

# GUN & SHELL FACTORY COSSIPORE KOLKATA-700 002

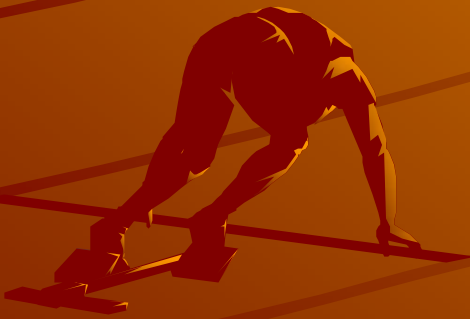


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# WINCH





Format	Zone	Position	Designation	Nomenclature	Qty.	Remarks
A4		13	AK-630-Yu 3-7	Bush	2	
A4		14	AK-630-Yu 3-8	Bush	2	
A4		15	AK-630-Yu 3-9	Bush	2	
A4		16	AK-630-Yu 3-10	Roller	2	
A4		17	AK-630-Yu 3-11	Gasket	2	
A4		18	AK-630-Yu 3-12	Ring	1	
				<u>Standard articles</u>		
		19		Bolt 2M6-8gx30.109.40Cr.029	3	*
				GOST 7805-70		
		20		Nut M6-6G-10.40Cr.029	3	*
				GOST 5919-73		
		21		Nut M10-6G-10.40Cr.029	4	*
				GOST 5919-73		
		22		Washer A6.1.5.25.029	6	
				GOST 11371-78		
		23		Washer A10.25.029	4	
				GOST 11371-78		
		24		Ring V14.65G.Cd.15.Cr.	1	
				GOST 13942-86		
		25		Cotter pin 1.6x12.029	3	
				GOST 397-79		
		26		Cotter pin 2x20.029	4	
				GOST 397-79		
		28		Key 5x5x10	2	*1
				GOST 23360-78		

Sign and Date

Duplicate Inv. No.

Alternate Inv. No.

Sign and Date

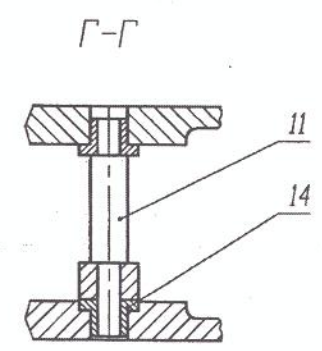
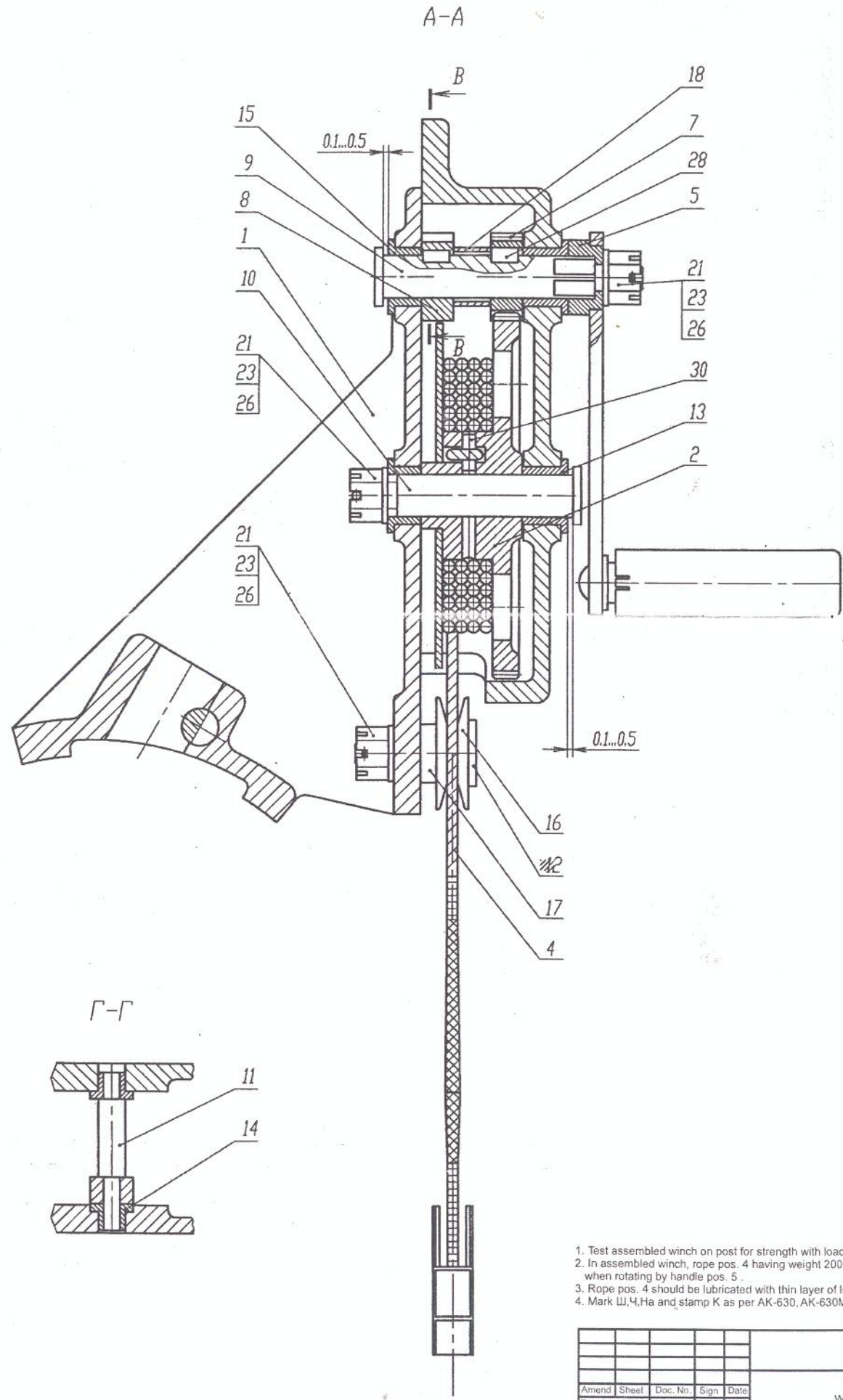
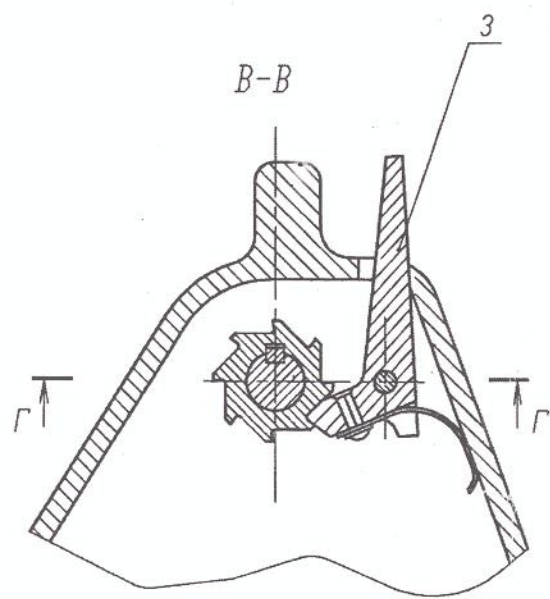
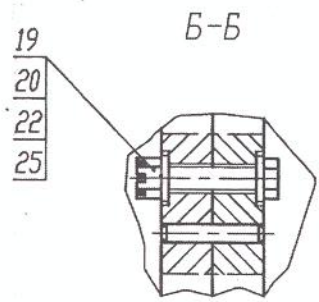
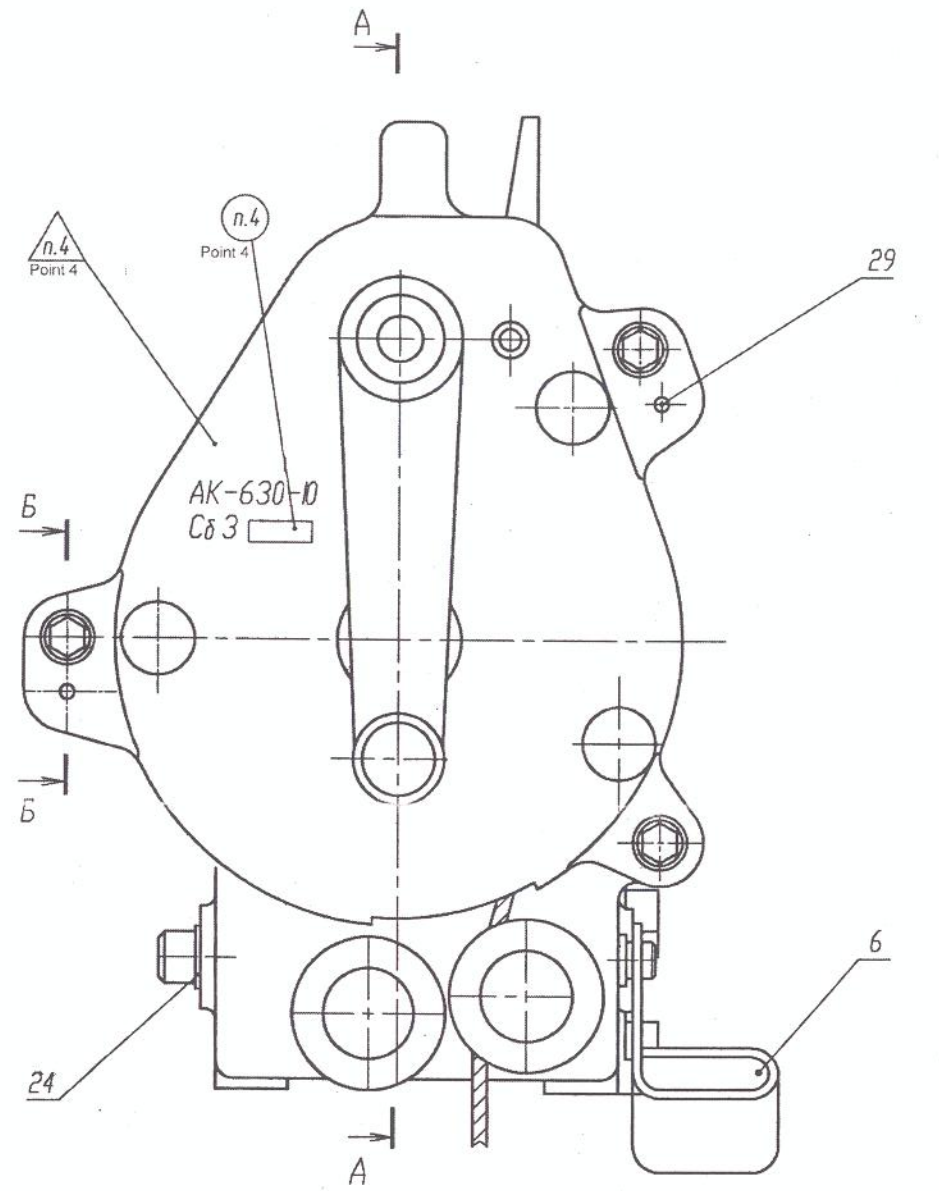
Orig. Inv. No.

Amend.	Sheet	Doc. No.	Sign	Date
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**AK-630 -Yu. Sb 3**

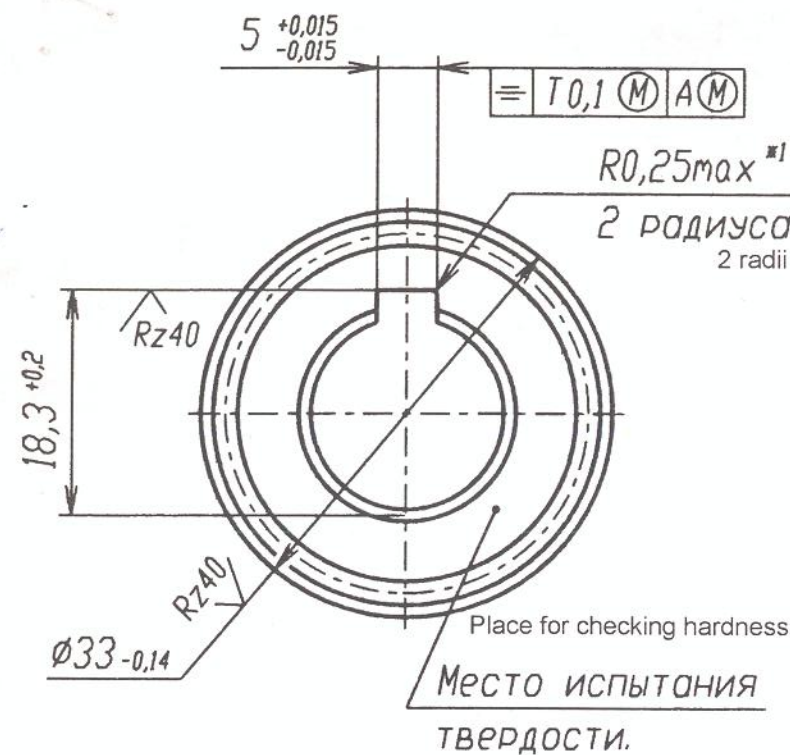
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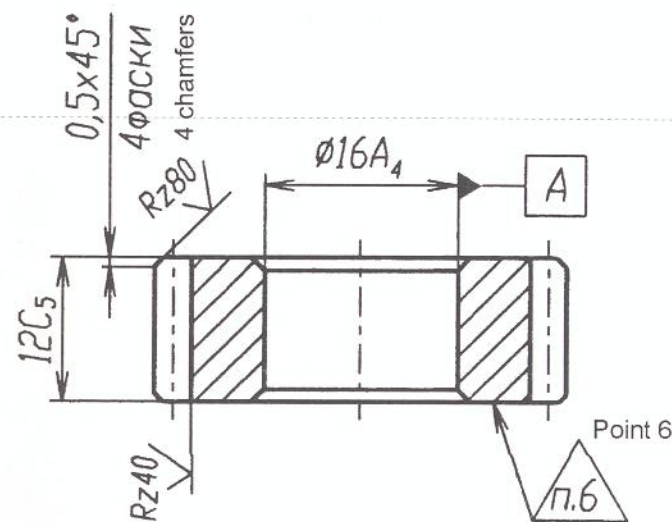


1. Test assembled winch on post for strength with load 500 kg for 5 min, 8 turns of rope.
2. In assembled winch, rope pos. 4 having weight 200 kg should wind in drum without jamming when rotating by handle pos. 5.
3. Rope pos. 4 should be lubricated with thin layer of lubricant MS-70 GOST 9762-76.
4. Mark Ш, Ч, Ha and stamp K as per AK-630, AK-630M Tu 1. Ha- unit no.

					AK-630-Yo Sb 3 Sb		
Amend	Sheet	Doc. No.	Sign	Date	Type	Weight	Scale
Developed by					A	8.25	1:1
					Checked by		Sheet
Technician:							
Head of bureau:							
Head of Q.C.D.							
Approved by							



Module	m	1.5
No. of teeth	Z	20
Basic rack	-	GOST 13755-81
Addendum modification coefficient	X	0
Accuracy grade as per GOST 1643-81	-	St 9-C
Data for checking inter positioning of different profiles of teeth	W	11.49 <sup>-0.088</sup> / <sub>-0.178</sub>
Reference diameter	d	30
Designation of drawing of adjoining wheel	-	1-26



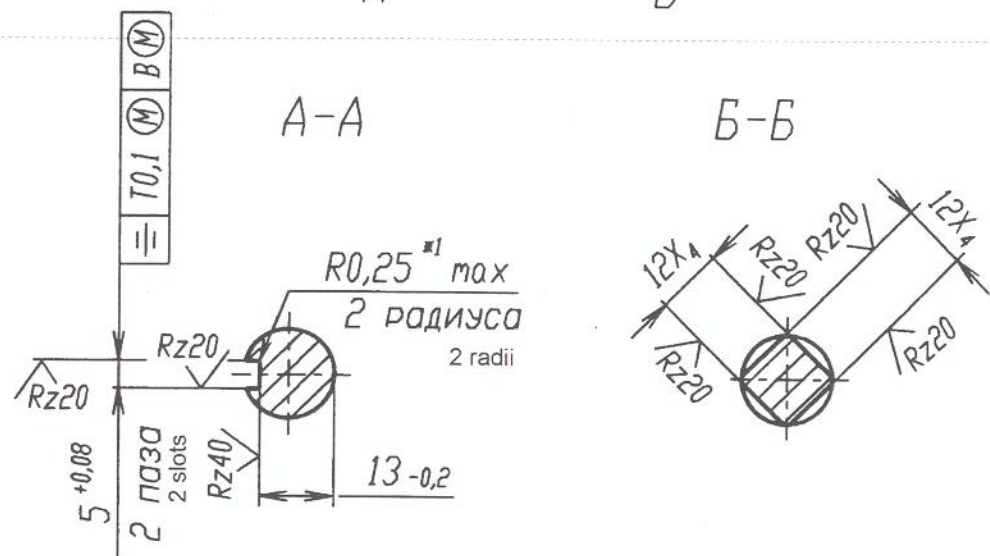
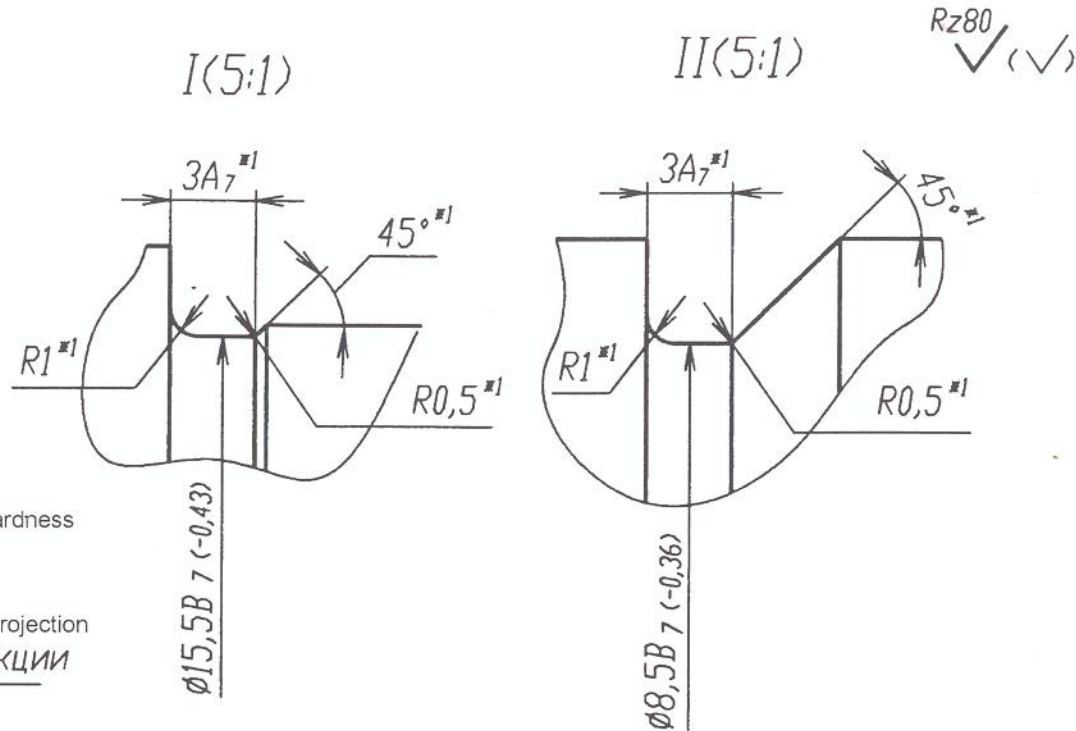
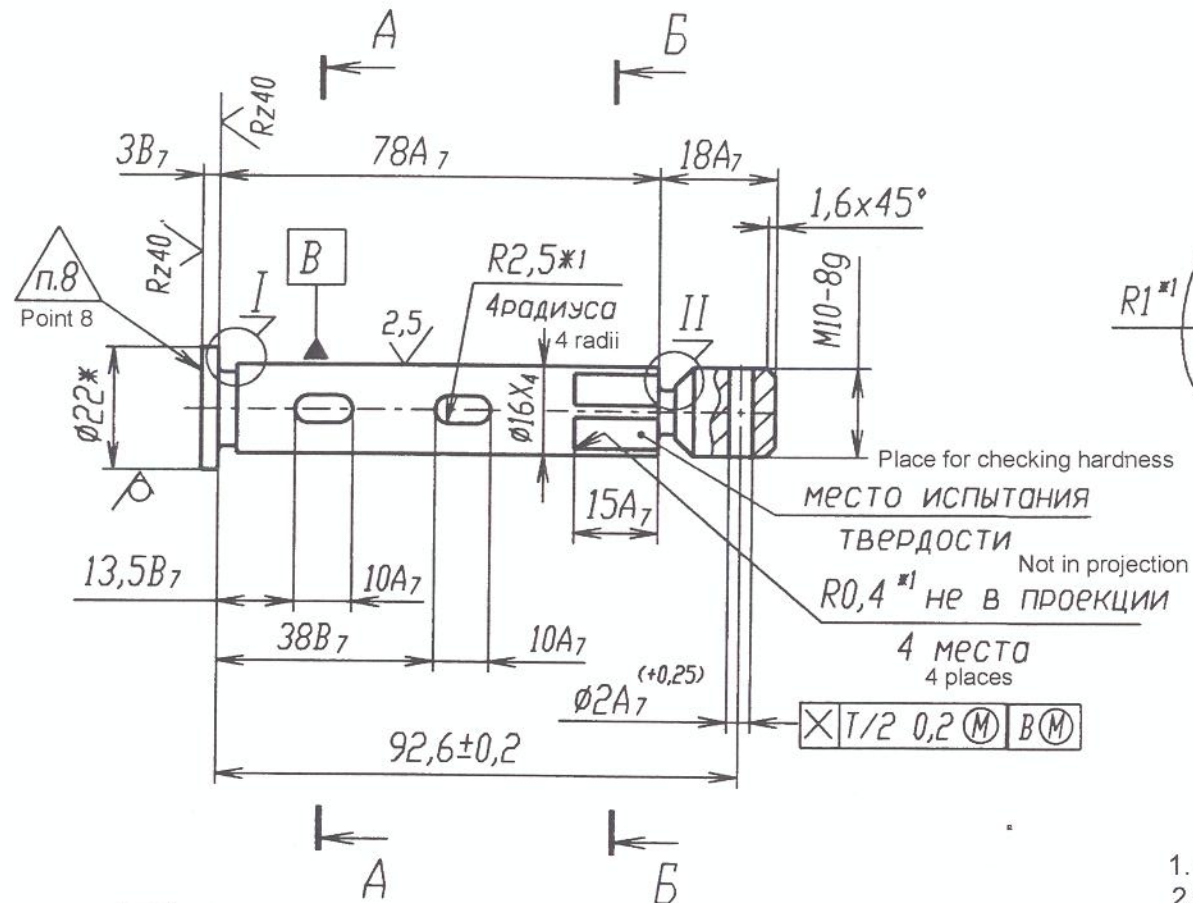
- 39...45 HRC<sub>E</sub>.
- \*1 Dimensions ensured by tool.
- Blunt sharp edges ~0.6 mm.
- Coating Cd12.phos.oil.
- Kind of inspection is selected as per GOST 1643-81 and fixed as per conditions and capacities of the manufacturer.
- Mark Ш, Ч and stamp К, И as per AK-630, AK-630M TU I.

Comment [S32]:

					AK-630 -Yu 3-1			
Amend.	Sheet	Doc.No.	Sign	Date	<b>Pinion</b>	Type	Weight	Scale
Developed by						A	0.060	2:1
Checked by						Sheet	Sheets	1
Head of Q.C.D						Steel 40Kh GOST 4543-71		
Approved by								





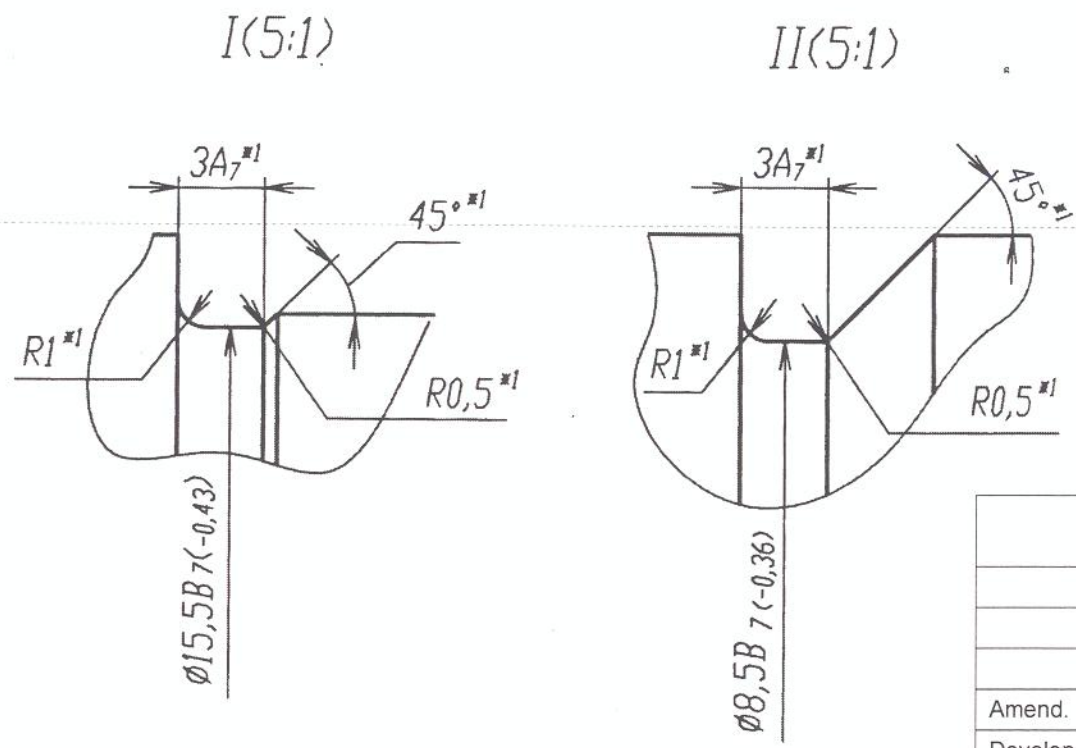
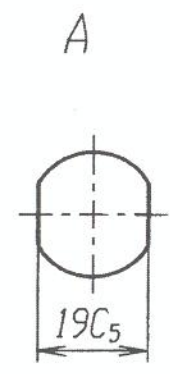
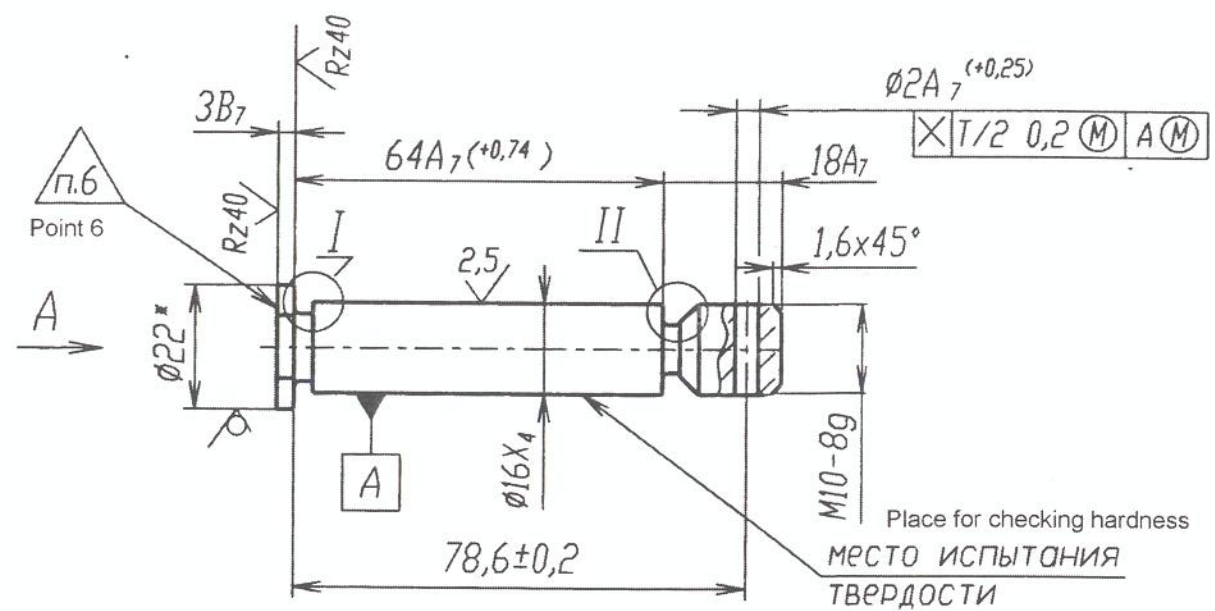


1. 39...45 HRC<sub>E</sub>.
- 2.\* Reference dimension.
- 3.\*1 Dimensions ensured by tool.
4. Blunt sharp edges ~0.6 mm.
5. Position of grooves with each other and with regard to square is arbitrary.
6. Position of holes with respect to square is arbitrary.
- 7.Coating Cd9.phos.oil.
8. Stamp K, И as per AK-630, AK-630M TU I.
9. Mark Ш, Ч on batch tag.

Comment [S34]:

					AK-630 - Yu 3-3			
Amend.	Sheet	Doc.No.	Sign	Date	Pin	Type	Weight	Scale
Developed by						A	0.163	1:1
Checked by						Sheet	Sheets 1	
Head of Q.C.D					Wheel			
Approved by						22 - 5 GOST 7417 - 75 40Kh - T - V GOST 1051 - 73		

Rz80 (✓)



1. 39...45 HRC<sub>E</sub>.
- 2.\* Reference dimension.
- 3.\*1 Dimensions ensured by tool.
4. Blunt sharp edges ~0.6 mm.
- 5.Coating Cd9.phos.oil.
6. Stamp K, II as per AK-630, AK-630M TU I.
7. Mark Ш, Ч on batch tag.

Comment [S35]:

					AK-630 - Yu 3-4			
Amend.	Sheet	Doc.No.	Sign	Date	<b>Pin</b>	Type	Weight	Scale
Developed by						A	0.120	1:1
Checked by						Sheet	Sheets 1	
Head of Q.C.D					Wheel	22 - 5 GOST 7417 - 75		
Approved by						40Kh - T - V GOST 1051 - 73		

First use

Reference No.

Sign and Date

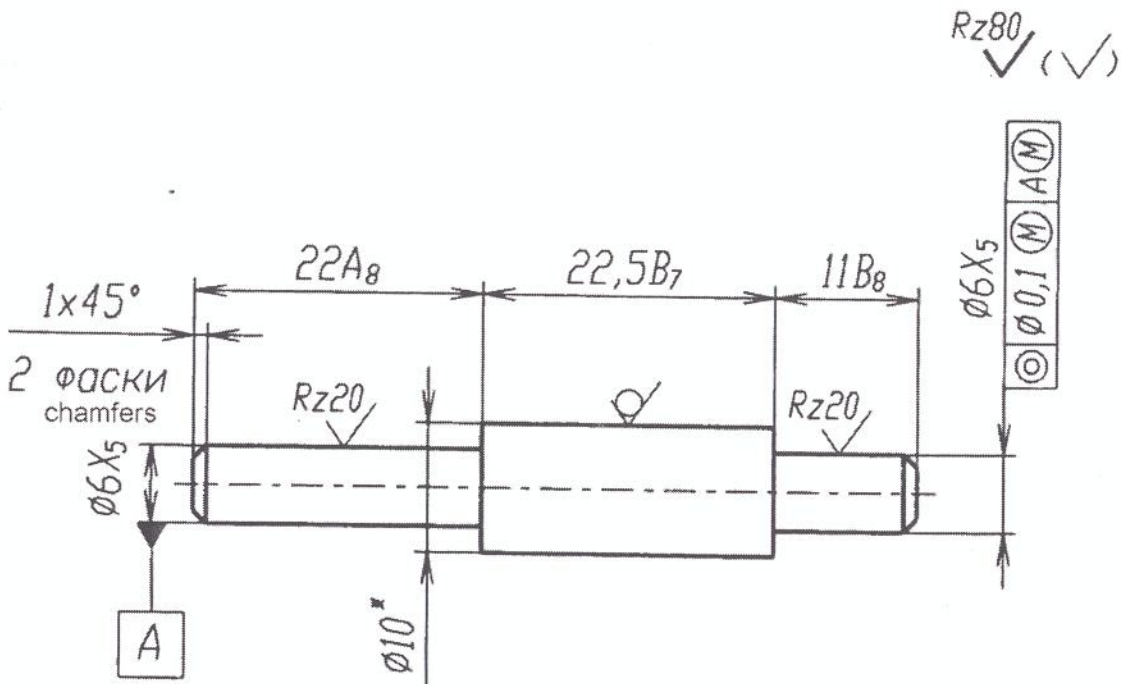
Duplicate Inv. No

Alternate Inv. No

Sign and Date

Orig. inv. no.

AK-630-Yo 3-5



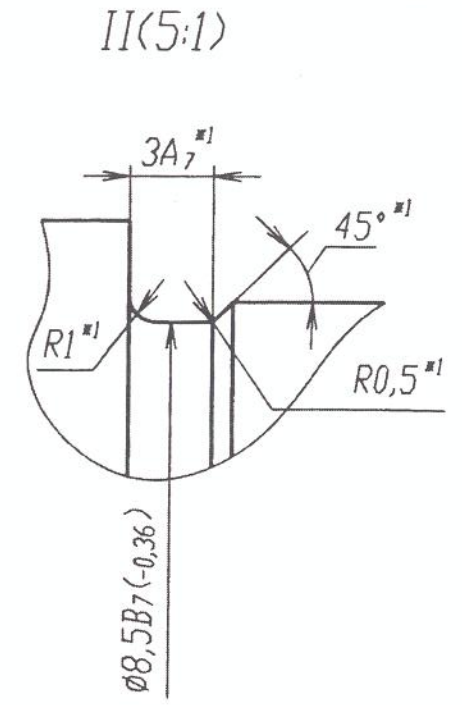
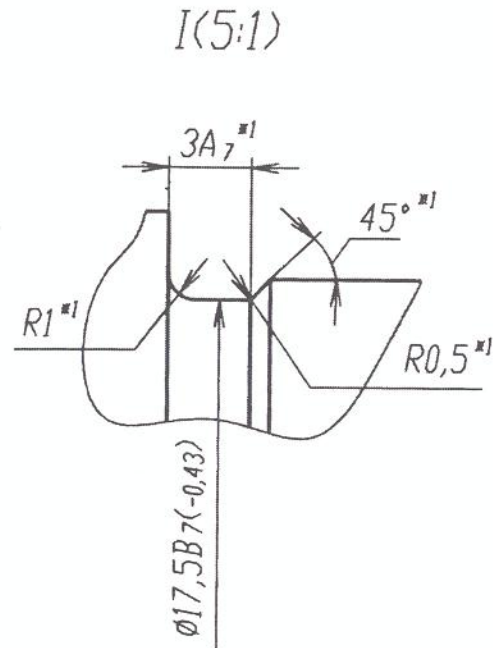
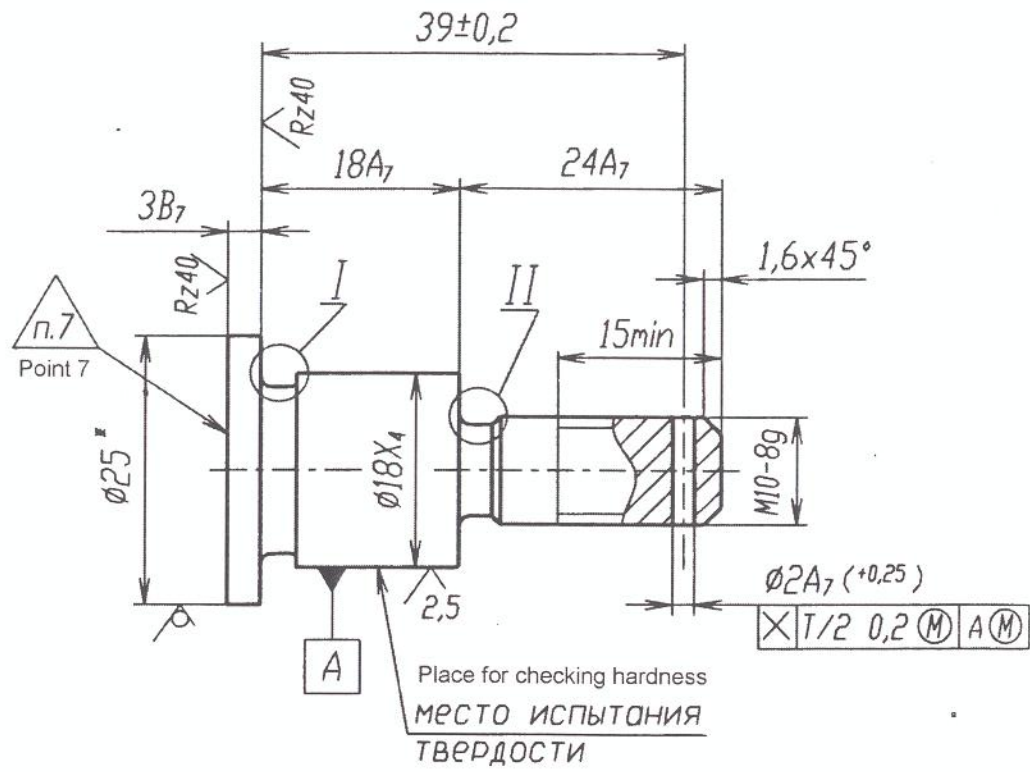
- 39..45 HRC<sub>E</sub>. Check hardness on 3..5% from the batch.
- \* Reference dimension.
- Blunt sharp edges ~0.6 mm.
- Inner angles R~0.4 mm.
- Coating Cd.9 phos. Oil.
- Mark Ш, Ч and stamp K, И on tag.

Approved OGMet	Approved KTONI	Approved by shop	First use
Orig. Inv. No.	Sign and Date	Reference No.	
Alternate Inv. No.	Sign and Date		
Approved T0sb	Sign and Date		
Dupl. Inv. No.	Sign and Date		

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

<b>AK-630-Yo 3-5</b>				
<b>Pin</b>	Type	Weight	Scale	
	A	0.021	2:1	
	Sheet	Sheets 1		
Wheel $\frac{10 - 5GOST7417 - 75}{40Kh - T - VGOST1051 - 73}$				

Rz80 (✓)



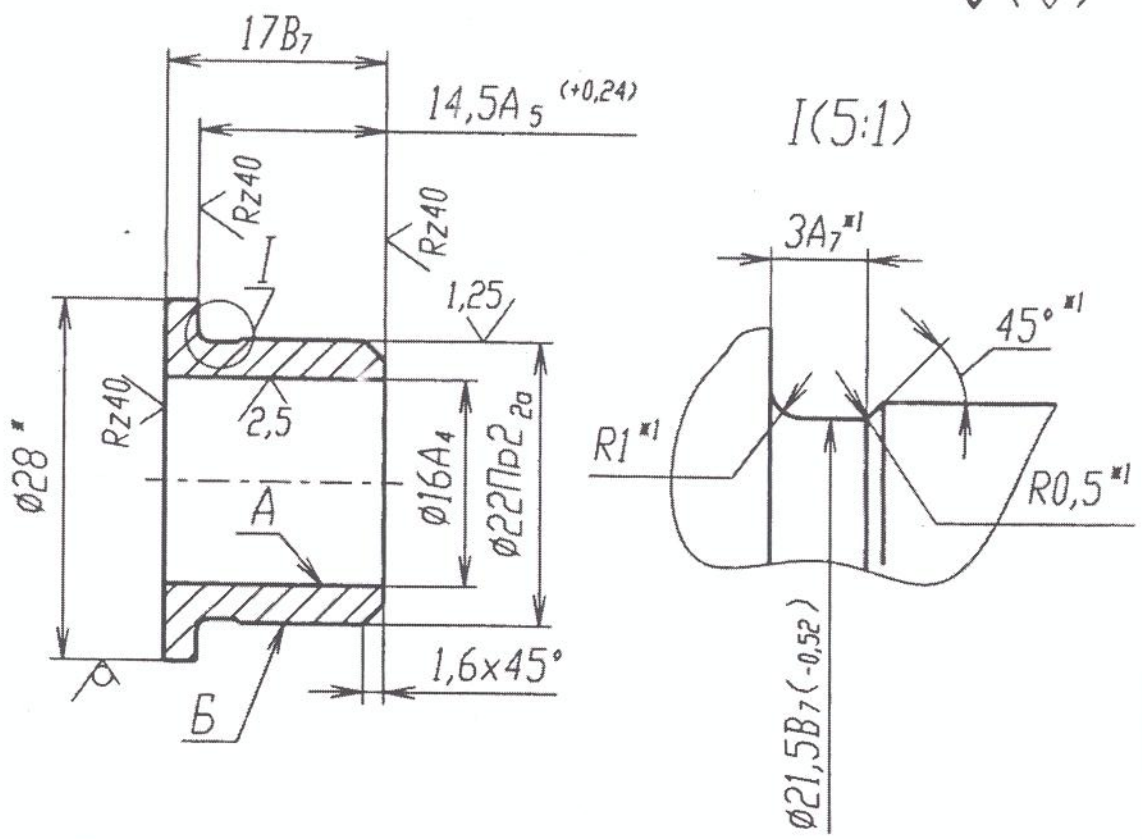
- 39...45 HRC<sub>E</sub>.
- \* Reference dimension.
- \*1 Dimensions ensured by tool.
- Blunt sharp edges ~0.6 mm.
- Coating Cd9.phos.oil.
- Stamp K, И as per AK-630, AK-630M TU I.
- Mark Ш, Ч on batch tag.

Comment [S36]:

					AK-630 - Yu 3-6			
Amend.	Sheet	Doc.No.	Sign	Date	Pin	Type	Weight	Scale
Developed by						A	0.053	2:1
Checked by						Sheet	Sheets 1	
Head of Q.C.D								
Approved by					Wheel	$\frac{25 - V GOST 2590 - 88}{40Kh - 3 - T GOST 4543 - 71}$		

AK-630-Yo 3-7

Rz80 (✓)



1. 39..45 HRC<sub>E</sub>. Check hardness on 3..5% from the batch.
2. \* Reference dimension.
3. \*1 Dimensions ensured by tool.
4. Misalignment of surfaces A and B not more than 0.05 mm (qualified tolerance).
5. Blunt sharp edges ~0.6 mm.
6. Coating Cd.9 phos. Oil.
7. Mark Ш, Ч and stamp K, И on tag.

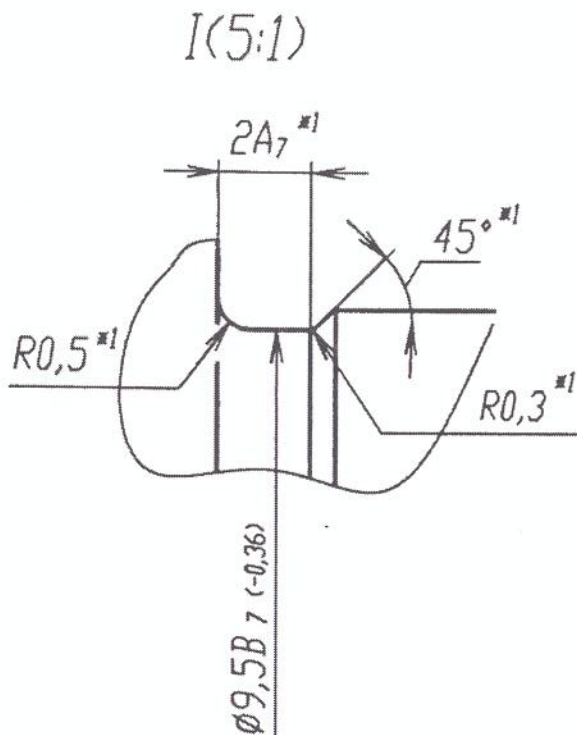
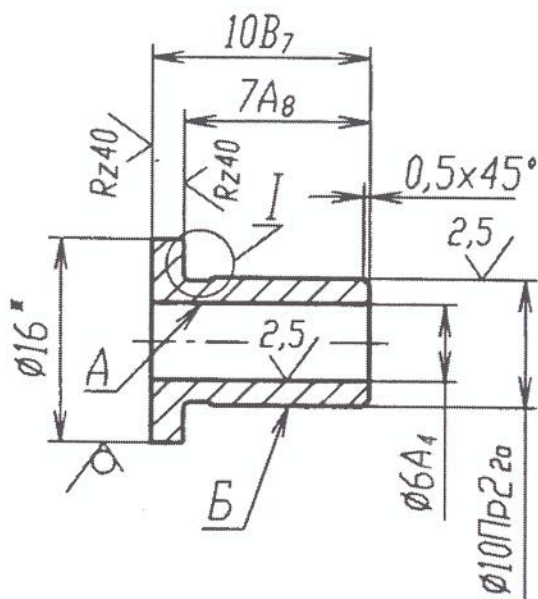
Approved OGMet	Sign and Date	Alternate Inv. No.	Approved TOsb	Dupl. Inv. No.	Sign and Date	Approved KTONI	Reference No.	Approved by shop	First use

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

<b>AK-630-Yo 3-7</b>			
<b>Bush</b>	Type	Weight	Scale
	A	0.03	2:1
	Sheet	Sheets 1	
Wheel	28 - 5GOST7417 - 75		
	40Kh - T - VGOST1051 - 73		

AK-630-Yo 3-8

Rz80 (✓)



1. 39..45 HRC<sub>E</sub>. Check hardness on 3..5% from the batch.
2. \* Reference dimension.
3. \*1 Dimensions ensured by tool.
4. Misalignment of surfaces A and B not more than 0.05 mm.
5. Blunt sharp edges ~0.6 mm.
6. Coating Cd.12 phos. Oil.
7. Mark Ш, Ч and stamp K, И on tag.

AK-630-Yo 3-8

Bush

Type	Weight	Scale
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A	0.007	2:1
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Sheet	Sheets 1
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Wheel  $\frac{16 - 5GOST7417 - 75}{40Kh - T - VGOST1051 - 73}$

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

AK-630-Yo 3-9

First use

Approved by shop

Reference No.

Approved KTONI

Sign and Date

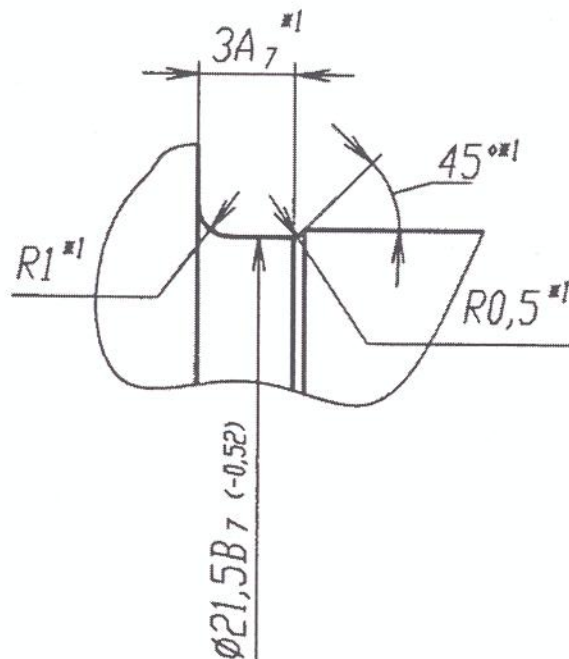
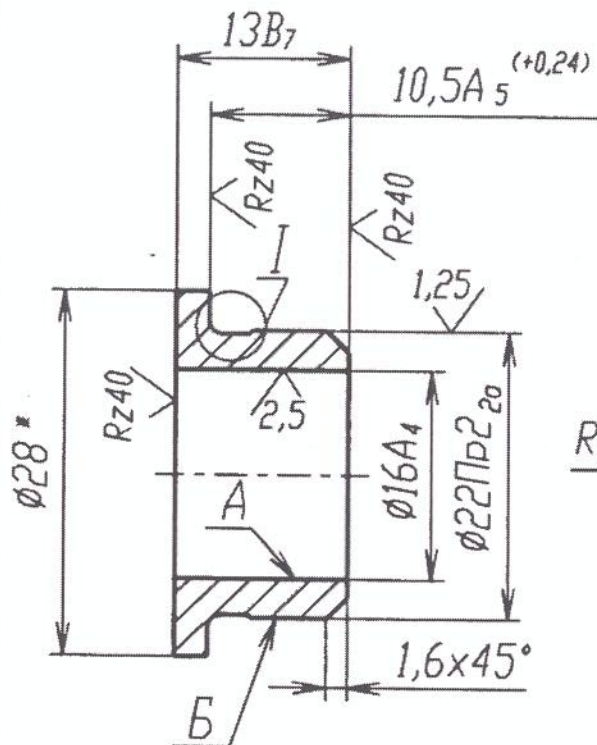
Approved TOsb

Dupl. Inv. No.

Sign and Date

Approved OGMet

Orig. Inv. No.

Rz80  
✓(✓)

1. 39..45 HRC<sub>E</sub>. Check hardness on 3..5% from the batch.
2. \* Reference dimension.
3. \*1 Dimensions ensured by tool.
4. Misalignment of surfaces A and B not more than 0.05 mm (qualified tolerance)
5. Blunt sharp edges ~0.6 mm.
6. Coating Cd.12 phos. Oil.
7. Mark Ш, Ч and stamp K, И on tag.

AK-630-Yo 3-9

Bush

Type Weight Scale

A 0.025 2:1

Sheet Sheets 1

Wheel  $\frac{28 - 5GOST7417 - 75}{40Kh - T - VGOST1051 - 73}$ 

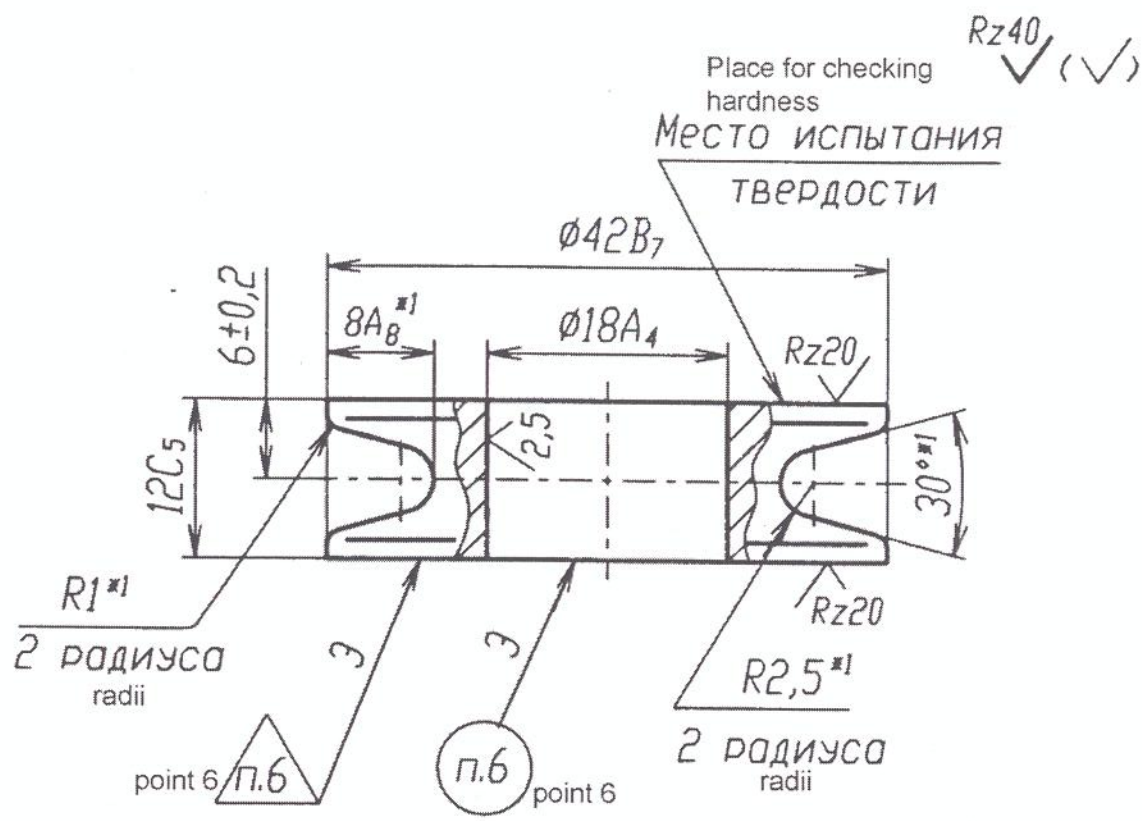
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Format A4



AK-630-Yo 3-10

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



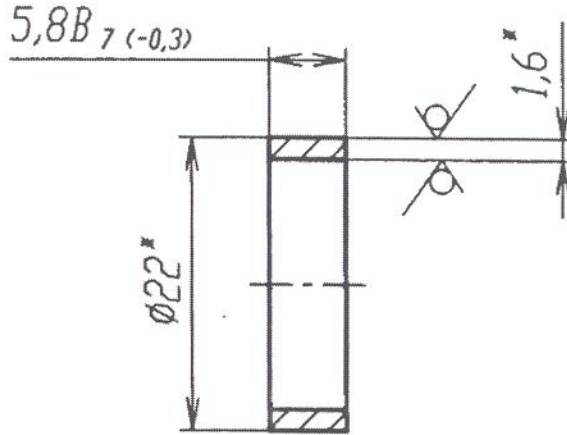
1. Substitute material- Steel 50A OST 3-98-80.
2. 39..45 HRC<sub>E</sub>.
- 3.\*1 Dimensions ensured by tool.
4. Blunt sharp edges ~0.6 mm.
5. Coating Cd 12.phos.Oil.
6. Mark Ш, Ч and stamp К, И as per AK-630, AK-630M TU I.

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

AK-630-Yo 3-10			
Roller	Type	Weight	Scale
	A	0.04	2:1
	Sheet		Sheets 1
Steel 50 GOST 1050-88			

AK-630-Yo 3-11

Rz40 (✓) (✓)



1. Substitute material- Pipe  $\frac{23x2.6GOST8734 - 75}{V35GOST8733 - 74}$ .
- 2.\* Reference dimensions.
3. Blunt sharp edges ~0.6 mm.
4. Coating Cd12.phos.Oil.
5. Mark Ш, Ч and stamp K on tag.

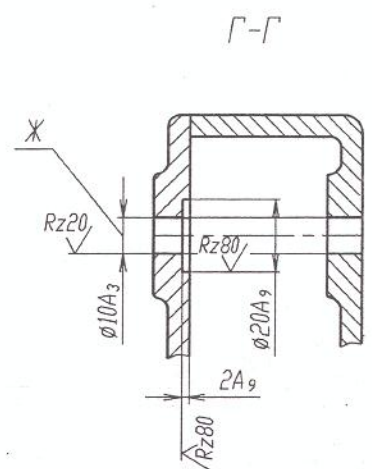
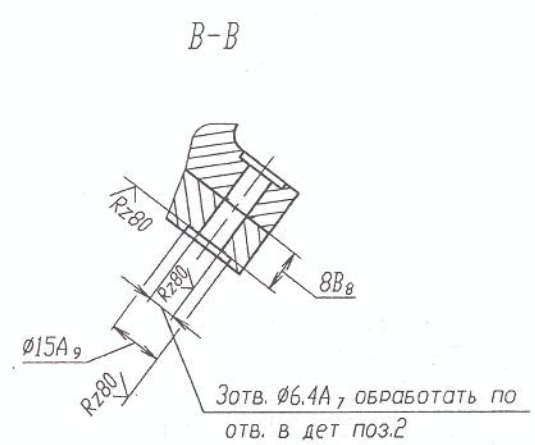
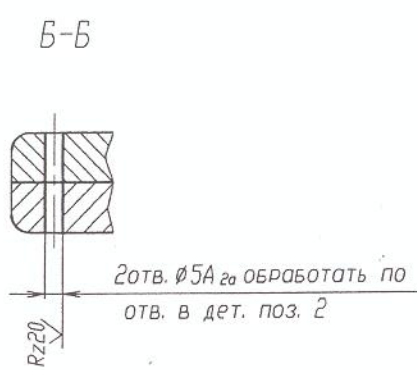
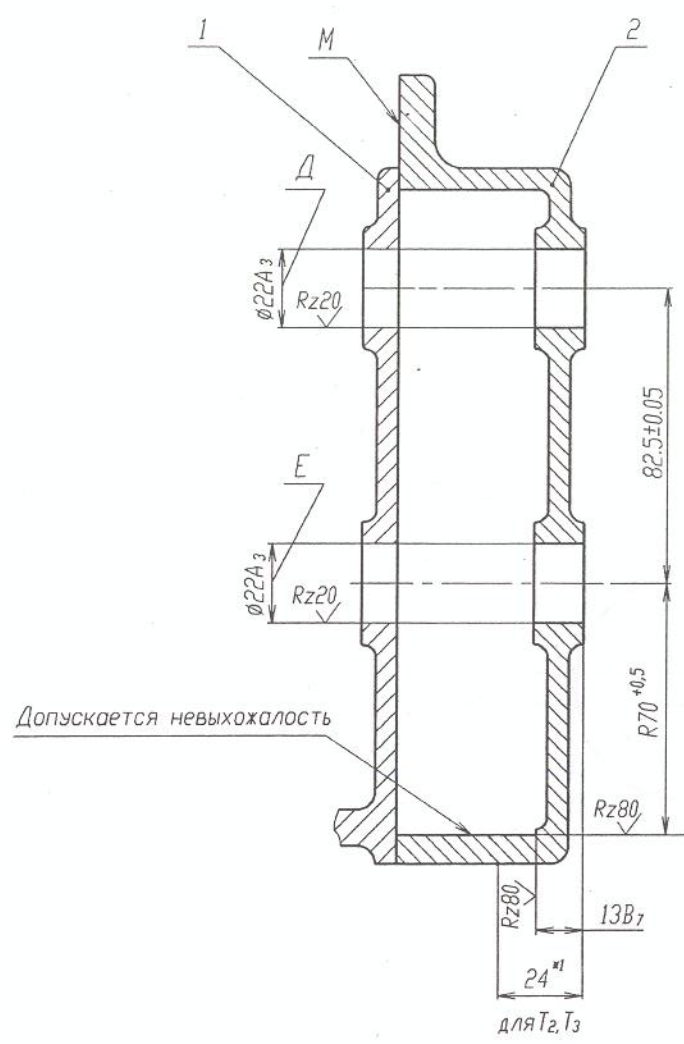
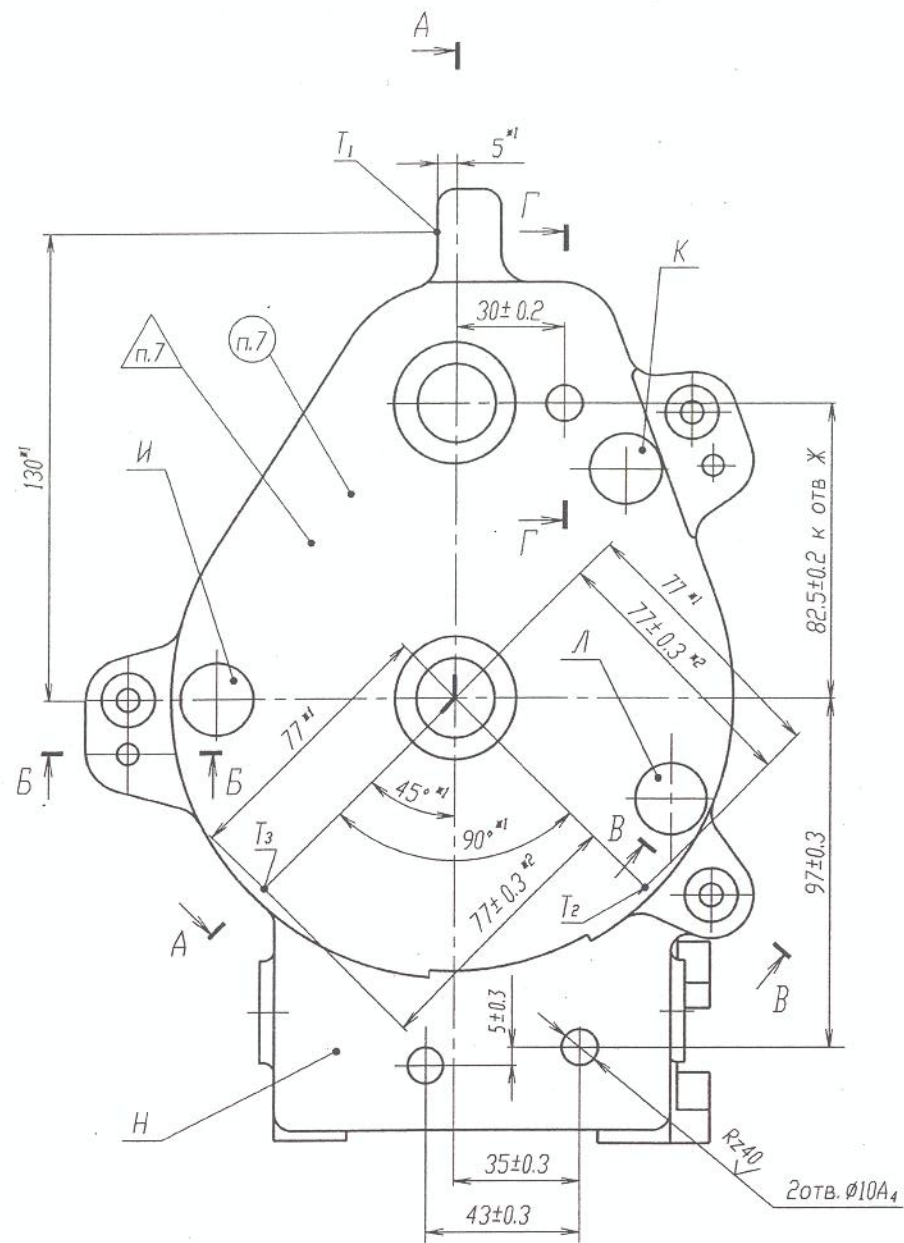
Approved OGMet	Sign and Date	Approved TOsb	Approved KTONI	Approved by shop	First use
Orig. Inv. No.	Alternate Inv. No	Dupl. Inv. No.	Sign and Date	Reference No.	

Amend.	Sheet	Doc. No.	Sign	Date

<b>AK-630-Yo 3-11</b>			
<b>Gasket</b>	Type	Weight	Scale
	A	0.005	2:1
	Sheet		Sheets 1
Pipe $\frac{22x1.6GOST8734 - 75}{V20GOST8733 - 74}$			







- 1.<sup>#1</sup> Размеры обеспеч. инстр.
- 2.<sup>#2</sup> Размеры заданы относительно точек T<sub>1</sub>, T<sub>2</sub>, T<sub>3</sub>
3. Острые ребра притупить ≈ 0,6 мм.
4. Внутренние углы R ≈ 0,4 мм.
5. Деталь поз. 2 (крышка) установить на совпадение по контуру детали поз.1. Допускается смещение в пределах литейных допусков. Обработка отверстия Д, Е, Ж производится при поставленных технологических штифтах Ø5С.
6. Покрытие деталей поз.1, поз.2:
  - 1.) Ан. Окс. хр -всех поверхностей;
  - 2.) Грунтовка АК-070, желтая, (2) Эмаль ХВ-124, серая, (4), IV.OM2
 всех литейных поверхностей и поверхностей И, К, Л, М, Н. АК-070 ГОСТ 25718-83 ХВ-124 ГОСТ 10144-89
7. Маркировать Ч и клеить К по АК-630, АК-630М ТУ I.

				AK-630-Ю СБ 3-1СБ		
Изм./Лист	№ докум.	Подп.	Дата	Лит.	Масса	Масштаб
Разраб.				А	3,790	1:1
Пров.				Лист	Листов 1	
Т.контр.						
Н.контр.						
Утв.						

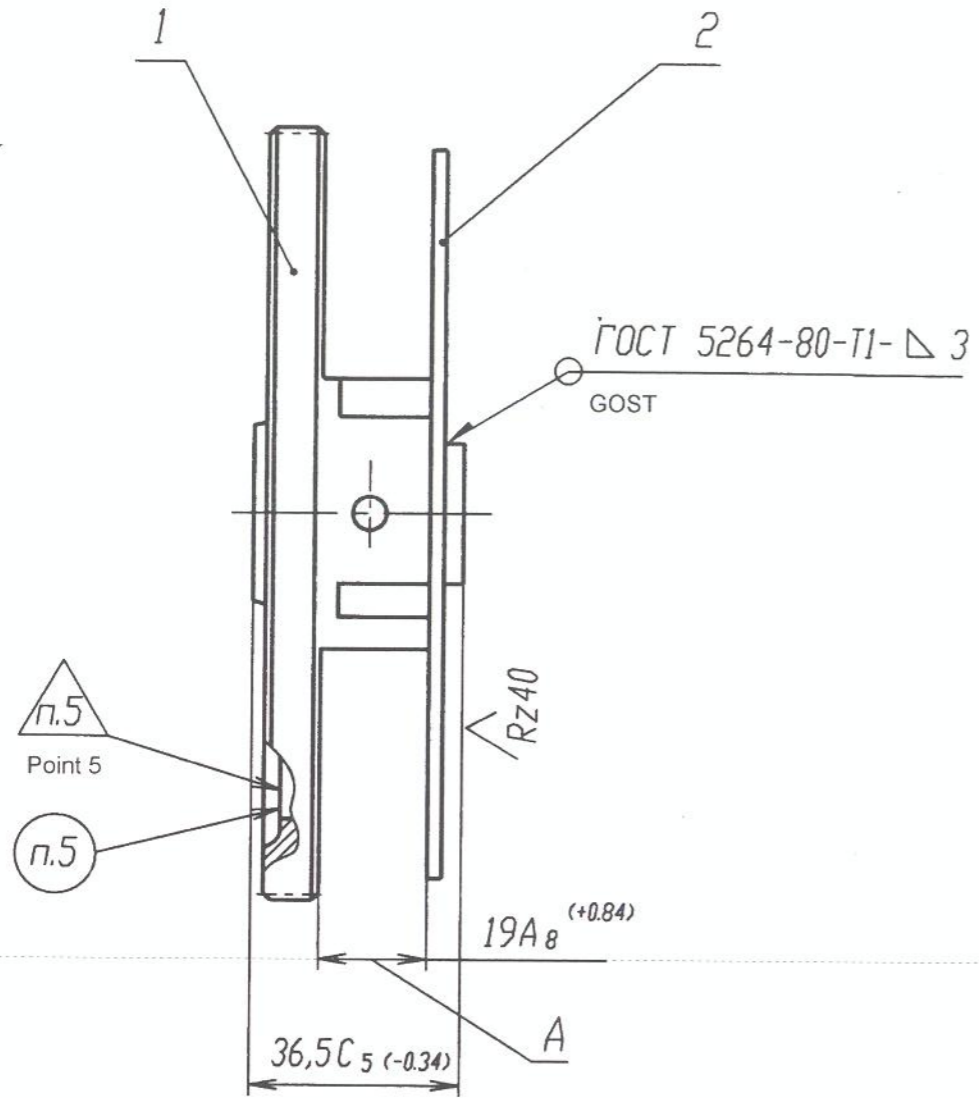








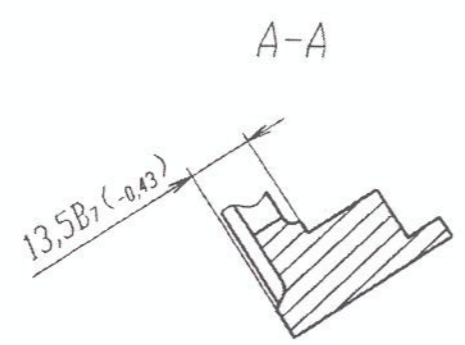
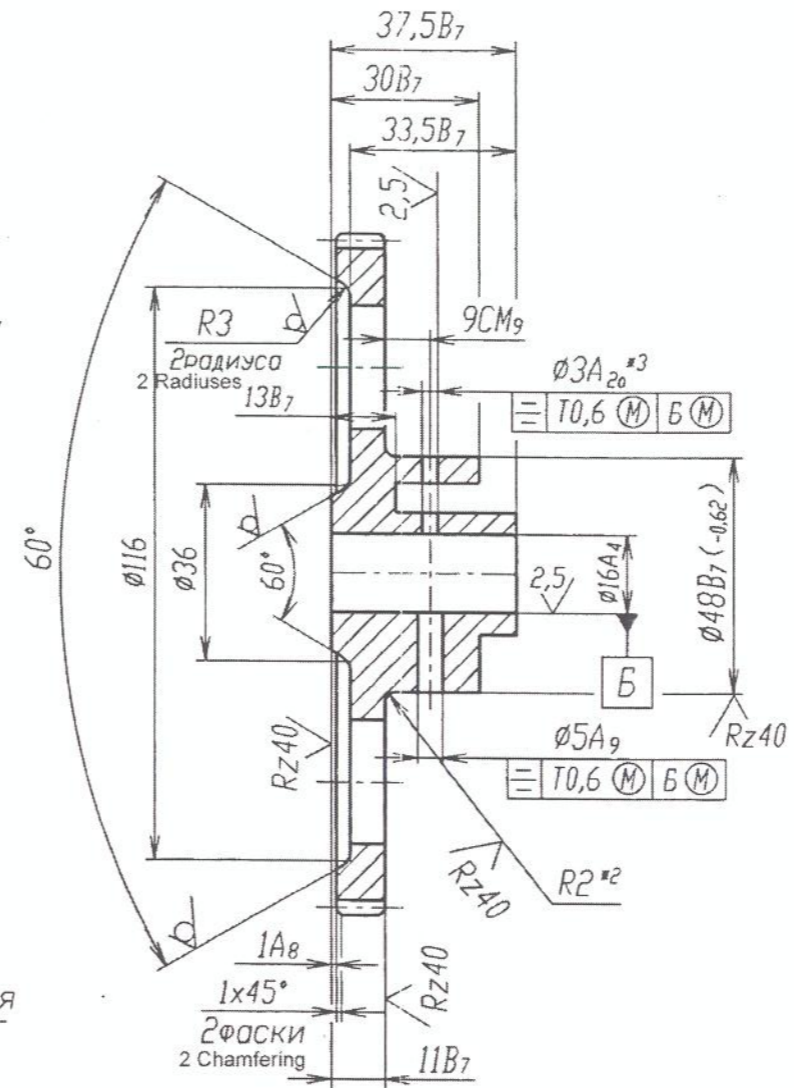
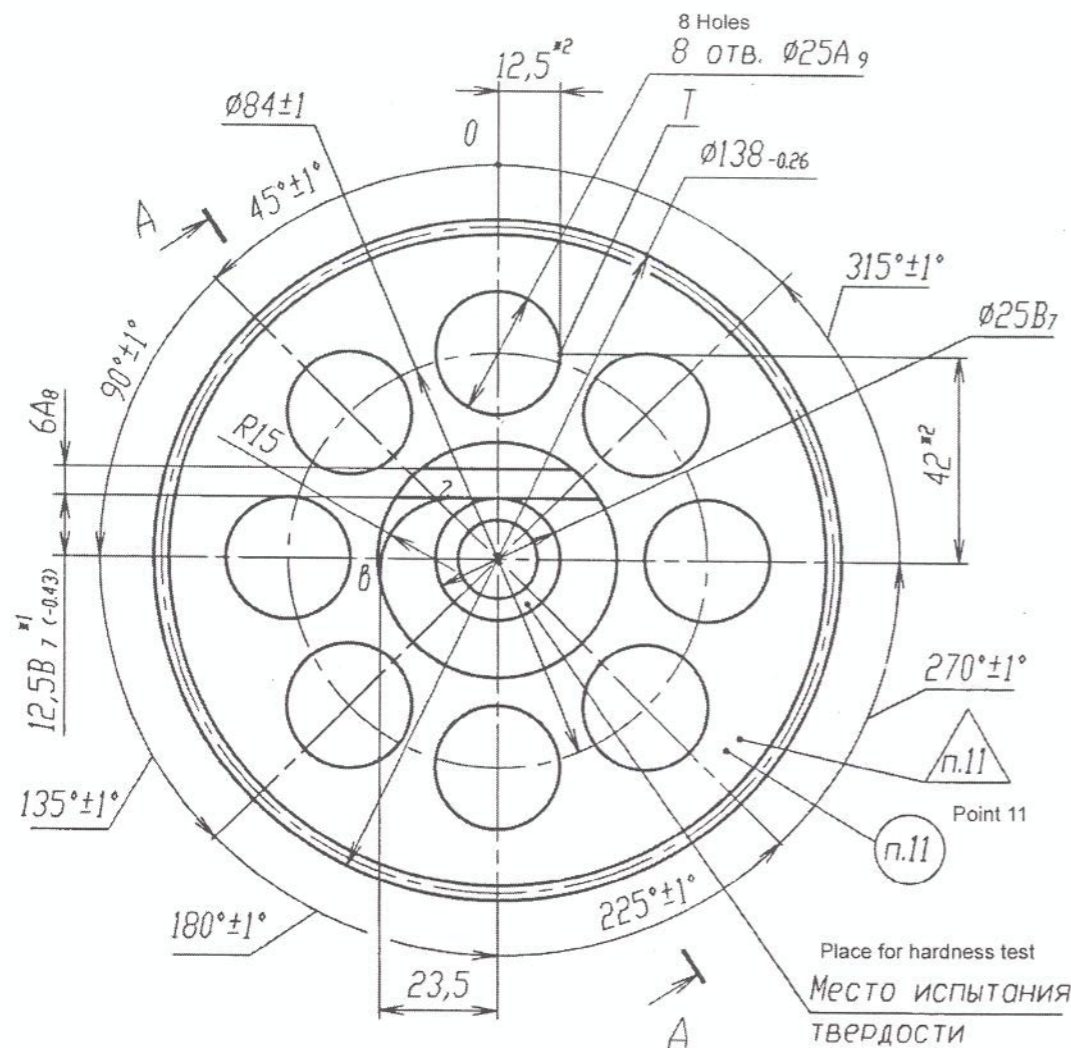
First use  
Reference No.  
Sign and Date  
Duplicate Inv. No  
Alternate Inv. No  
Sign and Date  
Orig. inv. no.



1. Electric arc welding with welding rod NIAT-5-2.0 GOST 9466-75.
2. Welds as per OST 3-4001-91 category II. Visually check 100% welds.
3. Dressing is permissible for ensuring dimension A.
4. Coating: Cd 12 Phos.Oil. It is permissible to avoid cadmium plating of holes  $\varnothing 3$  and  $\varnothing 5$  mm.
5. Mark Ч and stamp K as per AK-630, AK-630M TU I.

Comment [S24]:

					AK-630 -Yu Sb 3-2 SB			
Amend.	Sheet	Doc.No.	Sign	Date	<b>Drum Assembly drawing</b>	Type	Weight	Scale
Developed by						A	2.600	1:1
Checked by						Sheet	Sheets	1
Head of Q.C.D								
Approved by								



1. Preparation of stamping - class of accuracy T5 as per GOST 7505-89.
2. Surface defects on non-machinable surfaces should not be deeper than 0.8 mm.
3. 34...40.5 HRCэ.
4. Internal angles R ~ 0.4 mm.
5. Blunt the sharp edges ~ 0.6 mm.
6. \*1 - Dimension is given in respect of surface B and point T.
7. \*2 - Dimension is to be ensured by tool.
8. \*3 - Deviation is given in respect of point T.
9. Tolerance along the contour в r in respect of surface B and point T is 0.5 mm.
10. Complex (room) for inspection is selected as per GOST 1643-81 and established depending upon the conditions and possibilities of manufacturer.
11. Mark Ш, Ч and stamp К, И as per AK-630, AK-630M TU I.

Модуль	Module	m	1,5
Число зубьев	No. of teeth (gears)	Z	90
Нормальный исходный контур	Standard Initial Contour	-	ГОСТ13755-81
Коэффициент смещения	Displacement Coefficient	X	0
Степень точности по ГОСТ1643-81	Degree of accuracy as per GOST 1643-81	-	См9-С
Данные для контроля взаимного положения разноименных профилей зубьев	Data for checking the mutual position of different profiles of teeth (gears)	W	43,96 <sup>-0,118</sup> -0,208
Делительный диаметр	Dividing diameter	d	135
Обозначение чертежа сопряженного колеса	Marking (code) of drawing of conjugated wheel	-	AK-630-YU 3-1

1. Заготовка штамповка класс точности T5 по ГОСТ 7505-89.
2. Поверхностные дефекты на необрабатываемых поверхностях не должны быть глубиной более 0,8мм.
3. 34...40.5 HRCэ.
4. Внутренние углы R~0,4мм.
5. Острые ребра притупить ~ 0,6мм.
6. \*1 Размер задан относительно поверхности B и точки T.
7. \*2 Размер обеспеч. инстр.
8. \*3 Отклонение задано относительно точки T.
9. Допуск по контуру в<sub>z</sub> 0,5мм относительно поверхности B и точки T.
10. Комплекс контроля выбирается по ГОСТ 1643-81 и устанавливается в зависимости от условий и возможностей предприятия-изготовителя.
11. Маркировать Ш, Ч и клеймить К, И по АК-630, АК-630М ТУ I.

Листов 1  
Слов 1  
Инв. подл. Подп. и дата  
Взм. инв. Инв. дубл. Подп. и дата

AK-630-Yu 3-15		AK-630-YU 3-15	
Type		Mass	Scale
Pinion		Лит.	Масса Масштаб
Шестерня		A	2,400 1:1
Steel 30KhGSA		Лист	Листов 1
Сталь 30ХГСА		Sheet	Total Sheets 1
ГОСТ 4543-71		GOST 4543 - 71	



First use	Format	Zone	Pos.	Designation	Nomenclature	Qty.	Remarks		
					Documents				
Reference No.	A3			AK-630Yu Sb3-3 SB	Assembly drawing				
					<u>Components</u>				
	A2	1		AK-630-Yu 3-17	Dog	1			
	A3	2		AK-630-Yu 3-18	Spring	1			
					<u>Standard articles</u>				
		3		Rivet 4x20.03.15.026 GOST 10299-80	1				
		4		Washer A4.25.026 GOST 11371-78	1				
Sign and Date									
Dupl. Inv. No.									
Alternate Inv. No.									
Sign and Date						AK-630-Yu Sb 3-3			
	Amend.	Sheet	Doc. No.	Sign	Date				
Orig. Inv. No.	Developed by					Dog	Type	Sheet	Sheets
	Checked by						A		1
	Head of Q.C.D								
	Approved by								

First use

Reference No.

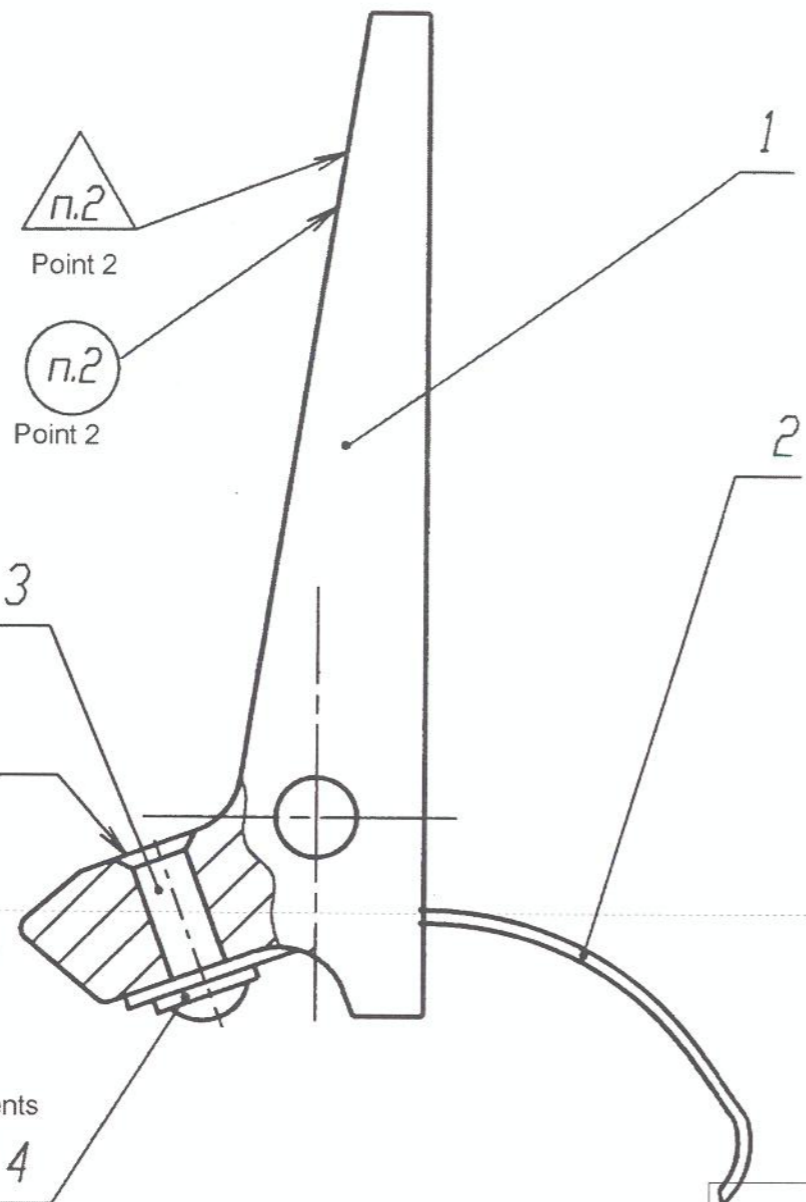
Sign and Date

Duplicate Inv. No

Alternate Inv. No

Sign and Date

Orig. inv. no.



Rivet  
*Расклепать*

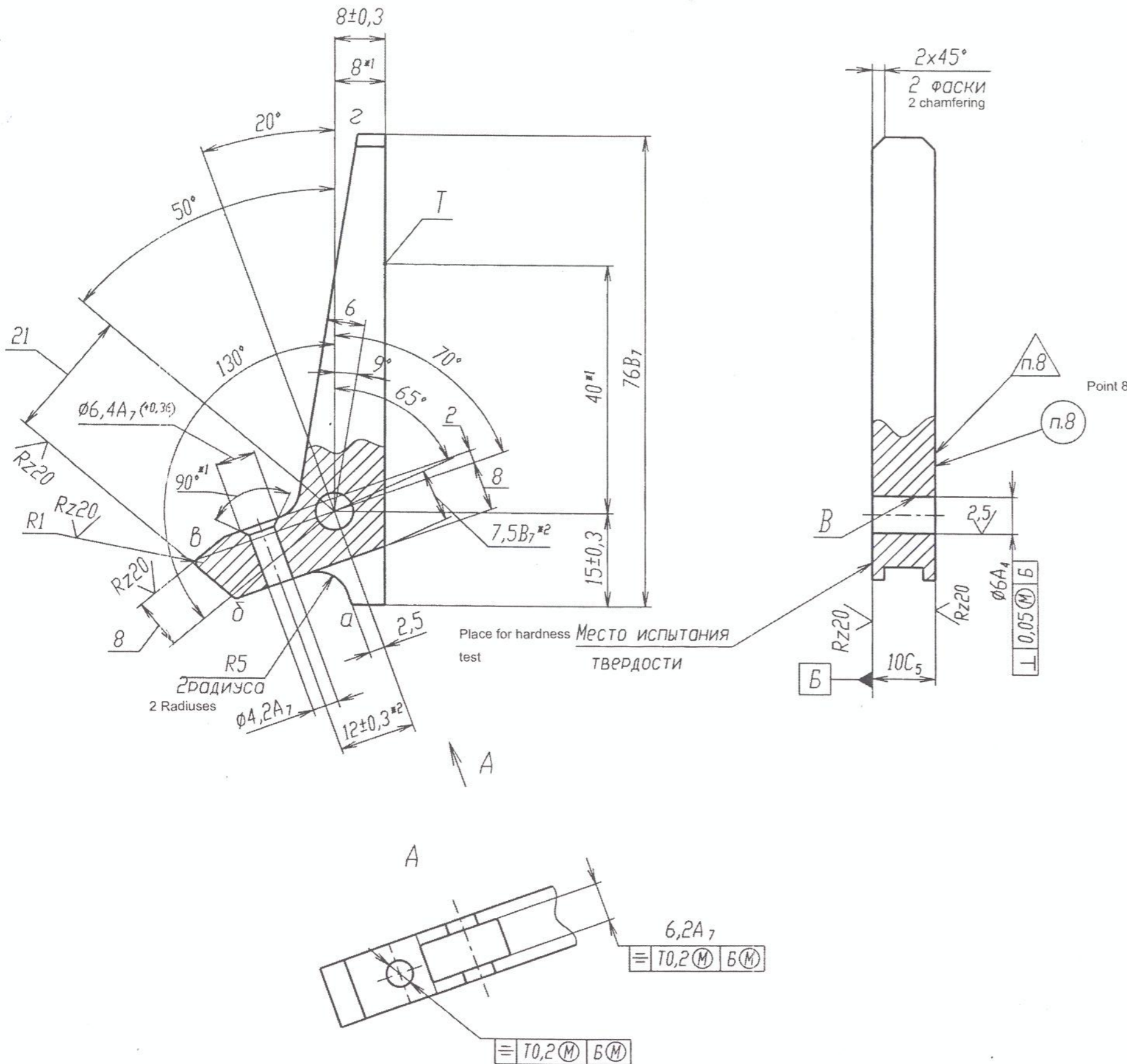
*После расклепывания  
допускается неслияние  
поверхностей деталей  
поз. 1, 3 в соответствии  
с п. 1.15.4 АК-630,  
АК-630М ТУ 1.*

Non-mergence of surfaces of components  
pos. 1,3 is permissible after riveting in  
compliance with point.1.15.4 AK-630,  
AK-630M TU 1.

1. Coat rivets pos.3 (2 places) with adhesive BF-4 GOST 12172-74, (2).
2. Mark Ч and stamp K as per AK-630, AK-630M TU I.

Comment [S25]:

					AK-630 –Yu Sb 3-3 SB			
Amend.	Sheet	Doc.No.	Sign	Date	<b>Dog Assembly drawing</b>	Type	Weight	Scale
Developed by						A	0.13	2:1
Checked by						Sheet	Sheets	1
Head of Q.C.D								
Approved by								



- 38.5...44.5 HRC э.
- \* 1 - Dimensions to be ensured by tool.
- \* 2 - Dimensions are given in respect of hole B and point T.
- Internal angles  $R \sim 0,4$  mm.
- Blunt the sharp edges  $\sim 0,6$  mm.
- Tolerances along the contour a б, в r is 0.5 mm and along the contour б в is 0.3 mm in respect of hole B and point T.
- Coating Cad 12. phos. followed by oil treatment.
- Mark Ш, Ч and stamp К, И as per AK-630, AK-630M TU I.

- 38,5...44,5 HRC э.
- \*1 Размеры обеспеч. инстр.
- \*2 Размеры заданы относительно отверстия B и точки T.
- Внутренние углы  $R \approx 0,4$  мм.
- Острые ребра притупить  $\approx 0,6$  мм.
- Допуски по контурам а б, в r - 0,5 мм; б в - 0,3 мм относительно отверстия B и точки T.
- Покрытие Кд 12. фос. прм.
- Маркировать Ш, Ч и клеймить К, И по АК-630, АК-630М ТУ I.

AK-630-Ю 3-17

AK-630-Ю 3-17

				Type	Mass	Scale
Изм/Лист	№ докум.	Подп.	Дата	Лит.	Масса	Масштаб
Разр.				A	0,030	2:1
Пров.				Лист	Листов 1	
Т.контр.				Sheet	Total Sheets 1	
И.контр.				Сталь 40X Steel 40Kh		
Утв.				ГОСТ 4543-71		

Перв. примен.

Справ. N

Подп. и дата

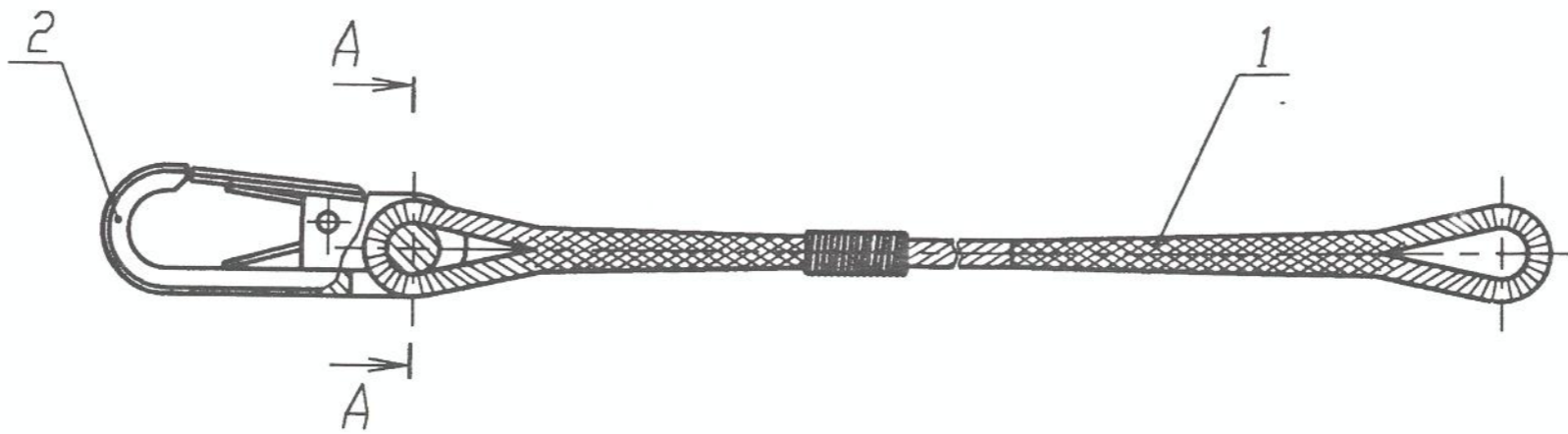
Изм. N дубл.

Подп. и дата

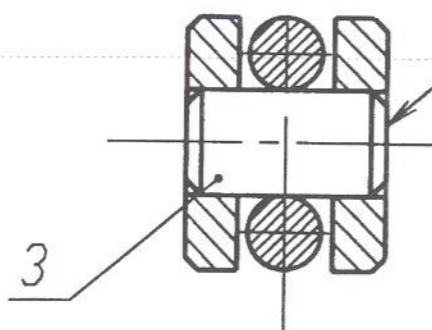


First use		Format	Zone	Pos.	Designation	Nomenclature	Qty.	Remarks		
						Documents				
Reference No.	A3				AK-630Yu Sb3-4 SB	Assembly drawing				
						<i>Assy. Unit</i> <del>Components</del> <del>Assy. Unit</del>				
	A4	1			<i>Sb</i> AK-630-Yu 3-10	Rope	1			
	A4	2			<i>Sb</i> AK-630-Yu 3-11	Hook	1			
						<u>Standard articles</u>				
		3				Pin 8Pr22ax16.40 Kh	1			
						K38.5...44.5 HRC Chem.Phos. Oil.				
						OST 3-2234-93				
Sign and Date										
Dupl. Inv. No.										
Alternate Inv. No										
Sign and Date						<b>AK-630-Yu Sb 3-4</b>				
	Amend.	Sheet	Doc. No.	Sign	Date			Type	Sheet	Sheets
Orig. Inv. No.	Developed by					<b>Hook with rope</b>		A		1
	Checked by									
	Head of Q.C.D									
	Approved by									





A-A(2:1)



Punch at 3 places

Кернить в 3<sup>х</sup> местах

с 2<sup>х</sup> сторон

from both sides

1. Lubricate friction surfaces with lubricant MS-70 GOST 9762-76.
2. Mark Ш, Ч and stamp K on batch tag.

Comment [S26]:

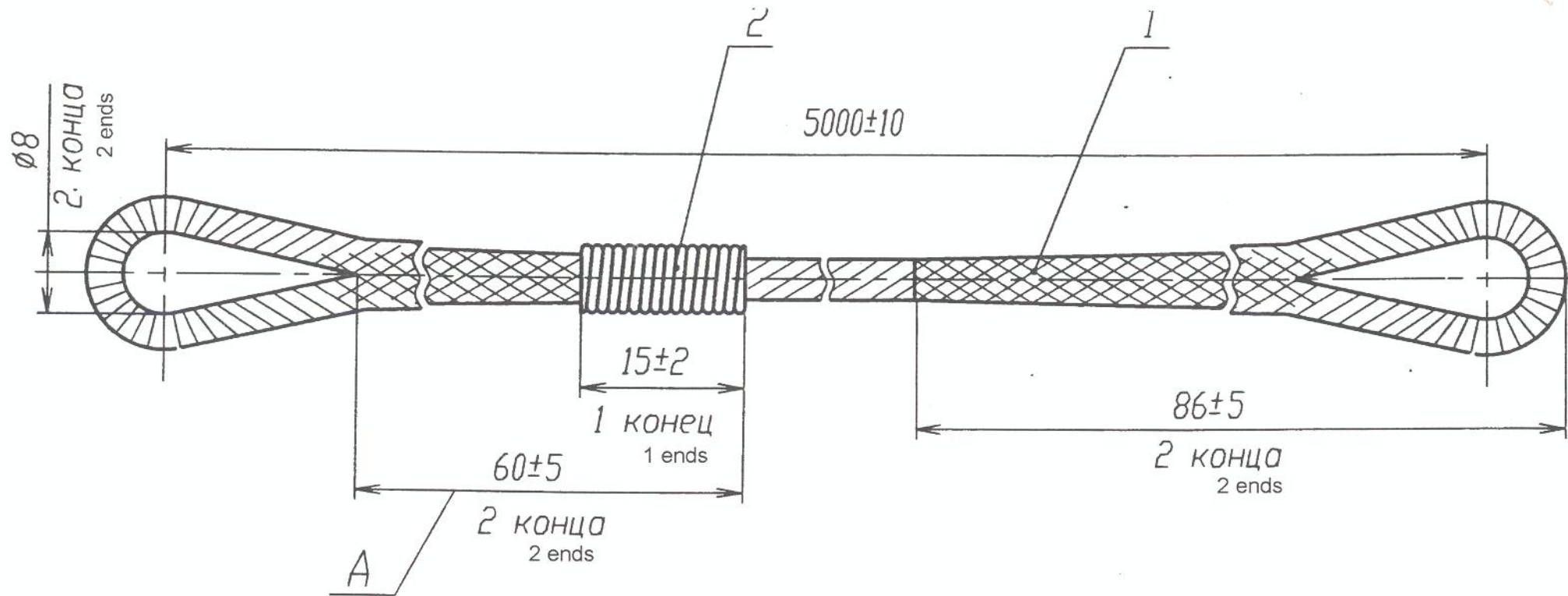
AK-630 -Yu Sb 3-4 SB

Amend.	Sheet	Doc.No.	Sign	Date	Hook with rope Assembly drawing	Type	Weight	Scale
						A	0.380	1:1
						Sheet	Sheets	1
Head of Q.C.D								
Approved by								

First use	Format	Zone	Pos.	Designation	Nomenclature	Qty.	Remarks		
Reference No.	A3			AK-630-Yu Sb3-10SB	Assembly drawing				
					Documents				
					Materials				
			1		Rope 4-G-V-N-2160	5.2	m.		
					GOST 3067-88				
			2		Wire 0.6-T-12Cr18Ni10Ti	0.5	m.		
					GOST 18143-72				
Sign and Date	AK-630-Yu Sb 3-10						Type	Sheet	Sheets
Orig. Inv. No.	Developed by					Rope	A		1
	Checked by								
	Head of Q.C.D								
	Approved by								
Sign and Date									
Alternate Inv. No.									
Dupl. Inv. No.									
Sign and Date									

First use

Reference No.



Sign and Date

Duplicate Inv. No

Alternate Inv. No

Sign and Date

Orig. inv. no.

1. It is permissible to use rope 4.1-G-V-K-N-R-T-1960 GOST 2688-80 in place of pos.1.
2. Splice end of rope on section A, Б into main branch. During splicing no. of piercing of rope with each strand should be not less than 4. Last puncture with each strand should be carried out with half no. of its wires.
3. Tie projecting ends of the rope with wire pos.2 tightly, turn-by turn, insert wire ends inside rope.
4. Check with weight 500 kg for 1 hour.
5. The rope should be accompanied with certificate.
6. Mark Ш, Ч and stamp K on batch tag.

Comment [S28]:

					AK-630 -Yu Sb 3-10 SB			
Amend.	Sheet	Doc.No.	Sign	Date	<b>Rope Assembly drawing</b>	Type	Weight	Scale
Developed by						A	0.360	2:1
Checked by						Sheet	Sheets	1
Head of Q.C.D								
Approved by								

First use	Format	Zone	Pos.	Designation			Nomenclature			Qty.	Remarks
Reference No.	A3			AK-630-Yu Sb3-1SB			Assembly drawing				
							<u>Components</u>				
	A3	1		AK-630-Yu 3-56			Hook			1	
	A4	2		AK-630-Yu 3-57			Catch			1	
	A3	3		AK-630-Yu 3-58			Hook spring			1	
							<u>Standard articles</u>				
			6				Pin 3Pr22ax14.40Kh			1	
							K38.5..45.5 HRC Chem.Phos.Oil.				
							OST 3-2234-93				
Sign and Date											
Dupl. Inv. No.											
Alternate Inv. No.											
Sign and Date						<b>AK-630-Yu Sb 3-11</b>					
	Amend.	Sheet	Doc. No.	Sign	Date						
	Developed by					<b>Hook</b>	Type	Sheet	Sheets		
Orig. Inv. No.	Checked by				A			1			
	Head of Q.C.D										
	Approved by										

First use

Reference No.

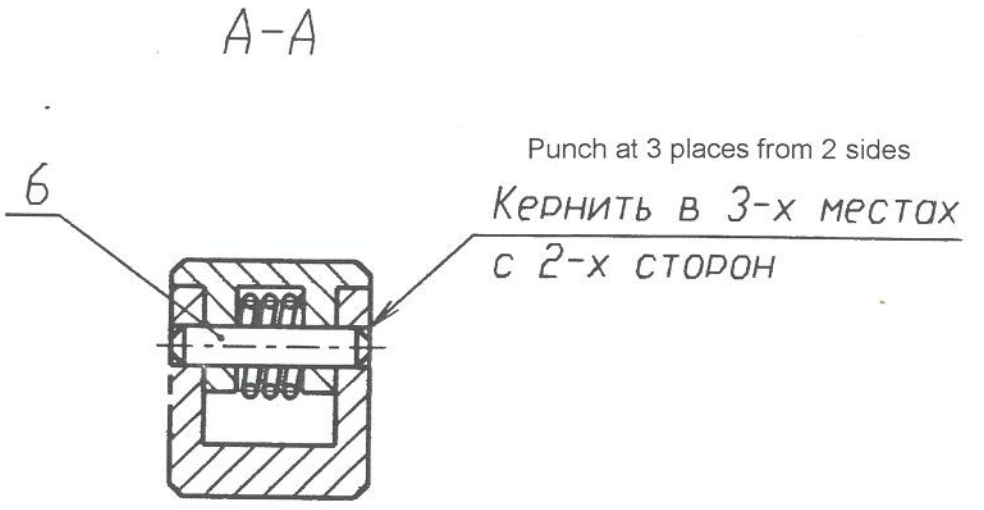
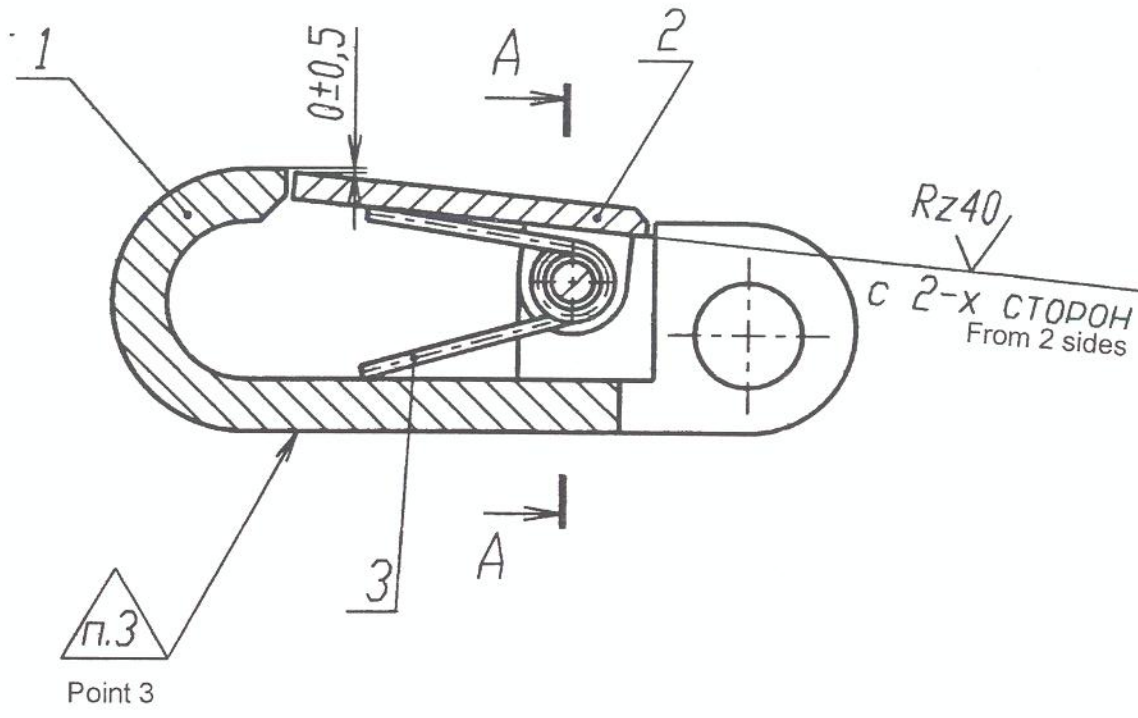
Sign and Date

Duplicate Inv. No

Alternate Inv. No

Sign and Date

Orig. inv. no.

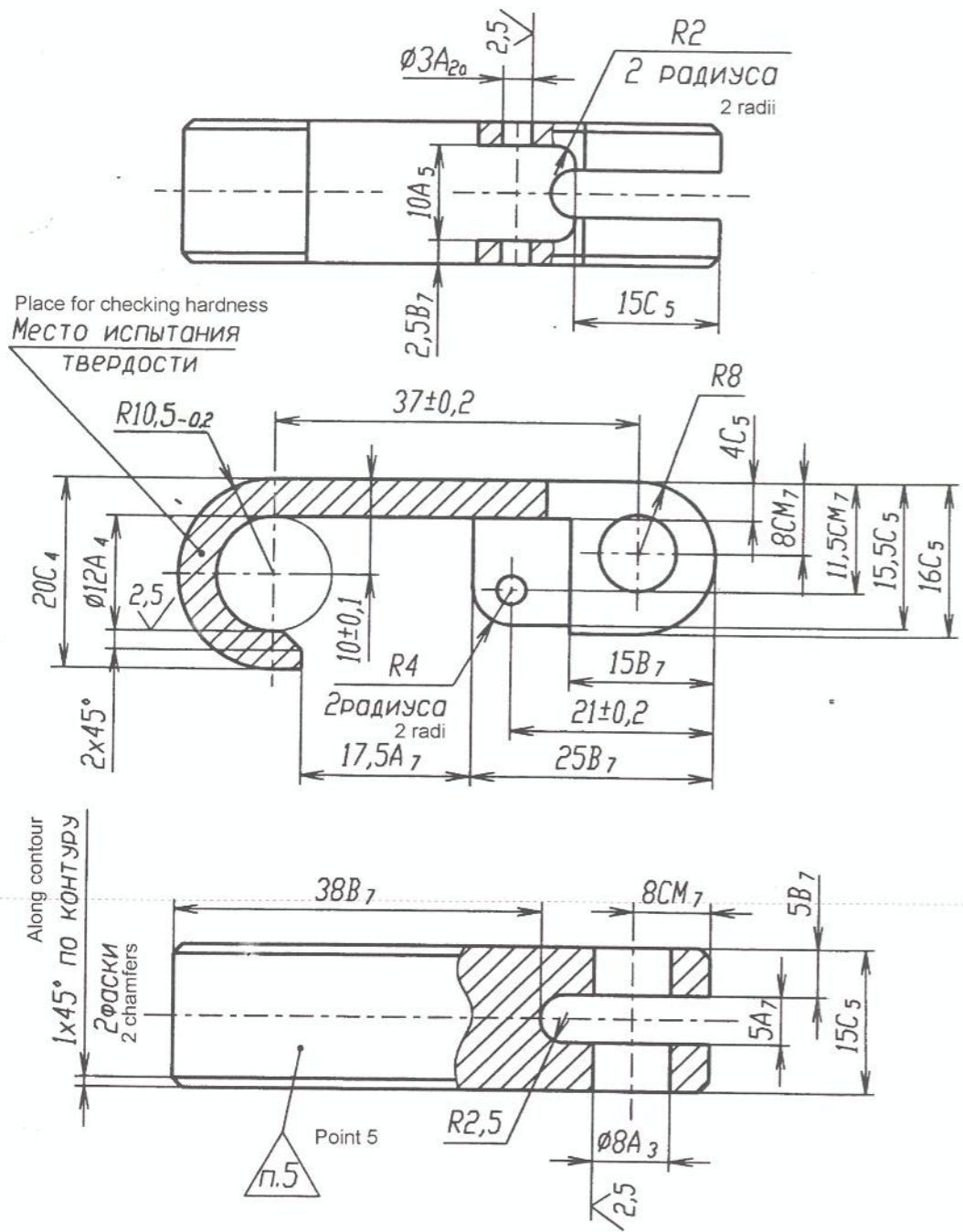


1. Catch pos.2 should turn on pin pos.6 without jamming and promptly return to initial position with help of spring pos.3.
2. Coating of hook pos.1- Cd 12. phos. Oil. after test run.
3. Mark Ш, Ч on tag and stamp K as per AK-630, AK-630M TU I.

Comment [S29]:

					AK-630 -Yu Sb 3-11 SB			
Amend.	Sheet	Doc.No.	Sign	Date	<b>Hook Assembly drawing</b>	Type	Weight	Scale
Developed by						A	0.060	2:1
Checked by						Sheet	Sheets 1	
Head of Q.C.D								
Approved by								

Rz40  
✓(✓)



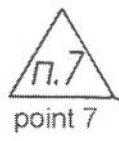
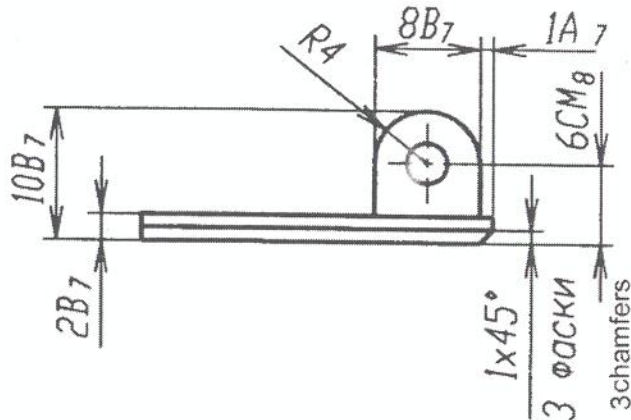
1. 38.5...44.5 HRC<sub>E</sub>.
2. Inner angles R~0.4 mm.
3. Blunt sharp edges ~0.4 mm.
4. Mark Ш, Ч on tag.
5. Stamp K, И as per AK-630, AK-630M TU I.

Comment [S39]:

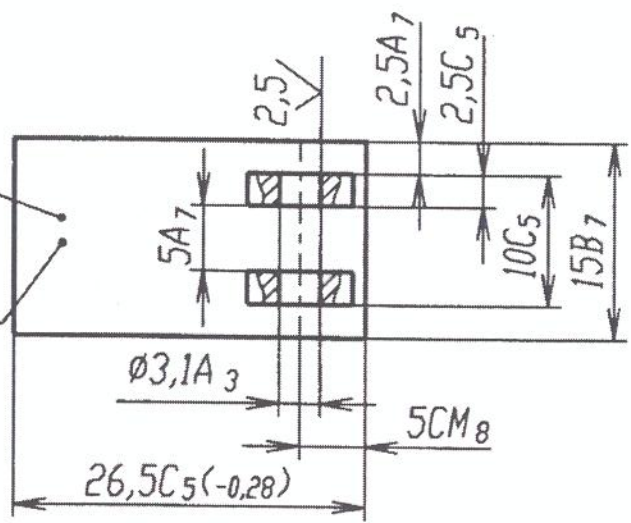
					AK-630 -Yu 3-56			
Amend.	Sheet	Doc.No.	Sign	Date	<b>Hook</b>	Type	Weight	Scale
Developed by						A	0.044	2:1
Checked by						Sheet	Sheets	1
Head of Q.C.D					Steel 50 GOST 1050-88			
Approved by								

AK-630-Yo 3-57

Rz40 (✓)



Место испытания  
ТВЕРДОСТИ  
Place for checking  
hardness



1. Substitute material Steel 50A OST 3-98-80.
2. 38.5...41.5 HRC<sub>E</sub>.
3. Inner angles R~ 0.4 mm.
4. Blunt sharp edges ~0.4 mm.
5. Coating Cd.12 phos. Oil.
6. Mark Ш, Ч on batch tag.
7. Stamp К, И as per AK-630, AK-630M TU I.

Approved OGMmet	Approved TOSb	Approved KTONI	Approved by shop
Orig. Inv. No.	Alternate Inv. No	Sign and Date	Reference No.
Head of Q.C.D	Dupl. Inv. No.	Sign and Date	First use
Design bureau chief			
Head of Q.C.D			
Approved by			

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

AK-630-Yo 3-57			
Catch	Type	Weight	Scale
	A	0.009	2:1
	Sheet		Sheets 1
Steel 50 GOST 1050-88			

First use

Reference No.

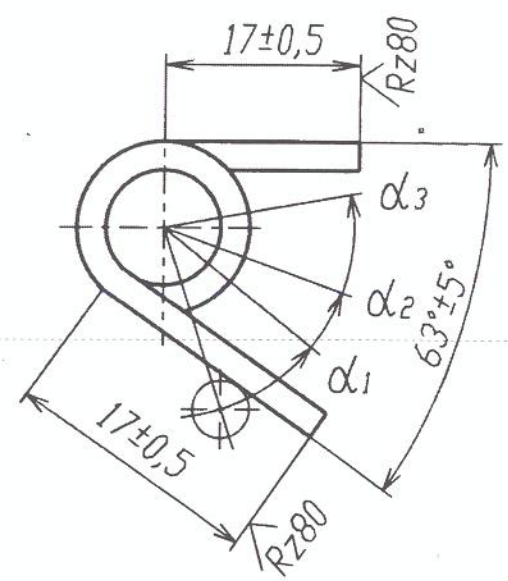
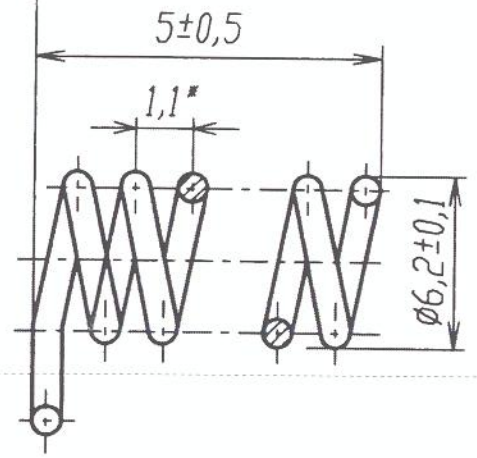
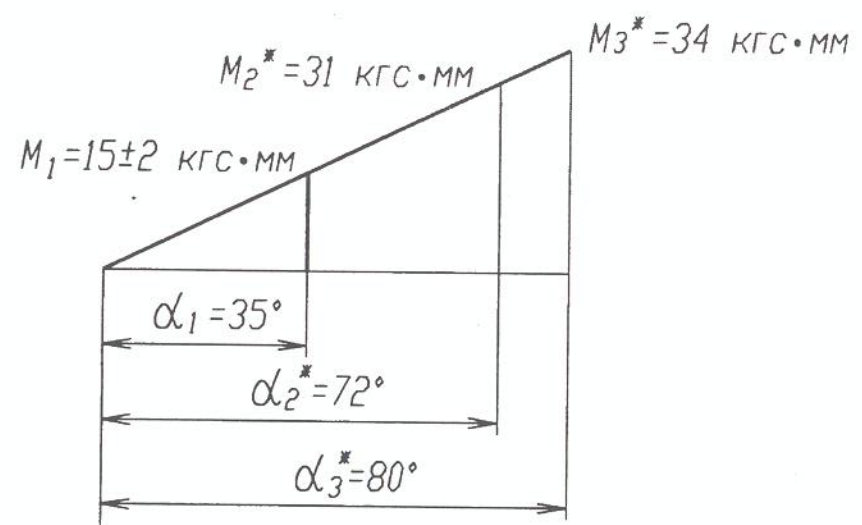
Sign and Date

Duplicate Inv. No

Alternate Inv. No

Sign and Date

Orig. inv. no.



✓(✓)

1. Group II.
2.  $E^* = 20000 \text{ kgf/mm}^2$ ;  $\sigma_z^* = 260 \text{ kgf/mm}^2$ .
3. Length of uncoiled spring  $L^* = 105 \text{ mm}$ .
4. Coiling direction- right.
5.  $n = 3.5$ .
6. Heat treatment : Tempering  $240^0-260^0$ .
7. Pre deformation time (at  $\alpha_2$ ) –24 hours.
8.  $D_s = 3C_5$ .
9. Coating: Chem.Phos. accel.Cr.  
Lacquer BF-4 with Nigrosine, 2 coats, made as per OST 3-4123-78, IV, OM2.
- 10.\* Dimensions and parameters for reference.
11. Mark Ш, Ч and stamp K, И on tag.
12. Other technical requirements as per OST 3-2561-91.

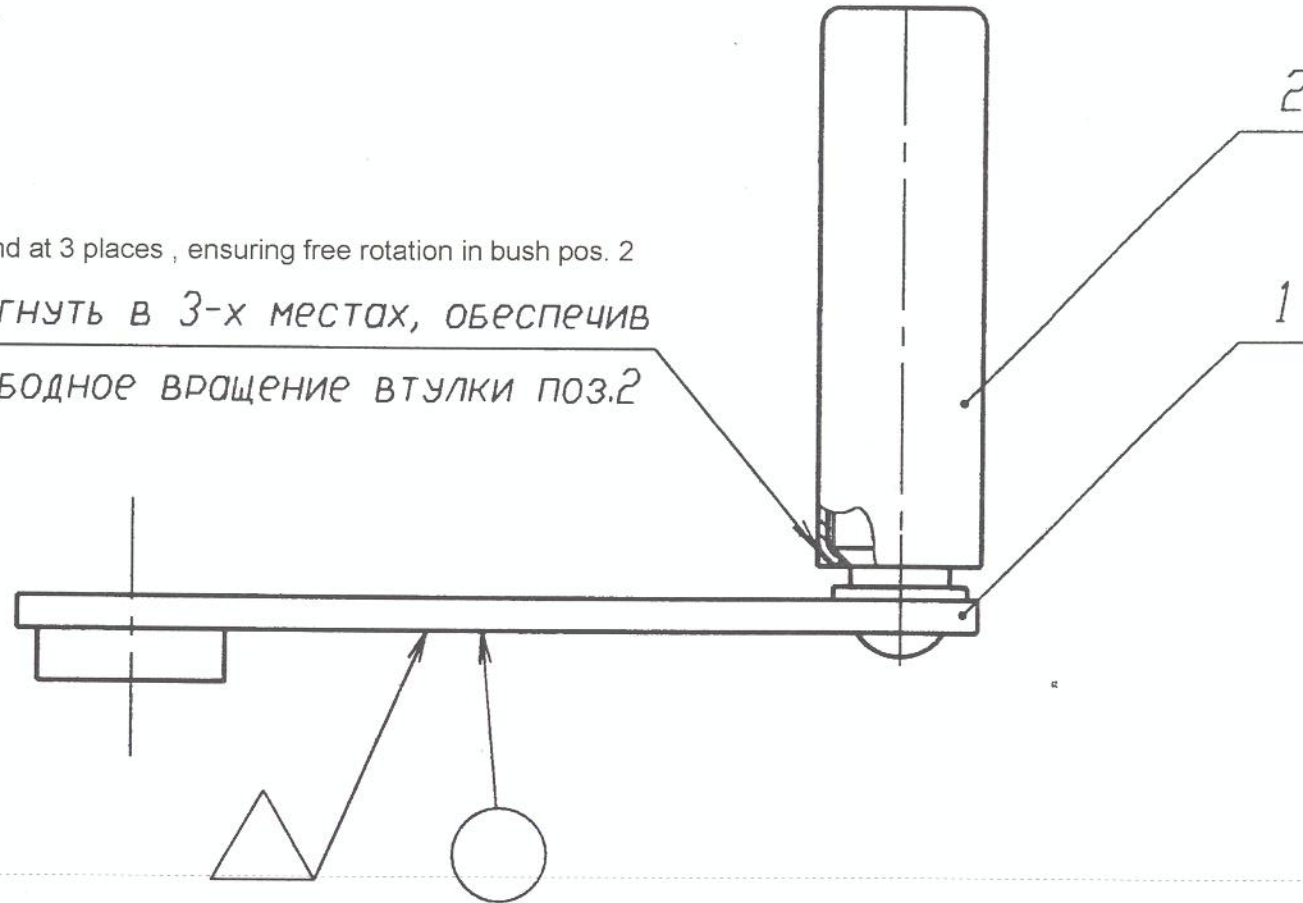
Comment [S40]:

					AK-630 –Yu 3-58			
Amend.	Sheet	Doc.No.	Sign	Date	<b>Hook spring</b>	Type	Weight	Scale
Developed by						A	0.001	4:1
Checked by						Sheet	Sheets	1
Head of Q.C.D					Wire V-1-1.1 GOST 9389-75			
Approved by								



First use	Format	Zone	Pos.	Designation			Nomenclature			Qty.	Remarks			
Reference No.	A3			AK-630-Yu Sb3-12SB			Assembly drawing							
							<u>Assembly units</u>							
	A4		1	AK-630-Yu Sb 3-13			Handle			1				
							<u>Components</u>							
	A4			AK-630-Yu 3-37			Bush			1				
Sign and Date							<b>AK-630-Yu Sb 3-12</b>							
	Amend.	Sheet	Doc. No.	Sign	Date									
Orig. Inv. No.	Developed by						<b>Handle</b>			Type	Sheet	Sheets		
	Checked by									A		1		
	Head of Q.C.D													
	Approved by													
Sign and Date														
Alternate Inv. No.														
Dupl. Inv. No.														

Bend at 3 places , ensuring free rotation in bush pos. 2  
 Отогнуть в 3-х местах, обеспечив  
 СВОБОДНОЕ ВРАЩЕНИЕ ВТУЛКИ ПОЗ.2

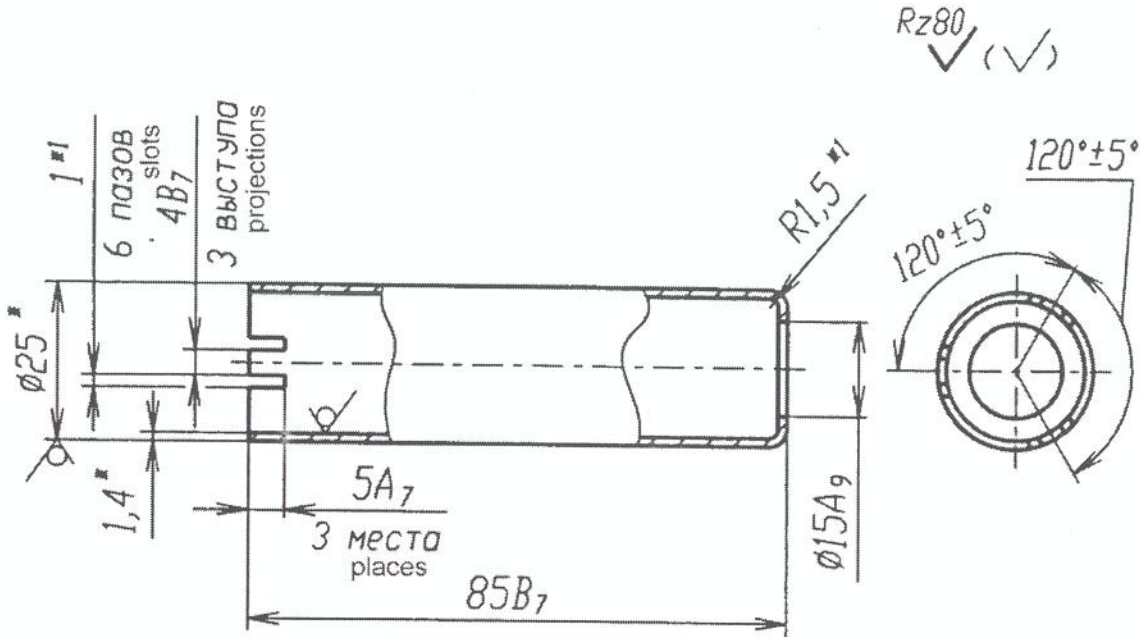


Comment [S30]:

Mark Ч and stamp K as per AK-630, AK-630M TU I.

					AK-630 –Yu Sb 3-12 SB			
Amend.	Sheet	Doc.No.	Sign	Date	<b>Handle Assembly drawing</b>	Type	Weight	Scale
Developed by						A	0.440	1:1
Checked by						Sheet	Sheets 1	
Head of Q.C.D								
Approved by								

AK-630-Yo 3-37



1. Substitute material- pipe  $\frac{25 \times 2 \text{GOST}8734 - 75}{V20 \text{GOST}8733 - 74}$ .
- 2.\* Reference dimension.
- 3.\*1 Dimensions ensured by tool.
4. Blunt sharp edges ~0.4 mm.
5. Coating Cd.12 Phos. Oil.
6. Mark Ш, Ч and stamp K on batch tag.

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

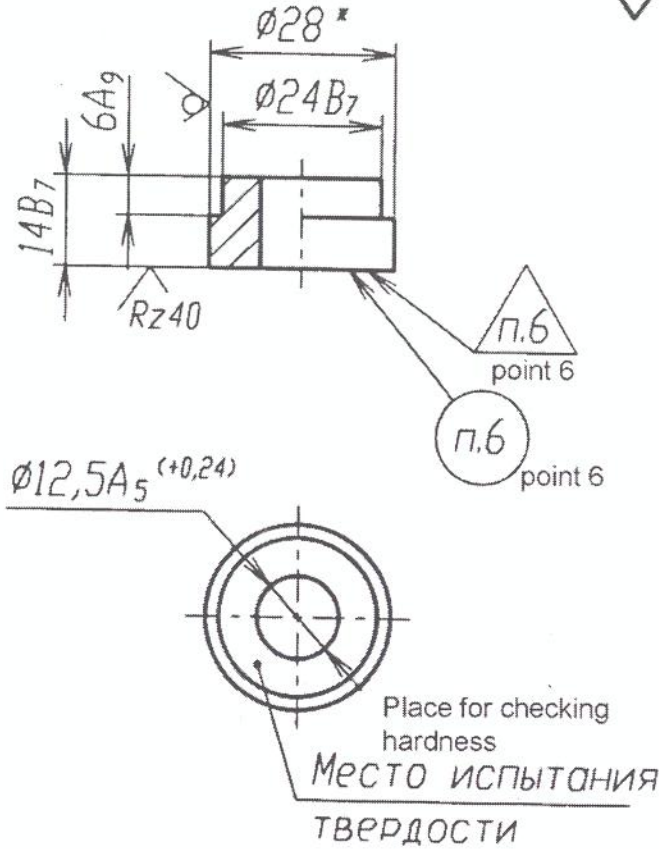
AK-630-Yo 3-37				
Bush	Type		Weight	Scale
	A		0.075	1:1
	Sheet		Sheets 1	
Pipe	$\frac{25 \times 1.4 \text{GOST}8734 - 75}{V20 \text{GOST}8733 - 74}$			

First use	Format	Zone	Pos.	Designation			Nomenclature			Qty.	Remarks		
Reference No.	A3			AK-630-Yu Sb3-13SB			Assembly drawing						
							<u>Components</u>						
	A4		1	AK-630-Yu 3-21			Bush			1			
	A4		2	AK-630-Yu 3-22			Plate			1			
	A4		3	AK-630-Yu 3-36			Pin			1			
Sign and Date													
Dupl. Inv. No.													
Alternate Inv. No.													
Sign and Date							<b>AK-630-Yu Sb 3-13</b>						
	Amend.	Sheet	Doc. No.	Sign	Date								
Orig. Inv. No.	Developed by					<b>Handle</b>			Type	Sheet	Sheets		
	Checked by								A		1		
	Head of Q.C.D												
	Approved by												



AK-630-Yo 3-21

Rz80 ✓ (✓)



1. Substitute material- Wheel  $\frac{28 - h12GOST7417 - 75}{40 - V - NGOST1051 - 73}$
2. \* Reference dimension.
3. 28...36.5 HRC<sub>E</sub>.
4. Blunt sharp edges ~0.6 mm.
5. Inner angle R~0.4 mm.
6. Mark Ш, Ч and stamp К, И as per AK-630, AK-630M TU I.

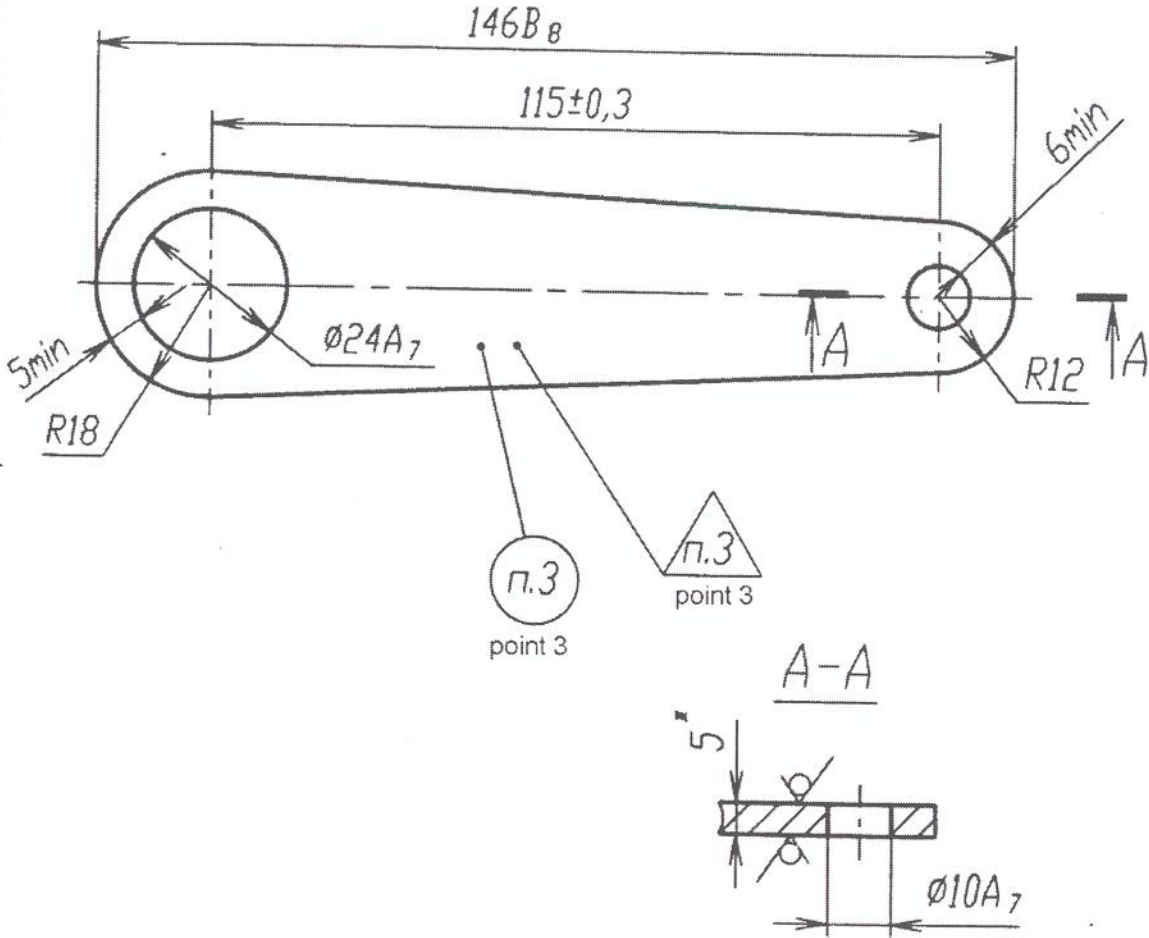
Amend.	Sheet	Doc. No.	Sign	Date	
Developed by					
Checked by					
Head of Q.C.D					
Design bureau chief					
Head of Q.C.D					
Approved by					

<b>AK-630-Yo 3-21</b>			
<b>Bush</b>	Type	Weight	Scale
	A	0.047	1:1
	Sheet		Sheets 1
Wheel	$\frac{V - 28GOST2590 - 88}{403GP - TOGOST1050 - 88}$		

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

AK-630-Yo 3-22

Rz80  
✓ (✓)

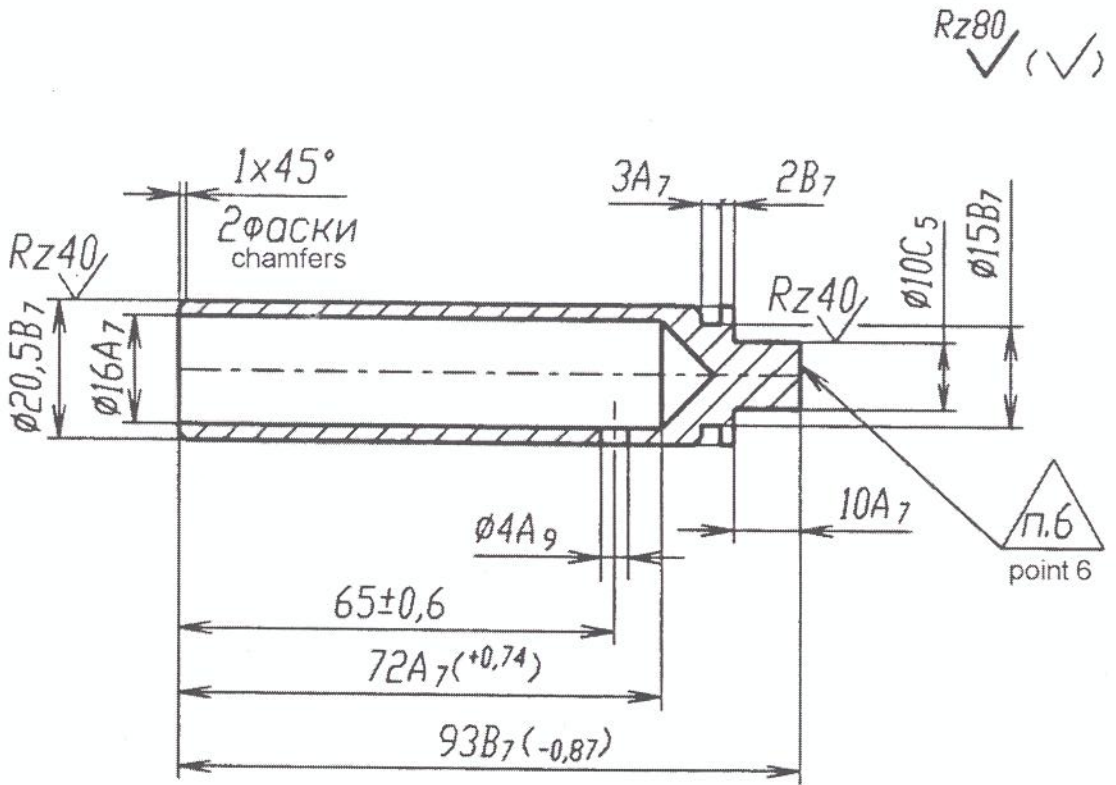


1. \* Reference dimension.
2. Blunt sharp edges ~0.6 mm.
3. Mark Ш, Ч and stamp K as per AK-630, AK-630M TU

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

AK-630-Yo 3-22				
Plate	Type	Weight	Scale	
	A	0.137	1:1	
	Sheet		Sheets 1	
Sheet <i>B - PN - 5x1500x5000</i> GOST19903 - 74				
25GOST1577 - 93				

AK-630-Yo 3-36



1. Inner angles R~0.4 mm.
2. Blunt sharp edges ~0.4 mm.
3. Coating Cd12.phos. Oil.
4. It is permissible to avoid cadmium plating of inner surfaces.
5. Mark Ш, Ч on batch tag.
6. Stamp K as per AK-630, AK-630M TU I.

AK-630-Yo 3-36

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

Pin

Steel 25  
GOST 1050-88

Type	Weight	Scale
A	0.105	1:1
Sheet		Sheets 1





First use

Reference No.

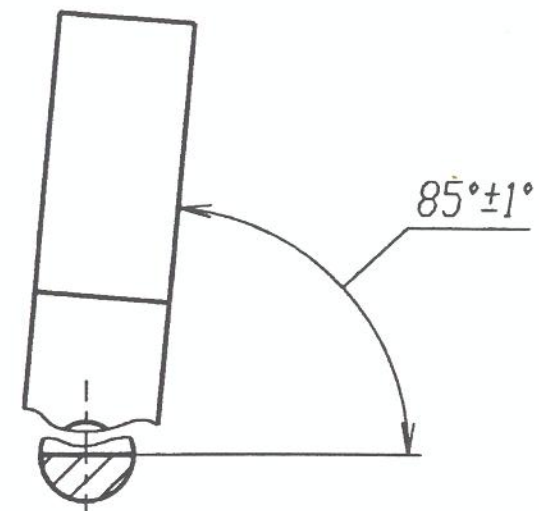
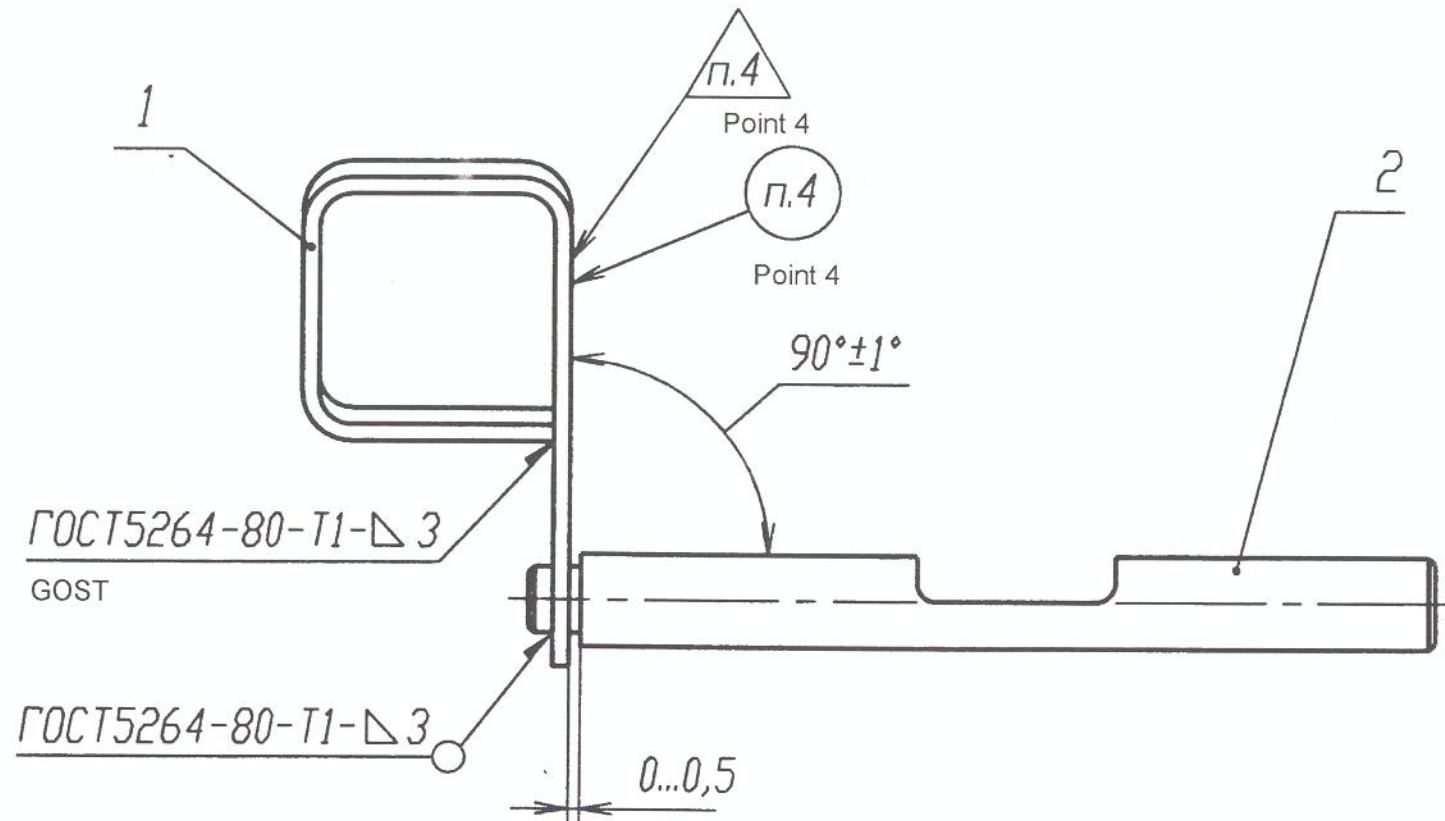
Sign and Date

Duplicate Inv. No

Alternate Inv. No

Sign and Date

Orig. inv. no.



1. Electric arc welding with welding rod NIAT-5-2.0 GOST 9466-75.
2. Welds as per OST 3-4001-91 category II. Visually check 100% welds.
3. Coating: Cd 12 Phos.Oil.
4. Mark Ч and stamp K as per AK-630, AK-630M TU I.

Comment [S27]:

					AK-630 -Yu Sb 3-6 SB			
Amend.	Sheet	Doc.No.	Sign	Date	<b>Locking pin Assembly drawing</b>	Type	Weight	Scale
Developed by						A	0.204	1:1
Checked by						Sheet	Sheets	1
Head of Q.C.D								
Approved by								

First use

Reference No.

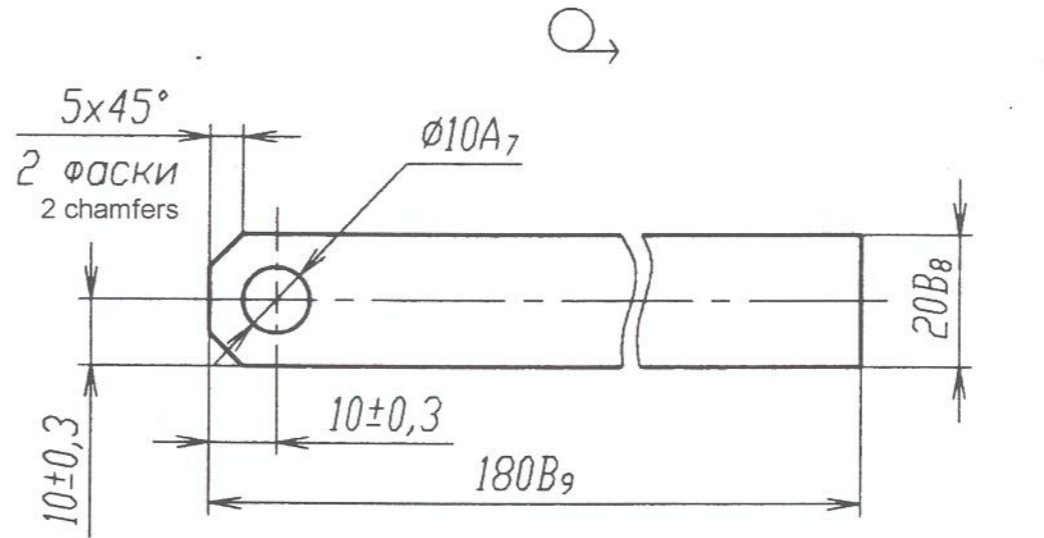
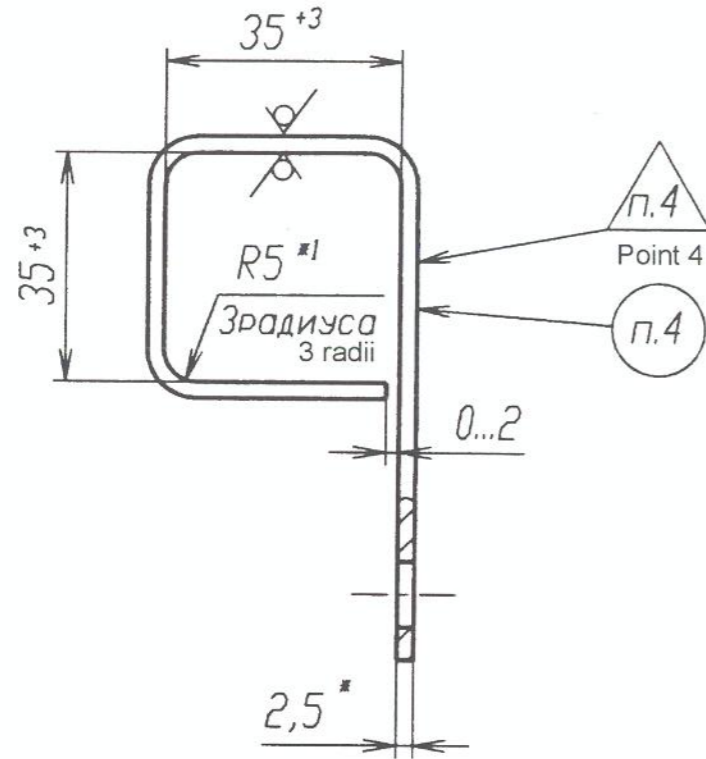
Sign and Date

Duplicate Inv. No

Alternate Inv. No

Sign and Date

Orig. inv. no.

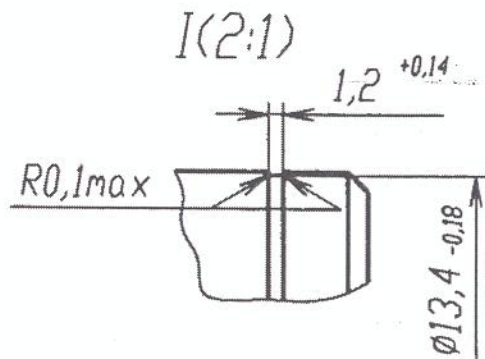
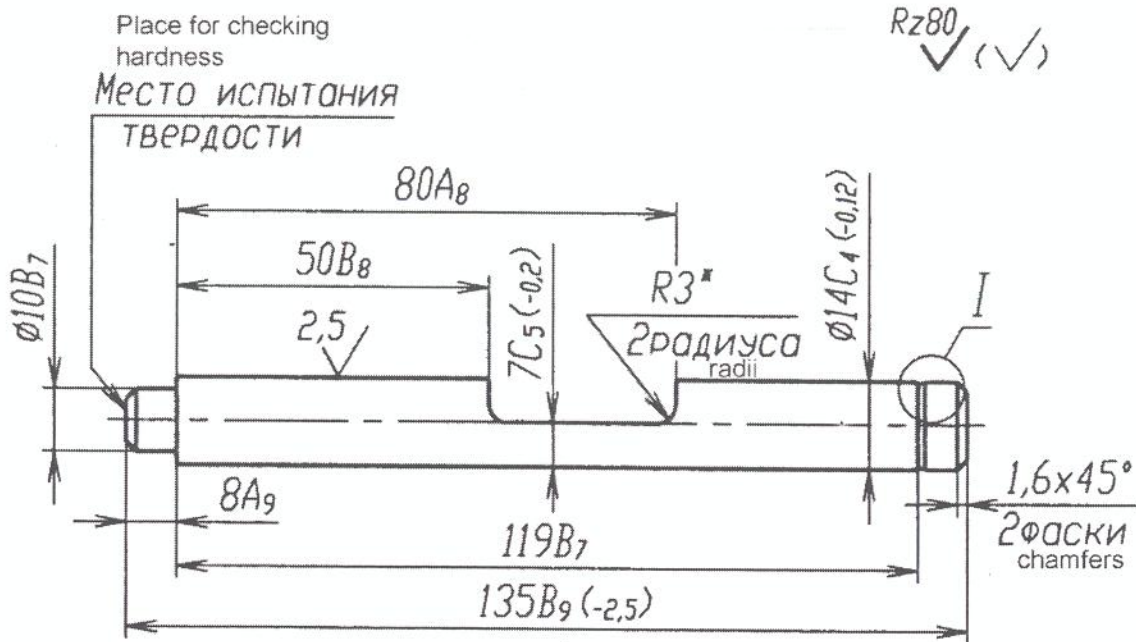


- 1.\* Reference dimension.
- 2.\*1 Dimensions ensured by tool.
- 3. Blunt sharp edges ~0.6 mm.
- 4. Mark Ш, Ч and stamp K as per AK-630, AK-630M TU I.

Comment [S38]:

					AK-630 -Yu 3-19			
Amend.	Sheet	Doc.No.	Sign	Date	<b>Handle</b>	Type	Weight	Scale
Developed by						A	0.080	1:1
Checked by						Sheet	Sheets 1	
Head of Q.C.D								
Approved by					Sheet $\frac{BT - PN - 02.5 GOST 19904 - 90}{K390V4 - III - 25 GOST 16523 - 97}$			

AK-630-Yo 3-20



1. 34...40 HRC<sub>E</sub>.
- 2.\* Dimension ensured by tool.
3. Blunt sharp edges R~0.4 mm.
4. Inner angles R~0.4 mm.
5. Mark Ш, Ч and stamp К, И on tag.

Approved OGMet	Approved TOSb	Approved KTONI	Approved by shop	First use
Orig. Inv. No.	Dupl. Inv. No.	Sign and Date	Reference No.	
Head of Q.C.D				
Design bureau chief				
Head of Q.C.D				
Approved by				

Amend.	Sheet	Doc. No.	Sign	Date

<b>AK-630-Yo 3-20</b>				
<b>Pin</b>	Type	Weight	Scale	
	A	0.124	1:1	
Sheet		Sheets 1		
Steel 30KhGSA GOST 4543-71				