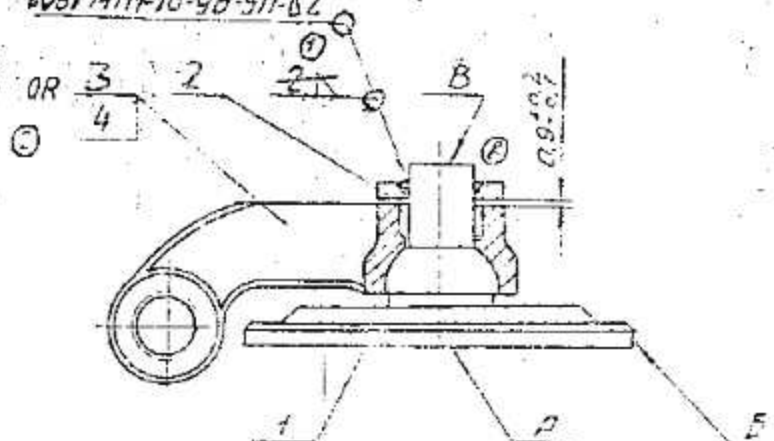


765-10-cb 532 cb

765-10-532CB

GOST 14774-76-46-97-B2



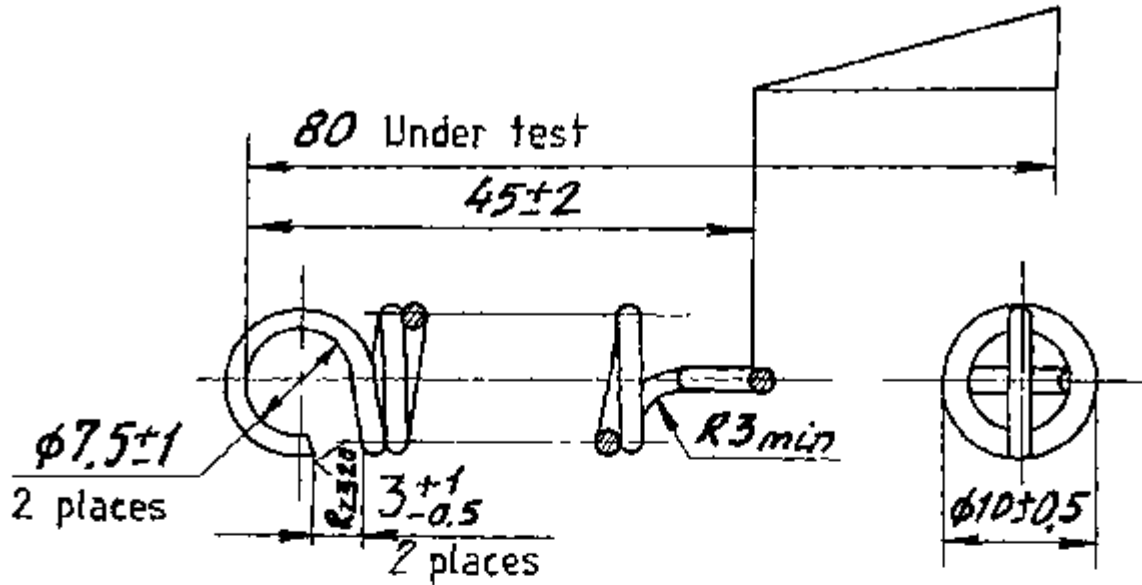
- 1). Check surface A by blueing at a surface plate. Bearing pattern should go in circle at least 5 mm wide from outer contour. Lapping is allowed.
- 2). Nicks and burrs are not allowed on surfaces A and E.
- 3). Dress weld flush with surface B.
- 4). Valve should easily turn along sphere of lever.
- 5). Use welding wire cb 08x20 9F 7T, GOST 2246-70.

DS CAT NO. ADDED & NOMENCLATURE WAS "VALVE"	AMENDMENTS
(A)	ISSUE
01228 11V 10/28/06 23.8.06	REVISION & DATE

APPROVED	M. VASU	DS-CAT NO. LVZ/ICV6 2615-004951	88 of 342	
CHECKED		(A) 765-10-C0532CB		
CONTROLLERATE OF INSPECTION (ICV)	VALVE PUPPET ENGINE (LH)		WEIGHT	SCALE
	-VALVE		0.262	1:1
	(Assembly drawing) (A)		SHT	SHTS
				11A

1 2 3 4  
**672-38-8**

$P = 4,8^{+1,0}_{-0,5} \text{kgf}$



**Ⓐ 8. EQUIVALENT MATERIAL IS G+3 to IS: 4454.**

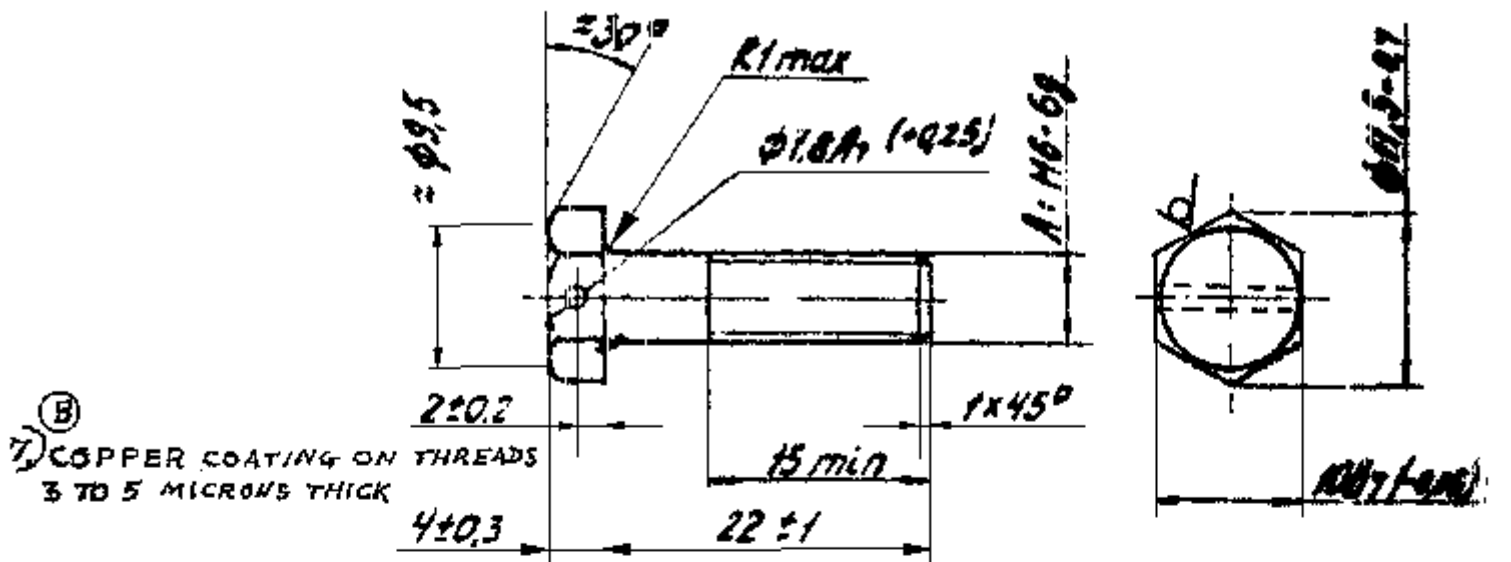
- 1 Alternate material is wire 50XφA-H-XH-12, GOST 14963-78, HRC 42 to 50
- 2 The hook axes should be in mutually perpendicular planes Deviation not exceeding 15° is allowed
- 3 Displacement of hooks with respect to spring axis should not exceed 1,5mm
- 4 Direction of coiling of spring is arbitrary
- 5 Total number of coils is  $n_f = 22,25 \pm 1$
- 6 Total length of the spring is  $L = 680 \text{mm}$
7. Coating Chemically parkerised, accelerated Chromatised treated with preservation oil K-17, GOST 10877-76, as per Instructions 053 25289 00002 or varnish KO-815, GOST 11066-74

00326-ICV <i>Selva</i> 14 MAY 92	Ⓑ <i>Ab con</i>	NOTE FOR EQUIVALENT MATERIAL ADDED.
01007-ICV <i>ANON</i> 03 NOV 05	Ⓑ <i>Samy</i>	
IC(I)No. & DATE	ISSUE	AMENDMENT'S

APPROVED *M VASU*  
 CHECKED *SHARMA & MSAGDDY*  
 CONTROLLERATE OF QUALITY ASSURANCE (ICV)

**672-38-8**  
**SPRING**  
**HELICAL EXTENSION**  
 WIRE II - 1-2 GOST 9389-75

DS CAT No. LV2/ICVS Ⓑ	
LV2/ICVS-5360-007379	
WEIGHT	SCALE
0.068	2:1
SHT	SHTS



- (B) 6) UTS 72.5 Kg/mm<sup>2</sup>(min), ELONGATION 20% (min)
- (A) 5. EQ. MATERIAL :- ALLOY STEEL 04CY 18 Ni 10 T/20 TO IS:6603-72.
- (B) 9: ALTERNATE MATERIAL :- 304 S 15 TO BS:970-83.
  1. Alternate material is steel 12x18H10T, GOST 5632-72:
  2. Thread may be made by rolling, in this case, the diameter of the threaded portion of the rod should be equal to ~~mean~~ diameter of the thread.
  3. Other requirements are as per GOST 1759-70, Section 1.
- (B) 4. Coating of surface A: Copper plating, ~~9 microns thick,~~ Separate, small blisters are allowed. Coating may be ~~d~~ all around

00606-ICV <i>[Signature]</i> 2 MAY 97 00477-ICV	(B)	NOTE FOR UTS, AND ALTERNATE MATERIAL ADDED. NOTE FOR COATING AMENDED.(1/97 N OF A)
<i>[Signature]</i> 19 OCT 94	(A)	NOTE No. 5 FOR EQ. MATERIAL ADDED.
DC(I)No. & DATE	ISSUE	AMENDMENTS

APPROVED	M.VASU	<h1>700-28-567</h1>	
CHECKED	<i>[Signature]</i> B-MSKEDDY		
CONTROLLERATE OF QUALITY ASSURANCE (ICV)	<h2>BOLT</h2>		WEIGHT SCALE
	STEEL 12x18H 9 T GOST 5632-72		0.007 2:1
			SHT SHTS

Fig - 1

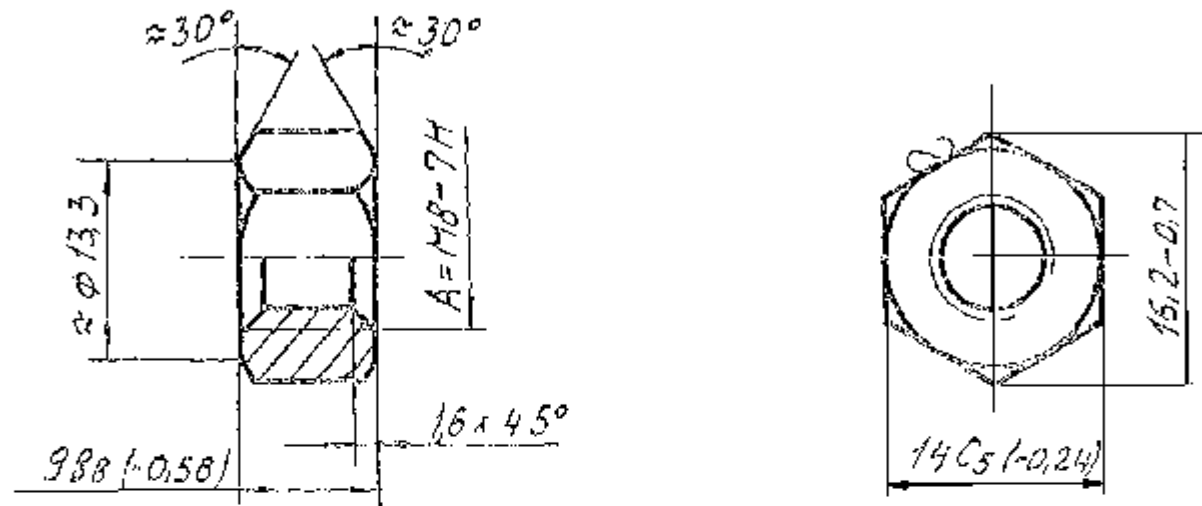
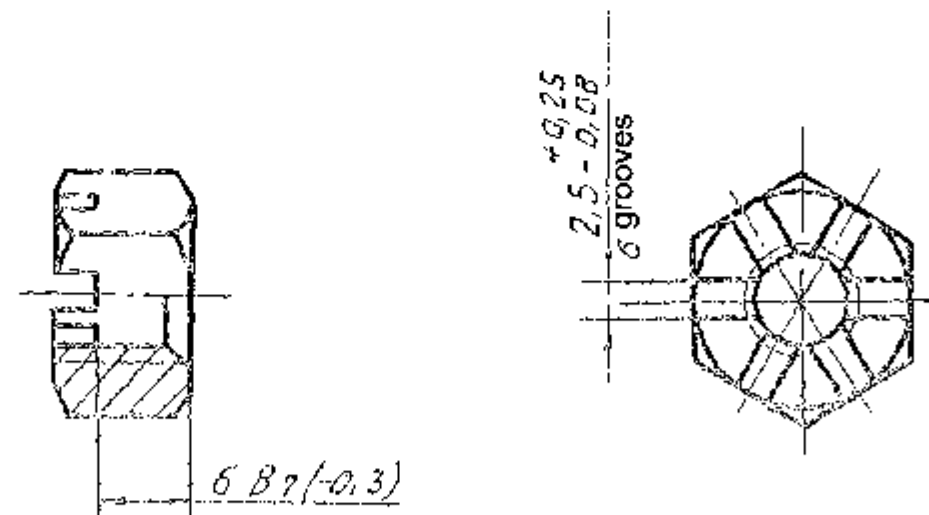


Fig - 2

Unless otherwise specified (see Fig.1)



Designation	Fig.
700-30-492	1
-01	2

Ⓢ 5. UTS 72.5 Kg/mm<sup>2</sup> (min), ELONGATION 20% (min).

1. Alternate material is steel 12x18H 10T and 20x23H18 GOST 5632-72.
2. Displacement of axis of hole should not exceed 0.3mm.
3. Displacement of axis of groove with respect to axis of hole should not exceed 0.25mm (qualified tolerance).

Ⓢ 4. Coating of thread A: - ~~M7~~; coating may be applied all over, separate blisters of negligible size are allowed.

Ⓢ 6. COPPER COATING ON THREADS 3 TO 5 MICRONS THICK.

Ⓐ 5. EQUIVALENT MATERIAL: IS 04 Cr18 Ni10 Ti20 TO IS:66 03-72.

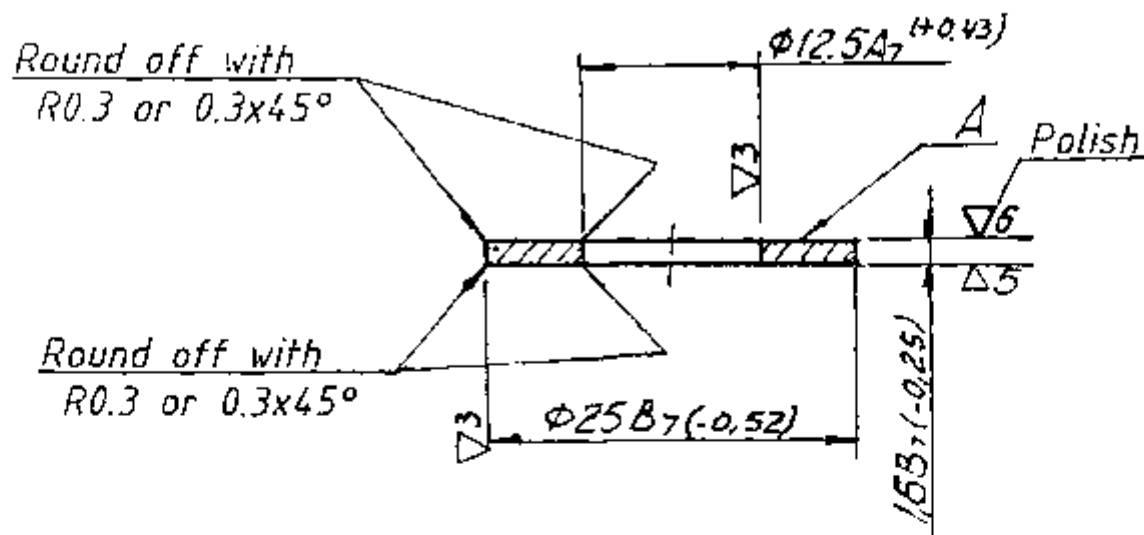
Ⓢ ALTERNATE MATERIAL :- 304 S15 TO BS: 970-83.

Ⓢ EQUIVALENT MATERIAL:- STAINLESS STEEL BAR 04Cr18Ni10Ti20 TO IS:1570(PART-2)-72.

00818-ICV 11-10-2000	Ⓢ Am	EQ. MATERIAL ADDED
00606-ICV 02-05-97	Ⓢ Am	NOTE FOR UTS AND ALTERNATE MATERIAL ADDED. NOTE FOR COATING AMENDED. (1/97 N OF A)
00477-ICV 19-10-94	Ⓑ Am	SPECN. FOR EQ. MATERIAL WAS IS: 6911.
00326-ICV 14-05-1992	Ⓐ Am	NOTE FOR EQUIVALENT MATERIAL ADDED
DCI No. & DATE	ISSUE	AMENDMENTS

APPROVED	<i>M. VASU</i>	700-30-492	
CHECKED	<i>S. Kumar</i>		
CONTROLLERATE OF QUALITY ASSURANCE (ICV)	NUT	WEIGHT	SCALE
		0.009	2:1
		SHT 1	SHTS 1
12X1BH 9T, GOST 5632-72			

700-31-837



1. Alternate material is steel 12x18H10T, GOST 5632-72.
2. Convexity or concavity of surface A should not exceed 0.06 mm.
- ③ 3. EQUIVALENT MATERIAL IS 04 Cr18 Ni10 Ti20 TO IS:6911.

00326 - ICV <i>Saly</i> 14 MAY 92	③ M com	NOTE FOR EQUIVALENT MATERIAL ADDED
DCI) No. & DATE	ISSUE	NATURE

APPROVED *[Signature]* H. VASU  
 CHECKED *A. Kadivich*  
 CONTROLLERATE  
 OF  
 QUALITY ASSURANCE  
 (ICV)

700-31-837

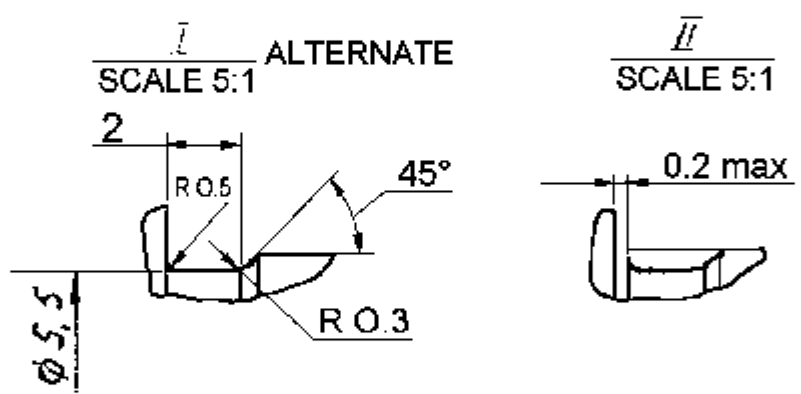
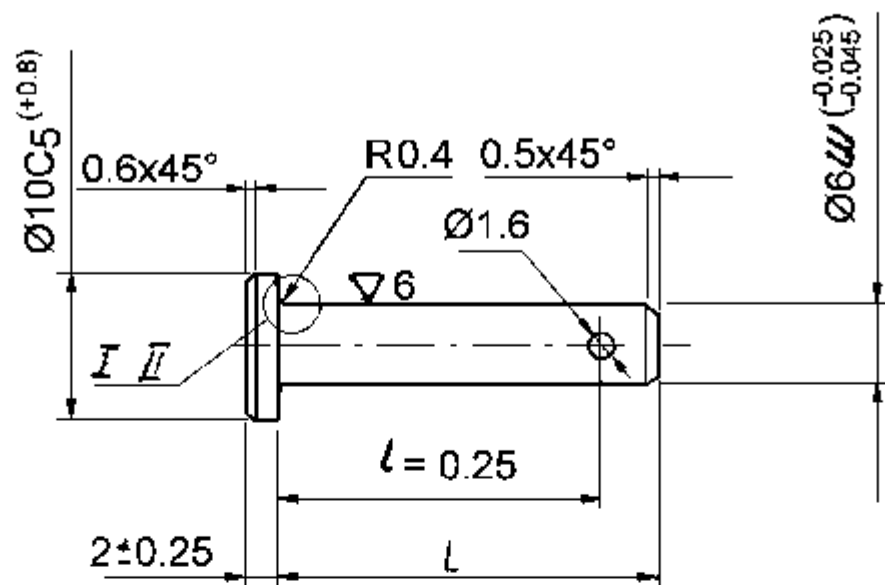
WASHER

12x18H9T, GOST5632-72

WEIGHT SCALE

0.004 2:1

SHT 1 SHTS 1



**TECHNICAL CONDITIONS**

1. HB 321 to 228 (Ø3.4 to 4.0).
2. Alternate material is 38XC, 40X, 40XC, 45X, GOST 4543-71.
3. Unspecified limit deviations of dimensions are as follows:  
For holes -as per A<sub>7</sub> and  
for shafts -as per B<sub>7</sub>
4. Displacement of holes from axis of rod should not exceed 0.3mm
5. Coating: Zinc-plated, 9 microns thick, chromated  
Remove hydrogen embrittlement.
- Ⓐ 6. Equivalent material is 40Cr4 Mo3 to IS:5517.
- Ⓑ EQ.MATERIAL:- 40 Cr 1 Mo 2B TO IS: 5517.

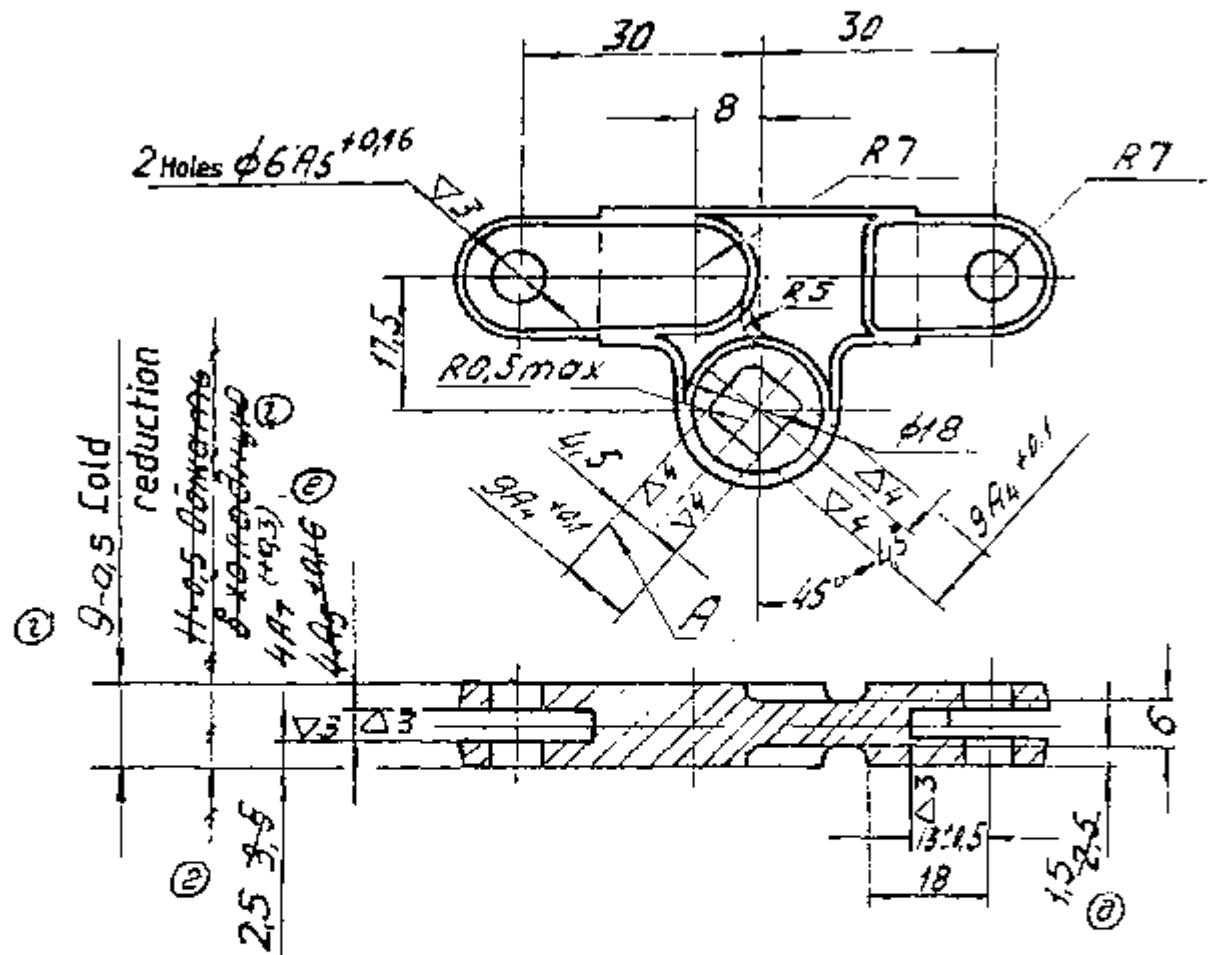
DESIGNATION	L,MM	L,MM	MASS,Kg.
700-47-358	14±0,43	10	0,0043
-01	16±0,43	12	0,0047
-02	20±0,52	16	0,0056
-03	25±0,52	21	0,0067
-04	35±0,62	30	0,010

© DS CAT No. LV2/ICVS-5315-0252278.

01065-ICV 8 OCT 09	Ⓒ	DS CAT No. LV2/ICVS 5315-0252278 ADDED & NOMENCLATURE 'AXLE' AMENDED AS PIN STRAIGHT HEADED AGAINST DRG No.700-47-358
00820-ICV 17 OCT 00	Ⓑ	EQ. MATERIAL ADDED.
00321-ICV 11 FEB 92	Ⓐ	NOTE FOR EQUIVALENT MATERIAL ADDED.
DCI No. & DATE	ISSUE	AMENDMENTS

APPROVED	 CONTROLLERATE OF QUALITY ASSURANCE (ICV)	<b>700-47-358</b>  <b>AXLE</b>		WEIGHT	SCALE
CHECKED				SEE TABLE	2:1
		SHT	SHTS		
		38xA GOST 4543-71			



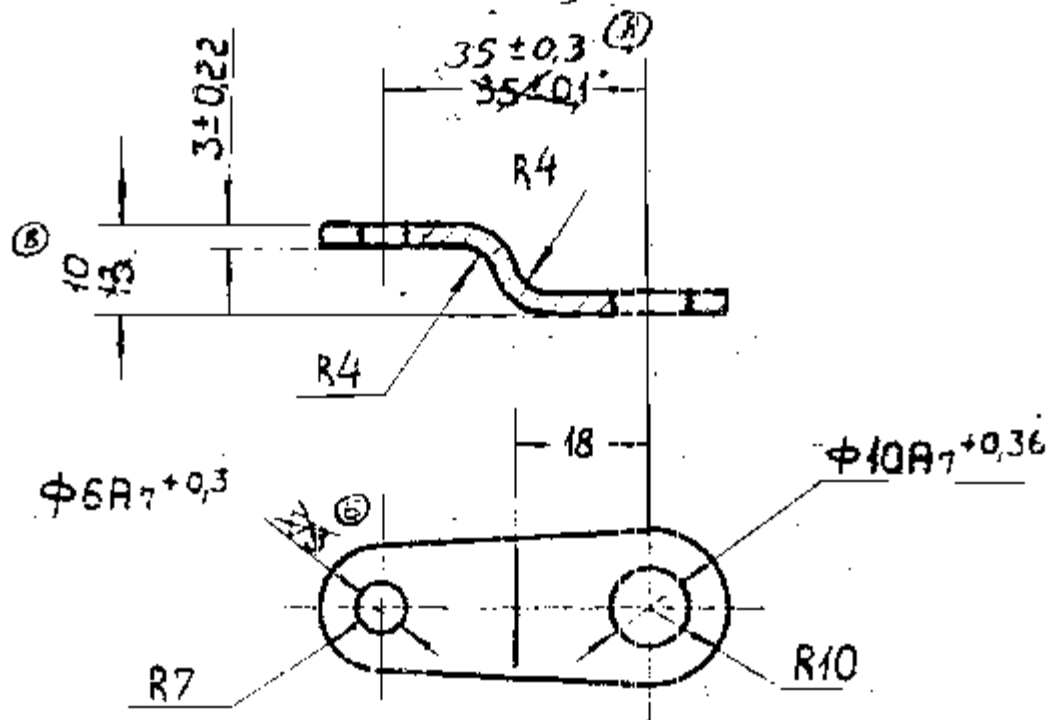


TECHNICAL CONDITIONS

1. Blunt sharp edges.
2. Local depressions of not more than 0.5 mm are allowed on unmachined surfaces.
3. Other requirements placed upon forging are as per class II, GOCT 7505-74.
4. Displacement of axes of holes from true position should not exceed 0.2 mm.
5. Drill traces to a depth not exceeding 0.1 mm are allowed on surface A.
5. Coating: Zinc - plating, 9 microns thick, chromated. Remove hydrogen embrittlement.
7. Lever may be made along conventional dotted line.
- ⑧. EQUIVALENT MATERIAL IS 45C8 Gr2 TO IS:9550.

00383 - ICV 31 MAR 92	⑧	NOTE FOR EQUIVALENT MATERIAL ADDED
DC(I) No.&DATE	ISSUE	NATURE
AMENDMENTS		

APPROVED	<i>M. VASU</i>	<b>765-10-1055</b>	
CHECKED	<i>H M S...</i>		
CONTROLLERATE OF QUALITY ASSURANCE (ICV)		<b>LEVER</b>	
		45, GOST 1050-74	
		WEIGHT	SCALE
		0.057	1:1
		SHT 1	SHTS 1



- 1) **Blunt sharp edges.**
- 2) Perform dimensions without deviations with an accuracy of  $\pm 0.5$  mm.
- (A) 3) EQUIVALENT MATERIAL IS Gr-D TO IS:513.

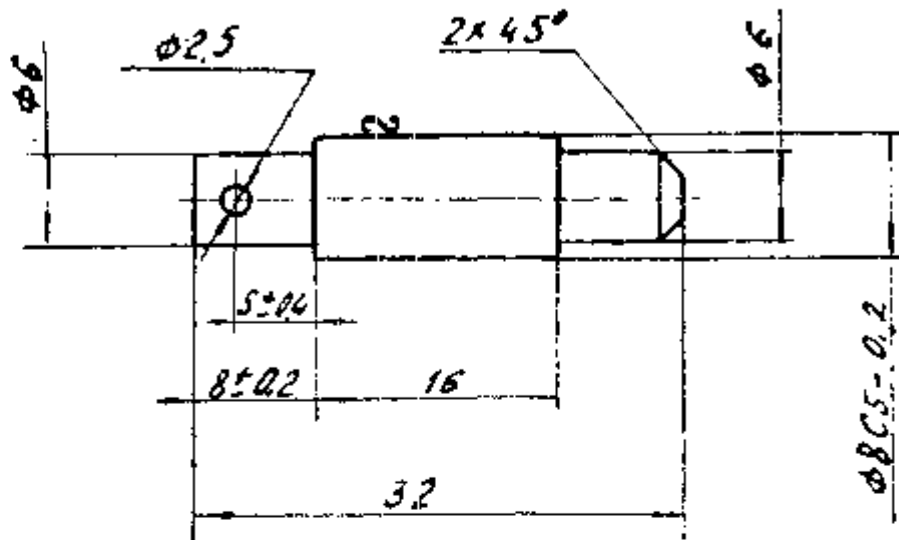
00323 - ICV <i>Suday</i> 31 MARCH 22	(A) <i>ll</i>	NOTE FOR EQUIVALENT MATERIAL ADDED
DC(II) No.&DATE	ISSUE	NATURE
AMENDMENT		

APPROVED	765-10-1062	234 of 342
CHECKED <i>H.M. Sk...</i>		
CONTROLLERATE	<b>LEVER</b>	SCALE 0.02 1:1
INSPECTION (ICV)	10 OCT 1050-74	

765-10-1063

▽3

Unless stated otherwise



- Ⓐ 4) EQUIVALENT MATERIAL IS 20C8 Gr2 TO IS:9550
- 1) Blunt sharp edges.
  - 2) Perform dimensions without deviations as per accuracy class 7, OST 1010.
  - 3) (Alternate material is steel cm3, cn, GOST 380-71 and 10, 15, 25, GOST 1050-74 and 15 P and 20C GOST 4543-71.

00323 - ICV 71 MARCH 92	NOTE FOR EQUIVALENT MATERIAL ADDED
DCIII No. & DATE	ISSUE
	NATURE
AMENDMENT	

APPROVED  
CHECKED H. M. Sk

765-10-1063

235 of 342

CONTROLLERATE  
OF  
INSPECTION  
(NEW)

SHAFT

WEIGHT SCALE

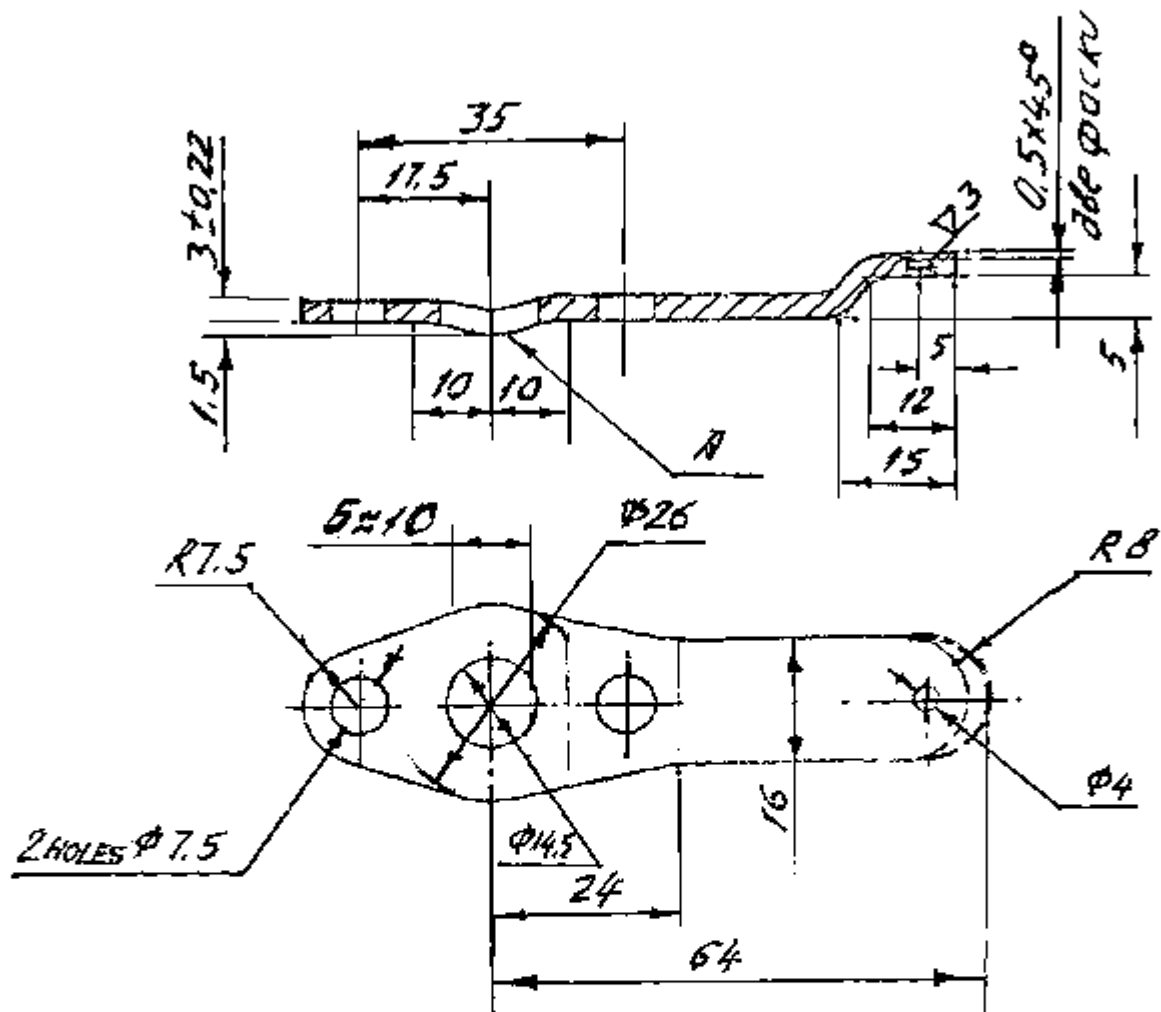
0.01 2:1

SHT DATE

20 GOST 1050-74

765-10-1237

2 (V)

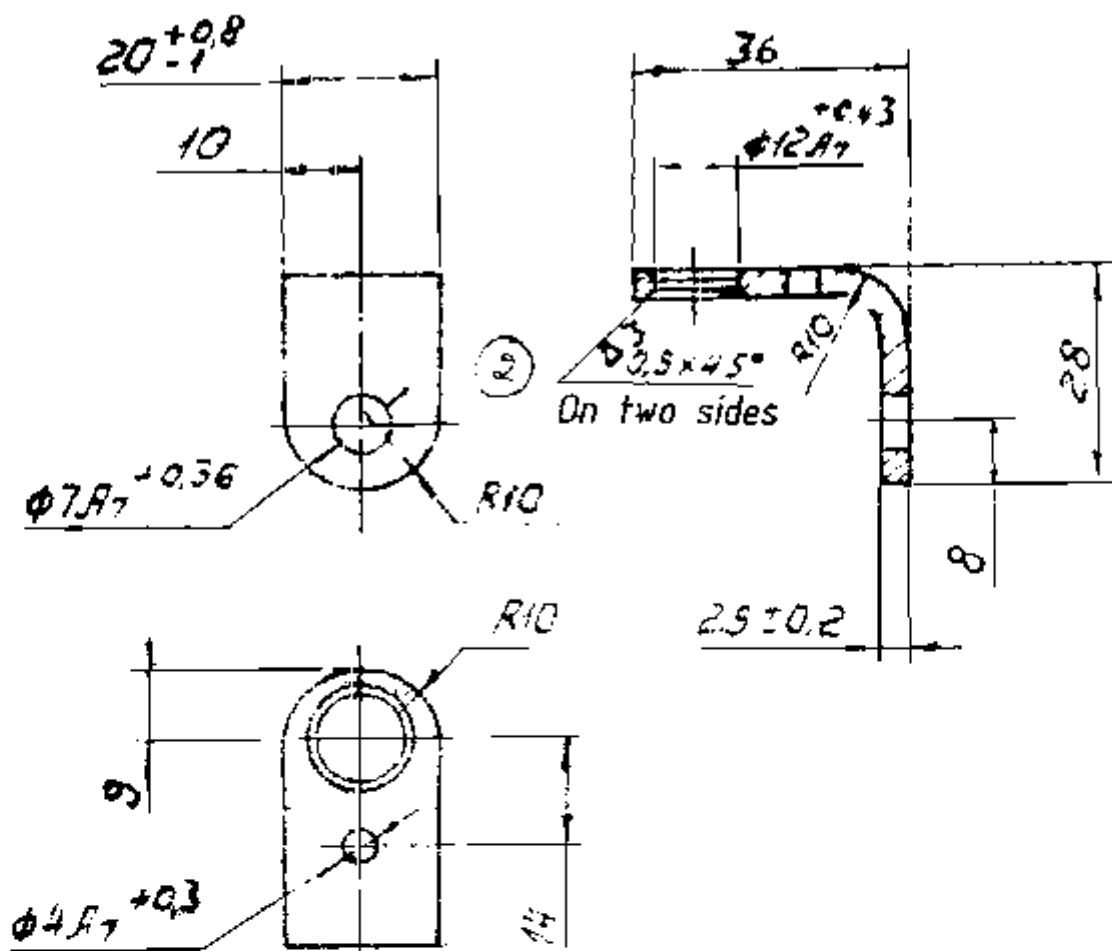


- 1 Alternate material is 08kn, 08nc and 10 GOST 1050-74
- 2 Coating of surface A Hard chrome plated 18 microns thick oiled with preservative oil k-17 GOST 10877-76 as per instructions 053,25289,00002 or with varnish KO-815 GOST 11066-74
- 3 Part may be coated all over.

Ⓐ 4. EQUIVALENT MATERIAL IS Gr-D TO IS:513.

01028-1CV 02.8.06	Ⓑ	DS CAT No. ADDED AND NOMENCLATURE WAS "LEVER"
00323 - ICV 31 MAR 92	Ⓐ	NOTE FOR EQUIVALENT MATERIAL ADDED
DC(II) No.&DATE	ISSUE	NATURE
AMENDMENTS		

APPROVED	<i>M. VASU</i>	<b>765-10-1237</b>	DS CAT PART No. Ⓑ LV2/ICVs 2540-003062	
CHECKED	H.M. Shaikh			
CONTROLLERATE OF QUALITY ASSURANCE (ICV)		<del>LEVER</del> Ⓑ <b>LEVER RELEASE</b>		WEIGHT   SCALE
		10kn, GOST 1050-74		0.032   1:1
			SHT 1	SHTS 1



- 1) Blunt sharp edges.
- 2) Perform dimensions specified without deviations with an accuracy of  $\pm 0,5$  mm.
- 3) Coating : Zinc-plating, 24 microns thick, chromating. Remove hydrogen embrittlement.
- 4) Alternate material is steel cm2, steel cm3, steel cm5, GOST 380-71 and steel 15, 20, 25, GOST 1050-74.

Ⓐ 5) EQUIVALENT MATERIAL IS Gr-D TO IS:513.

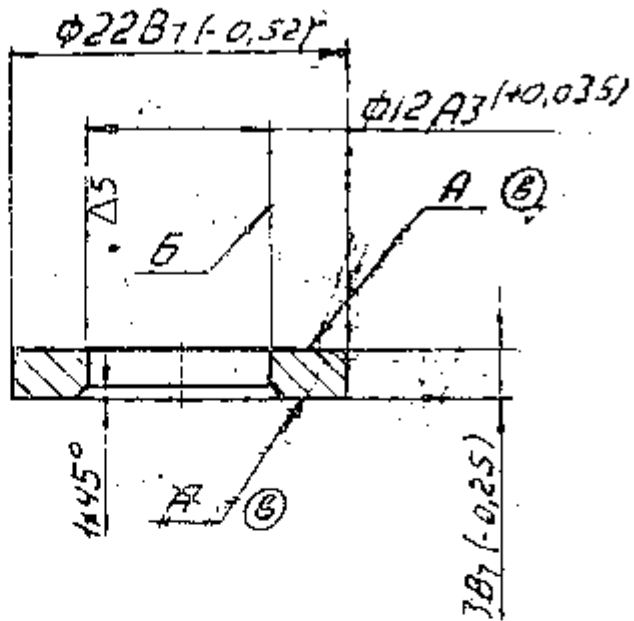
00323 - ICV <i>Indant</i> 31 MAR 92	Ⓐ <i>AD</i>	NOTE FOR EQUIVALENT MATERIAL ADDED
DC(II) No.&DATE	ISSUE	NATURE

APPROVED	<i>[Signature]</i> H. VAS
CHECKED	H.M. Shantik

765-10-1361

CONTROLLERATE OF QUALITY ASSURANCE (ICV)	BRACKET	WEIGHT	SCALE
		0.019	1:1
		SHT	SHTS
STEEL Cm3Kn, GOST 380-71			





1. End-play of surface A with respect to axis of surface B should not exceed 0.06 mm on  $\phi 20$  mm, (Qualified tolerance).

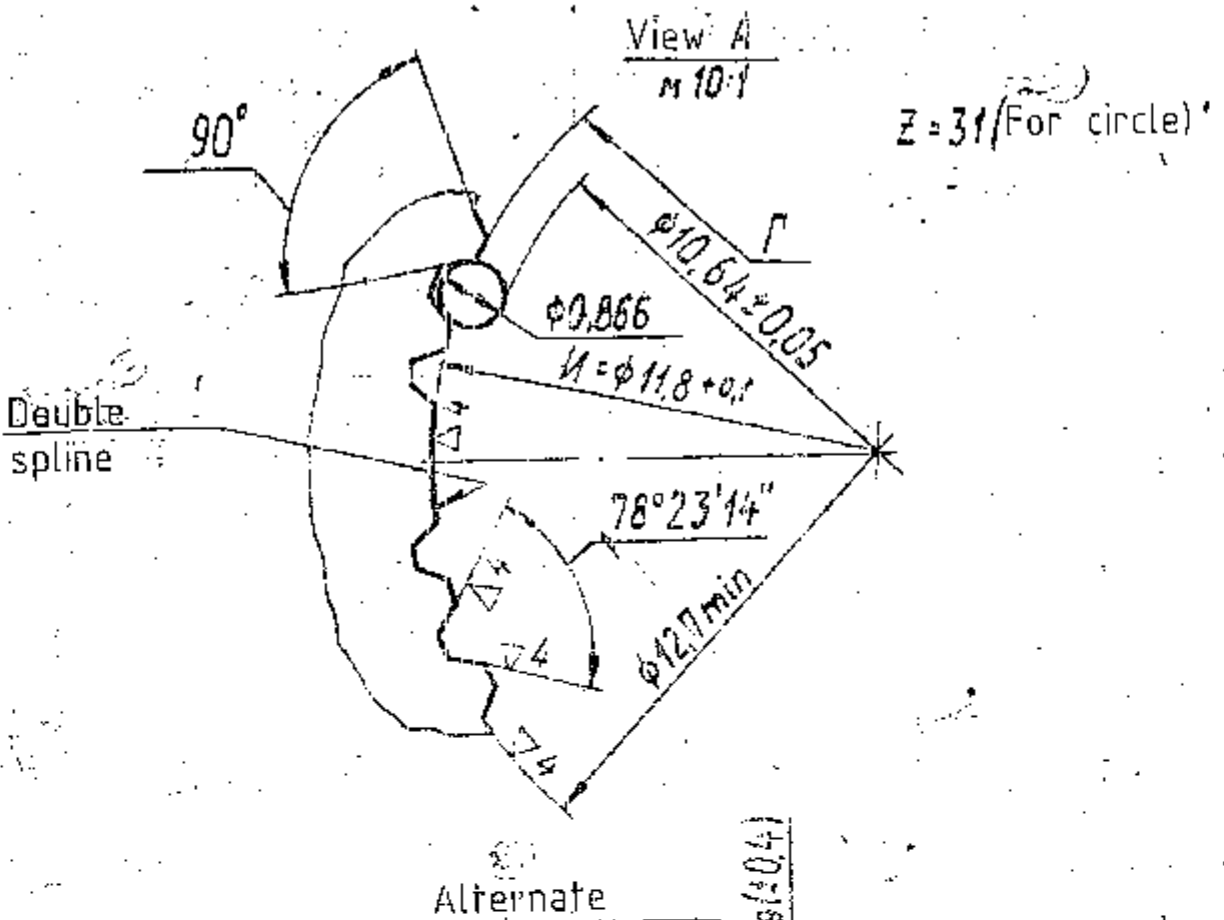
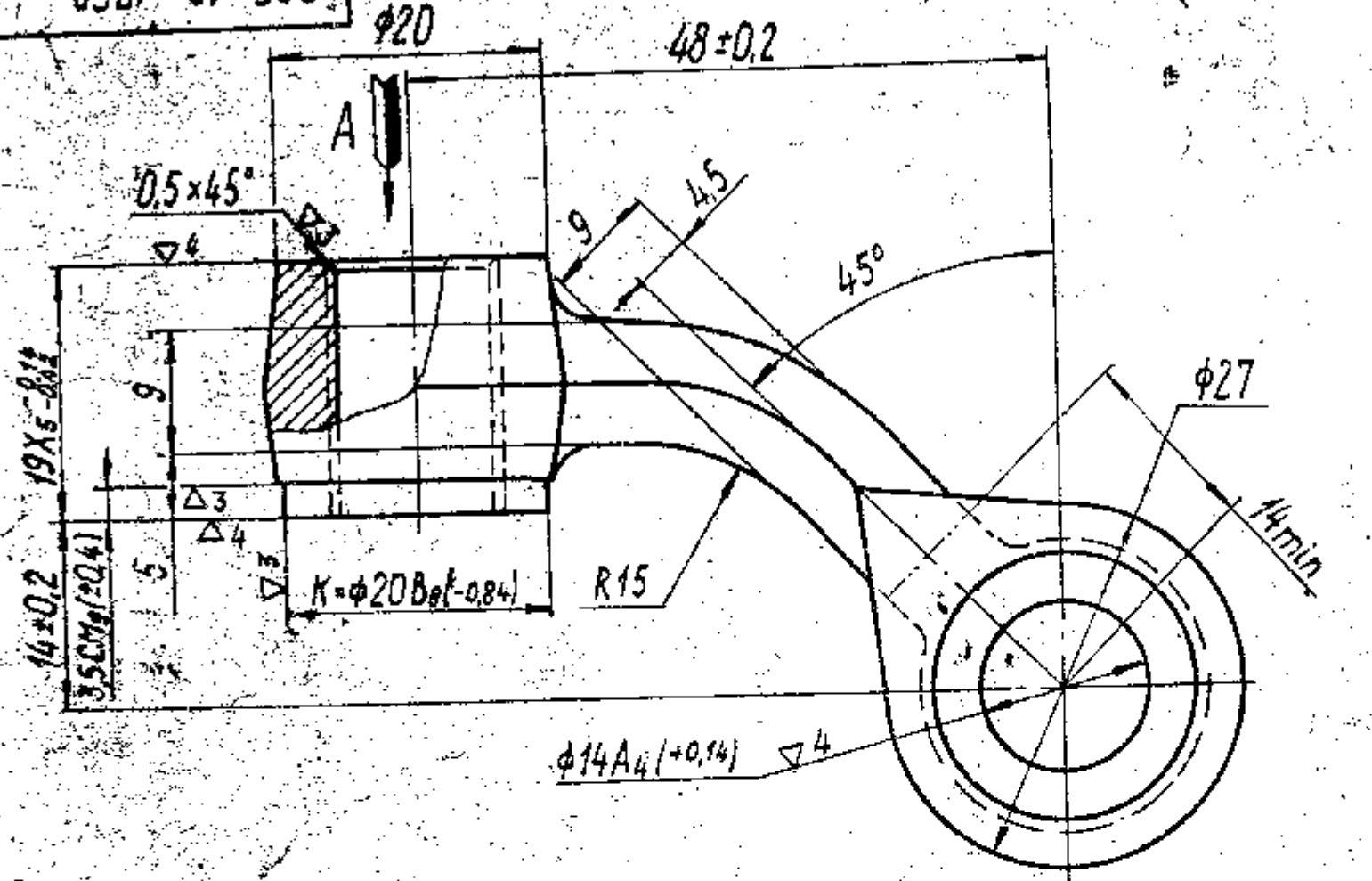
① 2. EQUIVALENT MATERIAL IS OF C-16 NiO Ti2O TO IS:6911.

00326 - ICV <i>Indey</i> 14 MAY 72	① <i>Item</i>	NOTE FOR EQUIVALENT MATERIAL ADDED
DC(II) No. & DATE	ISSUE	NATURE
	AMENDMENT	

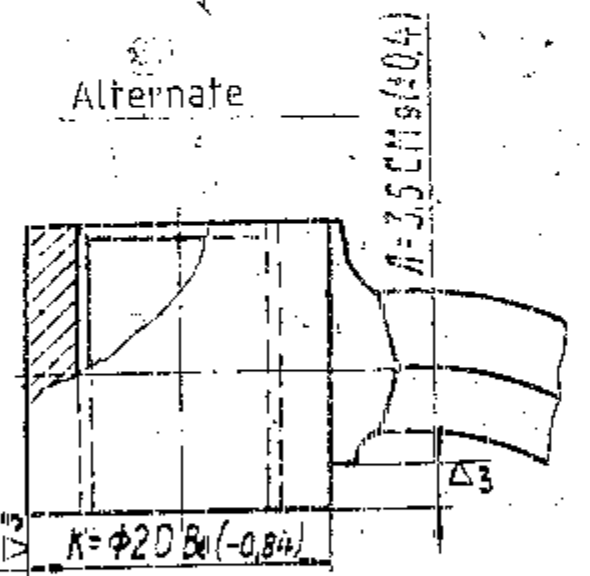
APPROVED	765-10-1758	270 of 342
CHECKED <i>D.S. KUMAR</i>		WEIGHT SCALE
CONTROLLER RATE	RING	0.006 2:1
INSPECTION (ICV)	12X18H9T GOST 5632-72	

unless otherwise specified.

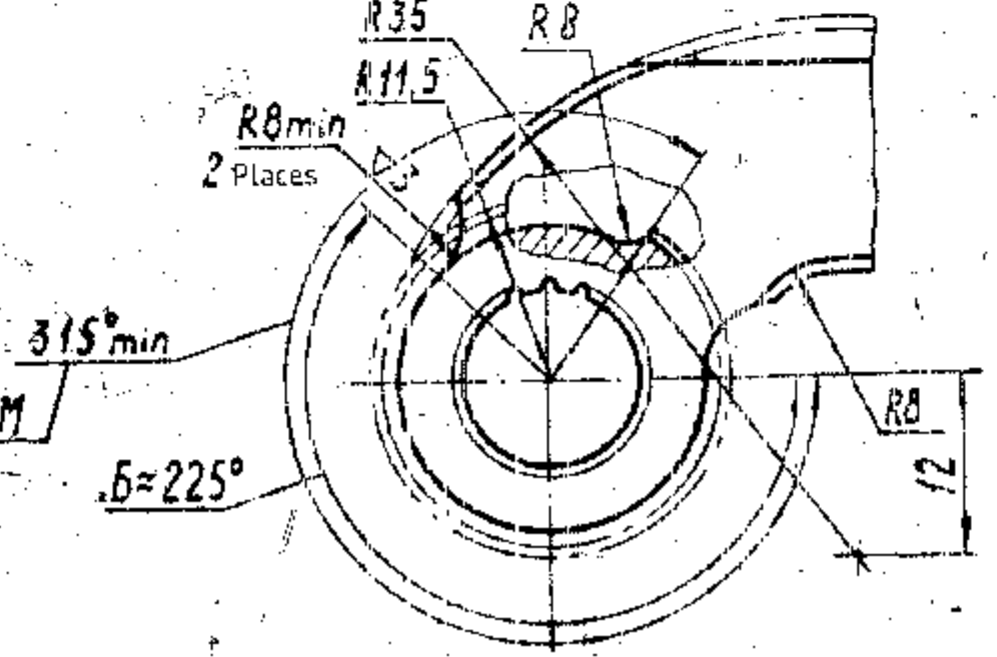
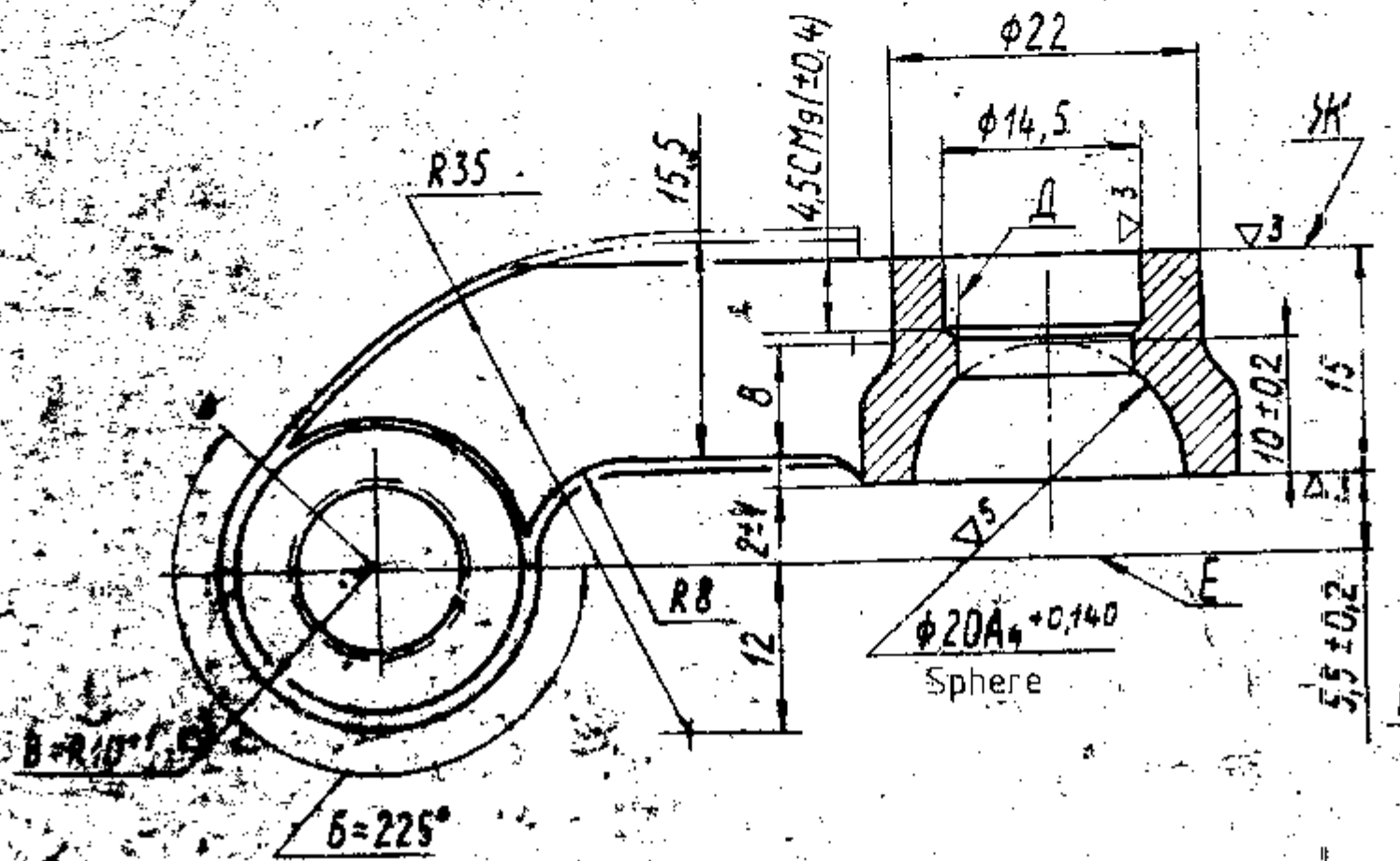
6521-01-596



Alternate



over the length/l

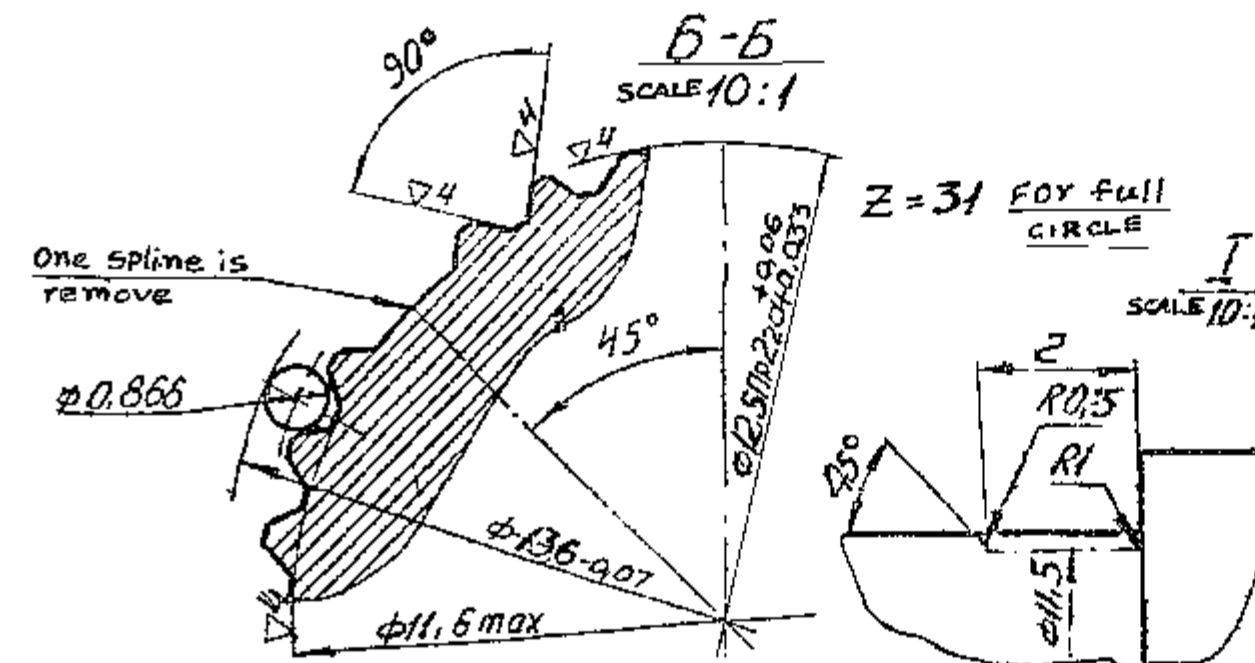
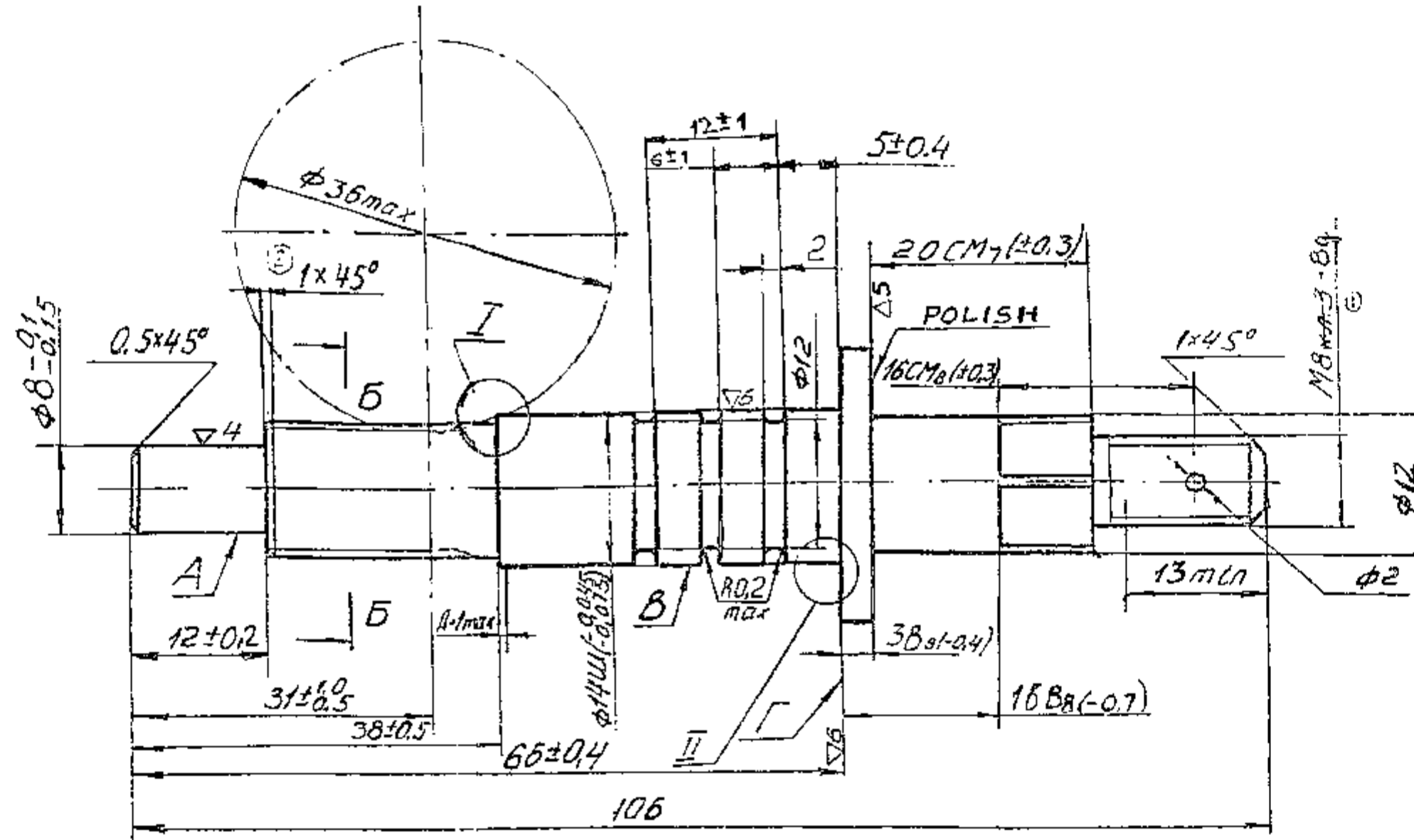
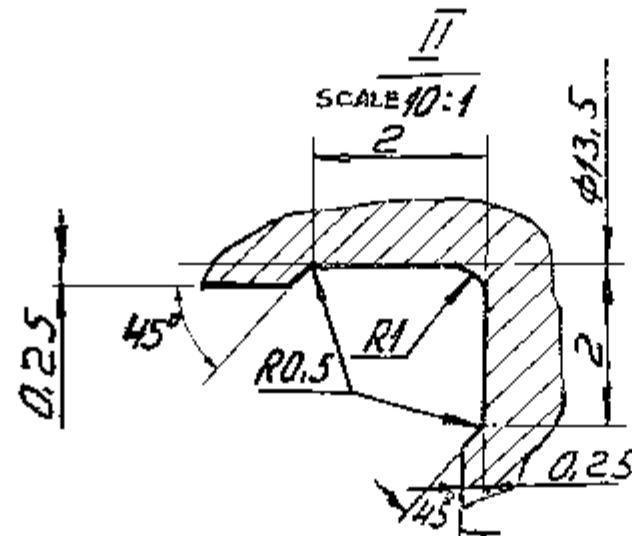
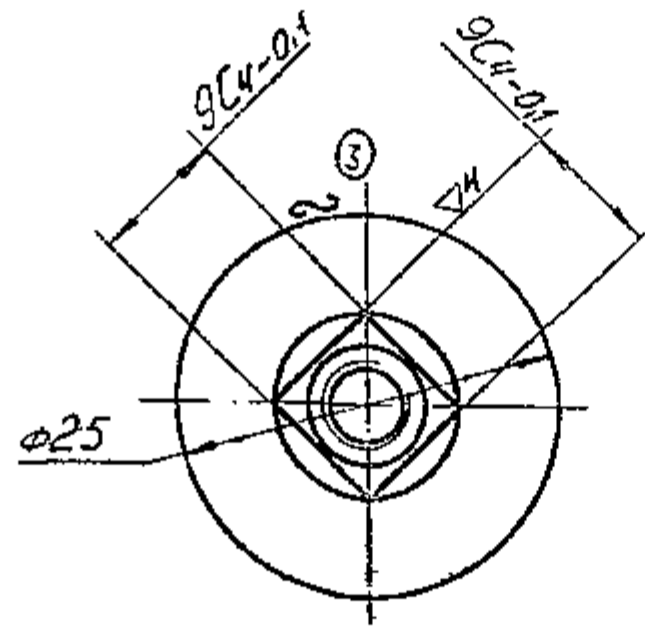


1. Blunt sharp edges.
2. Provide dimensions without deviations of surfaces to be machined as per accuracy class 7 OST 1010. Other requirements placed upon forging are as per class II GOST 7505-74.
3. Check the dimensions B with cutter on section B.
4. Nonsquareness of axes of surfaces A and F should not exceed 0,2mm over the length 50 (qualified tolerance).
5. Misalignment of axis of symmetry of double spline with axis E may be 20 max.
6. Unspecified stamping radii are R3.
7. Nonsquareness of surface X to axis of surface A should not exceed 0,5mm over the length 50. (qualified tolerance).
8. Part may be made as per conventional dotted line.
9. Shrinkage of hole M is allowed upto φ11,75mm.
10. Dark spots are allowed on surface K.
11. When making part as per alternate dimensions K may be maintained on arc M.

Ⓐ 12. EQUIVALENT MATERIAL IS 04 Cr18-Ni10 Ti20 TO IS:6911.

00346 - ICV 14 MAY 92	NOTE FOR EQUIVALENT MATERIAL ADDED
DCU) No. DATE	ISSUE NATURE
AMENDMENTS	

APPROVED	MVASU	765-10-1759	271 of 342
CHECKED	OK	LEVER	WEIGHT SCALE
CONTROLLERATE OF INSPECTION (IC V)		12x18H9T POCT 5632-72	0.088 2:1
			SHT SHTS



1. THREAD MAY BE MADE BY ROLLING IN THIS CASE DIAMETER OF UNTHREADED PORTION OF ROD SHOULD BE EQUAL TO THE ANGLE DIAMETER OF THREAD.
2. RUN-OUT OF SURFACE 'A' WITH RESPECT TO AXIS OF SURFACE 'B' SHOULD NOT EXCEED 0.05 mm.
3. RUN-OUT OF SURFACE 'T' WITH RESPECT TO AXIS OF SURFACE 'B' SHOULD NOT EXCEED 0.04 mm ON  $\varnothing 24$ .
4. NON-STRAIGHTNESS OF GENERATRIX OF SURFACE 'B' SHOULD NOT EXCEED 0.03 mm.
5. DISPLACEMENT OF TETRAHEDRON WITH RESPECT TO AXIS OF CENTERS SHOULD NOT EXCEED 0-2.5 mm
6. DISPLACEMENT OF AXIS OF REMOVED SPLINE WITH RESPECT TO AXIS OF TETRAHEDRON SHOULD NOT EXCEED 2°.
7. PROVIDED DIMENSIONS WITHOUT DEVIATIONS AS PER ACCURACY CLASS 7 GOST : 1010.
8. UNSPECIFIED RADII ARE R 0.5.
9. ALTERNATE MATERIAL IS 20X23H18, GOST : 5632-72.
10. BRINELL HARDNESS IS 302 TO 255 (  $\varnothing 3.5$  TO 3.8 ).
11. TOOL MARK WITH A DEPTH NOT EXCEEDING 1 mm IS ALLOWED ON SECTION  $\varnothing 24$ .
12. THE SHAFT MAY BE MADE AS PER CONVENTIONAL DOTTED-LINE.

THE ABBREVIATION AND SYMBOLS ARE BASED ON RUSSIAN SPECIFICATIONS

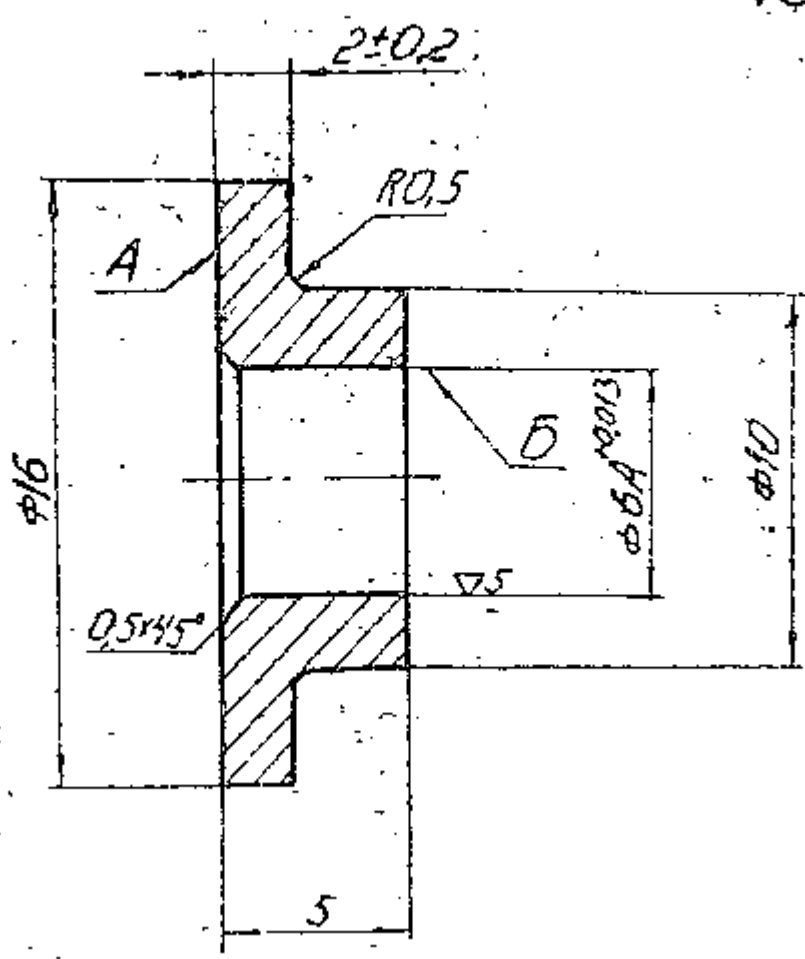
ALL DIMENSIONS ARE IN MM

ALLOY STEEL No. V8 (X45CY9513) TO IS : 7494-81		00534 -1CV Anly 21-11-95 DCU No A DATE	DRAWING REVISED AND RETRACED (1/95 N OF A)
ALTERNATE MATERIAL 401645 (En52) TO BS:970 PART 4-70			
EQUIVALENT MATERIAL		ISSUE	AMENDMENTS
ROUND BAR B25 GOST 2590-71 40x10C2 M GOST 5949-75			
ORGL MATERIAL:-		STAMP OR ETCH, PART No. MANUFACTURER'S NAME & YEAR OF MFR.	
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF		ALL THREADS TO CONFORM TO SPECIFICATION	
DRG. NOT TO BE SCALED		TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED	
SCALE: 2:1		USED ON: 765-10-Sb542 765-10-Sb543	
DATE: 21-11-95			
DRN. <i>[Signature]</i>	WT :- (Kg) 0.092	765-10-1761	
TCD. <i>[Signature]</i>			
CHD <i>[Signature]</i>		SHAFT	
APPD <i>[Signature]</i>			
CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)		DS CAT No.	

765-10-1766

▽3 Unless otherwise specified.

00323 - ICV 31 MARCH 92	ISSUE	NOTE FOR EQUIVALENT MATERIAL ADDED
DCI/ NO. DATE	AMENDMENT	NATURE



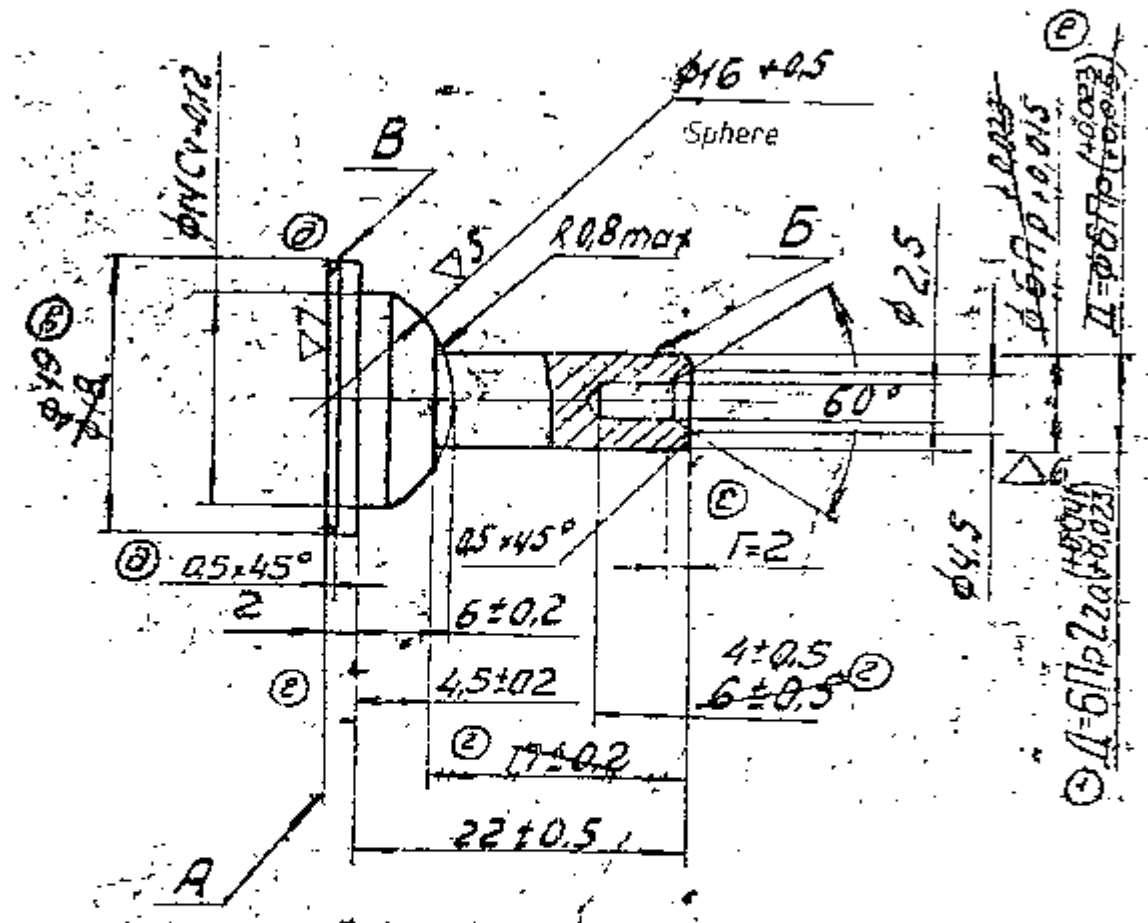
1. Blunt sharp edges.
2. Provide dimensions without deviations as per accuracy class 7, OST-1010.
3. Run-out of surface A with respect to axis of surface B should not exceed 0.08 mm (Qualified tolerance).

Ⓐ 4. EQUIVALENT MATERIAL IS 20C8 Gr2 TO IS:9550

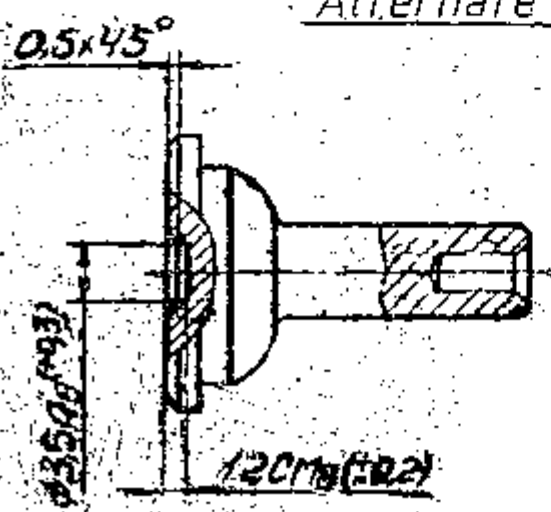
APPROVED	N. VAS	765-10-1766		273 of 342	
CHECKED	A. S. D. SKUMBA	RING		WEIGHT	SCALE
CONTROLLERATE OF INSPECTION (ICV)		20 GOST 1050-74		0.003	5:1
				SHT	SHTS

▽3. Unless otherwise specified.

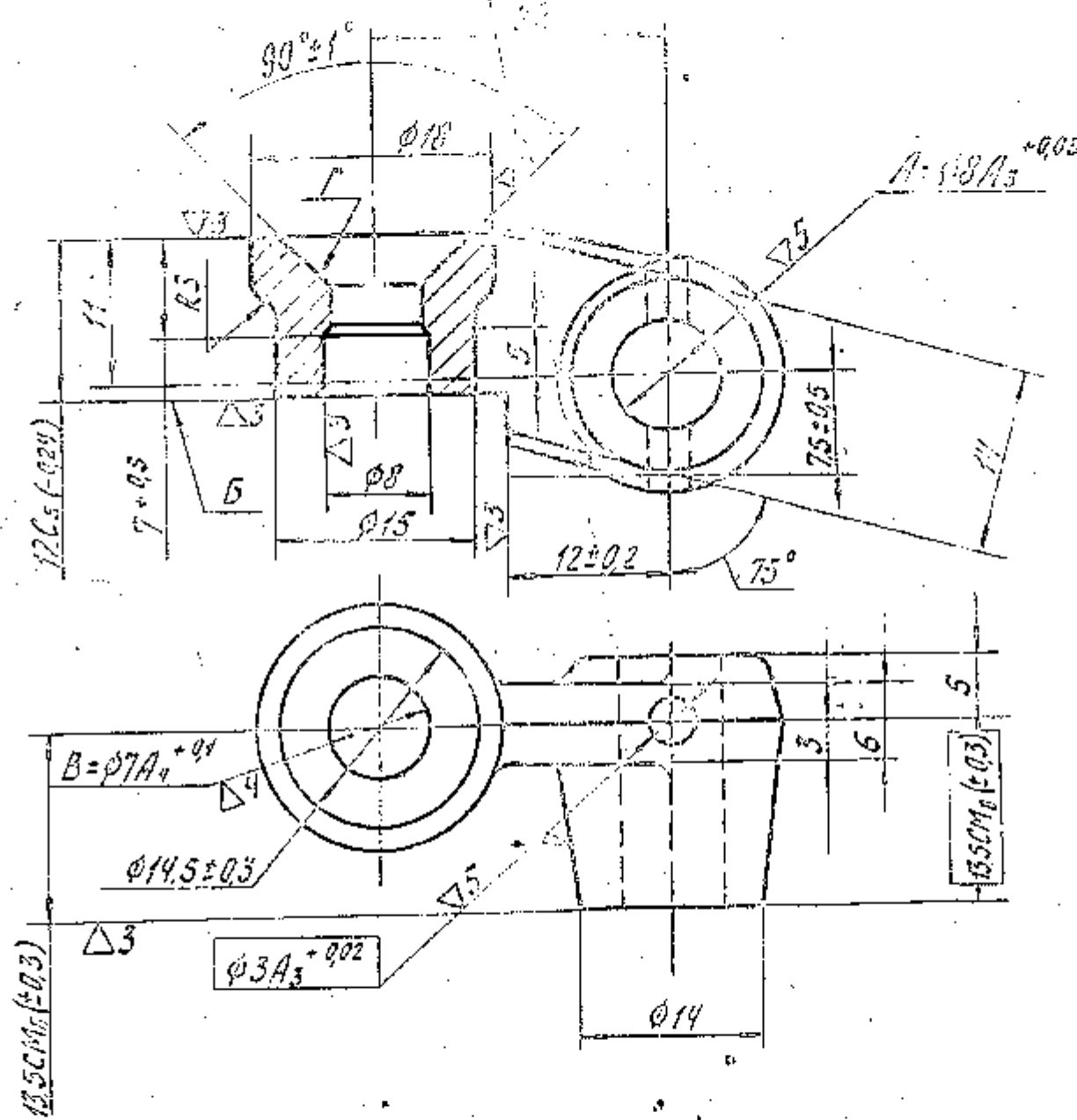
1. Part may be made as per conventional dotted line.
2. Blunt sharp edges.
3. Provide dimensions without deviations as per accuracy class 70ST 1010.
4. Run-out of surface A with respect to axis of surface B should not exceed 0.04 mm by  $\phi 16$ .
5. Lap surface A. Check by blueing coating 100% of surface should be imprint.
6. Run-out of surface B with respect to axis of sphere should not exceed 0.06 mm.
7. Brinell hardness 302 to 255 ( $\phi 3.5$  to 3.8)
8. Run-out of surface B with respect to axis of surfaces B should not exceed 0.5 mm.
9. Single dark spots are allowed on surface B.
10. Loosening of dimension A, not exceeding 0.1 mm is allowed on section.



Alternate ①



APPROVED		765-10-1767		274 of 342
CHECKED	<i>D. SKUMAR</i>			
CONTROLLERATE OF INSPECTION (ICV)		VALVE		WEIGHT SCALE 0.013 2:1
		40x10C2M GOST 5632-72		



d). Alternate material is casting OST3-4365-79  
35JI - GOST 977-75

I OST3-4365-79 / 20JI - GOST 977-75 , I OST3-4365-79 / 35JI - GOST 977-75

I OST3-4365-79 / 40JI - GOST 977-75 , I OST3-4365-79 / 45JI - GOST 977-75

e). Other requirements to quality of casting are as per OST3-4365-79.

- 9). Non-squareness of surface B to axis of hole D should not exceed 0.1 mm over a length of 50mm (Qualified tolerance).
- 10). The lever may be made as per conventional dotted-line.
- 11). Absence of coating is allowed at points of pores and cavities and on internal surfaces.
- 12). Displacement of axes of surface Γ with respect to axis of surface B should not exceed 0.1 mm. (qualified tolerance).

00326 - ICV 14 MAY 72		NOTE FOR EQUIVALENT MATERIAL ADDED
DCM No. & DATE	ISSUE	NATURE
AMENDMENTS		

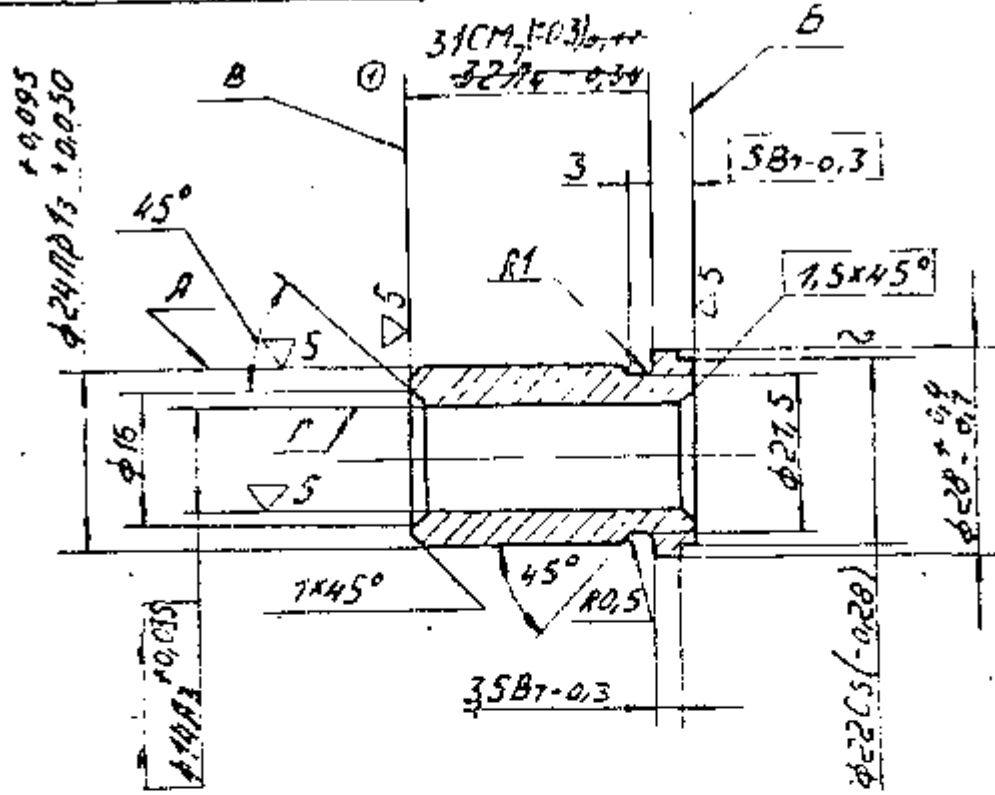
Ⓐ 13. EQUIVALENT MATERIAL IS 40Cr1 OR 20Cr1 MORE TO IS:4367.

- 1). Blank sharp edges.
- 2). Provide dimensions without deviations of surfaces to be machined as per accuracy class 7, OST 1010. Other requirements placed upon forging are as per class I, GOST 7905-74.
- 3). Displacement of axes of holes from true position should not exceed 0.2 mm.
- 4). Non-squareness of axes of holes A and B should not exceed 0.16 mm over a length of 25 mm.
- 5). Coating: Zinc-plated, 9 microns thick, chromitized. Remove hydrogen embrittlement.
- 6). Carry-out machining as per dimensions given in in compliance with the combined machining drawing; for 765 as per drawing 765-10-c540.
- 7). Alternate material is steel 6cr GOST 380-71, and steels 20, 25, 30, 35, 40, GOST1050-74.
- 8). The lever may be made by precision investment casting, in this case;
  - a). provide casting dimensions without deviations as per class III, GOST 2009-55;
  - b). pattern drafts should not exceed 2°;
  - c). casting radii are R1.5 max;
  - d). material is casting OST3-4365-79  
35JI - GOST 977-75

APPROVED	DATE	2759342	
DESIGNED		765-10-1768	
CONTROLLERATE OF INSPECTION ICVI		LEVER	WEIGHT SCALE
			0.037 2:1
		STEEL 45 GOST 1050-74	SHT SHTS

765-10-1770

Unless otherwise specified.



1. Blunt sharp edges.
2. Non-squareness of surface *b* to axes of surface *f* should not exceed 0.06 mm over a length 40.
3. Non-squareness of surface *B* to axis of surface *A* should not exceed 0.1 mm over a length 20.
4. Carry out machining in assembly as per dimensions and point Technical specifications TY given in

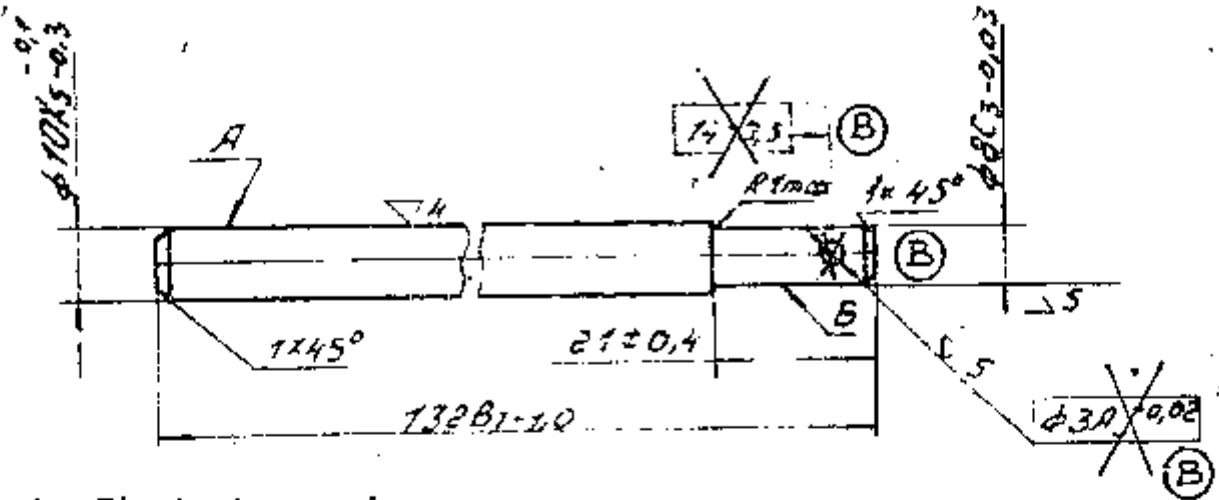
EQUIVALENT MATERIAL IS 94 Cr16 Ni10 Ti20 TO IS:6911.

(A)

00326 - ICV 14 MAY 92	(A) M. M. M.	NOTE FOR EQUIVALENT MATERIAL ADDED
DCII) No. & DATE	ISSUE	NATURE
AMENDMENT		

DSB

APPROVED	15 MAY 92	765-10-1770	277 4342
CHECKED	D. S. KUMAR		
CONTROLLERATE OF INSPECTION (ICV)	BUSHING		SCALE 0.090 1:1
	12x18H9T COCT 5632-72		SHT SHTS



1. Blunt sharp edges.
2. Run-out of surface B with respect to axis of surface A should not exceed 0.10 mm.
3. Alternate material is steel cm3cn GOST 380-71 and 10, 15, 25, GOST 1050-74 and 15Г and 20Г, GOST 4543-71.
4. Non-straightness of generatrix of surface A should not exceed 0.15 mm.

5. Machine dimensions in   using combined machining drawing: for 765 as per drawings 765-10-c6540, 765-10-c6541

(B)

00351-ICV	(B)	HOLE Ø, DIMENSIONS PERTAINS TO HOLE AND CLAUSE 5 IN TECHNICAL CONDITIONS ARE DELETED
31 MAR 93	CDM	(D-1201/ICV)
00323 - ICV	(A)	NOTE FOR EQUIVALENT MATERIAL ADDED
31 MARCH 82		
DC(I) No. & DATE	ISSUE	NATURE
AMENDMENT		

6. EQUIVALENT MATERIAL IS 20C8 GPT2 TO IS:8550.

(A)

D 88

APPROVED	M. VASU	765-10-1771	278 of 342
CHECKED	D. SKOMAR		
CONTROLLERATE OF INSPECTION (ICV)	<b>SHAFT</b>		WEIGHT SCALE
			0.076 1.1
	20 GOST 1050-74		SHT SHTS

Испол. № 1122. М. В. Васу.



L742-01-596

USED ON

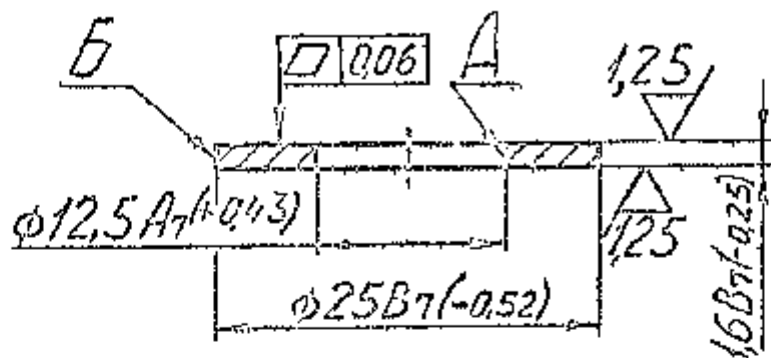
765-10-08542

1 1

R23201

765-10-08543

✓(✓)



1. Alternate material is steel 25,30  
GOST 1050-74.

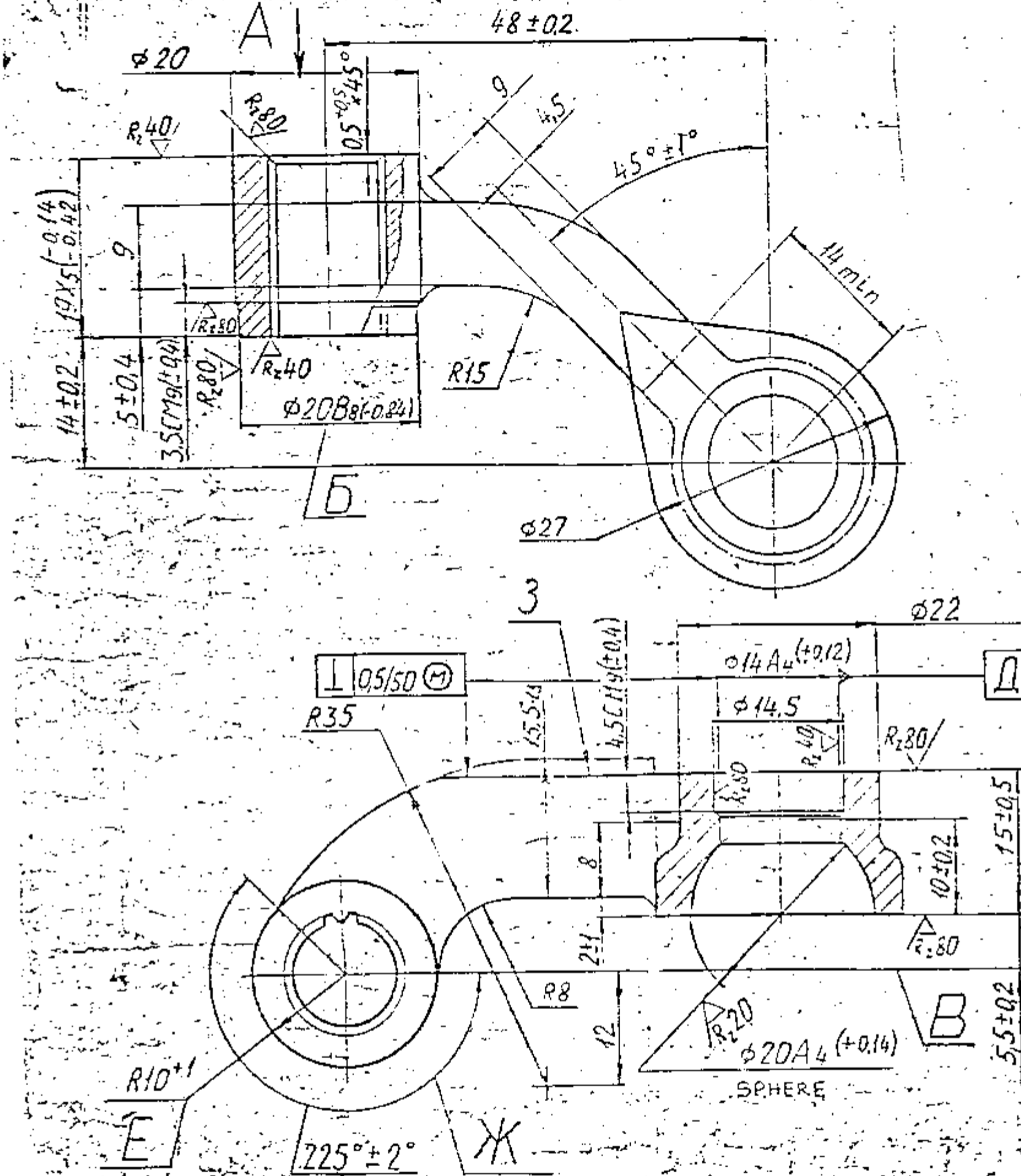
2. Coating: chrome plated 12 microns  
thick, hard coating on surfaces  
A and B may not be checked.

3. EQUIVALENT MATERIAL IS ST 50 TO IS: 1079 OR 40CS TO BS: 1449.

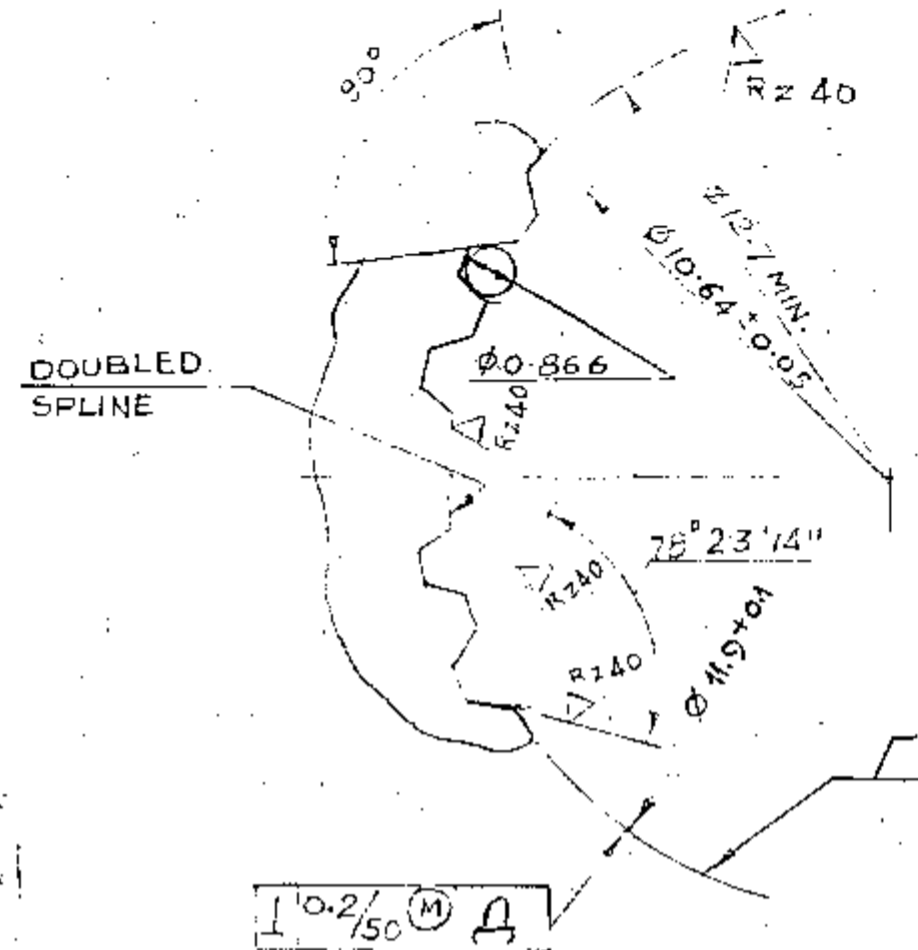
00336 - ICV 12 MAY 92	(A) AD COM	NOTE FOR EQUIVALENT MATERIAL ADDED
DEC(1) NO. & DATE	ISSUE	NATURE
AMENDMENTS		

APPROVED	<i>[Signature]</i> H VASU	765-10-2447	180A
CHECKED	<i>[Signature]</i>		
CONTROLLERATE OF INSPECTION (ICV)		WASHER	WEIGHT SCALE 0.004 2:1
		STEEL 35 GOST 1050-74	SHT SHTS 10 of 342

TECHNICAL CONDITIONS.



Z=31 (FOR FULL CIRCLE)



VIEW-A  
SCALE: - 10:1

1. MATERIAL SUBSTITUTE - STEEL 15X23 H (B) GOST 2176-77
2. UNSPECIFIED CASTING RADII NOT TO EXCEED 3mm
3. CASTING DRAFTS NOT TO EXCEED 2°
4. UNSPECIFIED LIMIT DEVIATIONS OF THE DIMENSIONS, OBTAINED BY THE REMOVAL OF METAL LAYER - FOR HOLES - AS PER A7.
5. BLACK SPOTS ARE ALLOWED ON THE SURFACE OF DIMENSION 5.
6. MISALIGNMENT OF SYMMEYRY OF DOUBLED SPLINE WITH AXIS B IS NOT TO EXCEED 2°
7. SHRINKAGE OF HOLE T UP TO 0.75 mm IS ALLOWED
8. WITH THE TOOL CHECK DIMENSION E ON SECTION K.
9. FEEDER RESIDUE OF A HEIGHT NOT EXCEEDING 0.5mm IS ALLOWED ON SURFACE 3
10. PREPARATION ALONG DASH-DOT THICK LINE IS ALLOWED.
11. REST OF THE REQUIREMENTS FOR CASTING ARE AS PER OST 3-4365-79.

NOTE:

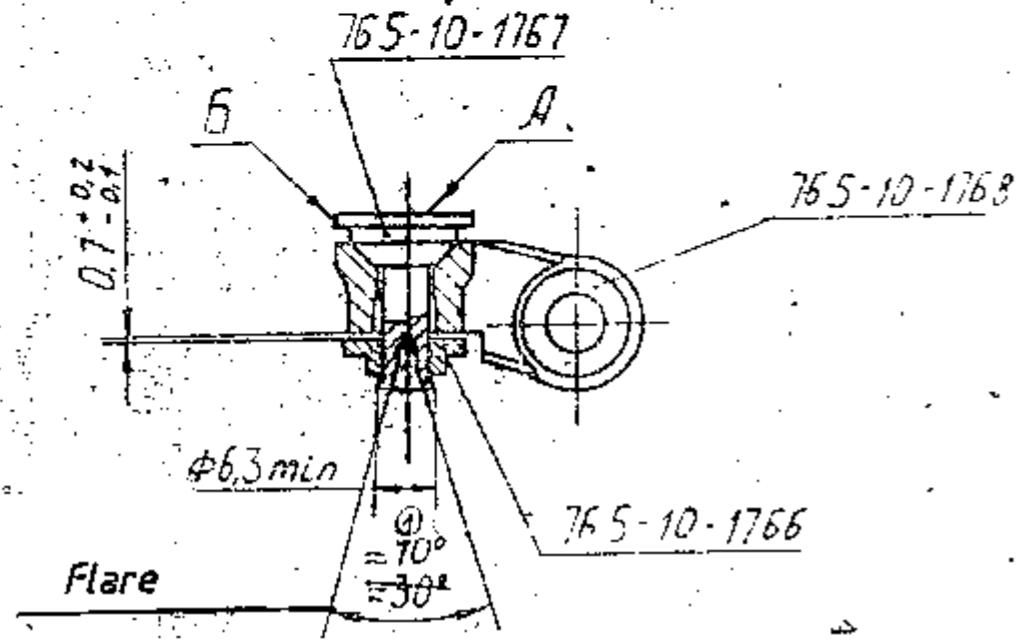
1. ALL DIMENSIONS ARE IN MM.
2. THE ABBREVIATIONS AND SYMBOLS ARE BASED ON RUSSIAN SPECIFICATIONS.

NEAREST EQVT MATERIAL			
CASTING 1 OST 3-4365-79			
12X18 H9 TN-GOST 2176-77			
DRGL MATERIAL	DCITING A DATE	ISSUE	AMENDMENTS
ALL SHARP EDGES & CORNERS TO BE ROUNDED OFF.	ALL THREADS TO CONFORM TO SPECIFICATION.		STAMP OR ETCH, PART NO. MANUFACTURER'S NAME & YEAR OF MFR.
DRG. NOT TO BE SCALED	TOLERANCE ON DIMENSIONS UNLESS OTHERWISE SPECIFIED		USED ON:-
SCALE:- 2:1	DATE :- 29/12/93		765-10-2474
DRN. DA	WT:-(KG)	<b>LEVER</b>	
TCD. DA	0.088		
CHD. Gm	DRAWING NO		PART NO
APD. Brf	765-10-2474		
<b>CONTROLLERATE OF QUALITY ASSURANCE (INFANTRY COMBAT VEHICLES)</b>			



535

591

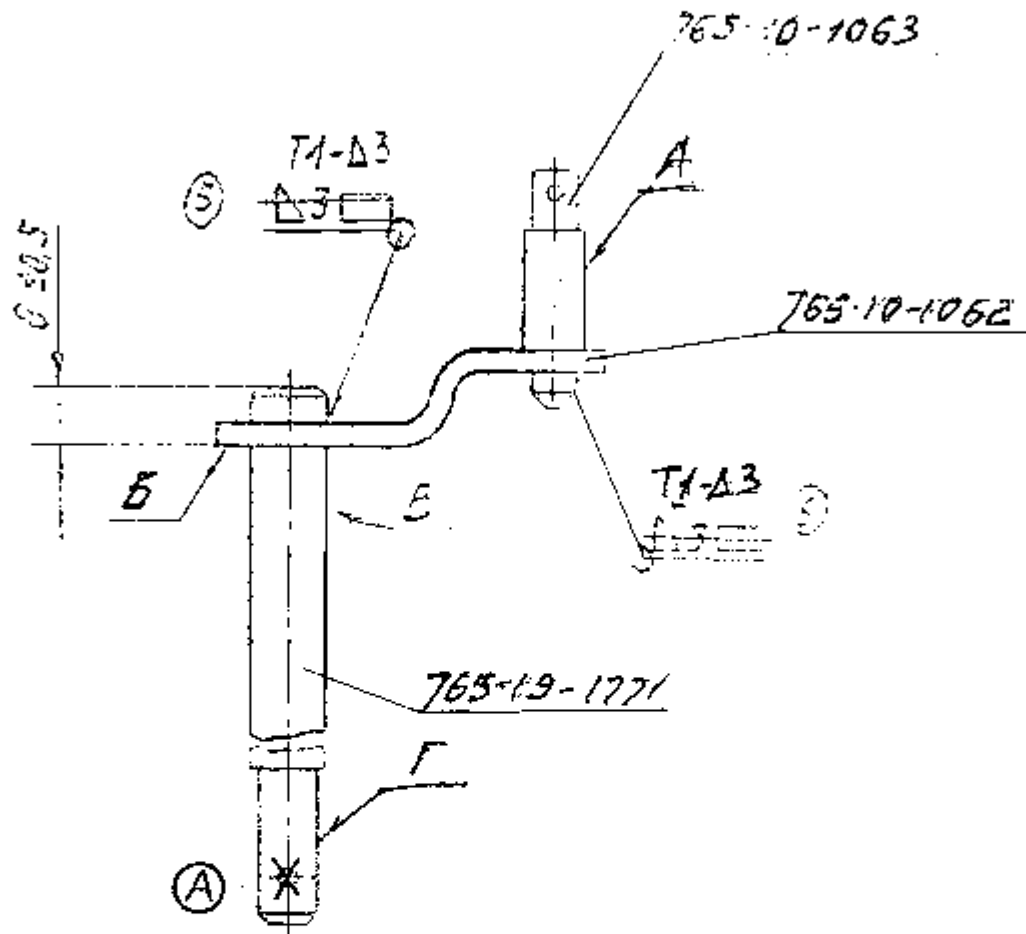


1. Valve should be rotated freely on cone of lever.
2. Nicks and burrs are not allowed on surface A and B.
3. Cracks are not allowed on flared surface.
4. Ring should fit tight to valve.

		Varnish KO-815.		
		Aluminium powder ПАП-1.		
	765-10-1768	Lever	1	
	765-10-1767	Valve	1	
	765-10-1766	Ring	1	
	Designation	Description	Qty	Remarks

APPROVED		765-10-05 535	91 of 342
CHECKED		VALVE	WEIGHT SCALE
CONTROLLERATE OF INSPECTION (ICV)			0.053 1:)
		SHT	SHTS
			11A





1. Non straightness of axes of surfaces A and B should not exceed 1mm, over length 100.
2. Non squareness of surface E to axis of surface B should not exceed 1mm, over length 50.
3. Coat with varnish KO-815 GOST 11066-74 with addition of 6 to 12% Aluminium powder nAn-1 or nAn-2 GOST 5494-71 as per instructions ИДЗ-74. Protect surface F, from coating.
4. Welds are as per GOST 14771-76 yn.

Designation	Description	Qty	Remarks
	Varnish KO-815		
	Aluminium powder		
	nAn-1		
765-10-1771	Shaft	1	
765-10-1063	Shaft	1	
765-10-1062	Lever	1	

00351 ICV 31.3.93	① CDM	HOLE IS REMOVED (D-12.01/ICV)
DCO NO. & DATE	ISSUE	AMENDMENTS

APPROVED	M.V. VED	765-10-0539		95 of 342
CHECKED		SHAFT		WEIGHT SCALE
CONTROLLERATE OF INSPECTION (ICV)				0.106 1:1
				SHT SHTS

FORM	ZONE	REF. NO.	DESIGNATION	DESCRIPTION	QTY	REMARKS
				Technical papers		
14			765-10-cb542Cb	Assembly drawing		
			U.S. 23-74	Instructions on coating of parts with varnish KO-815 and enameled KO-813.		
				Assembly units		
11	1		765-10-cb532 <small>LV2/ICVS 2815-004951</small>	Valve Valve Puppet Engine (LH)	1	REF. DC (0) 01028-1CV
12	2		765-10-cb535	Valve	1	
12	3		765-10-cb537	Body	1	
12	4		765-10-cb539	Shaft	1	
				Parts		
12	10		765-10-1048	Slotted Link	1	
12	11		765-10-1055	Lever	1	
12	12		765-10-1237 <small>LV2/ICVS 2540-003062</small>	Lever Lever Release	1	REF. DC (0) 01028-1CV
11	13		765-10-1361	Bracket	1	
12	15		765-10-1761	Shaft		
11	18		765-10-2447	Washer	1	ALTERNATE IS REF. NO. 23

APPROVED \_\_\_\_\_  
 CHECKED \_\_\_\_\_  
 CONTROLLER  
 OF  
 QUALITY ASSURANCE  
 (ICV)

**765-10-Sb542**

**VALVE BOX**

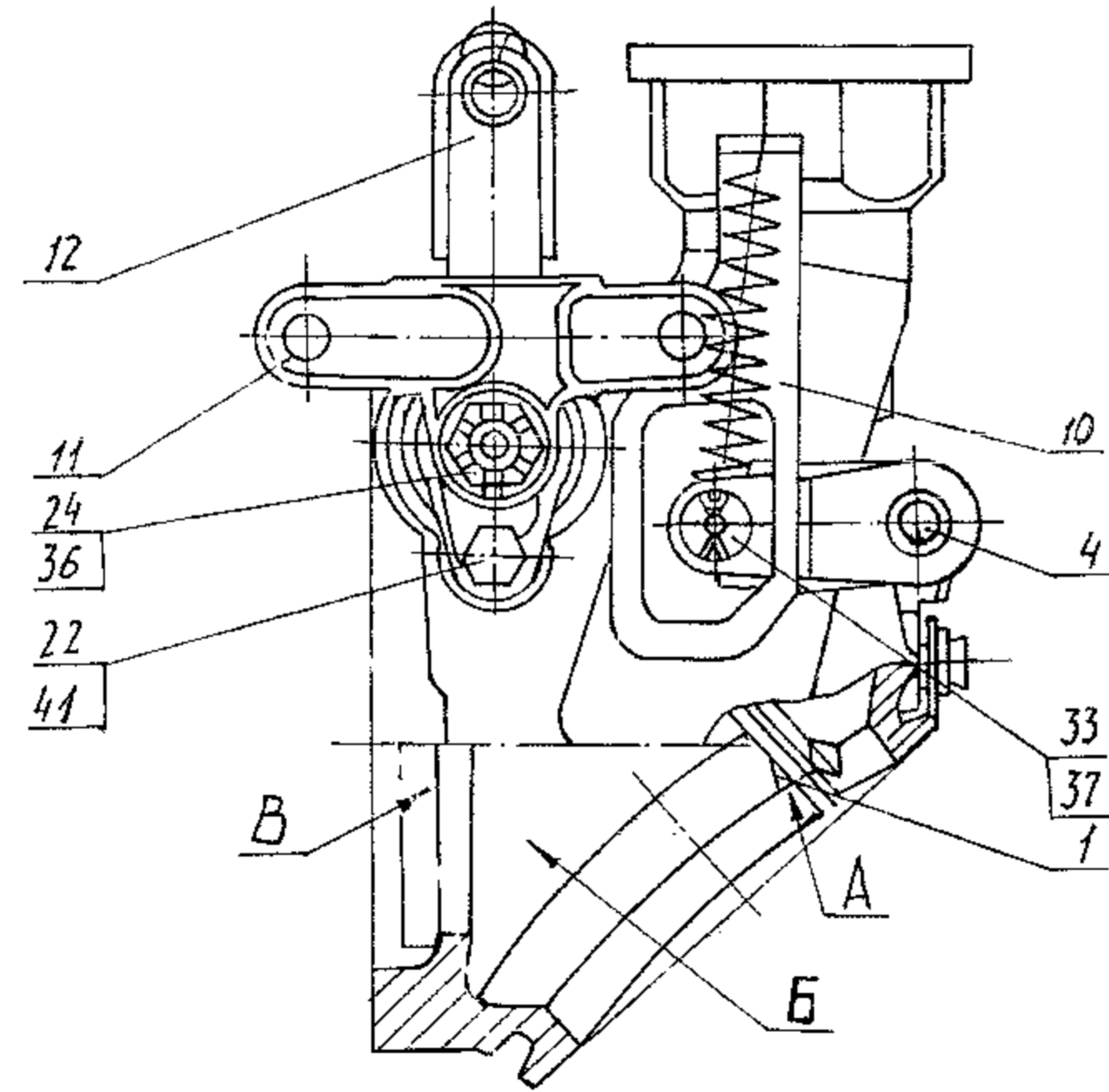
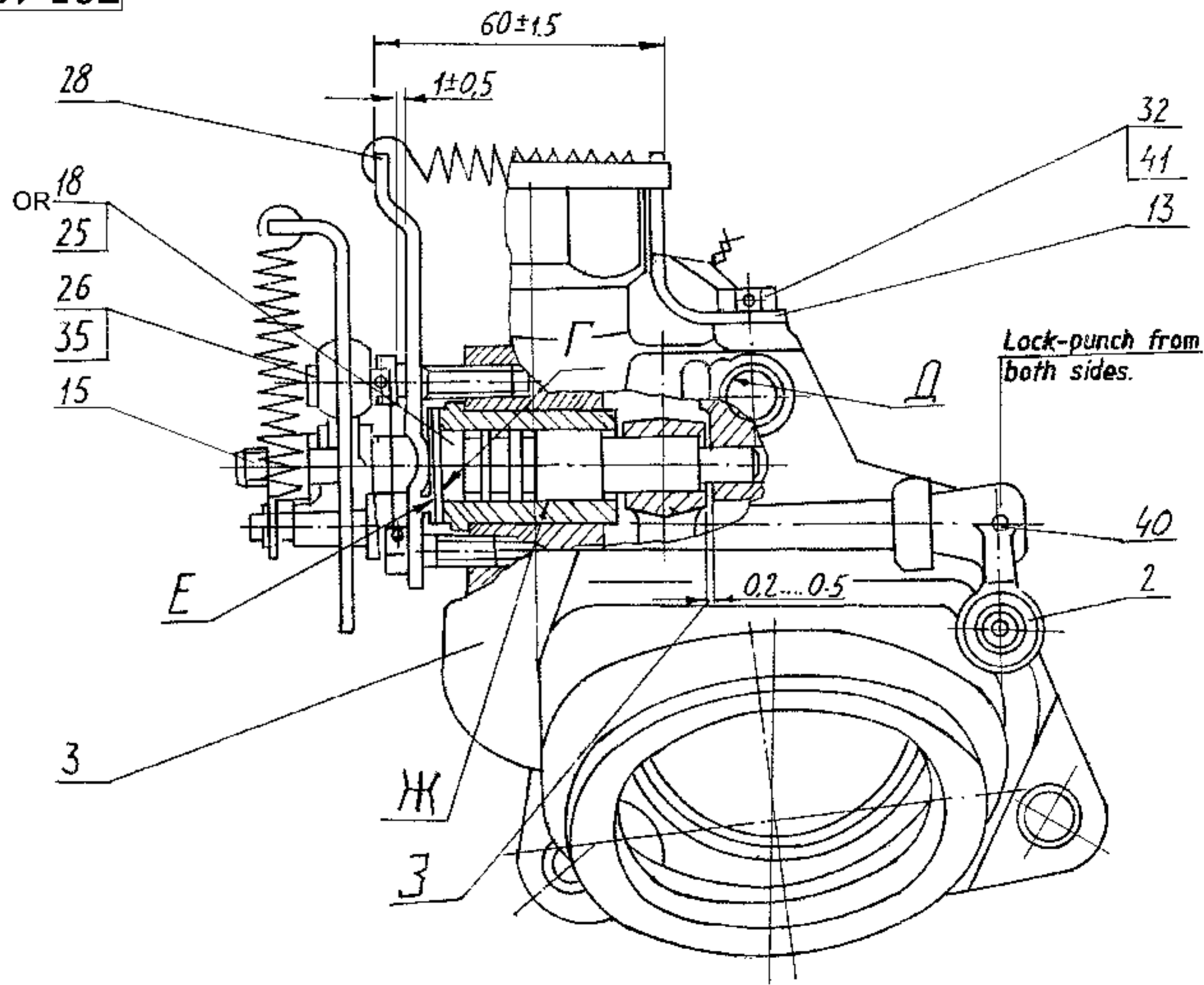
	WEIGHT	SCALE
	SHT 1	SITS 4

ITEM NO.	QTY	DESIGNATION	DESCRIPTION	QTY	REMARKS
12	22	700-28-567	Bolt	2	
12	24	700-30-492-01	Nut	1	
11	25	700-31-837	Washer	1	ALTERNATE IS REF. NO. W.
12	26	700-47-358	Axle	1	
11	28	672-38-8 LV2/ICVS 5360-007379	Spring Helical Extension	2	Ref. DCU No. 01007-ICV
			Standard items		
			Bolt 3M6x12.46.019		
	32		GOST 7798-70	1	
	33	EQ. MAT. C-30 TO IS:1570-79	Washer 6x1.01.019 or 6x1.02.019		Ref. DCU) 00957-ICV
			GOST 11371-78	3	MAXIMUM NUMBER
		SPLIT PINS IS 549, ZINC-PLATED 9/16 THICK	Cotter pins GOST 397-79		
	35	1.6x10	1,6x10 +019	1	
	36	(A) 2x20	2x20 +019	1	
	37	2.5x16	2,5x16 +019	1	

APPROVED	M. VASU	765-10-Sb542			
CHECKED					
CONTROLLERATE OF QUALITY ASSURANCE (ICV)		VALVE BOX		WEIGHT	SCALE
				SHT 2	SHTS 4







**TECHNICAL CONDITIONS**

1. Valves, levers and shafts should be turned freely without jammings.
2. Top surface F of bush, shaft and valves to mating surfaces, in this case close-fit of valves and butt-end of shaft to their mating surfaces should be 100%.
3. Lubricate by thin layer of liquid lubricant - 24 GOST 21150-75 and polish with graphite n GOST 0295-73 or by graphite P3-6 GOST 7470-75 after lapping friction surfaces of shaft, Ref.No.15, and washer, Ref.No.10.  
It is allowed to lubricate surface G with consistent mixture of graphite n GOST 0295-73 or graphite P3-6 GOST 7470-75 with water.

Check for the tight close-fit of small valve by pouring kerosene in cavity B, in this case valve should be closed by spring force in working condition. Leakage and dripping are not allowed. Check the tight close fit of big valve and surface F by pouring water into cavity G, in this case the water column should be at least 300 mm, big valve should be closed by spring force of fixture simulating installation of valve boxes on item.

Leakage of 5 drops per minute is allowed through big valve and leakage of 20 drops per minute is allowed through surface F. After disconnecting the auxiliary spring from shaft, Ref.No.15, leakage through surface F is not allowed.

Testing period:- With kerosene 10 minutes, with water 5 minutes.

3. Big valve stem should bear <sup>UP</sup> against body when in opened position. Clearance between disc of valve and body should be at least 2 mm. When angle of valve opening is at least 45°. Check when plays are taken up. Filling of recess A is allowed.
4. Install assemblies, Ref.No.2 and Ref.No.4 which have same ordinal numbers.
5. Projection of bolt, Ref.No.32 beyond surface G is not allowed. If necessary, place washer, Ref.No.33, not more than 2 pieces.
6. Place part, Ref.No.13, so that polished surface fits surface E.
7. Provide clearance 3 between lever and body of valve box with pressing shaft, Ref.No.15, in to lever of body Ref.No.1.  
Do not check clearance 3 in free movement of levers on shaft.

APPROVED	<i>M. VASU</i>	765-10-Sb542Sb	
CHECKED	<i>A. Vadivelu</i>		
CONTROLLERATE OF QUALITY ASSURANCE (ICV)		VALVE BOX (ASSEMBLY DRAWING)	
		WEIGHT	SCALE
		3.51	1:1
		SHT	SHT'S