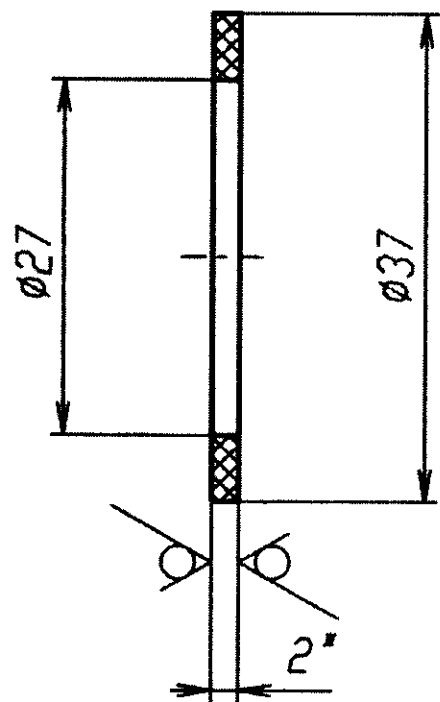
Approved by shop
Reference No.
Approved KTONI
Sign and Date
Approved TOSb
Dupl. Inv. No.
Sign and Date
Approved OGMet
Orig. Inv. No.
Sign and Date



1. Inner angles $R \approx 0.4$ mm.
2. Blunt sharp edges ≈ 0.2 mm.
3. Mark Ш, Ч and stamp K on tag.

AK-630 108-46				
Amend.	Sheet	Doc. No.	Sign	Date
Mesh				
Type		Weight	Scale	
A		0.050	1:1	
Sheet			Sheets 1	
Br AZhMts 10-3-1.5 GOST 18175-78				

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AK-630 108-47																														
Approved by shop	Reference No.																													
Approved KTONI	Sign and Date																													
Approved TOsb	Dupl. Inv. No.	<p>1.* Reference dimension 2.Mark Ш, Ч and stamp K on tag.</p>																												
Alternate Inv. No.	Sign and Date																													
Approved OGMet	Orig. Inv. No.			AK-630 108-47																										
Amend.	Sheet	Doc. No.	Sign	Date	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2"></td> <td style="text-align: center;">Type</td> <td style="text-align: center;">Weight</td> <td style="text-align: center;">Scale</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: center;">A</td> <td style="text-align: center;">0.003</td> <td style="text-align: center;">2:1</td> </tr> <tr> <td colspan="2"></td> <td colspan="2" style="text-align: center;">Sheet</td> <td style="text-align: center;">Sheets 1</td> </tr> <tr> <td colspan="2"></td> <td colspan="3" style="text-align: center;">Washer</td> </tr> <tr> <td colspan="2"></td> <td colspan="3" style="text-align: center;">Band F-4 PN 2.0x50 GOST 24222-80</td> </tr> </table>			Type	Weight	Scale			A	0.003	2:1			Sheet		Sheets 1			Washer					Band F-4 PN 2.0x50 GOST 24222-80		
		Type	Weight	Scale																										
		A	0.003	2:1																										
		Sheet		Sheets 1																										
		Washer																												
		Band F-4 PN 2.0x50 GOST 24222-80																												
Developed by																														
Checked by																														
Head of Q.C.D																														
Head of Q.C.D																														
Approved by																														

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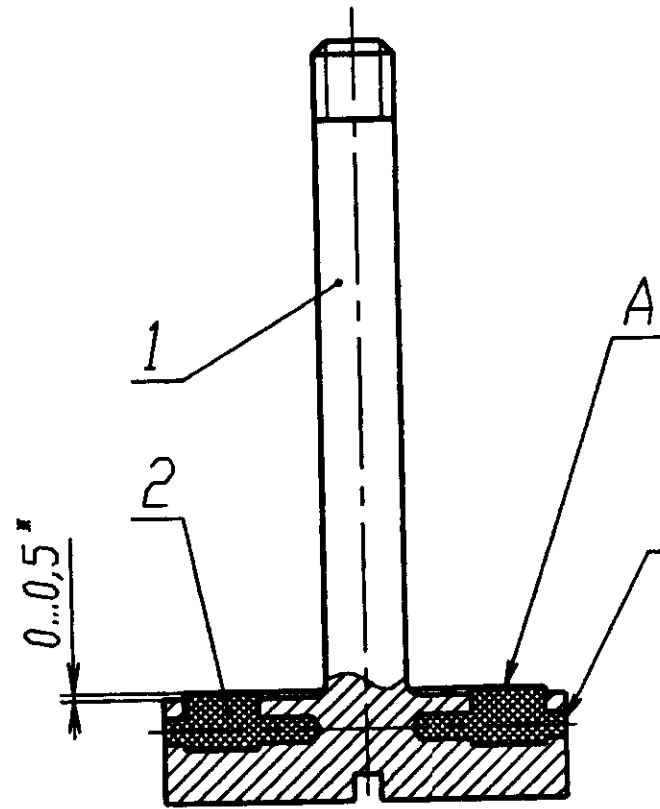
Format A4

First use		Format	Zone	Position	Designation	Nomenclature	Qty.	Remarks	
Reference No.		<u>Documents</u>							
		A3	/		AK-630 Sb 108-9 SB	Assembly drawing			
Reference No.		<u>Components</u>							
		A3	/	1	AK-630 108-49	Piston	1		
Reference No.		<u>Material</u>							
				2		Rubber stock V-14 NTA TU 38 0051166-98	0.03	kg.	
Sign and Date									
Dupl. Inv. No.									
Alternate Inv. No.									
Sign and Date									
Orig. Inv. No.									
Sign and Date									
							AK-630 Sb108-9		
		Amend.	Sheet	Doc. No.	Sign	Date			
		Developed by					Type	Sheet	Sheets
		Checked by					A		1
		Head of Q.C.D					Piston		
		Approved by							

AK-630 Sb 108-9 SB

First use

Reference No.



- 1.* Dimension ensured by tool.
2. Strengthen the rubber during vulcanization with adhesive Leikonate TU 6-14-94-85, it is permissible to join with adhesive Leikonate TU 2473-002-36733310-98.
3. Surface A should be without burrs and dents. Mechanical polishing for removal of fins permissible.
4. Surface finish of shape forming surfaces of press mould $0.32\sqrt{\text{ }}$.
5. Mark Ш,Ч and stamp K on tag.

Comment:

Sign and Date

Duplicate Inv. No

imate Inv. No

Sign and Date

Orig. inv. no.

					AK-630 Sb 108-9 SB			
Amend.	Sheet	Doc.No.	Sign	Date	Piston Assembly drawing	Type	Weight	Scale
Developed by						A	0.220	2:1
Checked by						Sheet	Sheets 1	
Head of Q.C.D								
Approved by								

First use

Reference No.

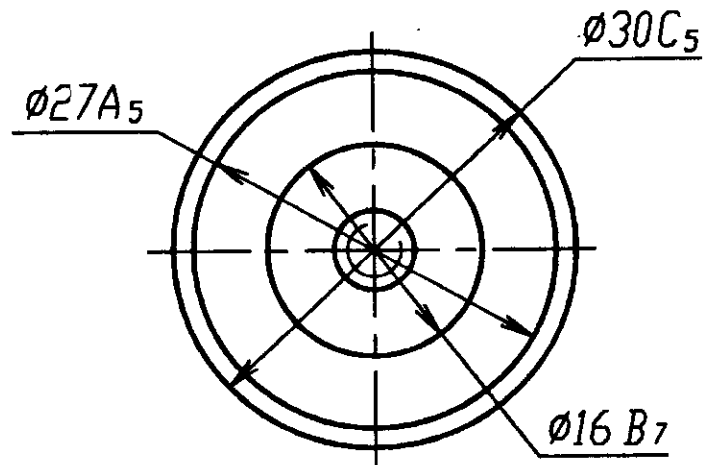
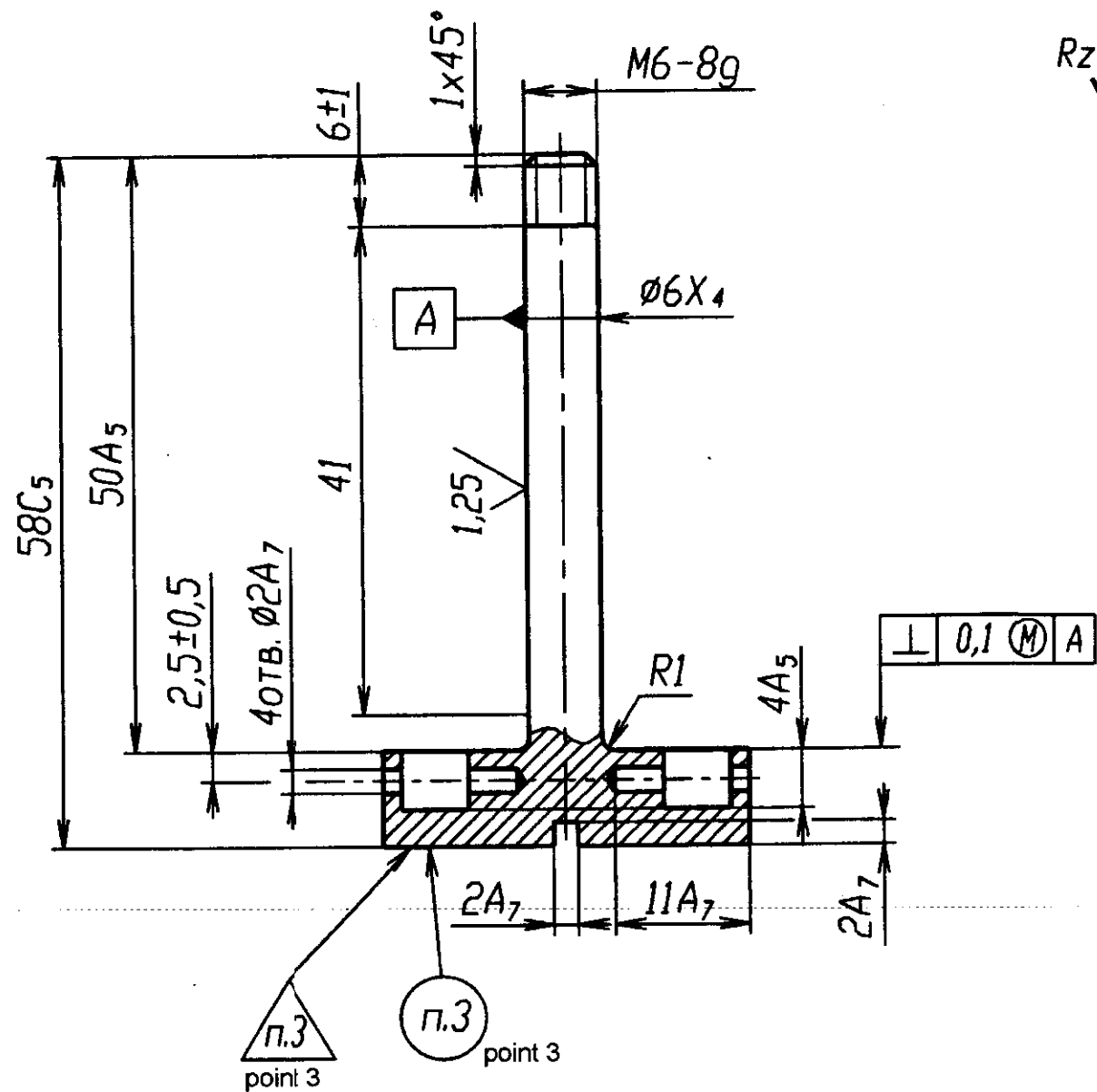
Sign and Date

Duplicate Inv. No.

Rate Inv. No.

Sign and Date

Orig. inv. no.



Rz40 ✓(✓)

⊥ 0,1 M A

Comment:

1. Inner angles R~0.4 mm.
2. Blunt sharp edges ~0.2 mm.
3. Mark Ш,Ч and stamp K as per AK-630, AK-630M TU I.

					AK-630 108-49			
Amend.	Sheet	Doc.No.	Sign	Date	Piston	Type	Weight	Scale
Developed by						A	0.190	2:1
Checked by						Sheet	Sheets	1
Head of Q.C.D					Steel 12Cr18Ni10Ti			
Approved by					GOST 5632-72			

First use

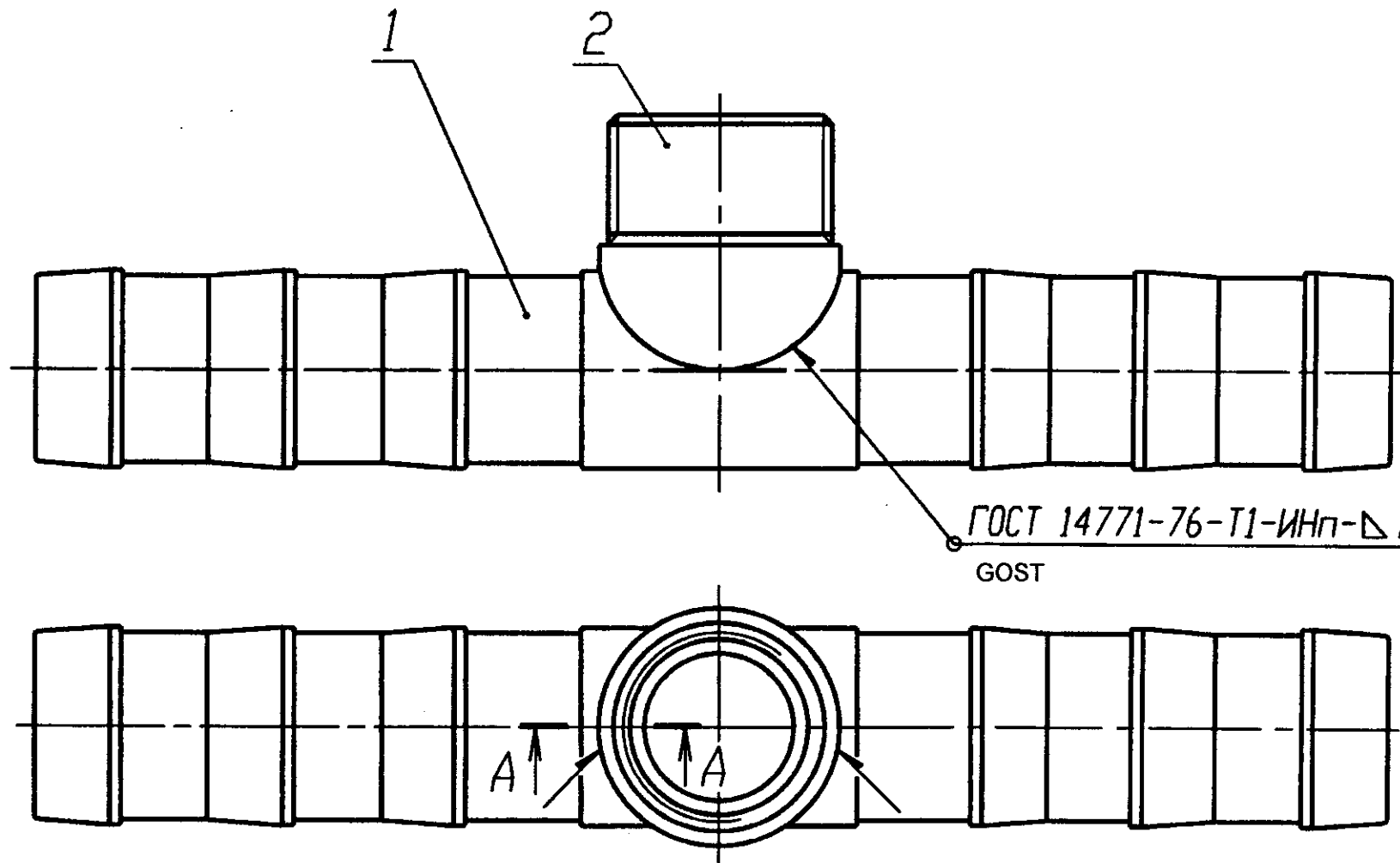
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Duplicate Inv. No. Sign and Date

Rate Inv. No.

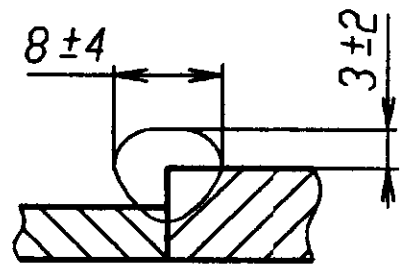
Sign and Date

Orig. inv. no.



ГОСТ 14771-76-Т1-ИИП-Д 2
GOST

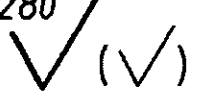
A-A(2:1)

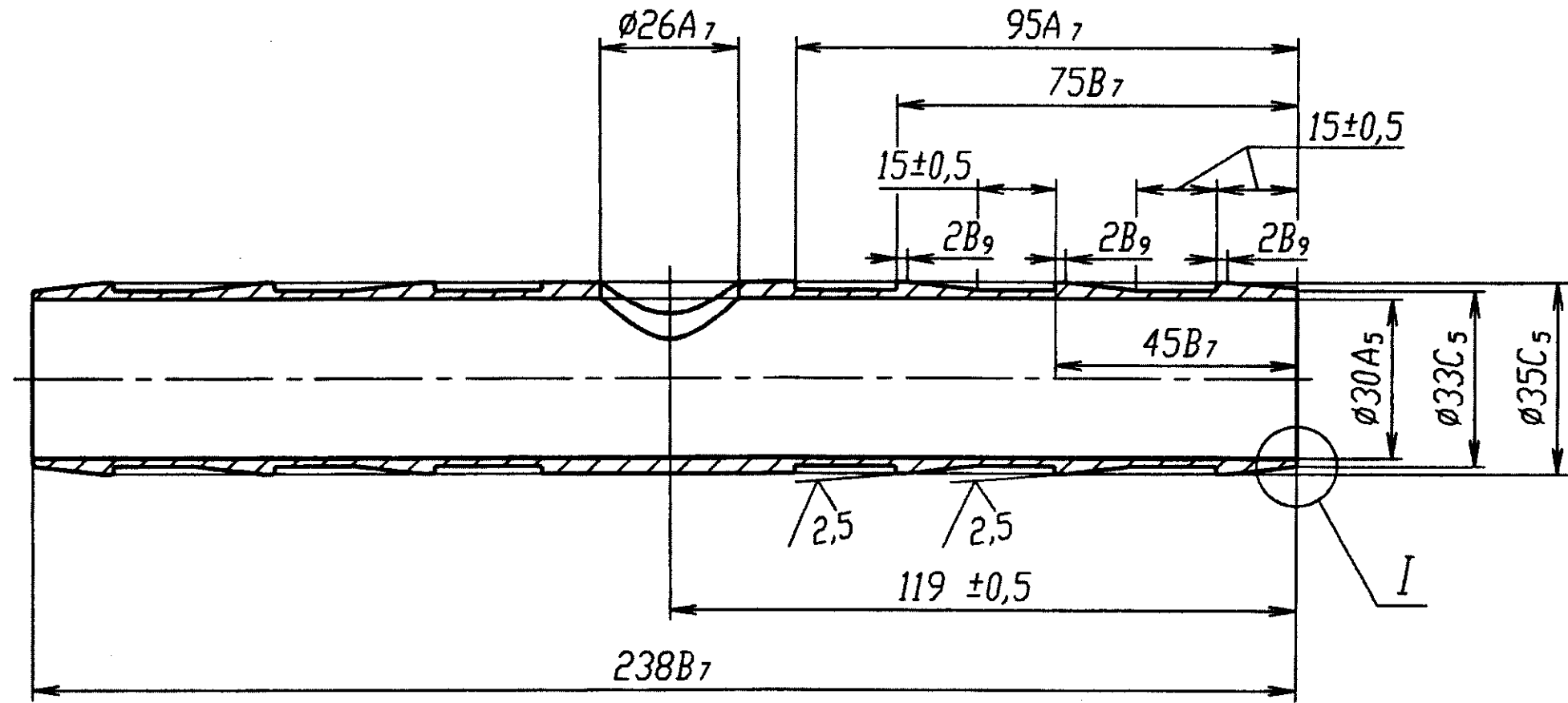


1. Argon-arc welding by using filling wire 2 sv-06Cr19Ni9Ti GOST 2246-70. Check 100% visually.
2. Check welding seam for air tightness with water at pressure $P = 1 \text{ MPa}$ (10 kgf/cm^2) for two minutes. Seepage of water is not permissible.
3. Mark Ш, Ч and stamp K on tag.

Comment:

					AK-630 Sb 108-10 SB			
Amend.	Sheet	Doc.No.	Sign	Date	Tube with branch pipe Assembly drawing	Type	Weight	Scale
Developed by						A	0.390	1:1
Checked by						Sheet	Sheets	1
Head of Q.C.D								
Approved by								

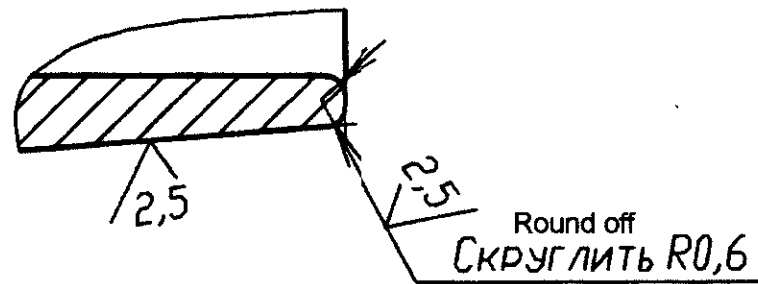
Rz80




Comment:

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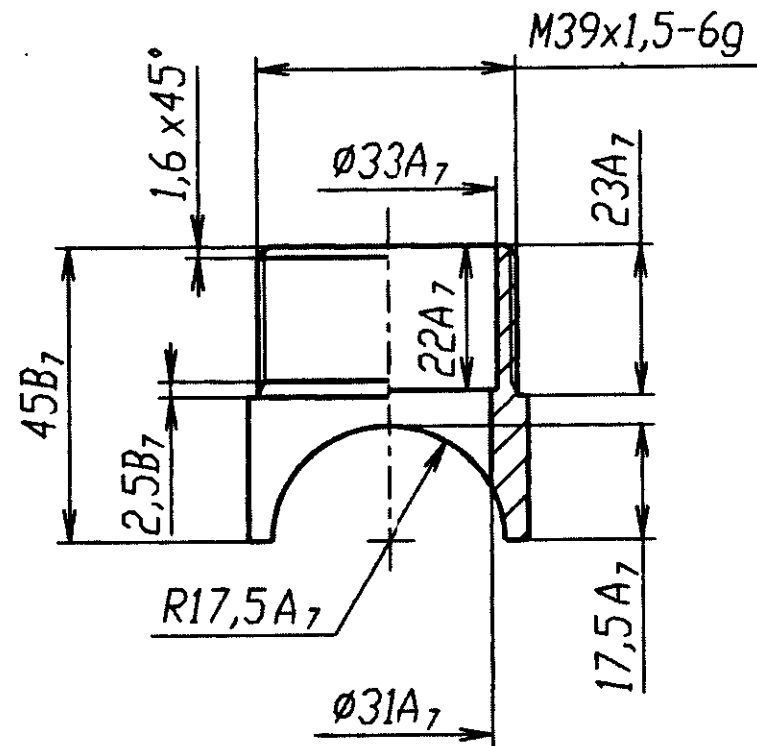
Mark Ш,Ч and stamp K on tag.



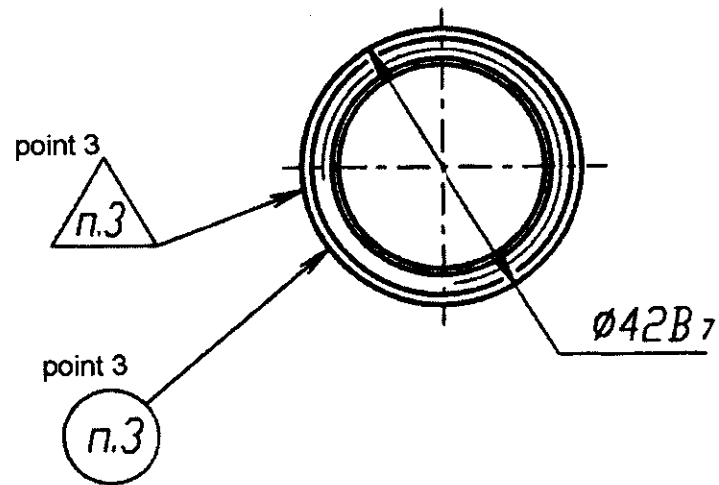
					AK-630 108-51			
Amend.	Sheet	Doc.No.	Sign	Date	Pipe	Type	Weight	Scale
Developed by						A	0.200	1:1
Checked by						Sheet	Sheets	1
Head of Q.C.D					Tube 38x6-12Cr18Ni10Ti			
Approved by					GOST 9941-81			

First use
 Reference No.
 Sign and Date
 Duplicate Inv. No.
 Date Inv. No.
 A.
 Sign and Date
 Orig. inv. no.

Rz80



1. Inner angles R~0.4 mm.
2. Blunt sharp edges ~0.2 mm.
3. Mark Ш,Ч and stamp K as per AK-630, AK-630M TU I.



Comment:

First use
Reference No.
Sign and Date
Duplicate Inv. No
Sign and Date
A late Inv. No
Sign and Date
Orig. inv. no.

					AK-630 108-52			
Amend.	Sheet	Doc. No.	Sign	Date	Branch pipe	Type	Weight	Scale
Developed by						A	0.150	1:1
Checked by						Sheet	Sheets	1
Head of Q.C.D					Steel 12Cr18Ni9Ti GOST 5632-72			
Approved by								